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Automated Report

Technical Report for

Arcadis

National Grid, Philly Coke, Philadelphia PA

B0036790.0001.00002

SGS Job Number: JC66927

Sampling Date: 05/29/18

Report to:

Arcadis

Lawrence.Healy@arcadis-us.com

ATTN: Lawrence Healy

Total number of pages in report: 977

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.

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

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Sample Summary

Arcadis

Job No: JC66927

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

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC66927-1	05/29/18	14:50	AW/IC	05/29/18	AQ	Ground Water	MW-106
JC66927-2	05/29/18	14:00	AW/IC	05/29/18	AQ	Ground Water	PCMW-19S
JC66927-3	05/29/18	14:50	AW/IC	05/29/18	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Arcadis	**Job No**	JC66927
Site:	National Grid, Philly Coke, Philadelphia PA	**Report Date**	6/7/2018 12:15:18 PM

On 05/29/2018, 2 Sample(s), 1 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 JC66927 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

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

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2D7423

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66946-1DUP, JC66946-3MS were used as the QC samples indicated.
- JC66927-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC66927-3 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

MS Semi-volatiles By Method SW846 8270D

Matrix: AQ **Batch ID:** OP12401

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66845-6MS, JC66845-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC66927-1 for Benzo(g,h,i)perylene: Associated CCV outside of control limits high, sample was ND.
- JC66927-1 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC66927-1 for 4-Chlorophenyl phenyl ether: Associated CCV outside of control limits high, sample was ND.
- JC66927-1 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC66927-1 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC66927-1 for Indeno(1,2,3-cd)pyrene: Associated CCV outside of control limits high, sample was ND.
- JC66927-1 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: AQ **Batch ID:** OP12372

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66845-6MS, JC66845-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: AQ	**Batch ID:** OP12371

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66845-6MS, JC66845-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MS/MSD for Aroclor 1016, Aroclor 1260 are outside control limits. Probable cause due to sample homogeneity.

Metals Analysis By Method SW846 6010C

Matrix: AQ	**Batch ID:** MP7404

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66975-1MS, JC66975-1MSD, JC66975-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Aluminum, Barium, Cobalt, Potassium, Zinc are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC66927-1, JC66927-2: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.
- MP7404-SD1 for Sodium: Serial dilution indicates possible matrix interference.

Metals Analysis By Method SW846 7470A

Matrix: AQ	**Batch ID:** MP7394

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66890-4MS, JC66890-4MSD were used as the QC samples for metals.

General Chemistry By Method EPA 335.4/LACHAT

Matrix: AQ	**Batch ID:** GP13467

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66897-3DUP, JC66897-3MS were used as the QC samples for Cyanide.
- Matrix Spike Recovery(s) for Cyanide are outside control limits. Spike recovery indicates possible matrix interference.

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: JC66927
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 05/29/18

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC66927-1	**MW-106**					
Aluminum		781	200		ug/l	SW846 6010C
Calcium		59100	5000		ug/l	SW846 6010C
Iron		20500	100		ug/l	SW846 6010C
Lead		94.4	3.0		ug/l	SW846 6010C
Magnesium		27300	5000		ug/l	SW846 6010C
Manganese		1030	15		ug/l	SW846 6010C
Sodium		14200	10000		ug/l	SW846 6010C
Zinc		41.6	20		ug/l	SW846 6010C
JC66927-2	**PCMW-19S**					
Arsenic		38.1	3.0		ug/l	SW846 6010C
Calcium		81300	5000		ug/l	SW846 6010C
Iron		12000	100		ug/l	SW846 6010C
Lead		7.3	3.0		ug/l	SW846 6010C
Magnesium		15000	5000		ug/l	SW846 6010C
Manganese		1210	15		ug/l	SW846 6010C
JC66927-3	**TRIP BLANK**					

No hits reported in this sample.

Sample Results

Report of Analysis

SGS LabLink@1003731 16:47 15-Jun-2018

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D175995.D	1	05/31/18 17:53	JP	n/a	n/a	V2D7423
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

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

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

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

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

SGS LabLink@1003731 16:47 15-Jun-2018

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P79968.D	1	06/01/18 08:40	CS	05/31/18 07:15	OP12401	E2P3526
Run #2							

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

ABN TCL List (SOM0 1.1)

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

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

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-110%
4165-62-2	Phenol-d5	25%		10-110%

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

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

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	88%		36-151%
4165-60-0	Nitrobenzene-d5	67%		34-128%
321-60-8	2-Fluorobiphenyl	86%		38-119%
1718-51-0	Terphenyl-d14	60%		26-129%

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

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 LabLink@1003731 16:47 15-Jun-2018

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G56778.D	1	05/31/18 05:42	CP	05/30/18 16:50	OP12372	G6G1694
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	61%		13-153%
877-09-8	Tetrachloro-m-xylene	68%		13-153%
2051-24-3	Decachlorobiphenyl	21%		10-138%
2051-24-3	Decachlorobiphenyl	24%		10-138%

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

SGS LabLink@1003731 16:47 15-Jun-2018

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G164630.D	1	05/31/18 05:42	CP	05/30/18 16:50	OP12371	G2G4349
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		11-166%
877-09-8	Tetrachloro-m-xylene	71%		11-166%
2051-24-3	Decachlorobiphenyl	23%		10-150%
2051-24-3	Decachlorobiphenyl	26%		10-150%

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

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	781	200	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Antimony	< 6.0	6.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Arsenic	< 3.0	3.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Barium	< 200	200	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Beryllium	< 1.0	1.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Cadmium	< 3.0	3.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Calcium	59100	5000	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Chromium	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Cobalt	< 50	50	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Copper	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Iron	20500	100	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Lead	94.4	3.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Magnesium	27300	5000	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Manganese	1030	15	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Mercury	< 0.20	0.20	ug/l	1	05/30/18	05/30/18	DP	SW846 7470A [1]	SW846 7470A [4]
Nickel	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Potassium	< 10000	10000	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Selenium	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Silver	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Sodium	14200	10000	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Thallium	< 2.0	2.0	ug/l	1	05/31/18	06/04/18	EAL	SW846 6010C [3]	SW846 3010A [5]
Vanadium	< 50	50	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Zinc	41.6	20	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA44537
(2) Instrument QC Batch: MA44572
(3) Instrument QC Batch: MA44586
(4) Prep QC Batch: MP7394
(5) Prep QC Batch: MP7404

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC66927-1	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	06/05/18 11:50	BM	EPA 335.4/LACHAT

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC66927-2	**Date Sampled:**	05/29/18
Matrix:	AQ - Ground Water	**Date Received:**	05/29/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Antimony	< 6.0	6.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Arsenic	38.1	3.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Barium	< 200	200	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Beryllium	< 1.0	1.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Cadmium	< 3.0	3.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Calcium	81300	5000	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Chromium	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Cobalt	< 50	50	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Copper	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Iron	12000	100	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Lead	7.3	3.0	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Magnesium	15000	5000	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Manganese	1210	15	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Mercury	< 0.20	0.20	ug/l	1	05/30/18	05/30/18	DP	SW846 7470A [1]	SW846 7470A [4]
Nickel	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Potassium	< 10000	10000	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Selenium	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Silver	< 10	10	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Sodium	< 10000	10000	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Thallium	< 2.0	2.0	ug/l	1	05/31/18	06/04/18	EAL	SW846 6010C [3]	SW846 3010A [5]
Vanadium	< 50	50	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]
Zinc	< 20	20	ug/l	1	05/31/18	06/01/18	EAL	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA44537
(2) Instrument QC Batch: MA44572
(3) Instrument QC Batch: MA44586
(4) Prep QC Batch: MP7394
(5) Prep QC Batch: MP7404

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JC66927-3	**Date Sampled:**	05/29/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/29/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D175992.D	1	05/31/18 16:22	JP	n/a	n/a	V2D7423
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

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:	TRIP BLANK		
Lab Sample ID:	JC66927-3	**Date Sampled:**	05/29/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/29/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

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

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

SGS

GW
WTB

CHAIN OF CUSTODY

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

PAGE ___ OF ___

FED-EX Tracking #
Bottle Order Control # DH-052218-49
SGS Quote #
SGS Job # JC66927

Client / Reporting Information

Company Name: Arcadis
Street Address: 824 N. Market St. Ste 820
City: Wilmington State: DE Zip: 19801
Project Contact: E-mail:
Phone #: Fax #:
Sampler(s) Name(s): Adam Wissner, Ian Campbell Phone #:

Project Information

Project Name: National Grid - Philadelphia Coke Site
Street:
City: State:
Project #: B0036790.0001
Client Purchase Order #:
Project Manager:

Billing Information (If different from Report to)

Company Name: Arcadis
Street Address: 824 N. Market St Ste 820
City: Wilmington State: DE Zip: 19801
Attention:

Requested Analysis (see TEST CODE sheet)

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	V82L0TCL20	ATS870TCL20-INDX	MTAL	CN	HG	P8081PESTCL	P8082PCB11					LAB USE ONLY
1	MW-106		05/29/18	14:30	AW		11	3		2		6				X	X	X	X	X	X	X					E48
2	PCMW-145		05/29/18	14:00	IC		1			1								X									A4
3	Trip Blank															X											G4T2
																											U582

Number of preserved bottles

Matrix Codes

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

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved by (SGS Project Manager)/Date:

Emergency & Rush T/A data available via LabLink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

INITIAL ASESSMENT JR 3/A
LABEL VERIFICATION

Sample inventory is verified upon receipt in the Laboratory

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

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	5/29/18 1600	1	2	5/29/18 1840	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not intact	Preserved where applicable
5		5			On Ice 1.8 Cooler Temp

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

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JC66927: Chain of Custody
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SGS Sample Receipt Summary

Job Number: JC66927 **Client:** ARCADIS U.S. **Project:** NATIONAL GRID, PHILLY COKE, PHILADELPHI

Date / Time Received: 5/29/2018 6:40:00 PM **Delivery Method:** Accutest Courier **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (1.8);

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

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	IR Gun
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify)

Comments -1 Did not receive CN volume. Volume was aliqyouted and preserved in SM upon receipt 5/29/18. NaoH + ASC Lot # GNE10-52550SM.

SM089-02 Rev. Date 12/1/16

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JC66927: Chain of Custody
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Responded to by: Diane Komar

Response Date: 5/31/18

OK.

JC66927: Chain of Custody
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Internal Sample Tracking Chronicle

Arcadis

Job No: JC66927

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

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66927-1 MW-106	Collected: 29-MAY-18 14:50 By: AW/IC		Received: 29-MAY-18 By: AS			
JC66927-1	SW846 7470A	30-MAY-18 11:18	DP	30-MAY-18	DP	HG
JC66927-1	SW846 8082A	31-MAY-18 05:42	CP	30-MAY-18	AY	P8082PCB11
JC66927-1	SW846 8081B	31-MAY-18 05:42	CP	30-MAY-18	AY	P8081PESTTCL
JC66927-1	SW846 8260C	31-MAY-18 17:53	JP			V8260TCL20
JC66927-1	SW846 8270D	01-JUN-18 08:40	CS	31-MAY-18	RC	AB8270TCL20-14DX
JC66927-1	SW846 6010C	01-JUN-18 21:34	EAL	31-MAY-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,V,ZN
JC66927-1	SW846 6010C	04-JUN-18 19:22	EAL	31-MAY-18	CH	TL
JC66927-1	EPA 335.4/LACHAT	05-JUN-18 11:50	BM	01-JUN-18	MW	CN
JC66927-2 PCMW-19S	Collected: 29-MAY-18 14:00 By: AW/IC		Received: 29-MAY-18 By: AS			
JC66927-2	SW846 7470A	30-MAY-18 11:22	DP	30-MAY-18	DP	HG
JC66927-2	SW846 6010C	01-JUN-18 21:47	EAL	31-MAY-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,V,ZN
JC66927-2	SW846 6010C	04-JUN-18 19:35	EAL	31-MAY-18	CH	TL
JC66927-3 TRIP BLANK	Collected: 29-MAY-18 14:50 By: AW/IC		Received: 29-MAY-18 By: AS			
JC66927-3	SW846 8260C	31-MAY-18 16:22	JP			V8260TCL20

SGS Internal Chain of Custody

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 05/29/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66927-1.1	Secured Storage	Matthew Robbins	05/30/18 17:23	Retrieve from Storage
JC66927-1.1	Matthew Robbins	Secured Staging Area	05/30/18 17:23	Return to Storage
JC66927-1.1	Secured Staging Area	Vikas Parikh	05/31/18 06:21	Retrieve from Storage
JC66927-1.1	Vikas Parikh	Secured Storage	06/04/18 06:38	Return to Storage
JC66927-1.1.1	Vikas Parikh	Organics Prep	05/31/18 06:22	Extract from JC66927-1.1
JC66927-1.1.1	Organics Prep	Ryan Callaghan	05/31/18 16:38	Extract from JC66927-1.1
JC66927-1.1.1	Ryan Callaghan	Extract Storage	05/31/18 16:38	Return to Storage
JC66927-1.1.1	Extract Storage	Christopher Sowa	06/01/18 03:18	Retrieve from Storage
JC66927-1.1.1	Christopher Sowa	GCMS2P	06/01/18 03:18	Load on Instrument
JC66927-1.1.1	GCMS2P	Christine Change	06/01/18 13:23	Unload from Instrument
JC66927-1.1.1	Christine Change	Extract Freezer	06/01/18 13:23	Return to Storage
JC66927-1.5	Secured Storage	Dave Hunkele	05/30/18 09:46	Retrieve from Storage
JC66927-1.5	Dave Hunkele	Secured Staging Area	05/30/18 09:47	Return to Storage
JC66927-1.5	Secured Staging Area	Matthew Stoecklin	05/30/18 13:25	Retrieve from Storage
JC66927-1.5	Matthew Stoecklin		05/30/18 20:07	Depleted
JC66927-1.5.1	Matthew Stoecklin	Organics Prep	05/30/18 15:38	Extract from JC66927-1.5
JC66927-1.5.1	Organics Prep	Autumn Yun	05/30/18 20:17	Extract from JC66927-1.5
JC66927-1.5.1	Autumn Yun	Extract Storage	05/30/18 20:17	Return to Storage
JC66927-1.5.1	Extract Storage	Christine Phillips	05/31/18 02:07	Retrieve from Storage
JC66927-1.5.1	Christine Phillips	GC2G	05/31/18 02:07	Load on Instrument
JC66927-1.5.1	GC2G	Tianwei Ruan	06/07/18 08:23	Unload from Instrument
JC66927-1.5.1	Tianwei Ruan	Extract Freezer	06/07/18 08:23	Return to Storage
JC66927-1.5.2	Matthew Stoecklin	Organics Prep	05/30/18 15:39	Extract from JC66927-1.5
JC66927-1.5.2	Organics Prep	Autumn Yun	05/30/18 20:17	Extract from JC66927-1.5
JC66927-1.5.2	Autumn Yun	Extract Storage	05/30/18 20:18	Return to Storage
JC66927-1.5.2	Extract Storage	Christine Phillips	05/31/18 00:10	Retrieve from Storage
JC66927-1.5.2	Christine Phillips	GC6G	05/31/18 00:10	Load on Instrument
JC66927-1.7	Secured Storage	Dave Hunkele	05/30/18 08:00	Retrieve from Storage
JC66927-1.7	Dave Hunkele	Secured Staging Area	05/30/18 08:00	Return to Storage
JC66927-1.7	Secured Staging Area	Deval Patel	05/30/18 08:51	Retrieve from Storage
JC66927-1.7	Deval Patel	Secured Storage	05/30/18 10:17	Return to Storage
JC66927-1.8	Secured Storage	Todd Shoemaker	05/31/18 10:49	Retrieve from Storage
JC66927-1.8	Todd Shoemaker	Secured Staging Area	05/31/18 10:49	Return to Storage
JC66927-1.8	Secured Staging Area	Colleen Hill	05/31/18 14:50	Retrieve from Storage
JC66927-1.8	Colleen Hill	Secured Storage	05/31/18 16:00	Return to Storage
JC66927-1.8	Secured Storage	Colleen Hill	05/31/18 16:06	Retrieve from Storage
JC66927-1.8	Colleen Hill	Secured Storage	05/31/18 16:14	Return to Storage

SGS Internal Chain of Custody

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 05/29/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66927-1.8.1	Colleen Hill	Metals Digestion	05/31/18 16:10	Digestate from JC66927-1.8
JC66927-1.8.1	Metals Digestion	Colleen Hill	05/31/18 16:11	Digestate from JC66927-1.8
JC66927-1.8.1	Colleen Hill	Metals Digestate Storage	05/31/18 16:11	Return to Storage
JC66927-1.9	Secured Storage	Todd Shoemaker	06/01/18 08:59	Retrieve from Storage
JC66927-1.9	Todd Shoemaker	Secured Staging Area	06/01/18 09:00	Return to Storage
JC66927-1.9	Secured Staging Area	Millicent Walker	06/01/18 11:16	Retrieve from Storage
JC66927-1.9	Millicent Walker	Secured Storage	06/01/18 20:47	Return to Storage
JC66927-1.11	Secured Storage	Jessica Potts	05/31/18 11:31	Retrieve from Storage
JC66927-1.11	Jessica Potts	GCMS2D	05/31/18 11:31	Load on Instrument
JC66927-1.11	GCMS2D	Jessica Potts	06/01/18 09:51	Unload from Instrument
JC66927-1.11	Jessica Potts	Secured Storage	06/01/18 09:51	Return to Storage
JC66927-2.1	Secured Storage	Dave Hunkele	05/30/18 08:00	Retrieve from Storage
JC66927-2.1	Dave Hunkele	Secured Staging Area	05/30/18 08:00	Return to Storage
JC66927-2.1	Secured Staging Area	Deval Patel	05/30/18 08:51	Retrieve from Storage
JC66927-2.1	Deval Patel	Secured Storage	05/30/18 10:17	Return to Storage
JC66927-2.1	Secured Storage	Todd Shoemaker	05/31/18 10:49	Retrieve from Storage
JC66927-2.1	Todd Shoemaker	Secured Staging Area	05/31/18 10:49	Return to Storage
JC66927-2.1	Secured Staging Area	Colleen Hill	05/31/18 14:50	Retrieve from Storage
JC66927-2.1	Colleen Hill	Secured Storage	05/31/18 16:00	Return to Storage
JC66927-2.1	Secured Storage	Colleen Hill	05/31/18 16:06	Retrieve from Storage
JC66927-2.1	Colleen Hill	Secured Storage	05/31/18 16:14	Return to Storage
JC66927-2.1.1	Colleen Hill	Metals Digestion	05/31/18 16:10	Digestate from JC66927-2.1
JC66927-2.1.1	Metals Digestion	Colleen Hill	05/31/18 16:11	Digestate from JC66927-2.1
JC66927-2.1.1	Colleen Hill	Metals Digestate Storage	05/31/18 16:11	Return to Storage
JC66927-3.1	Secured Storage	Jessica Potts	05/31/18 11:31	Retrieve from Storage
JC66927-3.1	Jessica Potts	GCMS2D	05/31/18 11:31	Load on Instrument
JC66927-3.1	GCMS2D	Jessica Potts	06/01/18 09:51	Unload from Instrument
JC66927-3.1	Jessica Potts	Secured Storage	06/01/18 09:51	Return to Storage

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: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7423-MB	2D175977.D	1	05/31/18	JP	n/a	n/a	V2D7423

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

JC66927-1, JC66927-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7423-MB	2D175977.D	1	05/31/18	JP	n/a	n/a	V2D7423

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

JC66927-1, JC66927-3

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	99%	80-120%

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

Method Blank Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7423-MB2	2D176021A.D	1	06/01/18	JP	n/a	n/a	V2D7423

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

JC66946-1DUP

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7423-MB2	2D176021A.D	1	06/01/18	JP	n/a	n/a	V2D7423

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

JC66946-1DUP

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	80-120%
17060-07-0	1,2-Dichloroethane-D4	104%	81-124%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

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

Blank Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7423-BS	2D175975.D	1	05/31/18	JP	n/a	n/a	V2D7423

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

JC66927-1, JC66927-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	208	104	42-150
71-43-2	Benzene	50	53.1	106	80-120
74-97-5	Bromochloromethane	50	53.7	107	84-121
75-27-4	Bromodichloromethane	50	54.8	110	83-120
75-25-2	Bromoform	50	59.7	119	76-129
74-83-9	Bromomethane	50	60.6	121	57-138
78-93-3	2-Butanone (MEK)	200	202	101	64-137
75-15-0	Carbon disulfide	50	51.6	103	64-137
56-23-5	Carbon tetrachloride	50	58.0	116	75-135
108-90-7	Chlorobenzene	50	52.6	105	84-117
75-00-3	Chloroethane	50	60.2	120	63-132
67-66-3	Chloroform	50	54.4	109	80-119
74-87-3	Chloromethane	50	60.3	121	46-136
110-82-7	Cyclohexane	50	51.5	103	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	49.9	100	72-127
124-48-1	Dibromochloromethane	50	55.4	111	80-123
106-93-4	1,2-Dibromoethane	50	51.6	103	84-117
95-50-1	1,2-Dichlorobenzene	50	53.8	108	84-119
541-73-1	1,3-Dichlorobenzene	50	52.9	106	81-117
106-46-7	1,4-Dichlorobenzene	50	53.5	107	82-117
75-71-8	Dichlorodifluoromethane	50	62.8	126	36-149
75-34-3	1,1-Dichloroethane	50	52.5	105	79-120
107-06-2	1,2-Dichloroethane	50	49.4	99	78-126
75-35-4	1,1-Dichloroethene	50	53.4	107	69-126
156-59-2	cis-1,2-Dichloroethene	50	54.2	108	80-120
156-60-5	trans-1,2-Dichloroethene	50	55.3	111	76-120
78-87-5	1,2-Dichloropropane	50	51.1	102	82-121
10061-01-5	cis-1,3-Dichloropropene	50	51.3	103	83-120
10061-02-6	trans-1,3-Dichloropropene	50	51.0	102	82-121
100-41-4	Ethylbenzene	50	53.1	106	80-120
76-13-1	Freon 113	50	52.1	104	62-182
591-78-6	2-Hexanone	200	194	97	65-132
98-82-8	Isopropylbenzene	50	53.7	107	83-120
79-20-9	Methyl Acetate	50	48.1	96	67-129
108-87-2	Methylcyclohexane	50	52.3	105	71-134
1634-04-4	Methyl Tert Butyl Ether	50	51.3	103	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7423-BS	2D175975.D	1	05/31/18	JP	n/a	n/a	V2D7423

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

JC66927-1, JC66927-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	199	100	71-131
75-09-2	Methylene chloride	50	54.0	108	77-120
100-42-5	Styrene	50	53.9	108	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	46.6	93	76-119
127-18-4	Tetrachloroethene	50	55.8	112	70-131
108-88-3	Toluene	50	52.3	105	80-120
87-61-6	1,2,3-Trichlorobenzene	50	50.5	101	76-134
120-82-1	1,2,4-Trichlorobenzene	50	53.6	107	79-132
71-55-6	1,1,1-Trichloroethane	50	56.5	113	81-128
79-00-5	1,1,2-Trichloroethane	50	50.4	101	83-118
79-01-6	Trichloroethene	50	54.0	108	80-120
75-69-4	Trichlorofluoromethane	50	63.4	127	64-136
75-01-4	Vinyl chloride	50	63.1	126	51-135
	m,p-Xylene	100	106	106	80-120
95-47-6	o-Xylene	50	53.6	107	80-120
1330-20-7	Xylene (total)	150	160	107	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	81-124%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66946-3MS	2D175985.D	1	05/31/18	JP	n/a	n/a	V2D7423
JC66946-3	2D175980.D	1	05/31/18	JP	n/a	n/a	V2D7423

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

JC66927-1, JC66927-3

CAS No.	Compound	JC66946-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	178	89	34-149
71-43-2	Benzene	ND		50	52.5	105	54-136
74-97-5	Bromochloromethane	ND		50	50.5	101	79-124
75-27-4	Bromodichloromethane	ND		50	50.1	100	79-124
75-25-2	Bromoform	ND		50	52.4	105	71-130
74-83-9	Bromomethane	ND		50	56.2	112	53-142
78-93-3	2-Butanone (MEK)	ND		200	179	90	54-142
75-15-0	Carbon disulfide	ND		50	51.5	103	59-145
56-23-5	Carbon tetrachloride	ND		50	54.3	109	70-143
108-90-7	Chlorobenzene	ND		50	51.5	103	78-123
75-00-3	Chloroethane	ND		50	56.1	112	57-141
67-66-3	Chloroform	ND		50	50.6	101	76-123
74-87-3	Chloromethane	ND		50	49.5	99	43-141
110-82-7	Cyclohexane	ND		50	56.0	112	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	46.1	92	66-130
124-48-1	Dibromochloromethane	ND		50	50.2	100	76-125
106-93-4	1,2-Dibromoethane	ND		50	47.5	95	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	51.4	103	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	51.5	103	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	51.9	104	76-122
75-71-8	Dichlorodifluoromethane	ND		50	59.7	119	31-159
75-34-3	1,1-Dichloroethane	ND		50	49.9	100	73-126
107-06-2	1,2-Dichloroethane	ND		50	43.3	87	72-131
75-35-4	1,1-Dichloroethene	ND		50	54.6	109	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	52.7	105	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	54.2	108	70-126
78-87-5	1,2-Dichloropropane	ND		50	49.6	99	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	47.3	95	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	45.8	92	77-123
100-41-4	Ethylbenzene	ND		50	51.6	103	51-140
76-13-1	Freon 113	ND		50	59.9	120	60-192
591-78-6	2-Hexanone	ND		200	182	91	56-139
98-82-8	Isopropylbenzene	ND		50	52.5	105	75-129
79-20-9	Methyl Acetate	ND		50	40.3	81	55-131
108-87-2	Methylcyclohexane	ND		50	62.9	126	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	44.5	89	72-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66946-3MS	2D175985.D	1	05/31/18	JP	n/a	n/a	V2D7423
JC66946-3	2D175980.D	1	05/31/18	JP	n/a	n/a	V2D7423

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

JC66927-1, JC66927-3

CAS No.	Compound	JC66946-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	184	92	66-136
75-09-2	Methylene chloride	ND		50	51.4	103	73-125
100-42-5	Styrene	ND		50	51.9	104	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	43.1	86	71-122
127-18-4	Tetrachloroethene	ND		50	55.9	112	61-139
108-88-3	Toluene	ND		50	51.1	102	60-135
87-61-6	1,2,3-Trichlorobenzene	ND		50	48.4	97	70-138
120-82-1	1,2,4-Trichlorobenzene	ND		50	52.8	106	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	52.2	104	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	47.5	95	78-121
79-01-6	Trichloroethene	ND		50	54.0	108	62-141
75-69-4	Trichlorofluoromethane	ND		50	59.7	119	57-149
75-01-4	Vinyl chloride	ND		50	55.9	112	43-146
	m,p-Xylene	ND		100	102	102	50-144
95-47-6	o-Xylene	ND		50	52.1	104	63-134
1330-20-7	Xylene (total)	ND		150	154	103	56-139

CAS No.	Surrogate Recoveries	MS	JC66946-3	Limits
1868-53-7	Dibromofluoromethane	101%	105%	80-120%
17060-07-0	1,2-Dichloroethane-D4	88%	100%	81-124%
2037-26-5	Toluene-D8	99%	99%	80-120%
460-00-4	4-Bromofluorobenzene	93%	100%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66946-1DUP	2D176037.D	1	06/01/18	JP	n/a	n/a	V2D7423
JC66946-1	2D175978.D	1	05/31/18	JP	n/a	n/a	V2D7423

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

JC66927-1, JC66927-3

CAS No.	Compound	JC66946-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	26.0		22.9		13	20
71-43-2	Benzene	2.1		2.0		5	20
74-97-5	Bromochloromethane	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	1.1	J	1.1	J	0	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	1.0		0.98	J	2	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	1.8		1.8		0	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	1.1		1.0		10	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	1.1		1.0		10	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66946-1DUP	2D176037.D	1	06/01/18	JP	n/a	n/a	V2D7423
JC66946-1	2D175978.D	1	05/31/18	JP	n/a	n/a	V2D7423

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

JC66927-1, JC66927-3

CAS No.	Compound	JC66946-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	0.32	J	0.31	J	3	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	2.1		1.9		10	20
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
	m,p-Xylene	2.7		2.4		12	20
95-47-6	o-Xylene	1.7		1.5		13	20
1330-20-7	Xylene (total)	4.4		4.0		10	20

CAS No.	Surrogate Recoveries	DUP	JC66946-1	Limits
1868-53-7	Dibromofluoromethane	106%	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	105%	102%	81-124%
2037-26-5	Toluene-D8	99%	99%	80-120%
460-00-4	4-Bromofluorobenzene	97%	98%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-BFB
Lab File ID: 2D175264.D
Instrument ID: GCMS2D
Injection Date: 05/03/18
Injection Time: 15:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17674	16.8		Pass
75	30.0 - 60.0% of mass 95	48434	46.1		Pass
95	Base peak, 100% relative abundance	105000	100.0		Pass
96	5.0 - 9.0% of mass 95	6978	6.65		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	102509	97.6		Pass
175	5.0 - 9.0% of mass 174	7907	7.53	(7.71) [a]	Pass
176	95.0 - 101.0% of mass 174	99776	95.0	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	6501	6.19	(6.52) [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
V2D7390-IC7390	2D175265.D	05/03/18	16:10	00:31	Initial cal 1
V2D7390-IC7390	2D175266.D	05/03/18	16:41	01:02	Initial cal 0.5
V2D7390-IC7390	2D175267.D	05/03/18	17:12	01:33	Initial cal 2
V2D7390-IC7390	2D175268.D	05/03/18	17:43	02:04	Initial cal 5
V2D7390-IC7390	2D175269.D	05/03/18	18:14	02:35	Initial cal 10
V2D7390-IC7390	2D175270.D	05/03/18	18:45	03:06	Initial cal 20
V2D7390-ICC7390	2D175271.D	05/03/18	19:16	03:37	Initial cal 50
V2D7390-IC7390	2D175272.D	05/03/18	19:46	04:07	Initial cal 100
V2D7390-IC7390	2D175273.D	05/03/18	20:17	04:38	Initial cal 200
V2D7390-ICV7390	2D175276.D	05/03/18	21:50	06:11	Initial cal verification 50
V2D7390-ICV7390	2D175277.D	05/03/18	22:21	06:42	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7423-BFB
Lab File ID: 2D175974.D
Instrument ID: GCMS2D
Injection Date: 05/31/18
Injection Time: 06:43

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	18039	16.9		Pass
75	30.0 - 60.0% of mass 95	49307	46.1		Pass
95	Base peak, 100% relative abundance	106896	100.0		Pass
96	5.0 - 9.0% of mass 95	7244	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	103243	96.6		Pass
175	5.0 - 9.0% of mass 174	7789	7.29	(7.54) [a]	Pass
176	95.0 - 101.0% of mass 174	100000	93.5	(96.9) [a]	Pass
177	5.0 - 9.0% of mass 176	6953	6.50	(6.95) [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
V2D7423-CC7390	2D175974.D	05/31/18	06:43	00:00	Continuing cal 20
V2D7423-BS	2D175975.D	05/31/18	07:23	00:40	Blank Spike
V2D7423-MB	2D175977.D	05/31/18	08:37	01:54	Method Blank
JC66946-1	2D175978.D	05/31/18	09:15	02:32	(used for QC only; not part of job JC66927)
ZZZZZZ	2D175979.D	05/31/18	09:45	03:02	(unrelated sample)
JC66946-3	2D175980.D	05/31/18	10:16	03:33	(used for QC only; not part of job JC66927)
JC66946-4	2D175981.D	05/31/18	10:47	04:04	(used for QC only; not part of job JC66927)
ZZZZZZ	2D175982.D	05/31/18	11:17	04:34	(unrelated sample)
ZZZZZZ	2D175983.D	05/31/18	11:48	05:05	(unrelated sample)
ZZZZZZ	2D175984.D	05/31/18	12:18	05:35	(unrelated sample)
JC66946-3MS	2D175985.D	05/31/18	12:48	06:05	Matrix Spike
ZZZZZZ	2D175990.D	05/31/18	15:21	08:38	(unrelated sample)
ZZZZZZ	2D175991.D	05/31/18	15:51	09:08	(unrelated sample)
JC66927-3	2D175992.D	05/31/18	16:22	09:39	TRIP BLANK
ZZZZZZ	2D175993.D	05/31/18	16:52	10:09	(unrelated sample)
ZZZZZZ	2D175994.D	05/31/18	17:23	10:40	(unrelated sample)
JC66927-1	2D175995.D	05/31/18	17:53	11:10	MW-106
ZZZZZZ	2D175996.D	05/31/18	18:24	11:41	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7425-BFB
Lab File ID: 2D176018.D
Instrument ID: GCMS2D
Injection Date: 06/01/18
Injection Time: 07:18

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	16576	17.8		Pass
75	30.0 - 60.0% of mass 95	43979	47.3		Pass
95	Base peak, 100% relative abundance	92936	100.0		Pass
96	5.0 - 9.0% of mass 95	6192	6.66		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	89309	96.1		Pass
175	5.0 - 9.0% of mass 174	7146	7.69	(8.00) [a]	Pass
176	95.0 - 101.0% of mass 174	87363	94.0	(97.8) [a]	Pass
177	5.0 - 9.0% of mass 176	5872	6.32	(6.72) [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
V2D7425-CC7390	2D176018.D	06/01/18	07:18	00:00	Continuing cal 20
V2D7425-BS	2D176019.D	06/01/18	08:02	00:44	Blank Spike
V2D7423-BS2	2D176019A.D	06/01/18	08:02	00:44	Blank Spike
V2D7423-MB2	2D176021A.D	06/01/18	09:19	02:01	Method Blank
V2D7425-MB	2D176021.D	06/01/18	09:19	02:01	Method Blank
ZZZZZZ	2D176022.D	06/01/18	10:09	02:51	(unrelated sample)
ZZZZZZ	2D176023.D	06/01/18	10:39	03:21	(unrelated sample)
JC66602-28	2D176024.D	06/01/18	11:10	03:52	(used for QC only; not part of job JC66927)
JC66602-28	2D176025.D	06/01/18	11:47	04:29	(used for QC only; not part of job JC66927)
ZZZZZZ	2D176026.D	06/01/18	12:22	05:04	(unrelated sample)
ZZZZZZ	2D176027.D	06/01/18	12:53	05:35	(unrelated sample)
ZZZZZZ	2D176028.D	06/01/18	13:24	06:06	(unrelated sample)
ZZZZZZ	2D176029.D	06/01/18	13:55	06:37	(unrelated sample)
ZZZZZZ	2D176030.D	06/01/18	14:26	07:08	(unrelated sample)
ZZZZZZ	2D176031.D	06/01/18	14:57	07:39	(unrelated sample)
ZZZZZZ	2D176032.D	06/01/18	15:28	08:10	(unrelated sample)
ZZZZZZ	2D176033.D	06/01/18	15:59	08:41	(unrelated sample)
JC66602-28MS	2D176034.D	06/01/18	16:30	09:12	Matrix Spike
JC66602-28MSD	2D176035.D	06/01/18	17:01	09:43	Matrix Spike Duplicate
JC66946-1DUP	2D176037.D	06/01/18	18:02	10:44	Duplicate
V2D7425-ECC7390	2D176038.D	06/01/18	18:32	11:14	Ending cal 50

Internal Standard Area Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V2D7423-CC7390	**Injection Date:**	05/31/18
Lab File ID:	2D175974.D	**Injection Time:**	06:43
Instrument ID:	GCMS2D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	94124	7.37	295256	10.08	397752	11.23	402190	15.45	245262	18.25
Upper Limit [a]	188248	7.87	590512	10.58	795504	11.73	804380	15.95	490524	18.75
Lower Limit [b]	47062	6.87	147628	9.58	198876	10.73	201095	14.95	122631	17.75

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D7423-BS	93536	7.37	285324	10.08	386679	11.23	390650	15.45	242507	18.25
V2D7423-MB	91274	7.37	299419	10.08	402887	11.23	406540	15.45	238074	18.25
JC66946-1	85189	7.37	263206	10.08	354095	11.23	358555	15.45	217626	18.25
ZZZZZZ	84130	7.37	274125	10.08	369535	11.23	373443	15.45	221369	18.25
JC66946-3	89921	7.37	278782	10.08	379671	11.23	386124	15.45	228276	18.25
JC66946-4	93723	7.36	273683	10.08	369827	11.23	379794	15.45	224686	18.25
ZZZZZZ	87425	7.37	260100	10.08	353617	11.23	361864	15.45	211228	18.25
ZZZZZZ	88753	7.37	264539	10.08	362806	11.23	365475	15.45	214957	18.25
ZZZZZZ	96199	7.37	259583	10.08	360352	11.23	370410	15.45	242050	18.25
JC66946-3MS	95126	7.37	322448	10.08	433728	11.23	435871	15.45	272008	18.25
ZZZZZZ	118544	7.37	378542	10.08	512950	11.23	510001	15.46	305719	18.25
ZZZZZZ	122821	7.37	374747	10.08	508993	11.23	514374	15.46	306092	18.25
JC66927-3	119495	7.37	373002	10.08	508672	11.23	502920	15.46	299549	18.25
ZZZZZZ	118722	7.38	367699	10.09	496785	11.24	496958	15.46	293760	18.25
ZZZZZZ	112645	7.38	363812	10.09	490913	11.24	504088	15.46	290691	18.25
JC66927-1	110312	7.37	351958	10.09	479471	11.24	476462	15.46	278917	18.26
ZZZZZZ	113611	7.38	348813	10.09	474177	11.24	475075	15.46	280996	18.26

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

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

Internal Standard Area Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V2D7425-CC7390	**Injection Date:**	06/01/18
Lab File ID:	2D176018.D	**Injection Time:**	07:18
Instrument ID:	GCMS2D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	77439	7.37	245546	10.09	336330	11.24	340251	15.46	215659	18.26
Upper Limit [a]	154878	7.87	491092	10.59	672660	11.74	680502	15.96	431318	18.76
Lower Limit [b]	38720	6.87	122773	9.59	168165	10.74	170126	14.96	107830	17.76

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D7425-BS	77870	7.38	247264	10.09	336470	11.24	348504	15.46	222029	18.26
V2D7423-BS2	77870	7.38	247264	10.09	336470	11.24	348504	15.46	222029	18.26
V2D7423-MB2	77898	7.38	248975	10.09	339250	11.24	349955	15.46	204257	18.26
V2D7425-MB	77898	7.38	248975	10.09	339250	11.24	349955	15.46	204257	18.26
ZZZZZZ	75312	7.38	225337	10.09	308111	11.24	317613	15.46	186295	18.26
ZZZZZZ	75864	7.38	245800	10.09	334781	11.24	340674	15.46	200778	18.26
JC66602-28	86992	7.38	240395	10.09	332121	11.24	338677	15.46	201047	18.26
JC66602-28	76058	7.38	237794	10.09	325274	11.24	331263	15.46	198130	18.26
ZZZZZZ	80023	7.38	245645	10.09	339511	11.24	343913	15.46	202084	18.26
ZZZZZZ	78032	7.38	244308	10.09	335245	11.24	340719	15.46	203584	18.26
ZZZZZZ	79209	7.38	243185	10.09	330738	11.24	340497	15.46	202017	18.26
ZZZZZZ	80043	7.38	236861	10.09	327394	11.24	332533	15.46	197174	18.26
ZZZZZZ	80132	7.38	244472	10.10	333469	11.24	343945	15.46	201087	18.26
ZZZZZZ	80759	7.39	244204	10.09	331598	11.24	339754	15.46	200070	18.26
ZZZZZZ	78612	7.39	237253	10.10	324556	11.25	330090	15.47	193450	18.26
ZZZZZZ	81841	7.38	239234	10.09	329606	11.24	336582	15.47	198079	18.26
JC66602-28MS	92711	7.38	231761	10.10	320535	11.25	330105	15.47	213247	18.26
JC66602-28MSD	95668	7.39	248023	10.10	337604	11.25	342710	15.47	215633	18.26
JC66946-1DUP	94207	7.39	248868	10.10	340463	11.25	345651	15.47	214266	18.26
V2D7425-ECC7390	88056	7.39	249732	10.10	342661	11.25	352539	15.47	222665	18.26

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.

Surrogate Recovery Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC66927-1	2D175995.D	103	90	100	98
JC66927-3	2D175992.D	101	89	100	97
JC66946-1DUP	2D176037.D	106	105	99	97
JC66946-3MS	2D175985.D	101	88	99	93
V2D7423-BS	2D175975.D	103	98	99	95
V2D7423-MB	2D175977.D	103	98	100	99
V2D7423-MB2	2D176021A.D	106	104	99	101

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

Initial Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: V2D7390-ICC7390
Lab FileID: 2D175271.D

Response Factor Report MS2D

```
Method       : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title        : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update  : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Calibration Files
1   =2D175265.D  2   =2D175267.D  100 =2D175272.D  50  =2D175271.D
20  =2D175270.D  200 =2D175273.D  5   =2D175268.D  0.5 =2D175266.D
10  =2D175269.D      =
```

Compound	1	2	100	50	20	200	5	0.5	10	Avg	%RSD
1) I tert butyl alcohol-d9 ----------ISTD----------											
2) tertiary butyl alcohol	0.913	0.885	0.994	0.972	0.954	0.988	0.938		0.935	0.947	3.93
3) ethanol	0.154	0.127	0.087	0.085	0.090	0.084	0.102		0.092	0.103	24.44
---- Linear regression ---- Coefficient = 0.9997											
Response Ratio = 0.01545 + 0.08442 *A											
4) 1,4-dioxane		0.083	0.101	0.097	0.094	0.103	0.087		0.092	0.094	7.58
5) I pentafluorobenzene ----------ISTD----------											
6) chlorodifluoromethane	0.480	0.479	0.473	0.466	0.466	0.426	0.450	0.531	0.471	0.471	5.92
7) dichlorodifluoromethane	0.503	0.533	0.568	0.594	0.603	0.529	0.527		0.591	0.556	6.78
8) freon 142b										0.000	-1.00
9) freon 114										0.000	-1.00
10) chloromethane	0.731	0.633	0.614	0.578	0.609	0.590	0.616	0.690	0.591	0.628	8.05
11) vinyl chloride	0.596	0.556	0.580	0.561	0.562	0.562	0.533	0.474	0.546	0.552	6.24
12) bromomethane		0.449	0.384	0.377	0.384	0.350	0.387		0.387	0.388	7.66
13) chloroethane	0.360	0.279	0.277	0.276	0.279	0.260	0.285	0.312	0.281	0.290	10.18
14) trichlorofluoromethane	0.695	0.627	0.639	0.650	0.657	0.619	0.605	0.481	0.646	0.624	9.56
15) vinyl bromide	0.455	0.399	0.407	0.408	0.410	0.398	0.393	0.462	0.392	0.414	6.31
16) 1,3-butadiene										0.000	-1.00
17) ethyl ether	0.203	0.200	0.197	0.187	0.189	0.191	0.180	0.211	0.190	0.194	4.83
18) acrolein	0.092	0.078	0.079	0.075	0.076	0.078	0.084		0.075	0.080	7.31
19) 1,1-dichloroethene	0.375	0.377	0.374	0.368	0.366	0.370	0.360	0.429	0.372	0.377	5.37
20) freon 113	0.270	0.341	0.319	0.325	0.324	0.323	0.304		0.325	0.316	6.75
21) 2-chloropropane			0.624	0.612	0.619	0.606	0.685		0.652	0.633	4.79

Initial Calibration Summary

Job Number: JC66927 **Sample:** V2D7390-ICC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175271.D
Project: National Grid, Philly Coke, Philadelphia PA

22)	acetone										
		0.023	0.027	0.029	0.027	0.027	0.027	0.026	0.028	0.027	6.25
23)	acetonitrile										
				0.044	0.044	0.046	0.041	0.046	0.047	0.045	4.59
24)	iodomethane										
		0.659	0.619	0.649	0.640	0.624	0.633	0.597	0.703	0.624	0.639	4.71
25)	carbon disulfide										
		1.287	1.178	1.194	1.178	1.165	1.148	1.129	1.438	1.150	1.207	8.07
26)	methylene chloride										
		0.437	0.429	0.422	0.408	0.406	0.416	0.404	0.413	0.417	2.81
27)	methyl acetate										
			0.276	0.266	0.259	0.263	0.256	0.269	0.267	0.265	2.53
28)	methyl tert butyl ether										
		1.107	1.094	1.093	1.065	1.071	1.038	1.048	1.286	1.060	1.096	6.82
29)	trans-1,2-dichloroethene										
		0.382	0.397	0.383	0.368	0.362	0.371	0.361	0.441	0.373	0.382	6.57
30)	hexane										
		0.498	0.537	0.511	0.509	0.501	0.511	0.481	0.440	0.508	0.499	5.32
31)	di-isopropyl ether										
		1.331	1.351	1.295	1.255	1.270	1.232	1.253	1.552	1.278	1.313	7.43
32)	2-butanone										
		0.029	0.030	0.038	0.036	0.037	0.037	0.033	0.036	0.035	9.94
33)	1,1-dichloroethane										
		0.717	0.717	0.709	0.686	0.677	0.680	0.692	0.829	0.688	0.710	6.63
34)	chloroprene										
		0.577	0.582	0.566	0.550	0.549	0.543	0.544	0.637	0.540	0.565	5.47
35)	acrylonitrile										
		0.111	0.117	0.140	0.134	0.135	0.134	0.123	0.133	0.128	7.94
36)	vinyl acetate										
				0.066	0.062	0.063	0.064	0.052	0.063	0.062	7.74
37)	ethyl tert-butyl ether										
		1.246	1.203	1.206	1.197	1.201	1.147	1.168	1.509	1.194	1.230	8.78
38)	ethyl acetate										
				0.047	0.047	0.048	0.044	0.045	0.049	0.047	3.88
39)	2,2-dichloropropane										
		0.638	0.575	0.529	0.532	0.542	0.500	0.553	0.663	0.558	0.565	9.37
40)	cis-1,2-dichloroethene										
		0.414	0.432	0.428	0.412	0.410	0.418	0.404	0.526	0.408	0.428	8.87
41)	propionitrile										
		0.053	0.051	0.057	0.054	0.055	0.055	0.053	0.059	0.055	0.055	4.10
42)	tert-Butyl Formate										
	This compound does not meet initial calibration criteria										
		0.402	0.386	0.372	0.367	0.371	0.347	0.369	0.403	0.380	0.377	4.70
43)	bromochloromethane										
		0.203	0.213	0.218	0.207	0.205	0.212	0.204	0.256	0.211	0.214	7.60
44)	tetrahydrofuran										
			0.042	0.048	0.044	0.045	0.046	0.043	0.046	0.045	4.09
45)	chloroform										
		0.721	0.725	0.690	0.671	0.667	0.662	0.663	0.683	0.685	3.71
46)	dibromofluoromethane (s)										
		0.428	0.435	0.431	0.432	0.428	0.432	0.430	0.431	0.429	0.431	0.55
47)	methacrylonitrile										
		0.140	0.132	0.150	0.143	0.145	0.146	0.136	0.130	0.142	0.140	4.75
48)	1,1,1-trichloroethane										
		0.629	0.652	0.633	0.622	0.611	0.612	0.618	0.702	0.618	0.633	4.55
49)	cyclohexane										
		0.471	0.493	0.540	0.542	0.541	0.537	0.544	0.513	0.553	0.526	5.26
50)	1,1-dichloropropene										
		0.528	0.529	0.526	0.506	0.500	0.512	0.499	0.592	0.517	0.523	5.44
51)	isobutyl alcohol										

Initial Calibration Summary

Job Number: JC66927 **Sample:** V2D7390-ICC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175271.D
Project: National Grid, Philly Coke, Philadelphia PA

```
                        0.016 0.015 0.017 0.015 0.017       0.018   0.016    6.58
52)  carbon tetrachloride
            0.543 0.566 0.559 0.550 0.539 0.546 0.531 0.613 0.554   0.556    4.31
53)  tert-amyl alcohol
                  0.018 0.018 0.018 0.019 0.018 0.017       0.019   0.018    4.26

54) I   1,4-difluorobenzene   ----------------ISTD---------------------
55)  1,2-dichloroethane-d4 (s)
            0.343 0.348 0.337 0.345 0.341 0.322 0.352 0.351 0.352   0.343    2.78
56)  benzene
            1.148 1.103 1.097 1.071 1.064 1.061 1.077 1.335 1.072   1.114    7.81
57)  iso-octane
            1.057 1.183 1.122 1.159 1.150 1.123 1.116 1.003 1.171   1.120    5.15
58)  tert-amyl methyl ether
            0.876 0.841 0.829 0.833 0.826 0.780 0.848       0.846   0.835    3.23
59)  heptane
            0.191 0.226 0.199 0.204 0.203 0.202 0.208 0.172 0.220   0.203    7.69
60)  isopropyl acetate
                        0.053 0.050 0.051 0.051 0.048       0.053   0.051    3.25
61)  1,2-dichloroethane
            0.430 0.422 0.377 0.374 0.377 0.354 0.389       0.384   0.388    6.56
62)  n-butyl alcohol
            0.006 0.007 0.007 0.007 0.007 0.007 0.006 0.007 0.007   0.007    8.05
63)  ethyl acrylate
            0.321 0.317 0.331 0.322 0.325 0.319 0.309 0.369 0.328   0.327    5.24
64)  trichloroethene
            0.308 0.302 0.298 0.292 0.288 0.293 0.278 0.351 0.294   0.300    6.92
65)  2-nitropropane
            0.065 0.055 0.056 0.052 0.053 0.055 0.054       0.054   0.055    7.27
66)  2-chloroethyl vinyl ether
            0.172 0.175 0.183 0.178 0.179 0.175 0.173 0.207 0.179   0.180    5.98
67)  methyl methacrylate
            0.157 0.174 0.183 0.175 0.177 0.176 0.173 0.163 0.179   0.173    4.60
68)  1,2-dichloropropane
            0.305 0.294 0.295 0.287 0.286 0.287 0.286 0.353 0.297   0.299    7.10
69)  dibromomethane
            0.178 0.171 0.180 0.176 0.174 0.173 0.176 0.177 0.176   0.176    1.55
70)  methylcyclohexane
            0.470 0.515 0.505 0.513 0.505 0.517 0.487 0.438 0.517   0.496    5.37
71)  bromodichloromethane
            0.383 0.381 0.391 0.381 0.373 0.378 0.367 0.433 0.379   0.385    4.95
72)  epichlorohydrin
            0.027 0.025 0.026 0.026 0.026 0.025 0.024       0.026   0.026    2.84
73)  cis-1,3-dichloropropene
            0.473 0.487 0.489 0.474 0.468 0.475 0.472 0.604 0.467   0.490    8.86
74)  4-methyl-2-pentanone
            0.101 0.104 0.105 0.102 0.101 0.101 0.099       0.101   0.102    1.86
75)  3-methyl-1-butanol
            0.012 0.011 0.012 0.012 0.012 0.012 0.012       0.012   0.012    2.83

76) I   chlorobenzene-d5      ----------------ISTD---------------------
77)  toluene-d8 (s)
            1.176 1.176 1.148 1.159 1.166 1.134 1.167 1.172 1.167   1.163    1.20
78)  toluene
            0.744 0.706 0.695 0.671 0.682 0.671 0.675 0.828 0.672   0.705    7.36
79)  trans-1,3-dichloropropene
            0.422 0.409 0.441 0.426 0.424 0.421 0.414 0.512 0.426   0.433    7.11
80)  ethyl methacrylate
            0.346 0.343 0.370 0.354 0.363 0.354 0.353 0.403 0.355   0.360    4.99
81)  1,1,2-trichloroethane
```

```
            0.231 0.204 0.216 0.210 0.213 0.209 0.216 0.237 0.213   0.217    5.00
 82)  tetrachloroethene
            0.255 0.279 0.261 0.256 0.257 0.256 0.246 0.310 0.262   0.265    7.27
 83)  1,3-dichloropropane
            0.436 0.420 0.426 0.414 0.413 0.409 0.418 0.485 0.420   0.427    5.45
 84)  2-hexanone
            0.091 0.096 0.098 0.094 0.096 0.094 0.093 0.109 0.097   0.096    5.28
 85)  butyl acetate
            0.170 0.186 0.177 0.174 0.178 0.174 0.175 0.165 0.184   0.176    3.70
 86)  dibromochloromethane
            0.300 0.292 0.316 0.303 0.290 0.309 0.273 0.341 0.296   0.302    6.32
 87)  1,2-dibromoethane
            0.283 0.286 0.295 0.287 0.290 0.285 0.285 0.356 0.285   0.295    7.86
 88)  n-butyl ether
            1.395 1.339 1.309 1.280 1.280 1.267 1.267 1.553 1.284   1.330    7.00
 89)  chlorobenzene
            0.841 0.830 0.821 0.795 0.802 0.808 0.783 1.030 0.803   0.835    9.05
 90)  1,1,1,2-tetrachloroethane
            0.307 0.302 0.323 0.313 0.307 0.313 0.295 0.348 0.310   0.313    4.82
 91)  ethylbenzene
            1.438 1.412 1.373 1.350 1.355 1.326 1.327 1.647 1.354   1.398    7.19
 92)  m,p-xylene
            1.128 1.088 1.063 1.039 1.046 1.028 1.030 1.316 1.050   1.088    8.41
 93)  o-xylene
            0.542 0.555 0.544 0.531 0.524 0.535 0.540 0.634 0.535   0.549    6.00
 94)  styrene
            0.900 0.913 0.928 0.908 0.903 0.902 0.879 1.075 0.917   0.925    6.27
 95)  butyl acrylate
            0.576 0.571 0.588 0.581 0.582 0.578 0.563 0.679 0.571   0.588    5.96
 96)  bromoform
            0.195 0.196 0.231 0.214 0.206 0.229 0.191 0.217 0.201   0.209    7.06
 97)  isopropylbenzene
            1.522 1.462 1.442 1.430 1.426 1.422 1.404 1.684 1.424   1.468    5.98
 98)  cis-1,4-dichloro-2-butene
            0.101 0.113 0.126 0.124 0.123 0.122 0.109 0.131 0.116   0.118    8.01

 99) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
100)  4-bromofluorobenzene (s)
            0.811 0.802 0.799 0.792 0.796 0.798 0.812 0.812 0.798   0.802    0.94
101)  bromobenzene
            0.742 0.714 0.701 0.669 0.661 0.686 0.666 0.828 0.682   0.706    7.50
102)  1,1,2,2-tetrachloroethane
            0.639 0.620 0.630 0.600 0.614 0.611 0.613 0.773 0.616   0.635    8.34
103)  trans-1,4-dichloro-2-butene
            0.149 0.142 0.153 0.144 0.148 0.146 0.142       0.144   0.146    2.59
104)  1,2,3-trichloropropane
            0.161 0.163 0.166 0.159 0.162 0.158 0.160       0.164   0.162    1.64
105)  n-propylbenzene
            3.007 2.938 2.893 2.819 2.805 2.831 2.757 3.491 2.821   2.929    7.65
106)  2-chlorotoluene
            0.616 0.638 0.629 0.600 0.598 0.621 0.598 0.718 0.611   0.626    5.95
107)  4-chlorotoluene
            1.846 1.783 1.727 1.671 1.679 1.700 1.689 2.078 1.685   1.762    7.48
108)  4-ethyltoluene
                                                                    0.000   -1.00
109)  1,3,5-trimethylbenzene
            2.157 2.185 2.141 2.085 2.059 2.121 2.039 2.553 2.077   2.157    7.22
110)  tert-butylbenzene
            1.926 1.916 1.927 1.871 1.843 1.906 1.782 2.222 1.831   1.914    6.57
111)  1,2,4-trimethylbenzene
```

Initial Calibration Summary

Job Number: JC66927 **Sample:** V2D7390-ICC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175271.D
Project: National Grid, Philly Coke, Philadelphia PA

```
            2.251 2.195 2.183 2.133 2.093 2.153 2.100 2.585 2.124   2.202    6.90
112)  sec-butylbenzene
            2.983 2.822 2.851 2.784 2.748 2.835 2.686 3.282 2.745   2.859    6.27
113)  1,3-dichlorobenzene
            1.328 1.364 1.324 1.271 1.264 1.295 1.269 1.642 1.268   1.336    8.97
114)  p-isopropyltoluene
            2.468 2.465 2.502 2.415 2.382 2.477 2.316 2.918 2.412   2.484    6.94
115)  1,4-dichlorobenzene
            1.391 1.370 1.351 1.302 1.289 1.328 1.288 1.571 1.278   1.352    6.74
116)  1,2-dichlorobenzene
            1.372 1.331 1.346 1.312 1.312 1.316 1.255 1.528 1.295   1.341    5.78
117)  benzyl chloride
            1.278 1.204 1.251 1.206 1.197 1.195 1.149       1.197   1.210    3.21
118)  1,4-diethylbenzene
                                                                    0.000   -1.00
119)  n-butylbenzene
            1.257 1.247 1.262 1.235 1.205 1.259 1.157 1.396 1.199   1.246    5.30
120)  1,2,4,5-tetramethylbenzene
                                                                    0.000   -1.00
121)  1,2-dibromo-3-chloropropane
            0.155 0.141 0.169 0.159 0.158 0.166 0.153 0.148 0.149   0.155    5.72
122)  nitrobenzene
                        0.022 0.019 0.019 0.024             0.015   0.020   15.59
123)  1,3,5-trichlorobenzene
            1.172 1.206 1.331 1.286 1.259 1.284 1.155 1.373 1.214   1.253    5.81
124)  hexachlorobutadiene
            0.594 0.596 0.634 0.619 0.615 0.602 0.578 0.683 0.599   0.613    5.02
125)  naphthalene
            1.928 1.962 2.423 2.347 2.282 2.296 1.985 2.214 2.130   2.174    8.35
126)  2-ethylhexyl acrylate
                        0.708 0.633 0.547 0.721             0.501   0.622   15.56
127)  1,2,4-trichlorobenzene
            0.989 0.981 1.181 1.127 1.082 1.134 0.979 1.099 1.013   1.065    7.13
128)  1,2,3-trichlorobenzene
            0.867 0.901 1.073 1.042 1.004 1.024 0.890 1.076 0.952   0.981    8.21
129)  hexachloroethane
            0.399 0.391 0.484 0.458 0.429 0.489 0.394       0.408   0.431    9.34
130)  2-methylnaphthalene
                        1.324 1.212 1.058 1.323             0.915   1.166   15.26
131)  bis(chloromethyl)ether
                                                                    0.000   -1.00
132)  ethylenimine
                                                                    0.000   -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2D7390.M         Fri May 04 11:26:05 2018   GCMS2D
```

6.8.1

6

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: V2D7390-ICV7390
Lab FileID: 2D175276.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\V2D7390\2D175276.D         Vial: 13
Acq On    :  3 May 2018   9:50 pm                    Operator: oyinadei
Sample    : ICV7390-50                               Inst    : MS2D
Misc      : MS25995,V2D7390,5,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title        : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update  : Fri May 04 11:23:40 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	102	-0.01	7.38
2		tertiary butyl alcohol	0.947	0.954	-0.7	100	0.00	7.51
		----------	True	Calc.	% Drift	----------		
3		ethanol	5000.000	5120.548	-2.4	106	-0.01	5.99
		----------	AvgRF	CCRF	% Dev	----------		
4		1,4-dioxane	0.094	0.099	-5.3	104	0.00	12.18
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.09
6		chlorodifluoromethane	0.471	0.574	-21.9	130	0.00	3.89
7		dichlorodifluoromethane	0.556	0.541	2.7	96	0.00	3.86
8		freon 142b	----------NA----------					
9		freon 114	----------NA----------					
10		chloromethane	0.628	0.668	-6.4	121	0.00	4.26
11		vinyl chloride	0.552	0.548	0.7	103	0.00	4.49
12		bromomethane	0.388	0.370	4.6	103	0.00	5.12
13		chloroethane	0.290	0.270	6.9	103	0.00	5.28
14		trichlorofluoromethane	0.624	0.599	4.0	97	0.00	5.77
15		vinyl bromide	0.414	0.375	9.4	97	0.00	5.65
16		1,3-butadiene	----------NA----------					
17		ethyl ether	0.194	0.184	5.2	104	0.00	6.19
18		acrolein	0.080	0.081	-1.3	113	0.00	6.43
19		1,1-dichloroethene	0.377	0.341	9.5	97	0.00	6.63
20		freon 113	0.316	0.312	1.3	101	0.00	6.62
21	m	2-chloropropane	0.633	0.634	-0.2	109	0.00	6.38
22		acetone	0.027	0.028	-3.7	109	0.00	6.68
23		acetonitrile	----------NA----------					
24		iodomethane	0.639	0.737	-15.3	121	-0.01	6.91
25		carbon disulfide	1.207	1.299	-7.6	116	0.00	7.05
26		methylene chloride	0.417	0.394	5.5	101	0.00	7.40
27		methyl acetate	0.265	0.250	5.7	102	0.00	7.19
28		methyl tert butyl ether	1.096	1.039	5.2	103	0.00	7.81
29		trans-1,2-dichloroethene	0.382	0.355	7.1	101	0.00	7.83
30		hexane	0.499	0.460	7.8	95	0.00	8.23
31		di-isopropyl ether	1.313	1.262	3.9	106	0.00	8.54
32		2-butanone	0.035	0.037	-5.7	107	0.00	9.36
33		1,1-dichloroethane	0.710	0.663	6.6	102	0.00	8.49
34		chloroprene	0.565	0.558	1.2	107	0.00	8.63
35		acrylonitrile	0.128	0.148	-15.6	116	0.00	7.77
36		vinyl acetate	0.062	0.066	-6.5	112	0.00	8.51
37		ethyl tert-butyl ether	1.230	1.170	4.9	103	0.00	9.10

Initial Calibration Verification

Job Number: JC66927 **Sample:** V2D7390-ICV7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175276.D
Project: National Grid, Philly Coke, Philadelphia PA

38		ethyl acetate	0.047	0.048	-2.1	108	0.00	9.42
39		2,2-dichloropropane	0.565	0.481	14.9	95	0.00	9.40
40		cis-1,2-dichloroethene	0.428	0.412	3.7	105	0.00	9.38
41		propionitrile	0.055	0.054	1.8	106	0.00	9.47
42		tert-Butyl Formate	0.377	0.256	32.1#	73	0.00	9.93
43		bromochloromethane	0.214	0.207	3.3	105	0.00	9.76
44		tetrahydrofuran	0.045	0.044	2.2	106	0.00	9.83
45		chloroform	0.685	0.651	5.0	102	0.00	9.84
46	S	dibromofluoromethane (s)	0.431	0.432	-0.2	105	0.00	10.09
47		methacrylonitrile	0.140	0.141	-0.7	103	0.00	9.71
48		1,1,1-trichloroethane	0.633	0.577	8.8	97	0.00	10.18
49		cyclohexane	0.526	0.547	-4.0	106	0.00	10.28
50		1,1-dichloropropene	0.523	0.489	6.5	102	0.00	10.40
51		isobutyl alcohol	0.016	0.016	0.0	107	0.00	10.43
52		carbon tetrachloride	0.556	0.523	5.9	100	0.00	10.43
53		tert-amyl alcohol	0.018	0.018	0.0	108	0.00	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.24
55	S	1,2-dichloroethane-d4 (s)	0.343	0.334	2.6	101	0.00	10.62
56		benzene	1.114	1.061	4.8	104	0.00	10.73
57		iso-octane	1.120	1.103	1.5	100	0.00	10.81
58		tert-amyl methyl ether	0.835	0.813	2.6	102	0.00	10.83
59		heptane	0.203	0.215	-5.9	110	0.00	11.03
60		isopropyl acetate	0.051	0.052	-2.0	109	0.00	10.71
61		1,2-dichloroethane	0.388	0.364	6.2	102	0.00	10.74
62		n-butyl alcohol	0.007	0.007	0.0	105	0.00	11.41
63		ethyl acrylate	0.327	0.334	-2.1	108	0.00	11.73
64		trichloroethene	0.300	0.284	5.3	102	0.00	11.67
65		2-nitropropane	0.055	0.052	5.5	104	0.00	12.71
66		2-chloroethyl vinyl ether	0.180	0.187	-3.9	110	0.00	12.77
67		methyl methacrylate	0.173	0.178	-2.9	106	0.00	12.08
68		1,2-dichloropropane	0.299	0.279	6.7	102	0.00	12.02
69		dibromomethane	0.176	0.176	0.0	105	0.00	12.20
70		methylcyclohexane	0.496	0.474	4.4	97	0.00	11.99
71		bromodichloromethane	0.385	0.366	4.9	100	0.00	12.39
72		epichlorohydrin	0.026	0.026	0.0	105	0.00	12.90
73		cis-1,3-dichloropropene	0.490	0.471	3.9	104	0.00	13.03
74		4-methyl-2-pentanone	0.102	0.102	0.0	106	0.00	13.21
75		3-methyl-1-butanol	0.012	0.012	0.0	108	0.00	13.23
76	I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	15.46
77	S	toluene-d8 (s)	1.163	1.158	0.4	105	0.00	13.44
78		toluene	0.705	0.669	5.1	105	0.00	13.54
79		trans-1,3-dichloropropene	0.433	0.401	7.4	99	0.00	13.80
80		ethyl methacrylate	0.360	0.343	4.7	102	0.00	13.86
81		1,1,2-trichloroethane	0.217	0.209	3.7	104	0.00	14.08
82		tetrachloroethene		----------NA----------				
83		1,3-dichloropropane	0.427	0.420	1.6	107	0.00	14.32
84		2-hexanone	0.096	0.096	0.0	107	0.00	14.37
85		butyl acetate	0.176	0.180	-2.3	109	0.00	14.51
86		dibromochloromethane	0.302	0.307	-1.7	107	0.00	14.66
87		1,2-dibromoethane	0.295	0.288	2.4	106	0.00	14.85
88	m	n-butyl ether	1.330	1.258	5.4	103	0.00	15.50
89		chlorobenzene	0.835	0.800	4.2	106	0.00	15.50
90		1,1,1,2-tetrachloroethane	0.313	0.311	0.6	104	0.00	15.58
91		ethylbenzene	1.398	1.344	3.9	105	0.00	15.61
92		m,p-xylene	1.088	1.045	4.0	106	0.00	15.76
93		o-xylene	0.549	0.531	3.3	105	0.00	16.30
94		styrene	0.925	0.917	0.9	106	0.00	16.31
95		butyl acrylate	0.588	0.599	-1.9	108	0.00	16.13

Initial Calibration Verification

Job Number: JC66927 **Sample:** V2D7390-ICV7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175276.D
Project: National Grid, Philly Coke, Philadelphia PA

96		bromoform	0.209	0.226	-8.1	111	0.00	16.59
97		isopropylbenzene	1.468	1.405	4.3	103	0.00	16.75
98		cis-1,4-dichloro-2-butene	0.118	0.118	0.0	100	0.00	16.82
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.791	1.4	105	0.00	16.96
101		bromobenzene	0.706	0.678	4.0	106	0.00	17.17
102		1,1,2,2-tetrachloroethane	0.635	0.599	5.7	105	0.00	17.09
103		trans-1,4-dichloro-2-bute	0.146	0.153	-4.8	112	0.00	17.15
104		1,2,3-trichloropropane	0.162	0.156	3.7	103	0.00	17.17
105		n-propylbenzene	2.929	2.797	4.5	104	0.00	17.24
106		2-chlorotoluene	0.626	0.597	4.6	104	0.00	17.38
107		4-chlorotoluene	1.762	1.715	2.7	108	0.00	17.49
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.034	5.7	102	0.00	17.42
110		tert-butylbenzene	1.914	1.821	4.9	102	0.00	17.80
111		1,2,4-trimethylbenzene	2.202	2.149	2.4	106	0.00	17.85
112		sec-butylbenzene	2.859	2.739	4.2	103	0.00	18.03
113		1,3-dichlorobenzene	1.336	1.272	4.8	105	0.00	18.19
114		p-isopropyltoluene	2.484	2.383	4.1	104	0.00	18.17
115		1,4-dichlorobenzene	1.352	1.298	4.0	105	0.00	18.28
116		1,2-dichlorobenzene	1.341	1.292	3.7	103	0.00	18.67
117		benzyl chloride	1.210	0.943	22.1	82	0.00	18.40
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.203	3.5	102	0.00	18.58
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.154	0.6	102	0.00	19.39
122		nitrobenzene	0.020	0.017	15.0	92	0.00	19.59
123		1,3,5-trichlorobenzene	1.253	1.257	-0.3	103	0.00	19.58
124		hexachlorobutadiene	0.613	0.588	4.1	100	0.00	20.28
125		naphthalene	2.174	2.305	-6.0	103	0.00	20.41
126		2-ethylhexyl acrylate	0.622	0.661	-6.3	110	0.00	20.17
127		1,2,4-trichlorobenzene	1.065	1.106	-3.8	103	0.00	20.16
128	m	1,2,3-trichlorobenzene	0.981	1.005	-2.4	101	0.00	20.63
129		hexachloroethane	0.431	0.456	-5.8	104	0.00	18.92
130		2-methylnaphthalene	1.166	1.134	2.7	98	0.00	21.47
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175271.D M2D7390.M Fri May 04 11:26:30 2018 GCMS2D

6.8.2

6

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: V2D7390-ICV7390
Lab FileID: 2D175277.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\V2D7390\2D175277.D         Vial: 14
Acq On    :  3 May 2018  10:21 pm                    Operator: oyinadei
Sample    : ICV7390-50                               Inst    : MS2D
Misc      : MS25995,V2D7390,5,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title        : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update  : Fri May 04 11:23:40 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	105	-0.01	7.38
2		tertiary butyl alcohol		NA				
		----------	True	Calc.	% Drift		----------	
3		ethanol		NA				
		----------	AvgRF	CCRF	% Dev		----------	
4		1,4-dioxane		NA				
5	I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	10.09
6		chlorodifluoromethane		NA				
7		dichlorodifluoromethane		NA				
8		freon 142b		NA				
9		freon 114		NA				
10		chloromethane		NA				
11		vinyl chloride		NA				
12		bromomethane		NA				
13		chloroethane		NA				
14		trichlorofluoromethane		NA				
15		vinyl bromide		NA				
16		1,3-butadiene		NA				
17		ethyl ether		NA				
18		acrolein		NA				
19		1,1-dichloroethene		NA				
20		freon 113		NA				
21	m	2-chloropropane		NA				
22		acetone		NA				
23		acetonitrile	0.045	0.044	2.2	108	0.00	7.14
24		iodomethane		NA				
25		carbon disulfide		NA				
26		methylene chloride		NA				
27		methyl acetate		NA				
28		methyl tert butyl ether		NA				
29		trans-1,2-dichloroethene		NA				
30		hexane		NA				
31		di-isopropyl ether		NA				
32		2-butanone		NA				
33		1,1-dichloroethane		NA				
34		chloroprene		NA				
35		acrylonitrile		NA				
36		vinyl acetate		NA				
37		ethyl tert-butyl ether		NA				

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-ICV7390
Lab FileID: 2D175277.D

38		ethyl acetate		----------NA----------				
39		2,2-dichloropropane		----------NA----------				
40		cis-1,2-dichloroethene		----------NA----------				
41		propionitrile		----------NA----------				
42		tert-Butyl Formate		----------NA----------				
43		bromochloromethane		----------NA----------				
44		tetrahydrofuran		----------NA----------				
45		chloroform		----------NA----------				
46	S	dibromofluoromethane (s)	0.431	0.431	0.0	107	0.00	10.09
47		methacrylonitrile		----------NA----------				
48		1,1,1-trichloroethane		----------NA----------				
49		cyclohexane		----------NA----------				
50		1,1-dichloropropene		----------NA----------				
51		isobutyl alcohol		----------NA----------				
52		carbon tetrachloride		----------NA----------				
53		tert-amyl alcohol		----------NA----------				
54	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.24
55	S	1,2-dichloroethane-d4 (s)	0.343	0.334	2.6	105	0.00	10.62
56		benzene		----------NA----------				
57		iso-octane		----------NA----------				
58		tert-amyl methyl ether		----------NA----------				
59		heptane		----------NA----------				
60		isopropyl acetate		----------NA----------				
61		1,2-dichloroethane		----------NA----------				
62		n-butyl alcohol		----------NA----------				
63		ethyl acrylate		----------NA----------				
64		trichloroethene		----------NA----------				
65		2-nitropropane		----------NA----------				
66		2-chloroethyl vinyl ether		----------NA----------				
67		methyl methacrylate		----------NA----------				
68		1,2-dichloropropane		----------NA----------				
69		dibromomethane		----------NA----------				
70		methylcyclohexane		----------NA----------				
71		bromodichloromethane		----------NA----------				
72		epichlorohydrin		----------NA----------				
73		cis-1,3-dichloropropene		----------NA----------				
74		4-methyl-2-pentanone		----------NA----------				
75		3-methyl-1-butanol		----------NA----------				
76	I	chlorobenzene-d5	1.000	1.000	0.0	106	0.00	15.46
77	S	toluene-d8 (s)	1.163	1.173	-0.9	108	0.00	13.44
78		toluene		----------NA----------				
79		trans-1,3-dichloropropene		----------NA----------				
80		ethyl methacrylate		----------NA----------				
81		1,1,2-trichloroethane		----------NA----------				
82		tetrachloroethene	0.265	0.260	1.9	108	0.00	14.32
83		1,3-dichloropropane		----------NA----------				
84		2-hexanone		----------NA----------				
85		butyl acetate		----------NA----------				
86		dibromochloromethane		----------NA----------				
87		1,2-dibromoethane		----------NA----------				
88	m	n-butyl ether		----------NA----------				
89		chlorobenzene		----------NA----------				
90		1,1,1,2-tetrachloroethane		----------NA----------				
91		ethylbenzene		----------NA----------				
92		m,p-xylene		----------NA----------				
93		o-xylene		----------NA----------				
94		styrene		----------NA----------				
95		butyl acrylate		----------NA----------				

Initial Calibration Verification

Job Number: JC66927 **Sample:** V2D7390-ICV7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175277.D
Project: National Grid, Philly Coke, Philadelphia PA

96		bromoform		----------NA----------				
97		isopropylbenzene		----------NA----------				
98		cis-1,4-dichloro-2-butene		----------NA----------				
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.812	-1.2	106	0.00	16.96
101		bromobenzene		----------NA----------				
102		1,1,2,2-tetrachloroethane		----------NA----------				
103		trans-1,4-dichloro-2-bute		----------NA----------				
104		1,2,3-trichloropropane		----------NA----------				
105		n-propylbenzene		----------NA----------				
106		2-chlorotoluene		----------NA----------				
107		4-chlorotoluene		----------NA----------				
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene		----------NA----------				
110		tert-butylbenzene		----------NA----------				
111		1,2,4-trimethylbenzene		----------NA----------				
112		sec-butylbenzene		----------NA----------				
113		1,3-dichlorobenzene		----------NA----------				
114		p-isopropyltoluene		----------NA----------				
115		1,4-dichlorobenzene		----------NA----------				
116		1,2-dichlorobenzene		----------NA----------				
117		benzyl chloride		----------NA----------				
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene		----------NA----------				
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa		----------NA----------				
122		nitrobenzene		----------NA----------				
123		1,3,5-trichlorobenzene		----------NA----------				
124		hexachlorobutadiene		----------NA----------				
125		naphthalene		----------NA----------				
126		2-ethylhexyl acrylate		----------NA----------				
127		1,2,4-trichlorobenzene		----------NA----------				
128	m	1,2,3-trichlorobenzene		----------NA----------				
129		hexachloroethane		----------NA----------				
130		2-methylnaphthalene		----------NA----------				
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175271.D M2D7390.M Fri May 04 11:26:32 2018 GCMS2D

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: V2D7423-CC7390
Lab FileID: 2D175974.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\ke...kb\v2d7423\2d175974.d Vial: 2
Acq On    : 31 May 2018   6:43 am                    Operator: jessicap
Sample    : CC7390-20                                Inst    : MS2D
Misc      : MS26727,V2D7423,5,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title        : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update  : Fri May 04 11:23:40 2018
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	81	-0.02	7.37
2		tertiary butyl alcohol	0.947	1.038	-9.6	88	-0.01	7.50
		----------	True	Calc.	% Drift	----------		
3		ethanol	2000.000	2523.567	-26.2#	100	0.00	6.00
		----------	AvgRF	CCRF	% Dev	----------		
4		1,4-dioxane	0.094	0.107	-13.8	93	-0.01	12.17
5	I	pentafluorobenzene	1.000	1.000	0.0	99	-0.01	10.08
6		chlorodifluoromethane	0.471	0.563	-19.5	120	0.00	3.89
7		dichlorodifluoromethane	0.556	0.712	-28.1#	117	0.00	3.87
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.688	-9.6	112	0.00	4.26
11		vinyl chloride	0.552	0.593	-7.4	105	0.00	4.50
12		bromomethane	0.388	0.431	-11.1	112	0.01	5.13
13		chloroethane	0.290	0.316	-9.0	113	0.00	5.28
14		trichlorofluoromethane	0.624	0.720	-15.4	109	0.00	5.77
15		vinyl bromide	0.414	0.431	-4.1	104	0.00	5.64
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.191	1.5	101	0.00	6.19
18		acrolein	0.080	0.068	15.0	89	0.00	6.43
19		1,1-dichloroethene	0.377	0.379	-0.5	103	-0.02	6.62
20		freon 113	0.316	0.340	-7.6	104	0.00	6.61
21	m	2-chloropropane	0.633	0.653	-3.2	105	-0.01	6.38
22		acetone	0.027	0.027	0.0	97	0.00	6.67
23		acetonitrile	0.045	0.043	4.4	93	0.00	7.13
24		iodomethane	0.639	0.656	-2.7	104	-0.02	6.90
25		carbon disulfide	1.207	1.148	4.9	98	-0.03	7.03
26		methylene chloride	0.417	0.432	-3.6	106	-0.01	7.39
27		methyl acetate	0.265	0.242	8.7	91	-0.01	7.19
28		methyl tert butyl ether	1.096	1.044	4.7	97	0.00	7.81
29		trans-1,2-dichloroethene	0.382	0.397	-3.9	109	-0.01	7.82
30		hexane	0.499	0.506	-1.4	100	0.00	8.22
31		di-isopropyl ether	1.313	1.316	-0.2	103	-0.01	8.53
32		2-butanone	0.035	0.032	8.6	87	-0.01	9.36
33		1,1-dichloroethane	0.710	0.710	0.0	104	-0.01	8.48
34		chloroprene	0.565	0.551	2.5	100	0.00	8.63
35		acrylonitrile	0.128	0.118	7.8	87	0.00	7.76
36		vinyl acetate	0.062	0.055	11.3	87	0.00	8.51
37		ethyl tert-butyl ether	1.230	1.244	-1.1	103	-0.01	9.09

Continuing Calibration Summary

Job Number: JC66927 **Sample:** V2D7423-CC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175974.D
Project: National Grid, Philly Coke, Philadelphia PA

38		ethyl acetate	0.047	0.039	17.0	80	-0.01	9.41
39		2,2-dichloropropane	0.565	0.619	-9.6	113	-0.01	9.40
40		cis-1,2-dichloroethene	0.428	0.445	-4.0	108	0.00	9.38
41		propionitrile	0.055	0.048	12.7	87	-0.02	9.46
42		tert-Butyl Formate	0.377	0.352	6.6	94	-0.01	9.92
43		bromochloromethane	0.214	0.218	-1.9	105	-0.01	9.75
44		tetrahydrofuran	0.045	0.039	13.3	85	0.00	9.83
45		chloroform	0.685	0.712	-3.9	106	0.00	9.84
46	S	dibromofluoromethane (s)	0.431	0.442	-2.6	102	-0.01	10.08
47		methacrylonitrile	0.140	0.121	13.6	83	-0.01	9.70
48		1,1,1-trichloroethane	0.633	0.660	-4.3	107	0.00	10.17
49		cyclohexane	0.526	0.547	-4.0	100	-0.01	10.27
50		1,1-dichloropropene	0.523	0.516	1.3	102	-0.01	10.40
51		isobutyl alcohol	0.016	0.014	12.5	81	-0.01	10.42
52		carbon tetrachloride	0.556	0.596	-7.2	110	-0.01	10.42
53		tert-amyl alcohol	0.018	0.016	11.1	85	-0.01	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	97	-0.01	11.23
55	S	1,2-dichloroethane-d4 (s)	0.343	0.334	2.6	95	-0.01	10.61
56		benzene	1.114	1.144	-2.7	104	0.00	10.73
57		iso-octane	1.120	1.191	-6.3	101	-0.01	10.80
58		tert-amyl methyl ether	0.835	0.876	-4.9	103	-0.01	10.83
59		heptane	0.203	0.208	-2.5	99	-0.01	11.03
60		isopropyl acetate	0.051	0.046	9.8	89	-0.01	10.70
61		1,2-dichloroethane	0.388	0.372	4.1	96	-0.01	10.73
62		n-butyl alcohol	0.007	0.006	14.3	84	-0.02	11.40
63		ethyl acrylate	0.327	0.282	13.8	84	0.00	11.72
64		trichloroethene	0.300	0.306	-2.0	103	0.00	11.66
65		2-nitropropane	0.055	0.048	12.7	88	0.00	12.70
66		2-chloroethyl vinyl ether	0.180	0.160	11.1	87	-0.02	12.76
67		methyl methacrylate	0.173	0.159	8.1	87	-0.01	12.08
68		1,2-dichloropropane	0.299	0.300	-0.3	102	-0.01	12.01
69		dibromomethane	0.176	0.178	-1.1	99	-0.01	12.19
70		methylcyclohexane	0.496	0.530	-6.9	102	-0.01	11.98
71		bromodichloromethane	0.385	0.398	-3.4	104	-0.01	12.39
72		epichlorohydrin	0.026	0.023	11.5	84	0.00	12.89
73		cis-1,3-dichloropropene	0.490	0.480	2.0	100	-0.01	13.02
74		4-methyl-2-pentanone	0.102	0.094	7.8	90	-0.01	13.20
75		3-methyl-1-butanol	0.012	0.010	16.7	88	-0.01	13.22
76	I	chlorobenzene-d5	1.000	1.000	0.0	99	0.00	15.45
77	S	toluene-d8 (s)	1.163	1.154	0.8	98	-0.01	13.43
78		toluene	0.705	0.698	1.0	102	0.00	13.53
79		trans-1,3-dichloropropene	0.433	0.411	5.1	96	0.00	13.80
80		ethyl methacrylate	0.360	0.323	10.3	88	0.00	13.86
81		1,1,2-trichloroethane	0.217	0.214	1.4	99	0.00	14.07
82		tetrachloroethene	0.265	0.275	-3.8	106	0.00	14.31
83		1,3-dichloropropane	0.427	0.410	4.0	99	-0.01	14.32
84		2-hexanone	0.096	0.086	10.4	89	-0.01	14.37
85		butyl acetate	0.176	0.162	8.0	90	0.00	14.50
86		dibromochloromethane	0.302	0.314	-4.0	108	-0.01	14.65
87		1,2-dibromoethane	0.295	0.287	2.7	98	-0.01	14.84
88	m	n-butyl ether	1.330	1.300	2.3	101	0.00	15.50
89		chlorobenzene	0.835	0.843	-1.0	104	0.00	15.49
90		1,1,1,2-tetrachloroethane	0.313	0.337	-7.7	109	-0.01	15.58
91		ethylbenzene	1.398	1.430	-2.3	105	0.00	15.60
92		m,p-xylene	1.088	1.102	-1.3	105	-0.01	15.75
93		o-xylene	0.549	0.554	-0.9	105	-0.01	16.29
94		styrene	0.925	0.947	-2.4	104	0.00	16.30
95		butyl acrylate	0.588	0.527	10.4	90	0.00	16.13

Continuing Calibration Summary

Job Number: JC66927 **Sample:** V2D7423-CC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175974.D
Project: National Grid, Philly Coke, Philadelphia PA

96		bromoform	0.209	0.231	-10.5	111	-0.01	16.58
97		isopropylbenzene	1.468	1.500	-2.2	105	0.00	16.74
98		cis-1,4-dichloro-2-butene	0.118	0.095	19.5	77	0.00	16.81
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	-0.01	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.774	3.5	98	-0.01	16.95
101		bromobenzene	0.706	0.717	-1.6	109	-0.01	17.17
102		1,1,2,2-tetrachloroethane	0.635	0.573	9.8	94	0.00	17.08
103		trans-1,4-dichloro-2-bute	0.146	0.114	21.9#	78	0.00	17.15
104		1,2,3-trichloropropane	0.162	0.152	6.2	94	-0.01	17.16
105		n-propylbenzene	2.929	2.923	0.2	105	-0.01	17.23
106		2-chlorotoluene	0.626	0.645	-3.0	109	0.00	17.37
107		4-chlorotoluene	1.762	1.755	0.4	106	0.00	17.49
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.131	1.2	104	-0.01	17.41
110		tert-butylbenzene	1.914	1.850	3.3	101	-0.01	17.80
111		1,2,4-trimethylbenzene	2.202	2.179	1.0	105	0.00	17.84
112		sec-butylbenzene	2.859	2.822	1.3	104	-0.01	18.03
113		1,3-dichlorobenzene	1.336	1.366	-2.2	109	0.00	18.19
114		p-isopropyltoluene	2.484	2.432	2.1	103	0.00	18.16
115		1,4-dichlorobenzene	1.352	1.396	-3.3	109	-0.01	18.27
116		1,2-dichlorobenzene	1.341	1.378	-2.8	106	0.00	18.66
117		benzyl chloride	1.210	1.240	-2.5	105	0.00	18.40
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.220	2.1	102	0.00	18.58
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.138	11.0	88	0.00	19.39
122		nitrobenzene	0.020	0.019	5.0	102	0.00	19.59
123		1,3,5-trichlorobenzene	1.253	1.278	-2.0	103	0.00	19.57
124		hexachlorobutadiene	0.613	0.606	1.1	99	0.00	20.27
125		naphthalene	2.174	1.763	18.9	78	0.00	20.41
126		2-ethylhexyl acrylate	0.622	0.331	46.8#	61	0.00	20.17
127		1,2,4-trichlorobenzene	1.065	0.980	8.0	91	0.00	20.15
128	m	1,2,3-trichlorobenzene	0.981	0.844	14.0	85	0.00	20.62
129		hexachloroethane	0.431	0.481	-11.6	113	0.00	18.92
130		2-methylnaphthalene	1.166	0.520	55.4#	50#	0.00	21.46
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175270.D M2D7390.M Fri Jun 01 01:18:51 2018

6.8.4

6

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: V2D7425-CC7390
Lab FileID: 2D176018.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\ja...18\v2d7425\2d176018.d Vial: 2
Acq On    :  1 Jun 2018   7:18 am                    Operator: jessicap
Sample    : cc7390-20                                Inst    : MS2D
Misc      : MS26770,V2D7425,5,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title        : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update  : Fri May 04 11:23:40 2018
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	tert butyl alcohol-d9	1.000	1.000	0.0	67	-0.02	7.37
2		tertiary butyl alcohol	0.947	1.027	-8.4	72	-0.01	7.50
		----------	True	Calc.	% Drift	----------		
3		ethanol	2000.000	2235.339	-11.8	73	0.00	6.00
		----------	AvgRF	CCRF	% Dev	----------		
4		1,4-dioxane	0.094	0.090	4.3	64	0.00	12.18
5	I	pentafluorobenzene	1.000	1.000	0.0	83	0.00	10.09
6		chlorodifluoromethane	0.471	0.568	-20.6#	101	0.00	3.90
7		dichlorodifluoromethane	0.556	0.693	-24.6#	95	0.00	3.87
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.665	-5.9	90	0.00	4.26
11		vinyl chloride	0.552	0.581	-5.3	85	0.00	4.50
12		bromomethane	0.388	0.426	-9.8	92	0.00	5.12
13		chloroethane	0.290	0.310	-6.9	92	0.01	5.29
14		trichlorofluoromethane	0.624	0.746	-19.6	94	0.00	5.77
15		vinyl bromide	0.414	0.420	-1.4	85	0.00	5.65
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.184	5.2	80	0.00	6.20
18		acrolein	0.080	0.063	21.3#	68	0.00	6.44
19		1,1-dichloroethene	0.377	0.368	2.4	83	-0.01	6.62
20		freon 113	0.316	0.314	0.6	80	0.01	6.63
21	m	2-chloropropane	0.633	0.659	-4.1	88	0.00	6.39
22		acetone	0.027	0.025#	7.4	75	0.00	6.68
23		acetonitrile	0.045	0.041#	8.9	74	0.00	7.14
24		iodomethane	0.639	0.635	0.6	84	-0.01	6.91
25		carbon disulfide	1.207	1.114	7.7	79	-0.02	7.04
26		methylene chloride	0.417	0.429	-2.9	87	0.00	7.40
27		methyl acetate	0.265	0.237	10.6	74	0.00	7.20
28		methyl tert butyl ether	1.096	1.033	5.7	80	0.00	7.82
29		trans-1,2-dichloroethene	0.382	0.399	-4.5	91	0.00	7.83
30		hexane	0.499	0.459	8.0	76	0.00	8.23
31		di-isopropyl ether	1.313	1.347	-2.6	88	0.00	8.54
32		2-butanone	0.035	0.030#	14.3	68	0.00	9.37
33		1,1-dichloroethane	0.710	0.730	-2.8	89	0.00	8.49
34		chloroprene	0.565	0.565	0.0	85	0.00	8.64
35		acrylonitrile	0.128	0.114	10.9	70	0.00	7.77
36		vinyl acetate	0.062	0.053	14.5	70	0.00	8.51
37		ethyl tert-butyl ether	1.230	1.267	-3.0	87	0.00	9.10

Continuing Calibration Summary

Job Number: JC66927 **Sample:** V2D7425-CC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D176018.D
Project: National Grid, Philly Coke, Philadelphia PA

38		ethyl acetate	0.047	0.042#	10.6	71	0.00	9.42
39		2,2-dichloropropane	0.565	0.638	-12.9	97	0.00	9.41
40		cis-1,2-dichloroethene	0.428	0.435	-1.6	88	0.00	9.39
41		propionitrile	0.055	0.046#	16.4	68	0.00	9.47
42		tert-Butyl Formate	0.377	0.353	6.4	79	0.00	9.93
43		bromochloromethane	0.214	0.224	-4.7	90	0.00	9.76
44		tetrahydrofuran	0.045	0.038#	15.6	69	0.00	9.84
45		chloroform	0.685	0.743	-8.5	92	0.00	9.85
46	S	dibromofluoromethane (s)	0.431	0.460	-6.7	89	0.00	10.09
47		methacrylonitrile	0.140	0.115	17.9	65	0.00	9.71
48		1,1,1-trichloroethane	0.633	0.695	-9.8	94	0.00	10.18
49		cyclohexane	0.526	0.501	4.8	76	0.00	10.28
50		1,1-dichloropropene	0.523	0.516	1.3	85	0.00	10.41
51		isobutyl alcohol	0.016	0.013#	18.8	62	0.00	10.43
52		carbon tetrachloride	0.556	0.631	-13.5	97	0.00	10.44
53		tert-amyl alcohol	0.018	0.015#	16.7	65	0.00	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	82	0.00	11.24
55	S	1,2-dichloroethane-d4 (s)	0.343	0.356	-3.8	86	0.00	10.62
56		benzene	1.114	1.097	1.5	85	0.00	10.74
57		iso-octane	1.120	1.100	1.8	79	0.00	10.81
58		tert-amyl methyl ether	0.835	0.868	-4.0	86	0.00	10.84
59		heptane	0.203	0.191	5.9	77	0.00	11.04
60		isopropyl acetate	0.051	0.043#	15.7	70	0.00	10.71
61		1,2-dichloroethane	0.388	0.385	0.8	84	0.00	10.74
62		n-butyl alcohol	0.007	0.005#	28.6#	62	0.00	11.41
63		ethyl acrylate	0.327	0.270	17.4	68	0.00	11.73
64		trichloroethene	0.300	0.299	0.3	85	0.00	11.67
65		2-nitropropane	0.055	0.047#	14.5	72	0.00	12.72
66		2-chloroethyl vinyl ether	0.180	0.148	17.8	68	0.00	12.77
67		methyl methacrylate	0.173	0.147	15.0	68	0.00	12.09
68		1,2-dichloropropane	0.299	0.287	4.0	82	0.00	12.02
69		dibromomethane	0.176	0.178	-1.1	84	0.00	12.20
70		methylcyclohexane	0.496	0.502	-1.2	82	0.00	11.99
71		bromodichloromethane	0.385	0.407	-5.7	90	0.00	12.40
72		epichlorohydrin	0.026	0.021#	19.2	67	0.00	12.90
73		cis-1,3-dichloropropene	0.490	0.460	6.1	81	0.00	13.04
74		4-methyl-2-pentanone	0.102	0.090	11.8	73	0.00	13.21
75		3-methyl-1-butanol	0.012	0.010#	16.7	70	0.00	13.23
76	I	chlorobenzene-d5	1.000	1.000	0.0	84	0.00	15.46
77	S	toluene-d8 (s)	1.163	1.162	0.1	84	0.00	13.44
78		toluene	0.705	0.679	3.7	84	0.00	13.54
79		trans-1,3-dichloropropene	0.433	0.401	7.4	79	0.00	13.81
80		ethyl methacrylate	0.360	0.310	13.9	72	0.00	13.87
81		1,1,2-trichloroethane	0.217	0.205	5.5	81	0.00	14.08
82		tetrachloroethene	0.265	0.268	-1.1	88	0.00	14.32
83		1,3-dichloropropane	0.427	0.396	7.3	81	0.00	14.33
84		2-hexanone	0.096	0.083	13.5	72	0.00	14.38
85		butyl acetate	0.176	0.155	11.9	73	0.00	14.51
86		dibromochloromethane	0.302	0.305	-1.0	88	0.00	14.66
87		1,2-dibromoethane	0.295	0.278	5.8	81	0.00	14.86
88	m	n-butyl ether	1.330	1.272	4.4	83	0.00	15.51
89		chlorobenzene	0.835	0.823	1.4	86	0.00	15.50
90		1,1,1,2-tetrachloroethane	0.313	0.332	-6.1	91	0.00	15.59
91		ethylbenzene	1.398	1.401	-0.2	87	0.00	15.61
92		m,p-xylene	1.088	1.088	0.0	87	0.00	15.76
93		o-xylene	0.549	0.546	0.5	88	0.00	16.30
94		styrene	0.925	0.929	-0.4	87	0.00	16.31
95		butyl acrylate	0.588	0.519	11.7	75	0.00	16.14

Continuing Calibration Summary

Job Number: JC66927 **Sample:** V2D7425-CC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D176018.D
Project: National Grid, Philly Coke, Philadelphia PA

96		bromoform	0.209	0.214	-2.4	88	0.00	16.60
97		isopropylbenzene	1.468	1.481	-0.9	87	0.00	16.75
98		cis-1,4-dichloro-2-butene	0.118	0.064	45.8#	44#	0.00	16.82
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	89	0.00	18.26
100	S	4-bromofluorobenzene (s)	0.802	0.765	4.6	85	0.00	16.96
101		bromobenzene	0.706	0.671	5.0	90	0.00	17.18
102		1,1,2,2-tetrachloroethane	0.635	0.537	15.4	78	0.00	17.09
103		trans-1,4-dichloro-2-bute	0.146	0.081	44.5#	49#	0.00	17.16
104		1,2,3-trichloropropane	0.162	0.146	9.9	80	0.00	17.17
105		n-propylbenzene	2.929	2.823	3.6	89	0.00	17.24
106		2-chlorotoluene	0.626	0.594	5.1	88	0.00	17.38
107		4-chlorotoluene	1.762	1.705	3.2	90	0.00	17.50
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.046	5.1	88	0.00	17.42
110		tert-butylbenzene	1.914	1.803	5.8	87	0.00	17.81
111		1,2,4-trimethylbenzene	2.202	2.145	2.6	91	0.00	17.85
112		sec-butylbenzene	2.859	2.738	4.2	88	0.00	18.04
113		1,3-dichlorobenzene	1.336	1.343	-0.5	94	0.00	18.19
114		p-isopropyltoluene	2.484	2.367	4.7	88	0.00	18.17
115		1,4-dichlorobenzene	1.352	1.337	1.1	92	0.00	18.28
116		1,2-dichlorobenzene	1.341	1.346	-0.4	91	0.00	18.67
117		benzyl chloride	1.210	1.184	2.1	88	0.00	18.41
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.209	3.0	89	0.00	18.59
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.130	16.1	73	0.00	19.40
122		nitrobenzene	0.020	0.013#	35.0#	59	0.00	19.59
123		1,3,5-trichlorobenzene	1.253	1.243	0.8	88	0.00	19.58
124		hexachlorobutadiene	0.613	0.584	4.7	84	0.00	20.28
125		naphthalene	2.174	1.679	22.8#	65	0.00	20.41
126		2-ethylhexyl acrylate	0.622	0.342	45.0#	55	0.01	20.18
127		1,2,4-trichlorobenzene	1.065	0.959	10.0	79	0.00	20.16
128	m	1,2,3-trichlorobenzene	0.981	0.819	16.5	72	0.00	20.63
129		hexachloroethane	0.431	0.455	-5.6	94	0.00	18.93
130		2-methylnaphthalene	1.166	0.519	55.5#	44#	0.00	21.47
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175270.D M2D7390.M Mon Jun 04 01:25:27 2018

6.8.5

6

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: V2D7425-ECC7390
Lab FileID: 2D176038.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\ja...18\v2d7425\2d176038.d Vial: 22
Acq On    :  1 Jun 2018   6:32 pm                    Operator: jessicap
Sample    : ecc7390-50                               Inst    : MS2D
Misc      : MS26788,V2D7425,5,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title        : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update  : Fri May 04 11:23:40 2018
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	tert butyl alcohol-d9	1.000	1.000	0.0	78	0.00	7.39
2		tertiary butyl alcohol	0.947	1.053	-11.2	84	0.00	7.52
		----------	True	Calc.	% Drift	----------		
3		ethanol	5000.000	5616.936	-12.3	88	0.02	6.02
		----------	AvgRF	CCRF	% Dev	----------		
4		1,4-dioxane	0.094	0.093	1.1	74	0.00	12.19
5	I	pentafluorobenzene	1.000	1.000	0.0	85	0.01	10.10
6		chlorodifluoromethane	0.471	0.668	-41.8	122	0.02	3.91
7		dichlorodifluoromethane	0.556	0.616	-10.8	88	0.02	3.89
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.725	-15.4	106	0.02	4.28
11		vinyl chloride	0.552	0.654	-18.5	99	0.02	4.52
12		bromomethane	0.388	0.470	-21.1	106	0.03	5.14
13		chloroethane	0.290	0.350	-20.7	108	0.03	5.30
14		trichlorofluoromethane	0.624	0.788	-26.3	103	0.02	5.79
15		vinyl bromide	0.414	0.451	-8.9	94	0.02	5.66
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.211	-8.8	96	0.02	6.21
18		acrolein	0.080	0.065	18.8	74	0.01	6.44
19		1,1-dichloroethene	0.377	0.418	-10.9	96	0.02	6.65
20		freon 113	0.316	0.299	5.4	78	0.02	6.64
21	m	2-chloropropane	0.633	0.728	-15.0	101	0.02	6.40
22		acetone	0.027	0.029#	-7.4	91	0.02	6.69
23		acetonitrile	0.045	0.045#	0.0	86	0.02	7.15
24		iodomethane	0.639	0.722	-13.0	96	0.02	6.93
25		carbon disulfide	1.207	1.278	-5.9	92	0.02	7.07
26		methylene chloride	0.417	0.466	-11.8	97	0.01	7.41
27		methyl acetate	0.265	0.271	-2.3	89	0.02	7.22
28		methyl tert butyl ether	1.096	1.135	-3.6	90	0.01	7.83
29		trans-1,2-dichloroethene	0.382	0.426	-11.5	98	0.01	7.84
30		hexane	0.499	0.384	23.0	64	0.02	8.24
31		di-isopropyl ether	1.313	1.434	-9.2	97	0.01	8.55
32		2-butanone	0.035	0.036#	-2.9	84	0.00	9.38
33		1,1-dichloroethane	0.710	0.777	-9.4	96	0.01	8.51
34		chloroprene	0.565	0.626	-10.8	96	0.02	8.65
35		acrylonitrile	0.128	0.128	0.0	81	0.02	7.78
36		vinyl acetate	0.062	0.061	1.6	83	0.01	8.52
37		ethyl tert-butyl ether	1.230	1.355	-10.2	96	0.02	9.12

Continuing Calibration Summary

Job Number: JC66927 **Sample:** V2D7425-ECC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D176038.D
Project: National Grid, Philly Coke, Philadelphia PA

38		ethyl acetate	0.047	0.045#	4.3	81	0.01	9.43
39		2,2-dichloropropane	0.565	0.500	11.5	80	0.02	9.42
40		cis-1,2-dichloroethene	0.428	0.468	-9.3	96	0.02	9.40
41		propionitrile	0.055	0.053	3.6	83	0.00	9.48
42		tert-Butyl Formate	0.377	0.374	0.8	86	0.01	9.94
43		bromochloromethane	0.214	0.233	-8.9	95	0.01	9.77
44		tetrahydrofuran	0.045	0.044#	2.2	85	0.02	9.85
45		chloroform	0.685	0.792	-15.6	100	0.01	9.85
46	S	dibromofluoromethane (s)	0.431	0.459	-6.5	90	0.01	10.10
47		methacrylonitrile	0.140	0.137	2.1	81	0.00	9.72
48		1,1,1-trichloroethane	0.633	0.738	-16.6	101	0.01	10.19
49		cyclohexane	0.526	0.461	12.4	72	0.01	10.29
50		1,1-dichloropropene	0.523	0.558	-6.7	93	0.01	10.42
51		isobutyl alcohol	0.016	0.014#	12.5	80	0.00	10.44
52		carbon tetrachloride	0.556	0.654	-17.6	101	0.01	10.44
53		tert-amyl alcohol	0.018	0.018#	0.0	85	0.01	10.62
54	I	1,4-difluorobenzene	1.000	1.000	0.0	85	0.01	11.25
55	S	1,2-dichloroethane-d4 (s)	0.343	0.355	-3.5	87	0.01	10.63
56		benzene	1.114	1.192	-7.0	94	0.01	10.74
57		iso-octane	1.120	0.927	17.2	68	0.01	10.82
58		tert-amyl methyl ether	0.835	0.920	-10.2	94	0.01	10.85
59		heptane	0.203	0.144	29.1	60	0.01	11.05
60		isopropyl acetate	0.051	0.050	2.0	84	0.01	10.72
61		1,2-dichloroethane	0.388	0.416	-7.2	94	0.01	10.75
62		n-butyl alcohol	0.007	0.006#	14.3	78	0.00	11.42
63		ethyl acrylate	0.327	0.313	4.3	82	0.01	11.74
64		trichloroethene	0.300	0.329	-9.7	95	0.01	11.68
65		2-nitropropane	0.055	0.054	1.8	88	0.01	12.72
66		2-chloroethyl vinyl ether	0.180	0.168	6.7	80	0.00	12.78
67		methyl methacrylate	0.173	0.164	5.2	79	0.01	12.10
68		1,2-dichloropropane	0.299	0.310	-3.7	92	0.01	12.03
69		dibromomethane	0.176	0.191	-8.5	92	0.01	12.21
70		methylcyclohexane	0.496	0.459	7.5	76	0.01	12.00
71		bromodichloromethane	0.385	0.440	-14.3	98	0.00	12.40
72		epichlorohydrin	0.026	0.023#	11.5	75	0.01	12.91
73		cis-1,3-dichloropropene	0.490	0.480	2.0	86	0.01	13.05
74		4-methyl-2-pentanone	0.102	0.105	-2.9	87	0.00	13.22
75		3-methyl-1-butanol	0.012	0.012#	0.0	86	0.00	13.24
76	I	chlorobenzene-d5	1.000	1.000	0.0	87	0.01	15.47
77	S	toluene-d8 (s)	1.163	1.158	0.4	87	0.00	13.45
78		toluene	0.705	0.730	-3.5	94	0.01	13.55
79		trans-1,3-dichloropropene	0.433	0.416	3.9	84	0.01	13.81
80		ethyl methacrylate	0.360	0.347	3.6	85	0.01	13.87
81		1,1,2-trichloroethane	0.217	0.222	-2.3	91	0.01	14.09
82		tetrachloroethene	0.265	0.285	-7.5	97	0.01	14.33
83		1,3-dichloropropane	0.427	0.434	-1.6	91	0.00	14.34
84		2-hexanone	0.096	0.096	0.0	88	0.00	14.38
85		butyl acetate	0.176	0.171	2.8	85	0.00	14.51
86		dibromochloromethane	0.302	0.335	-10.9	96	0.01	14.67
87		1,2-dibromoethane	0.295	0.303	-2.7	91	0.01	14.86
88	m	n-butyl ether	1.330	1.356	-2.0	92	0.01	15.51
89		chlorobenzene	0.835	0.878	-5.1	96	0.01	15.51
90		1,1,1,2-tetrachloroethane	0.313	0.358	-14.4	99	0.01	15.60
91		ethylbenzene	1.398	1.485	-6.2	95	0.01	15.62
92		m,p-xylene	1.088	1.149	-5.6	96	0.00	15.77
93		o-xylene	0.549	0.592	-7.8	96	0.00	16.31
94		styrene	0.925	1.004	-8.5	96	0.01	16.32
95		butyl acrylate	0.588	0.601	-2.2	89	0.01	16.14

Continuing Calibration Summary

Job Number: JC66927 **Sample:** V2D7425-ECC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D176038.D
Project: National Grid, Philly Coke, Philadelphia PA

96		bromoform	0.209	0.236	-12.9	96	0.00	16.60
97		isopropylbenzene	1.468	1.567	-6.7	95	0.01	16.76
98		cis-1,4-dichloro-2-butene	0.118	0.041#	65.3#	29#	0.01	16.83
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	18.26
100	S	4-bromofluorobenzene (s)	0.802	0.759	5.4	88	0.00	16.97
101		bromobenzene	0.706	0.717	-1.6	98	0.00	17.18
102		1,1,2,2-tetrachloroethane	0.635	0.592	6.8	91	0.01	17.10
103		trans-1,4-dichloro-2-bute	0.146	0.054	63.0#	34#	0.01	17.16
104		1,2,3-trichloropropane	0.162	0.157	3.1	91	0.00	17.18
105		n-propylbenzene	2.929	2.947	-0.6	96	0.00	17.25
106		2-chlorotoluene	0.626	0.644	-2.9	99	0.00	17.38
107		4-chlorotoluene	1.762	1.798	-2.0	99	0.01	17.50
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.179	-1.0	96	0.00	17.43
110		tert-butylbenzene	1.914	1.927	-0.7	95	0.00	17.81
111		1,2,4-trimethylbenzene	2.202	2.238	-1.6	96	0.01	17.86
112		sec-butylbenzene	2.859	2.886	-0.9	95	0.00	18.04
113		1,3-dichlorobenzene	1.336	1.400	-4.8	101	0.00	18.20
114		p-isopropyltoluene	2.484	2.515	-1.2	96	0.00	18.17
115		1,4-dichlorobenzene	1.352	1.433	-6.0	101	0.00	18.29
116		1,2-dichlorobenzene	1.341	1.430	-6.6	100	0.01	18.68
117		benzyl chloride	1.210	0.873	27.9	66	0.00	18.41
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.273	-2.2	95	0.01	18.59
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.152	1.9	88	0.01	19.41
122		nitrobenzene	0.020	0.020#	0.0	97	0.01	19.60
123		1,3,5-trichlorobenzene	1.253	1.368	-9.2	98	0.01	19.59
124		hexachlorobutadiene	0.613	0.633	-3.3	94	0.01	20.29
125		naphthalene	2.174	2.184	-0.5	85	0.00	20.42
126		2-ethylhexyl acrylate	0.622	0.550	11.6	80	0.01	20.18
127		1,2,4-trichlorobenzene	1.065	1.153	-8.3	94	0.01	20.17
128	m	1,2,3-trichlorobenzene	0.981	1.008	-2.8	89	0.01	20.64
129		hexachloroethane	0.431	0.509	-18.1	102	0.00	18.93
130		2-methylnaphthalene	1.166	0.870	25.4	66	0.01	21.48
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175271.D M2D7390.M Mon Jun 04 01:26:09 2018

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175995.d
Acq On : 31 May 2018 5:53 pm
Operator : jessicap
Sample : JC66927-1 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 01:16:39 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	110312	500.00	ug/L	-0.02
5) pentafluorobenzene	10.088	168	351958	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	479471	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	476462	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	278917	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	155460	51.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.54%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	148568	45.11	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.22%			
77) toluene-d8 (s)	13.439	98	555442	50.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.26%			
100) 4-bromofluorobenzene (s)	16.962	95	219533	49.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.12%			

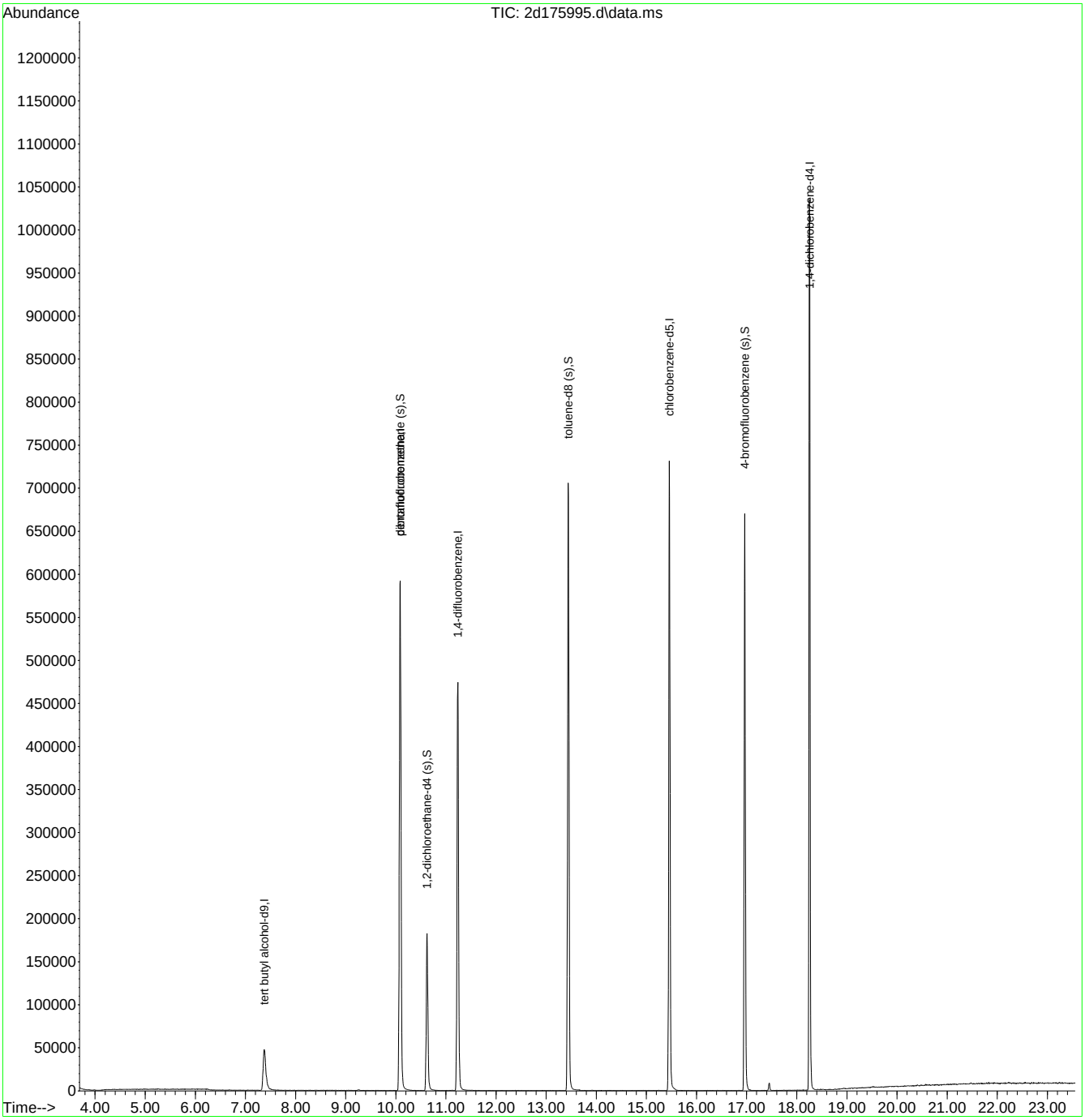
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175995.d
Acq On : 31 May 2018 5:53 pm
Operator : jessicap
Sample : JC66927-1 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 01:16:39 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175992.d
Acq On : 31 May 2018 4:22 pm
Operator : jessicap
Sample : JC66927-3 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 01:13:54 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	119495	500.00	ug/L	-0.02
5) pentafluorobenzene	10.083	168	373002	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	508672	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	502920	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	299549	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	162743	50.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.28%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	154985	44.36	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.72%			
77) toluene-d8 (s)	13.439	98	586100	50.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.24%			
100) 4-bromofluorobenzene (s)	16.957	95	233514	48.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.18%			

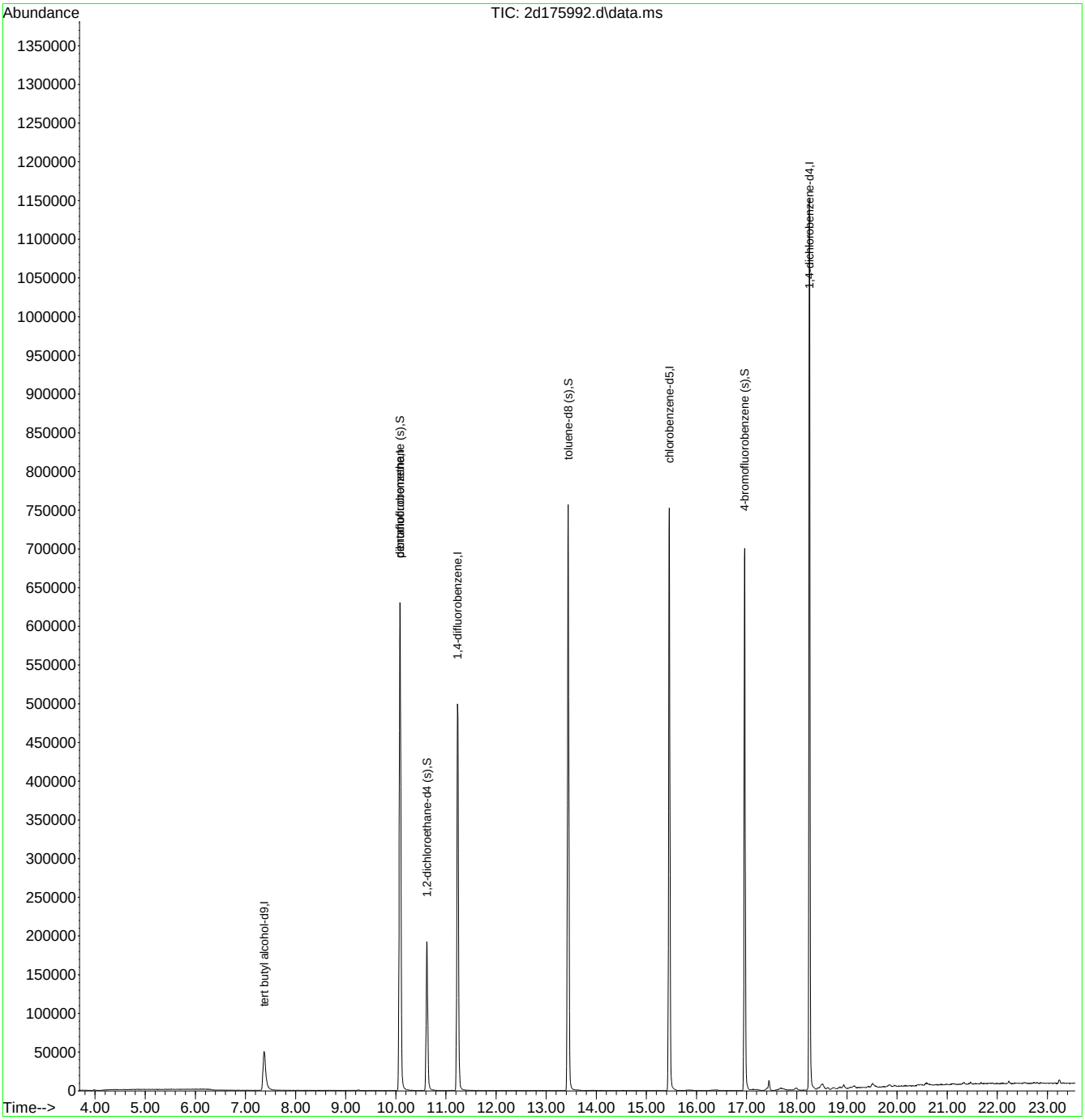
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175992.d
Acq On : 31 May 2018 4:22 pm
Operator : jessicap
Sample : JC66927-3 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 01:13:54 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175977.d
Acq On : 31 May 2018 8:37 am
Operator : jessicap
Sample : mb Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:46:41 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	91274	500.00	ug/L	-0.02
5) pentafluorobenzene	10.083	168	299419	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	402887	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	406540	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	238074	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	132587	51.40	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.80%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	135894	49.11	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.22%			
77) toluene-d8 (s)	13.434	98	472233	49.95	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.90%			
100) 4-bromofluorobenzene (s)	16.957	95	189863	49.71	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.42%			

Target Compounds Qvalue

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

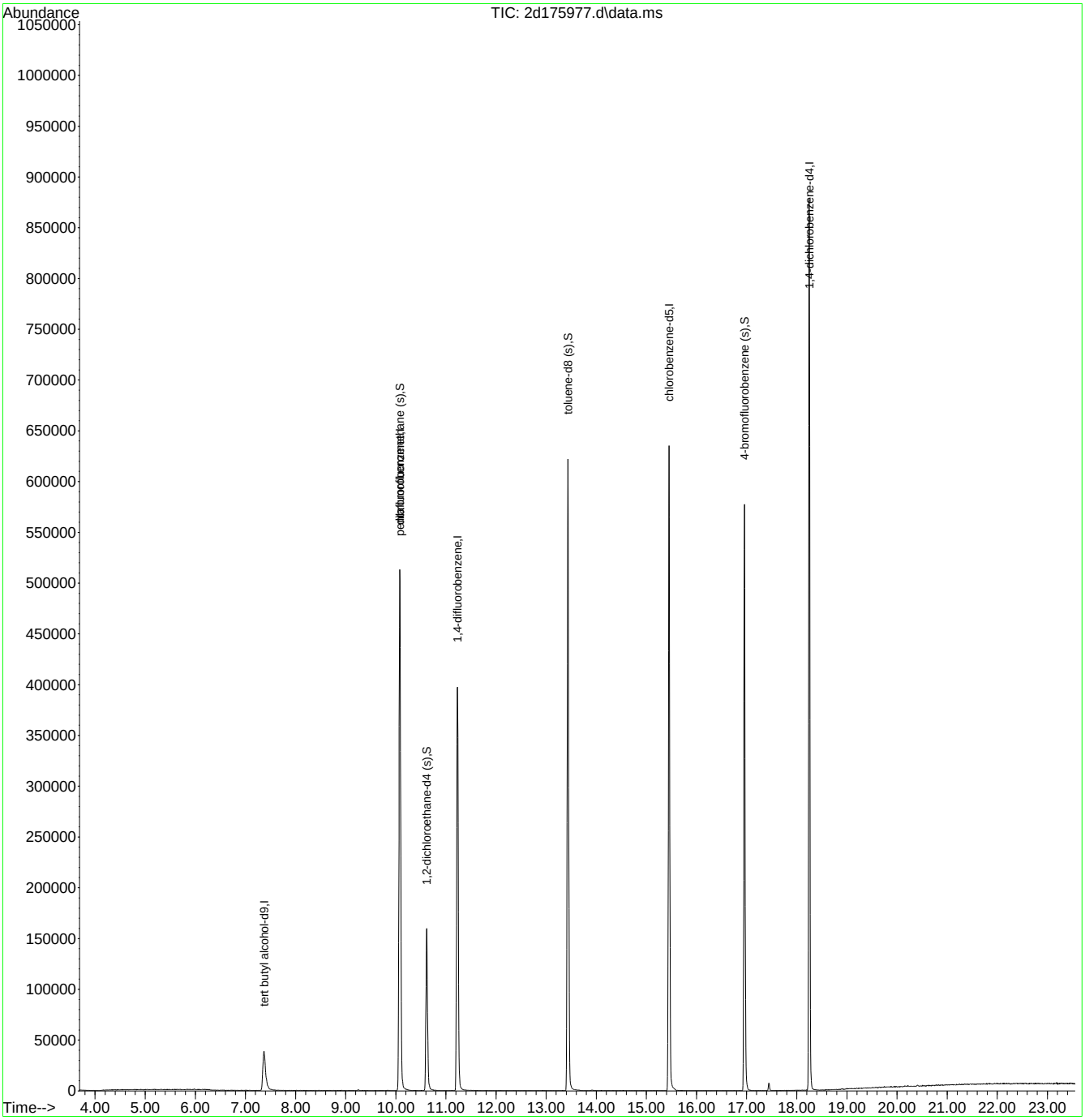
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175977.d
Acq On : 31 May 2018 8:37 am
Operator : jessicap
Sample : mb Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:46:41 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176021a.d
Acq On : 1 Jun 2018 9:19 am
Operator : jessicap
Sample : mb2 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:03:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.383	65	77898	500.00	ug/L	0.00
5) pentafluorobenzene	10.088	168	248975	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	339250	50.00	ug/L	0.00
76) chlorobenzene-d5	15.463	117	349955	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	204257	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	113815	53.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.12%			
55) 1,2-dichloroethane-d4 (s)	10.628	65	121144	51.99	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.98%			
77) toluene-d8 (s)	13.444	98	401513	49.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.68%			
100) 4-bromofluorobenzene (s)	16.967	95	165117	50.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.78%			

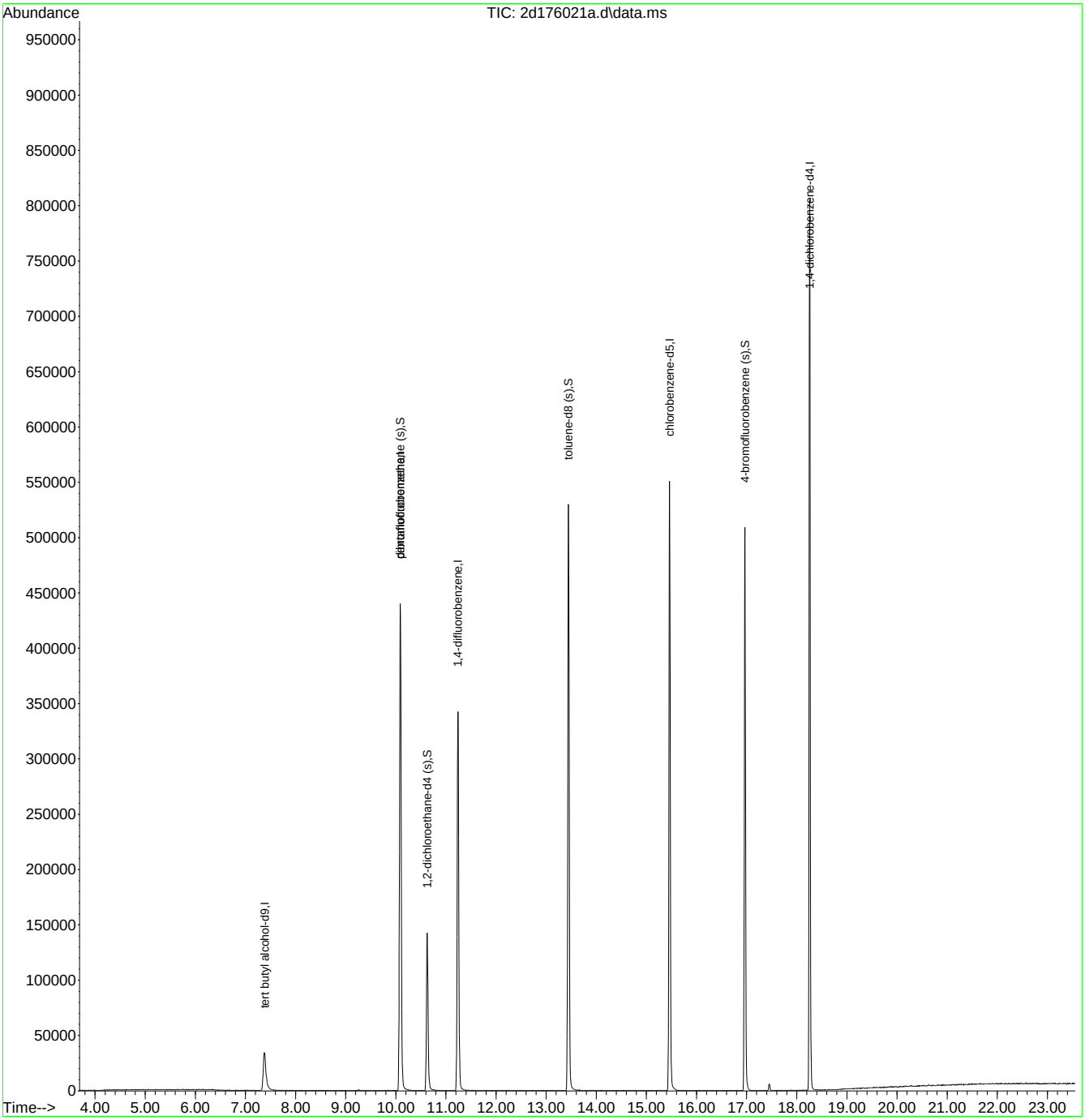
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176021a.d
Acq On : 1 Jun 2018 9:19 am
Operator : jessicap
Sample : mb2 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:03:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175975.d
Acq On : 31 May 2018 7:23 am
Operator : jessicap
Sample : bs Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:44:23 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.367	65	93536	500.00	ug/L	-0.02
5) pentafluorobenzene	10.078	168	285324	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.226	114	386679	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.452	117	390650	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.247	152	242507	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	127107	51.71	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.42%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	129603	48.80	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.60%			
77) toluene-d8 (s)	13.434	98	450710	49.62	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.24%			
100) 4-bromofluorobenzene (s)	16.957	95	184341	47.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.76%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.498	59	50670	285.90	ug/L	92
3) ethanol	5.989	45	104020	6495.40	ug/L	92
4) 1,4-dioxane	12.165	88	23738	1354.02	ug/L	98
6) chlorodifluoromethane	3.891	51	183532	68.25	ug/L	98
7) dichlorodifluoromethane	3.870	85	199194	62.79	ug/L	99
10) chloromethane	4.258	50	216264	60.33	ug/L	98
11) vinyl chloride	4.489	62	198833	63.09	ug/L	97
12) bromomethane	5.118	94	134263	60.63	ug/L	99
13) chloroethane	5.275	64	99499	60.18	ug/L	99
14) trichlorofluoromethane	5.763	101	225792	63.36	ug/L	100
15) vinyl bromide	5.637	106	126548	53.58	ug/L	99
17) ethyl ether	6.188	74	56014	50.55	ug/L	98
18) acrolein	6.429	56	19611	43.17	ug/L	95
19) 1,1-dichloroethene	6.612	96	114832	53.41	ug/L	99
20) freon 113	6.612	151	93986	52.06	ug/L	99
21) 2-chloropropane	6.376	43	188209	52.10	ug/L	98
22) acetone	6.670	58	31769	208.27	ug/L	90
23) acetonitrile	7.126	41	129244	505.74	ug/L	99
24) iodomethane	6.890	142	197997	54.33	ug/L	100
25) carbon disulfide	7.027	76	355400	51.58	ug/L	99
26) methylene chloride	7.383	84	128518	54.02	ug/L	98
27) methyl acetate	7.189	43	72786	48.10	ug/L	98
28) methyl tert butyl ether	7.808	73	320821	51.30	ug/L	100
29) trans-1,2-dichloroethene	7.824	96	120532	55.29	ug/L	96
30) hexane	8.222	57	134262	47.11	ug/L	99
31) di-isopropyl ether	8.531	45	394148	52.61	ug/L	89
32) 2-butanone	9.355	72	39764	201.55	ug/L	94
33) 1,1-dichloroethane	8.479	63	212754	52.49	ug/L	99
34) chloroprene	8.620	53	170385	52.82	ug/L	96
35) acrylonitrile	7.755	53	36214	49.44	ug/L	94
36) vinyl acetate	8.500	86	17359	49.27	ug/L #	81
37) ethyl tert-butyl ether	9.092	59	374963	53.42	ug/L	97
38) ethyl acetate	9.407	45	12600	47.05	ug/L #	55
39) 2,2-dichloropropane	9.396	77	190425	59.01	ug/L	96
40) cis-1,2-dichloroethene	9.370	96	132432	54.24	ug/L	95
41) propionitrile	9.459	54	145979	469.15	ug/L	100
42) tert-Butyl Formate	9.921	59	105939	49.19	ug/L	97
43) bromochloromethane	9.748	128	65777	53.74	ug/L	93
44) tetrahydrofuran	9.816	72	12568	49.22	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175975.d
Acq On : 31 May 2018 7:23 am
Operator : jessicap
Sample : bs Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:44:23 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) chloroform	9.832	83	212846	54.43 ug/L	99
47) methacrylonitrile	9.701	67	37503	46.78 ug/L	96
48) 1,1,1-trichloroethane	10.167	97	203979	56.47 ug/L	98
49) cyclohexane	10.272	84	154653	51.52 ug/L #	74
50) 1,1-dichloropropene	10.398	75	155355	52.03 ug/L	97
51) isobutyl alcohol	10.419	43	39222	420.84 ug/L	95
52) carbon tetrachloride	10.424	117	183967	58.02 ug/L	99
53) tert-amyl alcohol	10.597	73	24207	232.10 ug/L	99
56) benzene	10.723	78	457334	53.07 ug/L	98
57) iso-octane	10.802	57	421481	48.64 ug/L	99
58) tert-amyl methyl ether	10.823	73	351322	54.41 ug/L	99
59) heptane	11.027	57	72850	46.48 ug/L	98
60) isopropyl acetate	10.697	87	19279	48.83 ug/L #	86
61) 1,2-dichloroethane	10.728	62	148534	49.44 ug/L	99
62) n-butyl alcohol	11.399	56	120644	2302.87 ug/L	99
63) ethyl acrylate	11.719	55	114539	45.31 ug/L	98
64) trichloroethene	11.656	130	125480	54.00 ug/L	99
65) 2-nitropropane	12.700	41	20106	46.94 ug/L	87
66) 2-chloroethyl vinyl ether	12.762	63	330327	237.31 ug/L	98
67) methyl methacrylate	12.076	69	62866	47.01 ug/L	98
68) 1,2-dichloropropane	12.008	63	118007	51.07 ug/L	99
69) dibromomethane	12.191	93	71448	52.59 ug/L	96
70) methylcyclohexane	11.976	83	200725	52.31 ug/L	98
71) bromodichloromethane	12.380	83	163240	54.81 ug/L	100
72) epichlorohydrin	12.888	57	44977	226.92 ug/L	96
73) cis-1,3-dichloropropene	13.025	75	194265	51.28 ug/L	98
74) 4-methyl-2-pentanone	13.203	58	156050	198.53 ug/L	98
75) 3-methyl-1-butanol	13.224	55	86070	945.75 ug/L	95
78) toluene	13.528	92	287846	52.27 ug/L	100
79) trans-1,3-dichloropropene	13.790	75	172458	50.99 ug/L	99
80) ethyl methacrylate	13.853	69	133709	47.52 ug/L	97
81) 1,1,2-trichloroethane	14.068	83	85411	50.43 ug/L	99
82) tetrachloroethene	14.314	164	115327	55.77 ug/L	96
83) 1,3-dichloropropane	14.320	76	167102	50.11 ug/L	98
84) 2-hexanone	14.367	58	146554	194.41 ug/L	99
85) butyl acetate	14.498	56	65291	47.46 ug/L	95
86) dibromochloromethane	14.650	129	130890	55.43 ug/L	99
87) 1,2-dibromoethane	14.844	107	118857	51.64 ug/L	99
88) n-butyl ether	15.499	57	531293	51.11 ug/L	98
89) chlorobenzene	15.494	112	342825	52.56 ug/L	98
90) 1,1,1,2-tetrachloroethane	15.578	131	139477	57.03 ug/L	99
91) ethylbenzene	15.604	91	580507	53.14 ug/L	99
92) m,p-xylene	15.751	91	900560	105.98 ug/L	99
93) o-xylene	16.291	106	230049	53.65 ug/L	96
94) styrene	16.302	104	389788	53.93 ug/L	97
95) butyl acrylate	16.129	55	224764	48.95 ug/L	99
96) bromoform	16.585	173	97428	59.73 ug/L	99
97) isopropylbenzene	16.742	105	616042	53.70 ug/L	99
98) cis-1,4-dichloro-2-butene	16.810	88	45777	49.51 ug/L	98
101) bromobenzene	17.167	156	180199	52.66 ug/L	93
102) 1,1,2,2-tetrachloroethane	17.083	83	143513	46.59 ug/L	100
103) trans-1,4-dichloro-2-b...	17.146	53	31363	44.33 ug/L	91
104) 1,2,3-trichloropropane	17.161	110	38254	48.79 ug/L #	87
105) n-propylbenzene	17.230	91	736247	51.82 ug/L	100
106) 2-chlorotoluene	17.371	126	160242	52.82 ug/L	95
107) 4-chlorotoluene	17.486	91	436859	51.12 ug/L	100
109) 1,3,5-trimethylbenzene	17.418	105	537891	51.40 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175975.d
Acq On : 31 May 2018 7:23 am
Operator : jessicap
Sample : bs Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:44:23 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
110) tert-butylbenzene	17.796	119	475384	51.21 ug/L	99
111) 1,2,4-trimethylbenzene	17.843	105	550625	51.56 ug/L	100
112) sec-butylbenzene	18.032	105	720340	51.94 ug/L	99
113) 1,3-dichlorobenzene	18.189	146	342899	52.91 ug/L	99
114) p-isopropyltoluene	18.163	119	621453	51.58 ug/L	99
115) 1,4-dichlorobenzene	18.273	146	350880	53.50 ug/L	99
116) 1,2-dichlorobenzene	18.661	146	350083	53.84 ug/L	99
117) benzyl chloride	18.399	91	334627	57.03 ug/L	100
119) n-butylbenzene	18.577	92	321573	53.20 ug/L	100
121) 1,2-dibromo-3-chloropr...	19.390	157	37632	49.94 ug/L	98
122) nitrobenzene	19.584	77	6113	63.89 ug/L	98
123) 1,3,5-trichlorobenzene	19.573	180	341659	56.21 ug/L	98
124) hexachlorobutadiene	20.276	225	159015	53.47 ug/L	97
125) naphthalene	20.402	128	508440	48.22 ug/L	100
126) 2-ethylhexyl acrylate	20.166	70	24196	8.02 ug/L	96
127) 1,2,4-trichlorobenzene	20.150	180	276938	53.62 ug/L	99
128) 1,2,3-trichlorobenzene	20.622	180	240112	50.47 ug/L	99
129) hexachloroethane	18.923	201	127016	60.71 ug/L	96
130) 2-methylnaphthalene	21.461	142	96063	16.98 ug/L	97

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

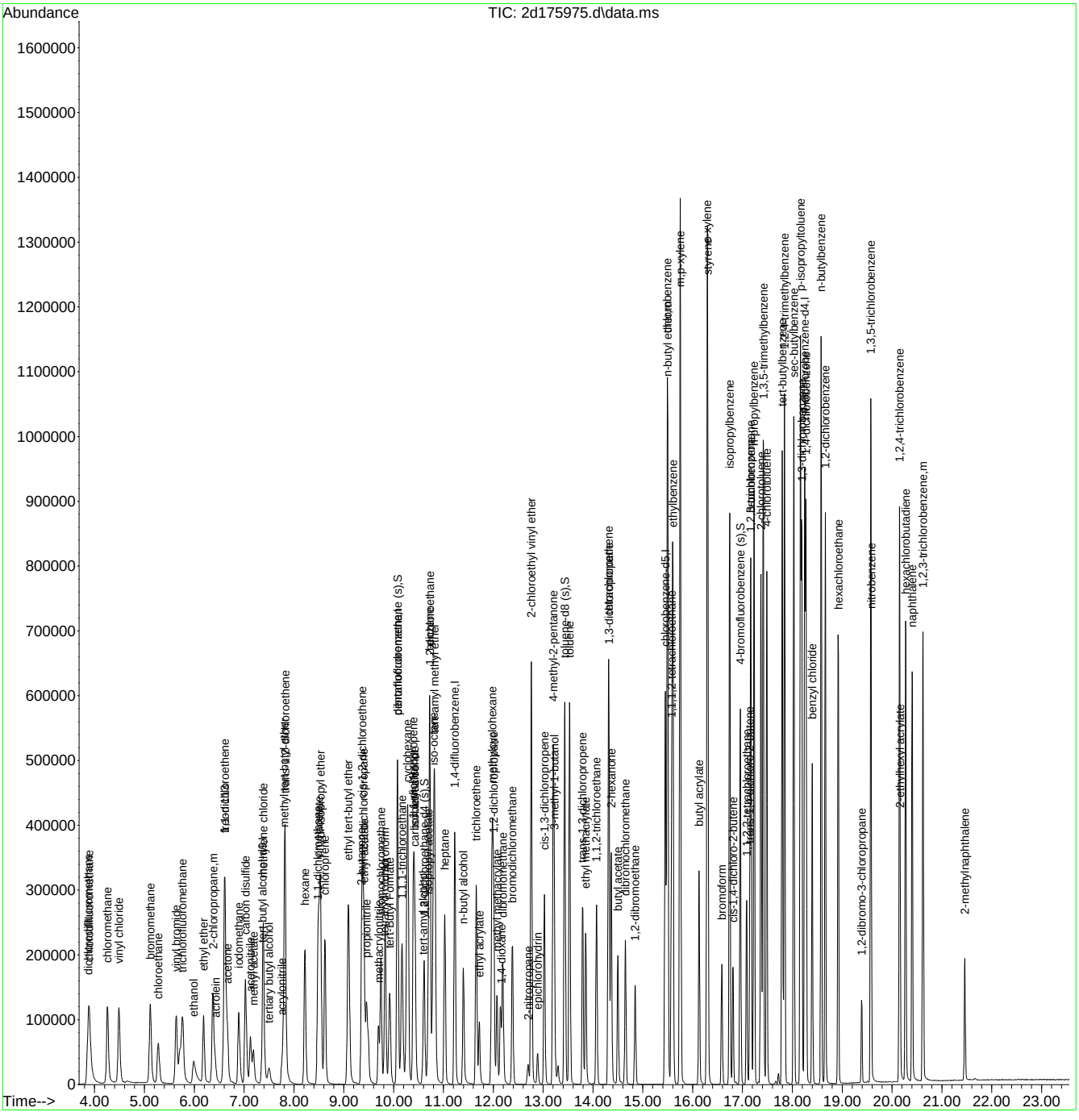
7.3.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175975.d
Acq On : 31 May 2018 7:23 am
Operator : jessicap
Sample : bs Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:44:23 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175985.d
Acq On : 31 May 2018 12:48 pm
Operator : jessicap
Sample : JC66946-3ms Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 01:02:13 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	95126	500.00	ug/L	-0.02
5) pentafluorobenzene	10.083	168	322448	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	433728	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	435871	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	272008	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	140199	50.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.94%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	131086	44.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.00%			
77) toluene-d8 (s)	13.434	98	503085	49.64	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.28%			
100) 4-bromofluorobenzene (s)	16.957	95	203502	46.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.26%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.499	59	51202	284.07	ug/L	94
3) ethanol	5.994	45	82663	5055.50	ug/L	94
4) 1,4-dioxane	12.170	88	20496	1149.55	ug/L	99
6) chlorodifluoromethane	3.897	51	177426	58.38	ug/L	99
7) dichlorodifluoromethane	3.876	85	213881	59.66	ug/L	98
10) chloromethane	4.269	50	200320	49.45	ug/L	99
11) vinyl chloride	4.500	62	198939	55.85	ug/L	98
12) bromomethane	5.129	94	140652	56.20	ug/L	93
13) chloroethane	5.281	64	104807	56.09	ug/L	98
14) trichlorofluoromethane	5.779	101	240463	59.71	ug/L	98
15) vinyl bromide	5.648	106	136061	50.98	ug/L	96
17) ethyl ether	6.193	74	58465	46.68	ug/L	99
18) acrolein	6.434	56	18360	35.77	ug/L	99
19) 1,1-dichloroethene	6.623	96	132687	54.61	ug/L	94
20) freon 113	6.623	151	122203	59.89	ug/L	99
21) 2-chloropropane	6.382	43	210815	51.64	ug/L	96
22) acetone	6.670	58	30671	177.92	ug/L #	82
23) acetonitrile	7.132	41	117673	407.45	ug/L	99
24) iodomethane	6.901	142	217497	52.81	ug/L	98
25) carbon disulfide	7.042	76	401075	51.51	ug/L	97
26) methylene chloride	7.394	84	138111	51.36	ug/L	96
27) methyl acetate	7.194	43	68975	40.34	ug/L	96
28) methyl tert butyl ether	7.813	73	314578	44.51	ug/L	97
29) trans-1,2-dichloroethene	7.829	96	133649	54.25	ug/L	92
30) hexane	8.227	57	187509	58.22	ug/L	97
31) di-isopropyl ether	8.531	45	404236	47.74	ug/L	93
32) 2-butanone	9.360	72	39890	178.91	ug/L	89
33) 1,1-dichloroethane	8.490	63	228413	49.86	ug/L	99
34) chloroprene	8.626	53	180793	49.59	ug/L	93
35) acrylonitrile	7.766	53	35378	42.74	ug/L	93
36) vinyl acetate	8.505	86	18340	46.06	ug/L #	83
37) ethyl tert-butyl ether	9.098	59	378006	47.65	ug/L	97
38) ethyl acetate	9.412	45	12059	39.84	ug/L #	45
39) 2,2-dichloropropane	9.402	77	192143	52.69	ug/L	98
40) cis-1,2-dichloroethene	9.376	96	145392	52.70	ug/L	94
41) propionitrile	9.459	54	141494	402.38	ug/L	98
42) tert-Butyl Formate	9.926	59	28943	11.89	ug/L	92
43) bromochloromethane	9.753	128	69792	50.46	ug/L	96
44) tetrahydrofuran	9.821	72	11949	41.41	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175985.d
Acq On : 31 May 2018 12:48 pm
Operator : jessicap
Sample : JC66946-3ms Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 01:02:13 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.837	83	223516	50.58	ug/L		97
47) methacrylonitrile	9.701	67	38211	42.17	ug/L		96
48) 1,1,1-trichloroethane	10.173	97	213222	52.23	ug/L		98
49) cyclohexane	10.277	84	190047	56.02	ug/L		83
50) 1,1-dichloropropene	10.403	75	174931	51.85	ug/L		96
51) isobutyl alcohol	10.424	43	37593	356.93	ug/L		97
52) carbon tetrachloride	10.429	117	194598	54.31	ug/L		99
53) tert-amyl alcohol	10.597	73	24319	206.33	ug/L		98
56) benzene	10.728	78	507750	52.53	ug/L		98
57) iso-octane	10.807	57	585811	60.27	ug/L		98
58) tert-amyl methyl ether	10.828	73	364389	50.31	ug/L		99
59) heptane	11.032	57	101140	57.53	ug/L		98
60) isopropyl acetate	10.702	87	20303	45.85	ug/L	#	63
61) 1,2-dichloroethane	10.734	62	146083	43.35	ug/L		98
62) n-butyl alcohol	11.399	56	116616	1984.52	ug/L		98
63) ethyl acrylate	11.724	55	116292	41.01	ug/L		99
64) trichloroethene	11.662	130	140737	53.99	ug/L		99
65) 2-nitropropane	12.705	41	17919	37.30	ug/L		94
67) methyl methacrylate	12.076	69	64527	43.02	ug/L		95
68) 1,2-dichloropropane	12.013	63	128463	49.57	ug/L		99
69) dibromomethane	12.191	93	72792	47.77	ug/L		98
70) methylcyclohexane	11.981	83	270880	62.93	ug/L		96
71) bromodichloromethane	12.385	83	167450	50.13	ug/L		99
72) epichlorohydrin	12.894	57	35070	157.74	ug/L		97
73) cis-1,3-dichloropropene	13.030	75	201154	47.33	ug/L		95
74) 4-methyl-2-pentanone	13.208	58	162376	184.17	ug/L		99
75) 3-methyl-1-butanol	13.229	55	87122	853.46	ug/L		90
78) toluene	13.533	92	314165	51.13	ug/L		98
79) trans-1,3-dichloropropene	13.795	75	172780	45.79	ug/L		99
80) ethyl methacrylate	13.858	69	141033	44.92	ug/L		95
81) 1,1,2-trichloroethane	14.073	83	89677	47.45	ug/L		95
82) tetrachloroethene	14.315	164	129071	55.94	ug/L		99
83) 1,3-dichloropropane	14.320	76	170470	45.81	ug/L		95
84) 2-hexanone	14.367	58	153063	181.98	ug/L		95
85) butyl acetate	14.503	56	69034	44.97	ug/L		100
86) dibromochloromethane	14.655	129	132154	50.16	ug/L		99
87) 1,2-dibromoethane	14.849	107	121944	47.49	ug/L		99
88) n-butyl ether	15.499	57	573642	49.46	ug/L		98
89) chlorobenzene	15.494	112	375112	51.55	ug/L		97
90) 1,1,1,2-tetrachloroethane	15.583	131	147144	53.93	ug/L		98
91) ethylbenzene	15.604	91	628875	51.60	ug/L		100
92) m,p-xylene	15.751	91	963525	101.63	ug/L		98
93) o-xylene	16.291	106	249376	52.12	ug/L		97
94) styrene	16.307	104	418457	51.89	ug/L		93
95) butyl acrylate	16.129	55	247342	48.27	ug/L		99
96) bromoform	16.590	173	95276	52.35	ug/L		96
97) isopropylbenzene	16.742	105	672440	52.53	ug/L		99
98) cis-1,4-dichloro-2-butene	16.810	88	27247	26.41	ug/L		91
101) bromobenzene	17.172	156	190574	49.65	ug/L		89
102) 1,1,2,2-tetrachloroethane	17.083	83	148926	43.10	ug/L		98
103) trans-1,4-dichloro-2-b...	17.146	53	21375	26.94	ug/L	#	76
104) 1,2,3-trichloropropane	17.162	110	37724	42.89	ug/L	#	89
105) n-propylbenzene	17.235	91	796635	49.99	ug/L		99
106) 2-chlorotoluene	17.371	126	173781	51.07	ug/L		92
107) 4-chlorotoluene	17.487	91	467603	48.78	ug/L		99
109) 1,3,5-trimethylbenzene	17.418	105	584204	49.77	ug/L		99
110) tert-butylbenzene	17.796	119	517916	49.74	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175985.d
Acq On : 31 May 2018 12:48 pm
Operator : jessicap
Sample : JC66946-3ms Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 01:02:13 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

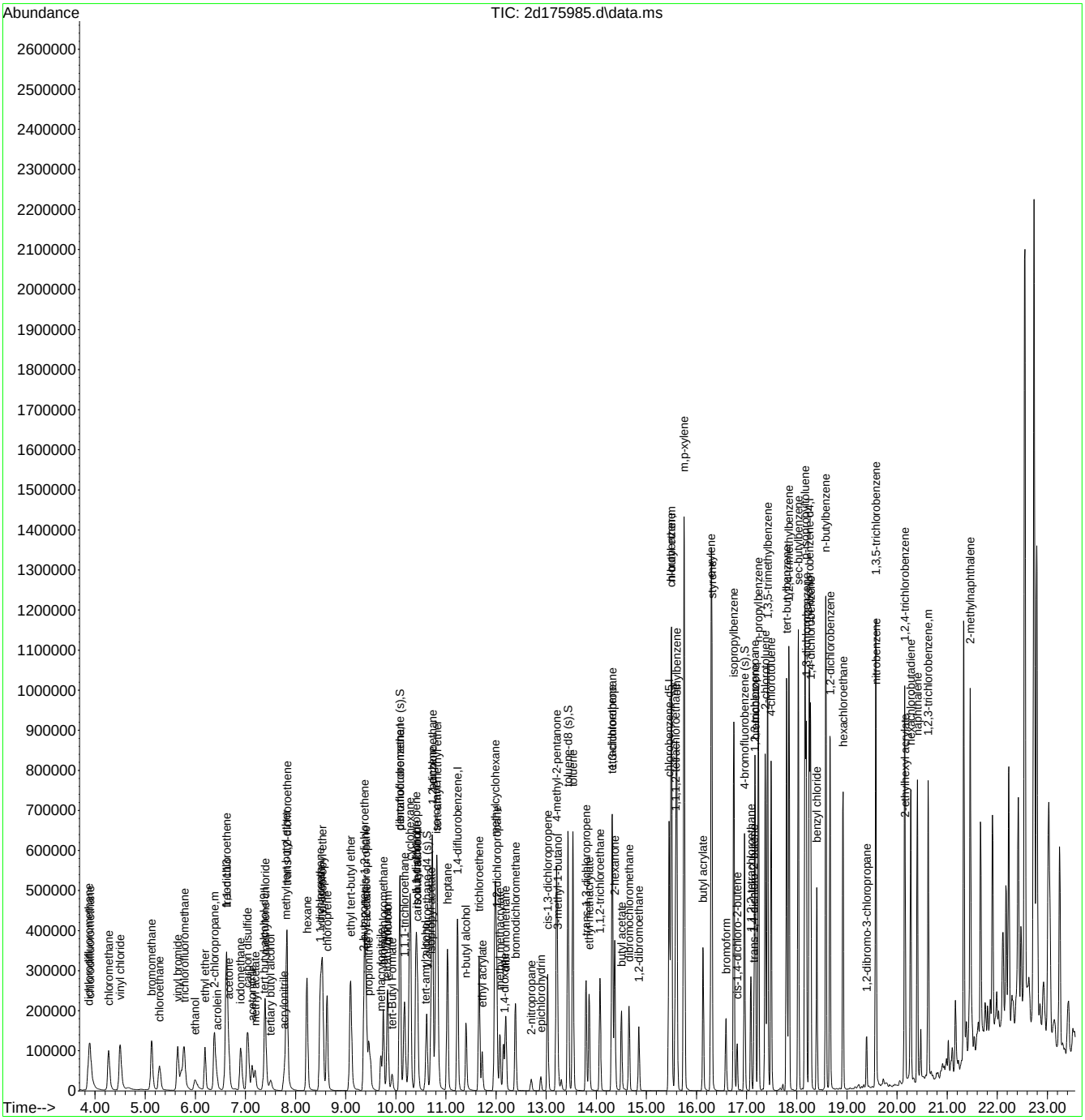
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,2,4-trimethylbenzene	17.843	105	600653	50.14	ug/L	99
112) sec-butylbenzene	18.032	105	793147	50.99	ug/L	98
113) 1,3-dichlorobenzene	18.189	146	374188	51.48	ug/L	99
114) p-isopropyltoluene	18.163	119	683828	50.60	ug/L	100
115) 1,4-dichlorobenzene	18.278	146	381427	51.85	ug/L	98
116) 1,2-dichlorobenzene	18.666	146	374965	51.41	ug/L	99
117) benzyl chloride	18.399	91	339141	51.53	ug/L	99
119) n-butylbenzene	18.577	92	358081	52.82	ug/L	98
121) 1,2-dibromo-3-chloropr...	19.395	157	38977	46.12	ug/L	93
122) nitrobenzene	19.584	77	6729	62.70	ug/L	92
123) 1,3,5-trichlorobenzene	19.579	180	370722	54.37	ug/L	99
124) hexachlorobutadiene	20.276	225	171882	51.52	ug/L	98
125) naphthalene	20.407	128	600758	50.79	ug/L	99
126) 2-ethylhexyl acrylate	20.166	70	43071	12.73	ug/L	97
127) 1,2,4-trichlorobenzene	20.155	180	305731	52.77	ug/L	97
128) 1,2,3-trichlorobenzene	20.622	180	258073	48.36	ug/L	100
129) hexachloroethane	18.923	201	135826	57.88	ug/L	97
130) 2-methylnaphthalene	21.461	142	480228	75.68	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175985.d
Acq On : 31 May 2018 12:48 pm
Operator : jessicap
Sample : JC66946-3ms Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 01:02:13 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176037.d
Acq On : 1 Jun 2018 6:02 pm
Operator : jessicap
Sample : JC66946-1dup Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:17:43 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

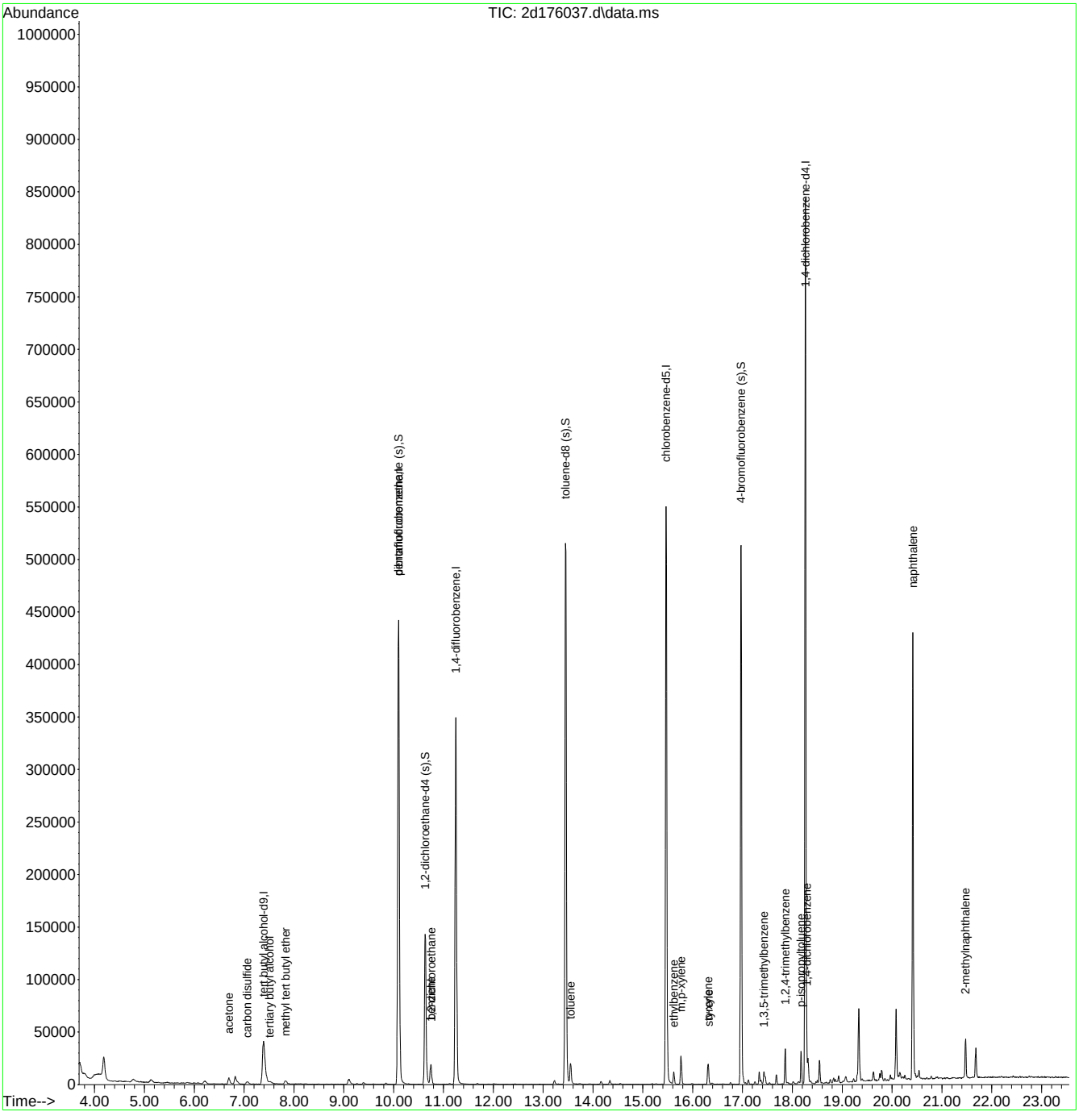
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	94207	500.00	ug/L	0.00
5) pentafluorobenzene	10.099	168	248868	50.00	ug/L	0.01
54) 1,4-difluorobenzene	11.247	114	340463	50.00	ug/L	0.01
76) chlorobenzene-d5	15.468	117	345651	50.00	ug/L	0.01
99) 1,4-dichlorobenzene-d4	18.262	152	214266	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.099	113	113456	52.92	ug/L	0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.84%			
55) 1,2-dichloroethane-d4 (s)	10.634	65	122235	52.27	ug/L	0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.54%			
77) toluene-d8 (s)	13.449	98	397530	49.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.92%			
100) 4-bromofluorobenzene (s)	16.967	95	167022	48.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.18%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	2874	16.10	ug/L	86
22) acetone	6.696	58	3048	22.91	ug/L	91
25) carbon disulfide	7.063	76	6317	1.05	ug/L	97
28) methyl tert butyl ether	7.829	73	5657	1.04	ug/L	95
56) benzene	10.749	78	14974	1.97	ug/L	96
61) 1,2-dichloroethane	10.754	62	4883	1.85	ug/L	82
78) toluene	13.549	92	9312	1.91	ug/L	92
91) ethylbenzene	15.620	91	9639	1.00	ug/L	97
92) m,p-xylene	15.767	91	18283	2.43	ug/L	99
93) o-xylene	16.307	106	5841	1.54	ug/L	99
94) styrene	16.322	104	1979	0.31	ug/L	72
109) 1,3,5-trimethylbenzene	17.429	105	7101	0.77	ug/L	96
111) 1,2,4-trimethylbenzene	17.859	105	18273	1.94	ug/L	97
114) p-isopropyltoluene	18.173	119	16801	1.58	ug/L	100
115) 1,4-dichlorobenzene	18.289	146	5677	0.98	ug/L	94
125) naphthalene	20.417	128	330282	35.45	ug/L	100
130) 2-methylnaphthalene	21.476	142	18531	3.71	ug/L	97

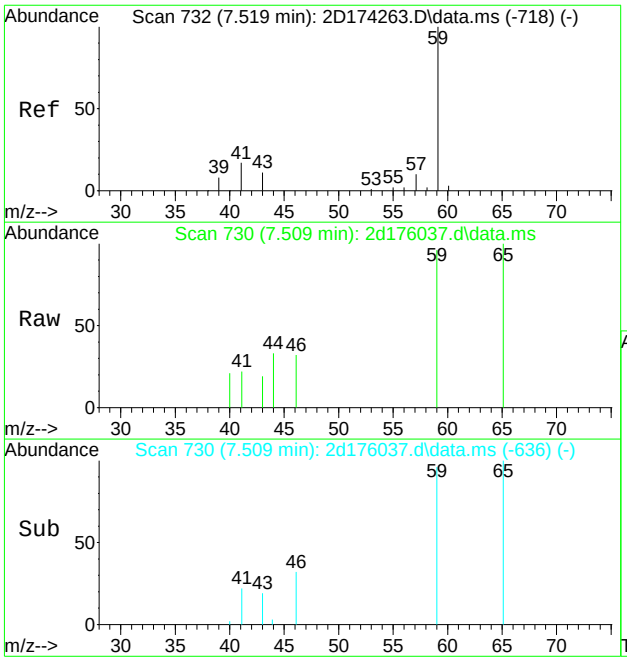
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176037.d
Acq On : 1 Jun 2018 6:02 pm
Operator : jessicap
Sample : JC66946-1dup Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:17:43 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

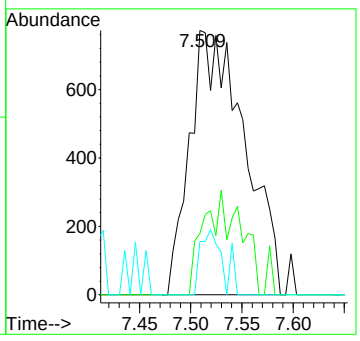


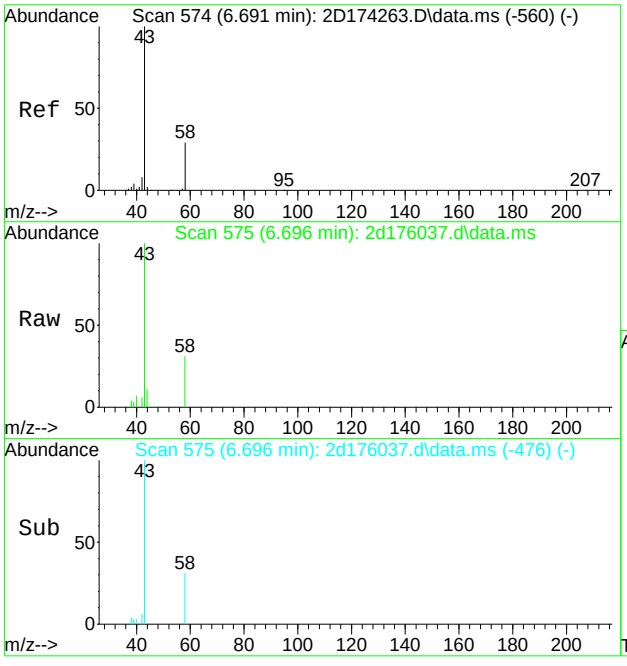


#2
tertiary butyl alcohol
Concen: 16.10 ug/L
RT: 7.509 min Scan# 730
Delta R.T. -0.005 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 59 Resp: 2874

Ion	Ratio	Lower	Upper
59	100		
41	23.3	0.0	47.4
43	20.2	0.0	44.6

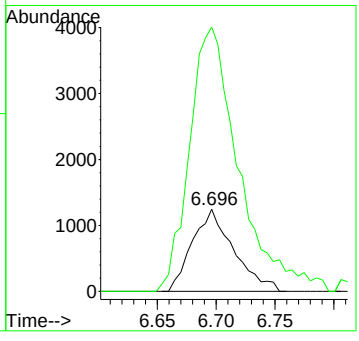




#22
acetone
Concen: 22.91 ug/L
RT: 6.696 min Scan# 575
Delta R.T. 0.021 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 58 Resp: 3048

Ion	Ratio	Lower	Upper
58	100		
43	312.4	301.0	361.0



7.5.1

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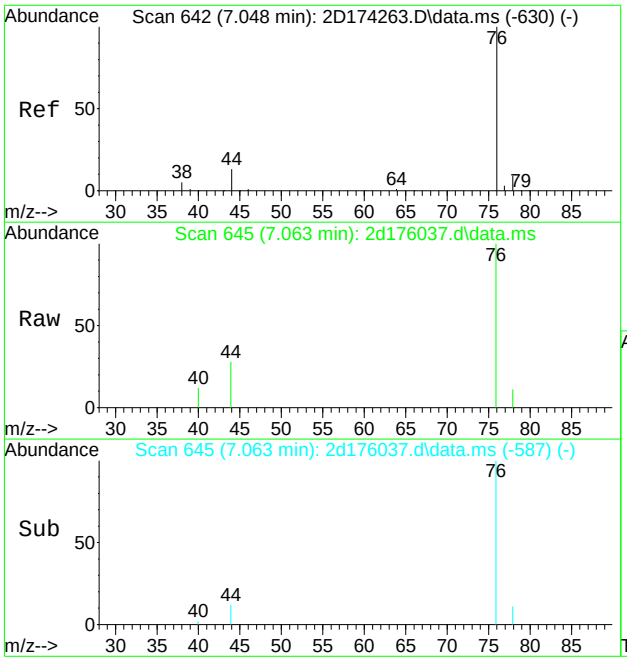
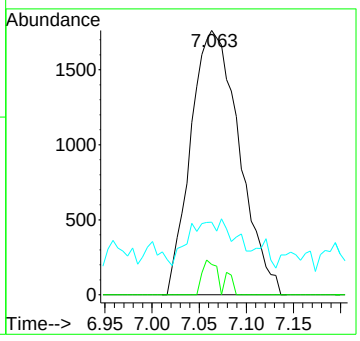
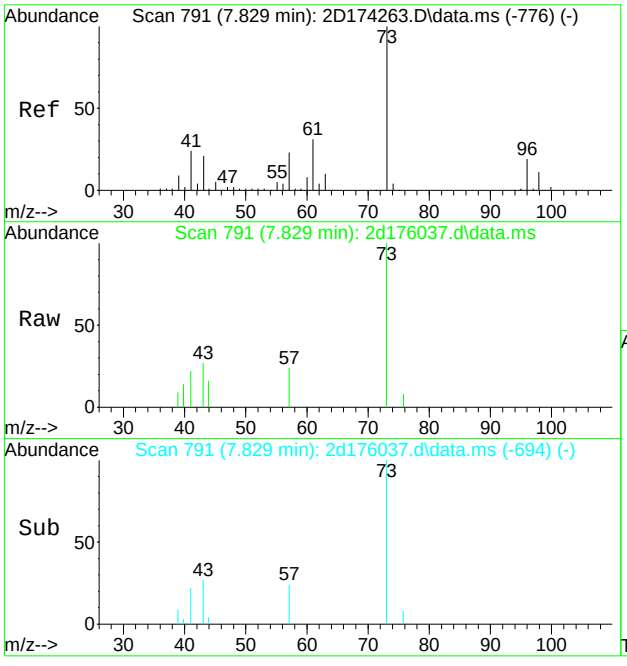


#25
carbon disulfide
Concen: 1.05 ug/L
RT: 7.063 min Scan# 645
Delta R.T. 0.005 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 76 Resp: 6317

Ion	Ratio	Lower	Upper
76	100		
78	11.5	0.0	39.3
44	12.4	0.0	42.7

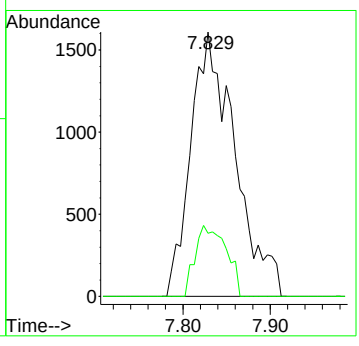


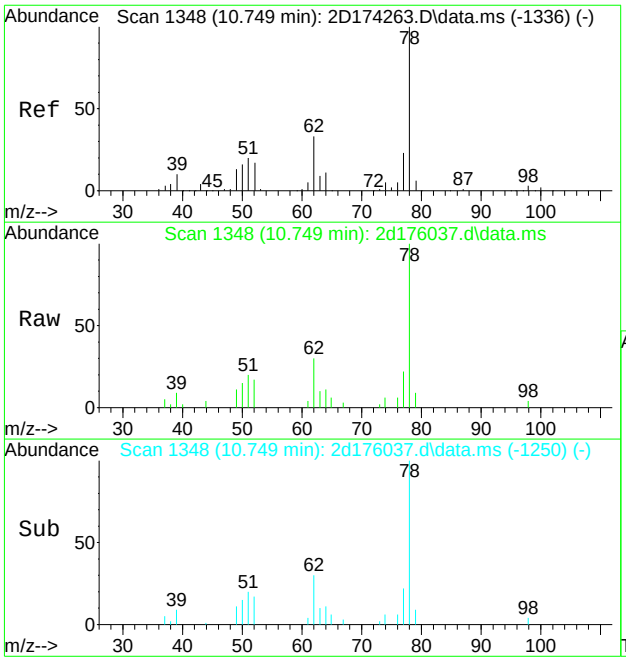


#28
methyl tert butyl ether
Concen: 1.04 ug/L
RT: 7.829 min Scan# 791
Delta R.T. 0.010 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 73 Resp: 5657

Ion	Ratio	Lower	Upper
73	100		
57	23.9	0.0	51.6

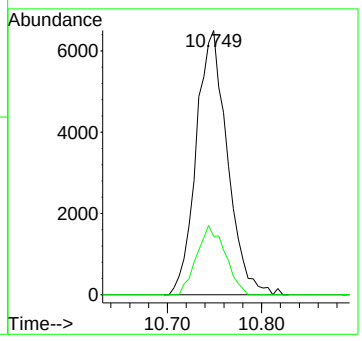


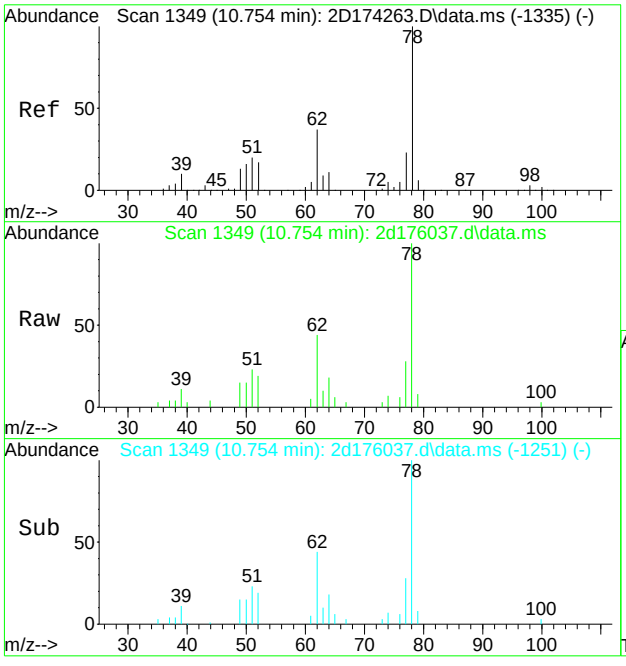


#56
benzene
Concen: 1.97 ug/L
RT: 10.749 min Scan# 1348
Delta R.T. 0.016 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 78 Resp: 14974

Ion	Ratio	Lower	Upper
78	100		
77	22.1	0.0	54.2

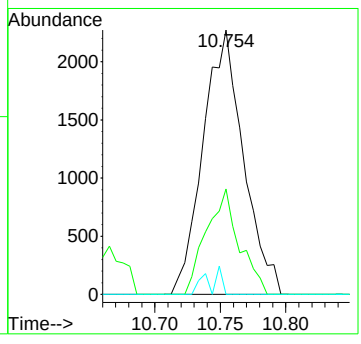


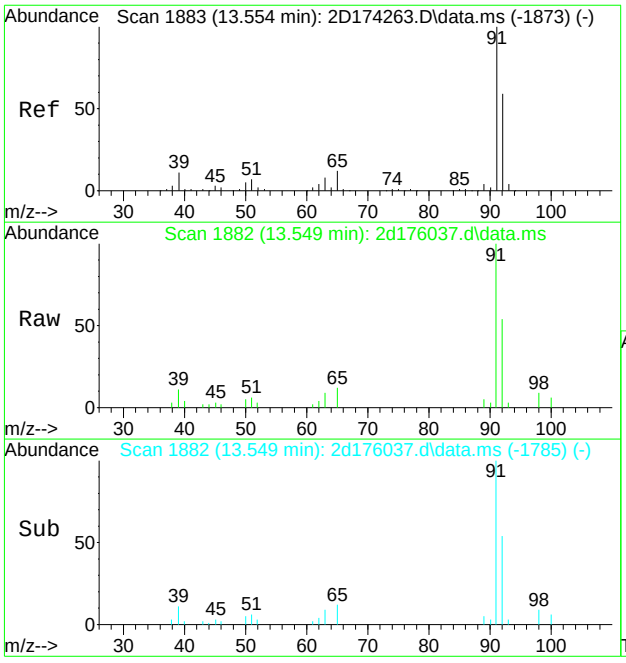


#61
1,2-dichloroethane
Concen: 1.85 ug/L
RT: 10.754 min Scan# 1349
Delta R.T. 0.016 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 62 Resp: 4883

Ion	Ratio	Lower	Upper
62	100		
64	39.8	0.8	60.8
98	0.0	0.0	38.1

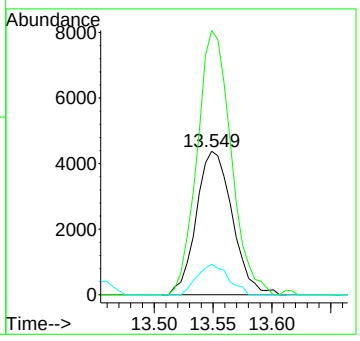


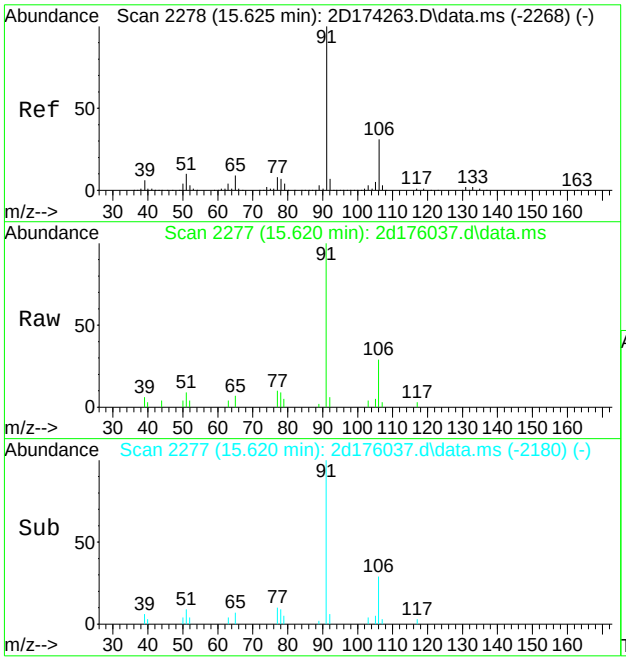


#78
toluene
Concen: 1.91 ug/L
RT: 13.549 min Scan# 1882
Delta R.T. 0.010 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 92 Resp: 9312

Ion	Ratio	Lower	Upper
92	100		
91	184.3	152.9	192.9
65	21.3	0.0	39.0

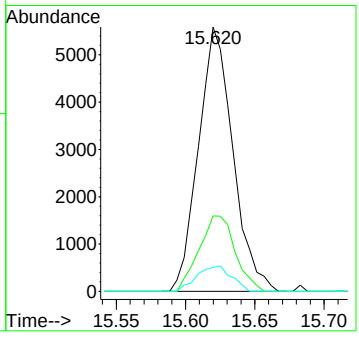


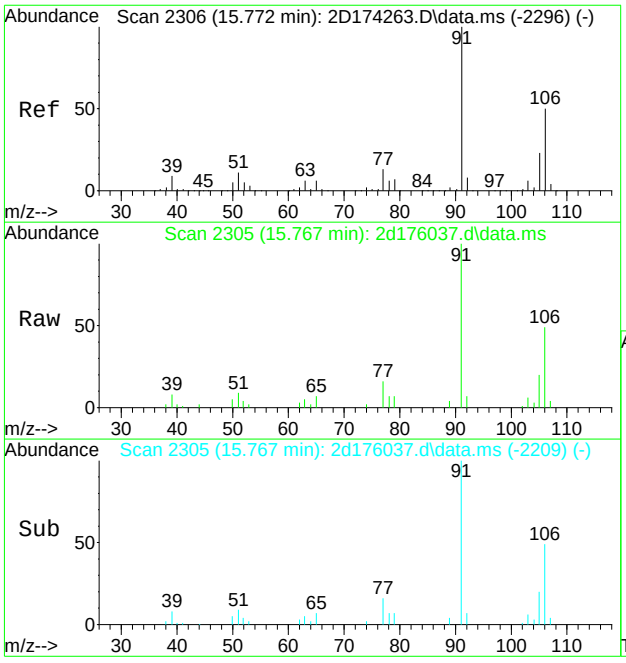


#91
ethylbenzene
Concen: 1.00 ug/L
RT: 15.620 min Scan# 2277
Delta R.T. 0.010 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 91 Resp: 9639

Ion	Ratio	Lower	Upper
91	100		
106	28.5	0.8	60.8
51	9.1	0.0	39.2

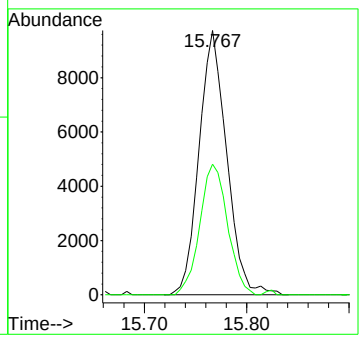


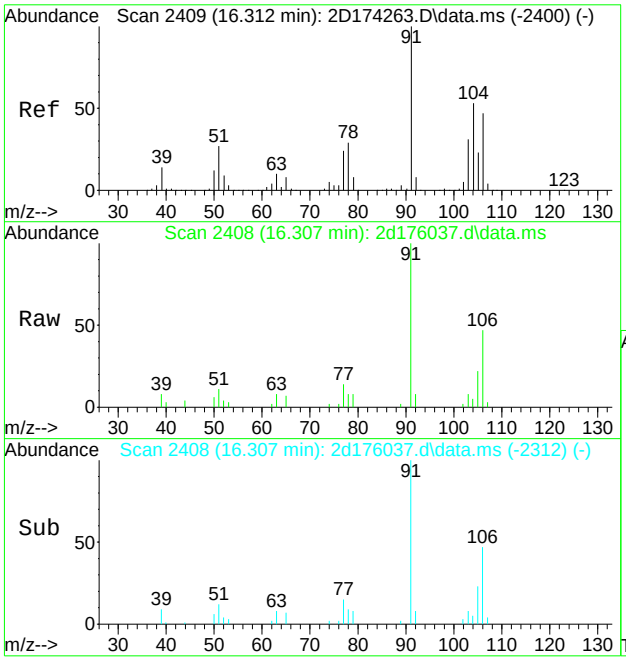


#92
m,p-xylene
Concen: 2.43 ug/L
RT: 15.767 min Scan# 2305
Delta R.T. 0.005 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion: 91 Resp: 18283

Ion	Ratio	Lower	Upper
91	100		
106	49.4	19.8	79.8

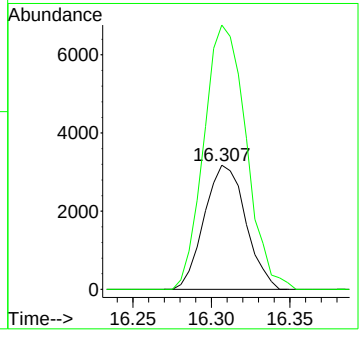


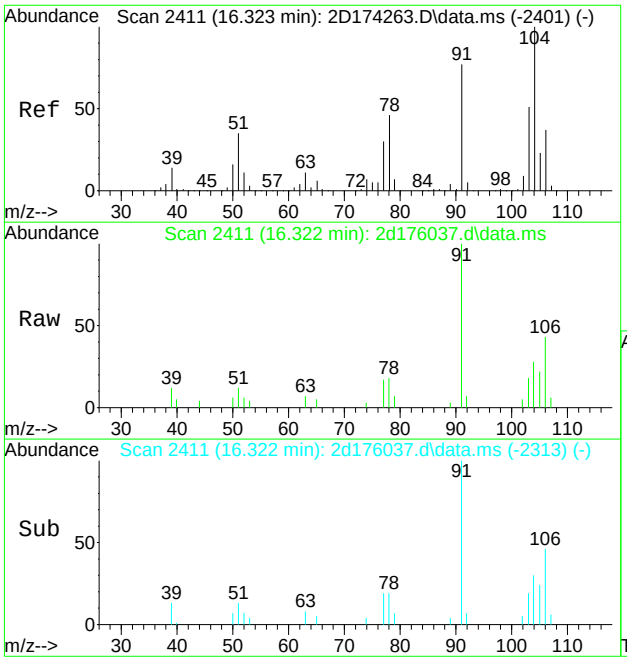


#93
o-xylene
Concen: 1.54 ug/L
RT: 16.307 min Scan# 2408
Delta R.T. 0.005 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion:106 Resp: 5841

Ion	Ratio	Lower	Upper
106	100		
91	213.1	184.4	244.4

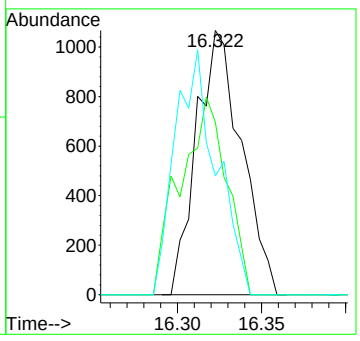


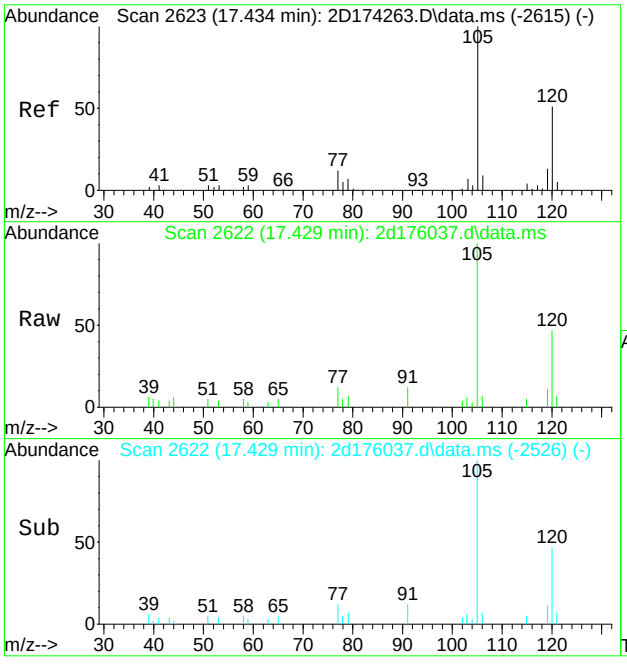


#94
styrene
Concen: 0.31 ug/L
RT: 16.322 min Scan# 2411
Delta R.T. 0.016 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion:104 Resp: 1979

Ion	Ratio	Lower	Upper
104	100		
78	65.3	15.3	75.3
51	45.0	1.7	61.7

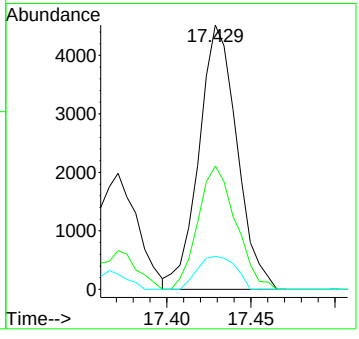




#109
1,3,5-trimethylbenzene
Concen: 0.77 ug/L
RT: 17.429 min Scan# 2622
Delta R.T. 0.005 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion:105 Resp: 7101

Ion	Ratio	Lower	Upper
105	100		
120	46.6	19.8	79.8
77	12.5	0.0	42.3



7.5.1

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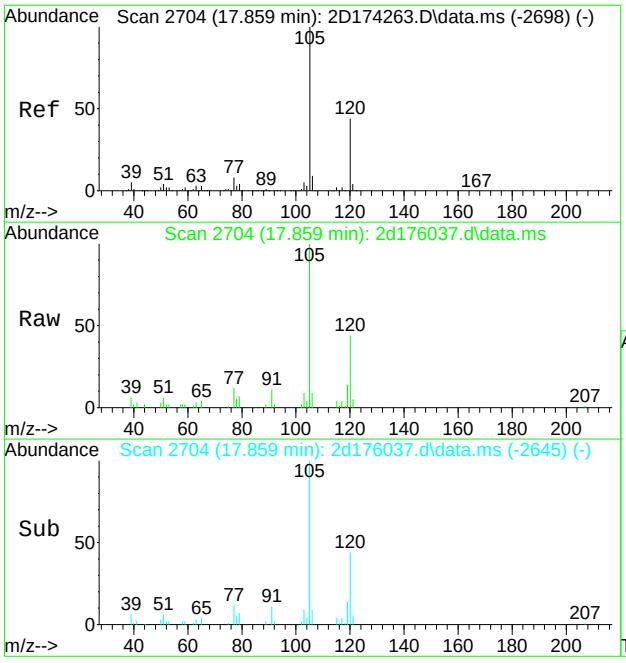
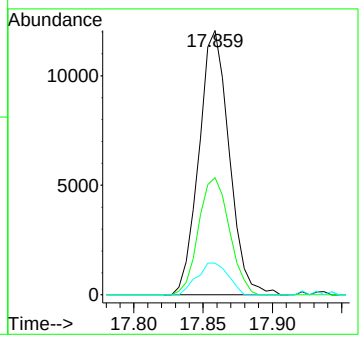
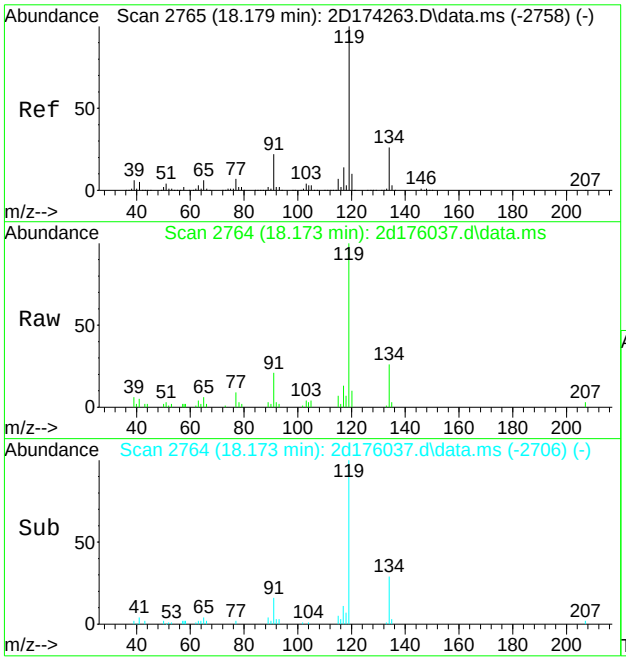


#111
1,2,4-trimethylbenzene
Concen: 1.94 ug/L
RT: 17.859 min Scan# 2704
Delta R.T. 0.010 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion:105 Resp: 18273

Ion	Ratio	Lower	Upper
105	100		
120	44.3	17.1	77.1
77	12.1	0.0	42.2

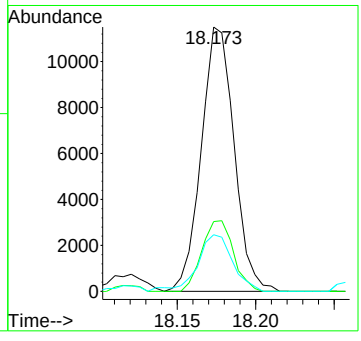




#114
p-isopropyltoluene
Concen: 1.58 ug/L
RT: 18.173 min Scan# 2764
Delta R.T. 0.005 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion:119 Resp: 16801

Ion	Ratio	Lower	Upper
119	100		
134	26.4	0.0	56.1
91	21.5	0.0	51.5



7.5.1

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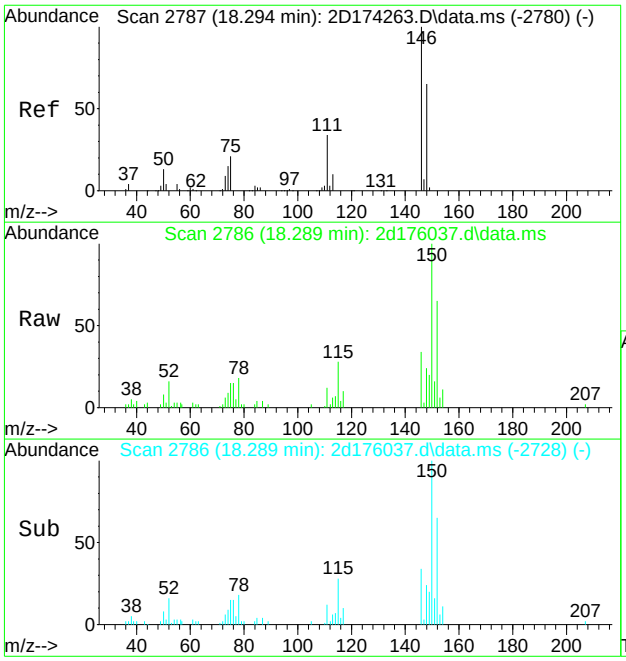
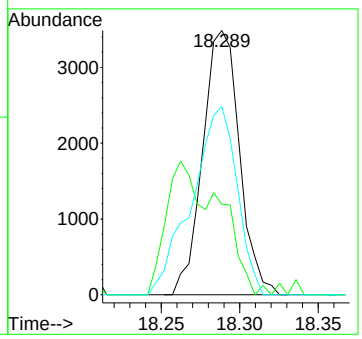
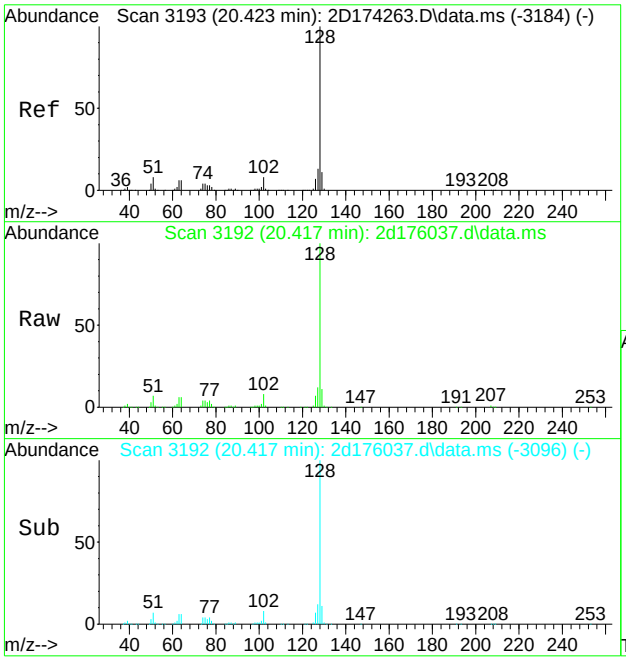


#115
1,4-dichlorobenzene
Concen: 0.98 ug/L
RT: 18.289 min Scan# 2786
Delta R.T. 0.005 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion:146 Resp: 5677

Ion	Ratio	Lower	Upper
146	100		
111	34.3	5.6	65.6
148	71.3	34.8	94.8

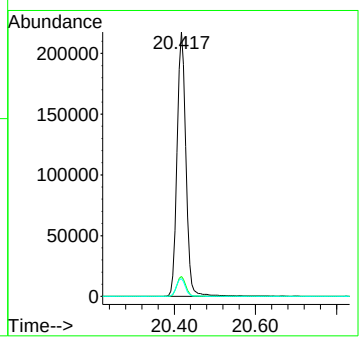


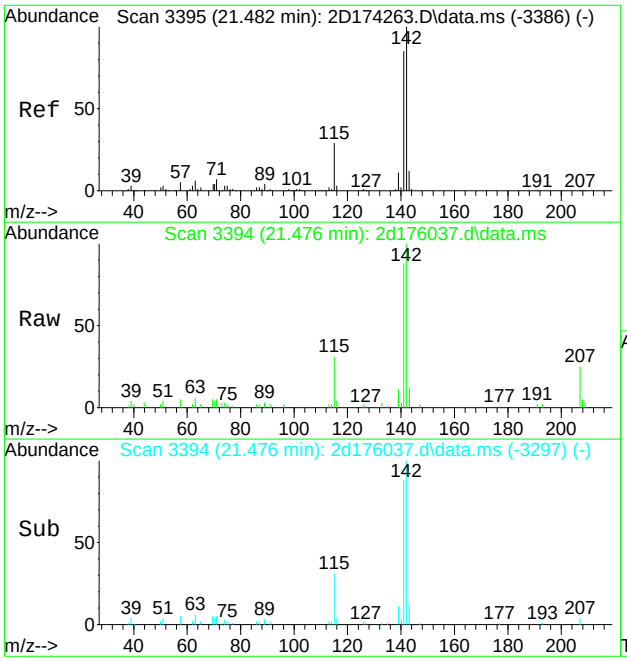


#125
naphthalene
Concen: 35.45 ug/L
RT: 20.417 min Scan# 3192
Delta R.T. 0.005 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion:128 Resp: 330282

Ion	Ratio	Lower	Upper
128	100		
102	7.5	0.0	37.5
51	6.7	0.0	36.6

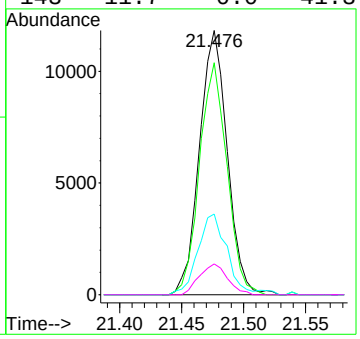




#130
2-methylnaphthalene
Concen: 3.71 ug/L
RT: 21.476 min Scan# 3394
Delta R.T. 0.010 min
Lab File: 2d176037.d
Acq: 1 Jun 2018 6:02 pm

Tgt Ion:142 Resp: 18531

Ion	Ratio	Lower	Upper
142	100		
141	87.8	64.3	104.3
115	30.6	0.0	59.1
143	11.7	0.0	41.3



7.5.1

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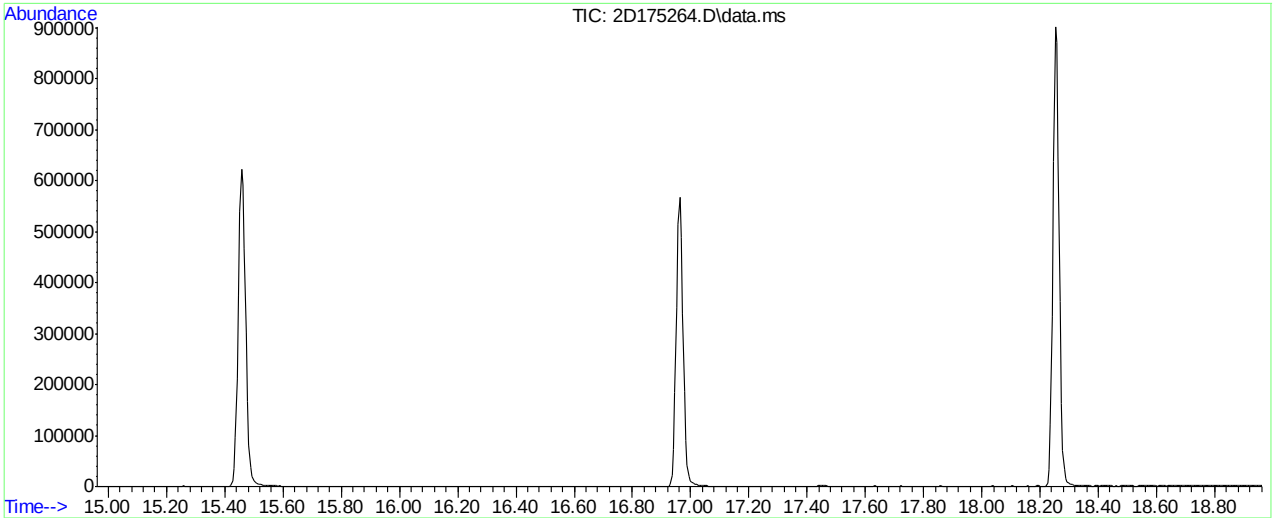
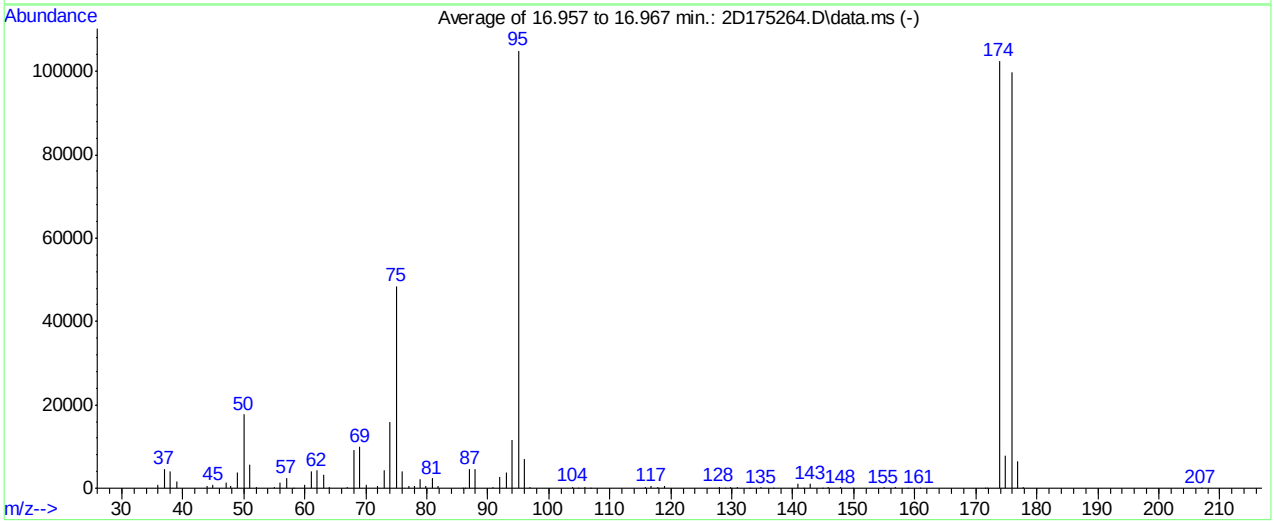
BFB

Data File : C:\msdchem\1\DATA\V2D7390\2D175264.D Vial: 1
Acq On : 3 May 2018 3:39 pm Operator: oyinadei
Sample : BFB Inst : MS2D
Misc : MS25995,V2D7390,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2532, 2533, 2534; Background Corrected with Scan 2523

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	17674	PASS
75	95	30	60	46.1	48434	PASS
95	95	100	100	100.0	105000	PASS
96	95	5	9	6.6	6978	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	97.6	102509	PASS
175	174	5	9	7.7	7907	PASS
176	174	95	101	97.3	99776	PASS
177	176	5	9	6.5	6501	PASS

2D175264.D M2D7390.M Fri May 04 11:10:17 2018 GCMS2D

Average of 16.957 to 16.967 min.: 2D175264.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	871	52.00	275	68.00	9272	79.90	668
37.00	4655	54.95	366	69.00	9877	80.90	2319
38.00	4075	56.00	1293	70.00	797	81.90	422
39.00	1567	57.00	2521	71.95	528	85.90	47
44.00	549	58.10	40	73.00	4268	86.20	45
45.00	776	60.00	868	74.00	15953	87.00	4574
47.05	1435	61.00	4153	75.00	48434	87.95	4571
47.95	568	62.00	4190	76.00	4013	90.90	350
49.00	3840	63.05	3109	77.00	609	92.00	2754
50.00	17674	64.00	323	77.90	442	93.00	3896
51.00	5620	66.95	283	78.90	2141	94.00	11553

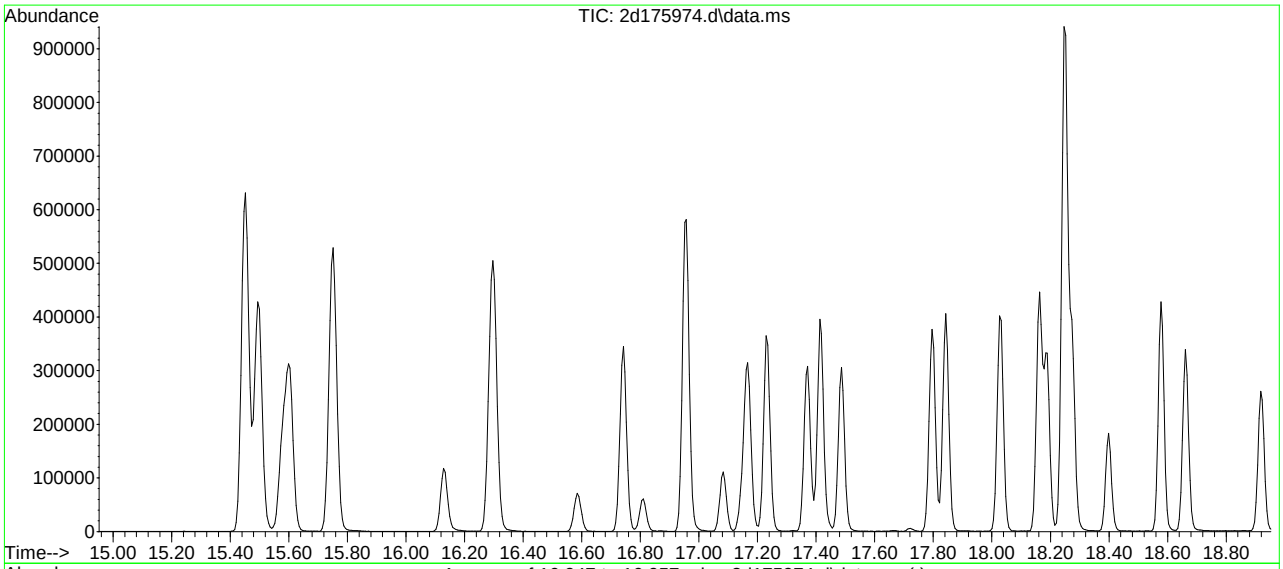
Average of 16.957 to 16.967 min.: 2D175264.D\data.ms
BFB
Modified:subtracted

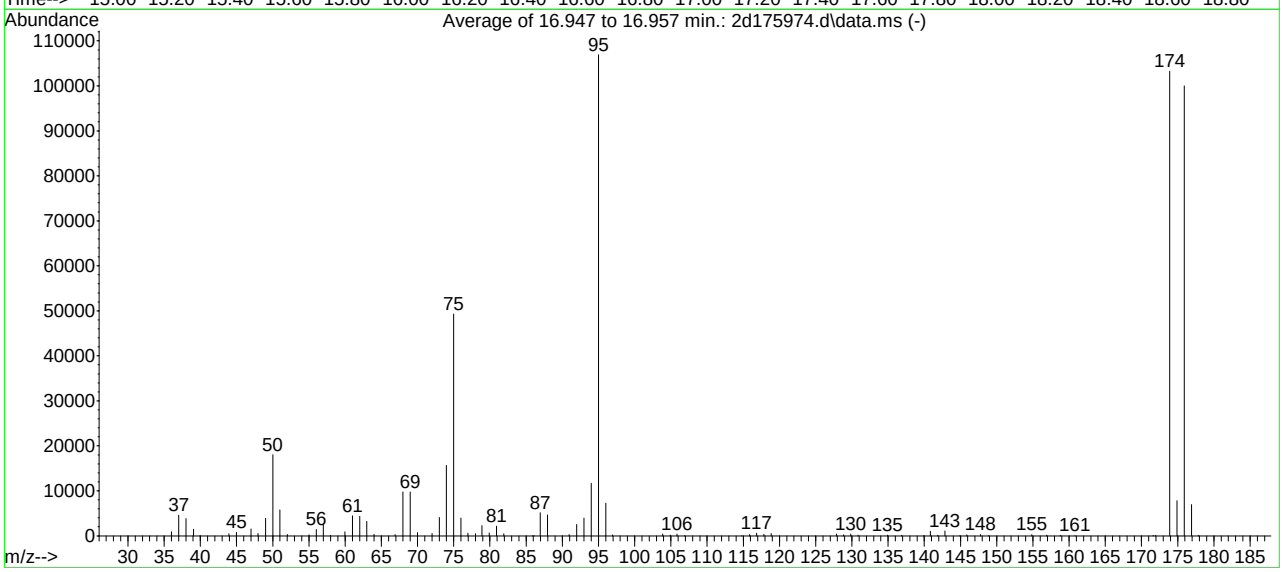
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	105000	127.90	399	145.85	171	175.90	99776
96.00	6978	128.85	118	147.85	217	176.90	6501
97.00	219	129.85	397	149.90	136	177.85	202
103.95	365	130.95	153	154.90	229	206.90	40
104.90	76	132.90	42	156.85	218		
105.90	314	134.85	151	158.80	118		
106.90	45	136.80	140	160.85	112		
115.85	323	140.90	979	171.60	51		
116.85	524	141.80	62	171.90	113		
117.85	339	142.90	1057	173.90	102509		
118.90	476	144.85	80	174.90	7907		

BFB

Data File : C:\msdchem\1\data\ke...kb\v2d7423\2d175974.d Vial: 2
Acq On : 31 May 2018 6:43 am Operator: jessicap
Sample : bfb Inst : MS2D
Misc : MS26727,V2D7423,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2530, 2531, 2532; Background Corrected with Scan 2522

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	18039	PASS
75	95	30	60	46.1	49307	PASS
95	95	100	100	100.0	106896	PASS
96	95	5	9	6.8	7244	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	96.6	103243	PASS
175	174	5	9	7.5	7789	PASS
176	174	95	101	96.9	100000	PASS
177	176	5	9	7.0	6953	PASS

2d175974.d M2D7390.M Fri Jun 01 00:42:20 2018

Average of 16.947 to 16.957 min.: 2d175974.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	915	51.00	5778	66.90	265	78.90	2255
37.00	4567	52.05	257	68.00	9734	79.90	641
38.00	3850	55.00	234	69.00	9749	80.90	2177
39.05	1492	56.00	1434	70.00	697	81.90	448
39.95	38	57.00	2483	72.00	530	85.90	43
43.95	449	58.00	103	73.00	4100	86.10	65
45.00	753	59.95	897	74.00	15646	86.95	5168
47.00	1505	61.00	4434	75.00	49307	87.95	4630
47.95	555	62.00	4300	76.00	3965	90.95	305
49.00	3866	63.00	3203	76.95	574	92.00	2545
50.00	18039	64.00	336	78.00	483	93.00	3944

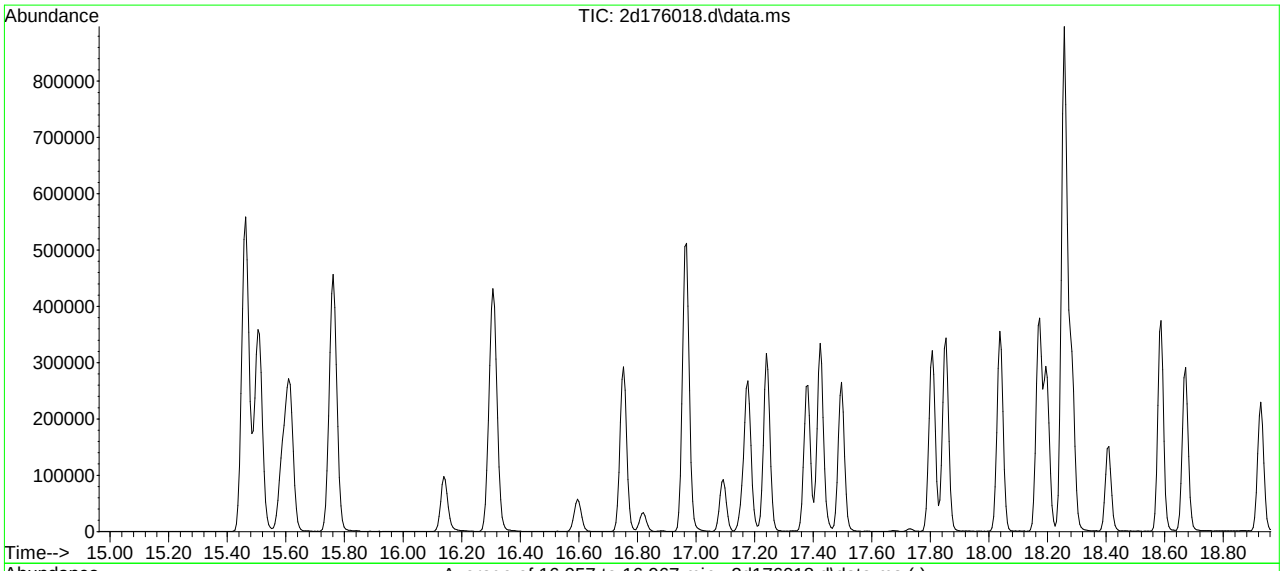
Average of 16.947 to 16.957 min.: 2d175974.d\data.ms
bfb
Modified:subtracted

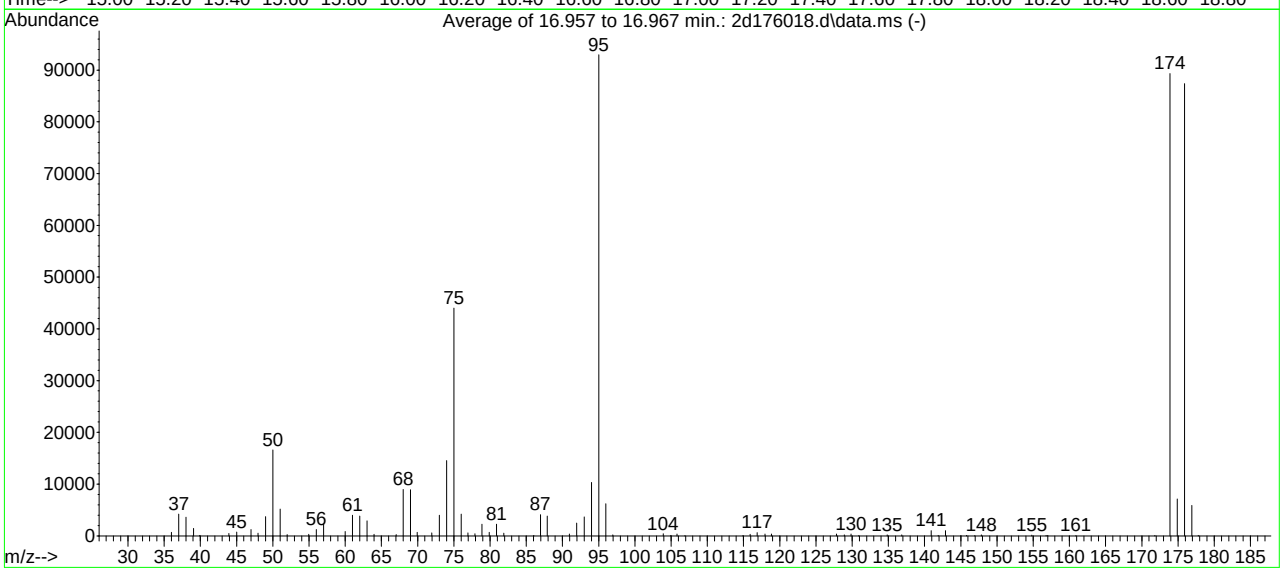
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	11703	117.85	346	142.85	1082	173.90	103243
95.00	106896	118.85	537	144.90	47	174.90	7789
96.00	7244	127.85	388	145.85	201	175.90	100000
96.95	220	128.85	213	147.75	271	176.90	6953
103.85	401	129.85	404	148.90	41	177.85	120
104.90	142	130.85	171	154.85	273		
105.85	422	134.90	165	156.90	129		
106.90	45	136.85	118	158.80	109		
114.80	51	139.90	50	160.80	46		
115.85	315	140.85	1032	171.60	78		
116.85	625	141.85	120	171.90	114		

BFB

Data File : C:\msdchem\1\data\ja...18\v2d7425\2d176018.d Vial: 2
Acq On : 1 Jun 2018 7:18 am Operator: jessicap
Sample : bfb Inst : MS2D
Misc : MS26770,V2D7425,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2532, 2533, 2534; Background Corrected with Scan 2524

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	16576	PASS
75	95	30	60	47.3	43979	PASS
95	95	100	100	100.0	92936	PASS
96	95	5	9	6.7	6192	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	96.1	89309	PASS
175	174	5	9	8.0	7146	PASS
176	174	95	101	97.8	87363	PASS
177	176	5	9	6.7	5872	PASS

2d176018.d M2D7390.M Mon Jun 04 01:00:25 2018

Average of 16.957 to 16.967 min.: 2d176018.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	703	51.00	5151	68.00	8944	79.90	667
37.00	4191	52.00	238	69.00	8928	80.90	2230
38.00	3611	54.95	308	69.95	665	81.90	534
39.05	1412	56.00	1200	71.95	545	86.05	82
39.90	60	57.00	2228	73.00	3967	86.95	4080
43.95	483	60.00	827	74.00	14556	87.90	3838
45.00	743	61.00	3963	75.00	43979	90.95	371
47.00	1217	62.00	3807	76.00	4203	91.95	2451
47.95	524	63.00	2910	76.95	598	93.00	3656
49.00	3704	64.00	299	77.90	395	94.00	10334
50.00	16576	67.05	245	78.90	2237	95.00	92936

Average of 16.957 to 16.967 min.: 2d176018.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	6192	127.85	360	146.90	41	177.80	106
96.95	213	128.90	168	147.85	215		
103.90	412	129.85	373	154.80	166		
104.95	93	130.90	43	156.80	83		
105.80	338	134.85	210	157.00	64		
106.90	43	136.85	177	160.90	50		
114.90	52	140.90	1006	171.80	67		
115.90	282	141.90	56	173.90	89309		
116.90	631	142.90	992	174.90	7146		
117.95	338	145.00	41	175.90	87363		
118.85	350	145.80	61	176.90	5872		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	112373	500.00	ug/L	-0.01
5) pentafluorobenzene	10.089	168	292006	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.242	114	400871	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	395637	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	234951	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.094	113	125037	49.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.40%			
55) 1,2-dichloroethane-d4 (s)	10.629	65	137500	49.94	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.88%			
77) toluene-d8 (s)	13.444	98	465100	50.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.10%			
100) 4-bromofluorobenzene (s)	16.962	95	190452	50.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	1026	4.85	ug/L #	32
3) ethanol	5.999	45	3456	159.34	ug/L	98
6) chlorodifluoromethane	3.897	51	2802	1.02	ug/L	94
7) dichlorodifluoromethane	3.876	85	2935	0.96	ug/L	87
10) chloromethane	4.274	50	4268	1.16	ug/L	93
11) vinyl chloride	4.499	62	3481	1.08	ug/L	93
13) chloroethane	5.296	64	2100	1.24	ug/L	92
14) trichlorofluoromethane	5.779	101	4060	1.18	ug/L	87
15) vinyl bromide	5.653	106	2657	1.10	ug/L	89
17) ethyl ether	6.198	74	1184	1.04	ug/L #	79
18) acrolein	6.439	56	537	1.16	ug/L #	36
19) 1,1-dichloroethene	6.639	96	2188	0.99	ug/L #	80
20) freon 113	6.628	151	1575	0.89	ug/L #	79
22) acetone	6.686	58	536	3.59	ug/L #	52
24) iodomethane	6.911	142	3847	1.03	ug/L	96
25) carbon disulfide	7.063	76	7517	1.07	ug/L	96
26) methylene chloride	7.404	84	2553	1.01	ug/L	87
28) methyl tert butyl ether	7.818	73	6463	1.01	ug/L	98
29) trans-1,2-dichloroethene	7.834	96	2233	1.00	ug/L	90
30) hexane	8.238	57	2907	1.00	ug/L	94
31) di-isopropyl ether	8.547	45	7774	1.01	ug/L	80
32) 2-butanone	9.396	72	680	3.44	ug/L #	15
33) 1,1-dichloroethane	8.500	63	4185	1.01	ug/L	92
34) chloroprene	8.647	53	3368	1.02	ug/L	85
35) acrylonitrile	7.787	53	648	0.86	ug/L	96
37) ethyl tert-butyl ether	9.113	59	7278	1.01	ug/L	91
39) 2,2-dichloropropane	9.412	77	3727	1.13	ug/L	88
40) cis-1,2-dichloroethene	9.391	96	2416	0.97	ug/L	91
41) propionitrile	9.486	54	3076	9.66	ug/L	95
42) tert-Butyl Formate	9.931	59	2348	1.07	ug/L	91
43) bromochloromethane	9.758	128	1187	0.95	ug/L	99
45) chloroform	9.847	83	4212	1.02	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	methacrylonitrile	9.727	67	817	1.00	ug/L	#	66
48)	1,1,1-trichloroethane	10.178	97	3673	0.99	ug/L		98
49)	cyclohexane	10.283	84	2748	0.89	ug/L		90
50)	1,1-dichloropropene	10.419	75	3085	1.01	ug/L		95
52)	carbon tetrachloride	10.435	117	3169	0.98	ug/L		98
56)	benzene	10.739	78	9204	1.03	ug/L		94
57)	iso-octane	10.807	57	8475	0.94	ug/L		94
58)	tert-amyl methyl ether	10.838	73	7020	1.01	ug/L		94
59)	heptane	11.038	57	1531	0.94	ug/L		92
61)	1,2-dichloroethane	10.744	62	3450	1.05	ug/L		93
62)	n-butyl alcohol	11.426	56	2219	40.86	ug/L		86
63)	ethyl acrylate	11.751	55	2575	0.98	ug/L		79
64)	trichloroethene	11.672	130	2471	1.03	ug/L		91
65)	2-nitropropane	12.710	41	521	1.18	ug/L	#	74
66)	2-chloroethyl vinyl ether	12.773	63	6895	4.78	ug/L		94
67)	methyl methacrylate	12.086	69	1260	0.91	ug/L	#	63
68)	1,2-dichloropropane	12.023	63	2444	1.02	ug/L		95
69)	dibromomethane	12.196	93	1424	1.01	ug/L	#	80
70)	methylcyclohexane	11.987	83	3772	0.95	ug/L		88
71)	bromodichloromethane	12.401	83	3072	1.00	ug/L		96
72)	epichlorohydrin	12.904	57	1069	5.17	ug/L	#	58
73)	cis-1,3-dichloropropene	13.035	75	3789	0.96	ug/L		96
74)	4-methyl-2-pentanone	13.224	58	3238	3.84	ug/L		92
75)	3-methyl-1-butanol	13.250	55	1975	20.40	ug/L		88
78)	toluene	13.544	92	5889	1.06	ug/L	#	83
79)	trans-1,3-dichloropropene	13.811	75	3340	0.98	ug/L		88
80)	ethyl methacrylate	13.874	69	2734	0.96	ug/L		96
81)	1,1,2-trichloroethane	14.089	83	1831	1.07	ug/L		90
82)	tetrachloroethene	14.325	164	2020	0.96	ug/L		83
83)	1,3-dichloropropane	14.330	76	3448	1.02	ug/L		96
84)	2-hexanone	14.383	58	2877	3.77	ug/L	#	87
85)	butyl acetate	14.524	56	1347	0.97	ug/L	#	78
86)	dibromochloromethane	14.660	129	2376	0.99	ug/L		96
87)	1,2-dibromoethane	14.865	107	2236	0.96	ug/L		85
88)	n-butyl ether	15.510	57	11040	1.05	ug/L		98
89)	chlorobenzene	15.499	112	6656	1.01	ug/L		93
90)	1,1,1,2-tetrachloroethane	15.588	131	2429	0.98	ug/L		85
91)	ethylbenzene	15.615	91	11378	1.03	ug/L		98
92)	m,p-xylene	15.762	91	17850	2.07	ug/L		95
93)	o-xylene	16.302	106	4287	0.99	ug/L		89
94)	styrene	16.317	104	7121	0.97	ug/L		98
95)	butyl acrylate	16.149	55	4556	0.98	ug/L		95
96)	bromoform	16.595	173	1542	0.93	ug/L		93
97)	isopropylbenzene	16.752	105	12040	1.04	ug/L		94
98)	cis-1,4-dichloro-2-butene	16.821	88	803	0.86	ug/L	#	76
101)	bromobenzene	17.177	156	3487	1.05	ug/L	#	80
102)	1,1,2,2-tetrachloroethane	17.088	83	3004	1.01	ug/L		86
103)	trans-1,4-dichloro-2-b...	17.156	53	702	1.04	ug/L		95
104)	1,2,3-trichloropropane	17.172	110	758	1.00	ug/L	#	72
105)	n-propylbenzene	17.240	91	14132	1.03	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

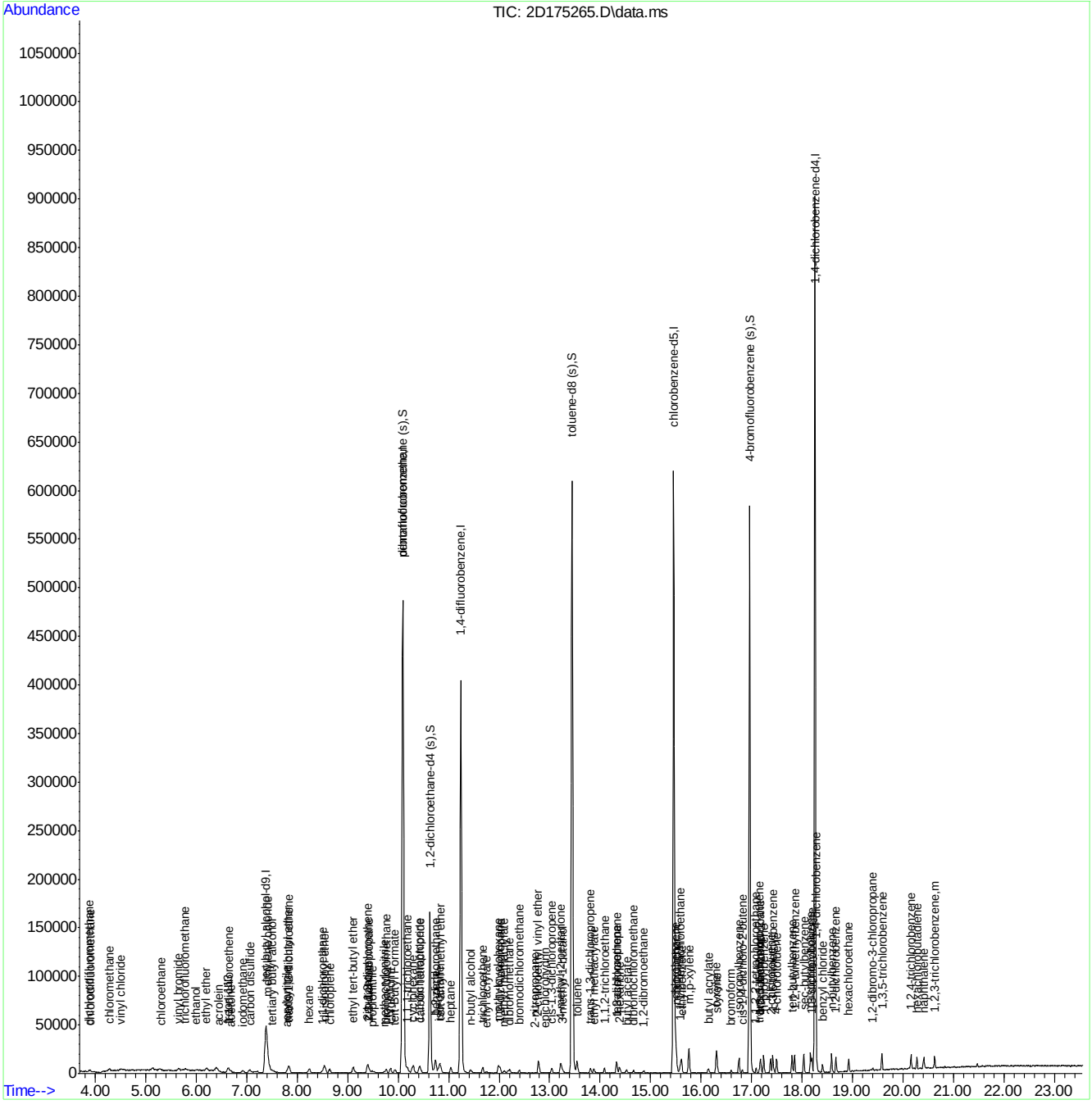
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
106) 2-chlorotoluene	17.382	126	2895	0.98 ug/L	90
107) 4-chlorotoluene	17.497	91	8676	1.05 ug/L	97
109) 1,3,5-trimethylbenzene	17.424	105	10138	1.00 ug/L	91
110) tert-butylbenzene	17.806	119	9050	1.01 ug/L	99
111) 1,2,4-trimethylbenzene	17.853	105	10577	1.02 ug/L	97
112) sec-butylbenzene	18.037	105	14018	1.04 ug/L	94
113) 1,3-dichlorobenzene	18.194	146	6239	0.99 ug/L	99
114) p-isopropyltoluene	18.168	119	11598	0.99 ug/L	100
115) 1,4-dichlorobenzene	18.278	146	6538	1.03 ug/L	96
116) 1,2-dichlorobenzene	18.671	146	6448	1.02 ug/L	94
117) benzyl chloride	18.409	91	6005	1.02 ug/L	97
119) n-butylbenzene	18.582	92	5906	1.01 ug/L	86
121) 1,2-dibromo-3-chloropr...	19.400	157	728	1.00 ug/L	81
123) 1,3,5-trichlorobenzene	19.584	180	5506	0.93 ug/L	96
124) hexachlorobutadiene	20.281	225	2789	0.97 ug/L	93
125) naphthalene	20.412	128	9059	0.89 ug/L	98
127) 1,2,4-trichlorobenzene	20.160	180	4647	0.93 ug/L	99
128) 1,2,3-trichlorobenzene	20.627	180	4076	0.88 ug/L	93
129) hexachloroethane	18.928	201	1877	0.91 ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	112244	500.00	ug/L	-0.02
5) pentafluorobenzene	10.088	168	286766	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.242	114	393444	50.00	ug/L	0.00
76) chlorobenzene-d5	15.463	117	390400	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	229345	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	123505	49.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
55) 1,2-dichloroethane-d4 (s)	10.629	65	138006	51.07	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.14%			
77) toluene-d8 (s)	13.444	98	457394	50.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%			
100) 4-bromofluorobenzene (s)	16.962	95	186201	50.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.20%			
Target Compounds						Qvalue
6) chlorodifluoromethane	3.886	51	1522	0.56	ug/L	69
10) chloromethane	4.258	50	1980	0.55	ug/L	89
11) vinyl chloride	4.494	62	1359	0.43	ug/L	91
13) chloroethane	5.291	64	894	0.54	ug/L	75
14) trichlorofluoromethane	5.800	101	1378	0.41	ug/L	85
15) vinyl bromide	5.663	106	1325	0.56	ug/L #	71
17) ethyl ether	6.203	74	605	0.54	ug/L #	79
19) 1,1-dichloroethene	6.639	96	1230	0.57	ug/L #	69
24) iodomethane	6.911	142	2016	0.55	ug/L	86
25) carbon disulfide	7.068	76	4123	0.60	ug/L	90
28) methyl tert butyl ether	7.818	73	3688	0.59	ug/L	88
29) trans-1,2-dichloroethene	7.834	96	1266	0.58	ug/L	93
30) hexane	8.243	57	1262	0.44	ug/L	85
31) di-isopropyl ether	8.547	45	4452	0.59	ug/L	86
33) 1,1-dichloroethane	8.495	63	2378	0.58	ug/L	95
34) chloroprene	8.641	53	1827	0.56	ug/L	86
37) ethyl tert-butyl ether	9.113	59	4327	0.61	ug/L	85
39) 2,2-dichloropropane	9.407	77	1901	0.59	ug/L	92
40) cis-1,2-dichloroethene	9.386	96	1508	0.61	ug/L	80
41) propionitrile	9.496	54	1683	5.38	ug/L	91
42) tert-Butyl Formate	9.936	59	1155	0.53	ug/L	87
43) bromochloromethane	9.769	128	734	0.60	ug/L #	53
47) methacrylonitrile	9.727	67	372	0.46	ug/L #	73
48) 1,1,1-trichloroethane	10.172	97	2013	0.55	ug/L	95
49) cyclohexane	10.277	84	1472	0.49	ug/L #	74
50) 1,1-dichloropropene	10.408	75	1699	0.57	ug/L	91
52) carbon tetrachloride	10.435	117	1757	0.55	ug/L	88
56) benzene	10.744	78	5252	0.60	ug/L	99
57) iso-octane	10.807	57	3947	0.45	ug/L	93
59) heptane	11.043	57	677	0.42	ug/L	81
62) n-butyl alcohol	11.436	56	1310	24.58	ug/L	90
63) ethyl acrylate	11.751	55	1453	0.56	ug/L	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
64)	trichloroethene	11.677	130	1381	0.58	ug/L		90
66)	2-chloroethyl vinyl ether	12.778	63	4075	2.88	ug/L		97
67)	methyl methacrylate	12.102	69	641	0.47	ug/L	#	78
68)	1,2-dichloropropane	12.023	63	1388	0.59	ug/L		96
69)	dibromomethane	12.201	93	698	0.50	ug/L		77
70)	methylcyclohexane	11.986	83	1725	0.44	ug/L		87
71)	bromodichloromethane	12.395	83	1702	0.56	ug/L		86
73)	cis-1,3-dichloropropene	13.040	75	2376	0.62	ug/L		97
78)	toluene	13.549	92	3231	0.59	ug/L		91
79)	trans-1,3-dichloropropene	13.811	75	1997	0.59	ug/L		93
80)	ethyl methacrylate	13.879	69	1573	0.56	ug/L		83
81)	1,1,2-trichloroethane	14.084	83	927	0.55	ug/L	#	81
82)	tetrachloroethene	14.320	164	1211	0.59	ug/L		98
83)	1,3-dichloropropane	14.335	76	1894	0.57	ug/L		90
84)	2-hexanone	14.388	58	1698	2.25	ug/L		99
85)	butyl acetate	14.519	56	644	0.47	ug/L	#	36
86)	dibromochloromethane	14.660	129	1333	0.56	ug/L		86
87)	1,2-dibromoethane	14.849	107	1388	0.60	ug/L	#	68
88)	n-butyl ether	15.505	57	6061	0.58	ug/L		97
89)	chlorobenzene	15.505	112	4023	0.62	ug/L		92
90)	1,1,1,2-tetrachloroethane	15.588	131	1357	0.56	ug/L		96
91)	ethylbenzene	15.615	91	6431	0.59	ug/L		94
92)	m,p-xylene	15.767	91	10279	1.21	ug/L		98
93)	o-xylene	16.301	106	2474	0.58	ug/L		93
94)	styrene	16.312	104	4198	0.58	ug/L		91
95)	butyl acrylate	16.155	55	2651	0.58	ug/L		87
96)	bromoform	16.595	173	849	0.52	ug/L		79
97)	isopropylbenzene	16.752	105	6575	0.57	ug/L		94
98)	cis-1,4-dichloro-2-butene	16.821	88	513	0.56	ug/L		91
101)	bromobenzene	17.182	156	1900	0.59	ug/L		89
102)	1,1,2,2-tetrachloroethane	17.093	83	1773	0.61	ug/L		88
105)	n-propylbenzene	17.240	91	8007	0.60	ug/L		98
106)	2-chlorotoluene	17.382	126	1646	0.57	ug/L		90
107)	4-chlorotoluene	17.497	91	4766	0.59	ug/L		95
109)	1,3,5-trimethylbenzene	17.423	105	5855	0.59	ug/L		98
110)	tert-butylbenzene	17.806	119	5097	0.58	ug/L		90
111)	1,2,4-trimethylbenzene	17.853	105	5928	0.59	ug/L		97
112)	sec-butylbenzene	18.037	105	7526	0.57	ug/L		98
113)	1,3-dichlorobenzene	18.199	146	3766	0.61	ug/L		93
114)	p-isopropyltoluene	18.173	119	6692	0.59	ug/L		97
115)	1,4-dichlorobenzene	18.278	146	3603	0.58	ug/L		96
116)	1,2-dichlorobenzene	18.671	146	3505	0.57	ug/L		94
119)	n-butylbenzene	18.587	92	3201	0.56	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.400	157	340	0.48	ug/L	#	69
123)	1,3,5-trichlorobenzene	19.584	180	3148	0.55	ug/L		95
124)	hexachlorobutadiene	20.281	225	1566	0.56	ug/L		95
125)	naphthalene	20.417	128	5077	0.51	ug/L		96
127)	1,2,4-trichlorobenzene	20.166	180	2521	0.52	ug/L		96
128)	1,2,3-trichlorobenzene	20.632	180	2467	0.55	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

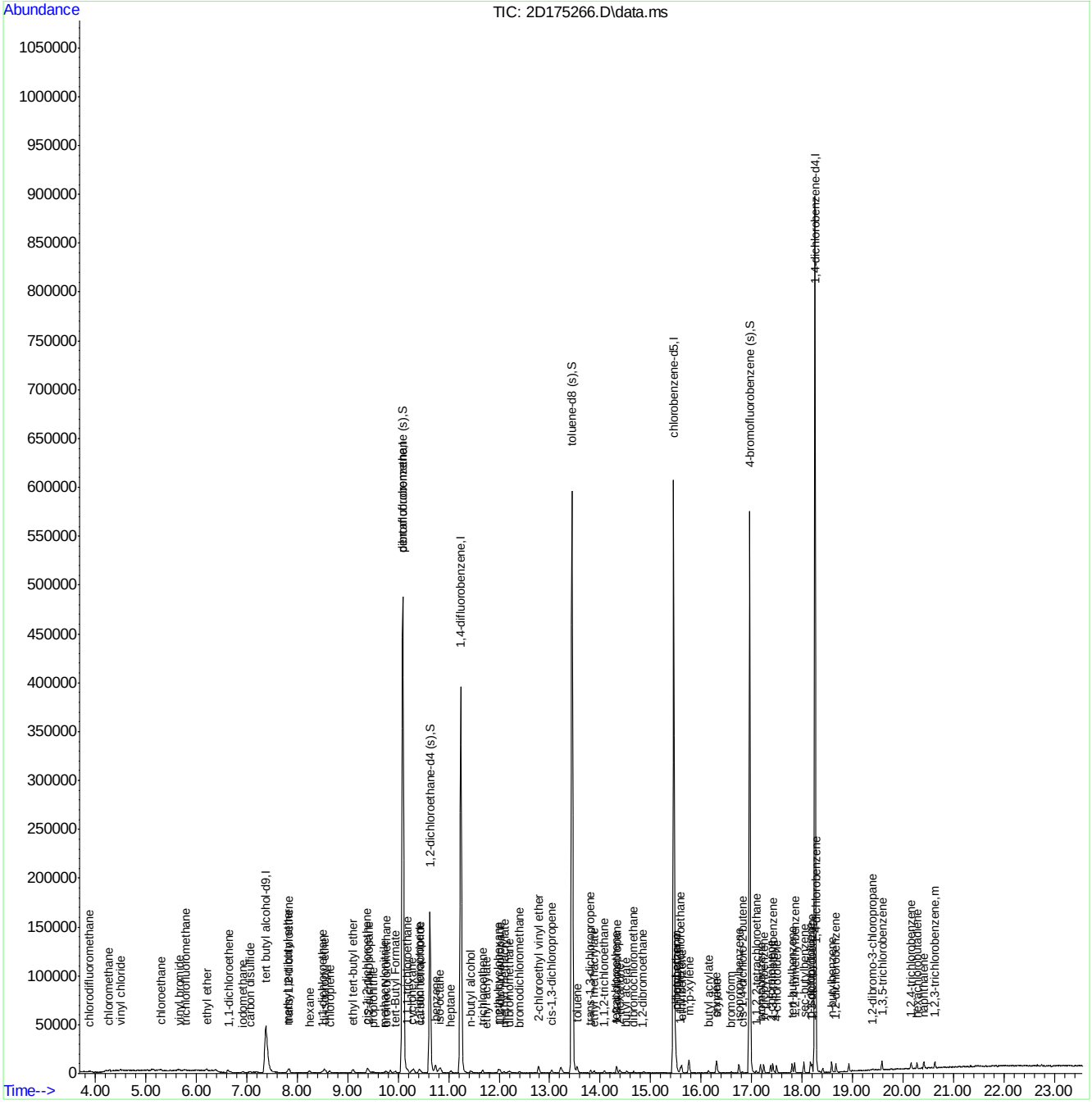
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	113895	500.00	ug/L	0.00
5) pentafluorobenzene	10.094	168	299087	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.242	114	413677	50.00	ug/L	0.00
76) chlorobenzene-d5	15.458	117	406046	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	239304	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.094	113	130215	50.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.08%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	144166	50.74	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.48%			
77) toluene-d8 (s)	13.444	98	477481	50.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.14%			
100) 4-bromofluorobenzene (s)	16.962	95	191877	49.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.96%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	2017	9.40	ug/L	74
3) ethanol	5.994	45	5802	258.73	ug/L	96
4) 1,4-dioxane	12.191	88	947	44.36	ug/L	83
6) chlorodifluoromethane	3.891	51	5733	2.03	ug/L	97
7) dichlorodifluoromethane	3.886	85	6374	1.92	ug/L	82
10) chloromethane	4.274	50	7570	2.01	ug/L	97
11) vinyl chloride	4.500	62	6656	2.01	ug/L	99
12) bromomethane	5.134	94	5367	2.31	ug/L	87
13) chloroethane	5.291	64	3336	1.92	ug/L	94
14) trichlorofluoromethane	5.774	101	7499	2.01	ug/L	89
15) vinyl bromide	5.653	106	4779	1.93	ug/L	95
17) ethyl ether	6.204	74	2388	2.06	ug/L	89
18) acrolein	6.434	56	934	1.96	ug/L	81
19) 1,1-dichloroethene	6.639	96	4508	2.00	ug/L	83
20) freon 113	6.628	151	4078	2.15	ug/L	86
22) acetone	6.681	58	1297	8.11	ug/L #	52
24) iodomethane	6.917	142	7407	1.94	ug/L	90
25) carbon disulfide	7.063	76	14098	1.95	ug/L	97
26) methylene chloride	7.404	84	5135	2.06	ug/L	97
27) methyl acetate	7.205	43	3298	2.08	ug/L	83
28) methyl tert butyl ether	7.824	73	13087	2.00	ug/L	96
29) trans-1,2-dichloroethene	7.839	96	4755	2.08	ug/L	98
30) hexane	8.233	57	6420	2.15	ug/L	100
31) di-isopropyl ether	8.537	45	16161	2.06	ug/L	76
32) 2-butanone	9.386	72	1434	6.93	ug/L	98
33) 1,1-dichloroethane	8.495	63	8573	2.02	ug/L	96
34) chloroprene	8.636	53	6957	2.06	ug/L	96
35) acrylonitrile	7.782	53	1399	1.82	ug/L	90
37) ethyl tert-butyl ether	9.103	59	14395	1.96	ug/L	93
39) 2,2-dichloropropane	9.407	77	6877	2.03	ug/L	94
40) cis-1,2-dichloroethene	9.386	96	5169	2.02	ug/L	88
41) propionitrile	9.486	54	6146	18.84	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) tert-Butyl Formate	9.942	59	4621	2.05 ug/L	95
43) bromochloromethane	9.764	128	2543	1.98 ug/L	94
44) tetrahydrofuran	9.837	72	505	1.89 ug/L	97
45) chloroform	9.847	83	8676	2.12 ug/L	95
47) methacrylonitrile	9.727	67	1581	1.88 ug/L	86
48) 1,1,1-trichloroethane	10.183	97	7801	2.06 ug/L	99
49) cyclohexane	10.283	84	5903	1.88 ug/L	94
50) 1,1-dichloropropene	10.408	75	6330	2.02 ug/L	97
52) carbon tetrachloride	10.435	117	6777	2.04 ug/L	95
53) tert-amyl alcohol	10.618	73	1101	10.07 ug/L #	69
56) benzene	10.744	78	18254	1.98 ug/L	97
57) iso-octane	10.812	57	19572	2.11 ug/L	98
58) tert-amyl methyl ether	10.838	73	13921	2.02 ug/L	98
59) heptane	11.043	57	3735	2.23 ug/L	90
61) 1,2-dichloroethane	10.749	62	6983	2.17 ug/L	97
62) n-butyl alcohol	11.415	56	5452	97.28 ug/L	91
63) ethyl acrylate	11.745	55	5251	1.94 ug/L	99
64) trichloroethene	11.672	130	5005	2.01 ug/L	91
65) 2-nitropropane	12.715	41	910	2.00 ug/L	92
66) 2-chloroethyl vinyl ether	12.773	63	14443	9.70 ug/L	96
67) methyl methacrylate	12.092	69	2882	2.01 ug/L	81
68) 1,2-dichloropropane	12.023	63	4857	1.96 ug/L	98
69) dibromomethane	12.207	93	2825	1.94 ug/L	97
70) methylcyclohexane	11.992	83	8516	2.07 ug/L	96
71) bromodichloromethane	12.396	83	6311	1.98 ug/L	93
72) epichlorohydrin	12.909	57	2104	9.86 ug/L	96
73) cis-1,3-dichloropropene	13.041	75	8066	1.99 ug/L	98
74) 4-methyl-2-pentanone	13.214	58	6891	8.19 ug/L	92
75) 3-methyl-1-butanol	13.245	55	3748	38.50 ug/L	79
78) toluene	13.539	92	11463	2.00 ug/L	99
79) trans-1,3-dichloropropene	13.811	75	6648	1.89 ug/L	96
80) ethyl methacrylate	13.869	69	5573	1.91 ug/L	95
81) 1,1,2-trichloroethane	14.089	83	3311	1.88 ug/L	95
82) tetrachloroethene	14.325	164	4532	2.11 ug/L	85
83) 1,3-dichloropropane	14.330	76	6827	1.97 ug/L	96
84) 2-hexanone	14.383	58	6242	7.97 ug/L	91
85) butyl acetate	14.514	56	3022	2.11 ug/L #	82
86) dibromochloromethane	14.666	129	4741	1.93 ug/L	86
87) 1,2-dibromoethane	14.865	107	4642	1.94 ug/L	99
88) n-butyl ether	15.510	57	21744	2.01 ug/L	96
89) chlorobenzene	15.499	112	13473	1.99 ug/L	94
90) 1,1,1,2-tetrachloroethane	15.594	131	4911	1.93 ug/L	93
91) ethylbenzene	15.615	91	22941	2.02 ug/L	99
92) m,p-xylene	15.762	91	35331	4.00 ug/L	99
93) o-xylene	16.302	106	9009	2.02 ug/L	99
94) styrene	16.312	104	14821	1.97 ug/L	93
95) butyl acrylate	16.139	55	9281	1.94 ug/L	97
96) bromoform	16.595	173	3176	1.87 ug/L	94
97) isopropylbenzene	16.753	105	23748	1.99 ug/L	100
98) cis-1,4-dichloro-2-butene	16.821	88	1829	1.90 ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) bromobenzene	17.177	156	6837	2.02	ug/L	93
102) 1,1,2,2-tetrachloroethane	17.093	83	5937	1.95	ug/L	93
103) trans-1,4-dichloro-2-b...	17.156	53	1362	1.98	ug/L	97
104) 1,2,3-trichloropropane	17.172	110	1559	2.01	ug/L #	91
105) n-propylbenzene	17.240	91	28124	2.01	ug/L	99
106) 2-chlorotoluene	17.382	126	6104	2.04	ug/L	91
107) 4-chlorotoluene	17.497	91	17070	2.02	ug/L	99
109) 1,3,5-trimethylbenzene	17.424	105	20914	2.03	ug/L	97
110) tert-butylbenzene	17.806	119	18340	2.00	ug/L	99
111) 1,2,4-trimethylbenzene	17.854	105	21014	1.99	ug/L	98
112) sec-butylbenzene	18.037	105	27011	1.97	ug/L	98
113) 1,3-dichlorobenzene	18.194	146	13057	2.04	ug/L	97
114) p-isopropyltoluene	18.168	119	23595	1.98	ug/L	96
115) 1,4-dichlorobenzene	18.284	146	13116	2.03	ug/L	98
116) 1,2-dichlorobenzene	18.672	146	12737	1.98	ug/L	98
117) benzyl chloride	18.409	91	11526	2.01	ug/L	95
119) n-butylbenzene	18.588	92	11935	2.00	ug/L	100
121) 1,2-dibromo-3-chloropr...	19.400	157	1347	1.81	ug/L	92
123) 1,3,5-trichlorobenzene	19.584	180	11542	1.92	ug/L	91
124) hexachlorobutadiene	20.281	225	5704	1.94	ug/L	89
125) naphthalene	20.412	128	18785	1.81	ug/L	97
127) 1,2,4-trichlorobenzene	20.161	180	9393	1.84	ug/L	95
128) 1,2,3-trichlorobenzene	20.627	180	8621	1.84	ug/L	98
129) hexachloroethane	18.928	201	3739	1.79	ug/L	93

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

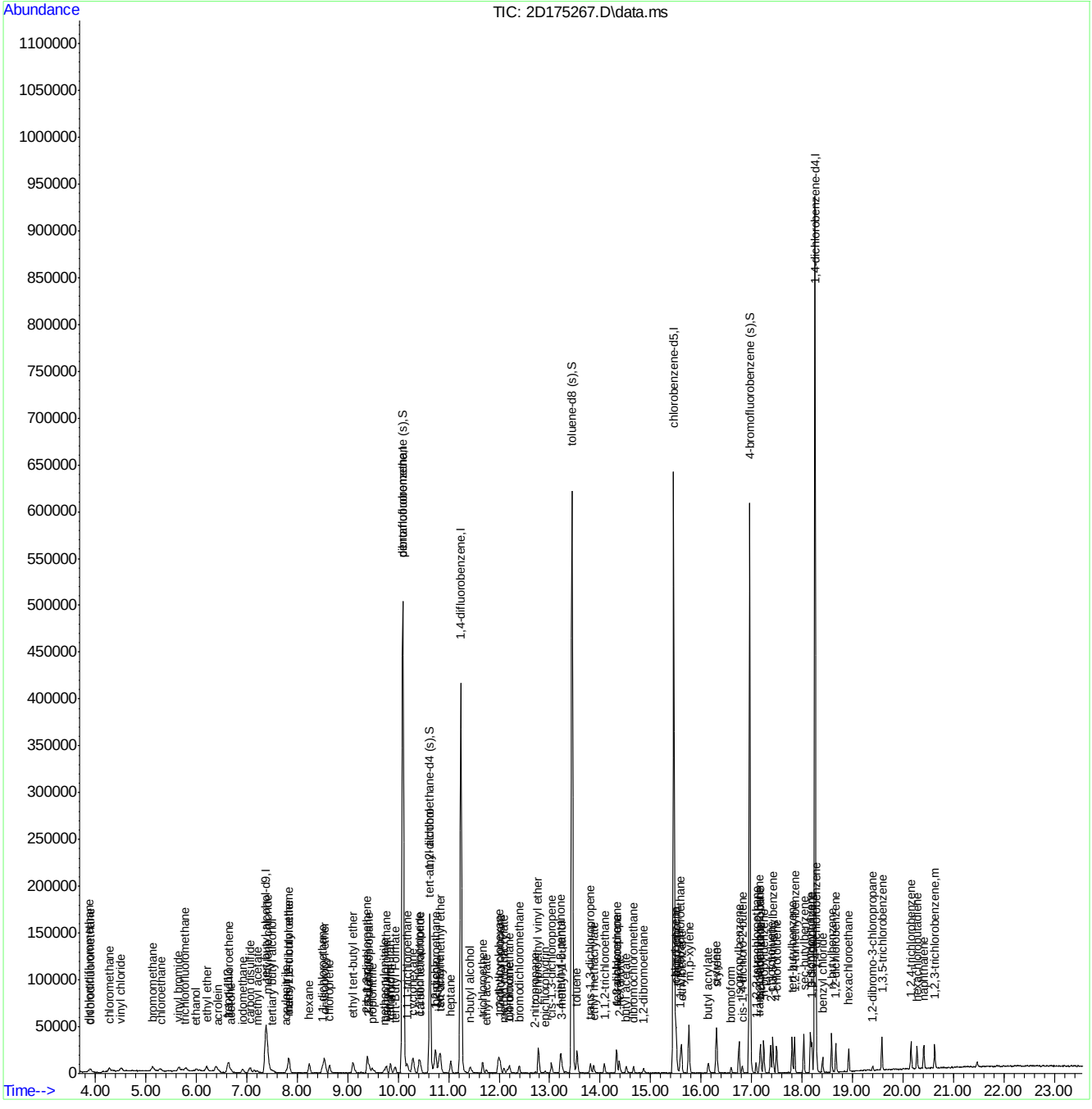
7.7.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	112814	500.00	ug/L	0.00
5) pentafluorobenzene	10.089	168	297138	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	408475	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	407059	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	242356	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	127738	49.90	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.80%			
55) 1,2-dichloroethane-d4 (s)	10.629	65	143955	51.31	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.62%			
77) toluene-d8 (s)	13.444	98	475194	50.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%			
100) 4-bromofluorobenzene (s)	16.962	95	196906	50.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.28%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	5293	24.91	ug/L	82
3) ethanol	5.999	45	11501	511.63	ug/L	93
4) 1,4-dioxane	12.181	88	2458	116.25	ug/L	97
6) chlorodifluoromethane	3.891	51	13378	4.78	ug/L	97
7) dichlorodifluoromethane	3.865	85	15674	4.75	ug/L	98
10) chloromethane	4.264	50	18300	4.90	ug/L	98
11) vinyl chloride	4.500	62	15847	4.83	ug/L	96
12) bromomethane	5.129	94	11487	4.98	ug/L	98
13) chloroethane	5.281	64	8481	4.93	ug/L	98
14) trichlorofluoromethane	5.795	101	17991	4.85	ug/L	90
15) vinyl bromide	5.653	106	11682	4.75	ug/L	97
17) ethyl ether	6.198	74	5346	4.63	ug/L	98
18) acrolein	6.439	56	2501	5.29	ug/L #	54
19) 1,1-dichloroethene	6.639	96	10690	4.77	ug/L	94
20) freon 113	6.612	151	9034	4.80	ug/L	91
21) 2-chloropropane	6.382	43	20365	5.16	ug/L	95
22) acetone	6.681	58	3108	19.56	ug/L	97
23) acetonitrile	7.142	41	13690	50.25	ug/L	88
24) iodomethane	6.911	142	17740	4.67	ug/L	96
25) carbon disulfide	7.058	76	33559	4.68	ug/L	97
26) methylene chloride	7.404	84	11999	4.84	ug/L	94
27) methyl acetate	7.205	43	8003	5.08	ug/L	97
28) methyl tert butyl ether	7.818	73	31147	4.78	ug/L	99
29) trans-1,2-dichloroethene	7.829	96	10715	4.72	ug/L	96
30) hexane	8.238	57	14307	4.82	ug/L	97
31) di-isopropyl ether	8.542	45	37224	4.77	ug/L	95
32) 2-butanone	9.376	72	3937	19.16	ug/L #	75
33) 1,1-dichloroethane	8.495	63	20554	4.87	ug/L	96
34) chloroprene	8.631	53	16166	4.81	ug/L	97
35) acrylonitrile	7.776	53	3656	4.79	ug/L	87
36) vinyl acetate	8.516	86	1557	4.43	ug/L #	91
37) ethyl tert-butyl ether	9.098	59	34693	4.75	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	1351	4.85	ug/L		91
39) 2,2-dichloropropane	9.407	77	16429	4.89	ug/L		97
40) cis-1,2-dichloroethene	9.381	96	11999	4.72	ug/L		91
41) propionitrile	9.475	54	15655	48.31	ug/L		95
42) tert-Butyl Formate	9.937	59	10976	4.89	ug/L		96
43) bromochloromethane	9.764	128	6069	4.76	ug/L		85
44) tetrahydrofuran	9.837	72	1287	4.84	ug/L	#	60
45) chloroform	9.847	83	19687	4.83	ug/L		98
47) methacrylonitrile	9.716	67	4052	4.85	ug/L		89
48) 1,1,1-trichloroethane	10.172	97	18376	4.89	ug/L		99
49) cyclohexane	10.277	84	16165	5.17	ug/L		89
50) 1,1-dichloropropene	10.408	75	14820	4.77	ug/L		97
51) isobutyl alcohol	10.435	43	5053	51.52	ug/L		92
52) carbon tetrachloride	10.435	117	15766	4.77	ug/L		95
53) tert-amyl alcohol	10.602	73	2510	23.11	ug/L		85
56) benzene	10.739	78	43983	4.83	ug/L		97
57) iso-octane	10.812	57	45567	4.98	ug/L		98
58) tert-amyl methyl ether	10.838	73	34659	5.08	ug/L		98
59) heptane	11.043	57	8476	5.12	ug/L		90
60) isopropyl acetate	10.713	87	1977	4.91	ug/L	#	76
61) 1,2-dichloroethane	10.739	62	15909	5.01	ug/L		99
62) n-butyl alcohol	11.420	56	13223	238.93	ug/L		96
63) ethyl acrylate	11.740	55	12623	4.73	ug/L		97
64) trichloroethene	11.667	130	11356	4.63	ug/L		96
65) 2-nitropropane	12.721	41	2197	4.89	ug/L		86
66) 2-chloroethyl vinyl ether	12.778	63	35271	23.99	ug/L		97
67) methyl methacrylate	12.091	69	7051	4.99	ug/L		87
68) 1,2-dichloropropane	12.023	63	11683	4.79	ug/L		98
69) dibromomethane	12.202	93	7209	5.02	ug/L		94
70) methylcyclohexane	11.987	83	19879	4.90	ug/L		99
71) bromodichloromethane	12.396	83	14979	4.76	ug/L		94
72) epichlorohydrin	12.904	57	4949	23.48	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	19294	4.82	ug/L		97
74) 4-methyl-2-pentanone	13.213	58	16149	19.45	ug/L		97
75) 3-methyl-1-butanol	13.240	55	9407	97.85	ug/L		96
78) toluene	13.544	92	27459	4.79	ug/L		93
79) trans-1,3-dichloropropene	13.806	75	16857	4.78	ug/L		98
80) ethyl methacrylate	13.869	69	14386	4.91	ug/L		97
81) 1,1,2-trichloroethane	14.084	83	8812	4.99	ug/L		91
82) tetrachloroethene	14.325	164	10002	4.64	ug/L		98
83) 1,3-dichloropropane	14.330	76	17014	4.90	ug/L		98
84) 2-hexanone	14.377	58	15159	19.30	ug/L		93
85) butyl acetate	14.514	56	7137	4.98	ug/L		91
86) dibromochloromethane	14.661	129	11115	4.52	ug/L		94
87) 1,2-dibromoethane	14.855	107	11608	4.84	ug/L		100
88) n-butyl ether	15.510	57	51582	4.76	ug/L		97
89) chlorobenzene	15.499	112	31868	4.69	ug/L		96
90) 1,1,1,2-tetrachloroethane	15.589	131	12000	4.71	ug/L		94
91) ethylbenzene	15.615	91	54016	4.75	ug/L		98
92) m,p-xylene	15.762	91	83840	9.47	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

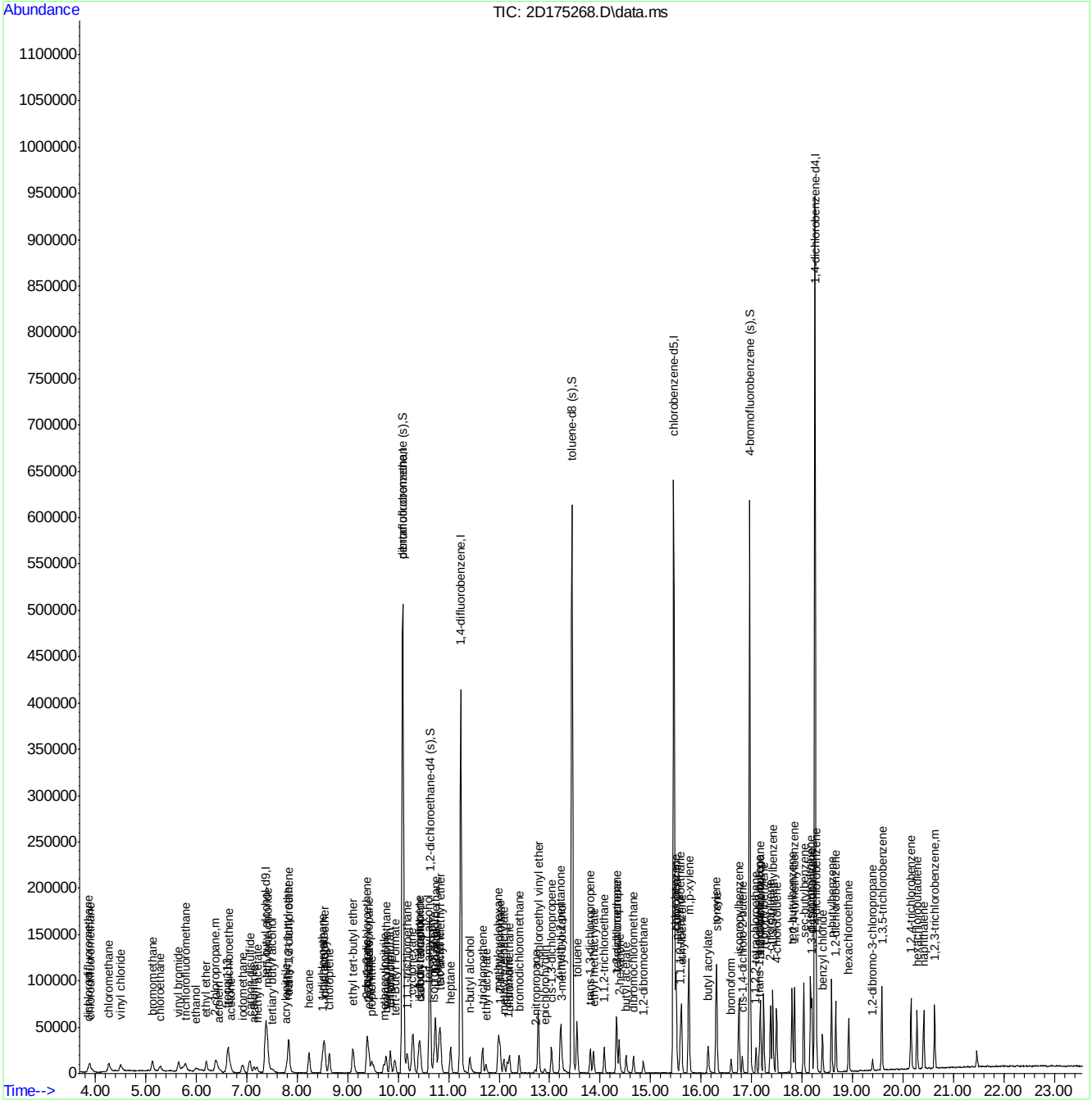
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.302	106	21994	4.92	ug/L		94
94)	styrene	16.312	104	35777	4.75	ug/L		100
95)	butyl acrylate	16.139	55	22902	4.79	ug/L		99
96)	bromoform	16.595	173	7778	4.58	ug/L		98
97)	isopropylbenzene	16.753	105	57168	4.78	ug/L		98
98)	cis-1,4-dichloro-2-butene	16.821	88	4420	4.59	ug/L		90
101)	bromobenzene	17.177	156	16133	4.72	ug/L		90
102)	1,1,2,2-tetrachloroethane	17.088	83	14868	4.83	ug/L		97
103)	trans-1,4-dichloro-2-b...	17.156	53	3433	4.92	ug/L		88
104)	1,2,3-trichloropropane	17.172	110	3872	4.93	ug/L	#	84
105)	n-propylbenzene	17.240	91	66827	4.71	ug/L		99
106)	2-chlorotoluene	17.376	126	14496	4.78	ug/L		98
107)	4-chlorotoluene	17.497	91	40936	4.79	ug/L		95
109)	1,3,5-trimethylbenzene	17.424	105	49425	4.73	ug/L		100
110)	tert-butylbenzene	17.801	119	43187	4.66	ug/L		98
111)	1,2,4-trimethylbenzene	17.848	105	50894	4.77	ug/L		98
112)	sec-butylbenzene	18.037	105	65095	4.70	ug/L		99
113)	1,3-dichlorobenzene	18.194	146	30766	4.75	ug/L		98
114)	p-isopropyltoluene	18.168	119	56137	4.66	ug/L		100
115)	1,4-dichlorobenzene	18.283	146	31226	4.76	ug/L		99
116)	1,2-dichlorobenzene	18.666	146	30404	4.68	ug/L		99
117)	benzyl chloride	18.404	91	27852	4.79	ug/L		95
119)	n-butylbenzene	18.588	92	28039	4.64	ug/L		100
121)	1,2-dibromo-3-chloropr...	19.400	157	3699	4.91	ug/L		90
123)	1,3,5-trichlorobenzene	19.584	180	27998	4.61	ug/L		98
124)	hexachlorobutadiene	20.276	225	13997	4.71	ug/L		94
125)	naphthalene	20.412	128	48102	4.56	ug/L		100
127)	1,2,4-trichlorobenzene	20.160	180	23737	4.60	ug/L		94
128)	1,2,3-trichlorobenzene	20.627	180	21577	4.54	ug/L		99
129)	hexachloroethane	18.928	201	9540	4.50	ug/L		90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	115185	500.00	ug/L	0.00
5) pentafluorobenzene	10.089	168	297365	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	406404	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	404696	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	241845	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	127581	49.80	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 99.60%						
55) 1,2-dichloroethane-d4 (s)	10.623	65	142867	51.18	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124 Recovery = 102.36%						
77) toluene-d8 (s)	13.444	98	472374	50.20	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 100.40%						
100) 4-bromofluorobenzene (s)	16.962	95	192976	49.73	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 99.46%						
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	10765	49.61	ug/L	96
3) ethanol	5.999	45	21151	915.20	ug/L	96
4) 1,4-dioxane	12.191	88	5283	244.71	ug/L	98
6) chlorodifluoromethane	3.891	51	28016	10.00	ug/L	96
7) dichlorodifluoromethane	3.876	85	35122	10.63	ug/L	97
10) chloromethane	4.269	50	35178	9.42	ug/L	98
11) vinyl chloride	4.494	62	32490	9.89	ug/L	94
12) bromomethane	5.129	94	23018	9.97	ug/L	97
13) chloroethane	5.281	64	16708	9.70	ug/L	98
14) trichlorofluoromethane	5.774	101	38431	10.06	ug/L	99
15) vinyl bromide	5.648	106	23341	9.48	ug/L	96
17) ethyl ether	6.193	74	11318	9.80	ug/L	94
18) acrolein	6.439	56	4432	9.36	ug/L	99
19) 1,1-dichloroethene	6.633	96	22098	9.86	ug/L	93
20) freon 113	6.623	151	19307	10.26	ug/L	98
21) 2-chloropropane	6.382	43	38799	9.83	ug/L	98
22) acetone	6.681	58	6586	41.43	ug/L #	80
23) acetonitrile	7.137	41	28048	102.87	ug/L	97
24) iodomethane	6.917	142	37119	9.77	ug/L	98
25) carbon disulfide	7.058	76	68383	9.52	ug/L	98
26) methylene chloride	7.404	84	24589	9.92	ug/L	90
27) methyl acetate	7.200	43	15905	10.09	ug/L	97
28) methyl tert butyl ether	7.813	73	63062	9.68	ug/L	92
29) trans-1,2-dichloroethene	7.834	96	22180	9.76	ug/L	99
30) hexane	8.233	57	30218	10.17	ug/L	98
31) di-isopropyl ether	8.537	45	75995	9.73	ug/L	92
32) 2-butanone	9.376	72	8522	41.45	ug/L	93
33) 1,1-dichloroethane	8.495	63	40908	9.68	ug/L	97
34) chloroprene	8.636	53	32087	9.54	ug/L	99
35) acrylonitrile	7.771	53	7925	10.38	ug/L	98
36) vinyl acetate	8.510	86	3745	10.65	ug/L #	86
37) ethyl tert-butyl ether	9.103	59	71027	9.71	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.428	45	2924	10.49	ug/L		90
39) 2,2-dichloropropane	9.402	77	33203	9.87	ug/L		98
40) cis-1,2-dichloroethene	9.386	96	24254	9.53	ug/L		96
41) propionitrile	9.470	54	32695	100.82	ug/L		98
42) tert-Butyl Formate	9.926	59	22589	10.06	ug/L		97
43) bromochloromethane	9.758	128	12558	9.84	ug/L		98
44) tetrahydrofuran	9.832	72	2712	10.19	ug/L		87
45) chloroform	9.842	83	40599	9.96	ug/L		99
47) methacrylonitrile	9.711	67	8454	10.12	ug/L		90
48) 1,1,1-trichloroethane	10.178	97	36725	9.76	ug/L		93
49) cyclohexane	10.277	84	32862	10.50	ug/L		89
50) 1,1-dichloropropene	10.408	75	30754	9.88	ug/L		98
51) isobutyl alcohol	10.435	43	10698	108.98	ug/L		97
52) carbon tetrachloride	10.429	117	32967	9.98	ug/L		98
53) tert-amyl alcohol	10.608	73	5779	53.17	ug/L		90
56) benzene	10.739	78	87167	9.62	ug/L		97
57) iso-octane	10.812	57	95207	10.45	ug/L		99
58) tert-amyl methyl ether	10.833	73	68770	10.13	ug/L		97
59) heptane	11.038	57	17892	10.86	ug/L		97
60) isopropyl acetate	10.713	87	4270	10.65	ug/L	#	69
61) 1,2-dichloroethane	10.739	62	31176	9.87	ug/L		98
62) n-butyl alcohol	11.415	56	29103	528.56	ug/L		98
63) ethyl acrylate	11.735	55	26655	10.03	ug/L		97
64) trichloroethene	11.672	130	23918	9.79	ug/L		96
65) 2-nitropropane	12.715	41	4349	9.69	ug/L		94
66) 2-chloroethyl vinyl ether	12.773	63	72593	49.62	ug/L		96
67) methyl methacrylate	12.086	69	14512	10.32	ug/L		92
68) 1,2-dichloropropane	12.018	63	24113	9.93	ug/L		97
69) dibromomethane	12.202	93	14274	10.00	ug/L		97
70) methylcyclohexane	11.987	83	41983	10.41	ug/L		95
71) bromodichloromethane	12.396	83	30799	9.84	ug/L		93
72) epichlorohydrin	12.904	57	10390	49.55	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	37987	9.54	ug/L		99
74) 4-methyl-2-pentanone	13.213	58	32940	39.87	ug/L		88
75) 3-methyl-1-butanol	13.240	55	19697	205.93	ug/L		95
78) toluene	13.539	92	54416	9.54	ug/L		100
79) trans-1,3-dichloropropene	13.806	75	34488	9.84	ug/L		97
80) ethyl methacrylate	13.869	69	28762	9.87	ug/L		99
81) 1,1,2-trichloroethane	14.079	83	17252	9.83	ug/L		98
82) tetrachloroethene	14.320	164	21207	9.90	ug/L		98
83) 1,3-dichloropropane	14.330	76	34014	9.85	ug/L		96
84) 2-hexanone	14.377	58	31506	40.34	ug/L		95
85) butyl acetate	14.508	56	14915	10.47	ug/L		96
86) dibromochloromethane	14.661	129	23920	9.78	ug/L		99
87) 1,2-dibromoethane	14.855	107	23076	9.68	ug/L		99
88) n-butyl ether	15.505	57	103890	9.65	ug/L		100
89) chlorobenzene	15.499	112	64977	9.62	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.589	131	25084	9.90	ug/L		97
91) ethylbenzene	15.610	91	109578	9.68	ug/L		96
92) m,p-xylene	15.756	91	169919	19.30	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	16.302	106	43335	9.75	ug/L	99
94) styrene	16.312	104	74247	9.92	ug/L	98
95) butyl acrylate	16.139	55	46217	9.72	ug/L	97
96) bromoform	16.595	173	16265	9.63	ug/L	98
97) isopropylbenzene	16.752	105	115246	9.70	ug/L	98
98) cis-1,4-dichloro-2-butene	16.815	88	9376	9.79	ug/L	87
101) bromobenzene	17.177	156	32966	9.66	ug/L	92
102) 1,1,2,2-tetrachloroethane	17.088	83	29779	9.69	ug/L	99
103) trans-1,4-dichloro-2-b...	17.151	53	6968	10.00	ug/L	86
104) 1,2,3-trichloropropane	17.172	110	7921	10.11	ug/L #	82
105) n-propylbenzene	17.240	91	136459	9.63	ug/L	99
106) 2-chlorotoluene	17.376	126	29574	9.77	ug/L	93
107) 4-chlorotoluene	17.492	91	81522	9.57	ug/L	99
109) 1,3,5-trimethylbenzene	17.424	105	100477	9.63	ug/L	98
110) tert-butylbenzene	17.806	119	88577	9.57	ug/L	98
111) 1,2,4-trimethylbenzene	17.848	105	102746	9.65	ug/L	97
112) sec-butylbenzene	18.037	105	132776	9.60	ug/L	98
113) 1,3-dichlorobenzene	18.194	146	61331	9.49	ug/L	98
114) p-isopropyltoluene	18.168	119	116683	9.71	ug/L	98
115) 1,4-dichlorobenzene	18.278	146	61807	9.45	ug/L	100
116) 1,2-dichlorobenzene	18.671	146	62658	9.66	ug/L	98
117) benzyl chloride	18.404	91	57894	9.97	ug/L	99
119) n-butylbenzene	18.582	92	57991	9.62	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.400	157	7228	9.62	ug/L	92
122) nitrobenzene	19.599	77	747	5.77	ug/L	95
123) 1,3,5-trichlorobenzene	19.584	180	58732	9.69	ug/L	99
124) hexachlorobutadiene	20.281	225	28967	9.77	ug/L	96
125) naphthalene	20.412	128	103018	9.80	ug/L	99
126) 2-ethylhexyl acrylate	20.171	70	4849	1.69	ug/L	96
127) 1,2,4-trichlorobenzene	20.160	180	49009	9.51	ug/L	100
128) 1,2,3-trichlorobenzene	20.627	180	46038	9.70	ug/L	99
129) hexachloroethane	18.928	201	19749	9.34	ug/L	90
130) 2-methylnaphthalene	21.466	142	22118	4.15	ug/L	96

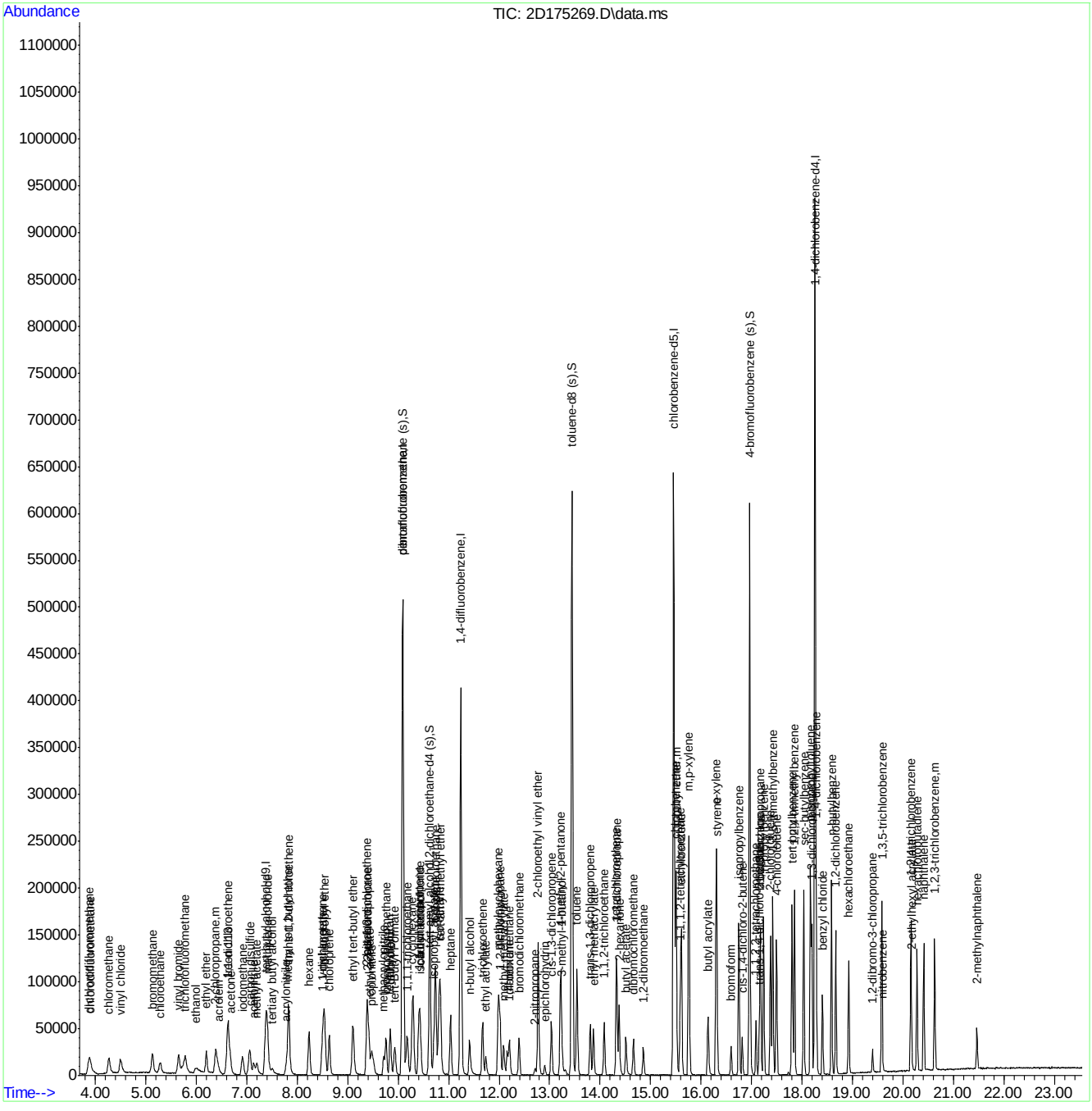
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.5 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	115841	500.00	ug/L	0.00
5) pentafluorobenzene	10.088	168	297419	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	409439	50.00	ug/L	0.00
76) chlorobenzene-d5	15.463	117	404704	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	242919	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	127280	49.67	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 99.34%						
55) 1,2-dichloroethane-d4 (s)	10.623	65	139719	49.68	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124 Recovery = 99.36%						
77) toluene-d8 (s)	13.444	98	471990	50.15	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 100.30%						
100) 4-bromofluorobenzene (s)	16.962	95	193277	49.59	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 99.18%						
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.504	59	22111	101.32	ug/L	90
3) ethanol	5.999	45	41743	1787.48	ug/L	99
4) 1,4-dioxane	12.186	88	10837	499.12	ug/L	98
6) chlorodifluoromethane	3.886	51	55384	19.76	ug/L	96
7) dichlorodifluoromethane	3.870	85	71761	21.71	ug/L	95
10) chloromethane	4.263	50	72484	19.40	ug/L	97
11) vinyl chloride	4.499	62	66918	20.37	ug/L	99
12) bromomethane	5.123	94	45640	19.77	ug/L	95
13) chloroethane	5.281	64	33179	19.25	ug/L	99
14) trichlorofluoromethane	5.779	101	78176	20.46	ug/L	97
15) vinyl bromide	5.653	106	48753	19.80	ug/L	97
17) ethyl ether	6.198	74	22467	19.45	ug/L	91
18) acrolein	6.434	56	9049	19.11	ug/L	88
19) 1,1-dichloroethene	6.633	96	43550	19.43	ug/L	95
20) freon 113	6.618	151	38551	20.48	ug/L	97
21) 2-chloropropane	6.387	43	73599	18.64	ug/L	97
22) acetone	6.681	58	12992	81.71	ug/L	90
23) acetonitrile	7.137	41	54703	200.59	ug/L	98
24) iodomethane	6.911	142	74194	19.53	ug/L	98
25) carbon disulfide	7.058	76	138643	19.30	ug/L	100
26) methylene chloride	7.404	84	48357	19.50	ug/L	98
27) methyl acetate	7.200	43	31293	19.84	ug/L	95
28) methyl tert butyl ether	7.818	73	127442	19.55	ug/L	99
29) trans-1,2-dichloroethene	7.834	96	43014	18.93	ug/L	98
30) hexane	8.232	57	59565	20.05	ug/L	100
31) di-isopropyl ether	8.537	45	151089	19.35	ug/L	95
32) 2-butanone	9.370	72	17529	85.23	ug/L #	85
33) 1,1-dichloroethane	8.495	63	80585	19.07	ug/L	99
34) chloroprene	8.636	53	65342	19.43	ug/L	99
35) acrylonitrile	7.771	53	16054	21.03	ug/L	96
36) vinyl acetate	8.516	86	7493	21.31	ug/L	100
37) ethyl tert-butyl ether	9.103	59	142907	19.53	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	5739	20.58	ug/L		92
39) 2,2-dichloropropane	9.402	77	64468	19.17	ug/L		94
40) cis-1,2-dichloroethene	9.386	96	48718	19.14	ug/L		97
41) propionitrile	9.475	54	65519	202.00	ug/L		98
42) tert-Butyl Formate	9.926	59	44127	19.65	ug/L		94
43) bromochloromethane	9.763	128	24401	19.13	ug/L		96
44) tetrahydrofuran	9.832	72	5373	20.19	ug/L		94
45) chloroform	9.842	83	79341	19.46	ug/L		96
47) methacrylonitrile	9.711	67	17213	20.60	ug/L		98
48) 1,1,1-trichloroethane	10.178	97	72647	19.29	ug/L		96
49) cyclohexane	10.282	84	64392	20.58	ug/L		92
50) 1,1-dichloropropene	10.408	75	59442	19.10	ug/L		98
51) isobutyl alcohol	10.435	43	19828	201.96	ug/L		97
52) carbon tetrachloride	10.435	117	64122	19.40	ug/L		94
53) tert-amyl alcohol	10.608	73	11186	102.89	ug/L		98
56) benzene	10.739	78	174271	19.10	ug/L		99
57) iso-octane	10.807	57	188387	20.53	ug/L		97
58) tert-amyl methyl ether	10.838	73	135269	19.78	ug/L		99
59) heptane	11.037	57	33259	20.04	ug/L		99
60) isopropyl acetate	10.712	87	8332	20.62	ug/L	#	81
61) 1,2-dichloroethane	10.739	62	61805	19.43	ug/L		99
62) n-butyl alcohol	11.415	56	58020	1045.93	ug/L		99
63) ethyl acrylate	11.735	55	53149	19.85	ug/L		98
64) trichloroethene	11.672	130	47097	19.14	ug/L		98
65) 2-nitropropane	12.710	41	8702	19.25	ug/L		95
66) 2-chloroethyl vinyl ether	12.773	63	146444	99.36	ug/L		98
67) methyl methacrylate	12.086	69	28944	20.44	ug/L		91
68) 1,2-dichloropropane	12.018	63	46868	19.16	ug/L		97
69) dibromomethane	12.201	93	28502	19.81	ug/L		97
70) methylcyclohexane	11.986	83	82698	20.35	ug/L		96
71) bromodichloromethane	12.395	83	61007	19.35	ug/L		100
72) epichlorohydrin	12.899	57	21450	101.54	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	76591	19.09	ug/L		99
74) 4-methyl-2-pentanone	13.213	58	66264	79.62	ug/L		95
75) 3-methyl-1-butanol	13.240	55	38055	394.91	ug/L		93
78) toluene	13.538	92	110452	19.36	ug/L		96
79) trans-1,3-dichloropropene	13.806	75	68705	19.61	ug/L		95
80) ethyl methacrylate	13.869	69	58747	20.15	ug/L		97
81) 1,1,2-trichloroethane	14.084	83	34555	19.69	ug/L		97
82) tetrachloroethene	14.320	164	41630	19.43	ug/L		97
83) 1,3-dichloropropane	14.330	76	66850	19.35	ug/L		99
84) 2-hexanone	14.377	58	62292	79.76	ug/L		99
85) butyl acetate	14.508	56	28856	20.25	ug/L		96
86) dibromochloromethane	14.660	129	47018	19.22	ug/L		98
87) 1,2-dibromoethane	14.854	107	46876	19.66	ug/L		96
88) n-butyl ether	15.505	57	207286	19.25	ug/L		100
89) chlorobenzene	15.499	112	129877	19.22	ug/L		97
90) 1,1,1,2-tetrachloroethane	15.588	131	49623	19.59	ug/L		99
91) ethylbenzene	15.609	91	219387	19.39	ug/L		100
92) m,p-xylene	15.756	91	338708	38.48	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

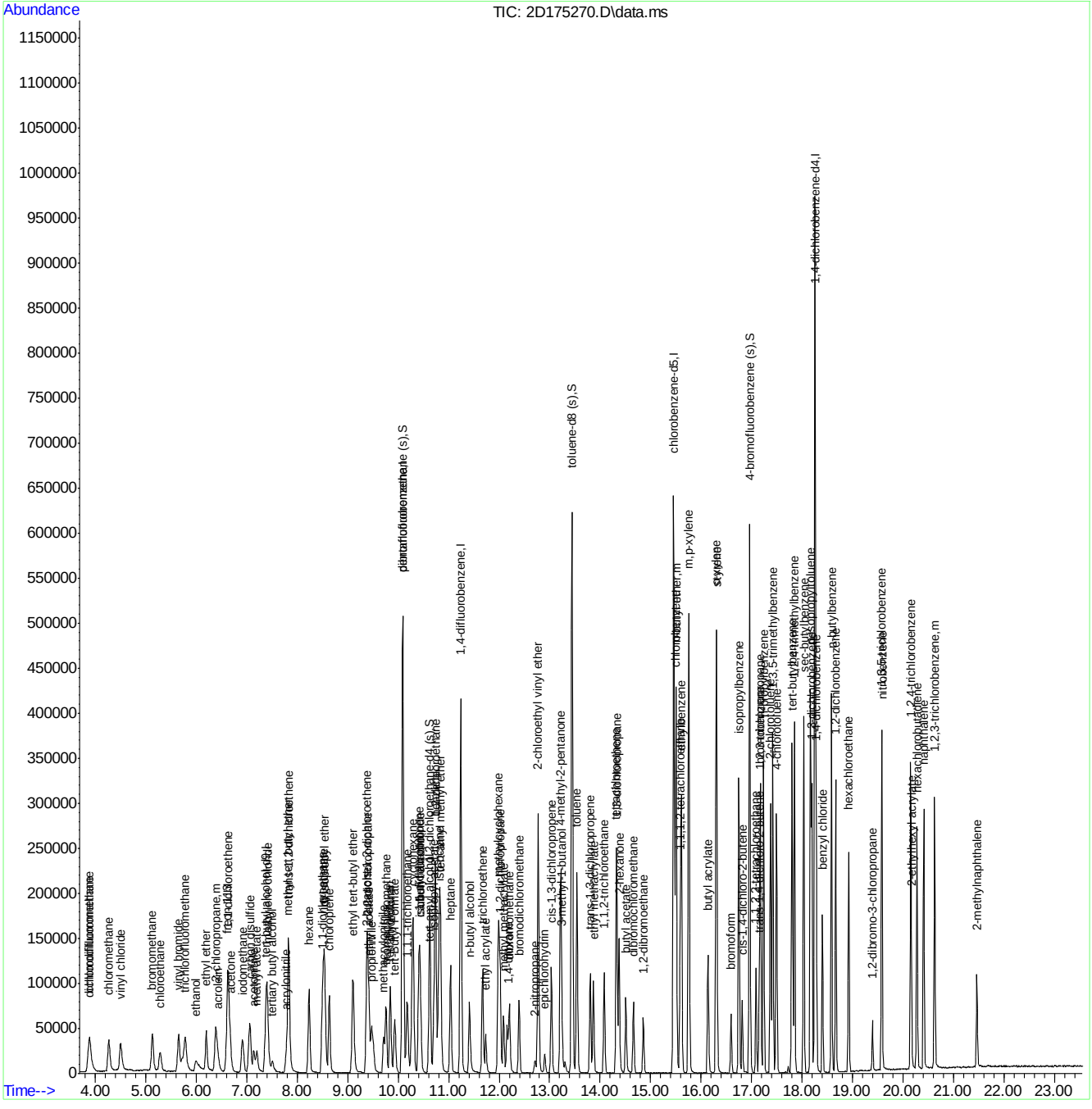
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) o-xylene	16.301	106	84831	19.09	ug/L		100
94) styrene	16.307	104	146206	19.53	ug/L		98
95) butyl acrylate	16.139	55	94263	19.81	ug/L		98
96) bromoform	16.595	173	33284	19.70	ug/L		97
97) isopropylbenzene	16.747	105	230841	19.42	ug/L		99
98) cis-1,4-dichloro-2-butene	16.815	88	19881	20.75	ug/L		97
101) bromobenzene	17.177	156	64246	18.74	ug/L		94
102) 1,1,2,2-tetrachloroethane	17.088	83	59642	19.33	ug/L		97
103) trans-1,4-dichloro-2-b...	17.151	53	14340	20.50	ug/L		89
104) 1,2,3-trichloropropane	17.167	110	15767	20.04	ug/L	#	90
105) n-propylbenzene	17.240	91	272568	19.15	ug/L		100
106) 2-chlorotoluene	17.376	126	58133	19.13	ug/L		98
107) 4-chlorotoluene	17.492	91	163158	19.06	ug/L		98
109) 1,3,5-trimethylbenzene	17.423	105	200107	19.09	ug/L		98
110) tert-butylbenzene	17.806	119	179084	19.26	ug/L		97
111) 1,2,4-trimethylbenzene	17.848	105	203414	19.01	ug/L		98
112) sec-butylbenzene	18.037	105	267007	19.22	ug/L		99
113) 1,3-dichlorobenzene	18.194	146	122797	18.92	ug/L		100
114) p-isopropyltoluene	18.168	119	231481	19.18	ug/L		99
115) 1,4-dichlorobenzene	18.283	146	125253	19.07	ug/L		99
116) 1,2-dichlorobenzene	18.666	146	127449	19.57	ug/L		98
117) benzyl chloride	18.404	91	116329	19.95	ug/L		99
119) n-butylbenzene	18.582	92	117066	19.34	ug/L		99
121) 1,2-dibromo-3-chloropr...	19.400	157	15384	20.38	ug/L		97
122) nitrobenzene	19.584	77	1835	14.12	ug/L		82
123) 1,3,5-trichlorobenzene	19.578	180	122317	20.09	ug/L		98
124) hexachlorobutadiene	20.281	225	59793	20.07	ug/L		98
125) naphthalene	20.412	128	221758	20.99	ug/L		99
126) 2-ethylhexyl acrylate	20.171	70	10639	3.69	ug/L		95
127) 1,2,4-trichlorobenzene	20.155	180	105095	20.31	ug/L		96
128) 1,2,3-trichlorobenzene	20.627	180	97558	20.47	ug/L		99
129) hexachloroethane	18.928	201	41666	19.62	ug/L		97
130) 2-methylnaphthalene	21.466	142	51389	9.59	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	113069	500.00	ug/L	0.00
5) pentafluorobenzene	10.089	168	294649	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	404014	50.00	ug/L	0.00
76) chlorobenzene-d5	15.458	117	407064	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	242441	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	127364	50.17	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 100.34%						
55) 1,2-dichloroethane-d4 (s)	10.623	65	139234	50.17	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124 Recovery = 100.34%						
77) toluene-d8 (s)	13.439	98	471613	49.82	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 99.64%						
100) 4-bromofluorobenzene (s)	16.962	95	192106	49.39	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 98.78%						
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	54924	257.86	ug/L	100
3) ethanol	5.994	45	96061	4195.31	ug/L	100
4) 1,4-dioxane	12.181	88	27365	1291.25	ug/L	100
6) chlorodifluoromethane	3.886	51	137252	49.42	ug/L	100
7) dichlorodifluoromethane	3.860	85	175033	53.44	ug/L	100
10) chloromethane	4.258	50	170400	46.03	ug/L	100
11) vinyl chloride	4.494	62	165157	50.74	ug/L	100
12) bromomethane	5.123	94	111170	48.61	ug/L	100
13) chloroethane	5.276	64	81235	47.58	ug/L	100
14) trichlorofluoromethane	5.774	101	191651	50.62	ug/L	100
15) vinyl bromide	5.648	106	120328	49.34	ug/L	100
17) ethyl ether	6.193	74	55040	48.10	ug/L	100
18) acrolein	6.429	56	22188	47.30	ug/L	100
19) 1,1-dichloroethene	6.633	96	108544	48.89	ug/L	100
20) freon 113	6.612	151	95747	51.35	ug/L	100
21) 2-chloropropane	6.382	43	180334	46.09	ug/L	100
22) acetone	6.675	58	31779	201.74	ug/L	100
23) acetonitrile	7.137	41	130158	481.76	ug/L	100
24) iodomethane	6.911	142	188481	50.09	ug/L	100
25) carbon disulfide	7.058	76	347014	48.77	ug/L	100
26) methylene chloride	7.399	84	120148	48.90	ug/L	100
27) methyl acetate	7.194	43	76292	48.82	ug/L	100
28) methyl tert butyl ether	7.813	73	313822	48.59	ug/L	100
29) trans-1,2-dichloroethene	7.829	96	108405	48.15	ug/L	100
30) hexane	8.233	57	149894	50.93	ug/L	100
31) di-isopropyl ether	8.537	45	369768	47.79	ug/L	100
32) 2-butanone	9.365	72	42784	209.99	ug/L	100
33) 1,1-dichloroethane	8.490	63	201989	48.25	ug/L	100
34) chloroprene	8.631	53	162091	48.66	ug/L	100
35) acrylonitrile	7.766	53	39518	52.24	ug/L	100
36) vinyl acetate	8.510	86	18288	52.51	ug/L	100
37) ethyl tert-butyl ether	9.098	59	352622	48.64	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) ethyl acetate	9.423	45	13850	50.12 ug/L	100
39) 2,2-dichloropropane	9.402	77	156646	47.01 ug/L	100
40) cis-1,2-dichloroethene	9.381	96	121266	48.10 ug/L	100
41) propionitrile	9.470	54	158693	493.87 ug/L	100
42) tert-Butyl Formate	9.926	59	108131	48.61 ug/L	100
43) bromochloromethane	9.758	128	61106	48.34 ug/L	100
44) tetrahydrofuran	9.832	72	12853	48.74 ug/L	100
45) chloroform	9.842	83	197767	48.97 ug/L	100
47) methacrylonitrile	9.711	67	42239	51.02 ug/L	100
48) 1,1,1-trichloroethane	10.178	97	183345	49.15 ug/L	100
49) cyclohexane	10.277	84	159684	51.51 ug/L	100
50) 1,1-dichloropropene	10.408	75	149026	48.34 ug/L	100
51) isobutyl alcohol	10.429	43	45008	462.73 ug/L	100
52) carbon tetrachloride	10.435	117	161989	49.48 ug/L	100
53) tert-amyl alcohol	10.602	73	26583	246.82 ug/L	100
56) benzene	10.734	78	432670	48.05 ug/L	100
57) iso-octane	10.812	57	468163	51.71 ug/L	100
58) tert-amyl methyl ether	10.833	73	336727	49.91 ug/L	100
59) heptane	11.038	57	82250	50.22 ug/L	100
60) isopropyl acetate	10.707	87	20287	50.89 ug/L	100
61) 1,2-dichloroethane	10.739	62	150969	48.09 ug/L	100
62) n-butyl alcohol	11.410	56	141973	2593.72 ug/L	100
63) ethyl acrylate	11.730	55	130176	49.28 ug/L	100
64) trichloroethene	11.667	130	118026	48.61 ug/L	100
65) 2-nitropropane	12.710	41	21131	47.22 ug/L	100
66) 2-chloroethyl vinyl ether	12.773	63	360088	247.60 ug/L	100
67) methyl methacrylate	12.086	69	70881	50.73 ug/L	100
68) 1,2-dichloropropane	12.018	63	116117	48.10 ug/L	100
69) dibromomethane	12.202	93	71153	50.12 ug/L	100
70) methylcyclohexane	11.987	83	207165	51.67 ug/L	100
71) bromodichloromethane	12.396	83	154072	49.52 ug/L	100
72) epichlorohydrin	12.899	57	52227	250.54 ug/L	100
73) cis-1,3-dichloropropene	13.035	75	191408	48.35 ug/L	100
74) 4-methyl-2-pentanone	13.213	58	164160	199.89 ug/L	100
75) 3-methyl-1-butanol	13.229	55	93801	986.47 ug/L	100
78) toluene	13.539	92	272940	47.57 ug/L	100
79) trans-1,3-dichloropropene	13.801	75	173509	49.23 ug/L	100
80) ethyl methacrylate	13.864	69	144021	49.12 ug/L	100
81) 1,1,2-trichloroethane	14.079	83	85656	48.53 ug/L	100
82) tetrachloroethene	14.320	164	104145	48.34 ug/L	100
83) 1,3-dichloropropane	14.325	76	168662	48.53 ug/L	100
84) 2-hexanone	14.372	58	153352	195.23 ug/L	100
85) butyl acetate	14.509	56	70808	49.39 ug/L	100
86) dibromochloromethane	14.661	129	123172	50.06 ug/L	100
87) 1,2-dibromoethane	14.855	107	116801	48.70 ug/L	100
88) n-butyl ether	15.505	57	520949	48.10 ug/L	100
89) chlorobenzene	15.499	112	323683	47.63 ug/L	100
90) 1,1,1,2-tetrachloroethane	15.589	131	127372	49.98 ug/L	100
91) ethylbenzene	15.610	91	549634	48.29 ug/L	100
92) m,p-xylene	15.756	91	846126	95.56 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

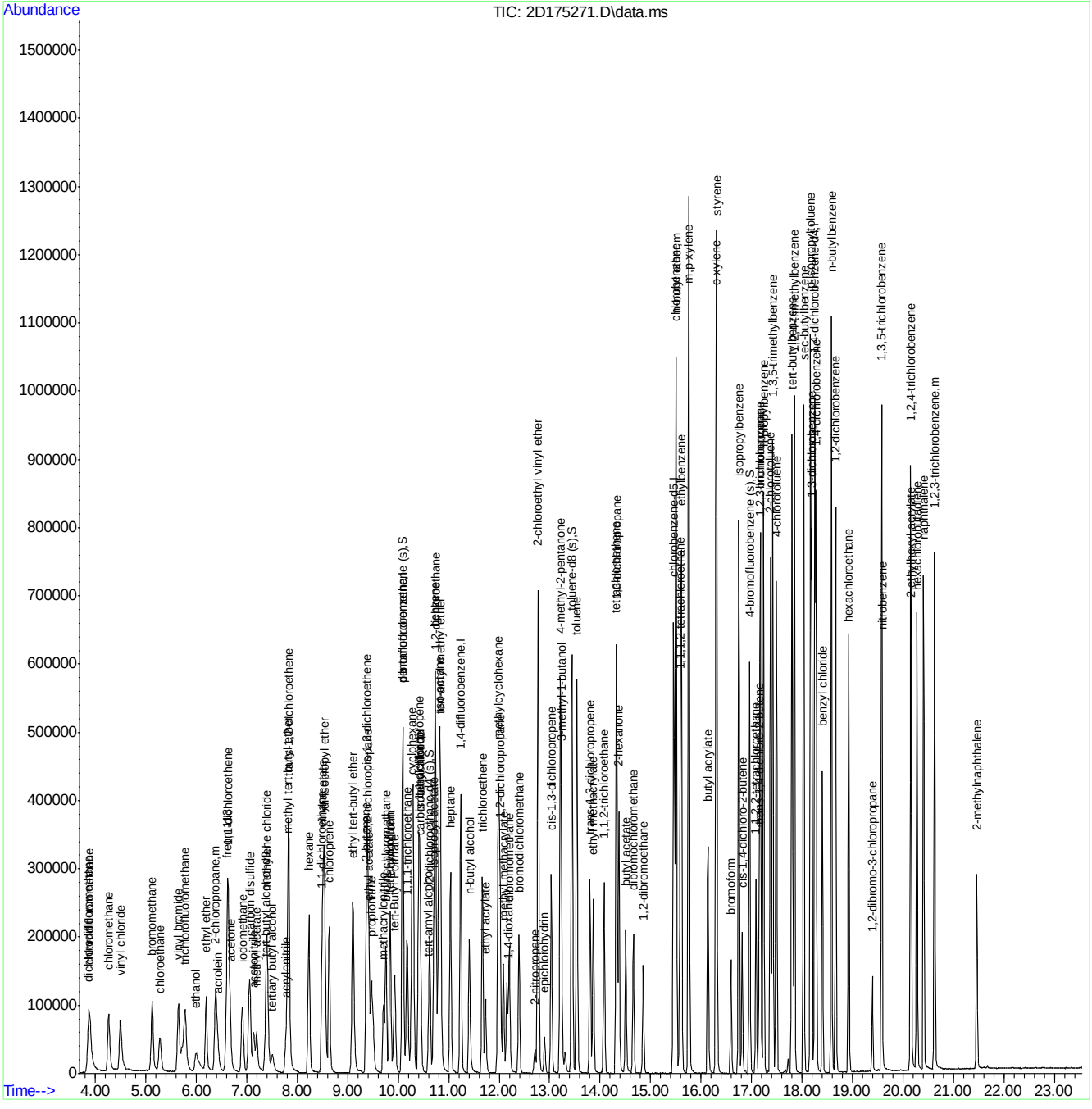
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	16.296	106	216162	48.37	ug/L	100
94) styrene	16.307	104	369733	49.10	ug/L	100
95) butyl acrylate	16.134	55	236704	49.47	ug/L	100
96) bromoform	16.590	173	87029	51.21	ug/L	100
97) isopropylbenzene	16.747	105	581942	48.68	ug/L	100
98) cis-1,4-dichloro-2-butene	16.815	88	50399	52.31	ug/L	100
101) bromobenzene	17.172	156	162157	47.40	ug/L	100
102) 1,1,2,2-tetrachloroethane	17.088	83	145479	47.24	ug/L	100
103) trans-1,4-dichloro-2-b...	17.151	53	34827	49.88	ug/L	100
104) 1,2,3-trichloropropane	17.167	110	38504	49.03	ug/L	100
105) n-propylbenzene	17.240	91	683453	48.12	ug/L	100
106) 2-chlorotoluene	17.376	126	145491	47.97	ug/L	100
107) 4-chlorotoluene	17.492	91	405135	47.42	ug/L	100
109) 1,3,5-trimethylbenzene	17.418	105	505424	48.31	ug/L	100
110) tert-butylbenzene	17.801	119	453671	48.89	ug/L	100
111) 1,2,4-trimethylbenzene	17.848	105	517115	48.43	ug/L	100
112) sec-butylbenzene	18.037	105	674998	48.68	ug/L	100
113) 1,3-dichlorobenzene	18.194	146	308141	47.56	ug/L	100
114) p-isopropyltoluene	18.168	119	585562	48.62	ug/L	100
115) 1,4-dichlorobenzene	18.278	146	315722	48.16	ug/L	100
116) 1,2-dichlorobenzene	18.666	146	317990	48.92	ug/L	100
117) benzyl chloride	18.404	91	292465	50.27	ug/L	100
119) n-butylbenzene	18.582	92	299444	49.56	ug/L	100
121) 1,2-dibromo-3-chloropr...	19.395	157	38529	51.15	ug/L	100
122) nitrobenzene	19.589	77	4636	35.73	ug/L	100
123) 1,3,5-trichlorobenzene	19.579	180	311738	51.30	ug/L	100
124) hexachlorobutadiene	20.281	225	149998	50.45	ug/L	100
125) naphthalene	20.412	128	569038	53.98	ug/L	100
126) 2-ethylhexyl acrylate	20.166	70	30681	10.67	ug/L	100
127) 1,2,4-trichlorobenzene	20.155	180	273154	52.90	ug/L	100
128) 1,2,3-trichlorobenzene	20.627	180	252633	53.12	ug/L	100
129) hexachloroethane	18.928	201	111037	52.40	ug/L	100
130) 2-methylnaphthalene	21.466	142	146957	27.49	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	111938	500.00	ug/L	0.00
5) pentafluorobenzene	10.088	168	296992	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	412396	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	417264	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	244548	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	128001	50.03	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 100.06%						
55) 1,2-dichloroethane-d4 (s)	10.623	65	138792	49.00	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124 Recovery = 98.00%						
77) toluene-d8 (s)	13.439	98	478960	49.36	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 98.72%						
100) 4-bromofluorobenzene (s)	16.962	95	195285	49.77	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 99.54%						
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	111211	527.39	ug/L	93
3) ethanol	5.999	45	195335	8581.46	ug/L	99
4) 1,4-dioxane	12.180	88	56259	2681.48	ug/L	98
6) chlorodifluoromethane	3.891	51	280805	100.32	ug/L	99
7) dichlorodifluoromethane	3.870	85	337189	102.13	ug/L	98
10) chloromethane	4.269	50	364874	97.80	ug/L	100
11) vinyl chloride	4.499	62	344524	105.02	ug/L	98
12) bromomethane	5.128	94	227867	98.86	ug/L	96
13) chloroethane	5.281	64	164270	95.45	ug/L	99
14) trichlorofluoromethane	5.779	101	379587	99.47	ug/L	96
15) vinyl bromide	5.648	106	241591	98.28	ug/L	97
17) ethyl ether	6.193	74	117173	101.58	ug/L	95
18) acrolein	6.434	56	47047	99.50	ug/L	99
19) 1,1-dichloroethene	6.633	96	222390	99.37	ug/L	97
20) freon 113	6.618	151	189776	100.98	ug/L	97
21) 2-chloropropane	6.387	43	370673	94.00	ug/L	99
22) acetone	6.675	58	67793	426.97	ug/L	96
23) acetonitrile	7.137	41	260573	956.86	ug/L	100
24) iodomethane	6.916	142	385421	101.61	ug/L	100
25) carbon disulfide	7.058	76	709134	98.87	ug/L	99
26) methylene chloride	7.399	84	250410	101.11	ug/L	99
27) methyl acetate	7.199	43	158122	100.39	ug/L	99
28) methyl tert butyl ether	7.818	73	649109	99.72	ug/L	99
29) trans-1,2-dichloroethene	7.834	96	227333	100.18	ug/L	98
30) hexane	8.232	57	303468	102.30	ug/L	99
31) di-isopropyl ether	8.536	45	769033	98.61	ug/L	96
32) 2-butanone	9.370	72	90245	439.45	ug/L	98
33) 1,1-dichloroethane	8.495	63	420915	99.75	ug/L	99
34) chloroprene	8.636	53	336125	100.11	ug/L	98
35) acrylonitrile	7.766	53	83210	109.13	ug/L	94
36) vinyl acetate	8.510	86	39285	111.90	ug/L #	94
37) ethyl tert-butyl ether	9.103	59	716301	98.03	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	28213	101.30	ug/L		96
39) 2,2-dichloropropane	9.407	77	314067	93.51	ug/L		96
40) cis-1,2-dichloroethene	9.386	96	254420	100.12	ug/L		97
41) propionitrile	9.470	54	337081	1040.76	ug/L		99
42) tert-Butyl Formate	9.931	59	221024	98.58	ug/L		98
43) bromochloromethane	9.758	128	129719	101.82	ug/L		97
44) tetrahydrofuran	9.837	72	28330	106.59	ug/L		92
45) chloroform	9.842	83	410046	100.74	ug/L		99
47) methacrylonitrile	9.711	67	89268	106.97	ug/L		95
48) 1,1,1-trichloroethane	10.178	97	375773	99.95	ug/L		96
49) cyclohexane	10.282	84	320569	102.60	ug/L		82
50) 1,1-dichloropropene	10.408	75	312361	100.51	ug/L		99
51) isobutyl alcohol	10.429	43	93298	951.64	ug/L		98
52) carbon tetrachloride	10.434	117	331920	100.58	ug/L		100
53) tert-amyl alcohol	10.602	73	54300	500.19	ug/L		96
56) benzene	10.733	78	904939	98.46	ug/L		98
57) iso-octane	10.812	57	925031	100.10	ug/L		99
58) tert-amyl methyl ether	10.833	73	683363	99.23	ug/L		100
59) heptane	11.037	57	164521	98.42	ug/L		98
60) isopropyl acetate	10.707	87	43710	107.42	ug/L	#	89
61) 1,2-dichloroethane	10.739	62	311169	97.11	ug/L		97
62) n-butyl alcohol	11.410	56	299722	5364.37	ug/L		98
63) ethyl acrylate	11.729	55	273310	101.36	ug/L		99
64) trichloroethene	11.667	130	245675	99.13	ug/L		98
65) 2-nitropropane	12.710	41	45945	100.58	ug/L		93
66) 2-chloroethyl vinyl ether	12.773	63	754556	508.29	ug/L		100
67) methyl methacrylate	12.086	69	150598	105.59	ug/L		97
68) 1,2-dichloropropane	12.018	63	243027	98.62	ug/L		100
69) dibromomethane	12.201	93	148414	102.43	ug/L		98
70) methylcyclohexane	11.986	83	416362	101.73	ug/L		100
71) bromodichloromethane	12.395	83	322515	101.54	ug/L		98
72) epichlorohydrin	12.899	57	106810	501.97	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	403085	99.76	ug/L		98
74) 4-methyl-2-pentanone	13.213	58	345144	411.72	ug/L		96
75) 3-methyl-1-butanol	13.234	55	197390	2033.69	ug/L		94
78) toluene	13.538	92	579684	98.55	ug/L		97
79) trans-1,3-dichloropropene	13.800	75	367885	101.84	ug/L		99
80) ethyl methacrylate	13.863	69	308845	102.75	ug/L		99
81) 1,1,2-trichloroethane	14.078	83	180361	99.70	ug/L		98
82) tetrachloroethene	14.320	164	217688	98.56	ug/L		98
83) 1,3-dichloropropane	14.325	76	355700	99.85	ug/L		99
84) 2-hexanone	14.372	58	326804	405.87	ug/L		99
85) butyl acetate	14.508	56	147958	100.69	ug/L		96
86) dibromochloromethane	14.660	129	263753	104.57	ug/L		98
87) 1,2-dibromoethane	14.854	107	246460	100.26	ug/L		100
88) n-butyl ether	15.504	57	1092757	98.42	ug/L		98
89) chlorobenzene	15.499	112	684899	98.31	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.588	131	269309	103.10	ug/L		98
91) ethylbenzene	15.609	91	1145980	98.21	ug/L		100
92) m,p-xylene	15.756	91	1774790	195.54	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

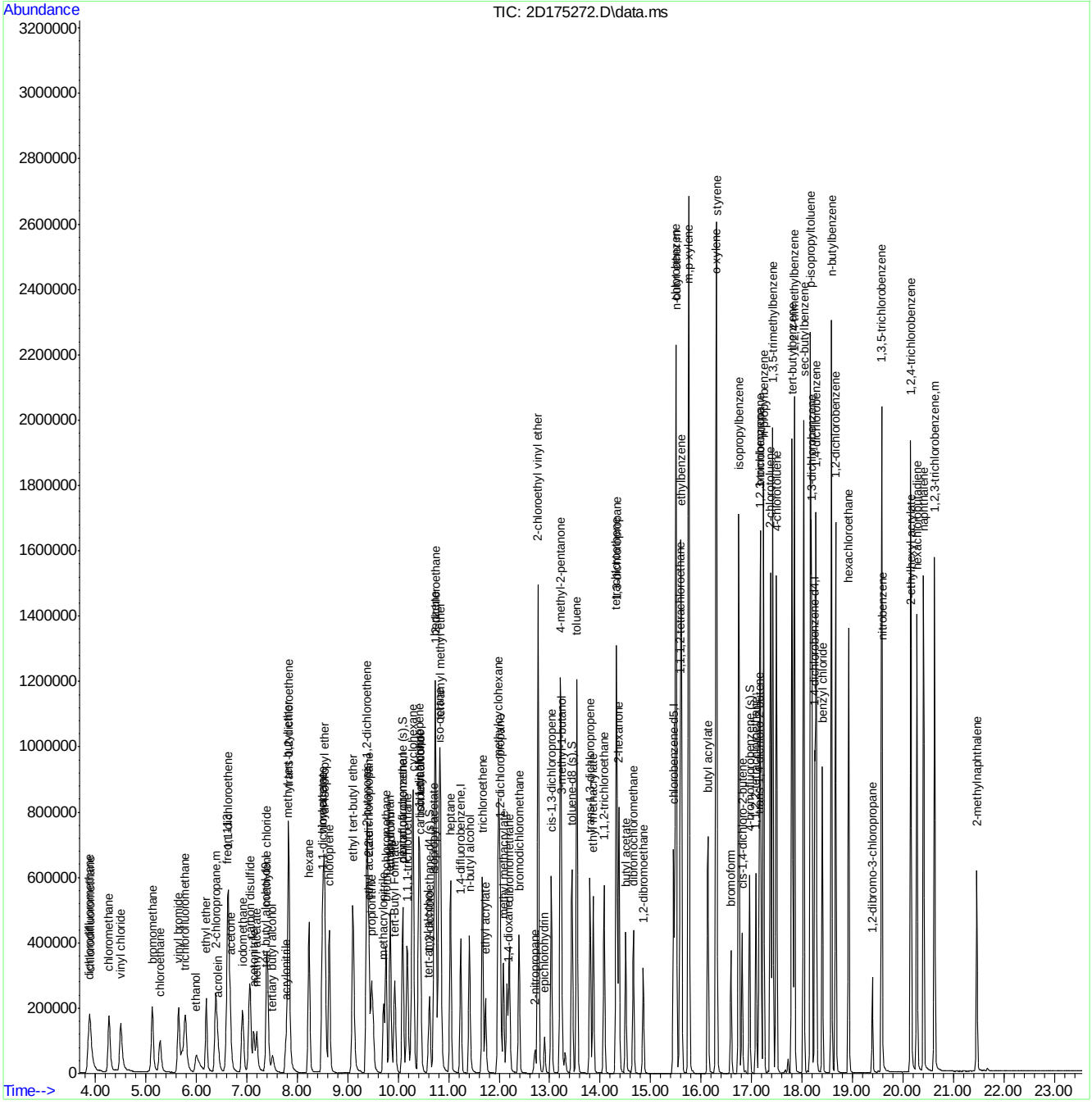
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	16.296	106	453895	99.09	ug/L	97
94) styrene	16.307	104	774520	100.33	ug/L	99
95) butyl acrylate	16.134	55	490947	100.09	ug/L	100
96) bromoform	16.590	173	192667	110.59	ug/L	99
97) isopropylbenzene	16.747	105	1203712	98.23	ug/L	99
98) cis-1,4-dichloro-2-butene	16.815	88	105451	106.77	ug/L	98
101) bromobenzene	17.172	156	343092	99.43	ug/L	99
102) 1,1,2,2-tetrachloroethane	17.088	83	308034	99.16	ug/L	99
103) trans-1,4-dichloro-2-b...	17.151	53	74651	106.00	ug/L	93
104) 1,2,3-trichloropropane	17.167	110	81267	102.59	ug/L	97
105) n-propylbenzene	17.240	91	1414766	98.75	ug/L	100
106) 2-chlorotoluene	17.376	126	307671	100.56	ug/L	99
107) 4-chlorotoluene	17.492	91	844463	97.99	ug/L	99
109) 1,3,5-trimethylbenzene	17.418	105	1047029	99.22	ug/L	99
110) tert-butylbenzene	17.801	119	942700	100.71	ug/L	98
111) 1,2,4-trimethylbenzene	17.848	105	1067640	99.14	ug/L	99
112) sec-butylbenzene	18.037	105	1394188	99.69	ug/L	99
113) 1,3-dichlorobenzene	18.194	146	647378	99.06	ug/L	99
114) p-isopropyltoluene	18.168	119	1223836	100.73	ug/L	100
115) 1,4-dichlorobenzene	18.278	146	660900	99.94	ug/L	99
116) 1,2-dichlorobenzene	18.666	146	658404	100.41	ug/L	99
117) benzyl chloride	18.404	91	611687	104.23	ug/L	100
119) n-butylbenzene	18.582	92	617243	101.27	ug/L	100
121) 1,2-dibromo-3-chloropr...	19.395	157	82874	109.07	ug/L	98
122) nitrobenzene	19.589	77	10557	80.67	ug/L	91
123) 1,3,5-trichlorobenzene	19.578	180	651067	106.22	ug/L	100
124) hexachlorobutadiene	20.276	225	310036	103.37	ug/L	99
125) naphthalene	20.407	128	1185283	111.46	ug/L	99
126) 2-ethylhexyl acrylate	20.166	70	69210	23.86	ug/L	98
127) 1,2,4-trichlorobenzene	20.155	180	577398	110.85	ug/L	99
128) 1,2,3-trichlorobenzene	20.627	180	524566	109.34	ug/L	100
129) hexachloroethane	18.923	201	236522	110.65	ug/L	98
130) 2-methylnaphthalene	21.466	142	323834	60.05	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	112206	500.00	ug/L	0.01
5) pentafluorobenzene	10.089	168	307798	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	429846	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	437957	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	256677	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	133113	50.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	138524	46.92	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.84%			
77) toluene-d8 (s)	13.444	98	496549	48.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.52%			
100) 4-bromofluorobenzene (s)	16.962	95	204942	49.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.514	59	221775	1049.21	ug/L	92
3) ethanol	6.004	45	376125	16413.37	ug/L	96
4) 1,4-dioxane	12.181	88	115685	5500.73	ug/L	97
6) chlorodifluoromethane	3.891	51	524602	180.84	ug/L	100
7) dichlorodifluoromethane	3.865	85	651173	190.30	ug/L	99
10) chloromethane	4.264	50	726252	187.83	ug/L	99
11) vinyl chloride	4.500	62	691687	203.44	ug/L	97
12) bromomethane	5.118	94	430503	180.21	ug/L	99
13) chloroethane	5.276	64	320003	179.42	ug/L	99
14) trichlorofluoromethane	5.774	101	762657	192.83	ug/L	97
15) vinyl bromide	5.643	106	489744	192.23	ug/L	99
17) ethyl ether	6.198	74	235492	196.99	ug/L	98
18) acrolein	6.434	56	95452	194.79	ug/L	99
19) 1,1-dichloroethene	6.633	96	455904	196.57	ug/L	100
20) freon 113	6.618	151	398129	204.41	ug/L	99
21) 2-chloropropane	6.387	43	745561	182.41	ug/L	100
22) acetone	6.675	58	133791	813.05	ug/L	98
23) acetonitrile	7.137	41	510238	1807.88	ug/L	100
24) iodomethane	6.917	142	779325	198.25	ug/L	99
25) carbon disulfide	7.058	76	1413259	190.13	ug/L	99
26) methylene chloride	7.399	84	512237	199.57	ug/L	100
27) methyl acetate	7.200	43	314584	192.72	ug/L	99
28) methyl tert butyl ether	7.818	73	1277942	189.44	ug/L	98
29) trans-1,2-dichloroethene	7.834	96	457194	194.40	ug/L	96
30) hexane	8.227	57	628565	204.44	ug/L	98
31) di-isopropyl ether	8.542	45	1516265	187.59	ug/L	94
32) 2-butanone	9.370	72	184407	866.44	ug/L	93
33) 1,1-dichloroethane	8.495	63	836622	191.32	ug/L	100
34) chloroprene	8.631	53	668955	192.24	ug/L	96
35) acrylonitrile	7.766	53	164447	208.11	ug/L	99
36) vinyl acetate	8.510	86	78622	216.10	ug/L #	83
37) ethyl tert-butyl ether	9.103	59	1412301	186.50	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) ethyl acetate	9.423	45	54437	188.59 ug/L	94
39) 2,2-dichloropropane	9.407	77	615341	176.77 ug/L	97
40) cis-1,2-dichloroethene	9.381	96	514354	195.30 ug/L	98
41) propionitrile	9.475	54	673026	2005.07 ug/L	94
42) tert-Butyl Formate	9.931	59	426889	183.72 ug/L	98
43) bromochloromethane	9.758	128	261441	198.00 ug/L	98
44) tetrahydrofuran	9.832	72	56162	203.89 ug/L	95
45) chloroform	9.842	83	814964	193.19 ug/L	99
47) methacrylonitrile	9.711	67	179595	207.65 ug/L	99
48) 1,1,1-trichloroethane	10.178	97	753835	193.46 ug/L	98
49) cyclohexane	10.283	84	661664	204.33 ug/L	86
50) 1,1-dichloropropene	10.408	75	630078	195.63 ug/L	98
51) isobutyl alcohol	10.435	43	188982	1859.95 ug/L	98
52) carbon tetrachloride	10.435	117	672406	196.60 ug/L	98
53) tert-amyl alcohol	10.608	73	111227	988.61 ug/L	96
56) benzene	10.733	78	1824591	190.47 ug/L	99
57) iso-octane	10.812	57	1931190	200.50 ug/L	98
58) tert-amyl methyl ether	10.838	73	1341833	186.93 ug/L	99
59) heptane	11.038	57	346664	198.95 ug/L	100
60) isopropyl acetate	10.707	87	88165	207.88 ug/L #	81
61) 1,2-dichloroethane	10.739	62	608992	182.35 ug/L	97
62) n-butyl alcohol	11.415	56	616099	10579.18 ug/L	98
63) ethyl acrylate	11.730	55	548973	195.34 ug/L	99
64) trichloroethene	11.667	130	503406	194.88 ug/L	96
65) 2-nitropropane	12.710	41	93950	197.33 ug/L	94
66) 2-chloroethyl vinyl ether	12.778	63	1502584	971.09 ug/L	99
67) methyl methacrylate	12.086	69	302852	203.72 ug/L	100
68) 1,2-dichloropropane	12.018	63	493234	192.03 ug/L	99
69) dibromomethane	12.202	93	297749	197.15 ug/L	98
70) methylcyclohexane	11.987	83	888324	208.24 ug/L	99
71) bromodichloromethane	12.396	83	650096	196.37 ug/L	99
72) epichlorohydrin	12.899	57	216592	976.59 ug/L	95
73) cis-1,3-dichloropropene	13.035	75	817164	194.03 ug/L	98
74) 4-methyl-2-pentanone	13.213	58	691287	791.16 ug/L	99
75) 3-methyl-1-butanol	13.234	55	401520	3968.88 ug/L	96
78) toluene	13.539	92	1176214	190.52 ug/L	98
79) trans-1,3-dichloropropene	13.801	75	737892	194.61 ug/L	98
80) ethyl methacrylate	13.864	69	620890	196.81 ug/L	99
81) 1,1,2-trichloroethane	14.079	83	365560	192.52 ug/L	98
82) tetrachloroethene	14.320	164	448152	193.32 ug/L	95
83) 1,3-dichloropropane	14.330	76	715965	191.49 ug/L	97
84) 2-hexanone	14.377	58	658346	779.00 ug/L	96
85) butyl acetate	14.508	56	305541	198.10 ug/L	99
86) dibromochloromethane	14.661	129	541159	204.41 ug/L	99
87) 1,2-dibromoethane	14.855	107	499467	193.58 ug/L	99
88) n-butyl ether	15.505	57	2219378	190.45 ug/L	97
89) chlorobenzene	15.499	112	1415706	193.61 ug/L	100
90) 1,1,1,2-tetrachloroethane	15.589	131	548867	200.19 ug/L	98
91) ethylbenzene	15.610	91	2323561	189.73 ug/L	99
92) m,p-xylene	15.762	91	3601568	378.06 ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

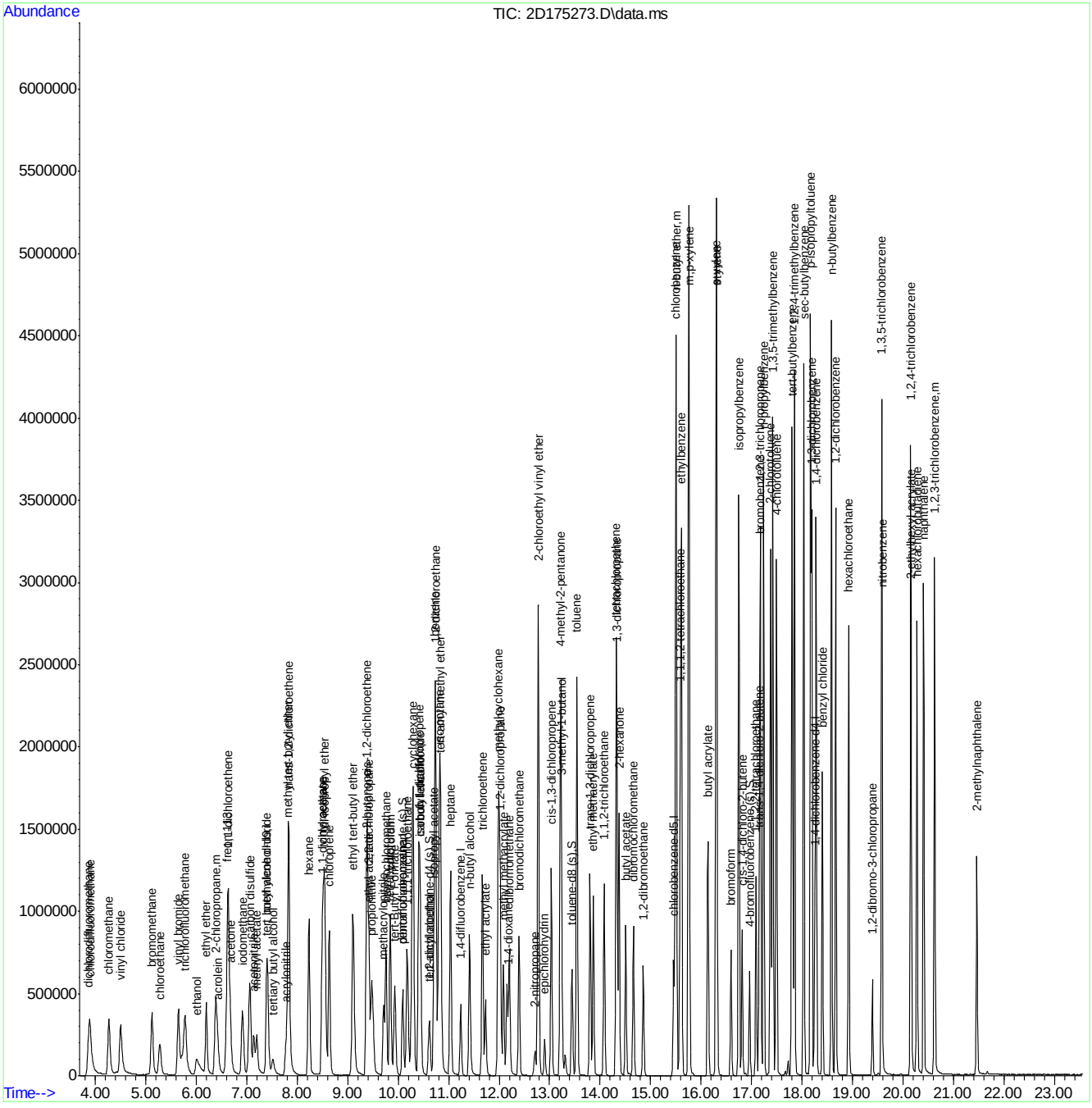
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	16.302	106	937256	194.95	ug/L	94
94) styrene	16.307	104	1579342	194.93	ug/L	98
95) butyl acrylate	16.134	55	1012235	196.62	ug/L	99
96) bromoform	16.595	173	400634	219.09	ug/L	99
97) isopropylbenzene	16.747	105	2490487	193.63	ug/L	99
98) cis-1,4-dichloro-2-butene	16.815	88	214104	206.54	ug/L	97
101) bromobenzene	17.177	156	704630	194.55	ug/L	92
102) 1,1,2,2-tetrachloroethane	17.088	83	626964	192.30	ug/L	99
103) trans-1,4-dichloro-2-b...	17.151	53	149476	202.22	ug/L	99
104) 1,2,3-trichloropropane	17.172	110	162618	195.58	ug/L #	74
105) n-propylbenzene	17.240	91	2906190	193.27	ug/L	99
106) 2-chlorotoluene	17.376	126	638064	198.69	ug/L	97
107) 4-chlorotoluene	17.492	91	1744984	192.91	ug/L	100
109) 1,3,5-trimethylbenzene	17.424	105	2177264	196.58	ug/L	98
110) tert-butylbenzene	17.806	119	1956767	199.16	ug/L	97
111) 1,2,4-trimethylbenzene	17.848	105	2210405	195.55	ug/L	100
112) sec-butylbenzene	18.037	105	2910311	198.26	ug/L	99
113) 1,3-dichlorobenzene	18.194	146	1330045	193.91	ug/L	99
114) p-isopropyltoluene	18.168	119	2543068	199.43	ug/L	100
115) 1,4-dichlorobenzene	18.283	146	1363157	196.39	ug/L	99
116) 1,2-dichlorobenzene	18.666	146	1351028	196.30	ug/L	99
117) benzyl chloride	18.404	91	1227027	199.20	ug/L	99
119) n-butylbenzene	18.582	92	1292142	201.98	ug/L	97
121) 1,2-dibromo-3-chloropr...	19.395	157	169979	213.13	ug/L	97
122) nitrobenzene	19.589	77	24225	176.37	ug/L	98
123) 1,3,5-trichlorobenzene	19.578	180	1318195	204.89	ug/L	99
124) hexachlorobutadiene	20.276	225	618382	196.44	ug/L	98
125) naphthalene	20.412	128	2357512	211.22	ug/L	100
126) 2-ethylhexyl acrylate	20.166	70	148149	48.66	ug/L	99
127) 1,2,4-trichlorobenzene	20.155	180	1164028	212.92	ug/L	98
128) 1,2,3-trichlorobenzene	20.627	180	1051170	208.75	ug/L	98
129) hexachloroethane	18.928	201	501717	223.63	ug/L	96
130) 2-methylnaphthalene	21.466	142	679124	119.98	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	115668	500.00	ug/L	-0.01
5) pentafluorobenzene	10.088	168	309596	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	423114	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	428295	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	254524	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	133738	50.14	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 100.28%						
55) 1,2-dichloroethane-d4 (s)	10.623	65	141232	48.60	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124 Recovery = 97.20%						
77) toluene-d8 (s)	13.439	98	496054	49.81	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 99.62%						
100) 4-bromofluorobenzene (s)	16.962	95	201263	49.29	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120 Recovery = 98.58%						
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	55162	251.69	ug/L	96
3) ethanol	5.994	45	101784	5120.55	ug/L	96
4) 1,4-dioxane	12.180	88	28531	1316.02	ug/L	94
6) chlorodifluoromethane	3.891	51	177755	60.92	ug/L	97
7) dichlorodifluoromethane	3.865	85	167643	48.70	ug/L	99
10) chloromethane	4.263	50	206781	53.17	ug/L	100
11) vinyl chloride	4.494	62	169678	49.62	ug/L	99
12) bromomethane	5.123	94	114590	47.69	ug/L	95
13) chloroethane	5.281	64	83509	46.55	ug/L	99
14) trichlorofluoromethane	5.773	101	185302	47.92	ug/L	98
15) vinyl bromide	5.648	106	116194	45.34	ug/L	98
17) ethyl ether	6.193	74	57109	47.50	ug/L	96
18) acrolein	6.429	56	24985	50.69	ug/L	98
19) 1,1-dichloroethene	6.633	96	105580	45.26	ug/L	97
20) freon 113	6.623	151	96727	49.37	ug/L	99
21) 2-chloropropane	6.382	43	196225	50.06	ug/L	99
22) acetone	6.675	58	34531	208.63	ug/L	98
24) iodomethane	6.906	142	228087	57.68	ug/L	99
25) carbon disulfide	7.053	76	402134	53.79	ug/L	98
26) methylene chloride	7.399	84	121940	47.23	ug/L	98
27) methyl acetate	7.194	43	77533	47.22	ug/L	97
28) methyl tert butyl ether	7.813	73	643205	94.80	ug/L	86
29) trans-1,2-dichloroethene	7.829	96	110027	46.51	ug/L	99
30) hexane	8.227	57	142361	46.03	ug/L	99
31) di-isopropyl ether	8.536	45	390715	48.06	ug/L	99
32) 2-butanone	9.365	72	45661	213.29	ug/L	96
33) 1,1-dichloroethane	8.489	63	205243	46.66	ug/L	99
34) chloroprene	8.631	53	172723	49.35	ug/L	98
35) acrylonitrile	7.771	53	45862	57.70	ug/L	95
36) vinyl acetate	8.510	86	20569	53.81	ug/L	99
37) ethyl tert-butyl ether	9.097	59	362320	47.57	ug/L	100
38) ethyl acetate	9.417	45	14984	51.56	ug/L #	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) 2,2-dichloropropane	9.402	77	148866	42.52	ug/L	98
40) cis-1,2-dichloroethene	9.381	96	127497	48.13	ug/L	96
41) propionitrile	9.470	54	168092	497.87	ug/L	99
42) tert-Butyl Formate	9.926	59	79183	33.88	ug/L	98
43) bromochloromethane	9.758	128	64098	48.26	ug/L	93
44) tetrahydrofuran	9.826	72	13636	49.22	ug/L	89
45) chloroform	9.842	83	201667	47.53	ug/L	98
47) methacrylonitrile	9.711	67	43567	50.08	ug/L	99
48) 1,1,1-trichloroethane	10.178	97	178577	45.56	ug/L	95
49) cyclohexane	10.277	84	169347	51.99	ug/L	99
50) 1,1-dichloropropene	10.403	75	151516	46.77	ug/L	98
51) isobutyl alcohol	10.429	43	48293	477.55	ug/L	98
52) carbon tetrachloride	10.429	117	161930	47.07	ug/L	98
53) tert-amyl alcohol	10.602	73	28623	252.93	ug/L	93
56) benzene	10.733	78	449117	47.63	ug/L	99
57) iso-octane	10.807	57	466663	49.22	ug/L	97
58) tert-amyl methyl ether	10.833	73	343933	48.68	ug/L	99
59) heptane	11.032	57	90770	52.92	ug/L	97
60) isopropyl acetate	10.707	87	22093	51.14	ug/L #	87
61) 1,2-dichloroethane	10.739	62	154170	46.90	ug/L	99
62) n-butyl alcohol	11.410	56	148625	2592.68	ug/L	98
63) ethyl acrylate	11.729	55	141133	51.02	ug/L	99
64) trichloroethene	11.667	130	120103	47.23	ug/L	96
65) 2-nitropropane	12.710	41	21957	46.85	ug/L	90
66) 2-chloroethyl vinyl ether	12.773	63	395324	259.55	ug/L	99
67) methyl methacrylate	12.081	69	75235	51.41	ug/L	97
68) 1,2-dichloropropane	12.018	63	118156	46.73	ug/L	99
69) dibromomethane	12.201	93	74599	50.18	ug/L	97
70) methylcyclohexane	11.986	83	200519	47.75	ug/L	92
71) bromodichloromethane	12.390	83	154828	47.51	ug/L	97
72) epichlorohydrin	12.899	57	54703	252.22	ug/L	98
73) cis-1,3-dichloropropene	13.035	75	199142	48.04	ug/L	97
74) 4-methyl-2-pentanone	13.208	58	173311	201.51	ug/L	98
75) 3-methyl-1-butanol	13.234	55	101138	1015.62	ug/L	95
78) toluene	13.538	92	286393	47.44	ug/L	99
79) trans-1,3-dichloropropene	13.800	75	171812	46.34	ug/L	99
80) ethyl methacrylate	13.863	69	146982	47.64	ug/L	100
81) 1,1,2-trichloroethane	14.078	83	89462	48.18	ug/L	99
83) 1,3-dichloropropane	14.325	76	179988	49.23	ug/L	98
84) 2-hexanone	14.372	58	164232	198.71	ug/L	100
85) butyl acetate	14.508	56	77169	51.16	ug/L	97
86) dibromochloromethane	14.660	129	131305	50.72	ug/L	100
87) 1,2-dibromoethane	14.854	107	123439	48.92	ug/L	99
88) n-butyl ether	15.504	57	538744	47.27	ug/L	98
89) chlorobenzene	15.499	112	342555	47.90	ug/L	99
90) 1,1,1,2-tetrachloroethane	15.583	131	133053	49.62	ug/L	98
91) ethylbenzene	15.609	91	575567	48.06	ug/L	99
92) m,p-xylene	15.756	91	894777	96.05	ug/L	100
93) o-xylene	16.296	106	227326	48.35	ug/L	96
94) styrene	16.307	104	392569	49.54	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

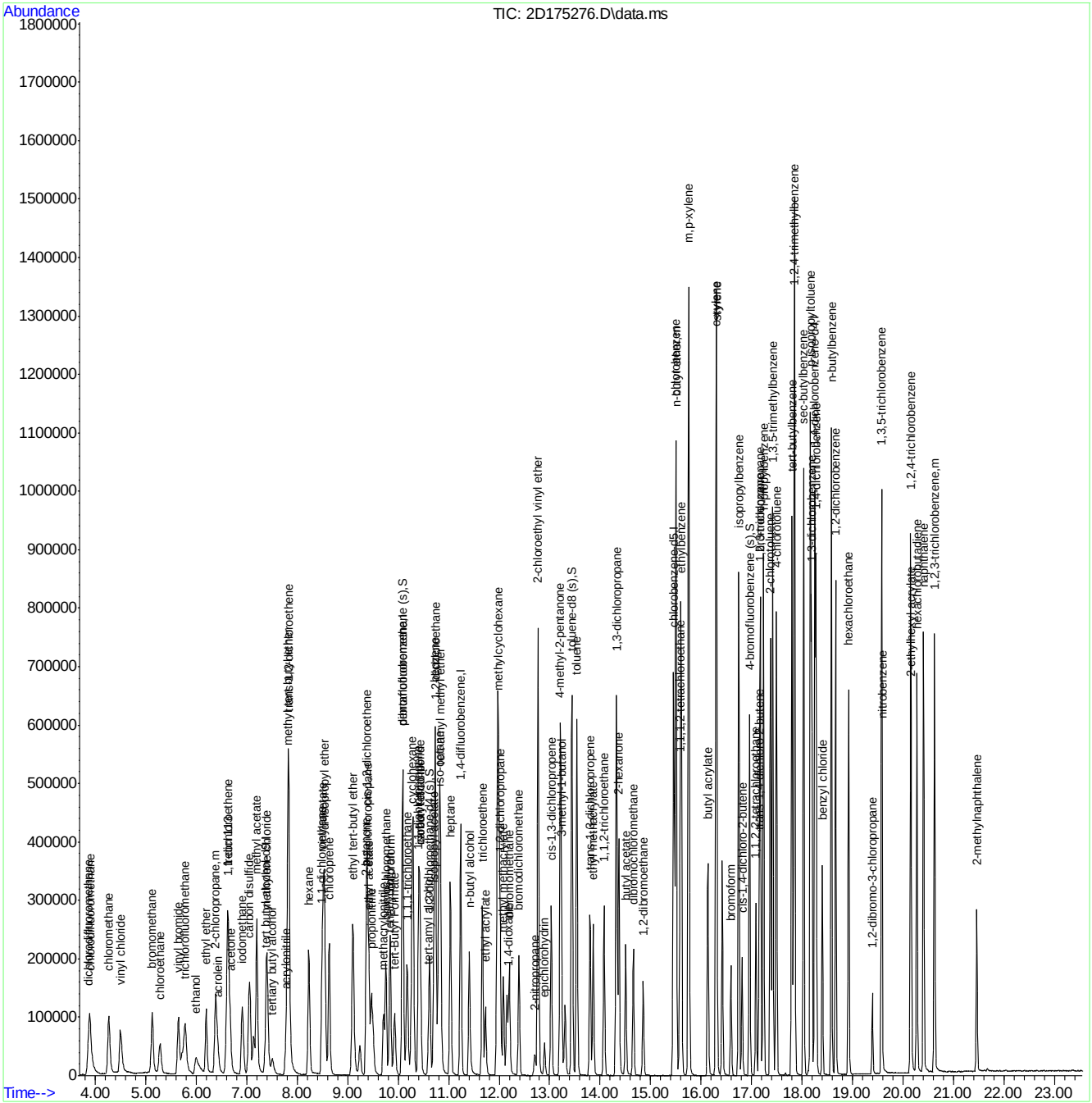
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95) butyl acrylate	16.134	55	256414	50.93	ug/L		99
96) bromoform	16.590	173	96728	54.09	ug/L		99
97) isopropylbenzene	16.747	105	601627	47.83	ug/L		99
98) cis-1,4-dichloro-2-butene	16.815	88	50626	49.94	ug/L		99
101) bromobenzene	17.172	156	172652	48.07	ug/L		96
102) 1,1,2,2-tetrachloroethane	17.088	83	152461	47.16	ug/L		98
103) trans-1,4-dichloro-2-b...	17.151	53	39052	52.60	ug/L		90
104) 1,2,3-trichloropropane	17.166	110	39780	48.34	ug/L	#	90
105) n-propylbenzene	17.240	91	711863	47.74	ug/L		99
106) 2-chlorotoluene	17.376	126	151888	47.70	ug/L		93
107) 4-chlorotoluene	17.492	91	436607	48.68	ug/L		100
109) 1,3,5-trimethylbenzene	17.418	105	517600	47.13	ug/L		99
110) tert-butylbenzene	17.801	119	463590	47.58	ug/L		98
111) 1,2,4-trimethylbenzene	17.848	105	546879	48.79	ug/L		99
112) sec-butylbenzene	18.032	105	697227	47.90	ug/L		98
113) 1,3-dichlorobenzene	18.194	146	323647	47.58	ug/L		99
114) p-isopropyltoluene	18.168	119	606423	47.96	ug/L		100
115) 1,4-dichlorobenzene	18.278	146	330399	48.00	ug/L		99
116) 1,2-dichlorobenzene	18.666	146	328779	48.17	ug/L		99
117) benzyl chloride	18.404	91	240025	38.98	ug/L		99
119) n-butylbenzene	18.582	92	306308	48.29	ug/L		99
121) 1,2-dibromo-3-chloropr...	19.395	157	39131	49.48	ug/L		97
122) nitrobenzene	19.589	77	4243	42.25	ug/L		93
123) 1,3,5-trichlorobenzene	19.578	180	320005	50.16	ug/L		99
124) hexachlorobutadiene	20.276	225	149618	47.93	ug/L		98
125) naphthalene	20.407	128	586737	53.01	ug/L		99
126) 2-ethylhexyl acrylate	20.166	70	33641	10.62	ug/L		98
127) 1,2,4-trichlorobenzene	20.155	180	281461	51.92	ug/L		98
128) 1,2,3-trichlorobenzene	20.627	180	255694	51.21	ug/L		99
129) hexachloroethane	18.923	201	116002	52.83	ug/L		100
130) 2-methylnaphthalene	21.466	142	144276	24.30	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175277.D
Acq On : 3 May 2018 10:21 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 04 11:25:07 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	118596	500.00	ug/L	-0.01
5) pentafluorobenzene	10.089	168	317037	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	437486	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	433295	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	251974	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	136542	49.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	146204	48.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.30%			
77) toluene-d8 (s)	13.439	98	508279	50.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.90%			
100) 4-bromofluorobenzene (s)	16.957	95	204587	50.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.22%			
Target Compounds						Qvalue
23) acetonitrile	7.137	41	140953	496.38	ug/L	96
82) tetrachloroethene	14.320	164	112612	49.10	ug/L	99

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

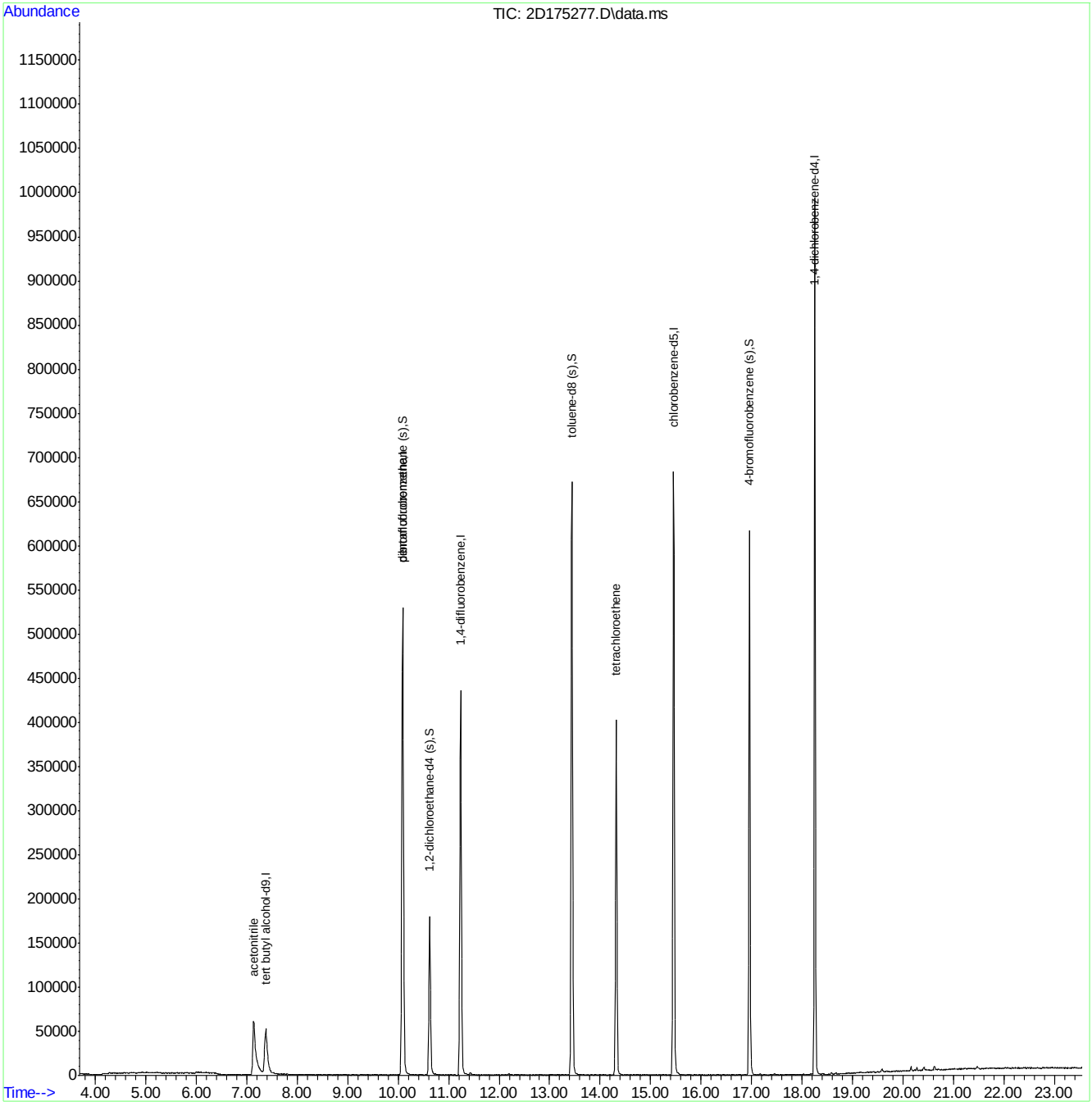
7.7.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175277.D
Acq On : 3 May 2018 10:21 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 04 11:25:07 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



M2D7390.M Mon May 07 08:25:11 2018 GCMS2D Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175974.d
Acq On : 31 May 2018 6:43 am
Operator : jessicap
Sample : CC7390-20 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:46:06 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.367	65	94124	500.00	ug/L	-0.02
5) pentafluorobenzene	10.078	168	295256	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.226	114	397752	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.452	117	402190	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.247	152	245262	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	130436	51.28	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.56%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	132860	48.63	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.26%			
77) toluene-d8 (s)	13.434	98	464103	49.62	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.24%			
100) 4-bromofluorobenzene (s)	16.952	95	189715	48.21	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.42%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.504	59	19545	109.59	ug/L	92
3) ethanol	5.999	45	41557	2523.57	ug/L	97
4) 1,4-dioxane	12.170	88	10117	573.47	ug/L	97
6) chlorodifluoromethane	3.891	51	66452	23.88	ug/L	98
7) dichlorodifluoromethane	3.865	85	84061	25.61	ug/L	98
10) chloromethane	4.264	50	81303	21.92	ug/L	98
11) vinyl chloride	4.500	62	70049	21.48	ug/L	96
12) bromomethane	5.129	94	50919	22.22	ug/L	93
13) chloroethane	5.281	64	37328	21.82	ug/L	98
14) trichlorofluoromethane	5.768	101	85079	23.07	ug/L	99
15) vinyl bromide	5.643	106	50901	20.83	ug/L	99
17) ethyl ether	6.193	74	22609	19.72	ug/L	100
18) acrolein	6.429	56	8021	17.06	ug/L	92
19) 1,1-dichloroethene	6.618	96	44771	20.12	ug/L	95
20) freon 113	6.612	151	40102	21.46	ug/L	97
21) 2-chloropropane	6.377	43	77122	20.63	ug/L	99
22) acetone	6.670	58	12567	79.61	ug/L #	83
23) acetonitrile	7.132	41	51021	192.93	ug/L	99
24) iodomethane	6.896	142	77478	20.55	ug/L	98
25) carbon disulfide	7.032	76	135555	19.01	ug/L	98
26) methylene chloride	7.388	84	51066	20.74	ug/L	99
27) methyl acetate	7.189	43	28600	18.27	ug/L	98
28) methyl tert butyl ether	7.813	73	123353	19.06	ug/L	97
29) trans-1,2-dichloroethene	7.824	96	46898	20.79	ug/L	98
30) hexane	8.222	57	59790	20.27	ug/L	100
31) di-isopropyl ether	8.531	45	155469	20.05	ug/L	94
32) 2-butanone	9.360	72	15321	75.04	ug/L	90
33) 1,1-dichloroethane	8.484	63	83806	19.98	ug/L	100
34) chloroprene	8.626	53	65129	19.51	ug/L	100
35) acrylonitrile	7.761	53	13995	18.46	ug/L	90
36) vinyl acetate	8.505	86	6500	17.83	ug/L #	90
37) ethyl tert-butyl ether	9.092	59	146958	20.23	ug/L	99
38) ethyl acetate	9.412	45	4590	16.56	ug/L #	67
39) 2,2-dichloropropane	9.397	77	73119	21.90	ug/L	96
40) cis-1,2-dichloroethene	9.376	96	52605	20.82	ug/L	97
41) propionitrile	9.459	54	57086	177.29	ug/L	98
42) tert-Butyl Formate	9.921	59	41536	18.64	ug/L	95
43) bromochloromethane	9.748	128	25701	20.29	ug/L	90
44) tetrahydrofuran	9.826	72	4566	17.28	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175974.d
Acq On : 31 May 2018 6:43 am
Operator : jessicap
Sample : CC7390-20 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:46:06 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) chloroform	9.837	83	84145	20.79 ug/L	96
47) methacrylonitrile	9.701	67	14256	17.18 ug/L	92
48) 1,1,1-trichloroethane	10.172	97	77975	20.86 ug/L	98
49) cyclohexane	10.272	84	64547	20.78 ug/L	96
50) 1,1-dichloropropene	10.398	75	60882	19.71 ug/L	96
51) isobutyl alcohol	10.424	43	16047	166.39 ug/L	97
52) carbon tetrachloride	10.424	117	70375	21.45 ug/L	99
53) tert-amyl alcohol	10.597	73	9553	88.52 ug/L	92
56) benzene	10.728	78	181949	20.53 ug/L	98
57) iso-octane	10.802	57	189536	21.27 ug/L	99
58) tert-amyl methyl ether	10.828	73	139416	20.99 ug/L	97
59) heptane	11.027	57	33077	20.51 ug/L	96
60) isopropyl acetate	10.697	87	7386	18.19 ug/L #	68
61) 1,2-dichloroethane	10.728	62	59152	19.14 ug/L	95
62) n-butyl alcohol	11.399	56	48846	906.42 ug/L	96
63) ethyl acrylate	11.724	55	44858	17.25 ug/L	100
64) trichloroethene	11.662	130	48614	20.34 ug/L	98
65) 2-nitropropane	12.705	41	7677	17.43 ug/L	92
66) 2-chloroethyl vinyl ether	12.763	63	127072	88.75 ug/L	99
67) methyl methacrylate	12.076	69	25248	18.35 ug/L	91
68) 1,2-dichloropropane	12.008	63	47705	20.07 ug/L	100
69) dibromomethane	12.191	93	28265	20.23 ug/L	97
70) methylcyclohexane	11.976	83	84393	21.38 ug/L	98
71) bromodichloromethane	12.385	83	63294	20.66 ug/L	99
72) epichlorohydrin	12.894	57	17993	88.25 ug/L	97
73) cis-1,3-dichloropropene	13.025	75	76417	19.61 ug/L	97
74) 4-methyl-2-pentanone	13.203	58	59555	73.66 ug/L	99
75) 3-methyl-1-butanol	13.224	55	33406	356.85 ug/L	94
78) toluene	13.533	92	112269	19.80 ug/L	98
79) trans-1,3-dichloropropene	13.795	75	66058	18.97 ug/L	96
80) ethyl methacrylate	13.858	69	51920	17.92 ug/L	97
81) 1,1,2-trichloroethane	14.073	83	34361	19.71 ug/L	99
82) tetrachloroethene	14.315	164	44221	20.77 ug/L	99
83) 1,3-dichloropropane	14.320	76	65909	19.20 ug/L	98
84) 2-hexanone	14.367	58	55138	71.04 ug/L	99
85) butyl acetate	14.503	56	26088	18.42 ug/L	98
86) dibromochloromethane	14.650	129	50588	20.81 ug/L	96
87) 1,2-dibromoethane	14.844	107	46091	19.45 ug/L	100
88) n-butyl ether	15.499	57	209099	19.54 ug/L	97
89) chlorobenzene	15.494	112	135619	20.20 ug/L	97
90) 1,1,1,2-tetrachloroethane	15.578	131	54180	21.52 ug/L	100
91) ethylbenzene	15.604	91	229987	20.45 ug/L	98
92) m,p-xylene	15.751	91	354434	40.51 ug/L	98
93) o-xylene	16.291	106	89183	20.20 ug/L	98
94) styrene	16.302	104	152409	20.48 ug/L	99
95) butyl acrylate	16.129	55	84786	17.93 ug/L	99
96) bromoform	16.585	173	37102	22.09 ug/L	99
97) isopropylbenzene	16.742	105	241235	20.42 ug/L	99
98) cis-1,4-dichloro-2-butene	16.810	88	15308	16.08 ug/L	97
101) bromobenzene	17.167	156	70339	20.32 ug/L	94
102) 1,1,2,2-tetrachloroethane	17.083	83	56166	18.03 ug/L	97
103) trans-1,4-dichloro-2-b...	17.146	53	11165	15.61 ug/L	91
104) 1,2,3-trichloropropane	17.161	110	14882	18.77 ug/L #	93
105) n-propylbenzene	17.230	91	286716	19.95 ug/L	100
106) 2-chlorotoluene	17.371	126	63303	20.63 ug/L	92
107) 4-chlorotoluene	17.487	91	172143	19.92 ug/L	99
109) 1,3,5-trimethylbenzene	17.413	105	209041	19.75 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175974.d
Acq On : 31 May 2018 6:43 am
Operator : jessicap
Sample : CC7390-20 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:46:06 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

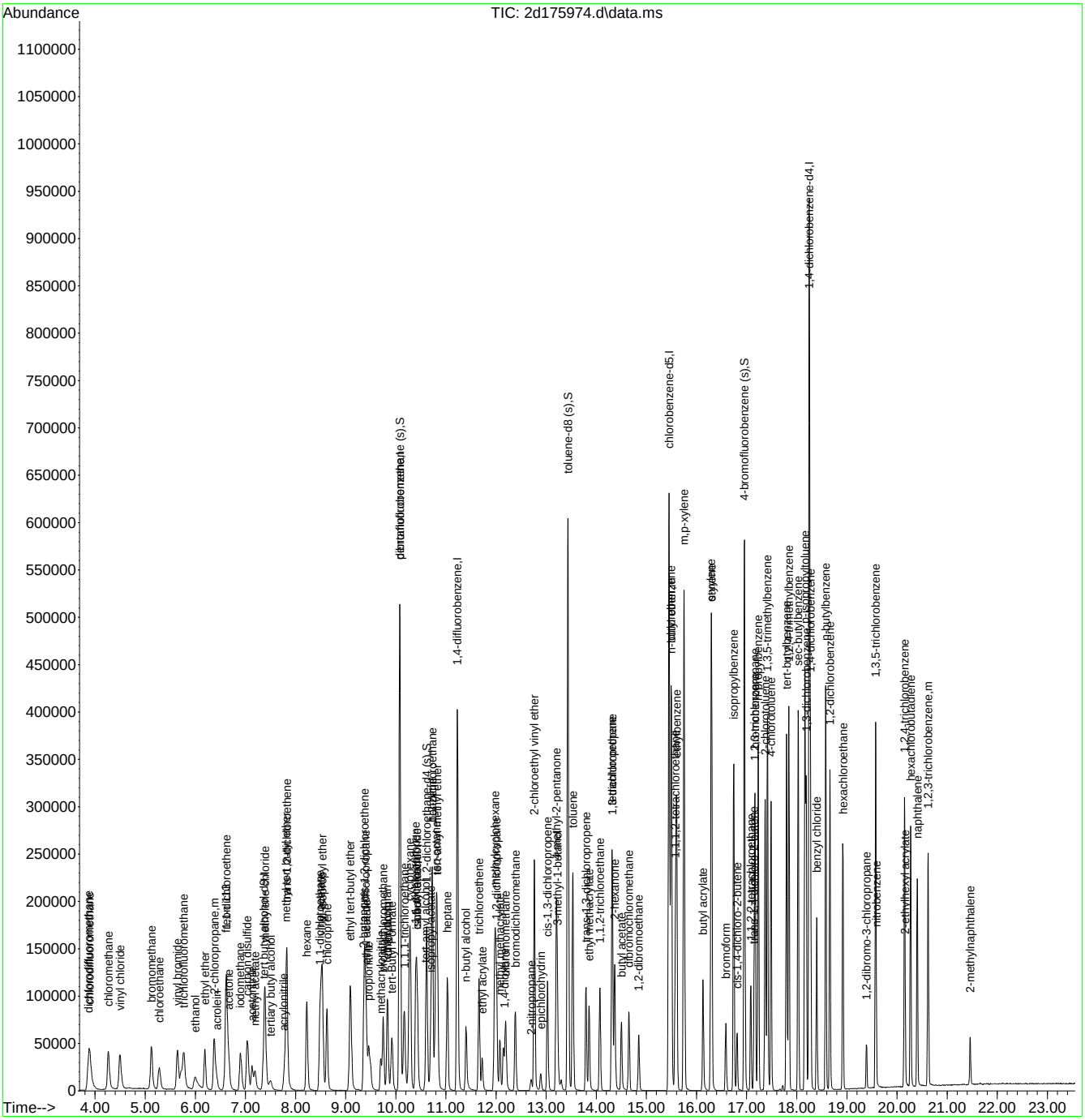
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.796	119	181524	19.34	ug/L	98
111) 1,2,4-trimethylbenzene	17.843	105	213728	19.79	ug/L	99
112) sec-butylbenzene	18.027	105	276818	19.74	ug/L	97
113) 1,3-dichlorobenzene	18.189	146	134007	20.45	ug/L	98
114) p-isopropyltoluene	18.163	119	238555	19.58	ug/L	99
115) 1,4-dichlorobenzene	18.273	146	136945	20.65	ug/L	98
116) 1,2-dichlorobenzene	18.661	146	135162	20.55	ug/L	97
117) benzyl chloride	18.399	91	121614	20.50	ug/L	99
119) n-butylbenzene	18.577	92	119719	19.58	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.390	157	13494	17.71	ug/L	97
122) nitrobenzene	19.589	77	1873	19.36	ug/L	88
123) 1,3,5-trichlorobenzene	19.573	180	125398	20.40	ug/L	99
124) hexachlorobutadiene	20.271	225	59405	19.75	ug/L	97
125) naphthalene	20.407	128	172940	16.22	ug/L	99
126) 2-ethylhexyl acrylate	20.166	70	6490	2.13	ug/L	91
127) 1,2,4-trichlorobenzene	20.150	180	96140	18.40	ug/L	99
128) 1,2,3-trichlorobenzene	20.622	180	82785	17.21	ug/L	99
129) hexachloroethane	18.923	201	47182	22.30	ug/L	98
130) 2-methylnaphthalene	21.461	142	25519	4.46	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7423\
Data File : 2d175974.d
Acq On : 31 May 2018 6:43 am
Operator : jessicap
Sample : CC7390-20 Inst : MS2D
Misc : MS26751,V2D7423,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 01 00:46:06 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176018.d
Acq On : 1 Jun 2018 7:18 am
Operator : jessicap
Sample : cc7390-20 Inst : MS2D
Misc : MS26770,V2D7425,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:01:24 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	77439	500.00	ug/L	-0.02
5) pentafluorobenzene	10.089	168	245546	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.242	114	336330	50.00	ug/L	0.00
76) chlorobenzene-d5	15.463	117	340251	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	215659	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	113031	53.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.86%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	119667	51.80	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.60%			
77) toluene-d8 (s)	13.444	98	395332	49.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%			
100) 4-bromofluorobenzene (s)	16.962	95	164928	47.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.34%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.504	59	15900	108.36	ug/L	93
3) ethanol	5.999	45	30422	2235.34	ug/L	95
4) 1,4-dioxane	12.181	88	6946	478.56	ug/L	94
6) chlorodifluoromethane	3.897	51	55812	24.12	ug/L	98
7) dichlorodifluoromethane	3.870	85	68024	24.92	ug/L	98
10) chloromethane	4.264	50	65280	21.16	ug/L	95
11) vinyl chloride	4.500	62	57083	21.05	ug/L	98
12) bromomethane	5.123	94	41852	21.96	ug/L	95
13) chloroethane	5.286	64	30406	21.37	ug/L	94
14) trichlorofluoromethane	5.768	101	73230	23.88	ug/L	98
15) vinyl bromide	5.648	106	41203	20.27	ug/L	97
17) ethyl ether	6.198	74	18054	18.93	ug/L	97
18) acrolein	6.439	56	6163	15.77	ug/L	96
19) 1,1-dichloroethene	6.623	96	36142	19.53	ug/L	97
20) freon 113	6.628	151	30885	19.88	ug/L	94
21) 2-chloropropane	6.387	43	64748	20.83	ug/L	96
22) acetone	6.675	58	9786	74.55	ug/L	96
23) acetonitrile	7.142	41	40649	184.83	ug/L	95
24) iodomethane	6.906	142	62387	19.89	ug/L	98
25) carbon disulfide	7.042	76	109434	18.45	ug/L	98
26) methylene chloride	7.399	84	42162	20.59	ug/L	96
27) methyl acetate	7.200	43	23246	17.85	ug/L	99
28) methyl tert butyl ether	7.818	73	101463	18.85	ug/L	97
29) trans-1,2-dichloroethene	7.834	96	39189	20.89	ug/L	97
30) hexane	8.233	57	45071	18.38	ug/L	95
31) di-isopropyl ether	8.537	45	132262	20.51	ug/L	97
32) 2-butanone	9.365	72	11873	69.93	ug/L #	83
33) 1,1-dichloroethane	8.495	63	71747	20.57	ug/L	98
34) chloroprene	8.636	53	55468	19.98	ug/L	97
35) acrylonitrile	7.771	53	11179	17.73	ug/L	93
36) vinyl acetate	8.510	86	5230	17.25	ug/L #	89
37) ethyl tert-butyl ether	9.103	59	124395	20.59	ug/L	99
38) ethyl acetate	9.423	45	4077	17.69	ug/L #	64
39) 2,2-dichloropropane	9.412	77	62676	22.57	ug/L	97
40) cis-1,2-dichloroethene	9.386	96	42758	20.35	ug/L	98
41) propionitrile	9.470	54	44723	167.02	ug/L	96
42) tert-Butyl Formate	9.931	59	34654	18.70	ug/L	96
43) bromochloromethane	9.758	128	21996	20.88	ug/L	88
44) tetrahydrofuran	9.837	72	3689	16.79	ug/L #	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176018.d
Acq On : 1 Jun 2018 7:18 am
Operator : jessicap
Sample : cc7390-20 Inst : MS2D
Misc : MS26770,V2D7425,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:01:24 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	chloroform	9.847	83	73021	21.70	ug/L		97
47)	methacrylonitrile	9.711	67	11252	16.31	ug/L		92
48)	1,1,1-trichloroethane	10.183	97	68284	21.97	ug/L		97
49)	cyclohexane	10.283	84	49186	19.04	ug/L		86
50)	1,1-dichloropropene	10.408	75	50656	19.72	ug/L		98
51)	isobutyl alcohol	10.435	43	12361	154.12	ug/L		97
52)	carbon tetrachloride	10.440	117	62020	22.73	ug/L		97
53)	tert-amyl alcohol	10.602	73	7245	80.72	ug/L		89
56)	benzene	10.739	78	147648	19.70	ug/L		99
57)	iso-octane	10.812	57	147956	19.63	ug/L		99
58)	tert-amyl methyl ether	10.838	73	116838	20.80	ug/L		98
59)	heptane	11.038	57	25651	18.81	ug/L		97
60)	isopropyl acetate	10.707	87	5792	16.87	ug/L		98
61)	1,2-dichloroethane	10.744	62	51862	19.85	ug/L		97
62)	n-butyl alcohol	11.410	56	36199	794.41	ug/L		97
63)	ethyl acrylate	11.735	55	36266	16.49	ug/L		99
64)	trichloroethene	11.672	130	40240	19.91	ug/L		98
65)	2-nitropropane	12.715	41	6271	16.83	ug/L		97
66)	2-chloroethyl vinyl ether	12.773	63	99670	82.32	ug/L		97
67)	methyl methacrylate	12.086	69	19794	17.02	ug/L		88
68)	1,2-dichloropropane	12.018	63	38601	19.21	ug/L		97
69)	dibromomethane	12.202	93	23927	20.25	ug/L		93
70)	methylcyclohexane	11.992	83	67601	20.25	ug/L		97
71)	bromodichloromethane	12.396	83	54772	21.14	ug/L		98
72)	epichlorohydrin	12.904	57	14299	82.94	ug/L		95
73)	cis-1,3-dichloropropene	13.035	75	61917	18.79	ug/L		100
74)	4-methyl-2-pentanone	13.213	58	48243	70.56	ug/L		96
75)	3-methyl-1-butanol	13.234	55	26725	337.62	ug/L		95
78)	toluene	13.544	92	92346	19.25	ug/L		98
79)	trans-1,3-dichloropropene	13.806	75	54557	18.52	ug/L		97
80)	ethyl methacrylate	13.869	69	42154	17.20	ug/L		99
81)	1,1,2-trichloroethane	14.084	83	27930	18.93	ug/L		95
82)	tetrachloroethene	14.325	164	36498	20.27	ug/L		98
83)	1,3-dichloropropane	14.330	76	53870	18.55	ug/L		95
84)	2-hexanone	14.377	58	44916	68.41	ug/L		98
85)	butyl acetate	14.514	56	21100	17.61	ug/L		98
86)	dibromochloromethane	14.661	129	41571	20.21	ug/L		99
87)	1,2-dibromoethane	14.860	107	37838	18.88	ug/L		97
88)	n-butyl ether	15.510	57	173075	19.12	ug/L		99
89)	chlorobenzene	15.505	112	112010	19.72	ug/L		96
90)	1,1,1,2-tetrachloroethane	15.589	131	45160	21.20	ug/L		98
91)	ethylbenzene	15.615	91	190662	20.04	ug/L		99
92)	m,p-xylene	15.762	91	296180	40.02	ug/L		98
93)	o-xylene	16.302	106	74326	19.90	ug/L		98
94)	styrene	16.312	104	126498	20.10	ug/L		99
95)	butyl acrylate	16.139	55	70657	17.67	ug/L		98
96)	bromoform	16.595	173	29153	20.52	ug/L		99
97)	isopropylbenzene	16.753	105	201629	20.18	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.821	88	8672	10.77	ug/L		90
101)	bromobenzene	17.177	156	57879	19.02	ug/L		99
102)	1,1,2,2-tetrachloroethane	17.093	83	46307	16.90	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.156	53	7022	11.16	ug/L	#	67
104)	1,2,3-trichloropropane	17.172	110	12626	18.11	ug/L	#	84
105)	n-propylbenzene	17.240	91	243532	19.28	ug/L		97
106)	2-chlorotoluene	17.382	126	51267	19.00	ug/L		97
107)	4-chlorotoluene	17.497	91	147076	19.35	ug/L		99
109)	1,3,5-trimethylbenzene	17.424	105	176495	18.97	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176018.d
Acq On : 1 Jun 2018 7:18 am
Operator : jessicap
Sample : cc7390-20 Inst : MS2D
Misc : MS26770,V2D7425,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:01:24 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.806	119	155501	18.84	ug/L	99
111) 1,2,4-trimethylbenzene	17.854	105	185013	19.48	ug/L	99
112) sec-butylbenzene	18.037	105	236159	19.15	ug/L	98
113) 1,3-dichlorobenzene	18.194	146	115841	20.10	ug/L	97
114) p-isopropyltoluene	18.173	119	204150	19.05	ug/L	99
115) 1,4-dichlorobenzene	18.283	146	115303	19.77	ug/L	100
116) 1,2-dichlorobenzene	18.671	146	116076	20.07	ug/L	99
117) benzyl chloride	18.409	91	102127	19.57	ug/L	99
119) n-butylbenzene	18.588	92	104295	19.40	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.400	157	11244	16.78	ug/L	96
122) nitrobenzene	19.594	77	1080	12.69	ug/L	93
123) 1,3,5-trichlorobenzene	19.584	180	107218	19.83	ug/L	99
124) hexachlorobutadiene	20.281	225	50360	19.04	ug/L	97
125) naphthalene	20.412	128	144833	15.44	ug/L	100
126) 2-ethylhexyl acrylate	20.176	70	5892	2.20	ug/L	97
127) 1,2,4-trichlorobenzene	20.160	180	82695	18.00	ug/L	100
128) 1,2,3-trichlorobenzene	20.632	180	70636	16.70	ug/L	97
129) hexachloroethane	18.928	201	39230	21.08	ug/L	98
130) 2-methylnaphthalene	21.471	142	22384	4.45	ug/L	97

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

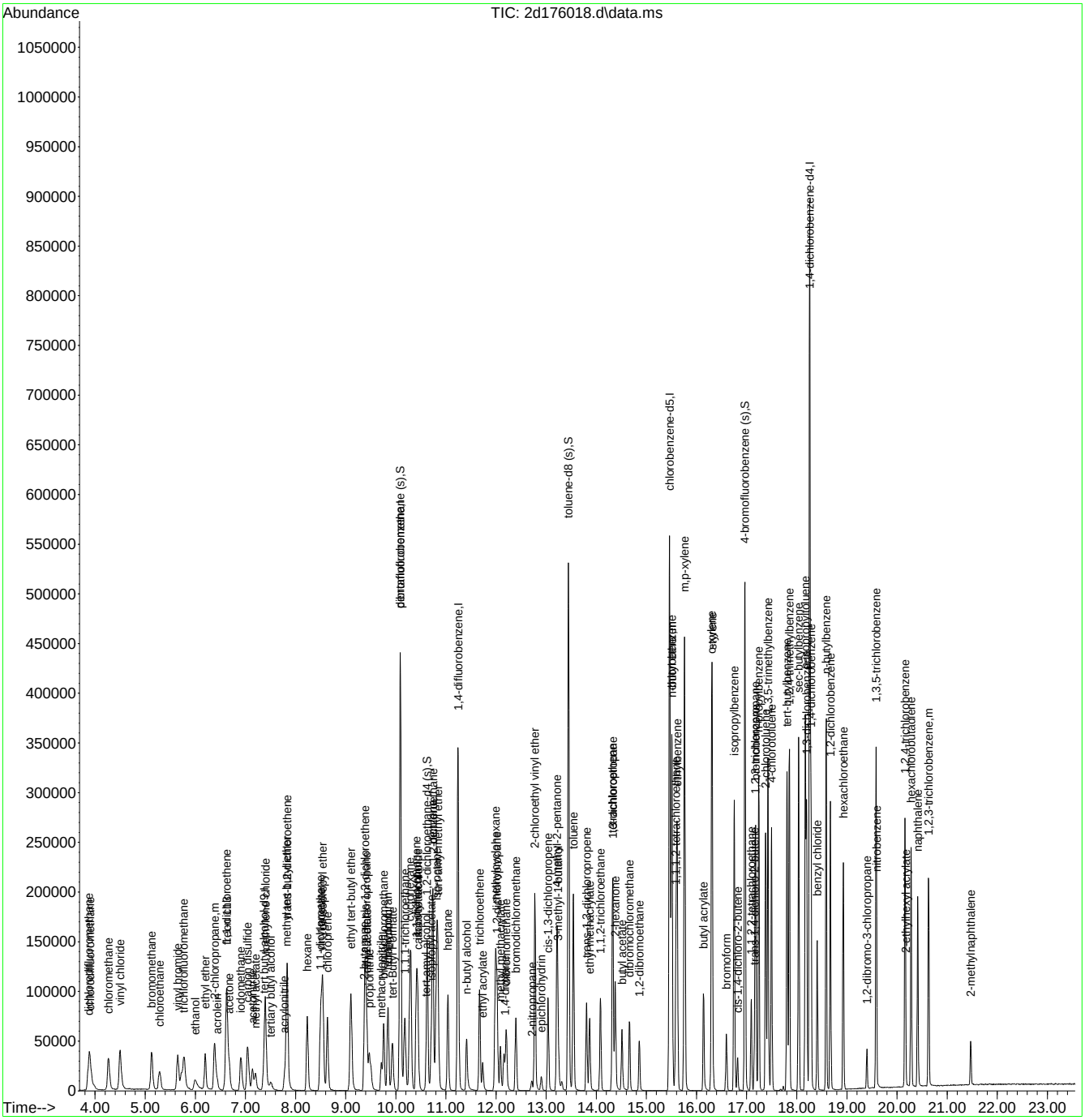
7.7.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176018.d
Acq On : 1 Jun 2018 7:18 am
Operator : jessicap
Sample : cc7390-20 Inst : MS2D
Misc : MS26770,V2D7425,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:01:24 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176038.d
Acq On : 1 Jun 2018 6:32 pm
Operator : jessicap
Sample : ecc7390-50 Inst : MS2D
Misc : MS26788,V2D7425,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:19:02 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	88056	500.00	ug/L	0.00
5) pentafluorobenzene	10.099	168	249732	50.00	ug/L	0.01
54) 1,4-difluorobenzene	11.247	114	342661	50.00	ug/L	0.01
76) chlorobenzene-d5	15.468	117	352539	50.00	ug/L	0.01
99) 1,4-dichlorobenzene-d4	18.262	152	222665	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.099	113	114665	53.30	ug/L	0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.60%			
55) 1,2-dichloroethane-d4 (s)	10.634	65	121570	51.65	ug/L	0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.30%			
77) toluene-d8 (s)	13.449	98	408147	49.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.58%			
100) 4-bromofluorobenzene (s)	16.967	95	169012	47.31	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.62%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.519	59	46354	277.83	ug/L	95
3) ethanol	6.020	45	84866	5616.94	ug/L	100
4) 1,4-dioxane	12.186	88	20378	1234.70	ug/L	94
6) chlorodifluoromethane	3.907	51	166898	70.91	ug/L	97
7) dichlorodifluoromethane	3.886	85	153766	55.38	ug/L	99
10) chloromethane	4.284	50	180985	57.69	ug/L	100
11) vinyl chloride	4.515	62	163221	59.17	ug/L	99
12) bromomethane	5.144	94	117359	60.55	ug/L	98
13) chloroethane	5.302	64	87377	60.38	ug/L	98
14) trichlorofluoromethane	5.789	101	196719	63.07	ug/L	99
15) vinyl bromide	5.663	106	112711	54.53	ug/L	99
17) ethyl ether	6.214	74	52757	54.39	ug/L	93
18) acrolein	6.445	56	16309	41.02	ug/L	96
19) 1,1-dichloroethene	6.649	96	104475	55.52	ug/L	99
20) freon 113	6.639	151	74607	47.21	ug/L	98
21) 2-chloropropane	6.403	43	181878	57.53	ug/L	99
22) acetone	6.691	58	28812	215.80	ug/L	90
23) acetonitrile	7.152	41	112139	501.34	ug/L	99
24) iodomethane	6.932	142	180429	56.57	ug/L	98
25) carbon disulfide	7.074	76	319038	52.90	ug/L	100
26) methylene chloride	7.409	84	116481	55.93	ug/L	99
27) methyl acetate	7.215	43	67707	51.12	ug/L	99
28) methyl tert butyl ether	7.829	73	283344	51.77	ug/L	100
29) trans-1,2-dichloroethene	7.844	96	106377	55.75	ug/L	99
30) hexane	8.243	57	95891	38.44	ug/L	97
31) di-isopropyl ether	8.552	45	358218	54.63	ug/L	93
32) 2-butanone	9.375	72	35995	208.45	ug/L	94
33) 1,1-dichloroethane	8.505	63	194002	54.68	ug/L	99
34) chloroprene	8.647	53	156354	55.38	ug/L	99
35) acrylonitrile	7.782	53	31896	49.75	ug/L	97
36) vinyl acetate	8.521	86	15189	49.26	ug/L	95
37) ethyl tert-butyl ether	9.118	59	338428	55.08	ug/L	99
38) ethyl acetate	9.433	45	11193	47.75	ug/L #	84
39) 2,2-dichloropropane	9.423	77	124951	44.24	ug/L	98
40) cis-1,2-dichloroethene	9.396	96	116758	54.64	ug/L	99
41) propionitrile	9.480	54	132241	485.57	ug/L	99
42) tert-Butyl Formate	9.942	59	93326	49.50	ug/L	99
43) bromochloromethane	9.769	128	58271	54.39	ug/L	97
44) tetrahydrofuran	9.847	72	10927	48.89	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176038.d
Acq On : 1 Jun 2018 6:32 pm
Operator : jessicap
Sample : ecc7390-50 Inst : MS2D
Misc : MS26788,V2D7425,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:19:02 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45)	chloroform	9.852	83	197679	57.76 ug/L	99
47)	methacrylonitrile	9.716	67	34148	48.66 ug/L	95
48)	1,1,1-trichloroethane	10.188	97	184266	58.29 ug/L	98
49)	cyclohexane	10.293	84	115214	43.85 ug/L #	59
50)	1,1-dichloropropene	10.419	75	139246	53.29 ug/L	99
51)	isobutyl alcohol	10.440	43	36108	442.65 ug/L	98
52)	carbon tetrachloride	10.445	117	163378	58.87 ug/L	98
53)	tert-amyl alcohol	10.618	73	22623	247.83 ug/L	92
56)	benzene	10.744	78	408321	53.47 ug/L	98
57)	iso-octane	10.822	57	317793	41.39 ug/L	98
58)	tert-amyl methyl ether	10.849	73	315122	55.07 ug/L	99
59)	heptane	11.048	57	49332	35.52 ug/L	98
60)	isopropyl acetate	10.718	87	17134	48.98 ug/L #	86
61)	1,2-dichloroethane	10.749	62	142529	53.53 ug/L	99
62)	n-butyl alcohol	11.420	56	110592	2382.17 ug/L	99
63)	ethyl acrylate	11.740	55	107374	47.93 ug/L	99
64)	trichloroethene	11.677	130	112651	54.71 ug/L	99
65)	2-nitropropane	12.720	41	18509	48.77 ug/L	93
66)	2-chloroethyl vinyl ether	12.783	63	288510	233.90 ug/L	99
67)	methyl methacrylate	12.097	69	56100	47.34 ug/L	99
68)	1,2-dichloropropane	12.028	63	106307	51.92 ug/L	99
69)	dibromomethane	12.212	93	65585	54.47 ug/L	99
70)	methylcyclohexane	11.997	83	157134	46.21 ug/L	98
71)	bromodichloromethane	12.401	83	150734	57.12 ug/L	98
72)	epichlorohydrin	12.909	57	39321	223.87 ug/L	94
73)	cis-1,3-dichloropropene	13.046	75	164441	48.98 ug/L	99
74)	4-methyl-2-pentanone	13.219	58	143403	205.88 ug/L	99
75)	3-methyl-1-butanol	13.240	55	80647	999.99 ug/L	96
78)	toluene	13.549	92	257500	51.82 ug/L	98
79)	trans-1,3-dichloropropene	13.811	75	146509	48.00 ug/L	100
80)	ethyl methacrylate	13.874	69	122314	48.16 ug/L	99
81)	1,1,2-trichloroethane	14.089	83	78171	51.14 ug/L	98
82)	tetrachloroethene	14.330	164	100613	53.92 ug/L	99
83)	1,3-dichloropropane	14.335	76	153077	50.86 ug/L	99
84)	2-hexanone	14.382	58	135632	199.37 ug/L	97
85)	butyl acetate	14.514	56	60304	48.57 ug/L	92
86)	dibromochloromethane	14.671	129	118275	55.50 ug/L	98
87)	1,2-dibromoethane	14.865	107	106826	51.43 ug/L	96
88)	n-butyl ether	15.515	57	477933	50.95 ug/L	99
89)	chlorobenzene	15.510	112	309574	52.60 ug/L	99
90)	1,1,1,2-tetrachloroethane	15.599	131	126073	57.12 ug/L	99
91)	ethylbenzene	15.620	91	523513	53.10 ug/L	99
92)	m,p-xylene	15.767	91	809925	105.62 ug/L	100
93)	o-xylene	16.307	106	208551	53.89 ug/L	97
94)	styrene	16.317	104	353910	54.26 ug/L	98
95)	butyl acrylate	16.144	55	211818	51.11 ug/L	97
96)	bromoform	16.600	173	83374	56.64 ug/L	98
97)	isopropylbenzene	16.758	105	552299	53.34 ug/L	100
98)	cis-1,4-dichloro-2-butene	16.826	88	14528	17.41 ug/L	94
101)	bromobenzene	17.182	156	159604	50.80 ug/L	94
102)	1,1,2,2-tetrachloroethane	17.098	83	131727	46.57 ug/L	98
103)	trans-1,4-dichloro-2-b...	17.161	53	12012	18.49 ug/L #	1
104)	1,2,3-trichloropropane	17.177	110	35001	48.62 ug/L #	80
105)	n-propylbenzene	17.245	91	656106	50.30 ug/L	99
106)	2-chlorotoluene	17.381	126	143369	51.47 ug/L	97
107)	4-chlorotoluene	17.502	91	400277	51.01 ug/L	99
109)	1,3,5-trimethylbenzene	17.429	105	485208	50.50 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176038.d
Acq On : 1 Jun 2018 6:32 pm
Operator : jessicap
Sample : ecc7390-50 Inst : MS2D
Misc : MS26788,V2D7425,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:19:02 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

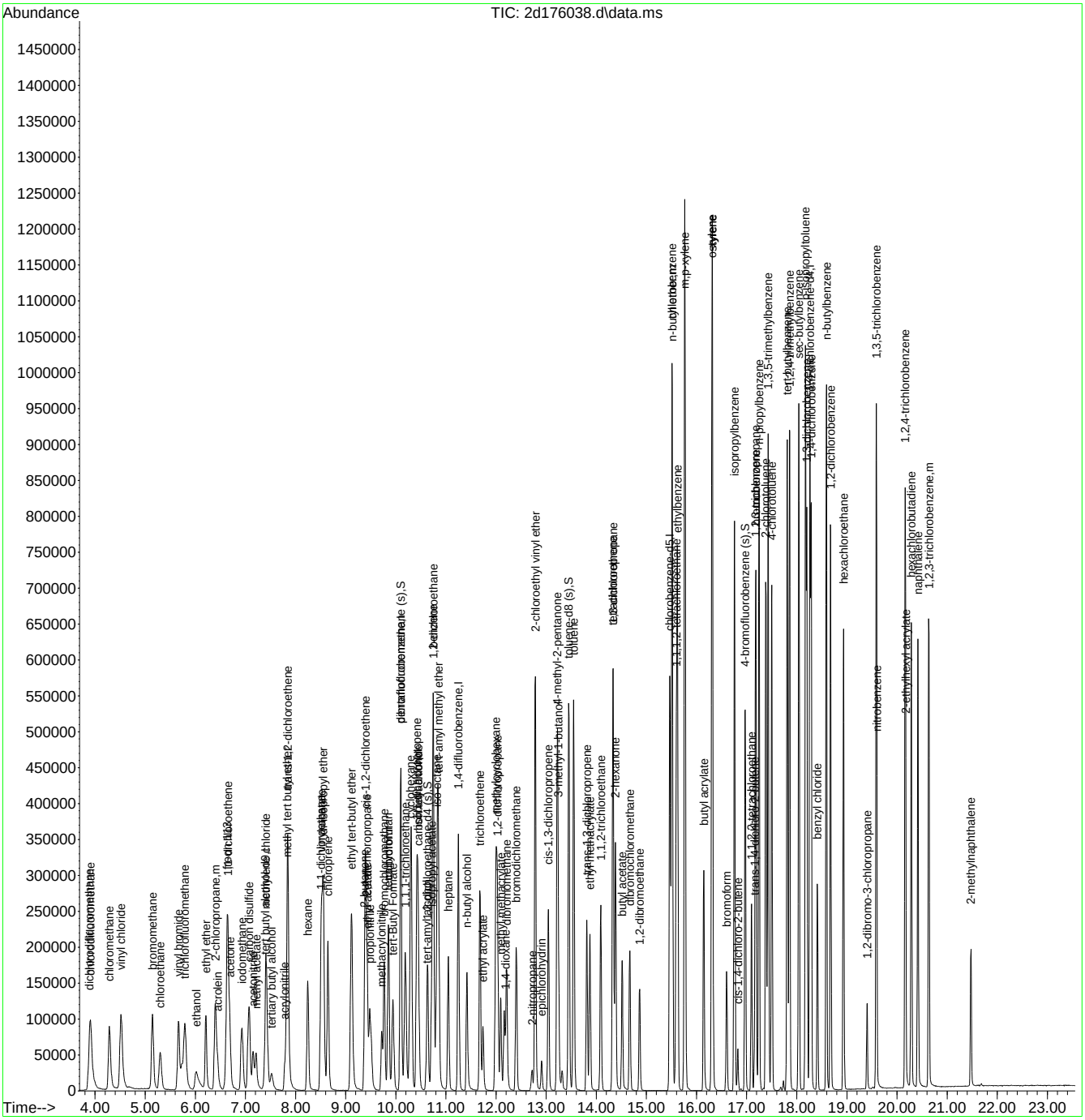
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.811	119	428987	50.33	ug/L	98
111) 1,2,4-trimethylbenzene	17.859	105	498383	50.83	ug/L	99
112) sec-butylbenzene	18.042	105	642668	50.47	ug/L	99
113) 1,3-dichlorobenzene	18.199	146	311785	52.40	ug/L	99
114) p-isopropyltoluene	18.173	119	559939	50.62	ug/L	99
115) 1,4-dichlorobenzene	18.289	146	319136	53.00	ug/L	99
116) 1,2-dichlorobenzene	18.677	146	318415	53.33	ug/L	99
117) benzyl chloride	18.409	91	194434	36.09	ug/L	98
119) n-butylbenzene	18.593	92	283429	51.07	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.405	157	33930	49.04	ug/L	97
122) nitrobenzene	19.599	77	4479	50.99	ug/L	100
123) 1,3,5-trichlorobenzene	19.589	180	304710	54.60	ug/L	100
124) hexachlorobutadiene	20.286	225	140891	51.59	ug/L	99
125) naphthalene	20.417	128	486368	50.23	ug/L	99
126) 2-ethylhexyl acrylate	20.176	70	24489	8.84	ug/L	99
127) 1,2,4-trichlorobenzene	20.166	180	256732	54.13	ug/L	97
128) 1,2,3-trichlorobenzene	20.637	180	224510	51.40	ug/L	99
129) hexachloroethane	18.933	201	113378	59.02	ug/L	97
130) 2-methylnaphthalene	21.476	142	96861	18.65	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-04-18\v2d7425\
Data File : 2d176038.d
Acq On : 1 Jun 2018 6:32 pm
Operator : jessicap
Sample : ecc7390-50 Inst : MS2D
Misc : MS26788,V2D7425,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jun 04 01:19:02 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624(60mx0.25mmx1.4um)
Standards	ABK V018-2623-05.2	C V018-2623-04.12	E V018-2623-03.2		Method	V8260C
Standard Concentration	100-10000 ppm	100ppm	100ppm		Init Calib Date	5/3/2018
Internal Surrogate	V018-2615-130					
Internal Surrogate Concentration	50/500ppm					
Standards	Ext ABK V018-2615-137.7	Ext C V018-2623-01.5	Ext E V018-2615-133.7	Ext PA V018-2615-12 8.2	Analysis Date	5/3/2018
Standard Concentration	100-10000 ppm	100 ppm	100 ppm	100/1000 ppm	Sequence loaded by	Robert Szot
					Data processed by	Robert Szot
					Batch ID	V2D7390
					Matrix	AQ
Initial Calibration Method	M2D7390				Approved By:	BRIDGETK
pH Paper Lot#	216315				Approved Date:	5/14/2018 3:06:48 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	175264	BFB		NA			5			1	ok	
2D	175265	IC7390-1		NA		8260 initial cal.	5			2	ok	5 uL ABK, C, E / 500 mL DI H2O
2D	175266	IC7390-0.5		NA		8260 initial cal.	5			3	ok	2.5 uL ABK, C, E / 500 mL DI H2O
2D	175267	IC7390-2		NA		8260 initial cal.	5			4	ok	10 uL ABK, C, E / 500 mL DI H2O
2D	175268	IC7390-5		NA		8260 initial cal.	5			5	ok	5 uL ABK, C, E / 100 mL DI H2O
2D	175269	IC7390-10		NA		8260 initial cal.	5			6	ok	10 uL ABK, C, E / 100 mL DI H2O
2D	175270	IC7390-20		NA		8260 initial cal.	5			7	ok	20 uL ABK, C, E / 100 mL DI H2O
2D	175271	ICC7390-50		NA		8260 initial cal.	5			8	ok	50 uL ABK, C, E / 100 mL DI H2O
2D	175272	IC7390-100		NA		8260 initial cal.	5			9	ok	100 uL ABK, C, E / 100 mL DI H2O
2D	175273	IC7390-200		NA		8260 initial cal.	5			10	ok	200 uL ABK, C, E / 100 mL DI H2O
2D	175274	IB		NA			5			11	ok	
2D	175275	IB		NA			5			12	ok	

OR048-01
Rev Date: 12/18/2017

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	175276	ICV7390-50		NA		8260 initial cal.	5			13	ok	50 uLExt ABK, Ext C, Ext E / 100 mL DI H2O
2D	175277	ICV7390-50		NA		8260 initial cal.	5			14	ok	50 uLExt PA / 100 mL DI H2O

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standards	ABK V018-2623-30.5	C V018-2623-38.2	E V018-2623-03.60		Column	DB624(60mx0.25mmx1.4um)
Standard Concentration	100-10000 ppm	100ppm	100ppm		Method	V8260C
Internal Surrogate	V018-2623-17				Init Calib Date	5/3/2018
Internal Surrogate Concentration	250/2500ppm					
					Rough Reviewed	Bridget Kelly
					Analysis Date	5/31/2018
					Sequence loaded by	Jessica Potts
					Data processed by	kenrickb
					Batch ID	V2D7423
					Matrix	AQ
Initial Calibration Method	M2D7390				Approved By:	MEI
pH Paper Lot#	216315				Approved Date:	6/7/2018 8:36:15 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	175973	IB		NA			5			1	ok	
2D	175974	BFB/CC7390-20		NA			5			2	ok/ok	20uL ABK, C,E/ 100mL (6: 43 am) # 3,7 high 5/31/18.
2D	175975	BS		NA			5			3	ok	50uL ABK, C, E/100mL
2D	175976	IB		NA			5			4	ok	
2D	175977	MB		NA			5			5	ok	
2D	175978	JC66946-1	14	NA	MS26751	V8260TCL20+	5		1	6	ok	
2D	175979	JC66946-2	14	NA	MS26751	V8260TCL20+	5		1	7	ok	
2D	175980	JC66946-3	13	NA	MS26751	V8260TCL20+	5		1	8	ok	
2D	175981	JC66946-4	14	NA	MS26751	V8260TCL20+	5		1	9	ok	
2D	175982	JC66897-3	9	NA	MS26751	V8260TCL20+	5		1	10	ok	any recommended minimum RFs in 8260 must be footnoted if not met.
2D	175983	JC66897-4	11	NA	MS26751	V8260TCL20+	5		1	11	ok	any recommended minimum RFs in 8260 must be footnoted if not met.

OR048-01
Rev Date: 12/18/2017

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	175984	JC66929-6	3	NA	MS26760	V8260TCL20+	5		1	12	ok	
2D	175985	JC66946-3MS	14	NA	MS26751	V8260TCL20+	5		1	13	ok	20uL ABK, C, E/100mL
2D	175986	IB		NA			5			14	ok	
2D	175987	JC66946-4DUP	13	NA	MS26751	V8260TCL20+	5		1	15	ok	
2D	175988	JC66897-1	12	NA	MS26751	V8260TCL20+	5		1	16	rr	rr 1x matrix c/o any recommended minimum RFs in 8260 must be footnoted if not met.
2D	175989	JC66897-2	1	NA	MS26751	V8260TCL20+	5		1	17	rr	rr 1x matrix c/o any recommended minimum RFs in 8260 must be footnoted if not met.
2D	175990	JC66946-5	13	NA	MS26751	V8260TCL20+	5		1	18	ok	
2D	175991	JC66946-6	2	NA	MS26751	V8260TCL20+	5		1	19	ok	
2D	175992	JC66927-3	1	NA	MS26751	V8260TCL20	5		1	20	ok	
2D	175993	JC66897-5	12	NA	MS26751	V8260TCL20+	5		1	21	ok	any recommended minimum RFs in 8260 must be footnoted if not met.
2D	175994	JC66897-6	12	NA	MS26751	V8260TCL20+	5		1	22	ok	any recommended minimum RFs in 8260 must be footnoted if not met.
2D	175995	JC66927-1	11	NA	MS26751	V8260TCL20	5		1	23	ok	
2D	175996	JC66945-1	4	NA	MS26751	V8260TCL20+	5		1	24	ok	31 May 2018 6:24 pm

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standards	ABK V018-2623-30.5	C V018-2623-38.2	E V018-2623-03.60		Column	DB624(60mx0.25mmx1.4um)
Standard Concentration	100-10000 ppm	100ppm	100ppm		Method	V8260C
Internal Surrogate	V018-2623-17				Init Calib Date	5/3/2018
Internal Surrogate Concentration	250/2500ppm					
					Analysis Date	6/1/2018
					Sequence loaded by	Jessica Potts
					Data processed by	janellec
					Batch ID	V2D7425
					Matrix	AQ
Initial Calibration Method	M2D7390				Approved By:	MEI
pH Paper Lot#	216315				Approved Date:	6/7/2018 8:36:46 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	176017	IB		NA			5			1	ok	
2D	176018	BFB/CC7390-20		NA			5			2	ok/ok	20uL ABK, C, E/100mL (7: 18 am) 6/1/18 # 7 high. 125 low.
2D	176019	BS		NA			5			3	ok	50uL ABK, C, E/100mL passed DOD BS
2D	176020	IB		NA			5			4	ok	
2D	176021	MB		NA			5			5	ok	
2D	176022	JC66602-44	1	NA	MS26788	V8260TCL20	5		1	6	ok	
2D	176023	JC66602-45	4	NA	MS26788	V8260TCL20	5		1	7	ok	
2D	176024	JC66602-28	28	NA	MS26788	V8260TCL20	5		1	8	ok	
2D	176025	JC66602-28	28	10X	MS26788	V8260TCL20	5/50		1	9	ok	
2D	176026	JC66602-36	5	NA	MS26788	V8260TCL20	5		1	10	ok	
2D	176027	JC66602-37	4	NA	MS26788	V8260TCL20	5		1	11	ok	

OR048-01
Rev Date: 12/18/2017

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	176028	JC66602-38	4	NA	MS26788	V8260TCL20	5		1	12	ok	
2D	176029	JC66602-39	4	NA	MS26788	V8260TCL20	5		1	13	ok	
2D	176030	JC66602-40	5	NA	MS26788	V8260TCL20	5		1	14	ok	
2D	176031	JC66602-41	4	NA	MS26788	V8260TCL20	5		1	15	ok	
2D	176032	JC66602-42	5	NA	MS26788	V8260TCL20	5		1	16	ok	
2D	176033	JC66602-43	4	NA	MS26788	V8260TCL20	5		1	17	ok	
2D	176034	JC66602-28MS	25	NA	MS26788	V8260TCL20	5		1	18	ok	20uL ABK, C,E/40mL
2D	176035	JC66602-28MSD	27	NA	MS26788	V8260TCL20	5		1	19	ok	20uL ABK, C, E/40mL
2D	176036	IB		NA			5			20	ok	
2D	176037	JC66946-1DUP	13	NA	MS26751	V8260TCL20+	5		1	21	ok	V2D7423
2D	176038	ECC7390-50		NA			5			22	ok	50uL ABK, C, E/100mL 6:32pm

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: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-MB1	2P79951.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	

Method Blank Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-MB1	2P79951.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

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

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	66%	34-128%

Method Blank Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-MB1	2P79951.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	78%	38-119%
1718-51-0	Terphenyl-d14	59%	26-129%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Internal standard added for SIM test	6.58	4.4	ug/l	J
	Internal standard added for SIM test	7.82	4.4	ug/l	J
	system artifact	15.15	7.1	ug/l	J
	Total TIC, Semi-Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-BS1	2P79952.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	30.2	60	39-106
59-50-7	4-Chloro-3-methyl phenol	50	36.8	74	45-118
120-83-2	2,4-Dichlorophenol	50	38.0	76	43-115
105-67-9	2,4-Dimethylphenol	50	41.2	82	38-125
51-28-5	2,4-Dinitrophenol	100	87.6	88	35-137
534-52-1	4,6-Dinitro-o-cresol	50	44.3	89	45-134
95-48-7	2-Methylphenol	50	27.3	55	34-106
	3&4-Methylphenol	50	25.9	52	31-110
88-75-5	2-Nitrophenol	50	37.5	75	41-118
100-02-7	4-Nitrophenol	50	23.6	47	10-113
87-86-5	Pentachlorophenol	50	49.7	99	21-134
108-95-2	Phenol	50	16.4	33	10-110
58-90-2	2,3,4,6-Tetrachlorophenol	50	46.8	94	41-129
95-95-4	2,4,5-Trichlorophenol	50	43.0	86	45-117
88-06-2	2,4,6-Trichlorophenol	50	46.4	93	47-125
83-32-9	Acenaphthene	50	43.9	88	40-114
208-96-8	Acenaphthylene	50	40.9	82	40-109
98-86-2	Acetophenone	50	34.0	68	43-112
120-12-7	Anthracene	50	41.7	83	50-113
1912-24-9	Atrazine	50	49.8	100	46-141
100-52-7	Benzaldehyde	50	33.5	67	27-116
56-55-3	Benzo(a)anthracene	50	44.9	90	55-110
50-32-8	Benzo(a)pyrene	50	40.5	81	52-112
205-99-2	Benzo(b)fluoranthene	50	41.4	83	53-114
191-24-2	Benzo(g,h,i)perylene	50	52.5	105	46-115
207-08-9	Benzo(k)fluoranthene	50	38.3	77	55-115
101-55-3	4-Bromophenyl phenyl ether	50	42.4	85	47-122
85-68-7	Butyl benzyl phthalate	50	43.2	86	50-124
92-52-4	1,1'-Biphenyl	50	39.6	79	42-114
91-58-7	2-Chloronaphthalene	50	37.0	74	33-112
106-47-8	4-Chloroaniline	50	27.1	54	17-87
86-74-8	Carbazole	50	41.9	84	54-118
105-60-2	Caprolactam	50	9.7	19	10-110
218-01-9	Chrysene	50	45.5	91	52-107
111-91-1	bis(2-Chloroethoxy)methane	50	38.0	76	38-116
111-44-4	bis(2-Chloroethyl)ether	50	36.4	73	38-118

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-BS1	2P79952.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-60-1	2,2'-Oxybis(1-chloropropane)	50	34.9	70	29-108
7005-72-3	4-Chlorophenyl phenyl ether	50	47.0	94	40-122
121-14-2	2,4-Dinitrotoluene	50	46.8	94	54-129
606-20-2	2,6-Dinitrotoluene	50	43.3	87	53-131
91-94-1	3,3'-Dichlorobenzidine	100	75.3	75	28-91
53-70-3	Dibenzo(a,h)anthracene	50	46.3	93	51-117
132-64-9	Dibenzofuran	50	43.5	87	46-118
84-74-2	Di-n-butyl phthalate	50	41.2	82	54-124
117-84-0	Di-n-octyl phthalate	50	39.7	79	41-137
84-66-2	Diethyl phthalate	50	44.7	89	49-122
131-11-3	Dimethyl phthalate	50	43.3	87	51-118
117-81-7	bis(2-Ethylhexyl)phthalate	50	42.9	86	47-128
206-44-0	Fluoranthene	50	45.1	90	54-118
86-73-7	Fluorene	50	43.4	87	45-116
118-74-1	Hexachlorobenzene	50	41.5	83	45-124
87-68-3	Hexachlorobutadiene	50	35.9	72	10-120
77-47-4	Hexachlorocyclopentadiene	100	72.1	72	10-110
67-72-1	Hexachloroethane	50	33.3	67	11-110
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.6	103	45-123
78-59-1	Isophorone	50	35.9	72	43-115
91-57-6	2-Methylnaphthalene	50	36.2	72	37-111
88-74-4	2-Nitroaniline	50	38.5	77	40-144
99-09-2	3-Nitroaniline	50	37.2	74	31-104
100-01-6	4-Nitroaniline	50	40.7	81	48-119
91-20-3	Naphthalene	50	35.0	70	29-110
98-95-3	Nitrobenzene	50	33.3	67	35-118
621-64-7	N-Nitroso-di-n-propylamine	50	32.5	65	38-116
86-30-6	N-Nitrosodiphenylamine	50	35.1	70	49-114
85-01-8	Phenanthrene	50	43.7	87	49-116
129-00-0	Pyrene	50	41.6	83	51-116
95-94-3	1,2,4,5-Tetrachlorobenzene	50	41.0	82	21-124

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	66%	34-128%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-BS1	2P79952.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	74%	38-119%
1718-51-0	Terphenyl-d14	89%	26-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-MS	2P79956.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526
OP12401-MSD	2P79957.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526
JC66845-6	2P79958.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

CAS No.	Compound	JC66845-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		50	33.0	66	50	32.9	66	0	36-113/33
59-50-7	4-Chloro-3-methyl phenol	ND		50	38.8	78	50	39.7	79	2	40-126/29
120-83-2	2,4-Dichlorophenol	ND		50	40.8	82	50	41.7	83	2	40-119/30
105-67-9	2,4-Dimethylphenol	ND		50	43.2	86	50	44.2	88	2	34-134/30
51-28-5	2,4-Dinitrophenol	ND		100	96.7	97	100	96.7	97	0	22-157/34
534-52-1	4,6-Dinitro-o-cresol	ND		50	46.1	92	50	47.5	95	3	26-151/37
95-48-7	2-Methylphenol	ND		50	28.6	57	50	28.7	57	0	31-119/32
	3&4-Methylphenol	ND		50	27.8	56	50	27.2	54	2	29-118/31
88-75-5	2-Nitrophenol	ND		50	40.2	80	50	41.9	84	4	38-123/34
100-02-7	4-Nitrophenol	ND		50	24.6	49	50	23.5	47	5	10-161/36
87-86-5	Pentachlorophenol	ND		50	51.9	104	50	53.9	108	4	22-149/36
108-95-2	Phenol	ND		50	17.1	34	50	16.7	33	2	10-110/35
58-90-2	2,3,4,6-Tetrachlorophenol	ND		50	50.4	101	50	52.0	104	3	43-131/36
95-95-4	2,4,5-Trichlorophenol	ND		50	44.2	88	50	45.9	92	4	45-118/30
88-06-2	2,4,6-Trichlorophenol	ND		50	47.7	95	50	49.0	98	3	48-126/31
83-32-9	Acenaphthene	ND		50	46.5	93	50	49.2	98	6	44-119/28
208-96-8	Acenaphthylene	ND		50	42.8	86	50	44.3	89	3	40-115/28
98-86-2	Acetophenone	ND		50	36.4	73	50	37.1	74	2	34-127/32
120-12-7	Anthracene	ND		50	42.7	85	50	44.1	88	3	44-120/30
1912-24-9	Atrazine	ND		50	50.4	101	50	52.8	106	5	31-149/30
100-52-7	Benzaldehyde	ND		50	35.5	71	50	35.4	71	0	11-132/37
56-55-3	Benzo(a)anthracene	ND		50	47.0	94	50	47.0	94	0	48-116/30
50-32-8	Benzo(a)pyrene	ND		50	42.3	85	50	43.3	87	2	43-120/31
205-99-2	Benzo(b)fluoranthene	ND		50	42.7	85	50	42.3	85	1	42-123/31
191-24-2	Benzo(g,h,i)perylene	ND		50	50.9	102	50	53.6	107	5	39-121/32
207-08-9	Benzo(k)fluoranthene	ND		50	38.3	77	50	41.4	83	8	44-123/31
101-55-3	4-Bromophenyl phenyl ether	ND		50	44.2	88	50	45.7	91	3	47-127/31
85-68-7	Butyl benzyl phthalate	ND		50	46.4	93	50	47.0	94	1	41-135/32
92-52-4	1,1'-Biphenyl	ND		50	40.3	81	50	42.3	85	5	39-124/29
91-58-7	2-Chloronaphthalene	ND		50	39.4	79	50	41.0	82	4	37-120/30
106-47-8	4-Chloroaniline	ND		50	28.8	58	50	29.5	59	2	10-110/49
86-74-8	Carbazole	ND		50	41.1	82	50	43.6	87	6	46-127/29
105-60-2	Caprolactam	ND		50	9.7	19	50	9.6	19	1	10-110/37
218-01-9	Chrysene	ND		50	48.4	97	50	49.2	98	2	45-113/30
111-91-1	bis(2-Chloroethoxy)methane	ND		50	40.0	80	50	42.2	84	5	33-122/29
111-44-4	bis(2-Chloroethyl)ether	ND		50	39.4	79	50	40.4	81	3	29-132/36

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-MS	2P79956.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526
OP12401-MSD	2P79957.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526
JC66845-6	2P79958.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

CAS No.	Compound	JC66845-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		50	37.7	75	50	39.2	78	4	27-115/34
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	50.6	101	50	51.1	102	1	43-125/30
121-14-2	2,4-Dinitrotoluene	ND		50	49.0	98	50	50.7	101	3	49-135/31
606-20-2	2,6-Dinitrotoluene	ND		50	45.7	91	50	47.5	95	4	50-135/32
91-94-1	3,3'-Dichlorobenzidine	ND		100	87.4	87	100	89.4	89	2	2-115/43
53-70-3	Dibenzo(a,h)anthracene	ND		50	45.0	90	50	47.4	95	5	44-121/32
132-64-9	Dibenzofuran	ND		50	43.7	87	50	46.3	93	6	43-123/29
84-74-2	Di-n-butyl phthalate	ND		50	42.0	84	50	42.9	86	2	46-133/30
117-84-0	Di-n-octyl phthalate	ND		50	39.0	78	50	40.6	81	4	31-147/32
84-66-2	Diethyl phthalate	ND		50	46.2	92	50	48.0	96	4	46-126/30
131-11-3	Dimethyl phthalate	ND		50	45.4	91	50	47.1	94	4	49-120/29
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	44.3	89	50	44.6	89	1	35-140/35
206-44-0	Fluoranthene	ND		50	45.5	91	50	46.6	93	2	48-122/30
86-73-7	Fluorene	ND		50	45.0	90	50	46.0	92	2	45-121/30
118-74-1	Hexachlorobenzene	ND		50	43.1	86	50	44.3	89	3	42-129/32
87-68-3	Hexachlorobutadiene	ND		50	41.4	83	50	42.5	85	3	10-129/36
77-47-4	Hexachlorocyclopentadiene	ND		100	83.0	83	100	83.9	84	1	10-111/40
67-72-1	Hexachloroethane	ND		50	39.3	79	50	39.6	79	1	12-116/37
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	49.3	99	50	52.6	105	6	39-129/33
78-59-1	Isophorone	ND		50	38.3	77	50	40.3	81	5	37-122/29
91-57-6	2-Methylnaphthalene	ND		50	38.7	77	50	40.1	80	4	33-118/31
88-74-4	2-Nitroaniline	ND		50	39.7	79	50	41.9	84	5	32-156/31
99-09-2	3-Nitroaniline	ND		50	39.1	78	50	39.9	80	2	11-114/41
100-01-6	4-Nitroaniline	ND		50	41.4	83	50	42.6	85	3	31-125/30
91-20-3	Naphthalene	ND		50	38.6	77	50	40.4	81	5	24-119/33
98-95-3	Nitrobenzene	ND		50	34.8	70	50	36.4	73	4	28-130/32
621-64-7	N-Nitroso-di-n-propylamine	ND		50	34.8	70	50	36.5	73	5	29-128/31
86-30-6	N-Nitrosodiphenylamine	ND		50	35.7	71	50	37.5	75	5	40-128/31
85-01-8	Phenanthrene	ND		50	44.6	89	50	47.0	94	5	41-128/30
129-00-0	Pyrene	ND		50	44.9	90	50	45.5	91	1	47-122/30
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		50	45.3	91	50	47.5	95	5	23-134/31

CAS No.	Surrogate Recoveries	MS	MSD	JC66845-6	Limits
4165-60-0	Nitrobenzene-d5	70%	73%	72%	34-128%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12401-MS	2P79956.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526
OP12401-MSD	2P79957.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526
JC66845-6	2P79958.D	1	06/01/18	CS	05/31/18	OP12401	E2P3526

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66927-1

CAS No.	Surrogate Recoveries	MS	MSD	JC66845-6	Limits
321-60-8	2-Fluorobiphenyl	79%	82%	85%	38-119%
1718-51-0	Terphenyl-d14	92%	84%	65%	26-129%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3523-DFTPP
Lab File ID: 2P79914.D
Instrument ID: GCMS2P
Injection Date: 05/30/18
Injection Time: 03:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	205044	34.1		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	288210	47.9		Pass
70	Less than 2.0% of mass 69	1526	0.25	(0.53) [a]	Pass
127	40.0 - 60.0% of mass 198	348032	57.9		Pass
197	Less than 1.04% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	601557	100.0		Pass
199	5.0 - 9.0% of mass 198	42672	7.09		Pass
275	10.0 - 30.0% of mass 198	157941	26.3		Pass
365	1.0 - 100.0% of mass 198	22293	3.71		Pass
441	Present, but less than mass 443	82083	13.6	(77.9) [b]	Pass
442	40.0 - 100.0% of mass 198	560512	93.2		Pass
443	17.0 - 23.0% of mass 442	105376	17.5	(18.8) [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
E2P3523-IC3523	2P79915.D	05/30/18	03:53	00:12	Initial cal 100
E2P3523-IC3523	2P79916.D	05/30/18	04:16	00:35	Initial cal 80
E2P3523-ICC3523	2P79917.D	05/30/18	04:38	00:57	Initial cal 50
E2P3523-IC3523	2P79918.D	05/30/18	05:00	01:19	Initial cal 25
E2P3523-IC3523	2P79919.D	05/30/18	05:22	01:41	Initial cal 10
E2P3523-IC3523	2P79920.D	05/30/18	05:43	02:02	Initial cal 5
E2P3523-IC3523	2P79921.D	05/30/18	06:05	02:24	Initial cal 2
E2P3523-IC3523	2P79922.D	05/30/18	06:27	02:46	Initial cal 1
E2P3523-ICV3523	2P79923.D	05/30/18	06:49	03:08	Initial cal verification 50
E2P3523-ICV3523	2P79924.D	05/30/18	07:11	03:30	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3524-DFTPP
Lab File ID: 2P79926.D
Instrument ID: GCMS2P
Injection Date: 05/30/18
Injection Time: 12:32

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	210403	35.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	290361	49.6		Pass
70	Less than 2.0% of mass 69	1615	0.28	(0.56) [a]	Pass
127	40.0 - 60.0% of mass 198	350101	59.8		Pass
197	Less than 1.04% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	585792	100.0		Pass
199	5.0 - 9.0% of mass 198	38611	6.59		Pass
275	10.0 - 30.0% of mass 198	147691	25.2		Pass
365	1.0 - 100.0% of mass 198	18680	3.19		Pass
441	Present, but less than mass 443	78520	13.4	(83.2) [b]	Pass
442	40.0 - 100.0% of mass 198	493760	84.3		Pass
443	17.0 - 23.0% of mass 442	94352	16.1	(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
E2P3524-IC3524	2P79927.D	05/30/18	12:42	00:10	Initial cal 100
E2P3524-IC3524	2P79928.D	05/30/18	13:04	00:32	Initial cal 80
E2P3524-ICC3524	2P79929.D	05/30/18	13:26	00:54	Initial cal 50
E2P3524-IC3524	2P79930.D	05/30/18	13:48	01:16	Initial cal 25
E2P3524-IC3524	2P79931.D	05/30/18	14:10	01:38	Initial cal 10
E2P3524-IC3524	2P79932.D	05/30/18	14:32	02:00	Initial cal 5
E2P3524-IC3524	2P79933.D	05/30/18	14:53	02:21	Initial cal 2
E2P3524-IC3524	2P79934.D	05/30/18	15:15	02:43	Initial cal 1
E2P3524-ICV3524	2P79935.D	05/30/18	15:37	03:05	Initial cal verification 50
E2P3524-ICV3523	2P79936.D	05/30/18	15:59	03:27	Initial cal verification 50
E2P3524-ICV3523	2P79937.D	05/30/18	16:21	03:49	Initial cal verification 50
E2P3524-ICV3524	2P79938A.D	05/30/18	16:59	04:27	Initial cal verification 50
E2P3524-ICV3523	2P79938.D	05/30/18	16:59	04:27	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3525-DFTPP
Lab File ID: 2P79942.D
Instrument ID: GCMS2P
Injection Date: 05/31/18
Injection Time: 16:29

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	230203	30.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	329187	42.9		Pass
70	Less than 2.0% of mass 69	1407	0.18	(0.43) [a]	Pass
127	40.0 - 60.0% of mass 198	403520	52.6		Pass
197	Less than 1.04% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	766753	100.0		Pass
199	5.0 - 9.0% of mass 198	53736	7.01		Pass
275	10.0 - 30.0% of mass 198	208555	27.2		Pass
365	1.0 - 100.0% of mass 198	25312	3.30		Pass
441	Present, but less than mass 443	112387	14.7	(89.3) [b]	Pass
442	40.0 - 100.0% of mass 198	715648	93.3		Pass
443	17.0 - 23.0% of mass 442	125920	16.4	(17.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3525-ICV3524	2P79943.D	05/31/18	16:41	00:12	Initial cal verification 50
E2P3525-ICV3524	2P79944.D	05/31/18	17:03	00:34	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3526-DFTPP
Lab File ID: 2P79946.D
Instrument ID: GCMS2P
Injection Date: 06/01/18
Injection Time: 00:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	272128	31.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	377109	43.0		Pass
70	Less than 2.0% of mass 69	2463	0.28	(0.65) [a]	Pass
127	40.0 - 60.0% of mass 198	460992	52.5		Pass
197	Less than 1.04% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	877504	100.0		Pass
199	5.0 - 9.0% of mass 198	60173	6.86		Pass
275	10.0 - 30.0% of mass 198	233963	26.7		Pass
365	1.0 - 100.0% of mass 198	28083	3.20		Pass
441	Present, but less than mass 443	121080	13.8	(87.3) [b]	Pass
442	40.0 - 100.0% of mass 198	802709	91.5		Pass
443	17.0 - 23.0% of mass 442	138749	15.8	(17.3) [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
E2P3526-CC3523	2P79947.D	06/01/18	00:25	00:19	Continuing cal 50
E2P3526-CC3524	2P79948.D	06/01/18	00:47	00:41	Continuing cal 50
OP12401-MB1	2P79951.D	06/01/18	02:04	01:58	Method Blank
OP12401-BS1	2P79952.D	06/01/18	02:26	02:20	Blank Spike
OP12417-MB1	2P79953.D	06/01/18	02:50	02:44	Method Blank
OP12417-BS1	2P79954.D	06/01/18	03:12	03:06	Blank Spike
OP12417-BSD	2P79955.D	06/01/18	03:34	03:28	Blank Spike Duplicate
OP12401-MS	2P79956.D	06/01/18	04:17	04:11	Matrix Spike
OP12401-MSD	2P79957.D	06/01/18	04:39	04:33	Matrix Spike Duplicate
JC66845-6	2P79958.D	06/01/18	05:01	04:55	(used for QC only; not part of job JC66927)
ZZZZZZ	2P79959.D	06/01/18	05:23	05:17	(unrelated sample)
ZZZZZZ	2P79960.D	06/01/18	05:45	05:39	(unrelated sample)
ZZZZZZ	2P79961.D	06/01/18	06:07	06:01	(unrelated sample)
ZZZZZZ	2P79962.D	06/01/18	06:29	06:23	(unrelated sample)
ZZZZZZ	2P79964.D	06/01/18	07:12	07:06	(unrelated sample)
ZZZZZZ	2P79965.D	06/01/18	07:34	07:28	(unrelated sample)
ZZZZZZ	2P79966.D	06/01/18	07:56	07:50	(unrelated sample)
ZZZZZZ	2P79967.D	06/01/18	08:18	08:12	(unrelated sample)
JC66927-1	2P79968.D	06/01/18	08:40	08:34	MW-106

Instrument Performance Check (DFTPP)

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	E2P3526-DFTPP	**Injection Date:**	06/01/18
Lab File ID:	2P79946.D	**Injection Time:**	00:06
Instrument ID:	GCMS2P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2P79969.D	06/01/18	09:02	08:56	(unrelated sample)
ZZZZZZ	2P79970.D	06/01/18	09:23	09:17	(unrelated sample)
ZZZZZZ	2P79971.D	06/01/18	09:45	09:39	(unrelated sample)
ZZZZZZ	2P79972.D	06/01/18	10:07	10:01	(unrelated sample)
ZZZZZZ	2P79981.D	06/01/18	10:29	10:23	(unrelated sample)
ZZZZZZ	2P79973.D	06/01/18	10:51	10:45	(unrelated sample)
ZZZZZZ	2P79974.D	06/01/18	11:13	11:07	(unrelated sample)
ZZZZZZ	2P79975.D	06/01/18	11:35	11:29	(unrelated sample)
ZZZZZZ	2P79976.D	06/01/18	11:57	11:51	(unrelated sample)

Internal Standard Area Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	E2P3526-CC3523	**Injection Date:**	06/01/18
Lab File ID:	2P79947.D	**Injection Time:**	00:25
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	823267	4.89	2857155	5.94	1458363	7.38	3014649	8.72	2793952	12.08	3054121	14.09
Upper Limit [a]	1646534	5.39	5714310	6.44	2916726	7.88	6029298	9.22	5587904	12.58	6108242	14.59
Lower Limit [b]	411634	4.39	1428578	5.44	729182	6.88	1507325	8.22	1396976	11.58	1527061	13.59

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP12401-MB1	1464644	4.89	5045939	5.94	2521645	7.38	4812466	8.72	4874702	12.08	4662199	14.09
OP12401-BS1	972245	4.89	3237814	5.94	1589346	7.38	3140468	8.72	2794518	12.08	3222982	14.09
OP12417-MB1	1377301	4.89	4785607	5.94	2341279	7.38	4518727	8.72	4386003	12.08	4192954	14.09
OP12417-BS1	974130	4.89	3255096	5.94	1585181	7.38	3122977	8.72	2669233	12.08	3065867	14.09
OP12417-BSD	955411	4.89	3253431	5.94	1577008	7.38	3154725	8.72	2646160	12.08	3096634	14.09
OP12401-MS	1021838	4.89	3502309	5.94	1765505	7.39	3586502	8.72	3004764	12.09	3582758	14.09
OP12401-MSD	970850	4.89	3266790	5.94	1635819	7.39	3298323	8.72	2783106	12.08	3259090	14.09
JC66845-6	1501880	4.89	5256294	5.94	2606868	7.38	5105608	8.72	5090812	12.08	4912741	14.09
ZZZZZZ	1471865	4.89	5137146	5.94	2513896	7.38	4809646	8.72	4862648	12.08	4727609	14.09
ZZZZZZ	1444918	4.89	5002165	5.94	2453863	7.38	4735331	8.72	4744756	12.08	4585899	14.09
ZZZZZZ	1377338	4.89	4932285	5.94	2431028	7.38	4752138	8.72	4785038	12.08	4652954	14.09
ZZZZZZ	1623928	4.89	5569141	5.94	2696623	7.38	5171316	8.72	5311574	12.08	5102799	14.09
ZZZZZZ	1433491	4.89	4895289	5.94	2364199	7.38	4535401	8.72	4640908	12.08	4500258	14.09
ZZZZZZ	1431251	4.89	5056938	5.94	2471021	7.38	4735385	8.72	4751516	12.08	4575380	14.09
ZZZZZZ	1512512	4.89	5234646	5.94	2574689	7.38	4963307	8.72	4972158	12.08	4852269	14.09
ZZZZZZ	1393440	4.89	4921881	5.94	2390324	7.38	4592862	8.72	4543502	12.08	4463970	14.09
JC66927-1	1380098	4.89	4824752	5.94	2297105	7.38	4239303	8.72	4016300	12.08	4103597	14.09
ZZZZZZ	811594	4.89	3633048	5.94	2035093	7.38	3969657	8.72	3758362	12.08	3655996	14.09
ZZZZZZ	1236195	4.89	4565160	5.94	2276693	7.38	4437258	8.72	4146358	12.08	3922704	14.09
ZZZZZZ	1487960	4.89	5183782	5.94	2561449	7.38	4892165	8.72	4752226	12.08	4473285	14.09
ZZZZZZ	1257283	4.89	4583000	5.94	2232967	7.38	4069848	8.72	3313648	12.08	3339123	14.09
ZZZZZZ	1454137	4.89	5220617	5.94	2631329	7.38	4977232	8.72	4854456	12.08	4575154	14.09
ZZZZZZ	1320284	4.89	4503149	5.94	2074630	7.38	3764088	8.72	3535109	12.08	3543290	14.09
ZZZZZZ	1346461	4.89	4806096	5.94	2357714	7.38	4440780	8.72	4297582	12.08	4140209	14.09
ZZZZZZ	1432374	4.89	4936076	5.94	2403185	7.38	4707278	8.72	4558247	12.08	4449520	14.09
ZZZZZZ	1416082	4.89	4873275	5.94	2402618	7.38	4675938	8.72	4555884	12.08	4366392	14.09

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.

Internal Standard Area Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	E2P3526-CC3523	**Injection Date:**	06/01/18
Lab File ID:	2P79947.D	**Injection Time:**	00:25
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**

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

Surrogate Recovery Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC66927-1	2P79968.D	34	25	88	67	86	60
OP12401-BS1	2P79952.D				66	74	89
OP12401-MB1	2P79951.D				66	78	59
OP12401-MS	2P79956.D				70	79	92
OP12401-MSD	2P79957.D				73	82	84

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-110%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	36-151%
S4 = Nitrobenzene-d5	34-128%
S5 = 2-Fluorobiphenyl	38-119%
S6 = Terphenyl-d14	26-129%

Initial Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3523-ICC3523
Lab FileID: 2P79917.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Jun 06 12:41:35 2018
Response via : Initial Calibration

Calibration Files
2 =2p79921.D 5 =2p79920.D 25 =2p79918.D 80 =2p79916.D
100 =2p79915.D 50 =2p79917.D 1 =2p79922.D 10 =2p79919.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------									
2) 1,4-Dioxane	0.521	0.580	0.642	0.741	0.741	0.737	0.598	0.646	0.651	12.79
3) Pyridine	1.438	1.604	1.738	1.750	1.698	1.790	1.512	1.759	1.661	7.78
4) N-Nitrosodim	0.859	0.933	1.011	1.098	1.072	1.114	0.869	1.042	1.000	10.09
5) 2-Fluorophen	1.608	1.755	1.843	1.973	1.921	2.017	1.650	1.901	1.833	8.15
6) Indene	2.274	2.254	2.224	2.063	1.957	2.138	2.361	2.361	2.204	6.47
7) Cumene	4.355	4.554	4.403	4.077	3.722	4.405	4.250	4.757	4.315	7.24
8) Phenol-d5	2.103	2.286	2.239	2.132	2.034	2.242	2.167	2.389	2.199	5.13
9) Phenol	2.431	2.450	2.244	1.910	1.760	2.097	2.426	2.510	2.229	12.54
10) Aniline	2.716	2.541	2.102	1.703		1.759	2.751	2.501	2.296	19.17
11) bis(2-Chloro	1.551	1.523	1.378	1.251	1.201	1.309	1.607	1.557	1.422	11.03
12) 2-Chlorophen	1.703	1.682	1.566	1.430	1.379	1.494	1.803	1.723	1.598	9.57
13) Decane	1.643	1.557	1.384	1.092	0.986	1.220	1.729	1.574	1.398	19.50
14) 1,3-Dichloro	1.746	1.709	1.603	1.494	1.473	1.547	1.820	1.733	1.641	7.85
15) 1,4-Dichloro	1.387	1.351	1.409	1.377	1.353	1.377	1.413	1.452	1.390	2.43
16) Benzyl alcoh	0.825	0.834	0.910	0.886	0.871	0.907	0.796	0.913	0.868	5.13
17) 1,2-Dichloro	1.447	1.454	1.407	1.284	1.256	1.343	1.432	1.474	1.387	5.97
18) Acetophenone	2.039	1.940	1.906	1.721	1.652	1.802	2.075	2.044	1.897	8.34
19) 2-Methylphen	1.273	1.211	1.184	1.006	0.951	1.063	1.213	1.281	1.148	10.89
20) 2,2'-oxybis(	0.404	0.373	0.352	0.321	0.314	0.331	0.404	0.390	0.361	10.15
21) 3&4-Methylph	1.326	1.239	1.229	1.074	1.008	1.155	1.314	1.313	1.207	9.82
22) n-Nitroso-di	1.011	0.983	0.852	0.676	0.642	0.729	1.096	0.968	0.870	19.59
23) Hexachloroet	0.526	0.513	0.518	0.523	0.503	0.520	0.515	0.535	0.519	1.83
24) I Naphthalene-d8	----------ISTD----------									
25) Nitrobenzene	0.505	0.491	0.448	0.398	0.388	0.422	0.517	0.496	0.458	11.10
26) Nitrobenzene	0.474	0.476	0.405	0.347	0.333	0.374	0.497	0.461	0.421	15.32
27) Quinoline	0.788	0.835	0.804	0.784	0.777	0.798	0.822	0.846	0.807	3.08
28) Isophorone	0.837	0.851	0.806	0.742	0.727	0.764	0.847	0.864	0.805	6.67
29) 2-Nitropheno	0.221	0.237	0.231	0.224	0.216	0.231	0.213	0.242	0.227	4.39
30) 2,4-Dimethyl	0.383	0.328	0.334	0.315	0.310	0.323	0.336	0.370	0.337	7.66
31) Benzoic acid	0.231	0.263	0.316	0.312	0.310	0.327	0.192	0.318	0.284	17.51
32) bis(2-Chloro	0.474	0.469	0.423	0.381	0.369	0.400	0.516	0.465	0.437	11.83
33) 2,4-Dichloro	0.332	0.337	0.309	0.295	0.295	0.305	0.354	0.340	0.321	7.07
34) 2,6-Dichloro	0.263	0.269	0.266	0.271	0.269	0.268	0.263	0.277	0.268	1.65
35) 1,3,5-Trichl	0.411	0.404	0.375	0.352	0.340	0.359	0.425	0.402	0.384	8.12
36) 1,2,4-Trichl	0.386	0.383	0.355	0.335	0.328	0.340	0.384	0.379	0.361	6.70
37) 1,2,3-Trichl	0.322	0.321	0.301	0.285	0.286	0.293	0.336	0.323	0.308	6.35
38) Naphthalene	1.014	0.984	0.973	0.906	0.850	0.939	0.998	1.025	0.961	6.20
39) 4-Chloroanil	0.465	0.476	0.455	0.422	0.410	0.432	0.472	0.482	0.452	6.02
40) 2,3-Dichloro	0.423	0.414	0.392	0.380	0.376	0.391	0.445	0.414	0.404	5.90
41) Caprolactam	0.122	0.135	0.133	0.142	0.141	0.131	0.122	0.136	0.133	5.71
42) Hexachlorobu	0.179	0.185	0.185	0.187	0.183	0.186	0.171	0.185	0.183	2.98
43) 4-Chloro-3-m	0.359	0.379	0.370	0.331	0.323	0.350	0.349	0.388	0.356	6.34
44) 2-Methylnaph	0.681	0.697	0.669	0.609	0.578	0.641	0.704	0.709	0.661	7.23
45) 1-Methylnaph	0.704	0.718	0.652	0.597	0.576	0.621	0.752	0.719	0.667	9.72

Initial Calibration Summary

Job Number: JC66927 **Sample:** E2P3523-ICC3523
Account: BBLNYS Arcadis **Lab FileID:** 2P79917.D
Project: National Grid, Philly Coke, Philadelphia PA

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46) Dimethylnaph 0.716 0.683 0.619 0.573 0.550 0.599 0.733 0.663 0.642  10.48

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.328 0.351 0.372 0.363 0.366 0.365 0.319 0.381 0.356   6.11
49) 2,4,6-Trichl 0.409 0.410 0.412 0.394 0.392 0.398 0.401 0.432 0.406   3.18
50) 2,4,5-Trichl 0.452 0.423 0.405 0.397 0.408 0.394 0.435 0.435 0.418   4.99
51) 2-Fluorobiph 1.564 1.486 1.324 1.240 1.191 1.274 1.580 1.452 1.389  10.86
52) 2-Chloronaph 1.361 1.259 1.083 0.980 0.988 1.005 1.413 1.209 1.162  14.84
53) Biphenyl     1.764 1.712 1.596 1.474 1.441 1.556 1.813 1.698 1.632   8.34
54) 2-Nitroanili 0.432 0.427 0.396 0.369 0.368 0.381 0.416 0.436 0.403   7.02
55) Dimethylphth 1.492 1.439 1.373 1.321 1.305 1.337 1.499 1.454 1.403   5.56
56) Acenaphthyle 2.174 2.086 1.949 1.755 1.637 1.829 2.168 2.114 1.964  10.40
57) 2,6-Dinitrot 0.299 0.317 0.323 0.319 0.317 0.317 0.299 0.332 0.315   3.53
58) 3-Nitroanili 0.392 0.400 0.394 0.379 0.381 0.382 0.366 0.408 0.388   3.38
59) Acenaphthene 1.078 1.083 1.110 1.095 1.098 1.118 1.084 1.122 1.099   1.54
60) 2,4-Dinitrop 0.068 0.100 0.148 0.176 0.183 0.164 0.049 0.128 0.127  39.47
         ----- Quadratic regression -----                Coefficient =  0.9999
              Response Ratio = -0.00939 + 0.14849 *A + 0.00734 *A^2

61) 4-Nitropheno 0.178 0.201 0.219 0.223 0.225 0.221 0.162 0.223 0.206  11.64
62) Dibenzofuran 1.614 1.608 1.517 1.467 1.444 1.470 1.613 1.629 1.545   5.07
63) 2,4-Dinitrot 0.357 0.395 0.426 0.427 0.423 0.429 0.333 0.424 0.402   9.24
64) 2,3,4,6-Tetr 0.318 0.341 0.369 0.404 0.420 0.386 0.294 0.364 0.362  11.83
65) Diethylphtha 1.461 1.471 1.439 1.341 1.315 1.386 1.447 1.507 1.421   4.72
66) Fluorene     1.458 1.433 1.377 1.232 1.191 1.293 1.438 1.445 1.358   7.78
67) 4-Chlorophen 0.664 0.656 0.684 0.663 0.643 0.683 0.674 0.680 0.668   2.18
68) 4-Nitroanili 0.383 0.385 0.342 0.324 0.338 0.320 0.382 0.379 0.357   7.97

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro- 0.086 0.114 0.126 0.131 0.132 0.127       0.128 0.121  13.76
71) n-Nitrosodip 0.619 0.611 0.560 0.517 0.509 0.525 0.639 0.606 0.573   9.04
72) 1,2-Diphenyl 1.012 0.951 0.808 0.633       0.704 1.060 0.950 0.874  18.48
73) 2,4,6-Tribro 0.117 0.118 0.131 0.151 0.159 0.140 0.115 0.131 0.133  12.14
74) 4-Bromopheny 0.238 0.242 0.249 0.263 0.267 0.258 0.239 0.253 0.251   4.32
75) Hexachlorobe 0.283 0.284 0.282 0.283 0.282 0.282 0.295 0.295 0.286   1.95
76) Pentachlorop 0.146 0.172 0.198 0.200 0.197 0.201 0.136 0.192 0.180  14.41
77) Phenanthrene 0.952 0.940 0.968 0.950 0.926 0.958 0.975 0.981 0.956   1.91
78) Anthracene   1.022 1.038 1.006 0.949 0.919 0.974 1.006 1.073 0.998   4.97
79) Carbazole    1.121 1.125 1.101 1.024 0.991 1.051 1.115 1.175 1.088   5.56
80) Di-n-butylph 1.525 1.683 1.657 1.407 1.336 1.561 1.481 1.742 1.549   9.04
81) Fluoranthene 1.404 1.541 1.529 1.413 1.355 1.458 1.417 1.595 1.464   5.65
82) Octadecane   0.410 0.403 0.327 0.229       0.268 0.419 0.396 0.350  21.85
         ----- Quadratic regression -----                Coefficient =  0.9986
              Response Ratio = 0.00748 + 0.34356 *A + -0.05975 *A^2


83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.553 1.552 1.576 1.555 1.482 1.562 1.577 1.636 1.562   2.71
85) Terphenyl-d1 0.986 1.011 1.047 1.119 1.066 1.081 1.014 1.046 1.046   4.11
86) Butylbenzylp 0.769 0.829 0.872 0.881 0.827 0.875 0.729 0.895 0.835   7.07
87) Benzo[a]anth 1.398 1.396 1.422 1.471 1.417 1.429 1.440 1.455 1.428   1.83
88) 3,3'-Dichlor 0.482 0.542 0.597 0.609 0.561 0.615 0.474 0.576 0.557   9.79
89) Chrysene     0.933 0.950 1.033 1.134 1.110 1.085 0.917 1.047 1.026   8.16
90) bis(2-Ethylh 0.755 0.822 0.882 0.890 0.848 0.891 0.697 0.901 0.836   8.87

91) I   Perylene-d12          ----------------ISTD---------------------
92) Di-n-octylph 1.627 1.821 1.915 1.740 1.634 1.839 1.528 1.957 1.758   8.61
93) Benzo[b]fluo 1.387 1.398 1.433 1.377 1.379 1.398 1.399 1.489 1.408   2.64
94) Benzo[k]fluo 1.260 1.240 1.055 0.960 0.867 1.009 1.253 1.215 1.107  13.90
95) Benzo[a]pyre 1.157 1.184 1.179 1.155 1.125 1.159 1.155 1.239 1.169   2.86
```

8.7.1

8

Initial Calibration Summary

Job Number: JC66927 **Sample:** E2P3523-ICC3523
Account: BBLNYS Arcadis **Lab FileID:** 2P79917.D
Project: National Grid, Philly Coke, Philadelphia PA

96)	Indeno[1,2,3	0.968	0.976	1.073	1.148	1.186	1.106	0.967	1.062	1.061	7.97
97)	Dibenz(a,h)a	0.872	0.907	0.965	1.008	1.012	0.979	0.864	0.972	0.947	6.18
98)	Dibenz[a,h]a	0.960	0.997	1.008	1.030	1.048	1.007	0.987	1.050	1.011	3.06
99)	7,12-Dimethy	0.511	0.461	0.601	0.624	0.613	0.609	0.467	0.608	0.562	12.42
100)	Benzo[g,h,i]	0.918	0.966	1.004	1.025	1.021	1.016	0.926	1.027	0.988	4.58

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

M2P3523.M Wed Jun 06 12:42:45 2018 RPT1

8.7.1

8

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3523-ICV3523
Lab FileID: 2P79923.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3523\2p79923.D Vial: 10
Acq On : 30 May 2018 6:49 am Operator: chriss2
Sample : icv3523-50 Inst : MS2P
Misc : op10929,e2p3523,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 30 12:00:07 2018
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	88	0.00	4.89
2	t	1,4-Dioxane	0.651	0.705	-8.3	84	0.00	2.25
3	t	Pyridine	1.661	1.840	-10.8	91	0.00	2.57
4	t	N-Nitrosodimethylamine	1.000	1.104	-10.4	87	0.00	2.55
9	t	Phenol	2.229	2.291	-2.8	96	0.00	4.61
10		Aniline	2.296	2.402	-4.6	120	0.00	4.62
11	t	bis(2-Chloroethyl)ether	1.422	1.300	8.6	88	0.00	4.68
12	t	2-Chlorophenol	1.598	1.494	6.5	88	0.00	4.72
14	t	1,3-Dichlorobenzene	1.641	1.641	0.0	93	0.00	4.84
15	t	1,4-Dichlorobenzene	1.390	1.443	-3.8	92	0.00	4.91
16	t	Benzyl alcohol	0.868	1.002	-15.4	97	0.00	5.01
17	t	1,2-Dichlorobenzene	1.387	1.367	1.4	90	0.00	5.04
19	t	2-Methylphenol	1.148	1.303	-13.5	108	0.00	5.11
20	t	2,2'-oxybis(1-Chloropropa	0.361	0.414	-14.7	110	0.00	5.13
22	t	n-Nitroso-di-n-propylamin	0.870	0.688	20.9	83	0.00	5.23
23	t	Hexachloroethane	0.519	0.475	8.5	80	0.00	5.31
24	I	Naphthalene-d8	1.000	1.000	0.0	89	0.00	5.95
26	t	Nitrobenzene	0.421	0.411	2.4	97	0.00	5.37
28	t	Isophorone	0.805	0.877	-8.9	102	0.00	5.57
29	t	2-Nitrophenol	0.227	0.234	-3.1	90	0.00	5.63
30	t	2,4-Dimethylphenol	0.337	0.404	-19.9	111	0.00	5.67
31	t	Benzoic acid	0.284	0.319	-12.3	86	-0.02	5.79
32	t	bis(2-Chloroethoxy)methan	0.437	0.432	1.1	96	0.00	5.75
33	t	2,4-Dichlorophenol	0.321	0.323	-0.6	94	0.00	5.83
36	t	1,2,4-Trichlorobenzene	0.361	0.351	2.8	91	0.00	5.90
38	t	Naphthalene	0.961	1.016	-5.7	96	0.00	5.97
39	t	4-Chloroaniline	0.452	0.470	-4.0	97	0.00	6.02
41	t	Caprolactam	0.133	0.149	-12.0	100	0.00	6.32
42	t	Hexachlorobutadiene	0.183	0.162	11.5	77	0.00	6.07
43	t	4-Chloro-3-methylphenol	0.356	0.382	-7.3	97	0.00	6.42
44	t	2-Methylnaphthalene	0.661	0.610	7.7	84	0.00	6.53
45	t	1-Methylnaphthalene	0.667	0.613	8.1	87	0.00	6.62
47	I	Acenaphthene-d10	1.000	1.000	0.0	79	0.00	7.40
49	t	2,4,6-Trichlorophenol	0.406	0.445	-9.6	88	0.00	6.77
50	t	2,4,5-Trichlorophenol	0.418	0.457	-9.3	91	0.00	6.80
52	t	2-Chloronaphthalene	1.162	1.135	2.3	89	0.00	6.94
53	t	Biphenyl	1.632	1.537	5.8	78	0.00	6.92
54	t	2-Nitroaniline	0.403	0.429	-6.5	89	0.00	7.02
55	t	Dimethylphthalate	1.403	1.456	-3.8	86	0.00	7.18
56	t	Acenaphthylene	1.964	2.028	-3.3	87	0.00	7.28

Initial Calibration Verification

Job Number: JC66927 **Sample:** E2P3523-ICV3523
Account: BBLNYS Arcadis **Lab FileID:** 2P79923.D
Project: National Grid, Philly Coke, Philadelphia PA

57	t	2,6-Dinitrotoluene	0.315	0.334	-6.0	83	0.00	7.22
58	t	3-Nitroaniline	0.388	0.414	-6.7	85	0.00	7.36
59	t	Acenaphthene	1.099	1.241	-12.9	87	0.00	7.42
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	60.163	-20.3	87	0.00	7.44
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.206	0.242	-17.5	86	0.00	7.50
62	t	Dibenzofuran	1.545	1.494	3.3	80	0.00	7.57
63	t	2,4-Dinitrotoluene	0.402	0.390	3.0	72	0.00	7.55
64		2,3,4,6-Tetrachlorophenol	0.362	0.414	-14.4	84	0.00	7.67
65	t	Diethylphthalate	1.421	1.547	-8.9	88	0.00	7.75
66	t	Fluorene	1.358	1.488	-9.6	91	0.00	7.86
67	t	4-Chlorophenyl-phenylethe	0.668	0.772	-15.6	89	0.00	7.85
68	t	4-Nitroaniline	0.357	0.367	-2.8	90	0.00	7.88
69	I	Phenanthrene-d10	1.000	1.000	0.0	84	0.00	8.74
70	t	4,6-Dinitro-2-methylpheno	0.121	0.130	-7.4	86	0.00	7.90
71	t	n-Nitrosodiphenylamine	0.573	0.668	-16.6	106	0.00	7.96
72	t	1,2-Diphenylhydrazine	0.874	0.757	13.4	90	0.00	7.99
74	t	4-Bromophenyl-phenylether	0.251	0.207	17.5	67	0.00	8.29
75	t	Hexachlorobenzene	0.286	0.263	8.0	78	0.00	8.36
76	t	Pentachlorophenol	0.180	0.183	-1.7	71	0.00	8.55
77	t	Phenanthrene	0.956	0.997	-4.3	87	0.00	8.76
78	t	Anthracene	0.998	1.056	-5.8	91	0.00	8.81
80	t	Di-n-butylphthalate	1.549	1.731	-11.7	93	0.00	9.38
81	t	Fluoranthene	1.464	1.376	6.0	79	0.00	10.12
83	I	Chrysene-d12	1.000	1.000	0.0	86	0.00	12.10
84	t	Pyrene	1.562	1.502	3.8	82	0.00	10.41
86	t	Butylbenzylphthalate	0.835	0.772	7.5	76	0.00	11.34
87	t	Benzo[a]anthracene	1.428	1.531	-7.2	92	0.00	12.08
88	t	3,3'-Dichlorobenzidine	0.557	0.674	-21.0	94	0.00	12.08
89	t	Chrysene	1.026	1.117	-8.9	88	0.00	12.14
90	t	bis(2-Ethylhexyl)phthalat	0.836	0.913	-9.2	88	0.00	12.22
91	I	Perylene-d12	1.000	1.000	0.0	91	0.00	14.11
92	t	Di-n-octylphthalate	1.758	1.905	-8.4	94	0.00	13.17
93	t	Benzo[b]fluoranthene	1.408	1.494	-6.1	97	0.00	13.61
94	t	Benzo[k]fluoranthene	1.107	0.996	10.0	89	0.00	13.65
95	t	Benzo[a]pyrene	1.169	1.289	-10.3	101	0.02	14.03
96	t	Indeno[1,2,3-cd]pyrene	1.061	1.240	-16.9	102	0.04	15.63
97	t	Dibenz(a,h)acridine	0.947	1.038	-9.6	96	0.10	15.35
98	t	Dibenz[a,h]anthracene	1.011	1.048	-3.7	94	0.04	15.67
99	t	7,12-Dimethylbenz(a)anthr	0.562	0.653	-16.2	97	0.03	13.62
100	t	Benzo[g,h,i]perylene	0.988	1.185	-19.9	106	0.05	16.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79917.D M2P3523.M Thu May 31 09:39:24 2018 RPT1

8.7.2 8

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3523-ICV3523
Lab FileID: 2P79924.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3523\2p79924.D          Vial: 11
Acq On    : 30 May 2018   7:11 am                   Operator: chriss2
Sample    : icv3523-50                              Inst    : MS2P
Misc      : op10929,e2p3523,1000,,,1,1              Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed May 30 12:00:07 2018
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	178	0.00	4.89
5	S	2-Fluorophenol	1.833	1.531	16.5	135	0.01	3.81
8	S	Phenol-d5	2.199	1.794	18.4	143	0.00	4.60
24	I	Naphthalene-d8	1.000	1.000	0.0	174	0.00	5.95
25	S	Nitrobenzene-d5	0.458	0.440	3.9	182	0.00	5.35
47	I	Acenaphthene-d10	1.000	1.000	0.0	171	0.00	7.39
51	S	2-Fluorobiphenyl	1.389	1.328	4.4	178	0.00	6.83
69	I	Phenanthrene-d10	1.000	1.000	0.0	153	0.00	8.73
73	S	2,4,6-Tribromophenol	0.133	0.141	-6.0	154	-0.01	8.06
83	I	Chrysene-d12	1.000	1.000	0.0	170	-0.01	12.09
85	S	Terphenyl-d14	1.046	0.930	11.1	147	0.00	10.63

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 2p79917.D  M2P3523.M        Thu May 31 09:33:55 2018   RPT1
```

8.7.3

8

Initial Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3524-ICC3524
Lab FileID: 2P79929.D

```
                    Response Factor Report  MS2P

  Method       : C:\MSDCHEM\1\METHODS\M2P3524.M (RTE Integrator)
  Title        : Semi Volatile Extractables by GC/MS
  Last Update  : Thu May 31 15:33:13 2018
  Response via : Initial Calibration

  Calibration Files
  2   =2p79933.D  5   =2p79932.D  25  =2p79930.D  80  =2p79928.D
  100 =2p79927.D  50  =2p79929.D  1   =2p79934.D  10  =2p79931.D

   Compound          2     5     25    80    100   50    1     10    Avg %RSD
  ---------------------------------------------------------------------------

101) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
102) Benzaldehyde 1.354 1.287 1.002 0.814       0.906 1.248 1.208 1.117  18.64

103) I   Naphthalene-d8       ----------------ISTD---------------------
104) Hydroquinone 0.203 0.275 0.349 0.344 0.329 0.357       0.331 0.312  17.67

105) I   Acenaphthene-d10     ----------------ISTD---------------------
106) Atrazine     0.200 0.195 0.193 0.184 0.178 0.194 0.189 0.207 0.192   4.68
107) 1,2,4,5-Tetr 0.653 0.627 0.576 0.552 0.521 0.578 0.629 0.628 0.596   7.63

108) I   Chrysene-d12         ----------------ISTD---------------------
109) Benzidine    0.484 0.627 0.482 0.438 0.406 0.459       0.575 0.496  15.74

110) I   Phenanthrene-d10     ----------------ISTD---------------------
111) 1-Chloroocta 0.382 0.383 0.346 0.290 0.281 0.314 0.345 0.382 0.340  12.21
112) o-terphenyl  0.586 0.578 0.570 0.570 0.542 0.583 0.551 0.575 0.569   2.71
113) Pentachloron 0.044 0.047 0.048 0.049 0.047 0.050 0.036 0.045 0.046#  9.46

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

          M2P3523.M         Fri Jun 01 11:07:03 2018   RPT1
```

8.7.4

8

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3524-ICV3524
Lab FileID: 2P79935.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3524\2p79935.D          Vial: 10
Acq On    : 30 May 2018   3:37 pm                   Operator: johnb1
Sample    : icv3524-50                              Inst    : MS2P
Misc      : op10929,e2p3524,1000,,,1,1              Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 31 14:56:11 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Acenaphthene-d10a	1.000	1.000	0.0	58	0.00	7.40
106	Atrazine	0.192	0.225	-17.2	67	0.00	8.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79929a.D M2P3523.M Thu May 31 15:00:52 2018 RPT1

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3524-ICV3523
Lab FileID: 2P79936.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3524\2p79936.D          Vial: 11
Acq On    : 30 May 2018   3:59 pm                   Operator: johnb1
Sample    : icv3523-50                              Inst    : MS2P
Misc      : op10929,e2p3524,1000,,,1,1              Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 31 12:14:55 2018
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.
47	I	Acenaphthene-d10	1.000	1.000	0.0	88	0.00	7.40
48	t	Hexachlorocyclopentadiene	0.356	0.447	-25.6	95	0.00	6.67
69	I	Phenanthrene-d10	1.000	1.000	0.0	107	0.00	8.73
79	t	Carbazole	1.088	0.951	12.6	97	0.00	8.97

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 2p79929a.D M2P3523.M        Thu May 31 14:26:26 2018   RPT1
```

8.7.6

8

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3524-ICV3523
Lab FileID: 2P79937.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3524\2p79937.D          Vial: 12
Acq On    : 30 May 2018   4:21 pm                   Operator: johnb1
Sample    : icv3523-50                              Inst    : MS2P
Misc      : op10929,e2p3524,1000,,,1,1              Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 31 12:14:55 2018
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	129	0.00	4.89
6	t	Indene	2.204	2.366	-7.4	142	0.00	5.11
7	t	Cumene	4.315	3.832	11.2	112	0.00	4.23
13	t	Decane	1.398	1.249	10.7	132	0.00	4.77
24	I	Naphthalene-d8	1.000	1.000	0.0	153	0.00	5.94
27	t	Quinoline	0.807	0.634	21.4	121	-0.02	6.23
46	t	Dimethylnaphthalene	0.642	0.461	28.2	118	0.00	7.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79929a.D M2P3523.M Thu May 31 14:26:28 2018 RPT1

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3524-ICV3523
Lab FileID: 2P79938.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3524\2p79938.D          Vial: 13
Acq On    : 30 May 2018   4:59 pm                   Operator: johnb1
Sample    : icv3523-50                              Inst    : MS2P
Misc      : op10929,e2p3524,1000,,,1,1              Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 31 12:14:55 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	4.89
18	t	Acetophenone	1.897	1.716	9.5	94	0.00	5.23
21	t	3&4-Methylphenol	1.207	1.158	4.1	99	0.00	5.23
24	I	Naphthalene-d8	1.000	1.000	0.0	98	0.00	5.95
34	t	2,6-Dichlorophenol	0.268	0.250	6.7	91	0.00	6.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79929a.D M2P3523.M Thu May 31 14:26:30 2018 RPT1

8.7.8

8

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3524-ICV3524
Lab FileID: 2P79938A.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3524\2p79938a.D          Vial: 13
Acq On    : 30 May 2018   4:59 pm                    Operator: johnb1
Sample    : icv3524-50                               Inst    : MS2P
Misc      : op10929,e2p3524,1000,,,1,1               Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 31 12:14:55 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Acenaphthene-d10a	1.000	1.000	0.0	64	0.00	7.40
107	1,2,4,5-Tetrachlorobenzen	0.596	0.602	-1.0	67	0.00	6.68
110 I	Phenanthrene-d10a	1.000	1.000	0.0	80	0.00	8.74
113	Pentachloronitrobenzene	0.046	0.045#	2.2	73	0.00	8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79929a.D M2P3523.M Thu May 31 14:34:12 2018 RPT1

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3525-ICV3524
Lab FileID: 2P79943.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3525\2p79943.D          Vial: 2
Acq On    : 31 May 2018   4:41 pm                   Operator: angelar
Sample    : icv3524-50                              Inst    : MS2P
Misc      : op10929,e2p3525,1000,,,1,1              Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 31 15:33:13 2018
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	124	-0.01	5.94
104	Hydroquinone	0.312	0.333	-6.7	116	0.00	6.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79929a.D M2P3523.M Fri Jun 01 11:04:41 2018 RPT1

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3525-ICV3524
Lab FileID: 2P79944.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3525\2p79944.D          Vial: 3
Acq On    : 31 May 2018   5:03 pm                   Operator: angelar
Sample    : icv3524-50                              Inst    : MS2P
Misc      : op10929,e2p3525,1000,,,1,1              Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 31 15:33:13 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	81	-0.01	4.88
102	Benzaldehyde	1.117	1.088	2.6	97	0.00	4.52

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79929a.D M2P3523.M Fri Jun 01 11:04:43 2018 RPT1

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: E2P3526-CC3523
Lab FileID: 2P79947.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3526\2p79947.D Vial: 2
Acq On : 1 Jun 2018 12:25 am Operator: chriss2
Sample : cc3523-50 Inst : MS2P
Misc : op10929,e2p3526,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 31 15:33:13 2018
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	78	0.00	4.89
2	t	1,4-Dioxane	0.651	0.777	-19.4	82	-0.01	2.23
3	t	Pyridine	1.661	1.913	-15.2	83	-0.01	2.56
4	t	N-Nitrosodimethylamine	1.000	1.125	-12.5	79	-0.02	2.53
5	S	2-Fluorophenol	1.833	2.060	-12.4	80	-0.01	3.79
6	t	Indene	2.204	2.092	5.1	76	0.00	5.10
7	t	Cumene	4.315	4.532	-5.0	80	0.00	4.22
8	S	Phenol-d5	2.199	2.267	-3.1	79	-0.01	4.59
9	t	Phenol	2.229	2.180	2.2	81	-0.01	4.60
10		Aniline	2.296	2.244	2.3	100	0.00	4.61
11	t	bis(2-Chloroethyl)ether	1.422	1.328	6.6	79	-0.01	4.67
12	t	2-Chlorophenol	1.598	1.537	3.8	80	-0.01	4.71
13	t	Decane	1.398	1.217	12.9	78	0.00	4.76
14	t	1,3-Dichlorobenzene	1.641	1.652	-0.7	83	-0.01	4.84
15	t	1,4-Dichlorobenzene	1.390	1.521	-9.4	86	-0.01	4.90
16	t	Benzyl alcohol	0.868	0.898	-3.5	77	-0.01	5.00
17	t	1,2-Dichlorobenzene	1.387	1.445	-4.2	84	-0.01	5.03
18	t	Acetophenone	1.897	1.791	5.6	78	-0.01	5.22
19	t	2-Methylphenol	1.148	1.115	2.9	82	-0.01	5.10
20	t	2,2'-oxybis(1-Chloropropa	0.361	0.339	6.1	80	-0.01	5.12
21	t	3&4-Methylphenol	1.207	1.156	4.2	78	-0.01	5.23
22	t	n-Nitroso-di-n-propylamin	0.870	0.750	13.8	80	-0.01	5.23
23	t	Hexachloroethane	0.519	0.581	-11.9	87	0.00	5.31
24	I	Naphthalene-d8	1.000	1.000	0.0	79	0.00	5.94
25	S	Nitrobenzene-d5	0.458	0.411	10.3	77	-0.01	5.35
26	t	Nitrobenzene	0.421	0.371	11.9	78	-0.01	5.36
27	t	Quinoline	0.807	0.796	1.4	78	-0.02	6.24
28	t	Isophorone	0.805	0.763	5.2	79	-0.01	5.56
29	t	2-Nitrophenol	0.227	0.241	-6.2	82	-0.01	5.63
30	t	2,4-Dimethylphenol	0.337	0.348	-3.3	85	0.00	5.67
31	t	Benzoic acid	0.284	0.300	-5.6	72	-0.02	5.79
32	t	bis(2-Chloroethoxy)methan	0.437	0.387	11.4	76	0.00	5.74
33	t	2,4-Dichlorophenol	0.321	0.324	-0.9	84	0.00	5.83
34	t	2,6-Dichlorophenol	0.268	0.283	-5.6	83	-0.01	6.01
35		1,3,5-Trichlorobenzene	0.384	0.400	-4.2	88	-0.01	5.64
36	t	1,2,4-Trichlorobenzene	0.361	0.384	-6.4	89	-0.01	5.89
37		1,2,3-Trichlorobenzene	0.308	0.330	-7.1	88	0.00	6.08
38	t	Naphthalene	0.961	0.965	-0.4	81	-0.01	5.96
39	t	4-Chloroaniline	0.452	0.458	-1.3	83	-0.01	6.00
40	t	2,3-Dichloroaniline	0.404	0.401	0.7	81	0.00	6.76
41	t	Caprolactam	0.133	0.130	2.3	78	-0.01	6.32

Continuing Calibration Summary

Job Number: JC66927 **Sample:** E2P3526-CC3523
Account: BBLNYS Arcadis **Lab FileID:** 2P79947.D
Project: National Grid, Philly Coke, Philadelphia PA

42	t	Hexachlorobutadiene	0.183	0.203	-10.9	86	0.00	6.07
43	t	4-Chloro-3-methylphenol	0.356	0.358	-0.6	80	-0.01	6.41
44	t	2-Methylnaphthalene	0.661	0.668	-1.1	82	0.00	6.53
45	t	1-Methylnaphthalene	0.667	0.669	-0.3	85	-0.01	6.61
46	t	Dimethylnaphthalene	0.642	0.633	1.4	83	-0.01	7.04
47	I	Acenaphthene-d10	1.000	1.000	0.0	73	-0.01	7.38
48	t	Hexachlorocyclopentadiene	0.356	0.476	-33.7#	96	-0.01	6.66
49	t	2,4,6-Trichlorophenol	0.406	0.482	-18.7	89	0.00	6.76
50	t	2,4,5-Trichlorophenol	0.418	0.478	-14.4	89	-0.01	6.80
51	S	2-Fluorobiphenyl	1.389	1.438	-3.5	83	-0.01	6.83
52	t	2-Chloronaphthalene	1.162	1.164	-0.2	85	0.00	6.93
53	t	Biphenyl	1.632	1.723	-5.6	81	0.00	6.91
54	t	2-Nitroaniline	0.403	0.403	0.0	78	0.00	7.02
55	t	Dimethylphthalate	1.403	1.518	-8.2	83	0.00	7.17
56	t	Acenaphthylene	1.964	2.117	-7.8	85	0.00	7.27
57	t	2,6-Dinitrotoluene	0.315	0.364	-15.6	84	0.00	7.21
58	t	3-Nitroaniline	0.388	0.439	-13.1	84	-0.01	7.35
59	t	Acenaphthene	1.099	1.281	-16.6	84	0.00	7.42
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	123.054	-23.1#	92	-0.01	7.44
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.206	0.244	-18.4	81	-0.02	7.49
62	t	Dibenzofuran	1.545	1.693	-9.6	84	-0.01	7.56
63	t	2,4-Dinitrotoluene	0.402	0.489	-21.6#	84	-0.01	7.55
64		2,3,4,6-Tetrachlorophenol	0.362	0.458	-26.5#	87	-0.01	7.66
65	t	Diethylphthalate	1.421	1.576	-10.9	83	-0.01	7.75
66	t	Fluorene	1.358	1.470	-8.2	83	-0.01	7.84
67	t	4-Chlorophenyl-phenylethe	0.668	0.808	-21.0#	87	-0.01	7.84
68	t	4-Nitroaniline	0.357	0.380	-6.4	87	-0.01	7.87
69	I	Phenanthrene-d10	1.000	1.000	0.0	85	-0.01	8.72
70	t	4,6-Dinitro-2-methylpheno	0.121	0.139	-14.9	93	-0.01	7.89
71	t	n-Nitrosodiphenylamine	0.573	0.519	9.4	84	-0.01	7.95
72	t	1,2-Diphenylhydrazine	0.874	0.652	25.4#	78	0.00	7.98
73	S	2,4,6-Tribromophenol	0.133	0.134	-0.8	81	-0.01	8.06
74	t	4-Bromophenyl-phenylether	0.251	0.267	-6.4	88	-0.01	8.28
75	t	Hexachlorobenzene	0.286	0.283	1.0	85	-0.01	8.35
76	t	Pentachlorophenol	0.180	0.212	-17.8	90	-0.02	8.53
77	t	Phenanthrene	0.956	1.017	-6.4	90	-0.01	8.75
78	t	Anthracene	0.998	1.038	-4.0	90	-0.02	8.80
79	t	Carbazole	1.088	1.051	3.4	85	-0.02	8.96
80	t	Di-n-butylphthalate	1.549	1.554	-0.3	84	-0.01	9.36
81	t	Fluoranthene	1.464	1.592	-8.7	93	-0.02	10.10
		----------	True	Calc.	% Drift	----------		
82	t	Octadecane	50.000	70.467	-40.9#	43054	0.00	8.62
		----------	AvgRF	CCRF	% Dev	----------		
83	I	Chrysene-d12	1.000	1.000	0.0	90	-0.02	12.08
84	t	Pyrene	1.562	1.496	4.2	86	-0.02	10.39
85	S	Terphenyl-d14	1.046	1.058	-1.1	88	-0.02	10.62
86	t	Butylbenzylphthalate	0.835	0.835	0.0	86	-0.02	11.32
87	t	Benzo[a]anthracene	1.428	1.505	-5.4	95	-0.02	12.06
88	t	3,3'-Dichlorobenzidine	0.557	0.655	-17.6	96	-0.02	12.06
89	t	Chrysene	1.026	1.128	-9.9	93	-0.02	12.12
90	t	bis(2-Ethylhexyl)phthalat	0.836	0.836	0.0	84	-0.02	12.20

Continuing Calibration Summary

Job Number: JC66927 **Sample:** E2P3526-CC3523
Account: BBLNYS Arcadis **Lab FileID:** 2P79947.D
Project: National Grid, Philly Coke, Philadelphia PA

91	I	Perylene-d12	1.000	1.000	0.0	94	-0.03	14.09
92	t	Di-n-octylphthalate	1.758	1.760	-0.1	90	-0.01	13.15
93	t	Benzo[b]fluoranthene	1.408	1.473	-4.6	99	-0.02	13.58
94	t	Benzo[k]fluoranthene	1.107	1.020	7.9	95	-0.02	13.63
95	t	Benzo[a]pyrene	1.169	1.258	-7.6	102	0.00	14.02
96	t	Indeno[1,2,3-cd]pyrene	1.061	1.280	-20.6#	109	0.00	15.60
97	t	Dibenz(a,h)acridine	0.947	1.211	-27.9#	116	0.00	15.25
98	t	Dibenz[a,h]anthracene	1.011	1.108	-9.6	103	0.01	15.64
99	t	7,12-Dimethylbenz(a)anthr	0.562	0.646	-14.9	100	0.00	13.59
100	t	Benzo[g,h,i]perylene	0.988	1.193	-20.7#	110	0.02	16.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79929a.D M2P3523.M Fri Jun 01 09:42:56 2018 RPT1

8.7.12

8

Continuing Calibration Summary

Job Number: JC66927 **Sample:** E2P3526-CC3524
Account: BBLNYS Arcadis **Lab FileID:** 2P79948.D
Project: National Grid, Philly Coke, Philadelphia PA

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\2P3526\2p79948.D          Vial: 3
Acq On    :  1 Jun 2018  12:47 am                   Operator: chriss2
Sample    : cc3524-50                               Inst    : MS2P
Misc      : op10929,e2p3526,1000,,,1,1              Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M2P3523.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 31 15:33:13 2018
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	101	-0.01	4.88
102		Benzaldehyde	1.117	0.913	18.3	102	0.00	4.52
103	I	Naphthalene-d8a	1.000	1.000	0.0	100	-0.01	5.94
104		Hydroquinone	0.312	0.344	-10.3	97	0.00	6.29
105	I	Acenaphthene-d10a	1.000	1.000	0.0	100	0.00	7.38
106		Atrazine	0.192	0.216	-12.5	111	-0.01	8.44
107		1,2,4,5-Tetrachlorobenzen	0.596	0.630	-5.7	109	0.00	6.67
108	I	Chrysene-d12a	1.000	1.000	0.0	111	-0.01	12.08
109		Benzidine	0.496	0.517	-4.2	125	-0.01	10.28
110	I	Phenanthrene-d10a	1.000	1.000	0.0	108	-0.01	8.72
111	s	1-Chlorooctadecane	0.340	0.277	18.5	95	-0.02	9.99
112	s	o-terphenyl	0.569	0.600	-5.4	111	-0.01	9.13
113		Pentachloronitrobenzene	0.046	0.048#	-4.3	105	-0.01	8.55

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79929a.D M2P3523.M Fri Jun 01 09:44:43 2018 RPT1

8.7.13

8

MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79968.D
Acq On : 1 Jun 2018 8:40 am
Operator : chriss2
Sample : jc66927-1
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 01 11:33:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.887	152	1380098	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	4824752	40.00	ppm	0.00
47) Acenaphthene-d10	7.385	164	2297105	40.00	ppm	-0.01
69) Phenanthrene-d10	8.722	188	4239303	40.00	ppm	-0.01
83) Chrysene-d12	12.076	240	4016300	40.00	ppm	-0.03
91) Perylene-d12	14.087	264	4103597	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.887	152	1380098	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	4824752	40.00	ppm	0.00
105) Acenaphthene-d10a	7.385	164	2297105	40.00	ppm	0.00
108) Chrysene-d12a	12.076	240	4016300	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.722	188	4239303	40.00	ppm	-0.01
114) Chrysene-d12b	12.076	240	4016300	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.791	112	1068414	16.89	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 33.78%			
8) Phenol-d5	4.582	99	934827	12.32	ppm	-0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 24.64%			
25) Nitrobenzene-d5	5.342	82	1860458	33.67	ppm	-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery = 67.34%#			
51) 2-Fluorobiphenyl	6.829	172	3418921	42.87	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery = 85.74%#			
73) 2,4,6-Tribromophenol	8.053	330	619886	44.05	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 88.10%#			
85) Terphenyl-d14	10.615	244	3137773	29.86	ppm	-0.02
Spiked Amount 50.000	Range 16 - 65		Recovery = 59.72%			
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%#			

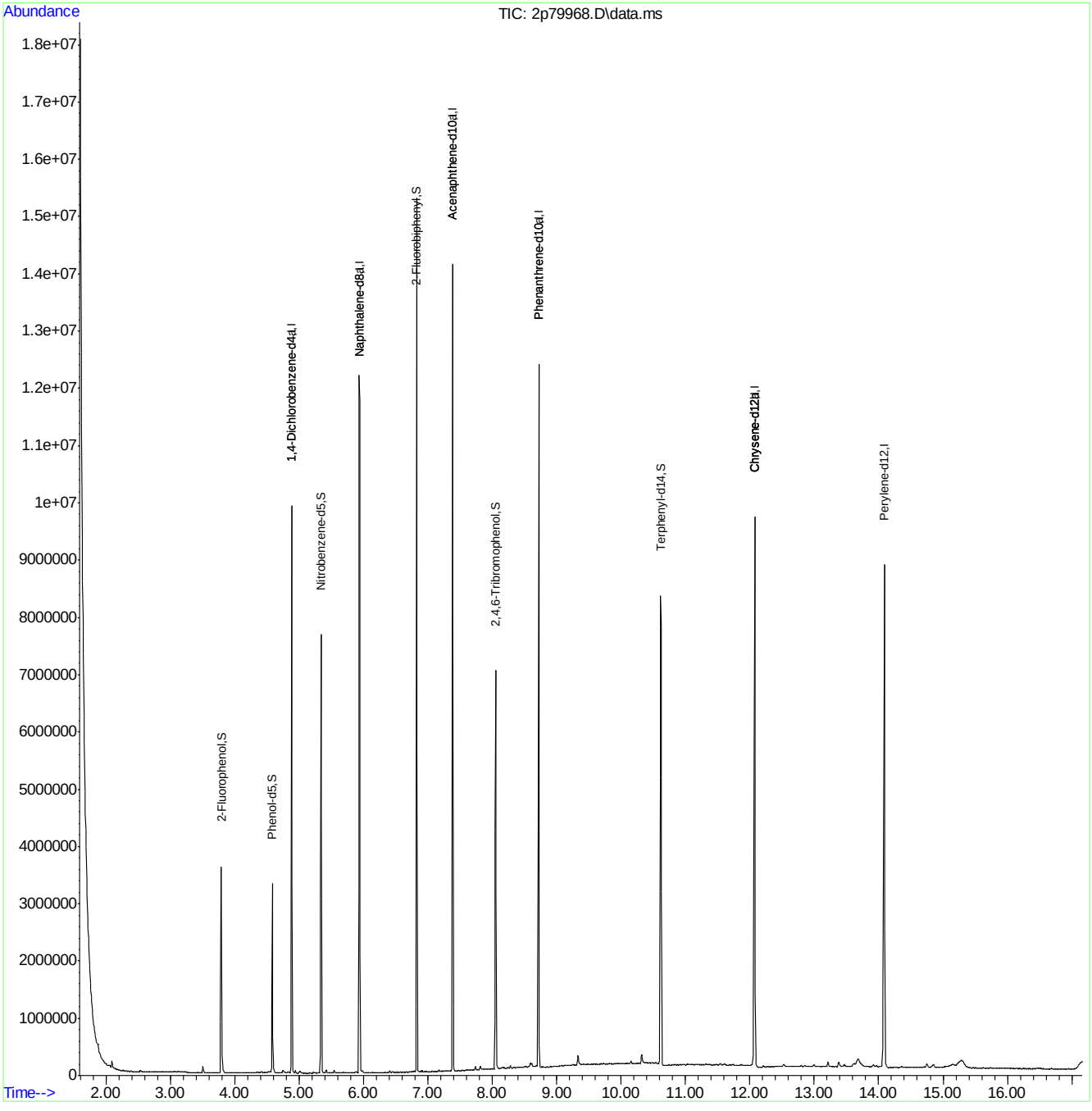
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79968.D
Acq On : 1 Jun 2018 8:40 am
Operator : chriss2
Sample : jc66927-1
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 01 11:33:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79951.D
Acq On : 1 Jun 2018 2:04 am
Operator : chriss2
Sample : op12401-mb1
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 01 09:59:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

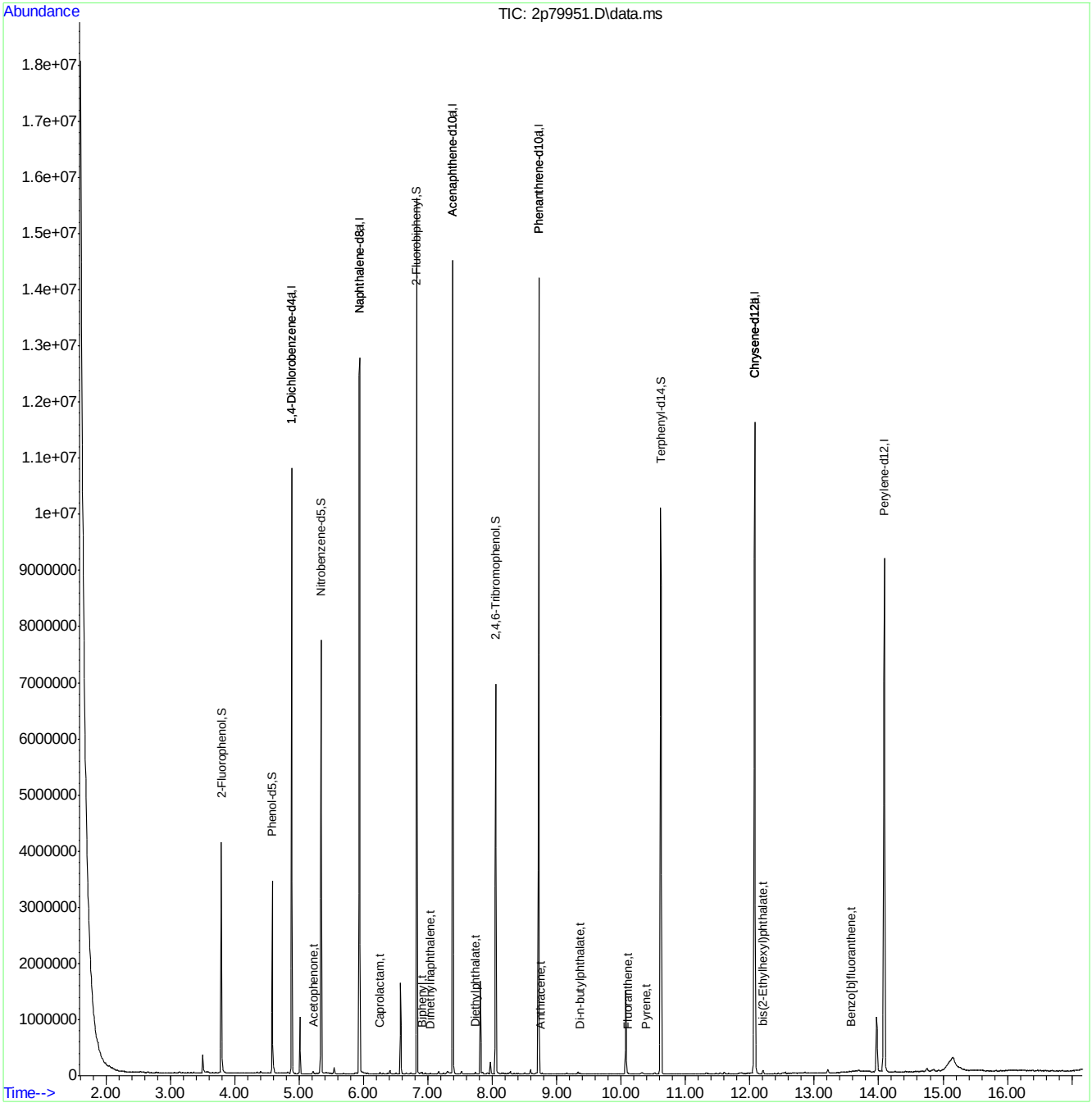
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.887	152	1464644	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	5045939	40.00	ppm	0.00
47) Acenaphthene-d10	7.385	164	2521645	40.00	ppm	-0.01
69) Phenanthrene-d10	8.722	188	4812466	40.00	ppm	-0.01
83) Chrysene-d12	12.076	240	4874702	40.00	ppm	-0.03
91) Perylene-d12	14.092	264	4662199	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.887	152	1464644	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	5045939	40.00	ppm	0.00
105) Acenaphthene-d10a	7.385	164	2521645	40.00	ppm	0.00
108) Chrysene-d12a	12.076	240	4874702	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.722	188	4812466	40.00	ppm	-0.01
114) Chrysene-d12b	12.076	240	4874702	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.790	112	1028927	15.33	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	30.66%	
8) Phenol-d5	4.582	99	929277	11.54	ppm	-0.02
Spiked Amount 50.000	Range 10 - 59		Recovery	=	23.08%	
25) Nitrobenzene-d5	5.342	82	1894208	32.78	ppm	-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery	=	65.56%#	
51) 2-Fluorobiphenyl	6.828	172	3429988	39.18	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery	=	78.36%#	
73) 2,4,6-Tribromophenol	8.053	330	622986	39.00	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery	=	78.00%#	
85) Terphenyl-d14	10.615	244	3785001	29.68	ppm	-0.02
Spiked Amount 50.000	Range 16 - 65		Recovery	=	59.36%	
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
18) Acetophenone	5.219	105	9405	0.14	ppm	84
41) Caprolactam	6.256	113	3137	0.19	ppm	86
46) Dimethylnaphthalene	7.042	156	1052	0.01	ppm	74
53) Biphenyl	6.909	154	4538	0.04	ppm	92
65) Diethylphthalate	7.738	149	2181	0.02	ppm	85
78) Anthracene	8.743	178	1275	0.01	ppm	86
80) Di-n-butylphthalate	9.358	149	1575	0.01	ppm	87
81) Fluoranthene	10.102	202	1711	0.01	ppm	76
84) Pyrene	10.385	202	1173	0.01	ppm	76
90) bis(2-Ethylhexyl)phtha...	12.204	149	21904	0.22	ppm	92
93) Benzo[b]fluoranthene	13.568	252	1657	0.01	ppm	74

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

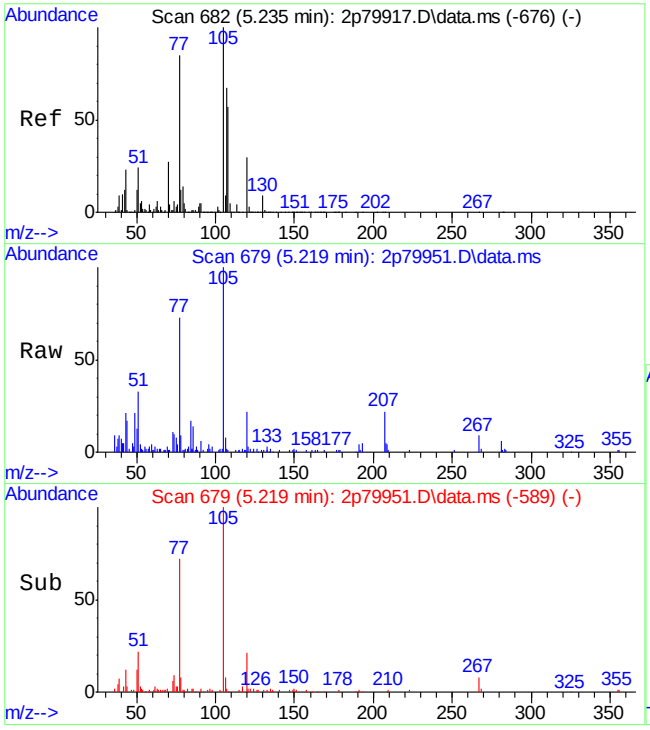
Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79951.D
Acq On : 1 Jun 2018 2:04 am
Operator : chriss2
Sample : op12401-mb1
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 01 09:59:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



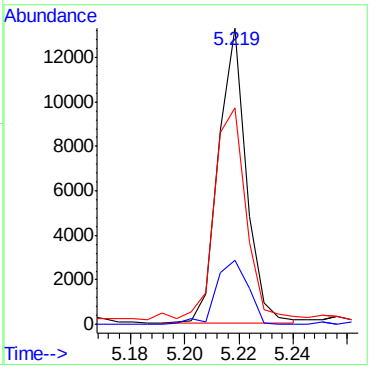
M2P3523.M Fri Jun 01 11:58:47 2018 RPT1 Page: 2

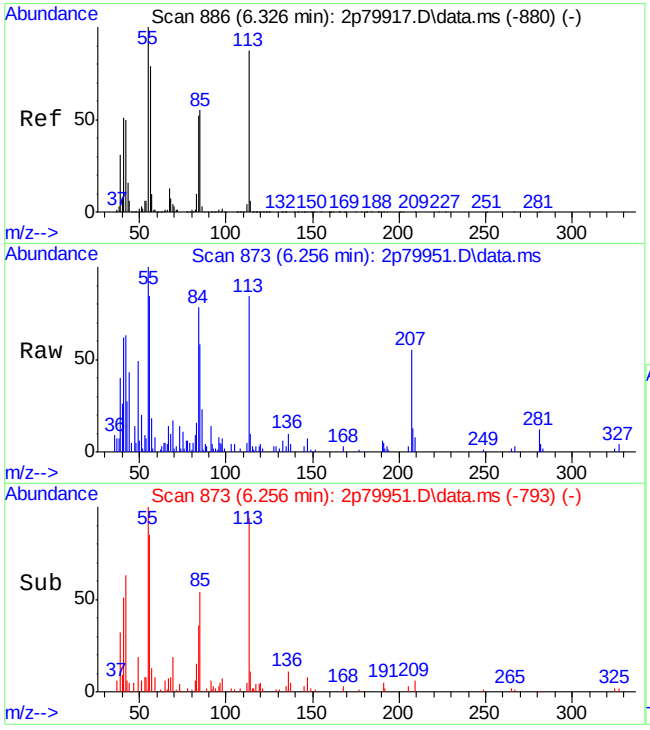


#18
Acetophenone
Concen: 0.14 ppm
RT: 5.219 min Scan# 679
Delta R.T. -0.016 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:105 Resp: 9405

Ion	Ratio	Lower	Upper
105	100		
120	22.0	0.5	60.5
77	70.6	55.5	115.5

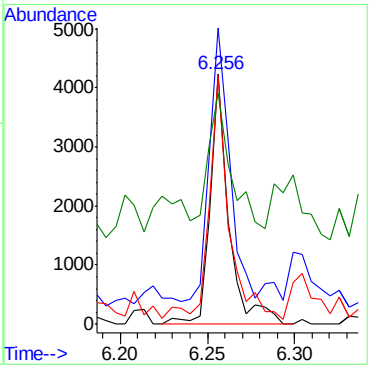




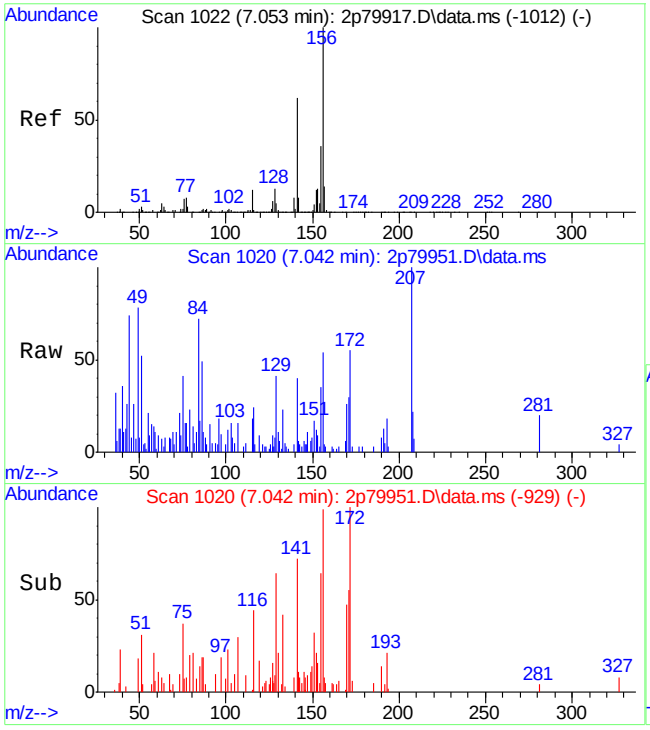
#41
Caprolactam
Concen: 0.19 ppm
RT: 6.256 min Scan# 873
Delta R.T. -0.070 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:113 Resp: 3137

Ion	Ratio	Lower	Upper
113	100		
55	99.1	84.9	144.9
56	90.1	61.2	121.2
84	36.9	30.5	90.5



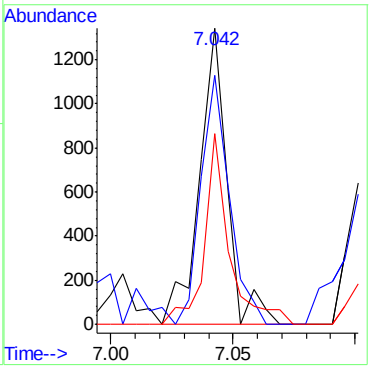
9.2.1
9

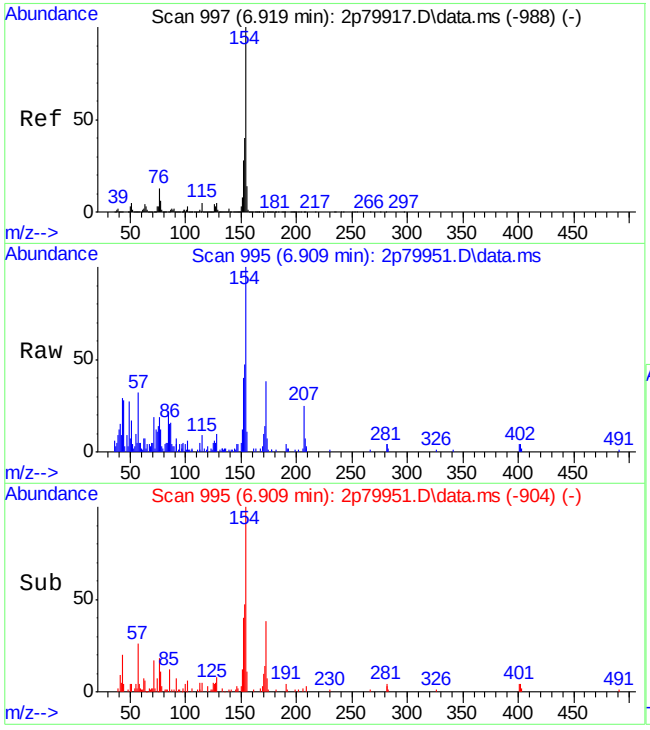


#46
Dimethylnaphthalene
Concen: 0.01 ppm
RT: 7.042 min Scan# 1020
Delta R.T. -0.011 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:156 Resp: 1052

Ion	Ratio	Lower	Upper
156	100		
141	75.5	32.0	92.0
155	59.8	5.9	65.9

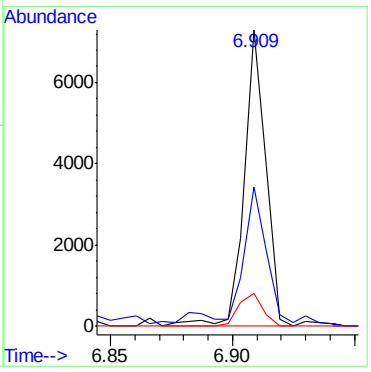


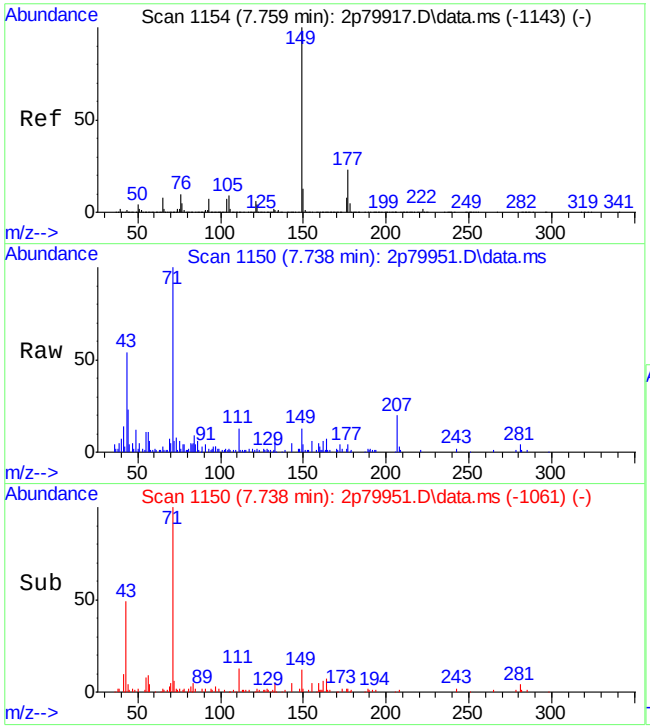


#53
Biphenyl
Concen: 0.04 ppm
RT: 6.909 min Scan# 995
Delta R.T. -0.011 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:154 Resp: 4538

Ion	Ratio	Lower	Upper
154	100		
153	45.6	10.3	70.3
155	10.9	0.0	44.3

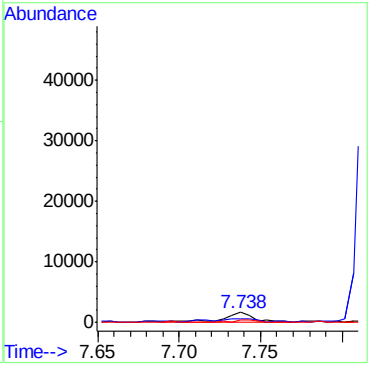


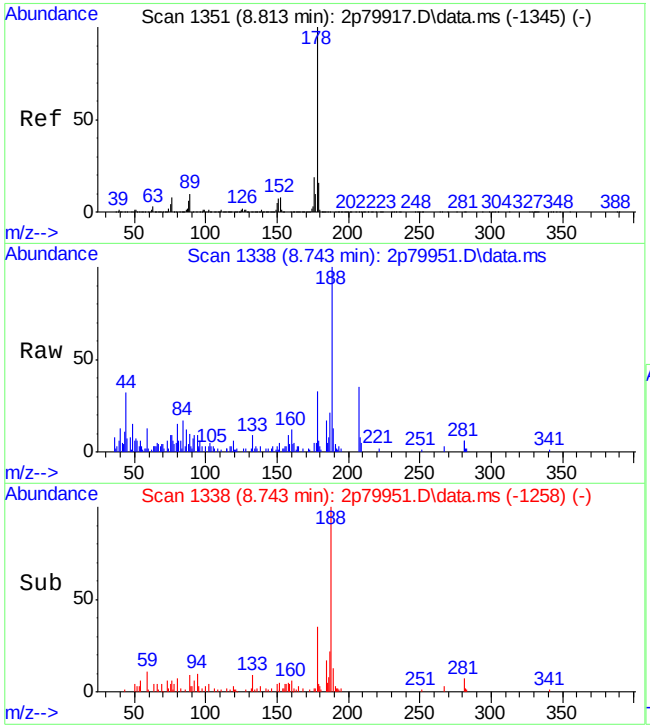


#65
Diethylphthalate
Concen: 0.02 ppm
RT: 7.738 min Scan# 1150
Delta R.T. -0.021 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:149 Resp: 2181

Ion	Ratio	Lower	Upper
149	100		
177	24.2	0.0	52.6
150	26.8	0.0	42.7

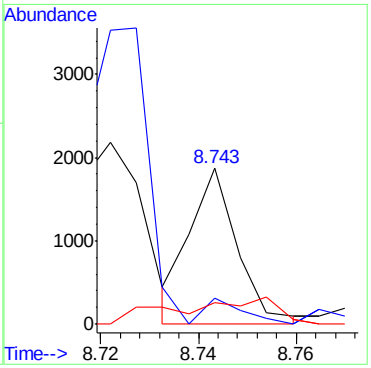




#78
Anthracene
Concen: 0.01 ppm
RT: 8.743 min Scan# 1338
Delta R.T. -0.070 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:178 Resp: 1275

Ion	Ratio	Lower	Upper
178	100		
179	18.1	0.0	46.4
176	9.3	0.0	49.1



9.2.1

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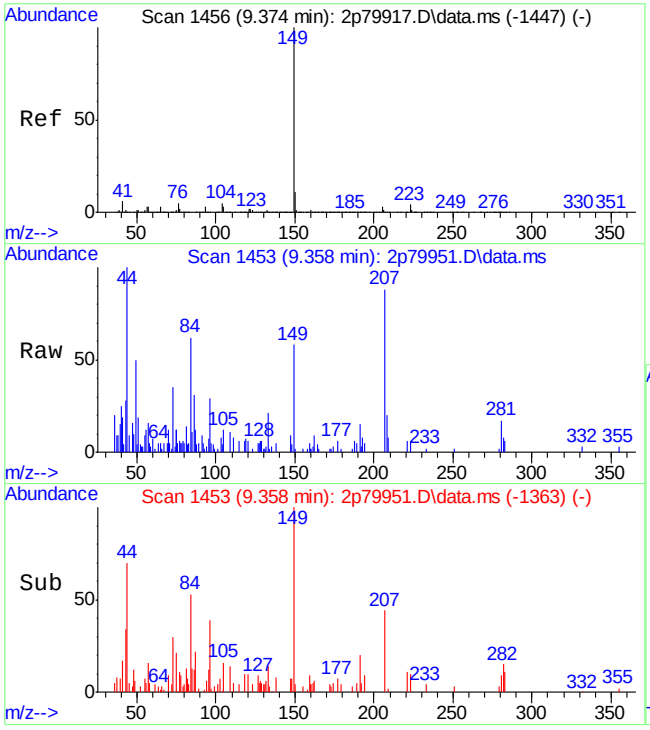
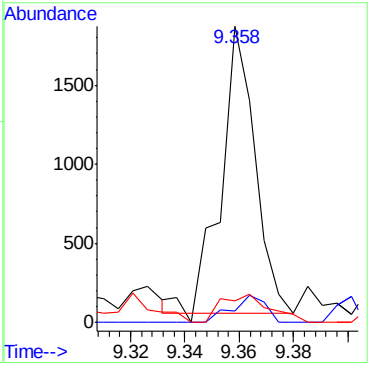
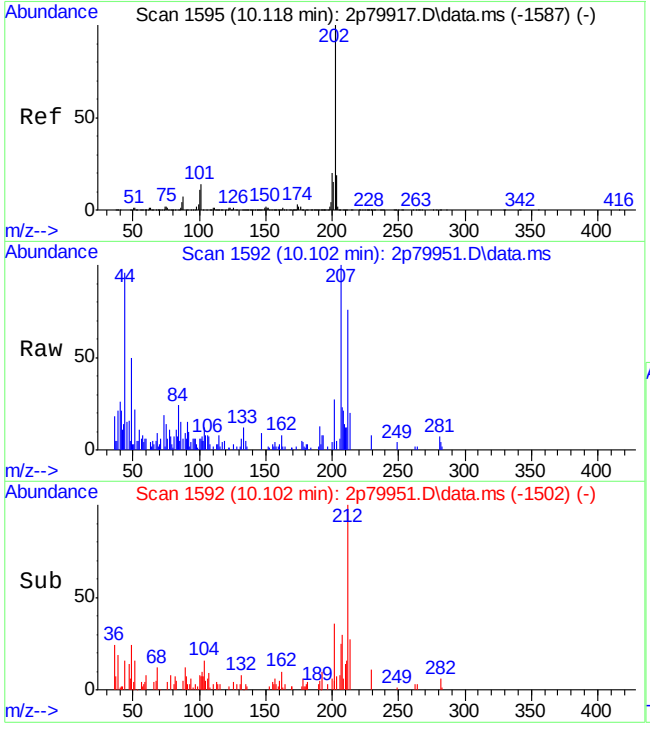


#80
Di-n-butylphthalate
Concen: 0.01 ppm
RT: 9.358 min Scan# 1453
Delta R.T. -0.016 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:149 Resp: 1575

Ion	Ratio	Lower	Upper
149	100		
150	3.9	0.0	40.5
104	4.4	0.0	35.4

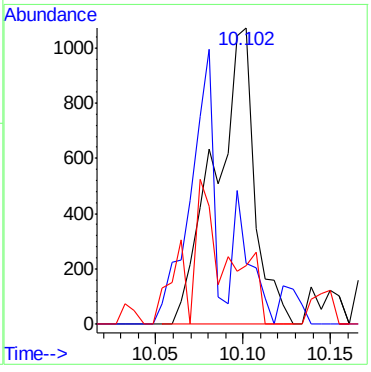




#81
Fluoranthene
Concen: 0.01 ppm
RT: 10.102 min Scan# 1592
Delta R.T. -0.016 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

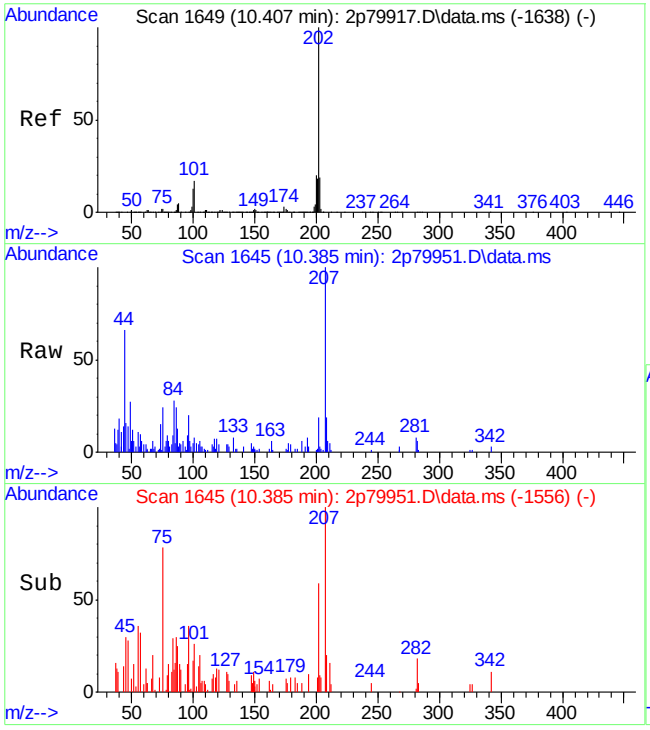
Tgt Ion:202 Resp: 1711

Ion	Ratio	Lower	Upper
202	100		
101	31.1	0.0	44.2
203	13.6	0.0	48.8



9.2.1

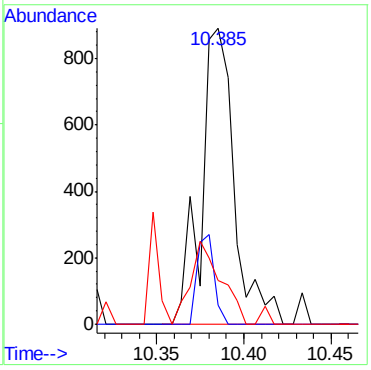
9

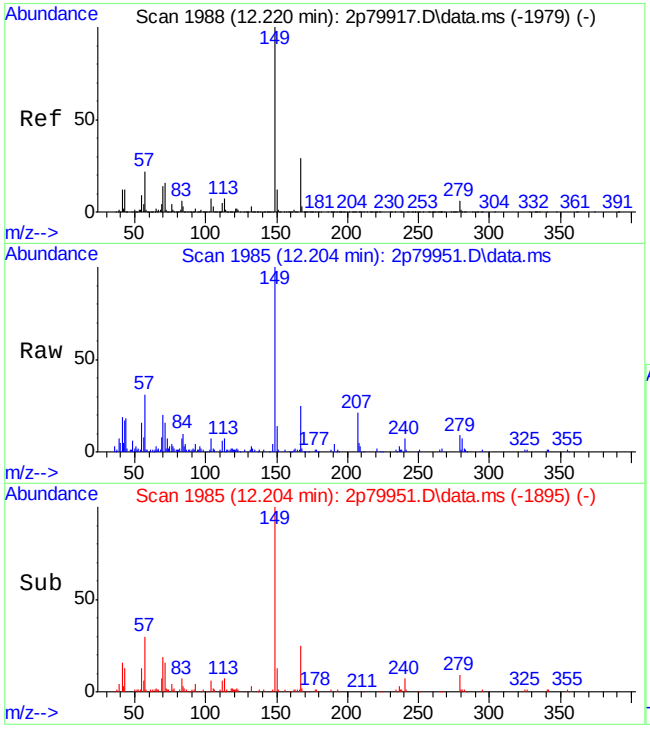


#84
Pyrene
Concen: 0.01 ppm
RT: 10.385 min Scan# 1645
Delta R.T. -0.021 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:202 Resp: 1173

Ion	Ratio	Lower	Upper
202	100		
200	6.4	0.0	50.4
203	10.9	0.0	49.1

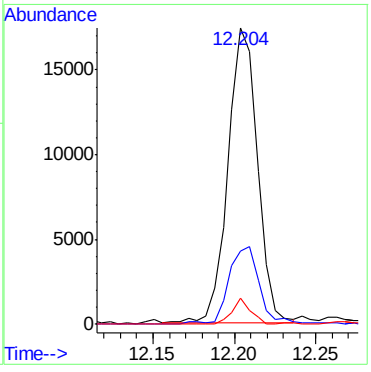


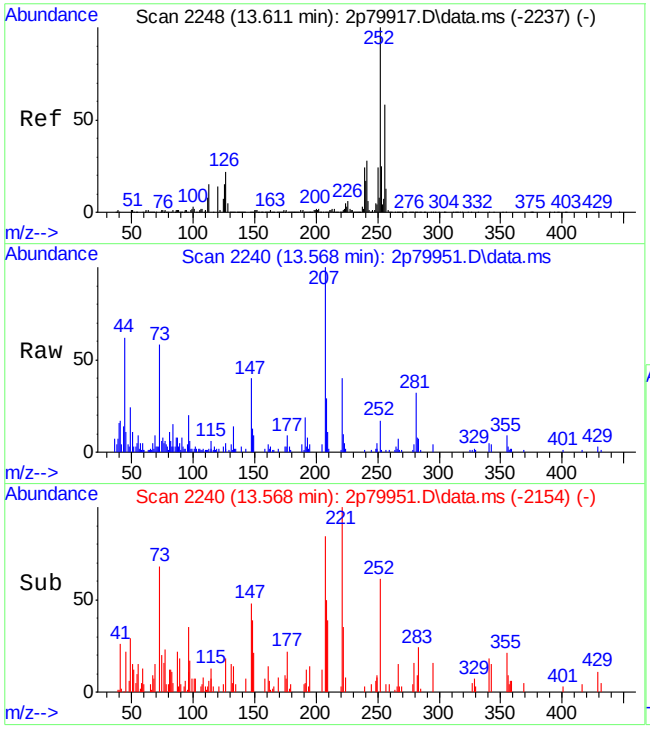


#90
bis(2-Ethylhexyl)phthalate
Concen: 0.22 ppm
RT: 12.204 min Scan# 1985
Delta R.T. -0.016 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:149 Resp: 21904

Ion	Ratio	Lower	Upper
149	100		
167	24.6	0.0	59.3
279	8.6	0.0	36.3

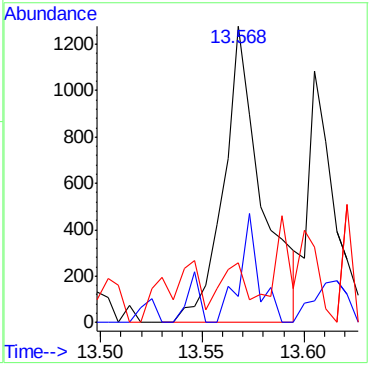




#93
Benzo[b]fluoranthene
Concen: 0.01 ppm
RT: 13.568 min Scan# 2240
Delta R.T. -0.037 min
Lab File: 2p79951.D
Acq: 1 Jun 2018 2:04 am

Tgt Ion:252 Resp: 1657

Ion	Ratio	Lower	Upper
252	100		
253	9.8	0.0	54.8
125	7.6	0.0	45.6



9.2.1

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79952.D
Acq On : 1 Jun 2018 2:26 am
Operator : chriss2
Sample : op12401-bs1
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 01 10:05:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.887	152	972245	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	3237814	40.00	ppm	0.00
47) Acenaphthene-d10	7.385	164	1589346	40.00	ppm	-0.01
69) Phenanthrene-d10	8.722	188	3140468	40.00	ppm	-0.01
83) Chrysene-d12	12.081	240	2794518	40.00	ppm	-0.02
91) Perylene-d12	14.087	264	3222982	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.887	152	972245	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	3237814	40.00	ppm	0.00
105) Acenaphthene-d10a	7.385	164	1589346	40.00	ppm	0.00
108) Chrysene-d12a	12.081	240	2794518	40.00	ppm	0.00
110) Phenanthrene-d10a	8.722	188	3140468	40.00	ppm	-0.01
114) Chrysene-d12b	12.081	240	2794518	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.796	112	895655	20.10	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	40.20%	
8) Phenol-d5	4.587	99	758413	14.19	ppm	-0.01
Spiked Amount 50.000	Range 10 - 59		Recovery	=	28.38%	
25) Nitrobenzene-d5	5.347	82	1218694	32.86	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	=	65.72%#	
51) 2-Fluorobiphenyl	6.829	172	2029810	36.79	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery	=	73.58%#	
73) 2,4,6-Tribromophenol	8.059	330	408693	39.20	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery	=	78.40%#	
85) Terphenyl-d14	10.615	244	3235601	44.26	ppm	-0.02
Spiked Amount 50.000	Range 16 - 65		Recovery	=	88.52%#	
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	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery	=	0.00%#	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.255	88	260471	16.47	ppm	98
3) Pyridine	2.576	79	787243	19.50	ppm	96
4) N-Nitrosodimethylamine	2.544	74	478205	19.68	ppm	97
6) Indene	5.101	116	1952801	36.45	ppm	99
7) Cumene	4.224	105	3322563	31.68	ppm	97
9) Phenol	4.598	94	889680	16.42	ppm	91
10) Aniline	4.614	93	1559766	27.95	ppm	82
11) bis(2-Chloroethyl)ether	4.668	93	1256688	36.36	ppm	99
12) 2-Chlorophenol	4.716	128	1173270	30.21	ppm	97
13) Decane	4.764	57	881178	25.93	ppm	98
14) 1,3-Dichlorobenzene	4.839	146	1247498	31.28	ppm	99
15) 1,4-Dichlorobenzene	4.903	146	1130034	33.45	ppm	98
16) Benzyl alcohol	5.005	108	650270	30.83	ppm	95
17) 1,2-Dichlorobenzene	5.026	146	1139965	33.81	ppm	98
18) Acetophenone	5.224	105	1569439	34.03	ppm	95
19) 2-Methylphenol	5.101	108	761413	27.29	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.117	121	306466	34.91	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79952.D
Acq On : 1 Jun 2018 2:26 am
Operator : chriss2
Sample : op12401-bs1
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 01 10:05:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21)	3&4-Methylphenol	5.224	108	759454	25.89	ppm	96
22)	n-Nitroso-di-n-propyla...	5.229	70	686780	32.49	ppm	97
23)	Hexachloroethane	5.310	201	420388	33.32	ppm	89
26)	Nitrobenzene	5.363	77	1134521	33.30	ppm	96
27)	Quinoline	6.235	129	2391679	36.63	ppm	99
28)	Isophorone	5.561	82	2340798	35.93	ppm	98
29)	2-Nitrophenol	5.625	139	687882	37.47	ppm	95
30)	2,4-Dimethylphenol	5.663	107	1124285	41.17	ppm	96
31)	Benzoic acid	5.759	105	430852	18.77	ppm	96
32)	bis(2-Chloroethoxy)met...	5.737	93	1343891	37.98	ppm	99
33)	2,4-Dichlorophenol	5.823	162	986133	37.98	ppm	99
34)	2,6-Dichlorophenol	6.010	162	823445	37.93	ppm	98
36)	1,2,4-Trichlorobenzene	5.893	180	1024573	35.04	ppm	99
38)	Naphthalene	5.957	128	2724746	35.03	ppm	99
39)	4-Chloroaniline	6.005	127	989645	27.07	ppm	98
40)	2,3-Dichloroaniline	6.759	161	1105743	33.77	ppm	97
41)	Caprolactam	6.288	113	104623	9.72	ppm	93
42)	Hexachlorobutadiene	6.069	225	531075	35.91	ppm	99
43)	4-Chloro-3-methylphenol	6.401	107	1060448	36.78	ppm	96
44)	2-Methylnaphthalene	6.529	141	1935766	36.19	ppm	99
45)	1-Methylnaphthalene	6.609	141	1806857	33.44	ppm	96
46)	Dimethylnaphthalene	7.043	156	1795439	34.56	ppm	97
48)	Hexachlorocyclopentadiene	6.668	237	1018990	72.12	ppm	98
49)	2,4,6-Trichlorophenol	6.759	196	747822	46.36	ppm	99
50)	2,4,5-Trichlorophenol	6.791	196	715710	43.05	ppm	99
52)	2-Chloronaphthalene	6.930	162	1709452	37.01	ppm	95
53)	Biphenyl	6.914	154	2569615	39.63	ppm	99
54)	2-Nitroaniline	7.010	65	615856	38.46	ppm	97
55)	Dimethylphthalate	7.160	163	2410562	43.26	ppm	99
56)	Acenaphthylene	7.267	152	3189863	40.88	ppm	98
57)	2,6-Dinitrotoluene	7.208	165	542825	43.32	ppm	97
58)	3-Nitroaniline	7.347	138	572959	37.19	ppm	97
59)	Acenaphthene	7.417	153	1917389	43.93	ppm	99
60)	2,4-Dinitrophenol	7.433	184	558168	87.64	ppm	84
61)	4-Nitrophenol	7.481	109	193866	23.63	ppm	94
62)	Dibenzofuran	7.556	168	2673239	43.54	ppm	99
63)	2,4-Dinitrotoluene	7.540	165	747424	46.82	ppm	96
64)	2,3,4,6-Tetrachlorophenol	7.658	232	673632	46.83	ppm	97
65)	Diethylphthalate	7.749	149	2523366	44.69	ppm	99
66)	Fluorene	7.845	166	2340079	43.35	ppm	99
67)	4-Chlorophenyl-phenyle...	7.839	204	1247365	46.96	ppm	95
68)	4-Nitroaniline	7.866	138	576754	40.70	ppm	96
70)	4,6-Dinitro-2-methylph...	7.888	198	419457	44.31	ppm	94
71)	n-Nitrosodiphenylamine	7.946	169	1578026	35.07	ppm	99
72)	1,2-Diphenylhydrazine	7.979	77	2187686	31.88	ppm	97
74)	4-Bromophenyl-phenylether	8.283	248	836192	42.41	ppm	99
75)	Hexachlorobenzene	8.353	284	930873	41.49	ppm	97
76)	Pentachlorophenol	8.535	266	702397	49.68	ppm	100
77)	Phenanthrene	8.749	178	3284255	43.75	ppm	98
78)	Anthracene	8.797	178	3270209	41.72	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79952.D
Acq On : 1 Jun 2018 2:26 am
Operator : chriss2
Sample : op12401-bs1
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 01 10:05:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
79)	Carbazole	8.963	167	3575651	41.86 ppm	99
80)	Di-n-butylphthalate	9.364	149	5015617	41.24 ppm	99
81)	Fluoranthene	10.102	202	5188861	45.14 ppm	97
82)	Octadecane	8.620	43	704937	60.14 ppm	96
84)	Pyrene	10.391	202	4535375	41.57 ppm	99
86)	Butylbenzylphthalate	11.321	149	2518092	43.18 ppm	98
87)	Benzo[a]anthracene	12.060	228	4479697	44.89 ppm	99
88)	3,3'-Dichlorobenzidine	12.060	252	2929277	75.27 ppm	98
89)	Chrysene	12.118	228	3263403	45.52 ppm	99
90)	bis(2-Ethylhexyl)phtha...	12.204	149	2507901	42.95 ppm	98
92)	Di-n-octylphthalate	13.151	149	5615402	39.65 ppm	94
93)	Benzo[b]fluoranthene	13.584	252	4692944	41.38 ppm	95
94)	Benzo[k]fluoranthene	13.627	252	3416463	38.29 ppm	99
95)	Benzo[a]pyrene	14.012	252	3810719	40.46 ppm	96
96)	Indeno[1,2,3-cd]pyrene	15.595	276	4409951	51.61 ppm	85
98)	Dibenz[a,h]anthracene	15.632	278	3772937	46.33 ppm	92
99)	7,12-Dimethylbenz(a)an...	13.589	256	1718574	37.96 ppm	94
100)	Benzo[g,h,i]perylene	16.028	276	4182362	52.54 ppm	91
102)	Benzaldehyde	4.518	105	910176	33.53 ppm	97
106)	Atrazine	8.444	215	381020	49.84 ppm	89
107)	1,2,4,5-Tetrachloroben...	6.668	216	971149	41.04 ppm	99
109)	Benzidine	10.284	184	2083909	60.13 ppm	100
113)	Pentachloronitrobenzene	8.556	295	138616	38.58 ppm	94

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

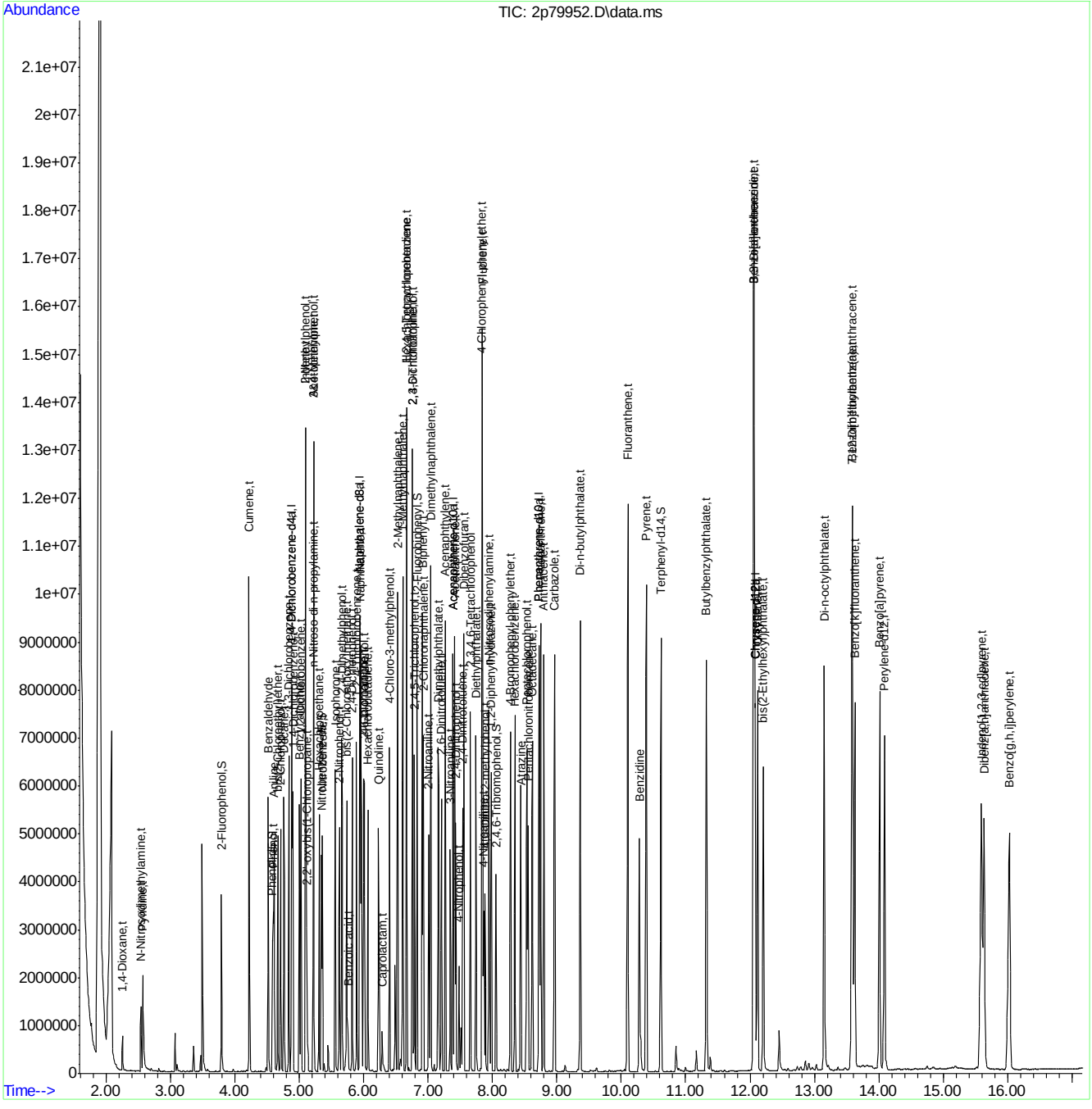
9.3.1

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79952.D
Acq On : 1 Jun 2018 2:26 am
Operator : chriss2
Sample : op12401-bs1
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 01 10:05:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79956.D
Acq On : 1 Jun 2018 4:17 am
Operator : chriss2
Sample : op12401-ms
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 01 10:20:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.887	152	1021838	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	3502309	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	1765505	40.00	ppm	0.00
69) Phenanthrene-d10	8.722	188	3586502	40.00	ppm	-0.01
83) Chrysene-d12	12.086	240	3004764	40.00	ppm	-0.02
91) Perylene-d12	14.092	264	3582758	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.887	152	1021838	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	3502309	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	1765505	40.00	ppm	0.00
108) Chrysene-d12a	12.086	240	3004764	40.00	ppm	0.00
110) Phenanthrene-d10a	8.722	188	3586502	40.00	ppm	-0.01
114) Chrysene-d12b	12.086	240	3004764	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.796	112	1025882	21.90	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	43.80%	
8) Phenol-d5	4.587	99	834143	14.85	ppm	-0.01
Spiked Amount 50.000	Range 10 - 59		Recovery	=	29.70%	
25) Nitrobenzene-d5	5.347	82	1399271	34.88	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	=	69.76%#	
51) 2-Fluorobiphenyl	6.829	172	2408847	39.30	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery	=	78.60%#	
73) 2,4,6-Tribromophenol	8.059	330	489357	41.10	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery	=	82.20%#	
85) Terphenyl-d14	10.615	244	3614310	45.98	ppm	-0.02
Spiked Amount 50.000	Range 16 - 65		Recovery	=	91.96%#	
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	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery	=	0.00%#	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.250	88	286139	17.22	ppm	98
3) Pyridine	2.571	79	829510	19.55	ppm	97
4) N-Nitrosodimethylamine	2.544	74	562657	22.03	ppm	99
6) Indene	5.101	116	2214189	39.32	ppm	99
7) Cumene	4.224	105	3862546	35.04	ppm	99
9) Phenol	4.604	94	975156	17.13	ppm	99
10) Aniline	4.614	93	1757105	29.96	ppm	82
11) bis(2-Chloroethyl)ether	4.668	93	1429839	39.36	ppm	99
12) 2-Chlorophenol	4.716	128	1345439	32.97	ppm	98
13) Decane	4.764	57	1026117	28.73	ppm	98
14) 1,3-Dichlorobenzene	4.839	146	1534095	36.60	ppm	99
15) 1,4-Dichlorobenzene	4.903	146	1355830	38.19	ppm	99
16) Benzyl alcohol	5.005	108	730243	32.94	ppm	97
17) 1,2-Dichlorobenzene	5.026	146	1375727	38.83	ppm	98
18) Acetophenone	5.224	105	1765770	36.43	ppm	88
19) 2-Methylphenol	5.101	108	839883	28.64	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.117	121	347635	37.68	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79956.D
Acq On : 1 Jun 2018 4:17 am
Operator : chriss2
Sample : op12401-ms
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 01 10:20:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	5.229	108	857437	27.81	ppm	98
22) n-Nitroso-di-n-propyla...	5.229	70	773331	34.81	ppm	97
23) Hexachloroethane	5.310	201	521406	39.32	ppm	91
26) Nitrobenzene	5.363	77	1283911	34.84	ppm	96
27) Quinoline	6.240	129	2788641	39.48	ppm	100
28) Isophorone	5.561	82	2699752	38.31	ppm	98
29) 2-Nitrophenol	5.625	139	798952	40.23	ppm	93
30) 2,4-Dimethylphenol	5.668	107	1275802	43.19	ppm	100
31) Benzoic acid	5.759	105	515507	20.76	ppm	98
32) bis(2-Chloroethoxy)met...	5.743	93	1530627	39.99	ppm	99
33) 2,4-Dichlorophenol	5.828	162	1144857	40.76	ppm	97
34) 2,6-Dichlorophenol	6.010	162	942023	40.12	ppm	98
36) 1,2,4-Trichlorobenzene	5.893	180	1273369	40.26	ppm	99
38) Naphthalene	5.957	128	3244333	38.55	ppm	99
39) 4-Chloroaniline	6.005	127	1137910	28.78	ppm	96
40) 2,3-Dichloroaniline	6.759	161	1253393	35.39	ppm	98
41) Caprolactam	6.294	113	113150	9.72	ppm	99
42) Hexachlorobutadiene	6.069	225	662896	41.44	ppm	99
43) 4-Chloro-3-methylphenol	6.406	107	1210371	38.81	ppm	95
44) 2-Methylnaphthalene	6.529	141	2237416	38.67	ppm	95
45) 1-Methylnaphthalene	6.609	141	2061082	35.27	ppm	96
46) Dimethylnaphthalene	7.043	156	2076839	36.95	ppm	97
48) Hexachlorocyclopentadiene	6.668	237	1302412	82.98	ppm	99
49) 2,4,6-Trichlorophenol	6.764	196	854843	47.71	ppm	99
50) 2,4,5-Trichlorophenol	6.791	196	817154	44.24	ppm	99
52) 2-Chloronaphthalene	6.930	162	2023089	39.43	ppm	96
53) Biphenyl	6.914	154	2902278	40.30	ppm	97
54) 2-Nitroaniline	7.010	65	706146	39.70	ppm	97
55) Dimethylphthalate	7.166	163	2813215	45.45	ppm	99
56) Acenaphthylene	7.273	152	3710217	42.80	ppm	99
57) 2,6-Dinitrotoluene	7.214	165	636533	45.73	ppm	84
58) 3-Nitroaniline	7.347	138	669401	39.12	ppm	96
59) Acenaphthene	7.417	153	2253054	46.47	ppm	100
60) 2,4-Dinitrophenol	7.433	184	692610	96.66	ppm	80
61) 4-Nitrophenol	7.486	109	223868	24.57	ppm	97
62) Dibenzofuran	7.556	168	2982458	43.73	ppm	98
63) 2,4-Dinitrotoluene	7.545	165	869601	49.04	ppm	88
64) 2,3,4,6-Tetrachlorophenol	7.658	232	806047	50.44	ppm	97
65) Diethylphthalate	7.749	149	2900515	46.25	ppm	99
66) Fluorene	7.845	166	2699189	45.02	ppm	100
67) 4-Chlorophenyl-phenyle...	7.845	204	1492114	50.57	ppm	93
68) 4-Nitroaniline	7.866	138	651064	41.36	ppm	98
70) 4,6-Dinitro-2-methylph...	7.893	198	498722	46.13	ppm	78
71) n-Nitrosodiphenylamine	7.946	169	1833013	35.67	ppm	99
72) 1,2-Diphenylhydrazine	7.984	77	2520667	32.16	ppm	89
74) 4-Bromophenyl-phenylether	8.283	248	994982	44.19	ppm	100
75) Hexachlorobenzene	8.353	284	1105493	43.14	ppm	99
76) Pentachlorophenol	8.535	266	838693	51.94	ppm	100
77) Phenanthrene	8.749	178	3823072	44.59	ppm	100
78) Anthracene	8.802	178	3822534	42.70	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79956.D
Acq On : 1 Jun 2018 4:17 am
Operator : chriss2
Sample : op12401-ms
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 01 10:20:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

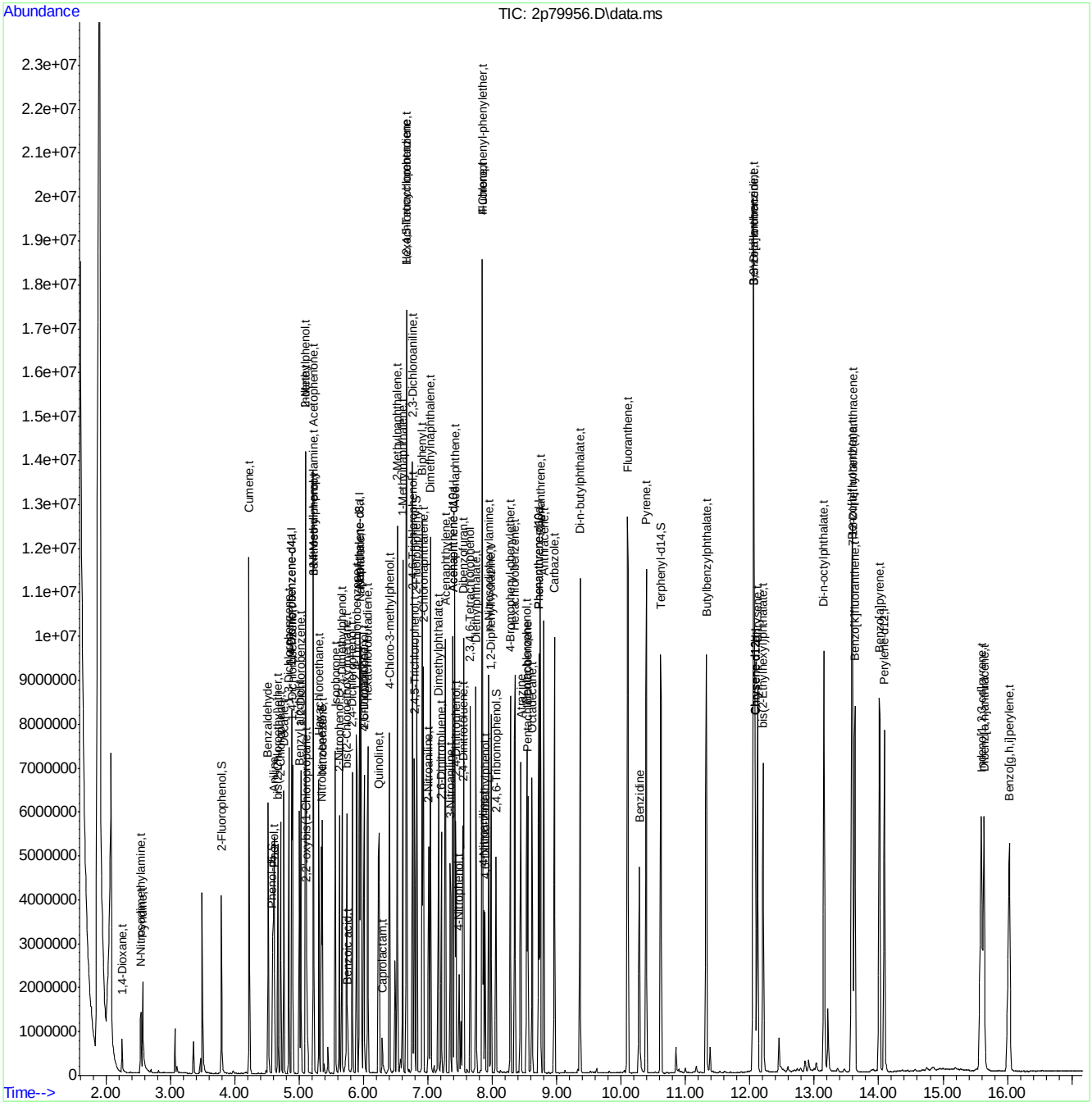
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79)	Carbazole	8.968	167	4008097	41.09	ppm	100
80)	Di-n-butylphthalate	9.364	149	5837134	42.02	ppm	99
81)	Fluoranthene	10.102	202	5979408	45.55	ppm	97
82)	Octadecane	8.620	43	707227	56.51	ppm	93
84)	Pyrene	10.391	202	5269531	44.92	ppm	99
86)	Butylbenzylphthalate	11.327	149	2912031	46.44	ppm	91
87)	Benzo[a]anthracene	12.060	228	5044078	47.01	ppm	99
88)	3,3'-Dichlorobenzidine	12.065	252	3656562	87.38	ppm	98
89)	Chrysene	12.124	228	3730312	48.39	ppm	99
90)	bis(2-Ethylhexyl)phtha...	12.209	149	2783557	44.33	ppm	99
92)	Di-n-octylphthalate	13.151	149	6132649	38.96	ppm	93
93)	Benzo[b]fluoranthene	13.584	252	5389326	42.75	ppm	96
94)	Benzo[k]fluoranthene	13.632	252	3797254	38.29	ppm	97
95)	Benzo[a]pyrene	14.012	252	4429876	42.31	ppm	96
96)	Indeno[1,2,3-cd]pyrene	15.595	276	4680923	49.28	ppm	89
98)	Dibenz[a,h]anthracene	15.638	278	4071983	44.98	ppm	92
99)	7,12-Dimethylbenz(a)an...	13.595	256	1704029	33.86	ppm	93
100)	Benzo[g,h,i]perylene	16.034	276	4501894	50.88	ppm	91
102)	Benzaldehyde	4.518	105	1014169	35.55	ppm	98
106)	Atrazine	8.444	215	427808	50.37	ppm	94
107)	1,2,4,5-Tetrachloroben...	6.668	216	1191090	45.31	ppm	99
109)	Benzidine	10.284	184	2003643	53.77	ppm	100
113)	Pentachloronitrobenzene	8.556	295	155926	38.00	ppm	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79956.D
Acq On : 1 Jun 2018 4:17 am
Operator : chriss2
Sample : op12401-ms
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 01 10:20:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79957.D
Acq On : 1 Jun 2018 4:39 am
Operator : chriss2
Sample : op12401-msd
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 01 10:21:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.887	152	970850	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	3266790	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	1635819	40.00	ppm	0.00
69) Phenanthrene-d10	8.722	188	3298323	40.00	ppm	-0.01
83) Chrysene-d12	12.081	240	2783106	40.00	ppm	-0.02
91) Perylene-d12	14.092	264	3259090	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.887	152	970850	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	3266790	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	1635819	40.00	ppm	0.00
108) Chrysene-d12a	12.081	240	2783106	40.00	ppm	0.00
110) Phenanthrene-d10a	8.722	188	3298323	40.00	ppm	-0.01
114) Chrysene-d12b	12.081	240	2783106	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.796	112	930926	20.92	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	41.84%	
8) Phenol-d5	4.587	99	750971	14.07	ppm	-0.01
Spiked Amount 50.000	Range 10 - 59		Recovery	=	28.14%	
25) Nitrobenzene-d5	5.347	82	1374486	36.74	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	=	73.48%#	
51) 2-Fluorobiphenyl	6.828	172	2339266	41.19	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery	=	82.38%#	
73) 2,4,6-Tribromophenol	8.059	330	460986	42.10	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery	=	84.20%#	
85) Terphenyl-d14	10.615	244	3046633	41.85	ppm	-0.02
Spiked Amount 50.000	Range 16 - 65		Recovery	=	83.70%#	
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	2.255	88	261172	16.54	ppm	97
3) Pyridine	2.576	79	869005	21.55	ppm	95
4) N-Nitrosodimethylamine	2.544	74	508201	20.94	ppm	97
6) Indene	5.101	116	2098301	39.22	ppm	98
7) Cumene	4.224	105	3676984	35.11	ppm	97
9) Phenol	4.603	94	902415	16.68	ppm	97
10) Aniline	4.614	93	1720778	30.88	ppm	82
11) bis(2-Chloroethyl)ether	4.668	93	1395002	40.42	ppm	98
12) 2-Chlorophenol	4.716	128	1274556	32.87	ppm	99
13) Decane	4.764	57	952858	28.08	ppm	97
14) 1,3-Dichlorobenzene	4.844	146	1465485	36.80	ppm	99
15) 1,4-Dichlorobenzene	4.903	146	1303636	38.65	ppm	97
16) Benzyl alcohol	5.004	108	681670	32.36	ppm	93
17) 1,2-Dichlorobenzene	5.031	146	1310622	38.93	ppm	99
18) Acetophenone	5.224	105	1706563	37.06	ppm	97
19) 2-Methylphenol	5.101	108	800296	28.73	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.117	121	343675	39.20	ppm	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79957.D
Acq On : 1 Jun 2018 4:39 am
Operator : chriss2
Sample : op12401-msd
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 01 10:21:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	5.224	108	797104	27.21	ppm	97
22) n-Nitroso-di-n-propyla...	5.229	70	770705	36.51	ppm	96
23) Hexachloroethane	5.309	201	498430	39.56	ppm	92
26) Nitrobenzene	5.363	77	1249887	36.36	ppm	95
27) Quinoline	6.240	129	2603475	39.52	ppm	99
28) Isophorone	5.561	82	2651133	40.34	ppm	98
29) 2-Nitrophenol	5.625	139	776653	41.93	ppm	93
30) 2,4-Dimethylphenol	5.668	107	1216494	44.16	ppm	99
31) Benzoic acid	5.753	105	457111	19.73	ppm	100
32) bis(2-Chloroethoxy)met...	5.737	93	1504758	42.15	ppm	98
33) 2,4-Dichlorophenol	5.828	162	1093459	41.74	ppm	94
34) 2,6-Dichlorophenol	6.015	162	917011	41.87	ppm	98
36) 1,2,4-Trichlorobenzene	5.892	180	1250036	42.37	ppm	99
38) Naphthalene	5.957	128	3170204	40.39	ppm	99
39) 4-Chloroaniline	6.005	127	1088858	29.52	ppm	96
40) 2,3-Dichloroaniline	6.759	161	1210786	36.65	ppm	97
41) Caprolactam	6.294	113	104091	9.58	ppm	96
42) Hexachlorobutadiene	6.069	225	634229	42.50	ppm	99
43) 4-Chloro-3-methylphenol	6.406	107	1155444	39.72	ppm	95
44) 2-Methylnaphthalene	6.529	141	2162815	40.07	ppm	99
45) 1-Methylnaphthalene	6.609	141	1981313	36.35	ppm	95
46) Dimethylnaphthalene	7.042	156	1993045	38.02	ppm	97
48) Hexachlorocyclopentadiene	6.668	237	1220058	83.90	ppm	99
49) 2,4,6-Trichlorophenol	6.764	196	813751	49.02	ppm	98
50) 2,4,5-Trichlorophenol	6.791	196	785316	45.89	ppm	99
52) 2-Chloronaphthalene	6.930	162	1950944	41.04	ppm	97
53) Biphenyl	6.914	154	2825324	42.34	ppm	99
54) 2-Nitroaniline	7.010	65	690572	41.90	ppm	97
55) Dimethylphthalate	7.165	163	2703000	47.13	ppm	99
56) Acenaphthylene	7.267	152	3554117	44.25	ppm	98
57) 2,6-Dinitrotoluene	7.213	165	612562	47.50	ppm	84
58) 3-Nitroaniline	7.347	138	632037	39.86	ppm	98
59) Acenaphthene	7.417	153	2210273	49.20	ppm	99
60) 2,4-Dinitrophenol	7.433	184	641856	96.68	ppm	83
61) 4-Nitrophenol	7.481	109	198028	23.46	ppm	91
62) Dibenzofuran	7.556	168	2925367	46.29	ppm	97
63) 2,4-Dinitrotoluene	7.540	165	833545	50.73	ppm	91
64) 2,3,4,6-Tetrachlorophenol	7.657	232	770225	52.02	ppm	98
65) Diethylphthalate	7.748	149	2789601	48.01	ppm	99
66) Fluorene	7.845	166	2552882	45.95	ppm	98
67) 4-Chlorophenyl-phenyle...	7.845	204	1395527	51.05	ppm	93
68) 4-Nitroaniline	7.866	138	621728	42.63	ppm	95
70) 4,6-Dinitro-2-methylph...	7.887	198	472781	47.55	ppm	99
71) n-Nitrosodiphenylamine	7.946	169	1770419	37.46	ppm	99
72) 1,2-Diphenylhydrazine	7.984	77	2449186	33.98	ppm	89
74) 4-Bromophenyl-phenylether	8.283	248	946257	45.70	ppm	99
75) Hexachlorobenzene	8.353	284	1043429	44.28	ppm	99
76) Pentachlorophenol	8.535	266	800211	53.89	ppm	98
77) Phenanthrene	8.749	178	3703016	46.97	ppm	99
78) Anthracene	8.802	178	3634092	44.15	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79957.D
Acq On : 1 Jun 2018 4:39 am
Operator : chriss2
Sample : op12401-msd
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 01 10:21:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

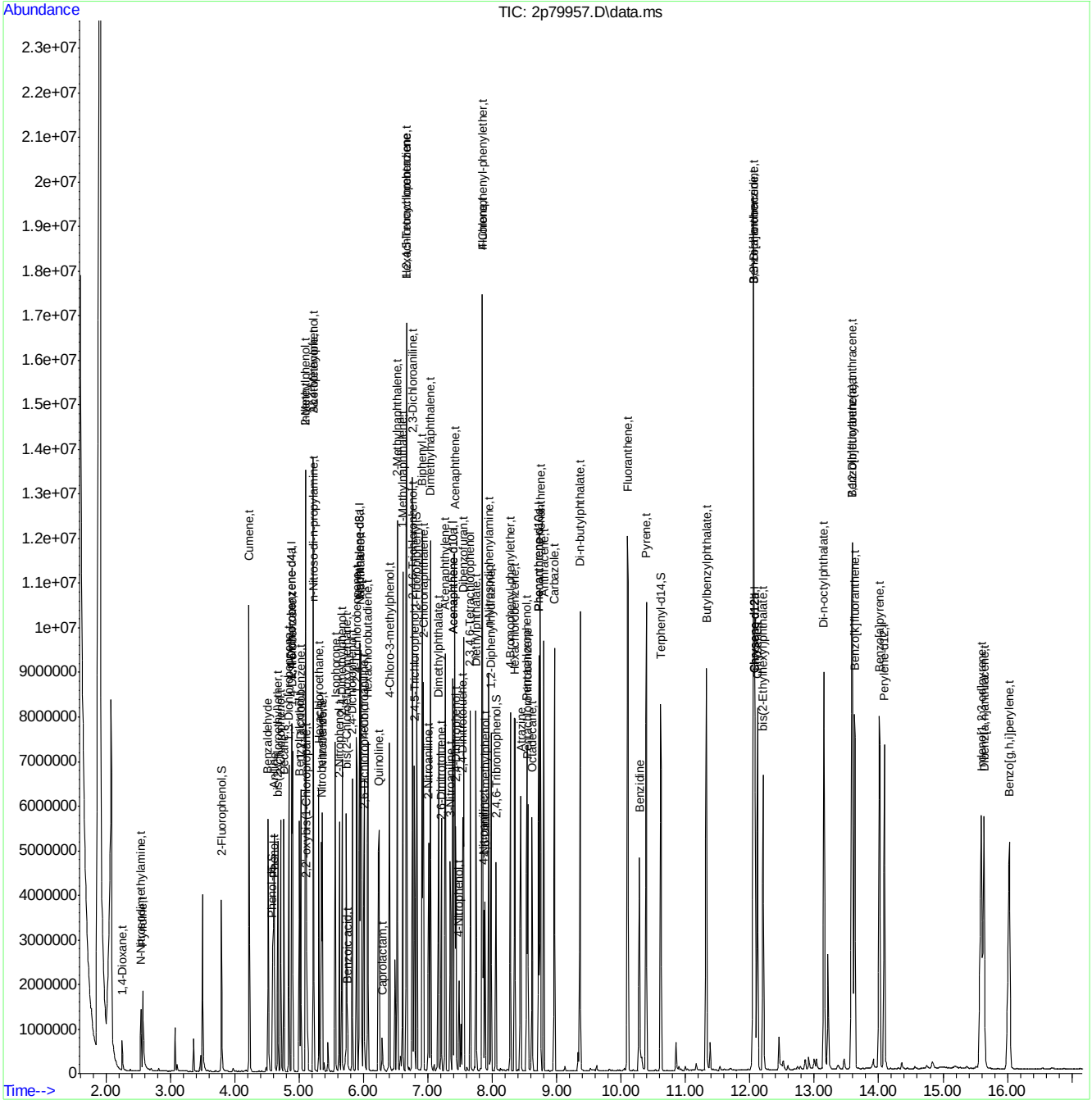
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
79) Carbazole	8.968	167	3911093	43.60 ppm	100
80) Di-n-butylphthalate	9.364	149	5483060	42.92 ppm	99
81) Fluoranthene	10.102	202	5630831	46.64 ppm	98
82) Octadecane	8.620	43	606278	54.61 ppm	93
84) Pyrene	10.391	202	4948811	45.54 ppm	99
86) Butylbenzylphthalate	11.327	149	2731170	47.03 ppm	92
87) Benzo[a]anthracene	12.059	228	4668012	46.97 ppm	99
88) 3,3'-Dichlorobenzidine	12.059	252	3465950	89.42 ppm	99
89) Chrysene	12.124	228	3513335	49.21 ppm	99
90) bis(2-Ethylhexyl)phtha...	12.209	149	2591273	44.56 ppm	99
92) Di-n-octylphthalate	13.150	149	5811816	40.59 ppm	95
93) Benzo[b]fluoranthene	13.589	252	4849670	42.29 ppm	97
94) Benzo[k]fluoranthene	13.627	252	3732250	41.37 ppm	99
95) Benzo[a]pyrene	14.012	252	4128773	43.35 ppm	96
96) Indeno[1,2,3-cd]pyrene	15.595	276	4549209	52.65 ppm	88
98) Dibenz[a,h]anthracene	15.638	278	3902029	47.38 ppm	92
99) 7,12-Dimethylbenz(a)an...	13.589	256	1411518	30.83 ppm	93
100) Benzo[g,h,i]perylene	16.028	276	4311310	53.56 ppm	91
102) Benzaldehyde	4.518	105	958512	35.36 ppm	95
106) Atrazine	8.444	215	415479	52.80 ppm	93
107) 1,2,4,5-Tetrachloroben...	6.668	216	1156852	47.50 ppm	99
109) Benzidine	10.284	184	1988113	57.60 ppm	100
113) Pentachloronitrobenzene	8.556	295	147935	39.20 ppm	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79957.D
Acq On : 1 Jun 2018 4:39 am
Operator : chriss2
Sample : op12401-msd
Misc : op12401,e2p3526,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

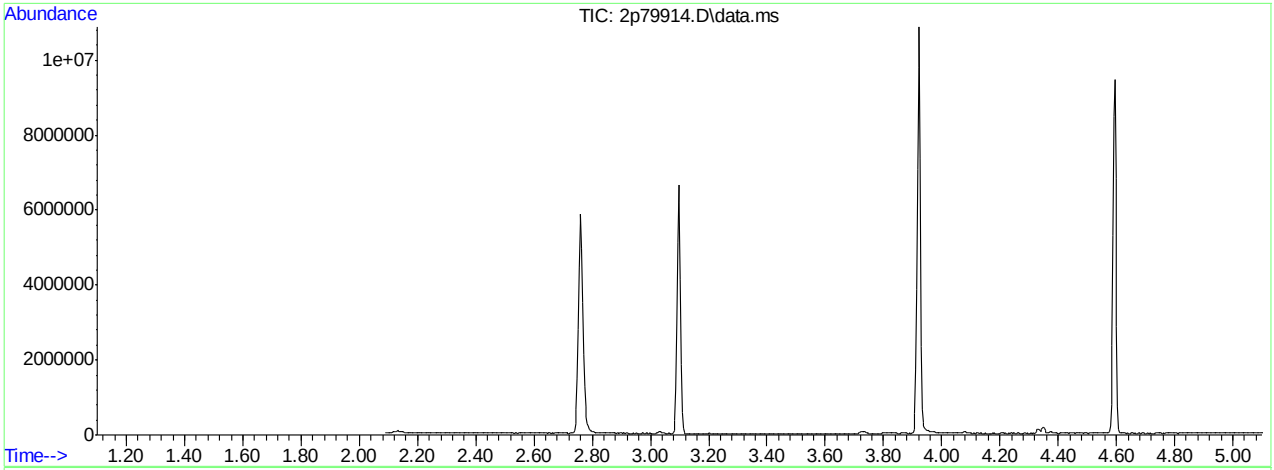
Quant Time: Jun 01 10:21:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

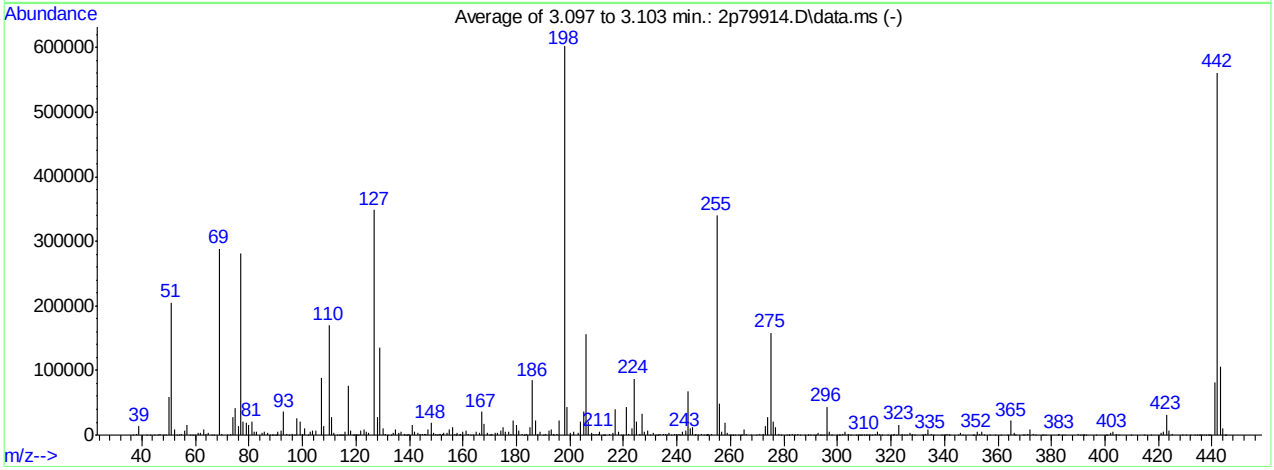


DFTPP

Data File : C:\msdchem\1\DATA\2P3523\2p79914.D Vial: 1
Acq On : 30 May 2018 3:41 am Operator: chriss2
Sample : DFTPP Inst : MS2P
Misc : op10929,e2p3523,1000,,,1,1 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (ChemStation Integrator)
Title :





AutoFind: Scans 325, 326, 327; Background Corrected with Scan 317

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.1	205044	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.9	288210	PASS
70	69	0.00	2	0.5	1526	PASS
127	198	40	60	57.9	348032	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	601557	PASS
199	198	5	9	7.1	42672	PASS
275	198	10	30	26.3	157941	PASS
365	198	1	100	3.7	22293	PASS
441	443	0.01	100	77.9	82083	PASS
442	198	40	100	93.2	560512	PASS
443	442	17	23	18.8	105376	PASS

2p79914.D DFTPP2P.M Thu May 31 09:47:21 2018 RPT1

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.90	567	50.95	205044	61.95	3290	75.00	42311
38.00	2399	52.00	9556	63.00	9128	76.05	14785
39.00	14194	52.90	210	63.85	978	76.95	281357
41.80	329	53.80	99	64.95	4091	77.95	20623
42.95	8	54.85	1350	66.10	299	78.95	19179
44.75	541	56.00	7369	66.95	548	80.00	15183
46.00	55	57.00	14886	68.95	288210	81.00	21406
46.80	991	57.90	786	69.95	1526	81.95	4966
48.20	189	58.90	326	72.10	94	82.90	4593
48.95	715	59.75	21	73.05	2086	84.95	3893
50.00	58963	60.95	3061	74.00	27581	85.90	5271

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	2853	96.00	1587	106.95	89068	117.00	75754
87.85	799	96.85	193	108.00	14287	117.95	6313
88.75	534	97.95	26675	110.00	170152	118.85	717
89.00	281	98.95	21489	110.95	28019	119.10	199
89.85	293	99.80	390	111.90	3090	119.95	1140
90.20	151	100.05	1331	112.90	779	120.65	160
90.95	5397	100.95	10912	113.80	388	121.10	208
91.95	6513	101.90	847	114.30	73	121.95	6293
93.00	36039	102.95	4861	114.75	47	123.00	9277
93.90	2587	103.95	7697	114.95	212	123.90	4532
94.95	404	104.90	7759	115.95	5476	124.90	4346

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.00	348032	137.90	986	146.05	1856	155.00	9015
128.00	27915	138.30	204	147.00	8124	156.00	11375
129.00	135851	138.80	382	148.00	18626	156.95	2128
130.00	11032	139.00	425	148.90	4166	157.20	550
130.90	1739	139.85	1401	149.85	948	157.90	2891
131.90	857	140.85	15816	150.30	258	158.80	330
132.95	646	142.00	5704	151.05	1361	159.05	1703
133.90	3774	142.95	3215	151.50	1624	159.95	4978
134.95	9126	143.95	1264	152.15	1306	161.00	7534
135.85	4172	144.95	1253	152.95	4344	161.85	1957
137.00	5345	145.80	975	154.00	3672	162.95	555

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
163.85	903	173.95	7472	183.85	1011	193.95	1167
164.95	5936	175.00	12064	185.00	12656	194.95	1517
166.00	4317	176.00	4447	185.95	84751	195.95	22552
167.00	35649	176.95	4543	187.00	23272	197.90	601557
168.00	16669	177.90	1485	187.95	2061	198.90	42672
169.00	2931	178.95	23187	188.90	4850	200.00	3202
169.95	697	179.95	15886	189.90	925	201.45	4452
170.30	460	180.95	7266	190.90	2474	203.05	3572
171.00	932	181.90	1213	192.00	7092	204.00	21618
171.95	2754	182.85	723	192.95	8055	205.00	37109
172.95	3495	183.10	281	193.70	434	206.00	156245

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
207.00	20374	216.00	3871	227.00	32715	236.10	801
207.90	3906	216.90	39664	227.95	5022	236.95	3213
208.10	1806	217.95	4746	229.00	7400	237.85	308
208.90	1428	218.95	569	229.85	855	238.90	1430

209.95	2611	219.70	156	230.95	2950	239.95	1206
210.50	982	220.95	42965	231.95	577	240.90	1574
210.95	5623	221.90	2370	232.70	270	241.20	510
212.10	212	223.00	10581	232.90	464	242.00	4808
212.70	153	224.00	87227	233.85	1884	243.10	6353
212.95	237	225.00	21623	234.90	2638	244.00	68443
214.85	1655	226.00	2054	235.85	1179	245.00	10147

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
245.95	11512	255.00	340651	263.85	455	276.00	20808
246.70	453	256.00	48405	264.10	214	276.95	12032
247.00	1704	256.90	4672	264.95	7970	277.95	1673
247.85	560	258.00	19656	265.85	1508	278.85	590
249.00	2197	258.90	3082	267.75	158	280.95	435
250.00	326	259.70	158	269.80	422	281.80	317
250.80	322	259.90	542	270.85	1242	282.00	98
251.10	188	260.70	283	272.05	1061	282.95	1952
251.30	174	261.00	298	273.00	13255	283.80	127
251.85	1017	261.70	88	274.00	27883	284.05	795
252.95	2081	263.10	152	275.00	157941	285.00	2572

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
285.95	431	295.95	44160	307.90	595	314.90	5020
287.75	190	296.95	5632	308.10	187	315.95	2150
288.85	269	297.95	505	308.70	172	316.80	729
289.10	136	300.00	66	308.95	291	318.80	74
289.85	369	300.60	142	310.00	810	319.90	297
291.00	100	300.90	407	310.60	81	320.90	609
291.90	757	302.00	952	310.90	58	321.10	1108
292.90	3111	302.95	4749	311.40	147	321.90	531
293.60	152	304.00	1630	312.10	59	323.05	16138
294.00	707	304.80	276	312.80	427	324.05	2570
294.70	458	306.90	51	313.95	1930	324.85	213

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
325.75	261	339.60	199	352.95	2650	369.90	494
326.95	3278	340.00	185	354.00	4744	371.00	1618
327.90	1463	340.95	2393	354.80	825	372.00	8042
328.85	263	341.80	125	357.00	147	373.00	2317
331.70	519	341.95	468	358.80	426	374.05	304
332.00	662	345.00	58	360.90	66	376.60	211
333.05	1272	345.90	3755	363.65	426	376.90	84
333.95	9333	346.90	846	364.95	22293	377.80	58
334.95	2385	350.40	103	365.90	3783	382.30	139
335.95	480	351.05	604	366.70	132	383.00	2557
339.00	100	352.05	5192	369.60	206	383.95	898

Average of 3.097 to 3.103 min.: 2p79914.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
384.80	54	402.95	4708	428.80	53	439.10	349
389.95	1917	404.00	1760	430.00	50	439.60	130
390.85	872	404.95	193	431.95	181	441.10	82083
391.60	123	409.80	311	433.40	124	442.00	560512
391.95	562	414.70	51	434.30	192	443.00	105376
392.20	110	417.10	70	435.20	133	444.00	9886
392.70	150	421.00	4248	435.50	136	444.75	400
396.70	53	422.00	4953	436.20	261	445.10	290
400.60	154	423.00	31968	437.00	119		
400.95	282	424.00	7497	437.60	251		
401.95	3780	425.00	1121	438.65	401		

Quantitation Report (Qedit)

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Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79914.D
Acq On    : 30 May 2018   3:41 am
Operator  : chriss2
Sample    : DFTPP
Misc      : op10929,e2p3523,1000,,,1,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: May 30 03:46:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title  :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration
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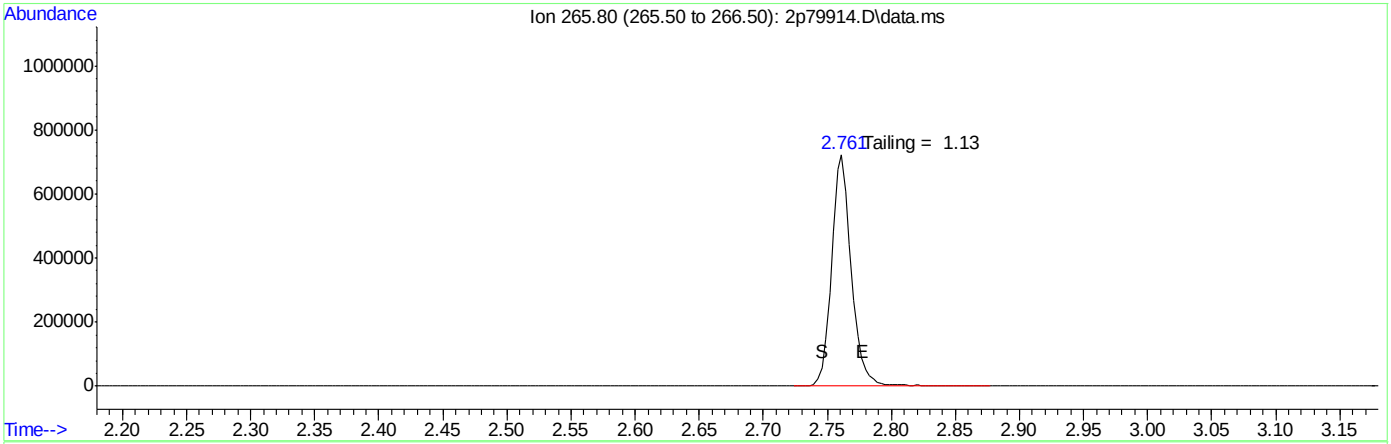

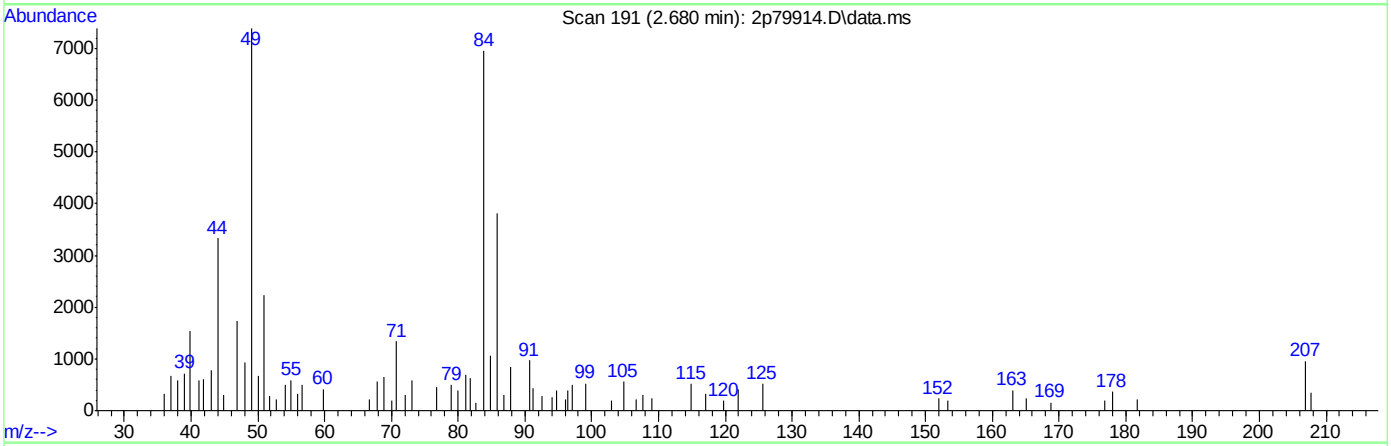

TIC: 2p79914.D\data.ms

(1) Pentacholorphenol

2.680min (-2.680) 0.00ppb

response 0

Ion	Exp%	Act%
265.80	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.5.1.1

9

Quantitation Report (Qedit)

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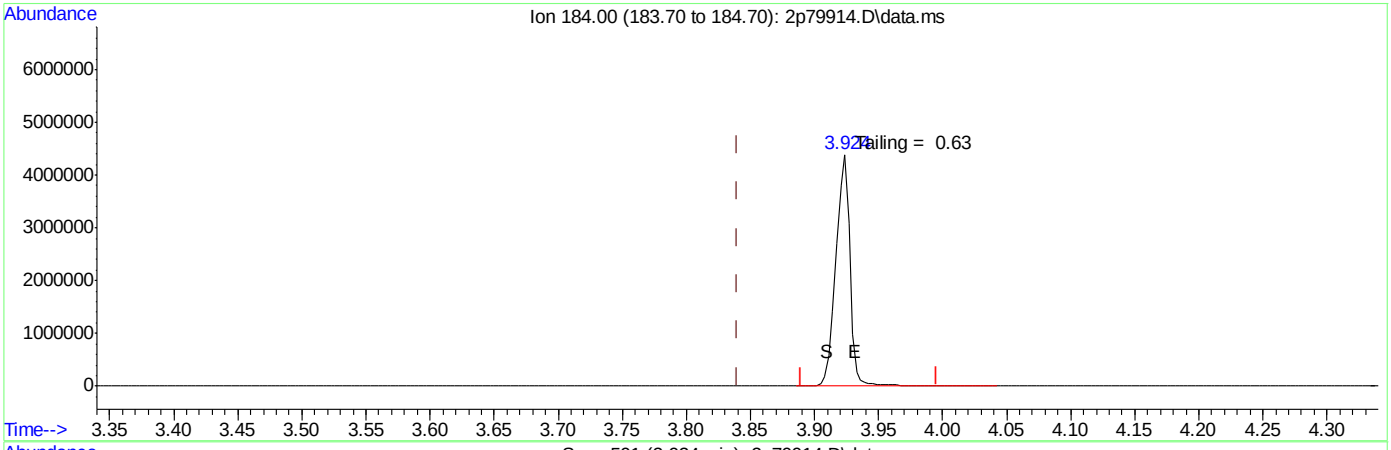
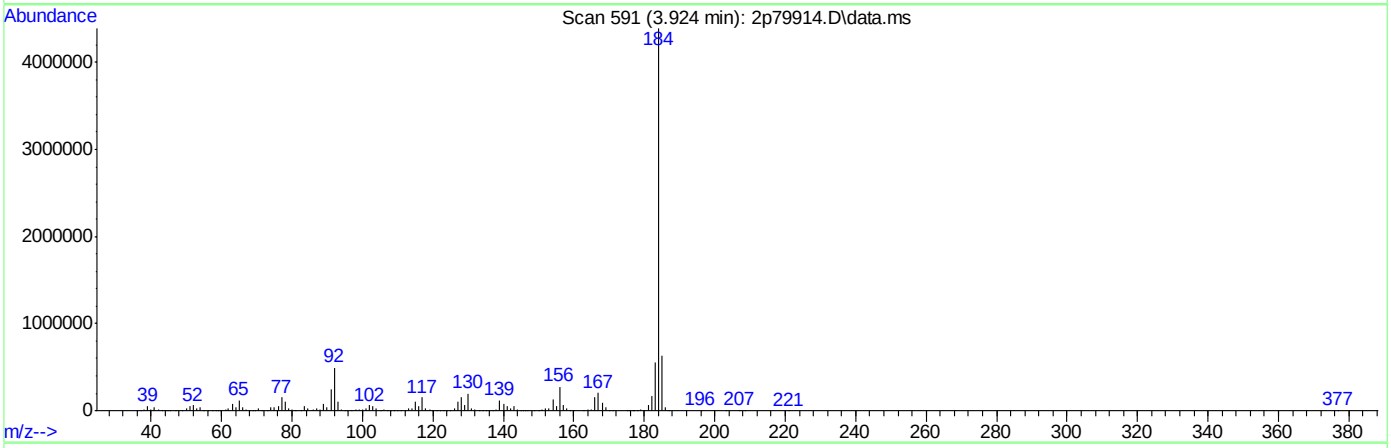
Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79914.D
Acq On    : 30 May 2018   3:41 am
Operator  : chriss2
Sample    : DFTPP
Misc      : op10929,e2p3523,1000,,,1,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: May 30 03:46:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title  :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration
```





TIC: 2p79914.D\data.ms

(2) Benzidine

3.924min (+0.084) 0.00ppb

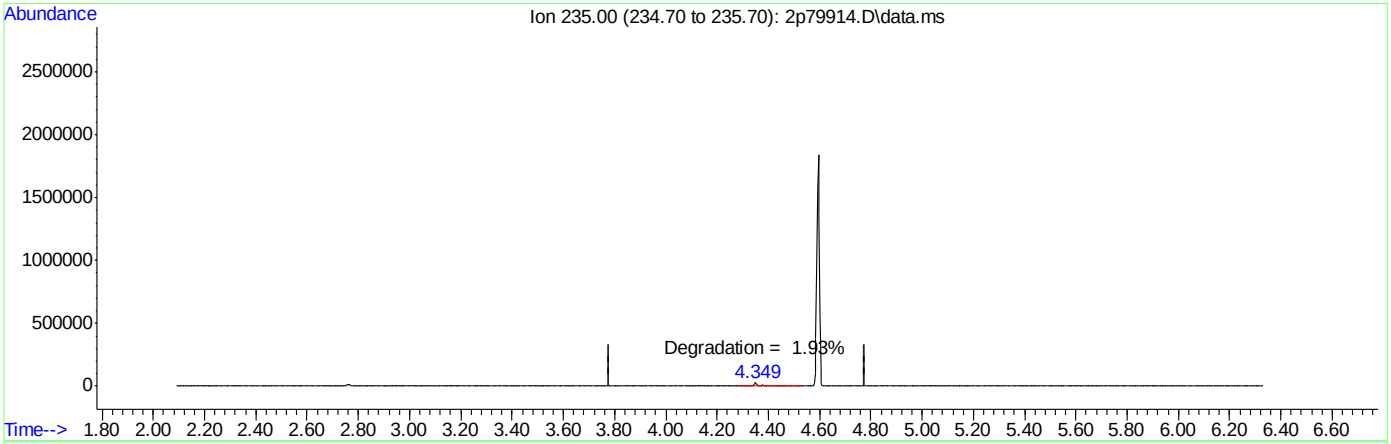
response 33343261

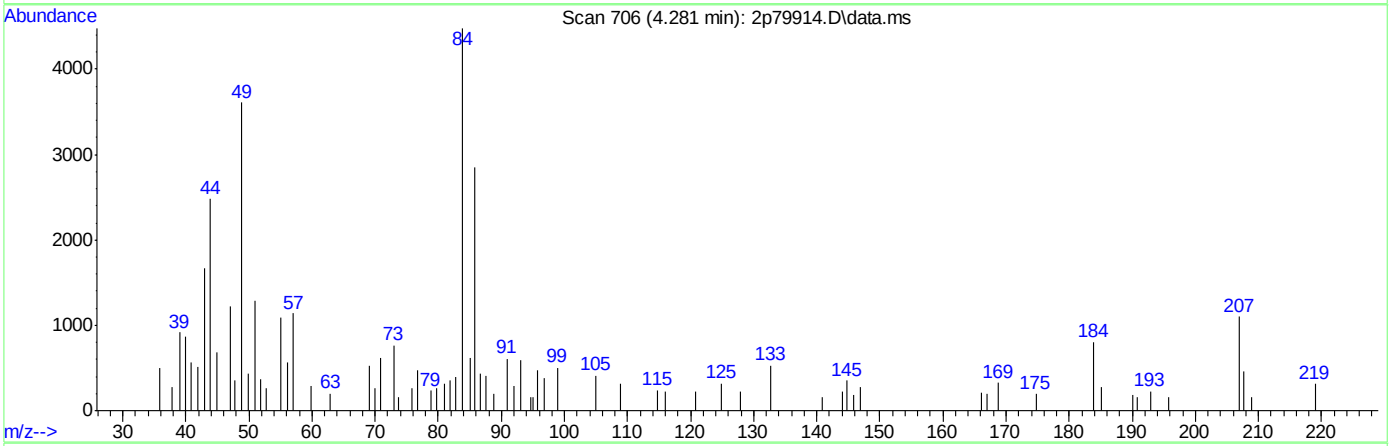
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79914.D
Acq On    : 30 May 2018   3:41 am
Operator  : chriss2
Sample    : DFTPP
Misc      : op10929,e2p3523,1000,,,1,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: May 30 03:46:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title  :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration
```





TIC: 2p79914.D\data.ms

(3) PP-DDT

4.280min (-4.280) 0.00ppb

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

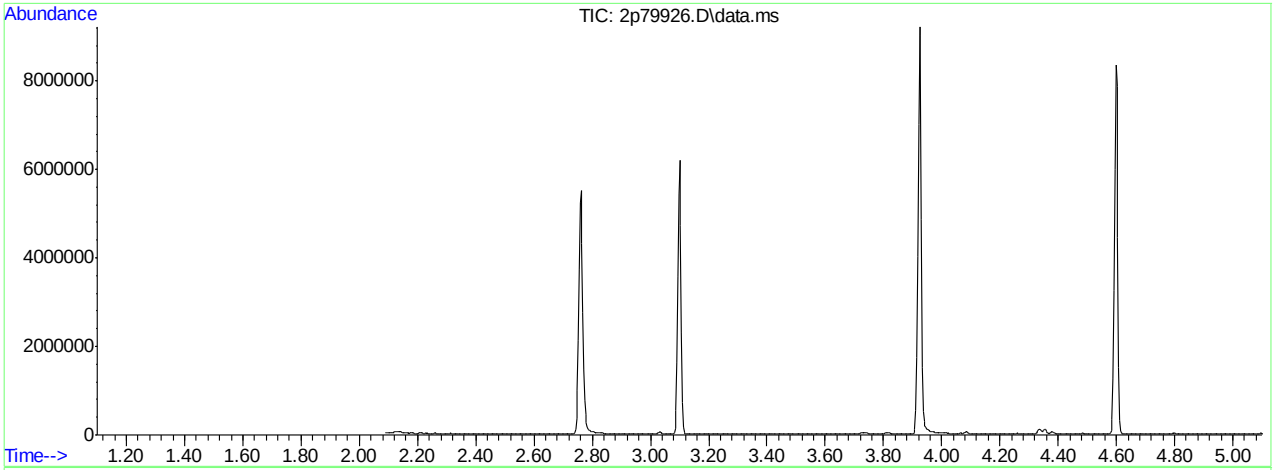
9.5.1.3

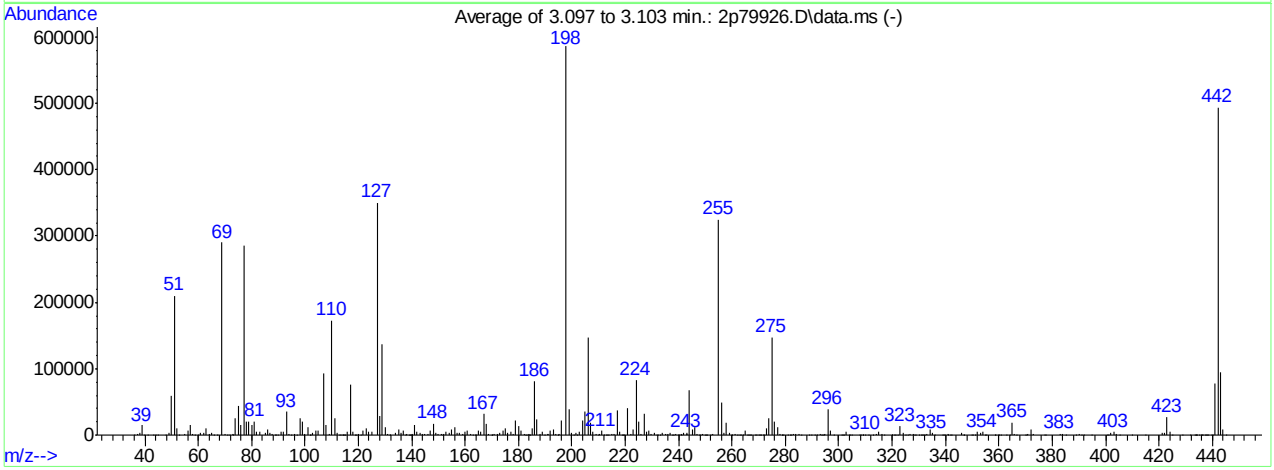
9

DFTPP

Data File : C:\msdchem\1\DATA\2P3524\2p79926.D Vial: 1
Acq On : 30 May 2018 12:32 pm Operator: johnb1
Sample : DFTPP Inst : MS2P
Misc : op10929,e2p3524,1000,,,1,1 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (ChemStation Integrator)
Title :





AutoFind: Scans 325, 326, 327; Background Corrected with Scan 318

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.9	210403	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.6	290361	PASS
70	69	0.00	2	0.6	1615	PASS
127	198	40	60	59.8	350101	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	585792	PASS
199	198	5	9	6.6	38611	PASS
275	198	10	30	25.2	147691	PASS
365	198	1	100	3.2	18680	PASS
441	443	0.01	100	83.2	78520	PASS
442	198	40	100	84.3	493760	PASS
443	442	17	23	19.1	94352	PASS

2p79926.D DFTPP2P.M Fri Jun 01 13:30:32 2018 RPT1

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	498	49.95	58544	61.95	2918	72.95	1289
37.05	1451	50.95	210403	63.00	9660	74.00	26251
38.00	3141	52.00	9979	64.00	1046	75.00	43419
38.95	14632	52.95	783	65.00	3914	76.05	14866
39.85	622	54.95	1291	65.90	226	77.00	286103
41.10	318	56.00	7482	67.05	559	78.00	21096
43.00	335	56.95	15326	68.95	290361	79.00	20467
43.95	134	57.95	952	69.95	1615	80.00	14654
45.00	700	58.70	117	70.90	467	81.00	20448
47.95	582	60.00	160	71.70	53	81.90	5031
48.95	2627	60.95	2712	72.80	595	83.00	5742

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
84.95	4062	94.85	426	104.95	6880	114.70	200
85.95	7739	95.95	2119	107.00	93160	114.95	273
87.00	2867	97.05	773	108.00	14738	115.95	5179
87.80	1074	98.00	26053	109.00	1411	117.00	76920
88.75	355	99.00	20731	110.00	172672	117.90	4904
89.10	255	99.90	1717	111.00	24701	118.70	283
89.80	182	101.00	11706	112.00	3484	119.05	428
90.95	4321	101.75	504	112.85	698	119.85	1127
91.95	5560	102.00	150	113.10	509	120.90	578
93.00	35240	102.95	4230	114.00	137	121.90	6737
93.90	2265	104.00	7489	114.20	102	122.90	9390

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
123.95	4935	135.95	3563	143.85	1074	153.85	3110
125.00	5157	137.00	6240	145.00	1087	155.00	8868
127.00	350101	137.60	571	146.05	2305	156.00	12620
128.00	28147	138.00	965	147.00	6950	156.90	2637
128.95	136130	138.80	764	148.00	17813	157.95	2893
130.00	11303	139.35	378	148.95	3579	158.95	1982
131.00	2423	139.90	329	149.85	1054	159.90	4478
131.60	166	140.05	1192	150.90	1827	160.95	7190
131.85	900	140.95	15755	151.50	596	162.00	1882
133.95	3953	142.00	5200	151.85	1565	162.95	765
134.95	8681	142.95	3598	152.95	4806	163.80	828

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
164.10	542	174.00	6298	183.70	454	191.95	7035
164.90	6451	175.00	9941	183.85	974	192.95	8081
165.95	4476	175.95	3823	184.20	309	194.05	1929
166.95	31949	176.95	5051	185.05	9417	194.80	511
167.95	16735	177.95	1848	186.00	81501	195.10	939
168.95	2399	178.95	22877	187.00	23901	196.00	21690
169.95	391	179.95	14322	188.00	2556	197.90	585792
170.20	368	181.00	7300	188.90	4495	198.95	38611
170.90	1215	182.00	1485	189.95	727	199.95	3243
171.95	2528	182.65	358	190.90	1496	200.80	377
172.95	3577	182.90	241	191.10	930	201.50	4057

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
202.00	364	212.00	397	221.00	40816	231.70	111
202.95	4301	212.75	65	222.00	2158	232.15	461
204.00	21891	213.10	122	223.00	9232	233.10	886
205.00	36088	213.80	61	224.00	83411	234.00	2726

206.00	147136	214.90	1805	224.95	19800	234.95	2486
207.00	18078	215.95	2315	226.05	1893	235.90	1484
207.95	4663	216.95	37677	226.95	31389	236.95	2841
208.95	1977	217.95	4858	228.00	5140	237.80	107
209.90	467	218.80	218	228.95	7070	238.10	597
210.20	999	218.95	458	229.85	1507	238.95	1312
211.05	6184	219.70	121	230.95	3029	239.80	213

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
240.05	854	248.15	371	259.00	2823	266.80	101
240.80	638	248.90	2305	259.80	251	267.05	106
241.10	1520	249.80	386	260.00	424	268.80	89
241.95	3703	250.05	291	260.95	963	269.30	91
242.90	1885	250.75	794	261.90	80	269.90	780
243.05	3832	251.90	598	262.80	75	270.30	83
244.00	67245	252.95	2373	263.05	366	270.85	796
245.00	8199	255.00	325035	264.00	508	271.80	378
245.95	11698	256.00	48325	265.00	6419	272.10	337
246.90	2073	257.00	3854	265.70	153	273.00	11024
247.90	393	257.95	18744	266.00	677	273.95	25811

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
275.00	147691	283.95	1351	294.90	1078	307.90	386
276.00	19805	285.00	1657	296.00	39248	308.30	235
276.95	12229	286.00	336	296.95	6639	308.90	106
277.90	2272	288.95	645	297.95	573	309.10	70
278.60	114	289.85	522	300.90	475	309.95	534
278.90	265	291.00	290	301.50	245	311.20	52
279.10	157	292.00	477	301.75	448	312.90	676
280.80	51	293.00	2420	302.95	4553	313.90	1616
281.70	358	293.70	112	303.85	660	314.90	4646
282.10	97	294.05	455	304.10	327	316.05	2319
282.95	1267	294.50	209	305.00	71	316.95	241

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
319.80	173	328.50	56	338.75	153	350.10	131
320.10	134	328.90	149	339.20	246	351.05	332
320.85	927	330.10	170	339.85	304	351.95	4585
321.10	600	331.00	83	340.80	1061	352.95	3640
322.00	275	331.30	85	341.00	780	354.00	4855
323.05	13728	331.90	490	341.80	120	354.95	582
324.00	2773	332.10	378	342.05	454	355.20	194
325.00	50	332.95	1478	345.95	3431	358.60	99
326.05	660	334.05	8910	346.80	466	358.80	240
326.85	2537	334.95	2610	347.00	192	359.70	74
327.85	1139	335.80	95	349.75	152	359.90	87

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
360.85	126	376.90	107	401.00	220	425.05	533
363.00	154	377.70	71	401.95	3596	428.85	201
364.00	375	382.95	1712	403.05	4387	431.70	148
364.95	18680	384.00	1103	404.05	1859	433.30	63
365.90	2426	385.00	135	405.10	108	433.60	64
366.80	131	388.90	68	409.80	51	434.00	147
369.85	706	389.95	1371	415.00	191	434.20	103
370.20	129	390.85	901	421.00	3514	434.90	240
370.95	1430	392.00	829	422.10	4165	435.70	53
372.00	7685	394.80	190	423.00	27515	435.90	98
373.10	1821	400.75	231	424.00	5496	436.25	217

Average of 3.097 to 3.103 min.: 2p79926.D\data.ms

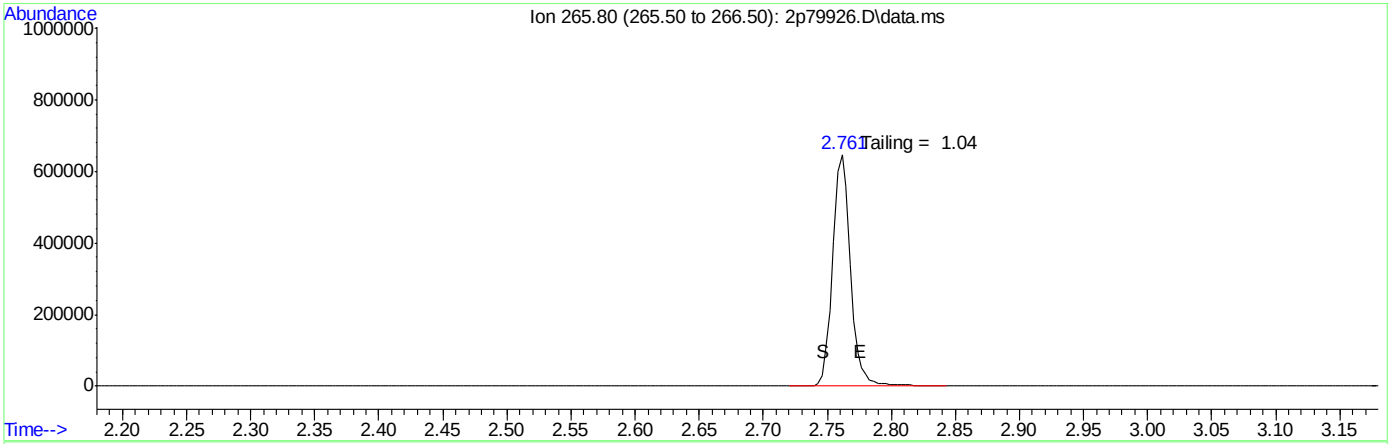
DFTPP
Modified:subtracted

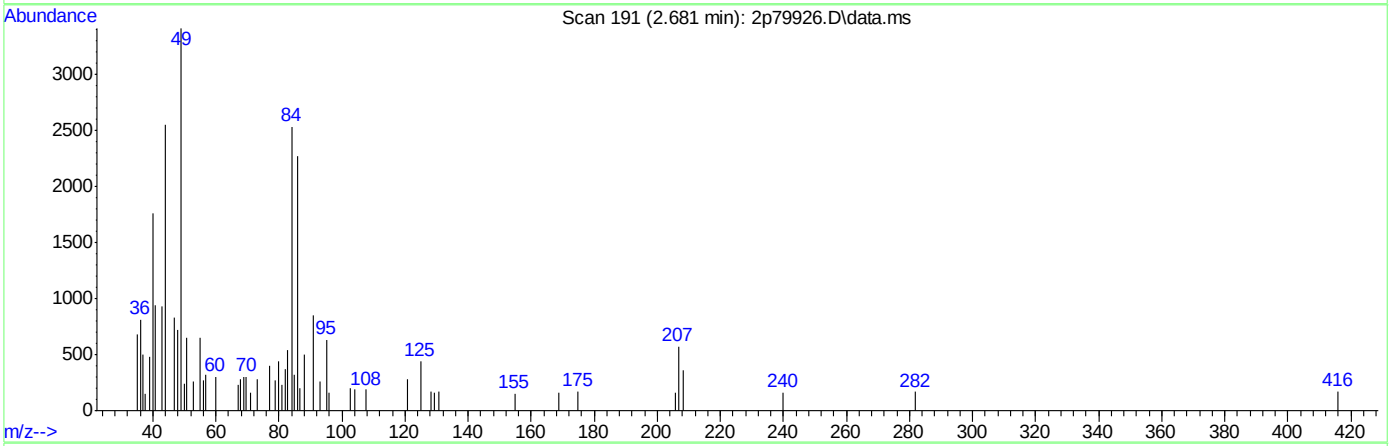
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
437.15	198						
437.65	401						
438.00	128						
438.60	241						
439.50	629						
439.90	233						
441.05	78520						
442.00	493760						
443.00	94352						
444.05	8904						
444.95	897						

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79926.D
Acq On    : 30 May 2018  12:32 pm
Operator  : johnb1
Sample    : DFTPP
Misc      : op10929,e2p3524,1000,,,1,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: May 30 12:37:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title  :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration
```





TIC: 2p79926.D\data.ms

(1) Pentacholorphenol

2.680min (-2.680) 0.00ppb

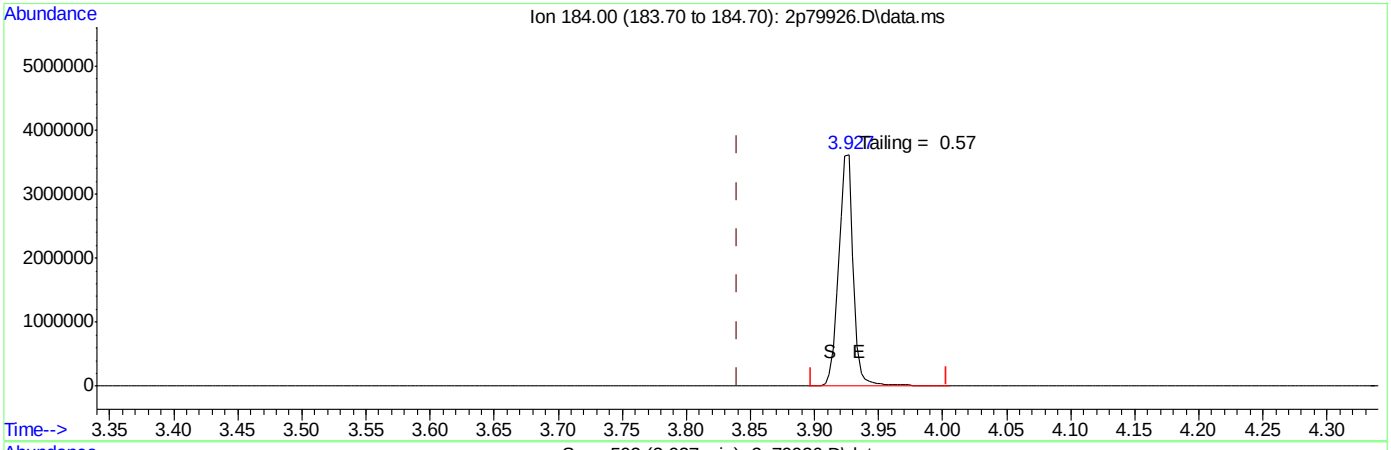
response 0

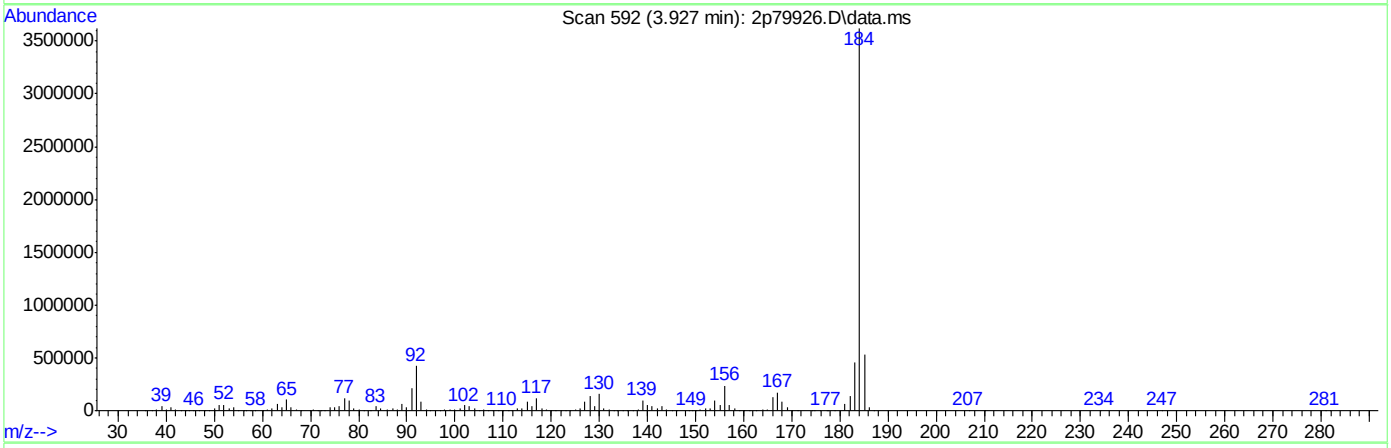
Ion	Exp%	Act%
265.80	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79926.D
Acq On    : 30 May 2018  12:32 pm
Operator  : johnb1
Sample    : DFTPP
Misc      : op10929,e2p3524,1000,,,1,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: May 30 12:37:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title  :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration
```





TIC: 2p79926.D\data.ms

(2) Benzidine

3.927min (+0.087) 0.00ppb

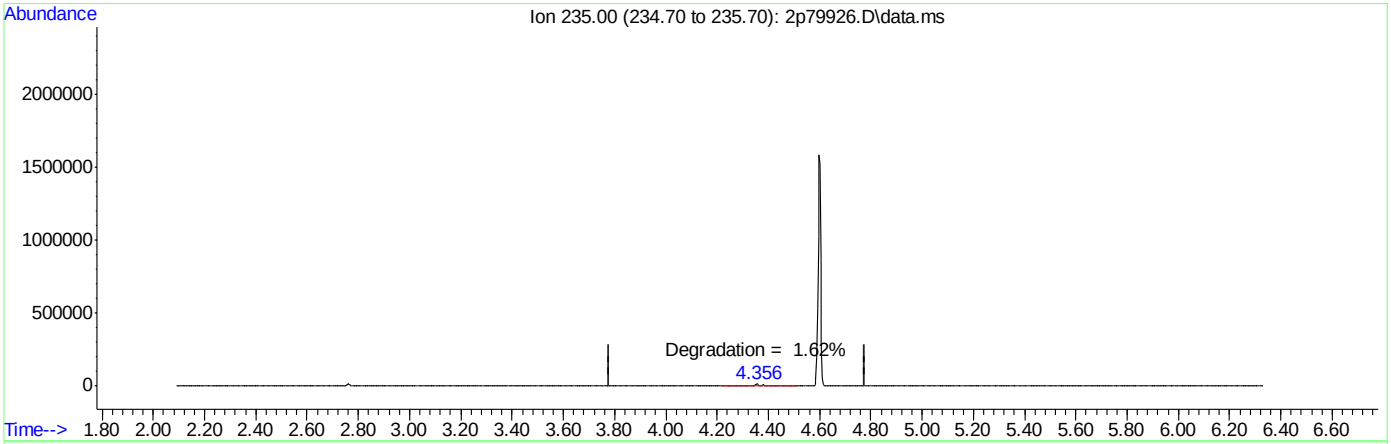
response 28781277

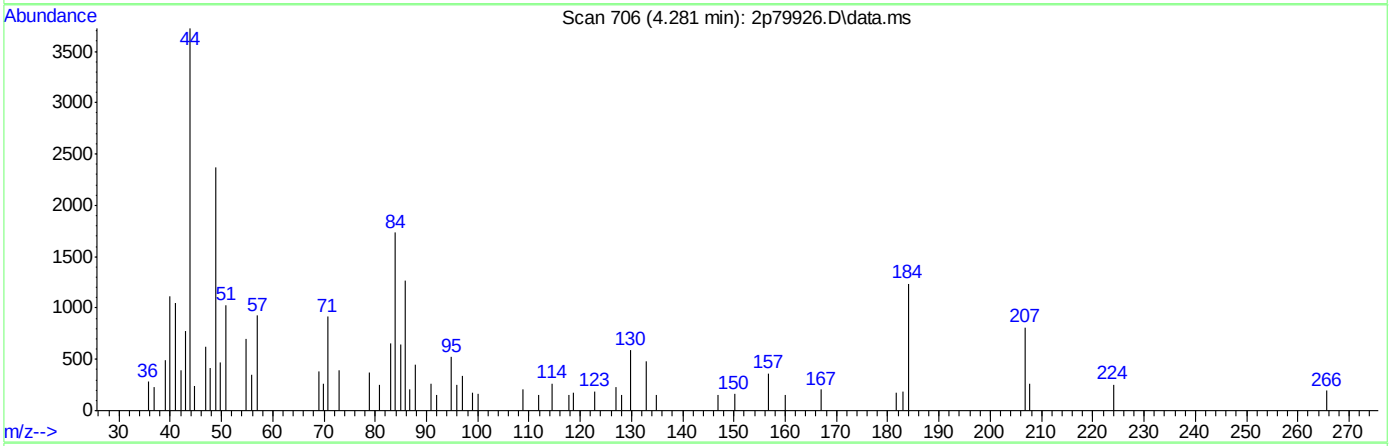
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79926.D
Acq On : 30 May 2018 12:32 pm
Operator : johnb1
Sample : DFTPP
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 30 12:37:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration





TIC: 2p79926.D\data.ms

(3) PP-DDT

4.280min (-4.280) 0.00ppb

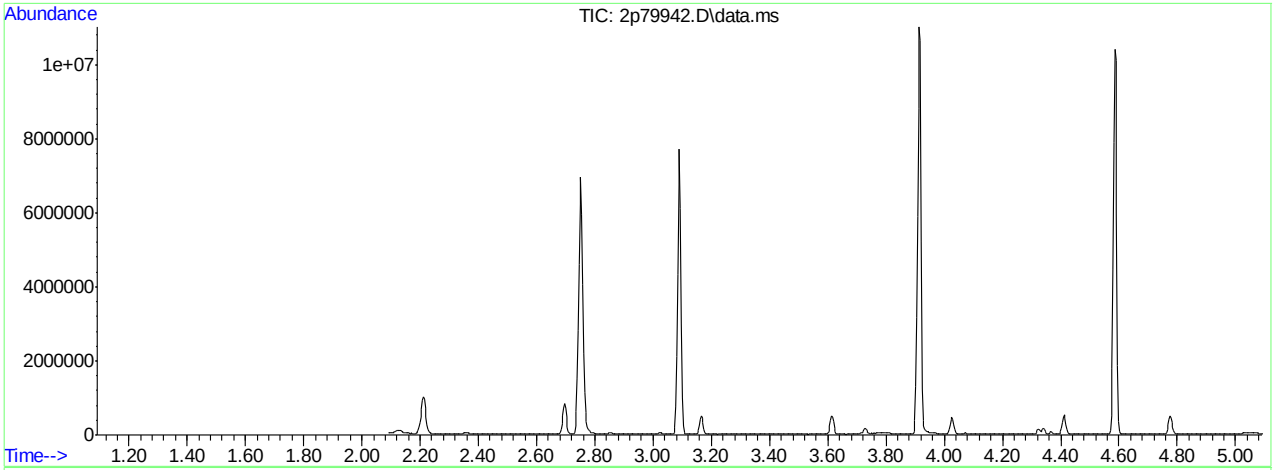
response 0

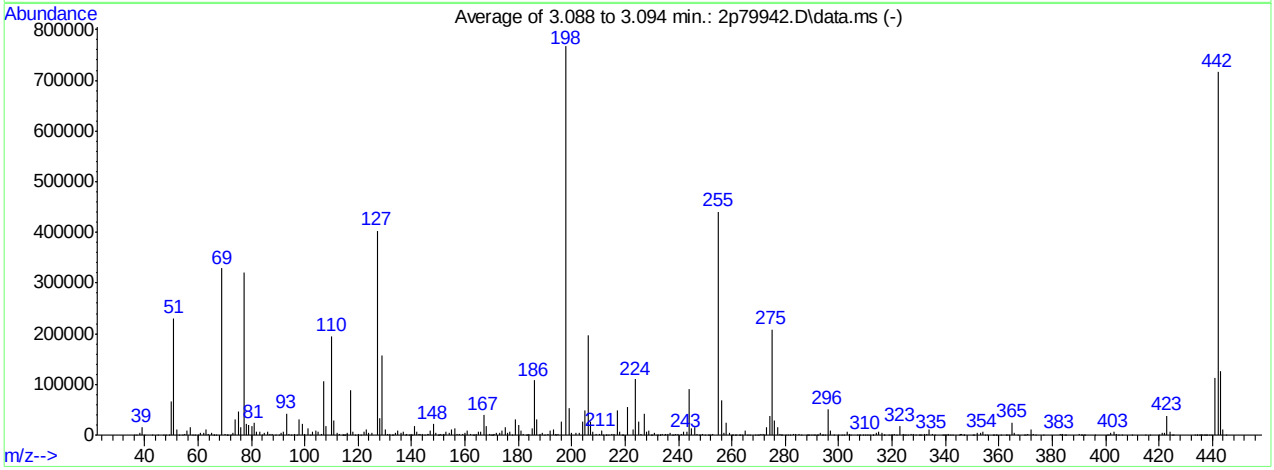
Ion	Exp%	Act%
235.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3525\2p79942.D Vial: 1
Acq On : 31 May 2018 4:29 pm Operator: angelar
Sample : DFTPP Inst : MS2P
Misc : op10929,e2p3525,1000,,,1,1 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (ChemStation Integrator)
Title :





AutoFind: Scans 322, 323, 324; Background Corrected with Scan 315

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	30.0	230203	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.9	329187	PASS
70	69	0.00	2	0.4	1407	PASS
127	198	40	60	52.6	403520	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	766753	PASS
199	198	5	9	7.0	53736	PASS
275	198	10	30	27.2	208555	PASS
365	198	1	100	3.3	25312	PASS
441	443	0.01	100	89.3	112387	PASS
442	198	40	100	93.3	715648	PASS
443	442	17	23	17.6	125920	PASS

2p79942.D DFTPP2P.M Fri Jun 01 11:02:42 2018 RPT1

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.85	212	50.95	230203	62.00	3541	72.00	137
36.85	784	52.00	12202	62.95	10559	73.05	3542
37.95	3773	52.90	651	63.95	1305	73.95	30860
39.00	16136	53.90	53	65.00	5012	75.00	45949
39.80	280	54.95	1921	65.70	162	76.05	16369
42.95	237	55.95	8056	66.00	191	77.00	321472
44.90	424	57.00	16366	66.90	260	78.00	23139
46.85	233	57.90	907	68.95	329187	78.90	20535
47.80	202	58.85	279	69.90	1407	79.95	16797
48.95	612	59.90	280	70.70	83	81.00	23781
50.00	65965	60.95	3405	71.00	401	82.00	6814

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.95	6326	94.00	2816	104.95	7496	114.90	182
83.90	584	94.80	571	106.00	2483	115.90	1991
84.90	3894	95.95	2279	106.95	106257	116.05	4451
85.90	5920	96.95	721	108.00	17268	117.00	87797
86.95	3110	98.00	30941	110.00	195584	118.00	7140
87.90	1199	98.95	22179	111.00	27875	118.95	775
88.90	801	99.95	2308	111.95	3691	119.90	1195
90.10	170	100.95	13114	112.95	1305	121.05	459
90.90	4977	101.90	847	114.00	256	122.00	7283
92.00	5832	102.95	5700	114.30	96	122.95	10715
93.00	42091	103.90	7876	114.65	297	123.90	5088

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
125.00	4534	136.00	4084	143.95	1354	151.80	489
127.00	403520	137.00	5692	144.85	894	152.05	1377
128.00	33032	137.70	632	145.90	1211	152.95	6439
128.95	157884	137.95	1237	146.10	2753	153.95	4436
129.95	11601	138.90	862	146.95	9223	155.00	11252
131.00	2426	139.90	1546	148.00	21904	156.00	14355
131.90	1408	140.10	859	148.95	4485	156.95	2975
132.80	119	140.90	17975	149.90	831	157.95	3169
133.05	522	141.95	6244	150.10	567	158.95	2976
133.90	3479	142.80	1400	150.90	2014	159.95	5582
134.95	9664	143.00	3167	151.10	774	160.95	8531

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
161.95	2678	170.60	678	181.00	9456	190.95	3131
162.80	250	170.95	1307	181.95	1317	191.95	8590
163.15	534	171.90	3433	182.85	681	193.00	10598
164.05	1405	173.05	3969	183.10	191	193.90	1290
164.95	6747	174.00	8242	184.00	2160	194.10	539
166.00	5972	175.00	14765	185.00	14174	195.00	1357
166.95	39634	175.95	5251	186.00	108088	196.00	27437
168.00	18145	176.90	6767	187.00	30552	197.90	766753
169.00	3156	177.80	943	187.95	3127	198.90	53736
169.70	329	178.95	30272	189.00	5347	200.00	3986
170.00	974	180.00	19160	189.80	1022	201.45	5393

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
202.90	4626	212.95	314	225.00	26803	233.10	276
204.00	25984	213.90	83	225.90	1296	233.90	3107
205.00	48893	214.85	1694	227.00	41451	234.70	679
206.00	196885	215.90	2866	227.95	6037	235.00	2722

206.95	25841	216.90	49637	229.00	8667	235.85	2621
208.00	5802	218.00	7241	229.70	454	236.95	3775
208.90	2006	218.90	113	230.00	789	237.70	304
210.40	1712	219.15	737	230.95	3649	238.00	547
211.00	8767	220.95	55965	231.80	256	238.95	2393
211.80	465	222.95	12213	232.00	630	239.90	1494
212.70	188	224.00	110355	232.90	782	241.05	2506

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
242.00	6258	251.70	304	261.80	61	271.85	1227
243.05	6501	251.95	720	262.90	76	272.10	444
244.00	91003	252.95	2202	263.05	377	272.95	15235
245.00	12390	255.00	440981	263.90	473	274.00	37149
246.00	16297	256.00	68219	264.95	8884	275.00	208555
246.95	3119	256.95	5327	265.95	1111	276.00	28285
247.70	204	258.00	23757	266.80	125	277.00	15544
247.95	531	258.95	4030	268.85	182	277.95	2496
248.95	3148	259.85	698	269.60	148	278.50	156
249.90	690	260.50	424	269.95	338	278.75	277
250.90	745	261.00	895	270.90	1289	279.90	54

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
280.90	608	290.85	330	300.90	1096	311.75	249
281.90	289	291.85	854	301.85	1151	312.70	85
282.95	1837	292.10	248	303.05	6780	312.95	356
283.90	1278	292.95	3902	303.90	1451	314.00	3504
285.05	2284	293.80	254	304.60	76	315.00	6297
285.85	600	294.00	940	306.90	455	316.00	3661
287.85	148	294.90	500	307.70	70	316.95	343
288.60	150	296.00	51696	307.95	664	317.15	590
288.85	442	296.95	8516	308.90	677	318.80	81
289.90	460	297.95	553	310.00	873	319.70	59
290.70	184	299.70	62	310.90	258	320.00	235

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
320.95	2226	330.30	92	340.90	553	352.00	5499
321.85	1101	330.80	90	341.05	1232	353.00	4200
323.00	18773	332.00	1352	341.85	724	354.00	5945
324.00	3304	332.95	2348	342.70	81	354.95	1165
324.80	196	334.00	11951	345.20	158	355.80	81
325.00	136	335.00	2965	345.80	1606	357.85	163
325.85	520	335.85	576	345.95	3324	358.10	51
327.00	3250	338.75	221	346.70	525	358.85	239
327.90	1457	339.40	70	346.90	243	359.10	198
328.95	338	339.70	337	350.05	227	360.70	120
329.90	144	340.20	236	350.85	482	362.70	78

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
362.85	162	376.85	382	395.80	54	420.00	117
363.60	163	382.90	2878	400.70	143	421.00	5263
364.95	25312	383.60	216	400.95	484	422.05	4998
365.95	3583	383.95	1215	402.00	4356	423.00	37840
366.85	172	384.70	106	403.00	6256	424.00	7803
369.70	480	385.00	86	403.95	1986	425.05	1126
370.15	318	389.95	1711	405.00	306	425.60	114
370.95	1958	390.90	420	406.10	98	433.30	98
372.00	10367	391.10	700	409.70	87	434.10	103
373.05	2522	391.80	211	415.10	275	434.40	85
373.85	245	392.05	755	416.40	87	434.95	155

Average of 3.088 to 3.094 min.: 2p79942.D\data.ms

DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
435.40	307	443.00	125920				
435.70	84	444.00	11574				
436.10	237	444.95	604				
436.70	181						
437.20	252						
437.40	150						
437.80	185						
438.80	701						
439.50	175						
441.10	112387						
442.00	715648						

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3525\
Data File : 2p79942.D
Acq On    : 31 May 2018   4:29 pm
Operator  : angelar
Sample    : DFTPP
Misc      : op10929,e2p3525,1000,,,1,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: May 31 16:33:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title  :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration
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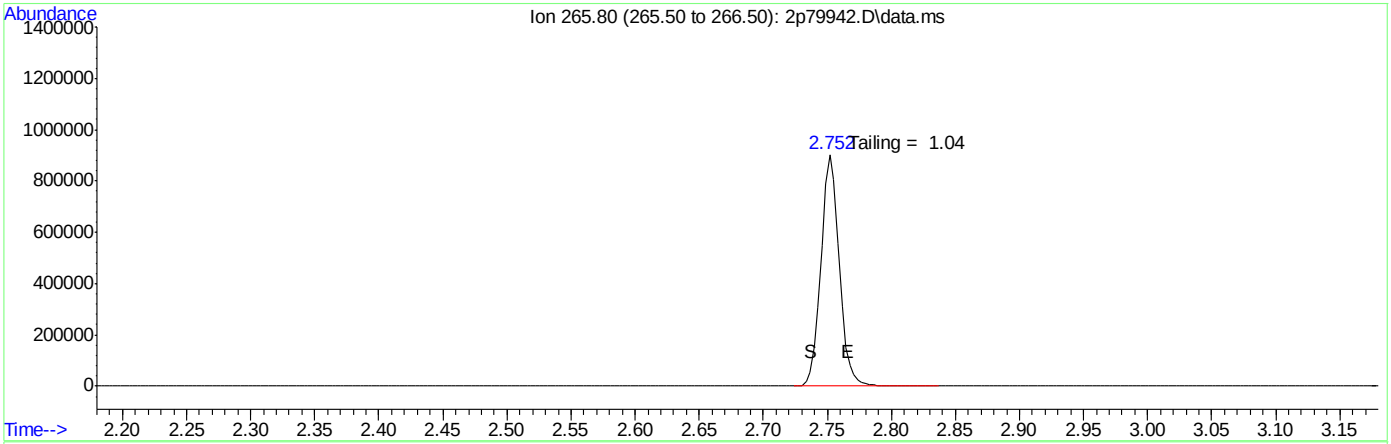
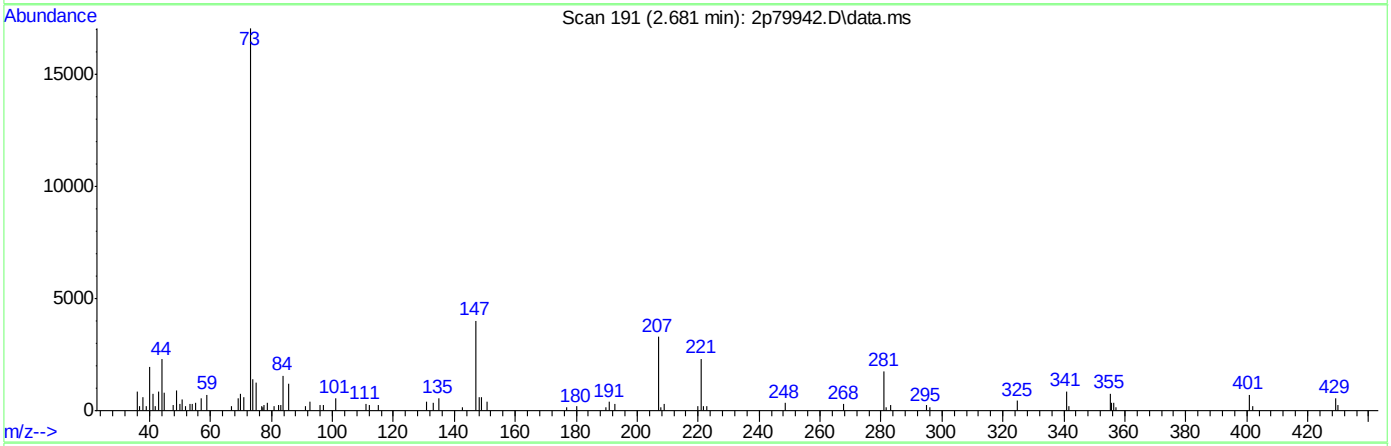




TIC: 2p79942.D\data.ms

(1) Pentacholorphenol

2.680min (-2.680) 0.00ppb

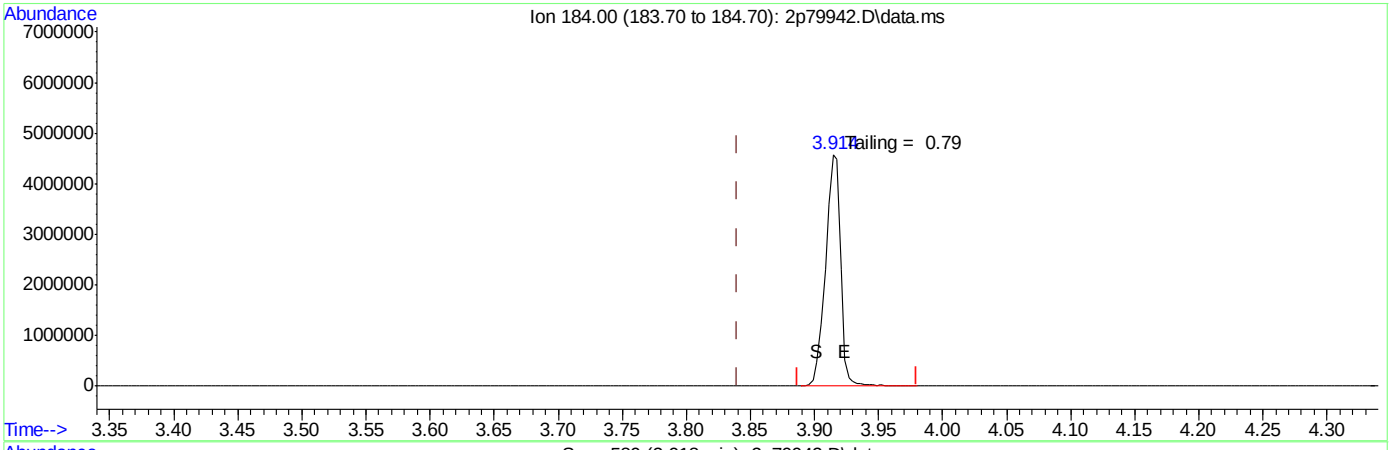
response 0

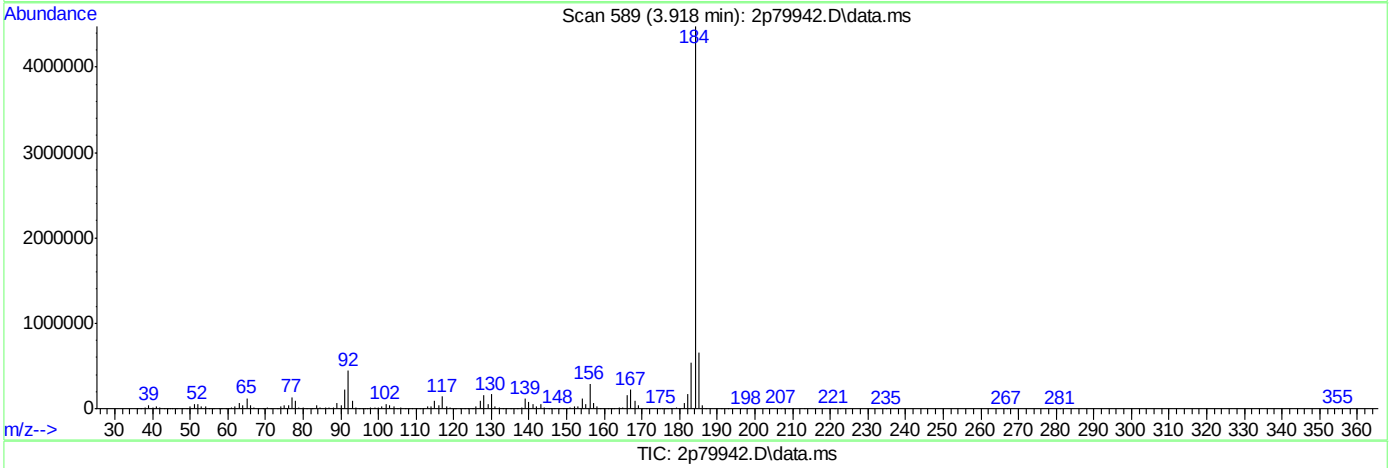
Ion	Exp%	Act%
265.80	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3525\
Data File : 2p79942.D
Acq On : 31 May 2018 4:29 pm
Operator : angelar
Sample : DFTPP
Misc : op10929,e2p3525,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 31 16:33:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration





TIC: 2p79942.D\data.ms

(2) Benzidine

3.917min (+0.077) 0.00ppb

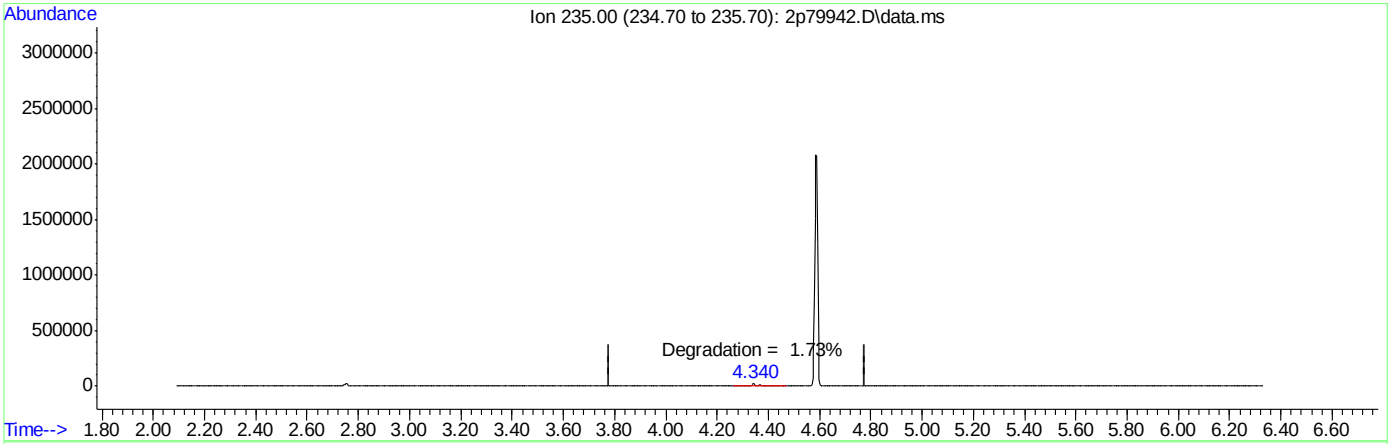
response 37500174

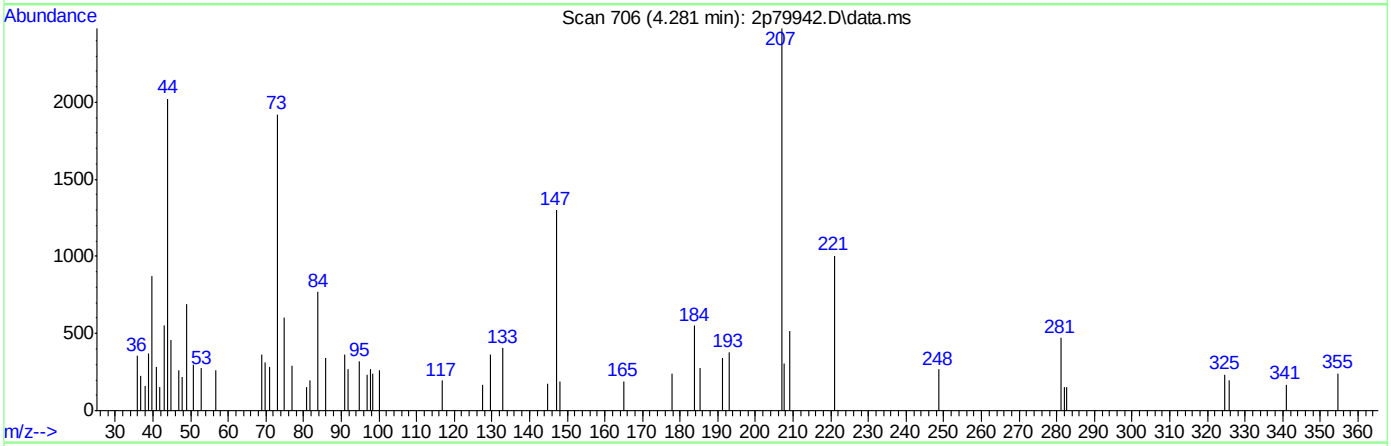
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3525\
Data File : 2p79942.D
Acq On    : 31 May 2018   4:29 pm
Operator  : angelar
Sample    : DFTPP
Misc      : op10929,e2p3525,1000,,,1,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: May 31 16:33:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title  :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration
```





(3) PP-DDT

4.280min (-4.280) 0.00ppb

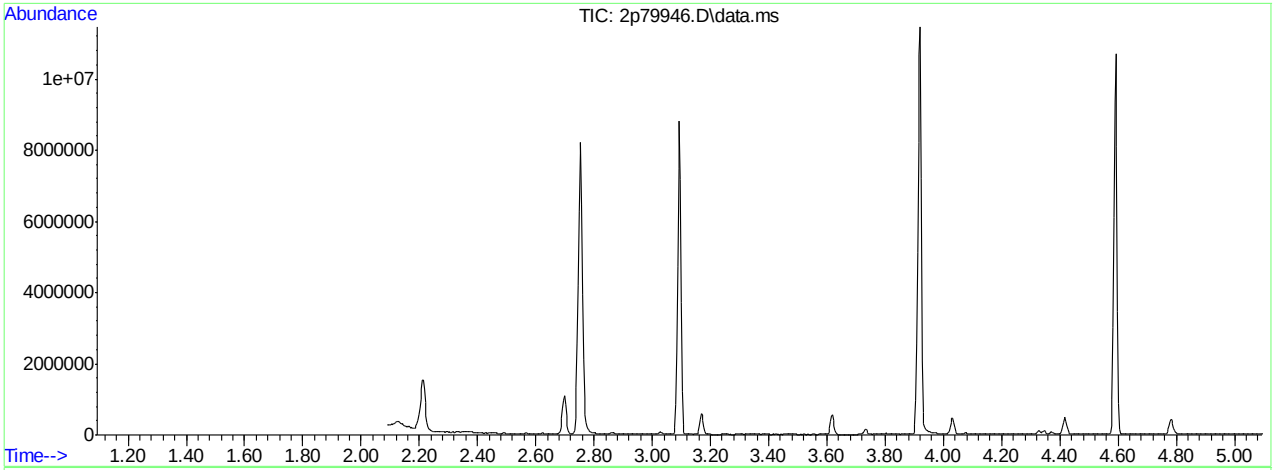
response 0

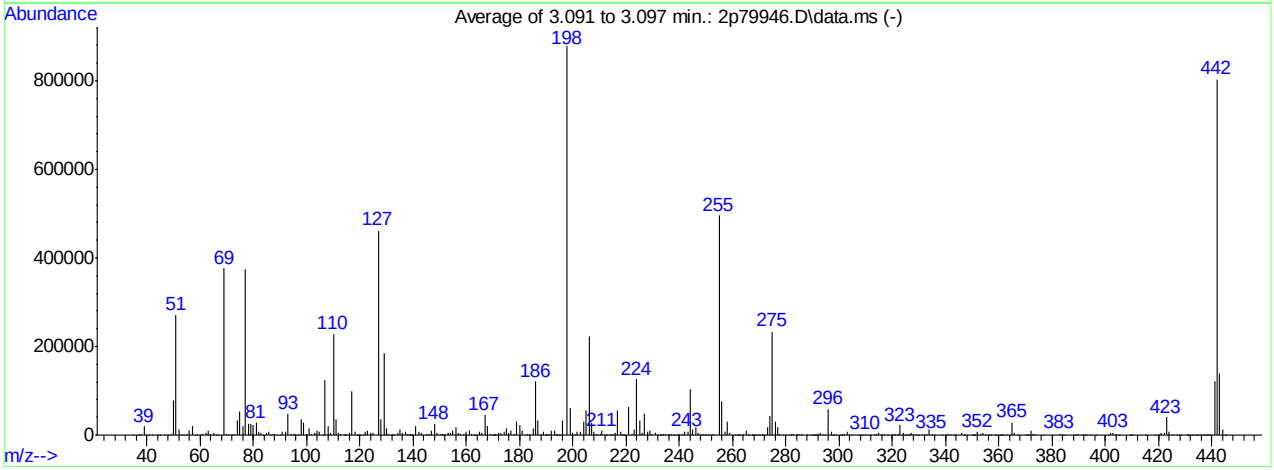
Ion	Exp%	Act%
235.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3526\2p79946.D Vial: 1
Acq On : 1 Jun 2018 12:06 am Operator: chriss2
Sample : DFTPP Inst : MS2P
Misc : op10929,e2p3526,1000,,,1,1 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (ChemStation Integrator)
Title :





AutoFind: Scans 323, 324, 325; Background Corrected with Scan 315

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.0	272128	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.0	377109	PASS
70	69	0.00	2	0.7	2463	PASS
127	198	40	60	52.5	460992	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	877504	PASS
199	198	5	9	6.9	60173	PASS
275	198	10	30	26.7	233963	PASS
365	198	1	100	3.2	28083	PASS
441	443	0.01	100	87.3	121080	PASS
442	198	40	100	91.5	802709	PASS
443	442	17	23	17.3	138749	PASS

2p79946.D DFTPP2P.M Fri Jun 01 09:37:42 2018 RPT1

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.00	78	49.05	2057	59.90	188	72.00	237
36.85	613	50.00	77821	60.95	3730	72.90	2510
37.95	3166	51.00	272128	62.00	4445	74.00	33744
38.95	19189	52.00	13616	63.00	10752	75.00	54381
39.90	137	53.00	559	64.05	1535	76.05	20531
40.90	414	53.80	78	65.00	6126	77.00	374736
41.90	53	54.90	1884	65.80	162	78.05	26581
43.95	238	55.90	9085	67.00	142	78.95	25037
44.90	203	56.95	20418	69.00	377109	80.00	21928
46.70	92	57.90	928	69.95	2463	80.95	27604
48.00	164	58.90	416	70.70	151	81.90	6513

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.95	5859	94.00	3172	104.00	10171	114.50	129
83.85	748	94.90	435	104.90	8323	114.85	477
85.00	4935	95.10	236	106.05	1140	116.00	4320
85.95	8037	96.05	2598	107.00	125301	117.00	98845
86.95	3203	96.90	151	108.00	20627	118.00	7465
87.85	1519	97.95	36369	108.95	4547	118.90	1246
88.85	948	99.00	28245	110.00	227883	119.20	378
90.00	68	99.95	1839	111.00	35123	119.90	451
90.95	6942	100.95	15458	111.95	4811	120.05	1128
92.00	6987	101.95	1376	112.90	1512	121.05	360
93.00	47203	102.95	5839	114.15	358	121.95	7669

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
123.00	11430	133.05	1026	142.05	8549	151.30	1154
123.95	5721	134.00	4728	142.95	4256	151.65	1353
125.00	4720	135.00	12202	143.95	1176	152.00	904
127.00	460992	135.95	4999	145.00	1643	152.95	5699
128.00	35294	137.00	7692	145.95	3782	153.95	4694
129.00	184021	137.90	1748	147.00	10061	155.00	11388
129.95	15434	138.50	312	147.95	24816	156.00	18120
130.95	2369	139.00	150	148.90	4772	157.05	4380
131.85	624	139.20	230	150.00	1386	157.90	3322
132.15	1021	139.85	2042	150.95	1923	158.95	2572
132.60	308	140.95	20800	151.10	833	159.95	7692

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.95	10049	170.20	421	180.00	21749	189.90	1304
161.95	2975	170.90	1975	180.95	10836	190.20	226
162.95	1026	171.30	401	182.05	1250	190.95	3465
163.40	212	171.95	4090	182.90	1649	191.95	10646
164.00	530	172.95	5205	184.05	2972	192.95	10082
164.90	6611	174.00	8412	185.05	15453	193.90	1810
165.95	5982	175.00	16381	186.00	120320	194.10	925
167.00	45424	175.90	5832	187.00	33728	194.90	797
168.00	21323	176.90	9460	188.00	3460	195.10	1033
169.00	3416	177.90	2100	189.00	7585	196.00	33501
169.90	1228	178.95	31216	189.60	192	197.90	877504

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
198.95	60173	209.00	792	217.95	7902	227.00	49437
199.95	5215	210.30	1631	218.60	324	227.95	6707
200.70	665	210.95	9498	218.90	282	228.95	10922
201.50	6889	211.60	968	219.30	475	229.95	1688

202.95	6523	212.70	341	219.60	269	230.95	4740
204.00	30720	212.95	447	221.00	64323	231.90	843
205.00	55165	213.80	200	222.00	2618	232.70	410
206.00	222656	214.30	88	223.05	13731	232.95	1153
207.05	27792	215.00	2324	224.00	125853	233.85	2653
208.00	6991	215.95	5581	225.00	31976	234.95	3327
208.80	1685	216.90	56056	226.00	4218	235.90	2679

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
236.95	3574	246.90	4098	256.00	76488	263.90	290
237.75	313	247.85	382	256.95	6515	264.95	10749
238.00	79	248.10	235	258.00	29461	265.90	1913
239.05	1031	248.95	3545	259.00	4921	267.10	52
239.95	1975	249.70	605	259.80	963	267.50	76
240.95	2592	249.90	359	260.85	1046	267.70	266
241.95	6467	250.85	736	261.60	104	268.00	175
243.05	7863	251.70	596	262.10	95	268.60	64
244.00	104115	251.95	482	262.30	186	268.90	141
245.00	13712	253.05	2974	262.90	326	269.70	328
246.00	16641	255.00	495381	263.70	128	270.00	352

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
270.95	1181	281.20	251	289.80	462	297.00	8129
271.40	174	281.80	112	290.50	61	297.70	403
272.20	682	282.00	215	290.90	197	298.00	174
273.00	17560	282.95	2755	291.20	261	298.95	268
274.00	43675	283.90	414	291.50	124	300.60	108
275.00	233963	284.15	1008	291.95	649	300.90	635
276.00	30120	285.00	2888	292.25	775	301.10	216
276.95	17386	285.80	320	293.00	4063	301.70	346
277.90	3378	285.95	593	293.95	872	301.95	1004
278.90	797	288.00	76	294.80	567	302.95	6871
280.00	101	289.00	981	296.00	59235	303.90	2052

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
304.80	157	316.05	3253	325.10	79	333.05	2327
307.50	118	316.90	1058	325.80	278	333.95	13059
307.85	493	318.00	95	326.10	143	335.00	3661
308.10	170	319.95	332	326.30	203	335.85	410
308.85	609	320.50	278	326.95	3912	338.85	308
309.85	646	320.95	1773	327.95	1977	339.90	310
311.20	123	321.85	884	328.80	256	340.95	2418
311.80	321	322.10	682	329.00	104	341.90	712
312.95	524	323.00	21989	330.10	52	343.10	143
313.95	3019	324.00	4277	331.20	100	343.80	57
314.95	6360	324.90	201	331.95	1307	345.90	4773

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
346.85	577	356.10	122	365.00	28083	376.70	274
347.10	369	356.80	63	365.90	4047	379.90	52
350.00	281	358.80	319	366.85	304	383.00	2836
350.20	55	359.20	70	369.95	705	383.70	246
350.65	201	359.80	59	370.50	248	383.90	735
351.00	165	360.10	56	370.95	1064	384.90	196
352.00	6710	360.60	75	371.20	681	388.65	158
352.95	3665	361.10	90	372.05	10604	389.00	59
354.10	5839	361.40	93	372.90	667	389.90	1446
355.00	1070	362.80	94	373.10	2211	390.95	1285
355.90	52	364.05	824	373.90	422	391.90	637

Average of 3.091 to 3.097 min.: 2p79946.D\data.ms

DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
392.10	125	409.70	64	425.00	833	435.00	135
393.00	132	410.10	305	426.95	152	435.60	79
394.60	54	414.90	273	427.65	148	436.00	652
396.70	147	418.80	85	428.65	139	436.80	160
400.95	627	419.50	57	430.45	210	437.10	283
401.95	4255	419.90	62	430.90	206	437.60	166
402.95	6300	420.05	243	431.40	72	438.00	518
403.95	1791	421.05	5437	432.15	244	438.60	428
404.80	382	422.05	5998	432.90	123	439.10	832
405.20	79	423.00	40219	433.40	83	439.60	347
409.20	65	424.00	8305	434.45	283	441.10	121080

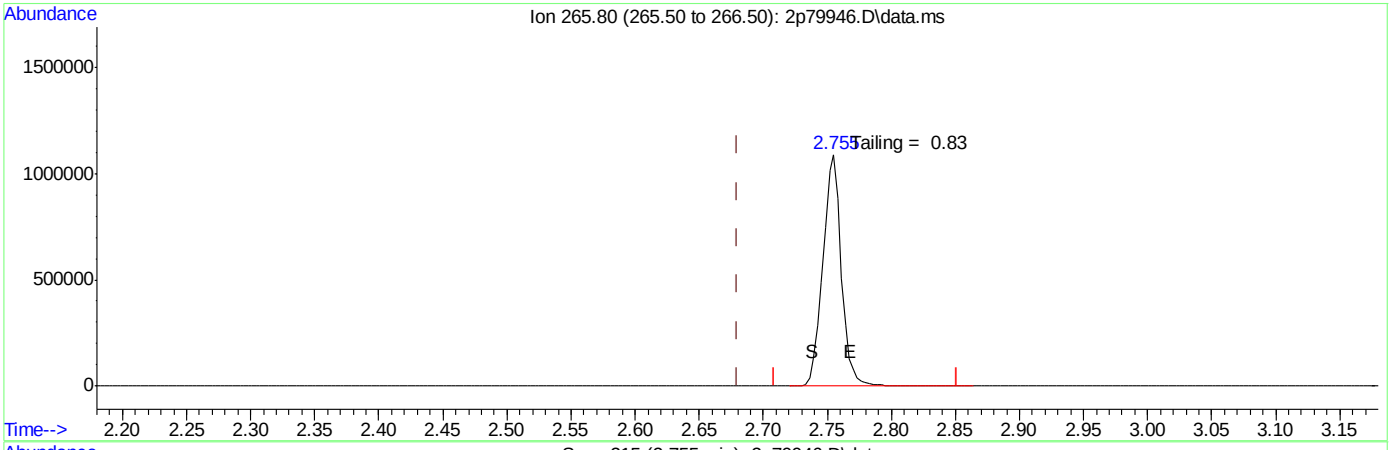
Average of 3.091 to 3.097 min.: 2p79946.D\data.ms
DFTPP
Modified:subtracted

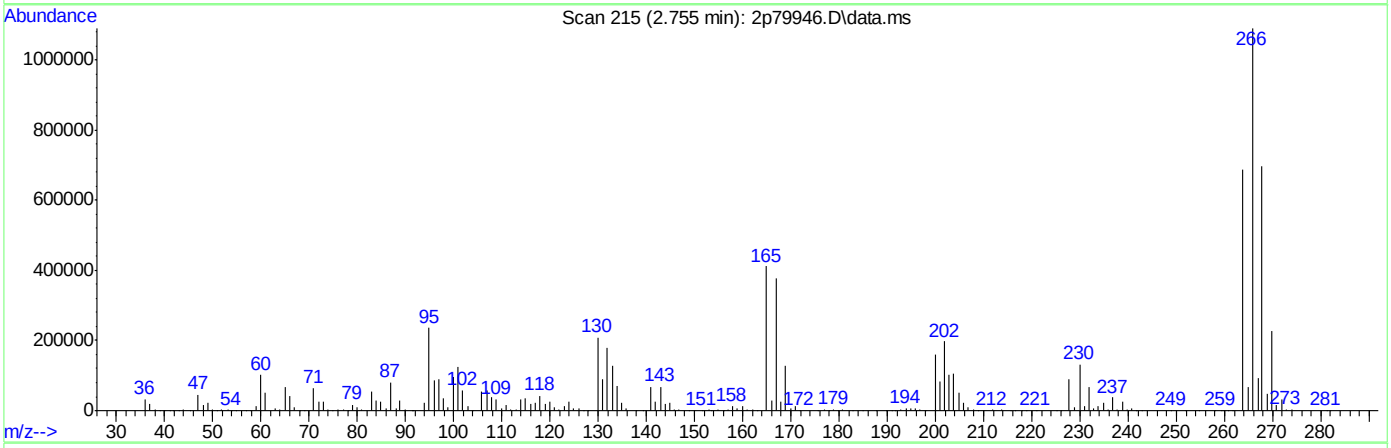
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
442.00	802709						
443.00	138749						
444.05	11563						
444.80	140						
445.20	383						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79946.D
Acq On : 1 Jun 2018 12:06 am
Operator : chriss2
Sample : DFTPP
Misc : op10929,e2p3526,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 01 00:10:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration





TIC: 2p79946.D\data.ms

(1) Pentacholorphenol

2.755min (+0.075) 0.00ppb m

response 10870525

Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79946.D
Acq On    :  1 Jun 2018  12:06 am
Operator  : chriss2
Sample    : DFTPP
Misc      : op10929,e2p3526,1000,,,1,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jun 01 00:10:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title  :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration
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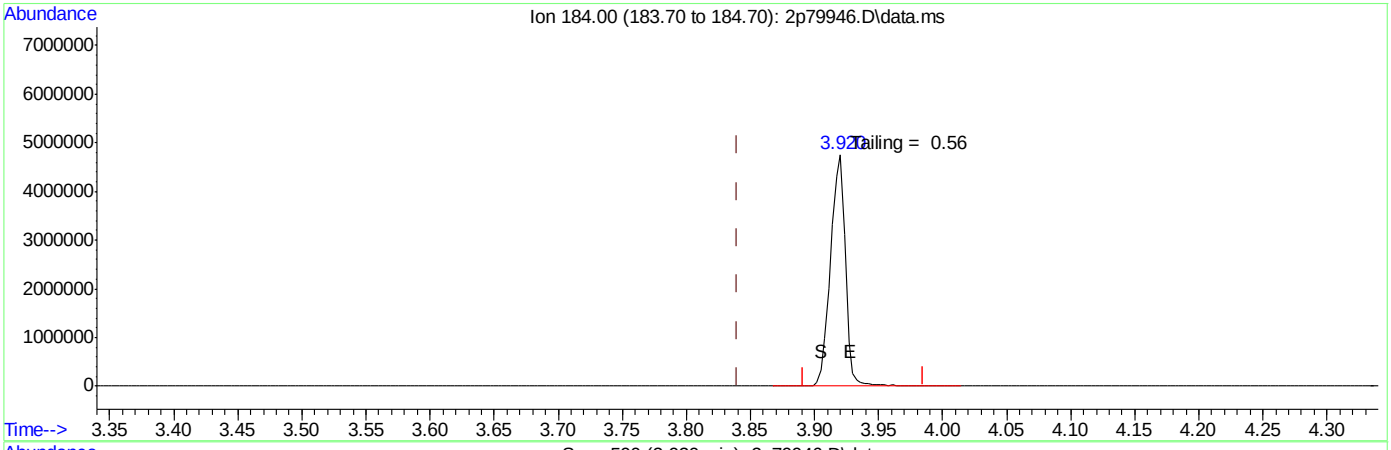
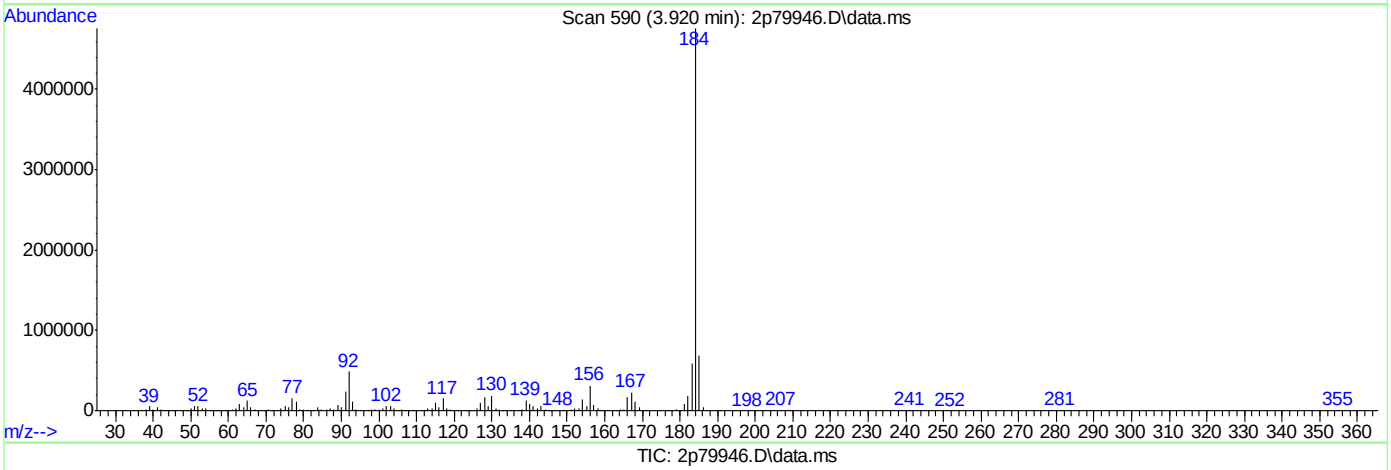




(2) Benzidine

3.920min (+0.080) 0.00ppb

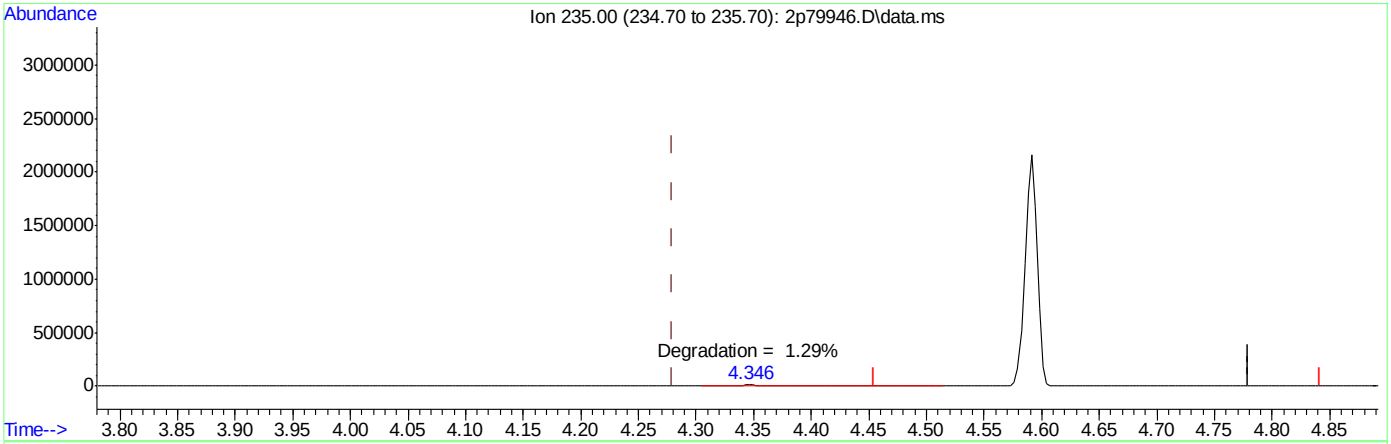
response 38324012

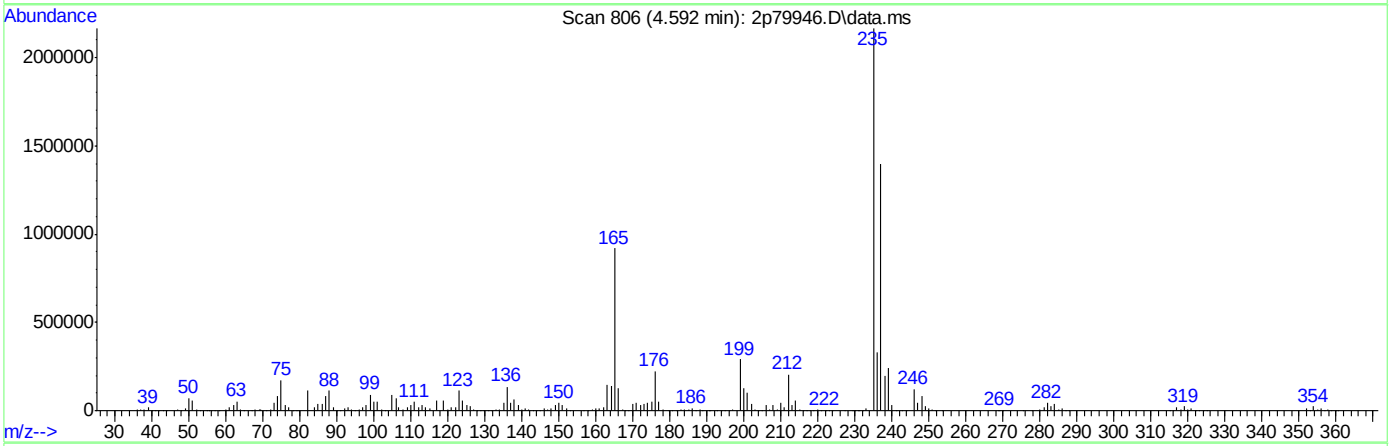
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79946.D
Acq On : 1 Jun 2018 12:06 am
Operator : chriss2
Sample : DFTPP
Misc : op10929,e2p3526,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 01 00:10:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Tue Jul 20 16:47:23 2010
Response via : Initial Calibration





TIC: 2p79946.D\data.ms

(3) PP-DDT

4.592min (+0.312) 0.00ppb m

response 15790370

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

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
06/01/18 14:59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79915.D
Acq On : 30 May 2018 3:53 am
Operator : chriss2
Sample : ic3523-100
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 30 11:51:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:50:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.898	152	947996	40.00	ppm	0.00
24) Naphthalene-d8	5.951	136	3237420	40.00	ppm	0.00
47) Acenaphthene-d10	7.401	164	1742171	40.00	ppm	0.00
69) Phenanthrene-d10	8.738	188	3211897	40.00	ppm	0.00
83) Chrysene-d12	12.113	240	2724452	40.00	ppm	0.01
91) Perylene-d12	14.124	264	2963606	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.898	152	947996	40.00	ppm	0.00
103) Naphthalene-d8a	5.951	136	3237420	40.00	ppm	0.00
105) Acenaphthene-d10a	7.401	164	1742171	40.00	ppm	0.00
108) Chrysene-d12a	12.113	240	2724452	40.00	ppm	0.01
110) Phenanthrene-d10a	8.738	188	3211897	40.00	ppm	0.00
114) Chrysene-d12b	12.113	240	2724452	40.00	ppm	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.801	112	4551628	95.20	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	190.40%#	
8) Phenol-d5	4.614	99	4820701	90.74	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery	=	181.48%#	
25) Nitrobenzene-d5	5.363	82	3142377	92.05	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery	=	184.10%#	
51) 2-Fluorobiphenyl	6.845	172	5187012	93.50	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery	=	187.00%#	
73) 2,4,6-Tribromophenol	8.075	330	1273868	113.24	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery	=	226.48%#	
85) Terphenyl-d14	10.642	244	7263045	98.63	ppm	0.01
Spiked Amount 50.000	Range 16 - 65		Recovery	=	197.26%#	
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	2.250	88	1755481	100.52	ppm	97
3) Pyridine	2.576	79	4024961	94.86	ppm	95
4) N-Nitrosodimethylamine	2.560	74	2541457	96.30	ppm	97
6) Indene	5.112	116	4638291	91.52	ppm	98
7) Cumene	4.229	105	8820905	84.49	ppm	93
9) Phenol	4.625	94	4171926	83.93	ppm	98
10) Aniline	4.620	93	3850356	92.36	ppm	77
11) bis(2-Chloroethyl)ether	4.684	93	2845181	91.73	ppm	97
12) 2-Chlorophenol	4.726	128	3269069	92.34	ppm	96
13) Decane	4.775	57	2337984	80.83	ppm	93
14) 1,3-Dichlorobenzene	4.850	146	3491438	95.22	ppm	98
15) 1,4-Dichlorobenzene	4.908	146	3205713	98.20	ppm	100
16) Benzyl alcohol	5.026	108	2063704	95.95	ppm	92
17) 1,2-Dichlorobenzene	5.037	146	2975577	93.47	ppm	99
18) Acetophenone	5.240	105	3916299	91.72	ppm #	61
19) 2-Methylphenol	5.117	108	2253215	89.46	ppm	97
20) 2,2'-oxybis(1-Chloropr...	5.128	121	744541	94.83	ppm #	72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79915.D
Acq On : 30 May 2018 3:53 am
Operator : chriss2
Sample : ic3523-100
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 30 11:51:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:50:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.251	108	2387958	87.26	ppm		97
22) n-Nitroso-di-n-propyla...	5.256	70	1520601	87.96	ppm		99
23) Hexachloroethane	5.315	201	1192865	96.83	ppm		98
26) Nitrobenzene	5.379	77	2692887	89.00	ppm		100
27) Quinoline	6.278	129	6291495	97.44	ppm		100
28) Isophorone	5.582	82	5885638	95.23	ppm		97
29) 2-Nitrophenol	5.641	139	1751241	93.75	ppm		90
30) 2,4-Dimethylphenol	5.684	107	2507453	95.90	ppm		94
31) Benzoic acid	5.855	105	2510398	94.82	ppm		99
32) bis(2-Chloroethoxy)met...	5.753	93	2986394	92.36	ppm		99
33) 2,4-Dichlorophenol	5.844	162	2389641	96.84	ppm		93
34) 2,6-Dichlorophenol	6.026	162	2173779	100.13	ppm		98
35) 1,3,5-Trichlorobenzene	5.652	180	2751778	94.68	ppm		98
36) 1,2,4-Trichlorobenzene	5.903	180	2657900	96.55	ppm		98
37) 1,2,3-Trichlorobenzene	6.090	180	2311723	97.35	ppm		99
38) Naphthalene	5.973	128	6876166	90.47	ppm		95
39) 4-Chloroaniline	6.021	127	3317523	94.98	ppm		99
40) 2,3-Dichloroaniline	6.770	161	3039349	96.05	ppm		95
41) Caprolactam	6.358	113	1137933m	106.93	ppm		
42) Hexachlorobutadiene	6.080	225	1484513	98.62	ppm		99
43) 4-Chloro-3-methylphenol	6.433	107	2617032	92.39	ppm	#	47
44) 2-Methylnaphthalene	6.540	141	4676246	90.20	ppm		98
45) 1-Methylnaphthalene	6.625	141	4662437	92.76	ppm		95
46) Dimethylnaphthalene	7.059	156	4448426	91.83	ppm		99
48) Hexachlorocyclopentadiene	6.673	237	3187275	200.53	ppm		99
49) 2,4,6-Trichlorophenol	6.780	196	1707713	98.50	ppm		98
50) 2,4,5-Trichlorophenol	6.818	196	1774855	103.39	ppm		99
52) 2-Chloronaphthalene	6.946	162	4302230	98.24	ppm		94
53) Biphenyl	6.925	154	6274649	92.61	ppm		96
54) 2-Nitroaniline	7.032	65	1601272	96.49	ppm		90
55) Dimethylphthalate	7.182	163	5685010	97.66	ppm		99
56) Acenaphthylene	7.283	152	7129142	89.47	ppm		91
57) 2,6-Dinitrotoluene	7.230	165	1382030	99.94	ppm		91
58) 3-Nitroaniline	7.374	138	1661364	99.79	ppm		96
59) Acenaphthene	7.428	153	4782824	98.18	ppm		98
60) 2,4-Dinitrophenol	7.460	184	1595044	223.30	ppm		92
61) 4-Nitrophenol	7.519	109	978707	101.53	ppm		96
62) Dibenzofuran	7.572	168	6290399	98.27	ppm		96
63) 2,4-Dinitrotoluene	7.567	165	1842133	98.61	ppm		95
64) 2,3,4,6-Tetrachlorophenol	7.679	232	1829637	108.72	ppm		91
65) Diethylphthalate	7.770	149	5725398	94.84	ppm		96
66) Fluorene	7.861	166	5186355	92.07	ppm		100
67) 4-Chlorophenyl-phenyle...	7.855	204	2800873	94.11	ppm		97
68) 4-Nitroaniline	7.909	138	1472056	105.55	ppm		93
70) 4,6-Dinitro-2-methylph...	7.920	198	1063532	104.22	ppm	#	67
71) n-Nitrosodiphenylamine	7.968	169	4085057	96.90	ppm		99
72) 1,2-Diphenylhydrazine	8.000	77	4703613	83.17	ppm		83
74) 4-Bromophenyl-phenylether	8.299	248	2141232	103.46	ppm		97
75) Hexachlorobenzene	8.369	284	2267033	100.23	ppm		96
76) Pentachlorophenol	8.561	266	3157996	195.81	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79915.D
Acq On : 30 May 2018 3:53 am
Operator : chriss2
Sample : ic3523-100
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 30 11:51:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:50:05 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	8.770	178	7435167	96.62	ppm	97
78)	Anthracene	8.824	178	7379486	94.37	ppm	98
79)	Carbazole	8.989	167	7960186	94.28	ppm	99
80)	Di-n-butylphthalate	9.380	149	10731595	85.63	ppm	92
81)	Fluoranthene	10.129	202	10877779	92.91	ppm	98
82)	Octadecane	8.636	43	1650613	76.74	ppm	92
84)	Pyrene	10.417	202	10097002	94.92	ppm	97
86)	Butylbenzylphthalate	11.348	149	5634326	94.58	ppm	92
87)	Benzo[a]anthracene	12.086	228	9648577	99.16	ppm	98
88)	3,3'-Dichlorobenzidine	12.092	252	3820220	91.18	ppm	99
89)	Chrysene	12.156	228	7563128	102.36	ppm	98
90)	bis(2-Ethylhexyl)phtha...	12.231	149	5777687	95.16	ppm	95
92)	Di-n-octylphthalate	13.183	149	12104348	88.83	ppm	98
93)	Benzo[b]fluoranthene	13.648	252	10219274	98.69	ppm	95
94)	Benzo[k]fluoranthene	13.680	252	6420449	85.91	ppm	95
95)	Benzo[a]pyrene	14.060	252	8332451	97.02	ppm	97
96)	Indeno[1,2,3-cd]pyrene	15.664	276	8786413m	107.26	ppm	
97)	Dibenz(a,h)acridine	15.306	279	7495995	103.32	ppm	99
98)	Dibenz[a,h]anthracene	15.713	278	7767848	104.15	ppm	99
99)	7,12-Dimethylbenz(a)an...	13.627	256	4538910	100.62	ppm	98
100)	Benzo[g,h,i]perylene	16.108	276	7564543	100.46	ppm	100

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

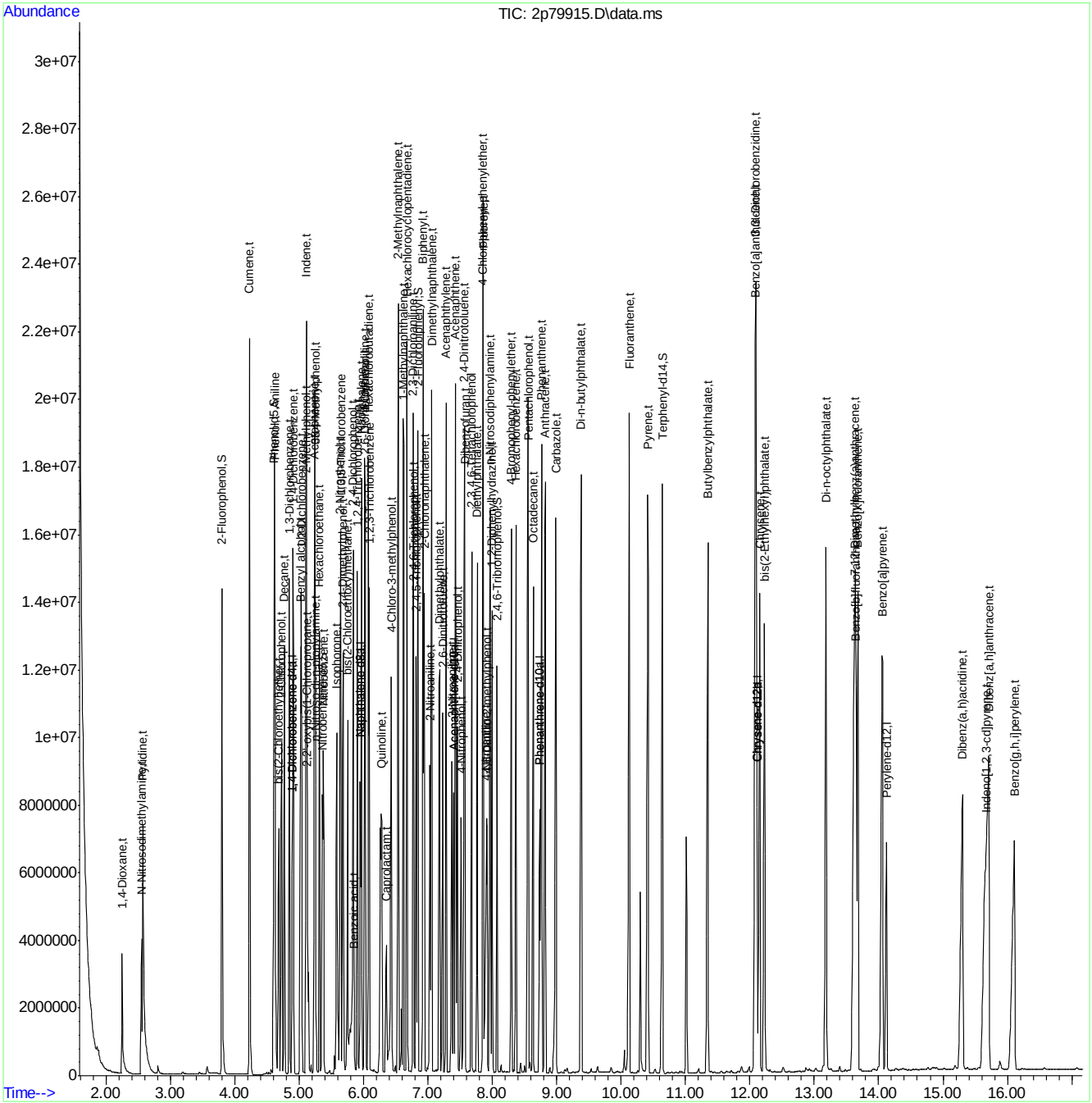
9.6.1

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79915.D
Acq On : 30 May 2018 3:53 am
Operator : chriss2
Sample : ic3523-100
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 30 11:51:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:50:05 2018
Response via : Initial Calibration



Manual Integration Approval Summary

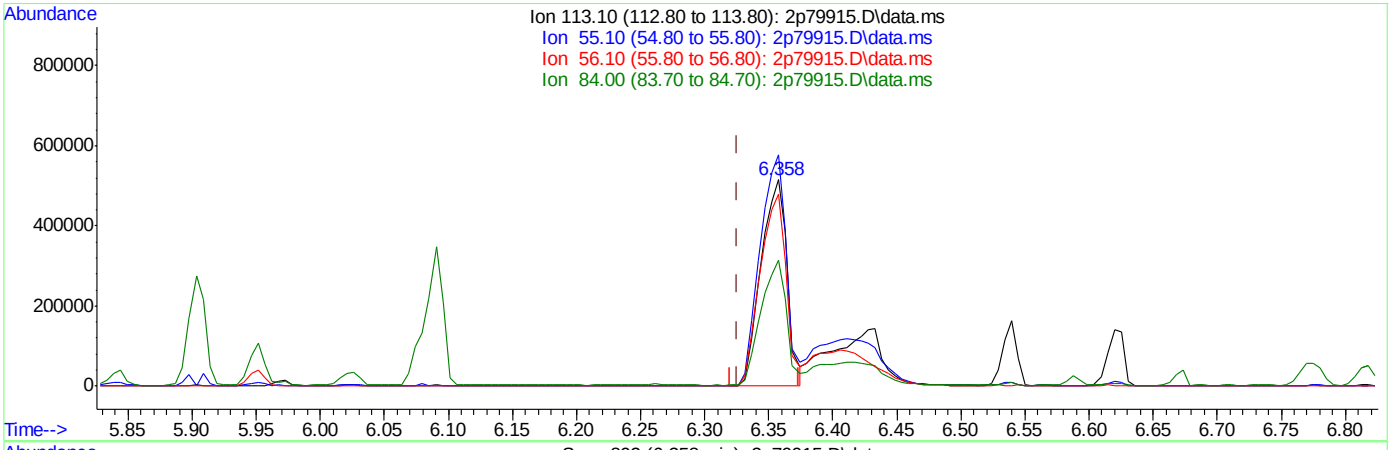
Sample Number:	E2P3523-IC3523	**Method:**	SW846 8270D
Lab FileID:	2P79915.D	**Analyst approved:**	05/31/18 15:34 Sean Block
Injection Time:	05/30/18 03:53	**Supervisor approved:**	06/01/18 14:59 Nina Pandya

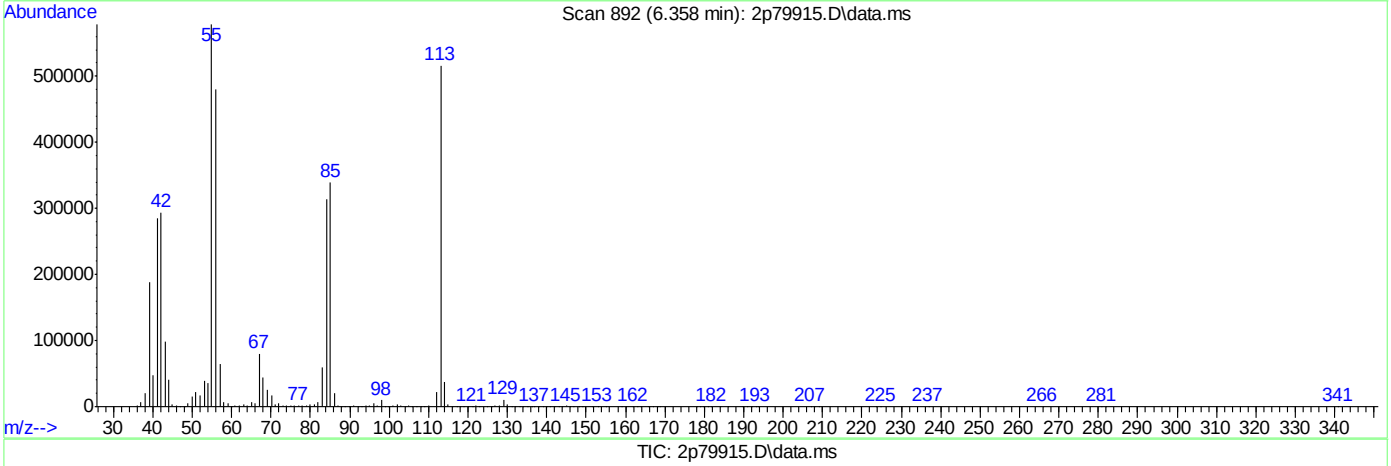
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.36	Split peak
Indeno(1,2,3-cd)pyrene	193-39-5		15.66	Split peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79915.D
Acq On    : 30 May 2018   3:53 am
Operator  : chriss2
Sample    : ic3523-100
Misc      : op10929,e2p3523,1000,,,1,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: May 30 11:50:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title  : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:50:05 2018
Response via : Initial Calibration
```





TIC: 2p79915.D\data.ms

(41) Caprolactam (t)

6.358min (+0.032) 68.63ppm

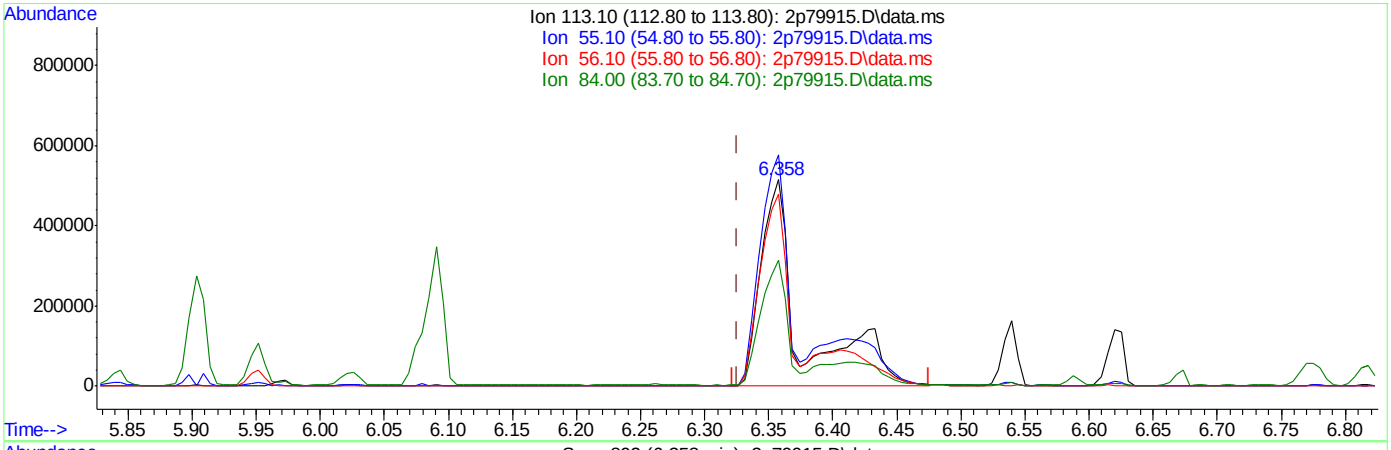
response 730425

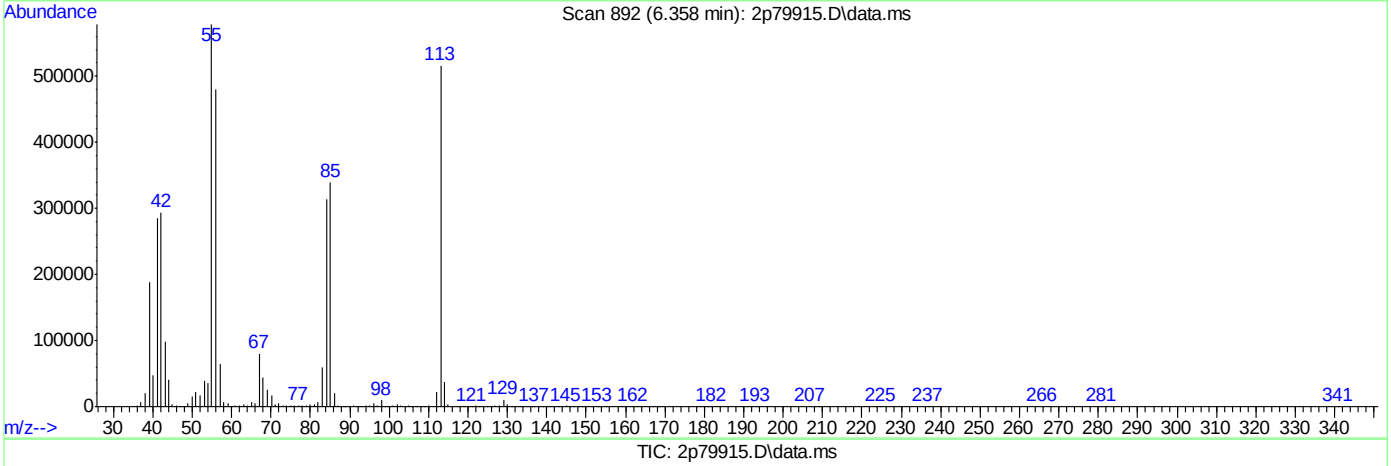
Ion	Exp%	Act%
113.10	100	100
55.10	114.90	111.52
56.10	91.20	92.72
84.00	60.50	60.23

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79915.D
Acq On    : 30 May 2018   3:53 am
Operator  : chriss2
Sample    : ic3523-100
Misc      : op10929,e2p3523,1000,,,1,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: May 30 11:50:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title  : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:50:05 2018
Response via : Initial Calibration
```





TIC: 2p79915.D\data.ms

(41) Caprolactam (t)

6.358min (+0.032) 106.93ppm m

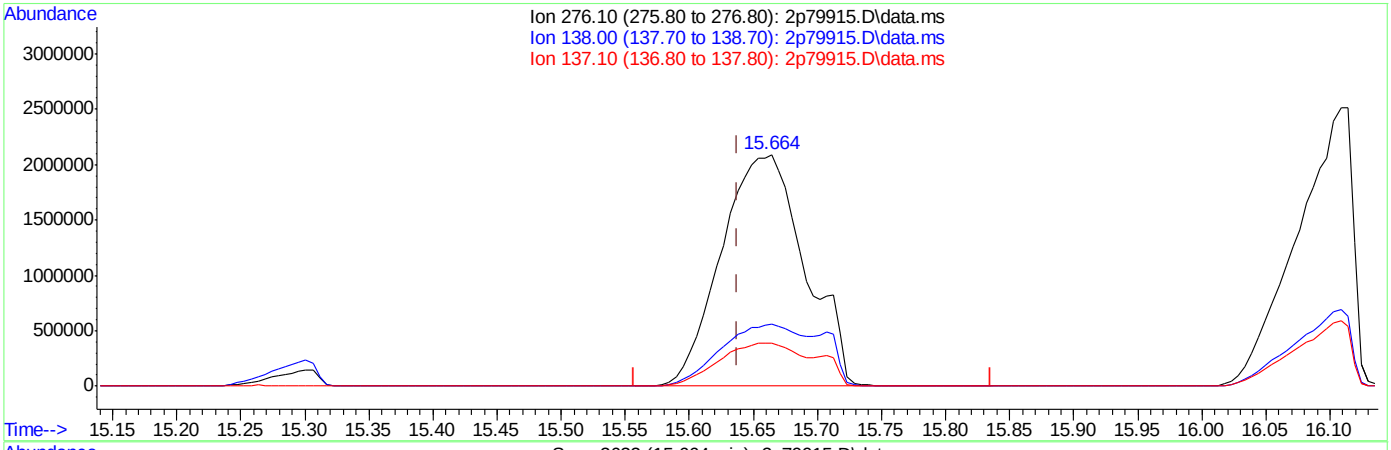
response 1137933

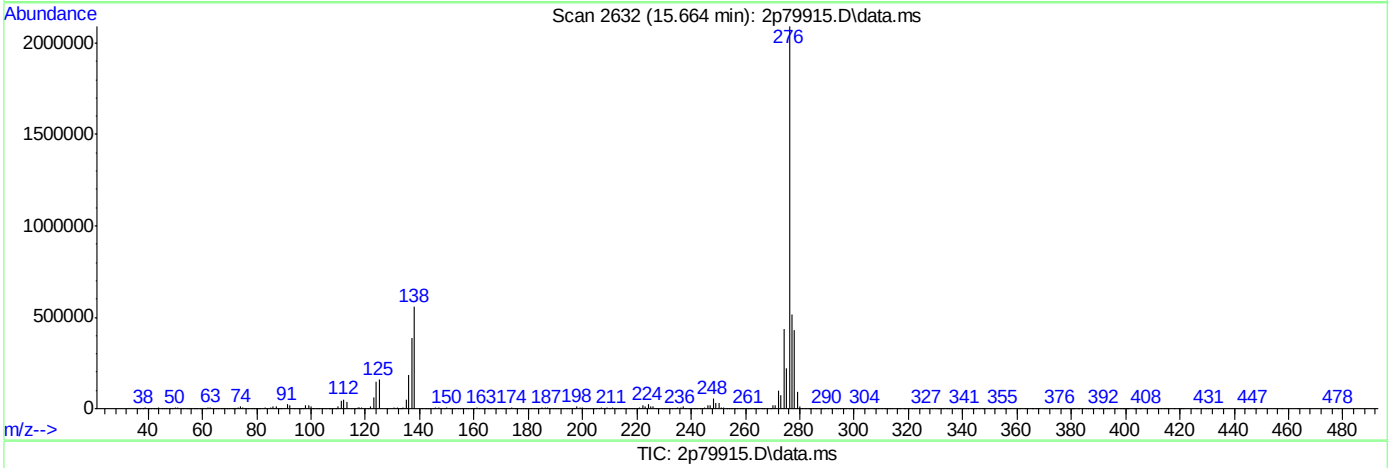
Ion	Exp%	Act%
113.10	100	100
55.10	114.90	112.11
56.10	91.20	92.93
84.00	60.50	60.76

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79915.D
Acq On : 30 May 2018 3:53 am
Operator : chriss2
Sample : ic3523-100
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 30 11:50:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:50:05 2018
Response via : Initial Calibration





TIC: 2p79915.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.664min (+0.027) 116.27ppm

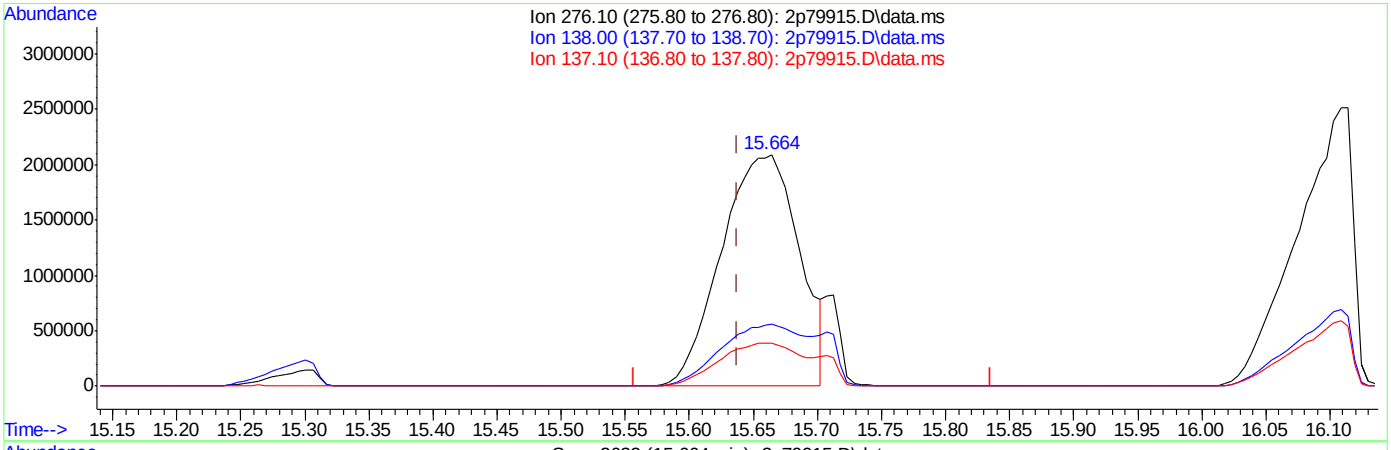
response 9524645

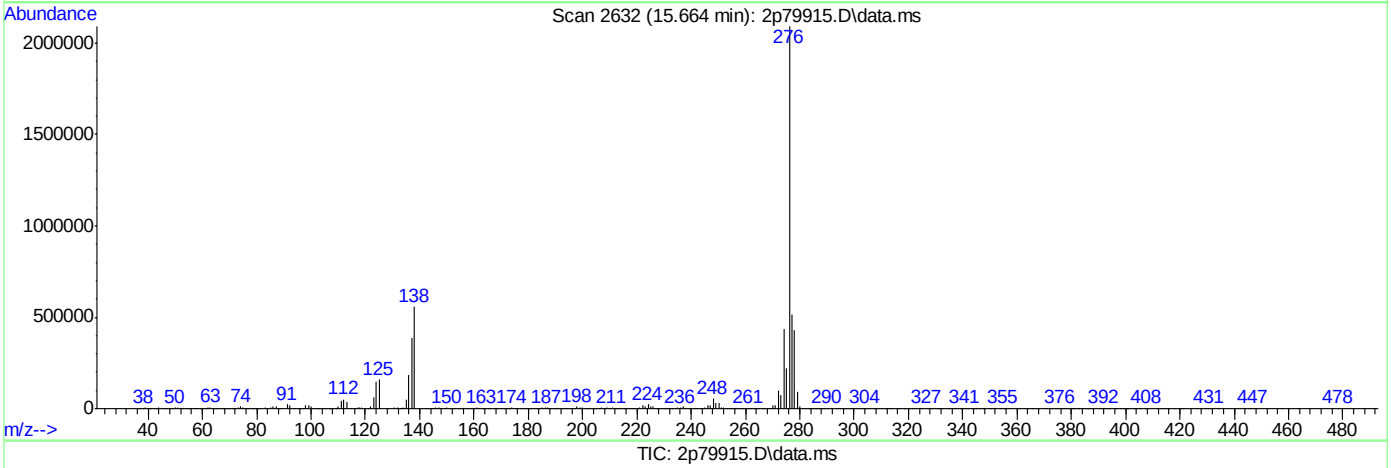
Ion	Exp%	Act%
276.10	100	100
138.00	21.80	26.59
137.10	17.00	18.39
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79915.D
Acq On : 30 May 2018 3:53 am
Operator : chriss2
Sample : ic3523-100
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 30 11:50:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:50:05 2018
Response via : Initial Calibration





TIC: 2p79915.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.664min (+0.027) 107.26ppm m

response 8786413

Ion	Exp%	Act%
276.10	100	100
138.00	21.80	26.61
137.10	17.00	18.41
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
06/01/18 14:59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79916.D
Acq On : 30 May 2018 4:16 am
Operator : chriss2
Sample : ic3523-80
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 30 11:52:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:51:46 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	964045	40.00	ppm	0.00
24) Naphthalene-d8	5.951	136	3317605	40.00	ppm	0.00
47) Acenaphthene-d10	7.395	164	1804972	40.00	ppm	0.00
69) Phenanthrene-d10	8.738	188	3281884	40.00	ppm	0.00
83) Chrysene-d12	12.108	240	2739537	40.00	ppm	0.00
91) Perylene-d12	14.119	264	2983801	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	964045	40.00	ppm	0.00
103) Naphthalene-d8a	5.951	136	3317605	40.00	ppm	0.00
105) Acenaphthene-d10a	7.395	164	1804972	40.00	ppm	0.00
108) Chrysene-d12a	12.108	240	2739537	40.00	ppm	0.00
110) Phenanthrene-d10a	8.738	188	3281884	40.00	ppm	0.00
114) Chrysene-d12b	12.108	240	2739537	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.801	112	3803630	80.15	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 160.30%#			
8) Phenol-d5	4.609	99	4110616	79.78	ppm	0.01
Spiked Amount 50.000	Range 10 - 59		Recovery = 159.56%#			
25) Nitrobenzene-d5	5.358	82	2641172	78.62	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery = 157.24%#			
51) 2-Fluorobiphenyl	6.839	172	4474690	80.47	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery = 160.94%#			
73) 2,4,6-Tribromophenol	8.075	330	988242	80.64	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery = 161.28%#			
85) Terphenyl-d14	10.637	244	6133806	83.41	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery = 166.82%#			
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	2.245	88	1429030	80.25	ppm	98
3) Pyridine	2.571	79	3374613	80.27	ppm	96
4) N-Nitrosodimethylamine	2.550	74	2117969	80.41	ppm	98
6) Indene	5.112	116	3977997	80.60	ppm	98
7) Cumene	4.229	105	7859930	80.26	ppm	98
9) Phenol	4.620	94	3682675	79.22	ppm	95
10) Aniline	4.620	93	3284309	80.55	ppm	57
11) bis(2-Chloroethyl)ether	4.684	93	2411104	79.74	ppm	97
12) 2-Chlorophenol	4.726	128	2758120	79.66	ppm	96
13) Decane	4.775	57	2106031	79.19	ppm	95
14) 1,3-Dichlorobenzene	4.849	146	2881209	79.16	ppm	98
15) 1,4-Dichlorobenzene	4.908	146	2655384	80.71	ppm	100
16) Benzyl alcohol	5.021	108	1708331	79.72	ppm	98
17) 1,2-Dichlorobenzene	5.037	146	2474846	79.03	ppm	99
18) Acetophenone	5.235	105	3318892	79.74	ppm	95
19) 2-Methylphenol	5.117	108	1939546	79.93	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.128	121	619164	79.61	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79916.D
Acq On : 30 May 2018 4:16 am
Operator : chriss2
Sample : ic3523-80
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 30 11:52:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:51:46 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	5.245	108	2071058	79.48	ppm	98
22) n-Nitroso-di-n-propyla...	5.251	70	1303977	78.92	ppm	99
23) Hexachloroethane	5.315	201	1008306	81.78	ppm	98
26) Nitrobenzene	5.379	77	2299724	78.49	ppm	97
27) Quinoline	6.272	129	5201626	79.63	ppm	99
28) Isophorone	5.577	82	4922616	79.62	ppm	100
29) 2-Nitrophenol	5.641	139	1484954	80.08	ppm	86
30) 2,4-Dimethylphenol	5.679	107	2093354	79.76	ppm	97
31) Benzoic acid	5.839	105	2067939	78.24	ppm	91
32) bis(2-Chloroethoxy)met...	5.753	93	2529519	79.37	ppm	100
33) 2,4-Dichlorophenol	5.839	162	1955013	78.55	ppm	97
34) 2,6-Dichlorophenol	6.026	162	1799583	80.84	ppm	98
35) 1,3,5-Trichlorobenzene	5.646	180	2337137	80.61	ppm	99
36) 1,2,4-Trichlorobenzene	5.903	180	2224769	80.25	ppm	100
37) 1,2,3-Trichlorobenzene	6.090	180	1888750	78.66	ppm	99
38) Naphthalene	5.967	128	6013149	81.07	ppm	98
39) 4-Chloroaniline	6.021	127	2798004	80.18	ppm	97
40) 2,3-Dichloroaniline	6.770	161	2519185	79.25	ppm	95
41) Caprolactam	6.342	113	945085m	83.76	ppm	
42) Hexachlorobutadiene	6.074	225	1242529	81.11	ppm	99
43) 4-Chloro-3-methylphenol	6.427	107	2193620	78.56	ppm	99
44) 2-Methylnaphthalene	6.540	141	4040350	79.97	ppm	99
45) 1-Methylnaphthalene	6.620	141	3961718	79.80	ppm	97
46) Dimethylnaphthalene	7.053	156	3798990	79.79	ppm	99
48) Hexachlorocyclopentadiene	6.673	237	2623977	159.13	ppm	100
49) 2,4,6-Trichlorophenol	6.775	196	1421234	79.72	ppm	99
50) 2,4,5-Trichlorophenol	6.812	196	1431758	79.16	ppm	98
52) 2-Chloronaphthalene	6.941	162	3538269	78.68	ppm	97
53) Biphenyl	6.925	154	5322038	78.73	ppm	96
54) 2-Nitroaniline	7.032	65	1331729	78.84	ppm	80
55) Dimethylphthalate	7.176	163	4770084	80.03	ppm	99
56) Acenaphthylene	7.283	152	6336158	81.02	ppm	98
57) 2,6-Dinitrotoluene	7.230	165	1150321	80.31	ppm	82
58) 3-Nitroaniline	7.369	138	1367921	79.39	ppm	99
59) Acenaphthene	7.428	153	3952141	79.03	ppm	99
60) 2,4-Dinitrophenol	7.454	184	1268668	161.99	ppm	88
61) 4-Nitrophenol	7.513	109	806000	80.09	ppm	95
62) Dibenzofuran	7.572	168	5297344	80.57	ppm	97
63) 2,4-Dinitrotoluene	7.561	165	1541162	80.19	ppm	97
64) 2,3,4,6-Tetrachlorophenol	7.674	232	1460197	80.25	ppm	94
65) Diethylphthalate	7.765	149	4840498	79.44	ppm	98
66) Fluorene	7.861	166	4447268	79.35	ppm	99
67) 4-Chlorophenyl-phenyle...	7.855	204	2393701	79.99	ppm	95
68) 4-Nitroaniline	7.898	138	1168705	78.70	ppm	97
70) 4,6-Dinitro-2-methylph...	7.914	198	858972	80.68	ppm	94
71) n-Nitrosodiphenylamine	7.962	169	3391160	79.97	ppm	99
72) 1,2-Diphenylhydrazine	7.994	77	4155011	78.51	ppm	92
74) 4-Bromophenyl-phenylether	8.294	248	1726630	80.26	ppm	97
75) Hexachlorobenzene	8.369	284	1860194	80.40	ppm	95
76) Pentachlorophenol	8.556	266	2620461	160.70	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79916.D
Acq On : 30 May 2018 4:16 am
Operator : chriss2
Sample : ic3523-80
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 30 11:52:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:51:46 2018
Response via : Initial Calibration

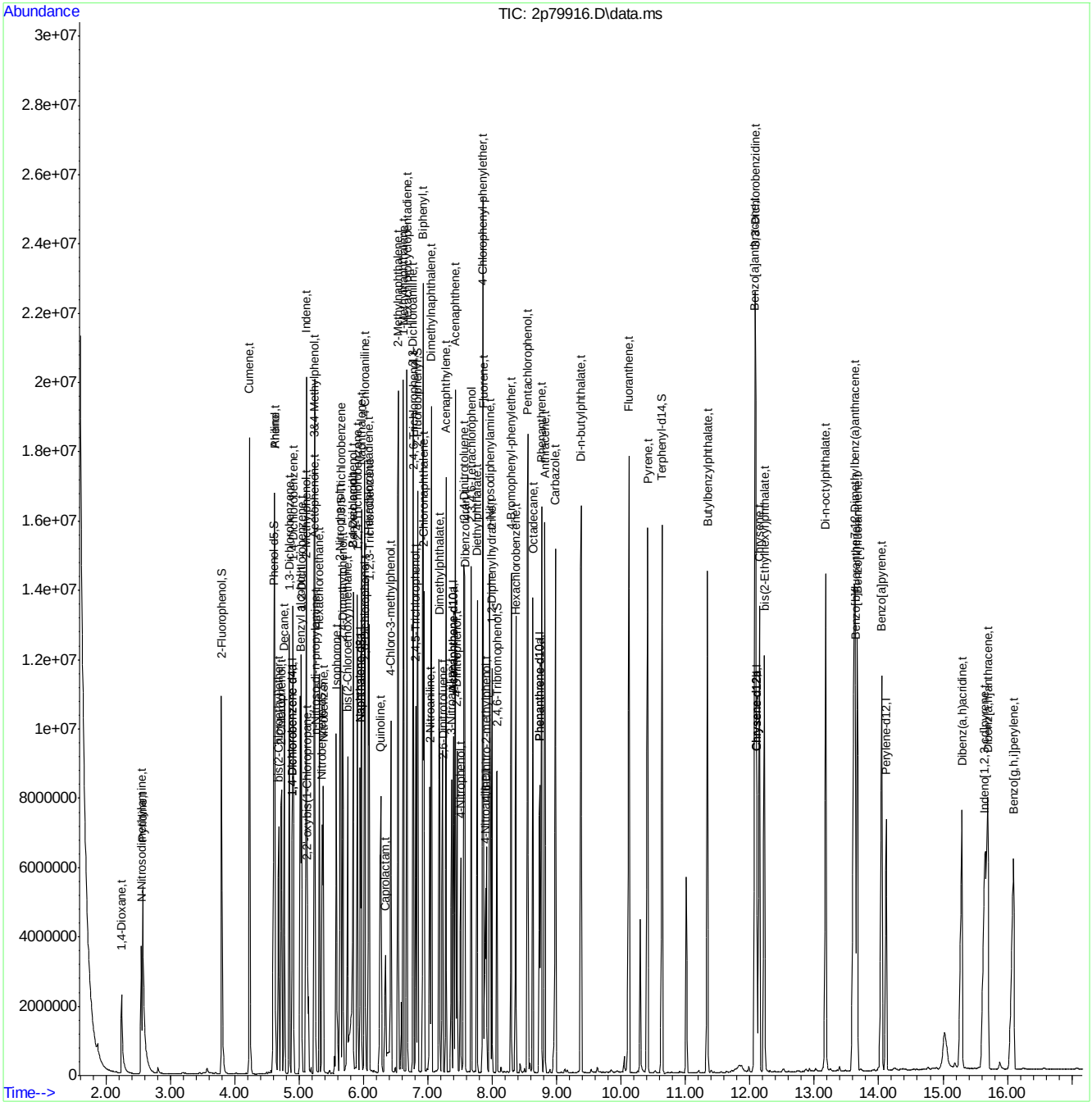
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	8.765	178	6238442	80.70	ppm	99
78)	Anthracene	8.818	178	6226633	80.19	ppm	98
79)	Carbazole	8.984	167	6723766	80.23	ppm	99
80)	Di-n-butylphthalate	9.380	149	9237463	77.72	ppm	95
81)	Fluoranthene	10.123	202	9274739	80.38	ppm	98
82)	Octadecane	8.631	43	1504234	77.45	ppm	96
84)	Pyrene	10.412	202	8518492	81.72	ppm	99
86)	Butylbenzylphthalate	11.343	149	4827695	82.84	ppm	95
87)	Benzo[a]anthracene	12.081	228	8059213	82.72	ppm	99
88)	3,3'-Dichlorobenzidine	12.086	252	3338531	82.90	ppm	99
89)	Chrysene	12.150	228	6213548	82.66	ppm	98
90)	bis(2-Ethylhexyl)phtha...	12.225	149	4877480	81.87	ppm	99
92)	Di-n-octylphthalate	13.177	149	10385132	80.17	ppm	99
93)	Benzo[b]fluoranthene	13.637	252	8218005	79.35	ppm	97
94)	Benzo[k]fluoranthene	13.669	252	5731776	81.95	ppm	97
95)	Benzo[a]pyrene	14.049	252	6889806	80.88	ppm	100
96)	Indeno[1,2,3-cd]pyrene	15.648	276	6847962	80.12	ppm	98
97)	Dibenz(a,h)acridine	15.295	279	6013598	80.98	ppm	99
98)	Dibenz[a,h]anthracene	15.697	278	6147104	80.20	ppm	99
99)	7,12-Dimethylbenz(a)an...	13.627	256	3726102	81.79	ppm	99
100)	Benzo[g,h,i]perylene	16.098	276	6119012	80.53	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79916.D
Acq On : 30 May 2018 4:16 am
Operator : chriss2
Sample : ic3523-80
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 30 11:52:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:51:46 2018
Response via : Initial Calibration



Manual Integration Approval Summary

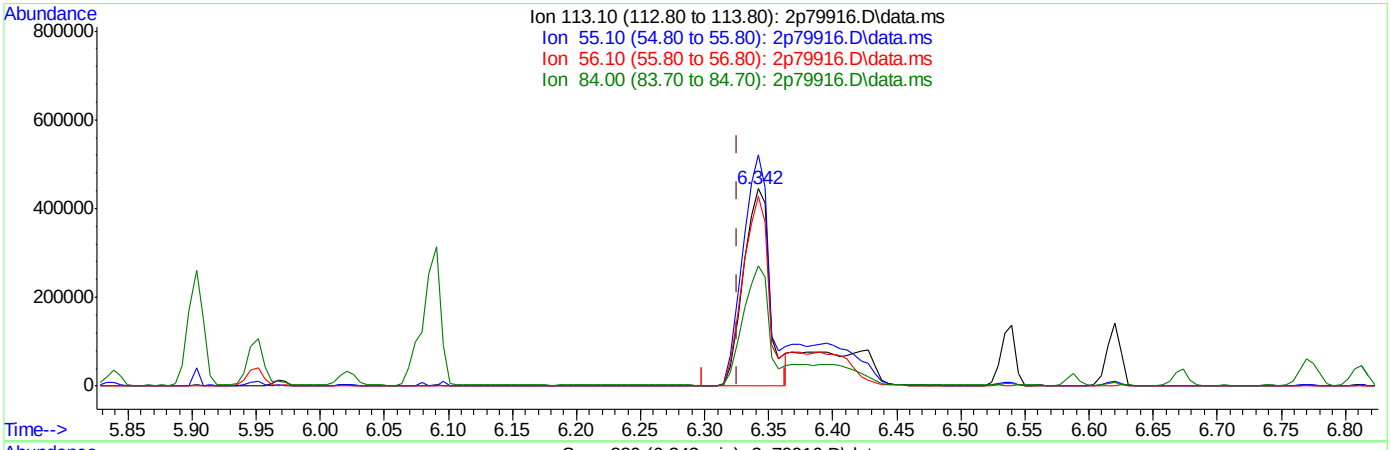
Sample Number:	E2P3523-IC3523	**Method:**	SW846 8270D
Lab FileID:	2P79916.D	**Analyst approved:**	05/31/18 15:34 Sean Block
Injection Time:	05/30/18 04:16	**Supervisor approved:**	06/01/18 14:59 Nina Pandya

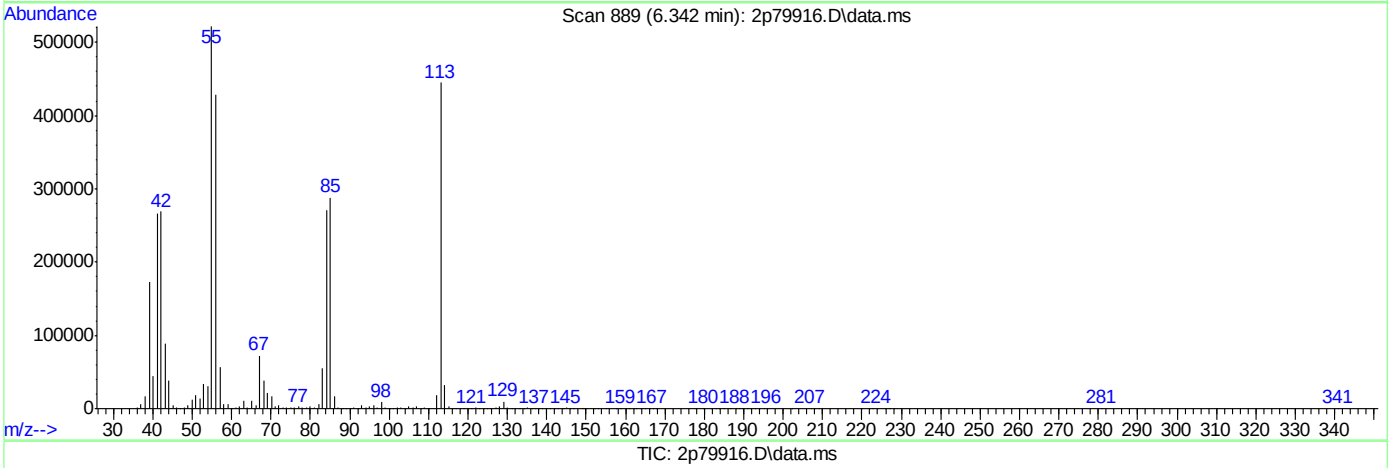
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.34	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79916.D
Acq On : 30 May 2018 4:16 am
Operator : chriss2
Sample : ic3523-80
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 30 11:51:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:51:46 2018
Response via : Initial Calibration





TIC: 2p79916.D\data.ms

(41) Caprolactam (t)

6.342min (+0.016) 56.27ppm

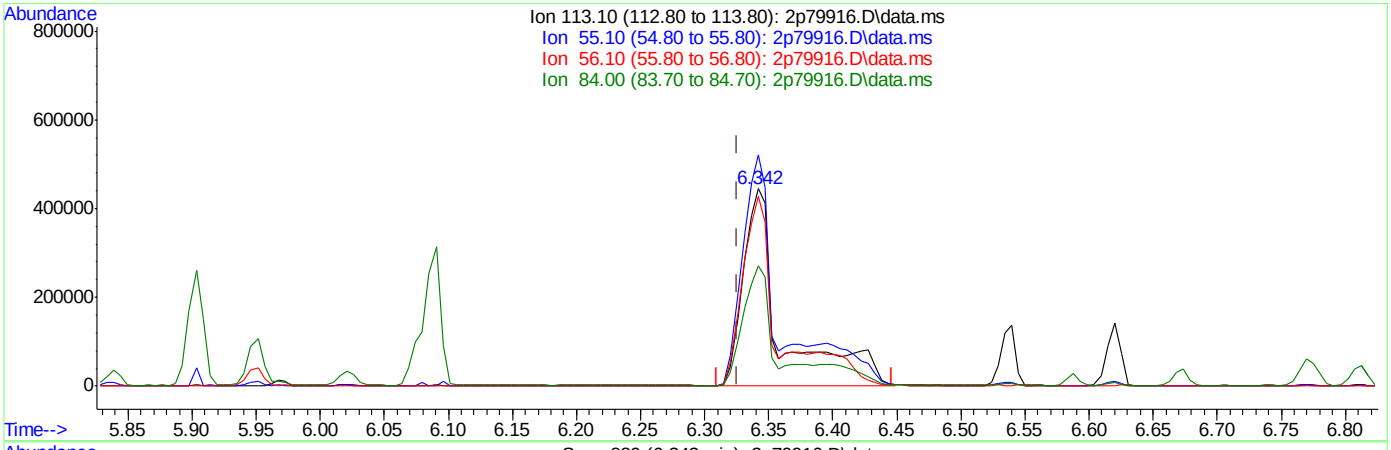
response 634926

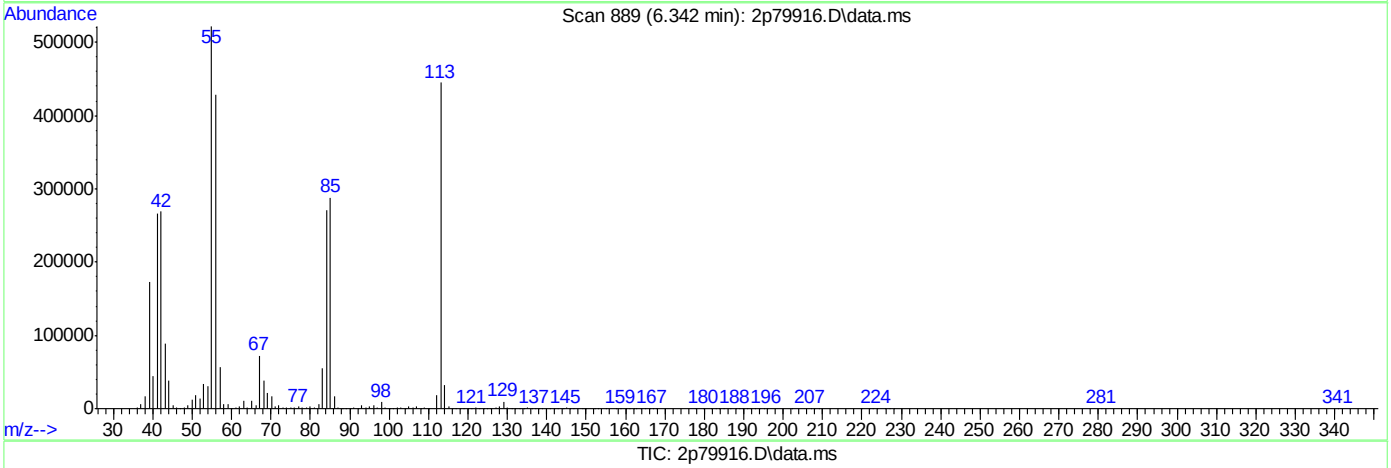
Ion	Exp%	Act%
113.10	100	100
55.10	114.90	116.68
56.10	91.20	95.92
84.00	60.50	60.29

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79916.D
Acq On : 30 May 2018 4:16 am
Operator : chriss2
Sample : ic3523-80
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 30 11:51:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:51:46 2018
Response via : Initial Calibration





TIC: 2p79916.D\data.ms

(41) Caprolactam (t)

6.342min (+0.016) 83.76ppm m

response 945085

Ion	Exp%	Act%
113.10	100	100
55.10	114.90	117.34
56.10	91.20	96.32
84.00	60.50	60.84

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
06/01/18 14:59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79917.D
Acq On : 30 May 2018 4:38 am
Operator : chriss2
Sample : icc3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 11:49:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:47:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1055413	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	3632723	40.00	ppm	0.00
47) Acenaphthene-d10	7.395	164	1990141	40.00	ppm	0.00
69) Phenanthrene-d10	8.733	188	3555166	40.00	ppm	0.00
83) Chrysene-d12	12.102	240	3114738	40.00	ppm	-0.01
91) Perylene-d12	14.113	264	3254494	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1055413	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	3632723	40.00	ppm	0.00
105) Acenaphthene-d10a	7.395	164	1990141	40.00	ppm	0.00
108) Chrysene-d12a	12.102	240	3114738	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.733	188	3555166	40.00	ppm	0.00
114) Chrysene-d12b	12.102	240	3114738	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.796	112	2661481	79.30	ppm	0.02
Spiked Amount 50.000	Range 11 - 58		Recovery	= 158.60%#		
8) Phenol-d5	4.598	99	2957318	65.83	ppm	-0.11
Spiked Amount 50.000	Range 10 - 59		Recovery	= 131.66%#		
25) Nitrobenzene-d5	5.358	82	1915408	48.40	ppm	0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	= 96.80%#		
51) 2-Fluorobiphenyl	6.839	172	3168750	46.62	ppm	0.02
Spiked Amount 50.000	Range 21 - 58		Recovery	= 93.24%#		
73) 2,4,6-Tribromophenol	8.069	330	622585	71.59	ppm	-0.04
Spiked Amount 50.000	Range 12 - 68		Recovery	= 143.18%#		
85) Terphenyl-d14	10.631	244	4209528	67.65	ppm	0.02
Spiked Amount 50.000	Range 16 - 65		Recovery	= 135.30%#		
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	2.245	88	972184	50.78	ppm	100
3) Pyridine	2.571	79	2361961	63.82	ppm	100
4) N-Nitrosodimethylamine	2.550	74	1469034	63.34	ppm	100
6) Indene	5.106	116	2821009	57.84	ppm	92
7) Cumene	4.229	105	5811549	55.83	ppm	92
9) Phenol	4.614	94	2766812	59.37	ppm	93
10) Aniline	4.619	93	2320499	49.80	ppm	87
11) bis(2-Chloroethyl)ether	4.678	93	1726517	53.19	ppm	95
12) 2-Chlorophenol	4.721	128	1970621	61.49	ppm	97
13) Decane	4.769	57	1610146	50.80	ppm	87
14) 1,3-Dichlorobenzene	4.849	146	2041094	49.60	ppm	99
15) 1,4-Dichlorobenzene	4.908	146	1817208	44.82	ppm	98
16) Benzyl alcohol	5.015	108	1197220	100.78	ppm	79
17) 1,2-Dichlorobenzene	5.037	146	1772044	47.35	ppm	99
18) Acetophenone	5.235	105	2376824	50.78	ppm	91
19) 2-Methylphenol	5.112	108	1402107	55.31	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.128	121	437051	62.98	ppm #	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79917.D
Acq On : 30 May 2018 4:38 am
Operator : chriss2
Sample : icc3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 11:49:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:47:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.240	108	1523283	59.49	ppm		100
22) n-Nitroso-di-n-propyla...	5.240	70	962354	38.52	ppm		84
23) Hexachloroethane	5.315	201	685759	41.48	ppm		83
26) Nitrobenzene	5.374	77	1697524	43.87	ppm		82
27) Quinoline	6.256	129	3622618	70.51	ppm		96
28) Isophorone	5.572	82	3467543	59.16	ppm		92
29) 2-Nitrophenol	5.636	139	1048054	70.00	ppm		73
30) 2,4-Dimethylphenol	5.673	107	1466926	50.48	ppm		88
31) Benzoic acid	5.807	105	1485479m	95.03	ppm		
32) bis(2-Chloroethoxy)met...	5.748	93	1814161	59.61	ppm		98
33) 2,4-Dichlorophenol	5.834	162	1384407	50.44	ppm		99
34) 2,6-Dichlorophenol	6.021	162	1218073	46.01	ppm		99
35) 1,3,5-Trichlorobenzene	5.646	180	1630720	41.78	ppm		99
36) 1,2,4-Trichlorobenzene	5.903	180	1544545	43.54	ppm		99
37) 1,2,3-Trichlorobenzene	6.085	180	1332370	42.35	ppm		98
38) Naphthalene	5.967	128	4264251	49.13	ppm		98
39) 4-Chloroaniline	6.015	127	1959681	50.42	ppm		95
40) 2,3-Dichloroaniline	6.764	161	1775387	46.55	ppm		98
41) Caprolactam	6.326	113	597089m	84.81	ppm		
42) Hexachlorobutadiene	6.074	225	844517	32.40	ppm		97
43) 4-Chloro-3-methylphenol	6.422	107	1589206	57.51	ppm		93
44) 2-Methylnaphthalene	6.534	141	2908825	50.05	ppm		96
45) 1-Methylnaphthalene	6.620	141	2820097	49.17	ppm		95
46) Dimethylnaphthalene	7.053	156	2717876	45.87	ppm		98
48) Hexachlorocyclopentadiene	6.673	237	1815673	103.76	ppm		98
49) 2,4,6-Trichlorophenol	6.770	196	990239	45.87	ppm		96
50) 2,4,5-Trichlorophenol	6.807	196	980510	53.24	ppm		98
52) 2-Chloronaphthalene	6.935	162	2501222	49.27	ppm		95
53) Biphenyl	6.919	154	3869936	53.92	ppm		97
54) 2-Nitroaniline	7.021	65	947858	61.40	ppm		78
55) Dimethylphthalate	7.171	163	3324937	54.38	ppm		98
56) Acenaphthylene	7.278	152	4550995	58.53	ppm		98
57) 2,6-Dinitrotoluene	7.219	165	789834	61.18	ppm		95
58) 3-Nitroaniline	7.363	138	950946	86.14	ppm		90
59) Acenaphthene	7.422	153	2782374	48.61	ppm		96
60) 2,4-Dinitrophenol	7.449	184	815963	131.86	ppm		80
61) 4-Nitrophenol	7.502	109	550569	57.54	ppm	#	64
62) Dibenzofuran	7.567	168	3656142	47.79	ppm		93
63) 2,4-Dinitrotoluene	7.556	165	1066998	64.70	ppm		93
64) 2,3,4,6-Tetrachlorophenol	7.668	232	961222	59.41	ppm		99
65) Diethylphthalate	7.759	149	3448130	56.87	ppm		98
66) Fluorene	7.855	166	3217280	47.15	ppm		95
67) 4-Chlorophenyl-phenyle...	7.850	204	1699852	43.81	ppm		90
68) 4-Nitroaniline	7.882	138	796569	60.93	ppm		94
70) 4,6-Dinitro-2-methylph...	7.904	198	564742	62.27	ppm		90
71) n-Nitrosodiphenylamine	7.957	169	2333096	53.92	ppm		98
72) 1,2-Diphenylhydrazine	7.989	77	3129837	45.79	ppm		91
74) 4-Bromophenyl-phenylether	8.294	248	1145413	58.23	ppm		100
75) Hexachlorobenzene	8.364	284	1251720	52.80	ppm		86
76) Pentachlorophenol	8.551	266	1785165	212.06	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79917.D
Acq On : 30 May 2018 4:38 am
Operator : chriss2
Sample : icc3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 11:49:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:47:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	8.759	178	4259001	50.19	ppm	98
78)	Anthracene	8.813	178	4327511	54.21	ppm	99
79)	Carbazole	8.979	167	4672606	61.98	ppm	99
80)	Di-n-butylphthalate	9.374	149	6936343	74.33	ppm	97
81)	Fluoranthene	10.118	202	6479401	56.55	ppm	95
82)	Octadecane	8.631	43	1190438	53.22	ppm	100
84)	Pyrene	10.407	202	6080618	66.90	ppm	99
86)	Butylbenzylphthalate	11.337	149	3405450	102.90	ppm	95
87)	Benzo[a]anthracene	12.075	228	5562230	63.10	ppm	97
88)	3,3'-Dichlorobenzidine	12.075	252	2395049	85.24	ppm	96
89)	Chrysene	12.140	228	4223704	52.37	ppm	98
90)	bis(2-Ethylhexyl)phtha...	12.220	149	3470512	81.99	ppm	100
92)	Di-n-octylphthalate	13.172	149	7482012	83.30	ppm	96
93)	Benzo[b]fluoranthene	13.611	252	5685731	55.09	ppm	100
94)	Benzo[k]fluoranthene	13.659	252	4103326	47.30	ppm	100
95)	Benzo[a]pyrene	14.038	252	4715859	57.37	ppm	95
96)	Indeno[1,2,3-cd]pyrene	15.638	276	4498069	46.11	ppm	90
97)	Dibenz(a,h)acridine	15.279	279	3983464	54.97	ppm	96
98)	Dibenz[a,h]anthracene	15.675	278	4095279	48.81	ppm	92
99)	7,12-Dimethylbenz(a)an...	13.616	256	2476969	60.11	ppm	85
100)	Benzo[g,h,i]perylene	16.076	276	4134367	56.73	ppm	100

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

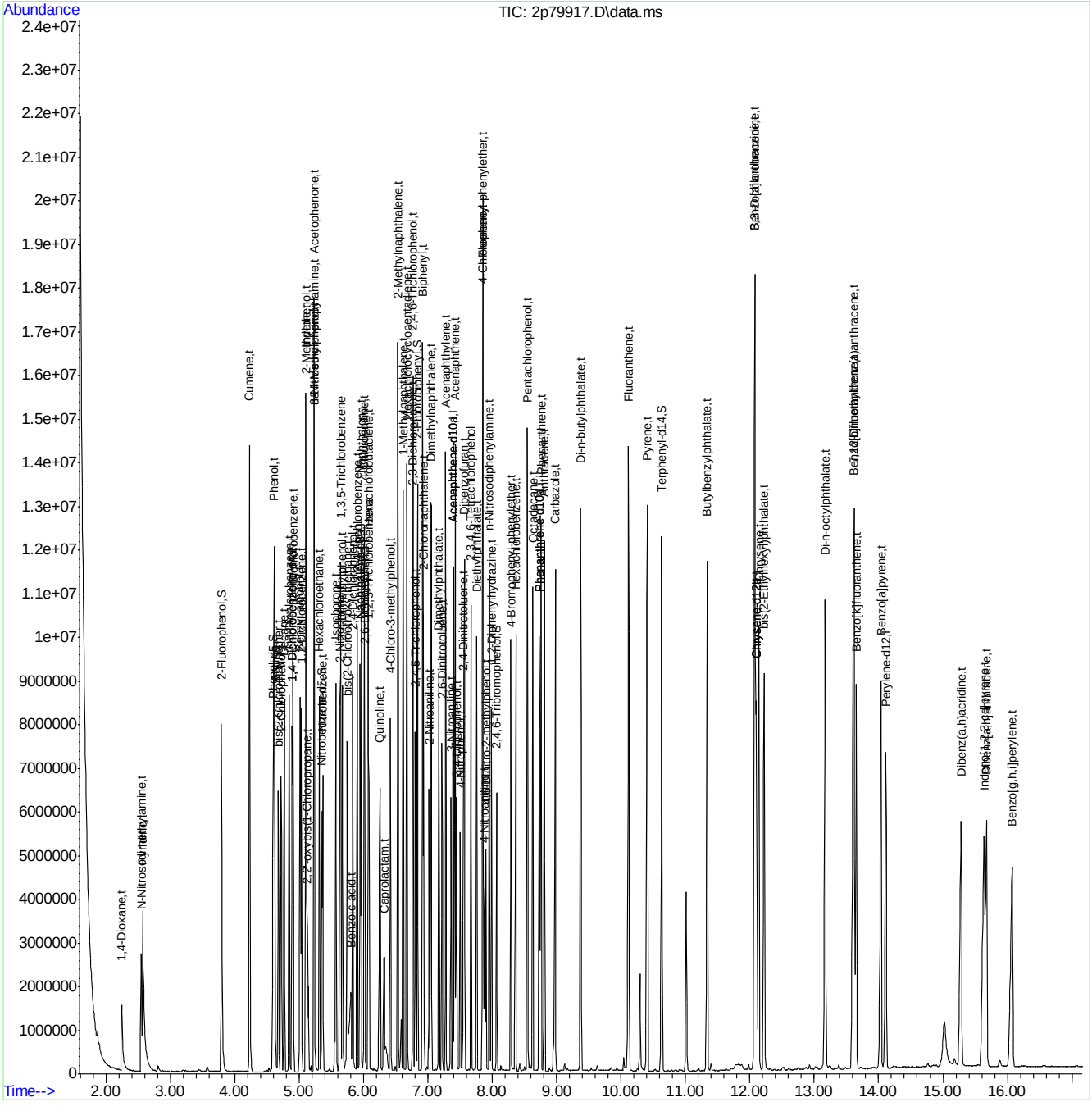
9.6.3

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79917.D
Acq On : 30 May 2018 4:38 am
Operator : chriss2
Sample : icc3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 11:49:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:47:20 2018
Response via : Initial Calibration



Manual Integration Approval Summary

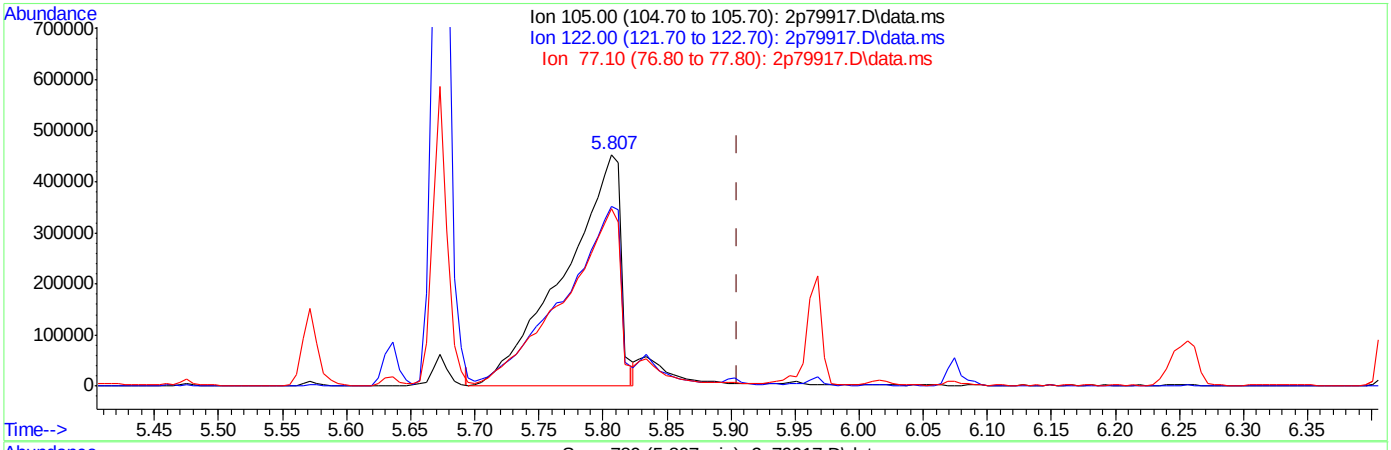
Sample Number:	E2P3523-ICC3523	**Method:**	SW846 8270D
Lab FileID:	2P79917.D	**Analyst approved:**	05/31/18 15:34 Sean Block
Injection Time:	05/30/18 04:38	**Supervisor approved:**	06/01/18 14:59 Nina Pandya

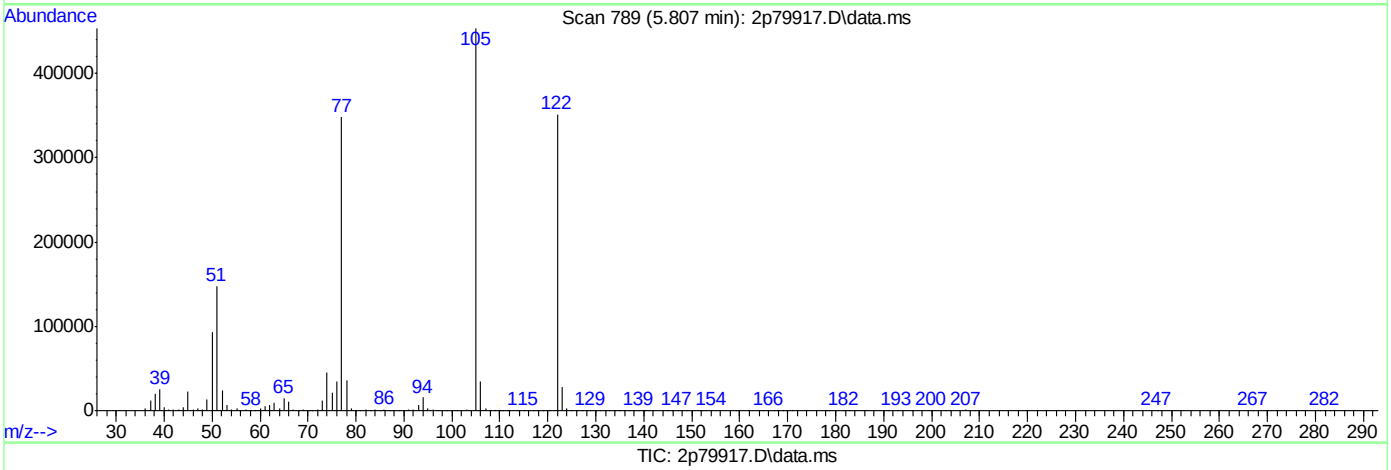
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.81	Split peak
Caprolactam	105-60-2		6.33	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79917.D
Acq On : 30 May 2018 4:38 am
Operator : chriss2
Sample : icc3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 11:47:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:47:20 2018
Response via : Initial Calibration





TIC: 2p79917.D\data.ms

(31) Benzoic acid (t)

5.807min (-0.098) 88.44ppm

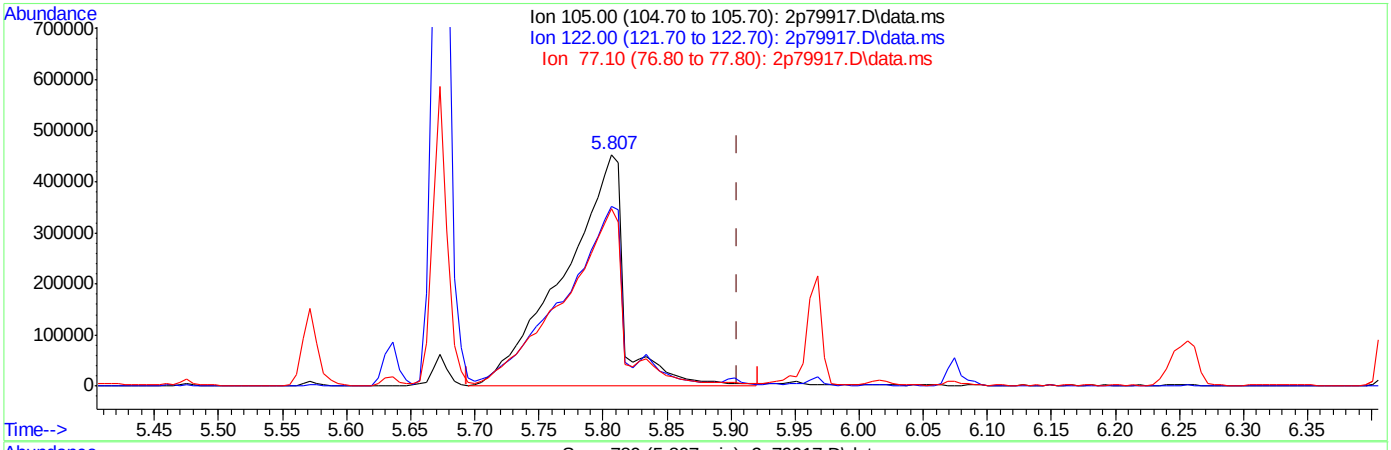
response 1382390

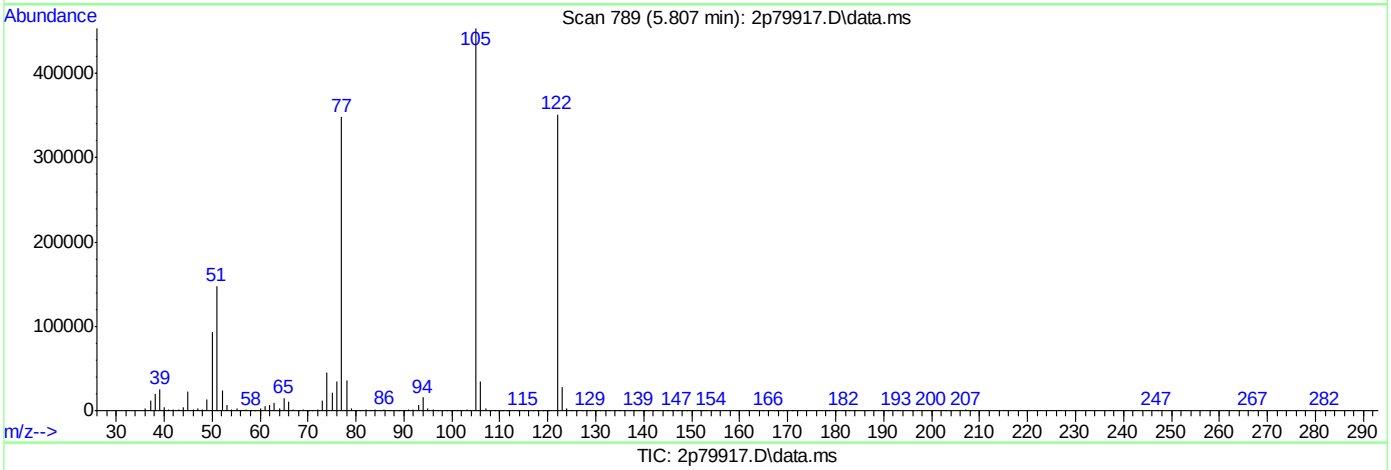
Ion	Exp%	Act%
105.00	100	100
122.00	79.20	75.52
77.10	97.10	75.77
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79917.D
Acq On : 30 May 2018 4:38 am
Operator : chriss2
Sample : icc3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 11:47:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:47:20 2018
Response via : Initial Calibration





TIC: 2p79917.D\data.ms

(31) Benzoic acid (t)

5.807min (-0.098) 95.03ppm m

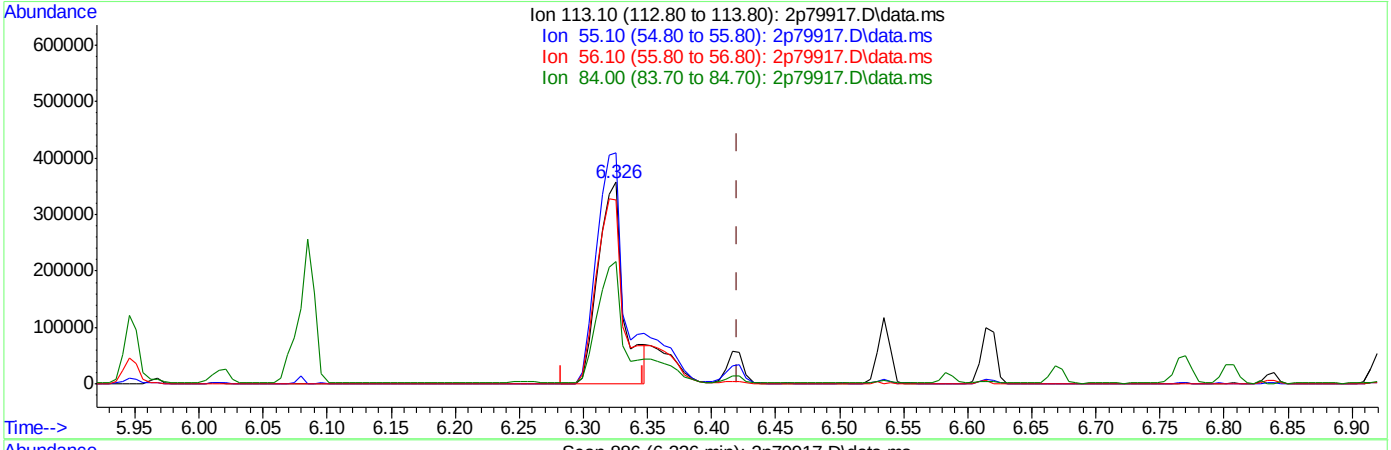
response 1485479

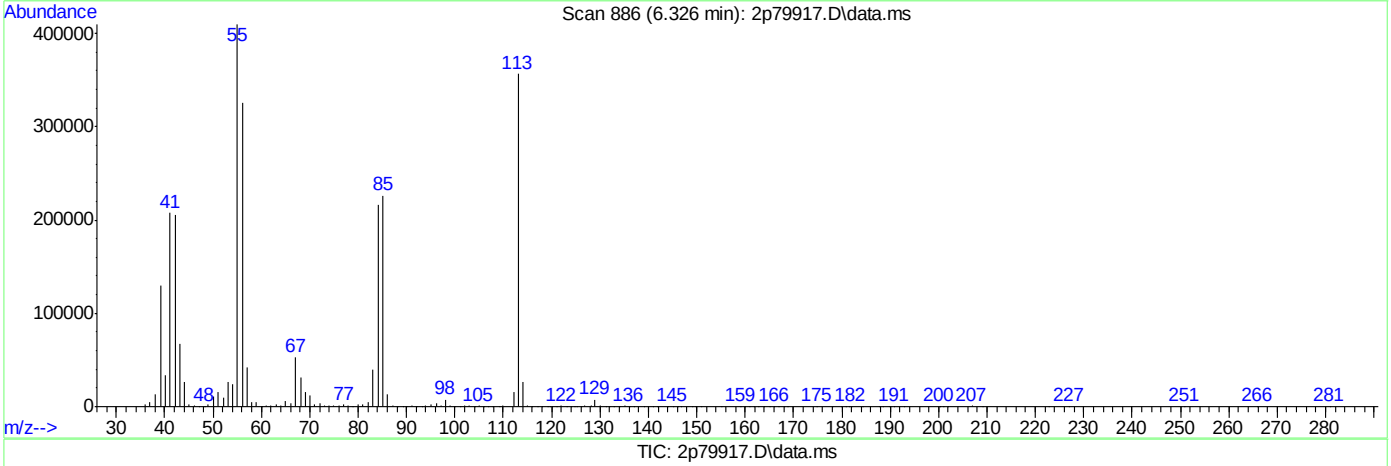
Ion	Exp%	Act%
105.00	100	100
122.00	79.20	77.45
77.10	97.10	76.76
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79917.D
Acq On : 30 May 2018 4:38 am
Operator : chriss2
Sample : icc3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 30 11:47:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:47:20 2018
Response via : Initial Calibration





TIC: 2p79917.D\data.ms

(41) Caprolactam (t)

6.326min (-0.095) 70.54ppm

response 496610

Ion	Exp%	Act%
113.10	100	100
55.10	101.40	113.28
56.10	87.60	90.23
84.00	63.20	59.81

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79917.D
Acq On    : 30 May 2018   4:38 am
Operator  : chriss2
Sample    : icc3523-50
Misc      : op10929,e2p3523,1000,,,1,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: May 30 11:47:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title  : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:47:20 2018
Response via : Initial Calibration
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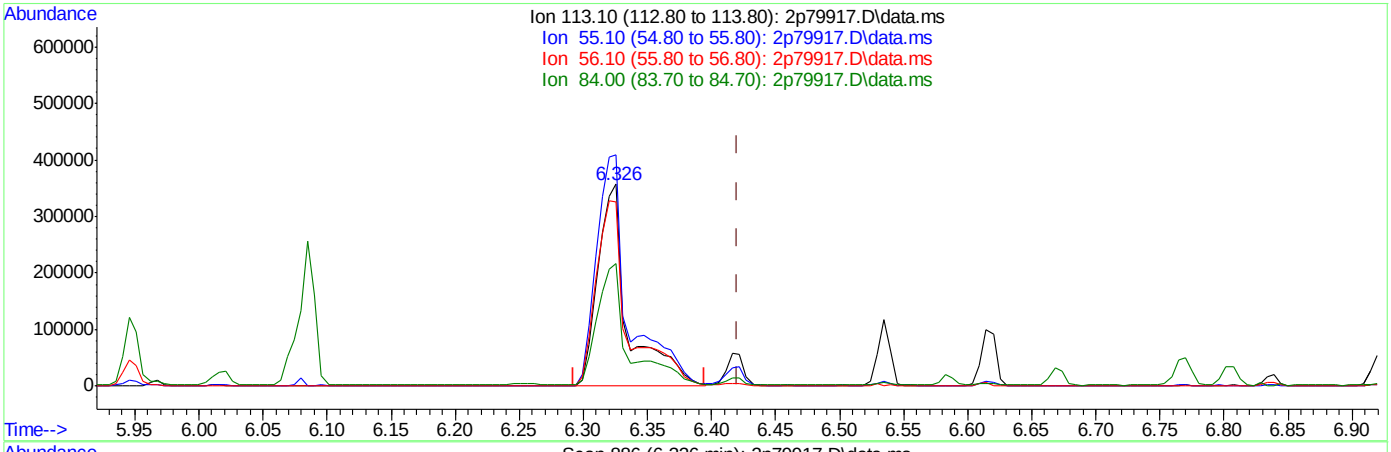
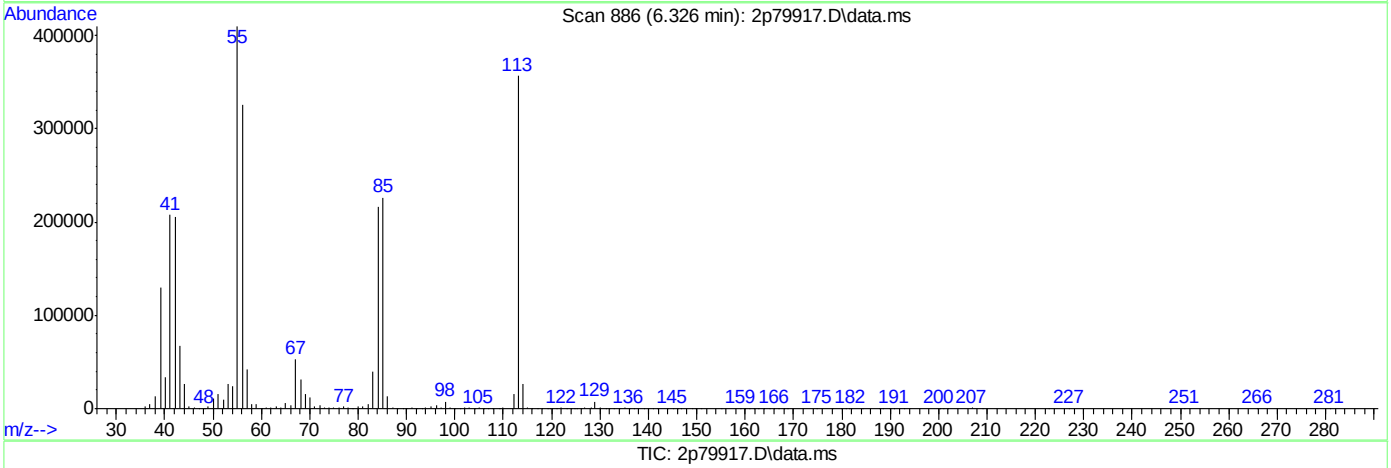




TIC: 2p79917.D\data.ms

(41) Caprolactam (t)

6.326min (-0.095) 84.81ppm m

response 597089

Ion	Exp%	Act%
113.10	100	100
55.10	101.40	114.86
56.10	87.60	91.19
84.00	63.20	60.52

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79918.D
Acq On : 30 May 2018 5:00 am
Operator : chriss2
Sample : ic3523-25
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 11:53:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:52:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1190239	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	4107127	40.00	ppm	0.00
47) Acenaphthene-d10	7.395	164	2231833	40.00	ppm	0.00
69) Phenanthrene-d10	8.733	188	3880505	40.00	ppm	0.00
83) Chrysene-d12	12.097	240	3613762	40.00	ppm	0.00
91) Perylene-d12	14.108	264	3616858	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	1190239	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	4107127	40.00	ppm	0.00
105) Acenaphthene-d10a	7.395	164	2231833	40.00	ppm	0.00
108) Chrysene-d12a	12.097	240	3613762	40.00	ppm	0.00
110) Phenanthrene-d10a	8.733	188	3880505	40.00	ppm	0.00
114) Chrysene-d12b	12.097	240	3613762	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.796	112	1371320	23.39	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	46.78%	
8) Phenol-d5	4.593	99	1665400	26.20	ppm	0.00
Spiked Amount 50.000	Range 10 - 59		Recovery	=	52.40%	
25) Nitrobenzene-d5	5.352	82	1149028	27.79	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery	=	55.58%	
51) 2-Fluorobiphenyl	6.834	172	1847397	26.82	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery	=	53.64%	
73) 2,4,6-Tribromophenol	8.064	330	318660	21.93	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery	=	43.86%	
85) Terphenyl-d14	10.626	244	2365436	24.04	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery	=	48.08%	
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	2.250	88	477508	21.70	ppm	99
3) Pyridine	2.576	79	1293166	24.89	ppm	97
4) N-Nitrosodimethylamine	2.550	74	752255	23.09	ppm	99
6) Indene	5.106	116	1654481	27.08	ppm	98
7) Cumene	4.229	105	3275758	27.06	ppm	98
9) Phenol	4.603	94	1669481	29.18	ppm	91
10) Aniline	4.619	93	1563502	30.99	ppm	85
11) bis(2-Chloroethyl)ether	4.673	93	1025435	27.50	ppm	97
12) 2-Chlorophenol	4.721	128	1165210	27.30	ppm	99
13) Decane	4.769	57	1029583	31.46	ppm	98
14) 1,3-Dichlorobenzene	4.844	146	1192157	26.62	ppm	98
15) 1,4-Dichlorobenzene	4.908	146	1047867	25.72	ppm	98
16) Benzyl alcohol	5.010	108	676664	25.61	ppm	95
17) 1,2-Dichlorobenzene	5.031	146	1046323	27.17	ppm	97
18) Acetophenone	5.229	105	1417657	27.62	ppm	93
19) 2-Methylphenol	5.106	108	880984	29.42	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.122	121	261877	27.32	ppm #	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79918.D
Acq On : 30 May 2018 5:00 am
Operator : chriss2
Sample : ic3523-25
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 11:53:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:52:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	5.235	108	914103	28.48	ppm	98
22) n-Nitroso-di-n-propyla...	5.235	70	633512	31.20	ppm	98
23) Hexachloroethane	5.315	201	385512	25.14	ppm	96
26) Nitrobenzene	5.368	77	1040688	28.87	ppm	97
27) Quinoline	6.240	129	2063335	25.55	ppm	100
28) Isophorone	5.566	82	2068586	27.07	ppm	98
29) 2-Nitrophenol	5.630	139	593647	25.85	ppm	91
30) 2,4-Dimethylphenol	5.668	107	856169	26.38	ppm	97
31) Benzoic acid	5.780	105	811736	24.99	ppm	98
32) bis(2-Chloroethoxy)met...	5.743	93	1086550	27.61	ppm	98
33) 2,4-Dichlorophenol	5.828	162	792588	25.88	ppm	98
34) 2,6-Dichlorophenol	6.015	162	681628	24.65	ppm	97
35) 1,3,5-Trichlorobenzene	5.641	180	962839	26.76	ppm	97
36) 1,2,4-Trichlorobenzene	5.903	180	911731	26.54	ppm	99
37) 1,2,3-Trichlorobenzene	6.085	180	772397	26.13	ppm	100
38) Naphthalene	5.962	128	2496952	27.07	ppm	99
39) 4-Chloroaniline	6.010	127	1167694	27.01	ppm	96
40) 2,3-Dichloroaniline	6.764	161	1006803	25.66	ppm	99
41) Caprolactam	6.304	113	342440	24.14	ppm	97
42) Hexachlorobutadiene	6.074	225	474791	24.92	ppm	99
43) 4-Chloro-3-methylphenol	6.411	107	950376	27.66	ppm	93
44) 2-Methylnaphthalene	6.534	141	1716336	27.44	ppm	99
45) 1-Methylnaphthalene	6.614	141	1674124	27.26	ppm	96
46) Dimethylnaphthalene	7.048	156	1589179	26.98	ppm	96
48) Hexachlorocyclopentadiene	6.668	237	1036460	50.93	ppm	99
49) 2,4,6-Trichlorophenol	6.770	196	574447	26.09	ppm	99
50) 2,4,5-Trichlorophenol	6.802	196	564935	25.35	ppm	99
52) 2-Chloronaphthalene	6.935	162	1510859	27.32	ppm	98
53) Biphenyl	6.919	154	2226846	26.78	ppm	99
54) 2-Nitroaniline	7.016	65	552280	26.57	ppm	98
55) Dimethylphthalate	7.165	163	1915415	25.99	ppm	99
56) Acenaphthylene	7.272	152	2718498	27.99	ppm	98
57) 2,6-Dinitrotoluene	7.214	165	450603	25.41	ppm	98
58) 3-Nitroaniline	7.353	138	549445	25.85	ppm	88
59) Acenaphthene	7.422	153	1548919	25.15	ppm	99
60) 2,4-Dinitrophenol	7.438	184	414047	42.58	ppm	71
61) 4-Nitrophenol	7.492	109	304792	24.49	ppm	96
62) Dibenzofuran	7.561	168	2115988	25.97	ppm	98
63) 2,4-Dinitrotoluene	7.545	165	594781	25.01	ppm	85
64) 2,3,4,6-Tetrachlorophenol	7.663	232	515195	22.87	ppm	93
65) Diethylphthalate	7.754	149	2007169	26.70	ppm	98
66) Fluorene	7.850	166	1920695	27.79	ppm	100
67) 4-Chlorophenyl-phenyle...	7.850	204	954295	25.79	ppm	97
68) 4-Nitroaniline	7.871	138	476393	26.09	ppm	98
70) 4,6-Dinitro-2-methylph...	7.893	198	306065	24.24	ppm	90
71) n-Nitrosodiphenylamine	7.952	169	1358577	27.10	ppm	99
72) 1,2-Diphenylhydrazine	7.989	77	1960713	31.53	ppm	97
74) 4-Bromophenyl-phenylether	8.289	248	603004	23.68	ppm	92
75) Hexachlorobenzene	8.358	284	683807	24.95	ppm	94
76) Pentachlorophenol	8.545	266	959018	49.67	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79918.D
Acq On : 30 May 2018 5:00 am
Operator : chriss2
Sample : ic3523-25
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 11:53:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:52:43 2018
Response via : Initial Calibration

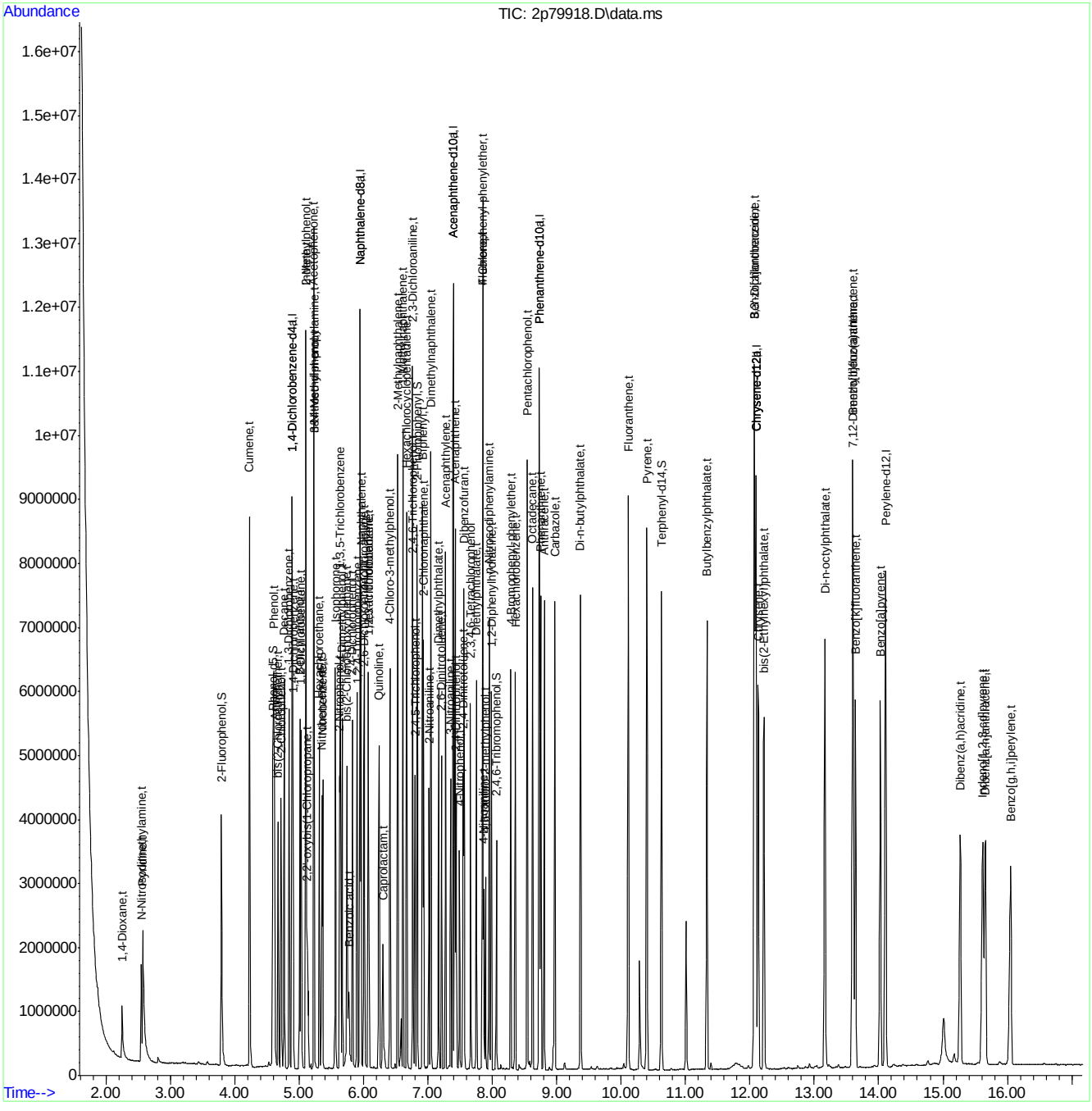
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	8.754	178	2346643	25.60	ppm	99
78)	Anthracene	8.807	178	2440958	26.57	ppm	99
79)	Carbazole	8.973	167	2669433	26.91	ppm	99
80)	Di-n-butylphthalate	9.369	149	4019354	28.87	ppm	99
81)	Fluoranthene	10.112	202	3709470	27.15	ppm	99
82)	Octadecane	8.626	43	792022	34.86	ppm	90
84)	Pyrene	10.401	202	3560426	25.71	ppm	99
86)	Butylbenzylphthalate	11.332	149	1970429	25.33	ppm	97
87)	Benzo[a]anthracene	12.070	228	3211780	24.71	ppm	99
88)	3,3'-Dichlorobenzidine	12.070	252	1348747	25.09	ppm	99
89)	Chrysene	12.129	228	2332220	23.26	ppm	99
90)	bis(2-Ethylhexyl)phtha...	12.220	149	1992218	25.16	ppm	98
92)	Di-n-octylphthalate	13.167	149	4328001	27.54	ppm	98
93)	Benzo[b]fluoranthene	13.600	252	3239934	25.88	ppm	99
94)	Benzo[k]fluoranthene	13.643	252	2383748	27.89	ppm	98
95)	Benzo[a]pyrene	14.028	252	2664594	25.71	ppm	99
96)	Indeno[1,2,3-cd]pyrene	15.616	276	2424509	23.39	ppm	97
97)	Dibenz(a,h)acridine	15.269	279	2181213	24.13	ppm	100
98)	Dibenz[a,h]anthracene	15.659	278	2277774	24.50	ppm	98
99)	7,12-Dimethylbenz(a)an...	13.605	256	1359398	24.43	ppm	99
100)	Benzo[g,h,i]perylene	16.049	276	2270115	24.59	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79918.D
Acq On : 30 May 2018 5:00 am
Operator : chriss2
Sample : ic3523-25
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 11:53:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:52:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79919.D
Acq On : 30 May 2018 5:22 am
Operator : chriss2
Sample : ic3523-10
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 30 11:54:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:53:30 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1414007	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	4726199	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	2567549	40.00	ppm	0.00
69) Phenanthrene-d10	8.733	188	4324341	40.00	ppm	0.00
83) Chrysene-d12	12.092	240	4155418	40.00	ppm	-0.01
91) Perylene-d12	14.108	264	3943770	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	1414007	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	4726199	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	2567549	40.00	ppm	0.00
108) Chrysene-d12a	12.092	240	4155418	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.733	188	4324341	40.00	ppm	0.00
114) Chrysene-d12b	12.092	240	4155418	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.790	112	672027	9.81	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	19.62%	
8) Phenol-d5	4.593	99	844399	11.05	ppm	0.00
Spiked Amount 50.000	Range 10 - 59		Recovery	=	22.10%	
25) Nitrobenzene-d5	5.347	82	586187	11.99	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	=	23.98%	
51) 2-Fluorobiphenyl	6.834	172	931887	11.55	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery	=	23.10%	
73) 2,4,6-Tribromophenol	8.059	330	142063	9.05	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery	=	18.10%	
85) Terphenyl-d14	10.626	244	1086817	9.70	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery	=	19.40%	
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	2.255	88	228188	9.03	ppm	97
3) Pyridine	2.582	79	621924	10.09	ppm	96
4) N-Nitrosodimethylamine	2.550	74	368415	9.70	ppm	99
6) Indene	5.106	116	834753	11.27	ppm	97
7) Cumene	4.229	105	1681767	11.46	ppm	97
9) Phenol	4.603	94	887164	12.53	ppm	88
10) Aniline	4.619	93	883988	13.91	ppm	75
11) bis(2-Chloroethyl)ether	4.673	93	550267	12.12	ppm	98
12) 2-Chlorophenol	4.716	128	609044	11.74	ppm	96
13) Decane	4.769	57	556255	13.44	ppm	96
14) 1,3-Dichlorobenzene	4.844	146	612549	11.33	ppm	98
15) 1,4-Dichlorobenzene	4.903	146	513189	10.53	ppm	95
16) Benzyl alcohol	5.005	108	322860	10.22	ppm	89
17) 1,2-Dichlorobenzene	5.031	146	520967	11.15	ppm	98
18) Acetophenone	5.224	105	722594	11.55	ppm	91
19) 2-Methylphenol	5.101	108	452973	12.19	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.122	121	137766	11.82	ppm #	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79919.D
Acq On : 30 May 2018 5:22 am
Operator : chriss2
Sample : ic3523-10
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 30 11:54:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:53:30 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.229	108	464114	11.76	ppm		98
22) n-Nitroso-di-n-propyla...	5.229	70	342339	13.36	ppm		92
23) Hexachloroethane	5.315	201	189235	10.37	ppm		96
26) Nitrobenzene	5.363	77	544695	12.64	ppm		92
27) Quinoline	6.235	129	999082	10.69	ppm		99
28) Isophorone	5.561	82	1021182	11.38	ppm		96
29) 2-Nitrophenol	5.630	139	285578	10.72	ppm		94
30) 2,4-Dimethylphenol	5.668	107	437320	11.55	ppm		96
31) Benzoic acid	5.748	105	375968	10.06	ppm		99
32) bis(2-Chloroethoxy)met...	5.743	93	549479	11.83	ppm		97
33) 2,4-Dichlorophenol	5.828	162	401866	11.30	ppm		99
34) 2,6-Dichlorophenol	6.015	162	326859	10.31	ppm		99
35) 1,3,5-Trichlorobenzene	5.641	180	475297	11.28	ppm		98
36) 1,2,4-Trichlorobenzene	5.898	180	447731	11.15	ppm		97
37) 1,2,3-Trichlorobenzene	6.085	180	381470	11.09	ppm		99
38) Naphthalene	5.962	128	1211175	11.18	ppm		98
39) 4-Chloroaniline	6.005	127	569826	11.23	ppm		93
40) 2,3-Dichloroaniline	6.764	161	489743	10.78	ppm		97
41) Caprolactam	6.283	113	161254	9.96	ppm		92
42) Hexachlorobutadiene	6.069	225	219127	10.00	ppm		100
43) 4-Chloro-3-methylphenol	6.406	107	458819	11.30	ppm		93
44) 2-Methylnaphthalene	6.529	141	837970	11.37	ppm		95
45) 1-Methylnaphthalene	6.614	141	849524	11.76	ppm		95
46) Dimethylnaphthalene	7.042	156	783238	11.33	ppm		92
48) Hexachlorocyclopentadiene	6.668	237	489422	20.81	ppm		98
49) 2,4,6-Trichlorophenol	6.764	196	277223	10.83	ppm		98
50) 2,4,5-Trichlorophenol	6.796	196	278931	10.84	ppm		99
52) 2-Chloronaphthalene	6.930	162	776252	11.92	ppm		99
53) Biphenyl	6.914	154	1089661	11.19	ppm		99
54) 2-Nitroaniline	7.010	65	279804	11.52	ppm		87
55) Dimethylphthalate	7.165	163	933237	10.90	ppm		97
56) Acenaphthylene	7.272	152	1356683	11.79	ppm		97
57) 2,6-Dinitrotoluene	7.214	165	212844	10.39	ppm		92
58) 3-Nitroaniline	7.353	138	261738	10.62	ppm		99
59) Acenaphthene	7.417	153	720275	10.15	ppm		99
60) 2,4-Dinitrophenol	7.433	184	164644	15.29	ppm	#	56
61) 4-Nitrophenol	7.486	109	142872	10.03	ppm		95
62) Dibenzofuran	7.561	168	1045335	11.04	ppm		98
63) 2,4-Dinitrotoluene	7.545	165	272142	9.95	ppm		98
64) 2,3,4,6-Tetrachlorophenol	7.663	232	233344	9.20	ppm		96
65) Diethylphthalate	7.748	149	967316	11.00	ppm		96
66) Fluorene	7.850	166	927830	11.35	ppm		97
67) 4-Chlorophenyl-phenyle...	7.845	204	436479	10.17	ppm		85
68) 4-Nitroaniline	7.861	138	243533	11.47	ppm		98
70) 4,6-Dinitro-2-methylph...	7.887	198	138431	9.91	ppm		93
71) n-Nitrosodiphenylamine	7.946	169	655354	11.49	ppm		98
72) 1,2-Diphenylhydrazine	7.984	77	1027115	13.91	ppm		95
74) 4-Bromophenyl-phenylether	8.289	248	273760	9.78	ppm		93
75) Hexachlorobenzene	8.353	284	318793	10.44	ppm		83
76) Pentachlorophenol	8.540	266	415498	19.34	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79919.D
Acq On : 30 May 2018 5:22 am
Operator : chriss2
Sample : ic3523-10
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 30 11:54:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:53:30 2018
Response via : Initial Calibration

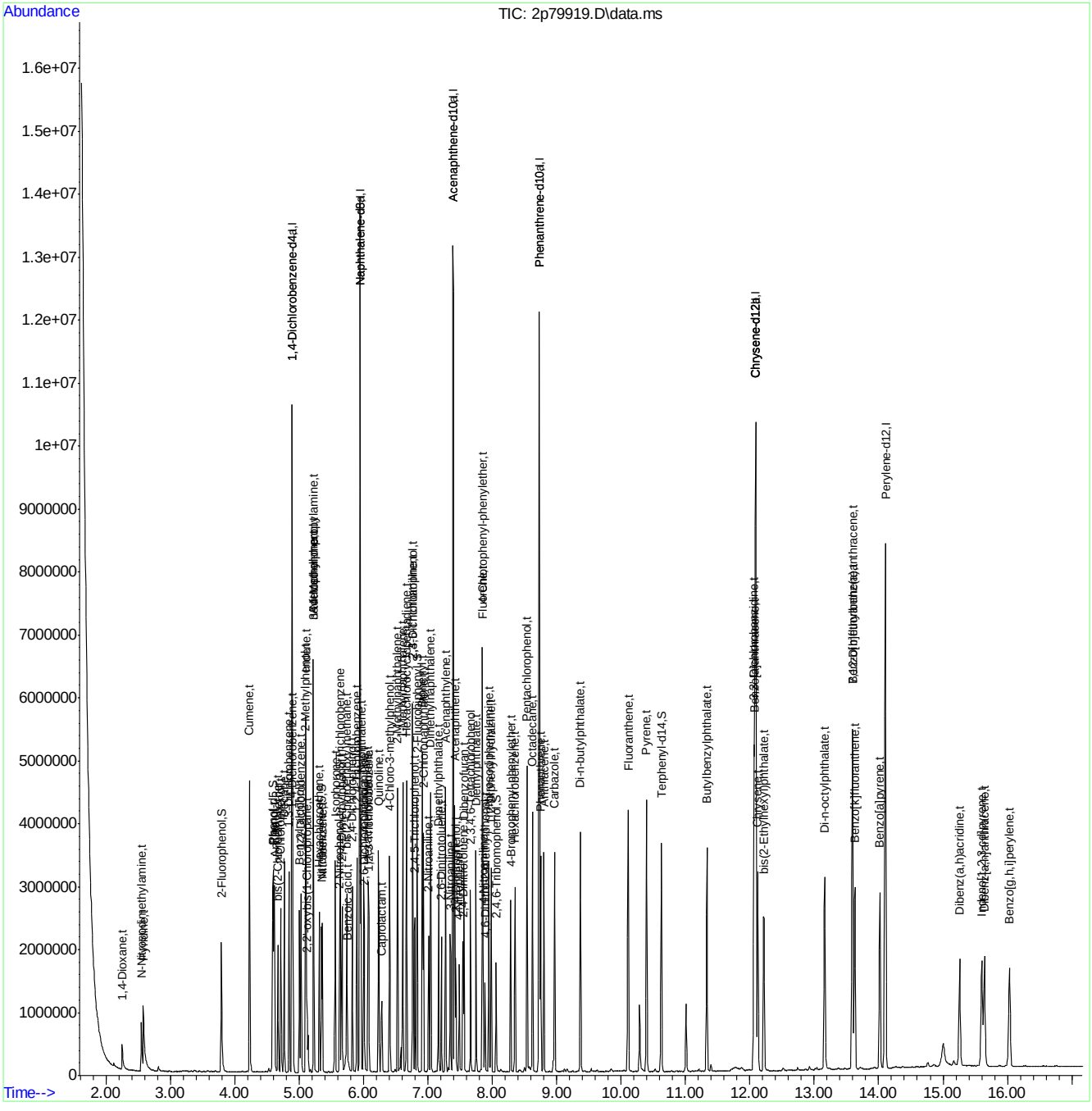
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	8.754	178	1060160	10.32	ppm	99
78)	Anthracene	8.802	178	1160431	11.16	ppm	99
79)	Carbazole	8.968	167	1270053	11.27	ppm	98
80)	Di-n-butylphthalate	9.369	149	1882896	11.69	ppm	98
81)	Fluoranthene	10.113	202	1724554	11.09	ppm	98
82)	Octadecane	8.626	43	428493	15.40	ppm	88
84)	Pyrene	10.396	202	1699952	10.60	ppm	99
86)	Butylbenzylphthalate	11.332	149	929914	10.36	ppm	96
87)	Benzo[a]anthracene	12.070	228	1511684	10.14	ppm	99
88)	3,3'-Dichlorobenzidine	12.065	252	598449	9.67	ppm	98
89)	Chrysene	12.124	228	1088054	9.60	ppm	98
90)	bis(2-Ethylhexyl)phtha...	12.220	149	935850	10.26	ppm	98
92)	Di-n-octylphthalate	13.161	149	1929218	10.98	ppm	98
93)	Benzo[b]fluoranthene	13.594	252	1467826	10.66	ppm	97
94)	Benzo[k]fluoranthene	13.632	252	1197805	12.49	ppm	97
95)	Benzo[a]pyrene	14.017	252	1221731	10.74	ppm	98
96)	Indeno[1,2,3-cd]pyrene	15.600	276	1047146	9.42	ppm	94
97)	Dibenz(a,h)acridine	15.258	279	958751	9.81	ppm	98
98)	Dibenz[a,h]anthracene	15.643	278	1034891	10.26	ppm	99
99)	7,12-Dimethylbenz(a)an...	13.594	256	599869	9.94	ppm	94
100)	Benzo[g,h,i]perylene	16.033	276	1012163	10.10	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79919.D
Acq On : 30 May 2018 5:22 am
Operator : chriss2
Sample : ic3523-10
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 30 11:54:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:53:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79920.D
Acq On : 30 May 2018 5:43 am
Operator : chriss2
Sample : ic3523-5
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 30 11:54:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:54:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1766112	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	5684458	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	3119263	40.00	ppm	0.00
69) Phenanthrene-d10	8.733	188	5247286	40.00	ppm	0.00
83) Chrysene-d12	12.092	240	5135264	40.00	ppm	-0.01
91) Perylene-d12	14.108	264	4784070	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	1766112	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	5684458	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	3119263	40.00	ppm	0.00
108) Chrysene-d12a	12.092	240	5135264	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.733	188	5247286	40.00	ppm	0.00
114) Chrysene-d12b	12.092	240	5135264	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.791	112	387359	4.54	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	9.08%#	
8) Phenol-d5	4.588	99	504713	5.18	ppm	-0.01
Spiked Amount 50.000	Range 10 - 59		Recovery	=	10.36%	
25) Nitrobenzene-d5	5.347	82	349120	5.71	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	=	11.42%#	
51) 2-Fluorobiphenyl	6.834	172	579359	5.73	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery	=	11.46%#	
73) 2,4,6-Tribromophenol	8.059	330	77334	4.14	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery	=	8.28%#	
85) Terphenyl-d14	10.626	244	649125	4.72	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery	=	9.44%#	
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
2) 1,4-Dioxane	2.256	88	128019	4.13	ppm	98
3) Pyridine	2.587	79	354142	4.59	ppm	97
4) N-Nitrosodimethylamine	2.550	74	205940	4.37	ppm	94
6) Indene	5.106	116	497608	5.24	ppm	95
7) Cumene	4.229	105	1005465	5.33	ppm	97
9) Phenol	4.598	94	540905	5.82	ppm	90
10) Aniline	4.614	93	560885	6.56	ppm	88
11) bis(2-Chloroethyl)ether	4.673	93	336129	5.69	ppm	98
12) 2-Chlorophenol	4.716	128	371281	5.54	ppm	95
13) Decane	4.769	57	343628	6.22	ppm	96
14) 1,3-Dichlorobenzene	4.844	146	377191	5.44	ppm	98
15) 1,4-Dichlorobenzene	4.903	146	298166	4.85	ppm	95
16) Benzyl alcohol	5.005	108	184102	4.65	ppm	87
17) 1,2-Dichlorobenzene	5.032	146	321076	5.38	ppm	95
18) Acetophenone	5.224	105	428208	5.31	ppm	86
19) 2-Methylphenol	5.101	108	267437	5.52	ppm	96
20) 2,2'-oxybis(1-Chloropr...	5.122	121	82452	5.47	ppm #	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79920.D
Acq On : 30 May 2018 5:43 am
Operator : chriss2
Sample : ic3523-5
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 30 11:54:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:54:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.224	108	273478	5.36	ppm		98
22) n-Nitroso-di-n-propyla...	5.224	70	217029	6.35	ppm		84
23) Hexachloroethane	5.315	201	113283	4.93	ppm		94
26) Nitrobenzene	5.363	77	338293	6.20	ppm		92
27) Quinoline	6.235	129	593168	5.21	ppm		99
28) Isophorone	5.561	82	604634	5.45	ppm		96
29) 2-Nitrophenol	5.631	139	168150	5.17	ppm		98
30) 2,4-Dimethylphenol	5.668	107	233032	4.96	ppm		94
31) Benzoic acid	5.732	105	186764	4.15	ppm		99
32) bis(2-Chloroethoxy)met...	5.743	93	333224	5.75	ppm		98
33) 2,4-Dichlorophenol	5.828	162	239221	5.45	ppm		99
34) 2,6-Dichlorophenol	6.010	162	190970	4.98	ppm		93
35) 1,3,5-Trichlorobenzene	5.641	180	287272	5.53	ppm		98
36) 1,2,4-Trichlorobenzene	5.898	180	271879	5.50	ppm		98
37) 1,2,3-Trichlorobenzene	6.080	180	227915	5.39	ppm		97
38) Naphthalene	5.962	128	698969	5.24	ppm		97
39) 4-Chloroaniline	6.005	127	338265	5.41	ppm		95
40) 2,3-Dichloroaniline	6.764	161	294467	5.31	ppm		99
41) Caprolactam	6.278	113	96121	4.94	ppm		98
42) Hexachlorobutadiene	6.069	225	131482	4.99	ppm		98
43) 4-Chloro-3-methylphenol	6.406	107	269145	5.37	ppm		99
44) 2-Methylnaphthalene	6.529	141	495332	5.44	ppm		96
45) 1-Methylnaphthalene	6.615	141	509969	5.67	ppm		96
46) Dimethylnaphthalene	7.043	156	485569	5.69	ppm		95
48) Hexachlorocyclopentadiene	6.668	237	273588	9.50	ppm		97
49) 2,4,6-Trichlorophenol	6.764	196	160015	5.06	ppm		99
50) 2,4,5-Trichlorophenol	6.791	196	164785	5.18	ppm		98
52) 2-Chloronaphthalene	6.930	162	490916	5.98	ppm		98
53) Biphenyl	6.914	154	667544	5.51	ppm		99
54) 2-Nitroaniline	7.011	65	166332	5.47	ppm		94
55) Dimethylphthalate	7.160	163	561070	5.30	ppm		97
56) Acenaphthylene	7.273	152	813347	5.62	ppm		98
57) 2,6-Dinitrotoluene	7.208	165	123406	4.92	ppm		90
58) 3-Nitroaniline	7.347	138	155782	5.14	ppm		89
59) Acenaphthene	7.417	153	422209	4.88	ppm		99
60) 2,4-Dinitrophenol	7.433	184	78131	6.27	ppm	#	63
61) 4-Nitrophenol	7.481	109	78265	4.52	ppm		85
62) Dibenzofuran	7.556	168	627048	5.34	ppm		94
63) 2,4-Dinitrotoluene	7.540	165	153877	4.63	ppm		83
64) 2,3,4,6-Tetrachlorophenol	7.663	232	132815	4.38	ppm		97
65) Diethylphthalate	7.749	149	573714	5.26	ppm		96
66) Fluorene	7.845	166	558554	5.48	ppm		97
67) 4-Chlorophenyl-phenyle...	7.845	204	255610	4.89	ppm		88
68) 4-Nitroaniline	7.856	138	150043	5.65	ppm		99
70) 4,6-Dinitro-2-methylph...	7.888	198	74731	4.42	ppm		98
71) n-Nitrosodiphenylamine	7.947	169	400585	5.62	ppm		98
72) 1,2-Diphenylhydrazine	7.984	77	623636	6.46	ppm		96
74) 4-Bromophenyl-phenylether	8.289	248	158848	4.70	ppm		94
75) Hexachlorobenzene	8.353	284	186577	4.99	ppm		83
76) Pentachlorophenol	8.540	266	225311	8.70	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79920.D
Acq On : 30 May 2018 5:43 am
Operator : chriss2
Sample : ic3523-5
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 30 11:54:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:54:12 2018
Response via : Initial Calibration

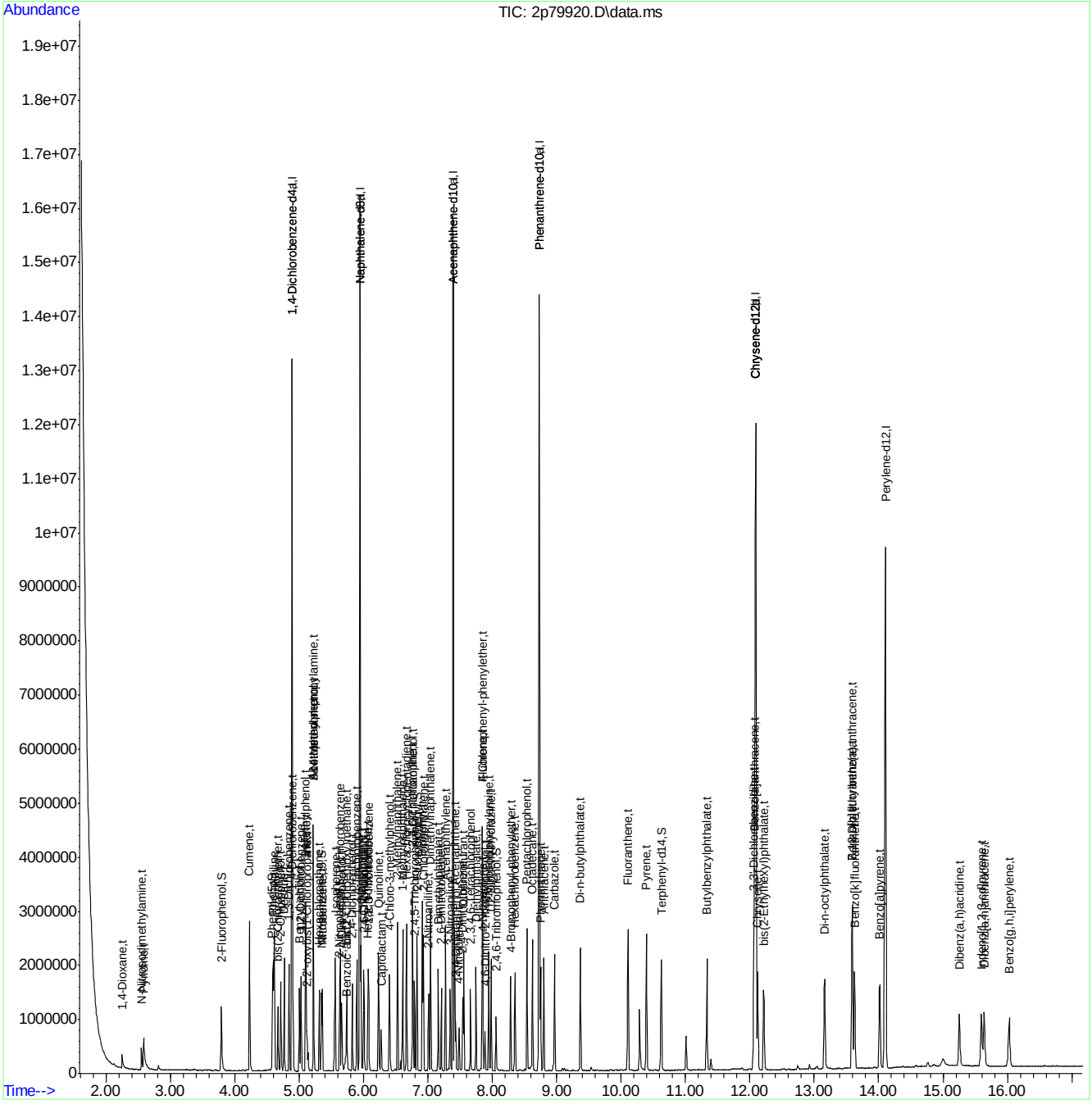
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	8.754	178	616381	4.91	ppm	97
78)	Anthracene	8.802	178	680514	5.27	ppm	97
79)	Carbazole	8.968	167	737715	5.26	ppm	98
80)	Di-n-butylphthalate	9.369	149	1104112	5.46	ppm	97
81)	Fluoranthene	10.107	202	1011066	5.24	ppm	97
82)	Octadecane	8.626	43	264259	7.07	ppm	88
84)	Pyrene	10.396	202	996339	4.97	ppm	98
86)	Butylbenzylphthalate	11.332	149	532240	4.76	ppm	95
87)	Benzo[a]anthracene	12.070	228	895993	4.85	ppm	98
88)	3,3'-Dichlorobenzidine	12.060	252	347657	4.58	ppm	94
89)	Chrysene	12.124	228	609985	4.39	ppm	98
90)	bis(2-Ethylhexyl)phtha...	12.215	149	527487	4.66	ppm	94
92)	Di-n-octylphthalate	13.161	149	1088744	5.01	ppm	97
93)	Benzo[b]fluoranthene	13.589	252	836083	4.94	ppm	97
94)	Benzo[k]fluoranthene	13.627	252	741407	6.07	ppm	96
95)	Benzo[a]pyrene	14.017	252	707885	5.05	ppm	98
96)	Indeno[1,2,3-cd]pyrene	15.595	276	583610	4.38	ppm	93
97)	Dibenz(a,h)acridine	15.253	279	542199	4.59	ppm	99
98)	Dibenz[a,h]anthracene	15.638	278	595992	4.85	ppm	96
99)	7,12-Dimethylbenz(a)an...	13.589	256	275803	3.77	ppm	94
100)	Benzo[g,h,i]perylene	16.028	276	577643	4.74	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79920.D
Acq On : 30 May 2018 5:43 am
Operator : chriss2
Sample : ic3523-5
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 30 11:54:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:54:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79921.D
Acq On : 30 May 2018 6:05 am
Operator : chriss2
Sample : ic3523-2
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 30 11:56:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:55:57 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1682150	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	5526889	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	2958289	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	4941841	40.00	ppm	0.00
83) Chrysene-d12	12.086	240	4776348	40.00	ppm	-0.02
91) Perylene-d12	14.108	264	4368917	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	1682150	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	5526889	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	2958289	40.00	ppm	0.00
108) Chrysene-d12a	12.086	240	4776348	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.727	188	4941841	40.00	ppm	0.00
114) Chrysene-d12b	12.086	240	4776348	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.791	112	135242	1.69	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	3.38%#	
8) Phenol-d5	4.587	99	176861	1.89	ppm	-0.01
Spiked Amount 50.000	Range 10 - 59		Recovery	=	3.78%#	
25) Nitrobenzene-d5	5.347	82	139506	2.29	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	=	4.58%#	
51) 2-Fluorobiphenyl	6.834	172	231277	2.36	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery	=	4.72%#	
73) 2,4,6-Tribromophenol	8.059	330	28928	1.69	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery	=	3.38%#	
85) Terphenyl-d14	10.626	244	235428	1.86	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery	=	3.72%#	
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
2) 1,4-Dioxane	2.261	88	43808	1.53	ppm	92
3) Pyridine	2.598	79	120908	1.67	ppm	98
4) N-Nitrosodimethylamine	2.555	74	72247	1.64	ppm	98
6) Indene	5.106	116	191253	2.10	ppm	93
7) Cumene	4.229	105	366255	2.02	ppm	95
9) Phenol	4.598	94	204492	2.25	ppm	88
10) Aniline	4.614	93	228428	2.66	ppm	88
11) bis(2-Chloroethyl)ether	4.673	93	130481	2.27	ppm	97
12) 2-Chlorophenol	4.716	128	143252	2.20	ppm	96
13) Decane	4.769	57	138210	2.52	ppm	95
14) 1,3-Dichlorobenzene	4.844	146	146876	2.19	ppm	98
15) 1,4-Dichlorobenzene	4.903	146	116659	2.00	ppm	92
16) Benzyl alcohol	5.005	108	69370	1.86	ppm	89
17) 1,2-Dichlorobenzene	5.031	146	121726	2.11	ppm	96
18) Acetophenone	5.224	105	171525	2.21	ppm	82
19) 2-Methylphenol	5.101	108	107054	2.28	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.122	121	33986	2.33	ppm #	61

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79921.D
Acq On : 30 May 2018 6:05 am
Operator : chriss2
Sample : ic3523-2
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 30 11:56:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:55:57 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	5.224	108	111501	2.27	ppm	98
22) n-Nitroso-di-n-propyla...	5.224	70	84991	2.50	ppm	82
23) Hexachloroethane	5.315	201	44224	2.03	ppm	95
26) Nitrobenzene	5.363	77	131067	2.38	ppm	93
27) Quinoline	6.235	129	217892	1.95	ppm	98
28) Isophorone	5.561	82	231391	2.11	ppm	96
29) 2-Nitrophenol	5.630	139	60965	1.92	ppm	99
30) 2,4-Dimethylphenol	5.663	107	105757	2.32	ppm	94
31) Benzoic acid	5.711	105	63862	1.50	ppm	94
32) bis(2-Chloroethoxy)met...	5.743	93	131040	2.27	ppm	96
33) 2,4-Dichlorophenol	5.828	162	91696	2.12	ppm	98
34) 2,6-Dichlorophenol	6.010	162	72782	1.95	ppm	96
35) 1,3,5-Trichlorobenzene	5.641	180	113707	2.21	ppm	98
36) 1,2,4-Trichlorobenzene	5.898	180	106587	2.18	ppm	97
37) 1,2,3-Trichlorobenzene	6.080	180	88906	2.14	ppm	95
38) Naphthalene	5.962	128	280142	2.14	ppm	97
39) 4-Chloroaniline	6.005	127	128396	2.08	ppm	93
40) 2,3-Dichloroaniline	6.759	161	117017	2.15	ppm	95
41) Caprolactam	6.267	113	33800	1.79	ppm	93
42) Hexachlorobutadiene	6.074	225	49415	1.93	ppm	95
43) 4-Chloro-3-methylphenol	6.401	107	99188	2.01	ppm	89
44) 2-Methylnaphthalene	6.529	141	188165	2.09	ppm	94
45) 1-Methylnaphthalene	6.615	141	194591	2.18	ppm	94
46) Dimethylnaphthalene	7.042	156	197867	2.33	ppm	90
48) Hexachlorocyclopentadiene	6.668	237	97061	3.58	ppm	97
49) 2,4,6-Trichlorophenol	6.764	196	60486	2.01	ppm	99
50) 2,4,5-Trichlorophenol	6.791	196	66836	2.20	ppm	93
52) 2-Chloronaphthalene	6.930	162	201375	2.50	ppm	96
53) Biphenyl	6.914	154	260952	2.23	ppm	97
54) 2-Nitroaniline	7.010	65	63939	2.18	ppm	97
55) Dimethylphthalate	7.160	163	220718	2.18	ppm	99
56) Acenaphthylene	7.272	152	321509	2.29	ppm	97
57) 2,6-Dinitrotoluene	7.208	165	44234	1.86	ppm	91
58) 3-Nitroaniline	7.347	138	57929	2.01	ppm	90
59) Acenaphthene	7.417	153	159414	1.95	ppm	98
60) 2,4-Dinitrophenol	7.433	184	20015	1.80	ppm	83
61) 4-Nitrophenol	7.481	109	26397	1.63	ppm	86
62) Dibenzofuran	7.556	168	238678	2.12	ppm	93
63) 2,4-Dinitrotoluene	7.540	165	52864	1.70	ppm	85
64) 2,3,4,6-Tetrachlorophenol	7.663	232	47027	1.67	ppm	94
65) Diethylphthalate	7.743	149	216176	2.07	ppm	94
66) Fluorene	7.845	166	215694	2.20	ppm	96
67) 4-Chlorophenyl-phenyle...	7.845	204	98266	1.99	ppm	84
68) 4-Nitroaniline	7.855	138	56722	2.20	ppm	99
70) 4,6-Dinitro-2-methylph...	7.888	198	21127	1.35	ppm	96
71) n-Nitrosodiphenylamine	7.946	169	152943	2.23	ppm	95
72) 1,2-Diphenylhydrazine	7.984	77	250065	2.62	ppm	96
74) 4-Bromophenyl-phenylether	8.283	248	58862	1.87	ppm	78
75) Hexachlorobenzene	8.353	284	69948	1.99	ppm	82
76) Pentachlorophenol	8.540	266	71972	3.02	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79921.D
Acq On : 30 May 2018 6:05 am
Operator : chriss2
Sample : ic3523-2
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 30 11:56:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:55:57 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	8.749	178	235169	2.00	ppm	98
78)	Anthracene	8.802	178	252575	2.06	ppm	98
79)	Carbazole	8.968	167	276868	2.08	ppm	97
80)	Di-n-butylphthalate	9.369	149	376902	1.95	ppm	98
81)	Fluoranthene	10.107	202	346900	1.89	ppm	94
82)	Octadecane	8.626	43	101191	2.69	ppm	90
84)	Pyrene	10.396	202	370959	1.99	ppm	98
86)	Butylbenzylphthalate	11.332	149	183640	1.78	ppm	95
87)	Benzo[a]anthracene	12.070	228	333962	1.95	ppm	99
88)	3,3'-Dichlorobenzidine	12.059	252	115203	1.65	ppm	97
89)	Chrysene	12.118	228	222881	1.76	ppm	97
90)	bis(2-Ethylhexyl)phtha...	12.215	149	180239	1.73	ppm	98
92)	Di-n-octylphthalate	13.161	149	355422	1.79	ppm	99
93)	Benzo[b]fluoranthene	13.584	252	303066	1.96	ppm	100
94)	Benzo[k]fluoranthene	13.621	252	275330	2.38	ppm	100
95)	Benzo[a]pyrene	14.017	252	252676	1.97	ppm	100
96)	Indeno[1,2,3-cd]pyrene	15.595	276	211397	1.77	ppm	93
97)	Dibenz(a,h)acridine	15.253	279	190510	1.79	ppm	100
98)	Dibenz[a,h]anthracene	15.632	278	209651	1.88	ppm	99
99)	7,12-Dimethylbenz(a)an...	13.589	256	111542	1.74	ppm	100
100)	Benzo[g,h,i]perylene	16.017	276	200436	1.82	ppm	100

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

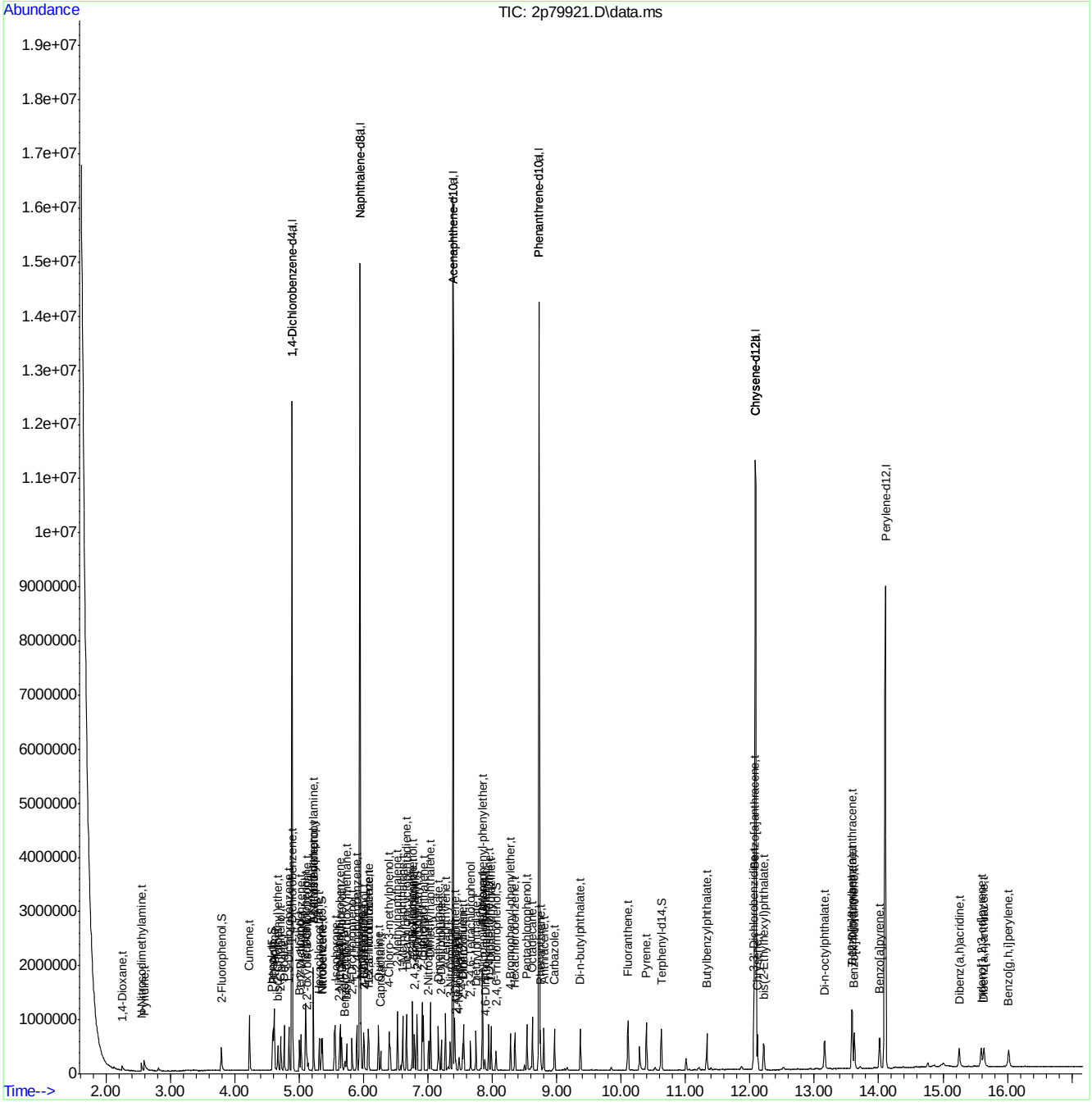
9.6.7

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79921.D
Acq On : 30 May 2018 6:05 am
Operator : chriss2
Sample : ic3523-2
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 30 11:56:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:55:57 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79922.D
Acq On : 30 May 2018 6:27 am
Operator : chriss2
Sample : ic3523-1
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 30 11:57:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:56:38 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1838841	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	6052581	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	3293892	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	5420493	40.00	ppm	0.00
83) Chrysene-d12	12.092	240	5202749	40.00	ppm	-0.01
91) Perylene-d12	14.103	264	4711274	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1838841	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	6052581	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	3293892	40.00	ppm	0.00
108) Chrysene-d12a	12.092	240	5202749	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.727	188	5420493	40.00	ppm	0.00
114) Chrysene-d12b	12.092	240	5202749	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.790	112	75846	0.89	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	1.78%#	
8) Phenol-d5	4.587	99	99614	0.98	ppm	-0.01
Spiked Amount 50.000	Range 10 - 59		Recovery	=	1.96%#	
25) Nitrobenzene-d5	5.347	82	78213	1.15	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	=	2.30%#	
51) 2-Fluorobiphenyl	6.834	172	130099	1.16	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery	=	2.32%#	
73) 2,4,6-Tribromophenol	8.059	330	15615	0.85	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery	=	1.70%#	
85) Terphenyl-d14	10.621	244	131842	0.96	ppm	-0.01
Spiked Amount 50.000	Range 16 - 65		Recovery	=	1.92%#	
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
2) 1,4-Dioxane	2.261	88	27486	0.91	ppm	99
3) Pyridine	2.603	79	69515	0.90	ppm	99
4) N-Nitrosodimethylamine	2.560	74	39950	0.85	ppm	91
6) Indene	5.106	116	108541	1.08	ppm	96
7) Cumene	4.229	105	195358	0.98	ppm	99
9) Phenol	4.598	94	111539	1.10	ppm	92
10) Aniline	4.614	93	126452	1.29	ppm	87
11) bis(2-Chloroethyl)ether	4.673	93	73860	1.15	ppm	96
12) 2-Chlorophenol	4.716	128	82896	1.15	ppm	94
13) Decane	4.769	57	79493	1.28	ppm	93
14) 1,3-Dichlorobenzene	4.844	146	83674	1.13	ppm	98
15) 1,4-Dichlorobenzene	4.903	146	64957	1.02	ppm	96
16) Benzyl alcohol	5.005	108	36607	0.91	ppm	87
17) 1,2-Dichlorobenzene	5.031	146	65828	1.04	ppm	94
18) Acetophenone	5.224	105	95387	1.11	ppm	84
19) 2-Methylphenol	5.101	108	55761	1.07	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.122	121	18557	1.14	ppm #	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79922.D
Acq On : 30 May 2018 6:27 am
Operator : chriss2
Sample : ic3523-1
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 30 11:57:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:56:38 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.224	108	60397	1.10	ppm		99
22) n-Nitroso-di-n-propyla...	5.224	70	50385	1.31	ppm		81
23) Hexachloroethane	5.315	201	23654	0.99	ppm		86
26) Nitrobenzene	5.363	77	75278	1.21	ppm		91
27) Quinoline	6.235	129	124312	1.02	ppm		99
28) Isophorone	5.561	82	128183	1.06	ppm		96
29) 2-Nitrophenol	5.630	139	32269	0.93	ppm		97
30) 2,4-Dimethylphenol	5.663	107	50842	1.00	ppm		95
31) Benzoic acid	5.705	105	29017	0.65	ppm		93
32) bis(2-Chloroethoxy)met...	5.743	93	78040	1.21	ppm		93
33) 2,4-Dichlorophenol	5.828	162	53599	1.12	ppm		91
34) 2,6-Dichlorophenol	6.010	162	39806	0.98	ppm		94
35) 1,3,5-Trichlorobenzene	5.641	180	64237	1.12	ppm		97
36) 1,2,4-Trichlorobenzene	5.898	180	58035	1.07	ppm		89
37) 1,2,3-Trichlorobenzene	6.080	180	50902	1.11	ppm		94
38) Naphthalene	5.962	128	151062	1.04	ppm		98
39) 4-Chloroaniline	6.005	127	71422	1.05	ppm		95
40) 2,3-Dichloroaniline	6.759	161	67339	1.12	ppm		94
41) Caprolactam	6.262	113	18445	0.91	ppm		85
42) Hexachlorobutadiene	6.069	225	25843	0.93	ppm		97
43) 4-Chloro-3-methylphenol	6.401	107	52856	0.98	ppm		94
44) 2-Methylnaphthalene	6.529	141	106486	1.07	ppm		92
45) 1-Methylnaphthalene	6.609	141	113855	1.15	ppm		92
46) Dimethylnaphthalene	7.042	156	110887	1.17	ppm		93
48) Hexachlorocyclopentadiene	6.668	237	52499	1.77	ppm		98
49) 2,4,6-Trichlorophenol	6.764	196	32998	0.99	ppm		96
50) 2,4,5-Trichlorophenol	6.791	196	35850	1.05	ppm		98
52) 2-Chloronaphthalene	6.930	162	116327	1.25	ppm		98
53) Biphenyl	6.914	154	149307	1.13	ppm		98
54) 2-Nitroaniline	7.010	65	34257	1.04	ppm		98
55) Dimethylphthalate	7.160	163	123404	1.08	ppm		99
56) Acenaphthylene	7.272	152	178545	1.12	ppm		96
57) 2,6-Dinitrotoluene	7.208	165	24647	0.94	ppm		90
58) 3-Nitroaniline	7.347	138	30161	0.94	ppm		92
59) Acenaphthene	7.417	153	89233	0.98	ppm		96
60) 2,4-Dinitrophenol	7.433	184	8134	0.71	ppm	#	58
61) 4-Nitrophenol	7.481	109	13334	0.76	ppm	#	76
62) Dibenzofuran	7.556	168	132851	1.05	ppm		95
63) 2,4-Dinitrotoluene	7.540	165	27433	0.81	ppm		86
64) 2,3,4,6-Tetrachlorophenol	7.663	232	24219	0.79	ppm		96
65) Diethylphthalate	7.743	149	119152	1.02	ppm		94
66) Fluorene	7.845	166	118445	1.07	ppm		97
67) 4-Chlorophenyl-phenyle...	7.845	204	55507	1.01	ppm		86
68) 4-Nitroaniline	7.855	138	31439	1.08	ppm		96
70) 4,6-Dinitro-2-methylph...	7.888	198	9250	0.57	ppm		96
71) n-Nitrosodiphenylamine	7.946	169	86601	1.13	ppm		96
72) 1,2-Diphenylhydrazine	7.984	77	143662	1.31	ppm		99
74) 4-Bromophenyl-phenylether	8.283	248	32430	0.95	ppm	#	83
75) Hexachlorobenzene	8.353	284	39910	1.04	ppm		87
76) Pentachlorophenol	8.540	266	36952	1.46	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79922.D
Acq On : 30 May 2018 6:27 am
Operator : chriss2
Sample : ic3523-1
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 30 11:57:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:56:38 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
77)	Phenanthrene	8.749	178	132142	1.02 ppm	97
78)	Anthracene	8.802	178	136283	1.01 ppm	97
79)	Carbazole	8.968	167	151120	1.03 ppm	100
80)	Di-n-butylphthalate	9.369	149	200735	0.95 ppm	96
81)	Fluoranthene	10.107	202	192043	0.96 ppm	97
82)	Octadecane	8.626	43	56746	1.31 ppm	85
84)	Pyrene	10.391	202	205135	1.01 ppm	99
86)	Butylbenzylphthalate	11.332	149	94828	0.86 ppm	92
87)	Benzo[a]anthracene	12.070	228	187309	1.01 ppm	95
88)	3,3'-Dichlorobenzidine	12.059	252	61656	0.83 ppm	94
89)	Chrysene	12.118	228	119240	0.88 ppm	97
90)	bis(2-Ethylhexyl)phtha...	12.215	149	90721	0.82 ppm	95
92)	Di-n-octylphthalate	13.161	149	180005	0.85 ppm	99
93)	Benzo[b]fluoranthene	13.584	252	164754	0.99 ppm	98
94)	Benzo[k]fluoranthene	13.621	252	147533	1.15 ppm	99
95)	Benzo[a]pyrene	14.012	252	136076	0.99 ppm	96
96)	Indeno[1,2,3-cd]pyrene	15.590	276	113882	0.90 ppm	94
97)	Dibenz(a,h)acridine	15.253	279	101761	0.90 ppm	99
98)	Dibenz[a,h]anthracene	15.632	278	116233	0.97 ppm	97
99)	7,12-Dimethylbenz(a)an...	13.589	256	55049	0.81 ppm	98
100)	Benzo[g,h,i]perylene	16.017	276	109072	0.93 ppm	96

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

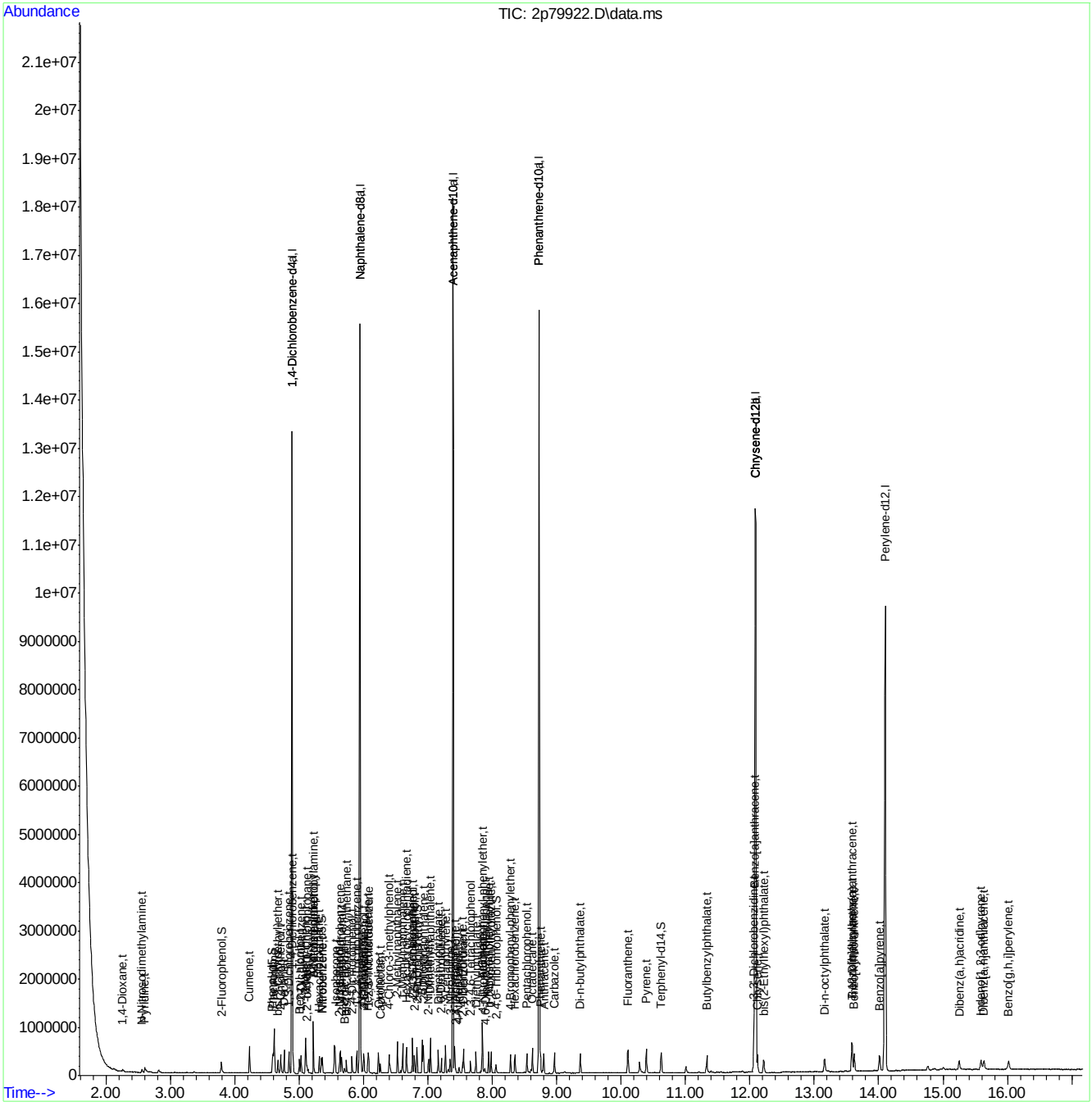
9.6.8

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79922.D
Acq On : 30 May 2018 6:27 am
Operator : chriss2
Sample : ic3523-1
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 30 11:57:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:56:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79923.D
Acq On : 30 May 2018 6:49 am
Operator : chriss2
Sample : icv3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 31 09:34:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 09:22:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	929541	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	3218119	40.00	ppm	0.00
47) Acenaphthene-d10	7.395	164	1566418	40.00	ppm	0.00
69) Phenanthrene-d10	8.738	188	2975272	40.00	ppm	0.00
83) Chrysene-d12	12.097	240	2665213	40.00	ppm	0.00
91) Perylene-d12	14.108	264	2949742	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	929541	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	3218119	40.00	ppm	0.00
105) Acenaphthene-d10a	7.395	164	1566418	40.00	ppm	0.00
108) Chrysene-d12a	12.097	240	2665213	40.00	ppm	0.00
110) Phenanthrene-d10a	8.738	188	2975272	40.00	ppm	0.00
114) Chrysene-d12b	12.097	240	2665213	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						Qvalue
2) 1,4-Dioxane	2.250	88	819121	54.18	ppm	100
3) Pyridine	2.571	79	2138139	55.38	ppm	96
4) N-Nitrosodimethylamine	2.550	74	1282403	55.19	ppm	100
9) Phenol	4.609	94	2661716	51.39	ppm	89
10) Aniline	4.619	93	2790798	52.31	ppm	86
11) bis(2-Chloroethyl)ether	4.678	93	1510940	45.73	ppm	95
12) 2-Chlorophenol	4.721	128	1735624	46.75	ppm	99
14) 1,3-Dichlorobenzene	4.844	146	1906482	50.00	ppm	99
15) 1,4-Dichlorobenzene	4.908	146	1676146	51.90	ppm	98
16) Benzyl alcohol	5.010	108	1164258	57.73	ppm	97
17) 1,2-Dichlorobenzene	5.037	146	1588342	49.28	ppm	99
19) 2-Methylphenol	5.112	108	1514490	56.78	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.128	121	480476	57.24	ppm	94
22) n-Nitroso-di-n-propyla...	5.235	70	798890	39.53	ppm	95
23) Hexachloroethane	5.315	201	552016	45.76	ppm	98
26) Nitrobenzene	5.368	77	1653637	48.83	ppm	95
28) Isophorone	5.572	82	3528958	54.50	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79923.D
Acq On : 30 May 2018 6:49 am
Operator : chriss2
Sample : icv3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 31 09:34:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 09:22:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) 2-Nitrophenol	5.630	139	940933	51.57	ppm	90
30) 2,4-Dimethylphenol	5.673	107	1626675	59.94	ppm	98
31) Benzoic acid	5.785	105	1281925	56.18	ppm	98
32) bis(2-Chloroethoxy)met...	5.748	93	1737639	49.41	ppm	100
33) 2,4-Dichlorophenol	5.834	162	1301285	50.42	ppm	98
36) 1,2,4-Trichlorobenzene	5.903	180	1410516	48.53	ppm	100
38) Naphthalene	5.967	128	4085035	52.83	ppm	99
39) 4-Chloroaniline	6.015	127	1892627	52.09	ppm	99
41) Caprolactam	6.320	113	597461	55.84	ppm	96
42) Hexachlorobutadiene	6.074	225	650077	44.22	ppm	99
43) 4-Chloro-3-methylphenol	6.417	107	1534692	53.56	ppm	99
44) 2-Methylnaphthalene	6.534	141	2452504	46.13	ppm	100
45) 1-Methylnaphthalene	6.620	141	2465639	45.92	ppm	96
49) 2,4,6-Trichlorophenol	6.770	196	872250	54.87	ppm	100
50) 2,4,5-Trichlorophenol	6.802	196	894836	54.61	ppm	99
52) 2-Chloronaphthalene	6.935	162	2221877	48.81	ppm	99
53) Biphenyl	6.919	154	3009932	47.10	ppm	99
54) 2-Nitroaniline	7.021	65	839357	53.18	ppm	98
55) Dimethylphthalate	7.176	163	2851832	51.92	ppm	99
56) Acenaphthylene	7.278	152	3971625	51.64	ppm	100
57) 2,6-Dinitrotoluene	7.219	165	654642	53.01	ppm	96
58) 3-Nitroaniline	7.358	138	810663	53.39	ppm	91
59) Acenaphthene	7.422	153	2429115	56.47	ppm	98
60) 2,4-Dinitrophenol	7.444	184	361133	60.16	ppm	83
61) 4-Nitrophenol	7.497	109	472885	58.50	ppm	97
62) Dibenzofuran	7.567	168	2925207	48.34	ppm	100
63) 2,4-Dinitrotoluene	7.551	165	763680	48.54	ppm	92
64) 2,3,4,6-Tetrachlorophenol	7.668	232	811053	57.20	ppm	96
65) Diethylphthalate	7.754	149	3029573	54.45	ppm	98
66) Fluorene	7.855	166	2913383	54.77	ppm	100
67) 4-Chlorophenyl-phenyle...	7.850	204	1510763	57.71	ppm	98
68) 4-Nitroaniline	7.877	138	717805	51.40	ppm	99
70) 4,6-Dinitro-2-methylph...	7.898	198	483246	53.88	ppm	95
71) n-Nitrosodiphenylamine	7.957	169	2482751	58.23	ppm	99
72) 1,2-Diphenylhydrazine	7.989	77	2816661	43.32	ppm	98
74) 4-Bromophenyl-phenylether	8.294	248	770271	41.24	ppm	98
75) Hexachlorobenzene	8.364	284	977987	46.01	ppm	98
76) Pentachlorophenol	8.551	266	680183	50.78	ppm	99
77) Phenanthrene	8.765	178	3708762	52.15	ppm	99
78) Anthracene	8.813	178	3926235	52.87	ppm	99
80) Di-n-butylphthalate	9.380	149	6436456	55.86	ppm	99
81) Fluoranthene	10.118	202	5117313	46.99	ppm	99
84) Pyrene	10.407	202	5004303	48.09	ppm	99
86) Butylbenzylphthalate	11.337	149	2573010	46.26	ppm	94
87) Benzo[a]anthracene	12.081	228	5101729	53.60	ppm	98
88) 3,3'-Dichlorobenzidine	12.075	252	2245823	60.50	ppm	99
89) Chrysene	12.140	228	3722725	54.45	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.220	149	3040471	54.59	ppm	100
92) Di-n-octylphthalate	13.167	149	7024456	54.20	ppm	94
93) Benzo[b]fluoranthene	13.605	252	5509073	53.08	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79923.D
Acq On : 30 May 2018 6:49 am
Operator : chriss2
Sample : icv3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 31 09:34:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 09:22:41 2018
Response via : Initial Calibration

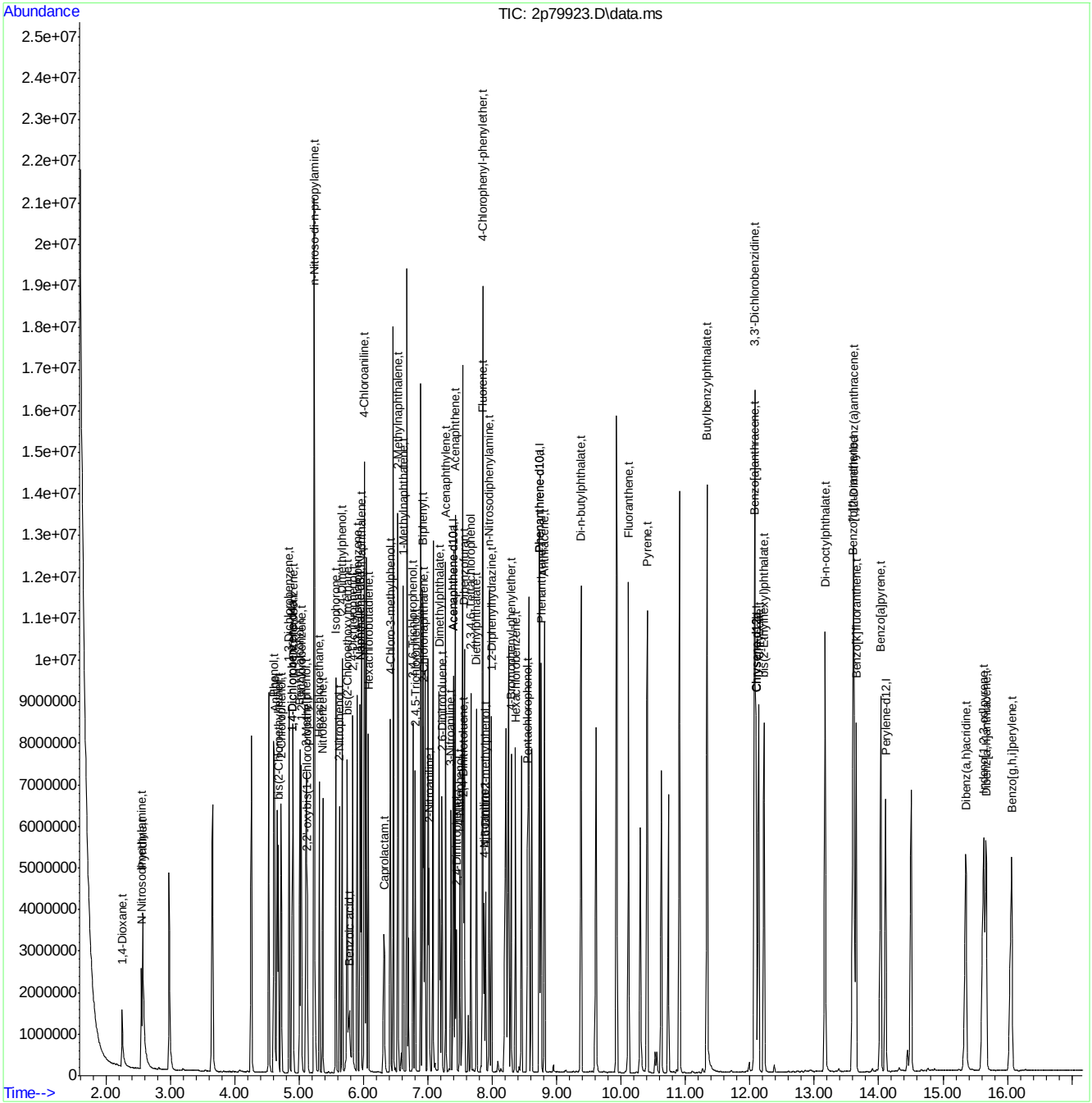
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94)	Benzo[k]fluoranthene	13.653	252	3670873	44.96 ppm	100
95)	Benzo[a]pyrene	14.033	252	4754377	55.15 ppm	98
96)	Indeno[1,2,3-cd]pyrene	15.632	276	4571170	58.45 ppm	90
97)	Dibenz(a,h)acridine	15.354	279	3826645	54.78 ppm	100
98)	Dibenz[a,h]anthracene	15.670	278	3864270	51.85 ppm	94
99)	7,12-Dimethylbenz(a)an...	13.616	256	2407174	58.10 ppm	94
100)	Benzo[g,h,i]perylene	16.066	276	4370816	60.00 ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79923.D
Acq On : 30 May 2018 6:49 am
Operator : chriss2
Sample : icv3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 31 09:34:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 09:22:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79924.D
Acq On : 30 May 2018 7:11 am
Operator : chriss2
Sample : icv3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 31 09:32:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:57:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1879948	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	6324049	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	3404923	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	5447241	40.00	ppm	0.00
83) Chrysene-d12	12.092	240	5307563	40.00	ppm	-0.01
91) Perylene-d12	14.103	264	4565950	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1879948	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	6324049	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	3404923	40.00	ppm	0.00
108) Chrysene-d12a	12.092	240	5307563	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.727	188	5447241	40.00	ppm	0.00
114) Chrysene-d12b	12.092	240	5307563	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.807	112	3597640	41.75	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 83.50%#			
8) Phenol-d5	4.598	99	4215871	40.79	ppm	0.00
Spiked Amount 50.000	Range 10 - 59		Recovery = 81.58%#			
25) Nitrobenzene-d5	5.352	82	3479011	48.03	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery = 96.06%#			
51) 2-Fluorobiphenyl	6.834	172	5650962	47.80	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery = 95.60%#			
73) 2,4,6-Tribromophenol	8.059	330	956972	52.92	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 105.84%#			
85) Terphenyl-d14	10.631	244	6168871	44.43	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery = 88.86%#			
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%#			

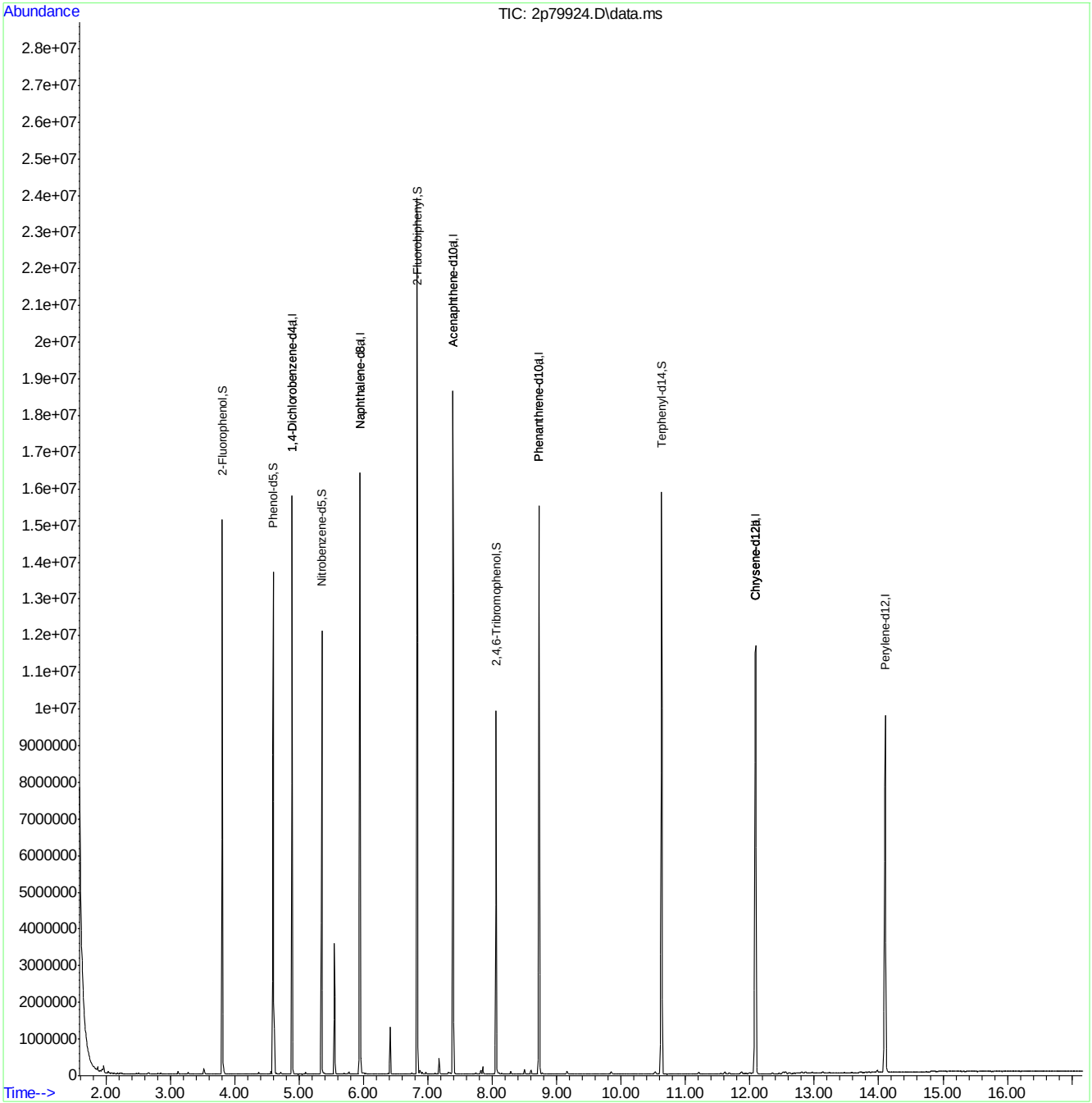
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3523\
Data File : 2p79924.D
Acq On : 30 May 2018 7:11 am
Operator : chriss2
Sample : icv3523-50
Misc : op10929,e2p3523,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 31 09:32:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 11:57:26 2018
Response via : Initial Calibration



M2P3523.M Thu May 31 09:32:39 2018 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79927.D
Acq On : 30 May 2018 12:42 pm
Operator : johnb1
Sample : ic3524-100
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 31 12:02:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration

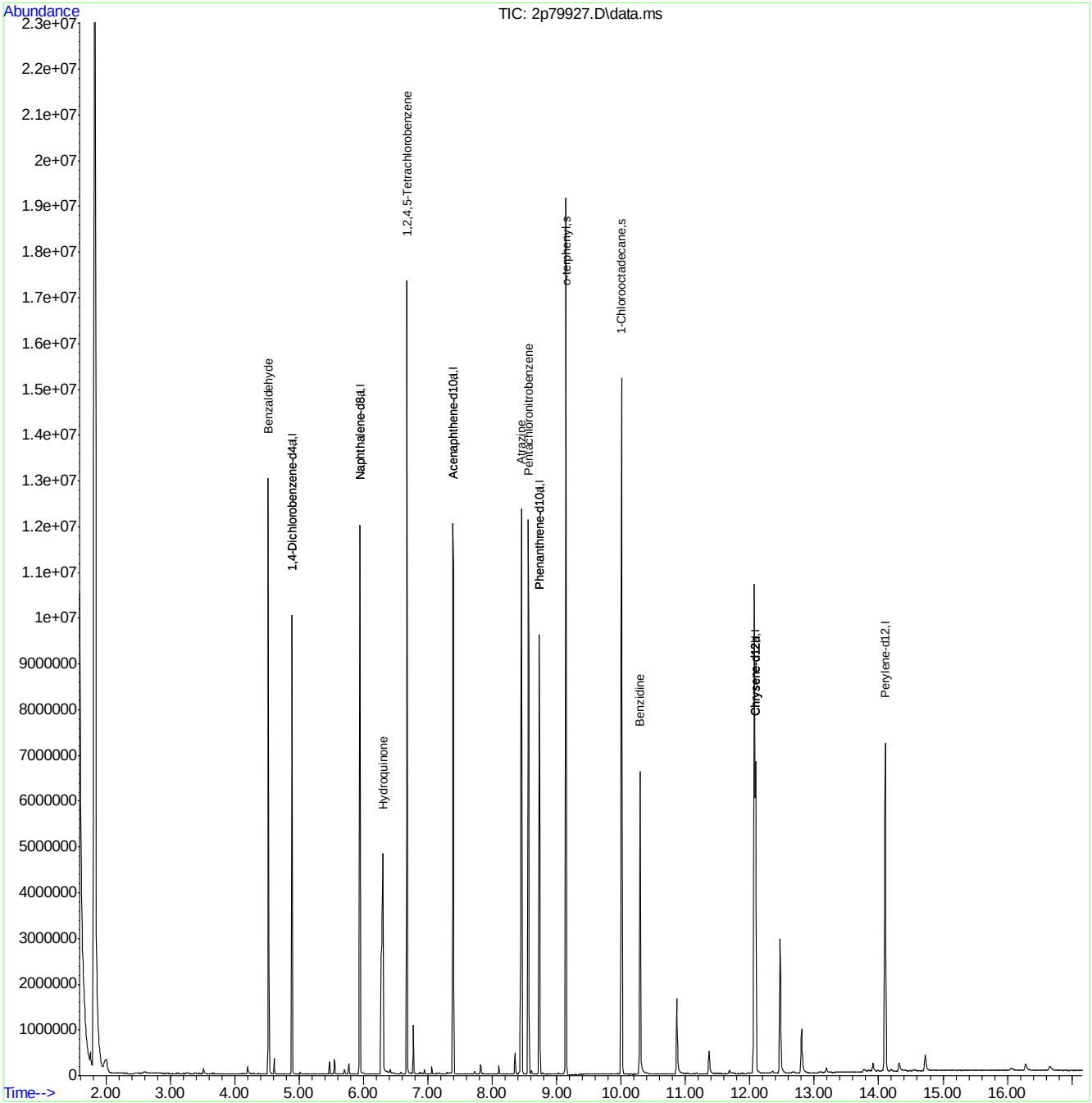
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1200422	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	4417698	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	2111806	40.00	ppm	0.00
69) Phenanthrene-d10	8.733	188	2991839	40.00	ppm	0.00
83) Chrysene-d12	12.092	240	2847195	40.00	ppm	-0.01
91) Perylene-d12	14.103	264	3159735	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1200422	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	4417698	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	2111806	40.00	ppm	0.00
108) Chrysene-d12a	12.092	240	2847195	40.00	ppm	0.00
110) Phenanthrene-d10a	8.733	188	2991839	40.00	ppm	0.00
114) Chrysene-d12b	12.092	240	2847195	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	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	10.011	57	2103615	89.57	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery	=	179.14%#	
112) o-terphenyl	9.144	230	4052306	92.91	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery	=	185.82%#	
Target Compounds						Qvalue
102) Benzaldehyde	4.523	105	2320086	85.38	ppm	97
104) Hydroquinone	6.304	110	3630221	92.16	ppm	98
106) Atrazine	8.454	215	939776	91.69	ppm	95
107) 1,2,4,5-Tetrachloroben...	6.679	216	2752928	90.14	ppm	99
109) Benzidine	10.294	184	2887694	88.30	ppm	100
113) Pentachloronitrobenzene	8.561	295	350957	94.51	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79927.D
Acq On : 30 May 2018 12:42 pm
Operator : johnb1
Sample : ic3524-100
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 31 12:02:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79928.D
Acq On : 30 May 2018 1:04 pm
Operator : johnb1
Sample : ic3524-80
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 31 12:03:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration

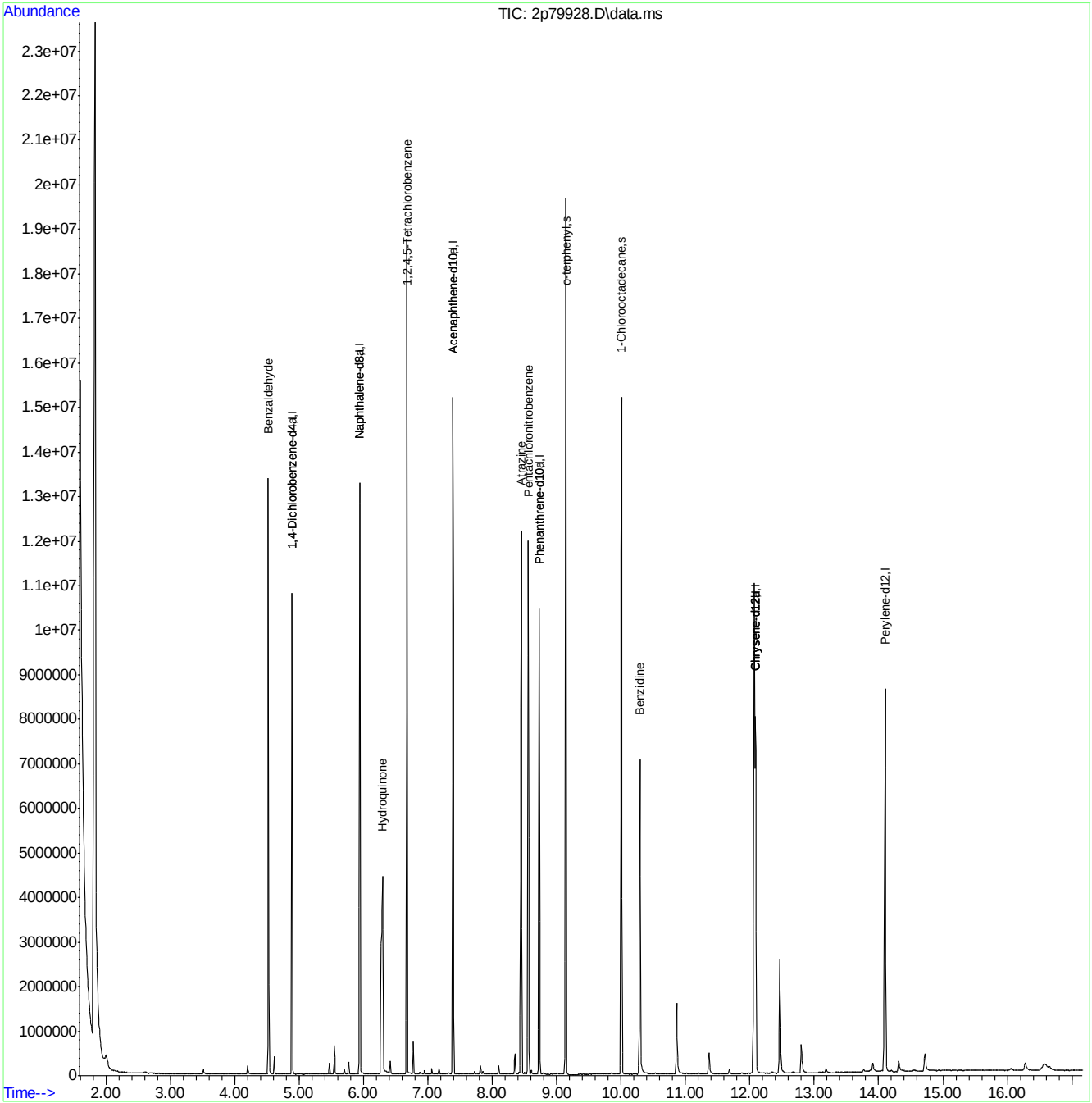
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1404935	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	5082785	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	2491474	40.00	ppm	0.00
69) Phenanthrene-d10	8.733	188	3556731	40.00	ppm	0.00
83) Chrysene-d12	12.086	240	3455502	40.00	ppm	-0.02
91) Perylene-d12	14.103	264	3886078	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1404935	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	5082785	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	2491474	40.00	ppm	0.00
108) Chrysene-d12a	12.086	240	3455502	40.00	ppm	0.00
110) Phenanthrene-d10a	8.733	188	3556731	40.00	ppm	0.00
114) Chrysene-d12b	12.086	240	3455502	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	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	10.006	57	2061985	73.86	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery = 147.72%#			
112) o-terphenyl	9.145	230	4055647	78.22	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery = 156.44%#			
Target Compounds						Qvalue
102) Benzaldehyde	4.523	105	2286605	71.89	ppm	100
104) Hydroquinone	6.299	110	3501375	77.26	ppm	99
106) Atrazine	8.455	215	916232	75.77	ppm	94
107) 1,2,4,5-Tetrachloroben...	6.673	216	2752766	76.40	ppm	100
109) Benzidine	10.294	184	3029921	76.34	ppm	100
113) Pentachloronitrobenzene	8.562	295	347203	78.65	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79928.D
Acq On : 30 May 2018 1:04 pm
Operator : johnb1
Sample : ic3524-80
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 31 12:03:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79929.D
Acq On : 30 May 2018 1:26 pm
Operator : johnb1
Sample : icc3524-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 31 12:04:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration

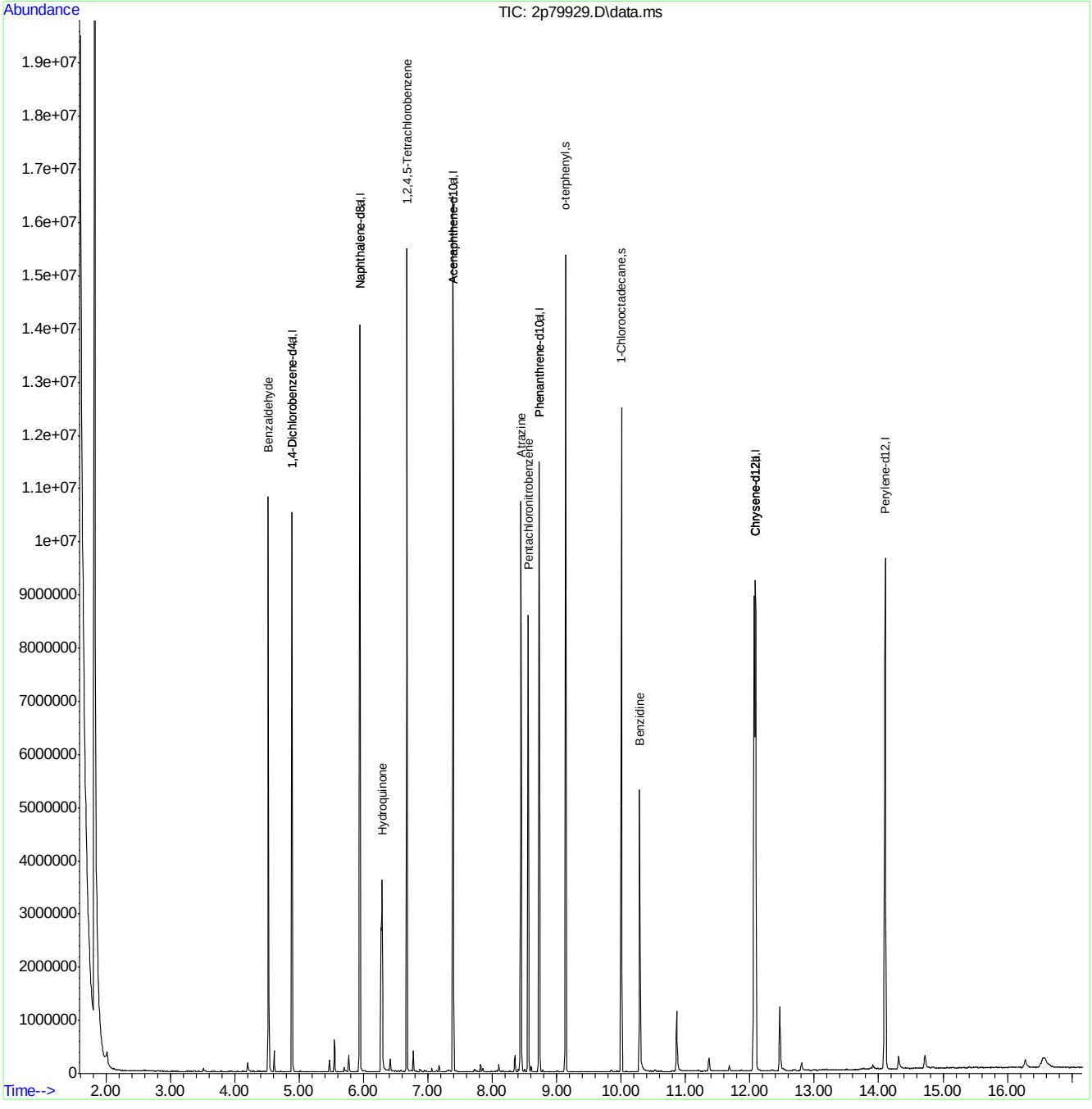
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1544256	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	5457957	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	2742561	40.00	ppm	0.00
69) Phenanthrene-d10	8.733	188	4081862	40.00	ppm	0.00
83) Chrysene-d12	12.086	240	3969150	40.00	ppm	-0.02
91) Perylene-d12	14.103	264	4345755	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1544256	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	5457957	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	2742561	40.00	ppm	0.00
108) Chrysene-d12a	12.086	240	3969150	40.00	ppm	0.00
110) Phenanthrene-d10a	8.733	188	4081862	40.00	ppm	0.00
114) Chrysene-d12b	12.086	240	3969150	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	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	10.006	57	1602053	50.00	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery = 100.00%#			
112) o-terphenyl	9.139	230	2975264	50.00	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery = 100.00%#			
Target Compounds						Qvalue
102) Benzaldehyde	4.523	105	1747948	50.00	ppm	100
104) Hydroquinone	6.288	110	2433376	50.00	ppm	100
106) Atrazine	8.449	215	665562	50.00	ppm	100
107) 1,2,4,5-Tetrachloroben...	6.673	216	1983119	50.00	ppm	100
109) Benzidine	10.289	184	2279621	50.00	ppm	100
113) Pentachloronitrobenzene	8.562	295	253308	50.00	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79929.D
Acq On : 30 May 2018 1:26 pm
Operator : johnb1
Sample : icc3524-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 31 12:04:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79930.D
Acq On : 30 May 2018 1:48 pm
Operator : johnb1
Sample : ic3524-25
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 31 12:04:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration

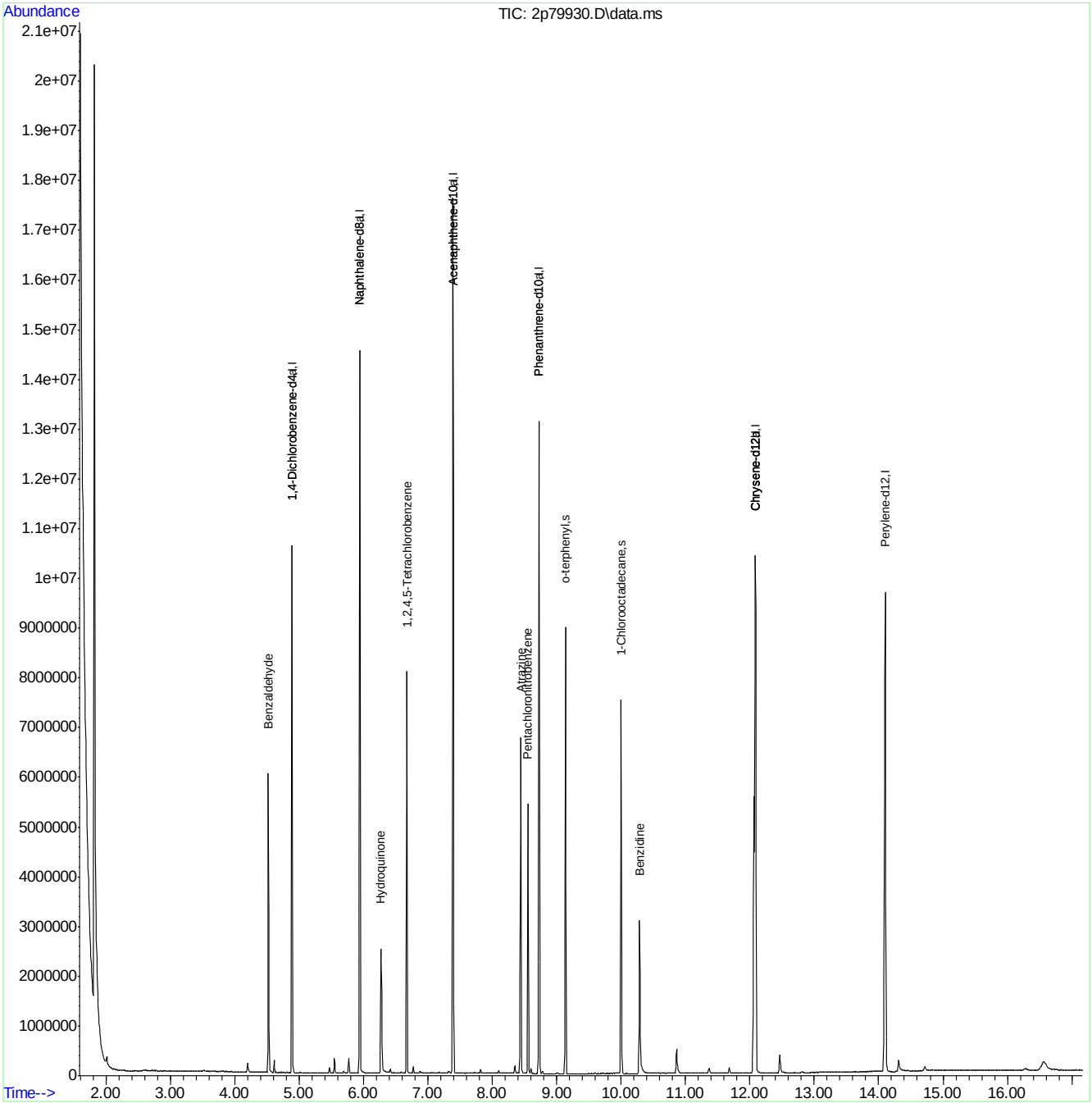
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1587455	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	5538616	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	2900047	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	4451234	40.00	ppm	0.00
83) Chrysene-d12	12.086	240	4431728	40.00	ppm	-0.02
91) Perylene-d12	14.103	264	4593206	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1587455	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	5538616	40.00	ppm	# 0.00
105) Acenaphthene-d10a	7.390	164	2900047	40.00	ppm	0.00
108) Chrysene-d12a	12.086	240	4431728	40.00	ppm	0.00
110) Phenanthrene-d10a	8.727	188	4451234	40.00	ppm	0.00
114) Chrysene-d12b	12.086	240	4431728	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	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	10.000	57	961801	27.53	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery = 55.06%			
112) o-terphenyl	9.139	230	1584833	24.42	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery = 48.84%			
Target Compounds						Qvalue
102) Benzaldehyde	4.523	105	994607	27.68	ppm	99
104) Hydroquinone	6.272	110	1207666	24.45	ppm	100
106) Atrazine	8.444	215	349765	24.85	ppm	93
107) 1,2,4,5-Tetrachloroben...	6.673	216	1043242	24.87	ppm	98
109) Benzidine	10.289	184	1336250	26.25	ppm	99
113) Pentachloronitrobenzene	8.556	295	134565	24.36	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79930.D
Acq On : 30 May 2018 1:48 pm
Operator : johnb1
Sample : ic3524-25
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 31 12:04:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration



M2P3523.M Thu May 31 12:04:52 2018 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79931.D
Acq On : 30 May 2018 2:10 pm
Operator : johnb1
Sample : ic3524-10
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 31 12:05:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration

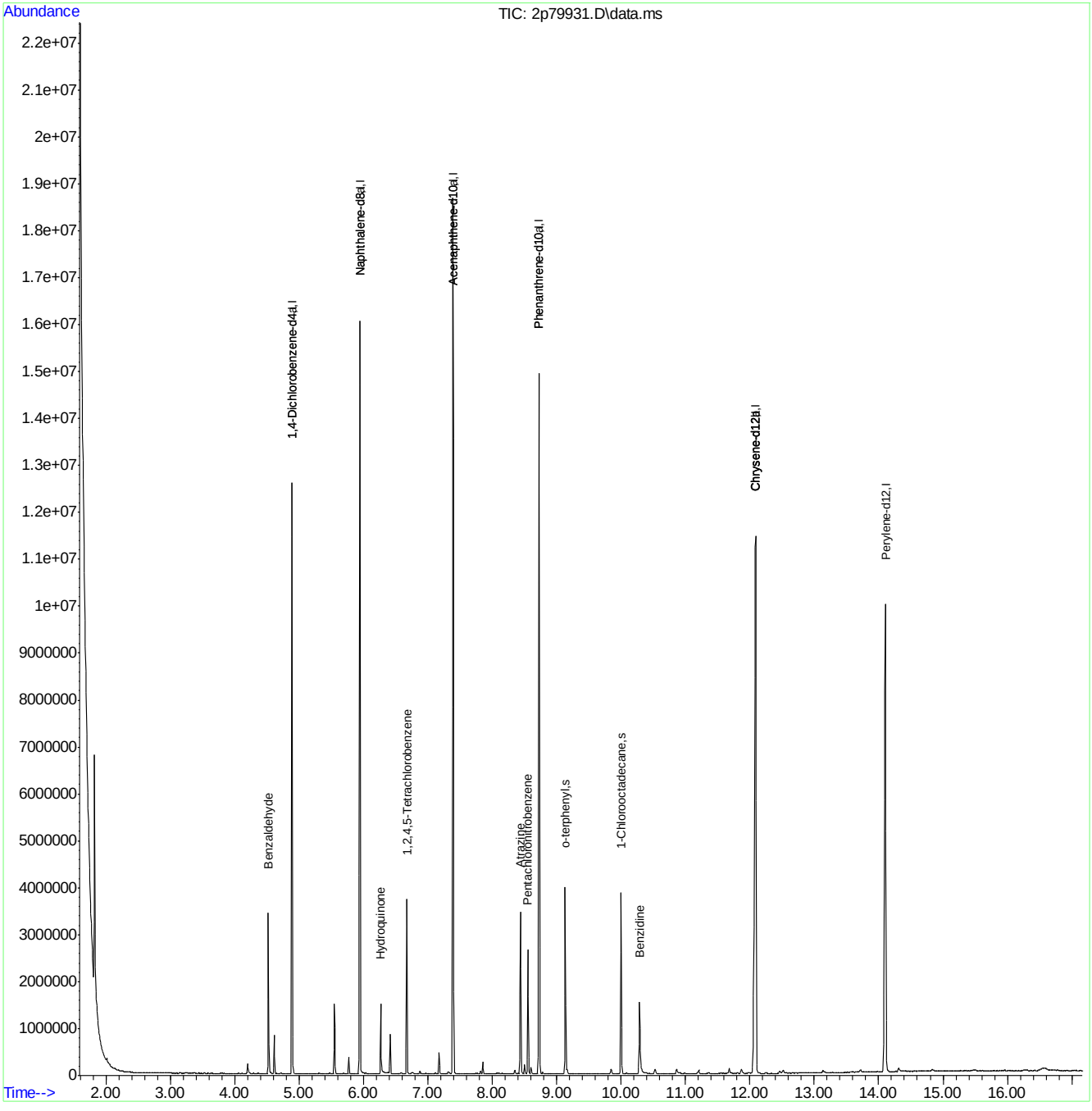
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1818449	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	6083197	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	3152052	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	5173146	40.00	ppm	0.00
83) Chrysene-d12	12.092	240	5184732	40.00	ppm	-0.01
91) Perylene-d12	14.108	264	5014770	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	1818449	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	6083197	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	3152052	40.00	ppm	0.00
108) Chrysene-d12a	12.092	240	5184732	40.00	ppm	0.00
110) Phenanthrene-d10a	8.727	188	5173146	40.00	ppm	0.00
114) Chrysene-d12b	12.092	240	5184732	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	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	10.000	57	493938	12.16	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery = 24.32%			
112) o-terphenyl	9.139	230	743683	9.86	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery = 19.72%#			
Target Compounds						Qvalue
102) Benzaldehyde	4.523	105	548960	13.34	ppm	96
104) Hydroquinone	6.267	110	502666	9.27	ppm	96
106) Atrazine	8.438	215	163006	10.65	ppm	83
107) 1,2,4,5-Tetrachloroben...	6.673	216	494576	10.85	ppm	99
109) Benzidine	10.289	184	745675	12.52	ppm	99
113) Pentachloronitrobenzene	8.556	295	58284	9.08	ppm	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79931.D
Acq On : 30 May 2018 2:10 pm
Operator : johnb1
Sample : ic3524-10
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 31 12:05:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79932.D
Acq On : 30 May 2018 2:32 pm
Operator : johnb1
Sample : ic3524-5
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 31 12:06:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration

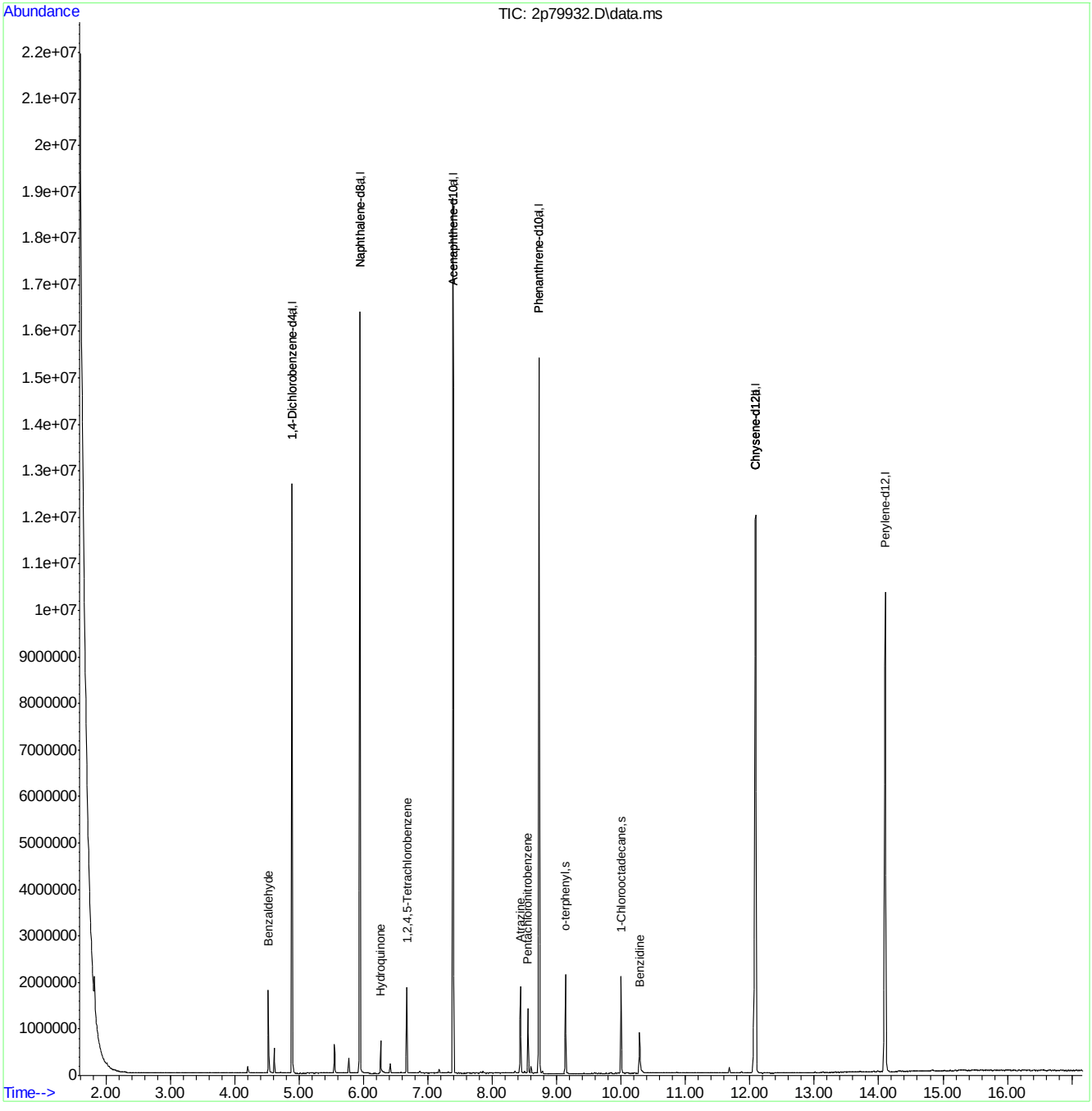
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1856075	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	6098944	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	3297177	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	5337118	40.00	ppm	0.00
83) Chrysene-d12	12.092	240	5447611	40.00	ppm	-0.01
91) Perylene-d12	14.103	264	5055004	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1856075	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	6098944	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	3297177	40.00	ppm	0.00
108) Chrysene-d12a	12.092	240	5447611	40.00	ppm	0.00
110) Phenanthrene-d10a	8.727	188	5337118	40.00	ppm	0.00
114) Chrysene-d12b	12.092	240	5447611	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	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	10.000	57	255761	6.10	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery	=	12.20%#	
112) o-terphenyl	9.139	230	385558	4.96	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery	=	9.92%#	
Target Compounds						Qvalue
102) Benzaldehyde	4.523	105	298547	7.11	ppm	94
104) Hydroquinone	6.267	110	209412	3.85	ppm	99
106) Atrazine	8.439	215	80424	5.03	ppm	83
107) 1,2,4,5-Tetrachloroben...	6.673	216	258379	5.42	ppm	99
109) Benzidine	10.289	184	426990	6.82	ppm	98
113) Pentachloronitrobenzene	8.556	295	31230	4.71	ppm	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79932.D
Acq On : 30 May 2018 2:32 pm
Operator : johnb1
Sample : ic3524-5
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 31 12:06:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79933.D
Acq On : 30 May 2018 2:53 pm
Operator : johnb1
Sample : ic3524-2
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 31 12:06:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1777212	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	5920882	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	3192917	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	5302706	40.00	ppm	0.00
83) Chrysene-d12	12.086	240	5542441	40.00	ppm	-0.02
91) Perylene-d12	14.103	264	5023131	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1777212	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	5920882	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	3192917	40.00	ppm	0.00
108) Chrysene-d12a	12.086	240	5542441	40.00	ppm	0.00
110) Phenanthrene-d10a	8.727	188	5302706	40.00	ppm	0.00
114) Chrysene-d12b	12.086	240	5542441	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	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	10.000	57	101271	2.43	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery	=	4.86%#	
112) o-terphenyl	9.139	230	155452	2.01	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery	=	4.02%#	
Target Compounds						Qvalue
102) Benzaldehyde	4.523	105	120274	2.99	ppm	95
104) Hydroquinone	6.267	110	60122	1.14	ppm	98
106) Atrazine	8.438	215	31878	2.06	ppm	95
107) 1,2,4,5-Tetrachloroben...	6.673	216	104220	2.26	ppm	99
109) Benzidine	10.289	184	134215	2.11	ppm	98
113) Pentachloronitrobenzene	8.556	295	11793	1.79	ppm	95

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

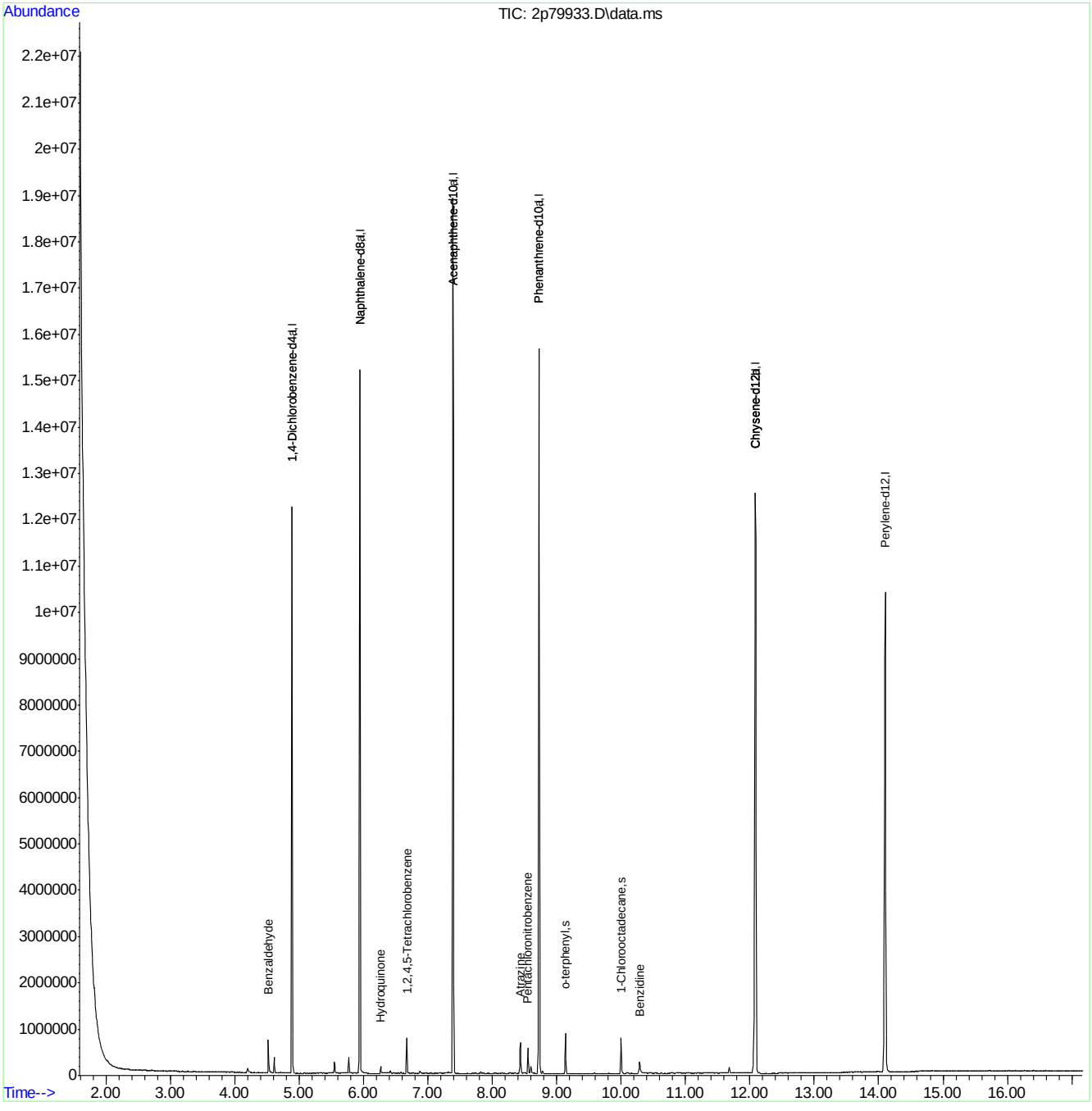
9.6.17

6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79933.D
Acq On : 30 May 2018 2:53 pm
Operator : johnb1
Sample : ic3524-2
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 31 12:06:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79934.D
Acq On : 30 May 2018 3:15 pm
Operator : johnb1
Sample : ic3524-1
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 31 12:07:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1661902	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	5615738	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	3103319	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	5245309	40.00	ppm	0.00
83) Chrysene-d12	12.086	240	5419335	40.00	ppm	-0.02
91) Perylene-d12	14.103	264	4910693	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1661902	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	5615738	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	3103319	40.00	ppm	0.00
108) Chrysene-d12a	12.086	240	5419335	40.00	ppm	0.00
110) Phenanthrene-d10a	8.727	188	5245309	40.00	ppm	0.00
114) Chrysene-d12b	12.086	240	5419335	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	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	10.000	57	45206	1.10	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery	=	2.20%#	
112) o-terphenyl	9.134	230	72296	0.95	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery	=	1.90%#	
Target Compounds						Qvalue
102) Benzaldehyde	4.523	105	51870	1.38	ppm	91
104) Hydroquinone	6.267	110	14705	0.29	ppm	96
106) Atrazine	8.438	215	14635	0.97	ppm	96
107) 1,2,4,5-Tetrachloroben...	6.673	216	48797	1.09	ppm	96
109) Benzidine	10.289	184	36953	0.59	ppm	98
113) Pentachloronitrobenzene	8.556	295	4720	0.73	ppm #	81

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

9.6.18

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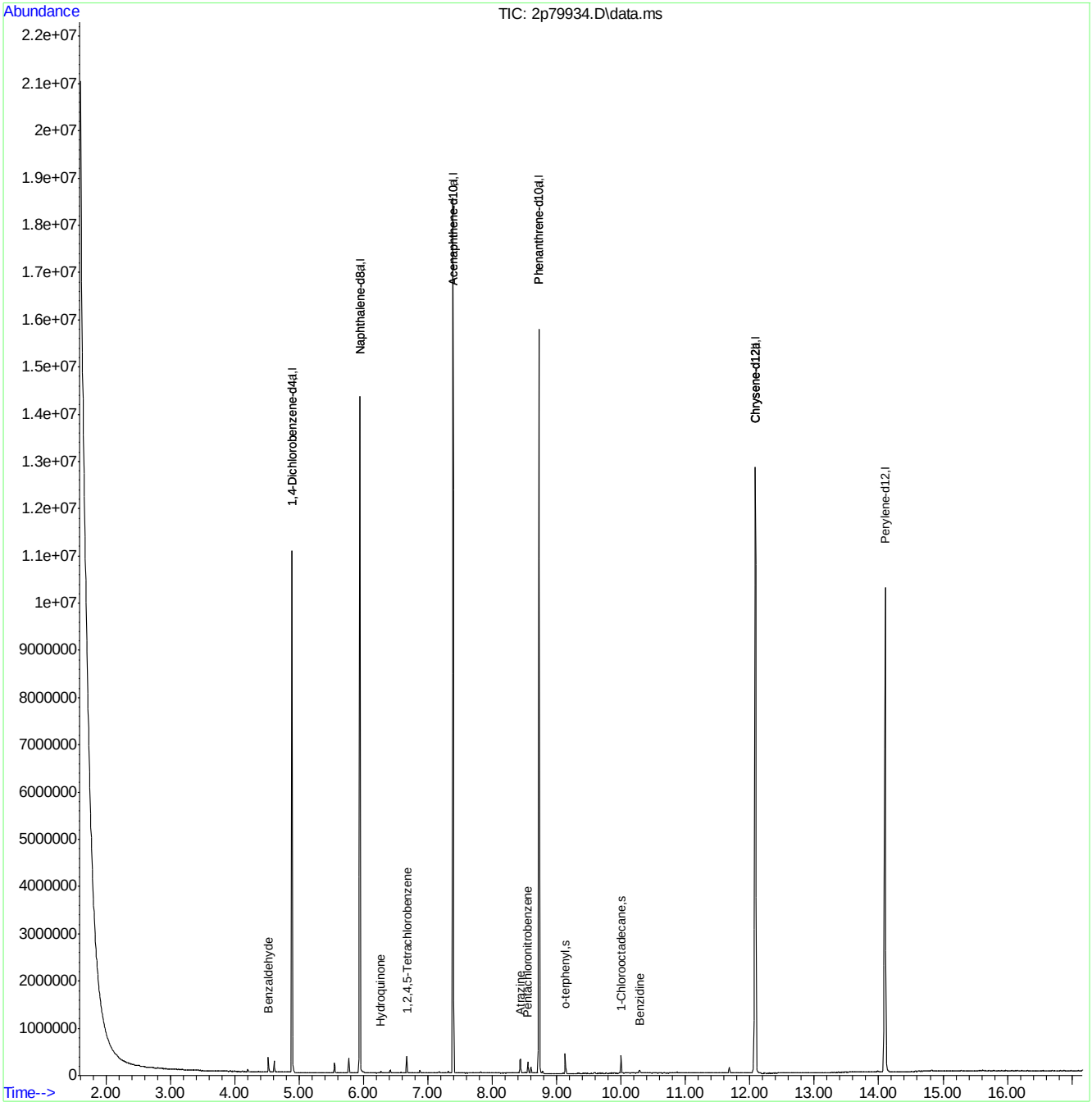
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79934.D
Acq On : 30 May 2018 3:15 pm
Operator : johnb1
Sample : ic3524-1
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 31 12:07:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:01:58 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79935.D
Acq On : 30 May 2018 3:37 pm
Operator : johnb1
Sample : icv3524-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 31 15:00:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

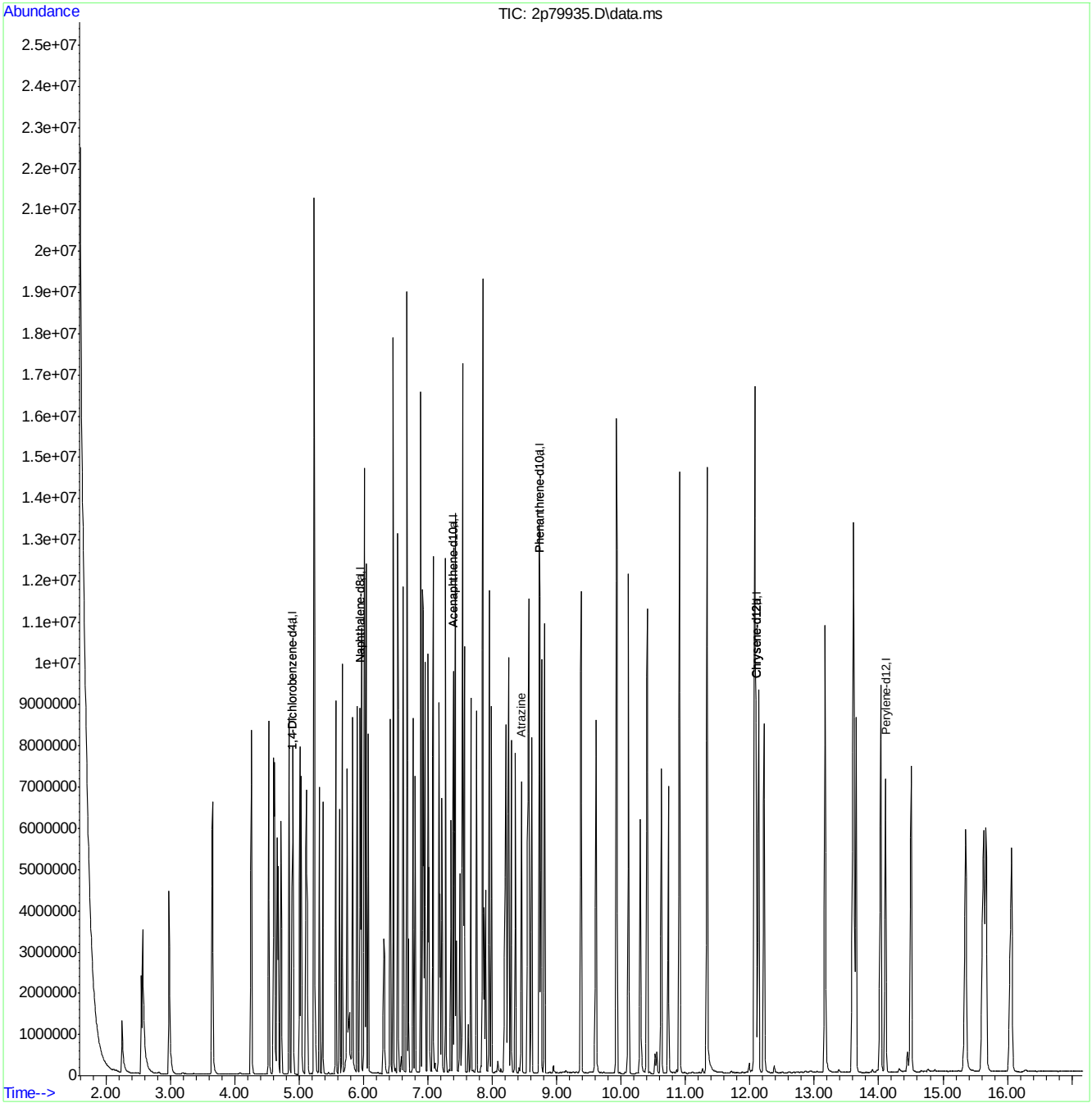
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	927873	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	3211281	40.00	ppm	0.00
47) Acenaphthene-d10	7.395	164	1587043	40.00	ppm	0.00
69) Phenanthrene-d10	8.738	188	3044389	40.00	ppm	0.00
83) Chrysene-d12	12.097	240	2820621	40.00	ppm	0.00
91) Perylene-d12	14.108	264	3150308	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	927873	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	3211281	40.00	ppm	0.00
105) Acenaphthene-d10a	7.395	164	1587043	40.00	ppm	0.00
108) Chrysene-d12a	12.097	240	2820621	40.00	ppm	0.01
110) Phenanthrene-d10a	8.738	188	3044389	40.00	ppm	0.00
114) Chrysene-d12b	12.097	240	2820621	40.00	ppm	0.01
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						Qvalue
106) Atrazine	8.454	215	446286	58.46	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79935.D
Acq On : 30 May 2018 3:37 pm
Operator : johnb1
Sample : icv3524-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 31 15:00:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79936.D
Acq On : 30 May 2018 3:59 pm
Operator : johnb1
Sample : icv3523-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 31 14:20:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:13:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1049460	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	3534236	40.00	ppm	0.00
47) Acenaphthene-d10	7.396	164	1757726	40.00	ppm	0.00
69) Phenanthrene-d10	8.733	188	3809585	40.00	ppm	0.00
83) Chrysene-d12	12.097	240	3315959	40.00	ppm	0.00
91) Perylene-d12	14.108	264	3384845	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	1049460	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	3534236	40.00	ppm	# 0.00
105) Acenaphthene-d10a	7.396	164	1757726	40.00	ppm	0.00
108) Chrysene-d12a	12.097	240	3315959	40.00	ppm	0.01
110) Phenanthrene-d10a	8.733	188	3809585	40.00	ppm	0.00
114) Chrysene-d12b	12.097	240	3315959	40.00	ppm	0.01
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						Qvalue
48) Hexachlorocyclopentadiene	6.668	237	982311	62.86	ppm	99
79) Carbazole	8.973	167	4529181	43.71	ppm	99

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

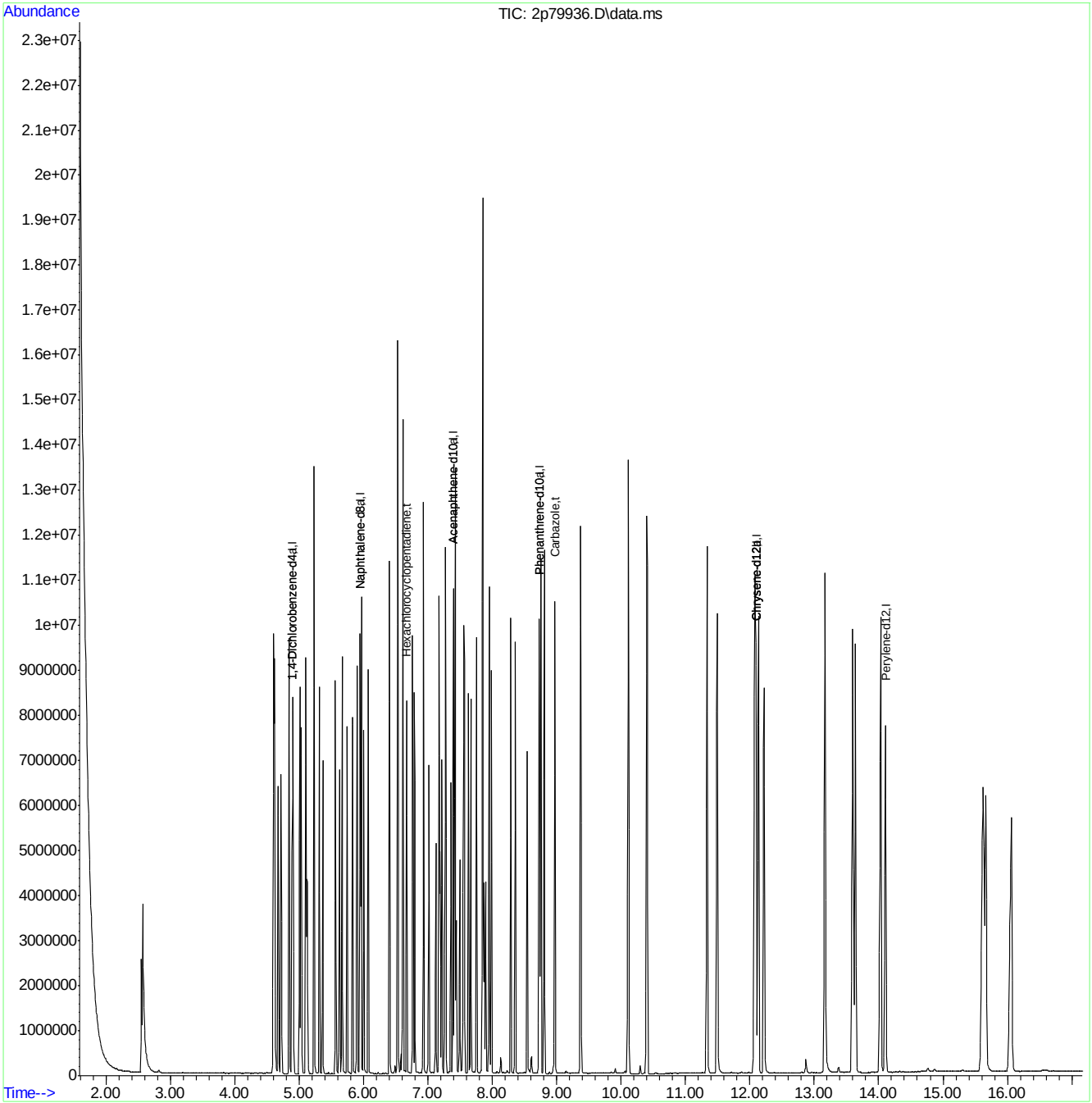
9.6.20

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79936.D
Acq On : 30 May 2018 3:59 pm
Operator : johnb1
Sample : icv3523-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 31 14:20:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:13:51 2018
Response via : Initial Calibration



M2P3523.M Fri Jun 01 13:31:14 2018 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79937.D
Acq On : 30 May 2018 4:21 pm
Operator : johnb1
Sample : icv3523-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 01 13:32:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1358047	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	5544598	40.00	ppm	0.00
47) Acenaphthene-d10	7.390	164	2473937	40.00	ppm	0.00
69) Phenanthrene-d10	8.727	188	3956481	40.00	ppm	0.00
83) Chrysene-d12	12.086	240	4984750	40.00	ppm	-0.02
91) Perylene-d12	14.103	264	4168063	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.892	152	1358047	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	5544598	40.00	ppm	0.00
105) Acenaphthene-d10a	7.390	164	2473937	40.00	ppm	0.00
108) Chrysene-d12a	12.086	240	4984750	40.00	ppm	0.00
110) Phenanthrene-d10a	8.727	188	3956481	40.00	ppm	0.00
114) Chrysene-d12b	12.086	240	4984750	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	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	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
6) Indene	5.106	116	4016458	53.67	ppm	97
7) Cumene	4.234	105	6505473	44.40	ppm	97
13) Decane	4.769	57	2119699	44.65	ppm	99
27) Quinoline	6.235	129	4396171	39.32	ppm	99
46) Dimethylnaphthalene	7.048	156	3193585	35.89	ppm	99

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

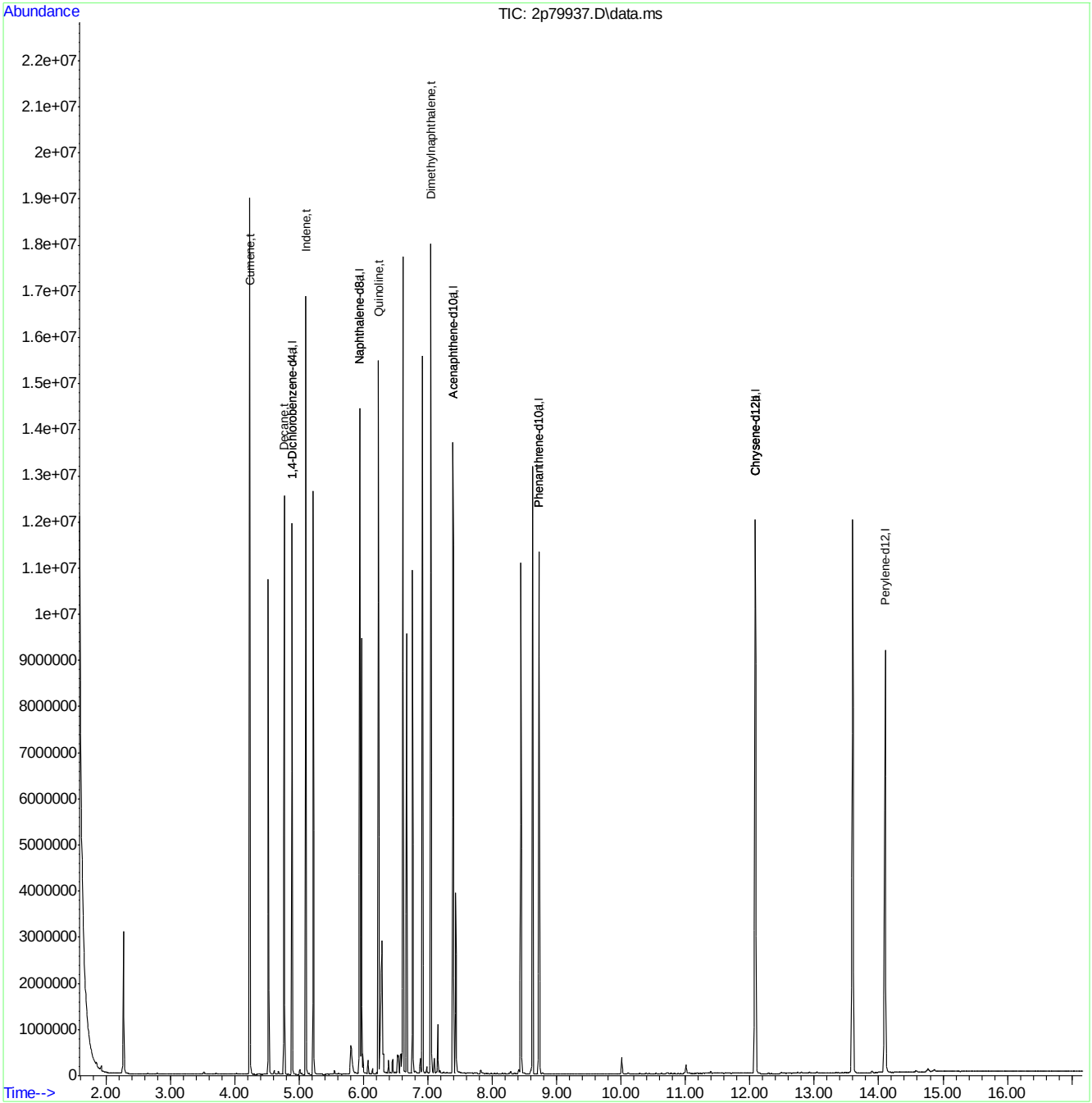
9.6.21

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79937.D
Acq On : 30 May 2018 4:21 pm
Operator : johnb1
Sample : icv3523-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 01 13:32:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79938.D
Acq On : 30 May 2018 4:59 pm
Operator : johnb1
Sample : icv3523-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 31 14:31:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:13:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1036861	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	3556150	40.00	ppm	0.00
47) Acenaphthene-d10	7.396	164	1755174	40.00	ppm	0.00
69) Phenanthrene-d10	8.738	188	3282341	40.00	ppm	0.00
83) Chrysene-d12	12.097	240	3213029	40.00	ppm	0.00
91) Perylene-d12	14.113	264	3441065	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	1036861	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	3556150	40.00	ppm	0.00
105) Acenaphthene-d10a	7.396	164	1755174	40.00	ppm	0.00
108) Chrysene-d12a	12.097	240	3213029	40.00	ppm	0.01
110) Phenanthrene-d10a	8.738	188	3282341	40.00	ppm	0.00
114) Chrysene-d12b	12.097	240	3213029	40.00	ppm	0.01
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	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
18) Acetophenone	5.229	105	2224647	45.23	ppm	99
21) 3&4-Methylphenol	5.235	108	1501196	47.98	ppm	90
34) 2,6-Dichlorophenol	6.016	162	1112693	46.67	ppm	96

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

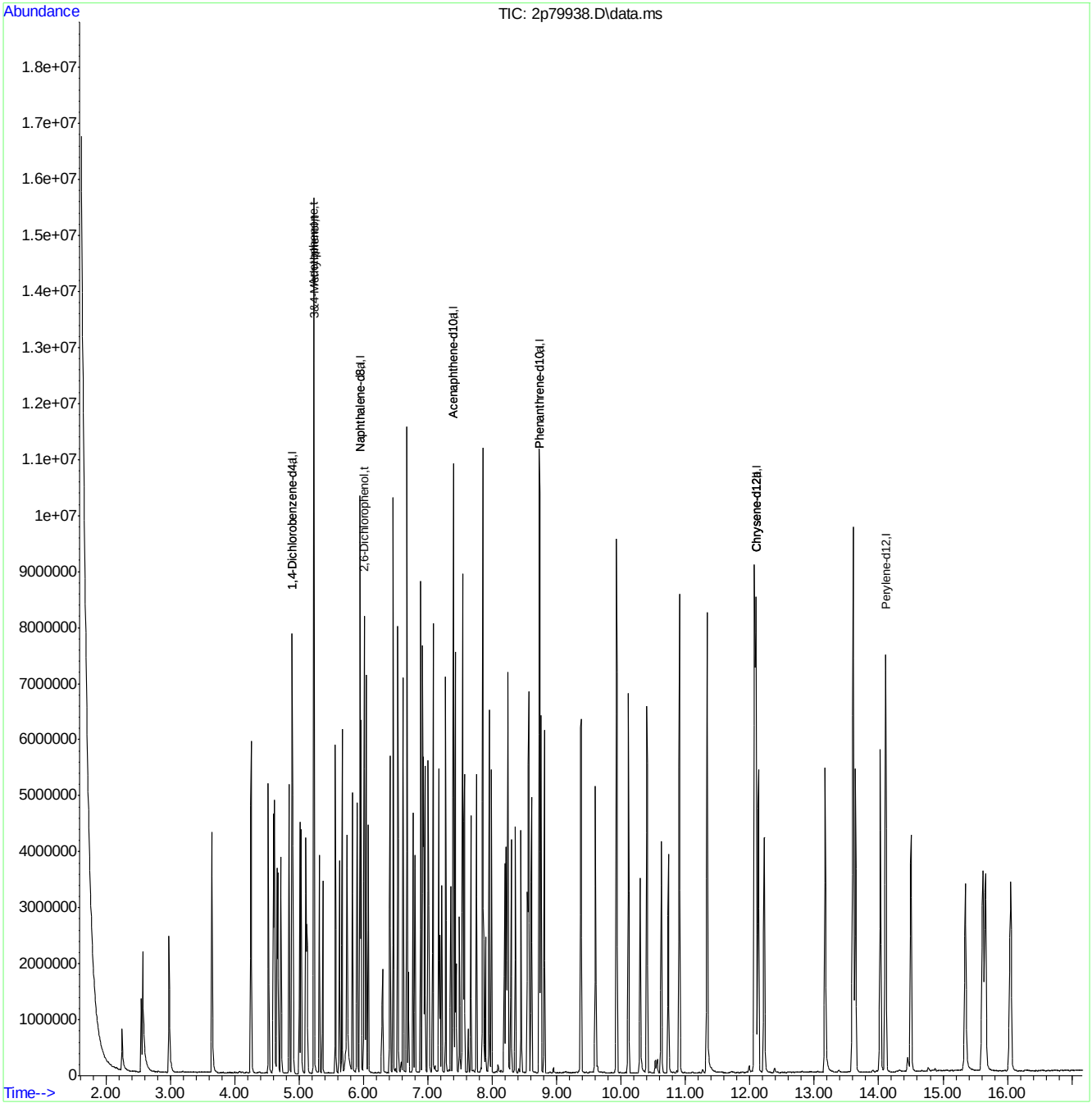
9.6.22

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79938.D
Acq On : 30 May 2018 4:59 pm
Operator : johnb1
Sample : icv3523-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 31 14:31:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:13:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79938a.D
Acq On : 30 May 2018 4:59 pm
Operator : johnb1
Sample : icv3524-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 31 14:33:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:13:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.892	152	1036861	40.00	ppm	0.00
24) Naphthalene-d8	5.946	136	3556150	40.00	ppm	0.00
47) Acenaphthene-d10	7.396	164	1755174	40.00	ppm	0.00
69) Phenanthrene-d10	8.738	188	3282341	40.00	ppm	0.00
83) Chrysene-d12	12.097	240	3213029	40.00	ppm	0.00
91) Perylene-d12	14.113	264	3441065	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.892	152	1036861	40.00	ppm	0.00
103) Naphthalene-d8a	5.946	136	3556150	40.00	ppm	0.00
105) Acenaphthene-d10a	7.396	164	1755174	40.00	ppm	0.00
108) Chrysene-d12a	12.097	240	3213029	40.00	ppm	0.01
110) Phenanthrene-d10a	8.738	188	3282341	40.00	ppm	0.00
114) Chrysene-d12b	12.097	240	3213029	40.00	ppm	0.01
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	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
107) 1,2,4,5-Tetrachloroben...	6.679	216	1321713	50.58	ppm	99
113) Pentachloronitrobenzene	8.567	295	184396	49.10	ppm	99

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

9.6.23

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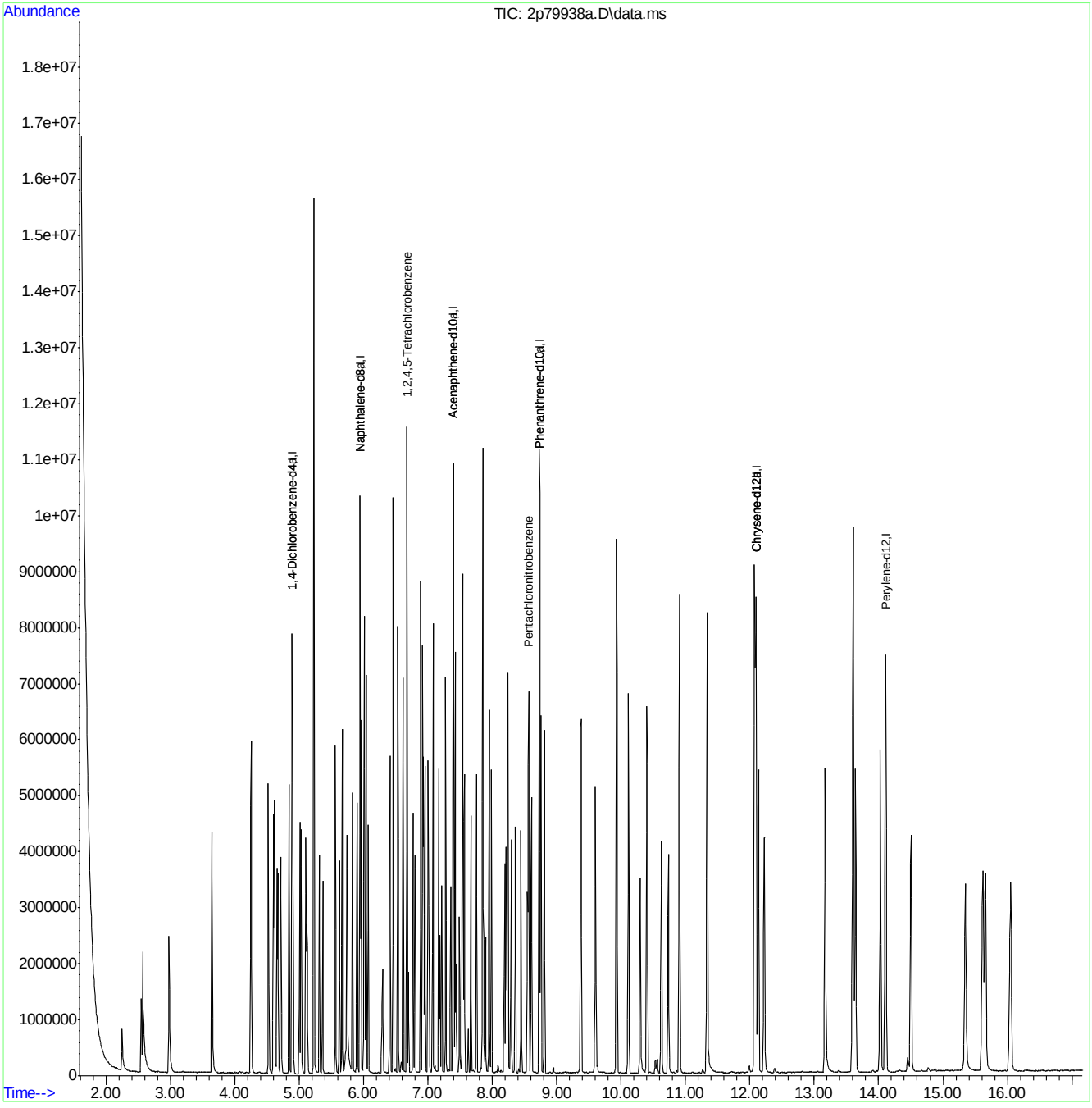
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3524\
Data File : 2p79938a.D
Acq On : 30 May 2018 4:59 pm
Operator : johnb1
Sample : icv3524-50
Misc : op10929,e2p3524,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 31 14:33:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 12:13:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3525\
Data File : 2p79943.D
Acq On : 31 May 2018 4:41 pm
Operator : angelar
Sample : icv3524-50
Misc : op10929,e2p3525,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 01 11:03:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.882	152	2052353	40.00	ppm	-0.01
24) Naphthalene-d8	5.935	136	6772160	40.00	ppm	-0.01
47) Acenaphthene-d10	7.385	164	3479435	40.00	ppm	-0.01
69) Phenanthrene-d10	8.717	188	6622704	40.00	ppm	-0.02
83) Chrysene-d12	12.076	240	7027663	40.00	ppm	-0.03
91) Perylene-d12	14.087	264	6155031	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.882	152	2052353	40.00	ppm	-0.01
103) Naphthalene-d8a	5.935	136	6772160	40.00	ppm	-0.01
105) Acenaphthene-d10a	7.385	164	3479435	40.00	ppm	0.00
108) Chrysene-d12a	12.076	240	7027663	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.717	188	6622704	40.00	ppm	-0.02
114) Chrysene-d12b	12.076	240	7027663	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	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
82) Octadecane	8.615	43	1366	Below Cal	#	76
104) Hydroquinone	6.294	110	2822076	53.35	ppm	99

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

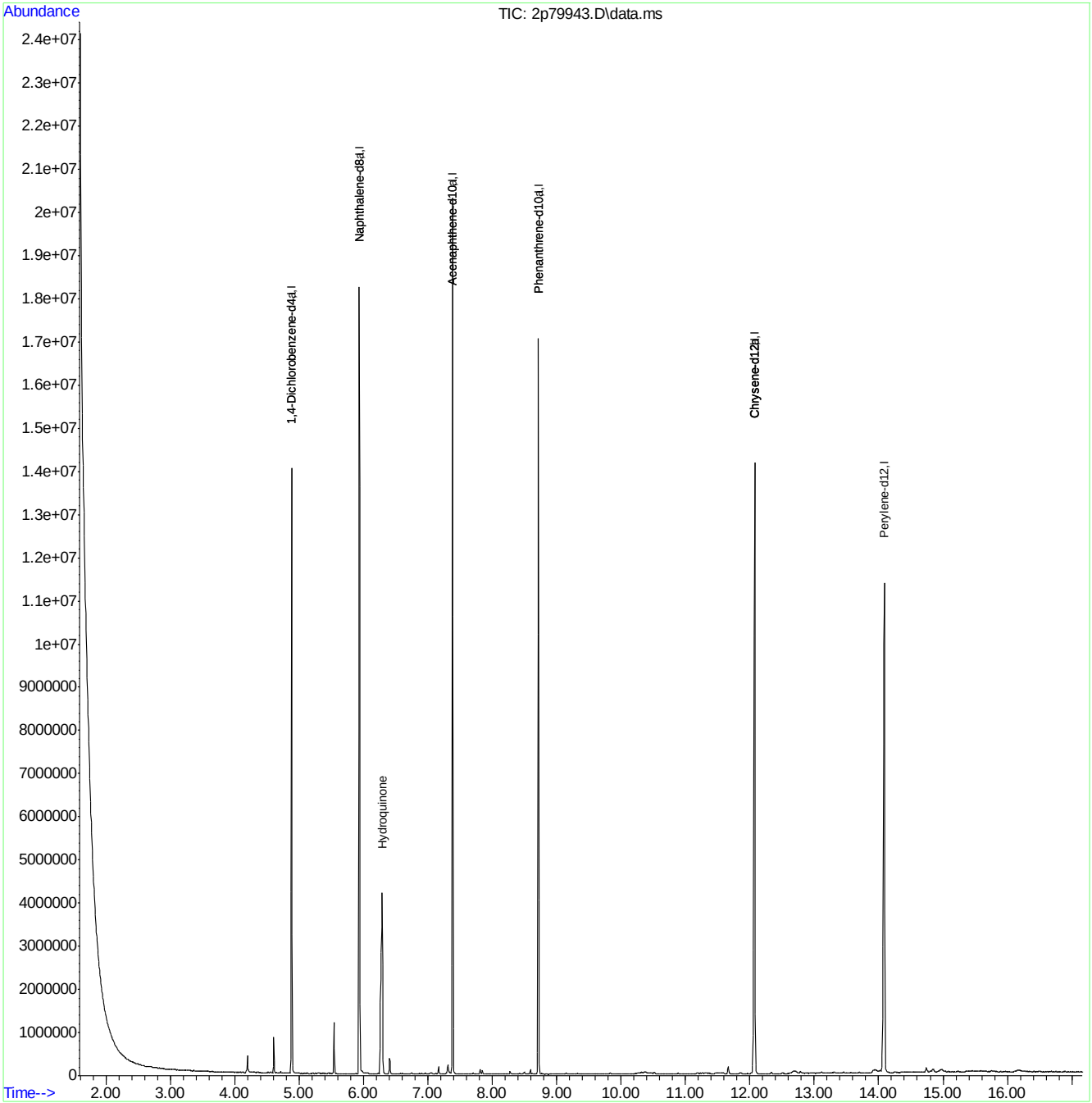
9.6.24

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3525\
Data File : 2p79943.D
Acq On : 31 May 2018 4:41 pm
Operator : angelar
Sample : icv3524-50
Misc : op10929,e2p3525,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 01 11:03:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



M2P3523.M Fri Jun 01 11:03:25 2018 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3525\
Data File : 2p79944.D
Acq On : 31 May 2018 5:03 pm
Operator : angelar
Sample : icv3524-50
Misc : op10929,e2p3525,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 01 11:04:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.882	152	1251440	40.00	ppm	-0.01
24) Naphthalene-d8	5.935	136	4925237	40.00	ppm	-0.01
47) Acenaphthene-d10	7.385	164	2340913	40.00	ppm	-0.01
69) Phenanthrene-d10	8.722	188	3696318	40.00	ppm	-0.01
83) Chrysene-d12	12.070	240	4486521	40.00	ppm	-0.03
91) Perylene-d12	14.081	264	4368436	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.882	152	1251440	40.00	ppm	-0.01
103) Naphthalene-d8a	5.935	136	4925237	40.00	ppm	-0.01
105) Acenaphthene-d10a	7.385	164	2340913	40.00	ppm	0.00
108) Chrysene-d12a	12.070	240	4486521	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.722	188	3696318	40.00	ppm	-0.01
114) Chrysene-d12b	12.070	240	4486521	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	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
102) Benzaldehyde	4.518	105	1701428	48.69	ppm	99

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

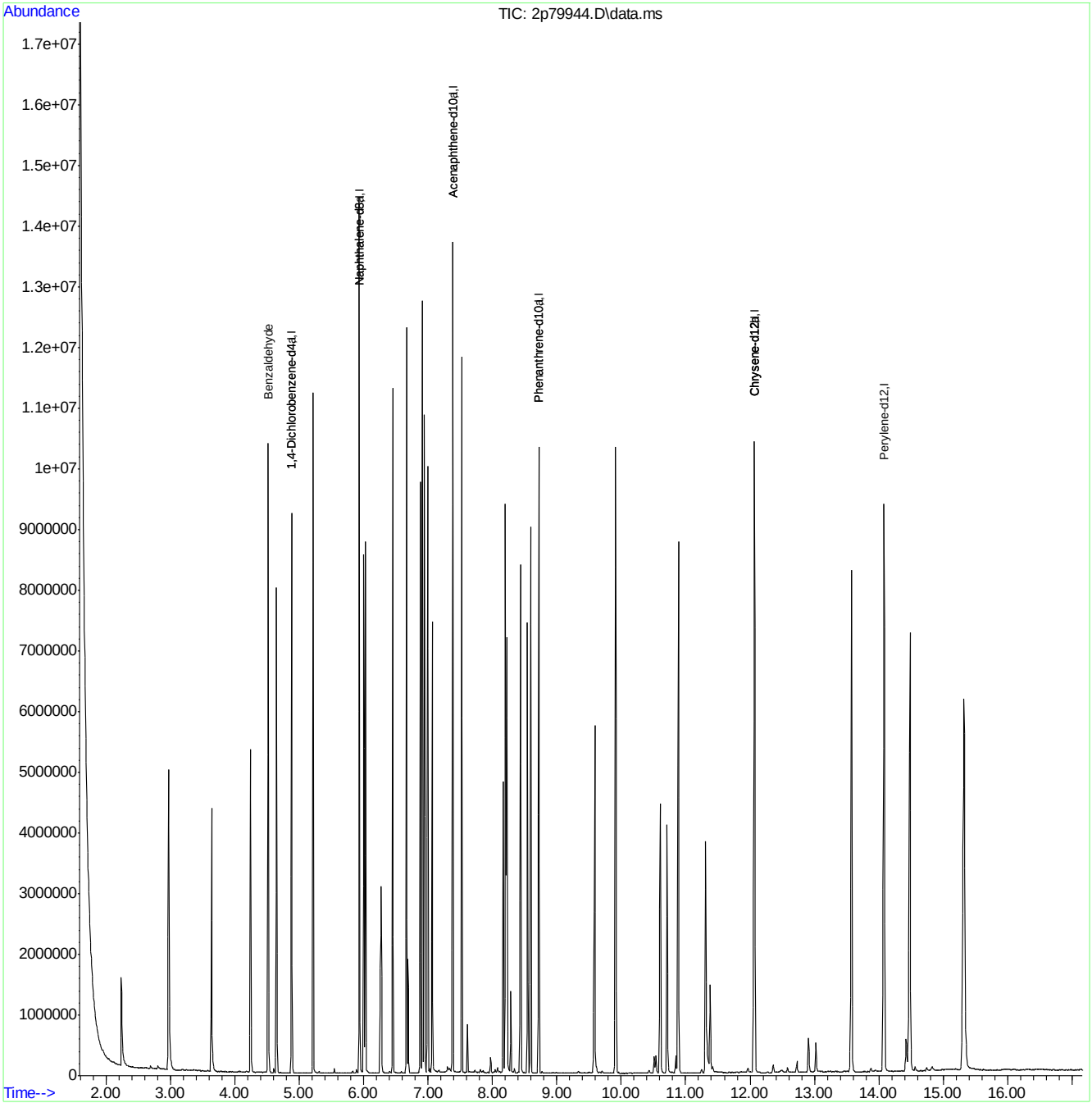
9.6.25

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3525\
Data File : 2p79944.D
Acq On : 31 May 2018 5:03 pm
Operator : angelar
Sample : icv3524-50
Misc : op10929,e2p3525,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 01 11:04:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



M2P3523.M Fri Jun 01 11:04:18 2018 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79947.D
Acq On : 1 Jun 2018 12:25 am
Operator : chriss2
Sample : cc3523-50
Misc : op10929,e2p3526,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 01 09:42:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.887	152	823267	40.00	ppm	0.00
24) Naphthalene-d8	5.941	136	2857155	40.00	ppm	0.00
47) Acenaphthene-d10	7.385	164	1458363	40.00	ppm	-0.01
69) Phenanthrene-d10	8.722	188	3014649	40.00	ppm	-0.01
83) Chrysene-d12	12.081	240	2793952	40.00	ppm	-0.02
91) Perylene-d12	14.087	264	3054121	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.887	152	823267	40.00	ppm	0.00
103) Naphthalene-d8a	5.941	136	2857155	40.00	ppm	0.00
105) Acenaphthene-d10a	7.385	164	1458363	40.00	ppm	0.00
108) Chrysene-d12a	12.081	240	2793952	40.00	ppm	0.00
110) Phenanthrene-d10a	8.722	188	3014649	40.00	ppm	-0.01
114) Chrysene-d12b	12.081	240	2793952	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.785	112	2119945	56.18	ppm	-0.01
Spiked Amount 50.000	Range 11 - 58		Recovery	=	112.36%#	
8) Phenol-d5	4.588	99	2332794	51.55	ppm	-0.01
Spiked Amount 50.000	Range 10 - 59		Recovery	=	103.10%#	
25) Nitrobenzene-d5	5.347	82	1469625	44.91	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery	=	89.82%#	
51) 2-Fluorobiphenyl	6.829	172	2621355	51.77	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery	=	103.54%#	
73) 2,4,6-Tribromophenol	8.059	330	504427	50.40	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery	=	100.80%#	
85) Terphenyl-d14	10.615	244	3695211	50.56	ppm	-0.02
Spiked Amount 50.000	Range 16 - 65		Recovery	=	101.12%#	
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	2.234	88	799812	59.73	ppm	95
3) Pyridine	2.560	79	1968676	57.58	ppm	95
4) N-Nitrosodimethylamine	2.534	74	1157794	56.26	ppm	99
6) Indene	5.101	116	2152694	47.45	ppm	99
7) Cumene	4.224	105	4663373	52.50	ppm	100
9) Phenol	4.604	94	2243818	48.92	ppm	98
10) Aniline	4.614	93	2309596	48.87	ppm	82
11) bis(2-Chloroethyl)ether	4.668	93	1366543	46.69	ppm	99
12) 2-Chlorophenol	4.711	128	1581908	48.11	ppm	99
13) Decane	4.764	57	1252675	43.53	ppm	99
14) 1,3-Dichlorobenzene	4.839	146	1699892	50.34	ppm	100
15) 1,4-Dichlorobenzene	4.898	146	1564925	54.71	ppm	98
16) Benzyl alcohol	5.005	108	924363	51.76	ppm	97
17) 1,2-Dichlorobenzene	5.026	146	1487043	52.09	ppm	99
18) Acetophenone	5.224	105	1842679	47.19	ppm	99
19) 2-Methylphenol	5.101	108	1147177	48.56	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.117	121	348659	46.90	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79947.D
Acq On : 1 Jun 2018 12:25 am
Operator : chriss2
Sample : cc3523-50
Misc : op10929,e2p3526,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 01 09:42:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	5.229	108	1189703	47.89	ppm	99
22) n-Nitroso-di-n-propyla...	5.229	70	772268	43.15	ppm	100
23) Hexachloroethane	5.310	201	598255	55.99	ppm	88
26) Nitrobenzene	5.363	77	1326317	44.11	ppm	96
27) Quinoline	6.240	129	2841602	49.32	ppm	100
28) Isophorone	5.561	82	2726692	47.43	ppm	99
29) 2-Nitrophenol	5.625	139	860207	53.10	ppm	95
30) 2,4-Dimethylphenol	5.668	107	1242065	51.55	ppm	99
31) Benzoic acid	5.786	105	1071763	52.90	ppm	96
32) bis(2-Chloroethoxy)met...	5.743	93	1383104	44.30	ppm	99
33) 2,4-Dichlorophenol	5.828	162	1158235	50.55	ppm	95
34) 2,6-Dichlorophenol	6.010	162	1011625	52.81	ppm	98
35) 1,3,5-Trichlorobenzene	5.636	180	1429531	52.17	ppm	99
36) 1,2,4-Trichlorobenzene	5.893	180	1371043	53.14	ppm	98
37) 1,2,3-Trichlorobenzene	6.080	180	1178561	53.52	ppm	99
38) Naphthalene	5.957	128	3446679	50.21	ppm	99
39) 4-Chloroaniline	6.005	127	1634636	50.67	ppm	98
40) 2,3-Dichloroaniline	6.759	161	1433192	49.61	ppm	98
41) Caprolactam	6.315	113	465821	49.04	ppm	97
42) Hexachlorobutadiene	6.069	225	726447	55.66	ppm	99
43) 4-Chloro-3-methylphenol	6.411	107	1277497	50.21	ppm	97
44) 2-Methylnaphthalene	6.529	141	2386691	50.56	ppm	97
45) 1-Methylnaphthalene	6.609	141	2390455	50.14	ppm	95
46) Dimethylnaphthalene	7.043	156	2260555	49.31	ppm	97
48) Hexachlorocyclopentadiene	6.663	237	1735190	133.84	ppm	98
49) 2,4,6-Trichlorophenol	6.764	196	878345	59.35	ppm	99
50) 2,4,5-Trichlorophenol	6.797	196	870961	57.09	ppm	99
52) 2-Chloronaphthalene	6.930	162	2122388	50.08	ppm	96
53) Biphenyl	6.914	154	3141809	52.81	ppm	99
54) 2-Nitroaniline	7.016	65	734821	50.01	ppm	85
55) Dimethylphthalate	7.166	163	2767059	54.11	ppm	99
56) Acenaphthylene	7.273	152	3860032	53.91	ppm	98
57) 2,6-Dinitrotoluene	7.214	165	662920	57.65	ppm	84
58) 3-Nitroaniline	7.353	138	800539	56.63	ppm	95
59) Acenaphthene	7.417	153	2334843	58.30	ppm	99
60) 2,4-Dinitrophenol	7.438	184	753778	123.05	ppm	91
61) 4-Nitrophenol	7.486	109	444264	59.03	ppm	97
62) Dibenzofuran	7.556	168	3085480	54.77	ppm	99
63) 2,4-Dinitrotoluene	7.545	165	892298	60.91	ppm	94
64) 2,3,4,6-Tetrachlorophenol	7.658	232	834968	63.25	ppm	99
65) Diethylphthalate	7.749	149	2873115	55.46	ppm	100
66) Fluorene	7.845	166	2679516	54.10	ppm	98
67) 4-Chlorophenyl-phenyle...	7.839	204	1472170	60.41	ppm	96
68) 4-Nitroaniline	7.872	138	692461	53.26	ppm	95
70) 4,6-Dinitro-2-methylph...	7.893	198	522560	57.50	ppm	88
71) n-Nitrosodiphenylamine	7.946	169	1955539	45.27	ppm	98
72) 1,2-Diphenylhydrazine	7.984	77	2456143	37.28	ppm	88
74) 4-Bromophenyl-phenylether	8.283	248	1006658	53.19	ppm	98
75) Hexachlorobenzene	8.353	284	1067126	49.54	ppm	90
76) Pentachlorophenol	8.535	266	1598358	117.76	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79947.D
Acq On : 1 Jun 2018 12:25 am
Operator : chriss2
Sample : cc3523-50
Misc : op10929,e2p3526,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 01 09:42:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
77)	Phenanthrene	8.749	178	3833059	53.19 ppm	100
78)	Anthracene	8.797	178	3913155	52.01 ppm	99
79)	Carbazole	8.963	167	3960540	48.31 ppm	99
80)	Di-n-butylphthalate	9.364	149	5856770	50.16 ppm	99
81)	Fluoranthene	10.102	202	6001004	54.38 ppm	98
82)	Octadecane	8.620	43	948044	70.47 ppm	99
84)	Pyrene	10.391	202	5225027	47.90 ppm	100
86)	Butylbenzylphthalate	11.321	149	2917234	50.04 ppm	96
87)	Benzo[a]anthracene	12.060	228	5256955	52.69 ppm	99
88)	3,3'-Dichlorobenzidine	12.060	252	2288862	58.82 ppm	98
89)	Chrysene	12.124	228	3940055	54.97 ppm	99
90)	bis(2-Ethylhexyl)phtha...	12.204	149	2918207	49.98 ppm	99
92)	Di-n-octylphthalate	13.151	149	6718613	50.07 ppm	93
93)	Benzo[b]fluoranthene	13.584	252	5623395	52.33 ppm	98
94)	Benzo[k]fluoranthene	13.632	252	3893170	46.05 ppm	98
95)	Benzo[a]pyrene	14.017	252	4802700	53.81 ppm	95
96)	Indeno[1,2,3-cd]pyrene	15.600	276	4887441	60.36 ppm	87
97)	Dibenz(a,h)acridine	15.247	279	4624806	63.94 ppm	99
98)	Dibenz[a,h]anthracene	15.643	278	4231408	54.83 ppm	91
99)	7,12-Dimethylbenz(a)an...	13.595	256	2466343	57.49 ppm	95
100)	Benzo[g,h,i]perylene	16.034	276	4554947	60.39 ppm	92

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

9.6.26

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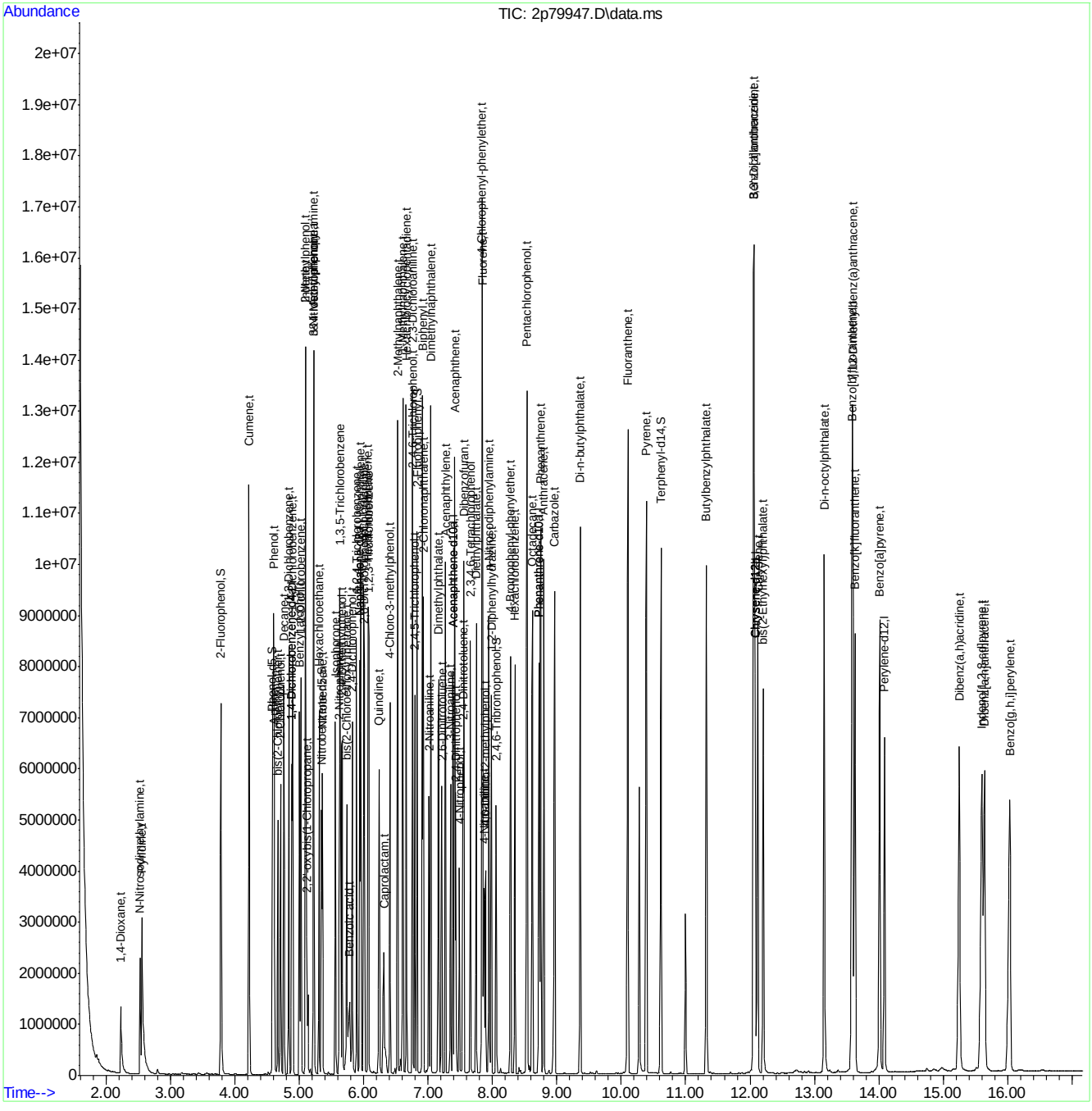
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79947.D
Acq On : 1 Jun 2018 12:25 am
Operator : chriss2
Sample : cc3523-50
Misc : op10929,e2p3526,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 01 09:42:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79948.D
Acq On : 1 Jun 2018 12:47 am
Operator : chriss2
Sample : cc3524-50
Misc : op10929,e2p3526,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 01 09:45:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.882	152	1556264	40.00	ppm	-0.01
24) Naphthalene-d8	5.935	136	5474128	40.00	ppm	-0.01
47) Acenaphthene-d10	7.385	164	2740934	40.00	ppm	-0.01
69) Phenanthrene-d10	8.722	188	4404957	40.00	ppm	-0.01
83) Chrysene-d12	12.075	240	4422359	40.00	ppm	-0.03
91) Perylene-d12	14.086	264	5143893	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.882	152	1556264	40.00	ppm	-0.01
103) Naphthalene-d8a	5.935	136	5474128	40.00	ppm	-0.01
105) Acenaphthene-d10a	7.385	164	2740934	40.00	ppm	0.00
108) Chrysene-d12a	12.075	240	4422359	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.722	188	4404957	40.00	ppm	-0.01
114) Chrysene-d12b	12.075	240	4422359	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	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	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	9.989	57	1526777	40.73	ppm	-0.02
Spiked Amount 50.000	Range 20 - 70		Recovery	=	81.46%#	
112) o-terphenyl	9.128	230	3304298	52.70	ppm	-0.01
Spiked Amount 50.000	Range 20 - 70		Recovery	=	105.40%#	
Target Compounds						Qvalue
102) Benzaldehyde	4.518	105	1775554	40.86	ppm	99
104) Hydroquinone	6.288	110	2354660	55.07	ppm	98
106) Atrazine	8.438	215	741346	56.23	ppm	95
107) 1,2,4,5-Tetrachloroben...	6.668	216	2157394	52.87	ppm	99
109) Benzidine	10.278	184	2856749	52.09	ppm	99
113) Pentachloronitrobenzene	8.551	295	264736	52.53	ppm	95

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

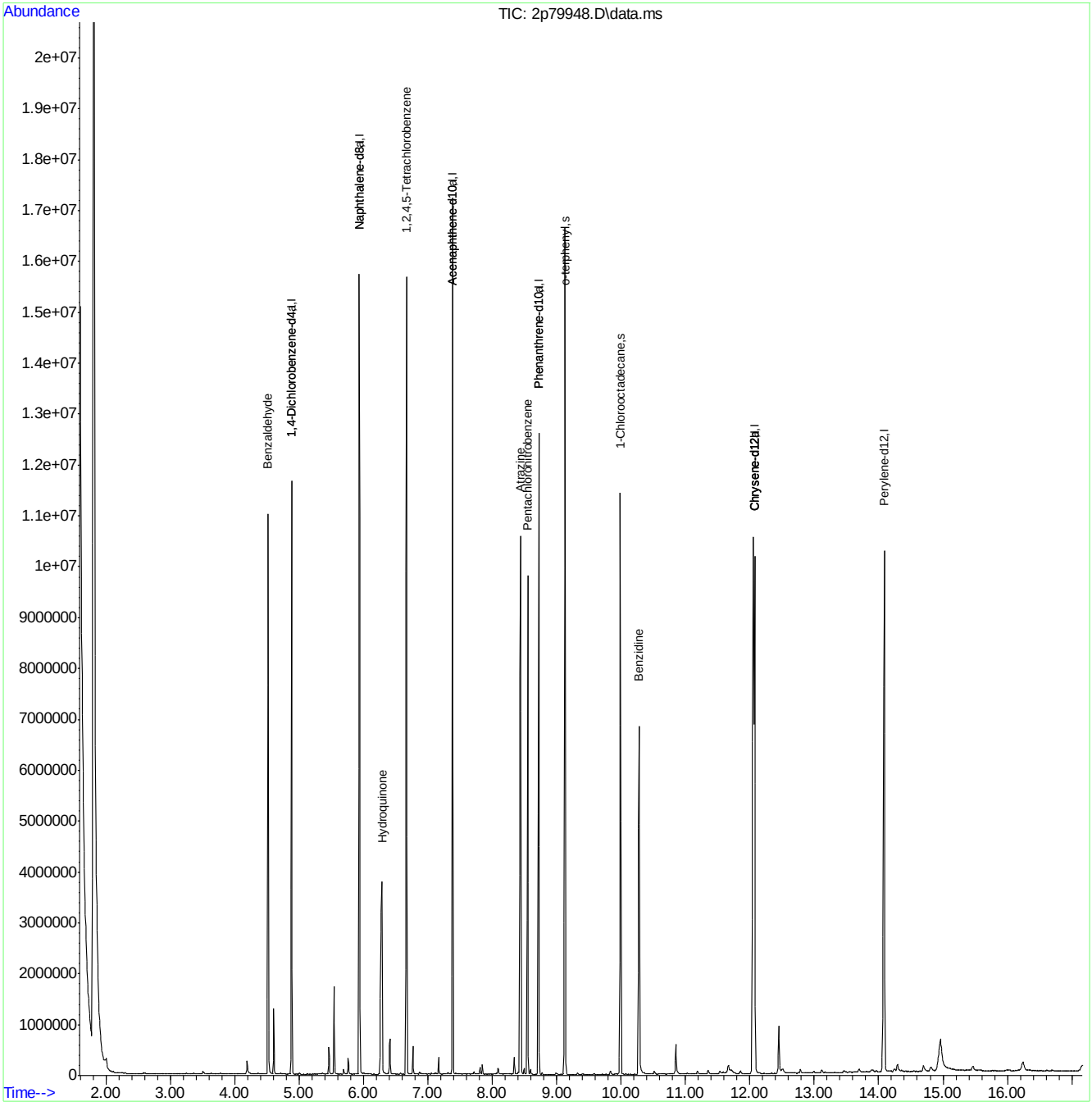
9.6.27

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3526\
Data File : 2p79948.D
Acq On : 1 Jun 2018 12:47 am
Operator : chriss2
Sample : cc3524-50
Misc : op10929,e2p3526,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 01 09:45:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3523.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 31 14:23:37 2018
Response via : Initial Calibration



M2P3523.M Fri Jun 01 09:45:08 2018 RPT1 Page: 2

GCMS Semi Volatile Run Log

Instrument ID: GCMS2P

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv172359-61	50 ppm	ISTD	A0136190	4000 ppm
			DCM- fisher	182955	---

Column	il MS 30m x 0.25 mm x (	Initial Calib Date	5/25/2018	Sequence Loaded By:	chriss2	Quant Method/s	M2P3523
Batch ID	E2P3523	Analysis Date	5/30/2018	Data Processed By:	seanb1	Injection Volume	1 uL
Approved By:	KRISTIS	Approved Date	1/2018 3:03:21 P				

- [x] SW846 8270 D
- [ ] EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P	79910	DFTPP				1					NO	442 high, 51 low; retune
2P	79911	DFTPP				1					NO	127 high; drop flow
2P	79912	DFTPP				1					NO	127 high; up flow
2P	79913	DFTPP				1					NO	127 high; drop ion focus
2P	79914	DFTPP				1					OK	3:41am
2P	79915	IC3523-100		BNA		2					OK	sv182451-1a
2P	79916	IC5323-80				3					OK	sv182451-1b
2P	79917	ICC5323-50				4					OK	sv182451-1c
2P	79918	IC5323-25				5					OK	sv182451-1d
2P	79919	IC5323-10				6					OK	sv182451-1e

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P	79920	IC5323-5				7					OK	sv182451-1g
2P	79921	IC5323-2				8					OK	sv182451-1h
2P	79922	IC5323-1				9					OK	sv182451-1i
2P	79923	ICV5323-50		BNA ALL		10					OK	sv182451-25a
2P	79924	ICV5323-50		ABN Surr		11					OK	op18215802; 7:11am

GCMS Semi Volatile Run Log

Instrument ID: GCMS2P

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv172359-61	50 ppm	ISTD	A0136190	4000 ppm
			DCM- fisher	182955	---

Column	il MS 30m x 0.25 mm x (	Initial Calib Date	5/25/2018	Sequence Loaded By:	johnb1	Quant Method/s	M2P3523
Batch ID	E2P3524	Analysis Date	5/30/2018	Data Processed By:	seanb1	Injection Volume	1 uL
Approved By:	NINAP	Approved Date	1/2018 3:05:23 P				

☐ SW846 8270 D
☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P	79925	DFTPP				1					NO	127 high, RR
2P	79926	DFTPP				1					OK	12:32pm
2P	79927	IC3524-100		tcl42		2					OK	sv182451-3a
2P	79928	IC3524-80				3					OK	sv182451-3b
2P	79929	ICC3524-50				4					OK	sv182451-3c
2P	79930	IC3524-25				5					OK	sv182451-3d
2P	79931	IC3524-10				6					OK	sv182451-3e
2P	79932	IC3524-5				7					OK	sv182451-3g
2P	79933	IC3524-2				8					OK	sv182451-3h
2P	79934	IC3524-1				9					OK	sv182451-3i

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P	79935	ICV3524-50		625 3rd source		10					OK	sv182451-25a
2P	79936	ICV3523-50		AP9 Megamix		11					OK	SV182451-20
2P	79937	ICV3523-50		BN2		12					OK	OP182158-78
2P	79938	ICV3523-50		625 all (1/2)		13					OK	sv182451-24
2P	79939	ICV3524-50		HQ		14					RR	op182158-17; 5:21pm

GCMS Semi Volatile Run Log

Instrument ID: GCMS2P

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv172359-61	50 ppm	ISTD	A0136190	4000 ppm
			DCM- fisher	182955	---

Column	il MS 30m x 0.25 mm x (	Initial Calib Date	5/25/2018	Sequence Loaded By:	Angela	Quant Method/s	M2P3523
Batch ID	E2P3525	Analysis Date	5/31/2018	Data Processed By:	seanb1	Injection Volume	1 uL
Approved By:	NINAP	Approved Date	1/2018 3:05:48 P				

☐ SW846 8270 D
☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P	79940	DFTPP				1					NO	lowered 219,502
2P	79941	DFTPP				1					NO	raise 219,502
2P	79942	DFTPP				1					OK	4:29pm
2P	79943	ICV3524-50		HQ		2					OK	op182158-17
2P	79944	ICV3524-50		ap9 mix		3					OK	sv172359-102
2P	79945	ICV3524-50		bzd 3rd source		4					NO	sv172359-37; 5:25pm

GCMS Semi Volatile Run Log

Instrument ID: GCMS2P

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv172359-61	50 ppm	ISTD	A0136190	4000 ppm
BNA	sv182451-23a	50ppm	DCM- fisher	182955	---
TCL42	sv182451-3n	50ppm			
TCDD	sv172359-103	5ppm			
bna verif	sv182451-1z	1ppm			

Column	il MS 30m x 0.25 mm x (	Initial Calib Date	5/25/2018	Sequence Loaded By:	chriss2	Quant Method/s	M2P3523
Batch ID	E2P3526	Analysis Date	6/1/2018	Data Processed By:	ying li	Injection Volume	1 uL
Approved By:	NINAP	Approved Date	1/2018 4:15:35 P				

☑ SW846 8270 D
☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P	79946	DFTPP				1					ok	12:06am
2P	79947	CC3523-50		BNA		2					ok	
2P	79948	CC3524-50		TCL42		3					ok	
2P	79949	CC3523-5		TCDD		4					N	Not needed
2P	79950	BNA VERIF-1PPM				5					ok	
2P	79951	OP12401-MB1	OP12401	B8270NJTCL20+	AQ	6		X	y	y	ok	
2P	79952	OP12401-BS1	OP12401	B8270NJTCL20+	AQ	7		X	y	y	ok	
	79953	OP12417-MB1	OP12417	AB8270NJTCL20+,B8270BIS2E,B 8270NJTCL20+,B8270PAH	AQ	8		X	y	y	ok	bis(2-ethylhexyl)phthalate hit
	79954	OP12417-BS1	OP12417	AB8270NJTCL20+,B8270BIS2E,B 8270NJTCL20+,B8270PAH	AQ	9		X	y	y	ok	indeno(1,2,3-cd)pyrene/benzo(g,h,I)perylene bis high
	79955	OP12417-BSD	OP12417	AB8270NJTCL20+,B8270BIS2E,B 8270NJTCL20+,B8270PAH	AQ	10		X	y	y	ok	

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P	79956	OP12401-MS	OP12401	B8270NJTCL20+	AQ	11		X	y	y	ok	
2P	79957	OP12401-MSD	OP12401	B8270NJTCL20+	AQ	12		X	y	y	ok	
	79958	JC66845-6	OP12401	B8270NJTCL20+	AQ	13		X	y	y	ok	
	79959	JC66845-1	OP12401	B8270NJTCL20+	AQ	14		X	y	y	ok	
	79960	JC66845-2	OP12401	B8270NJTCL20+	AQ	15		X	y	y	ok	
	79961	JC66845-3	OP12401	B8270NJTCL20+	AQ	16		X	y	y	ok	
	79962	JC66845-4	OP12401	B8270NJTCL20+	AQ	17		X	y	y	ok	
	79963	JC66845-5	OP12401	B8270NJTCL20+	AQ	18		X			ng	bad injection
	79964	JC66845-7	OP12401	B8270NJTCL20+	AQ	19		X	y	y	ok	
	79965	JC66845-8	OP12401	B8270NJTCL20+	AQ	20		X	y	y	ok	
	79966	JC66845-9	OP12401	B8270NJTCL20+	AQ	21		X	y	y	ok	
2P	79967	JC66764-17	OP12401	AB8270SCOTCL20	AQ	22			y	y	ok	
2P	79968	JC66927-1	OP12401	AB8270TCL20-14DX	AQ	23			y	y	ok	
	79969	JC66955-1	OP12439	AB8270NJTCL20+	AQ	24		X	y	y	ok	
	79970	JC66955-2	OP12439	AB8270NJTCL20+	AQ	25		X	y	y	ok	
2P	79971	JC66931-13	OP12417	B8270PAH	AQ	26			y	y	ok	
	79972	JC66955-3	OP12439	AB8270NJTCL20+	AQ	27		X	y	y	ok	
	79973	JC66955-4	OP12439	AB8270NJTCL20+	AQ	28		X	y	y	ok	
	79974	JC66955-5	OP12439	AB8270NJTCL20+	AQ	29		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
	79975	JC66955-6	OP12439	AB8270NJTCL20+	AQ	30		X	y	y	ok	
2P	79976	JC66941-1	OP12417	B8270BIS2E	AQ	31			y	y	ok	11:57am
2P	79977	JC66941-2	OP12417	B8270BIS2E	AQ	32			y	y	nr	out of clock
	79978	JC66945-1	OP12417	B8270NJTCL20+	AQ	33		X	y	y	nr	out of clock
	79979	JC66957-3	OP12417	AB8270NJTCL20+	AQ	34		X	y	y	nr	out of clock
2P	79980	ACID SPIKE				35				y	ok	op182158140; ran after 2P79955
2P	79982	JC66845-5	OP12401	B8270NJTCL20+	AQ	1		X	y	y	ok	ran after 2p79972

B-2229

LOGBOOK ID:

Date Started: 5-31-18 Time Started: 07:15
Date Finished: 5-31-18 Time Finished: 14:20

ABN Aqueous Extraction Logbook

Extract Method (CHECK OFF "✓" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other_____ 3510C SIM ✓
Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # MS 12401	RACK# V05
Set-up by:	VP
Extracted by:	VP SA
Concentrated by:	SA, LS
Final Vol. Top-up:	
Vialed by:	AA
Supervisor Review:	AM 5/31/18

Equipment/Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	36	71.74	4.41	76.15	—
Waterbath Chiller (GPM)	F-3	0	—	—	0
NEVAP (32-38°C, LPM)	4	34	-1.0	35	10

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	182158-124	50	1.0
ABN DOD SIM			

WITNESS SIGN: SA SPIKE SIGN: VP

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	182158-102	50	Acid: 1.0
Acid (for SIM)			A(SIM): 0.1
Base #1	182158-116	50	1.0
Base #2	182158-78	50	1.0
Anilines	182158-115	50	1.0
BSIM	182158110	1.0	1.0

WITNESS SIGN: SA SPIKE SIGN: VP

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	182954	Fisher	60x60

REAGENT	LOT #	BATCH #	BRAND
NaOH	172020		Fisher
H2SO4	0-8902876		Ricca
Sodium Sulfate	17646	5-16-184	Fisher
Glass Wool	303817-2		Qb
Filter Paper			
pH strips			

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:
JC66845-6

Final Volume:

Other:

HT 5/31
DZ 6/1

	Sample #	Analysis Type	Sample Basis #	Sample Description	Sample Volume (mL)	pH Adjust (mL) H2SO4 < 2	pH Adjust (mL) NaOH > 11	Final Extract Color	Final Extract Vol (mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN	7	DI H2O	1000	1	4	clear	1.0		
	BS1			DI H2O	1000	1	4	yellow	1.0		
	JC66845-6 MS		9	lt. yellow	1000	1	4	yellow	1.0		
	MSD		11	lt. yellow	1000	1	4	yellow	1.0		
	BS2	SIM		DI H2O	800	1	4	yellow	1.0		
	JC66845-6 MS A		4	lt. yellow	1000	1	4	yellow	1.0		
	MSD A		8	lt. yellow	1000	1	4	lt. yellow	1.0		
	BS D			DI H2O	1000	1	4	lt. yellow	1.0		
	MS										
	MSD										
1	JC66845-1	ABN	1	yellow	1000	1	4	clear	1.0		
2	-2		2	lt. yellow	1000	1	4	clear	1.0		
3	-3		4	clear	1000	1	4	clear	1.0		
4	-4		2	clear	1000	1	4	clear	1.0		
5	-5		1	clear	1000	1	4	clear	1.0		
6	-6		2	clear	1000	1	4	clear	1.0		
7	-7		4	clear	1000	1	4	clear	1.0		
8	-8		2	clear	1000	1	4	clear	1.0		
9	-9		4	clear	1000	1	4	clear	1.0		
10	JC66863-3		2	lt. yellow	1000	1	4	clear	1.0		
11	JC66964-11		3	clear	1000	1	4	clear	1.0		
12	JC66882-2		1	clear	1000	1	4	clear	1.0		
13	-3		2	clear	1000	1	4	clear	1.0		
14	JC66883-2		1	clear	1000	1	4	clear	1.0		
15	-3		2	clear	1000	1	4	clear	1.0		
16	JC66884-2		1	clear	1000	1	4	clear	1.0		
17	-3		1	clear	1000	1	4	clear	1.0		
18	JC66890-3		2	lt. yellow	1000	1	4	clear	1.0		
19	-4		2	lt. yellow	1000	1	4	clear	1.0		
20	JC66927-1		1	lt. yellow	1000	1	4	clear	1.0		

Premier NMCP

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP022A-12
Rev Date: 8/2/17

27

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12372-MB1	6G56760.D	1	05/31/18	CP	05/30/18	OP12372	G6G1694

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC66927-1

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	74%	13-153%
877-09-8	Tetrachloro-m-xylene	83%	13-153%
2051-24-3	Decachlorobiphenyl	22%	10-138%
2051-24-3	Decachlorobiphenyl	25%	10-138%

Method Blank Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12371-MB1	2G164605.D	1	05/30/18	CP	05/30/18	OP12371	G2G4349

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC66927-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	95%	11-166%
877-09-8	Tetrachloro-m-xylene	101%	11-166%
2051-24-3	Decachlorobiphenyl	24%	10-150%
2051-24-3	Decachlorobiphenyl	26%	10-150%

Blank Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12372-BS1	6G56761.D	1	05/31/18	CP	05/30/18	OP12372	G6G1694

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC66927-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.167	0.14	84	13-135
319-84-6	alpha-BHC	0.167	0.15	90	36-139
319-85-7	beta-BHC	0.167	0.16	96	44-136
319-86-8	delta-BHC	0.167	0.10	60	40-139
58-89-9	gamma-BHC (Lindane)	0.167	0.16	96	43-136
5103-71-9	alpha-Chlordane	0.167	0.16	96	32-140
5103-74-2	gamma-Chlordane	0.167	0.15	90	28-143
60-57-1	Dieldrin	0.167	0.16	96	39-142
72-54-8	4,4'-DDD	0.167	0.15	90	36-142
72-55-9	4,4'-DDE	0.167	0.15	90	27-140
50-29-3	4,4'-DDT	0.167	0.15	90	30-144
72-20-8	Endrin	0.167	0.16	96	44-151
1031-07-8	Endosulfan sulfate	0.167	0.13	78	41-144
7421-93-4	Endrin aldehyde	0.167	0.16	96	42-144
53494-70-5	Endrin ketone	0.167	0.16	96	41-149
959-98-8	Endosulfan-I	0.167	0.15	90	40-136
33213-65-9	Endosulfan-II	0.167	0.18	108	42-140
76-44-8	Heptachlor	0.167	0.15	90	11-140
1024-57-3	Heptachlor epoxide	0.167	0.15	90	41-138
72-43-5	Methoxychlor	0.167	0.15	90	31-149

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	78%	13-153%
877-09-8	Tetrachloro-m-xylene	85%	13-153%
2051-24-3	Decachlorobiphenyl	27%	10-138%
2051-24-3	Decachlorobiphenyl	30%	10-138%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12371-BS1	2G164606.D	1	05/30/18	CP	05/30/18	OP12371	G2G4349

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC66927-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	1.33	1.5	112	37-164
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	1.33	1.4	105	36-155
11100-14-4	Aroclor 1268		ND		50-150 [a]
37324-23-5	Aroclor 1262		ND		50-150 [a]

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	99%	11-166%
877-09-8	Tetrachloro-m-xylene	103%	11-166%
2051-24-3	Decachlorobiphenyl	31%	10-150%
2051-24-3	Decachlorobiphenyl	35%	10-150%

(a) Advisory control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12372-MS	6G56763.D	1	05/31/18	CP	05/30/18	OP12372	G6G1694
OP12372-MSD	6G56764.D	1	05/31/18	CP	05/30/18	OP12372	G6G1694
JC66845-6	6G56762.D	1	05/31/18	CP	05/30/18	OP12372	G6G1694

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC66927-1

CAS No.	Compound	JC66845-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		0.167	0.13	78	0.167	0.13	78	0	10-157/46
319-84-6	alpha-BHC	ND		0.167	0.15	90	0.167	0.15	90	0	33-154/45
319-85-7	beta-BHC	ND		0.167	0.16	96	0.167	0.16	96	0	36-154/45
319-86-8	delta-BHC	ND		0.167	0.11	66	0.167	0.11	66	0	29-165/50
58-89-9	gamma-BHC (Lindane)	ND		0.167	0.16	96	0.167	0.16	96	0	33-154/43
5103-71-9	alpha-Chlordane	ND		0.167	0.16	96	0.167	0.16	96	0	26-158/44
5103-74-2	gamma-Chlordane	ND		0.167	0.15	90	0.167	0.15	90	0	20-163/44
60-57-1	Dieldrin	ND		0.167	0.16	96	0.167	0.16	96	0	24-165/44
72-54-8	4,4'-DDD	ND		0.167	0.15	90	0.167	0.15	90	0	27-157/45
72-55-9	4,4'-DDE	ND		0.167	0.14	84	0.167	0.14	84	0	13-164/43
50-29-3	4,4'-DDT	ND		0.167	0.15	90	0.167	0.15	90	0	11-169/44
72-20-8	Endrin	ND		0.167	0.17	102	0.167	0.17	102	0	39-170/42
1031-07-8	Endosulfan sulfate	ND		0.167	0.14	84	0.167	0.14	84	0	22-164/49
7421-93-4	Endrin aldehyde	ND		0.167	0.16	96	0.167	0.16	96	0	21-176/48
53494-70-5	Endrin ketone	ND		0.167	0.16	96	0.167	0.16	96	0	33-166/45
959-98-8	Endosulfan-I	ND		0.167	0.15	90	0.167	0.15	90	0	23-161/44
33213-65-9	Endosulfan-II	ND		0.167	0.18	108	0.167	0.18	108	0	30-161/43
76-44-8	Heptachlor	ND		0.167	0.15	90	0.167	0.15	90	0	10-158/47
1024-57-3	Heptachlor epoxide	ND		0.167	0.16	96	0.167	0.16	96	0	29-163/43
72-43-5	Methoxychlor	ND		0.167	0.15	90	0.167	0.15	90	0	15-164/46
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC66845-6	Limits
877-09-8	Tetrachloro-m-xylene	75%	75%	46%	13-153%
877-09-8	Tetrachloro-m-xylene	84%	83%	54%	13-153%
2051-24-3	Decachlorobiphenyl	48%	52%	52%	10-138%
2051-24-3	Decachlorobiphenyl	54%	58%	59%	10-138%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12371-MS	2G164608.D	1	05/30/18	CP	05/30/18	OP12371	G2G4349
OP12371-MSD	2G164609.D	1	05/30/18	CP	05/30/18	OP12371	G2G4349
JC66845-6	2G164607.D	1	05/30/18	CP	05/30/18	OP12371	G2G4349

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC66927-1

CAS No.	Compound	JC66845-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		1.33	2.5	187	1.33	1.5	112	50* [a]	18-187/42
11104-28-2	Aroclor 1221	ND			ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND			ND			ND		nc	70-130/50
53469-21-9	Aroclor 1242	ND			ND			ND		nc	70-130/50
12672-29-6	Aroclor 1248	ND			ND			ND		nc	70-130/50
11097-69-1	Aroclor 1254	ND			ND			ND		nc	70-130/50
11096-82-5	Aroclor 1260	ND		1.33	2.0	150	1.33	1.0	75	67* [a]	10-185/46
11100-14-4	Aroclor 1268	ND			ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND			ND			ND		nc	-/50

CAS No.	Surrogate Recoveries	MS	MSD	JC66845-6	Limits
877-09-8	Tetrachloro-m-xylene	152%	83%	56%	11-166%
877-09-8	Tetrachloro-m-xylene	154%	80%	58%	11-166%
2051-24-3	Decachlorobiphenyl	91%	49%	57%	10-150%
2051-24-3	Decachlorobiphenyl	101%	50%	62%	10-150%

(a) Outside the QC limits.

* = Outside of Control Limits.

Internal Standard Area Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1694-CC1671	**Injection Date:**	05/30/18
Lab File ID:	6G56758.D	**Injection Time:**	23:44
Instrument ID:	GC6G	**Method:**	SW846 8081B

	IS 1 AREA	RT	IS 2 AREA	RT
Check Std	284029778	2.15	369387368	1.95
Upper Limit [a]	568059556	2.65	738774736	2.45
Lower Limit [b]	142014889	1.65	184693684	1.45

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP12372-MB1	254611446	2.15	367010918	1.95
OP12372-BS1	277975708	2.15	400833080	1.95
JC66845-6	265407808	2.15	384783744	1.95
OP12372-MS	287676577	2.15	410239889	1.95
OP12372-MSD	289988524	2.15	416318017	1.95
ZZZZZZ	269165218	2.15	373363158	1.95
ZZZZZZ	267811045	2.15	392648191	1.95
ZZZZZZ	284637624	2.15	417130168	1.95
ZZZZZZ	278825923	2.15	405888700	1.95
ZZZZZZ	263137899	2.15	384401418	1.95
ZZZZZZ	287070415	2.15	415409431	1.95
ZZZZZZ	265323133	2.15	391351940	1.95
ZZZZZZ	291128534	2.15	425975561	1.95
ZZZZZZ	264298220	2.15	386137260	1.95
ZZZZZZ	271924273	2.15	402733452	1.95
ZZZZZZ	274576395	2.15	404179447	1.95
ZZZZZZ	287708258	2.15	426610009	1.95
ZZZZZZ	287592348	2.15	415580928	1.95
JC66927-1	279937786	2.15	402308838	1.95

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(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.

DDT/Endrin Breakdown Check

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G6G1671-DDT	**Injection Date:**	04/30/18
Lab File ID:	6G55778.D	**Injection Time:**	10:46
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	11318971	7536013
4,4'-DDE	11688813	6661386
4,4'-DDT	697113892	431734229
DDT Breakdown [a]	3.2 %	3.2 %
Endrin aldehyde	0	0
Endrin ketone	3648777	6453656
Endrin	397383387	243111166
Endrin Breakdown [b]	0.9 %	2.6 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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
G6G1671-IC1671	6G55780.D	04/30/18	11:25	00:39	Initial cal 1
G6G1671-IC1671	6G55781.D	04/30/18	11:43	00:57	Initial cal 2
G6G1671-IC1671	6G55782.D	04/30/18	12:01	01:15	Initial cal 5
G6G1671-IC1671	6G55783.D	04/30/18	12:18	01:33	Initial cal 10
G6G1671-ICC1671	6G55784.D	04/30/18	12:36	01:50	Initial cal 25
G6G1671-IC1671	6G55785.D	04/30/18	12:54	02:08	Initial cal 50
G6G1671-IC1671	6G55786.D	04/30/18	13:12	02:26	Initial cal 75
G6G1671-IC1671	6G55787.D	04/30/18	13:29	02:44	Initial cal 100
G6G1671-IC1671	6G55788.D	04/30/18	13:47	03:02	Initial cal 500
G6G1671-IC1671	6G55789.D	04/30/18	14:05	03:19	Initial cal 500
G6G1671-ICV1671	6G55790.D	04/30/18	14:23	03:37	Initial cal verification 25
G6G1671-ICV1671	6G55791.D	04/30/18	14:41	03:55	Initial cal verification 500
G6G1671-ICV1671	6G55792.D	04/30/18	14:58	04:13	Initial cal verification 500
G6G1671-ICV1671	6G55793.D	04/30/18	15:16	04:31	Initial cal verification 50
G6G1671-ICV1671	6G55794.D	04/30/18	15:34	04:48	Initial cal verification 50

DDT/Endrin Breakdown Check

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G6G1694-DDT	**Injection Date:**	05/30/18
Lab File ID:	6G56757.D	**Injection Time:**	23:26
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	11677314	9425761
4,4'-DDE	20682658	15428658
4,4'-DDT	622873027	432148139
DDT Breakdown [a]	4.9 %	5.4 %
Endrin aldehyde	1045906	440682
Endrin ketone	2496595	2088391
Endrin	392983781	276542481
Endrin Breakdown [b]	0.9 %	0.9 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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
G6G1694-CC1671	6G56758.D	05/30/18	23:44	00:18	Continuing cal 25
OP12372-MB1	6G56760.D	05/31/18	00:20	00:54	Method Blank
OP12372-BS1	6G56761.D	05/31/18	00:38	01:12	Blank Spike
JC66845-6	6G56762.D	05/31/18	00:56	01:29	(used for QC only; not part of job JC66927)
OP12372-MS	6G56763.D	05/31/18	01:13	01:47	Matrix Spike
OP12372-MSD	6G56764.D	05/31/18	01:31	02:05	Matrix Spike Duplicate
ZZZZZZ	6G56765.D	05/31/18	01:49	02:23	(unrelated sample)
ZZZZZZ	6G56766.D	05/31/18	02:07	02:41	(unrelated sample)
ZZZZZZ	6G56767.D	05/31/18	02:25	02:59	(unrelated sample)
ZZZZZZ	6G56768.D	05/31/18	02:43	03:17	(unrelated sample)
ZZZZZZ	6G56769.D	05/31/18	03:01	03:35	(unrelated sample)
ZZZZZZ	6G56770.D	05/31/18	03:19	03:52	(unrelated sample)
ZZZZZZ	6G56771.D	05/31/18	03:36	04:10	(unrelated sample)
ZZZZZZ	6G56772.D	05/31/18	03:54	04:28	(unrelated sample)
ZZZZZZ	6G56773.D	05/31/18	04:12	04:46	(unrelated sample)
ZZZZZZ	6G56774.D	05/31/18	04:30	05:04	(unrelated sample)
ZZZZZZ	6G56775.D	05/31/18	04:48	05:22	(unrelated sample)
ZZZZZZ	6G56776.D	05/31/18	05:06	05:40	(unrelated sample)
ZZZZZZ	6G56777.D	05/31/18	05:24	05:58	(unrelated sample)
JC66927-1	6G56778.D	05/31/18	05:42	06:15	MW-106

GC Identification Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1694-CC1671	**Injection Date:**	05/30/18
Lab File ID:	6G56758.D	**Injection Time:**	23:44
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP12372-BS1	**Injection Date:**	05/31/18
Lab File ID:	6G56761.D	**Injection Time:**	00:38
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.10	4.09	0.14		ug/l	13.3
Aldrin	2	4.94	4.94	0.16		ug/l	
alpha-BHC	1 [a]	2.99	2.99	0.15		ug/l	12.5
alpha-BHC	2	3.55	3.55	0.17		ug/l	
beta-BHC	1 [a]	3.36	3.35	0.16		ug/l	6.1
beta-BHC	2	4.04	4.04	0.17		ug/l	
delta-BHC	1 [a]	3.54	3.53	0.10		ug/l	9.5
delta-BHC	2	4.42	4.42	0.11		ug/l	
gamma-BHC (Lindane)	1 [a]	3.28	3.28	0.16		ug/l	6.1
gamma-BHC (Lindane)	2	3.96	3.96	0.17		ug/l	
alpha-Chlordane	1 [a]	5.13	5.13	0.16		ug/l	6.1
alpha-Chlordane	2	6.24	6.24	0.17		ug/l	
gamma-Chlordane	1 [a]	4.96	4.96	0.15		ug/l	23.5
gamma-Chlordane	2	6.02	6.02	0.19		ug/l	
Dieldrin	1 [a]	5.62	5.62	0.16		ug/l	11.8
Dieldrin	2	6.75	6.75	0.18		ug/l	
4,4'-DDD	1 [a]	6.06	6.06	0.15		ug/l	12.5
4,4'-DDD	2	7.43	7.43	0.17		ug/l	
4,4'-DDE	1 [a]	5.24	5.24	0.15		ug/l	12.5
4,4'-DDE	2	6.50	6.50	0.17		ug/l	
4,4'-DDT	1 [a]	6.48	6.48	0.15		ug/l	6.5
4,4'-DDT	2	7.96	7.96	0.16		ug/l	
Endrin	1 [a]	5.94	5.94	0.16		ug/l	6.1
Endrin	2	7.25	7.25	0.17		ug/l	
Endosulfan sulfate	1 [a]	7.56	7.56	0.13		ug/l	14.3
Endosulfan sulfate	2	8.62	8.62	0.15		ug/l	
Endrin aldehyde	1 [a]	6.88	6.88	0.16		ug/l	6.1
Endrin aldehyde	2	8.16	8.16	0.17		ug/l	
Endrin ketone	1 [a]	8.00	8.00	0.16		ug/l	0.0
Endrin ketone	2	9.56	9.57	0.16		ug/l	
Endosulfan-I	1 [a]	5.30	5.30	0.15		ug/l	12.5
Endosulfan-I	2	6.33	6.33	0.17		ug/l	
Endosulfan-II	1 [a]	6.26	6.26	0.18		ug/l	10.5
Endosulfan-II	2	7.59	7.59	0.20		ug/l	
Heptachlor	1 [a]	3.77	3.76	0.15		ug/l	6.5
Heptachlor	2	4.51	4.51	0.16		ug/l	
Heptachlor epoxide	1 [a]	4.80	4.79	0.15		ug/l	12.5
Heptachlor epoxide	2	5.74	5.74	0.17		ug/l	
Methoxychlor	1 [a]	7.26	7.26	0.15		ug/l	6.5
Methoxychlor	2	9.19	9.19	0.16		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1694-CC1671	**Injection Date:**	05/30/18
Lab File ID:	6G56758.D	**Injection Time:**	23:44
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP12372-MS	**Injection Date:**	05/31/18
Lab File ID:	6G56763.D	**Injection Time:**	01:13
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.10	4.09	0.13		ug/l	7.4
Aldrin	2	4.95	4.94	0.14		ug/l	
alpha-BHC	1 [a]	2.99	2.99	0.15		ug/l	6.5
alpha-BHC	2	3.55	3.55	0.16		ug/l	
beta-BHC	1 [a]	3.36	3.35	0.16		ug/l	6.1
beta-BHC	2	4.04	4.04	0.17		ug/l	
delta-BHC	1 [a]	3.54	3.53	0.11		ug/l	0.0
delta-BHC	2	4.42	4.42	0.11		ug/l	
gamma-BHC (Lindane)	1 [a]	3.28	3.28	0.16		ug/l	0.0
gamma-BHC (Lindane)	2	3.96	3.96	0.16		ug/l	
alpha-Chlordane	1 [a]	5.13	5.13	0.16		ug/l	6.1
alpha-Chlordane	2	6.24	6.24	0.17		ug/l	
gamma-Chlordane	1 [a]	4.96	4.96	0.15		ug/l	23.5
gamma-Chlordane	2	6.02	6.02	0.19		ug/l	
Dieldrin	1 [a]	5.62	5.62	0.16		ug/l	11.8
Dieldrin	2	6.75	6.75	0.18		ug/l	
4,4'-DDD	1 [a]	6.06	6.06	0.15		ug/l	12.5
4,4'-DDD	2	7.43	7.43	0.17		ug/l	
4,4'-DDE	1 [a]	5.24	5.24	0.14		ug/l	19.4
4,4'-DDE	2	6.50	6.50	0.17		ug/l	
4,4'-DDT	1 [a]	6.48	6.48	0.15		ug/l	6.5
4,4'-DDT	2	7.96	7.96	0.16		ug/l	
Endrin	1 [a]	5.94	5.94	0.17		ug/l	5.7
Endrin	2	7.25	7.25	0.18		ug/l	
Endosulfan sulfate	1 [a]	7.56	7.56	0.14		ug/l	6.9
Endosulfan sulfate	2	8.62	8.62	0.15		ug/l	
Endrin aldehyde	1 [a]	6.88	6.88	0.16		ug/l	6.1
Endrin aldehyde	2	8.16	8.16	0.17		ug/l	
Endrin ketone	1 [a]	8.00	8.00	0.16		ug/l	0.0
Endrin ketone	2	9.56	9.57	0.16		ug/l	
Endosulfan-I	1 [a]	5.30	5.30	0.15		ug/l	12.5
Endosulfan-I	2	6.33	6.33	0.17		ug/l	
Endosulfan-II	1 [a]	6.26	6.26	0.18		ug/l	10.5
Endosulfan-II	2	7.59	7.59	0.20		ug/l	
Heptachlor	1 [a]	3.77	3.76	0.15		ug/l	0.0
Heptachlor	2	4.51	4.51	0.15		ug/l	
Heptachlor epoxide	1 [a]	4.80	4.79	0.16		ug/l	6.1
Heptachlor epoxide	2	5.74	5.74	0.17		ug/l	
Methoxychlor	1 [a]	7.26	7.26	0.15		ug/l	6.5
Methoxychlor	2	9.19	9.19	0.16		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1694-CC1671	**Injection Date:**	05/30/18
Lab File ID:	6G56758.D	**Injection Time:**	23:44
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP12372-MSD	**Injection Date:**	05/31/18
Lab File ID:	6G56764.D	**Injection Time:**	01:31
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.09	4.09	0.13		ug/l	14.3
Aldrin	2	4.94	4.94	0.15		ug/l	
alpha-BHC	1 [a]	2.99	2.99	0.15		ug/l	12.5
alpha-BHC	2	3.55	3.55	0.17		ug/l	
beta-BHC	1 [a]	3.36	3.35	0.16		ug/l	6.1
beta-BHC	2	4.04	4.04	0.17		ug/l	
delta-BHC	1 [a]	3.54	3.53	0.11		ug/l	8.7
delta-BHC	2	4.42	4.42	0.12		ug/l	
gamma-BHC (Lindane)	1 [a]	3.28	3.28	0.16		ug/l	6.1
gamma-BHC (Lindane)	2	3.96	3.96	0.17		ug/l	
alpha-Chlordane	1 [a]	5.13	5.13	0.16		ug/l	6.1
alpha-Chlordane	2	6.24	6.24	0.17		ug/l	
gamma-Chlordane	1 [a]	4.96	4.96	0.15		ug/l	23.5
gamma-Chlordane	2	6.02	6.02	0.19		ug/l	
Dieldrin	1 [a]	5.62	5.62	0.16		ug/l	11.8
Dieldrin	2	6.75	6.75	0.18		ug/l	
4,4'-DDD	1 [a]	6.06	6.06	0.15		ug/l	12.5
4,4'-DDD	2	7.43	7.43	0.17		ug/l	
4,4'-DDE	1 [a]	5.24	5.24	0.14		ug/l	13.3
4,4'-DDE	2	6.50	6.50	0.16		ug/l	
4,4'-DDT	1 [a]	6.48	6.48	0.15		ug/l	6.5
4,4'-DDT	2	7.96	7.96	0.16		ug/l	
Endrin	1 [a]	5.94	5.94	0.17		ug/l	0.0
Endrin	2	7.25	7.25	0.17		ug/l	
Endosulfan sulfate	1 [a]	7.56	7.56	0.14		ug/l	6.9
Endosulfan sulfate	2	8.62	8.62	0.15		ug/l	
Endrin aldehyde	1 [a]	6.88	6.88	0.16		ug/l	6.1
Endrin aldehyde	2	8.16	8.16	0.17		ug/l	
Endrin ketone	1 [a]	8.00	8.00	0.16		ug/l	0.0
Endrin ketone	2	9.57	9.57	0.16		ug/l	
Endosulfan-I	1 [a]	5.30	5.30	0.15		ug/l	12.5
Endosulfan-I	2	6.33	6.33	0.17		ug/l	
Endosulfan-II	1 [a]	6.26	6.26	0.18		ug/l	5.4
Endosulfan-II	2	7.59	7.59	0.19		ug/l	
Heptachlor	1 [a]	3.77	3.76	0.15		ug/l	0.0
Heptachlor	2	4.51	4.51	0.15		ug/l	
Heptachlor epoxide	1 [a]	4.80	4.79	0.16		ug/l	6.1
Heptachlor epoxide	2	5.74	5.74	0.17		ug/l	
Methoxychlor	1 [a]	7.26	7.26	0.15		ug/l	6.5
Methoxychlor	2	9.19	9.19	0.16		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4349-CC4311	**Injection Date:**	05/30/18
Lab File ID:	2G164603.D	**Injection Time:**	21:04
Instrument ID:	GC2G	**Method:**	SW846 8082A

Sample ID:	OP12371-BS1	**Injection Date:**	05/30/18
Lab File ID:	2G164606.D	**Injection Time:**	22:54
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.5		ug/l	12.5
Aroclor 1016	2			1.7		ug/l	
AR1016-B	1	3.54	3.54	1.7		ug/l	
AR1016-B	2	4.63	4.61	2.1		ug/l	
AR1016-C	1	4.09	4.08	1.3		ug/l	
AR1016-C	2	5.26	5.26	1.4		ug/l	
AR1016-D	1	4.25	4.25	1.5		ug/l	
AR1016-D	2	5.45	5.44	1.7		ug/l	
AR1016-E	1	4.75	4.75	1.4		ug/l	
AR1016-E	2	6.09	6.08	1.6		ug/l	
Aroclor 1260	1 [a]			1.4		ug/l	6.9
Aroclor 1260	2			1.5		ug/l	
AR1260-A	1	7.12	7.12	1.1		ug/l	
AR1260-A	2	8.68	8.68	1.2		ug/l	
AR1260-B	1	7.27	7.27	1.6		ug/l	
AR1260-B	2	8.79	8.79	1.6		ug/l	
AR1260-C	1	7.61	7.61	1.5		ug/l	
AR1260-C	2	9.22	9.22	1.5		ug/l	
AR1260-D	1	8.04	8.04	1.3		ug/l	
AR1260-D	2	9.58	9.57	1.5		ug/l	
AR1260-E	1	8.43	8.43	1.4		ug/l	
AR1260-E	2	10.11	10.12	1.5		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4349-CC4311	**Injection Date:**	05/30/18
Lab File ID:	2G164603.D	**Injection Time:**	21:04
Instrument ID:	GC2G	**Method:**	SW846 8082A

Sample ID:	OP12371-MS	**Injection Date:**	05/30/18
Lab File ID:	2G164608.D	**Injection Time:**	23:28
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			2.5		ug/l	18.2
Aroclor 1016	2			3.0		ug/l	
AR1016-A	1	3.14	3.14	3.5		ug/l	
AR1016-A	2	4.06	4.08	4.6		ug/l	
AR1016-B	1	3.54	3.54	2.4		ug/l	
AR1016-B	2	4.63	4.61	3.5		ug/l	
AR1016-C	1	4.08	4.08	2.1		ug/l	
AR1016-C	2	5.26	5.26	2.1		ug/l	
AR1016-D	1	4.25	4.25	2.3		ug/l	
AR1016-D	2	5.45	5.44	2.5		ug/l	
AR1016-E	1	4.75	4.75	2.3		ug/l	
AR1016-E	2	6.08	6.08	2.2		ug/l	
Aroclor 1260	1 [a]			2.0		ug/l	0.0
Aroclor 1260	2			2.0		ug/l	
AR1260-A	1	7.11	7.12	1.7		ug/l	
AR1260-A	2	8.68	8.68	1.7		ug/l	
AR1260-B	1	7.27	7.27	2.3		ug/l	
AR1260-B	2	8.79	8.79	2.3		ug/l	
AR1260-C	1	7.60	7.61	2.2		ug/l	
AR1260-C	2	9.22	9.22	2.1		ug/l	
AR1260-D	1	8.03	8.04	1.9		ug/l	
AR1260-D	2	9.57	9.57	2.1		ug/l	
AR1260-E	1	8.43	8.43	2.0		ug/l	
AR1260-E	2	10.11	10.12	2.0		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4349-CC4311	**Injection Date:**	05/30/18
Lab File ID:	2G164603.D	**Injection Time:**	21:04
Instrument ID:	GC2G	**Method:**	SW846 8082A

Sample ID:	OP12371-MSD	**Injection Date:**	05/30/18
Lab File ID:	2G164609.D	**Injection Time:**	23:45
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.5		ug/l	18.2
Aroclor 1016	2			1.8		ug/l	
AR1016-A	1	3.17	3.14	2.5		ug/l	
AR1016-A	2	4.06	4.08	3.2		ug/l	
AR1016-B	1	3.54	3.54	1.4		ug/l	
AR1016-B	2	4.63	4.61	1.9		ug/l	
AR1016-C	1	4.08	4.08	1.2		ug/l	
AR1016-C	2	5.27	5.26	1.2		ug/l	
AR1016-D	1	4.25	4.25	1.4		ug/l	
AR1016-D	2	5.45	5.44	1.5		ug/l	
AR1016-E	1	4.75	4.75	1.2		ug/l	
AR1016-E	2	6.09	6.08	1.2		ug/l	
Aroclor 1260	1 [a]			1.0		ug/l	9.5
Aroclor 1260	2			1.1		ug/l	
AR1260-A	1	7.11	7.12	0.88		ug/l	
AR1260-A	2	8.68	8.68	0.90		ug/l	
AR1260-B	1	7.27	7.27	1.2		ug/l	
AR1260-B	2	8.79	8.79	1.1		ug/l	
AR1260-C	1	7.61	7.61	1.2		ug/l	
AR1260-C	2	9.22	9.22	1.1		ug/l	
AR1260-D	1	8.04	8.04	0.96		ug/l	
AR1260-D	2	9.58	9.57	1.1		ug/l	
AR1260-E	1	8.43	8.43	1.0		ug/l	
AR1260-E	2	10.12	10.12	1.1		ug/l	

(a) QC results reported from this column.

Surrogate Recovery Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8081B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC66927-1	6G56778.D	61	68	21	24
OP12372-BS1	6G56761.D	78	85	27	30
OP12372-MB1	6G56760.D	74	83	22	25
OP12372-MS	6G56763.D	75	84	48	54
OP12372-MSD	6G56764.D	75	83	52	58

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	13-153%
S2 = Decachlorobiphenyl	10-138%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Surrogate Recovery Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8082A **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC66927-1	2G164630.D	73	71	23	26
OP12371-BS1	2G164606.D	99	103	31	35
OP12371-MB1	2G164605.D	95	101	24	26
OP12371-MS	2G164608.D	152	154	91	101
OP12371-MSD	2G164609.D	83	80	49	50

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	11-166%
S2 = Decachlorobiphenyl	10-150%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1694-CC1671	**Injection Date:**	05/30/18
Lab File ID:	6G56758.D	**Injection Time:**	23:44
Instrument ID:	GC6G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.53	2.93	9.81	11.70

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP12372-MB1	6G56760.D	05/31/18	00:20	2.53	2.93	9.81	11.70
OP12372-BS1	6G56761.D	05/31/18	00:38	2.53	2.93	9.81	11.70
JC66845-6	6G56762.D	05/31/18	00:56	2.53	2.93	9.81	11.70
OP12372-MS	6G56763.D	05/31/18	01:13	2.53	2.93	9.81	11.70
OP12372-MSD	6G56764.D	05/31/18	01:31	2.53	2.93	9.80	11.70
ZZZZZZ	6G56765.D	05/31/18	01:49	2.53	2.93	9.81	11.70
ZZZZZZ	6G56766.D	05/31/18	02:07	2.53	2.93	9.80	11.70
ZZZZZZ	6G56767.D	05/31/18	02:25	2.53	2.93	9.81	11.70
ZZZZZZ	6G56768.D	05/31/18	02:43	2.53	2.93	9.81	11.70
ZZZZZZ	6G56769.D	05/31/18	03:01	2.53	2.93	9.81	11.70
ZZZZZZ	6G56770.D	05/31/18	03:19	2.53	2.93	9.80	11.70
ZZZZZZ	6G56771.D	05/31/18	03:36	2.53	2.93	9.81	11.70
ZZZZZZ	6G56772.D	05/31/18	03:54	2.53	2.93	9.81	11.70
ZZZZZZ	6G56773.D	05/31/18	04:12	2.53	2.93	9.81	11.70
ZZZZZZ	6G56774.D	05/31/18	04:30	2.53	2.93	9.80	11.70
ZZZZZZ	6G56775.D	05/31/18	04:48	2.53	2.93	9.81	11.70
ZZZZZZ	6G56776.D	05/31/18	05:06	2.53	2.93	9.81	11.70
ZZZZZZ	6G56777.D	05/31/18	05:24	2.53	2.93	9.81	11.70
JC66927-1	6G56778.D	05/31/18	05:42	2.53	2.93	9.80	11.70

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4349-CC4311	**Injection Date:**	05/30/18
Lab File ID:	2G164603.D	**Injection Time:**	21:04
Instrument ID:	GC2G	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.42	9.96	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP12371-MB1	2G164605.D	05/30/18	22:38	2.78	3.42	9.96	11.76
OP12371-BS1	2G164606.D	05/30/18	22:54	2.77	3.42	9.96	11.76
JC66845-6	2G164607.D	05/30/18	23:11	2.77	3.42	9.95	11.76
OP12371-MS	2G164608.D	05/30/18	23:28	2.77	3.42	9.95	11.76
OP12371-MSD	2G164609.D	05/30/18	23:45	2.77	3.42	9.95	11.76
ZZZZZZ	2G164610.D	05/31/18	00:02	2.77	3.42	9.95	11.76
ZZZZZZ	2G164611.D	05/31/18	00:19	2.77	3.42	9.95	11.76
ZZZZZZ	2G164612.D	05/31/18	00:36	2.77	3.42	9.95	11.76

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4349-CC4311	**Injection Date:**	05/31/18
Lab File ID:	2G164625.D	**Injection Time:**	04:18
Instrument ID:	GC2G	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.42	9.97	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
ZZZZZZ	2G164627.D	05/31/18	04:51	2.77	3.42	9.95	11.76
ZZZZZZ	2G164628.D	05/31/18	05:08	2.77	3.42	9.95	11.76
ZZZZZZ	2G164629.D	05/31/18	05:25	2.77	3.42	9.96	11.76
JC66927-1	2G164630.D	05/31/18	05:42	2.77	3.42	9.95	11.76
OP12385-MB1	2G164632.D	05/31/18	06:16	2.77	3.42	9.97	11.77
G2G4349-ECC4311	2G164636.D	05/31/18	07:24	2.77	3.42	9.97	11.77

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 2PCB4311.M
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response Via : Initial Calibration

Calibration Files
50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D
1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg	%RSD
1) S	Tetrachloro-m...	3.853	3.487	3.538	3.692	3.667	3.785	3.670 E6	3.81
2)	AR1221-A				2.897			2.897 E4	0.00
3)	AR1221-B				4.202			4.202 E4	0.00
4)	AR1221-C				1.288			1.288 E5	0.00
5)	AR1221-D				1.466			1.466 E4	0.00
6)	AR1221-E				1.436			1.436 E4	0.00
7)	AR1232-A				9.734			9.734 E4	0.00
8)	AR1232-B				6.684			6.684 E4	0.00
9)	AR1232-C				1.305			1.305 E5	0.00
10)	AR1232-D				5.447			5.447 E4	0.00
11)	AR1232-E				5.149			5.149 E4	0.00
12)	AR1242-A				1.198			1.198 E5	0.00
13)	AR1242-B				2.525			2.525 E5	0.00
14)	AR1242-C				1.054			1.054 E5	0.00
15)	AR1242-D				1.090			1.090 E5	0.00
16)	AR1242-E				9.298			9.298 E4	0.00
17)	AR1248-A				5.917			5.917 E4	0.00
18)	AR1248-B				1.544			1.544 E5	0.00
19)	AR1248-C				1.652			1.652 E5	0.00
20)	AR1248-D				1.598			1.598 E5	0.00
21)	AR1248-E				1.421			1.421 E5	0.00
22)	AR1248-F				1.402			1.402 E5	0.00
23)	AR1248-G				1.572			1.572 E5	0.00
24)	AR1254-A				1.234			1.234 E5	0.00
25)	AR1254-B				2.588			2.588 E5	0.00
26)	AR1254-C				1.370			1.370 E5	0.00
27)	AR1254-D				2.459			2.459 E5	0.00
28)	AR1254-E				1.825			1.825 E5	0.00
29)	AR1254-F				1.712			1.712 E5	0.00
30)	AR1254-G				2.518			2.518 E5	0.00
31)	AR1016-A	9.451	7.869	7.627	7.558	7.126	7.105	7.789 E4	11.13
32)	AR1016-B	1.685	1.361	1.324	1.304	1.242	1.247	1.361 E5	12.16
33)	AR1016-C	3.261	2.840	2.792	2.854	2.797	2.854	2.900 E5	6.18
34)	AR1016-D	1.360	1.162	1.156	1.157	1.119	1.140	1.182 E5	7.49
35)	AR1016-E	1.424	1.227	1.184	1.176	1.145	1.161	1.219 E5	8.51
36)	AR1260-A	3.759	3.397	3.078	3.178	3.473	3.566	3.408 E5	7.36
37)	AR1260-B	1.602	1.368	1.501	1.530	1.316	1.349	1.444 E5	8.00
38)	AR1260-C	1.676	1.539	1.642	1.690	1.480	1.527	1.592 E5	5.54
39)	AR1260-D	3.627	3.372	3.743	3.953	3.621	3.712	3.671 E5	5.17
40)	AR1260-E	3.931	3.596	3.895	4.026	3.611	3.668	3.788 E5	4.88
41)	AR1262-A				1.935			1.935 E5	0.00
42)	AR1262-B				2.424			2.424 E5	0.00
43)	AR1262-C				2.270			2.270 E5	0.00
44)	AR1262-D				4.854			4.854 E5	0.00
45)	AR1262-E				5.588			5.588 E5	0.00
46)	AR1268-A				5.754			5.754 E5	0.00

Initial Calibration Summary

Job Number: JC66927 **Sample:** G2G4311-ICC4311
Account: BBLNYS Arcadis **Lab FileID:** 2G162099.D
Project: National Grid, Philly Coke, Philadelphia PA

47)		AR1268-B				5.673			5.673 E5	0.00
48)		AR1268-C				4.730			4.730 E5	0.00
49)		AR1268-D				1.992			1.992 E5	0.00
50)		AR1268-E				1.615			1.615 E6	0.00
51)	S	Decachlorobip...	4.697	4.061	3.924	3.931	3.825	3.897	4.056 E6	7.97

Signal #2 Calibration Files

50	=2G162102a.D	250	=2G162097.D	500	=2G162098.D
1000	=2G162099.D	2000	=2G162100.D	3000	=2G162101.D

		Compound	50	250	500	1000	2000	3000	Avg	%RSD
1)	S	Tetrachloro-m...	2.359	2.161	2.233	2.322	2.300	2.354	2.288 E7	3.37
2)		AR1221-A				1.409			1.409 E5	0.00
3)		AR1221-B				2.507			2.507 E5	0.00
4)		AR1221-C				6.558			6.558 E5	0.00
5)		AR1221-D				1.222			1.222 E5	0.00
6)		AR1221-E				8.849			8.849 E4	0.00
7)		AR1232-A				5.020			5.020 E5	0.00
8)		AR1232-B				3.935			3.935 E5	0.00
9)		AR1232-C				8.152			8.152 E5	0.00
10)		AR1232-D				3.615			3.615 E5	0.00
11)		AR1232-E				2.173			2.173 E5	0.00
12)		AR1242-A				7.054			7.054 E5	0.00
13)		AR1242-B				1.548			1.548 E6	0.00
14)		AR1242-C				6.668			6.668 E5	0.00
15)		AR1242-D				4.564			4.564 E5	0.00
16)		AR1242-E				6.343			6.343 E5	0.00
17)		AR1248-A				3.627			3.627 E5	0.00
18)		AR1248-B				9.548			9.548 E5	0.00
19)		AR1248-C				5.697			5.697 E5	0.00
20)		AR1248-D				7.271			7.271 E5	0.00
21)		AR1248-E				8.799			8.799 E5	0.00
22)		AR1248-F				1.097			1.097 E6	0.00
23)		AR1248-G				1.220			1.220 E6	0.00
24)		AR1254-A				9.925			9.925 E5	0.00
25)		AR1254-B				9.839			9.839 E5	0.00
26)		AR1254-C				7.977			7.977 E5	0.00
27)		AR1254-D				1.634			1.634 E6	0.00
28)		AR1254-E				1.089			1.089 E6	0.00
29)		AR1254-F				1.181			1.181 E6	0.00
30)		AR1254-G				1.511			1.511 E6	0.00
31)		AR1016-A	4.464	3.663	3.554	3.667	3.532	3.597	3.746 E5	9.50
32)		AR1016-B	1.008	0.785	0.781	0.777	0.734	0.721	0.801 E6	13.07
33)		AR1016-C	1.870	1.661	1.687	1.744	1.719	1.721	1.734 E6	4.20
34)		AR1016-D	8.979	7.276	7.297	7.378	7.117	7.090	7.523 E5	9.59
35)		AR1016-E	5.760	4.925	4.923	5.029	5.023	5.124	5.131 E5	6.19
36)		AR1260-A	2.222	1.949	1.820	1.882	2.043	2.081	2.000 E6	7.30
37)		AR1260-B	1.009	0.803	0.897	0.917	0.804	0.816	0.874 E6	9.41
38)		AR1260-C	1.124	0.949	1.023	1.051	0.980	1.006	1.022 E6	5.98
39)		AR1260-D	2.347	1.930	2.170	2.256	2.063	2.114	2.146 E6	6.84
40)		AR1260-E	2.219	1.874	2.089	2.144	1.933	1.971	2.038 E6	6.55
41)		AR1262-A				1.044			1.044 E6	0.00
42)		AR1262-B				1.428			1.428 E6	0.00
43)		AR1262-C				1.336			1.336 E6	0.00
44)		AR1262-D				2.732			2.732 E6	0.00
45)		AR1262-E				3.034			3.034 E6	0.00
46)		AR1268-A				3.086			3.086 E6	0.00
47)		AR1268-B				3.099			3.099 E6	0.00
48)		AR1268-C				2.498			2.498 E6	0.00

Initial Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

```
 49)     AR1268-D                          1.038             1.038 E6  0.00
 50)     AR1268-E                          8.238             8.238 E6  0.00
 51) S   Decachlorobip... 2.219 1.845 1.796 1.874 1.841 1.884 1.910 E7  8.10
 ---------------------------------------------------------------------------
 (#) = Out of Range

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1
```

10.9.1

10

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH
Acq On    : 19 Apr 2018   3:17 pm                    Operator: tianweir
Sample    : icv4311-1000                             Inst    : HP G1530A
Misc      : OP11095,G2G4311,15.0,,,10.0,1            Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	3.975 E6	-8.3	108	0.00	2.75- 2.81
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	76.686 E3	1.5	101	0.00	3.12- 3.18
32	AR1016-B	136.058	141.949 E3	-4.3	109	0.00	3.53- 3.59
33	AR1016-C	289.965	305.729 E3	-5.4	107	0.00	4.08- 4.14
34	AR1016-D	118.235	126.283 E3	-6.8	109	0.00	4.24- 4.30
35	AR1016-E	121.934	124.361 E3	-2.0	106	0.00	4.75- 4.81
36	AR1260-A	340.850	344.355 E3	-1.0	108	0.00	7.12- 7.18
37	AR1260-B	144.444	147.854 E3	-2.4	97	0.00	7.28- 7.34
38	AR1260-C	159.229	170.106 E3	-6.8	101	0.00	7.62- 7.68
39	AR1260-D	367.146	387.161 E3	-5.5	98	0.00	8.05- 8.11
40	AR1260-E	378.788	394.757 E3	-4.2	98	0.00	8.39- 8.55
41	AR1262-A		----------NA----------				

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					
48		AR1268-C		----------NA----------					
49		AR1268-D		----------NA----------					
50		AR1268-E		----------NA----------					
51	S	Decachlorobiphenyl	4.056	4.006	E6	1.2	102	0.00	9.98-10.04

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	22.882	25.201	E6	-10.1	109	0.00	3.40- 3.46
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1016-A	374.605	415.731	E3	-11.0	113	0.00	4.06- 4.12
32		AR1016-B	0.801	0.845	E6	-5.5	109	0.00	4.60- 4.66
33		AR1016-C	1.734	1.899	E6	-9.5	109	0.00	5.25- 5.31
34		AR1016-D	752.270	823.449	E3	-9.5	112	0.00	5.43- 5.49
35		AR1016-E	513.080	544.014	E3	-6.0	108	0.00	6.08- 6.14
36		AR1260-A	2.000	2.060	E6	-3.0	109	0.00	8.68- 8.74
37		AR1260-B	0.874	0.905	E6	-3.5	99	0.00	8.80- 8.86
38		AR1260-C	1.022	1.071	E6	-4.8	102	0.00	9.23- 9.29
39		AR1260-D	2.146	2.253	E6	-5.0	100	0.00	9.58- 9.64
40		AR1260-E	2.038	2.122	E6	-4.1	99	0.00	10.12-10.18
41		AR1262-A		----------NA----------					
42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

```
48      AR1268-C                          ----------NA----------
49      AR1268-D                          ----------NA----------
50      AR1268-E                          ----------NA----------
51 S    Decachlorobiphenyl      19.099  18.717 E6   2.0  100   0.00   11.78-11.84
-----------------------------------------------------------------------------
-----------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    2G162099.D 2PCB4311.M       Thu Apr 19 15:43:22 2018   RPT1
```

10.9.2 10

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4311-ICV4311
Lab FileID: 2G162107.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH
Acq On    : 19 Apr 2018   3:34 pm                    Operator: tianweir
Sample    : icv4311-1000                             Inst    : HP G1530A
Misc      : OP11095,G2G4311,15.0,,,10.0,1            Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
2	AR1221-A	28.967	30.231 E3	-4.4	104	0.00	2.18- 2.38
3	AR1221-B	42.023	40.285 E3	4.1	96	0.00	2.85- 3.05
4	AR1221-C	128.795	122.705 E3	4.7	95	0.00	3.05- 3.25
5	AR1221-D	14.657	11.965 E3	18.4	82	0.00	3.46- 3.66
6	AR1221-E	14.364	14.535 E3	-1.2	101	0.00	3.60- 3.80
24	AR1254-A	123.364	129.470 E3	-4.9	105	0.00	4.78- 5.78
25	AR1254-B	258.753	268.829 E3	-3.9	104	0.00	5.52- 5.72
26	AR1254-C	136.952	143.562 E3	-4.8	105	0.00	5.88- 6.08
27	AR1254-D	245.908	257.604 E3	-4.8	105	0.00	6.04- 6.24
28	AR1254-E	182.509	189.827 E3	-4.0	104	0.00	6.42- 6.62
29	AR1254-F	171.196	179.789 E3	-5.0	105	0.00	6.67- 6.87
30	AR1254-G	251.778	263.449 E3	-4.6	105	0.00	7.05- 7.25

***** Signal #2 *****

2	AR1221-A	140.927	146.033 E3	-3.6	104	0.00	2.77- 2.97
3	AR1221-B	250.670	252.257 E3	-0.6	101	0.00	3.72- 3.92
4	AR1221-C	655.831	636.187 E3	3.0	97	0.00	3.99- 4.19
5	AR1221-D	122.166	105.889 E3	13.3	87	0.00	4.55- 4.75
6	AR1221-E	88.492	89.522 E3	-1.2	101	0.00	4.67- 4.87
24	AR1254-A	992.497	1051.994 E3	-6.0	106	0.00	6.20- 7.20
25	AR1254-B	983.915	1037.386 E3	-5.4	105	0.00	6.86- 7.06
26	AR1254-C	797.725	839.207 E3	-5.2	105	0.00	7.37- 7.56
27	AR1254-D	1.634	1.719 E6	-5.2	105	0.00	7.53- 7.73
28	AR1254-E	1.089	1.136 E6	-4.3	104	0.00	7.86- 8.06
29	AR1254-F	1.181	1.231 E6	-4.2	104	0.00	8.32- 8.52
30	AR1254-G	1.511	1.615 E6	-6.9	107	0.00	8.62- 8.82

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 16:15:57 2018 RPT1

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4311-ICV4311
Lab FileID: 2G162108.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH
Acq On    : 19 Apr 2018   3:51 pm                    Operator: tianweir
Sample    : icv4311-1000                             Inst    : HP G1530A
Misc      : OP11095,G2G4311,15.0,,,10.0,1            Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
7	AR1232-A	97.343	98.365 E3	-1.0	101	0.00	3.05- 3.25
8	AR1232-B	66.843	68.498 E3	-2.5	102	0.00	3.46- 3.66
9	AR1232-C	130.487	135.897 E3	-4.1	104	0.00	4.01- 4.21
10	AR1232-D	54.474	56.766 E3	-4.2	104	0.00	4.17- 4.37
11	AR1232-E	51.489	53.116 E3	-3.2	103	0.00	4.68- 4.88
41	AR1262-A	193.481	203.733 E3	-5.3	105	0.00	6.67- 6.87
42	AR1262-B	242.383	258.534 E3	-6.7	107	0.00	7.21- 7.41
43	AR1262-C	227.005	238.593 E3	-5.1	105	0.00	7.55- 7.75
44	AR1262-D	485.357	514.218 E3	-5.9	106	0.00	7.98- 8.18
45	AR1262-E	558.779	598.920 E3	-7.2	107	0.00	8.43- 8.63

***** Signal #2 *****

7	AR1232-A	501.961	512.204 E3	-2.0	102	0.00	4.00- 4.20
8	AR1232-B	393.517	401.624 E3	-2.1	102	0.00	4.54- 4.74
9	AR1232-C	815.235	827.075 E3	-1.5	101	0.00	5.18- 5.38
10	AR1232-D	361.545	372.004 E3	-2.9	103	0.00	5.37- 5.57
11	AR1232-E	217.324	220.012 E3	-1.2	101	0.00	6.02- 6.22
41	AR1262-A	1.044	1.084 E6	-3.8	104	0.00	8.09- 8.29
42	AR1262-B	1.428	1.495 E6	-4.7	105	0.00	8.73- 8.93
43	AR1262-C	1.336	1.393 E6	-4.3	104	0.00	9.16- 9.36
44	AR1262-D	2.732	2.841 E6	-4.0	104	0.00	9.51- 9.71
45	AR1262-E	3.034	3.169 E6	-4.4	104	0.00	10.02-10.22

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 16:15:59 2018 RPT1

10.9.4 10

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4311-ICV4311
Lab FileID: 2G162109.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH
Acq On    : 19 Apr 2018   4:08 pm                    Operator: tianweir
Sample    : icv4311-1000                             Inst    : HP G1530A
Misc      : OP11095,G2G4311,15.0,,,10.0,1            Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
12	AR1242-A	119.785	114.904 E3	4.1	96	0.00	3.46- 3.66
13	AR1242-B	252.484	244.856 E3	3.0	97	0.00	4.01- 4.21
14	AR1242-C	105.443	101.790 E3	3.5	97	0.00	4.17- 4.37
15	AR1242-D	108.979	102.543 E3	5.9	94	0.00	4.68- 4.88
16	AR1242-E	92.981	87.846 E3	5.5	94	0.00	5.27- 5.47
46	AR1268-A	575.351	581.914 E3	-1.1	101	0.00	8.42- 8.62
47	AR1268-B	567.310	583.888 E3	-2.9	103	0.00	8.48- 8.68
48	AR1268-C	473.024	486.973 E3	-2.9	103	0.00	8.75- 8.95
49	AR1268-D	199.180	204.671 E3	-2.8	103	0.00	9.24- 9.44
50	AR1268-E	1.615	1.646 E6	-1.9	102	0.00	9.64- 9.84

***** Signal #2 *****

12	AR1242-A	705.391	679.662 E3	3.6	96	0.00	4.53- 4.73
13	AR1242-B	1.548	1.499 E6	3.2	97	0.00	5.18- 5.38
14	AR1242-C	666.761	667.573 E3	-0.1	100	0.00	5.37- 5.57
15	AR1242-D	456.404	438.896 E3	3.8	96	0.00	6.01- 6.21
16	AR1242-E	634.341	601.296 E3	5.2	95	0.00	6.63- 6.83
46	AR1268-A	3.086	3.010 E6	2.5	98	0.00	10.02-10.22
47	AR1268-B	3.099	3.068 E6	1.0	99	0.00	10.09-10.29
48	AR1268-C	2.498	2.444 E6	2.2	98	0.00	10.46-10.66
49	AR1268-D	1.038	1.042 E6	-0.4	100	0.00	10.86-11.06
50	AR1268-E	8.238	7.835 E6	4.9	95	0.00	11.33-11.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 16:23:22 2018 RPT1

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4311-ICV4311
Lab FileID: 2G162110.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH
Acq On    : 19 Apr 2018   4:25 pm                    Operator: tianweir
Sample    : icv4311-1000                             Inst    : HP G1530A
Misc      : OP11095,G2G4311,15.0,,,10.0,1            Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
17	AR1248-A	59.174	55.493 E3	6.2	94	0.00	3.45- 3.65
18	AR1248-B	154.398	154.781 E3	-0.2	100	0.00	4.01- 4.21
19	AR1248-C	165.207	165.431 E3	-0.1	100	0.00	4.40- 4.60
20	AR1248-D	159.827	163.966 E3	-2.6	103	0.00	4.68- 4.88
21	AR1248-E	142.066	146.330 E3	-3.0	103	0.00	4.79- 4.99
22	AR1248-F	140.157	154.154 E3	-10.0	110	0.00	5.26- 5.46
23	AR1248-G	157.220	168.971 E3	-7.5	107	0.00	5.12- 6.12

***** Signal #2 *****

17	AR1248-A	362.749	338.780 E3	6.6	93	0.00	4.53- 4.73
18	AR1248-B	954.786	932.709 E3	2.3	98	0.00	5.18- 5.38
19	AR1248-C	569.681	572.997 E3	-0.6	101	0.00	5.63- 5.83
20	AR1248-D	727.117	735.665 E3	-1.2	101	0.00	6.01- 6.21
21	AR1248-E	879.894	914.038 E3	-3.9	104	0.00	6.19- 6.39
22	AR1248-F	1.097	1.158 E6	-5.6	106	0.00	6.62- 6.82
23	AR1248-G	1.220	1.306 E6	-7.0	107	0.00	6.55- 7.55

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 16:41:13 2018 RPT1

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4349-CC4311
Lab FileID: 2G164603.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4349\2G164603.D\ECD1A.CH Vial: 70
Signal #2 : C:\msdchem\1\DATA\2G4349\2G164603.D\ECD2B.CH
Acq On    : 30 May 2018   9:04 pm                    Operator: tianweir
Sample    : cc4311-1000                              Inst    : HP G1530A
Misc      : OP12352,G2G4349,16.5,,,10,1              Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu May 31 09:51:57 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	4.056 E6	-10.5	110	0.00	2.74- 2.80
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	81.524 E3	-4.7	108	0.00	3.11- 3.17
32	AR1016-B	136.058	143.312 E3	-5.3	110	0.00	3.51- 3.57
33	AR1016-C	289.965	287.748 E3	0.8	101	0.00	4.05- 4.11
34	AR1016-D	118.235	120.262 E3	-1.7	104	0.00	4.22- 4.28
35	AR1016-E	121.934	126.680 E3	-3.9	108	0.00	4.72- 4.78
36	AR1260-A	340.850	313.293 E3	8.1	99	-0.03	7.09- 7.15
37	AR1260-B	144.444	161.970 E3	-12.1	106	0.00	7.24- 7.30
38	AR1260-C	159.229	166.399 E3	-4.5	98	0.00	7.58- 7.64
39	AR1260-D	367.146	433.546 E3	-18.1	110	-0.02	8.01- 8.07
40	AR1260-E	378.788	401.102 E3	-5.9	100	-0.05	8.35- 8.51
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66927 **Sample:** G2G4349-CC4311
Account: BBLNYS Arcadis **Lab FileID:** 2G164603.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					
48		AR1268-C		----------NA----------					
49		AR1268-D		----------NA----------					
50		AR1268-E		----------NA----------					
51	S	Decachlorobiphenyl	4.056	3.818 E6	5.9	97	-0.01	9.93- 9.99	

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	22.882	24.780 E6	-8.3	107	0.00	3.39- 3.45	
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1016-A	374.605	392.388 E3	-4.7	107	0.00	4.05- 4.11	
32		AR1016-B	0.801	0.815 E6	-1.7	105	0.00	4.58- 4.64	
33		AR1016-C	1.734	1.778 E6	-2.5	102	0.00	5.23- 5.29	
34		AR1016-D	752.270	832.593 E3	-10.7	113	0.00	5.41- 5.47	
35		AR1016-E	513.080	531.021 E3	-3.5	106	0.00	6.05- 6.11	
36		AR1260-A	2.000	1.883 E6	5.8	100	-0.01	8.65- 8.71	
37		AR1260-B	0.874	0.988 E6	-13.0	108	0.00	8.76- 8.82	
38		AR1260-C	1.022	1.072 E6	-4.9	102	0.00	9.19- 9.25	
39		AR1260-D	2.146	2.117 E6	1.4	94	-0.01	9.54- 9.60	
40		AR1260-E	2.038	2.215 E6	-8.7	103	0.02	10.09-10.15	
41		AR1262-A		----------NA----------					
42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4349-CC4311
Lab FileID: 2G164603.D

```
48      AR1268-C                            ----------NA----------
49      AR1268-D                            ----------NA----------
50      AR1268-E                            ----------NA----------
51 S    Decachlorobiphenyl      19.099  18.865 E6   1.2  101   0.00   11.74-11.80
-----------------------------------------------------------------------------
-----------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    2G164625.D 2PCB4311.M       Thu May 31 10:10:13 2018   RPT1
```

10.9.7

10

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4349-CC4311
Lab FileID: 2G164614.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4349\2G164614.D\ECD1A.CH Vial: 79
Signal #2 : C:\msdchem\1\DATA\2G4349\2G164614.D\ECD2B.CH
Acq On    : 31 May 2018   1:10 am                    Operator: christp
Sample    : cc4311-500                               Inst    : HP G1530A
Misc      : OP12371,G2G4349,300,,,2,1                Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu May 31 09:51:57 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	4.053 E6	-10.4	115	0.00	2.74- 2.80
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	88.795 E3	-14.0	116	0.00	3.11- 3.17
32	AR1016-B	136.058	147.661 E3	-8.5	112	0.00	3.51- 3.57
33	AR1016-C	289.965	277.203 E3	4.4	99	0.00	4.06- 4.12
34	AR1016-D	118.235	120.241 E3	-1.7	104	0.00	4.21- 4.27
35	AR1016-E	121.934	124.217 E3	-1.9	105	0.00	4.72- 4.78
36	AR1260-A	340.850	322.318 E3	5.4	105	-0.04	7.08- 7.14
37	AR1260-B	144.444	159.360 E3	-10.3	106	0.00	7.24- 7.30
38	AR1260-C	159.229	174.736 E3	-9.7	106	0.00	7.57- 7.63
39	AR1260-D	367.146	372.630 E3	-1.5	100	-0.03	8.00- 8.06
40	AR1260-E	378.788	398.927 E3	-5.3	102	-0.06	8.34- 8.50
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66927 **Sample:** G2G4349-CC4311
Account: BBLNYS Arcadis **Lab FileID:** 2G164614.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				
48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	4.056	3.834 E6	5.5	98	-0.02	9.92- 9.98	

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	22.882	24.578 E6	-7.4	110	0.00	3.39- 3.45	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1016-A	374.605	401.656 E3	-7.2	113	0.00	4.05- 4.11	
32		AR1016-B	0.801	0.784 E6	2.1	100	0.00	4.58- 4.64	
33		AR1016-C	1.734	1.748 E6	-0.8	104	0.00	5.23- 5.29	
34		AR1016-D	752.270	855.230 E3	-13.7	117	0.00	5.41- 5.47	
35		AR1016-E	513.080	513.133 E3	-0.0	104	0.00	6.05- 6.11	
36		AR1260-A	2.000	1.763 E6	11.9	97	-0.02	8.65- 8.71	
37		AR1260-B	0.874	0.904 E6	-3.4	101	0.00	8.76- 8.82	
38		AR1260-C	1.022	1.083 E6	-6.0	106	0.00	9.19- 9.25	
39		AR1260-D	2.146	2.153 E6	-0.3	99	-0.02	9.54- 9.60	
40		AR1260-E	2.038	2.223 E6	-9.1	106	0.02	10.08-10.14	
41		AR1262-A			----------NA----------				
42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4349-CC4311
Lab FileID: 2G164614.D

```
48      AR1268-C                          ----------NA----------
49      AR1268-D                          ----------NA----------
50      AR1268-E                          ----------NA----------
51 S    Decachlorobiphenyl      19.099  19.240 E6  -0.7  107   0.00   11.73-11.79
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    2G162098.D 2PCB4311.M       Thu May 31 10:09:49 2018   RPT1
```

10.9.8

10

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4349-CC4311
Lab FileID: 2G164625.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4349\2G164625.D\ECD1A.CH Vial: 87
Signal #2 : C:\msdchem\1\DATA\2G4349\2G164625.D\ECD2B.CH
Acq On    : 31 May 2018   4:18 am                    Operator: christp
Sample    : cc4311-1000                              Inst    : HP G1530A
Misc      : OP12371,G2G4349,300,,,2,1                Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu May 31 09:51:57 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	4.073 E6	-11.0	110	0.00	2.74- 2.80
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	82.497 E3	-5.9	109	0.00	3.11- 3.17
32	AR1016-B	136.058	143.454 E3	-5.4	110	0.00	3.51- 3.57
33	AR1016-C	289.965	274.660 E3	5.3	96	0.00	4.06- 4.12
34	AR1016-D	118.235	118.226 E3	0.0	102	0.00	4.22- 4.28
35	AR1016-E	121.934	123.214 E3	-1.0	105	0.00	4.72- 4.78
36	AR1260-A	340.850	283.083 E3	16.9	89	0.00	7.12- 7.18
37	AR1260-B	144.444	160.390 E3	-11.0	105	0.00	7.24- 7.30
38	AR1260-C	159.229	141.291 E3	11.3	84	0.00	7.58- 7.64
39	AR1260-D	367.146	399.385 E3	-8.8	101	0.00	8.03- 8.09
40	AR1260-E	378.788	383.096 E3	-1.1	95	0.00	8.40- 8.56
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66927 **Sample:** G2G4349-CC4311
Account: BBLNYS Arcadis **Lab FileID:** 2G164625.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				
48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	4.056	3.912 E6	3.6	100	0.00	9.94-10.00	

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	22.882	24.686 E6	-7.9	106	0.00	3.39- 3.45	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1016-A	374.605	418.759 E3	-11.8	114	0.00	4.06- 4.12	
32		AR1016-B	0.801	0.822 E6	-2.6	106	0.00	4.58- 4.64	
33		AR1016-C	1.734	1.690 E6	2.5	97	0.00	5.23- 5.29	
34		AR1016-D	752.270	876.328 E3	-16.5	119	0.00	5.42- 5.48	
35		AR1016-E	513.080	519.587 E3	-1.3	103	0.00	6.06- 6.12	
36		AR1260-A	2.000	1.800 E6	10.0	96	0.00	8.66- 8.72	
37		AR1260-B	0.874	1.104 E6	-26.3#	120	0.00	8.77- 8.83	
38		AR1260-C	1.022	1.100 E6	-7.6	105	0.00	9.20- 9.26	
39		AR1260-D	2.146	2.188 E6	-2.0	97	0.00	9.56- 9.62	
40		AR1260-E	2.038	2.351 E6	-15.4	110	0.04	10.11-10.17	
41		AR1262-A			----------NA----------				
42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4349-CC4311
Lab FileID: 2G164625.D

```
48      AR1268-C                            ----------NA----------
49      AR1268-D                            ----------NA----------
50      AR1268-E                            ----------NA----------
51 S    Decachlorobiphenyl      19.099  20.014 E6  -4.8  107   0.00   11.74-11.80
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    2G164625.D 2PCB4311.M       Thu May 31 10:10:15 2018   RPT1
```

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G2G4349-ECC4311
Lab FileID: 2G164636.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\2G4349\2G164636.D\ECD1A.CH Vial: 94
Signal #2 : C:\msdchem\1\DATA\2G4349\2G164636.D\ECD2B.CH
Acq On    : 31 May 2018   7:24 am                    Operator: christp
Sample    : cc4311-500                               Inst    : HP G1530A
Misc      : OP12385,G2G4349,15.0,,,10,1              Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title        :
Last Update  : Thu May 31 12:42:15 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	4.037 E6	-10.0	114	0.00	2.74- 2.80
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	86.377 E3	-10.9	113	0.00	3.11- 3.17
32	AR1016-B	136.058	147.707 E3	-8.6	112	0.00	3.51- 3.57
33	AR1016-C	289.965	294.570 E3	-1.6	105	0.00	4.06- 4.12
34	AR1016-D	118.235	117.974 E3	0.2	102	0.00	4.22- 4.28
35	AR1016-E	121.934	119.267 E3	2.2	101	0.00	4.72- 4.78
36	AR1260-A	340.850	260.963 E3	23.4#	85	0.00	7.12- 7.18
37	AR1260-B	144.444	170.335 E3	-17.9	113	0.00	7.25- 7.31
38	AR1260-C	159.229	142.262 E3	10.7	87	0.00	7.59- 7.65
39	AR1260-D	367.146	439.694 E3	-19.8	117	0.00	8.04- 8.10
40	AR1260-E	378.788	408.344 E3	-7.8	105	0.00	8.41- 8.57
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66927 **Sample:** G2G4349-ECC4311
Account: BBLNYS Arcadis **Lab FileID:** 2G164636.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				
48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	4.056	4.100	E6	-1.1	105	0.00	9.94-10.00

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	22.882	24.119	E6	-5.4	108	0.00	3.39- 3.45
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1016-A	374.605	436.336	E3	-16.5	123	0.00	4.06- 4.12
32		AR1016-B	0.801	0.854	E6	-6.6	109	0.00	4.58- 4.64
33		AR1016-C	1.734	1.590	E6	8.3	94	0.00	5.24- 5.30
34		AR1016-D	752.270	939.925	E3	-24.9#	129	0.00	5.42- 5.48
35		AR1016-E	513.080	514.718	E3	-0.3	105	0.00	6.06- 6.12
36		AR1260-A	2.000	1.752	E6	12.4	96	0.00	8.67- 8.73
37		AR1260-B	0.874	1.147	E6	-31.2#	128	0.00	8.77- 8.83
38		AR1260-C	1.022	1.088	E6	-6.5	106	0.00	9.20- 9.26
39		AR1260-D	2.146	2.130	E6	0.7	98	0.00	9.57- 9.63
40		AR1260-E	2.038	2.391	E6	-17.3	114	0.00	10.13-10.19
41		AR1262-A			----------NA----------				
42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4349-ECC4311
Lab FileID: 2G164636.D

```
48      AR1268-C                            ----------NA----------
49      AR1268-D                            ----------NA----------
50      AR1268-E                            ----------NA----------
51 S    Decachlorobiphenyl      19.099  19.399 E6  -1.6  108   0.00   11.74-11.80
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    2G162098.D 2PCB4311.M       Thu May 31 12:44:17 2018   RPT1
```

10.9.10

10

Initial Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

Response Factor Report GC6G

```
Method       : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration

Calibration Files
5   =6g55782.d   10  =6g55783.d   25  =6g55784.d   50  =6g55785.d
100 =6g55787.d   1   =6g55780.d   75  =6g55786.d   2   =6g55781.d
    =                =
```

Compound	5	10	25	50	100	1	75	2	Avg	%RSD
1) I 1-bromo-2-nitrobenzen ----------ISTD----------										
2) Tetrachloro-m-xylene	0.937	0.914	0.936	0.973	1.007	1.084	0.982	0.943	0.972	5.57
3) hexachlorobenzene	1.022	1.033	1.042	1.079	1.085	1.271	1.095	1.053	1.085	7.34
4) alpha-BHC	1.184	1.208	1.340	1.459	1.524	1.314	1.516	1.163	1.338	11.04
5) gamma-BHC	1.132	1.137	1.236	1.325	1.368	1.415	1.374	1.152	1.267	9.25
6) Heptachlor	1.099	1.099	1.172	1.249	1.270	1.305	1.276	1.109	1.197	7.32
7) beta-BHC	0.560	0.531	0.543	0.559	0.560	0.645	0.568	0.567	0.567	6.05
8) delta-BHC	0.969	1.003	1.123	1.228	1.293	1.083	1.279	0.962	1.117	12.18
9) Aldrin	1.052	1.060	1.150	1.238	1.265	1.222	1.274	1.047	1.164	8.51
10) alachlor	0.145	0.140	0.140	0.142	0.134		0.140		0.140	2.52
11) Heptachlor Epoxide	1.019	0.991	1.060	1.124	1.145	1.121	1.155	0.991	1.076	6.40
12) gamma-Chlordane	0.964	0.976	1.051	1.129	1.174	1.059	1.174	0.952	1.060	8.65
13) alpha-Chlordane	1.019	0.982	1.040	1.103	1.136	1.224	1.139	1.039	1.085	7.33
14) Endosulfan I	0.944	0.924	0.979	1.039	1.058	1.118	1.068	0.963	1.012	6.79
15) 4,4'-DDE	0.934	0.922	1.009	1.096	1.140	1.095	1.140	0.931	1.033	9.24
16) Dieldrin	0.993	0.994	1.079	1.165	1.187	1.144	1.206	0.997	1.096	8.36
17) Endrin	0.953	0.899	0.964	1.033	1.049	1.054	1.068	0.913	0.992	6.79
18) 4,4'-DDD	0.797	0.774	0.836	0.900	0.920	0.899	0.934	0.788	0.856	7.56
19) Endosulfan II	0.970	0.933	0.963	1.012	1.017	1.406	1.039	1.074	1.052	14.27
20) 4,4'-DDT	0.737	0.743	0.802	0.870	0.903	0.844	0.914	0.751	0.821	8.84
21) Endrin Aldehyde	0.803	0.770	0.796	0.836	0.833	0.945	0.855	0.824	0.833	6.32
22) Endosulfan Sulfate	0.791	0.758	0.792	0.833	0.841	0.925	0.858	0.801	0.825	6.29
23) Methoxychlor										

Initial Calibration Summary

Job Number: JC66927 **Sample:** G6G1671-ICC1671
Account: BBLNYS Arcadis **Lab FileID:** 6G55784.D
Project: National Grid, Philly Coke, Philadelphia PA

```
          0.516 0.458 0.468 0.480 0.473 0.552 0.487 0.482          0.490    6.24
 24)  Mirex
          0.833 0.792 0.774 0.785 0.773 1.050 0.798 0.858          0.833   11.13
 25)  Endrin Ketone
          0.924 0.912 0.956 1.006 1.005 1.086 1.029 0.931          0.981    6.17
 26)  Decachlorobiphenyl
          0.983 0.929 0.914 0.922 0.892 1.300 0.929 1.055          0.991   13.66

 27) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
 28)  Toxaphene{A}
                              0.016                                0.016    0.00
 29)  Toxaphene{B}
                              0.041                                0.041    0.00
 30)  Toxaphene{C}
                              0.033                                0.033    0.00
 31)  Toxaphene{D}
                              0.026                                0.026    0.00
 32)  Toxaphene{E}
                              0.027                                0.027    0.00

 33) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
 34)  Chlordane {A}
                              0.054                                0.054    0.00
 35)  Chlordane {B}
                              0.045                                0.045    0.00
 36)  Chlordane {C}
                              0.145                                0.145    0.00
 37)  Chlordane {D}
                              0.228                                0.228    0.00
 38)  Chlordane {E}
                              0.026                                0.026    0.00

Signal #2


  1) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
  2)  Tetrachloro-m-xylene
          0.878 0.885 0.907 0.945 1.004 0.981 0.968 0.882          0.931    5.35
  3)  hexachlorobenzene
          1.120 1.130 1.119 1.146 1.192 1.299 1.165 1.172          1.168    5.06
  4)  alpha-BHC
          1.073 1.128 1.243 1.360 1.490 1.146 1.430 1.045          1.239   13.63
  5)  gamma-BHC
          1.031 1.065 1.150 1.242 1.352 1.136 1.298 1.023          1.162   10.67
  6)  Heptachlor
          1.093 1.097 1.153 1.225 1.303 1.223 1.267 1.097          1.182    7.06
  7)  beta-BHC
          0.513 0.510 0.515 0.527 0.550 0.604 0.537 0.514          0.534    5.92
  8)  delta-BHC
          0.923 0.964 1.051 1.160 1.279 1.110 1.225 0.921          1.079   12.73
  9)  Aldrin
          0.939 0.957 1.022 1.101 1.190 1.050 1.147 0.919          1.041    9.61
 10)  alachlor
          0.152 0.138 0.135 0.135 0.133       0.134                0.138    5.09
 11)  Heptachlor Epoxide
          0.953 0.942 0.979 1.034 1.098 1.030 1.065 0.948          1.006    5.86
 12)  gamma-Chlordane
          0.951 0.927 0.976 1.036 1.112 0.910 1.074 0.902          0.986    8.03
 13)  alpha-Chlordane
          0.936 0.896 0.970 1.012 1.066 0.939 1.032 0.827          0.960    8.08
```

Initial Calibration Summary

Job Number: JC66927 **Sample:** G6G1671-ICC1671
Account: BBLNYS Arcadis **Lab FileID:** 6G55784.D
Project: National Grid, Philly Coke, Philadelphia PA

```
14)  Endosulfan I
          0.892 0.845 0.882 0.932 0.994 0.993 0.955 0.844         0.917    6.61
15)  4,4'-DDE
          0.839 0.863 0.923 0.997 1.085 0.903 1.044 0.802         0.932   10.82
16)  Dieldrin
          0.884 0.904 0.959 1.034 1.124 0.978 1.078 0.912         0.984    8.86
17)  Endrin
          0.872 0.882 0.909 0.976 1.050 1.138 1.020 0.881         0.966   10.03
18)  4,4'-DDD
          0.736 0.733 0.765 0.820 0.889 0.891 0.858 0.731         0.803    8.76
19)  Endosulfan II
          0.900 0.876 0.885 0.926 0.978 1.323 0.951 0.983         0.978   14.84
20)  4,4'-DDT
          0.670 0.708 0.760 0.820 0.901 0.776 0.863 0.703         0.775   10.51
21)  Endrin Aldehyde
          0.703 0.697 0.710 0.734 0.774 0.847 0.755 0.721         0.743    6.71
22)  Endosulfan Sulfate
          0.687 0.695 0.715 0.747 0.796 0.836 0.774 0.700         0.744    7.26
23)  Methoxychlor
          0.423 0.429 0.438 0.449 0.467 0.431 0.460 0.426         0.440    3.73
24)  Mirex
          0.734 0.730 0.711 0.712 0.735 0.885 0.725 0.736         0.746    7.67
25)  Endrin Ketone
          0.879 0.850 0.879 0.915 0.975 1.451 0.953 0.981         0.985   19.70
26)  Decachlorobiphenyl
          0.924 0.908 0.866 0.875 0.893 1.128 0.885 0.952         0.929    9.16

27) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
28)  Toxaphene{A}
                              0.019                                   0.019    0.00
29)  Toxaphene{B}
                              0.025                                   0.025    0.00
30)  Toxaphene{C}
                              0.047                                   0.047    0.00
31)  Toxaphene{D}
                              0.026                                   0.026    0.00
32)  Toxaphene{E}
                              0.023                                   0.023    0.00

33) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
34)  Chlordane {A}
                              0.054                                   0.054    0.00
35)  Chlordane {B}
                              0.040                                   0.040    0.00
36)  Chlordane {C}
                              0.126                                   0.126    0.00
37)  Chlordane {D}
                              0.206                                   0.206    0.00
38)  Chlordane {E}
                              0.021                                   0.021    0.00
-------------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          6PST1671.M        Mon Apr 30 17:43:44 2018
```

10.9.11

10

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD2B.CH
Acq On : 30-Apr-18, 14:23:25 Operator: dharas
Sample : icv1671-25 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44- 2.44
2	SAB	Tetrachloro-m-xylene	0.972	1.010	-3.9	110	-0.02	2.50- 2.56
4	A	alpha-BHC	1.338	1.571	-17.4	119	-0.01	2.97- 3.03
5	MA	gamma-BHC	1.267	1.426	-12.5	117	-0.01	3.26- 3.32
6	MA	Heptachlor	1.197	1.362	-13.8	118	-0.01	3.75- 3.81
7	B	beta-BHC	0.567	0.628	-10.8	118	-0.01	3.33- 3.39
8	B	delta-BHC	1.117	1.334	-19.4	121	-0.01	3.51- 3.57
9	MB	Aldrin	1.164	1.327	-14.0	117	-0.01	4.08- 4.14
11	B	Heptachlor Epoxide	1.076	1.233	-14.6	118	-0.01	4.78- 4.84
12	B	gamma-Chlordane	1.060	1.261	-19.0	122	-0.01	4.95- 5.01
13	B	alpha-Chlordane	1.085	1.229	-13.3	120	-0.01	5.12- 5.18
14	A	Endosulfan I	1.012	1.180	-16.6	123	-0.01	5.29- 5.35
15	B	4,4'-DDE	1.033	1.198	-16.0	121	-0.01	5.23- 5.29
16	MA	Dieldrin	1.096	1.269	-15.8	120	-0.01	5.61- 5.67
17	MA	Endrin	0.992	1.152	-16.1	122	-0.01	5.93- 5.99
18	A	4,4'-DDD	0.856	0.999	-16.7	122	-0.01	6.06- 6.12
19	B	Endosulfan II	1.052	1.107	-5.2	117	-0.01	6.25- 6.31
20	MA	4,4'-DDT	0.821	0.930	-13.3	118	-0.01	6.47- 6.53
21	B	Endrin Aldehyde	0.833	0.937	-12.5	120	-0.01	6.88- 6.94
22	B	Endosulfan Sulfate	0.825	0.962	-16.6	124	-0.01	7.56- 7.62
23	A	Methoxychlor	0.490	0.535	-9.2	116	-0.01	7.26- 7.32
24		Mirex	0.833	0.886	-6.4	117	-0.01	7.41- 7.47
25	B	Endrin Ketone	0.981	1.108	-12.9	118	-0.01	8.00- 8.06
26	SA	Decachlorobiphenyl	0.991	1.025	-3.4	114	-0.01	9.81- 9.87

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65- 2.65
2	SAB	Tetrachloro-m-xylene	0.931	0.973	-4.5	107	0.00	2.90- 2.96
4	A	alpha-BHC	1.239	1.459	-17.8	117	0.00	3.53- 3.59
5	MA	gamma-BHC	1.162	1.337	-15.1	116	0.00	3.94- 4.00
6	MA	Heptachlor	1.182	1.342	-13.5	116	0.00	4.50- 4.56
7	B	beta-BHC	0.534	0.593	-11.0	115	0.00	4.02- 4.08
8	B	delta-BHC	1.079	1.250	-15.8	118	0.00	4.40- 4.46
9	MB	Aldrin	1.041	1.180	-13.4	115	0.00	4.93- 4.99
11	B	Heptachlor Epoxide	1.006	1.143	-13.6	116	0.00	5.73- 5.79
12	B	gamma-Chlordane	0.986	1.164	-18.1	119	0.00	6.01- 6.07
13	B	alpha-Chlordane	0.960	1.122	-16.9	115	0.00	6.23- 6.29

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

14	A	Endosulfan I	0.917	1.067	-16.4	120	0.00	6.32- 6.38
15	B	4,4'-DDE	0.932	1.097	-17.7	118	0.00	6.49- 6.55
16	MA	Dieldrin	0.984	1.136	-15.4	118	0.00	6.75- 6.81
17	MA	Endrin	0.966	1.101	-14.0	120	-0.01	7.24- 7.30
18	A	4,4'-DDD	0.803	0.923	-14.9	120	0.00	7.42- 7.48
19	B	Endosulfan II	0.978	1.021	-4.4	115	0.00	7.58- 7.64
20	MA	4,4'-DDT	0.775	0.887	-14.5	116	-0.01	7.95- 8.01
21	B	Endrin Aldehyde	0.743	0.843	-13.5	118	-0.01	8.15- 8.21
22	B	Endosulfan Sulfate	0.744	0.875	-17.6	122	-0.01	8.61- 8.67
23	A	Methoxychlor	0.440	0.516	-17.3	117	-0.02	9.18- 9.24
24		Mirex	0.746	0.824	-10.5	115	-0.02	9.49- 9.55
25	B	Endrin Ketone	0.985	1.028	-4.4	116	-0.02	9.56- 9.62
26	SA	Decachlorobiphenyl	0.929	0.998	-7.4	115	-0.02	11.69-11.75

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55784.d 6PST1671.M Mon Apr 30 17:38:40 2018

10.9.12
10

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G6G1671-ICV1671
Lab FileID: 6G55791.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD2B.CH
Acq On    : 30-Apr-18, 14:41:11                      Operator: dharas
Sample    : icv1671-500                              Inst    : GC6G
Misc      : OP11619,g6g1671,1000,,,5,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Mon Apr 30 17:34:19 2018
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 : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44- 2.44
34	Chlordane {A}	0.054	0.063	-16.7	117	-0.01	3.68- 3.88
35	Chlordane {B}	0.045	0.039	13.3	88	-0.01	4.15- 4.35
36	Chlordane {C}	0.145	0.145	0.0	99	-0.01	4.87- 5.07
37	Chlordane {D}	0.228	0.230	-0.9	101	-0.01	5.04- 5.24
38	Chlordane {E}	0.026	0.028	-7.7	110	-0.01	5.92- 6.12

***** Signal #2 *****

33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65- 2.65
34	Chlordane {A}	0.054	0.064	-18.5	116	0.00	4.43- 4.63
35	Chlordane {B}	0.040	0.036	10.0	89	0.00	5.05- 5.25
36	Chlordane {C}	0.126	0.128	-1.6	100	0.00	5.94- 6.14
37	Chlordane {D}	0.206	0.208	-1.0	100	0.00	6.16- 6.36
38	Chlordane {E}	0.021	0.023	-9.5	108	0.00	7.30- 7.50

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:38:57 2018

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G6G1671-ICV1671
Lab FileID: 6G55792.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD1A.CH Vial: 15
Acq On    : 30-Apr-18, 14:58:58                      Operator: dharas
Sample    : icv1671-500                              Inst    : GC6G
Misc      : OP11619,g6g1671,1000,,,5,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD2B.CH Vial: 0
Acq On    : 30-Apr-18, 14:58:59                      Operator: dharas
Sample    : icv1671-500                              Inst    : GC6G
Misc      : OP11619,g6g1671,1000,,,5,1               Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Mon Apr 30 17:34:19 2018
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 : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44- 2.44
28	L8	Toxaphene{A}	0.016	0.017	-6.3	107	-0.01	5.55- 5.75
29	L8	Toxaphene{B}	0.041	0.044	-7.3	108	-0.01	6.17- 6.37
30	L8	Toxaphene{C}	0.033	0.035	-6.1	107	0.00	6.35- 6.55
31	L8	Toxaphene{D}	0.026	0.026	0.0	103	-0.01	6.69- 6.89
32	L8	Toxaphene{E}	0.027	0.029	-7.4	110	-0.01	7.33- 7.53

***** Signal #2 *****

27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.65- 2.65
28	L8	Toxaphene{A}	0.019	0.021	-10.5	108	0.00	6.64- 6.84
29	L8	Toxaphene{B}	0.025	0.026	-4.0	102	-0.01	7.48- 7.68
30	L8	Toxaphene{C}	0.047	0.046	2.1	98	-0.01	7.64- 7.84
31	L8	Toxaphene{D}	0.026	0.027	-3.8	104	-0.01	8.08- 8.28
32	L8	Toxaphene{E}	0.023	0.024	-4.3	101	-0.02	8.97- 9.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:38:59 2018

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G6G1671-ICV1671
Lab FileID: 6G55793.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD2B.CH
Acq On    : 30-Apr-18, 15:16:44                      Operator: dharas
Sample    : icv1671-50                               Inst    : GC6G
Misc      : OP11619,g6g1671,1000,,,5,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Mon Apr 30 17:34:19 2018
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 : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44- 2.44
10	alachlor	0.140	0.155	-10.7	109	-0.01	4.22- 4.28

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	-0.01	1.65- 2.65
10	alachlor	0.138	0.150	-8.7	109	0.00	4.75- 4.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:01 2018

Initial Calibration Verification

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G6G1671-ICV1671
Lab FileID: 6G55794.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD2B.CH
Acq On    : 30-Apr-18, 15:34:38                      Operator: dharas
Sample    : icv1671-50                               Inst    : GC6G
Misc      : OP11619,g6g1671,1000,,,5,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Mon Apr 30 17:34:19 2018
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 : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	-0.02	1.44- 2.44
3	hexachlorobenzene	1.085	1.076	0.8	102	-0.01	2.83- 2.89

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.01	1.65- 2.65
3	hexachlorobenzene	1.168	1.139	2.5	99	0.00	3.38- 3.44

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:03 2018

10.9.16

10

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G6G1694-CC1671
Lab FileID: 6G56758.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\G6G1694\6g56758.d\ECD1A.CH Vial: 2
Signal #2 : C:\msdchem\1\data\G6G1694\6g56758.d\ECD2B.CH
Acq On    : 30-May-18, 23:44:29                      Operator: christp
Sample    : cc1671-25                                Inst    : GC6G
Misc      : OP12359,g6g1694,15.0,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Wed May 30 16:51:15 2018
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 : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	91	0.00	1.45- 2.45
2	SAB	Tetrachloro-m-xylene	0.972	0.934	3.9	91	0.00	2.50- 2.56
3		hexachlorobenzene	1.085	1.010	6.9	89	0.00	2.82- 2.88
4	A	alpha-BHC	1.338	1.268	5.2	87	0.00	2.96- 3.02
5	MA	gamma-BHC	1.267	1.158	8.6	86	0.00	3.25- 3.31
6	MA	Heptachlor	1.197	1.187	0.8	93	0.00	3.73- 3.79
7	B	beta-BHC	0.567	0.514	9.3	87	0.00	3.32- 3.38
8	B	delta-BHC	1.117	0.936	16.2	76	0.00	3.50- 3.56
9	MB	Aldrin	1.164	1.115	4.2	89	0.00	4.06- 4.12
10		alachlor	0.140	0.145	-3.6	94	0.00	4.20- 4.26
11	B	Heptachlor Epoxide	1.076	0.966	10.2	83	0.00	4.76- 4.82
12	B	gamma-Chlordane	1.060	0.959	9.5	84	0.00	4.93- 4.99
13	B	alpha-Chlordane	1.085	0.979	9.8	86	0.00	5.10- 5.16
14	A	Endosulfan I	1.012	0.944	6.7	88	0.00	5.27- 5.33
15	B	4,4'-DDE	1.033	0.968	6.3	88	0.00	5.21- 5.27
16	MA	Dieldrin	1.096	1.033	5.7	88	0.00	5.59- 5.65
17	MA	Endrin	0.992	0.982	1.0	93	0.00	5.91- 5.97
18	A	4,4'-DDD	0.856	0.789	7.8	86	0.00	6.03- 6.09
19	B	Endosulfan II	1.052	0.916	12.9	87	0.00	6.23- 6.29
20	MA	4,4'-DDT	0.821	0.752	8.4	86	0.00	6.45- 6.51
21	B	Endrin Aldehyde	0.833	0.766	8.0	88	0.00	6.85- 6.91
22	B	Endosulfan Sulfate	0.825	0.693	16.0	80	0.00	7.53- 7.59
23	A	Methoxychlor	0.490	0.454	7.3	89	0.00	7.23- 7.29
24		Mirex	0.833	0.742	10.9	88	0.00	7.38- 7.44
25	B	Endrin Ketone	0.981	0.887	9.6	85	0.00	7.97- 8.03
26	SA	Decachlorobiphenyl	0.991	0.844	14.8	84	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	112	0.00	1.65- 2.65
2	SAB	Tetrachloro-m-xylene	0.931	0.895	3.9	111	0.00	2.90- 2.96
3		hexachlorobenzene	1.168	1.135	2.8	114	0.00	3.38- 3.44
4	A	alpha-BHC	1.239	1.197	3.4	108	0.00	3.52- 3.58
5	MA	gamma-BHC	1.162	1.103	5.1	108	0.00	3.93- 3.99
6	MA	Heptachlor	1.182	1.131	4.3	110	0.00	4.48- 4.54
7	B	beta-BHC	0.534	0.494	7.5	108	0.00	4.01- 4.07
8	B	delta-BHC	1.079	0.885	18.0	94	0.00	4.39- 4.45
9	MB	Aldrin	1.041	0.997	4.2	109	0.00	4.91- 4.97
10		alachlor	0.138	0.134	2.9	112	0.00	4.74- 4.80

Continuing Calibration Summary

Job Number: JC66927 **Sample:** G6G1694-CC1671
Account: BBLNYS Arcadis **Lab FileID:** 6G56758.D
Project: National Grid, Philly Coke, Philadelphia PA

11	B	Heptachlor Epoxide	1.006	0.941	6.5	108	0.00	5.71- 5.77
12	B	gamma-Chlordane	0.986	0.937	5.0	108	0.00	5.99- 6.05
13	B	alpha-Chlordane	0.960	0.919	4.3	106	0.00	6.21- 6.27
14	A	Endosulfan I	0.917	0.850	7.3	108	0.00	6.30- 6.36
15	B	4,4'-DDE	0.932	0.912	2.1	111	0.00	6.47- 6.53
16	MA	Dieldrin	0.984	0.933	5.2	109	0.00	6.72- 6.78
17	MA	Endrin	0.966	0.899	6.9	111	0.00	7.22- 7.28
18	A	4,4'-DDD	0.803	0.726	9.6	106	0.00	7.40- 7.46
19	B	Endosulfan II	0.978	0.850	13.1	108	0.00	7.56- 7.62
20	MA	4,4'-DDT	0.775	0.671	13.4	99	0.00	7.93- 7.99
21	B	Endrin Aldehyde	0.743	0.674	9.3	106	0.00	8.13- 8.19
22	B	Endosulfan Sulfate	0.744	0.627	15.7	98	0.00	8.59- 8.65
23	A	Methoxychlor	0.440	0.393	10.7	101	0.00	9.16- 9.22
24		Mirex	0.746	0.661	11.4	104	0.00	9.47- 9.53
25	B	Endrin Ketone	0.985	0.791	19.7	101	0.00	9.54- 9.60
26	SA	Decachlorobiphenyl	0.929	0.814	12.4	105	0.00	11.67-11.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g56619.d 6PST1671.M Thu May 31 09:25:06 2018

Continuing Calibration Summary

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Sample: G6G1695-CC1671
Lab FileID: 6G56780.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\G6G1695\6g56780.d\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\data\G6G1695\6g56780.d\ECD2B.CH
Acq On    : 31-May-18, 10:20:58                      Operator: minam
Sample    : cc1671-50                                Inst    : GC6G
Misc      : OP12372,g6g1695,300,,,2,1                Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Thu May 31 14:07:15 2018
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 : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	89	0.00	1.44- 2.44
2	SAB	Tetrachloro-m-xylene	0.972	0.952	2.1	87	0.00	2.49- 2.55
3		hexachlorobenzene	1.085	1.029	5.2	85	0.00	2.82- 2.88
4	A	alpha-BHC	1.338	1.361	-1.7	83	0.00	2.96- 3.02
5	MA	gamma-BHC	1.267	1.152	9.1	78	0.00	3.25- 3.31
6	MA	Heptachlor	1.197	1.158	3.3	83	0.00	3.73- 3.79
7	B	beta-BHC	0.567	0.492	13.2	79	0.00	3.32- 3.38
8	B	delta-BHC	1.117	1.016	9.0	74	0.00	3.50- 3.56
9	MB	Aldrin	1.164	1.136	2.4	82	0.00	4.06- 4.12
10		alachlor	0.140	0.143	-2.1	90	0.00	4.20- 4.26
11	B	Heptachlor Epoxide	1.076	0.976	9.3	78	0.00	4.76- 4.82
12	B	gamma-Chlordane	1.060	0.976	7.9	77	0.00	4.93- 4.99
13	B	alpha-Chlordane	1.085	0.981	9.6	79	0.00	5.09- 5.15
14	A	Endosulfan I	1.012	0.955	5.6	82	0.00	5.27- 5.33
15	B	4,4'-DDE	1.033	0.955	7.6	78	0.00	5.21- 5.27
16	MA	Dieldrin	1.096	1.058	3.5	81	0.00	5.59- 5.65
17	MA	Endrin	0.992	1.005	-1.3	87	0.00	5.91- 5.97
18	A	4,4'-DDD	0.856	0.804	6.1	80	0.00	6.03- 6.09
19	B	Endosulfan II	1.052	0.928	11.8	82	0.00	6.23- 6.29
20	MA	4,4'-DDT	0.821	0.762	7.2	78	0.00	6.45- 6.51
21	B	Endrin Aldehyde	0.833	0.766	8.0	82	0.00	6.85- 6.91
22	B	Endosulfan Sulfate	0.825	0.763	7.5	82	0.00	7.53- 7.59
23	A	Methoxychlor	0.490	0.445	9.2	83	0.00	7.23- 7.29
24		Mirex	0.833	0.736	11.6	84	0.00	7.38- 7.44
25	B	Endrin Ketone	0.981	0.872	11.1	77	0.00	7.97- 8.03
26	SA	Decachlorobiphenyl	0.991	0.863	12.9	84	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.00	1.64- 2.64
2	SAB	Tetrachloro-m-xylene	0.931	0.935	-0.4	106	0.00	2.89- 2.95
3		hexachlorobenzene	1.168	1.155	1.1	108	0.00	3.37- 3.43
4	A	alpha-BHC	1.239	1.316	-6.2	103	0.00	3.52- 3.58
5	MA	gamma-BHC	1.162	1.177	-1.3	101	0.00	3.93- 3.99
6	MA	Heptachlor	1.182	1.142	3.4	99	0.00	4.48- 4.54
7	B	beta-BHC	0.534	0.496	7.1	100	0.00	4.01- 4.07
8	B	delta-BHC	1.079	1.005	6.9	93	0.00	4.39- 4.45
9	MB	Aldrin	1.041	0.999	4.0	97	0.00	4.91- 4.97

Continuing Calibration Summary

Job Number: JC66927 **Sample:** G6G1695-CC1671
Account: BBLNYS Arcadis **Lab FileID:** 6G56780.D
Project: National Grid, Philly Coke, Philadelphia PA

10		alachlor	0.138	0.128	7.2	101	0.00	4.73- 4.79
11	B	Heptachlor Epoxide	1.006	0.939	6.7	97	0.00	5.71- 5.77
12	B	gamma-Chlordane	0.986	0.945	4.2	97	0.00	5.99- 6.05
13	B	alpha-Chlordane	0.960	0.912	5.0	96	0.00	6.21- 6.27
14	A	Endosulfan I	0.917	0.859	6.3	98	0.00	6.30- 6.36
15	B	4,4'-DDE	0.932	0.917	1.6	98	0.00	6.47- 6.53
16	MA	Dieldrin	0.984	0.962	2.2	99	0.00	6.72- 6.78
17	MA	Endrin	0.966	0.931	3.6	102	0.00	7.21- 7.27
18	A	4,4'-DDD	0.803	0.750	6.6	98	0.00	7.40- 7.46
19	B	Endosulfan II	0.978	0.867	11.3	100	0.00	7.56- 7.62
20	MA	4,4'-DDT	0.775	0.691	10.8	90	0.00	7.93- 7.99
21	B	Endrin Aldehyde	0.743	0.684	7.9	99	0.00	8.12- 8.18
22	B	Endosulfan Sulfate	0.744	0.700	5.9	100	0.00	8.59- 8.65
23	A	Methoxychlor	0.440	0.398	9.5	94	0.00	9.16- 9.22
24		Mirex	0.746	0.689	7.6	103	0.00	9.46- 9.52
25	B	Endrin Ketone	0.985	0.794	19.4	93	0.00	9.53- 9.59
26	SA	Decachlorobiphenyl	0.929	0.868	6.6	106	0.00	11.67-11.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g56780.d 6PST1671.M Thu May 31 14:44:20 2018

GC/LC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56778.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 05:42:07
Operator : christp
Sample : jc66927-1
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 84 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:18:09 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2...	1.952	2.151	402.3E6	279.9E6	50.000	50.000
27) I 1-bromo-2...	1.952	2.151	402.3E6	279.9E6	50.000	50.000
33) I 1-bromo-2...	1.952	2.151	402.3E6	279.9E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.533	2.929	190.5E6	142.4E6	24.360	27.302
Spiked Amount	40.000	Range	30 - 150	Recovery	= 60.90%	68.25%
26) SA Decachlor...	9.805	11.702	65475765	49959910	8.215	9.606
Spiked Amount	40.000			Recovery	= 20.54%	24.02%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

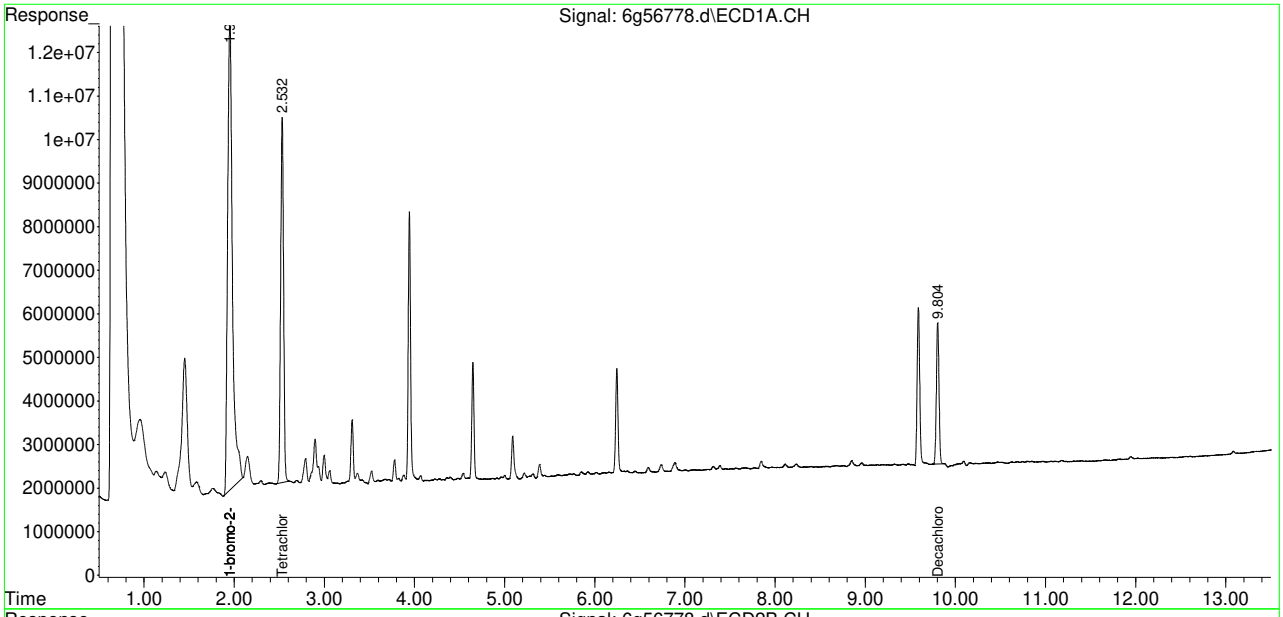
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

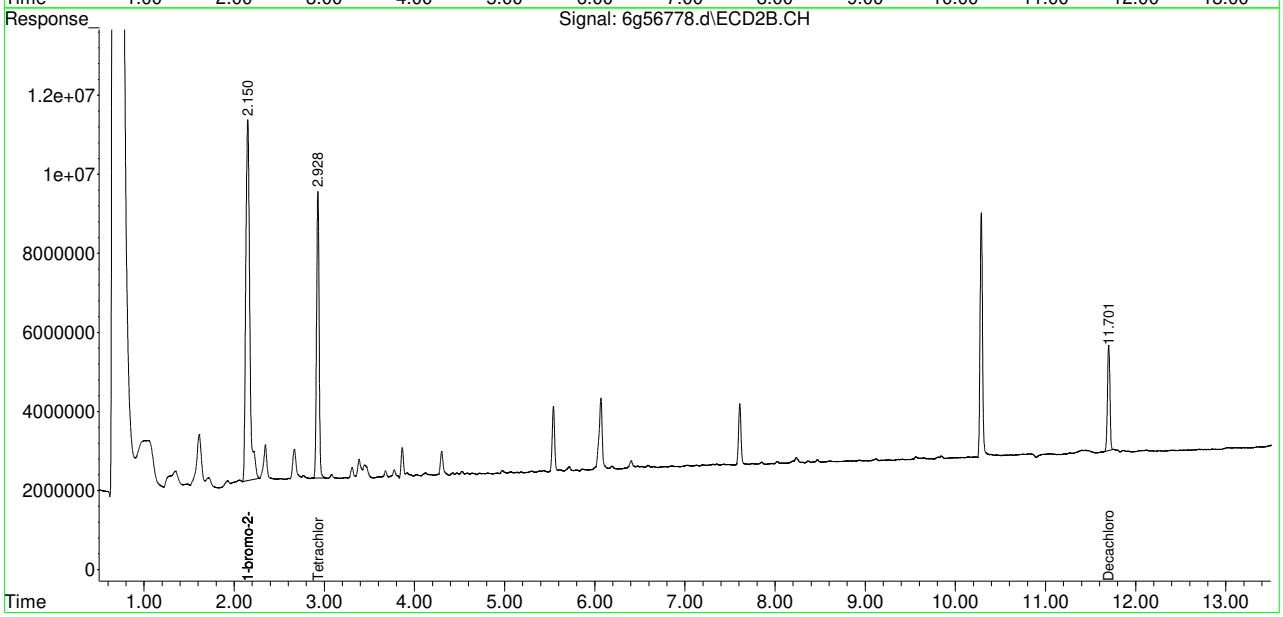
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56778.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 05:42:07
Operator : christp
Sample : jc66927-1
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 84 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:18:09 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164630.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 5:42 am
Operator : christp
Sample : jc66927-1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 11:50:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 11:34:26 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
1) S Tetrachlo...	2.769	3.422	107.4E6	646.3E6	29.250	28.247
Spiked Amount 40.000			Recovery	=	73.13%	70.62%
51) S Decachlor...	9.953f	11.762	37540186	196.4E6	9.256	10.282
Spiked Amount 40.000			Recovery	=	23.14%	25.70%
Target Compounds						

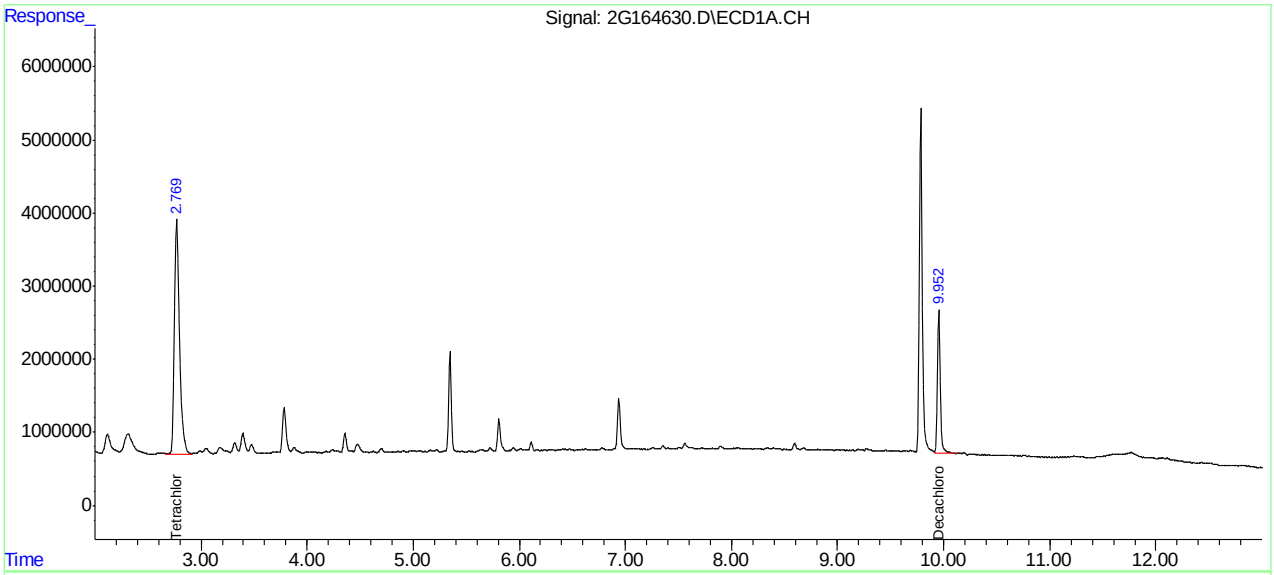
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

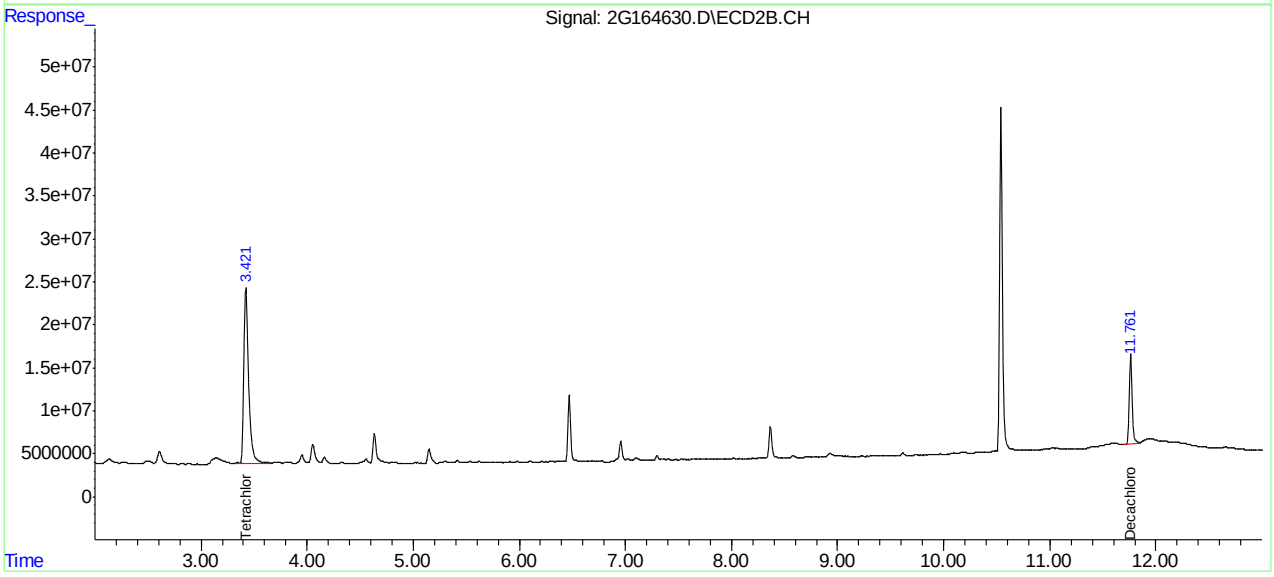
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164630.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 5:42 am
Operator : christp
Sample : jc66927-1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 11:50:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 11:34:26 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/31/18 09:35

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56760.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 00:20:11
Operator : christp
Sample : op12372-mb1
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 66 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:11:20 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2...	1.953	2.150	367.0E6	254.6E6	50.000	50.000
27) I 1-bromo-2...	1.953	2.150	367.0E6	254.6E6	50.000	50.000
33) I 1-bromo-2...	1.953	2.150	367.0E6	254.6E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.533	2.929	211.9E6	157.8E6	29.705	33.269
Spiked Amount	40.000	Range	30 - 150	Recovery	= 74.26%	83.17%
26) SA Decachlor...	9.806	11.702	63928446	47219504	8.792m	9.983
Spiked Amount	40.000		Recovery	=	21.98%	24.96%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

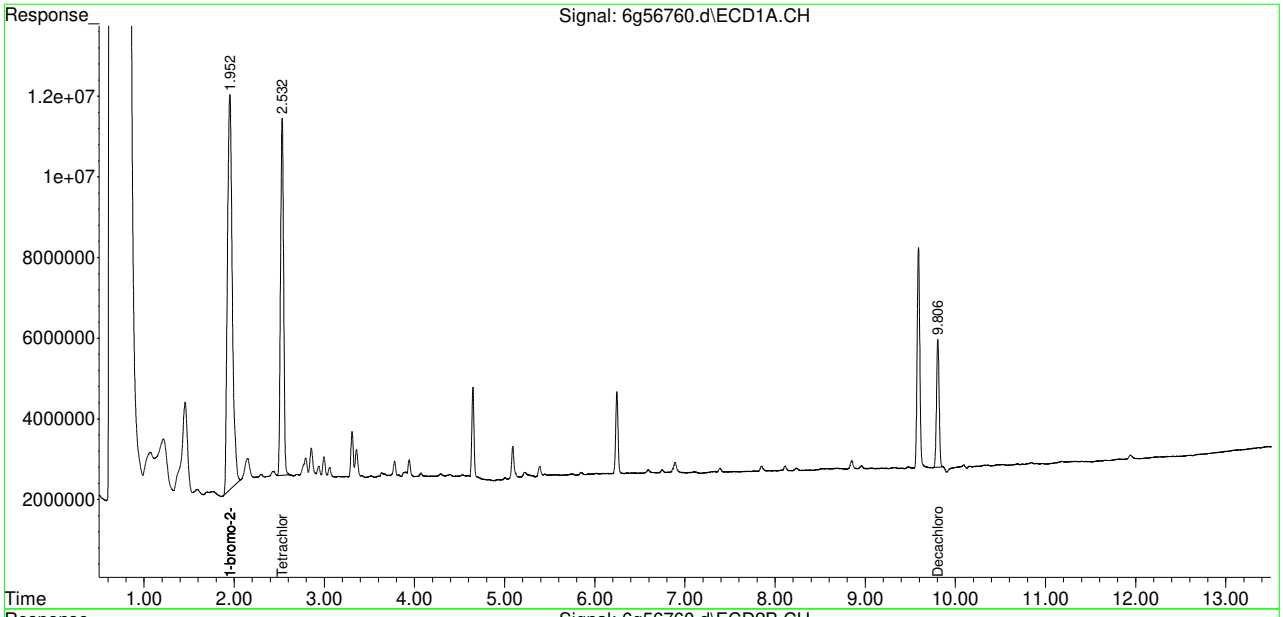
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

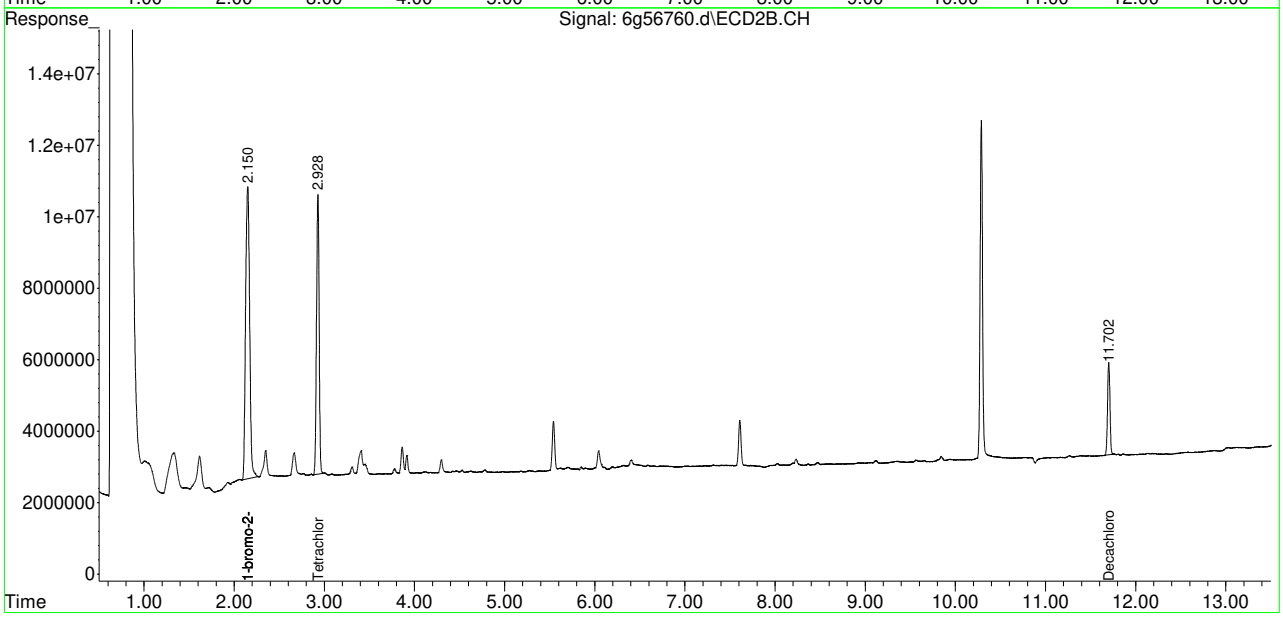
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56760.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 00:20:11
Operator : christp
Sample : op12372-mb1
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 66 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:11:20 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	OP12372-MB1	**Method:**	SW846 8081B
Lab FileID:	6G56760.D	**Analyst approved:**	05/31/18 09:28 Dharmistha Mehta
Injection Time:	05/31/18 00:20	**Supervisor approved:**	05/31/18 09:35 Gwendolyn Burns

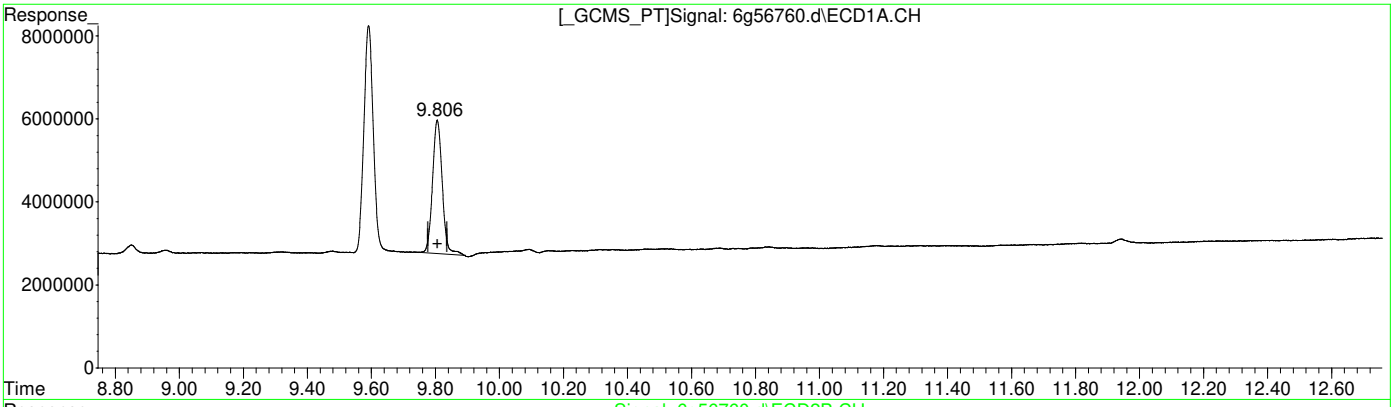
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.81	Poorly defined baseline

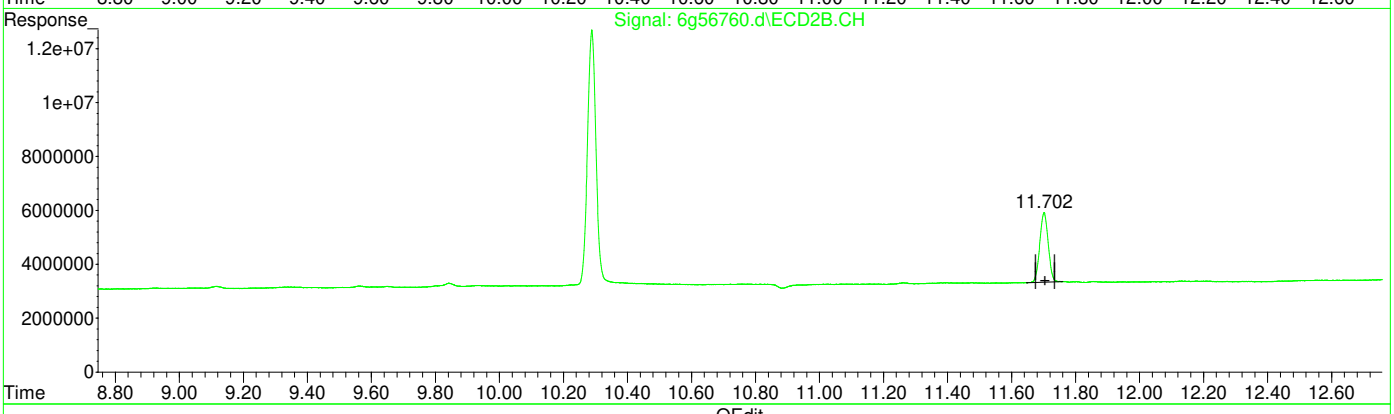
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56760.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 31-May-18, 00:20:11
Operator  : christp
Sample    : op12372-mb1
Misc      : OP12372,g6g1694,300,,,2,1
ALS Vial  : 66 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:10:02 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





(26) Decachlorobiphenyl (SA)

9.806min 9.327 PPB

response 67820378

(26) Decachlorobiphenyl #2 (SA)

11.702min 9.983 PPB

response 47219504

(+) = Expected Retention Time

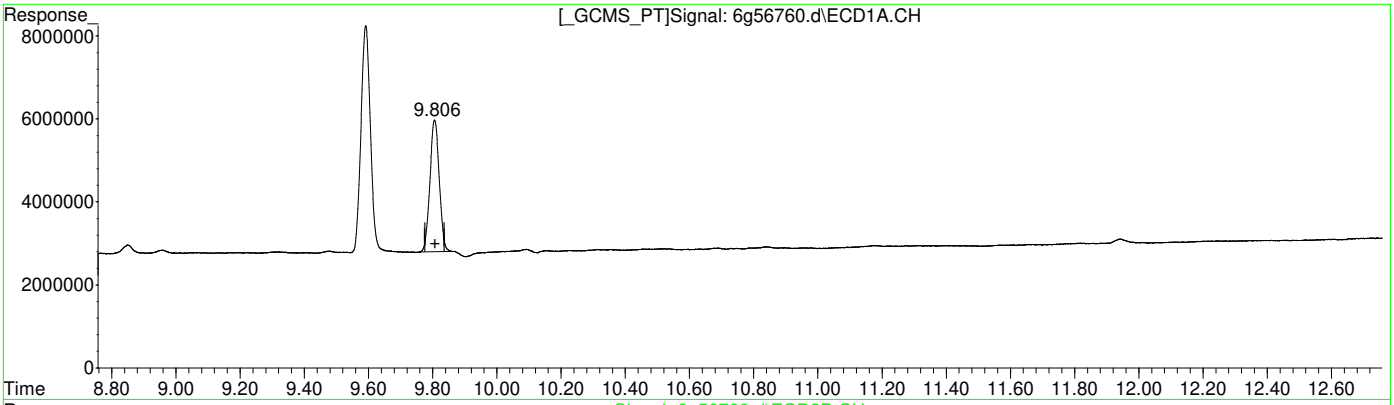
6PST1671.M Thu May 31 09:10:46 2018

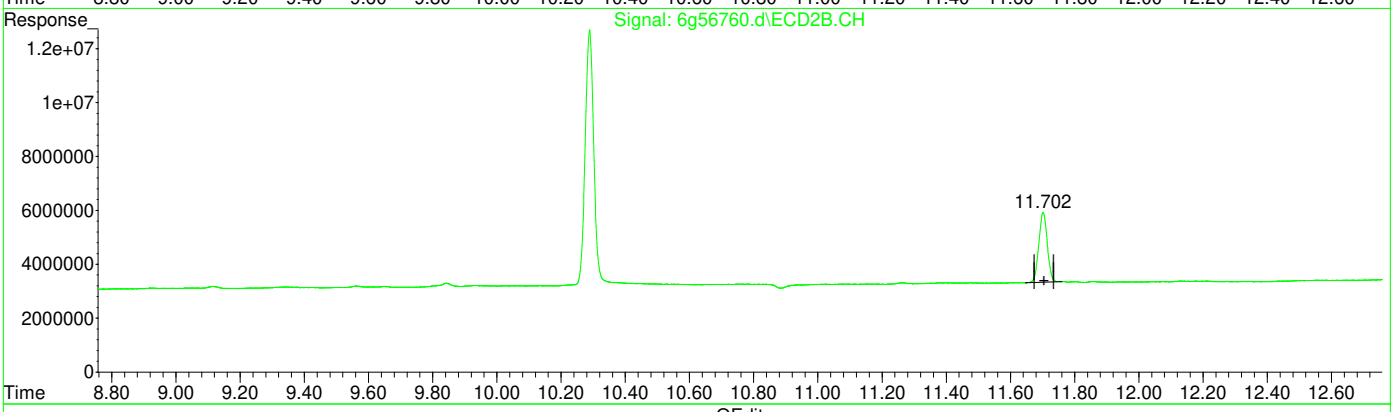
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56760.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 31-May-18, 00:20:11
Operator  : christp
Sample    : op12372-mb1
Misc      : OP12372,g6g1694,300,,,2,1
ALS Vial  : 66 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:10:02 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





(26) Decachlorobiphenyl (SA)

9.806min 8.792 PPB m

response 63928446

(26) Decachlorobiphenyl #2 (SA)

11.702min 9.983 PPB

response 47219504

(+) = Expected Retention Time

6PST1671.M Thu May 31 09:11:00 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/31/18 12:09

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164605.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:38 pm
Operator : christp
Sample : op12371-mb1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 71 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:21:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
1) S Tetrachlo...	2.779	3.422	139.0E6	924.3E6	37.882	40.393
Spiked Amount 40.000			Recovery	=	94.70%	100.98%
51) S Decachlor...	9.964	11.763	38209100	197.1E6	9.421	10.318m
Spiked Amount 40.000			Recovery	=	23.55%	25.80%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

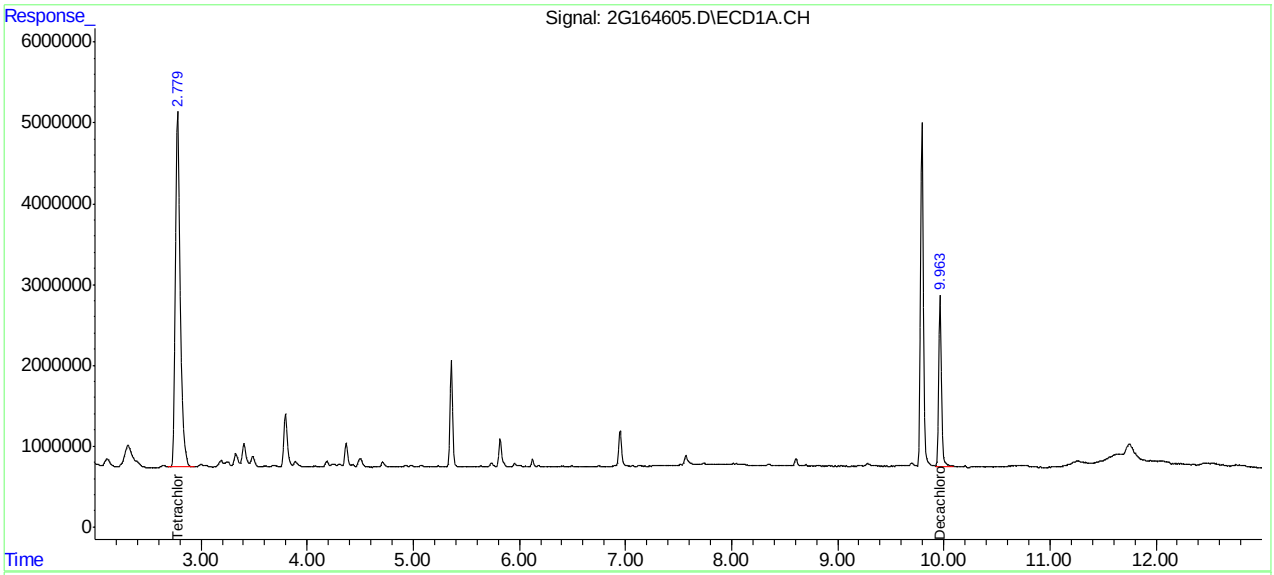
11.2.2
11

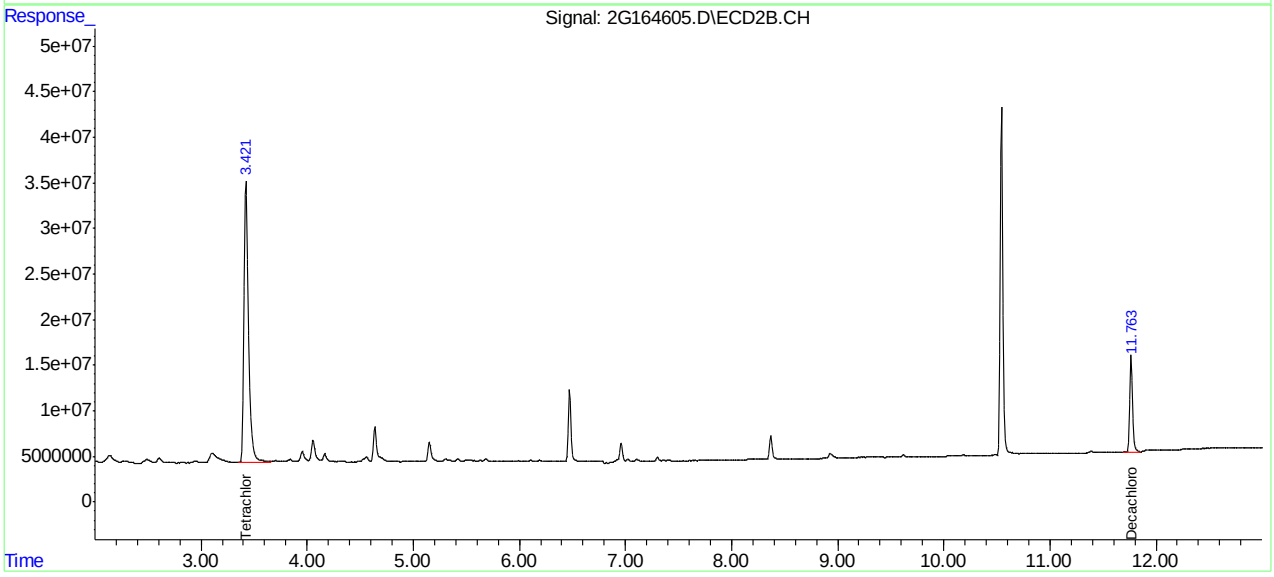
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164605.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:38 pm
Operator : christp
Sample : op12371-mb1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 71 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:21:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	OP12371-MB1	**Method:**	SW846 8082A
Lab FileID:	2G164605.D	**Analyst approved:**	05/31/18 10:14 Summer Kotb
Injection Time:	05/30/18 22:38	**Supervisor approved:**	05/31/18 12:09 Gwendolyn Burns

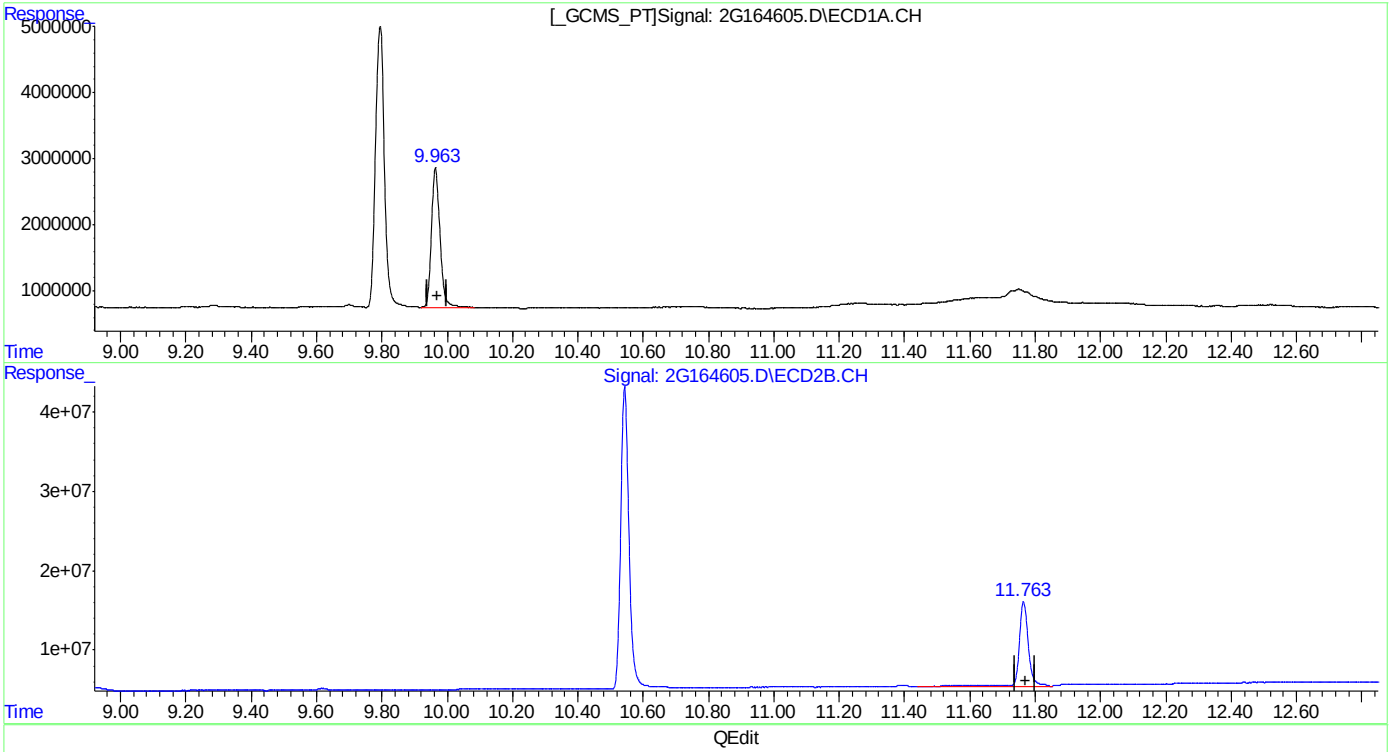
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	2	11.76	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164605.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:38 pm
Operator : christp
Sample : op12371-mb1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 71 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:20:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(51) Decachlorobiphenyl (S)
9.964min 9.421ppb
response 38209100

(51) Decachlorobiphenyl #2 (S)
11.765min 11.114ppb
response 212275933

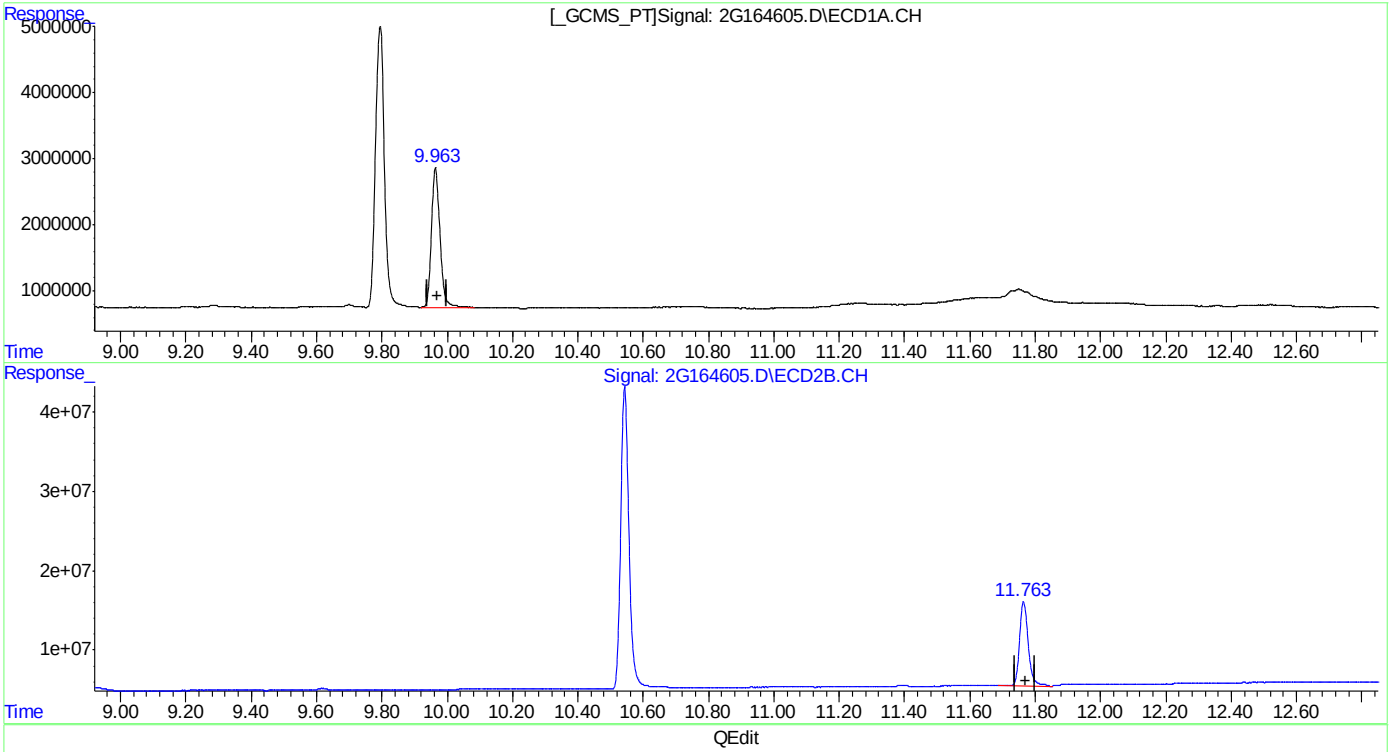
(+) = Expected Retention Time
2PCB4311.M Thu May 31 09:21:15 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164605.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:38 pm
Operator : christp
Sample : op12371-mb1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 71 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:20:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(51) Decachlorobiphenyl (S)
9.964min 9.421ppb
response 38209100

(51) Decachlorobiphenyl #2 (S)
11.763min 10.318ppb m
response 197075878

(+) = Expected Retention Time

Manual Integrations
APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/31/18 09:35

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56761.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 00:38:09
Operator : christp
Sample : op12372-bs1
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 67 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:12:48 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	Internal Standards							
1) I	1-bromo-2...	1.951	2.150	400.8E6	278.0E6	50.000	50.000	
27) I	1-bromo-2...	1.951	2.150	400.8E6	278.0E6	50.000	50.000	
33) I	1-bromo-2...	1.951	2.150	400.8E6	278.0E6	50.000	50.000	
	System Monitoring Compounds							
2)	SAB Tetrachlo...	2.532	2.928	242.3E6	176.7E6	31.102	34.129	
	Spiked Amount 40.000 Range 30 - 150 Recovery = 77.75% 85.32%							
26)	SA Decachlor...	9.805	11.703	84534997	62750994	10.645m	12.151	
	Spiked Amount 40.000 Recovery = 26.61% 30.38%							
	Target Compounds							
3)	hexachlor...	2.856	3.409	188.5E6	178.2E6	21.677	27.451	#
4) A	alpha-BHC	2.993	3.554	248.6E6	172.5E6	23.173	25.029	
5) MA	gamma-BHC	3.282	3.960	248.0E6	161.3E6	24.411	24.963	
6) MA	Heptachlor	3.766	4.512	221.9E6	156.0E6	23.120	23.730	
7) B	beta-BHC	3.355	4.043	107.5E6	74641864	23.672	25.151	
8) B	delta-BHC	3.537	4.421	135.5E6	100.0E6	15.121	16.671	
9) MB	Aldrin	4.095	4.945	198.0E6	136.3E6	21.229	23.563	
10)	alachlor	4.233	4.766	24523024	20202656	21.796	26.357	
11) B	Heptachlo...	4.796	5.740	197.8E6	144.5E6	22.936	25.830	
12) B	gamma-Chl...	4.958	6.018	189.7E6	152.4E6	22.326	27.794	
13) B	alpha-Chl...	5.127	6.239	206.3E6	134.8E6	23.714	25.254	
14) A	Endosulfan I	5.302	6.329	183.4E6	128.0E6	22.618	25.112	
15) B	4,4'-DDE	5.238	6.501	184.0E6	133.8E6	22.214	25.824	
16) MA	Dieldrin	5.621	6.754	204.3E6	143.8E6	23.262	26.280	
17) MA	Endrin	5.941	7.246	196.0E6	140.0E6	24.659	26.071	
18) A	4,4'-DDD	6.065	7.433	153.2E6	110.7E6	22.326	24.789	
19) B	Endosulfa...	6.258	7.592	226.7E6	159.7E6	26.882	29.377	
20) MA	4,4'-DDT	6.479	7.959	145.4E6	101.3E6	22.099	23.507	
21) B	Endrin Al...	6.880	8.155	161.1E6	103.3E6	24.120	25.030	
22) B	Endosulfa...	7.558	8.620	132.1E6	92980104	19.974	22.489	
23) A	Methoxychlor	7.261	9.191	87465064	57726656	22.285	23.581	
25) B	Endrin Ke...	7.998	9.565	183.1E6	128.2E6	23.282	23.404	
	Sum Toxaphene			0	0	N.D.	N.D.	
	Average Toxaphene					0.000	0.000	

SemiQuant Compounds - Not Calibrated on this Instrument

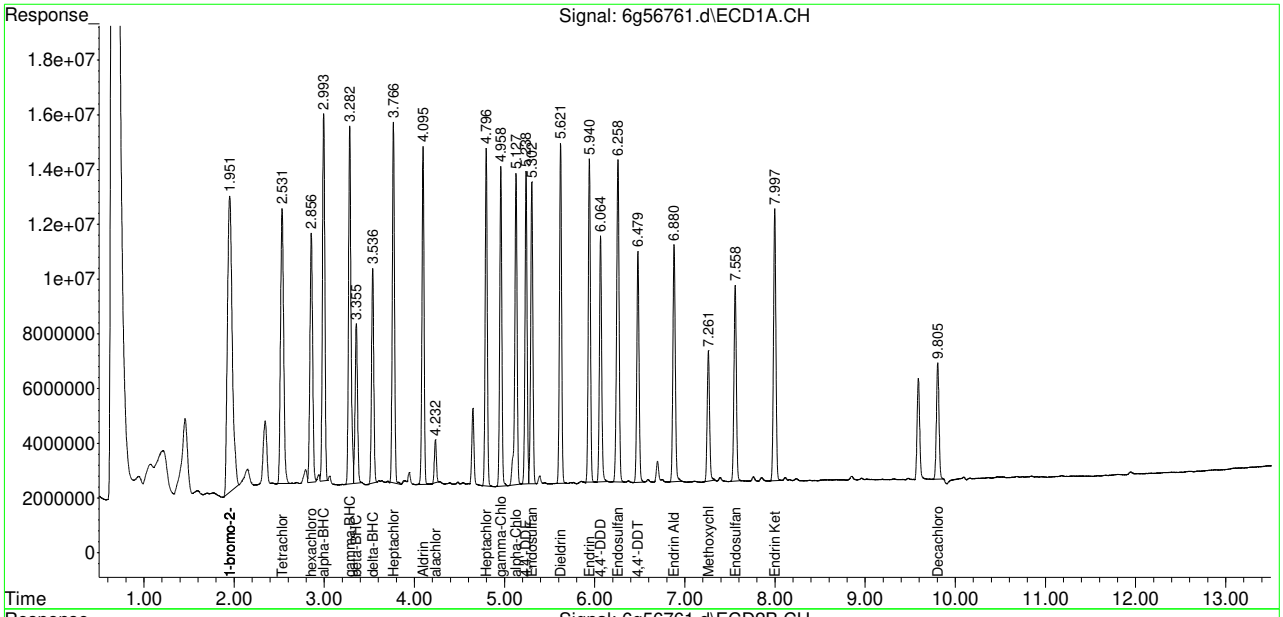
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

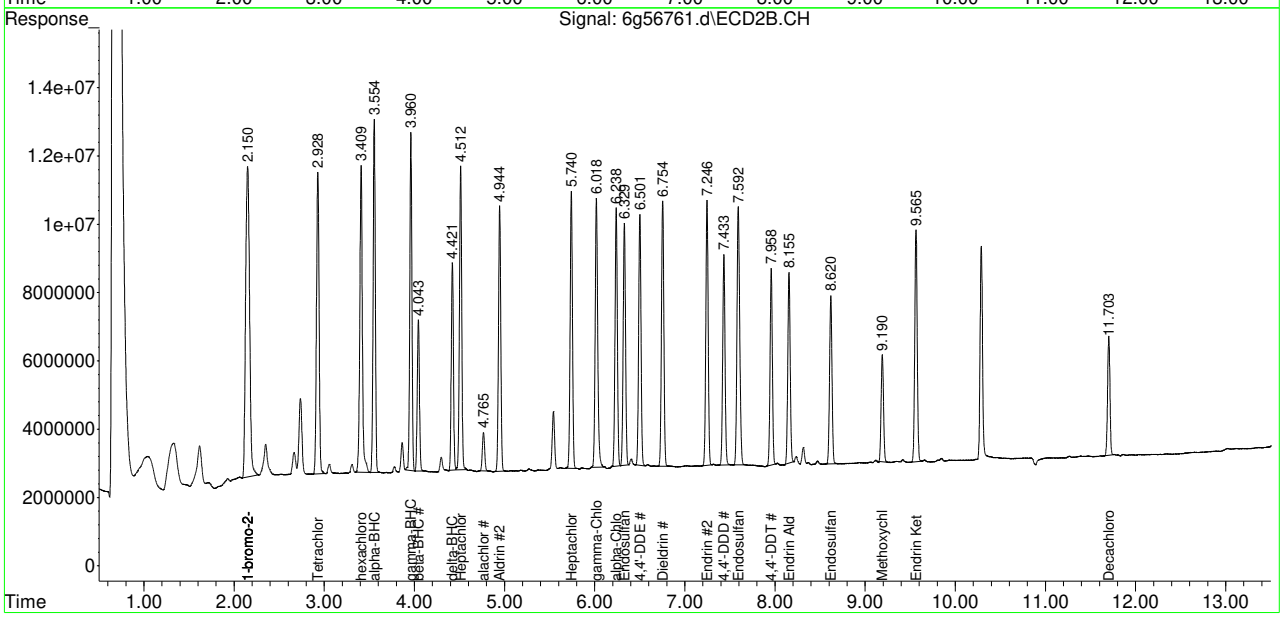
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56761.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 00:38:09
Operator : christp
Sample : op12372-bs1
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 67 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:12:48 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	OP12372-BS1	**Method:**	SW846 8081B
Lab FileID:	6G56761.D	**Analyst approved:**	05/31/18 09:28 Dharmistha Mehta
Injection Time:	05/31/18 00:38	**Supervisor approved:**	05/31/18 09:35 Gwendolyn Burns

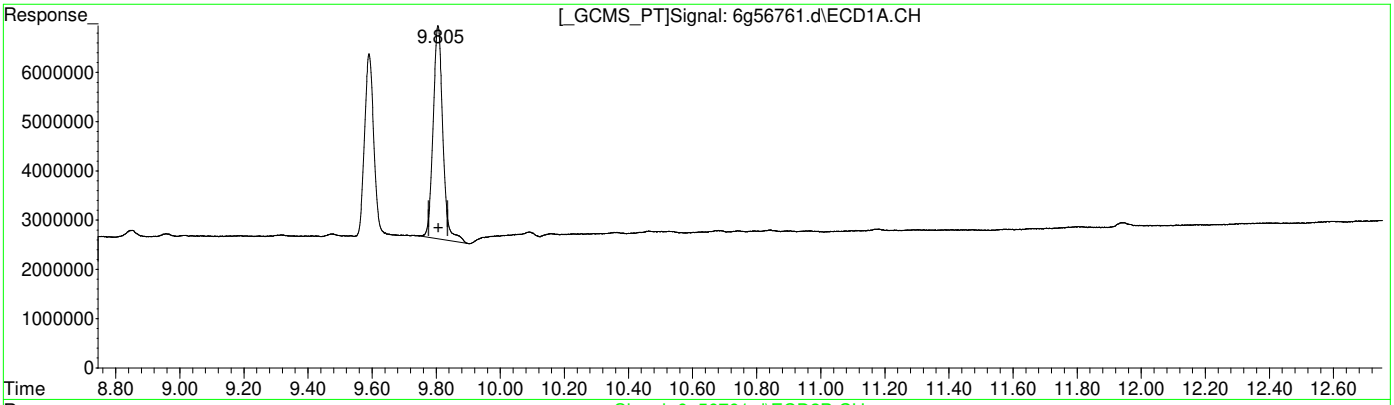
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.81	Poorly defined baseline

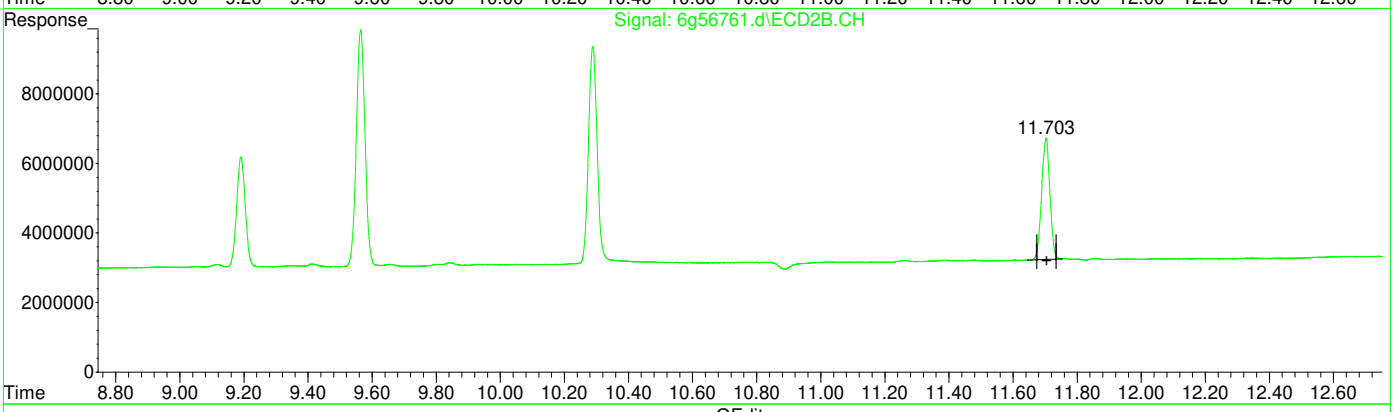
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56761.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 31-May-18, 00:38:09
Operator  : christp
Sample    : op12372-bs1
Misc      : OP12372,g6g1694,300,,,2,1
ALS Vial  : 67 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:11:42 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(26) Decachlorobiphenyl (SA)

9.806min 11.464 PPB

response 91035420

(26) Decachlorobiphenyl #2 (SA)

11.703min 12.151 PPB

response 62750994

(+) = Expected Retention Time

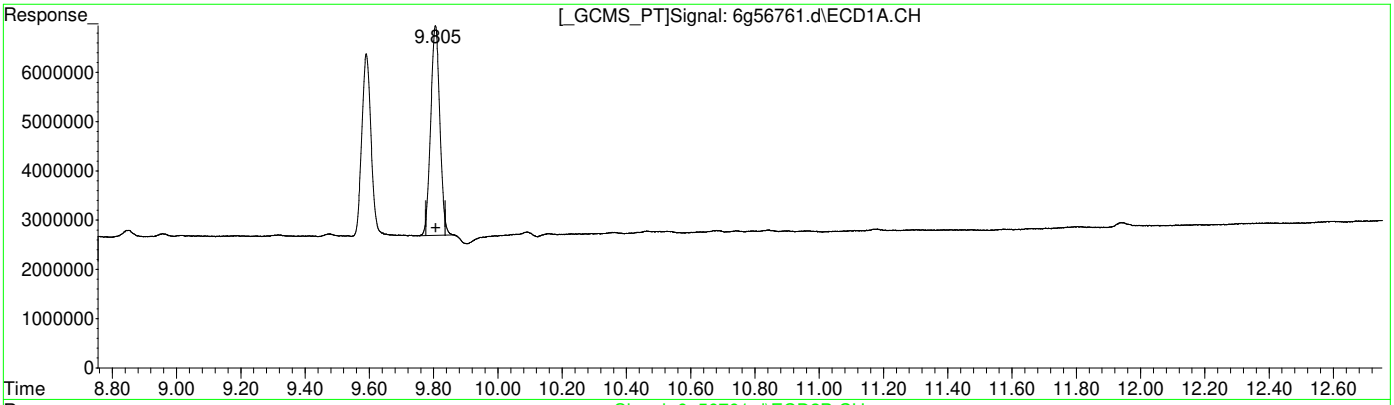
6PST1671.M Thu May 31 09:12:14 2018

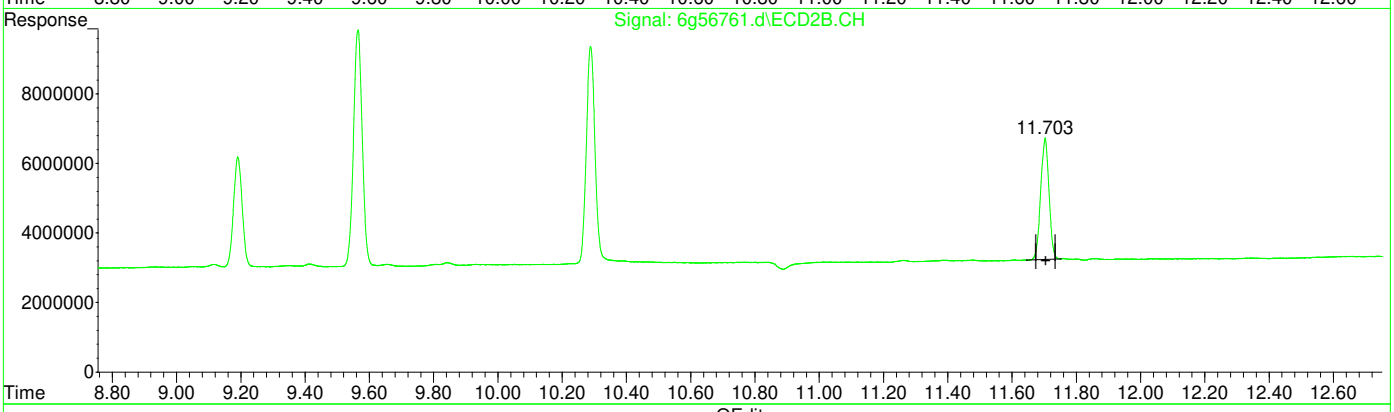
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56761.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 31-May-18, 00:38:09
Operator  : christp
Sample    : op12372-bs1
Misc      : OP12372,g6g1694,300,,,2,1
ALS Vial  : 67 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:11:42 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(26) Decachlorobiphenyl (SA)

9.805min 10.645 PPB m

response 84534997

(26) Decachlorobiphenyl #2 (SA)

11.703min 12.151 PPB

response 62750994

(+) = Expected Retention Time

6PST1671.M Thu May 31 09:12:30 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/31/18 14:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 12:39:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.771	3.421	144.7E6	942.2E6	39.423m	41.176m
Spiked Amount	40.000			Recovery	=	98.56%	102.94%
51) S	Decachlor...	9.957	11.761	50425099	270.7E6	12.433	14.173
Spiked Amount	40.000			Recovery	=	31.08%	35.43%
	Target Compounds						
32)	AR1016-B	3.537	4.632f	33748481	257.5E6	248.045	321.469m#
33)	AR1016-C	4.087	5.263	57156097	363.5E6	197.114	209.647m
34)	AR1016-D	4.247	5.447	26312915	190.1E6	222.549	252.700m
35)	AR1016-E	4.754	6.086	25926371	123.1E6	212.626	239.961
36)	AR1260-A	7.118f	8.684f	56129767	354.6E6	164.676m	177.316m
37)	AR1260-B	7.271	8.793	35208458	215.2E6	243.752	246.084
38)	AR1260-C	7.608	9.223	36828352	231.4E6	231.291	226.447
39)	AR1260-D	8.039f	9.575f	73823567	495.4E6	201.074m	230.775
40)	AR1260-E	8.428f	10.114f	80912999	458.5E6	213.610m	224.975m

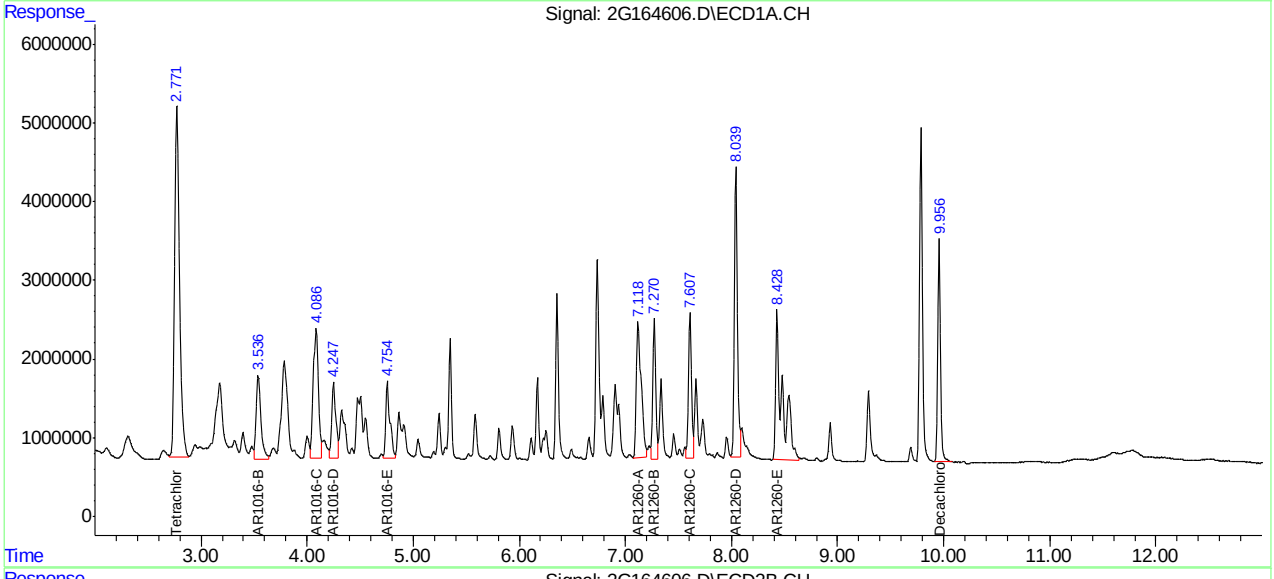
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

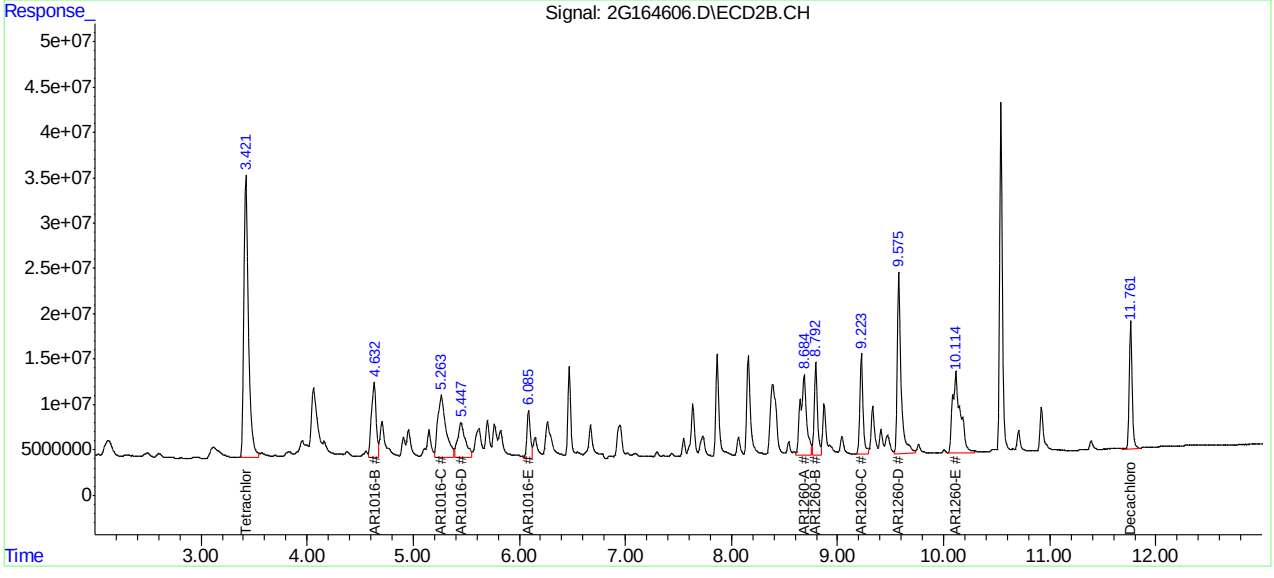
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 12:39:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	OP12371-BS1	**Method:**	SW846 8082A
Lab FileID:	2G164606.D	**Analyst approved:**	05/31/18 12:44 Tianwei Ruan
Injection Time:	05/30/18 22:54	**Supervisor approved:**	05/31/18 14:43 Gwendolyn Burns

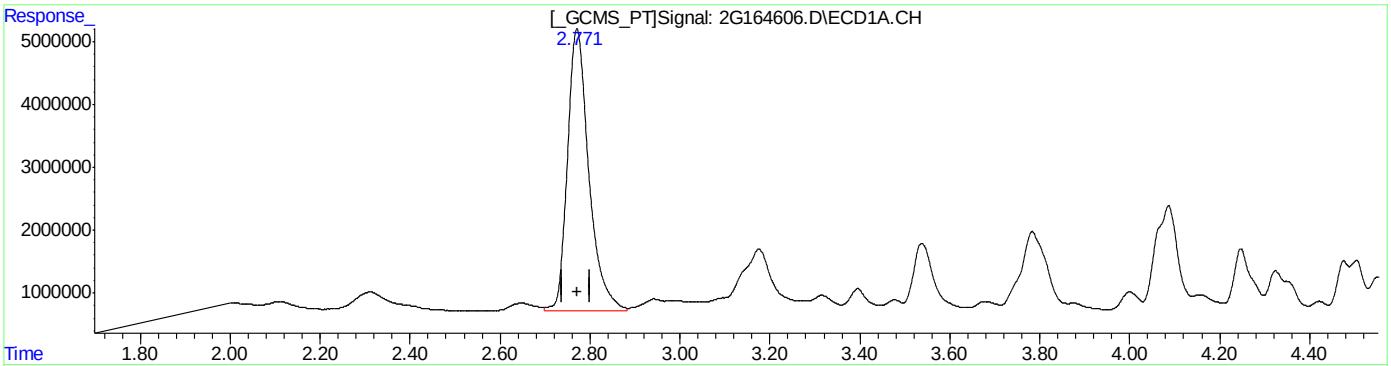
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.77	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	3.42	Poorly defined baseline
AR1016-B		2	4.63	Split peak
AR1016-C		2	5.26	Split peak
AR1016-D		2	5.45	Split peak
AR1260-A		1	7.12	Split peak
AR1260-D		1	8.04	Split peak
AR1260-E		1	8.43	Split peak
AR1260-A		2	8.68	Split peak
AR1260-E		2	10.11	Split peak

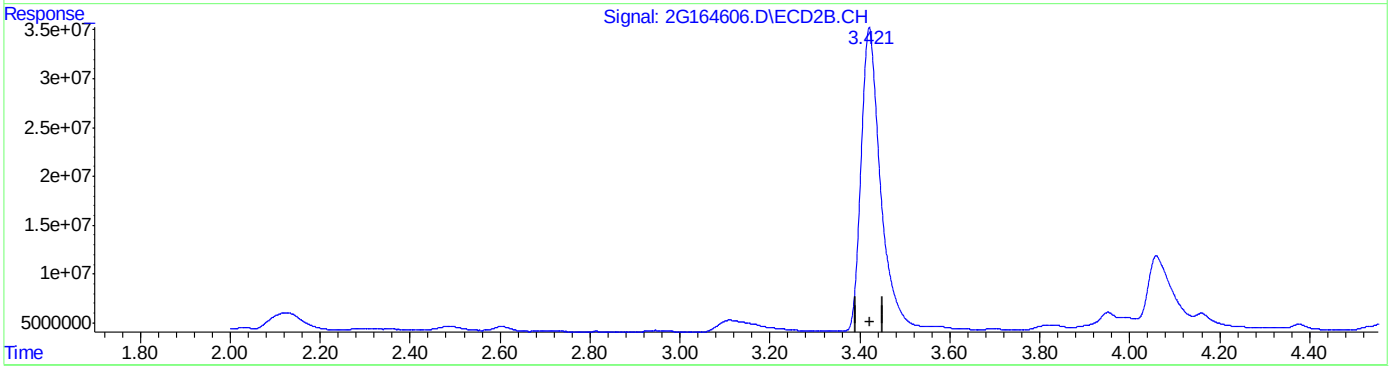
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(1) Tetrachloro-m-xylene (S)
2.771min 40.324ppb
response 148009110

(1) Tetrachloro-m-xylene #2 (S)
3.421min 41.694ppb
response 954051140

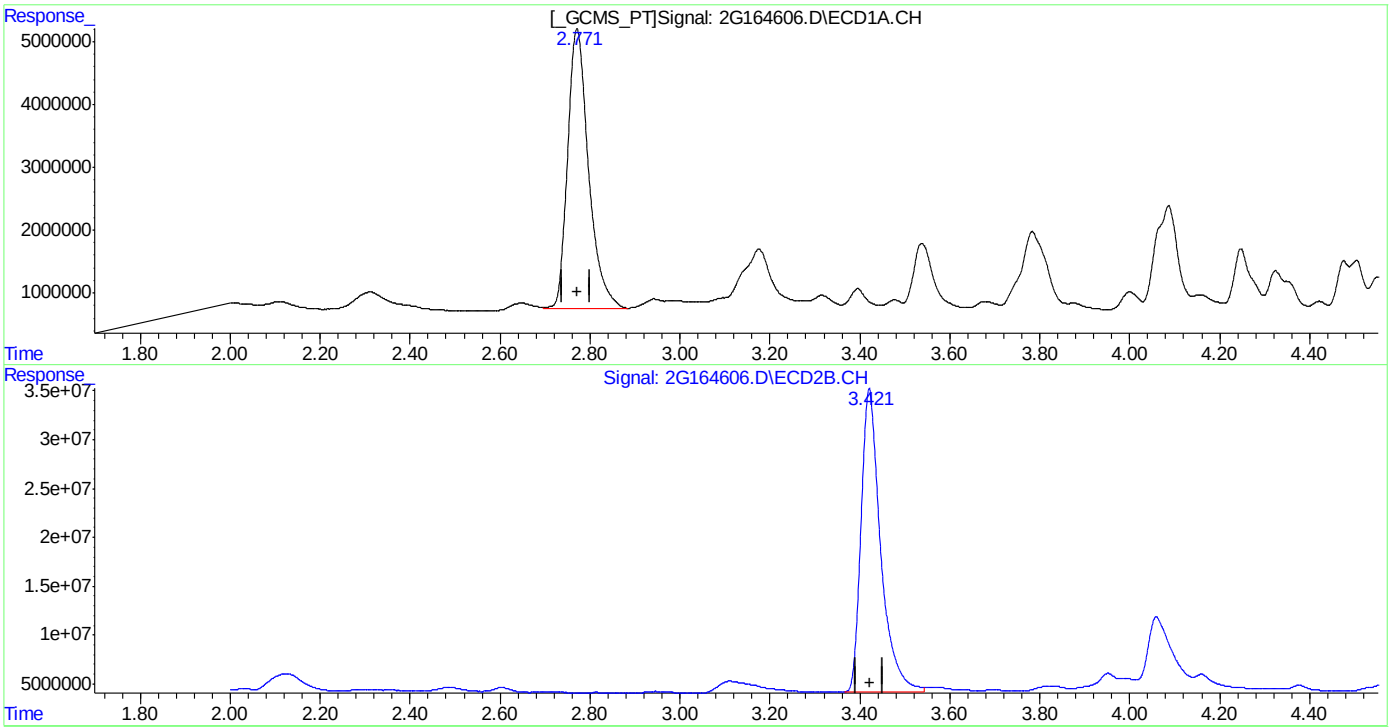
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(1) Tetrachloro-m-xylene (S)
2.771min 39.423ppb m
response 144700165

(1) Tetrachloro-m-xylene #2 (S)
3.421min 41.176ppb m
response 942190225

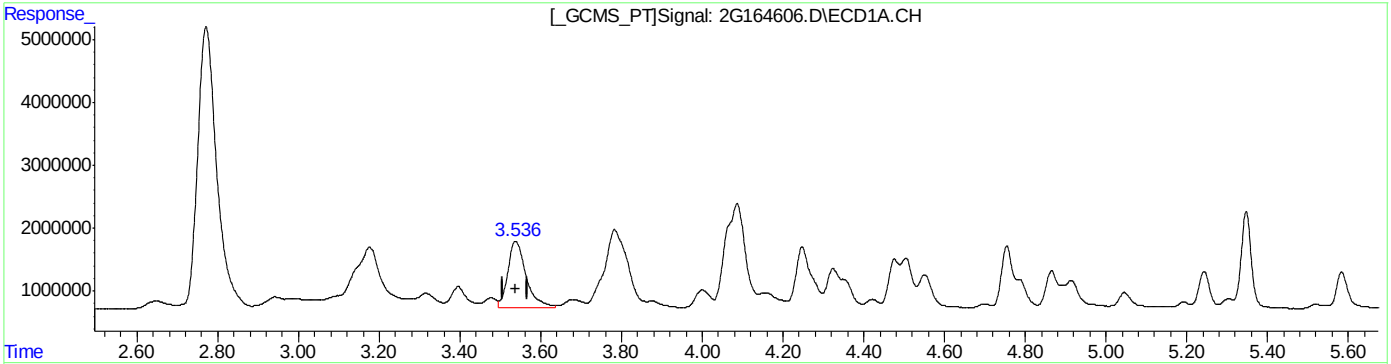
(+) = Expected Retention Time

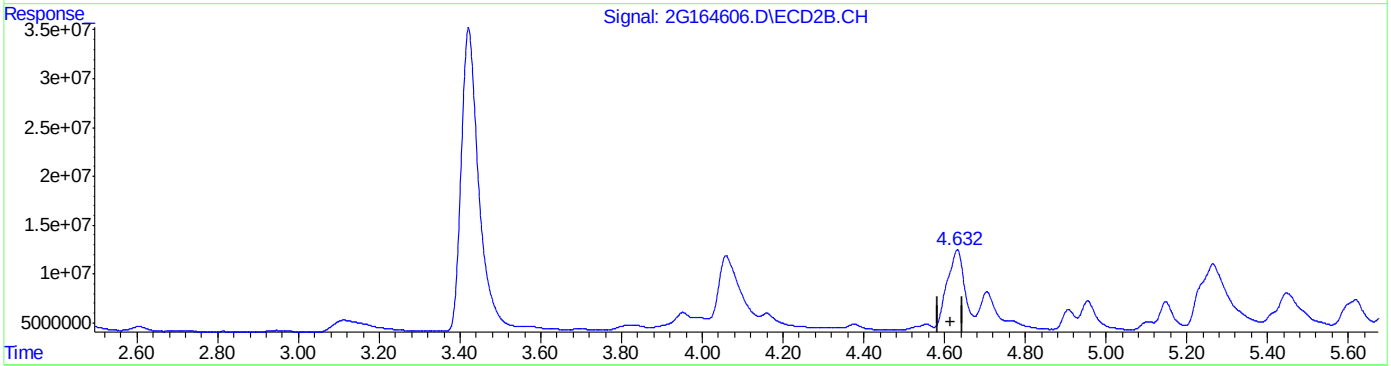
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(32) AR1016-B
3.537min 248.045PPB
response 33748481

(32) AR1016-B #2
4.632min 329.390PPB
response 263867565

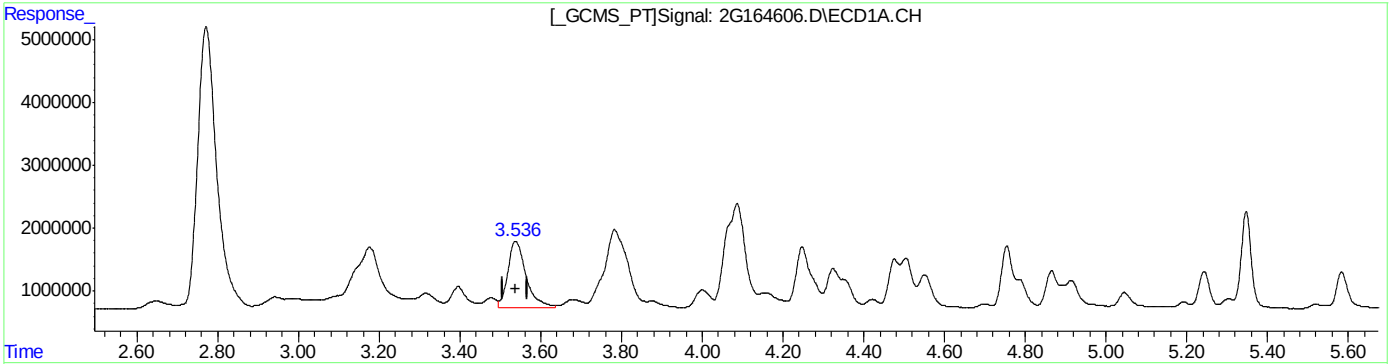
(+) = Expected Retention Time

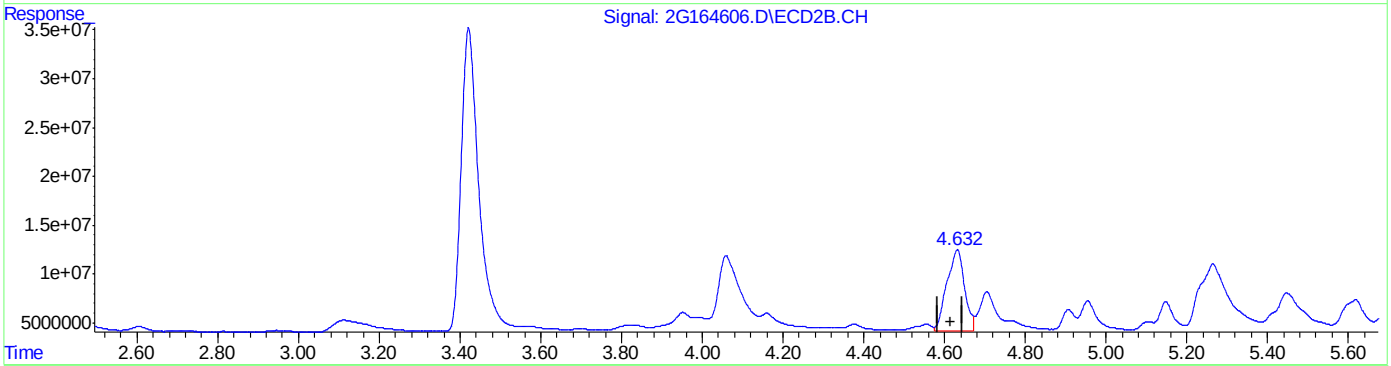
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(32) AR1016-B
3.537min 248.045PPB
response 33748481

(32) AR1016-B #2
4.632min 321.469PPB m
response 257522324

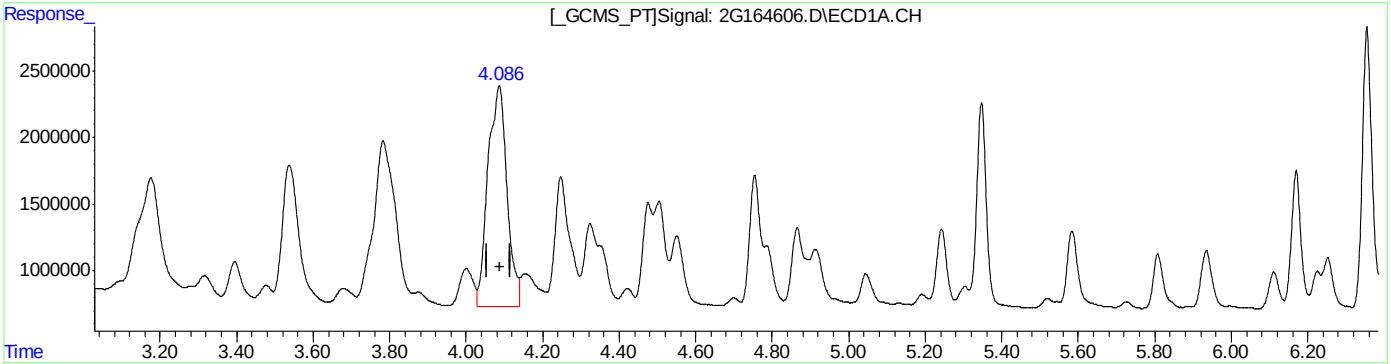
(+) = Expected Retention Time

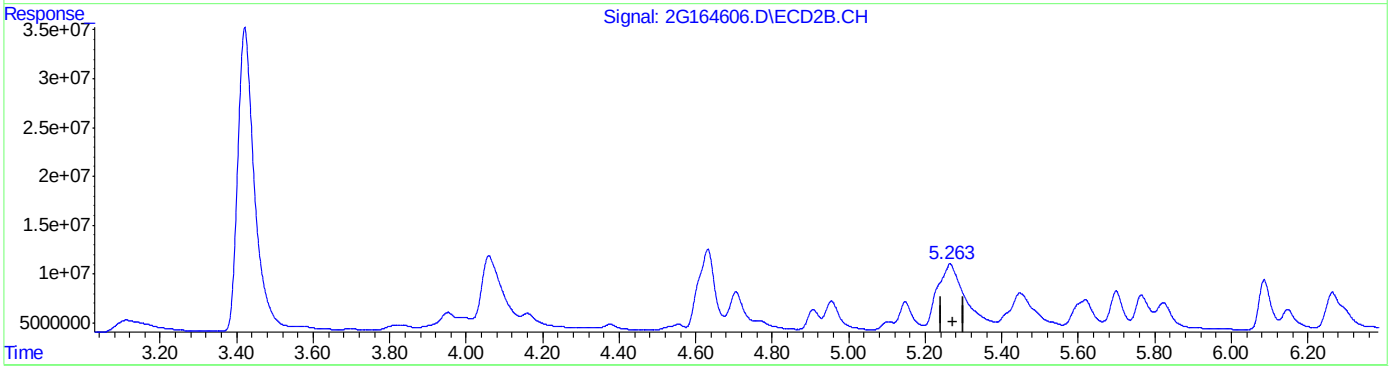
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(33) AR1016-C
4.087min 197.114PPB
response 57156097

(33) AR1016-C #2
5.265min 220.125PPB
response 381627188

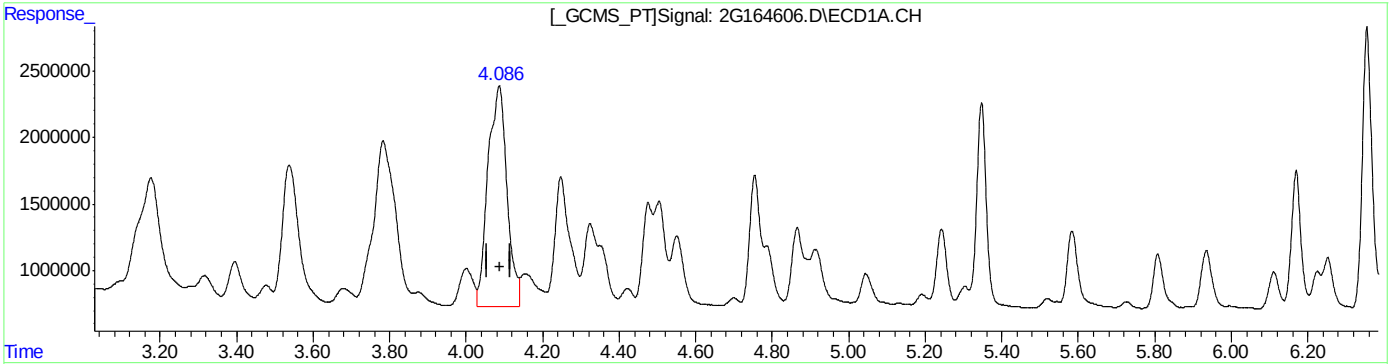
(+) = Expected Retention Time

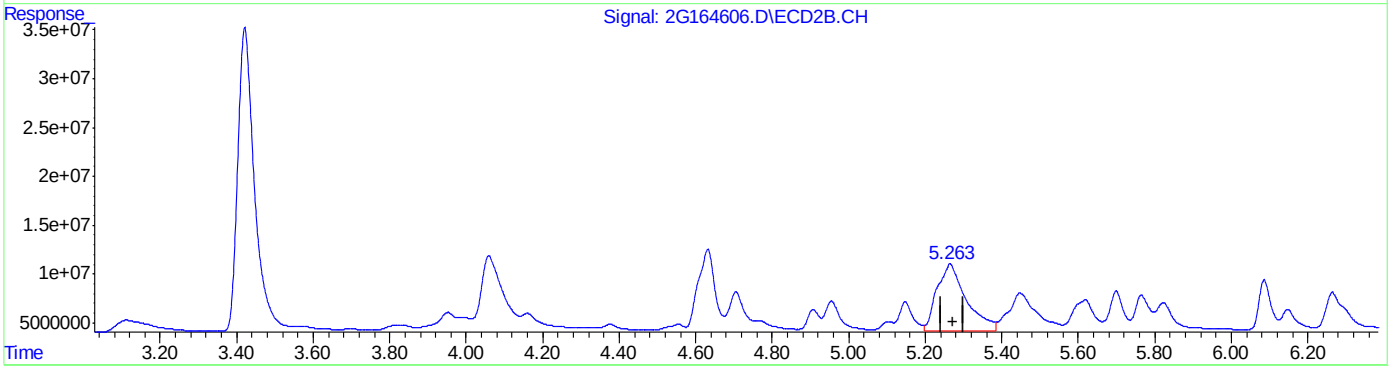
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(33) AR1016-C
4.087min 197.114PPB
response 57156097

(33) AR1016-C #2
5.263min 209.647PPB m
response 363461801

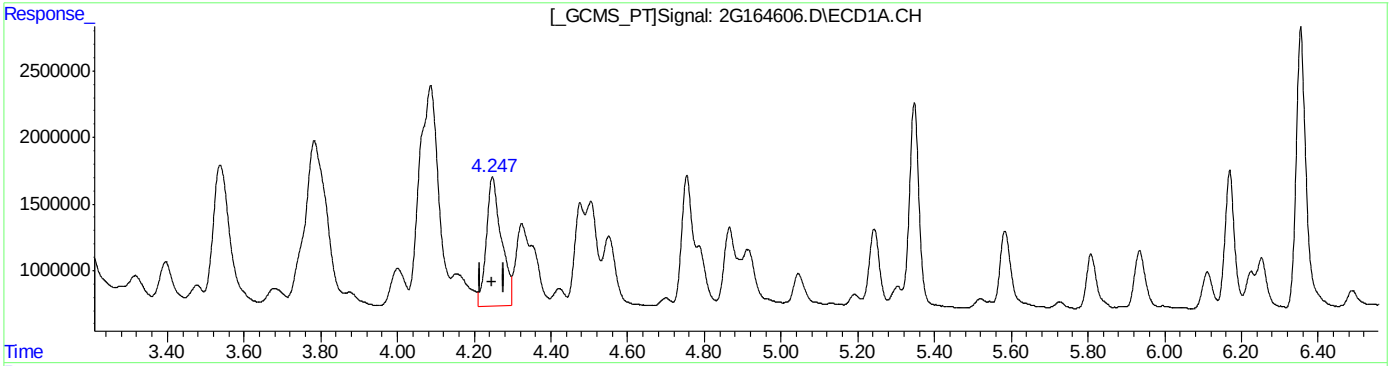
(+) = Expected Retention Time
2PCB4311.M Thu May 31 09:34:48 2018 RPT1

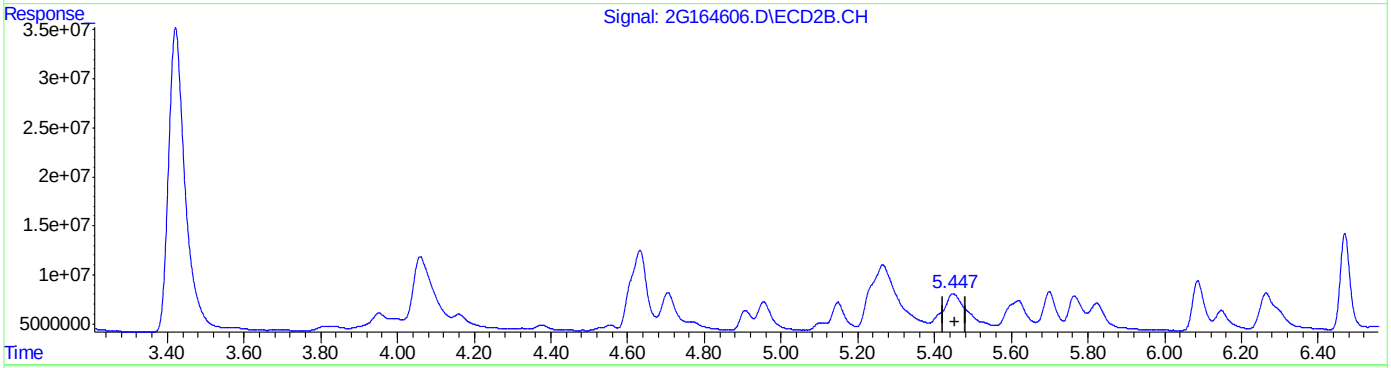
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(34) AR1016-D
4.247min 222.549PPB
response 26312915

(34) AR1016-D #2
5.448min 286.041PPB
response 215180133

(+) = Expected Retention Time

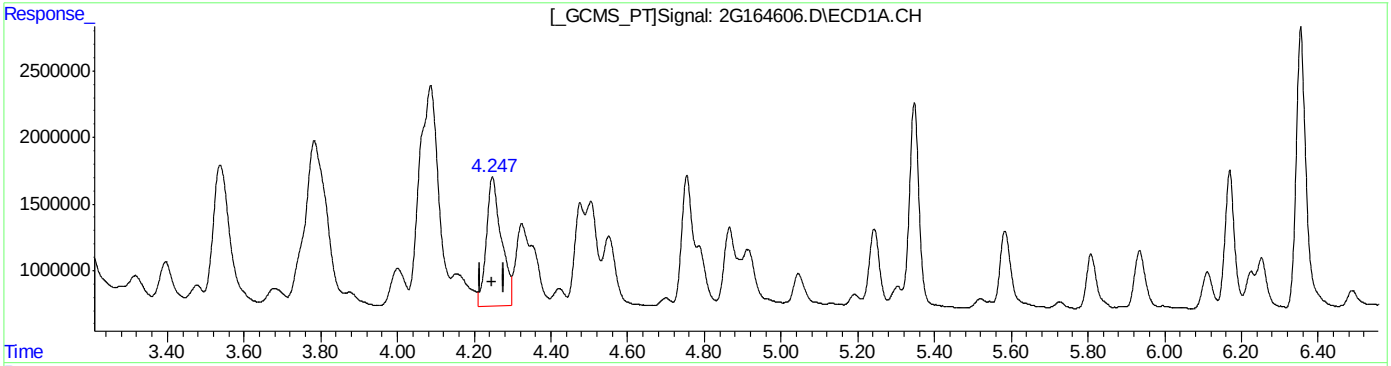
2PCB4311.M Thu May 31 09:34:56 2018 RPT1

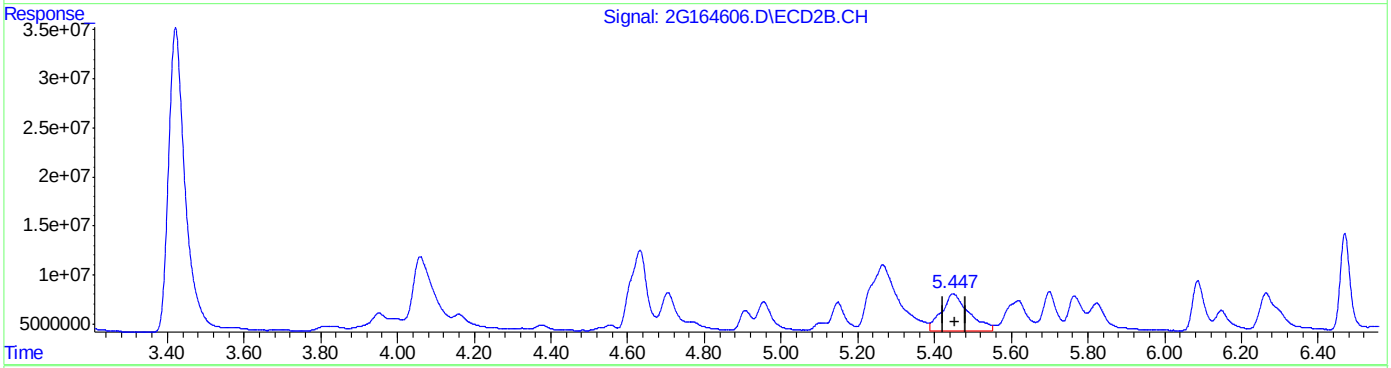
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(34) AR1016-D
4.247min 222.549PPB
response 26312915

(34) AR1016-D #2
5.447min 252.700PPB m
response 190098520

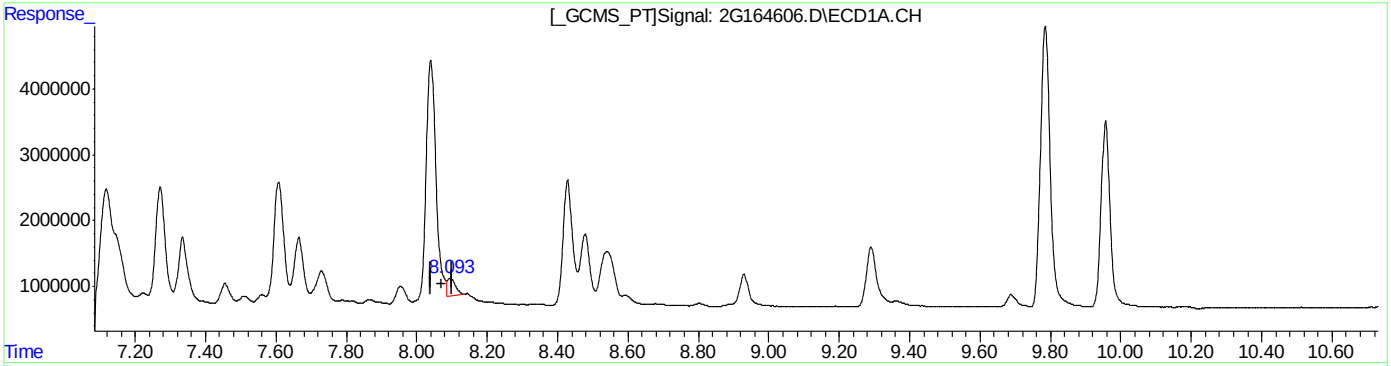
(+) = Expected Retention Time

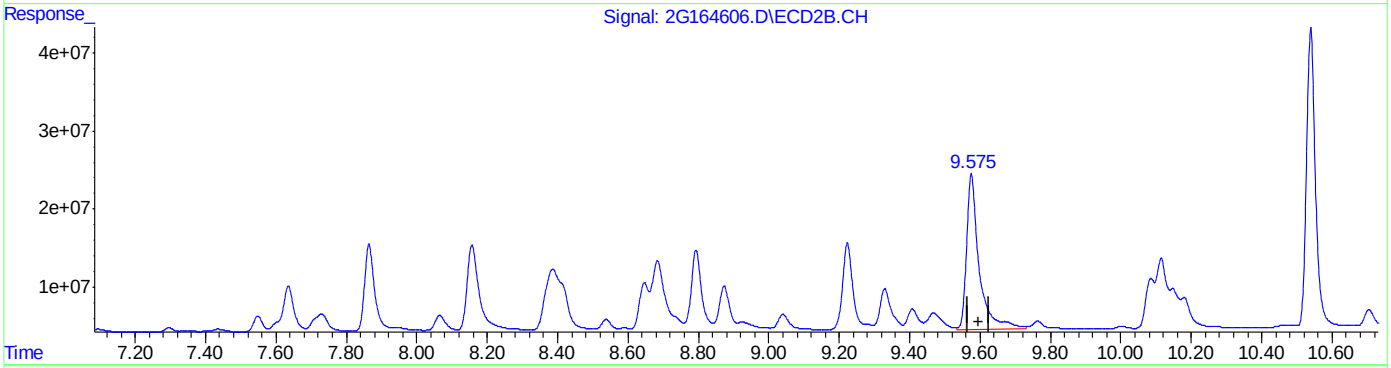
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.094min 12.032PPB
response 4417374

(39) AR1260-D #2
9.575min 230.775PPB
response 495357788

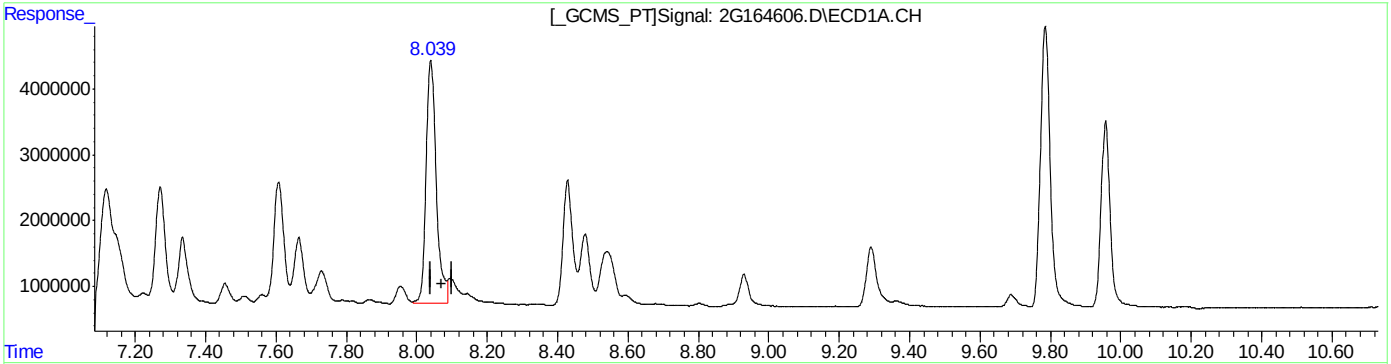
(+) = Expected Retention Time

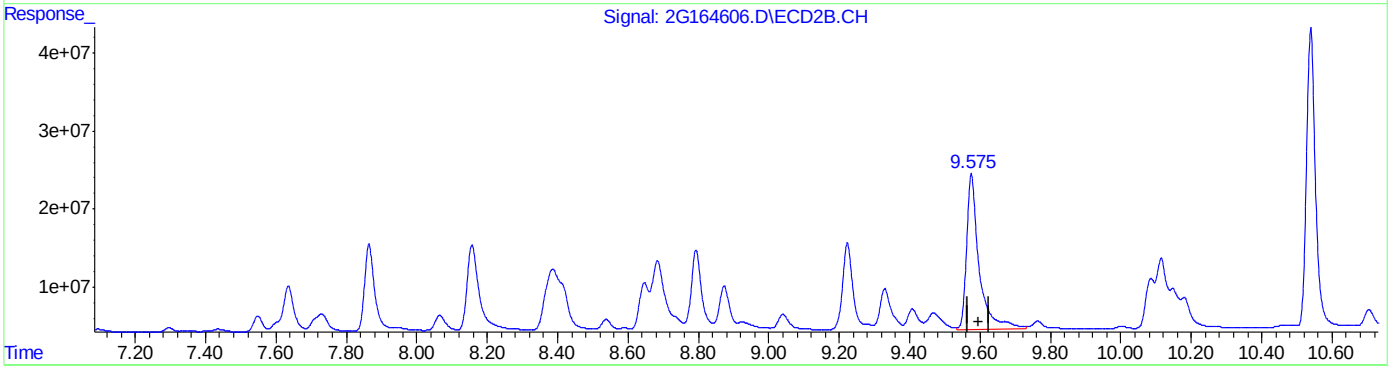
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.039min 201.074PPB m
response 73823567

(39) AR1260-D #2
9.575min 230.775PPB
response 495357788

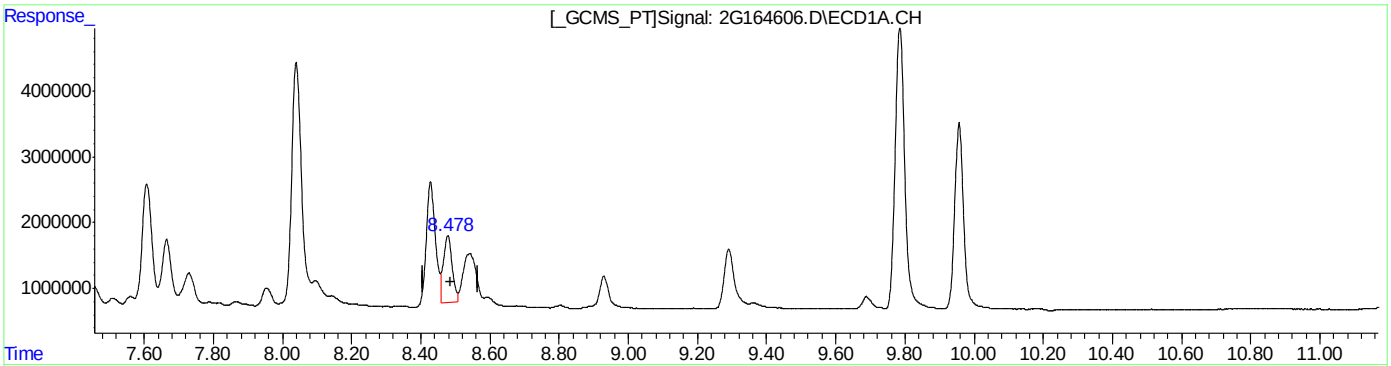
(+) = Expected Retention Time

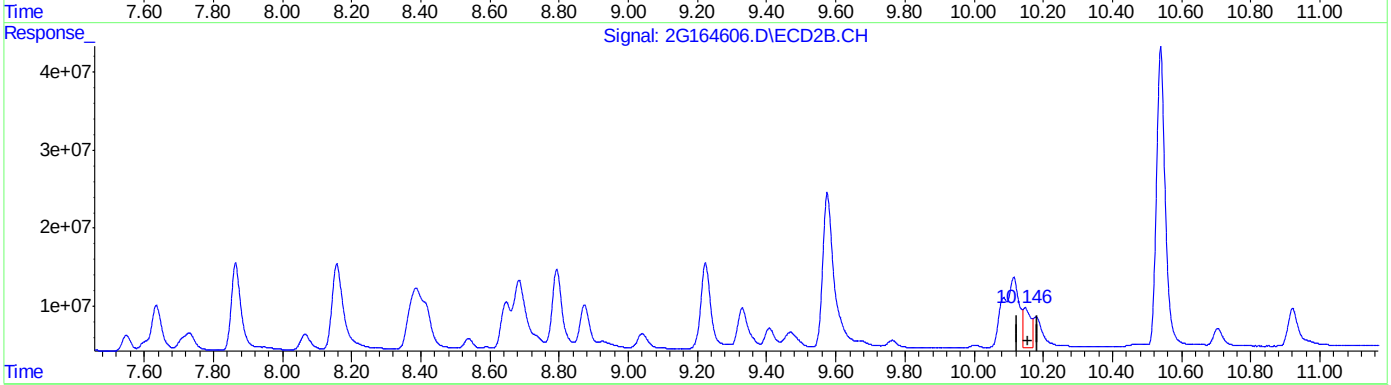
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.479min 48.456PPB
response 18354663

(40) AR1260-E #2
10.147min 39.360PPB
response 80222120

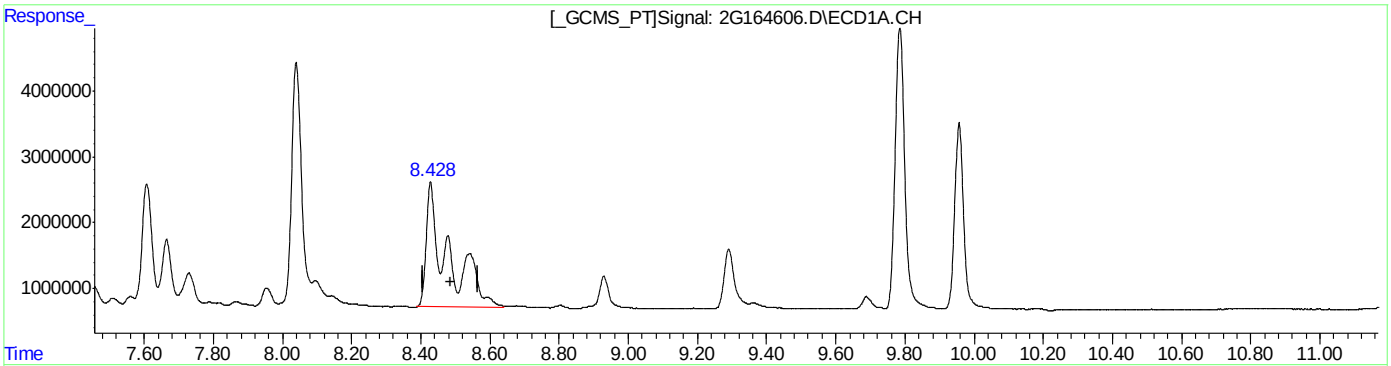
(+) = Expected Retention Time
2PCB4311.M Thu May 31 09:35:46 2018 RPT1

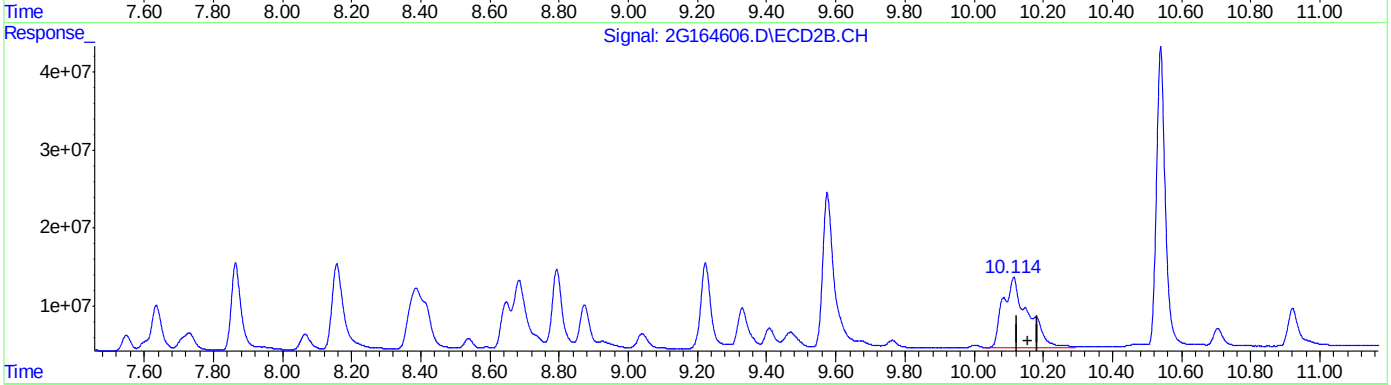
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.428min 213.610PPB m
response 80912999

(40) AR1260-E #2
10.114min 224.975PPB m
response 458538586

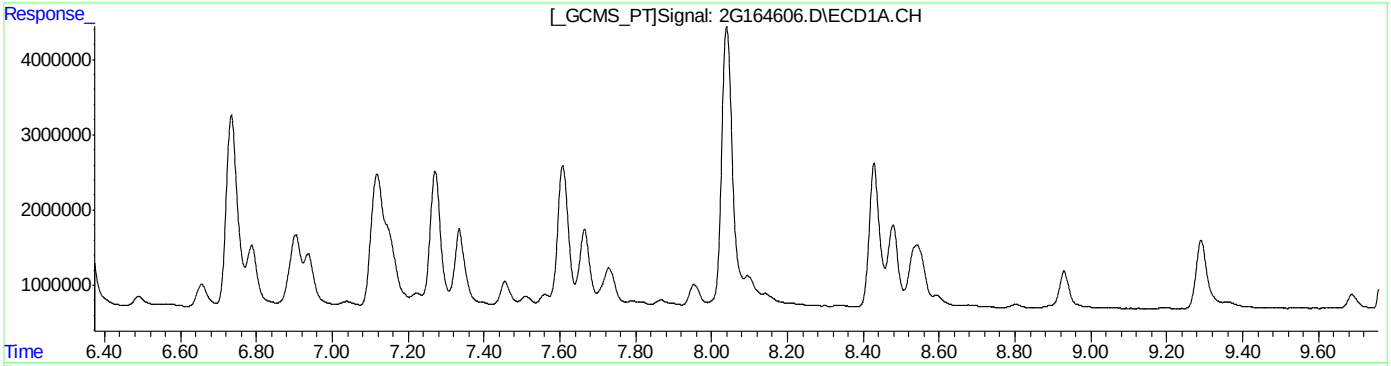
(+) = Expected Retention Time

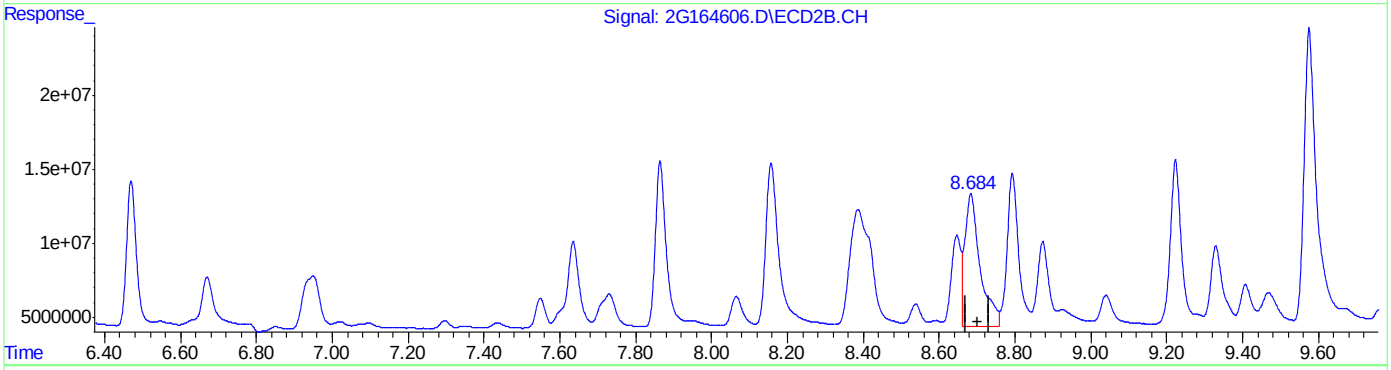
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
0.000min 0.000PPB
response 0

(36) AR1260-A #2
8.684min 125.911PPB
response 251783387

(+) = Expected Retention Time

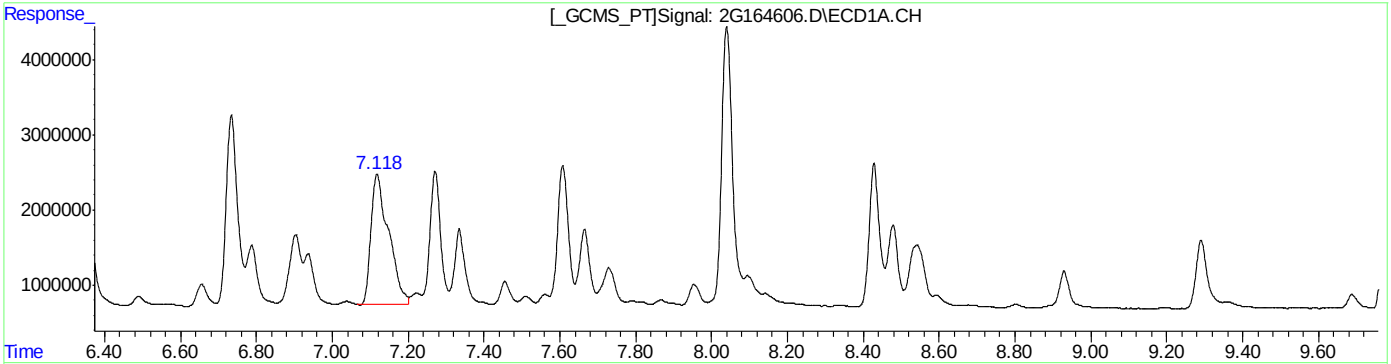
2PCB4311.M Thu May 31 09:36:39 2018 RPT1

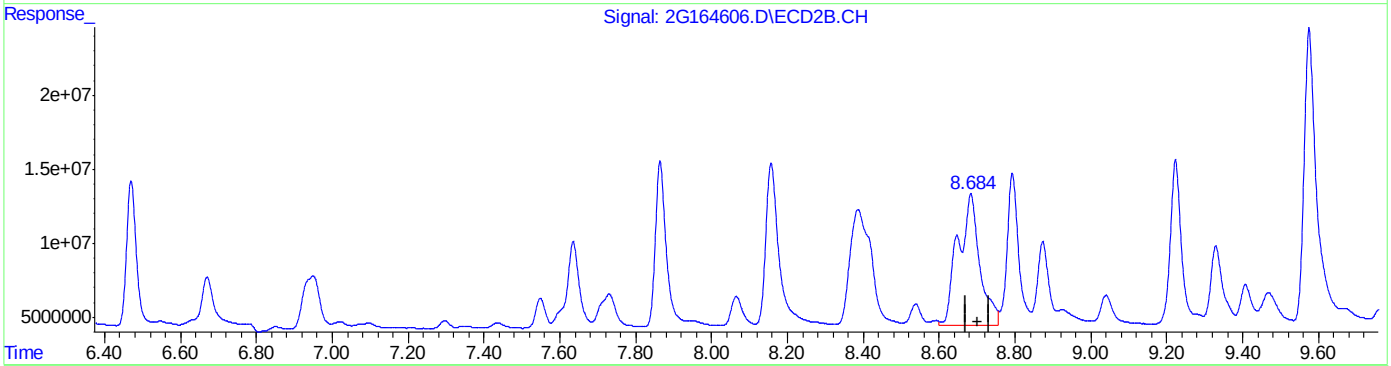
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164606.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 10:54 pm
Operator : christp
Sample : op12371-bs1
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:31:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 08:18:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.118min 164.676PPB m
response 56129767

(36) AR1260-A #2
8.684min 177.316PPB m
response 354577493

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56763.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 01:13:51
Operator : christp
Sample : op12372-ms
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 69 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:14:57 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	Internal Standards							
1) I	1-bromo-2...	1.951	2.149	410.2E6	287.7E6	50.000	50.000	
27) I	1-bromo-2...	1.951	2.149	410.2E6	287.7E6	50.000	50.000	
33) I	1-bromo-2...	1.951	2.149	410.2E6	287.7E6	50.000	50.000	
	System Monitoring Compounds							
2)	SAB Tetrachlo...	2.532	2.929	239.8E6	179.7E6	30.070	33.534	
	Spiked Amount 40.000 Range 30 - 150 Recovery = 75.17% 83.83%							
26)	SA Decachlor...	9.805	11.702	156.7E6	114.9E6	19.285	21.504	
	Spiked Amount 40.000 Recovery = 48.21% 53.76%							
	Target Compounds							
3)	hexachlor...	2.857	3.408	167.5E6	173.8E6	18.821	25.868	#
4) A	alpha-BHC	2.993	3.554	253.3E6	176.5E6	23.064	24.748	
5) MA	gamma-BHC	3.282	3.960	256.5E6	165.3E6	24.663	24.713	
6) MA	Heptachlor	3.766	4.512	218.3E6	153.5E6	22.215	22.564	
7) B	beta-BHC	3.355	4.043	114.6E6	77216704	24.659	25.141	
8) B	delta-BHC	3.537	4.421	148.0E6	106.8E6	16.145	17.209	
9) MB	Aldrin	4.095	4.945	188.3E6	129.8E6	19.720	21.684	
10)	alachlor	4.232	4.765	27544782	19523889	23.920	24.613	
11) B	Heptachlo...	4.796	5.741	207.5E6	150.3E6	23.510	25.961	
12) B	gamma-Chl...	4.957	6.018	196.3E6	161.3E6	22.572	28.440	#
13) B	alpha-Chl...	5.127	6.238	215.0E6	140.0E6	24.145	25.348	
14) A	Endosulfan I	5.302	6.329	191.3E6	133.0E6	23.048	25.213	
15) B	4,4'-DDE	5.238	6.501	183.7E6	132.9E6	21.664	24.774	
16) MA	Dieldrin	5.621	6.754	213.9E6	151.1E6	23.799	26.690	
17) MA	Endrin	5.941	7.246	204.5E6	146.3E6	25.132	26.323	
18) A	4,4'-DDD	6.064	7.433	159.7E6	115.7E6	22.744	25.041	
19) B	Endosulfa...	6.257	7.592	235.4E6	165.9E6	27.268	29.494	
20) MA	4,4'-DDT	6.479	7.959	148.4E6	104.0E6	22.047	23.330	
21) B	Endrin Al...	6.880	8.155	164.8E6	107.5E6	24.114	25.169	
22) B	Endosulfa...	7.559	8.619	139.1E6	98579859	20.554	23.040	
23) A	Methoxychlor	7.261	9.190	91541669	60614896	22.788	23.926	
25) B	Endrin Ke...	7.997	9.564	194.2E6	135.9E6	24.117	23.972	
	Sum Toxaphene			0	0	N.D.	N.D.	
	Average Toxaphene					0.000	0.000	

SemiQuant Compounds - Not Calibrated on this Instrument

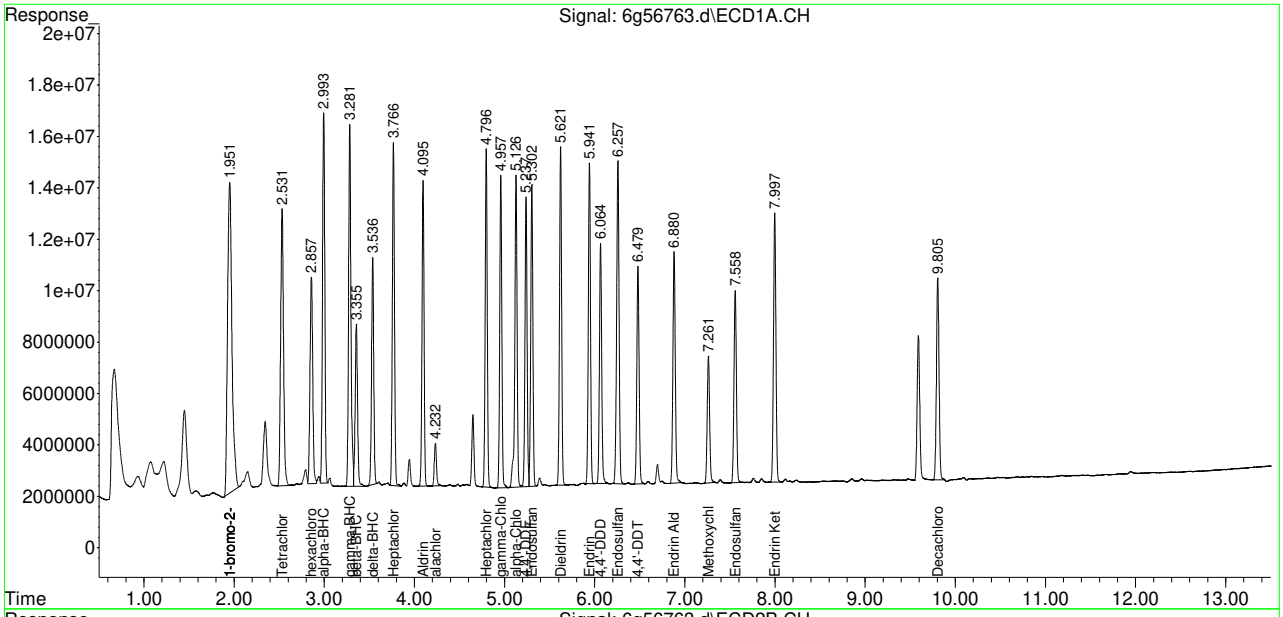
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

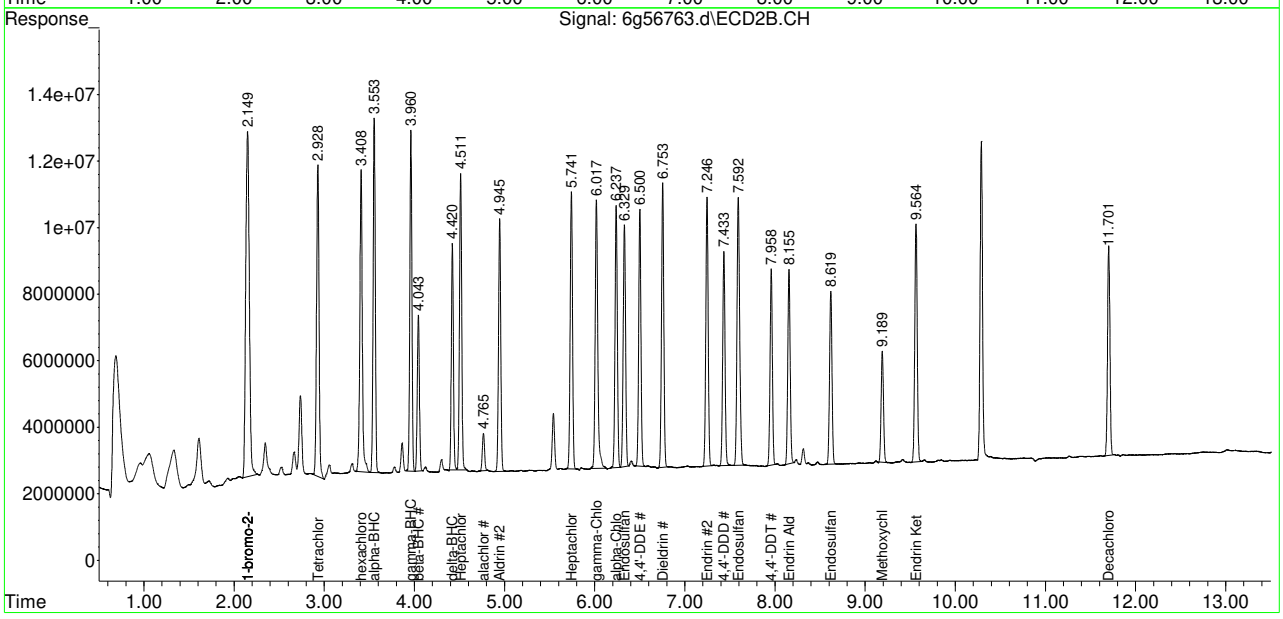
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56763.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 01:13:51
Operator : christp
Sample : op12372-ms
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 69 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:14:57 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/31/18 09:35

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56764.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 01:31:41
Operator : christp
Sample : op12372-msd
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 70 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:16:31 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	Internal Standards							
1) I	1-bromo-2...	1.950	2.148	416.3E6	290.0E6	50.000	50.000	
27) I	1-bromo-2...	1.950	2.148	416.3E6	290.0E6	50.000	50.000	
33) I	1-bromo-2...	1.950	2.148	416.3E6	290.0E6	50.000	50.000	
	System Monitoring Compounds							
2)	SAB Tetrachlo...	2.531	2.927	241.6E6	179.0E6	29.850	33.138	
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 74.63%	82.84%	
26)	SA Decachlor...	9.805	11.702	170.4E6	124.2E6	20.665m	23.058	
	Spiked Amount	40.000			Recovery	= 51.66%	57.65%	
	Target Compounds							
3)	hexachlor...	2.856	3.408	175.2E6	178.7E6	19.394	26.385	#
4) A	alpha-BHC	2.992	3.554	257.5E6	179.5E6	23.110	24.971	
5) MA	gamma-BHC	3.281	3.960	259.9E6	167.9E6	24.629	24.906	
6) MA	Heptachlor	3.766	4.511	220.8E6	157.5E6	22.145	22.965	
7) B	beta-BHC	3.355	4.043	114.2E6	77148992	24.218	24.919	
8) B	delta-BHC	3.536	4.421	148.8E6	109.0E6	15.988	17.416	
9) MB	Aldrin	4.094	4.944	192.8E6	133.1E6	19.897	22.044	
10)	alachlor	4.231	4.764	27562102	19490930	23.586	24.375	
11) B	Heptachlo...	4.796	5.741	209.4E6	150.4E6	23.377	25.764	
12) B	gamma-Chl...	4.957	6.018	196.4E6	162.1E6	22.253	28.342	#
13) B	alpha-Chl...	5.126	6.238	214.4E6	140.1E6	23.722	25.161	
14) A	Endosulfan I	5.302	6.328	190.9E6	133.1E6	22.666	25.029	
15) B	4,4'-DDE	5.238	6.500	185.4E6	132.8E6	21.548	24.570	
16) MA	Dieldrin	5.620	6.754	213.8E6	150.2E6	23.438	26.321	
17) MA	Endrin	5.941	7.246	208.1E6	145.2E6	25.208	25.920	
18) A	4,4'-DDD	6.064	7.433	159.2E6	115.6E6	22.339	24.834	
19) B	Endosulfa...	6.257	7.592	231.6E6	163.8E6	26.446	28.887	
20) MA	4,4'-DDT	6.479	7.959	150.4E6	104.9E6	22.012	23.343	
21) B	Endrin Al...	6.880	8.156	167.0E6	107.9E6	24.073	25.062	
22) B	Endosulfa...	7.558	8.620	141.2E6	98965787	20.559	22.946	
23) A	Methoxychlor	7.261	9.192	91030601	62612419	22.330	24.518	
25) B	Endrin Ke...	7.997	9.565	195.2E6	135.0E6	23.887	23.621	
	Sum Toxaphene			0	0	N.D.	N.D.	
	Average Toxaphene					0.000	0.000	

SemiQuant Compounds - Not Calibrated on this Instrument

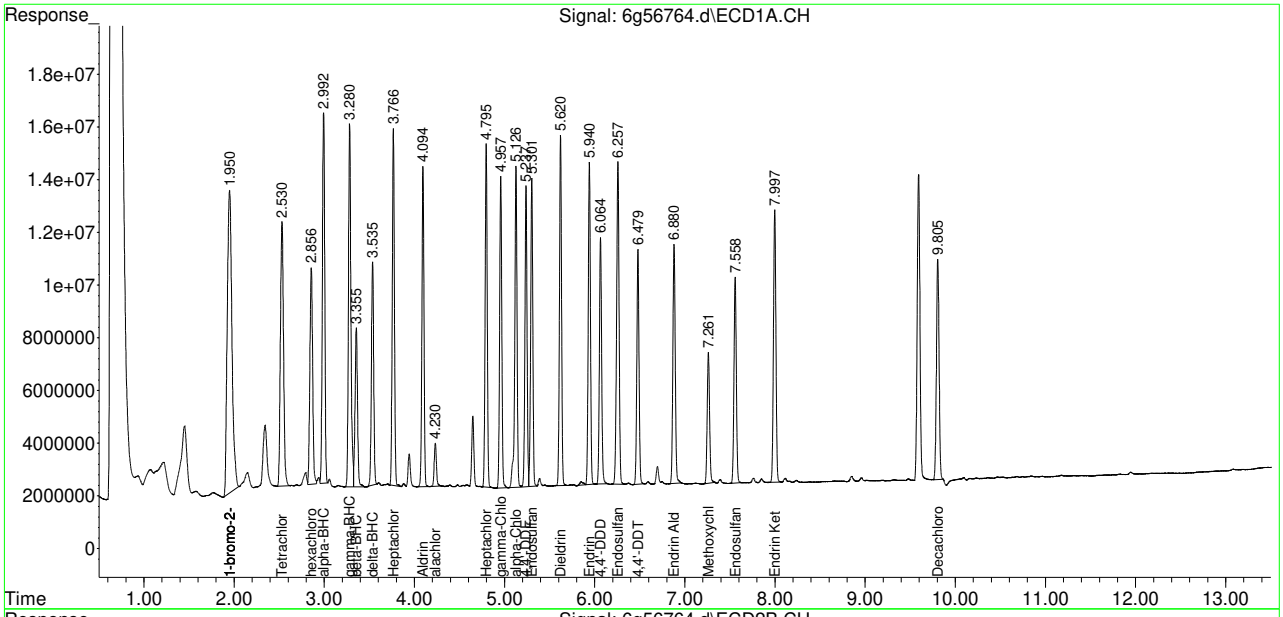
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

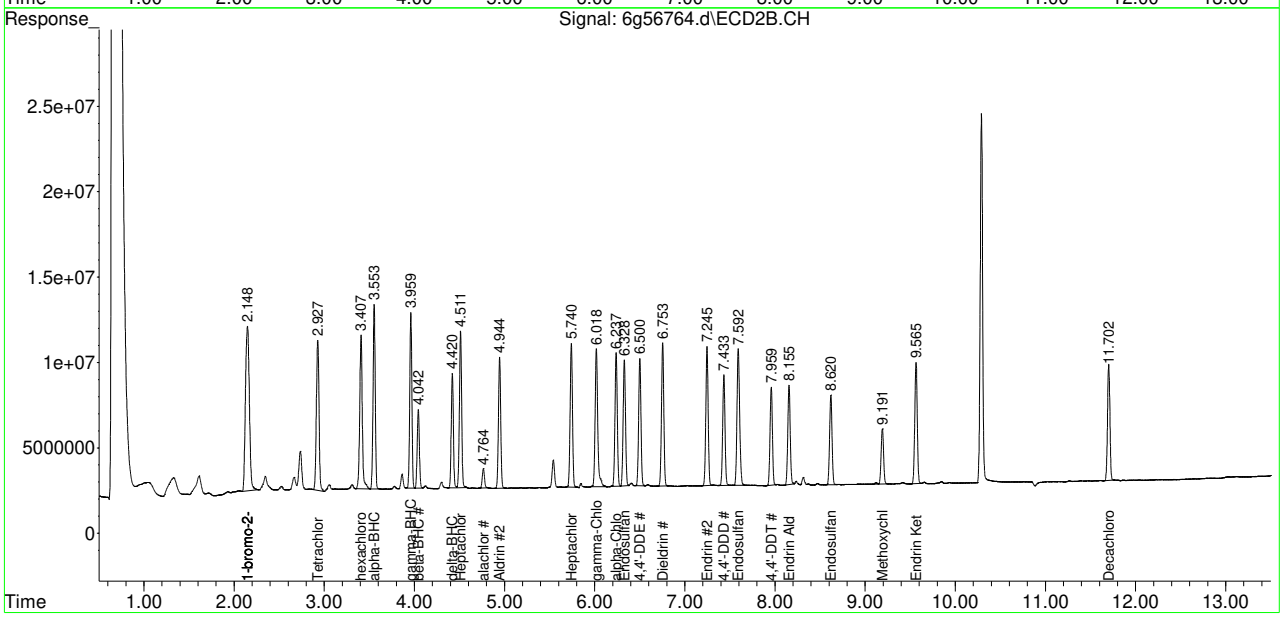
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56764.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 01:31:41
Operator : christp
Sample : op12372-msd
Misc : OP12372,g6g1694,300,,,2,1
ALS Vial : 70 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:16:31 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	OP12372-MSD	**Method:**	SW846 8081B
Lab FileID:	6G56764.D	**Analyst approved:**	05/31/18 09:28 Dharmistha Mehta
Injection Time:	05/31/18 01:31	**Supervisor approved:**	05/31/18 09:35 Gwendolyn Burns

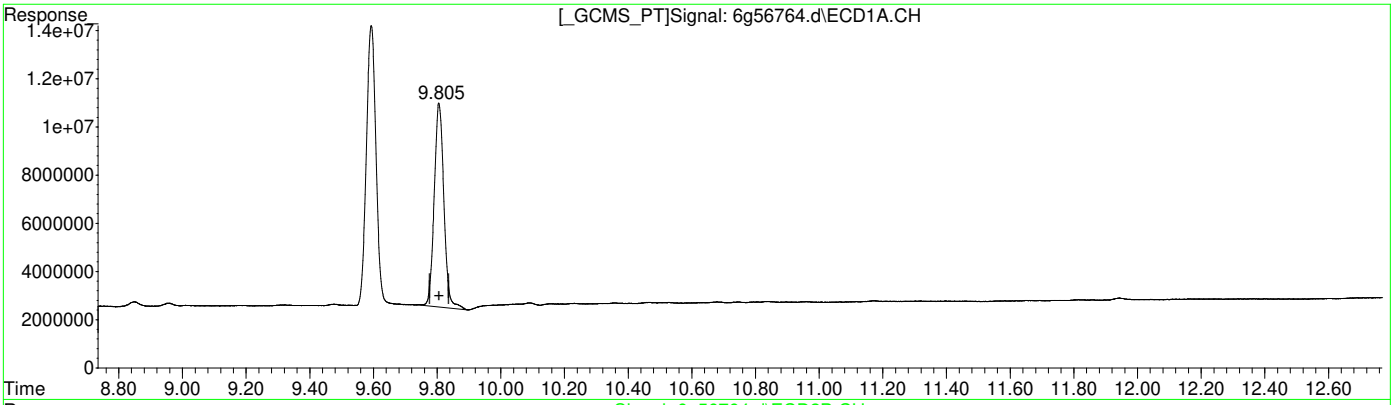
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.80	Poorly defined baseline

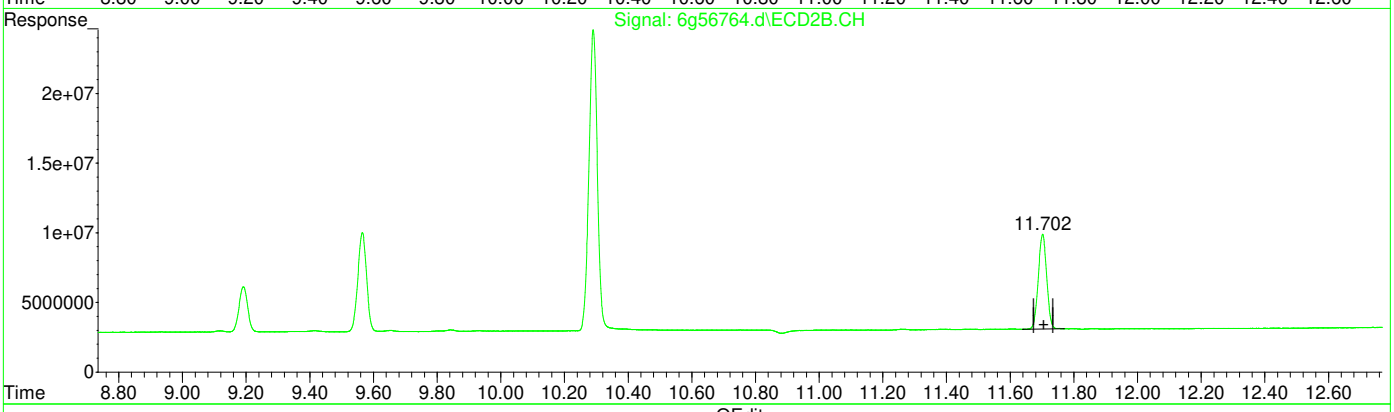
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56764.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 31-May-18, 01:31:41
Operator  : christp
Sample    : op12372-msd
Misc      : OP12372,g6g1694,300,,,2,1
ALS Vial  : 70 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:15:47 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





(26) Decachlorobiphenyl (SA)

9.806min 21.651 PPB

response 178574282

(26) Decachlorobiphenyl #2 (SA)

11.702min 23.058 PPB

response 124225131

(+) = Expected Retention Time

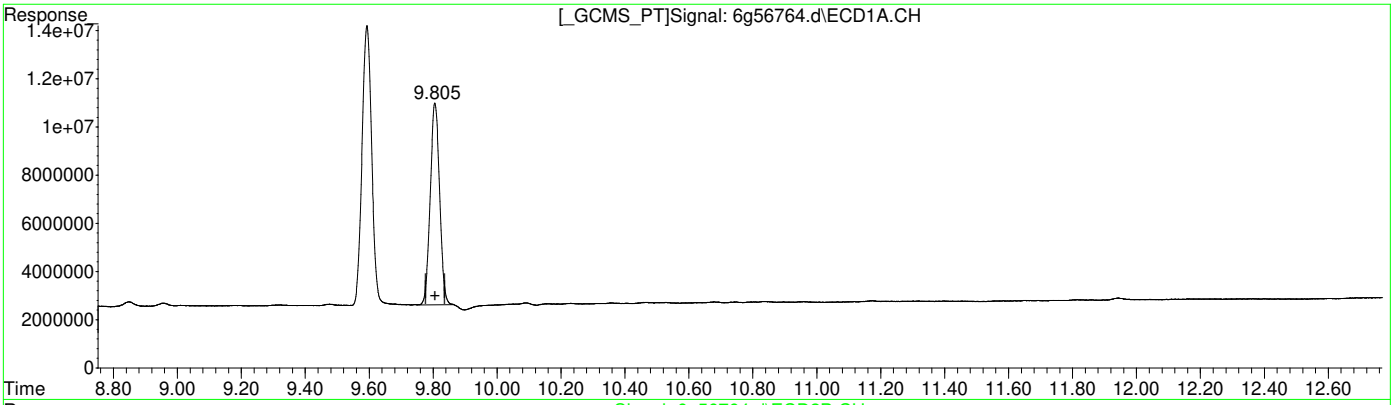
6PST1671.M Thu May 31 09:16:06 2018

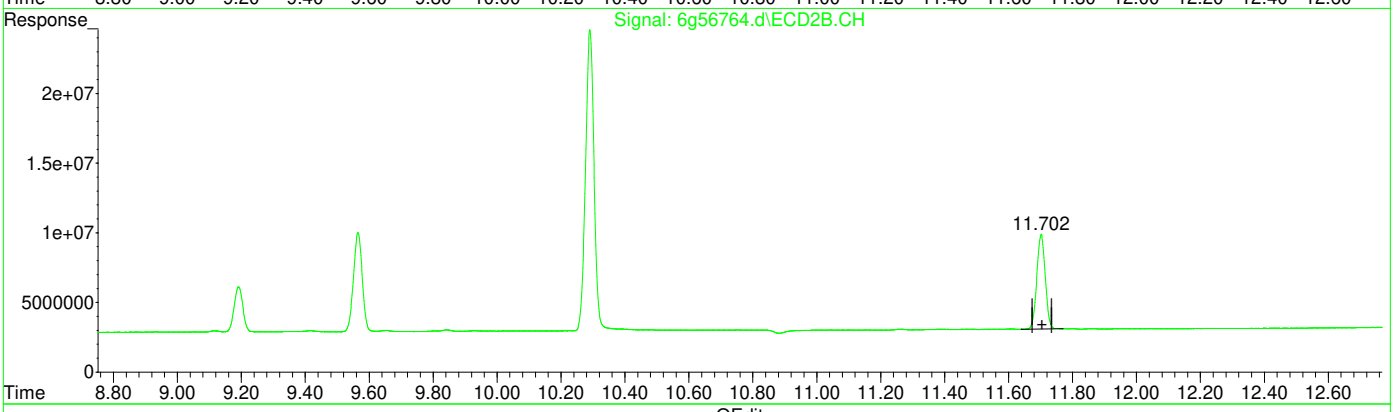
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56764.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 31-May-18, 01:31:41
Operator  : christp
Sample    : op12372-msd
Misc      : OP12372,g6g1694,300,,,2,1
ALS Vial  : 70 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:15:47 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





(26) Decachlorobiphenyl (SA)

9.805min 20.665 PPB m

response 170441663

(26) Decachlorobiphenyl #2 (SA)

11.702min 23.058 PPB

response 124225131

(+) = Expected Retention Time

6PST1671.M Thu May 31 09:16:17 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/31/18 12:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164608.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:28 pm
Operator : christp
Sample : op12371-ms
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:42:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
1)	S Tetrachlo...	2.770	3.420	223.5E6	1407.8E6	60.880	61.525	
	Spiked Amount 40.000			Recovery	=	152.20%	153.81%	
51)	S Decachlor...	9.952f	11.760	147.5E6	771.9E6	36.371	40.414	
	Spiked Amount 40.000			Recovery	=	90.93%	101.04%	
	Target Compounds							
31)	AR1016-A	3.144	4.062f	40365257	256.5E6	518.215	684.628	#
32)	AR1016-B	3.537	4.631f	49839144	420.8E6	366.309	525.287	#
33)	AR1016-C	4.085	5.263	91393693	557.1E6	315.189	321.343	
34)	AR1016-D	4.246	5.446	41566144	280.7E6	351.557	373.160	
35)	AR1016-E	4.753	6.085	41579869	168.0E6	341.002	327.509	
36)	AR1260-A	7.112f	8.680	85356049	521.5E6	250.421m	260.789m	
37)	AR1260-B	7.268	8.792	48778779	297.5E6	337.701	340.267	
38)	AR1260-C	7.604	9.222	52173928	321.1E6	327.665	314.198	
39)	AR1260-D	8.035f	9.573f	106.4E6	664.1E6	289.876m	309.402	
40)	AR1260-E	8.425f	10.111f	115.2E6	618.1E6	304.202m	303.276m	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

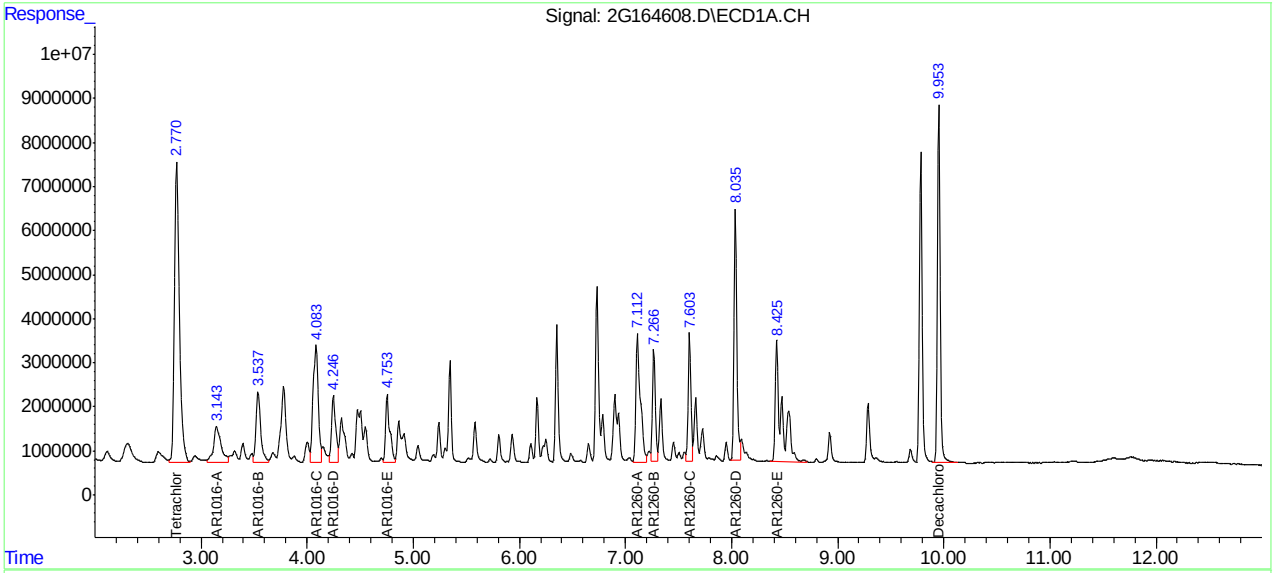
11.4.3 11

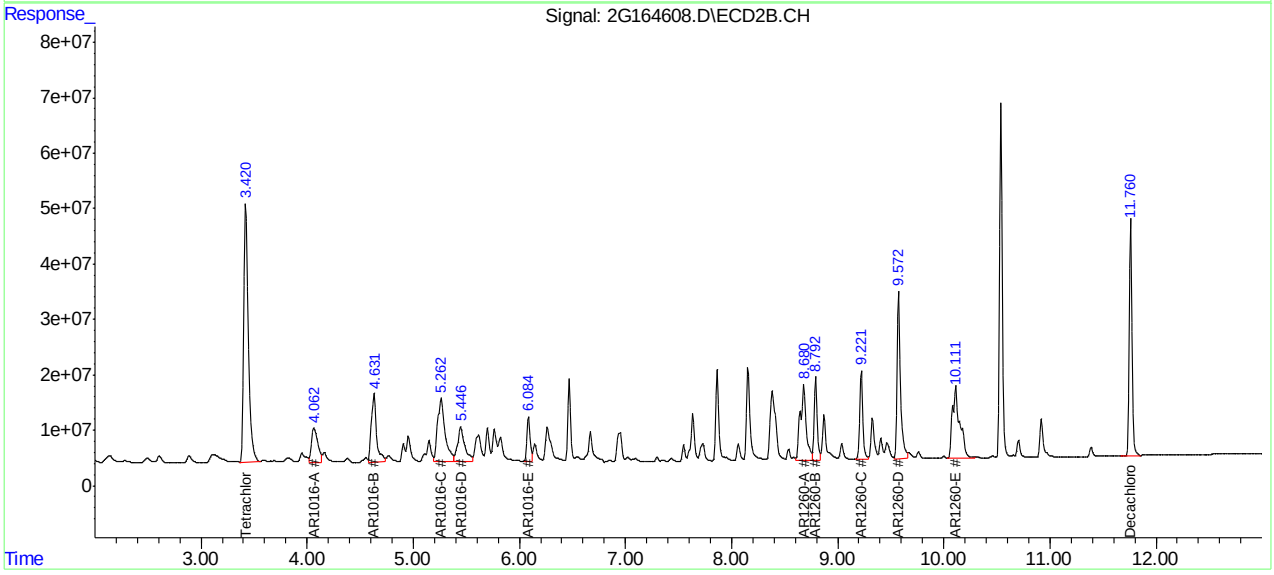
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164608.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:28 pm
Operator : christp
Sample : op12371-ms
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:42:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	OP12371-MS	**Method:**	SW846 8082A
Lab FileID:	2G164608.D	**Analyst approved:**	05/31/18 12:03 Tianwei Ruan
Injection Time:	05/30/18 23:28	**Supervisor approved:**	05/31/18 12:18 Gwendolyn Burns

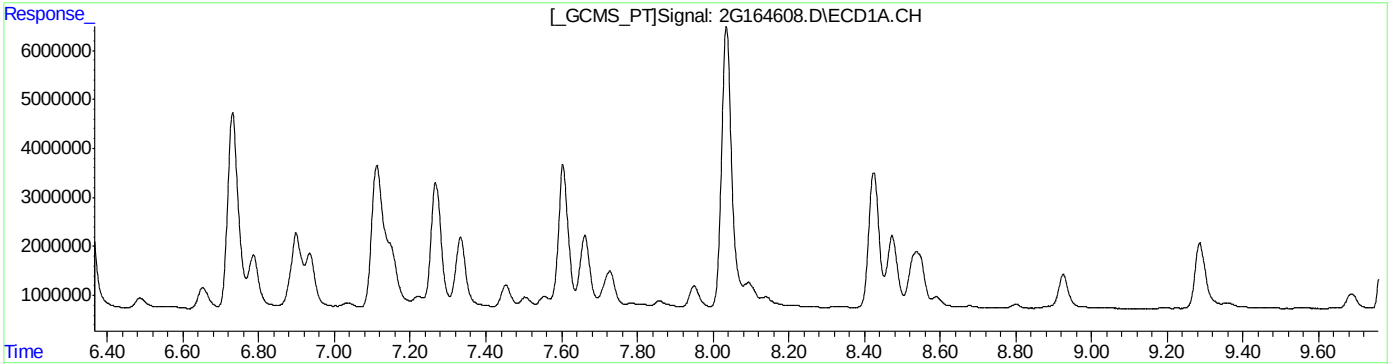
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-A		1	7.11	Split peak
AR1260-D		1	8.03	Split peak
AR1260-E		1	8.43	Split peak
AR1260-A		2	8.68	Split peak
AR1260-E		2	10.11	Split peak

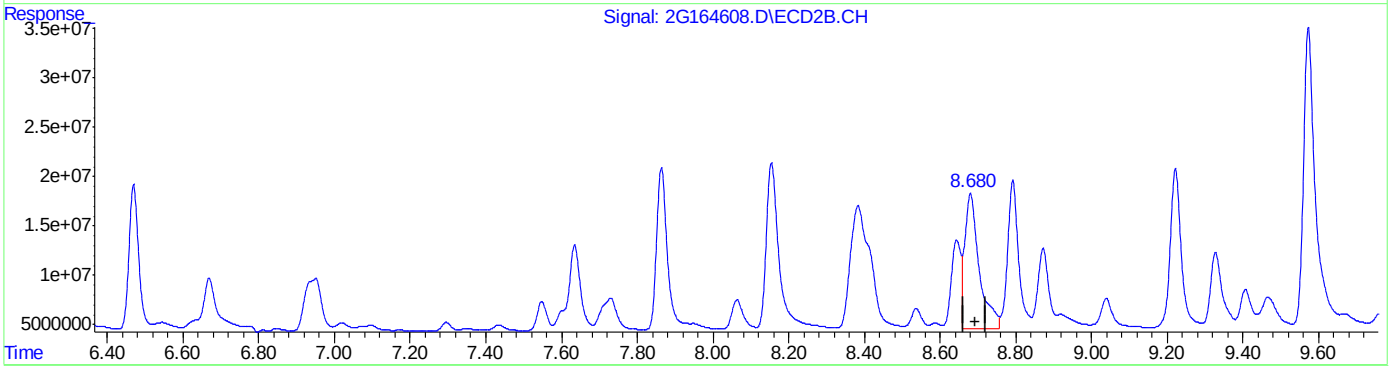
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164608.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:28 pm
Operator : christp
Sample : op12371-ms
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:38:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
0.000min 0.000PPB
response 0

(36) AR1260-A #2
8.680min 183.721PPB
response 367385466

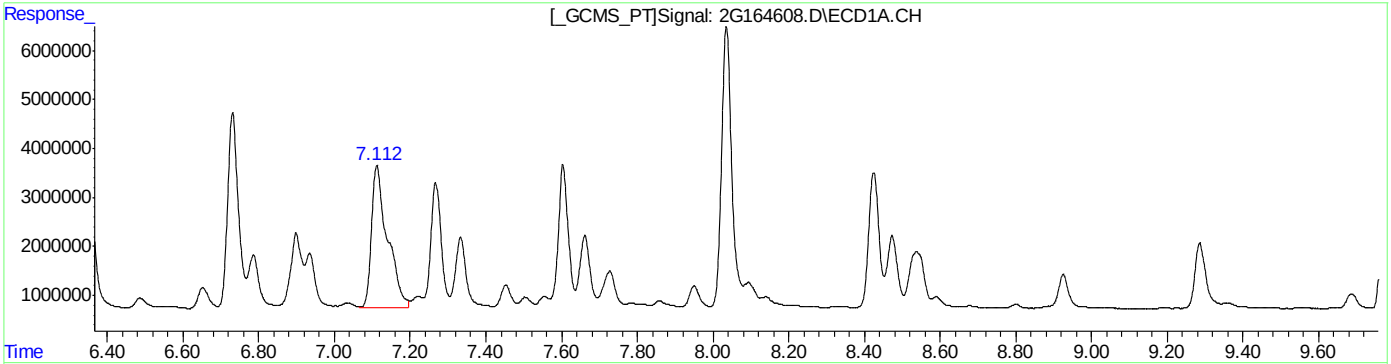
(+) = Expected Retention Time

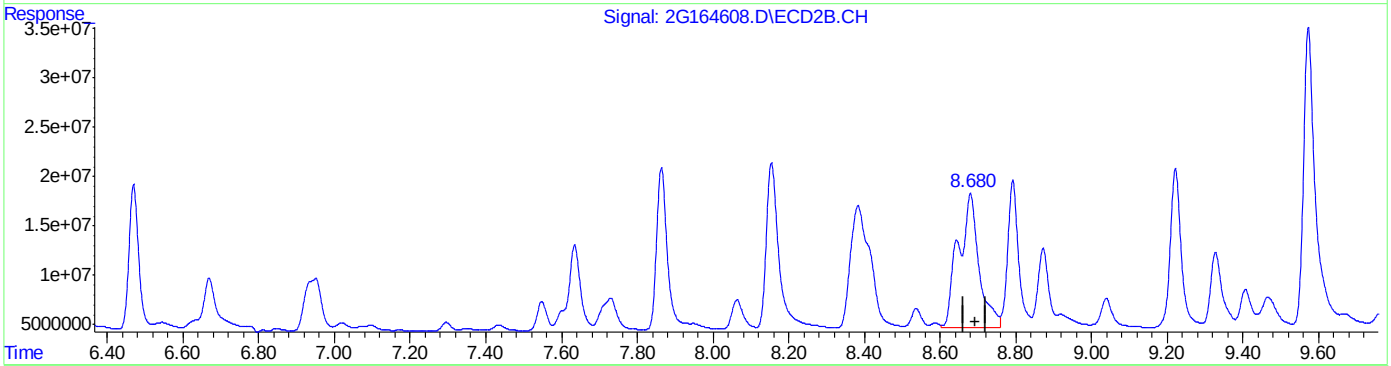
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164608.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:28 pm
Operator : christp
Sample : op12371-ms
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:38:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.112min 250.421PPB m
response 85356049

(36) AR1260-A #2
8.680min 260.789PPB m
response 521498148

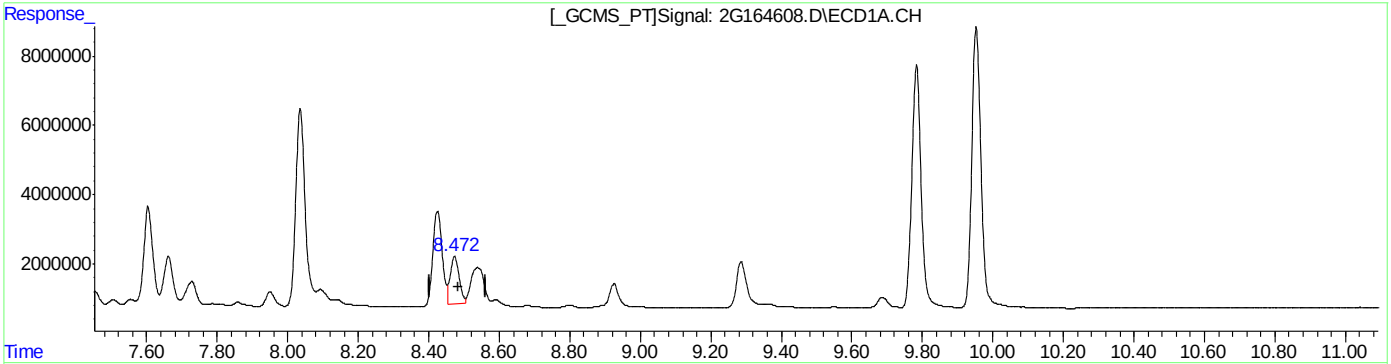
(+) = Expected Retention Time

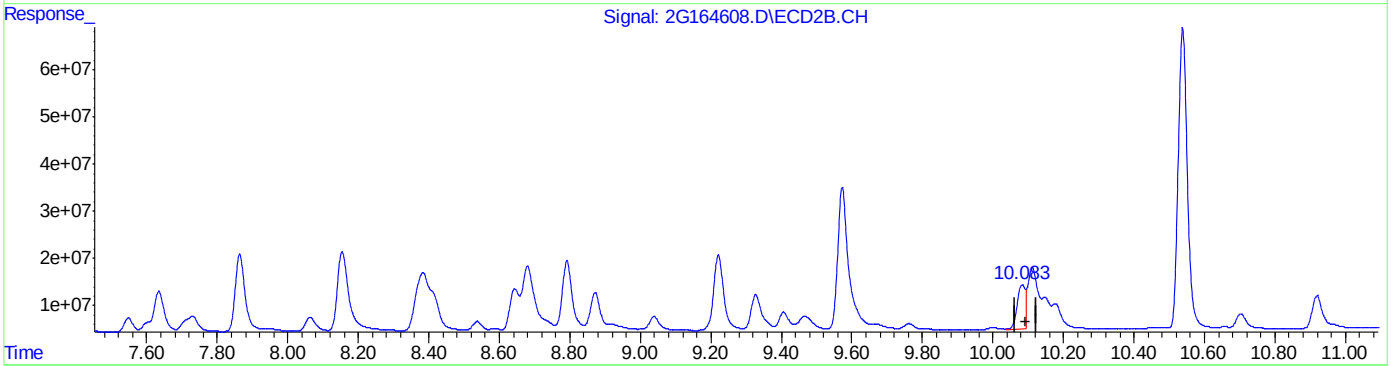
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164608.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:28 pm
Operator : christp
Sample : op12371-ms
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:38:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.473min 64.938PPB
response 24597761

(40) AR1260-E #2
10.083min 71.137PPB
response 144989765

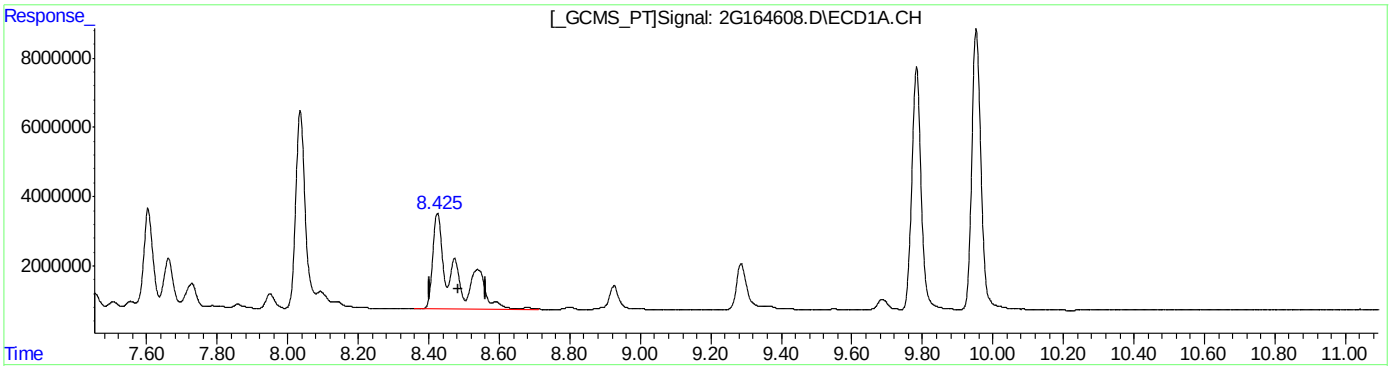
(+) = Expected Retention Time

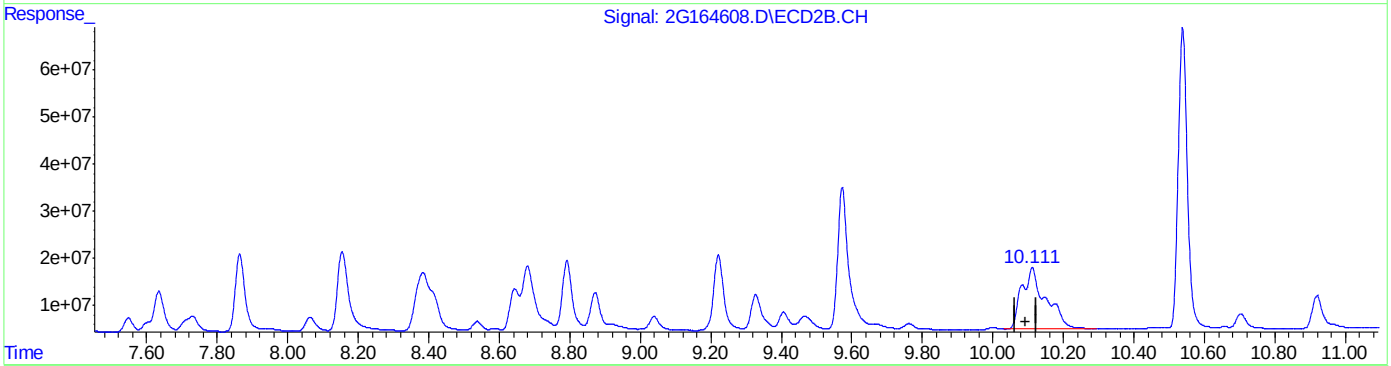
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164608.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:28 pm
Operator : christp
Sample : op12371-ms
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:38:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.425min 304.202PPB m
response 115228073

(40) AR1260-E #2
10.111min 303.276PPB m
response 618129409

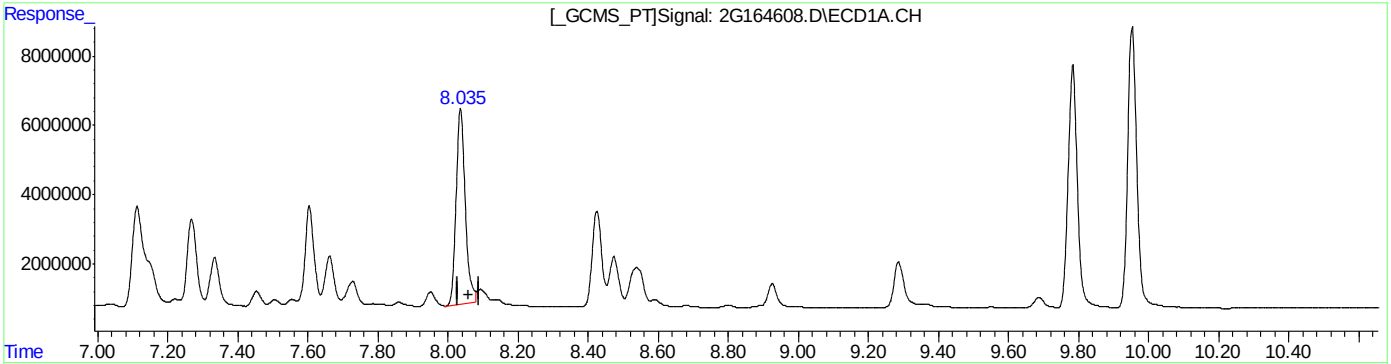
(+) = Expected Retention Time

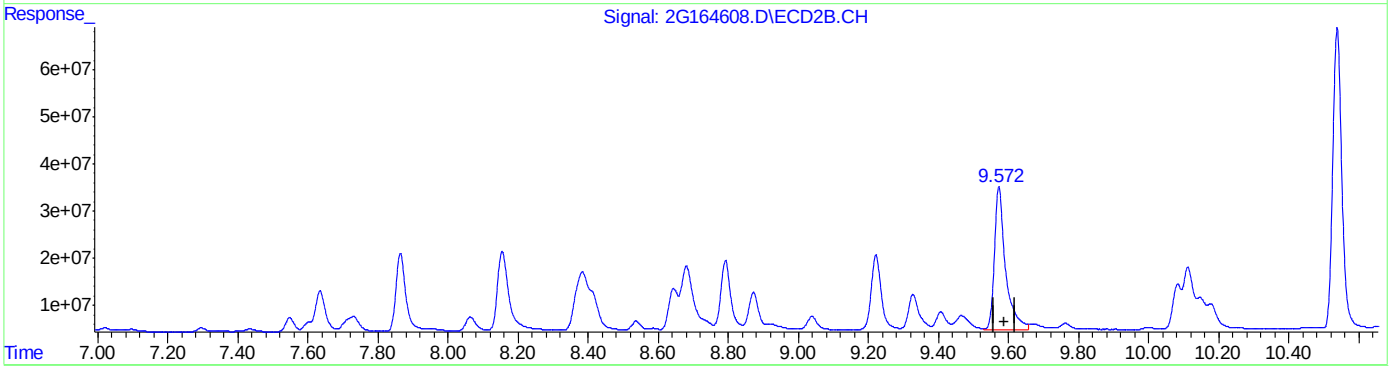
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164608.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:28 pm
Operator : christp
Sample : op12371-ms
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:38:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.035min 280.936PPB
response 103144479

(39) AR1260-D #2
9.573min 309.402PPB
response 664129934

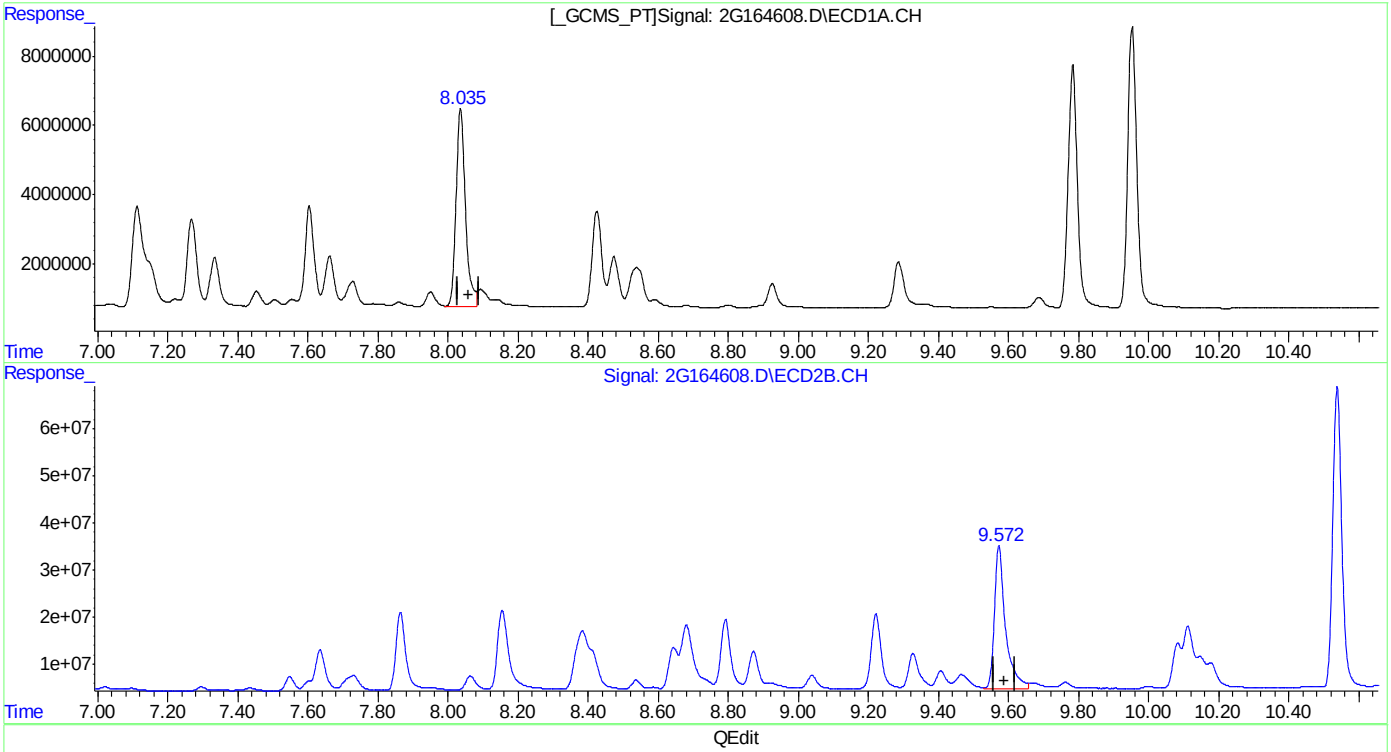
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164608.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:28 pm
Operator : christp
Sample : op12371-ms
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:38:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.035min 289.876PPB m
response 106426840

(39) AR1260-D #2
9.573min 309.402PPB
response 664129934

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/31/18 14:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:48:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.769f	3.420f	121.1E6	735.7E6	33.000	32.150
	Spiked Amount 40.000			Recovery	=	82.50%	80.38%
51) S	Decachlor...	9.955	11.762	79585362	380.1E6	19.623	19.902
	Spiked Amount 40.000			Recovery	=	49.06%	49.76%
	Target Compounds						
31)	AR1016-A	3.167	4.057f	29219745	178.5E6	375.127	476.431m#
32)	AR1016-B	3.538f	4.631	28223700	225.3E6	207.439	281.287 #
33)	AR1016-C	4.085	5.267	50375801	312.0E6	173.731	179.953
34)	AR1016-D	4.246	5.449	24754467	169.5E6	209.368	225.368
35)	AR1016-E	4.751f	6.086	22144446	94603512	181.610m	184.384
36)	AR1260-A	7.114	8.682	44983602	269.0E6	131.975	134.499m
37)	AR1260-B	7.269	8.793	26040468	148.7E6	180.281	170.092
38)	AR1260-C	7.605	9.223	27495508	165.8E6	172.679	162.217
39)	AR1260-D	8.038	9.576	53007845	342.9E6	144.378m	159.757
40)	AR1260-E	8.427	10.115	58767204	330.3E6	155.146m	162.059m

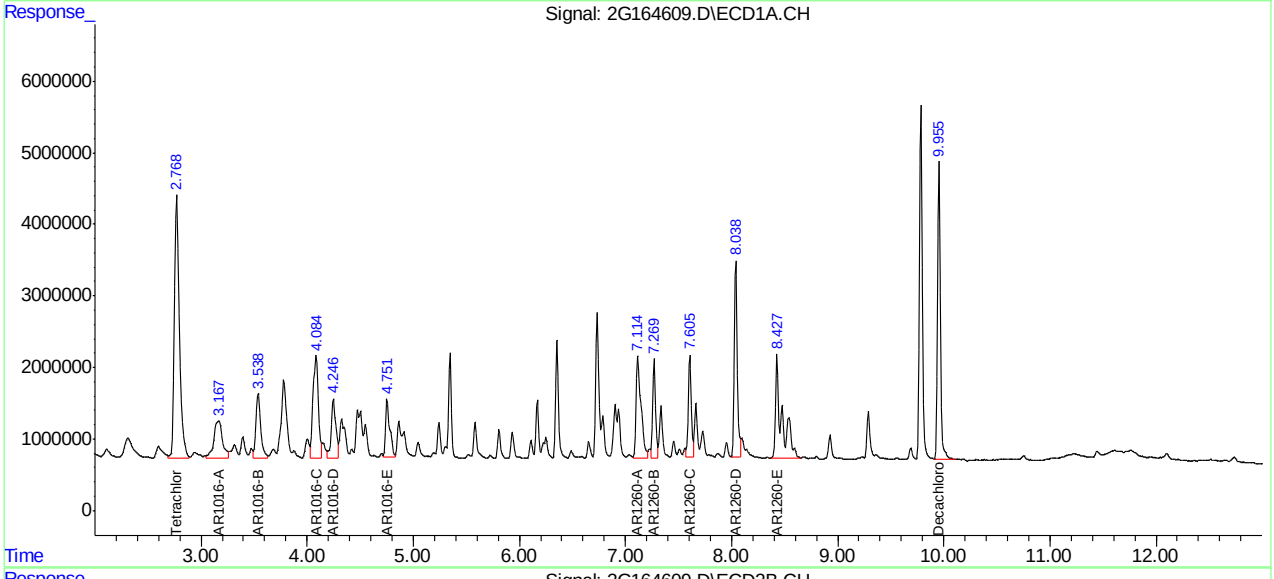
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

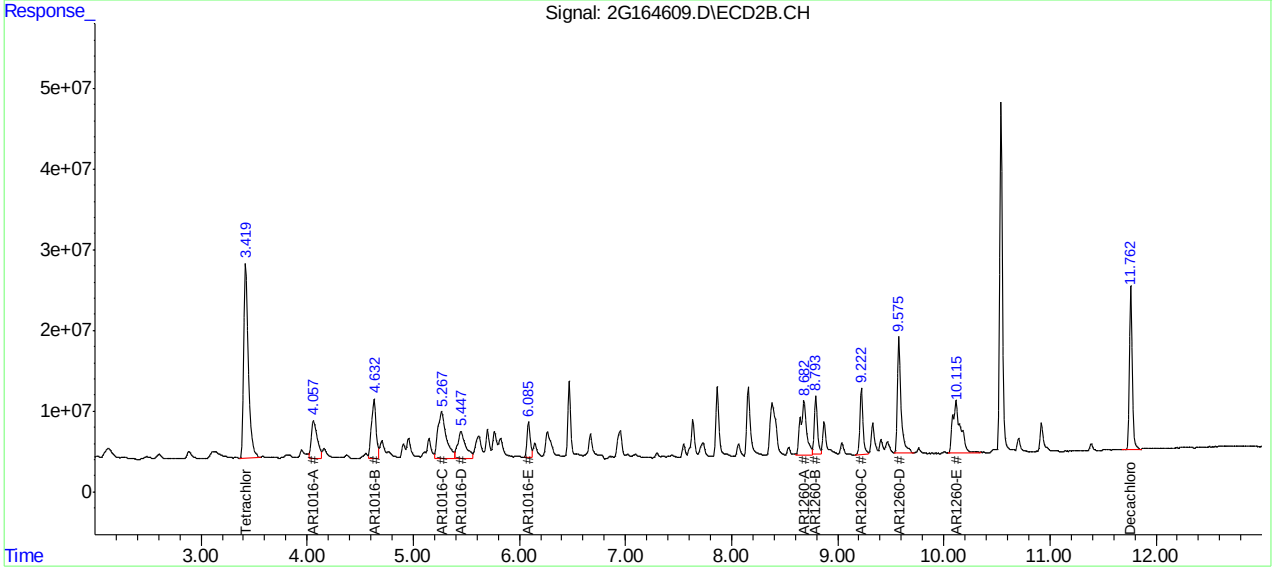
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:48:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	OP12371-MSD	**Method:**	SW846 8082A
Lab FileID:	2G164609.D	**Analyst approved:**	05/31/18 12:03 Tianwei Ruan
Injection Time:	05/30/18 23:45	**Supervisor approved:**	05/31/18 14:43 Gwendolyn Burns

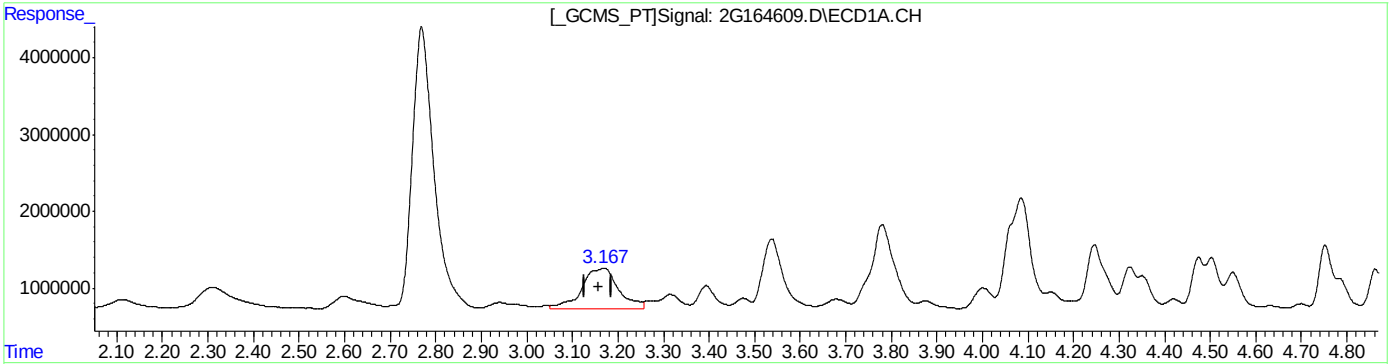
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		2	4.06	Split peak
AR1016-E		1	4.75	Split peak
AR1260-D		1	8.04	Split peak
AR1260-E		1	8.43	Split peak
AR1260-A		2	8.68	Split peak
AR1260-E		2	10.12	Split peak

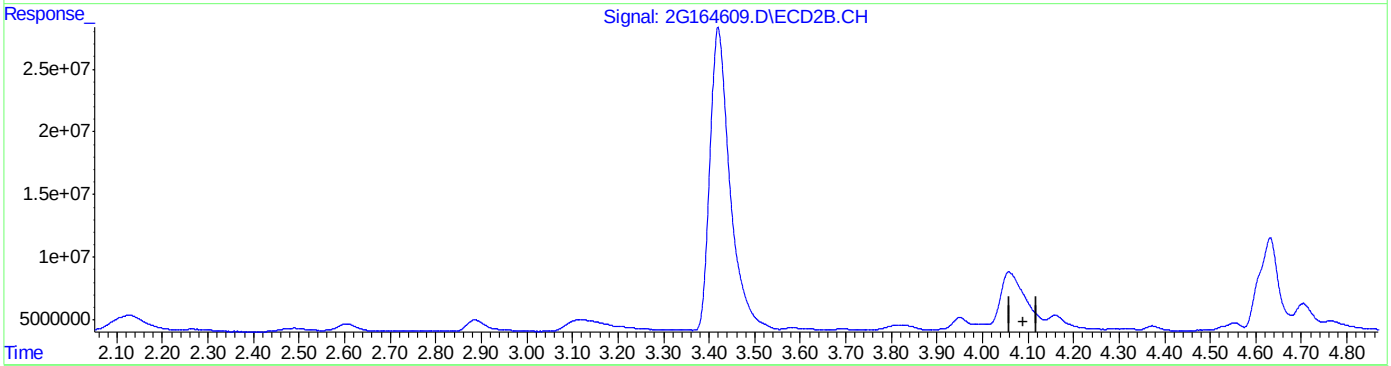
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(31) AR1016-A
3.167min 375.127PPB
response 29219745

(31) AR1016-A #2
0.000min 0.000PPB
response 0

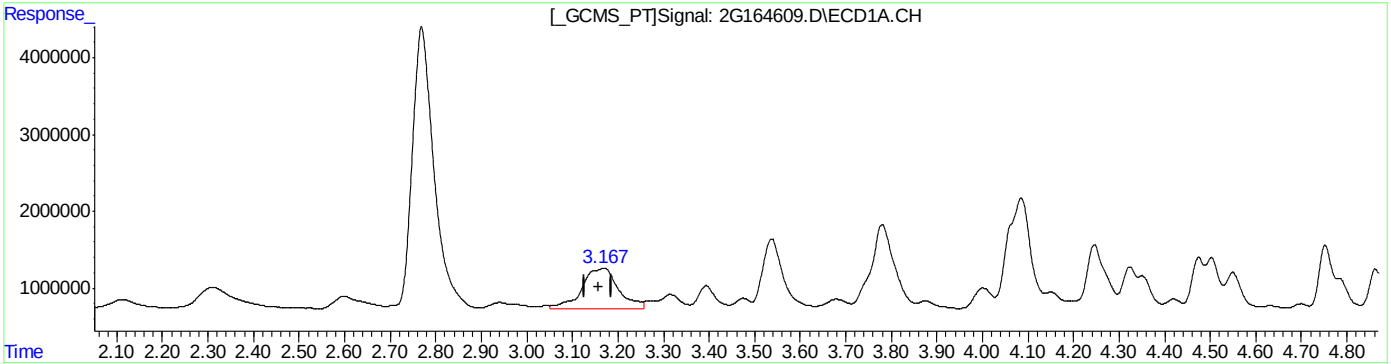
(+) = Expected Retention Time

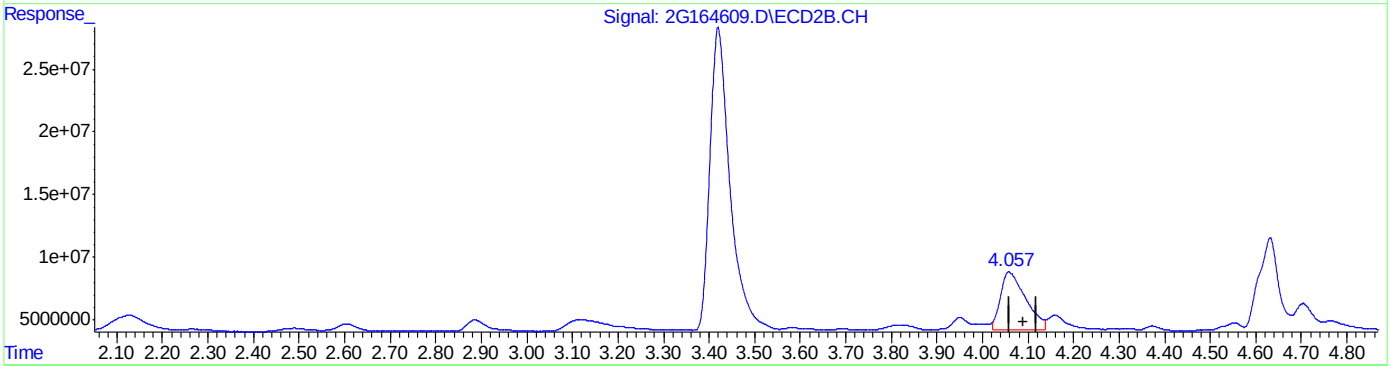
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(31) AR1016-A
3.167min 375.127PPB
response 29219745

(31) AR1016-A #2
4.057min 476.431PPB m
response 178473806

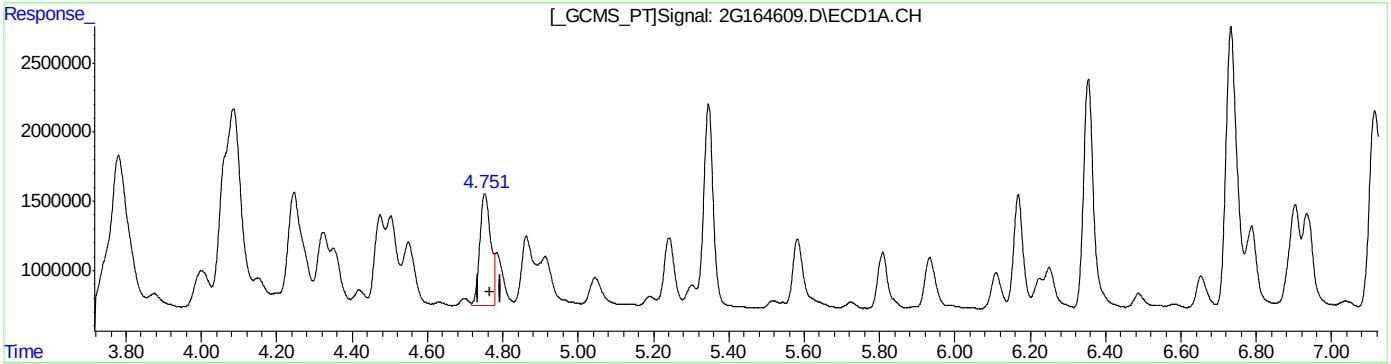
(+) = Expected Retention Time
2PCB4311.M Thu May 31 10:46:23 2018 RPT1

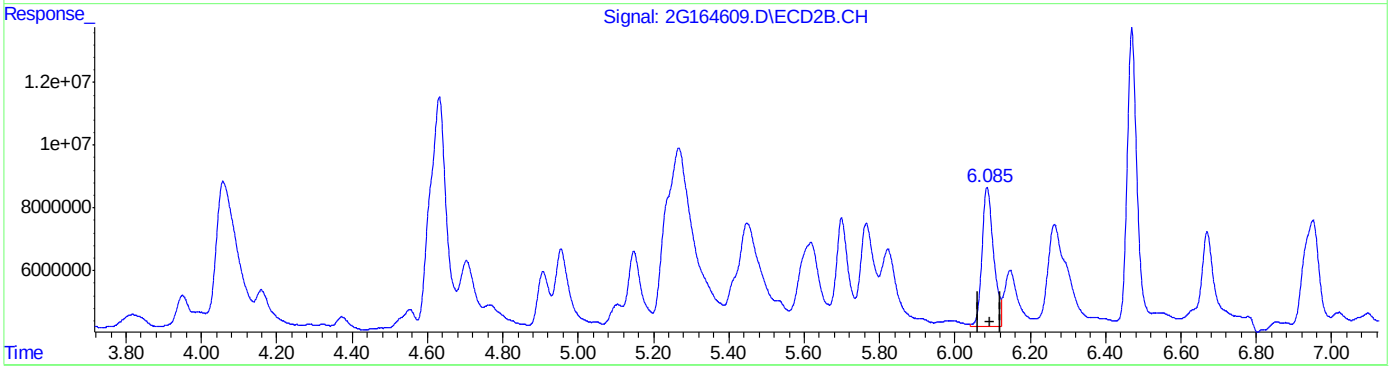
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(35) AR1016-E
4.752min 132.758PPB
response 16187688

(35) AR1016-E #2
6.086min 184.384PPB
response 94603512

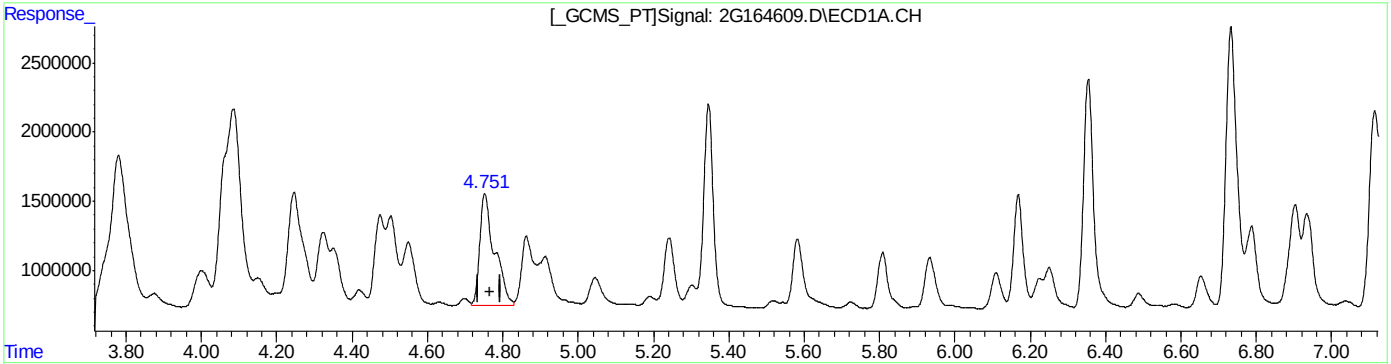
(+) = Expected Retention Time

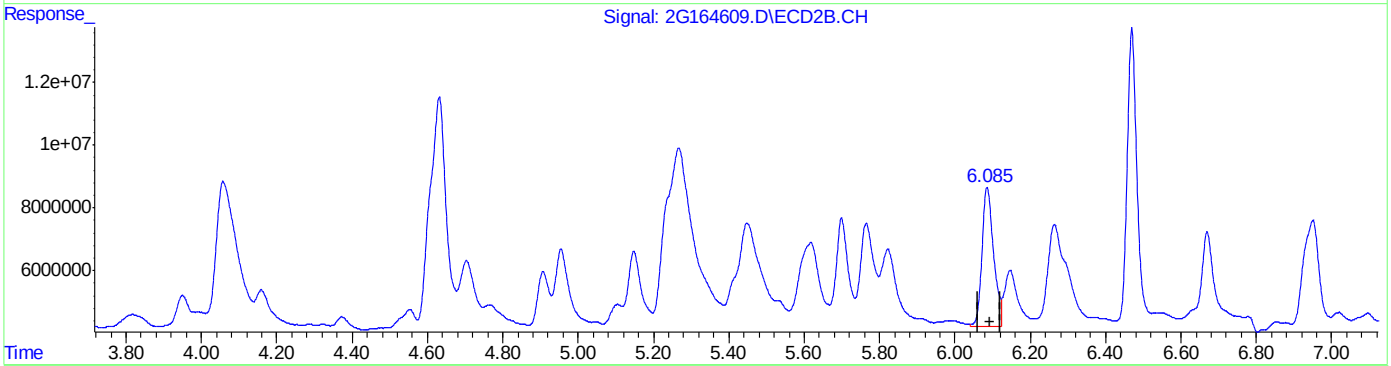
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(35) AR1016-E
4.751min 181.610PPB m
response 22144446

(35) AR1016-E #2
6.086min 184.384PPB
response 94603512

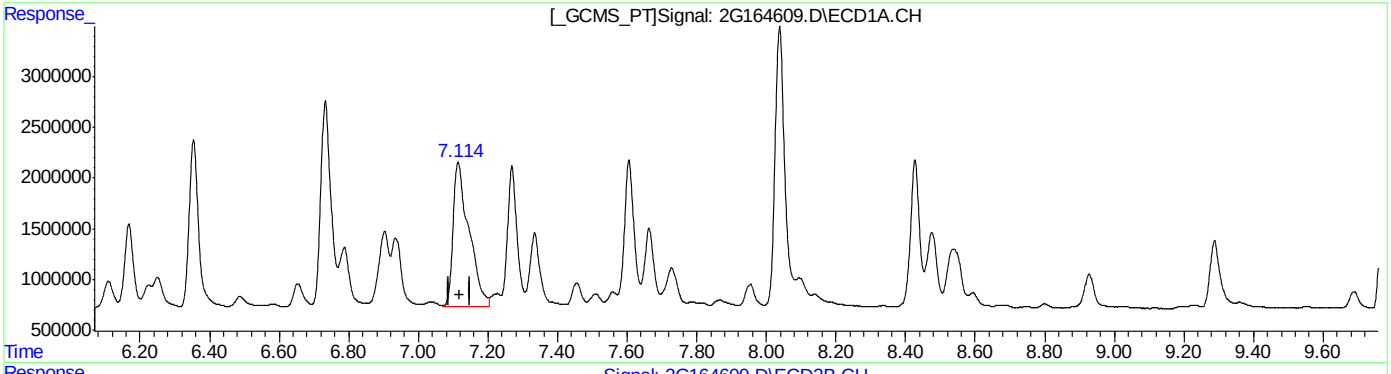
(+) = Expected Retention Time

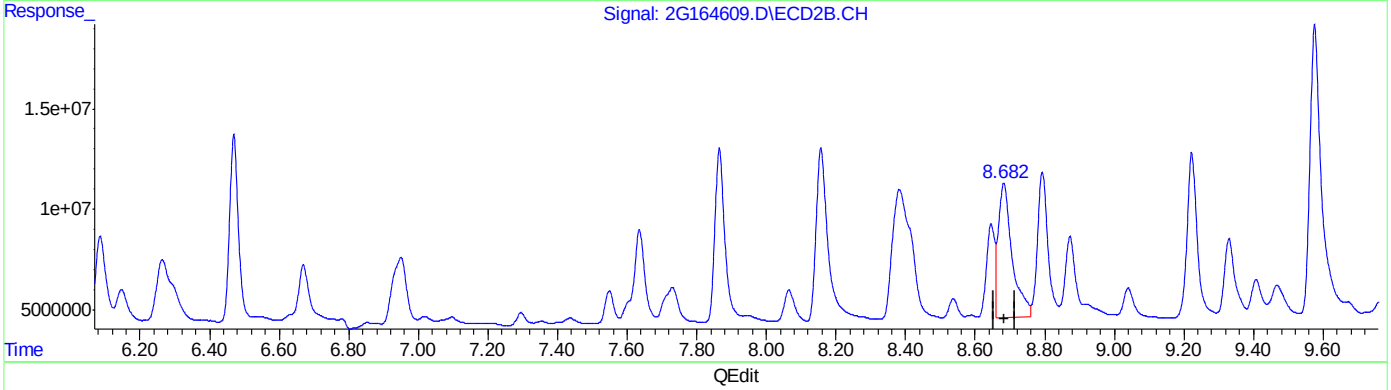
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.114min 131.975PPB
response 44983602

(36) AR1260-A #2
8.682min 92.663PPB
response 185297554

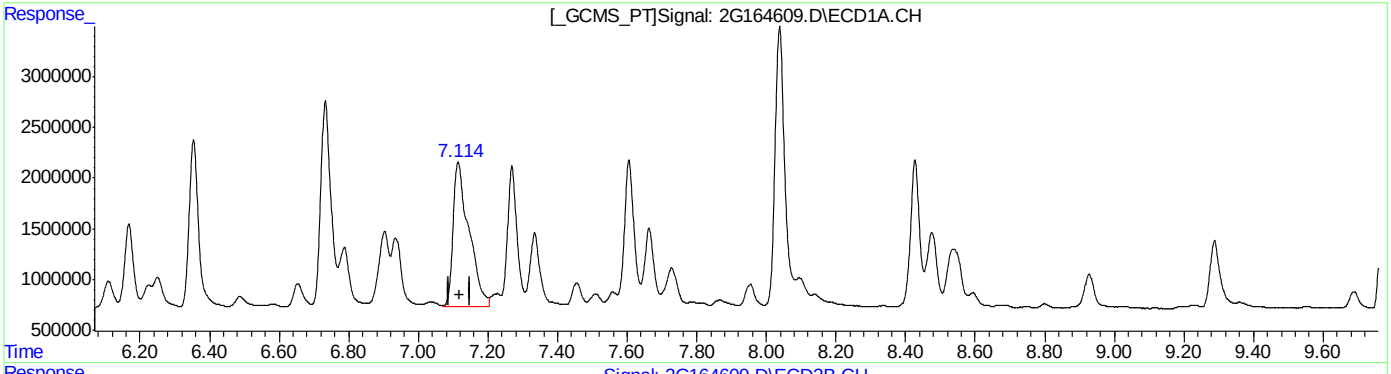
(+) = Expected Retention Time

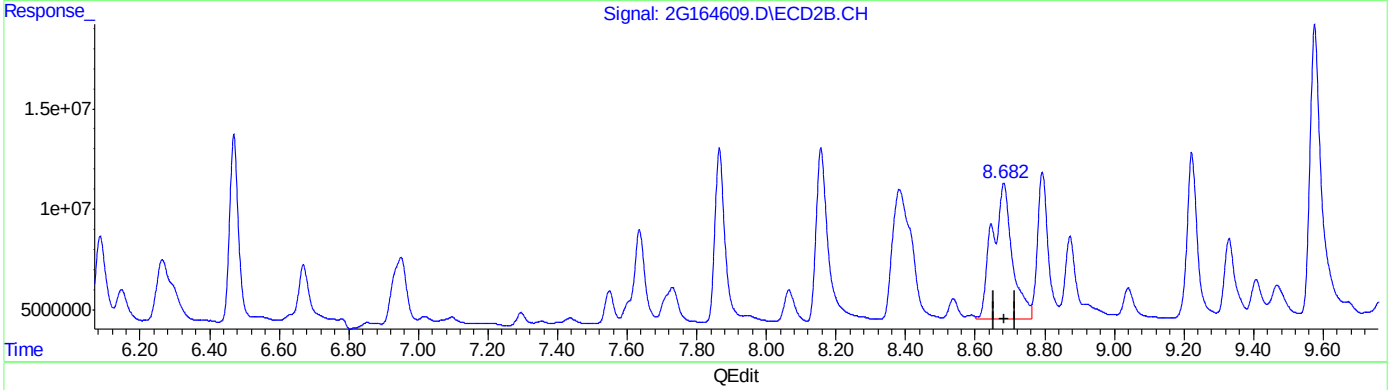
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.114min 131.975PPB
response 44983602

(36) AR1260-A #2
8.682min 134.499PPB m
response 268956683

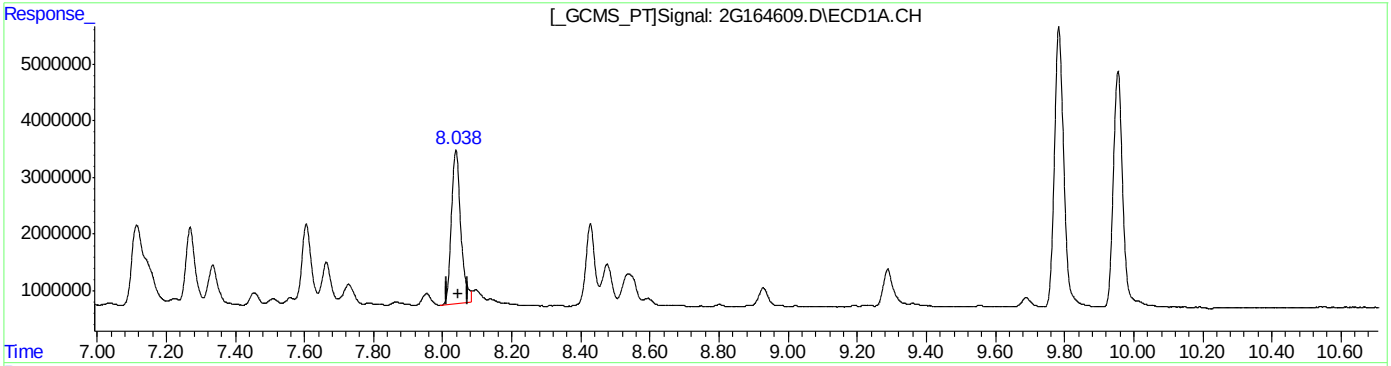
(+) = Expected Retention Time

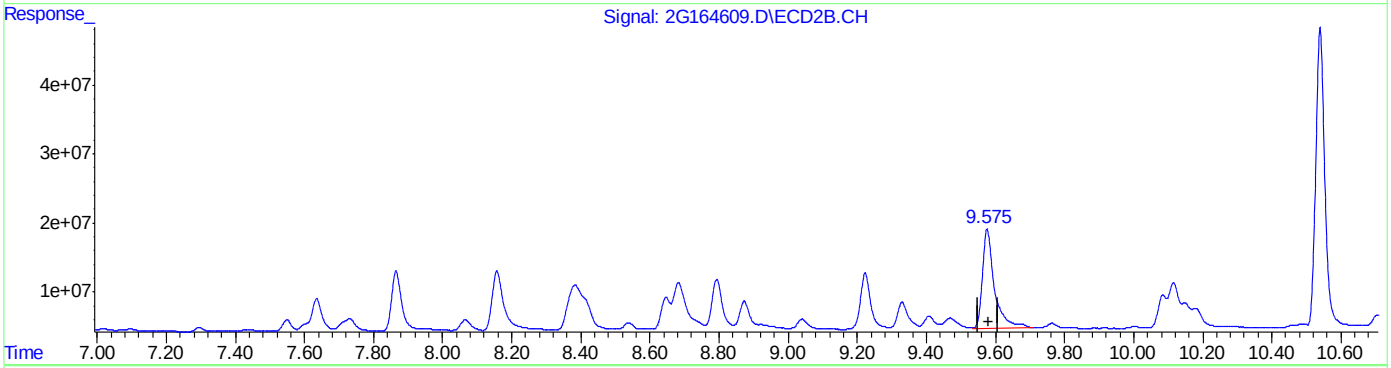
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.039min 139.440PPB
response 51194802

(39) AR1260-D #2
9.576min 159.757PPB
response 342917615

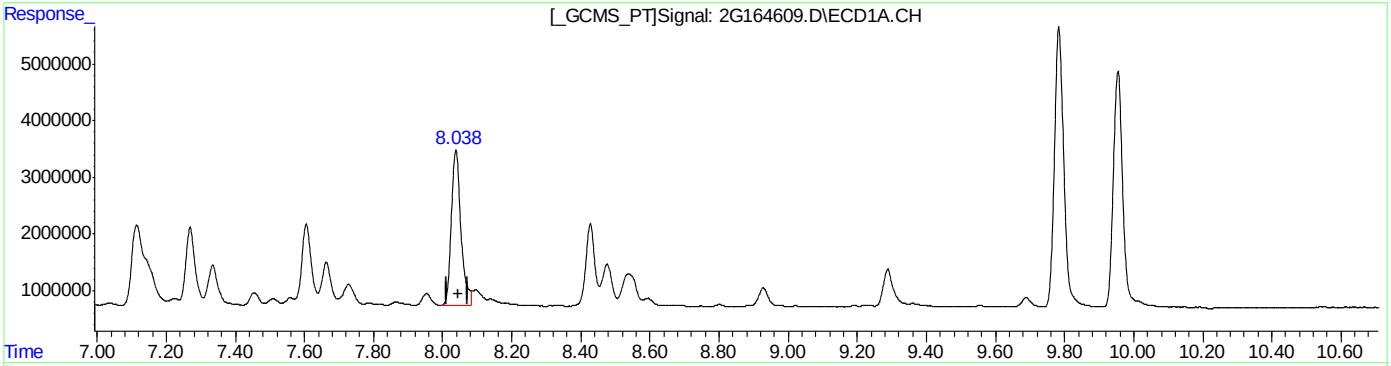
(+) = Expected Retention Time

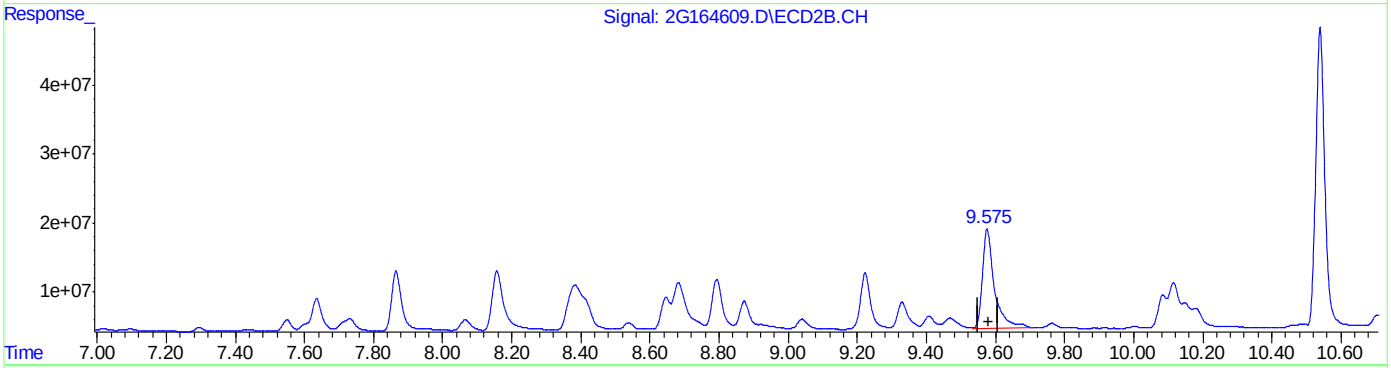
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.038min 144.378PPB m
response 53007845

(39) AR1260-D #2
9.576min 159.757PPB
response 342917615

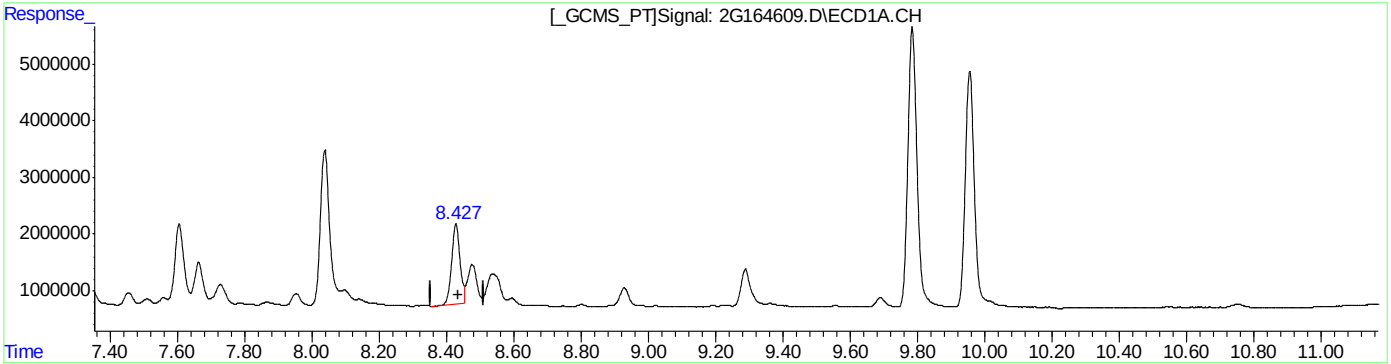
(+) = Expected Retention Time
2PCB4311.M Thu May 31 10:47:43 2018 RPT1

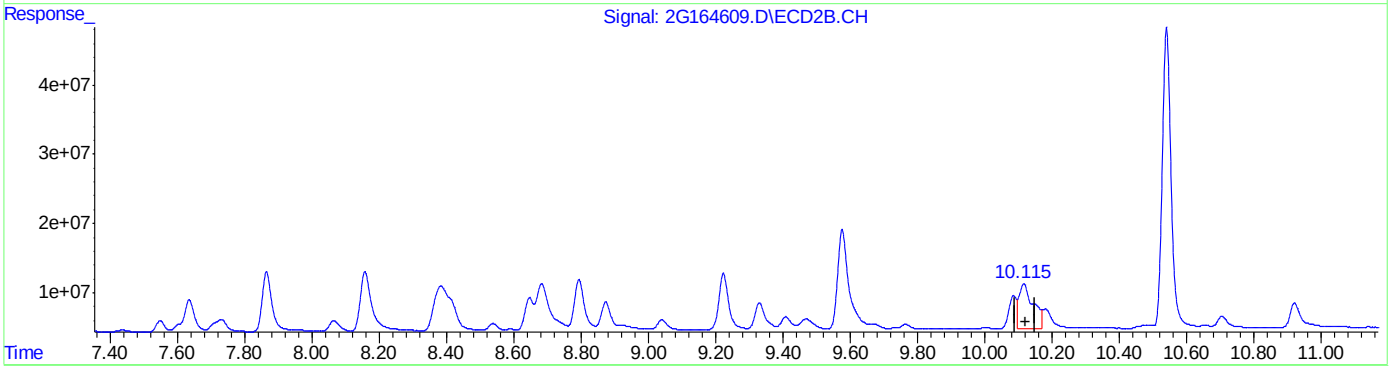
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.428min 64.433PPB
response 24406343

(40) AR1260-E #2
10.115min 94.170PPB
response 191935583

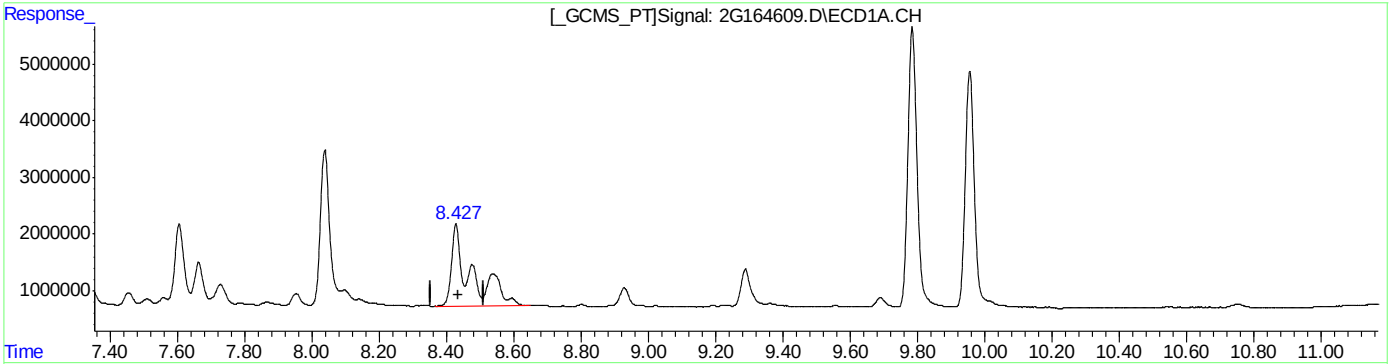
(+) = Expected Retention Time
2PCB4311.M Thu May 31 10:47:49 2018 RPT1

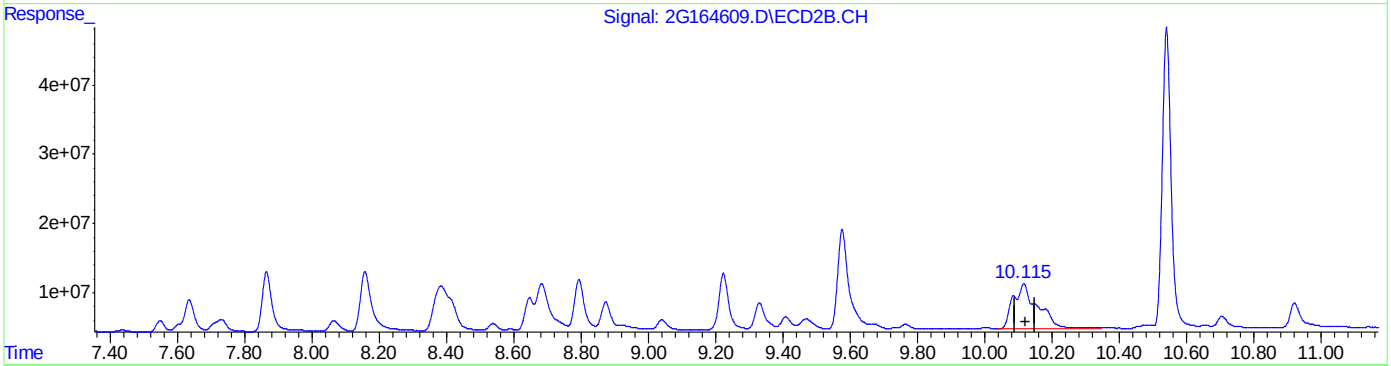
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164609.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 11:45 pm
Operator : christp
Sample : op12371-msd
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 10:45:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.427min 155.146PPB m
response 58767204

(40) AR1260-E #2
10.115min 162.059PPB m
response 330304647

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55778.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 10:46:12
Operator : dharas
Sample : ddt
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:42:32 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.942	2.147	385.2E6	251.7E6	50.000	50.000
27)	I 1-bromo-2...	1.942	2.147	385.2E6	251.7E6	50.000	50.000
33)	I 1-bromo-2...	1.942	2.147	385.2E6	251.7E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.529f	2.933	370.3E6	235.5E6	49.464	50.237
	Spiked Amount 40.000 Range 30 - 150 Recovery = 123.66% 125.59%						
26)	SA Decachlor...	9.835f	11.722f	348.8E6	211.9E6	45.707	45.314
	Spiked Amount 40.000 Recovery = 114.27% 113.29%						
	Target Compounds						
15)	B 4,4'-DDE	5.254	6.521	11688813	6661386	1.468	1.420
17)	MA Endrin	5.961f	7.269	397.4E6	243.1E6	52.024	49.988
18)	A 4,4'-DDD	6.083f	7.454	11318971	7536013	1.717	1.864
20)	MA 4,4'-DDT	6.500f	7.981	697.1E6	431.7E6	110.287	110.638
25)	B Endrin Ke...	8.022f	9.588	3648777	6453656	0.483m	1.301m#
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.5.1

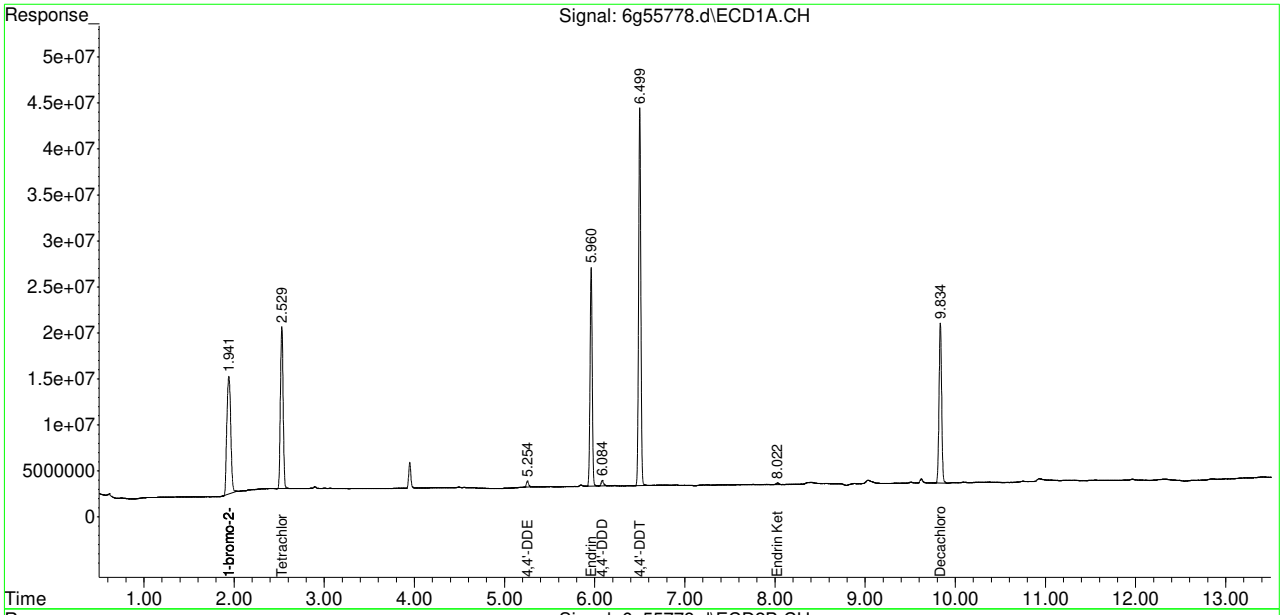
11

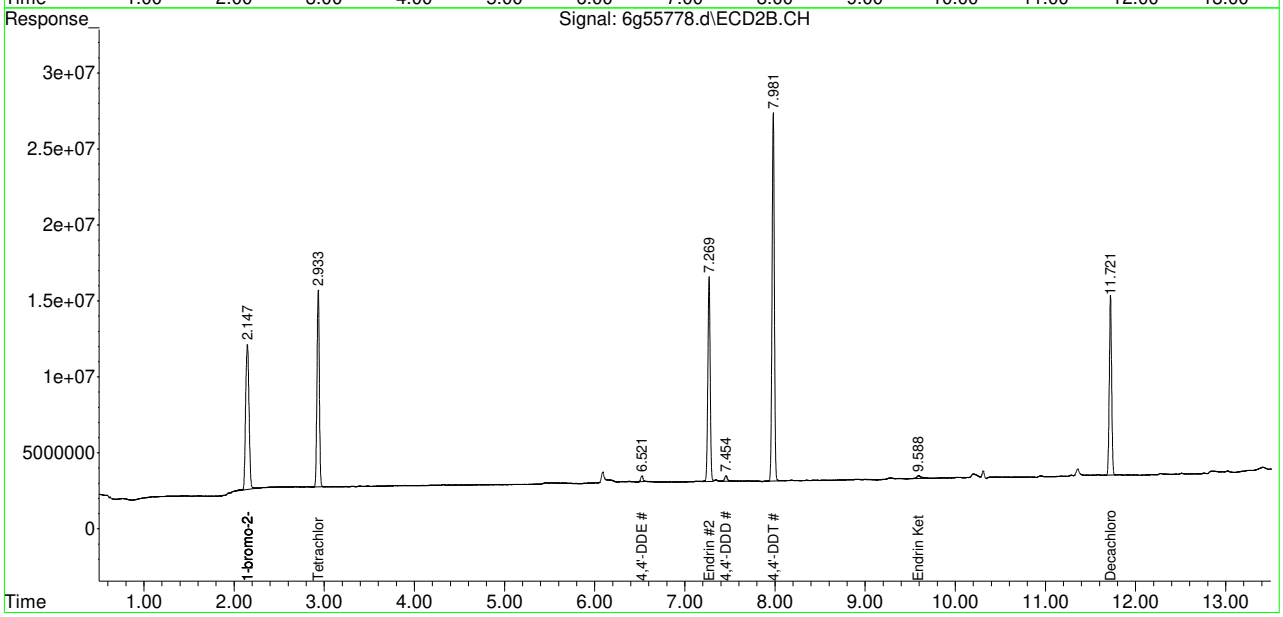
Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55778.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 10:46:12
Operator  : dharas
Sample    : ddt
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:42:32 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





Manual Integration Approval Summary

Sample Number:	G6G1671-DDT	**Method:**	EPA 608
Lab FileID:	6G55778.D	**Analyst approved:**	04/30/18 17:43 Rebecca Krug
Injection Time:	04/30/18 10:46	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

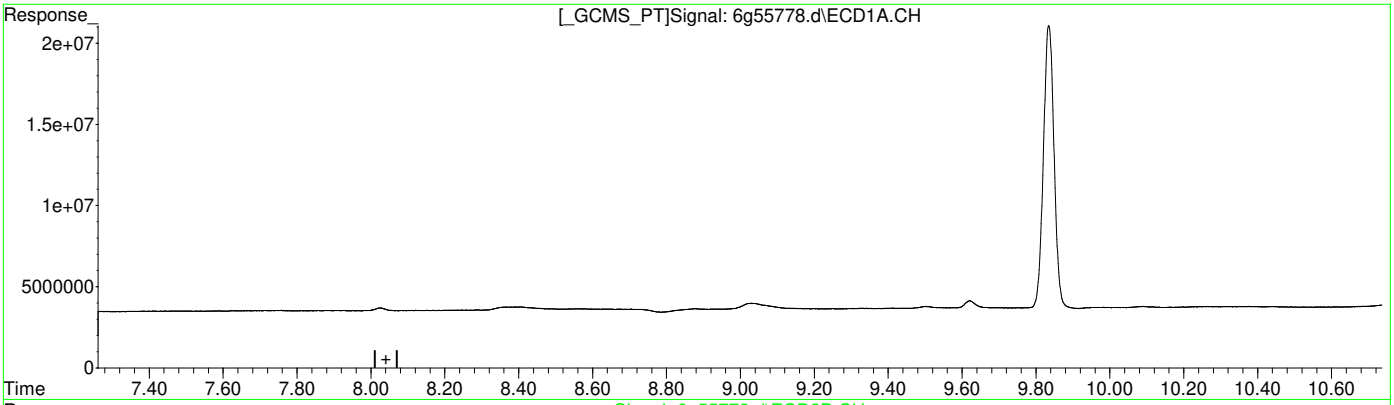
Parameter	CAS	Sig#	R.T. (min.)	Reason
Endrin ketone	53494-70-5	1	8.02	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.59	Poorly defined baseline

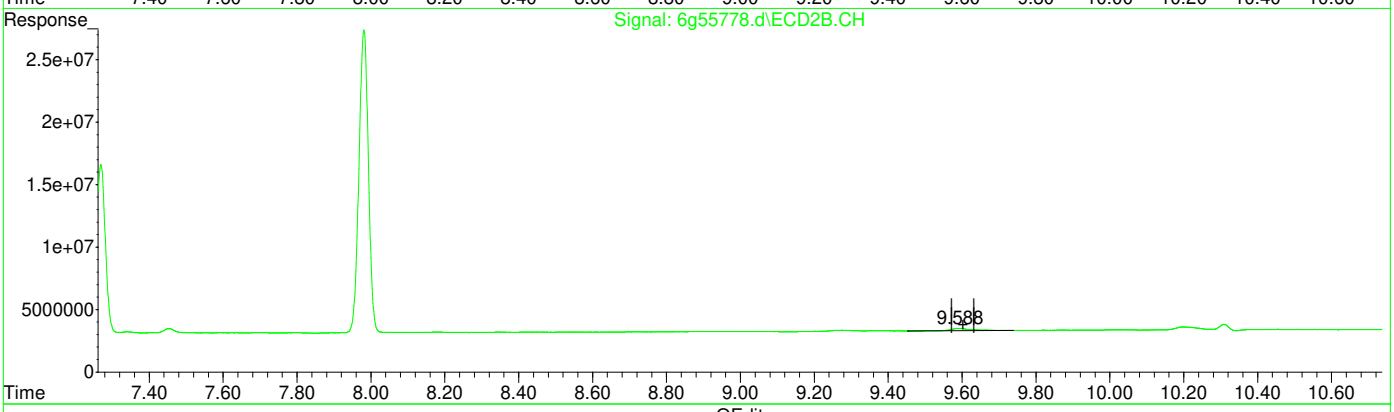
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55778.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 10:46:12
Operator  : dharas
Sample    : ddt
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:41:59 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





(25) Endrin Ketone (B)

0.000min 0.000 PPB

response 0

(25) Endrin Ketone #2 (B)

9.590min 1.526 PPB

response 7570610

(+) = Expected Retention Time

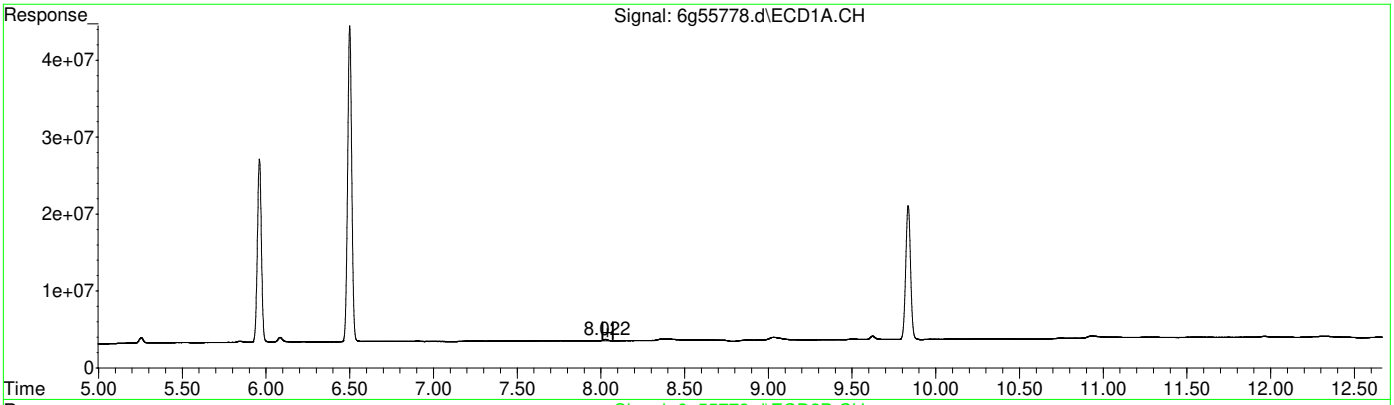
6PST1671.M Mon Apr 30 17:42:24 2018

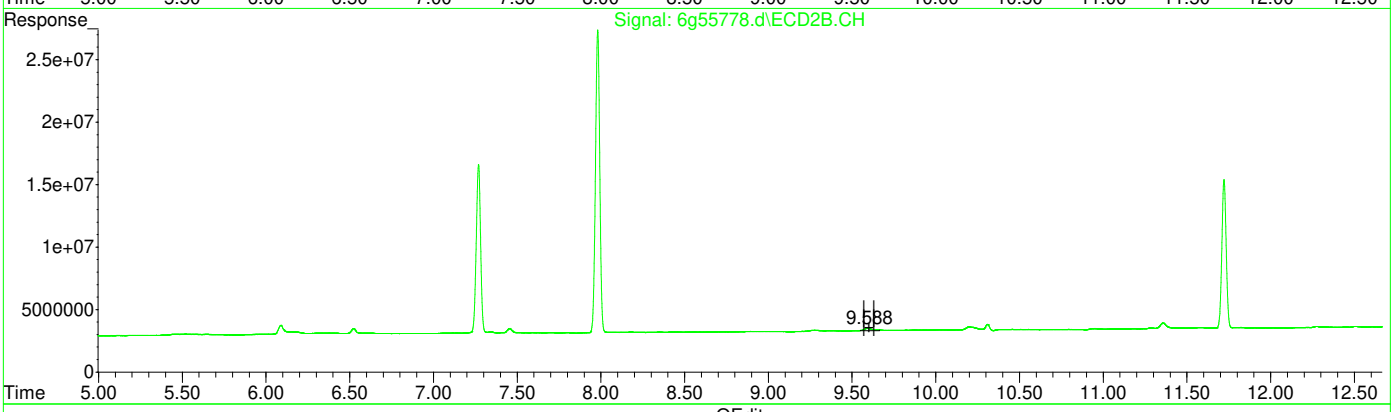
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55778.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 10:46:12
Operator  : dharas
Sample    : ddt
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:41:59 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(25) Endrin Ketone (B)

8.022min 0.483 PPB m

response 3648777

(25) Endrin Ketone #2 (B)

9.588min 1.301 PPB m

response 6453656

(+) = Expected Retention Time

6PST1671.M Mon Apr 30 17:42:34 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/31/18 09:35

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56757.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 23:26:38
Operator : christp
Sample : ddt
Misc : OP12359,g6g1694,15.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:09:24 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.945	2.145	368.9E6	289.5E6	50.000	50.000
27) I	1-bromo-2...	1.945	2.145	368.9E6	289.5E6	50.000	50.000
33) I	1-bromo-2...	1.945	2.145	368.9E6	289.5E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.528	2.925	354.3E6	270.4E6	49.416	50.141
Spiked Amount		40.000	Range	30 - 150	Recovery	= 123.54%	125.35%
26) SA	Decachlor...	9.802	11.701	326.5E6	242.3E6	44.671	45.039
Spiked Amount		40.000			Recovery	= 111.68%	112.60%
	Target Compounds						
15) B	4,4'-DDE	5.236	6.501	20682658	15428658	2.713	2.858
17) MA	Endrin	5.937	7.245	393.0E6	276.5E6	53.722	49.432
18) A	4,4'-DDD	6.063	7.434	11677314	9425761	1.850m	2.027m
20) MA	4,4'-DDT	6.477	7.957	622.9E6	432.1E6	102.898	96.273
21) B	Endrin Al...	6.875	8.162	1045906	440682	0.170m	0.102m#
25) B	Endrin Ke...	7.992	9.560	2496595	2088391	0.345m	0.366m
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

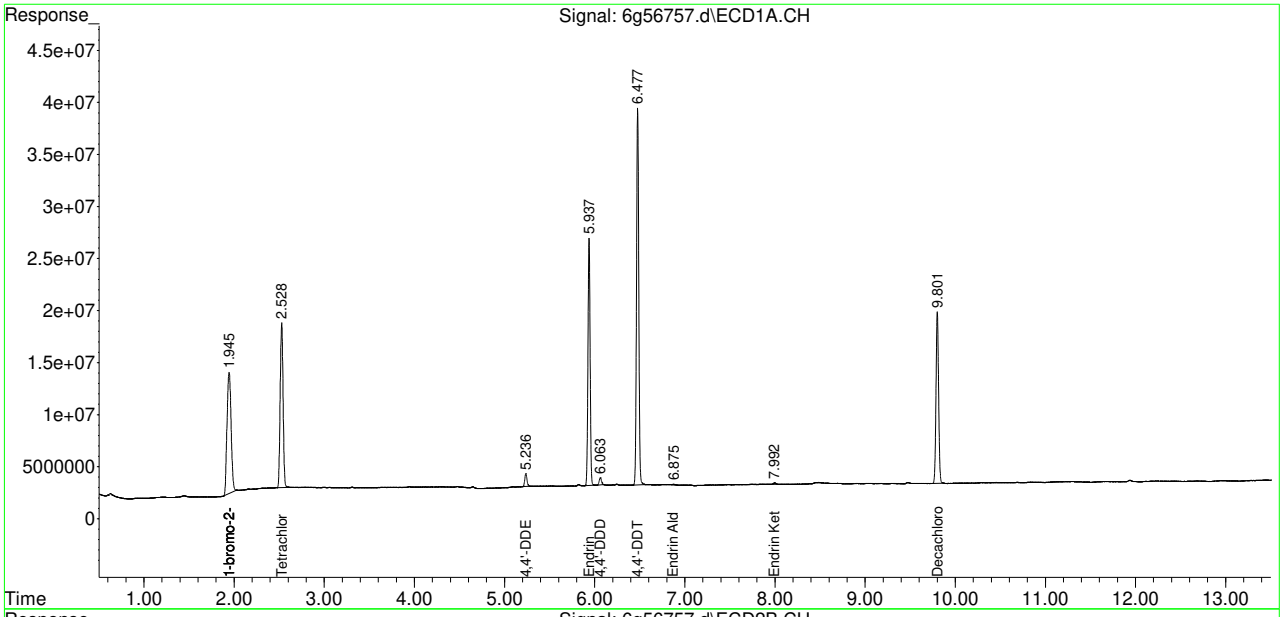
11.5.2 11

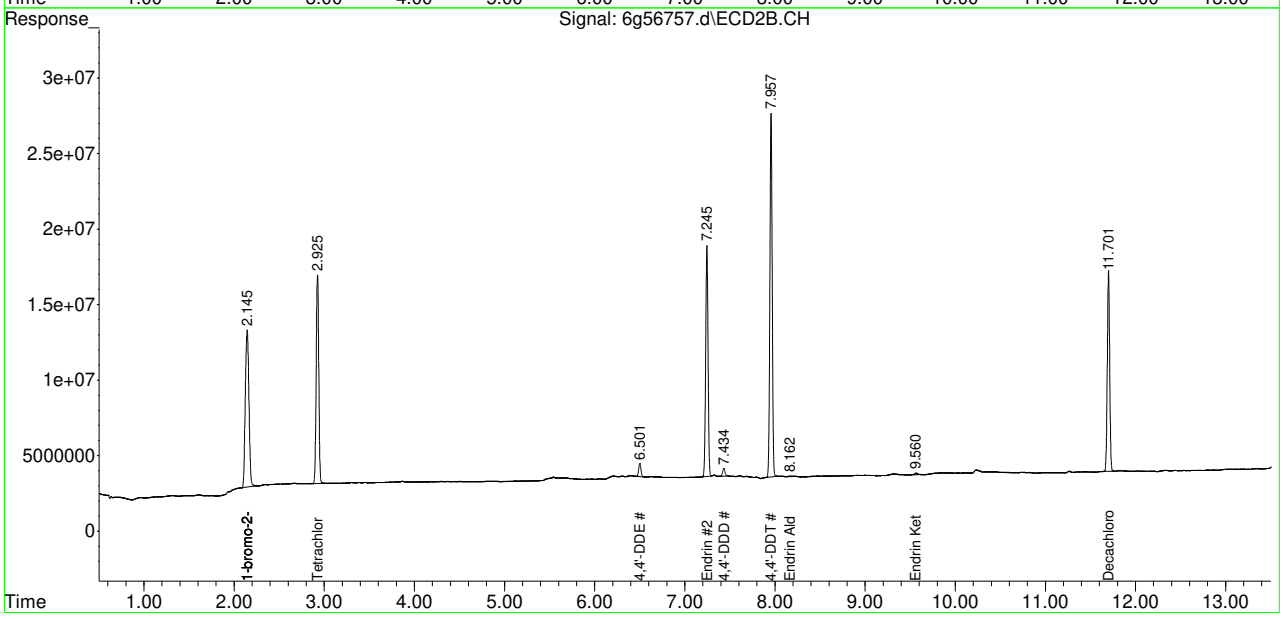
Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56757.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-May-18, 23:26:38
Operator  : christp
Sample    : ddt
Misc      : OP12359,g6g1694,15.0,,,10,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:09:24 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.     : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





Manual Integration Approval Summary

Sample Number:	G6G1694-DDT	**Method:**	SW846 8081B
Lab FileID:	6G56757.D	**Analyst approved:**	05/31/18 09:28 Dharmistha Mehta
Injection Time:	05/30/18 23:26	**Supervisor approved:**	05/31/18 09:35 Gwendolyn Burns

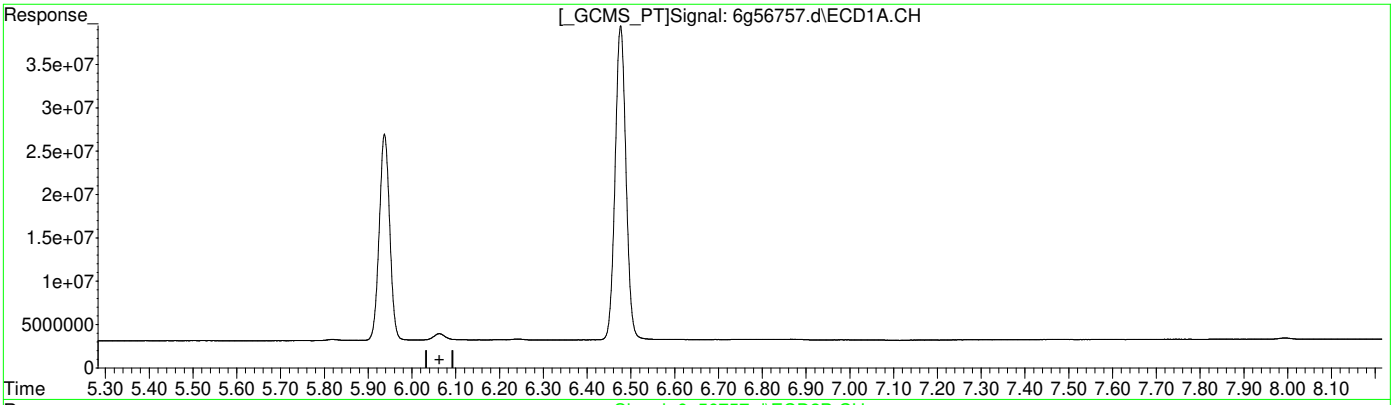
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDD	72-54-8	1	6.06	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.88	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.43	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.99	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.16	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.56	Poorly defined baseline

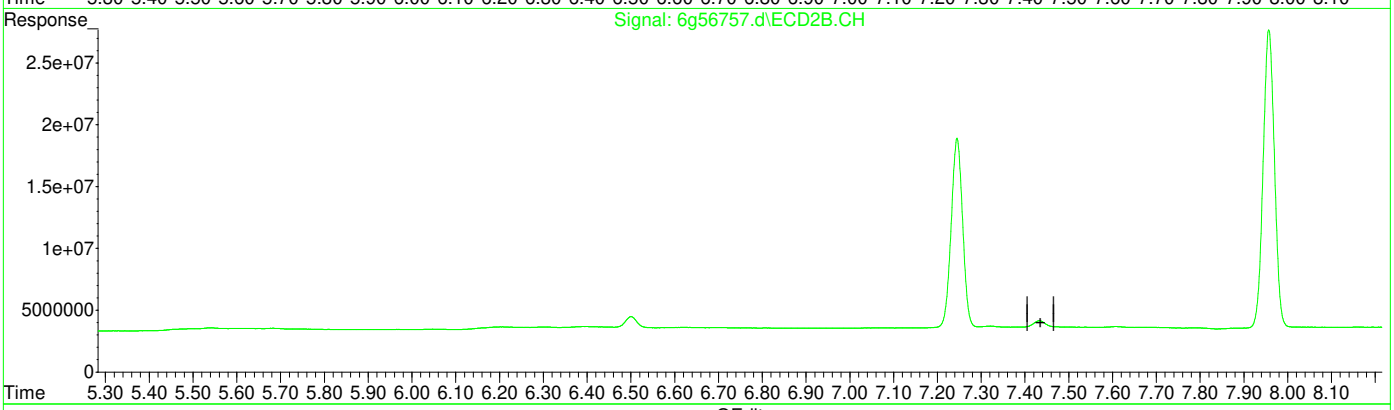
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56757.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-May-18, 23:26:38
Operator  : christp
Sample    : ddt
Misc      : OP12359,g6g1694,15.0,,,10,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:06:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(18) 4,4'-DDD (A)

0.000min 0.000 PPB

response 0

(18) 4,4'-DDD #2 (A)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

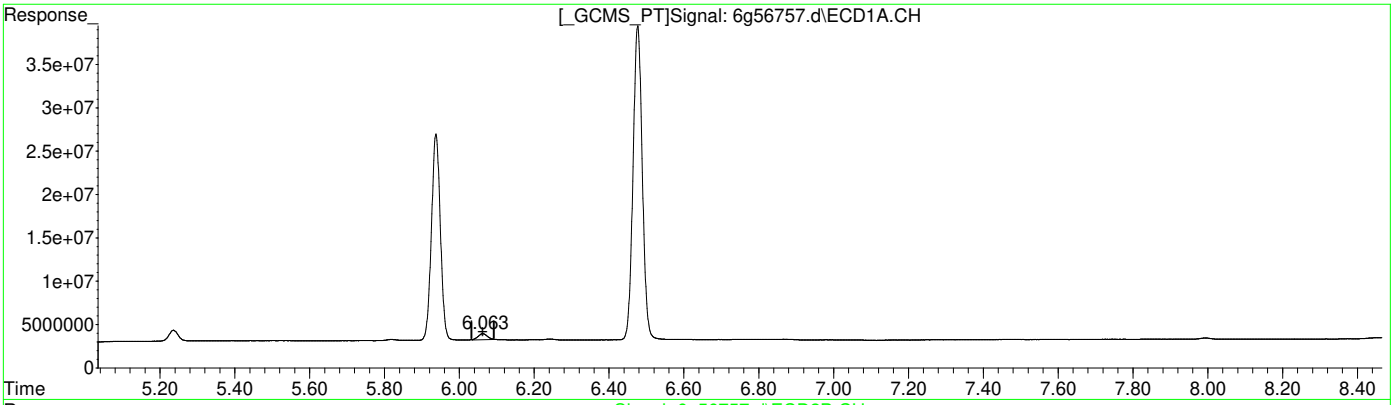
6PST1671.M Thu May 31 09:07:10 2018

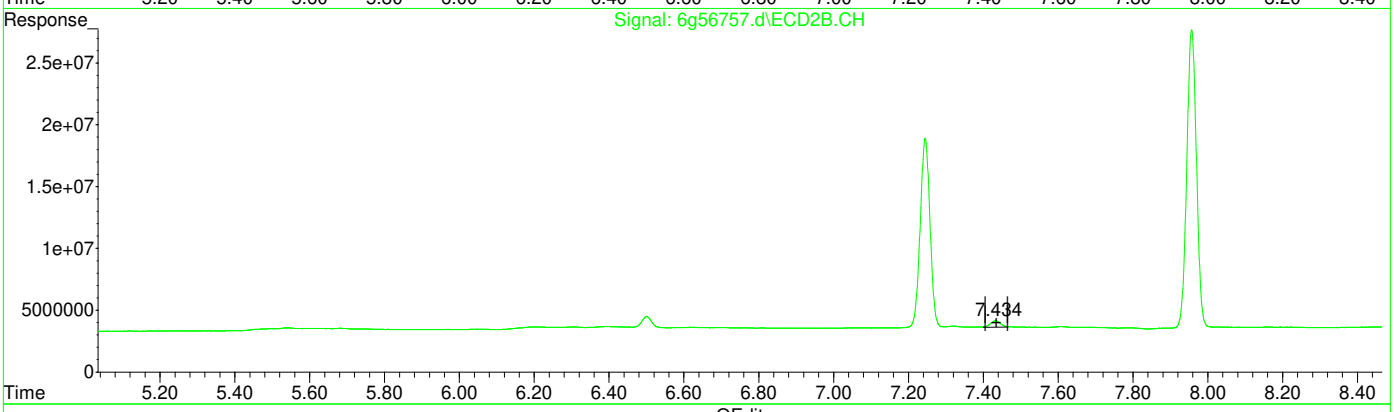
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56757.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 23:26:38
Operator : christp
Sample : ddt
Misc : OP12359,g6g1694,15.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:06:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





(18) 4,4'-DDD (A)

6.063min 1.850 PPB m

response 11677314

(18) 4,4'-DDD #2 (A)

7.434min 2.027 PPB m

response 9425761

(+) = Expected Retention Time

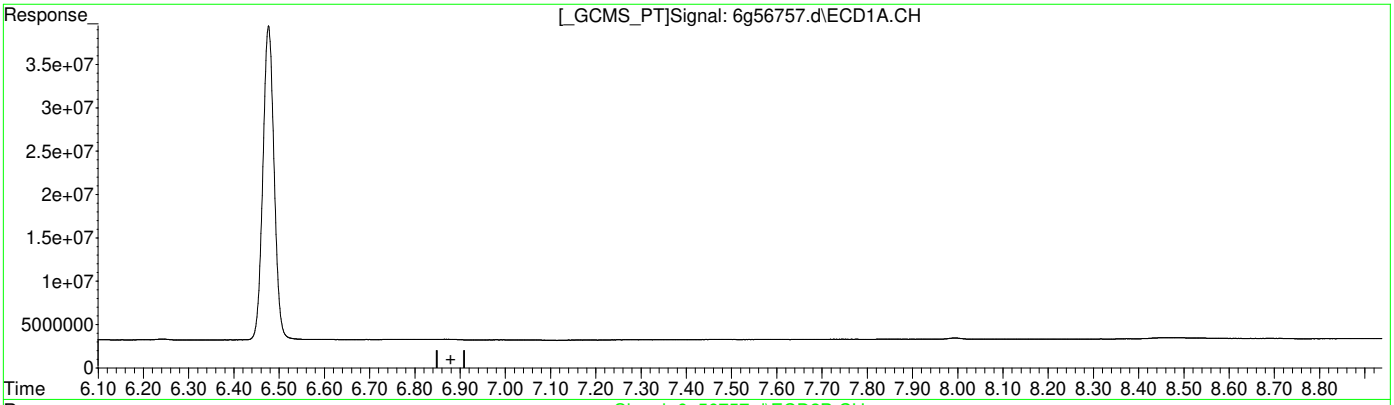
6PST1671.M Thu May 31 09:07:31 2018

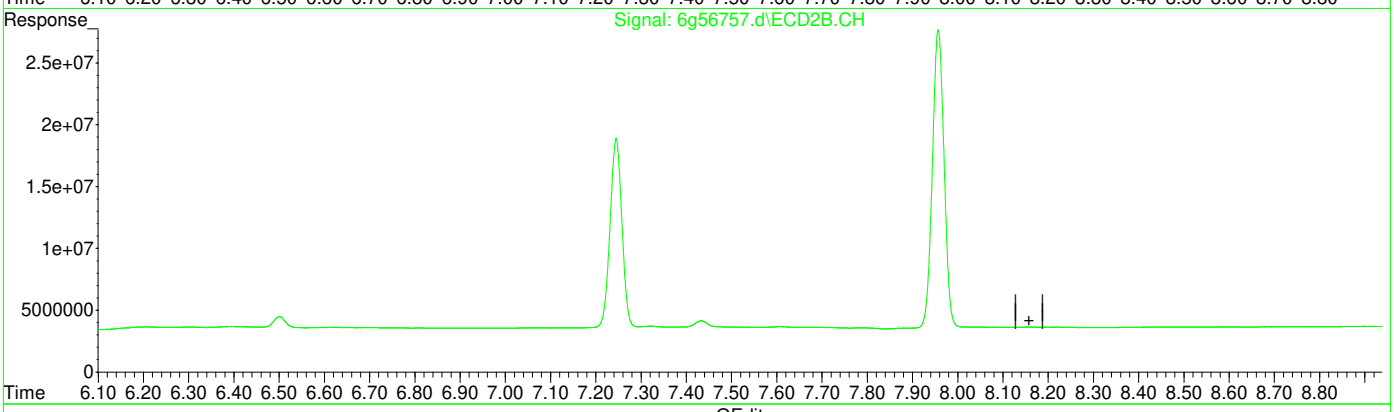
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56757.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-May-18, 23:26:38
Operator  : christp
Sample    : ddt
Misc      : OP12359,g6g1694,15.0,,,10,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:06:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(21) Endrin Aldehyde (B)

0.000min 0.000 PPB

response 0

(21) Endrin Aldehyde #2 (B)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

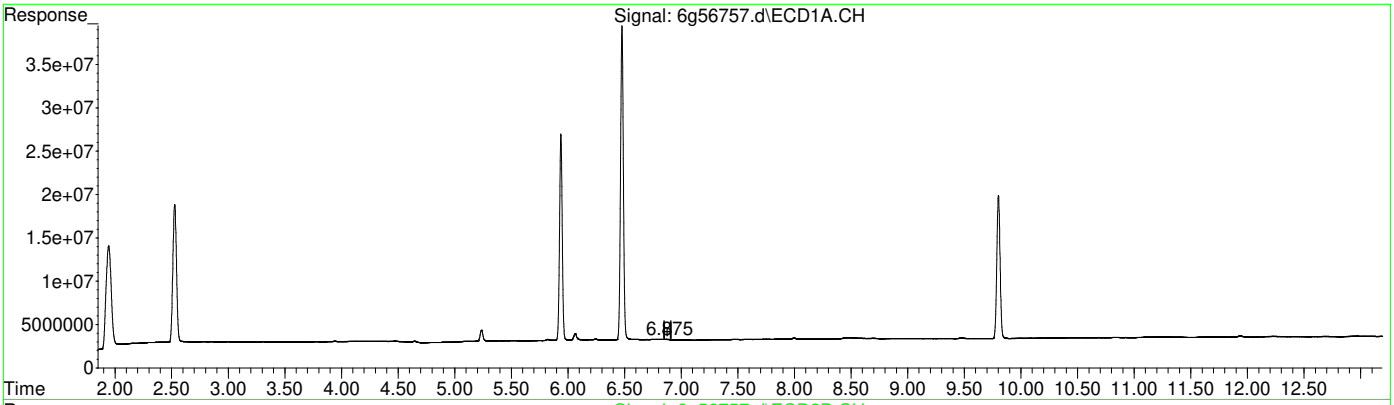
6PST1671.M Thu May 31 09:08:03 2018

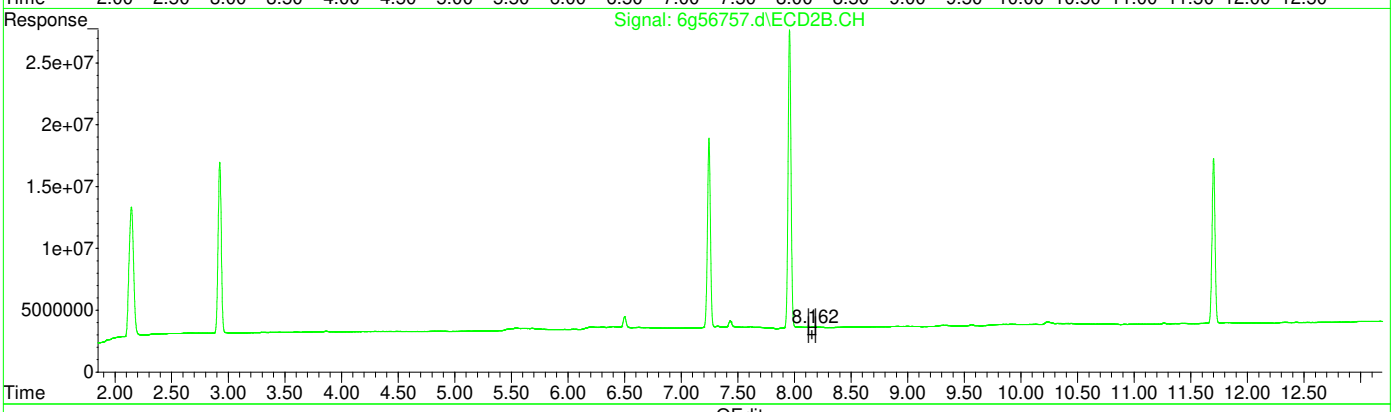
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56757.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-May-18, 23:26:38
Operator  : christp
Sample    : ddt
Misc      : OP12359,g6g1694,15.0,,,10,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:06:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(21) Endrin Aldehyde (B)

6.875min 0.170 PPB m

response 1045906

(21) Endrin Aldehyde #2 (B)

8.162min 0.102 PPB m

response 440682

(+) = Expected Retention Time

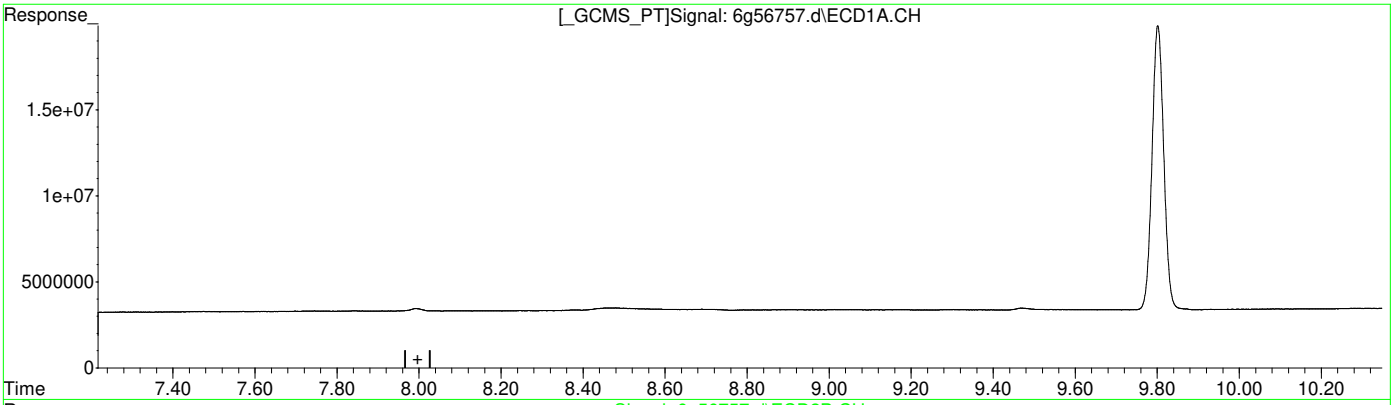
6PST1671.M Thu May 31 09:08:33 2018

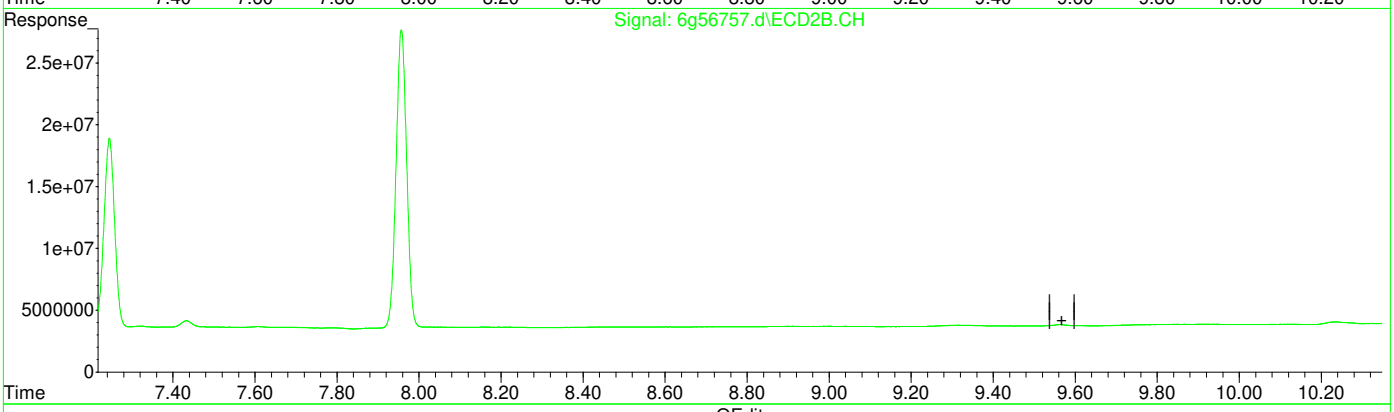
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56757.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-May-18, 23:26:38
Operator  : christp
Sample    : ddt
Misc      : OP12359,g6g1694,15.0,,,10,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:06:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(25) Endrin Ketone (B)

0.000min 0.000 PPB

response 0

(25) Endrin Ketone #2 (B)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

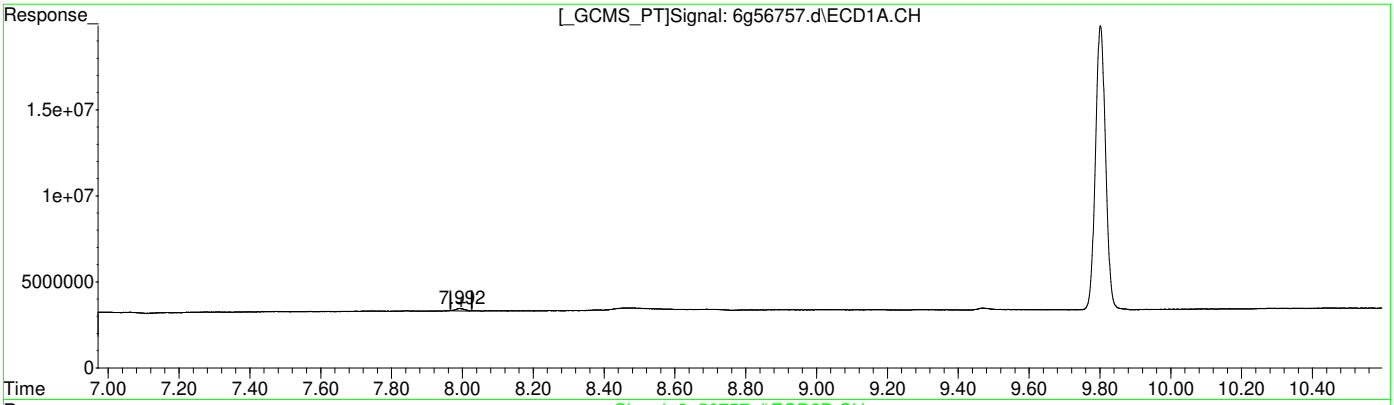
6PST1671.M Thu May 31 09:08:47 2018

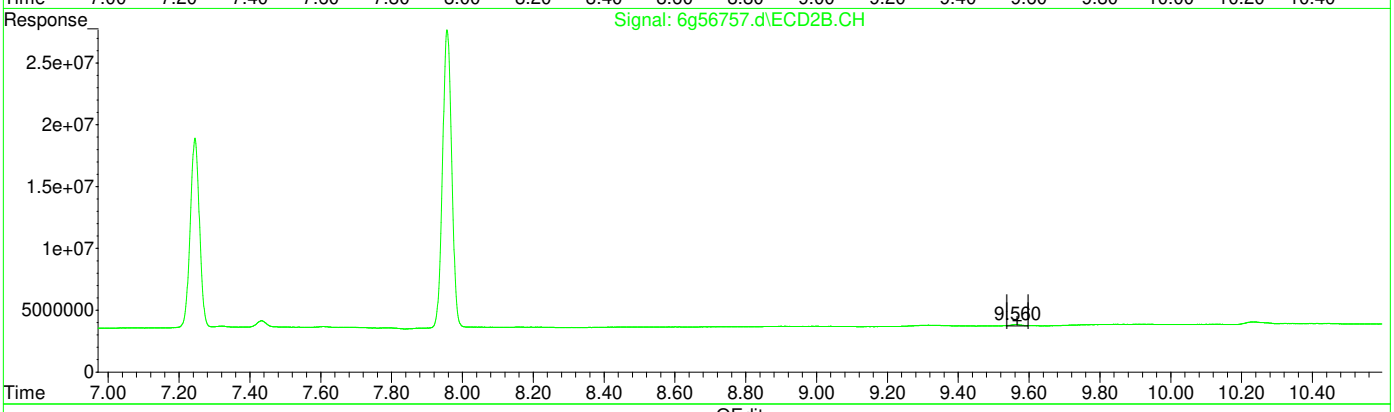
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56757.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-May-18, 23:26:38
Operator  : christp
Sample    : ddt
Misc      : OP12359,g6g1694,15.0,,,10,1
ALS Vial  : 1 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:06:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(25) Endrin Ketone (B)

7.992min 0.345 PPB m

response 2496595

(25) Endrin Ketone #2 (B)

9.560min 0.366 PPB m

response 2088391

(+) = Expected Retention Time

6PST1671.M Thu May 31 09:09:08 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:39:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.778	3.431	34873866	216.1E6	7.981	7.067
	Spiked Amount 40.000			Recovery	=	19.95%	17.67%
51) S	Decachlor...	10.016	11.811	40611685	184.5E6	9.011	9.735
	Spiked Amount 40.000			Recovery	=	22.53%	24.34%
	Target Compounds						
31)	AR1016-A	3.154	4.096	19673262	91567470	215.440m	190.191
32)	AR1016-B	3.557	4.632	34032635	196.2E6	295.735	203.024 #
33)	AR1016-C	4.107	5.282	71006697	415.2E6	192.339	198.425
34)	AR1016-D	4.269	5.466	29041365	181.9E6	215.958	235.122
35)	AR1016-E	4.784	6.114	30667090	123.1E6	217.948	216.206
36)	AR1260-A	7.153	8.716	84935639	487.3E6	223.398	261.665m
37)	AR1260-B	7.315	8.831	34207307	200.8E6	200.258	206.033
38)	AR1260-C	7.653	9.261	38470552	237.1E6	232.255	253.148
39)	AR1260-D	8.083	9.615	84306739	482.4E6	182.500	205.123
40)	AR1260-E	8.476	10.157	89912203	468.4E6	206.651m	228.844m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

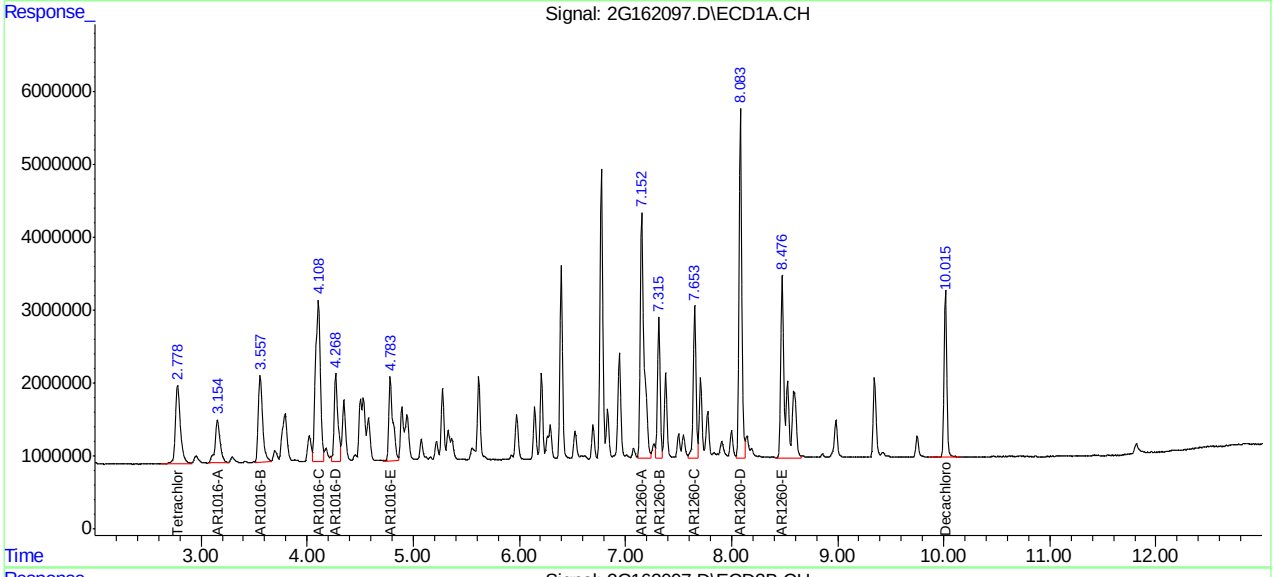
11.6.1 11

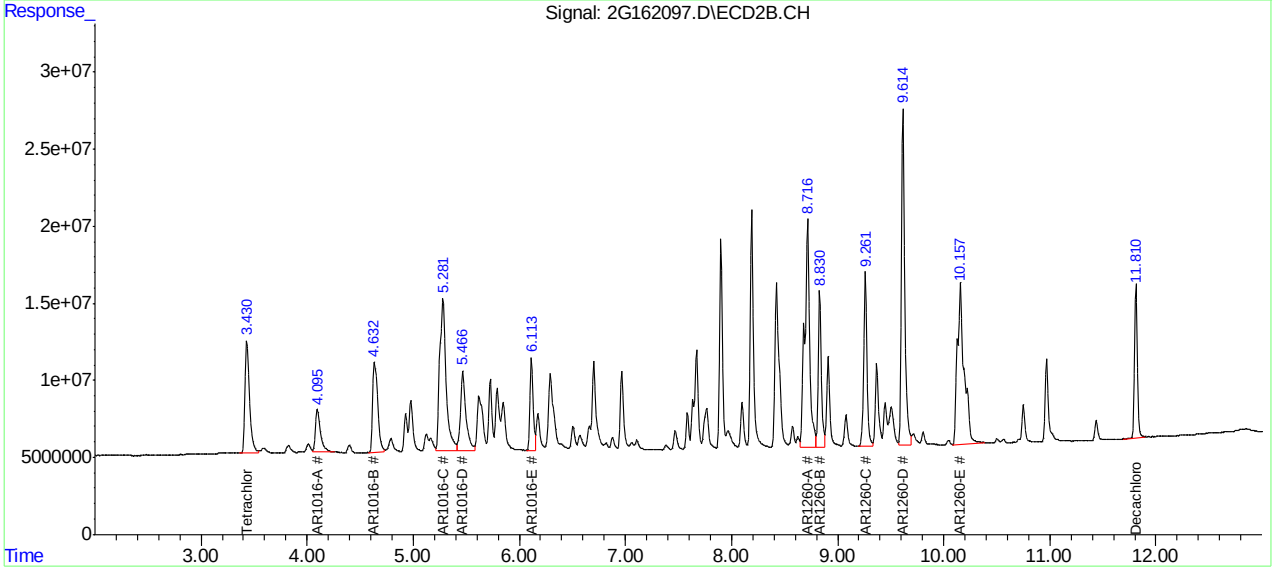
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:39:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162097.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 12:28	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

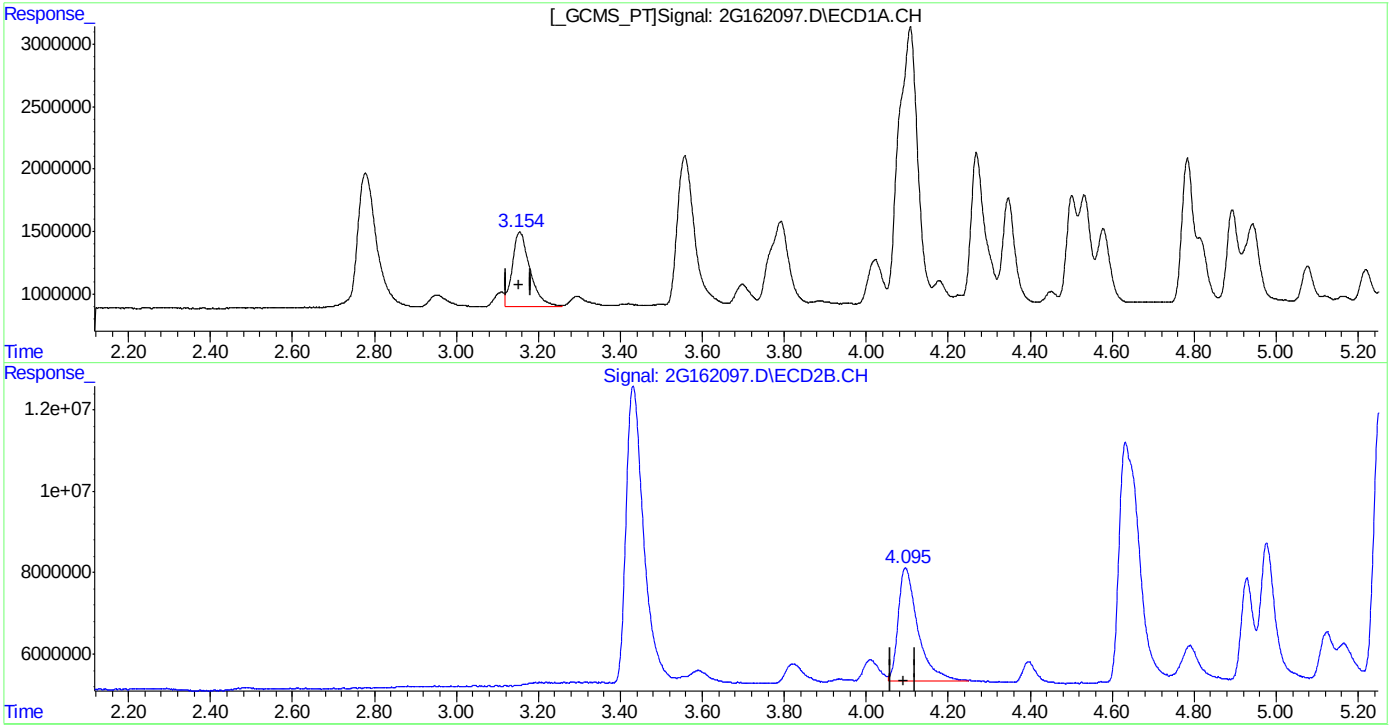
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		1	3.15	Split peak
AR1260-E		1	8.48	Split peak
AR1260-A		2	8.72	Split peak
AR1260-E		2	10.16	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(31) AR1016-A
3.155min 194.227PPB
response 17736162

(31) AR1016-A #2
4.096min 190.191PPB
response 91567470

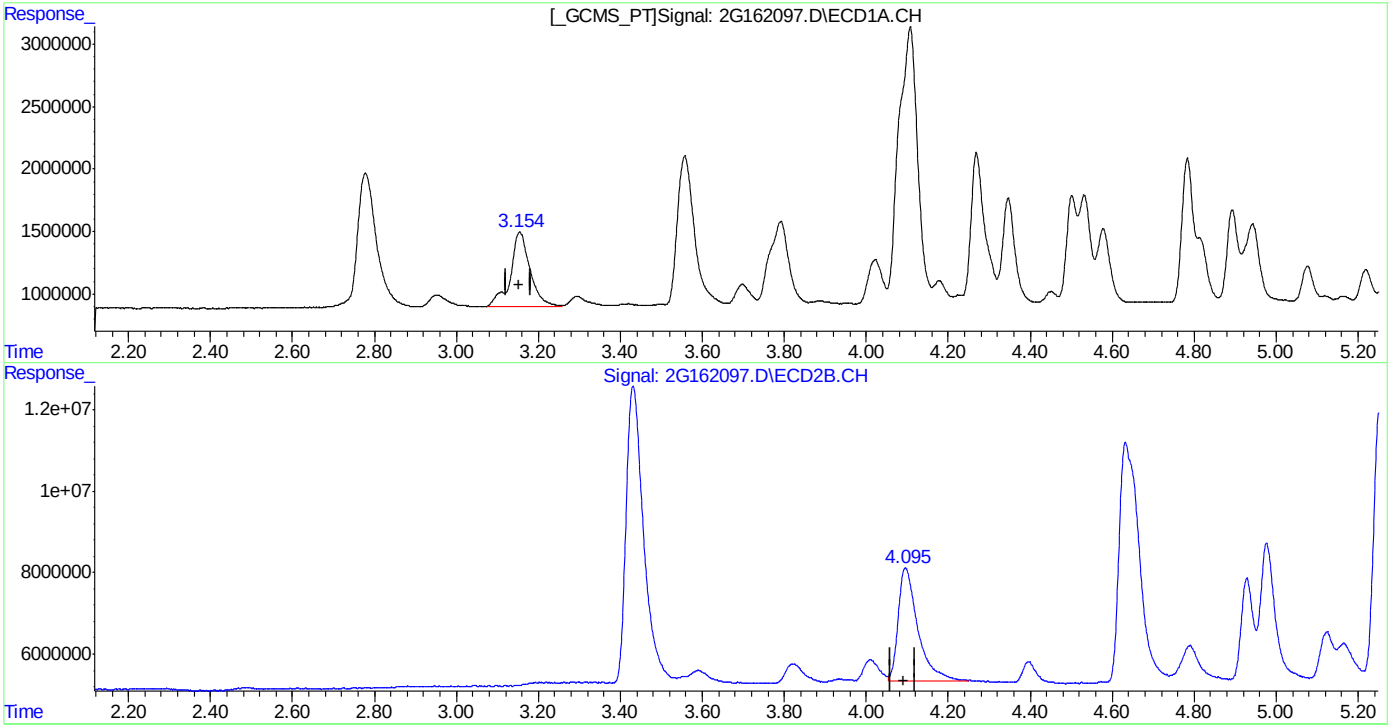
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.154min 215.440PPB m
response 19673262

(31) AR1016-A #2
4.096min 190.191PPB
response 91567470

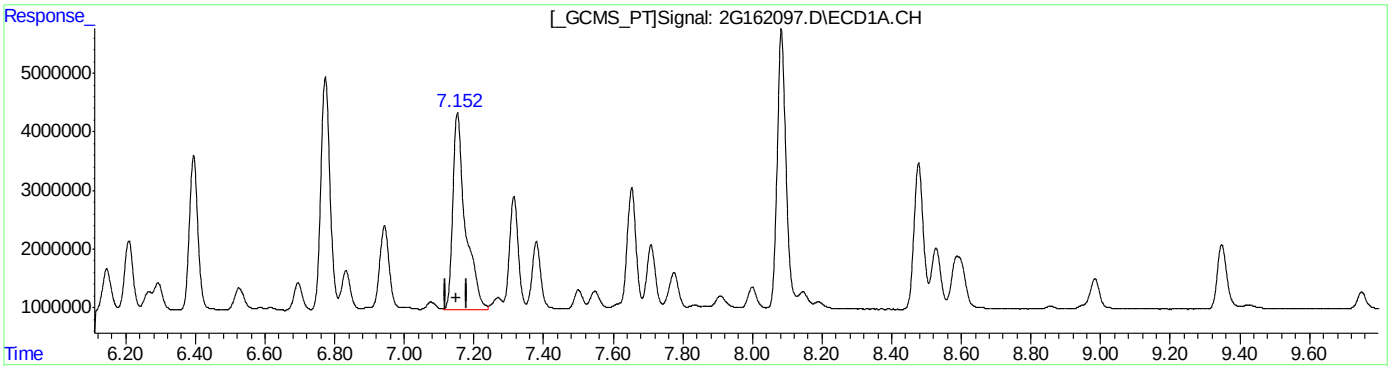
(+) = Expected Retention Time

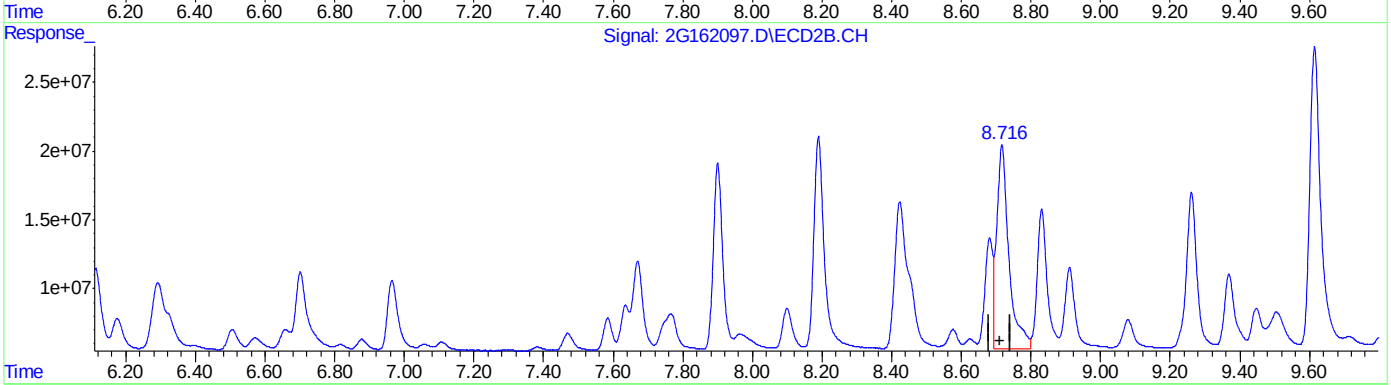
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.153min 223.398PPB
response 84935639

(36) AR1260-A #2
8.717min 193.204PPB
response 359776045

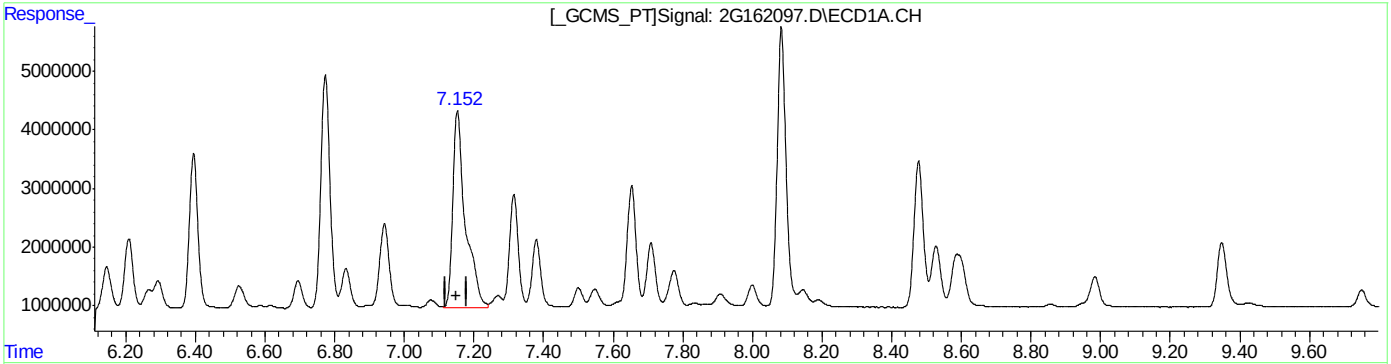
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:39:08 2018 RPT1

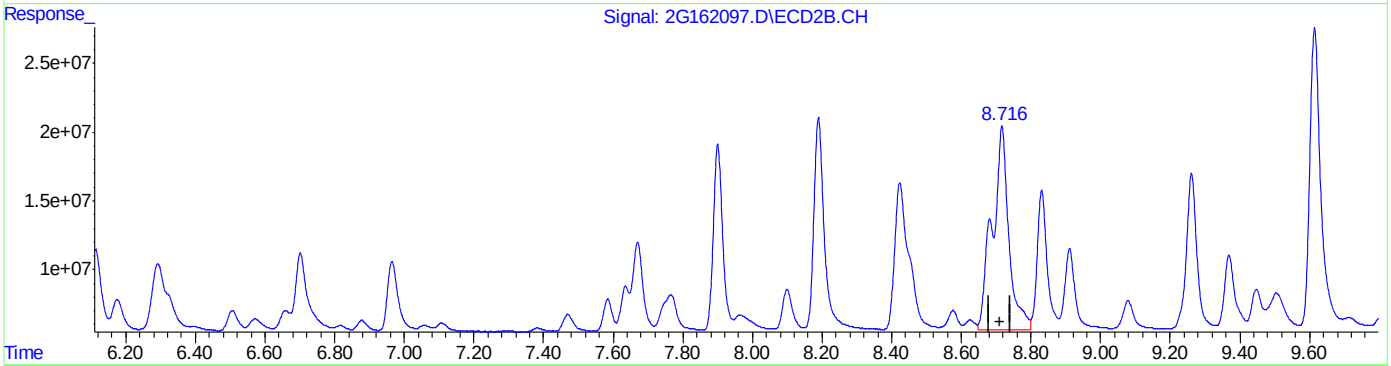
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.153min 223.398PPB
response 84935639

(36) AR1260-A #2
8.716min 261.665PPB m
response 487261202

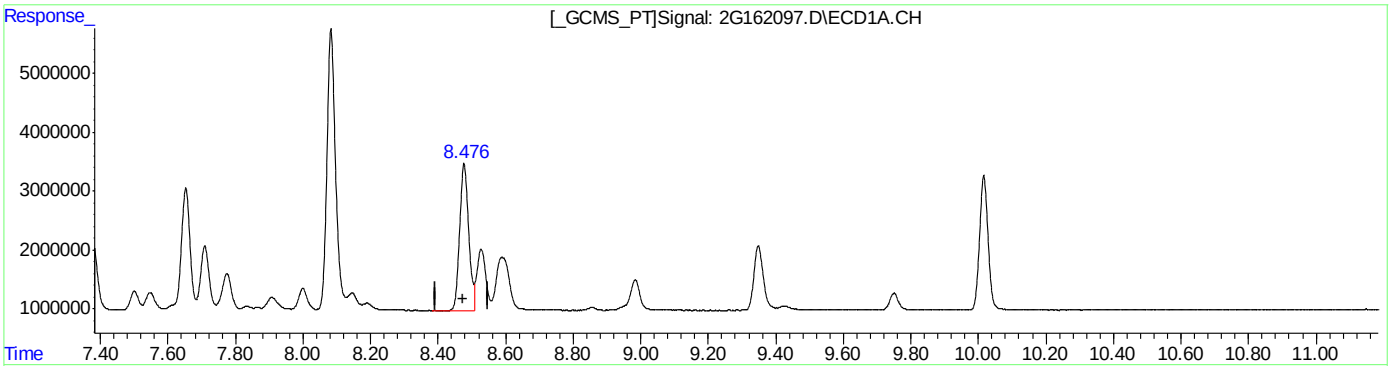
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:39:15 2018 RPT1

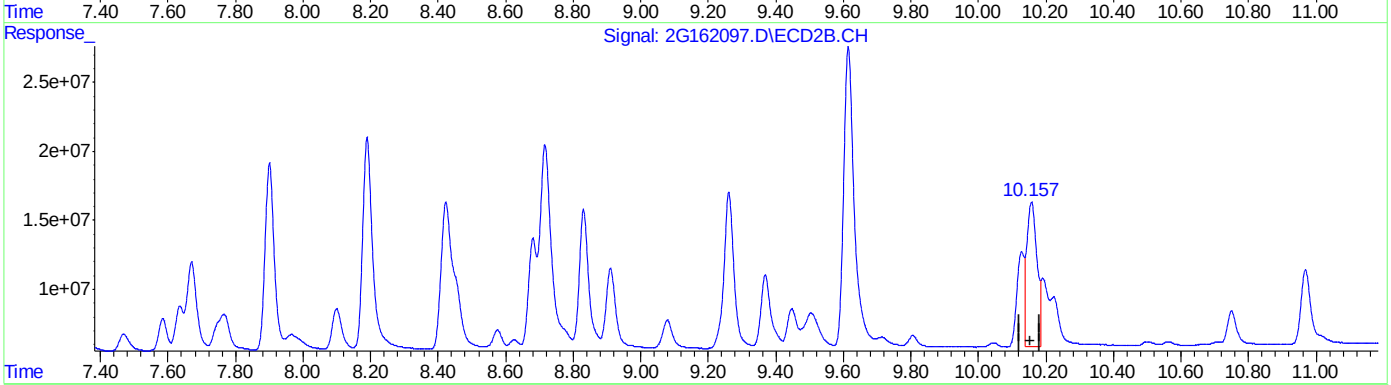
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.477min 105.933PPB
response 46090682

(40) AR1260-E #2
10.157min 108.220PPB
response 221500668

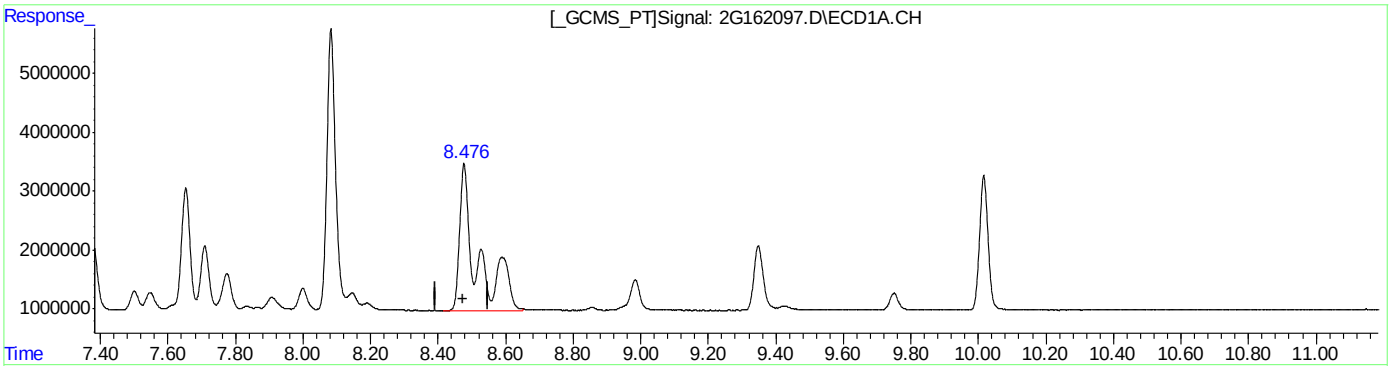
(+) = Expected Retention Time

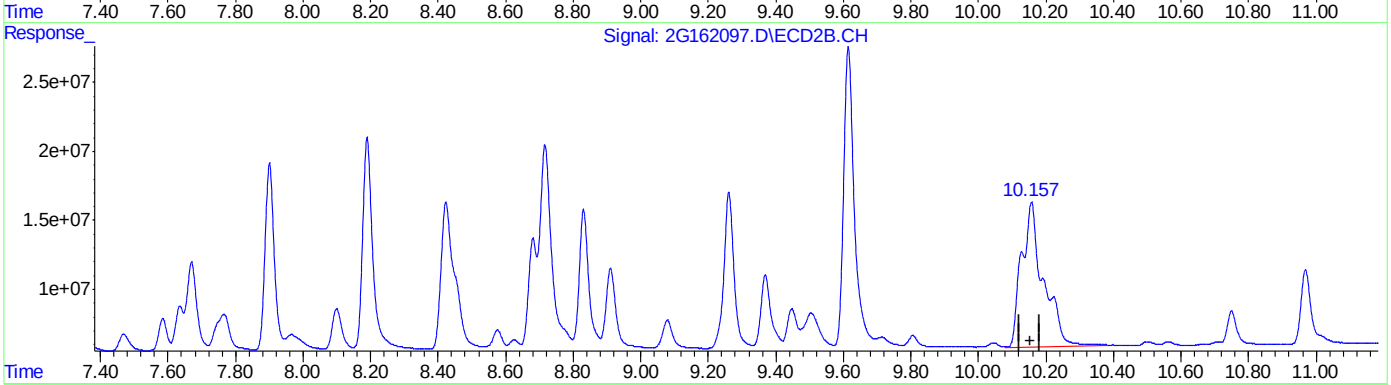
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.476min 206.651PPB m
response 89912203

(40) AR1260-E #2
10.157min 228.844PPB m
response 468390055

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:37:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
1)	S Tetrachlo...	2.779	3.431	70768166	446.6E6	16.195	14.603	
	Spiked Amount 40.000			Recovery	=	40.49%	36.51%	
51)	S Decachlor...	10.014	11.809	78475972	359.2E6	17.412	18.954	
	Spiked Amount 40.000			Recovery	=	43.53%	47.38%	
	Target Compounds							
31)	AR1016-A	3.154	4.094	38133288	177.7E6	417.595	369.093	
32)	AR1016-B	3.557	4.631	66201865	390.3E6	575.277	403.833	#
33)	AR1016-C	4.106	5.277	139.6E6	843.6E6	378.178	403.177	
34)	AR1016-D	4.269	5.464	57791829	364.9E6	429.753	471.601	
35)	AR1016-E	4.782	6.113	59202818	246.2E6	420.749m	432.237	
36)	AR1260-A	7.151	8.714	153.9E6	910.2E6	404.766	488.798m	
37)	AR1260-B	7.313	8.829	75039708	448.7E6	439.301	460.504	
38)	AR1260-C	7.651	9.260	82119479	511.3E6	495.773	545.829	
39)	AR1260-D	8.082	9.611	187.2E6	1084.8E6	405.158	461.244	
40)	AR1260-E	8.474	10.153	194.8E6	1044.4E6	447.646m	510.257m	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

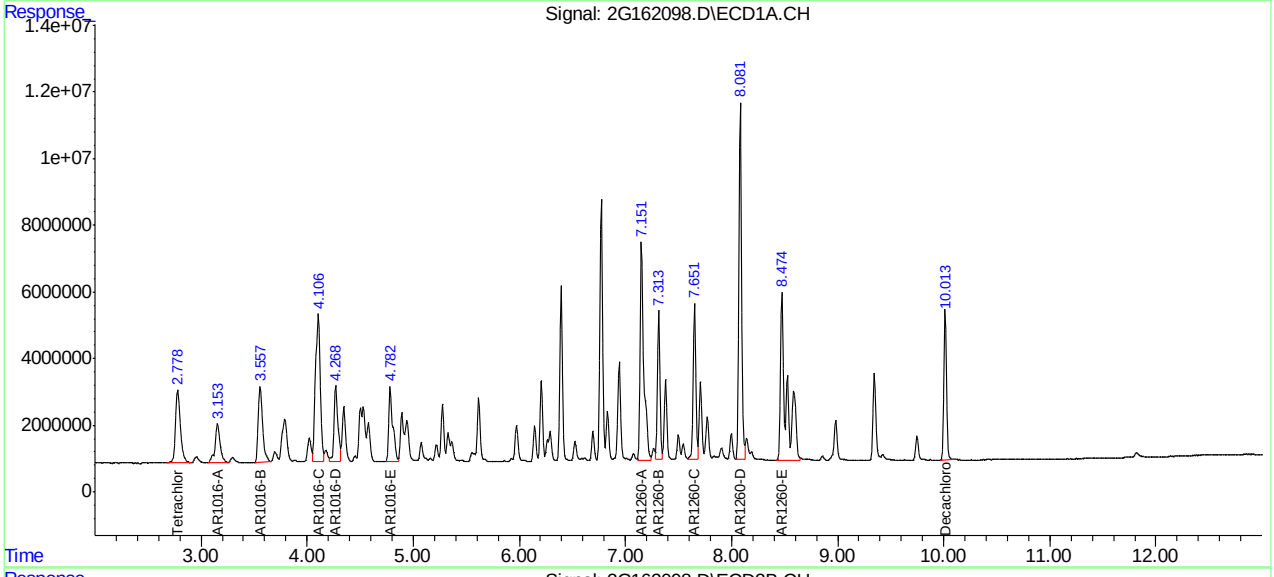
11.6.2 11

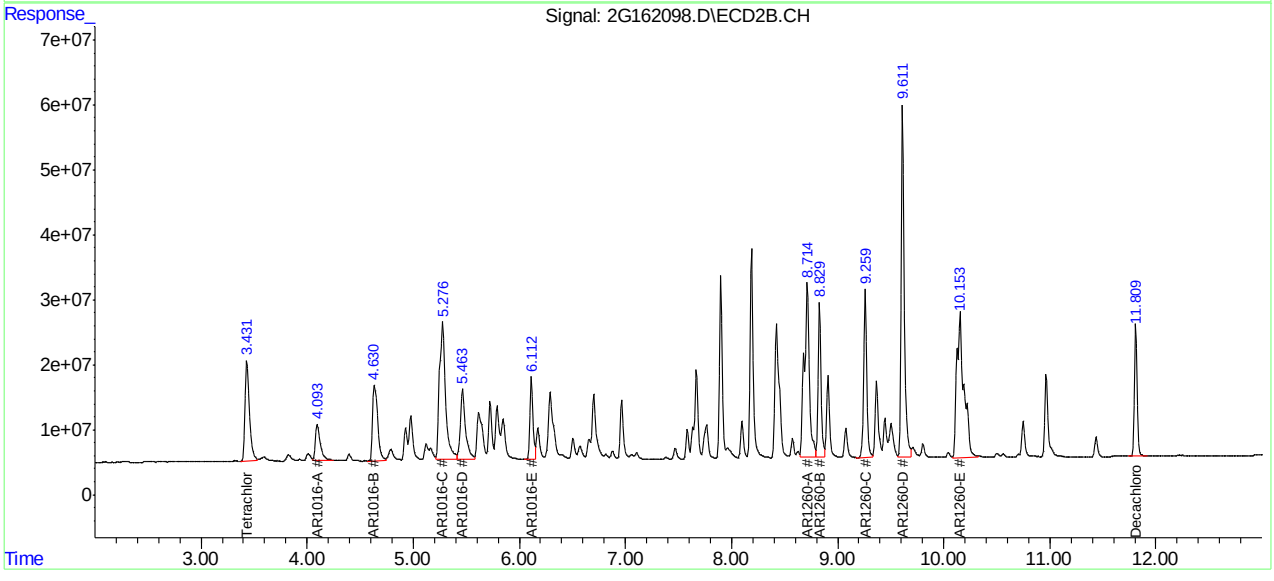
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:37:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162098.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 12:45	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

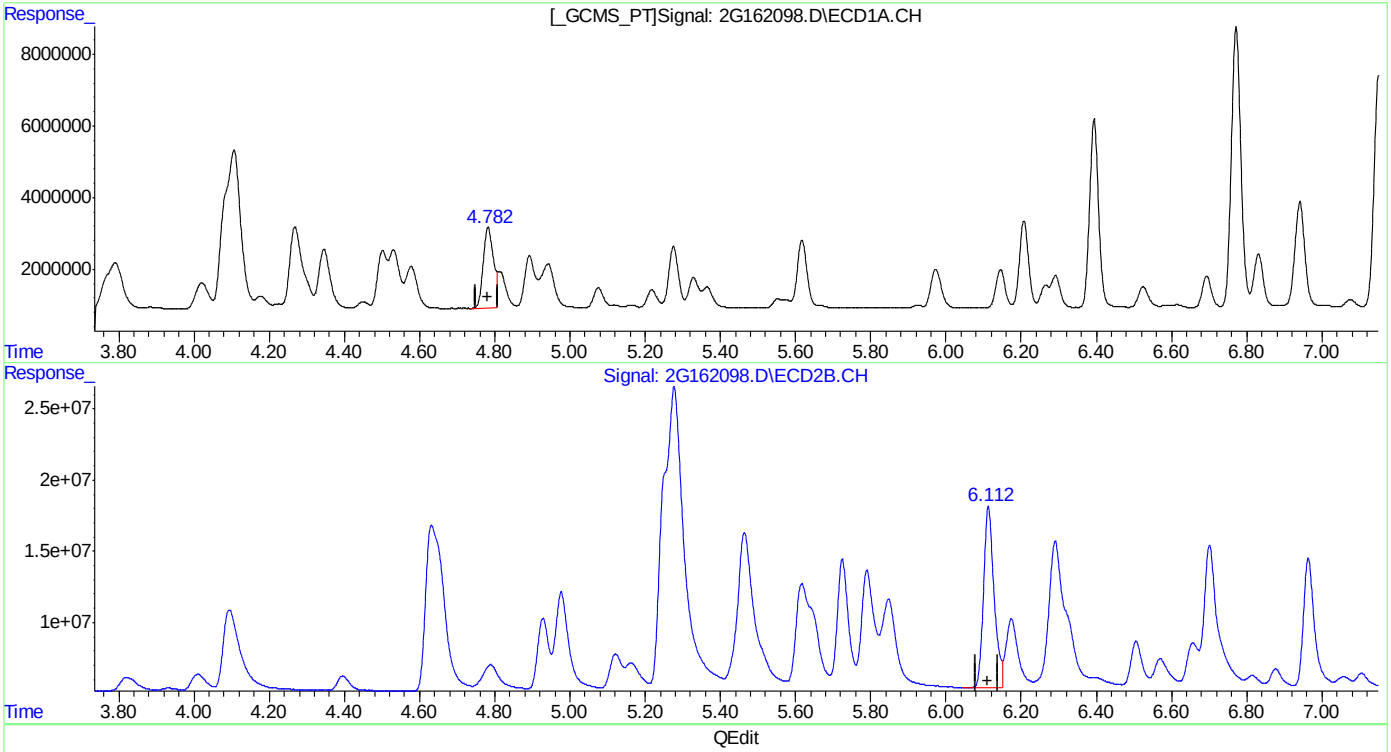
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		1	4.78	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(35) AR1016-E
4.782min 306.742PPB
response 43161068

(35) AR1016-E #2
6.113min 432.237PPB
response 246151896

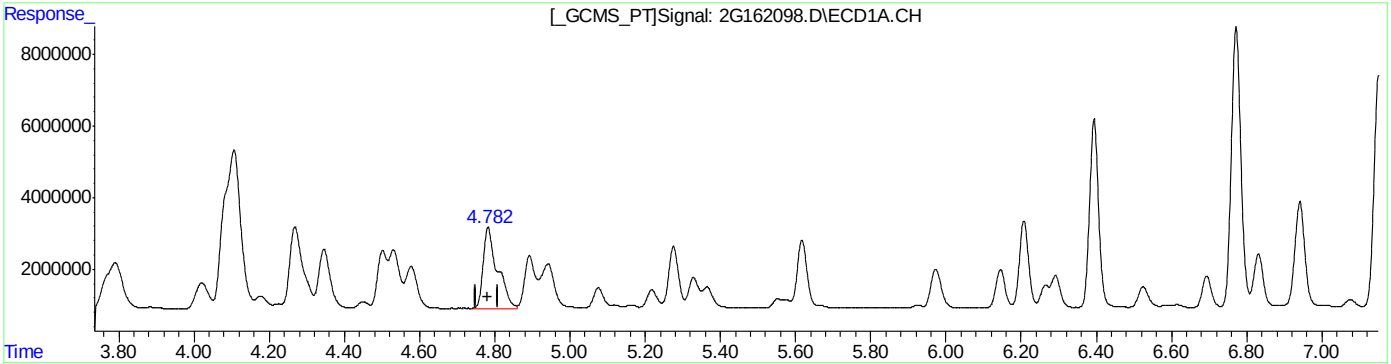
(+) = Expected Retention Time

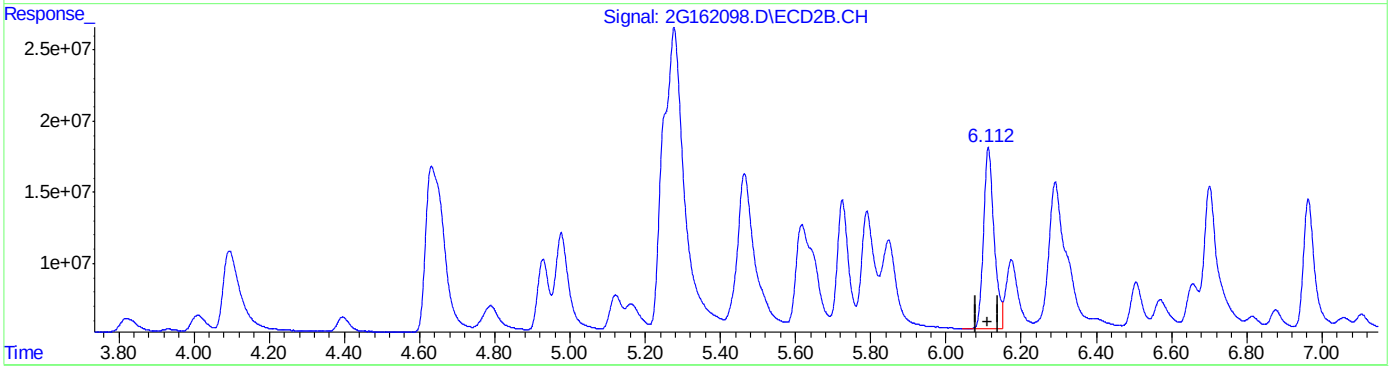
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(35) AR1016-E
4.782min 420.749PPB m
response 59202818

(35) AR1016-E #2
6.113min 432.237PPB
response 246151896

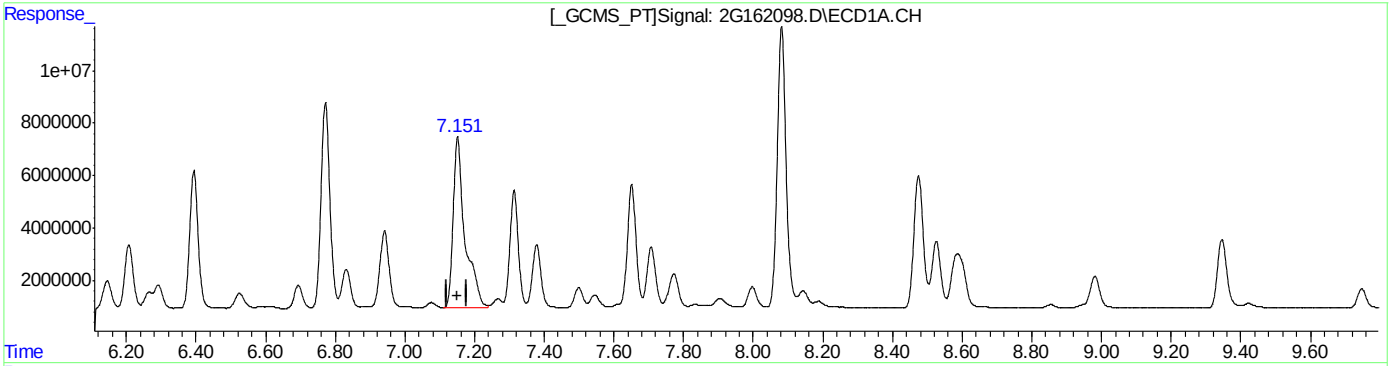
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:36:28 2018 RPT1

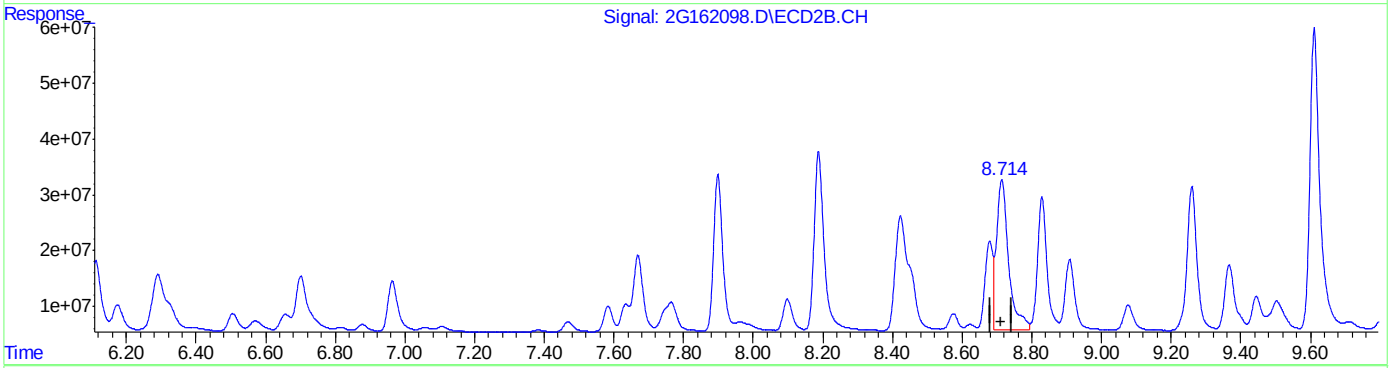
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.151min 404.766PPB
response 153891736

(36) AR1260-A #2
8.714min 350.412PPB
response 652523715

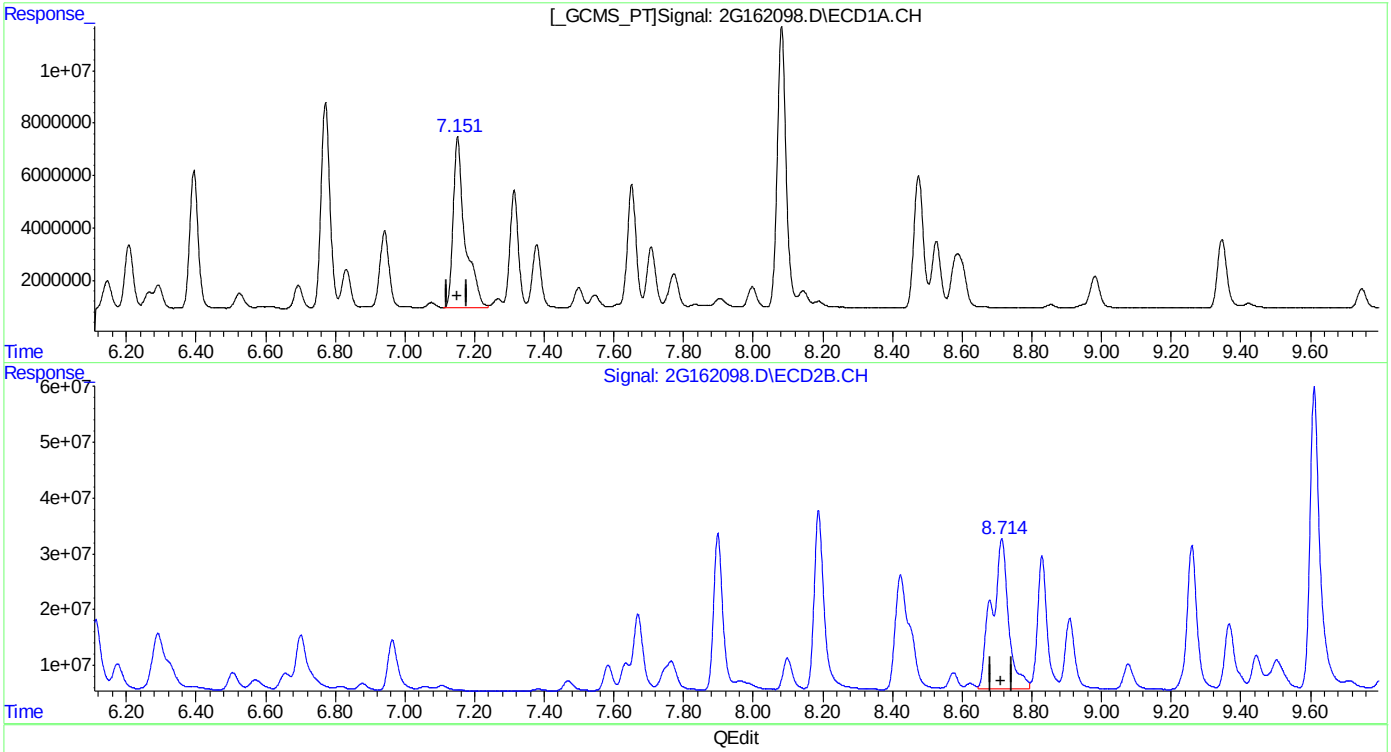
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 404.766PPB
response 153891736

(36) AR1260-A #2
8.714min 488.798PPB m
response 910220199

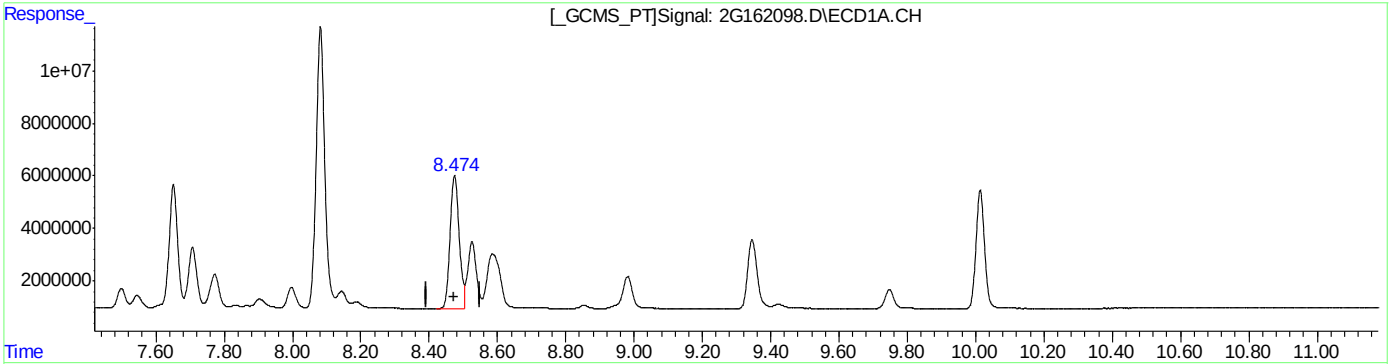
(+) = Expected Retention Time

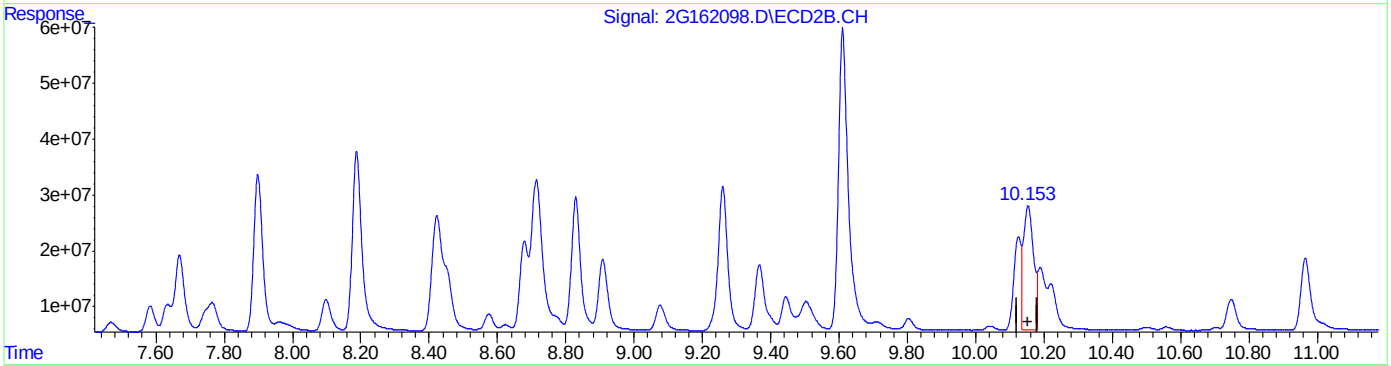
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.475min 216.506PPB
response 94200169

(40) AR1260-E #2
10.154min 219.008PPB
response 448257209

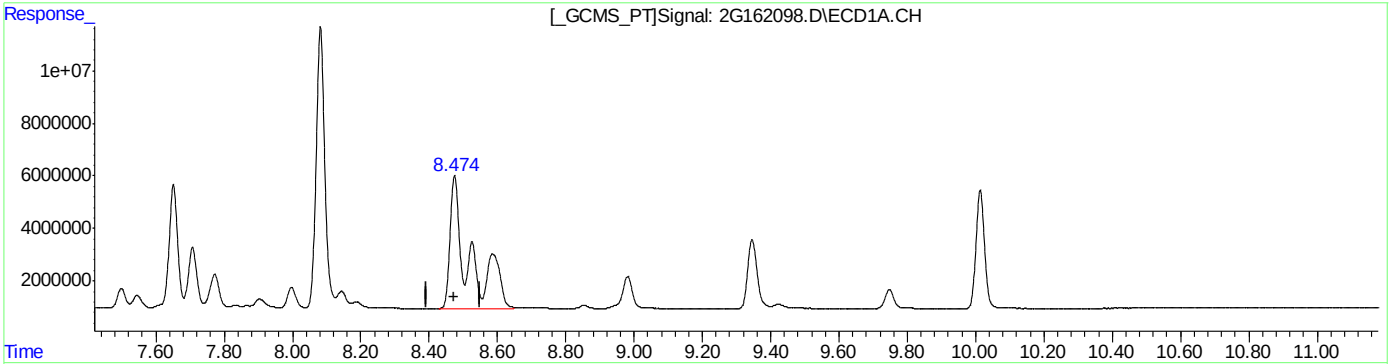
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:36:50 2018 RPT1

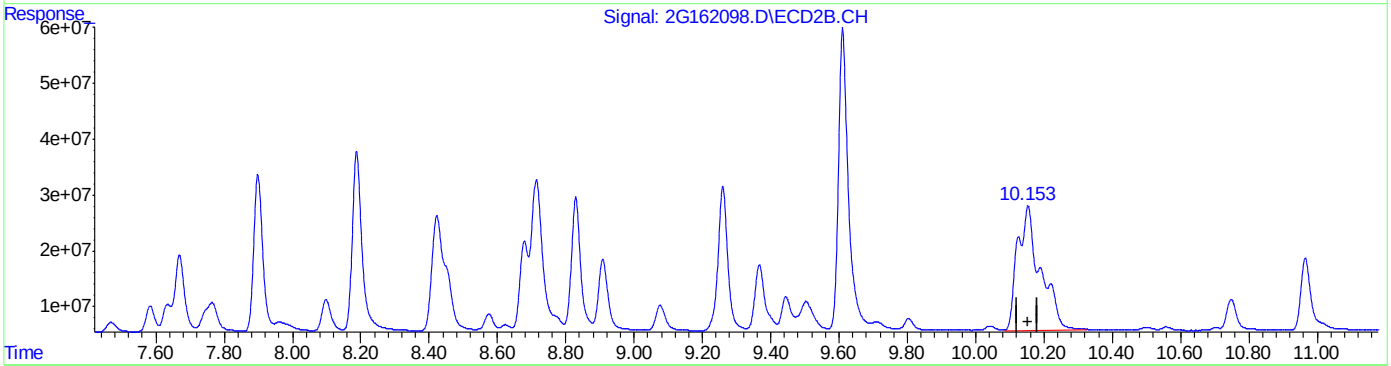
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.474min 447.646PPB m
response 194767242

(40) AR1260-E #2
10.153min 510.257PPB m
response 1044376932

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
1)	S Tetrachlo...	2.778	3.432	147.7E6	928.7E6	33.797	30.364	
	Spiked Amount 40.000			Recovery	=	84.49%	75.91%	
51)	S Decachlor...	10.013	11.809	157.2E6	749.6E6	34.886	39.555	
	Spiked Amount 40.000			Recovery	=	87.22%	98.89%	
	Target Compounds							
31)	AR1016-A	3.155	4.092	75576037	366.7E6	827.627	761.652	
32)	AR1016-B	3.557	4.630	130.4E6	777.2E6	1133.202	804.122	#
33)	AR1016-C	4.107	5.275	285.4E6	1744.2E6	773.001	833.586	
34)	AR1016-D	4.268	5.461	115.7E6	737.8E6	860.556	953.596	
35)	AR1016-E	4.782	6.112	117.6E6	502.9E6	835.629m	883.134	
36)	AR1260-A	7.151	8.712	317.8E6	1882.4E6	835.813	1010.865m	
37)	AR1260-B	7.312	8.828	153.0E6	917.3E6	895.825	941.444	
38)	AR1260-C	7.650	9.260	169.0E6	1051.3E6	1020.047	1122.233	
39)	AR1260-D	8.080	9.610	395.3E6	2256.3E6	855.811	959.373	
40)	AR1260-E	8.472	10.153	402.6E6	2144.0E6	925.282m	1047.495m	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

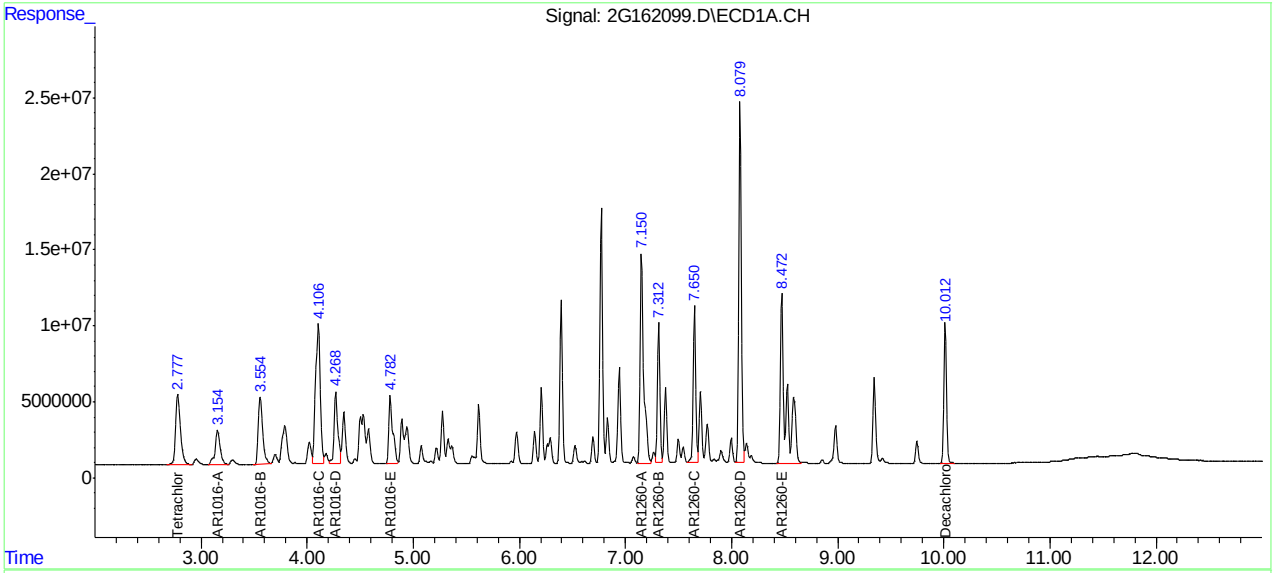
11.6.3 11

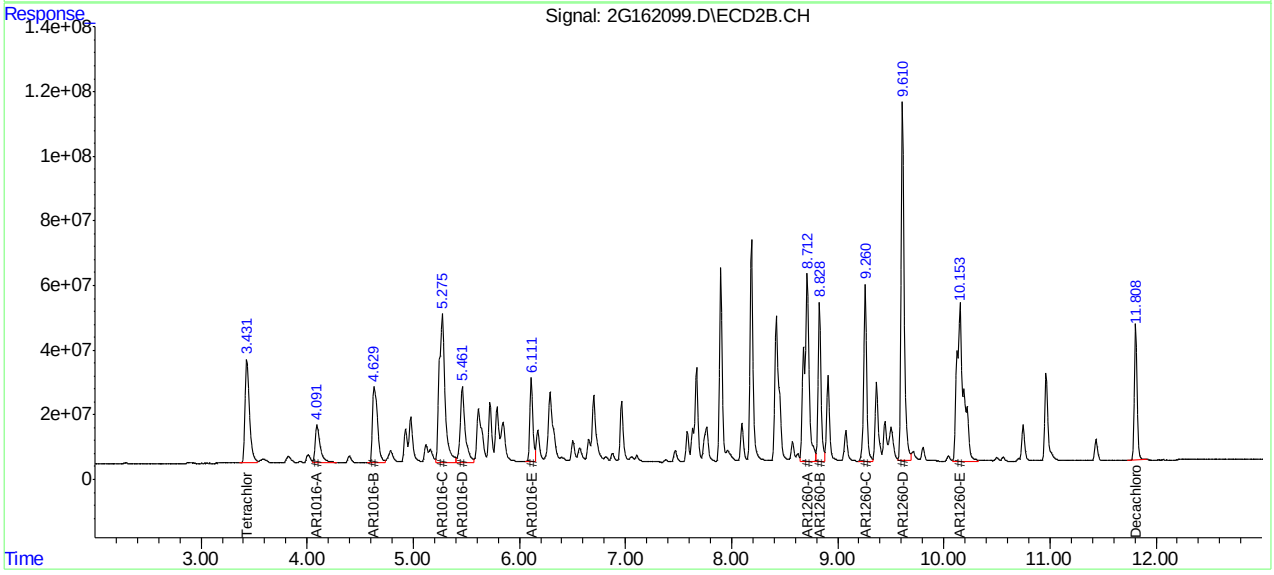
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICC4311	**Method:**	SW846 8082A
Lab FileID:	2G162099.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 13:02	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

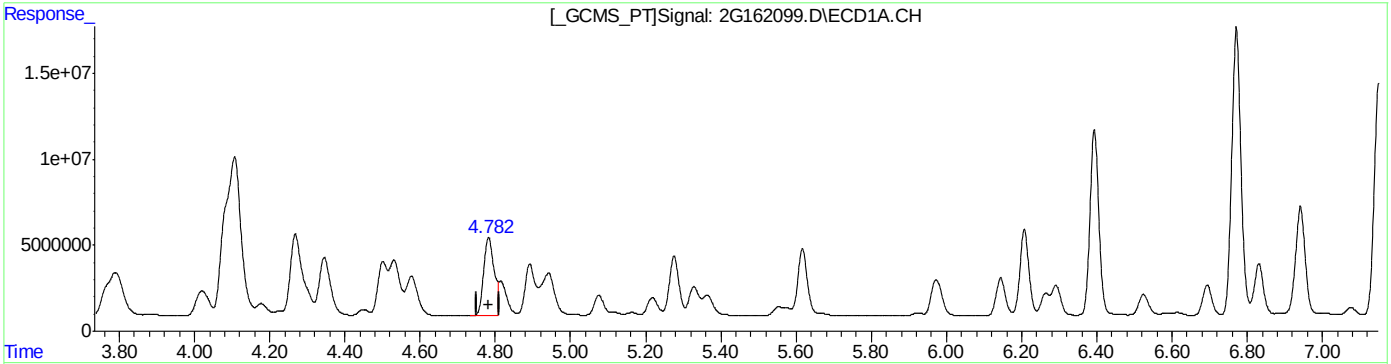
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		1	4.78	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

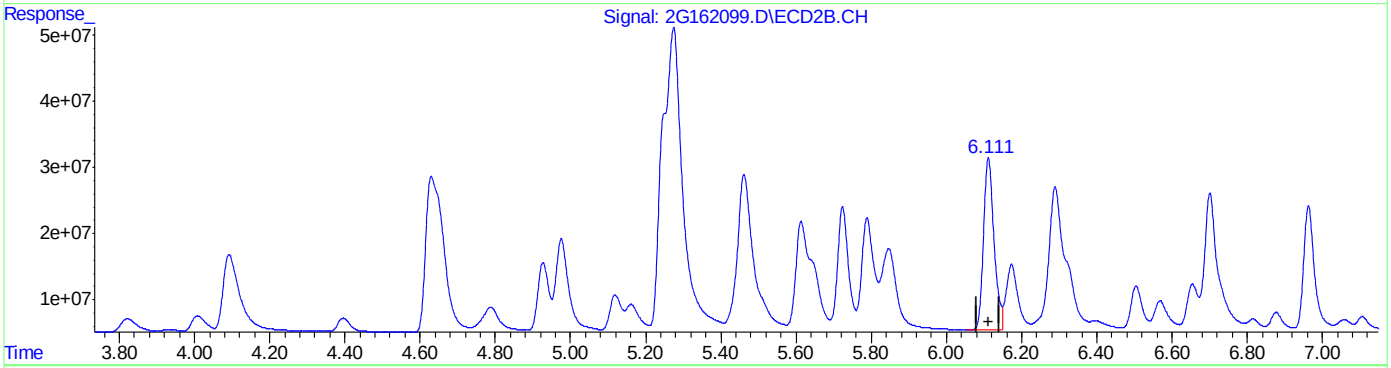
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(35) AR1016-E
4.782min 619.178PPB
response 87123426

(35) AR1016-E #2
6.112min 883.134PPB
response 502930503

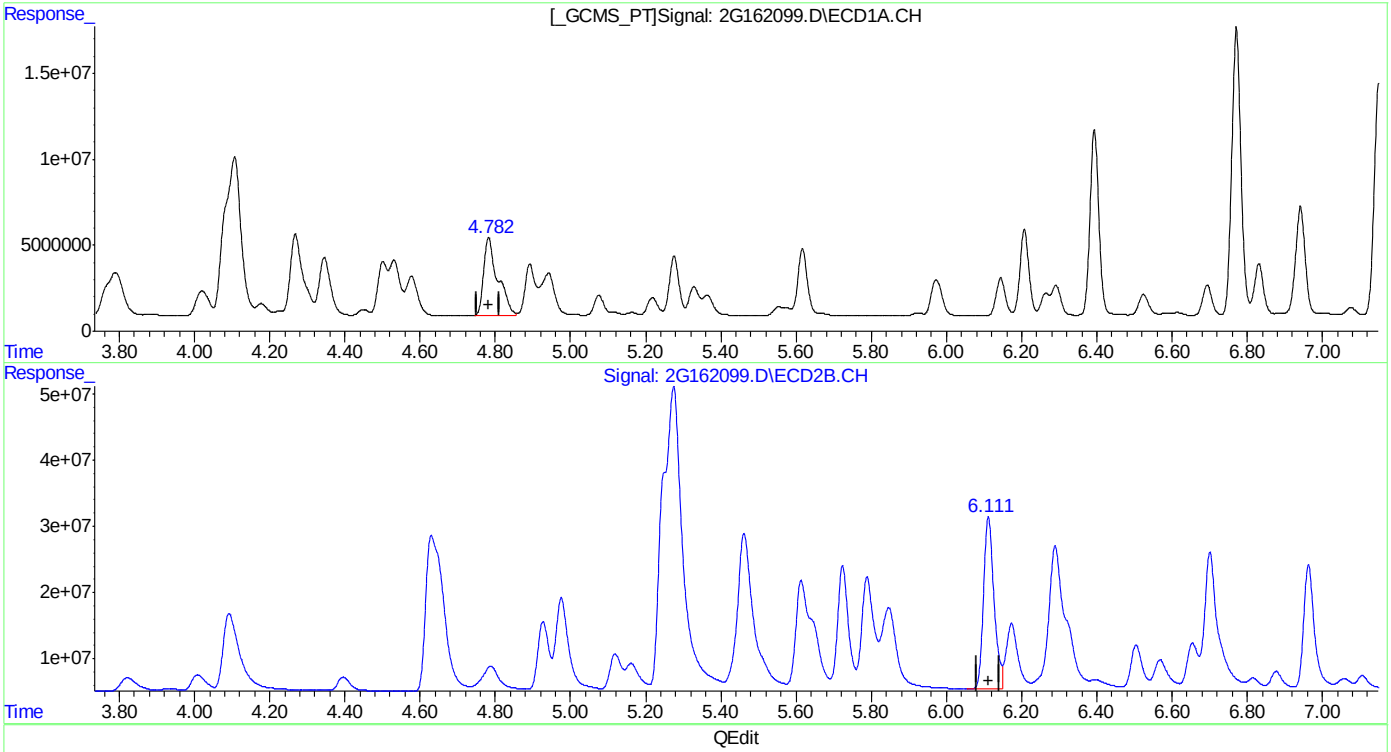
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(35) AR1016-E
4.782min 835.629PPB m
response 117579859

(35) AR1016-E #2
6.112min 883.134PPB
response 502930503

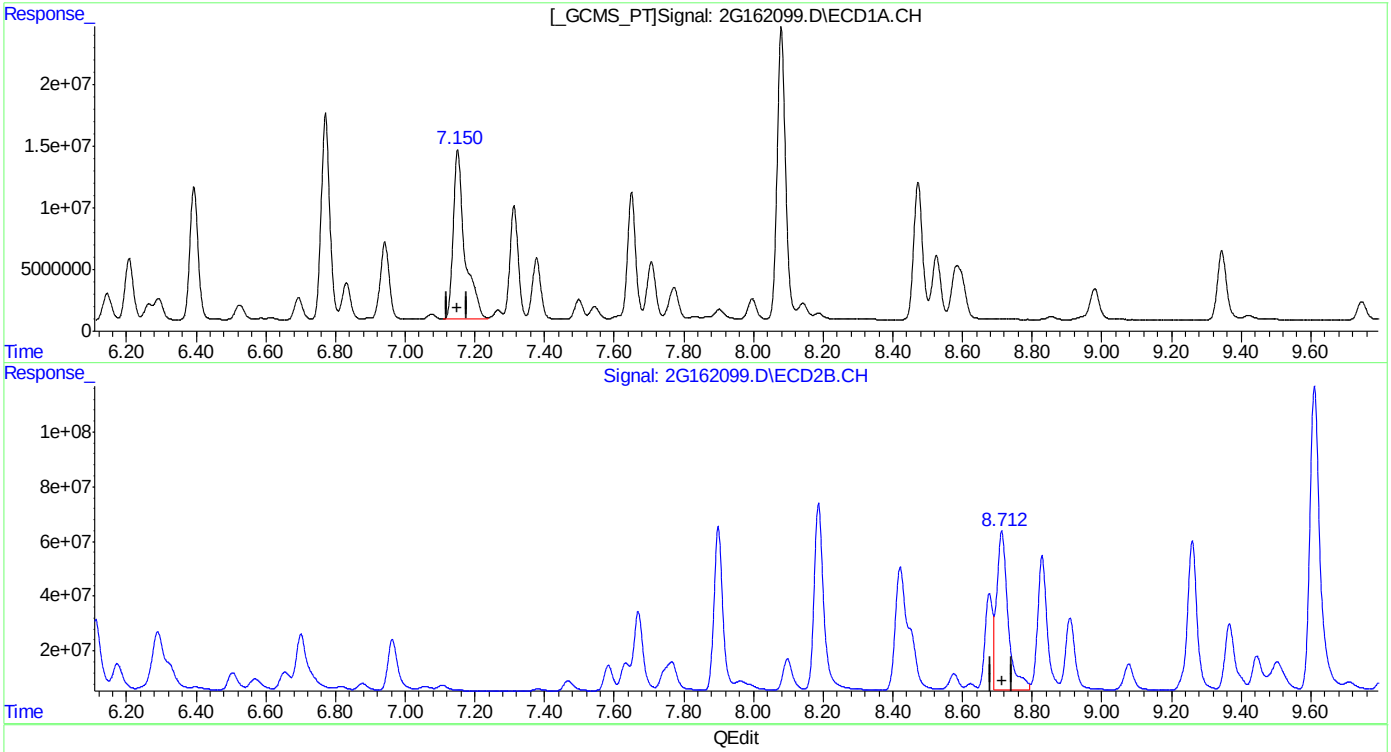
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 835.813PPB
response 317775802

(36) AR1260-A #2
8.713min 713.165PPB
response 1328026831

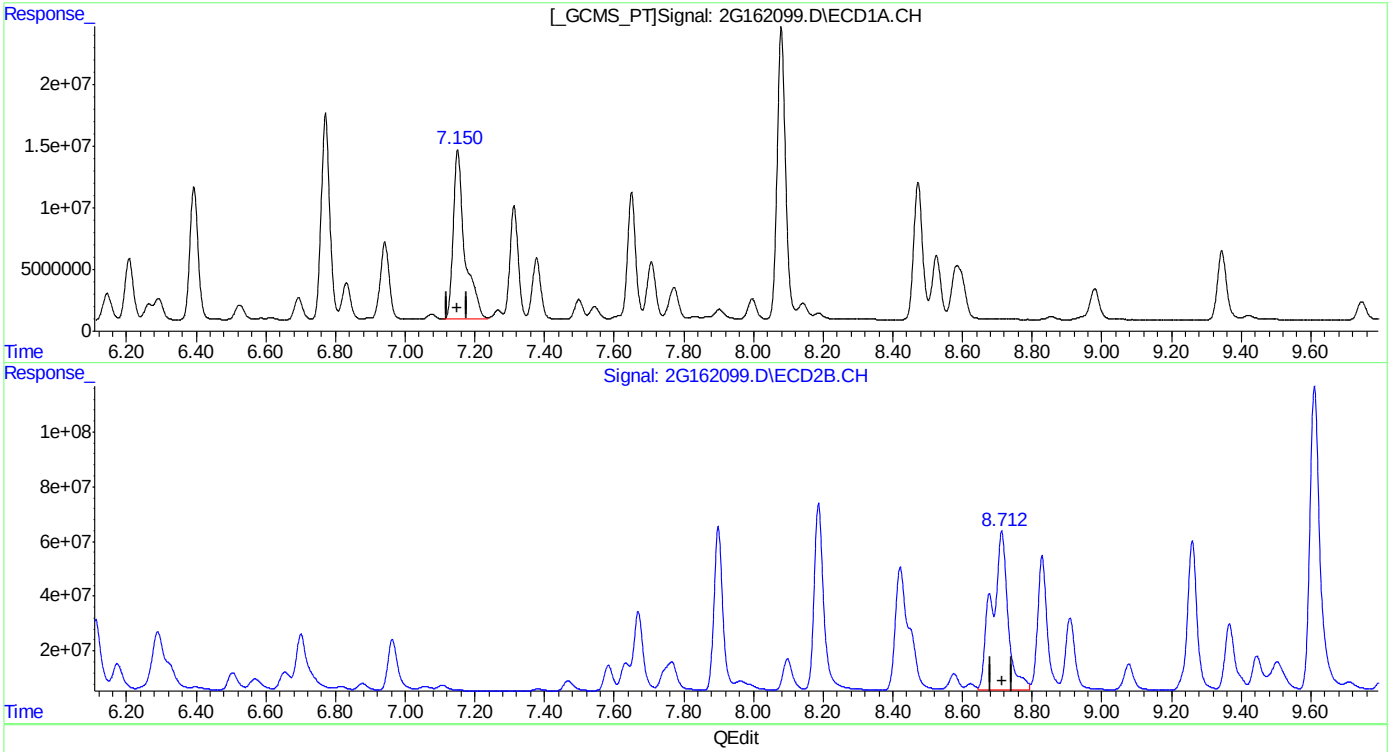
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:32:56 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 835.813PPB
response 317775802

(36) AR1260-A #2
8.712min 1010.865PPB m
response 1882392227

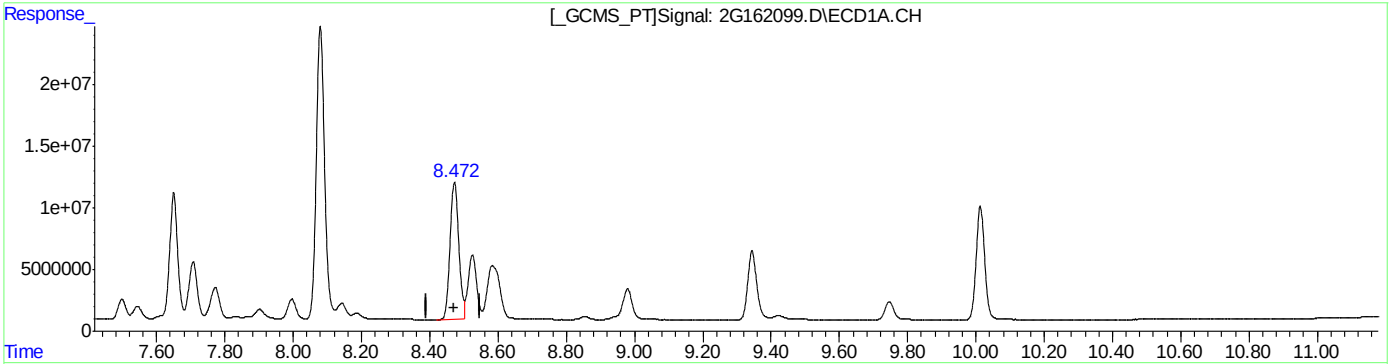
(+) = Expected Retention Time

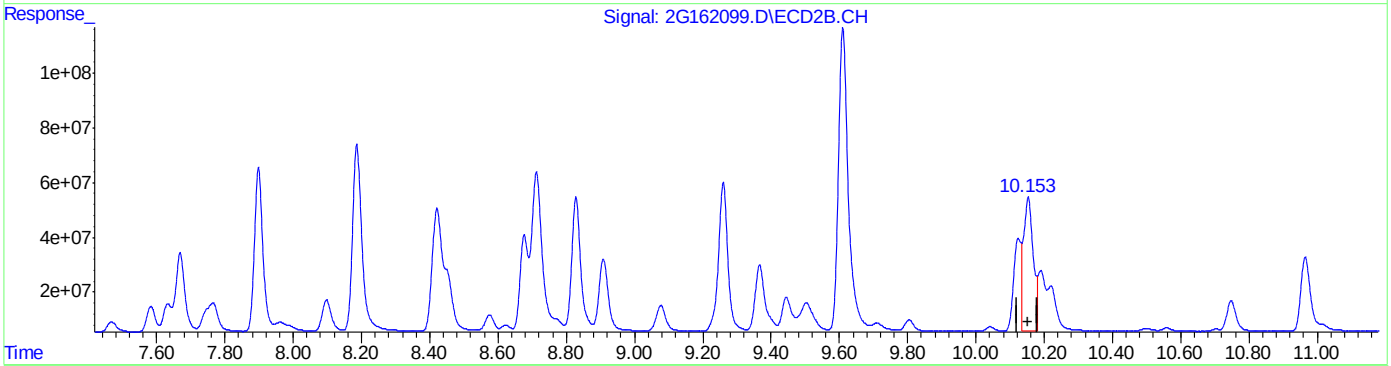
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.473min 455.176PPB
response 198043542

(40) AR1260-E #2
10.153min 470.111PPB
response 962206715

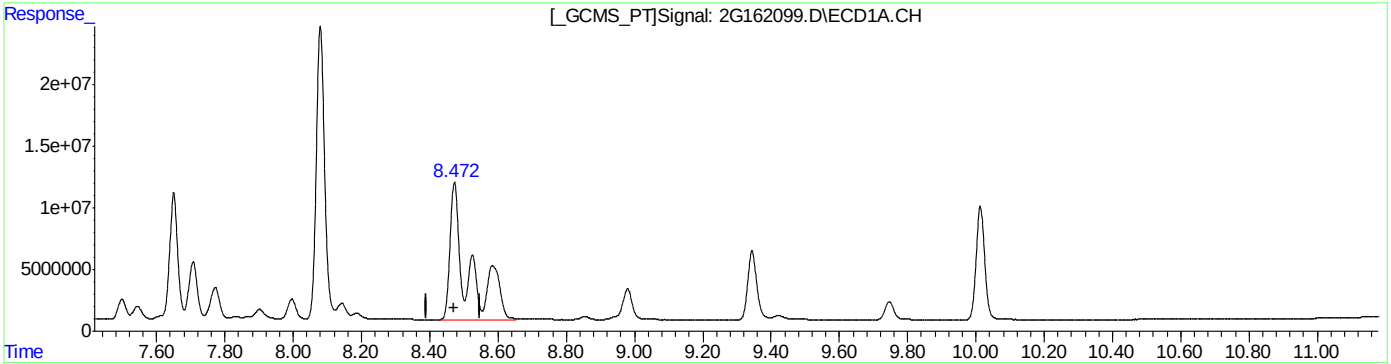
(+) = Expected Retention Time

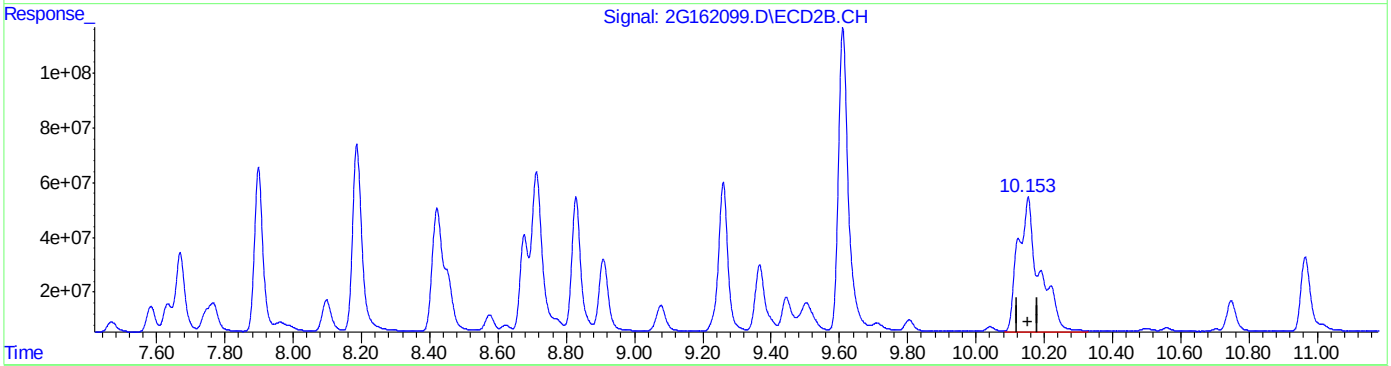
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.472min 925.282PPB m
response 402582918

(40) AR1260-E #2
10.153min 1047.495PPB m
response 2143977225

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:33:21 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:35:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.779	3.431	293.4E6	1839.9E6	67.140	60.158
	Spiked Amount 40.000			Recovery	=	167.85%	150.40%
51) S	Decachlor...	10.011	11.809	306.0E6	1473.2E6	67.895	77.733
	Spiked Amount 40.000			Recovery	=	169.74%	194.33%
	Target Compounds						
31)	AR1016-A	3.154	4.088	142.5E6	706.5E6	1560.748	1467.398
32)	AR1016-B	3.557	4.628	248.4E6	1468.7E6	2158.143	1519.571 #
33)	AR1016-C	4.105	5.269	559.4E6	3437.9E6	1515.198	1643.034m
34)	AR1016-D	4.267	5.458	223.8E6	1423.4E6	1664.568	1839.787
35)	AR1016-E	4.781	6.109	229.0E6	1004.6E6	1627.184m	1764.070
36)	AR1260-A	7.150	8.710	694.6E6	4085.5E6	1826.832	2193.943m
37)	AR1260-B	7.312	8.828	263.3E6	1607.9E6	1541.300	1650.207
38)	AR1260-C	7.649	9.259	296.0E6	1960.0E6	1786.948	2092.348
39)	AR1260-D	8.079	9.607	724.1E6	4125.5E6	1567.540	1754.127
40)	AR1260-E	8.470	10.150	722.1E6	3867.0E6	1659.737m	1889.312m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

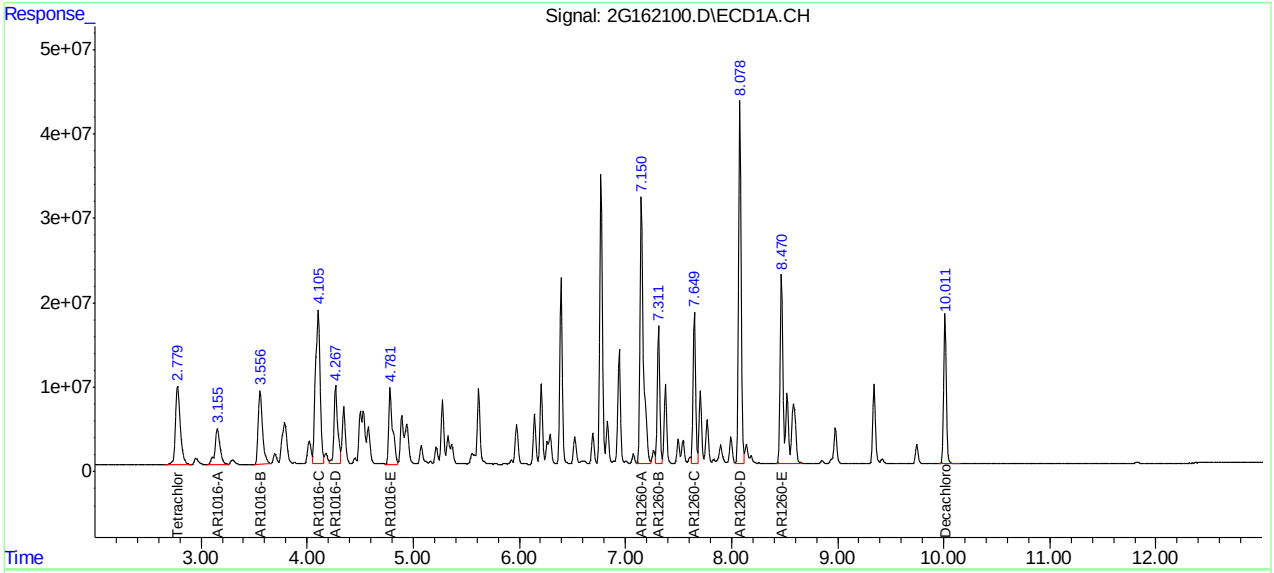
11.6.4 11

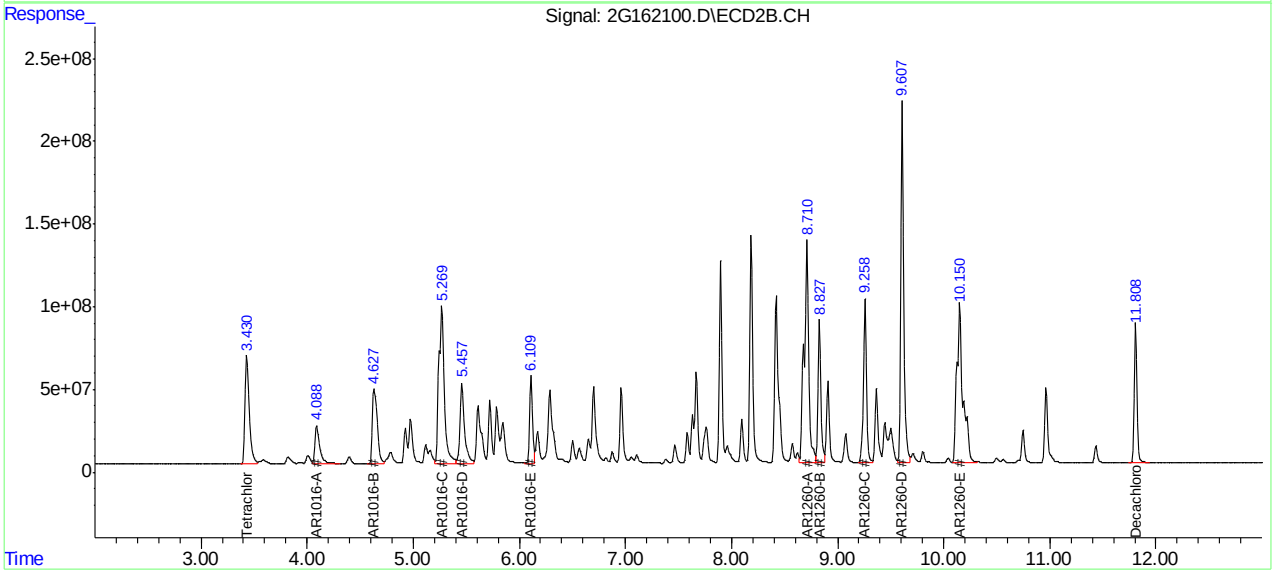
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:35:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162100.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 13:19	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

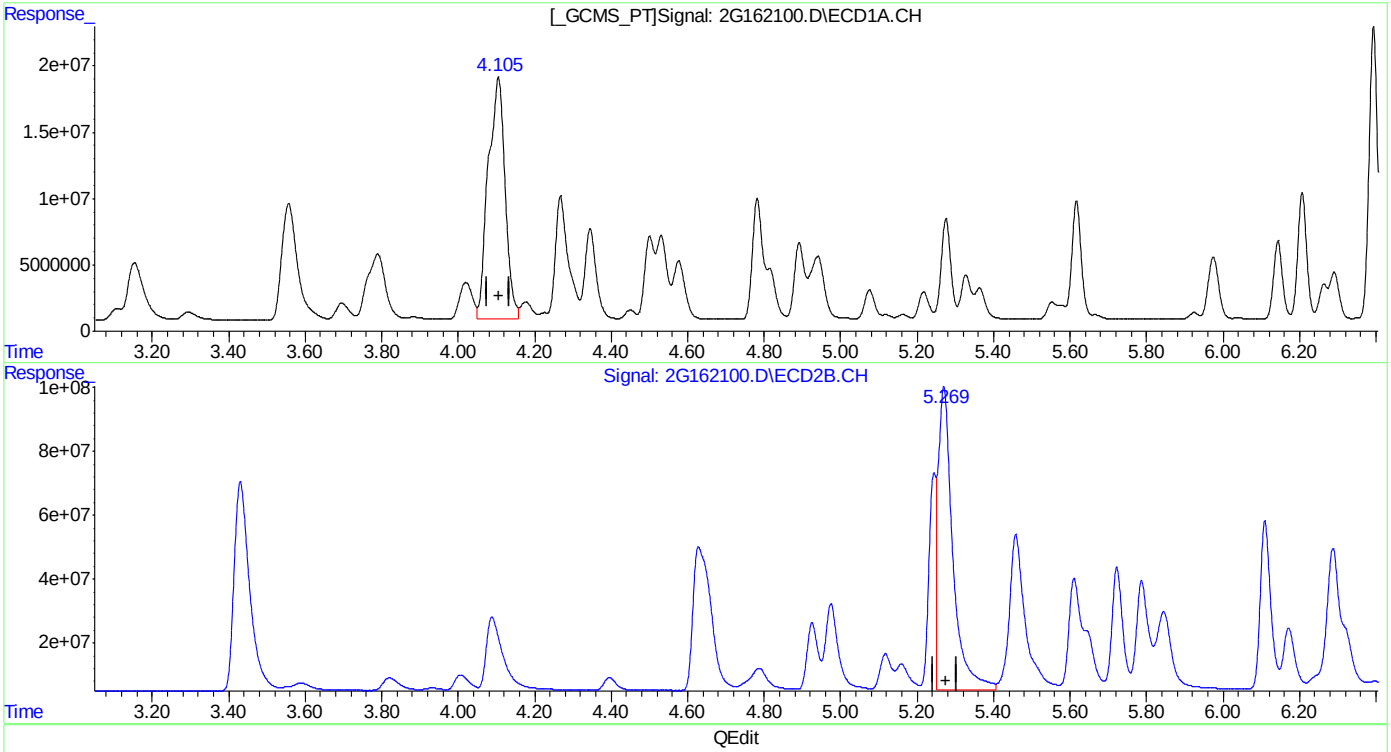
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		1	4.78	Split peak
AR1016-C		2	5.27	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(33) AR1016-C
4.105min 1515.198PPB
response 559372601

(33) AR1016-C #2
5.270min 1223.870PPB
response 2560828231

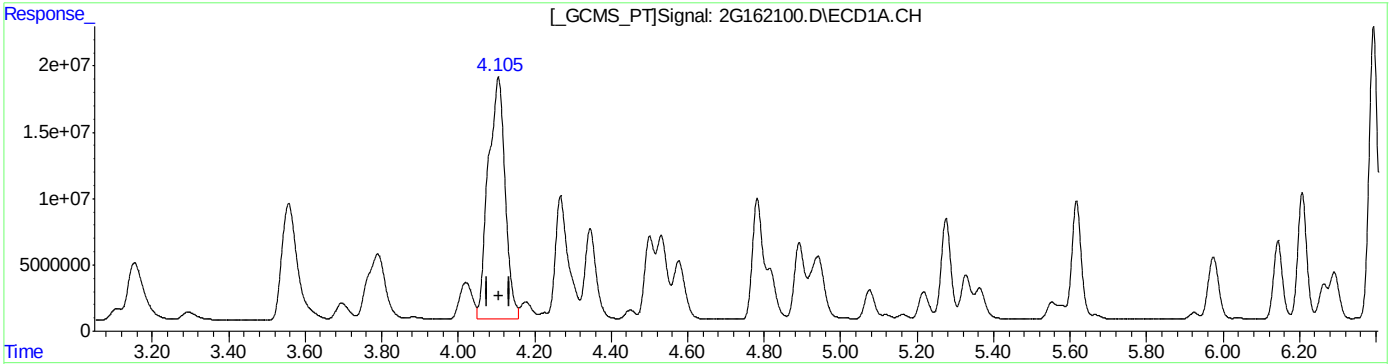
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:15 2018 RPT1

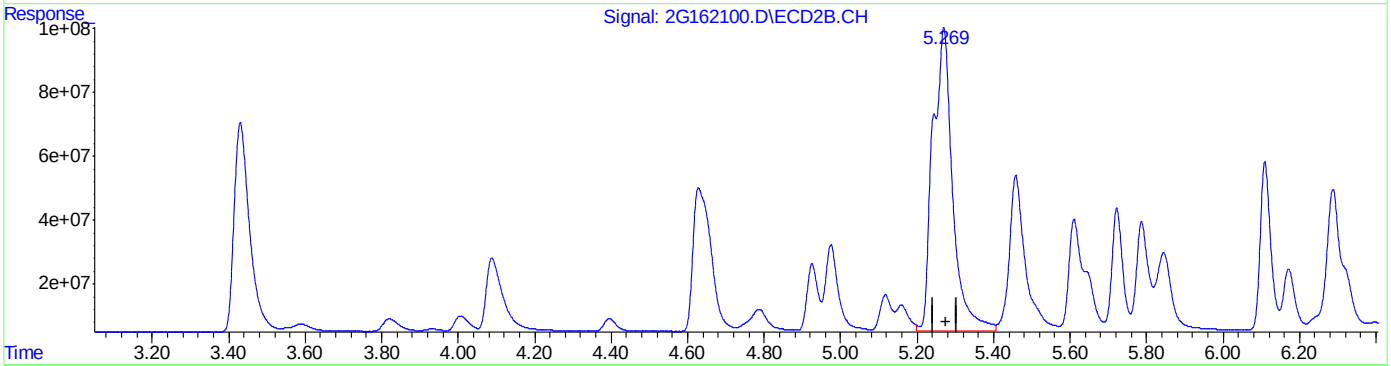
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(33) AR1016-C
4.105min 1515.198PPB
response 559372601

(33) AR1016-C #2
5.269min 1643.034PPB m
response 3437887302

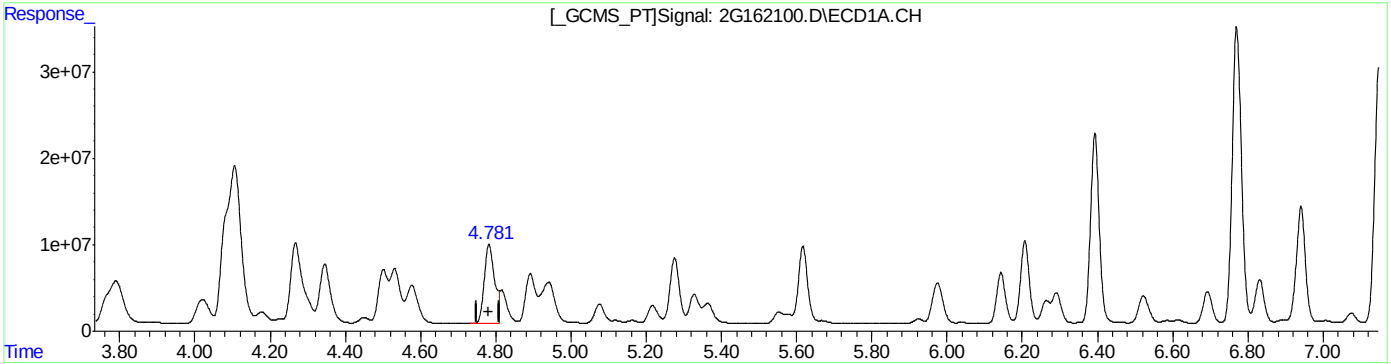
(+) = Expected Retention Time

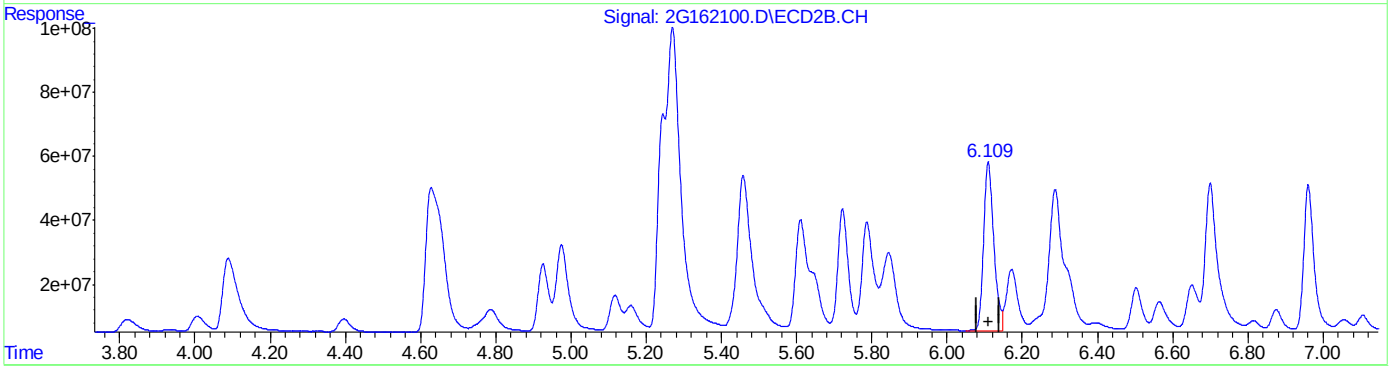
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(35) AR1016-E
4.782min 1217.083PPB
response 171253502

(35) AR1016-E #2
6.109min 1764.070PPB
response 1004609723

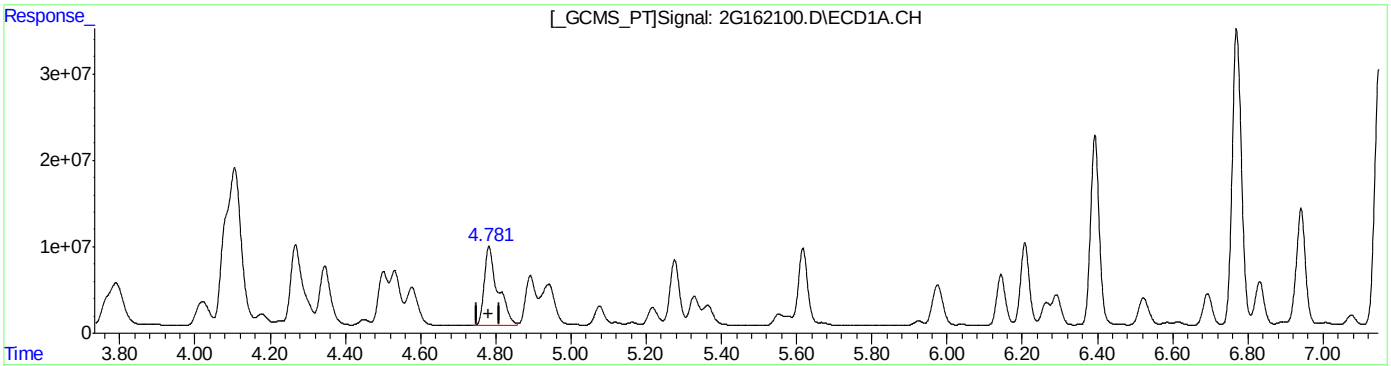
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:27 2018 RPT1

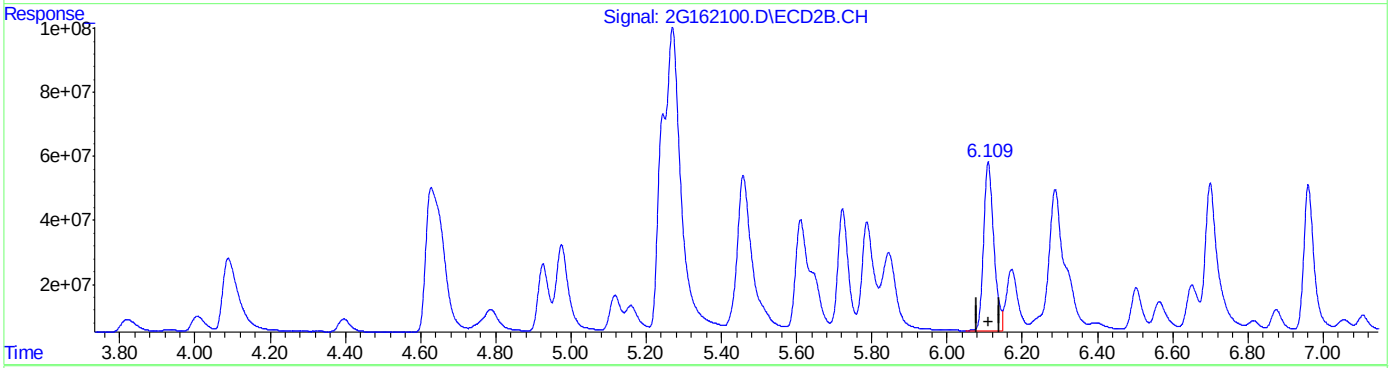
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(35) AR1016-E
4.781min 1627.184PPB m
response 228958036

(35) AR1016-E #2
6.109min 1764.070PPB
response 1004609723

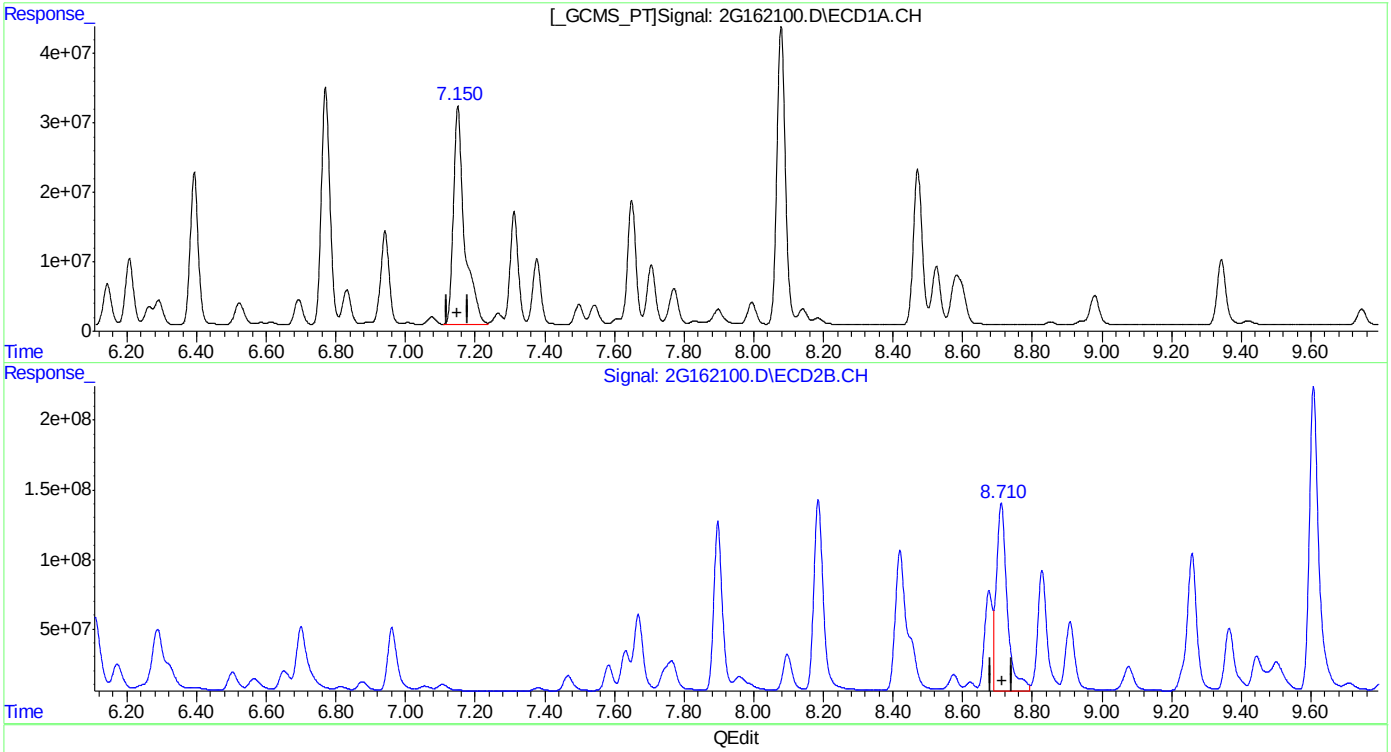
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:33 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.150min 1826.832PPB
response 694560748

(36) AR1260-A #2
8.711min 1587.197PPB
response 2955615106

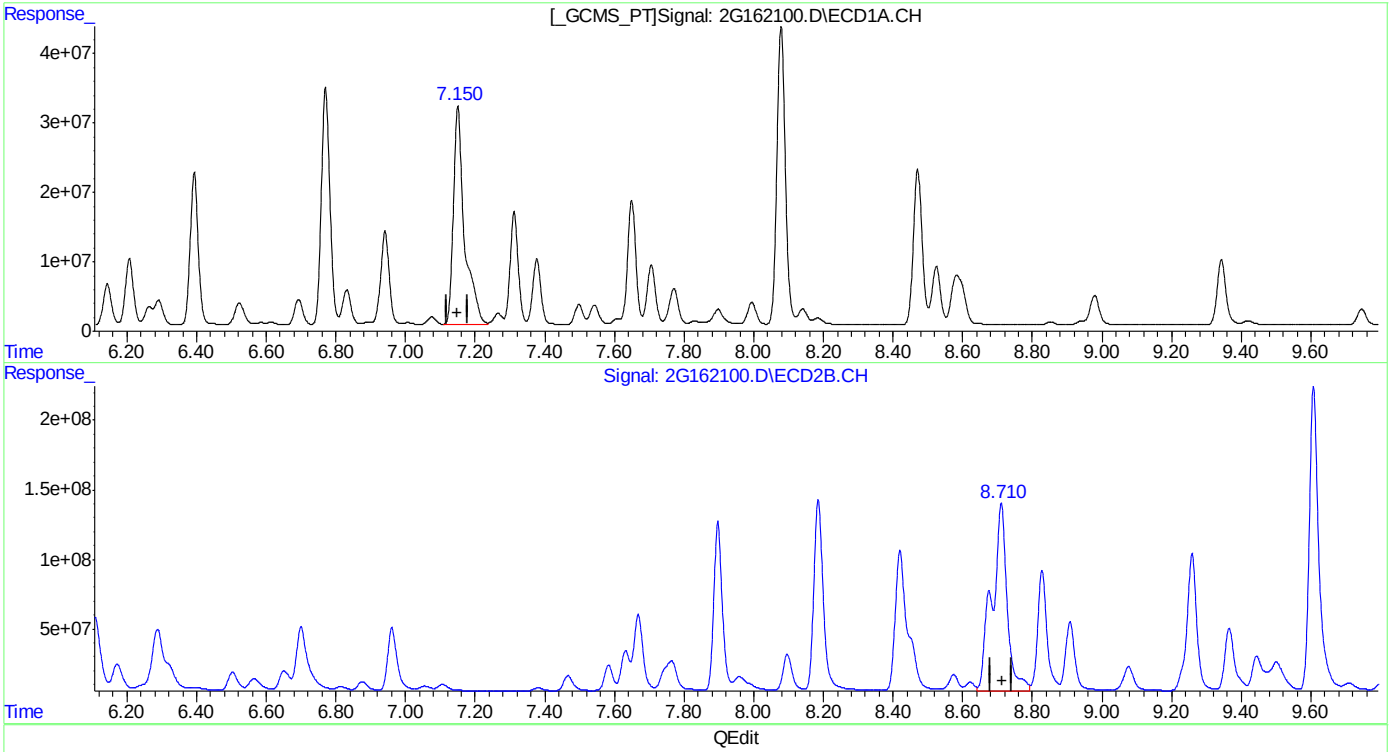
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:37 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.150min 1826.832PPB
response 694560748

(36) AR1260-A #2
8.710min 2193.943PPB m
response 4085472504

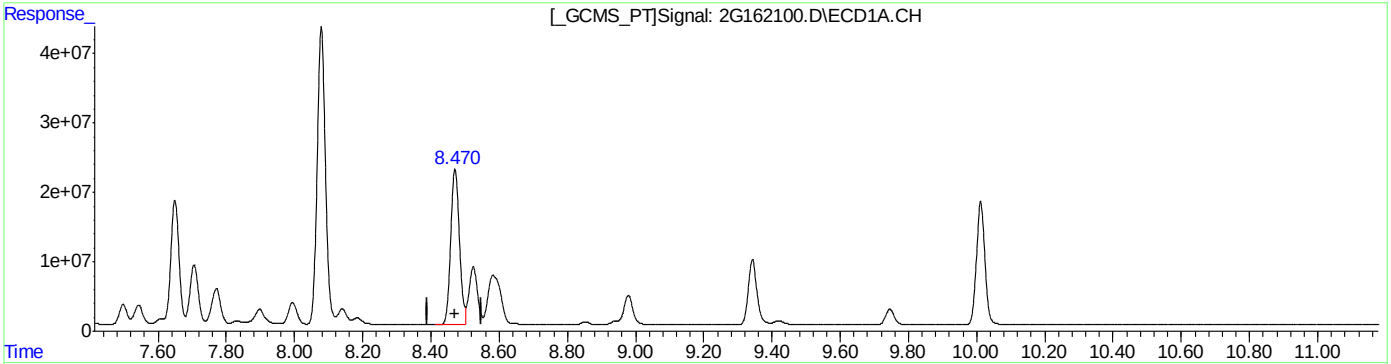
(+) = Expected Retention Time

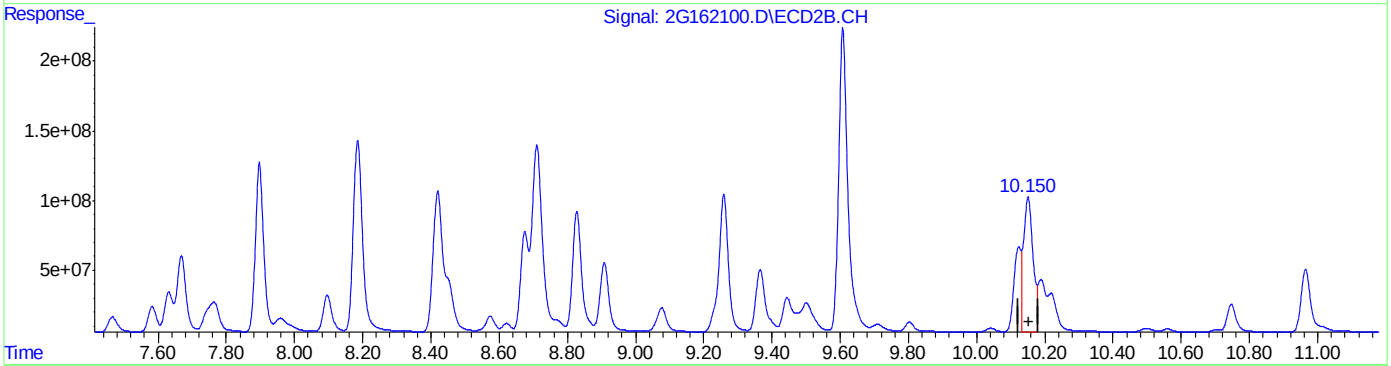
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.470min 902.190PPB
response 392535672

(40) AR1260-E #2
10.151min 932.845PPB
response 1909314979

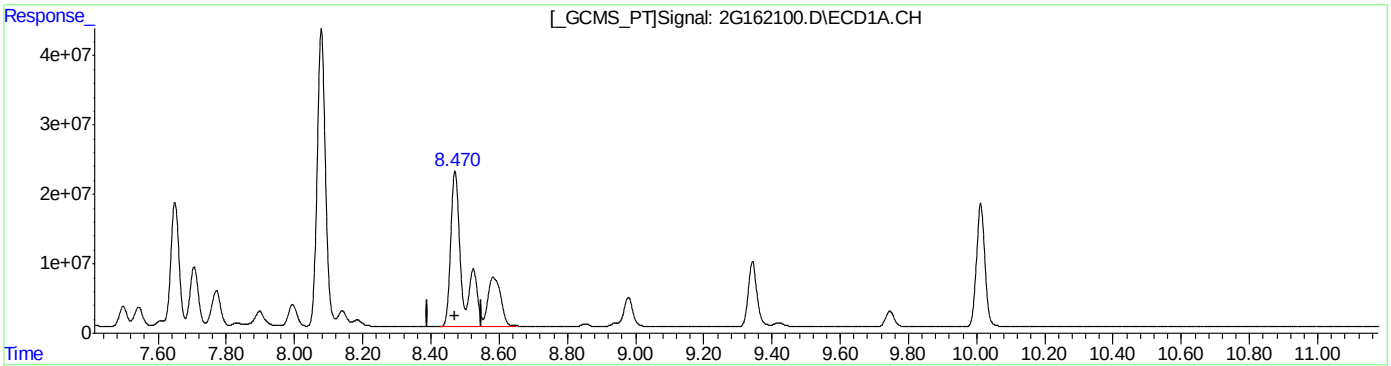
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:51 2018 RPT1

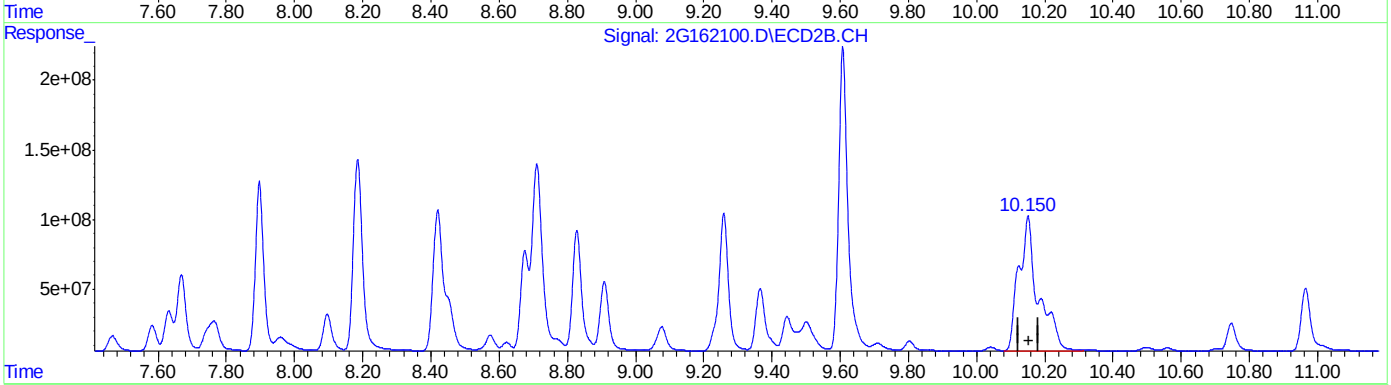
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.470min 1659.737PPB m
response 722138384

(40) AR1260-E #2
10.150min 1889.312PPB m
response 3866977621

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:35:04 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:51:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.780	3.430	454.2E6	2825.0E6	127.609	126.507
Spiked Amount	40.000			Recovery	=	319.02%	316.27%
51) S	Decachlor...	10.012	11.807	467.6E6	2260.6E6	123.371	132.472
Spiked Amount	40.000			Recovery	=	308.43%	331.18%
	Target Compounds						
31)	AR1016-A	3.154	4.088	213.2E6	1079.0E6	2920.892m	3078.922
32)	AR1016-B	3.558	4.629	374.2E6	2164.2E6	3145.582	2856.820
33)	AR1016-C	4.105	5.268	856.1E6	5162.9E6	3078.179	3140.786
34)	AR1016-D	4.268	5.457	341.9E6	2126.9E6	3104.332	3163.789
35)	AR1016-E	4.782	6.109	348.3E6	1537.2E6	3038.759	3205.970
36)	AR1260-A	7.149	8.708	1069.8E6	6243.4E6	3385.833	3502.573m
37)	AR1260-B	7.311	8.827	404.6E6	2447.4E6	2923.094	3045.990
38)	AR1260-C	7.649	9.257	458.0E6	3017.1E6	3056.095	3297.017
39)	AR1260-D	8.078	9.606	1113.6E6	6341.4E6	3124.355	3182.969
40)	AR1260-E	8.468	10.150	1100.5E6	5911.5E6	3048.503m	3181.045m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

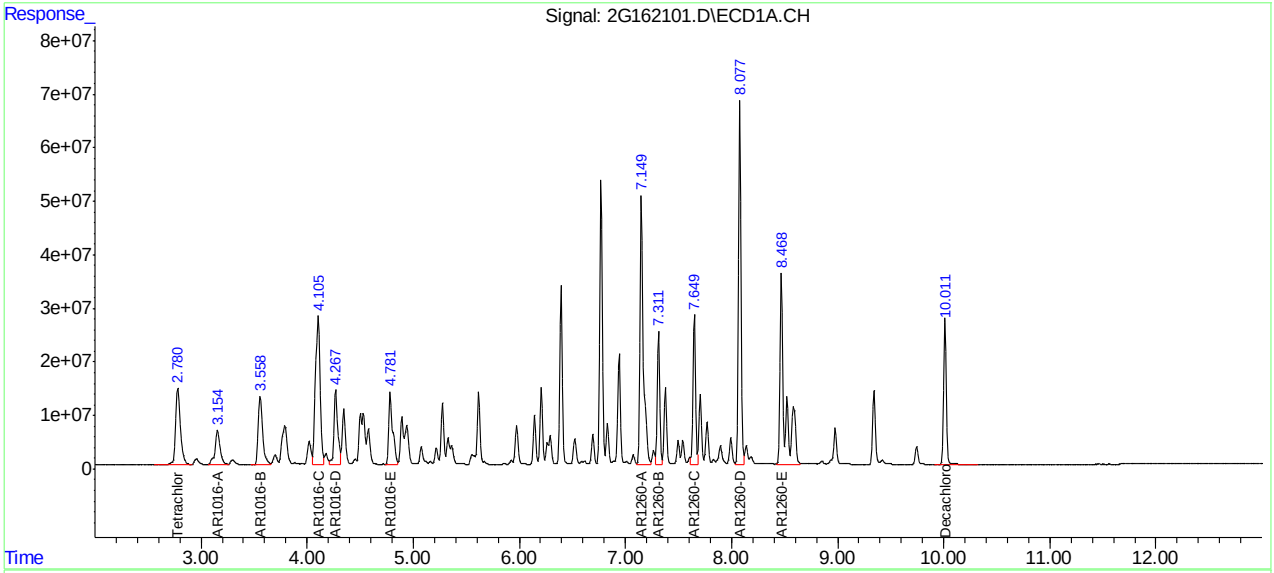
11.6.5 11

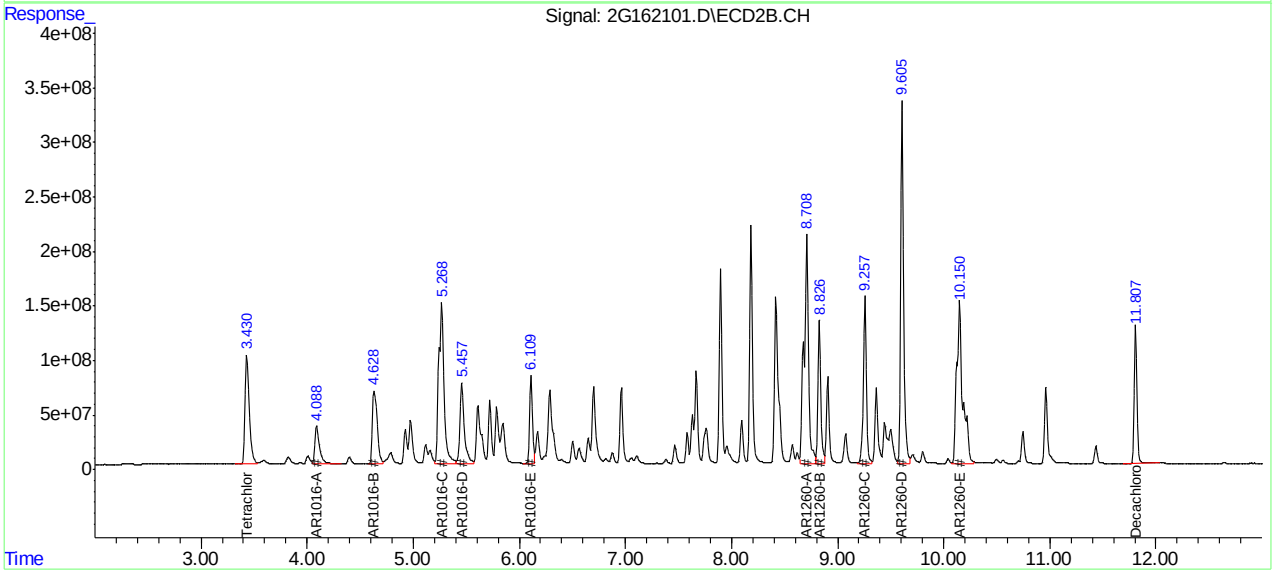
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:51:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162101.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 13:35	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

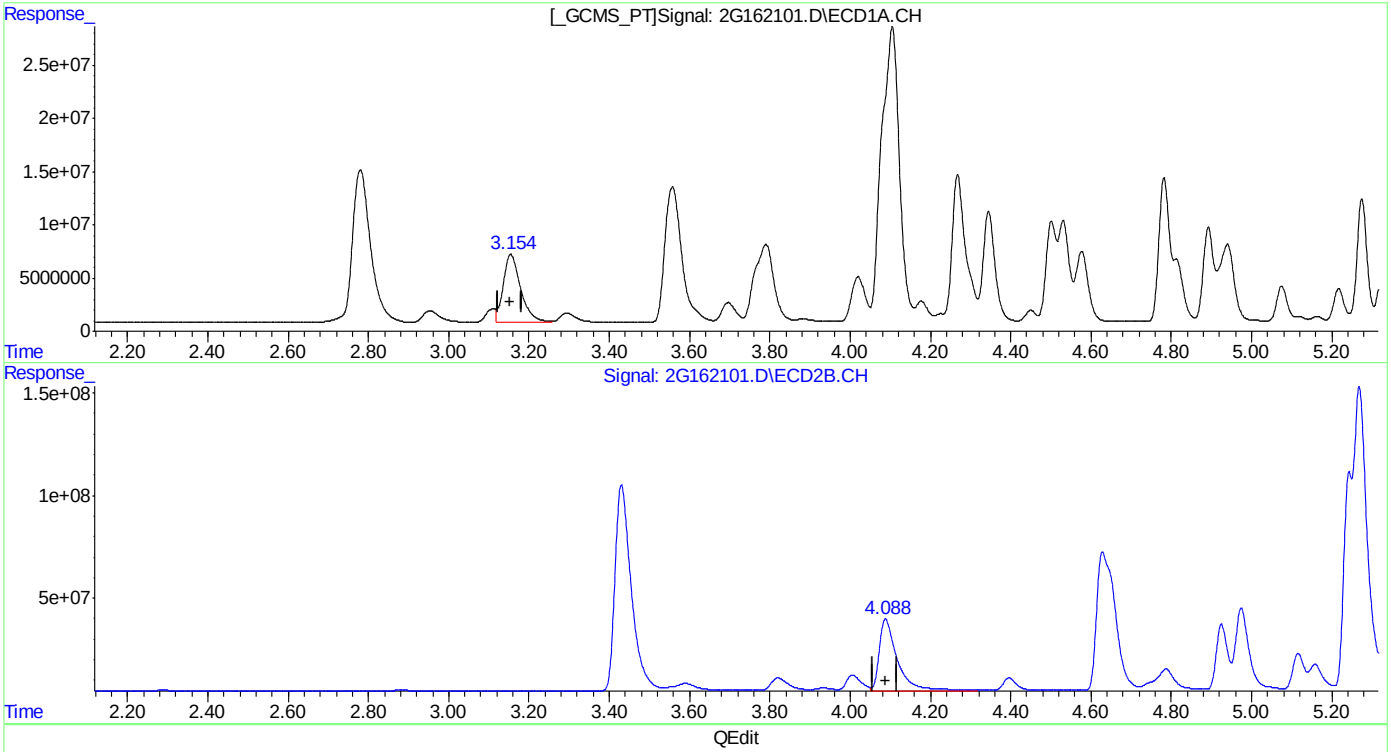
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		1	3.15	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.154min 2622.894PPB
response 191409629

(31) AR1016-A #2
4.088min 3078.922PPB
response 1078973022

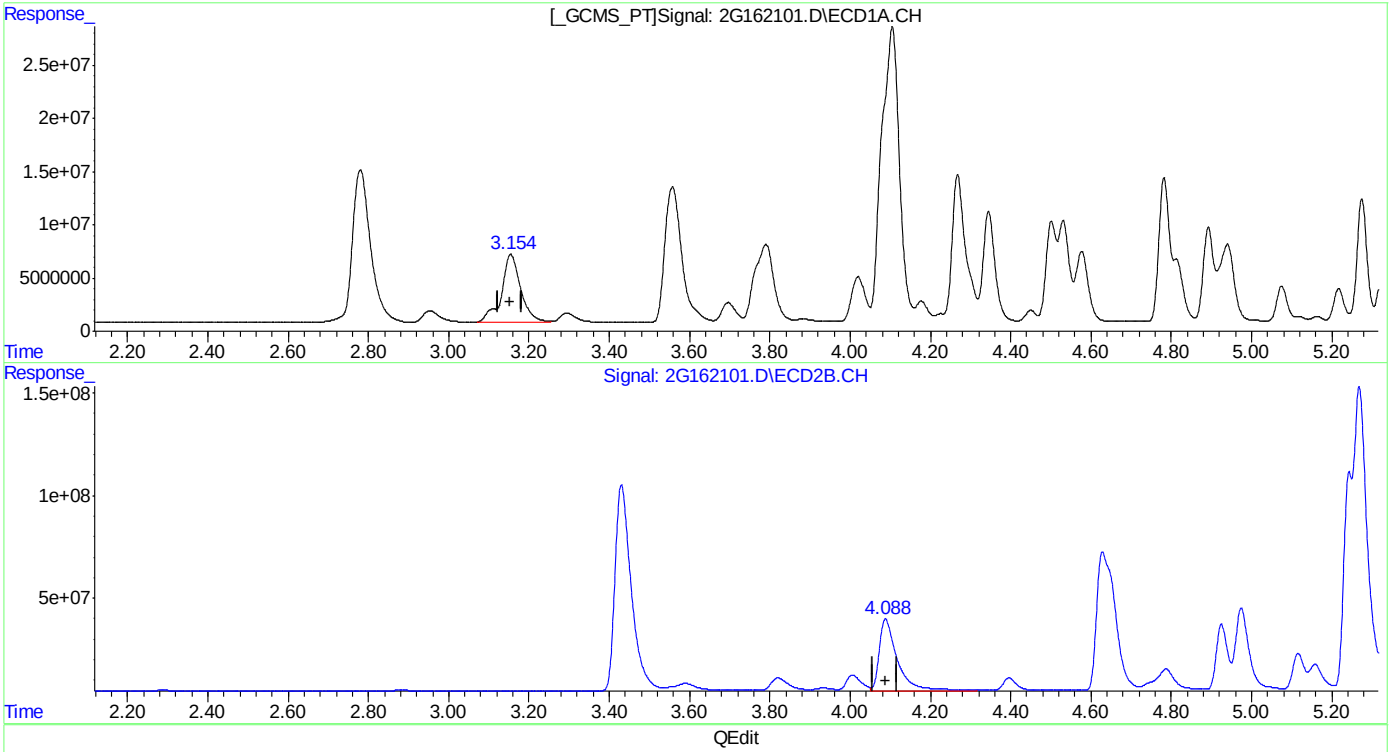
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:50:36 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.154min 2920.892PPB m
response 213156448

(31) AR1016-A #2
4.088min 3078.922PPB
response 1078973022

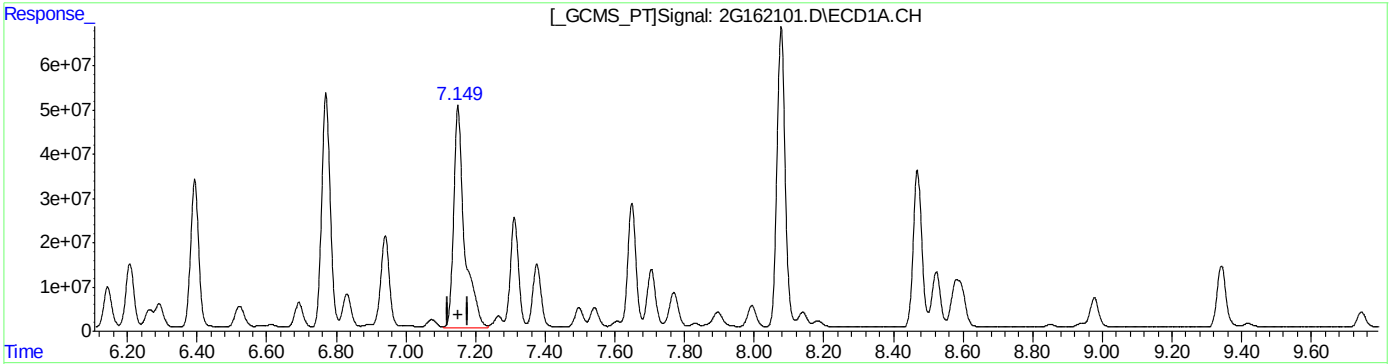
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:50:42 2018 RPT1

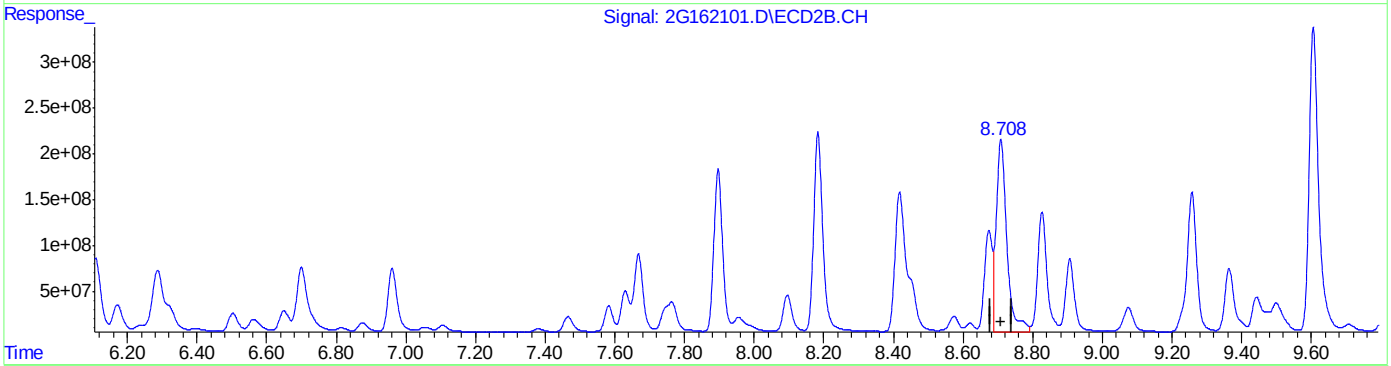
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.149min 3385.833PPB
response 1069799181

(36) AR1260-A #2
8.709min 2533.443PPB
response 4515883739

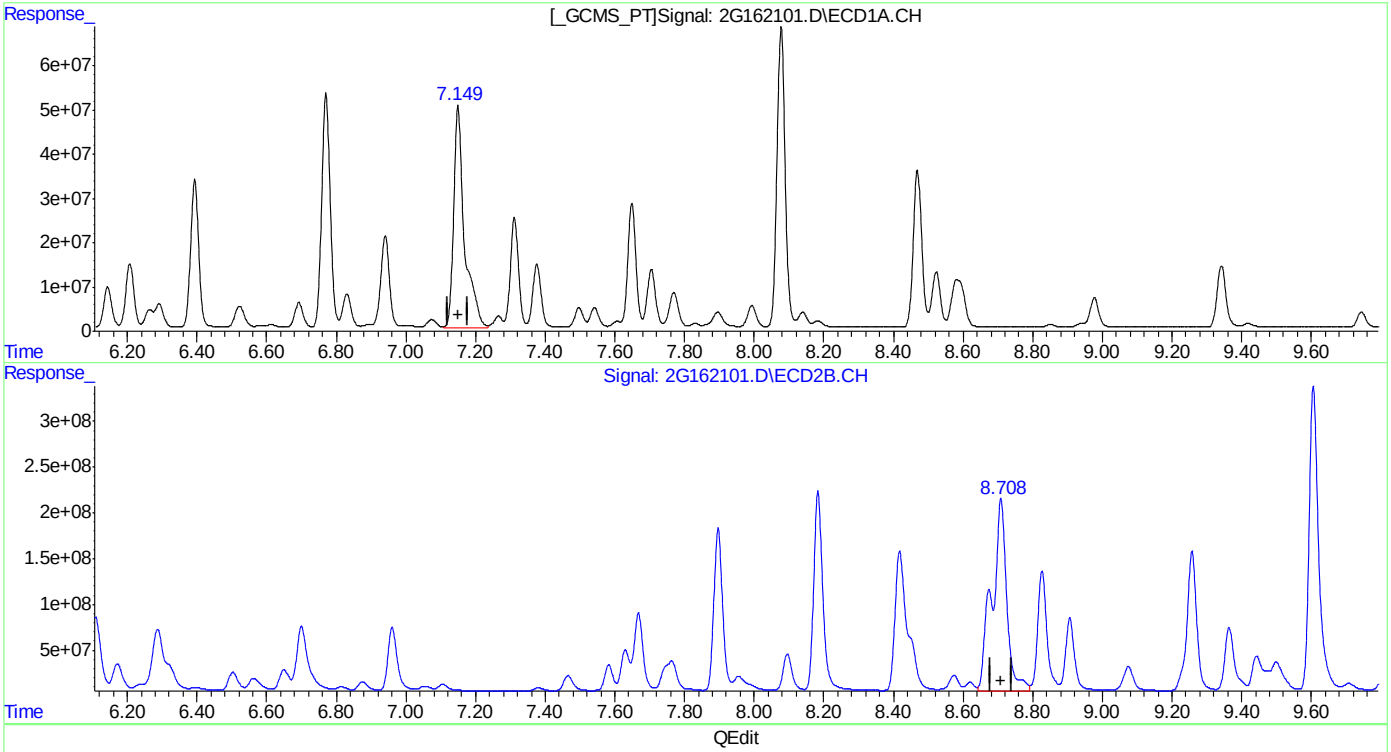
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:50:49 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.149min 3385.833PPB
response 1069799181

(36) AR1260-A #2
8.708min 3502.573PPB m
response 6243366528

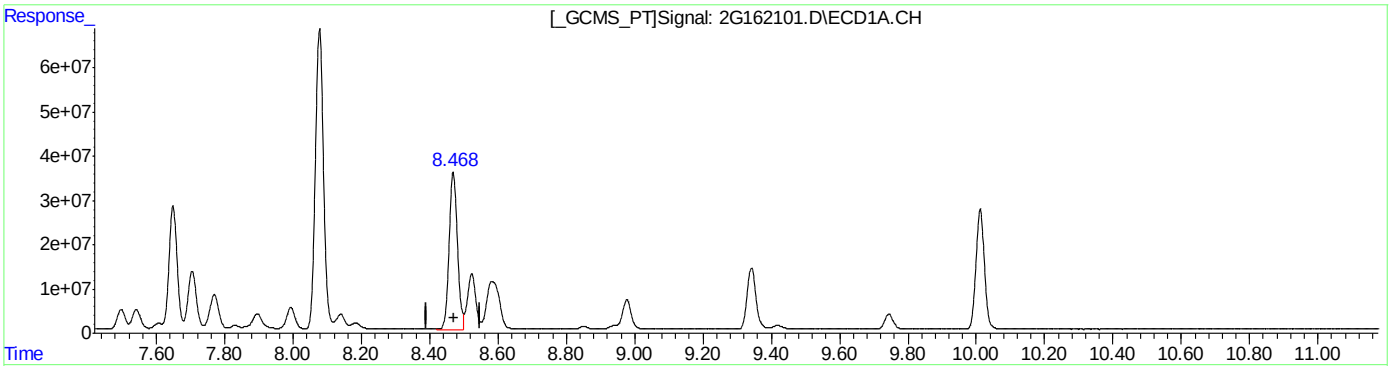
(+) = Expected Retention Time

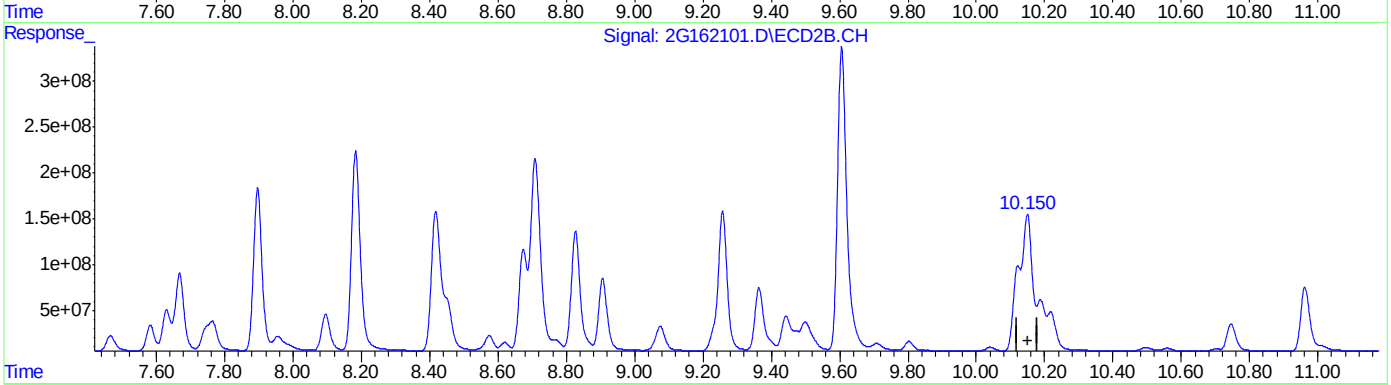
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.469min 1680.775PPB
response 606744282

(40) AR1260-E #2
10.150min 2285.710PPB
response 4247666513

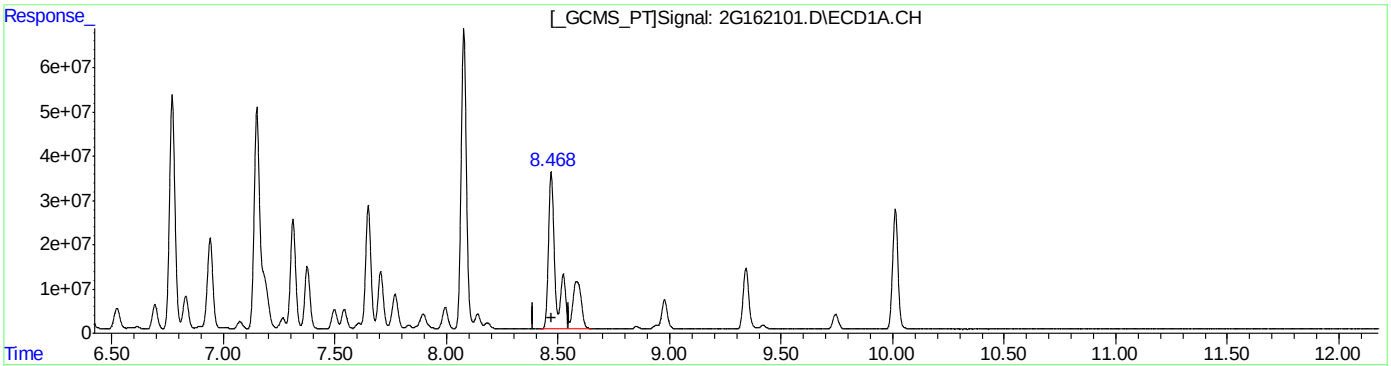
(+) = Expected Retention Time

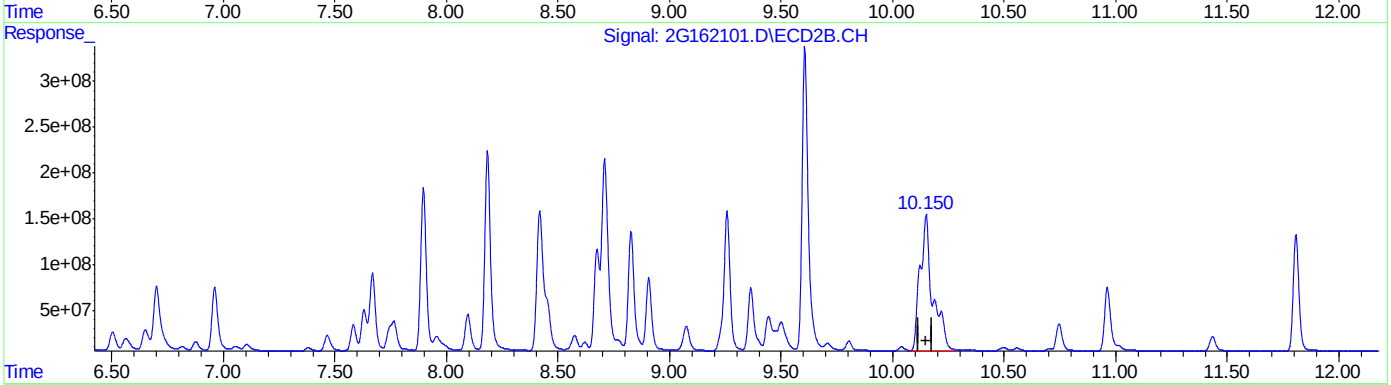
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.468min 3048.503PPB m
response 1100481096

(40) AR1260-E #2
10.150min 3181.045PPB m
response 5911517860

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:51:30 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1)	S Tetrachlo...	2.779	3.431	163.8E6	987.2E6	47.199	46.623
	Spiked Amount 40.000			Recovery	=	118.00%	116.56%
51)	S Decachlor...	10.013	11.809	165.0E6	806.7E6	44.682	46.281
	Spiked Amount 40.000			Recovery	=	111.71%	115.70%
	Target Compounds						
2)	AR1221-A	2.282	2.875	28967496	140.9E6	1023.276	1085.901
3)	AR1221-B	2.954	3.821	42022816	250.7E6	983.648	970.364
4)	AR1221-C	3.153	4.091	128.8E6	655.8E6	950.947m	1092.099
5)	AR1221-D	3.558	4.650	14656903	122.2E6	1190.489	1041.062
6)	AR1221-E	3.699	4.770	14363624	88492068	1222.278	1236.269
24)	AR1254-A	5.275	6.700	123.4E6	992.5E6	961.679	1070.842
25)	AR1254-B	5.616	6.960	258.8E6	983.9E6	1032.998m	1051.674
26)	AR1254-C	5.981	7.464	137.0E6	797.7E6	999.447	1078.993
27)	AR1254-D	6.143	7.630	245.9E6	1634.3E6	996.318	1197.753
28)	AR1254-E	6.519	7.955	182.5E6	1088.9E6	1178.826	1169.607
29)	AR1254-F	6.772	8.419	171.2E6	1181.2E6	1099.087	1059.697m
30)	AR1254-G	7.152	8.714	251.8E6	1510.8E6	1013.161	1105.727

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

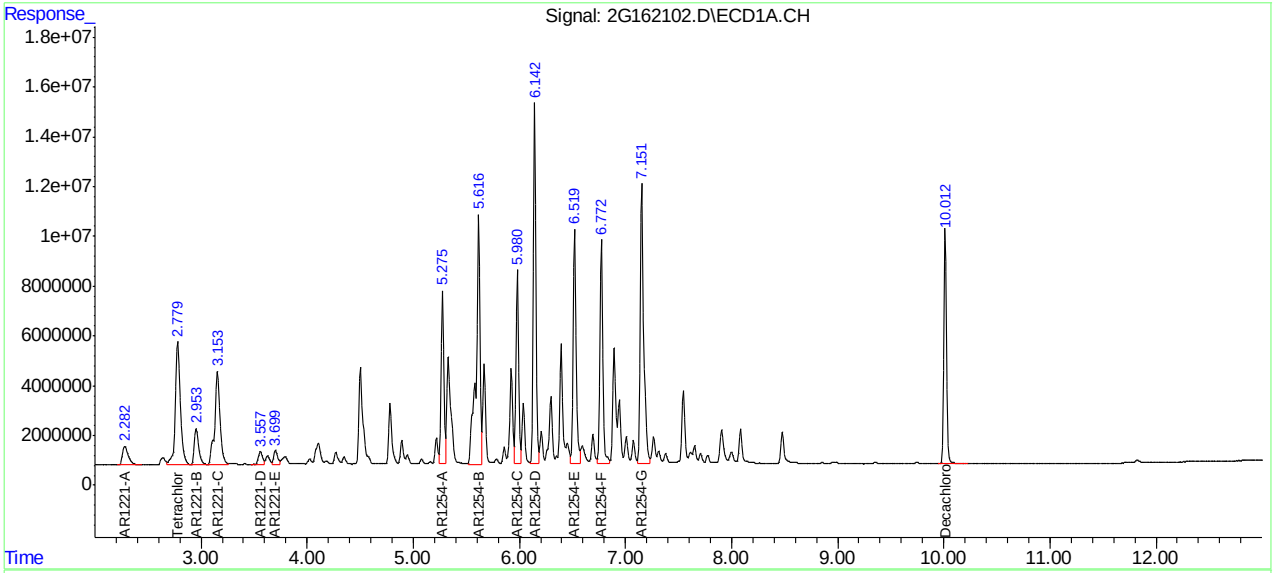
11.6.6 11

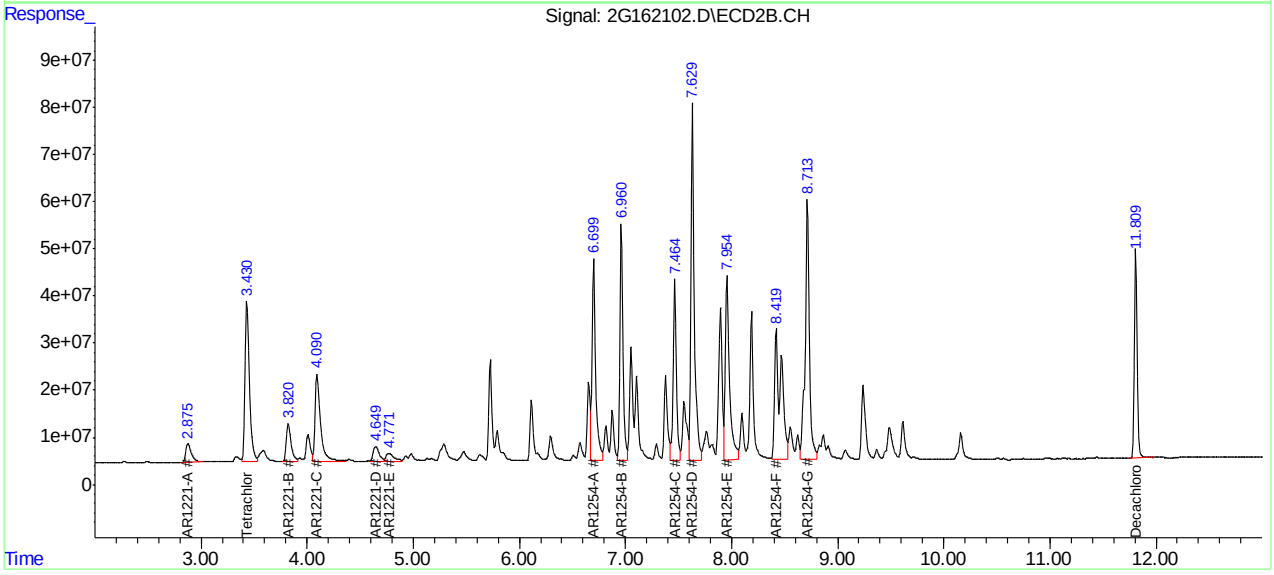
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162102.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 13:52	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

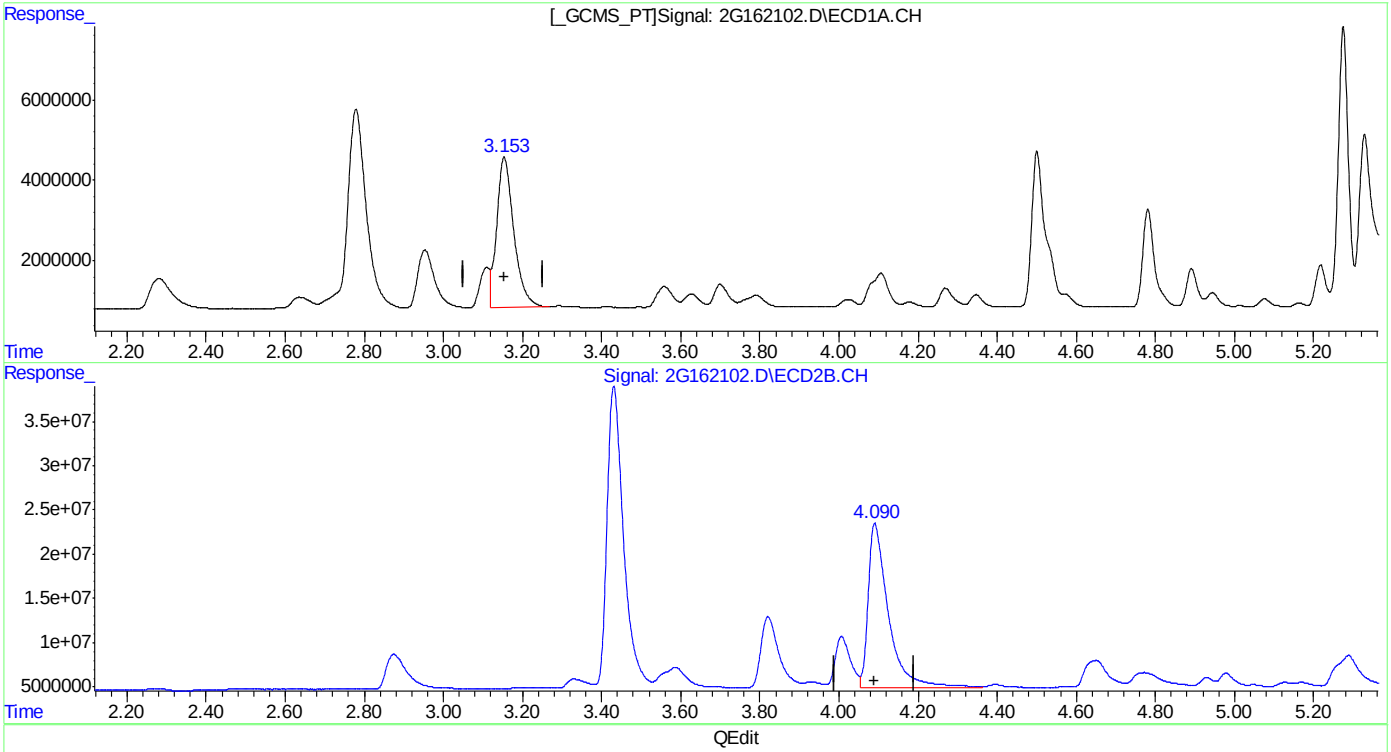
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-C		1	3.15	Split peak
AR1254-B		1	5.62	Split peak
AR1254-F		2	8.42	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(4) AR1221-C
3.154min 827.639PPB
response 112094551

(4) AR1221-C #2
4.091min 1092.099PPB
response 655831170

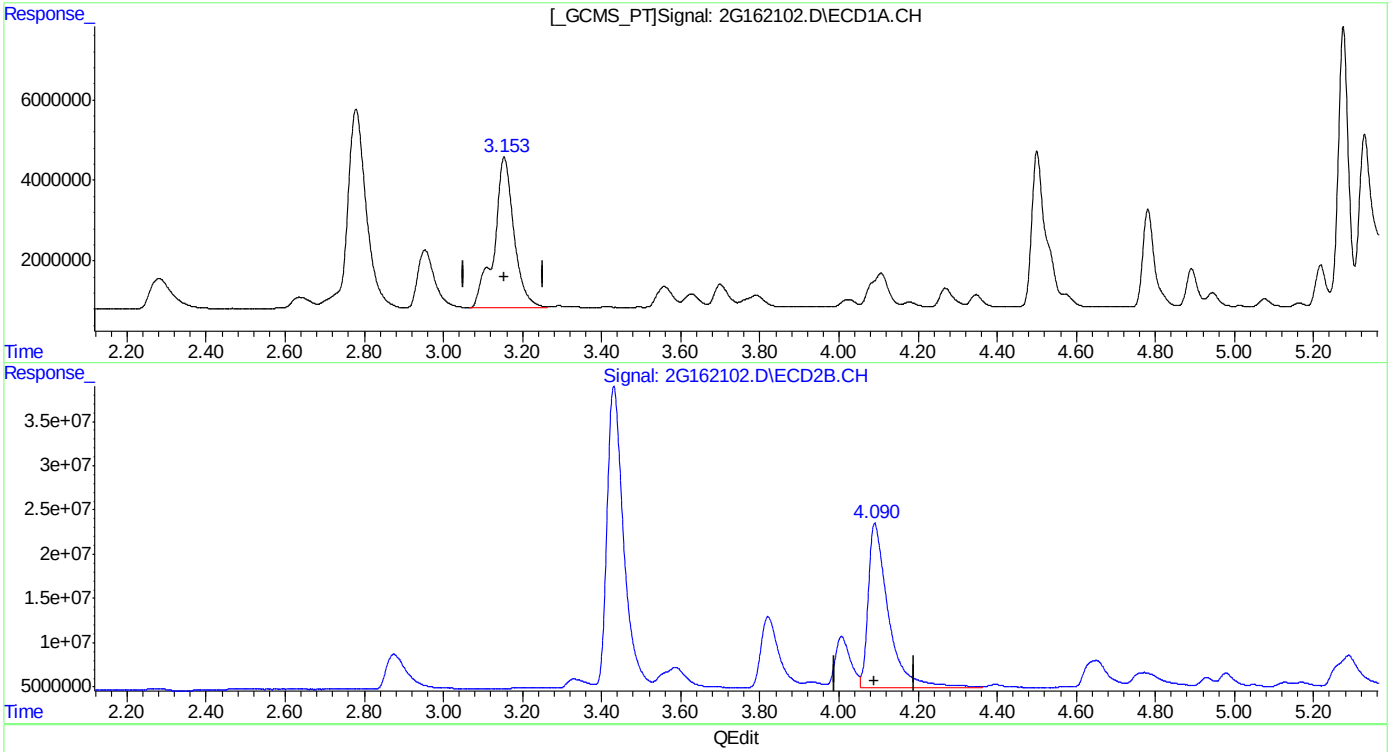
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(4) AR1221-C
3.153min 950.947PPB m
response 128795146

(4) AR1221-C #2
4.091min 1092.099PPB
response 655831170

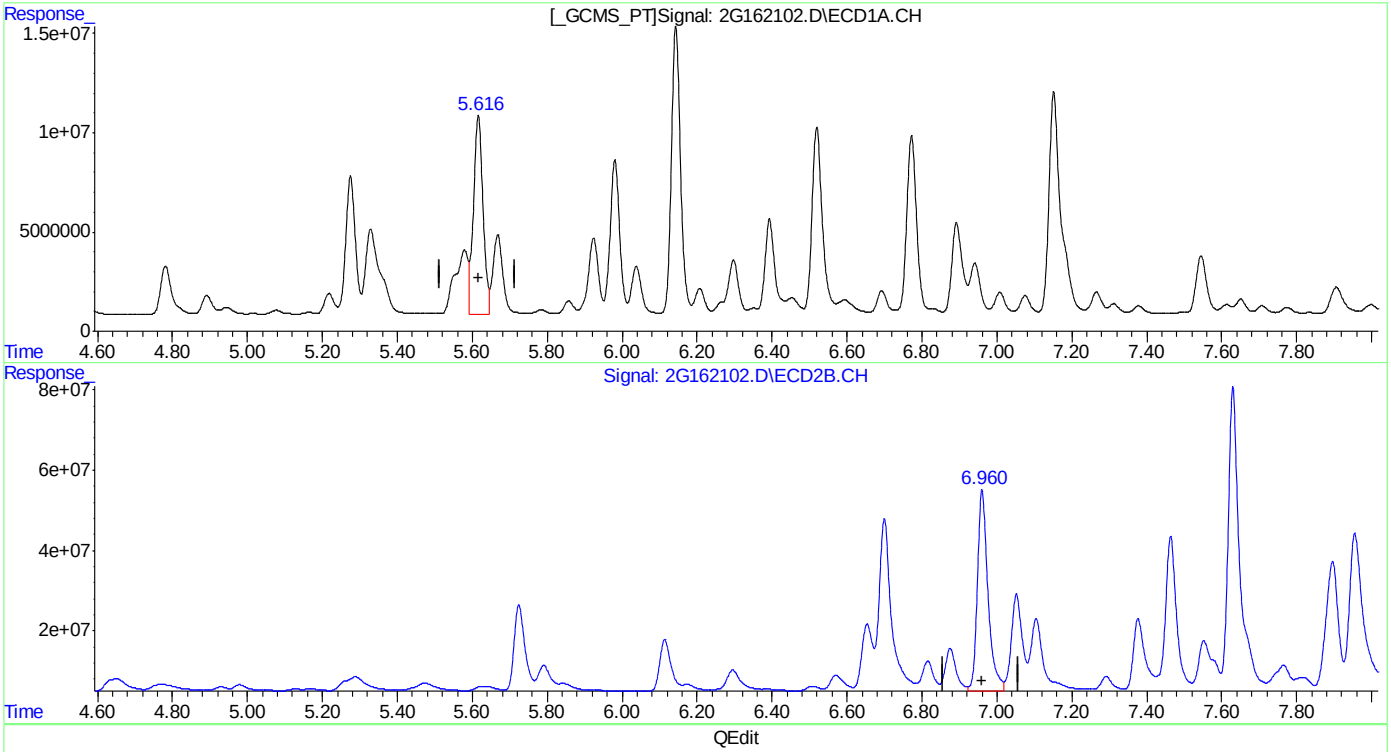
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:23:22 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(25) AR1254-B
5.616min 709.159PPB
response 177635290

(25) AR1254-B #2
6.960min 1051.674PPB
response 983915450

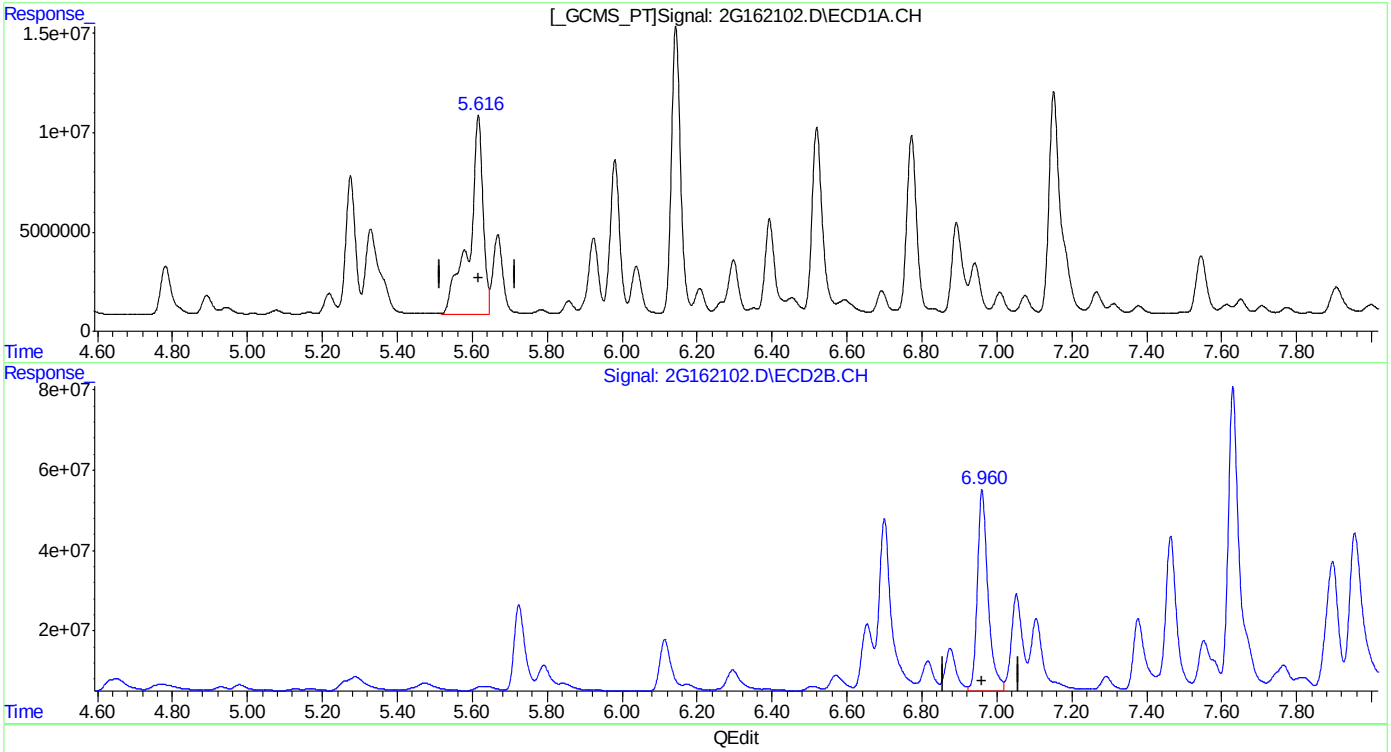
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:23:35 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(25) AR1254-B
5.616min 1032.998PPB m
response 258752851

(25) AR1254-B #2
6.960min 1051.674PPB
response 983915450

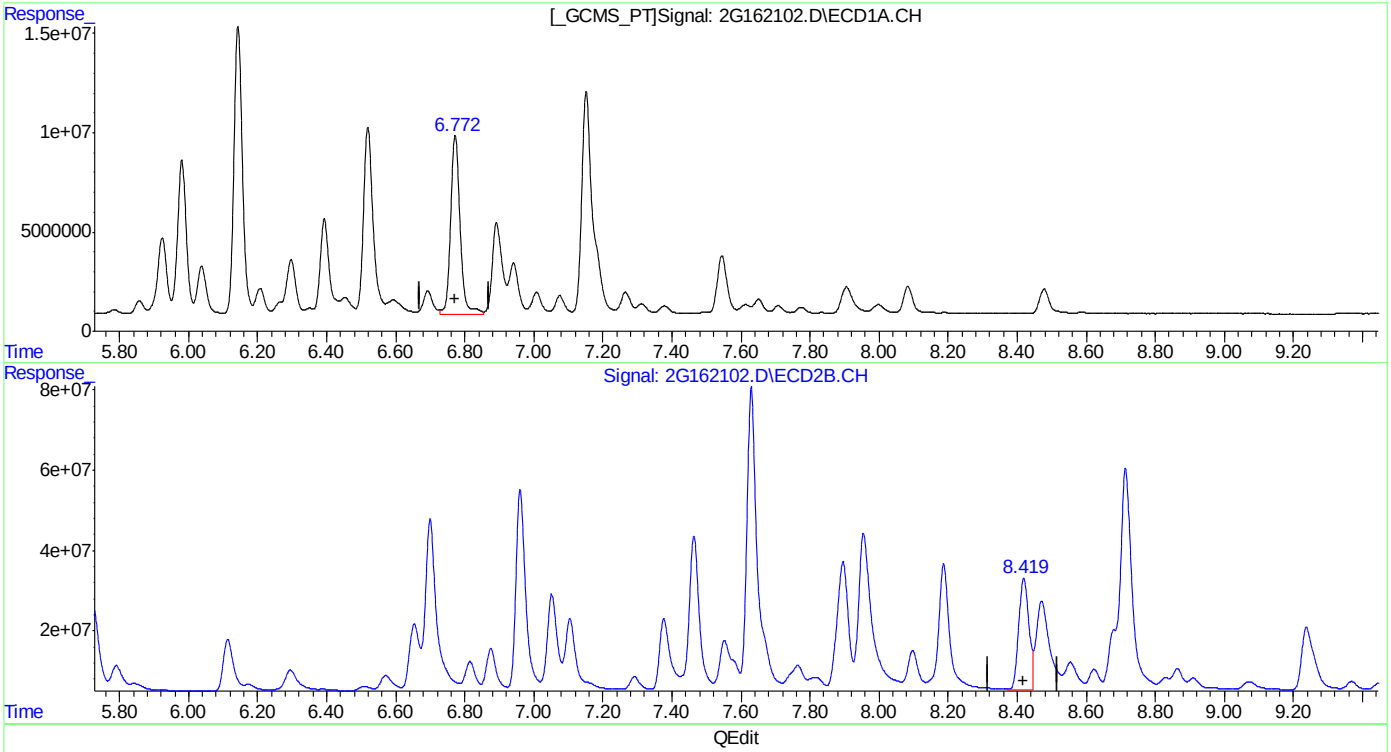
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.772min 1099.087PPB
response 171196421

(29) AR1254-F #2
8.419min 520.534PPB
response 580209378

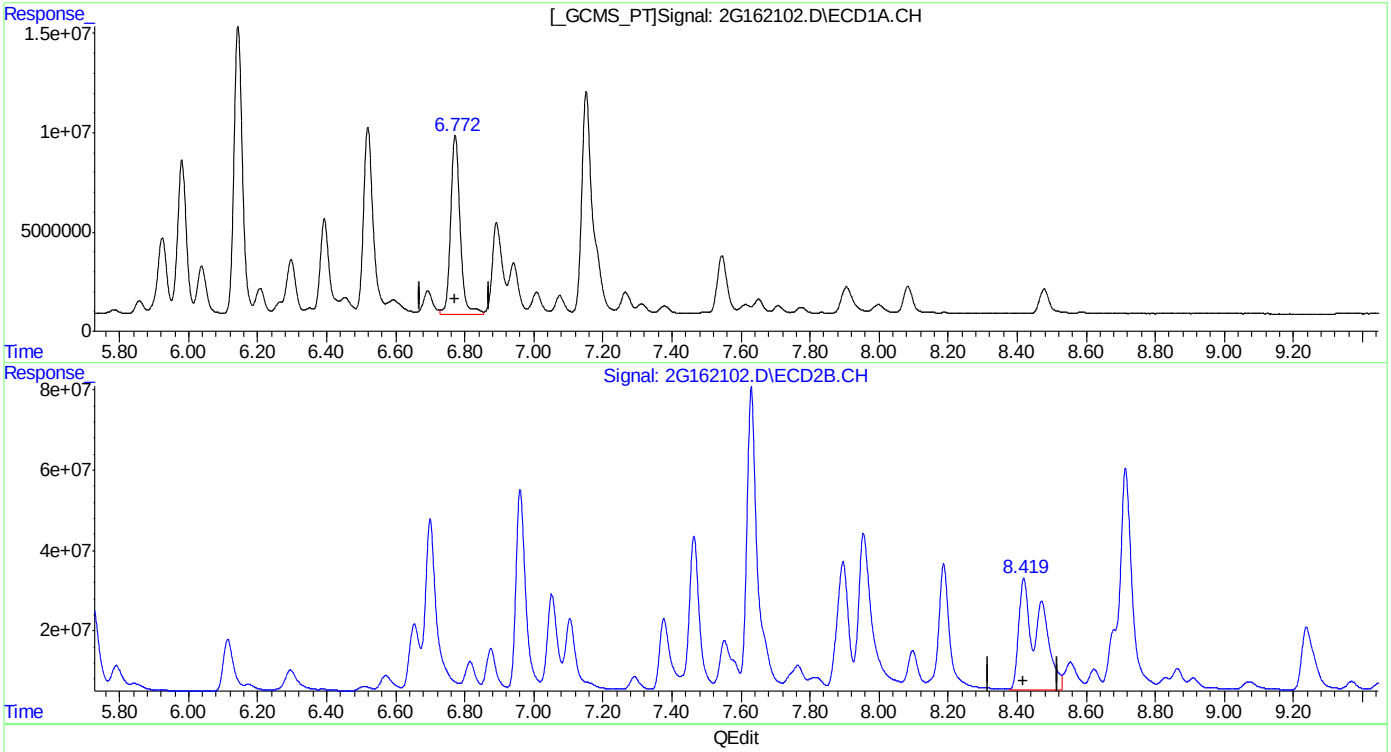
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(29) AR1254-F
6.772min 1099.087PPB
response 171196421

(29) AR1254-F #2
8.419min 1059.697PPB m
response 1181183477

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:23:55 2018 RPT1

2G162102A.D

Manual Integrations APPROVED (compounds with "m" flag)

Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:25:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.777	3.432	7705780	47182156	2.221	2.228
	Spiked Amount 40.000			Recovery	=	5.55%	5.57%
51) S	Decachlor...	10.016	11.810	9394071	44386432	2.544	2.546m
	Spiked Amount 40.000			Recovery	=	6.36%	6.37%
	Target Compounds						
31)	AR1016-A	3.156	4.101	4725440	22318435	67.432	67.210
32)	AR1016-B	3.557	4.637	8425348	50396309	69.113	70.606
33)	AR1016-C	4.106	5.292f	16305396	93502826	61.928	59.389
34)	AR1016-D	4.269	5.476f	6801446	44893365	63.529	68.043
35)	AR1016-E	4.782	6.117	7118301	28801035	64.212	61.534
36)	AR1260-A	7.155	8.722	18795761	111.1E6	60.840	61.504m
37)	AR1260-B	7.315	8.832	8011237	50431926	60.941	64.703
38)	AR1260-C	7.654	9.264	8382243	56197808	57.713	60.728
39)	AR1260-D	8.088	9.620	18135811	117.3E6	53.709	60.365
40)	AR1260-E	8.483f	10.162	19653146	110.9E6	56.372m	60.092m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

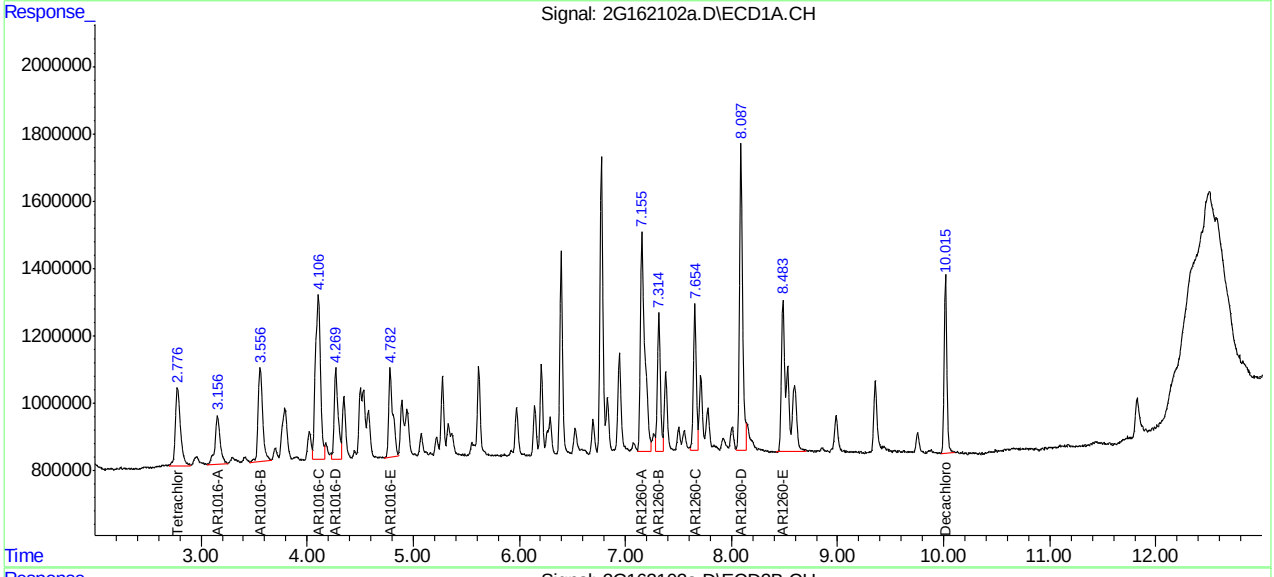
11.6.7 11

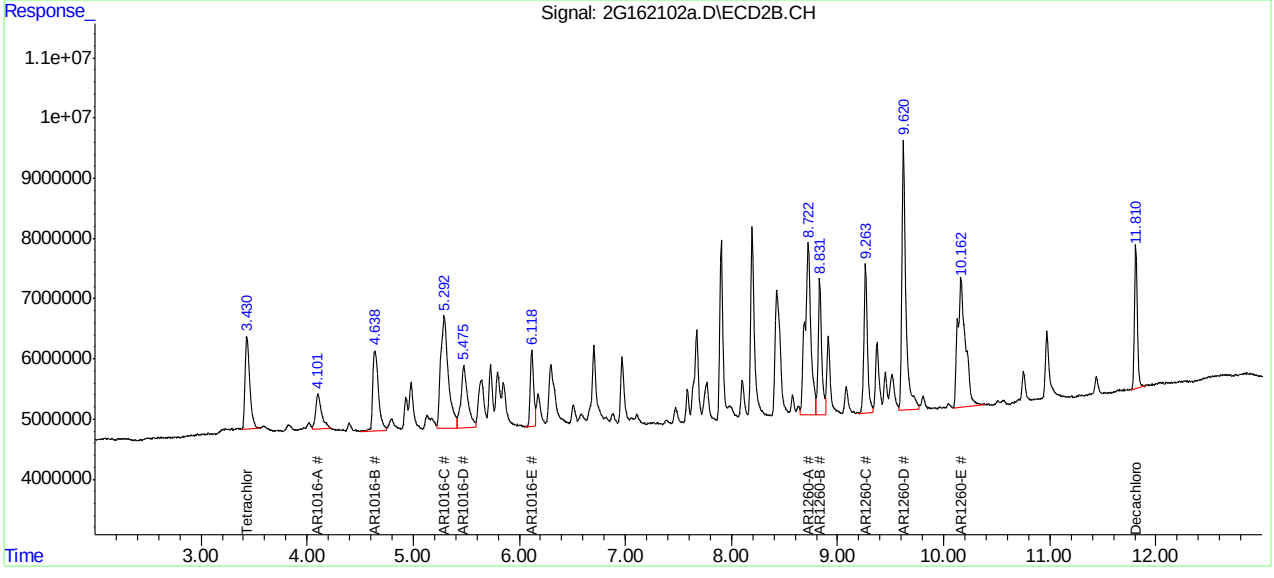
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:25:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162102A.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 14:09	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

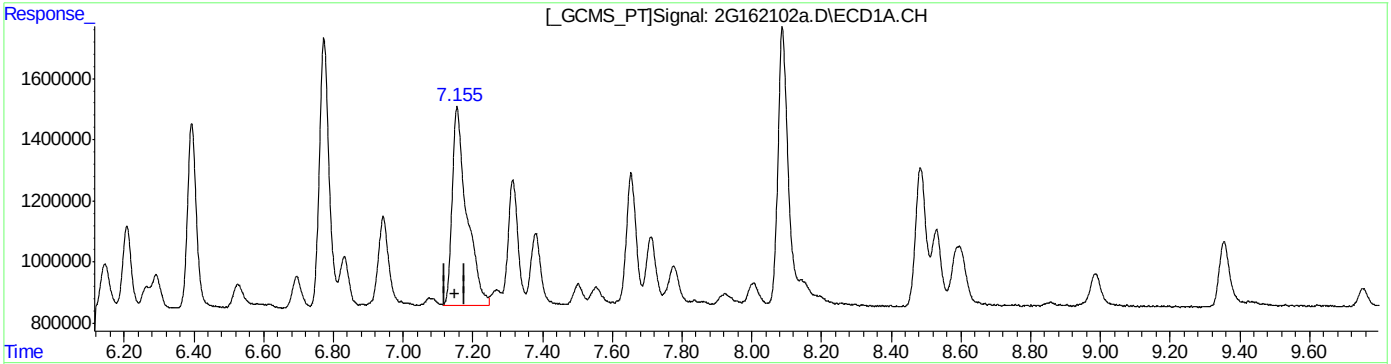
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	8.48	Split peak
AR1260-A		2	8.72	Split peak
AR1260-E		2	10.16	Split peak
Decachlorobiphenyl	2051-24-3	2	11.81	Poorly defined baseline

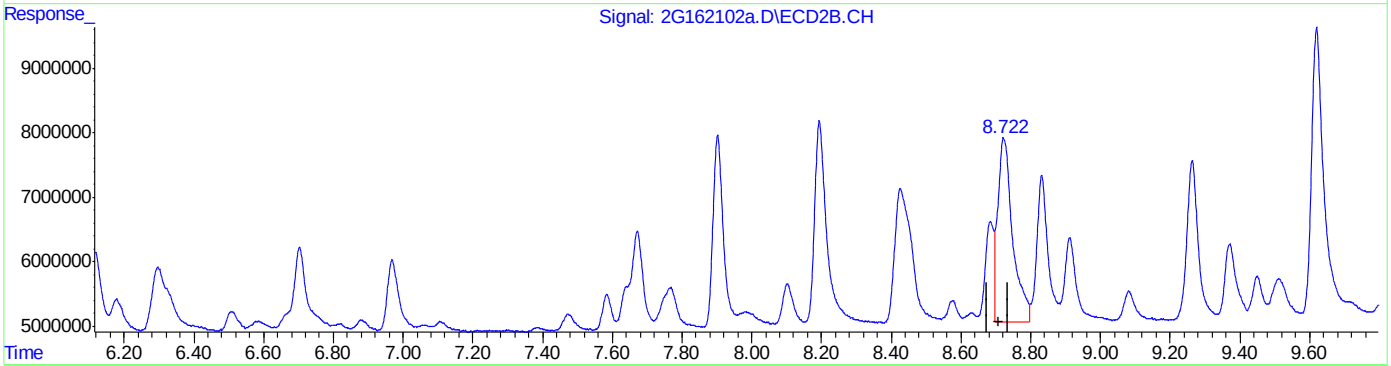
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.155min 60.840PPB
response 18795761

(36) AR1260-A #2
8.723min 47.426PPB
response 85684677

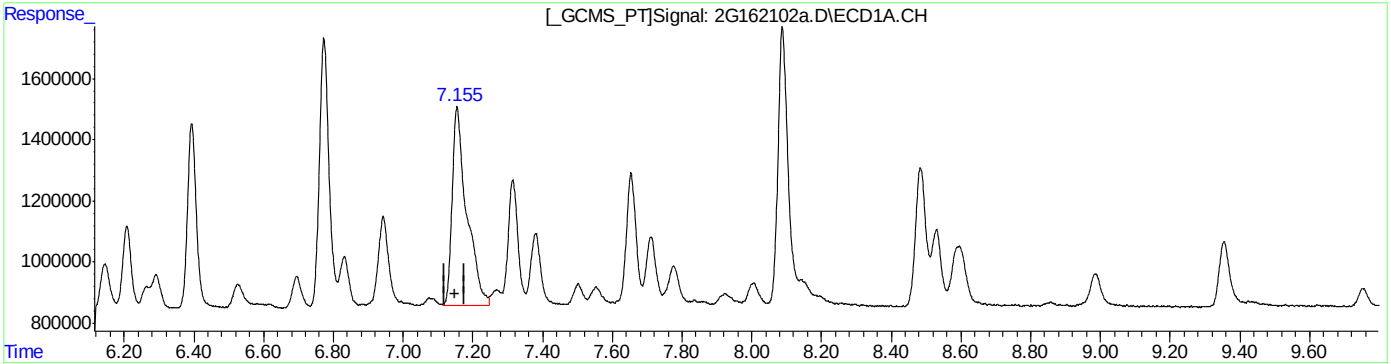
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:24:41 2018 RPT1

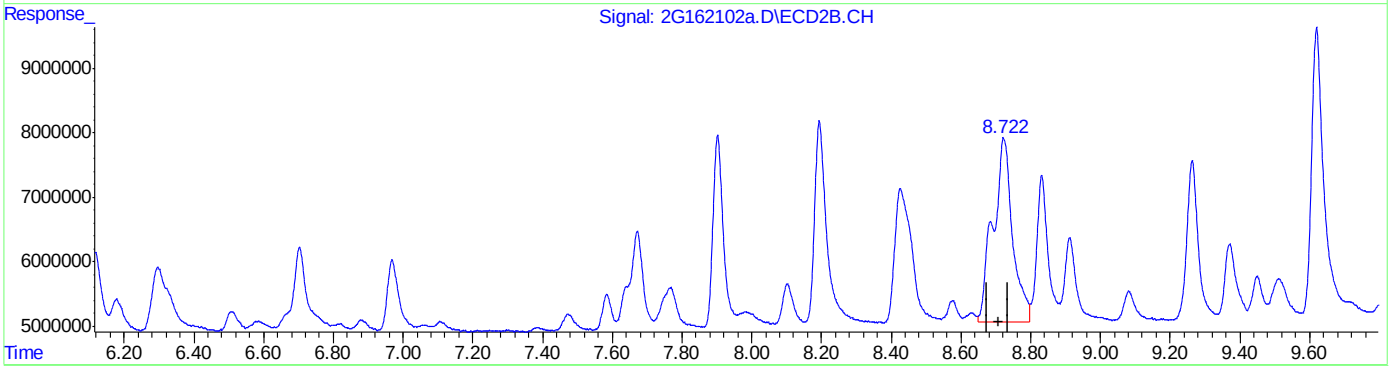
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.155min 60.840PPB
response 18795761

(36) AR1260-A #2
8.722min 61.504PPB m
response 111120316

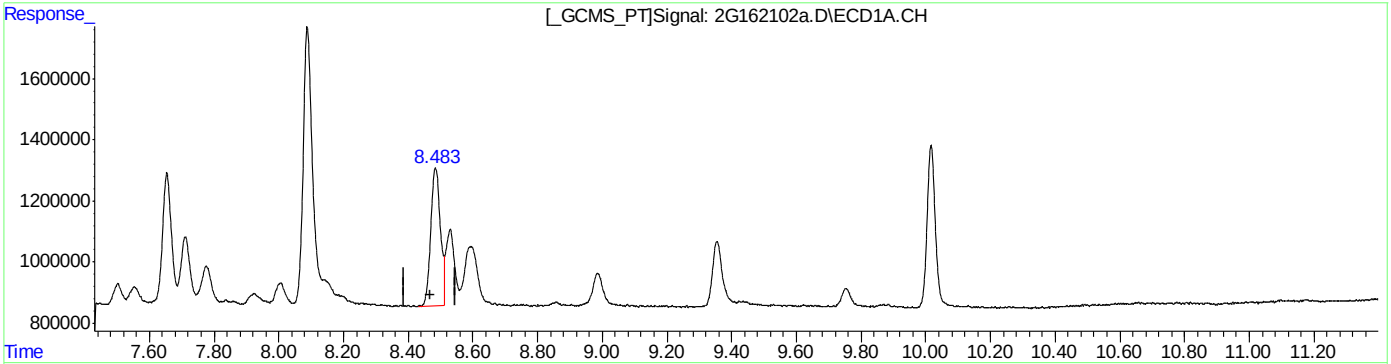
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:24:48 2018 RPT1

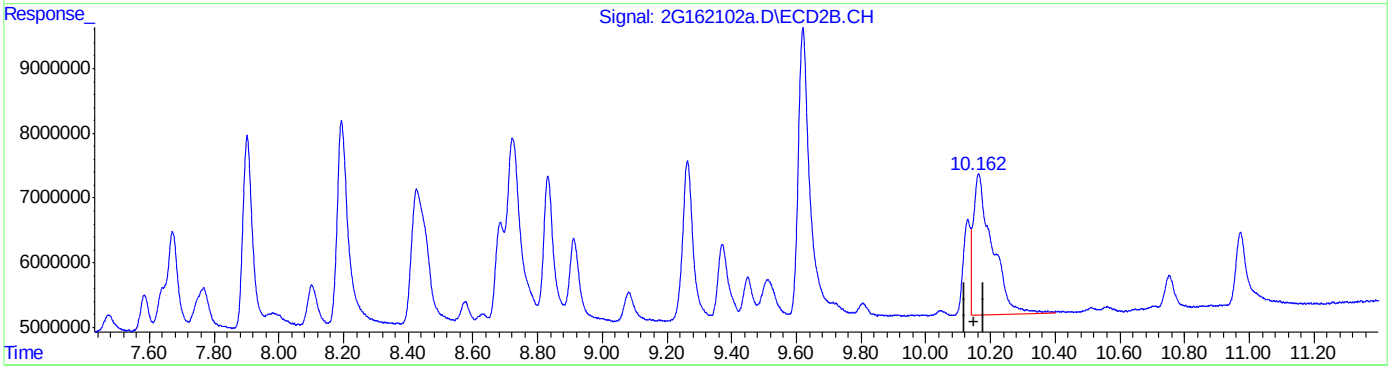
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.484min 26.587PPB
response 9269256

(40) AR1260-E #2
10.164min 48.556PPB
response 89641017

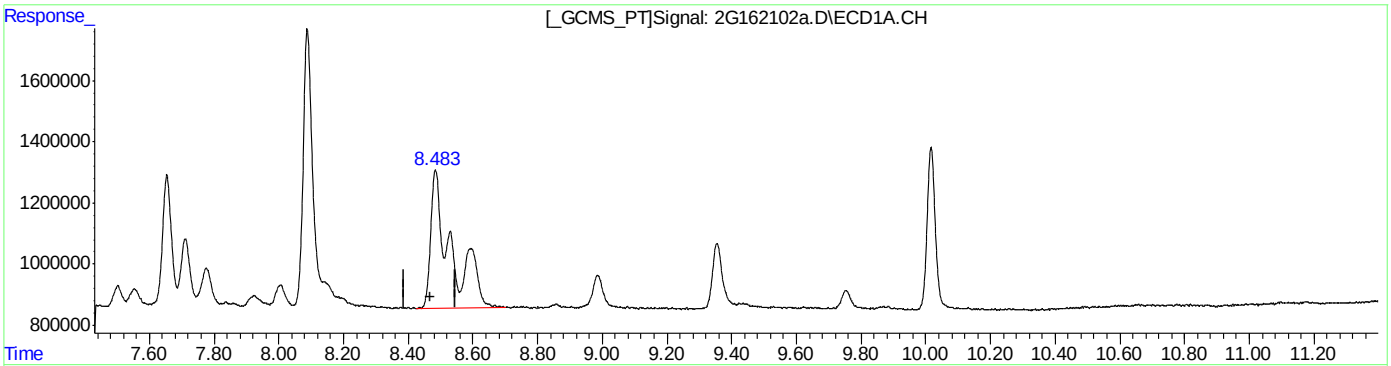
(+) = Expected Retention Time

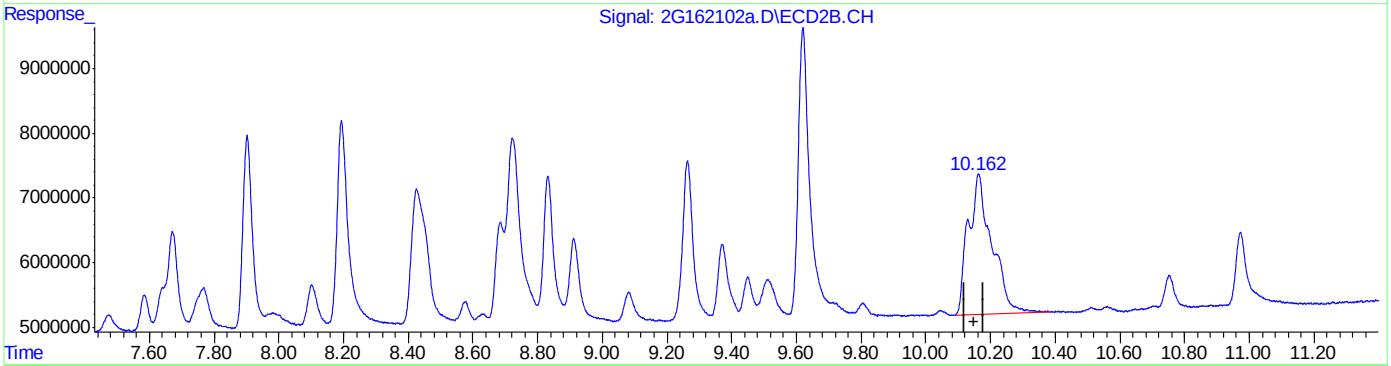
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.483min 56.372PPB m
response 19653146

(40) AR1260-E #2
10.162min 60.092PPB m
response 110937248

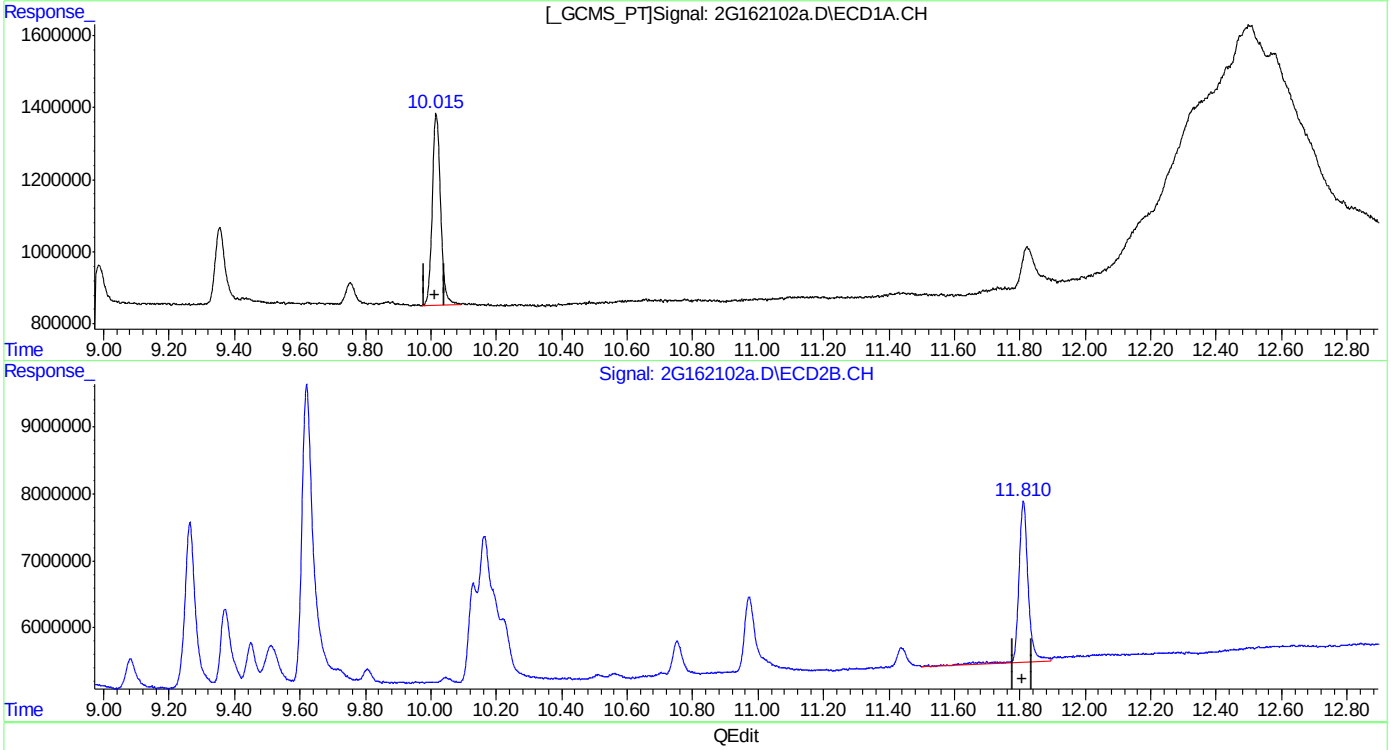
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:25:02 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(51) Decachlorobiphenyl (S)
10.016min 2.544ppb
response 9394071

(51) Decachlorobiphenyl #2 (S)
11.811min 2.825ppb
response 49237177

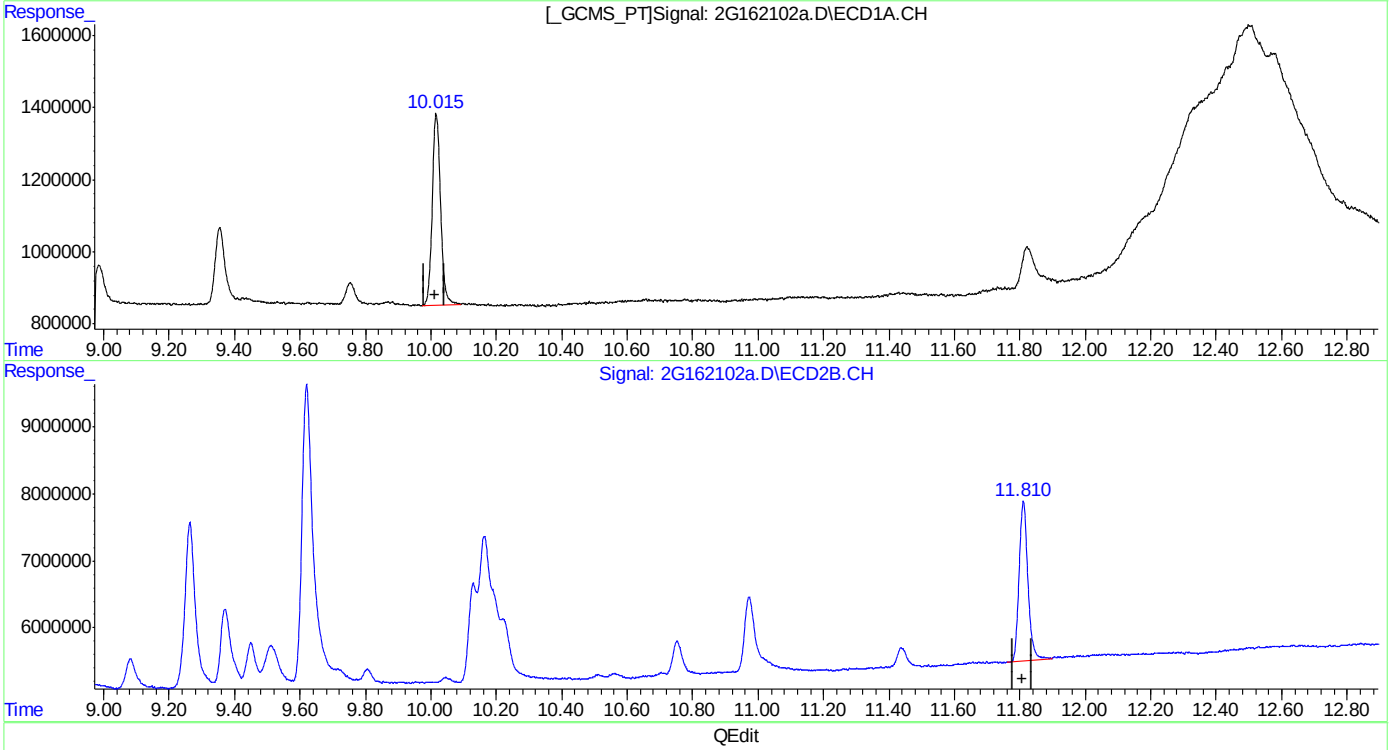
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:25:08 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(51) Decachlorobiphenyl (S)
10.016min 2.544ppb
response 9394071

(51) Decachlorobiphenyl #2 (S)
11.810min 2.546ppb m
response 44386432

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
1)	S Tetrachlo...	2.780	3.431	169.1E6	1049.9E6	9.839	9.841	
	Spiked Amount 40.000			Recovery	=	24.60%	24.60%	
51)	S Decachlor...	10.014	11.809	173.1E6	864.6E6	9.763	9.860	
	Spiked Amount 40.000			Recovery	=	24.41%	24.65%	
	Target Compounds							
7)	AR1232-A	3.155	4.093	97343092	502.0E6	807.139m	801.687	
8)	AR1232-B	3.559	4.634	66842636	393.5E6	814.432	795.791	
9)	AR1232-C	4.109	5.281	130.5E6	815.2E6	748.996	817.807	
10)	AR1232-D	4.271	5.467	54473697	361.5E6	844.210	954.940	
11)	AR1232-E	4.785	6.115	51489431	217.3E6	836.532	879.986	
41)	AR1262-A	6.772	8.187	193.5E6	1044.2E6	608.178	987.107	#
42)	AR1262-B	7.314	8.828	242.4E6	1428.2E6	818.303	912.354	
43)	AR1262-C	7.651	9.260	227.0E6	1336.0E6	936.108	1081.334	
44)	AR1262-D	8.081	9.610	485.4E6	2732.2E6	759.581	918.956	
45)	AR1262-E	8.525	10.123	558.8E6	3034.4E6	795.650m	942.420m	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

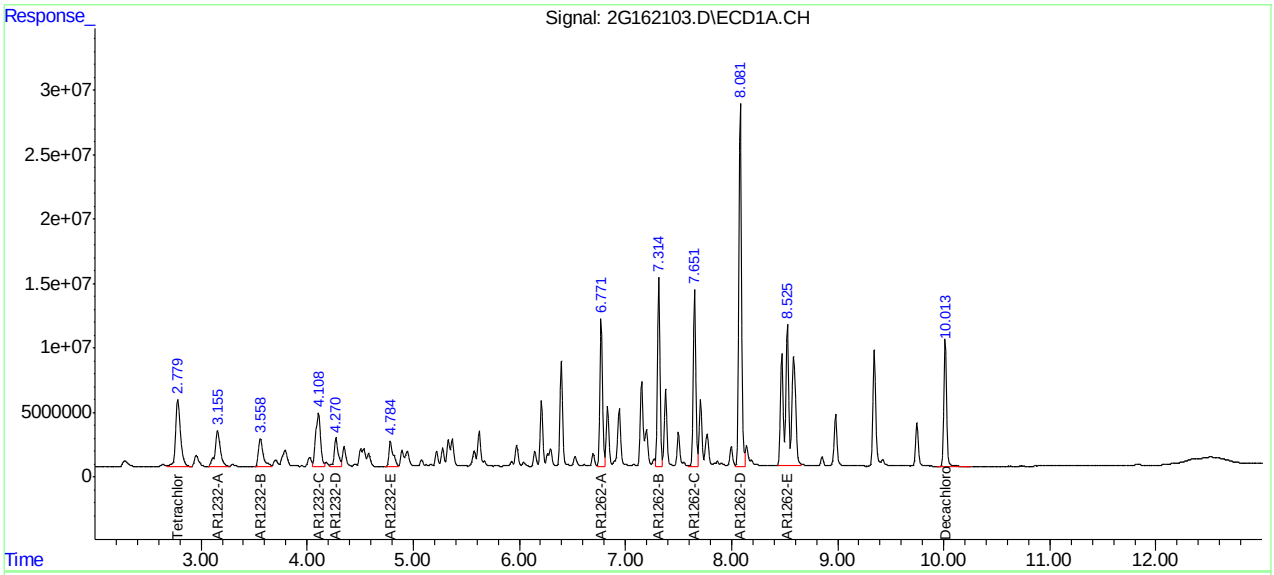
11.6.8 11

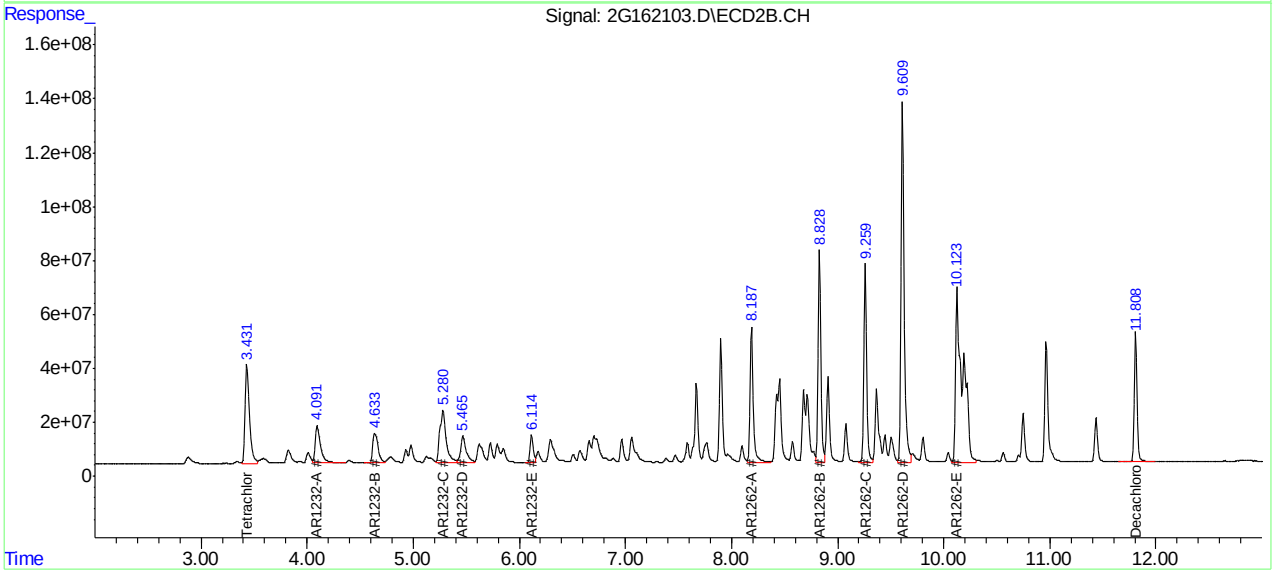
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162103.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 14:27	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

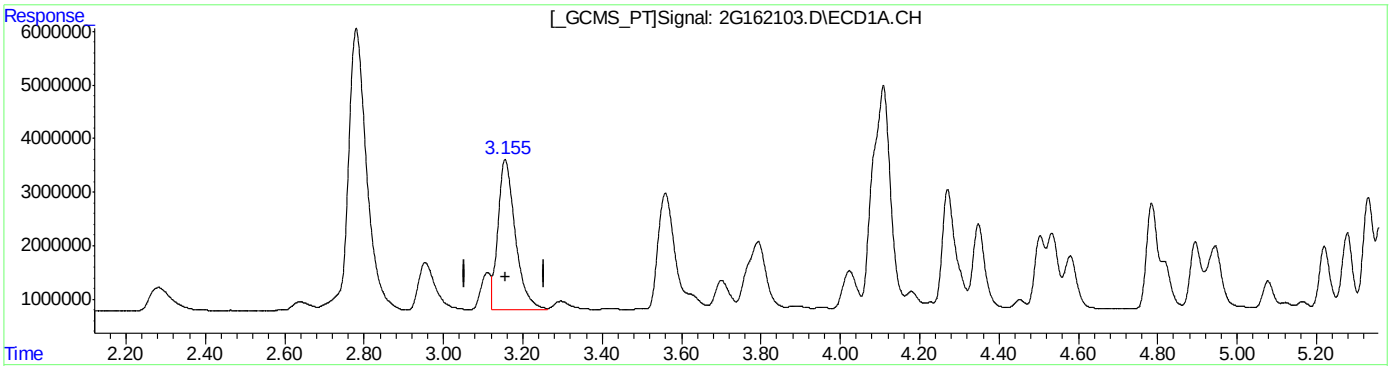
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1232-A		1	3.16	Split peak
AR1262-E		1	8.53	Split peak
AR1262-E		2	10.12	Split peak

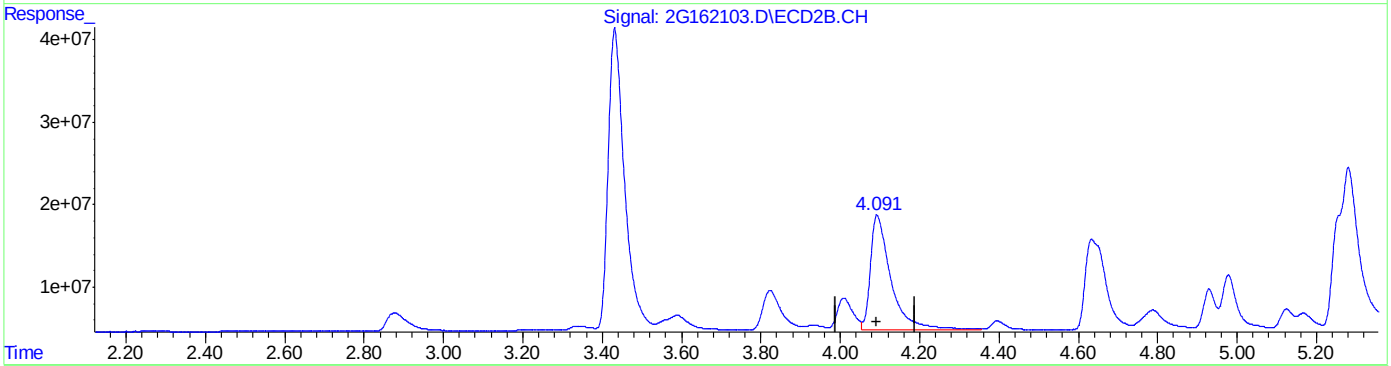
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(7) AR1232-A
3.155min 706.063PPB
response 85153150

(7) AR1232-A #2
4.093min 801.687PPB
response 501961094

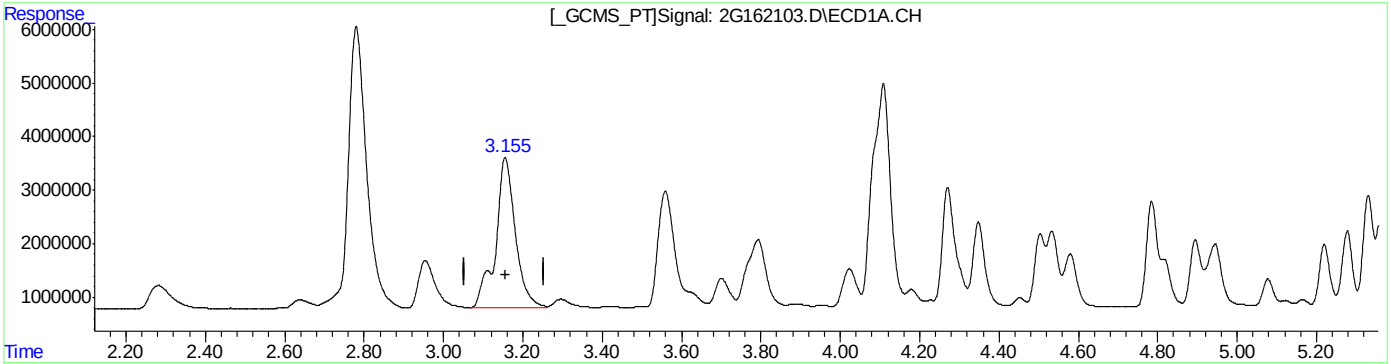
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:52:12 2018 RPT1

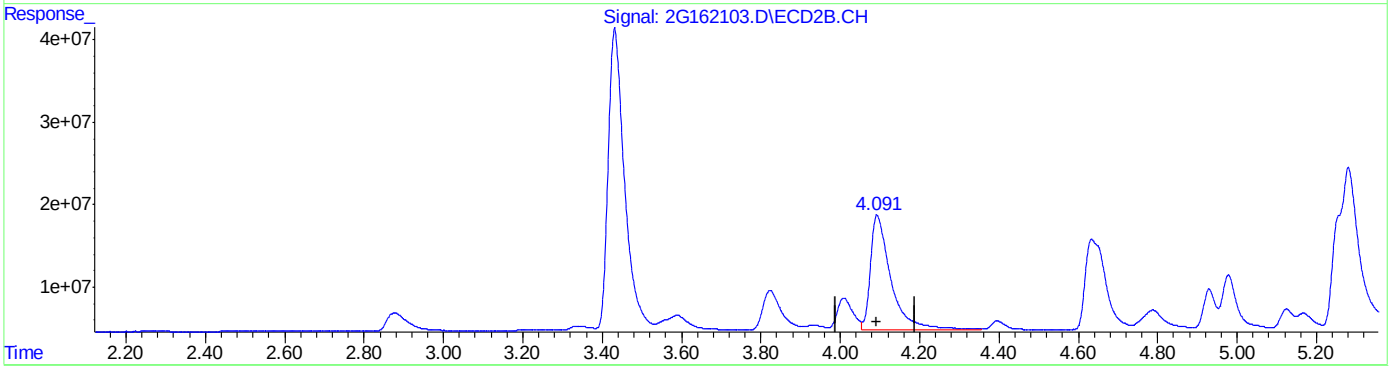
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(7) AR1232-A
3.155min 807.139PPB m
response 97343092

(7) AR1232-A #2
4.093min 801.687PPB
response 501961094

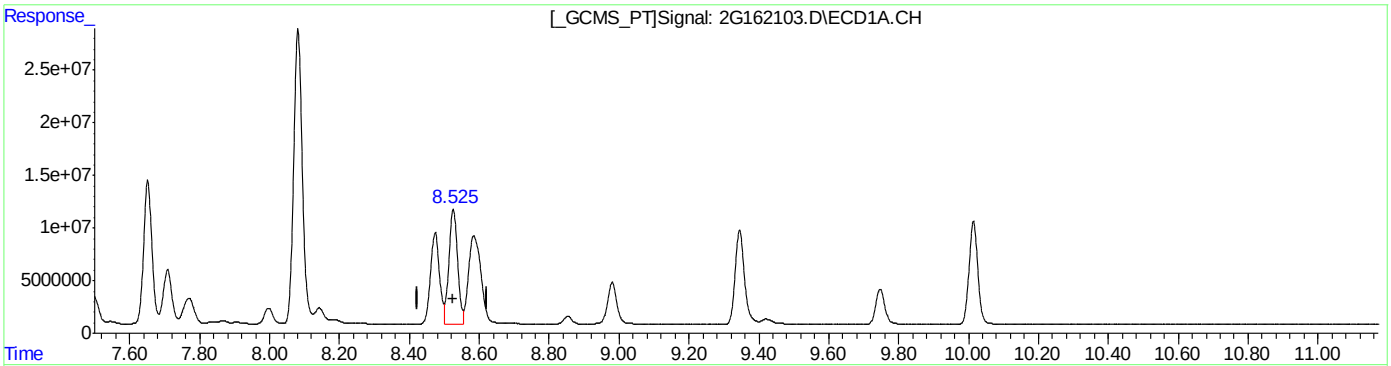
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:52:19 2018 RPT1

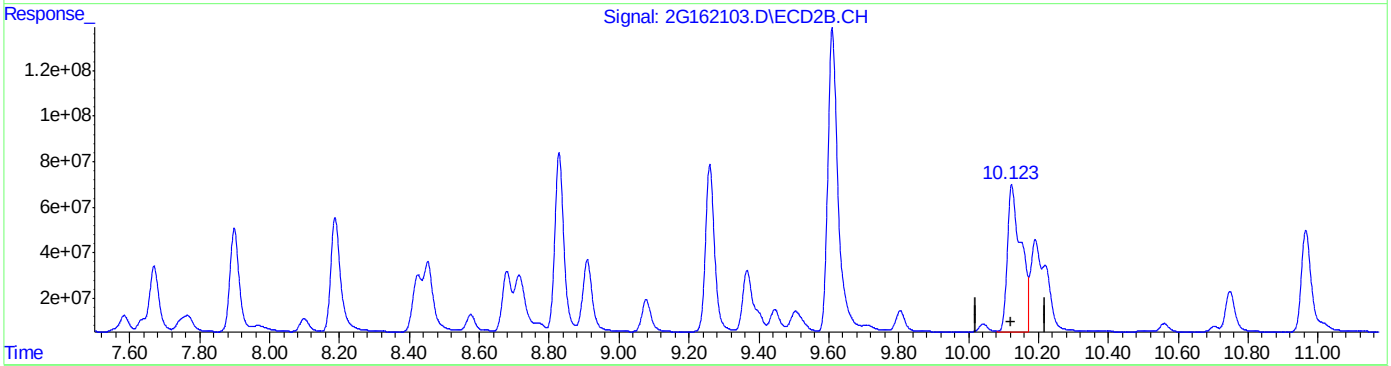
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(45) AR1262-E
8.526min 274.213PPB
response 192578186

(45) AR1262-E #2
10.124min 545.743PPB
response 1757206907

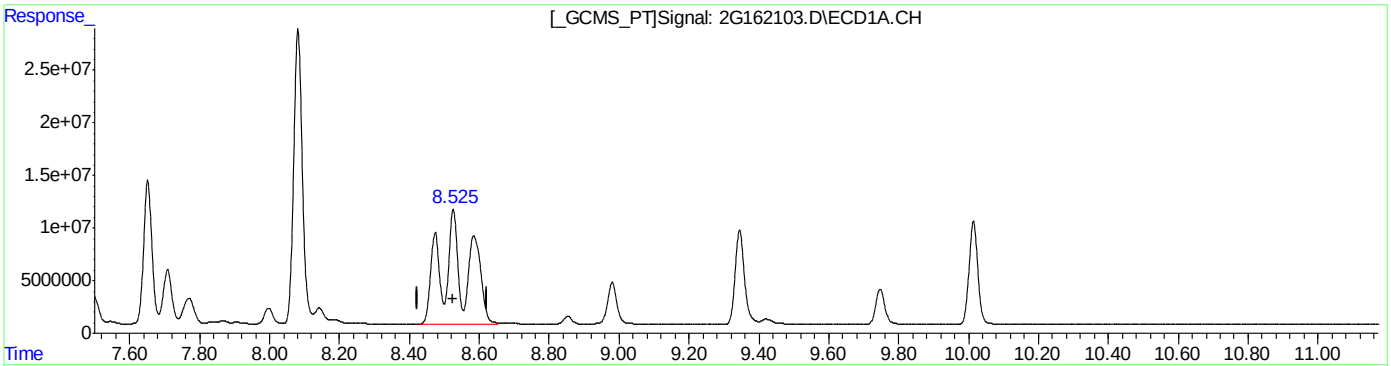
(+) = Expected Retention Time

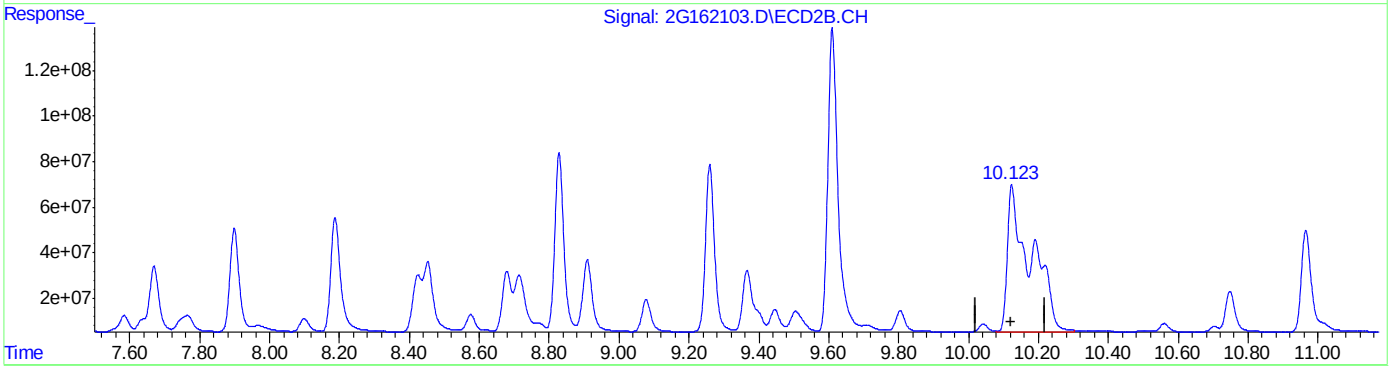
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(45) AR1262-E
8.525min 795.650PPB m
response 558779236

(45) AR1262-E #2
10.123min 942.420PPB m
response 3034443708

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:52:46 2018 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162104.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:44 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:35:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:34:50 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
1) S	Tetrachlo...	2.779	3.432	164.4E6	1042.8E6	9.788	9.829	
Spiked Amount	40.000			Recovery	=	24.47%	24.57%	
51) S	Decachlor...	10.010	11.807	482.0E6	2362.8E6	11.088	11.117	
Spiked Amount	40.000			Recovery	=	27.72%	27.79%	
	Target Compounds							
12)	AR1242-A	3.557	4.630	119.8E6	705.4E6	833.841	769.896	
13)	AR1242-B	4.106	5.276	252.5E6	1547.7E6	766.774	823.562	
14)	AR1242-C	4.268	5.463	105.4E6	666.8E6	881.574	956.816	
15)	AR1242-D	4.782	6.113	109.0E6	456.4E6	869.789	894.747	
16)	AR1242-E	5.364	6.725	92980758	634.3E6	872.039	977.929	
46)	AR1268-A	8.523	10.121	575.4E6	3085.9E6	840.878	938.864	
47)	AR1268-B	8.578	10.189	567.3E6	3099.0E6	712.876	817.926	
48)	AR1268-C	8.851	10.557	473.0E6	2498.5E6	752.872	873.269	
49)	AR1268-D	9.340	10.962	199.2E6	1037.7E6	826.458	946.346	
50)	AR1268-E	9.742	11.430	1615.1E6	8238.1E6	809.035	1044.134	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

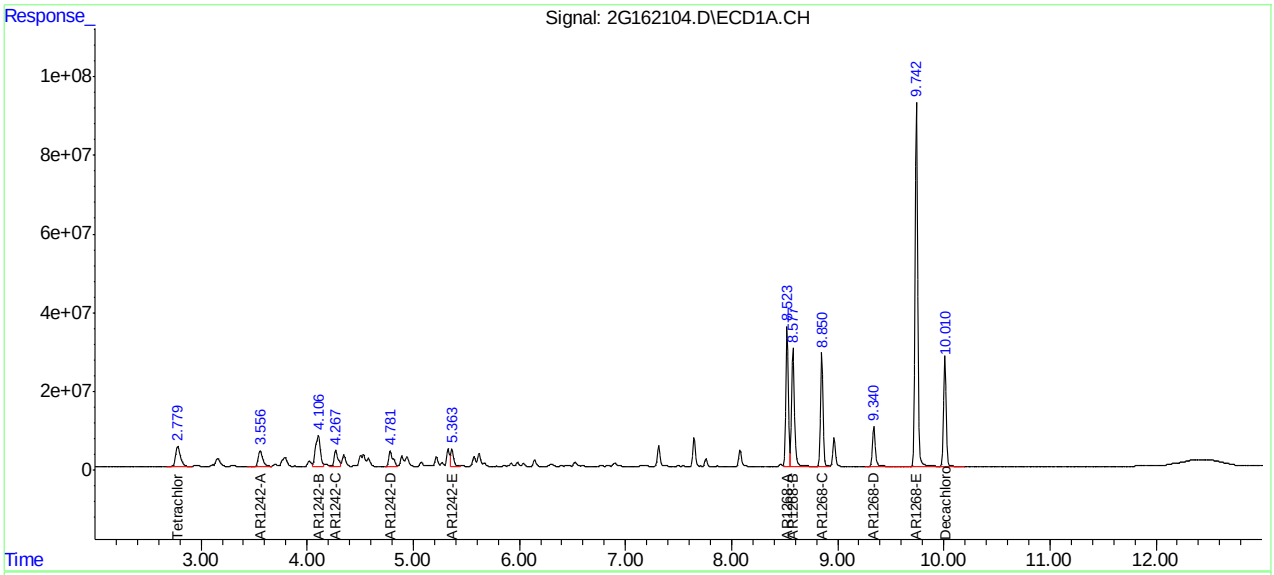
11.6.9 11

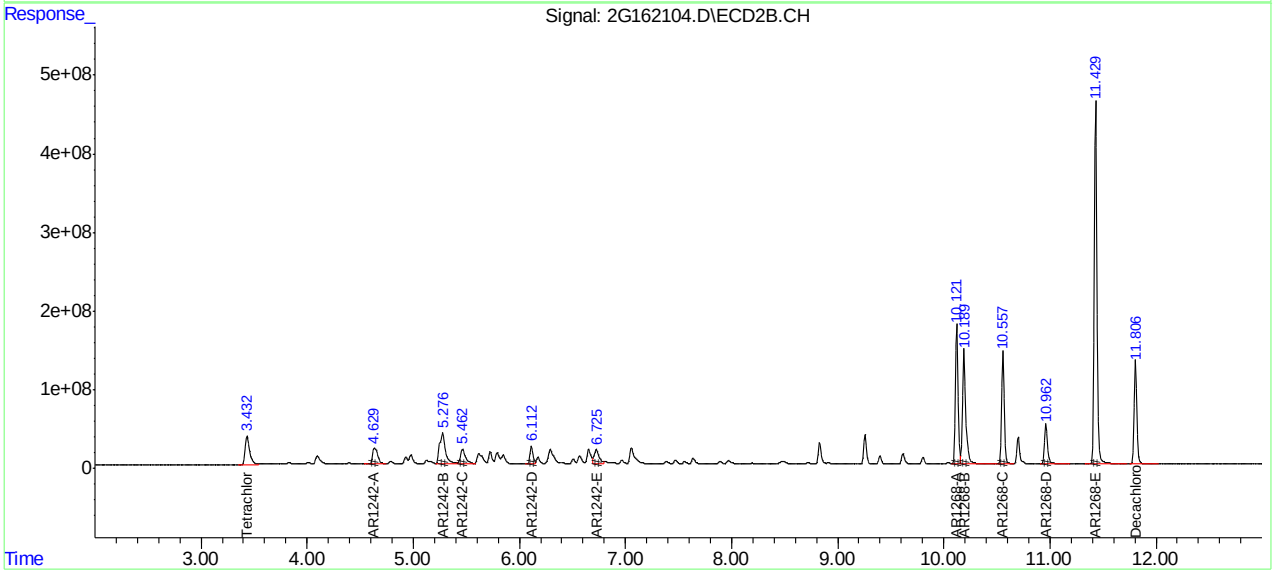
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162104.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:44 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:35:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:34:50 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.778	3.432	160.3E6	1054.2E6	9.743	9.848
	Spiked Amount 40.000			Recovery	=	24.36%	24.62%
51) S	Decachlor...	10.014	11.810	174.1E6	851.3E6	9.773	9.833
	Spiked Amount 40.000			Recovery	=	24.43%	24.58%
	Target Compounds						
17)	AR1248-A	3.555	4.632	59173660	362.7E6	826.748	812.103
18)	AR1248-B	4.105	5.281	154.4E6	954.8E6	820.696	837.930m
19)	AR1248-C	4.501	5.724	165.2E6	569.7E6	812.299m	907.464
20)	AR1248-D	4.782	6.112	159.8E6	727.1E6	860.353	930.188
21)	AR1248-E	4.892	6.291	142.1E6	879.9E6	855.462m	1021.118
22)	AR1248-F	5.364	6.722	140.2E6	1097.1E6	782.480	1016.890 #
23)	AR1248-G	5.620	7.053	157.2E6	1220.2E6	600.449m	1102.458m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

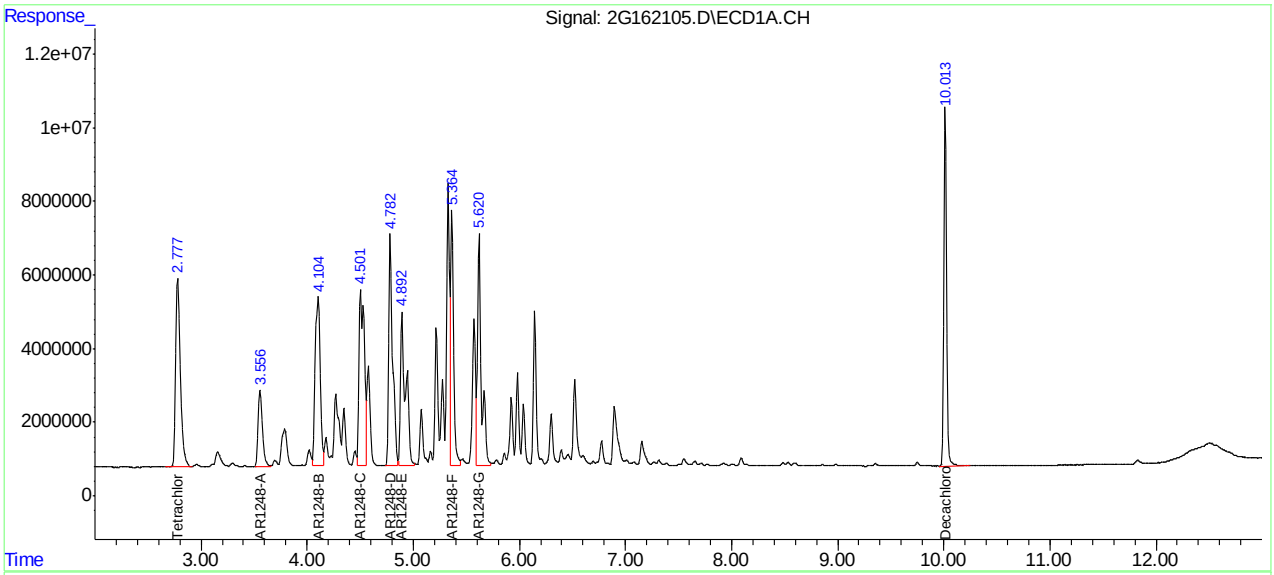
11.6.10 11

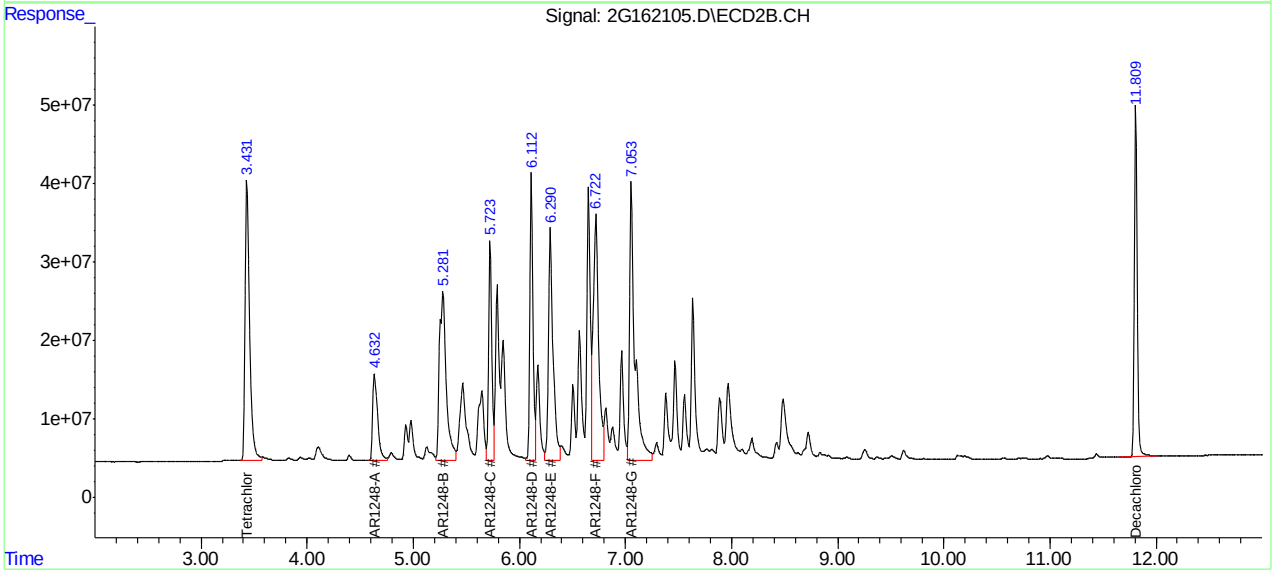
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162105.D	**Analyst approved:**	04/19/18 15:39 Rebecca Krug
Injection Time:	04/19/18 15:00	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

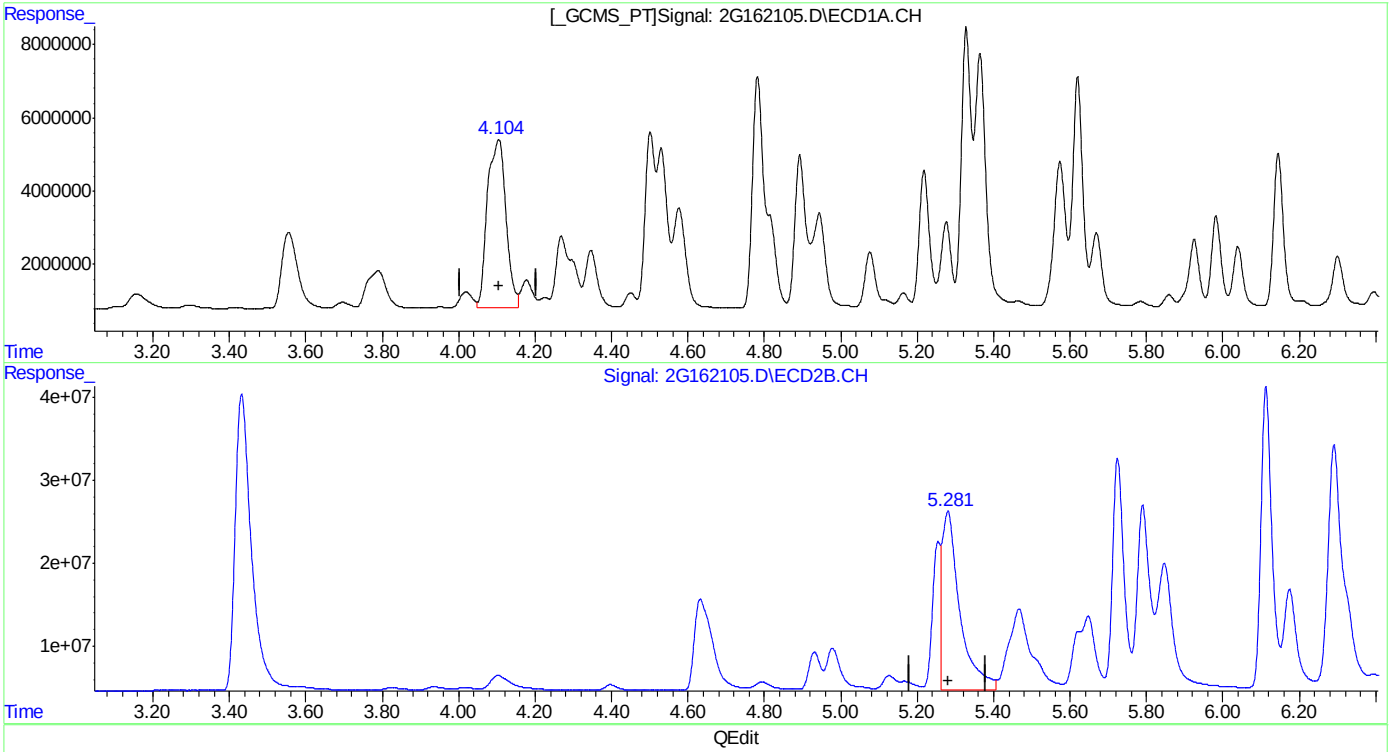
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	4.50	Split peak
AR1248-E		1	4.89	Split peak
AR1248-B		2	5.28	Split peak
Ar1248-G		1	5.62	Split peak
Ar1248-G		2	7.05	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(18) AR1248-B
4.105min 820.696PPB
response 154397514

(18) AR1248-B #2
5.281min 621.062PPB
response 707673669

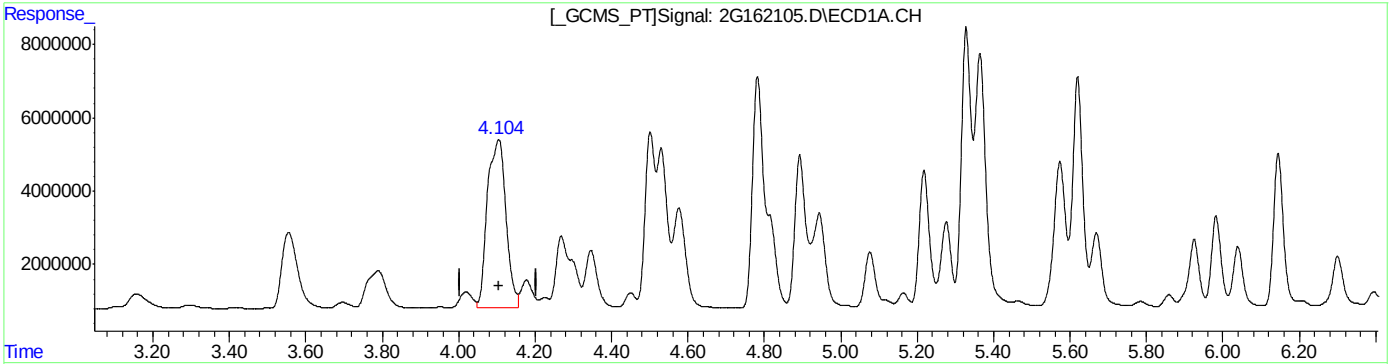
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:37:12 2018 RPT1

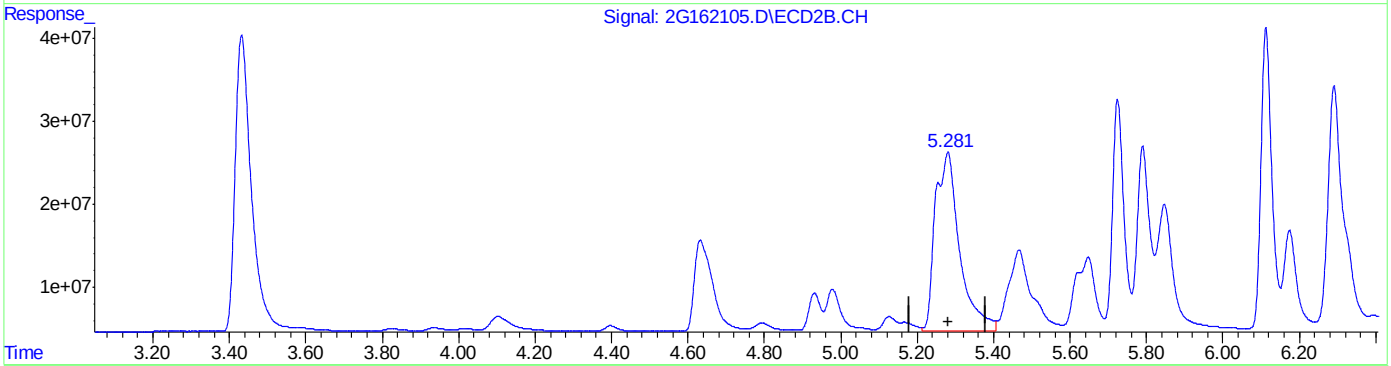
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(18) AR1248-B
4.105min 820.696PPB
response 154397514

(18) AR1248-B #2
5.281min 837.930PPB m
response 954786244

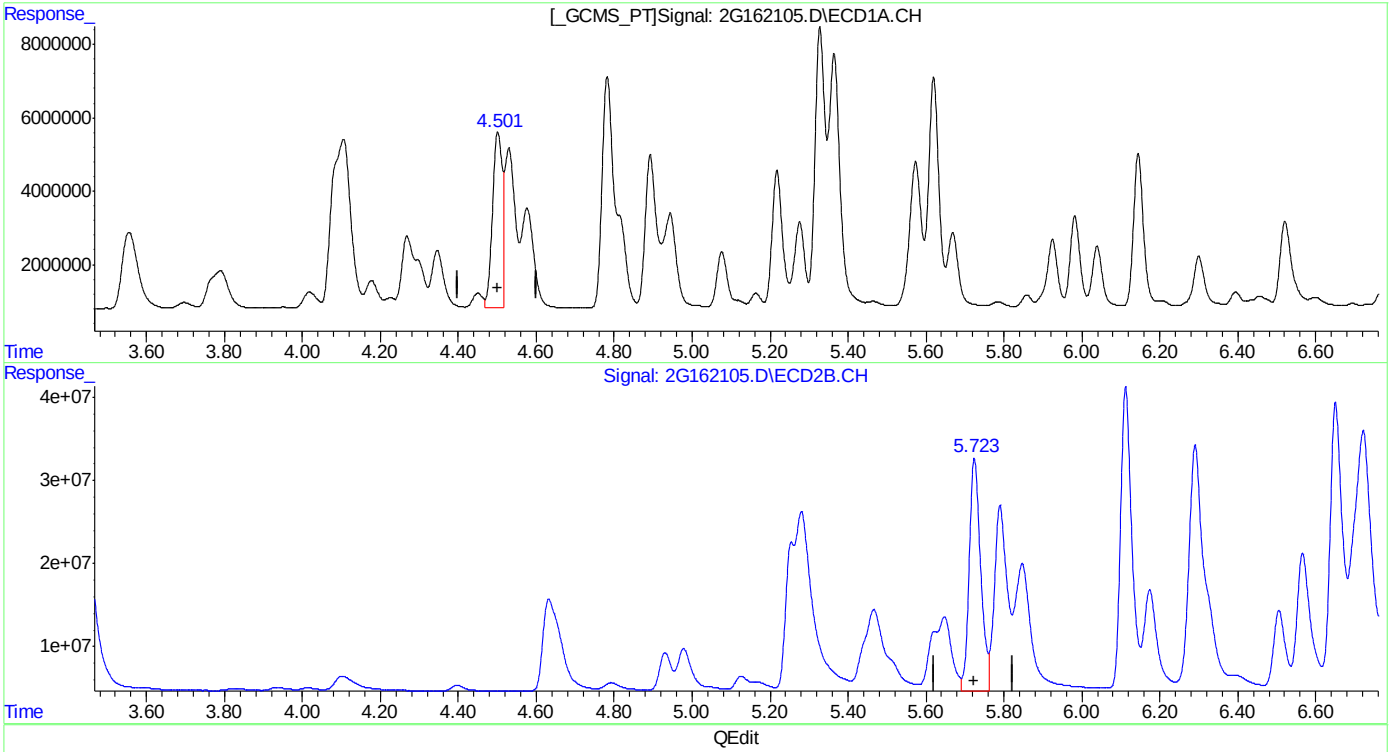
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:37:20 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(19) AR1248-C
4.501min 415.086PPB
response 84420896

(19) AR1248-C #2
5.724min 907.464PPB
response 569681418

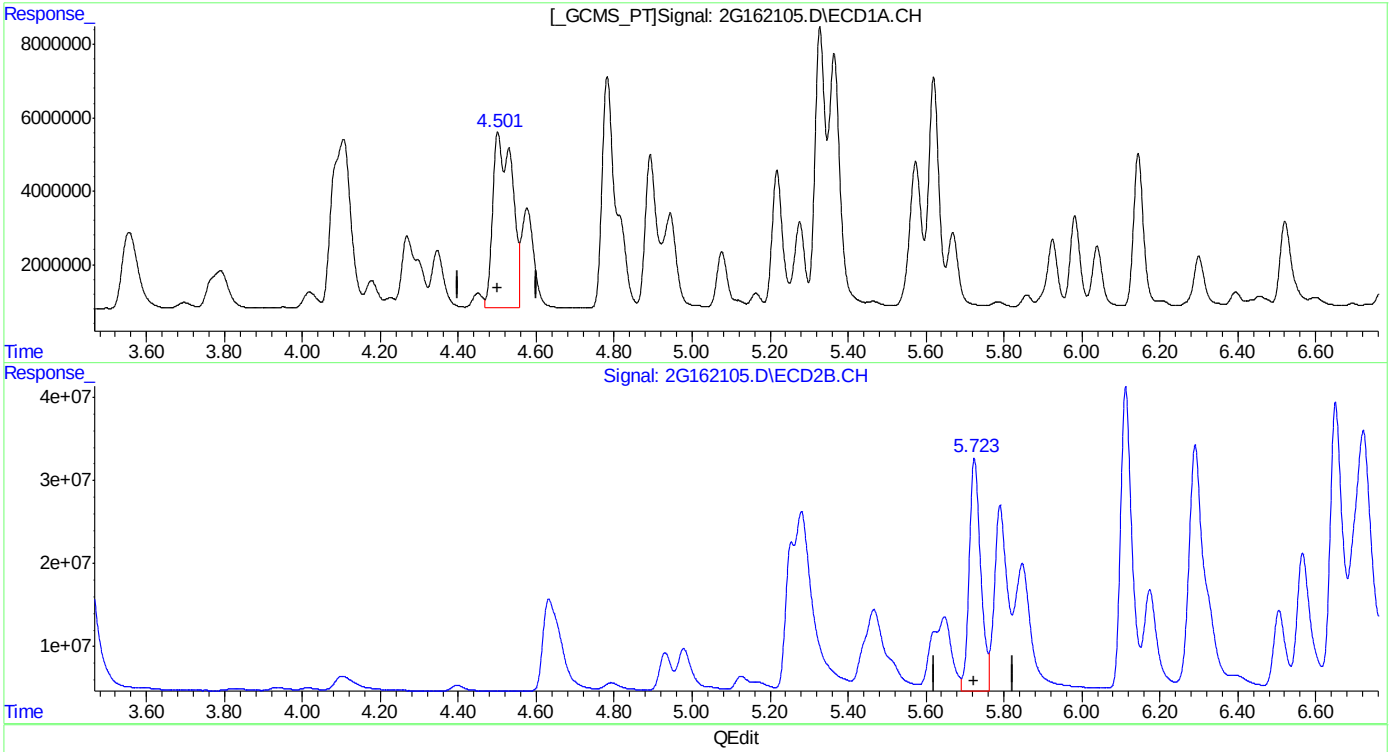
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(19) AR1248-C
4.501min 812.299PPB m
response 165206685

(19) AR1248-C #2
5.724min 907.464PPB
response 569681418

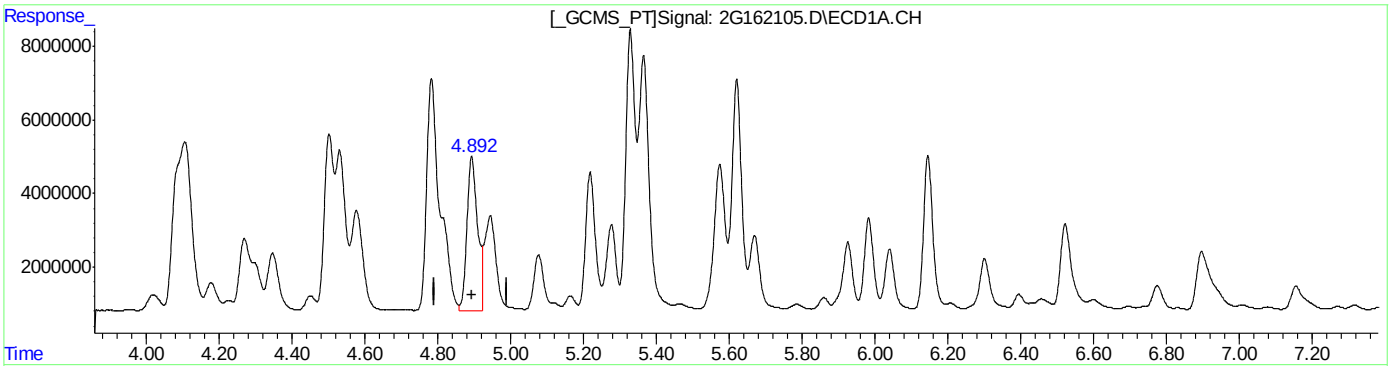
(+) = Expected Retention Time

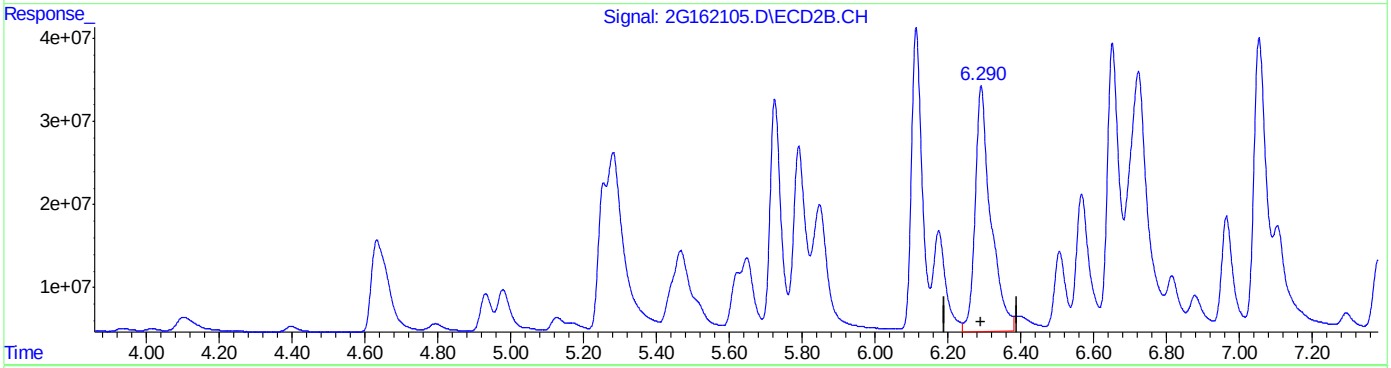
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(21) AR1248-E
4.893min 501.078PPB
response 83213803

(21) AR1248-E #2
6.291min 1021.118PPB
response 879893668

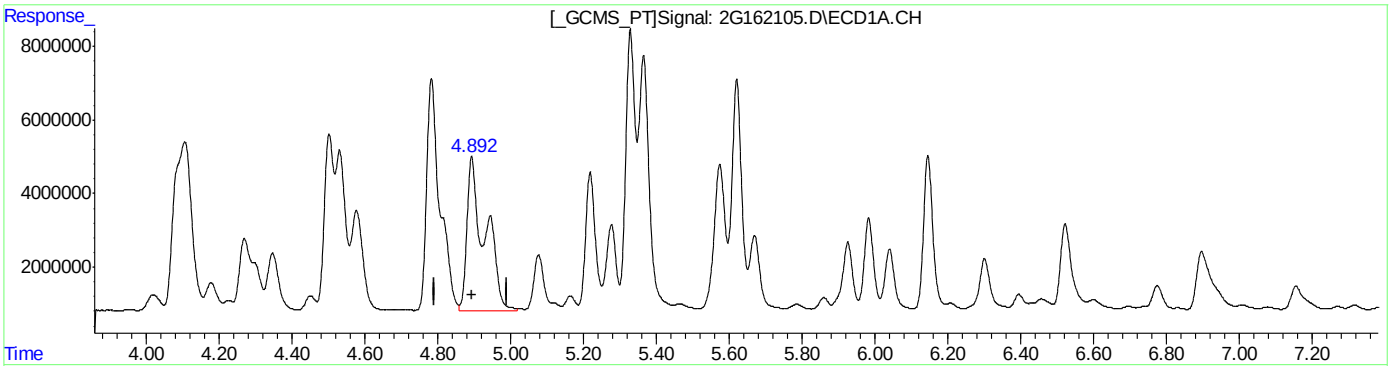
(+) = Expected Retention Time

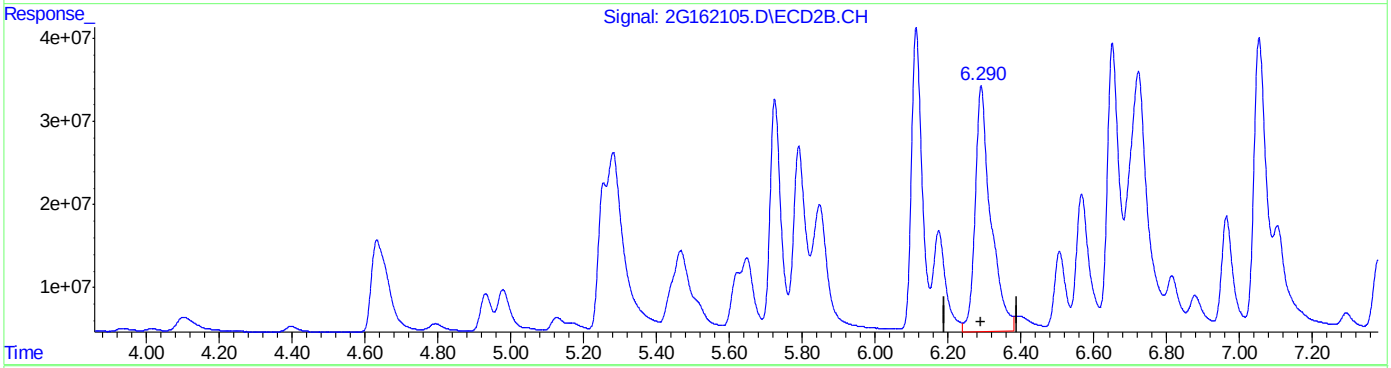
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(21) AR1248-E
4.892min 855.462PPB m
response 142066418

(21) AR1248-E #2
6.291min 1021.118PPB
response 879893668

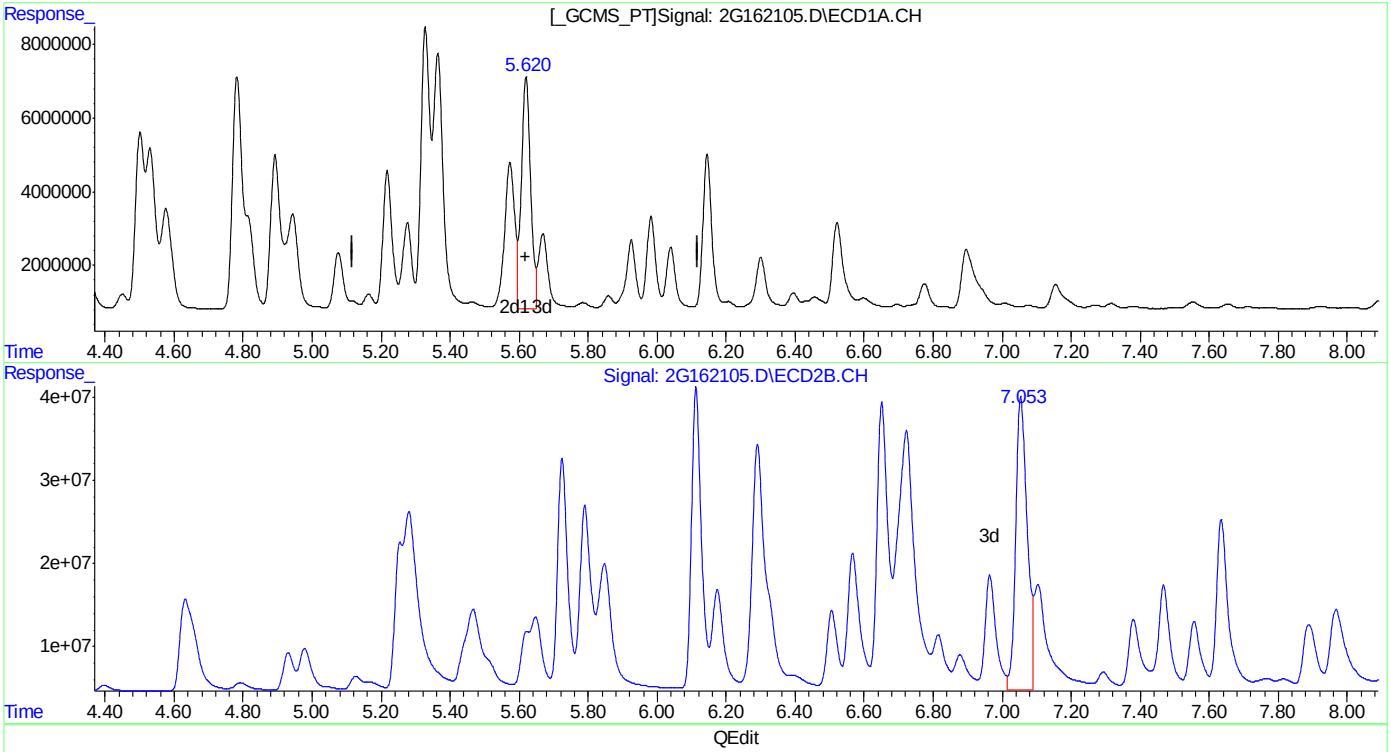
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(23) AR1248-G
5.620min 448.393
response 117406237

(23) AR1248-G #2
7.054min 746.941
response 826706821

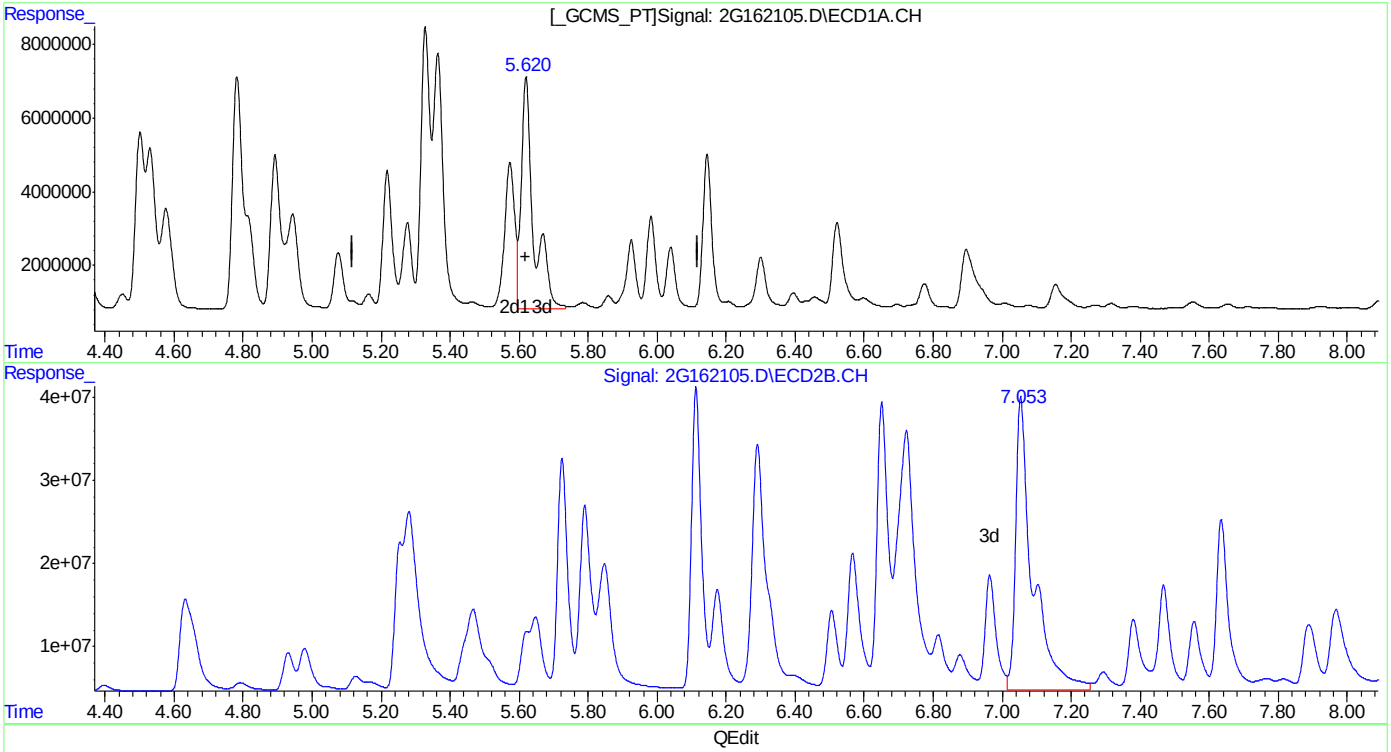
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:37:58 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(23) AR1248-G
5.620min 600.449 m
response 157220035

(23) AR1248-G #2
7.053min 1102.458 m
response 1220188241

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:38:18 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:43:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.778	3.432	159.0E6	1008.0E6	43.317	44.054
Spiked Amount	40.000			Recovery	=	108.29%	110.14%
51) S	Decachlor...	10.012	11.809	160.3E6	748.7E6	39.512	39.200
Spiked Amount	40.000			Recovery	=	98.78%	98.00%
	Target Compounds						
31)	AR1016-A	3.154	4.095	76685525	415.7E6	984.499m	1109.784
32)	AR1016-B	3.557	4.631	141.9E6	845.4E6	1043.301	1055.279
33)	AR1016-C	4.107	5.276	305.7E6	1899.1E6	1054.364	1095.395
34)	AR1016-D	4.268	5.463	126.3E6	823.4E6	1068.073	1094.620
35)	AR1016-E	4.782	6.113	124.4E6	544.0E6	1019.904	1060.291
36)	AR1260-A	7.151	8.713	344.4E6	2060.4E6	1010.285	1030.370m
37)	AR1260-B	7.312	8.829	147.9E6	904.9E6	1023.613	1034.883
38)	AR1260-C	7.650	9.260	170.1E6	1070.9E6	1068.306	1047.844
39)	AR1260-D	8.080	9.611	387.2E6	2253.5E6	1054.515	1049.838
40)	AR1260-E	8.472	10.153	394.8E6	2121.6E6	1042.160m	1040.922m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.11

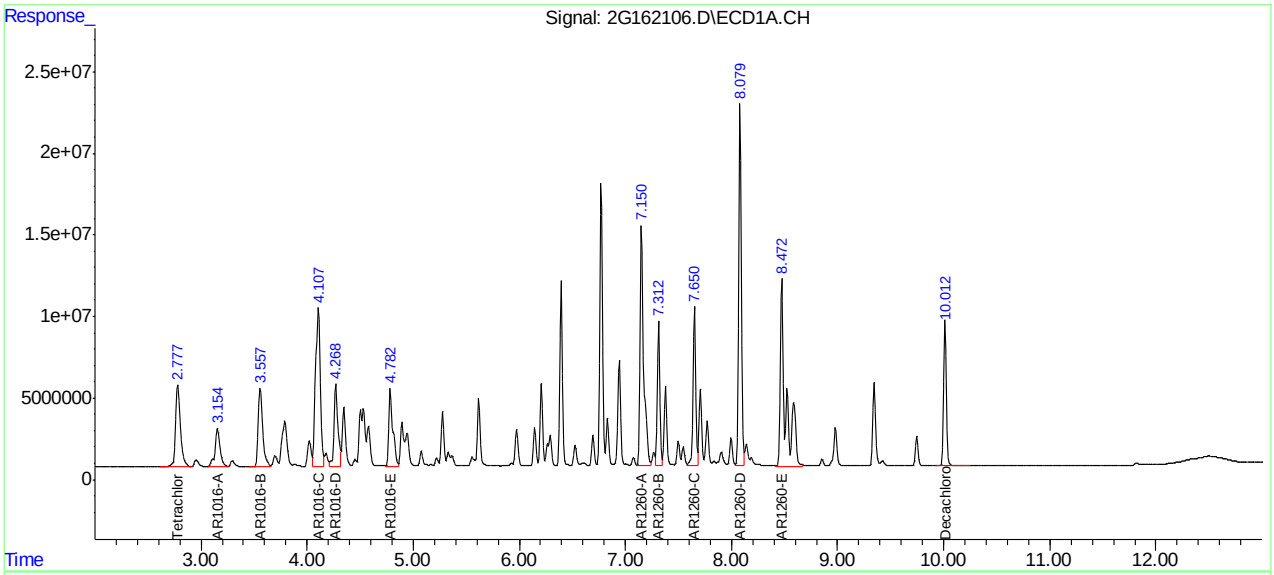
11

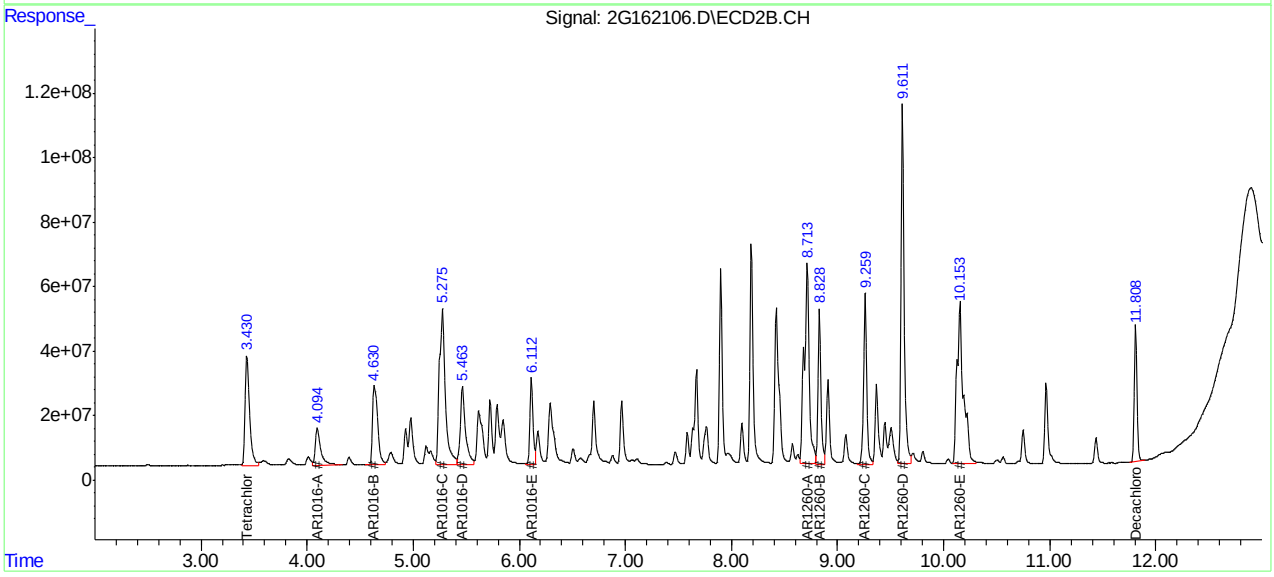
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:43:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICV4311	**Method:**	SW846 8082A
Lab FileID:	2G162106.D	**Analyst approved:**	04/19/18 15:45 Rebecca Krug
Injection Time:	04/19/18 15:17	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

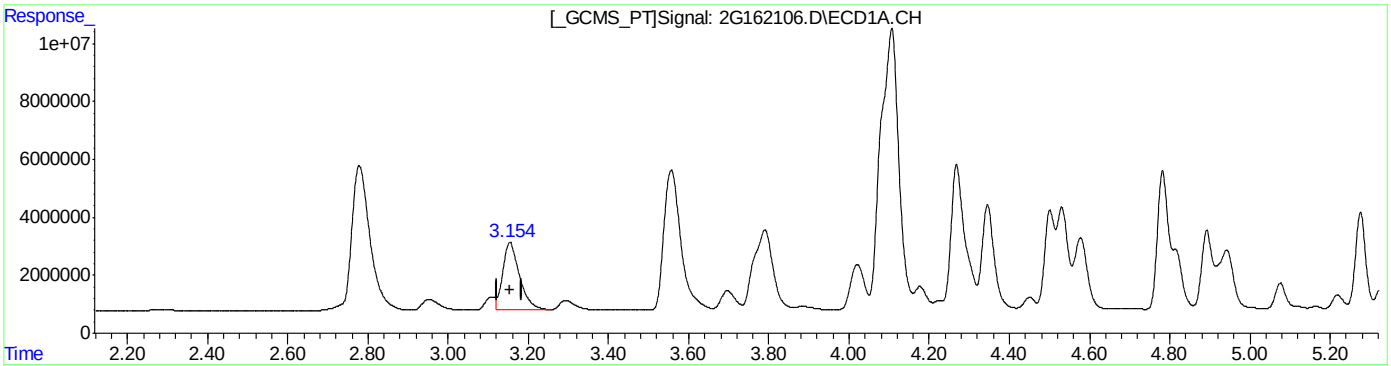
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		1	3.15	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

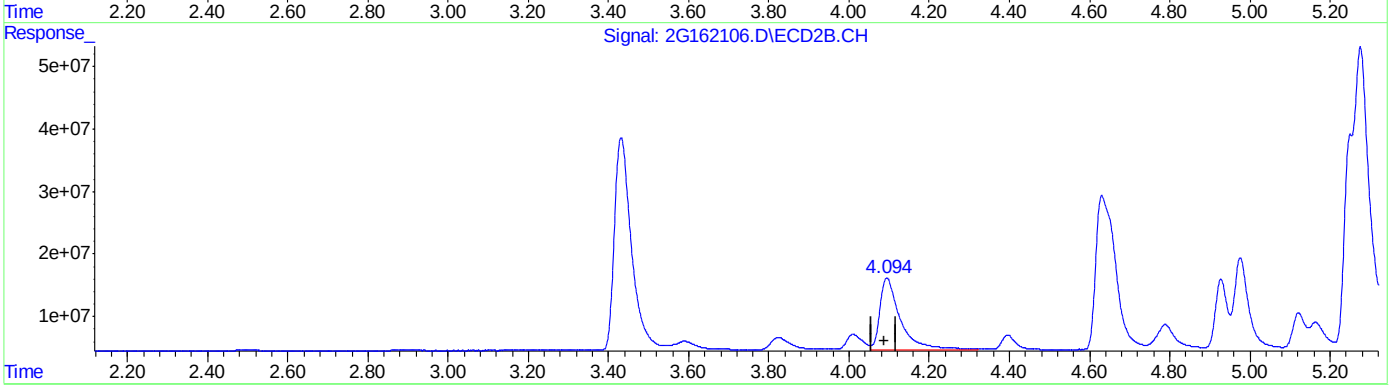
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(31) AR1016-A
3.154min 882.944PPB
response 68775101

(31) AR1016-A #2
4.095min 1109.784PPB
response 415731305

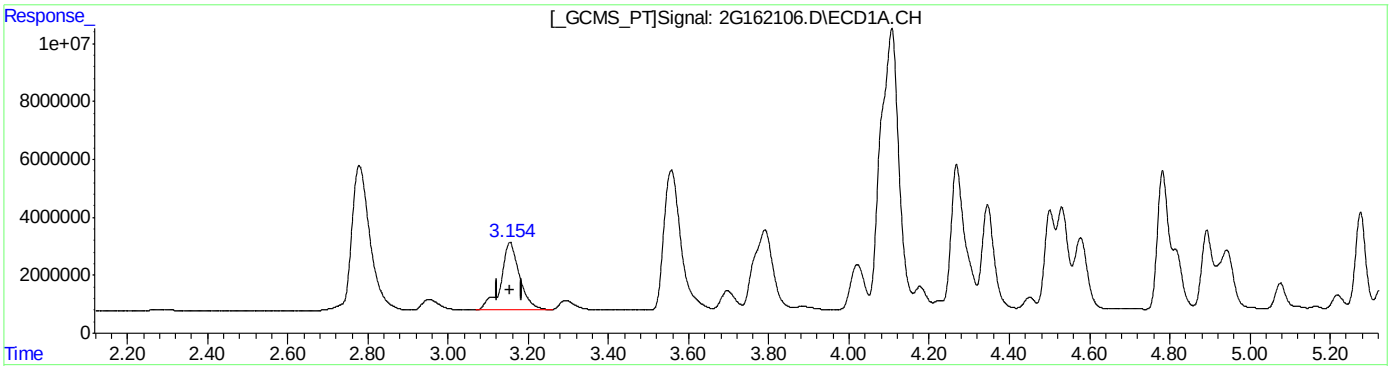
(+) = Expected Retention Time

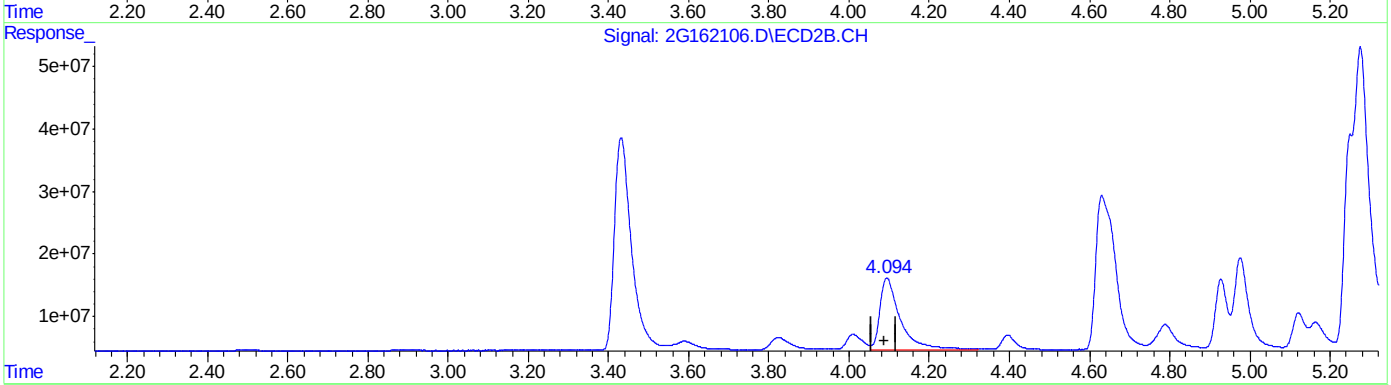
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(31) AR1016-A
3.154min 984.499PPB m
response 76685525

(31) AR1016-A #2
4.095min 1109.784PPB
response 415731305

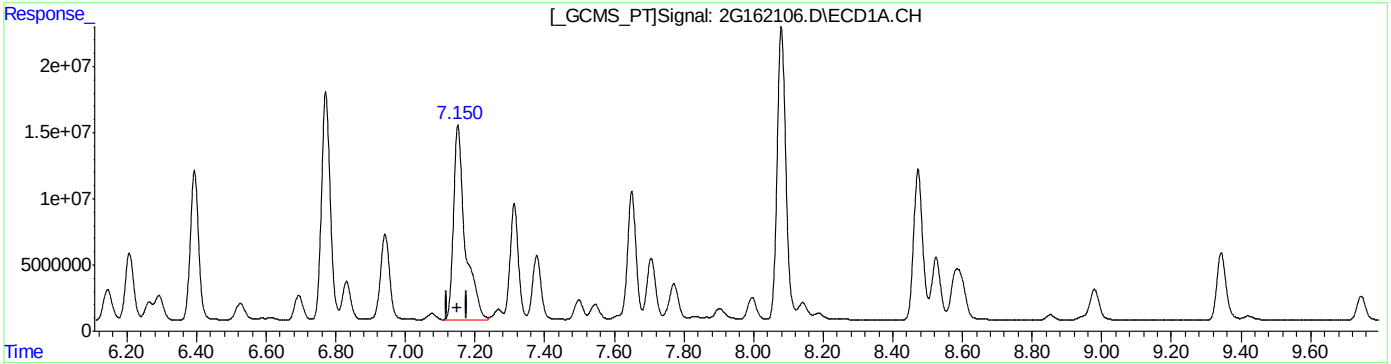
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:42:25 2018 RPT1

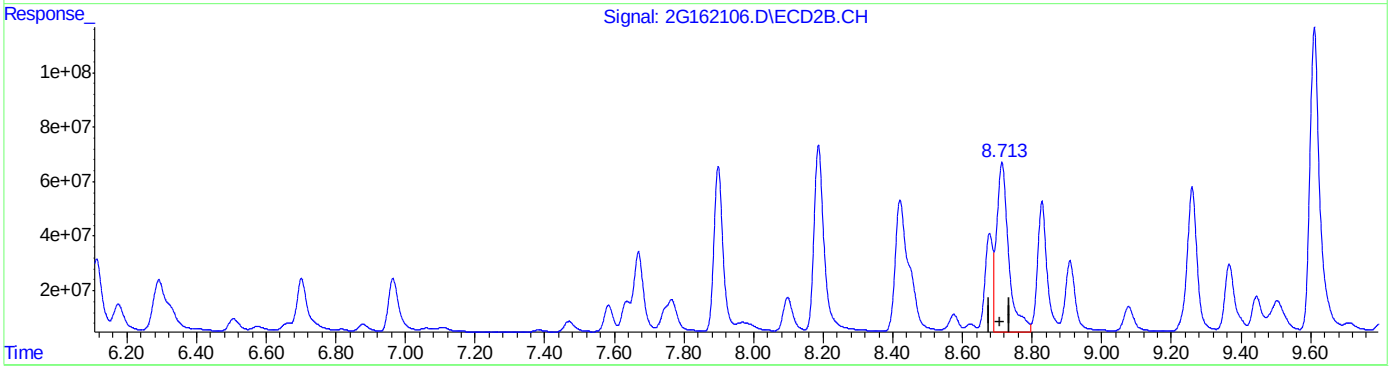
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.151min 1010.285PPB
response 344355330

(36) AR1260-A #2
8.713min 747.301PPB
response 1494370201

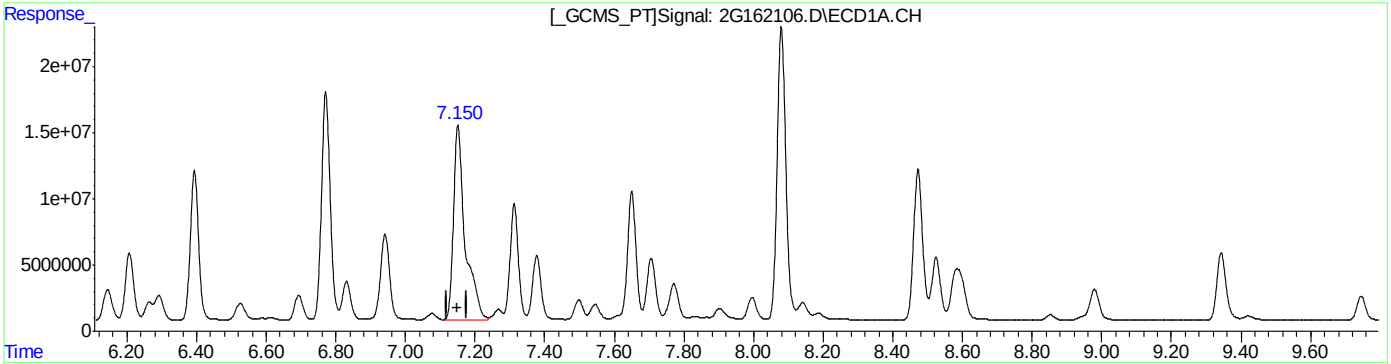
(+) = Expected Retention Time

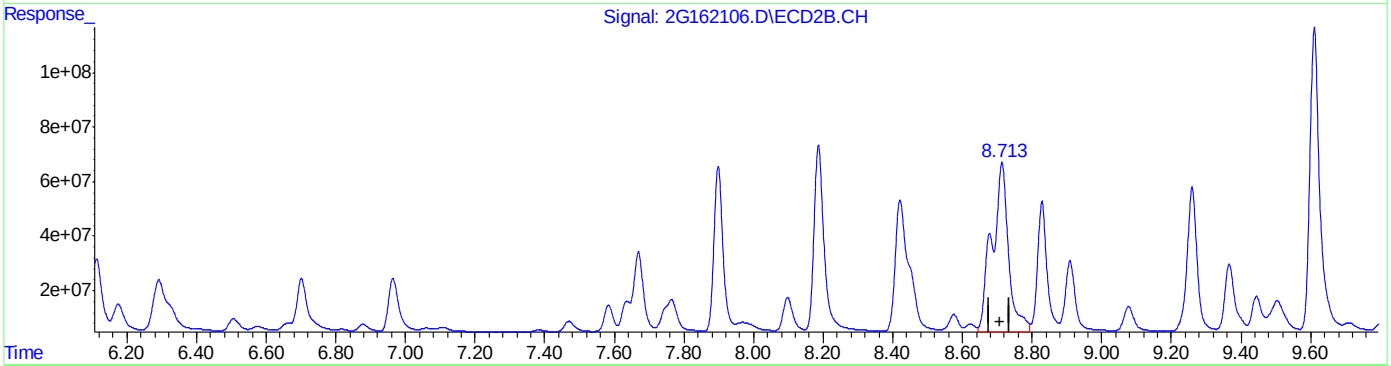
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.151min 1010.285PPB
response 344355330

(36) AR1260-A #2
8.713min 1030.370PPB m
response 2060420586

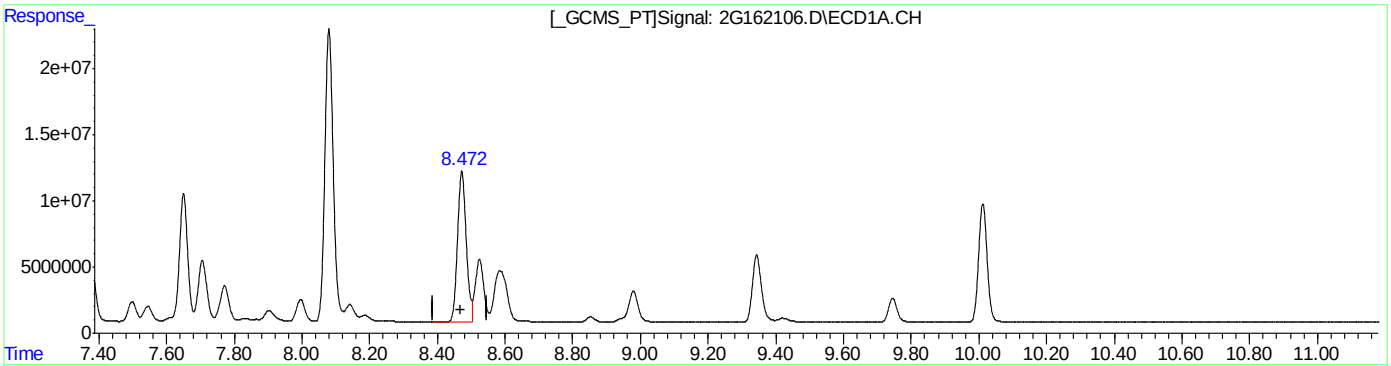
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:42:40 2018 RPT1

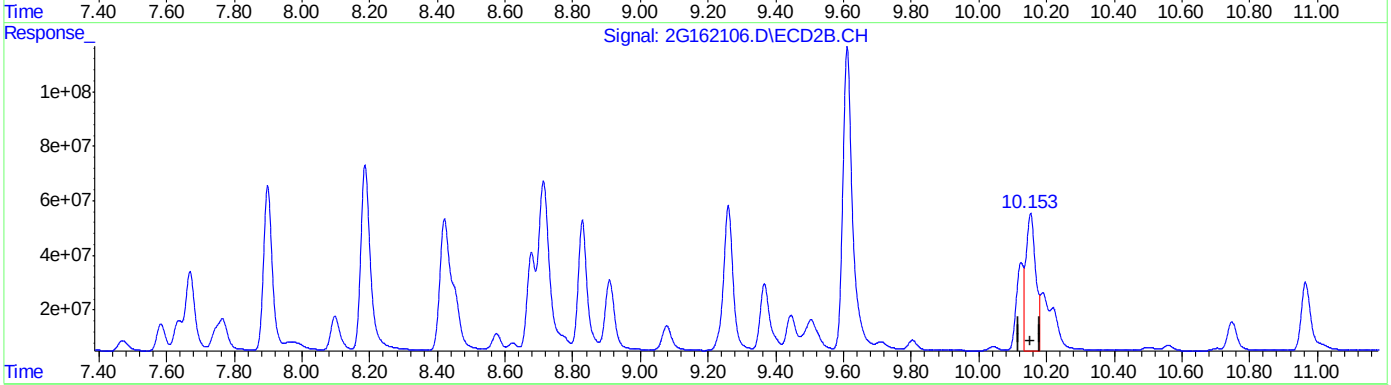
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.472min 544.539PPB
response 206264619

(40) AR1260-E #2
10.153min 504.699PPB
response 1028663455

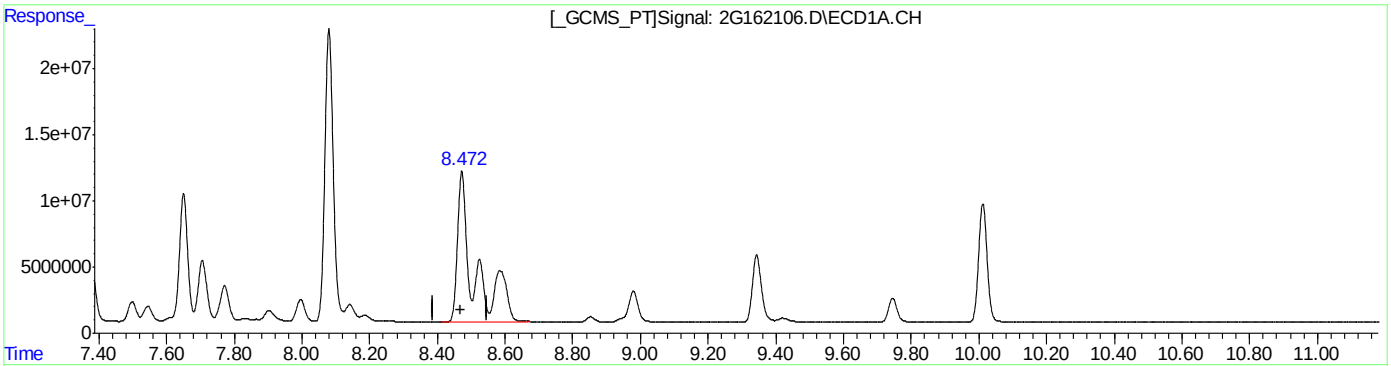
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:42:46 2018 RPT1

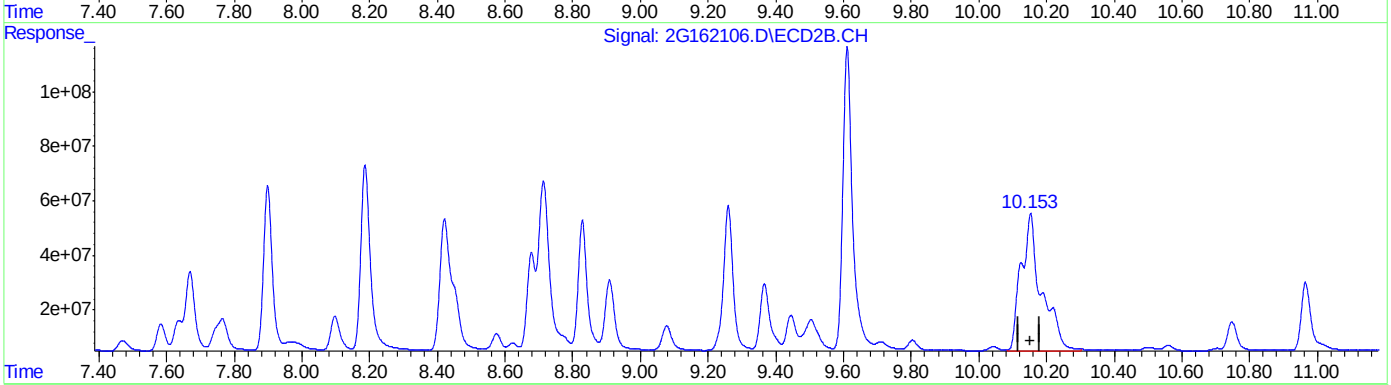
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.472min 1042.160PPB m
response 394757340

(40) AR1260-E #2
10.153min 1040.922PPB m
response 2121578641

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:42:57 2018 RPT1

Manual Integrations
APPROVED
(compounds with "m" flag)
Gwendolyn Burns
04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.779	3.431	153.3E6	920.0E6	41.757	40.204
Spiked Amount	40.000			Recovery	=	104.39%	100.51%
51) S	Decachlor...	10.014	11.809	140.0E6	673.0E6	34.519	35.236m
Spiked Amount	40.000			Recovery	=	86.30%	88.09%
	Target Compounds						
2)	AR1221-A	2.279	2.875	30230560	146.0E6	1043.603	1036.235
3)	AR1221-B	2.954	3.822	40285056	252.3E6	958.647	1006.331
4)	AR1221-C	3.154	4.092	122.7E6	636.2E6	952.714m	970.047
5)	AR1221-D	3.559	4.652	11965333	105.9E6	816.362	866.763
6)	AR1221-E	3.701	4.775	14535418	89521998	1011.960	1011.639
24)	AR1254-A	5.275	6.700	129.5E6	1052.0E6	1049.498	1059.947
25)	AR1254-B	5.616	6.961	268.8E6	1037.4E6	1038.943m	1054.345
26)	AR1254-C	5.981	7.465	143.6E6	839.2E6	1048.265	1052.001
27)	AR1254-D	6.144	7.630	257.6E6	1719.0E6	1047.563	1051.825
28)	AR1254-E	6.519	7.958	189.8E6	1135.8E6	1040.097	1043.025
29)	AR1254-F	6.772	8.419	179.8E6	1231.4E6	1050.190	1042.487m
30)	AR1254-G	7.152	8.715	263.4E6	1614.8E6	1046.353	1068.898

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

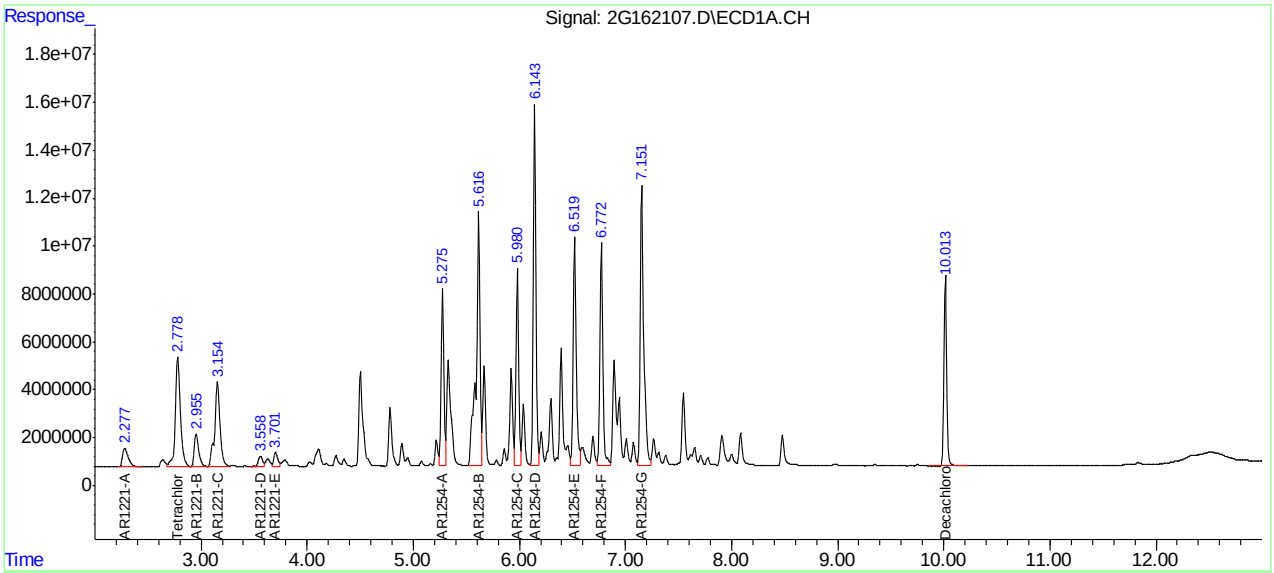
11.6.12
11

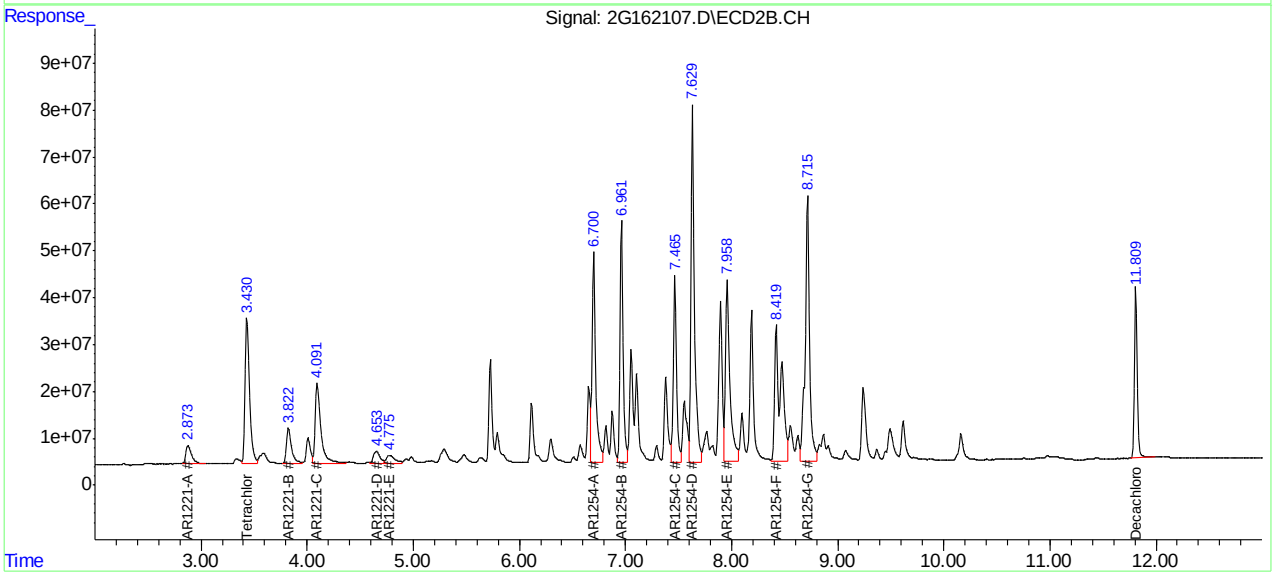
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICV4311	**Method:**	SW846 8082A
Lab FileID:	2G162107.D	**Analyst approved:**	04/19/18 16:16 Rebecca Krug
Injection Time:	04/19/18 15:34	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

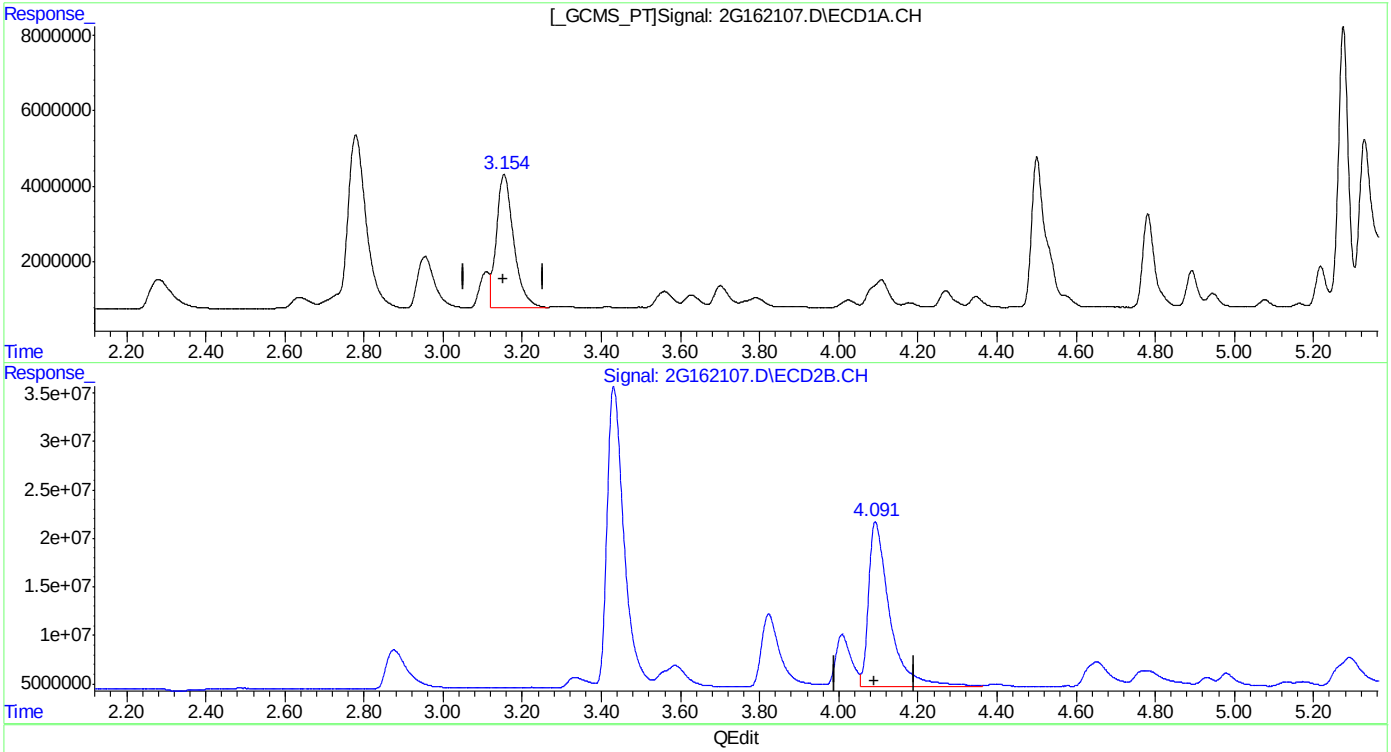
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-C		1	3.15	Split peak
AR1254-B		1	5.62	Split peak
AR1254-F		2	8.42	Split peak
Decachlorobiphenyl	2051-24-3	2	11.81	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(4) AR1221-C
3.154min 823.443PPB
response 106055438

(4) AR1221-C #2
4.092min 970.047PPB
response 636187286

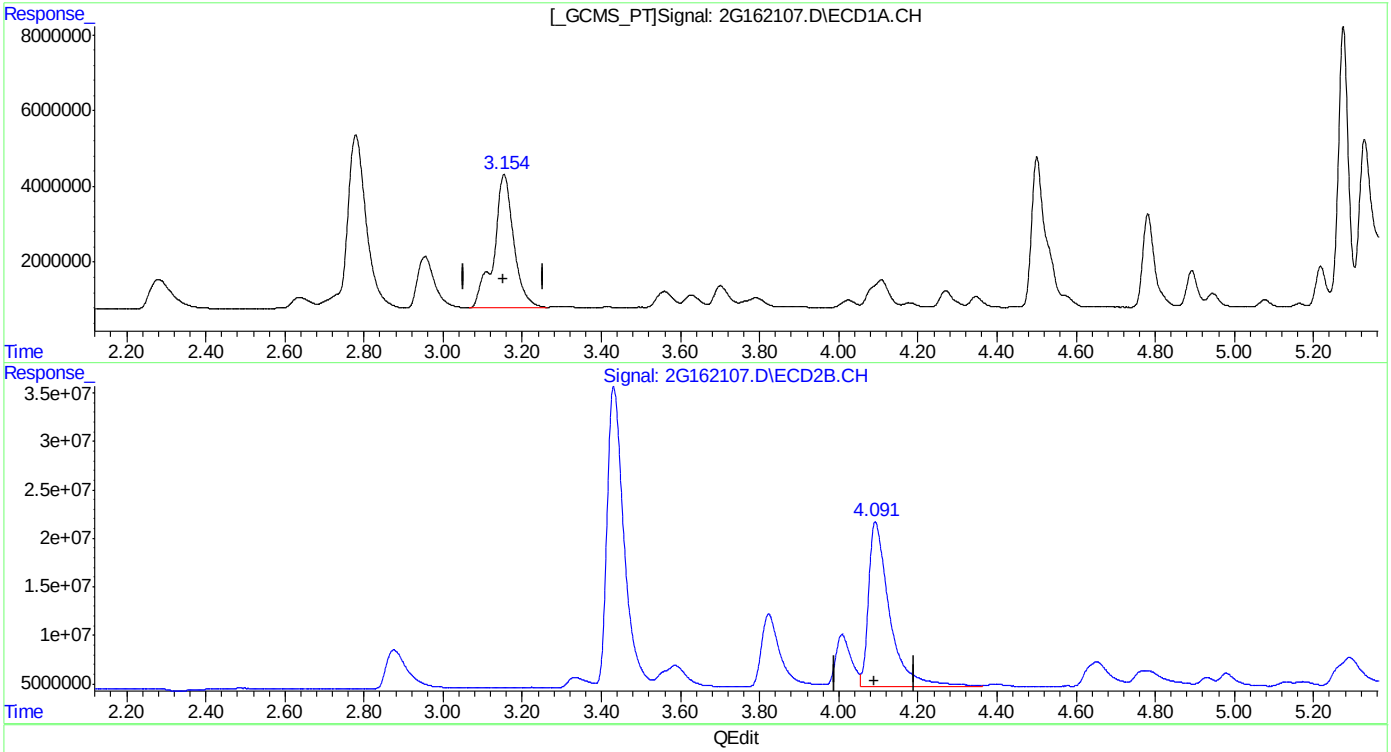
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:13:35 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(4) AR1221-C
3.154min 952.714PPB m
response 122704980

(4) AR1221-C #2
4.092min 970.047PPB
response 636187286

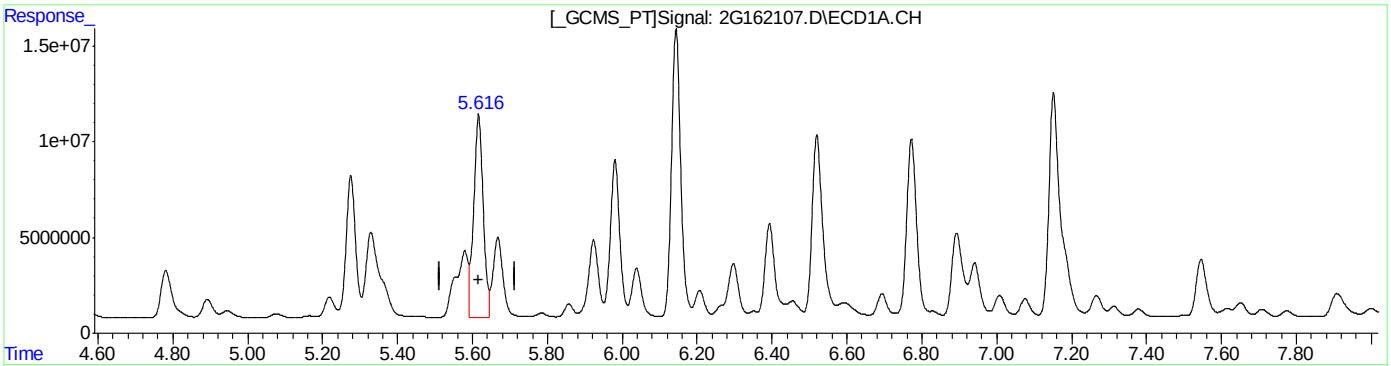
(+) = Expected Retention Time

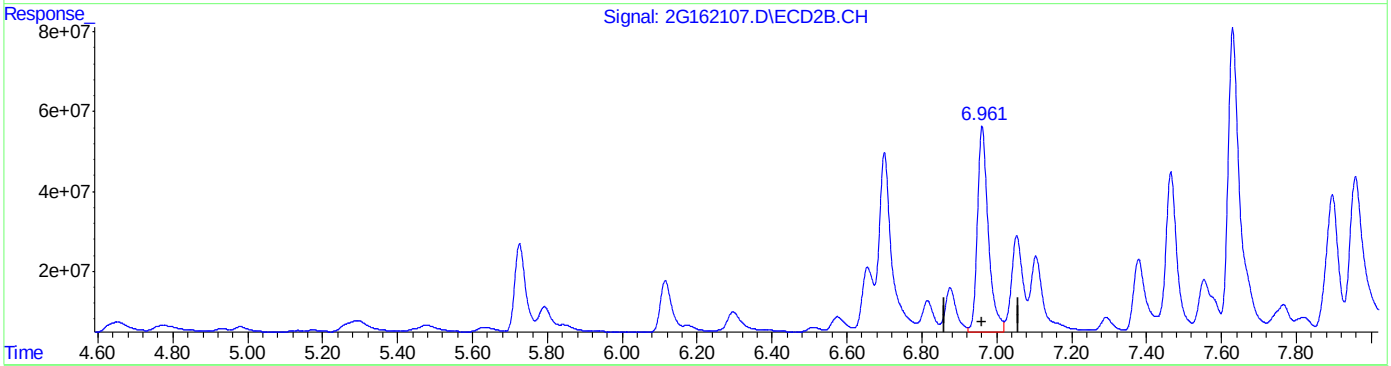
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(25) AR1254-B
5.616min 725.809PPB
response 187805126

(25) AR1254-B #2
6.961min 1054.345PPB
response 1037386452

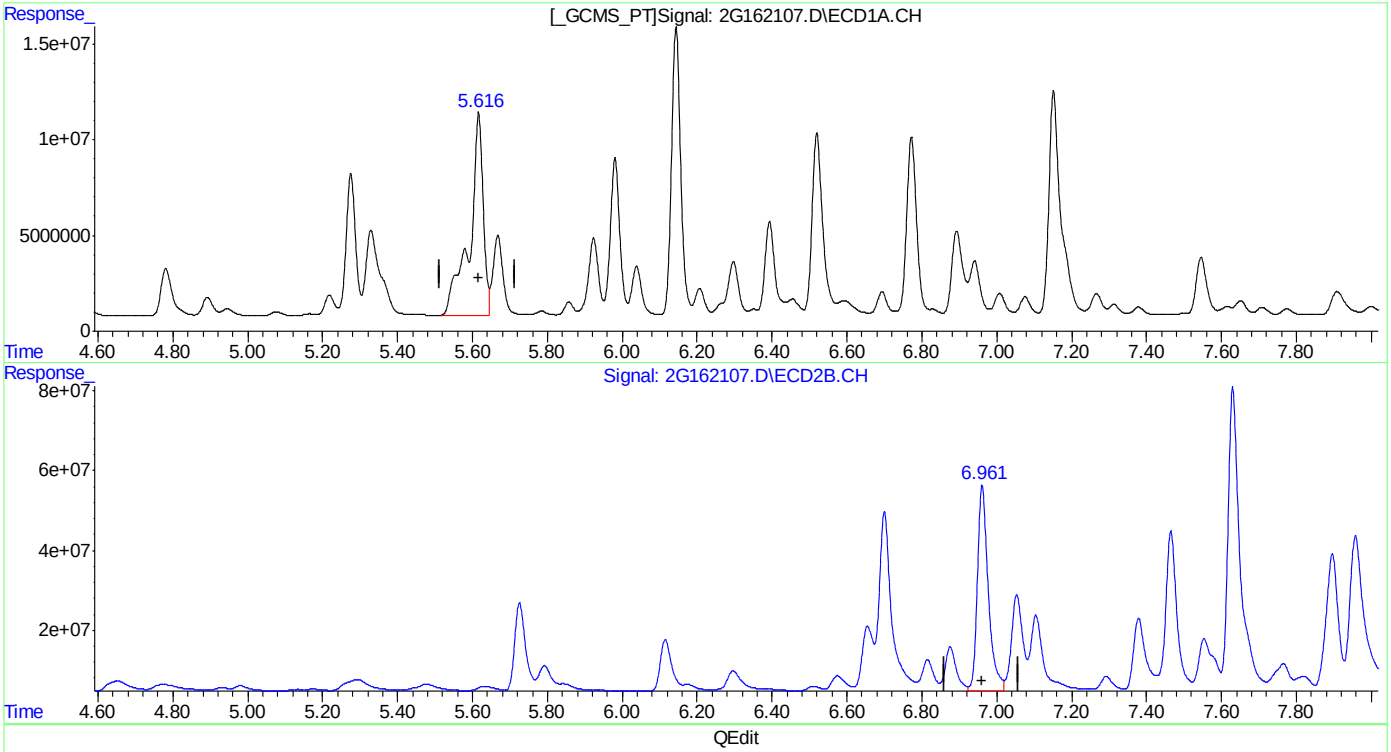
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:13:54 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(25) AR1254-B
5.616min 1038.943PPB m
response 268829390

(25) AR1254-B #2
6.961min 1054.345PPB
response 1037386452

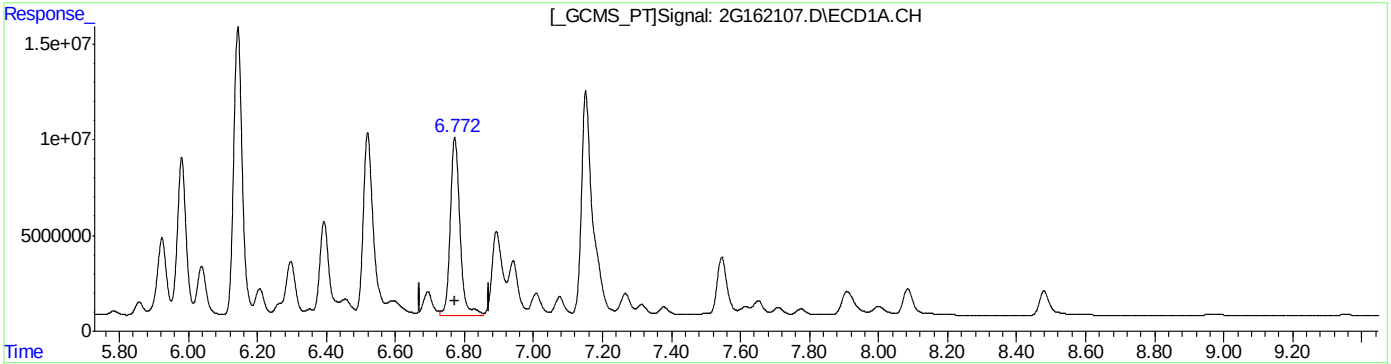
(+) = Expected Retention Time

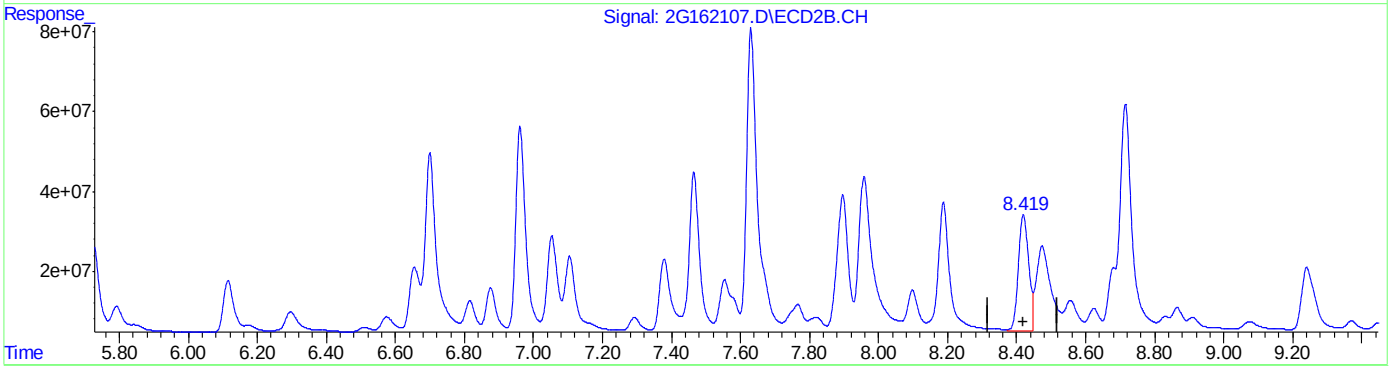
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(29) AR1254-F
6.772min 1050.190PPB
response 179788782

(29) AR1254-F #2
8.420min 520.166PPB
response 614411351

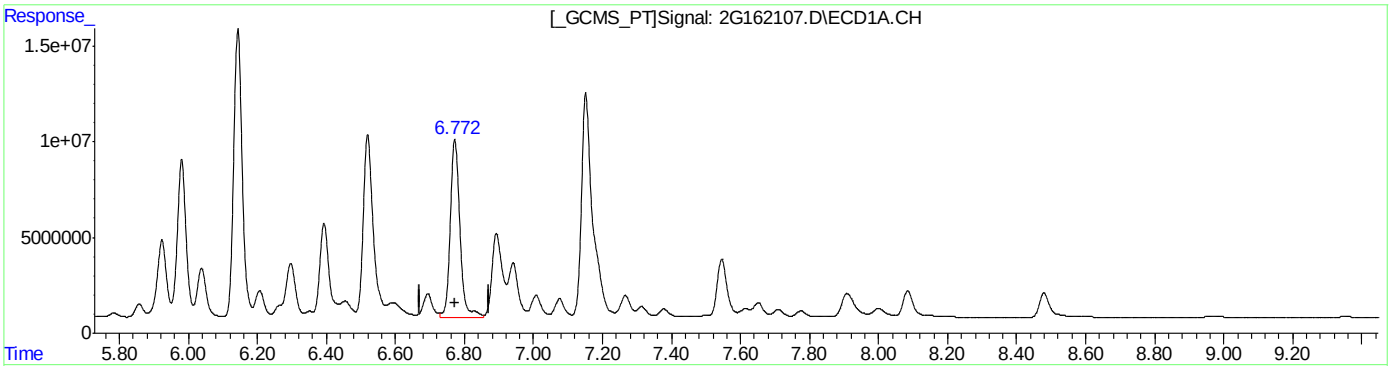
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:14:08 2018 RPT1

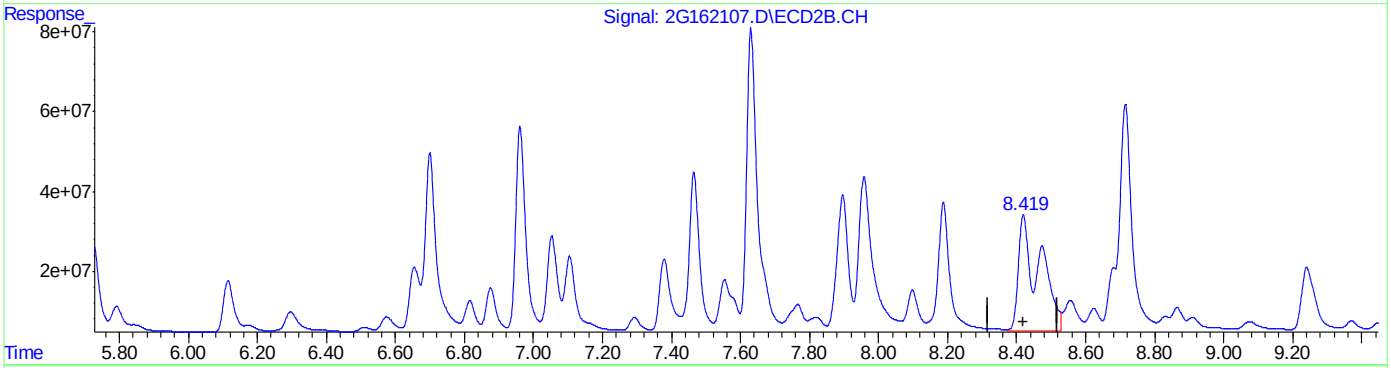
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(29) AR1254-F
6.772min 1050.190PPB
response 179788782

(29) AR1254-F #2
8.419min 1042.487PPB m
response 1231368568

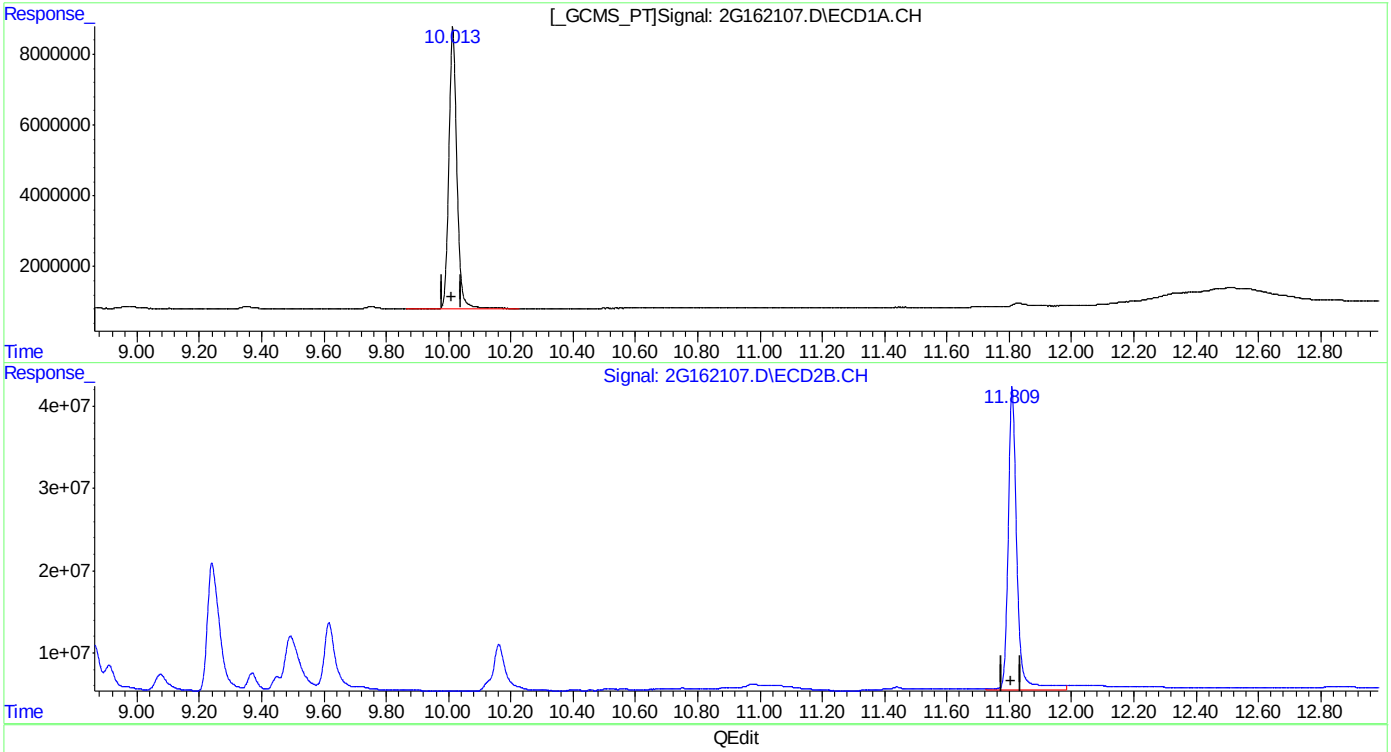
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:14:14 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(51) Decachlorobiphenyl (S)
10.014min 34.519ppb
response 140003082

(51) Decachlorobiphenyl #2 (S)
11.809min 37.606ppb
response 718253484

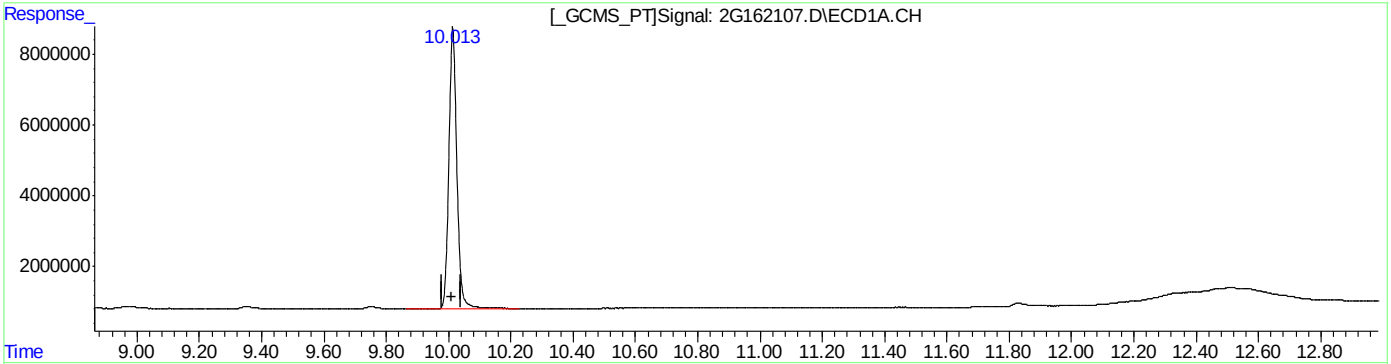
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:14:23 2018 RPT1

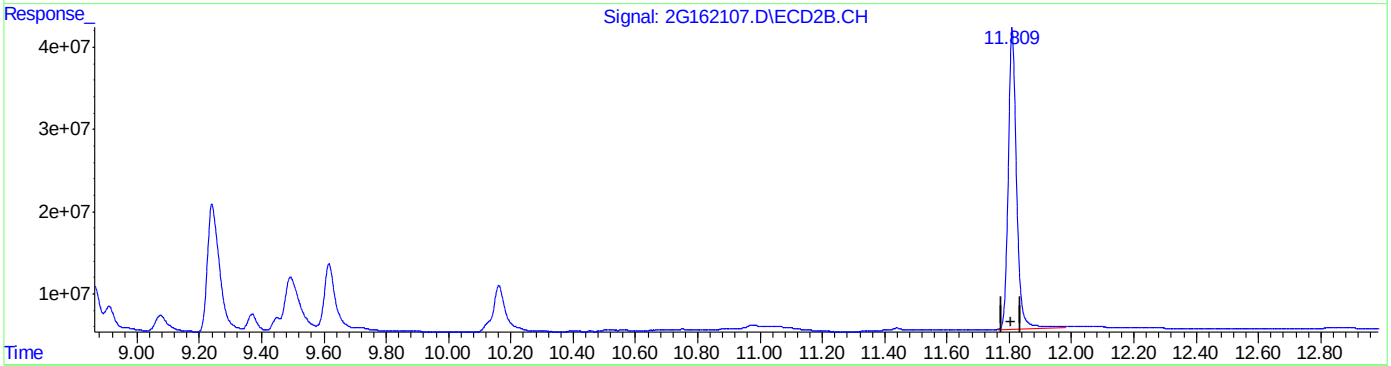
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(51) Decachlorobiphenyl (S)
10.014min 34.519ppb
response 140003082

(51) Decachlorobiphenyl #2 (S)
11.809min 35.236ppb m
response 672981588

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:14:27 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:15:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.781	3.433	170.6E6	1052.0E6	46.480	45.976
Spiked Amount	40.000			Recovery	=	116.20%	114.94%
51) S	Decachlor...	10.013	11.810	170.8E6	815.2E6	42.102	42.680
Spiked Amount	40.000			Recovery	=	105.25%	106.70%
	Target Compounds						
7)	AR1232-A	3.154	4.095	98365261	512.2E6	1010.501m	1020.405
8)	AR1232-B	3.559	4.636	68498112	401.6E6	1024.767	1020.600
9)	AR1232-C	4.108	5.283	135.9E6	827.1E6	1041.459	1014.523
10)	AR1232-D	4.269	5.470	56766203	372.0E6	1042.085	1028.928
11)	AR1232-E	4.784	6.116	53116179	220.0E6	1031.594	1012.367
41)	AR1262-A	6.771	8.188	203.7E6	1084.4E6	1052.988	1038.504
42)	AR1262-B	7.313	8.829	258.5E6	1494.9E6	1066.632	1046.686
43)	AR1262-C	7.651	9.260	238.6E6	1393.4E6	1051.048	1042.970
44)	AR1262-D	8.080	9.611	514.2E6	2841.1E6	1059.463	1039.845
45)	AR1262-E	8.525	10.124	598.9E6	3168.8E6	1071.837m	1044.277m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

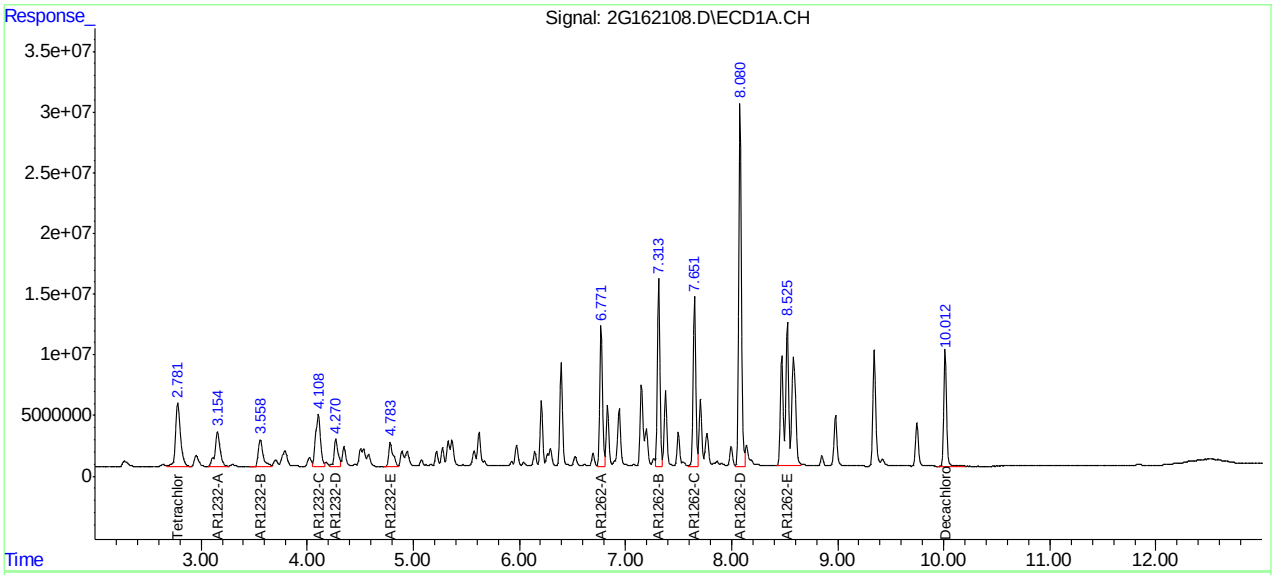
11.6.13 11

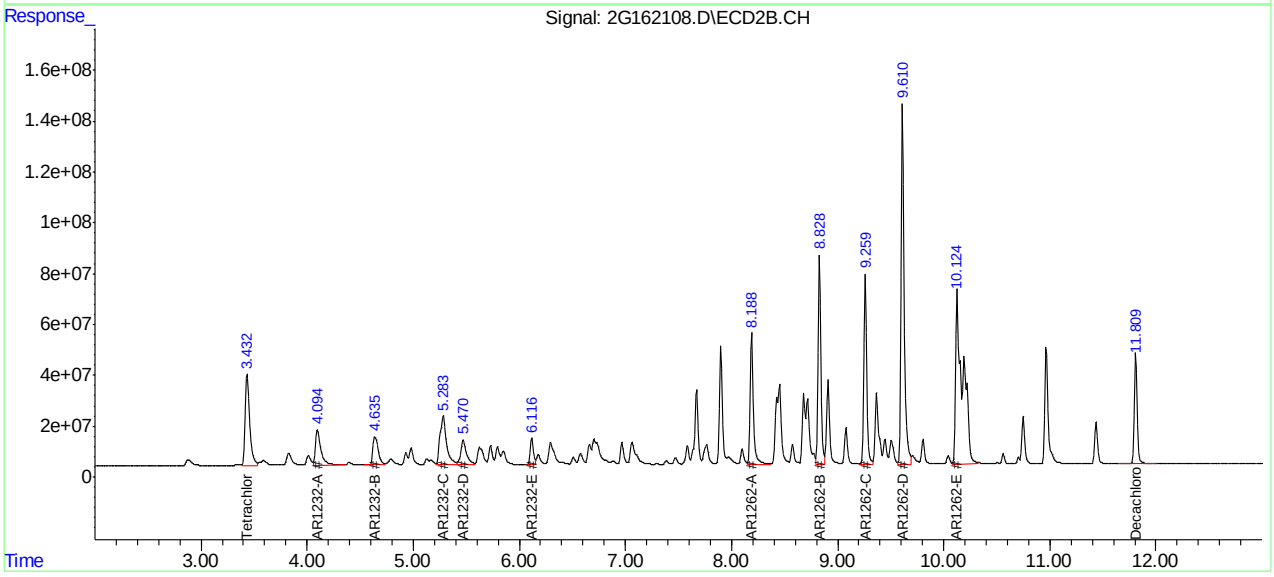
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:15:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICV4311	**Method:**	SW846 8082A
Lab FileID:	2G162108.D	**Analyst approved:**	04/19/18 16:16 Rebecca Krug
Injection Time:	04/19/18 15:51	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

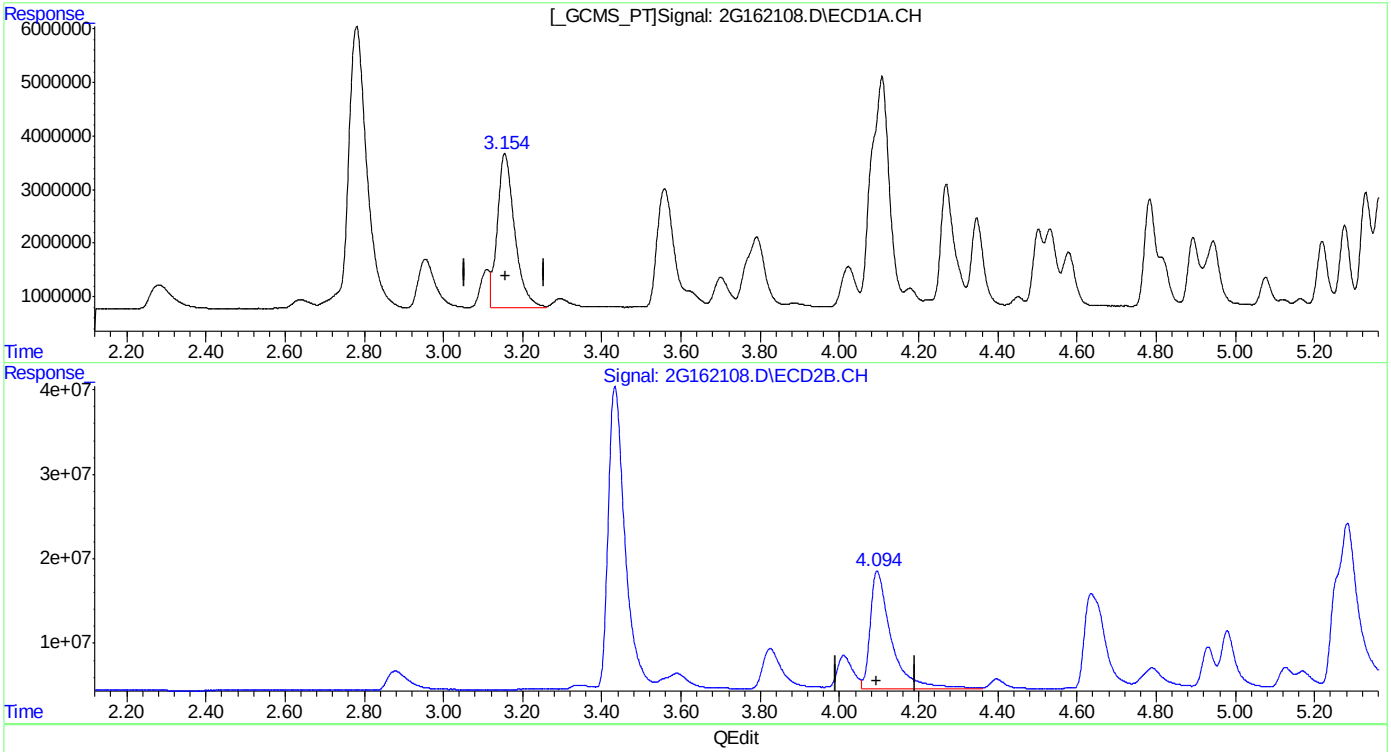
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1232-A		1	3.15	Split peak
AR1262-E		1	8.53	Split peak
AR1262-E		2	10.12	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(7) AR1232-A
3.155min 889.288PPB
response 86566070

(7) AR1232-A #2
4.095min 1020.405PPB
response 512203545

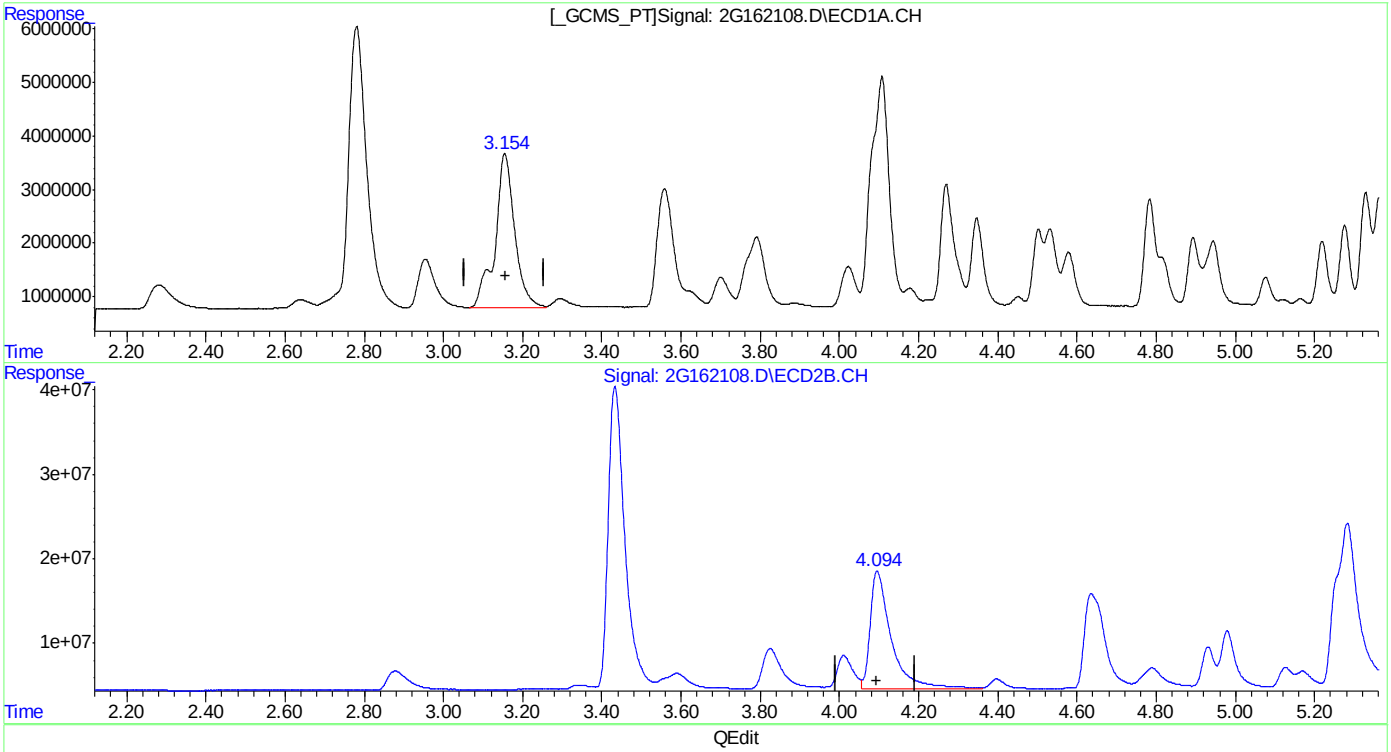
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(7) AR1232-A
3.154min 1010.501PPB m
response 98365261

(7) AR1232-A #2
4.095min 1020.405PPB
response 512203545

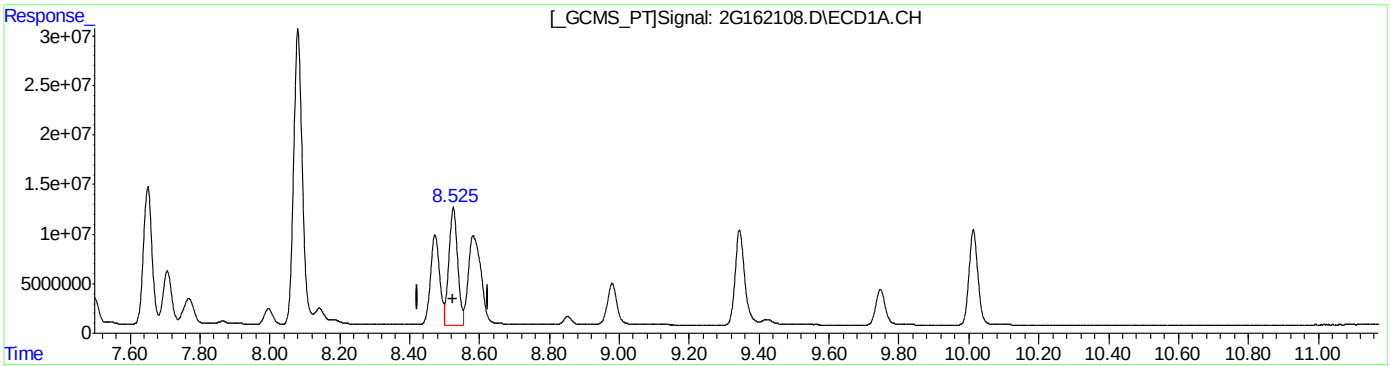
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:14:56 2018 RPT1

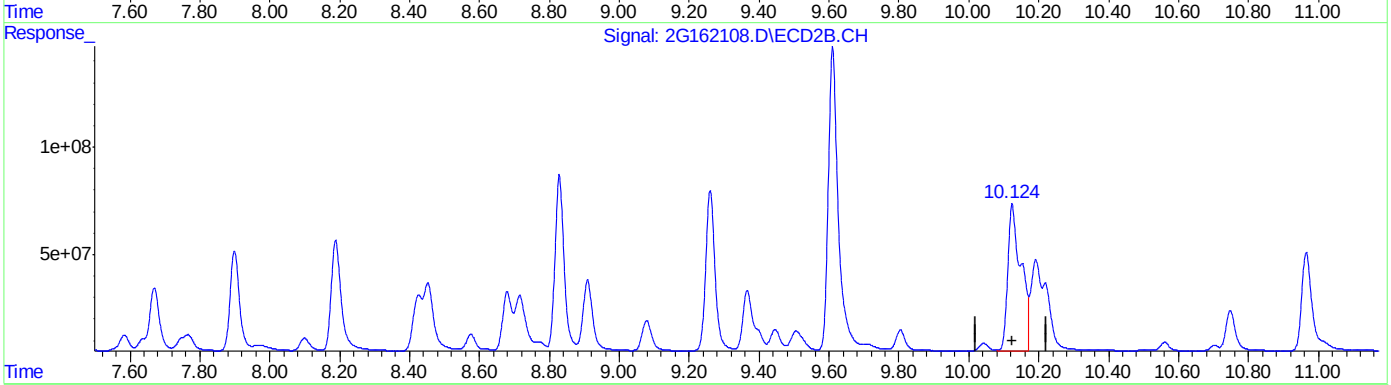
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(45) AR1262-E
8.525min 372.421PPB
response 208100944

(45) AR1262-E #2
10.124min 596.212PPB
response 1809171074

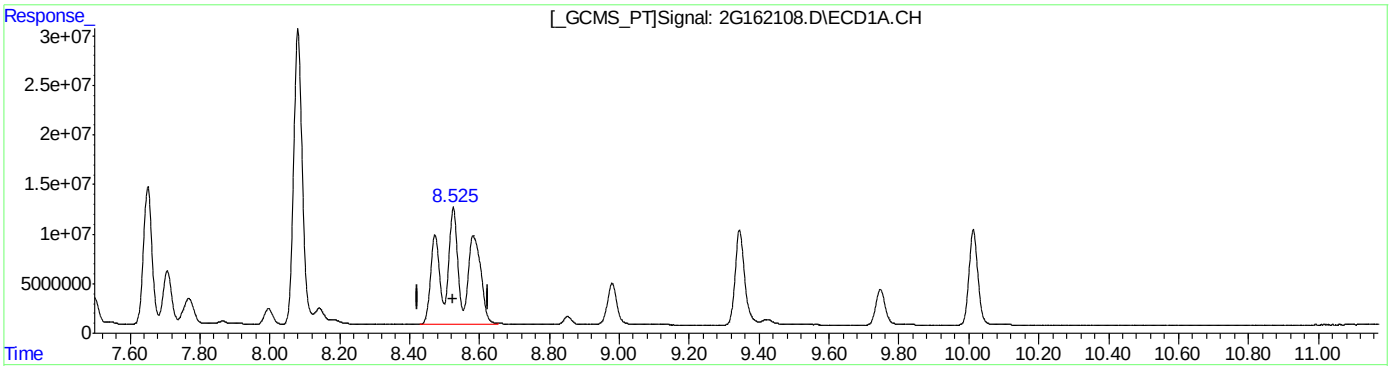
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:15:20 2018 RPT1

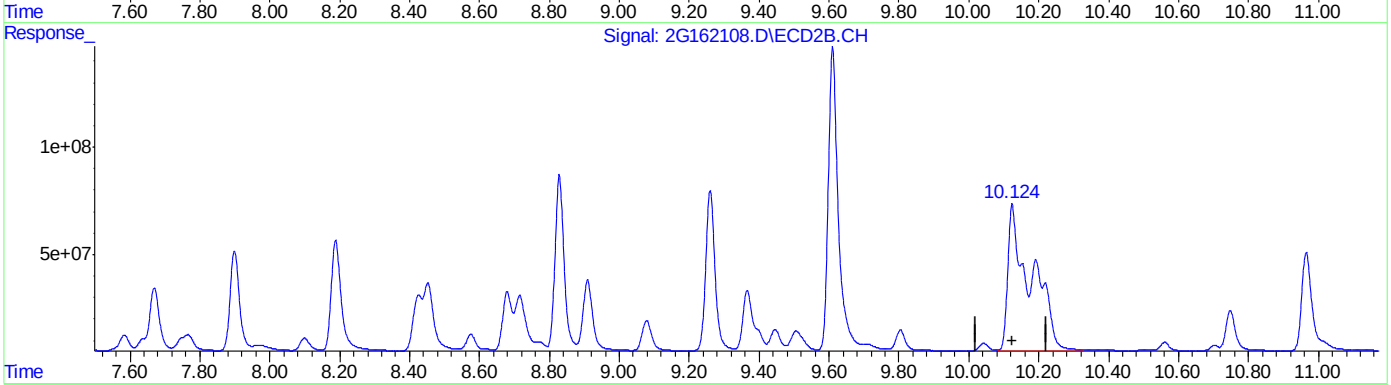
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(45) AR1262-E
8.525min 1071.837PPB m
response 598920161

(45) AR1262-E #2
10.124min 1044.277PPB m
response 3168798686

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:15:31 2018 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162109.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:22:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.779	3.433	170.1E6	1071.4E6	46.334	46.824
	Spiked Amount 40.000			Recovery	=	115.83%	117.06%
51) S	Decachlor...	10.011	11.808	484.9E6	2297.4E6	119.548	120.287
	Spiked Amount 40.000			Recovery	=	298.87%	300.72%
	Target Compounds						
12)	AR1242-A	3.557	4.632	114.9E6	679.7E6	959.253	963.525
13)	AR1242-B	4.107	5.279	244.9E6	1499.1E6	969.788	968.618
14)	AR1242-C	4.269	5.466	101.8E6	667.6E6	965.352	1001.218
15)	AR1242-D	4.783	6.115	102.5E6	438.9E6	940.947	961.639
16)	AR1242-E	5.365	6.729	87846237	601.3E6	944.779	947.908
46)	AR1268-A	8.524	10.124	581.9E6	3010.5E6	1011.408	975.558
47)	AR1268-B	8.579	10.191	583.9E6	3067.7E6	1029.222	989.902
48)	AR1268-C	8.851	10.558	487.0E6	2443.7E6	1029.490	978.062
49)	AR1268-D	9.342	10.964	204.7E6	1041.8E6	1027.571	1004.017
50)	AR1268-E	9.744	11.432	1646.4E6	7834.9E6	1019.371	951.057

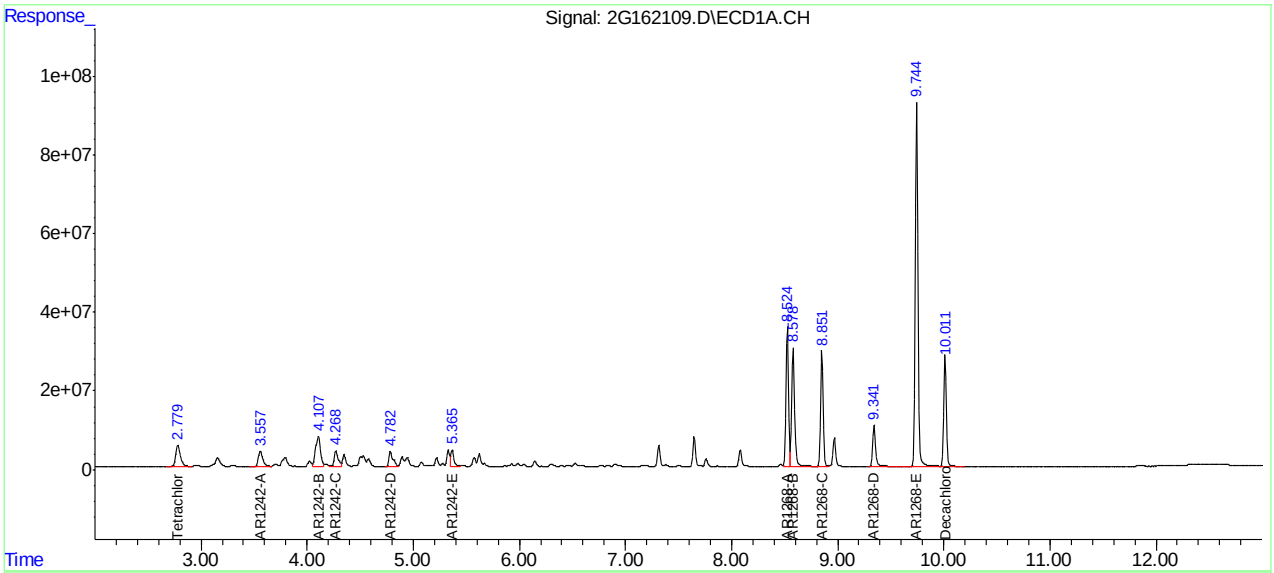
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

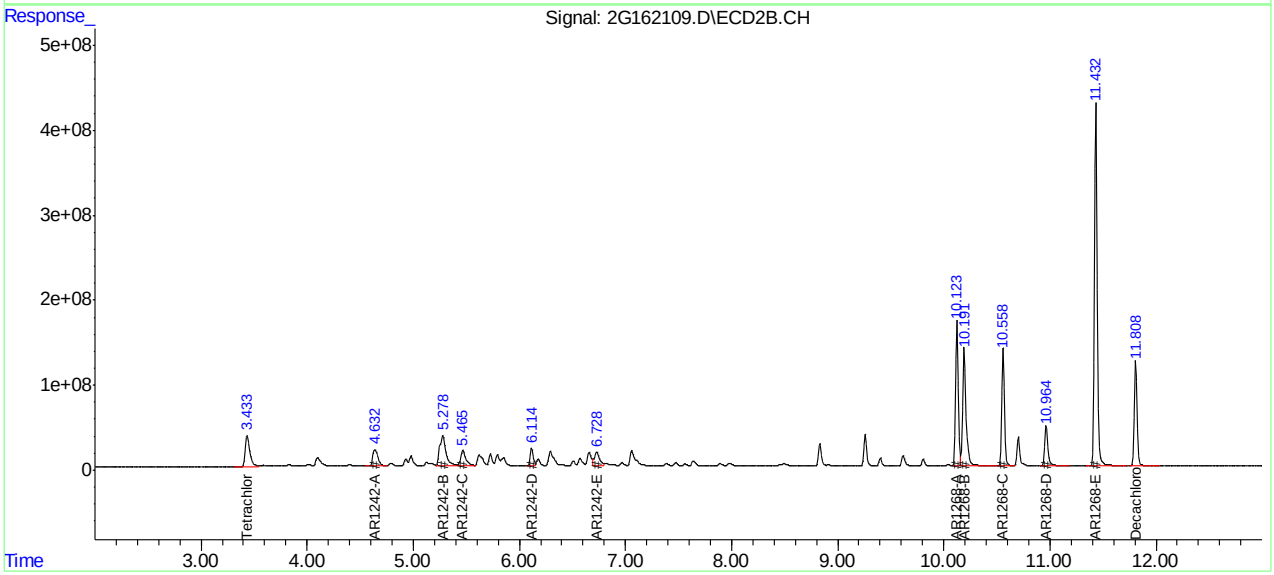
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162109.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:22:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:40:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1)	S Tetrachlo...	2.780	3.432	166.8E6	1120.3E6	45.447	48.962
	Spiked Amount 40.000			Recovery	=	113.62%	122.41%
51)	S Decachlor...	10.014	11.809	181.0E6	849.3E6	44.625	44.465m
	Spiked Amount 40.000			Recovery	=	111.56%	111.16%
	Target Compounds						
17)	AR1248-A	3.555	4.633	55493048	338.8E6	937.800	933.925
18)	AR1248-B	4.106	5.282	154.8E6	932.7E6	1002.483	976.877m
19)	AR1248-C	4.502	5.726	165.4E6	573.0E6	1001.355m	1005.821
20)	AR1248-D	4.783	6.113	164.0E6	735.7E6	1025.894	1011.756
21)	AR1248-E	4.892	6.291	146.3E6	914.0E6	1030.010m	1038.805
22)	AR1248-F	5.364	6.722	154.2E6	1158.1E6	1099.867	1055.670
23)	AR1248-G	5.620	7.055	169.0E6	1306.3E6	1074.742m	1070.589m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

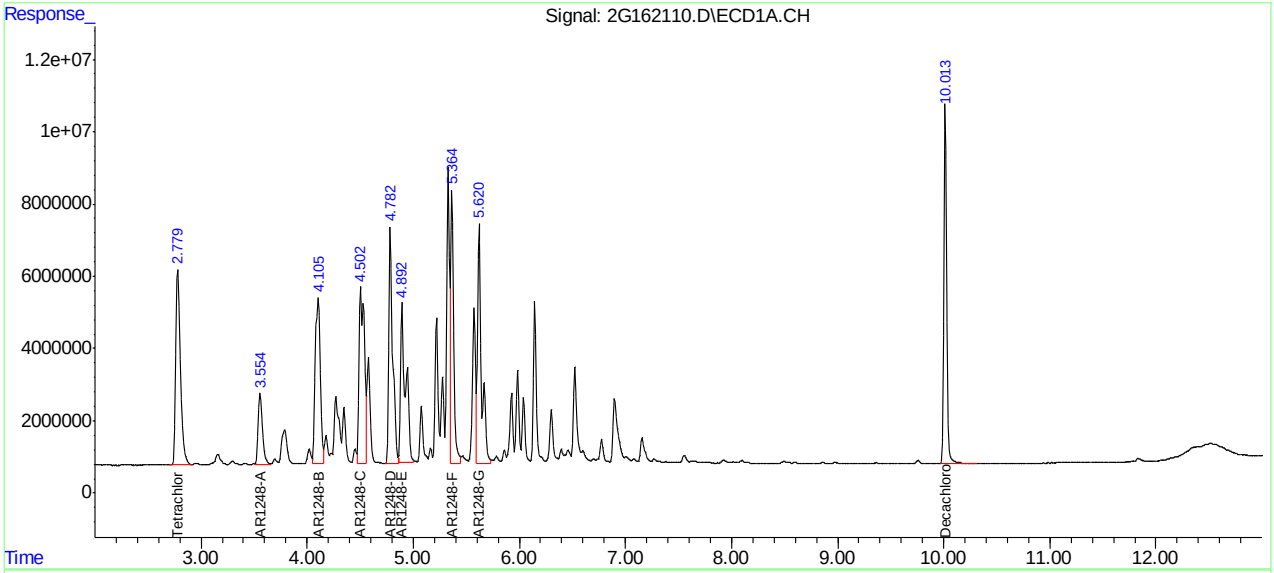
11.6.15 11

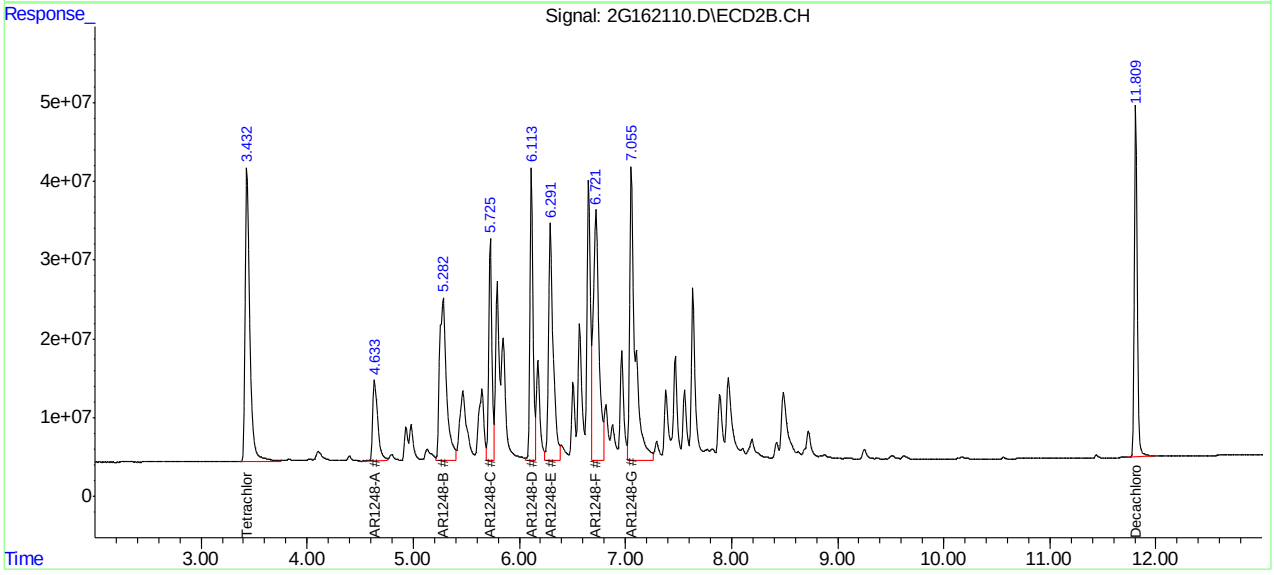
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:40:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICV4311	**Method:**	SW846 8082A
Lab FileID:	2G162110.D	**Analyst approved:**	04/19/18 16:41 Rebecca Krug
Injection Time:	04/19/18 16:25	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

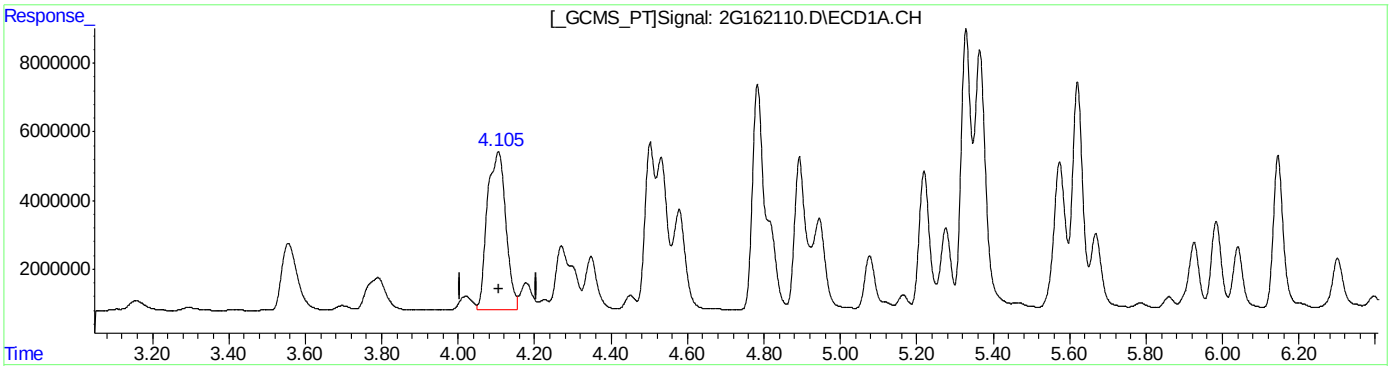
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	4.50	Split peak
AR1248-E		1	4.89	Split peak
AR1248-B		2	5.28	Split peak
Ar1248-G		1	5.62	Split peak
Ar1248-G		2	7.05	Split peak
Decachlorobiphenyl	2051-24-3	2	11.81	Poorly defined baseline

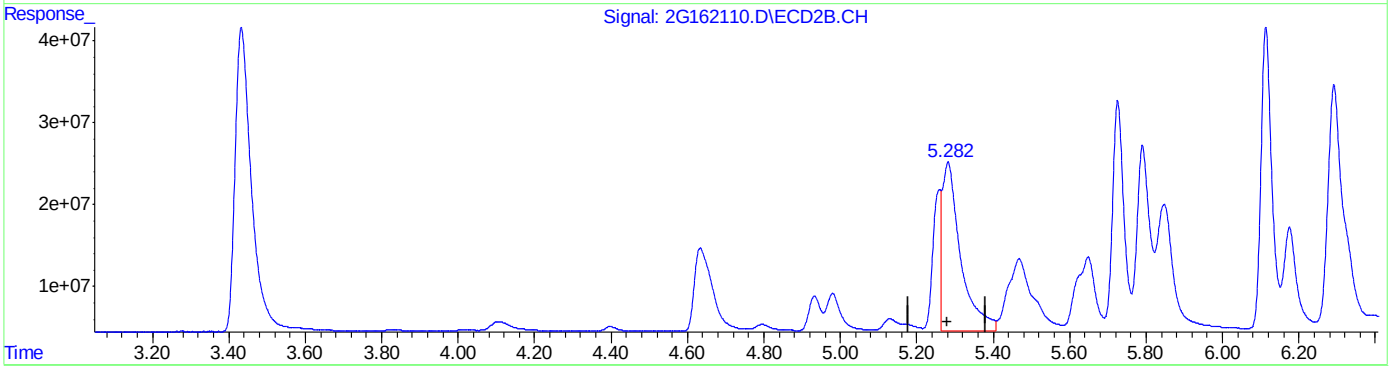
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(18) AR1248-B
4.106min 1002.483PPB
response 154780930

(18) AR1248-B #2
5.282min 717.865PPB
response 685407759

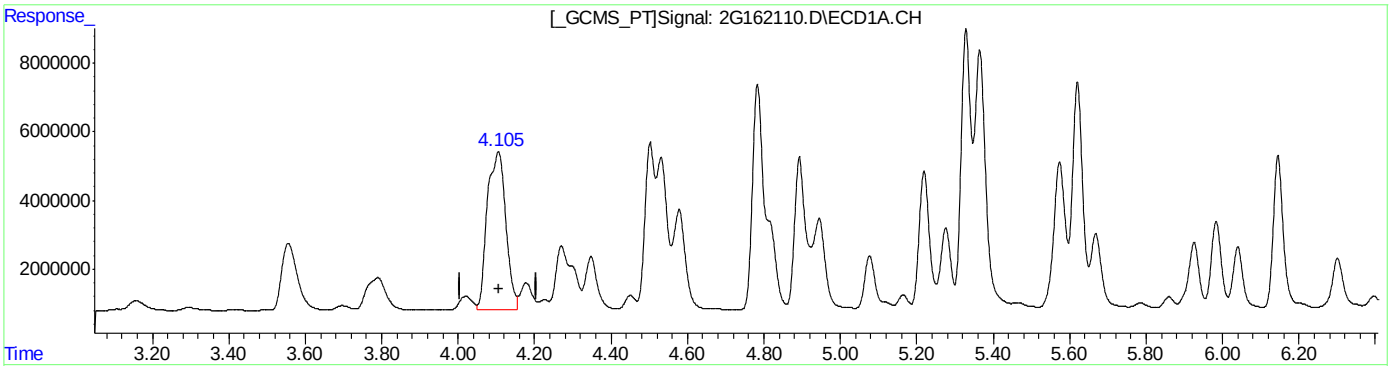
(+) = Expected Retention Time

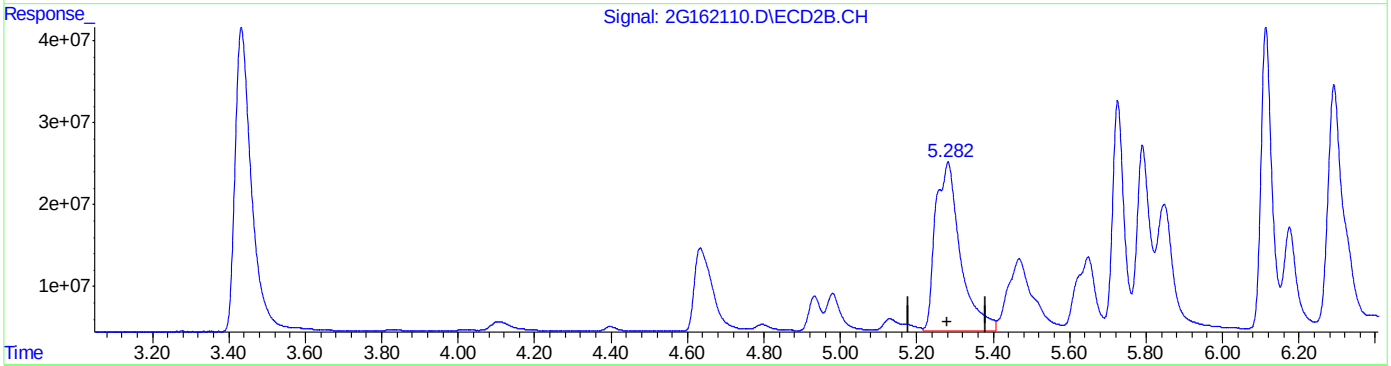
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(18) AR1248-B
4.106min 1002.483PPB
response 154780930

(18) AR1248-B #2
5.282min 976.877PPB m
response 932708612

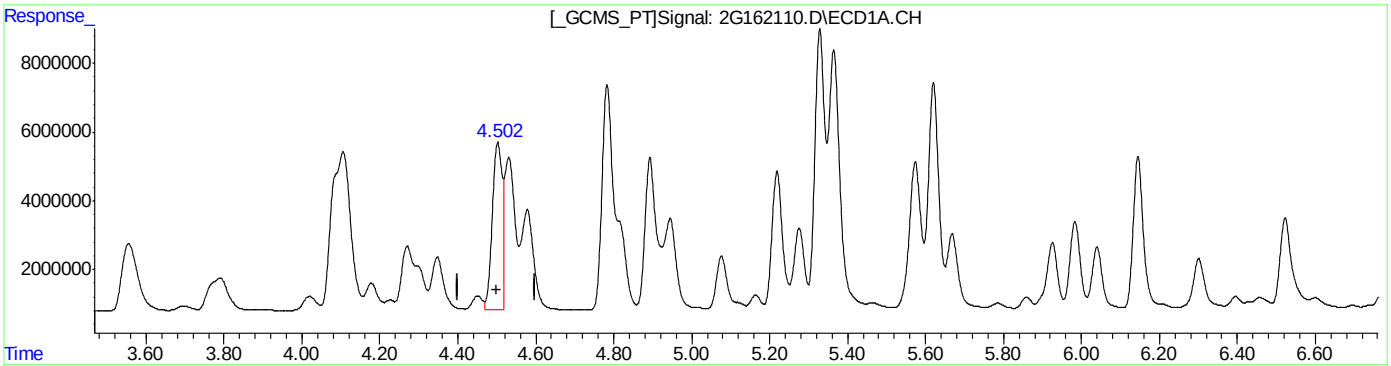
(+) = Expected Retention Time

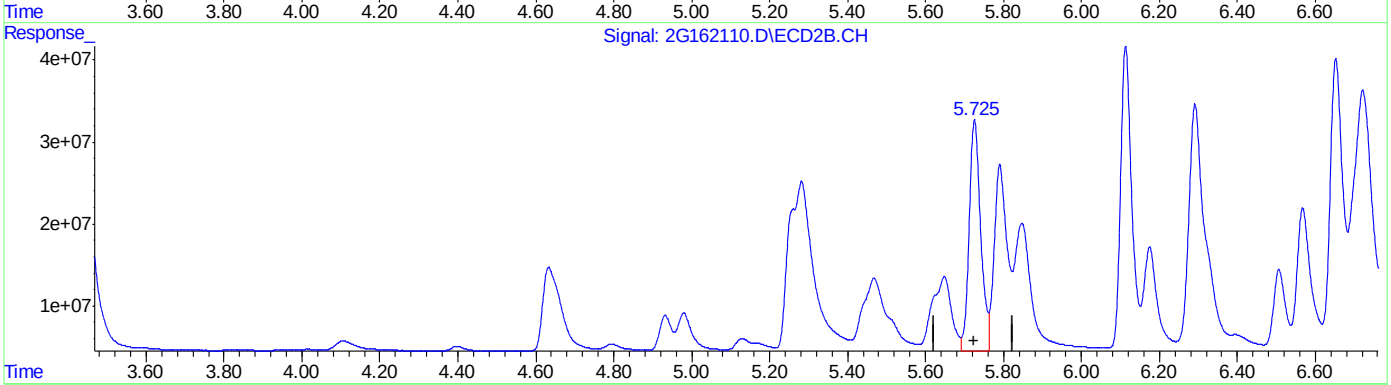
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(19) AR1248-C
4.502min 511.510PPB
response 84504842

(19) AR1248-C #2
5.726min 1005.821PPB
response 572997262

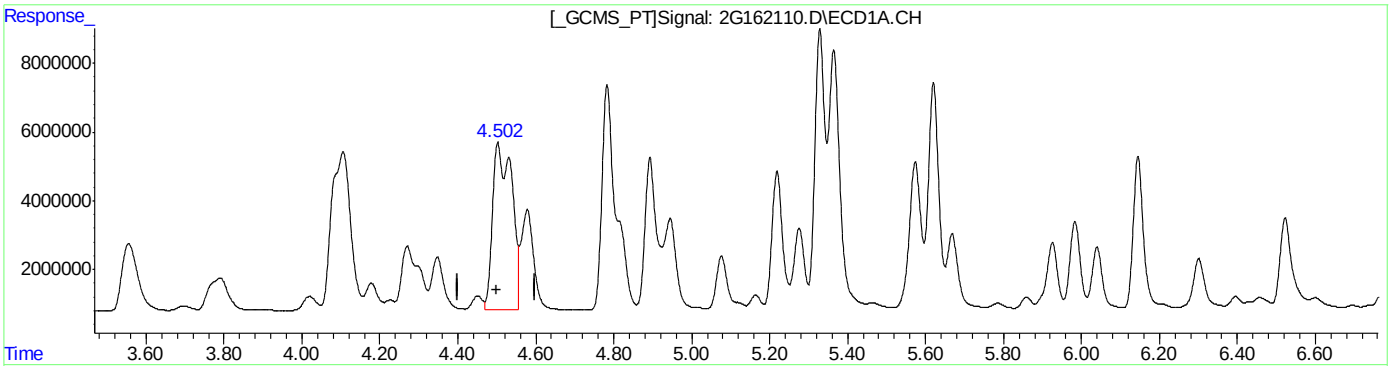
(+) = Expected Retention Time

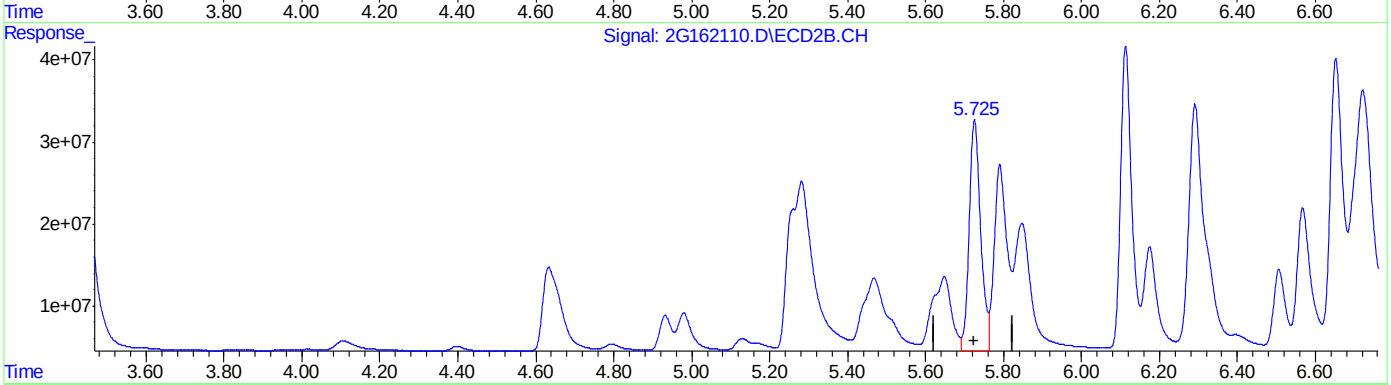
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(19) AR1248-C
4.502min 1001.355PPB m
response 165430599

(19) AR1248-C #2
5.726min 1005.821PPB
response 572997262

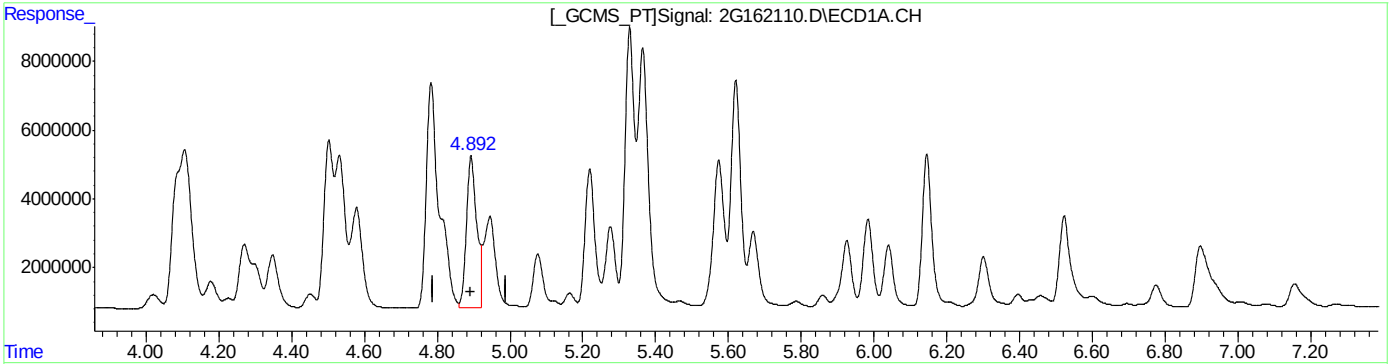
(+) = Expected Retention Time

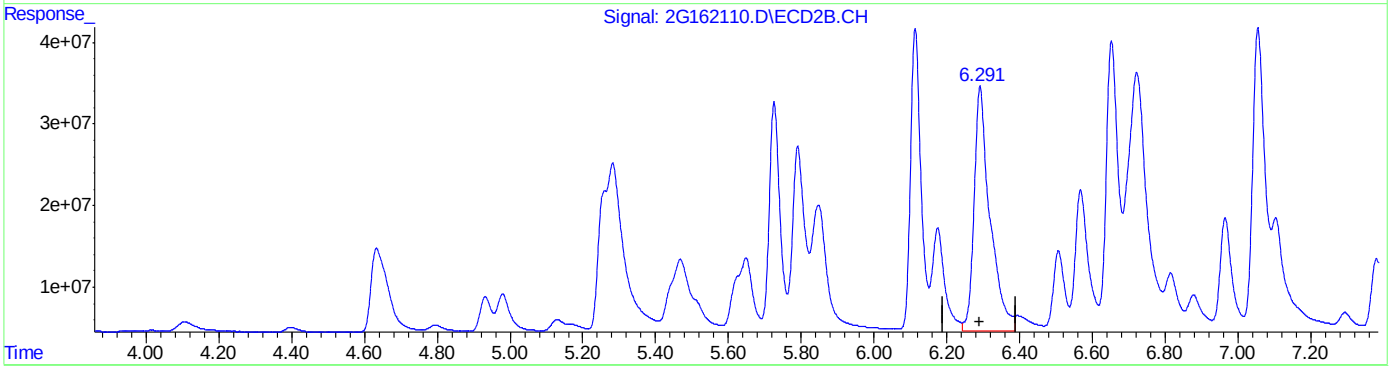
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(21) AR1248-E
4.893min 621.051PPB
response 88230545

(21) AR1248-E #2
6.291min 1038.805PPB
response 914038075

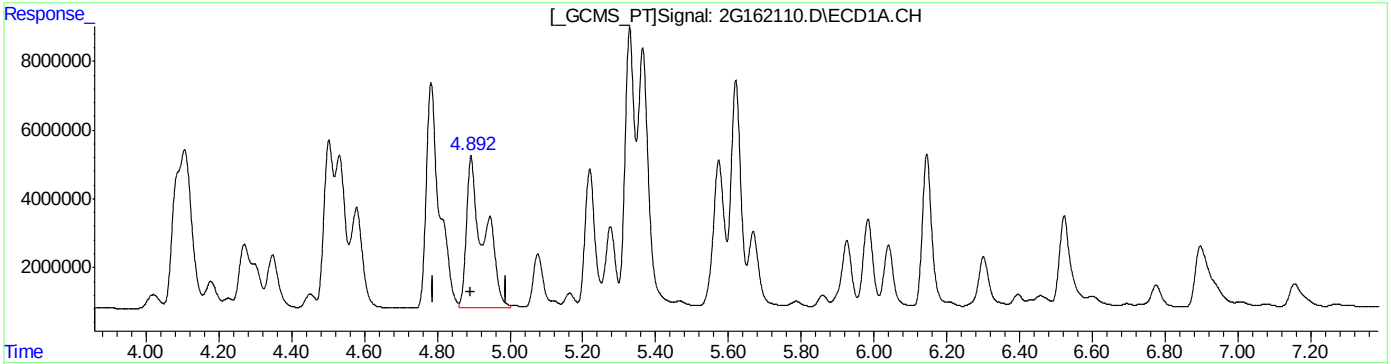
(+) = Expected Retention Time

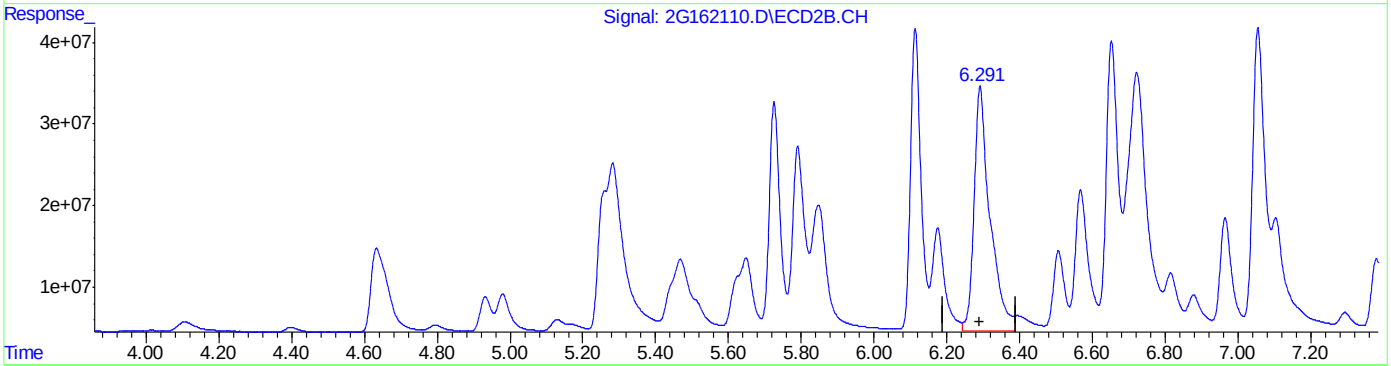
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(21) AR1248-E
4.892min 1030.010PPB m
response 146329784

(21) AR1248-E #2
6.291min 1038.805PPB
response 914038075

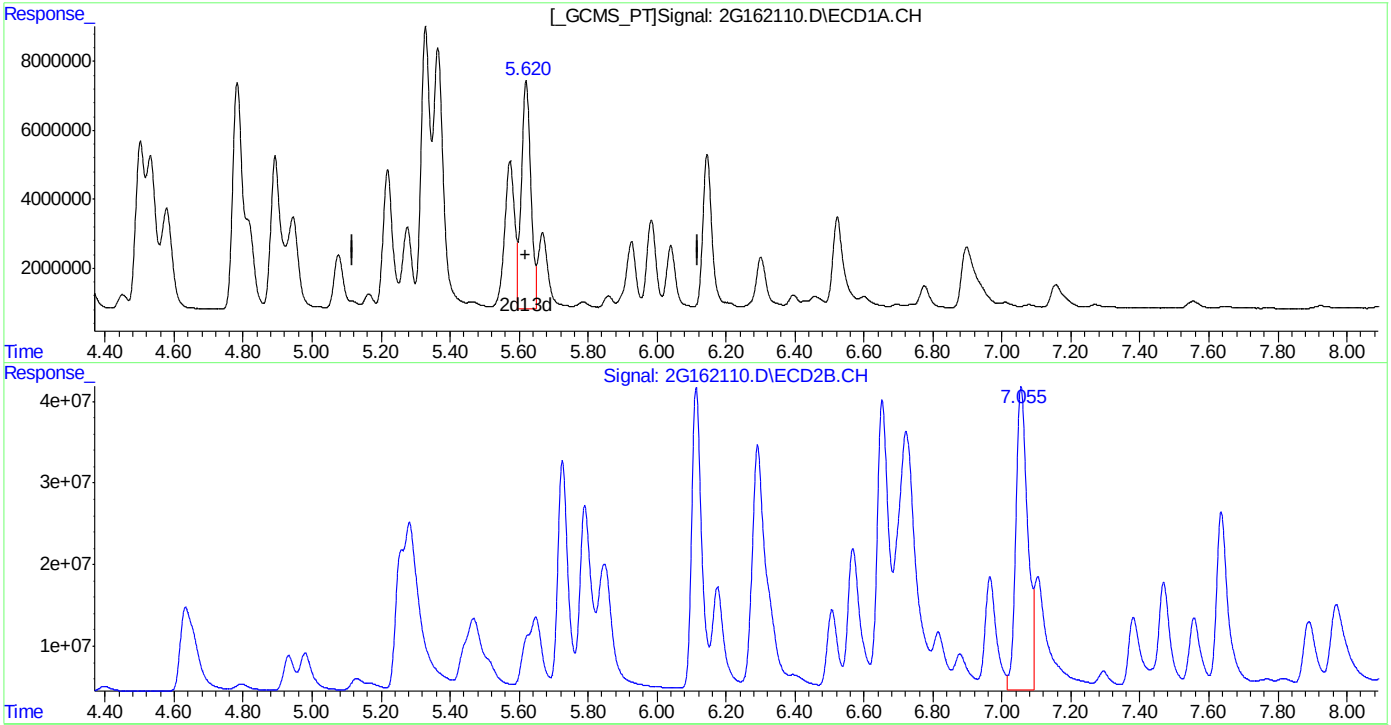
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(23) AR1248-G
5.621min 791.749
response 124478866

(23) AR1248-G #2
7.055min 715.412
response 872937026

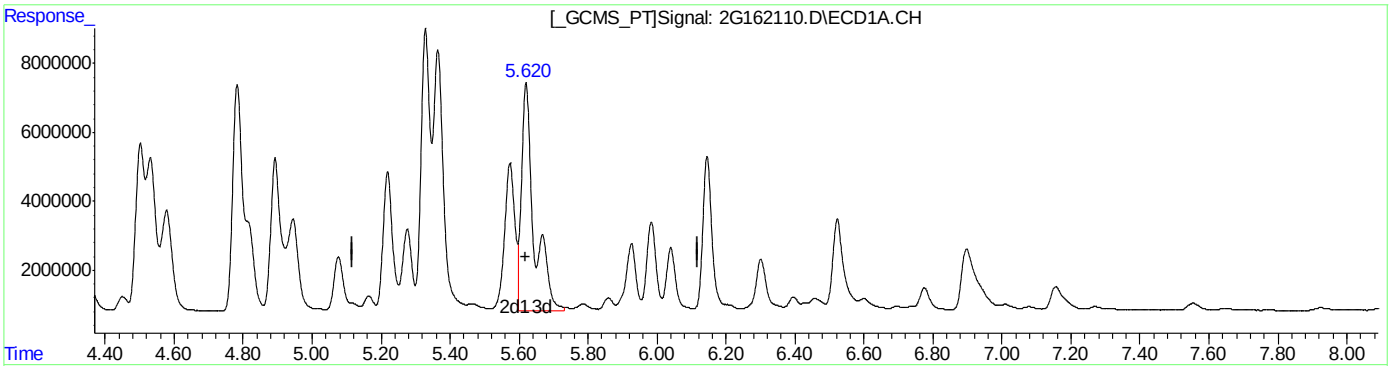
(+) = Expected Retention Time

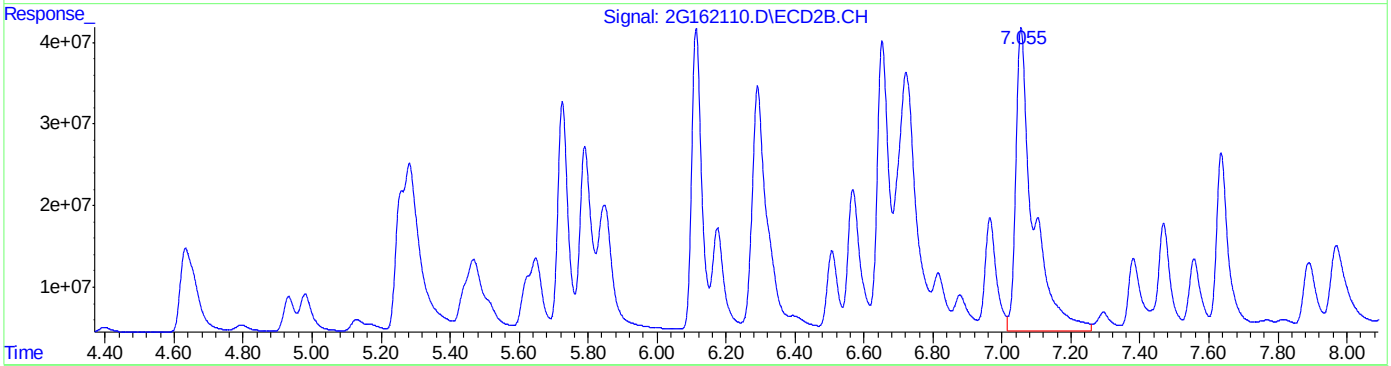
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(23) AR1248-G
5.620min 1074.742 m
response 168970983

(23) AR1248-G #2
7.055min 1070.589 m
response 1306320019

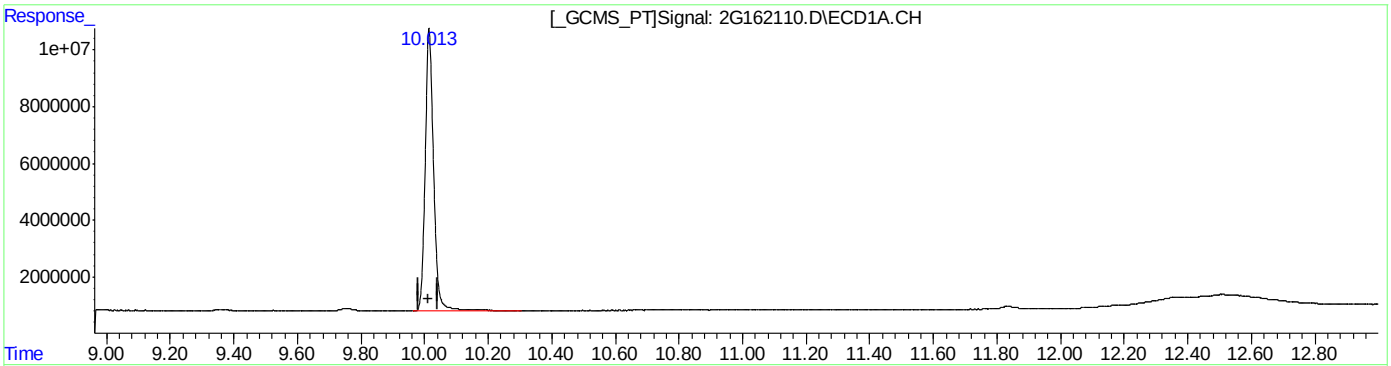
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:40:46 2018 RPT1

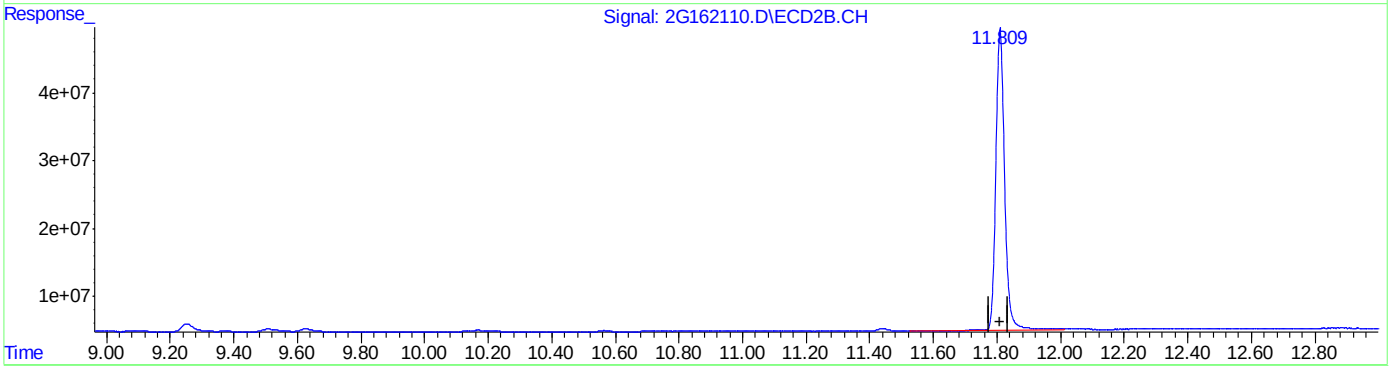
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(51) Decachlorobiphenyl (S)
10.014min 44.625ppb
response 180988260

(51) Decachlorobiphenyl #2 (S)
11.810min 45.408ppb
response 867272515

(+) = Expected Retention Time

11.6.15.10

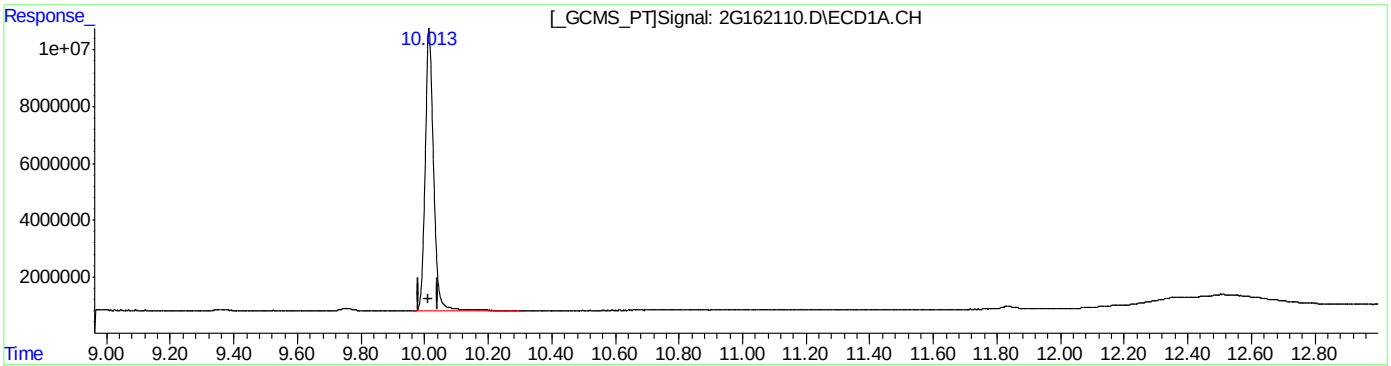
11

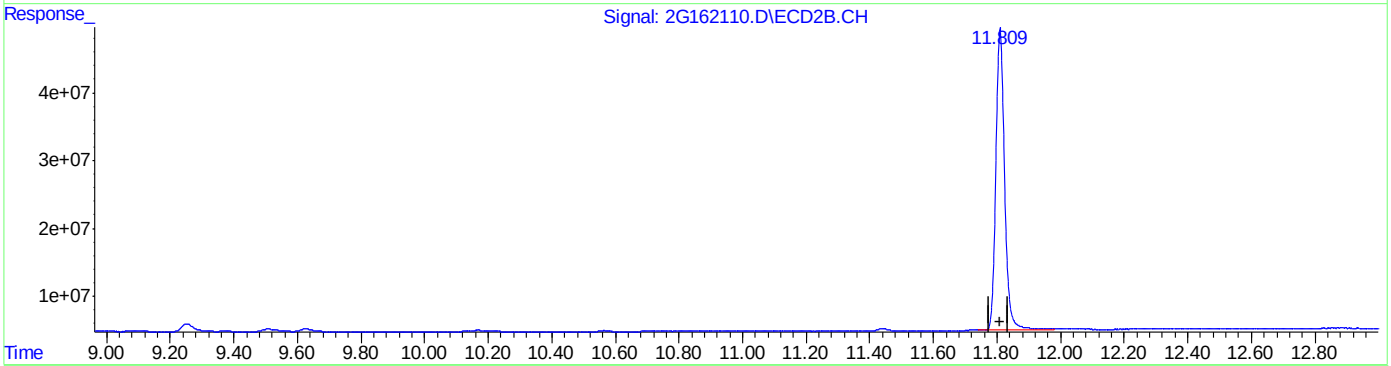
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(51) Decachlorobiphenyl (S)
10.014min 44.625ppb
response 180988260

(51) Decachlorobiphenyl #2 (S)
11.809min 44.465ppb m
response 849257237

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/31/18 12:05

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164603.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 9:04 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12352,G2G4349,16.5,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:46:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.770	3.421	162.3E6	991.2E6	44.207	43.318
Spiked Amount	40.000			Recovery	=	110.52%	108.29%
51) S	Decachlor...	9.957	11.765	152.7E6	754.6E6	37.659	39.508
Spiked Amount	40.000			Recovery	=	94.15%	98.77%
	Target Compounds						
31)	AR1016-A	3.142	4.080	81523628	392.4E6	1046.611	1047.471
32)	AR1016-B	3.537	4.610	143.3E6	815.3E6	1053.316	1017.765
33)	AR1016-C	4.085	5.256	287.7E6	1777.8E6	992.354	1025.467
34)	AR1016-D	4.245	5.441	120.3E6	832.6E6	1017.146	1106.774
35)	AR1016-E	4.753	6.085	126.7E6	531.0E6	1038.923	1034.968
36)	AR1260-A	7.116	8.681	313.3E6	1882.9E6	919.153	941.609m
37)	AR1260-B	7.269	8.792	162.0E6	987.7E6	1121.340	1129.575
38)	AR1260-C	7.605	9.222	166.4E6	1072.3E6	1045.026	1049.237
39)	AR1260-D	8.039	9.575	433.5E6	2117.2E6	1180.855	986.358
40)	AR1260-E	8.432	10.116	401.1E6	2215.5E6	1058.910m	1086.997m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

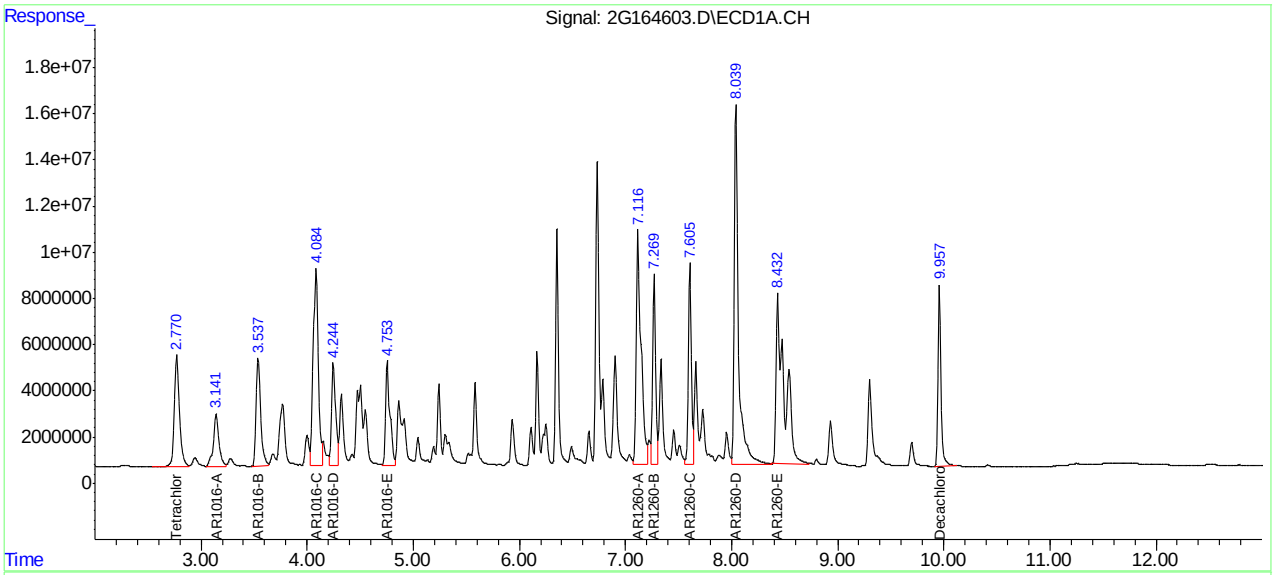
11.6.16 11

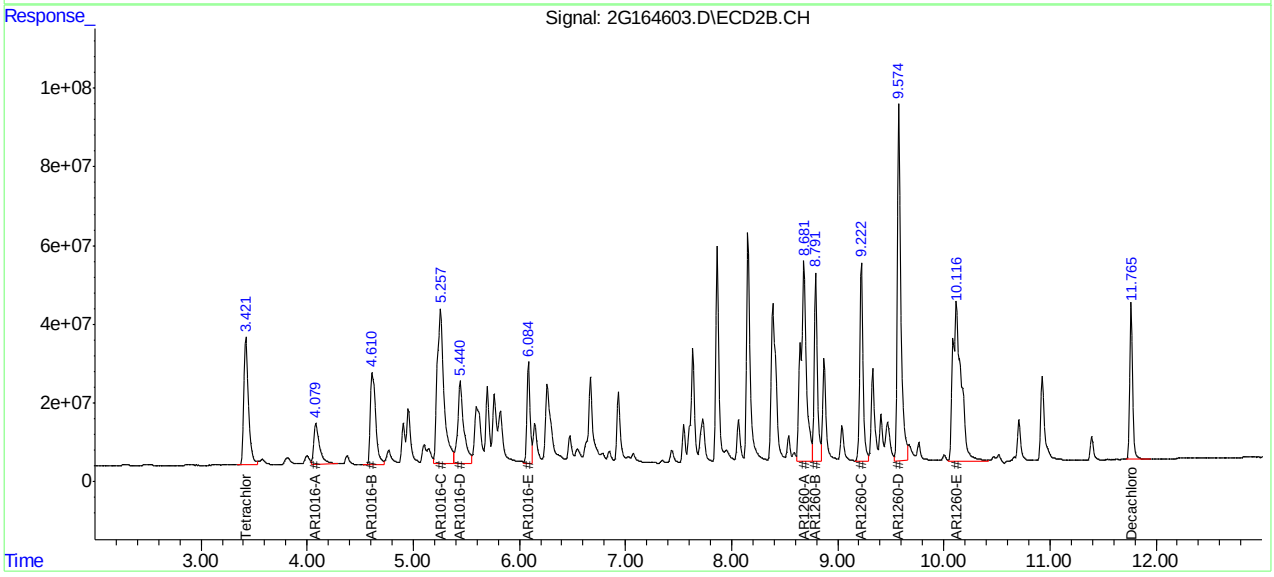
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164603.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 9:04 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12352,G2G4349,16.5,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:46:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4349-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164603.D	**Analyst approved:**	05/31/18 10:14 Summer Kotb
Injection Time:	05/30/18 21:04	**Supervisor approved:**	05/31/18 12:05 Gwendolyn Burns

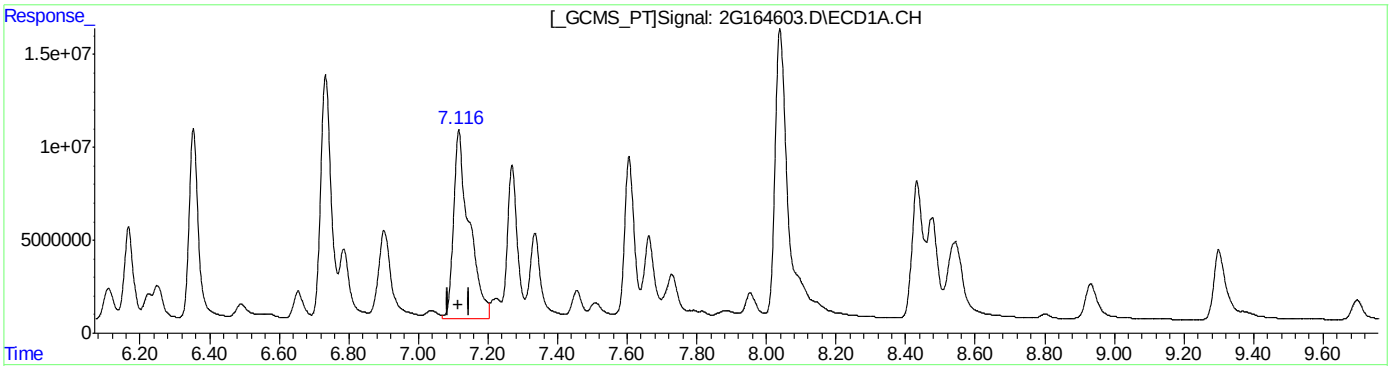
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	8.43	Split peak
AR1260-A		2	8.68	Split peak
AR1260-E		2	10.12	Split peak

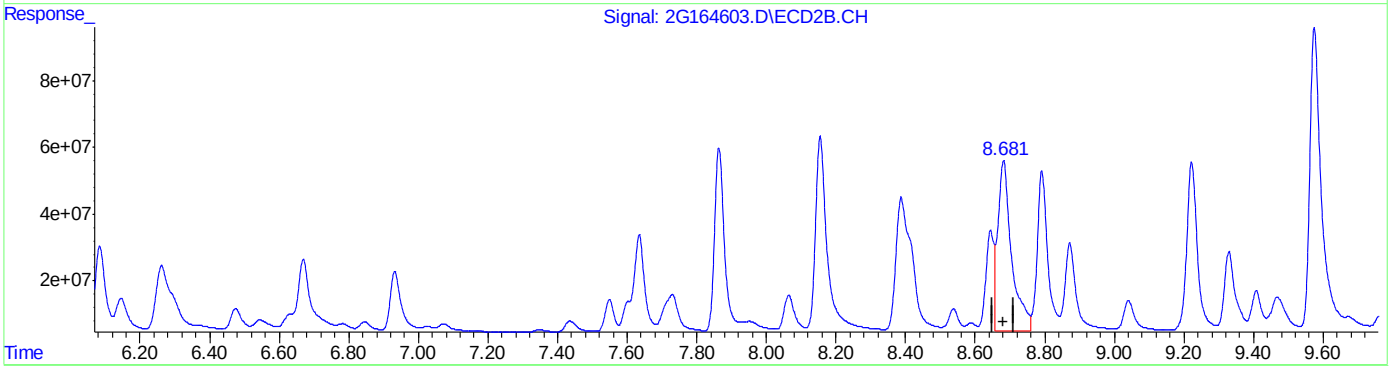
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164603.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 9:04 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12352,G2G4349,16.5,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:45:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.116min 919.153PPB
response 313292874

(36) AR1260-A #2
8.682min 700.295PPB
response 1400373335

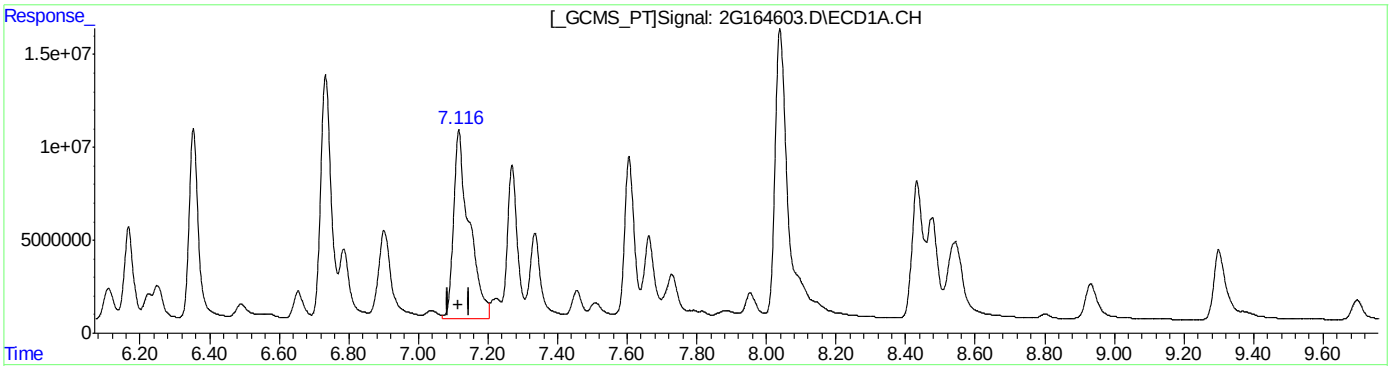
(+) = Expected Retention Time
2PCB4311.M Thu May 31 09:46:08 2018 RPT1

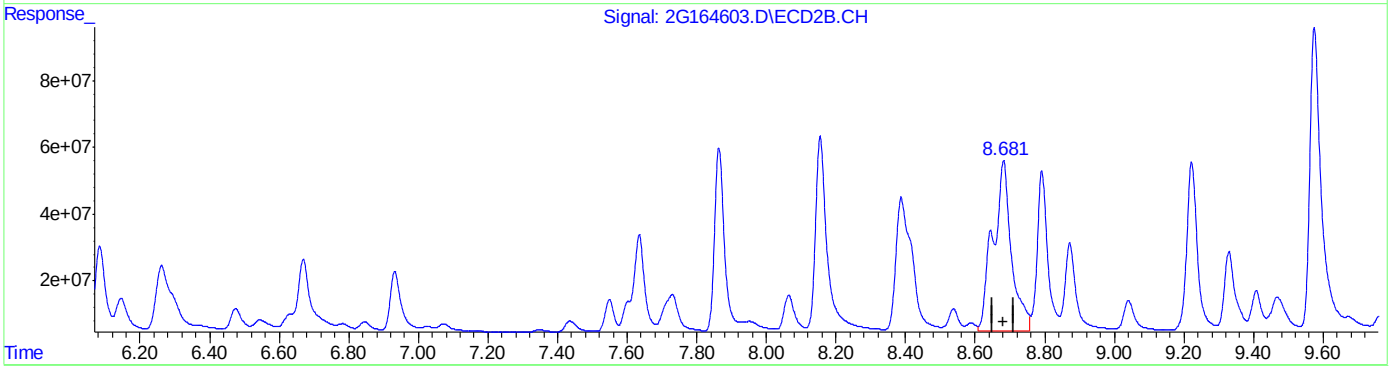
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164603.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 9:04 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12352,G2G4349,16.5,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:45:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.116min 919.153PPB
response 313292874

(36) AR1260-A #2
8.681min 941.609PPB m
response 1882927175

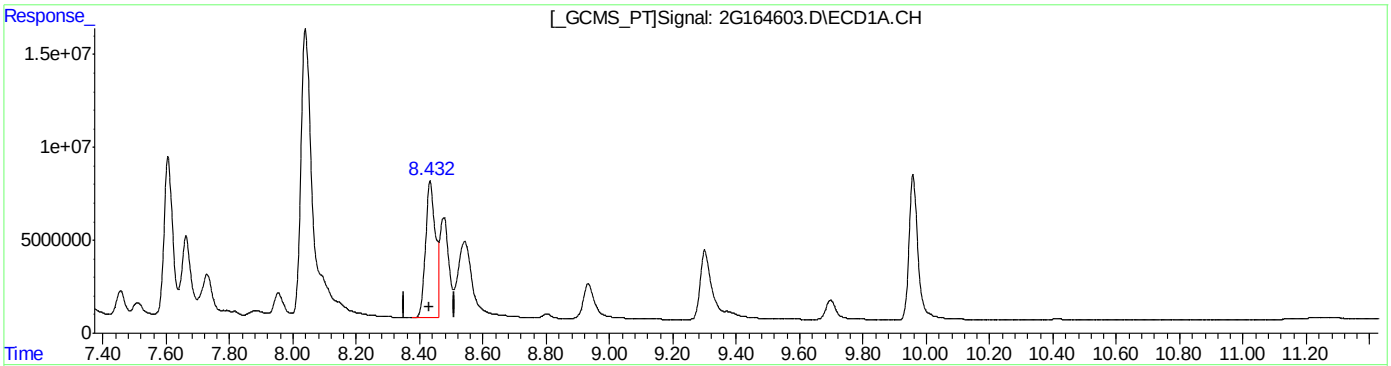
(+) = Expected Retention Time

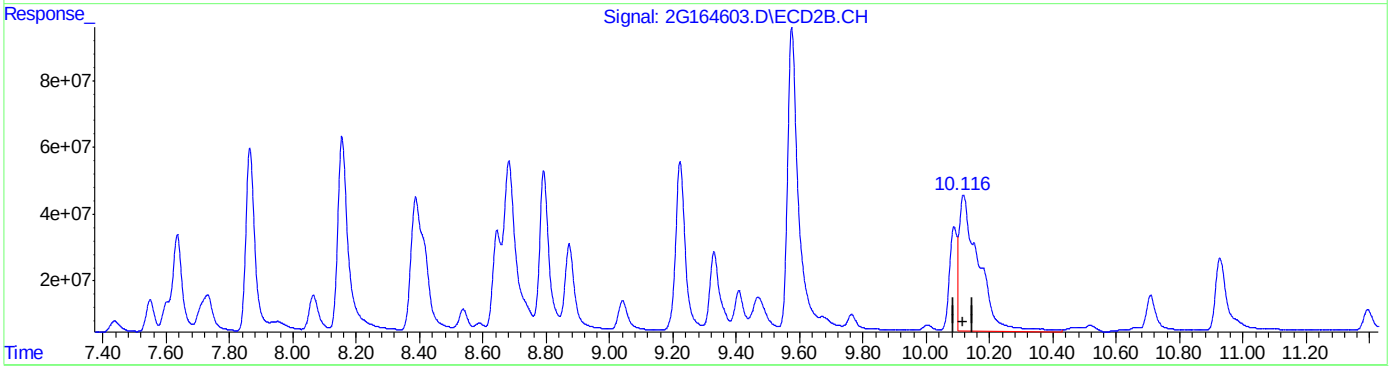
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164603.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 9:04 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12352,G2G4349,16.5,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:45:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.433min 420.297PPB
response 159203107

(40) AR1260-E #2
10.117min 862.274PPB
response 1757462089

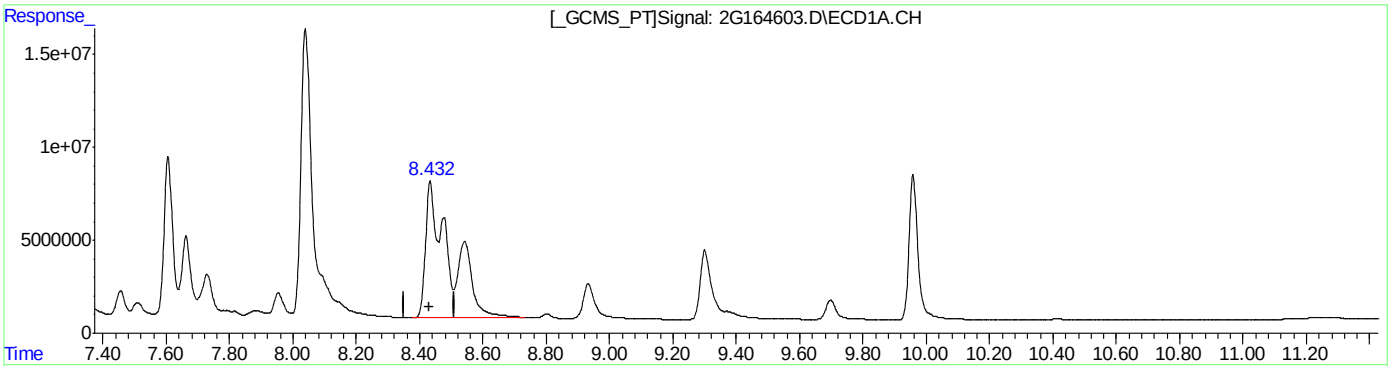
(+) = Expected Retention Time

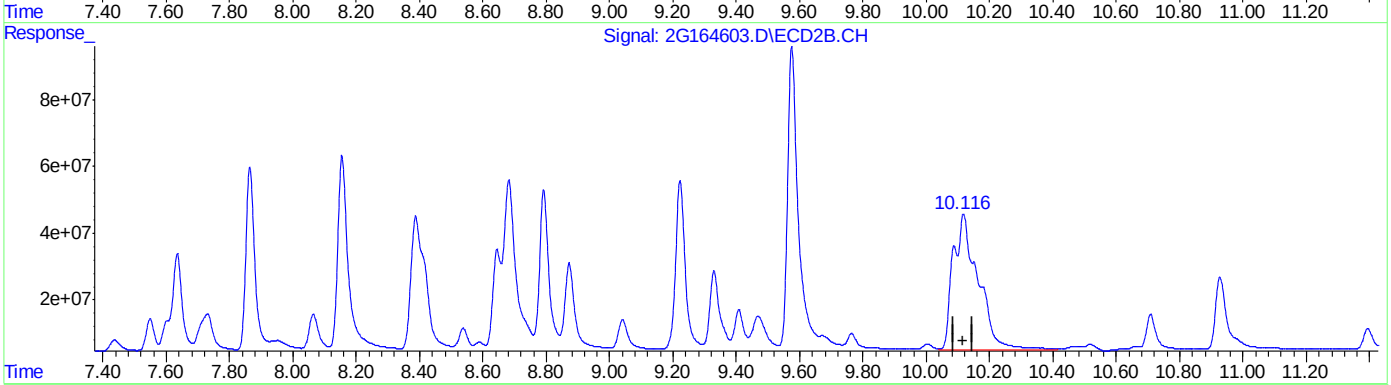
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164603.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 May 2018 9:04 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12352,G2G4349,16.5,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:45:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.432min 1058.910PPB m
response 401102027

(40) AR1260-E #2
10.116min 1086.997PPB m
response 2215487549

(+) = Expected Retention Time

2PCB4311.M Thu May 31 09:46:33 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/31/18 12:09

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164614.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 1:10 am
Operator : christp
Sample : cc4311-500
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:49:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.769	3.421	81052290	491.6E6	22.082	21.482
	Spiked Amount 40.000			Recovery	=	55.21%	53.71%
51) S	Decachlor...	9.954	11.761	76670367	384.8E6	18.904	20.148
	Spiked Amount 40.000			Recovery	=	47.26%	50.37%
	Target Compounds						
31)	AR1016-A	3.141	4.083	44397706	200.8E6	569.984	536.106
32)	AR1016-B	3.535	4.610	73830318	391.9E6	542.639	489.153
33)	AR1016-C	4.087	5.261	138.6E6	874.1E6	477.994	504.169
34)	AR1016-D	4.245	5.442	60120277	427.6E6	508.483	568.433
35)	AR1016-E	4.751	6.084	62108365	256.6E6	509.360m	500.052
36)	AR1260-A	7.109	8.676	161.2E6	881.5E6	472.816	440.833m
37)	AR1260-B	7.266	8.790	79679768	452.1E6	551.632	517.105
38)	AR1260-C	7.602	9.221	87368032	541.3E6	548.693	529.667
39)	AR1260-D	8.032	9.571	186.3E6	1076.5E6	507.468	501.504
40)	AR1260-E	8.422	10.112	199.5E6	1111.6E6	526.585m	545.409m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

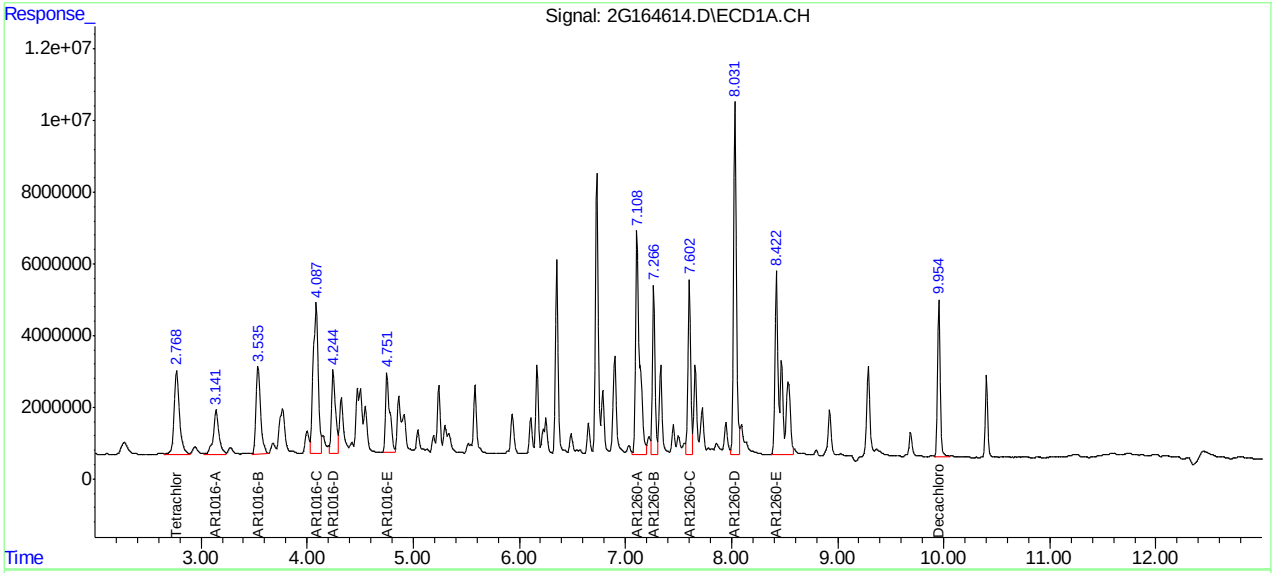
11.6.17 11

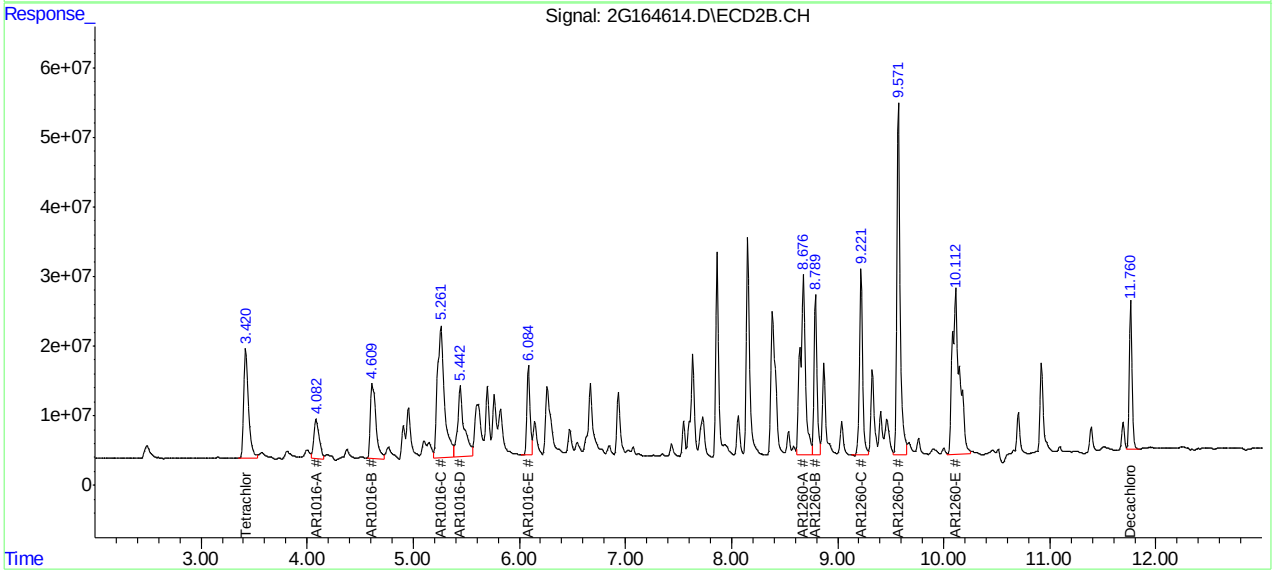
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164614.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 1:10 am
Operator : christp
Sample : cc4311-500
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:49:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4349-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164614.D	**Analyst approved:**	05/31/18 10:14 Summer Kotb
Injection Time:	05/31/18 01:10	**Supervisor approved:**	05/31/18 12:09 Gwendolyn Burns

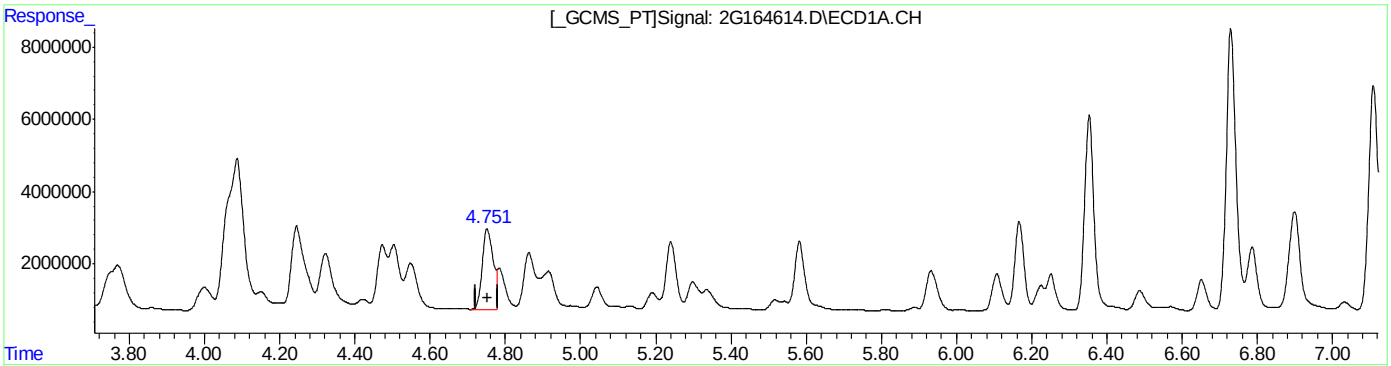
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		1	4.75	Split peak
AR1260-E		1	8.42	Split peak
AR1260-A		2	8.68	Split peak
AR1260-E		2	10.11	Split peak

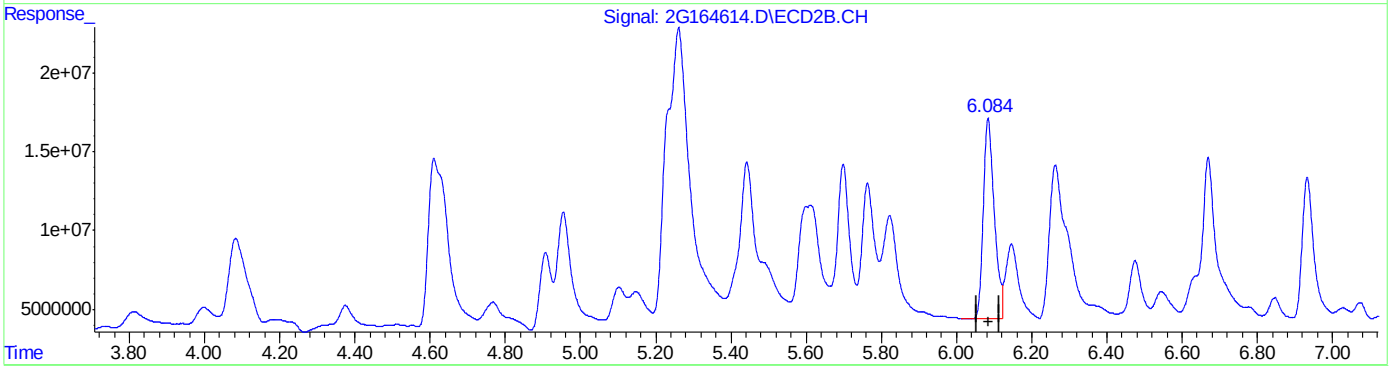
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164614.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 1:10 am
Operator : christp
Sample : cc4311-500
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:48:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(35) AR1016-E
4.751min 361.259PPB
response 44049790

(35) AR1016-E #2
6.084min 500.052PPB
response 256566608

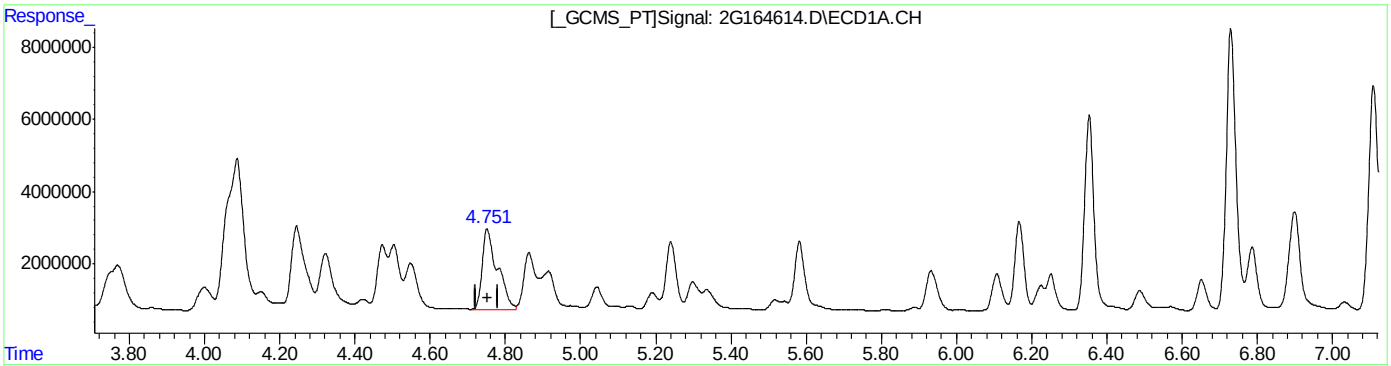
(+) = Expected Retention Time
2PCB4311.M Thu May 31 09:49:11 2018 RPT1

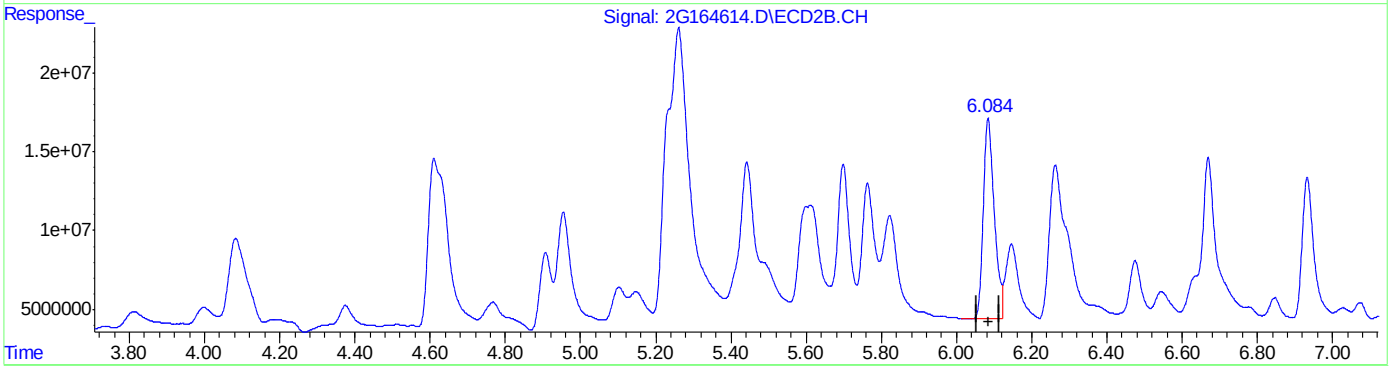
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164614.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 1:10 am
Operator : christp
Sample : cc4311-500
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:48:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(35) AR1016-E
4.751min 509.360PPB m
response 62108365

(35) AR1016-E #2
6.084min 500.052PPB
response 256566608

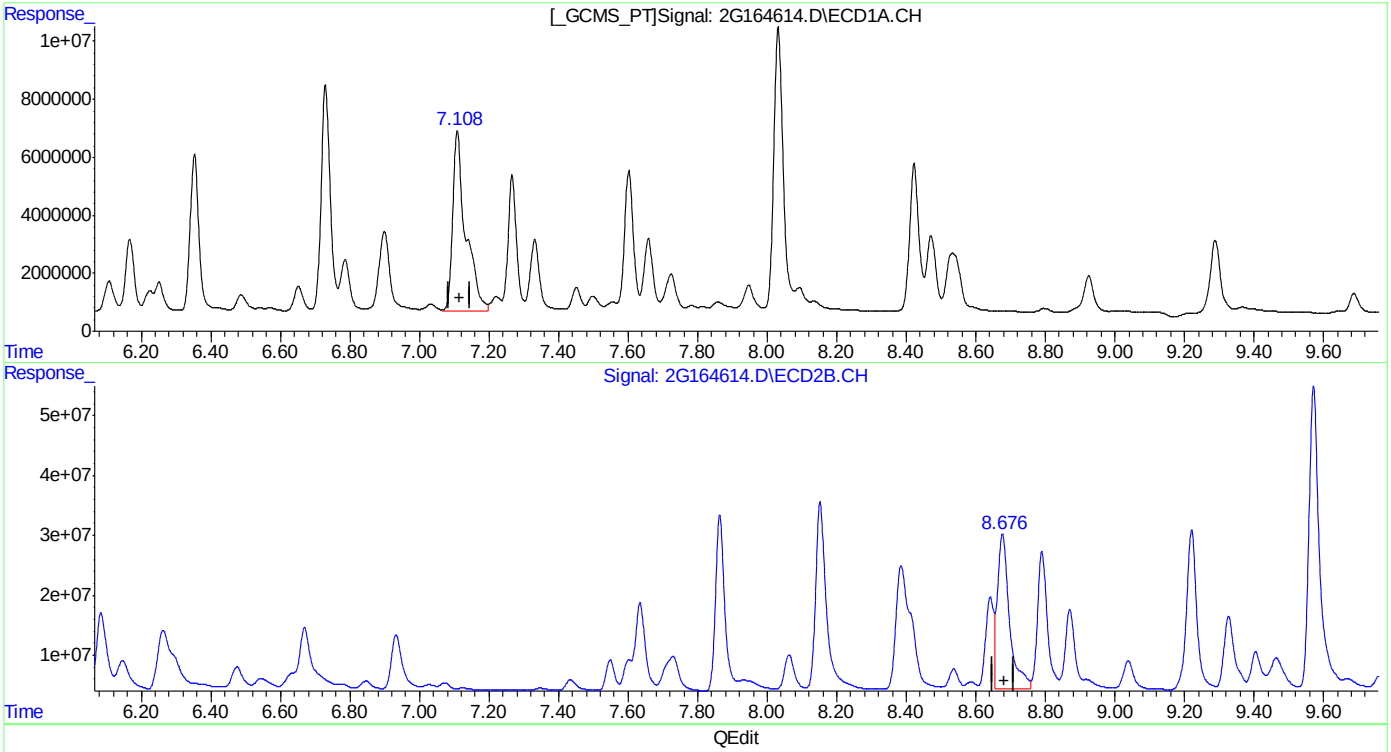
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164614.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 1:10 am
Operator : christp
Sample : cc4311-500
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:48:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.109min 472.816PPB
response 161159025

(36) AR1260-A #2
8.677min 317.035PPB
response 633971096

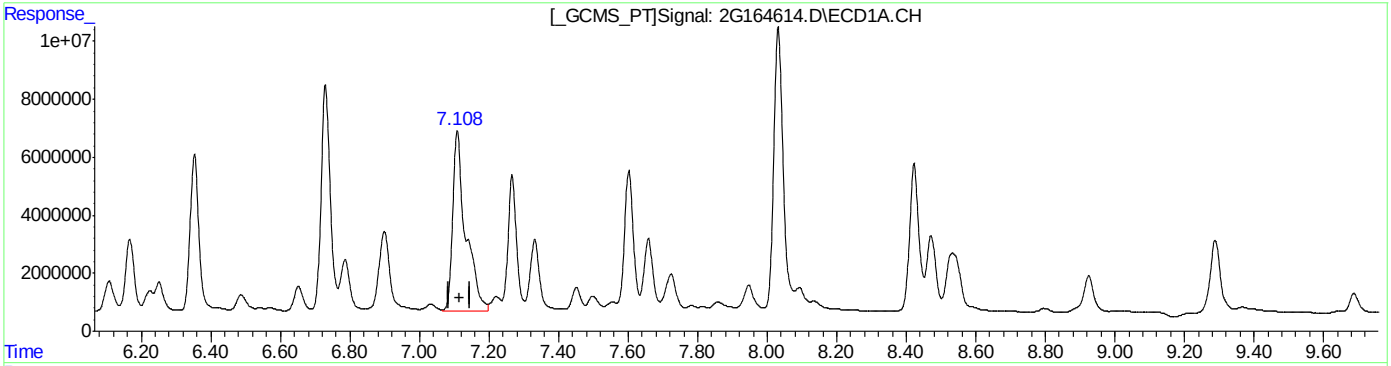
(+) = Expected Retention Time
2PCB4311.M Thu May 31 09:49:18 2018 RPT1

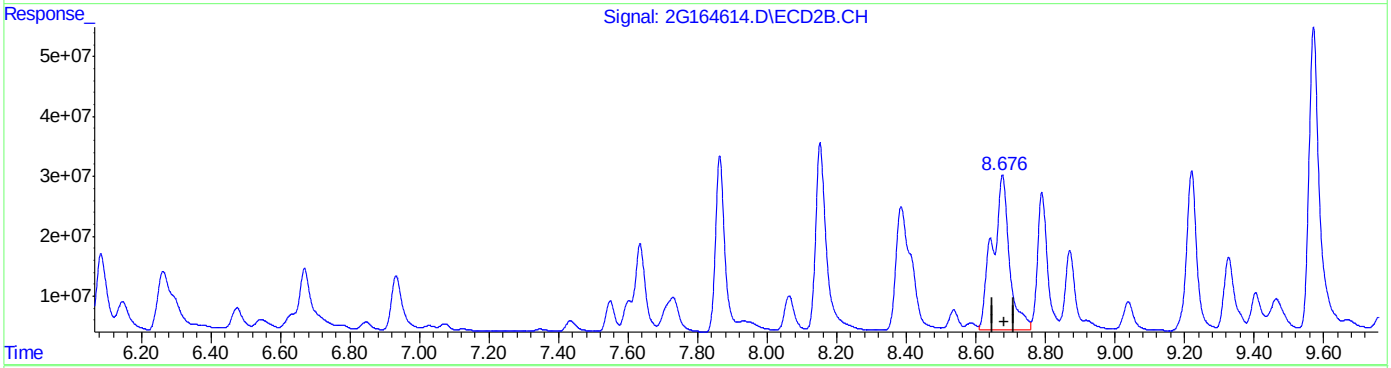
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164614.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 1:10 am
Operator : christp
Sample : cc4311-500
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:48:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.109min 472.816PPB
response 161159025

(36) AR1260-A #2
8.676min 440.833PPB m
response 881530321

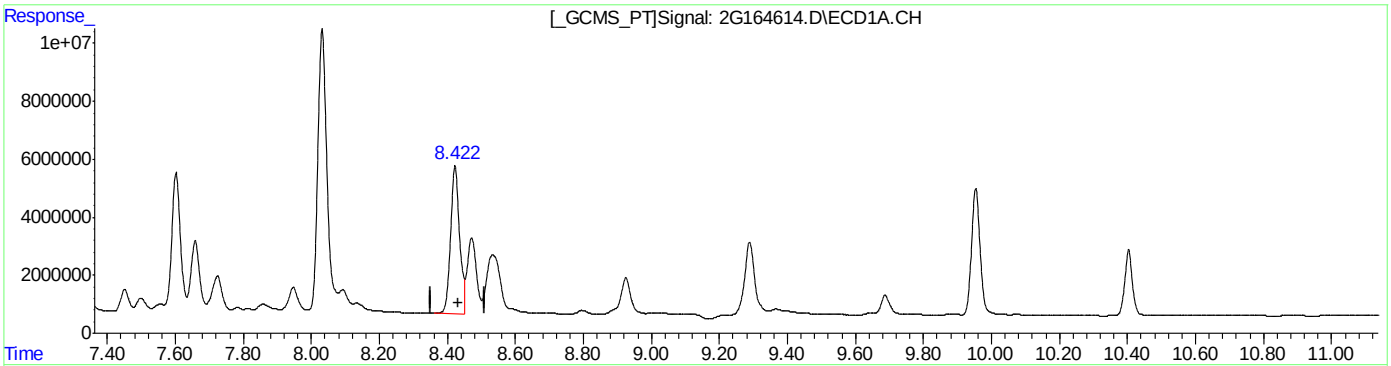
(+) = Expected Retention Time

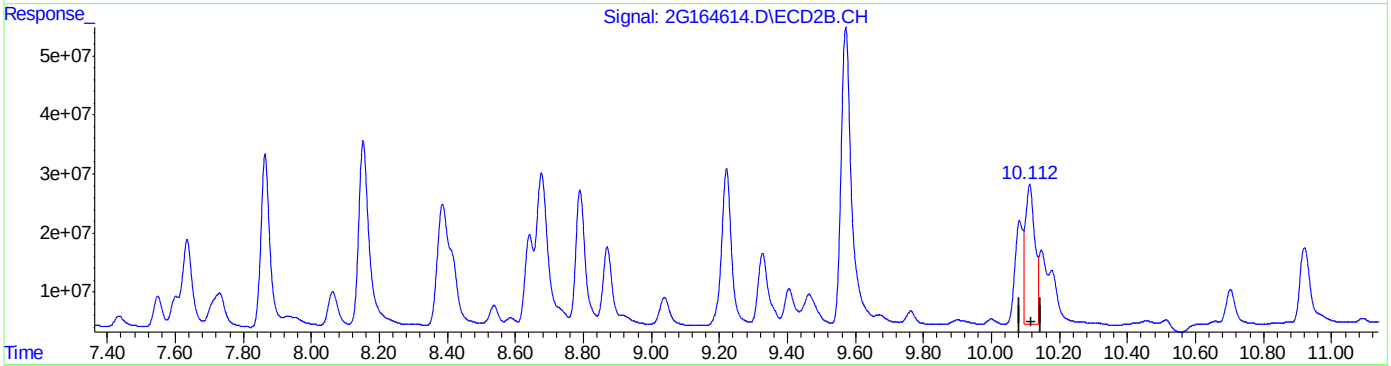
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164614.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 1:10 am
Operator : christp
Sample : cc4311-500
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:48:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.423min 248.347PPB
response 94070757

(40) AR1260-E #2
10.112min 229.327PPB
response 467407621

(+) = Expected Retention Time

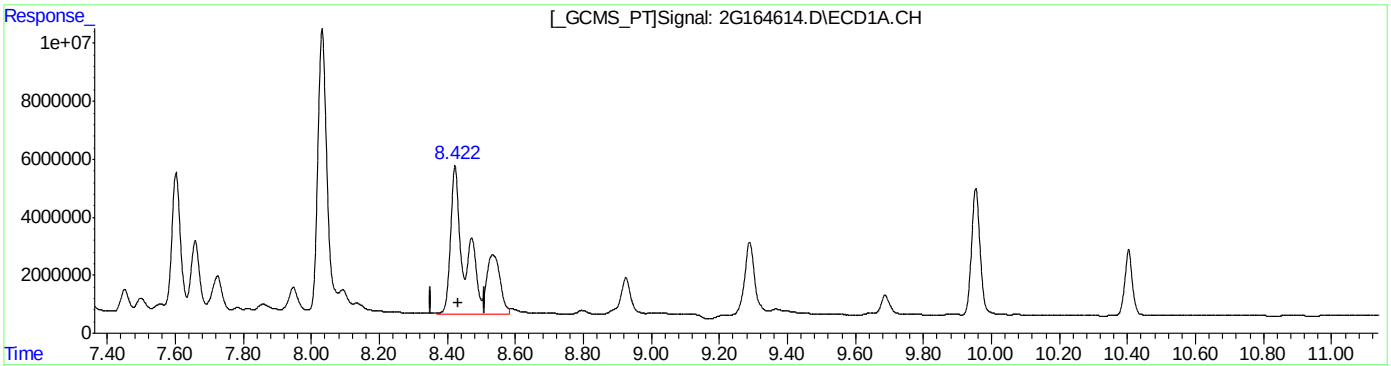
11.6.17.6 11

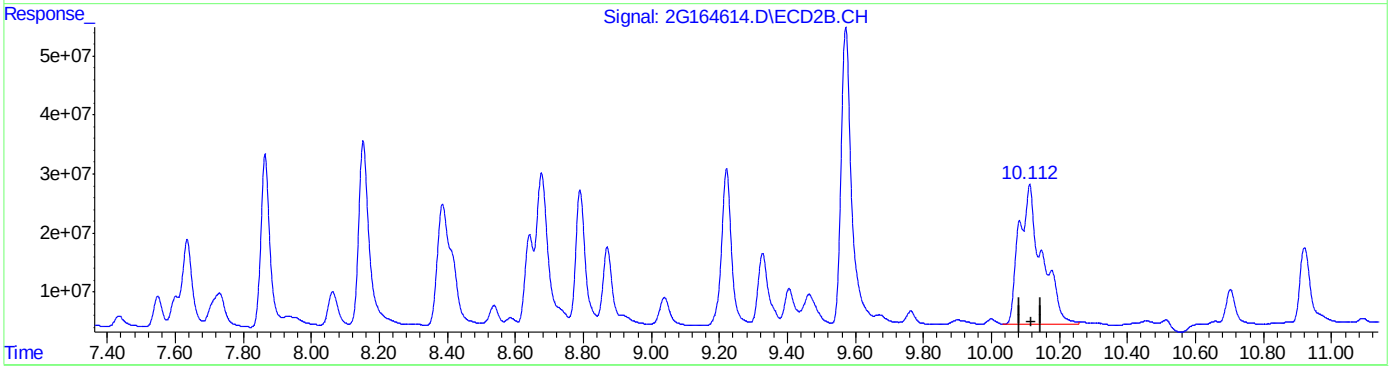
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164614.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 1:10 am
Operator : christp
Sample : cc4311-500
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:48:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:45:49 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.422min 526.585PPB m
response 199463690

(40) AR1260-E #2
10.112min 545.409PPB m
response 1111637726

(+) = Expected Retention Time

Manual Integrations
APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/31/18 12:09

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164625.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 4:18 am
Operator : christp
Sample : cc4311-1000
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 87 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:53:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.768	3.422	162.9E6	987.4E6	44.391	43.153
Spiked Amount	40.000			Recovery	=	110.98%	107.88%
51) S	Decachlor...	9.970	11.769	156.5E6	800.5E6	38.580	41.914
Spiked Amount	40.000			Recovery	=	96.45%	104.79%
	Target Compounds						
31)	AR1016-A	3.142	4.086	82496976	418.8E6	1059.107	1117.868
32)	AR1016-B	3.537	4.612	143.5E6	822.5E6	1054.363	1026.738
33)	AR1016-C	4.087	5.263	274.7E6	1690.4E6	947.219	975.057
34)	AR1016-D	4.246	5.448	118.2E6	876.3E6	999.926	1164.912
35)	AR1016-E	4.753	6.087	123.2E6	519.6E6	1010.492	1012.683
36)	AR1260-A	7.147	8.693	283.1E6	1800.4E6	830.523	900.330
37)	AR1260-B	7.274	8.798	160.4E6	1104.1E6	1110.397	1262.745
38)	AR1260-C	7.612	9.229	141.3E6	1099.9E6	887.340	1076.177
39)	AR1260-D	8.059	9.590	399.4E6	2188.4E6	1087.811	1019.515
40)	AR1260-E	8.483	10.139f	383.1E6	2351.5E6	1011.375m	1153.710m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

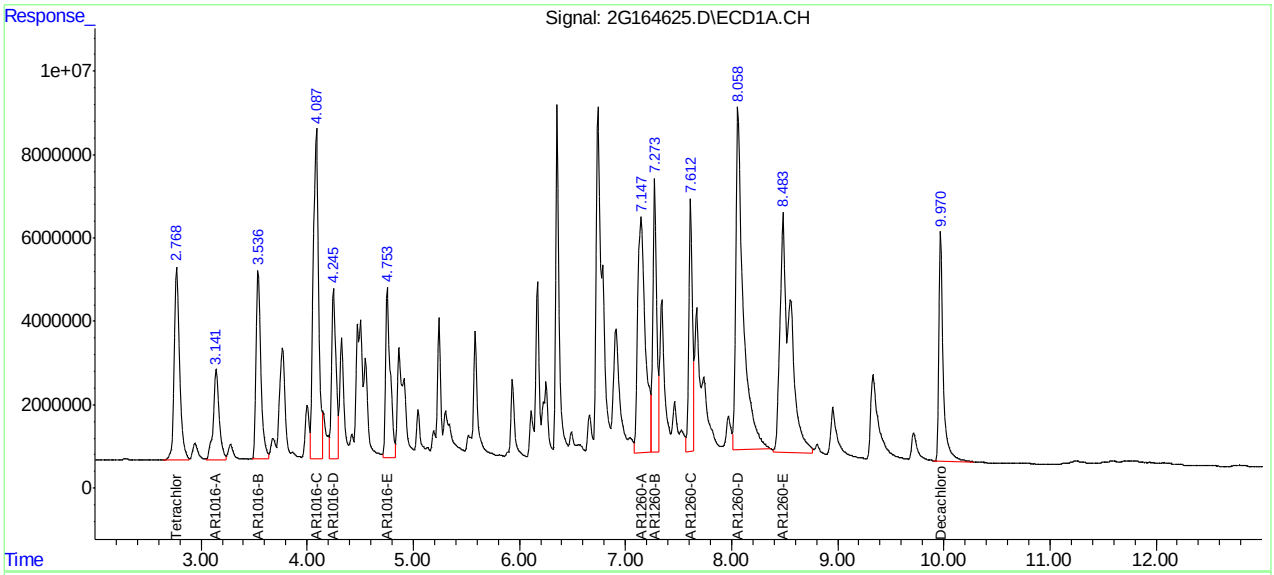
11.6.18
11

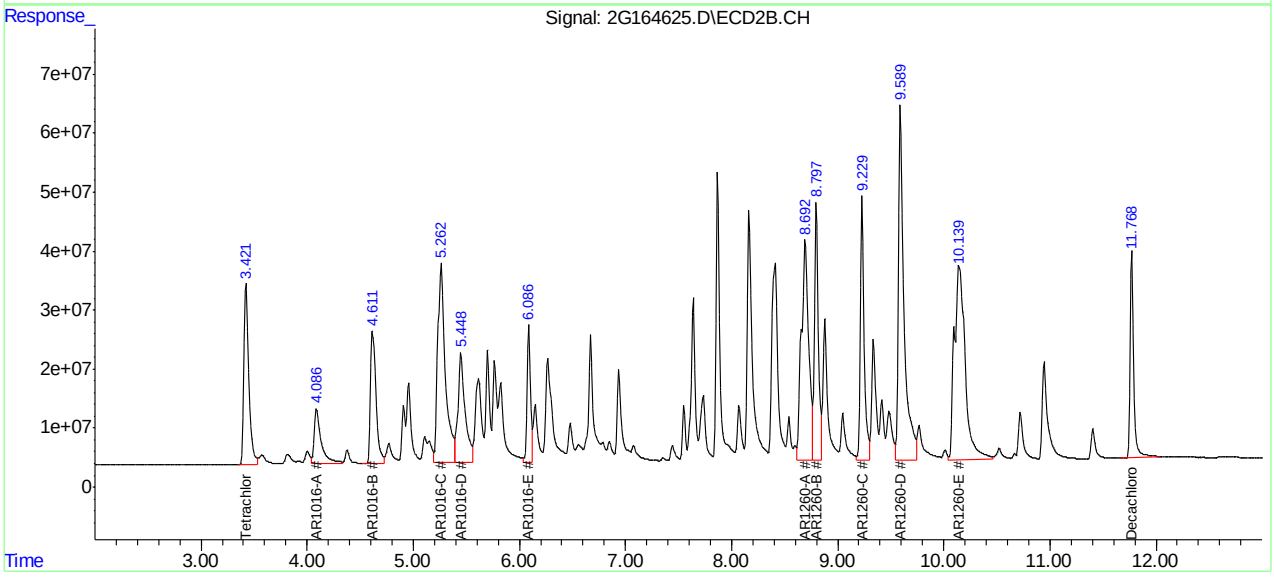
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164625.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 4:18 am
Operator : christp
Sample : cc4311-1000
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 87 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:53:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4349-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164625.D	**Analyst approved:**	05/31/18 10:14 Summer Kotb
Injection Time:	05/31/18 04:18	**Supervisor approved:**	05/31/18 12:09 Gwendolyn Burns

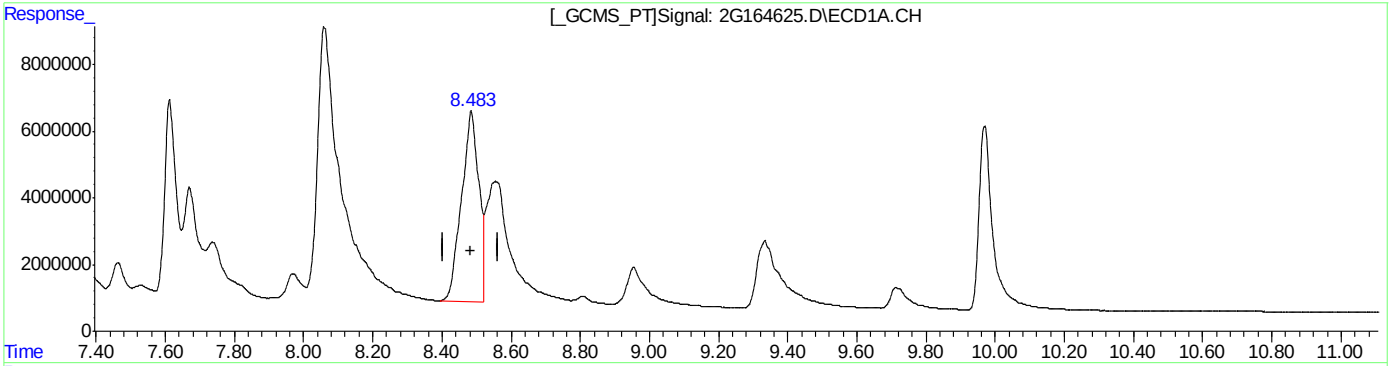
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	8.48	Split peak
AR1260-E		2	10.14	Split peak

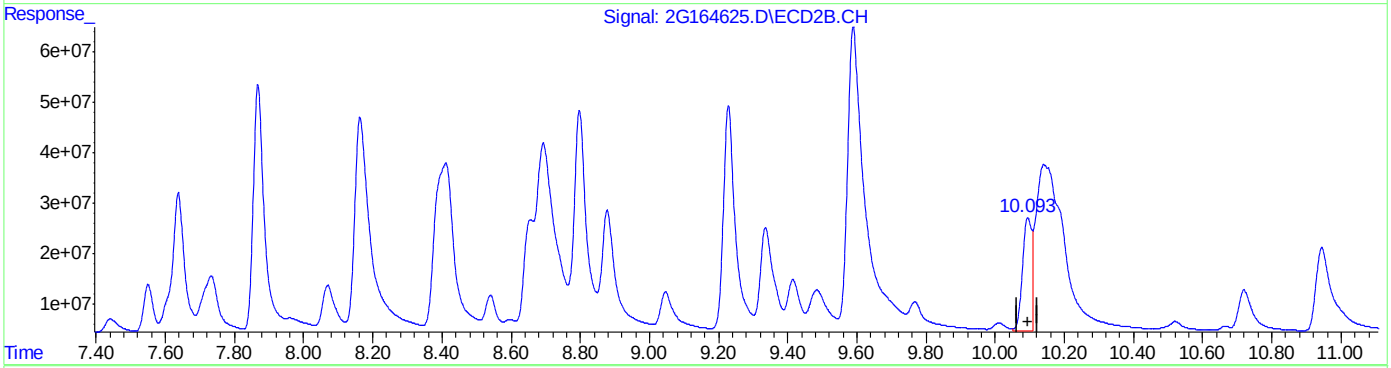
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164625.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 4:18 am
Operator : christp
Sample : cc4311-1000
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 87 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:52:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.484min 523.188PPB
response 198176939

(40) AR1260-E #2
10.095min 200.244PPB
response 408130953

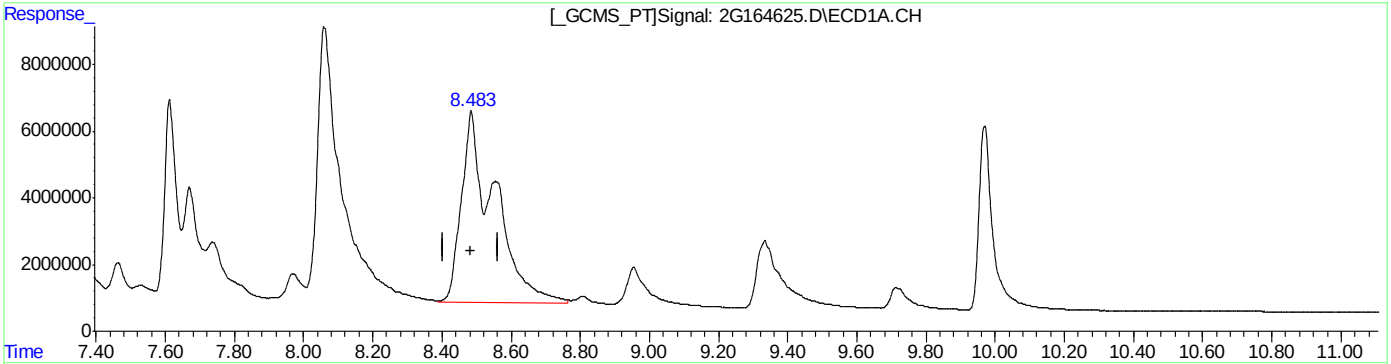
(+) = Expected Retention Time
2PCB4311.M Thu May 31 09:53:40 2018 RPT1

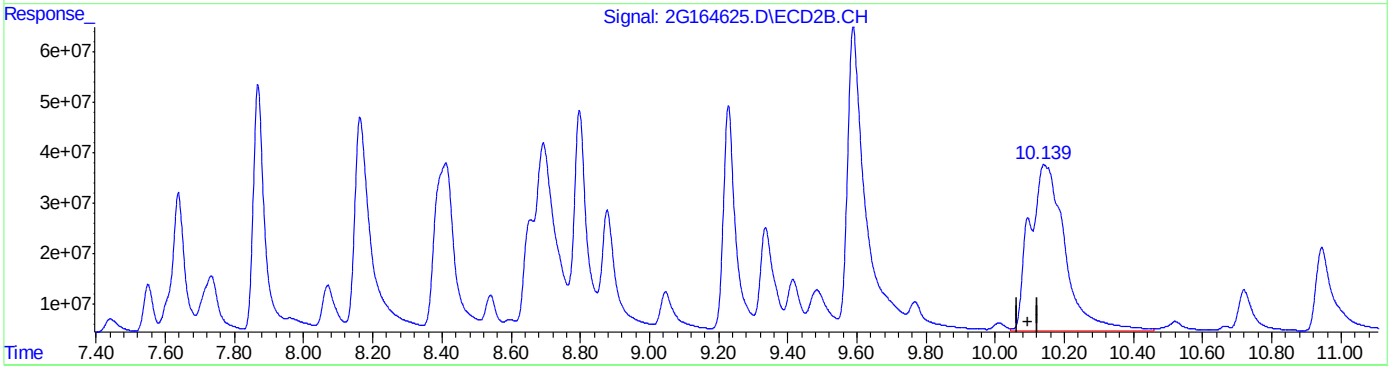
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164625.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 4:18 am
Operator : christp
Sample : cc4311-1000
Misc : OP12371,G2G4349,300,,,2,1
ALS Vial : 87 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 09:52:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 09:51:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.483min 1011.375PPB m
response 383096406

(40) AR1260-E #2
10.139min 1153.710PPB m
response 2351458941

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/31/18 14:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164636.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 7:24 am
Operator : christp
Sample : cc4311-500
Misc : OP12385,G2G4349,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 12:43:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 12:42:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.771	3.423	80731842	482.4E6	21.995	21.081
Spiked Amount	40.000			Recovery	=	54.99%	52.70%
51) S	Decachlor...	9.970	11.771	82008424	388.0E6	20.220	20.314
Spiked Amount	40.000			Recovery	=	50.55%	50.79%
	Target Compounds						
31)	AR1016-A	3.141	4.092	43188324	218.2E6	554.458	582.394
32)	AR1016-B	3.537	4.614	73853303	427.2E6	542.808	533.239
33)	AR1016-C	4.087	5.271	147.3E6	795.2E6	507.941	458.664
34)	AR1016-D	4.247	5.454	58987093	470.0E6	498.899	624.726 #
35)	AR1016-E	4.753	6.089	59633362	257.4E6	489.062	501.597
36)	AR1260-A	7.154	8.702	130.5E6	876.0E6	382.813	438.050
37)	AR1260-B	7.280	8.799	85167681	573.6E6	589.626	656.058
38)	AR1260-C	7.618	9.231	71131047	544.1E6	446.721	532.375
39)	AR1260-D	8.071	9.596	219.8E6	1064.9E6	598.800	496.090
40)	AR1260-E	8.487	10.156	204.2E6	1195.5E6	539.014m	586.563m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

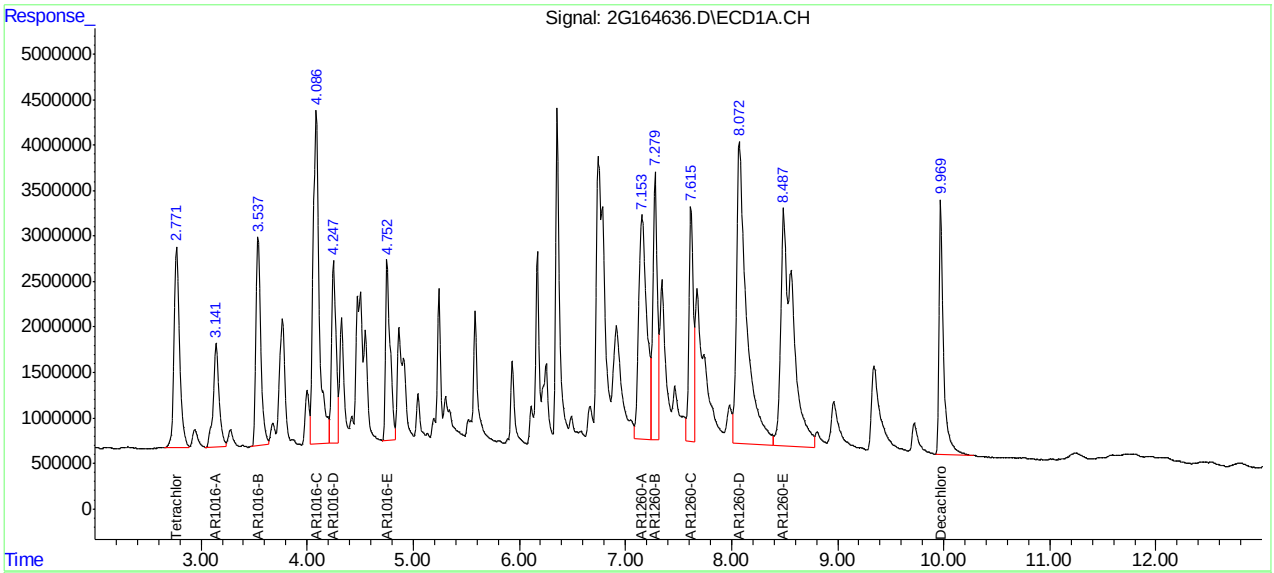
11.6.19 11

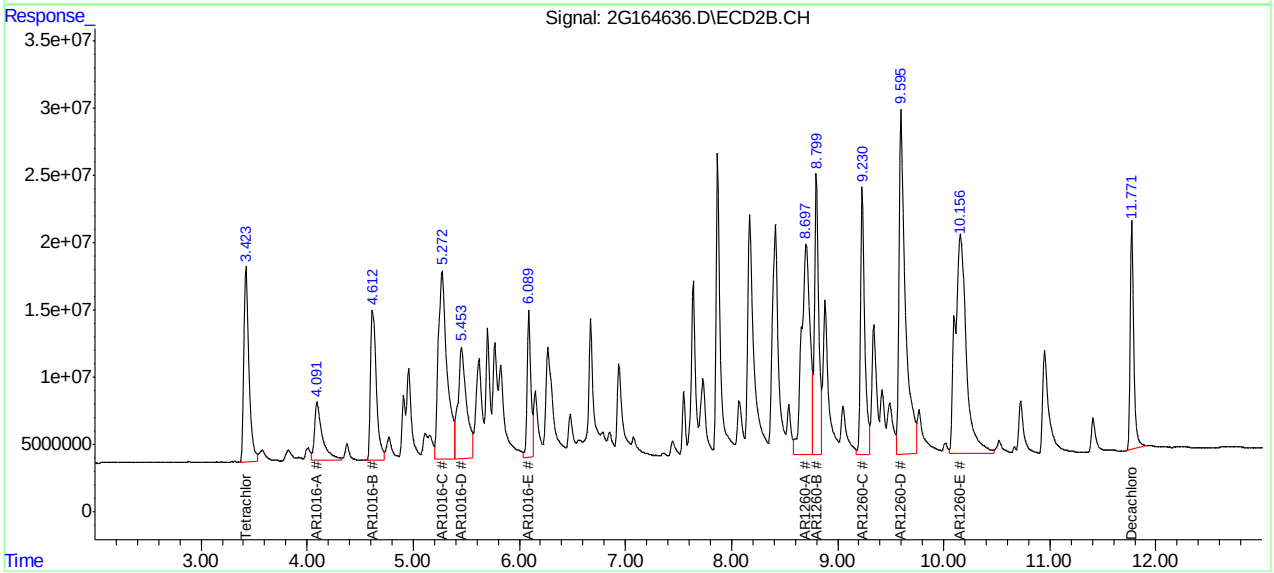
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164636.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 7:24 am
Operator : christp
Sample : cc4311-500
Misc : OP12385,G2G4349,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 12:43:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 12:42:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4349-ECC4311	**Method:**	SW846 8082A
Lab FileID:	2G164636.D	**Analyst approved:**	05/31/18 14:38 Gwendolyn Burns
Injection Time:	05/31/18 07:24	**Supervisor approved:**	05/31/18 14:43 Gwendolyn Burns

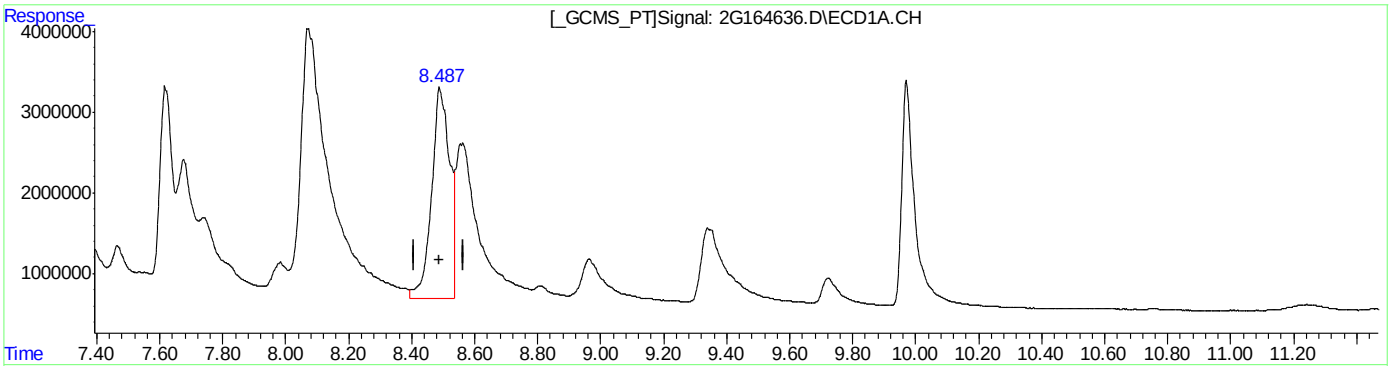
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	8.49	Poorly defined baseline
AR1260-E		2	10.16	Poorly defined baseline

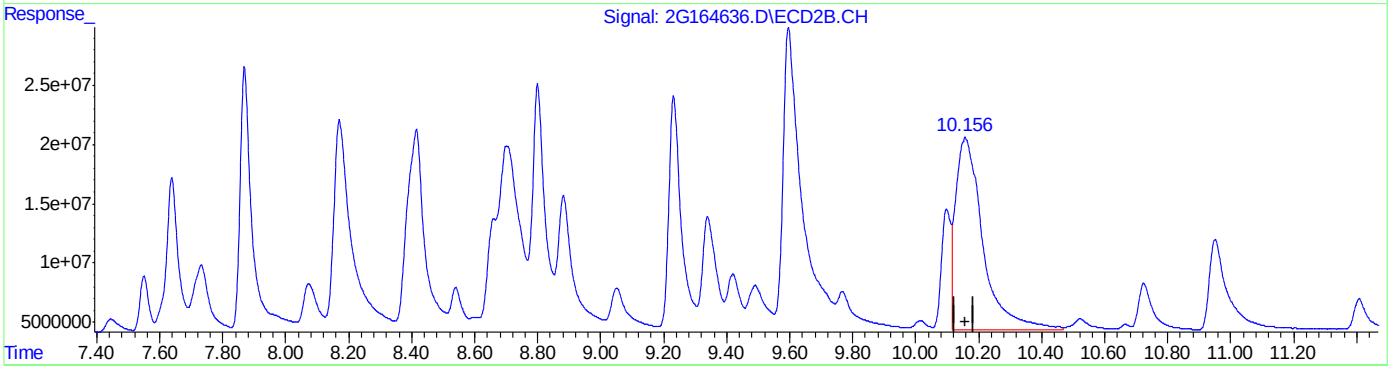
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164636.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 7:24 am
Operator : christp
Sample : cc4311-500
Misc : OP12385,G2G4349,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 12:43:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 12:42:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.488min 270.338PPB
response 102400594

(40) AR1260-E #2
10.157min 482.352PPB
response 983117157

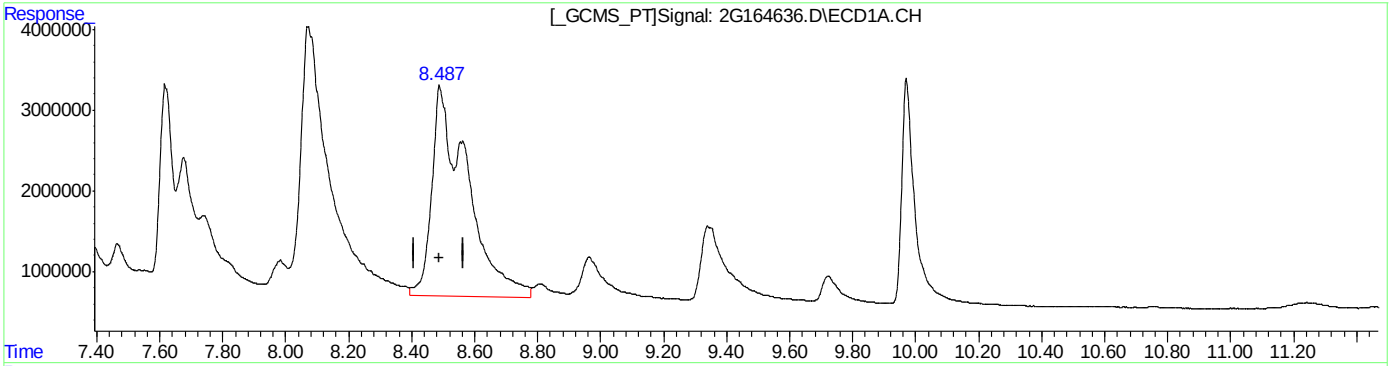
(+) = Expected Retention Time

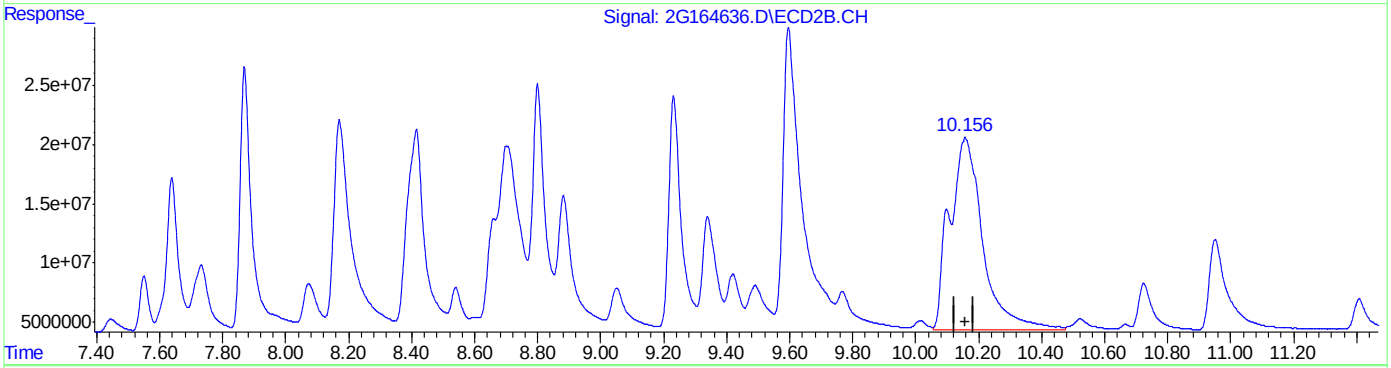
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4349\
Data File : 2G164636.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 May 2018 7:24 am
Operator : christp
Sample : cc4311-500
Misc : OP12385,G2G4349,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 31 12:43:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 31 12:42:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.487min 539.014PPB m
response 204171946

(40) AR1260-E #2
10.156min 586.563PPB m
response 1195516874

(+) = Expected Retention Time
2PCB4311.M Thu May 31 12:43:49 2018 RPT1

Manual Integrations
APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:24:48 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.943	2.147	334.6E6	212.6E6	50.000	50.000
27) I	1-bromo-2...	1.943	2.147	334.6E6	212.6E6	50.000	50.000
33) I	1-bromo-2...	1.943	2.147	334.6E6	212.6E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530f	2.932	7250563	4173542	1.095	1.012
	Spiked Amount	40.000 Range	30 - 150	Recovery	=	2.74%#	2.53%#
26)	SA Decachlor...	9.841	11.722f	8701532	4796545	1.380m	1.337
	Spiked Amount	40.000		Recovery	=	3.45%	3.34%
	Target Compounds						
3)	hexachlor...	2.857	3.415	8505661	5523975	1.070	1.055
4) A	alpha-BHC	2.997	3.562	8791650	4874874	1.831	2.173
5) MA	gamma-BHC	3.288	3.971	9465075	4831145	1.797	1.926
6) MA	Heptachlor	3.777	4.527	8734295	5198954	1.115	1.035
7) B	beta-BHC	3.360	4.052	4318811	2569784	1.160	1.128
8) B	delta-BHC	3.542	4.430	7245572	4722215	2.224	2.445
9) MB	Aldrin	4.107	4.961	8177217	4465092	1.058	1.945 #
11) B	Heptachlo...	4.814	5.760	7500595	4380492	1.086	1.043
12) B	gamma-Chl...	4.976	6.038	7087856	3867677	1.045	0.940m
13) B	alpha-Chl...	5.146	6.256	8190133	3993779	1.179	0.992m
14) A	Endosulfan I	5.323	6.351	7479806	4222041	1.132	1.101
15) B	4,4'-DDE	5.256	6.521	7329274	3841496	1.072	2.056 #
16) MA	Dieldrin	5.643	6.775	7656157	4158230	1.694	1.995
17) MA	Endrin	5.965	7.270	7051232	4837328	1.108	1.247
18) A	4,4'-DDD	6.086	7.453	6016212	3788716	1.049	1.131
19) B	Endosulfa...	6.282	7.615	9411333	5624250	1.465	1.478
20) MA	4,4'-DDT	6.504	7.980	5644746	3301023	2.372	2.472m
21) B	Endrin Al...	6.909	8.178	6326313	3602921	1.189	1.191
22) B	Endosulfa...	7.590	8.643	6192811	3554588	1.204	1.195
23) A	Methoxychlor	7.286	9.216	3696772	1831536	1.238m	1.075m
24)	Mirex	7.438	9.522	7027302	3765077	1.351	1.224
25) B	Endrin Ke...	8.030	9.589	7266165	6169547	1.165	1.539 #
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

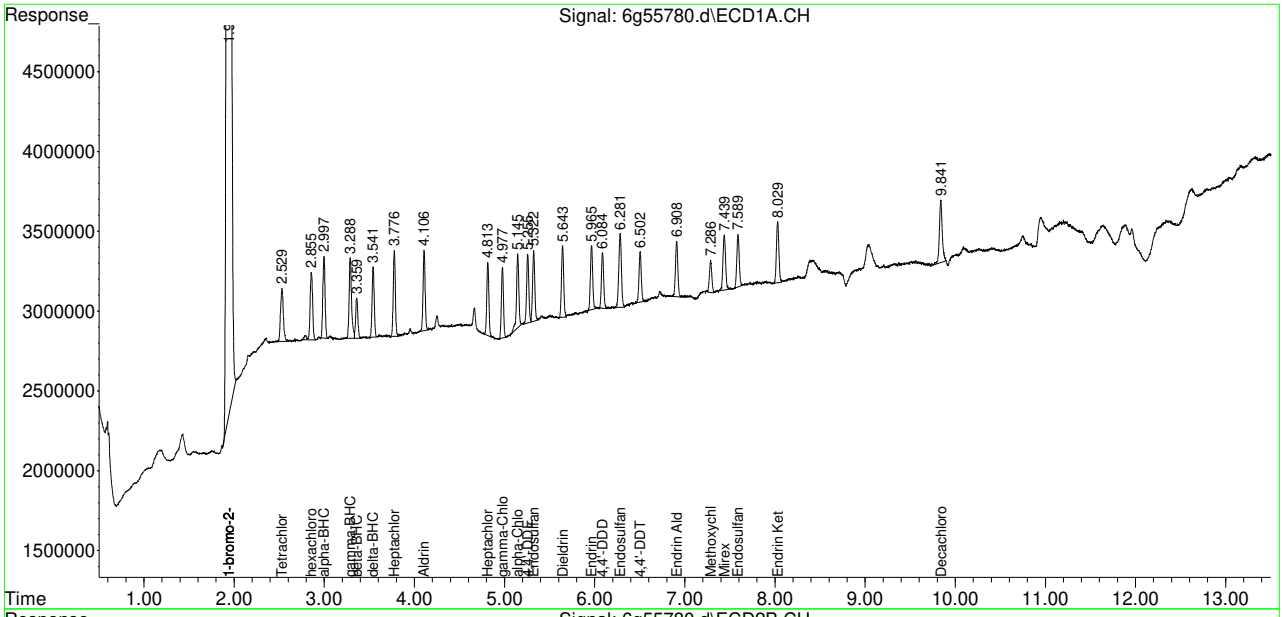
11.6.20
11

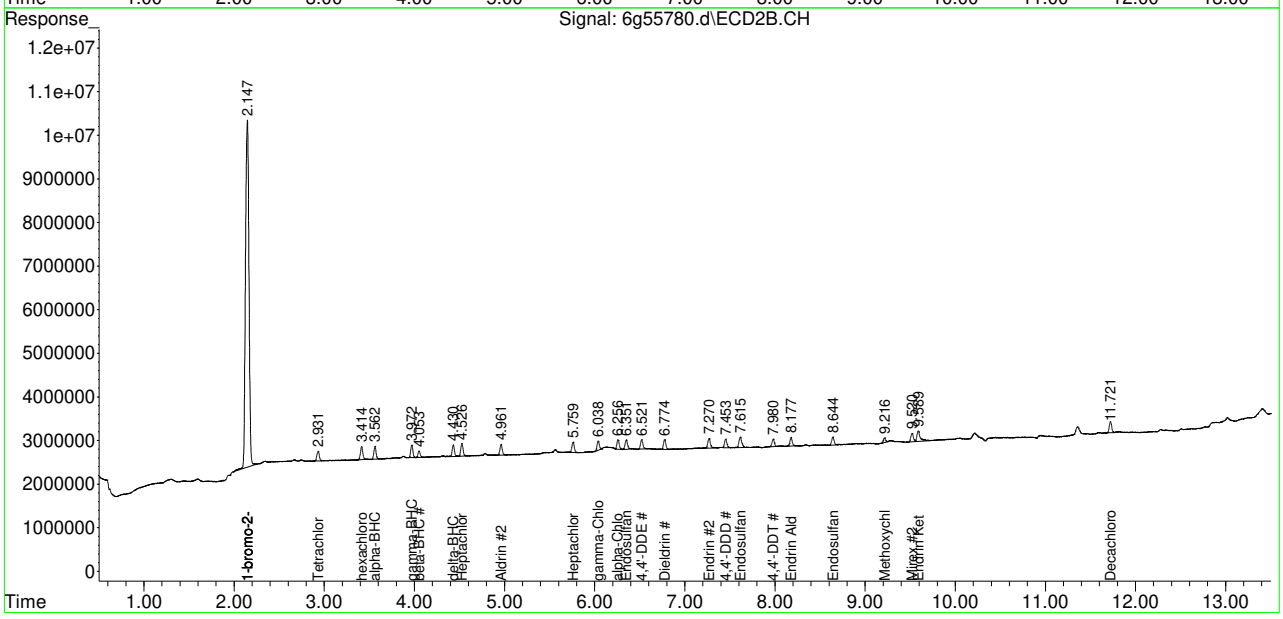
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:24:48 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-IC1671	**Method:**	EPA 608
Lab FileID:	6G55780.D	**Analyst approved:**	04/30/18 17:28 Rebecca Krug
Injection Time:	04/30/18 11:25	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

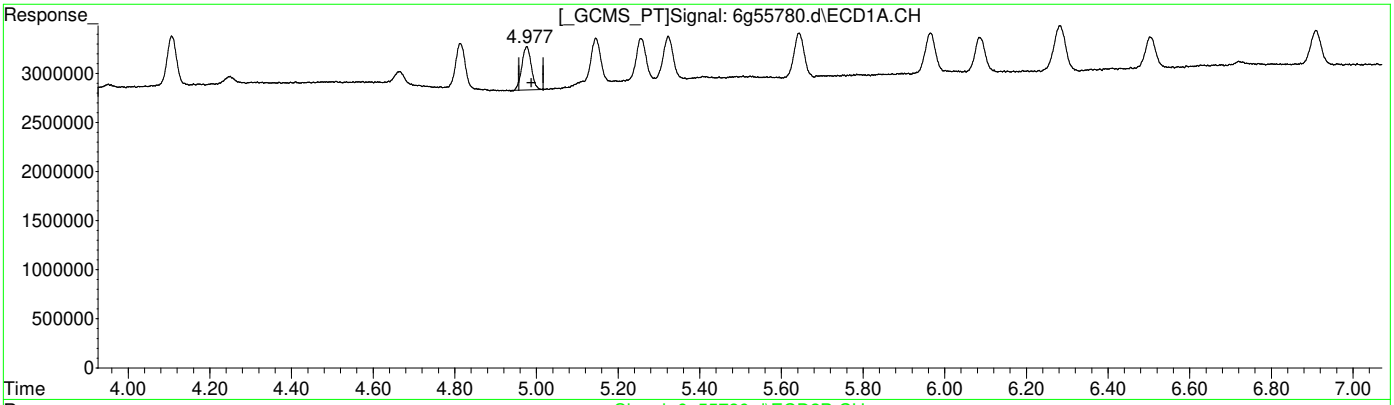
Parameter	CAS	Sig#	R.T. (min.)	Reason
gamma-Chlordane	5103-74-2	2	6.04	Poorly defined baseline
alpha-Chlordane	5103-71-9	2	6.26	Poorly defined baseline
Methoxychlor	72-43-5	1	7.29	Poorly defined baseline
4,4'-DDT	50-29-3	2	7.98	Poorly defined baseline
Methoxychlor	72-43-5	2	9.22	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.84	Poorly defined baseline

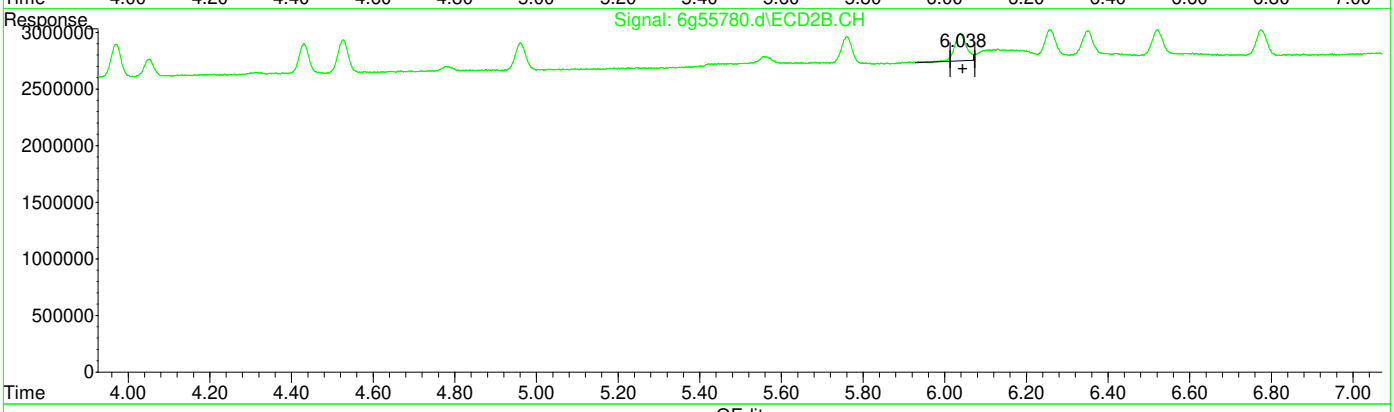
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:25:24
Operator  : dharas
Sample    : ic1671-1
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 3 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(12) gamma-Chlordane (B)

4.976min 1.045 PPB

response 7087856

(12) gamma-Chlordane #2 (B)

6.038min 1.225 PPB

response 5036393

(+) = Expected Retention Time

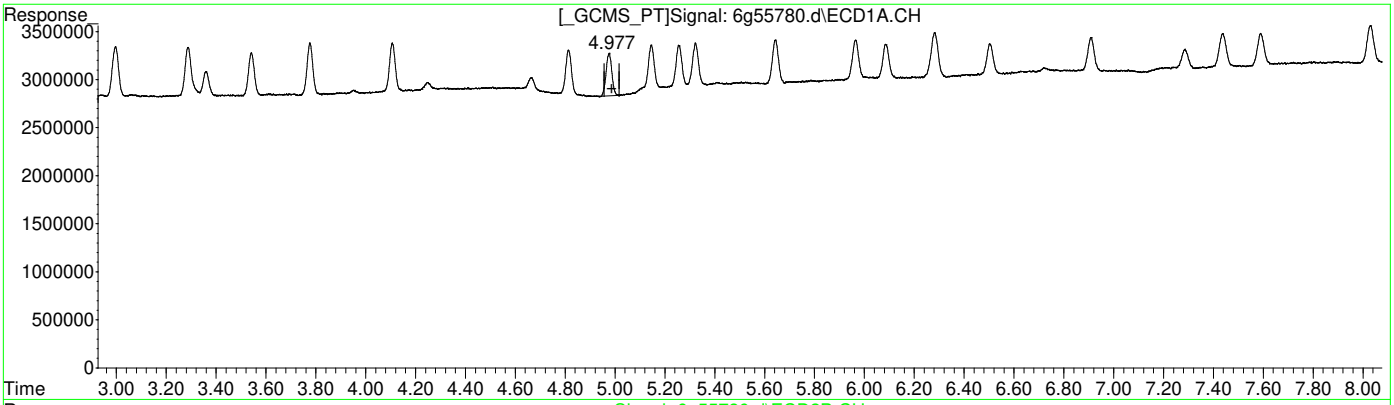
6PST1671.M Mon Apr 30 17:23:47 2018

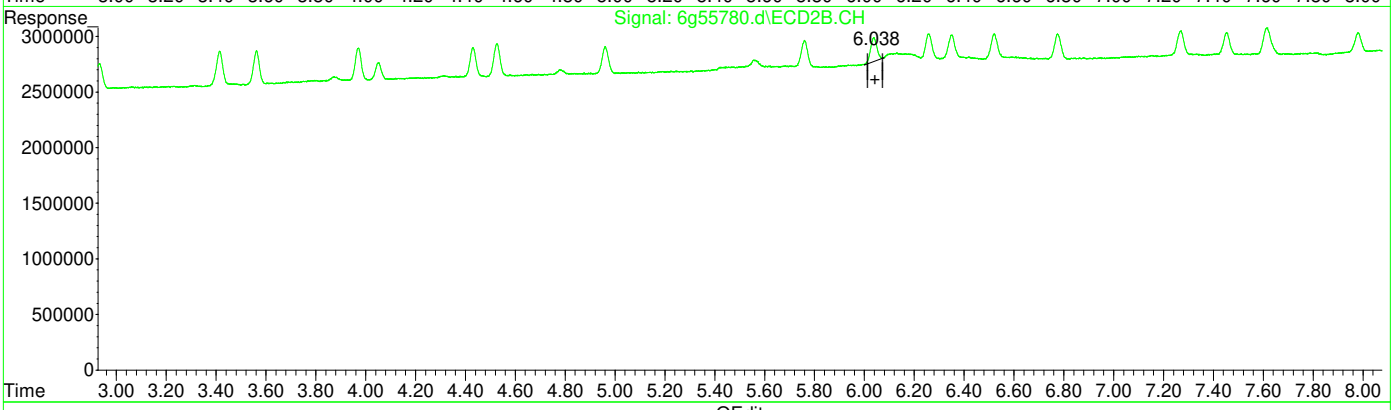
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:25:24
Operator  : dharas
Sample    : ic1671-1
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 3 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(12) gamma-Chlordane (B)

4.976min 1.045 PPB

response 7087856

(12) gamma-Chlordane #2 (B)

6.038min 0.940 PPB m

response 3867677

(+) = Expected Retention Time

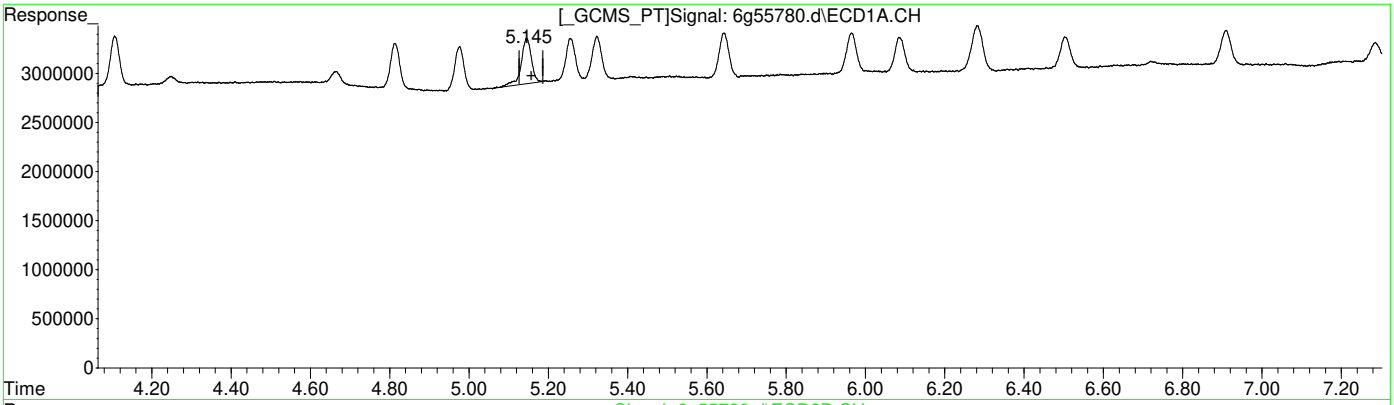
6PST1671.M Mon Apr 30 17:23:53 2018

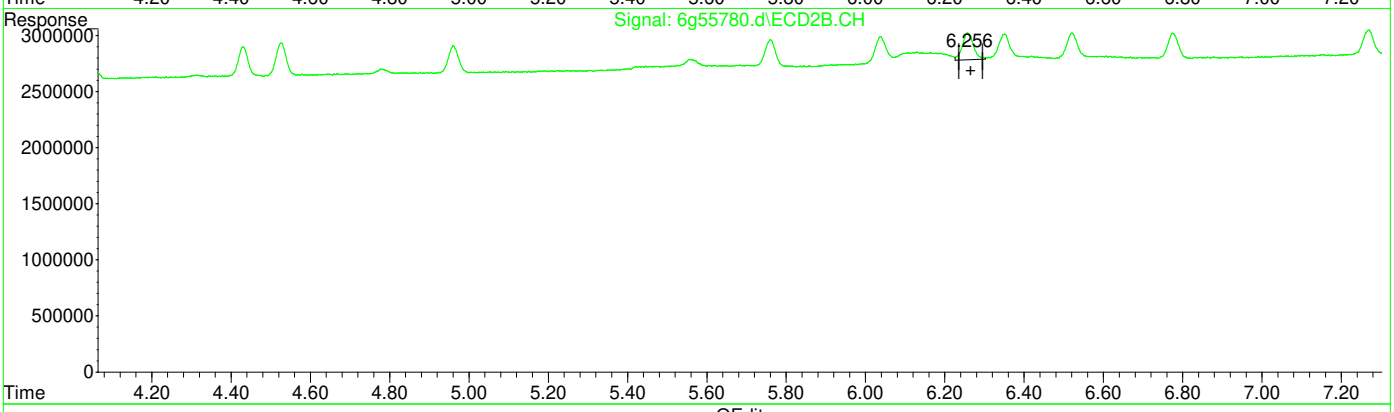
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:25:24
Operator  : dharas
Sample    : ic1671-1
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 3 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(13) alpha-Chlordane (B)

5.146min 1.179 PPB

response 8190133

(13) alpha-Chlordane #2 (B)

6.258min 1.156 PPB

response 4654642

(+) = Expected Retention Time

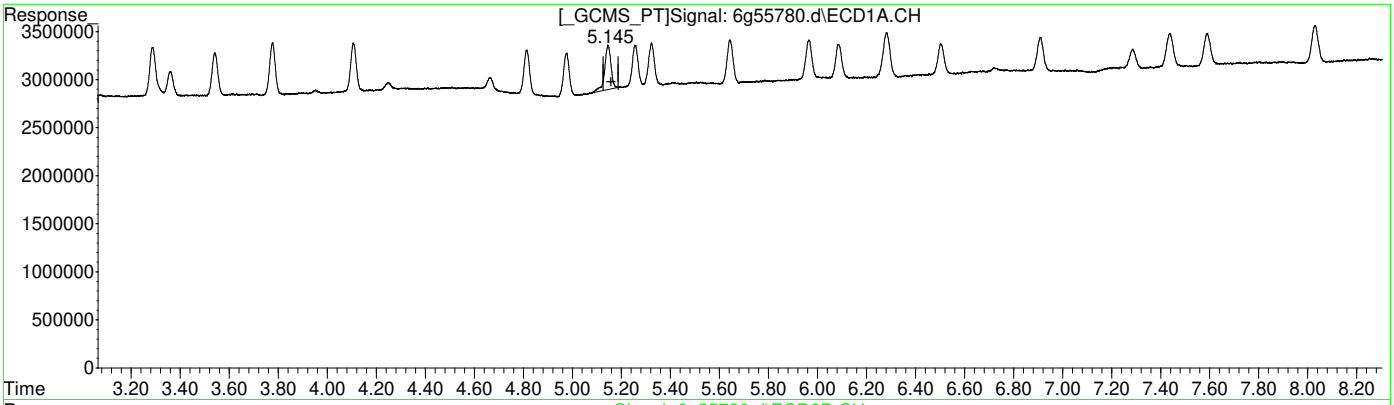
6PST1671.M Mon Apr 30 17:23:57 2018

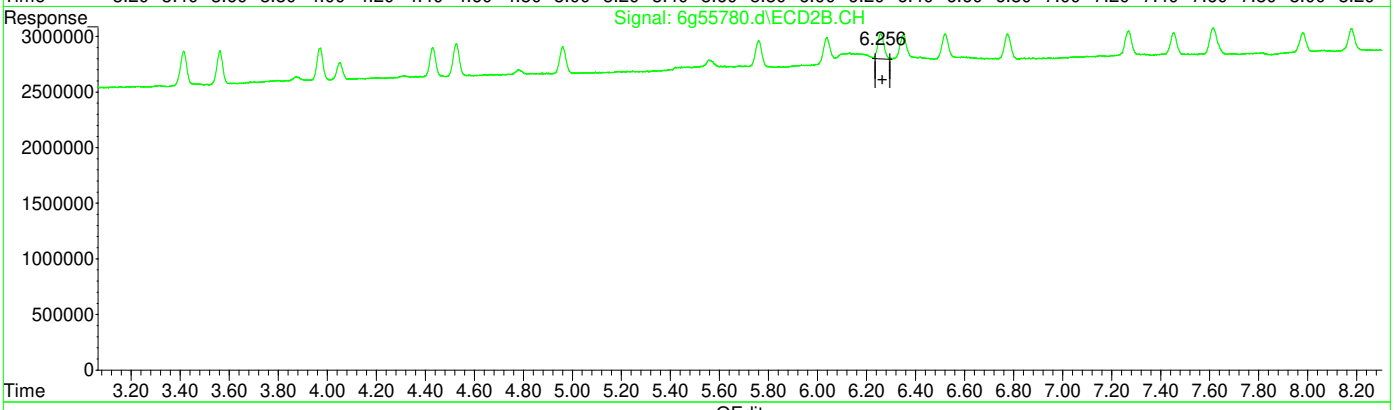
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:25:24
Operator  : dharas
Sample    : ic1671-1
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 3 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(13) alpha-Chlordane (B)

5.146min 1.179 PPB

response 8190133

(13) alpha-Chlordane #2 (B)

6.256min 0.992 PPB m

response 3993779

(+) = Expected Retention Time

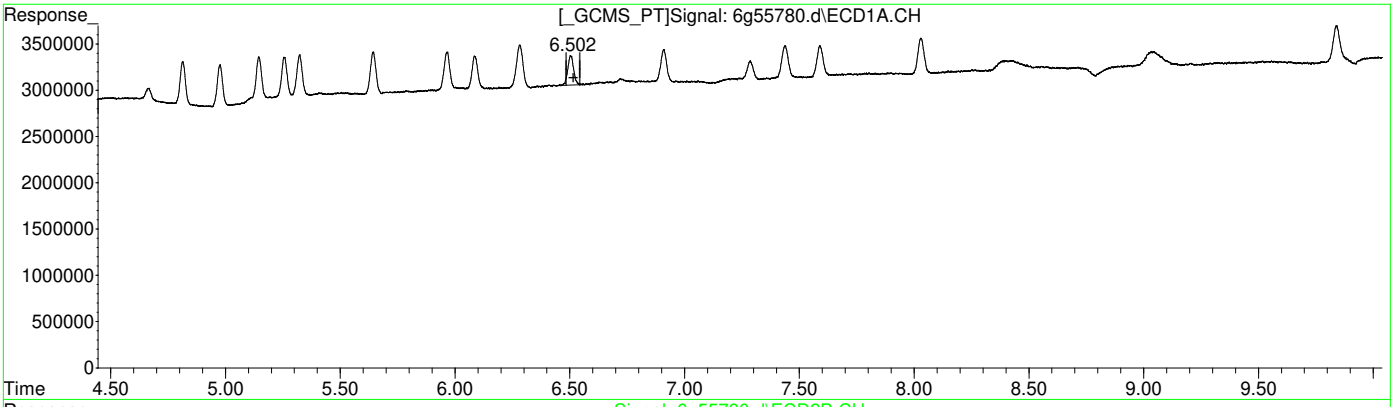
6PST1671.M Mon Apr 30 17:24:04 2018

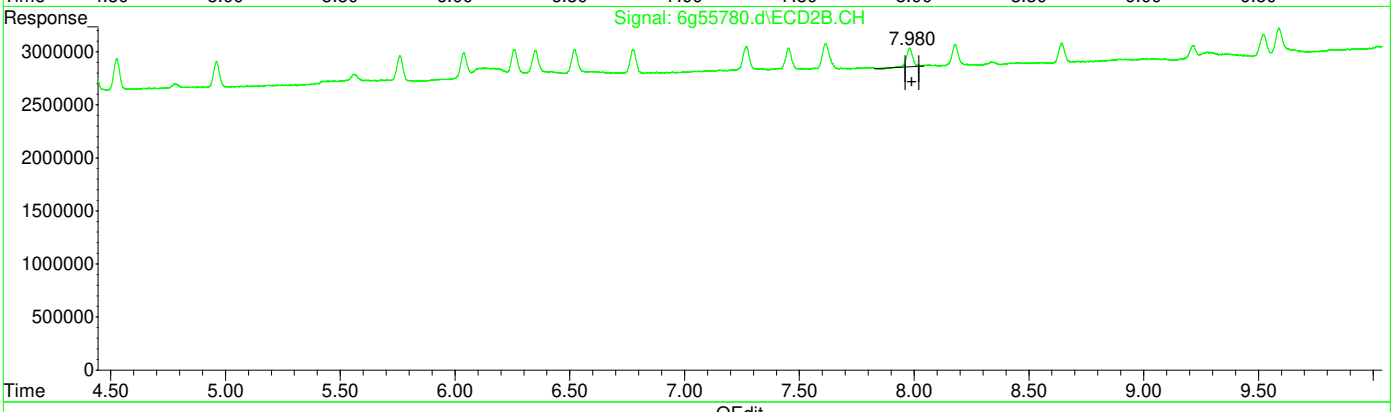
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(20) 4,4'-DDT (MA)

6.504min 2.372 PPB

response 5644746

(20) 4,4'-DDT #2 (MA)

7.981min 2.434 PPB

response 3163250

(+) = Expected Retention Time

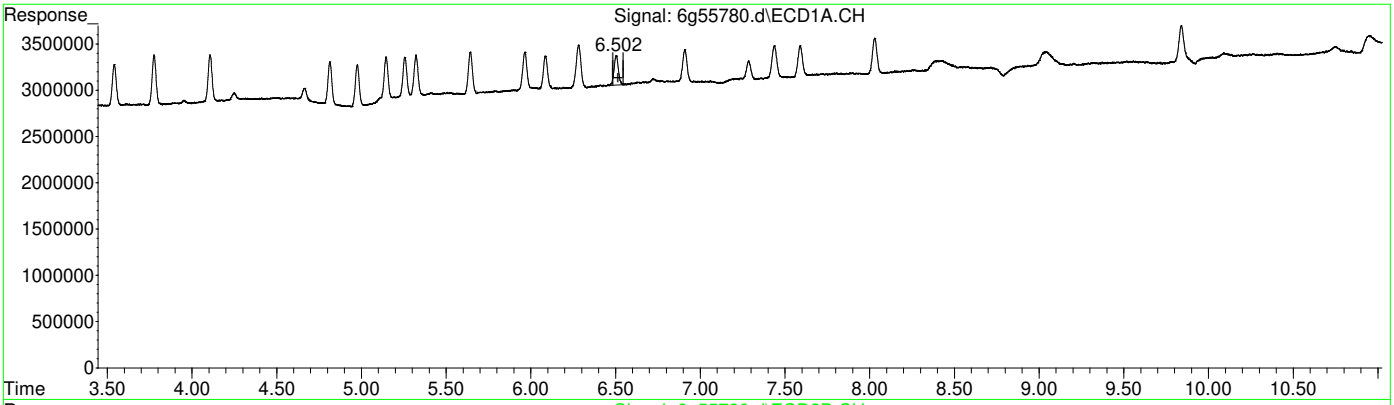
6PST1671.M Mon Apr 30 17:24:18 2018

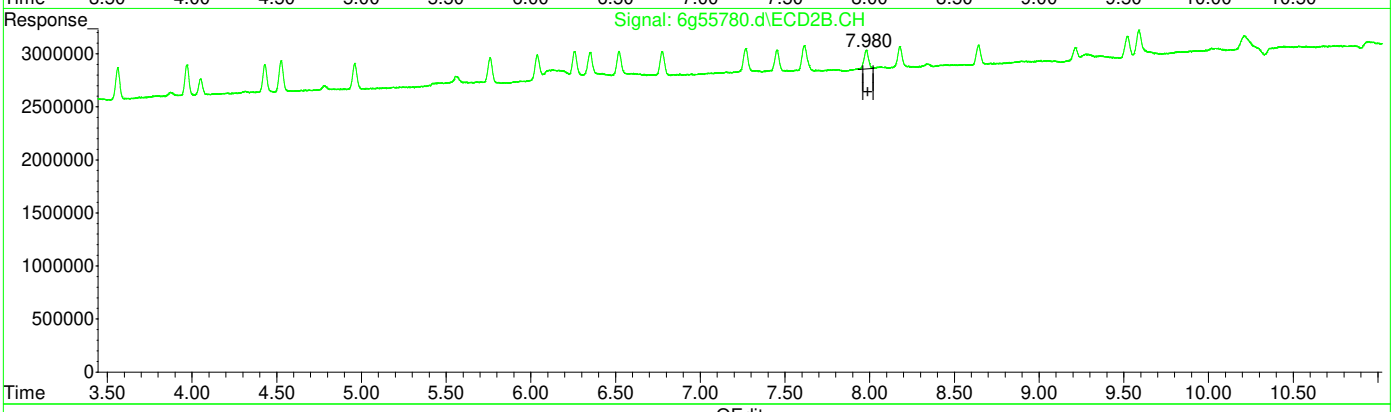
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(20) 4,4'-DDT (MA)

6.504min 2.372 PPB

response 5644746

(20) 4,4'-DDT #2 (MA)

7.980min 2.472 PPB m

response 3301023

(+) = Expected Retention Time

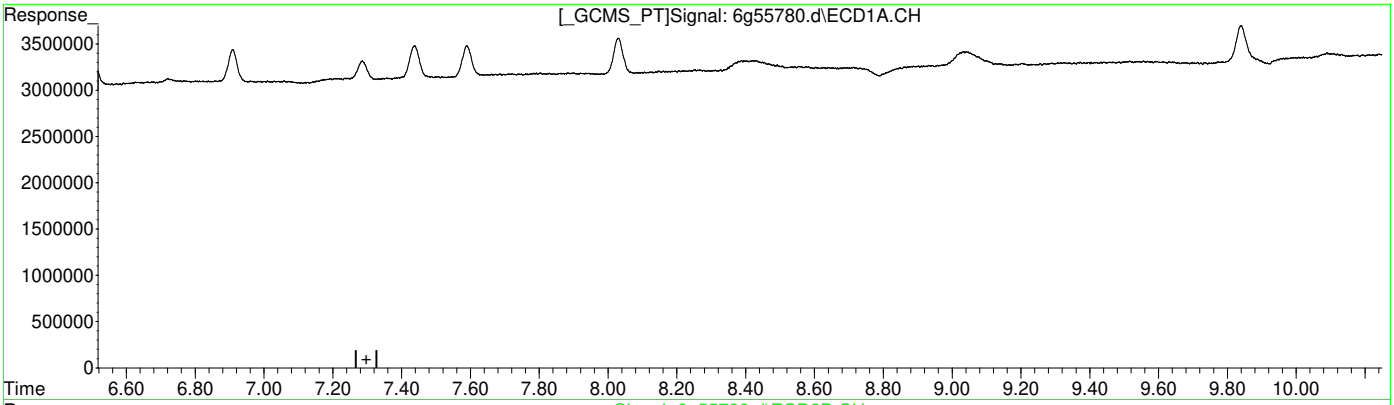
6PST1671.M Mon Apr 30 17:24:24 2018

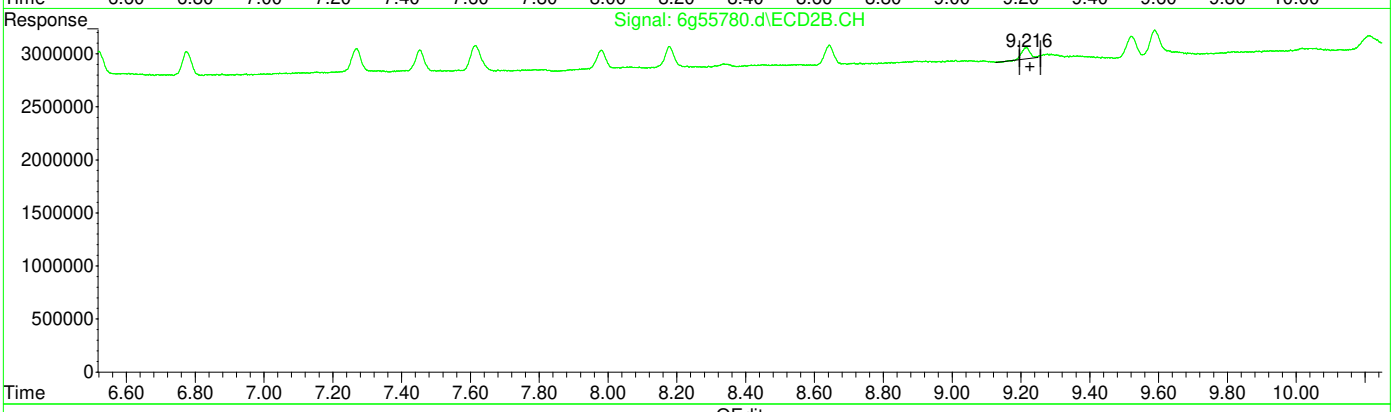
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:25:24
Operator  : dharas
Sample    : ic1671-1
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 3 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(23) Methoxychlor (A)

0.000min 0.000 PPB

response 0

(23) Methoxychlor #2 (A)

9.216min 1.067 PPB

response 1816913

(+) = Expected Retention Time

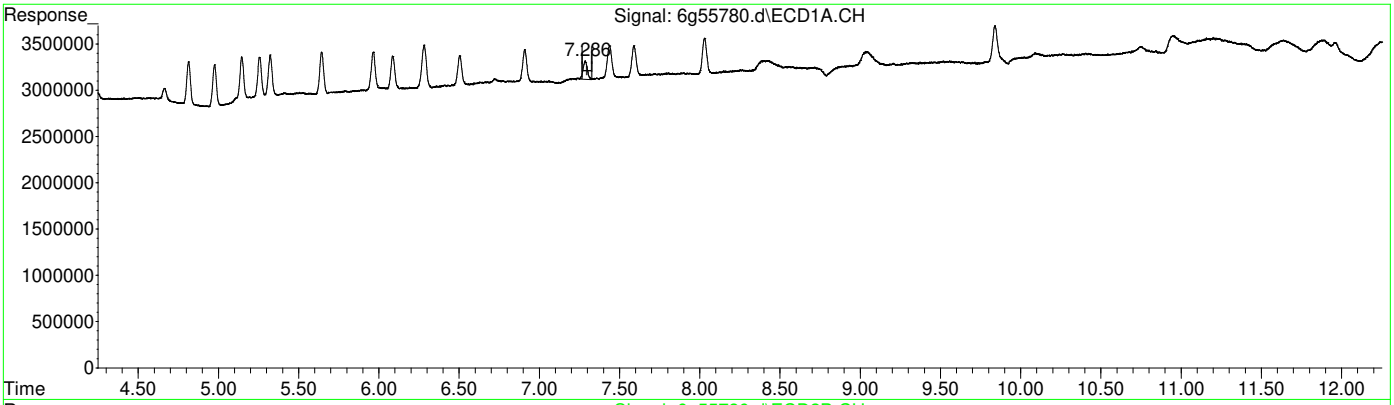
6PST1671.M Mon Apr 30 17:24:29 2018

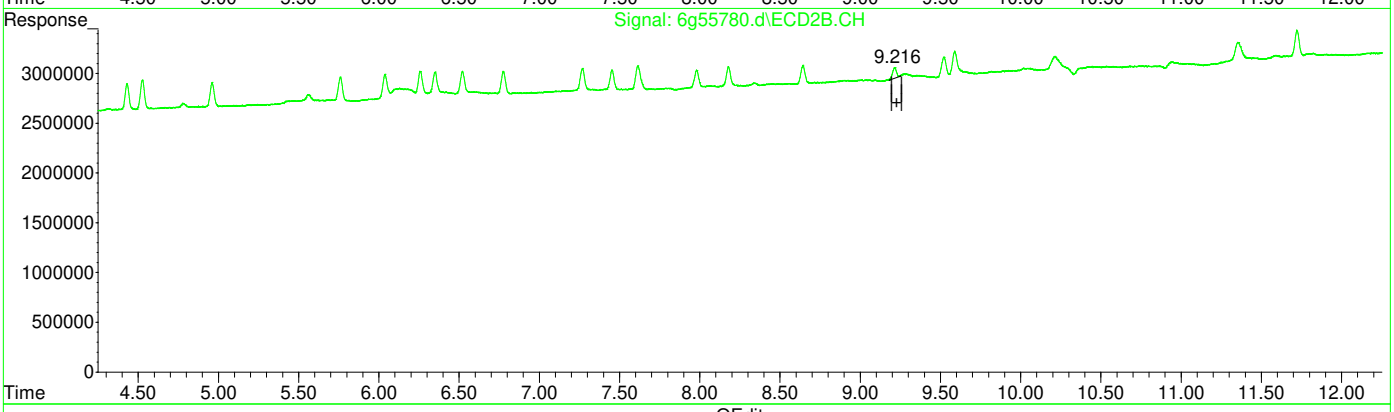
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:25:24
Operator  : dharas
Sample    : ic1671-1
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 3 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(23) Methoxychlor (A)

7.286min 1.238 PPB m

response 3696772

(23) Methoxychlor #2 (A)

9.216min 1.075 PPB m

response 1831536

(+) = Expected Retention Time

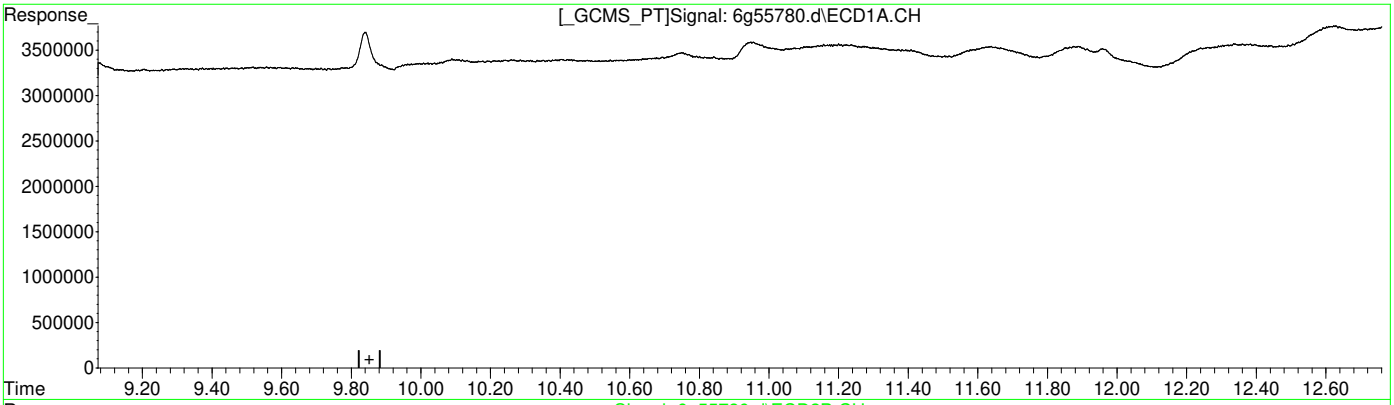
6PST1671.M Mon Apr 30 17:24:40 2018

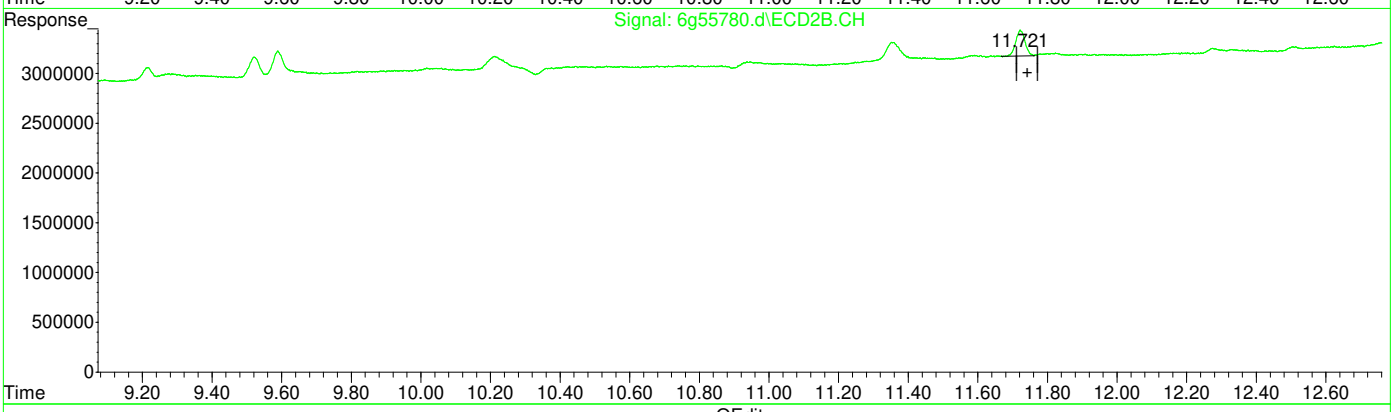
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:25:24
Operator  : dharas
Sample    : ic1671-1
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 3 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(26) Decachlorobiphenyl (SA)

0.000min 0.000 PPB

response 0

(26) Decachlorobiphenyl #2 (SA)

11.722min 1.337 PPB

response 4796545

(+) = Expected Retention Time

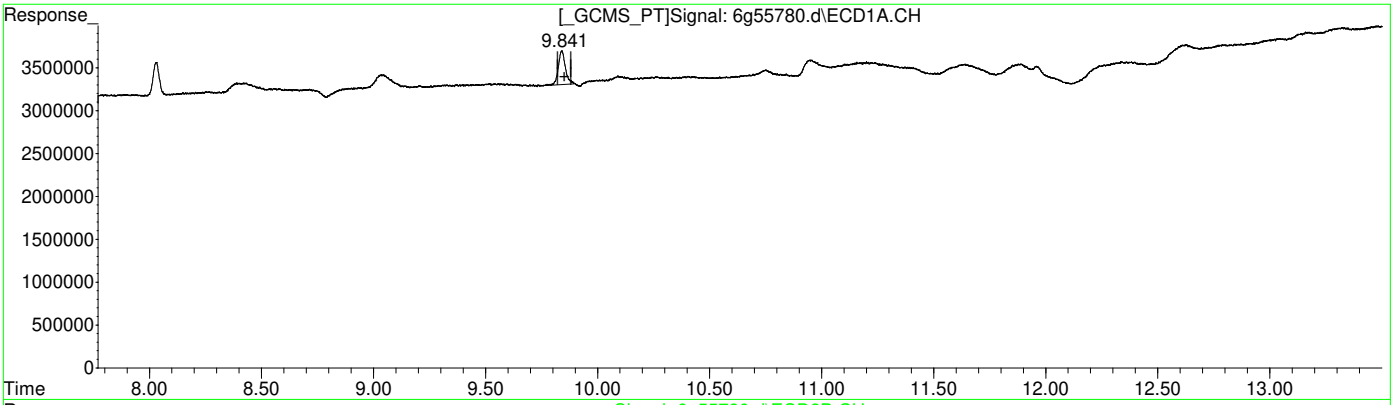
6PST1671.M Mon Apr 30 17:24:45 2018

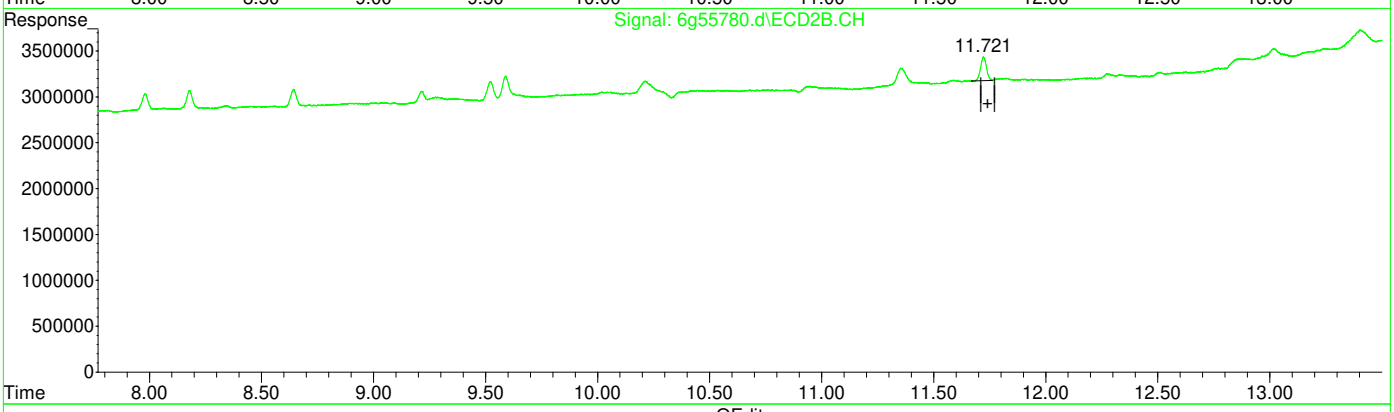
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:25:24
Operator  : dharas
Sample    : ic1671-1
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 3 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.     : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(26) Decachlorobiphenyl (SA)

9.841min 1.380 PPB m

response 8701532

(26) Decachlorobiphenyl #2 (SA)

11.722min 1.337 PPB

response 4796545

(+) = Expected Retention Time

6PST1671.M Mon Apr 30 17:24:50 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:43:10
Operator : dharas
Sample : ic1671-2
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	Internal Standards							
1) I	1-bromo-2...	1.943	2.147	387.0E6	241.1E6	50.000	50.000	
27) I	1-bromo-2...	1.943	2.147	387.0E6	241.1E6	50.000	50.000	
33) I	1-bromo-2...	1.943	2.147	387.0E6	241.1E6	50.000	50.000	
	System Monitoring Compounds							
2)	SAB Tetrachlo...	2.530f	2.932	14602253	8507501	1.906	1.820	
	Spiked Amount	40.000 Range	30 - 150	Recovery	=	4.76%#	4.55%#	
26)	SA Decachlor...	9.839	11.723f	16338027	9180560	2.240	2.257	
	Spiked Amount	40.000		Recovery	=	5.60%	5.64%	
	Target Compounds							
3)	hexachlor...	2.856	3.415	16294686	11301352	1.772	1.903	
4) A	alpha-BHC	2.996	3.563	17999726	10077842	2.494	2.814	
5) MA	gamma-BHC	3.287	3.971	17825012	9866951	2.447	2.607	
6) MA	Heptachlor	3.775	4.526	17160198	10577603	1.894	1.858	
7) B	beta-BHC	3.359	4.052	8774543	4960670	2.037	1.921	
8) B	delta-BHC	3.542	4.430	14887658	8880069	2.893	3.038	
9) MB	Aldrin	4.106	4.961	16201073	8859319	1.812	2.611	#
10)	alachlor	4.245	4.781	2244634	1308957	1.959m	1.890	
11) B	Heptachlo...	4.813	5.760	15342403	9140408	1.920	1.921	
12) B	gamma-Chl...	4.975	6.038	14743634	8692586	1.879	1.864	
13) B	alpha-Chl...	5.145	6.258	16078851	7974896	2.000	1.747	
14) A	Endosulfan I	5.322	6.350	14907968	8139344	1.950	1.873	
15) B	4,4'-DDE	5.255	6.521	14410408	7734247	1.822	2.705	#
16) MA	Dieldrin	5.642	6.775	15434484	8796328	2.402	2.759	
17) MA	Endrin	5.964	7.269	14135074	8494069	1.921	1.931	
18) A	4,4'-DDD	6.085	7.453	12192826	7046507	1.838	1.855	
19) B	Endosulfa...	6.282	7.614	16624747	9482240	2.238	2.198	
20) MA	4,4'-DDT	6.503	7.980	11618446	6780069	3.125	3.215	
21) B	Endrin Al...	6.907	8.178	12752377	6955696	2.072	2.028	
22) B	Endosulfa...	7.589	8.643	12398444	6754107	2.085	2.003	
23) A	Methoxychlor	7.286	9.211f	7461816	4108135	2.161	2.127m	
24)	Mirex	7.436	9.520f	13279056	7099768	2.208	2.036	
25) B	Endrin Ke...	8.027	9.588	14410690	9463333	1.998	2.082	
	Sum Toxaphene			0	0	N.D.	N.D.	
	Average Toxaphene					0.000	0.000	

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

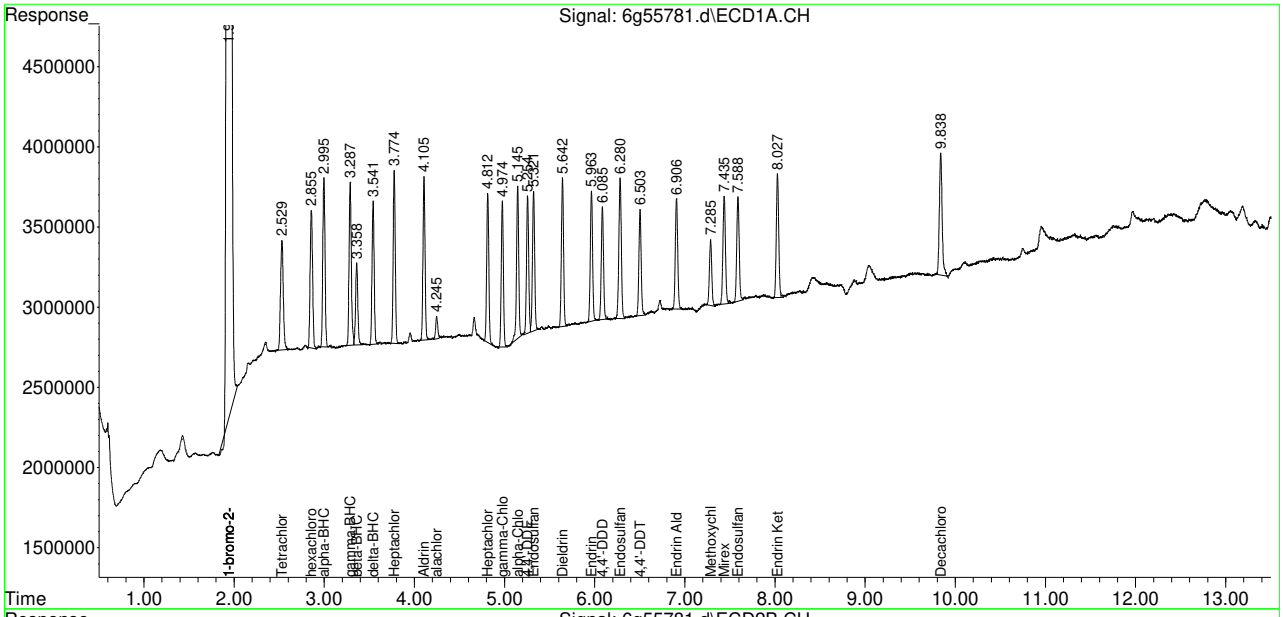
11.6.21 11

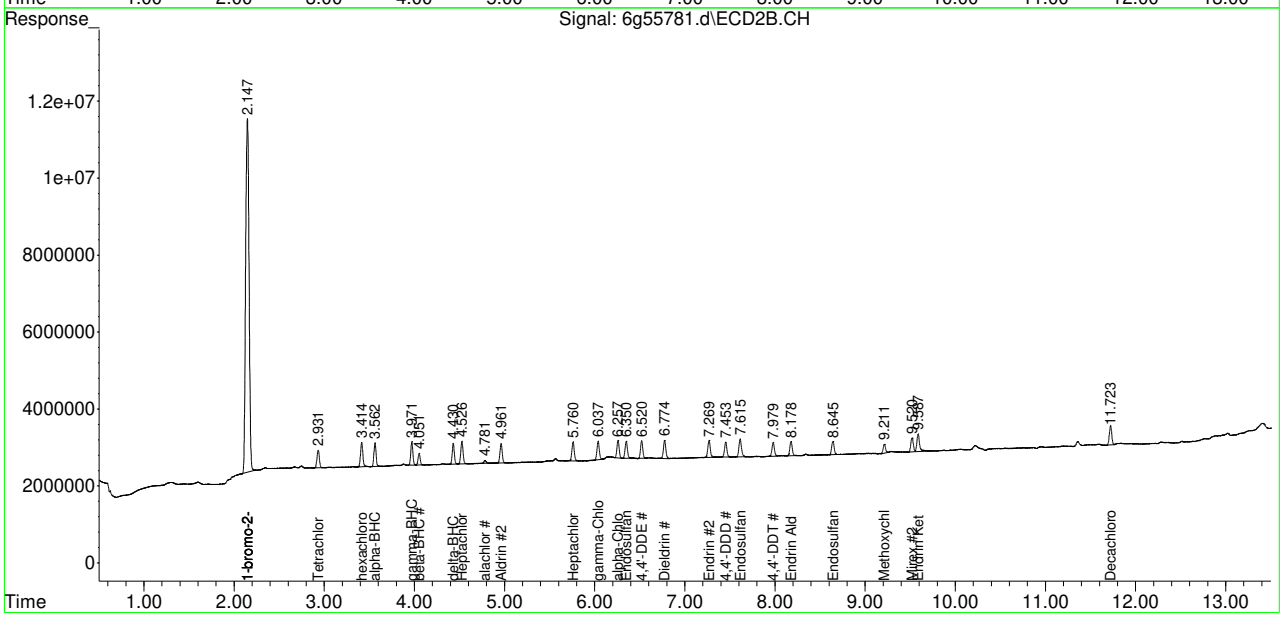
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:43:10
Operator : dharas
Sample : ic1671-2
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-IC1671	**Method:**	EPA 608
Lab FileID:	6G55781.D	**Analyst approved:**	04/30/18 17:28 Rebecca Krug
Injection Time:	04/30/18 11:43	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

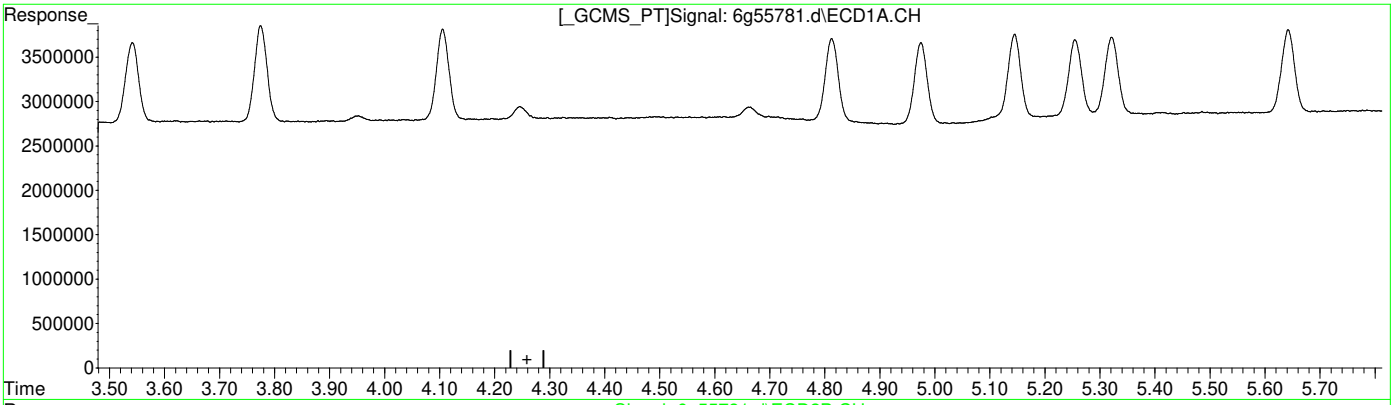
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.21	Poorly defined baseline

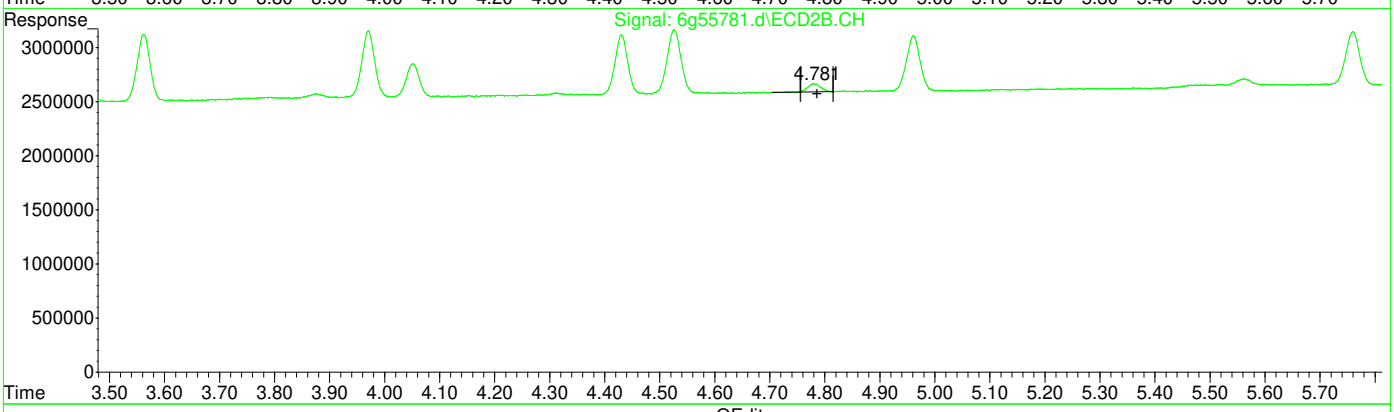
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:43:10
Operator  : dharas
Sample    : ic1671-2
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 4 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(10) alachlor

0.000min 0.000 PPB

response 0

(10) alachlor #2

4.781min 1.890 PPB

response 1308957

(+) = Expected Retention Time

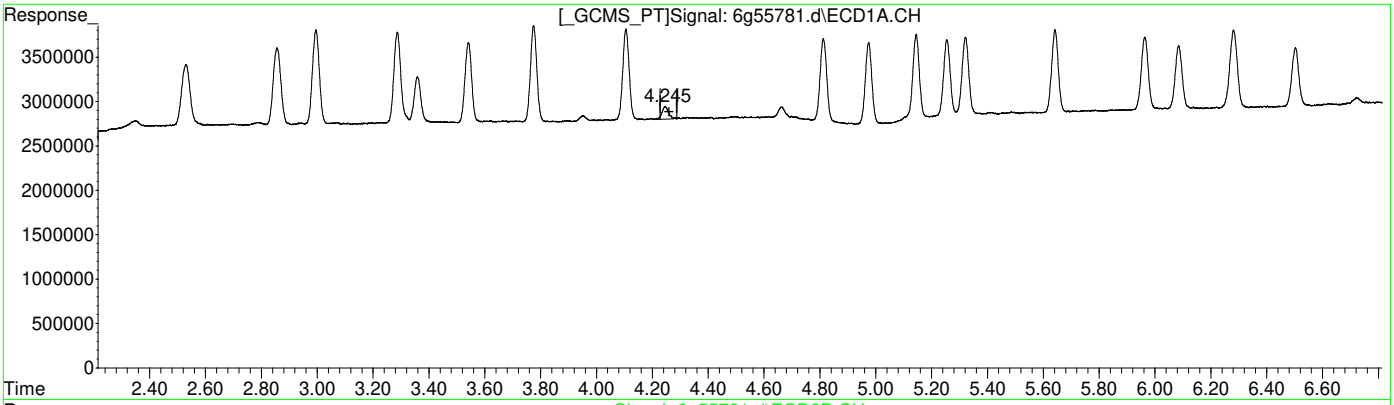
6PST1671.M Mon Apr 30 17:20:14 2018

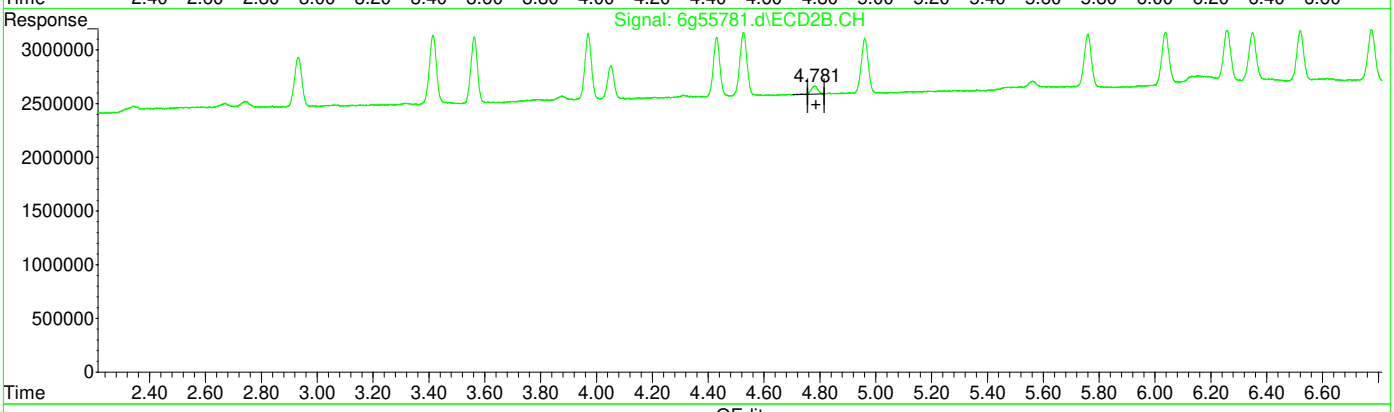
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:43:10
Operator  : dharas
Sample    : ic1671-2
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 4 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(10) alachlor

4.245min 1.959 PPB m

response 2244634

(10) alachlor #2

4.781min 1.890 PPB

response 1308957

(+) = Expected Retention Time

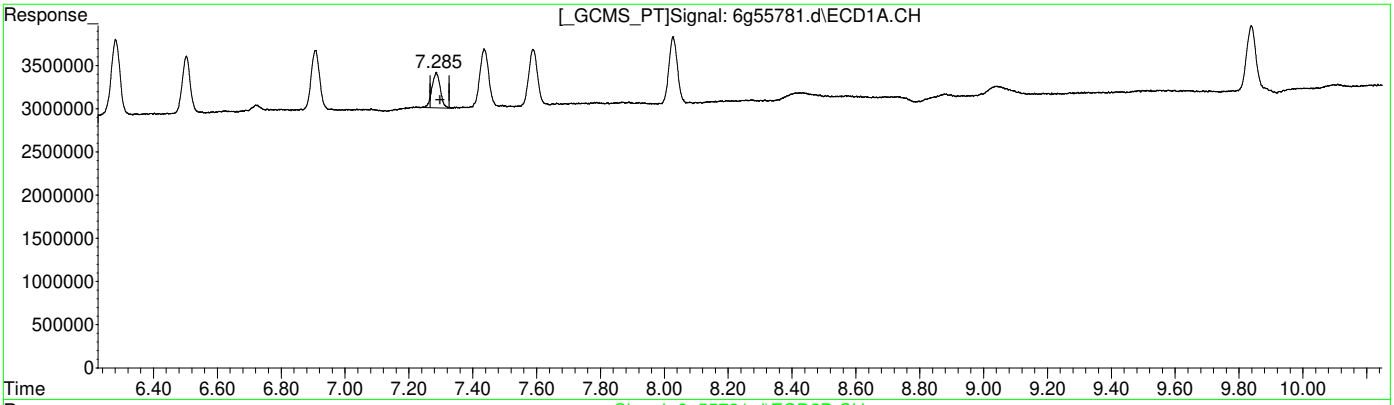
6PST1671.M Mon Apr 30 17:20:22 2018

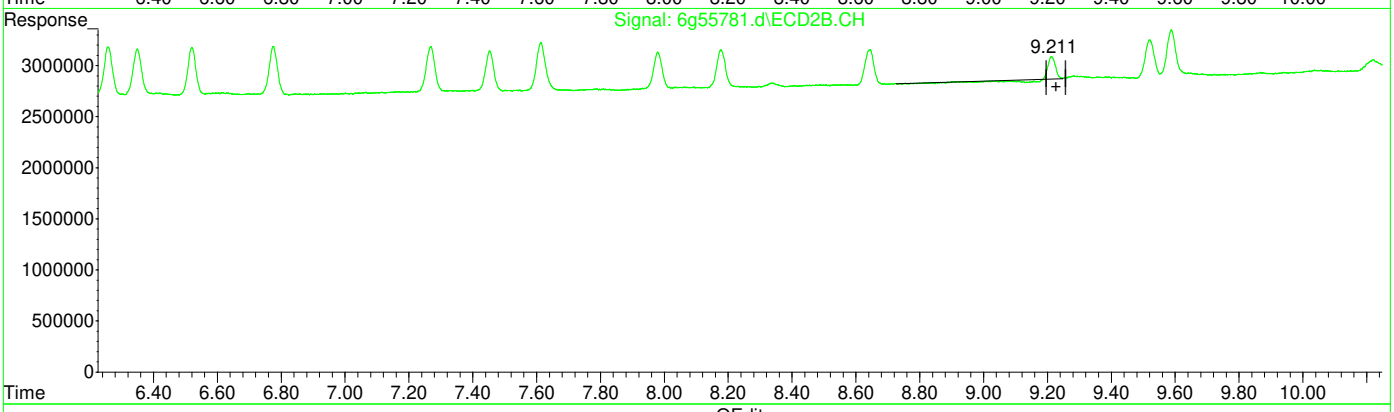
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:43:10
Operator  : dharas
Sample    : ic1671-2
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 4 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(23) Methoxychlor (A)

7.286min 2.161 PPB

response 7461816

(23) Methoxychlor #2 (A)

9.213min 0.820 PPB

response 1582778

(+) = Expected Retention Time

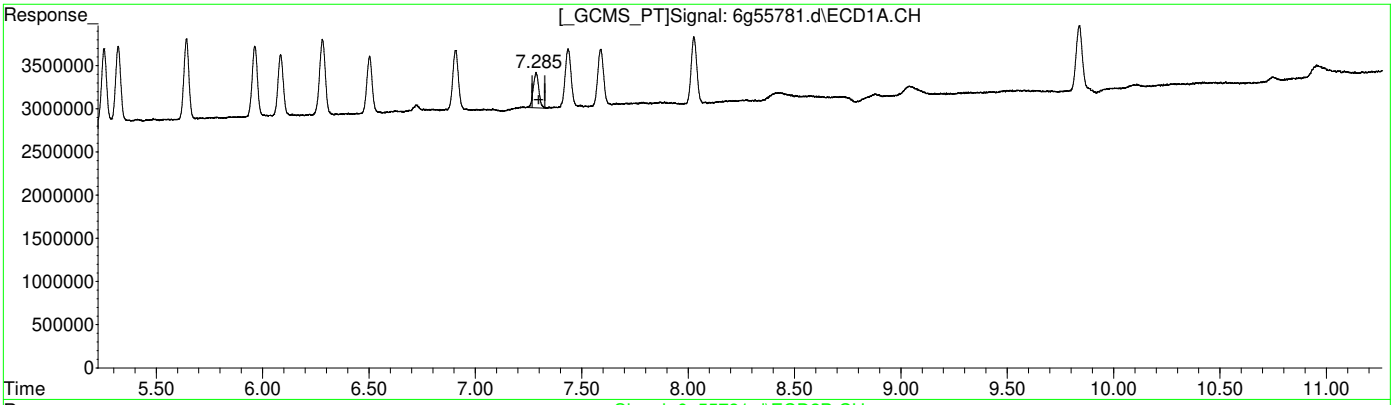
6PST1671.M Mon Apr 30 17:20:34 2018

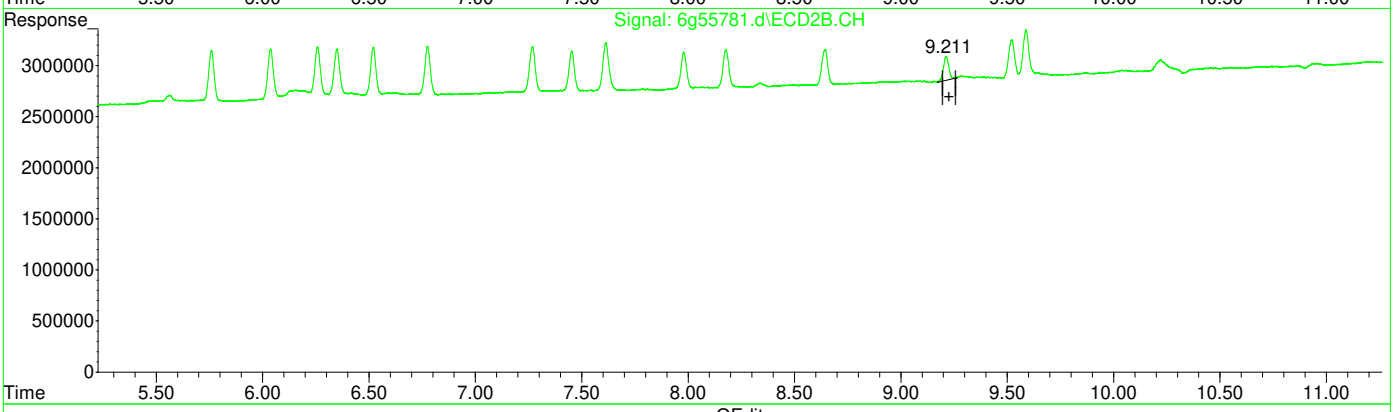
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 11:43:10
Operator  : dharas
Sample    : ic1671-2
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 4 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(23) Methoxychlor (A)

7.286min 2.161 PPB

response 7461816

(23) Methoxychlor #2 (A)

9.211min 2.127 PPB m

response 4108135

(+) = Expected Retention Time

6PST1671.M Mon Apr 30 17:20:40 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55782.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:01:04
Operator : dharas
Sample : ic1671-5
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:18:53 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.941	2.146	391.8E6	245.7E6	50.000	50.000
27) I	1-bromo-2...	1.941	2.146	391.8E6	245.7E6	50.000	50.000
33) I	1-bromo-2...	1.941	2.146	391.8E6	245.7E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.529f	2.932	36692553	21567937	4.732	4.526
	Spiked Amount 40.000 Range 30 - 150 Recovery =					11.83%#	11.32%#
26)	SA Decachlor...	9.837	11.722f	38515506	22696529	5.217	5.474
	Spiked Amount 40.000 Recovery =					13.04%	13.69%
	Target Compounds						
3)	hexachlor...	2.856f	3.414	40039008	27524590	4.301	4.546
4) A	alpha-BHC	2.995f	3.562	46372720	26372740	4.848	5.035
5) MA	gamma-BHC	3.287	3.971	44366106	25338460	4.903	4.930
6) MA	Heptachlor	3.775	4.526	43060808	26855824	4.694	4.627
7) B	beta-BHC	3.358	4.051	21939549	12603643	5.030	4.787
8) B	delta-BHC	3.541	4.430	37980998	22676292	5.218	5.287
9) MB	Aldrin	4.106	4.960	41208200	23078938	4.553	5.030
10)	alachlor	4.247	4.779	5675895	3729328	4.892	5.283
11) B	Heptachlo...	4.813	5.759	39915152	23422377	4.934	4.828
12) B	gamma-Chl...	4.974	6.037	37751508	23381751	4.751	4.919
13) B	alpha-Chl...	5.145	6.259	39936526	23006245	4.908	4.942
14) A	Endosulfan I	5.321	6.350	36980626	21912385	4.777	4.945
15) B	4,4'-DDE	5.256	6.520	36612488	20625296	4.572	5.106
16) MA	Dieldrin	5.642	6.775	38902287	21711765	4.877	5.101
17) MA	Endrin	5.963	7.268	37334160	21438153	5.012	4.782
18) A	4,4'-DDD	6.085	7.453	31218421	18083448	4.648	4.670
19) B	Endosulfa...	6.283	7.613	38002443	22119932	5.052	5.029
20) MA	4,4'-DDT	6.502	7.979	28888141	16458168	5.628	5.503
21) B	Endrin Al...	6.907	8.178	31478562	17270913	5.051	4.938
22) B	Endosulfa...	7.589	8.642	30972100	16884248	5.143	4.912
23) A	Methoxychlor	7.284	9.211f	20208435	10399649	5.781	5.283m
24)	Mirex	7.436	9.520f	32654704	18026150	5.362	5.070
25) B	Endrin Ke...	8.029	9.587	36218258	21602414	4.959	4.661
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

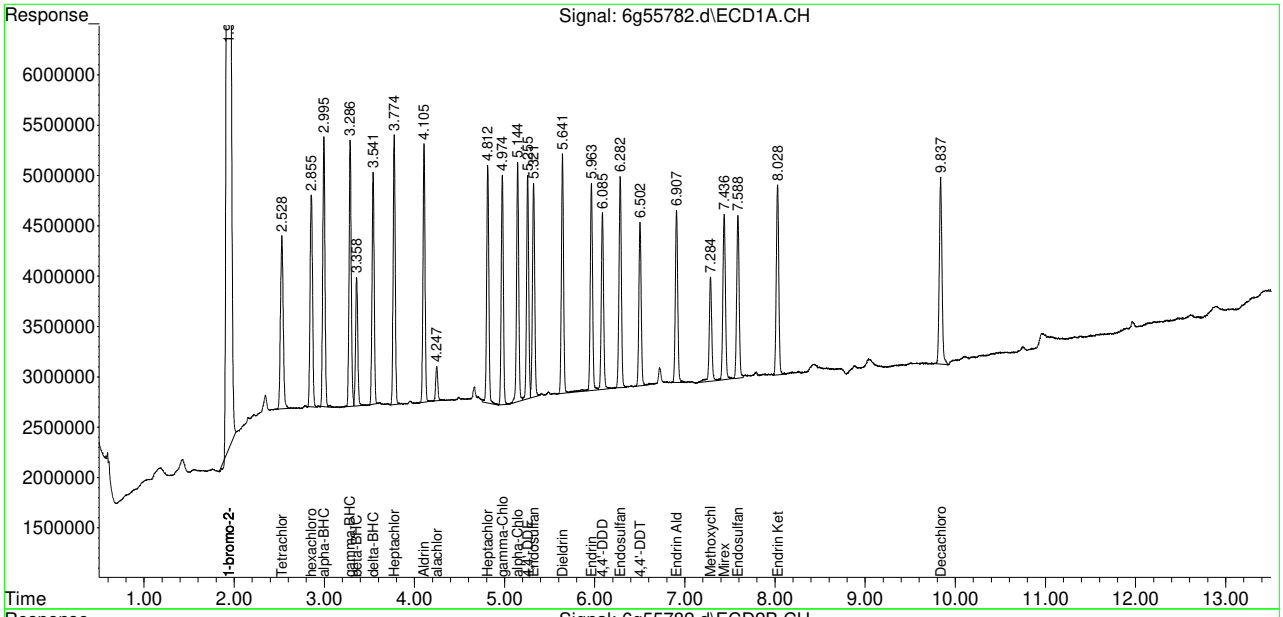
11.6.22 11

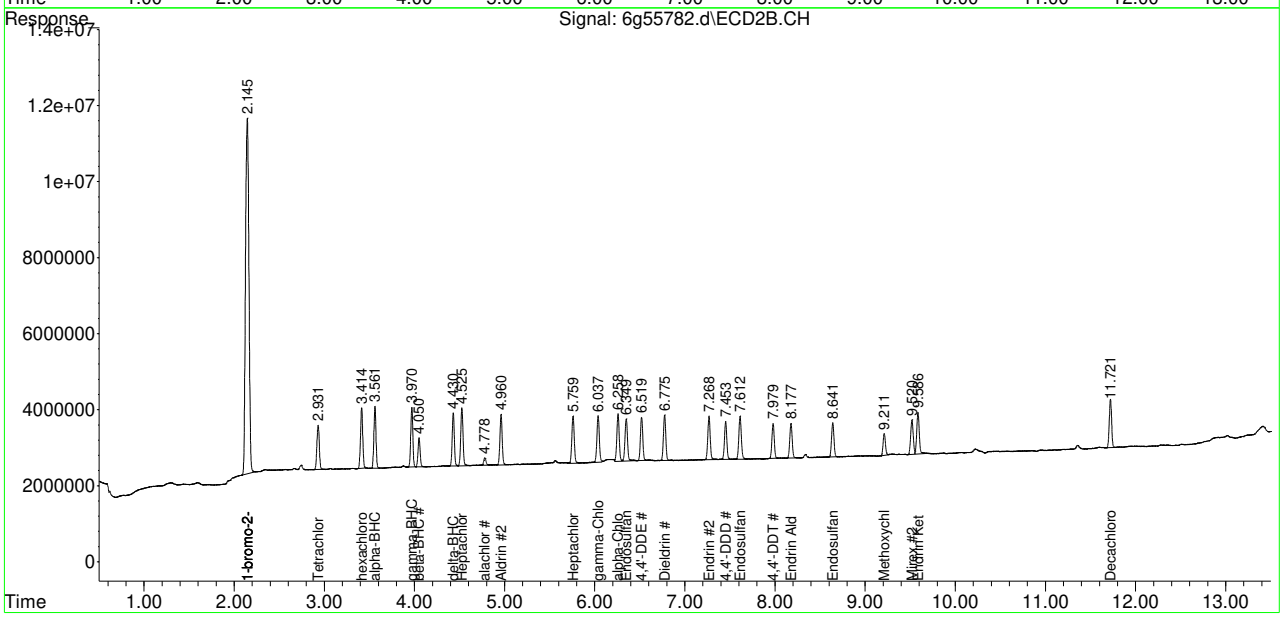
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55782.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:01:04
Operator : dharas
Sample : ic1671-5
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:18:53 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-IC1671	**Method:**	EPA 608
Lab FileID:	6G55782.D	**Analyst approved:**	04/30/18 17:28 Rebecca Krug
Injection Time:	04/30/18 12:01	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

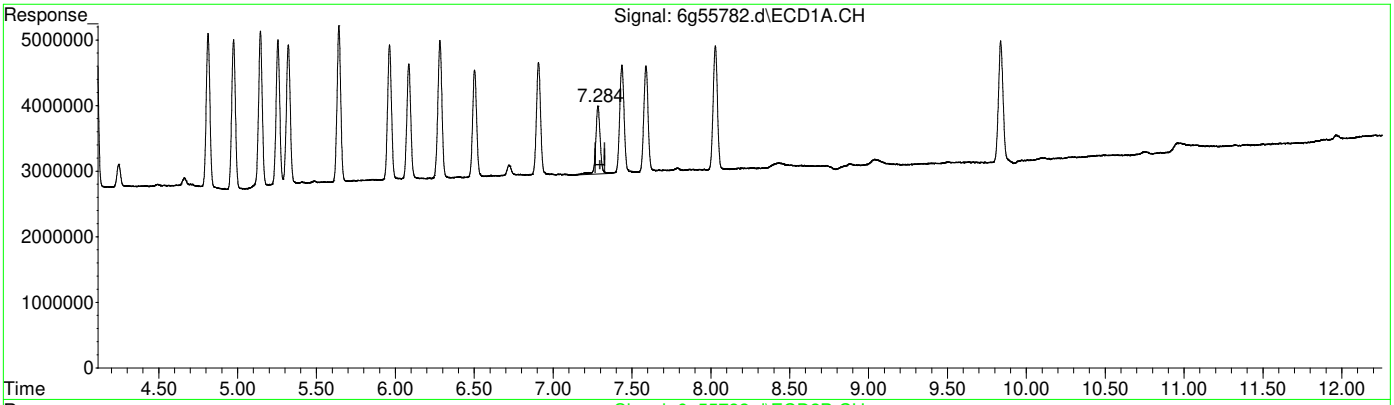
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.21	Poorly defined baseline

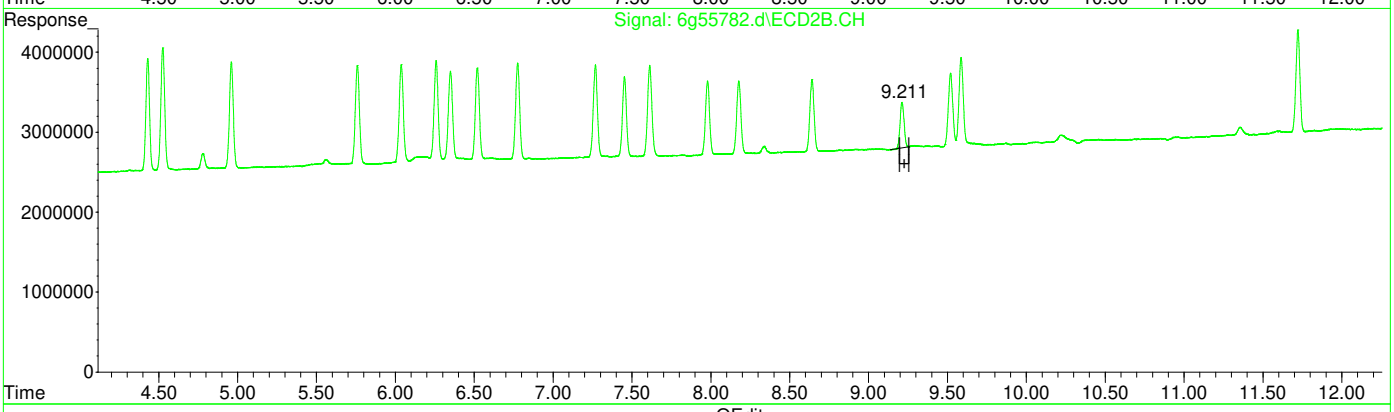
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55782.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:01:04
Operator : dharas
Sample : ic1671-5
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:18:18 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(23) Methoxychlor (A)

7.284min 5.781 PPB

response 20208435

(23) Methoxychlor #2 (A)

9.212min 5.091 PPB

response 10022539

(+) = Expected Retention Time

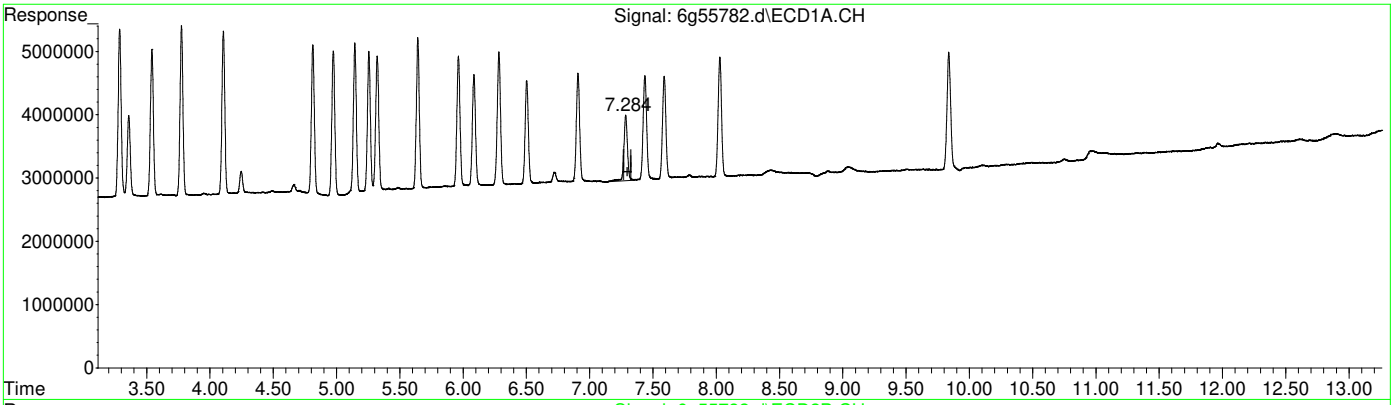
6PST1671.M Mon Apr 30 17:18:49 2018

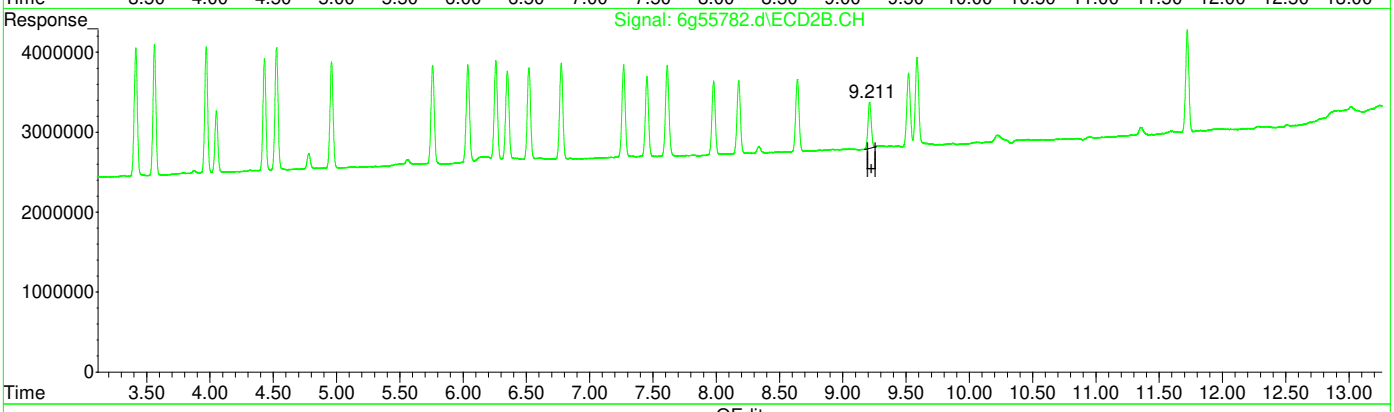
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55782.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 12:01:04
Operator  : dharas
Sample    : ic1671-5
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 5 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:18:18 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(23) Methoxychlor (A)

7.284min 5.781 PPB

response 20208435

(23) Methoxychlor #2 (A)

9.211min 5.283 PPB m

response 10399649

(+) = Expected Retention Time

6PST1671.M Mon Apr 30 17:18:56 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55783.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:18:49
Operator : dharas
Sample : ic1671-10
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:35:55 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.940	2.146	404.5E6	249.9E6	50.000	50.000
27) I	1-bromo-2...	1.940	2.146	404.5E6	249.9E6	50.000	50.000
33) I	1-bromo-2...	1.940	2.146	404.5E6	249.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.529	2.932	73901804	44215088	9.232	9.125
Spiked Amount		40.000 Range	30 - 150	Recovery	=	23.08%#	22.81%#
26) SA	Decachlor...	9.838	11.722	75160701	45369722	9.862	10.762
Spiked Amount		40.000		Recovery	=	24.65%	26.91%
	Target Compounds						
3)	hexachlor...	2.856	3.414	83583448	56450905	8.697	9.170
4) A	alpha-BHC	2.995	3.562	97743211	56386816	8.888	9.048
5) MA	gamma-BHC	3.286	3.971	91967233	53241053	9.077	9.038
6) MA	Heptachlor	3.775	4.526	88871146	54807268	9.385	9.287
7) B	beta-BHC	3.358	4.051	42930797	25495592	9.534	9.523
8) B	delta-BHC	3.541	4.431	81098685	48187824	9.336	9.368
9) MB	Aldrin	4.106	4.961	85738730	47824862	9.178	9.155
10)	alachlor	4.246	4.781	11358176	6912789	9.483	9.631
11) B	Heptachlo...	4.812	5.759	80177320	47082321	9.601	9.544
12) B	gamma-Chl...	4.974	6.037	78967366	46348408	9.627	9.590
13) B	alpha-Chl...	5.145	6.259	79424311	44755949	9.455	9.456
14) A	Endosulfan I	5.322	6.350	74776476	42208976	9.358	9.368
15) B	4,4'-DDE	5.256	6.521	74569596	43119328	9.021	9.210
16) MA	Dieldrin	5.643	6.776	80375482	45183086	9.019	9.277
17) MA	Endrin	5.963	7.268	72713977	44101387	9.455	9.674
18) A	4,4'-DDD	6.085	7.453	62571806	36612176	9.025	9.300
19) B	Endosulfa...	6.283	7.613	75504798	43757412	9.724	9.784
20) MA	4,4'-DDT	6.502	7.980	60076136	35387734	9.912	9.902
21) B	Endrin Al...	6.907	8.178	62320964	34812334	9.687	9.789
22) B	Endosulfa...	7.589	8.642	61328622	34742417	9.866	9.940
23) A	Methoxychlor	7.284	9.214	37029064	21442540	10.261	10.712
24)	Mirex	7.436	9.520	64055523	36503944	10.190	10.097
25) B	Endrin Ke...	8.027	9.587	73780467	42480086	9.786	9.015
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

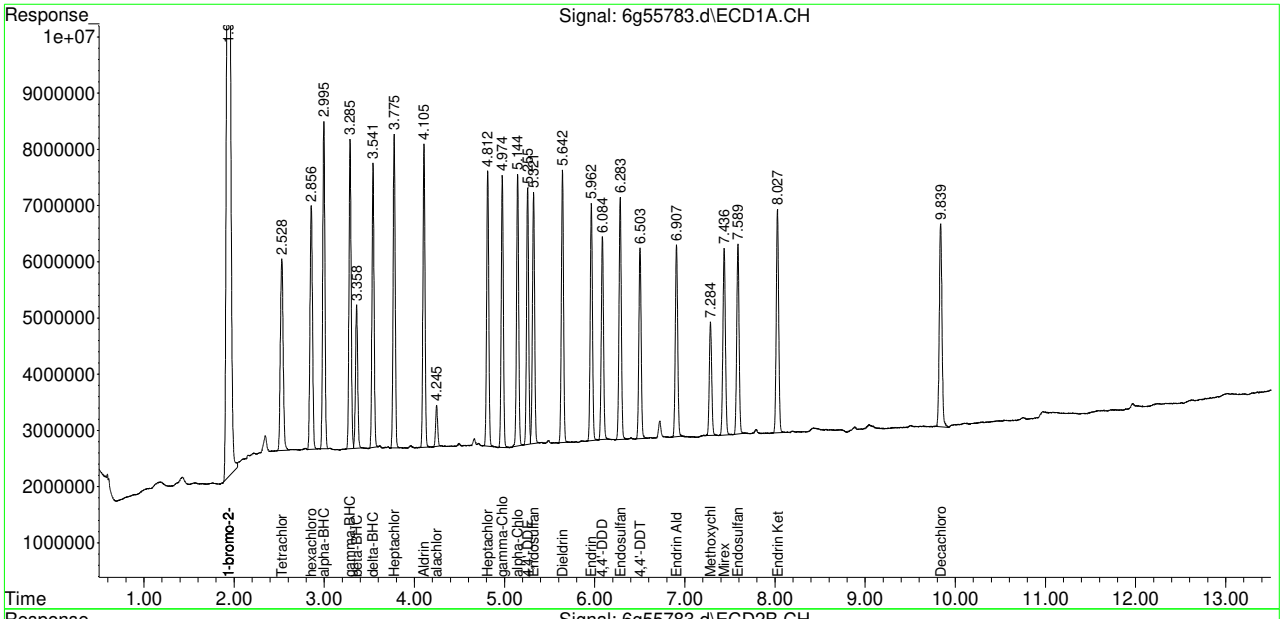
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

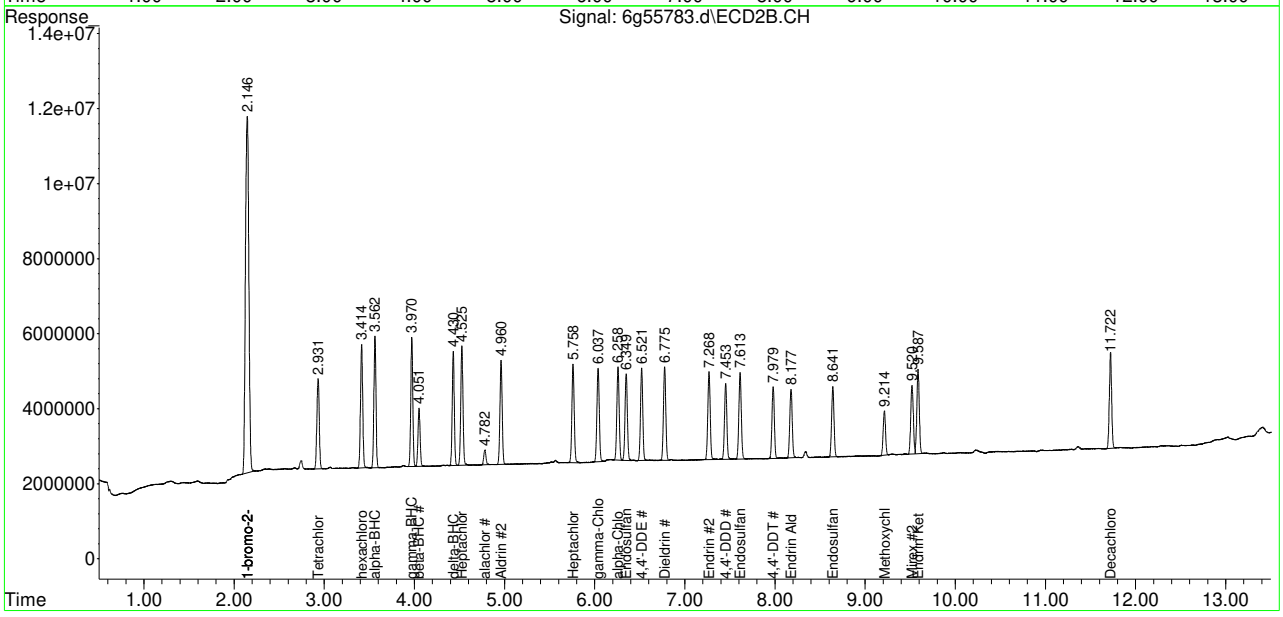
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55783.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:18:49
Operator : dharas
Sample : ic1671-10
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:35:55 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55784.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:36:33
Operator : dharas
Sample : icc1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:52:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
27) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
33) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530	2.932	189.1E6	114.8E6	23.658	23.388
	Spiked Amount 40.000 Range 30 - 150 Recovery = 59.15% 58.47%						
26)	SA Decachlor...	9.838	11.722	184.6E6	109.7E6	24.257	25.672
	Spiked Amount 40.000 Recovery = 60.64% 64.18%						
	Target Compounds						
3)	hexachlor...	2.857	3.415	210.3E6	141.6E6	21.917	22.707
4) A	alpha-BHC	2.996	3.563	270.6E6	157.3E6	22.926	22.462
5) MA	gamma-BHC	3.287	3.971	249.6E6	145.6E6	23.359	22.563
6) MA	Heptachlor	3.776	4.526	236.7E6	146.0E6	25.037	24.415
7) B	beta-BHC	3.359	4.051	109.6E6	65204342	24.369	24.037
8) B	delta-BHC	3.542	4.431	226.7E6	133.1E6	23.687	22.873
9) MB	Aldrin	4.107	4.962	232.3E6	129.4E6	24.904	22.686
10)	alachlor	4.246	4.780	28340673	17039946	23.696	23.431
11) B	Heptachlo...	4.813	5.760	214.1E6	124.0E6	25.673	24.804
12) B	gamma-Chl...	4.975	6.037	212.2E6	123.6E6	25.903	25.235
13) B	alpha-Chl...	5.145	6.257	210.1E6	122.8E6	25.048	25.615
14) A	Endosulfan I	5.322	6.349	197.6E6	111.7E6	24.765	24.460
15) B	4,4'-DDE	5.256	6.521	203.7E6	116.9E6	24.678	22.598
16) MA	Dieldrin	5.642	6.775	217.8E6	121.4E6	23.209	22.770
17) MA	Endrin	5.964	7.268	194.6E6	115.1E6	25.344	24.911
18) A	4,4'-DDD	6.085	7.452	168.7E6	96890160	24.374	24.290
19) B	Endosulfa...	6.283	7.612	194.5E6	112.1E6	25.092	24.729
20) MA	4,4'-DDT	6.503	7.980	162.0E6	96232017	24.375	23.954
21) B	Endrin Al...	6.907	8.177	160.7E6	89850605	25.017	24.937
22) B	Endosulfa...	7.588	8.641	159.9E6	90465081	25.757	25.546
23) A	Methoxychlor	7.285	9.213	94604672	55394201	26.255	27.313
24)	Mirex	7.436	9.520	156.3E6	89970523	24.892	24.562
25) B	Endrin Ke...	8.028	9.587	193.0E6	111.2E6	25.635	23.298
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

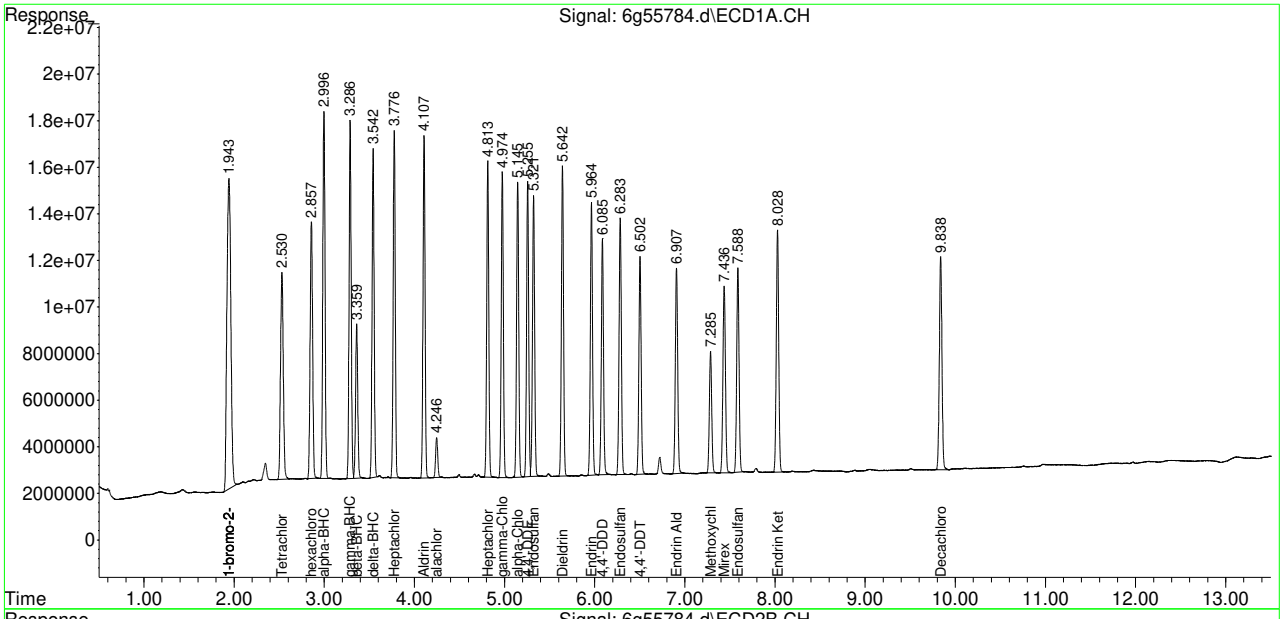
11.6.24 11

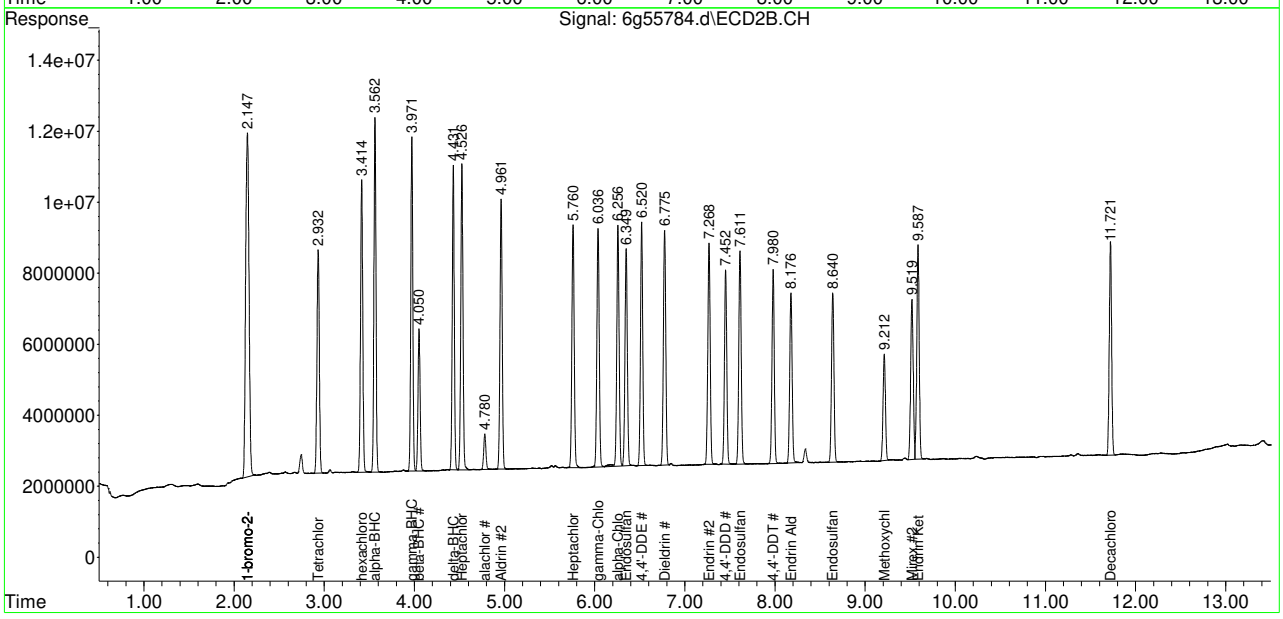
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55784.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:36:33
Operator : dharas
Sample : icc1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:52:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55785.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:54:20
Operator : dharas
Sample : ic1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 13:12:04 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.941	2.146	402.8E6	253.8E6	50.000	50.000
27)	I 1-bromo-2...	1.941	2.146	402.8E6	253.8E6	50.000	50.000
33)	I 1-bromo-2...	1.941	2.146	402.8E6	253.8E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530	2.931	391.8E6	239.9E6	49.148	48.749
	Spiked Amount 40.000 Range 30 - 150 Recovery = 122.87% 121.87%						
26)	SA Decachlor...	9.840	11.721	371.4E6	222.1E6	48.928	51.861
	Spiked Amount 40.000 Recovery = 122.32% 129.65%						
	Target Compounds						
3)	hexachlor...	2.856	3.414	434.6E6	290.9E6	45.401	46.527
4)	A alpha-BHC	2.996	3.562	587.6E6	345.1E6	48.765	47.500
5)	MA gamma-BHC	3.287	3.970	533.9E6	315.2E6	49.227	47.485
6)	MA Heptachlor	3.776	4.527	503.3E6	310.9E6	53.366	51.869
7)	B beta-BHC	3.359	4.051	225.1E6	133.9E6	50.183	49.230
8)	B delta-BHC	3.541	4.431	494.7E6	294.3E6	50.196	48.598
9)	MB Aldrin	4.107	4.961	498.8E6	279.4E6	53.611	47.644
10)	alachlor	4.247	4.781	57187264	34245986	47.938	46.978
11)	B Heptachlo...	4.813	5.760	452.8E6	262.5E6	54.440	52.385
12)	B gamma-Chl...	4.975	6.038	455.0E6	262.9E6	55.687	53.553
13)	B alpha-Chl...	5.145	6.259	444.4E6	256.8E6	53.120	53.422
14)	A Endosulfan I	5.322	6.349	418.7E6	236.5E6	52.609	51.678
15)	B 4,4'-DDE	5.256	6.521	441.6E6	253.1E6	53.639	47.405
16)	MA Dieldrin	5.643	6.776	469.2E6	262.4E6	49.262	47.805
17)	MA Endrin	5.964	7.269	416.3E6	247.8E6	54.354	53.518
18)	A 4,4'-DDD	6.087	7.453	362.6E6	208.2E6	52.511	52.062
19)	B Endosulfa...	6.283	7.612	407.7E6	234.9E6	52.717	51.725
20)	MA 4,4'-DDT	6.504	7.980	350.7E6	208.2E6	51.254	49.897
21)	B Endrin Al...	6.908	8.178	336.7E6	186.3E6	52.552	51.588
22)	B Endosulfa...	7.590	8.642	335.6E6	189.5E6	54.205	53.382
23)	A Methoxychlor	7.286	9.214	193.5E6	114.0E6	53.826	56.087
24)	Mirex	7.438	9.520	316.3E6	180.6E6	50.526	49.181
25)	B Endrin Ke...	8.029	9.588	405.4E6	232.3E6	53.994	48.542
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

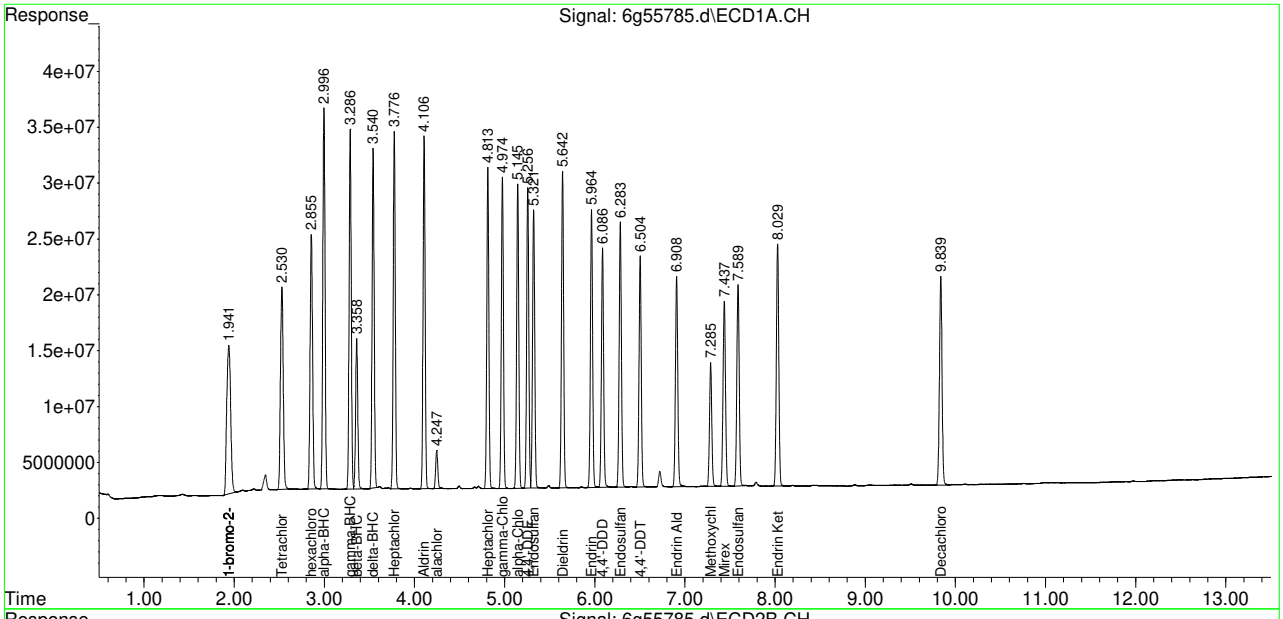
11.6.25 11

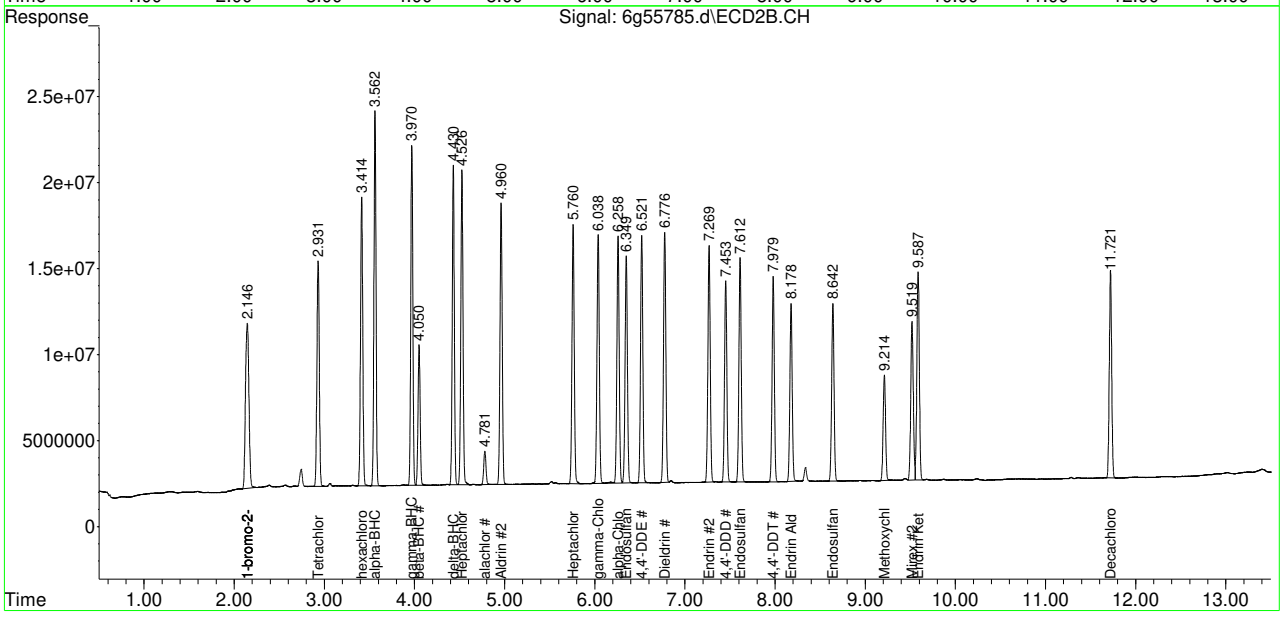
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55785.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:54:20
Operator : dharas
Sample : ic1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 13:12:04 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55786.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:12:12
Operator : dharas
Sample : ic1671-75
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 15:16:15 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.940	2.147	402.4E6	252.3E6	50.000	50.000
27) I	1-bromo-2...	1.940	2.147	402.4E6	252.3E6	50.000	50.000
33) I	1-bromo-2...	1.940	2.147	402.4E6	252.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.530	2.932	592.5E6	366.2E6	74.391	74.839
Spiked Amount		40.000 Range	30 - 150	Recovery	=	185.98%#	187.10%#
26) SA	Decachlor...	9.838	11.721	560.5E6	335.1E6	73.925	78.714
Spiked Amount		40.000		Recovery	=	184.81%	196.79%
	Target Compounds						
3)	hexachlor...	2.856	3.414	660.9E6	440.8E6	69.121	70.903
4) A	alpha-BHC	2.996	3.562	915.2E6	541.2E6	75.486	74.117
5) MA	gamma-BHC	3.287	3.971	829.6E6	491.4E6	76.153	73.841
6) MA	Heptachlor	3.776	4.526	770.2E6	479.7E6	81.759	80.487
7) B	beta-BHC	3.359	4.051	342.7E6	203.1E6	76.501	75.126
8) B	delta-BHC	3.542	4.431	771.7E6	463.5E6	77.628	76.076
9) MB	Aldrin	4.107	4.961	769.0E6	434.3E6	82.738	73.878
10)	alachlor	4.247	4.781	84755002	50870076	71.125	70.179
11) B	Heptachlo...	4.814	5.760	696.9E6	403.1E6	83.881	80.918
12) B	gamma-Chl...	4.975	6.037	708.7E6	406.4E6	86.840	83.258
13) B	alpha-Chl...	5.145	6.258	687.6E6	390.7E6	82.275	81.734
14) A	Endosulfan I	5.322	6.349	644.6E6	361.6E6	81.083	79.461
15) B	4,4'-DDE	5.256	6.520	688.1E6	395.0E6	83.668	73.707
16) MA	Dieldrin	5.643	6.777	728.1E6	408.2E6	76.107	74.152
17) MA	Endrin	5.964	7.268	644.5E6	386.0E6	84.236	83.833
18) A	4,4'-DDD	6.086	7.453	563.8E6	324.8E6	81.731	81.705
19) B	Endosulfa...	6.284	7.612	627.2E6	360.1E6	81.195	79.731
20) MA	4,4'-DDT	6.502	7.980	551.7E6	326.6E6	79.922	77.811
21) B	Endrin Al...	6.908	8.178	516.4E6	285.9E6	80.669	79.599
22) B	Endosulfa...	7.589	8.642	517.8E6	292.8E6	83.719	82.961
23) A	Methoxychlor	7.285	9.212	294.2E6	174.1E6	81.939	86.110
24)	Mirex	7.437	9.521	481.6E6	274.2E6	77.010	75.113
25) B	Endrin Ke...	8.029	9.587	621.3E6	360.6E6	82.828	75.787
	Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

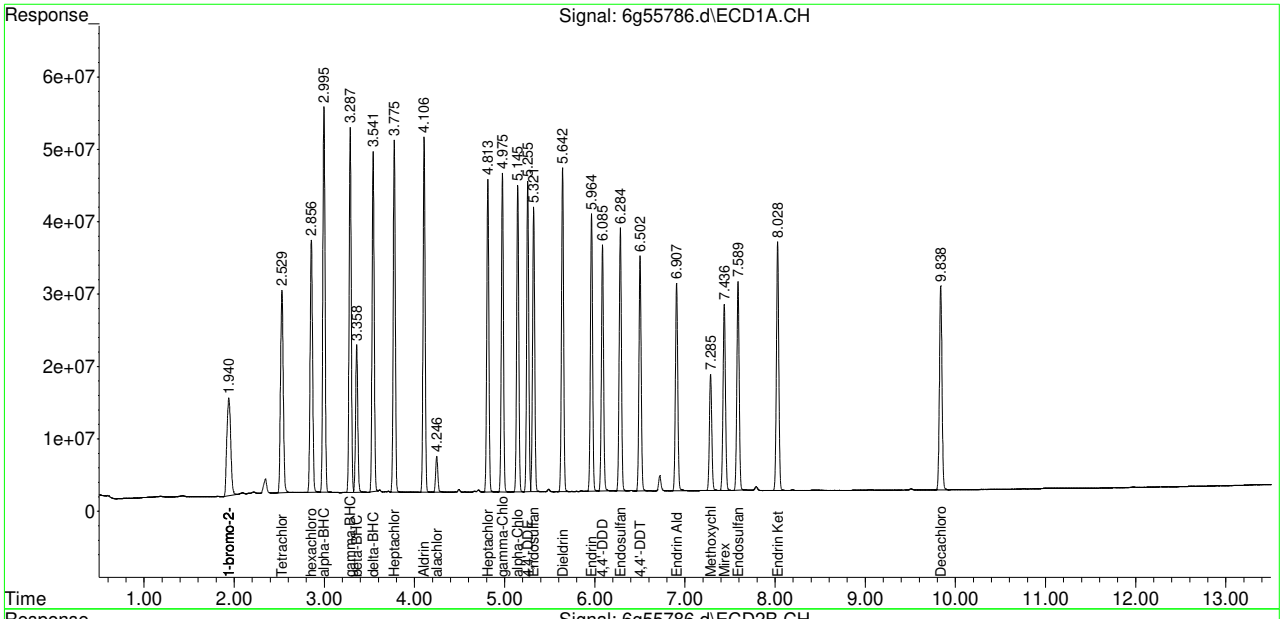
11.6.26 11

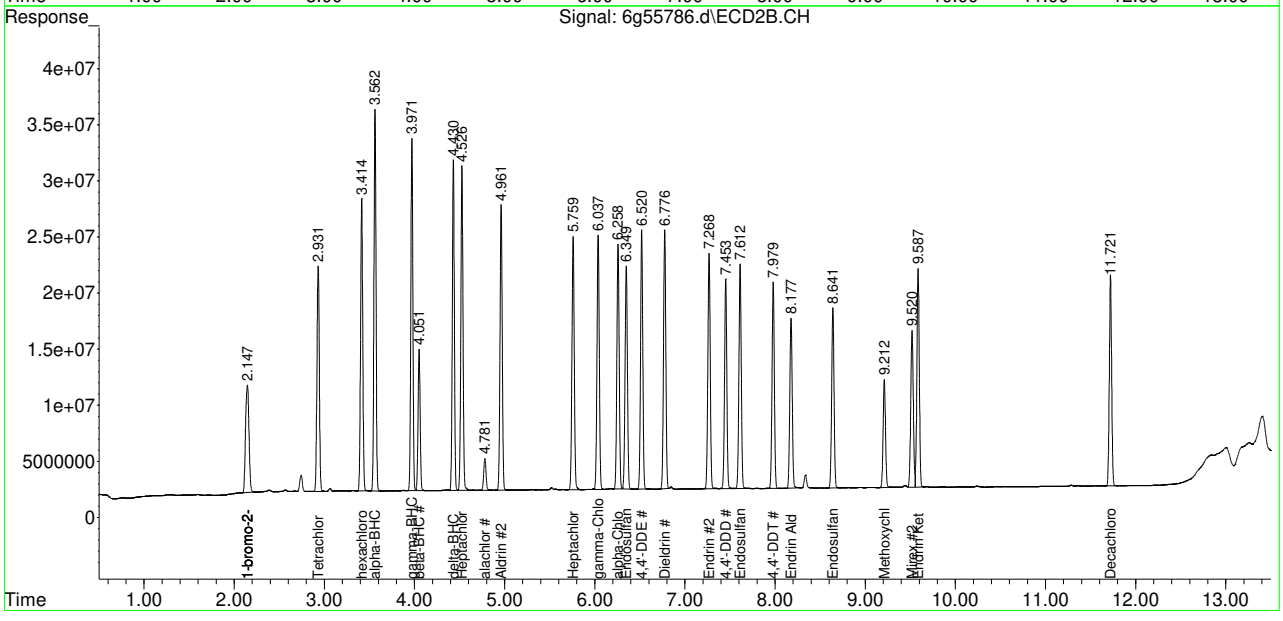
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55786.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:12:12
Operator : dharas
Sample : ic1671-75
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 15:16:15 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:29:59
Operator : dharas
Sample : ic1671-100
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 15:17:03 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.944	2.148	417.0E6	251.5E6	50.000	50.000
27) I	1-bromo-2...	1.944	2.148	417.0E6	251.5E6	50.000	50.000
33) I	1-bromo-2...	1.944	2.148	417.0E6	251.5E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.531	2.932	840.0E6	505.2E6	101.779	103.596
Spiked Amount		40.000 Range	30 - 150	Recovery	=	254.45%#	258.99%#
26) SA	Decachlor...	9.838	11.721	743.8E6	449.1E6	94.654	105.868
Spiked Amount		40.000		Recovery	=	236.63%	264.67%
	Target Compounds						
3)	hexachlor...	2.857	3.415	904.5E6	599.5E6	91.284	96.768
4) A	alpha-BHC	2.997	3.563	1270.8E6	749.4E6	100.818	102.449
5) MA	gamma-BHC	3.287	3.970	1141.2E6	680.0E6	100.835	102.121
6) MA	Heptachlor	3.776	4.526	1059.3E6	655.4E6	108.497	110.370
7) B	beta-BHC	3.359	4.051	467.5E6	276.4E6	100.694	102.576
8) B	delta-BHC	3.542	4.431	1078.7E6	643.2E6	104.231	105.336
9) MB	Aldrin	4.107	4.961	1055.1E6	598.7E6	109.536	101.807
10)	alachlor	4.247	4.781	111.8E6	66988013	90.544	92.743
11) B	Heptachlo...	4.813	5.760	954.9E6	552.4E6	110.900	111.262
12) B	gamma-Chl...	4.975	6.037	979.2E6	559.4E6	115.774	115.025
13) B	alpha-Chl...	5.145	6.258	947.3E6	536.2E6	109.370	112.575
14) A	Endosulfan I	5.322	6.349	882.2E6	499.7E6	107.072	110.216
15) B	4,4'-DDE	5.256	6.520	950.7E6	545.5E6	111.548	101.681
16) MA	Dieldrin	5.642	6.776	990.4E6	565.3E6	99.668	102.626
17) MA	Endrin	5.963	7.268	874.7E6	528.2E6	110.318	115.143
18) A	4,4'-DDD	6.086	7.453	767.0E6	447.3E6	107.297	112.896
19) B	Endosulfa...	6.284	7.612	848.5E6	492.0E6	105.985	109.316
20) MA	4,4'-DDT	6.502	7.980	753.3E6	452.9E6	104.858	107.686
21) B	Endrin Al...	6.907	8.177	694.6E6	389.2E6	104.710	108.743
22) B	Endosulfa...	7.588	8.641	701.2E6	400.2E6	109.403	113.776
23) A	Methoxychlor	7.285	9.212	394.1E6	234.8E6	105.937	116.540
24)	Mirex	7.436	9.520	644.4E6	369.5E6	99.428	101.555
25) B	Endrin Ke...	8.028	9.586	838.0E6	490.4E6	107.799	103.418
	Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

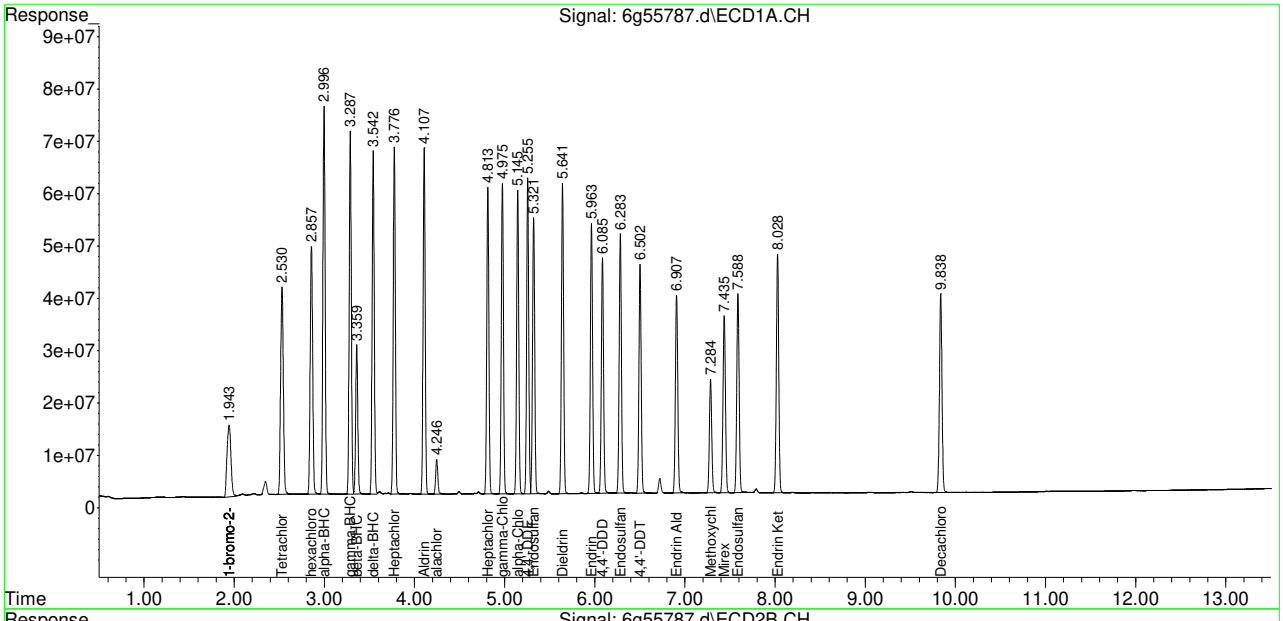
11.6.27 11

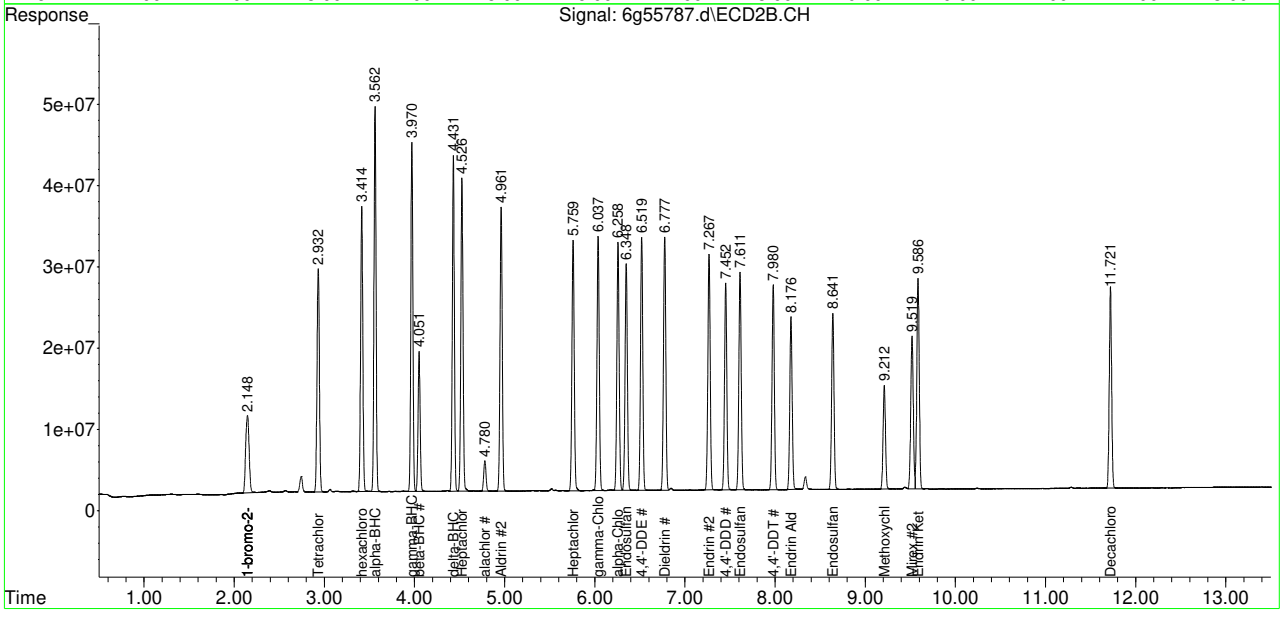
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:29:59
Operator : dharas
Sample : ic1671-100
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 15:17:03 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations
APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
27) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
33) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.531f	2.933	389.1E6	228.0E6	47.992	46.540
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 119.98%	116.35%
26)	SA Decachlor...	9.838	11.722f	351.2E6	206.2E6	45.509	48.373
	Spiked Amount	40.000			Recovery	= 113.77%	120.93%
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
34)	Chlordane...	3.776	4.526	220.7E6	136.8E6	497.720	487.961
35)	Chlordane...	4.250	5.150	183.3E6	100.4E6	481.316	486.126
36)	Chlordane...	4.975	6.037	592.7E6	319.3E6	506.778	487.790
37)	Chlordane...	5.139	6.258	932.0E6	520.1E6	496.185	488.099m
38)	Chlordane...	6.024	7.396	105.2E6	54285316	450.659	528.699
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

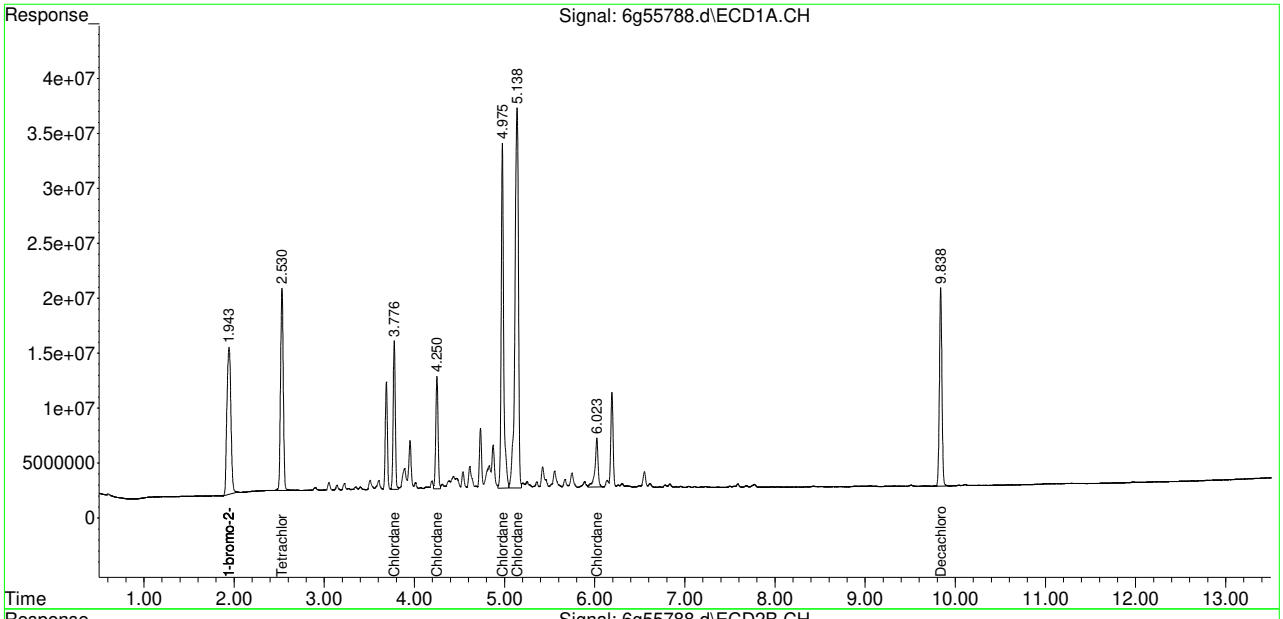
11.6.28
11

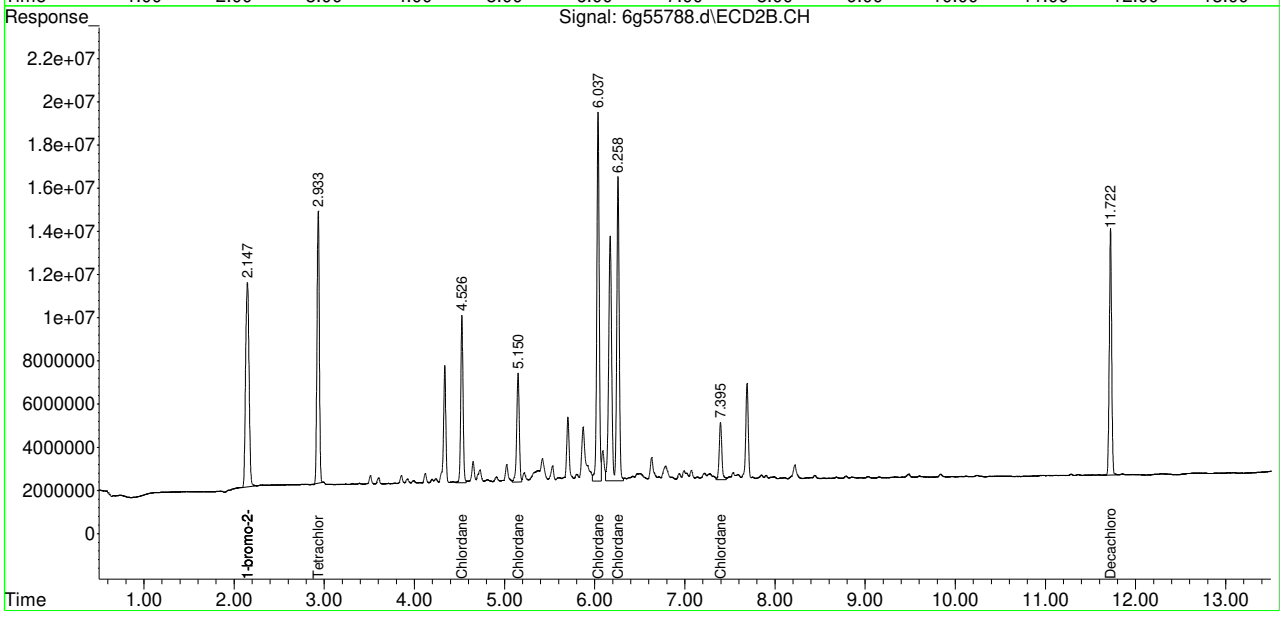
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-IC1671	**Method:**	EPA 608
Lab FileID:	6G55788.D	**Analyst approved:**	04/30/18 17:28 Rebecca Krug
Injection Time:	04/30/18 13:47	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

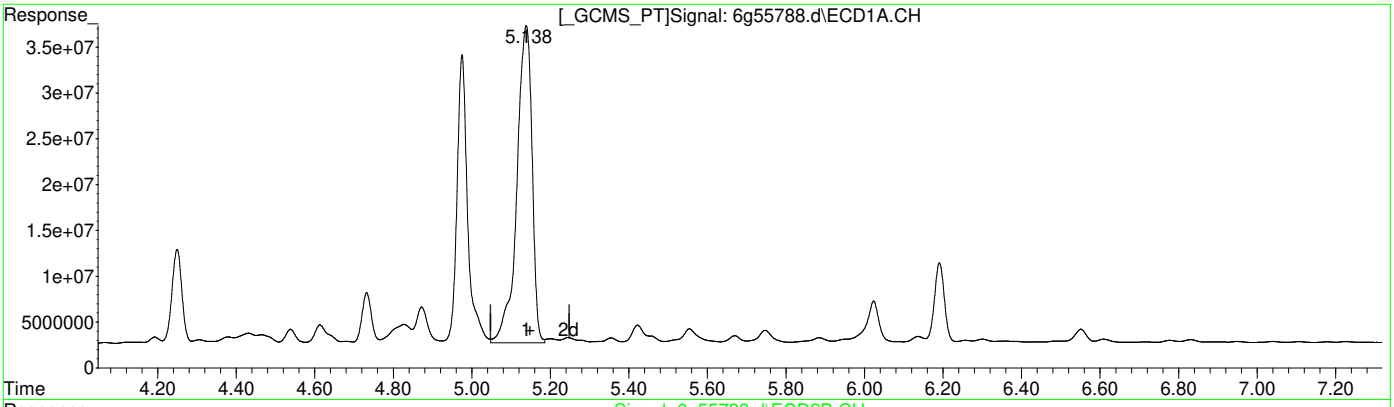
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.26	Split peak

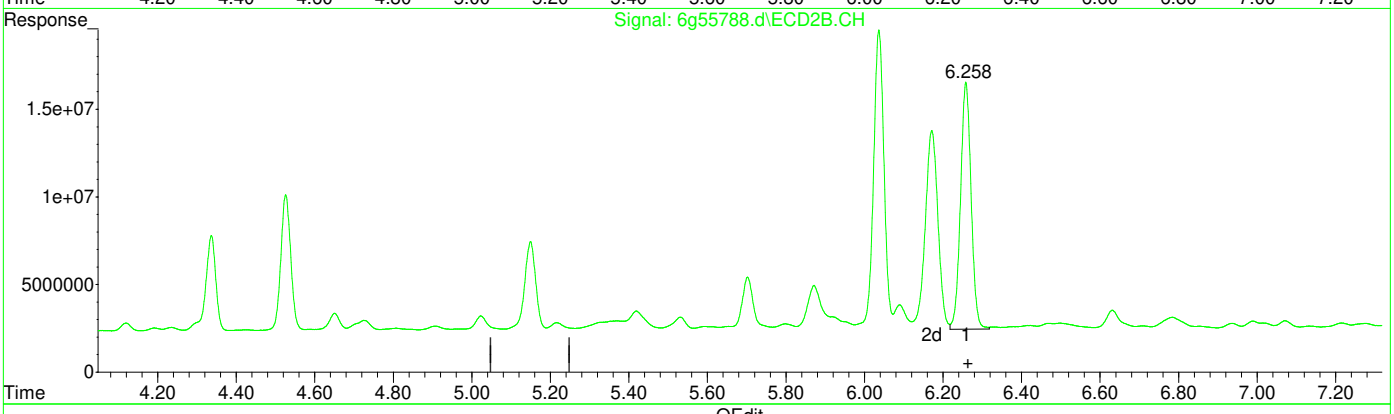
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator  : dharas
Sample    : ic1671-500
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 11 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:19 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





(37) Chlordane {D}

5.139min 496.185 PPB

response 931959641

(37) Chlordane {D} #2

6.258min 247.455 PPB

response 263691638

(+) = Expected Retention Time

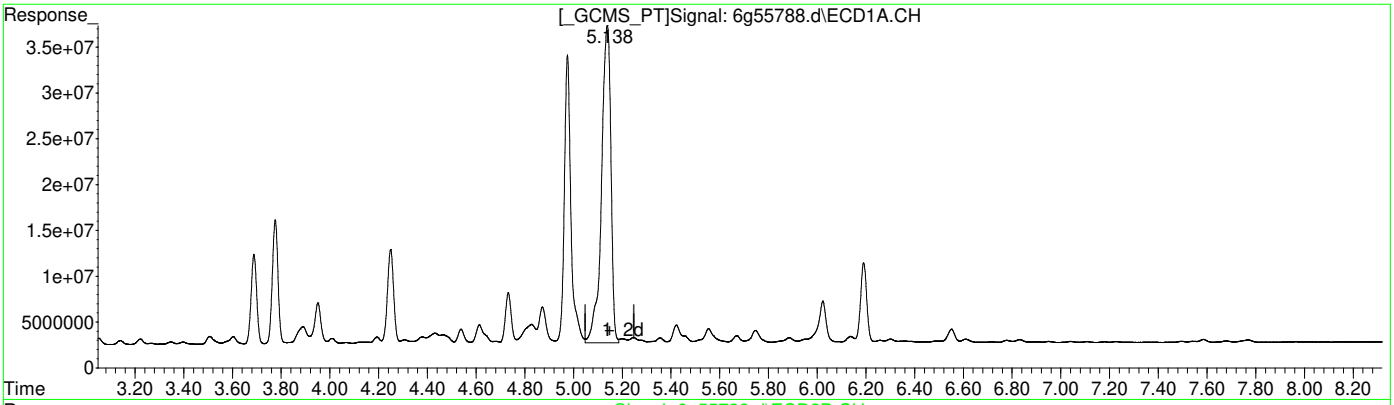
6PST1671.M Mon Apr 30 17:25:39 2018

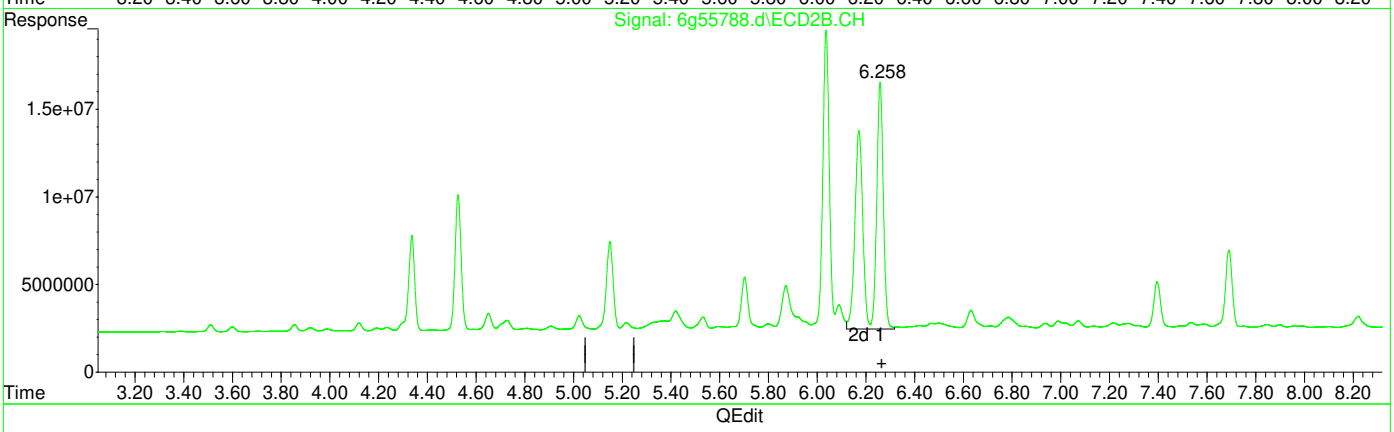
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator  : dharas
Sample    : ic1671-500
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 11 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:19 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





(37) Chlordane {D}

5.139min 496.185 PPB

response 931959641

(37) Chlordane {D} #2

6.258min 488.099 PPB m

response 520124161

(+) = Expected Retention Time

6PST1671.M Mon Apr 30 17:25:51 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55789.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:05:32
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:26:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
27) I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
33) I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.528f	2.931	385.1E6	233.3E6	48.334	48.108
Spiked Amount 40.000 Range 30 - 150 Recovery = 120.84% 120.27%						
26) SA Decachlor...	9.837	11.722f	358.9E6	213.2E6	47.319	50.528
Spiked Amount 40.000 Recovery = 118.30% 126.32%						
Target Compounds						
28) L8 Toxaphene{A}	5.652	6.741	63726000	48141894	470.271	486.445
29) L8 Toxaphene{B}	6.272	7.583	164.9E6	62990732	478.558	515.469
30) L8 Toxaphene{C}	6.447	7.744	133.5E6	117.7E6	480.051	512.531
31) L8 Toxaphene{D}	6.787	8.178	104.7E6	65399372	492.281	529.767
32) L8 Toxaphene{E}	7.434	9.066	107.3E6	58569705	475.346	551.126
Sum Toxaphene			574.1E6	352.8E6	2396.507	2595.337
Average Toxaphene					479.301	519.067

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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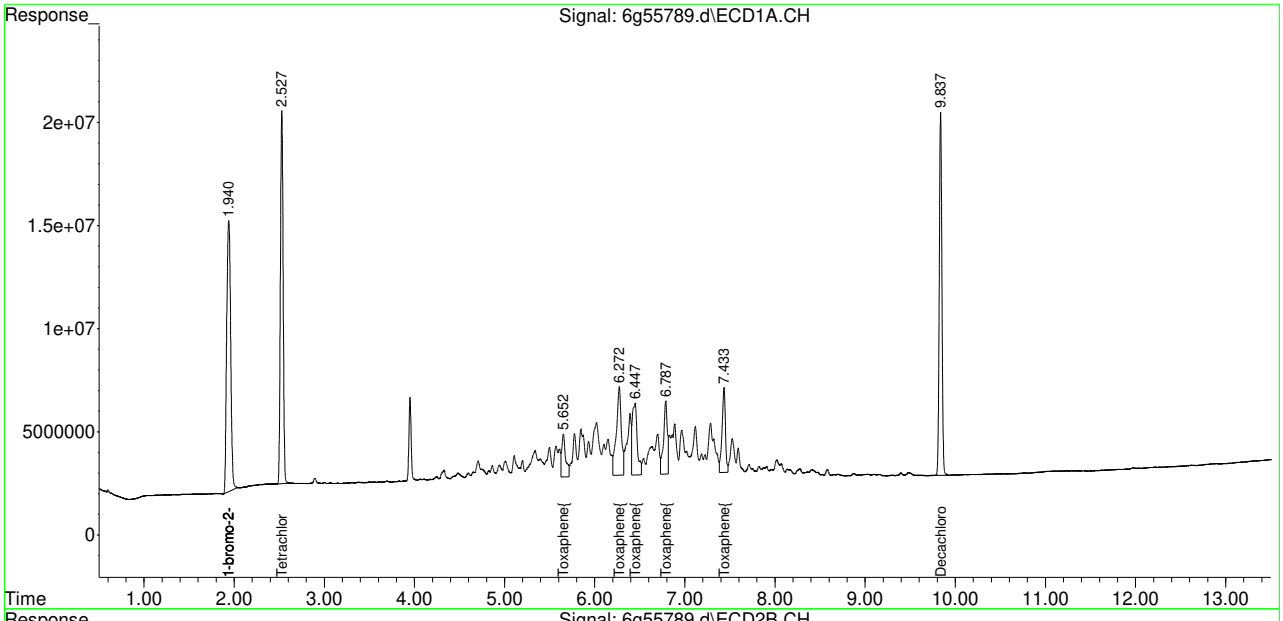
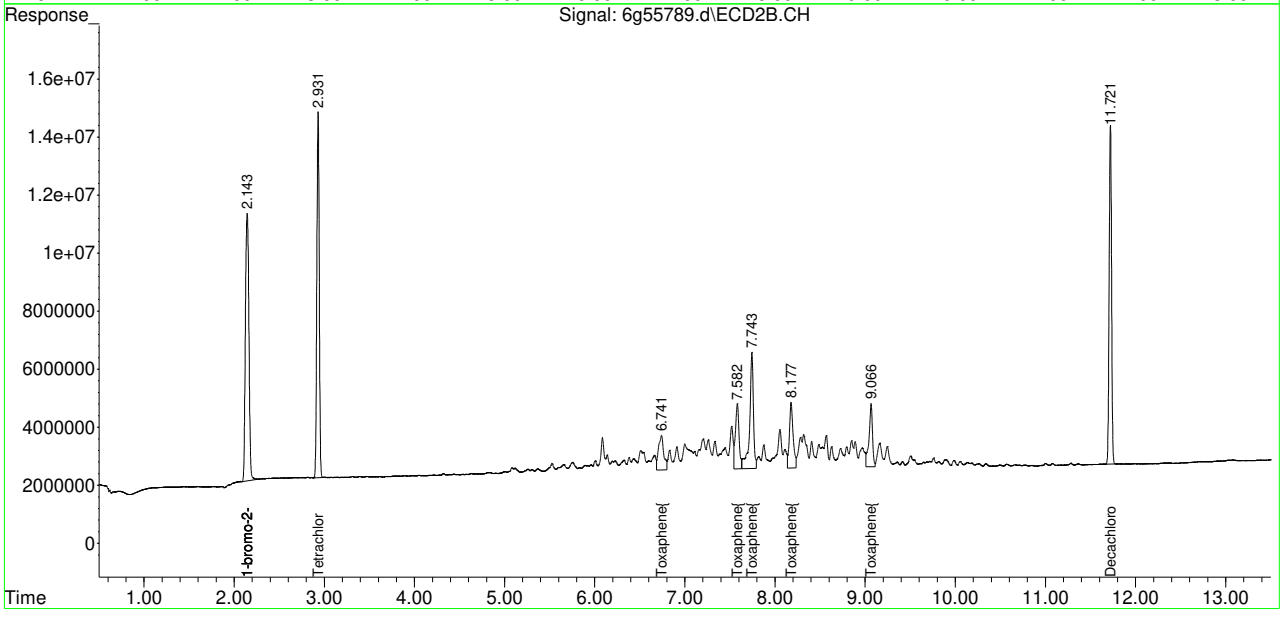
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55789.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:05:32
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:26:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55790.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:23:25
Operator : dharas
Sample : icv1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:35:31 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.944	2.148	411.1E6	251.8E6	50.000	50.000
27) I	1-bromo-2...	1.944	2.148	411.1E6	251.8E6	50.000	50.000
33) I	1-bromo-2...	1.944	2.148	411.1E6	251.8E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.531f	2.932	207.5E6	122.5E6	25.973	26.117
	Spiked Amount	40.000 Range	30 - 150	Recovery	=	64.93%	65.29%
26)	SA Decachlor...	9.838	11.721f	210.6E6	125.7E6	25.863	26.862
	Spiked Amount	40.000		Recovery	=	64.66%	67.16%
	Target Compounds						
4) A	alpha-BHC	2.997	3.562	322.9E6	183.7E6	29.343	29.437
5) MA	gamma-BHC	3.288	3.970	293.2E6	168.3E6	28.137	28.750
6) MA	Heptachlor	3.776	4.526	279.9E6	168.9E6	28.431	28.370
7) B	beta-BHC	3.359	4.051	129.1E6	74696741	27.709	27.787
8) B	delta-BHC	3.542	4.431	274.2E6	157.4E6	29.848	28.968
9) MB	Aldrin	4.107	4.962	272.6E6	148.5E6	28.503	28.338
11) B	Heptachlo...	4.813	5.760	253.5E6	143.9E6	28.660	28.405
12) B	gamma-Chl...	4.975	6.038	259.3E6	146.5E6	29.751	29.502
13) B	alpha-Chl...	5.145	6.258	252.7E6	141.2E6	28.321	29.223
14) A	Endosulfan I	5.321	6.348	242.4E6	134.3E6	29.149	29.076
15) B	4,4'-DDE	5.256	6.520	246.2E6	138.1E6	28.978	29.423
16) MA	Dieldrin	5.643	6.775	260.9E6	143.1E6	28.964	28.865
17) MA	Endrin	5.963	7.267	236.9E6	138.6E6	29.058	28.480
18) A	4,4'-DDD	6.086	7.452	205.3E6	116.2E6	29.174	28.741
19) B	Endosulfa...	6.283	7.613	227.5E6	128.6E6	26.309	26.115
20) MA	4,4'-DDT	6.503	7.979	191.2E6	111.7E6	28.341	28.613
21) B	Endrin Al...	6.908	8.178	192.6E6	106.1E6	28.129	28.381
22) B	Endosulfa...	7.589	8.641	197.7E6	110.2E6	29.161	29.415
23) A	Methoxychlor	7.285	9.212f	109.9E6	64907034	27.300	29.272
24)	Mirex	7.437	9.519f	182.1E6	103.7E6	26.588	27.613
25) B	Endrin Ke...	8.028	9.587f	227.6E6	129.5E6	28.221	26.092
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.30

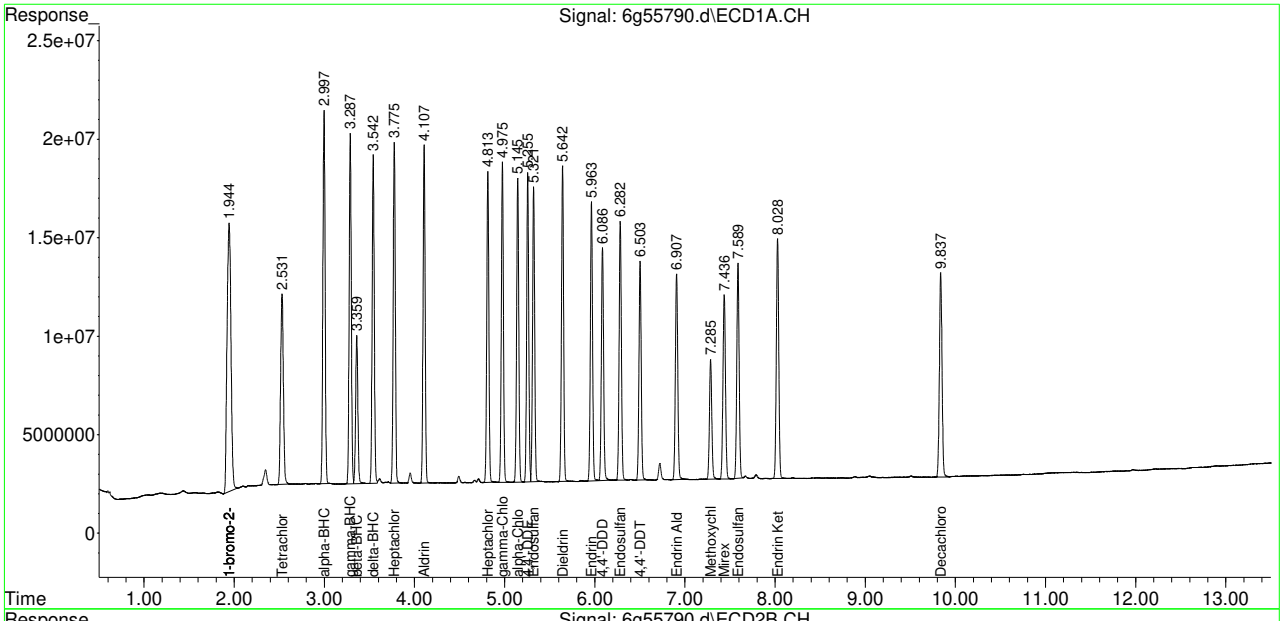
11

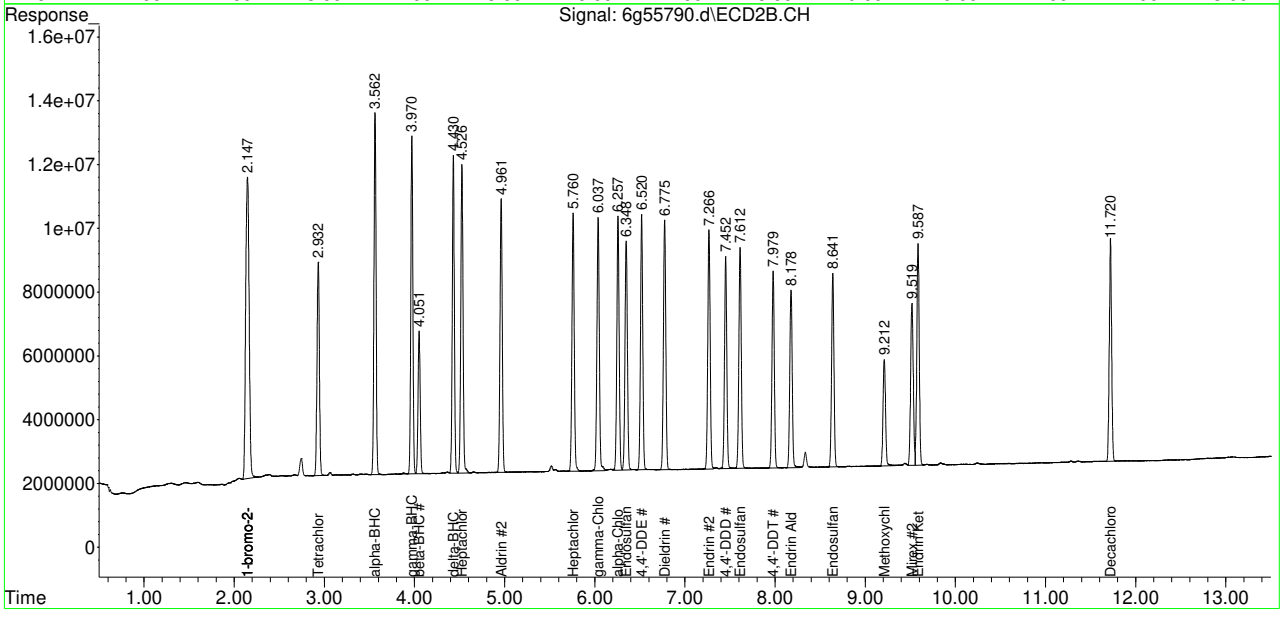
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55790.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:23:25
Operator : dharas
Sample : icv1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:35:31 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55791.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:41:11
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:36:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.942	2.146	407.7E6	250.4E6	50.000	50.000
27) I	1-bromo-2...	1.942	2.146	407.7E6	250.4E6	50.000	50.000
33) I	1-bromo-2...	1.942	2.146	407.7E6	250.4E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530f	2.931	411.0E6	218.2E6	51.869	46.771
	Spiked Amount 40.000 Range 30 - 150 Recovery = 129.67% 116.93%						
26)	SA Decachlor...	9.837	11.720f	363.7E6	218.5E6	45.037	46.960
	Spiked Amount 40.000 Recovery = 112.59% 117.40%						
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
34)	Chlordane...	3.775	4.526	257.4E6	159.1E6	585.844	586.613
35)	Chlordane...	4.249	5.149	160.5E6	89465464	439.833	449.292
36)	Chlordane...	4.974	6.036	589.8E6	319.4E6	499.827	504.498
37)	Chlordane...	5.137	6.257	938.1E6	520.9E6	505.638	505.179m
38)	Chlordane...	6.022	7.396	115.3E6	58460674	550.893	543.198

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

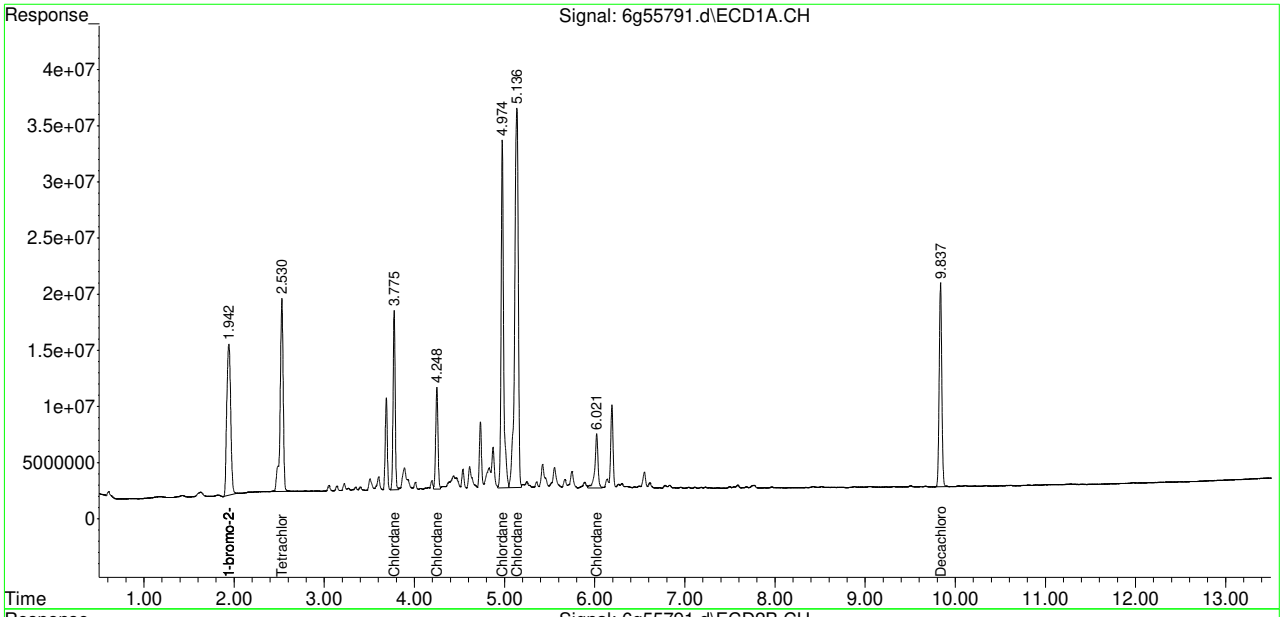
11.6.31 11

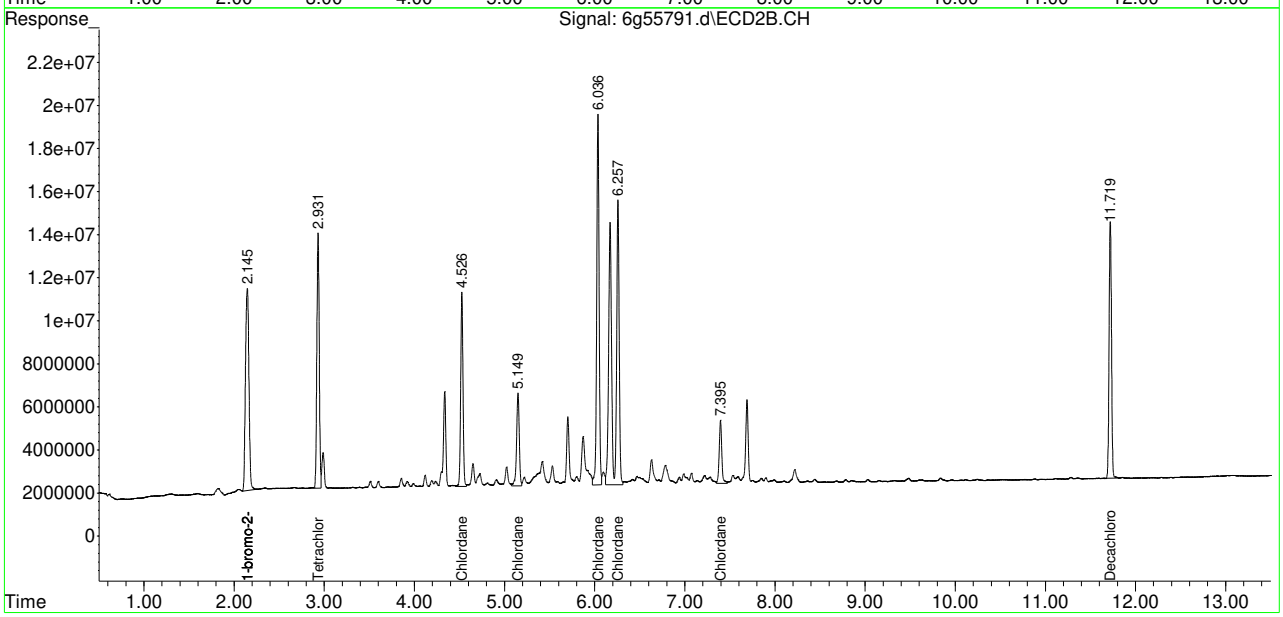
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55791.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:41:11
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:36:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-ICV1671	**Method:**	EPA 608
Lab FileID:	6G55791.D	**Analyst approved:**	04/30/18 17:41 Rebecca Krug
Injection Time:	04/30/18 14:41	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

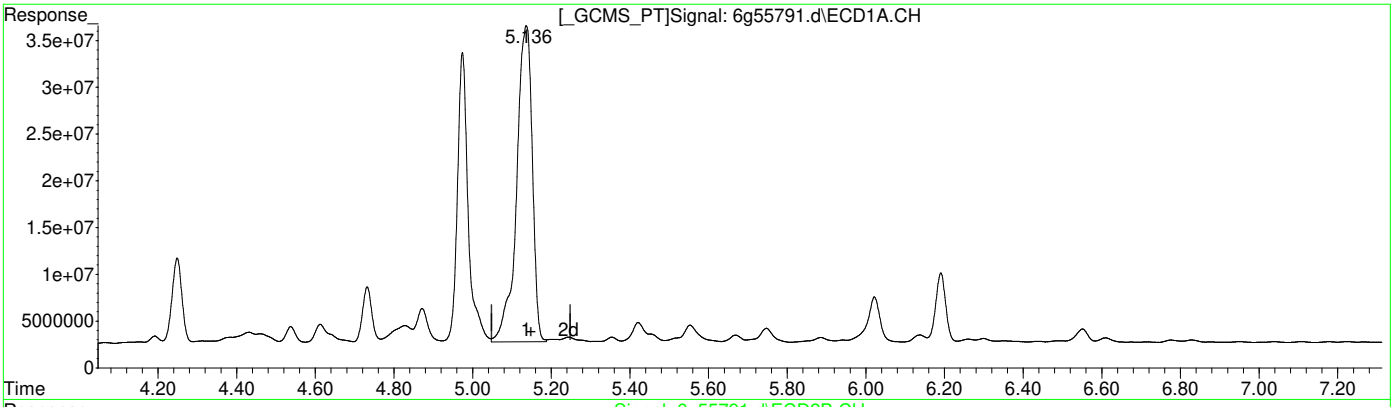
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.26	Split peak

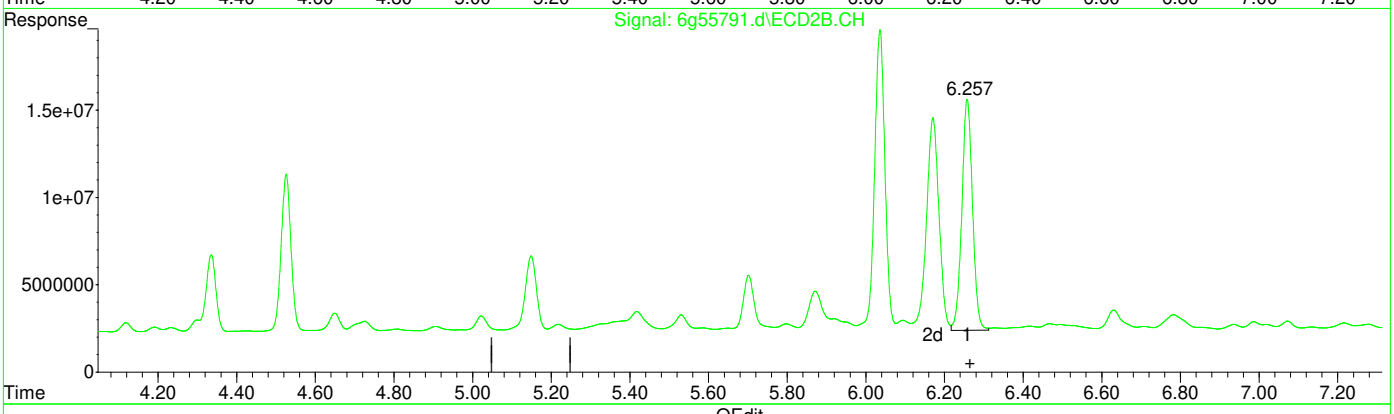
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55791.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 14:41:11
Operator  : dharas
Sample    : icv1671-500
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 14 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:36:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.      : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





QEdit

(37) Chlordane {D}

5.137min 505.638 PPB

response 938058658

(37) Chlordane {D} #2

6.258min 242.281 PPB

response 249833522

(+) = Expected Retention Time

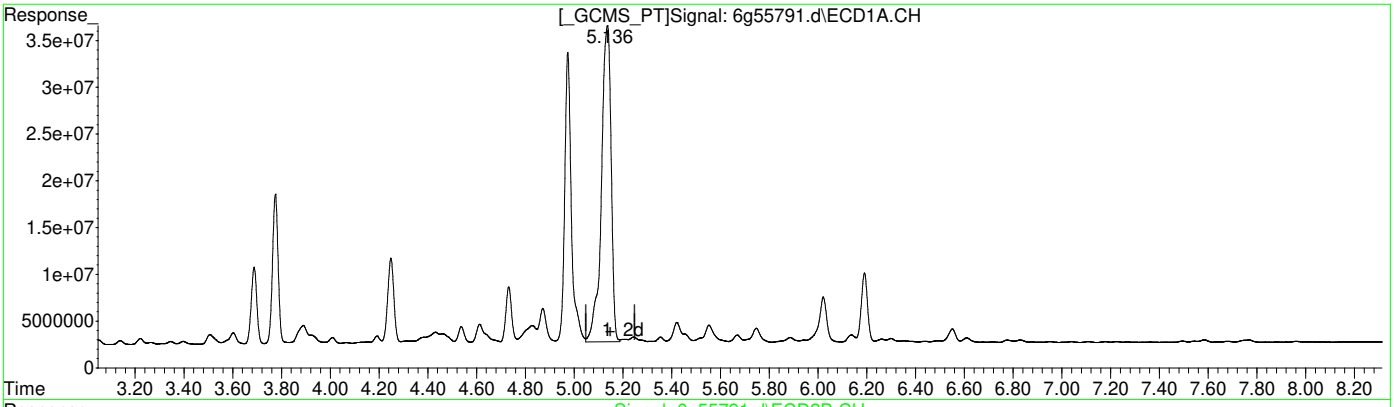
6PST1671.M Mon Apr 30 17:36:36 2018

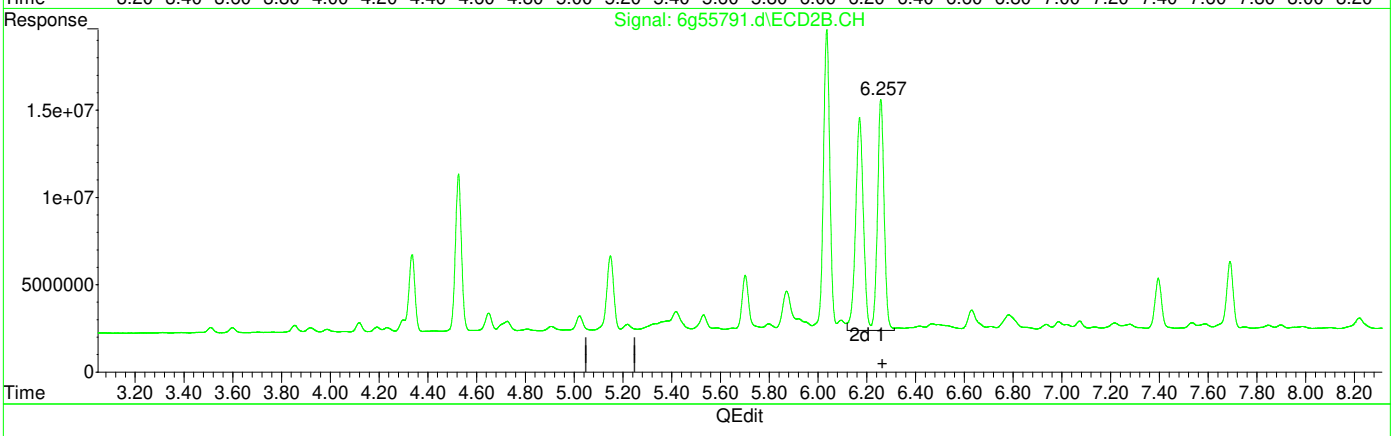
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55791.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:41:11
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:36:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





(37) Chlordane {D}

5.137min 505.638 PPB

response 938058658

(37) Chlordane {D} #2

6.257min 505.179 PPB m

response 520925906

(+) = Expected Retention Time

6PST1671.M Mon Apr 30 17:36:48 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55792.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:58:58 (#1); 30-Apr-18, 14:58:59 (#2)
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:37:19 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2...	1.941	2.147	408.9E6	251.5E6	50.000	50.000
27) I 1-bromo-2...	1.941	2.147	408.9E6	251.5E6	50.000	50.000
33) I 1-bromo-2...	1.941	2.147	408.9E6	251.5E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.530f	2.932	369.1E6	222.1E6	46.431	47.419
Spiked Amount	40.000 Range	30 - 150	Recovery	=	116.08%	118.55%
26) SA Decachlor...	9.838	11.721f	372.5E6	218.4E6	45.973	46.754
Spiked Amount	40.000		Recovery	=	114.93%	116.88%
Target Compounds						
28) L8 Toxaphene{A}	5.651	6.742	68187525	51807953	526.609	535.174
29) L8 Toxaphene{B}	6.273	7.584	178.6E6	64306737	532.864	507.694
30) L8 Toxaphene{C}	6.451	7.745	142.5E6	114.9E6	525.467	485.546
31) L8 Toxaphene{D}	6.788	8.180	107.9E6	67815668	507.287	515.678
32) L8 Toxaphene{E}	7.434	9.067	118.3E6	59104825	542.622	501.848
Sum Toxaphene			615.4E6	357.9E6	2634.849	2545.939
Average Toxaphene					526.970	509.188

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.32

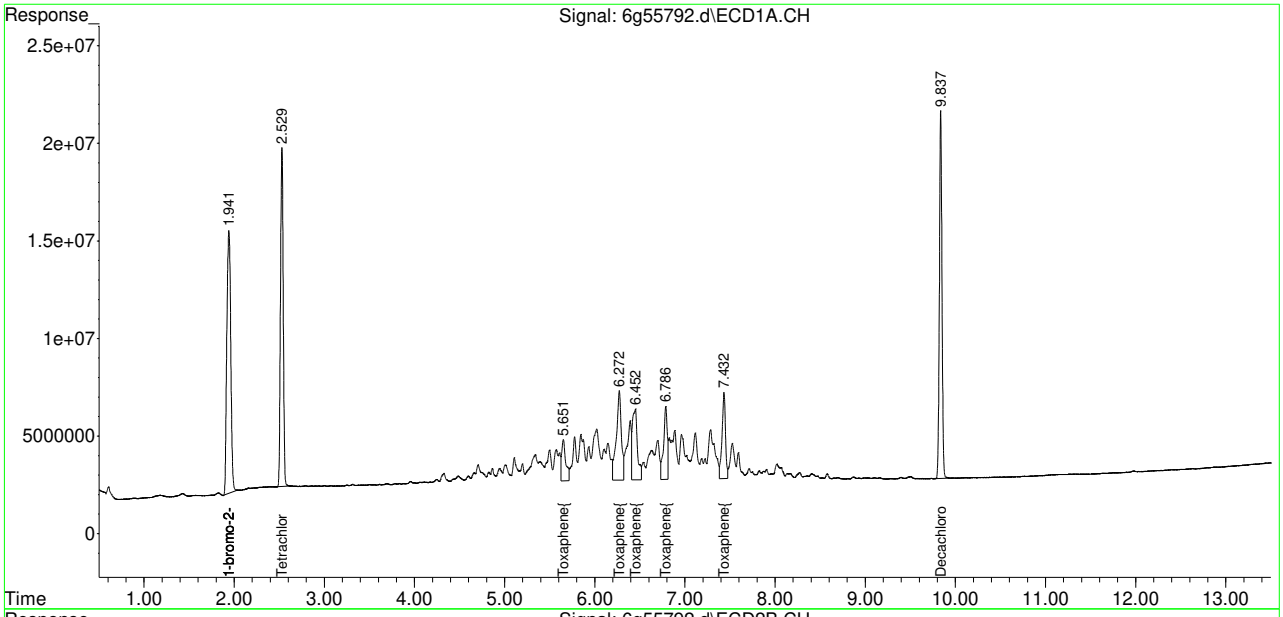
11

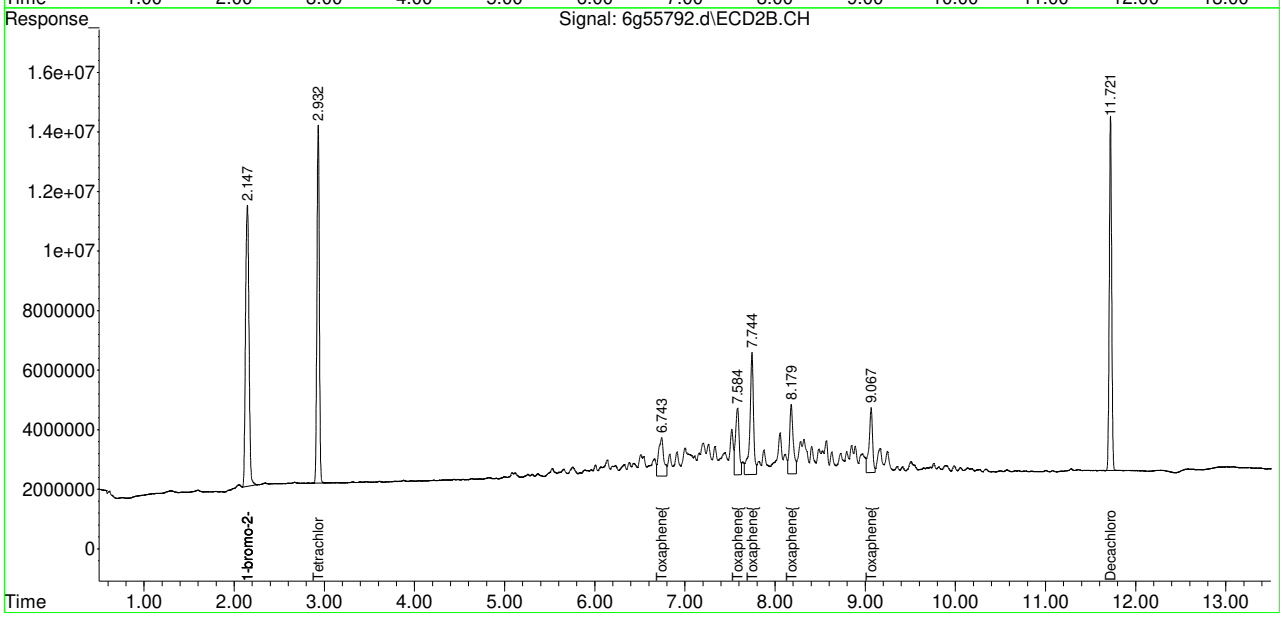
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55792.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:58:58 (#1); 30-Apr-18, 14:58:59 (#2)
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:37:19 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55793.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 15:16:44
Operator : dharas
Sample : icv1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:37:44 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.944	2.147	404.4E6	249.7E6	50.000	50.000
27) I	1-bromo-2...	1.944	2.147	404.4E6	249.7E6	50.000	50.000
33) I	1-bromo-2...	1.944	2.147	404.4E6	249.7E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
10)	alachlor	4.247	4.781	62483950	37384080	55.052	54.288
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.33

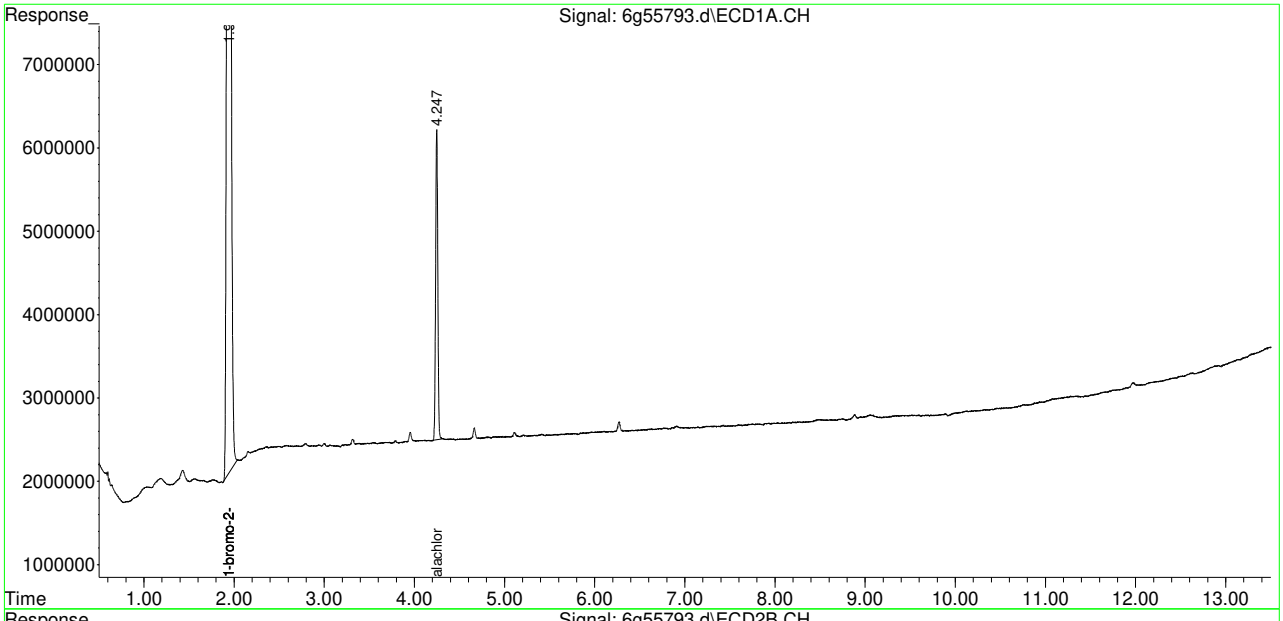
11

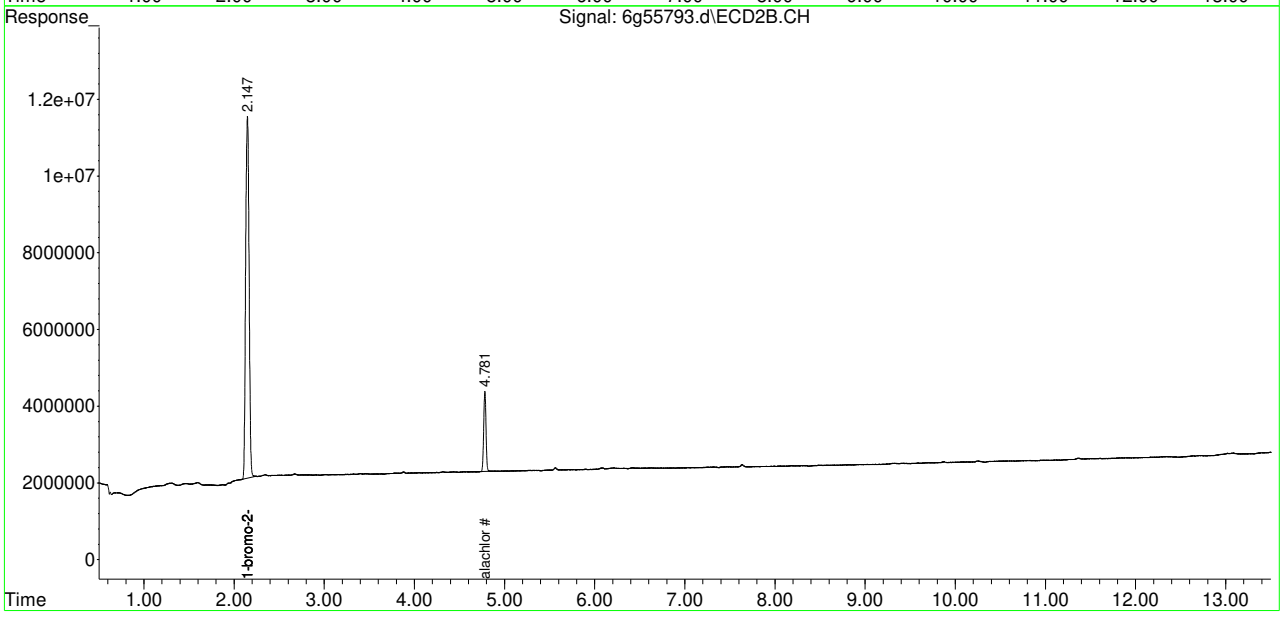
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55793.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 15:16:44
Operator : dharas
Sample : icv1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:37:44 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55794.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 15:34:38
Operator : dharas
Sample : icv1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:38:08 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.942	2.147	413.6E6	254.0E6	50.000	50.000
27) I	1-bromo-2...	1.942	2.147	413.6E6	254.0E6	50.000	50.000
33) I	1-bromo-2...	1.942	2.147	413.6E6	254.0E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
3)	hexachlor...	2.856	3.414	444.9E6	289.2E6	49.576	48.749
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.34

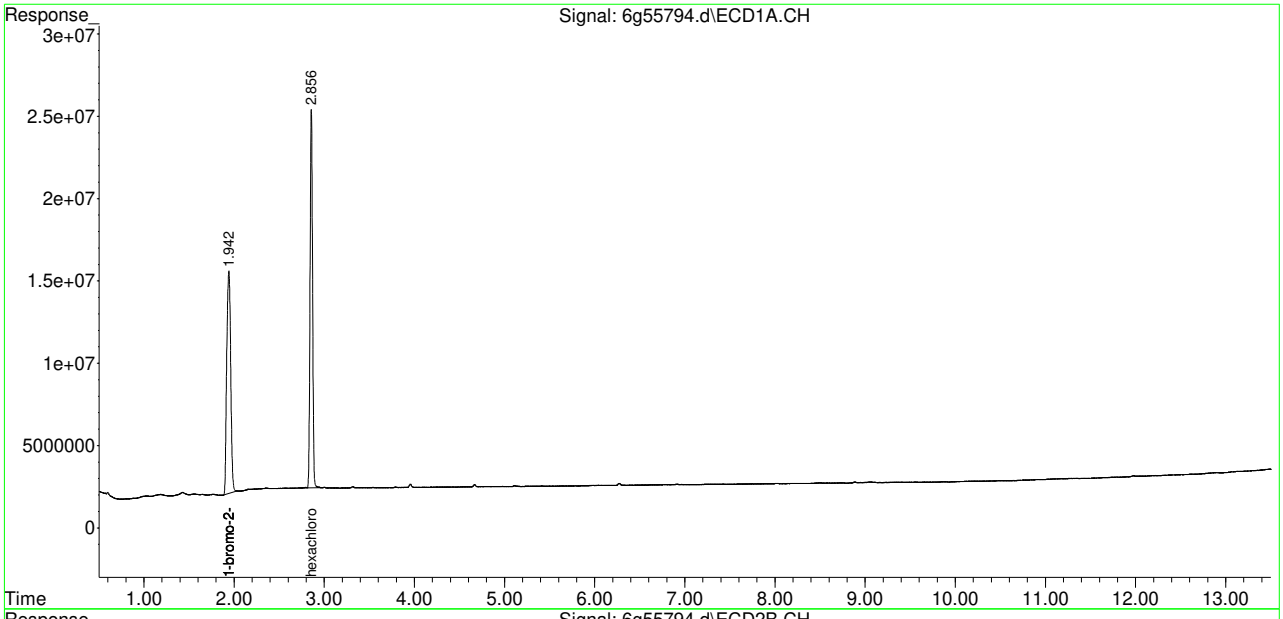
11

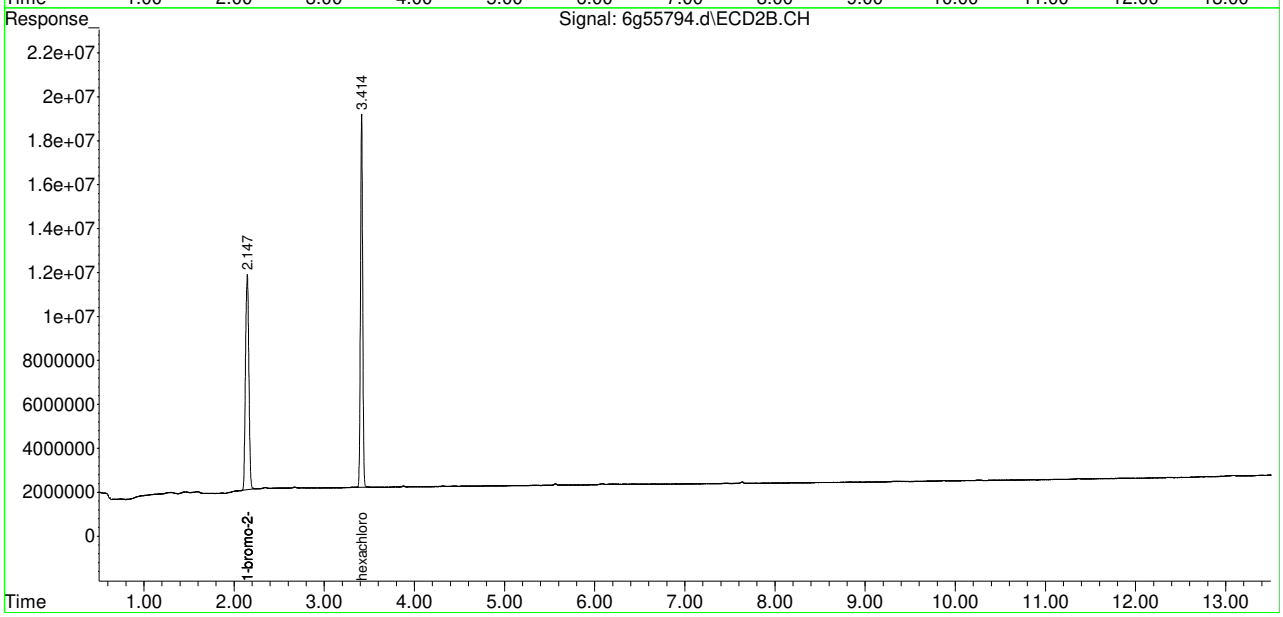
Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55794.d
Signal(s) : Signal #1: ECD1A.CH  Signal #2: ECD2B.CH
Acq On    : 30-Apr-18, 15:34:38
Operator  : dharas
Sample    : icv1671-50
Misc      : OP11619,g6g1671,1000,,,5,1
ALS Vial  : 17 (Sig #1); 0 (Sig #2)   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:38:08 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title  : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

Volume Inj.     : 1ul
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.32um   Signal #2 Info : 30m x .32mm x .25um
```





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56758.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 23:44:29
Operator : christp
Sample : cc1671-25
Misc : OP12359,g6g1694,15.0,,,10,1
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 00:00:05 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.946	2.145	369.4E6	284.0E6	50.000	50.000
27) I	1-bromo-2...	1.946	2.145	369.4E6	284.0E6	50.000	50.000
33) I	1-bromo-2...	1.946	2.145	369.4E6	284.0E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.529	2.926	172.5E6	127.1E6	24.019	24.022
Spiked Amount		40.000 Range	30 - 150	Recovery	=	60.05%	60.05%
26) SA	Decachlor...	9.805	11.702	155.9E6	115.6E6	21.309	21.905
Spiked Amount		40.000		Recovery	=	53.27%	54.76%
	Target Compounds						
3)	hexachlor...	2.853	3.406	186.5E6	161.2E6	23.264	24.303
4) A	alpha-BHC	2.990	3.552	234.2E6	169.9E6	23.685	24.137
5) MA	gamma-BHC	3.279	3.959	213.8E6	156.6E6	22.833	23.722
6) MA	Heptachlor	3.764	4.511	219.3E6	160.6E6	24.792	23.913
7) B	beta-BHC	3.353	4.042	95022744	70126973	22.702	23.126
8) B	delta-BHC	3.534	4.419	172.9E6	125.7E6	20.939	20.499
9) MB	Aldrin	4.094	4.944	206.0E6	141.6E6	23.961	23.947
10)	alachlor	4.231	4.765	26725932	19082842	25.776	24.365
11) B	Heptachlo...	4.795	5.740	178.5E6	133.6E6	22.455	23.377
12) B	gamma-Chl...	4.957	6.017	177.2E6	133.1E6	22.627	23.767
13) B	alpha-Chl...	5.126	6.237	180.9E6	130.5E6	22.559	23.932
14) A	Endosulfan I	5.300	6.329	174.4E6	120.7E6	23.331	23.179
15) B	4,4'-DDE	5.237	6.500	178.7E6	129.5E6	23.409	24.461
16) MA	Dieldrin	5.620	6.754	190.9E6	132.5E6	23.580	23.702
17) MA	Endrin	5.940	7.245	181.3E6	127.6E6	24.749	23.253
18) A	4,4'-DDD	6.064	7.434	145.6E6	103.2E6	23.034	22.618
19) B	Endosulfa...	6.258	7.591	169.2E6	120.7E6	21.770	21.734
20) MA	4,4'-DDT	6.479	7.958	138.8E6	95250984	22.905	21.632
21) B	Endrin Al...	6.879	8.156	141.5E6	95686685	22.988	22.682
22) B	Endosulfa...	7.558	8.619	128.0E6	89057513	21.011	21.081
23) A	Methoxychlor	7.261	9.191	83786840	55748350	23.165	22.288
24)	Mirex	7.409	9.496	137.1E6	93887571	22.281	22.158
25) B	Endrin Ke...	7.997	9.565	163.9E6	112.3E6	22.611	20.064
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.35

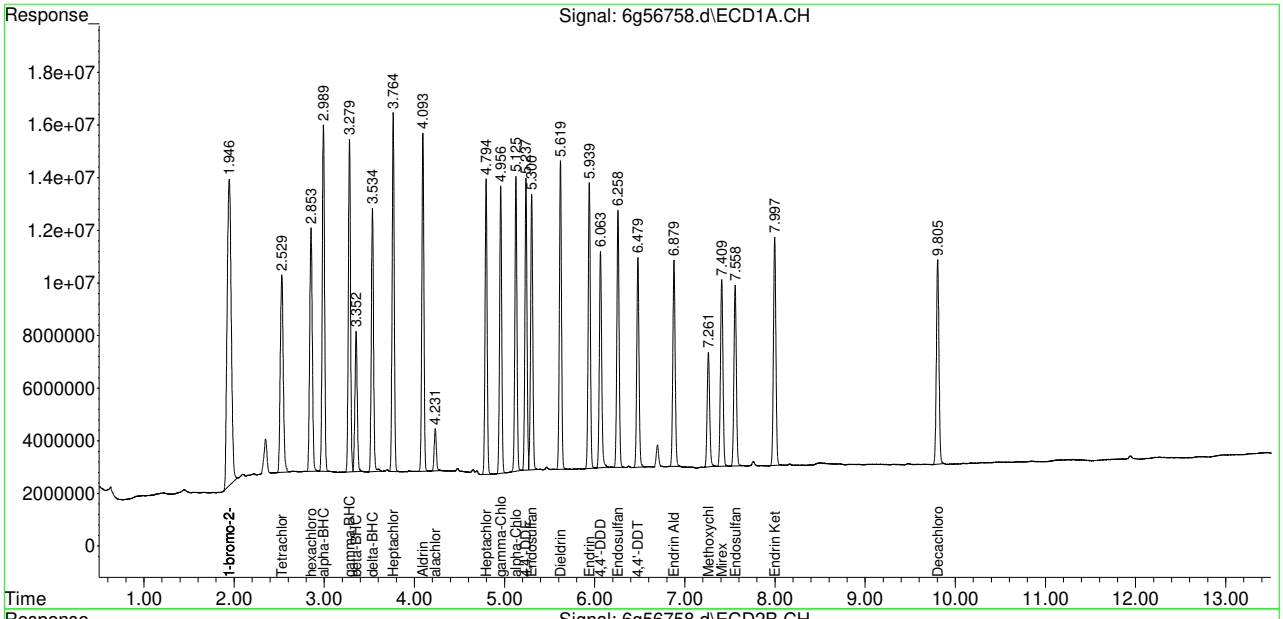
11

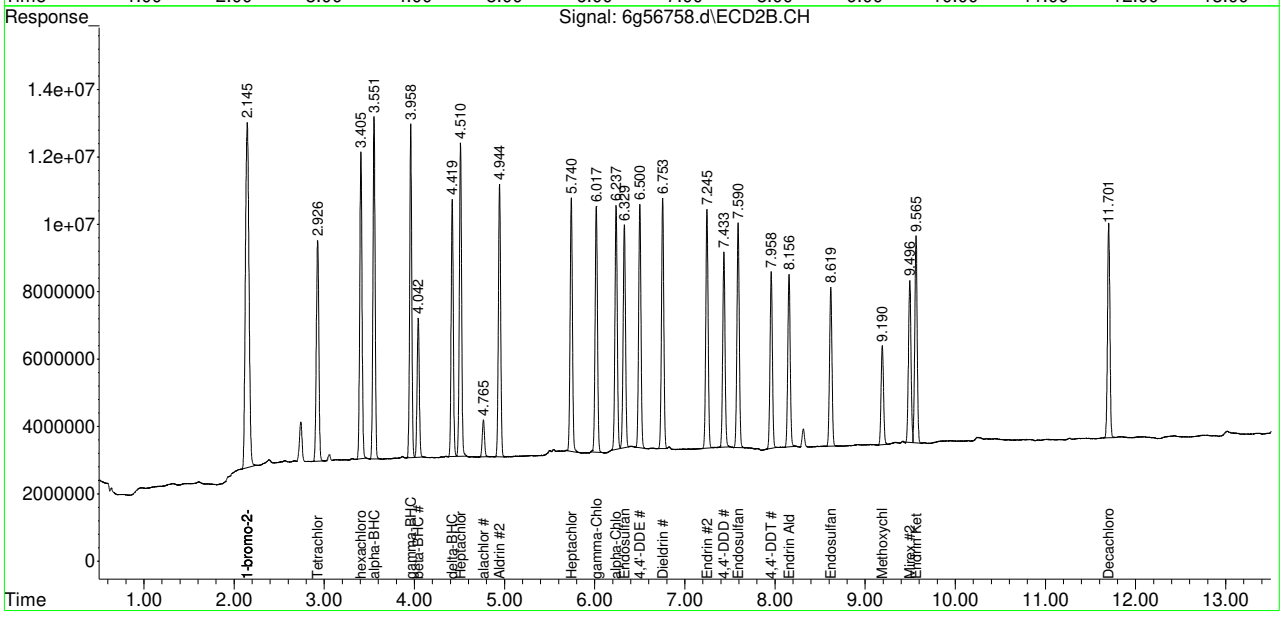
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56758.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 23:44:29
Operator : christp
Sample : cc1671-25
Misc : OP12359,g6g1694,15.0,,,10,1
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 00:00:05 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:20:58
Operator : minam
Sample : cc1671-50
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:38:16 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.935	2.138	359.7E6	270.8E6	50.000	50.000
27) I	1-bromo-2...	1.935	2.138	359.7E6	270.8E6	50.000	50.000
33) I	1-bromo-2...	1.935	2.138	359.7E6	270.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.522	2.922	342.6E6	253.2E6	48.992	50.200
Spiked Amount		40.000 Range	30 - 150	Recovery	=	122.48%	125.50%
26) SA	Decachlor...	9.805	11.701	310.3E6	235.1E6	43.540	46.716
Spiked Amount		40.000		Recovery	=	108.85%	116.79%
	Target Compounds						
3)	hexachlor...	2.848	3.403	370.2E6	312.8E6	47.429	49.444
4) A	alpha-BHC	2.986	3.549	489.8E6	356.4E6	50.861	53.090
5) MA	gamma-BHC	3.275	3.957	414.3E6	318.8E6	45.439	50.635
6) MA	Heptachlor	3.762	4.509	416.6E6	309.3E6	48.363	48.295
7) B	beta-BHC	3.349	4.039	177.1E6	134.4E6	43.447	46.489
8) B	delta-BHC	3.531	4.418	365.4E6	272.3E6	45.452	46.582
9) MB	Aldrin	4.092	4.942	408.5E6	270.7E6	48.799	48.015
10)	alachlor	4.230	4.764	51317789	34735727	50.824	46.512
11) B	Heptachlo...	4.794	5.739	351.2E6	254.2E6	45.376	46.644
12) B	gamma-Chl...	4.955	6.016	351.1E6	256.0E6	46.034	47.936
13) B	alpha-Chl...	5.124	6.236	353.0E6	247.0E6	45.210	47.510
14) A	Endosulfan I	5.300	6.327	343.4E6	232.7E6	47.180	46.840
15) B	4,4'-DDE	5.236	6.500	343.6E6	248.3E6	46.210	49.179
16) MA	Dieldrin	5.619	6.753	380.5E6	260.5E6	48.271	48.862
17) MA	Endrin	5.939	7.245	361.4E6	252.3E6	50.662	48.209
18) A	4,4'-DDD	6.064	7.433	289.3E6	203.1E6	46.980	46.692
19) B	Endosulfa...	6.258	7.590	333.8E6	234.8E6	44.111	44.327
20) MA	4,4'-DDT	6.479	7.958	274.2E6	187.1E6	46.450	44.555
21) B	Endrin Al...	6.879	8.155	275.6E6	185.2E6	45.986	46.044
22) B	Endosulfa...	7.558	8.618	274.3E6	189.7E6	46.224	47.093
23) A	Methoxychlor	7.262	9.192	160.0E6	107.7E6	45.435	45.149
24)	Mirex	7.407	9.494	264.8E6	186.7E6	44.187	46.217
25) B	Endrin Ke...	7.996	9.563	313.8E6	215.1E6	44.458	40.302
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

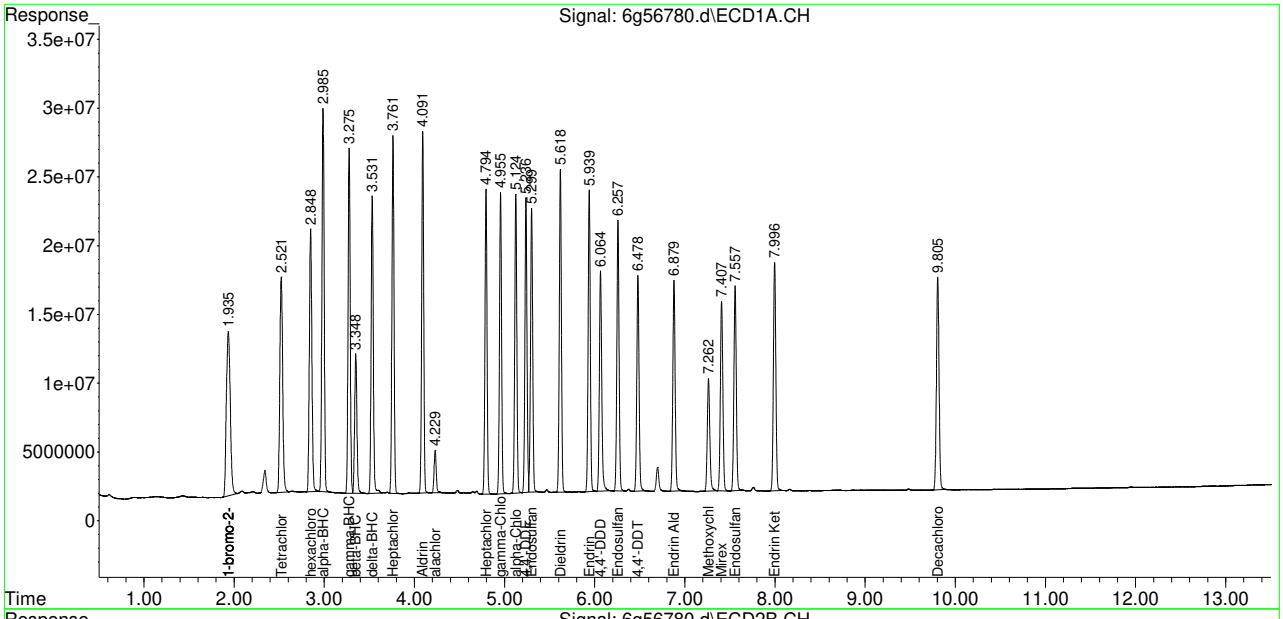
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

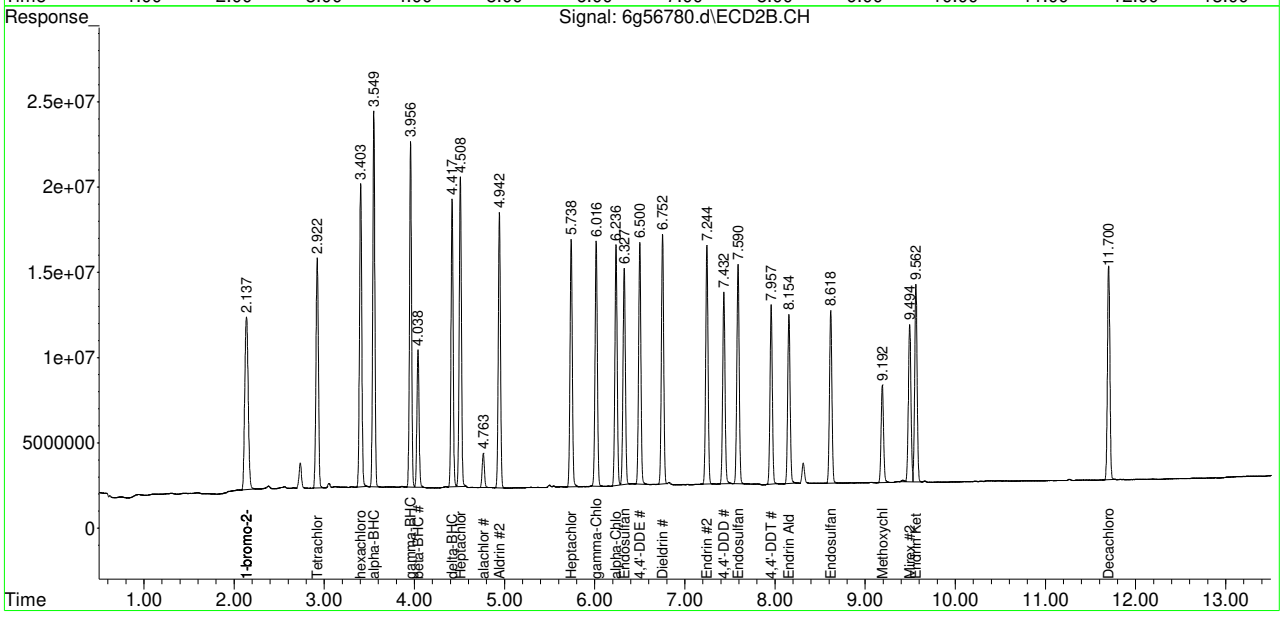
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:20:58
Operator : minam
Sample : cc1671-50
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:38:16 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4311

Print Analyst Name: [redacted] Ruan

Date: 4/19/18

Analyst Signature: TR

Columns: ZB-CLP I / ZB-CLP II

Method 8082

Initial Cal. Method G2G4311

Injection Volume: 1.0 µL

Date Archived:

Standard Data

	Lot #	Description	Conc.
SV	17-2362-20	AR1221/1254	1000ppb
	-21	AR1232/1262	1000ppb
	-22	AR1242/1268	1000ppb
	-23	AR1248	1000ppb
	17-2818	hexane (filter)	—

Standard Data

	Lot #	Description	Conc.
SV	17-2285-85A	AR1016/1260	50ppb
	4ml 85B		250ppb
SV	17-2362-12 04A		500ppb
SV	18-2432-04B		1000ppb
SV	17-2285-85E		2000ppb
	-85F		3000ppb
SV	18-2432-05	1B	20ppb

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [illegible]

Date: 4/20/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	2G162095	IB				2			/	OK	
	096	IC4311-50	1016/1260	1st		3			/	NG	partial injection? RR
	097	-250				4			/	OK	
	098	-500				5			/	OK	
	099	ICC4311-1000				6			/	OK	
	100	IC4311-2000				7			/	OK	
	101	-3000				8			/	OK	
	102	-1000	1221/1254			9			/	OK	
	102A	-50	1016/1260						/	OK	
	103	-1000	1232/1262			10			/	OK	
	104	-1000	1242/1268			11			/	OK	
	105	-1000	1248			12			/	OK	
	106	ICV4311-1000	1016/1260	2nd		13			/	OK	@SV 17-2362-13
	107	-1000	1221/1254 TR 4/20			14			/	OK	@SV 17-2362-12
	108	-1000	1232/1262			15			/	OK	@SV 17-2362-14
	109	-1000	1242/1268			16			/	OK	@SV 17-2362-15
	110	-1000	1248			17			/	OK	@SV 17-2362-16
	111	Test Mix				18			/	OK	@SV 17-2285-110 @ 50ppb

[illegible] for soil, [illegible] to [illegible] ion log. [illegible] and reason ap[illegible]

[illegible] OR [illegible]

Date: [illegible]

11.7.1 11

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4349

Print Analyst Name: CHRISTINE PHILLIPS

Date: 5/30/18

Analyst Signature: CNP

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SB R-2432-78A	AR1016/1260	500ppb
-78B	AR1016/1260	1000ppb
-05	IB	20ppb
180405	HEXANE (FISHER)	—

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method 2PCB4311

Injection Volume: 1.0 ml

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	2G164547	CC4311·1000				43				NOT USING	WRONG VIAL
	548	IB				2				NOT USING	
	549	CC4311·1000				43			/	OK	1260A ↓ 1ST 1260B ↑ BOTH
	550	IB				2			/	OK	
	551	OP12352·MB1	12352	8082	S	44			/	OK	
	552	·BS1				45				RR	
	553	·BSD				46				RR	
	554	jc66683·1				47			/	OK	
	555	OP12352·MS				48				RR	
	556	·MSD				49				RR	
	557	jc65358·7R				50				RR	48
	558/559	HEXANE				100				OK	
	560	CC4311·500				51			/	OK	1260A↓, 1260B↑ BOTH
	561	IB				2			/	OK	
	562	jc66791·2	12352	8082	S	52				RR	54
	563	jc66781·1				53			/	OK	
	564	jc66782-1				54			/	OK	
	565	jc66835·1				55				RR	Need TOA cleanup
	566	jc66683·2				56				RR	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4349

Print Analyst Name: CHRISTINE PALLUMS

Date: 5/30/18

Analyst Signature: CNP

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18-2432-RA	AR 1016/1260	500ppb
-788	AR 1016/1260	1000ppb
-05	IB	200ppb
-33	TBAS	—
180405	HEXANE (FISHER)	—

Columns: 2BCUPI / 2BCUPII

Method 8082

Initial Cal. Method 2PCB4311

Injection Volume: 1.0 µl

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	2G164567	jc66683-3	12352	8082	S	57				ok	
	568	-4				58				OK	
	569/570	HEXANE				100				OK	
	571	CC4311-1000				59				OK	1260A w/ 2nd
	572	IB				2				OK	
	573	OP12295-MB1	12295	8082	O	60				OK	RR w/ better ECC
	574	-BS1				61				NOT USING	
	575	JC66167-1a				62				NOT USING	Need TBA CleanUp
	576	OP12295-MS				63				NOT USING	HAD TBA CleanUp
	577	-MSD				64				NOT USING	↓
	578	JC66168-1a				65				NOT USING	↓
	579	JC66169-1a				62				NOT USING	HAD TBA CleanUp
	580/581	hexane				100				OK	↓
	582	CC4311-500				66				NG	1260 A ↓ Both, 1260 B ↑ Both
	583	IB				2				OK	
	584	CC4311-1000				59				OK	1260 A ↓ 2nd
	585	IB				2				OK	
	586	jc66683-2	12352	8082	S	60				Not Run	Cut From Sequence
	587	jc65850-1				61				Not Run	↓

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

Rev. Date: 5/25/17

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4349

Print Analyst Name: Summer Kuth

Date: 5/30/18

Analyst Signature: SK

Columns: ZB-CLPI / ZB-CLPII

Method 8082

Initial Cal. Method 2PCB4311

Injection Volume: 1.0 ul

Date Archived:

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
SC 243130	AR 1016/1260	500 ppb
738	AR 1016/1260	100 ppb
05	IB	2.0 ppb
184905	hexane (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G2G4349	jc66683-2	123552	8082	S	60			/	OK	
	589	jc65850-1R				61			/	OK	
	590	jc65850-2R				62			/	OK	
	591	jc66769-33				63			/	OK	
	592	jc66769-34				64			/	OK	
	593	jc66769-35				65			/	OK	
	594	jc66769-36				66			/	OK	
	595/596	hexane				100				OK	
	597	cc4311-500				67			/	OK	
	598	IB				2			/	OK	
	599	jc66769-37				68			/	OK	
	600	jc66769-38				69			/	OK	
	601/602	hexane				100				OK	
	603	cc4311-1000				70			/	OK	~~1200 → 1 ISA~~ SK 5/31/18 ~~1200 → 1 ISA~~
	604	IB				2			/	OK	
	605	JP12371-MB1	12371	8082	W	71			/	OK	—
	606	BS1				72			/	OK	
	607	jc66845-6				73			/	OK	—
	608	CP12371-MS				74			/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016*09

Rev. Date: 5/25/17

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4349

Print Analyst Name: CHRISTINE PHILLIPS

Date: 5/30/18

Analyst Signature: CMP

Columns: 2B CLP I / 2B CLP II

Method 8082

Initial Cal. Method 2BCP4311

Injection Volume: 1.0 µl

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SN 18-2432-79A	ARCLOR 1260	500 ppb
79B	ARCLOR 1260	1000 ppb
05	IB	20 ppb
180405	HEXANE (FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	2G71646.D9	OP12371 · MSD	12371	8082	W	75				ok	
	610	jc66736 · 1				76				ok	
	611	· 2				77				ok	
	612	· 3				78				ok	
	613	HEXANE				100				ok	
	614	CC4311 · STD				79				ok	~~10 STD 1 1260 1 7105~~ TR 6/31
	615	IB				2				ok	
	616	jc66736 · 4	12371	8082	W	80				ok	
	617	· 5				81				ok	
	618	jc66845 · 1				82				ok	
	619	· 2				83				ok	
	620	· 3				84				ok	
	621	· 4				85				ok	
	622	· 5				86				ok	
	623/624	HEXANE				100				ok	
	625	CC4311 · 1000				87				ok	~~1260 A 1 (5)~~ TR 6/31 1260 B 1 2nd
	626	IB				2				ok	
	627	jc66845 · 7	12371	8082	W	88				ok	
	628	· 8				89				ok	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

Rev. Date: 5/25/17

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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4349

Print Analyst Name: CHRISTINE PARKS

Analyst Signature: CNP

Date: 6/31/18

Columns: ZBLCPE / ZBLCPE

Method 8082

Initial Cal. Method 2PCB4311

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SO 18-M3278A	AR1016 / 1260	500ppb
78B	AR1016 / 1260	1000ppb
05	IB	20ppb
184405	HEXANE (FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	26164629	jc66845.9	12371	8082	W	90				ok	
	630	jc66927.1				91				ok	
	631	HEXANE				100				ok	
	632	OP12385.MB1	12385	8082	S	92				ok	
	633	.BS1				93				NOT USING	RR w/ buffer gcc
	634/635	HEXANE				100				OK	
	636	CC4311.500				94				~~NG~~ OK JR 6/31	1260 D ↑ 1st, 1016 ↑ 2nd, 1260 B ↑ 2nd
	637	IB				2				OK	
	638	jc66967.1	12385	8082	S	95				NOT USING	
	639	jc66738.5				96				NOT USING	Need TBA cleanup
	640	jc66824.3				97				NOT RUN	Cut from Sequence
	641	OP12385.MS				98				Not Run	
	642	.MSD				99				Not Run	
	643	jc66828.1				3				Not Run	
	644	.2				4				Not Run	
	645/646	HEXANE				100				Not Run	
	647	CC4311.1000				5				Not Run	
	648	IB				2				Not Run	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G 1671

Print Analyst Name: Dhara Saporia

Date: 04/30/18

Analyst Signature: DS

Columns: 2nCLPI / 2nCLPII

Method 608, 8081

Initial Cal. Method G8ST 1671

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.
SV 18-2432-20	Pest Mix	1ppb
-21	Pest Mix	2ppb
-22	Pest Mix	5ppb
-23	Pest Mix	10ppb
-24	Pest Mix	25ppb
-25	Pest Mix	50ppb
-26	Pest Mix	75 ppb

Standard Data

Lot #	Description	Conc.
18-2432-29	Pest Mix	100ppb
SV 17-2362-03	Chlordane	500ppb
-125	Toxaphene	500ppb
SV 17-2362-07	PCM	10-250ppb
SV 18-2432-05	IB	20ppb
-01	Pest ISTD	5ppm
180405	hexane (Ether)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/5/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6255778	blk				1				OK	
	779	IB				2				OK	
	780	IC 1671-1	Pest mix	1st source		3				OK	
	781	-2				4				OK	
	782	-5				5				OK	
	783	-10				6				OK	
	784	IC 1671-25				7				OK	
	785	IC 1671-50				8				OK	
	786	-75				9				OK	
	787	-100				10				OK	
	788	-500	CHL			11				OK	
	789	-500	TOX			12				OK	
	790	IC 1671-25	Pest	2nd source		13	10			OK	SV17-2362-17 @250ppb
	791	-500	CHL			14				OK	SV18-2432-19 @500ppb
	792	-500	TOX			15				OK	SV18-2432-18 @500ppb
	793	-50	Alcohol			16	20			OK	SV17-2285-141 @1000ppb
	794	-50	Hexane			17	20			OK	SV17-2285-142 @1000ppb

R = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
Spikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Date: 5/25/17

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RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC6G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	6G55784.D	04/30/18 12:36	G6G1671-ICC1671	DHARAS
Std#2	6G55796.D	04/30/18 22:36	G6G1672-CC1671	CHRISTP
Std#3	6G55817.D	05/01/18 05:27	G6G1672-CC1671	CHRISTP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
Endosulfan-I	2	REG	6.35	6.35	6.35	6.35	0.000	+ /- 0.030 [a]
4,4'-DDE	2	REG	6.52	6.52	6.52	6.52	0.000	+ /- 0.030 [a]
Dieldrin	2	REG	6.78	6.78	6.77	6.78	0.006	+ /- 0.030 [a]
Endrin	2	REG	7.27	7.27	7.27	7.27	0.000	+ /- 0.030 [a]
4,4'-DDD	2	REG	7.45	7.45	7.45	7.45	0.000	+ /- 0.030 [a]
Endosulfan-II	2	REG	7.61	7.61	7.61	7.61	0.000	+ /- 0.030 [a]
4,4'-DDT	2	REG	7.98	7.98	7.98	7.98	0.000	+ /- 0.030 [a]
Endrin aldehyde	2	REG	8.18	8.18	8.18	8.18	0.000	+ /- 0.030 [a]
Endosulfan sulfate	2	REG	8.64	8.64	8.64	8.64	0.000	+ /- 0.030 [a]
Methoxychlor	2	REG	9.21	9.21	9.21	9.21	0.000	+ /- 0.030 [a]
Mirex	2	REG	9.52	9.52	9.52	9.52	0.000	+ /- 0.030 [a]
Endrin ketone	2	REG	9.59	9.59	9.58	9.59	0.006	+ /- 0.030 [a]

(a) Default minimum StdDev of .01 minutes employed.

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC6G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	6G55784.D	04/30/18 12:36	G6G1671-ICC1671	DHARAS
Std#2	6G55796.D	04/30/18 22:36	G6G1672-CC1671	CHRISTP
Std#3	6G55817.D	05/01/18 05:27	G6G1672-CC1671	CHRISTP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
1-Bromo-2-nitrobenzene	1	ISTD	1.94	1.94	1.94	1.94	0.000	+ /- 0.030 [a]
1-Bromo-2-nitrobenzene	2	ISTD	2.15	2.14	2.15	2.15	0.006	+ /- 0.030 [a]
Tetrachloro-m-xylene	1	SURR	2.53	2.53	2.53	2.53	0.000	+ /- 0.030 [a]
Decachlorobiphenyl	1	SURR	9.84	9.84	9.84	9.84	0.000	+ /- 0.030 [a]
Tetrachloro-m-xylene	2	SURR	2.93	2.93	2.93	2.93	0.000	+ /- 0.030 [a]
Decachlorobiphenyl	2	SURR	11.72	11.72	11.72	11.72	0.000	+ /- 0.030 [a]
Hexachlorobenzene	1	REG			2.86	NOT ENOUGH POINTS		
alpha-BHC	1	REG	3.00	3.00	3.00	3.00	0.000	+ /- 0.030 [a]
gamma-BHC (Lindane)	1	REG	3.29	3.29	3.29	3.29	0.000	+ /- 0.030 [a]
beta-BHC	1	REG	3.36	3.36	3.36	3.36	0.000	+ /- 0.030 [a]
delta-BHC	1	REG	3.54	3.54	3.54	3.54	0.000	+ /- 0.030 [a]
Heptachlor	1	REG	3.78	3.78	3.78	3.78	0.000	+ /- 0.030 [a]
Aldrin	1	REG	4.11	4.11	4.11	4.11	0.000	+ /- 0.030 [a]
Alachlor	1	REG			4.25	NOT ENOUGH POINTS		
Heptachlor epoxide	1	REG	4.81	4.82	4.81	4.81	0.006	+ /- 0.030 [a]
gamma-Chlordane	1	REG	4.97	4.98	4.98	4.98	0.006	+ /- 0.030 [a]
alpha-Chlordane	1	REG	5.15	5.15	5.15	5.15	0.000	+ /- 0.030 [a]
4,4'-DDE	1	REG	5.26	5.26	5.26	5.26	0.000	+ /- 0.030 [a]
Endosulfan-I	1	REG	5.32	5.32	5.32	5.32	0.000	+ /- 0.030 [a]
Dieldrin	1	REG	5.64	5.65	5.64	5.64	0.006	+ /- 0.030 [a]
Endrin	1	REG	5.96	5.97	5.96	5.96	0.006	+ /- 0.030 [a]
4,4'-DDD	1	REG	6.09	6.09	6.08	6.09	0.006	+ /- 0.030 [a]
Endosulfan-II	1	REG	6.28	6.29	6.28	6.28	0.006	+ /- 0.030 [a]
4,4'-DDT	1	REG	6.50	6.51	6.50	6.50	0.006	+ /- 0.030 [a]
Endrin aldehyde	1	REG	6.91	6.91	6.91	6.91	0.000	+ /- 0.030 [a]
Methoxychlor	1	REG	7.29	7.29	7.28	7.29	0.006	+ /- 0.030 [a]
Mirex	1	REG	7.44	7.44	7.44	7.44	0.000	+ /- 0.030 [a]
Endosulfan sulfate	1	REG	7.59	7.59	7.59	7.59	0.000	+ /- 0.030 [a]
Endrin ketone	1	REG	8.03	8.03	8.03	8.03	0.000	+ /- 0.030 [a]
Hexachlorobenzene	2	REG			3.42	NOT ENOUGH POINTS		
alpha-BHC	2	REG	3.56	3.56	3.56	3.56	0.000	+ /- 0.030 [a]
gamma-BHC (Lindane)	2	REG	3.97	3.97	3.97	3.97	0.000	+ /- 0.030 [a]
beta-BHC	2	REG	4.05	4.05	4.05	4.05	0.000	+ /- 0.030 [a]
delta-BHC	2	REG	4.43	4.43	4.43	4.43	0.000	+ /- 0.030 [a]
Heptachlor	2	REG	4.53	4.53	4.53	4.53	0.000	+ /- 0.030 [a]
Alachlor	2	REG			4.78	NOT ENOUGH POINTS		
Aldrin	2	REG	4.96	4.96	4.96	4.96	0.000	+ /- 0.030 [a]
Heptachlor epoxide	2	REG	5.76	5.76	5.76	5.76	0.000	+ /- 0.030 [a]
gamma-Chlordane	2	REG	6.04	6.04	6.04	6.04	0.000	+ /- 0.030 [a]
alpha-Chlordane	2	REG	6.26	6.26	6.26	6.26	0.000	+ /- 0.030 [a]

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1694

Print Analyst Name: CHRISTINE PHILLIPS

Date: 5/30/18

Analyst Signature: CNP

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18-2342-05	IB	20ppb
-08	PEST ISTD	5ppm
-82A	PEST MIX	25ppb
-82B	PEST MIX	50ppb
-85	PEM	50-250ppb
180405	HEXANE (FISHER)	—

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method 6PST1671

Injection Volume: 1.0 ul

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date 6-4-18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6G56722	ddt				1			/	OK	3:15 am.
	723	cc1671-50				4			/	OK	
	724	IB				3			/	OK	
	725	OP12329-MB1	12329	8081(cl/pkw)		39		/	/	OK	OP12330, OP12331
	726	-BS1				40		/	/	OK	↓
	727	jc66319-3				41		/	/	OK	
	728	OP12329-LS1				42		/	/	OK	MS
	729	-MSD				43		/	/	OK	
	730	jc66781-1	12330			44		/	/	OK	
	731	OP12330-LS10				45		/	/	OK	MS
	732	-MSD				46		/	/	OK	
	733	jc66782-1				47		/	/	OK	
	734	jc66409-1A	12331			48		/	/	OK	
	735	OP12331-LS3				49		/	/	OK	
	736	-MSD				50		/	/	OK	
	737	jc66409-2A				51		/	/	OK	
	738	jc66410-1A				52		/	/	OK	
	739	-2A				53		/	/	OK	
	740	-3A				54		/	/	OK	

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1694

Print Analyst Name: CHRISTINE PALMER

Date: 5/30/18

Analyst Signature: CNP

Columns: ZB CLP I / ZB CLP II

Method 8081

Initial Cal. Method G PST1671

Injection Volume: 1.0 ml

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18-2432-05	IB	20ppb
-08	PEST ISTD	5ppm
-82A	PEST MIX	25ppb
-82B	PEST MIX	50ppb
-85	PEM	50.25ppb
180405	HEXANE (FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6-4-18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G6G56741	OP12331-LB1	12331	8081 ~~14~~	W	55		✓	✓	OK	
	742	OP12329-LB6	12329			56		✓	✓	OK	
	743	OP12330-LB15	12330			57		✓	✓	OK	
	744	CC1671-25				2		✓	✓	OK	
	745	IB				3		✓	✓	OK	
	746	jc66410-4A	12331			58		✓	✓	OK	
	747	-5A				59		✓	✓	OK	
	748	jcG6443-3	12247	8081 14		60	5	✓	✓	OK	
	749	jcG6384-1				61		✓	✓	OK	Had TBA
	750	-2				62		✓	✓	OK	↓
	751	OP12247-ms				63		✓	✓	OK	
	752	-msd				64				Not using	
	753	ddt				1				Not using	
	754	CC1671-50				4				Not using	
	755	ib				3				Not using	
	756	OP12359-mb1				65				Not using	
	757	ddt				1		✓	✓	OK	
	758	cc1671-25				2		✓	✓	OK	
	759	IB				3		✓	✓	OK	

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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Form: OR016-09
Rev. Date: 5/25/17

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1694

Print Analyst Name: CHRISTINE PHILLIPS

Date: 5/31/18

Analyst Signature: CNP

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18-2432-05	VB	20ppb
-08	PEST ISTD	5ppm
-82A	PEST MIX	25ppb
-82B	PEST MIX	50ppb
-85	PCM	50-250ppb
180405	HEXANE (FISHER)	—

Columns: ZB CLP I / ZB CLP II

Method 8081

Initial Cal. Method 6PST1671

Injection Volume: 1.0 ul

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6G56760	OP12372-MB1	12372	8081tcl	W	66				OK	
	761	-BS1				67				OK	
	762	jc66845-6				68				OK	
	763	OP12372-MS				69				OK	
	764	-MSD				70				OK	
	765	jc66736-1				71				OK	
	766	-2				72				OK	
	767	-3				73				OK	
	768	-4				74				OK	
	769	-5				75				OK	
	770	jc66845-1				76				OK	
	771	-2				77				OK	
	772	-3				78				OK	
	773	-4				79				OK	
	774	-5				80				OK	
	775	-7				81				OK	
	776	-8				82				OK	
	777	-9				83				OK	
	778	jc66927-1				84				OK	

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

Rev. Date: 5/25/17

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: CG6G1695

Print Analyst Name: Dharmishta Mehta

Date: 5/31/18

Analyst Signature: DM

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
18-2432-05	TB	20 ppb
.05	PCBs 1016	5 ppm
.5LP	PCBs mix	.25 ppm
.5LB	PCBs mix	.5 ppm
.5	PCM	50-250 ppm
18CH05	Hexane (Fisher)	—

Columns: 2BCLPI | 2BCLPII

Method 8081

Initial Cal. Method GP51671

Injection Volume: 1.0 uL.

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6956.779	ddt				1		/	/	OK	
	780	cc1671-50				4		/	/	OK	
	781	ib				3		/	/	OK	
	782	op12414-mb1	12414	8081 xc1	S	85		/	/	OK	
	783	-bs1				86		/	/	OK	
	784	jccc812-1				87		/	/	OK	
	785	op12414-ms				88		/	/	OK	
	786	-msd				89		/	/	OK	
	787	op12247-msd	12247	8081 xc1	S	964		/	/	OK	Had TBA
	788	jccc812-2				90		/	/	OK	
	789	-3				91		/	/	OK	
	790	ddt				1				VG	
	791	cc1671-25				2				NOT RUN	
	792	IB				3				NOT RUN	
											6/1/18 [illegible]

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

Rev. Date: 5/25/17

0-2188

LOGBOOK ID:

Pest/PCB Extraction Log - Aqueous

Date Started: 5/30/18 Time Started: 1650
Date Finished: 5/30/18 Time Finished: 2005

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # GC 12371	RACK# R A-19
Set-up by:	MS
Extracted by:	MS
Concentrated by:	AF
Final Vol. Top-up:	AY
Vialed by:	AY
Supervisor Review:	5/30/18

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

	Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	GPC	Copper	H2SO4	Florisil	KMnO4	Comments
	MB1	PCB			dH2O	300	clear	2.0		✓				
	BS1	LV1			dH2O	300	clear	2.0		✓				
	JC66545-6 MS		15		~~dH2O~~	300	clear	2.0		✓				
	MSD		14		clear	300	clear	2.0		✓				
	BS													
	MS													
	MSD													
1	JC66673-1	PCB	6		Lyellow	300	clear	2.0		✓				
2	-2	LV1	6		clear	300	clear	2.0		✓				
3	-3		6		clear	300	clear	2.0		✓				
4	-4		6		clear	285	clear	2.0		✓				
5	-5		5		clear	290	clear	2.0		✓				
6	JC66845-1		6		clear	300	clear	2.0		✓				
7	-2		5		clear	290	clear	2.0		✓				
8	-3		5		clear	300	clear	2.0		✓				
9	-4		5		clear	300	clear	2.0		✓				
10	-5		5		clear	300	clear	2.0		✓				
11	-6		13		clear	300	clear	2.0		✓				
12	-7		5		clear	300	clear	2.0		✓				
13	-8		5		clear	300	clear	2.0		✓				
14	-9		6		clear	300	clear	2.0		✓				
15	JC66927-1		5		Lyellow	300	clear	2.0		✓				
16														
17														
18														
19														
20														

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	[illegible]	65	—	—	ok
Buchi Chiller	[illegible]	65.1	—	—	ok
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB CP	1831581C-1	400	0.2
PPCB LL			
WITNESS SIGN: AY		SPIKE SIGN: MS	

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST			
PEST LL			
PCB CP	1831553C	2 ppm	0.2
PCB LL			
WITNESS SIGN: AY		SPIKE SIGN: MS	

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	182955	Fisher	15x3
HEXANE	180405	Fisher	50

REAGENT	LOT #	BAKE BATCH #	BRAND
Sodium Sulfate	175176	5-13-18A	Fisher
Glass Wool	303517-3		Lab
Filter Paper			
Copper	0192158122		Aldrich
Florisil			
1:1 Sulfuric Acid			
Chlorine Strips			

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:
JC66845-6

Final Volume:

Other:

DSOB1

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:
• sample description is clear

SGS
Form: OP021A-10
Rev Date: 8/2/17

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LOGBOOK ID:

Pest/PCB Extraction Log - Aqueous

Date Started: 5/30/18 Time Started: 1650
Date Finished: 5/30/18 Time Finished: 2005

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓
Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # GC 12372	RACK# 124-1
Set-up by:	MS
Extracted by:	MS
Concentrated by:	AF
Final Vol. Top-up:	AY
Vialed by:	AY
Supervisor Review:	5/30/18

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	GPC	Copper	H2SO4	Florisil	KMnO4	Comments
MB1	PE37			dithO	300	clear	2.0		✓				
BS1	LV1			dithO	300	clear	2.0		✓				
JC60845-6 MS		18		clear	300	clear	2.0		✓				
MSD		17		clear	300	clear	2.0		✓				
BS													
MS													
MSD													
1 JC60736-1	PE37	6		Yellow	300	clear	2.0		✓				
2 -2	LV1	6		clear	300	clear	2.0		✓				
3 -3		5		clear	300	clear	2.0		✓				
4 -4		6		clear	233	clear	2.0		✓				
5 -5		5		clear	300	clear	2.0		✓				
6 JC60845-1		6		clear	300	clear	2.0		✓				
7 -2		5		clear	300	clear	2.0		✓				
8 -3		5		clear	300	clear	2.0		✓				
9 -4		5		clear	300	clear	2.0		✓				
10 -5		5		clear	300	clear	2.0		✓				
11 -6		13		clear	300	clear	2.0		✓				
12 -7		5		clear	300	clear	2.0		✓				
13 -8		5		clear	300	clear	2.0		✓				
14 -9		6		clear	300	clear	2.0		✓				
15 JC60877-1		5		Yellow	300	clear	2.0		✓				
16													
17													
18													
19													
20													

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	2, 3	65	—	—	ok
Buchi Chiller	B2, B3	10.5, 10.7	—	—	ok
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB OP	1825581-04	400	0.2
PPCB LL			

WITNESS SIGN: AY SPIKE SIGN: MS

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST OP	1821581-04a	250 ppb	0.2
PEST LL			
PCB			
PCB LL			

WITNESS SIGN: AY SPIKE SIGN: MS

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	187955	Fisher	15x3
HEXANE	180405	Fisher	50

REAGENT	LOT #	BAKE BATCH #	BRAND
Sodium Sulfate	175176	5-15-BA	Fisher
Glass Wool	303R17-3		Lab
Filter Paper			
Copper	01825512		Aldrich
Florisil			
1:1 Sulfuric Acid			
Chlorine Strips			

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:
JC60845-6

Final Volume:

Other:

DEOB1
HS1B1

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP021A-10
Rev Date: 8/2/17

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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: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H9053018W1.CSV Date Analyzed: 05/30/18 Methods: SW846 7470A
Analyst: DP Run ID: MA44537
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:22	MA44537-STD1	1		B=1.8676E-004, C=2.6023E-002, R=0.9998464
10:24	MA44537-STD2	1		STDB
10:25	MA44537-STD3	1		STDC
10:26	MA44537-STD4	1		STDD
10:28	MA44537-STD5	1		STDE
10:29	MA44537-STD6	1		STDF
10:39	MA44537-ICV1	1		
10:41	MA44537-ICB1	1		
10:42	MA44537-CCV1	1		
10:44	MA44537-CCB1	1		
10:45	MA44537-CRI1	1		
10:56	MP7394-MB1	1		
10:57	MP7394-B1	1		
10:58	MP7394-S1	1		
11:00	MP7394-S2	1		
11:01	JC66890-4	1		(sample used for QC only; not part of login JC66927)
11:03	ZZZZZZ	1		
11:04	ZZZZZZ	1		
11:05	MA44537-CCV2	1		
11:07	MA44537-CCB2	1		
11:08	ZZZZZZ	1		
11:10	ZZZZZZ	1		
11:11	ZZZZZZ	1		
11:13	ZZZZZZ	1		
11:14	ZZZZZZ	1		
11:15	ZZZZZZ	1		
11:16	ZZZZZZ	1		
11:18	JC66927-1	1		
11:19	MA44537-CCV3	1		
11:20	MA44537-CCB3	1		
11:22	JC66927-2	1		
---------->	Last reportable sample/prep for job JC66927			
11:23	ZZZZZZ	1		
11:24	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H9053018W1.CSV Date Analyzed: 05/30/18 Methods: SW846 7470A
Analyst: DP Run ID: MA44537
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	11:26	ZZZZZZ	1		
	11:36	MA44537-CCV4	1		
	11:37	MA44537-CCB4	1		
---------->	Last reportable CCB for job JC66927				
	13:54	MA44537-CCV5	1		
	13:56	MA44537-CCB5	1		
	13:58	ZZZZZZ	1		
	13:59	ZZZZZZ	1		
	14:00	ZZZZZZ	1		
	14:03	MA44537-CCV6	1		
	14:05	MA44537-CCB6	1		

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H9053018W1.CSV Date Analyzed: 05/30/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44537 Units: ug/l

Time:			10:41		10:44		11:07		11:20	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.052	0.00100	<0.20	-0.0644	<0.20	-0.0455	<0.20	-0.0444	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H9053018W1.CSV Date Analyzed: 05/30/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44537 Units: ug/l

Time:			11:37	
Sample ID:			CCB4	
Metal	RL	IDL	raw	final
Mercury	0.20	.052	-0.0435	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H9053018W1.CSV Date Analyzed: 05/30/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44537 Units: ug/l

Time:		10:39			10:42			11:05	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.10	103.3	2.5	2.41	96.4	2.5	2.49	99.6

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H9053018W1.CSV Date Analyzed: 05/30/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44537 Units: ug/l

Time:		11:19			11:36	
Sample ID:	CCV	CCV3		CCV	CCV4	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.42	96.8	2.5	2.45	98.0

(*) Outside of QC limits
(anr) Analyte not requested

12.1.2
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H9053018W1.CSV Date Analyzed: 05/30/18 Methods: SW846 7470A
QC Limits: 70 to 130 % Recovery Run ID: MA44537 Units: ug/l

Time:			10:45	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Mercury	0.20		0.211	105.5

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:24	MA44572-STD1	1		STDA
16:28	MA44572-STD2	1		STDB
16:32	ZZZZZZ	1		
16:36	ZZZZZZ	1		
16:42	MA44572-ICV1	1		
16:51	MA44572-ICB1	1		
16:55	MA44572-ICCV1	1		
17:02	MA44572-CCB1	1		
17:06	MA44572-CRI1	1		
17:10	MA44572-CRID1	1		
17:14	MA44572-ICSA1	1		
17:19	MA44572-ICSAB1	1		
17:23	MA44572-HSTD1	1		
17:27	MA44572-HSTD2	1		
17:32	ZZZZZZ	1		
17:36	ZZZZZZ	1		
17:40	ZZZZZZ	1		
17:45	MA44572-CCV1	1		
17:49	MA44572-CCB2	1		
17:53	MP7405-MB1	1		
17:57	MP7405-B1	1		
18:01	MP7405-S1	1		Na high
18:06	MP7405-S2	1		Na high
18:10	JC66978-12	1		(sample used for QC only; not part of login JC66927)
18:14	MP7405-SD1	5		Na high. rerun 1;5 for Zn
18:18	MP7405-S3	1		Na high
18:22	MP7405-S4	1		Na high
18:27	JC66978-12F	1		(sample used for QC only; not part of login JC66927)
18:31	MA44572-CCV2	1		
18:35	MA44572-CCB3	1		
18:39	MP7405-SD2	5		Na high
18:44	ZZZZZZ	1		
18:48	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:52	ZZZZZZ	1		
18:57	ZZZZZZ	1		
19:01	ZZZZZZ	1		
19:05	ZZZZZZ	1		
19:09	ZZZZZZ	1		
19:14	ZZZZZZ	1		
19:18	MA44572-CCV3	1		
19:22	MA44572-CCB4	1		
19:26	ZZZZZZ	1		
19:31	ZZZZZZ	1		
19:35	ZZZZZZ	1		
19:39	ZZZZZZ	1		
19:44	ZZZZZZ	1		
19:48	ZZZZZZ	1		
19:52	ZZZZZZ	1		
19:56	ZZZZZZ	1		
20:01	MP7404-MB1	1		Batch to reanalyze for Tl, Mb neg
20:05	MA44572-CCV4	1		
20:09	MA44572-CCB5	1		
20:13	MP7404-MB2	1		
20:18	MP7404-B1	1		
20:22	MP7404-B3	1		
20:26	MP7404-S1	1		
20:30	MP7404-S2	1		
20:34	JC66975-1	1		(sample used for QC only; not part of login JC66927)
20:38	MP7404-SD1	5		
20:42	ZZZZZZ	1		
20:47	ZZZZZZ	1		
20:51	MA44572-CCV5	1		
20:55	MA44572-CCB6	1		
20:59	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:08	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	21:12	ZZZZZZ	1		
	21:17	ZZZZZZ	1		
	21:21	ZZZZZZ	1		
	21:25	ZZZZZZ	1		
	21:30	ZZZZZZ	1		
	21:34	JC66927-1	1		
	21:38	MA44572-CCV6	1		
	21:42	MA44572-CCB7	1		
	21:47	JC66927-2	1		
---------->	Last reportable sample/prep for job JC66927				
	21:51	ZZZZZZ	1		
	21:55	ZZZZZZ	1		
	21:59	ZZZZZZ	1		
	22:04	ZZZZZZ	1		
	22:08	ZZZZZZ	1		
	22:12	ZZZZZZ	5		
	22:17	ZZZZZZ	5		
	22:21	ZZZZZZ	1		
	22:25	MA44572-CCV7	1		
	22:29	MA44572-CCB8	1		
	22:33	MP7357-MB2	1		
	22:38	MP7357-B2	1		
	22:42	ZZZZZZ	1		
	22:46	ZZZZZZ	1		
	22:50	ZZZZZZ	1		
	22:55	ZZZZZZ	1		
	22:59	ZZZZZZ	1		
	23:03	ZZZZZZ	5		
	23:07	MA44572-CCV8	1		
	23:12	MA44572-CCB9	1		
	23:16	ZZZZZZ	5		
	23:20	ZZZZZZ	5		
	23:25	ZZZZZZ	5		
	23:29	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	23:33	MA44572-CCV9	1		
	23:37	MA44572-CCB10	1		
	23:42	MA44572-CRI2	1		
	23:46	MA44572-CRID2	1		
	23:51	MA44572-ICSA2	1		
	23:55	MA44572-ICSAB2	1		
	23:59	MA44572-CCV10	1		
	00:03	MA44572-CCB11	1		
---------->	Last reportable CCB for job JC66927				
	00:08	ZZZZZZ	1		
	00:12	ZZZZZZ	1		
	00:16	ZZZZZZ	1		
	00:21	ZZZZZZ	1		
	00:25	ZZZZZZ	1		
	00:30	ZZZZZZ	1		
	00:34	ZZZZZZ	1		
	00:38	ZZZZZZ	1		
	00:43	ZZZZZZ	1		
	00:47	ZZZZZZ	1		
	00:51	ZZZZZZ	1		
	00:56	ZZZZZZ	1		
	01:00	MA44572-CCV11	1		
	01:04	MA44572-CCB12	1		
	01:08	MP7412-MB1	1		Batch to reanalyze for Tl, Mb neg
	01:13	MP7412-B1	1		
	01:17	MP7412-S1	1		
	01:21	MP7412-S2	1		
	01:25	JC66957-3	1		(sample used for QC only; not part of login JC66927)
	01:29	MP7412-SD1	5		
	01:34	ZZZZZZ	1		
	01:38	ZZZZZZ	1		
	01:42	ZZZZZZ	1		
	01:47	MA44572-CCV12	1		
	01:51	MA44572-CCB13	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:55	ZZZZZZ	1		
01:59	ZZZZZZ	1		
02:04	ZZZZZZ	1		
02:08	ZZZZZZ	1		
02:12	ZZZZZZ	1		
02:16	ZZZZZZ	1		
02:21	ZZZZZZ	1		
02:25	ZZZZZZ	1		
02:29	ZZZZZZ	1		
02:34	MA44572-CCV13	1		
02:38	MA44572-CCB14	1		
02:42	ZZZZZZ	1		
02:46	ZZZZZZ	1		
02:51	ZZZZZZ	1		
02:55	ZZZZZZ	1		
02:59	ZZZZZZ	1		
03:04	ZZZZZZ	1		
03:08	ZZZZZZ	1		
03:12	MP7414-B1	1		
03:16	MP7414-MB1	1		
03:21	MA44572-CCV14	1		
03:25	MA44572-CCB15	1		
03:29	MP7414-S1	1		
03:33	MP7414-S2	1		
03:37	JC66725-2A	1		(sample used for QC only; not part of login JC66927)
03:41	MP7414-SD1	5		
03:46	ZZZZZZ	1		
03:50	ZZZZZZ	1		
03:54	ZZZZZZ	1		
03:58	ZZZZZZ	1		
04:03	ZZZZZZ	1		
04:07	MA44572-CCV15	1		
04:11	MA44572-CCB16	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
04:16	ZZZZZZ	1		
04:20	ZZZZZZ	1		
04:24	ZZZZZZ	1		
04:28	ZZZZZZ	1		
04:33	ZZZZZZ	1		
04:37	ZZZZZZ	1		
04:41	ZZZZZZ	1		
04:46	ZZZZZZ	1		
04:50	ZZZZZZ	1		
04:54	MA44572-CCV16	1		
04:58	MA44572-CCB17	1		
05:02	ZZZZZZ	1		
05:07	ZZZZZZ	1		
05:11	ZZZZZZ	1		
05:15	ZZZZZZ	1		
05:20	MP7415-B1	1		
05:24	MP7415-MB1	1		
05:28	MP7415-S1	1		
05:32	MP7415-S2	1		
05:36	JC66766-1	1		(sample used for QC only; not part of login JC66927)
05:40	MA44572-CCV17	1		
05:44	MA44572-CCB18	1		
05:49	MP7415-SD1	5		CCV out
05:53	ZZZZZZ	1		
05:57	ZZZZZZ	1		
06:02	ZZZZZZ	1		
06:06	ZZZZZZ	1		
06:10	ZZZZZZ	1		
06:15	ZZZZZZ	1		
06:19	ZZZZZZ	1		
06:23	ZZZZZZ	1		
06:28	ZZZZZZ	1		
06:32	MA44572-CCV18	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
06:36	MA44572-CCB19	1		
06:40	ZZZZZZ	1		
06:45	ZZZZZZ	1		
06:49	ZZZZZZ	1		
06:53	ZZZZZZ	1		
06:58	ZZZZZZ	1		
07:02	ZZZZZZ	1		
07:06	ZZZZZZ	1		
07:11	ZZZZZZ	1		
07:15	ZZZZZZ	1		
07:19	ZZZZZZ	1		
07:24	MA44572-CCV19	1		
07:28	MA44572-CCB20	1		
07:32	MA44572-CRI3	1		
07:37	MA44572-CRID3	1		
07:41	MA44572-CCV20	1		
07:45	MA44572-CCB21	1		
07:49	MP7411-MB1	1		Batch to reanalyze for Tl, CRID out
07:54	MP7411-B1	1		
07:58	MP7411-S1	1		
08:02	MP7411-S2	1		
08:06	JC66963-1	1		(sample used for QC only; not part of login JC66927)
08:10	MP7411-SD1	5		
08:15	MA44572-CCV21	1		
08:19	MA44572-CCB22	1		
08:23	ZZZZZZ	1		
08:27	ZZZZZZ	1		
08:32	ZZZZZZ	1		
08:36	ZZZZZZ	1		
08:40	ZZZZZZ	1		
08:45	ZZZZZZ	1		
08:49	ZZZZZZ	1		
08:53	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:58	MA44572-CCV22	1		
09:02	MA44572-CCB23	1		
09:06	MP7393-MB2	1		
09:10	MP7393-B2	1		
09:14	MP7393-S3	1		
09:18	MP7393-S4	1		
09:22	JC66700-4F	1		(sample used for QC only; not part of login JC66927)
09:27	MP7393-SD2	5		
09:31	MP7416-MB1	1		
09:35	MP7416-MB2	1		
09:40	MP7416-B1	1		
09:44	MA44572-CCV23	1		
09:48	MA44572-CCB24	1		
09:52	MP7416-B2	1		
09:56	MP7416-S1	1		
10:00	MP7416-S2	1		
10:04	JC66847-2	1		(sample used for QC only; not part of login JC66927)
10:09	MP7416-SD1	5		
10:13	ZZZZZZ	1		
10:17	ZZZZZZ	1		
10:22	ZZZZZZ	1		
10:26	ZZZZZZ	1		
10:30	MA44572-CCV24	1		
10:34	MA44572-CCB25	1		
10:39	ZZZZZZ	1		
10:43	ZZZZZZ	1		
10:47	ZZZZZZ	1		
10:52	ZZZZZZ	1		
10:56	ZZZZZZ	1		
11:01	ZZZZZZ	1		
11:05	ZZZZZZ	1		
11:09	ZZZZZZ	1		
11:13	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:18	MA44572-CCV25	1		
11:22	MA44572-CCB26	1		
11:26	ZZZZZZ	1		
11:30	MA44572-ICSA3	1		
11:35	MA44572-ICSAB3	1		
11:39	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:48	ZZZZZZ	1		
11:52	ZZZZZZ	1		
11:56	ZZZZZZ	1		
12:01	MA44572-CCV26	1		
12:05	MA44572-CCB27	1		
12:09	MP7433-MB1	1		
12:13	MP7433-B1	1		
12:17	MP7433-S1	1		
12:21	MP7433-S2	1		
12:25	JC66973-1	1		(sample used for QC only; not part of login JC66927)
12:30	MP7433-SD1	5		
12:34	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:47	MA44572-CCV27	1		
12:51	MA44572-CCB28	1		
12:55	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:13	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:26	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:34	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:38	MA44572-CCV28	1		
13:42	MA44572-CCB29	1		
13:47	MA44572-CRI4	1		
13:51	MA44572-CRID4	1		
13:56	MA44572-CCV29	1		
14:00	MA44572-CCB30	1		
14:04	ZZZZZZ	1		
14:08	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:24	MA44572-STD1	3215 R	82051 R	6187 R	7902 R
16:28	MA44572-STD2	3031	76918	6089	6859
16:32	ZZZZZZ	3115	78662	6142	7131
16:36	ZZZZZZ	3212	82216	6102	7908
16:42	MA44572-ICV1	3111	78856	6116	7142
16:51	MA44572-ICB1	3230	82489	6233	7959
16:55	MA44572-ICCV1	3127	79416	6223	7159
17:02	MA44572-CCB1	3223	83200	6263	7923
17:06	MA44572-CRI1	3191	81764	6250	7748
17:10	MA44572-CRID1	3209	82526	6264	7862
17:14	MA44572-ICSA1	2884	72957	6019	6261
17:19	MA44572-ICSAB1	2879	72548	6067	6277
17:23	MA44572-HSTD1	3171	82015	6339	7714
17:27	MA44572-HSTD2	2945	74539	6064	6387
17:32	ZZZZZZ	3181	81524	6277	7859
17:36	ZZZZZZ	3132	82469	6351	7862
17:40	ZZZZZZ	3241	83178	6383	7950
17:45	MA44572-CCV1	3133	80132	6283	7158
17:49	MA44572-CCB2	3233	83428	6413	7939
17:53	MP7405-MB1	3232	83516	6401	7950
17:57	MP7405-B1	3169	81047	6381	7359
18:01	MP7405-S1	2923	73748	6160	6332
18:06	MP7405-S2	2931	74077	6185	6357
18:10	JC66978-12	2924	73360	6185	6463
18:14	MP7405-SD1	3099	79062	6270	7173
18:18	MP7405-S3	2921	73800	6167	6341
18:22	MP7405-S4	2904	73736	6124	6303
18:27	JC66978-12F	2925	73544	6172	6463
18:31	MA44572-CCV2	3142	80495	6244	7189
18:35	MA44572-CCB3	3239	84159	6315	7961
18:39	MP7405-SD2	3099	79524	6268	7180
18:44	ZZZZZZ	3220	82516	6427	7494
18:48	ZZZZZZ	3094	80171	6339	7298

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:52	ZZZZZZ	3246	83636	6509	7959
18:57	ZZZZZZ	3122	80613	6396	7359
19:01	ZZZZZZ	3202	82655	6458	7707
19:05	ZZZZZZ	3234	82678	6462	7590
19:09	ZZZZZZ	3135	81006	6360	7402
19:14	ZZZZZZ	3271	83975	6517	7922
19:18	MA44572-CCV3	3142	79691	6357	7163
19:22	MA44572-CCB4	3246	83090	6332	7958
19:26	ZZZZZZ	3226	83619	6371	7929
19:31	ZZZZZZ	3173	81503	6368	7571
19:35	ZZZZZZ	3097	79508	6262	7179
19:39	ZZZZZZ	3253	83908	6390	7985
19:44	ZZZZZZ	3174	81592	6310	7580
19:48	ZZZZZZ	3103	80081	6249	7311
19:52	ZZZZZZ	3193	82188	6382	7593
19:56	ZZZZZZ	3065	78368	6300	7014
20:01	MP7404-MB1	3259	83966	6425	7999
20:05	MA44572-CCV4	3163	80376	6305	7216
20:09	MA44572-CCB5	3254	83760	6344	7991
20:13	MP7404-MB2	3225	83796	6367	7925
20:18	MP7404-B1	3183	81657	6382	7393
20:22	MP7404-B3	3169	81114	6299	7349
20:26	MP7404-S1	3167	81625	6296	7364
20:30	MP7404-S2	3163	80634	6312	7356
20:34	JC66975-1	3240	83325	6360	7922
20:38	MP7404-SD1	3267	84198	6281	8028
20:42	ZZZZZZ	3104	80053	6179	7235
20:47	ZZZZZZ	3039	78948	6184	7045
20:51	MA44572-CCV5	3155	80697	6257	7211
20:55	MA44572-CCB6	3257	84065	6232	8003
20:59	ZZZZZZ	3092	79733	6156	7194
21:04	ZZZZZZ	3186	83989	6293	7849
21:08	ZZZZZZ	3200	82580	6295	7772

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:12	ZZZZZZ	3201	82470	6276	7703
21:17	ZZZZZZ	3195	82647	6208	7706
21:21	ZZZZZZ	3201	83146	6266	7750
21:25	ZZZZZZ	3166	81797	6224	7587
21:30	ZZZZZZ	3191	82759	6254	7698
21:34	JC66927-1	3142	81344	6260	7396
21:38	MA44572-CCV6	3156	80615	6172	7226
21:42	MA44572-CCB7	3267	84352	6245	8026
21:47	JC66927-2	3158	81907	6229	7451
21:51	ZZZZZZ	3120	80061	6146	7263
21:55	ZZZZZZ	3059	79454	6113	7083
21:59	ZZZZZZ	3063	79633	6088	7189
22:04	ZZZZZZ	3109	80381	6129	7269
22:08	ZZZZZZ	3180	82319	6198	7626
22:12	ZZZZZZ	3268	84383	6244	8020
22:17	ZZZZZZ	3244	83459	6196	7791
22:21	ZZZZZZ	3250	83412	6244	7934
22:25	MA44572-CCV7	3168	80994	6202	7235
22:29	MA44572-CCB8	3267	83904	6263	8010
22:33	MP7357-MB2	3246	84225	6249	7977
22:38	MP7357-B2	3186	81895	6227	7388
22:42	ZZZZZZ	3201	82664	6295	7681
22:46	ZZZZZZ	3234	83323	6294	7827
22:50	ZZZZZZ	3223	83151	6216	7680
22:55	ZZZZZZ	3221	83120	6137	7662
22:59	ZZZZZZ	3200	82415	6129	7652
23:03	ZZZZZZ	3100	78591	6128	6994
23:07	MA44572-CCV8	3154	80331	6070	7212
23:12	MA44572-CCB9	3250	83740	6177	7984
23:16	ZZZZZZ	3058	78278	6040	6999
23:20	ZZZZZZ	3089	78062	6015	7042
23:25	ZZZZZZ	3009	76965	6041	6761
23:29	ZZZZZZ	3034	77656	6000	6861

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:33	MA44572-CCV9	3140	80486	6019	7202
23:37	MA44572-CCB10	3233	83857	6073	7964
23:42	MA44572-CRI2	3198	82763	5978	7790
23:46	MA44572-CRID2	3225	83728	6048	7911
23:51	MA44572-ICSA2	2880	73172	5823	6255
23:55	MA44572-ICSAB2	2876	73199	5756	6276
23:59	MA44572-CCV10	3124	80110	5977	7150
00:03	MA44572-CCB11	3230	83494	6084	7953
00:08	ZZZZZZ	2959	76762	5856	6823
00:12	ZZZZZZ	3342	79933	6291	7128
00:16	ZZZZZZ	2969	77028	5899	6854
00:21	ZZZZZZ	3263	84304	6134	8037
00:25	ZZZZZZ	3245	83972	6029	7981
00:30	ZZZZZZ	3226	83452	6022	7921
00:34	ZZZZZZ	3235	83954	6045	8021
00:38	ZZZZZZ	3247	84064	6029	7980
00:43	ZZZZZZ	3234	83647	5992	7941
00:47	ZZZZZZ	3241	83846	5955	8002
00:51	ZZZZZZ	3214	83482	5950	7941
00:56	ZZZZZZ	3236	83448	6034	7955
01:00	MA44572-CCV11	3123	80034	5972	7154
01:04	MA44572-CCB12	3239	83924	6090	7984
01:08	MP7412-MB1	3229	83607	6054	7956
01:13	MP7412-B1	3145	80974	5987	7313
01:17	MP7412-S1	3041	78531	5937	6899
01:21	MP7412-S2	3051	78742	5955	6909
01:25	JC66957-3	3055	79489	5923	7147
01:29	MP7412-SD1	3193	82464	6007	7710
01:34	ZZZZZZ	3186	82698	5949	7805
01:38	ZZZZZZ	3197	83246	6019	7891
01:42	ZZZZZZ	3208	83449	5992	7906
01:47	MA44572-CCV12	3127	81454	6021	7160
01:51	MA44572-CCB13	3232	83786	6037	7963

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:55	ZZZZZZ	3218	83577	6112	7935
01:59	ZZZZZZ	3215	82796	6157	7856
02:04	ZZZZZZ	3203	83409	6038	7872
02:08	ZZZZZZ	3215	83330	6071	7896
02:12	ZZZZZZ	3230	83843	6041	7939
02:16	ZZZZZZ	3221	83384	6075	7933
02:21	ZZZZZZ	3213	83733	6068	7874
02:25	ZZZZZZ	3220	83530	6026	7952
02:29	ZZZZZZ	3204	83520	5963	7910
02:34	MA44572-CCV13	3152	80409	5966	7214
02:38	MA44572-CCB14	3234	84252	6038	7970
02:42	ZZZZZZ	3216	83623	6048	7923
02:46	ZZZZZZ	3204	83257	6045	7813
02:51	ZZZZZZ	3217	83605	6041	7885
02:55	ZZZZZZ	3223	83707	5995	7915
02:59	ZZZZZZ	3235	83828	6107	7984
03:04	ZZZZZZ	3204	83415	6006	7885
03:08	ZZZZZZ	3233	84371	6056	7969
03:12	MP7414-B1	3150	80996	6067	7317
03:16	MP7414-MB1	3222	83831	6069	7947
03:21	MA44572-CCV14	3140	80262	5957	7196
03:25	MA44572-CCB15	3253	83897	6015	8017
03:29	MP7414-S1	3022	78107	5937	6817
03:33	MP7414-S2	3006	77927	5918	6769
03:37	JC66725-2A	2994	77865	5905	6916
03:41	MP7414-SD1	3166	81889	6026	7603
03:46	ZZZZZZ	2942	77006	5836	6854
03:50	ZZZZZZ	2934	77018	5898	6768
03:54	ZZZZZZ	2939	76947	5803	6858
03:58	ZZZZZZ	3232	84124	6094	7979
04:03	ZZZZZZ	3225	84458	6114	7956
04:07	MA44572-CCV15	3132	80624	5976	7182
04:11	MA44572-CCB16	3249	84257	6025	7992

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
04:16	ZZZZZZ	2930	76962	5873	6838
04:20	ZZZZZZ	2996	77981	5881	6936
04:24	ZZZZZZ	2933	76810	5824	6805
04:28	ZZZZZZ	2934	77163	5782	6844
04:33	ZZZZZZ	3043	81474	5976	7460
04:37	ZZZZZZ	2902	76527	5822	6748
04:41	ZZZZZZ	2964	77141	5873	6812
04:46	ZZZZZZ	3050	79118	5917	7065
04:50	ZZZZZZ	3001	78051	5867	6904
04:54	MA44572-CCV16	3134	80349	5919	7177
04:58	MA44572-CCB17	3239	84412	6051	7986
05:02	ZZZZZZ	2985	77906	5896	6892
05:07	ZZZZZZ	3051	79525	5971	7158
05:11	ZZZZZZ	3059	79779	5988	7207
05:15	ZZZZZZ	3065	79200	5924	7146
05:20	MP7415-B1	3165	81832	6039	7366
05:24	MP7415-MB1	3215	83920	6146	7934
05:28	MP7415-S1	3076	79605	5981	7002
05:32	MP7415-S2	3064	79304	5957	6960
05:36	JC66766-1	3084	80211	6042	7250
05:40	MA44572-CCV17	3144	80780	6031	7210
05:44	MA44572-CCB18	3243	84559	6063	7998
05:49	MP7415-SD1	3195	83045	6000	7756
05:53	ZZZZZZ	3155	81915	5991	7545
05:57	ZZZZZZ	3221	84212	6038	7957
06:02	ZZZZZZ	3026	80222	5942	7147
06:06	ZZZZZZ	3132	81649	5940	7526
06:10	ZZZZZZ	3173	82587	5986	7539
06:15	ZZZZZZ	3215	83629	5984	7934
06:19	ZZZZZZ	3073	80767	5939	7328
06:23	ZZZZZZ	3246	84197	6041	8007
06:28	ZZZZZZ	3212	83847	6038	7890
06:32	MA44572-CCV18	3135	80690	5914	7196

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
06:36	MA44572-CCB19	3240	84251	5976	7999
06:40	ZZZZZZ	3229	84075	6030	7879
06:45	ZZZZZZ	3230	84380	6057	7929
06:49	ZZZZZZ	3223	83993	6010	7924
06:53	ZZZZZZ	3212	83810	5985	7930
06:58	ZZZZZZ	3226	84164	6030	7923
07:02	ZZZZZZ	3211	83864	5986	7908
07:06	ZZZZZZ	3217	84254	5947	7911
07:11	ZZZZZZ	3258	84606	6047	8005
07:15	ZZZZZZ	3069	79343	5891	7030
07:19	ZZZZZZ	3048	78716	5889	6961
07:24	MA44572-CCV19	3169	81740	6013	7269
07:28	MA44572-CCB20	3267	84752	6087	8064
07:32	MA44572-CRI3	3229	83872	5994	7858
07:37	MA44572-CRID3	3225	83773	5976	7926
07:41	MA44572-CCV20	3160	81225	6004	7257
07:45	MA44572-CCB21	3267	85274	5954	8068
07:49	MP7411-MB1	3338	86830	6231	8372
07:54	MP7411-B1	3235	82654	6103	7632
07:58	MP7411-S1	3222	82741	6111	7470
08:02	MP7411-S2	3211	83210	6156	7443
08:06	JC66963-1	3222	84203	6162	7795
08:10	MP7411-SD1	3218	83803	6008	7917
08:15	MA44572-CCV21	3165	81467	5962	7264
08:19	MA44572-CCB22	3258	84651	5953	8038
08:23	ZZZZZZ	2720	69765	5536	6340
08:27	ZZZZZZ	3342	85405	6214	7691
08:32	ZZZZZZ	3238	84161	6066	7799
08:36	ZZZZZZ	3298	84207	6201	7643
08:40	ZZZZZZ	3198	83200	6129	7724
08:45	ZZZZZZ	3283	84736	6074	8068
08:49	ZZZZZZ	3035	78492	5902	6878
08:53	ZZZZZZ	3246	84560	5939	8019

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
08:58	MA44572-CCV22	3157	82070	5897	7251
09:02	MA44572-CCB23	3252	84862	5953	8034
09:06	MP7393-MB2	3239	84812	5773	8026
09:10	MP7393-B2	3192	82596	5900	7456
09:14	MP7393-S3	3158	82141	5922	7384
09:18	MP7393-S4	3148	81800	5888	7360
09:22	JC66700-4F	3249	84574	5954	7996
09:27	MP7393-SD2	3260	84865	5954	8066
09:31	MP7416-MB1	3271	85234	6038	8114
09:35	MP7416-MB2	3234	84244	5910	8003
09:40	MP7416-B1	3172	82631	5973	7417
09:44	MA44572-CCV23	3144	81021	5899	7230
09:48	MA44572-CCB24	3248	84903	5926	8018
09:52	MP7416-B2	3173	81847	5965	7426
09:56	MP7416-S1	3098	80758	5826	7100
10:00	MP7416-S2	3106	81046	5942	7104
10:04	JC66847-2	3110	81658	5898	7330
10:09	MP7416-SD1	3204	83625	5914	7838
10:13	ZZZZZZ	3264	85052	5961	8061
10:17	ZZZZZZ	2650	67404	5449	5705
10:22	ZZZZZZ	2606	67664	5482	5631
10:26	ZZZZZZ	2541	65270	5382	5425 !
10:30	MA44572-CCV24	3130	80918	5804	7195
10:34	MA44572-CCB25	3257	84391	5937	8052
10:39	ZZZZZZ	2892	75419	5635	6542
10:43	ZZZZZZ	2775	73390	5611	6307
10:47	ZZZZZZ	2651	67753	5458	5735
10:52	ZZZZZZ	2745	71078	5493	6046
10:56	ZZZZZZ	2862	76065	5655	6473
11:01	ZZZZZZ	3262	85386	5932	8055
11:05	ZZZZZZ	3255	85481	5967	8053
11:09	ZZZZZZ	3246	84442	5963	7868
11:13	ZZZZZZ	3239	84846	5945	7955

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:18	MA44572-CCV25	3157	81538	5902	7239
11:22	MA44572-CCB26	3277	85840	5980	8076
11:26	ZZZZZZ	3269	85097	6227	8012
11:30	MA44572-ICSA3	2919	75295	5800	6333
11:35	MA44572-ICSAB3	2918	74995	5726	6354
11:39	ZZZZZZ	3270	85406	6002	8001
11:43	ZZZZZZ	3237	84316	5981	7831
11:48	ZZZZZZ	3264	84950	6004	7997
11:52	ZZZZZZ	3272	85193	5968	7998
11:56	ZZZZZZ	3268	84953	6041	7996
12:01	MA44572-CCV26	3181	81934	5949	7289
12:05	MA44572-CCB27	3281	85379	5931	8095
12:09	MP7433-MB1	3275	86103	5955	8071
12:13	MP7433-B1	3207	83156	5936	7469
12:17	MP7433-S1	3129	80961	5857	7105
12:21	MP7433-S2	3135	81352	5911	7121
12:25	JC66973-1	3116	81929	5879	7391
12:30	MP7433-SD1	3226	84317	5915	7870
12:34	ZZZZZZ	3254	84746	5962	7817
12:38	ZZZZZZ	3306	85986	6095	7937
12:42	ZZZZZZ	3222	83399	5964	7674
12:47	MA44572-CCV27	3180	81832	5885	7288
12:51	MA44572-CCB28	3265	84797	5894	8068
12:55	ZZZZZZ	3048	79142	5792	6890
13:00	ZZZZZZ	3174	82490	5907	7416
13:04	ZZZZZZ	3029	78436	5760	6865
13:08	ZZZZZZ	3187	82693	5837	7559
13:13	ZZZZZZ	3253	85377	5913	8042
13:17	ZZZZZZ	3265	85206	5895	8065
13:21	ZZZZZZ	2889	75650	5682	6599
13:26	ZZZZZZ	2898	76178	5726	6614
13:30	ZZZZZZ	3062	81278	5886	7255
13:34	ZZZZZZ	3051	80921	5862	7246

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44572
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:38	MA44572-CCV28	3171	81607	5903	7268
13:42	MA44572-CCB29	3282	85463	5956	8094
13:47	MA44572-CRI4	3233	84167	5886	7874
13:51	MA44572-CRID4	3262	84386	5912	8002
13:56	MA44572-CCV29	3167	81267	5890	7244
14:00	MA44572-CCB30	3281	85557	5943	8081
14:04	ZZZZZZ	10723 !	242460 !	11937 !	24653 !
14:08	ZZZZZZ	10629 !	237430 !	11979 !	24488 !

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 %

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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44572 Units: ug/l

Time:			16:51		17:02		17:49		18:35	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	13.1	<200	21.9	<200	18.5	<200	16.6	<200
Antimony	6.0	1.6	-0.700	<6.0	-0.600	<6.0	-2.10	<6.0	-0.300	<6.0
Arsenic	3.0	1.5	0.500	<3.0	-0.200	<3.0	0.800	<3.0	0.00	<3.0
Barium	200	.4	0.00	<200	-0.200	<200	0.00	<200	-0.200	<200
Beryllium	1.0	.1	0.100	<1.0	0.00	<1.0	-0.100	<1.0	0.00	<1.0
Bismuth	20	1.4								
Boron	100	1.1	anr							
Cadmium	3.0	.3	0.200	<3.0	0.200	<3.0	0.300	<3.0	0.300	<3.0
Calcium	2000	2.7	3.30	<5000	2.00	<5000	-2.80	<5000	0.800	<5000
Chromium	10	.5	0.200	<10	-0.300	<10	0.100	<10	-0.300	<10
Cobalt	50	.2	0.300	<50	0.200	<50	0.100	<50	0.300	<50
Copper	10	.6	0.600	<10	0.300	<10	0.100	<10	-0.100	<10
Iron	100	4	3.20	<100	2.20	<100	1.60	<100	-2.50	<100
Lead	3.0	1.6	0.00	<3.0	-0.600	<3.0	-0.200	<3.0	0.400	<3.0
Lithium	50	2.5								
Magnesium	2000	26	7.40	<5000	-6.50	<5000	-6.40	<5000	-4.40	<5000
Manganese	15	.1	0.100	<15	0.200	<15	0.100	<15	0.00	<15
Molybdenum	20	.4	anr							
Nickel	10	.4	-0.100	<10	0.00	<10	-0.200	<10	-0.200	<10
Phosphorus	50	2.5								
Potassium	2000	29	13.6	<10000	13.4	<10000	10.5	<10000	38.5	<10000
Selenium	10	2.3	-0.100	<10	-0.400	<10	0.200	<10	0.900	<10
Silicon	200	1.5								
Silver	10	.6	0.100	<10	0.100	<10	-0.500	<10	0.00	<10
Sodium	2000	12	-12.6	<10000	-10.2	<10000	-10.2	<10000	173	<10000
Strontium	10	.1								
Sulfur	50	2.9								
Thallium	2.0	.9	anr							
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	-0.200	<50	0.200	<50	-0.400	<50	-0.100	<50
Zinc	20	.2	1.00	<20	1.10	<20	0.900	<20	0.900	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44572 Units: ug/l

Time:			16:51		17:02		17:49		18:35	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.4								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44572 Units: ug/l

Time:			19:22		20:09		20:55		21:42	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	13.5	<200	7.90	<200	5.80	<200	14.5	<200
Antimony	6.0	1.6	-1.80	<6.0	-0.300	<6.0	-2.20	<6.0	-2.00	<6.0
Arsenic	3.0	1.5	0.100	<3.0	-0.100	<3.0	0.200	<3.0	-0.800	<3.0
Barium	200	.4	0.00	<200	0.100	<200	0.00	<200	-0.300	<200
Beryllium	1.0	.1	-0.100	<1.0	0.00	<1.0	-0.200	<1.0	-0.200	<1.0
Bismuth	20	1.4								
Boron	100	1.1	anr							
Cadmium	3.0	.3	0.300	<3.0	0.300	<3.0	0.100	<3.0	0.200	<3.0
Calcium	2000	2.7	0.100	<5000	-0.600	<5000	-0.100	<5000	-3.60	<5000
Chromium	10	.5	-0.100	<10	0.300	<10	-0.300	<10	0.00	<10
Cobalt	50	.2	0.300	<50	0.400	<50	0.00	<50	0.100	<50
Copper	10	.6	0.400	<10	0.100	<10	-0.500	<10	0.300	<10
Iron	100	4	-1.80	<100	2.50	<100	-4.60	<100	-2.50	<100
Lead	3.0	1.6	0.200	<3.0	-0.400	<3.0	0.700	<3.0	0.200	<3.0
Lithium	50	2.5								
Magnesium	2000	26	-2.70	<5000	-11.8	<5000	-4.50	<5000	-7.90	<5000
Manganese	15	.1	0.100	<15	0.200	<15	-0.100	<15	0.00	<15
Molybdenum	20	.4	anr							
Nickel	10	.4	-0.200	<10	0.100	<10	-0.200	<10	-0.500	<10
Phosphorus	50	2.5								
Potassium	2000	29	17.2	<10000	39.8	<10000	30.5	<10000	33.6	<10000
Selenium	10	2.3	-0.600	<10	0.700	<10	-1.70	<10	0.100	<10
Silicon	200	1.5								
Silver	10	.6	-0.100	<10	0.100	<10	-0.100	<10	0.200	<10
Sodium	2000	12	55.8	<10000	43.0	<10000	27.8	<10000	10.5	<10000
Strontium	10	.1								
Sulfur	50	2.9								
Thallium	2.0	.9	anr							
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	-0.100	<50	0.00	<50	0.00	<50	-0.300	<50
Zinc	20	.2	1.10	<20	1.00	<20	0.200	<20	0.100	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44572 Units: ug/l

Time:			19:22		20:09		20:55		21:42	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.4								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44572 Units: ug/l

Time:			22:29		23:12		23:37		00:03	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	2.70	<200	4.30	<200	9.60	<200	5.60	<200
Antimony	6.0	1.6	-1.00	<6.0	-0.700	<100	-0.200	<100	-0.400	<100
Arsenic	3.0	1.5	-0.700	<3.0	0.600	<100	-0.200	<100	0.100	<100
Barium	200	.4	-0.100	<200	-0.100	<200	-0.200	<200	-0.200	<200
Beryllium	1.0	.1	-0.100	<1.0	0.100	<5.0	-0.200	<5.0	-0.100	<5.0
Bismuth	20	1.4								
Boron	100	1.1	anr							
Cadmium	3.0	.3	0.100	<3.0	0.200	<5.0	0.00	<5.0	0.300	<5.0
Calcium	2000	2.7	-6.50	<5000	0.800	<2000	-1.00	<2000	-6.10	<2000
Chromium	10	.5	-0.300	<10	0.00	<10	0.100	<10	0.100	<10
Cobalt	50	.2	0.00	<50	0.300	<50	0.200	<50	0.100	<50
Copper	10	.6	0.300	<10	0.400	<10	0.400	<10	0.200	<10
Iron	100	4	-4.50	<100	0.200	<100	-1.10	<100	-2.00	<100
Lead	3.0	1.6	-0.300	<3.0	0.300	<100	0.800	<100	-0.100	<100
Lithium	50	2.5								
Magnesium	2000	26	-4.90	<5000	-27.1	<2000	-12.8	<2000	-7.10	<2000
Manganese	15	.1	-0.100	<15	0.100	<15	0.00	<15	-0.200	<15
Molybdenum	20	.4	anr							
Nickel	10	.4	-0.400	<10	-0.300	<10	-0.400	<10	-0.100	<10
Phosphorus	50	2.5								
Potassium	2000	29	15.5	<10000	-1.20	<2000	63.0	<2000	4.20	<2000
Selenium	10	2.3	0.00	<10	0.00	<100	0.100	<100	-0.100	<100
Silicon	200	1.5								
Silver	10	.6	0.00	<10	-0.100	<10	0.300	<10	0.300	<10
Sodium	2000	12	13.8	<10000	26.7	<2000	62.6	<2000	29.6	<2000
Strontium	10	.1								
Sulfur	50	2.9								
Thallium	2.0	.9	anr							
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	-0.300	<50	-0.100	<50	-0.100	<50	-0.400	<50
Zinc	20	.2	0.200	<20	0.800	<20	0.200	<20	0.200	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44572 Units: ug/l

Time:			22:29		23:12		23:37		00:03	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.4								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		16:55	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	40000	39500	98.8
Antimony	2000	2020	101.0
Arsenic	2000	2000	100.0
Barium	2000	1990	99.5
Beryllium	2000	2010	100.5
Bismuth			
Boron	anr		
Cadmium	2000	2000	100.0
Calcium	40000	40000	100.0
Chromium	2000	2000	100.0
Cobalt	2000	1980	99.0
Copper	2000	1970	98.5
Iron	40000	40800	102.0
Lead	2000	2020	101.0
Lithium			
Magnesium	40000	40200	100.5
Manganese	2000	2040	102.0
Molybdenum	anr		
Nickel	2000	2010	100.5
Phosphorus			
Potassium	40000	39800	99.5
Selenium	2000	1990	99.5
Silicon			
Silver	250	246	98.4
Sodium	40000	39900	99.8
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	2000	1970	98.5
Zinc	2000	2020	101.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		16:55	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		16:42			17:45			18:31	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40200	100.5	40000	38700	96.8	40000	38700	96.8
Antimony	2000	2010	100.5	2000	2010	100.5	2000	2000	100.0
Arsenic	2000	2020	101.0	2000	1990	99.5	2000	1980	99.0
Barium	2000	2000	100.0	2000	1960	98.0	2000	1970	98.5
Beryllium	2000	2070	103.5	2000	1980	99.0	2000	1980	99.0
Bismuth									
Boron	anr								
Cadmium	2000	1990	99.5	2000	2000	100.0	2000	1990	99.5
Calcium	40000	39800	99.5	40000	39100	97.8	40000	38900	97.3
Chromium	2000	1950	97.5	2000	1990	99.5	2000	1970	98.5
Cobalt	2000	1980	99.0	2000	1980	99.0	2000	1960	98.0
Copper	2000	2000	100.0	2000	1970	98.5	2000	1960	98.0
Iron	40000	40500	101.3	40000	40300	100.8	40000	39900	99.8
Lead	2000	1980	99.0	2000	2020	101.0	2000	2000	100.0
Lithium									
Magnesium	40000	39600	99.0	40000	39700	99.3	40000	39500	98.8
Manganese	2000	1990	99.5	2000	2030	101.5	2000	2020	101.0
Molybdenum	anr								
Nickel	2000	1980	99.0	2000	2010	100.5	2000	2000	100.0
Phosphorus									
Potassium	40000	39600	99.0	40000	39600	99.0	40000	40100	100.3
Selenium	2000	1970	98.5	2000	1990	99.5	2000	1980	99.0
Silicon									
Silver	250	242	96.8	250	243	97.2	250	241	96.4
Sodium	40000	39900	99.8	40000	39500	98.8	40000	39100	97.8
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	1950	97.5	2000	1930	96.5
Zinc	2000	2020	101.0	2000	2010	100.5	2000	2000	100.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		16:42			17:45			18:31	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

12.2.4
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		19:18			20:05			20:51	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38100	95.3	40000	38300	95.8	40000	38500	96.3
Antimony	2000	2010	100.5	2000	1990	99.5	2000	1990	99.5
Arsenic	2000	1980	99.0	2000	1970	98.5	2000	1960	98.0
Barium	2000	1950	97.5	2000	1960	98.0	2000	1980	99.0
Beryllium	2000	1930	96.5	2000	1930	96.5	2000	1940	97.0
Bismuth									
Boron	anr								
Cadmium	2000	1990	99.5	2000	1980	99.0	2000	1970	98.5
Calcium	40000	38000	95.0	40000	38000	95.0	40000	38200	95.5
Chromium	2000	2000	100.0	2000	1980	99.0	2000	1960	98.0
Cobalt	2000	1970	98.5	2000	1950	97.5	2000	1950	97.5
Copper	2000	1980	99.0	2000	1960	98.0	2000	1940	97.0
Iron	40000	38900	97.3	40000	38600	96.5	40000	38600	96.5
Lead	2000	2030	101.5	2000	2010	100.5	2000	1990	99.5
Lithium									
Magnesium	40000	38300	95.8	40000	38100	95.3	40000	38200	95.5
Manganese	2000	2040	102.0	2000	2020	101.0	2000	1990	99.5
Molybdenum	anr								
Nickel	2000	2010	100.5	2000	1990	99.5	2000	1980	99.0
Phosphorus									
Potassium	40000	40000	100.0	40000	40600	101.5	40000	41300	103.3
Selenium	2000	1990	99.5	2000	1970	98.5	2000	1960	98.0
Silicon									
Silver	250	244	97.6	250	242	96.8	250	241	96.4
Sodium	40000	39400	98.5	40000	39800	99.5	40000	40300	100.8
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	2000	1960	98.0	2000	1940	97.0	2000	1920	96.0
Zinc	2000	2010	100.5	2000	1990	99.5	2000	1980	99.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		19:18			20:05			20:51	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

12.2.4
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		21:38			22:25			23:07	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38700	96.8	40000	38300	95.8	40000	39200	98.0
Antimony	2000	1990	99.5	2000	1980	99.0	2000	2000	100.0
Arsenic	2000	1970	98.5	2000	1960	98.0	2000	1980	99.0
Barium	2000	2000	100.0	2000	1980	99.0	2000	2030	101.5
Beryllium	2000	1940	97.0	2000	1920	96.0	2000	1960	98.0
Bismuth									
Boron	anr								
Cadmium	2000	1980	99.0	2000	1960	98.0	2000	1990	99.5
Calcium	40000	38200	95.5	40000	37600	94.0	40000	38500	96.3
Chromium	2000	1960	98.0	2000	1940	97.0	2000	1980	99.0
Cobalt	2000	1950	97.5	2000	1940	97.0	2000	1970	98.5
Copper	2000	1950	97.5	2000	1930	96.5	2000	1960	98.0
Iron	40000	38600	96.5	40000	38000	95.0	40000	38500	96.3
Lead	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Lithium									
Magnesium	40000	38200	95.5	40000	37800	94.5	40000	38200	95.5
Manganese	2000	2000	100.0	2000	1990	99.5	2000	2020	101.0
Molybdenum	anr								
Nickel	2000	1980	99.0	2000	1980	99.0	2000	2000	100.0
Phosphorus									
Potassium	40000	41900	104.8	40000	41600	104.0	40000	42700	106.8
Selenium	2000	1960	98.0	2000	1960	98.0	2000	1970	98.5
Silicon									
Silver	250	241	96.4	250	238	95.2	250	242	96.8
Sodium	40000	40800	102.0	40000	40600	101.5	40000	41500	103.8
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	2000	1920	96.0	2000	1900	95.0	2000	1940	97.0
Zinc	2000	1970	98.5	2000	1970	98.5	2000	1990	99.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		21:38			22:25			23:07	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

12.2.4
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		23:33			23:59	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39400	98.5	40000	39800	99.5
Antimony	2000	2010	100.5	2000	2030	101.5
Arsenic	2000	1980	99.0	2000	2000	100.0
Barium	2000	2040	102.0	2000	2070	103.5
Beryllium	2000	1970	98.5	2000	1990	99.5
Bismuth						
Boron	anr					
Cadmium	2000	1990	99.5	2000	2010	100.5
Calcium	40000	38600	96.5	40000	39000	97.5
Chromium	2000	1960	98.0	2000	1980	99.0
Cobalt	2000	1960	98.0	2000	1980	99.0
Copper	2000	1950	97.5	2000	1970	98.5
Iron	40000	38500	96.3	40000	38900	97.3
Lead	2000	1980	99.0	2000	2020	101.0
Lithium						
Magnesium	40000	38400	96.0	40000	38800	97.0
Manganese	2000	2000	100.0	2000	2020	101.0
Molybdenum	anr					
Nickel	2000	1980	99.0	2000	2010	100.5
Phosphorus						
Potassium	40000	43300	108.3	40000	44000	110.0
Selenium	2000	1970	98.5	2000	1990	99.5
Silicon						
Silver	250	242	96.8	250	244	97.6
Sodium	40000	41500	103.8	40000	42200	105.5
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	2000	1930	96.5	2000	1950	97.5
Zinc	2000	1980	99.0	2000	2000	100.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44572 Units: ug/l

Time:		23:33			23:59	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44572 Units: ug/l

Time:		17:23			17:27	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum				300000	303000	101.0
Antimony	5000	5170	103.4			
Arsenic	5000	5040	100.8			
Barium	5000	5000	100.0			
Beryllium	5000	5040	100.8			
Bismuth						
Boron	anr					
Cadmium	5000	5030	100.6			
Calcium				150000	147000	98.0
Chromium	5000	5120	102.4			
Cobalt	5000	4980	99.6			
Copper	5000	5150	103.0			
Iron				150000	149000	99.3
Lead	5000	5060	101.2			
Lithium						
Magnesium				300000	304000	101.3
Manganese	5000	5160	103.2			
Molybdenum	anr					
Nickel	5000	5010	100.2			
Phosphorus						
Potassium				150000	153000	102.0
Selenium	5000	5040	100.8			
Silicon						
Silver	625	609	97.4			
Sodium				150000	153000	102.0
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	5000	5010	100.2			
Zinc	5000	5200	104.0			

HIGH STANDARD CHECK SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44572 Units: ug/l

Time:		17:23			17:27	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44572 Units: ug/l

Time:				17:06		17:10		23:42	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	215	107.5			220	110.0
Antimony	6.0	20	3.0	6.00	100.0			5.20	86.7
Arsenic	8.0	20	3.0	8.10	101.3	3.30	110.0	7.90	98.8
Barium	200		4.0	199	99.5	3.50	87.5	209	104.5
Beryllium	2.0		1.0	1.90	95.0	0.900	90.0	1.90	95.0
Bismuth	20								
Boron	100		10	anr					
Cadmium	3.0		1.0	3.20	106.7	1.20	120.0	3.40	113.3
Calcium	5000	2000	1000	5130	102.6	1100	110.0	5110	102.2
Chromium	10		2.0	10.4	104.0	1.60	80.0	9.80	98.0
Cobalt	50		3.0	48.5	97.0	3.30	110.0	48.6	97.2
Copper	10		2.0	9.70	97.0			9.80	98.0
Iron	100	500		105	105.0			99.2	99.2
Lead	3.0	20	2.5	2.30	76.7			2.30	76.7
Lithium	50								
Magnesium	5000	2000	100	5140	102.8			4980	99.6
Manganese	15		3.0	15.6	104.0	3.00	100.0	15.4	102.7
Molybdenum	20			anr					
Nickel	10		4.0	9.70	97.0	3.90	97.5	9.30	93.0
Phosphorus	50								
Potassium	5000		2000	5010	100.2	2030	101.5	5610	112.2
Selenium	10	20	5.0	12.0	120.0	4.70	94.0	11.0	110.0
Silicon	200								
Silver	5.0		2.0	5.60	112.0			5.60	112.0
Sodium	5000		1000	5040	100.8	1020	102.0	5420	108.4
Strontium	10								
Sulfur	50								
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	49.1	98.2	1.80	90.0	49.0	98.0
Zinc	20		10	20.7	103.5	10.6	106.0	20.4	102.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44572 Units: ug/l

Time:				17:06		17:10		23:42	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44572 Units: ug/l

Time:				23:46	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100		
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	3.20	106.7
Barium	200		4.0	3.70	92.5
Beryllium	2.0		1.0	0.900	90.0
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	1.10	110.0
Calcium	5000	2000	1000	1050	105.0
Chromium	10		2.0	2.00	100.0
Cobalt	50		3.0	3.10	103.3
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100		
Manganese	15		3.0	3.00	100.0
Molybdenum	20				
Nickel	10		4.0	3.50	87.5
Phosphorus	50				
Potassium	5000		2000	2240	112.0
Selenium	10	20	5.0	5.00	100.0
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	1120	112.0
Strontium	10				
Sulfur	50				
Thallium	10		2.0	anr	
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	1.70	85.0
Zinc	20		10	10.5	105.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44572 Units: ug/l

Time:				23:46	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec
Zirconium	10				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44572 Units: ug/l

Time:			17:14		17:19		23:51		23:55	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	539000	107.8	519000	103.8	542000	108.4	537000	107.4
Antimony		1000	-5.40		1060	106.0	-4.00		1070	107.0
Arsenic		1000	5.40		1040	104.0	4.50		1050	105.0
Barium		500	-0.400		504	100.8	-0.100		531	106.2
Beryllium		500	0.400		491	98.2	0.200		495	99.0
Bismuth		500	-11.7		508	101.6	-9.50		514	102.8
Boron		500	-2.00		485	97.0	-2.70		488	97.6
Cadmium		1000	0.00		1020	102.0	0.00		1030	103.0
Calcium	400000	400000	386000	96.5	392000	98.0	376000	94.0	387000	96.8
Chromium		500	-0.300		486	97.2	-0.900		478	95.6
Cobalt		500	1.10		488	97.6	0.900		490	98.0
Copper		500	2.30		511	102.2	0.100		511	102.2
Iron	200000	200000	192000	96.0	201000	100.5	180000	90.0	194000	97.0
Lead		1000	0.700		977	97.7	2.00		979	97.9
Lithium		500	4.70		528	105.6	6.00		577	115.4
Magnesium	500000	500000	516000	103.2	504000	100.8	492000	98.4	497000	99.4
Manganese		500	0.300		501	100.2	-0.100		499	99.8
Molybdenum		500	-2.10		491	98.2	-2.20		492	98.4
Nickel		1000	2.30		981	98.1	1.80		985	98.5
Phosphorus		500	-2.00		493	98.6				
Potassium			-434		-456		-429		-449	
Selenium		1000	-0.600		1110	111.0	-2.70		1110	111.0
Silicon		500	-13.9		508	101.6	-11.9		511	102.2
Silver		1000	-0.300		1060	106.0	-2.70		1040	104.0
Sodium			25.9		28.4		139		130	
Strontium		500	4.80		537	107.4	5.30		560	112.0
Sulfur		500	0.400		498	99.6	1.30		498	99.6
Thallium		1000	-3.60		1060	106.0	-2.90		1060	106.0
Tin		500	-2.30		469	93.8	-1.40		468	93.6
Titanium		500	-0.600		509	101.8	-0.600		507	101.4
Tungsten		500	8.60		491	98.2	9.10		490	98.0
Vanadium		500	-0.500		487	97.4	-0.400		482	96.4
Zinc		1000	5.10		952	95.2	5.10		947	94.7

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060118M1.ICP Date Analyzed: 06/01/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44572 Units: ug/l

Time:			17:14		17:19		23:51		23:55	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	0.400		477	95.4	-0.200		477	95.4

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:59	MA44586-STD1	1		STDA
17:03	MA44586-STD2	1		STDB
17:07	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:16	ZZZZZZ	1		
17:23	MA44586-ICV1	1		
17:31	MA44586-ICB1	1		
17:35	MA44586-ICCV1	1		
17:43	MA44586-CCB1	1		
17:51	MA44586-CRI1	1		
17:55	MA44586-CRID1	1		
18:00	MA44586-ICSA1	1		
18:04	MA44586-ICSAB1	1		
18:08	ZZZZZZ	1		
18:13	ZZZZZZ	1		
18:19	MA44586-HSTD1	1		
18:23	MA44586-HSTD2	1		
18:27	ZZZZZZ	1		
18:32	ZZZZZZ	1		
18:36	MA44586-CCV1	1		
18:40	MA44586-CCB2	1		
18:44	ZZZZZZ	1		
18:49	MP7404-MB1	1		
18:53	MP7404-MB2	1		
18:57	MP7404-B1	1		
19:01	MP7404-B3	1		
19:05	MP7404-S1	1		
19:09	MP7404-S2	1		
19:13	JC66975-1	1		(sample used for QC only; not part of login JC66927)
19:18	MP7404-SD1	5		
19:22	JC66927-1	1		
19:26	MA44586-CCV2	1		
19:30	MA44586-CCB3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	19:35	JC66927-2	1		
---------->	Last reportable sample/prep for job JC66927				
	19:39	MP7412-MB1	1		
	19:43	MP7412-B1	1		
	19:48	MP7412-S1	1		
	19:52	MP7412-S2	1		
	19:56	JC66957-3	1		(sample used for QC only; not part of login JC66927)
	20:00	MP7412-SD1	5		
	20:04	ZZZZZZ	1		
	20:08	ZZZZZZ	1		
	20:13	MP7401-B2	1		
	20:17	MA44586-CCV3	1		
	20:21	MA44586-CCB4	1		
	20:25	MP7401-MB2	1		
	20:29	ZZZZZZ	1		
	20:34	ZZZZZZ	1		
	20:38	ZZZZZZ	1		
	20:42	MP7466-B1	1		
	20:46	MP7466-MB1	1		
	20:51	MP7466-S1	1		
	20:55	MP7466-S2	1		
	20:59	MP7466-D1	1		
	21:03	MA44586-CCV4	1		
	21:07	MA44586-CCB5	1		
	21:11	JC67134-1	1		(sample used for QC only; not part of login JC66927)
	21:16	MP7466-SD1	5		
	21:20	MP7457-B1	5		
	21:24	MP7457-MB1	5		
	21:29	MP7457-B2	5		
	21:33	MP7457-S1	5		
	21:37	MP7457-S2	5		
	21:41	JC66952-1A	5		(sample used for QC only; not part of login JC66927)
	21:46	MP7457-SD1	25		
	21:50	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:54	MA44586-CCV5	1		
21:58	MA44586-CCB6	1		
22:03	ZZZZZZ	1		
22:07	ZZZZZZ	1		
22:11	ZZZZZZ	1		
22:16	ZZZZZZ	1		
22:20	ZZZZZZ	1		
22:24	ZZZZZZ	1		
22:28	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:36	ZZZZZZ	1		
22:41	ZZZZZZ	1		
22:45	MA44586-CCV6	1		
22:49	MA44586-CCB7	1		
22:53	ZZZZZZ	1		
22:57	ZZZZZZ	1		
23:02	ZZZZZZ	1		
23:06	ZZZZZZ	1		
23:10	ZZZZZZ	1		
23:14	ZZZZZZ	1		
23:19	ZZZZZZ	1		
23:23	ZZZZZZ	1		
23:27	ZZZZZZ	1		
23:31	MP7437-B1	1		
23:35	MA44586-CCV7	1		
23:39	MA44586-CCB8	1		
23:44	MP7437-MB1	1		
23:48	MP7437-S1	1		Na high
23:52	MP7437-S2	1		Na high
23:56	JC66897-15	1		(sample used for QC only; not part of login JC66927)
00:01	MP7437-SD1	5		Na high
00:05	ZZZZZZ	1		
00:09	MA44586-CRI2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	00:14	MA44586-CRID2	1		
	00:18	MA44586-ICSA2	1		
	00:23	MA44586-ICSAB2	1		
	00:27	MA44586-CCV8	1		
	00:31	MA44586-CCB9	1		
---------->	Last reportable CCB for job JC66927				
	00:35	ZZZZZZ	1		
	00:40	ZZZZZZ	1		
	00:44	ZZZZZZ	1		
	00:48	ZZZZZZ	1		
	00:53	ZZZZZZ	1		
	00:57	ZZZZZZ	1		
	01:02	ZZZZZZ	1		
	01:06	ZZZZZZ	1		
	01:10	ZZZZZZ	1		
	01:15	ZZZZZZ	1		
	01:19	ZZZZZZ	1		
	01:23	ZZZZZZ	1		
	01:28	ZZZZZZ	1		
	01:32	MA44586-CCV9	1		
	01:36	MA44586-CCB10	1		
	01:41	ZZZZZZ	1		
	01:45	ZZZZZZ	1		
	01:49	ZZZZZZ	1		
	01:54	ZZZZZZ	1		
	01:58	ZZZZZZ	1		
	02:02	ZZZZZZ	1		
	02:06	ZZZZZZ	1		
	02:11	ZZZZZZ	1		
	02:15	ZZZZZZ	1		
	02:20	ZZZZZZ	1		
	02:24	MA44586-CCV10	1		
	02:28	MA44586-CCB11	1		
	02:32	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:37	ZZZZZZ	1		
02:41	ZZZZZZ	1		
02:45	ZZZZZZ	1		
02:50	ZZZZZZ	1		
02:54	ZZZZZZ	1		
02:58	ZZZZZZ	1		
03:03	ZZZZZZ	1		
03:07	ZZZZZZ	1		
03:11	MP7451-B1	1		
03:15	MA44586-CCV11	1		
03:19	MA44586-CCB12	1		
03:24	MP7451-MB1	1		
03:28	MP7451-S1	1		
03:32	MP7451-S2	1		
03:36	JC66730-20	1		(sample used for QC only; not part of login JC66927)
03:40	MP7451-SD1	5		
03:45	ZZZZZZ	1		
03:49	ZZZZZZ	1		
03:53	ZZZZZZ	1		
03:57	ZZZZZZ	1		
04:02	ZZZZZZ	1		
04:06	MA44586-CCV12	1		
04:10	MA44586-CCB13	1		
04:15	ZZZZZZ	1		
04:19	ZZZZZZ	1		
04:23	ZZZZZZ	1		
04:27	ZZZZZZ	1		
04:32	ZZZZZZ	1		
04:36	ZZZZZZ	1		
04:40	ZZZZZZ	1		
04:45	ZZZZZZ	1		
04:49	ZZZZZZ	1		
04:53	MA44586-CCV13	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
04:57	MA44586-CCB14	1		
05:02	ZZZZZZ	1		
05:06	ZZZZZZ	1		
05:10	ZZZZZZ	1		
05:15	ZZZZZZ	5		
05:19	ZZZZZZ	5		
05:23	ZZZZZZ	5		
05:28	ZZZZZZ	5		
05:32	ZZZZZZ	5		
05:37	ZZZZZZ	5		
05:41	MA44586-CCV14	1		
05:45	MA44586-CCB15	1		
05:50	ZZZZZZ	5		
05:54	ZZZZZZ	5		
05:58	ZZZZZZ	5		
06:03	ZZZZZZ	5		
06:07	ZZZZZZ	5		
06:12	ZZZZZZ	5		
06:16	ZZZZZZ	5		
06:20	ZZZZZZ	5		
06:25	ZZZZZZ	5		
06:29	MA44586-CCV15	1		
06:33	MA44586-CCB16	1		
06:38	MP7457-MB2	5		
06:42	MP7457-B3	5		
06:46	ZZZZZZ	5		
06:51	MP7458-MB1	5		
06:55	MP7458-B1	5		
06:59	MP7458-S1	1		
07:03	MP7458-S2	1		
07:07	JC65440-1	1		(sample used for QC only; not part of login JC66927)
07:12	MP7458-SD1	5		
07:16	MA44586-CCV16	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
07:20	MA44586-CCB17	1		
07:24	MP7357-MB3	1		Y 3600 out on CCB
07:29	MP7357-B3	1		Y 3600 out on CCB
07:33	ZZZZZZ	1		
07:37	ZZZZZZ	1		
07:41	ZZZZZZ	1		
07:46	ZZZZZZ	1		
07:50	MA44586-CCV17	1		
07:54	MA44586-CCB18	1		
07:58	MA44586-CRI3	1		
08:03	MA44586-CRID3	1		
08:10	MA44586-CCV18	1		
08:14	MA44586-CCB19	1		
08:18	ZZZZZZ	1		
08:23	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:59	MA44586-STD1	3399 R	88448 R	14310 R	8358 R
17:03	MA44586-STD2	3219	83381	14144	7263
17:07	ZZZZZZ	3307	85484	14212	7556
17:11	ZZZZZZ	3427	89410	14414	8404
17:16	ZZZZZZ	3312	85319	14241	7567
17:23	MA44586-ICV1	3315	85862	14196	7587
17:31	MA44586-ICB1	3441	89164	14299	8434
17:35	MA44586-ICCV1	3329	86009	14237	7601
17:43	MA44586-CCB1	3444	89969	14302	8431
17:51	MA44586-CRI1	3413	88539	14291	8251
17:55	MA44586-CRID1	3417	88823	14184	8332
18:00	MA44586-ICSA1	3063	78415	13748	6634
18:04	MA44586-ICSAB1	3065	78315	13690	6671
18:08	ZZZZZZ	11443 !	248590 !	32117 !	26199 !
18:13	ZZZZZZ	11493 !	263080 !	32256 !	26300 !
18:19	MA44586-HSTD1	3386	87874	14267	8178
18:23	MA44586-HSTD2	3110	79997	13656	6732
18:27	ZZZZZZ	3394	88130	14054	8323
18:32	ZZZZZZ	3376	89412	14199	8439
18:36	MA44586-CCV1	3345	85847	14069	7616
18:40	MA44586-CCB2	3458	89606	14216	8467
18:44	ZZZZZZ	3438	89402	14183	8378
18:49	MP7404-MB1	3456	90233	14357	8466
18:53	MP7404-MB2	3447	89842	14308	8451
18:57	MP7404-B1	3385	88019	14278	7843
19:01	MP7404-B3	3397	87581	14286	7858
19:05	MP7404-S1	3373	88237	14314	7825
19:09	MP7404-S2	3381	87258	14249	7832
19:13	JC66975-1	3464	90313	14444	8465
19:18	MP7404-SD1	3479	90450	14266	8520
19:22	JC66927-1	3352	87509	14260	7868
19:26	MA44586-CCV2	3358	86549	14118	7653
19:30	MA44586-CCB3	3467	90444	14270	8496

INTERNAL STANDARD SUMMARY

Login Number: JC66927
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File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:35	JC66927-2	3362	87968	14244	7901
19:39	MP7412-MB1	3466	90562	14306	8500
19:43	MP7412-B1	3392	87858	14266	7848
19:48	MP7412-S1	3273	84727	14121	7397
19:52	MP7412-S2	3268	84519	14120	7378
19:56	JC66957-3	3279	85485	14145	7628
20:00	MP7412-SD1	3422	88784	14262	8233
20:04	ZZZZZZ	3461	90328	14430	8419
20:08	ZZZZZZ	3443	999999 !	14279	8486
20:13	MP7401-B2	3348	87184	14077	7786
20:17	MA44586-CCV3	3322	85688	13890	7584
20:21	MA44586-CCB4	3446	89721	14150	8449
20:25	MP7401-MB2	3406	89844	14170	8381
20:29	ZZZZZZ	3377	88040	14135	8159
20:34	ZZZZZZ	3323	86541	14118	7772
20:38	ZZZZZZ	3423	89816	14071	8410
20:42	MP7466-B1	3329	86260	13983	7733
20:46	MP7466-MB1	3422	90125	14122	8418
20:51	MP7466-S1	3218	83950	13424	7551
20:55	MP7466-S2	3278	85520	13644	7704
20:59	MP7466-D1	3386	89132	13768	8395
21:03	MA44586-CCV4	3330	86395	14016	7640
21:07	MA44586-CCB5	3446	90618	14217	8489
21:11	JC67134-1	3392	88590	13778	8409
21:16	MP7466-SD1	3437	90808	14178	8511
21:20	MP7457-B1	3275	84086	13916	7378
21:24	MP7457-MB1	3227	83166	13897	7380
21:29	MP7457-B2	3259	84014	13870	7359
21:33	MP7457-S1	3252	83601	13765	7316
21:37	MP7457-S2	3263	83819	13790	7347
21:41	JC66952-1A	3241	83441	13769	7391
21:46	MP7457-SD1	3353	88021	13755	7962
21:50	ZZZZZZ	3246	83287	13737	7415

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:54	MA44586-CCV5	3332	86482	13836	7642
21:58	MA44586-CCB6	3443	89950	13836	8476
22:03	ZZZZZZ	3522	91324	14398	8178
22:07	ZZZZZZ	3533	91995	14542	8279
22:11	ZZZZZZ	3513	91547	14200	8267
22:16	ZZZZZZ	3504	90764	14438	8075
22:20	ZZZZZZ	3632	92954	15063	7866
22:24	ZZZZZZ	3451	89169	14390	7920
22:28	ZZZZZZ	3526	91154	14475	7954
22:32	ZZZZZZ	3541	91616	14488	7999
22:36	ZZZZZZ	3456	999999 !a	14153	8008
22:41	ZZZZZZ	3659	94510	15199	7895
22:45	MA44586-CCV6	3362	86891	13752	7700
22:49	MA44586-CCB7	3470	90778	13875	8537
22:53	ZZZZZZ	3575	93190	14600	8125
22:57	ZZZZZZ	3507	90405	13964	8188
23:02	ZZZZZZ	3504	91465	13981	8433
23:06	ZZZZZZ	3432	89608	14182	7877
23:10	ZZZZZZ	3203	83208	13637	6873
23:14	ZZZZZZ	3241	84512	13650	7103
23:19	ZZZZZZ	3620	93799	14596	8043
23:23	ZZZZZZ	3204	83426	13631	6914
23:27	ZZZZZZ	3188	83470	13831	6774
23:31	MP7437-B1	3384	88373	13840	7886
23:35	MA44586-CCV7	3343	86571	13549	7658
23:39	MA44586-CCB8	3470	90456	13722	8520
23:44	MP7437-MB1	3461	90911	13860	8530
23:48	MP7437-S1	3142	80926	13289	6880
23:52	MP7437-S2	3140	81340	13370	6895
23:56	JC66897-15	3124	80458	13333	6976
00:01	MP7437-SD1	3336	86374	13497	7797
00:05	ZZZZZZ	3465	90896	13514	8522
00:09	MA44586-CRI2	3427	89283	13534	8302

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:14	MA44586-CRID2	3448	89978	13574	8429
00:18	MA44586-ICSA2	3058	78857	13047	6654
00:23	MA44586-ICSAB2	3052	78412	12967	6666
00:27	MA44586-CCV8	3343	86731	13326	7641
00:31	MA44586-CCB9	3463	90632	13559	8510
00:35	ZZZZZZ	3466	90736	13578	8510
00:40	ZZZZZZ	3155	82177	13042	7253
00:44	ZZZZZZ	3528	86242	13954	7558
00:48	ZZZZZZ	3153	82420	13080	7261
00:53	ZZZZZZ	3463	90747	13558	8515
00:57	ZZZZZZ	3460	90661	13504	8468
01:02	ZZZZZZ	3436	90160	13413	8413
01:06	ZZZZZZ	3453	90195	13464	8517
01:10	ZZZZZZ	3461	90478	13459	8480
01:15	ZZZZZZ	3459	90285	13598	8459
01:19	ZZZZZZ	3468	90678	13518	8506
01:23	ZZZZZZ	3461	90599	13492	8523
01:28	ZZZZZZ	3474	90721	13399	8519
01:32	MA44586-CCV9	3363	86382	13369	7661
01:36	MA44586-CCB10	3470	90634	13419	8500
01:41	ZZZZZZ	3460	90674	13600	8486
01:45	ZZZZZZ	3243	83967	13354	7321
01:49	ZZZZZZ	3077	79458	12985	6817
01:54	ZZZZZZ	3265	84538	13412	7297
01:58	ZZZZZZ	3476	90311	13587	8199
02:02	ZZZZZZ	3509	90899	13689	8229
02:06	ZZZZZZ	3118	80466	13042	6908
02:11	ZZZZZZ	3451	90330	13509	8462
02:15	ZZZZZZ	3454	89509	13516	8044
02:20	ZZZZZZ	3335	86907	13558	7526
02:24	MA44586-CCV10	3366	86261	13272	7664
02:28	MA44586-CCB11	3475	91003	13406	8498
02:32	ZZZZZZ	3263	84623	13328	7513

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
02:37	ZZZZZZ	3315	86026	13373	7585
02:41	ZZZZZZ	3211	82616	13100	7182
02:45	ZZZZZZ	3234	83607	13135	7322
02:50	ZZZZZZ	3259	84386	13231	7419
02:54	ZZZZZZ	3305	85458	13252	7675
02:58	ZZZZZZ	3398	88443	13380	8098
03:03	ZZZZZZ	3415	89240	13436	8210
03:07	ZZZZZZ	3460	89876	13554	8258
03:11	MP7451-B1	3394	87722	13434	7840
03:15	MA44586-CCV11	3362	86282	13273	7634
03:19	MA44586-CCB12	3474	90613	13387	8473
03:24	MP7451-MB1	3474	91019	13364	8490
03:28	MP7451-S1	3248	84120	13130	7294
03:32	MP7451-S2	3237	84038	13138	7268
03:36	JC66730-20	3262	84889	13196	7454
03:40	MP7451-SD1	3395	87862	13201	8076
03:45	ZZZZZZ	3332	86682	13346	7717
03:49	ZZZZZZ	3091	80663	12928	6958
03:53	ZZZZZZ	3366	87348	13497	7886
03:57	ZZZZZZ	3358	87511	13233	7884
04:02	ZZZZZZ	3370	87513	13282	7905
04:06	MA44586-CCV12	3344	86174	13150	7592
04:10	MA44586-CCB13	3465	90115	13214	8458
04:15	ZZZZZZ	3354	87212	13315	7895
04:19	ZZZZZZ	3351	86748	13315	7882
04:23	ZZZZZZ	3323	86918	13264	7861
04:27	ZZZZZZ	3342	87360	13254	7922
04:32	ZZZZZZ	3350	86884	13310	7924
04:36	ZZZZZZ	3333	86875	13305	7927
04:40	ZZZZZZ	3332	87347	13335	7948
04:45	ZZZZZZ	3122	81331	13039	7112
04:49	ZZZZZZ	3106	81264	12965	7080
04:53	MA44586-CCV13	3310	85831	13122	7597

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
04:57	MA44586-CCB14	3429	89548	13249	8450
05:02	ZZZZZZ	3163	82483	12654	7270
05:06	ZZZZZZ	3383	88966	13356	8138
05:10	ZZZZZZ	3401	89944	13310	8405
05:15	ZZZZZZ	3205	82612	13026	7330
05:19	ZZZZZZ	3211	82292	13044	7320
05:23	ZZZZZZ	3209	82392	12990	7315
05:28	ZZZZZZ	3208	82480	12854	7312
05:32	ZZZZZZ	3208	82678	12906	7284
05:37	ZZZZZZ	3196	82430	12834	7279
05:41	MA44586-CCV14	3267	85161	12936	7505
05:45	MA44586-CCB15	3390	89299	13094	8361
05:50	ZZZZZZ	3204	82733	12891	7304
05:54	ZZZZZZ	3209	82732	12878	7322
05:58	ZZZZZZ	3200	82440	12991	7313
06:03	ZZZZZZ	3196	82609	12888	7291
06:07	ZZZZZZ	3188	82469	12869	7271
06:12	ZZZZZZ	3189	82512	12850	7294
06:16	ZZZZZZ	3186	82168	12909	7289
06:20	ZZZZZZ	3200	82380	12743	7309
06:25	ZZZZZZ	3190	82475	12743	7283
06:29	MA44586-CCV15	3264	84624	12808	7505
06:33	MA44586-CCB16	3380	88763	12937	8340
06:38	MP7457-MB2	3178	82147	12719	7284
06:42	MP7457-B3	3209	82488	12786	7235
06:46	ZZZZZZ	3205	82183	12747	7301
06:51	MP7458-MB1	3388	88816	12947	8352
06:55	MP7458-B1	3372	88331	12979	8118
06:59	MP7458-S1	3284	85592	12874	7602
07:03	MP7458-S2	3272	85725	12802	7573
07:07	JC65440-1	3354	88503	13018	8149
07:12	MP7458-SD1	3408	89509	13014	8358
07:16	MA44586-CCV16	3304	85019	12744	7529

INTERNAL STANDARD SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44586
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
07:20	MA44586-CCB17	3421	88891	12870	8374
07:24	MP7357-MB3	3394	89284	13197	8282
07:29	MP7357-B3	3331	86729	12833	7716
07:33	ZZZZZZ	3413	89425	13068	8301
07:37	ZZZZZZ	3402	88710	13225	8275
07:41	ZZZZZZ	3445	89791	13092	8243
07:46	ZZZZZZ	3413	89034	13070	8289
07:50	MA44586-CCV17	3326	85054	12836	7578
07:54	MA44586-CCB18	3438	999999 !a	12975	8404
07:58	MA44586-CRI3	3385	88116	12654	8174
08:03	MA44586-CRID3	3403	87966	12886	8293
08:10	MA44586-CCV18	3314	84969	12851	7548
08:14	MA44586-CCB19	3423	89226	12932	8371
08:18	ZZZZZZ	3252	85211	13152	7544
08:23	ZZZZZZ	3365	86994	13117	8007

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.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44586 Units: ug/l

Time:			17:31		17:43		18:40		19:30	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	anr							
Antimony	6.0	1.6	anr							
Arsenic	3.0	1.5	anr							
Barium	200	.4	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.4								
Boron	100	1.1	anr							
Cadmium	3.0	.3	anr							
Calcium	2000	2.7	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	10	.6	anr							
Iron	100	4	anr							
Lead	3.0	1.6	anr							
Lithium	50	2.5	anr							
Magnesium	2000	26	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.4	anr							
Phosphorus	50	2.5								
Potassium	2000	29	anr							
Selenium	10	2.3	anr							
Silicon	200	1.5	anr							
Silver	10	.6	anr							
Sodium	2000	12	anr							
Strontium	10	.1								
Sulfur	50	2.9	anr							
Thallium	2.0	.9	0.00	<2.0	0.400	<2.0	0.400	<2.0	0.100	<2.0
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44586 Units: ug/l

Time:			17:31		17:43		18:40		19:30	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.4								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44586 Units: ug/l

Time:			20:21		21:07		21:58		22:49	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	anr							
Antimony	6.0	1.6	anr							
Arsenic	3.0	1.5	anr							
Barium	200	.4	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.4								
Boron	100	1.1	anr							
Cadmium	3.0	.3	anr							
Calcium	2000	2.7	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	10	.6	anr							
Iron	100	4	anr							
Lead	3.0	1.6	anr							
Lithium	50	2.5	anr							
Magnesium	2000	26	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.4	anr							
Phosphorus	50	2.5								
Potassium	2000	29	anr							
Selenium	10	2.3	anr							
Silicon	200	1.5	anr							
Silver	10	.6	anr							
Sodium	2000	12	anr							
Strontium	10	.1								
Sulfur	50	2.9	anr							
Thallium	2.0	.9	-0.100	<2.0	0.700	<2.0	0.100	<2.0	0.400	<2.0
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44586 Units: ug/l

Time:			20:21		21:07		21:58		22:49	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.4								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44586 Units: ug/l

Time:			23:39		00:31	
Sample ID:			CCB8		CCB9	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	12	anr			
Antimony	6.0	1.6	anr			
Arsenic	3.0	1.5	anr			
Barium	200	.4	anr			
Beryllium	1.0	.1	anr			
Bismuth	20	1.4				
Boron	100	1.1	anr			
Cadmium	3.0	.3	anr			
Calcium	2000	2.7	anr			
Chromium	10	.5	anr			
Cobalt	50	.2	anr			
Copper	10	.6	anr			
Iron	100	4	anr			
Lead	3.0	1.6	anr			
Lithium	50	2.5	anr			
Magnesium	2000	26	anr			
Manganese	15	.1	anr			
Molybdenum	20	.4				
Nickel	10	.4	anr			
Phosphorus	50	2.5				
Potassium	2000	29	anr			
Selenium	10	2.3	anr			
Silicon	200	1.5	anr			
Silver	10	.6	anr			
Sodium	2000	12	anr			
Strontium	10	.1				
Sulfur	50	2.9	anr			
Thallium	2.0	.9	0.700	<2.0	-0.300	<2.0
Tin	10	.6				
Titanium	10	.4				
Tungsten	50	1.1				
Vanadium	50	.6	anr			
Zinc	20	.2	anr			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44586 Units: ug/l

Time:			23:39		00:31	
Sample ID:			CCB8		CCB9	
Metal	RL	IDL	raw	final	raw	final
Zirconium	10	.4				

(*) Outside of QC limits
(anr) Analyte not requested

12.3.2
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44586 Units: ug/l

Time:		17:35	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Bismuth			
Boron	anr		
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	anr		
Lithium	anr		
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	anr		
Silicon	anr		
Silver	anr		
Sodium	anr		
Strontium			
Sulfur	anr		
Thallium	2000	2090	104.5
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44586 Units: ug/l

Time:		17:35	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

12.3.3
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44586 Units: ug/l

Time:		17:23			18:36			19:26	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon	anr								
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	2000	2100	105.0	2000	2090	104.5	2000	2080	104.0
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44586 Units: ug/l

Time:		17:23			18:36			19:26	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

12.3.4
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44586 Units: ug/l

Time:		20:17			21:03			21:54	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon	anr								
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	2000	2110	105.5	2000	2110	105.5	2000	2090	104.5
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44586 Units: ug/l

Time:		20:17			21:03			21:54	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

12.3.4
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44586 Units: ug/l

Time:		22:45			23:35			00:27	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon	anr								
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	2000	2080	104.0	2000	2090	104.5	2000	2100	105.0
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44586 Units: ug/l

Time:		22:45			23:35			00:27	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

12.3.4
12

HIGH STANDARD CHECK SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44586 Units: ug/l

Time:		18:19			18:23	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	anr					
Lithium	anr					
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon	anr					
Silver	anr					
Sodium						
Strontium						
Sulfur	anr					
Thallium	5000	5390	107.8			
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44586 Units: ug/l

Time:		18:19			18:23	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

12.3.5

12

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44586 Units: ug/l

Time:				17:51		17:55		00:09	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
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	anr					
Chromium	10		2.0	anr					
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	anr					
Lithium	50			anr					
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	anr					
Silicon	200			anr					
Silver	5.0		2.0	anr					
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	10.9	109.0	2.10	105.0	9.90	99.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44586 Units: ug/l

Time:				17:51		17:55		00:09	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested

12.3.6

12

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44586 Units: ug/l

Time:				00:14	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100	anr	
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	anr	
Barium	200		4.0	anr	
Beryllium	2.0		1.0	anr	
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	anr	
Calcium	5000	2000	1000	anr	
Chromium	10		2.0	anr	
Cobalt	50		3.0	anr	
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100		
Manganese	15		3.0	anr	
Molybdenum	20				
Nickel	10		4.0	anr	
Phosphorus	50				
Potassium	5000		2000	anr	
Selenium	10	20	5.0		
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	anr	
Strontium	10				
Sulfur	50				
Thallium	10		2.0	2.40	120.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	anr	
Zinc	20		10	anr	

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44586 Units: ug/l

Time:				00:14	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec
Zirconium	10				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44586 Units: ug/l

Time:			18:00		18:04		00:18		00:23	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	548000	109.6	530000	106.0	550000	110.0	534000	106.8
Antimony		1000	-2.50		1080	108.0	-3.60		1090	109.0
Arsenic		1000	0.700		1070	107.0	-0.200		1070	107.0
Barium		500	-0.300		526	105.2	0.100		537	107.4
Beryllium		500	0.300		506	101.2	0.300		511	102.2
Bismuth		500	-10.5		512	102.4	-10.1		523	104.6
Boron		500	-1.30		492	98.4	0.200		501	100.2
Cadmium		1000	-0.600		1040	104.0	-0.600		1050	105.0
Calcium	400000	400000	394000	98.5	398000	99.5	392000	98.0	401000	100.3
Chromium		500	-0.200		504	100.8	-0.900		504	100.8
Cobalt		500	0.600		498	99.6	0.600		504	100.8
Copper		500	0.800		521	104.2	0.900		522	104.4
Iron	200000	200000	192000	96.0	205000	102.5	194000	97.0	207000	103.5
Lead		1000	3.20		1000	100.0	1.30		1000	100.0
Lithium		500	5.40		540	108.0	6.90		559	111.8
Magnesium	500000	500000	519000	103.8	515000	103.0	524000	104.8	523000	104.6
Manganese		500	0.00		516	103.2	0.700		519	103.8
Molybdenum		500	-1.00		505	101.0	-1.60		506	101.2
Nickel		1000	1.70		1010	101.0	1.20		1020	102.0
Phosphorus		500	-1.60		508	101.6	-4.40		512	102.4
Potassium			-454		-461		-421		-422	
Selenium		1000	-0.100		1140	114.0	-0.400		1150	115.0
Silicon		500	-15.9		512	102.4	-11.1		510	102.0
Silver		1000	-2.40		1080	108.0	-0.200		1090	109.0
Sodium			58.6		46.4		132		152	
Strontium		500	5.20		568	113.6	5.40		578	115.6
Sulfur		500	5.20		509	101.8	4.60		507	101.4
Thallium		1000	-2.30		1110	111.0	0.300		1120	112.0
Tin		500	-1.40		484	96.8	-1.30		486	97.2
Titanium		500	-0.200		524	104.8	-0.400		527	105.4
Tungsten		500	11.4		505	101.0	8.90		510	102.0
Vanadium		500	0.100		507	101.4	0.00		508	101.6
Zinc		1000	4.80		985	98.5	5.10		988	98.8

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE060418M2.ICP Date Analyzed: 06/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44586 Units: ug/l

Time:			18:00		18:04		00:18		00:23	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	0.200		501	100.2	0.300		501	100.2

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7394
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 05/30/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.052	.13	0.053	<0.20

Associated samples MP7394: JC66927-1, JC66927-2

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: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7394
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 05/30/18

Metal	JC66890-4 Original	MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	2.2	2	110.0	75-125

Associated samples MP7394: JC66927-1, JC66927-2

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7394
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 05/30/18

Metal	JC66890-4 Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.1	2	105.0	4.7	20

Associated samples MP7394: JC66927-1, JC66927-2

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7394
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 05/30/18

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	2.3	2	115.0	80-120

Associated samples MP7394: JC66927-1, JC66927-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					05/31/18		05/31/18
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	12	33	13.0	<200	6.4	<200
Antimony	6.0	1.6	4.3	-0.80	<6.0	-1.2	<6.0
Arsenic	3.0	1.5	2.7	-0.20	<3.0	-0.10	<3.0
Barium	200	.4	1.3	-0.20	<200	-0.30	<200
Beryllium	1.0	.1	.4	-0.20	<1.0	-0.20	<1.0
Bismuth	20	1.4	5				
Boron	100	1.1	13				
Cadmium	3.0	.3	.7	0.10	<3.0	0.10	<3.0
Calcium	5000	2.7	29	-4.1	<5000	1.9	<5000
Chromium	10	.5	.85	0.0	<10	0.10	<10
Cobalt	50	.2	.72	0.10	<50	0.40	<50
Copper	10	.6	3.2	0.10	<10	0.10	<10
Iron	100	4	32	-1.4	<100	-0.30	<100
Lead	3.0	1.6	2.6	0.0	<3.0	0.20	<3.0
Lithium	50	2.5	15				
Magnesium	5000	26	64	-4.3	<5000	9.1	<5000
Manganese	15	.1	.42	-0.10	<15	-0.10	<15
Molybdenum	20	.4	1.4				
Nickel	10	.4	1.3	-0.60	<10	-0.50	<10
Phosphorus	50	2.5	13				
Potassium	10000	29	230	10.2	<10000	14.9	<10000
Selenium	10	2.3	6.6	-0.70	<10	1.3	<10
Silicon	200	1.5	45				
Silver	10	.6	3.1	0.10	<10	-0.50	<10
Sodium	10000	12	130	76.0	<10000	38.5	<10000
Strontium	10	.1	.3				
Sulfur	50	2.9	15				
Thallium	2.0	.9	1.6	-0.30	<2.0	-0.50	<2.0
Tin	10	.6	2.4				
Titanium	10	.4	1.8				
Tungsten	50	1.1	14				
Vanadium	50	.6	1.3	-0.30	<50	-0.20	<50
Zinc	20	.2	4	0.20	<20	0.50	<20

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date:				05/31/18		05/31/18	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Zirconium	10	.4	2				

Associated samples MP7404: JC66927-1, JC66927-2

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: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/31/18

Metal	JC66975-1 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	236	24100	25000	95.5	75-125
Antimony	0.0	1960	2000	98.0	75-125
Arsenic	0.0	1910	2000	95.5	75-125
Barium	1.6	1940	2000	96.9	75-125
Beryllium	0.0	1890	2000	94.5	75-125
Bismuth					
Boron	anr				
Cadmium	0.0	1920	2000	96.0	75-125
Calcium	3180	26700	25000	94.1	75-125
Chromium	0.0	1910	2000	95.5	75-125
Cobalt	0.20	1880	2000	94.0	75-125
Copper	0.0	1910	2000	95.5	75-125
Iron	263	24300	25000	96.1	75-125
Lead	0.0	1930	2000	96.5	75-125
Lithium					
Magnesium	1370	24900	25000	94.1	75-125
Manganese	9.7	1960	2000	97.5	75-125
Molybdenum					
Nickel	0.0	1920	2000	96.0	75-125
Phosphorus					
Potassium	499	25900	25000	101.6	75-125
Selenium	0.0	1910	2000	95.5	75-125
Silicon					
Silver	0.0	238	250	95.2	75-125
Sodium	1300	26100	25000	99.2	75-125
Strontium					
Sulfur					
Thallium	0.0	2060	2000	103.0	75-125
Tin					
Titanium					
Tungsten					
Vanadium	0.0	1880	2000	94.0	75-125
Zinc	2.1	1930	2000	96.4	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404 | Methods: SW846 6010C
Matrix Type: AQUEOUS | Units: ug/l

Prep Date: 05/31/18

Metal	JC66975-1 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP7404: JC66927-1, JC66927-2

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/31/18

Metal	JC66975-1 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	236	23800	25000	94.3	1.3	20
Antimony	0.0	1940	2000	97.0	1.0	20
Arsenic	0.0	1900	2000	95.0	0.5	20
Barium	1.6	1920	2000	95.9	1.0	20
Beryllium	0.0	1880	2000	94.0	0.5	20
Bismuth						
Boron	anr					
Cadmium	0.0	1910	2000	95.5	0.5	20
Calcium	3180	26500	25000	93.3	0.8	20
Chromium	0.0	1920	2000	96.0	0.5	20
Cobalt	0.20	1880	2000	94.0	0.0	20
Copper	0.0	1910	2000	95.5	0.0	20
Iron	263	24100	25000	95.3	0.8	20
Lead	0.0	1920	2000	96.0	0.5	20
Lithium						
Magnesium	1370	24700	25000	93.3	0.8	20
Manganese	9.7	1970	2000	98.0	0.5	20
Molybdenum						
Nickel	0.0	1910	2000	95.5	0.5	20
Phosphorus						
Potassium	499	25600	25000	100.4	1.2	20
Selenium	0.0	1900	2000	95.0	0.5	20
Silicon						
Silver	0.0	240	250	96.0	0.8	20
Sodium	1300	25800	25000	98.0	1.2	20
Strontium						
Sulfur						
Thallium	0.0	2040	2000	102.0	1.0	20
Tin						
Titanium						
Tungsten						
Vanadium	0.0	1890	2000	94.5	0.5	20
Zinc	2.1	1920	2000	95.9	0.5	20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404 | Methods: SW846 6010C
Matrix Type: AQUEOUS | Units: ug/l

Prep Date: 05/31/18

Metal	JC66975-1 Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium					

Associated samples MP7404: JC66927-1, JC66927-2

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			05/31/18				05/31/18	
Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	23000	25000	92.0	80-120	24100	25000	96.4	80-120
Antimony	1920	2000	96.0	80-120	1940	2000	97.0	80-120
Arsenic	1870	2000	93.5	80-120	1900	2000	95.0	80-120
Barium	1880	2000	94.0	80-120	1910	2000	95.5	80-120
Beryllium	1840	2000	92.0	80-120	1870	2000	93.5	80-120
Bismuth								
Boron	anr							
Cadmium	1890	2000	94.5	80-120	1910	2000	95.5	80-120
Calcium	22900	25000	91.6	80-120	24000	25000	96.0	80-120
Chromium	1890	2000	94.5	80-120	1920	2000	96.0	80-120
Cobalt	1860	2000	93.0	80-120	1890	2000	94.5	80-120
Copper	1880	2000	94.0	80-120	1910	2000	95.5	80-120
Iron	23400	25000	93.6	80-120	24400	25000	97.6	80-120
Lead	1910	2000	95.5	80-120	1940	2000	97.0	80-120
Lithium								
Magnesium	22800	25000	91.2	80-120	23800	25000	95.2	80-120
Manganese	1930	2000	96.5	80-120	1960	2000	98.0	80-120
Molybdenum								
Nickel	1890	2000	94.5	80-120	1920	2000	96.0	80-120
Phosphorus								
Potassium	24500	25000	98.0	80-120	25600	25000	102.4	80-120
Selenium	1880	2000	94.0	80-120	1900	2000	95.0	80-120
Silicon								
Silver	235	250	94.0	80-120	238	250	95.2	80-120
Sodium	24100	25000	96.4	80-120	25200	25000	100.8	80-120
Strontium								
Sulfur								
Thallium	2040	2000	102.0	80-120	2060	2000	103.0	80-120
Tin								
Titanium								
Tungsten								
Vanadium	1850	2000	92.5	80-120	1890	2000	94.5	80-120
Zinc	1900	2000	95.0	80-120	1930	2000	96.5	80-120

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:	05/31/18				05/31/18			
Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium								

Associated samples MP7404: JC66927-1, JC66927-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/31/18

Metal	JC66975-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	236	338	43.4 (a)	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium	1.60	0.00	100.0(a)	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron	anr			
Cadmium	0.00	0.00	NC	0-10
Calcium	3180	3370	5.9	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt	0.200	1.70	750.0(a)	0-10
Copper	0.00	0.00	NC	0-10
Iron	263	262	0.6	0-10
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	1370	1390	1.5	0-10
Manganese	9.70	9.60	1.0	0-10
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Phosphorus				
Potassium	499	442	11.5 (a)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	1300	1470	13.6*(b)	0-10
Strontium				
Sulfur				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	0.00	0.00	NC	0-10
Zinc	2.10	20.4	871.4(a)	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7404
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/31/18

Metal	JC66975-1 Original SDL 1:5	%DIF	QC Limits
Zirconium			

Associated samples MP7404: JC66927-1, JC66927-2

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.

Instrument Detection Limits

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: LEEMANHG9 **Effective Date:** 05/30/18

Analyte	IDL ug/l
Mercury	.0521

The above applies to the following instrument runs:
MA44537

Instrument Detection Limits

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE5 **Effective Date:** 05/29/18

Analyte	IDL ug/l
Aluminum	11.6
Antimony	1.6
Arsenic	1.5
Barium	.4
Beryllium	.1
Bismuth	1.4
Boron	1.1
Cadmium	.3
Calcium	2.7
Chromium	.5
Cobalt	.2
Copper	.6
Iron	4
Lead	1.6
Lithium	2.5
Magnesium	25.6
Manganese	.1
Molybdenum	.4
Nickel	.4
Phosphorus	2.5
Potassium	29.1
Selenium	2.3
Silicon	1.5
Silver	.6
Sodium	11.9
Sulfur	2.9
Strontium	.1
Thallium	.9
Tin	.6
Titanium	.4
Tungsten	1.1
Vanadium	.6
Zinc	.2
Zirconium	.4

The above applies to the following instrument runs:
MA44572,MA44586

Instrument Linear Ranges

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: LEEMANHG9 **Effective Date:** 02/26/18

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA44537

Instrument Linear Ranges

Job Number: JC66927
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE5 **Effective Date:** 11/30/17

Analyte	Linear Range ug/l
Aluminum	600000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Bismuth	10000
Boron	10000
Cadmium	10000
Calcium	300000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	300000
Lead	10000
Lithium	10000
Magnesium	600000
Manganese	10000
Molybdenum	10000
Nickel	10000
Palladium	10000
Phosphorus	50000
Potassium	300000
Selenium	10000
Silicon	50000
Silver	1250
Sodium	300000
Sulfur	100000
Strontium	10000
Thallium	10000
Tin	10000
Titanium	10000
Tungsten	10000
Vanadium	10000
Zinc	10000
Zirconium	10000

The above applies to the following instrument runs:
MA44572,MA44586

Metals Analysis

Raw Data

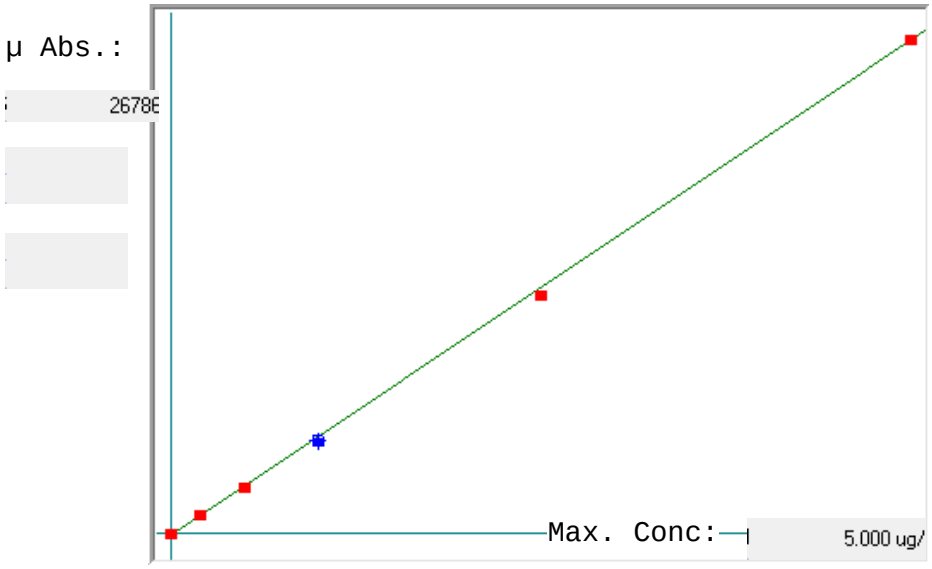
MA44537

Method: Accutest Operator: Admin Date of Analysis: 30 May 2018 08:53:55

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
STDA - 1	30 May 2018 10:22:52	Std	ug/l	-	-29	1.000	1.000
STDB - 1	30 May 2018 10:24:11	Std	ug/l	-	1084	1.000	1.000
STDC - 1	30 May 2018 10:25:29	Std	ug/l	-	2566	1.000	1.000
STDD - 1	30 May 2018 10:26:50	Std	ug/l	-	5036	1.000	1.000
STDE - 1	30 May 2018 10:28:14	Std	ug/l	-	12981	1.000	1.000
STDF - 1	30 May 2018 10:29:44	Std	ug/l	-	26786	1.000	1.000
ICV - 1	30 May 2018 10:39:14	SMPL	ug/l	3.1009	16464	1.000	1.000
ICB - 1	30 May 2018 10:41:35	SMPL	ug/l	0.0010	-134	1.000	1.000
CCV - 1	30 May 2018 10:42:51	CK STND	ug/l	96.5% 2.4116	12773	1.000	1.000
CCB - 1	30 May 2018 10:44:07	CK STND	ug/l	-0.0644	-484	1.000	1.000
CRI - 1	30 May 2018 10:45:49	SMPL	ug/l	0.2109	990	1.000	1.000
MP7394-MB1 - 1	30 May 2018 10:56:01	SMPL	ug/l	0.0533	146	1.000	1.000
MP7394-B1 - 1	30 May 2018 10:57:17	SMPL	ug/l	2.2523	11920	1.000	1.000
MP7394-S1 - 1	30 May 2018 10:58:34	SMPL	ug/l	2.2076	11681	1.000	1.000
MP7394-S2 - 1	30 May 2018 11:00:09	SMPL	ug/l	2.1378	11307	1.000	1.000
JC66890-4 - 1	30 May 2018 11:01:45	SMPL	ug/l	-0.0055	-169	1.000	1.000
JC66890-3 - 1	30 May 2018 11:03:20	SMPL	ug/l	0.0501	129	1.000	1.000
JC66764-21 - 1	30 May 2018 11:04:38	SMPL	ug/l	-0.0123	-205	1.000	1.000
CCV - 1	30 May 2018 11:05:56	CK STND	ug/l	99.8% 2.4949	13219	1.000	1.000
CCB - 1	30 May 2018 11:07:12	CK STND	ug/l	-0.0455	-383	1.000	1.000
JC66839-1 - 1	30 May 2018 11:08:53	SMPL	ug/l	1.2140	6361	1.000	1.000
JC66860-12 - 1	30 May 2018 11:10:11	SMPL	ug/l	-0.0250	-273	1.000	1.000
JC66897-1 - 1	30 May 2018 11:11:44	SMPL	ug/l	0.0314	29	1.000	1.000
JC66897-3 - 1	30 May 2018 11:13:00	SMPL	ug/l	0.0342	44	1.000	1.000
JC66897-4 - 1	30 May 2018 11:14:17	SMPL	ug/l	0.0438	95	1.000	1.000
JC66897-5CONF - 1	30 May 2018 11:15:33	SMPL	ug/l	0.1612	724	1.000	1.000
JC66897-6 - 1	30 May 2018 11:16:50	SMPL	ug/l	0.1997	930	1.000	1.000
JC66927-1 - 1	30 May 2018 11:18:08	SMPL	ug/l	0.0539	149	1.000	1.000
CCV - 1	30 May 2018 11:19:28	CK STND	ug/l	96.8% 2.4190	12813	1.000	1.000
CCB - 1	30 May 2018 11:20:44	CK STND	ug/l	-0.0444	-377	1.000	1.000
JC66927-2 - 1	30 May 2018 11:22:24	SMPL	ug/l	0.0516	137	1.000	1.000
JC66839-1CONF - 1	30 May 2018 11:23:41	SMPL	ug/l	1.1470	6002	1.000	1.000
JC66897-5 - 1	30 May 2018 11:24:58	SMPL	ug/l	0.0968	379	1.000	1.000
JC66897-6CONF - 1	30 May 2018 11:26:30	SMPL	ug/l	0.2008	936	1.000	1.000
CCV - 1	30 May 2018 11:36:19	CK STND	ug/l	97.9% 2.4463	12959	1.000	1.000
CCB - 1	30 May 2018 11:37:35	CK STND	ug/l	-0.0435	-372	1.000	1.000
CCV - 1	30 May 2018 13:54:49	CK STND	ug/l	97.0% 2.4241	12840	1.000	1.000
CCB - 1	30 May 2018 13:56:05	CK STND	ug/l	-0.0365	-335	1.000	1.000
MP7399-FMBCONF - 1	30 May 2018 13:58:08	SMPL	ug/l	0.0406	78	1.000	1.000
MP7399-FLCCONF - 1	30 May 2018 13:59:26	SMPL	ug/l	2.1176	11199	1.000	1.000
RINSECONF - 1	30 May 2018 14:00:44	SMPL	ug/l	-0.0102	-194	1.000	1.000
CCV - 1	30 May 2018 14:03:54	CK STND	ug/l	95.4% 2.3854	12633	1.000	1.000
CCB - 1	30 May 2018 14:05:12	CK STND	ug/l	-0.0470	-391	1.000	1.000

Accutest

Linear



A= 0.0000e+000

B= 1.8676e-004

C= 2.6023e-002

Rho= 0.9998464

Accept=Accepted

Accepted Date=

05/30/18 10:38

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.021	0.021	-29	0.000	-29				
STDB	0.200	0.228	0.028	1084	0.0 %	1084				
STDC	0.500	0.505	0.005	2566	0.0 %	2566				
STDD	1.000	0.967	-0.033	5036	0.0 %	5036				
STDE	2.500	2.450	-0.050	12981	0.0 %	12981				
STDF	5.000	5.029	0.029	26786	0.0 %	26786				

Zoom In
Zoom Out

Sample Name: STDA Acquired: 6/1/2018 16:24:17 Type: Cal
Method: Accutest 2(v432) 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	**.0046**	**-.0005**	**.0002**	**-.0000**	**.0000**	**.0025**	**.0001**	**.0001**	**-.0001**
Stddev	.0010	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000
%RSD	22.26	25.99	47.19	376.0	156.0	1.983	6.860	50.67	9.261
#1	.0053	-.0006	.0002	-.0001	-.0000	.0025	.0001	.0001	-.0002
#2	.0039	-.0004	.0003	.0000	.0001	.0025	.0001	.0001	-.0001

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	**.0001**	**.0008**	**.0003**	**-.0002**	**-.0003**	**.0004**	**.0006**	**-.0054**	**.0075**
Stddev	.0000	.0000	.0001	.0001	.0001	.0001	.0003	.0005	.0003
%RSD	46.99	2.828	41.11	52.98	45.90	30.03	44.38	9.618	3.644
#1	.0001	.0008	.0004	-.0001	-.0002	.0005	.0004	-.0050	.0077
#2	.0001	.0008	.0002	-.0003	-.0004	.0004	.0007	-.0058	.0073

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	**.0004**	**.0001**	**-.0002**	**-.0026**	**.0006**	**.0019**	**.0060**	**.0001**	**.0010**
Stddev	.0000	.0001	.0001	.0001	.0002	.0001	.0001	.0001	.0004
%RSD	5.629	95.57	47.71	4.380	33.91	5.033	1.579	183.6	44.14
#1	.0004	.0001	-.0003	-.0027	.0008	.0019	.0061	-.0000	.0007
#2	.0004	.0000	-.0001	-.0025	.0005	.0018	.0060	.0002	.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	**.0000**	**.0029**	**-.0003**	**-.0010**	**-.0007**	**.0023**	**-.0099**
Stddev	.0000	.0003	.0000	.0002	.0003	.0002	.0001
%RSD	223.3	11.73	17.14	19.60	48.94	9.760	.9431
#1	-.0000	.0031	-.0003	-.0009	-.0004	.0024	-.0100
#2	.0000	.0026	-.0002	-.0012	-.0009	.0021	-.0099

Zoom In
Zoom Out

Sample Name: STDA Acquired: 6/1/2018 16:24:17 Type: Cal
Method: Accutest 2(v432) 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	**82051.**	**6186.7**	**3214.7**	**7901.8**
Stddev	82.	2.2	8.7	14.9
%RSD	.10023	.03558	.27189	.18833
#1	82109.	6185.2	3208.5	7891.3
#2	81993.	6188.3	3220.9	7912.4

Zoom In
Zoom Out

Sample Name: STDB Acquired: 6/1/2018 16:28:35 Type: Cal
Method: Accutest 2(v432) 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	**15.45**	**13.54**	**4.563**	**2.200**	**.3100**	**.8524**	**1.720**	**1.640**	**.0585**
Stddev	.05	.08	.004	.002	.0008	.0024	.001	.002	.0002
%RSD	.3201	.5667	.0867	.0948	.2723	.2872	.0606	.0931	.3263
#1	15.49	13.59	4.566	2.202	.3094	.8506	1.719	1.641	.0583
#2	15.42	13.48	4.561	2.199	.3106	.8541	1.721	1.639	.0586

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	**.5003**	**6.634**	**.6859**	**.3029**	**.7671**	**.5270**	**.9346**	**5.958**	**8.803**
Stddev	.0013	.013	.0009	.0003	.0017	.0016	.0015	.024	.049
%RSD	.2622	.1949	.1241	.1141	.2189	.3124	.1566	.4081	.5571
#1	.4993	6.643	.6865	.3032	.7683	.5281	.9335	5.975	8.838
#2	.5012	6.625	.6853	.3027	.7659	.5258	.9356	5.941	8.769

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	**3.732**	**.6942**	**4.896**	**14.61**	**1.073**	**4.695**	**2.888**	**1.100**	**28.96**
Stddev	.020	.0045	.032	.08	.000	.004	.000	.002	.10
%RSD	.5394	.6518	.6591	.5252	.0221	.0831	.0008	.1561	.3385
#1	3.747	.6974	4.919	14.67	1.073	4.697	2.888	1.101	29.03
#2	3.718	.6910	4.874	14.56	1.073	4.692	2.888	1.099	28.89

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	**.6028**	**2.260**	**1.486**	**.2984**	**1.043**	**5.100**	**.6650**
Stddev	.0007	.004	.001	.0009	.000	.024	.0020
%RSD	.1081	.1810	.0896	.3150	.0167	.4651	.2992
#1	.6024	2.263	1.485	.2990	1.043	5.116	.6664
#2	.6033	2.257	1.487	.2977	1.044	5.083	.6636

Zoom In
Zoom Out

Sample Name: STDB Acquired: 6/1/2018 16:28:35 Type: Cal
Method: Accutest 2(v432) 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	**76918.**	**6088.5**	**3031.0**	**6859.1**
Stddev	87.	31.9	3.3	3.9
%RSD	.11260	.52359	.10992	.05696
#1	76857.	6066.0	3033.3	6861.9
#2	76979.	6111.1	3028.6	6856.4

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 6/1/2018 16:32:38 Type: QC
Method: Accutest 2(v432) 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	**2.022**	**2.035**	**2.017**	**2.007**	**2.036**	**1.976**	**2.053**	**2.028**	**.2507**
Stddev	.002	.005	.002	.002	.006	.003	.004	.000	.0009
%RSD	.1009	.2596	.0776	.0786	.3203	.1595	.2035	.0046	.3782
#1	2.020	2.031	2.016	2.008	2.041	1.978	2.056	2.028	.2514
#2	2.023	2.039	2.018	2.006	2.032	1.973	2.050	2.028	.2501
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	**2.006**	**2.042**	**2.020**	**2.074**	**2.038**	**2.006**	**2.034**	**40.33**	**40.86**
Stddev	.004	.002	.001	.000	.004	.003	.001	.05	.10
%RSD	.2105	.0745	.0461	.0157	.1986	.1590	.0384	.1358	.2435
#1	2.009	2.043	2.019	2.075	2.035	2.004	2.034	40.29	40.79
#2	2.003	2.041	2.020	2.074	2.040	2.009	2.033	40.37	40.93
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	**41.25**	**40.73**	**40.38**	**40.50**	**2.039**	**2.060**	**5.102**	**2.081**	**2.023**
Stddev	.03	.02	.04	.08	.000	.002	.000	.006	.003
%RSD	.0624	.0417	.1098	.1913	.0075	.0806	.0064	.2780	.1500
#1	41.27	40.74	40.34	40.44	2.039	2.061	5.102	2.077	2.021
#2	41.24	40.72	40.41	40.55	2.039	2.058	5.102	2.085	2.025
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: ccvconf Acquired: 6/1/2018 16:32:38 Type: QC
Method: Accutest 2(v432) 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	**2.045**	**2.035**	**2.036**	**1.991**	**2.053**	**2.018**	**2.011**
Stddev	.003	.002	.003	.000	.000	.003	.007
%RSD	.1327	.0933	.1616	.0148	.0050	.1679	.3491
#1	2.047	2.036	2.039	1.991	2.052	2.016	2.006
#2	2.043	2.034	2.034	1.991	2.053	2.021	2.016
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	**78662.**	**6142.4**	**3114.6**	**7130.9**
Stddev	352.	28.4	1.2	2.2
%RSD	.44788	.46317	.03770	.03119
#1	78413.	6122.3	3113.8	7129.3
#2	78911.	6162.5	3115.5	7132.5

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 6/1/2018 16:36:42 Type: QC
Method: Accutest 2(v432) 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**	**.0003**	**.0003**	**-.0002**	**.0004**	**.0001**	**.0002**	**.0004**
Stddev	.0001	.0001	.0001	.0000	.0001	.0001	.0001	.0004	.0003
%RSD	28.45	84.95	27.89	3.792	50.41	23.33	112.1	270.7	72.14
#1	-.0003	-.0000	.0002	.0003	-.0003	.0004	.0000	.0005	.0007
#2	-.0004	-.0002	.0004	.0003	-.0002	.0003	.0001	-.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0010**	**.0005**	**-.0006**	**.0000**	**.0022**	**-.0006**	**.0088**	**.0012**
Stddev	.0003	.0002	.0006	.0003	.0004	.0006	.0001	.0021	.0008
%RSD	325.3	21.35	112.8	44.89	6958.	25.59	16.86	24.20	68.89
#1	.0003	.0009	.0010	-.0007	-.0003	.0025	-.0005	.0104	.0006
#2	-.0001	.0012	.0001	-.0004	.0003	.0018	-.0006	.0073	.0018
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	**-.0030**	**-.0014**	**.0279**	**.0040**	**.0011**	**.0008**	**.0003**	**.0004**	**.0001**
Stddev	.0008	.0366	.0328	.0069	.0006	.0002	.0002	.0006	.0000
%RSD	25.83	2538.	117.6	174.8	48.90	26.87	65.03	136.3	21.14
#1	-.0025	.0245	.0511	-.0009	.0007	.0009	.0002	.0000	.0001
#2	-.0036	-.0274	.0047	.0089	.0015	.0006	.0005	.0009	.0001
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: ccbconf Acquired: 6/1/2018 16:36:42 Type: QC
Method: Accutest 2(v432) 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	**-.0003**	**-.0001**	**.0001**	**.0013**	**-.0011**	**.0019**	**.0004**
Stddev	.0005	.0002	.0003	.0011	.0012	.0011	.0006
%RSD	213.1	144.1	249.5	79.47	105.6	57.45	161.8
#1	.0001	.0000	-.0001	.0021	-.0020	.0011	.0008
#2	-.0006	-.0003	.0003	.0006	-.0003	.0027	-.0001
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	**82216.**	**6101.9**	**3212.0**	**7907.7**
Stddev	27.	37.0	1.0	1.7
%RSD	.03259	.60647	.03192	.02206
#1	82235.	6075.7	3212.7	7906.5
#2	82197.	6128.1	3211.3	7908.9

Zoom In Zoom Out

Sample Name: icv Acquired: 6/1/2018 16:42:17 Type: QC
Method: Accutest 2(v432) 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	**2.003**	**2.065**	**1.991**	**1.980**	**1.949**	**2.001**	**1.991**	**1.983**	**.2422**
Stddev	.001	.003	.003	.003	.007	.004	.004	.003	.0016
%RSD	.0455	.1524	.1517	.1484	.3806	.1894	.2051	.1247	.6639
#1	2.004	2.068	1.992	1.983	1.957	2.004	1.996	1.984	.2436
#2	2.002	2.062	1.993	1.979	1.944	2.003	1.990	1.984	.2404
#3	2.004	2.064	1.988	1.977	1.945	1.997	1.988	1.980	.2425
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	**1.986**	**2.017**	**2.019**	**2.045**	**1.977**	**1.970**	**2.010**	**40.16**	**39.79**
Stddev	.007	.005	.004	.003	.004	.002	.003	.03	.03
%RSD	.3634	.2628	.2065	.1286	.1787	.0838	.1224	.0870	.0840
#1	1.994	2.022	2.023	2.044	1.976	1.968	2.008	40.19	39.75
#2	1.983	2.018	2.019	2.043	1.980	1.971	2.013	40.18	39.80
#3	1.981	2.011	2.015	2.048	1.974	1.970	2.009	40.12	39.81
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	**40.49**	**39.55**	**39.57**	**39.90**	**2.050**	**1.991**	**4.817**	**2.002**	**2.056**
Stddev	.07	.05	.04	.03	.003	.002	.007	.004	.000
%RSD	.1801	.1208	.1086	.0759	.1610	.1055	.1458	.2110	.0194
#1	40.41	39.59	39.52	39.94	2.052	1.993	4.813	2.006	2.055
#2	40.56	39.56	39.61	39.89	2.052	1.992	4.825	2.003	2.056
#3	40.49	39.50	39.57	39.88	2.046	1.989	4.812	1.997	2.055
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: icv Acquired: 6/1/2018 16:42:17 Type: QC
Method: Accutest 2(v432) 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	**2.011**	**1.914**	**1.975**	**1.956**	**2.012**	**1.934**	**1.985**
Stddev	.003	.003	.002	.006	.004	.004	.003
%RSD	.1388	.1677	.0995	.3043	.1947	.1813	.1736
#1	2.014	1.910	1.978	1.956	2.013	1.938	1.988
#2	2.009	1.916	1.975	1.962	2.015	1.932	1.986
#3	2.011	1.914	1.974	1.950	2.008	1.932	1.981
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	**78856.**	**6116.4**	**3110.5**	**7141.6**
Stddev	501.	19.2	6.0	12.6
%RSD	.63557	.31317	.19261	.17621
#1	78389.	6128.2	3106.6	7133.8
#2	79386.	6094.3	3107.6	7135.0
#3	78792.	6126.6	3117.4	7156.2

Zoom In Zoom Out

Sample Name: icb Acquired: 6/1/2018 16:51:52 Type: QC
Method: Accutest 2(v432) 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**	**.0001**	**.0002**	**.0003**	**.0002**	**.0006**	**.0001**	**-.0001**	**.0001**
Stddev	.0002	.0001	.0001	.0001	.0001	.0000	.0000	.0001	.0005
%RSD	915.6	88.92	26.93	22.26	31.57	1.277	63.68	135.4	864.2
#1	.0001	.0001	.0002	.0002	.0003	.0006	.0001	-.0002	.0004
#2	-.0002	.0000	.0002	.0003	.0002	.0006	.0000	-.0000	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0010**	**.0005**	**-.0007**	**.0000**	**-.0001**	**-.0007**	**.0131**	**.0033**
Stddev	.0004	.0000	.0002	.0009	.0001	.0005	.0017	.0033	.0003
%RSD	224.8	2.047	46.83	126.4	232.9	639.0	257.8	25.28	9.776
#1	.0001	.0011	.0007	-.0013	.0001	.0003	.0005	.0108	.0031
#2	-.0004	.0010	.0004	-.0001	-.0000	-.0004	-.0019	.0155	.0036
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	**.0032**	**.0074**	**.0136**	**-.0126**	**.0009**	**-.0004**	**.0003**	**.0003**	**.0001**
Stddev	.0021	.0279	.0085	.0018	.0002	.0001	.0004	.0004	.0000
%RSD	64.52	376.1	62.00	14.18	24.79	23.23	131.0	146.5	15.74
#1	.0047	.0272	.0077	-.0139	.0010	-.0003	.0006	-.0000	.0002
#2	.0017	-.0123	.0196	-.0114	.0007	-.0005	.0000	.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									

Zoom In Zoom Out

Sample Name: icb Acquired: 6/1/2018 16:51:52 Type: QC
Method: Accutest 2(v432) 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**	F **.0083**	**.0004**	**.0004**	**-.0027**	**-.0001**	**.0010**
Stddev	.0001	.0006	.0001	.0001	.0004	.0001	.0006
%RSD	108.8	7.821	19.92	34.43	14.99	184.2	57.98
#1	.0000	.0078	.0005	.0003	-.0024	-.0002	.0006
#2	.0001	.0088	.0004	.0005	-.0030	.0000	.0014
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0063					
Low Limit		-.0063					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**82489.**	**6232.8**	**3229.7**	**7958.6**
Stddev	23.	.7	.6	2.0
%RSD	.02767	.01060	.01927	.02510
#1	82505.	6233.2	3230.2	7960.0
#2	82473.	6232.3	3229.3	7957.1

Zoom In Zoom Out

Sample Name: iccv Acquired: 6/1/2018 16:55:16 Type: QC
Method: Accutest 2(v432) 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	**1.992**	**2.014**	**2.004**	**1.982**	**2.004**	**1.972**	**2.036**	**2.010**	**.2463**
Stddev	.050	.050	.003	.003	.014	.014	.015	.002	.0017
%RSD	2.486	2.487	.1662	.1630	.6733	.6860	.7112	.1134	.7056
#1	2.020	2.046	2.003	1.987	2.025	1.992	2.058	2.013	.2487
#2	2.020	2.037	2.008	1.983	1.997	1.967	2.027	2.012	.2459
#3	2.008	2.034	2.001	1.981	2.000	1.966	2.033	2.009	.2459
#4	1.918	1.940	2.005	1.979	1.996	1.962	2.028	2.008	.2446
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	**1.968**	**2.018**	**2.002**	**2.052**	**2.019**	**1.994**	**2.022**	**39.48**	**39.98**
Stddev	.015	.003	.004	.004	.003	.004	.006	.95	.96
%RSD	.7664	.1637	.2157	.1735	.1232	.2023	.3213	2.419	2.391
#1	1.990	2.015	2.005	2.055	2.020	1.991	2.020	40.15	40.69
#2	1.961	2.023	2.007	2.055	2.022	1.999	2.032	39.95	40.44
#3	1.962	2.016	1.998	2.047	2.016	1.993	2.019	39.73	40.21
#4	1.957	2.017	1.999	2.053	2.019	1.991	2.017	38.07	38.57
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: iccv Acquired: 6/1/2018 16:55:16 Type: QC
Method: Accutest 2(v432) 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	**40.80**	**40.24**	**39.79**	**39.91**	**2.016**	**2.046**	**5.072**	**2.066**	**2.001**
Stddev	1.02	1.03	.97	.98	.006	.004	.014	.005	.051
%RSD	2.504	2.558	2.443	2.461	.3154	.1790	.2697	.2294	2.555
#1	41.47	40.97	40.43	40.55	2.008	2.042	5.061	2.063	2.031
#2	41.31	40.62	40.28	40.39	2.024	2.051	5.092	2.073	2.028
#3	41.16	40.64	40.10	40.25	2.017	2.044	5.071	2.064	2.021
#4	39.28	38.71	38.35	38.45	2.016	2.045	5.065	2.064	1.925
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	**2.030**	**2.022**	**2.027**	**1.972**	**2.040**	**1.984**	**1.997**
Stddev	.016	.005	.016	.005	.004	.048	.003
%RSD	.7759	.2428	.7707	.2434	.2016	2.425	.1452
#1	2.053	2.015	2.051	1.974	2.039	2.017	1.996
#2	2.020	2.027	2.020	1.978	2.045	2.008	2.001
#3	2.024	2.023	2.020	1.966	2.036	2.000	1.996
#4	2.022	2.022	2.018	1.972	2.041	1.913	1.994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv Acquired: 6/1/2018 16:55:16 Type: QC
Method: Accutest 2(v432) 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	**79416.**	**6223.0**	**3126.6**	**7159.3**
Stddev	560.	127.6	3.7	8.4
%RSD	.70521	2.0510	.11971	.11778
#1	78579.	6131.0	3128.8	7147.0
#2	79753.	6148.9	3121.7	7160.9
#3	79627.	6203.3	3130.1	7165.6
#4	79704.	6408.9	3125.9	7163.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/1/2018 17:02:30 Type: QC
Method: Accutest 2(v432) 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**	**.0000**	**.0002**	**.0002**	**-.0003**	**.0003**	**.0002**	**-.0000**	**.0001**
Stddev	.0001	.0000	.0001	.0000	.0001	.0002	.0000	.0001	.0002
%RSD	38.13	68.08	49.99	5.130	50.00	65.93	17.27	383.0	244.5
#1	-.0002	.0001	.0003	.0002	-.0002	.0001	.0002	.0001	.0002
#2	-.0001	.0000	.0001	.0002	-.0003	.0004	.0002	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0011**	**-.0002**	**-.0005**	**-.0006**	**-.0004**	**-.0006**	F **.0219**	**.0020**
Stddev	.0002	.0001	.0000	.0005	.0006	.0013	.0007	.0064	.0005
%RSD	88.49	7.795	3.109	98.72	99.67	313.3	114.1	29.29	26.87
#1	.0004	.0011	-.0002	-.0009	-.0002	-.0013	-.0001	.0174	.0016
#2	.0001	.0010	-.0002	-.0002	-.0010	.0005	-.0011	.0265	.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit								.0200	
Low Limit								-.0200	

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**-.0065**	**.0134**	**-.0102**	**.0009**	**-.0001**	**.0005**	**-.0000**	**.0001**
Stddev	.0037	.0040	.0317	.0051	.0008	.0003	.0001	.0003	.0000
%RSD	167.0	62.36	237.2	50.33	90.43	234.3	18.86	2238.	6.057
#1	-.0004	-.0093	.0357	-.0065	.0014	.0001	.0004	.0002	.0001
#2	.0048	-.0036	-.0090	-.0138	.0003	-.0004	.0006	-.0002	.0001
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: 6/1/2018 17:02:30 Type: QC
Method: Accutest 2(v432) 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	**.0003**	**.0029**	**.0004**	**.0033**	**-.0007**	**.0004**	**.0001**
Stddev	.0000	.0004	.0002	.0002	.0012	.0016	.0000
%RSD	.6007	14.85	51.20	6.543	183.4	350.7	3.576
#1	.0003	.0026	.0005	.0031	.0002	-.0007	.0001
#2	.0003	.0032	.0002	.0034	-.0015	.0015	.0001
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	**83200.**	**6262.6**	**3222.6**	**7923.4**
Stddev	71.	51.4	3.2	.1
%RSD	.08496	.82120	.09807	.00189
#1	83150.	6226.2	3224.8	7923.3
#2	83250.	6298.9	3220.3	7923.6

Zoom In Zoom Out

Sample Name: cri Acquired: 6/1/2018 17:06:16 Type: QC
Method: Accutest 2(v432) 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	**.1994**	**.0019**	**.0032**	**.0485**	**.0104**	**.0097**	**.0156**	**.0097**	**.0056**
Stddev	.0013	.0000	.0000	.0003	.0004	.0002	.0000	.0001	.0003
%RSD	.6529	2.268	.3482	.6472	3.427	2.513	.1633	1.206	4.923
#1	.2003	.0019	.0032	.0487	.0101	.0095	.0156	.0098	.0058
#2	.1985	.0019	.0032	.0483	.0106	.0099	.0156	.0097	.0054
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	**.0491**	**.0207**	**.0081**	**.0095**	**.0023**	**.0120**	**.0060**	**.2148**	**5.134**
Stddev	.0004	.0001	.0007	.0002	.0007	.0016	.0018	.0118	.025
%RSD	.7410	.4821	8.208	1.761	31.10	13.41	30.32	5.506	.4921
#1	.0489	.0206	.0076	.0096	.0029	.0132	.0073	.2065	5.152
#2	.0494	.0208	.0086	.0093	.0018	.0109	.0047	.2232	5.116
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	**.1048**	**5.142**	**5.014**	**5.041**	**.1012**	**.0206**	**.2042**	**.0110**	**.0099**
Stddev	.0009	.055	.038	.021	.0009	.0003	.0010	.0001	.0001
%RSD	.8319	1.063	.7534	.4115	.8672	1.629	.4847	.5269	.8713
#1	.1054	5.181	5.041	5.056	.1018	.0208	.2049	.0110	.0100
#2	.1042	5.103	4.988	5.026	.1006	.0204	.2035	.0109	.0099
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: cri Acquired: 6/1/2018 17:06:16 Type: QC
Method: Accutest 2(v432) 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	**.0100**	**.0538**	F **.0148**	**.0493**	**.0213**	**.0519**	**.0500**
Stddev	.0000	.0005	.0004	.0036	.0006	.0017	.0002
%RSD	.4247	.9866	2.494	7.228	2.960	3.202	.3966
#1	.0099	.0542	.0151	.0468	.0208	.0531	.0499
#2	.0100	.0534	.0146	.0519	.0217	.0507	.0501
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0100				
Range			30.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**81764.**	**6249.8**	**3190.6**	**7747.9**
Stddev	59.	17.1	1.9	1.3
%RSD	.07225	.27308	.05834	.01729
#1	81722.	6237.7	3189.3	7748.9
#2	81806.	6261.9	3191.9	7747.0

Zoom In Zoom Out

Sample Name: crid Acquired: 6/1/2018 17:10:36 Type: QC
Method: Accutest 2(v432) 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	**.0035**	**.0009**	**.0012**	**.0033**	**.0016**	F **-.0004**	**.0030**	**.0039**
Stddev	.0001	.0001	.0001	.0003	.0002	.0002	.0001	.0002
%RSD	1.955	6.643	8.310	7.630	11.80	65.04	3.238	5.771
#1	.0035	.0008	.0012	.0035	.0015	-.0002	.0030	.0040
#2	.0036	.0009	.0013	.0031	.0017	-.0005	.0029	.0037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0002**	**.0018**	**.0106**	**.0033**	**.0016**	F **.0000**	**.0047**	F **-.0005**
Stddev	.0002	.0003	.0002	.0002	.0001	.0006	.0004	.0020
%RSD	117.7	15.96	1.566	6.202	3.983	2334.	8.738	433.8
#1	.0000	.0016	.0104	.0031	.0017	.0005	.0049	-.0019
#2	.0003	.0020	.0107	.0034	.0016	-.0004	.0044	.0009
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.1783**	**1.095**	**.0251**	F **.1851**	**2.026**	**1.018**	F **.0000**	**-.0011**
Stddev	.0124	.002	.0041	.0204	.049	.017	.0000	.0000
%RSD	6.982	.1419	16.45	11.02	2.420	1.663	56.92	3.660
#1	.1695	1.094	.0221	.1995	2.060	1.006	.0000	-.0011
#2	.1871	1.096	.0280	.1707	1.991	1.030	.0000	-.0011
Check ?	Chk Fail	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None
Value	.1000			.1000			.0100	
Range	30.00%			30.00%			-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 6/1/2018 17:10:36 Type: QC
Method: Accutest 2(v432) 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	**-.0050**	**.0002**	**-.0001**	**.0000**	F **.0011**	F **-.0001**	F **.0009**	F **-.0002**
Stddev	.0007	.0008	.0000	.0005	.0002	.0002	.0024	.0003
%RSD	14.34	444.7	26.71	4858.	20.40	180.8	267.6	150.7
#1	-.0045	.0007	-.0001	-.0003	.0010	-.0002	-.0008	-.0004
#2	-.0055	-.0004	-.0001	.0003	.0013	.0000	.0026	.0000
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **-.0008**	F **.0003**
Stddev	.0002	.0007
%RSD	23.52	231.7
#1	-.0007	.0008
#2	-.0009	-.0002
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**82526.**	**6264.3**	**3209.2**	**7861.9**
Stddev	93.	8.0	1.2	10.9
%RSD	.11321	.12743	.03759	.13882
#1	82592.	6269.9	3208.4	7869.7
#2	82460.	6258.6	3210.1	7854.2

Zoom In Zoom Out

Sample Name: icsa Acquired: 6/1/2018 17:14:57 Type: QC
Method: Accutest 2(v432) 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**	**-.0000**	**.0011**	**-.0003**	**.0023**	**.0003**	**.0023**	**-.0003**
Stddev	.0004	.0002	.0000	.0004	.0011	.0006	.0001	.0005	.0000
%RSD	98.14	40.60	25.22	32.58	387.9	28.10	39.36	20.65	8.464
#1	-.0001	.0005	-.0000	.0009	.0005	.0028	.0004	.0019	-.0003
#2	-.0006	.0003	-.0000	.0014	-.0011	.0018	.0002	.0026	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0051**	**.0054**	**-.0036**	**.0007**	**-.0006**	**-.0054**	**539.3**	**385.7**
Stddev	.0002	.0001	.0003	.0006	.0004	.0014	.0003	2.0	.6
%RSD	42.27	1.476	5.341	17.11	56.24	239.4	4.857	.3734	.1543
#1	-.0004	.0052	.0052	-.0032	.0009	.0004	-.0052	540.7	385.3
#2	-.0007	.0051	.0056	-.0040	.0004	-.0016	-.0056	537.9	386.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**191.7**	**516.3**	**-.4338**	**.0259**	**-.0020**	**-.0021**	**-.0139**	**-.0023**	**.0048**
Stddev	.9	2.5	.0002	.0062	.0004	.0001	.0031	.0008	.0001
%RSD	.4921	.4841	.0432	23.73	21.70	6.470	22.43	32.55	1.231
#1	192.4	518.1	-.4339	.0303	-.0017	-.0020	-.0117	-.0018	.0048
#2	191.1	514.6	-.4337	.0216	-.0024	-.0022	-.0160	-.0028	.0047
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: icsa Acquired: 6/1/2018 17:14:57 Type: QC
Method: Accutest 2(v432) 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**	**.0086**	**.0004**	**.0004**	**-.0117**	**.0047**	**-.0020**
Stddev	.0003	.0004	.0001	.0004	.0009	.0006	.0001
%RSD	49.23	4.578	12.40	86.75	7.564	12.74	6.821
#1	-.0004	.0089	.0005	.0007	-.0123	.0043	-.0019
#2	-.0009	.0084	.0004	.0002	-.0111	.0051	-.0021
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	**72957.**	**6018.8**	**2883.9**	**6260.9**
Stddev	.	39.5	6.3	2.1
%RSD	.00040	.65629	.21824	.03316
#1	72957.	5990.8	2879.5	6259.4
#2	72957.	6046.7	2888.4	6262.4

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 6/1/2018 17:19:22 Type: QC
Method: Accutest 2(v432) 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	**.5043**	**.4907**	**1.023**	**.4882**	**.4861**	**.5107**	**.5008**	**.9808**	**1.056**
Stddev	.0007	.0013	.001	.0006	.0025	.0004	.0008	.0015	.006
%RSD	.1374	.2660	.1267	.1252	.5137	.0869	.1631	.1524	.6110
#1	.5039	.4917	1.024	.4887	.4879	.5110	.5014	.9819	1.060
#2	.5048	.4898	1.022	.4878	.4843	.5104	.5003	.9798	1.051
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	**.4872**	**.9519**	**1.042**	**1.064**	**.9768**	**1.111**	**1.062**	**518.9**	**392.3**
Stddev	.0019	.0020	.001	.001	.0043	.001	.000	8.6	6.7
%RSD	.3851	.2078	.0667	.0473	.4425	.0918	.0162	1.659	1.715
#1	.4885	.9533	1.042	1.064	.9798	1.110	1.063	525.0	397.1
#2	.4859	.9505	1.043	1.065	.9737	1.112	1.062	512.9	387.6
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	**200.6**	**504.2**	**-.4555**	**.0284**	**.4850**	**.4914**	**.5077**	**.4694**	**.5372**
Stddev	.6	2.6	.0364	.0133	.0006	.0004	.0008	.0004	.0000
%RSD	.3146	.5154	7.983	46.87	.1188	.0778	.1648	.0776	.0079
#1	201.1	506.1	-.4812	.0190	.4846	.4917	.5083	.4697	.5372
#2	200.2	502.4	-.4298	.0378	.4854	.4911	.5071	.4691	.5372
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 6/1/2018 17:19:22 Type: QC
Method: Accutest 2(v432) 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	.5088	.4914	.4769	.4979	.5084	.5277	.4934
Stddev	.0001	.0028	.0007	.0037	.0012	.0010	.0013
%RSD	.0252	.5601	.1407	.7524	.2360	.1832	.2654
#1	.5089	.4933	.4765	.4953	.5075	.5270	.4924
#2	.5087	.4894	.4774	.5006	.5092	.5284	.4943
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	72548.	6066.8	2879.3	6276.9
Stddev	374.	47.6	1.3	10.4
%RSD	.51508	.78426	.04443	.16521
#1	72283.	6033.2	2878.4	6269.5
#2	72812.	6100.5	2880.2	6284.2

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 6/1/2018 17:23:37 Type: QC
Method: Accutest 2(v432) 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	5.002	5.036	5.032	4.980	5.116	5.147	5.164	5.005	.6089
Stddev	.014	.015	.009	.002	.010	.007	.011	.002	.0009
%RSD	.2808	.3026	.1783	.0334	.1988	.1365	.2051	.0360	.1526
#1	4.992	5.025	5.039	4.981	5.123	5.152	5.172	5.004	.6095
#2	5.012	5.047	5.026	4.978	5.109	5.142	5.157	5.007	.6082
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	5.011	5.201	5.037	5.234	5.064	5.038	5.165	.0859	-.0680
Stddev	.006	.017	.009	.003	.010	.005	.012	.0058	.0004
%RSD	.1304	.3232	.1884	.0524	.2031	.0938	.2255	6.742	.5544
#1	5.015	5.213	5.044	5.236	5.071	5.041	5.174	.0818	-.0683
#2	5.006	5.189	5.031	5.232	5.056	5.035	5.157	.0900	-.0677
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	.0314	-.0251	.1493	.0224	5.084	5.246	25.47	5.379	4.994
Stddev	.0031	.0160	.0270	.0088	.002	.006	.04	.014	.050
%RSD	9.742	63.88	18.09	39.29	.0343	.1211	.1451	.2625	.9985
#1	.0293	-.0138	.1684	.0162	5.085	5.250	25.50	5.389	5.029
#2	.0336	-.0364	.1302	.0287	5.083	5.242	25.45	5.369	4.959
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 6/1/2018 17:23:37 Type: QC
Method: Accutest 2(v432) 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	5.146	5.238	5.072	50.56	5.279	4.927	4.987
Stddev	.007	.016	.003	.14	.009	.005	.012
%RSD	.1361	.3105	.0541	.2783	.1804	.1121	.2393
#1	5.151	5.249	5.074	50.66	5.285	4.924	4.995
#2	5.141	5.226	5.070	50.46	5.272	4.931	4.978
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	82015.	6339.2	3171.2	7713.6
Stddev	405.	25.4	3.1	20.5
%RSD	.49403	.40012	.09763	.26573
#1	81729.	6357.1	3173.4	7728.1
#2	82302.	6321.2	3169.0	7699.2

Zoom In Zoom Out

Sample Name: hstd Acquired: 6/1/2018 17:27:47 Type: QC
Method: Accutest 2(v432) 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	.0003	-.0001	.0009	.0006	.0020	.0001	.0019	-.0000
Stddev	.0001	.0000	.0000	.0007	.0004	.0001	.0002	.0000	.0000
%RSD	41.54	.6109	52.10	79.88	59.95	6.594	137.2	2.053	77.76
#1	.0002	.0003	-.0001	.0004	.0004	.0021	.0003	.0018	-.0000
#2	.0003	.0003	-.0000	.0013	.0009	.0019	.0000	.0019	-.0000
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0002	.0025	.0026	-.0024	.0008	.0015	.0008	303.3	147.3
Stddev	.0002	.0004	.0011	.0015	.0003	.0015	.0015	2.9	1.4
%RSD	118.1	16.09	43.07	62.32	33.92	104.9	198.3	.9667	.9376
#1	-.0000	.0022	.0018	-.0035	.0010	.0004	-.0003	305.3	148.3
#2	-.0003	.0028	.0034	-.0014	.0006	.0026	.0019	301.2	146.3
Check ?	None	None	None	None	None	None	None	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	149.2	304.2	153.4	152.9	-.0018	.0029	-.0060	-.0003	.0017
Stddev	1.4	3.0	1.5	1.5	.0009	.0008	.0003	.0004	.0001
%RSD	.9358	1.001	1.004	.9734	48.70	27.64	5.160	122.7	4.608
#1	150.2	306.4	154.5	153.9	-.0024	.0035	-.0058	-.0000	.0017
#2	148.2	302.0	152.3	151.8	-.0012	.0024	-.0062	-.0006	.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd Acquired: 6/1/2018 17:27:47 Type: QC
Method: Accutest 2(v432) 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**	**.0068**	**.0009**	**.0029**	**-.0099**	**.0072**	**.0027**
Stddev	.0000	.0024	.0002	.0015	.0010	.0006	.0010
%RSD	6.432	35.15	25.03	51.41	9.708	8.731	36.45
#1	-.0001	.0051	.0010	.0019	-.0106	.0068	.0020
#2	-.0001	.0084	.0007	.0040	-.0092	.0077	.0034
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**74539.**	**6063.9**	**2944.8**	**6387.3**
Stddev	81.	43.0	1.0	4.1
%RSD	.10827	.70833	.03440	.06493
#1	74596.	6033.5	2944.1	6384.4
#2	74482.	6094.3	2945.6	6390.3

Zoom In Zoom Out

Sample Name: feconf Acquired: 6/1/2018 17:32:04 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0002**	**.0003**	W **-.0009**	**.0010**	**.0001**	**.0008**	**.0016**	**.0028**
Stddev	.0000	.0000	.0000	.0003	.0004	.0001	.0000	.0000
%RSD	16.14	.1290	4.478	28.14	489.4	17.47	1.368	1.702
#1	-.0002	.0003	-.0009	.0012	-.0002	.0007	.0016	.0029
#2	-.0002	.0003	-.0009	.0008	.0004	.0009	.0016	.0028

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0008**	**.0009**	**.0006**	**.0009**	**.0002**	**-.0002**	**-.0002**	**.0004**
Stddev	.0001	.0000	.0001	.0002	.0003	.0000	.0002	.0002
%RSD	7.794	5.038	14.51	17.21	137.2	27.54	94.84	36.58
#1	-.0009	.0009	.0006	.0010	.0000	-.0001	-.0001	.0006
#2	-.0008	.0009	.0005	.0008	.0004	-.0002	-.0003	.0003

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0246**	**-.0220**	**219.9**	**-.0143**	**.1047**	**.0425**	**-.0028**	**.0001**
Stddev	.0002	.0025	.5	.0110	.0055	.0087	.0006	.0002
%RSD	.9992	11.58	.2216	76.98	5.286	20.52	21.23	149.2
#1	.0247	-.0238	219.5	-.0065	.1008	.0487	-.0032	.0002
#2	.0244	-.0202	220.2	-.0220	.1086	.0364	-.0024	-.0000

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0026**	**.0010**	**-.0005**	**.0001**	**.0008**	**.0009**	**.0058**	W **-.0116**
Stddev	.0001	.0003	.0000	.0001	.0014	.0000	.0023	.0015
%RSD	4.239	33.79	.5787	110.7	174.2	3.379	40.22	12.61
#1	-.0026	.0007	-.0005	.0000	.0018	.0009	.0041	-.0105
#2	-.0027	.0012	-.0005	.0001	-.0002	.0009	.0074	-.0126

Elem	Li6707	P_1774
Avg	**.0025**	**.0023**
Stddev	.0014	.0007
%RSD	57.93	30.87
#1	.0015	.0028
#2	.0035	.0018

Zoom In Zoom Out

Sample Name: feconf Acquired: 6/1/2018 17:32:04 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81524.**	**6277.0**	**3181.2**	**7858.5**
Stddev	171.	48.0	4.0	.4
%RSD	.20970	.76526	.12474	.00506
#1	81404.	6310.9	3184.0	7858.3
#2	81645.	6243.0	3178.4	7858.8

Zoom In Zoom Out

Sample Name: crconf Acquired: 6/1/2018 17:36:25 Type: Unk
Method: Accutest 2(v432) 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
Avg	**-.0001**	**-.0003**	**.0002**	**-.0005**	F **11.27**	**-.0000**	**-.0003**	**.0013**	**-.0000**
Stddev	.0000	.0000	.0001	.0001	.01	.0004	.0001	.0002	.0001
%RSD	22.70	18.05	85.11	25.13	.1304	4089.	51.16	13.08	272.3
#1	-.0002	-.0003	.0001	-.0004	11.26	.0003	-.0004	.0012	-.0001
#2	-.0001	-.0002	.0003	-.0006	11.28	-.0003	-.0002	.0014	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0023**	**.0004**	**.0018**	**-.0014**	**.0011**	**-.0012**	**.0012**	**.0115**	**.0029**
Stddev	.0001	.0002	.0002	.0005	.0007	.0012	.0007	.0004	.0017
%RSD	4.581	45.71	13.80	34.48	59.69	100.4	62.07	3.105	60.37
#1	.0022	.0002	.0016	-.0010	.0016	-.0021	.0017	.0117	.0041
#2	.0024	.0005	.0019	-.0017	.0007	-.0004	.0007	.0112	.0016

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0143**	**-.0089**	**-.0096**	**.0181**	**.0002**	**.0004**	**.0046**	**.0056**	**.0001**
Stddev	.0042	.0082	.0465	.0009	.0001	.0000	.0001	.0001	.0000
%RSD	29.53	92.70	485.9	4.908	31.86	7.444	2.123	2.239	22.05
#1	.0173	-.0031	-.0425	.0187	.0002	.0004	.0045	.0057	.0001
#2	.0113	-.0147	.0233	.0175	.0003	.0004	.0047	.0055	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**.0074**	**.0078**	**.0025**	**.0020**	**-.0003**	**.0019**
Stddev	.0002	.0008	.0000	.0013	.0008	.0014	.0002
%RSD	66.91	11.05	.3170	54.08	39.97	512.4	10.81
#1	.0005	.0080	.0078	.0034	.0015	.0007	.0017
#2	.0002	.0068	.0077	.0015	.0026	-.0013	.0020

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**82469.**	**6350.7**	**3132.1**	**7862.0**
Stddev	93.	7.9	10.8	21.4
%RSD	.11272	.12436	.34503	.27257
#1	82535.	6356.3	3124.4	7846.9
#2	82404.	6345.1	3139.7	7877.2

Zoom In Zoom Out

Sample Name: asconf Acquired: 6/1/2018 17:40:46 Type: Unk
Method: Accutest 2(v432) 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
Avg	**-.0003**	**-.0001**	**.0000**	**-.0007**	**.0000**	**-.0002**	**-.0001**	**.0000**	**-.0003**
Stddev	.0002	.0001	.0002	.0001	.0001	.0002	.0000	.0002	.0004
%RSD	71.00	37.22	396.1	18.08	144.2	77.03	42.86	31660.	126.1
#1	-.0001	-.0002	-.0001	-.0008	.0001	-.0001	-.0001	.0001	-.0006
#2	-.0004	-.0001	.0001	-.0006	-.0000	-.0004	-.0001	-.0001	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0008**	**5.223**	**-.0012**	**-.0008**	**-.0009**	**-.0008**	**.0206**	**-.0033**
Stddev	.0002	.0001	.001	.0007	.0003	.0032	.0010	.0042	.0011
%RSD	87.06	18.48	.0120	54.60	34.66	345.5	117.3	20.57	34.20
#1	-.0003	.0007	5.223	-.0017	-.0006	.0014	-.0001	.0176	-.0041
#2	-.0001	.0009	5.224	-.0007	-.0010	-.0032	-.0015	.0235	-.0025

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0015**	**-.0207**	**.0010**	**.0006**	**-.0004**	**-.0010**	**.0066**	**.0010**	**.0000**
Stddev	.0026	.0184	.0349	.0172	.0006	.0002	.0014	.0004	.0002
%RSD	179.6	88.72	3653.	3051.	150.7	19.06	21.11	46.38	1927.
#1	.0004	-.0338	-.0237	-.0116	.0000	-.0011	.0076	.0006	-.0001
#2	-.0033	-.0077	.0257	.0127	-.0008	-.0008	.0056	.0013	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**.0001**	**.0000**	**.0022**	**-.0007**	**.0007**	**.0017**
Stddev	.0001	.0003	.0001	.0008	.0003	.0007	.0004
%RSD	32.08	181.1	263.6	34.76	49.24	96.67	21.58
#1	-.0001	.0003	-.0000	.0028	-.0009	.0012	.0014
#2	-.0002	-.0000	.0001	.0017	-.0004	.0002	.0019

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83178.**	**6383.2**	**3241.1**	**7949.8**
Stddev	104.	29.2	10.7	32.1
%RSD	.12519	.45807	.33085	.40404
#1	83105.	6362.5	3248.7	7972.5
#2	83252.	6403.8	3233.5	7927.1

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/1/2018 17:45:07 Type: QC
Method: Accutest 2(v432) 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	**1.964**	**1.978**	**1.996**	**1.975**	**1.988**	**1.970**	**2.030**	**2.011**	**.2426**
Stddev	.003	.006	.004	.000	.003	.001	.003	.001	.0001
%RSD	.1608	.3308	.2070	.0074	.1310	.0627	.1406	.0233	.0257
#1	1.962	1.974	1.999	1.975	1.989	1.971	2.028	2.011	.2427
#2	1.966	1.983	1.993	1.975	1.986	1.969	2.032	2.011	.2426
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**	**2.010**	**1.989**	**2.048**	**2.021**	**1.990**	**2.013**	**38.74**	**39.05**
Stddev	.003	.005	.002	.001	.004	.001	.001	.11	.12
%RSD	.1547	.2340	.0819	.0266	.2164	.0666	.0631	.2841	.3035
#1	1.949	2.014	1.988	2.048	2.024	1.989	2.014	38.66	38.96
#2	1.945	2.007	1.990	2.047	2.018	1.991	2.012	38.82	39.13
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	**40.25**	**39.68**	**39.59**	**39.47**	**2.000**	**2.046**	**5.079**	**2.062**	**1.976**
Stddev	.13	.19	.13	.07	.001	.002	.002	.003	.004
%RSD	.3298	.4697	.3221	.1744	.0394	.0943	.0418	.1635	.2031
#1	40.15	39.55	39.50	39.42	2.000	2.047	5.077	2.064	1.974
#2	40.34	39.81	39.68	39.52	1.999	2.045	5.080	2.060	1.979
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: 6/1/2018 17:45:07 Type: QC
Method: Accutest 2(v432) 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	**2.018**	**2.006**	**2.019**	**1.975**	**2.033**	**1.944**	**1.989**
Stddev	.000	.005	.001	.001	.000	.010	.004
%RSD	.0160	.2353	.0398	.0501	.0141	.5321	.2010
#1	2.018	2.009	2.018	1.976	2.033	1.937	1.986
#2	2.018	2.003	2.019	1.974	2.033	1.951	1.991
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	**80132.**	**6283.2**	**3133.4**	**7157.5**
Stddev	41.	13.7	6.4	3.1
%RSD	.05113	.21826	.20433	.04266
#1	80161.	6292.9	3128.9	7155.4
#2	80103.	6273.5	3138.0	7159.7

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/1/2018 17:49:11 Type: QC
Method: Accutest 2(v432) 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**	**-.0001**	**.0003**	**.0001**	**.0001**	**.0001**	**.0001**	**-.0002**	**-.0005**
Stddev	.0003	.0001	.0001	.0002	.0006	.0000	.0001	.0002	.0002
%RSD	807.5	46.04	36.18	185.2	651.3	61.25	157.0	92.23	46.15
#1	-.0002	-.0002	.0004	-.0000	.0005	.0000	.0001	-.0001	-.0007
#2	.0003	-.0001	.0002	.0003	-.0003	.0001	-.0000	-.0003	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0009**	**.0008**	**-.0008**	**-.0002**	**.0002**	**-.0021**	**.0185**	**-.0028**
Stddev	.0002	.0000	.0012	.0004	.0001	.0004	.0004	.0060	.0026
%RSD	37.43	.9384	157.1	54.34	30.53	178.4	17.76	32.62	91.45
#1	-.0003	.0009	-.0001	-.0011	-.0002	-.0001	-.0018	.0142	-.0046
#2	-.0005	.0009	.0016	-.0005	-.0003	.0005	-.0024	.0227	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**-.0064**	**.0105**	**-.0102**	**-.0007**	**.0000**	**.0017**	**-.0001**	**.0001**
Stddev	.0052	.0019	.0082	.0045	.0000	.0001	.0011	.0006	.0000
%RSD	331.5	29.12	77.83	43.95	6.138	347.9	67.54	437.7	51.21
#1	-.0021	-.0051	.0047	-.0070	-.0007	.0001	.0025	-.0006	.0001
#2	.0053	-.0077	.0163	-.0133	-.0007	-.0000	.0009	.0003	.0001
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: 6/1/2018 17:49:11 Type: QC
Method: Accutest 2(v432) 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**	**-.0010**	**.0002**	**.0016**	**.0002**	**-.0004**	**.0017**
Stddev	.0001	.0001	.0001	.0004	.0007	.0001	.0005
%RSD	263.3	9.288	44.35	25.20	437.6	36.13	30.01
#1	-.0000	-.0011	.0001	.0013	-.0003	-.0005	.0020
#2	.0001	-.0010	.0002	.0019	.0007	-.0003	.0013
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	**83428.**	**6412.7**	**3232.6**	**7939.4**
Stddev	31.	11.2	5.6	8.2
%RSD	.03760	.17535	.17190	.10274
#1	83450.	6420.6	3236.6	7945.1
#2	83406.	6404.7	3228.7	7933.6

Zoom In Zoom Out

Sample Name: mp7405-mb1 2 Acquired: 6/1/2018 17:53:32 Type: Unk
Method: Accutest 2(v432) 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
Avg	**-.0001**	**-.0002**	**.0000**	**.0001**	**-.0002**	**.0003**	**-.0001**	**-.0004**	**-.0001**
Stddev	.0001	.0000	.0000	.0001	.0001	.0004	.0000	.0005	.0000
%RSD	131.2	4.182	94.27	99.63	96.64	119.0	25.62	126.8	16.69
#1	-.0000	-.0002	.0001	.0000	-.0003	.0006	-.0001	-.0008	-.0001
#2	-.0002	-.0002	.0000	.0003	-.0000	.0001	-.0001	-.0000	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0004**	**.0008**	**.0001**	**-.0009**	**-.0005**	**.0006**	**-.0003**	**.0168**	**-.0019**
Stddev	.0002	.0001	.0001	.0008	.0002	.0016	.0006	.0002	.0010
%RSD	38.32	8.746	84.21	92.55	28.85	279.2	220.1	1.236	54.46
#1	-.0003	.0008	.0000	-.0003	-.0004	.0018	-.0007	.0167	-.0012
#2	-.0006	.0009	.0001	-.0014	-.0006	-.0006	.0001	.0170	-.0026

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0033**	**-.0049**	**-.0225**	**-.0045**	**-.0000**	**-.0008**	**.0127**	**.0002**	**-.0000**
Stddev	.0021	.0315	.0038	.0059	.0000	.0001	.0004	.0002	.0000
%RSD	63.78	645.6	16.73	131.7	3.950	16.36	3.013	106.8	534.3
#1	-.0018	.0174	-.0251	-.0086	-.0000	-.0008	.0130	.0003	.0000
#2	-.0049	-.0272	-.0198	-.0003	-.0000	-.0009	.0125	.0000	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**-.0005**	**.0004**	**.0026**	**-.0021**	**-.0008**	**.0015**
Stddev	.0002	.0007	.0000	.0013	.0026	.0011	.0008
%RSD	220.8	161.2	.3190	51.25	121.7	134.2	50.34
#1	.0002	.0001	.0004	.0035	-.0003	-.0016	.0010
#2	-.0000	-.0010	.0004	.0017	-.0040	-.0000	.0021

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83516.**	**6400.6**	**3232.3**	**7949.5**
Stddev	221.	8.0	.2	5.2
%RSD	.26441	.12501	.00509	.06595
#1	83360.	6406.3	3232.1	7945.8
#2	83672.	6394.9	3232.4	7953.2

Zoom In Zoom Out

Sample Name: mp7405-b1 Acquired: 6/1/2018 17:57:52 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.891**	**1.894**	**1.907**	**1.877**	**1.910**	**1.892**	**1.947**	**1.910**
Stddev	.002	.006	.002	.001	.001	.003	.001	.001
%RSD	.1132	.3101	.0964	.0353	.0406	.1665	.0548	.0672
#1	1.889	1.890	1.908	1.878	1.909	1.895	1.948	1.911
#2	1.892	1.898	1.905	1.877	1.910	1.890	1.947	1.909

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2389**	**1.878**	**1.920**	**1.899**	**1.987**	**1.929**	**1.901**	**1.945**
Stddev	.0003	.006	.002	.002	.004	.004	.004	.002
%RSD	.1151	.3247	.0790	.0789	.2013	.2265	.2358	.1012
#1	.2391	1.882	1.921	1.900	1.984	1.932	1.898	1.946
#2	.2387	1.874	1.919	1.898	1.990	1.926	1.905	1.943

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**23.58**	**23.72**	**24.53**	**23.83**	**24.08**	**24.05**	**1.919**	**1.978**
Stddev	.03	.06	.01	.07	.06	.01	.002	.003
%RSD	.1345	.2578	.0532	.3098	.2494	.0521	.1025	.1569
#1	23.56	23.68	24.54	23.78	24.04	24.04	1.920	1.980
#2	23.60	23.77	24.52	23.88	24.13	24.06	1.918	1.976

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0583**	**2.000**	**1.892**	**1.938**	**1.881**	**1.931**	F **-.0734**	**-.0019**
Stddev	.0000	.003	.000	.003	.002	.001	.0081	.0007
%RSD	.0633	.1622	.0081	.1553	.1219	.0621	11.00	38.72
#1	.0583	2.002	1.892	1.941	1.879	1.932	-.0791	-.0024
#2	.0582	1.998	1.892	1.936	1.882	1.930	-.0677	-.0014

Elem	Li6707	P_1774
Avg	**.0013**	**1.891**
Stddev	.0012	.005
%RSD	94.57	.2628
#1	.0022	1.894
#2	.0004	1.887

Zoom In Zoom Out

Sample Name: mp7405-b1 Acquired: 6/1/2018 17:57:52 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81047.**	**6381.1**	**3169.3**	**7358.5**
Stddev	311.	7.0	6.5	8.6
%RSD	.38432	.10931	.20515	.11737
#1	80826.	6376.2	3164.7	7352.4
#2	81267.	6386.0	3173.9	7364.6

Zoom In Zoom Out

Sample Name: mp7405-s1 Acquired: 6/1/2018 18:01:54 Type: Unk
Method: Accutest 2(v432) 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
Avg	**1.946**	**1.928**	**1.983**	**1.970**	**1.922**	**1.898**	**2.098**	**2.008**	**.2548**
Stddev	.020	.022	.001	.003	.002	.002	.003	.003	.0007
%RSD	1.021	1.138	.0457	.1450	.0853	.0997	.1568	.1420	.2880
#1	1.932	1.912	1.984	1.972	1.921	1.900	2.100	2.010	.2553
#2	1.960	1.943	1.983	1.968	1.923	1.897	2.095	2.006	.2542

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.902**	**2.003**	**2.024**	**1.906**	**1.980**	**2.019**	**1.984**	**24.72**	**47.50**
Stddev	.001	.002	.000	.003	.000	.003	.004	.28	.52
%RSD	.0414	.1080	.0059	.1441	.0205	.1295	.2068	1.140	1.105
#1	1.901	2.001	2.024	1.907	1.979	2.020	1.987	24.52	47.13
#2	1.902	2.004	2.024	1.904	1.980	2.017	1.981	24.92	47.87

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.50**	**26.46**	**32.28**	F **747.5**	**2.335**	**1.965**	**5.050**	**1.949**	**2.011**
Stddev	.24	.14	.41	1.4	.003	.001	.007	.002	.021
%RSD	.9411	.5126	1.280	.1937	.1311	.0710	.1487	.0772	1.026
#1	25.33	26.37	31.98	746.5	2.337	1.966	5.056	1.950	1.997
#2	25.67	26.56	32.57	748.5	2.332	1.964	5.045	1.948	2.026

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.965**	**1.938**	**1.972**	**83.46**	**.0008**	**.0186**	**2.033**
Stddev	.001	.000	.001	.14	.0014	.0000	.002
%RSD	.0275	.0162	.0391	.1623	179.4	.2427	.0861
#1	1.965	1.938	1.972	83.56	.0017	.0186	2.034
#2	1.966	1.938	1.973	83.36	-.0002	.0186	2.032

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**73748.**	**6160.1**	**2923.4**	**6332.4**
Stddev	87.	46.1	6.3	14.0
%RSD	.11784	.74829	.21440	.22045
#1	73810.	6192.7	2919.0	6322.6
#2	73687.	6127.5	2927.8	6342.3

Zoom In Zoom Out

Sample Name: mp7405-s2 Acquired: 6/1/2018 18:06:00 Type: Unk
Method: Accutest 2(v432) 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
Avg	**1.917**	**1.898**	**1.969**	**1.955**	**1.906**	**1.877**	**2.084**	**1.991**	**.2522**
Stddev	.005	.009	.004	.002	.005	.004	.002	.003	.0002
%RSD	.2810	.4633	.1811	.1003	.2852	.2375	.1036	.1680	.0952
#1	1.921	1.904	1.967	1.957	1.903	1.880	2.085	1.993	.2520
#2	1.913	1.892	1.972	1.954	1.910	1.874	2.082	1.989	.2523

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.890**	**1.990**	**2.013**	**1.894**	**1.962**	**2.002**	**1.974**	**24.34**	**46.81**
Stddev	.005	.001	.001	.000	.002	.002	.003	.07	.15
%RSD	.2702	.0343	.0439	.0090	.0912	.0983	.1317	.2806	.3143
#1	1.886	1.989	2.012	1.894	1.964	2.000	1.973	24.39	46.92
#2	1.893	1.990	2.013	1.893	1.961	2.003	1.976	24.29	46.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.08**	**25.99**	**31.82**	F **724.7**	**2.309**	**1.957**	**4.980**	**1.941**	**1.979**
Stddev	.10	.14	.09	1.5	.003	.004	.003	.000	.004
%RSD	.3899	.5554	.2777	.2087	.1190	.1840	.0551	.0212	.2145
#1	25.15	26.09	31.88	725.8	2.308	1.954	4.978	1.941	1.982
#2	25.01	25.89	31.76	723.7	2.311	1.959	4.982	1.941	1.976

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.951**	**1.926**	**1.956**	**82.90**	**.0002**	**.0221**	**2.017**
Stddev	.004	.000	.003	.05	.0021	.0008	.001
%RSD	.2081	.0105	.1577	.0611	847.0	3.599	.0613
#1	1.954	1.926	1.958	82.87	-.0012	.0215	2.018
#2	1.949	1.926	1.954	82.94	.0017	.0227	2.016

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**74077.**	**6184.7**	**2930.7**	**6356.7**
Stddev	116.	16.7	4.3	2.5
%RSD	.15613	.27043	.14526	.03891
#1	74159.	6172.9	2933.7	6358.4
#2	73995.	6196.6	2927.7	6354.9

Zoom In Zoom Out

Sample Name: jc66978-12 Acquired: 6/1/2018 18:10:07 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0368**	**-.0000**	**.0001**	**.0053**	**.0078**	**.0016**	**.1426**	**.0013**	**.0025**
Stddev	.0000	.0000	.0001	.0000	.0003	.0001	.0001	.0001	.0002
%RSD	.0125	209.9	242.6	.4150	3.349	4.767	.0616	5.873	7.675
#1	.0368	.0000	-.0000	.0053	.0079	.0015	.1426	.0014	.0026
#2	.0368	-.0000	.0002	.0053	.0076	.0016	.1425	.0012	.0023

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0020**	**.0145**	**.0015**	**-.0012**	**-.0008**	**.0044**	**-.0009**	**.4571**	**23.13**
Stddev	.0001	.0001	.0000	.0001	.0000	.0035	.0003	.0102	.07
%RSD	6.754	.7780	2.129	9.655	2.821	80.33	33.50	2.241	.3115
#1	.0019	.0144	.0016	-.0011	-.0008	.0019	-.0011	.4499	23.18
#2	.0021	.0146	.0015	-.0012	-.0008	.0068	-.0007	.4644	23.08

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.5622**	**2.427**	**6.794**	F **700.6**	**.4283**	**.0002**	**4.381**	**-.0003**	**.0996**
Stddev	.0013	.002	.014	1.2	.0033	.0003	.005	.0004	.0003
%RSD	.2375	.0937	.2017	.1695	.7618	140.3	.1261	139.2	.3349
#1	.5612	2.429	6.803	701.4	.4260	.0005	4.384	-.0000	.0998
#2	.5631	2.426	6.784	699.7	.4306	.0000	4.377	-.0006	.0994

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0073**	**.0079**	**.0010**	**83.67**	**.0007**	**.0186**	**.0100**
Stddev	.0003	.0004	.0001	.08	.0015	.0010	.0018
%RSD	4.613	5.283	9.163	.0995	213.1	5.535	17.79
#1	.0076	.0076	.0010	83.73	.0017	.0179	.0112
#2	.0071	.0082	.0009	83.61	-.0003	.0194	.0087

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**73360.**	**6184.6**	**2923.7**	**6463.2**
Stddev	95.	21.7	5.2	21.4
%RSD	.13003	.35098	.17884	.33167
#1	73292.	6169.3	2920.0	6448.0
#2	73427.	6199.9	2927.4	6478.4

Zoom In Zoom Out

Sample Name: mp7405-sd1 Acquired: 6/1/2018 18:14:29 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0451**	**-.0007**	**.0001**	**.0067**	**.0089**	**.0043**	**.1591**	**.0009**	**-.0016**
Stddev	.0002	.0003	.0005	.0004	.0009	.0003	.0004	.0013	.0002
%RSD	.4026	36.14	442.2	5.403	9.940	6.179	.2588	141.4	14.19
#1	.0452	-.0005	-.0003	.0064	.0095	.0041	.1594	.0018	-.0014
#2	.0450	-.0009	.0005	.0070	.0082	.0044	.1589	.0000	-.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0019**	**.0845**	**.0022**	**-.0023**	**.0004**	**-.0026**	**-.0070**	**.6241**	**26.24**
Stddev	.0001	.0009	.0037	.0128	.0023	.0005	.0003	.0238	.23
%RSD	3.502	1.112	164.6	554.2	644.3	21.07	4.105	3.815	.8857
#1	.0019	.0852	-.0004	.0068	.0020	-.0022	-.0068	.6410	26.41
#2	.0018	.0838	.0049	-.0114	-.0013	-.0030	-.0072	.6073	26.08

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.6295**	**2.723**	**7.516**	**861.2**	**.4918**	**-.0038**	**5.407**	**.0025**	**.1114**
Stddev	.0089	.105	.128	4.6	.0007	.0011	.009	.0034	.0016
%RSD	1.418	3.847	1.707	.5328	.1477	28.41	.1596	138.8	1.417
#1	.6358	2.649	7.607	864.4	.4913	-.0030	5.413	.0000	.1125
#2	.6232	2.797	7.425	857.9	.4923	-.0045	5.401	.0049	.1103

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0113**	**.0091**	**.0018**	**90.32**	**-.0004**	**.0252**	**.0186**
Stddev	.0029	.0006	.0001	.02	.0058	.0040	.0071
%RSD	25.32	6.747	6.864	.0233	1436.	15.72	37.95
#1	.0093	.0086	.0019	90.34	.0037	.0280	.0136
#2	.0134	.0095	.0017	90.31	-.0045	.0224	.0236

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**79062.**	**6269.6**	**3098.5**	**7173.2**
Stddev	26.	44.9	1.9	9.1
%RSD	.03275	.71556	.06167	.12748
#1	79080.	6237.8	3099.9	7179.7
#2	79044.	6301.3	3097.2	7166.8

Zoom In Zoom Out

Sample Name: mp7405-s3 Acquired: 6/1/2018 18:18:46 Type: Unk
Method: Accutest 2(v432) 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
Avg	**1.929**	**1.906**	**1.970**	**1.953**	**1.903**	**1.875**	**2.084**	**1.986**	**.2517**
Stddev	.001	.000	.002	.001	.004	.002	.002	.001	.0002
%RSD	.0493	.0059	.0815	.0707	.2326	.1247	.0896	.0458	.0959
#1	1.928	1.906	1.972	1.952	1.906	1.877	2.082	1.986	.2518
#2	1.930	1.906	1.969	1.953	1.900	1.873	2.085	1.987	.2515

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.885**	**1.991**	**2.013**	**1.890**	**1.955**	**2.000**	**1.976**	**23.90**	**47.94**
Stddev	.005	.004	.001	.000	.005	.002	.001	.03	.04
%RSD	.2722	.1800	.0671	.0196	.2436	.1219	.0686	.1295	.0921
#1	1.889	1.988	2.014	1.890	1.952	1.998	1.975	23.88	47.91
#2	1.882	1.993	2.012	1.889	1.958	2.002	1.977	23.92	47.97

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.65**	**26.11**	**32.06**	F **737.2**	**2.330**	**1.957**	**3.525**	**1.943**	**1.998**
Stddev	.03	.03	.02	1.4	.001	.000	.001	.001	.000
%RSD	.1333	.1175	.0629	.1955	.0208	.0084	.0391	.0546	.0224
#1	24.68	26.09	32.05	738.2	2.330	1.956	3.524	1.942	1.998
#2	24.63	26.13	32.08	736.2	2.330	1.957	3.526	1.943	1.998

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.945**	**1.916**	**1.956**	**83.74**	**.0007**	**.0167**	**2.022**
Stddev	.001	.002	.001	.05	.0007	.0012	.003
%RSD	.0328	.0832	.0597	.0650	99.44	7.175	.1291
#1	1.945	1.917	1.957	83.77	.0002	.0175	2.023
#2	1.946	1.915	1.956	83.70	.0012	.0158	2.020

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**73800.**	**6167.3**	**2920.6**	**6340.6**
Stddev	97.	10.3	.5	.6
%RSD	.13085	.16716	.01849	.00991
#1	73732.	6174.6	2921.0	6340.1
#2	73869.	6160.0	2920.2	6341.0

Zoom In Zoom Out

Sample Name: mp7405-s4 Acquired: 6/1/2018 18:22:54 Type: Unk
Method: Accutest 2(v432) 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
Avg	**1.949**	**1.924**	**1.995**	**1.979**	**1.925**	**1.906**	**2.106**	**2.013**	**.2550**
Stddev	.003	.000	.001	.003	.000	.002	.002	.005	.0002
%RSD	.1502	.0232	.0484	.1608	.0094	.0857	.0984	.2283	.0752
#1	1.946	1.924	1.994	1.981	1.924	1.907	2.107	2.016	.2551
#2	1.951	1.923	1.995	1.977	1.925	1.905	2.104	2.010	.2548

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.910**	**2.015**	**2.024**	**1.914**	**1.980**	**2.022**	**1.992**	**24.23**	**47.91**
Stddev	.003	.009	.003	.001	.009	.001	.001	.13	.15
%RSD	.1774	.4302	.1355	.0239	.4535	.0639	.0245	.5163	.3102
#1	1.907	2.022	2.026	1.914	1.987	2.023	1.992	24.14	47.81
#2	1.912	2.009	2.022	1.914	1.974	2.021	1.992	24.32	48.02

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.96**	**26.31**	**32.30**	F **732.2**	**2.352**	**1.971**	**3.462**	**1.949**	**2.014**
Stddev	.00	.06	.04	11.1	.002	.000	.001	.005	.002
%RSD	.0032	.2402	.1146	1.522	.0652	.0091	.0352	.2635	.0988
#1	24.96	26.26	32.28	740.1	2.350	1.971	3.461	1.952	2.013
#2	24.96	26.35	32.33	724.3	2.353	1.971	3.462	1.945	2.016

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.959**	**1.932**	**1.972**	**82.37**	**.0009**	**.0171**	**2.032**
Stddev	.001	.000	.002	.02	.0017	.0018	.001
%RSD	.0310	.0005	.1134	.0208	202.3	10.75	.0499
#1	1.958	1.932	1.974	82.35	-.0004	.0158	2.032
#2	1.959	1.932	1.971	82.38	.0021	.0183	2.031

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**73736.**	**6123.7**	**2904.2**	**6302.8**
Stddev	162.	2.9	4.7	6.6
%RSD	.22001	.04683	.16252	.10460
#1	73621.	6125.7	2907.5	6307.5
#2	73851.	6121.6	2900.8	6298.1

Zoom In Zoom Out

Sample Name: jc66978-12f Acquired: 6/1/2018 18:27:02 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0326**	**-.0000**	**.0003**	**.0054**	**.0059**	**.0022**	**.1467**	**.0012**	**-.0002**
Stddev	.0001	.0001	.0000	.0002	.0000	.0002	.0002	.0004	.0001
%RSD	.2608	203.0	4.394	3.174	.3550	9.026	.1386	29.62	86.40
#1	.0326	.0000	.0003	.0056	.0059	.0021	.1468	.0010	-.0002
#2	.0327	-.0001	.0003	.0053	.0059	.0024	.1466	.0015	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0002**	**.0146**	**.0011**	**.0011**	**-.0005**	**.0050**	**-.0014**	**.0985**	**24.17**
Stddev	.0001	.0000	.0005	.0005	.0007	.0002	.0016	.0035	.04
%RSD	58.01	.0637	50.40	41.37	150.7	4.878	119.0	3.506	.1547
#1	.0001	.0146	.0015	.0015	.0000	.0048	-.0002	.1009	24.20
#2	.0003	.0147	.0007	.0008	-.0010	.0051	-.0026	.0960	24.14

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0479**	**2.479**	**6.819**	F **730.7**	**.4600**	**-.0003**	**3.467**	**-.0003**	**.1029**
Stddev	.0038	.024	.017	4.0	.0012	.0003	.003	.0010	.0002
%RSD	7.963	.9599	.2538	.5490	.2708	93.85	.0990	296.5	.1492
#1	.0452	2.462	6.832	733.6	.4609	-.0001	3.469	-.0010	.1028
#2	.0506	2.496	6.807	727.9	.4591	-.0005	3.464	.0004	.1030

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0033**	**.0005**	**86.13**	**-.0004**	**.0166**	**.0059**
Stddev	.0005	.0005	.0001	.22	.0017	.0022	.0006
%RSD	185.5	15.74	16.45	.2608	437.7	13.34	9.893
#1	-.0006	.0029	.0004	86.29	-.0016	.0151	.0055
#2	.0001	.0036	.0005	85.97	.0008	.0182	.0064

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**73544.**	**6172.3**	**2925.4**	**6462.8**
Stddev	89.	31.2	3.9	1.0
%RSD	.12165	.50577	.13249	.01556
#1	73607.	6194.3	2922.6	6462.1
#2	73481.	6150.2	2928.1	6463.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 18:31:26 Type: QC
Method: Accutest 2(v432) 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	**1.972**	**1.977**	**1.985**	**1.960**	**1.974**	**1.959**	**2.016**	**1.997**	**.2414**
Stddev	.006	.008	.001	.003	.002	.008	.001	.003	.0005
%RSD	.3201	.4075	.0634	.1747	.0957	.3977	.0572	.1370	.2037
#1	1.977	1.983	1.986	1.963	1.973	1.964	2.016	1.999	.2418
#2	1.968	1.971	1.984	1.958	1.976	1.953	2.015	1.995	.2411
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	**1.933**	**1.998**	**1.976**	**2.031**	**2.003**	**1.978**	**2.003**	**38.72**	**38.85**
Stddev	.004	.000	.004	.007	.003	.004	.006	.01	.04
%RSD	.2090	.0045	.2154	.3348	.1450	.1999	.3153	.0226	.0923
#1	1.930	1.998	1.979	2.036	2.001	1.981	2.007	38.72	38.88
#2	1.935	1.998	1.973	2.027	2.005	1.975	1.998	38.71	38.83
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	**39.92**	**39.53**	**40.08**	**39.11**	**1.990**	**2.034**	**5.045**	**2.050**	**1.982**
Stddev	.14	.10	.06	.05	.002	.001	.006	.003	.007
%RSD	.3489	.2578	.1570	.1214	.1019	.0290	.1235	.1362	.3306
#1	40.02	39.60	40.12	39.14	1.992	2.033	5.050	2.052	1.986
#2	39.82	39.46	40.03	39.08	1.989	2.034	5.041	2.048	1.977
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: 6/1/2018 18:31:26 Type: QC
Method: Accutest 2(v432) 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**	**1.996**	**2.008**	**1.957**	**2.023**	**1.976**	**1.974**
Stddev	.001	.000	.001	.002	.004	.004	.004
%RSD	.0706	.0077	.0482	.0830	.1798	.2097	.1883
#1	2.005	1.996	2.009	1.959	2.026	1.979	1.976
#2	2.003	1.997	2.008	1.956	2.020	1.973	1.971
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	**80495.**	**6244.1**	**3142.1**	**7188.6**
Stddev	34.	29.9	1.7	1.2
%RSD	.04229	.47922	.05452	.01724
#1	80519.	6265.3	3143.3	7189.5
#2	80471.	6223.0	3140.9	7187.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 18:35:29 Type: QC
Method: Accutest 2(v432) 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**	**-.0000**	**.0003**	**.0003**	**-.0003**	**-.0001**	**.0000**	**-.0002**	**.0000**
Stddev	.0001	.0001	.0004	.0000	.0000	.0004	.0000	.0003	.0005
%RSD	33.74	166.6	152.4	6.858	8.853	293.1	86.54	145.1	2475.
#1	-.0001	.0000	.0005	.0003	-.0002	.0001	.0001	.0000	.0003
#2	-.0002	-.0001	-.0000	.0003	-.0003	-.0004	.0000	-.0004	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0009**	**.0000**	**.0008**	**.0004**	**.0009**	**-.0003**	**.0166**	**.0008**
Stddev	.0000	.0001	.0006	.0012	.0000	.0008	.0008	.0009	.0019
%RSD	83.92	8.618	1384.	161.1	6.520	85.82	249.0	5.374	230.8
#1	-.0001	.0009	-.0003	.0016	.0004	.0004	-.0009	.0172	-.0005
#2	-.0000	.0010	.0004	-.0001	.0005	.0015	.0002	.0160	.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	**-.0025**	**-.0044**	**.0385**	**.1731**	**.0002**	**.0001**	**.0008**	**-.0001**	**.0001**
Stddev	.0005	.0044	.0229	.0012	.0001	.0000	.0009	.0003	.0001
%RSD	21.53	100.2	59.46	.7006	34.54	56.14	117.5	374.9	50.06
#1	-.0021	-.0013	.0547	.1722	.0001	.0001	.0001	-.0002	.0001
#2	-.0029	-.0075	.0223	.1739	.0002	.0000	.0014	.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									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 18:35:29 Type: QC
Method: Accutest 2(v432) 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**	**-.0001**	**.0003**	**.0004**	**-.0013**	**.0017**	**.0020**
Stddev	.0003	.0003	.0001	.0007	.0002	.0015	.0002
%RSD	728.1	477.1	33.51	201.2	18.62	88.85	10.18
#1	.0001	.0002	.0003	-.0002	-.0011	.0006	.0018
#2	-.0002	-.0003	.0004	.0009	-.0014	.0027	.0021
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	**84159.**	**6314.9**	**3239.1**	**7960.5**
Stddev	833.	40.1	7.5	22.5
%RSD	.98976	.63442	.23208	.28280
#1	83570.	6286.6	3244.5	7976.5
#2	84748.	6343.2	3233.8	7944.6

Zoom In Zoom Out

Sample Name: mp7405-sd2 Acquired: 6/1/2018 18:39:52 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0315**	**-.0008**	**.0007**	**.0056**	**.0061**	**.0040**	**.1497**	**.0007**	**-.0032**
Stddev	.0004	.0000	.0005	.0001	.0010	.0001	.0001	.0020	.0001
%RSD	1.356	.0621	67.18	2.642	16.80	2.032	.0538	275.7	3.303
#1	.0318	-.0008	.0010	.0055	.0054	.0041	.1497	.0021	-.0031
#2	.0312	-.0008	.0004	.0057	.0068	.0040	.1498	-.0007	-.0032

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0219**	**.0067**	**.0006**	**.0039**	**.0080**	**-.0002**	**.1318**	**24.76**
Stddev	.0026	.0003	.0034	.0082	.0028	.0034	.0084	.0100	.02
%RSD	5155.	1.551	51.15	1344.	70.62	43.13	4183.	7.601	.0938
#1	.0019	.0221	.0091	-.0052	.0020	.0056	-.0061	.1388	24.78
#2	-.0018	.0217	.0043	.0064	.0059	.0104	.0057	.1247	24.75

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0450**	**2.512**	**6.553**	**827.3**	**.4654**	**-.0060**	**3.689**	**.0008**	**.1046**
Stddev	.0153	.006	.081	1.4	.0013	.0000	.007	.0008	.0003
%RSD	34.04	.2393	1.237	.1677	.2701	.3855	.1916	99.58	.2968
#1	.0342	2.516	6.496	828.3	.4645	-.0060	3.684	.0002	.1044
#2	.0559	2.508	6.610	826.4	.4663	-.0060	3.694	.0014	.1048

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0008**	**-.0095**	**.0001**	**83.71**	**-.0030**	**.0096**	**.0202**
Stddev	.0008	.0049	.0009	.07	.0053	.0014	.0029
%RSD	106.4	52.26	657.6	.0867	179.4	14.09	14.57
#1	-.0002	-.0130	.0008	83.76	-.0067	.0106	.0222
#2	-.0014	-.0060	-.0005	83.66	.0008	.0087	.0181

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**79524.**	**6267.6**	**3099.0**	**7179.5**
Stddev	107.	9.6	2.4	2.1
%RSD	.13417	.15247	.07714	.02931
#1	79448.	6274.4	3100.7	7178.0
#2	79599.	6260.8	3097.3	7181.0

Zoom In Zoom Out

Sample Name: jc66743-1 Acquired: 6/1/2018 18:44:10 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0626**	**.0004**	**-.0000**	**.0039**	**.0431**	**.0234**	**1.270**	**.0243**	**-.0008**
Stddev	.0004	.0000	.0001	.0001	.0004	.0001	.001	.0001	.0003
%RSD	.5907	6.459	2675.	2.975	.9309	.2524	.0457	.3648	33.18
#1	.0629	.0003	.0001	.0038	.0429	.0234	1.270	.0244	-.0006
#2	.0624	.0004	-.0001	.0039	.0434	.0233	1.269	.0242	-.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0170**	**.0756**	**.0056**	**.0019**	**.0251**	**.0008**	**-.0003**	**6.702**	**11.03**
Stddev	.0004	.0001	.0005	.0004	.0002	.0013	.0006	.021	.00
%RSD	2.197	.1499	9.520	19.26	.9812	170.1	196.8	.3191	.0072
#1	.0168	.0757	.0053	.0017	.0252	.0017	-.0007	6.717	11.03
#2	.0173	.0755	.0060	.0022	.0249	-.0002	.0001	6.687	11.03

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**10.23**	**5.500**	**4.153**	**39.60**	**.0479**	**.0015**	**13.86**	**-.0004**	**.0730**
Stddev	.00	.025	.002	.01	.0002	.0002	.02	.0007	.0001
%RSD	.0187	.4567	.0352	.0250	.3731	10.87	.1296	208.8	.1364
#1	10.23	5.483	4.152	39.60	.0477	.0016	13.87	.0002	.0731
#2	10.23	5.518	4.154	39.59	.0480	.0014	13.84	-.0009	.0730

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.3233**	**.0249**	**.0023**	**1.415**	**-.0026**	**.0071**	**.3456**
Stddev	.0031	.0011	.0000	.005	.0010	.0001	.0011
%RSD	.9435	4.582	2.087	.3692	39.37	2.056	.3062
#1	.3255	.0241	.0023	1.418	-.0019	.0070	.3463
#2	.3212	.0257	.0022	1.411	-.0033	.0072	.3448

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**82516.**	**6426.9**	**3219.8**	**7493.6**
Stddev	20.	18.0	3.6	2.1
%RSD	.02438	.28038	.11106	.02839
#1	82502.	6439.7	3217.3	7492.1
#2	82530.	6414.2	3222.3	7495.1

Zoom In Zoom Out

Sample Name: jc66814-1 Acquired: 6/1/2018 18:48:26 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.1713**	**-.0002**	**.0003**	**.0001**	**.0056**	**.0012**	**.0303**	**.0034**	**-.0001**
Stddev	.0007	.0000	.0001	.0001	.0006	.0000	.0001	.0003	.0002
%RSD	.4139	19.97	51.52	167.8	9.986	3.388	.2112	7.776	129.8
#1	.1718	-.0002	.0004	-.0000	.0060	.0012	.0303	.0036	-.0000
#2	.1708	-.0002	.0002	.0002	.0052	.0012	.0303	.0032	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0034**	**.0008**	**.0016**	**.0001**	**-.0005**	**.0024**	**-.0017**	**.1200**	**95.51**
Stddev	.0001	.0002	.0009	.0001	.0002	.0026	.0020	.0039	.21
%RSD	1.590	24.10	53.48	77.19	30.78	108.5	117.4	3.269	.2168
#1	.0034	.0007	.0023	.0001	-.0007	.0042	-.0032	.1172	95.65
#2	.0034	.0010	.0010	.0000	-.0004	.0005	-.0003	.1228	95.36

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2034**	**11.97**	**1.463**	**19.63**	**.0910**	**-.0007**	**10.62**	**-.0019**	**.1204**
Stddev	.0022	.06	.023	.06	.0004	.0002	.03	.0011	.0004
%RSD	1.057	.4967	1.553	.2972	.4537	26.52	.2383	58.12	.3093
#1	.2049	12.01	1.447	19.67	.0913	-.0006	10.64	-.0027	.1207
#2	.2019	11.93	1.479	19.59	.0907	-.0009	10.61	-.0011	.1202

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0031**	**.0092**	**-.0002**	**11.87**	**-.0010**	**.0417**	**.0396**
Stddev	.0002	.0000	.0001	.03	.0001	.0006	.0012
%RSD	6.320	.2357	35.96	.2294	13.25	1.433	2.926
#1	.0029	.0092	-.0002	11.89	-.0009	.0413	.0404
#2	.0032	.0091	-.0001	11.85	-.0011	.0422	.0387

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80171.**	**6339.4**	**3094.2**	**7297.8**
Stddev	28.	11.0	6.9	17.5
%RSD	.03541	.17359	.22432	.23960
#1	80151.	6331.6	3089.3	7285.4
#2	80191.	6347.2	3099.1	7310.1

Zoom In Zoom Out

Sample Name: jc66814-2 Acquired: 6/1/2018 18:52:42 Type: Unk
Method: Accutest 2(v432) 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
Avg	**-.0002**	**-.0002**	**.0002**	**.0001**	**.0004**	**.0003**	**-.0001**	**-.0002**	**-.0005**
Stddev	.0002	.0001	.0001	.0003	.0000	.0000	.0001	.0004	.0000
%RSD	82.12	31.79	43.44	258.1	.2230	3.326	77.59	143.9	1.359
#1	-.0003	-.0002	.0002	-.0001	.0004	.0003	-.0002	-.0005	-.0005
#2	-.0001	-.0003	.0001	.0003	.0004	.0003	-.0001	.0000	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0005**	**.0000**	**-.0020**	**-.0001**	**-.0006**	**.0002**	**.0199**	**-.0055**
Stddev	.0001	.0000	.0007	.0010	.0006	.0013	.0006	.0211	.0006
%RSD	31.76	.9492	2362.	49.56	585.2	240.1	380.7	105.9	10.54
#1	-.0004	.0005	.0005	-.0027	.0003	.0004	-.0003	.0050	-.0051
#2	-.0003	.0005	-.0005	-.0013	-.0005	-.0015	.0006	.0348	-.0059

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0019**	**-.0032**	**.0090**	**.1177**	**.0007**	**-.0012**	**.0026**	**.0005**	**-.0000**
Stddev	.0013	.0154	.0208	.0089	.0000	.0001	.0002	.0002	.0001
%RSD	66.75	482.6	229.6	7.593	6.493	6.133	8.050	43.06	228.1
#1	-.0010	-.0141	.0237	.1240	.0007	-.0012	.0028	.0004	.0000
#2	-.0028	.0077	-.0056	.1114	.0006	-.0013	.0025	.0007	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**-.0008**	**.0003**	**.0029**	**-.0007**	**.0006**	**.0033**
Stddev	.0004	.0010	.0001	.0002	.0004	.0009	.0008
%RSD	367.9	118.6	30.03	6.602	61.37	153.4	23.94
#1	.0003	-.0015	.0003	.0031	-.0004	.0013	.0038
#2	-.0002	-.0001	.0004	.0028	-.0010	-.0001	.0027

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83636.**	**6509.4**	**3245.7**	**7958.8**
Stddev	109.	4.2	2.6	28.0
%RSD	.12973	.06449	.07952	.35219
#1	83559.	6512.3	3247.6	7978.6
#2	83713.	6506.4	3243.9	7939.0

Zoom In Zoom Out

Sample Name: jc66814-1f Acquired: 6/1/2018 18:57:01 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.1659**	**-.0003**	**.0002**	**.0003**	**.0007**	**.0006**	**.0242**	**.0025**	**-.0002**
Stddev	.0004	.0000	.0001	.0001	.0004	.0001	.0000	.0004	.0001
%RSD	.2639	17.06	50.98	42.81	54.93	15.02	.0168	14.30	74.11
#1	.1662	-.0002	.0002	.0004	.0005	.0006	.0242	.0027	-.0001
#2	.1656	-.0003	.0001	.0002	.0010	.0007	.0242	.0022	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0027**	**.0002**	**-.0002**	**.0002**	**-.0007**	**.0018**	**-.0007**	**-.0020**	**94.60**
Stddev	.0002	.0002	.0004	.0007	.0004	.0015	.0002	.0024	.26
%RSD	7.193	75.83	173.0	303.5	54.21	81.03	31.85	117.9	.2696
#1	.0026	.0003	-.0005	-.0003	-.0009	.0028	-.0006	-.0003	94.78
#2	.0028	.0001	.0000	.0008	-.0004	.0008	-.0009	-.0037	94.42

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0059**	**11.77**	**1.321**	**19.50**	**.0911**	**-.0010**	**10.38**	**-.0013**	**.1151**
Stddev	.0008	.04	.006	.04	.0004	.0000	.01	.0006	.0002
%RSD	13.29	.3139	.4810	.2127	.4289	1.351	.0898	48.61	.2082
#1	-.0065	11.80	1.316	19.53	.0909	-.0010	10.39	-.0018	.1153
#2	-.0054	11.74	1.325	19.47	.0914	-.0010	10.38	-.0009	.1149

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0008**	**.0083**	**-.0005**	**11.87**	**-.0021**	**.0401**	**.0307**
Stddev	.0001	.0010	.0001	.05	.0000	.0003	.0007
%RSD	16.52	12.28	13.83	.4573	.4852	.8143	2.196
#1	-.0007	.0090	-.0005	11.91	-.0021	.0398	.0311
#2	-.0009	.0076	-.0004	11.84	-.0021	.0403	.0302

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80613.**	**6396.2**	**3121.7**	**7359.4**
Stddev	74.	8.1	7.8	13.3
%RSD	.09218	.12687	.24945	.18082
#1	80560.	6390.4	3127.2	7368.8
#2	80665.	6401.9	3116.2	7350.0

Zoom In Zoom Out

Sample Name: jc66827-1 Acquired: 6/1/2018 19:01:17 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0331	-.0002	.0001	.0007	.0026	.0412	.0267	.0027	-.0001
Stddev	.0001	.0000	.0002	.0001	.0001	.0000	.0000	.0002	.0006
%RSD	.1533	20.02	182.2	14.40	4.185	.0341	.1486	6.213	477.8
#1	.0331	-.0002	.0002	.0007	.0027	.0412	.0266	.0029	-.0006
#2	.0330	-.0002	-.0000	.0006	.0026	.0412	.0267	.0026	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0065	.1640	.0015	-.0005	.0041	-.0003	.0527	.2269	14.69
Stddev	.0001	.0008	.0005	.0003	.0002	.0006	.0009	.0046	.06
%RSD	1.773	.4650	34.26	59.05	4.892	177.7	1.737	2.019	.4338
#1	.0066	.1645	.0011	-.0007	.0043	.0001	.0533	.2237	14.64
#2	.0064	.1635	.0019	-.0003	.0040	-.0007	.0520	.2301	14.73

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.9634	1.909	2.388	13.86	.1458	-.0001	3.533	-.0004	.0959
Stddev	.0023	.022	.019	.04	.0008	.0001	.001	.0006	.0002
%RSD	.2421	1.163	.8101	.2846	.5827	140.1	.0202	152.2	.1839
#1	.9617	1.894	2.402	13.84	.1464	-.0002	3.534	-.0008	.0958
#2	.9650	1.925	2.374	13.89	.1452	-.0000	3.533	.0000	.0960

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0042	.0043	.0004	4.690	-.0022	.0038	.3773
Stddev	.0002	.0010	.0001	.001	.0014	.0002	.0018
%RSD	4.141	22.34	17.92	.0194	65.84	6.040	.4754
#1	.0040	.0049	.0004	4.691	-.0032	.0039	.3785
#2	.0043	.0036	.0003	4.690	-.0012	.0036	.3760

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	82655.	6457.8	3202.1	7707.1
Stddev	176.	31.5	3.3	4.1
%RSD	.21250	.48721	.10176	.05265
#1	82531.	6480.1	3204.4	7710.0
#2	82779.	6435.6	3199.8	7704.3

Zoom In Zoom Out

Sample Name: jc66839-1 Acquired: 6/1/2018 19:05:31 Type: Unk
Method: Accutest 2(v432) 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
Avg	.1403	.0002	.0002	.0041	.0123	.0526	.5218	.0194	-.0004
Stddev	.0002	.0001	.0000	.0001	.0002	.0004	.0002	.0001	.0002
%RSD	.1706	25.80	7.611	3.566	1.408	.7098	.0360	.7473	57.06
#1	.1401	.0002	.0002	.0040	.0124	.0523	.5217	.0195	-.0002
#2	.1405	.0003	.0002	.0042	.0121	.0529	.5220	.0193	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0135	.0695	.0092	.0008	.1701	.0005	-.0002	6.484	12.52
Stddev	.0002	.0003	.0009	.0007	.0002	.0011	.0010	.021	.04
%RSD	1.196	.3686	9.558	89.80	.1186	215.2	441.9	.3169	.3008
#1	.0134	.0697	.0099	.0014	.1703	.0013	-.0009	6.498	12.55
#2	.0136	.0694	.0086	.0003	.1700	-.0003	.0005	6.469	12.50

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	10.09	4.134	3.034	27.84	.0286	.0011	11.81	.0026	.0710
Stddev	.02	.017	.003	.03	.0005	.0001	.04	.0002	.0003
%RSD	.2114	.4183	.0914	.1120	1.919	9.768	.3063	6.426	.3585
#1	10.11	4.146	3.036	27.86	.0290	.0011	11.84	.0024	.0712
#2	10.08	4.122	3.032	27.81	.0282	.0010	11.79	.0027	.0709

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.1944	.0105	.0016	2.501	-.0019	.0108	.3000
Stddev	.0010	.0004	.0003	.005	.0007	.0003	.0004
%RSD	.5131	4.025	21.90	.1840	35.95	2.377	.1469
#1	.1951	.0108	.0013	2.504	-.0024	.0106	.2996
#2	.1937	.0102	.0018	2.498	-.0014	.0109	.3003

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	82678.	6462.4	3233.9	7590.0
Stddev	104.	5.2	7.1	14.2
%RSD	.12539	.08100	.21957	.18721
#1	82605.	6458.7	3228.9	7580.0
#2	82752.	6466.1	3238.9	7600.1

Zoom In Zoom Out

Sample Name: jc66861-1 Acquired: 6/1/2018 19:09:45 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0259	-.0001	.0002	.0022	.0004	.0039	.0412	.0071	-.0004
Stddev	.0004	.0000	.0002	.0002	.0001	.0001	.0001	.0001	.0008
%RSD	1.543	23.07	99.35	9.058	36.43	3.366	.1893	.8678	217.7
#1	.0262	-.0001	.0000	.0024	.0003	.0040	.0413	.0071	-.0010
#2	.0256	-.0001	.0003	.0021	.0005	.0038	.0412	.0072	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-.0001	.0369	-.0003	-.0009	-.0001	-.0001	-.0022	.0219	34.51
Stddev	.0001	.0003	.0005	.0006	.0004	.0011	.0013	.0032	.03
%RSD	111.1	.6835	161.0	72.31	258.2	1636.	58.01	14.78	.0907
#1	-.0000	.0370	.0000	-.0013	.0001	-.0008	-.0013	.0196	34.53
#2	-.0001	.0367	-.0007	-.0004	-.0004	.0007	-.0031	.0242	34.49

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.1875	6.399	9.129	41.95	.1246	-.0014	5.747	-.0004	.3210
Stddev	.0040	.002	.012	.01	.0004	.0001	.013	.0006	.0003
%RSD	2.112	.0367	.1324	.0321	.3350	8.975	.2170	142.7	.0821
#1	.1903	6.401	9.121	41.96	.1249	-.0015	5.756	.0000	.3208
#2	.1847	6.397	9.138	41.94	.1243	-.0013	5.738	-.0008	.3212

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0002	.0047	.0001	12.24	-.0013	.0150	.5162
Stddev	.0000	.0008	.0001	.00	.0009	.0002	.0006
%RSD	14.22	17.54	114.4	.0265	75.11	1.025	.1184
#1	.0002	.0053	.0000	12.24	-.0006	.0151	.5157
#2	.0001	.0041	.0002	12.24	-.0019	.0149	.5166

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	81006.	6359.5	3135.2	7402.2
Stddev	176.	34.7	7.0	11.5
%RSD	.21669	.54579	.22457	.15531
#1	80882.	6384.0	3130.2	7394.0
#2	81130.	6334.9	3140.2	7410.3

Zoom In Zoom Out

Sample Name: jc66941-1 Acquired: 6/1/2018 19:14:00 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0067	.0001	.0002	.0026	.0037	.0062	.5508	.0075	-.0003
Stddev	.0000	.0000	.0003	.0001	.0001	.0003	.0007	.0000	.0007
%RSD	.6134	9.172	180.5	3.830	3.125	5.352	.1230	.5989	209.6
#1	.0067	.0001	.0004	.0027	.0038	.0059	.5513	.0075	-.0009
#2	.0068	.0001	-.0000	.0025	.0036	.0064	.5503	.0075	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0085	.0255	-.0006	.0005	.0013	-.0008	-.0019	3.059	.6274
Stddev	.0008	.0000	.0002	.0006	.0004	.0021	.0013	.020	.0040
%RSD	9.516	.1312	39.40	109.9	28.50	255.7	65.91	.6548	.6433
#1	.0091	.0256	-.0004	.0001	.0010	-.0023	-.0010	3.045	.6246
#2	.0079	.0255	-.0007	.0009	.0016	.0007	-.0029	3.074	.6303

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	3.455	.5810	1.108	.3695	.0034	-.0007	6.071	-.0003	.0019
Stddev	.002	.0469	.045	.0005	.0004	.0001	.002	.0006	.0000
%RSD	.0549	8.070	4.026	.1317	10.86	13.35	.0345	214.6	.6248
#1	3.453	.6142	1.076	.3692	.0031	-.0006	6.073	.0001	.0019
#2	3.456	.5479	1.139	.3698	.0036	-.0008	6.070	-.0007	.0020

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0422	.0058	.0014	.0939	-.0007	.0030	.0539
Stddev	.0008	.0006	.0000	.0011	.0001	.0002	.0006
%RSD	1.902	10.41	3.448	1.161	17.51	7.463	1.077
#1	.0427	.0053	.0015	.0947	-.0008	.0032	.0543
#2	.0416	.0062	.0014	.0931	-.0007	.0029	.0535

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	83975.	6516.8	3270.5	7922.0
Stddev	94.	41.2	9.5	13.2
%RSD	.11191	.63180	.28921	.16615
#1	84041.	6545.9	3277.2	7931.3
#2	83908.	6487.7	3263.8	7912.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 19:18:19 Type: QC
Method: Accutest 2(v432) 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	**1.951**	**1.929**	**1.988**	**1.966**	**1.999**	**1.978**	**2.037**	**2.010**	**.2436**
Stddev	.005	.003	.006	.002	.009	.006	.008	.001	.0001
%RSD	.2579	.1291	.3167	.1095	.4378	.2949	.3718	.0261	.0328
#1	1.947	1.927	1.993	1.968	1.993	1.974	2.032	2.010	.2436
#2	1.954	1.931	1.984	1.965	2.005	1.982	2.042	2.009	.2437
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	**1.955**	**2.009**	**1.977**	**2.045**	**2.025**	**1.985**	**2.008**	**38.09**	**38.01**
Stddev	.004	.001	.002	.001	.001	.003	.004	.09	.00
%RSD	.2309	.0239	.1159	.0614	.0536	.1548	.2017	.2459	.0093
#1	1.952	2.009	1.979	2.046	2.026	1.987	2.011	38.02	38.01
#2	1.958	2.008	1.976	2.044	2.025	1.983	2.005	38.16	38.00
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	**38.89**	**38.32**	**40.03**	**39.40**	**1.987**	**2.040**	**5.067**	**2.059**	**1.953**
Stddev	.01	.10	.08	.01	.008	.003	.016	.004	.005
%RSD	.0279	.2701	.1907	.0180	.3819	.1271	.3229	.1862	.2567
#1	38.88	38.24	39.98	39.40	1.992	2.042	5.079	2.062	1.949
#2	38.90	38.39	40.09	39.41	1.982	2.038	5.055	2.057	1.956
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: 6/1/2018 19:18:19 Type: QC
Method: Accutest 2(v432) 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	**2.021**	**2.002**	**2.028**	**1.968**	**2.021**	**1.959**	**1.976**
Stddev	.008	.002	.007	.008	.005	.007	.001
%RSD	.3749	.0905	.3659	.4084	.2320	.3566	.0480
#1	2.016	2.003	2.023	1.974	2.025	1.954	1.976
#2	2.026	2.001	2.033	1.962	2.018	1.964	1.975
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	**79691.**	**6357.3**	**3142.3**	**7162.7**
Stddev	132.	5.1	2.8	15.9
%RSD	.16561	.08063	.08912	.22155
#1	79784.	6360.9	3144.3	7173.9
#2	79598.	6353.6	3140.3	7151.5

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 19:22:23 Type: QC
Method: Accutest 2(v432) 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**	**-.0001**	**.0003**	**.0003**	**-.0001**	**.0004**	**.0001**	**-.0002**	**-.0001**
Stddev	.0000	.0000	.0000	.0001	.0003	.0001	.0000	.0002	.0000
%RSD	485.6	26.38	18.76	35.11	223.5	26.53	92.55	113.6	53.92
#1	.0000	-.0001	.0003	.0003	.0001	.0003	.0001	-.0000	-.0000
#2	-.0000	-.0001	.0002	.0004	-.0004	.0005	.0000	-.0003	-.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	**-.0001**	**.0011**	**.0001**	**-.0006**	**.0002**	**-.0006**	**-.0018**	**.0135**	**.0001**
Stddev	.0002	.0001	.0006	.0002	.0018	.0009	.0007	.0084	.0005
%RSD	243.9	5.180	533.7	30.25	966.4	143.6	37.11	62.02	426.7
#1	.0001	.0010	-.0003	-.0005	-.0011	.0000	-.0022	.0195	.0005
#2	-.0002	.0011	.0005	-.0007	.0014	-.0012	-.0013	.0076	-.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	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0018**	**-.0027**	**.0172**	**.0558**	**.0004**	**.0000**	**.0015**	**.0007**	**.0002**
Stddev	.0012	.0120	.0236	.0058	.0007	.0003	.0007	.0006	.0001
%RSD	63.63	450.0	137.3	10.33	178.7	1047.	50.76	82.71	78.83
#1	-.0010	.0058	.0005	.0598	-.0001	.0002	.0020	.0003	.0003
#2	-.0026	-.0112	.0339	.0517	.0009	-.0002	.0009	.0011	.0001
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: 6/1/2018 19:22:23 Type: QC
Method: Accutest 2(v432) 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**	**-.0008**	**.0003**	**.0039**	**-.0008**	**-.0002**	**.0020**
Stddev	.0003	.0002	.0000	.0018	.0003	.0008	.0002
%RSD	292.8	31.32	10.89	45.78	42.17	405.1	8.758
#1	.0003	-.0010	.0003	.0027	-.0005	-.0007	.0019
#2	-.0001	-.0006	.0004	.0052	-.0010	.0004	.0022
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	**83090.**	**6331.9**	**3245.9**	**7958.2**
Stddev	259.	6.1	3.2	21.1
%RSD	.31127	.09573	.09815	.26500
#1	82908.	6327.6	3243.7	7943.3
#2	83273.	6336.2	3248.2	7973.1

Zoom In Zoom Out

Sample Name: jc66941-2 Acquired: 6/1/2018 19:26:45 Type: Unk
Method: Accutest 2(v432) 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
Avg	**-.0002**	**-.0001**	**-.0000**	**.0001**	**.0001**	**.0000**	**-.0001**	**-.0007**	**-.0001**
Stddev	.0001	.0001	.0000	.0003	.0001	.0000	.0001	.0003	.0003
%RSD	44.18	64.43	1174.	403.8	133.1	8.305	56.07	44.41	257.6
#1	-.0003	-.0002	.0000	-.0001	.0002	.0000	-.0002	-.0005	-.0003
#2	-.0001	-.0001	-.0000	.0002	.0000	.0000	-.0001	-.0009	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0006**	**-.0006**	**-.0016**	**.0011**	**.0007**	**.0007**	**.0208**	**-.0021**
Stddev	.0003	.0000	.0019	.0007	.0001	.0009	.0015	.0064	.0003
%RSD	206.9	1.530	315.2	46.06	7.309	125.1	214.4	30.73	16.18
#1	-.0001	.0006	-.0019	-.0021	.0011	.0014	.0017	.0253	-.0019
#2	.0003	.0006	.0007	-.0011	.0010	.0001	-.0003	.0163	-.0023

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0031**	**-.0013**	**-.0198**	**.0473**	**-.0006**	**-.0009**	**.0063**	**.0000**	**-.0000**
Stddev	.0007	.0039	.0013	.0107	.0003	.0003	.0004	.0000	.0000
%RSD	23.65	291.5	6.491	22.56	51.82	32.62	6.238	24.35	20.71
#1	-.0026	-.0041	-.0207	.0548	-.0008	-.0011	.0060	.0000	-.0000
#2	-.0036	.0014	-.0189	.0397	-.0004	-.0007	.0066	.0000	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**-.0007**	**.0003**	**.0048**	**-.0019**	**-.0001**	**.0025**
Stddev	.0001	.0011	.0003	.0010	.0007	.0002	.0002
%RSD	333.8	149.6	98.61	20.44	36.54	358.2	9.558
#1	-.0001	-.0015	.0001	.0041	-.0014	.0001	.0027
#2	.0000	.0000	.0005	.0055	-.0024	-.0002	.0024

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83619.**	**6370.8**	**3225.7**	**7928.5**
Stddev	147.	15.0	8.0	15.5
%RSD	.17618	.23530	.24945	.19547
#1	83723.	6381.4	3220.0	7917.5
#2	83515.	6360.2	3231.4	7939.4

Zoom In Zoom Out

Sample Name: jc66972-3 Acquired: 6/1/2018 19:31:05 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0930**	**-.0001**	**.0005**	**.0011**	**.0005**	**.0046**	**.1767**	**.0032**	**-.0004**
Stddev	.0006	.0001	.0001	.0001	.0005	.0003	.0001	.0004	.0002
%RSD	.6408	49.09	15.18	12.33	90.86	5.705	.0529	12.23	59.69
#1	.0935	-.0001	.0005	.0010	.0008	.0045	.1766	.0029	-.0005
#2	.0926	-.0001	.0004	.0012	.0002	.0048	.1767	.0034	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0005**	**.0306**	**.1238**	**-.0006**	**.0002**	**-.0000**	**.0128**	**.1282**	**6.981**
Stddev	.0002	.0000	.0002	.0006	.0005	.0002	.0006	.0025	.007
%RSD	34.87	.1419	.1504	107.7	254.9	778.4	4.410	1.919	.1002
#1	.0004	.0305	.1237	-.0001	.0005	-.0002	.0132	.1265	6.976
#2	.0006	.0306	.1239	-.0011	-.0001	.0001	.0124	.1300	6.986

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.6947**	**2.732**	**1.802**	**40.66**	**.0207**	**-.0008**	**3.156**	**-.0005**	**.0436**
Stddev	.0014	.029	.007	.00	.0004	.0000	.007	.0002	.0002
%RSD	.1977	1.067	.4185	.0011	1.966	5.517	.2182	40.42	.3997
#1	.6938	2.752	1.797	40.66	.0204	-.0009	3.161	-.0006	.0437
#2	.6957	2.711	1.808	40.66	.0210	-.0008	3.151	-.0004	.0434

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0011**	**.0017**	**.0002**	**2.018**	**-.0006**	**.0026**	**.0357**
Stddev	.0001	.0001	.0000	.002	.0017	.0016	.0022
%RSD	9.859	6.803	31.92	.0802	297.6	60.26	6.259
#1	.0010	.0016	.0002	2.017	-.0018	.0015	.0373
#2	.0012	.0017	.0001	2.019	.0006	.0037	.0341

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81503.**	**6368.3**	**3173.3**	**7571.2**
Stddev	95.	32.4	1.4	11.0
%RSD	.11624	.50933	.04369	.14492
#1	81570.	6391.2	3174.3	7579.0
#2	81436.	6345.3	3172.4	7563.4

Zoom In Zoom Out

Sample Name: jc66972-4 Acquired: 6/1/2018 19:35:23 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0566**	**-.0001**	**.0002**	**.0008**	**.0004**	**.0016**	**.3438**	**.0049**	**-.0002**
Stddev	.0001	.0001	.0001	.0004	.0001	.0004	.0004	.0001	.0003
%RSD	.1026	58.35	37.12	51.96	27.48	21.57	.1234	2.167	154.8
#1	.0566	-.0001	.0002	.0012	.0003	.0019	.3435	.0050	.0000
#2	.0567	-.0002	.0001	.0005	.0005	.0014	.3441	.0048	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**.0019**	**.0014**	**-.0006**	**.0002**	**.0012**	**.0011**	**.0202**	**6.537**
Stddev	.0001	.0001	.0003	.0004	.0003	.0019	.0004	.0049	.001
%RSD	14.78	4.226	21.55	73.18	144.4	161.9	39.57	24.35	.0149
#1	.0004	.0018	.0016	-.0009	.0004	-.0002	.0014	.0237	6.537
#2	.0004	.0019	.0012	-.0003	-.0000	.0025	.0008	.0167	6.538

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0647**	**2.673**	**1.981**	**148.8**	**.0204**	**-.0001**	**1.308**	**-.0003**	**.0392**
Stddev	.0015	.016	.021	.0	.0002	.0000	.000	.0003	.0001
%RSD	2.390	.5782	1.033	.0025	.8059	41.99	.0181	101.8	.3790
#1	.0658	2.684	1.967	148.8	.0205	-.0001	1.308	-.0001	.0393
#2	.0636	2.662	1.996	148.8	.0202	-.0001	1.308	-.0006	.0391

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0003**	**.0002**	**2.348**	**.0007**	**.0030**	**.0064**
Stddev	.0003	.0002	.0001	.006	.0012	.0008	.0012
%RSD	2607.	61.31	81.59	.2774	163.0	25.43	18.97
#1	-.0002	.0002	.0001	2.344	.0016	.0024	.0073
#2	.0002	.0004	.0003	2.353	-.0001	.0035	.0056

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**79508.**	**6261.9**	**3096.9**	**7179.2**
Stddev	136.	2.1	4.1	19.1
%RSD	.17100	.03277	.13210	.26612
#1	79605.	6260.5	3099.8	7192.7
#2	79412.	6263.4	3094.0	7165.7

Zoom In Zoom Out

Sample Name: jc66972-5 Acquired: 6/1/2018 19:39:41 Type: Unk
Method: Accutest 2(v432) 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
Avg	**-.0000**	**-.0000**	**.0002**	**.0001**	**-.0000**	**.0003**	**-.0001**	**-.0005**	**-.0003**
Stddev	.0001	.0000	.0000	.0000	.0001	.0003	.0000	.0002	.0002
%RSD	552.6	74.95	26.03	70.48	2609.	103.0	18.63	43.65	84.33
#1	-.0001	-.0000	.0002	.0001	.0001	.0001	-.0000	-.0006	-.0001
#2	.0001	-.0001	.0001	.0000	-.0001	.0004	-.0001	-.0003	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0061**	**-.0005**	**-.0013**	**-.0014**	**.0004**	**.0002**	**.0065**	**-.0051**
Stddev	.0005	.0002	.0000	.0010	.0003	.0005	.0011	.0018	.0038
%RSD	832.2	2.629	.2454	74.21	22.81	125.2	738.3	27.63	74.50
#1	-.0004	.0060	-.0005	-.0020	-.0012	.0000	-.0006	.0077	-.0078
#2	.0003	.0062	-.0005	-.0006	-.0016	.0008	.0009	.0052	-.0024

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0015**	**.0002**	**.0395**	**.0676**	**.0004**	**-.0013**	**.0044**	**-.0001**	**.0001**
Stddev	.0037	.0132	.0123	.0049	.0002	.0004	.0015	.0001	.0002
%RSD	243.3	6792.	31.11	7.256	44.53	32.43	34.81	164.2	387.5
#1	.0011	.0095	.0482	.0641	.0003	-.0010	.0054	-.0002	.0002
#2	-.0041	-.0091	.0308	.0710	.0006	-.0016	.0033	.0000	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**-.0007**	**.0001**	**.0028**	**-.0016**	**.0002**	**.0034**
Stddev	.0005	.0006	.0001	.0029	.0004	.0002	.0004
%RSD	1099.	89.85	61.67	101.6	25.45	135.1	10.17
#1	-.0004	-.0002	.0001	.0048	-.0019	.0003	.0037
#2	.0003	-.0011	.0002	.0008	-.0013	.0000	.0032

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83908.**	**6389.8**	**3253.3**	**7984.6**
Stddev	.	51.6	4.0	6.1
%RSD	.00012	.80800	.12354	.07661
#1	83908.	6353.3	3256.1	7988.9
#2	83908.	6426.4	3250.4	7980.3

Zoom In Zoom Out

Sample Name: jc66972-3f Acquired: 6/1/2018 19:44:02 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0938**	**-.0002**	**.0005**	**.0010**	**.0006**	**.0041**	**.1749**	**.0031**	**-.0003**
Stddev	.0000	.0000	.0000	.0002	.0003	.0002	.0001	.0000	.0002
%RSD	.0352	16.42	10.73	22.49	43.35	5.958	.0326	.5540	66.43
#1	.0938	-.0002	.0005	.0012	.0008	.0039	.1749	.0031	-.0005
#2	.0938	-.0002	.0004	.0008	.0004	.0043	.1750	.0031	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**.0235**	**.0973**	**.0003**	**-.0005**	**-.0002**	**.0129**	**.0547**	**7.047**
Stddev	.0000	.0001	.0001	.0003	.0001	.0012	.0010	.0037	.009
%RSD	.6720	.2982	.0749	82.35	18.01	703.5	7.380	6.833	.1246
#1	.0004	.0236	.0974	.0001	-.0006	-.0010	.0136	.0574	7.041
#2	.0004	.0235	.0973	.0005	-.0005	.0007	.0123	.0521	7.053

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0789**	**2.702**	**1.825**	**40.44**	**.0211**	**-.0010**	**3.099**	**-.0004**	**.0439**
Stddev	.0012	.002	.019	.00	.0006	.0001	.003	.0000	.0000
%RSD	1.493	.0803	1.063	.0097	2.913	7.782	.0845	2.807	.0831
#1	.0797	2.703	1.839	40.44	.0215	-.0011	3.097	-.0004	.0439
#2	.0781	2.700	1.812	40.44	.0206	-.0009	3.100	-.0004	.0440

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**.0014**	**-.0001**	**2.028**	**-.0017**	**.0025**	**.0292**
Stddev	.0000	.0000	.0000	.007	.0014	.0007	.0001
%RSD	.8025	.9375	41.18	.3675	83.04	28.16	.3781
#1	-.0004	.0014	-.0001	2.022	-.0026	.0029	.0291
#2	-.0004	.0014	-.0001	2.033	-.0007	.0020	.0292

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81592.**	**6309.5**	**3174.0**	**7580.1**
Stddev	9.	9.3	1.6	5.1
%RSD	.01163	.14818	.04963	.06774
#1	81598.	6302.9	3172.9	7583.7
#2	81585.	6316.1	3175.2	7576.5

Zoom In Zoom Out

Sample Name: jc66979-1f Acquired: 6/1/2018 19:48:21 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0725**	**-.0000**	**.0001**	**.0014**	**.0015**	**.0023**	**.5021**	**.0090**	**-.0004**
Stddev	.0003	.0001	.0001	.0004	.0005	.0001	.0010	.0002	.0003
%RSD	.4014	451.9	39.31	26.90	33.45	5.195	.1936	2.254	62.67
#1	.0727	.0000	.0001	.0011	.0011	.0022	.5028	.0091	-.0006
#2	.0723	-.0001	.0002	.0016	.0019	.0024	.5014	.0089	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0018**	**8.812**	**-.0010**	**-.0018**	**.0184**	**.0040**	**.0024**	**.1794**	**23.55**
Stddev	.0000	.007	.0007	.0008	.0001	.0023	.0003	.0026	.01
%RSD	.0638	.0836	64.00	46.80	.5295	57.65	10.63	1.466	.0450
#1	.0018	8.817	-.0015	-.0024	.0183	.0024	.0022	.1813	23.54
#2	.0018	8.807	-.0006	-.0012	.0184	.0056	.0026	.1775	23.56

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**4.571**	**13.83**	**5.321**	**57.30**	**.0825**	**-.0004**	**3.203**	**.0006**	**.1162**
Stddev	.006	.00	.016	.04	.0001	.0001	.008	.0006	.0001
%RSD	.1365	.0190	.3060	.0707	.1723	19.81	.2632	90.35	.1232
#1	4.576	13.83	5.310	57.33	.0824	-.0003	3.197	.0002	.1163
#2	4.567	13.83	5.333	57.27	.0826	-.0004	3.209	.0010	.1161

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0053**	**-.0010**	**.0006**	**3.052**	**-.0027**	**.0027**	**.0215**
Stddev	.0002	.0001	.0001	.008	.0001	.0001	.0009
%RSD	3.696	10.34	21.20	.2593	4.446	4.862	4.079
#1	.0054	-.0009	.0006	3.046	-.0026	.0026	.0209
#2	.0051	-.0011	.0005	3.057	-.0028	.0028	.0222

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80081.**	**6248.7**	**3102.9**	**7310.9**
Stddev	139.	41.5	1.6	10.8
%RSD	.17370	.66492	.05212	.14805
#1	80180.	6219.3	3104.0	7303.3
#2	79983.	6278.1	3101.8	7318.6

Zoom In Zoom Out

Sample Name: jc66982-1 Acquired: 6/1/2018 19:52:36 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0493**	**.0001**	**.0001**	**.0003**	**.0022**	**.0016**	**.0405**	**.0010**	**-.0007**
Stddev	.0001	.0001	.0000	.0000	.0001	.0002	.0000	.0002	.0002
%RSD	.2606	83.33	7.178	12.69	4.627	10.15	.0331	24.30	22.25
#1	.0494	.0000	.0001	.0004	.0023	.0015	.0405	.0008	-.0008
#2	.0492	.0001	.0001	.0003	.0021	.0017	.0405	.0012	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0039**	**.0129**	**.0047**	**-.0002**	**.0002**	**.0010**	**-.0019**	**.9595**	**5.588**
Stddev	.0000	.0000	.0007	.0004	.0004	.0013	.0014	.0056	.002
%RSD	.2200	.3108	15.20	191.6	186.1	133.9	72.07	.5833	.0288
#1	.0039	.0130	.0042	-.0005	-.0001	.0019	-.0009	.9555	5.589
#2	.0039	.0129	.0052	.0001	.0005	.0001	-.0029	.9634	5.586

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**18.85**	**2.880**	**6.821**	**38.11**	**.7050**	**.0090**	**1.367**	**.0003**	**.0310**
Stddev	.03	.013	.039	.06	.0004	.0002	.001	.0001	.0001
%RSD	.1335	.4623	.5659	.1659	.0514	2.594	.0409	37.43	.2530
#1	18.84	2.889	6.794	38.06	.7053	.0092	1.367	.0003	.0310
#2	18.87	2.870	6.849	38.15	.7048	.0088	1.368	.0004	.0311

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0086**	**.0005**	**.0067**	**1.535**	**-.0023**	**.0010**	**.2090**
Stddev	.0006	.0001	.0001	.005	.0002	.0007	.0018
%RSD	7.464	21.25	.8748	.3592	8.504	71.10	.8462
#1	.0091	.0005	.0066	1.531	-.0021	.0005	.2078
#2	.0082	.0004	.0067	1.539	-.0024	.0016	.2103

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**82188.**	**6381.6**	**3192.7**	**7593.4**
Stddev	24.	4.9	1.4	2.2
%RSD	.02967	.07692	.04509	.02942
#1	82171.	6385.0	3193.7	7591.8
#2	82205.	6378.1	3191.6	7594.9

Zoom In Zoom Out

Sample Name: jc66989-1 Acquired: 6/1/2018 19:56:50 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.1397**	**-.0002**	**.0002**	**.0003**	**.0004**	**.0010**	**.1023**	**.0025**	**-.0002**
Stddev	.0002	.0001	.0000	.0002	.0003	.0001	.0000	.0002	.0002
%RSD	.1441	31.73	1.992	58.91	88.42	12.06	.0215	7.393	97.97
#1	.1399	-.0001	.0002	.0004	.0001	.0010	.1023	.0026	-.0004
#2	.1396	-.0002	.0002	.0002	.0006	.0009	.1024	.0024	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0012**	**.0046**	**-.0004**	**-.0015**	**.0000**	**.0003**	**-.0006**	**.0149**	**26.44**
Stddev	.0000	.0001	.0000	.0008	.0013	.0009	.0004	.0061	.04
%RSD	3.969	1.966	7.804	51.55	8369.	271.4	65.87	40.74	.1565
#1	.0011	.0047	-.0004	-.0021	.0009	-.0003	-.0003	.0106	26.47
#2	.0012	.0046	-.0004	-.0010	-.0009	.0009	-.0009	.0192	26.41

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.6262**	**14.27**	**34.09**	**186.0**	**3.464**	**.0110**	**3.221**	**-.0004**	**.1294**
Stddev	.0000	.01	.01	.1	.006	.0001	.012	.0001	.0002
%RSD	.0061	.0702	.0396	.0487	.1709	.6084	.3832	22.42	.1446
#1	.6262	14.28	34.10	186.1	3.468	.0110	3.230	-.0003	.1295
#2	.6262	14.26	34.08	185.9	3.460	.0111	3.213	-.0005	.1292

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**.0057**	**.0002**	**6.447**	**-.0008**	**.0038**	**.0187**
Stddev	.0000	.0009	.0003	.026	.0004	.0007	.0005
%RSD	8.360	15.91	184.1	.4011	54.68	19.29	2.713
#1	-.0005	.0050	.0004	6.466	-.0010	.0033	.0191
#2	-.0004	.0063	-.0001	6.429	-.0005	.0043	.0184

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**78368.**	**6299.6**	**3064.9**	**7013.9**
Stddev	302.	26.7	3.5	.9
%RSD	.38544	.42320	.11390	.01236
#1	78581.	6280.8	3062.4	7014.5
#2	78154.	6318.5	3067.3	7013.3

Zoom In Zoom Out

Sample Name: mp7404-mb1 2 Acquired: 6/1/2018 20:01:04 Type: Unk
Method: Accutest 2(v432) 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
Avg	**-.0002**	**-.0002**	**.0001**	**.0001**	**.0000**	**.0001**	**-.0001**	**-.0006**	**.0001**
Stddev	.0001	.0000	.0001	.0001	.0002	.0002	.0001	.0001	.0001
%RSD	54.98	7.045	163.8	98.03	1719.	140.4	77.33	19.44	194.7
#1	-.0002	-.0002	.0002	.0002	-.0001	.0002	-.0002	-.0007	.0001
#2	-.0001	-.0002	-.0000	.0000	.0002	.0000	-.0001	-.0005	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0002**	**-.0002**	**-.0016**	**.0000**	**-.0007**	**-.0008**	**.0130**	**-.0041**
Stddev	.0002	.0002	.0006	.0009	.0001	.0010	.0007	.0041	.0025
%RSD	67.01	73.27	326.6	54.61	592.3	145.2	81.28	31.80	61.31
#1	-.0002	.0004	-.0006	-.0010	.0001	-.0014	-.0004	.0159	-.0059
#2	-.0005	.0001	.0002	-.0022	-.0001	.0000	-.0013	.0101	-.0023

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0014**	**-.0043**	**.0102**	**.0760**	**-.0000**	**-.0014**	**.0098**	**.0001**	**.0000**
Stddev	.0010	.0249	.0222	.0029	.0005	.0002	.0009	.0003	.0001
%RSD	73.42	585.1	216.5	3.765	47930.	11.03	8.856	264.4	980.9
#1	-.0021	.0133	-.0054	.0740	.0004	-.0015	.0104	-.0001	-.0000
#2	-.0007	-.0218	.0259	.0780	-.0004	-.0013	.0092	.0003	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**-.0023**	**.0002**	**.0044**	**-.0025**	**.0010**	**.0023**
Stddev	.0002	.0001	.0003	.0009	.0002	.0017	.0011
%RSD	707.1	5.673	135.0	20.93	8.550	169.7	49.09
#1	.0001	-.0022	.0004	.0050	-.0026	-.0002	.0015
#2	-.0002	-.0024	.0000	.0037	-.0023	.0023	.0031

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83966.**	**6425.0**	**3259.1**	**7998.6**
Stddev	106.	23.0	1.0	9.8
%RSD	.12585	.35751	.03117	.12267
#1	84041.	6441.2	3258.4	7991.7
#2	83891.	6408.7	3259.8	8005.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 20:05:25 Type: QC
Method: Accutest 2(v432) 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	**1.958**	**1.925**	**1.977**	**1.954**	**1.978**	**1.960**	**2.016**	**1.991**	**.2424**
Stddev	.005	.003	.002	.002	.002	.000	.004	.003	.0008
%RSD	.2524	.1354	.0913	.1015	.0965	.0104	.1911	.1640	.3260
#1	1.962	1.927	1.976	1.955	1.977	1.960	2.014	1.994	.2419
#2	1.955	1.923	1.978	1.952	1.980	1.960	2.019	1.989	.2430
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	**1.938**	**1.992**	**1.968**	**2.036**	**2.007**	**1.968**	**1.988**	**38.27**	**37.96**
Stddev	.001	.001	.001	.005	.002	.001	.001	.01	.05
%RSD	.0717	.0236	.0446	.2571	.0925	.0599	.0284	.0357	.1351
#1	1.938	1.992	1.969	2.039	2.008	1.969	1.988	38.28	37.92
#2	1.939	1.992	1.968	2.032	2.006	1.967	1.989	38.26	37.99
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	**38.60**	**38.10**	**40.55**	**39.78**	**1.980**	**2.024**	**5.032**	**2.041**	**1.955**
Stddev	.05	.01	.04	.04	.001	.002	.006	.006	.005
%RSD	.1374	.0287	.0960	.1131	.0535	.0729	.1196	.2737	.2422
#1	38.63	38.10	40.58	39.81	1.979	2.023	5.028	2.037	1.959
#2	38.56	38.09	40.52	39.75	1.981	2.025	5.037	2.045	1.952
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: 6/1/2018 20:05:25 Type: QC
Method: Accutest 2(v432) 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	**2.003**	**1.989**	**2.008**	**1.960**	**2.014**	**1.978**	**1.974**
Stddev	.002	.002	.001	.003	.002	.005	.001
%RSD	.0987	.1192	.0616	.1347	.1207	.2604	.0454
#1	2.002	1.988	2.007	1.958	2.012	1.982	1.973
#2	2.005	1.991	2.008	1.962	2.015	1.974	1.974
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	**80376.**	**6305.4**	**3162.6**	**7216.4**
Stddev	95.	4.1	4.2	6.8
%RSD	.11785	.06481	.13301	.09399
#1	80442.	6308.3	3165.6	7211.6
#2	80309.	6302.5	3159.6	7221.2

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 20:09:29 Type: QC
Method: Accutest 2(v432) 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**	**.0003**	**.0004**	**.0003**	**.0001**	**.0002**	**.0001**	**.0001**
Stddev	.0001	.0001	.0001	.0000	.0001	.0002	.0001	.0001	.0002
%RSD	138.1	227500.	38.32	6.121	24.01	197.6	28.70	80.36	152.2
#1	.0000	.0000	.0004	.0004	.0003	-.0000	.0002	.0000	.0002
#2	.0002	-.0000	.0002	.0004	.0002	.0002	.0002	.0001	-.0000
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**	**.0010**	**-.0001**	**-.0002**	**-.0004**	**.0007**	**-.0003**	**.0079**	**-.0006**
Stddev	.0002	.0000	.0002	.0008	.0008	.0013	.0012	.0121	.0016
%RSD	1034.	2.173	184.2	459.1	200.7	186.6	377.3	153.3	277.6
#1	-.0002	.0010	-.0003	.0004	.0002	-.0002	-.0012	-.0007	-.0017
#2	.0001	.0010	.0000	-.0007	-.0010	.0017	.0005	.0164	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**-.0118**	**.0398**	**.0430**	**.0002**	**-.0001**	**.0014**	**.0009**	**.0003**
Stddev	.0020	.0230	.0474	.0096	.0006	.0003	.0021	.0000	.0000
%RSD	79.29	194.8	118.9	22.24	301.8	230.2	154.4	3.370	7.228
#1	.0011	-.0281	.0733	.0498	.0006	.0001	.0029	.0009	.0003
#2	.0039	.0045	.0063	.0363	-.0002	-.0003	-.0001	.0009	.0002
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: 6/1/2018 20:09:29 Type: QC
Method: Accutest 2(v432) 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**	**-.0007**	**.0003**	**.0025**	**-.0013**	**.0011**	**.0017**
Stddev	.0001	.0000	.0000	.0016	.0000	.0005	.0001
%RSD	69.38	4.386	3.458	64.73	.3291	43.13	4.702
#1	.0001	-.0007	.0003	.0013	-.0013	.0014	.0016
#2	.0002	-.0007	.0003	.0036	-.0013	.0007	.0017
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	**83760.**	**6344.4**	**3254.1**	**7990.6**
Stddev	86.	8.5	15.8	26.8
%RSD	.10253	.13460	.48527	.33479
#1	83821.	6338.4	3242.9	7971.7
#2	83699.	6350.5	3265.2	8009.5

Zoom In Zoom Out

Sample Name: mp7404-mb2 Acquired: 6/1/2018 20:13:51 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0003**	**-.0002**	**.0001**	**.0004**	**.0001**	**.0001**	**-.0001**	**-.0005**
Stddev	.0001	.0000	.0001	.0000	.0003	.0003	.0000	.0001
%RSD	15.55	18.59	46.73	8.711	329.6	301.2	8.023	17.56
#1	-.0003	-.0002	.0002	.0003	-.0001	.0003	-.0001	-.0006
#2	-.0004	-.0003	.0001	.0004	.0003	-.0001	-.0001	-.0005

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0005**	**-.0002**	**.0005**	**-.0001**	F **-.0023**	**.0002**	**.0013**	**-.0012**
Stddev	.0005	.0000	.0001	.0011	.0007	.0008	.0020	.0016
%RSD	84.91	19.40	16.89	1262.	32.71	502.8	155.7	128.9
#1	-.0002	-.0002	.0005	-.0009	-.0028	.0007	.0027	-.0001
#2	-.0009	-.0003	.0006	.0007	-.0017	-.0004	-.0001	-.0024

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0064**	**.0019**	**-.0003**	**.0091**	**.0149**	**.0385**	**-.0004**	**-.0009**
Stddev	.0073	.0017	.0005	.0005	.0206	.0010	.0004	.0001
%RSD	113.9	90.09	158.6	5.467	138.7	2.605	95.90	10.05
#1	.0012	.0031	-.0007	.0087	.0295	.0392	-.0007	-.0008
#2	.0115	.0007	.0000	.0094	.0003	.0378	-.0001	-.0010

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0088**	**.0003**	**-.0001**	**.0000**	**-.0014**	**.0003**	**.0028**	**-.0017**
Stddev	.0006	.0002	.0000	.0002	.0007	.0001	.0049	.0002
%RSD	7.110	51.57	15.67	508.3	51.49	19.42	178.4	9.153
#1	.0084	.0002	-.0001	-.0001	-.0009	.0004	.0062	-.0018
#2	.0093	.0005	-.0001	.0002	-.0019	.0003	-.0007	-.0015

Elem	Li6707	P_1774
Avg	**.0001**	**.0032**
Stddev	.0013	.0003
%RSD	2569.	7.836
#1	-.0009	.0030
#2	.0010	.0034

Zoom In Zoom Out

Sample Name: mp7404-mb2 Acquired: 6/1/2018 20:13:51 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83796.**	**6366.8**	**3225.1**	**7925.1**
Stddev	172.	37.3	10.7	20.7
%RSD	.20485	.58509	.33284	.26132
#1	83675.	6340.4	3232.7	7939.7
#2	83918.	6393.1	3217.5	7910.4

Zoom In Zoom Out

Sample Name: mp7404-b1 Acquired: 6/1/2018 20:18:11 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.878**	**1.841**	**1.890**	**1.855**	**1.886**	**1.879**	**1.925**	**1.888**
Stddev	.003	.002	.001	.003	.000	.001	.000	.002
%RSD	.1382	.0833	.0342	.1417	.0057	.0502	.0218	.0952
#1	1.880	1.840	1.890	1.853	1.886	1.880	1.926	1.887
#2	1.876	1.842	1.891	1.857	1.886	1.878	1.925	1.890

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2351**	**1.852**	**1.900**	**1.873**	**1.972**	**1.910**	**1.884**	**1.922**
Stddev	.0003	.000	.003	.001	.001	.004	.003	.002
%RSD	.1414	.0198	.1734	.0492	.0524	.2082	.1499	.1047
#1	.2353	1.852	1.897	1.874	1.973	1.908	1.886	1.921
#2	.2349	1.852	1.902	1.872	1.971	1.913	1.882	1.924

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**23.04**	**22.85**	**23.38**	**22.78**	**24.49**	**24.07**	**1.899**	**1.963**
Stddev	.01	.05	.02	.05	.05	.01	.002	.002
%RSD	.0467	.2305	.0688	.2268	.2140	.0389	.0900	.0928
#1	23.04	22.82	23.39	22.74	24.53	24.08	1.898	1.962
#2	23.05	22.89	23.36	22.82	24.46	24.07	1.900	1.965

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0674**	**1.982**	**1.868**	**1.917**	**1.851**	**1.913**	F **-.0774**	**.0014**
Stddev	.0002	.001	.004	.001	.003	.003	.0028	.0014
%RSD	.2614	.0601	.2419	.0498	.1822	.1451	3.614	106.8
#1	.0673	1.983	1.871	1.918	1.849	1.911	-.0794	.0003
#2	.0675	1.981	1.864	1.917	1.854	1.915	-.0754	.0024

Elem	Li6707	P_1774
Avg	**-.0006**	**1.880**
Stddev	.0004	.000
%RSD	73.33	.0095
#1	-.0009	1.880
#2	-.0003	1.880

Zoom In
Zoom Out

Sample Name: mp7404-b1 Acquired: 6/1/2018 20:18:11 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81657.**	**6382.3**	**3183.2**	**7392.9**
Stddev	284.	5.0	.2	1.7
%RSD	.34795	.07878	.00731	.02262
#1	81456.	6378.8	3183.0	7391.7
#2	81858.	6385.9	3183.4	7394.1

Zoom In
Zoom Out

Sample Name: mp7404-b3 Acquired: 6/1/2018 20:22:13 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.914**	**1.869**	**1.910**	**1.887**	**1.924**	**1.911**	**1.959**	**1.916**
Stddev	.002	.004	.001	.001	.002	.001	.000	.004
%RSD	.1145	.2243	.0358	.0552	.1172	.0471	.0071	.1911
#1	1.915	1.872	1.910	1.887	1.923	1.911	1.959	1.919
#2	1.912	1.866	1.911	1.886	1.926	1.910	1.959	1.914

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2378**	**1.889**	**1.928**	**1.902**	**1.998**	**1.939**	**1.898**	**1.942**
Stddev	.0003	.000	.003	.006	.001	.003	.001	.002
%RSD	.1102	.0165	.1596	.3009	.0549	.1505	.0729	.1205
#1	.2380	1.889	1.930	1.898	1.998	1.937	1.897	1.940
#2	.2376	1.889	1.926	1.906	1.997	1.941	1.899	1.943

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**24.14**	**23.97**	**24.37**	**23.83**	**25.61**	**25.16**	**1.914**	**1.989**
Stddev	.01	.00	.05	.05	.06	.01	.002	.001
%RSD	.0224	.0159	.1912	.2255	.2336	.0442	.0932	.0510
#1	24.15	23.97	24.34	23.87	25.65	25.17	1.915	1.989
#2	24.14	23.97	24.41	23.79	25.57	25.16	1.913	1.988

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0656**	**2.008**	**1.898**	**1.954**	**1.662**	**1.950**	F **-.0600**	**-.0004**
Stddev	.0003	.001	.003	.000	.006	.003	.0032	.0002
%RSD	.3991	.0453	.1527	.0140	.3525	.1265	5.329	70.63
#1	.0658	2.009	1.900	1.954	1.658	1.951	-.0577	-.0005
#2	.0654	2.007	1.896	1.953	1.666	1.948	-.0623	-.0002

Elem	Li6707	P_1774
Avg	**.0009**	**1.898**
Stddev	.0018	.004
%RSD	207.0	.2316
#1	-.0004	1.901
#2	.0021	1.895

Zoom In
Zoom Out

Sample Name: mp7404-b3 Acquired: 6/1/2018 20:22:13 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81114.**	**6299.0**	**3168.8**	**7349.3**
Stddev	98.	9.0	4.8	19.3
%RSD	.12062	.14247	.15173	.26310
#1	81045.	6292.6	3165.4	7335.7
#2	81184.	6305.3	3172.2	7363.0

Zoom In
Zoom Out

Sample Name: mp7404-s1 Acquired: 6/1/2018 20:26:15 Type: Unk
Method: Accutest 2(v432) 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
Avg	**1.935**	**1.891**	**1.921**	**1.883**	**1.907**	**1.911**	**1.964**	**1.917**	**.2381**
Stddev	.008	.008	.004	.004	.004	.001	.004	.004	.0005
%RSD	.4006	.4347	.1961	.1955	.1933	.0259	.1788	.1890	.1977
#1	1.930	1.885	1.923	1.886	1.910	1.911	1.966	1.920	.2378
#2	1.941	1.897	1.918	1.881	1.904	1.910	1.961	1.915	.2384

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.877**	**1.928**	**1.913**	**1.991**	**1.930**	**1.914**	**1.955**	**24.05**	**26.68**
Stddev	.000	.004	.007	.005	.006	.004	.005	.07	.11
%RSD	.0006	.1832	.3781	.2381	.3304	.2129	.2502	.2798	.4289
#1	1.877	1.930	1.918	1.994	1.935	1.917	1.959	24.01	26.60
#2	1.877	1.925	1.908	1.988	1.926	1.911	1.952	24.10	26.76

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.28**	**24.92**	**25.86**	**26.07**	**1.934**	**1.991**	**8.457**	**2.003**	**1.934**
Stddev	.11	.03	.10	.12	.000	.001	.005	.003	.007
%RSD	.4360	.1322	.3981	.4597	.0134	.0674	.0565	.1560	.3493
#1	24.21	24.89	25.79	25.99	1.934	1.992	8.460	2.006	1.930
#2	24.36	24.94	25.94	26.16	1.934	1.990	8.453	2.001	1.939

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.958**	**1.953**	**1.944**	**1.464**	**-.0000**	**.0008**	**1.920**
Stddev	.003	.000	.002	.005	.0012	.0012	.000
%RSD	.1469	.0132	.0803	.3500	3172.	152.8	.0156
#1	1.960	1.953	1.945	1.467	-.0009	.0016	1.920
#2	1.956	1.953	1.943	1.460	.0008	-.0001	1.920

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81625.**	**6295.9**	**3166.7**	**7364.3**
Stddev	185.	43.6	.4	2.5
%RSD	.22690	.69232	.01264	.03461
#1	81494.	6326.7	3166.4	7362.5
#2	81756.	6265.1	3167.0	7366.1

Zoom In Zoom Out

Sample Name: mp7404-s2 Acquired: 6/1/2018 20:30:17 Type: Unk
Method: Accutest 2(v432) 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
Avg	**1.917**	**1.880**	**1.909**	**1.875**	**1.918**	**1.907**	**1.967**	**1.907**	**.2398**
Stddev	.006	.001	.004	.003	.019	.007	.018	.003	.0020
%RSD	.3173	.0392	.2309	.1433	.9785	.3852	.9351	.1445	.8429
#1	1.913	1.879	1.912	1.877	1.905	1.902	1.954	1.909	.2383
#2	1.922	1.880	1.906	1.873	1.931	1.912	1.980	1.905	.2412

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.885**	**1.923**	**1.896**	**1.984**	**1.923**	**1.900**	**1.941**	**23.79**	**26.47**
Stddev	.022	.002	.002	.003	.007	.004	.001	.10	.08
%RSD	1.169	.0805	.1289	.1733	.3474	.1952	.0648	.4272	.3146
#1	1.869	1.924	1.895	1.987	1.927	1.902	1.941	23.72	26.41
#2	1.900	1.922	1.898	1.982	1.918	1.897	1.940	23.87	26.52

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.11**	**24.66**	**25.55**	**25.84**	**1.925**	**1.983**	**8.366**	**1.997**	**1.915**
Stddev	.02	.07	.14	.06	.000	.000	.011	.004	.005
%RSD	.1009	.2926	.5493	.2507	.0059	.0195	.1250	.1809	.2555
#1	24.10	24.72	25.45	25.80	1.925	1.984	8.373	1.999	1.911
#2	24.13	24.61	25.65	25.89	1.925	1.983	8.358	1.994	1.918

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.959**	**1.943**	**1.944**	**1.466**	**.0011**	**.0008**	**1.910**
Stddev	.015	.006	.014	.001	.0006	.0001	.003
%RSD	.7811	.2993	.6965	.0752	52.25	17.30	.1625
#1	1.948	1.947	1.935	1.466	.0015	.0007	1.912
#2	1.970	1.939	1.954	1.465	.0007	.0009	1.908

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80634.**	**6311.5**	**3163.0**	**7355.9**
Stddev	616.	20.4	.8	.8
%RSD	.76350	.32290	.02420	.01039
#1	81069.	6325.9	3163.6	7355.4
#2	80199.	6297.1	3162.5	7356.5

Zoom In Zoom Out

Sample Name: jc66975-1 Acquired: 6/1/2018 20:34:20 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0016**	**-.0001**	**.0001**	**.0002**	**.0001**	**.0001**	**.0097**	**.0000**	**-.0002**
Stddev	.0001	.0001	.0002	.0002	.0002	.0002	.0001	.0001	.0004
%RSD	3.867	92.55	148.3	105.2	222.1	387.1	1.373	1605.	221.1
#1	.0016	-.0001	-.0000	.0003	-.0001	-.0001	.0096	.0001	-.0005
#2	.0016	-.0000	.0003	.0000	.0002	.0002	.0098	-.0001	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0021**	**.0001**	**-.0003**	**-.0002**	**-.0003**	**-.0011**	**.2358**	**3.181**
Stddev	.0000	.0002	.0003	.0006	.0003	.0012	.0009	.0030	.013
%RSD	.2110	8.097	177.8	234.6	155.0	342.8	83.99	1.283	.3914
#1	.0003	.0020	.0003	-.0007	.0000	-.0012	-.0017	.2337	3.173
#2	.0003	.0022	-.0000	.0002	-.0004	.0005	-.0004	.2379	3.190

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2632**	**1.365**	**.4991**	**1.297**	**.0046**	**-.0000**	**8.174**	**-.0007**	**.0121**
Stddev	.0041	.005	.0237	.012	.0003	.0001	.008	.0008	.0000
%RSD	1.541	.3881	4.758	.8972	5.943	336.6	.1010	111.3	.3773
#1	.2603	1.369	.5159	1.289	.0048	.0000	8.180	-.0001	.0121
#2	.2661	1.362	.4823	1.305	.0044	-.0001	8.168	-.0012	.0121

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0121**	**.0128**	**.0004**	**1.537**	**-.0002**	**.0002**	**.0184**
Stddev	.0001	.0001	.0002	.007	.0014	.0011	.0005
%RSD	.4142	1.171	47.75	.4528	782.3	496.8	2.931
#1	.0122	.0129	.0005	1.542	.0008	-.0006	.0188
#2	.0121	.0127	.0002	1.532	-.0012	.0010	.0180

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83325.**	**6360.0**	**3239.6**	**7921.9**
Stddev	6.	31.3	1.2	5.8
%RSD	.00718	.49254	.03655	.07292
#1	83329.	6382.1	3238.7	7925.9
#2	83321.	6337.8	3240.4	7917.8

Zoom In Zoom Out

Sample Name: mp7404-sd1 Acquired: 6/1/2018 20:38:38 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0012**	**-.0005**	**-.0000**	**.0017**	**-.0014**	**.0000**	**.0096**	**-.0005**	**.0008**
Stddev	.0009	.0002	.0009	.0003	.0025	.0001	.0002	.0003	.0016
%RSD	74.42	47.11	11190.	15.50	172.0	3798.	2.169	64.54	189.9
#1	.0006	-.0003	.0007	.0019	.0003	-.0001	.0097	-.0007	.0020
#2	.0018	-.0006	-.0007	.0015	-.0032	.0001	.0094	-.0003	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0008**	**.0204**	**-.0027**	**-.0016**	**.0012**	**.0028**	**.0035**	**.3381**	**3.368**
Stddev	.0002	.0003	.0016	.0039	.0015	.0032	.0075	.0197	.004
%RSD	28.16	1.355	59.05	244.0	125.8	115.2	212.1	5.829	.1047
#1	-.0010	.0202	-.0038	-.0044	.0022	.0005	-.0018	.3242	3.370
#2	-.0007	.0206	-.0016	.0012	.0001	.0051	.0088	.3520	3.365

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2616**	**1.386**	**.4416**	**1.474**	**.0055**	**-.0040**	**8.584**	**.0016**	**.0128**
Stddev	.0083	.009	.0813	.017	.0031	.0000	.004	.0013	.0004
%RSD	3.159	.6382	18.40	1.152	55.59	.5302	.0464	85.58	3.124
#1	.2675	1.380	.3842	1.462	.0033	-.0039	8.581	.0025	.0125
#2	.2558	1.392	.4991	1.486	.0077	-.0040	8.586	.0006	.0131

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0111**	**.0206**	**.0010**	**1.634**	**-.0005**	**.0118**	**.0236**
Stddev	.0002	.0053	.0005	.074	.0072	.0015	.0045
%RSD	1.894	25.70	44.38	4.507	1455.	12.61	18.92
#1	.0113	.0243	.0014	1.582	.0046	.0107	.0205
#2	.0110	.0168	.0007	1.686	-.0056	.0128	.0268

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**84198.**	**6281.1**	**3266.8**	**8028.0**
Stddev	312.	14.2	4.6	6.5
%RSD	.37030	.22621	.14206	.08136
#1	83977.	6271.0	3263.5	8023.4
#2	84418.	6291.1	3270.1	8032.7

Zoom In Zoom Out

Sample Name: jc66715-1 Acquired: 6/1/2018 20:42:58 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.1361**	**.0000**	**-.0000**	**.0007**	**.0012**	**.0031**	**1.311**	**.0012**	**-.0000**
Stddev	.0004	.0001	.0000	.0001	.0000	.0001	.000	.0003	.0000
%RSD	.3043	188.9	14760.	16.27	1.473	4.356	.0057	28.19	348.1
#1	.1358	-.0000	.0000	.0008	.0012	.0032	1.311	.0010	-.0000
#2	.1364	.0001	-.0000	.0006	.0012	.0030	1.311	.0015	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0033**	**.0022**	**.0088**	**.0000**	**-.0004**	**.0016**	**-.0011**	**.0360**	**97.87**
Stddev	.0003	.0000	.0011	.0012	.0003	.0000	.0010	.0075	.42
%RSD	10.43	1.661	12.78	2677.	87.62	.1161	84.40	20.97	.4327
#1	.0030	.0022	.0096	-.0008	-.0001	.0016	-.0005	.0306	98.17
#2	.0035	.0022	.0080	.0009	-.0006	.0016	-.0018	.0413	97.57

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**16.62**	**12.53**	**43.37**	**25.26**	**.0986**	**.0095**	**11.03**	**-.0013**	**.6957**
Stddev	.09	.06	.11	.05	.0005	.0002	.03	.0008	.0019
%RSD	.5168	.4449	.2598	.2173	.5042	2.289	.2659	55.75	.2718
#1	16.68	12.57	43.45	25.30	.0990	.0094	11.05	-.0008	.6970
#2	16.56	12.49	43.29	25.22	.0983	.0097	11.01	-.0019	.6943

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0129**	**-.0003**	**5.005**	**-.0021**	**.0027**	**.1825**
Stddev	.0001	.0005	.0000	.012	.0008	.0001	.0001
%RSD	34.97	4.108	11.64	.2475	39.76	1.892	.0323
#1	.0003	.0133	-.0003	5.014	-.0027	.0027	.1826
#2	.0005	.0126	-.0002	4.996	-.0015	.0028	.1825

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80053.**	**6179.0**	**3103.8**	**7234.6**
Stddev	177.	41.0	12.7	17.9
%RSD	.22165	.66310	.40793	.24807
#1	79927.	6150.1	3094.8	7221.9
#2	80178.	6208.0	3112.7	7247.3

Zoom In Zoom Out

Sample Name: jc66715-4 Acquired: 6/1/2018 20:47:15 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.1164**	**-.0001**	**-.0002**	**.0020**	**.0014**	**.0024**	**2.465**	**.0022**	**-.0004**
Stddev	.0000	.0001	.0001	.0000	.0001	.0002	.002	.0002	.0005
%RSD	.0023	42.86	73.93	2.044	6.304	9.069	.0594	8.381	146.1
#1	.1164	-.0001	-.0002	.0021	.0014	.0025	2.464	.0021	.0000
#2	.1164	-.0002	-.0001	.0020	.0013	.0022	2.466	.0023	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0062**	**.0014**	**.0202**	**-.0001**	**-.0017**	**.0016**	**-.0020**	**.0244**	**189.9**
Stddev	.0000	.0000	.0004	.0013	.0005	.0007	.0019	.0086	.3
%RSD	.4921	2.739	1.810	1495.	26.99	42.13	96.27	35.32	.1798
#1	.0062	.0013	.0200	.0008	-.0014	.0021	-.0006	.0305	190.1
#2	.0063	.0014	.0205	-.0010	-.0020	.0011	-.0033	.0183	189.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**29.09**	**21.31**	**25.49**	**20.10**	**.1744**	**-.0010**	**11.73**	**-.0022**	**.7294**
Stddev	.02	.07	.00	.05	.0003	.0000	.01	.0007	.0014
%RSD	.0733	.3482	.0026	.2317	.1530	3.030	.0444	32.60	.1877
#1	29.07	21.26	25.49	20.13	.1742	-.0010	11.72	-.0017	.7285
#2	29.10	21.37	25.49	20.06	.1746	-.0010	11.73	-.0028	.7304

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0007**	**.0151**	**.0012**	**35.75**	**-.0005**	**.0078**	**.2508**
Stddev	.0001	.0007	.0002	.04	.0008	.0001	.0013
%RSD	15.68	4.643	18.01	.1015	166.4	.7893	.5200
#1	.0008	.0146	.0014	35.78	.0001	.0078	.2518
#2	.0006	.0156	.0011	35.73	-.0010	.0078	.2499

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**78948.**	**6183.9**	**3038.5**	**7045.0**
Stddev	24.	30.6	.8	4.5
%RSD	.03067	.49466	.02556	.06453
#1	78931.	6162.2	3039.0	7041.8
#2	78965.	6205.5	3038.0	7048.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 20:51:33 Type: QC
Method: Accutest 2(v432) 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	**1.980**	**1.941**	**1.973**	**1.952**	**1.956**	**1.939**	**1.994**	**1.982**	**.2405**
Stddev	.006	.006	.001	.002	.005	.006	.010	.003	.0012
%RSD	.3149	.3118	.0294	.0839	.2546	.3027	.5053	.1394	.5151
#1	1.984	1.945	1.973	1.953	1.960	1.943	2.001	1.980	.2414
#2	1.975	1.936	1.974	1.951	1.953	1.935	1.987	1.984	.2396
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	**1.917**	**1.976**	**1.960**	**2.025**	**1.990**	**1.963**	**1.991**	**38.49**	**38.18**
Stddev	.003	.000	.001	.005	.005	.004	.000	.21	.16
%RSD	.1751	.0041	.0536	.2456	.2618	.1830	.0181	.5342	.4304
#1	1.919	1.976	1.961	2.029	1.986	1.960	1.991	38.64	38.30
#2	1.914	1.976	1.960	2.022	1.993	1.965	1.991	38.35	38.07
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	**38.55**	**38.19**	**41.26**	**40.32**	**1.980**	**2.014**	**5.006**	**2.027**	**1.975**
Stddev	.09	.06	.08	.11	.003	.002	.012	.001	.005
%RSD	.2220	.1635	.1873	.2791	.1636	.1140	.2413	.0348	.2682
#1	38.61	38.24	41.32	40.40	1.978	2.012	4.997	2.026	1.979
#2	38.49	38.15	41.21	40.24	1.982	2.016	5.015	2.027	1.971
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: 6/1/2018 20:51:33 Type: QC
Method: Accutest 2(v432) 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	**1.983**	**1.981**	**1.982**	**1.946**	**2.016**	**2.017**	**1.967**
Stddev	.007	.009	.008	.008	.000	.008	.000
%RSD	.3565	.4267	.4113	.3897	.0104	.3874	.0023
#1	1.988	1.975	1.988	1.952	2.016	2.023	1.967
#2	1.978	1.987	1.977	1.941	2.017	2.012	1.967
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	**80697.**	**6256.7**	**3155.0**	**7210.7**
Stddev	385.	5.8	14.8	34.0
%RSD	.47749	.09322	.46846	.47176
#1	80425.	6252.6	3165.4	7234.8
#2	80970.	6260.8	3144.5	7186.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 20:55:36 Type: QC
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	F **-.0002**	**.0001**	**.0000**	**-.0003**	**-.0005**	**-.0001**	**-.0002**
Stddev	.0001	.0000	.0000	.0002	.0000	.0002	.0000	.0005
%RSD	187.0	1.017	70.45	432.1	4.587	29.33	1.348	292.2
#1	-.0001	-.0002	.0001	-.0001	-.0003	-.0004	-.0001	-.0005
#2	.0000	-.0002	.0000	.0001	-.0003	-.0007	-.0001	.0002
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002						
Low Limit		-.0002						

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0000**	**.0002**	**.0002**	**-.0006**	**.0007**	**-.0017**	**-.0022**
Stddev	.0002	.0003	.0001	.0000	.0000	.0007	.0000	.0001
%RSD	347.5	2051.	49.12	16.04	6.157	111.4	.0758	2.865
#1	-.0002	.0002	.0002	.0002	-.0006	.0012	-.0017	-.0021
#2	.0001	-.0002	.0001	.0002	-.0006	.0001	-.0017	-.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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	**.0058**	**-.0001**	**-.0046**	**-.0045**	**.0305**	**.0278**	**-.0002**	**-.0005**
Stddev	.0029	.0024	.0010	.0058	.0145	.0102	.0007	.0000
%RSD	49.56	1625.	22.53	128.9	47.59	36.57	358.2	8.042
#1	.0078	.0015	-.0054	-.0087	.0407	.0206	-.0007	-.0005
#2	.0038	-.0018	-.0039	-.0004	.0202	.0349	.0003	-.0006
Check ?	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: 6/1/2018 20:55:36 Type: QC
Method: Accutest 2(v432) 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	-.0005	.0001	-.0000	.0001	.0005	.0002	.0014	-.0018
Stddev	.0010	.0004	.0000	.0002	.0013	.0001	.0010	.0010
%RSD	192.9	270.5	987.4	156.9	256.2	20.48	70.35	57.26
#1	.0002	.0004	.0000	.0002	.0014	.0002	.0007	-.0026
#2	-.0012	-.0001	-.0000	-.0000	-.0004	.0003	.0021	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.0005	.0006
Stddev	.0007	.0006
%RSD	149.2	100.5
#1	.0010	.0011
#2	-.0000	.0002
Check ?	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	84065.	6232.3	3257.3	8003.3
Stddev	323.	39.5	.9	8.2
%RSD	.38476	.63371	.02774	.10203
#1	83836.	6204.4	3256.6	8009.1
#2	84294.	6260.3	3257.9	7997.6

Zoom In Zoom Out

Sample Name: jc66715-5 Acquired: 6/1/2018 20:59:58 Type: Unk
Method: Accutest 2(v432) 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
Avg	.1390	-.0001	.0001	.0020	.0022	.0026	6.276	.0023	.0001
Stddev	.0006	.0000	.0001	.0000	.0004	.0003	.013	.0004	.0001
%RSD	.4539	13.05	94.15	1.035	19.45	10.65	.1996	17.44	108.5
#1	.1395	-.0001	.0000	.0020	.0019	.0028	6.285	.0026	.0002
#2	.1386	-.0001	.0002	.0020	.0025	.0024	6.267	.0020	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0150	.0022	.0170	-.0001	.0001	-.0000	-.0017	.0108	91.69
Stddev	.0001	.0001	.0005	.0008	.0012	.0021	.0005	.0011	.10
%RSD	.6423	5.473	3.162	983.5	2236.	9098.	30.71	10.19	.1057
#1	.0149	.0021	.0174	.0005	-.0008	-.0015	-.0021	.0116	91.76
#2	.0151	.0023	.0166	-.0006	.0009	.0015	-.0014	.0100	91.62

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	17.53	15.62	27.34	43.67	.2425	-.0009	7.851	-.0015	.3778
Stddev	.04	.09	.00	.08	.0010	.0002	.013	.0008	.0009
%RSD	.2447	.5689	.0063	.1810	.4182	28.18	.1697	56.52	.2461
#1	17.56	15.68	27.34	43.72	.2418	-.0010	7.861	-.0021	.3785
#2	17.50	15.56	27.34	43.61	.2432	-.0007	7.842	-.0009	.3771

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-.0002	.0086	.0002	15.86	-.0022	.0066	.2653
Stddev	.0001	.0000	.0000	.00	.0003	.0002	.0011
%RSD	60.83	.0956	2.004	.0089	14.35	2.728	.4193
#1	-.0003	.0086	.0002	15.87	-.0020	.0067	.2645
#2	-.0001	.0086	.0002	15.86	-.0025	.0064	.2661

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	79733.	6155.5	3092.1	7194.4
Stddev	200.	14.3	4.6	13.3
%RSD	.25138	.23161	.14716	.18507
#1	79875.	6145.4	3088.9	7185.0
#2	79592.	6165.5	3095.4	7203.8

Zoom In Zoom Out

Sample Name: jc66764-17 Acquired: 6/1/2018 21:04:19 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0031	-.0001	.0001	.0001	.0000	.0006	.0003	.0006	-.0003
Stddev	.0003	.0000	.0001	.0002	.0001	.0000	.0000	.0001	.0002
%RSD	8.269	30.79	178.5	175.5	367.9	.1657	4.157	14.83	72.94
#1	.0030	-.0001	-.0000	.0002	-.0001	.0006	.0003	.0007	-.0002
#2	.0033	-.0000	.0002	-.0000	.0001	.0006	.0003	.0005	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-.0003	.0011	-.0000	-.0014	-.0004	.0008	-.0013	.0294	.0375
Stddev	.0003	.0001	.0004	.0004	.0011	.0004	.0006	.0077	.0000
%RSD	117.5	6.619	7306.	25.08	254.0	49.17	48.93	26.09	.1224
#1	-.0005	.0012	.0003	-.0017	-.0012	.0006	-.0017	.0240	.0375
#2	-.0000	.0011	-.0003	-.0012	.0003	.0011	-.0008	.0348	.0374

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	-.0022	-.0049	.0162	.0895	.0002	-.0014	.4799	.0001	.0049
Stddev	.0009	.0270	.0284	.0087	.0015	.0002	.0132	.0002	.0001
%RSD	43.35	548.8	175.4	9.687	689.4	11.42	2.741	228.1	1.634
#1	-.0028	.0142	.0362	.0956	-.0008	-.0013	.4892	-.0001	.0050
#2	-.0015	-.0240	-.0039	.0834	.0013	-.0015	.4706	.0002	.0049

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-.0000	-.0000	.0003	.0042	-.0014	-.0002	.0017
Stddev	.0003	.0001	.0000	.0031	.0008	.0006	.0008
%RSD	1414.	1201.	10.29	74.53	55.49	247.8	44.36
#1	-.0002	-.0000	.0003	.0064	-.0009	-.0006	.0012
#2	.0002	.0000	.0003	.0020	-.0020	.0002	.0023

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	83989.	6293.1	3186.3	7848.5
Stddev	120.	52.3	68.5	154.1
%RSD	.14319	.83051	2.1508	1.9639
#1	84074.	6256.1	3137.8	7739.5
#2	83904.	6330.0	3234.7	7957.5

Zoom In Zoom Out

Sample Name: jc66804-1 Acquired: 6/1/2018 21:08:37 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0200	-.0001	.0002	.0001	.0008	.0004	.0120	-.0002	.0002
Stddev	.0001	.0001	.0001	.0001	.0002	.0002	.0001	.0001	.0003
%RSD	.7383	99.05	52.57	61.79	29.30	47.44	.6172	67.21	158.5
#1	.0202	-.0002	.0001	.0001	.0006	.0003	.0119	-.0002	.0004
#2	.0199	-.0000	.0002	.0002	.0010	.0006	.0120	-.0001	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0002	.0012	-.0004	-.0015	-.0001	-.0001	-.0017	.0440	16.07
Stddev	.0001	.0000	.0006	.0000	.0001	.0020	.0004	.0046	.03
%RSD	53.97	1.068	172.0	2.308	108.4	1739.	26.28	10.40	.1916
#1	.0001	.0012	-.0008	-.0014	-.0000	-.0015	-.0020	.0408	16.05
#2	.0003	.0011	.0001	-.0015	-.0002	.0013	-.0014	.0472	16.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0267	2.700	1.204	4.900	.0109	-.0013	3.016	-.0001	.0561
Stddev	.0010	.006	.014	.006	.0005	.0002	.001	.0004	.0001
%RSD	3.574	.2328	1.196	.1188	4.932	12.99	.0247	523.4	.1338
#1	.0274	2.704	1.194	4.896	.0112	-.0014	3.017	-.0004	.0560
#2	.0260	2.695	1.214	4.904	.0105	-.0012	3.015	.0002	.0561

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0002	.0022	.0001	3.656	-.0008	.0008	.0184
Stddev	.0001	.0004	.0002	.004	.0017	.0005	.0004
%RSD	27.49	18.43	140.9	.0988	216.5	63.50	2.212
#1	.0002	.0025	.0000	3.658	-.0020	.0011	.0181
#2	.0002	.0019	.0003	3.653	.0004	.0004	.0187

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	82580.	6294.5	3200.0	7772.3
Stddev	59.	14.2	7.8	15.1
%RSD	.07184	.22561	.24296	.19479
#1	82622.	6284.4	3194.5	7761.6
#2	82538.	6304.5	3205.5	7783.0

Zoom In
Zoom Out

Sample Name: jc66804-2 Acquired: 6/1/2018 21:12:52 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0128**	**-.0000**	**-.0001**	**-.0001**	**.0021**	**.0012**	**.0060**	**.0005**	**-.0001**
Stddev	.0001	.0001	.0001	.0004	.0001	.0004	.0001	.0003	.0000
%RSD	.5689	158.6	76.80	500.6	4.664	31.63	.8616	53.41	47.63
#1	.0128	.0000	-.0000	-.0004	.0022	.0014	.0060	.0007	-.0001
#2	.0129	-.0001	-.0001	.0002	.0020	.0009	.0059	.0003	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0002**	**.0017**	**-.0004**	**-.0002**	**.0002**	**.0001**	**-.0005**	**.1746**	**16.25**
Stddev	.0004	.0000	.0004	.0005	.0007	.0006	.0015	.0173	.00
%RSD	209.1	1.752	108.3	269.7	301.1	549.6	336.1	9.925	.0172
#1	-.0001	.0017	-.0001	.0002	.0008	.0005	.0006	.1624	16.25
#2	.0005	.0017	-.0007	-.0005	-.0003	-.0003	-.0015	.1869	16.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2603**	**5.978**	**1.397**	**13.81**	**.0197**	**-.0012**	**10.39**	**-.0008**	**.1020**
Stddev	.0062	.007	.075	.03	.0005	.0001	.00	.0003	.0002
%RSD	2.383	.1109	5.357	.2298	2.533	11.83	.0203	32.21	.1544
#1	.2560	5.983	1.450	13.83	.0200	-.0011	10.39	-.0006	.1021
#2	.2647	5.974	1.344	13.79	.0193	-.0013	10.39	-.0010	.1019

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0087**	**.0093**	**-.0004**	**12.64**	**-.0015**	**.0034**	**.0312**
Stddev	.0002	.0008	.0001	.02	.0011	.0008	.0005
%RSD	2.792	8.871	24.63	.1340	72.57	23.20	1.582
#1	.0088	.0087	-.0004	12.65	-.0007	.0040	.0315
#2	.0085	.0098	-.0005	12.63	-.0023	.0029	.0309

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**82470.**	**6275.9**	**3201.4**	**7703.0**
Stddev	105.	8.1	5.6	14.2
%RSD	.12671	.12920	.17504	.18488
#1	82396.	6270.1	3197.4	7692.9
#2	82544.	6281.6	3205.3	7713.0

Zoom In
Zoom Out

Sample Name: jc66804-3 Acquired: 6/1/2018 21:17:08 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0174**	**-.0001**	**.0002**	**.0006**	**.0022**	**.0014**	**.0390**	**.0009**	**.0004**
Stddev	.0004	.0002	.0001	.0002	.0005	.0002	.0001	.0001	.0005
%RSD	2.290	129.2	35.70	40.19	20.73	12.54	.2502	6.878	107.9
#1	.0176	-.0002	.0001	.0004	.0025	.0012	.0389	.0010	.0001
#2	.0171	-.0000	.0002	.0007	.0019	.0015	.0391	.0009	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0012**	**.0037**	**.0005**	**-.0003**	**.0011**	**.0005**	**-.0011**	**.6405**	**16.99**
Stddev	.0001	.0002	.0006	.0004	.0001	.0010	.0009	.0060	.03
%RSD	9.251	6.077	107.1	148.3	10.92	201.0	81.59	.9346	.1772
#1	.0013	.0039	.0001	-.0005	.0010	.0012	-.0017	.6448	16.97
#2	.0011	.0036	.0010	.0000	.0012	-.0002	-.0005	.6363	17.01

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.9394**	**7.412**	**1.170**	**9.083**	**.0266**	**-.0012**	**3.770**	**-.0004**	**.0751**
Stddev	.0012	.035	.039	.028	.0003	.0000	.002	.0001	.0002
%RSD	.1260	.4731	3.356	.3109	.9928	.2265	.0457	23.69	.2685
#1	.9386	7.387	1.198	9.103	.0267	-.0012	3.771	-.0004	.0749
#2	.9402	7.437	1.142	9.063	.0264	-.0012	3.769	-.0005	.0752

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0261**	**.0024**	**.0002**	**6.439**	**-.0023**	**.0024**	**.0333**
Stddev	.0001	.0002	.0001	.035	.0001	.0001	.0009
%RSD	.5624	7.582	50.98	.5420	6.264	4.546	2.827
#1	.0262	.0022	.0003	6.464	-.0022	.0025	.0340
#2	.0260	.0025	.0001	6.415	-.0024	.0023	.0326

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**82647.**	**6208.2**	**3195.3**	**7705.7**
Stddev	152.	1.0	10.2	3.3
%RSD	.18378	.01565	.31884	.04319
#1	82754.	6207.5	3188.1	7703.4
#2	82539.	6208.8	3202.5	7708.1

Zoom In
Zoom Out

Sample Name: jc66804-6 Acquired: 6/1/2018 21:21:24 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0211**	**-.0001**	**.0008**	**-.0001**	**.0007**	**.0004**	**.0007**	**.0000**	**-.0001**
Stddev	.0001	.0000	.0000	.0003	.0001	.0001	.0000	.0002	.0001
%RSD	.4180	5.667	1.335	184.8	14.06	34.63	1.972	627.6	86.80
#1	.0211	-.0001	.0008	-.0003	.0008	.0005	.0007	.0002	-.0000
#2	.0210	-.0001	.0008	.0000	.0006	.0003	.0007	-.0001	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0016**	**-.0003**	**-.0007**	**.0009**	**.0001**	**-.0016**	**.0161**	**18.91**
Stddev	.0003	.0000	.0010	.0012	.0003	.0016	.0000	.0102	.04
%RSD	100.1	.2737	291.3	158.7	30.18	2275.	1.166	63.27	.2029
#1	-.0006	.0016	-.0010	-.0016	.0007	-.0011	-.0016	.0233	18.94
#2	-.0001	.0016	.0004	.0001	.0011	.0012	-.0016	.0089	18.89

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0208**	**5.385**	**1.581**	**3.474**	**.0106**	**-.0012**	**2.894**	**-.0006**	**.0588**
Stddev	.0020	.009	.002	.012	.0003	.0000	.005	.0006	.0001
%RSD	9.805	.1713	.1473	.3378	2.658	.4010	.1743	88.32	.1910
#1	.0193	5.378	1.579	3.483	.0108	-.0012	2.897	-.0010	.0588
#2	.0222	5.391	1.582	3.466	.0104	-.0012	2.890	-.0002	.0587

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**.0017**	**-.0002**	**2.489**	**-.0010**	**.0004**	**.0088**
Stddev	.0004	.0004	.0000	.003	.0001	.0008	.0000
%RSD	121.2	22.16	.4915	.1134	5.888	196.2	.4805
#1	-.0007	.0014	-.0002	2.487	-.0011	.0010	.0088
#2	-.0001	.0019	-.0002	2.491	-.0010	-.0002	.0089

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83146.**	**6266.3**	**3200.7**	**7750.1**
Stddev	80.	3.5	4.5	1.3
%RSD	.09641	.05583	.13997	.01691
#1	83203.	6263.8	3203.9	7751.1
#2	83089.	6268.8	3197.6	7749.2

Zoom In
Zoom Out

Sample Name: jc66890-3 Acquired: 6/1/2018 21:25:42 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.2499**	**.0001**	**-.0002**	**.0122**	**.0023**	**.0024**	**7.509**	**.0059**	**-.0011**
Stddev	.0002	.0000	.0002	.0000	.0001	.0001	.080	.0001	.0001
%RSD	.0619	33.83	91.01	.0627	5.085	5.731	1.071	1.701	7.836
#1	.2500	.0001	-.0004	.0122	.0022	.0023	7.566	.0059	-.0011
#2	.2498	.0002	-.0001	.0122	.0024	.0025	7.453	.0058	-.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0173**	**.0014**	**.0142**	**.0015**	**-.0007**	**.0016**	**-.0010**	**.0600**	**44.48**
Stddev	.0002	.0000	.0005	.0003	.0008	.0009	.0003	.0092	.12
%RSD	1.444	1.897	3.750	20.55	116.3	57.37	28.98	15.40	.2604
#1	.0175	.0014	.0146	.0013	-.0013	.0009	-.0012	.0665	44.39
#2	.0171	.0014	.0138	.0017	-.0001	.0022	-.0008	.0534	44.56

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**81.39**	**7.068**	**4.675**	**6.579**	**.0674**	**-.0009**	**8.195**	**-.0020**	**.3321**
Stddev	.17	.055	.025	.029	.0005	.0002	.021	.0000	.0006
%RSD	.2071	.7822	.5415	.4361	.7666	18.11	.2608	1.869	.1843
#1	81.27	7.029	4.693	6.558	.0678	-.0008	8.210	-.0021	.3317
#2	81.51	7.107	4.657	6.599	.0670	-.0010	8.180	-.0020	.3325

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0023**	**.0086**	**-.0003**	**5.025**	**-.0053**	**.0008**	**.1850**
Stddev	.0002	.0006	.0002	.013	.0000	.0015	.0014
%RSD	10.53	6.582	61.22	.2637	.2479	185.0	.7592
#1	.0025	.0090	-.0005	5.035	-.0053	.0019	.1840
#2	.0021	.0082	-.0002	5.016	-.0053	-.0003	.1859

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81797.**	**6224.1**	**3166.2**	**7587.3**
Stddev	15.	.8	.2	7.5
%RSD	.01889	.01219	.00485	.09933
#1	81786.	6223.6	3166.3	7592.6
#2	81808.	6224.6	3166.1	7582.0

Zoom In Zoom Out

Sample Name: jc66890-4 Acquired: 6/1/2018 21:30:04 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0530	-.0002	.0002	.0031	.0006	.0017	.8161	.0022	-.0002
Stddev	.0005	.0001	.0001	.0000	.0001	.0004	.0005	.0000	.0001
%RSD	1.014	68.55	52.89	.6964	11.53	20.83	.0602	1.483	55.90
#1	.0534	-.0001	.0001	.0031	.0006	.0015	.8157	.0022	-.0001
#2	.0526	-.0003	.0002	.0031	.0007	.0020	.8164	.0022	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0015	.0016	-.0005	-.0006	-.0008	-.0009	-.0014	.0599	17.83
Stddev	.0003	.0002	.0004	.0013	.0015	.0016	.0005	.0005	.01
%RSD	22.52	11.59	73.53	234.9	198.8	178.1	34.80	.9155	.0405
#1	.0012	.0017	-.0002	-.0015	-.0018	.0002	-.0017	.0595	17.82
#2	.0017	.0015	-.0007	.0004	.0003	-.0020	-.0010	.0603	17.83

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.6107	7.153	2.821	7.954	.0288	-.0014	5.819	-.0010	.1446
Stddev	.0017	.045	.015	.021	.0006	.0000	.002	.0005	.0002
%RSD	.2750	.6247	.5265	.2590	2.251	1.721	.0333	48.86	.1528
#1	.6095	7.121	2.811	7.968	.0284	-.0014	5.820	-.0014	.1448
#2	.6119	7.185	2.832	7.939	.0293	-.0014	5.818	-.0007	.1445

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0020	.0046	-.0004	5.140	-.0017	.0015	.0271
Stddev	.0002	.0001	.0001	.020	.0017	.0008	.0004
%RSD	10.54	3.011	22.34	.3873	97.08	51.46	1.483
#1	.0022	.0045	-.0003	5.154	-.0005	.0021	.0274
#2	.0019	.0047	-.0004	5.126	-.0029	.0010	.0268

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	82759.	6254.2	3190.7	7697.5
Stddev	6.	27.2	5.4	12.2
%RSD	.00699	.43443	.16808	.15838
#1	82755.	6235.0	3194.5	7706.1
#2	82763.	6273.4	3186.9	7688.8

Zoom In Zoom Out

Sample Name: jc66927-1 Acquired: 6/1/2018 21:34:21 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0761	.0000	.0003	.0009	.0038	.0050	1.031	.0025	-.0007
Stddev	.0004	.0001	.0003	.0002	.0002	.0005	.003	.0004	.0002
%RSD	.5006	109.4	87.09	19.87	5.466	10.59	.2900	13.92	30.80
#1	.0758	.0001	.0005	.0008	.0040	.0054	1.033	.0028	-.0005
#2	.0763	.0000	.0001	.0011	.0037	.0046	1.029	.0023	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0044	.0416	-.0002	.0009	.0944	-.0007	-.0009	.7808	59.09
Stddev	.0002	.0000	.0003	.0014	.0003	.0001	.0005	.0035	.18
%RSD	4.814	.0924	146.4	149.0	.3439	11.46	57.80	.4494	.3027
#1	.0046	.0416	-.0004	.0019	.0942	-.0008	-.0013	.7833	58.96
#2	.0043	.0416	.0000	-.0001	.0946	-.0007	-.0005	.7784	59.21

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	20.49	27.32	3.482	14.23	.1278	-.0013	19.59	-.0026	.2870
Stddev	.00	.10	.016	.03	.0004	.0002	.01	.0000	.0001
%RSD	.0209	.3628	.4450	.2101	.2792	11.57	.0513	.6678	.0477
#1	20.49	27.25	3.493	14.25	.1275	-.0012	19.59	-.0026	.2871
#2	20.49	27.39	3.471	14.21	.1281	-.0015	19.58	-.0025	.2869

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0257	.0177	-.0004	.4976	-.0039	.0133	1.919
Stddev	.0009	.0015	.0001	.0036	.0008	.0024	.004
%RSD	3.463	8.395	14.80	.7239	21.19	18.11	.1810
#1	.0264	.0188	-.0004	.5002	-.0045	.0116	1.922
#2	.0251	.0167	-.0003	.4951	-.0033	.0150	1.917

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	81344.	6259.7	3141.8	7396.3
Stddev	41.	4.7	4.5	2.2
%RSD	.05070	.07586	.14342	.02918
#1	81315.	6256.3	3138.6	7394.7
#2	81373.	6263.0	3145.0	7397.8

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 21:38:38 Type: QC
Method: Accutest 2(v432) 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	1.944	1.975	1.949	1.958	1.948	2.000	1.980	.2407
Stddev	.002	.004	.001	.003	.007	.001	.006	.004	.0009
%RSD	.1104	.1935	.0274	.1344	.3673	.0565	.3018	.2194	.3899
#1	1.996	1.941	1.974	1.950	1.963	1.949	2.004	1.983	.2400
#2	1.999	1.947	1.975	1.947	1.952	1.947	1.996	1.976	.2414
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	1.920	1.974	1.966	2.015	1.986	1.957	1.993	38.73	38.22
Stddev	.006	.003	.002	.002	.004	.003	.000	.05	.00
%RSD	.3272	.1301	.1104	.0989	.2101	.1454	.0109	.1264	.0005
#1	1.925	1.975	1.967	2.013	1.989	1.959	1.993	38.70	38.22
#2	1.916	1.972	1.964	2.016	1.983	1.955	1.993	38.77	38.22
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	38.55	38.16	41.89	40.82	1.982	2.013	5.004	2.026	1.990
Stddev	.03	.10	.02	.03	.001	.000	.009	.001	.003
%RSD	.0873	.2552	.0477	.0645	.0624	.0068	.1737	.0494	.1445
#1	38.52	38.09	41.88	40.80	1.983	2.013	4.998	2.026	1.988
#2	38.57	38.22	41.91	40.84	1.981	2.013	5.010	2.027	1.992
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: 6/1/2018 21:38:38 Type: QC
Method: Accutest 2(v432) 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	1.990	1.981	1.990	1.937	2.019	2.034	1.959
Stddev	.003	.001	.003	.002	.003	.002	.000
%RSD	.1441	.0371	.1528	.0865	.1394	.0839	.0076
#1	1.992	1.981	1.992	1.938	2.021	2.033	1.959
#2	1.988	1.982	1.988	1.936	2.017	2.036	1.959
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	80615.	6171.7	3156.0	7225.9
Stddev	325.	29.0	2.9	.4
%RSD	.40273	.47061	.09328	.00572
#1	80385.	6192.2	3158.1	7225.6
#2	80844.	6151.2	3153.9	7226.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 21:42:42 Type: QC
Method: Accutest 2(v432) 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**	**-.0002**	**.0002**	**.0001**	**-.0000**	**.0003**	**-.0000**	**-.0005**	**.0002**
Stddev	.0002	.0000	.0001	.0001	.0000	.0000	.0000	.0003	.0001
%RSD	67.14	5.116	38.73	44.80	95.05	.2264	6.689	56.38	59.39
#1	-.0004	-.0002	.0002	.0002	-.0000	.0003	-.0001	-.0003	.0002
#2	-.0002	-.0002	.0001	.0001	-.0001	.0003	-.0000	-.0007	.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	**-.0003**	**.0001**	**-.0008**	**-.0008**	**.0002**	**.0001**	**-.0020**	**.0145**	**-.0036**
Stddev	.0003	.0001	.0001	.0014	.0012	.0016	.0001	.0059	.0010
%RSD	93.83	97.69	8.455	176.8	655.2	1108.	3.557	41.10	26.17
#1	-.0005	.0000	-.0008	.0002	.0010	.0013	-.0019	.0187	-.0043
#2	-.0001	.0002	-.0008	-.0018	-.0007	-.0010	-.0020	.0103	-.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	**-.0025**	**-.0079**	**.0336**	**.0105**	**-.0006**	**-.0004**	**-.0008**	**.0002**	**-.0001**
Stddev	.0013	.0156	.0134	.0029	.0008	.0003	.0001	.0004	.0000
%RSD	51.95	198.5	39.84	27.42	136.2	67.05	8.000	232.7	20.38
#1	-.0034	.0032	.0431	.0125	-.0012	-.0006	-.0008	-.0001	-.0001
#2	-.0016	-.0189	.0242	.0084	-.0000	-.0002	-.0009	.0005	-.0002
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: 6/1/2018 21:42:42 Type: QC
Method: Accutest 2(v432) 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**	**-.0001**	**.0001**	**.0027**	**-.0001**	**.0010**	**.0008**
Stddev	.0005	.0001	.0000	.0013	.0001	.0001	.0003
%RSD	379.8	49.75	10.85	47.69	159.7	5.430	31.37
#1	-.0002	-.0002	.0001	.0036	.0000	.0010	.0007
#2	.0005	-.0001	.0001	.0018	-.0001	.0011	.0010
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	**84352.**	**6245.3**	**3266.9**	**8026.1**
Stddev	22.	57.2	.0	3.7
%RSD	.02591	.91518	.00134	.04567
#1	84337.	6285.7	3266.9	8023.5
#2	84368.	6204.9	3267.0	8028.7

Zoom In Zoom Out

Sample Name: jc66927-2 Acquired: 6/1/2018 21:47:04 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.1703**	**-.0002**	**.0000**	**.0004**	**.0018**	**.0035**	**1.206**	**.0026**	**.0005**
Stddev	.0005	.0000	.0001	.0001	.0003	.0000	.000	.0006	.0006
%RSD	.3074	23.61	2735.	30.15	16.33	1.074	.0247	21.53	104.9
#1	.1707	-.0002	.0001	.0003	.0016	.0035	1.206	.0030	.0001
#2	.1699	-.0002	-.0001	.0005	.0020	.0035	1.206	.0022	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0029**	**.0146**	**.0381**	**.0014**	**.0073**	**.0013**	**-.0002**	**.1427**	**81.27**
Stddev	.0003	.0000	.0009	.0010	.0005	.0023	.0001	.0049	.29
%RSD	10.89	.2553	2.247	71.27	6.630	182.8	55.68	3.411	.3565
#1	.0027	.0145	.0388	.0007	.0076	.0029	-.0002	.1393	81.47
#2	.0032	.0146	.0375	.0022	.0069	-.0004	-.0001	.1462	81.06

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.02**	**15.04**	**4.103**	**2.742**	**.0612**	**.0010**	**13.26**	**-.0010**	**.2813**
Stddev	.01	.05	.004	.021	.0002	.0002	.01	.0013	.0013
%RSD	.1195	.3251	.1082	.7505	.4046	21.27	.0537	125.6	.4564
#1	12.03	15.08	4.100	2.756	.0611	.0008	13.27	-.0020	.2822
#2	12.01	15.01	4.107	2.727	.0614	.0011	13.26	-.0001	.2803

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0037**	**.0128**	**.0001**	**2.770**	**-.0026**	**.0130**	**.2988**
Stddev	.0002	.0004	.0000	.009	.0001	.0005	.0014
%RSD	5.405	3.363	27.42	.3270	3.025	3.725	.4834
#1	.0035	.0125	.0002	2.764	-.0026	.0134	.2977
#2	.0038	.0131	.0001	2.777	-.0027	.0127	.2998

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81907.**	**6229.4**	**3157.5**	**7450.7**
Stddev	271.	5.2	7.2	14.4
%RSD	.33084	.08272	.22787	.19303
#1	82099.	6233.0	3152.4	7440.6
#2	81716.	6225.7	3162.6	7460.9

Zoom In Zoom Out

Sample Name: jc66942-2f Acquired: 6/1/2018 21:51:21 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0162**	**-.0001**	**.0003**	**.0000**	**.0009**	**.0013**	**.2870**	**.0007**
Stddev	.0001	.0001	.0000	.0001	.0007	.0003	.0003	.0001
%RSD	.7724	54.87	2.636	749.1	70.14	24.89	.0959	14.29
#1	.0162	-.0001	.0003	-.0000	.0014	.0011	.2868	.0006
#2	.0163	-.0002	.0003	.0001	.0005	.0015	.2872	.0008

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0000**	**.0006**	**.0105**	**.0010**	F **-.0022**	**-.0007**	**.0018**	**-.0001**
Stddev	.0000	.0000	.0001	.0011	.0001	.0011	.0005	.0002
%RSD	53.49	3.043	.9640	111.0	3.610	141.3	28.12	149.5
#1	-.0000	.0006	.0105	.0002	-.0022	-.0015	.0014	-.0003
#2	-.0001	.0007	.0104	.0018	-.0021	-.0000	.0021	.0000

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0163**	**36.02**	**10.05**	**7.098**	**3.067**	**99.25**	**.0437**	**-.0012**
Stddev	.0187	.05	.02	.030	.004	.02	.0006	.0000
%RSD	114.3	.1324	.2153	.4304	.1417	.0205	1.331	1.084
#1	.0031	36.05	10.03	7.076	3.070	99.26	.0441	-.0012
#2	.0295	35.98	10.07	7.119	3.064	99.23	.0432	-.0012

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.534**	**-.0007**	**.1529**	**-.0007**	**.0021**	**.0001**	**1.933**	**.0001**
Stddev	.004	.0007	.0001	.0003	.0013	.0001	.002	.0016
%RSD	.1138	99.09	.0628	50.83	63.86	108.5	.1167	1773.
#1	3.537	-.0011	.1530	-.0009	.0030	.0002	1.935	.0013
#2	3.531	-.0002	.1528	-.0004	.0011	.0000	1.932	-.0011

Elem	Li6707	P_1774
Avg	**.0002**	**.0102**
Stddev	.0017	.0004
%RSD	946.0	4.219
#1	.0013	.0105
#2	-.0010	.0099

Zoom In Zoom Out

Sample Name: jc66942-2f Acquired: 6/1/2018 21:51:21 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80061.**	**6145.5**	**3120.0**	**7262.9**
Stddev	264.	30.1	7.5	5.0
%RSD	.32988	.49003	.23928	.06845
#1	80247.	6166.8	3114.7	7259.4
#2	79874.	6124.2	3125.3	7266.4

Zoom In Zoom Out

Sample Name: jc66942-3f Acquired: 6/1/2018 21:55:39 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0207**	**-.0001**	**.0001**	**.0002**	**.0014**	**.0009**	**.4832**	**.0009**	**.0005**
Stddev	.0001	.0000	.0003	.0001	.0002	.0003	.0001	.0002	.0000
%RSD	.3327	8.025	507.6	44.85	12.15	34.02	.0237	22.52	3.479
#1	.0208	-.0002	.0003	.0002	.0015	.0007	.4833	.0010	.0005
#2	.0207	-.0001	-.0002	.0001	.0013	.0011	.4831	.0007	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0021**	**.0043**	**-.0005**	**-.0009**	**.0013**	**.0036**	**-.0019**	**.0590**	**88.73**
Stddev	.0002	.0000	.0007	.0010	.0000	.0021	.0001	.0078	.16
%RSD	11.67	.7151	156.8	104.1	.8636	56.78	7.445	13.30	.1784
#1	.0019	.0043	.0001	-.0003	.0013	.0022	-.0018	.0645	88.84
#2	.0022	.0043	-.0010	-.0016	.0013	.0051	-.0020	.0534	88.62

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.5276**	**10.60**	**6.606**	**102.4**	**.0814**	**-.0012**	**5.956**	**-.0014**	**.4000**
Stddev	.0022	.03	.012	.1	.0006	.0003	.013	.0000	.0004
%RSD	.4261	.2973	.1740	.1425	.7085	23.56	.2121	.4969	.0931
#1	.5292	10.63	6.614	102.5	.0818	-.0010	5.947	-.0015	.4003
#2	.5260	10.58	6.598	102.3	.0810	-.0014	5.965	-.0014	.3998

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0049**	**.0001**	**1.705**	**-.0010**	**.0024**	**.0104**
Stddev	.0001	.0000	.0001	.000	.0009	.0000	.0008
%RSD	203.9	.5406	51.49	.0006	94.67	1.867	7.791
#1	.0000	.0048	.0001	1.705	-.0003	.0024	.0099
#2	-.0001	.0049	.0002	1.705	-.0017	.0024	.0110

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**79454.**	**6112.8**	**3059.0**	**7082.7**
Stddev	257.	17.0	5.0	3.3
%RSD	.32359	.27768	.16289	.04717
#1	79273.	6124.8	3062.5	7085.1
#2	79636.	6100.8	3055.5	7080.3

Zoom In Zoom Out

Sample Name: jc66942-4f Acquired: 6/1/2018 21:59:56 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0259**	**-.0002**	**.0001**	**.0002**	**.0005**	**.0024**	**.0770**	**.0006**	**.0001**
Stddev	.0005	.0000	.0001	.0002	.0004	.0000	.0000	.0004	.0000
%RSD	2.111	19.66	264.8	115.1	71.22	.6397	.0194	63.43	12.51
#1	.0255	-.0002	-.0000	.0000	.0008	.0024	.0770	.0008	.0001
#2	.0263	-.0003	.0001	.0004	.0003	.0024	.0770	.0003	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0012**	**.0049**	**-.0004**	**-.0007**	**.0006**	**.0037**	**.0007**	**.0580**	**89.36**
Stddev	.0002	.0002	.0009	.0011	.0012	.0000	.0003	.0025	.06
%RSD	17.70	3.101	207.3	169.3	183.6	.6901	36.93	4.369	.0650
#1	.0010	.0050	.0002	.0001	.0015	.0037	.0009	.0563	89.40
#2	.0013	.0048	-.0010	-.0014	-.0002	.0036	.0005	.0598	89.32

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0060**	**11.49**	**6.245**	**56.67**	**.0402**	**-.0002**	**5.613**	**-.0013**	**.4393**
Stddev	.0019	.02	.029	.03	.0007	.0001	.001	.0011	.0005
%RSD	31.08	.2163	.4725	.0532	1.696	24.30	.0178	87.93	.1148
#1	.0047	11.51	6.224	56.69	.0407	-.0002	5.613	-.0021	.4396
#2	.0074	11.48	6.266	56.65	.0397	-.0003	5.614	-.0005	.4389

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0055**	**.0000**	**13.35**	**-.0015**	**.0020**	**.0147**
Stddev	.0002	.0004	.0001	.01	.0009	.0002	.0000
%RSD	44.77	7.963	570.3	.0434	61.15	9.709	.1058
#1	.0003	.0058	-.0001	13.36	-.0021	.0021	.0147
#2	.0006	.0052	.0001	13.35	-.0008	.0018	.0147

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**79633.**	**6088.4**	**3062.9**	**7188.6**
Stddev	18.	7.4	2.3	4.9
%RSD	.02217	.12087	.07532	.06835
#1	79645.	6083.2	3061.3	7192.1
#2	79620.	6093.6	3064.6	7185.1

Zoom In Zoom Out

Sample Name: jc66942-6f Acquired: 6/1/2018 22:04:12 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0156**	**-.0002**	**.0001**	**.0003**	**.0040**	**.0007**	**.1870**	**.0006**	**.0000**
Stddev	.0000	.0000	.0002	.0001	.0001	.0001	.0004	.0001	.0001
%RSD	.0941	16.73	281.6	22.52	2.784	8.336	.1889	16.17	309.7
#1	.0156	-.0002	-.0001	.0002	.0039	.0007	.1873	.0007	.0001
#2	.0156	-.0002	.0002	.0003	.0041	.0006	.1868	.0006	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0060**	**.0017**	**.0012**	**-.0017**	**.0010**	**.0014**	**-.0003**	**.4260**	**47.38**
Stddev	.0000	.0002	.0003	.0006	.0002	.0011	.0008	.0095	.29
%RSD	.4970	11.71	24.09	33.63	21.38	77.80	249.8	2.231	.6106
#1	.0060	.0015	.0014	-.0021	.0009	.0007	-.0009	.4193	47.17
#2	.0061	.0018	.0010	-.0013	.0012	.0022	.0002	.4327	47.58

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2072**	**7.317**	**5.695**	**76.75**	**.0386**	**-.0012**	**2.623**	**-.0004**	**.2707**
Stddev	.0042	.050	.040	.34	.0007	.0001	.010	.0001	.0014
%RSD	2.004	.6874	.7080	.4399	1.833	11.43	.3857	11.64	.5053
#1	.2102	7.282	5.666	76.51	.0381	-.0011	2.631	-.0004	.2697
#2	.2043	7.353	5.723	76.99	.0391	-.0013	2.616	-.0005	.2717

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0037**	**.0021**	**.0010**	**2.969**	**-.0013**	**.0024**	**.0082**
Stddev	.0003	.0001	.0003	.005	.0002	.0014	.0005
%RSD	6.852	5.864	34.00	.1697	14.65	60.12	5.664
#1	.0035	.0020	.0008	2.972	-.0012	.0014	.0079
#2	.0038	.0022	.0012	2.965	-.0014	.0034	.0085

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80381.**	**6128.6**	**3108.5**	**7269.2**
Stddev	195.	24.4	.0	5.6
%RSD	.24290	.39878	.00131	.07643
#1	80243.	6145.9	3108.5	7273.1
#2	80519.	6111.3	3108.6	7265.3

Zoom In Zoom Out

Sample Name: jc66942-8f Acquired: 6/1/2018 22:08:28 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0071	-.0001	.0000	.0003	.0069	.0006	.2835	.0013	-.0000
Stddev	.0001	.0000	.0000	.0002	.0002	.0002	.0001	.0003	.0001
%RSD	1.257	9.618	66.00	68.64	2.731	38.08	.0256	22.56	327.5
#1	.0071	-.0001	.0000	.0005	.0067	.0005	.2836	.0015	.0001
#2	.0072	-.0001	.0001	.0002	.0070	.0008	.2834	.0011	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0040	.0455	.0001	-.0001	.0069	-.0005	-.0008	.7495	32.11
Stddev	.0001	.0000	.0004	.0009	.0011	.0006	.0017	.0175	.03
%RSD	3.105	.0766	564.2	1234.	15.60	132.2	206.5	2.339	.0823
#1	.0041	.0455	-.0002	-.0007	.0076	-.0000	-.0021	.7371	32.13
#2	.0039	.0455	.0004	.0006	.0061	-.0009	.0004	.7619	32.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0975	5.607	2.840	7.517	.0222	-.0012	3.419	-.0005	.1742
Stddev	.0034	.007	.017	.017	.0005	.0001	.002	.0006	.0004
%RSD	3.494	.1209	.6058	.2205	2.286	10.18	.0619	123.3	.2237
#1	.0999	5.611	2.828	7.529	.0226	-.0012	3.420	-.0010	.1745
#2	.0951	5.602	2.853	7.505	.0219	-.0011	3.417	-.0001	.1739

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0061	.0022	.0007	1.694	-.0022	.0020	.0079
Stddev	.0005	.0008	.0001	.008	.0002	.0012	.0004
%RSD	7.586	36.57	8.300	.4498	9.014	60.50	4.901
#1	.0058	.0016	.0007	1.699	-.0024	.0012	.0077
#2	.0065	.0028	.0007	1.688	-.0021	.0029	.0082

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	82319.	6197.7	3179.8	7626.2
Stddev	42.	30.6	1.1	.2
%RSD	.05111	.49404	.03357	.00327
#1	82290.	6176.1	3179.0	7626.3
#2	82349.	6219.4	3180.5	7626.0

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 6/1/2018 22:12:43 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: SPLPE

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-.0010	-.0007	.0001	.0019	-.0016	.0123	.0031	.0032	-.0006
Stddev	.0004	.0003	.0011	.0002	.0003	.0022	.0000	.0000	.0004
%RSD	39.93	40.57	886.2	8.597	18.99	17.97	.5084	.0306	69.74
#1	-.0013	-.0005	.0009	.0018	-.0018	.0138	.0031	.0032	-.0003
#2	-.0007	-.0009	-.0006	.0020	-.0014	.0107	.0031	.0032	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0009	.0118	-.0023	-.0029	-.0010	.0038	-.0013	.0369	.1937
Stddev	.0006	.0004	.0031	.0007	.0009	.0085	.0002	.0315	.0007
%RSD	66.42	3.394	131.8	24.06	84.42	221.8	13.34	85.39	.3857
#1	.0005	.0115	-.0002	-.0034	-.0004	.0098	-.0014	.0146	.1942
#2	.0013	.0121	-.0045	-.0024	-.0016	-.0022	-.0012	.0592	.1932

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0051	-.1137	.0629	2.056	-.0083	-.0068	.2580	.0015	.0013
Stddev	.0167	.1177	.0296	.032	.0007	.0006	.0024	.0007	.0002
%RSD	329.6	103.5	47.09	1.547	9.024	8.395	.9175	49.08	14.12
#1	-.0068	-.0305	.0838	2.034	-.0088	-.0072	.2564	.0010	.0012
#2	.0169	-.1969	.0419	2.079	-.0078	-.0064	.2597	.0020	.0015

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-.0003	-.0104	.0008	.1657	-.0054	-.0026	.0142
Stddev	.0002	.0038	.0006	.0107	.0060	.0077	.0009
%RSD	68.72	36.80	70.07	6.438	111.7	299.4	6.176
#1	-.0001	-.0077	.0012	.1581	-.0097	-.0080	.0148
#2	-.0004	-.0132	.0004	.1732	-.0011	.0029	.0135

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	84383.	6244.2	3268.0	8019.5
Stddev	94.	17.9	.6	11.2
%RSD	.11193	.28684	.01881	.13922
#1	84450.	6256.8	3268.4	8027.4
#2	84316.	6231.5	3267.5	8011.6

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 6/1/2018 22:17:03 Type: Unk
Method: Accutest 2(v432) 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
Avg	1.988	1.925	1.960	1.890	1.958	1.870	2.008	1.933	.2385
Stddev	.002	.001	.010	.007	.005	.006	.003	.006	.0012
%RSD	.0816	.0319	.4917	.3776	.2351	.3389	.1563	.3383	.5119
#1	1.989	1.925	1.966	1.895	1.954	1.875	2.010	1.937	.2394
#2	1.987	1.926	1.953	1.885	1.961	1.866	2.006	1.928	.2376

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	1.899	1.995	1.928	2.045	1.967	1.929	1.975	24.71	24.66
Stddev	.010	.004	.001	.008	.009	.012	.002	.07	.02
%RSD	.5426	.1900	.0476	.3933	.4414	.6059	.0960	.2926	.0897
#1	1.891	1.998	1.927	2.050	1.973	1.937	1.974	24.76	24.65
#2	1.906	1.992	1.928	2.039	1.961	1.921	1.976	24.66	24.68

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	24.91	24.65	26.58	28.55	1.953	2.042	.3144	2.084	1.962
Stddev	.00	.03	.18	.08	.006	.003	.0042	.011	.000
%RSD	.0134	.1114	.6919	.2843	.2862	.1397	1.343	.5104	.0108
#1	24.90	24.67	26.45	28.50	1.957	2.040	.3115	2.091	1.962
#2	24.91	24.63	26.71	28.61	1.949	2.044	.3174	2.076	1.963

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	1.981	1.959	1.900	.0479	-.0047	.0014	1.915
Stddev	.000	.003	.007	.0038	.0007	.0026	.015
%RSD	.0146	.1381	.3767	7.942	15.46	187.8	.7905
#1	1.981	1.961	1.895	.0506	-.0052	.0032	1.926
#2	1.981	1.957	1.905	.0452	-.0042	-.0005	1.905

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	83459.	6195.8	3243.9	7790.5
Stddev	13.	9.3	3.7	5.2
%RSD	.01600	.15030	.11309	.06709
#1	83469.	6202.4	3246.5	7794.2
#2	83450.	6189.2	3241.3	7786.8

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 6/1/2018 22:21:10 Type: Unk
Method: Accutest 2(v432) 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
Avg	.0028	-.0002	.0002	.0001	.0000	.0010	.0003	.0001	.0001
Stddev	.0000	.0000	.0001	.0000	.0002	.0000	.0000	.0002	.0002
%RSD	.8350	22.55	43.23	18.86	3946.	2.374	1.648	262.1	176.8
#1	.0028	-.0001	.0001	.0001	.0001	.0010	.0003	.0003	-.0000
#2	.0028	-.0002	.0002	.0002	-.0001	.0010	.0003	-.0001	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0000	.0009	.0007	-.0004	-.0004	.0009	-.0002	.0418	2.450
Stddev	.0002	.0000	.0002	.0012	.0001	.0004	.0006	.0018	.006
%RSD	1481.	1.742	23.13	287.7	18.14	46.04	413.0	4.245	.2351
#1	.0002	.0009	.0009	-.0013	-.0004	.0012	.0003	.0405	2.446
#2	-.0001	.0009	.0006	.0004	-.0005	.0006	-.0006	.0430	2.454

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0129	.2303	.3525	5.725	.0158	-.0009	.2945	.0001	.0107
Stddev	.0019	.0063	.0296	.000	.0003	.0003	.0009	.0004	.0001
%RSD	14.83	2.753	8.394	.0076	1.594	36.20	.2937	244.9	.8218
#1	.0116	.2259	.3316	5.725	.0159	-.0007	.2951	-.0001	.0106
#2	.0143	.2348	.3735	5.726	.0156	-.0012	.2939	.0004	.0108

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0010	-.0002	.0010	.9341	-.0007	.0000	.0077
Stddev	.0002	.0007	.0001	.0029	.0003	.0017	.0004
%RSD	25.40	460.8	7.736	.3156	50.15	3481.	4.706
#1	.0011	-.0007	.0010	.9362	-.0005	.0012	.0074
#2	.0008	.0004	.0011	.9320	-.0009	-.0011	.0080

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	83412.	6244.4	3249.9	7934.1
Stddev	141.	28.5	4.7	.4
%RSD	.16911	.45635	.14337	.00498
#1	83512.	6264.5	3246.6	7934.4
#2	83313.	6224.2	3253.2	7933.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 22:25:30 Type: QC
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**1.922**	**1.963**	**1.940**	**1.944**	**1.934**	**1.993**	**1.975**	**.2376**
Stddev	.004	.003	.004	.003	.001	.002	.000	.004	.0004
%RSD	.2000	.1420	.2281	.1348	.0401	.0981	.0113	.2025	.1489
#1	1.985	1.924	1.960	1.938	1.943	1.935	1.993	1.972	.2379
#2	1.980	1.920	1.966	1.942	1.944	1.933	1.993	1.978	.2374
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	**1.901**	**1.971**	**1.955**	**2.013**	**1.988**	**1.957**	**1.981**	**38.25**	**37.55**
Stddev	.002	.008	.004	.008	.002	.004	.005	.07	.09
%RSD	.1192	.4041	.1796	.3917	.1211	.2052	.2302	.1865	.2446
#1	1.903	1.965	1.952	2.008	1.986	1.954	1.978	38.30	37.62
#2	1.899	1.977	1.957	2.019	1.990	1.960	1.985	38.20	37.49
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	**38.03**	**37.78**	**41.64**	**40.58**	**1.969**	**2.009**	**4.988**	**2.022**	**1.972**
Stddev	.10	.27	.13	.12	.006	.005	.012	.002	.006
%RSD	.2697	.7218	.3233	.2843	.3053	.2752	.2346	.0825	.3230
#1	38.10	37.97	41.74	40.67	1.965	2.005	4.980	2.021	1.977
#2	37.95	37.59	41.55	40.50	1.973	2.013	4.997	2.023	1.968
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: 6/1/2018 22:25:30 Type: QC
Method: Accutest 2(v432) 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	**1.980**	**1.972**	**1.985**	**1.935**	**2.002**	**2.020**	**1.951**
Stddev	.002	.007	.001	.001	.003	.001	.005
%RSD	.0898	.3801	.0710	.0629	.1552	.0333	.2798
#1	1.979	1.967	1.986	1.934	2.000	2.020	1.947
#2	1.981	1.978	1.984	1.936	2.004	2.019	1.955
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	**80994.**	**6202.2**	**3168.4**	**7234.8**
Stddev	37.	6.8	8.3	3.5
%RSD	.04612	.10992	.26075	.04885
#1	81020.	6197.4	3174.3	7237.3
#2	80967.	6207.0	3162.6	7232.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 22:29:34 Type: QC
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0001**	**.0000**	**-.0003**	**.0003**	**-.0001**	**-.0004**	**.0000**
Stddev	.0000	.0001	.0000	.0001	.0005	.0001	.0000	.0001	.0005
%RSD	6.365	117.4	3.262	270.4	149.8	36.17	7.741	20.91	1238.
#1	-.0001	-.0000	.0001	-.0000	.0000	.0002	-.0001	-.0003	.0004
#2	-.0001	-.0002	.0001	.0001	-.0007	.0003	-.0001	-.0004	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0002**	**-.0007**	**-.0010**	**-.0003**	**.0000**	**-.0010**	**.0027**	**-.0065**
Stddev	.0001	.0002	.0003	.0005	.0010	.0013	.0001	.0123	.0006
%RSD	49.00	76.80	42.66	55.13	401.7	3608.	8.192	461.1	9.503
#1	-.0002	.0004	-.0005	-.0013	-.0010	.0010	-.0010	.0114	-.0060
#2	-.0004	.0001	-.0009	-.0006	.0005	-.0009	-.0009	-.0061	-.0069
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	**-.0045**	**-.0049**	**.0155**	**.0138**	**.0001**	**-.0004**	**-.0006**	**.0003**	**.0000**
Stddev	.0025	.0226	.0035	.0085	.0002	.0002	.0007	.0005	.0001
%RSD	55.81	457.6	22.45	61.95	303.3	47.28	111.8	131.8	1337.
#1	-.0063	-.0210	.0180	.0198	.0002	-.0003	-.0011	.0007	-.0001
#2	-.0027	.0111	.0131	.0077	-.0001	-.0006	-.0001	.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									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 22:29:34 Type: QC
Method: Accutest 2(v432) 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**	**-.0014**	**-.0000**	**-.0001**	**-.0013**	**-.0008**	**.0012**
Stddev	.0001	.0005	.0001	.0000	.0007	.0006	.0008
%RSD	101.8	37.07	337.0	25.68	49.43	74.43	65.19
#1	-.0001	-.0010	-.0001	-.0001	-.0018	-.0013	.0018
#2	-.0000	-.0017	.0000	-.0001	-.0009	-.0004	.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	**83904.**	**6263.4**	**3267.0**	**8010.1**
Stddev	191.	26.9	3.1	3.0
%RSD	.22720	.42984	.09442	.03799
#1	83769.	6244.4	3269.1	8012.2
#2	84039.	6282.5	3264.8	8007.9

Zoom In
Zoom Out

Sample Name: mp7357-mb2 3 Acquired: 6/1/2018 22:33:55 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0004**	**-.0002**	**.0004**	**.0003**	**-.0004**	**.0125**	**.0034**	**.0046**	**-.0000**
Stddev	.0001	.0000	.0001	.0003	.0003	.0004	.0000	.0004	.0004
%RSD	13.37	4.363	19.93	123.1	71.31	3.459	.2608	8.554	916.5
#1	.0005	-.0002	.0003	.0000	-.0005	.0128	.0034	.0049	-.0003
#2	.0004	-.0002	.0004	.0005	-.0002	.0122	.0034	.0043	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0012**	**.0054**	**-.0002**	**-.0019**	**.0006**	**-.0009**	**.0006**	**.0089**	**.1718**
Stddev	.0008	.0000	.0008	.0001	.0004	.0005	.0004	.0027	.0006
%RSD	64.71	.5555	408.0	6.602	55.01	58.11	70.98	30.56	.3205
#1	.0017	.0055	.0004	-.0020	.0009	-.0013	.0008	.0070	.1721
#2	.0006	.0054	-.0008	-.0018	.0004	-.0005	.0003	.0108	.1714

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0066**	**.0139**	**.0572**	**.3122**	**.0016**	**-.0009**	**.2025**	**.0000**	**.0010**
Stddev	.0030	.0050	.0054	.0031	.0001	.0001	.0021	.0000	.0001
%RSD	45.76	35.80	9.393	1.008	4.545	6.012	1.037	295.2	8.919
#1	.0045	.0104	.0610	.3099	.0017	-.0009	.2010	.0000	.0010
#2	.0088	.0175	.0534	.3144	.0016	-.0009	.2040	-.0000	.0009

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0000**	**-.0013**	**.0001**	**.1529**	**-.0004**	**.0008**	**.0088**
Stddev	.0001	.0004	.0000	.0002	.0004	.0003	.0011
%RSD	652.8	31.93	9.863	.1561	92.95	36.89	12.28
#1	-.0001	-.0010	.0001	.1527	-.0001	.0010	.0080
#2	.0001	-.0016	.0001	.1530	-.0007	.0006	.0096

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**84225.**	**6248.5**	**3246.2**	**7977.4**
Stddev	262.	58.9	4.5	11.5
%RSD	.31146	.94318	.13885	.14406
#1	84410.	6206.8	3249.4	7985.6
#2	84039.	6290.1	3243.0	7969.3

Zoom In
Zoom Out

Sample Name: mp7357-b2 Acquired: 6/1/2018 22:38:15 Type: Unk
Method: Accutest 2(v432) 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
Avg	**1.951**	**1.893**	**1.916**	**1.886**	**1.907**	**1.910**	**1.959**	**1.921**	**.2360**
Stddev	.003	.002	.001	.000	.002	.003	.000	.001	.0008
%RSD	.1555	.0905	.0315	.0148	.0977	.1734	.0063	.0256	.3457
#1	1.949	1.892	1.916	1.886	1.906	1.907	1.959	1.921	.2354
#2	1.954	1.894	1.917	1.886	1.908	1.912	1.959	1.920	.2366

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.870**	**1.922**	**1.913**	**1.988**	**1.936**	**1.908**	**1.960**	**24.15**	**23.85**
Stddev	.001	.001	.001	.001	.000	.005	.004	.12	.05
%RSD	.0534	.0391	.0262	.0693	.0084	.2798	.1890	.5046	.2195
#1	1.871	1.923	1.914	1.989	1.936	1.904	1.963	24.07	23.81
#2	1.869	1.922	1.913	1.987	1.935	1.912	1.957	24.24	23.88

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.16**	**23.82**	**26.35**	**25.86**	**1.926**	**1.990**	**.1496**	**2.008**	**1.937**
Stddev	.00	.08	.03	.02	.003	.001	.0001	.002	.001
%RSD	.0126	.3214	.1122	.0593	.1701	.0341	.0626	.0805	.0270
#1	24.15	23.76	26.37	25.85	1.928	1.990	.1497	2.007	1.937
#2	24.16	23.87	26.33	25.87	1.924	1.991	.1496	2.009	1.938

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.953**	**1.928**	**1.949**	**.0330**	**-.0004**	**.0011**	**1.895**
Stddev	.000	.000	.002	.0043	.0002	.0016	.001
%RSD	.0119	.0023	.0920	13.18	48.82	137.9	.0678
#1	1.953	1.928	1.951	.0361	-.0003	.0022	1.894
#2	1.953	1.928	1.948	.0299	-.0006	.0000	1.895

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81895.**	**6227.2**	**3185.9**	**7388.2**
Stddev	158.	14.0	6.1	13.8
%RSD	.19335	.22450	.19291	.18738
#1	82007.	6237.1	3181.5	7378.4
#2	81783.	6217.4	3190.2	7398.0

Zoom In
Zoom Out

Sample Name: jc66460-1r Acquired: 6/1/2018 22:42:17 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0135**	**-.0001**	**.0015**	**.0000**	**.0009**	**.0062**	**.0016**	**.0011**	**-.0003**
Stddev	.0002	.0000	.0002	.0001	.0005	.0002	.0000	.0004	.0006
%RSD	1.542	9.550	13.73	651.0	58.60	3.560	1.525	32.65	187.4
#1	.0133	-.0001	.0013	.0001	.0013	.0060	.0016	.0008	-.0007
#2	.0136	-.0001	.0016	-.0000	.0005	.0063	.0016	.0013	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0007**	**.0033**	**.0007**	**.0001**	**-.0003**	**.0007**	**.0008**	**.1761**	**11.99**
Stddev	.0001	.0000	.0002	.0002	.0006	.0014	.0003	.0103	.02
%RSD	19.18	.2077	34.50	256.0	214.6	200.6	41.26	5.864	.1746
#1	.0008	.0033	.0005	.0003	.0002	.0017	.0006	.1688	12.01
#2	.0006	.0034	.0009	-.0001	-.0007	-.0003	.0011	.1834	11.98

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0787**	**1.162**	**1.731**	**28.48**	**.0860**	**.0014**	**1.362**	**-.0001**	**.0530**
Stddev	.0044	.008	.029	.07	.0015	.0002	.010	.0007	.0001
%RSD	5.638	.6722	1.704	.2339	1.739	17.28	.7385	1223.	.1185
#1	.0755	1.167	1.752	28.53	.0871	.0012	1.369	-.0005	.0531
#2	.0818	1.156	1.710	28.43	.0850	.0016	1.355	.0004	.0530

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0029**	**.0011**	**.0021**	**4.697**	**-.0024**	**.0022**	**.0282**
Stddev	.0002	.0002	.0000	.014	.0004	.0003	.0008
%RSD	6.124	14.19	2.370	.2973	15.84	11.24	2.872
#1	.0028	.0010	.0021	4.707	-.0027	.0024	.0277
#2	.0030	.0012	.0021	4.687	-.0022	.0021	.0288

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**82664.**	**6295.0**	**3201.3**	**7681.3**
Stddev	123.	7.1	7.8	10.8
%RSD	.14837	.11271	.24263	.14064
#1	82750.	6290.0	3195.8	7673.7
#2	82577.	6300.0	3206.8	7689.0

Zoom In
Zoom Out

Sample Name: jc66460-2r Acquired: 6/1/2018 22:46:34 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0047**	**-.0001**	**.0001**	**-.0003**	**.0014**	**.0023**	**.0007**	**-.0003**	**-.0002**
Stddev	.0002	.0000	.0003	.0001	.0003	.0001	.0000	.0000	.0001
%RSD	4.105	26.08	273.8	50.48	19.34	5.541	6.080	6.215	39.43
#1	.0048	-.0002	.0003	-.0004	.0016	.0024	.0007	-.0003	-.0001
#2	.0045	-.0001	-.0001	-.0002	.0012	.0022	.0006	-.0003	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0141**	**.0018**	**.0033**	**-.0009**	**-.0004**	**.0026**	**-.0013**	**.8854**	**15.75**
Stddev	.0001	.0001	.0006	.0000	.0014	.0022	.0004	.0018	.04
%RSD	.4413	5.825	17.11	4.465	339.7	81.85	31.58	.2077	.2219
#1	.0141	.0019	.0029	-.0009	.0006	.0042	-.0016	.8867	15.78
#2	.0142	.0018	.0038	-.0010	-.0014	.0011	-.0010	.8841	15.73

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.4286**	**.0986**	**.4572**	**7.275**	**.0341**	**.0032**	**7.950**	**-.0003**	**.0395**
Stddev	.0014	.0120	.0097	.015	.0001	.0000	.010	.0002	.0002
%RSD	.3175	12.21	2.124	.2083	.2626	.4739	.1224	95.13	.4494
#1	.4295	.1071	.4640	7.286	.0340	.0032	7.943	-.0004	.0393
#2	.4276	.0901	.4503	7.264	.0342	.0032	7.957	-.0001	.0396

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0210**	**.0064**	**.0006**	**2.116**	**-.0027**	**-.0007**	**.0733**
Stddev	.0001	.0003	.0000	.001	.0011	.0006	.0002
%RSD	.2398	5.399	3.806	.0378	39.92	81.27	.2655
#1	.0210	.0066	.0006	2.115	-.0035	-.0011	.0734
#2	.0210	.0061	.0006	2.117	-.0020	-.0003	.0732

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83323.**	**6293.8**	**3233.6**	**7827.0**
Stddev	9.	1.3	4.9	15.5
%RSD	.01112	.02050	.15189	.19789
#1	83317.	6292.9	3230.1	7816.0
#2	83330.	6294.7	3237.0	7837.9

Zoom In
Zoom Out

Sample Name: jc66460-5r Acquired: 6/1/2018 22:50:51 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0141**	**.0000**	**.0000**	**.0009**	**.0046**	**.0036**	**.0231**	**.0021**	**.0001**
Stddev	.0001	.0000	.0000	.0003	.0002	.0002	.0000	.0003	.0002
%RSD	.8991	99.03	238.3	27.80	5.432	4.296	.0249	14.31	127.5
#1	.0142	.0001	.0000	.0011	.0044	.0037	.0231	.0019	.0000
#2	.0141	.0000	-.0000	.0008	.0048	.0035	.0231	.0023	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0085**	**.0072**	**.0014**	**-.0003**	**.0039**	**.0027**	**-.0008**	**3.825**	**6.855**
Stddev	.0001	.0000	.0001	.0004	.0011	.0005	.0005	.019	.000
%RSD	1.371	.0272	4.071	137.4	27.39	16.60	67.60	.4962	.0035
#1	.0085	.0072	.0015	-.0006	.0031	.0031	-.0011	3.838	6.855
#2	.0084	.0072	.0014	-.0000	.0046	.0024	-.0004	3.812	6.855

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.710**	**.3723**	**1.860**	**21.65**	**.1173**	**.0023**	**8.193**	**-.0002**	**.0183**
Stddev	.011	.0188	.039	.07	.0008	.0002	.015	.0003	.0002
%RSD	.4160	5.048	2.092	.3095	.6788	7.416	.1826	120.7	.8258
#1	2.718	.3856	1.832	21.70	.1167	.0025	8.183	-.0005	.0185
#2	2.702	.3591	1.887	21.61	.1178	.0022	8.204	-.0000	.0182

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1094**	**.0061**	**.0023**	**2.792**	**-.0026**	**.0031**	**.1527**
Stddev	.0001	.0007	.0001	.005	.0003	.0011	.0015
%RSD	.1023	11.24	5.012	.1901	11.90	35.14	1.003
#1	.1094	.0056	.0024	2.788	-.0024	.0039	.1517
#2	.1095	.0066	.0023	2.795	-.0028	.0023	.1538

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83151.**	**6216.4**	**3222.6**	**7679.6**
Stddev	11.	5.2	2.2	13.8
%RSD	.01364	.08414	.06864	.17994
#1	83159.	6212.7	3224.2	7689.4
#2	83143.	6220.1	3221.1	7669.9

Zoom In
Zoom Out

Sample Name: jc66460-6r Acquired: 6/1/2018 22:55:07 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0116**	**.0001**	**.0001**	**.0007**	**.0168**	**.0013**	**.0149**	**.0019**	**.0001**
Stddev	.0001	.0000	.0000	.0000	.0001	.0001	.0000	.0005	.0002
%RSD	.8163	6.218	4.721	4.530	.4817	10.05	.2477	23.31	112.2
#1	.0117	.0001	.0001	.0007	.0168	.0012	.0149	.0016	.0000
#2	.0116	.0001	.0001	.0007	.0169	.0014	.0149	.0023	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0399**	**.0087**	**.0025**	**.0019**	**.0013**	**.0009**	**-.0005**	**3.963**	**1.665**
Stddev	.0004	.0000	.0003	.0009	.0004	.0005	.0002	.024	.009
%RSD	.9813	.3826	13.33	48.77	32.26	56.01	47.25	.5930	.5284
#1	.0402	.0087	.0023	.0013	.0016	.0012	-.0003	3.947	1.659
#2	.0396	.0086	.0027	.0026	.0010	.0005	-.0007	3.980	1.671

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**9.947**	**.9725**	**3.140**	**23.43**	**.1780**	**-.0015**	**13.63**	**-.0003**	**.0039**
Stddev	.094	.0321	.022	.18	.0004	.0002	.02	.0003	.0000
%RSD	.9469	3.303	.7149	.7800	.2181	10.99	.1562	102.2	.7901
#1	9.881	.9498	3.124	23.30	.1777	-.0014	13.64	-.0005	.0038
#2	10.01	.9952	3.155	23.56	.1783	-.0016	13.61	-.0001	.0039

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0343**	**.0107**	**.0018**	**3.159**	**-.0030**	**.0066**	**.0531**
Stddev	.0003	.0001	.0002	.004	.0009	.0010	.0001
%RSD	.7524	1.351	11.89	.1394	28.33	15.47	.1528
#1	.0341	.0106	.0017	3.162	-.0036	.0073	.0530
#2	.0345	.0108	.0020	3.156	-.0024	.0058	.0531

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83120.**	**6137.1**	**3220.6**	**7661.5**
Stddev	80.	51.7	2.6	4.4
%RSD	.09631	.84264	.08131	.05764
#1	83177.	6173.6	3218.8	7658.4
#2	83064.	6100.5	3222.5	7664.6

Zoom In
Zoom Out

Sample Name: jc66460-7r Acquired: 6/1/2018 22:59:24 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.0069**	**-.0001**	**.0001**	**.0012**	**.0030**	**.0029**	**.0165**	**.0011**	**.0001**
Stddev	.0002	.0001	.0001	.0000	.0001	.0001	.0000	.0001	.0002
%RSD	3.117	59.60	55.12	.9695	2.157	3.201	.1918	9.891	154.7
#1	.0070	-.0001	.0002	.0012	.0030	.0029	.0165	.0010	-.0000
#2	.0067	-.0002	.0001	.0012	.0031	.0030	.0165	.0012	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0040**	**.0035**	**.0009**	**-.0008**	**.0005**	**.0015**	**.0001**	**3.393**	**1.030**
Stddev	.0002	.0000	.0000	.0007	.0016	.0019	.0006	.013	.002
%RSD	4.969	.5525	.0431	90.11	306.3	124.8	432.0	.3878	.1523
#1	.0038	.0035	.0009	-.0012	.0017	.0029	.0006	3.383	1.029
#2	.0041	.0035	.0009	-.0003	-.0006	.0002	-.0003	3.402	1.031

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.599**	**.4114**	**.9738**	**27.02**	**.0738**	**-.0004**	**4.036**	**.0002**	**.0021**
Stddev	.002	.0068	.0250	.01	.0002	.0000	.015	.0006	.0000
%RSD	.0443	1.649	2.572	.0271	.3130	2.382	.3614	342.5	1.661
#1	3.598	.4066	.9561	27.01	.0739	-.0003	4.026	-.0002	.0021
#2	3.600	.4161	.9916	27.02	.0736	-.0004	4.047	.0006	.0021

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0555**	**.0021**	**.0042**	**.7682**	**-.0019**	**.0022**	**.0560**
Stddev	.0007	.0004	.0000	.0036	.0006	.0008	.0001
%RSD	1.268	17.75	1.050	.4714	33.55	37.31	.1091
#1	.0550	.0018	.0042	.7657	-.0014	.0028	.0559
#2	.0560	.0024	.0042	.7708	-.0023	.0016	.0560

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**82415.**	**6129.0**	**3200.1**	**7651.5**
Stddev	138.	2.9	3.0	3.4
%RSD	.16709	.04668	.09398	.04411
#1	82513.	6127.0	3202.3	7649.1
#2	82318.	6131.0	3198.0	7653.9

Zoom In
Zoom Out

Sample Name: mp7398-b2conf Acquired: 6/1/2018 23:03:42 Type: Unk
Method: Accutest 2(v432) 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
Avg	**1.934**	**1.873**	**1.949**	**1.920**	**1.936**	**1.821**	**1.952**	**1.969**	**.2420**
Stddev	.002	.001	.001	.002	.012	.004	.005	.003	.0017
%RSD	.1190	.0517	.0328	.1139	.6058	.2147	.2585	.1288	.7025
#1	1.936	1.872	1.949	1.922	1.944	1.819	1.955	1.970	.2408
#2	1.933	1.874	1.950	1.919	1.928	1.824	1.948	1.967	.2432

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.900**	**2.006**	**1.946**	**1.943**	**1.962**	**1.949**	**1.930**	**24.15**	**23.96**
Stddev	.006	.008	.002	.007	.007	.004	.000	.02	.01
%RSD	.3161	.4126	.1085	.3530	.3567	.2235	.0164	.0886	.0582
#1	1.904	2.012	1.945	1.948	1.957	1.946	1.930	24.17	23.97
#2	1.896	2.000	1.948	1.938	1.967	1.952	1.931	24.14	23.95

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.97**	**23.40**	**26.83**	**1329.**	**1.919**	**1.979**	**.2564**	**1.974**	**1.894**
Stddev	.01	.16	.01	13.	.001	.003	.0079	.003	.001
%RSD	.0565	.6656	.0537	.9489	.0304	.1370	3.079	.1524	.0579
#1	23.96	23.29	26.84	1320.	1.919	1.981	.2620	1.976	1.895
#2	23.98	23.51	26.82	1338.	1.919	1.977	.2508	1.972	1.894

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.950**	**1.850**	**1.891**	**-.0532**	**-.0031**	**.0160**	**1.959**
Stddev	.007	.002	.002	.0181	.0007	.0001	.007
%RSD	.3578	.1046	.0938	34.04	23.48	.6863	.3540
#1	1.955	1.849	1.890	-.0660	-.0036	.0159	1.964
#2	1.945	1.852	1.892	-.0404	-.0026	.0160	1.954

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**78591.**	**6128.0**	**3100.4**	**6993.7**
Stddev	51.	14.5	.7	3.1
%RSD	.06464	.23698	.02111	.04417
#1	78555.	6138.3	3099.9	6991.5
#2	78627.	6117.8	3100.8	6995.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/1/2018 23:07:57 Type: QC
Method: Accutest 2(v432) 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	**2.025**	**1.956**	**1.986**	**1.965**	**1.978**	**1.955**	**2.015**	**1.995**	**.2422**
Stddev	.011	.013	.000	.002	.003	.000	.001	.003	.0001
%RSD	.5405	.6698	.0094	.1180	.1387	.0191	.0681	.1298	.0565
#1	2.018	1.947	1.986	1.966	1.976	1.955	2.016	1.997	.2423
#2	2.033	1.965	1.986	1.963	1.980	1.955	2.014	1.993	.2421
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	**1.940**	**1.993**	**1.977**	**2.033**	**2.002**	**1.971**	**2.001**	**39.16**	**38.46**
Stddev	.002	.000	.003	.004	.002	.000	.000	.14	.14
%RSD	.0896	.0219	.1555	.2101	.0996	.0136	.0209	.3597	.3525
#1	1.938	1.993	1.974	2.036	2.003	1.971	2.001	39.06	38.36
#2	1.941	1.993	1.979	2.030	2.001	1.971	2.000	39.26	38.56
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	**38.49**	**38.21**	**42.67**	**41.53**	**1.997**	**2.026**	**5.030**	**2.040**	**2.010**
Stddev	.23	.16	.29	.22	.004	.003	.004	.001	.012
%RSD	.5934	.4310	.6736	.5248	.1850	.1226	.0849	.0586	.6170
#1	38.33	38.10	42.47	41.37	1.999	2.027	5.027	2.041	2.001
#2	38.66	38.33	42.87	41.68	1.994	2.024	5.033	2.039	2.018
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: 6/1/2018 23:07:57 Type: QC
Method: Accutest 2(v432) 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	**2.006**	**1.992**	**2.006**	**1.953**	**2.028**	**2.076**	**1.969**
Stddev	.001	.001	.002	.001	.002	.011	.004
%RSD	.0272	.0710	.1004	.0732	.0983	.5355	.2260
#1	2.005	1.993	2.007	1.952	2.030	2.068	1.972
#2	2.006	1.991	2.004	1.954	2.027	2.084	1.966
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	**80331.**	**6070.2**	**3153.9**	**7212.2**
Stddev	79.	19.5	.5	4.5
%RSD	.09855	.32180	.01600	.06277
#1	80275.	6084.1	3154.3	7209.0
#2	80387.	6056.4	3153.6	7215.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/1/2018 23:12:01 Type: QC
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0002**	**.0003**	**.0000**	**.0004**	**.0001**	**-.0003**	**-.0001**
Stddev	.0004	.0000	.0000	.0001	.0001	.0000	.0001	.0001	.0005
%RSD	315.7	21.15	2.584	33.98	412.4	2.922	127.7	20.10	771.4
#1	-.0004	.0001	.0002	.0003	-.0001	.0004	.0000	-.0003	.0003
#2	.0002	.0001	.0002	.0002	.0001	.0004	.0001	-.0004	-.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	**-.0001**	**.0008**	**.0006**	**-.0001**	**.0003**	**-.0000**	**-.0007**	**.0043**	**.0008**
Stddev	.0000	.0001	.0012	.0005	.0012	.0015	.0016	.0041	.0002
%RSD	10.75	8.967	209.8	779.7	370.6	8402.	231.6	95.73	21.93
#1	-.0001	.0008	-.0003	.0003	-.0005	.0011	-.0018	.0072	.0009
#2	-.0001	.0009	.0014	-.0005	.0012	-.0011	.0004	.0014	.0007
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	**.0002**	**-.0271**	**-.0012**	**.0267**	**-.0002**	**-.0000**	**.0016**	**.0002**	**.0001**
Stddev	.0006	.0131	.0079	.0055	.0001	.0000	.0006	.0004	.0001
%RSD	294.7	48.16	668.2	20.50	45.36	32.71	37.10	151.4	48.58
#1	.0006	-.0364	.0044	.0228	-.0001	-.0000	.0012	-.0000	.0002
#2	-.0002	-.0179	-.0067	.0306	-.0003	-.0000	.0020	.0005	.0001
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: 6/1/2018 23:12:01 Type: QC
Method: Accutest 2(v432) 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	**.0003**	**-.0010**	**.0004**	**.0021**	**-.0007**	**-.0003**	**.0010**
Stddev	.0003	.0002	.0001	.0006	.0012	.0010	.0011
%RSD	128.4	20.50	25.88	28.91	169.1	290.2	109.0
#1	.0000	-.0009	.0005	.0017	.0001	.0003	.0002
#2	.0005	-.0012	.0003	.0026	-.0015	-.0010	.0017
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	**83740.**	**6177.3**	**3250.4**	**7984.2**
Stddev	101.	17.3	11.2	7.8
%RSD	.12065	.27964	.34491	.09777
#1	83669.	6189.5	3242.5	7978.7
#2	83812.	6165.1	3258.3	7989.8

Zoom In Zoom Out

Sample Name: mp7398-mb2conf Acquired: 6/1/2018 23:16:23 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: TCLP

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0072**	**-.0009**	**.0004**	**.0014**	**-.0000**	**.0152**	**.0037**	**.0026**
Stddev	.0004	.0004	.0025	.0004	.0034	.0002	.0003	.0000
%RSD	5.361	44.89	652.8	30.72	11310.	1.452	7.167	.5672
#1	.0075	-.0012	-.0014	.0017	-.0025	.0151	.0035	.0025
#2	.0069	-.0006	.0022	.0011	.0024	.0154	.0039	.0026

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0019**	**-.0006**	**.0116**	**.0001**	**-.0056**	**.0067**	**-.0032**	**-.0070**
Stddev	.0023	.0003	.0003	.0023	.0038	.0048	.0043	.0035
%RSD	118.7	49.67	2.266	1656.	67.79	72.19	134.0	50.07
#1	.0003	-.0004	.0117	.0018	-.0029	.0100	-.0063	-.0094
#2	.0035	-.0008	.0114	-.0015	-.0083	.0033	-.0002	-.0045

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.1077**	**.2601**	**.0391**	**-.1078**	**.5841**	W **1356.**	**.0075**	**-.0065**
Stddev	.0555	.0279	.0217	.0099	.1699	10.	.0004	.0007
%RSD	51.51	10.72	55.48	9.208	29.09	.7521	5.315	10.50
#1	.1469	.2404	.0238	-.1148	.4639	1363.	.0072	-.0060
#2	.0685	.2798	.0545	-.1008	.7042	1348.	.0078	-.0070

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.1710**	**.0022**	**.0019**	**.0014**	**-.0038**	**-.0004**	**.0582**	**-.0043**
Stddev	.0012	.0006	.0004	.0046	.0021	.0003	.0032	.0014
%RSD	.7249	27.53	19.99	324.0	55.64	77.01	5.551	32.33
#1	.1718	.0027	.0016	-.0018	-.0023	-.0002	.0605	-.0053
#2	.1701	.0018	.0022	.0046	-.0054	-.0006	.0559	-.0033

Elem	Li6707	P_1774
Avg	**.0121**	**.0287**
Stddev	.0013	.0070
%RSD	10.84	24.50
#1	.0130	.0237
#2	.0111	.0337

Zoom In Zoom Out

Sample Name: mp7398-mb2conf Acquired: 6/1/2018 23:16:23 Type: Unk
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: TCLP

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**78278.**	**6040.2**	**3057.9**	**6999.4**
Stddev	67.	10.1	5.0	6.1
%RSD	.08534	.16691	.16300	.08783
#1	78325.	6047.3	3061.4	7003.7
#2	78231.	6033.1	3054.3	6995.0

Zoom In Zoom Out

Sample Name: jc66708-7conf Acquired: 6/1/2018 23:20:49 Type: Unk
Method: Accutest 2(v432) 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
Avg	**.4995**	**.0002**	**.0018**	**.0824**	**.0004**	**.0057**	**1.788**	**.0489**	**.0025**
Stddev	.0002	.0008	.0001	.0030	.0014	.0016	.001	.0008	.0010
%RSD	.0417	508.1	5.349	3.629	314.3	27.63	.0442	1.565	39.03
#1	.4996	-.0004	.0017	.0845	.0014	.0046	1.788	.0495	.0032
#2	.4993	.0007	.0019	.0803	-.0005	.0068	1.789	.0484	.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0043**	**.0507**	**.0036**	**-.0075**	**.0073**	**.0059**	**-.0028**	**.2264**	**39.35**
Stddev	.0012	.0008	.0014	.0068	.0010	.0036	.0022	.0815	.03
%RSD	27.68	1.536	39.69	90.18	13.25	60.53	76.35	35.98	.0829
#1	.0035	.0513	.0047	-.0124	.0079	.0034	-.0044	.1688	39.37
#2	.0052	.0502	.0026	-.0027	.0066	.0085	-.0013	.2840	39.33

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1388**	**3.773**	**19.24**	**1306.**	**.2434**	**-.0056**	**1.531**	**-.0003**	**.1826**
Stddev	.0018	.196	.08	8.	.0044	.0002	.032	.0003	.0007
%RSD	1.325	5.183	.4001	.6382	1.823	4.379	2.063	89.93	.3766
#1	.1375	3.635	19.30	1312.	.2465	-.0058	1.553	-.0005	.1831
#2	.1401	3.912	19.19	1301.	.2402	-.0054	1.508	-.0001	.1821

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**-.0049**	**.0003**	**9.881**	**-.0027**	**.0311**	**.0319**
Stddev	.0003	.0008	.0004	.171	.0005	.0010	.0014
%RSD	531.1	16.64	148.3	1.734	17.11	3.216	4.513
#1	-.0002	-.0055	.0006	10.00	-.0030	.0304	.0329
#2	.0003	-.0043	-.0000	9.760	-.0024	.0318	.0309

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**78062.**	**6014.7**	**3088.5**	**7042.4**
Stddev	162.	25.7	37.1	83.1
%RSD	.20763	.42657	1.2017	1.1802
#1	78177.	5996.5	3062.3	6983.6
#2	77947.	6032.8	3114.8	7101.2

Zoom In Zoom Out

Sample Name: jc66920-1aconf Acquired: 6/1/2018 23:25:12 Type: Unk
Method: Accutest 2(v432) 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
Avg	**3.324**	**-.0009**	**1.754**	**.0102**	**.0293**	**3.935**	**1.234**	**1.110**	**.0038**
Stddev	.053	.0002	.008	.0000	.0010	.005	.002	.001	.0021
%RSD	1.583	20.76	.4421	.2322	3.369	.1189	.1338	.0727	54.63
#1	3.361	-.0010	1.760	.0102	.0300	3.932	1.235	1.110	.0023
#2	3.286	-.0008	1.749	.0102	.0286	3.939	1.233	1.111	.0053

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0426**	**2.521**	**.0335**	**.0012**	**.0003**	**.0090**	**-.0028**	**-.0049**	**450.2**
Stddev	.0006	.002	.0000	.0077	.0018	.0041	.0092	.0015	8.2
%RSD	1.501	.0789	.0044	618.9	516.2	45.16	331.8	31.49	1.815
#1	.0430	2.520	.0335	.0067	.0016	.0119	.0037	-.0038	456.0
#2	.0421	2.523	.0335	-.0042	-.0009	.0061	-.0092	-.0060	444.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0451**	**7.582**	**113.6**	F **1533.**	**2.669**	**.0538**	**60.17**	**-.0103**	**1.773**
Stddev	.0276	.124	1.6	32.	.005	.0008	.12	.0004	.030
%RSD	61.26	1.629	1.410	2.070	.1912	1.435	.2044	4.274	1.696
#1	.0647	7.495	114.8	1555.	2.672	.0533	60.08	-.0100	1.794
#2	.0256	7.669	112.5	1510.	2.665	.0544	60.26	-.0106	1.751

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0010**	**.0686**	**-.0022**	**42.26**	**-.0049**	**.1042**	**4.361**
Stddev	.0020	.0019	.0006	.02	.0086	.0023	.017
%RSD	192.6	2.784	26.86	.0396	177.2	2.161	.3956
#1	-.0024	.0673	-.0027	42.25	.0012	.1026	4.373
#2	.0004	.0700	-.0018	42.28	-.0109	.1057	4.349

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**76965.**	**6040.7**	**3008.7**	**6760.7**
Stddev	372.	93.6	2.0	2.6
%RSD	.48357	1.5501	.06510	.03867
#1	76701.	5974.4	3007.3	6758.8
#2	77228.	6106.9	3010.0	6762.5

Zoom In Zoom Out

Sample Name: jc66921-1aconf Acquired: 6/1/2018 23:29:30 Type: Unk
Method: Accutest 2(v432) 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
Avg	.5528	-.0006	.0010	.0085	.0055	.0490	4.647	.0576	.0035
Stddev	.0011	.0003	.0002	.0003	.0011	.0035	.007	.0008	.0048
%RSD	.2010	51.23	21.52	3.453	20.01	7.129	.1430	1.444	136.7
#1	.5520	-.0008	.0009	.0087	.0047	.0515	4.652	.0582	.0070
#2	.5536	-.0004	.0012	.0082	.0063	.0465	4.643	.0570	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0103	.0579	.0033	-.0090	.0169	-.0034	-.0086	.1756	332.5
Stddev	.0010	.0008	.0117	.0031	.0120	.0042	.0004	.0634	.1
%RSD	9.847	1.343	352.6	34.40	70.90	122.4	4.512	36.11	.0343
#1	.0110	.0584	-.0049	-.0068	.0084	-.0005	-.0089	.1308	332.6
#2	.0096	.0573	.0115	-.0112	.0253	-.0064	-.0084	.2205	332.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0034	14.02	5.431	1282.	.2294	-.0058	23.99	-.0050	.7538
Stddev	.0003	.01	.034	4.	.0011	.0004	.04	.0003	.0010
%RSD	8.122	.0384	.6242	.3182	.4952	7.281	.1736	6.575	.1337
#1	.0032	14.03	5.407	1285.	.2302	-.0061	24.02	-.0053	.7531
#2	.0036	14.02	5.455	1279.	.2286	-.0055	23.96	-.0048	.7545

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-.0028	.0168	-.0010	5.810	-.0015	.0277	.0367
Stddev	.0013	.0075	.0003	.008	.0007	.0016	.0024
%RSD	45.62	44.92	28.76	.1340	45.78	5.605	6.464
#1	-.0019	.0115	-.0008	5.815	-.0010	.0266	.0383
#2	-.0037	.0221	-.0012	5.804	-.0020	.0288	.0350

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	77656.	6000.4	3034.2	6861.3
Stddev	275.	20.3	5.7	9.4
%RSD	.35443	.33847	.18947	.13658
#1	77461.	6014.8	3038.3	6868.0
#2	77850.	5986.0	3030.2	6854.7

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 23:33:55 Type: QC
Method: Accutest 2(v432) 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	2.042	1.967	1.985	1.958	1.961	1.951	2.002	1.983	.2416
Stddev	.003	.002	.002	.004	.005	.001	.003	.004	.0000
%RSD	.1400	.0758	.0842	.2188	.2548	.0725	.1558	.1848	.0106
#1	2.040	1.966	1.986	1.961	1.965	1.952	2.005	1.986	.2416
#2	2.044	1.968	1.984	1.955	1.958	1.950	2.000	1.981	.2416
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	1.927	1.975	1.979	2.022	1.984	1.971	2.008	39.43	38.63
Stddev	.002	.001	.002	.003	.000	.003	.004	.01	.02
%RSD	.0774	.0730	.0808	.1674	.0210	.1467	.2098	.0329	.0453
#1	1.926	1.976	1.980	2.024	1.984	1.973	2.011	39.42	38.65
#2	1.929	1.974	1.978	2.020	1.984	1.969	2.005	39.43	38.62
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	38.48	38.41	43.33	41.50	2.001	2.022	5.049	2.031	2.026
Stddev	.02	.01	.01	.04	.003	.003	.004	.007	.000
%RSD	.0399	.0144	.0134	.0904	.1410	.1349	.0701	.3260	.0100
#1	38.50	38.41	43.33	41.48	2.003	2.024	5.051	2.036	2.026
#2	38.47	38.42	43.34	41.53	1.999	2.020	5.046	2.027	2.026
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: 6/1/2018 23:33:55 Type: QC
Method: Accutest 2(v432) 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	1.995	1.986	1.993	1.945	2.033	2.102	1.961
Stddev	.003	.001	.001	.004	.000	.005	.002
%RSD	.1631	.0641	.0250	.2273	.0140	.2228	.0926
#1	1.997	1.987	1.994	1.948	2.032	2.099	1.963
#2	1.992	1.986	1.993	1.942	2.033	2.105	1.960
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	80486.	6019.1	3140.4	7202.4
Stddev	5.	4.4	3.1	9.1
%RSD	.00599	.07332	.09986	.12698
#1	80483.	6016.0	3138.1	7195.9
#2	80489.	6022.3	3142.6	7208.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/1/2018 23:37:59 Type: QC
Method: Accutest 2(v432) 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	-.0000	.0002	.0001	.0004	-.0000	-.0004	.0003
Stddev	.0004	.0001	.0001	.0000	.0004	.0004	.0001	.0003	.0002
%RSD	211.3	34.40	2750.	10.43	414.4	96.53	229.3	91.12	50.35
#1	-.0004	-.0001	-.0001	.0002	-.0002	.0007	-.0001	-.0006	.0002
#2	.0001	-.0002	.0001	.0002	.0003	.0001	.0000	-.0001	.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	-.0001	.0002	-.0002	-.0008	.0008	.0001	-.0002	.0096	-.0010
Stddev	.0001	.0001	.0007	.0013	.0001	.0005	.0013	.0021	.0026
%RSD	107.3	66.51	337.1	151.9	7.280	349.5	772.5	21.89	248.0
#1	-.0000	.0001	.0003	.0001	.0008	.0005	-.0011	.0081	-.0029
#2	-.0001	.0002	-.0007	-.0017	.0008	-.0002	.0008	.0111	.0008
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	-.0128	.0630	.0626	-.0002	-.0003	.0077	.0004	.0000
Stddev	.0018	.0087	.0015	.0085	.0002	.0001	.0009	.0000	.0000
%RSD	166.5	68.23	2.436	13.63	89.96	39.03	11.27	.1106	882.2
#1	-.0023	-.0189	.0619	.0686	-.0003	-.0002	.0083	.0004	.0000
#2	.0002	-.0066	.0640	.0565	-.0001	-.0004	.0070	.0004	-.0000
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: 6/1/2018 23:37:59 Type: QC
Method: Accutest 2(v432) 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**	**-.0008**	**.0001**	**.0030**	**-.0018**	**.0004**	**.0004**
Stddev	.0001	.0007	.0000	.0019	.0016	.0008	.0002
%RSD	53.56	87.23	15.07	65.71	88.83	189.1	57.46
#1	-.0002	-.0003	.0001	.0043	-.0029	-.0001	.0006
#2	-.0001	-.0013	.0001	.0016	-.0007	.0010	.0002
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	**83857.**	**6072.5**	**3233.2**	**7964.1**
Stddev	73.	33.9	4.2	20.3
%RSD	.08707	.55876	.13003	.25543
#1	83909.	6048.6	3230.3	7949.7
#2	83806.	6096.5	3236.2	7978.5

Zoom In Zoom Out

Sample Name: CRI Acquired: 6/1/2018 23:42:21 Type: QC
Method: Accutest 2(v432) 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	**.2087**	**.0019**	**.0034**	**.0486**	**.0098**	**.0098**	**.0154**	**.0093**	**.0056**
Stddev	.0008	.0000	.0000	.0002	.0003	.0000	.0000	.0001	.0004
%RSD	.4049	.6105	1.099	.3729	3.005	.4183	.0159	1.210	6.977
#1	.2081	.0019	.0034	.0485	.0100	.0097	.0154	.0092	.0053
#2	.2093	.0019	.0034	.0487	.0096	.0098	.0154	.0094	.0058
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	**.0490**	**.0204**	**.0079**	**.0096**	**.0023**	**.0110**	**.0052**	**.2197**	**5.105**
Stddev	.0003	.0001	.0007	.0002	.0009	.0006	.0000	.0014	.019
%RSD	.6956	.5204	9.482	2.295	38.01	5.760	.8749	.6365	.3759
#1	.0492	.0203	.0073	.0095	.0017	.0106	.0052	.2187	5.091
#2	.0488	.0204	.0084	.0098	.0029	.0115	.0053	.2207	5.119
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	**.0992**	**4.980**	**5.612**	**5.417**	**.1016**	**.0202**	**.2093**	**.0110**	**.0103**
Stddev	.0003	.020	.025	.024	.0012	.0000	.0002	.0006	.0000
%RSD	.3423	.4002	.4518	.4403	1.230	.1235	.0987	5.223	.2550
#1	.0990	4.966	5.594	5.400	.1025	.0202	.2091	.0106	.0103
#2	.0995	4.994	5.630	5.434	.1007	.0201	.2094	.0114	.0103
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: CRI Acquired: 6/1/2018 23:42:21 Type: QC
Method: Accutest 2(v432) 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	**.0100**	**.0506**	F **.0142**	**.0484**	**.0219**	**.0544**	**.0497**
Stddev	.0001	.0001	.0006	.0009	.0008	.0002	.0000
%RSD	.9577	.2834	4.312	1.829	3.500	.3291	.0615
#1	.0099	.0507	.0146	.0490	.0224	.0542	.0497
#2	.0100	.0505	.0138	.0478	.0213	.0545	.0497
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0100				
Range			30.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**82763.**	**5977.6**	**3197.9**	**7789.9**
Stddev	69.	36.4	1.7	1.6
%RSD	.08330	.60903	.05472	.02080
#1	82811.	6003.3	3199.1	7788.7
#2	82714.	5951.8	3196.6	7791.0

Zoom In Zoom Out

Sample Name: CRID Acquired: 6/1/2018 23:46:41 Type: QC
Method: Accutest 2(v432) 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	**.0037**	**.0009**	**.0011**	**.0031**	**.0020**	F **.0003**	**.0030**	**.0035**
Stddev	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002
%RSD	1.588	7.675	11.48	3.724	6.263	18.92	2.646	5.854
#1	.0037	.0008	.0010	.0031	.0020	.0003	.0030	.0037
#2	.0036	.0009	.0012	.0030	.0019	.0002	.0031	.0034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0001**	**.0017**	**.0105**	**.0032**	**.0020**	F **-.0004**	**.0050**	F **-.0014**
Stddev	.0005	.0003	.0001	.0002	.0002	.0009	.0019	.0012
%RSD	475.9	19.77	.6564	5.183	8.767	242.8	38.70	81.44
#1	.0002	.0020	.0106	.0031	.0021	-.0010	.0063	-.0006
#2	-.0004	.0015	.0105	.0033	.0019	.0003	.0036	-.0023
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.1681**	**1.053**	**.0160**	F **.1425**	**2.237**	**1.118**	F **-.0012**	**-.0015**
Stddev	.0055	.001	.0004	.0286	.006	.001	.0002	.0002
%RSD	3.254	.0950	2.449	20.05	.2568	.1021	12.84	10.70
#1	.1643	1.054	.0163	.1627	2.233	1.119	-.0011	-.0016
#2	.1720	1.053	.0157	.1223	2.241	1.117	-.0013	-.0014
Check ?	Chk Fail	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None
Value	.1000			.1000			.0100	
Range	30.00%			30.00%			-30.00%	

Zoom In Zoom Out

Sample Name: CRID Acquired: 6/1/2018 23:46:41 Type: QC
Method: Accutest 2(v432) 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	**-.0008**	**.0006**	**-.0000**	**-.0002**	F **-.0020**	F **-.0001**	F **.0024**	F **.0002**
Stddev	.0003	.0002	.0000	.0003	.0000	.0000	.0017	.0015
%RSD	35.70	39.97	934.5	145.3	2.117	4.107	72.40	840.7
#1	-.0006	.0004	-.0000	-.0004	-.0020	-.0001	.0036	-.0009
#2	-.0009	.0007	.0000	.0000	-.0020	-.0001	.0012	.0013
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0012**	F **.0010**
Stddev	.0001	.0005
%RSD	7.535	50.59
#1	.0012	.0006
#2	.0013	.0013
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**83728.**	**6047.9**	**3225.2**	**7910.5**
Stddev	195.	5.9	3.7	10.4
%RSD	.23342	.09814	.11587	.13093
#1	83590.	6052.1	3222.5	7903.2
#2	83866.	6043.7	3227.8	7917.8

Zoom In Zoom Out

Sample Name: ICSA Acquired: 6/1/2018 23:51:01 Type: QC
Method: Accutest 2(v432) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0002**	**-.0000**	**.0009**	**-.0009**	**.0001**	**-.0001**	**.0018**	**-.0027**
Stddev	.0001	.0001	.0002	.0001	.0002	.0005	.0002	.0006	.0009
%RSD	138.0	36.26	946.8	5.515	18.35	692.3	160.0	34.14	34.15
#1	-.0000	.0002	.0001	.0010	-.0010	.0004	.0000	.0023	-.0020
#2	-.0001	.0001	-.0002	.0009	-.0008	-.0003	-.0002	.0014	-.0033
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	**-.0004**	**.0051**	**.0045**	**-.0029**	**.0020**	**-.0027**	**-.0040**	**541.8**	**376.0**
Stddev	.0000	.0004	.0015	.0029	.0010	.0001	.0007	2.2	.1
%RSD	10.79	8.734	33.59	99.70	51.95	3.855	18.61	.4095	.0376
#1	-.0004	.0048	.0034	-.0049	.0027	-.0026	-.0035	540.2	375.9
#2	-.0004	.0054	.0056	-.0009	.0012	-.0028	-.0045	543.3	376.1
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	**180.3**	**491.7**	**-.4291**	**.1388**	**-.0027**	**-.0022**	**-.0119**	**-.0014**	**.0053**
Stddev	1.8	4.5	.0147	.0028	.0013	.0002	.0003	.0011	.0002
%RSD	1.016	.9182	3.431	2.032	47.44	7.772	2.636	76.61	3.831
#1	181.6	494.9	-.4395	.1408	-.0036	-.0023	-.0117	-.0006	.0055
#2	179.0	488.5	-.4187	.1368	-.0018	-.0021	-.0122	-.0022	.0052
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: ICSA Acquired: 6/1/2018 23:51:01 Type: QC
Method: Accutest 2(v432) 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**	**.0091**	**-.0002**	**.0013**	**-.0095**	**.0060**	**-.0027**
Stddev	.0002	.0023	.0002	.0006	.0017	.0005	.0015
%RSD	29.89	25.41	82.83	44.68	18.23	8.491	53.56
#1	-.0008	.0107	-.0001	.0017	-.0082	.0056	-.0037
#2	-.0005	.0074	-.0003	.0009	-.0107	.0064	-.0017
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	**73172.**	**5823.0**	**2879.5**	**6254.8**
Stddev	150.	50.7	4.0	12.3
%RSD	.20497	.87054	.14030	.19703
#1	73278.	5787.2	2882.4	6263.5
#2	73066.	5858.9	2876.7	6246.1

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 6/1/2018 23:55:27 Type: QC
Method: Accutest 2(v432) 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**	**.4946**	**1.030**	**.4899**	**.4780**	**.5105**	**.4990**	**.9847**	**1.042**
Stddev	.0006	.0001	.001	.0003	.0011	.0002	.0007	.0012	.001
%RSD	.1140	.0214	.0562	.0515	.2208	.0311	.1500	.1227	.0665
#1	.5305	.4947	1.029	.4901	.4788	.5104	.4996	.9855	1.043
#2	.5314	.4946	1.030	.4897	.4773	.5107	.4985	.9838	1.042
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	**.4818**	**.9474**	**1.049**	**1.059**	**.9787**	**1.113**	**1.069**	**536.9**	**387.4**
Stddev	.0004	.0007	.004	.003	.0067	.004	.003	11.9	7.5
%RSD	.0850	.0754	.3678	.2887	.6857	.3195	.2308	2.207	1.932
#1	.4816	.9469	1.052	1.061	.9740	1.116	1.071	528.5	382.1
#2	.4821	.9479	1.046	1.057	.9835	1.111	1.067	545.3	392.7
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	**194.1**	**496.5**	**-.4487**	**.1302**	**.4880**	**.4915**	**.5110**	**.4676**	**.5600**
Stddev	.1	.9	.0102	.0124	.0013	.0001	.0011	.0012	.0002
%RSD	.0428	.1867	2.277	9.556	.2662	.0224	.2157	.2561	.0325
#1	194.1	497.1	-.4559	.1390	.4889	.4915	.5118	.4684	.5599
#2	194.0	495.8	-.4415	.1214	.4871	.4916	.5103	.4667	.5601
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 6/1/2018 23:55:27 Type: QC
Method: Accutest 2(v432) 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	**.5073**	**.4896**	**.4773**	**.4984**	**.5136**	**.5770**	**.4929**
Stddev	.0007	.0009	.0009	.0015	.0002	.0035	.0006
%RSD	.1475	.1862	.1925	.2988	.0314	.6122	.1129
#1	.5078	.4902	.4766	.4995	.5135	.5795	.4933
#2	.5068	.4889	.4779	.4974	.5137	.5745	.4925
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	**73199.**	**5756.3**	**2876.3**	**6275.9**
Stddev	18.	31.3	1.6	6.0
%RSD	.02489	.54441	.05662	.09566
#1	73212.	5778.4	2875.2	6271.7
#2	73186.	5734.1	2877.5	6280.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 23:59:42 Type: QC
Method: Accutest 2(v432) 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	**2.072**	**1.988**	**2.008**	**1.982**	**1.981**	**1.973**	**2.024**	**2.010**	**.2442**
Stddev	.017	.017	.003	.002	.008	.004	.001	.000	.0003
%RSD	.8261	.8438	.1553	.0870	.3853	.1910	.0507	.0122	.1333
#1	2.084	2.000	2.005	1.983	1.976	1.971	2.024	2.010	.2439
#2	2.060	1.977	2.010	1.981	1.987	1.976	2.025	2.010	.2444
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**	**1.999**	**2.001**	**2.045**	**2.017**	**1.992**	**2.029**	**39.84**	**38.97**
Stddev	.005	.000	.003	.007	.003	.001	.000	.32	.33
%RSD	.2687	.0194	.1349	.3549	.1256	.0465	.0074	.8025	.8498
#1	1.943	1.999	1.999	2.040	2.015	1.992	2.030	40.06	39.21
#2	1.951	1.998	2.003	2.050	2.019	1.991	2.029	39.61	38.74
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	**38.87**	**38.79**	F **44.03**	**42.21**	**2.021**	**2.044**	**5.099**	**2.052**	**2.054**
Stddev	.33	.18	.28	.33	.003	.001	.002	.000	.016
%RSD	.8455	.4628	.6256	.7774	.1264	.0347	.0393	.0003	.7992
#1	39.11	38.91	44.23	42.44	2.022	2.045	5.101	2.052	2.066
#2	38.64	38.66	43.84	41.98	2.019	2.044	5.098	2.052	2.043
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			40.00						
Range			10.00%						

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/1/2018 23:59:42 Type: QC
Method: Accutest 2(v432) 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**	**2.009**	**2.018**	**1.969**	**2.052**	**2.133**	**1.982**
Stddev	.002	.002	.001	.001	.000	.017	.002
%RSD	.0898	.0843	.0583	.0348	.0103	.7959	.0881
#1	2.015	2.010	2.017	1.970	2.052	2.145	1.983
#2	2.018	2.008	2.019	1.969	2.053	2.121	1.981
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	**80110.**	**5977.0**	**3123.9**	**7149.9**
Stddev	44.	55.3	7.8	19.5
%RSD	.05496	.92457	.24848	.27342
#1	80079.	5937.9	3129.3	7163.7
#2	80141.	6016.0	3118.4	7136.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/2/2018 0:03:46 Type: QC
Method: Accutest 2(v432) 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**	**.0003**	**.0001**	**.0001**	**.0002**	**-.0002**	**-.0001**	**.0003**
Stddev	.0004	.0000	.0000	.0002	.0007	.0001	.0000	.0002	.0001
%RSD	284.5	5.676	7.793	328.3	1029.	60.32	16.46	181.2	32.45
#1	.0002	-.0001	.0003	-.0001	.0006	.0001	-.0001	.0000	.0002
#2	-.0005	-.0001	.0002	.0002	-.0004	.0003	-.0002	-.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0002**	**.0001**	**-.0011**	**-.0001**	**-.0001**	**-.0004**	**.0056**	**-.0061**
Stddev	.0004	.0000	.0004	.0008	.0001	.0007	.0000	.0159	.0017
%RSD	90.97	23.77	590.1	67.86	100.7	636.1	4.202	284.3	28.08
#1	-.0007	.0001	.0004	-.0017	-.0001	.0004	-.0003	-.0056	-.0049
#2	-.0001	.0002	-.0002	-.0006	-.0000	-.0006	-.0004	.0168	-.0074
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	**-.0020**	**-.0071**	**.0042**	**.0296**	**.0000**	**-.0002**	**.0015**	**.0001**	**-.0000**
Stddev	.0022	.0089	.0155	.0036	.0000	.0003	.0001	.0006	.0001
%RSD	114.0	125.1	371.7	12.22	85.74	135.5	6.812	951.3	1125.
#1	-.0004	-.0008	-.0068	.0271	.0001	-.0000	.0014	-.0004	.0000
#2	-.0036	-.0133	.0151	.0322	.0000	-.0005	.0016	.0005	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Inst QC: MA44572

Zoom In
Zoom Out

Sample Name: CCB Acquired: 6/2/2018 0:03:46 Type: QC
Method: Accutest 2(v432) 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**	**-.0011**	**.0001**	**.0017**	**-.0018**	**.0002**	**.0008**
Stddev	.0002	.0001	.0000	.0014	.0004	.0018	.0003
%RSD	821.8	11.37	33.04	85.73	21.37	1089.	32.56
#1	-.0002	-.0010	.0001	.0007	-.0021	-.0011	.0010
#2	.0001	-.0012	.0001	.0027	-.0015	.0014	.0006
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	**83494.**	**6083.5**	**3230.1**	**7953.3**
Stddev	206.	63.0	3.2	3.2
%RSD	.24670	1.0358	.09864	.03976
#1	83348.	6038.9	3227.9	7951.0
#2	83640.	6128.0	3232.4	7955.5

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	3	Mg	0.000001	0.000000	No
			Al	0.000002	0.000000	No
			Zr	0.000727	0.000000	No
Be 313.042 {108}	☒	9	V	0.001570	0.000000	No
			Mo	-0.000030	0.000000	No
			Ti	-0.000172	0.000000	No
			Mn	-0.000018	0.000000	No
			Ni	0.000001	0.000000	No
			Ca	-0.000000	0.000000	No
			Cu	0.000014	0.000000	No
			Zn	-0.000010	0.000000	No
			Fe	-0.000002	0.000000	No
Cd 228.802 {448}	☒	12	As	0.006260	0.000000	No
			Ni	-0.000366	0.000000	No
			Fe	0.000002	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000054	0.000000	No
			Co	-0.001010	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	0.000014	0.000000	No
			Cr	-0.000013	0.000000	No
			Cu	0.000024	0.000000	No
			Al	0.000000	0.000000	No
			Mo	0.000004	0.000000	No
Co 228.616 {448}	☒	9	Fe	-0.000001	0.000000	No
			Cr	-0.000046	0.000000	No
			Mo	-0.000600	0.000000	No
			Ni	0.000084	0.000000	No
			Ti	0.002027	0.000000	No
			W	0.000160	0.000000	No
			Cd	-0.000188	0.000000	No
			Ca	0.000000	0.000000	No
			As	0.000150	0.000000	No
Cr 267.716 {126}	☒	11	Mn	0.000274	0.000000	No
			Mo	-0.000147	0.000000	No
			Fe	-0.000014	0.000000	No
			Cd	-0.000050	0.000000	No
			Al	0.000002	0.000000	No
			Ca	0.000002	0.000000	No
			Mg	0.000001	0.000000	No
			Ti	0.000050	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	17	Cr	0.000000	0.000000	No
			V	-0.000539	0.000000	No
			Mo	0.000722	0.000000	No
			Ti	-0.000160	0.000000	No
			Fe	-0.000163	0.000000	No
			Al	0.000002	0.000000	No
			Sn	-0.000097	0.000000	No
			Co	-0.001290	0.000000	No
			Zr	-0.000500	0.000000	No
			Si	-0.000002	0.000000	No
			Mn	-0.000072	0.000000	No
			Se	0.000050	0.000000	No
			Ag	0.000166	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sb	0.000024	0.000000	No
			Pb	0.000040	0.000000	No
			Be	-0.000031	0.000000	No
			W	0.000000	0.000000	No
Mn 257.610 {131}	☒	6	Fe	-0.000060	0.000000	No
			Si	0.000050	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000114	0.000000	No
Ni 231.604 {446}	☒	11	Fe	0.000023	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000227	0.000000	No
			Tl	0.000209	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000100	0.000000	No
			Cr	-0.000160	0.000000	No
			Si	-0.000030	0.000000	No
			Sn	0.000079	0.000000	No
			W	0.000830	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000221	0.000000	No
			Mo	-0.000054	0.000000	No
			Ti	-0.000395	0.000000	No
			Fe	-0.000265	0.000000	No
			V	-0.001500	0.000000	No
			Zn	0.000057	0.000000	No
			Ca	-0.000004	0.000000	No
			Al	-0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
			Ba	0.000010	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.005700	0.000000	No
			Sn	-0.000100	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	7	Ti	0.000776	0.000000	No
			Mo	-0.013000	0.000000	No
			Fe	0.000010	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.003575	0.000000	No
			Mn	-0.002660	0.000000	No
			W	0.000050	0.000000	No
Zn 206.200 {464}	☒	15	Cr	-0.000874	0.000000	No
			Mo	-0.000228	0.000000	No
			Fe	0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Si	0.000065	0.000000	No
			Ba	-0.000060	0.000000	No
			Ca	0.000004	0.000000	No
			Sr	0.000017	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.001256	0.000000	No
			As	-0.000050	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.000400	0.000000	No
			W	0.000000	0.000000	No
			Ti	0.000030	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
As 189.042 {478}	☒	23	Al	-0.000001	0.000000	No
			Fe	-0.000009	0.000000	No
			Ca	-0.000002	0.000000	No
			Mn	-0.000154	0.000000	No
			Mo	0.000200	0.000000	No
			Cr	0.000319	0.000000	No
			V	0.000052	0.000000	No
			Co	-0.000045	0.000000	No
			W	0.000000	0.000000	No
			Sn	-0.000123	0.000000	No
			Cd	-0.000194	0.000000	No
			Tl	0.000085	0.000000	No
			Be	-0.000017	0.000000	No
			Mg	0.000003	0.000000	No
			Si	0.000007	0.000000	No
			Zn	0.000070	0.000000	No
			Sr	-0.000080	0.000000	No
			Zr	0.000074	0.000000	No
			Ti	-0.000001	0.000000	No
			Cu	0.000077	0.000000	No
			K	0.000000	0.000000	No
			B	-0.000030	0.000000	No
			S	-0.000010	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000231	0.000000	No
			Mo	-0.000900	0.000000	No
			Al	-0.000006	0.000000	No
			Fe	-0.000036	0.000000	No
			V	-0.027000	0.000000	No
			Mn	0.001178	0.000000	No
			Si	-0.000170	0.000000	No
			Ca	0.000003	0.000000	No
			Ti	-0.001520	0.000000	No
			Mg	-0.000003	0.000000	No
			Co	0.003812	0.000000	No
			Sr	-0.000222	0.000000	No
			B	0.000120	0.000000	No
			Ba	0.000110	0.000000	No
			Zn	0.000025	0.000000	No
			As	0.000015	0.000000	No
			Ni	0.000051	0.000000	No
			Cu	-0.000032	0.000000	No
			W	0.000000	0.000000	No
			Sn	0.000020	0.000000	No
			Se	0.000040	0.000000	No
			S	-0.000010	0.000000	No
			K	0.000000	0.000000	No
			P	0.000000	0.000000	No
Pb 220.353 {453}	☒	23	Al	-0.000144	0.000000	No
			Fe	0.000038	0.000000	No
			Ca	-0.000000	0.000000	No
			Mn	0.000145	0.000000	No
			Zn	-0.000036	0.000000	No
			Mo	-0.000800	0.000000	No
			Cu	0.000960	0.000000	No
			V	0.000013	0.000000	No
			Co	0.000056	0.000000	No
			Ti	0.000123	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Si	0.000054	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	0.000006	0.000000	No
			Sr	-0.000050	0.000000	No
			W	0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
			Cd	0.000476	0.000000	No
			Cr	-0.000262	0.000000	No
			Zr	-0.000300	0.000000	No
			Ni	0.000408	0.000000	No
			S	0.000002	0.000000	No
			Se	0.000036	0.000000	No
			As	0.000200	0.000000	No
Se 196.090 {472}	☒	22	Al	0.000005	0.000000	No
			Ca	-0.000006	0.000000	No
			Mn	0.000651	0.000000	No
			Mo	0.000047	0.000000	No
			Fe	-0.000147	0.000000	No
			Co	0.000265	0.000000	No
			V	0.000046	0.000000	No
			Sr	-0.000008	0.000000	No
			Cu	-0.000113	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000027	0.000000	No
			Tl	0.000180	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	-0.000250	0.000000	No
			B	-0.000141	0.000000	No
			Ti	0.000016	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000280	0.000000	No
			Ba	0.000180	0.000000	No
			Mg	0.000001	0.000000	No
			Cr	0.000087	0.000000	No
			S	-0.000003	0.000000	No
Sb 206.833 {463}	☒	14	Fe	-0.000033	0.000000	No
			Al	0.000001	0.000000	No
			Ca	-0.000004	0.000000	No
			Ni	-0.000477	0.000000	No
			Cr	0.013610	0.000000	No
			V	-0.003446	0.000000	No
			Zn	-0.000200	0.000000	No
			Mo	0.000530	0.000000	No
			Ti	0.000291	0.000000	No
			Sn	-0.012000	0.000000	No
			Mg	0.000003	0.000000	No
			Zr	-0.000227	0.000000	No
			Sr	0.000209	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000913	0.000000	No
			Ca	0.000078	0.000000	No
			Mo	0.046534	0.000000	No
			Zr	-0.016318	0.000000	No
			Ti	-0.000017	0.000000	No
Ca 317.933 {106}	☒	13	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	☒	13	Co	0.000004	0.000000	No
			Si	-0.000100	0.000000	No
			Tl	-0.002590	0.000000	No
			Se	-0.000050	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.001433	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			K	-0.000200	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	1	Mo	-0.020780	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000340	0.000000	No
			Al	0.000301	0.000000	No
			Ca	0.000448	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Na	0.000300	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No
			Mg	0.000400	0.000000	No
Na 589.592 { 57}	☒	5	K	0.000038	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.046220	0.000000	No
Mo 202.030 {467}	☒	5	Fe	-0.000010	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	0.000003	0.000000	No
			W	-0.000376	0.000000	No
			V	-0.000230	0.000000	No
Si 212.412 {459}	☒	13	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.020840	0.000000	No
			Ti	0.003166	0.000000	No
			Al	0.000012	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Fe	0.000040	0.000000	No
			Sn	0.009213	0.000000	No
			Zn	0.000385	0.000000	No
			As	-0.000560	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Pb	0.000471	0.000000	No
			V	0.046000	0.000000	No
Sn 189.989 {478}	☒	6	Ti	-0.003472	0.000000	No
			Mo	0.000011	0.000000	No
			Fe	0.000005	0.000000	No
			Mn	0.000060	0.000000	No
			Si	0.000089	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	2	Fe	0.000002	0.000000	No
			Ca	0.000023	0.000000	No
Ti 334.904 {101}	☒	4	Cr	-0.000084	0.000000	No
			Mo	0.000989	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	25	Al	0.000002	0.000000	No
			Si	-0.000900	0.000000	No
			Fe	-0.000007	0.000000	No
			As	-0.000200	0.000000	No
			Mg	-0.000006	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012200	0.000000	No
			Sn	0.000078	0.000000	No
			Zr	0.000230	0.000000	No
			B	-0.001000	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.000080	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
			Ag	0.000224	0.000000	No
Zr 339.198 { 99}	☒	9	Mo	0.000323	0.000000	No
			Ti	-0.000010	0.000000	No
			Fe	-0.000060	0.000000	No
			Si	0.000070	0.000000	No
			Bi	0.000295	0.000000	No
			Cr	-0.000900	0.000000	No
			V	0.000200	0.000000	No
			W	0.010000	0.000000	No
			Sn	0.004000	0.000000	No
S 182.034 {485}	☒	11	Ca	0.000051	0.000000	No
			Mo	-0.002560	0.000000	No
			Al	-0.000084	0.000000	No
			Fe	-0.000023	0.000000	No
			Mn	0.003900	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				W	0.000000	0.000000	No
				Zn	-0.001538	0.000000	No
				Cr	-0.000200	0.000000	No
				Mg	0.000120	0.000000	No
				Ti	0.000300	0.000000	No
				Li	0.005400	0.000000	No
	Bi 223.061 {451}	☒	9	V	-0.000680	0.000000	No
				Co	-0.002200	0.000000	No
				Ca	-0.000005	0.000000	No
				Mg	-0.000002	0.000000	No
				W	-0.002000	0.000000	No
				Cu	-0.001186	0.000000	No
				Fe	0.000101	0.000000	No
				Cr	0.001500	0.000000	No
				Ti	-0.002230	0.000000	No
	Li 670.784 { 50}	☒	1	Ca	0.000023	0.000000	No
	P 177.495 {490}	☒	2	Mn	-0.005600	0.000000	No
				Ca	0.000034	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}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.004599	3.858819	0.000000	1.000000
Be 313.042 {108}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.000548	3.380138	0.000000	1.000000
Cd 228.802 {448}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000243	1.134975	0.000000	1.000000
Co 228.616 {448}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.000020	0.549230	0.000000	1.000000
Cr 267.716 {126}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000025	0.077492	0.000000	1.000000
Cu 324.754 {104}2	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.002500	0.213548	0.000000	1.000000
Mn 257.610 {131}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000089	0.430484	0.000000	1.000000
Ni 231.604 {446}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000081	0.409589	0.000000	1.000000
Ag 328.068 {103}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.000148	0.118613	0.000000	1.000000
V 292.402 {115}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000075	0.127366	0.000000	1.000000
Zn 206.200 {464}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000830	1.657856	0.000000	1.000000
As 189.042 {478}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000306	0.171396	0.000000	1.000000
Tl 190.856 {477}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.000230	0.077758	0.000000	1.000000
Pb 220.353 {453}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.000324	0.192043	0.000000	1.000000
Se 196.090 {472}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000449	0.131925	0.000000	1.000000
Sb 206.833 {463}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000564	0.234053	0.000000	1.000000
Al 396.152 { 85}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.005411	0.074414	0.000000	1.000000
Ca 317.933 {106}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.007539	0.109819	0.000000	1.000000
Fe 259.940 {130}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000389	0.046667	0.000000	1.000000
Mg 279.079 {121}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000080	0.008686	0.000000	1.000000
K 766.490 { 44}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.000196	0.061212	0.000000	1.000000
Na 589.592 { 57}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.002579	0.182698	0.000000	1.000000
B 208.959 {462}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000648	0.256229	0.000000	1.000000
Mo 202.030 {467}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.001869	1.174091	0.000000	1.000000
Si 212.412 {459}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.006027	0.279033	0.000000	1.000000
Sn 189.989 {478}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000067	0.275798	0.000000	1.000000
Sr 407.771 { 83}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000983	7.235458	0.000000	1.000000
Ti 334.904 {101}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.000004	0.150560	0.000000	1.000000
Y 360.073 { 94}*	6/2/2018 15:36:31	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	6/2/2018 15:36:31	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	6/2/2018 15:36:31	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	6/2/2018 15:36:31	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.002851	0.562724	0.000000	1.000000
Zr 339.198 { 99}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.000277	0.366737	0.000000	1.000000
S 182.034 {485}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.001013	0.074354	0.000000	1.000000
Bi 223.061 {451}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.000670	0.262320	0.000000	1.000000
Li 670.784 { 50}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	0.002267	1.273735	0.000000	1.000000
P 177.495 {490}	6/2/2018 15:36:31	6/1/2018 16:32:32	Linear	1/Conc	-0.009928	0.169565	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	0.000297	0.000989	OK.	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000118	0.000392	OK.	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000258	0.000862	OK.	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000354	0.001178	OK.	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000550	0.001832	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000513	0.001712	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000086	0.000286	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000411	0.001371	OK.	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000617	0.002057	OK.	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000450	0.001501	OK.	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000167	0.000557	OK.	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001294	0.004312	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001343	0.004478	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001325	0.004418	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002284	0.007613	OK.	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001598	0.005326	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.013944	0.046481	OK.	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.004243	0.014143	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.004543	0.015142	OK.	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.032017	0.106725	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.037614	0.125380	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.011603	0.038678	OK.	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000949	0.003165	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000281	0.000937	OK.	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001293	0.004310	OK.	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000785	0.002618	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000119	0.000398	OK.	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000464	0.001547	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	0.001153	0.003843	OK.	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000251	0.000836	OK.	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.003180	0.010599	OK.	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001821	0.006071	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001799	0.005998	OK.	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.001505	0.005016	OK.	1.000000	0.000000	1	0

Zoom In
Zoom Out

Sample Name: STDA Acquired: 6/4/2018 16:59:04 Type: Cal
Method: Accutest 2(v444) 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	**.0017**	**-.0008**	**.0003**	**-.0000**	**.0000**	**.0023**	**.0000**	**-.0000**	**-.0002**
Stddev	.0005	.0001	.0001	.0001	.0000	.0001	.0000	.0000	.0000
%RSD	28.28	14.78	33.30	171.9	344.3	4.295	7.188	180.0	4.204
#1	.0020	-.0008	.0004	-.0001	-.0000	.0024	.0000	.0000	-.0002
#2	.0013	-.0007	.0003	.0000	.0000	.0023	.0000	-.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	**.0000**	**.0005**	**-.0001**	**-.0002**	**-.0005**	**.0006**	**.0007**	**-.0027**	**.0043**
Stddev	.0000	.0000	.0002	.0000	.0000	.0000	.0000	.0000	.0001
%RSD	101.4	7.230	359.9	9.738	8.429	7.505	5.867	1.091	1.547
#1	.0000	.0004	.0001	-.0002	-.0005	.0006	.0007	-.0027	.0042
#2	.0000	.0005	-.0002	-.0001	-.0006	.0006	.0006	-.0026	.0043

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**-.0001**	**-.0033**	**.0022**	**.0003**	**.0001**	**.0059**	**.0000**	**.0004**
Stddev	.0000	.0000	.0002	.0007	.0000	.0000	.0004	.0002	.0003
%RSD	27.67	62.00	6.482	30.11	2.586	5.012	6.235	487.0	66.10
#1	.0001	-.0000	-.0031	.0018	.0004	.0001	.0061	.0002	.0002
#2	.0001	-.0001	-.0034	.0027	.0003	.0001	.0056	-.0001	.0006

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	**-.0000**	**.0019**	**-.0003**	**-.0011**	**-.0011**	**.0007**	**-.0103**
Stddev	.0000	.0003	.0000	.0001	.0001	.0013	.0003
%RSD	132.0	17.77	4.221	10.07	4.866	185.6	2.633
#1	-.0000	.0022	-.0003	-.0011	-.0012	.0016	-.0101
#2	-.0000	.0017	-.0003	-.0012	-.0011	-.0002	-.0105

Zoom In
Zoom Out

Sample Name: STDA Acquired: 6/4/2018 16:59:04 Type: Cal
Method: Accutest 2(v444) 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	**88448.**	**14310.**	**3398.5**	**8358.4**
Stddev	133.	1.	5.1	5.9
%RSD	.15037	.00912	.15060	.07064
#1	88542.	14311.	3394.9	8354.2
#2	88354.	14309.	3402.1	8362.6

Zoom In
Zoom Out

Sample Name: STDB Acquired: 6/4/2018 17:03:22 Type: Cal
Method: Accutest 2(v444) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8.809**	**7.773**	**4.393**	**2.116**	**.2943**	**.8071**	**1.643**	**1.578**	**.0552**
Stddev	.002	.020	.000	.003	.0015	.0005	.006	.001	.0004
%RSD	.0174	.2529	.0075	.1276	.5082	.0573	.3751	.0571	.7160
#1	8.808	7.759	4.393	2.117	.2953	.8074	1.647	1.579	.0555
#2	8.810	7.787	4.393	2.114	.2932	.8067	1.639	1.578	.0550

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	**.4706**	**6.427**	**.5225**	**.2786**	**.7426**	**.5097**	**.8980**	**3.359**	**5.222**
Stddev	.0024	.004	.0007	.0008	.0008	.0007	.0008	.003	.006
%RSD	.5108	.0684	.1405	.2825	.1052	.1463	.0859	.0999	.1081
#1	.4723	6.424	.5220	.2792	.7432	.5092	.8974	3.357	5.218
#2	.4689	6.430	.5230	.2781	.7421	.5102	.8985	3.361	5.226

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	**2.366**	**.4276**	**2.848**	**8.203**	**1.032**	**4.439**	**2.819**	**1.050**	**16.25**
Stddev	.008	.0019	.006	.006	.002	.006	.005	.001	.21
%RSD	.3562	.4426	.2099	.0744	.2048	.1445	.1968	.0706	1.263
#1	2.360	.4263	2.844	8.199	1.031	4.434	2.815	1.051	16.10
#2	2.372	.4289	2.853	8.208	1.034	4.443	2.823	1.049	16.39

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	**.5709**	**2.132**	**1.401**	**.2911**	**1.008**	**2.763**	**.6370**
Stddev	.0018	.001	.004	.0003	.002	.005	.0016
%RSD	.3137	.0314	.2641	.1004	.1582	.1692	.2510
#1	.5722	2.132	1.404	.2909	1.007	2.760	.6381
#2	.5697	2.133	1.398	.2913	1.009	2.766	.6359

Zoom In
Zoom Out

Sample Name: STDB Acquired: 6/4/2018 17:03:22 Type: Cal
Method: Accutest 2(v444) 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	**83381.**	**14144.**	**3219.1**	**7263.1**
Stddev	477.	63.	3.6	6.2
%RSD	.57210	.44709	.11139	.08545
#1	83043.	14188.	3221.6	7258.7
#2	83718.	14099.	3216.6	7267.5

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 6/4/2018 17:07:30 Type: QC
Method: Accutest 2(v444) 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	**2.040**	**2.053**	**2.033**	**2.013**	**2.052**	**2.000**	**2.066**	**2.039**	**.2528**
Stddev	.003	.005	.002	.000	.004	.000	.002	.001	.0002
%RSD	.1338	.2259	.1080	.0047	.1777	.0032	.0927	.0426	.0961
#1	2.038	2.050	2.034	2.013	2.049	2.000	2.067	2.040	.2530
#2	2.042	2.056	2.031	2.013	2.054	2.000	2.064	2.038	.2527
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**	**2.056**	**2.031**	**2.089**	**2.052**	**2.020**	**2.049**	**40.09**	**40.71**
Stddev	.001	.004	.004	.000	.005	.004	.002	.04	.00
%RSD	.0421	.1896	.1803	.0214	.2701	.2248	.0814	.0943	.0087
#1	2.025	2.053	2.034	2.090	2.048	2.023	2.048	40.07	40.71
#2	2.026	2.058	2.029	2.089	2.056	2.017	2.050	40.12	40.70
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	**41.12**	**40.79**	**40.23**	**40.57**	**2.046**	**2.071**	**5.148**	**2.099**	**2.079**
Stddev	.04	.09	.04	.04	.008	.002	.003	.002	.004
%RSD	.0888	.2125	.1058	.1035	.3810	.0893	.0657	.0877	.2006
#1	41.10	40.73	40.20	40.54	2.051	2.072	5.150	2.098	2.076
#2	41.15	40.85	40.26	40.60	2.040	2.070	5.145	2.101	2.082
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: ccvconf Acquired: 6/4/2018 17:07:30 Type: QC
Method: Accutest 2(v444) 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	**2.059**	**2.049**	**2.053**	**2.000**	**2.063**	**2.022**	**2.025**
Stddev	.002	.001	.001	.001	.006	.003	.003
%RSD	.0874	.0540	.0663	.0651	.2735	.1550	.1360
#1	2.060	2.050	2.054	2.001	2.067	2.019	2.027
#2	2.058	2.049	2.052	1.999	2.059	2.024	2.023
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	**85484.**	**14212.**	**3306.6**	**7555.5**
Stddev	197.	13.	1.2	7.4
%RSD	.23047	.09419	.03746	.09777
#1	85345.	14202.	3307.5	7560.7
#2	85623.	14221.	3305.8	7550.3

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 6/4/2018 17:11:34 Type: QC
Method: Accutest 2(v444) 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**	**.0001**	**.0002**	**.0003**	**-.0001**	**.0007**	**.0000**	**.0001**	**.0008**
Stddev	.0000	.0001	.0001	.0000	.0003	.0002	.0000	.0002	.0001
%RSD	206.5	77.77	30.15	9.957	410.9	32.52	99.80	205.9	16.85
#1	.0000	.0001	.0001	.0003	-.0003	.0006	.0000	.0003	.0007
#2	-.0000	.0000	.0002	.0003	.0002	.0009	.0001	-.0001	.0009
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**	**.0004**	**.0003**	**.0001**	**-.0005**	**-.0001**	**.0045**	**.0013**
Stddev	.0001	.0000	.0010	.0009	.0001	.0003	.0012	.0011	.0037
%RSD	110.4	47.06	232.2	314.8	102.1	53.83	1008.	23.79	285.8
#1	.0000	-.0001	.0011	-.0004	.0002	-.0007	-.0010	.0037	.0039
#2	.0001	-.0001	-.0003	.0010	.0000	-.0003	.0007	.0052	-.0013
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	**.0010**	**.0226**	**.0086**	**-.0052**	**.0022**	**.0015**	**.0016**	**-.0001**	**.0001**
Stddev	.0000	.0098	.0029	.0007	.0004	.0002	.0016	.0007	.0000
%RSD	4.316	43.47	33.75	14.01	18.05	16.81	96.90	1112.	19.35
#1	.0010	.0295	.0065	-.0047	.0025	.0016	.0027	-.0006	.0001
#2	.0010	.0157	.0106	-.0058	.0019	.0013	.0005	.0004	.0001
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: ccbconf Acquired: 6/4/2018 17:11:34 Type: QC
Method: Accutest 2(v444) 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	**.0003**	**.0010**	**.0001**	**.0005**	**-.0003**	**-.0006**	**.0005**
Stddev	.0004	.0006	.0002	.0005	.0002	.0008	.0011
%RSD	129.0	62.48	214.6	117.9	66.54	141.2	254.0
#1	.0000	.0015	-.0000	.0001	-.0002	-.0011	.0013
#2	.0006	.0006	.0002	.0008	-.0005	-.0000	-.0004
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	**89410.**	**14414.**	**3426.7**	**8403.6**
Stddev	528.	33.	3.3	17.4
%RSD	.59109	.22978	.09594	.20763
#1	89036.	14438.	3424.3	8391.3
#2	89783.	14391.	3429.0	8416.0

Zoom In
Zoom Out

Sample Name: icvconf Acquired: 6/4/2018 17:16:41 Type: QC
Method: Accutest 2(v444) 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	**2.065**	**2.096**	**2.028**	**2.058**	**2.025**	**1.987**	**2.080**	**2.016**	F **.2646**
Stddev	.005	.004	.003	.004	.007	.003	.005	.002	.0016
%RSD	.2282	.2126	.1284	.1694	.3409	.1465	.2417	.0974	.5919
#1	2.068	2.101	2.031	2.062	2.028	1.990	2.082	2.018	.2662
#2	2.060	2.093	2.026	2.055	2.029	1.987	2.084	2.014	.2643
#3	2.068	2.095	2.028	2.056	2.017	1.984	2.075	2.016	.2631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value									.2500
Range									5.000%

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.062**	**2.047**	F **2.120**	F **2.103**	**2.052**	F **2.124**	**2.092**	**40.81**	**40.19**
Stddev	.006	.002	.003	.001	.001	.002	.002	.10	.15
%RSD	.2875	.0839	.1505	.0584	.0570	.0942	.1160	.2403	.3816
#1	2.067	2.049	2.124	2.104	2.053	2.126	2.090	40.90	40.37
#2	2.065	2.046	2.119	2.101	2.051	2.124	2.094	40.70	40.07
#3	2.056	2.047	2.117	2.103	2.051	2.122	2.091	40.81	40.14
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			2.000	2.000		2.000			
Range			5.000%	5.000%		5.000%			

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**	**40.32**	**40.48**	F **42.15**	F **2.104**	**2.065**	F **5.261**	**2.072**	**2.098**
Stddev	.07	.17	.10	.15	.003	.002	.002	.004	.004
%RSD	.1635	.4244	.2428	.3457	.1374	.0814	.0333	.1832	.1896
#1	40.09	40.52	40.55	42.28	2.107	2.066	5.260	2.076	2.101
#2	39.96	40.23	40.37	41.99	2.104	2.063	5.261	2.069	2.093
#3	40.06	40.21	40.52	42.18	2.102	2.066	5.263	2.071	2.099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value				40.00	2.000		5.000		
Range				5.000%	5.000%		5.000%		

Zoom In
Zoom Out

Sample Name: icvconf Acquired: 6/4/2018 17:16:41 Type: QC
Method: Accutest 2(v444) 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	F **2.102**	F **2.258**	**2.062**	**2.060**	**2.091**	**2.000**	**2.066**
Stddev	.003	.005	.003	.005	.003	.008	.002
%RSD	.1434	.2132	.1358	.2260	.1275	.4168	.0780
#1	2.102	2.255	2.062	2.066	2.093	2.007	2.068
#2	2.104	2.256	2.064	2.058	2.093	1.991	2.066
#3	2.098	2.264	2.058	2.058	2.088	2.001	2.065
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	2.000	2.000					
Range	5.000%	5.000%					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**85319.**	**14241.**	**3312.0**	**7567.3**
Stddev	125.	26.	4.4	15.9
%RSD	.14615	.17953	.13248	.20951
#1	85176.	14266.	3307.4	7550.7
#2	85374.	14243.	3316.1	7582.3
#3	85407.	14215.	3312.6	7568.9

Zoom In
Zoom Out

Sample Name: icv Acquired: 6/4/2018 17:23:00 Type: QC
Method: Accutest 2(v444) 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	**2.050**	**2.091**	**2.030**	**2.021**	**1.998**	**2.046**	**2.031**	**2.024**	**.2491**
Stddev	.002	.004	.005	.004	.002	.001	.003	.004	.0006
%RSD	.0855	.1668	.2444	.1744	.0927	.0472	.1354	.2141	.2352
#1	2.050	2.094	2.035	2.025	1.998	2.047	2.034	2.028	.2489
#2	2.052	2.093	2.026	2.019	2.000	2.047	2.031	2.020	.2497
#3	2.049	2.087	2.029	2.018	1.996	2.045	2.029	2.023	.2486
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	**2.045**	**2.062**	**2.068**	**2.097**	**2.020**	**2.012**	**2.056**	**40.04**	**39.62**
Stddev	.001	.002	.005	.007	.002	.003	.006	.08	.16
%RSD	.0545	.1148	.2454	.3416	.1171	.1538	.3137	.2086	.3966
#1	2.045	2.064	2.074	2.105	2.022	2.013	2.062	40.13	39.80
#2	2.046	2.060	2.064	2.095	2.020	2.014	2.049	39.99	39.58
#3	2.044	2.063	2.067	2.091	2.018	2.008	2.057	39.99	39.49
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	**40.32**	**39.33**	**39.40**	**40.15**	**2.091**	**2.040**	**4.857**	**2.050**	F **2.126**
Stddev	.03	.15	.05	.06	.003	.004	.014	.004	.001
%RSD	.0796	.3764	.1307	.1415	.1535	.2131	.2958	.1990	.0663
#1	40.28	39.49	39.38	40.17	2.095	2.045	4.872	2.054	2.126
#2	40.33	39.20	39.46	40.20	2.088	2.036	4.844	2.046	2.128
#3	40.35	39.29	39.36	40.09	2.090	2.039	4.854	2.050	2.125
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value									2.000
Range									5.000%

Zoom In
Zoom Out

Sample Name: icv Acquired: 6/4/2018 17:23:00 Type: QC
Method: Accutest 2(v444) 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	**2.058**	**2.028**	**2.026**	**1.997**	**2.048**	**1.946**	**2.032**
Stddev	.002	.003	.003	.006	.006	.004	.006
%RSD	.0805	.1283	.1416	.2927	.2976	.2183	.2843
#1	2.060	2.031	2.029	2.003	2.055	1.948	2.038
#2	2.058	2.026	2.026	1.995	2.045	1.949	2.028
#3	2.057	2.029	2.023	1.992	2.045	1.941	2.028
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	**85862.**	**14196.**	**3314.9**	**7587.1**
Stddev	179.	82.	2.7	6.6
%RSD	.20795	.57754	.08033	.08730
#1	85702.	14203.	3312.0	7580.3
#2	85829.	14275.	3317.2	7587.7
#3	86054.	14111.	3315.5	7593.5

Zoom In Zoom Out

Sample Name: icb Acquired: 6/4/2018 17:31:07 Type: QC
Method: Accutest 2(v444) 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**	**-.0000**	**-.0000**	**.0002**	**.0004**	**.0000**	**-.0002**	**.0004**
Stddev	.0000	.0001	.0000	.0003	.0003	.0004	.0000	.0003	.0001
%RSD	14.33	69.90	63.26	1252.	129.7	104.1	7.639	111.9	19.73
#1	-.0002	.0001	-.0000	.0002	.0005	.0007	.0000	-.0000	.0005
#2	-.0003	.0002	-.0000	-.0002	.0000	.0001	.0000	-.0004	.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	**.0003**	**.0000**	**-.0007**	**.0000**	**.0003**	**-.0021**	**-.0015**	**.0047**	**.0059**
Stddev	.0002	.0000	.0010	.0015	.0005	.0003	.0003	.0011	.0013
%RSD	57.44	145.9	144.2	3391.	159.0	16.59	22.63	23.27	22.47
#1	.0005	-.0000	-.0014	-.0010	.0007	-.0023	-.0017	.0039	.0068
#2	.0002	.0000	.0000	.0011	-.0000	-.0018	-.0012	.0055	.0050
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	**-.0006**	**.0294**	**.0154**	**-.0163**	**.0018**	**.0007**	**.0000**	**.0005**	**.0001**
Stddev	.0028	.0232	.0202	.0001	.0001	.0000	.0003	.0001	.0000
%RSD	463.6	79.05	130.9	.7197	7.458	6.095	911.5	23.47	17.09
#1	-.0026	.0458	.0011	-.0164	.0017	.0007	.0003	.0006	.0001
#2	.0014	.0130	.0297	-.0162	.0019	.0007	-.0002	.0004	.0001
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: icb Acquired: 6/4/2018 17:31:07 Type: QC
Method: Accutest 2(v444) 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**	F **.0113**	**.0005**	**.0036**	**.0005**	**.0016**	**.0002**
Stddev	.0001	.0002	.0002	.0007	.0007	.0000	.0007
%RSD	47.12	1.993	30.17	18.52	146.5	1.103	424.8
#1	.0001	.0114	.0004	.0041	-.0000	.0016	-.0004
#2	.0003	.0111	.0006	.0031	.0009	.0016	.0007
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0063					
Low Limit		-.0063					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**89164.**	**14299.**	**3440.9**	**8434.4**
Stddev	259.	86.	8.3	14.0
%RSD	.29016	.60072	.24101	.16611
#1	88981.	14238.	3435.1	8424.5
#2	89347.	14359.	3446.8	8444.4

Zoom In Zoom Out

Sample Name: iccv Acquired: 6/4/2018 17:35:28 Type: QC
Method: Accutest 2(v444) 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**	**2.038**	**2.022**	**2.003**	**2.038**	**1.990**	**2.058**	**2.033**	**.2507**
Stddev	.004	.003	.002	.002	.004	.004	.002	.003	.0014
%RSD	.2187	.1497	.0753	.1110	.2143	.2034	.1071	.1450	.5750
#1	2.028	2.038	2.023	2.005	2.040	1.995	2.057	2.033	.2520
#2	2.032	2.038	2.024	2.000	2.039	1.986	2.055	2.029	.2494
#3	2.022	2.034	2.020	2.004	2.031	1.988	2.059	2.035	.2494
#4	2.031	2.041	2.023	2.005	2.041	1.992	2.060	2.035	.2518
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	**2.007**	**2.050**	**2.023**	**2.088**	**2.049**	**2.016**	**2.038**	**39.85**	**40.40**
Stddev	.005	.001	.004	.002	.004	.002	.005	.08	.06
%RSD	.2629	.0639	.1881	.0922	.2005	.0778	.2470	.2040	.1387
#1	2.010	2.051	2.022	2.087	2.054	2.017	2.038	39.82	40.42
#2	2.008	2.048	2.022	2.088	2.045	2.016	2.044	39.94	40.43
#3	1.999	2.051	2.020	2.085	2.047	2.018	2.033	39.75	40.32
#4	2.010	2.051	2.029	2.090	2.051	2.014	2.035	39.88	40.44
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: iccv Acquired: 6/4/2018 17:35:28 Type: QC
Method: Accutest 2(v444) 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	**40.92**	**40.58**	**40.09**	**40.44**	**2.033**	**2.063**	**5.122**	**2.093**	**2.067**
Stddev	.06	.08	.08	.09	.003	.002	.006	.002	.004
%RSD	.1570	.2075	.2029	.2278	.1212	.0923	.1259	.0904	.2023
#1	40.94	40.66	40.03	40.44	2.031	2.063	5.117	2.096	2.064
#2	40.91	40.54	40.15	40.54	2.037	2.065	5.131	2.091	2.070
#3	40.84	40.48	40.00	40.32	2.033	2.061	5.117	2.093	2.062
#4	41.00	40.65	40.16	40.47	2.033	2.064	5.123	2.093	2.071
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	**2.050**	**2.047**	**2.047**	**1.995**	**2.052**	**2.010**	**2.029**
Stddev	.003	.002	.001	.003	.005	.006	.002
%RSD	.1472	.0986	.0660	.1418	.2383	.2822	.1057
#1	2.052	2.050	2.047	1.997	2.049	2.010	2.028
#2	2.049	2.046	2.046	1.992	2.059	2.017	2.026
#3	2.046	2.045	2.045	1.998	2.049	2.003	2.029
#4	2.053	2.045	2.049	1.993	2.053	2.009	2.031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv Acquired: 6/4/2018 17:35:28 Type: QC
Method: Accutest 2(v444) 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	**86009.**	**14237.**	**3329.2**	**7601.1**
Stddev	147.	50.	4.4	7.2
%RSD	.17064	.35424	.13241	.09508
#1	86165.	14274.	3329.6	7601.9
#2	85870.	14274.	3324.7	7597.8
#3	86104.	14233.	3335.1	7610.8
#4	85898.	14167.	3327.4	7593.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 17:43:42 Type: QC
Method: Accutest 2(v444) 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**	**.0001**	**.0001**	**.0001**	**.0005**	**.0005**	**.0002**	**-.0002**	**.0005**
Stddev	.0001	.0001	.0001	.0000	.0003	.0001	.0000	.0001	.0003
%RSD	212.2	53.46	250.9	14.23	47.63	12.31	12.87	78.18	72.25
#1	.0001	.0002	-.0000	.0002	.0007	.0005	.0001	-.0001	.0002
#2	-.0000	.0001	.0001	.0001	.0003	.0006	.0002	-.0002	.0007
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**	**.0007**	**.0004**	**.0006**	**.0002**	**.0009**	**-.0030**	**.0043**
Stddev	.0000	.0001	.0001	.0005	.0000	.0013	.0013	.0046	.0001
%RSD	31.98	107.7	15.79	132.0	4.943	796.0	140.8	153.6	3.449
#1	-.0001	.0000	.0006	.0000	.0007	.0011	.0000	-.0062	.0044
#2	-.0001	.0001	.0008	.0008	.0006	-.0008	.0019	.0003	.0042
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**	**.0174**	**.0195**	**-.0080**	**.0019**	**.0011**	**.0009**	**.0003**	**.0001**
Stddev	.0034	.0086	.0010	.0009	.0001	.0001	.0010	.0003	.0000
%RSD	236.8	49.61	5.302	11.11	5.515	9.861	111.2	126.1	27.21
#1	-.0010	.0113	.0188	-.0086	.0019	.0010	.0002	.0005	.0001
#2	.0039	.0235	.0203	-.0074	.0018	.0012	.0016	.0000	.0002
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: 6/4/2018 17:43:42 Type: QC
Method: Accutest 2(v444) 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**	**.0042**	**.0002**	**.0022**	**.0000**	**.0011**	**.0004**
Stddev	.0001	.0002	.0001	.0032	.0019	.0002	.0006
%RSD	65.66	5.945	59.30	144.7	19810.	16.51	167.3
#1	.0001	.0043	.0001	-.0001	.0014	.0010	-.0001
#2	.0003	.0040	.0003	.0044	-.0014	.0012	.0008
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	**89969.**	**14302.**	**3443.7**	**8431.3**
Stddev	143.	32.	1.1	.4
%RSD	.15947	.22098	.03320	.00534
#1	89868.	14324.	3444.5	8431.6
#2	90071.	14279.	3442.9	8431.0

Zoom In Zoom Out

Sample Name: cri Acquired: 6/4/2018 17:51:23 Type: QC
Method: Accutest 2(v444) 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	**.2064**	**.0022**	**.0032**	**.0499**	**.0107**	**.0107**	**.0163**	**.0100**	**.0064**
Stddev	.0002	.0001	.0001	.0002	.0001	.0005	.0001	.0000	.0002
%RSD	.1077	3.847	4.070	.3024	.6058	4.466	.3840	.4023	3.762
#1	.2066	.0022	.0031	.0500	.0107	.0104	.0163	.0101	.0065
#2	.2063	.0021	.0033	.0498	.0106	.0110	.0162	.0100	.0062
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	**.0522**	**.0219**	**.0095**	**.0109**	**.0036**	**.0109**	**.0055**	**.2133**	**5.224**
Stddev	.0001	.0001	.0016	.0003	.0006	.0015	.0003	.0076	.001
%RSD	.1064	.6151	16.98	2.501	16.94	13.49	5.622	3.553	.0162
#1	.0522	.0220	.0084	.0107	.0032	.0098	.0052	.2080	5.225
#2	.0521	.0218	.0106	.0111	.0040	.0119	.0057	.2187	5.223
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	**.1075**	**5.290**	**5.156**	**5.157**	**.1061**	**.0223**	**.2087**	**.0119**	**.0105**
Stddev	.0019	.001	.006	.011	.0014	.0001	.0005	.0011	.0000
%RSD	1.779	.0191	.1137	.2093	1.321	.5981	.2292	9.497	.1132
#1	.1061	5.289	5.152	5.165	.1051	.0222	.2084	.0111	.0105
#2	.1088	5.291	5.160	5.149	.1071	.0224	.2091	.0127	.0105
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: cri Acquired: 6/4/2018 17:51:23 Type: QC
Method: Accutest 2(v444) 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	**.0107**	**.0568**	F **.0137**	**.0550**	**.0234**	**.0523**	**.0530**
Stddev	.0005	.0005	.0000	.0031	.0008	.0018	.0006
%RSD	4.663	.9457	.2839	5.715	3.280	3.525	1.080
#1	.0103	.0564	.0138	.0572	.0240	.0536	.0534
#2	.0111	.0572	.0137	.0528	.0229	.0510	.0526
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0100				
Range			30.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**88539.**	**14291.**	**3413.0**	**8251.4**
Stddev	116.	27.	2.7	5.3
%RSD	.13110	.18614	.07972	.06426
#1	88457.	14273.	3414.9	8255.1
#2	88621.	14310.	3411.1	8247.6

Zoom In Zoom Out

Sample Name: crid Acquired: 6/4/2018 17:55:42 Type: QC
Method: Accutest 2(v444) 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	**.0042**	**.0011**	**.0010**	**.0033**	**.0025**	F **.0010**	**.0034**	**.0042**
Stddev	.0001	.0001	.0001	.0001	.0000	.0004	.0000	.0003
%RSD	1.809	7.528	7.217	2.257	1.449	43.98	.9518	8.280
#1	.0041	.0012	.0010	.0032	.0026	.0013	.0035	.0039
#2	.0043	.0011	.0011	.0033	.0025	.0007	.0034	.0044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0004**	**.0021**	**.0117**	**.0030**	**.0021**	F **.0000**	**.0038**	F **-.0009**
Stddev	.0001	.0001	.0001	.0009	.0001	.0001	.0009	.0005
%RSD	37.44	5.982	.4789	29.99	6.334	968.6	22.97	54.29
#1	.0005	.0022	.0118	.0024	.0020	-.0001	.0032	-.0013
#2	.0003	.0020	.0117	.0036	.0022	.0001	.0045	-.0006
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1153**	**1.083**	**.0100**	**.1262**	**2.100**	**1.043**	F **.0012**	**.0003**
Stddev	.0106	.003	.0041	.0141	.029	.006	.0005	.0000
%RSD	9.175	.3061	40.75	11.18	1.394	.6246	42.86	7.830
#1	.1227	1.081	.0128	.1362	2.080	1.048	.0009	.0003
#2	.1078	1.086	.0071	.1162	2.121	1.039	.0016	.0003
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None
Value							.0100	
Range							-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 6/4/2018 17:55:42 Type: QC
Method: Accutest 2(v444) 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	**-.0035**	**.0008**	**.0001**	**-.0001**	F **.0025**	F **-.0002**	F **.0071**	F **.0001**
Stddev	.0003	.0008	.0001	.0002	.0009	.0002	.0042	.0006
%RSD	7.735	103.9	46.23	316.5	34.61	102.4	59.48	997.7
#1	-.0033	.0014	.0001	.0001	.0031	-.0000	.0041	.0005
#2	-.0037	.0002	.0002	-.0002	.0019	-.0003	.0100	-.0004
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0016**	F **.0017**
Stddev	.0004	.0002
%RSD	27.57	10.34
#1	.0013	.0016
#2	.0019	.0018
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**88823.**	**14184.**	**3417.1**	**8332.1**
Stddev	56.	75.	.1	.9
%RSD	.06309	.52643	.00200	.01111
#1	88783.	14237.	3417.1	8331.5
#2	88862.	14132.	3417.0	8332.8

Zoom In Zoom Out

Sample Name: icsa Acquired: 6/4/2018 18:00:03 Type: QC
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0003**	**-.0006**	**.0006**	**-.0002**	**.0008**	**.0000**	**.0017**	**-.0024**
Stddev	.0001	.0001	.0001	.0001	.0005	.0001	.0000	.0000	.0007
%RSD	32.03	37.01	20.05	14.94	291.7	9.127	45.75	2.465	28.58
#1	-.0004	.0002	-.0007	.0007	-.0005	.0008	.0000	.0017	-.0029
#2	-.0002	.0004	-.0005	.0006	.0002	.0009	.0001	.0018	-.0019
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**	**.0048**	**.0007**	**-.0023**	**.0032**	**-.0001**	**-.0025**	**548.0**	**393.5**
Stddev	.0003	.0000	.0029	.0020	.0020	.0045	.0004	2.9	8.0
%RSD	208.2	.5479	391.3	88.49	62.05	3689.	17.54	.5268	2.037
#1	.0003	.0048	.0028	-.0009	.0046	-.0033	-.0029	546.0	387.8
#2	-.0001	.0048	-.0013	-.0038	.0018	.0031	-.0022	550.1	399.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**192.1**	**519.1**	**-.4538**	**.0586**	**-.0013**	**-.0010**	**-.0159**	**-.0014**	**.0052**
Stddev	.6	2.8	.0226	.0088	.0026	.0000	.0000	.0011	.0001
%RSD	.3156	.5404	4.983	15.00	191.5	1.887	.0245	74.21	1.687
#1	191.7	517.1	-.4378	.0524	-.0032	-.0010	-.0159	-.0022	.0053
#2	192.5	521.1	-.4698	.0648	.0005	-.0010	-.0159	-.0007	.0051
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: icsa Acquired: 6/4/2018 18:00:03 Type: QC
Method: Accutest 2(v444) 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**	**.0114**	**.0002**	**.0052**	**-.0105**	**.0054**	**-.0016**
Stddev	.0001	.0010	.0000	.0025	.0025	.0008	.0002
%RSD	38.33	8.312	26.72	48.87	24.23	15.22	11.95
#1	-.0003	.0121	.0001	.0070	-.0087	.0059	-.0015
#2	-.0002	.0108	.0002	.0034	-.0123	.0048	-.0018
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	**78415.**	**13748.**	**3062.5**	**6634.4**
Stddev	212.	34.	.3	8.1
%RSD	.26984	.24889	.00867	.12153
#1	78565.	13772.	3062.6	6628.7
#2	78265.	13723.	3062.3	6640.1

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 6/4/2018 18:04:29 Type: QC
Method: Accutest 2(v444) 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	**.5257**	**.5057**	**1.038**	**.4977**	**.5036**	**.5205**	**.5163**	**1.005**	**1.084**
Stddev	.0004	.0007	.002	.0004	.0005	.0007	.0003	.001	.001
%RSD	.0816	.1291	.1840	.0860	.0909	.1357	.0522	.0776	.1166
#1	.5260	.5062	1.037	.4974	.5032	.5200	.5161	1.005	1.085
#2	.5254	.5052	1.039	.4980	.5039	.5210	.5165	1.006	1.083
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	**.5069**	**.9846**	**1.066**	**1.107**	**1.004**	**1.143**	**1.077**	**529.8**	**398.3**
Stddev	.0013	.0013	.004	.001	.003	.006	.000	11.6	6.7
%RSD	.2591	.1274	.3419	.1067	.2580	.5479	.0034	2.196	1.694
#1	.5079	.9837	1.064	1.108	1.006	1.147	1.077	538.0	403.1
#2	.5060	.9855	1.069	1.106	1.002	1.138	1.077	521.5	393.6
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	**204.8**	**515.0**	**-.4605**	**.0464**	**.4917**	**.5045**	**.5121**	**.4843**	**.5684**
Stddev	.2	.5	.0184	.0110	.0011	.0011	.0022	.0001	.0014
%RSD	.1136	.1032	3.991	23.76	.2337	.2155	.4251	.0208	.2520
#1	205.0	515.4	-.4735	.0386	.4909	.5037	.5106	.4844	.5694
#2	204.7	514.7	-.4475	.0542	.4925	.5052	.5136	.4843	.5674
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 6/4/2018 18:04:29 Type: QC
Method: Accutest 2(v444) 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	**.5241**	**.5051**	**.5008**	**.5089**	**.5119**	**.5400**	**.5075**
Stddev	.0012	.0002	.0018	.0014	.0005	.0014	.0008
%RSD	.2311	.0421	.3656	.2812	.0941	.2514	.1631
#1	.5232	.5052	.4995	.5079	.5115	.5410	.5069
#2	.5249	.5049	.5021	.5099	.5122	.5391	.5081
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	**78315.**	**13690.**	**3065.0**	**6670.5**
Stddev	245.	60.	1.5	2.3
%RSD	.31267	.43998	.04878	.03484
#1	78142.	13648.	3066.0	6672.2
#2	78488.	13733.	3063.9	6668.9

Zoom In Zoom Out

Sample Name: emptyconf Acquired: 6/4/2018 18:08:44 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0004**	**-.0004**	**-.0003**	**.0001**	**-.0001**	W **-.0042**	**-.0000**	**.0001**
Stddev	.0001	.0000	.0001	.0000	.0001	.0001	.0000	.0001
%RSD	13.81	6.136	22.41	30.51	174.9	3.550	209.3	120.1
#1	-.0004	-.0003	-.0003	.0001	-.0002	-.0041	.0000	.0001
#2	-.0003	-.0004	-.0004	.0001	.0000	-.0043	-.0000	.0000

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0006**	**.0002**	**-.0002**	**.0002**	**.0016**	**.0018**	**-.0033**	**-.0018**
Stddev	.0001	.0000	.0000	.0001	.0003	.0001	.0003	.0001
%RSD	25.47	24.61	17.00	51.76	16.34	3.222	8.197	3.699
#1	-.0005	.0002	-.0002	.0003	.0018	.0019	-.0035	-.0018
#2	-.0007	.0002	-.0003	.0002	.0014	.0018	-.0031	-.0017

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0235**	**-.0080**	**-.0015**	**.0178**	**.0366**	**-.0458**	**-.0007**	**-.0002**
Stddev	.0006	.0009	.0002	.0099	.0118	.0043	.0000	.0000
%RSD	2.360	10.75	11.21	55.30	32.31	9.303	1.417	9.678
#1	.0239	-.0086	-.0016	.0109	.0282	-.0428	-.0007	-.0002
#2	.0231	-.0074	-.0014	.0248	.0449	-.0488	-.0007	-.0002

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0146**	**-.0003**	**-.0000**	**.0001**	**-.0021**	**.0005**	**.0085**	**.0029**
Stddev	.0002	.0000	.0001	.0001	.0001	.0001	.0010	.0010
%RSD	1.496	18.45	414.7	88.40	4.209	18.55	11.59	35.58
#1	-.0144	-.0002	.0000	.0002	-.0020	.0006	.0092	.0022
#2	-.0147	-.0003	-.0001	.0000	-.0021	.0004	.0078	.0037

Elem	Li6707	P_1774
Avg	**-.0004**	**-.0069**
Stddev	.0005	.0000
%RSD	104.6	.6689
#1	-.0008	-.0069
#2	-.0001	-.0070

Zoom In
Zoom Out

Sample Name: emptyconf Acquired: 6/4/2018 18:08:44 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**248590.**	**32117.**	**11443.**	**26199.**
Stddev	11502.	375.	45.	61.
%RSD	4.6268	1.1691	.39586	.23368
#1	240460.	31851.	11411.	26155.
#2	256730.	32382.	11475.	26242.

Zoom In
Zoom Out

Sample Name: emptyconf Acquired: 6/4/2018 18:13:08 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0004**	**-.0004**	**-.0003**	**.0002**	**-.0001**	W **-.0043**	**-.0000**	**.0002**
Stddev	.0001	.0000	.0000	.0001	.0000	.0001	.0000	.0001
%RSD	29.87	.4504	7.500	49.99	86.41	2.587	107.1	39.33
#1	-.0003	-.0004	-.0003	.0001	-.0000	-.0044	-.0000	.0001
#2	-.0005	-.0004	-.0002	.0003	-.0001	-.0043	-.0000	.0002

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0003**	**.0001**	**-.0002**	**.0008**	**.0013**	**.0019**	**-.0037**	**-.0020**
Stddev	.0002	.0000	.0000	.0003	.0006	.0004	.0006	.0007
%RSD	55.73	12.17	18.06	33.93	47.75	22.25	15.92	34.87
#1	-.0002	.0001	-.0002	.0010	.0009	.0022	-.0033	-.0025
#2	-.0005	.0001	-.0002	.0006	.0018	.0016	-.0041	-.0015

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0264**	**-.0085**	**-.0023**	**.0182**	**.0358**	**-.0415**	**-.0008**	**-.0002**
Stddev	.0017	.0013	.0007	.0023	.0003	.0031	.0001	.0000
%RSD	6.467	14.75	28.66	12.68	.9139	7.564	13.64	22.73
#1	.0252	-.0077	-.0027	.0166	.0360	-.0392	-.0009	-.0002
#2	.0276	-.0094	-.0018	.0199	.0356	-.0437	-.0007	-.0002

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0146**	**-.0004**	**-.0001**	**.0002**	**-.0023**	**.0003**	**.0090**	**.0036**
Stddev	.0003	.0000	.0000	.0001	.0005	.0001	.0001	.0005
%RSD	2.119	.2209	2.850	24.02	22.89	45.31	.7306	14.75
#1	-.0144	-.0004	-.0001	.0002	-.0019	.0002	.0091	.0040
#2	-.0148	-.0004	-.0001	.0003	-.0026	.0004	.0090	.0032

Elem	Li6707	P_1774
Avg	**-.0005**	**-.0069**
Stddev	.0008	.0002
%RSD	173.4	2.269
#1	.0001	-.0070
#2	-.0010	-.0068

Zoom In
Zoom Out

Sample Name: emptyconf Acquired: 6/4/2018 18:13:08 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**263080.**	**32256.**	**11493.**	**26300.**
Stddev	950.	40.	12.	26.
%RSD	.36128	.12547	.10378	.09859
#1	263750.	32285.	11485.	26282.
#2	262410.	32228.	11502.	26319.

Zoom In
Zoom Out

Sample Name: hstd 2 Acquired: 6/4/2018 18:19:02 Type: QC
Method: Accutest 2(v444) 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	**5.154**	**5.154**	**5.082**	**5.064**	**5.313**	**5.219**	**5.286**	**5.085**	**.6355**
Stddev	.009	.015	.012	.005	.007	.017	.004	.008	.0024
%RSD	.1821	.2909	.2313	.1026	.1246	.3163	.0658	.1650	.3792
#1	5.148	5.164	5.091	5.068	5.318	5.231	5.288	5.091	.6372
#2	5.161	5.143	5.074	5.061	5.308	5.208	5.283	5.079	.6337
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	**5.244**	**5.322**	**5.134**	**5.390**	**5.185**	**5.154**	**5.240**	**.0416**	**-.0967**
Stddev	.003	.004	.009	.014	.002	.007	.016	.0055	.0033
%RSD	.0562	.0778	.1828	.2548	.0432	.1350	.3090	13.31	3.383
#1	5.246	5.325	5.141	5.400	5.187	5.159	5.251	.0376	-.0990
#2	5.242	5.320	5.127	5.380	5.184	5.149	5.228	.0455	-.0944
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	**.0194**	**-.0498**	**.1849**	**.0225**	**5.155**	**5.322**	**25.90**	**5.499**	**5.166**
Stddev	.0021	.0231	.0027	.0098	.004	.004	.03	.010	.047
%RSD	10.85	46.26	1.435	43.68	.0695	.0658	.0984	.1846	.9185
#1	.0209	-.0661	.1867	.0295	5.157	5.324	25.92	5.506	5.199
#2	.0179	-.0335	.1830	.0156	5.152	5.319	25.88	5.492	5.132
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 6/4/2018 18:19:02 Type: QC
Method: Accutest 2(v444) 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	**5.285**	**5.349**	**5.191**	**52.68**	**5.395**	**5.103**	**5.057**
Stddev	.005	.004	.007	.16	.007	.007	.026
%RSD	.0983	.0730	.1431	.3052	.1307	.1316	.5235
#1	5.289	5.352	5.196	52.79	5.400	5.108	5.075
#2	5.281	5.346	5.186	52.56	5.390	5.099	5.038
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	**87874.**	**14267.**	**3386.0**	**8177.5**
Stddev	139.	66.	.9	2.8
%RSD	.15790	.46093	.02687	.03483
#1	87972.	14220.	3385.3	8175.5
#2	87776.	14313.	3386.6	8179.6

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 6/4/2018 18:23:28 Type: QC
Method: Accutest 2(v444) 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**	**.0003**	**-.0007**	**.0006**	**.0004**	**.0012**	**-.0002**	**.0015**	**-.0003**
Stddev	.0000	.0000	.0000	.0003	.0003	.0001	.0001	.0005	.0008
%RSD	5.613	.9622	.7707	43.89	74.20	12.07	71.36	30.71	246.3
#1	.0002	.0003	-.0007	.0004	.0005	.0013	-.0003	.0012	-.0008
#2	.0002	.0003	-.0007	.0008	.0002	.0011	-.0001	.0018	.0002
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0028**	**.0015**	**.0080**	**.0026**	**.0010**	**-.0043**	**317.7**	**152.9**
Stddev	.0001	.0001	.0000	.0032	.0013	.0018	.0029	.5	.4
%RSD	70.20	3.837	.9798	39.59	49.75	173.7	66.72	.1501	.2831
#1	-.0000	.0029	.0014	.0058	.0035	-.0002	-.0023	317.3	152.6
#2	-.0001	.0027	.0015	.0103	.0017	.0023	-.0063	318.0	153.2
Check ?	None	None	None	None	None	None	None	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	**154.2**	**318.7**	**158.2**	**156.2**	**.0007**	**.0032**	**-.0065**	**-.0017**	**.0017**
Stddev	.5	1.3	.3	.1	.0010	.0005	.0007	.0002	.0001
%RSD	.3187	.4028	.2120	.0741	147.7	15.13	10.31	10.99	2.923
#1	153.8	317.8	158.0	156.1	-.0000	.0036	-.0070	-.0015	.0018
#2	154.5	319.6	158.4	156.3	.0014	.0029	-.0060	-.0018	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 6/4/2018 18:23:28 Type: QC
Method: Accutest 2(v444) 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	**-.0003**	**.0083**	**.0002**	**.0018**	**-.0095**	**.0052**	**.0059**
Stddev	.0002	.0019	.0002	.0008	.0010	.0013	.0010
%RSD	52.92	23.52	97.93	46.55	10.95	25.76	16.40
#1	-.0004	.0069	.0004	.0012	-.0088	.0061	.0052
#2	-.0002	.0096	.0001	.0024	-.0102	.0042	.0066
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**79997.**	**13656.**	**3109.7**	**6731.6**
Stddev	98.	113.	2.7	8.7
%RSD	.12290	.82505	.08757	.12911
#1	80066.	13736.	3107.8	6725.5
#2	79927.	13576.	3111.6	6737.8

Zoom In Zoom Out

Sample Name: feconf Acquired: 6/4/2018 18:27:45 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0008**	**.0005**	W **-.0009**	**.0007**	**.0004**	**.0005**	**-.0007**	**.0020**
Stddev	.0001	.0001	.0003	.0000	.0003	.0002	.0000	.0000
%RSD	10.51	12.03	30.92	2.804	72.41	45.61	4.311	1.850
#1	.0007	.0004	-.0007	.0007	.0006	.0003	-.0006	.0020
#2	.0008	.0005	-.0010	.0007	.0002	.0006	-.0007	.0019

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0008**	**.0015**	**.0031**	**-.0007**	**-.0013**	**-.0015**	**.0017**	**-.0017**
Stddev	.0002	.0001	.0001	.0005	.0007	.0011	.0008	.0014
%RSD	22.73	3.932	2.345	70.80	51.52	69.97	45.05	84.06
#1	-.0007	.0014	.0031	-.0011	-.0008	-.0008	.0012	-.0007
#2	-.0009	.0015	.0030	-.0004	-.0017	-.0023	.0022	-.0027

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0009**	**.0023**	**205.9**	**-.0021**	**.0844**	**.0203**	**-.0016**	**.0015**
Stddev	.0023	.0027	.5	.0103	.0086	.0091	.0007	.0000
%RSD	246.6	115.6	.2250	496.1	10.23	44.79	41.91	1.799
#1	.0007	.0042	205.5	.0052	.0905	.0267	-.0020	.0015
#2	-.0026	.0004	206.2	-.0093	.0783	.0139	-.0011	.0015

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0057**	**.0003**	**-.0004**	**.0002**	**.0024**	**.0001**	**.0068**	W **-.0124**
Stddev	.0005	.0007	.0000	.0003	.0018	.0000	.0018	.0020
%RSD	8.802	244.9	7.247	115.4	74.22	37.50	25.81	15.96
#1	-.0060	-.0002	-.0004	.0000	.0011	.0001	.0081	-.0138
#2	-.0053	.0008	-.0003	.0004	.0037	.0001	.0056	-.0110

Elem	Li6707	P_1774
Avg	**.0022**	**.0019**
Stddev	.0011	.0007
%RSD	51.03	38.04
#1	.0030	.0025
#2	.0014	.0014

Zoom In Zoom Out

Sample Name: feconf Acquired: 6/4/2018 18:27:45 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**88130.**	**14054.**	**3394.2**	**8323.4**
Stddev	215.	78.	3.1	5.1
%RSD	.24345	.55692	.09133	.06122
#1	87978.	14109.	3392.0	8319.7
#2	88281.	13999.	3396.4	8327.0

Zoom In Zoom Out

Sample Name: crconf Acquired: 6/4/2018 18:32:06 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.0003**	**.0001**	**.0004**	**-.0005**	F **10.56**	**.0007**	**-.0001**	**.0016**	**.0013**
Stddev	.0001	.0000	.0001	.0000	.01	.0001	.0000	.0000	.0004
%RSD	23.25	21.60	24.37	6.795	.1094	20.87	29.42	.7028	33.82
#1	.0002	.0001	.0003	-.0006	10.55	.0006	-.0001	.0016	.0016
#2	.0003	.0001	.0005	-.0005	10.56	.0008	-.0001	.0016	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0009**	**.0026**	**.0002**	**.0005**	**.0044**	**-.0021**	**.0005**	**.0058**	**.0101**
Stddev	.0006	.0002	.0001	.0001	.0007	.0002	.0005	.0029	.0018
%RSD	67.24	7.395	64.04	25.45	16.73	10.77	94.24	51.04	17.36
#1	.0005	.0027	.0003	.0006	.0050	-.0020	.0002	.0037	.0088
#2	.0014	.0024	.0001	.0004	.0039	-.0023	.0008	.0078	.0113

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0204**	**.0367**	**.0323**	**-.0092**	**.0004**	**.0011**	**.0044**	**-.0006**	**.0000**
Stddev	.0013	.0178	.0174	.0073	.0007	.0001	.0003	.0006	.0000
%RSD	6.578	48.41	53.74	79.59	179.2	10.86	6.349	102.0	6.864
#1	.0213	.0492	.0446	-.0040	-.0001	.0010	.0042	-.0011	.0000
#2	.0194	.0241	.0200	-.0144	.0009	.0012	.0046	-.0002	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0048**	**.0073**	**.0065**	**.0031**	**.0006**	**-.0002**
Stddev	.0002	.0003	.0002	.0009	.0021	.0013	.0003
%RSD	44.59	6.284	2.125	13.92	68.03	218.7	148.6
#1	.0007	.0050	.0074	.0071	.0046	-.0003	-.0005
#2	.0003	.0046	.0072	.0058	.0016	.0015	.0000

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**89412.**	**14199.**	**3375.6**	**8439.0**
Stddev	228.	10.	.5	.2
%RSD	.25542	.06723	.01481	.00284
#1	89573.	14192.	3375.2	8439.1
#2	89250.	14206.	3375.9	8438.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/4/2018 18:36:28 Type: QC
Method: Accutest 2(v444) 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	**2.035**	**2.025**	**2.019**	**2.004**	**2.051**	**1.998**	**2.066**	**2.037**	**.2518**
Stddev	.004	.006	.004	.001	.006	.001	.002	.002	.0012
%RSD	.2085	.3080	.2110	.0517	.3084	.0416	.0723	.1168	.4619
#1	2.032	2.020	2.016	2.003	2.046	1.997	2.065	2.035	.2510
#2	2.038	2.029	2.022	2.004	2.055	1.999	2.067	2.038	.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	**2.017**	**2.054**	**2.025**	**2.091**	**2.054**	**2.017**	**2.031**	**39.81**	**40.26**
Stddev	.006	.002	.007	.010	.002	.005	.007	.03	.06
%RSD	.3189	.0709	.3708	.4635	.1065	.2630	.3554	.0845	.1500
#1	2.012	2.053	2.019	2.084	2.052	2.013	2.026	39.78	40.22
#2	2.021	2.055	2.030	2.098	2.055	2.020	2.036	39.83	40.31
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	**41.00**	**40.44**	**40.16**	**40.62**	**2.020**	**2.062**	**5.123**	**2.098**	**2.065**
Stddev	.18	.00	.12	.07	.004	.004	.015	.002	.004
%RSD	.4382	.0069	.2921	.1836	.2121	.2185	.2975	.0939	.2116
#1	40.88	40.44	40.08	40.56	2.017	2.059	5.112	2.096	2.062
#2	41.13	40.44	40.24	40.67	2.023	2.066	5.134	2.099	2.068
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: 6/4/2018 18:36:28 Type: QC
Method: Accutest 2(v444) 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**	**2.040**	**2.044**	**2.001**	**2.046**	**2.002**	**2.032**
Stddev	.003	.004	.001	.004	.006	.004	.002
%RSD	.1339	.2024	.0559	.1779	.3125	.1964	.0931
#1	2.051	2.037	2.043	1.998	2.041	2.000	2.030
#2	2.054	2.043	2.045	2.003	2.050	2.005	2.033
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	**85847.**	**14069.**	**3345.0**	**7616.1**
Stddev	260.	40.	1.7	3.5
%RSD	.30329	.28448	.05027	.04653
#1	86031.	14097.	3346.2	7618.6
#2	85663.	14041.	3343.8	7613.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 18:40:32 Type: QC
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0002**	**.0003**	**.0002**	**.0006**	**.0001**	**.0001**	**.0012**
Stddev	.0003	.0001	.0002	.0001	.0004	.0001	.0000	.0001	.0001
%RSD	294.8	87.57	73.11	31.70	195.8	8.528	1.058	58.34	11.48
#1	.0003	.0001	-.0003	.0002	-.0001	.0006	.0001	.0002	.0013
#2	-.0001	.0000	-.0001	.0003	.0004	.0006	.0001	.0001	.0011
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**	**-.0000**	**.0006**	**.0004**	**.0004**	**-.0017**	**-.0011**	**-.0045**	**.0063**
Stddev	.0002	.0000	.0002	.0004	.0004	.0006	.0003	.0045	.0021
%RSD	220.5	229.4	36.00	95.12	88.12	37.25	25.57	99.33	33.85
#1	.0002	.0000	.0008	.0001	.0002	-.0012	-.0013	-.0076	.0079
#2	-.0000	-.0000	.0005	.0007	.0007	-.0021	-.0009	-.0013	.0048
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	**.0031**	**.0328**	**.0266**	**-.0236**	**.0011**	**.0013**	**-.0003**	**.0006**	**.0001**
Stddev	.0030	.0037	.0033	.0032	.0010	.0002	.0008	.0000	.0001
%RSD	97.14	11.19	12.45	13.71	99.87	15.41	253.0	7.774	112.4
#1	.0010	.0302	.0289	-.0259	.0018	.0015	.0002	.0006	.0001
#2	.0053	.0354	.0242	-.0213	.0003	.0012	-.0008	.0005	.0000
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: 6/4/2018 18:40:32 Type: QC
Method: Accutest 2(v444) 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**	**.0004**	**.0001**	**.0030**	**.0021**	**.0008**	**.0016**
Stddev	.0002	.0006	.0001	.0009	.0008	.0001	.0001
%RSD	236.6	144.3	118.7	29.90	36.36	12.57	5.509
#1	.0002	-.0000	.0000	.0037	.0016	.0008	.0016
#2	-.0001	.0008	.0002	.0024	.0027	.0007	.0015
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	**89606.**	**14216.**	**3457.8**	**8466.6**
Stddev	53.	76.	1.1	6.9
%RSD	.05883	.53136	.03179	.08092
#1	89569.	14162.	3458.6	8471.4
#2	89644.	14269.	3457.0	8461.7

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 6/4/2018 18:44:55 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.0041**	**.0011**	**.0011**	**.0034**	**.0024**	**.0007**	**.0033**	**.0042**	**.0005**
Stddev	.0002	.0000	.0003	.0001	.0001	.0006	.0000	.0004	.0001
%RSD	4.059	2.703	23.41	1.921	4.206	81.39	1.217	8.842	17.80
#1	.0043	.0012	.0013	.0034	.0023	.0011	.0034	.0039	.0006
#2	.0040	.0011	.0009	.0034	.0025	.0003	.0033	.0044	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0025**	**.0116**	**.0033**	**.0028**	**-.0002**	**.0058**	**-.0014**	**.1217**	**1.073**
Stddev	.0001	.0000	.0008	.0001	.0006	.0009	.0009	.0019	.004
%RSD	5.244	.0952	23.74	3.260	359.9	15.06	59.58	1.526	.3527
#1	.0026	.0116	.0027	.0028	.0002	.0064	-.0020	.1231	1.070
#2	.0024	.0116	.0038	.0027	-.0005	.0052	-.0008	.1204	1.076

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0096**	**.1413**	**2.091**	**1.038**	**.0006**	**.0005**	**-.0026**	**.0002**	**.0001**
Stddev	.0010	.0051	.000	.008	.0007	.0000	.0006	.0001	.0000
%RSD	9.984	3.586	.0144	.7469	123.5	2.344	22.41	41.10	46.65
#1	.0103	.1449	2.091	1.032	.0001	.0005	-.0022	.0003	.0001
#2	.0089	.1377	2.091	1.043	.0011	.0005	-.0031	.0001	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0001**	**.0000**	**.0028**	**-.0003**	**.0042**	**.0008**
Stddev	.0002	.0000	.0000	.0009	.0013	.0003	.0009
%RSD	149.4	29.47	348.2	30.41	390.1	6.227	114.0
#1	.0000	.0001	-.0000	.0034	.0006	.0040	.0002
#2	-.0002	.0001	.0000	.0022	-.0012	.0044	.0015

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**89402.**	**14183.**	**3438.3**	**8378.3**
Stddev	22.	40.	15.0	28.0
%RSD	.02516	.28140	.43765	.33396
#1	89418.	14155.	3427.7	8358.5
#2	89386.	14211.	3448.9	8398.0

Zoom In Zoom Out

Sample Name: mp7404-mb1 2 Acquired: 6/4/2018 18:49:15 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: water

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0001**	**.0001**	**.0001**	**-.0001**	**.0000**	**.0008**	**.0001**	**-.0002**	**.0008**
Stddev	.0000	.0000	.0000	.0000	.0002	.0005	.0000	.0006	.0003
%RSD	48.12	41.34	10.08	54.23	307.3	54.95	2.270	292.6	37.51
#1	.0000	.0001	.0001	-.0000	-.0001	.0012	.0001	.0002	.0006
#2	.0001	.0001	.0000	-.0001	.0002	.0005	.0001	-.0006	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**.0007**	**.0004**	**-.0003**	**-.0009**	**-.0024**	**.0000**	**.0595**	**.0077**
Stddev	.0000	.0000	.0003	.0011	.0003	.0002	.0011	.0115	.0018
%RSD	2.545	1.018	72.57	371.1	29.35	6.467	17340.	19.24	22.72
#1	.0004	.0007	.0002	-.0011	-.0007	-.0025	-.0008	.0514	.0065
#2	.0005	.0007	.0006	.0005	-.0010	-.0023	.0008	.0677	.0090

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0013**	**.0213**	**-.0049**	**-.0225**	**.0011**	**.0001**	**.0178**	**.0006**	**.0000**
Stddev	.0012	.0270	.0071	.0007	.0004	.0003	.0104	.0003	.0000
%RSD	93.19	126.9	145.6	2.919	41.41	222.9	58.54	53.55	742.1
#1	.0022	.0403	.0001	-.0230	.0008	.0003	.0252	.0004	-.0000
#2	.0004	.0022	-.0099	-.0221	.0014	-.0001	.0104	.0008	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**-.0000**	**.0002**	**.0050**	**.0003**	**.0015**	**.0029**
Stddev	.0004	.0004	.0000	.0003	.0005	.0012	.0001
%RSD	166.9	7014.	12.64	6.088	155.5	81.91	3.296
#1	.0005	.0003	.0002	.0048	-.0000	.0023	.0030
#2	-.0000	-.0003	.0002	.0052	.0007	.0006	.0028

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**90233.**	**14357.**	**3455.7**	**8466.4**
Stddev	8.	77.	2.7	13.5
%RSD	.00849	.53819	.07680	.15992
#1	90239.	14303.	3453.8	8456.8
#2	90228.	14412.	3457.5	8476.0

Zoom In Zoom Out

Sample Name: mp7404-mb2 Acquired: 6/4/2018 18:53:34 Type: Unk
Method: Accutest 2(v444) 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
Avg	.0001	-.0001	-.0001	.0001	.0005	.0005	.0001	-.0000	.0008
Stddev	.0001	.0000	.0000	.0003	.0002	.0005	.0000	.0001	.0000
%RSD	45.92	6.051	14.43	327.1	49.46	95.32	17.56	357.9	2.918
#1	.0001	-.0001	-.0001	.0003	.0006	.0008	.0001	-.0001	.0008
#2	.0002	-.0001	-.0001	-.0001	.0003	.0002	.0001	.0000	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0006	.0007	-.0007	-.0005	.0001	.0007	-.0003	.0207	.0200
Stddev	.0001	.0001	.0003	.0002	.0006	.0040	.0004	.0097	.0039
%RSD	24.95	17.74	48.29	44.83	747.4	555.8	128.2	47.07	19.69
#1	.0007	.0008	-.0005	-.0007	-.0003	-.0021	-.0000	.0275	.0172
#2	.0005	.0006	-.0010	-.0003	.0005	.0035	-.0005	.0138	.0228

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0046	.0204	.0139	-.0121	.0014	.0003	.0043	.0009	.0000
Stddev	.0035	.0172	.0002	.0045	.0005	.0000	.0003	.0004	.0000
%RSD	74.73	84.22	1.639	37.33	36.99	1.227	7.600	47.21	416.0
#1	.0022	.0326	.0140	-.0089	.0018	.0003	.0041	.0011	-.0000
#2	.0071	.0083	.0137	-.0154	.0010	.0003	.0046	.0006	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0004	.0008	.0001	.0039	-.0007	.0005	.0025
Stddev	.0002	.0006	.0001	.0007	.0002	.0000	.0001
%RSD	43.63	77.69	89.43	16.83	24.55	3.648	5.238
#1	.0005	.0004	.0001	.0034	-.0008	.0005	.0026
#2	.0003	.0012	.0002	.0044	-.0006	.0005	.0025

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	89842.	14308.	3447.1	8450.6
Stddev	243.	23.	3.3	1.5
%RSD	.27061	.15986	.09470	.01796
#1	89670.	14324.	3449.4	8449.5
#2	90014.	14292.	3444.8	8451.7

Zoom In Zoom Out

Sample Name: mp7404-b1 Acquired: 6/4/2018 18:57:52 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.971	1.960	1.940	1.914	1.966	1.930	1.989	1.943
Stddev	.004	.001	.003	.000	.004	.000	.004	.001
%RSD	.2029	.0665	.1681	.0066	.1890	.0174	.2156	.0250
#1	1.974	1.961	1.942	1.914	1.964	1.930	1.986	1.943
#2	1.968	1.959	1.938	1.914	1.969	1.930	1.992	1.943

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	.2463	1.946	1.967	1.950	2.042	1.968	1.942	1.982
Stddev	.0004	.000	.002	.001	.004	.006	.005	.001
%RSD	.1746	.0026	.0937	.0683	.2014	.3216	.2667	.0432
#1	.2460	1.946	1.968	1.951	2.045	1.973	1.946	1.983
#2	.2466	1.947	1.965	1.949	2.039	1.964	1.938	1.982

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	23.91	24.18	24.87	24.33	24.21	24.52	1.959	2.014
Stddev	.02	.02	.06	.02	.06	.06	.000	.002
%RSD	.0967	.0691	.2438	.0674	.2645	.2278	.0049	.0941
#1	23.93	24.19	24.91	24.31	24.26	24.56	1.959	2.015
#2	23.90	24.17	24.82	24.34	24.17	24.48	1.959	2.012

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	.0481	2.049	1.993	1.987	1.928	1.977	F -.0757	.0015
Stddev	.0007	.003	.004	.003	.002	.002	.0047	.0016
%RSD	1.531	.1593	.2140	.1425	.1162	.1124	6.231	109.0
#1	.0476	2.052	1.996	1.985	1.930	1.975	-.0791	.0003
#2	.0486	2.047	1.990	1.989	1.927	1.978	-.0724	.0026

Elem	Li6707	P_1774
Avg	.0014	1.925
Stddev	.0005	.000
%RSD	33.82	.0032
#1	.0010	1.925
#2	.0017	1.925

Zoom In Zoom Out

Sample Name: mp7404-b1 Acquired: 6/4/2018 18:57:52 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	88019.	14278.	3385.1	7843.0
Stddev	129.	68.	5.4	6.6
%RSD	.14616	.47703	.15836	.08428
#1	88110.	14230.	3381.4	7838.3
#2	87928.	14326.	3388.9	7847.7

Zoom In Zoom Out

Sample Name: mp7404-b3 Acquired: 6/4/2018 19:01:55 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.997	1.977	1.952	1.935	1.997	1.953	2.017	1.963
Stddev	.004	.002	.001	.001	.004	.002	.003	.003
%RSD	.1997	.0906	.0407	.0399	.2034	.0865	.1701	.1424
#1	1.994	1.976	1.951	1.936	1.994	1.954	2.014	1.965
#2	2.000	1.979	1.952	1.935	2.000	1.952	2.019	1.961

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	.2467	1.970	1.987	1.966	2.055	1.985	1.949	1.996
Stddev	.0013	.002	.003	.002	.002	.001	.003	.004
%RSD	.5103	.0980	.1686	.0996	.0931	.0450	.1261	.1776
#1	.2476	1.969	1.989	1.968	2.054	1.985	1.951	1.994
#2	.2458	1.971	1.985	1.965	2.056	1.984	1.948	1.999

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	24.87	25.13	25.82	25.22	25.21	25.53	1.962	2.036
Stddev	.07	.00	.03	.01	.07	.08	.001	.000
%RSD	.2932	.0078	.1020	.0455	.2780	.3313	.0492	.0056
#1	24.82	25.13	25.80	25.22	25.16	25.47	1.963	2.036
#2	24.92	25.13	25.84	25.21	25.26	25.59	1.961	2.036

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	.0130	2.068	2.015	2.017	1.802	2.008	F -.0648	-.0003
Stddev	.0003	.001	.005	.001	.006	.001	.0035	.0007
%RSD	2.121	.0311	.2439	.0627	.3097	.0608	5.432	244.6
#1	.0129	2.067	2.011	2.016	1.798	2.007	-.0624	.0002
#2	.0132	2.068	2.018	2.018	1.806	2.008	-.0673	-.0008

Elem	Li6707	P_1774
Avg	.0015	1.936
Stddev	.0005	.000
%RSD	36.82	.0024
#1	.0019	1.936
#2	.0011	1.936

Zoom In Zoom Out

Sample Name: mp7404-b3 Acquired: 6/4/2018 19:01:55 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**87581.**	**14286.**	**3397.2**	**7858.0**
Stddev	149.	35.	5.7	20.2
%RSD	.16975	.24377	.16809	.25718
#1	87686.	14310.	3393.2	7843.7
#2	87476.	14261.	3401.3	7872.3

Zoom In Zoom Out

Sample Name: mp7404-s1 Acquired: 6/4/2018 19:05:57 Type: Unk
Method: Accutest 2(v444) 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
Avg	**1.991**	**1.969**	**1.969**	**1.936**	**1.984**	**1.948**	**2.013**	**1.966**	**.2498**
Stddev	.000	.001	.009	.001	.004	.002	.005	.003	.0007
%RSD	.0205	.0499	.4490	.0454	.2003	.1253	.2297	.1727	.2870
#1	1.990	1.970	1.963	1.935	1.982	1.946	2.010	1.964	.2493
#2	1.991	1.969	1.975	1.937	1.987	1.949	2.016	1.969	.2503

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.967**	**1.992**	**1.972**	**2.057**	**1.990**	**1.968**	**2.005**	**24.58**	**27.78**
Stddev	.006	.004	.005	.012	.001	.010	.011	.02	.00
%RSD	.3030	.1941	.2587	.5885	.0437	.5269	.5451	.0804	.0087
#1	1.963	1.989	1.968	2.049	1.989	1.960	1.998	24.56	27.78
#2	1.971	1.994	1.975	2.066	1.990	1.975	2.013	24.59	27.78

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.40**	**25.93**	**24.99**	**26.16**	**1.988**	**2.040**	**8.517**	**2.071**	**2.023**
Stddev	.00	.10	.04	.03	.008	.006	.033	.003	.000
%RSD	.0077	.3878	.1485	.1327	.3881	.2989	.3919	.1607	.0001
#1	25.39	26.00	25.01	26.18	1.983	2.035	8.494	2.069	2.023
#2	25.40	25.86	24.96	26.13	1.994	2.044	8.541	2.073	2.023

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.015**	**2.022**	**1.991**	**1.503**	**.0015**	**.0029**	**1.974**
Stddev	.005	.009	.002	.005	.0002	.0018	.007
%RSD	.2412	.4424	.0940	.3448	16.41	64.01	.3458
#1	2.011	2.016	1.990	1.499	.0017	.0042	1.969
#2	2.018	2.028	1.993	1.507	.0013	.0016	1.978

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**88237.**	**14314.**	**3373.4**	**7824.7**
Stddev	325.	37.	7.2	2.9
%RSD	.36874	.26093	.21461	.03649
#1	88467.	14340.	3378.5	7826.8
#2	88007.	14287.	3368.3	7822.7

Zoom In Zoom Out

Sample Name: mp7404-s2 Acquired: 6/4/2018 19:09:58 Type: Unk
Method: Accutest 2(v444) 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
Avg	**1.990**	**1.969**	**1.948**	**1.920**	**1.991**	**1.950**	**2.015**	**1.952**	**.2502**
Stddev	.004	.000	.001	.002	.004	.002	.002	.000	.0013
%RSD	.1787	.0128	.0656	.1176	.1862	.0867	.0757	.0127	.5326
#1	1.992	1.969	1.949	1.922	1.988	1.948	2.014	1.952	.2493
#2	1.987	1.969	1.947	1.919	1.994	1.951	2.016	1.952	.2511

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.973**	**1.977**	**1.955**	**2.042**	**1.974**	**1.945**	**1.986**	**24.46**	**27.74**
Stddev	.007	.002	.002	.001	.003	.003	.000	.01	.01
%RSD	.3544	.0779	.1093	.0529	.1679	.1539	.0028	.0444	.0468
#1	1.968	1.978	1.954	2.041	1.977	1.943	1.986	24.45	27.75
#2	1.978	1.976	1.957	2.043	1.972	1.947	1.987	24.47	27.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.42**	**25.94**	**24.95**	**26.12**	**1.967**	**2.023**	**8.456**	**2.055**	**2.020**
Stddev	.02	.06	.00	.05	.002	.003	.008	.002	.003
%RSD	.0967	.2501	.0153	.1839	.1213	.1460	.0908	.1079	.1371
#1	25.40	25.89	24.95	26.16	1.965	2.026	8.462	2.056	2.022
#2	25.44	25.98	24.95	26.09	1.968	2.021	8.451	2.053	2.018

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.015**	**2.000**	**1.994**	**1.493**	**.0013**	**.0016**	**1.955**
Stddev	.003	.002	.003	.001	.0021	.0002	.002
%RSD	.1374	.0802	.1602	.0934	156.5	9.958	.1040
#1	2.013	1.998	1.992	1.492	-.0001	.0018	1.953
#2	2.017	2.001	1.996	1.494	.0028	.0015	1.956

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**87258.**	**14249.**	**3380.5**	**7831.8**
Stddev	323.	48.	2.3	3.7
%RSD	.37028	.33355	.06783	.04762
#1	87487.	14283.	3378.8	7829.2
#2	87030.	14215.	3382.1	7834.5

Zoom In Zoom Out

Sample Name: jc66975-1 Acquired: 6/4/2018 19:13:59 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.0018**	**.0000**	**.0000**	**-.0000**	**.0007**	**.0012**	**.0100**	**.0005**	**.0007**
Stddev	.0000	.0001	.0001	.0001	.0003	.0005	.0000	.0001	.0005
%RSD	2.025	408.8	165.0	136.4	43.10	40.16	.2853	11.64	72.23
#1	.0018	.0001	-.0000	-.0000	.0009	.0016	.0101	.0004	.0003
#2	.0018	-.0000	.0001	-.0001	.0005	.0009	.0100	.0005	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0009**	**.0021**	**-.0000**	**-.0012**	**.0007**	**.0000**	**-.0003**	**.2262**	**3.316**
Stddev	.0002	.0000	.0003	.0001	.0005	.0004	.0000	.0105	.000
%RSD	20.75	.5485	1232.	6.126	67.09	4492.	17.11	4.658	.0131
#1	.0007	.0021	-.0003	-.0012	.0010	-.0003	-.0003	.2188	3.317
#2	.0010	.0021	.0002	-.0011	.0004	.0003	-.0002	.2337	3.316

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2776**	**1.478**	**.4931**	**1.248**	**.0062**	**.0015**	**8.286**	**-.0003**	**.0127**
Stddev	.0026	.020	.0244	.012	.0002	.0001	.009	.0002	.0001
%RSD	.9282	1.372	4.951	.9772	3.187	3.429	.1130	65.24	.9423
#1	.2794	1.464	.5104	1.257	.0060	.0015	8.280	-.0002	.0126
#2	.2758	1.493	.4759	1.239	.0063	.0016	8.293	-.0005	.0128

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0119**	**.0161**	**.0003**	**1.570**	**-.0005**	**.0027**	**.0191**
Stddev	.0000	.0001	.0000	.002	.0000	.0008	.0003
%RSD	.3395	.7569	16.92	.1136	4.396	29.12	1.713
#1	.0119	.0160	.0003	1.572	-.0005	.0021	.0188
#2	.0119	.0161	.0003	1.569	-.0006	.0032	.0193

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**90313.**	**14444.**	**3463.9**	**8464.7**
Stddev	8.	35.	11.3	27.7
%RSD	.00854	.24045	.32618	.32753
#1	90318.	14469.	3471.9	8484.3
#2	90307.	14420.	3455.9	8445.1

Zoom In Zoom Out

Sample Name: mp7404-sd1 Acquired: 6/4/2018 19:18:17 Type: Unk
Method: Accutest 2(v444) 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
Avg	.0021	.0001	.0002	.0014	-.0014	.0032	.0102	-.0003	.0026
Stddev	.0010	.0001	.0001	.0013	.0010	.0025	.0001	.0002	.0013
%RSD	46.12	68.29	34.97	88.56	77.00	77.37	.7041	64.29	51.73
#1	.0014	.0001	.0002	.0023	-.0021	.0014	.0102	-.0005	.0035
#2	.0028	.0000	.0003	.0005	-.0006	.0049	.0103	-.0002	.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0010	.0047	-.0048	-.0009	-.0003	-.0035	-.0024	.2991	3.353
Stddev	.0004	.0004	.0035	.0080	.0005	.0005	.0023	.0138	.018
%RSD	41.56	9.146	73.20	868.3	134.8	14.97	97.15	4.610	.5524
#1	.0012	.0050	-.0023	-.0066	-.0000	-.0031	-.0040	.2894	3.340
#2	.0007	.0044	-.0072	.0047	-.0007	-.0039	-.0007	.3089	3.366

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.2998	1.601	.6309	1.161	.0119	.0043	8.369	.0025	.0127
Stddev	.0032	.016	.1691	.011	.0002	.0008	.016	.0038	.0000
%RSD	1.083	.9679	26.80	.9470	1.384	18.19	.1894	155.9	.2839
#1	.3021	1.590	.5113	1.169	.0120	.0038	8.380	-.0003	.0127
#2	.2975	1.612	.7504	1.153	.0118	.0049	8.358	.0052	.0127

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0197	.0379	.0008	1.579	-.0023	.0062	.0283
Stddev	.0002	.0096	.0007	.008	.0019	.0124	.0001
%RSD	1.166	25.33	88.21	.4868	84.25	200.9	.4093
#1	.0199	.0447	.0012	1.573	-.0009	.0150	.0283
#2	.0195	.0311	.0003	1.584	-.0036	-.0026	.0282

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	90450.	14266.	3479.4	8520.2
Stddev	91.	26.	2.0	7.8
%RSD	.10061	.18034	.05734	.09126
#1	90386.	14284.	3480.8	8525.7
#2	90514.	14248.	3478.0	8514.7

Zoom In Zoom Out

Sample Name: jc66927-1 Acquired: 6/4/2018 19:22:36 Type: Unk
Method: Accutest 2(v444) 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
Avg	.0779	.0001	.0001	.0011	.0039	.0053	1.064	.0023	.0008
Stddev	.0005	.0001	.0000	.0004	.0004	.0001	.002	.0000	.0002
%RSD	.6135	45.01	12.93	39.70	9.144	1.262	.1831	1.096	19.64
#1	.0782	.0001	.0001	.0014	.0041	.0054	1.063	.0023	.0007
#2	.0775	.0002	.0001	.0008	.0036	.0053	1.065	.0023	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0051	.0435	-.0006	-.0002	.0969	-.0004	-.0019	.7254	61.78
Stddev	.0003	.0001	.0005	.0011	.0014	.0018	.0008	.0067	.16
%RSD	4.951	.3127	79.57	435.4	1.478	486.9	41.93	.9290	.2511
#1	.0053	.0436	-.0003	-.0010	.0959	-.0016	-.0013	.7302	61.89
#2	.0049	.0434	-.0009	.0005	.0979	.0009	-.0025	.7207	61.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	21.67	28.70	3.358	14.21	.1339	.0005	19.58	-.0019	.2999
Stddev	.07	.05	.005	.04	.0005	.0003	.01	.0014	.0006
%RSD	.3164	.1751	.1408	.2690	.4091	52.63	.0291	70.92	.2055
#1	21.72	28.73	3.361	14.24	.1343	.0007	19.58	-.0010	.3003
#2	21.62	28.66	3.355	14.19	.1335	.0003	19.57	-.0029	.2994

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0209	.0233	.0000	.5107	-.0012	.0121	1.982
Stddev	.0003	.0000	.0000	.0019	.0011	.0012	.005
%RSD	1.364	.0158	262.8	.3707	93.40	9.835	.2454
#1	.0207	.0233	-.0000	.5093	-.0004	.0113	1.979
#2	.0211	.0233	.0000	.5120	-.0019	.0130	1.986

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	87509.	14260.	3352.2	7868.3
Stddev	327.	74.	13.2	21.0
%RSD	.37420	.52030	.39231	.26751
#1	87740.	14208.	3342.9	7853.4
#2	87277.	14313.	3361.5	7883.2

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/4/2018 19:26:52 Type: QC
Method: Accutest 2(v444) 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	2.040	2.019	2.017	2.005	2.051	1.993	2.062	2.034	.2518
Stddev	.002	.003	.001	.001	.001	.003	.002	.000	.0007
%RSD	.0741	.1251	.0277	.0560	.0444	.1360	.0730	.0053	.2920
#1	2.041	2.017	2.017	2.006	2.050	1.995	2.061	2.034	.2524
#2	2.039	2.021	2.016	2.004	2.051	1.991	2.063	2.034	.2513
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	2.018	2.050	2.020	2.080	2.054	2.017	2.035	39.81	40.15
Stddev	.001	.002	.002	.002	.003	.000	.005	.08	.06
%RSD	.0465	.1146	.0927	.0865	.1433	.0099	.2249	.1984	.1512
#1	2.017	2.052	2.021	2.079	2.056	2.017	2.031	39.75	40.10
#2	2.019	2.048	2.019	2.081	2.052	2.016	2.038	39.86	40.19
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	40.84	40.25	40.27	40.78	2.027	2.058	5.120	2.090	2.065
Stddev	.04	.18	.01	.03	.001	.001	.003	.001	.003
%RSD	.0982	.4573	.0272	.0790	.0463	.0376	.0549	.0435	.1324
#1	40.82	40.12	40.27	40.75	2.028	2.058	5.118	2.091	2.067
#2	40.87	40.38	40.28	40.80	2.026	2.057	5.122	2.089	2.063
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: 6/4/2018 19:26:52 Type: QC
Method: Accutest 2(v444) 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	2.051	2.038	2.047	1.989	2.050	2.009	2.007
Stddev	.001	.002	.000	.002	.002	.003	.003
%RSD	.0607	.1151	.0032	.1158	.1028	.1225	.1518
#1	2.052	2.040	2.047	1.991	2.049	2.007	2.009
#2	2.050	2.036	2.047	1.987	2.051	2.011	2.005
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	86549.	14118.	3357.8	7652.6
Stddev	103.	87.	3.9	9.2
%RSD	.11900	.61610	.11722	.12014
#1	86476.	14180.	3355.0	7646.1
#2	86622.	14057.	3360.6	7659.1

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 19:30:56 Type: QC
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0001**	**.0004**	**.0004**	**.0008**	**.0002**	**.0001**	**.0003**
Stddev	.0001	.0001	.0001	.0003	.0006	.0006	.0001	.0004	.0004
%RSD	53.84	197.2	87.67	69.19	175.3	83.17	48.19	344.0	140.6
#1	.0001	-.0000	.0002	.0002	.0008	.0012	.0001	.0004	.0000
#2	.0001	.0002	.0001	.0006	-.0001	.0003	.0002	-.0002	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**-.0013**	**.0001**	**.0001**	**-.0010**	**-.0004**	**.0045**	**.0079**
Stddev	.0001	.0001	.0012	.0005	.0008	.0011	.0005	.0034	.0018
%RSD	53.60	35.28	96.13	608.5	552.1	105.0	119.0	76.22	23.32
#1	.0001	.0002	-.0021	.0004	.0007	-.0003	-.0008	.0069	.0066
#2	.0003	.0001	-.0004	-.0003	-.0004	-.0018	-.0001	.0021	.0092
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	**.0003**	**.0221**	**.0099**	**-.0213**	**.0013**	**.0013**	**.0006**	**.0001**	**.0001**
Stddev	.0027	.0008	.0247	.0067	.0008	.0000	.0004	.0000	.0001
%RSD	777.7	3.549	249.5	31.30	59.25	1.214	69.30	20.73	103.6
#1	-.0016	.0216	-.0076	-.0260	.0008	.0013	.0008	.0001	.0000
#2	.0023	.0227	.0274	-.0166	.0019	.0013	.0003	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 19:30:56 Type: QC
Method: Accutest 2(v444) 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**	**.0018**	**.0002**	**.0025**	**.0008**	**.0000**	**.0012**
Stddev	.0000	.0006	.0001	.0003	.0006	.0002	.0001
%RSD	12.55	33.40	76.79	10.06	76.45	2894.	12.13
#1	.0002	.0023	.0003	.0024	.0013	-.0001	.0013
#2	.0002	.0014	.0001	.0027	.0004	.0001	.0011
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	**90444.**	**14270.**	**3467.2**	**8495.9**
Stddev	144.	87.	5.3	3.2
%RSD	.15873	.60670	.15165	.03713
#1	90342.	14208.	3470.9	8493.7
#2	90545.	14331.	3463.5	8498.2

Zoom In Zoom Out

Sample Name: jc66927-2 Acquired: 6/4/2018 19:35:18 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.1735**	**-.0000**	**-.0001**	**.0003**	**.0021**	**.0040**	**1.242**	**.0026**	**.0008**
Stddev	.0001	.0000	.0001	.0001	.0000	.0003	.001	.0002	.0007
%RSD	.0491	55.20	201.7	16.69	1.012	6.733	.0624	6.392	84.39
#1	.1734	-.0001	.0000	.0003	.0021	.0041	1.241	.0027	.0013
#2	.1735	-.0000	-.0001	.0004	.0021	.0038	1.243	.0025	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0032**	**.0153**	**.0374**	**-.0001**	**.0073**	**.0008**	**-.0015**	**.1333**	**84.56**
Stddev	.0002	.0001	.0004	.0004	.0005	.0007	.0008	.0009	.04
%RSD	6.979	.9658	1.161	809.8	7.343	86.96	57.27	.6549	.0520
#1	.0034	.0154	.0371	.0003	.0077	.0012	-.0009	.1339	84.59
#2	.0031	.0152	.0377	-.0004	.0069	.0003	-.0021	.1327	84.53

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.59**	**15.73**	**3.964**	**2.668**	**.0632**	**.0025**	**13.43**	**-.0015**	**.2912**
Stddev	.04	.09	.003	.001	.0014	.0000	.00	.0000	.0006
%RSD	.2892	.6013	.0619	.0302	2.170	.9435	.0117	2.728	.2102
#1	12.62	15.79	3.962	2.667	.0641	.0025	13.42	-.0015	.2916
#2	12.57	15.66	3.966	2.668	.0622	.0025	13.43	-.0015	.2907

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0041**	**.0163**	**.0002**	**2.848**	**-.0015**	**.0133**	**.3095**
Stddev	.0002	.0002	.0000	.002	.0012	.0001	.0027
%RSD	4.102	1.185	.4355	.0722	83.50	.8251	.8587
#1	.0040	.0165	.0002	2.846	-.0023	.0133	.3076
#2	.0042	.0162	.0002	2.849	-.0006	.0132	.3114

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**87968.**	**14244.**	**3362.3**	**7900.6**
Stddev	166.	122.	10.1	21.8
%RSD	.18847	.85563	.29976	.27531
#1	87851.	14158.	3355.1	7885.3
#2	88086.	14330.	3369.4	7916.0

Zoom In Zoom Out

Sample Name: mp7412-mb1 2 Acquired: 6/4/2018 19:39:35 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: water

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0000**	**-.0000**	**.0001**	**.0001**	**-.0004**	**.0008**	**.0000**	**-.0006**	**.0006**
Stddev	.0002	.0000	.0000	.0002	.0006	.0003	.0000	.0003	.0001
%RSD	569.3	188.0	4.768	273.5	161.4	38.64	59.63	46.21	10.87
#1	-.0002	-.0001	.0001	-.0001	-.0007	.0010	.0000	-.0004	.0005
#2	.0001	.0000	.0001	.0002	.0000	.0006	.0000	-.0008	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0006**	**-.0012**	**-.0004**	**-.0004**	**-.0011**	**-.0004**	**.0009**	**.0057**
Stddev	.0002	.0000	.0006	.0002	.0001	.0002	.0009	.0033	.0011
%RSD	50.98	3.614	51.36	44.35	29.71	20.75	245.0	358.0	19.98
#1	.0004	.0005	-.0008	-.0006	-.0005	-.0010	-.0010	-.0014	.0065
#2	.0002	.0006	-.0016	-.0003	-.0003	-.0013	.0003	.0033	.0049

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0001**	**.0156**	**-.0040**	**-.0203**	**.0006**	**.0004**	**.0046**	**.0008**	**.0001**
Stddev	.0025	.0162	.0163	.0019	.0006	.0001	.0010	.0003	.0000
%RSD	2275.	104.0	407.3	9.125	98.13	15.54	21.11	33.19	40.37
#1	-.0019	.0270	.0075	-.0216	.0002	.0004	.0039	.0006	.0000
#2	.0017	.0041	-.0155	-.0190	.0010	.0005	.0052	.0009	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0000**	**.0019**	**.0002**	**.0030**	**.0012**	**.0018**	**.0011**
Stddev	.0003	.0002	.0000	.0021	.0008	.0001	.0012
%RSD	967.5	10.53	1.365	71.03	66.35	7.034	114.2
#1	-.0002	.0021	.0002	.0015	.0006	.0019	.0019
#2	.0003	.0018	.0002	.0045	.0017	.0017	.0002

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**90562.**	**14306.**	**3465.5**	**8500.3**
Stddev	124.	5.	1.8	17.0
%RSD	.13677	.03607	.05309	.19944
#1	90650.	14310.	3464.2	8488.3
#2	90474.	14303.	3466.8	8512.2

Zoom In Zoom Out

Sample Name: mp7412-b1 Acquired: 6/4/2018 19:43:56 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.048**	**2.023**	**2.007**	**1.986**	**2.038**	**2.003**	**2.058**	**2.011**
Stddev	.004	.007	.001	.001	.006	.002	.001	.004
%RSD	.1847	.3251	.0617	.0309	.2906	.0980	.0641	.1723
#1	2.046	2.019	2.008	1.986	2.043	2.004	2.059	2.014
#2	2.051	2.028	2.006	1.987	2.034	2.001	2.057	2.009

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2560**	**2.023**	**2.031**	**2.022**	**2.110**	**2.037**	**2.010**	**2.062**
Stddev	.0003	.005	.000	.002	.004	.005	.000	.002
%RSD	.1058	.2538	.0129	.0786	.2018	.2462	.0209	.0734
#1	.2558	2.027	2.031	2.023	2.113	2.033	2.010	2.063
#2	.2562	2.020	2.031	2.021	2.107	2.040	2.010	2.061

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.75**	**25.97**	**26.49**	**25.90**	**26.05**	**26.39**	**2.036**	**2.093**
Stddev	.03	.04	.11	.08	.05	.04	.001	.001
%RSD	.1337	.1479	.4236	.3137	.1766	.1502	.0264	.0277
#1	25.72	25.94	26.41	25.85	26.02	26.36	2.036	2.094
#2	25.77	26.00	26.57	25.96	26.08	26.42	2.037	2.093

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0379**	**2.121**	**2.060**	**2.071**	**1.991**	**2.056**	F **-.0776**	**.0026**
Stddev	.0004	.001	.004	.003	.006	.001	.0007	.0013
%RSD	1.060	.0625	.2102	.1340	.3154	.0260	.9115	51.77
#1	.0376	2.122	2.057	2.073	1.987	2.057	-.0781	.0035
#2	.0382	2.120	2.063	2.069	1.996	2.056	-.0771	.0016

Elem	Li6707	P_1774
Avg	**.0014**	**1.998**
Stddev	.0001	.002
%RSD	5.763	.1134
#1	.0014	1.997
#2	.0015	2.000

Zoom In Zoom Out

Sample Name: mp7412-b1 Acquired: 6/4/2018 19:43:56 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**87858.**	**14266.**	**3391.8**	**7848.4**
Stddev	112.	34.	1.4	8.5
%RSD	.12715	.24009	.04002	.10893
#1	87779.	14290.	3390.8	7842.3
#2	87937.	14242.	3392.7	7854.4

Zoom In Zoom Out

Sample Name: mp7412-s1 Acquired: 6/4/2018 19:48:00 Type: Unk
Method: Accutest 2(v444) 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
Avg	**2.094**	**2.001**	**2.004**	**1.978**	**2.004**	**1.977**	**2.184**	**2.002**	**.2568**
Stddev	.004	.001	.002	.004	.000	.005	.002	.004	.0012
%RSD	.1964	.0668	.1202	.2253	.0022	.2760	.0923	.2185	.4719
#1	2.091	2.000	2.005	1.981	2.004	1.981	2.183	2.005	.2576
#2	2.097	2.002	2.002	1.975	2.004	1.973	2.186	1.999	.2559

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.005**	**1.996**	**2.033**	**2.036**	**2.005**	**2.013**	**2.047**	**24.95**	**95.96**
Stddev	.002	.005	.003	.003	.005	.001	.002	.04	.14
%RSD	.0962	.2740	.1257	.1268	.2331	.0334	.0911	.1573	.1483
#1	2.004	2.000	2.035	2.038	2.008	2.013	2.046	24.92	95.86
#2	2.007	1.992	2.031	2.034	2.002	2.012	2.048	24.97	96.06

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.64**	**40.74**	**81.95**	**81.68**	**2.174**	**2.054**	**3.344**	**2.052**	**2.642**
Stddev	.04	.13	.17	.11	.000	.002	.000	.001	.003
%RSD	.1528	.3131	.2081	.1351	.0148	.0826	.0086	.0403	.1080
#1	26.61	40.65	81.83	81.60	2.175	2.056	3.344	2.052	2.640
#2	26.67	40.83	82.07	81.76	2.174	2.053	3.344	2.051	2.644

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.035**	**2.015**	**2.033**	**40.86**	**.0029**	**.0459**	**2.024**
Stddev	.000	.002	.001	.06	.0012	.0000	.002
%RSD	.0196	.0882	.0253	.1387	41.69	.0742	.0796
#1	2.036	2.017	2.033	40.90	.0037	.0460	2.025
#2	2.035	2.014	2.032	40.82	.0020	.0459	2.022

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**84727.**	**14121.**	**3272.5**	**7397.0**
Stddev	263.	89.	1.9	6.3
%RSD	.31070	.63136	.05776	.08497
#1	84541.	14184.	3271.2	7392.6
#2	84913.	14058.	3273.8	7401.5

Zoom In Zoom Out

Sample Name: mp7412-s2 Acquired: 6/4/2018 19:52:00 Type: Unk
Method: Accutest 2(v444) 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
Avg	**2.109**	**2.009**	**2.017**	**1.997**	**2.020**	**1.989**	**2.202**	**2.018**	**.2596**
Stddev	.000	.003	.002	.001	.000	.001	.002	.002	.0001
%RSD	.0016	.1601	.0913	.0370	.0116	.0604	.0746	.1001	.0280
#1	2.109	2.012	2.016	1.996	2.020	1.989	2.204	2.016	.2596
#2	2.109	2.007	2.018	1.997	2.020	1.988	2.201	2.019	.2597

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.029**	**2.012**	**2.062**	**2.055**	**2.023**	**2.033**	**2.068**	**25.31**	**97.63**
Stddev	.001	.001	.002	.004	.000	.001	.002	.04	.01
%RSD	.0554	.0291	.0726	.1927	.0117	.0579	.0826	.1700	.0134
#1	2.028	2.013	2.064	2.052	2.024	2.032	2.067	25.28	97.63
#2	2.030	2.012	2.061	2.057	2.023	2.034	2.069	25.34	97.64

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.74**	**41.05**	**83.18**	**82.90**	**2.194**	**2.079**	**3.374**	**2.078**	**2.664**
Stddev	.03	.02	.01	.05	.003	.002	.001	.002	.005
%RSD	.1196	.0519	.0103	.0571	.1413	.0823	.0255	.0991	.1850
#1	26.71	41.06	83.17	82.94	2.192	2.078	3.373	2.076	2.667
#2	26.76	41.03	83.18	82.87	2.196	2.081	3.374	2.079	2.660

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.063**	**2.024**	**2.058**	**41.76**	**.0014**	**.0463**	**2.044**
Stddev	.001	.003	.001	.09	.0017	.0003	.000
%RSD	.0536	.1498	.0401	.2185	123.3	.6927	.0146
#1	2.064	2.022	2.059	41.70	.0002	.0466	2.043
#2	2.062	2.026	2.058	41.83	.0027	.0461	2.044

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**84519.**	**14120.**	**3268.0**	**7377.7**
Stddev	40.	53.	2.5	4.2
%RSD	.04763	.37885	.07578	.05662
#1	84547.	14158.	3269.7	7380.7
#2	84490.	14082.	3266.2	7374.8

Zoom In
Zoom Out

Sample Name: jc66957-3 Acquired: 6/4/2018 19:56:00 Type: Unk
Method: Accutest 2(v444) 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
Avg	.0779	-.0001	.0001	.0001	.0007	.0020	.1659	.0001	.0009
Stddev	.0000	.0000	.0001	.0003	.0002	.0001	.0001	.0003	.0000
%RSD	.0058	33.81	93.74	257.9	35.17	3.188	.0512	443.6	.1104
#1	.0779	-.0001	.0002	.0003	.0005	.0020	.1658	-.0001	.0009
#2	.0779	-.0000	.0000	-.0001	.0008	.0019	.1660	.0003	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0009	.0062	-.0001	.0017	-.0013	.0001	-.0020	-.0015	71.05
Stddev	.0004	.0000	.0016	.0003	.0007	.0009	.0003	.0008	.00
%RSD	39.75	.0190	3022.	18.41	51.01	922.7	17.44	54.28	.0009
#1	.0007	.0062	-.0012	.0020	-.0018	.0008	-.0022	-.0021	71.05
#2	.0012	.0062	.0011	.0015	-.0008	-.0006	-.0018	-.0009	71.05

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	1.224	15.85	56.04	55.87	.1675	.0036	3.319	-.0005	.6067
Stddev	.002	.03	.09	.01	.0013	.0003	.008	.0003	.0015
%RSD	.1549	.1824	.1572	.0188	.7646	8.486	.2288	55.31	.2486
#1	1.223	15.87	56.10	55.88	.1684	.0038	3.325	-.0007	.6078
#2	1.225	15.83	55.97	55.86	.1666	.0034	3.314	-.0003	.6057

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-.0002	.0092	.0012	41.25	.0004	.0449	.0065
Stddev	.0001	.0010	.0001	.23	.0011	.0002	.0009
%RSD	34.61	11.19	5.000	.5582	301.2	.5168	14.36
#1	-.0002	.0099	.0012	41.41	-.0004	.0448	.0058
#2	-.0003	.0085	.0013	41.09	.0012	.0451	.0072

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	85485.	14145.	3278.5	7628.4
Stddev	47.	71.	.7	2.4
%RSD	.05538	.50277	.02263	.03194
#1	85452.	14195.	3279.1	7630.2
#2	85518.	14094.	3278.0	7626.7

Zoom In
Zoom Out

Sample Name: mp7412-sd1 Acquired: 6/4/2018 20:00:15 Type: Unk
Method: Accutest 2(v444) 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
Avg	.0764	-.0004	-.0003	.0011	.0028	.0061	.1676	-.0007	.0040
Stddev	.0009	.0002	.0004	.0008	.0006	.0039	.0002	.0015	.0019
%RSD	1.124	52.69	149.9	68.33	21.75	62.82	.1007	222.6	48.62
#1	.0770	-.0002	-.0005	.0017	.0033	.0089	.1677	.0004	.0053
#2	.0758	-.0005	.0000	.0006	.0024	.0034	.1674	-.0017	.0026

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0015	.0090	.0011	.0024	.0040	-.0047	-.0064	.0439	70.77
Stddev	.0013	.0008	.0022	.0013	.0043	.0047	.0091	.0200	.02
%RSD	85.11	8.581	199.6	51.83	110.0	99.31	143.7	45.57	.0285
#1	.0025	.0084	-.0004	.0015	.0070	-.0014	-.0128	.0297	70.75
#2	.0006	.0095	.0026	.0033	.0009	-.0081	.0001	.0580	70.78

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	1.228	16.07	55.54	55.35	.1714	.0043	3.305	.0006	.6051
Stddev	.024	.03	.28	.19	.0018	.0009	.011	.0010	.0010
%RSD	1.985	.2047	.4967	.3448	1.077	20.03	.3223	153.5	.1592
#1	1.211	16.05	55.35	55.21	.1727	.0037	3.312	.0013	.6044
#2	1.246	16.09	55.74	55.48	.1701	.0049	3.297	-.0001	.6058

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-.0020	.0220	.0025	40.28	-.0040	.0500	.0112
Stddev	.0007	.0003	.0003	.07	.0099	.0002	.0012
%RSD	35.81	1.455	12.65	.1731	245.1	.3802	10.88
#1	-.0015	.0222	.0022	40.33	-.0110	.0499	.0104
#2	-.0025	.0218	.0027	40.23	.0030	.0502	.0121

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	88784.	14262.	3422.1	8233.3
Stddev	179.	43.	4.1	17.3
%RSD	.20149	.30473	.11935	.20961
#1	88911.	14293.	3425.0	8245.5
#2	88658.	14231.	3419.3	8221.1

Zoom In
Zoom Out

Sample Name: jc66697-5 Acquired: 6/4/2018 20:04:31 Type: Unk
Method: Accutest 2(v444) 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
Avg	.0017	.0001	.0090	.0027	.0345	.0912	.1763	.0213	.0005
Stddev	.0000	.0000	.0002	.0001	.0001	.0018	.0001	.0004	.0001
%RSD	2.140	79.11	1.918	2.006	.3638	2.000	.0521	2.086	29.22
#1	.0017	.0000	.0091	.0027	.0344	.0899	.1764	.0217	.0006
#2	.0017	.0001	.0089	.0026	.0346	.0924	.1762	.0210	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0018	.0530	.0025	-.0006	.0019	-.0008	.0013	.0486	.3135
Stddev	.0003	.0001	.0002	.0004	.0006	.0018	.0016	.0049	.0004
%RSD	17.14	.1697	9.892	69.50	30.02	236.2	120.3	9.994	.1158
#1	.0020	.0530	.0026	-.0003	.0015	.0005	.0024	.0452	.3132
#2	.0016	.0531	.0023	-.0009	.0023	-.0020	.0002	.0521	.3138

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	18.35	.0870	.0868	5.216	.0042	.0043	.3102	.0019	.0018
Stddev	.09	.0084	.0142	.006	.0002	.0001	.0001	.0003	.0001
%RSD	.4697	9.678	16.33	.1227	4.411	2.160	.0399	17.03	6.487
#1	18.29	.0930	.0768	5.212	.0044	.0044	.3102	.0017	.0019
#2	18.41	.0811	.0969	5.221	.0041	.0043	.3101	.0021	.0017

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0054	.0041	.0006	57.24	-.0031	.0007	.0176
Stddev	.0001	.0009	.0000	.15	.0003	.0016	.0020
%RSD	2.684	22.80	5.518	.2611	8.731	223.5	11.22
#1	.0053	.0047	.0006	57.13	-.0033	-.0004	.0162
#2	.0055	.0034	.0006	57.34	-.0029	.0018	.0190

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	90328.	14430.	3460.9	8419.2
Stddev	8.	22.	3.4	6.4
%RSD	.00867	.15061	.09815	.07643
#1	90334.	14415.	3463.3	8414.7
#2	90322.	14446.	3458.5	8423.8

Zoom In
Zoom Out

Sample Name: jc66697-12conf Acquired: 6/4/2018 20:08:47 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.0003	-.0000	.0001	.0001	.0002	W -.0048	.0009	.0004
Stddev	.0003	.0001	.0001	.0001	.0003	.0086	.0012	.0000
%RSD	91.42	275.3	135.2	103.6	163.3	179.9	132.4	.2387
#1	.0001	-.0001	.0002	.0001	.0004	.0013	.0017	.0004
#2	.0005	.0000	.0000	.0000	-.0000	-.0108	.0001	.0004

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	.0013	.0002	.0056	-.0011	-.0010	.0002	.0000	.0007
Stddev	.0008	.0005	.0001	.0008	.0003	.0004	.0003	.0002
%RSD	62.69	271.5	1.469	72.69	31.43	253.4	545.7	25.83
#1	.0007	.0006	.0056	-.0005	-.0008	.0004	.0002	.0008
#2	.0019	-.0002	.0057	-.0016	-.0013	-.0001	-.0001	.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	.0141	.0550	.0445	.0260	.0512	.0370	.0023	.0005
Stddev	.0113	.0007	.0003	.0081	.0076	.0105	.0005	.0001
%RSD	80.44	1.212	.6481	31.07	14.84	28.42	21.17	21.62
#1	.0221	.0545	.0443	.0317	.0566	.0445	.0026	.0004
#2	.0061	.0555	.0447	.0203	.0458	.0296	.0019	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	.0814	.0006	.0005	.0001	.0031	.0004	8.163	-.0009
Stddev	.0009	.0007	.0000	.0001	.0007	.0004	.046	.0003
%RSD	1.142	120.9	2.221	174.4	21.45	109.8	.5628	27.59
#1	.0820	.0001	.0005	-.0000	.0036	.0001	8.196	-.0007
#2	.0807	.0011	.0005	.0002	.0026	.0007	8.131	-.0011

Elem	Li6707	P_1774
Avg	.0000	.0335
Stddev	.0009	.0002
%RSD	2009.	.6829
#1	.0007	.0336
#2	-.0006	.0333

Zoom In Zoom Out

Sample Name: jc66697-12conf Acquired: 6/4/2018 20:08:47 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	*****	**14279.**	**3443.3**	**8486.2**
Stddev	-----	64.	5.6	9.8
%RSD	-----	.44830	.16331	.11579
#1	90395.	14324.	3439.3	8479.2
#2	-----	14234.	3447.3	8493.1

Zoom In Zoom Out

Sample Name: mp7401-b2 2 Acquired: 6/4/2018 20:13:05 Type: Unk
Method: Accutest 2(v444) 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
Avg	**2.033**	**2.006**	**1.985**	**1.968**	**2.028**	**1.977**	**2.041**	**1.989**	**.2517**
Stddev	.003	.000	.006	.003	.004	.002	.003	.003	.0002
%RSD	.1622	.0101	.3243	.1580	.1851	.0803	.1463	.1446	.0763
#1	2.036	2.006	1.981	1.965	2.025	1.979	2.039	1.987	.2518
#2	2.031	2.006	1.990	1.970	2.031	1.976	2.043	1.991	.2515

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.019**	**2.018**	**1.982**	**2.072**	**2.002**	**1.972**	**2.015**	**24.71**	**25.01**
Stddev	.007	.004	.009	.005	.006	.006	.003	.04	.02
%RSD	.3437	.1947	.4806	.2345	.2852	.3045	.1385	.1822	.0901
#1	2.014	2.016	1.975	2.069	1.998	1.967	2.013	24.75	25.03
#2	2.024	2.021	1.988	2.076	2.006	1.976	2.017	24.68	25.00

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.47**	**24.94**	**25.10**	**25.38**	**1.967**	**2.063**	**5.083**	**2.119**	**2.050**
Stddev	.02	.06	.04	.03	.004	.009	.019	.006	.002
%RSD	.0861	.2590	.1400	.1363	.2248	.4233	.3796	.2948	.1096
#1	25.48	24.99	25.12	25.41	1.964	2.057	5.069	2.115	2.052
#2	25.45	24.90	25.07	25.36	1.970	2.069	5.097	2.124	2.049

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.035**	**2.033**	**2.021**	**1.880**	**.0002**	**1.955**	**1.999**
Stddev	.002	.010	.002	.001	.0016	.002	.010
%RSD	.1006	.4941	.0722	.0626	866.2	.1172	.5090
#1	2.034	2.026	2.020	1.879	-.0009	1.957	1.992
#2	2.037	2.040	2.022	1.881	.0013	1.954	2.006

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**87184.**	**14077.**	**3348.4**	**7785.7**
Stddev	190.	62.	11.4	25.3
%RSD	.21774	.44223	.34041	.32514
#1	87319.	14033.	3356.5	7803.6
#2	87050.	14121.	3340.4	7767.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/4/2018 20:17:08 Type: QC
Method: Accutest 2(v444) 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	**2.073**	**2.052**	**2.040**	**2.025**	**2.080**	**2.013**	**2.088**	**2.051**	**.2552**
Stddev	.009	.012	.001	.003	.001	.007	.004	.001	.0009
%RSD	.4353	.5689	.0472	.1374	.0541	.3409	.1787	.0636	.3659
#1	2.079	2.060	2.041	2.027	2.081	2.018	2.091	2.052	.2559
#2	2.067	2.044	2.040	2.023	2.079	2.008	2.086	2.050	.2546
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**	**2.069**	**2.039**	**2.108**	**2.070**	**2.033**	**2.061**	**40.58**	**40.91**
Stddev	.000	.001	.004	.001	.005	.000	.001	.23	.28
%RSD	.0061	.0475	.2033	.0548	.2532	.0193	.0674	.5698	.6737
#1	2.048	2.070	2.042	2.109	2.073	2.034	2.062	40.74	41.11
#2	2.048	2.068	2.036	2.107	2.066	2.033	2.060	40.41	40.72
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	**41.42**	**40.90**	**41.13**	**41.53**	**2.058**	**2.080**	**5.175**	**2.111**	**2.100**
Stddev	.14	.20	.17	.18	.001	.003	.001	.000	.007
%RSD	.3287	.4956	.4256	.4237	.0357	.1528	.0279	.0015	.3326
#1	41.51	41.04	41.26	41.65	2.059	2.082	5.174	2.111	2.105
#2	41.32	40.75	41.01	41.40	2.058	2.077	5.177	2.111	2.095
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: 6/4/2018 20:17:08 Type: QC
Method: Accutest 2(v444) 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	**2.076**	**2.058**	**2.071**	**2.021**	**2.074**	**2.055**	**2.039**
Stddev	.005	.002	.005	.009	.004	.013	.002
%RSD	.2211	.1051	.2395	.4372	.1696	.6171	.0975
#1	2.079	2.059	2.075	2.015	2.077	2.064	2.040
#2	2.073	2.056	2.068	2.027	2.072	2.046	2.037
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	**85688.**	**13890.**	**3322.3**	**7584.4**
Stddev	67.	68.	7.9	22.6
%RSD	.07790	.48644	.23894	.29758
#1	85736.	13842.	3316.7	7568.4
#2	85641.	13938.	3327.9	7600.3

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 20:21:13 Type: QC
Method: Accutest 2(v444) 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**	**.0000**	**.0002**	**.0003**	**-.0003**	**.0005**	**.0001**	**-.0002**	**.0005**
Stddev	.0004	.0000	.0001	.0002	.0000	.0001	.0000	.0000	.0003
%RSD	176.7	147.8	26.17	74.48	14.42	10.49	8.339	16.17	63.17
#1	.0001	.0000	.0002	.0001	-.0003	.0005	.0001	-.0002	.0003
#2	-.0005	-.0000	.0003	.0004	-.0003	.0005	.0001	-.0002	.0007
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	**.0004**	**.0001**	**-.0003**	**-.0001**	**.0005**	**-.0011**	**-.0017**	**.0070**	**.0019**
Stddev	.0004	.0001	.0003	.0000	.0002	.0010	.0014	.0056	.0002
%RSD	89.48	99.17	99.06	17.16	41.27	89.54	82.91	80.24	8.629
#1	.0007	.0000	-.0006	-.0001	.0007	-.0004	-.0027	.0110	.0020
#2	.0002	.0001	-.0001	-.0002	.0004	-.0019	-.0007	.0030	.0018
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	**-.0016**	**.0041**	**.0279**	**-.0200**	**.0017**	**.0014**	**.0000**	**.0007**	**.0001**
Stddev	.0005	.0071	.0067	.0091	.0003	.0001	.0016	.0005	.0002
%RSD	33.32	173.2	23.99	45.72	17.87	7.170	20970.	81.26	346.5
#1	-.0012	.0091	.0327	-.0264	.0015	.0015	-.0011	.0003	.0002
#2	-.0020	-.0009	.0232	-.0135	.0019	.0014	.0011	.0011	-.0001
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: 6/4/2018 20:21:13 Type: QC
Method: Accutest 2(v444) 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**	**.0013**	**.0000**	**.0042**	**.0001**	**.0016**	**-.0001**
Stddev	.0002	.0007	.0001	.0014	.0008	.0015	.0004
%RSD	173.3	53.21	7583.	33.25	583.5	98.17	323.9
#1	.0003	.0019	-.0001	.0032	.0007	.0005	-.0004
#2	-.0000	.0008	.0001	.0052	-.0004	.0027	.0002
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	**89721.**	**14150.**	**3445.7**	**8448.8**
Stddev	162.	97.	1.9	13.6
%RSD	.18060	.68497	.05415	.16149
#1	89836.	14082.	3447.0	8458.4
#2	89607.	14219.	3444.4	8439.1

Zoom In Zoom Out

Sample Name: mp7401-mb2 Acquired: 6/4/2018 20:25:34 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: water

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0002**	**.0001**	**.0001**	**-.0001**	**.0006**	**.0010**	**.0001**	**.0002**	**.0002**
Stddev	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0005
%RSD	66.11	136.8	92.34	140.2	13.71	.6039	37.36	8.749	297.6
#1	-.0003	.0000	.0000	-.0001	.0007	.0010	.0001	.0002	.0005
#2	-.0001	.0001	.0002	-.0000	.0006	.0010	.0001	.0002	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0004**	**-.0006**	**-.0017**	**-.0002**	**-.0004**	**.0006**	**.0113**	**.0131**
Stddev	.0002	.0001	.0006	.0003	.0004	.0010	.0010	.0009	.0011
%RSD	84.19	26.76	110.3	16.82	224.6	243.6	182.4	7.822	8.359
#1	.0005	.0005	-.0010	-.0015	-.0005	-.0011	.0013	.0120	.0124
#2	.0001	.0004	-.0001	-.0019	.0001	.0003	-.0002	.0107	.0139

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0057**	**.0178**	**.0411**	**-.0197**	**.0008**	**.0008**	**.0166**	**.0390**	**.0001**
Stddev	.0029	.0031	.0117	.0039	.0004	.0001	.0001	.0006	.0000
%RSD	50.36	17.61	28.46	19.89	45.33	17.81	.3114	1.466	98.12
#1	.0077	.0156	.0328	-.0169	.0011	.0009	.0166	.0394	.0000
#2	.0037	.0200	.0494	-.0224	.0006	.0007	.0166	.0386	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0048**	**.0003**	**.0077**	**-.0021**	**.0020**	**.0337**
Stddev	.0002	.0006	.0001	.0013	.0002	.0018	.0002
%RSD	68.62	13.19	19.02	17.03	11.49	92.14	.4794
#1	.0001	.0044	.0004	.0086	-.0022	.0007	.0335
#2	.0004	.0053	.0003	.0068	-.0019	.0033	.0338

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**89844.**	**14170.**	**3406.0**	**8381.1**
Stddev	356.	32.	7.8	24.7
%RSD	.39604	.22398	.22972	.29429
#1	89592.	14193.	3400.5	8363.7
#2	90095.	14148.	3411.5	8398.5

Zoom In Zoom Out

Sample Name: jc65440-1 Acquired: 6/4/2018 20:29:55 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.0542**	**.0006**	**.0003**	**.0027**	**.0111**	**.3557**	**.2039**	**.0255**	**.0008**
Stddev	.0000	.0000	.0001	.0000	.0006	.0007	.0002	.0000	.0000
%RSD	.0261	3.939	32.15	.2615	5.446	.1884	.0987	.0830	4.648
#1	.0542	.0006	.0004	.0027	.0106	.3552	.2038	.0255	.0008
#2	.0541	.0005	.0003	.0027	.0115	.3561	.2040	.0255	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0031**	**1.528**	**.0015**	**-.0009**	**.2457**	**.0008**	**.0422**	**1.510**	**7.915**
Stddev	.0003	.000	.0018	.0014	.0014	.0019	.0005	.008	.001
%RSD	9.336	.0104	118.4	155.0	.5634	224.8	1.128	.5432	.0170
#1	.0033	1.528	.0028	-.0018	.2447	.0022	.0419	1.505	7.914
#2	.0029	1.529	.0003	.0001	.2467	-.0005	.0426	1.516	7.916

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**19.94**	**1.763**	**3.335**	**13.40**	**.0397**	**.0061**	**2.184**	**.0340**	**.0600**
Stddev	.03	.007	.023	.01	.0009	.0001	.012	.0006	.0000
%RSD	.1357	.3821	.6942	.0938	2.169	.8755	.5646	1.847	.0578
#1	19.96	1.768	3.318	13.39	.0403	.0061	2.193	.0345	.0600
#2	19.92	1.758	3.351	13.41	.0391	.0061	2.175	.0336	.0599

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0354**	**.0041**	**.0024**	**14.01**	**-.0029**	**.0204**	**.3295**
Stddev	.0008	.0007	.0000	.03	.0007	.0003	.0002
%RSD	2.264	18.14	.4410	.1833	23.66	1.377	.0648
#1	.0360	.0046	.0024	13.99	-.0034	.0206	.3297
#2	.0349	.0036	.0024	14.03	-.0024	.0202	.3294

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**88040.**	**14135.**	**3376.5**	**8159.4**
Stddev	22.	14.	2.9	21.8
%RSD	.02481	.10044	.08464	.26715
#1	88055.	14125.	3374.4	8143.9
#2	88024.	14145.	3378.5	8174.8

Zoom In Zoom Out

Sample Name: la44470-1 Acquired: 6/4/2018 20:34:10 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.2678**	**.0001**	**.0001**	**.0000**	**.0021**	**.0021**	**.1061**	**.0012**
Stddev	.0008	.0001	.0002	.0000	.0000	.0000	.0002	.0000
%RSD	.3160	166.8	141.7	2524.	.0636	.7000	.2002	2.939
#1	.2672	.0001	.0003	-.0000	.0021	.0021	.1062	.0012
#2	.2684	-.0000	-.0000	.0000	.0021	.0021	.1059	.0012

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0008**	**.0011**	**.0001**	**-.0013**	**-.0008**	**.0001**	**-.0006**	**-.0009**
Stddev	.0002	.0004	.0001	.0010	.0003	.0003	.0006	.0004
%RSD	26.87	33.64	218.1	75.32	31.29	505.6	96.99	45.24
#1	.0010	.0013	.0001	-.0006	-.0007	.0003	-.0002	-.0012
#2	.0007	.0008	-.0000	-.0020	-.0010	-.0002	-.0010	-.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0338**	**52.64**	**.2564**	**11.15**	**1.849**	**51.76**	**.0376**	**.0006**
Stddev	.0024	.01	.0049	.13	.021	.09	.0000	.0000
%RSD	6.970	.0130	1.900	1.198	1.164	.1691	.0041	6.614
#1	.0322	52.63	.2529	11.06	1.834	51.70	.0376	.0006
#2	.0355	52.64	.2598	11.25	1.864	51.82	.0376	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**19.41**	**.0320**	**1.047**	**.0018**	**.0205**	W **-.0012**	**3.050**	**-.0010**
Stddev	.07	.0004	.002	.0001	.0006	.0000	.010	.0005
%RSD	.3707	1.357	.2084	4.531	2.742	3.970	.3352	49.22
#1	19.35	.0323	1.045	.0017	.0201	-.0012	3.057	-.0007
#2	19.46	.0317	1.048	.0018	.0209	-.0012	3.043	-.0014

Elem	Li6707	P_1774
Avg	**.0416**	**.3240**
Stddev	.0005	.0001
%RSD	1.162	.0425
#1	.0420	.3241
#2	.0413	.3239

Zoom In Zoom Out

Sample Name: la44470-1 Acquired: 6/4/2018 20:34:10 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**86541.**	**14118.**	**3322.7**	**7772.3**
Stddev	122.	48.	12.8	27.5
%RSD	.14116	.34241	.38538	.35338
#1	86455.	14152.	3331.8	7791.7
#2	86627.	14083.	3313.7	7752.8

Zoom In Zoom Out

Sample Name: jc66860-12 2 Acquired: 6/4/2018 20:38:28 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.0043**	**.0000**	**-.0001**	**.0001**	**.0000**	**.0038**	**.0019**	**.0013**	**.0007**
Stddev	.0001	.0001	.0002	.0003	.0000	.0000	.0000	.0002	.0001
%RSD	3.319	200.0	269.1	311.1	3070.	.4471	.8075	15.93	16.29
#1	.0042	.0001	-.0002	.0003	.0000	.0038	.0019	.0012	.0006
#2	.0044	-.0000	.0001	-.0001	-.0000	.0038	.0019	.0015	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**.0018**	**-.0008**	**-.0005**	**.0001**	**-.0008**	**-.0011**	**.0196**	**.4872**
Stddev	.0001	.0001	.0004	.0011	.0003	.0025	.0004	.0087	.0028
%RSD	35.71	3.641	51.29	234.5	300.2	292.6	39.66	44.48	.5774
#1	.0005	.0017	-.0005	-.0012	.0003	-.0026	-.0014	.0258	.4852
#2	.0003	.0018	-.0011	.0003	-.0001	.0009	-.0008	.0135	.4892

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0152**	**.1051**	**.0494**	**1.014**	**.0033**	**.0007**	**.8233**	**.0010**	**.0013**
Stddev	.0001	.0184	.0206	.006	.0010	.0001	.0011	.0000	.0000
%RSD	.8210	17.54	41.64	.5879	31.62	17.43	.1375	.8458	.8858
#1	.0151	.0921	.0349	1.010	.0025	.0006	.8225	.0010	.0013
#2	.0152	.1181	.0640	1.019	.0040	.0008	.8241	.0009	.0013

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0010**	**.0013**	**.0000**	**.0168**	**-.0013**	**.0018**	**.0014**
Stddev	.0003	.0011	.0002	.0018	.0016	.0016	.0003
%RSD	33.69	79.46	468.6	10.99	128.8	87.60	20.90
#1	.0007	.0006	.0002	.0155	-.0001	.0007	.0016
#2	.0012	.0021	-.0001	.0181	-.0024	.0029	.0012

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**89816.**	**14071.**	**3423.0**	**8409.8**
Stddev	25.	2.	4.0	5.9
%RSD	.02733	.01283	.11808	.07034
#1	89833.	14072.	3425.9	8405.6
#2	89798.	14070.	3420.2	8414.0

Zoom In Zoom Out

Sample Name: mp7466-b1 2 Acquired: 6/4/2018 20:42:48 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.054**	**2.034**	**2.002**	**1.991**	**2.043**	**1.997**	**2.060**	**2.008**
Stddev	.003	.003	.001	.001	.008	.001	.002	.003
%RSD	.1481	.1543	.0419	.0338	.4069	.0236	.1131	.1435
#1	2.057	2.036	2.003	1.990	2.037	1.997	2.058	2.010
#2	2.052	2.032	2.002	1.991	2.049	1.997	2.061	2.006

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2505**	**2.030**	**2.038**	**1.983**	**2.101**	**2.024**	**1.985**	**2.002**
Stddev	.0018	.009	.004	.005	.002	.001	.001	.003
%RSD	.7156	.4624	.1869	.2774	.1008	.0476	.0319	.1668
#1	.2493	2.024	2.041	1.987	2.103	2.024	1.985	2.005
#2	.2518	2.037	2.035	1.979	2.100	2.023	1.985	2.000

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.07**	**25.49**	**25.77**	**25.31**	**25.52**	**25.86**	**2.001**	**2.048**
Stddev	.00	.04	.02	.05	.02	.02	.002	.001
%RSD	.0142	.1533	.0609	.1937	.0885	.0956	.1111	.0297
#1	25.07	25.46	25.78	25.28	25.51	25.88	2.002	2.049
#2	25.07	25.52	25.76	25.35	25.54	25.85	1.999	2.048

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0502**	**2.112**	**2.068**	**2.039**	**1.739**	**2.018**	F **-.0605**	**.0003**
Stddev	.0003	.000	.003	.000	.001	.001	.0018	.0010
%RSD	.6818	.0128	.1329	.0194	.0271	.0328	2.909	318.5
#1	.0500	2.112	2.070	2.038	1.740	2.018	-.0618	-.0004
#2	.0504	2.112	2.066	2.039	1.739	2.017	-.0593	.0010

Elem	Li6707	P_1774
Avg	**.0005**	**2.009**
Stddev	.0012	.001
%RSD	226.5	.0560
#1	.0014	2.010
#2	-.0003	2.008

Zoom In Zoom Out

Sample Name: mp7466-b1 2 Acquired: 6/4/2018 20:42:48 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	86260.	13983.	3329.0	7733.0
Stddev	153.	17.	.3	6.2
%RSD	.17684	.12449	.00862	.08049
#1	86368.	13995.	3328.8	7737.4
#2	86152.	13971.	3329.2	7728.6

Zoom In Zoom Out

Sample Name: mp7466-mb1 Acquired: 6/4/2018 20:46:52 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: soil

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0003	.0001	.0001	.0001	.0009	.0017	.0008	.0004	.0007
Stddev	.0002	.0000	.0000	.0006	.0004	.0002	.0001	.0002	.0001
%RSD	54.04	8.119	6.577	532.0	42.38	9.191	6.846	52.19	17.71
#1	.0005	.0001	.0001	-.0003	.0006	.0016	.0008	.0005	.0006
#2	.0002	.0001	.0001	.0005	.0012	.0019	.0008	.0002	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0002	.0024	-.0008	-.0002	.0007	.0007	.0003	.0214	.1355
Stddev	.0002	.0001	.0004	.0013	.0011	.0014	.0004	.0075	.0043
%RSD	106.5	2.329	52.29	671.1	171.2	212.7	133.3	34.98	3.184
#1	.0003	.0023	-.0005	-.0011	.0015	-.0003	.0000	.0267	.1386
#2	.0000	.0024	-.0010	.0007	-.0001	.0017	.0006	.0161	.1325

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0458	.0403	.0525	.0989	.0023	.0014	.0672	.0301	.0008
Stddev	.0030	.0188	.0065	.0007	.0005	.0001	.0002	.0007	.0000
%RSD	6.574	46.65	12.34	.7577	22.85	7.707	.3632	2.400	4.464
#1	.0479	.0536	.0571	.0994	.0026	.0015	.0670	.0307	.0008
#2	.0436	.0270	.0479	.0984	.0019	.0014	.0673	.0296	.0008

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0003	.0078	.0013	.0105	-.0015	.0000	.0288
Stddev	.0005	.0004	.0003	.0022	.0001	.0008	.0006
%RSD	160.6	4.965	20.34	20.95	7.577	1744.	1.911
#1	.0007	.0080	.0015	.0120	-.0016	.0006	.0285
#2	-.0000	.0075	.0011	.0089	-.0015	-.0005	.0292

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	90125.	14122.	3422.1	8418.4
Stddev	276.	64.	9.8	18.0
%RSD	.30676	.45667	.28722	.21364
#1	90320.	14168.	3429.1	8431.1
#2	89929.	14077.	3415.2	8405.7

Zoom In Zoom Out

Sample Name: mp7466-s1 Acquired: 6/4/2018 20:51:11 Type: Unk
Method: Accutest 2(v444) 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
Avg	2.221	2.213	2.163	2.149	2.219	2.185	2.234	2.173	.2688
Stddev	.002	.003	.002	.001	.001	.004	.001	.005	.0000
%RSD	.0977	.1525	.1107	.0588	.0630	.1784	.0401	.2361	.0117
#1	2.223	2.215	2.165	2.150	2.218	2.182	2.235	2.177	.2689
#2	2.220	2.210	2.162	2.149	2.220	2.188	2.233	2.170	.2688

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	2.189	2.247	2.174	2.233	2.166	2.220	2.122	27.35	27.93
Stddev	.001	.002	.001	.002	.002	.005	.002	.03	.01
%RSD	.0442	.0689	.0471	.0957	.0830	.2192	.0866	.1044	.0282
#1	2.189	2.248	2.173	2.234	2.165	2.224	2.124	27.37	27.92
#2	2.190	2.245	2.175	2.231	2.167	2.217	2.121	27.33	27.93

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	28.41	27.74	28.01	28.41	2.188	2.233	.2601	2.291	2.241
Stddev	.01	.01	.03	.01	.002	.001	.0029	.003	.002
%RSD	.0270	.0376	.0955	.0197	.0927	.0208	1.103	.1397	.0701
#1	28.41	27.73	28.03	28.42	2.189	2.233	.2622	2.289	2.242
#2	28.40	27.74	27.99	28.41	2.187	2.232	.2581	2.294	2.239

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	2.217	1.983	2.198	F 140.0	.0001	.0047	2.228
Stddev	.002	.004	.000	.0	.0017	.0005	.004
%RSD	.0814	.2130	.0074	.0079	3056.	10.09	.2004
#1	2.218	1.986	2.198	140.0	-.0011	.0050	2.231
#2	2.216	1.980	2.198	140.0	.0012	.0044	2.225

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	83950.	13424.	3218.2	7551.0
Stddev	170.	1.	8.2	24.3
%RSD	.20237	.00542	.25546	.32197
#1	83830.	13424.	3212.4	7533.8
#2	84070.	13425.	3224.0	7568.2

Zoom In Zoom Out

Sample Name: mp7466-s2 Acquired: 6/4/2018 20:55:11 Type: Unk
Method: Accutest 2(v444) 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
Avg	1.895	1.889	1.861	1.836	1.899	1.863	1.910	1.858	.2313
Stddev	.004	.006	.001	.003	.003	.003	.002	.005	.0009
%RSD	.2183	.3410	.0316	.1454	.1754	.1789	.1042	.2881	.3691
#1	1.898	1.893	1.861	1.834	1.897	1.866	1.909	1.854	.2307
#2	1.892	1.884	1.861	1.838	1.902	1.861	1.911	1.861	.2319

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	1.866	1.910	1.860	1.933	1.860	1.896	1.821	23.21	23.70
Stddev	.007	.002	.004	.007	.001	.001	.007	.03	.04
%RSD	.3903	.0785	.2157	.3765	.0329	.0290	.4048	.1366	.1490
#1	1.861	1.909	1.863	1.928	1.860	1.896	1.826	23.23	23.72
#2	1.871	1.911	1.857	1.938	1.860	1.896	1.816	23.19	23.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	24.22	23.56	23.77	24.10	1.882	1.904	.1718	1.964	1.909
Stddev	.02	.04	.02	.07	.001	.001	.0017	.001	.006
%RSD	.0926	.1663	.0770	.2985	.0324	.0595	1.001	.0624	.2973
#1	24.23	23.58	23.78	24.15	1.883	1.903	.1731	1.965	1.913
#2	24.20	23.53	23.75	24.05	1.882	1.905	.1706	1.963	1.905

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	1.892	1.695	1.871	F 117.1	.0007	.0028	1.915
Stddev	.002	.000	.000	.1	.0008	.0016	.001
%RSD	.1199	.0136	.0001	.1227	101.7	57.45	.0658
#1	1.890	1.695	1.871	117.0	.0002	.0039	1.914
#2	1.894	1.695	1.871	117.2	.0013	.0017	1.916

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	85520.	13644.	3278.3	7703.7
Stddev	174.	28.	2.3	13.7
%RSD	.20361	.20268	.06959	.17804
#1	85644.	13624.	3276.7	7713.4
#2	85397.	13664.	3279.9	7694.0

Zoom In Zoom Out

Sample Name: mp7466-d1 Acquired: 6/4/2018 20:59:11 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0007**	**.0001**	**.0000**	**.0000**	**.0043**	**.0053**	**.0023**	**.0019**
Stddev	.0000	.0000	.0001	.0001	.0001	.0003	.0000	.0001
%RSD	2.345	24.19	375.7	1660.	1.864	5.692	.2703	6.673
#1	.0007	.0001	-.0000	-.0001	.0043	.0051	.0023	.0018
#2	.0007	.0001	.0001	.0001	.0042	.0055	.0023	.0020

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0006**	**.0009**	**.0103**	**.0112**	F **-.0034**	**.0002**	**.0033**	**.0027**
Stddev	.0002	.0000	.0000	.0002	.0003	.0004	.0020	.0009
%RSD	25.67	3.745	.0651	1.563	9.199	203.6	61.24	34.33
#1	.0007	.0009	.0103	.0111	-.0032	-.0001	.0048	.0034
#2	.0005	.0009	.0103	.0113	-.0037	.0005	.0019	.0020

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0275**	**.1234**	**.3209**	**.0459**	**.0338**	**.0749**	**.0336**	**.0021**
Stddev	.0012	.0001	.0004	.0151	.0391	.0050	.0003	.0000
%RSD	4.483	.0817	.1251	32.81	115.6	6.721	.8285	.9634
#1	.0283	.1233	.3206	.0353	.0614	.0785	.0338	.0021
#2	.0266	.1235	.3212	.0566	.0062	.0714	.0334	.0021

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.2546**	**.0310**	**.0007**	**.0030**	**.0035**	**.0031**	F **122.8**	**-.0012**
Stddev	.0005	.0002	.0000	.0002	.0006	.0003	.1	.0009
%RSD	.1983	.7593	.0978	8.076	16.31	9.407	.0554	73.41
#1	.2550	.0309	.0007	.0028	.0031	.0033	122.8	-.0006
#2	.2542	.0312	.0007	.0031	.0039	.0029	122.9	-.0018

Elem	Li6707	P_1774
Avg	**.0038**	**.1055**
Stddev	.0004	.0001
%RSD	10.98	.1268
#1	.0036	.1054
#2	.0041	.1056

Zoom In Zoom Out

Sample Name: mp7466-d1 Acquired: 6/4/2018 20:59:11 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**89132.**	**13768.**	**3385.8**	**8394.8**
Stddev	91.	7.	10.1	14.2
%RSD	.10160	.05228	.29704	.16920
#1	89068.	13763.	3392.9	8404.9
#2	89196.	13773.	3378.7	8384.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/4/2018 21:03:30 Type: QC
Method: Accutest 2(v444) 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	**2.073**	**2.054**	**2.062**	**2.022**	**2.053**	**2.038**	**2.069**	**2.039**	**.2566**
Stddev	.002	.004	.005	.003	.006	.008	.002	.002	.0007
%RSD	.1161	.1808	.2316	.1672	.2914	.3970	.1132	.0789	.2567
#1	2.075	2.056	2.065	2.020	2.049	2.044	2.067	2.038	.2562
#2	2.072	2.051	2.059	2.025	2.058	2.032	2.070	2.040	.2571
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	**2.034**	**2.046**	**2.049**	**2.108**	**2.055**	**2.044**	**2.090**	**40.45**	**40.70**
Stddev	.007	.002	.003	.002	.001	.012	.005	.06	.14
%RSD	.3428	.1001	.1312	.0767	.0302	.5701	.2184	.1520	.3410
#1	2.030	2.045	2.051	2.109	2.055	2.052	2.093	40.49	40.80
#2	2.039	2.048	2.047	2.106	2.055	2.035	2.087	40.40	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	**41.03**	**40.45**	**41.24**	**41.61**	**2.083**	**2.075**	**5.216**	**2.101**	**2.098**
Stddev	.10	.24	.14	.12	.004	.002	.007	.001	.001
%RSD	.2383	.5902	.3438	.2827	.1765	.0839	.1326	.0558	.0413
#1	41.10	40.62	41.34	41.69	2.085	2.076	5.221	2.102	2.099
#2	40.96	40.28	41.14	41.52	2.080	2.074	5.211	2.100	2.097
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: 6/4/2018 21:03:30 Type: QC
Method: Accutest 2(v444) 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	**2.069**	**2.057**	**2.059**	**2.033**	**2.109**	**2.075**	**2.045**
Stddev	.000	.003	.002	.003	.007	.007	.006
%RSD	.0173	.1587	.0753	.1343	.3320	.3237	.2785
#1	2.070	2.059	2.060	2.034	2.114	2.080	2.049
#2	2.069	2.055	2.057	2.031	2.104	2.071	2.041
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	**86395.**	**14016.**	**3329.7**	**7640.0**
Stddev	3.	49.	2.6	3.1
%RSD	.00337	.34989	.07901	.04113
#1	86393.	13982.	3327.8	7642.3
#2	86397.	14051.	3331.5	7637.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 21:07:34 Type: QC
Method: Accutest 2(v444) 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**	F **.0002**	**.0003**	**.0003**	**.0001**	**.0009**	**.0002**	**.0003**	**.0010**
Stddev	.0001	.0001	.0002	.0002	.0001	.0002	.0000	.0006	.0001
%RSD	117.9	86.20	54.82	48.32	62.94	17.06	22.66	182.3	5.803
#1	.0000	.0003	.0002	.0004	.0001	.0010	.0002	-.0001	.0010
#2	.0002	.0001	.0004	.0002	.0001	.0008	.0002	.0008	.0011
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0002**	**-.0003**	**.0007**	**.0001**	**-.0001**	**-.0006**	**-.0011**	**.0062**
Stddev	.0005	.0000	.0011	.0005	.0004	.0007	.0001	.0034	.0012
%RSD	146.3	3.980	326.2	76.15	325.3	574.5	11.61	302.4	19.91
#1	.0007	.0002	.0004	.0003	.0004	-.0007	-.0006	-.0035	.0071
#2	-.0000	.0002	-.0011	.0011	-.0001	.0004	-.0007	.0013	.0054
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	**.0017**	**.0193**	**.0034**	**-.0246**	**.0022**	**.0013**	**.0025**	**.0003**	**.0002**
Stddev	.0001	.0249	.0095	.0025	.0000	.0000	.0000	.0006	.0001
%RSD	4.902	129.0	282.7	10.15	2.152	1.990	.5164	224.4	30.26
#1	.0017	.0369	-.0034	-.0229	.0022	.0012	.0025	-.0002	.0002
#2	.0018	.0017	.0101	-.0264	.0022	.0013	.0025	.0007	.0002
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: 6/4/2018 21:07:34 Type: QC
Method: Accutest 2(v444) 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**	**.0034**	**.0001**	**.0063**	**-.0005**	**.0007**	**-.0007**
Stddev	.0002	.0003	.0003	.0002	.0001	.0019	.0006
%RSD	51.09	8.325	210.4	3.750	16.14	266.5	95.00
#1	.0003	.0036	-.0001	.0065	-.0004	-.0006	-.0002
#2	.0006	.0032	.0003	.0061	-.0005	.0020	-.0011
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	**90618.**	**14217.**	**3446.0**	**8489.2**
Stddev	325.	77.	5.8	5.8
%RSD	.35849	.54229	.16842	.06788
#1	90848.	14272.	3450.1	8493.3
#2	90389.	14163.	3441.9	8485.1

Zoom In Zoom Out

Sample Name: jc67134-1 Acquired: 6/4/2018 21:11:56 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: spectra

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0006**	**.0001**	**.0000**	**.0004**	**.0046**	**.0016**	**.0024**	**.0011**
Stddev	.0001	.0000	.0002	.0005	.0005	.0004	.0000	.0000
%RSD	23.32	36.76	3537.	134.5	11.41	27.13	.9365	3.305
#1	.0005	.0000	.0002	.0007	.0042	.0019	.0024	.0011
#2	.0007	.0001	-.0002	.0000	.0049	.0013	.0023	.0012

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0010**	**.0009**	**.0094**	**.0118**	F **-.0039**	**-.0001**	**.0012**	**.0003**
Stddev	.0002	.0001	.0000	.0003	.0011	.0003	.0003	.0007
%RSD	19.25	8.115	.2196	2.527	29.49	339.0	23.27	232.3
#1	.0011	.0010	.0095	.0120	-.0047	-.0003	.0010	-.0002
#2	.0008	.0009	.0094	.0116	-.0031	.0001	.0014	.0008

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0349**	**.1223**	**.3204**	**.0365**	**.0246**	**.0637**	**.0336**	**.0017**
Stddev	.0065	.0005	.0015	.0085	.0236	.0022	.0013	.0002
%RSD	18.66	.3696	.4742	23.26	95.96	3.381	3.801	9.129
#1	.0395	.1220	.3194	.0305	.0413	.0622	.0327	.0019
#2	.0303	.1226	.3215	.0426	.0079	.0653	.0345	.0016

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.2530**	**.0312**	**.0006**	**.0024**	**.0018**	**.0028**	F **123.8**	**-.0021**
Stddev	.0008	.0005	.0001	.0003	.0001	.0002	.2	.0014
%RSD	.3020	1.632	9.661	13.14	3.429	7.317	.1451	66.34
#1	.2536	.0309	.0006	.0026	.0018	.0029	123.9	-.0011
#2	.2525	.0316	.0007	.0022	.0017	.0026	123.7	-.0030

Elem	Li6707	P_1774
Avg	**.0017**	**.1015**
Stddev	.0003	.0013
%RSD	18.22	1.284
#1	.0015	.1006
#2	.0019	.1025

Zoom In Zoom Out

Sample Name: jc67134-1 Acquired: 6/4/2018 21:11:56 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: spectra

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**88590.**	**13778.**	**3392.3**	**8409.3**
Stddev	184.	6.	9.5	1.7
%RSD	.20771	.04450	.28011	.02034
#1	88721.	13774.	3385.6	8410.6
#2	88460.	13782.	3399.0	8408.1

Zoom In Zoom Out

Sample Name: mp7466-sd1 Acquired: 6/4/2018 21:16:13 Type: Unk
Method: Accutest 2(v444) 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
Avg	.0002	.0004	.0008	-.0005	.0033	.0074	.0025	.0002	.0054
Stddev	.0010	.0005	.0012	.0015	.0007	.0006	.0001	.0006	.0005
%RSD	403.7	119.6	152.5	291.2	21.20	8.325	4.941	309.6	9.102
#1	-.0004	.0001	-.0001	.0006	.0038	.0070	.0026	-.0002	.0050
#2	.0009	.0007	.0017	-.0016	.0028	.0079	.0024	.0007	.0057

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0021	.0170	.0128	-.0055	.0014	-.0038	-.0014	.2030	.2852
Stddev	.0008	.0001	.0040	.0028	.0024	.0050	.0065	.0031	.0004
%RSD	38.40	.5644	30.94	51.26	180.6	132.6	449.1	1.551	.1348
#1	.0015	.0170	.0100	-.0075	-.0004	-.0073	-.0060	.2053	.2849
#2	.0027	.0171	.0156	-.0035	.0031	-.0002	.0031	.2008	.2855

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.3212	.1654	.0757	-.0326	.0398	.0027	.2681	.0316	.0010
Stddev	.0017	.0457	.0340	.0015	.0035	.0005	.0037	.0030	.0004
%RSD	.5309	27.63	44.88	4.597	8.742	18.39	1.370	9.393	35.90
#1	.3224	.1977	.0997	-.0337	.0423	.0031	.2707	.0295	.0013
#2	.3199	.1331	.0517	-.0315	.0374	.0024	.2655	.0337	.0008

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0037	.0035	.0040	125.4	.0003	.0017	.0951
Stddev	.0009	.0011	.0002	.2	.0139	.0031	.0011
%RSD	25.14	29.77	5.878	.1309	4930.	182.5	1.137
#1	.0043	.0043	.0042	125.5	.0101	.0039	.0959
#2	.0030	.0028	.0038	125.2	-.0096	-.0005	.0943

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	90808.	14178.	3436.7	8510.6
Stddev	198.	20.	9.8	13.9
%RSD	.21758	.14163	.28593	.16314
#1	90668.	14192.	3429.8	8500.8
#2	90948.	14163.	3443.7	8520.4

Zoom In Zoom Out

Sample Name: mp7457-b1 2 Acquired: 6/4/2018 21:20:31 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	2.048	2.040	2.062	2.046	2.056	1.928	2.060	2.079
Stddev	.004	.013	.001	.004	.004	.003	.004	.000
%RSD	.1948	.6590	.0329	.1909	.1933	.1361	.1834	.0013
#1	2.045	2.031	2.061	2.049	2.053	1.930	2.057	2.079
#2	2.051	2.050	2.062	2.043	2.059	1.926	2.063	2.079

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	.2623	2.040	2.107	2.076	2.068	2.079	2.085	2.055
Stddev	.0024	.001	.006	.008	.008	.007	.002	.013
%RSD	.9335	.0371	.2850	.3859	.4053	.3228	.1102	.6417
#1	.2605	2.039	2.111	2.070	2.062	2.083	2.086	2.065
#2	.2640	2.040	2.103	2.082	2.074	2.074	2.083	2.046

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	25.05	25.51	25.85	25.18	25.76	W 1451.	2.050	2.085
Stddev	.01	.15	.06	.26	.17	1.	.003	.001
%RSD	.0434	.5726	.2270	1.018	.6520	.0436	.1436	.0637
#1	25.06	25.40	25.81	24.99	25.64	1451.	2.052	2.086
#2	25.04	25.61	25.89	25.36	25.88	1451.	2.048	2.085

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	.0923	2.082	2.046	2.065	1.984	1.989	-.0159	-.0003
Stddev	.0003	.001	.003	.004	.005	.005	.0037	.0026
%RSD	.3478	.0415	.1524	.1757	.2310	.2704	23.23	897.1
#1	.0925	2.081	2.044	2.063	1.987	1.985	-.0185	.0016
#2	.0921	2.082	2.048	2.068	1.981	1.992	-.0133	-.0022

Elem	Li6707	P_1774
Avg	.0132	2.074
Stddev	.0029	.002
%RSD	21.98	.1161
#1	.0152	2.072
#2	.0111	2.075

Zoom In Zoom Out

Sample Name: mp7457-b1 2 Acquired: 6/4/2018 21:20:31 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	84086.	13916.	3275.4	7378.2
Stddev	234.	83.	8.7	17.6
%RSD	.27884	.59740	.26572	.23797
#1	84252.	13975.	3281.6	7390.7
#2	83920.	13858.	3269.3	7365.8

Zoom In Zoom Out

Sample Name: mp7457-mb1 Acquired: 6/4/2018 21:24:44 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: tclp

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.0058	-.0000	-.0002	.0017	.0003	.0199	.0039	.0060
Stddev	.0016	.0001	.0001	.0011	.0012	.0004	.0001	.0006
%RSD	27.69	530.8	58.72	61.88	397.6	2.244	3.821	10.36
#1	.0069	.0001	-.0003	.0010	.0011	.0202	.0038	.0056
#2	.0046	-.0001	-.0001	.0025	-.0005	.0195	.0040	.0064

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	.0040	.0030	.0147	.0047	-.0072	.0038	.0015	-.0017
Stddev	.0005	.0004	.0004	.0036	.0005	.0071	.0228	.0007
%RSD	13.67	13.45	2.781	75.05	6.345	187.0	1491.	44.23
#1	.0043	.0027	.0150	.0073	-.0069	.0088	.0177	-.0012
#2	.0036	.0032	.0144	.0022	-.0076	-.0012	-.0146	-.0022

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	.2174	.4201	.0978	.1900	.9875	W 1427.	.0104	.0014
Stddev	.0472	.0059	.0105	.0638	.0755	9.	.0056	.0005
%RSD	21.71	1.416	10.74	33.60	7.645	.6256	53.75	35.59
#1	.1840	.4243	.0904	.2351	.9341	1421.	.0143	.0010
#2	.2508	.4159	.1052	.1448	1.041	1434.	.0064	.0017

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	.2263	.0046	.0021	.0019	.0175	.0004	.1190	.0030
Stddev	.0073	.0028	.0002	.0005	.0027	.0003	.0092	.0001
%RSD	3.216	60.92	10.01	28.03	15.37	73.79	7.772	1.731
#1	.2211	.0026	.0022	.0022	.0156	.0006	.1125	.0029
#2	.2314	.0065	.0019	.0015	.0194	.0002	.1255	.0030

Elem	Li6707	P_1774
Avg	.0211	.0959
Stddev	.0050	.0025
%RSD	23.88	2.580
#1	.0247	.0941
#2	.0176	.0976

Zoom In Zoom Out

Sample Name: mp7457-mb1 Acquired: 6/4/2018 21:24:44 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: tclp

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83166.**	**13897.**	**3227.2**	**7380.3**
Stddev	172.	90.	7.0	6.4
%RSD	.20670	.64934	.21831	.08626
#1	83045.	13834.	3232.2	7384.8
#2	83288.	13961.	3222.2	7375.8

Zoom In Zoom Out

Sample Name: mp7457-b2 Acquired: 6/4/2018 21:29:09 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.996**	**1.990**	**2.017**	**1.993**	**2.002**	**1.882**	**2.011**	**2.034**
Stddev	.005	.006	.005	.006	.005	.003	.000	.005
%RSD	.2643	.3168	.2298	.2979	.2690	.1467	.0167	.2504
#1	1.992	1.994	2.020	1.997	2.005	1.884	2.012	2.037
#2	2.000	1.985	2.014	1.989	1.998	1.880	2.011	2.030

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2576**	**1.987**	**2.084**	**2.043**	**1.998**	**2.011**	**2.066**	**2.012**
Stddev	.0010	.001	.004	.008	.008	.005	.006	.006
%RSD	.3925	.0639	.1950	.3728	.4066	.2406	.3169	.2887
#1	.2584	1.986	2.087	2.048	2.004	2.014	2.070	2.016
#2	.2569	1.988	2.081	2.038	1.992	2.007	2.061	2.007

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**24.45**	**25.09**	**25.35**	**24.61**	**25.53**	W **1440.**	**2.010**	**2.032**
Stddev	.02	.04	.07	.18	.04	9.	.013	.003
%RSD	.0655	.1735	.2747	.7301	.1486	.6208	.6450	.1415
#1	24.47	25.12	25.40	24.48	25.50	1446.	2.019	2.034
#2	24.44	25.06	25.30	24.73	25.55	1434.	2.001	2.030

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.1401**	**2.029**	**1.996**	**2.007**	**1.964**	**1.950**	**-.0327**	**-.0001**
Stddev	.0109	.001	.002	.003	.007	.000	.0032	.0003
%RSD	7.815	.0603	.0789	.1547	.3619	.0168	9.751	239.6
#1	.1323	2.030	1.997	2.009	1.969	1.950	-.0304	-.0003
#2	.1478	2.029	1.995	2.005	1.959	1.949	-.0350	.0001

Elem	Li6707	P_1774
Avg	**.0156**	**2.033**
Stddev	.0047	.006
%RSD	30.10	.2790
#1	.0189	2.037
#2	.0122	2.029

Zoom In Zoom Out

Sample Name: mp7457-b2 Acquired: 6/4/2018 21:29:09 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**84014.**	**13870.**	**3259.4**	**7358.5**
Stddev	90.	38.	4.7	8.1
%RSD	.10753	.27051	.14509	.10983
#1	83950.	13844.	3262.7	7364.2
#2	84078.	13897.	3256.1	7352.8

Zoom In Zoom Out

Sample Name: mp7457-s1 Acquired: 6/4/2018 21:33:21 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.289**	**2.041**	**2.063**	**2.044**	**2.049**	**1.927**	**2.135**	**2.084**
Stddev	.003	.000	.005	.002	.002	.005	.001	.003
%RSD	.1311	.0017	.2504	.0893	.0996	.2870	.0251	.1193
#1	2.291	2.041	2.067	2.045	2.051	1.931	2.135	2.086
#2	2.287	2.041	2.060	2.043	2.048	1.923	2.134	2.082

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2631**	**2.032**	**2.140**	**1.845**	**2.075**	**2.074**	**2.069**	**1.822**
Stddev	.0003	.003	.002	.009	.003	.011	.000	.016
%RSD	.1292	.1355	.0771	.4809	.1323	.5223	.0141	.8788
#1	.2629	2.030	2.141	1.852	2.073	2.081	2.069	1.833
#2	.2634	2.034	2.138	1.839	2.077	2.066	2.069	1.811

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.26**	**46.90**	**25.86**	**26.80**	**26.48**	W **1434.**	**2.107**	**1.852**
Stddev	.03	.01	.00	.04	.03	20.	.009	.002
%RSD	.1294	.0117	.0029	.1446	.1118	1.386	.4175	.1000
#1	25.28	46.90	25.86	26.77	26.46	1448.	2.113	1.853
#2	25.23	46.89	25.86	26.83	26.50	1420.	2.101	1.850

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**1.246**	**1.851**	**2.180**	**1.836**	**1.781**	**1.779**	**.2482**	**.0031**
Stddev	.001	.003	.004	.001	.007	.001	.0129	.0104
%RSD	.0728	.1555	.1743	.0330	.4143	.0279	5.178	337.7
#1	1.246	1.849	2.182	1.835	1.786	1.779	.2392	.0104
#2	1.245	1.853	2.177	1.836	1.775	1.780	.2573	-.0043

Elem	Li6707	P_1774
Avg	**.0230**	**2.088**
Stddev	.0085	.018
%RSD	37.25	.8572
#1	.0169	2.100
#2	.0290	2.075

Zoom In Zoom Out

Sample Name: mp7457-s1 Acquired: 6/4/2018 21:33:21 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83601.**	**13765.**	**3252.1**	**7316.4**
Stddev	118.	29.	.3	.2
%RSD	.14121	.20869	.01044	.00308
#1	83684.	13745.	3251.8	7316.6
#2	83517.	13785.	3252.3	7316.3

Zoom In Zoom Out

Sample Name: mp7457-s2 Acquired: 6/4/2018 21:37:33 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.283**	**2.032**	**2.052**	**2.037**	**2.041**	**1.916**	**2.120**	**2.073**
Stddev	.002	.001	.001	.004	.000	.006	.003	.004
%RSD	.0796	.0493	.0686	.1927	.0151	.3237	.1401	.1973
#1	2.285	2.032	2.053	2.034	2.040	1.920	2.122	2.070
#2	2.282	2.033	2.051	2.040	2.041	1.911	2.117	2.076

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2625**	**2.028**	**2.144**	**2.079**	**2.055**	**2.060**	**2.066**	**2.039**
Stddev	.0031	.007	.005	.003	.005	.009	.002	.011
%RSD	1.198	.3640	.2537	.1249	.2589	.4582	.1149	.5419
#1	.2603	2.033	2.140	2.081	2.051	2.053	2.065	2.031
#2	.2648	2.022	2.148	2.077	2.059	2.067	2.068	2.046

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.15**	**46.70**	**25.84**	**26.61**	**26.36**	W **1417.**	**2.104**	**2.081**
Stddev	.07	.05	.05	.16	.01	22.	.010	.010
%RSD	.2638	.1164	.2080	.6116	.0401	1.518	.4592	.4743
#1	25.19	46.74	25.88	26.72	26.35	1402.	2.097	2.074
#2	25.10	46.67	25.80	26.49	26.36	1432.	2.111	2.088

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**1.289**	**2.088**	**2.177**	**2.063**	**2.003**	**2.001**	**.2279**	**-.0003**
Stddev	.004	.005	.000	.005	.002	.004	.0086	.0004
%RSD	.3145	.2520	.0092	.2314	.1030	.1812	3.792	108.1
#1	1.292	2.084	2.177	2.066	2.004	2.004	.2340	-.0001
#2	1.286	2.092	2.177	2.059	2.002	1.999	.2218	-.0006

Elem	Li6707	P_1774
Avg	**.0178**	**2.074**
Stddev	.0007	.008
%RSD	3.693	.3997
#1	.0173	2.068
#2	.0183	2.080

Zoom In Zoom Out

Sample Name: mp7457-s2 Acquired: 6/4/2018 21:37:33 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83819.**	**13790.**	**3263.3**	**7347.3**
Stddev	37.	16.	3.0	1.0
%RSD	.04408	.11673	.09161	.01353
#1	83845.	13779.	3265.5	7348.0
#2	83792.	13802.	3261.2	7346.6

Zoom In Zoom Out

Sample Name: jc66952-1a Acquired: 6/4/2018 21:41:46 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.2442**	**.0005**	**.0014**	**.0036**	**.0019**	**.0131**	**.0745**	**.0040**
Stddev	.0010	.0002	.0008	.0001	.0017	.0023	.0004	.0021
%RSD	.4106	44.36	62.60	1.816	90.92	17.64	.5141	51.98
#1	.2449	.0006	.0008	.0036	.0032	.0115	.0747	.0055
#2	.2435	.0003	.0020	.0036	.0007	.0148	.0742	.0025

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0031**	**.0023**	**.0801**	**-.0027**	**-.0064**	**-.0007**	**-.0035**	**-.0052**
Stddev	.0019	.0011	.0004	.0003	.0032	.0037	.0006	.0038
%RSD	63.00	46.31	.4887	10.37	50.15	536.1	15.78	72.53
#1	.0017	.0031	.0804	-.0025	-.0087	-.0033	-.0039	-.0025
#2	.0044	.0016	.0798	-.0029	-.0042	.0019	-.0031	-.0079

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.2562**	**21.76**	**.0833**	**1.762**	**.6223**	W **1374.**	**.0723**	**.0012**
Stddev	.0279	.05	.0051	.082	.0040	13.	.0046	.0014
%RSD	10.88	.2101	6.175	4.644	.6456	.9206	6.405	121.6
#1	.2365	21.79	.0797	1.820	.6195	1365.	.0690	.0021
#2	.2759	21.73	.0870	1.704	.6252	1383.	.0756	.0002

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**1.228**	**-.0008**	**.1399**	**.0030**	**.0159**	**.0026**	**.3162**	**.0014**
Stddev	.002	.0036	.0000	.0006	.0003	.0003	.0111	.0008
%RSD	.1676	463.2	.0053	20.23	1.929	11.91	3.503	56.68
#1	1.230	-.0033	.1399	.0025	.0161	.0023	.3084	.0020
#2	1.227	.0018	.1399	.0034	.0157	.0028	.3241	.0009

Elem	Li6707	P_1774
Avg	**.0198**	**.0141**
Stddev	.0049	.0079
%RSD	24.78	55.83
#1	.0164	.0197
#2	.0233	.0085

Zoom In Zoom Out

Sample Name: jc66952-1a Acquired: 6/4/2018 21:41:46 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	83441.	13769.	3241.1	7390.8
Stddev	298.	40.	9.0	19.7
%RSD	.35656	.28849	.27704	.26688
#1	83230.	13797.	3247.5	7404.8
#2	83651.	13741.	3234.8	7376.9

Zoom In Zoom Out

Sample Name: mp7457-sd1 Acquired: 6/4/2018 21:46:10 Type: Unk
Method: Accutest 2(v444) 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
Avg	.2444	-.0007	-.0001	.0117	-.0074	.0310	.0756	-.0081	.0154
Stddev	.0021	.0008	.0022	.0078	.0186	.0056	.0003	.0022	.0117
%RSD	.8401	115.8	4087.	66.55	250.6	18.19	.4205	27.69	76.02
#1	.2430	-.0001	.0015	.0062	-.0206	.0270	.0754	-.0096	.0071
#2	.2459	-.0013	-.0016	.0172	.0057	.0350	.0759	-.0065	.0236

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0104	.1673	.0096	.0088	.0058	-.0187	-.0359	.5748	23.46
Stddev	.0038	.0017	.0440	.0164	.0063	.0189	.0131	.0285	.09
%RSD	37.05	.9898	457.0	186.3	108.3	100.9	36.45	4.956	.3790
#1	.0076	.1661	-.0215	-.0028	.0014	-.0054	-.0451	.5546	23.52
#2	.0131	.1684	.0408	.0204	.0102	-.0321	-.0266	.5949	23.39

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.1016	2.395	.7566	1442.	.0821	.0074	1.336	.0084	.1415
Stddev	.0629	.110	.4638	3.	.0128	.0064	.057	.0122	.0019
%RSD	61.86	4.598	61.29	.1836	15.57	87.67	4.235	144.7	1.336
#1	.1461	2.317	1.085	1444.	.0730	.0119	1.296	.0170	.1402
#2	.0572	2.473	.4287	1440.	.0911	.0028	1.376	-.0002	.1429

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0033	.0160	.0018	.4821	.0106	.0524	.0159
Stddev	.0042	.0184	.0019	.0404	.0108	.0187	.0131
%RSD	128.8	114.7	105.1	8.386	102.5	35.65	82.75
#1	.0063	.0030	.0032	.4535	.0182	.0656	.0251
#2	.0003	.0290	.0005	.5107	.0029	.0392	.0066

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	88021.	13755.	3353.2	7962.2
Stddev	1526.	8.	2.4	4.6
%RSD	1.7332	.05640	.07147	.05803
#1	89099.	13760.	3351.5	7958.9
#2	86942.	13749.	3354.9	7965.5

Zoom In Zoom Out

Sample Name: jc67120-5a Acquired: 6/4/2018 21:50:30 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.1508	.0007	.0013	.0038	.0095	.0188	.1574	.0083
Stddev	.0015	.0005	.0000	.0001	.0000	.0018	.0004	.0009
%RSD	.9782	74.71	.0250	1.814	.0572	9.629	.2523	10.67
#1	.1498	.0003	.0013	.0039	.0095	.0200	.1577	.0077
#2	.1519	.0010	.0013	.0038	.0095	.0175	.1571	.0090

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	.0038	.0017	.2606	.0023	-.0053	.1274	-.0142	-.0084
Stddev	.0004	.0006	.0004	.0048	.0031	.0005	.0009	.0050
%RSD	10.82	35.64	.1525	207.5	58.64	.3708	6.171	59.51
#1	.0041	.0013	.2609	.0057	-.0031	.1270	-.0149	-.0049
#2	.0035	.0021	.2604	-.0011	-.0075	.1277	-.0136	-.0119

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	.4657	11.54	.0737	1.471	2.472	W 1388.	.1985	.0003
Stddev	.0417	.03	.0158	.013	.071	6.	.0015	.0016
%RSD	8.949	.2670	21.42	.9056	2.866	.3985	.7464	557.9
#1	.4362	11.51	.0625	1.480	2.422	1384.	.1995	.0015
#2	.4952	11.56	.0849	1.462	2.522	1391.	.1974	-.0009

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	2.042	.0023	.0540	.0035	.0070	-.0002	1.369	.0005
Stddev	.021	.0017	.0004	.0016	.0002	.0021	.013	.0026
%RSD	1.016	75.08	.8045	46.67	2.275	967.3	.9812	533.0
#1	2.056	.0011	.0543	.0047	.0069	.0013	1.359	.0023
#2	2.027	.0035	.0537	.0024	.0071	-.0017	1.378	-.0014

Elem	Li6707	P_1774
Avg	.0164	.0594
Stddev	.0010	.0014
%RSD	5.976	2.293
#1	.0171	.0604
#2	.0157	.0584

Zoom In Zoom Out

Sample Name: jc67120-5a Acquired: 6/4/2018 21:50:30 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	83287.	13737.	3246.1	7415.0
Stddev	125.	79.	.5	3.9
%RSD	.15030	.57387	.01594	.05224
#1	83199.	13793.	3245.8	7412.3
#2	83376.	13682.	3246.5	7417.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/4/2018 21:54:54 Type: QC
Method: Accutest 2(v444) 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	**2.071**	**2.050**	**2.040**	**2.023**	**2.042**	**1.998**	**2.058**	**2.034**	**.2532**
Stddev	.003	.002	.000	.001	.006	.001	.006	.001	.0003
%RSD	.1598	.0966	.0003	.0475	.2754	.0516	.2747	.0404	.1083
#1	2.073	2.052	2.040	2.022	2.038	1.998	2.054	2.034	.2530
#2	2.069	2.049	2.040	2.024	2.046	1.997	2.062	2.035	.2534
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	**2.020**	**2.043**	**2.036**	**2.088**	**2.038**	**2.019**	**2.063**	**40.34**	**40.75**
Stddev	.004	.001	.005	.000	.003	.006	.001	.06	.15
%RSD	.1821	.0486	.2484	.0121	.1387	.3021	.0418	.1535	.3694
#1	2.018	2.043	2.032	2.088	2.040	2.023	2.062	40.29	40.64
#2	2.023	2.044	2.039	2.088	2.036	2.014	2.063	40.38	40.85
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	**40.95**	**40.58**	**41.39**	**41.06**	**2.068**	**2.060**	**5.146**	**2.088**	**2.092**
Stddev	.02	.20	.04	.05	.001	.001	.009	.001	.005
%RSD	.0543	.4884	.1035	.1320	.0451	.0461	.1743	.0280	.2299
#1	40.96	40.44	41.36	41.02	2.068	2.059	5.152	2.088	2.095
#2	40.93	40.72	41.42	41.09	2.069	2.060	5.139	2.089	2.088
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: 6/4/2018 21:54:54 Type: QC
Method: Accutest 2(v444) 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	**2.056**	**2.043**	**2.049**	**2.001**	**2.083**	**2.082**	**2.014**
Stddev	.004	.000	.003	.002	.001	.005	.009
%RSD	.2016	.0078	.1597	.0768	.0469	.2230	.4511
#1	2.054	2.043	2.046	2.002	2.083	2.086	2.021
#2	2.059	2.043	2.051	2.000	2.084	2.079	2.008
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	**86482.**	**13836.**	**3331.8**	**7641.5**
Stddev	247.	106.	.4	.6
%RSD	.28511	.76324	.01283	.00748
#1	86657.	13911.	3331.5	7641.1
#2	86308.	13762.	3332.1	7641.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 21:58:58 Type: QC
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	F **.0002**	**.0003**	**.0004**	**.0001**	**.0008**	**.0003**	**.0002**	**.0013**
Stddev	.0002	.0001	.0000	.0002	.0001	.0002	.0001	.0003	.0005
%RSD	136.5	26.50	11.59	44.75	98.64	20.97	29.46	192.9	39.71
#1	.0003	.0003	.0003	.0005	.0002	.0009	.0003	-.0001	.0016
#2	.0000	.0002	.0004	.0003	.0000	.0007	.0004	.0004	.0009
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0002**	**.0003**	**.0001**	**-.0000**	**.0004**	**-.0006**	**.0044**	**.0063**
Stddev	.0001	.0001	.0001	.0004	.0007	.0002	.0008	.0040	.0016
%RSD	53.20	29.76	22.66	467.4	4386.	69.05	117.5	91.85	25.62
#1	.0002	.0003	.0002	.0004	.0005	.0002	-.0012	.0015	.0052
#2	.0004	.0002	.0003	-.0002	-.0005	.0005	-.0001	.0072	.0075
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	**.0025**	**.0268**	**.0290**	**.0340**	**.0008**	**.0013**	**.0013**	**.0010**	**.0002**
Stddev	.0038	.0002	.0098	.0017	.0008	.0002	.0000	.0001	.0000
%RSD	151.7	.5734	33.86	5.062	90.64	16.24	1.528	8.179	5.611
#1	.0052	.0267	.0359	.0328	.0003	.0014	.0013	.0010	.0002
#2	-.0002	.0269	.0220	.0352	.0014	.0011	.0013	.0011	.0001
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: 6/4/2018 21:58:58 Type: QC
Method: Accutest 2(v444) 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**	**.0018**	**.0001**	**.0038**	**.0017**	**.0022**	**-.0012**
Stddev	.0003	.0000	.0000	.0041	.0005	.0006	.0011
%RSD	54.84	.4521	97.33	107.9	30.44	29.18	87.31
#1	.0003	.0018	.0000	.0067	.0013	.0017	-.0005
#2	.0007	.0018	.0001	.0009	.0021	.0026	-.0020
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	**89950.**	**13836.**	**3443.1**	**8475.5**
Stddev	15.	35.	1.2	2.0
%RSD	.01635	.25177	.03562	.02403
#1	89939.	13861.	3444.0	8476.9
#2	89960.	13812.	3442.3	8474.1

Zoom In Zoom Out

Sample Name: jc67149-6 Acquired: 6/4/2018 22:03:20 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: mp7401, soil

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.3507**	**.0026**	**.0006**	**.0147**	**.0891**	**.1005**	**.9352**	**.0465**
Stddev	.0001	.0001	.0001	.0002	.0014	.0003	.0022	.0003
%RSD	.0282	3.290	9.392	1.688	1.559	.2916	.2300	.6634
#1	.3507	.0025	.0007	.0149	.0882	.1003	.9337	.0467
#2	.3508	.0027	.0006	.0145	.0901	.1007	.9368	.0463

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0006**	**.1540**	**.2444**	**.0215**	F **-.0029**	**.2257**	**-.0004**	**-.0002**
Stddev	.0004	.0008	.0003	.0004	.0009	.0001	.0004	.0002
%RSD	59.21	.5284	.1117	2.041	29.90	.0528	112.0	101.2
#1	.0004	.1534	.2446	.0211	-.0022	.2257	-.0001	-.0001
#2	.0009	.1545	.2443	.0218	-.0035	.2256	-.0006	-.0004

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**44.45**	**7.213**	**73.60**	**5.841**	**4.663**	**.5588**	**.0172**	**.0032**
Stddev	.02	.003	.11	.003	.004	.0042	.0009	.0000
%RSD	.0438	.0391	.1503	.0541	.0776	.7542	4.955	.0805
#1	44.44	7.215	73.52	5.843	4.665	.5558	.0178	.0032
#2	44.46	7.211	73.67	5.839	4.660	.5618	.0166	.0032

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.149**	**.0299**	**.1449**	**1.027**	**.0054**	**.0790**	**.6529**	**-.0090**
Stddev	.004	.0004	.0004	.002	.0003	.0007	.0009	.0009
%RSD	.1181	1.499	.2736	.1615	5.460	.9473	.1328	10.18
#1	3.152	.0302	.1452	1.026	.0056	.0796	.6522	-.0096
#2	3.147	.0296	.1447	1.028	.0052	.0785	.6535	-.0083

Elem	Li6707	P_1774
Avg	**.0364**	**1.540**
Stddev	.0017	.004
%RSD	4.620	.2344
#1	.0376	1.538
#2	.0352	1.543

Zoom In Zoom Out

Sample Name: jc67149-6 Acquired: 6/4/2018 22:03:20 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: mp7401, soil

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**91324.**	**14398.**	**3522.4**	**8178.1**
Stddev	581.	2.	.3	5.8
%RSD	.63580	.01485	.00968	.07033
#1	91734.	14396.	3522.7	8174.1
#2	90913.	14399.	3522.2	8182.2

Zoom In Zoom Out

Sample Name: jc67149-7 Acquired: 6/4/2018 22:07:33 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.2131**	**.0019**	**.0001**	**.0049**	**.0661**	**.0420**	**.1569**	**.0244**
Stddev	.0102	.0001	.0004	.0001	.0006	.0001	.0000	.0003
%RSD	4.767	4.461	430.7	2.542	.9679	.1782	.0074	1.069
#1	.2059	.0018	.0004	.0050	.0666	.0419	.1569	.0245
#2	.2203	.0019	-.0002	.0048	.0657	.0420	.1569	.0242

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0001**	**.1196**	**.0726**	**.0135**	F **-.0032**	**.0850**	**-.0022**	**-.0010**
Stddev	.0009	.0004	.0004	.0007	.0005	.0013	.0018	.0004
%RSD	652.8	.2972	.5503	4.836	15.61	1.524	82.51	40.21
#1	-.0005	.1193	.0724	.0140	-.0035	.0859	-.0009	-.0007
#2	.0007	.1199	.0729	.0131	-.0028	.0841	-.0035	-.0013

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**31.38**	**3.627**	**49.11**	**1.511**	**2.834**	**.3544**	**.0075**	**.0020**
Stddev	1.55	.165	2.47	.058	.124	.0178	.0000	.0001
%RSD	4.953	4.560	5.022	3.847	4.374	5.021	.2852	3.025
#1	30.28	3.510	47.37	1.470	2.746	.3418	.0075	.0020
#2	32.48	3.744	50.85	1.553	2.922	.3670	.0076	.0021

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.942**	**.0263**	**.1050**	**.8354**	**.0048**	**.0722**	**.5668**	**-.0080**
Stddev	.040	.0004	.0053	.0008	.0004	.0007	.0009	.0004
%RSD	1.344	1.702	5.078	.0959	9.028	.9575	.1629	5.031
#1	2.970	.0260	.1012	.8360	.0051	.0717	.5675	-.0083
#2	2.914	.0266	.1088	.8348	.0045	.0727	.5662	-.0078

Elem	Li6707	P_1774
Avg	**.0183**	**1.166**
Stddev	.0015	.004
%RSD	8.470	.3135
#1	.0172	1.169
#2	.0194	1.163

Zoom In Zoom Out

Sample Name: jc67149-7 Acquired: 6/4/2018 22:07:33 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**91995.**	**14542.**	**3533.0**	**8279.4**
Stddev	60.	627.	2.1	8.3
%RSD	.06478	4.3131	.05863	.09984
#1	92037.	14986.	3531.6	8273.5
#2	91953.	14099.	3534.5	8285.2

Zoom In Zoom Out

Sample Name: jc67149-8 Acquired: 6/4/2018 22:11:46 Type: Unk
Method: Accutest 2(v444) 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
Avg	.2031	.0019	-.0000	.0040	.0577	.0325	.0721	.0187	.0006
Stddev	.0002	.0001	.0001	.0000	.0005	.0002	.0004	.0000	.0005
%RSD	.1042	2.688	220.8	1.006	.8486	.5555	.5145	.0820	83.15
#1	.2032	.0019	-.0001	.0039	.0574	.0326	.0718	.0187	.0002
#2	.2029	.0018	.0000	.0040	.0581	.0324	.0723	.0187	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.1149	.0483	.0164	-.0018	.0674	.0003	-.0013	29.34	3.791
Stddev	.0000	.0001	.0013	.0000	.0003	.0004	.0007	.02	.014
%RSD	.0318	.2629	7.752	1.191	.4596	124.0	49.62	.0753	.3745
#1	.1149	.0482	.0155	-.0017	.0672	.0006	-.0018	29.36	3.781
#2	.1148	.0484	.0173	-.0018	.0677	.0000	-.0009	29.33	3.801

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	50.97	1.013	3.526	.3318	.0081	.0021	2.894	.0265	.1557
Stddev	.03	.009	.018	.0053	.0002	.0000	.001	.0007	.0003
%RSD	.0558	.9178	.5103	1.599	2.744	2.357	.0440	2.574	.1844
#1	50.95	1.006	3.538	.3355	.0080	.0021	2.893	.0270	.1555
#2	50.99	1.019	3.513	.3280	.0083	.0021	2.895	.0261	.1560

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.7295	.0043	.0836	.2189	-.0086	.0169	1.136
Stddev	.0026	.0010	.0003	.0044	.0012	.0013	.002
%RSD	.3578	23.07	.3209	2.032	13.95	7.445	.1812
#1	.7277	.0050	.0834	.2220	-.0078	.0160	1.138
#2	.7314	.0036	.0838	.2157	-.0095	.0178	1.135

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	91547.	14200.	3512.6	8267.3
Stddev	258.	12.	.4	7.1
%RSD	.28189	.08203	.01086	.08587
#1	91730.	14192.	3512.8	8262.3
#2	91365.	14209.	3512.3	8272.3

Zoom In Zoom Out

Sample Name: jc67150-1 Acquired: 6/4/2018 22:16:01 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.2534	.0041	-.0004	.0270	.1522	.0801	.5781	.0615
Stddev	.0002	.0001	.0000	.0002	.0002	.0002	.0001	.0001
%RSD	.0901	3.001	10.43	.5901	.1275	.2556	.0093	.1365
#1	.2536	.0041	-.0003	.0269	.1524	.0802	.5780	.0616
#2	.2533	.0042	-.0004	.0271	.1521	.0799	.5781	.0615

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	.0002	.2351	.2002	.0547	F -.0023	.0832	.0024	.0002
Stddev	.0001	.0011	.0002	.0007	.0006	.0007	.0004	.0000
%RSD	35.87	.4584	.0910	1.359	25.97	.8449	18.07	25.29
#1	.0003	.2358	.2003	.0553	-.0019	.0837	.0021	.0001
#2	.0002	.2343	.2001	.0542	-.0028	.0827	.0027	.0002

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	77.13	11.29	157.3	9.681	8.487	.7759	.0411	.0050
Stddev	.09	.02	.1	.000	.004	.0042	.0006	.0003
%RSD	.1112	.1952	.0516	.0027	.0462	.5454	1.521	5.819
#1	77.19	11.31	157.4	9.681	8.484	.7729	.0415	.0048
#2	77.07	11.28	157.3	9.681	8.489	.7789	.0407	.0052

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	2.241	.0280	.0795	1.198	.0057	.0544	13.03	W -.0098
Stddev	.007	.0003	.0004	.002	.0008	.0001	.00	.0001
%RSD	.2955	.8997	.4566	.1485	13.56	.1196	.0313	1.462
#1	2.246	.0282	.0798	1.196	.0052	.0544	13.02	-.0097
#2	2.236	.0278	.0793	1.199	.0063	.0543	13.03	-.0099

Elem	Li6707	P_1774
Avg	.0889	1.873
Stddev	.0023	.005
%RSD	2.616	.2959
#1	.0873	1.869
#2	.0906	1.877

Zoom In Zoom Out

Sample Name: jc67150-1 Acquired: 6/4/2018 22:16:01 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	90764.	14438.	3503.6	8074.7
Stddev	52.	5.	6.3	9.1
%RSD	.05752	.03357	.17947	.11236
#1	90801.	14441.	3499.1	8068.3
#2	90727.	14434.	3508.0	8081.1

Zoom In Zoom Out

Sample Name: jc67150-2 Acquired: 6/4/2018 22:20:13 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.9893	.0080	W -.0009	.1867	.4617	.3480	3.172	.2870
Stddev	.0004	.0001	.0002	.0000	.0017	.0011	.004	.0012
%RSD	.0431	1.630	24.80	.0189	.3629	.3221	.1406	.4322
#1	.9890	.0079	-.0007	.1866	.4629	.3472	3.175	.2879
#2	.9896	.0081	-.0010	.1867	.4605	.3488	3.169	.2862

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	W -.0047	.9961	.3254	.0556	F -.0069	.1388	.0025	.0011
Stddev	.0001	.0013	.0002	.0006	.0011	.0001	.0004	.0005
%RSD	2.460	.1255	.0657	1.129	15.98	.0589	18.26	42.48
#1	-.0048	.9970	.3256	.0560	-.0061	.1389	.0028	.0014
#2	-.0046	.9952	.3253	.0551	-.0076	.1388	.0021	.0008

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	277.1	6.539	F 372.8	17.50	5.507	.8498	.0195	.0060
Stddev	.1	.011	1.4	.13	.002	.0009	.0006	.0002
%RSD	.0205	.1635	.3818	.7353	.0414	.1069	3.117	3.832
#1	277.1	6.531	371.8	17.41	5.506	.8491	.0200	.0058
#2	277.1	6.547	373.8	17.59	5.509	.8504	.0191	.0062

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	2.386	.0580	.0695	6.286	.0087	.1271	1.578	W -.0189
Stddev	.012	.0007	.0003	.002	.0005	.0009	.004	.0018
%RSD	.5017	1.221	.3752	.0318	5.549	.7138	.2341	9.277
#1	2.378	.0575	.0697	6.285	.0091	.1265	1.580	-.0202
#2	2.394	.0585	.0694	6.287	.0084	.1278	1.575	-.0177

Elem	Li6707	P_1774
Avg	.1144	2.674
Stddev	.0007	.003
%RSD	.5741	.1184
#1	.1148	2.677
#2	.1139	2.672

Zoom In Zoom Out

Sample Name: jc67150-2 Acquired: 6/4/2018 22:20:13 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	92954.	15063.	3632.4	7866.1
Stddev	83.	49.	1.2	2.2
%RSD	.08889	.32561	.03352	.02858
#1	92896.	15097.	3631.5	7867.7
#2	93013.	15028.	3633.2	7864.6

Zoom In Zoom Out

Sample Name: jc67150-3 Acquired: 6/4/2018 22:24:22 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.6241	.0067	W -.0010	.0402	.2463	.1103	1.004	.1147
Stddev	.0000	.0002	.0000	.0002	.0002	.0003	.002	.0006
%RSD	.0042	2.426	4.150	.6075	.0915	.2593	.1934	.4848
#1	.6240	.0066	-.0011	.0400	.2461	.1105	1.003	.1143
#2	.6241	.0068	-.0010	.0404	.2464	.1101	1.006	.1151

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	-.0027	.3719	.3287	.1721	F -.0036	.1350	.0043	-.0006
Stddev	.0006	.0014	.0001	.0001	.0015	.0003	.0026	.0019
%RSD	20.98	.3699	.0154	.0292	42.59	.2093	60.60	333.7
#1	-.0023	.3709	.3286	.1721	-.0046	.1348	.0062	-.0019
#2	-.0031	.3729	.3287	.1722	-.0025	.1352	.0025	.0008

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	112.0	23.86	W 285.1	28.90	28.57	1.299	.1012	.0047
Stddev	.1	.01	.3	.07	.01	.004	.0013	.0003
%RSD	.0454	.0237	.1063	.2496	.0353	.2949	1.254	5.588
#1	112.0	23.86	284.8	28.85	28.56	1.297	.1003	.0049
#2	112.0	23.85	285.3	28.95	28.57	1.302	.1021	.0045

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	2.861	.0314	.2789	1.429	.0077	.1063	52.50	F -.0220
Stddev	.001	.0003	.0002	.003	.0013	.0001	.14	.0002
%RSD	.0208	.9892	.0813	.1756	16.78	.1032	.2665	1.046
#1	2.861	.0312	.2788	1.427	.0086	.1062	52.40	-.0222
#2	2.861	.0317	.2791	1.431	.0068	.1064	52.59	-.0219

Elem	Li6707	P_1774
Avg	.3575	2.906
Stddev	.0007	.009
%RSD	.1880	.3018
#1	.3580	2.900
#2	.3571	2.912

Zoom In Zoom Out

Sample Name: jc67150-3 Acquired: 6/4/2018 22:24:22 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	89169.	14390.	3450.7	7919.6
Stddev	121.	21.	3.1	5.6
%RSD	.13569	.14459	.08892	.07033
#1	89255.	14375.	3452.8	7923.5
#2	89084.	14405.	3448.5	7915.6

Zoom In Zoom Out

Sample Name: jc67150-4 Acquired: 6/4/2018 22:28:33 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.3237	.0059	-.0000	.0563	.2080	.1236	1.125	.0963
Stddev	.0007	.0000	.0000	.0001	.0005	.0004	.001	.0002
%RSD	.2188	.5968	84.19	.1451	.2359	.3418	.0546	.2030
#1	.3232	.0059	-.0000	.0562	.2083	.1233	1.125	.0962
#2	.3242	.0060	-.0000	.0563	.2077	.1239	1.126	.0965

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	.0007	.3699	.4209	.0959	-.0019	.1907	.0035	.0003
Stddev	.0000	.0000	.0004	.0017	.0017	.0016	.0022	.0007
%RSD	5.131	.0017	.0925	1.750	87.10	.8368	63.16	243.0
#1	.0007	.3699	.4212	.0947	-.0007	.1918	.0019	-.0002
#2	.0007	.3699	.4206	.0971	-.0031	.1895	.0051	.0008

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	87.50	30.87	168.0	12.84	12.21	.9862	.0512	.0045
Stddev	.09	.00	.2	.03	.01	.0002	.0016	.0001
%RSD	.1066	.0148	.1274	.2051	.0453	.0208	3.169	2.103
#1	87.44	30.87	167.8	12.86	12.20	.9860	.0523	.0044
#2	87.57	30.87	168.1	12.82	12.21	.9863	.0500	.0045

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.146	.0334	.1525	1.461	.0058	.0888	6.985	W -.0135
Stddev	.006	.0004	.0002	.005	.0009	.0003	.021	.0005
%RSD	.1774	1.181	.1331	.3235	15.51	.3769	.2943	3.939
#1	3.142	.0337	.1524	1.457	.0052	.0886	6.970	-.0139
#2	3.150	.0331	.1527	1.464	.0064	.0891	6.999	-.0132

Elem	Li6707	P_1774
Avg	.0829	2.337
Stddev	.0009	.000
%RSD	1.105	.0109
#1	.0836	2.337
#2	.0823	2.337

Zoom In Zoom Out

Sample Name: jc67150-4 Acquired: 6/4/2018 22:28:33 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**91154.**	**14475.**	**3525.8**	**7953.5**
Stddev	11.	22.	2.0	.6
%RSD	.01171	.15515	.05750	.00767
#1	91162.	14491.	3527.3	7953.9
#2	91147.	14459.	3524.4	7953.1

Zoom In Zoom Out

Sample Name: jc67150-5 Acquired: 6/4/2018 22:32:44 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.3768**	**.0060**	**-.0002**	**.0353**	**.2365**	**.1457**	**.8182**	**.0834**
Stddev	.0015	.0001	.0001	.0004	.0020	.0007	.0009	.0005
%RSD	.4094	1.232	33.83	1.093	.8472	.5049	.1149	.6525
#1	.3757	.0061	-.0001	.0356	.2379	.1452	.8189	.0830
#2	.3779	.0060	-.0002	.0350	.2351	.1463	.8176	.0837

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0003**	**.3969**	**.2991**	**.1044**	F **-.0043**	**.1771**	**.0022**	**.0017**
Stddev	.0002	.0004	.0001	.0002	.0006	.0001	.0012	.0007
%RSD	80.41	.1098	.0226	.2226	13.47	.0386	52.95	43.35
#1	-.0001	.3966	.2991	.1043	-.0047	.1770	.0014	.0012
#2	-.0005	.3972	.2992	.1046	-.0038	.1771	.0030	.0022

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**123.1**	**6.605**	**228.6**	**12.34**	**11.90**	**.5568**	**.0500**	**.0062**
Stddev	.1	.006	.3	.03	.02	.0005	.0011	.0000
%RSD	.0695	.0852	.1505	.2147	.1357	.0905	2.205	.1515
#1	123.0	6.609	228.4	12.36	11.88	.5571	.0508	.0062
#2	123.1	6.601	228.9	12.32	11.91	.5564	.0492	.0062

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.259**	**.0295**	**.0883**	**1.607**	**.0071**	**.0312**	**4.519**	W **-.0174**
Stddev	.025	.0004	.0002	.001	.0011	.0006	.011	.0004
%RSD	.7728	1.250	.1958	.0599	15.48	1.959	.2376	2.309
#1	3.277	.0298	.0881	1.606	.0079	.0316	4.526	-.0177
#2	3.241	.0292	.0884	1.608	.0063	.0308	4.511	-.0171

Elem	Li6707	P_1774
Avg	**.1300**	**4.785**
Stddev	.0002	.000
%RSD	.1842	.0088
#1	.1298	4.785
#2	.1301	4.784

Zoom In Zoom Out

Sample Name: jc67150-5 Acquired: 6/4/2018 22:32:44 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**91616.**	**14488.**	**3540.8**	**7999.2**
Stddev	77.	18.	3.5	2.0
%RSD	.08405	.12240	.09801	.02499
#1	91670.	14501.	3538.4	7997.8
#2	91561.	14476.	3543.3	8000.6

Zoom In Zoom Out

Sample Name: jc67150-6 Acquired: 6/4/2018 22:36:54 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.3158**	**.0062**	**-.0005**	**.0280**	**.2375**	**.0793**	**1.058**	**.0625**
Stddev	.0002	.0001	.0006	.0018	.0141	.0320	.062	.0048
%RSD	.0693	.8783	113.7	6.378	5.920	40.34	5.865	7.655
#1	.3156	.0062	-.0010	.0267	.2276	.1019	1.014	.0591
#2	.3159	.0062	-.0001	.0292	.2475	.0567	1.102	.0659

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	F **-.0464**	**.4466**	**.2080**	**.1270**	F **-.0094**	**.1056**	F **-.0191**	**-.0022**
Stddev	.0646	.0327	.0021	.0038	.0101	.0004	.0342	.0053
%RSD	139.0	7.322	.9896	3.024	107.2	.3378	179.4	238.7
#1	-.0008	.4235	.2066	.1297	-.0023	.1059	.0051	.0015
#2	-.0921	.4697	.2095	.1243	-.0165	.1054	-.0433	-.0060

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**93.29**	**8.813**	F **306.7**	**13.52**	**24.34**	**.8447**	**.1241**	**.0058**
Stddev	.11	.005	1.0	.09	.03	.0076	.0008	.0020
%RSD	.1168	.0602	.3314	.6981	.1409	.9006	.6832	33.97
#1	93.37	8.809	307.4	13.59	24.37	.8501	.1235	.0073
#2	93.21	8.816	305.9	13.46	24.32	.8393	.1247	.0044

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.195**	**.0284**	**.1166**	**1.198**	**.0065**	**.0391**	**4.543**	**-.0070**
Stddev	.022	.0006	.0005	.086	.0038	.0107	.003	.0196
%RSD	1.022	1.983	.4012	7.175	58.01	27.40	.0609	278.7
#1	2.179	.0288	.1163	1.137	.0092	.0466	4.545	-.0209
#2	2.210	.0280	.1170	1.259	.0038	.0315	4.541	.0068

Elem	Li6707	P_1774
Avg	**.1153**	**3.643**
Stddev	.0002	.000
%RSD	.1881	.0121
#1	.1155	3.643
#2	.1152	3.644

Zoom In
Zoom Out

Sample Name: jc67150-6 Acquired: 6/4/2018 22:36:54 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	*****	14153.	3456.2	8007.7
Stddev	-----	58.	1.8	.3
%RSD	-----	.40997	.05172	.00321
#1	89801.	14112.	3457.5	8007.9
#2	-----	14194.	3454.9	8007.6

Zoom In
Zoom Out

Sample Name: jc67150-7 Acquired: 6/4/2018 22:41:03 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.7341	.0084	W -.0009	.1843	.1528	.8974	3.829	.1777
Stddev	.0007	.0002	.0001	.0002	.0002	.0024	.002	.0005
%RSD	.0991	2.034	12.92	.1129	.1418	.2671	.0495	.2678
#1	.7346	.0082	-.0010	.1845	.1529	.8957	3.828	.1774
#2	.7336	.0085	-.0008	.1842	.1526	.8991	3.831	.1781

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	F -.0053	1.562	.4663	.0455	F -.0077	.1286	-.0001	-.0015
Stddev	.0000	.005	.0001	.0017	.0007	.0002	.0019	.0012
%RSD	.5201	.3426	.0175	3.804	8.750	.1708	1299.	80.71
#1	-.0052	1.558	.4663	.0467	-.0081	.1284	.0012	-.0024
#2	-.0053	1.566	.4662	.0443	-.0072	.1287	-.0015	-.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	189.5	16.63	F 355.8	22.27	6.154	1.049	.0181	.0063
Stddev	.0	.02	.7	.06	.027	.012	.0006	.0001
%RSD	.0111	.1184	.1961	.2838	.4403	1.119	3.074	.8585
#1	189.6	16.61	355.3	22.22	6.135	1.058	.0177	.0063
#2	189.5	16.64	356.2	22.31	6.173	1.041	.0185	.0064

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	1.925	.0412	.1106	4.524	.0073	.0874	1.681	W -.0193
Stddev	.010	.0000	.0001	.001	.0001	.0003	.006	.0015
%RSD	.5330	.1130	.0647	.0183	1.633	.3368	.3725	8.006
#1	1.932	.0412	.1105	4.524	.0073	.0872	1.677	-.0203
#2	1.918	.0412	.1106	4.523	.0072	.0876	1.686	-.0182

Elem	Li6707	P_1774
Avg	.0915	3.678
Stddev	.0014	.002
%RSD	1.576	.0487
#1	.0904	3.679
#2	.0925	3.677

Zoom In
Zoom Out

Sample Name: jc67150-7 Acquired: 6/4/2018 22:41:03 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94510.	15199.	3658.6	7894.6
Stddev	112.	69.	1.2	4.7
%RSD	.11810	.45323	.03231	.05987
#1	94589.	15247.	3659.5	7898.0
#2	94431.	15150.	3657.8	7891.3

Zoom In
Zoom Out

Sample Name: ccv Acquired: 6/4/2018 22:45:12 Type: QC
Method: Accutest 2(v444) 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	2.037	2.031	2.017	2.036	1.994	2.058	2.030	.2523
Stddev	.003	.005	.002	.001	.010	.001	.001	.002	.0003
%RSD	.1537	.2496	.1175	.0350	.4699	.0421	.0695	.0799	.1318
#1	2.070	2.041	2.033	2.017	2.043	1.995	2.059	2.028	.2525
#2	2.066	2.034	2.030	2.016	2.029	1.994	2.057	2.031	.2520
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	2.014	2.037	2.021	2.080	2.030	2.005	2.056	40.19	40.60
Stddev	.008	.000	.002	.002	.002	.004	.001	.10	.10
%RSD	.4130	.0027	.1156	.0776	.0730	.2104	.0657	.2422	.2440
#1	2.020	2.037	2.020	2.081	2.029	2.008	2.057	40.26	40.67
#2	2.008	2.037	2.023	2.078	2.031	2.002	2.055	40.12	40.53
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	40.86	40.59	41.47	41.51	2.055	2.052	5.117	2.080	2.087
Stddev	.14	.17	.11	.12	.003	.003	.008	.002	.006
%RSD	.3457	.4174	.2549	.2859	.1485	.1550	.1521	.1071	.2911
#1	40.96	40.71	41.54	41.59	2.057	2.054	5.122	2.082	2.091
#2	40.76	40.47	41.39	41.42	2.053	2.049	5.111	2.078	2.083
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: 6/4/2018 22:45:12 Type: QC
Method: Accutest 2(v444) 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	**2.054**	**2.036**	**2.044**	**1.982**	**2.074**	**2.075**	**2.002**
Stddev	.002	.001	.004	.001	.007	.001	.002
%RSD	.1061	.0278	.2202	.0267	.3583	.0503	.0963
#1	2.055	2.035	2.047	1.983	2.080	2.076	2.003
#2	2.052	2.036	2.041	1.982	2.069	2.074	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	**86891.**	**13752.**	**3362.1**	**7700.2**
Stddev	240.	40.	6.4	6.6
%RSD	.27651	.28832	.19007	.08550
#1	86721.	13723.	3357.6	7695.5
#2	87061.	13780.	3366.7	7704.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 22:49:16 Type: QC
Method: Accutest 2(v444) 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**	F **.0002**	**.0001**	**.0002**	**.0001**	**.0010**	**.0001**	**.0003**	**.0008**
Stddev	.0001	.0001	.0001	.0001	.0005	.0003	.0000	.0000	.0005
%RSD	101.7	27.43	54.44	31.33	738.8	28.47	4.501	13.98	70.05
#1	.0000	.0003	.0002	.0002	.0004	.0012	.0001	.0003	.0004
#2	.0002	.0002	.0001	.0003	-.0003	.0008	.0001	.0002	.0011
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0001**	**-.0008**	**.0004**	**.0010**	**.0001**	**-.0002**	**.0034**	**.0104**
Stddev	.0001	.0002	.0005	.0003	.0004	.0002	.0011	.0099	.0034
%RSD	25.38	123.7	68.20	60.55	37.79	161.2	451.0	295.1	33.29
#1	.0004	.0000	-.0012	.0003	.0013	-.0000	.0005	-.0036	.0079
#2	.0006	.0003	-.0004	.0006	.0007	.0003	-.0010	.0103	.0128
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	**.0034**	**.0244**	**.0200**	**-.0229**	**.0012**	**.0010**	**.0006**	**.0015**	**.0001**
Stddev	.0037	.0026	.0018	.0032	.0001	.0000	.0002	.0003	.0001
%RSD	107.8	10.82	8.870	14.09	6.605	1.564	29.90	20.73	108.4
#1	.0008	.0262	.0187	-.0252	.0012	.0010	.0008	.0013	.0000
#2	.0060	.0225	.0212	-.0206	.0011	.0009	.0005	.0017	.0002
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: 6/4/2018 22:49:16 Type: QC
Method: Accutest 2(v444) 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**	**.0012**	**.0000**	**.0037**	**.0002**	**.0002**	**-.0018**
Stddev	.0003	.0003	.0002	.0016	.0005	.0015	.0003
%RSD	563.3	28.48	540.1	43.74	337.9	848.3	14.26
#1	.0002	.0015	.0002	.0025	.0005	.0013	-.0020
#2	-.0001	.0010	-.0001	.0048	-.0002	-.0009	-.0016
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	**90778.**	**13875.**	**3470.1**	**8537.1**
Stddev	190.	7.	7.4	21.3
%RSD	.20899	.05016	.21301	.24908
#1	90912.	13870.	3464.8	8522.0
#2	90644.	13880.	3475.3	8552.1

Zoom In Zoom Out

Sample Name: jc67157-1 Acquired: 6/4/2018 22:53:37 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.4663**	**.0048**	**.0003**	**.0663**	**.1636**	**.3509**	**1.179**	**.1301**
Stddev	.0007	.0001	.0002	.0003	.0015	.0002	.002	.0008
%RSD	.1422	1.275	49.81	.4723	.9018	.0470	.1572	.6048
#1	.4668	.0048	.0002	.0661	.1626	.3508	1.178	.1295
#2	.4658	.0049	.0005	.0666	.1647	.3510	1.181	.1306

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0005**	**.3035**	**.4011**	**.0394**	F **-.0020**	**.2572**	**.0033**	**.0036**
Stddev	.0001	.0017	.0001	.0010	.0008	.0010	.0002	.0013
%RSD	25.27	.5693	.0156	2.575	38.98	.3978	5.369	35.39
#1	.0004	.3023	.4011	.0401	-.0026	.2564	.0032	.0027
#2	.0006	.3047	.4012	.0387	-.0015	.2579	.0035	.0045

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**50.43**	**14.03**	**163.7**	**10.95**	**7.178**	**1.701**	**.0345**	**.0116**
Stddev	.09	.02	.1	.02	.010	.015	.0000	.0001
%RSD	.1719	.1120	.0822	.1883	.1402	.8853	.1029	.4453
#1	50.49	14.02	163.8	10.94	7.185	1.711	.0344	.0117
#2	50.37	14.04	163.6	10.97	7.171	1.690	.0345	.0116

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.795**	**.0453**	**.2396**	**1.911**	**.0090**	**.0963**	**7.985**	W **-.0128**
Stddev	.017	.0001	.0002	.002	.0011	.0000	.012	.0019
%RSD	.5973	.3006	.0846	.1142	12.00	.0359	.1553	14.63
#1	2.806	.0454	.2397	1.913	.0082	.0963	7.994	-.0115
#2	2.783	.0452	.2395	1.910	.0098	.0963	7.977	-.0142

Elem	Li6707	P_1774
Avg	**.0915**	**1.745**
Stddev	.0008	.006
%RSD	.8423	.3650
#1	.0920	1.750
#2	.0909	1.741

Zoom In Zoom Out

Sample Name: jc67157-1 Acquired: 6/4/2018 22:53:37 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**93190.**	**14600.**	**3574.9**	**8125.0**
Stddev	302.	82.	.4	7.7
%RSD	.32443	.56428	.01139	.09527
#1	93404.	14542.	3575.2	8130.5
#2	92977.	14659.	3574.6	8119.5

Zoom In Zoom Out

Sample Name: jc67191-4 Acquired: 6/4/2018 22:57:46 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.1057**	**.0015**	**-.0000**	**.0193**	**.1225**	**.0286**	**.3584**	**.0451**
Stddev	.0002	.0000	.0001	.0000	.0010	.0001	.0006	.0002
%RSD	.1447	1.125	478.3	.1939	.7840	.4148	.1542	.4683
#1	.1056	.0015	-.0001	.0194	.1218	.0287	.3580	.0449
#2	.1058	.0015	.0001	.0193	.1232	.0285	.3587	.0452

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0010**	**.1333**	**.0754**	**.0205**	F **-.0027**	**.0481**	**-.0008**	**.0005**
Stddev	.0001	.0002	.0002	.0005	.0001	.0002	.0003	.0002
%RSD	14.43	.1608	.2075	2.401	3.371	.3593	43.40	33.56
#1	.0011	.1331	.0753	.0202	-.0028	.0479	-.0010	.0004
#2	.0009	.1334	.0755	.0209	-.0026	.0482	-.0005	.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**63.49**	**.6133**	**59.68**	**1.379**	**1.867**	**.1304**	**.0076**	**.0031**
Stddev	.09	.0030	.14	.003	.021	.0078	.0000	.0002
%RSD	.1339	.4846	.2342	.2392	1.122	5.974	.5236	6.322
#1	63.55	.6154	59.78	1.382	1.852	.1359	.0076	.0029
#2	63.43	.6112	59.58	1.377	1.882	.1249	.0076	.0032

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.416**	**.0312**	**.0089**	**.9630**	**.0058**	**.0600**	**.4302**	**-.0063**
Stddev	.008	.0004	.0000	.0018	.0012	.0001	.0029	.0020
%RSD	.3252	1.150	.0973	.1839	20.32	.1337	.6660	31.88
#1	2.410	.0315	.0089	.9618	.0067	.0601	.4322	-.0049
#2	2.421	.0310	.0089	.9643	.0050	.0600	.4282	-.0077

Elem	Li6707	P_1774
Avg	**.0172**	**.5318**
Stddev	.0000	.0013
%RSD	.0367	.2418
#1	.0172	.5327
#2	.0172	.5309

Zoom In Zoom Out

Sample Name: jc67191-4 Acquired: 6/4/2018 22:57:46 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**90405.**	**13964.**	**3507.1**	**8188.4**
Stddev	194.	87.	4.9	10.4
%RSD	.21444	.62183	.14016	.12693
#1	90542.	13903.	3503.6	8181.1
#2	90268.	14026.	3510.6	8195.8

Zoom In Zoom Out

Sample Name: jc67229-2 Acquired: 6/4/2018 23:02:00 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.0546**	**.0007**	**.0001**	**.0025**	**.0328**	**.0165**	**.0936**	**.0115**	**.0013**
Stddev	.0004	.0000	.0002	.0006	.0003	.0001	.0001	.0001	.0003
%RSD	.6615	.6863	179.0	23.85	.8544	.5254	.1470	.4635	23.49
#1	.0548	.0007	.0003	.0021	.0330	.0164	.0937	.0115	.0010
#2	.0543	.0007	-.0000	.0029	.0326	.0165	.0935	.0114	.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0566**	**.0452**	**.0063**	**-.0006**	**.0216**	**.0003**	**-.0008**	**6.162**	**4.369**
Stddev	.0000	.0000	.0006	.0022	.0002	.0002	.0012	.023	.001
%RSD	.0229	.0449	8.808	378.3	.9753	51.11	155.4	.3689	.0242
#1	.0566	.0452	.0059	-.0021	.0217	.0005	-.0016	6.178	4.370
#2	.0565	.0453	.0067	.0010	.0214	.0002	.0001	6.146	4.369

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**20.64**	**1.724**	**.9854**	**.7219**	**.0042**	**.0025**	**3.423**	**.0259**	**.0303**
Stddev	.04	.031	.0142	.0037	.0006	.0001	.031	.0003	.0000
%RSD	.2004	1.790	1.438	.5072	13.35	3.282	.9042	1.343	.0039
#1	20.67	1.702	.9954	.7193	.0046	.0026	3.445	.0261	.0303
#2	20.61	1.746	.9754	.7245	.0038	.0025	3.401	.0256	.0303

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.4426**	**.0048**	**.0290**	**.1123**	**-.0024**	**.0044**	**.2432**
Stddev	.0032	.0008	.0002	.0020	.0004	.0002	.0000
%RSD	.7247	17.28	.6530	1.804	17.14	5.006	.0153
#1	.4449	.0042	.0292	.1108	-.0021	.0045	.2432
#2	.4403	.0054	.0289	.1137	-.0027	.0042	.2432

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**91465.**	**13981.**	**3504.0**	**8432.5**
Stddev	137.	4.	5.4	11.0
%RSD	.14945	.02792	.15381	.13099
#1	91369.	13984.	3507.8	8440.3
#2	91562.	13978.	3500.1	8424.7

Zoom In Zoom Out

Sample Name: jc67235-1 Acquired: 6/4/2018 23:06:15 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.106**	**.0040**	**.0066**	**.0317**	**.1180**	**.6184**	**1.539**	**.1170**
Stddev	.001	.0000	.0001	.0004	.0004	.0016	.004	.0003
%RSD	.0566	.7644	.7609	1.359	.3262	.2521	.2671	.2932
#1	1.105	.0040	.0066	.0320	.1183	.6195	1.542	.1168
#2	1.106	.0040	.0066	.0314	.1177	.6173	1.536	.1173

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0013**	**.1343**	**3.639**	**.0584**	F **-.0033**	**8.853**	**.0040**	**.0295**
Stddev	.0004	.0002	.003	.0004	.0002	.001	.0007	.0008
%RSD	27.26	.1459	.0910	.6204	7.486	.0119	18.40	2.590
#1	.0010	.1344	3.642	.0582	-.0034	8.853	.0045	.0301
#2	.0015	.1341	3.637	.0587	-.0031	8.852	.0035	.0290

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**49.17**	**78.76**	**212.3**	**21.81**	**4.692**	**4.305**	**.0549**	**.0086**
Stddev	.07	.04	.2	.08	.043	.003	.0000	.0002
%RSD	.1465	.0474	.0863	.3573	.9219	.0718	.0539	2.877
#1	49.12	78.78	212.5	21.86	4.722	4.307	.0549	.0085
#2	49.22	78.73	212.2	21.75	4.661	4.303	.0548	.0088

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**1.760**	**2.414**	**.3556**	**1.374**	**.0097**	**.0134**	**2.453**	**-.0050**
Stddev	.002	.006	.0003	.003	.0006	.0001	.006	.0013
%RSD	.0921	.2539	.0924	.2239	6.157	.4612	.2570	25.93
#1	1.761	2.410	.3559	1.376	.0101	.0134	2.457	-.0041
#2	1.759	2.418	.3554	1.372	.0092	.0134	2.448	-.0060

Elem	Li6707	P_1774
Avg	**.0874**	**2.438**
Stddev	.0011	.004
%RSD	1.203	.1836
#1	.0867	2.441
#2	.0882	2.435

Zoom In Zoom Out

Sample Name: jc67235-1 Acquired: 6/4/2018 23:06:15 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**89608.**	**14182.**	**3432.1**	**7877.3**
Stddev	191.	40.	3.8	11.6
%RSD	.21282	.28478	.11047	.14743
#1	89473.	14153.	3434.7	7885.5
#2	89743.	14210.	3429.4	7869.1

Zoom In Zoom Out

Sample Name: jc67235-3 Acquired: 6/4/2018 23:10:24 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0860**	**.0010**	**.0001**	**.0189**	**.0587**	**.0457**	**2.513**	**.0575**
Stddev	.0003	.0000	.0001	.0006	.0002	.0004	.002	.0003
%RSD	.4064	1.576	116.9	3.016	.3803	.9341	.0711	.5368
#1	.0863	.0010	.0002	.0193	.0586	.0460	2.512	.0577
#2	.0858	.0009	.0000	.0185	.0589	.0454	2.515	.0573

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0025**	**.0945**	**.1459**	**.0430**	F **-.0044**	**.0199**	**.0028**	**-.0042**
Stddev	.0004	.0003	.0002	.0010	.0007	.0000	.0010	.0009
%RSD	17.31	.3380	.1685	2.217	15.85	.0880	34.87	21.25
#1	.0028	.0942	.1457	.0423	-.0039	.0199	.0035	-.0048
#2	.0022	.0947	.1460	.0437	-.0049	.0199	.0021	-.0036

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**22.74**	F **701.8**	**69.86**	**101.2**	**3.802**	**2.876**	**.0303**	**.0078**
Stddev	.01	1.9	.15	.4	.002	.011	.0012	.0000
%RSD	.0597	.2710	.2185	.4251	.0622	.3851	3.798	.4026
#1	22.75	700.4	69.97	101.5	3.804	2.884	.0295	.0078
#2	22.73	703.1	69.76	100.9	3.801	2.868	.0311	.0078

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.827**	**.0255**	**.7051**	**1.336**	**.0075**	**.0338**	**1.094**	**-.0008**
Stddev	.032	.0006	.0003	.000	.0003	.0003	.000	.0001
%RSD	1.134	2.542	.0410	.0281	3.705	.8045	.0175	6.307
#1	2.804	.0260	.7049	1.336	.0077	.0336	1.094	-.0008
#2	2.849	.0250	.7053	1.336	.0073	.0340	1.093	-.0008

Elem	Li6707	P_1774
Avg	**.0466**	**1.547**
Stddev	.0000	.002
%RSD	.1043	.1323
#1	.0466	1.545
#2	.0467	1.548

Zoom In Zoom Out

Sample Name: jc67235-3 Acquired: 6/4/2018 23:10:24 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83208.**	**13637.**	**3202.7**	**6873.4**
Stddev	30.	78.	3.9	10.9
%RSD	.03592	.56998	.12189	.15797
#1	83187.	13582.	3199.9	6865.7
#2	83229.	13692.	3205.4	6881.1

Zoom In Zoom Out

Sample Name: jc67235-5 Acquired: 6/4/2018 23:14:43 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0602**	**.0008**	**-.0000**	**.0132**	**.0427**	**.0425**	**1.352**	**.0467**
Stddev	.0001	.0000	.0002	.0001	.0001	.0005	.000	.0001
%RSD	.1665	2.511	1463.	1.054	.2254	1.076	.0218	.1659
#1	.0603	.0008	-.0001	.0131	.0426	.0422	1.352	.0467
#2	.0601	.0008	.0001	.0133	.0428	.0428	1.353	.0466

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0015**	**.0629**	**.1216**	**.0424**	F **-.0026**	**.0139**	**.0018**	**-.0017**
Stddev	.0004	.0002	.0001	.0015	.0009	.0010	.0016	.0009
%RSD	22.63	.3076	.1188	3.613	35.25	7.012	85.53	53.26
#1	.0018	.0628	.1217	.0413	-.0020	.0146	.0007	-.0024
#2	.0013	.0631	.1215	.0434	-.0033	.0132	.0030	-.0011

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**16.24**	F **460.1**	**57.47**	**70.09**	**2.787**	**1.641**	**.0233**	**.0054**
Stddev	.01	1.6	.09	.05	.016	.012	.0004	.0000
%RSD	.0428	.3558	.1649	.0692	.5840	.7212	1.772	.8753
#1	16.23	461.2	57.40	70.06	2.776	1.650	.0236	.0054
#2	16.24	458.9	57.53	70.12	2.799	1.633	.0230	.0054

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.291**	**.0246**	**.4287**	**1.073**	**.0053**	**.0312**	**.9827**	**-.0013**
Stddev	.014	.0004	.0007	.003	.0009	.0001	.0030	.0022
%RSD	.6024	1.739	.1608	.2690	17.59	.4297	.3104	169.4
#1	2.300	.0242	.4282	1.071	.0060	.0313	.9849	.0003
#2	2.281	.0249	.4292	1.075	.0046	.0311	.9806	-.0029

Elem	Li6707	P_1774
Avg	**.0317**	**1.351**
Stddev	.0007	.004
%RSD	2.357	.3159
#1	.0323	1.354
#2	.0312	1.348

Zoom In Zoom Out

Sample Name: jc67235-5 Acquired: 6/4/2018 23:14:43 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**84512.**	**13650.**	**3240.6**	**7102.6**
Stddev	284.	44.	3.9	13.0
%RSD	.33653	.32015	.12128	.18360
#1	84713.	13619.	3237.8	7093.4
#2	84311.	13681.	3243.4	7111.8

Zoom In Zoom Out

Sample Name: jc67235-7 Acquired: 6/4/2018 23:19:03 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.1666**	**.0032**	**.0001**	**.0441**	**.1084**	**.0747**	**2.533**	**.1200**
Stddev	.0004	.0000	.0002	.0001	.0004	.0001	.001	.0005
%RSD	.2694	.8058	145.0	.1297	.3819	.1872	.0410	.4269
#1	.1669	.0032	-.0000	.0440	.1087	.0746	2.533	.1204
#2	.1662	.0032	.0002	.0441	.1081	.0748	2.532	.1196

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0006**	**.1984**	**.2142**	**.0436**	F **-.0032**	**.0560**	**.0003**	**.0000**
Stddev	.0001	.0004	.0010	.0008	.0004	.0015	.0012	.0017
%RSD	21.89	.2122	.4519	1.882	11.18	2.634	460.5	31470.
#1	.0007	.1987	.2148	.0430	-.0034	.0570	.0011	.0012
#2	.0005	.1981	.2135	.0442	-.0029	.0550	-.0006	-.0012

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**61.69**	**10.21**	**102.5**	**12.73**	**5.183**	**6.107**	**.0261**	**.0077**
Stddev	.06	.00	.1	.00	.011	.017	.0001	.0002
%RSD	.1032	.0141	.0601	.0005	.2023	.2695	.3175	2.761
#1	61.73	10.21	102.5	12.73	5.176	6.119	.0261	.0075
#2	61.64	10.21	102.6	12.73	5.191	6.096	.0262	.0078

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.279**	**.0332**	**.0883**	**2.746**	**.0040**	**.0643**	**.2564**	**-.0083**
Stddev	.015	.0002	.0001	.004	.0004	.0003	.0029	.0011
%RSD	.6658	.5863	.1285	.1406	8.882	.4322	1.131	12.84
#1	2.290	.0331	.0882	2.749	.0042	.0641	.2544	-.0076
#2	2.268	.0334	.0884	2.743	.0037	.0645	.2585	-.0091

Elem	Li6707	P_1774
Avg	**.0554**	**2.188**
Stddev	.0000	.005
%RSD	.0490	.2491
#1	.0554	2.184
#2	.0554	2.192

Zoom In Zoom Out

Sample Name: jc67235-7 Acquired: 6/4/2018 23:19:03 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**93799.**	**14596.**	**3619.5**	**8042.8**
Stddev	163.	66.	9.0	15.2
%RSD	.17339	.45409	.24756	.18873
#1	93914.	14549.	3613.1	8032.0
#2	93684.	14642.	3625.8	8053.5

Zoom In Zoom Out

Sample Name: jc67235-8 Acquired: 6/4/2018 23:23:15 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0775**	**.0009**	**.0003**	**.0196**	**.0498**	**.0593**	**1.530**	**.0548**
Stddev	.0001	.0000	.0000	.0003	.0010	.0002	.000	.0007
%RSD	.1205	4.347	14.41	1.498	2.054	.3770	.0087	1.210
#1	.0776	.0009	.0003	.0198	.0506	.0595	1.530	.0553
#2	.0775	.0008	.0004	.0194	.0491	.0592	1.529	.0543

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0015**	**.1010**	**.1764**	**.0450**	F **-.0045**	**.0260**	**.0050**	**-.0042**
Stddev	.0002	.0005	.0004	.0002	.0001	.0001	.0041	.0013
%RSD	11.23	.4954	.2435	.4910	3.168	.3850	80.71	29.83
#1	.0017	.1013	.1761	.0448	-.0044	.0260	.0022	-.0051
#2	.0014	.1006	.1767	.0451	-.0046	.0259	.0079	-.0033

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**21.67**	F **516.2**	**57.84**	**163.3**	**3.983**	**14.66**	**.0345**	**.0050**
Stddev	.01	1.2	.06	.3	.009	.01	.0002	.0002
%RSD	.0388	.2273	.1012	.1926	.2216	.0469	.6225	3.779
#1	21.68	517.0	57.80	163.1	3.989	14.67	.0344	.0048
#2	21.66	515.3	57.88	163.5	3.976	14.66	.0347	.0051

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**1.801**	**.0291**	**.4957**	**1.792**	**.0053**	**.0373**	**6.636**	**-.0010**
Stddev	.003	.0009	.0010	.001	.0007	.0002	.005	.0001
%RSD	.1667	3.181	.2106	.0494	13.46	.4568	.0766	14.07
#1	1.803	.0297	.4964	1.792	.0048	.0372	6.640	-.0009
#2	1.799	.0284	.4949	1.791	.0058	.0374	6.633	-.0011

Elem	Li6707	P_1774
Avg	**.0441**	**3.066**
Stddev	.0016	.002
%RSD	3.645	.0573
#1	.0453	3.065
#2	.0430	3.068

Zoom In Zoom Out

Sample Name: jc67235-8 Acquired: 6/4/2018 23:23:15 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83426.**	**13631.**	**3204.4**	**6913.5**
Stddev	304.	15.	9.8	8.7
%RSD	.36436	.10843	.30540	.12608
#1	83211.	13642.	3211.3	6919.7
#2	83641.	13621.	3197.5	6907.3

Zoom In Zoom Out

Sample Name: jc67235-10 Acquired: 6/4/2018 23:27:35 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.7674**	**.0066**	**.0033**	**.0974**	**.2009**	**.4029**	**4.009**	**.2962**
Stddev	.0020	.0000	.0004	.0008	.0008	.0004	.011	.0002
%RSD	.2652	.1875	11.02	.8553	.4088	.0877	.2728	.0509
#1	.7660	.0066	.0030	.0968	.2004	.4026	4.001	.2963
#2	.7688	.0066	.0035	.0980	.2015	.4031	4.017	.2961

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0011**	**.3064**	**1.384**	**.0917**	F **-.0055**	**.2454**	**.0057**	**.0020**
Stddev	.0011	.0005	.001	.0005	.0011	.0011	.0015	.0012
%RSD	98.51	.1504	.0385	.5913	19.90	.4300	25.59	60.89
#1	-.0018	.3061	1.384	.0921	-.0047	.2446	.0067	.0012
#2	-.0003	.3067	1.384	.0913	-.0063	.2461	.0046	.0029

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**119.7**	F **671.9**	**254.5**	**157.3**	**32.25**	**3.486**	**.1971**	**.0515**
Stddev	.2	3.5	.8	.3	.01	.010	.0002	.0001
%RSD	.1903	.5159	.3094	.2122	.0349	.2989	.0992	.2847
#1	119.6	669.4	253.9	157.1	32.25	3.479	.1972	.0516
#2	119.9	674.3	255.0	157.6	32.26	3.494	.1969	.0514

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**4.483**	**.3666**	**.9360**	**2.114**	**.0133**	**.1269**	**32.71**	W **-.0140**
Stddev	.011	.0000	.0024	.006	.0008	.0002	.02	.0004
%RSD	.2387	.0109	.2511	.2926	6.115	.1350	.0698	2.727
#1	4.491	.3665	.9343	2.110	.0139	.1268	32.70	-.0143
#2	4.476	.3666	.9376	2.118	.0127	.1271	32.73	-.0138

Elem	Li6707	P_1774
Avg	**.2503**	**3.927**
Stddev	.0016	.001
%RSD	.6581	.0141
#1	.2514	3.927
#2	.2491	3.926

Zoom In Zoom Out

Sample Name: jc67235-10 Acquired: 6/4/2018 23:27:35 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**83470.**	**13831.**	**3188.2**	**6773.9**
Stddev	167.	79.	4.4	4.5
%RSD	.19968	.57136	.13797	.06702
#1	83588.	13887.	3185.1	6770.6
#2	83352.	13775.	3191.3	6777.1

Zoom In Zoom Out

Sample Name: mp7437-b1 2 Acquired: 6/4/2018 23:31:50 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.013**	**1.975**	**1.976**	**1.942**	**1.970**	**1.942**	**1.991**	**1.956**
Stddev	.006	.003	.001	.001	.003	.004	.001	.002
%RSD	.2954	.1618	.0287	.0306	.1496	.2119	.0468	.0958
#1	2.017	1.977	1.976	1.941	1.972	1.939	1.992	1.955
#2	2.009	1.973	1.977	1.942	1.968	1.945	1.990	1.957

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2488**	**1.965**	**1.977**	**1.957**	**2.064**	**1.972**	**1.962**	**2.006**
Stddev	.0003	.007	.000	.003	.002	.003	.002	.006
%RSD	.1390	.3737	.0208	.1284	.0723	.1475	.1184	.3125
#1	.2485	1.971	1.978	1.956	2.065	1.970	1.964	2.001
#2	.2490	1.960	1.977	1.959	2.063	1.974	1.961	2.010

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**24.52**	**24.82**	**25.23**	**24.67**	**25.40**	**25.48**	**2.001**	**2.014**
Stddev	.06	.07	.07	.03	.04	.11	.003	.003
%RSD	.2447	.2880	.2929	.1205	.1654	.4209	.1371	.1349
#1	24.56	24.87	25.28	24.69	25.43	25.55	1.999	2.012
#2	24.47	24.77	25.17	24.65	25.37	25.40	2.003	2.016

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	W **-.0313**	**2.048**	**2.023**	**1.982**	**1.970**	**1.964**	F **-.0569**	**.0021**
Stddev	.0012	.002	.008	.002	.005	.002	.0013	.0012
%RSD	3.888	.1038	.3906	.1187	.2391	.1033	2.223	58.42
#1	-.0322	2.046	2.029	1.983	1.967	1.966	-.0577	.0030
#2	-.0305	2.049	2.018	1.980	1.973	1.963	-.0560	.0012

Elem	Li6707	P_1774
Avg	**.0025**	**1.958**
Stddev	.0015	.001
%RSD	59.93	.0322
#1	.0014	1.958
#2	.0036	1.959

Zoom In Zoom Out

Sample Name: mp7437-b1 2 Acquired: 6/4/2018 23:31:50 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**88373.**	**13840.**	**3383.7**	**7886.4**
Stddev	246.	90.	3.6	9.3
%RSD	.27797	.65363	.10702	.11765
#1	88199.	13776.	3381.1	7879.9
#2	88546.	13904.	3386.3	7893.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/4/2018 23:35:55 Type: QC
Method: Accutest 2(v444) 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	**2.069**	**2.043**	**2.040**	**2.024**	**2.045**	**1.999**	**2.063**	**2.042**	**.2533**
Stddev	.004	.000	.002	.002	.005	.002	.003	.001	.0016
%RSD	.2157	.0103	.1044	.1002	.2466	.1188	.1434	.0323	.6276
#1	2.065	2.043	2.038	2.025	2.042	1.998	2.061	2.042	.2522
#2	2.072	2.042	2.041	2.023	2.049	2.001	2.066	2.041	.2544
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	**2.019**	**2.054**	**2.039**	**2.085**	**2.044**	**2.016**	**2.059**	**40.24**	**40.72**
Stddev	.004	.001	.002	.001	.003	.001	.002	.02	.07
%RSD	.2203	.0659	.1077	.0367	.1217	.0273	.0756	.0568	.1823
#1	2.016	2.055	2.041	2.086	2.043	2.015	2.058	40.23	40.78
#2	2.022	2.053	2.038	2.084	2.046	2.016	2.060	40.26	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	**41.12**	**40.77**	**41.54**	**41.63**	**2.059**	**2.065**	**5.140**	**2.095**	**2.092**
Stddev	.02	.10	.09	.03	.000	.000	.003	.000	.002
%RSD	.0498	.2469	.2073	.0610	.0088	.0125	.0646	.0197	.0719
#1	41.11	40.84	41.48	41.61	2.059	2.065	5.137	2.095	2.091
#2	41.13	40.70	41.60	41.65	2.059	2.065	5.142	2.095	2.093
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: 6/4/2018 23:35:55 Type: QC
Method: Accutest 2(v444) 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	**2.057**	**2.048**	**2.048**	**1.998**	**2.075**	**2.078**	**2.034**
Stddev	.004	.001	.001	.005	.002	.002	.002
%RSD	.1907	.0412	.0315	.2311	.0812	.0783	.0764
#1	2.054	2.047	2.047	2.001	2.074	2.079	2.033
#2	2.060	2.049	2.048	1.994	2.076	2.077	2.035
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	**86571.**	**13549.**	**3343.4**	**7658.1**
Stddev	179.	.	.8	7.8
%RSD	.20688	.00169	.02508	.10198
#1	86698.	13549.	3342.8	7652.5
#2	86445.	13549.	3344.0	7663.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 23:39:58 Type: QC
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	F **.0002**	**.0003**	**.0004**	**.0006**	**.0010**	**.0002**	**-.0001**	**.0006**
Stddev	.0001	.0000	.0002	.0001	.0001	.0004	.0001	.0001	.0005
%RSD	19.74	10.85	91.96	13.21	16.33	37.23	26.78	73.84	70.57
#1	.0004	.0002	.0001	.0003	.0006	.0007	.0002	-.0002	.0003
#2	.0005	.0002	.0004	.0004	.0005	.0012	.0002	-.0000	.0010
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0003**	**-.0001**	**.0007**	**.0007**	**-.0006**	**-.0020**	**.0051**	**.0104**
Stddev	.0002	.0000	.0006	.0001	.0011	.0004	.0003	.0162	.0019
%RSD	55.55	7.955	728.5	8.486	157.3	66.97	16.38	316.5	17.84
#1	.0004	.0003	.0003	.0007	-.0001	-.0003	-.0018	-.0063	.0091
#2	.0002	.0004	-.0005	.0006	.0015	-.0008	-.0023	.0166	.0117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0221**	**.0394**	**-.0203**	**.0017**	**.0014**	**.0005**	**.0004**	**.0002**
Stddev	.0018	.0167	.0166	.0020	.0001	.0000	.0008	.0004	.0002
%RSD	40.22	75.47	42.06	9.973	4.834	3.035	160.2	111.1	76.83
#1	.0058	.0103	.0511	-.0217	.0016	.0014	-.0001	.0001	.0003
#2	.0032	.0339	.0277	-.0188	.0017	.0014	.0010	.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									

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/4/2018 23:39:58 Type: QC
Method: Accutest 2(v444) 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**	**.0009**	**.0001**	**.0044**	**.0020**	**.0005**	**-.0024**
Stddev	.0003	.0003	.0001	.0014	.0023	.0001	.0003
%RSD	50.14	34.92	38.76	31.20	117.5	30.89	12.94
#1	.0003	.0011	.0002	.0034	.0036	.0004	-.0021
#2	.0007	.0007	.0001	.0053	.0003	.0006	-.0026
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	**90456.**	**13722.**	**3470.1**	**8520.4**
Stddev	216.	15.	3.5	1.4
%RSD	.23889	.10677	.10095	.01689
#1	90303.	13732.	3472.6	8519.4
#2	90609.	13712.	3467.7	8521.4

Zoom In Zoom Out

Sample Name: mp7437-mb1 Acquired: 6/4/2018 23:44:20 Type: Unk
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: water

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0001**	**.0000**	**.0001**	**-.0000**	**-.0000**	**.0011**	**.0001**	**-.0001**	**.0006**
Stddev	.0001	.0000	.0001	.0001	.0002	.0000	.0001	.0001	.0001
%RSD	106.7	399.6	110.1	748.3	13470.	.1007	93.65	94.20	14.91
#1	-.0000	.0000	.0001	.0001	.0001	.0011	.0000	-.0002	.0005
#2	-.0002	-.0000	.0000	-.0001	-.0001	.0011	.0002	-.0000	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0010**	**-.0010**	**-.0005**	**-.0000**	**-.0008**	**-.0008**	**.0118**	**.0512**
Stddev	.0000	.0000	.0001	.0007	.0006	.0001	.0002	.0209	.0012
%RSD	10.27	4.068	6.967	143.0	9351.	14.62	22.29	177.1	2.289
#1	.0003	.0010	-.0009	-.0010	-.0004	-.0008	-.0007	-.0030	.0520
#2	.0002	.0011	-.0010	.0000	.0004	-.0007	-.0009	.0266	.0504

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0004**	**.0126**	**-.0053**	**-.0298**	**.0022**	**.0002**	**.0053**	**.0007**	**.0001**
Stddev	.0032	.0002	.0017	.0050	.0007	.0001	.0005	.0003	.0000
%RSD	912.5	1.554	31.82	16.71	33.92	31.76	8.885	51.93	14.10
#1	.0026	.0124	-.0065	-.0263	.0016	.0002	.0056	.0009	.0001
#2	-.0019	.0127	-.0041	-.0334	.0027	.0002	.0050	.0004	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0009**	**.0001**	**.0208**	**.0007**	**.0012**	**-.0020**
Stddev	.0001	.0009	.0000	.0012	.0013	.0002	.0011
%RSD	95.30	101.9	6.717	5.790	180.8	19.02	56.38
#1	.0000	.0003	.0001	.0217	-.0002	.0013	-.0027
#2	.0002	.0015	.0001	.0200	.0016	.0010	-.0012

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**90911.**	**13860.**	**3460.7**	**8530.1**
Stddev	335.	34.	1.6	12.7
%RSD	.36866	.24575	.04562	.14903
#1	90674.	13884.	3461.8	8539.1
#2	91148.	13835.	3459.6	8521.1

Zoom In Zoom Out

Sample Name: mp7437-s1 Acquired: 6/4/2018 23:48:40 Type: Unk
Method: Accutest 2(v444) 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
Avg	**2.236**	**1.983**	**2.007**	**1.987**	**1.950**	**1.932**	**2.236**	**2.005**	**.2593**
Stddev	.001	.000	.001	.002	.003	.008	.001	.004	.0009
%RSD	.0592	.0139	.0523	.0979	.1328	.3958	.0498	.2219	.3473
#1	2.235	1.983	2.007	1.988	1.952	1.938	2.235	2.008	.2599
#2	2.237	1.982	2.008	1.986	1.949	1.927	2.237	2.001	.2587

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.970**	**1.972**	**2.046**	**1.960**	**1.980**	**2.014**	**2.017**	**24.34**	**136.9**
Stddev	.003	.002	.000	.008	.001	.001	.001	.01	.3
%RSD	.1365	.0941	.0013	.4273	.0603	.0500	.0232	.0551	.2143
#1	1.972	1.973	2.046	1.966	1.981	2.015	2.017	24.33	137.1
#2	1.968	1.971	2.046	1.954	1.979	2.014	2.017	24.35	136.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.80**	**35.05**	**39.61**	F **494.5**	**2.047**	**1.996**	**4.794**	**1.962**	**2.699**
Stddev	.01	.11	.03	6.9	.002	.001	.005	.000	.001
%RSD	.0449	.3193	.0865	1.399	.0989	.0628	.1037	.0043	.0266
#1	24.81	35.13	39.64	499.4	2.045	1.997	4.797	1.962	2.699
#2	24.79	34.97	39.59	489.6	2.048	1.995	4.790	1.962	2.700

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.991**	**1.978**	**1.986**	**46.72**	**.0025**	**.0165**	**2.088**
Stddev	.001	.004	.001	.05	.0004	.0014	.002
%RSD	.0344	.2170	.0305	.1063	14.11	8.202	.1061
#1	1.991	1.981	1.985	46.76	.0028	.0175	2.090
#2	1.990	1.975	1.986	46.69	.0023	.0156	2.087

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80926.**	**13289.**	**3142.2**	**6880.2**
Stddev	48.	106.	1.6	10.7
%RSD	.05968	.79436	.05004	.15616
#1	80891.	13214.	3143.4	6872.6
#2	80960.	13363.	3141.1	6887.8

Zoom In Zoom Out

Sample Name: mp7437-s2 Acquired: 6/4/2018 23:52:48 Type: Unk
Method: Accutest 2(v444) 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
Avg	**2.178**	**1.932**	**1.960**	**1.937**	**1.900**	**1.885**	**2.177**	**1.958**	**.2535**
Stddev	.000	.003	.000	.005	.006	.002	.005	.003	.0001
%RSD	.0130	.1293	.0021	.2437	.3050	.0794	.2153	.1487	.0425
#1	2.178	1.930	1.960	1.941	1.896	1.886	2.173	1.960	.2534
#2	2.178	1.934	1.960	1.934	1.904	1.884	2.180	1.955	.2536

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.919**	**1.928**	**2.008**	**1.908**	**1.932**	**1.964**	**1.986**	**23.73**	**132.8**
Stddev	.004	.002	.001	.002	.000	.004	.000	.06	.1
%RSD	.2117	.0836	.0248	.0772	.0185	.1892	.0022	.2370	.0890
#1	1.916	1.929	2.007	1.909	1.932	1.967	1.986	23.69	132.8
#2	1.922	1.926	2.008	1.907	1.931	1.961	1.986	23.77	132.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.26**	**34.23**	**38.60**	F **476.9**	**2.002**	**1.963**	**4.629**	**1.933**	**2.630**
Stddev	.08	.04	.00	1.8	.001	.001	.003	.005	.000
%RSD	.3222	.1078	.0016	.3777	.0379	.0530	.0570	.2426	.0082
#1	24.21	34.25	38.60	475.6	2.001	1.964	4.631	1.936	2.629
#2	24.32	34.20	38.60	478.1	2.002	1.962	4.627	1.929	2.630

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.950**	**1.941**	**1.946**	**45.43**	**.0024**	**.0175**	**2.053**
Stddev	.000	.000	.001	.04	.0004	.0019	.001
%RSD	.0012	.0223	.0397	.0842	18.21	11.15	.0320
#1	1.950	1.941	1.945	45.46	.0027	.0161	2.054
#2	1.950	1.941	1.946	45.40	.0021	.0188	2.053

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**81340.**	**13370.**	**3139.9**	**6894.7**
Stddev	143.	55.	4.5	16.5
%RSD	.17620	.40962	.14179	.23995
#1	81441.	13409.	3136.7	6883.0
#2	81238.	13331.	3143.0	6906.4

Zoom In Zoom Out

Sample Name: jc66897-15 Acquired: 6/4/2018 23:56:56 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.2418**	**.0001**	**.0001**	**.0004**	**.0011**	**.0025**	**.2739**	**.0010**	**.0012**
Stddev	.0005	.0002	.0000	.0002	.0000	.0003	.0003	.0003	.0000
%RSD	.1915	321.2	9.166	39.02	3.187	11.48	.0991	27.38	2.392
#1	.2422	-.0001	.0001	.0005	.0011	.0023	.2741	.0012	.0012
#2	.2415	.0002	.0001	.0003	.0011	.0028	.2737	.0008	.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0022**	**.0012**	**-.0003**	**.0000**	**-.0015**	**.0007**	**-.0007**	**.0176**	**115.4**
Stddev	.0003	.0000	.0008	.0017	.0006	.0004	.0001	.0037	.3
%RSD	12.63	.9696	249.8	4091.	39.47	57.59	17.04	20.90	.2200
#1	.0020	.0013	.0003	.0013	-.0019	.0004	-.0006	.0150	115.6
#2	.0024	.0012	-.0009	-.0012	-.0011	.0010	-.0007	.0202	115.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0692**	**11.45**	**14.47**	F **473.3**	**.0774**	**.0101**	**4.897**	**-.0007**	**.7105**
Stddev	.0001	.10	.03	3.8	.0009	.0000	.001	.0004	.0013
%RSD	.1742	.8649	.2338	.7947	1.108	.3677	.0149	51.53	.1810
#1	.0693	11.52	14.50	470.7	.0780	.0101	4.898	-.0005	.7114
#2	.0691	11.38	14.45	476.0	.0767	.0101	4.897	-.0010	.7095

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0010**	**.0072**	**.0006**	**48.18**	**-.0002**	**.0172**	**.0365**
Stddev	.0002	.0008	.0001	.11	.0008	.0014	.0007
%RSD	19.03	10.65	16.91	.2325	436.4	7.883	1.971
#1	.0012	.0078	.0005	48.26	-.0007	.0182	.0360
#2	.0009	.0067	.0007	48.10	.0004	.0163	.0370

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**80458.**	**13333.**	**3124.1**	**6976.2**
Stddev	45.	74.	2.8	2.3
%RSD	.05563	.55446	.09036	.03252
#1	80489.	13281.	3126.1	6977.8
#2	80426.	13385.	3122.1	6974.6

Zoom In Zoom Out

Sample Name: mp7437-sd1 Acquired: 6/5/2018 0:01:19 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.2415**	**.0001**	**.0004**	**.0013**	**.0008**	**.0077**	**.2755**	**.0000**	**.0059**
Stddev	.0009	.0002	.0007	.0004	.0024	.0021	.0013	.0016	.0019
%RSD	.3740	229.5	168.5	31.95	288.6	27.14	.4660	7569.	31.67
#1	.2408	-.0001	.0009	.0016	.0026	.0091	.2746	-.0011	.0072
#2	.2421	.0003	-.0001	.0010	-.0009	.0062	.2764	.0011	.0046

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0043**	**.0024**	**-.0024**	**.0039**	**-.0002**	**-.0118**	**-.0093**	**.0632**	**115.6**
Stddev	.0007	.0005	.0000	.0028	.0060	.0016	.0031	.0549	.0
%RSD	16.68	22.36	.1186	71.95	3141.	13.27	32.75	86.77	.0198
#1	.0048	.0027	-.0024	.0059	.0041	-.0129	-.0072	.0244	115.6
#2	.0038	.0020	-.0024	.0019	-.0045	-.0107	-.0115	.1021	115.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0728**	**11.70**	**14.34**	**501.4**	**.0805**	**.0109**	**4.898**	**-.0046**	**.7083**
Stddev	.0055	.10	.08	.0	.0009	.0001	.025	.0045	.0002
%RSD	7.533	.8195	.5753	.0019	1.122	.6702	.5016	97.55	.0230
#1	.0767	11.64	14.40	501.4	.0811	.0110	4.916	-.0078	.7085
#2	.0689	11.77	14.29	501.4	.0799	.0109	4.881	-.0014	.7082

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0008**	**.0109**	**.0002**	**46.45**	**.0051**	**.0209**	**.0288**
Stddev	.0021	.0026	.0010	.14	.0050	.0093	.0014
%RSD	249.9	23.69	418.5	.3032	97.81	44.47	4.758
#1	.0006	.0128	-.0005	46.55	.0087	.0275	.0298
#2	-.0023	.0091	.0009	46.35	.0016	.0143	.0278

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**86374.**	**13497.**	**3336.4**	**7796.5**
Stddev	61.	12.	4.4	8.6
%RSD	.07019	.09203	.13274	.11016
#1	86332.	13506.	3333.2	7790.5
#2	86417.	13488.	3339.5	7802.6

Zoom In Zoom Out

Sample Name: rinseconf Acquired: 6/5/2018 0:05:37 Type: Unk
Method: Accutest 2(v444) 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
Avg	**.0003**	**.0002**	**-.0001**	**.0005**	**.0005**	**.0008**	**.0003**	**.0000**	**.0010**
Stddev	.0001	.0000	.0002	.0000	.0004	.0002	.0000	.0005	.0001
%RSD	18.49	15.23	361.5	9.960	84.45	20.51	11.65	1509.	9.839
#1	.0003	.0003	-.0002	.0005	.0008	.0007	.0002	.0004	.0010
#2	.0004	.0002	.0001	.0005	.0002	.0010	.0003	-.0003	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0007**	**.0001**	**.0000**	**.0006**	**.0010**	**-.0013**	**-.0007**	**.0099**	**.0160**
Stddev	.0001	.0002	.0007	.0004	.0004	.0010	.0024	.0090	.0008
%RSD	15.55	115.7	2698.	67.34	39.34	72.75	315.3	90.88	4.828
#1	.0008	.0000	.0005	.0009	.0012	-.0006	-.0024	.0035	.0165
#2	.0006	.0003	-.0005	.0003	.0007	-.0020	.0009	.0162	.0154

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0042**	**.0043**	**.0469**	**.0472**	**.0011**	**.0005**	**.0006**	**.0009**	**.0002**
Stddev	.0005	.0434	.0148	.0026	.0001	.0002	.0000	.0000	.0001
%RSD	11.97	1020.	31.58	5.599	9.576	37.16	6.218	.8402	30.69
#1	.0045	-.0265	.0574	.0453	.0011	.0006	.0005	.0009	.0002
#2	.0038	.0350	.0364	.0490	.0010	.0004	.0006	.0009	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0000**	**.0012**	**.0002**	**.0084**	**.0007**	**.0011**	**-.0012**
Stddev	.0001	.0007	.0000	.0043	.0010	.0020	.0007
%RSD	10710.	60.87	15.03	51.03	138.6	181.9	62.74
#1	-.0001	.0007	.0003	.0114	.0014	-.0003	-.0017
#2	.0001	.0017	.0002	.0053	.0000	.0025	-.0007

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**90896.**	**13514.**	**3465.4**	**8521.7**
Stddev	357.	8.	4.8	21.3
%RSD	.39248	.05629	.13827	.24944
#1	90644.	13509.	3468.8	8536.7
#2	91148.	13519.	3462.1	8506.6

Zoom In Zoom Out

Sample Name: cri Acquired: 6/5/2018 0:09:59 Type: QC
Method: Accutest 2(v444) 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	.2115	.0022	.0032	.0506	.0104	.0108	.0162	.0101	.0062
Stddev	.0006	.0000	.0000	.0002	.0000	.0001	.0001	.0004	.0000
%RSD	.2664	1.804	1.383	.4760	.2310	1.285	.6165	4.326	.1370
#1	.2119	.0021	.0033	.0505	.0104	.0109	.0163	.0098	.0062
#2	.2111	.0022	.0032	.0508	.0104	.0107	.0162	.0105	.0062
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	.0530	.0220	.0082	.0099	.0029	.0111	.0058	.2085	5.283
Stddev	.0003	.0001	.0005	.0004	.0002	.0017	.0014	.0125	.017
%RSD	.5288	.6265	5.958	4.264	7.761	15.28	24.42	6.010	.3279
#1	.0532	.0221	.0078	.0102	.0027	.0123	.0048	.1996	5.295
#2	.0528	.0219	.0085	.0096	.0030	.0099	.0068	.2173	5.271
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	.1151	5.370	5.364	5.334	.1067	.0222	.2107	.0120	.0106
Stddev	.0016	.010	.010	.024	.0001	.0003	.0007	.0003	.0001
%RSD	1.400	.1942	.1808	.4548	.0559	1.252	.3151	2.336	.6287
#1	.1140	5.378	5.371	5.352	.1067	.0220	.2103	.0118	.0107
#2	.1163	5.363	5.358	5.317	.1067	.0224	.2112	.0122	.0106
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: cri Acquired: 6/5/2018 0:09:59 Type: QC
Method: Accutest 2(v444) 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	.0107	.0534	F .0152	.0548	.0233	.0550	.0510
Stddev	.0000	.0012	.0005	.0003	.0007	.0010	.0006
%RSD	.1171	2.166	2.976	.6115	3.015	1.813	1.101
#1	.0107	.0542	.0155	.0545	.0238	.0557	.0506
#2	.0107	.0526	.0149	.0550	.0228	.0542	.0514
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0100				
Range			30.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	89283.	13534.	3427.0	8302.2
Stddev	110.	24.	6.9	8.5
%RSD	.12365	.17861	.20006	.10200
#1	89361.	13517.	3422.2	8296.2
#2	89205.	13551.	3431.9	8308.2

Zoom In Zoom Out

Sample Name: crid Acquired: 6/5/2018 0:14:19 Type: QC
Method: Accutest 2(v444) 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	.0043	.0011	.0010	.0031	.0022	F .0008	.0034	.0041
Stddev	.0001	.0000	.0001	.0004	.0005	.0002	.0000	.0002
%RSD	1.318	3.749	14.26	11.43	21.26	28.34	1.344	4.626
#1	.0044	.0012	.0011	.0034	.0026	.0009	.0034	.0043
#2	.0043	.0011	.0009	.0029	.0019	.0006	.0034	.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0006	.0026	.0116	.0036	.0024	F .0008	F .0073	F .0002
Stddev	.0005	.0002	.0000	.0010	.0005	.0011	.0022	.0002
%RSD	89.53	6.395	.0093	26.74	19.31	134.2	30.32	151.0
#1	.0002	.0025	.0116	.0043	.0027	.0000	.0089	.0003
#2	.0010	.0027	.0116	.0029	.0021	.0015	.0058	-.0000
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail
Value	.0020					.0025	.0050	.0030
Range	-30.00%					-30.00%	30.00%	-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1165	1.083	.0062	F .1442	2.188	1.079	F .0006	.0002
Stddev	.0094	.001	.0015	.0200	.009	.002	.0001	.0002
%RSD	8.105	.1231	23.50	13.87	.4031	.1632	20.73	143.8
#1	.1098	1.083	.0052	.1584	2.194	1.080	.0007	.0003
#2	.1231	1.084	.0073	.1301	2.182	1.078	.0005	-.0000
Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None
Value				.1000			.0100	
Range				30.00%			-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 6/5/2018 0:14:19 Type: QC
Method: Accutest 2(v444) 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	-.0036	.0013	.0000	.0002	F .0001	F -.0002	F .0025	F .0011
Stddev	.0003	.0001	.0000	.0001	.0007	.0000	.0002	.0001
%RSD	8.169	8.477	77.64	64.57	899.8	5.035	8.400	10.70
#1	-.0034	.0014	.0001	.0002	.0006	-.0002	.0026	.0011
#2	-.0039	.0012	.0000	.0001	-.0004	-.0002	.0023	.0010
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F -.0003	F -.0016
Stddev	.0020	.0009
%RSD	720.6	53.92
#1	.0011	-.0010
#2	-.0017	-.0022
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	89978.	13574.	3448.1	8429.0
Stddev	49.	21.	8.6	23.8
%RSD	.05395	.15795	.25076	.28215
#1	90012.	13589.	3454.2	8445.8
#2	89943.	13559.	3442.0	8412.2

Zoom In Zoom Out

Sample Name: icsa Acquired: 6/5/2018 0:18:40 Type: QC
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0003	-.0006	.0006	-.0009	.0009	.0007	.0012	-.0002
Stddev	.0002	.0000	.0005	.0003	.0001	.0001	.0001	.0000	.0001
%RSD	198.4	.4328	77.09	43.13	7.511	9.064	17.04	3.042	58.00
#1	.0003	.0004	-.0009	.0008	-.0008	.0008	.0006	.0012	-.0003
#2	-.0000	.0003	-.0003	.0004	-.0009	.0009	.0008	.0012	-.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	.0000	.0051	-.0002	.0003	.0013	-.0004	-.0036	549.5	391.7
Stddev	.0003	.0001	.0021	.0004	.0020	.0023	.0011	5.1	.9
%RSD	6068.	1.579	1252.	110.5	155.2	624.3	29.36	.9238	.2410
#1	.0002	.0051	.0013	.0006	.0027	-.0020	-.0028	553.0	392.4
#2	-.0002	.0052	-.0017	.0001	-.0001	.0012	-.0043	545.9	391.0
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	193.5	523.8	-.4208	.1319	.0002	-.0016	-.0111	-.0013	.0054
Stddev	.4	1.7	.0030	.0193	.0001	.0003	.0048	.0022	.0001
%RSD	.2257	.3203	.7212	14.61	62.70	18.14	43.67	174.1	1.721
#1	193.2	522.6	-.4229	.1183	.0003	-.0018	-.0145	-.0028	.0054
#2	193.8	525.0	-.4186	.1455	.0001	-.0014	-.0076	.0003	.0055
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: icsa Acquired: 6/5/2018 0:18:40 Type: QC
Method: Accutest 2(v444) 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	.0089	.0003	.0046	-.0101	.0069	-.0044
Stddev	.0001	.0019	.0001	.0031	.0010	.0001	.0005
%RSD	20.18	21.33	31.05	67.10	10.21	.8732	11.46
#1	-.0003	.0103	.0004	.0024	-.0094	.0069	-.0048
#2	-.0005	.0076	.0002	.0068	-.0109	.0068	-.0041
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	78857.	13047.	3057.6	6654.4
Stddev	383.	36.	2.1	1.0
%RSD	.48539	.27437	.06843	.01563
#1	78586.	13072.	3056.1	6653.7
#2	79128.	13021.	3059.1	6655.1

Zoom In Zoom Out

Sample Name: icsab Acquired: 6/5/2018 0:23:04 Type: QC
Method: Accutest 2(v444) 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	.5371	.5111	1.053	.5041	.5038	.5216	.5188	1.016	1.090
Stddev	.0025	.0025	.001	.0005	.0025	.0000	.0018	.002	.002
%RSD	.4737	.4806	.0888	.0899	.4906	.0050	.3501	.1837	.1993
#1	.5389	.5128	1.052	.5038	.5056	.5216	.5200	1.014	1.091
#2	.5353	.5094	1.053	.5044	.5021	.5216	.5175	1.017	1.088
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	.5078	.9882	1.072	1.116	1.003	1.147	1.092	533.9	400.6
Stddev	.0013	.0011	.001	.000	.003	.006	.004	1.8	1.3
%RSD	.2523	.1072	.0987	.0078	.3102	.5409	.3904	.3352	.3320
#1	.5087	.9874	1.072	1.116	1.005	1.143	1.089	532.6	399.7
#2	.5069	.9889	1.073	1.116	1.001	1.152	1.095	535.1	401.6
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	207.2	523.0	-.4220	.1521	.5013	.5064	.5103	.4864	.5776
Stddev	1.1	1.9	.0078	.0022	.0005	.0009	.0005	.0006	.0031
%RSD	.5338	.3609	1.841	1.455	.0930	.1759	.0918	.1227	.5404
#1	208.0	524.3	-.4165	.1536	.5016	.5058	.5099	.4868	.5798
#2	206.5	521.7	-.4275	.1505	.5009	.5070	.5106	.4860	.5754
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: icsab Acquired: 6/5/2018 0:23:04 Type: QC
Method: Accutest 2(v444) 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	.5266	.5095	.5007	.5066	.5227	.5594	.5123
Stddev	.0008	.0034	.0012	.0021	.0005	.0024	.0004
%RSD	.1577	.6675	.2488	.4208	.1043	.4263	.0698
#1	.5271	.5119	.4998	.5051	.5231	.5611	.5125
#2	.5260	.5071	.5016	.5081	.5223	.5577	.5120
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	78412.	12967.	3051.8	6665.9
Stddev	113.	38.	3.8	11.6
%RSD	.14416	.29303	.12457	.17398
#1	78332.	12940.	3049.1	6657.7
#2	78492.	12994.	3054.4	6674.1

Zoom In Zoom Out

Sample Name: ccv Acquired: 6/5/2018 0:27:19 Type: QC
Method: Accutest 2(v444) 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**	**2.047**	**2.043**	**2.021**	**2.043**	**2.006**	**2.071**	**2.052**	**.2515**
Stddev	.005	.004	.003	.002	.001	.003	.002	.001	.0003
%RSD	.2267	.1739	.1205	.0946	.0657	.1679	.0972	.0381	.1075
#1	2.078	2.050	2.045	2.020	2.042	2.009	2.070	2.051	.2517
#2	2.071	2.045	2.041	2.023	2.044	2.004	2.073	2.052	.2513
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.012**	**2.063**	**2.040**	**2.096**	**2.063**	**2.025**	**2.061**	**40.18**	**40.73**
Stddev	.001	.003	.004	.003	.002	.006	.004	.04	.06
%RSD	.0254	.1238	.2119	.1565	.0918	.2999	.1980	.0937	.1402
#1	2.012	2.065	2.043	2.099	2.061	2.029	2.063	40.16	40.69
#2	2.013	2.061	2.037	2.094	2.064	2.021	2.058	40.21	40.78
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**	**41.23**	**41.69**	**41.46**	**2.051**	**2.074**	**5.156**	**2.106**	**2.099**
Stddev	.04	.08	.10	.06	.006	.004	.013	.002	.005
%RSD	.1003	.2058	.2478	.1376	.2847	.1984	.2455	.1041	.2203
#1	41.60	41.29	41.76	41.50	2.055	2.077	5.165	2.108	2.102
#2	41.54	41.17	41.61	41.42	2.046	2.071	5.147	2.105	2.095
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: 6/5/2018 0:27:19 Type: QC
Method: Accutest 2(v444) 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	**2.061**	**2.053**	**2.056**	**2.010**	**2.072**	**2.073**	**2.055**
Stddev	.001	.001	.000	.006	.001	.003	.003
%RSD	.0321	.0518	.0037	.3185	.0697	.1437	.1271
#1	2.060	2.052	2.056	2.005	2.073	2.075	2.057
#2	2.061	2.054	2.056	2.014	2.071	2.071	2.053
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	**86731.**	**13326.**	**3343.4**	**7641.4**
Stddev	22.	29.	.8	20.8
%RSD	.02494	.22135	.02368	.27256
#1	86747.	13347.	3344.0	7656.1
#2	86716.	13305.	3342.8	7626.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 6/5/2018 0:31:24 Type: QC
Method: Accutest 2(v444) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0000**	**-.0001**	**.0001**	**.0003**	**.0007**	**.0000**	**-.0000**	**.0009**
Stddev	.0001	.0001	.0001	.0001	.0002	.0001	.0000	.0003	.0001
%RSD	145.6	380.8	102.1	151.4	65.32	16.86	67.88	834.5	16.63
#1	-.0001	-.0001	-.0001	-.0000	.0002	.0006	.0000	-.0002	.0010
#2	.0000	.0000	-.0000	.0002	.0004	.0008	.0000	.0002	.0008
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**	**-.0000**	**-.0000**	**-.0003**	**-.0000**	**-.0009**	**-.0001**	**.0037**	**.0446**
Stddev	.0002	.0000	.0021	.0003	.0002	.0032	.0006	.0025	.0006
%RSD	107.2	864.3	7006.	117.1	488.0	360.2	589.8	68.66	1.252
#1	.0001	.0000	.0015	-.0001	.0001	-.0031	.0003	.0019	.0450
#2	.0004	-.0000	-.0015	-.0005	-.0002	.0014	-.0005	.0055	.0442
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	**-.0006**	**-.0063**	**.0231**	**-.0029**	**.0003**	**.0010**	**-.0002**	**.0002**	**.0001**
Stddev	.0021	.0006	.0141	.0116	.0001	.0002	.0008	.0005	.0000
%RSD	360.2	10.10	61.03	407.2	17.01	15.80	407.1	306.3	11.51
#1	-.0020	-.0068	.0131	-.0111	.0003	.0011	-.0007	-.0002	.0001
#2	.0009	-.0059	.0331	.0054	.0003	.0009	.0004	.0005	.0001
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: 6/5/2018 0:31:24 Type: QC
Method: Accutest 2(v444) 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**	**.0002**	**-.0000**	**.0027**	**.0009**	**.0012**	**-.0008**
Stddev	.0001	.0010	.0001	.0004	.0005	.0005	.0004
%RSD	146.8	589.2	200.0	16.06	52.44	38.49	49.71
#1	.0002	-.0005	-.0001	.0024	.0013	.0015	-.0011
#2	-.0000	.0009	.0000	.0030	.0006	.0009	-.0005
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	**90632.**	**13559.**	**3463.2**	**8509.6**
Stddev	71.	49.	6.9	27.9
%RSD	.07854	.36274	.20052	.32800
#1	90582.	13594.	3468.2	8529.4
#2	90683.	13524.	3458.3	8489.9

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	3	Mg	0.000001	0.000000	No
			Al	0.000002	0.000000	No
			Zr	0.000727	0.000000	No
Be 313.042 {108}	☒	9	V	0.001570	0.000000	No
			Mo	-0.000030	0.000000	No
			Ti	-0.000172	0.000000	No
			Mn	-0.000018	0.000000	No
			Ni	0.000001	0.000000	No
			Ca	-0.000000	0.000000	No
			Cu	0.000014	0.000000	No
			Zn	-0.000010	0.000000	No
			Fe	-0.000002	0.000000	No
Cd 228.802 {448}	☒	12	As	0.006660	0.000000	No
			Ni	-0.000366	0.000000	No
			Fe	0.000002	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000054	0.000000	No
			Co	-0.001010	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	0.000014	0.000000	No
			Cr	-0.000013	0.000000	No
			Cu	0.000024	0.000000	No
			Al	0.000000	0.000000	No
			Mo	0.000004	0.000000	No
Co 228.616 {448}	☒	9	Fe	-0.000001	0.000000	No
			Cr	-0.000046	0.000000	No
			Mo	-0.000600	0.000000	No
			Ni	0.000084	0.000000	No
			Ti	0.002027	0.000000	No
			W	0.000160	0.000000	No
			Cd	-0.000188	0.000000	No
			Ca	0.000000	0.000000	No
			As	0.000150	0.000000	No
Cr 267.716 {126}	☒	11	Mn	0.000274	0.000000	No
			Mo	-0.000147	0.000000	No
			Fe	-0.000014	0.000000	No
			Cd	-0.000050	0.000000	No
			Al	0.000002	0.000000	No
			Ca	0.000002	0.000000	No
			Mg	0.000001	0.000000	No
			Ti	0.000050	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	17	Cr	0.000000	0.000000	No
			V	-0.000539	0.000000	No
			Mo	0.000722	0.000000	No
			Ti	-0.000160	0.000000	No
			Fe	-0.000163	0.000000	No
			Al	0.000002	0.000000	No
			Sn	-0.000097	0.000000	No
			Co	-0.001290	0.000000	No
			Zr	-0.000500	0.000000	No
			Si	-0.000002	0.000000	No
			Mn	-0.000072	0.000000	No
			Se	0.000050	0.000000	No
			Ag	0.000166	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sb	0.000024	0.000000	No
			Pb	0.000040	0.000000	No
			Be	-0.000031	0.000000	No
			W	0.000000	0.000000	No
Mn 257.610 {131}	☒	6	Fe	-0.000060	0.000000	No
			Si	0.000050	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000114	0.000000	No
Ni 231.604 {446}	☒	11	Fe	0.000023	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000227	0.000000	No
			Tl	0.000209	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000100	0.000000	No
			Cr	-0.000160	0.000000	No
			Si	-0.000030	0.000000	No
			Sn	0.000079	0.000000	No
			W	0.000830	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000221	0.000000	No
			Mo	-0.000054	0.000000	No
			Ti	-0.000395	0.000000	No
			Fe	-0.000265	0.000000	No
			V	-0.001500	0.000000	No
			Zn	0.000057	0.000000	No
			Ca	-0.000004	0.000000	No
			Al	-0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
			Ba	0.000010	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.005700	0.000000	No
			Sn	-0.000100	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	7	Ti	0.000776	0.000000	No
			Mo	-0.013000	0.000000	No
			Fe	0.000010	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.003575	0.000000	No
			Mn	-0.002660	0.000000	No
			W	0.000050	0.000000	No
Zn 206.200 {464}	☒	15	Cr	-0.000874	0.000000	No
			Mo	-0.000228	0.000000	No
			Fe	0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Si	0.000065	0.000000	No
			Ba	-0.000060	0.000000	No
			Ca	0.000004	0.000000	No
			Sr	0.000017	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.001256	0.000000	No
			As	-0.000050	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.000400	0.000000	No
			W	0.000000	0.000000	No
			Ti	0.000030	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
As 189.042 {478}	☒	23	Al	-0.000001	0.000000	No
			Fe	-0.000019	0.000000	No
			Ca	-0.000002	0.000000	No
			Mn	-0.000154	0.000000	No
			Mo	0.002900	0.000000	No
			Cr	0.001319	0.000000	No
			V	0.000052	0.000000	No
			Co	-0.000345	0.000000	No
			W	0.000000	0.000000	No
			Sn	-0.000123	0.000000	No
			Cd	-0.000194	0.000000	No
			Tl	0.000085	0.000000	No
			Be	-0.000017	0.000000	No
			Mg	0.000003	0.000000	No
			Si	0.000007	0.000000	No
			Zn	0.000070	0.000000	No
			Sr	-0.000080	0.000000	No
			Zr	0.000074	0.000000	No
			Ti	-0.000001	0.000000	No
			Cu	0.000077	0.000000	No
			K	0.000000	0.000000	No
			B	-0.000030	0.000000	No
			S	-0.000010	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000231	0.000000	No
			Mo	-0.007100	0.000000	No
			Al	-0.000002	0.000000	No
			Fe	-0.000046	0.000000	No
			V	-0.001200	0.000000	No
			Mn	0.001378	0.000000	No
			Si	0.000010	0.000000	No
			Ca	0.000003	0.000000	No
			Ti	-0.000520	0.000000	No
			Mg	-0.000003	0.000000	No
			Co	0.004410	0.000000	No
			Sr	-0.000222	0.000000	No
			B	0.000120	0.000000	No
			Ba	0.000110	0.000000	No
			Zn	0.000025	0.000000	No
			As	0.000015	0.000000	No
			Ni	0.000051	0.000000	No
			Cu	-0.000032	0.000000	No
			W	0.000000	0.000000	No
			Sn	0.000020	0.000000	No
			Se	0.000040	0.000000	No
			S	-0.000010	0.000000	No
			K	-0.000040	0.000000	No
			P	0.000000	0.000000	No
Pb 220.353 {453}	☒	23	Al	-0.000132	0.000000	No
			Fe	0.000038	0.000000	No
			Ca	-0.000000	0.000000	No
			Mn	0.000145	0.000000	No
			Zn	-0.000036	0.000000	No
			Mo	-0.000800	0.000000	No
			Cu	0.000960	0.000000	No
			V	0.000013	0.000000	No
			Co	0.000056	0.000000	No
			Ti	-0.000377	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Si	0.000054	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	0.000006	0.000000	No
			Sr	-0.000050	0.000000	No
			W	0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
			Cd	0.000476	0.000000	No
			Cr	-0.000262	0.000000	No
			Zr	-0.000300	0.000000	No
			Ni	0.000408	0.000000	No
			S	0.000002	0.000000	No
			Se	0.000036	0.000000	No
			As	0.000200	0.000000	No
Se 196.090 {472}	☒	22	Al	0.000005	0.000000	No
			Ca	-0.000006	0.000000	No
			Mn	0.000651	0.000000	No
			Mo	0.000047	0.000000	No
			Fe	-0.000152	0.000000	No
			Co	0.000265	0.000000	No
			V	0.000046	0.000000	No
			Sr	-0.000008	0.000000	No
			Cu	-0.000113	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000027	0.000000	No
			Tl	0.000180	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	-0.000250	0.000000	No
			B	-0.000141	0.000000	No
			Ti	0.000016	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000280	0.000000	No
			Ba	0.000180	0.000000	No
			Mg	0.000001	0.000000	No
			Cr	0.000087	0.000000	No
			S	-0.000003	0.000000	No
Sb 206.833 {463}	☒	14	Fe	-0.000033	0.000000	No
			Al	0.000001	0.000000	No
			Ca	-0.000004	0.000000	No
			Ni	-0.000477	0.000000	No
			Cr	0.013300	0.000000	No
			V	-0.003446	0.000000	No
			Zn	-0.000200	0.000000	No
			Mo	0.000530	0.000000	No
			Ti	0.000291	0.000000	No
			Sn	-0.012000	0.000000	No
			Mg	0.000003	0.000000	No
			Zr	-0.000227	0.000000	No
			Sr	0.000209	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000913	0.000000	No
			Ca	0.000078	0.000000	No
			Mo	0.046534	0.000000	No
			Zr	-0.016318	0.000000	No
			Ti	-0.000017	0.000000	No
Ca 317.933 {106}	☒	13	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	☒	13	Co	0.000004	0.000000	No
			Si	-0.000100	0.000000	No
			Tl	-0.002590	0.000000	No
			Se	-0.000050	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.001433	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			K	-0.000200	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	1	Mo	-0.020780	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000340	0.000000	No
			Al	0.000301	0.000000	No
			Ca	0.000448	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Na	0.000300	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No
			Mg	0.000400	0.000000	No
Na 589.592 { 57}	☒	5	K	0.000038	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.046220	0.000000	No
Mo 202.030 {467}	☒	5	Fe	-0.000010	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	0.000003	0.000000	No
			W	-0.000376	0.000000	No
			V	-0.000230	0.000000	No
Si 212.412 {459}	☒	13	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.020840	0.000000	No
			Ti	0.003166	0.000000	No
			Al	0.000012	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Fe	0.000040	0.000000	No
			Sn	0.009213	0.000000	No
			Zn	0.000385	0.000000	No
			As	-0.000560	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Pb	0.000471	0.000000	No
			V	0.046000	0.000000	No
Sn 189.989 {478}	☒	6	Ti	-0.003472	0.000000	No
			Mo	0.000011	0.000000	No
			Fe	0.000005	0.000000	No
			Mn	0.000060	0.000000	No
			Si	0.000089	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	2	Fe	0.000002	0.000000	No
			Ca	0.000023	0.000000	No
Ti 334.904 {101}	☒	4	Cr	-0.000084	0.000000	No
			Mo	0.000989	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	25	Al	0.000002	0.000000	No
			Si	-0.000900	0.000000	No
			Fe	-0.000007	0.000000	No
			As	-0.000200	0.000000	No
			Mg	-0.000006	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012200	0.000000	No
			Sn	0.000078	0.000000	No
			Zr	0.000230	0.000000	No
			B	-0.001000	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.000080	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
			Ag	0.000224	0.000000	No
Zr 339.198 { 99}	☒	9	Mo	0.000323	0.000000	No
			Ti	-0.000010	0.000000	No
			Fe	-0.000060	0.000000	No
			Si	0.000070	0.000000	No
			Bi	0.000295	0.000000	No
			Cr	-0.000900	0.000000	No
			V	0.000200	0.000000	No
			W	0.010000	0.000000	No
			Sn	0.004000	0.000000	No
S 182.034 {485}	☒	11	Ca	0.000051	0.000000	No
			Mo	-0.002560	0.000000	No
			Al	-0.000084	0.000000	No
			Fe	-0.000023	0.000000	No
			Mn	0.003900	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				W	0.000000	0.000000	No
				Zn	-0.001538	0.000000	No
				Cr	-0.000200	0.000000	No
				Mg	0.000120	0.000000	No
				Ti	0.000300	0.000000	No
				Li	0.005400	0.000000	No
	Bi 223.061 {451}	☒	9	V	-0.000680	0.000000	No
				Co	-0.002200	0.000000	No
				Ca	-0.000005	0.000000	No
				Mg	-0.000002	0.000000	No
				W	-0.002000	0.000000	No
				Cu	-0.001186	0.000000	No
				Fe	0.000101	0.000000	No
				Cr	0.001500	0.000000	No
				Ti	-0.002230	0.000000	No
	Li 670.784 { 50}	☒	1	Ca	0.000023	0.000000	No
	P 177.495 {490}	☒	2	Mn	-0.005600	0.000000	No
				Ca	0.000034	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}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.001657	2.200192	0.000000	1.000000
Be 313.042 {108}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000765	1.940861	0.000000	1.000000
Cd 228.802 {448}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000334	1.092134	0.000000	1.000000
Co 228.616 {448}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000034	0.528067	0.000000	1.000000
Cr 267.716 {126}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000003	0.073573	0.000000	1.000000
Cu 324.754 {104}2	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.002343	0.202205	0.000000	1.000000
Mn 257.610 {131}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000023	0.411249	0.000000	1.000000
Ni 231.604 {446}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000023	0.394216	0.000000	1.000000
Ag 328.068 {103}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000224	0.112281	0.000000	1.000000
V 292.402 {115}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000024	0.119815	0.000000	1.000000
Zn 206.200 {464}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000458	1.606168	0.000000	1.000000
As 189.042 {478}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000051	0.130204	0.000000	1.000000
Tl 190.856 {477}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000159	0.070008	0.000000	1.000000
Pb 220.353 {453}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000521	0.186029	0.000000	1.000000
Se 196.090 {472}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000596	0.127576	0.000000	1.000000
Sb 206.833 {463}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000663	0.224924	0.000000	1.000000
Al 396.152 { 85}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.002658	0.041950	0.000000	1.000000
Ca 317.933 {106}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.004282	0.065146	0.000000	1.000000
Fe 259.940 {130}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000116	0.029587	0.000000	1.000000
Mg 279.079 {121}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000077	0.005351	0.000000	1.000000
K 766.490 { 44}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.003260	0.035649	0.000000	1.000000
Na 589.592 { 57}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.002248	0.102521	0.000000	1.000000
B 208.959 {462}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000344	0.246598	0.000000	1.000000
Mo 202.030 {467}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000110	1.110455	0.000000	1.000000
Si 212.412 {459}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.005875	0.272376	0.000000	1.000000
Sn 189.989 {478}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000038	0.263302	0.000000	1.000000
Sr 407.771 { 83}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000408	4.059806	0.000000	1.000000
Ti 334.904 {101}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000023	0.142601	0.000000	1.000000
Y 360.073 { 94}*	6/5/2018 9:52:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	6/5/2018 9:52:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	6/5/2018 9:52:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	6/5/2018 9:52:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.001929	0.531071	0.000000	1.000000
Zr 339.198 { 99}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.000261	0.345860	0.000000	1.000000
S 182.034 {485}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.001145	0.072589	0.000000	1.000000
Bi 223.061 {451}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.001132	0.253515	0.000000	1.000000
Li 670.784 { 50}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	0.000693	0.690293	0.000000	1.000000
P 177.495 {490}	6/5/2018 9:52:03	6/4/2018 17:07:24	Linear	1/Conc	-0.010341	0.162637	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	0.000262	0.000874	OK.	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000106	0.000355	OK.	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000261	0.000869	OK.	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000358	0.001192	OK.	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000558	0.001859	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000521	0.001736	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000086	0.000288	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000416	0.001387	OK.	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000624	0.002080	OK.	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000460	0.001532	OK.	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000167	0.000558	OK.	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001534	0.005115	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001433	0.004778	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001333	0.004443	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002287	0.007623	OK.	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001610	0.005367	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.012556	0.041852	OK.	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.003704	0.012348	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.003736	0.012454	OK.	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.027277	0.090923	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.032382	0.107941	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.010368	0.034561	OK.	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000953	0.003178	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000288	0.000959	OK.	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001291	0.004302	OK.	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000794	0.002648	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000108	0.000359	OK.	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000467	0.001558	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	0.001185	0.003951	OK.	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000253	0.000844	OK.	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.003150	0.010502	OK.	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001837	0.006123	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001661	0.005538	OK.	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.001520	0.005068	OK.	1.000000	0.000000	1	0

ACCUTEST LABORATORIES

Mercury Hot Block Digestion Log

Product HG / EHG / HGCLP
Matrix: Aq / Liq / DW

MA Batch #: MA44537
Analyst: DP
Date: 5/30/2018
Balance ID: B24
Reagents: See attached sheet
Auto pipet ID: M-72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**
Required corrected Temp. Range is 90-95 C.
Hot Block # 8 Start Time: 8:00 End Time: 10:00 Tube # 1-19
Start Temp: 96C Corrected Start Temp: 94C Correction: -2 Thermometer ID: 11517
End Temp: 96C Corrected End Temp: 94C Correction: -2 Thermometer ID: 11517

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added- Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
1	ICV (External)	N	30	30	3.0 ml	Y	0.03		HG-18-138-080-HGB3, Ultra Scientific
2	ICB	N	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-138-078-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
3	CRI	N	30	30	2.0 ml	Y	0.003		HG-18-138-079-HGA4, Inorganic Venture
4	MP7394-MB1	N	30	30				MP7394	SW846 7470A
5	MP7394-B1	Y	30	30	2.0 ml	Y	0.03		HG-18-138-078-HGA3, Inorganic Venture
6	MP7394-S1	Y	30	30	2.0 ml	Y	0.03		JC66890-4,HG-18-138-078-HGA3, (IV)
7	MP7394-S2	Y	30	30	2.0 ml	Y	0.03		JC66890-4,HG-18-138-078-HGA3, (IV)
8	JC66890-4	Y	30	30					
9	JC66890-3	Y	30	30					
10	JC66764-21	Y	30	30					
11	JC66839-1	Y	10.0	30					BROWN/ODOR
12	JC66860-12	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-138-078-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
13	JC66897-1	Y	30	30					
14	JC66897-3	Y	30	30					
15	JC66897-4	Y	30	30					
16	JC66897-5	Y	15.0	30					BROWN
17	JC66897-6	Y	10.0	30					CLOUDY/BROWN
18	JC66927-1	Y	30	30					
19	JC66927-2	Y	30	30					
20	MP7399-FMBconf	Y	30	30					
21	MP7399-FLCconf	Y	30	30	2.0ml	Y	0.03		
22									
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-138-078-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-138-078-HGA3, Inorganic Venture
CCB	CCB	N	30	30					

ANALYST: DP DATE: 5/30/18
Spike witness: JA DATE: 5/30/18
QC: REVIEWER: [signature] DATE:

Form HG022-03
Revision Date: 8/24/15

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ACCUTEST LABORATORIES

Mercury Hot Block Digestion Log

Product **HG / EHG / HGCLP**
Matrix: Aq / Liq / DW

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**

Required corrected Temp. Range is 90-95 C.
Hot Block # 6 Start Time: 8:00 End Time: 10:00 Tube # 1-6
Start Temp: 96C Corrected Start Temp: 94C Correction: -2 Thermometer ID: 11517
End Temp: 96C Corrected End Temp: 94C Correction: -2 Thermometer ID: 11517

MA Batch #: MA44537
Analyst: DP
Date: 5/30/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID M-72

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added-Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
S-1	Calibration Blank	N	30 ml	30 ml	0.0 ml	N			
S-2	0.2 ug/l Standard	N	30 ml	30 ml	2.0 ml	Y	0.003		HG-18-138-079-HGA4, Inorganic Venture
S-3	0.5 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.003		HG-18-138-079-HGA4, Inorganic Venture
S-4	1.0 ug/l Standard	N	30 ml	30 ml	1.0 ml	Y	0.030		HG-18-138-078-HGA3, Inorganic Venture
S-5	2.5 ug/l Standard	N	30 ml	30 ml	2.5 ml	Y	0.030		HG-18-138-078-HGA3, Inorganic Venture
S-6	5.0 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.030		HG-18-138-078-HGA3, Inorganic Venture

Form HG022-03
Revision Date: 8/24/15

ANALYST: DP
QC: REVIEWER:

DATE: 5/30/18
DATE:

SGS

Reagent Information Log- Hg Waters

MA # MA44537

Reagents	Exp. Date	Reagent # or manufacturer lot #
Conc. Sulfuric Acid	5/22/2018	Fisher -177436
Conc. Nitric Acid	5/26/2018	Baker - 193289
Sodium Chloride-Hydroxylamine Hydrochloride	11/30/2018	HG-18-136- 320 -HGHCL
Potassium Permanganate 5%	11/30/2018	HG-18-136- 318 -HGKM2
Potassium Persulfate	11/30/2018	HG-18-136- 319 -HGKS
Stannous Chloride	5/31/2018	HG-18-138- 81 -HGS
STD Hg standard solution 1000 ppm	3/1/2019	Inorganic Ventures K2-HG653768
STD Hg standard solu tion 30 ppb	5/31/2018	HG-18-138- 78 -HGA3
STD Hg standard solu tion 3ppb	5/31/2018	HG-18-138- 79 -HGA4
ICV Hg standard solution 1000 ppm	6/30/2021	Ultra T00601
ICV Hg standard solution 30ppb	5/31/2018	HG-18-138- 80 -HGB3
Dilution Acid	11/22/2018	HG-18-138- 57 -HGD2
Digestion Tubes Lot	N/A	Envrionmental Express 1802043
ph Paper	11/30/2018	Hydrion - 232515

Form:GN087A79-03
Rev. Date: 6/6/17

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP7404	5/31/2018	14:40	5/31/2018	2100	JC66975-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	3	158271	93	0	93
1	End	3	158271	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1802043	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP7404-MB1	N/A	N	50	50	AB		
MP7404-B1	N/A	N	50	50	AB	ABCD	
MP7404-S1	7	Y	50	50	AB	ABCD	
MP7404-S2	7	Y	50	50	AB	ABCD	
MP7404-SD1	7	Y	50	50	AB		
JC66715-1	3	Y	50	50	AB		
JC66715-4	3	Y	50	50	AB		
JC66715-5	3	Y	50	50	AB		
JC66764-17	3	Y	50	50	AB		
JC66804-1	3	Y	50	50	AB		
JC66804-2	3	Y	50	50	AB		
JC66804-3	3	Y	50	50	AB		
JC66804-6	3	Y	50	50	AB		
JC66890-3	3	Y	50	50	AB		
JC66890-4	3	Y	50	50	AB		
JC66927-1	8	Y	50	50	AB		
JC66927-2	1	Y	50	50	AB		
JC66942-2F	1	Y	50	50	AB		
JC66942-3F	1	Y	50	50	AB		
JC66942-4F	1	Y	50	50	AB		
JC66942-6F	1	Y	50	50	AB		
JC66942-8F	1	Y	50	50	AB		
JC66975-1	7	Y	50	50	AB		
MP7404-B2	N/A	N	50	50	AB	EFGH	
MP7404-B3	N/A	Y	50	50	AB	ABCD	FILTERMET 5/30
MP7404-MB2	N/A	Y	50	50	AB		FILTERMET 5/30
MP7404-S3	7	Y	50	50	AB	EFGH	
MP7404-S4	7	Y	50	50	AB	EFGH	

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV-1	0.5
B	ACCUTEST 14A REV-1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	ACCUTEST 13B REV-1	0.2
F	AG 20PPM	0.2
G	ACCUTEST 1AB REV-1	0.2
H	MINERALS 400PPM	0.2

Comments: _____

Analyst COLLEENH Approved by [signature] Approved on 6/1/18

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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SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 7404 **Date:** 5/31/18

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST -13A Rev1)	10/25/2018	MP-015-1054
Spiking Solution - (ACCUTEST -14A Rev1)	10/25/2018	MP-015-1055
Spiking Solution - 5000 mg/l Minerals	5/11/2019	N2-MEB667268 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	2/8/2020	LOT: 020817 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	5/11/2019	K2-SI654310 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	12/1/2018	M2-B1658289 MFG: INO. VENT
Spiking Solution - Se 20ppm	6/7/2018	MA-18-328-114
Spiking Solution - Li 1000ppm	11/14/2018	M2-LI657553 MFG: INO. VENT
Spiking Solution- Ag 20 ppm	10/6/2018	MA-18-328-94
Spiking Solution - (ACCUTEST -13B Rev1)	10/25/2018	MP-015-1053
Spiking Solution - (ACCUTEST -14B Rev1)	9/28/2018	MP-015-1045
Spiking Solution - 400ppm Minerals	11/5/2018	MP-015-1056
Spiking Solution- P		
Nitric Acid	5/30/2020	LOT: 193289 MFG: J.T. BAKER
Nitric Acid (1:1)	11/25/2018	MP-018-42-01 1:1 HNO3
Hydrochloric Acid	5/30/2020	LOT: 189306 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	11/30/2018	MP-018-42-02 1:1 HCL
Hydrogen Peroxide	5/23/2020	LOT: 174462 MFG: FISHER
Soil Lab Control/Soil LC	3/21/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 23430173 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1712272 MFG: ENV. EXPRESS
pH Paper	11/30/2018	LOT: 232515 MFG: HYDRION
Filter paper Q8	N/A	LOT: 9802858 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F7EA83809 MFG: FISHER

Spike witnessed By: RP

Validated By:

Validated On:

AA014-06 (Metals Digest Stds)-DAYT-MET-0039-06-FORM-Metals Digestion Reagants Info Log.xls
1/17/18

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General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66927
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	GP13467/GN80929	0.010	0.0	mg/l	0.0833	0.0883	106.0	90-110%

Associated Samples:
Batch GP13467: JC66927-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP13467/GN80929	JC66897-3	mg/l	0.0	0.0	0.0	0-32%

Associated Samples:
Batch GP13467: JC66927-1
(*) Outside of QC limits

14.2
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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66927
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	GP13467/GN80929	JC66897-3	mg/l	0.0	0.0833	0.0	0.0N(a)	90-110%

Associated Samples:
Batch GP13467: JC66927-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E060518W1.CN Date Analyzed: 06/05/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: BM Run ID: GN80929
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:57	GN80929-STD1	1		STDA
10:59	GN80929-STD2	1		STDB
11:00	GN80929-STD3	1		STDC
11:01	GN80929-STD4	1		STDD
11:03	GN80929-STD5	1		STDE
11:04	GN80929-STD6	1		STDF
11:06	GN80929-STD7	1		STDG
11:07	GN80929-ICV1	1		
11:08	GN80929-ICB1	1		
11:10	GN80929-CCV1	1		
11:11	GN80929-CCB1	1		
11:12	GP13355-MB2	1		
11:14	GP13355-B2	1		
11:15	GP13355-S1	1		back to need.
11:16	GP13355-D1	1		
11:18	JC66538-36	1		(sample used for QC only; not part of login JC66927)
11:19	ZZZZZZ	1		
11:20	ZZZZZZ	1		
11:22	ZZZZZZ	1		
11:23	ZZZZZZ	1		
11:25	ZZZZZZ	1		
11:26	GN80929-CCV2	1		
11:27	GN80929-CCB2	1		
11:29	GP13354-MB2	1		
11:30	GP13354-B2	1		
11:31	GP13354-S1	1		back to need.
11:33	GP13354-S2	1		back to need.
11:34	GP13467-MB1	1		
11:35	GP13467-B1	1		
11:37	GP13467-S1	1		
11:38	GP13467-D1	1		
11:40	ZZZZZZ	1		
11:41	JC66897-3	1		(sample used for QC only; not part of login JC66927)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E060518W1.CN Date Analyzed: 06/05/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: BM Run ID: GN80929
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:42	GN80929-CCV3	1		
11:44	GN80929-CCB3	1		
11:45	ZZZZZZ	1		
11:46	ZZZZZZ	1		
11:48	ZZZZZZ	1		
11:49	ZZZZZZ	1		
11:50	JC66927-1	1		
11:52	ZZZZZZ	1		
11:53	ZZZZZZ	1		
11:55	ZZZZZZ	1		
11:56	GP13491-MB1	1		
11:57	GP13491-B1	1		
11:59	GN80929-CCV4	1		
12:00	GN80929-CCB4	1		
12:01	GP13491-S1	1		back to need.
12:03	GP13491-S2	1		
12:04	GP13491-D1	1		
12:05	JC67053-1	1		(sample used for QC only; not part of login JC66927)
12:07	JC67053-3	1		(sample used for QC only; not part of login JC66927)
12:08	ZZZZZZ	1		
12:09	ZZZZZZ	1		
12:11	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:15	GN80929-CCV5	1		
12:16	GN80929-CCB5	1		
12:18	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:22	ZZZZZZ	1		
12:23	ZZZZZZ	1		
12:24	ZZZZZZ	1		
12:26	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E060518W1.CN Date Analyzed: 06/05/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: BM Run ID: GN80929
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:27	ZZZZZZ	1		
12:29	ZZZZZZ	1		
12:30	ZZZZZZ	1		
12:31	GN80929-CCV6	1		
12:33	GN80929-CCB6	1		
12:34	ZZZZZZ	1		
12:35	ZZZZZZ	1		
12:37	ZZZZZZ	1		
12:38	GP13469-MB1	1		
12:39	GP13469-B1	1		
12:41	GP13469-S1	1		
12:42	GP13469-S2	1		
12:44	GP13469-D1	1		
12:45	JC66947-1	1		(sample used for QC only; not part of login JC66927)
12:46	JC66947-2	1		(sample used for QC only; not part of login JC66927)
12:48	GN80929-CCV7	1		
12:49	GN80929-CCB7	1		
12:50	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:57	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:04	GN80929-CCV8	1		
13:05	GN80929-CCB8	1		
13:07	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:11	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E060518W1.CN Date Analyzed: 06/05/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: BM Run ID: GN80929
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:12	ZZZZZZ	1		
13:13	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:16	GP13499-MB1	1		
13:18	GP13499-B1	1		
13:19	GP13499-S1	1		
13:20	GN80929-CCV9	1		
13:22	GN80929-CCB9	1		
13:23	GP13499-S2	1		
13:24	GP13499-D1	1		
13:26	JC66957-1A	1		(sample used for QC only; not part of login JC66927)
13:27	ZZZZZZ	1		
13:28	JC67108-1	1		(sample used for QC only; not part of login JC66927)
13:30	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:33	ZZZZZZ	1		
13:34	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:37	GN80929-CCV10	1		
13:38	GN80929-CCB10	1		
13:39	ZZZZZZ	1		
13:41	ZZZZZZ	1		
13:42	ZZZZZZ	1		
13:43	GP13492-MB1	1		
13:45	GP13492-B1	1		
13:46	GP13492-S1	1		
13:47	GP13492-S2	1		
13:49	GP13492-D1	1		
13:50	JC67091-1	1		(sample used for QC only; not part of login JC66927)
13:52	ZZZZZZ	1		
13:53	GN80929-CCV11	1		
13:54	GN80929-CCB11	1		
13:56	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E060518W1.CN Date Analyzed: 06/05/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: BM Run ID: GN80929
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:57	ZZZZZZ	1		
13:58	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:01	ZZZZZZ	1		
14:02	JC66897-15	1		(sample used for QC only; not part of login JC66927)
14:04	ZZZZZZ	1		
14:05	ZZZZZZ	1		
14:07	ZZZZZZ	1		
14:08	ZZZZZZ	1		
14:09	GN80929-CCV12	1		
14:11	GN80929-CCB12	1		
14:12	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:15	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:17	ZZZZZZ	1		
14:19	ZZZZZZ	1		
14:20	GP13468-MB1	1		
14:22	GP13468-B1	1		
14:23	GP13468-S1	1		
14:24	GP13468-S2	1		
14:26	GN80929-CCV13	1		
14:27	GN80929-CCB13	1		
14:28	GP13468-D1	1		
14:30	JC66873-1	1		(sample used for QC only; not part of login JC66927)
14:31	ZZZZZZ	1		
14:32	JC66873-2	1		(sample used for QC only; not part of login JC66927)
14:34	ZZZZZZ	1		
14:35	ZZZZZZ	1		
14:37	ZZZZZZ	1		
14:38	ZZZZZZ	1		
14:39	ZZZZZZ	1		
14:41	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E060518W1.CN Date Analyzed: 06/05/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: BM Run ID: GN80929
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:42	GN80929-CCV14	1		
14:43	GN80929-CCB14	1		
14:45	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:47	ZZZZZZ	1		
14:49	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:52	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:56	ZZZZZZ	1		
14:57	ZZZZZZ	1		
15:31	GN80929-CCV15	1		
15:33	GN80929-CCB15	1		
15:38	ZZZZZZ	20		
15:39	ZZZZZZ	40		
15:42	GN80929-CCV16	1		
15:44	GN80929-CCB16	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E060518W1.CN Date Analyzed: 06/05/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Run ID: GN80929 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN80929-ICV1	Cyanide	0.289	0.010	0.0058	.3	96.3	90-110
GN80929-ICB1	Cyanide	-0.00725	0.010	0.0058			
GN80929-CCV1	Cyanide	0.427	0.010	0.0058	.4	106.8	90-110
GN80929-CCB1	Cyanide	0.0058 U	0.010	0.0058			
GN80929-CCV2	Cyanide	0.425	0.010	0.0058	.4	106.3	90-110
GN80929-CCB2	Cyanide	0.0058 U	0.010	0.0058			
GN80929-CCV3	Cyanide	0.426	0.010	0.0058	.4	106.5	90-110
GN80929-CCB3	Cyanide	-0.00654	0.010	0.0058			
GN80929-CCV4	Cyanide	0.426	0.010	0.0058	.4	106.5	90-110
GN80929-CCB4	Cyanide	0.0058 U	0.010	0.0058			
GN80929-CCV5	Cyanide	0.425	0.010	0.0058	.4	106.3	90-110
GN80929-CCB5	Cyanide	0.0058 U	0.010	0.0058			
GN80929-CCV6	Cyanide	0.427	0.010	0.0058	.4	106.8	90-110
GN80929-CCB6	Cyanide	-0.00760	0.010	0.0058			
GN80929-CCV7	Cyanide	0.425	0.010	0.0058	.4	106.3	90-110
GN80929-CCB7	Cyanide	-0.00756	0.010	0.0058			
GN80929-CCV8	Cyanide	0.425	0.010	0.0058	.4	106.3	90-110
GN80929-CCB8	Cyanide	-0.00617	0.010	0.0058			
GN80929-CCV9	Cyanide	0.425	0.010	0.0058	.4	106.3	90-110
GN80929-CCB9	Cyanide	0.0058 U	0.010	0.0058			
GN80929-CCV10	Cyanide	0.426	0.010	0.0058	.4	106.5	90-110
GN80929-CCB10	Cyanide	0.0058 U	0.010	0.0058			
GN80929-CCV11	Cyanide	0.426	0.010	0.0058	.4	106.5	90-110
GN80929-CCB11	Cyanide	-0.00595	0.010	0.0058			
GN80929-CCV12	Cyanide	0.430	0.010	0.0058	.4	107.5	90-110
GN80929-CCB12	Cyanide	0.0058 U	0.010	0.0058			
GN80929-CCV13	Cyanide	0.424	0.010	0.0058	.4	106.0	90-110
GN80929-CCB13	Cyanide	-0.00631	0.010	0.0058			
GN80929-CCV14	Cyanide	0.425	0.010	0.0058	.4	106.3	90-110
GN80929-CCB14	Cyanide	-0.00806	0.010	0.0058			
GN80929-CCV15	Cyanide	0.425	0.010	0.0058	.4	106.3	90-110
GN80929-CCB15	Cyanide	0.0058 U	0.010	0.0058			
GN80929-CCV16	Cyanide	0.427	0.010	0.0058	.4	106.8	90-110
GN80929-CCB16	Cyanide	0.0058 U	0.010	0.0058			

Instrument QC Summary
Inorganics Analyses

Login Number: JC66927
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E060518W1.CN
Date Analyzed: 06/05/18
Run ID: GN80929
Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits

(!) Outside of QC limits

14.4

14

General Chemistry

Raw Data

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E060518W1.CN
Analyst: BM

Date Analyzed: 06/05/18
Run ID: GN80929

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: BM Date 6/5/18

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): _____ Date 6/5/18

Author: chemistry GN80929 e060518W1.CN

Date : 6/5/2018

Original Run Filename: OM_6-5-2018_10-56-39AM.OMN Created: 6/5/2018 10:56:39 AM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_6-5-2018_10-56-39AM.OMN Last Modified: 6/5/2018 3:46:24 PM
Current Run Author's Signature: [chemistry]
Description: Default new Run

Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF	% Rec
STDA	1	1	0.800	6/5/2018@10:57:48 AM		
STDB	1	2	0.600	6/5/2018@10:59:11 AM		
STDC	1	3	0.400	6/5/2018@11:00:33 AM		
STDD	1	4	0.100	6/5/2018@11:01:55 AM		
STDE	1	5	0.0200	6/5/2018@11:03:17 AM		
STDF	1	6	0.0100	6/5/2018@11:04:39 AM		
STDG	1	7	0.00	6/5/2018@11:06:01 AM		
ICV	1	8	0.289	6/5/2018@11:07:22 AM		96.3%
	Known Conc:		0.300			
	Calibration:		Table/Fig. : 1			
ICB	1	9	-7.25e-3	6/5/2018@11:08:44 AM		
	Known Conc:		0.00			
CCV	1	S9	0.427	6/5/2018@11:10:05 AM		106.7%
	Known Conc:		0.400			
CCB	1	S10	-4.34e-3	6/5/2018@11:11:27 AM		
	Known Conc:		0.00			
GP13355-MB2	1	10	-1.78e-3	6/5/2018@11:12:49 AM		
GP13355-B2	1	11	0.0862	6/5/2018@11:14:10 AM		103.4%
GP13355-S1 (5)	1	12	-3.86e-3	6/5/2018@11:15:31 AM		back to need.
GP13355-D1	1	13	-5.28e-3	6/5/2018@11:16:52 AM		
JC66538-36	1	14	-3.88e-3	6/5/2018@11:18:13 AM		
JC66724-2	1	15	-5.12e-3	6/5/2018@11:19:34 AM		
JC66743-1	1	16	-4.38e-5	6/5/2018@11:20:56 AM		
JC66772-1	1	17	-5.59e-3	6/5/2018@11:22:19 AM		
JC66797-1	1	18	5.23e-3	6/5/2018@11:23:41 AM		
JC66799-2	1	19	-5.55e-3	6/5/2018@11:25:03 AM		
CCV	1	S9	0.425	6/5/2018@11:26:25 AM		106.2%
	Known Conc:		0.400			
CCB	1	S10	-5.39e-3	6/5/2018@11:27:46 AM		
	Known Conc:		0.00			
GP13354-MB2	1	20	-2.36e-3	6/5/2018@11:29:09 AM		
GP13354-B2	1	21	0.0863	6/5/2018@11:30:30 AM		103.6%
GP13354-S1 (5)	1	22	-7.13e-3	6/5/2018@11:31:52 AM		> back to need.
GP13354-S2	1	23	-4.22e-3	6/5/2018@11:33:13 AM		
GP13467-MB1	1	24	-1.74e-3	6/5/2018@11:34:35 AM		
GP13467-B1	1	25	0.0883	6/5/2018@11:35:56 AM		106%
GP13467-S1	1	26	2.40e-3	6/5/2018@11:37:18 AM		
GP13467-D1	1	27	-3.36e-3	6/5/2018@11:38:39 AM		
JC66897-1	1	28	-7.77e-3	6/5/2018@11:40:00 AM		
JC66897-3	1	29	-4.21e-3	6/5/2018@11:41:21 AM		
CCV	1	S9	0.426	6/5/2018@11:42:42 AM		106.5%
	Known Conc:		0.400			
CCB	1	S10	-6.54e-3	6/5/2018@11:44:04 AM		
	Known Conc:		0.00			
JC66897-4	1	30	-7.58e-3	6/5/2018@11:45:25 AM		
JC66897-5	1	31	-3.88e-3	6/5/2018@11:46:47 AM		
JC66897-6	1	32	-3.47e-3	6/5/2018@11:48:10 AM		
JC66914-1	1	33	4.13e-3	6/5/2018@11:49:32 AM		
JC66927-1	1	34	-1.28e-3	6/5/2018@11:50:54 AM		
JC66982-1	1	35	-6.69e-3	6/5/2018@11:52:16 AM		
JC66983-1	1	36	-5.06e-3	6/5/2018@11:53:38 AM		
JC66989-2	1	37	-6.91e-3	6/5/2018@11:55:00 AM		
GP13491-MB1	1	38	-5.72e-4	6/5/2018@11:56:21 AM		
GP13491-B1	1	39	0.0880	6/5/2018@11:57:43 AM		105.6%
CCV	1	S9	0.426	6/5/2018@11:59:05 AM		106.5%
	Known Conc:		0.400			
CCB	1	S10	-3.92e-3	6/5/2018@12:00:27 PM		
	Known Conc:		0.00			
GP13491-S1 (5)	1	40	-1.91e-3	6/5/2018@12:01:48 PM		back to need.
GP13491-S2	1	41	0.0623	6/5/2018@12:03:09 PM		

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GP13491-D1	1	42	-1.69e-3	6/5/2018@12:04:30 PM	
JC67053-1	1	43	-2.59e-3	6/5/2018@12:05:51 PM	
JC67053-3	1	44	-2.62e-4	6/5/2018@12:07:12 PM	
JC67053-6	1	45	-3.28e-4	6/5/2018@12:08:33 PM	
JC67053-8	1	46	1.91e-4	6/5/2018@12:09:56 PM	
JC67075-1	1	47	3.76e-3	6/5/2018@12:11:18 PM	
JC67075-2	1	48	0.0143	6/5/2018@12:12:40 PM	
JC67077-1	1	49	-5.38e-3	6/5/2018@12:14:02 PM	
CCV	1	S9	0.425	6/5/2018@12:15:24 PM	106.2%
	Known Conc:		0.400		
CCB	1	S10	-4.82e-3	6/5/2018@12:16:46 PM	
	Known Conc:		0.00		
JC67150-1	1	50	-2.24e-3	6/5/2018@12:18:08 PM	
JC67150-3	1	51	-3.84e-3	6/5/2018@12:19:30 PM	
JC67150-6	1	52	2.22e-5	6/5/2018@12:20:52 PM	
JC67191-4	1	53	2.31e-4	6/5/2018@12:22:13 PM	
JC67193-1	1	54	-5.68e-4	6/5/2018@12:23:35 PM	
JC66951-1	1	55	-1.59e-3	6/5/2018@12:24:56 PM	
JC66951-2	1	56	-1.40e-3	6/5/2018@12:26:18 PM	
JC66951-3	1	57	-8.80e-4	6/5/2018@12:27:39 PM	
JC66951-4	1	58	-1.80e-3	6/5/2018@12:29:00 PM	
JC66951-5	1	59	-1.98e-3	6/5/2018@12:30:21 PM	
CCV	1	S9	0.427	6/5/2018@12:31:42 PM	106.7%
	Known Conc:		0.400		
CCB	1	S10	-7.60e-3	6/5/2018@12:33:05 PM	
	Known Conc:		0.00		
JC66951-6	1	60	-4.63e-4	6/5/2018@12:34:25 PM	
JC66951-7	1	61	-1.82e-3	6/5/2018@12:35:48 PM	
JC66951-8	1	62	7.45e-3	6/5/2018@12:37:10 PM	
GP13469-MB1	1	63	-2.43e-3	6/5/2018@12:38:32 PM	
GP13469-B1	1	64	0.0867	6/5/2018@12:39:54 PM	104.%
GP13469-S1	1	65	0.0791	6/5/2018@12:41:16 PM	
GP13469-S2	1	66	0.0818	6/5/2018@12:42:38 PM	
GP13469-D1	1	67	-1.86e-3	6/5/2018@12:44:00 PM	
JC66947-1	1	68	-1.89e-3	6/5/2018@12:45:21 PM	
JC66947-2	1	69	-3.51e-3	6/5/2018@12:46:43 PM	
CCV	1	S9	0.425	6/5/2018@12:48:04 PM	106.2%
	Known Conc:		0.400		
CCB	1	S10	-7.56e-3	6/5/2018@12:49:27 PM	
	Known Conc:		0.00		
JC66947-3	1	70	-4.80e-3	6/5/2018@12:50:48 PM	
JC66947-4	1	71	-4.84e-3	6/5/2018@12:52:09 PM	
JC66947-5	1	72	-3.60e-3	6/5/2018@12:53:31 PM	
JC66947-6	1	73	-2.66e-3	6/5/2018@12:54:52 PM	
JC66947-7	1	74	-2.99e-3	6/5/2018@12:56:13 PM	
JC66947-8	1	75	-2.64e-3	6/5/2018@12:57:34 PM	
JC66947-9	1	76	-6.65e-3	6/5/2018@12:58:56 PM	
JC66947-10	1	77	-2.42e-3	6/5/2018@1:00:18 PM	
JC66947-11	1	78	-3.85e-3	6/5/2018@1:01:40 PM	
JC66947-12	1	79	-3.08e-3	6/5/2018@1:03:02 PM	
CCV	1	S9	0.425	6/5/2018@1:04:24 PM	106.2%
	Known Conc:		0.400		
CCB	1	S10	-6.17e-3	6/5/2018@1:05:46 PM	
	Known Conc:		0.00		
JC66947-13	1	80	-3.88e-3	6/5/2018@1:07:08 PM	
JC66947-14	1	81	-4.19e-4	6/5/2018@1:08:30 PM	
JC66950-1	1	82	-4.76e-3	6/5/2018@1:09:51 PM	
JC66950-4	1	83	-2.91e-3	6/5/2018@1:11:13 PM	
JC66950-6	1	84	-4.30e-3	6/5/2018@1:12:35 PM	
JC66952-1	1	85	1.26e-3	6/5/2018@1:13:56 PM	
JC66953-1	1	86	-3.55e-3	6/5/2018@1:15:17 PM	
GP13499-MB1	1	87	-1.84e-3	6/5/2018@1:16:39 PM	
GP13499-B1	1	88	0.0897	6/5/2018@1:18:00 PM	107.6%
GP13499-S1	1	89	0.0670	6/5/2018@1:19:21 PM	
CCV	1	S9	0.425	6/5/2018@1:20:43 PM	106.2%
	Known Conc:		0.400		
CCB	1	S10	-4.55e-3	6/5/2018@1:22:05 PM	
	Known Conc:		0.00		

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GP13499-S2	1	90	0.0851	6/5/2018@1:23:26 PM	
GP13499-D1	1	91	8.00e-4	6/5/2018@1:24:48 PM	
JC66957-1A	1	92	2.77e-4	6/5/2018@1:26:10 PM	
JC66957-2A	1	93	5.12e-3	6/5/2018@1:27:33 PM	
JC67108-1	1	94	-3.39e-4	6/5/2018@1:28:55 PM	
JC67108-2	1	95	5.79e-3	6/5/2018@1:30:17 PM	
JC67108-3	1	96	-6.27e-4	6/5/2018@1:31:38 PM	
JC67108-4	1	97	0.197	6/5/2018@1:33:00 PM	
JC67108-5	1	98	-3.52e-3	6/5/2018@1:34:22 PM	
JC67108-6	1	99	1.93e-4	6/5/2018@1:35:43 PM	
CCV	1	S9	0.426	6/5/2018@1:37:05 PM	106.5%
	Known Conc:		0.400		
CCB	1	S10	-5.33e-3	6/5/2018@1:38:27 PM	
	Known Conc:		0.00		
JC67108-7	1	100	5.97e-4	6/5/2018@1:39:48 PM	
JC67108-8	1	101	-5.39e-5	6/5/2018@1:41:09 PM	
JC67108-9	1	102	7.18e-3	6/5/2018@1:42:31 PM	
GP13492-MB1	1	103	-1.46e-3	6/5/2018@1:43:52 PM	
GP13492-B1	1	104	0.0897	6/5/2018@1:45:14 PM	107.6%
GP13492-S1	1	105	7.19e-3	6/5/2018@1:46:35 PM	
GP13492-S2	1	106	0.0381	6/5/2018@1:47:58 PM	
GP13492-D1	1	107	-1.60e-3	6/5/2018@1:49:20 PM	
JC67091-1	1	108	-5.47e-4	6/5/2018@1:50:43 PM	
JC67200-1	1	109	3.59e-3	6/5/2018@1:52:04 PM	
CCV	1	S9	0.426	6/5/2018@1:53:26 PM	106.5%
	Known Conc:		0.400		
CCB	1	S10	-5.95e-3	6/5/2018@1:54:48 PM	
	Known Conc:		0.00		
JC66897-7	1	110	-1.99e-3	6/5/2018@1:56:10 PM	
JC66897-8	1	111	-5.76e-3	6/5/2018@1:57:32 PM	
JC66897-10	1	112	-2.56e-3	6/5/2018@1:58:54 PM	
JC66897-13	1	113	-3.54e-3	6/5/2018@2:00:15 PM	
JC66897-14	1	114	-3.29e-3	6/5/2018@2:01:37 PM	
JC66897-15	1	115	-3.07e-3	6/5/2018@2:02:58 PM	
JC66897-16	1	116	-2.09e-3	6/5/2018@2:04:20 PM	
JC66897-17	1	117	-3.55e-3	6/5/2018@2:05:42 PM	
JC66897-18	1	118	-4.10e-3	6/5/2018@2:07:03 PM	
JC67003-1	1	119	0.671	6/5/2018@2:08:24 PM	
CCV	1	S9	0.430	6/5/2018@2:09:46 PM	107.5%
	Known Conc:		0.400		
CCB	1	S10	-3.84e-3	6/5/2018@2:11:08 PM	
	Known Conc:		0.00		
JC67003-2	1	120	0.197	6/5/2018@2:12:30 PM	
JC67003-3	1	121	0.108	6/5/2018@2:13:52 PM	
JC67003-7	1	122	2.74e-3	6/5/2018@2:15:14 PM	
JC66957-3	1	123	-2.49e-4	6/5/2018@2:16:36 PM	
JC67025-1	1	124	-2.38e-4	6/5/2018@2:17:58 PM	
JC67089-4	1	125	-1.26e-3	6/5/2018@2:19:20 PM	
GP13468-MB1	1	126	-2.36e-3	6/5/2018@2:20:42 PM	
GP13468-B1	1	127	0.0835	6/5/2018@2:22:04 PM	100.2%
GP13468-S1	1	128	0.149	6/5/2018@2:23:26 PM	
GP13468-S2	1	129	0.0909	6/5/2018@2:24:47 PM	
CCV	1	S9	0.424	6/5/2018@2:26:09 PM	106%
	Known Conc:		0.400		
CCB	1	S10	-6.31e-3	6/5/2018@2:27:31 PM	
	Known Conc:		0.00		
GP13468-D1	1	130	0.0302	6/5/2018@2:28:53 PM	
JC66873-1	1	131	0.0115	6/5/2018@2:30:15 PM	
JC66862-1	1	132	0.0165	6/5/2018@2:31:36 PM	
JC66873-2	1	133	-2.65e-3	6/5/2018@2:32:58 PM	
JC66920-1 ①	1	134	3.16	6/5/2018@2:34:20 PM	over range, see rerun.
JC66952-2	1	135	3.61e-3	6/5/2018@2:35:41 PM	
JC66953-2	1	136	-2.93e-3	6/5/2018@2:37:05 PM	
JC66953-3	1	137	-2.58e-3	6/5/2018@2:38:25 PM	
JC66953-4	1	138	-1.13e-3	6/5/2018@2:39:48 PM	
JC66953-5	1	139	-2.14e-3	6/5/2018@2:41:10 PM	
CCV	1	S9	0.425	6/5/2018@2:42:31 PM	106.2%
	Known Conc:		0.400		

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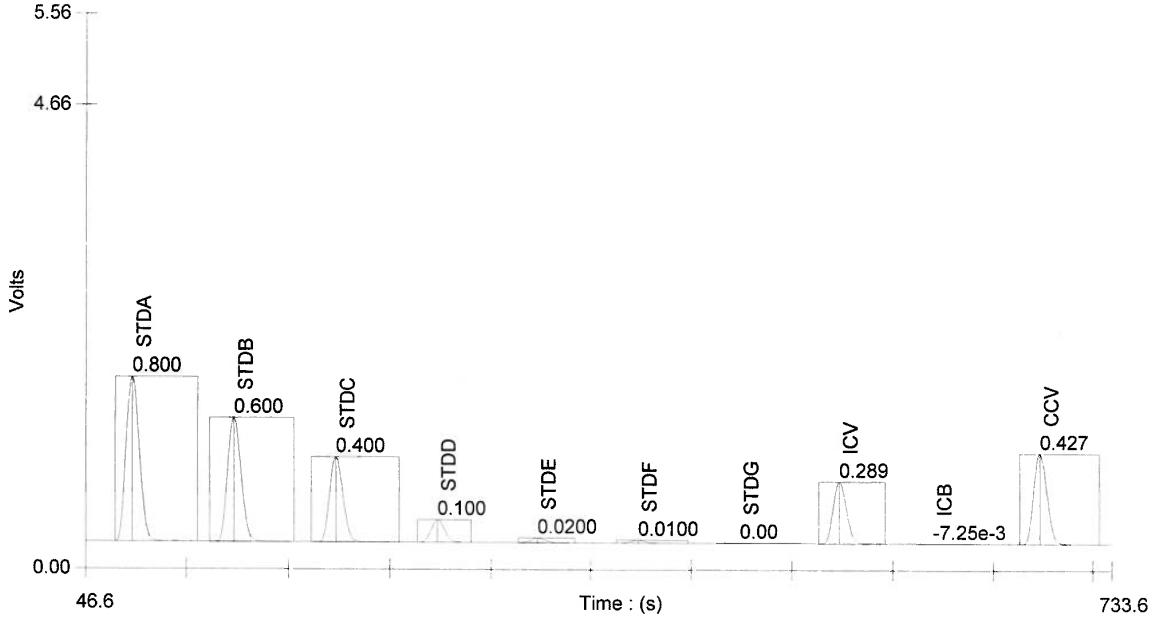
CCB	1	S10	-8.06e-3	6/5/2018@2:43:53 PM		
	Known Conc:		0.00			
JC66953-6	1	140	-2.49e-3	6/5/2018@2:45:15 PM		
JC66953-7	1	141	-1.96e-3	6/5/2018@2:46:37 PM		
JC66953-8	1	142	-2.48e-3	6/5/2018@2:47:59 PM		
JC66954-1	1	143	-2.10e-3	6/5/2018@2:49:20 PM		
JC66954-2	1	144	-1.34e-3	6/5/2018@2:50:42 PM		
JC66954-3	1	145	8.55e-4	6/5/2018@2:52:04 PM		
JC66954-4	1	146	3.39e-4	6/5/2018@2:53:26 PM		
JC66954-5	1	147	-1.05e-3	6/5/2018@2:54:47 PM		
JC66954-6	1	148	6.14e-3	6/5/2018@2:56:09 PM		
JC66929-1	1	149	1.47e-3	6/5/2018@2:57:31 PM		
CCV	1	S9	0.425	6/5/2018@2:58:53 PM		106.2%
	Known Conc:		0.400			
CCB	1	S10	-6.50e-3	6/5/2018@3:00:14 PM		
	Known Conc:		0.00			
GP13450-MB1	1	150	-6.82e-3	6/5/2018@3:01:36 PM		
GP13450-B1	1	151	0.485	6/5/2018@3:02:59 PM		24.2%
GP13450-D1	1	152	-5.14e-3	6/5/2018@3:04:21 PM		
JC66954-1	1	153	-6.07e-3	6/5/2018@3:05:43 PM		
JC66954-2	1	154	-6.75e-3	6/5/2018@3:07:05 PM		
JC66954-3	1	155	-5.89e-3	6/5/2018@3:08:27 PM		
JC66954-4	1	156	-4.54e-3	6/5/2018@3:09:49 PM		
JC66954-5	1	157	-5.08e-3	6/5/2018@3:11:11 PM		
JC66954-6	1	158	-5.80e-3	6/5/2018@3:12:33 PM		
JC66951-1	1	159	-7.81e-3	6/5/2018@3:13:55 PM		
CCV	1	S9	0.425	6/5/2018@3:15:17 PM		106.2%
	Known Conc:		0.400			
CCB	1	S10	-6.04e-3	6/5/2018@3:16:39 PM		
	Known Conc:		0.00			
JC66951-2	1	160	-6.65e-3	6/5/2018@3:18:00 PM		
JC66951-3	1	161	-6.89e-3	6/5/2018@3:19:22 PM		
JC66951-4	1	162	-5.27e-3	6/5/2018@3:20:44 PM		
JC66951-5	1	163	-7.33e-3	6/5/2018@3:22:06 PM		
JC66951-6	1	164	-7.58e-3	6/5/2018@3:23:28 PM		
JC66951-7	1	165	-6.58e-3	6/5/2018@3:24:50 PM		
JC66951-8	1	166	-6.08e-3	6/5/2018@3:26:13 PM		
JC66976-1A	1	167	-7.33e-3	6/5/2018@3:27:35 PM		
JC66948-2	1	168	-8.18e-3	6/5/2018@3:28:57 PM		
GP13511-MB1	1	169	-5.09e-3	6/5/2018@3:30:19 PM		
CCV	1	S9	0.425	6/5/2018@3:31:41 PM		106.2%
	Known Conc:		0.400			
CCB	1	S10	-3.23e-3	6/5/2018@3:33:03 PM		
	Known Conc:		0.00			
GP13511-B1	1	170	0.600	6/5/2018@3:34:25 PM		30%
GP13511-D1	1	171	-7.41e-3	6/5/2018@3:35:47 PM		
JC67120-5A	1	172	-6.23e-3	6/5/2018@3:37:09 PM		
JC66920-1	1	173	0.389	6/5/2018@3:38:31 PM	20	
JC66920-1	1	174	0.202	6/5/2018@3:39:53 PM	40	
CCV	1	S9	0.427	6/5/2018@3:42:56 PM		106.7%
	Known Conc:		0.400			
CCB	1	S10	-4.63e-3	6/5/2018@3:44:18 PM		
	Known Conc:		0.00			

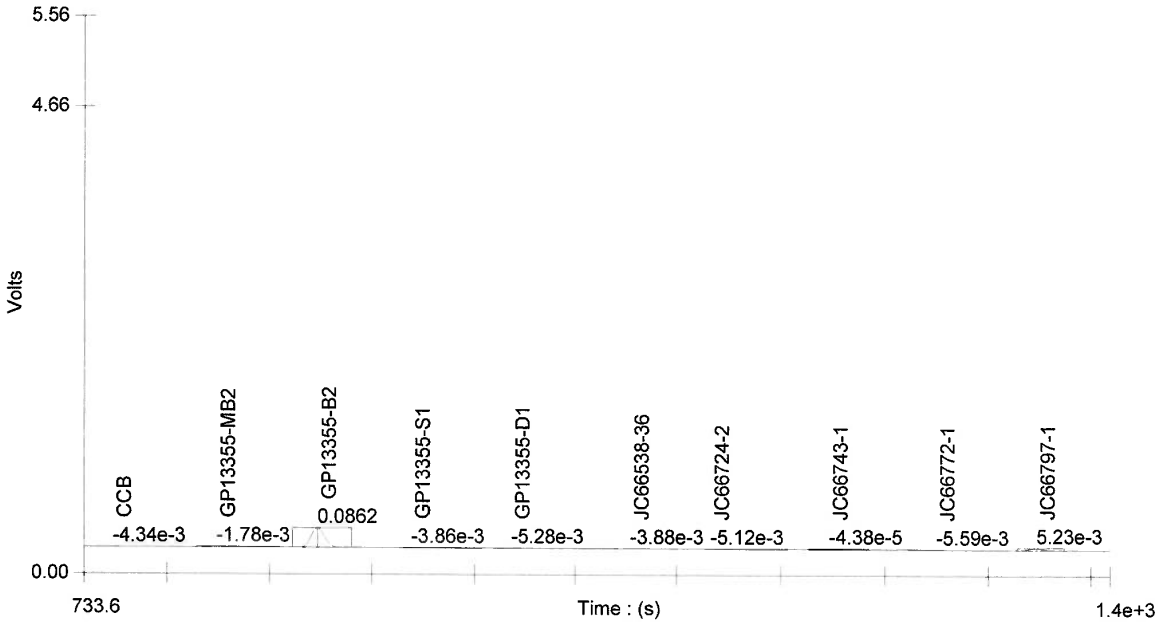
Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 1 / 21



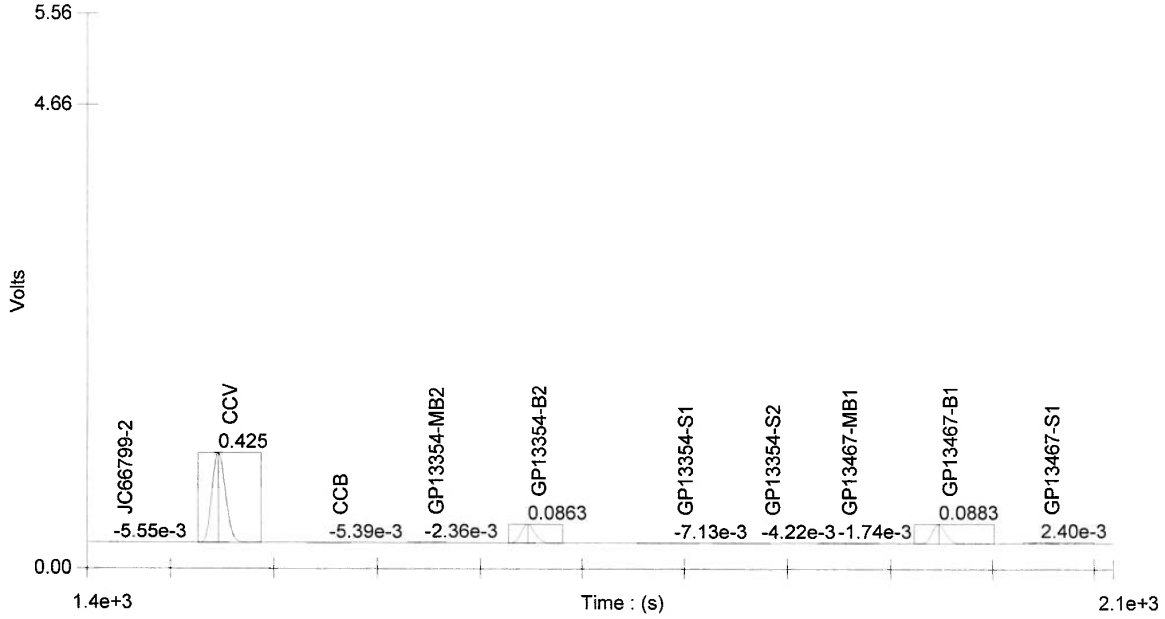
Channel 1 - Set: 2 / 21



Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 3 / 21



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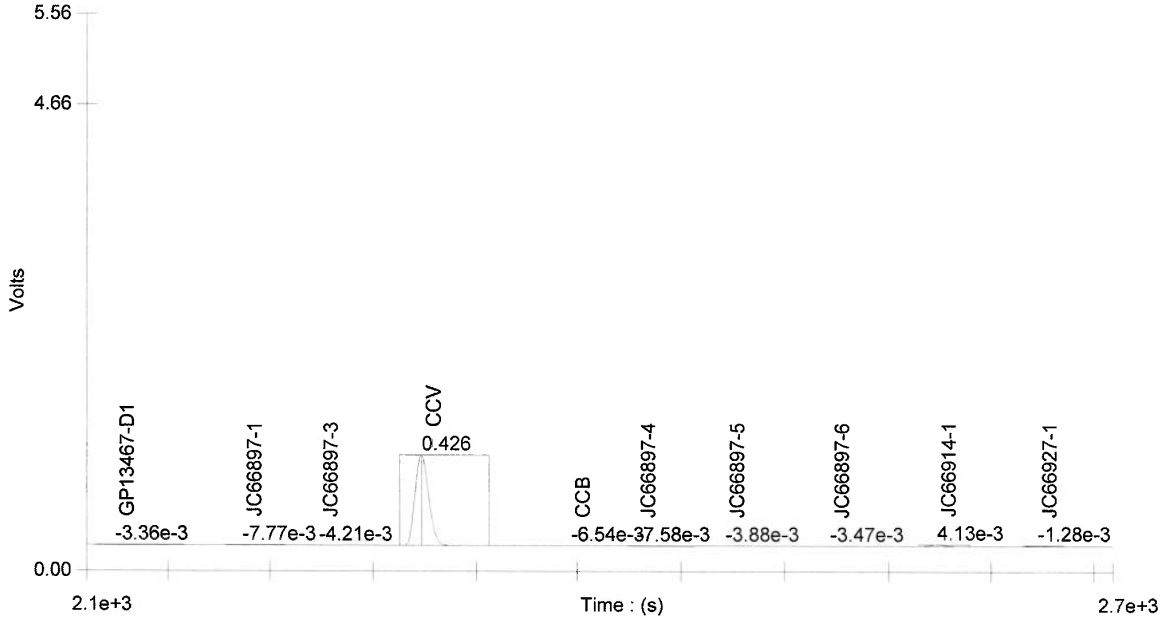
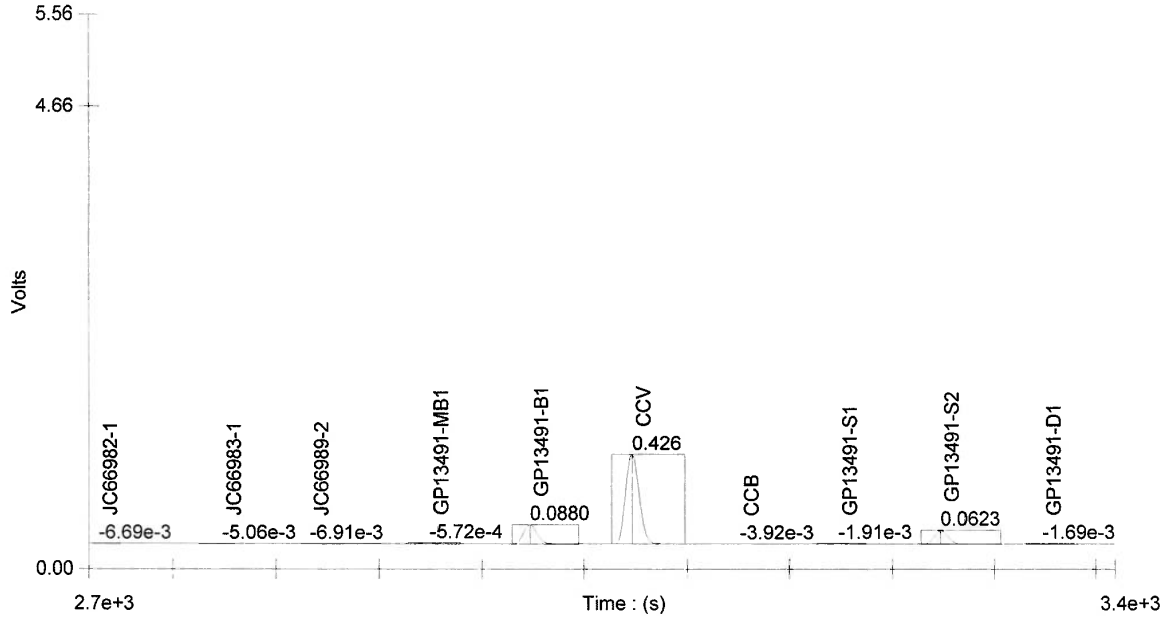


Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 5 / 21



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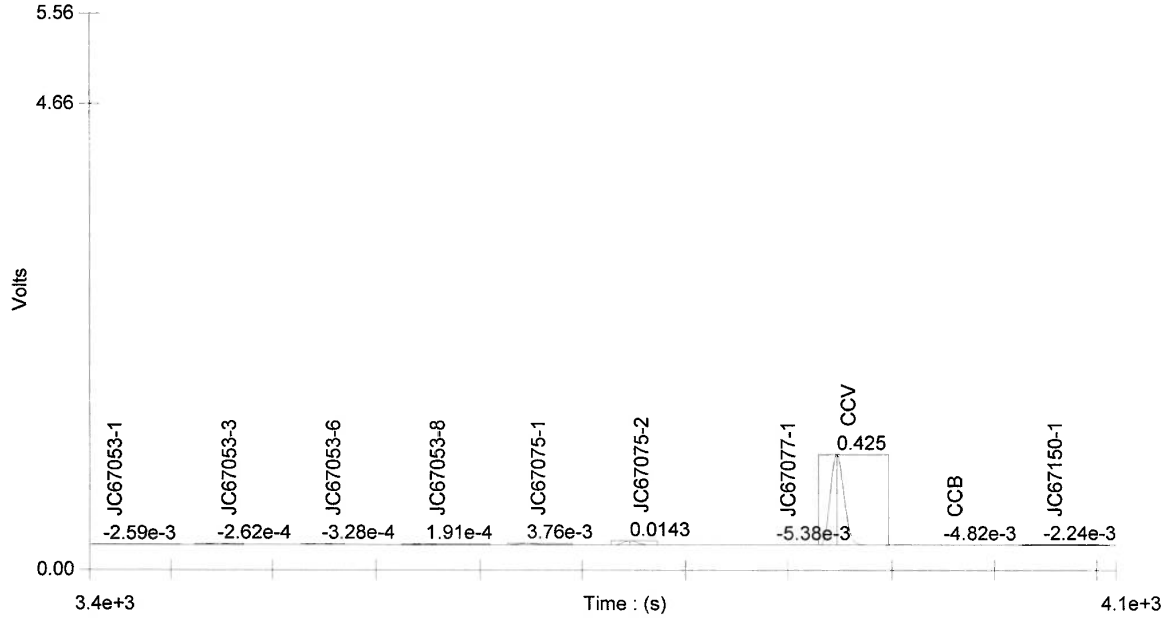
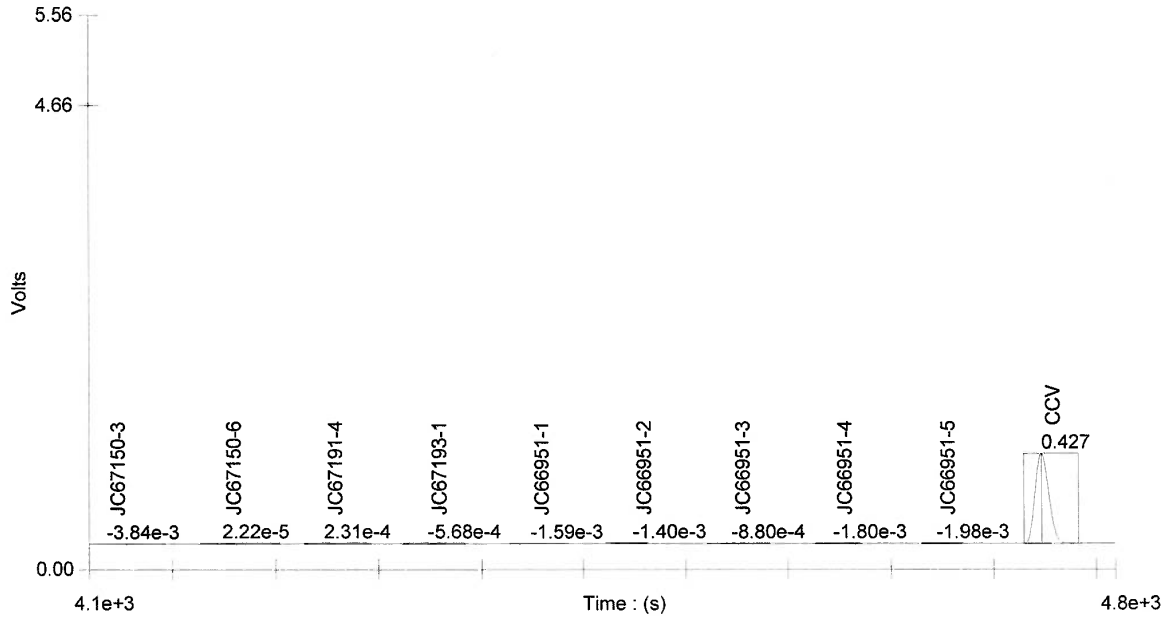


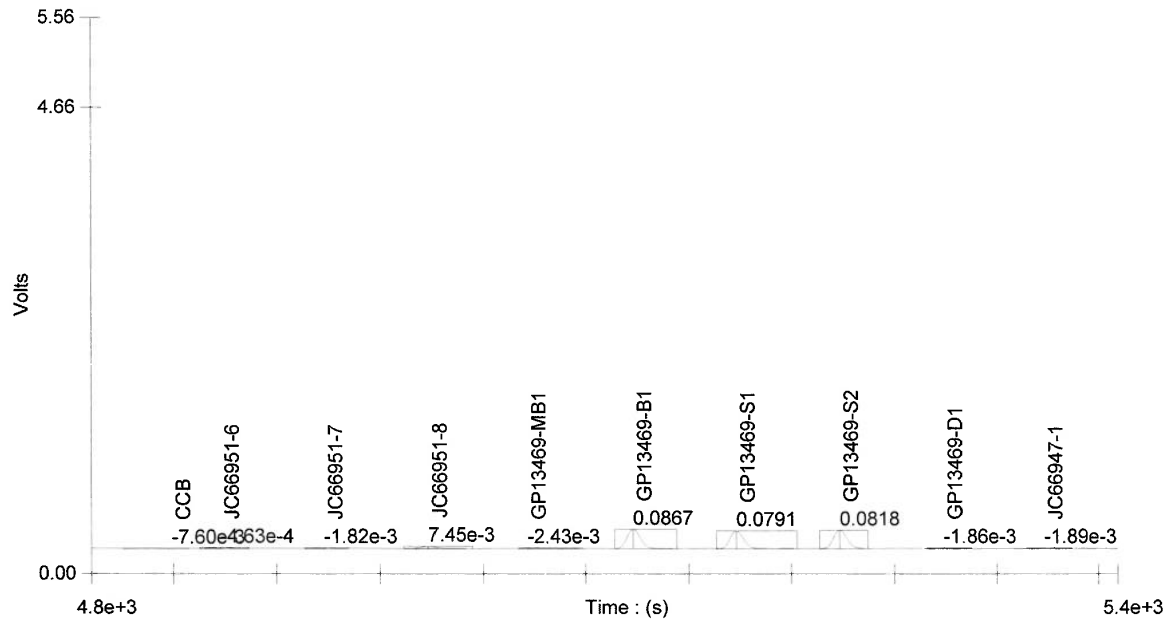
Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 7 / 21



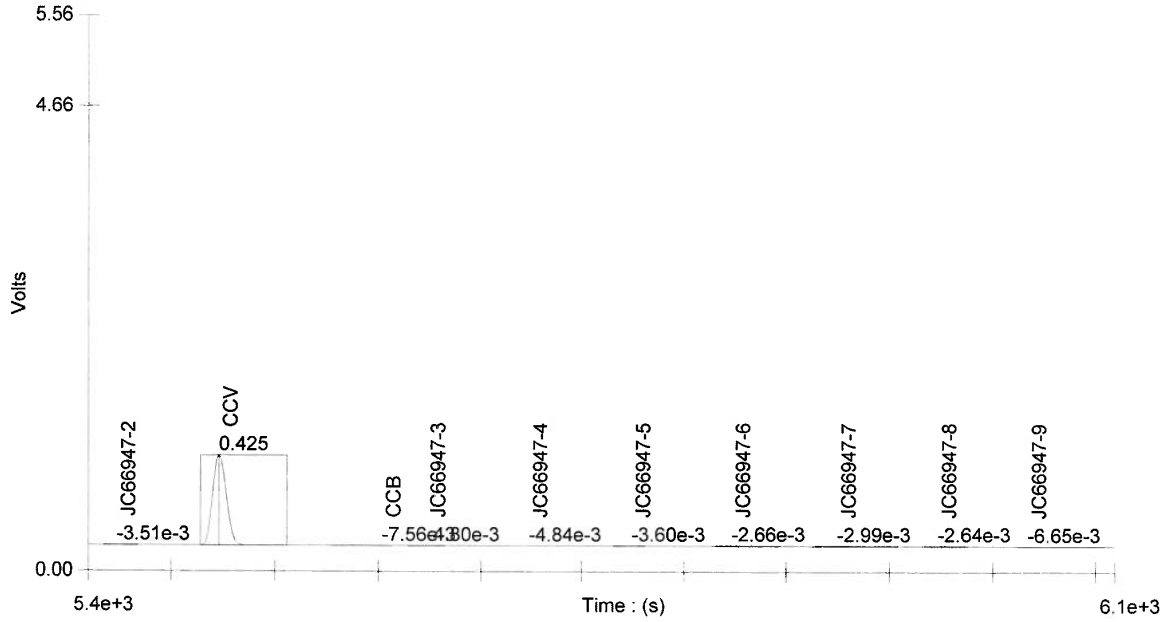
Channel 1 - Set: 8 / 21



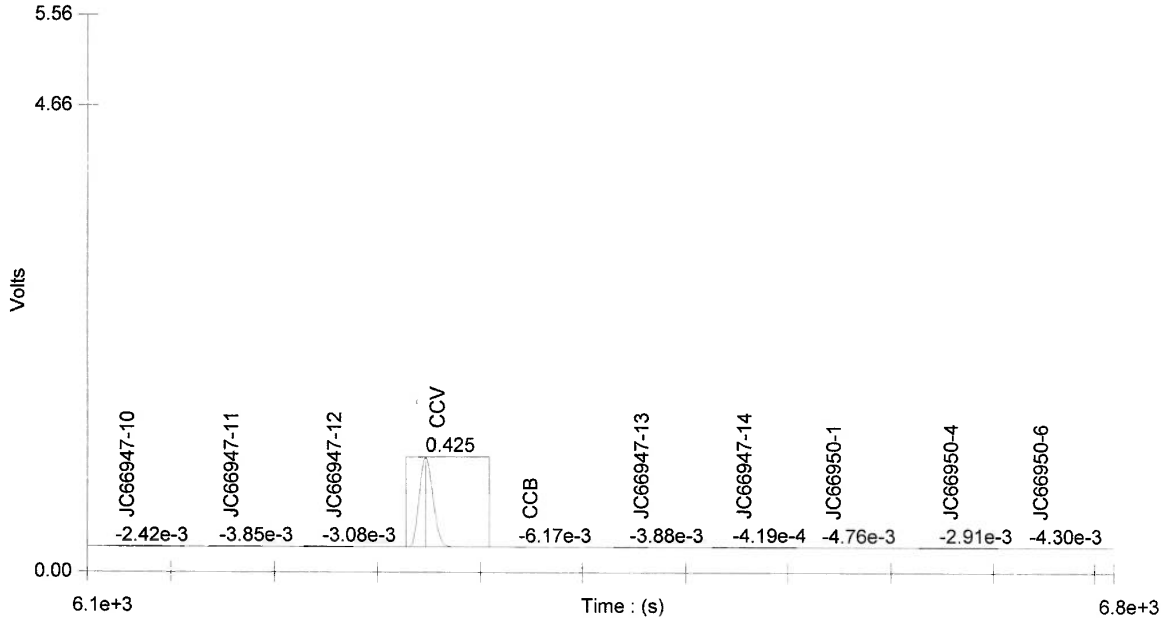
Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 9 / 21



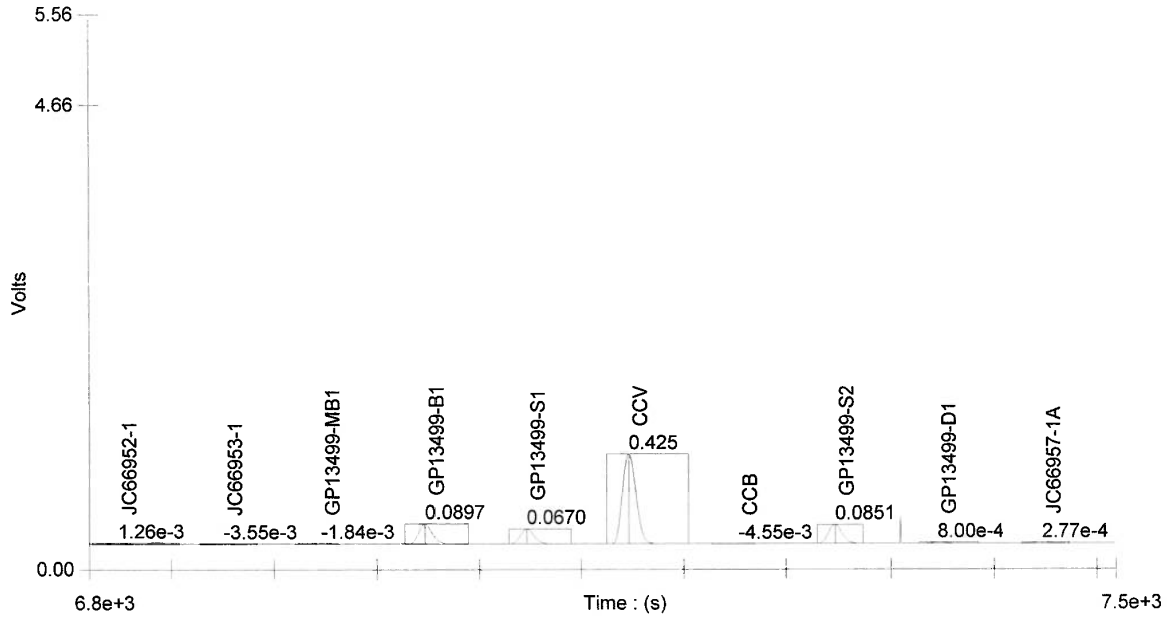
Channel 1 - Set: 10 / 21



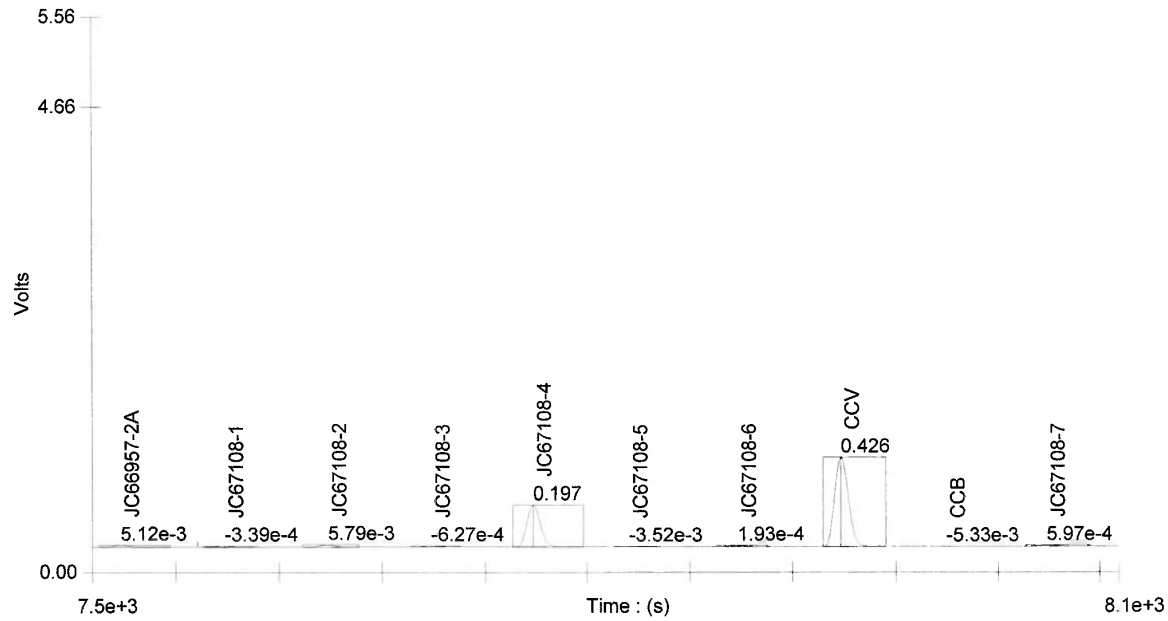
Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 11 / 21



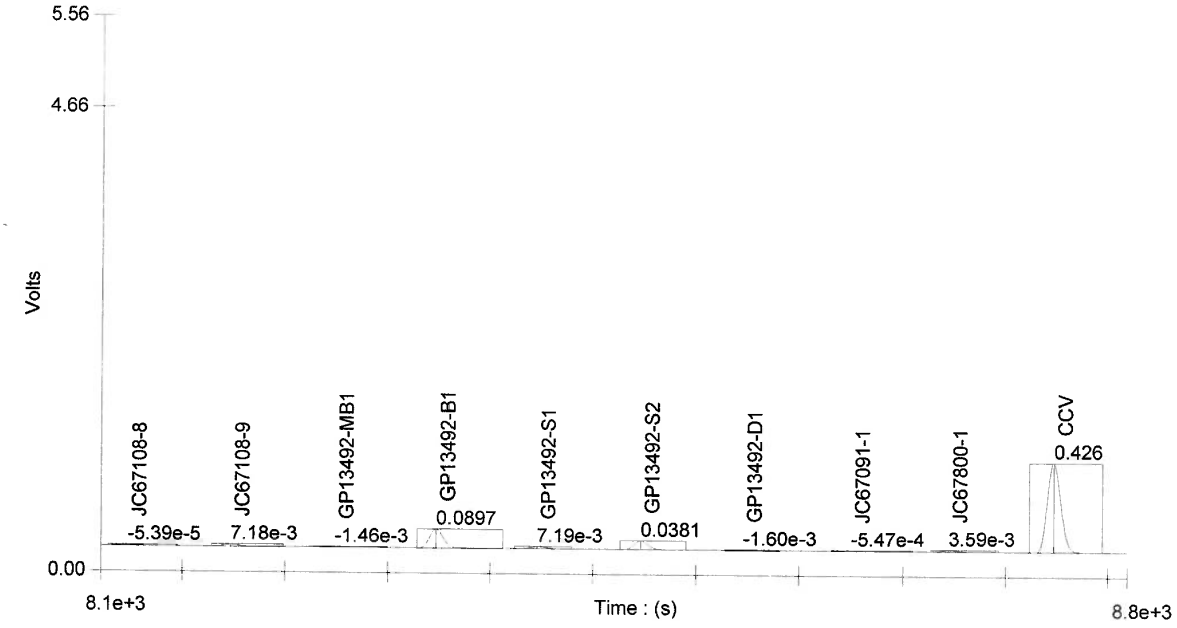
Channel 1 - Set: 12 / 21



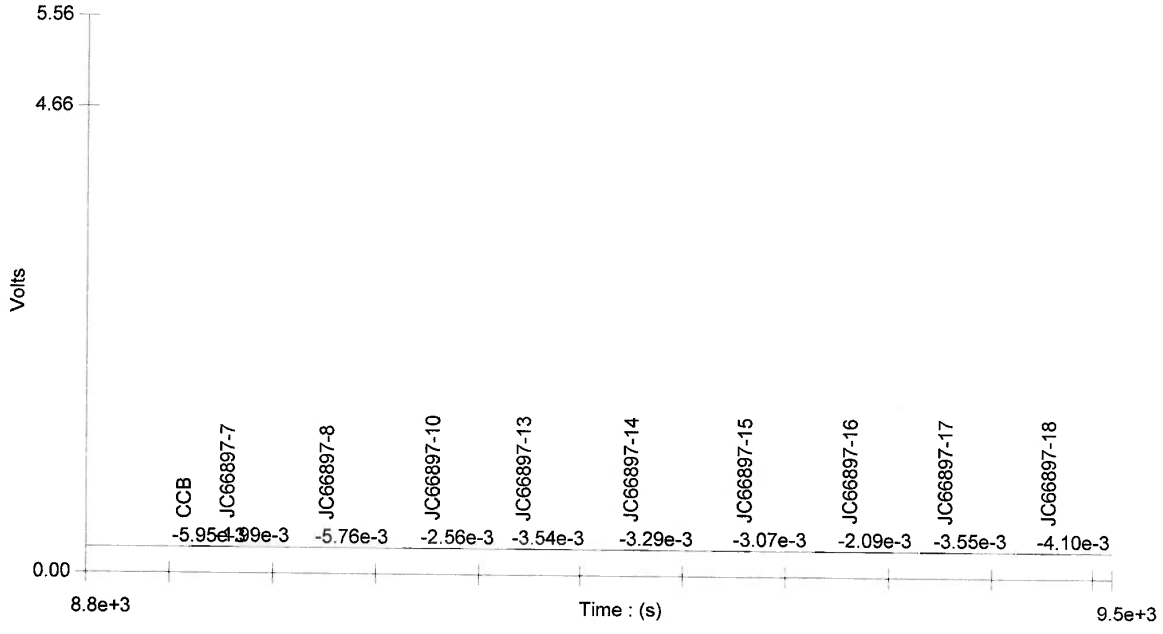
Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 13 / 21



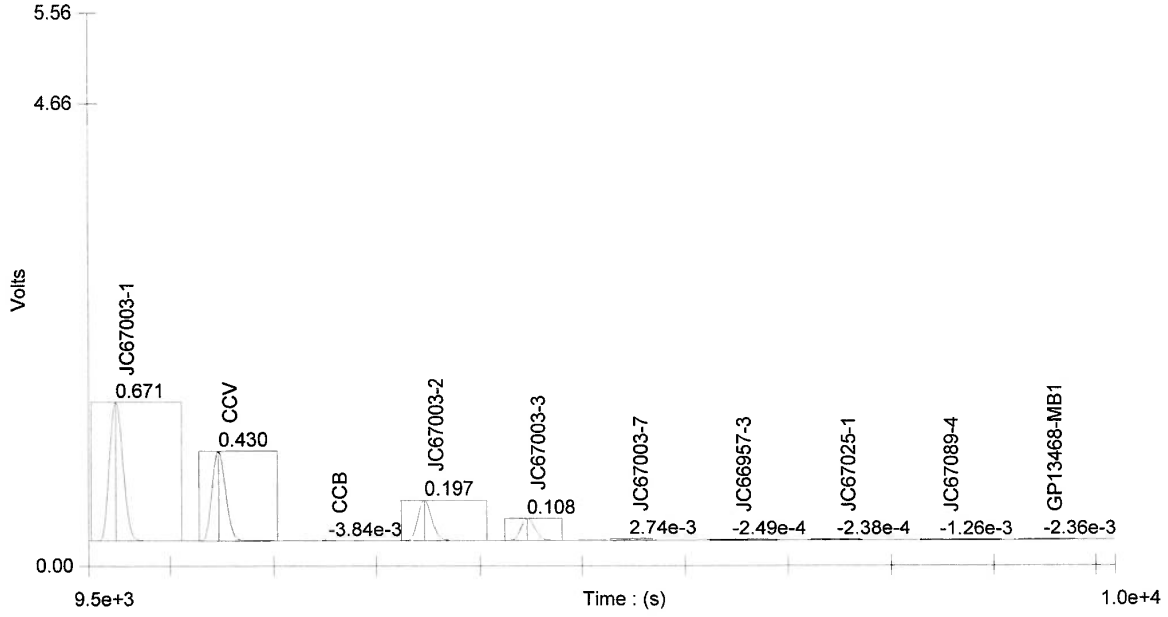
Channel 1 - Set: 14 / 21



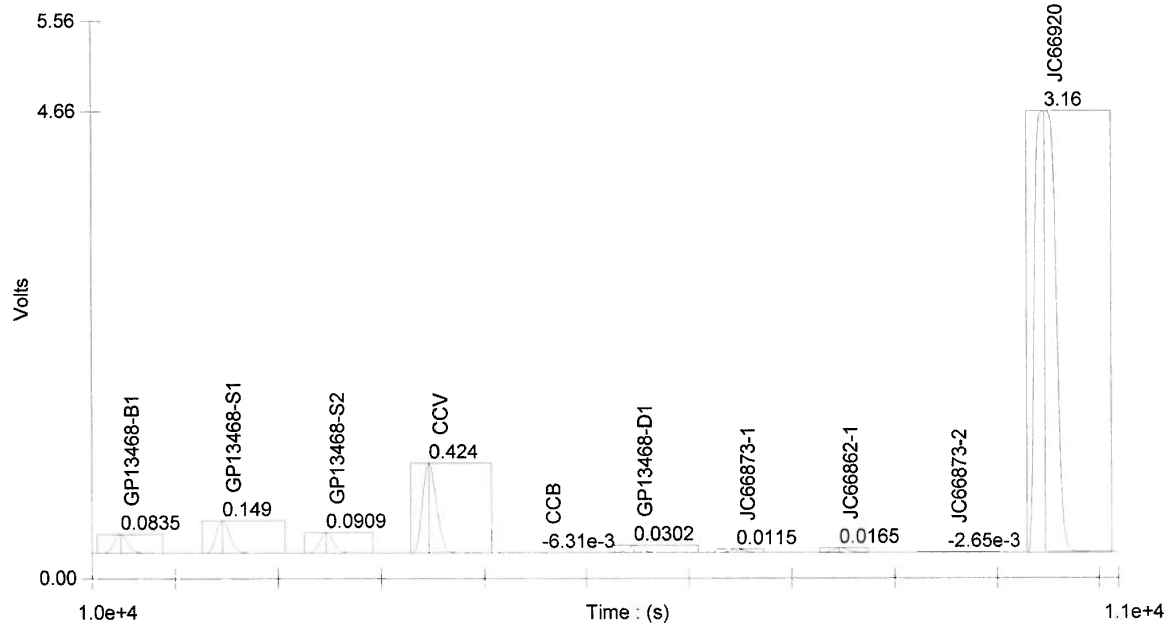
Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 15 / 21



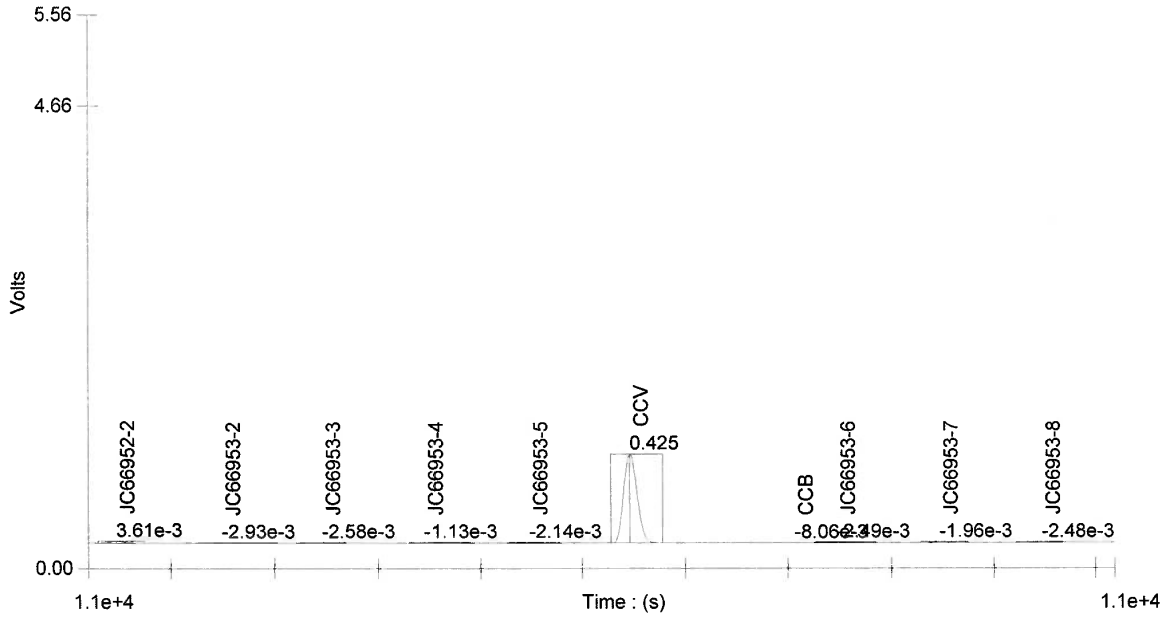
Channel 1 - Set: 16 / 21



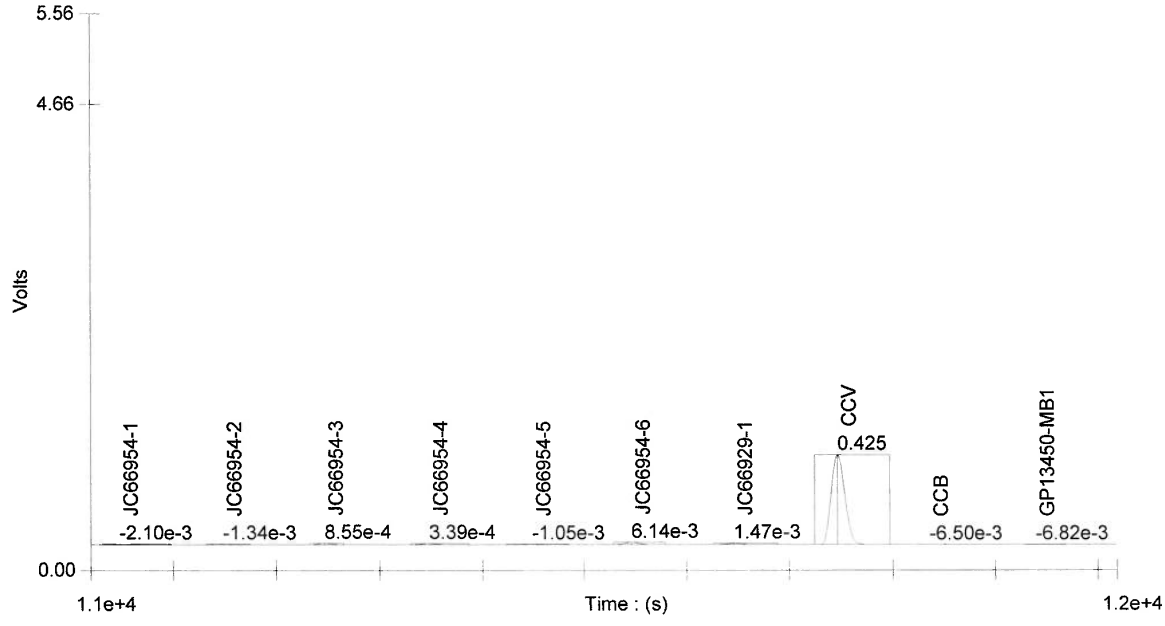
Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 17 / 21



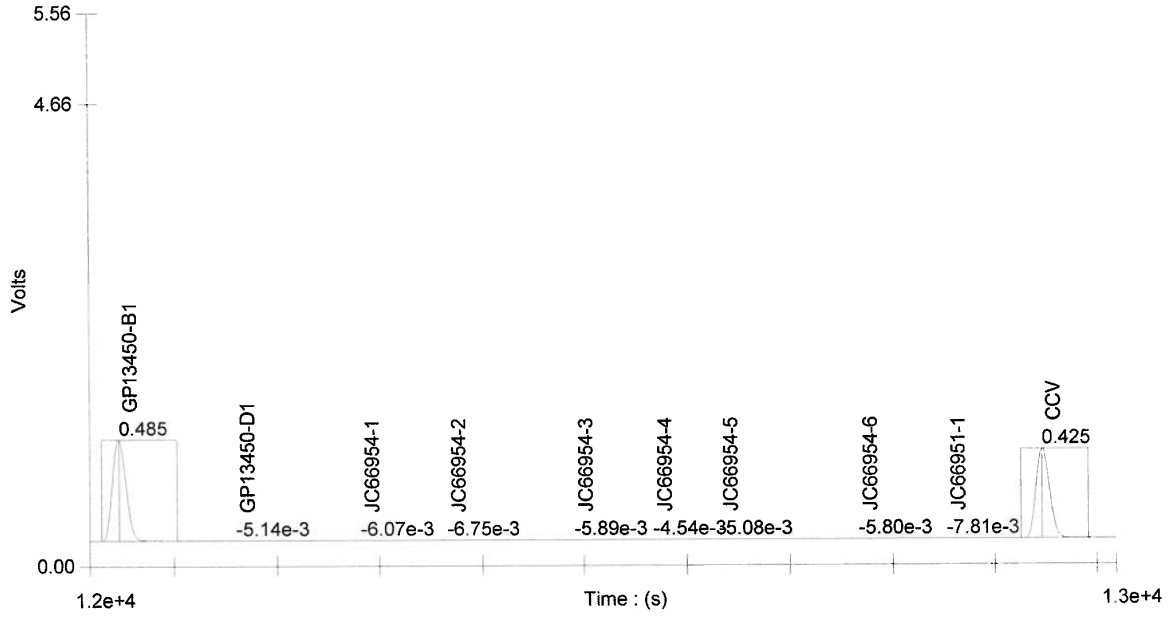
Channel 1 - Set: 18 / 21



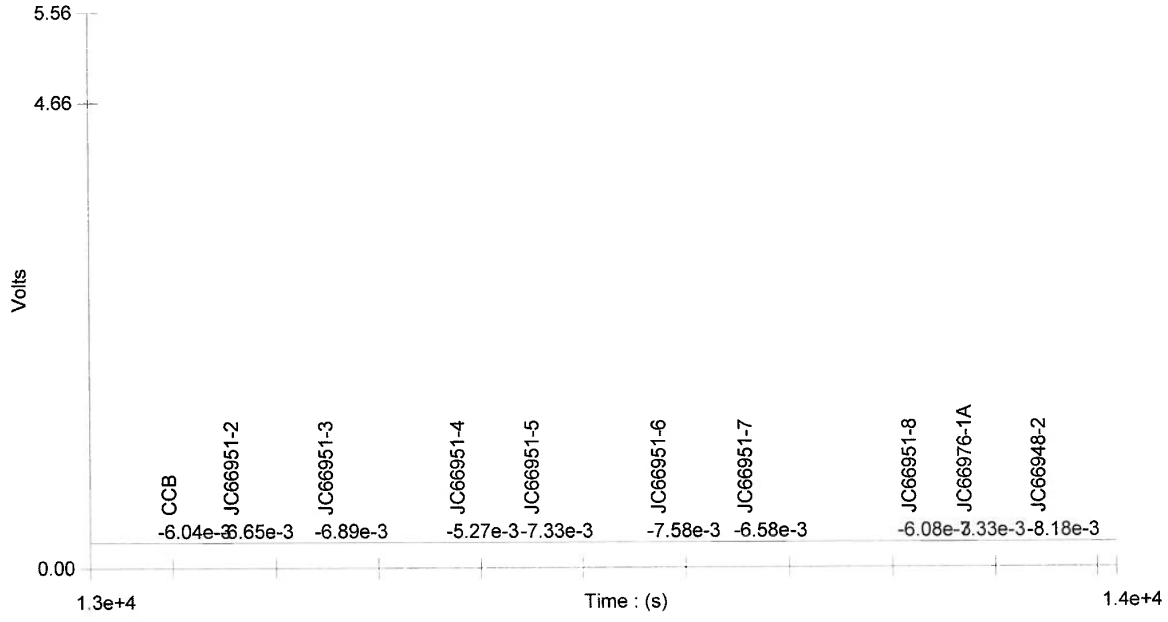
Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 19 / 21



Channel 1 - Set: 20 / 21



Author: chemistry

Date : 6/5/2018

Channel 1 - Set: 21 / 21

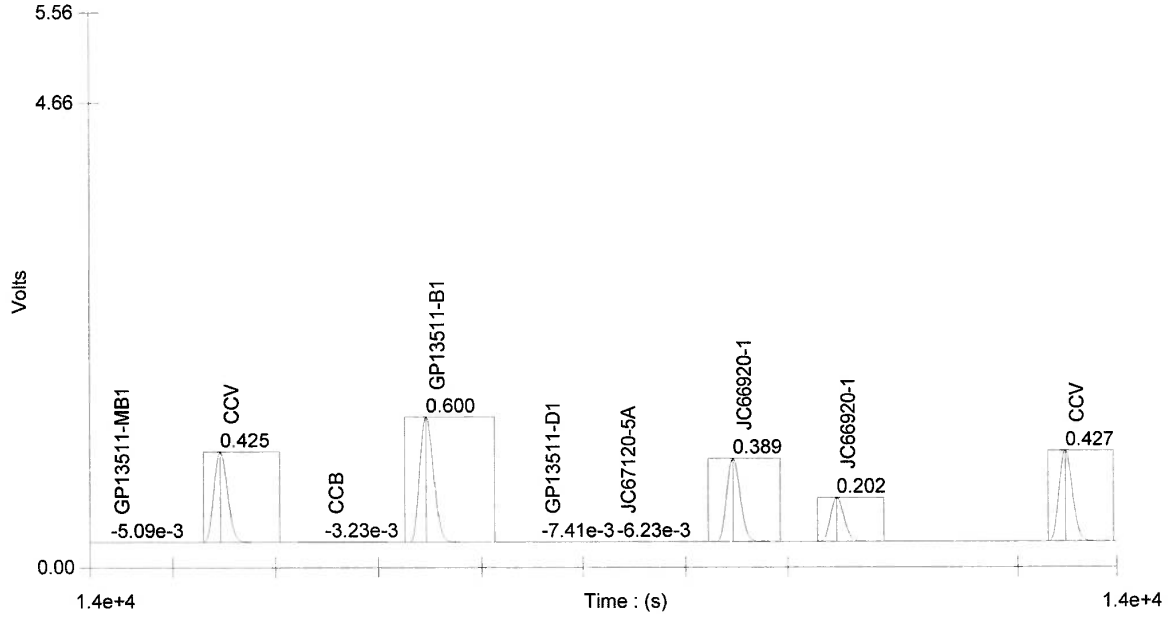
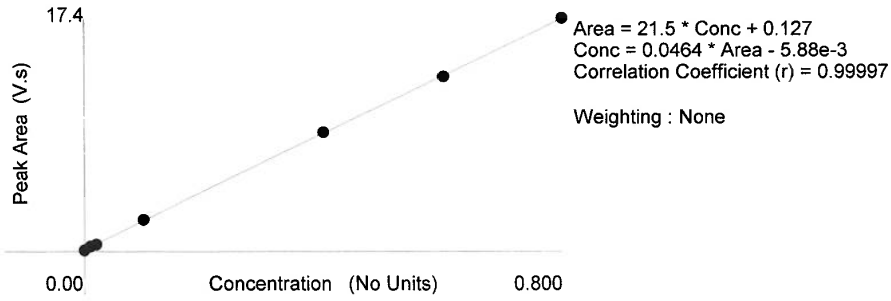


Table : 1 (CN)

	Known Conc. ()	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc ()	Detection Date	Detection Time
1	0.800	1	17.4	1.68	0.0	-0.1	0.801	6/5/2018	10:57:48 AM
2	0.600	1	13.0	1.25	0.0	0.6	0.597	6/5/2018	10:59:11 AM
3	0.400	1	8.81	0.856	0.0	-0.8	0.403	6/5/2018	11:00:33 AM
4	0.100	1	2.35	0.230	0.0	-2.9	0.103	6/5/2018	11:01:55 AM
5	0.0200	1	0.506	0.0481	0.0	9.3	0.0176	6/5/2018	11:03:17 AM
6	0.0100	1	0.357	0.0311	0.0	-4.4	0.0107	6/5/2018	11:04:39 AM
7	0.00	1	0.0888	7.10e-3			-1.76e-3	6/5/2018	11:06:01 AM

Figure : 1 (CN)



ACCUTEST LABORATORIES

GNP0929

Batch ID:

Autopipette ID: 41

Balance ID: B27

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

Bottle #	Block #	Sample ID (GP13468)	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	>12	–	✓		6	120	14:28	14:58	6/1/18	GP -MB1			MW
		B1										GP -B1	0.10 ml of 5.0 mg/l (c)		
1		JC66873-1 S1				0.31						GP -S1	0.10 ml of 5.0 mg/l		
1		JC66873-2 S2				0.31						GP -S2	0.10 ml of 5.0 mg/l		
1		JC66873-1 D1				0.39						GP -D1			
1		JC66873-1				0.32									
1		JC66862-1				0.30									
1		JC66873-2				0.31									
2		JC66920-1				0.39									
2		JC66952-2				0.38									
5		JC66953-2				0.35									
5		3				0.35									
5		4				0.45									
5		5				0.28									
5		6				0.37									
5		7				0.26									
5		8				0.32									
4	2	JC66954-1				0.30									
4		2				0.44									
4		3				0.43									
4		4				0.44									
4		5				0.32									
4		6				0.34									
2		JC66929-1				0.33									

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: Date:

Form: GN0012-05

Rev. Date: 06/8/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP 13468

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	Environmental Express 812020-8131	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1 15

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP134168

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
Standards Stock	GNE4-54219-CN	5/29/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/2/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	1000	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

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	6/5/18	fo	5/29/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	6/5/18	fo	5/29/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	6/5/18	fo	5/29/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	6/5/18	fo	5/29/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	6/5/18	fo	5/29/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	6/5/18	fo	5/29/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(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 maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST.

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

GP 13469
GP13467
GP13354
GP13355
GP13468

Batch ID: _____

Autopipette ID: 34

Balance ID: N/A

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	Analy
												GP -MB1			
												GP -B1	0.10 ml of 5.0 mg/l (c)		
												GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
												GP -D1			
	1	Calibration Curve	12	–	✓	6	6	120C	13:05	13:35	6/1/18				MW
		0.00 ppm										0.0 ml of	5 ppm Cn Std T	100 ml	
		0.01 ppm										0.2 ml of	" "	"	
		0.02 ppm										0.4 ml of	" "	"	
		0.10 ppm										2.0 ml of	" "	"	
		0.40 ppm										8.0 ml of	" "	"	
		0.60 ppm										12.0 ml of	" "	"	
	✓	0.80 ppm	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.0 ml of	" "	"	✓

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04
Rev. Date: 03/09/13

ACCUTEST LABORATORIES

Batch ID: GNP0929

Autopipette ID: 41

Balance ID: N/A

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Bottle #	Block #	Sample ID (Gp13355)	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	Analys
	2	MB2	≥12	–	✓	6	6	120	13:05	13:35	6/1/18	GP -MB1			MW
		B2										GP -B1	0.10 ml of 5.0 mg/l (c)		
		JC66538-36 S1										GP -S1	0.10 ml of 5.0 mg/l		
		6/1/18 MW S2										GP -S2	0.10 ml of 5.0 mg/l		
		JC66538-36 D1										GP -D1			
8		JC66538-36 QC													
1		JC66724-2													
6		JC66743-1													
11		JC66772-1													
2		JC66797-1													
8		JC66799-2													

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer:

Form: GN0012-04

Rev. Date: 03/09/13

Date:

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP 133355

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	Environmental Express 812020-8131	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1 15

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13355

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
Standards Stock	GNE4-54219-CN	5/29/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/2/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	1000	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

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	6/5/18	fo	5/29/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	6/5/18	fo	5/29/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	6/5/18	fo	5/29/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	6/5/18	fo	5/29/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	6/5/18	fo	5/29/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	6/5/18	fo	5/29/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(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 maxiumum of 28 days before analysis.

If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST.

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

GP 13469
GP13467
GP13354
GP13355
GP13468

Batch ID: _____

Autopipette ID: 34

Balance ID: N/A

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	Analy
												GP -MB1			
												GP -B1	0.10 ml of 5.0 mg/l (c)		
												GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
												GP -D1			
	1	Calibration Curve	12	–	✓	6	6	120C	13:05	13:35	6/1/18				MW
		0.00 ppm										0.0 ml of	5 ppm Cn Std	100 ml	
		0.01 ppm										0.2 ml of	" "	"	
		0.02 ppm										0.4 ml of	" "	"	
		0.10 ppm										0.8 ml of	" "	"	
		0.40 ppm										8.0 ml of	" "	"	
		0.60 ppm										12.0 ml of	" "	"	
		0.80 ppm	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.0 ml of	" "	"	✓

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04
Rev. Date: 03/09/13

ACCUTEST LABORATORIES

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Batch ID:

Autopipette ID: 41

Balance ID: N/A

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	Analys
	2	QP13354													
		MB2	>12	-	✓	6	6	120	14:28	14:58	6/1/18	GP -MB1			MW
		B2										GP -B1	0.10 ml of 5.0 mg/l (c)		
4		JC66538-21 S1										GP -S1	0.10 ml of 5.0 mg/l		
8		JC66538-22 S2										GP -S2	0.10 ml of 5.0 mg/l		
												GP -D1			

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer:

Date:

Form: GN0012-04

Rev. Date: 03/09/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: Gp 133 54

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	Environmental Express 812020-8131	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1 15

ACCUTEST.

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

GP 13469
GP13467
GP13354
GP13355
GP13468

Batch ID: _____

Autopipette ID: 34

Balance ID: N/A

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	Analy
												GP -MB1			
												GP -B1	0.10 ml of 5.0 mg/l (c)		
												GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
												GP -D1			
	1	Calibration Curve	12	–	✓	6	6	120°C	13:05	13:35	6/1/18				MW
		0.00 ppm										0.0 ml of	5 ppm CN Std	100 ml	
		0.01 ppm										0.2 ml of	" "	"	
		0.02 ppm										0.4 ml of	" "	"	
		0.10 ppm										2.0 ml of	" "	"	
		0.40 ppm										8.0 ml of	" "	"	
		0.60 ppm										12.0 ml of	" "	"	
	✓	0.80 ppm	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.0 ml of	" "	"	✓

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04
Rev. Date: 03/09/13

ACCUTEST LABORATORIES

Batch ID: _____

Autopipette ID: 41

Balance ID: N/A

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Bottle #	Block #	Sample ID (ap13467)	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	Analys
	1	MB1	212	-	✓	6	6	120	13:05	13:35	6/1/18	GP -MB1			MD
		B1										GP -B1	0.10 ml of 5.0 mg/l (c)		
		JC66897-3S1										GP -S1	0.10 ml of 5.0 mg/l		
		JC66897-3 D1										GP -S2	0.10 ml of 5.0 mg/l		
10		JC66897-1										GP -D1			
7		JC66897-3 94													
9		4													
10		5													
9		6													
10		JC66914-1													
9		JC66927-1													
10		JC66982-1													
15		JC66983-1													
11	✓	JC66989-2													

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04

Rev. Date: 03/09/13

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13467

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
Standards Stock	GNE4-54219-CN	5/29/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/2/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	1000	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

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	6/5/18	fo	5/29/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	6/5/18	fo	5/29/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	6/5/18	fo	5/29/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	6/5/18	fo	5/29/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	6/5/18	fo	5/29/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	6/5/18	fo	5/29/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(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 maxiumum of 28 days before analysis.

If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02
Rev. Date:1/6/2014

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP13467

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	Environmental Express 812020-8131	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1 15

ACCUTEST.

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

GP 13469
GP13467
GP13354
GP13355
GP13468

Batch ID: _____

Autopipette ID: 34

Balance ID: N/A

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	Analy:
												GP -MB1			
												GP -B1	0.10 ml of 5.0 mg/l (c)		
												GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
												GP -D1			
	1	Calibration Curve	12	–	✓	6	6	120°C	13:05	13:35	6/1/18				MW
		0.00 ppm										0.0 ml of	5 ppm CN std	100 ml	
		0.01 ppm										0.2 ml of	" "	"	
		0.02 ppm										0.4 ml of	" "	"	
		0.10 ppm										2.0 ml of	" "	"	
		0.40 ppm										8.0 ml of	" "	"	
		0.60 ppm										12.0 ml of	" "	"	
		0.80 ppm	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.0 ml of	" "	"	✓

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04
Rev. Date: 03/09/13

ACCUTEST LABORATORIES

Batch ID:

Autopipette ID: 41

Balance ID: B27

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

GP13441

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
	4	MB1	12.03	–	✓	0.25	6	120	10:56	11:26	6/4/18	GP -MB1			FO
		B1				0.25						GP -B1	0.10 ml of 5.0 mg/l (c)	✓	
1		JC67053-1 S1				0.30						GP -S1	0.10 ml of 5.0 mg/l	✓	
1		JC67053-3 S2				0.29						GP -S2	0.10 ml of 5.0 mg/l	✓	
1		JC67053-1 D1				0.32						GP -D1			
1		Q1 JC67053-1				0.29									
1		Q2 JC67053-3				0.37									
1		-6				0.45									
1		-8				0.32									
4		JC67075-1				0.33									
1		-2				0.34									
1		JC67077-1				0.36									
1		JC67150-1				0.31									
1		-3				0.33									
1		-6				0.45									
1		JC67191-4				0.31									
3		JC67193-1				0.43									
3		JC66951-1				0.35									
1		-2				0.35									
2		-3				0.31									
2		-4				0.29									
2		-5				0.36									
3	2	-6				0.33									
2		-7				0.35									
2		-8				0.36									

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: Date:

Form: GN0012-05
Rev. Date: 06/8/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP 13491

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	Environmental Express 812020-8131	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13491

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
Standards Stock	GNE4-54219-CN	6/4/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/2/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	1000	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

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	6/11/18	fo	6/4/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	6/11/18	fo	6/4/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	6/11/18	fo	6/4/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	6/11/18	fo	6/4/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	6/11/18	fo	6/4/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	6/11/18	fo	6/4/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(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 maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST LABORATORIES

Batch ID:_____

Autopipette ID: 41

Balance ID: B27

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

Bottle #	Block #	GP13469 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	>12	-	✓		6	120	15:45	16:15	6/1/18	GP -MB1			MW
		B1										GP -B1	0.10 ml of 5.0 mg/l (c)		
1		JC66947-1 S1				0.30						GP -S1	0.10 ml of 5.0 mg/l		
1		JC66947-2 S2				0.33						GP -S2	0.10 ml of 5.0 mg/l		
1		JC66947-1 D1				0.27						GP -D1			
1		JC66947- 1Φ1				0.29									
1		2Φ2				0.28									
1		3				0.45									
1		4				0.43									
1		5				0.28									
1		6				0.43									
1		7				0.28									
1		8				0.34									
1		9				0.38									
1		10				0.50									
1		11				0.34									
1		12				0.27									
1		13				0.27									
1	2	14				0.35									
1		JC66950-1				0.36									
1		4				0.43									
1		6				0.44									
3		JC66952-1				0.37									
2		JC66953-1				0.28									

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-05
Rev. Date: 06/8/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP 13469

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	Environmental Express 812020-8131	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1 15

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13469

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
Standards Stock	GNE4-54219-CN	5/29/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/2/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	1000	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

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	6/5/18	fo	5/29/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	6/5/18	fo	5/29/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	6/5/18	fo	5/29/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	6/5/18	fo	5/29/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	6/5/18	fo	5/29/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	6/5/18	fo	5/29/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(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 maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Form: GN193-02
Rev. Date:1/6/2014

ACCUTEST.

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

GP 13469
GP13467
GP13354
GP13355
GP13468

Batch ID: _____

Autopipette ID: 34

Balance ID: N/A

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	Analy
												GP -MB1			
												GP -B1	0.10 ml of 5.0 mg/l (c)		
												GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
												GP -D1			
	1	Calibration Curve	12	–	✓	6	6	120°C	13:05	13:35	6/1/18				MW
		0.00 ppm										0.0 ml of	5 ppm CN Std	100 ml	
		0.01 ppm										0.2 ml of	" "	"	
		0.02 ppm										0.4 ml of	" "	"	
		0.10 ppm										2.0 ml of	" "	"	
		0.40 ppm										8.0 ml of	" "	"	
		0.60 ppm										12.0 ml of	" "	"	
	✓	0.80 ppm	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.0 ml of	" "	"	✓

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04
Rev. Date: 03/09/13

ACCUTEST LABORATORIES

Batch ID:_____

Autopipette ID: A1

Balance ID: B27

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

GP 13494

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
	4	MB1	12.8	–	✓	0.25	6	120	2:36	3:06	6/4/18	GP -MB1			SO
		B1				0.25						GP -B1	0.10 ml of 5.0 mg/l (c)	✓	
1		JC66957-1A S1				0.45						GP -S1	0.10 ml of 5.0 mg/l	✓	
2		JC67108-1 S2				0.32						GP -S2	0.10 ml of 5.0 mg/l	✓	
1		JC66957-1A D1				0.40						GP -D1			
1		Q1 JC66957-1A				0.38									
1		-2A				0.33									
2		Q2 JC67108-1				0.30									
2		-2				0.36									
2		-3				0.49									
2		-4				0.44									
2		-5				0.35									
2		-6				0.35									
2		-7				0.34									
2		-8				0.29									
2	✓	-9	✓	✓	✓	0.31	✓	✓	✓	✓	✓				✓
		~~Fe~~													

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-05
Rev. Date: 06/8/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP13499

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	Environmental Express 812020-8131	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13499

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
Standards Stock	GNE4-54219-CN	6/4/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/2/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	1000	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

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	6/11/18	fo	6/4/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	6/11/18	fo	6/4/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	6/11/18	fo	6/4/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	6/11/18	fo	6/4/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	6/11/18	fo	6/4/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	6/11/18	fo	6/4/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(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 maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST LABORATORIES

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

GP13492

Batch ID: _____

Autopipette ID: 41

Balance ID: N/A

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	Analys
	4	MB	12	—	✓	6	6	120	12:20	12:50	6/4/18	GP -MB1			
		B1										GP -B1	0.10 ml of 5.0 mg/l (c)	✓	
25		JC66897-15 S1										GP -S1	0.10 ml of 5.0 mg/l	✓	
9		JC67091-1 S2										GP -S2	0.10 ml of 5.0 mg/l	✓	
25		JC66897-15 D1										GP -D1			
9		D2 JC67091-1													
11		JC67200-1													
9		JC66897-7													
9		-8													
10		-10													
9		-13													
10		-14													
25		QC -15													
10		-16													
9		-17													
9		-18													
9		JC67003-1													
9		-2													
9		-3													
9		-7													
13		JC66957-3													
11		JC67025-1													
1		JC67089-A													

(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 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04

Rev. Date: 03/09/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GN13492

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	Environmental Express 812020-8131	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1 15

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13492

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
Standards Stock	GNE4-54219-CN	6/4/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/2/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	1000	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

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	6/11/18	fo	6/4/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	6/11/18	fo	6/4/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	6/11/18	fo	6/4/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	6/11/18	fo	6/4/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	6/11/18	fo	6/4/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	6/11/18	fo	6/4/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(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 maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST

GN80929

Reagent Information Log - CN Lachat Autoanalyzer

GN Number:

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Pyridine-Bartituric Acid Reagent	GNE5-5433-CN	11/1/2018
Chloramine-T	GNE6-54888-CN	6/12/2018
Phosphate Buffer Solution, 1.0 M	GNE6-54887-CN	12/5/2018
0.25 N Sodium Hydroxide Carrier Solution	gne4-54306-cn GNE12-53078-CN	10/9/2018 6/11/2018

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1

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Form: GN087A-27
Rev. Date: 7/19/06