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Automated Report

Technical Report for

Arcadis

National Grid, Philly Coke, Philadelphia PA

B0036790.0001.00002

SGS Job Number: JC62881

Sampling Date: 03/23/18

Report to:

Arcadis

Lawrence.Healy@arcadis-us.com

ATTN: Lawrence Healy

Total number of pages in report: **1392**

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Sample Summary

Arcadis

Job No: JC62881

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

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC62881-1	03/23/18	08:05	CO	03/23/18	AQ	Ground Water	PCMW-05
JC62881-2	03/23/18	00:00	CO	03/23/18	AQ	Ground Water	DUP-03232018
JC62881-3	03/23/18	09:20	CO	03/23/18	AQ	Ground Water	PCMW-06
JC62881-4	03/23/18	10:25	CO	03/23/18	AQ	Ground Water	PCMW-11S
JC62881-5	03/23/18	10:30	CO	03/23/18	AQ	Ground Water	PCMW-18S
JC62881-6	03/23/18	11:15	CO	03/23/18	AQ	Ground Water	PCMW-18D
JC62881-7	03/23/18	11:15	CO	03/23/18	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Arcadis	**Job No**	JC62881
Site:	National Grid, Philly Coke, Philadelphia PA	**Report Date**	4/6/2018 9:10:06 AM

On 03/23/2018, 6 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 5.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC62881 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:** V2B7094

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62881-4MS, JC62881-5DUP were used as the QC samples indicated.
- JC62881-2 for 1,2-Dichloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62881-6 for Bromoform: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- V2B7094-BS for 1,2-Dibromo-3-chloropropane: High percent recoveries and no associated positive reported in the QC batch.
- JC62881-4 for 1,2-Dichloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62881-4 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-4 for Bromoform: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-5 for 1,2-Dichloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62881-5 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-5 for Bromoform: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-1 for 1,2-Dichloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62881-1 for Bromoform: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-6 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-2 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-2 for Bromoform: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-3 for 1,2-Dichloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62881-3 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-7 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-3 for Bromoform: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- V2B7094-BS for Bromoform: High percent recoveries and no associated positive reported in the QC batch.
- JC62881-7 for 1,2-Dichloroethane: Associated CCV outside of control limits high, sample was ND.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2B7094

- JC62881-6 for 1,2-Dichloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62881-7 for Bromoform: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62881-1 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.

MS Semi-volatiles By Method SW846 8270D

Matrix: AQ **Batch ID:** OP10886

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- JC62881-6 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC62881-4 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC62881-6 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC62881-5 for N-Nitrosodiphenylamine: Associated CCV outside of control limits low.
- JC62881-5 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC62881-3 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC62881-2 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC62881-2 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC62881-2 for N-Nitrosodiphenylamine: Associated CCV outside of control limits low.
- JC62881-5 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC62881-4 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC62881-4 for N-Nitrosodiphenylamine: Associated CCV outside of control limits low.
- JC62881-3 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC62881-3 for N-Nitrosodiphenylamine: Associated CCV outside of control limits low.
- JC62881-6 for N-Nitrosodiphenylamine: Associated CCV outside of control limits low.

Matrix: AQ **Batch ID:** OP10986

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- OP10986-BSD for 4-Chloroaniline: Outside of in house control limits.
- JC62881-1 for Di-n-octyl phthalate: Associated CCV outside of control limits high,sample was ND.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: AQ **Batch ID:** OP10885

- All samples were extracted within the recommended method holding time.
- Sample(s) JC62879-9MS, JC62879-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Aldrin are outside the QC limits.
- Matrix Spike Duplicate Recovery(s) for Aldrin are outside the QC limits.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: AQ **Batch ID:** OP10884

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-9MS, JC62879-9MSD were used as the QC samples indicated.

Metals Analysis By Method SW846 6010C

Matrix: AQ **Batch ID:** MP6399

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-9MS, JC62879-9MSD, JC62879-9SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Potassium, Vanadium, Zinc are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6: 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.
- JC62881-6 for Arsenic: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Aluminum: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Beryllium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Sodium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Antimony: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Barium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-4 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC62881-5 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC62881-6 for Selenium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Zinc: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Vanadium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Cobalt: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Nickel: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Chromium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Copper: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Magnesium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Calcium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Thallium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Lead: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Cadmium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Manganese: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Potassium: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Silver: Elevated sample detection limit due to difficult sample matrix.
- JC62881-6 for Iron: Elevated sample detection limit due to difficult sample matrix.

Metals Analysis By Method SW846 7470A

Matrix: AQ **Batch ID:** MP6361

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62881-1MS, JC62881-1MSD were used as the QC samples for metals.
- JC62881-6 for Mercury: Elevated sample detection limit due to difficult sample matrix.
- JC62881-1 for Mercury: Elevated sample detection limit due to difficult sample matrix.

General Chemistry By Method EPA 335.4/LACHAT

Matrix: AQ **Batch ID:** GP12059

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62881-1DUP, JC62881-1MS, JC62881-2MS 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: JC62881
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 03/23/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC62881-1	**PCMW-05**					
3&4-Methylphenol		4.3	2.1	0.92	ug/l	SW846 8270D
Arsenic		3.4	3.0		ug/l	SW846 6010C
Barium		240	200		ug/l	SW846 6010C
Calcium		104000	5000		ug/l	SW846 6010C
Copper		27.4	10		ug/l	SW846 6010C
Iron		3130	100		ug/l	SW846 6010C
Lead		112	3.0		ug/l	SW846 6010C
Magnesium		11300	5000		ug/l	SW846 6010C
Manganese		157	15		ug/l	SW846 6010C
Nickel		450	10		ug/l	SW846 6010C
Zinc		2680	20		ug/l	SW846 6010C
JC62881-2	**DUP-03232018**					
3&4-Methylphenol		4.6	2.2	0.96	ug/l	SW846 8270D
Arsenic		3.7	3.0		ug/l	SW846 6010C
Barium		238	200		ug/l	SW846 6010C
Calcium		104000	5000		ug/l	SW846 6010C
Copper		28.6	10		ug/l	SW846 6010C
Iron		3090	100		ug/l	SW846 6010C
Lead		110	3.0		ug/l	SW846 6010C
Magnesium		11200	5000		ug/l	SW846 6010C
Manganese		160	15		ug/l	SW846 6010C
Nickel		465	10		ug/l	SW846 6010C
Zinc		2700	20		ug/l	SW846 6010C
JC62881-3	**PCMW-06**					
Arsenic		3.2	3.0		ug/l	SW846 6010C
Calcium		72100	5000		ug/l	SW846 6010C
Copper		16.9	10		ug/l	SW846 6010C
Iron		1030	100		ug/l	SW846 6010C
Lead		42.3	3.0		ug/l	SW846 6010C
Magnesium		8070	5000		ug/l	SW846 6010C
Manganese		48.9	15		ug/l	SW846 6010C
Zinc		158	20		ug/l	SW846 6010C
JC62881-4	**PCMW-11S**					
Benzene		0.23 J	0.50	0.17	ug/l	SW846 8260C
Aluminum		226	200		ug/l	SW846 6010C
Arsenic		6.3	3.0		ug/l	SW846 6010C
Calcium		203000	5000		ug/l	SW846 6010C

Summary of Hits

Job Number: JC62881
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 03/23/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Copper		23.4	10		ug/l	SW846 6010C
Iron		40500	100		ug/l	SW846 6010C
Magnesium		96300	5000		ug/l	SW846 6010C
Manganese		1300	15		ug/l	SW846 6010C
Nickel		68.3	10		ug/l	SW846 6010C
Potassium		13800	10000		ug/l	SW846 6010C
Sodium		19000	10000		ug/l	SW846 6010C
Zinc		233	20		ug/l	SW846 6010C
JC62881-5	**PCMW-18S**					
1,2-Dichlorobenzene		0.71 J	1.0	0.50	ug/l	SW846 8260C
bis(2-Ethylhexyl)phthalate		3.7	2.2	1.8	ug/l	SW846 8270D
Arsenic		4.9	3.0		ug/l	SW846 6010C
Calcium		217000	5000		ug/l	SW846 6010C
Iron		2960	100		ug/l	SW846 6010C
Magnesium		77600	5000		ug/l	SW846 6010C
Manganese		4430	15		ug/l	SW846 6010C
Potassium		95000	10000		ug/l	SW846 6010C
Sodium		49100	10000		ug/l	SW846 6010C
JC62881-6	**PCMW-18D**					
Chloroform		12.3	1.0	0.29	ug/l	SW846 8260C
Tetrachloroethene		1.5	1.0	0.50	ug/l	SW846 8260C
Aluminum [a]		9320	1000		ug/l	SW846 6010C
Calcium [a]		48300	25000		ug/l	SW846 6010C
Iron [a]		245000	500		ug/l	SW846 6010C
Manganese [a]		611	75		ug/l	SW846 6010C
Sodium [a]		58500	50000		ug/l	SW846 6010C
Cyanide		0.012	0.010		mg/l	EPA 335.4/LACHAT
JC62881-7	**TRIP BLANK**					

No hits reported in this sample.

(a) Elevated sample detection limit due to difficult sample matrix.

Sample Results

Report of Analysis

SGS LabLink@996135 15:38 10-Apr-2018

Report of Analysis

Client Sample ID:	PCMW-05		
Lab Sample ID:	JC62881-1	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	2B159329.D	1	03/30/18 11:37	SS	n/a	n/a	V2B7094
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 [a]	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-chloropropan [a]	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 [b]	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:	PCMW-05		
Lab Sample ID:	JC62881-1	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	122%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	92%		80-120%

(a) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(b) 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

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Report of Analysis

Client Sample ID:	PCMW-05		
Lab Sample ID:	JC62881-1	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	2M102973.D	1	04/02/18 17:56	CC	03/30/18 17:00	OP10986	E2M4581
Run #2							

	Initial Volume	Final Volume
Run #1	955 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	5.2	0.86	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	0.93	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	2.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.2	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.2	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.93	ug/l	
	3&4-Methylphenol	4.3	2.1	0.92	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.2	1.4	ug/l	
108-95-2	Phenol	ND	2.1	0.41	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	0.97	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.20	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.1	0.22	ug/l	
120-12-7	Anthracene	ND	1.0	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.47	ug/l	
100-52-7	Benzaldehyde	ND	5.2	0.30	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.36	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.42	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.48	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.22	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.25	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	0.36	ug/l	
86-74-8	Carbazole	ND	1.0	0.24	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-05		
Lab Sample ID:	JC62881-1	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	2.1	0.68	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.29	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.26	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.1	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.38	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.58	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.35	ug/l	
132-64-9	Dibenzofuran	ND	5.2	0.23	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.52	ug/l	
117-84-0	Di-n-octyl phthalate [a]	ND	2.1	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.23	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.18	ug/l	
86-73-7	Fluorene	ND	1.0	0.18	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.34	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.52	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.9	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.41	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.35	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.46	ug/l	
91-20-3	Naphthalene	ND	1.0	0.24	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.67	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.50	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.23	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.23	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	57%		10-110%
4165-62-2	Phenol-d5	40%		10-110%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-05		
Lab Sample ID:	JC62881-1	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	89%		36-151%
4165-60-0	Nitrobenzene-d5	80%		34-128%
321-60-8	2-Fluorobiphenyl	72%		38-119%
1718-51-0	Terphenyl-d14	70%		26-129%

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

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-05		
Lab Sample ID:	JC62881-1	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	1G144727.D	1	03/28/18 08:02	CP	03/27/18 18:10	OP10885	G1G4598
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	72%		13-153%
877-09-8	Tetrachloro-m-xylene	69%		13-153%
2051-24-3	Decachlorobiphenyl	71%		10-138%
2051-24-3	Decachlorobiphenyl	58%		10-138%

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-05		
Lab Sample ID:	JC62881-1	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	EF181245.D	1	03/29/18 05:04	HB	03/27/18 18:10	OP10884	GEF6203
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	70%		11-166%
877-09-8	Tetrachloro-m-xylene	68%		11-166%
2051-24-3	Decachlorobiphenyl	49%		10-150%
2051-24-3	Decachlorobiphenyl	52%		10-150%

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: PCMW-05
Lab Sample ID: JC62881-1
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/23/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Arsenic	3.4	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Barium	240	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Calcium	104000	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Copper	27.4	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Iron	3130	100	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Lead	112	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Magnesium	11300	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Manganese	157	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Mercury [a]	< 0.40	0.40	ug/l	1	03/26/18	03/26/18	MS	SW846 7470A [1]	SW846 7470A [3]
Nickel	450	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Sodium	< 10000	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Zinc	2680	20	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44075
(2) Instrument QC Batch: MA44114
(3) Prep QC Batch: MP6361
(4) Prep QC Batch: MP6399

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-05		
Lab Sample ID:	JC62881-1	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		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	03/30/18 11:58	TG	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	DUP-03232018		
Lab Sample ID:	JC62881-2	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	2B159330.D	1	03/30/18 12:07	SS	n/a	n/a	V2B7094
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 [a]	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-chloropropan [a]	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 [b]	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:	DUP-03232018		
Lab Sample ID:	JC62881-2	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	121%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

(a) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(b) 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

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Report of Analysis

Client Sample ID:	DUP-03232018		
Lab Sample ID:	JC62881-2	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	M144918.D	1	03/28/18 20:03	CC	03/28/18 06:30	OP10886	EM6152
Run #2							

	Initial Volume	Final Volume
Run #1	920 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	5.4	0.89	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.4	0.97	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.4	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.4	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.4	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.97	ug/l	
	3&4-Methylphenol	4.6	2.2	0.96	ug/l	
88-75-5	2-Nitrophenol	ND	5.4	1.0	ug/l	
100-02-7	4-Nitrophenol [a]	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	4.3	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.43	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.4	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.4	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.4	1.0	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.21	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.15	ug/l	
98-86-2	Acetophenone	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.49	ug/l	
100-52-7	Benzaldehyde	ND	5.4	0.31	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.37	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.44	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.50	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.23	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.26	ug/l	
106-47-8	4-Chloroaniline	ND	5.4	0.37	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	ug/l	

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-03232018		
Lab Sample ID:	JC62881-2	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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 [a]	ND	2.2	0.71	ug/l	
218-01-9	Chrysene	ND	1.1	0.19	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.2	0.30	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.27	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.2	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.2	0.40	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.60	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.52	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.55	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.36	ug/l	
132-64-9	Dibenzofuran	ND	5.4	0.24	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.54	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.35	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.0	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.42	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.36	ug/l	
78-59-1	Isophorone	ND	2.2	0.30	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	5.4	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	5.4	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	5.4	0.48	ug/l	
91-20-3	Naphthalene	ND	1.1	0.25	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.70	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.52	ug/l	
86-30-6	N-Nitrosodiphenylamine [b]	ND	5.4	0.24	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.24	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		10-110%
4165-62-2	Phenol-d5	24%		10-110%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-03232018		
Lab Sample ID:	JC62881-2	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	74%		36-151%
4165-60-0	Nitrobenzene-d5	75%		34-128%
321-60-8	2-Fluorobiphenyl	62%		38-119%
1718-51-0	Terphenyl-d14	35%		26-129%

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

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

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Report of Analysis

Client Sample ID:	DUP-03232018		
Lab Sample ID:	JC62881-2	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	1G144728.D	1	03/28/18 08:19	CP	03/27/18 18:10	OP10885	G1G4598
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	82%		13-153%
877-09-8	Tetrachloro-m-xylene	76%		13-153%
2051-24-3	Decachlorobiphenyl	78%		10-138%
2051-24-3	Decachlorobiphenyl	65%		10-138%

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	DUP-03232018		
Lab Sample ID:	JC62881-2	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	EF181246.D	1	03/29/18 05:29	HB	03/27/18 18:10	OP10884	GEF6203
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	70%		11-166%
2051-24-3	Decachlorobiphenyl	53%		10-150%
2051-24-3	Decachlorobiphenyl	59%		10-150%

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: DUP-03232018
Lab Sample ID: JC62881-2
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/23/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Arsenic	3.7	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Barium	238	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Calcium	104000	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Copper	28.6	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Iron	3090	100	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Lead	110	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Magnesium	11200	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Manganese	160	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/26/18	03/26/18	MS	SW846 7470A [1]	SW846 7470A [3]
Nickel	465	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Sodium	< 10000	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Zinc	2700	20	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44075
(2) Instrument QC Batch: MA44114
(3) Prep QC Batch: MP6361
(4) Prep QC Batch: MP6399

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUP-03232018		
Lab Sample ID:	JC62881-2	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		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	03/30/18 12:00	TG	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-06		
Lab Sample ID:	JC62881-3	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	2B159334.D	1	03/30/18 14:08	SS	n/a	n/a	V2B7094
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 [a]	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-chloropropan [a]	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 [b]	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:	PCMW-06		
Lab Sample ID:	JC62881-3	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	97%		80-120%
17060-07-0	1,2-Dichloroethane-D4	123%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	91%		80-120%

(a) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(b) 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

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Report of Analysis

Client Sample ID:	PCMW-06		
Lab Sample ID:	JC62881-3	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	M144919.D	1	03/28/18 20:32	CC	03/28/18 06:30	OP10886	EM6152
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	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 [a]	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	

ND = Not detected MDL = Method Detection Limit
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-06
Lab Sample ID: JC62881-3
Matrix: AQ - Ground Water
Method: SW846 8270D SW846 3510C
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/23/18
Date Received: 03/23/18
Percent Solids: n/a

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam [a]	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
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 [b]	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	32%		10-110%
4165-62-2	Phenol-d5	24%		10-110%

ND = Not detected MDL = Method Detection Limit
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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:	PCMW-06		
Lab Sample ID:	JC62881-3	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	78%		36-151%
4165-60-0	Nitrobenzene-d5	87%		34-128%
321-60-8	2-Fluorobiphenyl	75%		38-119%
1718-51-0	Terphenyl-d14	58%		26-129%

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

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

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Report of Analysis

Client Sample ID:	PCMW-06		
Lab Sample ID:	JC62881-3	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	1G144729.D	1	03/28/18 08:36	CP	03/27/18 18:10	OP10885	G1G4598
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	72%		13-153%
877-09-8	Tetrachloro-m-xylene	81%		13-153%
2051-24-3	Decachlorobiphenyl	98%		10-138%
2051-24-3	Decachlorobiphenyl	87%		10-138%

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-06		
Lab Sample ID:	JC62881-3	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	EF181251.D	1	03/29/18 07:34	HB	03/27/18 18:10	OP10884	GEF6203
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	75%		11-166%
877-09-8	Tetrachloro-m-xylene	73%		11-166%
2051-24-3	Decachlorobiphenyl	76%		10-150%
2051-24-3	Decachlorobiphenyl	78%		10-150%

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: PCMW-06
Lab Sample ID: JC62881-3
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/23/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Arsenic	3.2	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Calcium	72100	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Copper	16.9	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Iron	1030	100	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Lead	42.3	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Magnesium	8070	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Manganese	48.9	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/26/18	03/26/18	MS	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Sodium	< 10000	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Zinc	158	20	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44075
(2) Instrument QC Batch: MA44114
(3) Prep QC Batch: MP6361
(4) Prep QC Batch: MP6399

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-06		
Lab Sample ID:	JC62881-3	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		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	03/30/18 12:01	TG	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-11S		
Lab Sample ID:	JC62881-4	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	2B159327.D	1	03/30/18 10:37	SS	n/a	n/a	V2B7094
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	0.23	0.50	0.17	ug/l	J
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 [a]	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-chloropropan [a]	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 [b]	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:	PCMW-11S		
Lab Sample ID:	JC62881-4	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	121%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

(a) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(b) 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

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Report of Analysis

Client Sample ID:	PCMW-11S		
Lab Sample ID:	JC62881-4	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	M144920.D	1	03/28/18 21:01	CC	03/28/18 06:30	OP10886	EM6152
Run #2							

	Initial Volume	Final Volume
Run #1	900 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	5.6	0.91	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.6	0.99	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.6	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.6	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.6	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.99	ug/l	
	3&4-Methylphenol	ND	2.2	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.6	1.1	ug/l	
100-02-7	4-Nitrophenol [a]	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	4.4	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.44	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.6	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.6	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.6	1.0	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.21	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.15	ug/l	
98-86-2	Acetophenone	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.50	ug/l	
100-52-7	Benzaldehyde	ND	5.6	0.32	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.38	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.23	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.45	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.51	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.24	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.26	ug/l	
106-47-8	4-Chloroaniline	ND	5.6	0.38	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	ug/l	

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

Report of Analysis

Client Sample ID:	PCMW-11S		
Lab Sample ID:	JC62881-4	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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 [a]	ND	2.2	0.72	ug/l	
218-01-9	Chrysene	ND	1.1	0.20	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.2	0.31	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.28	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.2	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.2	0.41	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.61	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.53	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.6	0.24	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.26	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.19	ug/l	
86-73-7	Fluorene	ND	1.1	0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.36	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.1	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.37	ug/l	
78-59-1	Isophorone	ND	2.2	0.31	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	5.6	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	5.6	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	5.6	0.49	ug/l	
91-20-3	Naphthalene	ND	1.1	0.26	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.71	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.53	ug/l	
86-30-6	N-Nitrosodiphenylamine [b]	ND	5.6	0.25	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.24	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-110%
4165-62-2	Phenol-d5	27%		10-110%

ND = Not detected MDL = Method Detection Limit
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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:	PCMW-11S		
Lab Sample ID:	JC62881-4	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	76%		36-151%
4165-60-0	Nitrobenzene-d5	85%		34-128%
321-60-8	2-Fluorobiphenyl	70%		38-119%
1718-51-0	Terphenyl-d14	60%		26-129%

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

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Report of Analysis

Client Sample ID:	PCMW-11S		
Lab Sample ID:	JC62881-4	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	1G144730.D	1	03/28/18 08:53	CP	03/27/18 18:10	OP10885	G1G4598
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	76%		13-153%
877-09-8	Tetrachloro-m-xylene	76%		13-153%
2051-24-3	Decachlorobiphenyl	63%		10-138%
2051-24-3	Decachlorobiphenyl	47%		10-138%

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-11S		
Lab Sample ID:	JC62881-4	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	EF181252.D	1	03/29/18 07:59	HB	03/27/18 18:10	OP10884	GEF6203
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	77%		11-166%
877-09-8	Tetrachloro-m-xylene	67%		11-166%
2051-24-3	Decachlorobiphenyl	31%		10-150%
2051-24-3	Decachlorobiphenyl	36%		10-150%

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: PCMW-11S
Lab Sample ID: JC62881-4
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/23/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	226	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Arsenic	6.3	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Barium	< 200	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Calcium	203000	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Chromium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Cobalt	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Copper	23.4	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Iron	40500	100	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Lead	< 3.0	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Magnesium	96300	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Manganese	1300	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Mercury	< 0.20	0.20	ug/l	1	03/26/18	03/26/18	MS	SW846 7470A [1]	SW846 7470A [4]
Nickel	68.3	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Potassium	13800	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Selenium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Silver	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Sodium	19000	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Thallium [a]	< 4.0	4.0	ug/l	2	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Vanadium	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Zinc	233	20	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA44075
(2) Instrument QC Batch: MA44114
(3) Instrument QC Batch: MA44142
(4) Prep QC Batch: MP6361
(5) Prep QC Batch: MP6399

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-11S		
Lab Sample ID:	JC62881-4	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		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	03/30/18 12:02	TG	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-18S		
Lab Sample ID:	JC62881-5	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	2B159328.D	1	03/30/18 11:07	SS	n/a	n/a	V2B7094
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 [a]	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-chloropropan [a]	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	0.71	1.0	0.50	ug/l	J
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 [b]	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:	PCMW-18S		
Lab Sample ID:	JC62881-5	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	120%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	93%		80-120%

(a) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
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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@996135 15:38 10-Apr-2018

Report of Analysis

Client Sample ID:	PCMW-18S		
Lab Sample ID:	JC62881-5	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	M144921.D	1	03/28/18 21:31	CC	03/28/18 06:30	OP10886	EM6152
Run #2							

	Initial Volume	Final Volume
Run #1	900 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	5.6	0.91	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.6	0.99	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.6	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.6	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.6	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.99	ug/l	
	3&4-Methylphenol	ND	2.2	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.6	1.1	ug/l	
100-02-7	4-Nitrophenol [a]	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	4.4	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.44	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.6	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.6	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.6	1.0	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.21	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.15	ug/l	
98-86-2	Acetophenone	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.50	ug/l	
100-52-7	Benzaldehyde	ND	5.6	0.32	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.38	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.23	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.45	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.51	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.24	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.26	ug/l	
106-47-8	4-Chloroaniline	ND	5.6	0.38	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	ug/l	

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

Report of Analysis

Client Sample ID:	PCMW-18S		
Lab Sample ID:	JC62881-5	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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 [a]	ND	2.2	0.72	ug/l	
218-01-9	Chrysene	ND	1.1	0.20	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.2	0.31	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.28	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.2	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.2	0.41	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.61	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.53	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.6	0.24	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.26	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	3.7	2.2	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.19	ug/l	
86-73-7	Fluorene	ND	1.1	0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.36	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.1	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.37	ug/l	
78-59-1	Isophorone	ND	2.2	0.31	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	5.6	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	5.6	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	5.6	0.49	ug/l	
91-20-3	Naphthalene	ND	1.1	0.26	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.71	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.53	ug/l	
86-30-6	N-Nitrosodiphenylamine [b]	ND	5.6	0.25	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.24	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-110%
4165-62-2	Phenol-d5	26%		10-110%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-18S		
Lab Sample ID:	JC62881-5	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	77%		36-151%
4165-60-0	Nitrobenzene-d5	86%		34-128%
321-60-8	2-Fluorobiphenyl	72%		38-119%
1718-51-0	Terphenyl-d14	65%		26-129%

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

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

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Report of Analysis

Client Sample ID:	PCMW-18S		
Lab Sample ID:	JC62881-5	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	1G144731.D	1	03/28/18 09:11	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0069	0.0036	ug/l	
319-84-6	alpha-BHC	ND	0.0069	0.0036	ug/l	
319-85-7	beta-BHC	ND	0.0069	0.0055	ug/l	
319-86-8	delta-BHC	ND	0.0069	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0069	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0069	0.0034	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0069	0.0029	ug/l	
60-57-1	Dieldrin	ND	0.0069	0.0053	ug/l	
72-54-8	4,4'-DDD	ND	0.0069	0.0040	ug/l	
72-55-9	4,4'-DDE	ND	0.0069	0.0035	ug/l	
50-29-3	4,4'-DDT	ND	0.0069	0.0047	ug/l	
72-20-8	Endrin	ND	0.0069	0.0042	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0069	0.0038	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0069	0.0046	ug/l	
53494-70-5	Endrin ketone	ND	0.0069	0.0043	ug/l	
959-98-8	Endosulfan-I	ND	0.0069	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0069	0.0034	ug/l	
76-44-8	Heptachlor	ND	0.0069	0.0031	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0069	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0046	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	80%		13-153%
877-09-8	Tetrachloro-m-xylene	67%		13-153%
2051-24-3	Decachlorobiphenyl	80%		10-138%
2051-24-3	Decachlorobiphenyl	55%		10-138%

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

SGS LabLink@996135 15:38 10-Apr-2018

Report of Analysis

Client Sample ID:	PCMW-18S		
Lab Sample ID:	JC62881-5	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	EF181253.D	1	03/29/18 08:24	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.34	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.34	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.34	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.34	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.34	0.087	ug/l	
11097-69-1	Aroclor 1254	ND	0.34	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.34	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.34	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.34	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	61%		11-166%
877-09-8	Tetrachloro-m-xylene	72%		11-166%
2051-24-3	Decachlorobiphenyl	52%		10-150%
2051-24-3	Decachlorobiphenyl	55%		10-150%

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-18S
Lab Sample ID: JC62881-5
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/23/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Arsenic	4.9	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Barium	< 200	200	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Calcium	217000	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Chromium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Cobalt	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Copper	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Iron	2960	100	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Lead	< 3.0	3.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Magnesium	77600	5000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Manganese	4430	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Mercury	< 0.20	0.20	ug/l	1	03/26/18	03/26/18	MS	SW846 7470A [1]	SW846 7470A [4]
Nickel	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Potassium	95000	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Selenium	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Silver	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Sodium	49100	10000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Thallium [a]	< 4.0	4.0	ug/l	2	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Vanadium	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]
Zinc	< 20	20	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA44075
(2) Instrument QC Batch: MA44114
(3) Instrument QC Batch: MA44142
(4) Prep QC Batch: MP6361
(5) Prep QC Batch: MP6399

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-18S		
Lab Sample ID:	JC62881-5	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		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	03/30/18 12:04	TG	EPA 335.4/LACHAT

RL = Reporting Limit

SGS LabLink@996135 15:38 10-Apr-2018

Report of Analysis

Client Sample ID:	PCMW-18D		
Lab Sample ID:	JC62881-6	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	2B159336.D	1	03/30/18 15:08	SS	n/a	n/a	V2B7094
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 [a]	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	12.3	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-chloropropan [a]	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 [b]	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:	PCMW-18D		
Lab Sample ID:	JC62881-6	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	1.5	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	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	123%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	92%		80-120%

(a) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(b) 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

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Report of Analysis

Client Sample ID:	PCMW-18D		
Lab Sample ID:	JC62881-6	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	M144922.D	1	03/28/18 22:00	CC	03/28/18 06:30	OP10886	EM6152
Run #2							

	Initial Volume	Final Volume
Run #1	900 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	5.6	0.91	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.6	0.99	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.6	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.6	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.6	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.99	ug/l	
	3&4-Methylphenol	ND	2.2	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.6	1.1	ug/l	
100-02-7	4-Nitrophenol [a]	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	4.4	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.44	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.6	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.6	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.6	1.0	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.21	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.15	ug/l	
98-86-2	Acetophenone	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.50	ug/l	
100-52-7	Benzaldehyde	ND	5.6	0.32	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.38	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.23	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.45	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.51	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.24	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.26	ug/l	
106-47-8	4-Chloroaniline	ND	5.6	0.38	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	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: PCMW-18D
Lab Sample ID: JC62881-6
Matrix: AQ - Ground Water
Method: SW846 8270D SW846 3510C
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/23/18
Date Received: 03/23/18
Percent Solids: n/a

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam [a]	ND	2.2	0.72	ug/l	
218-01-9	Chrysene	ND	1.1	0.20	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.2	0.31	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.28	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.2	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.2	0.41	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.61	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.53	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.6	0.24	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.26	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.19	ug/l	
86-73-7	Fluorene	ND	1.1	0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.36	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.1	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.37	ug/l	
78-59-1	Isophorone	ND	2.2	0.31	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	5.6	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	5.6	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	5.6	0.49	ug/l	
91-20-3	Naphthalene	ND	1.1	0.26	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.71	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.53	ug/l	
86-30-6	N-Nitrosodiphenylamine [b]	ND	5.6	0.25	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.24	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		10-110%
4165-62-2	Phenol-d5	21%		10-110%

ND = Not detected MDL = Method Detection Limit
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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:	PCMW-18D		
Lab Sample ID:	JC62881-6	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	64%		36-151%
4165-60-0	Nitrobenzene-d5	70%		34-128%
321-60-8	2-Fluorobiphenyl	54%		38-119%
1718-51-0	Terphenyl-d14	52%		26-129%

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

ND = Not detected MDL = Method Detection Limit
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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

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Report of Analysis

Client Sample ID:	PCMW-18D		
Lab Sample ID:	JC62881-6	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	1G144732.D	1	03/28/18 09:28	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	295 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0068	0.0035	ug/l	
319-84-6	alpha-BHC	ND	0.0068	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0068	0.0054	ug/l	
319-86-8	delta-BHC	ND	0.0068	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0068	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0068	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0068	0.0029	ug/l	
60-57-1	Dieldrin	ND	0.0068	0.0052	ug/l	
72-54-8	4,4'-DDD	ND	0.0068	0.0039	ug/l	
72-55-9	4,4'-DDE	ND	0.0068	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0068	0.0046	ug/l	
72-20-8	Endrin	ND	0.0068	0.0041	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0068	0.0037	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0068	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0068	0.0042	ug/l	
959-98-8	Endosulfan-I	ND	0.0068	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0068	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0068	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0068	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	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	69%		13-153%
877-09-8	Tetrachloro-m-xylene	77%		13-153%
2051-24-3	Decachlorobiphenyl	58%		10-138%
2051-24-3	Decachlorobiphenyl	43%		10-138%

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

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Report of Analysis

Client Sample ID:	PCMW-18D		
Lab Sample ID:	JC62881-6	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
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	EF181254.D	1	03/29/18 08:49	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	295 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.34	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.34	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.34	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.34	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.34	0.085	ug/l	
11097-69-1	Aroclor 1254	ND	0.34	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.34	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.34	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.34	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	86%		11-166%
2051-24-3	Decachlorobiphenyl	47%		10-150%
2051-24-3	Decachlorobiphenyl	47%		10-150%

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:	PCMW-18D		
Lab Sample ID:	JC62881-6	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		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 [a]	9320	1000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Antimony [a]	< 30	30	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Arsenic [a]	< 15	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Barium [a]	< 1000	1000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Beryllium [a]	< 5.0	5.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cadmium [a]	< 15	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Calcium [a]	48300	25000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Chromium [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cobalt [a]	< 250	250	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Copper [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Iron [a]	245000	500	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Lead [a]	< 15	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Magnesium [a]	< 25000	25000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Manganese [a]	611	75	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Mercury [a]	< 0.60	0.60	ug/l	1	03/26/18	03/26/18	MS	SW846 7470A [1]	SW846 7470A [3]
Nickel [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Potassium [a]	< 50000	50000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Selenium [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Silver [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Sodium [a]	58500	50000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Thallium [a]	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Vanadium [a]	< 250	250	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Zinc [a]	< 100	100	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44075
(2) Instrument QC Batch: MA44114
(3) Prep QC Batch: MP6361
(4) Prep QC Batch: MP6399

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-18D		
Lab Sample ID:	JC62881-6	**Date Sampled:**	03/23/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.012	0.010	mg/l	1	03/30/18 12:05	TG	EPA 335.4/LACHAT

RL = Reporting Limit

SGS LabLink@996135 15:38 10-Apr-2018

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JC62881-7	**Date Sampled:**	03/23/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/23/18
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	2B159335.D	1	03/30/18 14:38	SS	n/a	n/a	V2B7094
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 [a]	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-chloropropan [a]	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 [b]	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:	JC62881-7	**Date Sampled:**	03/23/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/23/18
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	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	123%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	92%		80-120%

(a) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(b) 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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

SGS ACCUTEST

GW WTB

CHAIN OF CUSTODY

Quick

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE ___ OF ___

FED-EX Tracking #: 2
Bottle Order Control #: DK-031218-61
SGS Accutest Quote #:
SGS Accutest Job #: JC62881

Company Name: ARCADIS	Project Name: NATIONAL GRID / PHILLY COKE
Street Address: 824 N. MARKET St Ste 820	Street: RICHMOND & LEFEVRE
City / State / Zip: WILMINGTON DE 19801	City / State: PHILA PA
Project Contact: CAREY HEALY / E-mail:	Project #:
Phone #: 315-335-9493 / Fax #:	Client Purchase Order #:
Sampler(s) Name(s): CHRIS ORTOLANO / Phone #:	Project Manager: DAN SHEEHAN

Billing Information (If different from Report to)
Company Name: SAME
Street Address:
City / State / Zip:
Attention:

Matrix Cod: DW - Drinking W; GW - Ground W; WW - Wate; SW - Surface W; SO - Soil; SL- Sludge; SED-Sedime; OI - Oil; LIQ - Other Liq; AIR - Air; SOL - Other S; WP - Wipe; FB-Field Blan; EB-Equipment B; RB- Rinse Bla; TB-Trip Blan

SGS Accutest 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	8260 VOC	8270 SVOC	335.4 CN	METALS	8081 PESTICIDE	8082 PCB	LAB USE ON
-1	PCMW-05		3/23/18	0805	CO	GW	11	3	1	1		6				X	X	X	X	X	X	A36
-2	DUP-03232018			—												X	X	X	X	X	X	E8
-3	PCMW-06			0920												X	X	X	X	X	X	G7I2
-4	PCMW-11S			1025												X	X	X	X	X	X	V1212
-5	PCMW-18S			1030	IC											X	X	X	X	X	X	
-6	PCMW-18D			1115	IC											X	X	X	X	X	X	
-7	TRIP BLANK		—	—	-	H2O	2	2								X						

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 Accutest PM): / Date:

INITIAL ASESSMENT 3B/MH

LABEL VERIFICATION

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information
- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [x] 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

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 [signature]	3/23/18 BVD	1 [signature]	2 [signature]		2 [signature]
3 [signature]	3/23/18 16:30	3 [signature]	4		4
5 Relinquished by:	Date Time:	5 Received By:	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☑ On Ice ☐ Cooler Temp. 8 Coolers

2.8°, 3.1°, 3.1°, 2.9°, 4.1°, 4.2°, 7.9°, 7.1°

JC62881: Chain of Custody
Page 1 of 4

SGS Sample Receipt Summary

Job Number: JC62881 **Client:** ARCADIS U.S. **Project:** NATIONAL GRID, PHILLY COKE, PHILADELPHI

Date / Time Received: 3/23/2018 4:30:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8); Cooler 2: (3.1); Cooler 3: (3.1); Cooler 4: (2.9); Cooler 5: (4.1); Cooler 6: (4.2); Cooler 7: (3.8); Cooler 8: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (4.3); Cooler 2: (4.6); Cooler 3: (4.6); Cooler 4: (4.4); Cooler 5: (5.6); Cooler 6: (5.7); Cooler 7: (5.3); Cooler 8: (5.1);

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:	8		

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

SM089-03
Rev. Date 12/7/17

JC62881: Chain of Custody
Page 3 of 4

Job Change Order: JC62881

Requested Date: 4/6/2018 **Received Date:** 3/23/2018

Account Name: Arcadis **Due Date:** 4/6/2018

Project Description: National Grid, Philly Coke, Philadelphia PA **Deliverable:** FULT1

C/O Initiated By: dianek **PM:** DK **TAT (Days):** 1

==========

Sample #: JC62881-4 **Change:**

Dept: Please revise sample ID to: PCMW-11S

TAT: 1

PCMW-11S

==========

Above Changes Per: Lawrence Healy **Date/Time:** 4/6/2018 11:39:31 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62881

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

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62881-1 PCMW-05	Collected: 23-MAR-18 08:05 By: CO			Received: 23-MAR-18 By: MH		
JC62881-1	SW846 7470A	26-MAR-18 15:50	MS	26-MAR-18	MS	HG
JC62881-1	SW846 8081B	28-MAR-18 08:02	CP	27-MAR-18	LL	P8081PESTTCL
JC62881-1	SW846 8082A	29-MAR-18 05:04	HB	27-MAR-18	LL	P8082PCB11
JC62881-1	SW846 8260C	30-MAR-18 11:37	SS			V8260TCL20
JC62881-1	EPA 335.4/LACHAT	30-MAR-18 11:58	TG	29-MAR-18	FO	CN
JC62881-1	SW846 6010C	31-MAR-18 17:46		29-MAR-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62881-1	SW846 8270D	02-APR-18 17:56	CC	30-MAR-18	AF	AB8270TCL20-14DX
JC62881-2 DUP-03232018	Collected: 23-MAR-18 00:00 By: CO			Received: 23-MAR-18 By: MH		
JC62881-2	SW846 7470A	26-MAR-18 15:52	MS	26-MAR-18	MS	HG
JC62881-2	SW846 8081B	28-MAR-18 08:19	CP	27-MAR-18	LL	P8081PESTTCL
JC62881-2	SW846 8270D	28-MAR-18 20:03	CC	28-MAR-18	JS	AB8270TCL20-14DX
JC62881-2	SW846 8082A	29-MAR-18 05:29	HB	27-MAR-18	LL	P8082PCB11
JC62881-2	EPA 335.4/LACHAT	30-MAR-18 12:00	TG	29-MAR-18	FO	CN
JC62881-2	SW846 8260C	30-MAR-18 12:07	SS			V8260TCL20
JC62881-2	SW846 6010C	31-MAR-18 17:55		29-MAR-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62881-3 PCMW-06	Collected: 23-MAR-18 09:20 By: CO			Received: 23-MAR-18 By: MH		
JC62881-3	SW846 7470A	26-MAR-18 15:53	MS	26-MAR-18	MS	HG
JC62881-3	SW846 8081B	28-MAR-18 08:36	CP	27-MAR-18	LL	P8081PESTTCL
JC62881-3	SW846 8270D	28-MAR-18 20:32	CC	28-MAR-18	JS	AB8270TCL20-14DX
JC62881-3	SW846 8082A	29-MAR-18 07:34	HB	27-MAR-18	LL	P8082PCB11
JC62881-3	EPA 335.4/LACHAT	30-MAR-18 12:01	TG	29-MAR-18	FO	CN
JC62881-3	SW846 8260C	30-MAR-18 14:08	SS			V8260TCL20
JC62881-3	SW846 6010C	31-MAR-18 17:58		29-MAR-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62881

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

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62881-4	Collected: 23-MAR-18 10:25 By: CO			Received: 23-MAR-18 By: MH		
PCMW-11S						
JC62881-4	SW846 7470A	26-MAR-18 15:55	MS	26-MAR-18	MS	HG
JC62881-4	SW846 8081B	28-MAR-18 08:53	CP	27-MAR-18	LL	P8081PESTTCL
JC62881-4	SW846 8270D	28-MAR-18 21:01	CC	28-MAR-18	JS	AB8270TCL20-14DX
JC62881-4	SW846 8082A	29-MAR-18 07:59	HB	27-MAR-18	LL	P8082PCB11
JC62881-4	SW846 8260C	30-MAR-18 10:37	SS			V8260TCL20
JC62881-4	EPA 335.4/LACHAT	30-MAR-18 12:02	TG	29-MAR-18	FO	CN
JC62881-4	SW846 6010C	31-MAR-18 18:01		29-MAR-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,V,ZN
JC62881-4	SW846 6010C	04-APR-18 12:19		29-MAR-18	CH	TL
JC62881-5	Collected: 23-MAR-18 10:30 By: CO			Received: 23-MAR-18 By: MH		
PCMW-18S						
JC62881-5	SW846 7470A	26-MAR-18 15:59	MS	26-MAR-18	MS	HG
JC62881-5	SW846 8081B	28-MAR-18 09:11	CP	27-MAR-18	LL	P8081PESTTCL
JC62881-5	SW846 8270D	28-MAR-18 21:31	CC	28-MAR-18	JS	AB8270TCL20-14DX
JC62881-5	SW846 8082A	29-MAR-18 08:24	HB	27-MAR-18	LL	P8082PCB11
JC62881-5	SW846 8260C	30-MAR-18 11:07	SS			V8260TCL20
JC62881-5	EPA 335.4/LACHAT	30-MAR-18 12:04	TG	29-MAR-18	FO	CN
JC62881-5	SW846 6010C	31-MAR-18 18:04		29-MAR-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,V,ZN
JC62881-5	SW846 6010C	04-APR-18 12:24		29-MAR-18	CH	TL
JC62881-6	Collected: 23-MAR-18 11:15 By: CO			Received: 23-MAR-18 By: MH		
PCMW-18D						
JC62881-6	SW846 7470A	26-MAR-18 16:01	MS	26-MAR-18	MS	HG
JC62881-6	SW846 8081B	28-MAR-18 09:28	CP	27-MAR-18	LL	P8081PESTTCL
JC62881-6	SW846 8270D	28-MAR-18 22:00	CC	28-MAR-18	JS	AB8270TCL20-14DX
JC62881-6	SW846 8082A	29-MAR-18 08:49	HB	27-MAR-18	LL	P8082PCB11
JC62881-6	EPA 335.4/LACHAT	30-MAR-18 12:05	TG	29-MAR-18	FO	CN
JC62881-6	SW846 8260C	30-MAR-18 15:08	SS			V8260TCL20

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62881

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

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62881-6	SW846 6010C	31-MAR-18 18:07		29-MAR-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62881-7	Collected: 23-MAR-18 11:15 By: CO			Received: 23-MAR-18 By: MH		
TRIP BLANK						
JC62881-7	SW846 8260C	30-MAR-18 14:38	SS			V8260TCL20

SGS Internal Chain of Custody

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62881-1.1	Secured Storage	Martin Serwatka	03/26/18 11:50	Retrieve from Storage
JC62881-1.1	Martin Serwatka	Secured Storage	03/26/18 13:03	Return to Storage
JC62881-1.1	Secured Storage	Todd Shoemaker	03/29/18 15:02	Retrieve from Storage
JC62881-1.1	Todd Shoemaker	Secured Staging Area	03/29/18 15:02	Return to Storage
JC62881-1.1	Secured Staging Area	Colleen Hill	03/29/18 17:31	Retrieve from Storage
JC62881-1.1	Colleen Hill	Secured Storage	03/29/18 17:47	Return to Storage
JC62881-1.1.1	Colleen Hill	Metals Digestion	03/29/18 17:46	Digestate from JC62881-1.1
JC62881-1.1.1	Metals Digestion	Colleen Hill	03/29/18 17:46	Digestate from JC62881-1.1
JC62881-1.1.1	Colleen Hill	Metals Digestate Storage	03/29/18 17:46	Return to Storage
JC62881-1.2	Secured Storage	Todd Shoemaker	03/30/18 13:50	Retrieve from Storage
JC62881-1.2	Todd Shoemaker	Secured Staging Area	03/30/18 13:50	Return to Storage
JC62881-1.2	Secured Staging Area	Autumn Yun	03/30/18 15:48	Retrieve from Storage
JC62881-1.2	Autumn Yun		03/30/18 15:56	Depleted
JC62881-1.2.1	Autumn Yun	Organics Prep	03/30/18 15:54	Extract from JC62881-1.2
JC62881-1.2.1	Organics Prep	Amanda Furka	03/30/18 23:01	Extract from JC62881-1.2
JC62881-1.2.1	Amanda Furka	Extract Storage	03/30/18 23:01	Return to Storage
JC62881-1.2.1	Extract Storage	Christine Change	04/02/18 14:01	Retrieve from Storage
JC62881-1.2.1	Christine Change	GCMS2M	04/02/18 14:01	Load on Instrument
JC62881-1.2.1	GCMS2M	John Boudreau	04/03/18 16:24	Unload from Instrument
JC62881-1.2.1	John Boudreau	Extract Storage	04/03/18 16:24	Return to Storage
JC62881-1.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62881-1.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62881-1.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62881-1.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62881-1.3.1	Arielle Cocozza	Organics Prep	03/28/18 00:29	Extract from JC62881-1.3
JC62881-1.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:03	Extract from JC62881-1.3
JC62881-1.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:03	Return to Storage
JC62881-1.3.1	Extract Storage	Christine Change	03/28/18 14:54	Retrieve from Storage
JC62881-1.3.1	Christine Change	GCMSM	03/28/18 14:54	Load on Instrument
JC62881-1.3.1	GCMSM	Christine Change	03/29/18 11:19	Unload from Instrument
JC62881-1.3.1	Christine Change	Extract Storage	03/29/18 11:19	Return to Storage
JC62881-1.5	Secured Storage	Amanda Furka	03/27/18 15:57	Retrieve from Storage
JC62881-1.5	Amanda Furka		03/28/18 00:00	Depleted
JC62881-1.5.1	Amanda Furka	Organics Prep	03/27/18 15:57	Extract from JC62881-1.5
JC62881-1.5.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62881-1.5
JC62881-1.5.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62881-1.5.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62881-1.5.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62881-1.5.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62881-1.5
JC62881-1.5.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62881-1.5
JC62881-1.5.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62881-1.5.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62881-1.5.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62881-1.8	Secured Storage	Luis Villanueva	03/28/18 20:20	Retrieve from Storage
JC62881-1.8	Luis Villanueva	Secured Staging Area	03/28/18 20:20	Return to Storage
JC62881-1.8	Secured Staging Area	Faraja Ombwayo	03/29/18 08:06	Retrieve from Storage
JC62881-1.8	Faraja Ombwayo	Secured Storage	03/29/18 15:49	Return to Storage
JC62881-1.10	Secured Storage	Sydney Scelfo	03/30/18 07:06	Retrieve from Storage
JC62881-1.10	Sydney Scelfo	VOA Prep Storage	03/30/18 07:06	Return to Storage
JC62881-1.10	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage
JC62881-1.10	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-1.10	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-1.10	Hueanh Tran	Secured Storage	04/10/18 14:17	Return to Storage
JC62881-2.1	Secured Storage	Martin Serwatka	03/26/18 11:50	Retrieve from Storage
JC62881-2.1	Martin Serwatka	Secured Storage	03/26/18 13:03	Return to Storage
JC62881-2.1	Secured Storage	Todd Shoemaker	03/29/18 15:02	Retrieve from Storage
JC62881-2.1	Todd Shoemaker	Secured Staging Area	03/29/18 15:02	Return to Storage
JC62881-2.1	Secured Staging Area	Colleen Hill	03/29/18 17:31	Retrieve from Storage
JC62881-2.1	Colleen Hill	Secured Storage	03/29/18 17:47	Return to Storage
JC62881-2.1.1	Colleen Hill	Metals Digestion	03/29/18 17:46	Digestate from JC62881-2.1
JC62881-2.1.1	Metals Digestion	Colleen Hill	03/29/18 17:46	Digestate from JC62881-2.1
JC62881-2.1.1	Colleen Hill	Metals Digestate Storage	03/29/18 17:46	Return to Storage
JC62881-2.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62881-2.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62881-2.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62881-2.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62881-2.3.1	Arielle Cocozza	Organics Prep	03/28/18 00:29	Extract from JC62881-2.3
JC62881-2.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:03	Extract from JC62881-2.3
JC62881-2.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:03	Return to Storage
JC62881-2.3.1	Extract Storage	Christine Change	03/28/18 14:54	Retrieve from Storage
JC62881-2.3.1	Christine Change	GCMSM	03/28/18 14:54	Load on Instrument
JC62881-2.3.1	GCMSM	Christine Change	03/29/18 11:19	Unload from Instrument
JC62881-2.3.1	Christine Change	Extract Storage	03/29/18 11:19	Return to Storage

SGS Internal Chain of Custody

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Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62881-2.7	Secured Storage	Amanda Furka	03/27/18 15:57	Retrieve from Storage
JC62881-2.7	Amanda Furka		03/28/18 00:00	Depleted
JC62881-2.7.1	Amanda Furka	Organics Prep	03/27/18 15:57	Extract from JC62881-2.7
JC62881-2.7.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62881-2.7
JC62881-2.7.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62881-2.7.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62881-2.7.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62881-2.7.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62881-2.7
JC62881-2.7.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62881-2.7
JC62881-2.7.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62881-2.7.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62881-2.7.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62881-2.8	Secured Storage	Luis Villanueva	03/28/18 20:20	Retrieve from Storage
JC62881-2.8	Luis Villanueva	Secured Staging Area	03/28/18 20:20	Return to Storage
JC62881-2.8	Secured Staging Area	Faraja Ombwayo	03/29/18 08:06	Retrieve from Storage
JC62881-2.8	Faraja Ombwayo	Secured Storage	03/29/18 15:49	Return to Storage
JC62881-2.9	Secured Storage	Sydney Scelfo	03/30/18 07:06	Retrieve from Storage
JC62881-2.9	Sydney Scelfo	VOA Prep Storage	03/30/18 07:06	Return to Storage
JC62881-2.9	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage
JC62881-2.9	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-2.9	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-2.9	Hueanh Tran	Secured Storage	04/10/18 14:17	Return to Storage
JC62881-3.1	Secured Storage	Martin Serwatka	03/26/18 11:50	Retrieve from Storage
JC62881-3.1	Martin Serwatka	Secured Storage	03/26/18 13:03	Return to Storage
JC62881-3.1	Secured Storage	Todd Shoemaker	03/29/18 15:02	Retrieve from Storage
JC62881-3.1	Todd Shoemaker	Secured Staging Area	03/29/18 15:02	Return to Storage
JC62881-3.1	Secured Staging Area	Colleen Hill	03/29/18 17:31	Retrieve from Storage
JC62881-3.1	Colleen Hill	Secured Storage	03/29/18 17:47	Return to Storage
JC62881-3.1.1	Colleen Hill	Metals Digestion	03/29/18 17:46	Digestate from JC62881-3.1
JC62881-3.1.1	Metals Digestion	Colleen Hill	03/29/18 17:46	Digestate from JC62881-3.1
JC62881-3.1.1	Colleen Hill	Metals Digestate Storage	03/29/18 17:46	Return to Storage
JC62881-3.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62881-3.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62881-3.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62881-3.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62881-3.3.1	Arielle Cocozza	Organics Prep	03/28/18 00:29	Extract from JC62881-3.3

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Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62881-3.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:03	Extract from JC62881-3.3
JC62881-3.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:03	Return to Storage
JC62881-3.3.1	Extract Storage	Christine Change	03/28/18 14:54	Retrieve from Storage
JC62881-3.3.1	Christine Change	GCMSM	03/28/18 14:54	Load on Instrument
JC62881-3.3.1	GCMSM	Christine Change	03/29/18 11:19	Unload from Instrument
JC62881-3.3.1	Christine Change	Extract Storage	03/29/18 11:19	Return to Storage
JC62881-3.4	Secured Storage	Amanda Furka	03/27/18 15:57	Retrieve from Storage
JC62881-3.4	Amanda Furka		03/28/18 00:00	Depleted
JC62881-3.4.1	Amanda Furka	Organics Prep	03/27/18 15:57	Extract from JC62881-3.4
JC62881-3.4.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62881-3.4
JC62881-3.4.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62881-3.4.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62881-3.4.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62881-3.4.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62881-3.4
JC62881-3.4.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62881-3.4
JC62881-3.4.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62881-3.4.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62881-3.4.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62881-3.8	Secured Storage	Luis Villanueva	03/28/18 20:20	Retrieve from Storage
JC62881-3.8	Luis Villanueva	Secured Staging Area	03/28/18 20:20	Return to Storage
JC62881-3.8	Secured Staging Area	Faraja Ombwayo	03/29/18 08:06	Retrieve from Storage
JC62881-3.8	Faraja Ombwayo	Secured Storage	03/29/18 15:49	Return to Storage
JC62881-3.9	Secured Storage	Sydney Scelfo	03/30/18 07:06	Retrieve from Storage
JC62881-3.9	Sydney Scelfo	VOA Prep Storage	03/30/18 07:06	Return to Storage
JC62881-3.9	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage
JC62881-3.9	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-3.9	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-3.9	Hueanh Tran	Secured Storage	04/10/18 14:17	Return to Storage
JC62881-4.1	Secured Storage	Martin Serwatka	03/26/18 11:50	Retrieve from Storage
JC62881-4.1	Martin Serwatka	Secured Storage	03/26/18 13:03	Return to Storage
JC62881-4.1	Secured Storage	Todd Shoemaker	03/29/18 15:02	Retrieve from Storage
JC62881-4.1	Todd Shoemaker	Secured Staging Area	03/29/18 15:02	Return to Storage
JC62881-4.1	Secured Staging Area	Colleen Hill	03/29/18 17:31	Retrieve from Storage
JC62881-4.1	Colleen Hill	Secured Storage	03/29/18 17:47	Return to Storage
JC62881-4.1.1	Colleen Hill	Metals Digestion	03/29/18 17:46	Digestate from JC62881-4.1
JC62881-4.1.1	Metals Digestion	Colleen Hill	03/29/18 17:46	Digestate from JC62881-4.1
JC62881-4.1.1	Colleen Hill	Metals Digestate Storage	03/29/18 17:46	Return to Storage

SGS Internal Chain of Custody

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62881-4.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62881-4.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62881-4.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62881-4.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62881-4.3.1	Arielle Cocozza	Organics Prep	03/28/18 00:29	Extract from JC62881-4.3
JC62881-4.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:03	Extract from JC62881-4.3
JC62881-4.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:03	Return to Storage
JC62881-4.3.1	Extract Storage	Christine Change	03/28/18 14:54	Retrieve from Storage
JC62881-4.3.1	Christine Change	GCMSM	03/28/18 14:54	Load on Instrument
JC62881-4.3.1	GCMSM	Christine Change	03/29/18 11:19	Unload from Instrument
JC62881-4.3.1	Christine Change	Extract Storage	03/29/18 11:19	Return to Storage
JC62881-4.6	Secured Storage	Amanda Furka	03/27/18 15:57	Retrieve from Storage
JC62881-4.6	Amanda Furka		03/28/18 00:00	Depleted
JC62881-4.6.1	Amanda Furka	Organics Prep	03/27/18 15:57	Extract from JC62881-4.6
JC62881-4.6.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62881-4.6
JC62881-4.6.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62881-4.6.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62881-4.6.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62881-4.6.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62881-4.6
JC62881-4.6.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62881-4.6
JC62881-4.6.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62881-4.6.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62881-4.6.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62881-4.8	Secured Storage	Luis Villanueva	03/28/18 20:20	Retrieve from Storage
JC62881-4.8	Luis Villanueva	Secured Staging Area	03/28/18 20:20	Return to Storage
JC62881-4.8	Secured Staging Area	Faraja Ombwayo	03/29/18 08:06	Retrieve from Storage
JC62881-4.8	Faraja Ombwayo	Secured Storage	03/29/18 15:49	Return to Storage
JC62881-4.9	Secured Storage	Sydney Scelfo	03/30/18 07:06	Retrieve from Storage
JC62881-4.9	Sydney Scelfo	VOA Prep Storage	03/30/18 07:06	Return to Storage
JC62881-4.9	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage
JC62881-4.9	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-4.9	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-4.9	Hueanh Tran	Secured Storage	04/10/18 14:17	Return to Storage
JC62881-4.10	Secured Storage	Sydney Scelfo	03/30/18 07:06	Retrieve from Storage
JC62881-4.10	Sydney Scelfo	VOA Prep Storage	03/30/18 07:06	Return to Storage
JC62881-4.10	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62881-4.10	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-4.10	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-4.10	Hueanh Tran	Secured Storage	04/10/18 14:17	Return to Storage
JC62881-5.1	Secured Storage	Martin Serwatka	03/26/18 11:50	Retrieve from Storage
JC62881-5.1	Martin Serwatka	Secured Storage	03/26/18 13:03	Return to Storage
JC62881-5.1	Secured Storage	Todd Shoemaker	03/29/18 15:02	Retrieve from Storage
JC62881-5.1	Todd Shoemaker	Secured Staging Area	03/29/18 15:02	Return to Storage
JC62881-5.1	Secured Staging Area	Colleen Hill	03/29/18 17:31	Retrieve from Storage
JC62881-5.1	Colleen Hill	Secured Storage	03/29/18 17:47	Return to Storage
JC62881-5.1.1	Colleen Hill	Metals Digestion	03/29/18 17:46	Digestate from JC62881-5.1
JC62881-5.1.1	Metals Digestion	Colleen Hill	03/29/18 17:46	Digestate from JC62881-5.1
JC62881-5.1.1	Colleen Hill	Metals Digestate Storage	03/29/18 17:46	Return to Storage
JC62881-5.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62881-5.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62881-5.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62881-5.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62881-5.3.1	Arielle Cocozza	Organics Prep	03/28/18 00:29	Extract from JC62881-5.3
JC62881-5.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:03	Extract from JC62881-5.3
JC62881-5.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:03	Return to Storage
JC62881-5.3.1	Extract Storage	Christine Change	03/28/18 14:54	Retrieve from Storage
JC62881-5.3.1	Christine Change	GCMSM	03/28/18 14:54	Load on Instrument
JC62881-5.3.1	GCMSM	Christine Change	03/29/18 11:19	Unload from Instrument
JC62881-5.3.1	Christine Change	Extract Storage	03/29/18 11:19	Return to Storage
JC62881-5.7	Secured Storage	Amanda Furka	03/27/18 15:57	Retrieve from Storage
JC62881-5.7	Amanda Furka		03/28/18 00:00	Depleted
JC62881-5.7.1	Amanda Furka	Organics Prep	03/27/18 15:57	Extract from JC62881-5.7
JC62881-5.7.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62881-5.7
JC62881-5.7.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62881-5.7.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62881-5.7.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62881-5.7.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62881-5.7
JC62881-5.7.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62881-5.7
JC62881-5.7.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62881-5.7.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62881-5.7.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62881-5.8	Secured Storage	Luis Villanueva	03/28/18 20:20	Retrieve from Storage

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Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62881-5.8	Luis Villanueva	Secured Staging Area	03/28/18 20:20	Return to Storage
JC62881-5.8	Secured Staging Area	Faraja Ombwayo	03/29/18 08:06	Retrieve from Storage
JC62881-5.8	Faraja Ombwayo	Secured Storage	03/29/18 15:49	Return to Storage
JC62881-5.9	Secured Storage	Sydney Scelfo	03/30/18 08:38	Retrieve from Storage
JC62881-5.9	Sydney Scelfo	VOA Prep Storage	03/30/18 08:38	Return to Storage
JC62881-5.9	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage
JC62881-5.9	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-5.9	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-5.9	Hueanh Tran	Secured Storage	04/10/18 14:17	Return to Storage
JC62881-5.10	Secured Storage	Sydney Scelfo	03/30/18 07:06	Retrieve from Storage
JC62881-5.10	Sydney Scelfo	VOA Prep Storage	03/30/18 07:06	Return to Storage
JC62881-5.10	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage
JC62881-5.10	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-5.10	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-5.10	Hueanh Tran	Secured Storage	04/10/18 14:17	Return to Storage
JC62881-6.1	Secured Storage	Martin Serwatka	03/26/18 11:50	Retrieve from Storage
JC62881-6.1	Martin Serwatka	Secured Storage	03/26/18 13:03	Return to Storage
JC62881-6.1	Secured Storage	Todd Shoemaker	03/29/18 15:02	Retrieve from Storage
JC62881-6.1	Todd Shoemaker	Secured Staging Area	03/29/18 15:02	Return to Storage
JC62881-6.1	Secured Staging Area	Colleen Hill	03/29/18 17:31	Retrieve from Storage
JC62881-6.1	Colleen Hill	Secured Storage	03/29/18 17:47	Return to Storage
JC62881-6.1.1	Colleen Hill	Metals Digestion	03/29/18 17:46	Digestate from JC62881-6.1
JC62881-6.1.1	Metals Digestion	Colleen Hill	03/29/18 17:46	Digestate from JC62881-6.1
JC62881-6.1.1	Colleen Hill	Metals Digestate Storage	03/29/18 17:46	Return to Storage
JC62881-6.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62881-6.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62881-6.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62881-6.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62881-6.3.1	Arielle Cocozza	Organics Prep	03/28/18 00:29	Extract from JC62881-6.3
JC62881-6.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:03	Extract from JC62881-6.3
JC62881-6.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:03	Return to Storage
JC62881-6.3.1	Extract Storage	Christine Change	03/28/18 14:54	Retrieve from Storage
JC62881-6.3.1	Christine Change	GCMSM	03/28/18 14:54	Load on Instrument
JC62881-6.3.1	GCMSM	Christine Change	03/29/18 11:19	Unload from Instrument
JC62881-6.3.1	Christine Change	Extract Storage	03/29/18 11:19	Return to Storage
JC62881-6.4	Secured Storage	Amanda Furka	03/27/18 15:57	Retrieve from Storage
JC62881-6.4	Amanda Furka		03/28/18 00:00	Depleted

SGS Internal Chain of Custody

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62881-6.4.1	Amanda Furka	Organics Prep	03/27/18 15:57	Extract from JC62881-6.4
JC62881-6.4.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62881-6.4
JC62881-6.4.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62881-6.4.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62881-6.4.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62881-6.4.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62881-6.4
JC62881-6.4.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62881-6.4
JC62881-6.4.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62881-6.4.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62881-6.4.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62881-6.8	Secured Storage	Luis Villanueva	03/28/18 20:20	Retrieve from Storage
JC62881-6.8	Luis Villanueva	Secured Staging Area	03/28/18 20:20	Return to Storage
JC62881-6.8	Secured Staging Area	Faraja Ombwayo	03/29/18 08:06	Retrieve from Storage
JC62881-6.8	Faraja Ombwayo	Secured Storage	03/29/18 15:49	Return to Storage
JC62881-6.9	Secured Storage	Sydney Scelfo	03/30/18 07:06	Retrieve from Storage
JC62881-6.9	Sydney Scelfo	VOA Prep Storage	03/30/18 07:06	Return to Storage
JC62881-6.9	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage
JC62881-6.9	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-6.9	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-6.9	Hueanh Tran	Secured Storage	04/10/18 14:17	Return to Storage
JC62881-7.1	Secured Storage	Sydney Scelfo	03/30/18 07:06	Retrieve from Storage
JC62881-7.1	Sydney Scelfo	VOA Prep Storage	03/30/18 07:06	Return to Storage
JC62881-7.1	VOA Prep Storage	Sydney Scelfo	03/30/18 09:37	Retrieve from Storage
JC62881-7.1	Sydney Scelfo	GCMS2B	03/30/18 09:37	Load on Instrument
JC62881-7.1	GCMS2B	Hueanh Tran	04/10/18 14:17	Unload from Instrument
JC62881-7.1	Hueanh Tran	Secured Storage	04/10/18 14:17	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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B7094-MB	2B159326.D	1	03/30/18	SS	n/a	n/a	V2B7094

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

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6, JC62881-7

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B7094-MB	2B159326.D	1	03/30/18	SS	n/a	n/a	V2B7094

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

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6, JC62881-7

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	94%	80-120%
17060-07-0	1,2-Dichloroethane-D4	120%	81-124%
2037-26-5	Toluene-D8	92%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

Blank Spike Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B7094-BS	2B159324.D	1	03/30/18	SS	n/a	n/a	V2B7094

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

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6, JC62881-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	177	89	42-150
71-43-2	Benzene	50	47.2	94	80-120
74-97-5	Bromochloromethane	50	49.4	99	84-121
75-27-4	Bromodichloromethane	50	58.5	117	83-120
75-25-2	Bromoform	50	65.4	131* [a]	76-129
74-83-9	Bromomethane	50	46.2	92	57-138
78-93-3	2-Butanone (MEK)	200	190	95	64-137
75-15-0	Carbon disulfide	35	34.0	97	64-137
56-23-5	Carbon tetrachloride	50	55.1	110	75-135
108-90-7	Chlorobenzene	50	48.2	96	84-117
75-00-3	Chloroethane	50	49.6	99	63-132
67-66-3	Chloroform	50	48.7	97	80-119
74-87-3	Chloromethane	50	55.7	111	46-136
110-82-7	Cyclohexane	50	39.7	79	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	73.9	148* [a]	72-127
124-48-1	Dibromochloromethane	50	58.9	118	80-123
106-93-4	1,2-Dibromoethane	50	54.0	108	84-117
95-50-1	1,2-Dichlorobenzene	50	52.8	106	84-119
541-73-1	1,3-Dichlorobenzene	50	49.9	100	81-117
106-46-7	1,4-Dichlorobenzene	50	49.6	99	82-117
75-71-8	Dichlorodifluoromethane	50	56.2	112	36-149
75-34-3	1,1-Dichloroethane	50	47.0	94	79-120
107-06-2	1,2-Dichloroethane	50	61.9	124	78-126
75-35-4	1,1-Dichloroethene	50	43.7	87	69-126
156-59-2	cis-1,2-Dichloroethene	50	44.2	88	80-120
156-60-5	trans-1,2-Dichloroethene	50	44.3	89	76-120
78-87-5	1,2-Dichloropropane	50	48.5	97	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.6	107	83-120
10061-02-6	trans-1,3-Dichloropropene	50	57.2	114	82-121
100-41-4	Ethylbenzene	50	46.4	93	80-120
76-13-1	Freon 113	50	42.2	84	62-182
591-78-6	2-Hexanone	200	206	103	65-132
98-82-8	Isopropylbenzene	50	47.5	95	83-120
79-20-9	Methyl Acetate	50	50.3	101	67-129
108-87-2	Methylcyclohexane	50	40.3	81	71-134
1634-04-4	Methyl Tert Butyl Ether	35	35.3	101	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B7094-BS	2B159324.D	1	03/30/18	SS	n/a	n/a	V2B7094

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

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6, JC62881-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	209	105	71-131
75-09-2	Methylene chloride	50	48.8	98	77-120
100-42-5	Styrene	50	49.9	100	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	56.8	114	76-119
127-18-4	Tetrachloroethene	50	45.2	90	70-131
108-88-3	Toluene	50	46.1	92	80-120
87-61-6	1,2,3-Trichlorobenzene	50	55.4	111	76-134
120-82-1	1,2,4-Trichlorobenzene	50	55.5	111	79-132
71-55-6	1,1,1-Trichloroethane	50	51.7	103	81-128
79-00-5	1,1,2-Trichloroethane	50	52.2	104	83-118
79-01-6	Trichloroethene	50	46.7	93	80-120
75-69-4	Trichlorofluoromethane	50	56.9	114	64-136
75-01-4	Vinyl chloride	50	53.1	106	51-135
	m,p-Xylene	100	93.0	93	80-120
95-47-6	o-Xylene	50	46.8	94	80-120
1330-20-7	Xylene (total)	150	140	93	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	93%	80-120%
17060-07-0	1,2-Dichloroethane-D4	115%	81-124%
2037-26-5	Toluene-D8	93%	80-120%
460-00-4	4-Bromofluorobenzene	96%	80-120%

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

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62881-4MS	2B159331.D	1	03/30/18	SS	n/a	n/a	V2B7094
JC62881-4	2B159327.D	1	03/30/18	SS	n/a	n/a	V2B7094

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

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6, JC62881-7

CAS No.	Compound	JC62881-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	75.7	38	34-149
71-43-2	Benzene	0.23	J	50	40.5	81	54-136
74-97-5	Bromochloromethane	ND		50	39.9	80	79-124
75-27-4	Bromodichloromethane	ND		50	48.4	97	79-124
75-25-2	Bromoform	ND		50	51.7	103	71-130
74-83-9	Bromomethane	ND		50	42.2	84	53-142
78-93-3	2-Butanone (MEK)	ND		200	109	55	54-142
75-15-0	Carbon disulfide	ND		35	30.1	86	59-145
56-23-5	Carbon tetrachloride	ND		50	50.9	102	70-143
108-90-7	Chlorobenzene	ND		50	40.6	81	78-123
75-00-3	Chloroethane	ND		50	46.5	93	57-141
67-66-3	Chloroform	ND		50	41.6	83	76-123
74-87-3	Chloromethane	ND		50	46.0	92	43-141
110-82-7	Cyclohexane	ND		50	42.2	84	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	62.3	125	66-130
124-48-1	Dibromochloromethane	ND		50	47.8	96	76-125
106-93-4	1,2-Dibromoethane	ND		50	42.6	85	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	44.1	88	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	42.4	85	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	41.5	83	76-122
75-71-8	Dichlorodifluoromethane	ND		50	59.4	119	31-159
75-34-3	1,1-Dichloroethane	ND		50	40.4	81	73-126
107-06-2	1,2-Dichloroethane	ND		50	49.9	100	72-131
75-35-4	1,1-Dichloroethene	ND		50	40.1	80	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	37.8	76	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	38.8	78	70-126
78-87-5	1,2-Dichloropropane	ND		50	40.6	81	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	43.6	87	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	44.5	89	77-123
100-41-4	Ethylbenzene	ND		50	40.9	82	51-140
76-13-1	Freon 113	ND		50	46.6	93	60-192
591-78-6	2-Hexanone	ND		200	139	70	56-139
98-82-8	Isopropylbenzene	ND		50	41.6	83	75-129
79-20-9	Methyl Acetate	ND		50	37.2	74	55-131
108-87-2	Methylcyclohexane	ND		50	42.4	85	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		35	26.6	76	72-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62881-4MS	2B159331.D	1	03/30/18	SS	n/a	n/a	V2B7094
JC62881-4	2B159327.D	1	03/30/18	SS	n/a	n/a	V2B7094

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

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6, JC62881-7

CAS No.	Compound	JC62881-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	179	90	66-136
75-09-2	Methylene chloride	ND		50	39.4	79	73-125
100-42-5	Styrene	ND		50	41.7	83	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	47.0	94	71-122
127-18-4	Tetrachloroethene	ND		50	42.6	85	61-139
108-88-3	Toluene	ND		50	39.8	80	60-135
87-61-6	1,2,3-Trichlorobenzene	ND		50	46.0	92	70-138
120-82-1	1,2,4-Trichlorobenzene	ND		50	44.9	90	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	46.7	93	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	41.9	84	78-121
79-01-6	Trichloroethene	ND		50	41.3	83	62-141
75-69-4	Trichlorofluoromethane	ND		50	62.0	124	57-149
75-01-4	Vinyl chloride	ND		50	48.9	98	43-146
	m,p-Xylene	ND		100	81.7	82	50-144
95-47-6	o-Xylene	ND		50	39.6	79	63-134
1330-20-7	Xylene (total)	ND		150	121	81	56-139

CAS No.	Surrogate Recoveries	MS	JC62881-4	Limits
1868-53-7	Dibromofluoromethane	94%	95%	80-120%
17060-07-0	1,2-Dichloroethane-D4	115%	121%	81-124%
2037-26-5	Toluene-D8	92%	92%	80-120%
460-00-4	4-Bromofluorobenzene	94%	94%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62881-5DUP	2B159333.D	1	03/30/18	SS	n/a	n/a	V2B7094
JC62881-5	2B159328.D	1	03/30/18	SS	n/a	n/a	V2B7094

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

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6, JC62881-7

CAS No.	Compound	JC62881-5 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
74-97-5	Bromochloromethane	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	0.71	J	0.72	J	1	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62881-5DUP	2B159333.D	1	03/30/18	SS	n/a	n/a	V2B7094
JC62881-5	2B159328.D	1	03/30/18	SS	n/a	n/a	V2B7094

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

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6, JC62881-7

CAS No.	Compound	JC62881-5 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	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
	m,p-Xylene	ND		ND		nc	20
95-47-6	o-Xylene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC62881-5	Limits
1868-53-7	Dibromofluoromethane	97%	95%	80-120%
17060-07-0	1,2-Dichloroethane-D4	122%	120%	81-124%
2037-26-5	Toluene-D8	93%	93%	80-120%
460-00-4	4-Bromofluorobenzene	92%	93%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-BFB
Lab File ID: 2B157359.D
Instrument ID: GCMS2B
Injection Date: 01/10/18
Injection Time: 14:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	15350	18.8		Pass
75	30.0 - 60.0% of mass 95	39914	48.8		Pass
95	Base peak, 100% relative abundance	81856	100.0		Pass
96	5.0 - 9.0% of mass 95	5547	6.78		Pass
173	Less than 2.0% of mass 174	589	0.72	(0.75) [a]	Pass
174	50.0 - 120.0% of mass 95	78296	95.7		Pass
175	5.0 - 9.0% of mass 174	5817	7.11	(7.43) [a]	Pass
176	95.0 - 101.0% of mass 174	77029	94.1	(98.4) [a]	Pass
177	5.0 - 9.0% of mass 176	5239	6.40	(6.80) [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
V2B7000-IC7000	2B157360.D	01/10/18	15:42	01:25	Initial cal 0.2
V2B7000-IC7000	2B157361.D	01/10/18	16:14	01:57	Initial cal 0.5
V2B7000-IC7000	2B157362.D	01/10/18	16:45	02:28	Initial cal 1
V2B7000-IC7000	2B157363.D	01/10/18	17:16	02:59	Initial cal 2
V2B7000-IC7000	2B157364.D	01/10/18	17:48	03:31	Initial cal 5
V2B7000-IC7000	2B157365.D	01/10/18	18:19	04:02	Initial cal 10
V2B7000-IC7000	2B157366.D	01/10/18	18:51	04:34	Initial cal 20
V2B7000-ICC7000	2B157367.D	01/10/18	19:22	05:05	Initial cal 50
V2B7000-IC7000	2B157368.D	01/10/18	19:54	05:37	Initial cal 100
V2B7000-IC7000	2B157369.D	01/10/18	20:25	06:08	Initial cal 200
V2B7000-ICV7000	2B157372.D	01/10/18	22:00	07:43	Initial cal verification 50
V2B7000-ICV7000	2B157373.D	01/10/18	22:31	08:14	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-BFB2
Lab File ID: 2B157375.D
Instrument ID: GCMS2B
Injection Date: 01/11/18
Injection Time: 10:25

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	16471	18.7		Pass
75	30.0 - 60.0% of mass 95	42306	47.9		Pass
95	Base peak, 100% relative abundance	88285	100.0		Pass
96	5.0 - 9.0% of mass 95	5879	6.66		Pass
173	Less than 2.0% of mass 174	833	0.94	(0.99) [a]	Pass
174	50.0 - 120.0% of mass 95	84362	95.6		Pass
175	5.0 - 9.0% of mass 174	6400	7.25	(7.59) [a]	Pass
176	95.0 - 101.0% of mass 174	83496	94.6	(99.0) [a]	Pass
177	5.0 - 9.0% of mass 176	5494	6.22	(6.58) [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
V2B7000-ICV7000	2B157376.D	01/11/18	11:04	00:39	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	V2B7094-BFB	**Injection Date:**	03/30/18
Lab File ID:	2B159322.D	**Injection Time:**	06:49
Instrument ID:	GCMS2B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	16684	20.8		Pass
75	30.0 - 60.0% of mass 95	43083	53.7		Pass
95	Base peak, 100% relative abundance	80211	100.0		Pass
96	5.0 - 9.0% of mass 95	5084	6.34		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	78637	98.0		Pass
175	5.0 - 9.0% of mass 174	6340	7.90	(8.06) [a]	Pass
176	95.0 - 101.0% of mass 174	77104	96.1	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	5347	6.67	(6.93) [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
V2B7094-CC7000	2B159323.D	03/30/18	07:51	01:02	Continuing cal 20
V2B7094-BS	2B159324.D	03/30/18	08:39	01:50	Blank Spike
V2B7094-MB	2B159326.D	03/30/18	10:07	03:18	Method Blank
JC62881-4	2B159327.D	03/30/18	10:37	03:48	PCMW-11S
JC62881-5	2B159328.D	03/30/18	11:07	04:18	PCMW-18S
JC62881-1	2B159329.D	03/30/18	11:37	04:48	PCMW-05
JC62881-2	2B159330.D	03/30/18	12:07	05:18	DUP-03232018
JC62881-4MS	2B159331.D	03/30/18	12:38	05:49	Matrix Spike
JC62881-5DUP	2B159333.D	03/30/18	13:38	06:49	Duplicate
JC62881-3	2B159334.D	03/30/18	14:08	07:19	PCMW-06
JC62881-7	2B159335.D	03/30/18	14:38	07:49	TRIP BLANK
JC62881-6	2B159336.D	03/30/18	15:08	08:19	PCMW-18D
ZZZZZZ	2B159337.D	03/30/18	15:38	08:49	(unrelated sample)
ZZZZZZ	2B159338.D	03/30/18	16:08	09:19	(unrelated sample)
ZZZZZZ	2B159339.D	03/30/18	16:39	09:50	(unrelated sample)
ZZZZZZ	2B159340.D	03/30/18	17:09	10:20	(unrelated sample)
ZZZZZZ	2B159341.D	03/30/18	17:39	10:50	(unrelated sample)

Internal Standard Area Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V2B7094-CC7000	**Injection Date:**	03/30/18
Lab File ID:	2B159323.D	**Injection Time:**	07:51
Instrument ID:	GCMS2B	**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	89448	8.31	247488	10.76	315999	11.70	305042	15.04	167016	17.54
Upper Limit [a]	178896	8.81	494976	11.26	631998	12.20	610084	15.54	334032	18.04
Lower Limit [b]	44724	7.81	123744	10.26	158000	11.20	152521	14.54	83508	17.04

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2B7094-BS	76552	8.31	232044	10.76	300153	11.70	288382	15.04	160151	17.54
V2B7094-MB	79424	8.31	257157	10.76	317747	11.71	304604	15.05	166907	17.54
JC62881-4	79519	8.31	255014	10.76	316958	11.71	304166	15.05	168659	17.54
JC62881-5	85002	8.31	253302	10.76	316626	11.71	302515	15.04	167817	17.54
JC62881-1	69748	8.31	252425	10.76	311868	11.71	298664	15.04	167060	17.54
JC62881-2	73127	8.31	252484	10.77	316755	11.70	303236	15.04	168417	17.54
JC62881-4MS	71667	8.31	231805	10.76	300678	11.70	293010	15.04	162065	17.54
JC62881-5DUP	85054	8.31	254986	10.76	322172	11.71	304614	15.04	170120	17.54
JC62881-3	73235	8.31	255621	10.76	318755	11.70	303929	15.04	170674	17.54
JC62881-7	72202	8.30	253083	10.76	315435	11.70	302371	15.05	169286	17.54
JC62881-6	73268	8.31	254017	10.76	319570	11.70	304454	15.05	170299	17.54
ZZZZZZ	73605	8.31	256456	10.76	324823	11.70	307162	15.04	171308	17.54
ZZZZZZ	71008	8.30	257043	10.76	316832	11.71	301737	15.04	166830	17.54
ZZZZZZ	72075	8.31	253121	10.76	319858	11.71	303894	15.04	167028	17.54
ZZZZZZ	71278	8.31	253471	10.76	320916	11.71	304726	15.04	168251	17.54
ZZZZZZ	72402	8.30	250530	10.76	319730	11.71	304206	15.04	166862	17.54

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: JC62881
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
JC62881-1	2B159329.D	95	122	93	92
JC62881-2	2B159330.D	95	121	92	94
JC62881-3	2B159334.D	97	123	93	91
JC62881-4	2B159327.D	95	121	92	94
JC62881-5	2B159328.D	95	120	93	93
JC62881-6	2B159336.D	98	123	93	92
JC62881-7	2B159335.D	98	123	93	92
JC62881-4MS	2B159331.D	94	115	92	94
JC62881-5DUP	2B159333.D	97	122	93	92
V2B7094-BS	2B159324.D	93	115	93	96
V2B7094-MB	2B159326.D	94	120	92	95

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICC7000
Lab FileID: 2B157367.D

Response Factor Report MS2B

Method : C:\MSDCHEM\1\METHODS\M2B7000.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Jan 12 15:24:13 2018
Response via : Initial Calibration

Calibration Files
1 =2B157362.D 0.5 =2B157361.D 100 =2B157368.D 50 =2B157367.D
20 =2B157366.D 200 =2B157369.D 5 =2B157364.D 2 =2B157363.D
10 =2B157365.D 0.2 =2B157360.D = =

Compound	1	0.5	100	50	20	200	5	2	10	0.2	Avg	%RSD
1) tert butyl alcohol-d9	----------ISTD----------											
2) tertiary butyl alcohol	0.857		1.114	1.138	1.095	1.122	0.805	0.987	1.064		1.023	12.51
3) ethanol	0.114	0.149	0.113	0.121	0.118	0.105	0.107	0.146	0.119		0.121	12.91
4) 1,4-dioxane			0.109	0.107	0.097	0.107	0.067		0.093		0.097	16.39
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.461		0.611	0.628	0.617	0.608	0.451	0.693	0.566		0.579	14.46
7) dichlorodifluoromethane			0.647	0.642	0.651	0.632	0.397	0.531	0.599		0.585	15.94
8) freon 114			0.246	0.258	0.256	0.231	0.136		0.234		0.227	20.11
----- Linear regression ----- Coefficient = 0.9955												
Response Ratio = -0.00480 + 0.24217 *A												
9) freon 142b			0.620	0.644	0.661	0.586	0.395		0.615		0.587	16.61
10) chloromethane	0.583		0.576	0.616	0.655	0.550	0.488	0.854	0.616		0.617	17.47
11) vinyl chloride	0.481	0.504	0.598	0.614	0.640	0.573	0.457	0.780	0.598		0.583	16.72
12) 1,3-butadiene			0.376	0.391	0.408	0.352	0.267	0.466	0.398		0.380	16.01
13) bromomethane	0.423		0.403	0.428	0.443	0.361	0.325	0.584	0.412		0.422	17.99
14) chloroethane	0.292	0.270	0.328	0.349	0.351	0.314	0.250	0.459	0.339		0.328	18.38
15) trichlorofluoromethane	0.450		0.728	0.745	0.774	0.701	0.520	0.785	0.704		0.676	18.21
16) vinyl bromide	0.308		0.380	0.393	0.398	0.372	0.270	0.497	0.370		0.373	17.88
17) ethyl ether	0.218	0.182	0.233	0.246	0.252	0.224	0.190	0.252	0.236		0.226	11.32
18) acrolein			0.067	0.071	0.072	0.062	0.056		0.066		0.066	9.14
19) freon 113			0.313	0.325	0.333	0.305	0.248	0.331	0.318		0.310	9.41
20) 1,1-dichloroethene	0.346		0.371	0.392	0.400	0.353	0.312	0.541	0.378		0.387	17.68
21) acetone	0.064		0.056	0.060	0.062	0.050	0.052	0.065	0.058		0.058	9.08

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICC7000
Lab FileID: 2B157367.D

22) acetonitrile
0.042 0.043 0.046 0.041 0.038 0.044 0.042 6.02
23) iodomethane
0.664 0.602 0.745 0.799 0.770 0.766 0.605 1.025 0.767 0.749 16.97
24) carbon disulfide
1.027 1.004 1.241 1.260 1.262 1.233 0.974 1.687 1.192 1.209 17.69
25) methylene chloride
0.413 0.352 0.414 0.425 0.429 0.411 0.337 0.502 0.404 0.410 11.50
26) methyl acetate
0.293 0.251 0.259 0.266 0.259 0.214 0.283 0.251 0.260 9.11
27) methyl tert butyl ether
1.240 1.147 1.155 1.205 1.196 1.097 0.947 1.217 1.137 1.155 1.150 7.21
28) trans-1,2-dichloroethene
0.355 0.399 0.415 0.417 0.387 0.325 0.569 0.388 0.407 17.74
29) di-isopropyl ether
1.311 1.245 1.316 1.408 1.391 1.230 1.089 1.586 1.321 1.118 1.302 11.11
30) 2-butanone
0.044 0.052 0.053 0.051 0.051 0.037 0.045 0.049 0.048 11.19
31) 1,1-dichloroethane
0.690 0.624 0.745 0.779 0.771 0.717 0.598 1.022 0.730 0.742 16.42
32) chloroprene
0.535 0.515 0.618 0.644 0.642 0.591 0.494 0.840 0.605 0.609 16.80
33) acrylonitrile
0.088 0.126 0.125 0.128 0.124 0.091 0.117 0.121 0.115 13.98
34) hexane
0.194 0.209 0.295 0.295 0.291 0.288 0.212 0.281 0.272 0.260 16.18
35) vinyl acetate
0.046 0.052 0.047 0.046 0.039 0.042 0.049 0.046 9.30
36) ethyl tert-butyl ether
1.355 1.235 1.352 1.409 1.390 1.293 1.071 1.420 1.284 1.110 1.292 9.38
37) ethyl acetate
0.043 0.045 0.046 0.040 0.033 0.042 0.041 11.24
38) 2,2-dichloropropane
0.527 0.542 0.581 0.614 0.622 0.546 0.485 0.853 0.605 0.597 17.76
39) cis-1,2-dichloroethene
0.446 0.419 0.445 0.469 0.466 0.425 0.363 0.597 0.447 0.453 13.83
40) methyl acrylate
0.051 0.053 0.050 0.051 0.032 0.046 0.047 16.53
41) propionitrile
0.054 0.048 0.048 0.051 0.053 0.045 0.042 0.052 0.049 0.045 0.049 8.02
42) bromochloromethane
0.213 0.148 0.230 0.236 0.235 0.224 0.178 0.244 0.219 0.214 14.66
43) tetrahydrofuran
0.044 0.045 0.044 0.042 0.028 0.039 0.040 15.70
44) chloroform
0.467 0.435 0.463 0.482 0.478 0.445 0.382 0.639 0.450 0.471 14.74
45) t-butyl formate
0.105 0.131 0.131 0.120 0.141 0.096 0.125 0.116 0.121 12.31
46) dibromofluoromethane (s)
0.430 0.427 0.431 0.431 0.436 0.429 0.435 0.434 0.428 0.434 0.432 0.71
47) methacrylonitrile
0.114 0.150 0.153 0.148 0.147 0.111 0.128 0.135 0.136 12.22
48) 1,1,1-trichloroethane
0.537 0.654 0.664 0.639 0.644 0.485 0.813 0.598 0.629 15.46
49) cyclohexane
0.431 0.387 0.573 0.590 0.580 0.556 0.377 0.563 0.545 0.511 17.00
50) 1,1-dichloropropene
0.425 0.422 0.535 0.550 0.536 0.518 0.414 0.698 0.508 0.512 17.27
51) iso-butyl alcohol
0.013 0.013 0.013 0.013 0.010 0.013 0.012 0.013 8.21

Initial Calibration Summary

Job Number: JC62881 **Sample:** V2B7000-ICC7000
Account: BBLNYS Arcadis **Lab FileID:** 2B157367.D
Project: National Grid, Philly Coke, Philadelphia PA

52) carbon tetrachloride
0.443 0.395 0.561 0.574 0.558 0.545 0.420 0.677 0.525 0.522 16.97
53) tert amyl alcohol
0.012 0.012 0.012 0.011 0.008 0.011 0.011 12.73

54) I 1,4-difluorobenzene ----------ISTD----------
55) 1,2-dichloroethane-d4 (s)
0.359 0.360 0.341 0.342 0.350 0.332 0.355 0.356 0.357 0.367 0.352 3.04
56) n-butyl alcohol
0.006 0.006 0.006 0.006 0.004 0.005 0.005 0.006# 17.43
57) 2,2,4-trimethylpentane
0.885 0.979 1.078 1.133 1.154 0.997 0.837 1.083 1.058 0.740 0.994 13.64
58) benzene
1.024 1.013 1.077 1.136 1.156 1.018 0.893 1.477 1.069 1.096 14.82
59) tert-amyl methyl ether
0.188 0.202 0.209 0.216 0.192 0.162 0.222 0.196 0.198 9.34
60) heptane
0.169 0.248 0.247 0.240 0.238 0.168 0.224 0.225 0.220 15.03
61) isopropyl acetate
0.052 0.053 0.051 0.051 0.037 0.046 0.048 12.80
62) 1,2-dichloroethane
0.373 0.338 0.389 0.408 0.411 0.366 0.322 0.442 0.387 0.293 0.373 12.04
63) trichloroethene
0.282 0.250 0.347 0.350 0.335 0.333 0.249 0.419 0.310 0.319 16.91
64) ethyl acrylate
0.275 0.227 0.300 0.311 0.299 0.283 0.225 0.261 0.276 0.273 11.20
65) 2-nitropropane
0.069 0.070 0.065 0.069 0.051 0.056 0.061 0.063 11.67
66) 2-chloroethyl vinyl ether
0.173 0.163 0.180 0.189 0.190 0.164 0.145 0.177 0.177 0.153 0.171 8.73
67) methyl methacrylate
0.066 0.070 0.071 0.064 0.049 0.056 0.065 0.063 12.19
68) 1,2-dichloropropane
0.260 0.298 0.309 0.305 0.281 0.233 0.352 0.284 0.290 12.25
69) dibromomethane
0.170 0.132 0.178 0.186 0.182 0.171 0.141 0.183 0.171 0.168 11.20
70) methylcyclohexane
0.393 0.439 0.558 0.578 0.574 0.521 0.410 0.568 0.531 0.508 14.57
71) bromodichloromethane
0.365 0.344 0.412 0.420 0.402 0.401 0.296 0.443 0.372 0.384 11.68
72) epichlorohydrin
0.024 0.024 0.023 0.023 0.018 0.022 0.022 0.022 9.71
73) cis-1,3-dichloropropene
0.444 0.393 0.505 0.517 0.499 0.483 0.369 0.526 0.456 0.466 11.86
74) 4-methyl-2-pentanone
0.096 0.091 0.092 0.096 0.097 0.087 0.072 0.088 0.089 0.072 0.088 10.42
75) 3-methyl-1-butanol
0.006 0.006 0.006 0.006 0.004 0.005 0.005# 18.33

76) I chlorobenzene-d5 ----------ISTD----------
77) toluene-d8 (s)
1.221 1.234 1.253 1.227 1.223 1.303 1.231 1.231 1.228 1.239 1.239 1.96
78) toluene
0.670 0.657 0.764 0.776 0.759 0.772 0.582 0.969 0.715 0.740 14.58
79) trans-1,3-dichloropropene
0.404 0.315 0.483 0.486 0.453 0.485 0.333 0.440 0.419 0.424 15.09
80) ethyl methacrylate
0.318 0.283 0.366 0.374 0.365 0.365 0.268 0.333 0.333 0.334 11.45
81) 1,1,2-trichloroethane
0.217 0.174 0.229 0.230 0.221 0.227 0.172 0.222 0.208 0.211 10.70

Initial Calibration Summary

Job Number: JC62881 **Sample:** V2B7000-ICC7000
Account: BBLNYS Arcadis **Lab FileID:** 2B157367.D
Project: National Grid, Philly Coke, Philadelphia PA

```
 82)  tetrachloroethene
       0.257 0.248 0.285 0.295 0.296 0.285 0.226 0.383 0.280        0.284   15.52
 83)  1,3-dichloropropane
       0.426 0.400 0.457 0.469 0.459 0.451 0.346 0.457 0.426 0.304  0.419   13.04
 84)  2-hexanone
       0.113 0.084 0.117 0.120 0.119 0.115 0.090 0.110 0.111 0.067  0.105   17.01
 85)  butyl acetate
       0.136 0.099 0.166 0.168 0.166 0.172 0.128 0.147 0.150        0.148   16.33
 86)  3,3-dimethyl-1-butanol
      *This compound does not meet initial calibration criteria*
                   0.023 0.022 0.020 0.025 0.013 0.016 0.018        0.020   22.36
             ----- Linear regression -----  Coefficient =  0.9954
               Response Ratio = -0.00754 + 0.02448 *A

 87)  dibromochloromethane
       0.274 0.225 0.343 0.338 0.314 0.351 0.225 0.294 0.281        0.294   16.14
 88)  1,2-dibromoethane
       0.292 0.251 0.312 0.313 0.299 0.316 0.225 0.293 0.273 0.192  0.277   15.10
 89)  n-butyl ether
       1.254 1.191 1.441 1.471 1.428 1.405 1.072 1.671 1.333 0.984  1.325   15.41
 90)  chlorobenzene
       0.817 0.755 0.858 0.887 0.882 0.852 0.670 1.065 0.835 0.580  0.820   16.03
 91)  1,1,1,2-tetrachloroethane
       0.278 0.251 0.337 0.344 0.332 0.339 0.242 0.369 0.312        0.312   14.22
 92)  ethylbenzene
       1.291 1.289 1.381 1.434 1.451 1.358 1.098 1.890 1.383        1.397   15.21
 93)  m,p-xylene
       0.498 0.485 0.562 0.581 0.583 0.556 0.439 0.731 0.552 0.375  0.536   17.92
 94)  o-xylene
       0.537 0.495 0.586 0.615 0.608 0.581 0.458 0.742 0.570        0.577   14.03
 95)  styrene
       0.876 0.850 0.980 1.017 1.007 0.954 0.748 1.149 0.956 0.637  0.917   15.91
 96)  bromoform
       0.168       0.244 0.232 0.204       0.140 0.172 0.182        0.192   19.31
 97)  butyl acrylate
       0.496 0.464 0.592 0.595 0.560 0.606 0.405 0.512 0.507 0.410  0.515   14.30
 98)  isopropylbenzene
       1.365 1.356 1.557 1.624 1.594 1.540 1.169 1.999 1.481        1.521   15.12
 99)  cis-1,4-dichloro-2-butene
                   0.132 0.133 0.124 0.134 0.080 0.100 0.109        0.116   17.54

100) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
101)  4-bromofluorobenzene (s)
       0.851 0.850 0.877 0.868 0.852 0.872 0.844 0.847 0.852 0.840  0.855    1.47
102)  bromobenzene
       0.695 0.590 0.770 0.800 0.778 0.725 0.586 0.817 0.717        0.720   11.75
103)  1,1,2,2-tetrachloroethane
       0.570 0.559 0.580 0.595 0.573 0.566 0.434 0.565 0.531 0.470  0.544    9.52
104)  trans-1,4-dichloro-2-butene
      *This compound does not meet initial calibration criteria*
       0.095       0.145 0.148 0.138 0.142 0.096 0.108 0.128        0.125   17.62
105)  1,2,3-trichloropropane
       0.134       0.171 0.176 0.174 0.165 0.125 0.144 0.158        0.156   12.35
106)  n-propylbenzene
       2.800 2.750 2.997 3.165 3.184 2.788 2.363 4.022 3.007 2.066  2.914   17.93
107)  4-Ethyltoluene
       2.586 2.718 2.783 2.898 2.886 2.625 1.814 3.364 2.703 2.874  2.725   14.21
108)  2-chlorotoluene
       0.625 0.549 0.664 0.690 0.689 0.631 0.523 0.877 0.658        0.656   15.46
109)  4-chlorotoluene
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```
       1.742 1.728 1.856 1.911 1.905 1.791 1.434 2.318 1.753 1.302  1.774   15.49
110)  1,3,5-trimethylbenzene
       2.147 2.007 2.167 2.269 2.304 2.060 1.753 3.000 2.242 1.684  2.163   16.67
111)  tert-butylbenzene
       0.434 0.423 0.539 0.547 0.524 0.521 0.381 0.629 0.482        0.498   15.27
112)  1,2,4-trimethylbenzene
       2.141 2.014 2.300 2.438 2.440 2.168 1.790 2.886 2.295 1.517  2.199   17.12
113)  sec-butylbenzene
       2.662 2.609 3.100 3.227 3.164 2.917 2.253 3.856 2.909 1.956  2.865   18.65
114)  1,3-dichlorobenzene
       1.358 1.243 1.392 1.446 1.463 1.333 1.082 1.647 1.336 1.124  1.342   12.32
115)  p-isopropyltoluene
       2.350 2.241 2.682 2.790 2.741 2.528 1.969 3.334 2.551 1.808  2.499   17.51
116)  1,4-dichlorobenzene
       1.329 1.320 1.403 1.438 1.406 1.364 1.078 1.595 1.318 1.150  1.340   10.83
117)  benzyl chloride
       0.962 0.988 1.263 1.276 1.156 1.227 0.766 0.989 0.996 0.994  1.062   15.36
118)  1,2-dichlorobenzene
       1.306 1.283 1.402 1.466 1.437 1.346 1.062 1.543 1.271 1.043  1.316   12.39
119)  p-Diethylbenzene
       1.440 1.477 1.715 1.778 1.715 1.638 1.023 1.873 1.566 1.374  1.560   15.77
120)  n-butylbenzene
       1.135 1.094 1.329 1.398 1.371 1.266 0.963 1.662 1.295        1.279   15.80
121)  hexachloroethane
       0.359       0.553 0.551 0.473 0.549 0.318 0.510 0.422        0.467   19.66
122)  1,2,4,5-Tetramethylbenzene
       2.303 2.309 2.757 2.903 2.794 2.585 1.635 2.734 2.530 2.348  2.490   14.81
123)  1,2-dibromo-3-chloropropane
                   0.113 0.117 0.104 0.112 0.075 0.074 0.094        0.098   18.30
124)  1,3,5-trichlorobenzene
       1.137 1.128 1.377 1.445 1.352 1.303 0.952 1.463 1.211 0.963  1.233   15.06
125)  2-ethylhexyl acrylate
                   0.756 0.692 0.571 0.775             0.460        0.651   20.52
              ----- Linear regression -----  Coefficient =  0.9999
                Response Ratio = -0.01690 + 0.79569 *A

126)  1,2,4-trichlorobenzene
       0.893 0.838 1.211 1.255 1.128 1.137 0.787 1.091 1.009        1.039   16.04
127)  hexachlorobutadiene
       0.540 0.494 0.665 0.692 0.645 0.634 0.472 0.758 0.604        0.612   15.38
128)  naphthalene
       1.628 1.550 1.950 2.010 1.854 1.875 1.320 1.596 1.673 2.125  1.758   13.99
129)  1,2,3-trichlorobenzene
       0.797 0.672 1.009 1.032 0.935 0.966 0.676 0.871 0.843        0.867   15.37
130)  2-methylnaphthalene
                   1.145 1.079 0.878 1.187             0.710        1.000   20.05
              ----- Linear regression -----  Coefficient =  0.9999
                Response Ratio = -0.06316 + 1.21595 *A

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

           M2B7000.M         Fri Jan 12 15:33:47 2018
```

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICV7000
Lab FileID: 2B157372.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2B157372.D Vial: 14
Acq On : 10 Jan 2018 10:00 pm Operator: EddieH
Sample : icv7000-50 Inst : MS2B
Misc : MS23592,V2B7000,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B7000.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Jan 12 15:24:13 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 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		tert butyl alcohol-d9	1.000	1.000	0.0	101	0.00	8.32
2	M	tertiary butyl alcohol	1.023	1.094	-6.9	97	0.00	8.45
3		ethanol	0.121	0.113	6.6	94	-0.01	6.88
4	M	1,4-dioxane	0.097	0.106	-9.3	100	0.00	12.45
5	I	pentafluorobenzene	1.000	1.000	0.0	102	0.00	10.77
6	M	chlorodifluoromethane	0.579	0.599	-3.5	97	0.00	4.52
7	M	dichlorodifluoromethane	0.585	0.604	-3.2	96	0.00	4.50
		----------	True	Calc.	% Drift	----------		
8		freon 114	50.000	67.820	-35.6#	128	0.00	4.83
		----------	AvgRF	CCRF	% Dev	----------		
9		freon 142b	0.587	0.805	-37.1#	128	0.00	4.86
10	M	chloromethane	0.617	0.548	11.2	91	0.00	4.96
11	M	vinyl chloride	0.583	0.522	10.5	87	0.00	5.22
12		1,3-butadiene	0.380	0.488	-28.4	127	0.00	5.26
13	M	bromomethane	0.422	0.376	10.9	90	0.02	5.95
14	M	chloroethane	0.328	0.303	7.6	88	0.00	6.11
15	M	trichlorofluoromethane	0.676	0.662	2.1	91	0.00	6.68
16		vinyl bromide	0.373	0.422	-13.1	110	0.00	6.52
17	M	ethyl ether	0.226	0.233	-3.1	97	0.00	7.12
18	M	acrolein	0.066	0.071	-7.6	102	0.00	7.34
19		freon 113	0.310	0.364	-17.4	114	0.00	7.58
20	M	1,1-dichloroethene	0.387	0.346	10.6	90	0.00	7.56
21	M	acetone	0.058	0.046	20.7	79	0.00	7.59
22	M	acetonitrile	0.042	0.035	16.7	82	0.00	8.05
23	M	iodomethane	0.749	0.723	3.5	92	0.00	7.86
24	M	carbon disulfide	1.209	1.149	5.0	93	0.00	8.01
25	M	methylene chloride	0.410	0.402	2.0	97	0.00	8.34
26	M	methyl acetate	0.260	0.250	3.8	99	0.00	8.14
27	M	methyl tert butyl ether	1.150	1.177	-2.3	100	0.00	8.78
28	M	trans-1,2-dichloroethene	0.407	0.394	3.2	97	0.00	8.78
29	M	di-isopropyl ether	1.302	1.359	-4.4	99	0.00	9.45
30	M	2-butanone	0.048	0.046	4.2	90	0.00	10.15
31	M	1,1-dichloroethane	0.742	0.750	-1.1	98	0.00	9.39
32	M	chloroprene	0.609	0.632	-3.8	100	0.00	9.53
33	M	acrylonitrile	0.115	0.122	-6.1	99	0.00	8.68
34		hexane	0.260	0.218	16.2	75	0.00	9.18
35	M	vinyl acetate	0.046	0.041	10.9	81	0.00	9.40
36	M	ethyl tert-butyl ether	1.292	1.382	-7.0	100	0.00	9.95
37	M	ethyl acetate	0.041	0.045	-9.8	100	0.00	10.20

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICV7000
Lab FileID: 2B157372.D

38	M	2,2-dichloropropane	0.597	0.576	3.5	96	0.00	10.21
39	M	cis-1,2-dichloroethene	0.453	0.463	-2.2	101	0.00	10.18
40		methyl acrylate	0.047	0.051	-8.5	99	0.00	10.27
41	M	propionitrile	0.049	0.046	6.1	91	0.00	10.22
42	M	bromochloromethane	0.214	0.234	-9.3	102	0.00	10.50
43	M	tetrahydrofuran	0.040	0.043	-7.5	98	0.00	10.57
44	M	chloroform	0.471	0.478	-1.5	101	0.00	10.57
45	M	t-butyl formate	0.121	0.145	-19.8	113	0.00	10.65
46	S	dibromofluoromethane (s)	0.432	0.432	0.0	102	0.00	10.77
47	M	methacrylonitrile	0.136	0.143	-5.1	96	0.00	10.44
48	M	1,1,1-trichloroethane	0.629	0.642	-2.1	99	0.00	10.87
49		cyclohexane	0.511	0.576	-12.7	100	0.00	10.98
50		1,1-dichloropropene	0.512	0.546	-6.6	101	0.00	11.06
51		iso-butyl alcohol	0.013	0.013	0.0	100	0.00	11.04
52		carbon tetrachloride	0.522	0.571	-9.4	102	0.00	11.10
53		tert amyl alcohol	0.011	0.011	0.0	96	0.00	11.19
54	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	11.72
55	S	1,2-dichloroethane-d4 (s)	0.352	0.344	2.3	102	0.00	11.22
56	M	n-butyl alcohol	0.006	0.006#	0.0	97	0.00	11.82
57		2,2,4-trimethylpentane	0.994	1.092	-9.9	97	0.00	11.40
58	M	benzene	1.096	1.120	-2.2	100	0.00	11.33
59	M	tert-amyl methyl ether	0.198	0.206	-4.0	100	0.00	11.41
60	M	heptane	0.220	0.253	-15.0	103	0.00	11.57
61	M	isopropyl acetate	0.048	0.052	-8.3	99	0.00	11.27
62	M	1,2-dichloroethane	0.373	0.406	-8.8	100	0.00	11.31
63	M	trichloroethene	0.319	0.363	-13.8	105	0.00	12.07
64		ethyl acrylate	0.273	0.299	-9.5	97	0.00	12.08
65	M	2-nitropropane	0.063	0.067	-6.3	98	0.00	12.84
66	M	2-chloroethyl vinyl ether	0.171	0.184	-7.6	98	0.00	12.89
67	M	methyl methacrylate	0.063	0.065	-3.2	95	0.00	12.36
68	M	1,2-dichloropropane	0.290	0.288	0.7	94	0.00	12.33
69	M	dibromomethane	0.168	0.185	-10.1	101	0.00	12.48
70	M	methylcyclohexane	0.508	0.505	0.6	88	0.00	12.34
71	M	bromodichloromethane	0.384	0.409	-6.5	98	0.00	12.62
72		epichlorohydrin	0.022	0.024	-9.1	103	0.00	12.99
73	M	cis-1,3-dichloropropene	0.466	0.510	-9.4	100	0.00	13.12
74	M	4-methyl-2-pentanone	0.088	0.096	-9.1	101	0.00	13.24
75	M	3-methyl-1-butanol	0.005	0.006#	-20.0	94	0.00	13.24
76	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	15.05
77	S	toluene-d8 (s)	1.239	1.226	1.0	101	0.00	13.45
78		toluene	0.740	0.773	-4.5	101	0.00	13.52
79		trans-1,3-dichloropropene	0.424	0.454	-7.1	95	0.00	13.70
80		ethyl methacrylate	0.334	0.349	-4.5	95	0.00	13.73
81		1,1,2-trichloroethane	0.211	0.225	-6.6	99	0.00	13.93
82	M	tetrachloroethene	0.284	0.534	-88.0#	184	0.00	14.16
83	M	1,3-dichloropropane	0.419	0.468	-11.7	101	0.00	14.13
84		2-hexanone	0.105	0.105	0.0	89	0.00	14.14
85	M	butyl acetate	0.148	0.165	-11.5	99	0.00	14.23
			True	Calc.	% Drift			
86	M	3,3-dimethyl-1-butanol	500.000	440.868	11.8	95	0.00	14.31
			AvgRF	CCRF	% Dev			
87	M	dibromochloromethane	0.294	0.347	-18.0	104	0.00	14.41
88	M	1,2-dibromoethane	0.277	0.311	-12.3	101	0.00	14.57
89		n-butyl ether	1.325	1.386	-4.6	96	0.00	15.04
90	M	chlorobenzene	0.820	0.879	-7.2	100	0.00	15.09
91	M	1,1,1,2-tetrachloroethane	0.312	0.348	-11.5	103	0.00	15.14

Initial Calibration Verification

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

Sample: V2B7000-ICV7000
Lab FileID: 2B157372.D

92	M	ethylbenzene	1.397	1.439	-3.0	102	0.00	15.16
93	M	m,p-xylene	0.536	0.580	-8.2	101	0.00	15.28
94	M	o-xylene	0.577	0.612	-6.1	101	0.00	15.72
95	M	styrene	0.917	1.023	-11.6	102	0.00	15.72
96	M	bromoform	0.192	0.246	-28.1	107	0.00	15.97
97		butyl acrylate	0.515	0.567	-10.1	97	0.00	15.53
98		isopropylbenzene	1.521	1.621	-6.6	101	0.00	16.09
99		cis-1,4-dichloro-2-butene	0.116	0.124	-6.9	94	0.00	16.12
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	17.54
101	S	4-bromofluorobenzene (s)	0.855	0.871	-1.9	101	0.00	16.29
102	M	bromobenzene	0.720	0.805	-11.8	101	0.00	16.50
103	M	1,1,2,2-tetrachloroethane	0.544	0.562	-3.3	95	0.00	16.37
104	M	trans-1,4-dichloro-2-bute	0.125	0.175	-40.0#	119	0.00	16.42
105	M	1,2,3-trichloropropane	0.156	0.177	-13.5	101	0.00	16.45
106	M	n-propylbenzene	2.914	3.190	-9.5	101	0.00	16.53
107		4-Ethyltoluene		----------NA----------				
108	M	2-chlorotoluene	0.656	0.716	-9.1	104	0.00	16.67
109	M	4-chlorotoluene	1.774	1.981	-11.7	104	0.00	16.77
110	M	1,3,5-trimethylbenzene	2.163	2.366	-9.4	105	0.00	16.69
111	M	tert-butylbenzene	0.498	0.559	-12.2	103	0.00	17.07
112	M	1,2,4-trimethylbenzene	2.199	2.490	-13.2	103	0.00	17.11
113	M	sec-butylbenzene	2.865	3.281	-14.5	102	0.00	17.30
114	M	1,3-dichlorobenzene	1.342	1.464	-9.1	102	0.00	17.48
115	M	p-isopropyltoluene	2.499	2.830	-13.2	102	0.00	17.43
116	M	1,4-dichlorobenzene	1.340	1.440	-7.5	101	0.00	17.57
117		benzyl chloride	1.062	1.036	2.4	82	0.00	17.68
118	M	1,2-dichlorobenzene	1.316	1.444	-9.7	99	0.00	17.99
119		p-Diethylbenzene	1.560	1.911	-22.5	108	0.00	17.83
120	M	n-butylbenzene	1.279	1.391	-8.8	100	0.00	17.87
121		hexachloroethane	0.467	0.562	-20.3	103	0.00	18.30
122		1,2,4,5-Tetramethylbenzen	2.490	2.894	-16.2	100	0.00	18.69
123	M	1,2-dibromo-3-chloropropa	0.098	0.111	-13.3	96	0.00	18.81
124		1,3,5-trichlorobenzene	1.233	1.493	-21.1	104	0.00	19.05
		----------	True	Calc.	% Drift	----------		
125		2-ethylhexyl acrylate	10.000	10.637	-6.4	111	0.00	19.71
		----------	AvgRF	CCRF	% Dev	----------		
126	M	1,2,4-trichlorobenzene	1.039	1.262	-21.5	101	0.00	19.73
127	M	hexachlorobutadiene	0.612	0.687	-12.3	100	0.00	19.88
128	M	naphthalene	1.758	2.024	-15.1	101	0.00	20.04
129	M	1,2,3-trichlorobenzene	0.867	1.030	-18.8	100	0.00	20.30
		----------	True	Calc.	% Drift	----------		
130		2-methylnaphthalene	25.000	20.970	16.1	83	0.00	21.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B157367.D M2B7000.M Fri Jan 12 15:33:59 2018

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICV7000
Lab FileID: 2B157373.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2B157373.D Vial: 15
Acq On : 10 Jan 2018 10:31 pm Operator: EddieH
Sample : icv7000-50 Inst : MS2B
Misc : MS23592,V2B7000,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B7000.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Jan 12 15:24:13 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 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		tert butyl alcohol-d9	1.000	1.000	0.0	117	-0.02	8.31
2	M	tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4	M	1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	115	0.00	10.77
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
8		freon 114		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
9		freon 142b		----------NA----------				
10	M	chloromethane		----------NA----------				
11	M	vinyl chloride		----------NA----------				
12		1,3-butadiene		----------NA----------				
13	M	bromomethane		----------NA----------				
14	M	chloroethane		----------NA----------				
15	M	trichlorofluoromethane		----------NA----------				
16		vinyl bromide		----------NA----------				
17	M	ethyl ether		----------NA----------				
18	M	acrolein		----------NA----------				
19		freon 113		----------NA----------				
20	M	1,1-dichloroethene		----------NA----------				
21	M	acetone		----------NA----------				
22	M	acetonitrile	0.042	0.044	-4.8	116	0.00	8.05
23	M	iodomethane		----------NA----------				
24	M	carbon disulfide		----------NA----------				
25	M	methylene chloride		----------NA----------				
26	M	methyl acetate		----------NA----------				
27	M	methyl tert butyl ether		----------NA----------				
28	M	trans-1,2-dichloroethene		----------NA----------				
29	M	di-isopropyl ether		----------NA----------				
30	M	2-butanone		----------NA----------				
31	M	1,1-dichloroethane		----------NA----------				
32	M	chloroprene		----------NA----------				
33	M	acrylonitrile		----------NA----------				
34		hexane		----------NA----------				
35	M	vinyl acetate		----------NA----------				
36	M	ethyl tert-butyl ether		----------NA----------				
37	M	ethyl acetate		----------NA----------				

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICV7000
Lab FileID: 2B157373.D

38	M	2,2-dichloropropane		----------NA----------					
39	M	cis-1,2-dichloroethene		----------NA----------					
40		methyl acrylate		----------NA----------					
41	M	propionitrile		----------NA----------					
42	M	bromochloromethane		----------NA----------					
43	M	tetrahydrofuran		----------NA----------					
44	M	chloroform		----------NA----------					
45	M	t-butyl formate		----------NA----------					
46	S	dibromofluoromethane (s)	0.432	0.423	2.1	113	0.00	10.77	
47	M	methacrylonitrile		----------NA----------					
48	M	1,1,1-trichloroethane		----------NA----------					
49		cyclohexane		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		iso-butyl alcohol		----------NA----------					
52		carbon tetrachloride		----------NA----------					
53		tert amyl alcohol		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	111	0.00	11.71	
55	S	1,2-dichloroethane-d4 (s)	0.352	0.352	0.0	114	0.00	11.22	
56	M	n-butyl alcohol		----------NA----------					
57		2,2,4-trimethylpentane		----------NA----------					
58	M	benzene		----------NA----------					
59	M	tert-amyl methyl ether		----------NA----------					
60	M	heptane		----------NA----------					
61	M	isopropyl acetate		----------NA----------					
62	M	1,2-dichloroethane		----------NA----------					
63	M	trichloroethene		----------NA----------					
64		ethyl acrylate		----------NA----------					
65	M	2-nitropropane		----------NA----------					
66	M	2-chloroethyl vinyl ether		----------NA----------					
67	M	methyl methacrylate		----------NA----------					
68	M	1,2-dichloropropane		----------NA----------					
69	M	dibromomethane		----------NA----------					
70	M	methylcyclohexane		----------NA----------					
71	M	bromodichloromethane		----------NA----------					
72		epichlorohydrin		----------NA----------					
73	M	cis-1,3-dichloropropene		----------NA----------					
74	M	4-methyl-2-pentanone		----------NA----------					
75	M	3-methyl-1-butanol		----------NA----------					
76	I	chlorobenzene-d5	1.000	1.000	0.0	110	0.00	15.05	
77	S	toluene-d8 (s)	1.239	1.227	1.0	110	0.00	13.45	
78		toluene		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		ethyl methacrylate		----------NA----------					
81		1,1,2-trichloroethane		----------NA----------					
82	M	tetrachloroethene		----------NA----------					
83	M	1,3-dichloropropane		----------NA----------					
84		2-hexanone		----------NA----------					
85	M	butyl acetate		----------NA----------					

		----------	True	Calc.	% Drift	----------			
86	M	3,3-dimethyl-1-butanol		----------NA----------					

		----------	AvgRF	CCRF	% Dev	----------			
87	M	dibromochloromethane		----------NA----------					
88	M	1,2-dibromoethane		----------NA----------					
89		n-butyl ether		----------NA----------					
90	M	chlorobenzene		----------NA----------					
91	M	1,1,1,2-tetrachloroethane		----------NA----------					

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICV7000
Lab FileID: 2B157373.D

92	M	ethylbenzene			----------NA----------				
93	M	m,p-xylene			----------NA----------				
94	M	o-xylene			----------NA----------				
95	M	styrene			----------NA----------				
96	M	bromoform			----------NA----------				
97		butyl acrylate			----------NA----------				
98		isopropylbenzene			----------NA----------				
99		cis-1,4-dichloro-2-butene			----------NA----------				
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	17.54	
101	S	4-bromofluorobenzene (s)	0.855	0.849	0.7	108	0.00	16.29	
102	M	bromobenzene			----------NA----------				
103	M	1,1,2,2-tetrachloroethane			----------NA----------				
104	M	trans-1,4-dichloro-2-bute			----------NA----------				
105	M	1,2,3-trichloropropane			----------NA----------				
106	M	n-propylbenzene			----------NA----------				
107		4-Ethyltoluene			----------NA----------				
108	M	2-chlorotoluene			----------NA----------				
109	M	4-chlorotoluene			----------NA----------				
110	M	1,3,5-trimethylbenzene			----------NA----------				
111	M	tert-butylbenzene			----------NA----------				
112	M	1,2,4-trimethylbenzene			----------NA----------				
113	M	sec-butylbenzene			----------NA----------				
114	M	1,3-dichlorobenzene			----------NA----------				
115	M	p-isopropyltoluene			----------NA----------				
116	M	1,4-dichlorobenzene			----------NA----------				
117		benzyl chloride			----------NA----------				
118	M	1,2-dichlorobenzene			----------NA----------				
119		p-Diethylbenzene			----------NA----------				
120	M	n-butylbenzene			----------NA----------				
121		hexachloroethane			----------NA----------				
122		1,2,4,5-Tetramethylbenzen			----------NA----------				
123	M	1,2-dibromo-3-chloropropa			----------NA----------				
124		1,3,5-trichlorobenzene			----------NA----------				
		---------- True		Calc.	% Drift ----------				
125		2-ethylhexyl acrylate			----------NA----------				
		---------- AvgRF		CCRF	% Dev ----------				
126	M	1,2,4-trichlorobenzene			----------NA----------				
127	M	hexachlorobutadiene			----------NA----------				
128	M	naphthalene			----------NA----------				
129	M	1,2,3-trichlorobenzene			----------NA----------				
		---------- True		Calc.	% Drift ----------				
130		2-methylnaphthalene			----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2B157367.D M2B7000.M Fri Jan 12 15:34:01 2018

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICV7000
Lab FileID: 2B157376.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2B157376.D Vial: 2
Acq On : 11 Jan 2018 11:04 am Operator: EddieH
Sample : icv7000-50 Inst : MS2B
Misc : MS23592,V2B7000,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B7000.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Jan 12 15:24:13 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 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		tert butyl alcohol-d9	1.000	1.000	0.0	114	-0.02	8.31
2	M	tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4	M	1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.77
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
8		freon 114	50.000	53.496	-7.0	102	0.00	4.83
		----------	AvgRF	CCRF	% Dev	----------		
9		freon 142b	0.587	0.628	-7.0	101	0.00	4.86
10	M	chloromethane		----------NA----------				
11	M	vinyl chloride		----------NA----------				
12		1,3-butadiene		----------NA----------				
13	M	bromomethane		----------NA----------				
14	M	chloroethane		----------NA----------				
15	M	trichlorofluoromethane		----------NA----------				
16		vinyl bromide		----------NA----------				
17	M	ethyl ether		----------NA----------				
18	M	acrolein		----------NA----------				
19		freon 113		----------NA----------				
20	M	1,1-dichloroethene		----------NA----------				
21	M	acetone		----------NA----------				
22	M	acetonitrile		----------NA----------				
23	M	iodomethane		----------NA----------				
24	M	carbon disulfide		----------NA----------				
25	M	methylene chloride		----------NA----------				
26	M	methyl acetate		----------NA----------				
27	M	methyl tert butyl ether		----------NA----------				
28	M	trans-1,2-dichloroethene		----------NA----------				
29	M	di-isopropyl ether		----------NA----------				
30	M	2-butanone		----------NA----------				
31	M	1,1-dichloroethane		----------NA----------				
32	M	chloroprene		----------NA----------				
33	M	acrylonitrile		----------NA----------				
34		hexane		----------NA----------				
35	M	vinyl acetate		----------NA----------				
36	M	ethyl tert-butyl ether		----------NA----------				
37	M	ethyl acetate		----------NA----------				

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICV7000
Lab FileID: 2B157376.D

38	M	2,2-dichloropropane		----------NA----------					
39	M	cis-1,2-dichloroethene		----------NA----------					
40		methyl acrylate		----------NA----------					
41	M	propionitrile		----------NA----------					
42	M	bromochloromethane		----------NA----------					
43	M	tetrahydrofuran		----------NA----------					
44	M	chloroform		----------NA----------					
45	M	t-butyl formate		----------NA----------					
46	S	dibromofluoromethane (s)	0.432	0.438	-1.4	105	0.00	10.77	
47	M	methacrylonitrile		----------NA----------					
48	M	1,1,1-trichloroethane		----------NA----------					
49		cyclohexane		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		iso-butyl alcohol		----------NA----------					
52		carbon tetrachloride		----------NA----------					
53		tert amyl alcohol		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	11.72	
55	S	1,2-dichloroethane-d4 (s)	0.352	0.365	-3.7	107	0.00	11.22	
56	M	n-butyl alcohol		----------NA----------					
57		2,2,4-trimethylpentane		----------NA----------					
58	M	benzene		----------NA----------					
59	M	tert-amyl methyl ether		----------NA----------					
60	M	heptane		----------NA----------					
61	M	isopropyl acetate		----------NA----------					
62	M	1,2-dichloroethane		----------NA----------					
63	M	trichloroethene		----------NA----------					
64		ethyl acrylate		----------NA----------					
65	M	2-nitropropane		----------NA----------					
66	M	2-chloroethyl vinyl ether		----------NA----------					
67	M	methyl methacrylate		----------NA----------					
68	M	1,2-dichloropropane		----------NA----------					
69	M	dibromomethane		----------NA----------					
70	M	methylcyclohexane		----------NA----------					
71	M	bromodichloromethane		----------NA----------					
72		epichlorohydrin		----------NA----------					
73	M	cis-1,3-dichloropropene		----------NA----------					
74	M	4-methyl-2-pentanone		----------NA----------					
75	M	3-methyl-1-butanol		----------NA----------					
76	I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	15.06	
77	S	toluene-d8 (s)	1.239	1.248	-0.7	106	0.00	13.45	
78		toluene		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		ethyl methacrylate		----------NA----------					
81		1,1,2-trichloroethane		----------NA----------					
82	M	tetrachloroethene	0.284	0.277	2.5	98	0.00	14.16	
83	M	1,3-dichloropropane		----------NA----------					
84		2-hexanone		----------NA----------					
85	M	butyl acetate		----------NA----------					
		----------	True	Calc.	% Drift	----------			
86	M	3,3-dimethyl-1-butanol		----------NA----------					
		----------	AvgRF	CCRF	% Dev	----------			
87	M	dibromochloromethane		----------NA----------					
88	M	1,2-dibromoethane		----------NA----------					
89		n-butyl ether		----------NA----------					
90	M	chlorobenzene		----------NA----------					
91	M	1,1,1,2-tetrachloroethane		----------NA----------					

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7000-ICV7000
Lab FileID: 2B157376.D

92	M	ethylbenzene		----------NA----------				
93	M	m,p-xylene		----------NA----------				
94	M	o-xylene		----------NA----------				
95	M	styrene		----------NA----------				
96	M	bromoform		----------NA----------				
97		butyl acrylate		----------NA----------				
98		isopropylbenzene		----------NA----------				
99		cis-1,4-dichloro-2-butene		----------NA----------				
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	17.54
101	S	4-bromofluorobenzene (s)	0.855	0.885	-3.5	99	0.00	16.29
102	M	bromobenzene		----------NA----------				
103	M	1,1,2,2-tetrachloroethane		----------NA----------				
104	M	trans-1,4-dichloro-2-bute		----------NA----------				
105	M	1,2,3-trichloropropane		----------NA----------				
106	M	n-propylbenzene		----------NA----------				
107		4-Ethyltoluene	2.725	2.821	-3.5	94	0.00	16.64
108	M	2-chlorotoluene		----------NA----------				
109	M	4-chlorotoluene		----------NA----------				
110	M	1,3,5-trimethylbenzene		----------NA----------				
111	M	tert-butylbenzene		----------NA----------				
112	M	1,2,4-trimethylbenzene		----------NA----------				
113	M	sec-butylbenzene		----------NA----------				
114	M	1,3-dichlorobenzene		----------NA----------				
115	M	p-isopropyltoluene		----------NA----------				
116	M	1,4-dichlorobenzene		----------NA----------				
117		benzyl chloride		----------NA----------				
118	M	1,2-dichlorobenzene		----------NA----------				
119		p-Diethylbenzene		----------NA----------				
120	M	n-butylbenzene		----------NA----------				
121		hexachloroethane		----------NA----------				
122		1,2,4,5-Tetramethylbenzen		----------NA----------				
123	M	1,2-dibromo-3-chloropropa		----------NA----------				
124		1,3,5-trichlorobenzene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
125		2-ethylhexyl acrylate		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
126	M	1,2,4-trichlorobenzene		----------NA----------				
127	M	hexachlorobutadiene		----------NA----------				
128	M	naphthalene		----------NA----------				
129	M	1,2,3-trichlorobenzene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
130		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B157367.D M2B7000.M Fri Jan 12 15:34:03 2018

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2B7094-CC7000
Lab FileID: 2B159323.D

Evaluate Continuing Calibration Report

Data File : X:\complete\2018\day...le\v2b7094\2b159323.d Vial: 2
Acq On : 30 Mar 2018 7:51 am Operator: sydneys
Sample : cc7000-20 Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B7000.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Jan 12 15:34:22 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 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		tert butyl alcohol-d9	1.000	1.000	0.0	109	-0.02	8.31
2	M	tertiary butyl alcohol	1.023	1.094	-6.9	109	-0.02	8.44
3		ethanol	0.121	0.133	-9.9	123	-0.04	6.86
4	M	1,4-dioxane	0.097	0.095	2.1	107	0.00	12.44
5	I	pentafluorobenzene	1.000	1.000	0.0	101	0.00	10.76
6	M	chlorodifluoromethane	0.579	0.617	-6.6	101	0.00	4.51
7	M	dichlorodifluoromethane	0.585	0.678	-15.9	105	0.00	4.50
		----------	True	Calc.	% Drift	----------		
8		freon 114		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
9		freon 142b		----------NA----------				
10	M	chloromethane	0.617	0.709	-14.9	109	0.00	4.96
11	M	vinyl chloride	0.583	0.607	-4.1	96	0.00	5.22
12		1,3-butadiene		----------NA----------				
13	M	bromomethane	0.422	0.387	8.3	88	0.04	5.97
14	M	chloroethane	0.328	0.338	-3.0	97	0.02	6.12
15	M	trichlorofluoromethane	0.676	0.791	-17.0	103	0.01	6.68
16		vinyl bromide	0.373	0.362	2.9	92	0.02	6.53
17	M	ethyl ether		----------NA----------				
18	M	acrolein	0.066	0.083	-25.8#	116	0.00	7.33
19		freon 113	0.310	0.292	5.8	88	0.02	7.59
20	M	1,1-dichloroethene	0.387	0.353	8.8	89	0.00	7.56
21	M	acetone	0.058	0.050	13.8	82	-0.01	7.58
22	M	acetonitrile	0.042	0.047	-11.9	104	0.00	8.04
23	M	iodomethane		----------NA----------				
24	M	carbon disulfide	1.209	1.154	4.5	93	0.00	8.00
25	M	methylene chloride	0.410	0.402	2.0	95	0.00	8.33
26	M	methyl acetate	0.260	0.273	-5.0	104	0.00	8.14
27	M	methyl tert butyl ether	1.150	1.156	-0.5	97	-0.01	8.77
28	M	trans-1,2-dichloroethene	0.407	0.371	8.8	90	0.00	8.78
29	M	di-isopropyl ether	1.302	1.263	3.0	92	-0.01	9.45
30	M	2-butanone	0.048	0.041	14.6	81	0.00	10.14
31	M	1,1-dichloroethane	0.742	0.719	3.1	94	0.00	9.39
32	M	chloroprene	0.609	0.579	4.9	91	0.00	9.53
33	M	acrylonitrile		----------NA----------				
34		hexane	0.260	0.232	10.8	80	0.00	9.18
35	M	vinyl acetate	0.046	0.061	-32.6#	132	0.00	9.40
36	M	ethyl tert-butyl ether	1.292	1.249	3.3	91	-0.01	9.94
37	M	ethyl acetate	0.041	0.043	-4.9	95	-0.01	10.19

Continuing Calibration Summary

Job Number: JC62881 **Sample:** V2B7094-CC7000
Account: BBLNYS Arcadis **Lab FileID:** 2B159323.D
Project: National Grid, Philly Coke, Philadelphia PA

38	M	2,2-dichloropropane	0.597	0.608	-1.8	99	0.00	10.21
39	M	cis-1,2-dichloroethene	0.453	0.416	8.2	90	0.00	10.18
40		methyl acrylate		----------NA----------				
41	M	propionitrile		----------NA----------				
42	M	bromochloromethane	0.214	0.213	0.5	92	0.00	10.50
43	M	tetrahydrofuran		----------NA----------				
44	M	chloroform	0.471	0.473	-0.4	100	0.00	10.56
45	M	t-butyl formate	0.121	0.250	-106.6#	210#	0.00	10.65
46	S	dibromofluoromethane (s)	0.432	0.406	6.0	94	-0.01	10.77
47	M	methacrylonitrile	0.136	0.139	-1.9	94	0.00	10.43
48	M	1,1,1-trichloroethane	0.629	0.633	-0.6	100	0.00	10.87
49		cyclohexane	0.511	0.431	15.7	75	0.00	10.98
50		1,1-dichloropropene	0.512	0.480	6.3	90	0.00	11.05
51		iso-butyl alcohol	0.013	0.013	0.0	105	-0.01	11.03
52		carbon tetrachloride	0.522	0.584	-11.9	106	0.00	11.09
53		tert amyl alcohol	0.011	0.012	-9.1	107	0.00	11.19
54	I	1,4-difluorobenzene	1.000	1.000	0.0	94	-0.01	11.70
55	S	1,2-dichloroethane-d4 (s)	0.352	0.414	-17.6	111	0.00	11.21
56	M	n-butyl alcohol	0.006	0.006#	0.0	97	0.00	11.82
57		2,2,4-trimethylpentane	0.994	0.854	14.1	70	-0.01	11.40
58	M	benzene	1.096	1.058	3.5	86	0.00	11.32
59	M	tert-amyl methyl ether	0.198	0.197	0.5	86	-0.01	11.40
60	M	heptane	0.220	0.177	19.5	69	0.00	11.57
61	M	isopropyl acetate	0.048	0.048	0.0	88	0.00	11.26
62	M	1,2-dichloroethane	0.373	0.475	-27.3#	109	0.00	11.31
63	M	trichloroethene	0.319	0.296	7.2	83	0.00	12.07
64		ethyl acrylate	0.273	0.288	-5.5	91	0.00	12.08
65	M	2-nitropropane		----------NA----------				
66	M	2-chloroethyl vinyl ether	0.171	0.168	1.8	83	-0.01	12.88
67	M	methyl methacrylate		----------NA----------				
68	M	1,2-dichloropropane	0.290	0.289	0.3	89	0.00	12.33
69	M	dibromomethane	0.168	0.192	-14.3	100	0.00	12.47
70	M	methylcyclohexane	0.508	0.438	13.8	72	0.00	12.34
71	M	bromodichloromethane	0.384	0.444	-15.6	104	0.00	12.61
72		epichlorohydrin	0.022	0.025	-13.6	101	0.00	12.99
73	M	cis-1,3-dichloropropene	0.466	0.487	-4.5	92	0.00	13.11
74	M	4-methyl-2-pentanone	0.088	0.094	-6.8	91	0.00	13.23
75	M	3-methyl-1-butanol	0.005	0.006#	-20.0	97	0.00	13.23
76	I	chlorobenzene-d5	1.000	1.000	0.0	95	0.00	15.04
77	S	toluene-d8 (s)	1.239	1.138	8.2	88	0.00	13.45
78		toluene	0.740	0.679	8.2	85	0.00	13.52
79		trans-1,3-dichloropropene	0.424	0.467	-10.1	97	0.00	13.70
80		ethyl methacrylate		----------NA----------				
81		1,1,2-trichloroethane	0.211	0.217	-2.8	93	0.00	13.92
82	M	tetrachloroethene	0.284	0.263	7.4	84	0.00	14.15
83	M	1,3-dichloropropane	0.419	0.443	-5.7	91	0.00	14.12
84		2-hexanone	0.105	0.099	5.7	79	0.00	14.13
85	M	butyl acetate	0.148	0.162	-9.5	92	0.00	14.23
		----------	True	Calc.	% Drift	----------		
86	M	3,3-dimethyl-1-butanol		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
87	M	dibromochloromethane	0.294	0.343	-16.7	103	0.00	14.40
88	M	1,2-dibromoethane	0.277	0.293	-5.8	93	0.00	14.56
89		n-butyl ether	1.325	1.186	10.5	79	0.00	15.03
90	M	chlorobenzene	0.820	0.784	4.4	84	0.00	15.08
91	M	1,1,1,2-tetrachloroethane	0.312	0.334	-7.1	95	0.00	15.14

Continuing Calibration Summary

Job Number: JC62881 **Sample:** V2B7094-CC7000
Account: BBLNYS Arcadis **Lab FileID:** 2B159323.D
Project: National Grid, Philly Coke, Philadelphia PA

92	M	ethylbenzene	1.397	1.330	4.8	87	-0.01	15.15
93	M	m,p-xylene	0.536	0.505	5.8	82	-0.01	15.27
94	M	o-xylene	0.577	0.539	6.6	84	0.00	15.72
95	M	styrene	0.917	0.905	1.3	85	0.00	15.72
96	M	bromoform	0.192	0.247	-28.6#	114	0.00	15.97
97		butyl acrylate	0.515	0.535	-3.9	90	0.00	15.53
98		isopropylbenzene	1.521	1.433	5.8	85	0.00	16.09
99		cis-1,4-dichloro-2-butene	0.116	0.153	-31.9#	117	0.00	16.12
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	17.54
101	S	4-bromofluorobenzene (s)	0.855	0.816	4.6	89	0.00	16.28
102	M	bromobenzene	0.720	0.748	-3.9	89	0.00	16.49
103	M	1,1,2,2-tetrachloroethane	0.544	0.623	-14.5	101	-0.01	16.36
104	M	trans-1,4-dichloro-2-bute		----------NA----------				
105	M	1,2,3-trichloropropane	0.156	0.191	-22.4#	102	-0.01	16.44
106	M	n-propylbenzene	2.914	2.955	-1.4	86	-0.01	16.52
107		4-Ethyltoluene		----------NA----------				
108	M	2-chlorotoluene	0.656	0.641	2.3	86	0.00	16.67
109	M	4-chlorotoluene	1.774	1.836	-3.5	90	-0.01	16.77
110	M	1,3,5-trimethylbenzene	2.163	2.205	-1.9	89	0.00	16.69
111	M	tert-butylbenzene	0.498	0.444	10.8	79	0.00	17.06
112	M	1,2,4-trimethylbenzene	2.199	2.304	-4.8	88	0.00	17.11
113	M	sec-butylbenzene	2.865	2.771	3.3	81	0.00	17.29
114	M	1,3-dichlorobenzene	1.342	1.403	-4.5	89	0.00	17.47
115	M	p-isopropyltoluene	2.499	2.419	3.2	82	0.00	17.42
116	M	1,4-dichlorobenzene	1.340	1.323	1.3	87	0.00	17.56
117		benzyl chloride	1.062	1.420	-33.7#	114	0.00	17.68
118	M	1,2-dichlorobenzene	1.316	1.409	-7.1	91	0.00	17.99
119		p-Diethylbenzene		----------NA----------				
120	M	n-butylbenzene	1.279	1.170	8.5	79	0.00	17.87
121		hexachloroethane		----------NA----------				
122		1,2,4,5-Tetramethylbenzen		----------NA----------				
123	M	1,2-dibromo-3-chloropropa	0.098	0.134	-36.7#	119	0.00	18.81
124		1,3,5-trichlorobenzene	1.233	1.303	-5.7	90	0.00	19.05
		----------	True	Calc.	% Drift	----------		
125		2-ethylhexyl acrylate	4.000	2.393	40.2#	43	0.00	19.71
		----------	AvgRF	CCRF	% Dev	----------		
126	M	1,2,4-trichlorobenzene	1.039	1.055	-1.5	87	-0.01	19.73
127	M	hexachlorobutadiene	0.612	0.592	3.3	85	0.00	19.88
128	M	naphthalene	1.758	1.845	-4.9	93	0.00	20.04
129	M	1,2,3-trichlorobenzene	0.867	0.881	-1.6	88	0.00	20.29
		----------	True	Calc.	% Drift	----------		
130		2-methylnaphthalene	10.000	7.368	26.3#	61	0.00	21.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2B157366.D M2B7000.M Wed Apr 04 09:34:41 2018

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159329.d
Acq On : 30 Mar 2018 11:37 am
Operator : sydneys
Sample : JC62881-1 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:22:47 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

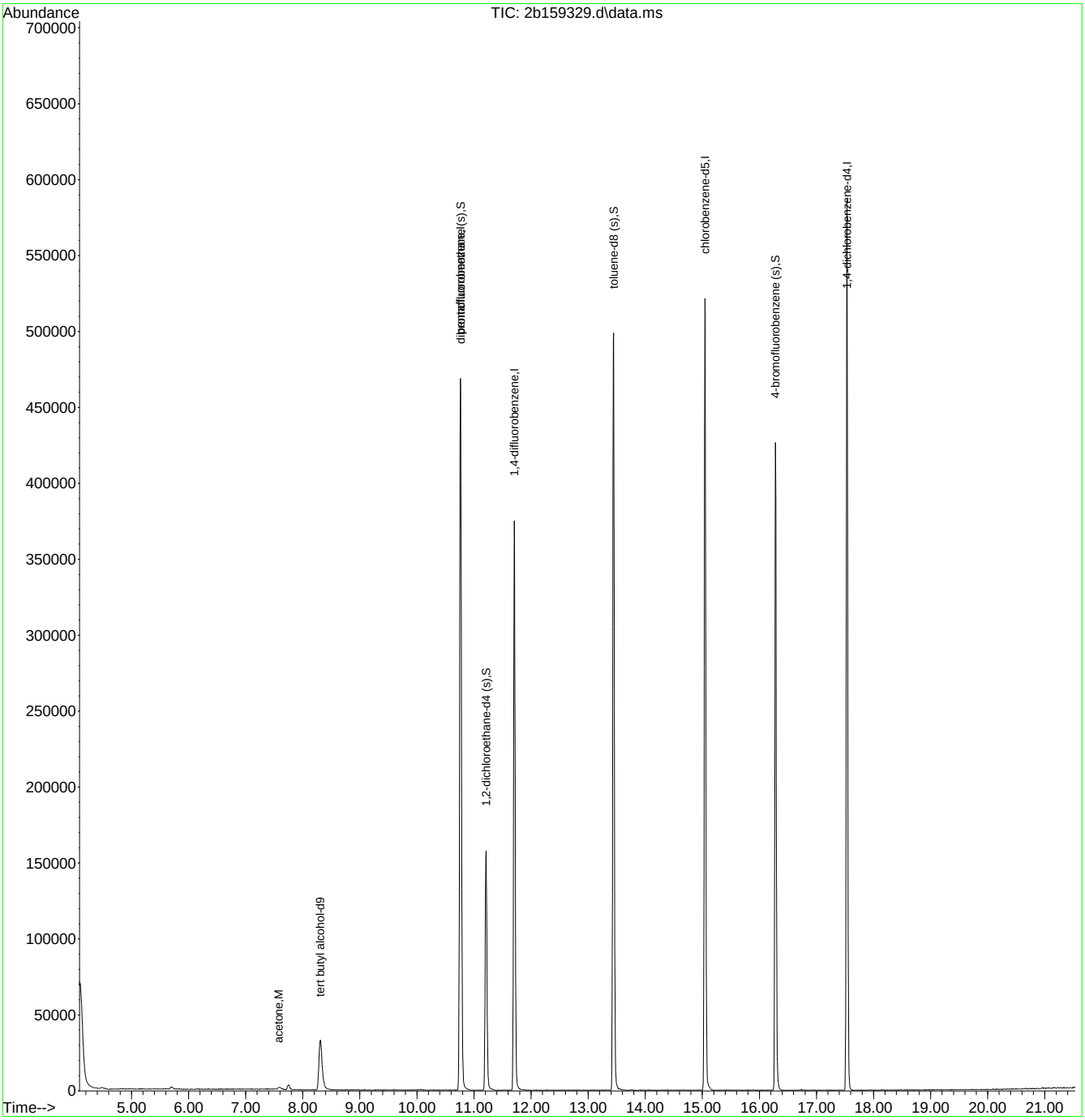
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.308	65	69748	500.00	ug/L	-0.02
5) pentafluorobenzene	10.761	168	252425	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.705	114	311868	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.045	117	298664	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	167060	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.767	113	103391	47.46	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.92%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	133815	60.97	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 121.94%			
77) toluene-d8 (s)	13.446	98	343583	46.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.84%			
101) 4-bromofluorobenzene (s)	16.282	95	131946	46.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.34%			
Target Compounds						Qvalue
21) acetone	7.579	58	551	1.87	ug/L	# 49

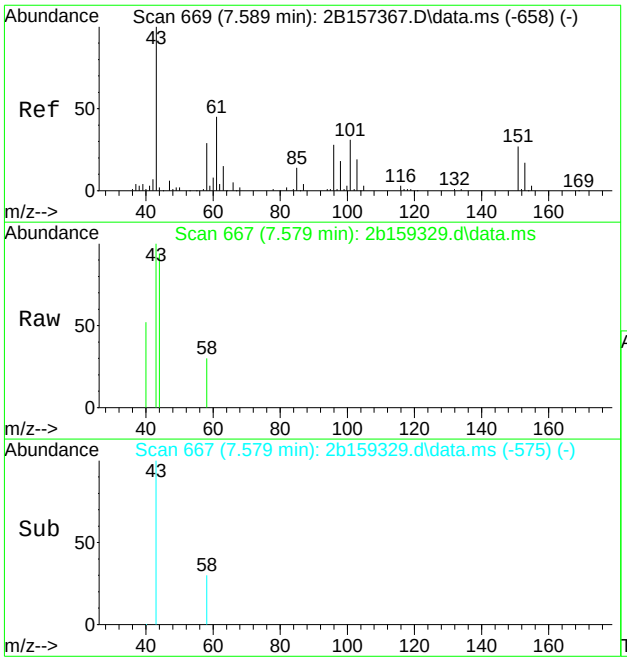
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159329.d
Acq On : 30 Mar 2018 11:37 am
Operator : sydneys
Sample : JC62881-1 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:22:47 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

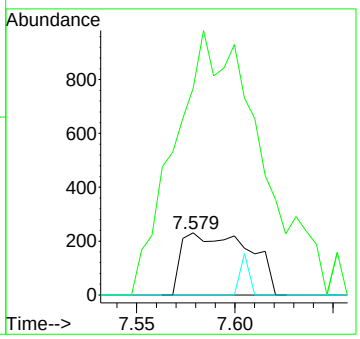




#21
acetone
Concen: 1.87 ug/L
RT: 7.579 min Scan# 667
Delta R.T. -0.015 min
Lab File: 2b159329.d
Acq: 30 Mar 2018 11:37 am

Tgt Ion: 58 Resp: 551

Ion	Ratio	Lower	Upper
58	100		
43	234.2	313.6	373.6#
42	0.0	0.0	55.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159330.d
Acq On : 30 Mar 2018 12:07 pm
Operator : sydneys
Sample : JC62881-2 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:23:30 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

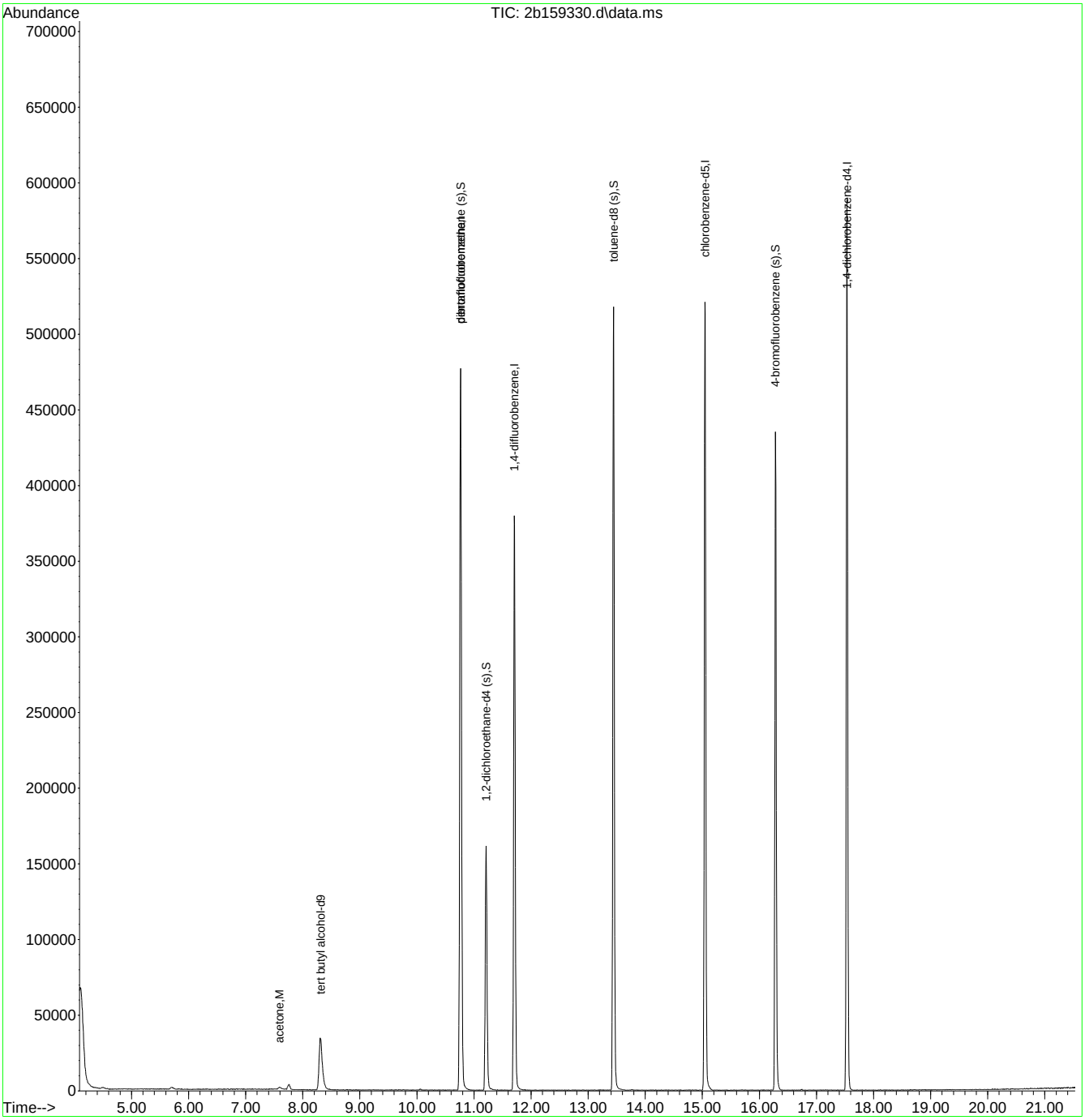
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.313	65	73127	500.00	ug/L	-0.02
5) pentafluorobenzene	10.766	168	252484	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.705	114	316755	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.045	117	303236	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	168417	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.766	113	103983	47.72	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.44%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	135089	60.60	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 121.20%			
77) toluene-d8 (s)	13.445	98	345705	46.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.02%			
101) 4-bromofluorobenzene (s)	16.282	95	134761	46.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.56%			
Target Compounds						Qvalue
21) acetone	7.589	58	369	1.25	ug/L	# 38

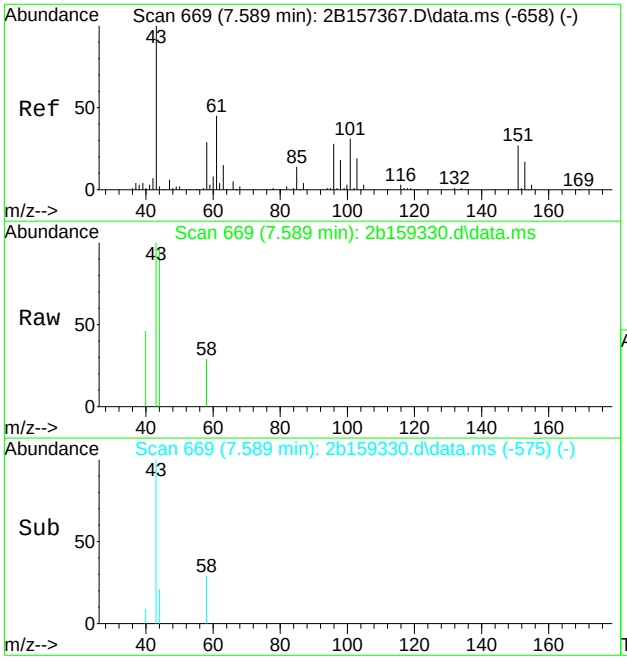
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159330.d
Acq On : 30 Mar 2018 12:07 pm
Operator : sydneys
Sample : JC62881-2 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:23:30 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

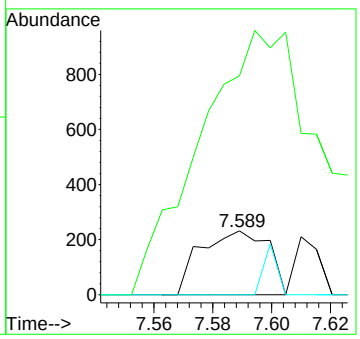




#21
acetone
Concen: 1.25 ug/L
RT: 7.589 min Scan# 669
Delta R.T. -0.005 min
Lab File: 2b159330.d
Acq: 30 Mar 2018 12:07 pm

Tgt Ion: 58 Resp: 369

Ion	Ratio	Lower	Upper
58	100		
43	209.9	313.6	373.6#
42	0.0	0.0	55.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159334.d
Acq On : 30 Mar 2018 2:08 pm
Operator : sydneys
Sample : JC62881-3 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:38:57 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

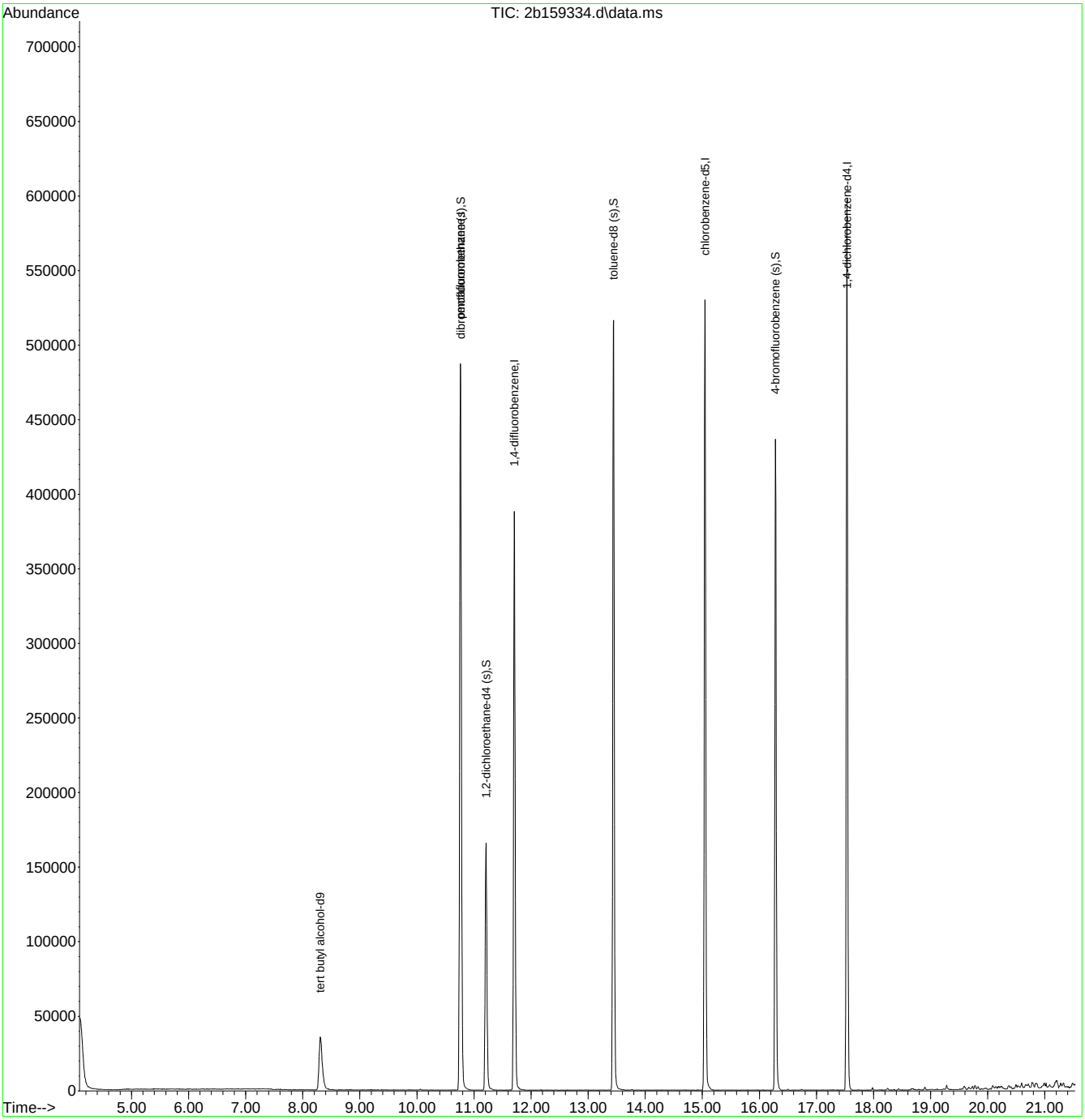
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.307	65	73235	500.00	ug/L	-0.02
5) pentafluorobenzene	10.761	168	255621	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.705	114	318755	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.045	117	303929	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	170674	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.766	113	106813	48.42	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.84%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	137988	61.51	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 123.02%			
77) toluene-d8 (s)	13.440	98	348384	46.26	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.52%			
101) 4-bromofluorobenzene (s)	16.282	95	133424	45.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.40%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159334.d
Acq On : 30 Mar 2018 2:08 pm
Operator : sydneys
Sample : JC62881-3 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:38:57 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159327.d
Acq On : 30 Mar 2018 10:37 am
Operator : sydneys
Sample : JC62881-4 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:19:34 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

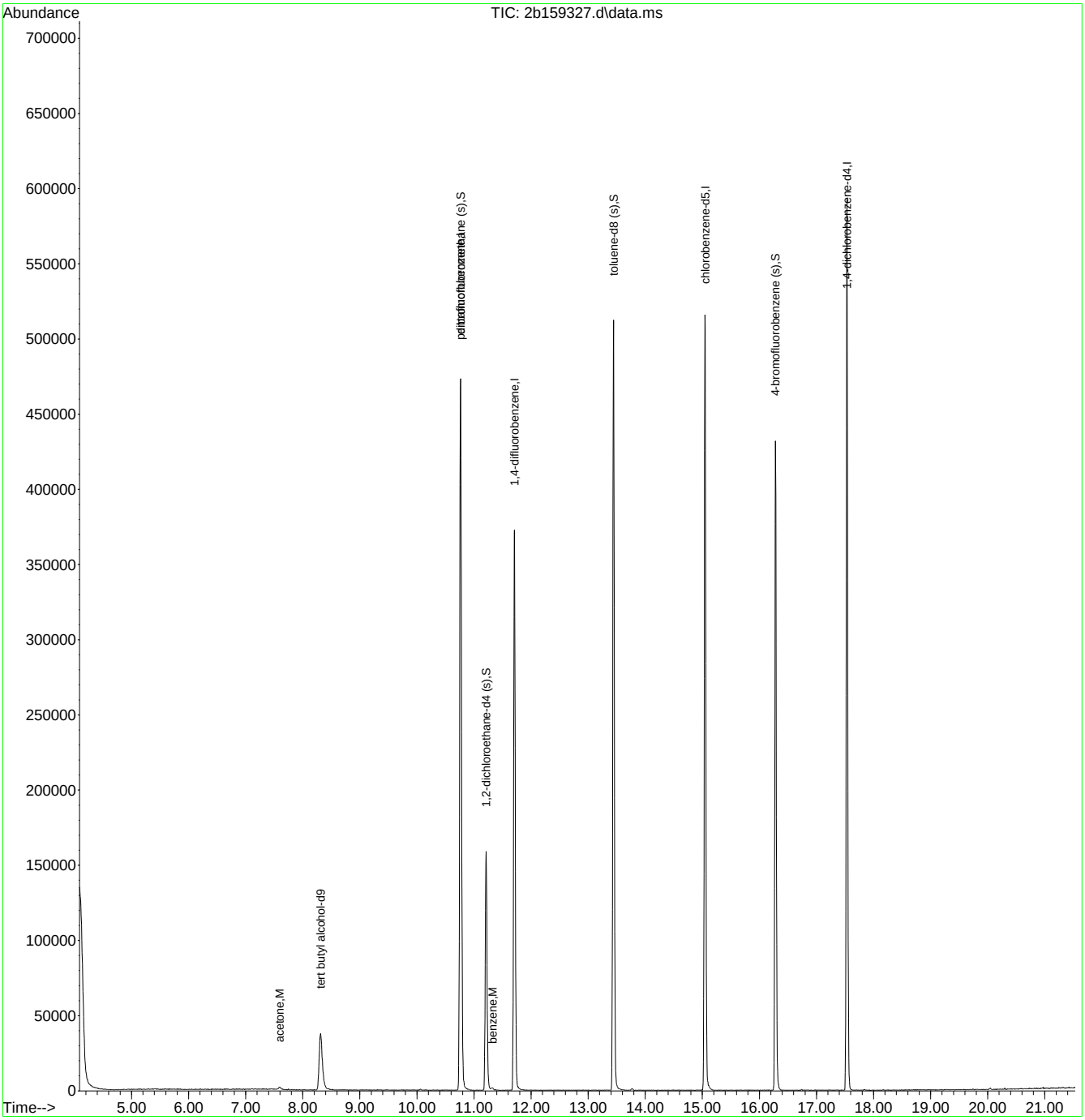
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.313	65	79519	500.00	ug/L	-0.02
5) pentafluorobenzene	10.761	168	255014	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.710	114	316958	50.00	ug/L	0.00
76) chlorobenzene-d5	15.050	117	304166	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	168659	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.766	113	104121	47.31	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.62%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	134843	60.45	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 120.90%			
77) toluene-d8 (s)	13.446	98	348529	46.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.48%			
101) 4-bromofluorobenzene (s)	16.282	95	135314	46.90	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.80%			
Target Compounds						Qvalue
21) acetone	7.594	58	552	1.85	ug/L #	45
58) benzene	11.327	78	1564	0.23	ug/L	99

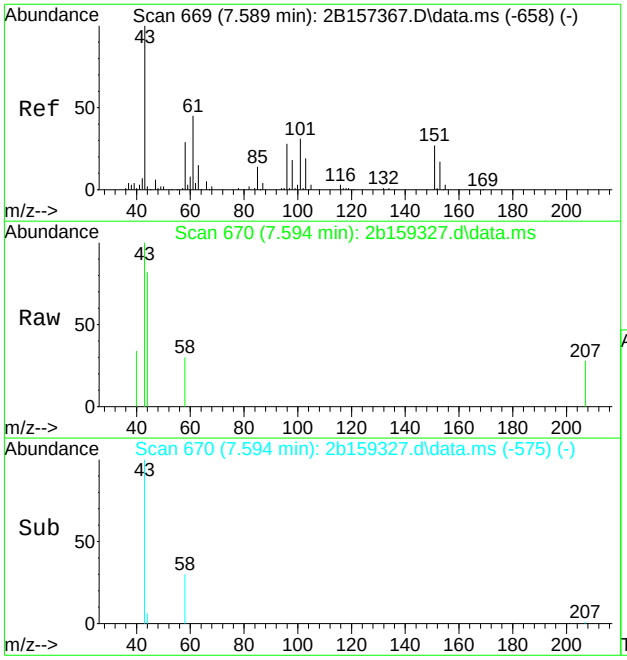
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159327.d
Acq On : 30 Mar 2018 10:37 am
Operator : sydneys
Sample : JC62881-4 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:19:34 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

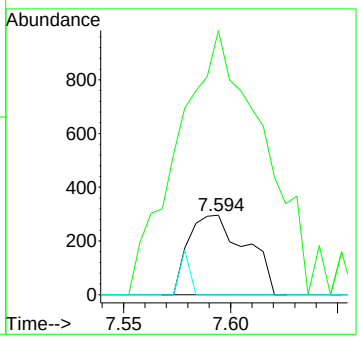


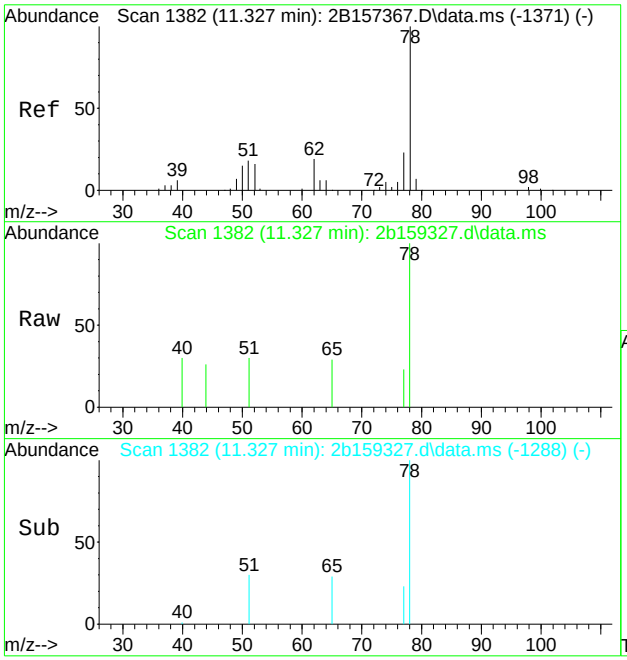


#21
acetone
Concen: 1.85 ug/L
RT: 7.594 min Scan# 670
Delta R.T. 0.000 min
Lab File: 2b159327.d
Acq: 30 Mar 2018 10:37 am

Tgt Ion: 58 Resp: 552

Ion	Ratio	Lower	Upper
58	100		
43	224.3	313.6	373.6#
42	0.0	0.0	55.1

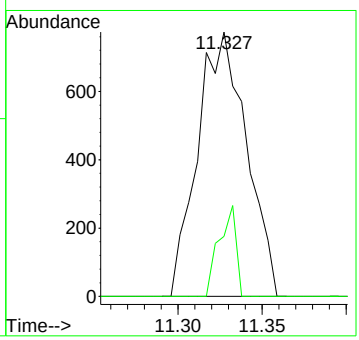




#58
benzene
Concen: 0.23 ug/L
RT: 11.327 min Scan# 1382
Delta R.T. 0.000 min
Lab File: 2b159327.d
Acq: 30 Mar 2018 10:37 am

Tgt Ion: 78 Resp: 1564

Ion	Ratio	Lower	Upper
78	100		
77	22.7	0.0	53.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159328.d
Acq On : 30 Mar 2018 11:07 am
Operator : sydneys
Sample : JC62881-5 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:21:53 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

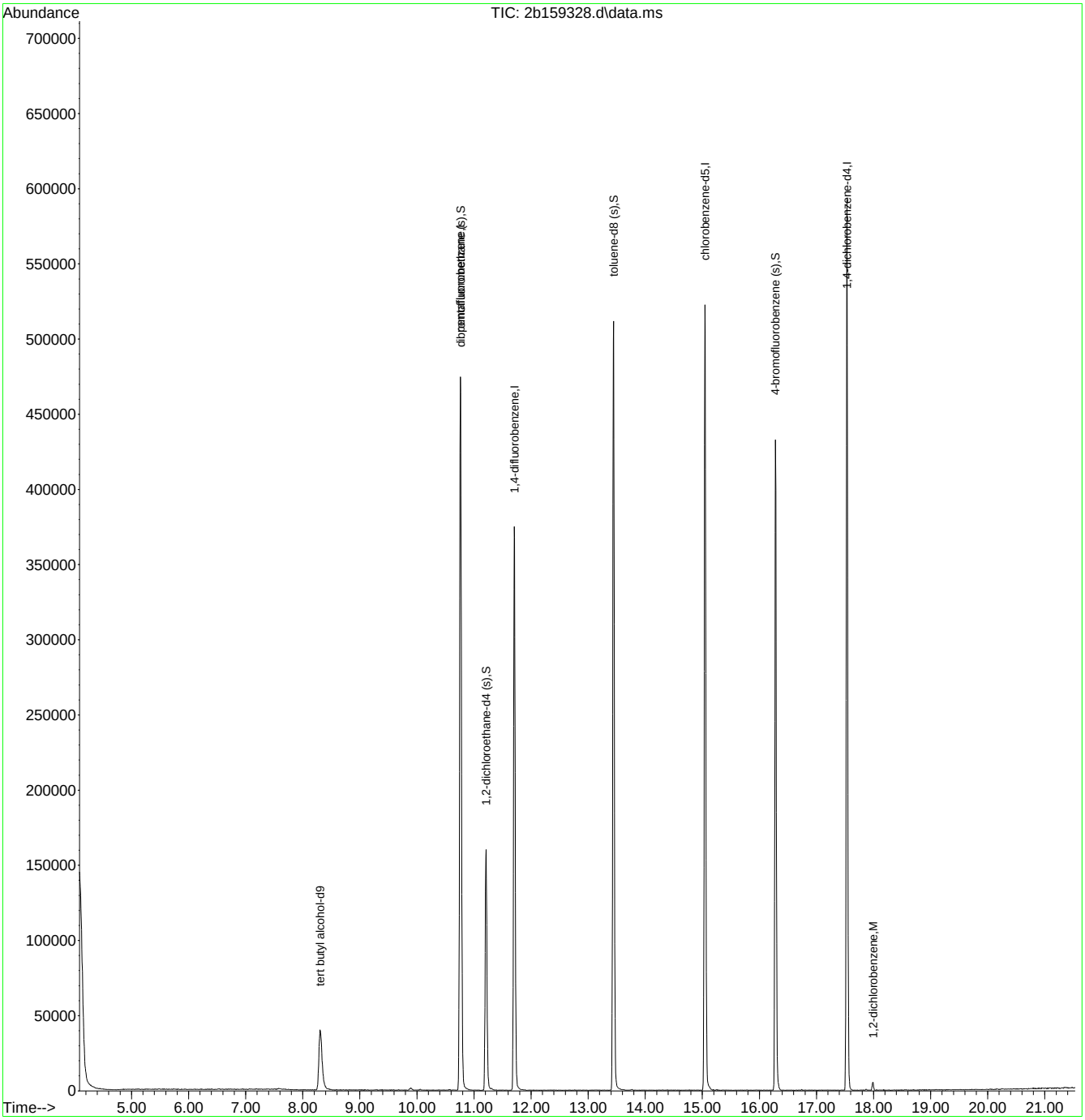
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.307	65	85002	500.00	ug/L	-0.02
5) pentafluorobenzene	10.761	168	253302	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.710	114	316626	50.00	ug/L	0.00
76) chlorobenzene-d5	15.045	117	302515	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	167817	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.766	113	103732	47.45	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.90%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	134101	60.18	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 120.36%			
77) toluene-d8 (s)	13.446	98	347614	46.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.74%			
101) 4-bromofluorobenzene (s)	16.282	95	133333	46.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.90%			
Target Compounds						Qvalue
118) 1,2-dichlorobenzene	17.991	146	3116	0.71	ug/L	98

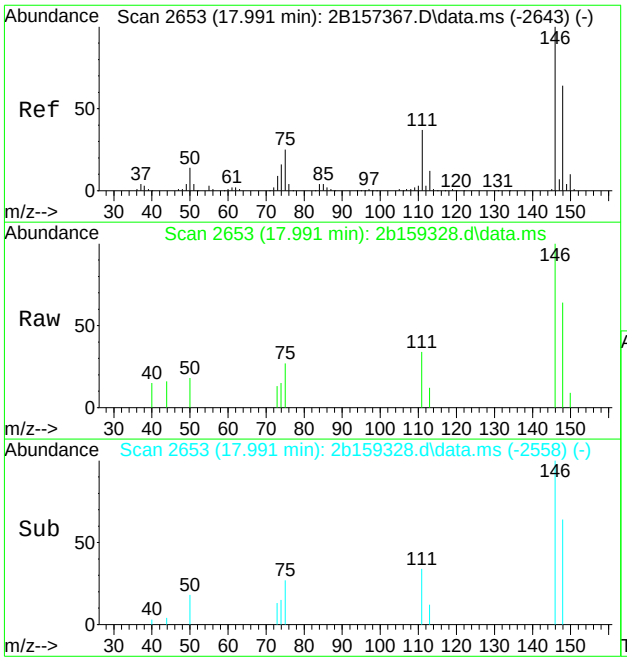
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159328.d
Acq On : 30 Mar 2018 11:07 am
Operator : sydneys
Sample : JC62881-5 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:21:53 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

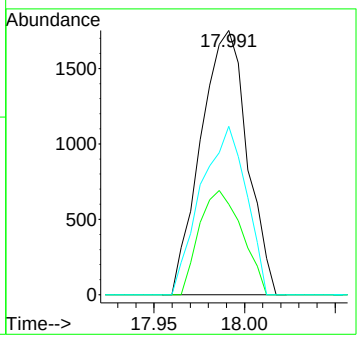




#118
1,2-dichlorobenzene
Concen: 0.71 ug/L
RT: 17.991 min Scan# 2653
Delta R.T. -0.000 min
Lab File: 2b159328.d
Acq: 30 Mar 2018 11:07 am

Tgt Ion:146 Resp: 3116

Ion	Ratio	Lower	Upper
146	100		
111	34.2	7.0	67.0
148	63.7	33.9	93.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159336.d
Acq On : 30 Mar 2018 3:08 pm
Operator : sydneys
Sample : JC62881-6 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:41:52 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

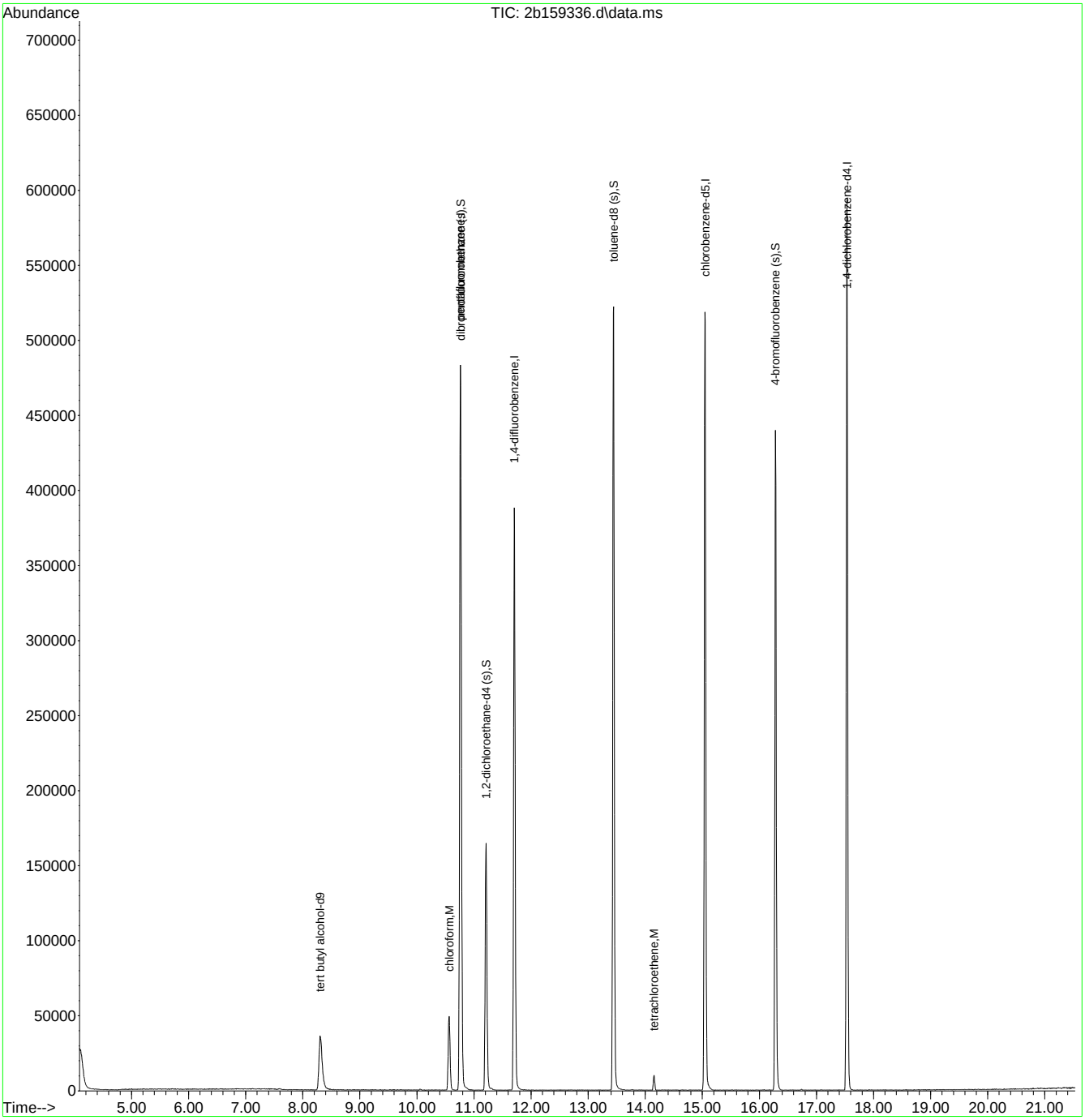
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.307	65	73268	500.00	ug/L	-0.02
5) pentafluorobenzene	10.761	168	254017	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.705	114	319570	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.050	117	304454	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	170299	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.766	113	107449	49.01	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.02%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	137900	61.32	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 122.64%			
77) toluene-d8 (s)	13.446	98	349878	46.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.76%			
101) 4-bromofluorobenzene (s)	16.282	95	134550	46.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.38%			
Target Compounds						Qvalue
44) chloroform	10.567	85	29381	12.27	ug/L	94
82) tetrachloroethene	14.153	164	2536	1.47	ug/L	97

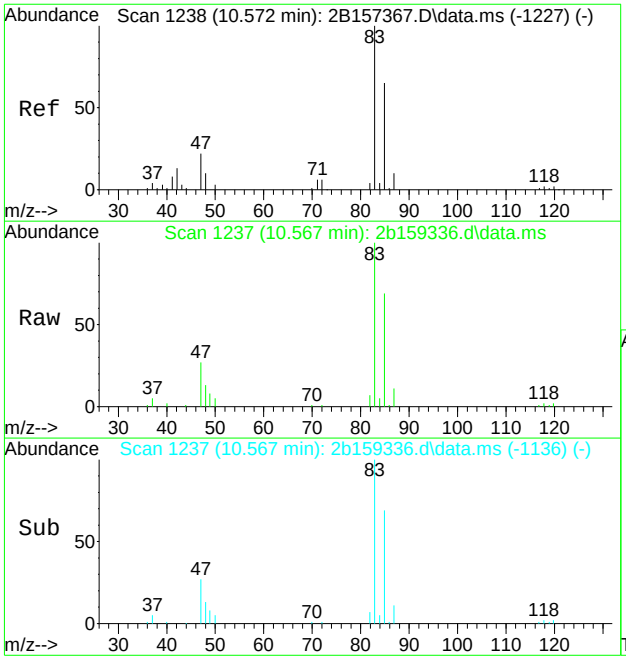
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159336.d
Acq On : 30 Mar 2018 3:08 pm
Operator : sydneys
Sample : JC62881-6 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:41:52 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

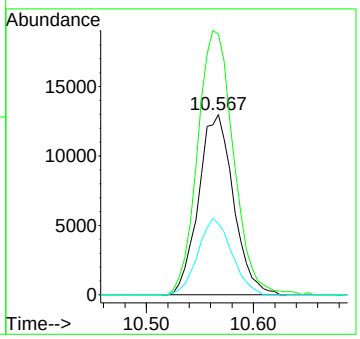


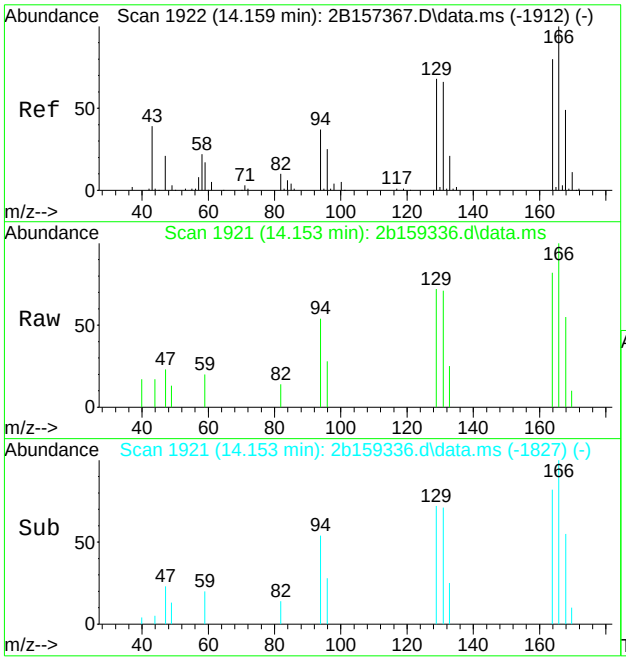


#44
chloroform
Concen: 12.27 ug/L
RT: 10.567 min Scan# 1237
Delta R.T. 0.000 min
Lab File: 2b159336.d
Acq: 30 Mar 2018 3:08 pm

Tgt Ion: 85 Resp: 29381

Ion	Ratio	Lower	Upper
85	100		
83	144.7	124.1	184.1
47	39.5	9.2	69.2

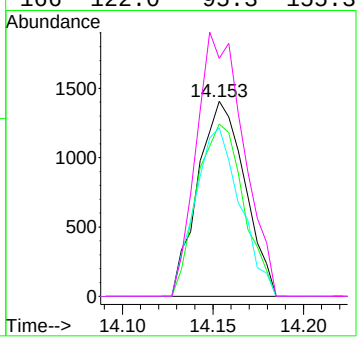




#82
tetrachloroethene
Concen: 1.47 ug/L
RT: 14.153 min Scan# 1921
Delta R.T. -0.005 min
Lab File: 2b159336.d
Acq: 30 Mar 2018 3:08 pm

Tgt Ion:164 Resp: 2536

Ion	Ratio	Lower	Upper
164	100		
129	88.3	55.4	115.4
131	86.4	52.9	112.9
166	122.0	95.3	155.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159335.d
Acq On : 30 Mar 2018 2:38 pm
Operator : sydneys
Sample : JC62881-7 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:40:28 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

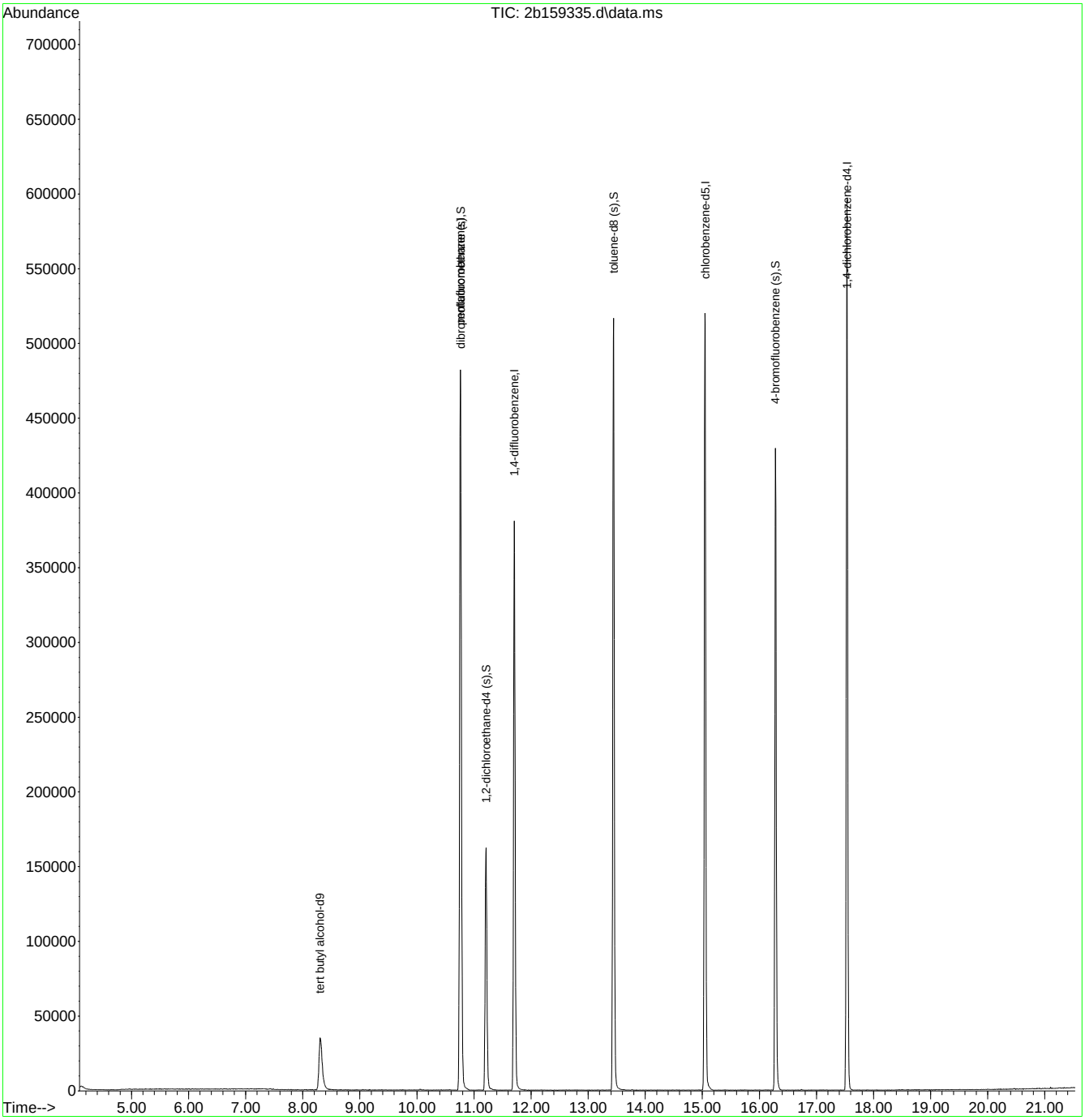
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.302	65	72202	500.00	ug/L	-0.03
5) pentafluorobenzene	10.761	168	253083	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.705	114	315435	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.050	117	302371	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	169286	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.766	113	107244	49.10	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.20%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	136062	61.29	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 122.58%			
77) toluene-d8 (s)	13.446	98	348134	46.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.92%			
101) 4-bromofluorobenzene (s)	16.282	95	133021	45.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.86%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159335.d
Acq On : 30 Mar 2018 2:38 pm
Operator : sydneys
Sample : JC62881-7 Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:40:28 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159326.d
Acq On : 30 Mar 2018 10:07 am
Operator : sydneys
Sample : mb Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:16:48 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

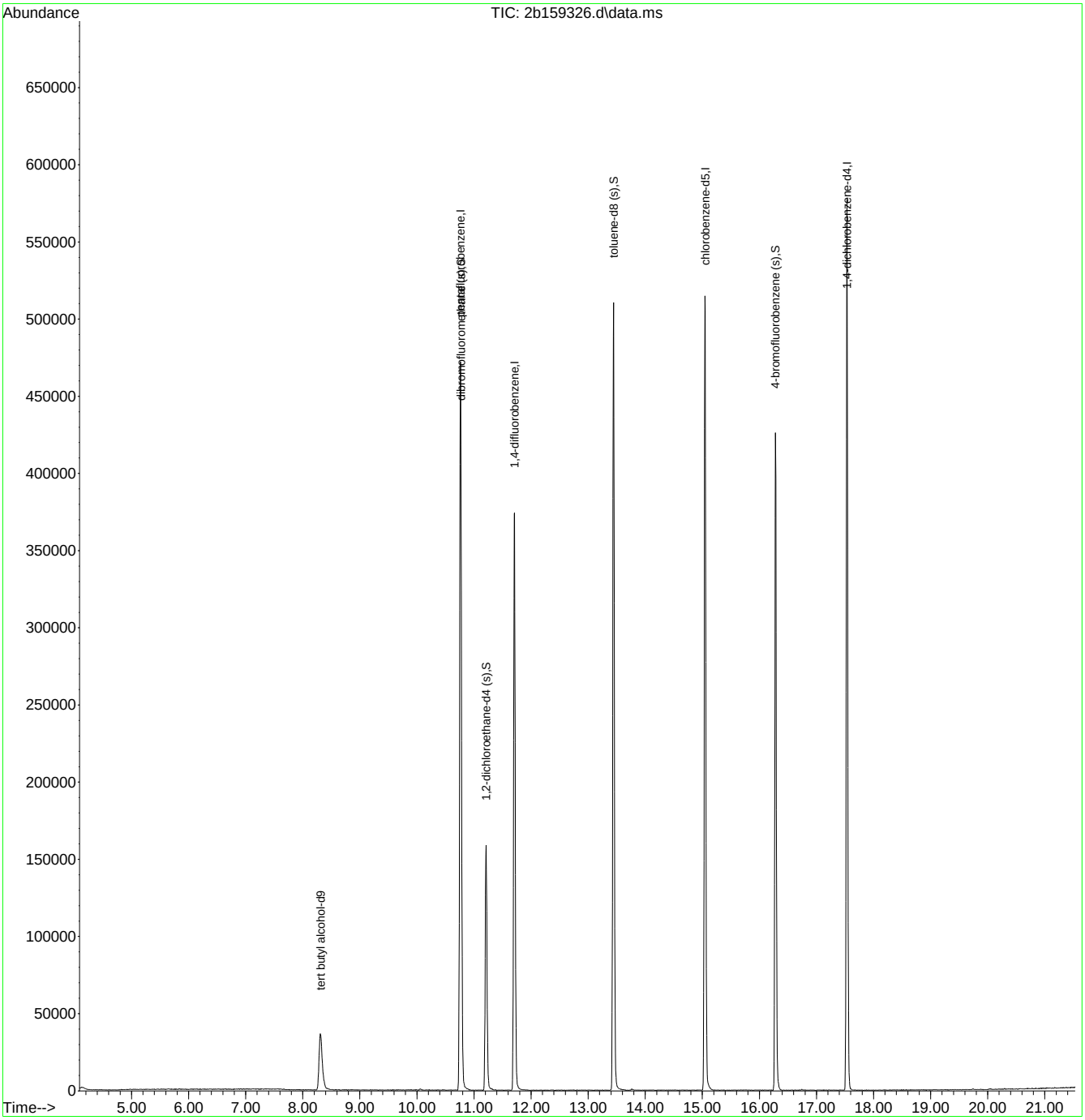
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.313	65	79424	500.00	ug/L	-0.02
5) pentafluorobenzene	10.761	168	257157	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.710	114	317747	50.00	ug/L	0.00
76) chlorobenzene-d5	15.050	117	304604	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	166907	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.772	113	104738	47.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.38%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	134300	60.06	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 120.12%			
77) toluene-d8 (s)	13.446	98	345737	45.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.60%			
101) 4-bromofluorobenzene (s)	16.282	95	135107	47.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.64%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159326.d
Acq On : 30 Mar 2018 10:07 am
Operator : sydneys
Sample : mb Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:16:48 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159324.d
Acq On : 30 Mar 2018 8:39 am
Operator : sydneys
Sample : bs Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:15:43 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.313	65	76552	500.00	ug/L		-0.02
5) pentafluorobenzene	10.761	168	232044	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.705	114	300153	50.00	ug/L		-0.01
76) chlorobenzene-d5	15.045	117	288382	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.535	152	160151	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.766	113	93402	46.64	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.28%				
55) 1,2-dichloroethane-d4 (s)	11.212	65	121444	57.49	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 114.98%				
77) toluene-d8 (s)	13.446	98	330797	46.29	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.58%				
101) 4-bromofluorobenzene (s)	16.282	95	131431	47.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.94%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.438	59	42074	268.71	ug/L		96
3) ethanol	6.865	45	90201	4849.18	ug/L		98
4) 1,4-dioxane	12.439	88	18134	1225.46	ug/L		98
6) chlorodifluoromethane	4.517	51	157229	58.49	ug/L		97
7) dichlorodifluoromethane	4.496	85	152754	56.22	ug/L		99
10) chloromethane	4.952	50	159448	55.66	ug/L		98
11) vinyl chloride	5.214	62	143741	53.15	ug/L		99
13) bromomethane	5.958	94	90491	46.17	ug/L		97
14) chloroethane	6.121	64	75435	49.57	ug/L		93
15) trichlorofluoromethane	6.677	101	178315	56.86	ug/L		99
16) vinyl bromide	6.535	106	98232	56.68	ug/L	#	97
18) acrolein	7.327	56	17680	57.93	ug/L		87
19) freon 113	7.589	151	60753	42.19	ug/L		98
20) 1,1-dichloroethene	7.563	96	78443	43.71	ug/L		93
21) acetone	7.579	58	47995	177.05	ug/L	#	86
22) acetonitrile	8.045	41	101829	520.03	ug/L		97
24) carbon disulfide	8.003	76	190624	33.98	ug/L		100
25) methylene chloride	8.334	84	92680	48.76	ug/L		99
26) methyl acetate	8.140	43	60607	50.30	ug/L		99
27) methyl tert butyl ether	8.769	73	188128	35.26	ug/L		96
28) trans-1,2-dichloroethene	8.779	96	83685	44.30	ug/L		98
29) di-isopropyl ether	9.445	45	282660	46.79	ug/L		94
30) 2-butanone	10.137	72	41958	189.85	ug/L		93
31) 1,1-dichloroethane	9.387	63	161804	46.99	ug/L		99
32) chloroprene	9.524	53	133753	47.30	ug/L		92
34) hexane	9.178	56	48762	40.47	ug/L		96
35) vinyl acetate	9.393	86	14608	68.37	ug/L		81
36) ethyl tert-butyl ether	9.943	59	294822	49.17	ug/L		99
37) ethyl acetate	10.195	45	9762	50.78	ug/L		86
38) 2,2-dichloropropane	10.205	77	138812	50.08	ug/L		99
39) cis-1,2-dichloroethene	10.174	96	92837	44.15	ug/L		95
42) bromochloromethane	10.494	128	49074	49.42	ug/L		94
44) chloroform	10.562	85	106459	48.68	ug/L		97
45) t-butyl formate	10.640	59	67751	120.95	ug/L		86
47) methacrylonitrile	10.426	67	22116	35.09	ug/L		94
48) 1,1,1-trichloroethane	10.866	97	151053	51.72	ug/L		98
49) cyclohexane	10.976	84	94246	39.71	ug/L	#	85
50) 1,1-dichloropropene	11.055	75	109218	45.99	ug/L		98
51) iso-butyl alcohol	11.028	43	28926	495.62	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159324.d
Acq On : 30 Mar 2018 8:39 am
Operator : sydneys
Sample : bs Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:15:43 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) carbon tetrachloride	11.091	117	133535	55.10	ug/L		100
53) tert amyl alcohol	11.186	55	13662	267.78	ug/L		90
56) n-butyl alcohol	11.810	56	91184	2711.81	ug/L		98
57) 2,2,4-trimethylpentane	11.395	57	232777	39.00	ug/L		88
58) benzene	11.322	78	310572	47.21	ug/L		100
59) tert-amyl methyl ether	11.395	87	60027	50.38	ug/L		97
60) heptane	11.563	71	47872	36.29	ug/L		98
61) isopropyl acetate	11.264	87	14841	51.14	ug/L		95
62) 1,2-dichloroethane	11.301	62	138631	61.91	ug/L		96
63) trichloroethene	12.067	130	89514	46.68	ug/L		100
64) ethyl acrylate	12.072	55	90227	55.06	ug/L		98
66) 2-chloroethyl vinyl ether	12.885	63	253389	246.59	ug/L		99
68) 1,2-dichloropropane	12.323	63	84479	48.48	ug/L		98
69) dibromomethane	12.465	93	55401	54.93	ug/L		94
70) methylcyclohexane	12.339	83	122928	40.32	ug/L		98
71) bromodichloromethane	12.612	83	134682	58.47	ug/L		100
72) epichlorohydrin	12.989	57	36652	274.39	ug/L		98
73) cis-1,3-dichloropropene	13.110	75	149820	53.58	ug/L		95
74) 4-methyl-2-pentanone	13.225	58	110610	209.03	ug/L		92
75) 3-methyl-1-butanol	13.231	70	34811	1067.38	ug/L		95
78) toluene	13.519	92	196745	46.08	ug/L		97
79) trans-1,3-dichloropropene	13.697	75	139951	57.19	ug/L		98
81) 1,1,2-trichloroethane	13.923	83	63479	52.16	ug/L		97
82) tetrachloroethene	14.153	164	73885	45.16	ug/L		97
83) 1,3-dichloropropane	14.122	76	126571	52.32	ug/L		96
84) 2-hexanone	14.132	58	124379	206.10	ug/L		90
85) butyl acetate	14.227	56	45680	53.51	ug/L		85
86) 3,3-dimethyl-1-butanol	14.300	57	1510	26.10	ug/L	#	52
87) dibromochloromethane	14.400	129	99951	58.93	ug/L		99
88) 1,2-dibromoethane	14.562	107	86190	54.02	ug/L		97
89) n-butyl ether	15.034	57	356993	46.72	ug/L		97
90) chlorobenzene	15.081	112	227974	48.20	ug/L		98
91) 1,1,1,2-tetrachloroethane	15.139	131	97176	54.07	ug/L		97
92) ethylbenzene	15.155	91	374346	46.45	ug/L		96
93) m,p-xylene	15.270	106	287511	92.95	ug/L		93
94) o-xylene	15.716	106	155689	46.79	ug/L		93
95) styrene	15.716	104	263957	49.89	ug/L		94
96) bromoform	15.967	173	72377	65.41	ug/L		99
97) butyl acrylate	15.527	55	163925	55.24	ug/L		95
98) isopropylbenzene	16.088	105	416802	47.53	ug/L		97
99) cis-1,4-dichloro-2-butene	16.119	88	44358	66.23	ug/L		90
102) bromobenzene	16.492	156	116766	50.65	ug/L		95
103) 1,1,2,2-tetrachloroethane	16.361	83	98974	56.77	ug/L		96
105) 1,2,3-trichloropropane	16.450	110	29166	58.40	ug/L		98
106) n-propylbenzene	16.523	91	456036	48.85	ug/L		96
108) 2-chlorotoluene	16.670	126	102073	48.56	ug/L		89
109) 4-chlorotoluene	16.770	91	289092	50.88	ug/L		95
110) 1,3,5-trimethylbenzene	16.686	105	348187	50.25	ug/L		96
111) tert-butylbenzene	17.063	134	72790	45.65	ug/L	#	82
112) 1,2,4-trimethylbenzene	17.105	105	358372	50.88	ug/L		97
113) sec-butylbenzene	17.294	105	446112	48.61	ug/L		97
114) 1,3-dichlorobenzene	17.472	146	214580	49.91	ug/L		100
115) p-isopropyltoluene	17.420	119	390332	48.76	ug/L		97
116) 1,4-dichlorobenzene	17.561	146	213032	49.63	ug/L		99
117) benzyl chloride	17.677	91	234981	69.09	ug/L		96
118) 1,2-dichlorobenzene	17.986	146	222558	52.81	ug/L		100
120) n-butylbenzene	17.865	92	192469	46.97	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159324.d
Acq On : 30 Mar 2018 8:39 am
Operator : sydneys
Sample : bs Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:15:43 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

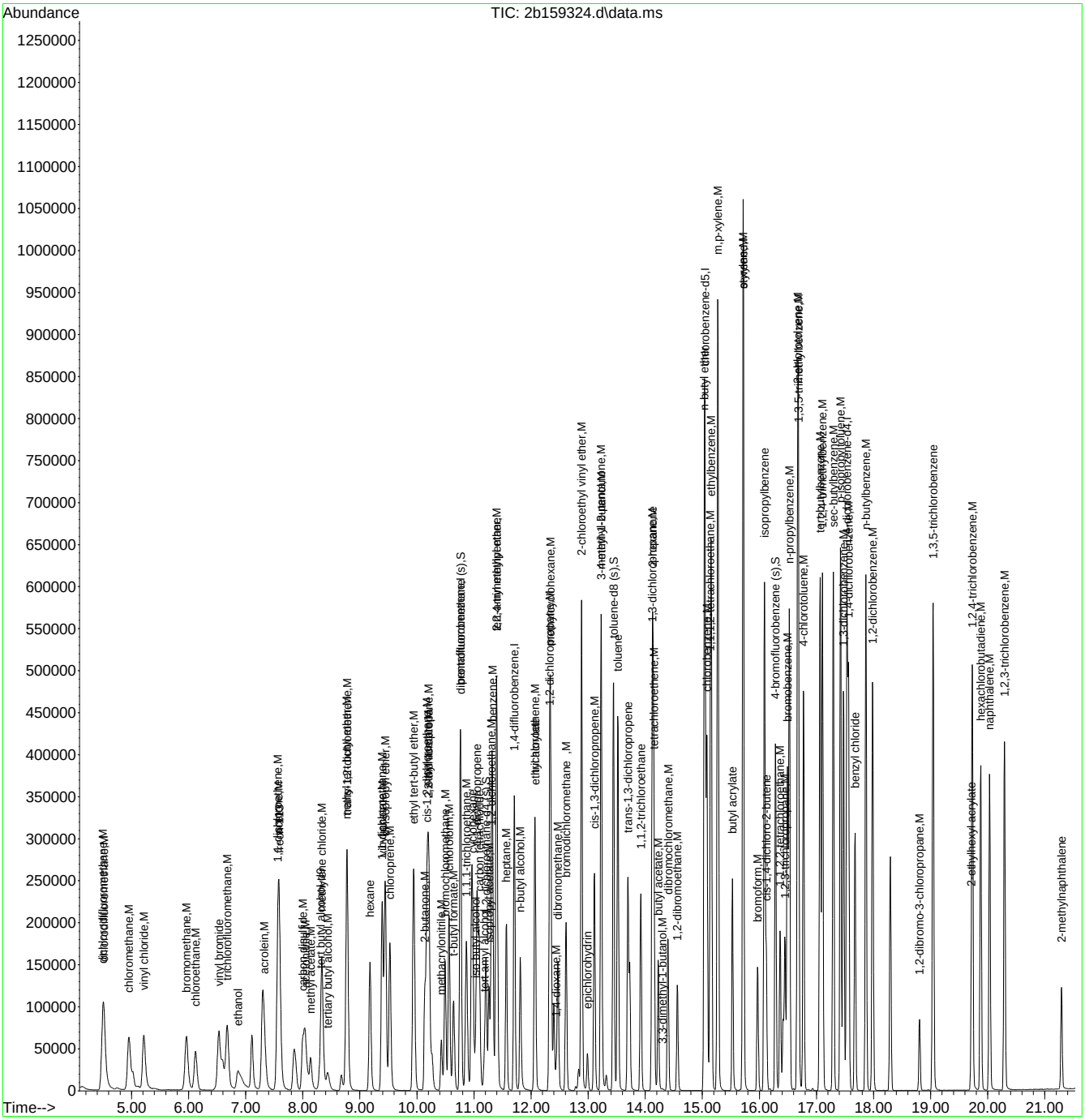
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
123) 1,2-dibromo-3-chloropr...	18.804	75	23302	73.95	ug/L	89
124) 1,3,5-trichlorobenzene	19.045	180	216522	54.81	ug/L	99
125) 2-ethylhexyl acrylate	19.711	70	12246	5.87	ug/L #	82
126) 1,2,4-trichlorobenzene	19.732	180	184748	55.52	ug/L	99
127) hexachlorobutadiene	19.879	225	99196	50.64	ug/L	100
128) naphthalene	20.031	128	325910	57.88	ug/L	99
129) 1,2,3-trichlorobenzene	20.293	180	153839	55.41	ug/L	99
130) 2-methylnaphthalene	21.294	142	68460	20.17	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159324.d
Acq On : 30 Mar 2018 8:39 am
Operator : sydneys
Sample : bs Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:15:43 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159331.d
Acq On : 30 Mar 2018 12:38 pm
Operator : sydneys
Sample : JC62881-4ms Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:36:58 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.307	65	71667	500.00	ug/L		-0.02
5) pentafluorobenzene	10.761	168	231805	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.705	114	300678	50.00	ug/L		-0.01
76) chlorobenzene-d5	15.045	117	293010	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.535	152	162065	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.766	113	94501	47.24	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.48%				
55) 1,2-dichloroethane-d4 (s)	11.212	65	122053	57.68	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 115.36%				
77) toluene-d8 (s)	13.446	98	333497	45.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.86%				
101) 4-bromofluorobenzene (s)	16.282	95	129975	46.88	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.76%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.433	59	32543	222.01	ug/L		91
3) ethanol	6.860	45	69052	3965.25	ug/L		100
4) 1,4-dioxane	12.444	88	13899	1003.29	ug/L		99
6) chlorodifluoromethane	4.517	51	118441	44.10	ug/L		95
7) dichlorodifluoromethane	4.490	85	161178	59.39	ug/L		98
10) chloromethane	4.957	50	131613	45.99	ug/L		98
11) vinyl chloride	5.219	62	132164	48.92	ug/L		97
13) bromomethane	5.964	94	82687	42.23	ug/L		98
14) chloroethane	6.121	64	70705	46.51	ug/L		94
15) trichlorofluoromethane	6.677	101	194178	61.99	ug/L		99
16) vinyl bromide	6.525	106	92409	53.37	ug/L	#	97
18) acrolein	7.332	56	12234	40.13	ug/L		85
19) freon 113	7.584	151	67054	46.62	ug/L		96
20) 1,1-dichloroethene	7.563	96	71964	40.14	ug/L		92
21) acetone	7.579	58	20494	75.68	ug/L		94
22) acetonitrile	8.045	41	76296	390.04	ug/L		97
24) carbon disulfide	7.998	76	168693	30.10	ug/L		97
25) methylene chloride	8.334	84	74797	39.39	ug/L		97
26) methyl acetate	8.134	43	44822	37.24	ug/L		99
27) methyl tert butyl ether	8.769	73	141758	26.60	ug/L		100
28) trans-1,2-dichloroethene	8.779	96	73302	38.85	ug/L		98
29) di-isopropyl ether	9.445	45	226906	37.60	ug/L		95
30) 2-butanone	10.137	72	24114	109.22	ug/L		89
31) 1,1-dichloroethane	9.387	63	138967	40.40	ug/L		98
32) chloroprene	9.529	53	122056	43.21	ug/L		93
34) hexane	9.178	56	52904	43.96	ug/L		94
35) vinyl acetate	9.398	86	10738	50.31	ug/L		88
36) ethyl tert-butyl ether	9.943	59	227814	38.04	ug/L		98
37) ethyl acetate	10.195	45	7445	38.77	ug/L		96
38) 2,2-dichloropropane	10.205	77	123872	44.74	ug/L		98
39) cis-1,2-dichloroethene	10.179	96	79335	37.77	ug/L		94
42) bromochloromethane	10.494	128	39557	39.88	ug/L		95
44) chloroform	10.562	85	90962	41.63	ug/L		99
45) t-butyl formate	10.641	59	7253	12.96	ug/L		92
47) methacrylonitrile	10.431	67	17034	27.05	ug/L		91
48) 1,1,1-trichloroethane	10.866	97	136108	46.65	ug/L		98
49) cyclohexane	10.976	84	100023	42.18	ug/L	#	84
50) 1,1-dichloropropene	11.055	75	101093	42.61	ug/L		98
51) iso-butyl alcohol	11.029	43	22081	378.73	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159331.d
Acq On : 30 Mar 2018 12:38 pm
Operator : sydneys
Sample : JC62881-4ms Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:36:58 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) carbon tetrachloride	11.091	117	123297	50.93	ug/L		98
53) tert amyl alcohol	11.181	55	10921	214.28	ug/L		90
56) n-butyl alcohol	11.815	56	72524	2153.10	ug/L		96
57) 2,2,4-trimethylpentane	11.396	57	247053	41.32	ug/L		95
58) benzene	11.322	78	267088	40.53	ug/L		100
59) tert-amyl methyl ether	11.396	87	47455	39.76	ug/L		93
60) heptane	11.569	71	51749	39.16	ug/L		93
61) isopropyl acetate	11.264	87	11766	40.48	ug/L		99
62) 1,2-dichloroethane	11.306	62	111968	49.91	ug/L		96
63) trichloroethene	12.067	130	79270	41.26	ug/L		98
64) ethyl acrylate	12.077	55	71624	43.63	ug/L		98
68) 1,2-dichloropropane	12.324	63	70925	40.63	ug/L		99
69) dibromomethane	12.470	93	45429	44.96	ug/L		99
70) methylcyclohexane	12.339	83	129653	42.45	ug/L		97
71) bromodichloromethane	12.612	83	111683	48.40	ug/L		98
72) epichlorohydrin	12.989	57	21589	161.34	ug/L		98
73) cis-1,3-dichloropropene	13.110	75	121981	43.55	ug/L		94
74) 4-methyl-2-pentanone	13.225	58	94894	179.02	ug/L		94
75) 3-methyl-1-butanol	13.231	70	30140	922.54	ug/L		98
78) toluene	13.519	92	172779	39.83	ug/L		100
79) trans-1,3-dichloropropene	13.697	75	110605	44.48	ug/L		98
81) 1,1,2-trichloroethane	13.923	83	51861	41.94	ug/L		95
82) tetrachloroethene	14.153	164	70859	42.63	ug/L		97
83) 1,3-dichloropropane	14.122	76	103974	42.30	ug/L		99
84) 2-hexanone	14.132	58	85172	138.90	ug/L		91
85) butyl acetate	14.227	56	38474	44.35	ug/L	#	83
87) dibromochloromethane	14.400	129	82415	47.83	ug/L		99
88) 1,2-dibromoethane	14.562	107	69038	42.59	ug/L		97
89) n-butyl ether	15.034	57	304144	39.17	ug/L		98
90) chlorobenzene	15.081	112	195278	40.64	ug/L		96
91) 1,1,1,2-tetrachloroethane	15.139	131	80472	44.07	ug/L		97
92) ethylbenzene	15.155	91	334660	40.87	ug/L		95
93) m,p-xylene	15.270	106	256730	81.69	ug/L		93
94) o-xylene	15.716	106	133974	39.63	ug/L		88
95) styrene	15.716	104	224355	41.73	ug/L		93
96) bromoform	15.967	173	58080	51.66	ug/L		98
97) butyl acrylate	15.527	55	146900	48.72	ug/L		96
98) isopropylbenzene	16.088	105	370285	41.56	ug/L		97
99) cis-1,4-dichloro-2-butene	16.120	88	30140	44.29	ug/L		92
102) bromobenzene	16.492	156	99846	42.80	ug/L		95
103) 1,1,2,2-tetrachloroethane	16.366	83	82930	47.01	ug/L		99
105) 1,2,3-trichloropropane	16.450	110	24136	47.75	ug/L		97
106) n-propylbenzene	16.523	91	412706	43.69	ug/L		96
108) 2-chlorotoluene	16.670	126	88111	41.42	ug/L		89
109) 4-chlorotoluene	16.775	91	249597	43.41	ug/L		96
110) 1,3,5-trimethylbenzene	16.686	105	302685	43.17	ug/L		96
111) tert-butylbenzene	17.063	134	64200	39.79	ug/L	#	86
112) 1,2,4-trimethylbenzene	17.105	105	311902	43.76	ug/L		97
113) sec-butylbenzene	17.294	105	397726	42.83	ug/L		98
114) 1,3-dichlorobenzene	17.472	146	184643	42.44	ug/L		99
115) p-isopropyltoluene	17.420	119	342937	42.33	ug/L		96
116) 1,4-dichlorobenzene	17.561	146	180363	41.52	ug/L		99
117) benzyl chloride	17.677	91	188583	54.79	ug/L		95
118) 1,2-dichlorobenzene	17.986	146	187912	44.06	ug/L		99
120) n-butylbenzene	17.865	92	170087	41.02	ug/L		95
123) 1,2-dibromo-3-chloropr...	18.804	75	19874	62.32	ug/L		91
124) 1,3,5-trichlorobenzene	19.045	180	179671	44.95	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159331.d
Acq On : 30 Mar 2018 12:38 pm
Operator : sydneys
Sample : JC62881-4ms Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:36:58 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

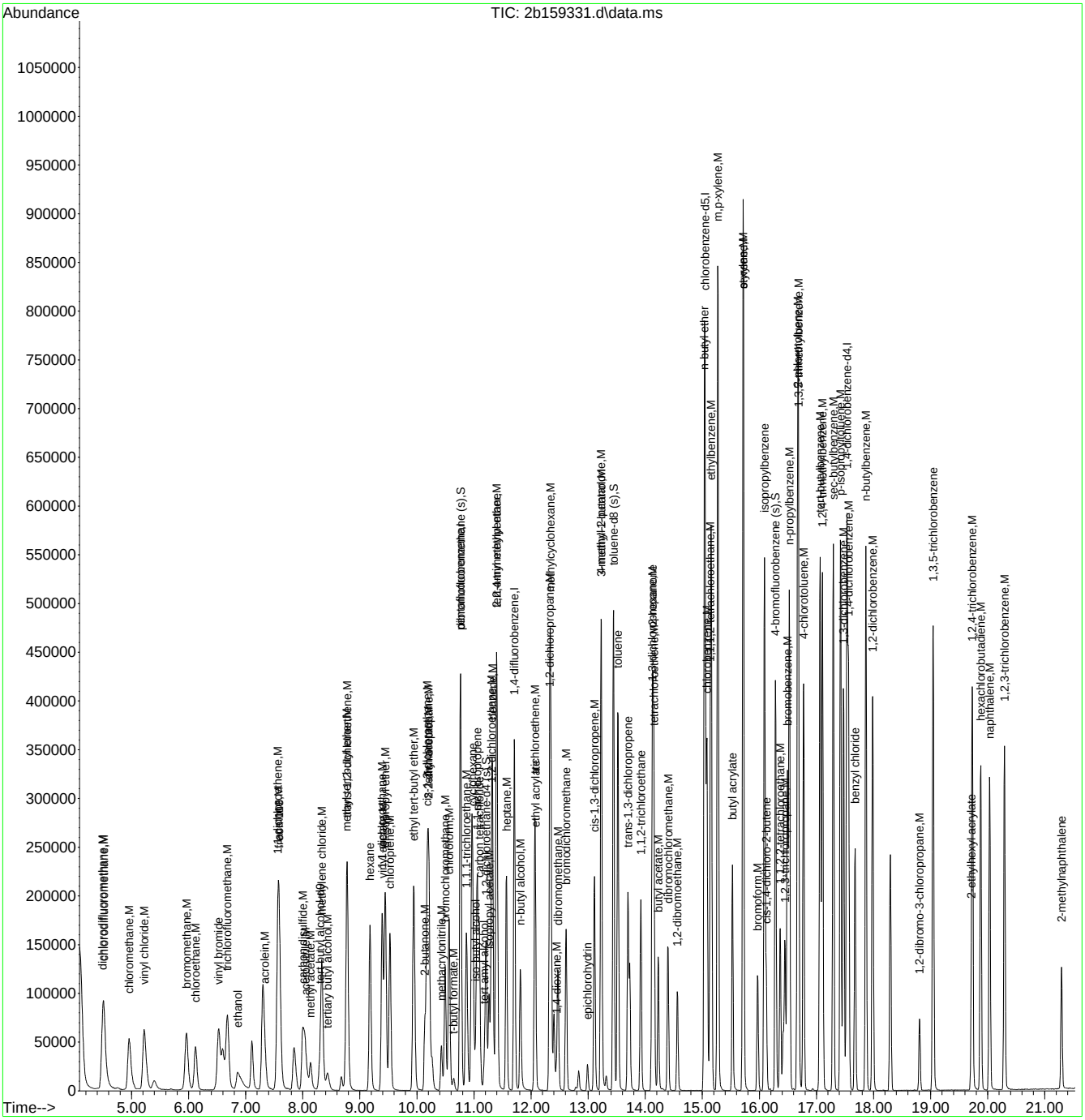
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
125) 2-ethylhexyl acrylate	19.711	70	10394	5.09	ug/L	89
126) 1,2,4-trichlorobenzene	19.727	180	151258	44.92	ug/L	96
127) hexachlorobutadiene	19.879	225	85661	43.21	ug/L	98
128) naphthalene	20.036	128	287233	50.41	ug/L	99
129) 1,2,3-trichlorobenzene	20.293	180	129335	46.04	ug/L	98
130) 2-methylnaphthalene	21.294	142	69031	20.11	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159331.d
Acq On : 30 Mar 2018 12:38 pm
Operator : sydneys
Sample : JC62881-4ms Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:36:58 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159333.d
Acq On : 30 Mar 2018 1:38 pm
Operator : sydneys
Sample : JC62881-5dup Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:38:03 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

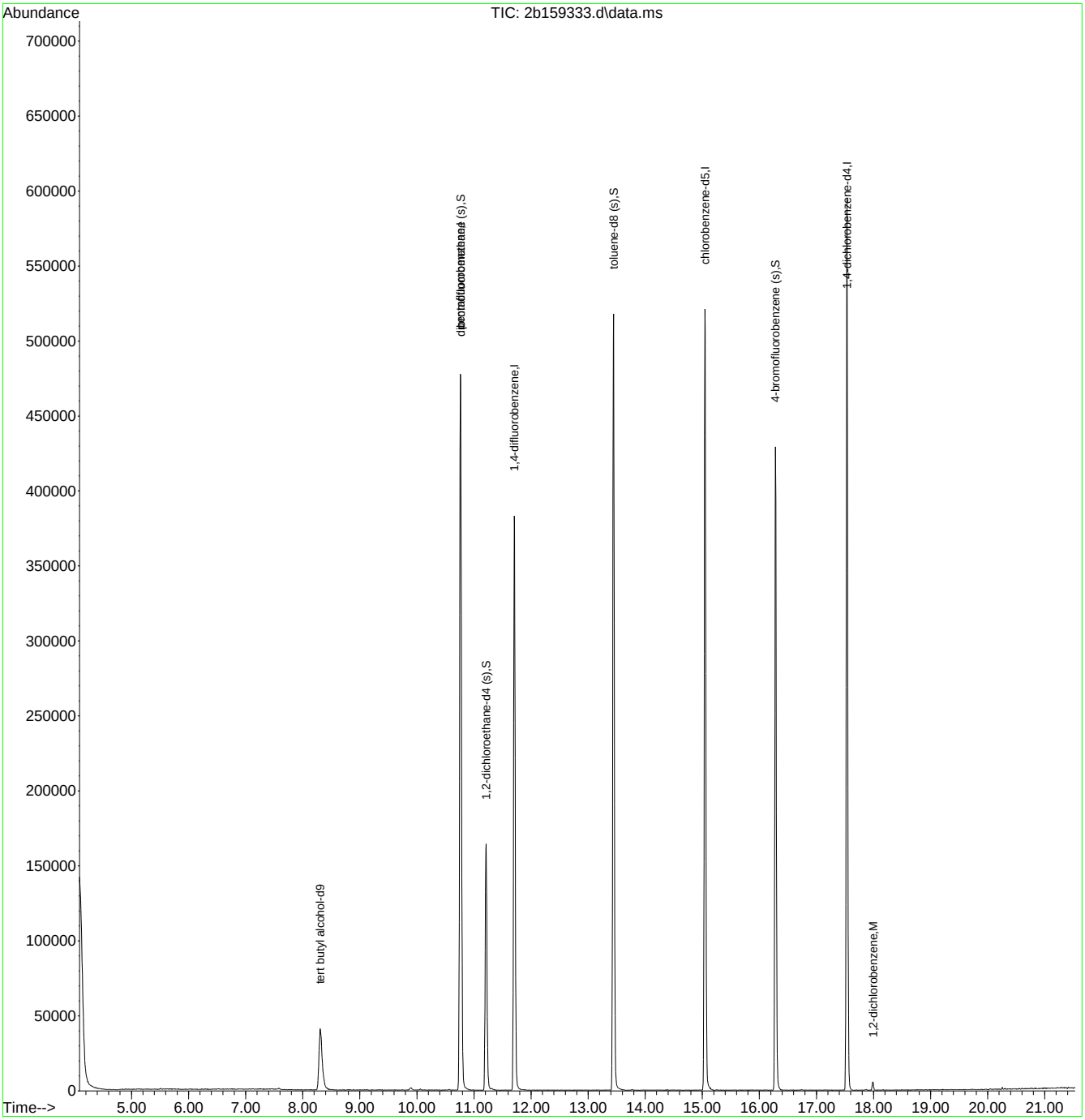
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.308	65	85054	500.00	ug/L	-0.02
5) pentafluorobenzene	10.761	168	254986	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.705	114	322172	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.045	117	304614	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.535	152	170120	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.767	113	107065	48.65	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.30%			
55) 1,2-dichloroethane-d4 (s)	11.212	65	137799	60.78	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 121.56%			
77) toluene-d8 (s)	13.446	98	350659	46.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.92%			
101) 4-bromofluorobenzene (s)	16.282	95	134170	46.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.20%			
Target Compounds						Qvalue
118) 1,2-dichlorobenzene	17.991	146	3239	0.72	ug/L	99

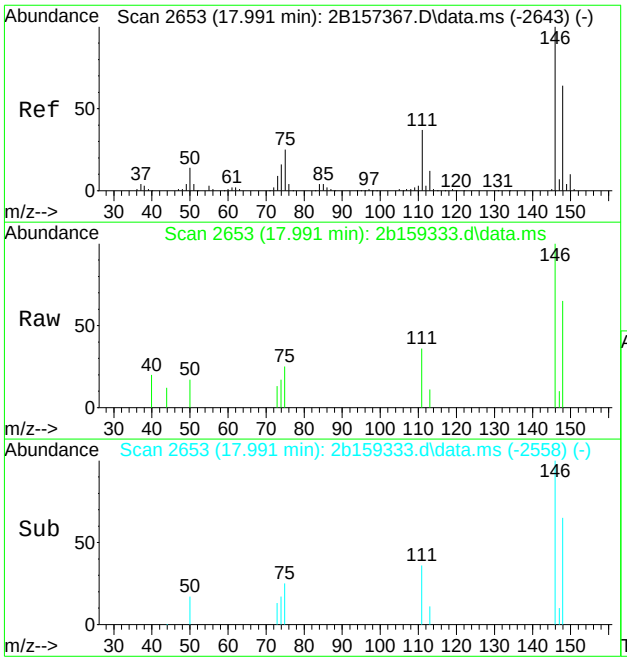
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\v2b7094\
Data File : 2b159333.d
Acq On : 30 Mar 2018 1:38 pm
Operator : sydneys
Sample : JC62881-5dup Inst : MS2B
Misc : MS25158,V2B7094,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:38:03 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

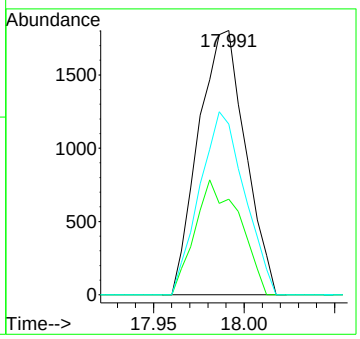




#118
1,2-dichlorobenzene
Concen: 0.72 ug/L
RT: 17.991 min Scan# 2653
Delta R.T. 0.000 min
Lab File: 2b159333.d
Acq: 30 Mar 2018 1:38 pm

Tgt Ion:146 Resp: 3239

Ion	Ratio	Lower	Upper
146	100		
111	36.2	7.0	67.0
148	64.6	33.9	93.9



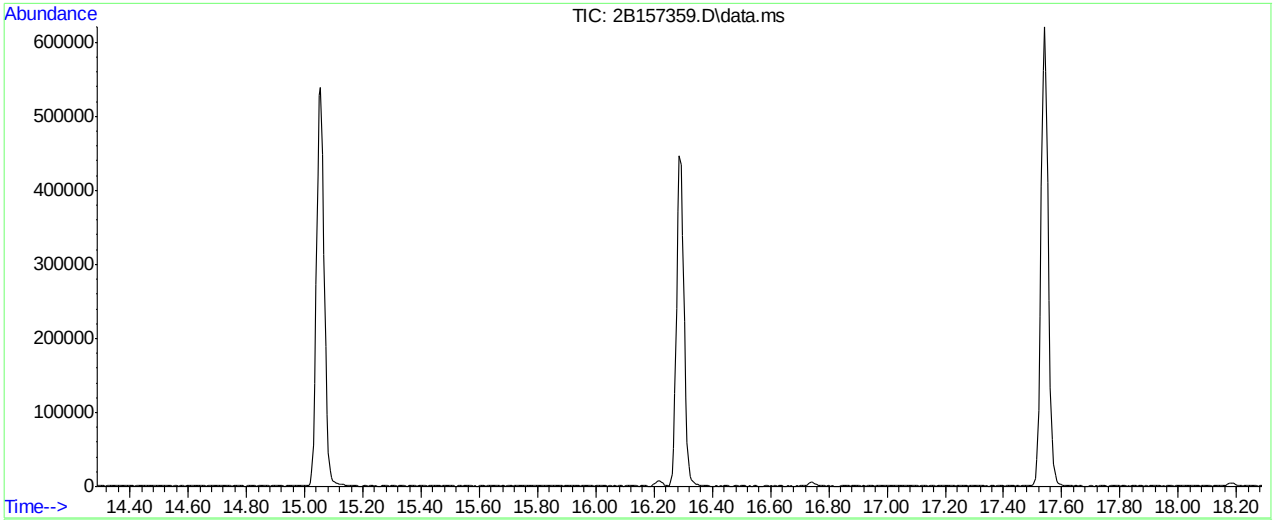
7.5.1

7

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\2B157359.D Vial: 1
Acq On : 10 Jan 2018 2:17 pm Operator: EddieH
Sample : bfb Inst : MS2B
Misc : MS23592,V2B7000,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B7000.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2327, 2328, 2329; Background Corrected with Scan 2319

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	15350	PASS
75	95	30	60	48.8	39914	PASS
95	95	100	100	100.0	81856	PASS
96	95	5	9	6.8	5547	PASS
173	174	0.00	2	0.8	589	PASS
174	95	50	120	95.7	78296	PASS
175	174	5	9	7.4	5817	PASS
176	174	95	101	98.4	77029	PASS
177	176	5	9	6.8	5239	PASS

2B157359.D M2B7000.M Fri Jan 12 15:37:41 2018

Average of 16.282 to 16.293 min.: 2B157359.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	744	51.00	4714	68.00	8163	79.95	652
37.10	3993	52.00	206	69.00	8237	80.90	2349
38.05	3559	55.00	262	70.00	635	81.90	456
39.05	1393	56.00	1220	72.05	420	87.00	3353
40.00	59	57.00	2211	73.00	3568	88.00	3104
44.00	513	60.00	708	74.00	13446	90.90	292
45.00	742	61.00	3645	75.00	39914	92.00	2289
47.00	861	62.00	3656	76.00	3402	93.00	3225
48.00	470	63.00	2716	76.95	444	94.00	9262
49.00	3345	64.00	235	77.95	312	95.00	81856
50.00	15350	67.05	213	78.90	2293	96.00	5547

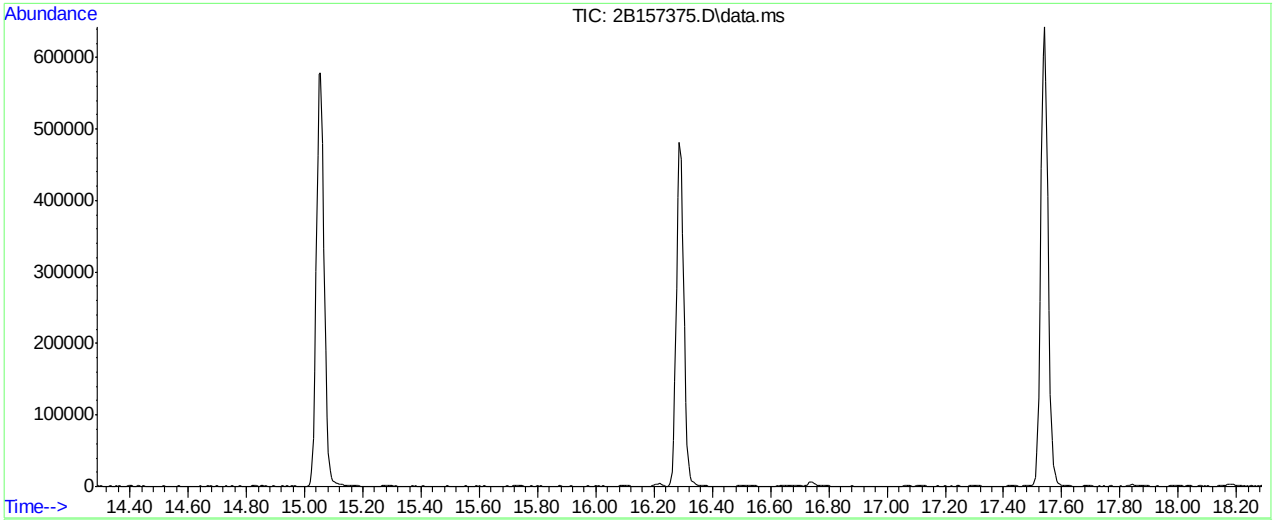
Average of 16.282 to 16.293 min.: 2B157359.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.90	340	140.90	803				
105.90	352	142.90	894				
115.90	272	147.85	187				
116.90	483	154.85	211				
117.85	282	156.80	116				
118.90	419	173.10	589				
127.90	249	173.90	78296				
128.80	110	174.90	5817				
129.85	284	175.90	77029				
134.90	61	176.90	5239				
136.90	60	177.90	53				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\2B157375.D Vial: 1
Acq On : 11 Jan 2018 10:25 am Operator: EddieH
Sample : bfb2 Inst : MS2B
Misc : MS23592,V2B7000,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B7000.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2327, 2328, 2329; Background Corrected with Scan 2318

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	16471	PASS
75	95	30	60	47.9	42306	PASS
95	95	100	100	100.0	88285	PASS
96	95	5	9	6.7	5879	PASS
173	174	0.00	2	1.0	833	PASS
174	95	50	120	95.6	84362	PASS
175	174	5	9	7.6	6400	PASS
176	174	95	101	99.0	83496	PASS
177	176	5	9	6.6	5494	PASS

2B157375.D M2B7000.M Fri Jan 12 15:37:55 2018

Average of 16.282 to 16.293 min.: 2B157375.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	791	51.05	4892	68.00	8620	79.95	733
37.05	4250	52.05	209	69.00	8768	80.90	2506
38.05	3760	55.00	261	70.00	672	81.90	546
39.05	1500	56.00	1360	72.00	409	86.00	51
40.00	53	57.00	2286	73.00	3759	87.00	3526
44.00	489	60.00	722	74.00	14357	88.00	3367
45.00	812	61.00	3872	75.00	42306	90.95	322
47.00	978	62.00	3926	76.00	3660	92.00	2355
48.00	526	63.00	2924	76.95	465	93.00	3412
49.00	3466	64.00	286	77.95	305	94.00	10064
50.00	16471	67.00	233	78.90	2420	95.00	88285

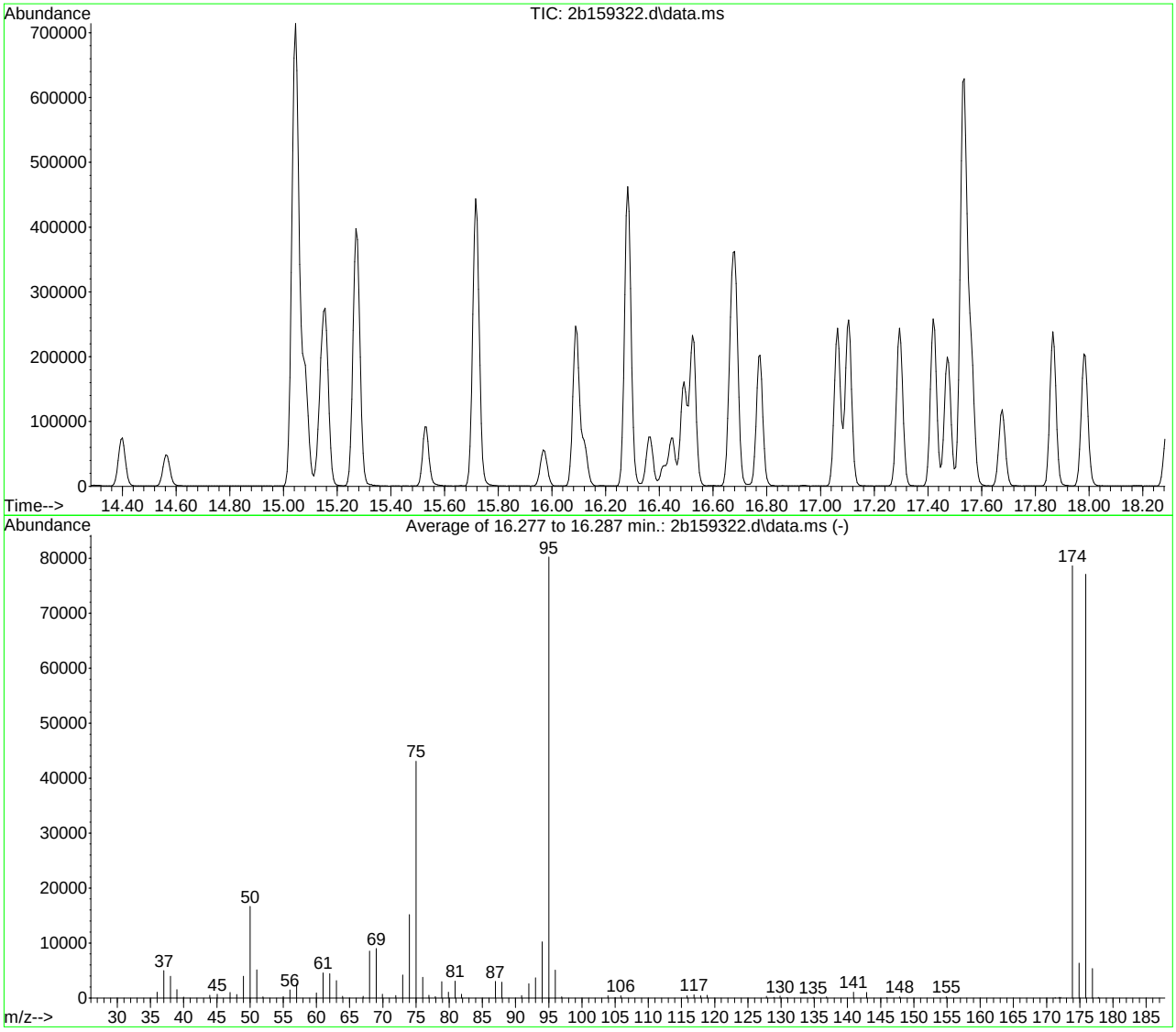
Average of 16.282 to 16.293 min.: 2B157375.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	5879	129.90	333	173.90	84362		
97.00	137	134.85	112	174.90	6400		
103.95	385	136.90	64	175.90	83496		
105.00	63	140.90	852	176.90	5494		
105.90	358	142.90	907	177.90	58		
115.90	325	145.90	51				
116.90	511	147.90	202				
117.90	318	154.95	221				
118.85	409	156.90	51				
127.85	312	160.90	52				
128.90	111	173.00	833				

SW-846 Method 8260

Data File : C:\msdchem\1\data\nizele\v2b7094\2b159322.d Vial: 1
Acq On : 30 Mar 2018 6:49 am Operator: sydneys
Sample : bfb Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2B7000.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2326, 2327, 2328; Background Corrected with Scan 2317

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	16684	PASS
75	95	30	60	53.7	43083	PASS
95	95	100	100	100.0	80211	PASS
96	95	5	9	6.3	5084	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	98.0	78637	PASS
175	174	5	9	8.1	6340	PASS
176	174	95	101	98.1	77104	PASS
177	176	5	9	6.9	5347	PASS

2b159322.d M2B7000.M Mon Apr 02 01:07:21 2018

Average of 16.277 to 16.287 min.: 2b159322.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1071	51.00	5099	68.00	8530	79.90	1038
37.00	4963	51.95	232	69.00	8980	80.90	3057
38.00	3951	55.00	264	69.95	676	81.85	695
39.00	1540	56.00	1480	71.95	446	86.95	3002
40.00	146	57.00	2553	73.00	4177	87.95	2859
43.95	484	60.00	910	74.00	15167	90.90	460
45.05	693	61.00	4547	75.00	43083	92.00	2587
47.00	994	62.00	4418	76.00	3773	93.00	3690
48.00	653	63.00	3179	76.95	479	94.00	10235
49.00	3936	63.95	314	77.90	241	95.00	80211
50.00	16684	67.05	316	78.90	2977	96.00	5084

Average of 16.277 to 16.287 min.: 2b159322.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	192	130.90	51	173.90	78637		
103.90	393	134.85	124	174.90	6340		
105.00	65	136.85	229	175.90	77104		
105.85	423	140.90	1064	176.90	5347		
115.85	402	142.90	990	177.80	129		
116.90	586	145.90	66				
117.90	422	147.90	234				
118.85	502	154.90	217				
127.80	313	171.30	54				
128.90	125	171.90	101				
129.85	348	172.10	97				

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157360.D
Acq On : 10 Jan 2018 3:42 pm
Operator : EddieH
Sample : ic7000-0.2
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 12 15:16:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.307	65	94902	500.00	ug/L		-0.02
5) pentafluorobenzene	10.766	168	271830	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.710	114	362056	50.00	ug/L		0.00
76) chlorobenzene-d5	15.055	117	339343	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.540	152	189293	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.772	113	117925	50.27	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.54%				
55) 1,2-dichloroethane-d4 (s)	11.217	65	132786	52.12	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.24%				
77) toluene-d8 (s)	13.451	98	420477	50.00	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%				
101) 4-bromofluorobenzene (s)	16.287	95	159080	49.13	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.26%				
Target Compounds							Qvalue
27) methyl tert butyl ether	8.785	73	1256	0.20	ug/L		54
29) di-isopropyl ether	9.456	45	1216	0.17	ug/L		72
36) ethyl tert-butyl ether	9.954	59	1207	0.17	ug/L		99
41) propionitrile	10.232	54	486	1.83	ug/L		63
57) 2,2,4-trimethylpentane	11.396	57	1071	0.15	ug/L	#	66
62) 1,2-dichloroethane	11.317	62	425	0.16	ug/L	#	51
66) 2-chloroethyl vinyl ether	12.900	63	1106	0.89	ug/L		74
74) 4-methyl-2-pentanone	13.241	58	415	0.65	ug/L	#	63
83) 1,3-dichloropropane	14.138	76	413	0.15	ug/L	#	75
84) 2-hexanone	14.153	58	366	0.52	ug/L	#	90
88) 1,2-dibromoethane	14.578	107	260	0.14	ug/L		72
89) n-butyl ether	15.045	57	1335	0.15	ug/L	#	1
90) chlorobenzene	15.092	112	787	0.14	ug/L		95
93) m,p-xylene	15.281	106	1018	0.28	ug/L		89
95) styrene	15.737	104	865	0.14	ug/L		92
97) butyl acrylate	15.553	55	557	0.16	ug/L	#	83
103) 1,1,2,2-tetrachloroethane	16.371	83	356	0.17	ug/L		82
106) n-propylbenzene	16.534	91	1564	0.14	ug/L		82
107) 4-Ethyltoluene	16.639	105	2176	0.21	ug/L	#	92
109) 4-chlorotoluene	16.785	91	986	0.15	ug/L		86
110) 1,3,5-trimethylbenzene	16.691	105	1275	0.16	ug/L		83
112) 1,2,4-trimethylbenzene	17.116	105	1149	0.14	ug/L		92
113) sec-butylbenzene	17.294	105	1481	0.14	ug/L		93
114) 1,3-dichlorobenzene	17.488	146	851	0.17	ug/L		85
115) p-isopropyltoluene	17.430	119	1369	0.14	ug/L		95
116) 1,4-dichlorobenzene	17.567	146	871	0.17	ug/L		66
117) benzyl chloride	17.687	91	753	0.19	ug/L		59
118) 1,2-dichlorobenzene	17.997	146	790	0.16	ug/L		85
119) p-Diethylbenzene	17.839	119	1040	0.18	ug/L		90
122) 1,2,4,5-Tetramethylben...	18.694	119	1778	0.19	ug/L		92
124) 1,3,5-trichlorobenzene	19.056	180	729	0.16	ug/L	#	67
128) naphthalene	20.047	128	1609	0.24	ug/L		70

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157360.D
Acq On : 10 Jan 2018 3:42 pm
Operator : EddieH
Sample : ic7000-0.2
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 12 15:16:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

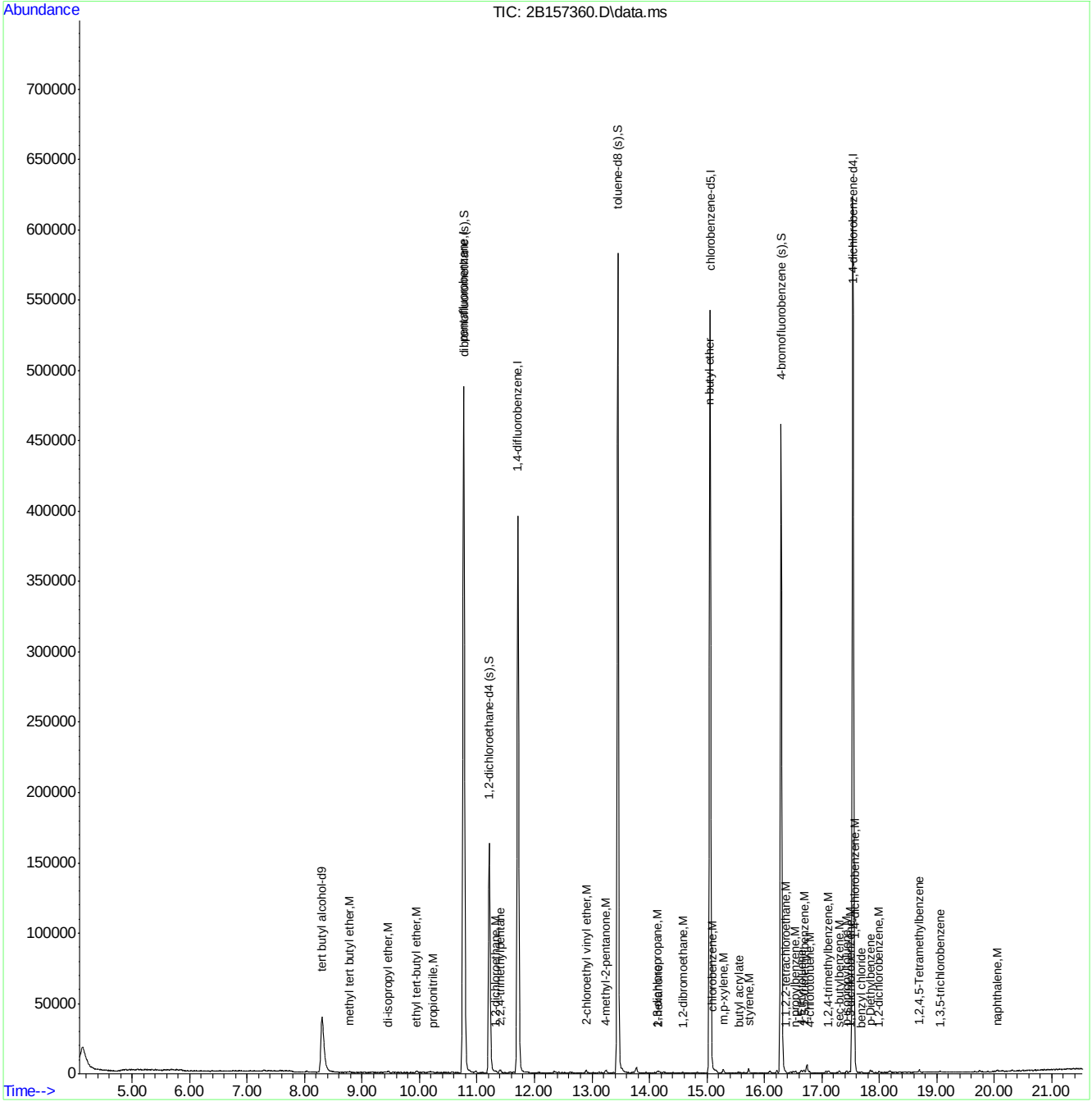
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157360.D
Acq On : 10 Jan 2018 3:42 pm
Operator : EddieH
Sample : ic7000-0.2
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 12 15:16:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157361.D
Acq On : 10 Jan 2018 4:14 pm
Operator : EddieH
Sample : ic7000-0.5
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 12 15:20:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.318	65	88345	500.00	ug/L		-0.01
5) pentafluorobenzene	10.766	168	263718	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.715	114	355511	50.00	ug/L		0.00
76) chlorobenzene-d5	15.055	117	336900	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.540	152	186657	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.777	113	112637	49.49	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.98%				
55) 1,2-dichloroethane-d4 (s)	11.217	65	128053	51.18	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.36%				
77) toluene-d8 (s)	13.451	98	415587	49.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.56%				
101) 4-bromofluorobenzene (s)	16.287	95	158576	49.66	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.32%				
Target Compounds							Qvalue
3) ethanol	6.887	45	1312	61.12	ug/L	#	37
11) vinyl chloride	5.245	62	1330	0.43	ug/L	#	49
14) chloroethane	6.121	64	713	0.41	ug/L	#	45
17) ethyl ether	7.128	74	480	0.40	ug/L		87
23) iodomethane	7.851	142	1587	0.40	ug/L		84
24) carbon disulfide	8.003	76	2648	0.42	ug/L		73
25) methylene chloride	8.344	84	929	0.43	ug/L		98
27) methyl tert butyl ether	8.790	73	3024	0.50	ug/L		97
29) di-isopropyl ether	9.461	45	3283	0.48	ug/L		96
31) 1,1-dichloroethane	9.403	63	1646	0.42	ug/L		87
32) chloroprene	9.534	53	1358	0.42	ug/L		80
34) hexane	9.188	56	551	0.40	ug/L	#	79
36) ethyl tert-butyl ether	9.948	59	3258	0.48	ug/L		98
38) 2,2-dichloropropane	10.226	77	1430	0.45	ug/L		79
39) cis-1,2-dichloroethene	10.190	96	1104	0.46	ug/L	#	74
41) propionitrile	10.232	54	1276	4.95	ug/L		63
42) bromochloromethane	10.509	128	389	0.34	ug/L		99
44) chloroform	10.578	85	1148	0.46	ug/L		93
49) cyclohexane	10.987	84	1021	0.38	ug/L	#	73
50) 1,1-dichloropropene	11.065	75	1113	0.41	ug/L		98
52) carbon tetrachloride	11.097	117	1043	0.38	ug/L	#	77
57) 2,2,4-trimethylpentane	11.396	57	3481	0.49	ug/L		98
58) benzene	11.327	78	3600	0.46	ug/L		97
62) 1,2-dichloroethane	11.317	62	1202	0.45	ug/L		92
63) trichloroethene	12.077	130	888	0.39	ug/L		84
64) ethyl acrylate	12.098	55	807	0.42	ug/L		68
66) 2-chloroethyl vinyl ether	12.900	63	2906	2.39	ug/L		94
69) dibromomethane	12.486	93	470	0.39	ug/L		99
70) methylcyclohexane	12.345	83	1560	0.43	ug/L		99
71) bromodichloromethane	12.622	83	1222	0.45	ug/L		95
73) cis-1,3-dichloropropene	13.121	75	1397	0.42	ug/L		91
74) 4-methyl-2-pentanone	13.241	58	1297	2.07	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157361.D
Acq On : 10 Jan 2018 4:14 pm
Operator : EddieH
Sample : ic7000-0.5
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 12 15:20:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

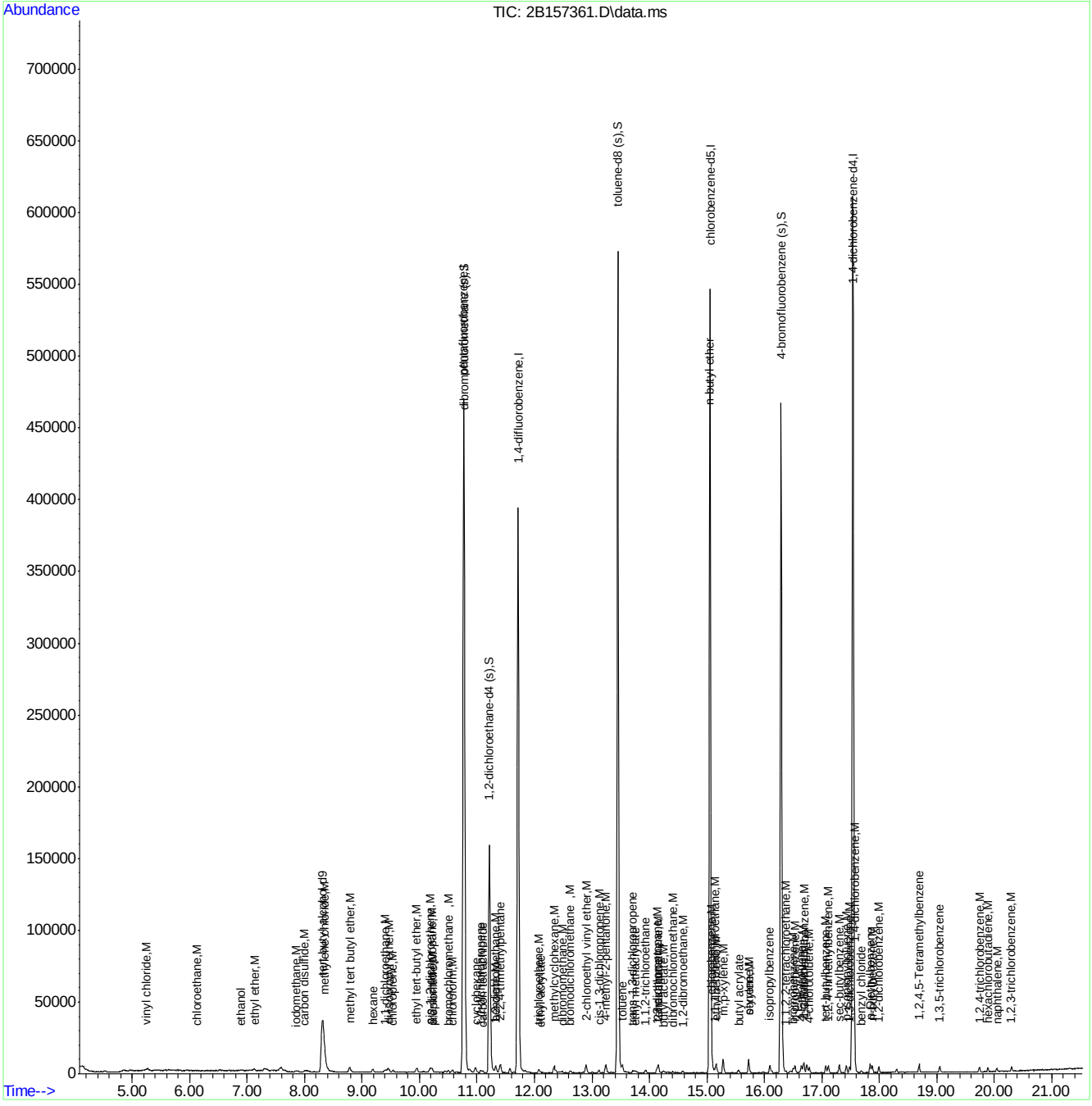
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78)	toluene	13.529	92	2212	0.44	ug/L		90
79)	trans-1,3-dichloropropene	13.708	75	1061	0.37	ug/L		91
80)	ethyl methacrylate	13.744	69	954	0.42	ug/L	#	72
81)	1,1,2-trichloroethane	13.933	83	587	0.41	ug/L	#	89
82)	tetrachloroethene	14.159	164	835	0.44	ug/L		93
83)	1,3-dichloropropane	14.132	76	1346	0.48	ug/L		84
84)	2-hexanone	14.153	58	1137	1.61	ug/L	#	91
85)	butyl acetate	14.248	56	332	0.33	ug/L	#	80
87)	dibromochloromethane	14.410	129	759	0.38	ug/L		86
88)	1,2-dibromoethane	14.578	107	845	0.45	ug/L		91
89)	n-butyl ether	15.045	57	4012	0.45	ug/L	#	1
90)	chlorobenzene	15.087	112	2543	0.46	ug/L		89
91)	1,1,1,2-tetrachloroethane	15.150	131	846	0.40	ug/L	#	83
92)	ethylbenzene	15.165	91	4343	0.46	ug/L		97
93)	m,p-xylene	15.286	106	3270	0.90	ug/L		91
94)	o-xylene	15.726	106	1668	0.43	ug/L		92
95)	styrene	15.726	104	2863	0.46	ug/L		97
97)	butyl acrylate	15.553	55	1562	0.45	ug/L	#	88
98)	isopropylbenzene	16.093	105	4567	0.45	ug/L		97
102)	bromobenzene	16.502	156	1101	0.41	ug/L		93
103)	1,1,2,2-tetrachloroethane	16.371	83	1043	0.51	ug/L		81
106)	n-propylbenzene	16.534	91	5134	0.47	ug/L		98
107)	4-Ethyltoluene	16.644	105	5074	0.50	ug/L	#	93
108)	2-chlorotoluene	16.675	126	1024	0.42	ug/L		94
109)	4-chlorotoluene	16.780	91	3226	0.49	ug/L		90
110)	1,3,5-trimethylbenzene	16.691	105	3747	0.46	ug/L		90
111)	tert-butylbenzene	17.069	134	789	0.42	ug/L	#	51
112)	1,2,4-trimethylbenzene	17.110	105	3760	0.46	ug/L		93
113)	sec-butylbenzene	17.299	105	4869	0.46	ug/L		96
114)	1,3-dichlorobenzene	17.483	146	2321	0.46	ug/L		89
115)	p-isopropyltoluene	17.425	119	4183	0.45	ug/L		96
116)	1,4-dichlorobenzene	17.567	146	2463	0.49	ug/L		94
117)	benzyl chloride	17.687	91	1845	0.47	ug/L		90
118)	1,2-dichlorobenzene	17.997	146	2394	0.49	ug/L		95
119)	p-Diethylbenzene	17.839	119	2756	0.47	ug/L		94
120)	n-butylbenzene	17.876	92	2042	0.43	ug/L		100
122)	1,2,4,5-Tetramethylben...	18.694	119	4309	0.46	ug/L		98
124)	1,3,5-trichlorobenzene	19.050	180	2106	0.46	ug/L		92
126)	1,2,4-trichlorobenzene	19.742	180	1565	0.40	ug/L		85
127)	hexachlorobutadiene	19.889	225	923	0.40	ug/L		90
128)	naphthalene	20.047	128	2893	0.44	ug/L		99
129)	1,2,3-trichlorobenzene	20.298	180	1254	0.39	ug/L		93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157361.D
Acq On : 10 Jan 2018 4:14 pm
Operator : EddieH
Sample : ic7000-0.5
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 12 15:20:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157362.D
Acq On : 10 Jan 2018 4:45 pm
Operator : EddieH
Sample : ic7000-1
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 12 15:23:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.318	65	88370	500.00	ug/L		-0.01
5) pentafluorobenzene	10.772	168	263363	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.715	114	354336	50.00	ug/L		0.00
76) chlorobenzene-d5	15.055	117	336365	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.540	152	186973	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.777	113	113335	49.86	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.72%				
55) 1,2-dichloroethane-d4 (s)	11.217	65	127370	51.08	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.16%				
77) toluene-d8 (s)	13.451	98	410808	49.29	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.58%				
101) 4-bromofluorobenzene (s)	16.287	95	159109	49.75	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.449	59	757	4.19	ug/L		57
3) ethanol	6.876	45	2010	93.61	ug/L		94
6) chlorodifluoromethane	4.517	51	2427	0.80	ug/L		63
10) chloromethane	4.968	50	3070	0.94	ug/L		90
11) vinyl chloride	5.235	62	2535	0.83	ug/L		89
13) bromomethane	5.969	94	2228	1.00	ug/L		81
14) chloroethane	6.121	64	1540	0.89	ug/L		89
15) trichlorofluoromethane	6.682	101	2368	0.67	ug/L		77
16) vinyl bromide	6.530	106	1621	0.82	ug/L	#	73
17) ethyl ether	7.128	74	1146	0.96	ug/L	#	57
20) 1,1-dichloroethene	7.579	96	1823	0.90	ug/L		83
21) acetone	7.605	58	1344	4.37	ug/L	#	60
23) iodomethane	7.862	142	3497	0.89	ug/L		90
24) carbon disulfide	8.019	76	5411	0.85	ug/L		88
25) methylene chloride	8.344	84	2176	1.01	ug/L		90
26) methyl acetate	8.161	43	1545	1.10	ug/L		55
27) methyl tert butyl ether	8.790	73	6531	1.08	ug/L		96
28) trans-1,2-dichloroethene	8.795	96	1872	0.87	ug/L		84
29) di-isopropyl ether	9.450	45	6906	1.01	ug/L		88
30) 2-butanone	10.164	72	923	3.68	ug/L	#	46
31) 1,1-dichloroethane	9.403	63	3632	0.93	ug/L		89
32) chloroprene	9.540	53	2817	0.88	ug/L		92
33) acrylonitrile	8.695	53	466	0.77	ug/L	#	81
34) hexane	9.183	56	1020	0.75	ug/L	#	64
36) ethyl tert-butyl ether	9.954	59	7138	1.05	ug/L		93
38) 2,2-dichloropropane	10.211	77	2775	0.88	ug/L		92
39) cis-1,2-dichloroethene	10.195	96	2350	0.98	ug/L	#	76
41) propionitrile	10.232	54	2837	11.03	ug/L		90
42) bromochloromethane	10.504	128	1120	0.99	ug/L		91
44) chloroform	10.572	85	2460	0.99	ug/L		88
45) t-butyl formate	10.646	59	554	0.87	ug/L		83
47) methacrylonitrile	10.436	67	601	0.84	ug/L	#	70

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157362.D
Acq On : 10 Jan 2018 4:45 pm
Operator : EddieH
Sample : ic7000-1
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 12 15:23:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48)	1,1,1-trichloroethane	10.877	97	2827	0.85	ug/L		87
49)	cyclohexane	10.981	84	2270	0.84	ug/L		99
50)	1,1-dichloropropene	11.065	75	2236	0.83	ug/L		95
52)	carbon tetrachloride	11.097	117	2336	0.85	ug/L		98
57)	2,2,4-trimethylpentane	11.401	57	6271	0.89	ug/L		93
58)	benzene	11.333	78	7257	0.93	ug/L		95
59)	tert-amyl methyl ether	11.406	87	1334	0.95	ug/L	#	72
60)	heptane	11.579	71	1196	0.77	ug/L		93
62)	1,2-dichloroethane	11.317	62	2646	1.00	ug/L		87
63)	trichloroethene	12.072	130	1999	0.88	ug/L		96
64)	ethyl acrylate	12.098	55	1951	1.01	ug/L		68
66)	2-chloroethyl vinyl ether	12.895	63	6132	5.05	ug/L		97
68)	1,2-dichloropropane	12.334	63	1840	0.89	ug/L		95
69)	dibromomethane	12.476	93	1203	1.01	ug/L		97
70)	methylcyclohexane	12.345	83	2783	0.77	ug/L		84
71)	bromodichloromethane	12.617	83	2584	0.95	ug/L		88
73)	cis-1,3-dichloropropene	13.121	75	3146	0.95	ug/L		97
74)	4-methyl-2-pentanone	13.241	58	2730	4.37	ug/L		91
78)	toluene	13.530	92	4506	0.90	ug/L		89
79)	trans-1,3-dichloropropene	13.708	75	2715	0.95	ug/L		95
80)	ethyl methacrylate	13.745	69	2140	0.95	ug/L		91
81)	1,1,2-trichloroethane	13.933	83	1457	1.03	ug/L		91
82)	tetrachloroethene	14.159	164	1728	0.91	ug/L		89
83)	1,3-dichloropropane	14.132	76	2865	1.02	ug/L		91
84)	2-hexanone	14.143	58	3032	4.31	ug/L		88
85)	butyl acetate	14.243	56	913	0.92	ug/L		89
87)	dibromochloromethane	14.405	129	1844	0.93	ug/L		89
88)	1,2-dibromoethane	14.573	107	1966	1.06	ug/L		95
89)	n-butyl ether	15.045	57	8434	0.95	ug/L		47
90)	chlorobenzene	15.087	112	5494	1.00	ug/L		94
91)	1,1,1,2-tetrachloroethane	15.144	131	1873	0.89	ug/L		91
92)	ethylbenzene	15.165	91	8685	0.92	ug/L		94
93)	m,p-xylene	15.281	106	6702	1.86	ug/L		97
94)	o-xylene	15.726	106	3614	0.93	ug/L		94
95)	styrene	15.726	104	5895	0.96	ug/L		98
96)	bromoform	15.978	173	1132	0.88	ug/L		93
97)	butyl acrylate	15.543	55	3335	0.96	ug/L	#	97
98)	isopropylbenzene	16.099	105	9184	0.90	ug/L		98
102)	bromobenzene	16.502	156	2600	0.97	ug/L		85
103)	1,1,2,2-tetrachloroethane	16.371	83	2133	1.05	ug/L		93
104)	trans-1,4-dichloro-2-b...	16.424	53	357	0.76	ug/L	#	48
105)	1,2,3-trichloropropane	16.460	110	502	0.86	ug/L		91
106)	n-propylbenzene	16.529	91	10469	0.96	ug/L		94
107)	4-Ethyltoluene	16.639	105	9669	0.95	ug/L		95
108)	2-chlorotoluene	16.670	126	2336	0.95	ug/L	#	82
109)	4-chlorotoluene	16.780	91	6513	0.98	ug/L		97
110)	1,3,5-trimethylbenzene	16.691	105	8029	0.99	ug/L		96
111)	tert-butylbenzene	17.074	134	1623	0.87	ug/L		92
112)	1,2,4-trimethylbenzene	17.111	105	8006	0.97	ug/L		98
113)	sec-butylbenzene	17.299	105	9956	0.93	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157362.D
Acq On : 10 Jan 2018 4:45 pm
Operator : EddieH
Sample : ic7000-1
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 12 15:23:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
114) 1,3-dichlorobenzene	17.483	146	5077	1.01	ug/L		98
115) p-isopropyltoluene	17.425	119	8786	0.94	ug/L		99
116) 1,4-dichlorobenzene	17.572	146	4968	0.99	ug/L		97
117) benzyl chloride	17.687	91	3598	0.91	ug/L		97
118) 1,2-dichlorobenzene	17.991	146	4882	0.99	ug/L		97
119) p-Diethylbenzene	17.839	119	5384	0.92	ug/L		95
120) n-butylbenzene	17.876	92	4246	0.89	ug/L		99
121) hexachloroethane	18.301	201	1341	0.77	ug/L	#	76
122) 1,2,4,5-Tetramethylben...	18.694	119	8612	0.93	ug/L		95
124) 1,3,5-trichlorobenzene	19.056	180	4252	0.92	ug/L		97
126) 1,2,4-trichlorobenzene	19.737	180	3340	0.86	ug/L		97
127) hexachlorobutadiene	19.884	225	2019	0.88	ug/L		89
128) naphthalene	20.041	128	6088	0.93	ug/L		95
129) 1,2,3-trichlorobenzene	20.304	180	2980	0.92	ug/L		86

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

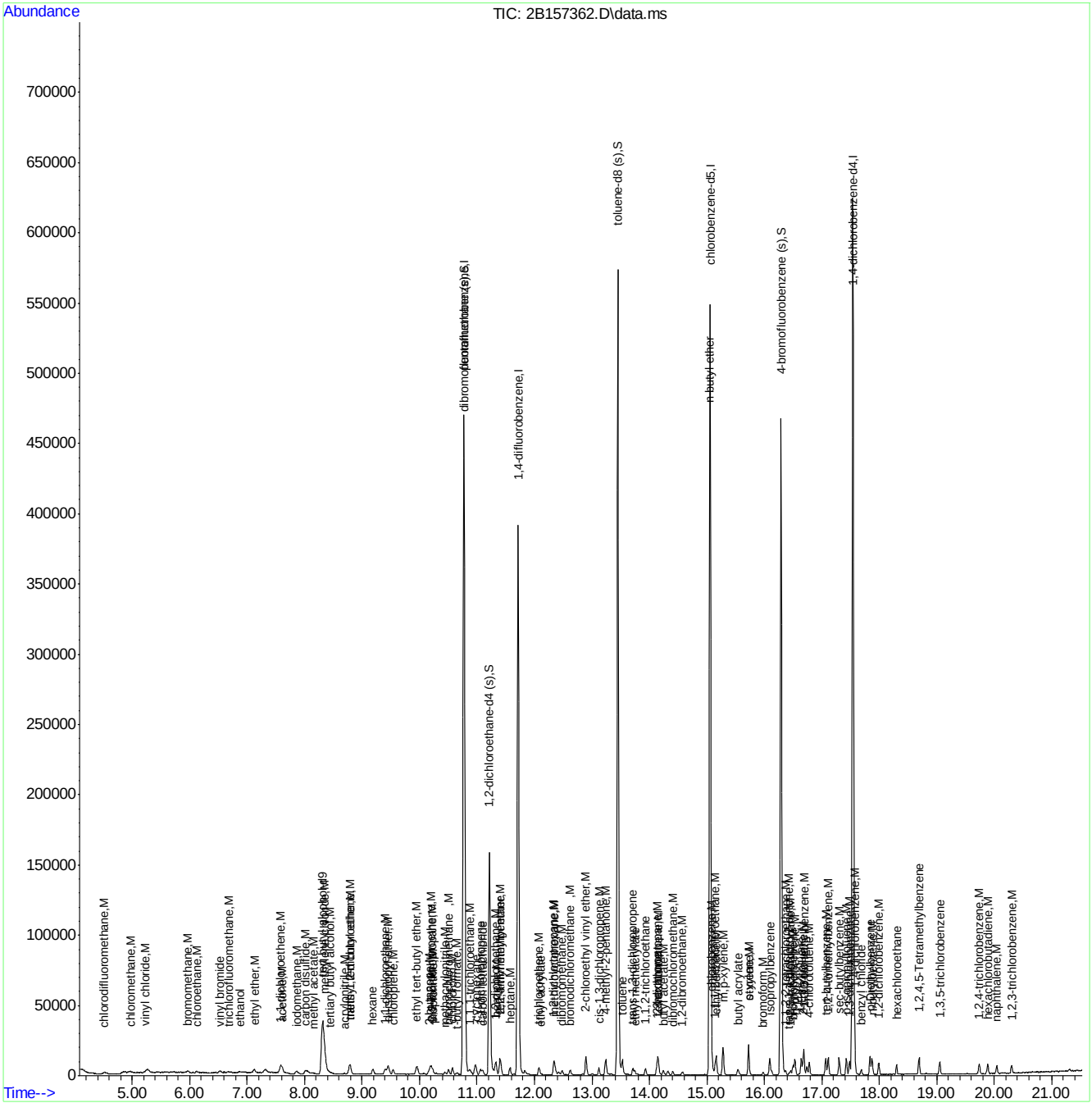
7.7.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157362.D
Acq On : 10 Jan 2018 4:45 pm
Operator : EddieH
Sample : ic7000-1
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 12 15:23:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157363.D
Acq On : 10 Jan 2018 5:16 pm
Operator : EddieH
Sample : ic7000-2
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 12 15:24:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.318	65	85353	500.00	ug/L		-0.01
5) pentafluorobenzene	10.767	168	255030	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.716	114	345862	50.00	ug/L		0.00
76) chlorobenzene-d5	15.050	117	329035	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.541	152	184421	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.772	113	110780	50.33	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.66%				
55) 1,2-dichloroethane-d4 (s)	11.217	65	123077	50.57	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.14%				
77) toluene-d8 (s)	13.451	98	405063	49.68	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.36%				
101) 4-bromofluorobenzene (s)	16.287	95	156170	49.50	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.444	59	1685	9.65	ug/L		57
3) ethanol	6.887	45	5001	241.13	ug/L		84
6) chlorodifluoromethane	4.522	51	7066	2.39	ug/L		84
7) dichlorodifluoromethane	4.501	85	5413	1.81	ug/L		93
10) chloromethane	4.952	50	8709	2.77	ug/L		97
11) vinyl chloride	5.230	62	7954	2.68	ug/L		94
12) 1,3-butadiene	5.272	54	4753	2.45	ug/L		95
13) bromomethane	5.959	94	5960	2.77	ug/L		98
14) chloroethane	6.121	64	4678	2.80	ug/L		95
15) trichlorofluoromethane	6.687	101	8010	2.32	ug/L		98
16) vinyl bromide	6.520	106	5069	2.66	ug/L	#	93
17) ethyl ether	7.117	74	2575	2.24	ug/L		90
19) freon 113	7.595	151	3379	2.14	ug/L		89
20) 1,1-dichloroethene	7.568	96	5519	2.80	ug/L		95
21) acetone	7.595	58	2652	8.90	ug/L	#	70
23) iodomethane	7.857	142	10458	2.74	ug/L		96
24) carbon disulfide	8.009	76	17207	2.79	ug/L		96
25) methylene chloride	8.350	84	5119	2.45	ug/L		89
26) methyl acetate	8.145	43	2887	2.12	ug/L		96
27) methyl tert butyl ether	8.774	73	12414	2.12	ug/L		100
28) trans-1,2-dichloroethene	8.790	96	5802	2.79	ug/L		96
29) di-isopropyl ether	9.456	45	16183	2.44	ug/L		92
30) 2-butanone	10.158	72	1840	7.58	ug/L	#	64
31) 1,1-dichloroethane	9.393	63	10423	2.75	ug/L		94
32) chloroprene	9.534	53	8574	2.76	ug/L		96
33) acrylonitrile	8.690	53	1191	2.03	ug/L		91
34) hexane	9.188	56	2866	2.16	ug/L	#	79
35) vinyl acetate	9.403	86	430	1.83	ug/L		50
36) ethyl tert-butyl ether	9.954	59	14482	2.20	ug/L		99
38) 2,2-dichloropropane	10.211	77	8704	2.86	ug/L		98
39) cis-1,2-dichloroethene	10.185	96	6094	2.64	ug/L		93
41) propionitrile	10.227	54	5279	21.20	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157363.D
Acq On : 10 Jan 2018 5:16 pm
Operator : EddieH
Sample : ic7000-2
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 12 15:24:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	bromochloromethane	10.504	128	2489	2.28	ug/L		92
44)	chloroform	10.573	85	6514	2.71	ug/L		97
45)	t-butyl formate	10.651	59	1279	2.08	ug/L		86
47)	methacrylonitrile	10.447	67	1310	1.89	ug/L		87
48)	1,1,1-trichloroethane	10.877	97	8298	2.59	ug/L		99
49)	cyclohexane	10.982	84	5747	2.20	ug/L		92
50)	1,1-dichloropropene	11.060	75	7120	2.73	ug/L		99
51)	iso-butyl alcohol	11.039	43	1336	20.83	ug/L		85
52)	carbon tetrachloride	11.102	117	6909	2.59	ug/L		98
56)	n-butyl alcohol	11.826	56	3270	84.40	ug/L		95
57)	2,2,4-trimethylpentane	11.401	57	14982	2.18	ug/L		98
58)	benzene	11.333	78	20439	2.70	ug/L		99
59)	tert-amyl methyl ether	11.401	87	3066	2.23	ug/L		94
60)	heptane	11.574	71	3102	2.04	ug/L		91
62)	1,2-dichloroethane	11.317	62	6117	2.37	ug/L		94
63)	trichloroethene	12.072	130	5798	2.62	ug/L		99
64)	ethyl acrylate	12.093	55	3614	1.91	ug/L		90
65)	2-nitropropane	12.838	41	780	1.79	ug/L	#	82
66)	2-chloroethyl vinyl ether	12.895	63	12231	10.33	ug/L		99
67)	methyl methacrylate	12.371	100	779	1.79	ug/L	#	48
68)	1,2-dichloropropane	12.334	63	4873	2.43	ug/L		96
69)	dibromomethane	12.476	93	2525	2.17	ug/L		94
70)	methylcyclohexane	12.345	83	7863	2.24	ug/L		96
71)	bromodichloromethane	12.623	83	6122	2.31	ug/L		94
72)	epichlorohydrin	12.995	57	1551	10.19	ug/L		90
73)	cis-1,3-dichloropropene	13.121	75	7280	2.26	ug/L		98
74)	4-methyl-2-pentanone	13.236	58	4863	7.98	ug/L		96
78)	toluene	13.530	92	12749	2.62	ug/L		98
79)	trans-1,3-dichloropropene	13.708	75	5794	2.08	ug/L		98
80)	ethyl methacrylate	13.739	69	4377	1.99	ug/L		97
81)	1,1,2-trichloroethane	13.923	83	2921	2.10	ug/L		92
82)	tetrachloroethene	14.159	164	5039	2.70	ug/L		97
83)	1,3-dichloropropane	14.127	76	6016	2.18	ug/L		86
84)	2-hexanone	14.143	58	5803	8.43	ug/L		97
85)	butyl acetate	14.237	56	1932	1.98	ug/L		98
86)	3,3-dimethyl-1-butanol	14.321	57	2100	49.68	ug/L		96
87)	dibromochloromethane	14.405	129	3870	2.00	ug/L		96
88)	1,2-dibromoethane	14.573	107	3855	2.12	ug/L		99
89)	n-butyl ether	15.040	57	21992	2.52	ug/L		89
90)	chlorobenzene	15.087	112	14013	2.60	ug/L		96
91)	1,1,1,2-tetrachloroethane	15.145	131	4857	2.37	ug/L		91
92)	ethylbenzene	15.165	91	24870	2.70	ug/L		97
93)	m,p-xylene	15.276	106	19245	5.45	ug/L		100
94)	o-xylene	15.721	106	9769	2.57	ug/L		98
95)	styrene	15.726	104	15123	2.51	ug/L		99
96)	bromoform	15.973	173	2268	1.80	ug/L		96
97)	butyl acrylate	15.538	55	6740	1.99	ug/L		95
98)	isopropylbenzene	16.093	105	26308	2.63	ug/L		98
99)	cis-1,4-dichloro-2-butene	16.130	88	1321	1.73	ug/L		94
102)	bromobenzene	16.502	156	6029	2.27	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157363.D
Acq On : 10 Jan 2018 5:16 pm
Operator : EddieH
Sample : ic7000-2
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 12 15:24:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

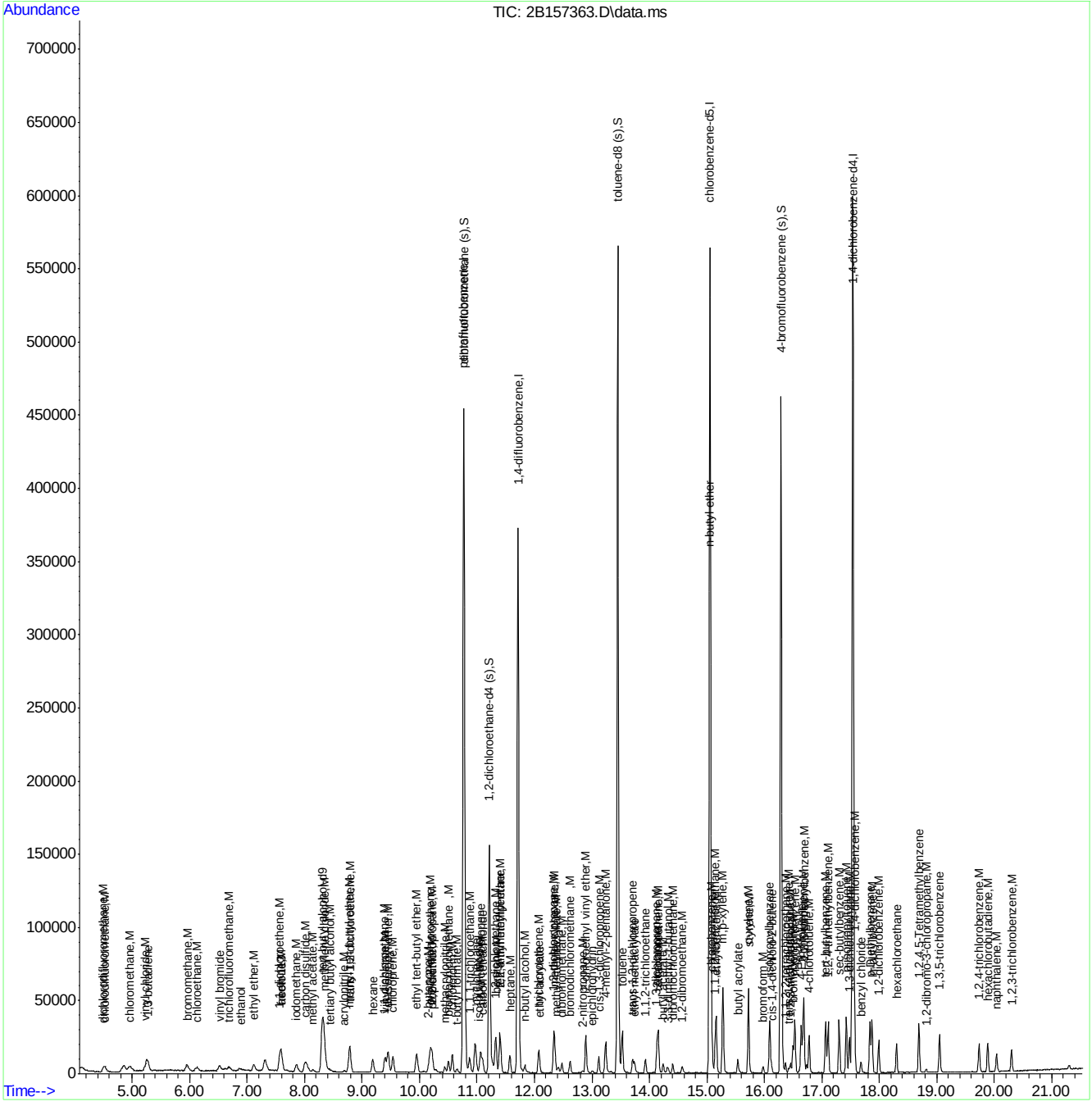
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
103) 1,1,2,2-tetrachloroethane	16.371	83	4166	2.08	ug/L		98
104) trans-1,4-dichloro-2-b...	16.419	53	796	1.73	ug/L		81
105) 1,2,3-trichloropropane	16.455	110	1059	1.84	ug/L		95
106) n-propylbenzene	16.529	91	29670	2.76	ug/L		100
107) 4-Ethyltoluene	16.639	105	24819	2.47	ug/L		99
108) 2-chlorotoluene	16.675	126	6473	2.67	ug/L		96
109) 4-chlorotoluene	16.775	91	17096	2.61	ug/L		96
110) 1,3,5-trimethylbenzene	16.691	105	22131	2.77	ug/L		99
111) tert-butylbenzene	17.069	134	4641	2.53	ug/L		96
112) 1,2,4-trimethylbenzene	17.111	105	21288	2.62	ug/L		97
113) sec-butylbenzene	17.299	105	28443	2.69	ug/L		99
114) 1,3-dichlorobenzene	17.478	146	12150	2.45	ug/L		96
115) p-isopropyltoluene	17.425	119	24592	2.67	ug/L		97
116) 1,4-dichlorobenzene	17.567	146	11769	2.38	ug/L		94
117) benzyl chloride	17.682	91	7298	1.86	ug/L		97
118) 1,2-dichlorobenzene	17.991	146	11381	2.35	ug/L		98
119) p-Diethylbenzene	17.839	119	13820	2.40	ug/L		98
120) n-butylbenzene	17.871	92	12261	2.60	ug/L		98
121) hexachloroethane	18.301	201	3765	2.19	ug/L	#	84
122) 1,2,4,5-Tetramethylben...	18.689	119	20171	2.20	ug/L		95
123) 1,2-dibromo-3-chloropr...	18.815	75	544	1.50	ug/L		90
124) 1,3,5-trichlorobenzene	19.051	180	10796	2.37	ug/L		93
126) 1,2,4-trichlorobenzene	19.737	180	8045	2.10	ug/L		94
127) hexachlorobutadiene	19.889	225	5592	2.48	ug/L		96
128) naphthalene	20.041	128	11771	1.82	ug/L		98
129) 1,2,3-trichlorobenzene	20.304	180	6423	2.01	ug/L		94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157363.D
Acq On : 10 Jan 2018 5:16 pm
Operator : EddieH
Sample : ic7000-2
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 12 15:24:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157364.D
Acq On : 10 Jan 2018 5:48 pm
Operator : EddieH
Sample : ic7000-5
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 12 15:25:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.313	65	85239	500.00	ug/L		-0.02
5) pentafluorobenzene	10.767	168	254914	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.710	114	346563	50.00	ug/L		0.00
76) chlorobenzene-d5	15.050	117	329323	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.541	152	186873	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.772	113	110802	50.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.72%				
55) 1,2-dichloroethane-d4 (s)	11.217	65	123039	50.45	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.90%				
77) toluene-d8 (s)	13.451	98	405308	49.67	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%				
101) 4-bromofluorobenzene (s)	16.287	95	157644	49.31	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.62%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.439	59	3431	19.68	ug/L		86
3) ethanol	6.881	45	9145	441.53	ug/L		87
4) 1,4-dioxane	12.450	88	1428	86.67	ug/L		100
6) chlorodifluoromethane	4.517	51	11498	3.89	ug/L		95
7) dichlorodifluoromethane	4.491	85	10112	3.39	ug/L		98
8) freon 114	4.816	135	3479	1.24	ug/L		84
9) freon 142b	4.863	65	10063	3.36	ug/L		91
10) chloromethane	4.957	50	12438	3.95	ug/L		98
11) vinyl chloride	5.219	62	11642	3.92	ug/L		99
12) 1,3-butadiene	5.261	54	6801	3.51	ug/L		95
13) bromomethane	5.943	94	8284	3.85	ug/L		93
14) chloroethane	6.111	64	6362	3.81	ug/L		97
15) trichlorofluoromethane	6.693	101	13251	3.85	ug/L		97
16) vinyl bromide	6.520	106	6893	3.62	ug/L		98
17) ethyl ether	7.112	74	4838	4.20	ug/L		91
18) acrolein	7.338	56	1432	4.27	ug/L		94
19) freon 113	7.589	151	6324	4.00	ug/L		97
20) 1,1-dichloroethene	7.563	96	7951	4.03	ug/L		97
21) acetone	7.589	58	5342	17.94	ug/L		88
22) acetonitrile	8.051	41	9776	45.45	ug/L		89
23) iodomethane	7.862	142	15431	4.04	ug/L		99
24) carbon disulfide	8.014	76	24820	4.03	ug/L		96
25) methylene chloride	8.339	84	8585	4.11	ug/L		94
26) methyl acetate	8.150	43	5461	4.02	ug/L		91
27) methyl tert butyl ether	8.774	73	24149	4.12	ug/L		100
28) trans-1,2-dichloroethene	8.785	96	8289	3.99	ug/L		93
29) di-isopropyl ether	9.445	45	27769	4.18	ug/L		95
30) 2-butanone	10.158	72	3776	15.55	ug/L	#	87
31) 1,1-dichloroethane	9.393	63	15241	4.03	ug/L		96
32) chloroprene	9.534	53	12593	4.05	ug/L		98
33) acrylonitrile	8.685	53	2312	3.94	ug/L		94
34) hexane	9.183	56	5399	4.08	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157364.D
Acq On : 10 Jan 2018 5:48 pm
Operator : EddieH
Sample : ic7000-5
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 12 15:25:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	9.414	86	998	4.25	ug/L		59
36) ethyl tert-butyl ether	9.949	59	27304	4.15	ug/L		97
37) ethyl acetate	10.206	45	841	3.98	ug/L	#	44
38) 2,2-dichloropropane	10.211	77	12363	4.06	ug/L		91
39) cis-1,2-dichloroethene	10.185	96	9264	4.01	ug/L		97
40) methyl acrylate	10.279	85	813	3.39	ug/L	#	69
41) propionitrile	10.221	54	10677	42.89	ug/L		95
42) bromochloromethane	10.504	128	4548	4.17	ug/L		87
43) tetrahydrofuran	10.573	72	716	3.50	ug/L		94
44) chloroform	10.567	85	9744	4.06	ug/L		97
45) t-butyl formate	10.646	59	2440	3.97	ug/L		90
47) methacrylonitrile	10.442	67	2827	4.08	ug/L		95
48) 1,1,1-trichloroethane	10.871	97	12375	3.86	ug/L		97
49) cyclohexane	10.982	84	9615	3.69	ug/L	#	86
50) 1,1-dichloropropene	11.065	75	10562	4.05	ug/L		97
51) iso-butyl alcohol	11.039	43	2633	41.07	ug/L		94
52) carbon tetrachloride	11.097	117	10700	4.02	ug/L		98
53) tert amyl alcohol	11.191	55	1055	18.82	ug/L		77
56) n-butyl alcohol	11.826	56	6924	178.34	ug/L		97
57) 2,2,4-trimethylpentane	11.396	57	29003	4.21	ug/L		98
58) benzene	11.328	78	30948	4.07	ug/L		97
59) tert-amyl methyl ether	11.401	87	5628	4.09	ug/L		90
60) heptane	11.574	71	5809	3.81	ug/L		99
61) isopropyl acetate	11.270	87	1274	3.80	ug/L	#	63
62) 1,2-dichloroethane	11.312	62	11159	4.32	ug/L		96
63) trichloroethene	12.072	130	8637	3.90	ug/L		95
64) ethyl acrylate	12.088	55	7796	4.12	ug/L		98
65) 2-nitropropane	12.843	41	1751	4.01	ug/L		94
66) 2-chloroethyl vinyl ether	12.895	63	25074	21.13	ug/L		99
67) methyl methacrylate	12.360	100	1701	3.90	ug/L	#	72
68) 1,2-dichloropropane	12.334	63	8066	4.01	ug/L		95
69) dibromomethane	12.481	93	4884	4.19	ug/L		99
70) methylcyclohexane	12.345	83	14202	4.03	ug/L		97
71) bromodichloromethane	12.617	83	10244	3.85	ug/L		98
72) epichlorohydrin	12.995	57	3058	20.05	ug/L		96
73) cis-1,3-dichloropropene	13.121	75	12791	3.96	ug/L		95
74) 4-methyl-2-pentanone	13.236	58	10029	16.41	ug/L		93
75) 3-methyl-1-butanol	13.241	70	2497	66.31	ug/L		91
78) toluene	13.530	92	19151	3.93	ug/L		99
79) trans-1,3-dichloropropene	13.703	75	10967	3.92	ug/L		98
80) ethyl methacrylate	13.734	69	8833	4.02	ug/L		98
81) 1,1,2-trichloroethane	13.928	83	5660	4.07	ug/L		95
82) tetrachloroethene	14.159	164	7429	3.98	ug/L		97
83) 1,3-dichloropropane	14.127	76	11397	4.13	ug/L		99
84) 2-hexanone	14.138	58	11841	17.18	ug/L		95
85) butyl acetate	14.237	56	4210	4.32	ug/L		98
86) 3,3-dimethyl-1-butanol	14.316	57	4271	62.59	ug/L		97
87) dibromochloromethane	14.400	129	7417	3.83	ug/L		97
88) 1,2-dibromoethane	14.568	107	7417	4.07	ug/L		94
89) n-butyl ether	15.040	57	35310	4.05	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157364.D
Acq On : 10 Jan 2018 5:48 pm
Operator : EddieH
Sample : ic7000-5
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 12 15:25:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

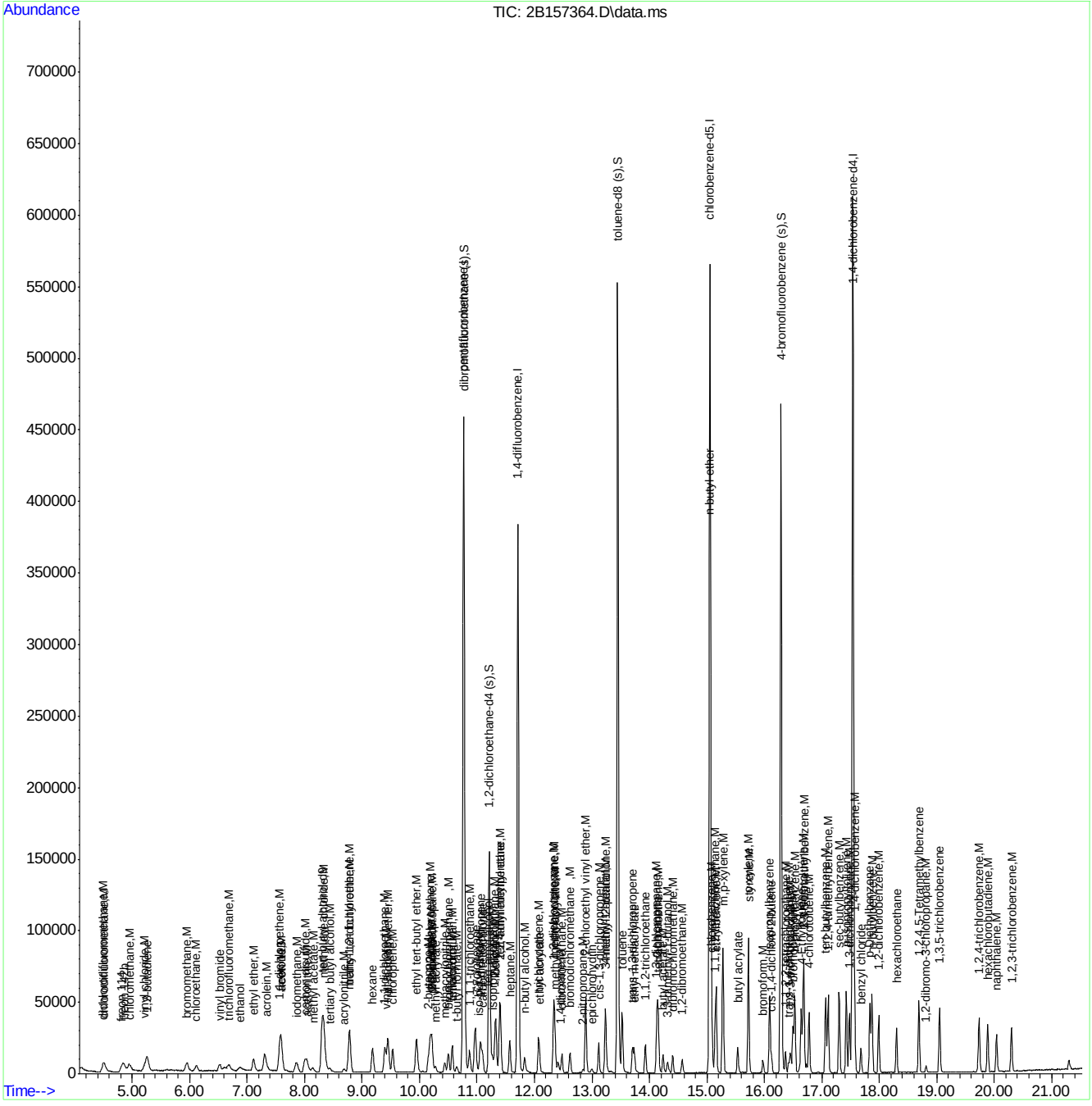
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
90)	chlorobenzene	15.087	112	22049	4.08	ug/L		97
91)	1,1,1,2-tetrachloroethane	15.145	131	7977	3.89	ug/L		98
92)	ethylbenzene	15.165	91	36157	3.93	ug/L		99
93)	m,p-xylene	15.281	106	28887	8.18	ug/L		98
94)	o-xylene	15.721	106	15070	3.97	ug/L		94
95)	styrene	15.726	104	24627	4.08	ug/L		99
96)	bromoform	15.978	173	4605	3.64	ug/L		95
97)	butyl acrylate	15.538	55	13327	3.93	ug/L		98
98)	isopropylbenzene	16.093	105	38512	3.85	ug/L		98
99)	cis-1,4-dichloro-2-butene	16.125	88	2647	3.46	ug/L		93
102)	bromobenzene	16.497	156	10951	4.07	ug/L		97
103)	1,1,2,2-tetrachloroethane	16.371	83	8118	3.99	ug/L		99
104)	trans-1,4-dichloro-2-b...	16.424	53	1797	3.84	ug/L		90
105)	1,2,3-trichloropropane	16.455	110	2345	4.02	ug/L		95
106)	n-propylbenzene	16.529	91	44160	4.05	ug/L		98
107)	4-Ethyltoluene	16.639	105	33904	3.33	ug/L		98
108)	2-chlorotoluene	16.675	126	9766	3.98	ug/L		98
109)	4-chlorotoluene	16.780	91	26806	4.04	ug/L		98
110)	1,3,5-trimethylbenzene	16.691	105	32764	4.05	ug/L		99
111)	tert-butylbenzene	17.069	134	7115	3.82	ug/L		97
112)	1,2,4-trimethylbenzene	17.111	105	33451	4.07	ug/L		98
113)	sec-butylbenzene	17.299	105	42109	3.93	ug/L		98
114)	1,3-dichlorobenzene	17.478	146	20217	4.03	ug/L		98
115)	p-isopropyltoluene	17.425	119	36802	3.94	ug/L		99
116)	1,4-dichlorobenzene	17.567	146	20137	4.02	ug/L		95
117)	benzyl chloride	17.682	91	14310	3.61	ug/L		97
118)	1,2-dichlorobenzene	17.991	146	19839	4.03	ug/L		98
119)	p-Diethylbenzene	17.834	119	19111	3.28	ug/L		98
120)	n-butylbenzene	17.871	92	18000	3.76	ug/L		98
121)	hexachloroethane	18.301	201	5945	3.41	ug/L	#	87
122)	1,2,4,5-Tetramethylben...	18.689	119	30546	3.28	ug/L		99
123)	1,2-dibromo-3-chloropr...	18.809	75	1404	3.82	ug/L		99
124)	1,3,5-trichlorobenzene	19.051	180	17798	3.86	ug/L		98
126)	1,2,4-trichlorobenzene	19.737	180	14712	3.79	ug/L		99
127)	hexachlorobutadiene	19.884	225	8825	3.86	ug/L		100
128)	naphthalene	20.041	128	24658	3.75	ug/L		98
129)	1,2,3-trichlorobenzene	20.304	180	12628	3.90	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157364.D
Acq On : 10 Jan 2018 5:48 pm
Operator : EddieH
Sample : ic7000-5
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 12 15:25:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157365.D
Acq On : 10 Jan 2018 6:19 pm
Operator : EddieH
Sample : ic7000-10
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 11 09:58:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.318	65	83377	500.00	ug/L	-0.01
5) pentafluorobenzene	10.772	168	252354	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.715	114	344685	50.00	ug/L	0.00
76) chlorobenzene-d5	15.055	117	329283	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.540	152	183386	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.777	113	107971	49.58	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.16%			
55) 1,2-dichloroethane-d4 (s)	11.217	65	122931	50.68	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.36%			
77) toluene-d8 (s)	13.451	98	404291	49.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.10%			
101) 4-bromofluorobenzene (s)	16.287	95	156279	49.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.64%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.444	59	8873	52.03	ug/L	91
3) ethanol	6.871	45	19907	982.59	ug/L	96
4) 1,4-dioxane	12.449	88	3887	241.17	ug/L	100
6) chlorodifluoromethane	4.522	51	28548	9.76	ug/L	99
7) dichlorodifluoromethane	4.501	85	30217	10.23	ug/L	95
8) freon 114	4.831	135	11787	8.36	ug/L	94
9) freon 142b	4.868	65	31058	10.49	ug/L	92
10) chloromethane	4.968	50	31112	9.99	ug/L	98
11) vinyl chloride	5.235	62	30190	10.26	ug/L	99
12) 1,3-butadiene	5.266	54	20084	10.48	ug/L	94
13) bromomethane	5.958	94	20778	9.75	ug/L	94
14) chloroethane	6.126	64	17100	10.33	ug/L	99
15) trichlorofluoromethane	6.687	101	35510	10.41	ug/L	98
16) vinyl bromide	6.530	106	18676	9.91	ug/L	99
17) ethyl ether	7.117	74	11906	10.45	ug/L	96
18) acrolein	7.348	56	3317	9.99	ug/L	78
19) freon 113	7.594	151	16032	10.24	ug/L	97
20) 1,1-dichloroethene	7.573	96	19084	9.78	ug/L	96
21) acetone	7.594	58	11804	40.04	ug/L	97
22) acetonitrile	8.050	41	22056	103.57	ug/L	93
23) iodomethane	7.862	142	38698	10.23	ug/L	99
24) carbon disulfide	8.014	76	60162	9.86	ug/L	98
25) methylene chloride	8.344	84	20395	9.87	ug/L	100
26) methyl acetate	8.150	43	12689	9.43	ug/L	99
27) methyl tert butyl ether	8.779	73	57382	9.89	ug/L	99
28) trans-1,2-dichloroethene	8.790	96	19594	9.54	ug/L	99
29) di-isopropyl ether	9.450	45	66678	10.15	ug/L	97
30) 2-butanone	10.153	72	9821	40.86	ug/L	93
31) 1,1-dichloroethane	9.398	63	36855	9.84	ug/L	99
32) chloroprene	9.534	53	30526	9.93	ug/L	98
33) acrylonitrile	8.690	53	6125	10.55	ug/L	98
34) hexane	9.183	56	13729	10.48	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157365.D
Acq On : 10 Jan 2018 6:19 pm
Operator : EddieH
Sample : ic7000-10
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 11 09:58:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	9.403	86	2490	10.72	ug/L		88
36) ethyl tert-butyl ether	9.948	59	64818	9.94	ug/L		99
37) ethyl acetate	10.205	45	2126	10.17	ug/L		70
38) 2,2-dichloropropane	10.216	77	30523	10.13	ug/L		96
39) cis-1,2-dichloroethene	10.184	96	22544	9.86	ug/L		98
40) methyl acrylate	10.279	85	2313	9.74	ug/L	#	78
41) propionitrile	10.221	54	24980	101.36	ug/L		96
42) bromochloromethane	10.504	128	11034	10.22	ug/L		95
43) tetrahydrofuran	10.578	72	1948	9.61	ug/L		94
44) chloroform	10.572	85	22721	9.55	ug/L		99
45) t-butyl formate	10.646	59	5856	9.61	ug/L		91
47) methacrylonitrile	10.436	67	6792	9.91	ug/L		92
48) 1,1,1-trichloroethane	10.871	97	30181	9.50	ug/L		99
49) cyclohexane	10.981	84	27530	10.67	ug/L		94
50) 1,1-dichloropropene	11.060	75	25616	9.92	ug/L		97
51) iso-butyl alcohol	11.044	43	6277	98.89	ug/L		95
52) carbon tetrachloride	11.097	117	26522	10.06	ug/L		99
53) tert amyl alcohol	11.191	55	2718	48.99	ug/L		86
56) n-butyl alcohol	11.825	56	17905	463.70	ug/L		97
57) 2,2,4-trimethylpentane	11.401	57	72917	10.64	ug/L		99
58) benzene	11.327	78	73701	9.76	ug/L		99
59) tert-amyl methyl ether	11.406	87	13537	9.89	ug/L		94
60) heptane	11.574	71	15510	10.24	ug/L		97
61) isopropyl acetate	11.270	87	3167	9.50	ug/L		96
62) 1,2-dichloroethane	11.312	62	26699	10.38	ug/L		99
63) trichloroethene	12.072	130	21343	9.69	ug/L		99
64) ethyl acrylate	12.088	55	19044	10.12	ug/L		96
65) 2-nitropropane	12.843	41	4226	9.73	ug/L		91
66) 2-chloroethyl vinyl ether	12.890	63	61143	51.82	ug/L		99
67) methyl methacrylate	12.365	100	4470	10.31	ug/L	#	62
68) 1,2-dichloropropane	12.334	63	19555	9.77	ug/L		98
69) dibromomethane	12.476	93	11814	10.20	ug/L		99
70) methylcyclohexane	12.344	83	36590	10.45	ug/L		100
71) bromodichloromethane	12.622	83	25643	9.69	ug/L		98
72) epichlorohydrin	12.995	57	7472	49.27	ug/L		98
73) cis-1,3-dichloropropene	13.120	75	31445	9.79	ug/L		99
74) 4-methyl-2-pentanone	13.236	58	24657	40.58	ug/L		99
75) 3-methyl-1-butanol	13.236	70	6825	182.23	ug/L		89
78) toluene	13.529	92	47086	9.66	ug/L		98
79) trans-1,3-dichloropropene	13.708	75	27603	9.88	ug/L		98
80) ethyl methacrylate	13.734	69	21937	9.98	ug/L		97
81) 1,1,2-trichloroethane	13.933	83	13687	9.85	ug/L		98
82) tetrachloroethene	14.159	164	18413	9.86	ug/L		99
83) 1,3-dichloropropane	14.127	76	28077	10.16	ug/L		96
84) 2-hexanone	14.138	58	29150	42.30	ug/L		94
85) butyl acetate	14.237	56	9897	10.15	ug/L		99
86) 3,3-dimethyl-1-butanol	14.316	57	11600	106.21	ug/L		97
87) dibromochloromethane	14.405	129	18537	9.57	ug/L		96
88) 1,2-dibromoethane	14.573	107	17999	9.88	ug/L		99
89) n-butyl ether	15.039	57	87777	10.06	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157365.D
Acq On : 10 Jan 2018 6:19 pm
Operator : EddieH
Sample : ic7000-10
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 11 09:58:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

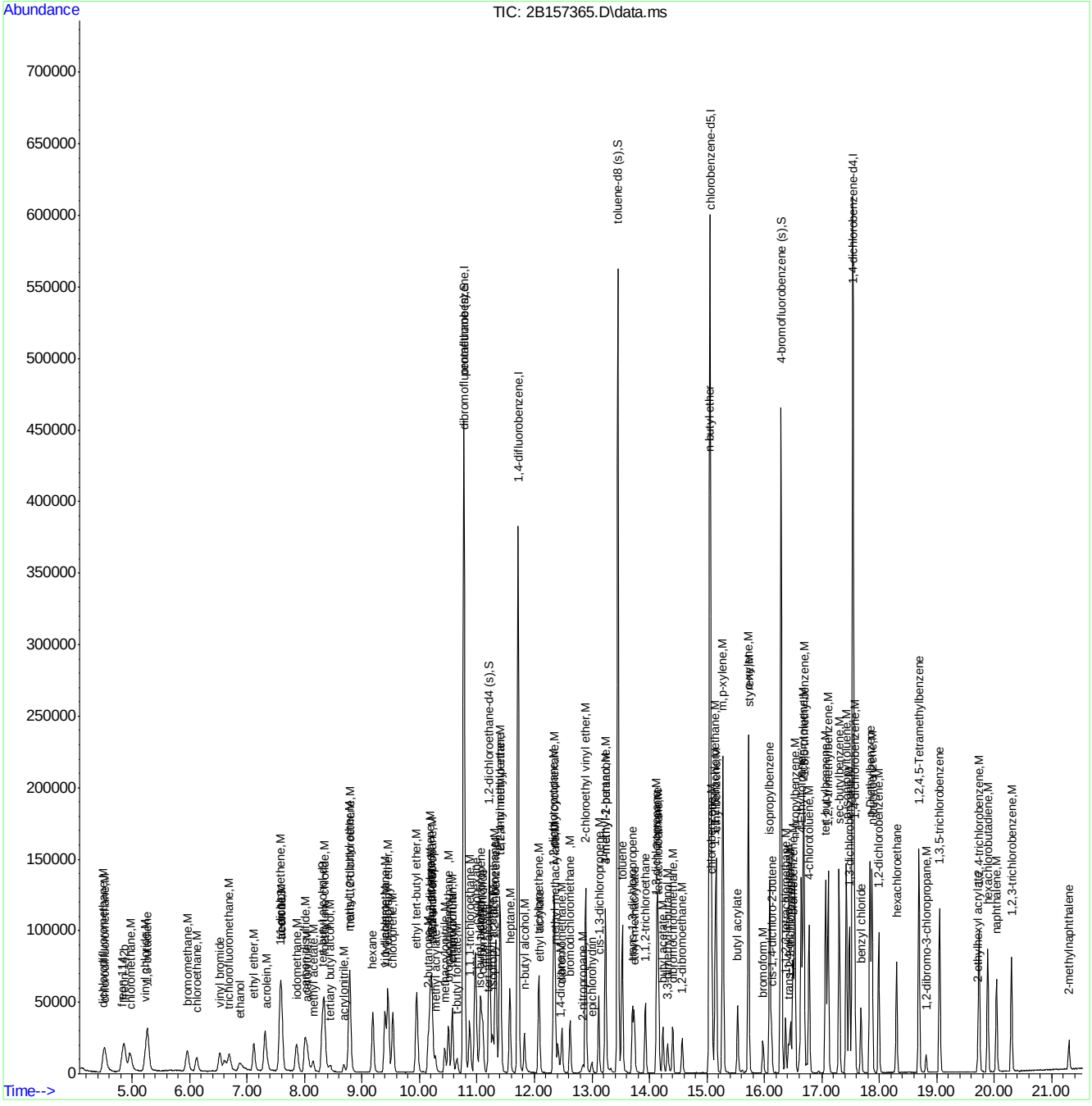
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) chlorobenzene	15.087	112	55000	10.18	ug/L	96
91) 1,1,1,2-tetrachloroethane	15.150	131	20549	10.01	ug/L	98
92) ethylbenzene	15.165	91	91103	9.90	ug/L	99
93) m,p-xylene	15.275	106	72737	20.59	ug/L	100
94) o-xylene	15.721	106	37509	9.87	ug/L	95
95) styrene	15.726	104	62926	10.42	ug/L	98
96) bromoform	15.978	173	12005	9.50	ug/L	98
97) butyl acrylate	15.532	55	33359	9.84	ug/L	97
98) isopropylbenzene	16.093	105	97508	9.74	ug/L	98
99) cis-1,4-dichloro-2-butene	16.130	88	7197	9.41	ug/L	97
102) bromobenzene	16.497	156	26305	9.96	ug/L	99
103) 1,1,2,2-tetrachloroethane	16.371	83	19467	9.75	ug/L	97
104) trans-1,4-dichloro-2-b...	16.424	53	4682	10.21	ug/L	89
105) 1,2,3-trichloropropane	16.455	110	5813	10.16	ug/L	92
106) n-propylbenzene	16.528	91	110304	10.32	ug/L	99
107) 4-Ethyltoluene	16.639	105	99147	9.92	ug/L	99
108) 2-chlorotoluene	16.675	126	24141	10.03	ug/L	97
109) 4-chlorotoluene	16.780	91	64282	9.88	ug/L	99
110) 1,3,5-trimethylbenzene	16.691	105	82222	10.36	ug/L	98
111) tert-butylbenzene	17.068	134	17691	9.69	ug/L	98
112) 1,2,4-trimethylbenzene	17.110	105	84190	10.44	ug/L	99
113) sec-butylbenzene	17.299	105	106707	10.15	ug/L	99
114) 1,3-dichlorobenzene	17.483	146	49004	9.95	ug/L	99
115) p-isopropyltoluene	17.425	119	93558	10.21	ug/L	97
116) 1,4-dichlorobenzene	17.567	146	48347	9.84	ug/L	99
117) benzyl chloride	17.682	91	36541	9.38	ug/L	99
118) 1,2-dichlorobenzene	17.991	146	46609	9.66	ug/L	97
119) p-Diethylbenzene	17.839	119	57452	10.04	ug/L	100
120) n-butylbenzene	17.871	92	47486	10.12	ug/L	97
121) hexachloroethane	18.301	201	15480	9.04	ug/L	93
122) 1,2,4,5-Tetramethylben...	18.689	119	92792	10.16	ug/L	99
123) 1,2-dibromo-3-chloropr...	18.814	75	3432	9.51	ug/L	91
124) 1,3,5-trichlorobenzene	19.050	180	44408	9.82	ug/L	99
125) 2-ethylhexyl acrylate	19.716	70	3371	2.22	ug/L	93
126) 1,2,4-trichlorobenzene	19.737	180	37002	9.71	ug/L	98
127) hexachlorobutadiene	19.884	225	22135	9.87	ug/L	97
128) naphthalene	20.041	128	61360	9.52	ug/L	99
129) 1,2,3-trichlorobenzene	20.303	180	30936	9.73	ug/L	99
130) 2-methylnaphthalene	21.300	142	13027	5.52	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157365.D
Acq On : 10 Jan 2018 6:19 pm
Operator : EddieH
Sample : ic7000-10
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 11 09:58:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157366.D
Acq On : 10 Jan 2018 6:51 pm
Operator : EddieH
Sample : ic7000-20
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 11 09:58:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.318	65	82015	500.00	ug/L		-0.01
5) pentafluorobenzene	10.766	168	245342	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.715	114	335884	50.00	ug/L		0.00
76) chlorobenzene-d5	15.050	117	322519	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.540	152	179662	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.777	113	106968	50.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%				
55) 1,2-dichloroethane-d4 (s)	11.217	65	117710	49.80	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.60%				
77) toluene-d8 (s)	13.451	98	394422	49.35	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.70%				
101) 4-bromofluorobenzene (s)	16.287	95	153121	49.82	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.64%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.449	59	17965	107.09	ug/L		95
3) ethanol	6.871	45	38840	1948.94	ug/L		98
4) 1,4-dioxane	12.449	88	7934	500.45	ug/L		99
6) chlorodifluoromethane	4.517	51	60549	21.30	ug/L		98
7) dichlorodifluoromethane	4.501	85	63905	22.25	ug/L		99
8) freon 114	4.821	135	25121	20.34	ug/L		96
9) freon 142b	4.863	65	64821	22.51	ug/L		96
10) chloromethane	4.962	50	64265	21.22	ug/L		98
11) vinyl chloride	5.225	62	62827	21.97	ug/L		98
12) 1,3-butadiene	5.266	54	39993	21.46	ug/L		99
13) bromomethane	5.953	94	43485	20.98	ug/L		99
14) chloroethane	6.121	64	34411	21.39	ug/L		99
15) trichlorofluoromethane	6.682	101	75975	22.91	ug/L		98
16) vinyl bromide	6.525	106	39064	21.32	ug/L		97
17) ethyl ether	7.112	74	24736	22.32	ug/L		93
18) acrolein	7.343	56	7089	21.97	ug/L		89
19) freon 113	7.589	151	32662	21.46	ug/L		96
20) 1,1-dichloroethene	7.573	96	39294	20.71	ug/L		96
21) acetone	7.600	58	24344	84.93	ug/L		94
22) acetonitrile	8.051	41	44689	215.85	ug/L		97
23) iodomethane	7.862	142	75532	20.55	ug/L		99
24) carbon disulfide	8.014	76	123823	20.88	ug/L		99
25) methylene chloride	8.349	84	42106	20.95	ug/L		96
26) methyl acetate	8.150	43	26088	19.94	ug/L		99
27) methyl tert butyl ether	8.779	73	117362	20.81	ug/L		100
28) trans-1,2-dichloroethene	8.790	96	40947	20.50	ug/L		98
29) di-isopropyl ether	9.450	45	136526	21.38	ug/L		99
30) 2-butanone	10.153	72	20204	86.46	ug/L	#	85
31) 1,1-dichloroethane	9.398	63	75693	20.79	ug/L		99
32) chloroprene	9.534	53	63043	21.08	ug/L		98
33) acrylonitrile	8.685	53	12524	22.18	ug/L		99
34) hexane	9.183	56	28532	22.40	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157366.D
Acq On : 10 Jan 2018 6:51 pm
Operator : EddieH
Sample : ic7000-20
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 11 09:58:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	9.408	86	4603	20.38	ug/L		95
36) ethyl tert-butyl ether	9.954	59	136410	21.52	ug/L		99
37) ethyl acetate	10.200	45	4477	22.03	ug/L		96
38) 2,2-dichloropropane	10.216	77	61013	20.82	ug/L		99
39) cis-1,2-dichloroethene	10.184	96	45749	20.58	ug/L		99
40) methyl acrylate	10.274	85	4887	21.16	ug/L		96
41) propionitrile	10.221	54	52292	218.25	ug/L		97
42) bromochloromethane	10.504	128	23048	21.95	ug/L		98
43) tetrahydrofuran	10.572	72	4296	21.79	ug/L		96
44) chloroform	10.572	85	46950	20.30	ug/L		98
45) t-butyl formate	10.651	59	11779	19.89	ug/L		94
47) methacrylonitrile	10.436	67	14538	21.82	ug/L		97
48) 1,1,1-trichloroethane	10.877	97	62731	20.31	ug/L		98
49) cyclohexane	10.981	84	56947	22.69	ug/L		96
50) 1,1-dichloropropene	11.060	75	52588	20.94	ug/L		98
51) iso-butyl alcohol	11.039	43	12490	202.40	ug/L		96
52) carbon tetrachloride	11.097	117	54775	21.38	ug/L		98
53) tert amyl alcohol	11.191	55	5707	105.80	ug/L		96
56) n-butyl alcohol	11.820	56	40404	1073.79	ug/L		99
57) 2,2,4-trimethylpentane	11.401	57	154984	23.20	ug/L		99
58) benzene	11.327	78	155284	21.09	ug/L		99
59) tert-amyl methyl ether	11.406	87	29004	21.75	ug/L		99
60) heptane	11.574	71	32205	21.81	ug/L		99
61) isopropyl acetate	11.270	87	6845	21.08	ug/L		99
62) 1,2-dichloroethane	11.312	62	55226	22.04	ug/L		97
63) trichloroethene	12.072	130	45020	20.98	ug/L		100
64) ethyl acrylate	12.082	55	40161	21.90	ug/L		98
65) 2-nitropropane	12.843	41	8751	20.67	ug/L		96
66) 2-chloroethyl vinyl ether	12.890	63	127738	111.09	ug/L		98
67) methyl methacrylate	12.366	100	9475	22.42	ug/L	#	59
68) 1,2-dichloropropane	12.334	63	40971	21.01	ug/L		99
69) dibromomethane	12.476	93	24388	21.61	ug/L		94
70) methylcyclohexane	12.345	83	77058	22.58	ug/L		97
71) bromodichloromethane	12.622	83	53946	20.93	ug/L		99
72) epichlorohydrin	12.995	57	15731	106.44	ug/L		98
73) cis-1,3-dichloropropene	13.115	75	67020	21.42	ug/L		98
74) 4-methyl-2-pentanone	13.236	58	52081	87.95	ug/L		99
75) 3-methyl-1-butanol	13.241	70	15785	432.51	ug/L		94
78) toluene	13.530	92	97974	20.52	ug/L		99
79) trans-1,3-dichloropropene	13.703	75	58491	21.37	ug/L		99
80) ethyl methacrylate	13.734	69	47115	21.88	ug/L		98
81) 1,1,2-trichloroethane	13.928	83	28452	20.90	ug/L		98
82) tetrachloroethene	14.159	164	38139	20.84	ug/L		98
83) 1,3-dichloropropane	14.127	76	59150	21.86	ug/L		99
84) 2-hexanone	14.138	58	61260	90.76	ug/L		96
85) butyl acetate	14.232	56	21475	22.49	ug/L		99
86) 3,3-dimethyl-1-butanol	14.316	57	26397	197.58	ug/L		99
87) dibromochloromethane	14.405	129	40546	21.38	ug/L		99
88) 1,2-dibromoethane	14.568	107	38602	21.63	ug/L		96
89) n-butyl ether	15.040	57	184212	21.56	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157366.D
Acq On : 10 Jan 2018 6:51 pm
Operator : EddieH
Sample : ic7000-20
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 11 09:58:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

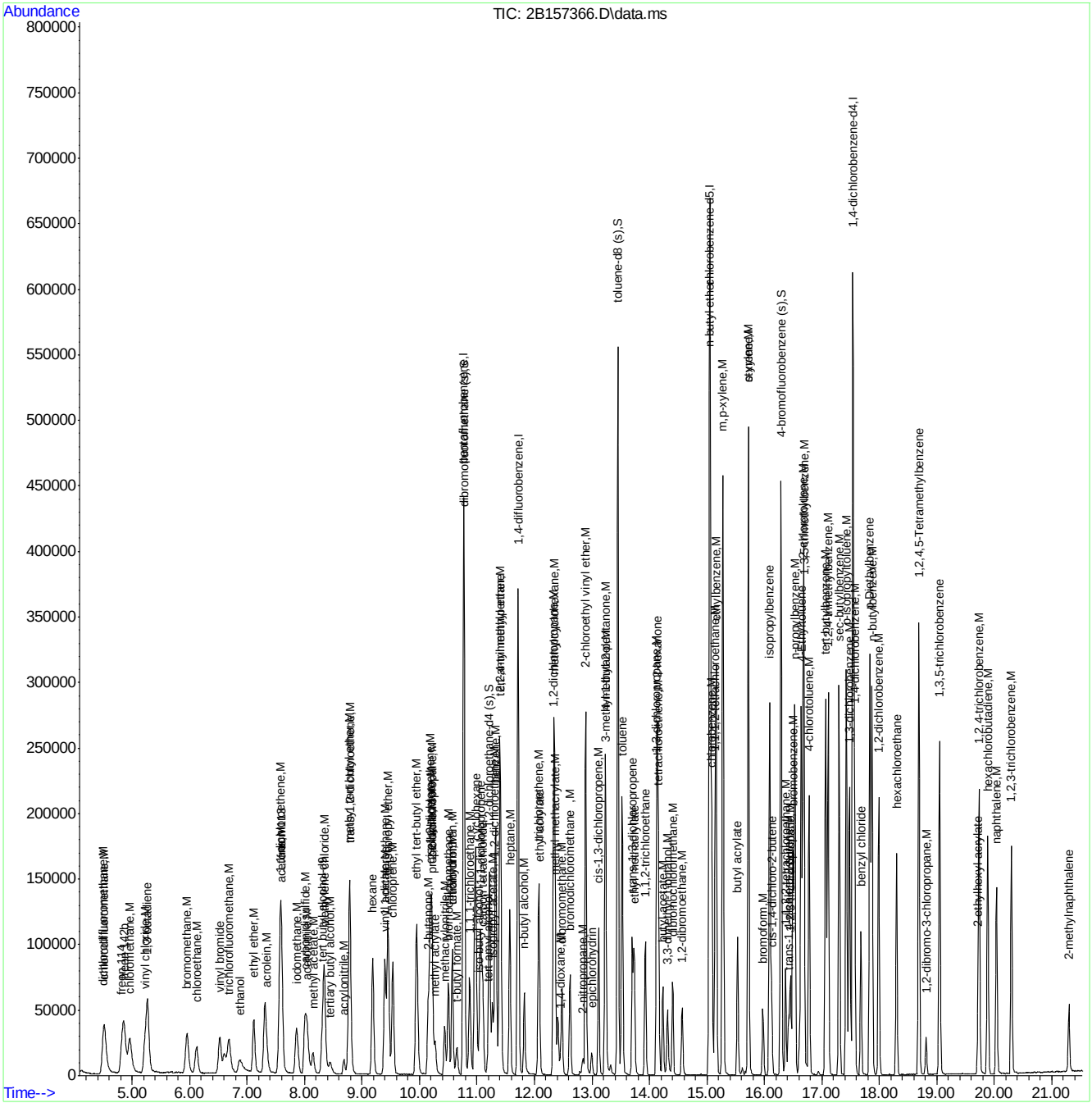
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) chlorobenzene	15.087	112	113793	21.51	ug/L	98
91) 1,1,1,2-tetrachloroethane	15.144	131	42832	21.31	ug/L	97
92) ethylbenzene	15.160	91	187234	20.77	ug/L	98
93) m,p-xylene	15.275	106	150324	43.45	ug/L	100
94) o-xylene	15.721	106	78453	21.08	ug/L	97
95) styrene	15.721	104	129910	21.95	ug/L	99
96) bromoform	15.973	173	26332	21.28	ug/L	97
97) butyl acrylate	15.532	55	72248	21.77	ug/L	99
98) isopropylbenzene	16.093	105	205691	20.97	ug/L	99
99) cis-1,4-dichloro-2-butene	16.130	88	15996	21.35	ug/L	98
102) bromobenzene	16.497	156	55880	21.61	ug/L	98
103) 1,1,2,2-tetrachloroethane	16.371	83	41175	21.05	ug/L	99
104) trans-1,4-dichloro-2-b...	16.418	53	9947	22.13	ug/L	95
105) 1,2,3-trichloropropane	16.455	110	12478	22.27	ug/L	97
106) n-propylbenzene	16.529	91	228798	21.85	ug/L	99
107) 4-Ethyltoluene	16.639	105	207369	21.18	ug/L	99
108) 2-chlorotoluene	16.675	126	49549	21.01	ug/L	96
109) 4-chlorotoluene	16.780	91	136889	21.48	ug/L	98
110) 1,3,5-trimethylbenzene	16.691	105	165554	21.30	ug/L	99
111) tert-butylbenzene	17.069	134	37648	21.05	ug/L	96
112) 1,2,4-trimethylbenzene	17.111	105	175353	22.19	ug/L	99
113) sec-butylbenzene	17.299	105	227365	22.08	ug/L	100
114) 1,3-dichlorobenzene	17.478	146	105158	21.80	ug/L	98
115) p-isopropyltoluene	17.425	119	197006	21.94	ug/L	99
116) 1,4-dichlorobenzene	17.567	146	101077	20.99	ug/L	100
117) benzyl chloride	17.682	91	83098	21.78	ug/L	100
118) 1,2-dichlorobenzene	17.991	146	103292	21.85	ug/L	100
119) p-Diethylbenzene	17.834	119	123281	21.99	ug/L	100
120) n-butylbenzene	17.871	92	98543	21.44	ug/L	99
121) hexachloroethane	18.301	201	33987	20.26	ug/L	95
122) 1,2,4,5-Tetramethylben...	18.689	119	200817	22.45	ug/L	100
123) 1,2-dibromo-3-chloropr...	18.814	75	7507	21.24	ug/L	93
124) 1,3,5-trichlorobenzene	19.050	180	97162	21.93	ug/L	100
125) 2-ethylhexyl acrylate	19.716	70	8200	3.93	ug/L	99
126) 1,2,4-trichlorobenzene	19.737	180	81086	21.72	ug/L	98
127) hexachlorobutadiene	19.884	225	46323	21.08	ug/L	98
128) naphthalene	20.041	128	133258	21.09	ug/L	99
129) 1,2,3-trichlorobenzene	20.298	180	67179	21.57	ug/L	99
130) 2-methylnaphthalene	21.300	142	31564	9.82	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157366.D
Acq On : 10 Jan 2018 6:51 pm
Operator : EddieH
Sample : ic7000-20
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 11 09:58:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157367.D
Acq On : 10 Jan 2018 7:22 pm
Operator : EddieH
Sample : icc7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 11 09:58:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.318	65	78666	500.00	ug/L	-0.01
5) pentafluorobenzene	10.766	168	244860	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.715	114	338912	50.00	ug/L	0.00
76) chlorobenzene-d5	15.050	117	321358	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.540	152	179529	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.772	113	105543	49.94	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.88%			
55) 1,2-dichloroethane-d4 (s)	11.217	65	115805	48.55	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.10%			
77) toluene-d8 (s)	13.451	98	394462	49.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%			
101) 4-bromofluorobenzene (s)	16.287	95	155863	50.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.50%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.449	59	44744	278.08	ug/L	100
3) ethanol	6.871	45	95536	4997.97	ug/L	100
4) 1,4-dioxane	12.455	88	21012	1381.79	ug/L	100
6) chlorodifluoromethane	4.527	51	153700	54.18	ug/L	100
7) dichlorodifluoromethane	4.511	85	157101	54.80	ug/L	100
8) freon 114	4.831	135	63154	53.82	ug/L	100
9) freon 142b	4.863	65	157691	54.88	ug/L	100
10) chloromethane	4.968	50	150742	49.87	ug/L	100
11) vinyl chloride	5.230	62	150373	52.69	ug/L	100
12) 1,3-butadiene	5.272	54	95861	51.55	ug/L	100
13) bromomethane	5.959	94	104729	50.64	ug/L	100
14) chloroethane	6.121	64	85527	53.26	ug/L	100
15) trichlorofluoromethane	6.687	101	182320	55.10	ug/L	100
16) vinyl bromide	6.525	106	96136	52.57	ug/L	100
17) ethyl ether	7.117	74	60203	54.44	ug/L	100
18) acrolein	7.337	56	17490	54.31	ug/L	100
19) freon 113	7.589	151	79486	52.32	ug/L	100
20) 1,1-dichloroethene	7.573	96	95928	50.66	ug/L	100
21) acetone	7.589	58	58539	204.64	ug/L	100
22) acetonitrile	8.051	41	105850	512.27	ug/L	100
23) iodomethane	7.857	142	195551	53.30	ug/L	100
24) carbon disulfide	8.009	76	308615	52.13	ug/L	100
25) methylene chloride	8.344	84	103983	51.84	ug/L	100
26) methyl acetate	8.145	43	63308	48.48	ug/L	100
27) methyl tert butyl ether	8.779	73	295086	52.42	ug/L	100
28) trans-1,2-dichloroethene	8.790	96	101616	50.98	ug/L	100
29) di-isopropyl ether	9.450	45	344807	54.09	ug/L	100
30) 2-butanone	10.148	72	51438	220.56	ug/L	100
31) 1,1-dichloroethane	9.398	63	190862	52.53	ug/L	100
32) chloroprene	9.534	53	157608	52.82	ug/L	100
33) acrylonitrile	8.685	53	30722	54.52	ug/L	100
34) hexane	9.183	56	72255	56.83	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157367.D
Acq On : 10 Jan 2018 7:22 pm
Operator : EddieH
Sample : icc7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 11 09:58:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) vinyl acetate	9.403	86	12734	56.48	ug/L	100
36) ethyl tert-butyl ether	9.954	59	344957	54.52	ug/L	100
37) ethyl acetate	10.200	45	11089	54.67	ug/L	100
38) 2,2-dichloropropane	10.216	77	150455	51.44	ug/L	100
39) cis-1,2-dichloroethene	10.184	96	114914	51.79	ug/L	100
40) methyl acrylate	10.274	85	12860	55.80	ug/L	100
41) propionitrile	10.221	54	125641	525.41	ug/L	100
42) bromochloromethane	10.504	128	57708	55.08	ug/L	100
43) tetrahydrofuran	10.572	72	10974	55.78	ug/L	100
44) chloroform	10.572	85	117956	51.11	ug/L	100
45) t-butyl formate	10.651	59	32133	54.36	ug/L	100
47) methacrylonitrile	10.436	67	37400	56.23	ug/L	100
48) 1,1,1-trichloroethane	10.877	97	162561	52.75	ug/L	100
49) cyclohexane	10.981	84	144480	57.68	ug/L	100
50) 1,1-dichloropropene	11.060	75	134766	53.78	ug/L	100
51) iso-butyl alcohol	11.039	43	32543	528.41	ug/L	100
52) carbon tetrachloride	11.097	117	140465	54.93	ug/L	100
53) tert amyl alcohol	11.186	55	14564	270.52	ug/L	100
56) n-butyl alcohol	11.820	56	109011	2871.22	ug/L	100
57) 2,2,4-trimethylpentane	11.401	57	384109	56.99	ug/L	100
58) benzene	11.327	78	385020	51.83	ug/L	100
59) tert-amyl methyl ether	11.406	87	70795	52.63	ug/L	100
60) heptane	11.574	71	83853	56.29	ug/L	100
61) isopropyl acetate	11.270	87	17963	54.82	ug/L	100
62) 1,2-dichloroethane	11.312	62	138438	54.75	ug/L	100
63) trichloroethene	12.072	130	118748	54.84	ug/L	100
64) ethyl acrylate	12.082	55	105296	56.91	ug/L	100
65) 2-nitropropane	12.843	41	23635	55.34	ug/L	100
66) 2-chloroethyl vinyl ether	12.890	63	321006	276.67	ug/L	100
67) methyl methacrylate	12.360	100	23609	55.37	ug/L	100
68) 1,2-dichloropropane	12.334	63	104854	53.30	ug/L	100
69) dibromomethane	12.476	93	62906	55.24	ug/L	100
70) methylcyclohexane	12.345	83	196027	56.94	ug/L	100
71) bromodichloromethane	12.622	83	142267	54.70	ug/L	100
72) epichlorohydrin	12.995	57	40236	269.83	ug/L	100
73) cis-1,3-dichloropropene	13.115	75	175185	55.49	ug/L	100
74) 4-methyl-2-pentanone	13.236	58	130701	218.75	ug/L	100
75) 3-methyl-1-butanol	13.236	70	41584	1129.23	ug/L	100
78) toluene	13.530	92	249282	52.39	ug/L	100
79) trans-1,3-dichloropropene	13.703	75	156097	57.24	ug/L	100
80) ethyl methacrylate	13.734	69	120078	55.95	ug/L	100
81) 1,1,2-trichloroethane	13.928	83	74039	54.59	ug/L	100
82) tetrachloroethene	14.159	164	94922	52.07	ug/L	100
83) 1,3-dichloropropane	14.127	76	150695	55.90	ug/L	100
84) 2-hexanone	14.138	58	154279	229.41	ug/L	100
85) butyl acetate	14.232	56	53988	56.75	ug/L	100
86) 3,3-dimethyl-1-butanol	14.316	57	71739	474.68	ug/L	100
87) dibromochloromethane	14.405	129	108634	57.48	ug/L	100
88) 1,2-dibromoethane	14.568	107	100600	56.58	ug/L	100
89) n-butyl ether	15.040	57	472594	55.50	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157367.D
Acq On : 10 Jan 2018 7:22 pm
Operator : EddieH
Sample : icc7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 11 09:58:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) chlorobenzene	15.087	112	285127	54.10	ug/L	100
91) 1,1,1,2-tetrachloroethane	15.150	131	110550	55.20	ug/L	100
92) ethylbenzene	15.160	91	460954	51.33	ug/L	100
93) m,p-xylene	15.275	106	373711	108.42	ug/L	100
94) o-xylene	15.721	106	197651	53.31	ug/L	100
95) styrene	15.721	104	326918	55.45	ug/L	100
96) bromoform	15.973	173	74654	60.54	ug/L	100
97) butyl acrylate	15.532	55	191051	57.77	ug/L	100
98) isopropylbenzene	16.093	105	521780	53.39	ug/L	100
99) cis-1,4-dichloro-2-butene	16.125	88	42781	57.32	ug/L	100
102) bromobenzene	16.497	156	143612	55.57	ug/L	100
103) 1,1,2,2-tetrachloroethane	16.371	83	106730	54.61	ug/L	100
104) trans-1,4-dichloro-2-b...	16.418	53	26537	59.09	ug/L	100
105) 1,2,3-trichloropropane	16.455	110	31685	56.59	ug/L	100
106) n-propylbenzene	16.529	91	568269	54.31	ug/L	100
107) 4-Ethyltoluene	16.639	105	520202	53.16	ug/L	100
108) 2-chlorotoluene	16.675	126	123895	52.57	ug/L	100
109) 4-chlorotoluene	16.780	91	343050	53.86	ug/L	100
110) 1,3,5-trimethylbenzene	16.691	105	407376	52.45	ug/L	100
111) tert-butylbenzene	17.069	134	98169	54.93	ug/L	100
112) 1,2,4-trimethylbenzene	17.111	105	437610	55.42	ug/L	100
113) sec-butylbenzene	17.299	105	579376	56.32	ug/L	100
114) 1,3-dichlorobenzene	17.478	146	259539	53.85	ug/L	100
115) p-isopropyltoluene	17.425	119	500904	55.82	ug/L	100
116) 1,4-dichlorobenzene	17.567	146	258198	53.66	ug/L	100
117) benzyl chloride	17.682	91	229017	60.07	ug/L	100
118) 1,2-dichlorobenzene	17.991	146	263162	55.70	ug/L	100
119) p-Diethylbenzene	17.834	119	319133	56.98	ug/L	100
120) n-butylbenzene	17.871	92	251004	54.65	ug/L	100
121) hexachloroethane	18.301	201	98926	59.01	ug/L	100
122) 1,2,4,5-Tetramethylben...	18.689	119	521100	58.29	ug/L	100
123) 1,2-dibromo-3-chloropr...	18.809	75	20947	59.30	ug/L	100
124) 1,3,5-trichlorobenzene	19.050	180	259494	58.60	ug/L	100
125) 2-ethylhexyl acrylate	19.716	70	24848	9.76	ug/L	100
126) 1,2,4-trichlorobenzene	19.737	180	225262	60.39	ug/L	100
127) hexachlorobutadiene	19.884	225	124234	56.58	ug/L	100
128) naphthalene	20.041	128	360870	57.17	ug/L	100
129) 1,2,3-trichlorobenzene	20.298	180	185335	59.55	ug/L	100
130) 2-methylnaphthalene	21.300	142	96867	24.78	ug/L	100

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

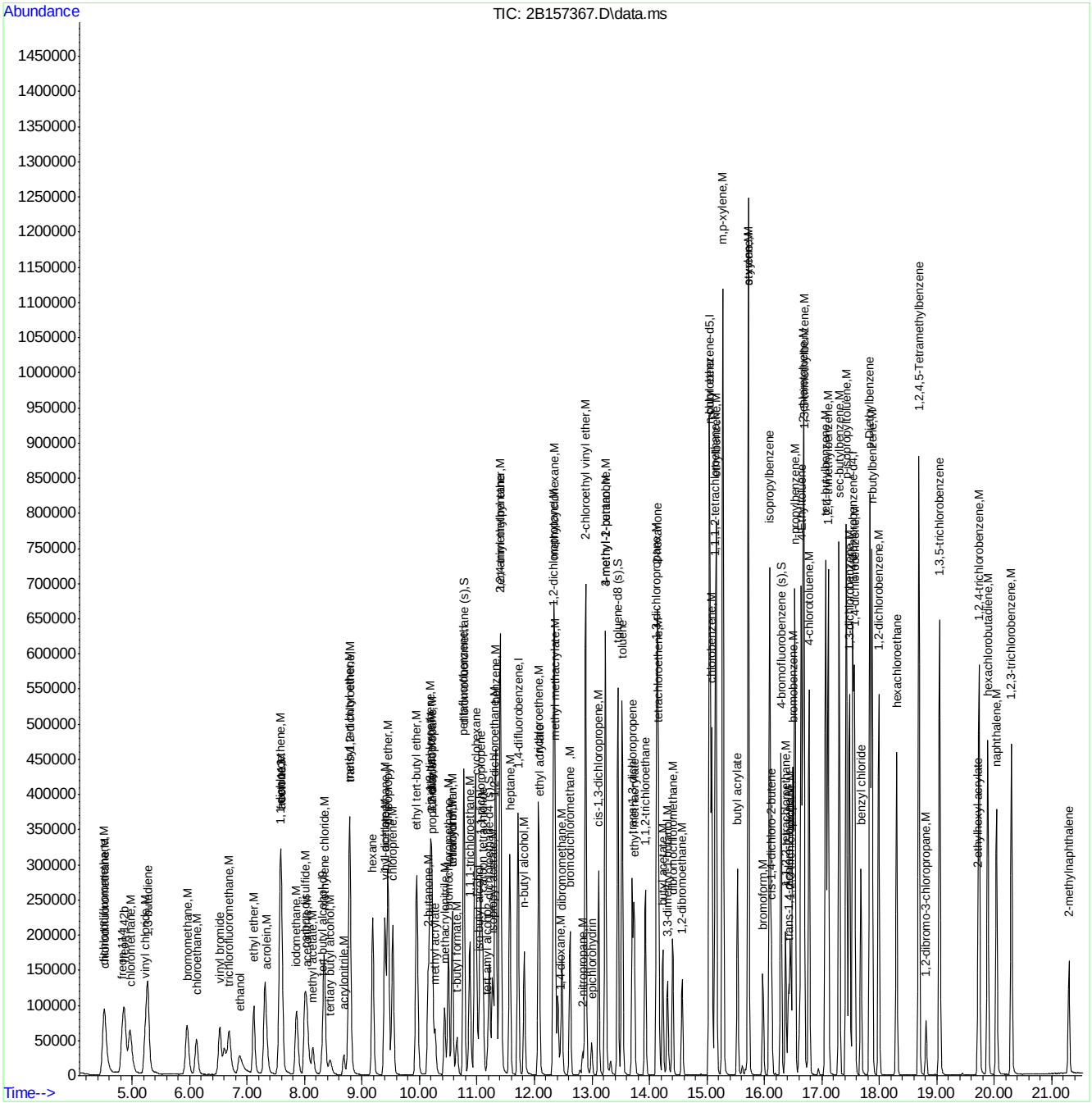
7.7.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157367.D
Acq On : 10 Jan 2018 7:22 pm
Operator : EddieH
Sample : icc7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 11 09:58:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157368.D
Acq On : 10 Jan 2018 7:54 pm
Operator : EddieH
Sample : ic7000-100
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 11 09:58:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.323	65	78766	500.00	ug/L	0.00
5) pentafluorobenzene	10.766	168	245856	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.715	114	341115	50.00	ug/L	0.00
76) chlorobenzene-d5	15.050	117	318797	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.540	152	179708	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.777	113	105999	49.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.92%			
55) 1,2-dichloroethane-d4 (s)	11.217	65	116264	48.43	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.86%			
77) toluene-d8 (s)	13.451	98	399372	50.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.10%			
101) 4-bromofluorobenzene (s)	16.287	95	157611	51.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.54%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.449	59	87717	544.47	ug/L	92
3) ethanol	6.881	45	178238	9312.68	ug/L	99
4) 1,4-dioxane	12.449	88	42936	2819.98	ug/L	99
6) chlorodifluoromethane	4.522	51	300534	105.52	ug/L	99
7) dichlorodifluoromethane	4.501	85	318007	110.47	ug/L	100
8) freon 114	4.831	135	120832	104.09	ug/L	96
9) freon 142b	4.857	65	304745	105.63	ug/L	99
10) chloromethane	4.962	50	283396	93.37	ug/L	98
11) vinyl chloride	5.230	62	294078	102.62	ug/L	99
12) 1,3-butadiene	5.266	54	184948	99.05	ug/L	98
13) bromomethane	5.943	94	197931	95.32	ug/L	98
14) chloroethane	6.111	64	161055	99.88	ug/L	99
15) trichlorofluoromethane	6.682	101	357987	107.75	ug/L	99
16) vinyl bromide	6.514	106	186920	101.79	ug/L	98
17) ethyl ether	7.117	74	114333	102.96	ug/L	98
18) acrolein	7.337	56	32915	101.79	ug/L	96
19) freon 113	7.589	151	153820	100.83	ug/L	97
20) 1,1-dichloroethene	7.568	96	182319	95.89	ug/L	94
21) acetone	7.589	58	109302	380.55	ug/L	100
22) acetonitrile	8.050	41	205745	991.69	ug/L	99
23) iodomethane	7.856	142	366293	99.43	ug/L	98
24) carbon disulfide	8.009	76	610064	102.64	ug/L	99
25) methylene chloride	8.344	84	203425	101.01	ug/L	97
26) methyl acetate	8.145	43	123417	94.13	ug/L	98
27) methyl tert butyl ether	8.779	73	568087	100.50	ug/L	100
28) trans-1,2-dichloroethene	8.784	96	196334	98.10	ug/L	99
29) di-isopropyl ether	9.450	45	647334	101.14	ug/L	99
30) 2-butanone	10.148	72	101563	433.73	ug/L	93
31) 1,1-dichloroethane	9.393	63	366549	100.48	ug/L	99
32) chloroprene	9.534	53	303656	101.34	ug/L	99
33) acrylonitrile	8.685	53	61933	109.46	ug/L	96
34) hexane	9.183	56	145221	113.76	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157368.D
Acq On : 10 Jan 2018 7:54 pm
Operator : EddieH
Sample : ic7000-100
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 11 09:58:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) vinyl acetate	9.403	86	22754	100.52	ug/L	97
36) ethyl tert-butyl ether	9.954	59	664774	104.65	ug/L	99
37) ethyl acetate	10.200	45	20998	103.10	ug/L	99
38) 2,2-dichloropropane	10.216	77	285776	97.31	ug/L	95
39) cis-1,2-dichloroethene	10.184	96	218627	98.13	ug/L	97
40) methyl acrylate	10.274	85	25251	109.12	ug/L	99
41) propionitrile	10.221	54	237219	987.99	ug/L	98
42) bromochloromethane	10.499	128	113229	107.63	ug/L	97
43) tetrahydrofuran	10.572	72	21475	108.72	ug/L	98
44) chloroform	10.572	85	227586	98.22	ug/L	99
45) t-butyl formate	10.651	59	64288	108.32	ug/L	91
47) methacrylonitrile	10.436	67	73841	110.58	ug/L	99
48) 1,1,1-trichloroethane	10.871	97	321484	103.89	ug/L	99
49) cyclohexane	10.981	84	281589	111.97	ug/L	98
50) 1,1-dichloropropene	11.060	75	263095	104.56	ug/L	98
51) iso-butyl alcohol	11.039	43	64887	1049.32	ug/L	98
52) carbon tetrachloride	11.097	117	275876	107.44	ug/L	100
53) tert amyl alcohol	11.191	55	29445	544.71	ug/L	96
56) n-butyl alcohol	11.820	56	220686	5775.08	ug/L	99
57) 2,2,4-trimethylpentane	11.406	57	735314	108.40	ug/L	99
58) benzene	11.327	78	734693	98.27	ug/L	99
59) tert-amyl methyl ether	11.406	87	137780	101.76	ug/L	95
60) heptane	11.574	71	169092	112.78	ug/L	98
61) isopropyl acetate	11.270	87	35643	108.08	ug/L	99
62) 1,2-dichloroethane	11.312	62	265315	104.25	ug/L	98
63) trichloroethene	12.072	130	236659	108.59	ug/L	99
64) ethyl acrylate	12.082	55	204559	109.84	ug/L	98
65) 2-nitropropane	12.843	41	47077	109.51	ug/L	99
66) 2-chloroethyl vinyl ether	12.890	63	615377	526.96	ug/L	100
67) methyl methacrylate	12.360	100	45033	104.93	ug/L	97
68) 1,2-dichloropropane	12.334	63	203414	102.73	ug/L	100
69) dibromomethane	12.476	93	121115	105.66	ug/L	96
70) methylcyclohexane	12.345	83	380649	109.85	ug/L	99
71) bromodichloromethane	12.617	83	281392	107.50	ug/L	100
72) epichlorohydrin	12.995	57	80741	537.96	ug/L	97
73) cis-1,3-dichloropropene	13.115	75	344261	108.34	ug/L	99
74) 4-methyl-2-pentanone	13.236	58	250805	417.05	ug/L	98
75) 3-methyl-1-butanol	13.236	70	82512	2226.18	ug/L	96
78) toluene	13.529	92	486949	103.17	ug/L	98
79) trans-1,3-dichloropropene	13.702	75	308074	113.88	ug/L	99
80) ethyl methacrylate	13.734	69	233087	109.49	ug/L	100
81) 1,1,2-trichloroethane	13.928	83	145901	108.45	ug/L	99
82) tetrachloroethene	14.159	164	181426	100.32	ug/L	98
83) 1,3-dichloropropane	14.127	76	291203	108.89	ug/L	99
84) 2-hexanone	14.138	58	298445	447.34	ug/L	99
85) butyl acetate	14.232	56	106022	112.34	ug/L	98
86) 3,3-dimethyl-1-butanol	14.316	57	148031	947.21	ug/L	98
87) dibromochloromethane	14.405	129	218442	116.51	ug/L	99
88) 1,2-dibromoethane	14.568	107	199143	112.90	ug/L	98
89) n-butyl ether	15.039	57	918791	108.77	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157368.D
Acq On : 10 Jan 2018 7:54 pm
Operator : EddieH
Sample : ic7000-100
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 11 09:58:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

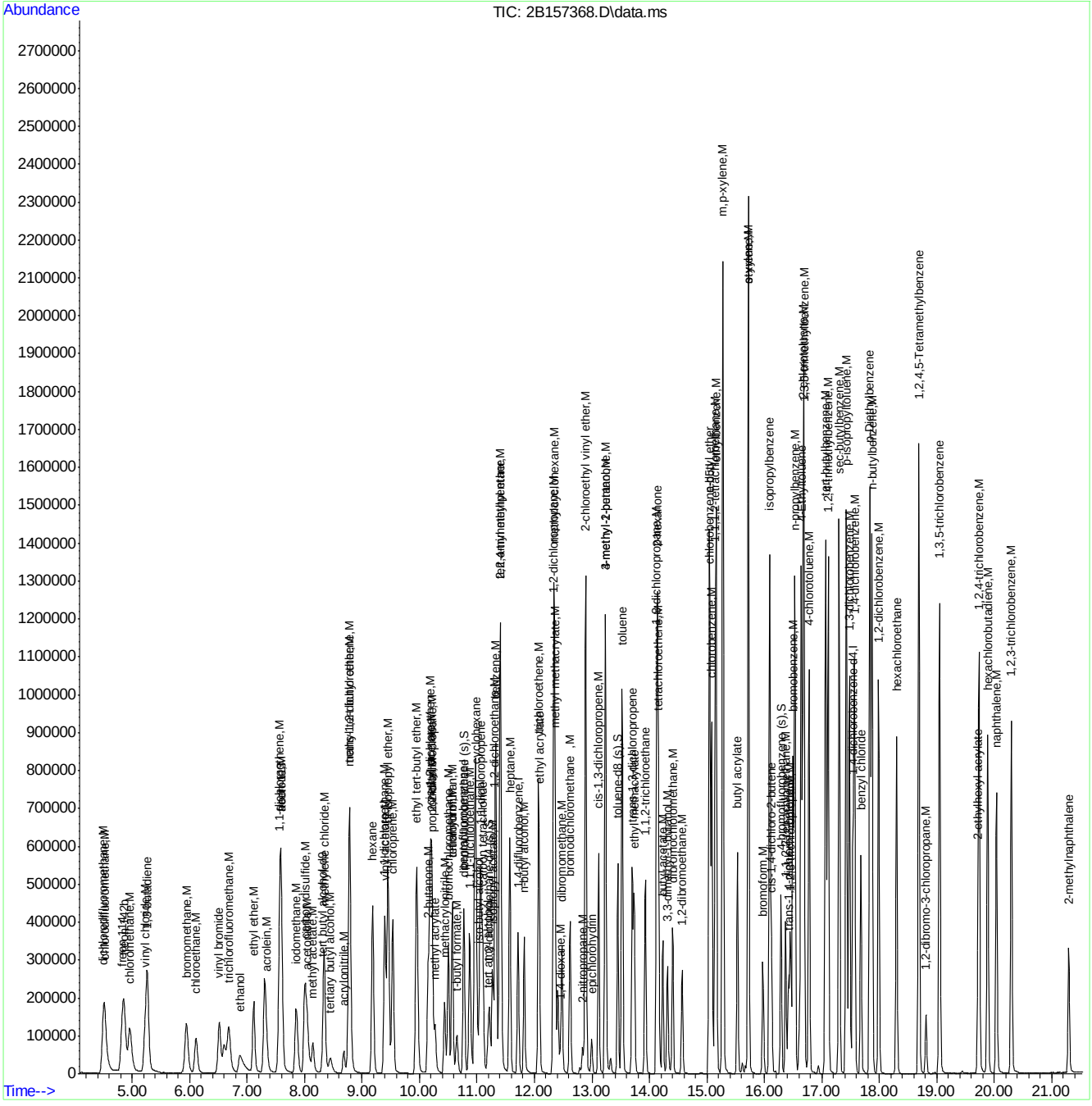
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
90) chlorobenzene	15.087	112	546908	104.61 ug/L	100
91) 1,1,1,2-tetrachloroethane	15.150	131	214779	108.11 ug/L	99
92) ethylbenzene	15.160	91	880707	98.85 ug/L	99
93) m,p-xylene	15.275	106	716849	209.64 ug/L	98
94) o-xylene	15.721	106	373935	101.66 ug/L	98
95) styrene	15.721	104	624575	106.78 ug/L	99
96) bromoform	15.973	173	155513	127.13 ug/L	98
97) butyl acrylate	15.532	55	377149	114.96 ug/L	99
98) isopropylbenzene	16.093	105	992611	102.39 ug/L	99
99) cis-1,4-dichloro-2-butene	16.125	88	83980	113.42 ug/L	99
102) bromobenzene	16.497	156	276635	106.94 ug/L	100
103) 1,1,2,2-tetrachloroethane	16.371	83	208519	106.60 ug/L	99
104) trans-1,4-dichloro-2-b...	16.418	53	52249	116.23 ug/L	98
105) 1,2,3-trichloropropane	16.455	110	61475	109.69 ug/L	99
106) n-propylbenzene	16.528	91	1077262	102.85 ug/L	99
107) 4-Ethyltoluene	16.639	105	1000227	102.12 ug/L	99
108) 2-chlorotoluene	16.675	126	238822	101.24 ug/L	98
109) 4-chlorotoluene	16.780	91	666967	104.61 ug/L	99
110) 1,3,5-trimethylbenzene	16.691	105	778737	100.15 ug/L	100
111) tert-butylbenzene	17.068	134	193876	108.37 ug/L	99
112) 1,2,4-trimethylbenzene	17.110	105	826787	104.61 ug/L	98
113) sec-butylbenzene	17.299	105	1114040	108.18 ug/L	99
114) 1,3-dichlorobenzene	17.477	146	500180	103.67 ug/L	100
115) p-isopropyltoluene	17.425	119	963888	107.30 ug/L	99
116) 1,4-dichlorobenzene	17.567	146	504158	104.68 ug/L	99
117) benzyl chloride	17.682	91	453954	118.95 ug/L	99
118) 1,2-dichlorobenzene	17.991	146	503812	106.54 ug/L	99
119) p-Diethylbenzene	17.834	119	616501	109.96 ug/L	99
120) n-butylbenzene	17.871	92	477587	103.87 ug/L	99
121) hexachloroethane	18.301	201	198709	118.42 ug/L	98
122) 1,2,4,5-Tetramethylben...	18.689	119	990766	110.72 ug/L	99
123) 1,2-dibromo-3-chloropr...	18.809	75	40658	114.98 ug/L	98
124) 1,3,5-trichlorobenzene	19.050	180	494963	111.67 ug/L	99
125) 2-ethylhexyl acrylate	19.716	70	54369	20.07 ug/L	99
126) 1,2,4-trichlorobenzene	19.737	180	435327	116.60 ug/L	99
127) hexachlorobutadiene	19.884	225	239190	108.82 ug/L	98
128) naphthalene	20.036	128	700827	110.91 ug/L	99
129) 1,2,3-trichlorobenzene	20.298	180	362532	116.37 ug/L	99
130) 2-methylnaphthalene	21.300	142	205682	49.66 ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157368.D
Acq On : 10 Jan 2018 7:54 pm
Operator : EddieH
Sample : ic7000-100
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 11 09:58:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157369.D
Acq On : 10 Jan 2018 8:25 pm
Operator : EddieH
Sample : ic7000-200
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 12 15:26:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.328	65	78006	500.00	ug/L	0.00
5) pentafluorobenzene	10.766	168	242664	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.715	114	342391	50.00	ug/L	0.00
76) chlorobenzene-d5	15.050	117	305087	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.540	152	181296	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.777	113	104064	49.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.38%			
55) 1,2-dichloroethane-d4 (s)	11.217	65	113585	47.14	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.28%			
77) toluene-d8 (s)	13.451	98	397606	52.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.18%			
101) 4-bromofluorobenzene (s)	16.287	95	158130	50.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.98%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.454	59	175066	1097.24	ug/L	89
3) ethanol	6.892	45	327899	17299.17	ug/L	98
4) 1,4-dioxane	12.449	88	83509	5538.19	ug/L	100
6) chlorodifluoromethane	4.517	51	590128	209.92	ug/L	100
7) dichlorodifluoromethane	4.496	85	613821	216.04	ug/L	99
8) freon 114	4.821	135	224168	197.14	ug/L	97
9) freon 142b	4.857	65	568843	199.76	ug/L	99
10) chloromethane	4.957	50	534304	178.35	ug/L	99
11) vinyl chloride	5.225	62	555773	196.49	ug/L	100
12) 1,3-butadiene	5.261	54	342054	185.60	ug/L	98
13) bromomethane	5.932	94	350627	171.07	ug/L	97
14) chloroethane	6.105	64	304868	191.56	ug/L	98
15) trichlorofluoromethane	6.672	101	680035	207.37	ug/L	99
16) vinyl bromide	6.514	106	360803	199.07	ug/L	98
17) ethyl ether	7.117	74	217706	198.64	ug/L	99
18) acrolein	7.337	56	60265	188.82	ug/L	99
19) freon 113	7.579	151	295567	196.30	ug/L	98
20) 1,1-dichloroethene	7.563	96	342962	182.75	ug/L	96
21) acetone	7.594	58	195317	688.96	ug/L	98
22) acetonitrile	8.051	41	393119	1919.75	ug/L	99
23) iodomethane	7.857	142	743873	204.59	ug/L	99
24) carbon disulfide	8.009	76	1196627	203.97	ug/L	98
25) methylene chloride	8.339	84	398462	200.47	ug/L	97
26) methyl acetate	8.145	43	251879	194.64	ug/L	99
27) methyl tert butyl ether	8.779	73	1064372	190.77	ug/L	99
28) trans-1,2-dichloroethene	8.785	96	375741	190.21	ug/L	99
29) di-isopropyl ether	9.456	45	1193424	188.91	ug/L	98
30) 2-butanone	10.153	72	197109	852.84	ug/L #	87
31) 1,1-dichloroethane	9.393	63	696273	193.37	ug/L	98
32) chloroprene	9.529	53	574138	194.14	ug/L	99
33) acrylonitrile	8.685	53	120593	215.94	ug/L	97
34) hexane	9.183	56	279484	221.82	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157369.D
Acq On : 10 Jan 2018 8:25 pm
Operator : EddieH
Sample : ic7000-200
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 12 15:26:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	9.403	86	45071	201.72	ug/L		95
36) ethyl tert-butyl ether	9.954	59	1254574	200.09	ug/L		99
37) ethyl acetate	10.200	45	38628	192.16	ug/L		90
38) 2,2-dichloropropane	10.216	77	529593	182.71	ug/L		97
39) cis-1,2-dichloroethene	10.179	96	412939	187.79	ug/L		97
40) methyl acrylate	10.279	85	49487	216.66	ug/L		99
41) propionitrile	10.221	54	440577	1859.09	ug/L		98
42) bromochloromethane	10.499	128	217062	209.04	ug/L		100
43) tetrahydrofuran	10.572	72	40846	209.50	ug/L		95
44) chloroform	10.567	85	431913	188.85	ug/L		99
45) t-butyl formate	10.651	59	137149	234.13	ug/L		92
47) methacrylonitrile	10.436	67	143098	217.11	ug/L		99
48) 1,1,1-trichloroethane	10.871	97	625213	204.70	ug/L		99
49) cyclohexane	10.981	84	539602	217.39	ug/L		97
50) 1,1-dichloropropene	11.060	75	502479	202.33	ug/L		97
51) iso-butyl alcohol	11.039	43	125754	2060.37	ug/L		99
52) carbon tetrachloride	11.097	117	529447	208.90	ug/L		99
53) tert amyl alcohol	11.191	55	55374	1037.86	ug/L		87
56) n-butyl alcohol	11.826	56	436481	11379.59	ug/L		99
57) 2,2,4-trimethylpentane	11.406	57	1365523	200.56	ug/L		99
58) benzene	11.327	78	1394580	185.83	ug/L		99
59) tert-amyl methyl ether	11.406	87	263492	193.88	ug/L		95
60) heptane	11.574	71	325306	216.17	ug/L		98
61) isopropyl acetate	11.275	87	70045	211.60	ug/L	#	87
62) 1,2-dichloroethane	11.312	62	500605	195.97	ug/L		98
63) trichloroethene	12.072	130	455991	208.45	ug/L		98
64) ethyl acrylate	12.082	55	387020	207.04	ug/L		99
65) 2-nitropropane	12.843	41	94512	219.03	ug/L		99
66) 2-chloroethyl vinyl ether	12.895	63	1120047	955.54	ug/L		97
67) methyl methacrylate	12.360	100	87545	203.23	ug/L		94
68) 1,2-dichloropropane	12.334	63	385160	193.78	ug/L		99
69) dibromomethane	12.476	93	233780	203.19	ug/L		97
70) methylcyclohexane	12.345	83	713282	205.08	ug/L		98
71) bromodichloromethane	12.617	83	549177	209.02	ug/L		99
72) epichlorohydrin	12.995	57	158748	1053.76	ug/L		96
73) cis-1,3-dichloropropene	13.115	75	661665	207.46	ug/L		99
74) 4-methyl-2-pentanone	13.236	58	479110	793.72	ug/L		95
75) 3-methyl-1-butanol	13.236	70	164011	4408.54	ug/L		91
78) toluene	13.524	92	942080	208.57	ug/L		96
79) trans-1,3-dichloropropene	13.703	75	592220	228.76	ug/L		98
80) ethyl methacrylate	13.734	69	446008	218.92	ug/L		100
81) 1,1,2-trichloroethane	13.928	83	276805	214.99	ug/L		98
82) tetrachloroethene	14.159	164	347282	200.65	ug/L		99
83) 1,3-dichloropropane	14.127	76	550384	215.06	ug/L		96
84) 2-hexanone	14.138	58	563174	882.08	ug/L		97
85) butyl acetate	14.232	56	210196	232.73	ug/L		96
86) 3,3-dimethyl-1-butanol	14.316	57	310538	2032.04	ug/L		97
87) dibromochloromethane	14.405	129	428842	239.01	ug/L		98
88) 1,2-dibromoethane	14.568	107	385291	228.26	ug/L		100
89) n-butyl ether	15.039	57	1714704	212.11	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157369.D
Acq On : 10 Jan 2018 8:25 pm
Operator : EddieH
Sample : ic7000-200
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 12 15:26:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration

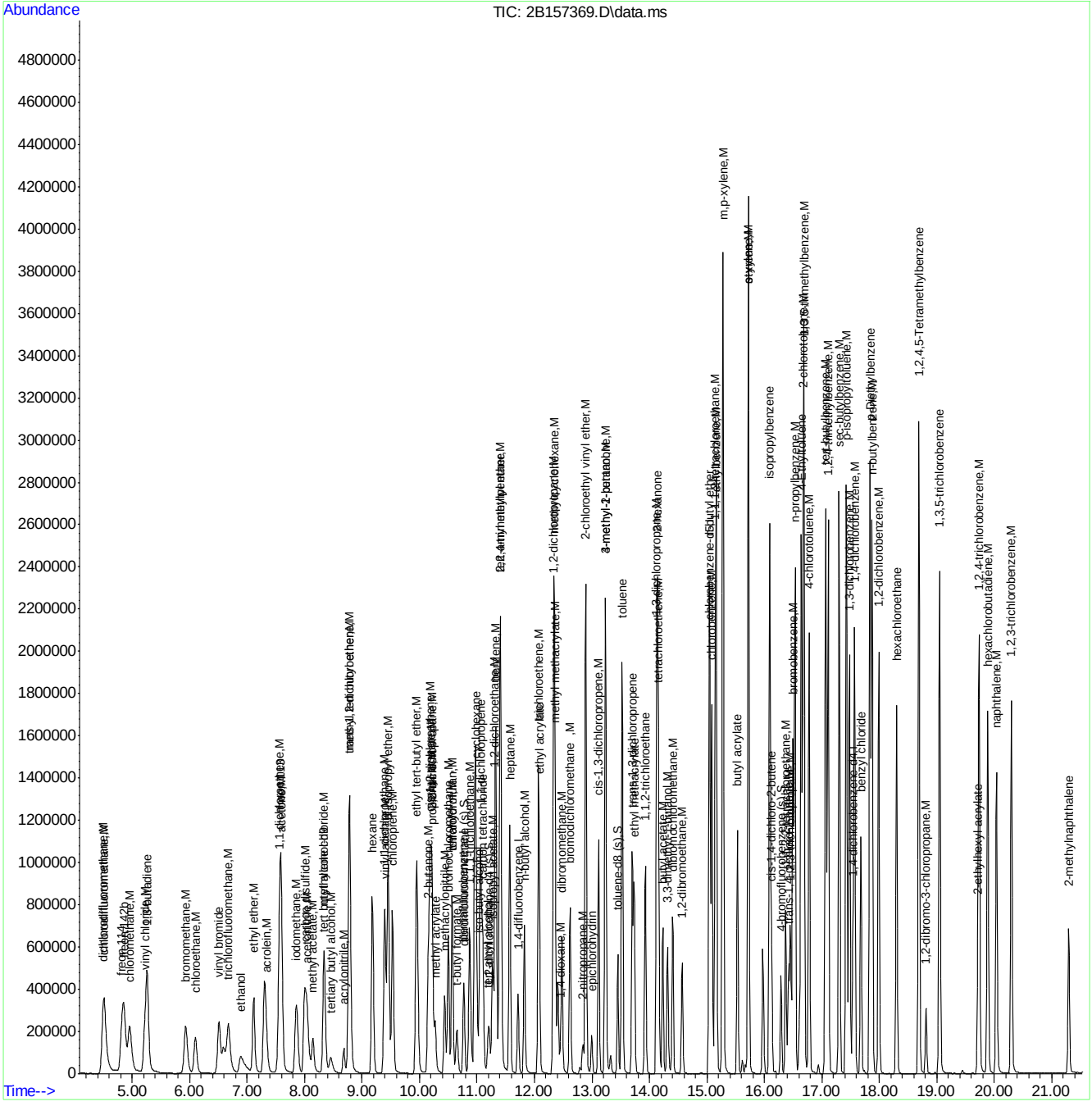
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) chlorobenzene	15.087	112	1040016	207.86	ug/L	99
91) 1,1,1,2-tetrachloroethane	15.150	131	413131	217.30	ug/L	98
92) ethylbenzene	15.165	91	1657462	194.39	ug/L	98
93) m,p-xylene	15.281	106	1358023	415.00	ug/L	93
94) o-xylene	15.721	106	708458	201.27	ug/L	99
95) styrene	15.721	104	1164369	208.01	ug/L	98
97) butyl acrylate	15.532	55	739787	235.64	ug/L	97
98) isopropylbenzene	16.093	105	1879629	202.59	ug/L	98
99) cis-1,4-dichloro-2-butene	16.125	88	163599	230.87	ug/L	98
102) bromobenzene	16.497	156	525576	201.39	ug/L	98
103) 1,1,2,2-tetrachloroethane	16.371	83	410292	207.90	ug/L	99
104) trans-1,4-dichloro-2-b...	16.418	53	102800	226.69	ug/L	96
105) 1,2,3-trichloropropane	16.455	110	119293	210.99	ug/L	100
106) n-propylbenzene	16.534	91	2021964	191.35	ug/L	98
107) 4-Ethyltoluene	16.639	105	1903881	192.68	ug/L	97
108) 2-chlorotoluene	16.675	126	457773	192.36	ug/L	95
109) 4-chlorotoluene	16.780	91	1298957	201.95	ug/L	99
110) 1,3,5-trimethylbenzene	16.691	105	1494136	190.48	ug/L	99
111) tert-butylbenzene	17.069	134	377766	209.30	ug/L	96
112) 1,2,4-trimethylbenzene	17.110	105	1572495	197.21	ug/L	98
113) sec-butylbenzene	17.299	105	2115296	203.60	ug/L	98
114) 1,3-dichlorobenzene	17.477	146	966602	198.59	ug/L	99
115) p-isopropyltoluene	17.425	119	1833052	202.27	ug/L	98
116) 1,4-dichlorobenzene	17.567	146	988805	203.50	ug/L	99
117) benzyl chloride	17.682	91	889524	231.04	ug/L	99
118) 1,2-dichlorobenzene	17.991	146	976096	204.60	ug/L	98
119) p-Diethylbenzene	17.839	119	1188121	210.06	ug/L	98
120) n-butylbenzene	17.871	92	917779	197.86	ug/L	97
121) hexachloroethane	18.301	201	398067	235.15	ug/L	98
122) 1,2,4,5-Tetramethylben...	18.689	119	1874270	207.62	ug/L	98
123) 1,2-dibromo-3-chloropr...	18.809	75	81203	227.63	ug/L	94
124) 1,3,5-trichlorobenzene	19.050	180	945132	211.36	ug/L	99
125) 2-ethylhexyl acrylate	19.711	70	112396	40.02	ug/L	96
126) 1,2,4-trichlorobenzene	19.737	180	824352	218.86	ug/L	99
127) hexachlorobutadiene	19.884	225	459569	207.25	ug/L	98
128) naphthalene	20.036	128	1359934	213.34	ug/L	99
129) 1,2,3-trichlorobenzene	20.298	180	700732	222.97	ug/L	99
130) 2-methylnaphthalene	21.300	142	430392	100.22	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157369.D
Acq On : 10 Jan 2018 8:25 pm
Operator : EddieH
Sample : ic7000-200
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 12 15:26:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 11 09:01:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157372.D
Acq On : 10 Jan 2018 10:00 pm
Operator : EddieH
Sample : icv7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 15 10:09:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Mon Jan 15 10:07:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.323	65	79260	500.00	ug/L	0.00
5) pentafluorobenzene	10.766	168	249945	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.715	114	342655	50.00	ug/L	0.00
76) chlorobenzene-d5	15.050	117	325966	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.540	152	180722	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.772	113	107908	50.02	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.04%			
55) 1,2-dichloroethane-d4 (s)	11.217	65	117852	48.87	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.74%			
77) toluene-d8 (s)	13.451	98	399488	49.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.92%			
101) 4-bromofluorobenzene (s)	16.287	95	157440	50.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.86%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.449	59	43369	267.52	ug/L	99
3) ethanol	6.876	45	89700	4657.49	ug/L	99
4) 1,4-dioxane	12.449	88	21018	1371.83	ug/L	99
6) chlorodifluoromethane	4.522	51	149810	51.74	ug/L	98
7) dichlorodifluoromethane	4.496	85	151083	51.63	ug/L	98
8) freon 114	4.826	135	80902	67.82	ug/L	99
9) freon 142b	4.857	65	201195	68.60	ug/L	98
10) chloromethane	4.957	50	137035	44.41	ug/L	98
11) vinyl chloride	5.219	62	130418	44.77	ug/L	98
12) 1,3-butadiene	5.261	54	122096	64.32	ug/L	98
13) bromomethane	5.948	94	93874	44.47	ug/L	98
14) chloroethane	6.111	64	75618	46.13	ug/L	98
15) trichlorofluoromethane	6.677	101	165385	48.96	ug/L	99
16) vinyl bromide	6.520	106	105476	56.50	ug/L	99
17) ethyl ether	7.117	74	58353	51.69	ug/L	96
18) acrolein	7.337	56	17816	54.19	ug/L	89
19) freon 113	7.584	151	90887	58.60	ug/L	94
20) 1,1-dichloroethene	7.563	96	86407	44.70	ug/L	97
21) acetone	7.594	58	46269	158.46	ug/L	98
22) acetonitrile	8.050	41	86401	409.64	ug/L	98
23) iodomethane	7.856	142	180780	48.27	ug/L	98
24) carbon disulfide	8.009	76	287252	47.54	ug/L	99
25) methylene chloride	8.344	84	100438	49.06	ug/L	98
26) methyl acetate	8.145	43	62467	48.13	ug/L	97
27) methyl tert butyl ether	8.779	73	588045	102.33	ug/L	94
28) trans-1,2-dichloroethene	8.784	96	98412	48.37	ug/L	99
29) di-isopropyl ether	9.450	45	339665	52.20	ug/L	99
30) 2-butanone	10.148	72	46486	195.27	ug/L	89
31) 1,1-dichloroethane	9.393	63	187398	50.53	ug/L	98
32) chloroprene	9.529	53	157941	51.85	ug/L	99
33) acrylonitrile	8.685	53	30390	52.83	ug/L	99
34) hexane	9.183	56	54382	41.91	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157372.D
Acq On : 10 Jan 2018 10:00 pm
Operator : EddieH
Sample : icv7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 15 10:09:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Mon Jan 15 10:07:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	9.403	86	10338	44.92	ug/L		98
36) ethyl tert-butyl ether	9.948	59	345356	53.48	ug/L		99
37) ethyl acetate	10.200	45	11144	53.82	ug/L		93
38) 2,2-dichloropropane	10.211	77	143948	48.22	ug/L		99
39) cis-1,2-dichloroethene	10.179	96	115824	51.14	ug/L		97
40) methyl acrylate	10.274	85	12782	54.33	ug/L	#	89
41) propionitrile	10.216	54	113889	466.57	ug/L		97
42) bromochloromethane	10.499	128	58575	54.77	ug/L		98
43) tetrahydrofuran	10.572	72	10747	53.52	ug/L		95
44) chloroform	10.567	85	119588	50.76	ug/L		100
45) t-butyl formate	10.651	59	36253	60.08	ug/L		92
47) methacrylonitrile	10.436	67	35765	52.68	ug/L		99
48) 1,1,1-trichloroethane	10.871	97	160506	51.02	ug/L		98
49) cyclohexane	10.976	84	143956	56.31	ug/L		88
50) 1,1-dichloropropene	11.060	75	136446	53.34	ug/L		99
51) iso-butyl alcohol	11.039	43	32681	519.85	ug/L		99
52) carbon tetrachloride	11.097	117	142648	54.65	ug/L		99
53) tert amyl alcohol	11.191	55	13991	254.59	ug/L		99
56) n-butyl alcohol	11.820	56	105269	2742.38	ug/L		100
57) 2,2,4-trimethylpentane	11.401	57	374230	54.92	ug/L		99
58) benzene	11.327	78	383618	51.08	ug/L		99
59) tert-amyl methyl ether	11.406	87	70642	51.94	ug/L		98
60) heptane	11.569	71	86549	57.47	ug/L		97
61) isopropyl acetate	11.270	87	17725	53.50	ug/L		97
62) 1,2-dichloroethane	11.312	62	139079	54.40	ug/L		100
63) trichloroethene	12.072	130	124473	56.86	ug/L		98
64) ethyl acrylate	12.082	55	102404	54.74	ug/L		99
65) 2-nitropropane	12.837	41	23070	53.42	ug/L		97
66) 2-chloroethyl vinyl ether	12.890	63	315083	268.60	ug/L		100
67) methyl methacrylate	12.360	100	22338	51.82	ug/L	#	86
68) 1,2-dichloropropane	12.334	63	98756	49.65	ug/L		99
69) dibromomethane	12.476	93	63523	55.17	ug/L		97
70) methylcyclohexane	12.345	83	173046	49.72	ug/L		98
71) bromodichloromethane	12.617	83	140073	53.27	ug/L		100
72) epichlorohydrin	12.995	57	41596	272.77	ug/L		97
73) cis-1,3-dichloropropene	13.115	75	174720	54.74	ug/L		99
74) 4-methyl-2-pentanone	13.236	58	131564	217.79	ug/L		97
75) 3-methyl-1-butanol	13.236	70	39039	1048.54	ug/L		99
78) toluene	13.524	92	252110	52.24	ug/L		100
79) trans-1,3-dichloropropene	13.702	75	148146	53.56	ug/L		99
80) ethyl methacrylate	13.734	69	113652	52.21	ug/L		99
81) 1,1,2-trichloroethane	13.928	83	73204	53.22	ug/L		98
82) tetrachloroethene	14.159	164	174228	94.22	ug/L		98
83) 1,3-dichloropropane	14.127	76	152483	55.76	ug/L		97
84) 2-hexanone	14.138	58	137083	200.96	ug/L		99
85) butyl acetate	14.232	56	53635	55.58	ug/L		98
86) 3,3-dimethyl-1-butanol	14.311	57	67898	440.87	ug/L		98
87) dibromochloromethane	14.405	129	112998	58.94	ug/L		100
88) 1,2-dibromoethane	14.568	107	101533	56.30	ug/L		98
89) n-butyl ether	15.039	57	451935	52.32	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157372.D
Acq On : 10 Jan 2018 10:00 pm
Operator : EddieH
Sample : icv7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 15 10:09:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Mon Jan 15 10:07:58 2018
Response via : Initial Calibration

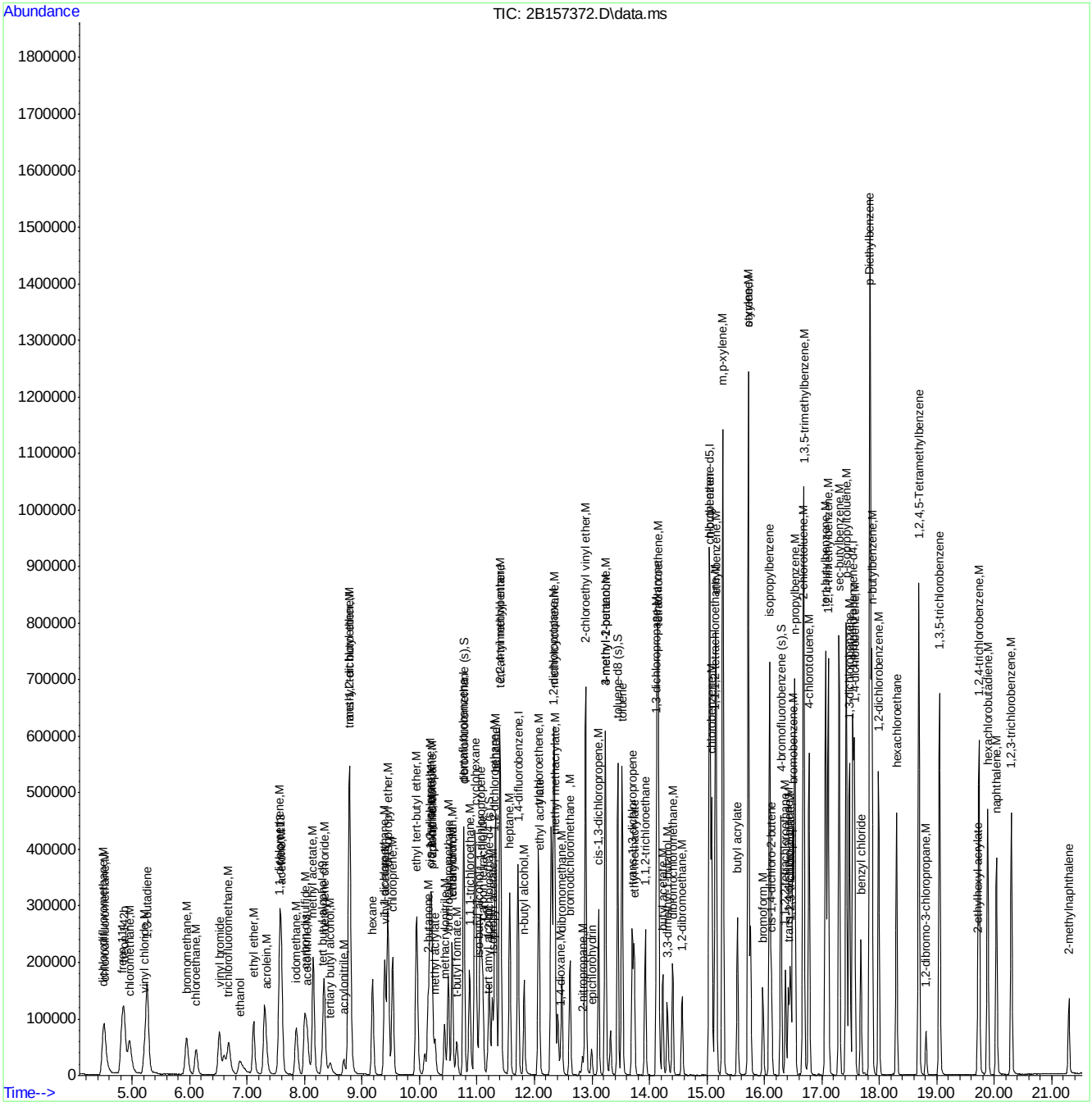
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	chlorobenzene	15.087	112	286410	53.58	ug/L	99
91)	1,1,1,2-tetrachloroethane	15.144	131	113460	55.86	ug/L	100
92)	ethylbenzene	15.160	91	468903	51.47	ug/L	100
93)	m,p-xylene	15.275	106	377902	108.09	ug/L	99
94)	o-xylene	15.721	106	199379	53.01	ug/L	98
95)	styrene	15.721	104	333365	55.74	ug/L	99
96)	bromoform	15.973	173	80109	64.05	ug/L	100
97)	butyl acrylate	15.532	55	184721	55.07	ug/L	99
98)	isopropylbenzene	16.093	105	528305	53.29	ug/L	100
99)	cis-1,4-dichloro-2-butene	16.125	88	40399	53.36	ug/L	98
102)	bromobenzene	16.497	156	145530	55.94	ug/L	98
103)	1,1,2,2-tetrachloroethane	16.366	83	101609	51.65	ug/L	97
104)	trans-1,4-dichloro-2-b...	16.418	53	31597	69.90	ug/L	98
105)	1,2,3-trichloropropane	16.450	110	32017	56.81	ug/L	100
106)	n-propylbenzene	16.528	91	576429	54.72	ug/L	100
108)	2-chlorotoluene	16.670	126	129336	54.52	ug/L	99
109)	4-chlorotoluene	16.775	91	358007	55.84	ug/L	98
110)	1,3,5-trimethylbenzene	16.686	105	427656	54.69	ug/L	99
111)	tert-butylbenzene	17.069	134	100959	56.11	ug/L	97
112)	1,2,4-trimethylbenzene	17.110	105	449932	56.61	ug/L	98
113)	sec-butylbenzene	17.299	105	593031	57.26	ug/L	99
114)	1,3-dichlorobenzene	17.477	146	264602	54.54	ug/L	99
115)	p-isopropyltoluene	17.425	119	511391	56.61	ug/L	100
116)	1,4-dichlorobenzene	17.567	146	260243	53.73	ug/L	99
117)	benzyl chloride	17.682	91	187159	48.77	ug/L	99
118)	1,2-dichlorobenzene	17.991	146	261038	54.89	ug/L	99
119)	p-Diethylbenzene	17.834	119	345307	61.24	ug/L	94
120)	n-butylbenzene	17.871	92	251388	54.37	ug/L	98
121)	hexachloroethane	18.301	201	101506	60.15	ug/L	99
122)	1,2,4,5-Tetramethylben...	18.689	119	523089	58.13	ug/L	98
123)	1,2-dibromo-3-chloropr...	18.809	75	20061	56.41	ug/L	93
124)	1,3,5-trichlorobenzene	19.050	180	269900	60.55	ug/L	100
125)	2-ethylhexyl acrylate	19.711	70	27536	10.64	ug/L	98
126)	1,2,4-trichlorobenzene	19.732	180	228098	60.75	ug/L	98
127)	hexachlorobutadiene	19.884	225	124133	56.16	ug/L	98
128)	naphthalene	20.036	128	365745	57.56	ug/L	100
129)	1,2,3-trichlorobenzene	20.298	180	186180	59.43	ug/L	99
130)	2-methylnaphthalene	21.300	142	80746	20.97	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157372.D
Acq On : 10 Jan 2018 10:00 pm
Operator : EddieH
Sample : icv7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 15 10:09:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Mon Jan 15 10:07:58 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157373.D
Acq On : 10 Jan 2018 10:31 pm
Operator : EddieH
Sample : icv7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 12 15:28:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Jan 12 15:24:13 2018
Response via : Initial Calibration

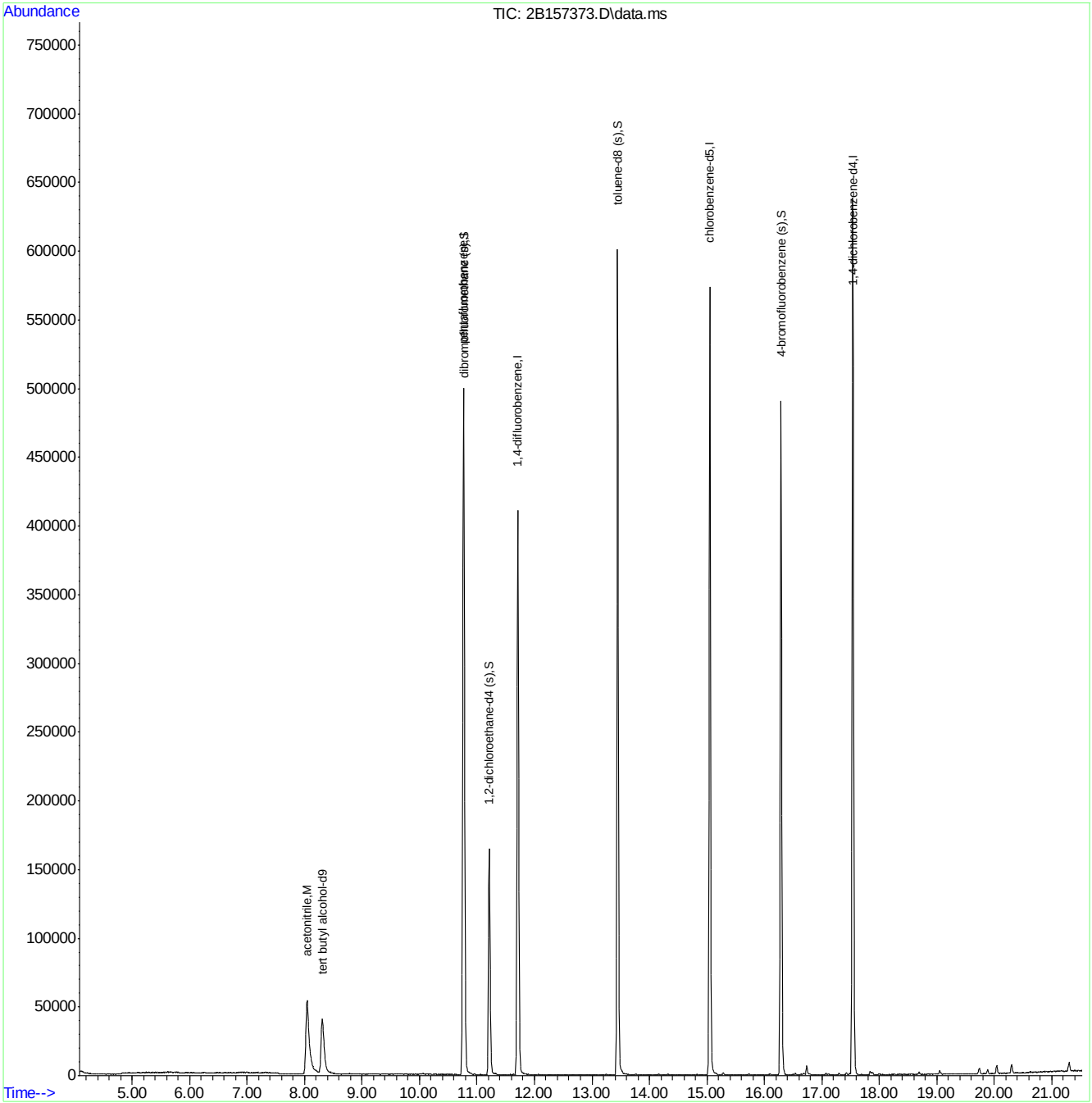
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.313	65	91783	500.00	ug/L	-0.02
5) pentafluorobenzene	10.766	168	281703	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.710	114	375605	50.00	ug/L	0.00
76) chlorobenzene-d5	15.050	117	353761	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.540	152	197932	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.772	113	119164	49.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.02%			
55) 1,2-dichloroethane-d4 (s)	11.217	65	132140	49.99	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.98%			
77) toluene-d8 (s)	13.446	98	434175	49.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.06%			
101) 4-bromofluorobenzene (s)	16.287	95	168047	49.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.26%			
Target Compounds						Qvalue
22) acetonitrile	8.051	41	123297	518.67	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157373.D
Acq On : 10 Jan 2018 10:31 pm
Operator : EddieH
Sample : icv7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 12 15:28:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Jan 12 15:24:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157376.D
Acq On : 11 Jan 2018 11:04 am
Operator : EddieH
Sample : icv7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 12 15:30:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Jan 12 15:24:13 2018
Response via : Initial Calibration

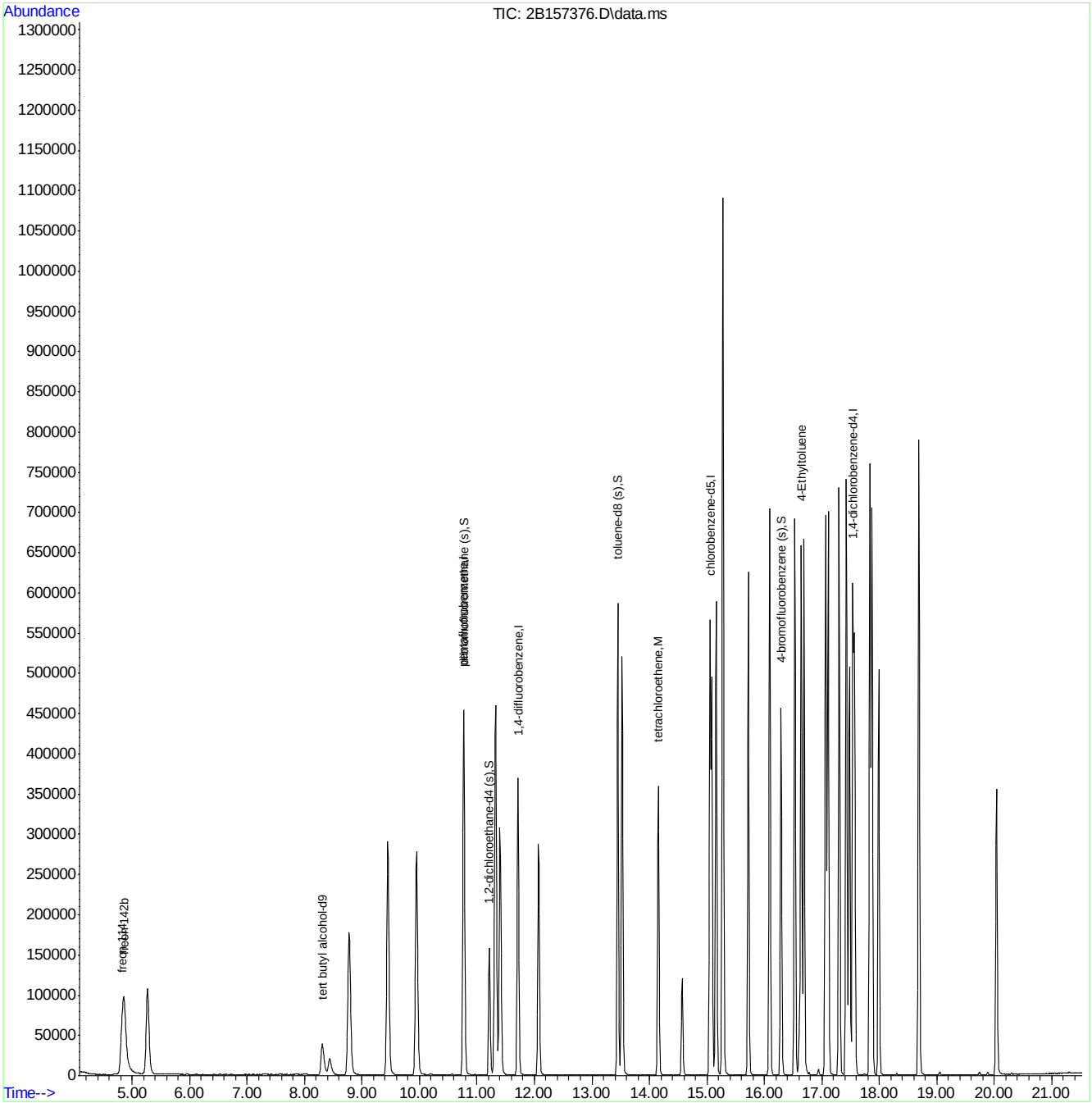
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.313	65	89863	500.00	ug/L	-0.02
5) pentafluorobenzene	10.766	168	253760	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.715	114	340170	50.00	ug/L	0.00
76) chlorobenzene-d5	15.055	117	335221	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.540	152	173881	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.772	113	111269	50.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%			
55) 1,2-dichloroethane-d4 (s)	11.217	65	124128	51.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.70%			
77) toluene-d8 (s)	13.451	98	418490	50.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%			
101) 4-bromofluorobenzene (s)	16.287	95	153892	51.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.48%			
Target Compounds						Qvalue
8) freon 114	4.826	135	64532	53.50	ug/L	97
9) freon 142b	4.863	65	159246	53.48	ug/L	98
82) tetrachloroethene	14.159	164	92898	48.85	ug/L	97
107) 4-Ethyltoluene	16.639	105	490458	51.75	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2B157376.D
Acq On : 11 Jan 2018 11:04 am
Operator : EddieH
Sample : icv7000-50
Misc : MS23592,V2B7000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 12 15:30:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Jan 12 15:24:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201804\4-2-18\nizele\v2b7094\
Data File : 2b159323.d
Acq On : 30 Mar 2018 7:51 am
Operator : sydneys
Sample : cc7000-20 Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:27:08 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.307	65	89448	500.00	ug/L		-0.02
5) pentafluorobenzene	10.761	168	247488	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.705	114	315999	50.00	ug/L		-0.01
76) chlorobenzene-d5	15.045	117	305042	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	17.535	152	167016	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.766	113	100595	47.10	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.20%				
55) 1,2-dichloroethane-d4 (s)	11.212	65	130836	58.83	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 117.66%				
77) toluene-d8 (s)	13.446	98	347041	45.91	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.82%				
101) 4-bromofluorobenzene (s)	16.282	95	136202	47.67	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.34%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.439	59	19571	106.97	ug/L		89
3) ethanol	6.855	45	47627	2191.27	ug/L		99
4) 1,4-dioxane	12.444	88	8506	491.95	ug/L		99
6) chlorodifluoromethane	4.512	51	61067	21.30	ug/L		93
7) dichlorodifluoromethane	4.496	85	67152	23.17	ug/L		96
10) chloromethane	4.957	50	70196	22.97	ug/L		97
11) vinyl chloride	5.219	62	60125	20.84	ug/L		98
13) bromomethane	5.969	94	38273	18.31	ug/L		98
14) chloroethane	6.121	64	33466	20.62	ug/L		95
15) trichlorofluoromethane	6.682	101	78338	23.42	ug/L		98
16) vinyl bromide	6.530	106	35815	19.38	ug/L	#	95
18) acrolein	7.332	56	8190	25.16	ug/L	#	60
19) freon 113	7.594	151	28880	18.81	ug/L		97
20) 1,1-dichloroethene	7.563	96	34966	18.27	ug/L		86
21) acetone	7.584	58	19928	68.92	ug/L	#	72
22) acetonitrile	8.040	41	46658	223.41	ug/L		99
24) carbon disulfide	7.998	76	79963	13.36	ug/L		98
25) methylene chloride	8.334	84	39823	19.64	ug/L		95
26) methyl acetate	8.140	43	27067	21.06	ug/L		97
27) methyl tert butyl ether	8.769	73	80121	14.08	ug/L		99
28) trans-1,2-dichloroethene	8.779	96	36715	18.22	ug/L		89
29) di-isopropyl ether	9.445	45	125042	19.41	ug/L		97
30) 2-butanone	10.143	72	16409	69.61	ug/L		97
31) 1,1-dichloroethane	9.388	63	71193	19.39	ug/L		98
32) chloroprene	9.529	53	57310	19.00	ug/L		94
34) hexane	9.183	56	22966	17.87	ug/L		89
35) vinyl acetate	9.398	86	6060	26.59	ug/L		77
36) ethyl tert-butyl ether	9.943	59	123664	19.34	ug/L		99
37) ethyl acetate	10.190	45	4270	20.83	ug/L		73
38) 2,2-dichloropropane	10.205	77	60186	20.36	ug/L		95
39) cis-1,2-dichloroethene	10.179	96	41197	18.37	ug/L		93
42) bromochloromethane	10.499	128	21121	19.94	ug/L		96
44) chloroform	10.562	85	46777	20.05	ug/L		98
45) t-butyl formate	10.646	59	24788	41.49	ug/L		94
47) methacrylonitrile	10.431	67	9588	14.26	ug/L		97
48) 1,1,1-trichloroethane	10.866	97	62676	20.12	ug/L		96
49) cyclohexane	10.976	84	42680	16.86	ug/L	#	87
50) 1,1-dichloropropene	11.055	75	47502	18.75	ug/L		97
51) iso-butyl alcohol	11.029	43	13100	210.45	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201804\4-2-18\nizele\v2b7094\
Data File : 2b159323.d
Acq On : 30 Mar 2018 7:51 am
Operator : sydneys
Sample : cc7000-20 Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:27:08 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) carbon tetrachloride	11.092	117	57841	22.38	ug/L		98
53) tert amyl alcohol	11.186	55	6114	112.36	ug/L		79
56) n-butyl alcohol	11.815	56	39375	1112.29	ug/L		92
57) 2,2,4-trimethylpentane	11.396	57	107938	17.18	ug/L		91
58) benzene	11.322	78	133787	19.32	ug/L		100
59) tert-amyl methyl ether	11.396	87	24900	19.85	ug/L		96
60) heptane	11.569	71	22320	16.07	ug/L		98
61) isopropyl acetate	11.265	87	6046	19.79	ug/L	#	83
62) 1,2-dichloroethane	11.307	62	60067	25.48	ug/L		97
63) trichloroethene	12.067	130	37378	18.51	ug/L		98
64) ethyl acrylate	12.077	55	36466	21.14	ug/L		99
66) 2-chloroethyl vinyl ether	12.885	63	106270	98.23	ug/L		98
68) 1,2-dichloropropane	12.329	63	36520	19.91	ug/L		98
69) dibromomethane	12.470	93	24314	22.90	ug/L		97
70) methylcyclohexane	12.339	83	55318	17.23	ug/L		96
71) bromodichloromethane	12.612	83	56165	23.16	ug/L		98
72) epichlorohydrin	12.990	57	15831	112.57	ug/L		97
73) cis-1,3-dichloropropene	13.110	75	61559	20.91	ug/L		94
74) 4-methyl-2-pentanone	13.231	58	47548	85.35	ug/L		96
75) 3-methyl-1-butanol	13.231	70	15317	446.10	ug/L		92
78) toluene	13.519	92	82813	18.34	ug/L		98
79) trans-1,3-dichloropropene	13.697	75	56957	22.00	ug/L		99
81) 1,1,2-trichloroethane	13.923	83	26499	20.58	ug/L		91
82) tetrachloroethene	14.153	164	32103	18.55	ug/L		95
83) 1,3-dichloropropane	14.122	76	54046	21.12	ug/L		99
84) 2-hexanone	14.133	58	48333	75.71	ug/L	#	83
85) butyl acetate	14.227	56	19774	21.90	ug/L		91
87) dibromochloromethane	14.400	129	41821	23.31	ug/L		97
88) 1,2-dibromoethane	14.562	107	35801	21.21	ug/L		96
89) n-butyl ether	15.034	57	144765	17.91	ug/L		99
90) chlorobenzene	15.081	112	95707	19.13	ug/L		96
91) 1,1,1,2-tetrachloroethane	15.139	131	40698	21.41	ug/L		96
92) ethylbenzene	15.155	91	162310	19.04	ug/L		97
93) m,p-xylene	15.270	106	123322	37.69	ug/L		92
94) o-xylene	15.716	106	65761	18.69	ug/L		88
95) styrene	15.716	104	110439	19.73	ug/L		92
96) bromoform	15.968	173	30098	25.71	ug/L		96
97) butyl acrylate	15.527	55	65243	20.78	ug/L		96
98) isopropylbenzene	16.088	105	174825	18.85	ug/L		96
99) cis-1,4-dichloro-2-butene	16.120	88	18704	26.40	ug/L		90
102) bromobenzene	16.492	156	49996	20.80	ug/L		95
103) 1,1,2,2-tetrachloroethane	16.361	83	41603	22.88	ug/L		98
105) 1,2,3-trichloropropane	16.445	110	12746	24.47	ug/L		93
106) n-propylbenzene	16.523	91	197381	20.28	ug/L		96
108) 2-chlorotoluene	16.670	126	42815	19.53	ug/L		87
109) 4-chlorotoluene	16.770	91	122648	20.70	ug/L		97
110) 1,3,5-trimethylbenzene	16.686	105	147304	20.38	ug/L		95
111) tert-butylbenzene	17.063	134	29669	17.84	ug/L	#	73
112) 1,2,4-trimethylbenzene	17.105	105	153943	20.96	ug/L		96
113) sec-butylbenzene	17.294	105	185126	19.34	ug/L		95
114) 1,3-dichlorobenzene	17.472	146	93749	20.91	ug/L		97
115) p-isopropyltoluene	17.420	119	161606	19.36	ug/L		96
116) 1,4-dichlorobenzene	17.561	146	88384	19.75	ug/L		98
117) benzyl chloride	17.677	91	94870	26.75	ug/L		96
118) 1,2-dichlorobenzene	17.986	146	94121	21.42	ug/L		97
120) n-butylbenzene	17.866	92	78177	18.30	ug/L		95
123) 1,2-dibromo-3-chloropr...	18.809	75	8927	27.16	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201804\4-2-18\nizele\v2b7094\
Data File : 2b159323.d
Acq On : 30 Mar 2018 7:51 am
Operator : sydneys
Sample : cc7000-20 Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:27:08 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
124) 1,3,5-trichlorobenzene	19.045	180	87058	21.13	ug/L	98
125) 2-ethylhexyl acrylate	19.706	70	3537	2.39	ug/L #	86
126) 1,2,4-trichlorobenzene	19.727	180	70461	20.31	ug/L	95
127) hexachlorobutadiene	19.879	225	39544	19.36	ug/L	97
128) naphthalene	20.036	128	123268	20.99	ug/L	98
129) 1,2,3-trichlorobenzene	20.293	180	58872	20.33	ug/L	96
130) 2-methylnaphthalene	21.294	142	19377	7.37	ug/L	97

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

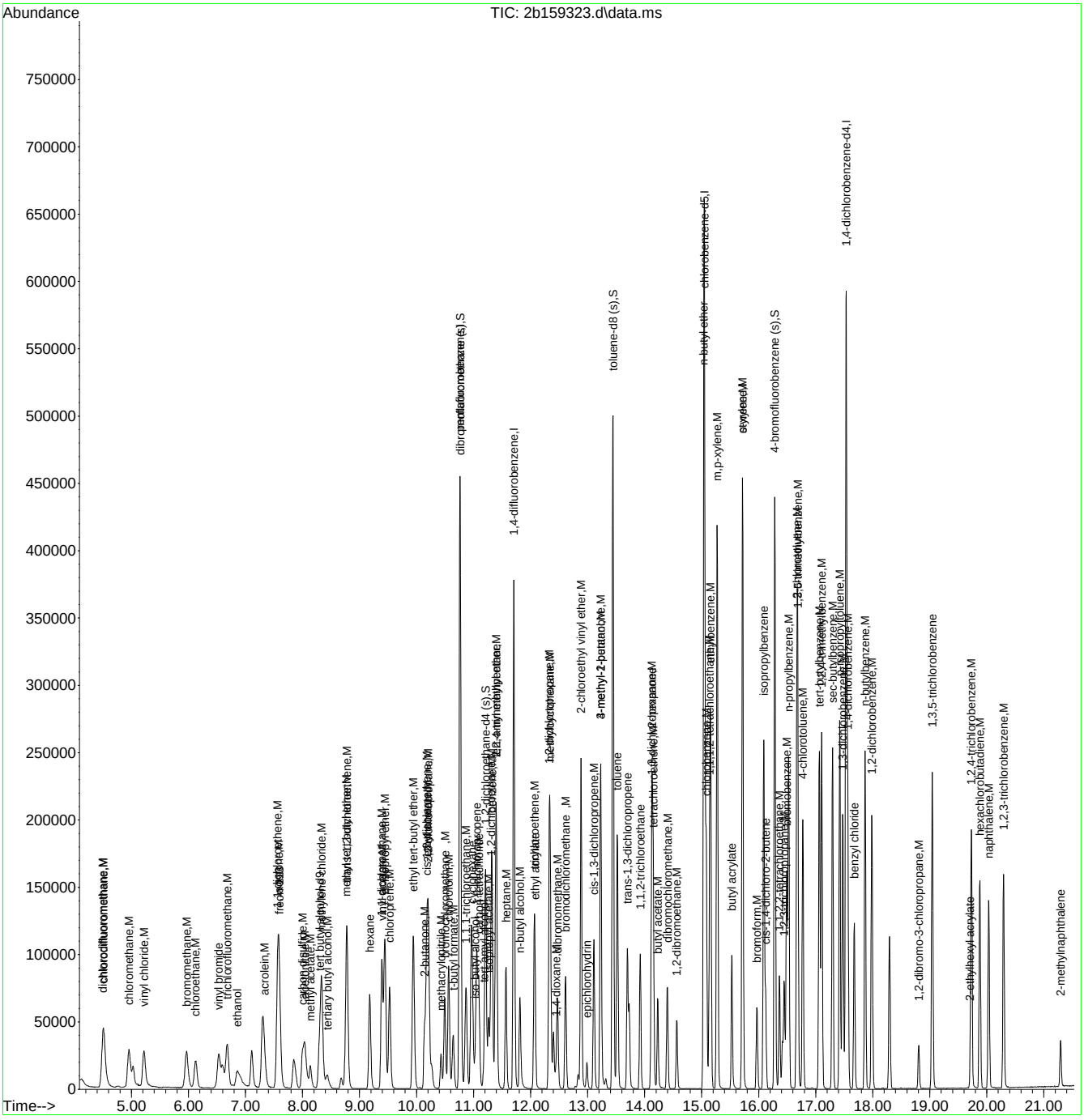
7.7.14

7

Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201804\4-2-18\nizele\v2b7094\
Data File : 2b159323.d
Acq On : 30 Mar 2018 7:51 am
Operator : sydneys
Sample : cc7000-20 Inst : MS2B
Misc : MS25204,V2B7094,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2B7000.M
Quant Results File: M2B7000.RES
Quant Time: Apr 02 01:27:08 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 29 08:25:25 2018
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624(60mx0.25mmx1.4um)
Standard	ABK V017-2574-128.14	C V017-2574-142.3	E V017-2574-109.50	SL V017-2574-129.3	Method	V8260C
Standard Concentration	100ppm	100ppm	100ppm	100ppm	Init Calib Date	1/10/2018
Internal Surrogate	V017-2574-117					
Internal Surrogate Concentration	250/2500ppm					
External Standard	ExtABK V017-2574-125.2	ExtC V017-2574-143.4	ExtE V017-2574-122.2	ExtSL V017-2574-13 0.5	Analysis Date	1/10/2018
External Standard Concentration	100ppm	100ppm	100ppm	100ppm	Sequence loaded by	Eddie Huang
External Standard	ExtACN V017-2574-134.3				Data processed by	Robert Szot
External Standard Concentration	1000ppm				Batch ID	V2B7000
					Matrix	AQ
Initial Calibration Method	V2B7000				Approved By:	BENM
pH Paper Lot#	216315				Approved Date:	1/18/2018 11:29:52 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2B	157359	BFB		NA			5			1	OK	
2B	157360	IC7000-0.2		NA		8260 initial cal	5			2	OK	2uLABK,C,E,SL/1000mL.
2B	157361	IC7000-0.5		NA		8260 initial cal	5			3	OK	5uLABK,C,E,SL/1000mL.
2B	157362	IC7000-1		NA		8260 initial cal	5			4	OK	5uLABK,C,E,SL/500mL.
2B	157363	IC7000-2		NA		8260 initial cal	5			5	OK	10uLABK,C,E,SL/500mL.
2B	157364	IC7000-5		NA		8260 initial cal	5			6	OK	5uLABK,C,E,SL/100mL.
2B	157365	IC7000-10		NA		8260 initial cal	5			8	OK	10uLABK,C,E,SL/100mL.
2B	157366	IC7000-20		NA		8260 initial cal	5			9	OK	20uLABK,C,E,SL/100mL.
2B	157367	ICC7000-50		NA		8260 initial cal	5			10	OK	50uLABK,C,E,SL/100mL.
2B	157368	IC7000-100		NA		8260 initial cal	5			11	OK	100uLABK,C,E,SL/100mL.
2B	157369	IC7000-200		NA		8260 initial cal	5			12	OK	200uLABK,C,E,SL/100mL.
2B	157370	IB		NA			5			13	NA	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2B	157371	IB		NA			5			14	NA	
2B	157372	ICV7000-50		NA		8260 initial cal	5			15	OK	50uLExtABK,C,E,SL/100mL.
2B	157373	ICV7000-50		NA		8260 initial cal	5			16	OK	50uLExtACN/100mL.
2B	157374	IB		NA			5			17	NA	
2B	157376	BFB2		NA			5			1	OK	
2B	157377	ICV7000-50		NA		8260 initial cal	5			2	OK	50uLExtABK,SL/100mL.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624(60mx0.25mmx1.4um)
Standard	ABK V018-2615-89.21	C V018-2615-104.8	EK V018-2615-92.5		Method	v8260c
Standard Concentration	100ppm	100ppm	100ppm		Init Calib Date	1/3/2018
Internal Surrogate	V018-2615-87				Rough reviewed by	Eddie Huang (4/2/18)
Internal Surrogate Concentration	250/2500ppm					
					Analysis Date	3/30/2018
					Sequence loaded by	Sydney Scelfo
					Data processed by	nizele
					Batch ID	V2B7094
					Matrix	AQ
Initial Calibration Method	M2B7000				Approved By:	JESSICA
pH Paper Lot#	216315				Approved Date:	4/4/2018 12:55:18 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2B	159322	BFB/CC7000-20		NA			5			1	NG	20uL ABK,C,EK/100mL DI H2O, check failed low
2B	159323	BFB/CC7000-20		NA			5			2	ok/ok	20uL ABK,C,EK/100mL. 7:51am, 3/30/18. 62,96,123 high.
2B	159324	BS		NA			5			3	ok	50uL ABK,C,EK/100mL. 96, 123 high.
2B	159325	IB		NA			5			4	ok	
2B	159326	MB		NA			5			5	ok	
2B	159327	JC62881-4	9	NA	MS25158	V8260TCL20	5		1	6	ok	
2B	159328	JC62881-5	10	NA	MS25158	V8260TCL20	5		1	7	ok	
2B	159329	JC62881-1	10	NA	MS25158	V8260TCL20	5		1	8	ok	
2B	159330	JC62881-2	9	NA	MS25158	V8260TCL20	5		1	9	ok	
2B	159331	JC62881-4MS	10	NA	MS25158	V8260TCL20	5		1	10	ok	20uL ABK,C,EK/40mL sample
2B	159332	IB		NA			5			11	ok	
2B	159333	JC62881-5DUP	9	NA	MS25158	V8260TCL20	5		1	12	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2B	159334	JC62881-3	9	NA	MS25158	V8260TCL20	5		1	13	ok	
2B	159335	JC62881-7	1	NA	MS25158	V8260TCL20	5		1	14	ok	
2B	159336	JC62881-6	9	NA	MS25158	V8260TCL20	5		1	15	ok	
2B	159337	JC62894-1	1	NA	MS25158	V8260SL	5		1	16	ok	
2B	159338	JC62894-2	1	NA	MS25158	V8260SL	5		1	17	ok	
2B	159339	JC62849-5	1	50x	MS25160	V8260PCE,DCE,TCE,VC	1/50		1	18	ok/RR	O/D RR 1X + combine.
2B	159340	JC62849-6	1	50x	MS25160	V8260PCE,DCE,TCE,VC	1/50		1	19	ok/RR	O/D RR 10X + combine.
2B	159341	JC62849-7	1	50x	MS25160	V8260PCE,DCE,TCE,VC	1/50		1	20	RR	5:39pm, 3/30/18. O/D RR 1X.

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10886-MB1	M144909.D	1	03/28/18	CC	03/28/18	OP10886	EM6152

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

JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10886-MB1	M144909.D	1	03/28/18	CC	03/28/18	OP10886	EM6152

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

JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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
367-12-4	2-Fluorophenol	34%	10-110%

Method Blank Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10886-MB1	M144909.D	1	03/28/18	CC	03/28/18	OP10886	EM6152

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

JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Surrogate Recoveries		Limits
4165-62-2	Phenol-d5	26%	10-110%
118-79-6	2,4,6-Tribromophenol	72%	36-151%
4165-60-0	Nitrobenzene-d5	79%	34-128%
321-60-8	2-Fluorobiphenyl	62%	38-119%
1718-51-0	Terphenyl-d14	67%	26-129%

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

Method Blank Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10986-MB1	2M102968.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581

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

JC62881-1

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10986-MB1	2M102968.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581

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

JC62881-1

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
367-12-4	2-Fluorophenol	55%	10-110%

Method Blank Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10986-MB1	2M102968.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581

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

JC62881-1

CAS No.	Surrogate Recoveries		Limits
4165-62-2	Phenol-d5	36%	10-110%
118-79-6	2,4,6-Tribromophenol	93%	36-151%
4165-60-0	Nitrobenzene-d5	86%	34-128%
321-60-8	2-Fluorobiphenyl	76%	38-119%
1718-51-0	Terphenyl-d14	88%	26-129%

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

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10886-BS1	M144910.D	1	03/28/18	CC	03/28/18	OP10886	EM6152
OP10886-BSD	M144911.D	1	03/28/18	CC	03/28/18	OP10886	EM6152

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

JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	27.8	56	28.6	57	3	39-106/27
59-50-7	4-Chloro-3-methyl phenol	50	36.0	72	35.2	70	2	45-118/23
120-83-2	2,4-Dichlorophenol	50	31.1	62	33.5	67	7	43-115/26
105-67-9	2,4-Dimethylphenol	50	36.4	73	39.0	78	7	38-125/23
51-28-5	2,4-Dinitrophenol	100	69.8	70	71.4	71	2	35-137/22
534-52-1	4,6-Dinitro-o-cresol	50	35.9	72	36.4	73	1	45-134/23
95-48-7	2-Methylphenol	50	24.8	50	25.8	52	4	34-106/24
	3&4-Methylphenol	50	25.7	51	26.6	53	3	31-110/25
88-75-5	2-Nitrophenol	50	32.5	65	36.0	72	10	41-118/28
100-02-7	4-Nitrophenol	50	24.5	49	22.8	46	7	10-113/31
87-86-5	Pentachlorophenol	50	40.1	80	40.5	81	1	21-134/25
108-95-2	Phenol	50	14.7	29	16.0	32	8	10-110/27
58-90-2	2,3,4,6-Tetrachlorophenol	50	33.4	67	34.7	69	4	41-129/41
95-95-4	2,4,5-Trichlorophenol	50	31.2	62	32.0	64	3	45-117/26
88-06-2	2,4,6-Trichlorophenol	50	31.4	63	33.4	67	6	47-125/35
83-32-9	Acenaphthene	50	31.7	63	36.6	73	14	40-114/22
208-96-8	Acenaphthylene	50	31.4	63	36.0	72	14	40-109/22
98-86-2	Acetophenone	50	37.5	75	42.9	86	13	43-112/21
120-12-7	Anthracene	50	37.6	75	39.5	79	5	50-113/20
1912-24-9	Atrazine	50	41.4	83	43.5	87	5	46-141/23
100-52-7	Benzaldehyde	50	31.3	63	33.6	67	7	27-116/29
56-55-3	Benzo(a)anthracene	50	38.1	76	39.9	80	5	55-110/22
50-32-8	Benzo(a)pyrene	50	37.0	74	38.3	77	3	52-112/24
205-99-2	Benzo(b)fluoranthene	50	39.1	78	40.9	82	4	53-114/22
191-24-2	Benzo(g,h,i)perylene	50	36.3	73	38.5	77	6	46-115/28
207-08-9	Benzo(k)fluoranthene	50	38.3	77	41.0	82	7	55-115/23
101-55-3	4-Bromophenyl phenyl ether	50	34.4	69	37.4	75	8	47-122/25
85-68-7	Butyl benzyl phthalate	50	40.3	81	42.8	86	6	50-124/22
92-52-4	1,1'-Biphenyl	50	31.1	62	35.9	72	14	42-114/22
91-58-7	2-Chloronaphthalene	50	27.1	54	31.6	63	15	33-112/26
106-47-8	4-Chloroaniline	50	14.9	30	19.0	38	24	17-87/39
86-74-8	Carbazole	50	38.1	76	40.8	82	7	54-118/21
105-60-2	Caprolactam	50	14.6	29	15.1	30	3	10-110/23
218-01-9	Chrysene	50	36.3	73	38.1	76	5	52-107/21
111-91-1	bis(2-Chloroethoxy)methane	50	36.7	73	43.1	86	16	38-116/24
111-44-4	bis(2-Chloroethyl)ether	50	35.0	70	40.9	82	16	38-118/23

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10886-BS1	M144910.D	1	03/28/18	CC	03/28/18	OP10886	EM6152
OP10886-BSD	M144911.D	1	03/28/18	CC	03/28/18	OP10886	EM6152

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

JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	50	34.4	69	40.2	80	16	29-108/23
7005-72-3	4-Chlorophenyl phenyl ether	50	32.0	64	34.6	69	8	40-122/21
121-14-2	2,4-Dinitrotoluene	50	38.0	76	40.9	82	7	54-129/21
606-20-2	2,6-Dinitrotoluene	50	36.1	72	41.1	82	13	53-131/21
91-94-1	3,3'-Dichlorobenzidine	100	51.1	51	56.0	56	9	28-91/44
53-70-3	Dibenzo(a,h)anthracene	50	35.9	72	38.4	77	7	51-117/25
132-64-9	Dibenzofuran	50	31.5	63	35.7	71	13	46-118/16
84-74-2	Di-n-butyl phthalate	50	40.2	80	42.4	85	5	54-124/23
117-84-0	Di-n-octyl phthalate	50	46.0	92	47.6	95	3	41-137/22
84-66-2	Diethyl phthalate	50	38.1	76	40.6	81	6	49-122/20
131-11-3	Dimethyl phthalate	50	35.1	70	36.9	74	5	51-118/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	38.7	77	40.3	81	4	47-128/36
206-44-0	Fluoranthene	50	39.1	78	41.2	82	5	54-118/23
86-73-7	Fluorene	50	34.1	68	37.8	76	10	45-116/20
118-74-1	Hexachlorobenzene	50	34.6	69	37.1	74	7	45-124/23
87-68-3	Hexachlorobutadiene	50	24.4	49	30.8	62	23	10-120/35
77-47-4	Hexachlorocyclopentadiene	100	36.5	37	40.5	41	10	10-110/43
67-72-1	Hexachloroethane	50	23.3	47	29.8	60	24	11-110/38
193-39-5	Indeno(1,2,3-cd)pyrene	50	35.4	71	37.5	75	6	45-123/30
78-59-1	Isophorone	50	37.1	74	43.4	87	16	43-115/20
91-57-6	2-Methylnaphthalene	50	27.8	56	33.0	66	17	37-111/21
88-74-4	2-Nitroaniline	50	42.3	85	45.9	92	8	40-144/18
99-09-2	3-Nitroaniline	50	21.0	42	23.8	48	13	31-104/42
100-01-6	4-Nitroaniline	50	30.6	61	32.2	64	5	48-119/20
91-20-3	Naphthalene	50	30.3	61	37.0	74	20	29-110/23
98-95-3	Nitrobenzene	50	35.2	70	41.7	83	17	35-118/21
621-64-7	N-Nitroso-di-n-propylamine	50	38.6	77	44.5	89	14	38-116/22
86-30-6	N-Nitrosodiphenylamine	50	34.0	68	36.1	72	6	49-114/22
85-01-8	Phenanthrene	50	38.5	77	41.1	82	7	49-116/21
129-00-0	Pyrene	50	37.8	76	40.4	81	7	51-116/21
95-94-3	1,2,4,5-Tetrachlorobenzene	50	27.8	56	33.0	66	17	21-124/32

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	36%	39%	10-110%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10886-BS1	M144910.D	1	03/28/18	CC	03/28/18	OP10886	EM6152
OP10886-BSD	M144911.D	1	03/28/18	CC	03/28/18	OP10886	EM6152

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

JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-62-2	Phenol-d5	29%	31%	10-110%
118-79-6	2,4,6-Tribromophenol	73%	71%	36-151%
4165-60-0	Nitrobenzene-d5	75%	85%	34-128%
321-60-8	2-Fluorobiphenyl	59%	66%	38-119%
1718-51-0	Terphenyl-d14	68%	70%	26-129%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10986-BS1	2M102969.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581
OP10986-BSD	2M102970.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581

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

JC62881-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	39.3	79	31.5	63	22	39-106/27
59-50-7	4-Chloro-3-methyl phenol	50	40.9	82	36.7	73	11	45-118/23
120-83-2	2,4-Dichlorophenol	50	43.1	86	38.1	76	12	43-115/26
105-67-9	2,4-Dimethylphenol	50	46.2	92	40.8	82	12	38-125/23
51-28-5	2,4-Dinitrophenol	100	74.0	74	68.1	68	8	35-137/22
534-52-1	4,6-Dinitro-o-cresol	50	45.4	91	41.2	82	10	45-134/23
95-48-7	2-Methylphenol	50	37.3	75	29.8	60	22	34-106/24
	3&4-Methylphenol	50	32.9	66	26.8	54	20	31-110/25
88-75-5	2-Nitrophenol	50	43.1	86	39.3	79	9	41-118/28
100-02-7	4-Nitrophenol	50	28.2	56	23.7	47	17	10-113/31
87-86-5	Pentachlorophenol	50	41.8	84	38.3	77	9	21-134/25
108-95-2	Phenol	50	20.4	41	17.1	34	18	10-110/27
58-90-2	2,3,4,6-Tetrachlorophenol	50	37.6	75	34.2	68	9	41-129/41
95-95-4	2,4,5-Trichlorophenol	50	40.6	81	36.7	73	10	45-117/26
88-06-2	2,4,6-Trichlorophenol	50	40.5	81	37.8	76	7	47-125/35
83-32-9	Acenaphthene	50	38.9	78	36.0	72	8	40-114/22
208-96-8	Acenaphthylene	50	39.5	79	36.9	74	7	40-109/22
98-86-2	Acetophenone	50	41.8	84	36.6	73	13	43-112/21
120-12-7	Anthracene	50	43.1	86	40.9	82	5	50-113/20
1912-24-9	Atrazine	50	54.0	108	48.7	97	10	46-141/23
100-52-7	Benzaldehyde	50	30.4	61	25.6	51	17	27-116/29
56-55-3	Benzo(a)anthracene	50	42.8	86	39.5	79	8	55-110/22
50-32-8	Benzo(a)pyrene	50	47.3	95	44.0	88	7	52-112/24
205-99-2	Benzo(b)fluoranthene	50	47.9	96	44.5	89	7	53-114/22
191-24-2	Benzo(g,h,i)perylene	50	48.5	97	44.6	89	8	46-115/28
207-08-9	Benzo(k)fluoranthene	50	42.3	85	38.9	78	8	55-115/23
101-55-3	4-Bromophenyl phenyl ether	50	44.2	88	41.7	83	6	47-122/25
85-68-7	Butyl benzyl phthalate	50	42.6	85	38.6	77	10	50-124/22
92-52-4	1,1'-Biphenyl	50	41.1	82	37.4	75	9	42-114/22
91-58-7	2-Chloronaphthalene	50	38.4	77	34.7	69	10	33-112/26
106-47-8	4-Chloroaniline	50	14.3	29	24.0	48	51* [a]	17-87/39
86-74-8	Carbazole	50	43.8	88	41.3	83	6	54-118/21
105-60-2	Caprolactam	50	13.3	27	12.0	24	10	10-110/23
218-01-9	Chrysene	50	41.1	82	37.9	76	8	52-107/21
111-91-1	bis(2-Chloroethoxy)methane	50	45.1	90	40.4	81	11	38-116/24
111-44-4	bis(2-Chloroethyl)ether	50	44.2	88	37.8	76	16	38-118/23

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10986-BS1	2M102969.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581
OP10986-BSD	2M102970.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581

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

JC62881-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	50	43.2	86	37.2	74	15	29-108/23
7005-72-3	4-Chlorophenyl phenyl ether	50	39.2	78	36.7	73	7	40-122/21
121-14-2	2,4-Dinitrotoluene	50	41.9	84	38.8	78	8	54-129/21
606-20-2	2,6-Dinitrotoluene	50	41.7	83	39.5	79	5	53-131/21
91-94-1	3,3'-Dichlorobenzidine	100	43.7	44	61.4	61	34	28-91/44
53-70-3	Dibenzo(a,h)anthracene	50	49.5	99	45.5	91	8	51-117/25
132-64-9	Dibenzofuran	50	39.2	78	36.8	74	6	46-118/16
84-74-2	Di-n-butyl phthalate	50	40.8	82	37.7	75	8	54-124/23
117-84-0	Di-n-octyl phthalate	50	52.5	105	48.0	96	9	41-137/22
84-66-2	Diethyl phthalate	50	36.3	73	33.8	68	7	49-122/20
131-11-3	Dimethyl phthalate	50	40.4	81	37.4	75	8	51-118/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	41.8	84	37.1	74	12	47-128/36
206-44-0	Fluoranthene	50	45.4	91	42.2	84	7	54-118/23
86-73-7	Fluorene	50	40.6	81	37.9	76	7	45-116/20
118-74-1	Hexachlorobenzene	50	45.7	91	42.2	84	8	45-124/23
87-68-3	Hexachlorobutadiene	50	34.7	69	30.4	61	13	10-120/35
77-47-4	Hexachlorocyclopentadiene	100	65.4	65	57.5	58	13	10-110/43
67-72-1	Hexachloroethane	50	33.3	67	28.2	56	17	11-110/38
193-39-5	Indeno(1,2,3-cd)pyrene	50	38.3	77	35.6	71	7	45-123/30
78-59-1	Isophorone	50	43.9	88	40.4	81	8	43-115/20
91-57-6	2-Methylnaphthalene	50	40.3	81	36.5	73	10	37-111/21
88-74-4	2-Nitroaniline	50	39.9	80	37.8	76	5	40-144/18
99-09-2	3-Nitroaniline	50	20.7	41	29.0	58	33	31-104/42
100-01-6	4-Nitroaniline	50	42.0	84	39.2	78	7	48-119/20
91-20-3	Naphthalene	50	41.6	83	36.2	72	14	29-110/23
98-95-3	Nitrobenzene	50	41.9	84	37.8	76	10	35-118/21
621-64-7	N-Nitroso-di-n-propylamine	50	40.1	80	35.3	71	13	38-116/22
86-30-6	N-Nitrosodiphenylamine	50	41.5	83	38.9	78	6	49-114/22
85-01-8	Phenanthrene	50	42.9	86	40.4	81	6	49-116/21
129-00-0	Pyrene	50	40.3	81	36.3	73	10	51-116/21
95-94-3	1,2,4,5-Tetrachlorobenzene	50	44.8	90	41.1	82	9	21-124/32

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	61%	46%	10-110%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10986-BS1	2M102969.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581
OP10986-BSD	2M102970.D	1	04/02/18	CC	03/30/18	OP10986	E2M4581

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

JC62881-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-62-2	Phenol-d5	45%	35%	10-110%
118-79-6	2,4,6-Tribromophenol	98%	91%	36-151%
4165-60-0	Nitrobenzene-d5	90%	80%	34-128%
321-60-8	2-Fluorobiphenyl	81%	73%	38-119%
1718-51-0	Terphenyl-d14	88%	79%	26-129%

(a) Outside of in house control limits.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-DFTPP
Lab File ID: 2M102231.D
Instrument ID: GCMS2M
Injection Date: 02/28/18
Injection Time: 14:49

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	70794	43.0		Pass
68	Less than 2.0% of mass 69	1128	0.68	(1.45) [a]	Pass
69	Mass 69 relative abundance	77960	47.3		Pass
70	Less than 2.0% of mass 69	510	0.31	(0.65) [a]	Pass
127	40.0 - 60.0% of mass 198	92304	56.0		Pass
197	Less than 1.0% of mass 198	993	0.60		Pass
198	Base peak, 100% relative abundance	164808	100.0		Pass
199	5.0 - 9.0% of mass 198	11711	7.11		Pass
275	10.0 - 30.0% of mass 198	44112	26.8		Pass
365	1.0 - 100.0% of mass 198	7190	4.36		Pass
441	Present, but less than mass 443	14003	8.50	(76.4) [b]	Pass
442	40.0 - 100.0% of mass 198	94360	57.3		Pass
443	17.0 - 23.0% of mass 442	18332	11.1	(19.4) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4551-IC4551	2M102232.D	02/28/18	15:04	00:15	Initial cal 100
E2M4551-IC4551	2M102233.D	02/28/18	15:50	01:01	Initial cal 1
E2M4551-IC4551	2M102234.D	02/28/18	16:16	01:27	Initial cal 2
E2M4551-IC4551	2M102235.D	02/28/18	16:42	01:53	Initial cal 5
E2M4551-IC4551	2M102236.D	02/28/18	17:08	02:19	Initial cal 10
E2M4551-IC4551	2M102237.D	02/28/18	17:34	02:45	Initial cal 25
E2M4551-ICC4551	2M102238.D	02/28/18	17:59	03:10	Initial cal 50
E2M4551-IC4551	2M102239.D	02/28/18	18:25	03:36	Initial cal 80
E2M4551-ICV4551	2M102240.D	02/28/18	18:51	04:02	Initial cal verification 50
E2M4551-ICV4551	2M102241.D	02/28/18	19:17	04:28	Initial cal verification 50
E2M4551-ICV4551	2M102242.D	02/28/18	19:43	04:54	Initial cal verification 50
E2M4551-ICV4551	2M102244.D	02/28/18	20:34	05:45	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	E2M4552-DFTPP	**Injection Date:**	03/01/18
Lab File ID:	2M102245.D	**Injection Time:**	00:08
Instrument ID:	GCMS2M		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	88084	45.4		Pass
68	Less than 2.0% of mass 69	1528	0.79	(1.58) [a]	Pass
69	Mass 69 relative abundance	96946	49.9		Pass
70	Less than 2.0% of mass 69	842	0.43	(0.87) [a]	Pass
127	40.0 - 60.0% of mass 198	113816	58.6		Pass
197	Less than 1.0% of mass 198	1325	0.68		Pass
198	Base peak, 100% relative abundance	194173	100.0		Pass
199	5.0 - 9.0% of mass 198	13707	7.06		Pass
275	10.0 - 30.0% of mass 198	49457	25.5		Pass
365	1.0 - 100.0% of mass 198	7871	4.05		Pass
441	Present, but less than mass 443	14377	7.40	(75.5) [b]	Pass
442	40.0 - 100.0% of mass 198	100778	51.9		Pass
443	17.0 - 23.0% of mass 442	19037	9.80	(18.9) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4552-ICV4551	2M102247.D	03/01/18	01:06	00:58	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	E2M4555-DFTPP	**Injection Date:**	03/05/18
Lab File ID:	2M102390.D	**Injection Time:**	23:51
Instrument ID:	GCMS2M		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	109933	43.1		Pass
68	Less than 2.0% of mass 69	2145	0.84	(1.73) [a]	Pass
69	Mass 69 relative abundance	124325	48.8		Pass
70	Less than 2.0% of mass 69	407	0.16	(0.33) [a]	Pass
127	40.0 - 60.0% of mass 198	145533	57.1		Pass
197	Less than 1.0% of mass 198	1628	0.64		Pass
198	Base peak, 100% relative abundance	255005	100.0		Pass
199	5.0 - 9.0% of mass 198	17569	6.89		Pass
275	10.0 - 30.0% of mass 198	64520	25.3		Pass
365	1.0 - 100.0% of mass 198	9650	3.78		Pass
441	Present, but less than mass 443	18655	7.32	(79.6) [b]	Pass
442	40.0 - 100.0% of mass 198	126842	49.7		Pass
443	17.0 - 23.0% of mass 442	23440	9.19	(18.5) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4555-IC4555	2M102391.D	03/06/18	00:07	00:16	Initial cal 1
E2M4555-IC4555	2M102392.D	03/06/18	00:32	00:41	Initial cal 2
E2M4555-IC4555	2M102393.D	03/06/18	00:58	01:07	Initial cal 5
E2M4555-IC4555	2M102394.D	03/06/18	01:23	01:32	Initial cal 10
E2M4555-IC4555	2M102395.D	03/06/18	01:49	01:58	Initial cal 25
E2M4555-ICC4555	2M102396.D	03/06/18	02:14	02:23	Initial cal 50
E2M4555-IC4555	2M102397.D	03/06/18	02:40	02:49	Initial cal 80
E2M4555-IC4555	2M102398.D	03/06/18	03:05	03:14	Initial cal 100

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	E2M4556-DFTPP	**Injection Date:**	03/06/18
Lab File ID:	2M102399.D	**Injection Time:**	20:07
Instrument ID:	GCMS2M		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	107525	42.3		Pass
68	Less than 2.0% of mass 69	1884	0.74	(1.54) [a]	Pass
69	Mass 69 relative abundance	122730	48.3		Pass
70	Less than 2.0% of mass 69	415	0.16	(0.34) [a]	Pass
127	40.0 - 60.0% of mass 198	143933	56.6		Pass
197	Less than 1.0% of mass 198	1575	0.62		Pass
198	Base peak, 100% relative abundance	254250	100.0		Pass
199	5.0 - 9.0% of mass 198	17433	6.86		Pass
275	10.0 - 30.0% of mass 198	65306	25.7		Pass
365	1.0 - 100.0% of mass 198	9082	3.57		Pass
441	Present, but less than mass 443	18698	7.35	(76.7) [b]	Pass
442	40.0 - 100.0% of mass 198	130306	51.3		Pass
443	17.0 - 23.0% of mass 442	24387	9.59	(18.7) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4556-ICV4555	2M102400.D	03/06/18	20:21	00:14	Initial cal verification 50
E2M4556-ICV4555	2M102401.D	03/06/18	20:47	00:40	Initial cal verification 50
E2M4556-ICV4555	2M102402.D	03/06/18	21:12	01:05	Initial cal verification 50
E2M4556-ICV4555	2M102403.D	03/06/18	21:38	01:31	Initial cal verification 50
E2M4556-ICV4555	2M102404.D	03/06/18	22:03	01:56	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4581-DFTPP
Lab File ID: 2M102959.D
Instrument ID: GCMS2M
Injection Date: 04/02/18
Injection Time: 12:01

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	129458	41.3		Pass
68	Less than 2.0% of mass 69	2005	0.64	(1.41) [a]	Pass
69	Mass 69 relative abundance	142172	45.3		Pass
70	Less than 2.0% of mass 69	556	0.18	(0.39) [a]	Pass
127	40.0 - 60.0% of mass 198	170677	54.4		Pass
197	Less than 1.0% of mass 198	1950	0.62		Pass
198	Base peak, 100% relative abundance	313514	100.0		Pass
199	5.0 - 9.0% of mass 198	21095	6.73		Pass
275	10.0 - 30.0% of mass 198	82917	26.4		Pass
365	1.0 - 100.0% of mass 198	13129	4.19		Pass
441	Present, but less than mass 443	24504	7.82	(74.1) [b]	Pass
442	40.0 - 100.0% of mass 198	173562	55.4		Pass
443	17.0 - 23.0% of mass 442	33066	10.5	(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
E2M4581-CC4551	2M102960.D	04/02/18	12:12	00:11	Continuing cal 50
E2M4581-CC4555	2M102961.D	04/02/18	12:44	00:43	Continuing cal 50
OP81205-MB1AS	2M102963.D	04/02/18	13:44	01:43	Method Blank
OP81205-BS1AS	2M102964.D	04/02/18	14:09	02:08	Blank Spike
OP81205-BS2AS	2M102965.D	04/02/18	14:35	02:34	Blank Spike
OP81205-BS3AS	2M102966.D	04/02/18	15:00	02:59	Blank Spike
OP81205-BS4AS	2M102967.D	04/02/18	15:25	03:24	Blank Spike
OP10986-MB1	2M102968.D	04/02/18	15:50	03:49	Method Blank
OP10986-BS1	2M102969.D	04/02/18	16:15	04:14	Blank Spike
OP10986-BSD	2M102970.D	04/02/18	16:40	04:39	Blank Spike Duplicate
OP10742-MB1	2M102971.D	04/02/18	17:05	05:04	Method Blank
JC62881-1	2M102973.D	04/02/18	17:56	05:55	PCMW-05
ZZZZZZ	2M102974.D	04/02/18	18:21	06:20	(unrelated sample)
ZZZZZZ	2M102975.D	04/02/18	18:46	06:45	(unrelated sample)
ZZZZZZ	2M102976.D	04/02/18	19:11	07:10	(unrelated sample)
ZZZZZZ	2M102977.D	04/02/18	19:36	07:35	(unrelated sample)
ZZZZZZ	2M102978.D	04/02/18	20:01	08:00	(unrelated sample)
ZZZZZZ	2M102979.D	04/02/18	20:26	08:25	(unrelated sample)
ZZZZZZ	2M102980.D	04/02/18	20:51	08:50	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	E2M4581-DFTPP	**Injection Date:**	04/02/18
Lab File ID:	2M102959.D	**Injection Time:**	12:01
Instrument ID:	GCMS2M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2M102981.D	04/02/18	21:16	09:15	(unrelated sample)
ZZZZZZ	2M102982.D	04/02/18	21:41	09:40	(unrelated sample)
ZZZZZZ	2M102983.D	04/02/18	22:06	10:05	(unrelated sample)
ZZZZZZ	2M102984.D	04/02/18	22:31	10:30	(unrelated sample)
ZZZZZZ	2M102985.D	04/02/18	22:56	10:55	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	EM6121-DFTPP	**Injection Date:**	02/28/18
Lab File ID:	M144286.D	**Injection Time:**	10:02
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	46287	35.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	46966	36.0		Pass
70	Less than 2.0% of mass 69	287	0.22	(0.61) [a]	Pass
127	40.0 - 60.0% of mass 198	64608	49.5		Pass
197	Less than 1.0% of mass 198	147	0.11		Pass
198	Base peak, 100% relative abundance	130642	100.0		Pass
199	5.0 - 9.0% of mass 198	9011	6.90		Pass
275	10.0 - 30.0% of mass 198	31818	24.4		Pass
365	1.0 - 100.0% of mass 198	4158	3.18		Pass
441	Present, but less than mass 443	16429	12.6	(76.3) [b]	Pass
442	40.0 - 100.0% of mass 198	111368	85.2		Pass
443	17.0 - 23.0% of mass 442	21529	16.5	(19.3) [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
EM6121-IC6121	M144287.D	02/28/18	10:16	00:14	Initial cal 100
EM6121-IC6121	M144288.D	02/28/18	10:58	00:56	Initial cal 1
EM6121-IC6121	M144289.D	02/28/18	11:28	01:26	Initial cal 80
EM6121-IC6121	M144290.D	02/28/18	11:58	01:56	Initial cal 5
EM6121-ICC6121	M144291.D	02/28/18	12:27	02:25	Initial cal 50
EM6121-IC6121	M144292.D	02/28/18	12:57	02:55	Initial cal 2
EM6121-IC6121	M144293.D	02/28/18	13:27	03:25	Initial cal 25
EM6121-IC6121	M144294.D	02/28/18	13:57	03:55	Initial cal 10
EM6121-ICV6121	M144295.D	02/28/18	14:44	04:42	Initial cal verification 50
EM6121-ICV6121	M144298.D	02/28/18	16:14	06:12	Initial cal verification 50
EM6121-ICV6121	M144299.D	02/28/18	16:45	06:43	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6122-DFTPP
Lab File ID: M144300.D
Instrument ID: GCMSM
Injection Date: 02/28/18
Injection Time: 19:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	49355	38.3		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	51626	40.1		Pass
70	Less than 2.0% of mass 69	121	0.09	(0.23) [a]	Pass
127	40.0 - 60.0% of mass 198	64650	50.2		Pass
197	Less than 1.0% of mass 198	337	0.26		Pass
198	Base peak, 100% relative abundance	128853	100.0		Pass
199	5.0 - 9.0% of mass 198	8914	6.92		Pass
275	10.0 - 30.0% of mass 198	29422	22.8		Pass
365	1.0 - 100.0% of mass 198	3463	2.69		Pass
441	Present, but less than mass 443	14073	10.9	(74.1) [b]	Pass
442	40.0 - 100.0% of mass 198	90994	70.6		Pass
443	17.0 - 23.0% of mass 442	19001	14.7	(20.9) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6122-ICV6121	M144303.D	02/28/18	20:31	01:14	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6123-DFTPP
Lab File ID: M144305.D
Instrument ID: GCMSM
Injection Date: 03/01/18
Injection Time: 00:07

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	53928	39.5		Pass
68	Less than 2.0% of mass 69	47	0.03	(0.08) [a]	Pass
69	Mass 69 relative abundance	57887	42.3		Pass
70	Less than 2.0% of mass 69	507	0.37	(0.88) [a]	Pass
127	40.0 - 60.0% of mass 198	70821	51.8		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	136698	100.0		Pass
199	5.0 - 9.0% of mass 198	9537	6.98		Pass
275	10.0 - 30.0% of mass 198	31616	23.1		Pass
365	1.0 - 100.0% of mass 198	4759	3.48		Pass
441	Present, but less than mass 443	15699	11.5	(80.2) [b]	Pass
442	40.0 - 100.0% of mass 198	102218	74.8		Pass
443	17.0 - 23.0% of mass 442	19583	14.3	(19.2) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6123-IC6123	M144306.D	03/01/18	00:34	00:27	Initial cal 100
EM6123-IC6123	M144307.D	03/01/18	01:04	00:57	Initial cal 80
EM6123-ICC6123	M144308.D	03/01/18	01:35	01:28	Initial cal 50
EM6123-IC6123	M144309.D	03/01/18	02:05	01:58	Initial cal 25
EM6123-IC6123	M144310.D	03/01/18	02:35	02:28	Initial cal 10
EM6123-IC6123	M144311.D	03/01/18	03:06	02:59	Initial cal 5
EM6123-IC6123	M144312.D	03/01/18	03:36	03:29	Initial cal 2
EM6123-IC6123	M144313.D	03/01/18	04:06	03:59	Initial cal 1
EM6123-ICV6123	M144314A.D	03/01/18	04:36	04:29	Initial cal verification 50
EM6123-ICV6121	M144314.D	03/01/18	04:36	04:29	Initial cal verification 50
EM6123-ICV6123	M144315.D	03/01/18	05:06	04:59	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	EM6126-DFTPP	**Injection Date:**	03/01/18
Lab File ID:	M144344.D	**Injection Time:**	22:54
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	48602	40.6		Pass
68	Less than 2.0% of mass 69	290	0.24	(0.58) [a]	Pass
69	Mass 69 relative abundance	50122	41.8		Pass
70	Less than 2.0% of mass 69	471	0.39	(0.94) [a]	Pass
127	40.0 - 60.0% of mass 198	63301	52.8		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	119816	100.0		Pass
199	5.0 - 9.0% of mass 198	8315	6.94		Pass
275	10.0 - 30.0% of mass 198	28642	23.9		Pass
365	1.0 - 100.0% of mass 198	3689	3.08		Pass
441	Present, but less than mass 443	13635	11.4	(74.0) [b]	Pass
442	40.0 - 100.0% of mass 198	92893	77.5		Pass
443	17.0 - 23.0% of mass 442	18427	15.4	(19.8) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6126-ICV6121	M144345.D	03/01/18	23:08	00:14	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6131-DFTPP
Lab File ID: M144445.D
Instrument ID: GCMSM
Injection Date: 03/06/18
Injection Time: 11:49

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	58877	38.6		Pass
68	Less than 2.0% of mass 69	128	0.08	(0.22) [a]	Pass
69	Mass 69 relative abundance	59041	38.7		Pass
70	Less than 2.0% of mass 69	186	0.12	(0.32) [a]	Pass
127	40.0 - 60.0% of mass 198	75480	49.5		Pass
197	Less than 1.0% of mass 198	115	0.08		Pass
198	Base peak, 100% relative abundance	152578	100.0		Pass
199	5.0 - 9.0% of mass 198	10691	7.01		Pass
275	10.0 - 30.0% of mass 198	35581	23.3		Pass
365	1.0 - 100.0% of mass 198	5069	3.32		Pass
441	Present, but less than mass 443	20101	13.2	(79.5) [b]	Pass
442	40.0 - 100.0% of mass 198	132413	86.8		Pass
443	17.0 - 23.0% of mass 442	25272	16.6	(19.1) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6131-IC6131	M144446.D	03/06/18	12:12	00:23	Initial cal 100
EM6131-IC6131	M144447.D	03/06/18	12:42	00:53	Initial cal 80
EM6131-ICC6131	M144448.D	03/06/18	13:13	01:24	Initial cal 50
EM6131-IC6131	M144449.D	03/06/18	13:43	01:54	Initial cal 25
EM6131-IC6131	M144450.D	03/06/18	14:13	02:24	Initial cal 10
EM6131-IC6131	M144451.D	03/06/18	14:43	02:54	Initial cal 5
EM6131-IC6131	M144452.D	03/06/18	15:13	03:24	Initial cal 2
EM6131-IC6131	M144453.D	03/06/18	15:43	03:54	Initial cal 1
EM6131-ICV6131	M144454.D	03/06/18	16:14	04:25	Initial cal verification 50
EM6131-ICV6131	M144455.D	03/06/18	16:44	04:55	Initial cal verification 50
EM6131-ICV6131	M144456.D	03/06/18	17:14	05:25	Initial cal verification 50
EM6131-ICV6131	M144457.D	03/06/18	17:44	05:55	Initial cal verification 50
EM6131-ICV6131	M144458.D	03/06/18	18:15	06:26	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6152-DFTPP
Lab File ID: M144905.D
Instrument ID: GCMSM
Injection Date: 03/28/18
Injection Time: 12:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	49330	55.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	45187	51.2		Pass
70	Less than 2.0% of mass 69	485	0.55	(1.07) [a]	Pass
127	40.0 - 60.0% of mass 198	51117	57.9		Pass
197	Less than 1.0% of mass 198	317	0.36		Pass
198	Base peak, 100% relative abundance	88282	100.0		Pass
199	5.0 - 9.0% of mass 198	5650	6.40		Pass
275	10.0 - 30.0% of mass 198	22293	25.3		Pass
365	1.0 - 100.0% of mass 198	3752	4.25		Pass
441	Present, but less than mass 443	10310	11.7	(81.1) [b]	Pass
442	40.0 - 100.0% of mass 198	64586	73.2		Pass
443	17.0 - 23.0% of mass 442	12718	14.4	(19.7) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6152-CC6121	M144906.D	03/28/18	13:06	00:12	Continuing cal 50
EM6152-CC6131	M144907.D	03/28/18	13:37	00:43	Continuing cal 50
OP10886-MB1	M144909.D	03/28/18	14:38	01:44	Method Blank
OP10809-MB1	M144927.D	03/28/18	15:08	02:14	Method Blank
ZZZZZZ	M144928.D	03/28/18	15:37	02:43	(unrelated sample)
OP10886-BS1	M144910.D	03/28/18	16:06	03:12	Blank Spike
OP10886-BSD	M144911.D	03/28/18	16:36	03:42	Blank Spike Duplicate
ZZZZZZ	M144915.D	03/28/18	17:05	04:11	(unrelated sample)
ZZZZZZ	M144912.D	03/28/18	17:35	04:41	(unrelated sample)
ZZZZZZ	M144913.D	03/28/18	18:04	05:10	(unrelated sample)
ZZZZZZ	M144914.D	03/28/18	18:34	05:40	(unrelated sample)
ZZZZZZ	M144916.D	03/28/18	19:03	06:09	(unrelated sample)
JC62881-2	M144918.D	03/28/18	20:03	07:09	DUP-03232018
JC62881-3	M144919.D	03/28/18	20:32	07:38	PCMW-06
JC62881-4	M144920.D	03/28/18	21:01	08:07	PCMW-11S
JC62881-5	M144921.D	03/28/18	21:31	08:37	PCMW-18S
JC62881-6	M144922.D	03/28/18	22:00	09:06	PCMW-18D
ZZZZZZ	M144923.D	03/28/18	22:30	09:36	(unrelated sample)
ZZZZZZ	M144924.D	03/28/18	22:59	10:05	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	EM6152-DFTPP	**Injection Date:**	03/28/18
Lab File ID:	M144905.D	**Injection Time:**	12:54
Instrument ID:	GCMSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	M144925.D	03/28/18	23:29	10:35	(unrelated sample)
ZZZZZZ	M144926.D	03/28/18	23:58	11:04	(unrelated sample)
ZZZZZZ	M144929.D	03/29/18	00:28	11:34	(unrelated sample)

Internal Standard Area Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	E2M4581-CC4551	**Injection Date:**	04/02/18
Lab File ID:	2M102960.D	**Injection Time:**	12:12
Instrument ID:	GCMS2M	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	385394	4.57	1475570	5.64	766241	7.68	1450217	9.83	1558697	13.99	1352404	16.08
Upper Limit [a]	770788	5.07	2951140	6.14	1532482	8.18	2900434	10.33	3117394	14.49	2704808	16.58
Lower Limit [b]	192697	4.07	737785	5.14	383121	7.18	725109	9.33	779349	13.49	676202	15.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP81205-MB1AS	261984	4.57	1024248	5.64	579892	7.68	1014165	9.83	948745	13.98	945066	16.08
OP81205-BS1AS	256296	4.57	960588	5.64	544677	7.67	926662	9.83	949611	13.98	881424	16.08
OP81205-BS2AS	266054	4.57	994224	5.64	536146	7.67	896544	9.83	897043	13.98	854253	16.07
OP81205-BS3AS	261543	4.57	971499	5.64	528775	7.67	864492	9.83	877116	13.98	827924	16.07
OP81205-BS4AS	264776	4.57	990618	5.64	524177	7.67	895262	9.82	905572	13.98	863548	16.07
OP10986-MB1	255172	4.56	1015093	5.64	562102	7.67	982197	9.82	918136	13.97	938408	16.07
OP10986-BS1	283601	4.57	1066316	5.64	562991	7.67	954236	9.82	949452	13.98	907902	16.07
OP10986-BSD	292336	4.57	1086838	5.64	580081	7.67	976651	9.82	997006	13.98	932436	16.07
OP10742-MB1	250657	4.56	980375	5.63	533950	7.67	934118	9.82	867783	13.97	892947	16.07
JC62881-1	270386	4.56	1066815	5.63	583010	7.67	984258	9.82	910306	13.98	911964	16.07
ZZZZZZ	262801	4.56	1023961	5.63	575245	7.67	1000584	9.82	939119	13.97	925098	16.07
ZZZZZZ	274461	4.56	1063475	5.64	592038	7.67	1033627	9.82	971472	13.97	1003601	16.07
ZZZZZZ	263251	4.56	1032887	5.63	580396	7.67	1012635	9.82	951638	13.97	946106	16.07
ZZZZZZ	253830	4.56	1012371	5.63	556052	7.67	966861	9.82	917833	13.97	931578	16.07
ZZZZZZ	253193	4.56	959112	5.63	717100	7.67	922744	9.82	852756	13.97	843794	16.07
ZZZZZZ	270734	4.56	1062274	5.63	590998	7.67	1009445	9.82	951138	13.97	954373	16.07
ZZZZZZ	251432	4.56	969814	5.63	541489	7.67	932957	9.82	882230	13.97	883344	16.07
ZZZZZZ	255429	4.56	1000304	5.63	551718	7.67	958225	9.82	872687	13.97	867498	16.07
ZZZZZZ	253901	4.56	982220	5.63	544485	7.67	949782	9.82	881607	13.97	897107	16.07
ZZZZZZ	244562	4.57	956337	5.64	558640	7.67	934391	9.83	850333	13.98	881618	16.08
ZZZZZZ	257431	4.57	1003067	5.64	586265	7.68	969167	9.83	887055	13.98	901752	16.08
ZZZZZZ	275143	4.57	1088278	5.64	598124	7.67	1063524	9.82	931047	13.97	930795	16.07

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

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

Internal Standard Area Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	EM6152-CC6121	**Injection Date:**	03/28/18
Lab File ID:	M144906.D	**Injection Time:**	13:06
Instrument ID:	GCMSM	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	155762	4.70	630691	5.83	315547	8.17	618604	10.79	563313	15.96	566212	18.58
Upper Limit [a]	311524	5.20	1261382	6.33	631094	8.67	1237208	11.29	1126626	16.46	1132424	19.08
Lower Limit [b]	77881	4.20	315346	5.33	157774	7.67	309302	10.29	281657	15.46	283106	18.08

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP10886-MB1	141316	4.69	572051	5.83	295284	8.17	555487	10.78	521165	15.94	470787	18.57
OP10809-MB1	168075	4.69	669265	5.83	353173	8.17	657227	10.78	620982	15.94	558225	18.56
ZZZZZZ	167225	4.69	670537	5.83	360737	8.17	658630	10.78	642816	15.94	594577	18.56
OP10886-BS1	142861	4.69	560090	5.83	303449	8.17	545091	10.78	517447	15.95	506511	18.56
OP10886-BSD	135443	4.69	520913	5.83	284357	8.17	518156	10.78	485928	15.94	482949	18.56
ZZZZZZ	155414	4.69	625174	5.83	331267	8.16	606634	10.78	589027	15.94	550458	18.56
ZZZZZZ	133125	4.69	520675	5.83	258661	8.17	448891	10.78	397801	15.94	410892	18.56
ZZZZZZ	175368	4.69	692914	5.83	331062	8.17	562322	10.78	489091	15.95	495440	18.57
ZZZZZZ	182693	4.69	725570	5.83	354610	8.17	591054	10.78	501164	15.95	493642	18.57
ZZZZZZ	153101	4.69	610023	5.83	323457	8.17	585828	10.78	515513	15.94	484292	18.56
JC62881-2	157867	4.69	621463	5.83	319691	8.17	544944	10.78	512402	15.94	491406	18.57
JC62881-3	156488	4.69	609907	5.83	285114	8.17	502086	10.78	511904	15.94	506888	18.56
JC62881-4	160725	4.69	622229	5.83	302751	8.17	525835	10.78	456638	15.95	451803	18.57
JC62881-5	139697	4.69	555875	5.83	276118	8.17	486070	10.78	451027	15.94	433132	18.57
JC62881-6	156717	4.69	627741	5.83	328148	8.17	591991	10.78	557465	15.94	528225	18.56
ZZZZZZ	156099	4.69	624979	5.83	323920	8.17	598045	10.78	557489	15.94	534874	18.56
ZZZZZZ	156260	4.69	620332	5.83	326279	8.17	605251	10.78	574415	15.94	547422	18.56
ZZZZZZ	157887	4.69	622490	5.83	321915	8.17	555802	10.78	536471	15.94	525948	18.56
ZZZZZZ	138998	4.69	490731	5.83	246529	8.17	445906	10.79	456755	15.95	451781	18.56
ZZZZZZ	23238*	4.69	112911*	5.83	66218*	8.16	135237*	10.78	131764*	15.94	121867*	18.55

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

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

Surrogate Recovery Summary

Job Number: JC62881
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
JC62881-1	2M102973.D	57	40	89	80	72	70
JC62881-2	M144918.D	30	24	74	75	62	35
JC62881-3	M144919.D	32	24	78	87	75	58
JC62881-4	M144920.D	34	27	76	85	70	60
JC62881-5	M144921.D	34	26	77	86	72	65
JC62881-6	M144922.D	27	21	64	70	54	52
OP10886-BS1	M144910.D	36	29	73	75	59	68
OP10886-BSD	M144911.D	39	31	71	85	66	70
OP10886-MB1	M144909.D	34	26	72	79	62	67
OP10986-BS1	2M102969.D	61	45	98	90	81	88
OP10986-BSD	2M102970.D	46	35	91	80	73	79
OP10986-MB1	2M102968.D	55	36	93	86	76	88

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-ICC4551
Lab FileID: 2M102238.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Mon Mar 05 13:16:59 2018
Response via : Initial Calibration

Calibration Files
2 =2M102234.D 5 =2M102235.D 25 =2M102237.D 80 =2M102239.D
100 =2M102232.D 50 =2M102238.D 1 =2M102233.D 10 =2M102236.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.591	0.547	0.530	0.538	0.517	0.537	0.565	0.559	0.548	4.23
3) Pyridine	1.485	1.452	1.540	1.624	1.511	1.529	1.550	1.586	1.535	3.54
4) N-Nitrosodim	0.897	0.899	0.886	0.894	0.845	0.907	0.888	0.934	0.894	2.77
5) 2-Fluorophen	1.358	1.362	1.389	1.448	1.408	1.453	1.400	1.405	1.403	2.49
6) Indene	2.376	2.259	2.344	2.521	2.454	2.450	2.166	2.402	2.372	4.83
7) Cumene	3.868	3.582	3.812	3.892	3.753	3.845	3.723	3.790	3.783	2.61
8) Phenol-d5	1.730	1.693	1.764	1.875	1.824	1.856	1.720	1.784	1.781	3.71
9) Phenol	1.993	1.968	2.077	2.164	2.098	2.151	2.077	2.061	2.074	3.29
10) Aniline	2.281	2.187	2.089	2.045	1.922	1.963	2.273	2.209	2.121	6.49
11) bis(2-Chloro	1.331	1.429	1.392	1.417	1.367	1.417	1.422	1.410	1.398	2.41
12) 2-Chlorophen	1.563	1.500	1.515	1.561	1.548	1.564	1.474	1.518	1.530	2.20
13) Decane	1.904	1.896	1.904	1.892	1.665	1.922	1.799	1.927	1.864	4.80
14) 1,3-Dichloro	1.730	1.650	1.622	1.685	1.672	1.694	1.691	1.698	1.680	1.94
15) 1,4-Dichloro	1.759	1.722	1.657	1.745	1.724	1.734	1.804	1.705	1.731	2.46
16) Benzyl alcoh	0.842	0.909	0.941	0.997	0.965	0.977	0.768	0.947	0.918	8.43
17) 1,2-Dichloro	1.640	1.575	1.533	1.608	1.604	1.596	1.545	1.595	1.587	2.21
18) Acetophenone	2.107	2.155	2.236	2.397	2.288	2.358	2.104	2.274	2.240	4.94
19) 2-Methylphen	1.306	1.240	1.302	1.399	1.376	1.357	1.186	1.309	1.309	5.40
20) 2,2'-oxybis(	1.994	1.948	1.907	1.902	1.696	1.939	1.856	1.933	1.897	4.77
21) 3&4-Methylph	1.302	1.387	1.495	1.659	1.629	1.603	1.327	1.443	1.481	9.37
22) n-Nitroso-di	1.242	1.201	1.336	1.380	1.254	1.377	1.289	1.287	1.296	4.96
23) Hexachloroet	0.575	0.536	0.562	0.567	0.558	0.565	0.531	0.533	0.553	3.15
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.472	0.489	0.480	0.491	0.465	0.499	0.451	0.480	0.479	3.24
26) Nitrobenzene	0.468	0.466	0.477	0.481	0.447	0.485	0.476	0.470	0.471	2.53
27) Quinoline	0.681	0.711	0.703	0.732	0.722	0.732	0.733	0.696	0.714	2.71
28) Isophorone	0.750	0.784	0.786	0.792	0.751	0.802	0.750	0.776	0.774	2.68
29) 2-Nitropheno	0.203	0.200	0.215	0.229	0.225	0.220	0.192	0.209	0.212	6.04
30) 2,4-Dimethyl	0.343	0.364	0.373	0.410	0.405	0.395	0.304	0.364	0.370	9.44
31) Benzoic acid	0.230	0.252	0.311	0.342	0.343	0.332		0.268	0.297	15.56
32) bis(2-Chloro	0.412	0.405	0.408	0.422	0.399	0.418	0.389	0.401	0.407	2.66
33) 2,4-Dichloro	0.305	0.302	0.306	0.326	0.330	0.321	0.276	0.310	0.309	5.56
34) 2,6-Dichloro	0.299	0.309	0.306	0.325	0.326	0.316	0.322	0.303	0.313	3.33
35) 1,3,5-Trichl	0.363	0.354	0.346	0.358	0.364	0.353	0.367	0.347	0.356	2.21
36) 1,2,4-Trichl	0.335	0.341	0.325	0.339	0.345	0.338	0.377	0.336	0.342	4.54
37) 1,2,3-Trichl	0.327	0.330	0.320	0.332	0.335	0.329	0.378	0.324	0.334	5.45
38) Naphthalene	1.156	1.100	1.092	1.134	1.135	1.116	1.134	1.079	1.118	2.33
39) 4-Chloroanil	0.452	0.467	0.462	0.482	0.474	0.463	0.457	0.452	0.464	2.30
40) 2,3-Dichloro	0.368	0.380	0.382	0.406	0.413	0.398	0.394	0.378	0.390	3.88
41) Caprolactam	0.179	0.187	0.192	0.195	0.180	0.197	0.180	0.200	0.189	4.37
42) Hexachlorobu	0.206	0.188	0.191	0.195	0.200	0.191	0.196	0.187	0.194	3.33
43) 4-Chloro-3-m	0.343	0.350	0.359	0.371	0.362	0.367	0.332	0.341	0.353	3.87
44) 2-Methylnaph	0.628	0.650	0.641	0.674	0.676	0.653	0.604	0.633	0.645	3.72
45) 1-Methylnaph	0.649	0.642	0.661	0.696	0.690	0.682	0.664	0.666	0.669	2.86

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-ICC4551
Lab FileID: 2M102238.D

46)	Dimethylnaph	0.644	0.670	0.676	0.721	0.723	0.708	0.664	0.671	0.685	4.27
47)	I Acenaphthene-d10	ISTD									
48)	Hexachlorocy	0.381	0.384	0.439	0.470	0.482	0.444	0.367	0.416	0.423	10.15
49)	2,4,6-Trichl	0.442	0.440	0.451	0.478	0.489	0.467	0.433	0.437	0.455	4.60
50)	2,4,5-Trichl	0.467	0.440	0.467	0.481	0.493	0.475	0.435	0.452	0.464	4.35
51)	2-Fluorobiph	1.711	1.671	1.642	1.688	1.706	1.665	1.737	1.619	1.680	2.31
52)	2-Chloronaph	1.406	1.394	1.401	1.414	1.403	1.399	1.427	1.378	1.403	1.02
53)	Biphenyl	1.856	1.804	1.853	1.903	1.907	1.873	1.828	1.826	1.856	1.99
54)	2-Nitroanili	0.474	0.510	0.542	0.550	0.511	0.550	0.476	0.509	0.515	5.88
55)	Dimethylphth	1.671	1.635	1.641	1.658	1.636	1.640	1.747	1.597	1.653	2.63
56)	Acenaphthyle	2.136	2.137	2.220	2.265	2.264	2.252	2.102	2.121	2.187	3.19
57)	2,6-Dinitrot	0.325	0.316	0.365	0.372	0.376	0.369	0.285	0.346	0.344	9.55
58)	3-Nitroanili	0.339	0.362	0.411	0.426	0.421	0.417	0.310	0.382	0.383	11.20
59)	Acenaphthene	1.501	1.482	1.482	1.521	1.523	1.490	1.463	1.421	1.485	2.22
60)	2,4-Dinitrop	0.124	0.161	0.218	0.252	0.268	0.246		0.193	0.209	25.12
	---- Quadratic regression ---- Coefficient = 0.9996										
	Response Ratio = -0.01331 + 0.22027 *A + 0.00977 *A^2										
61)	4-Nitropheno		0.213	0.274	0.310	0.296	0.297		0.245	0.272	13.61
62)	Dibenzofuran	1.995	1.941	1.943	2.033	2.079	2.011	2.098	1.934	2.004	3.15
63)	2,4-Dinitrot	0.424	0.481	0.509	0.540	0.549	0.527	0.436	0.488	0.494	9.33
64)	2,3,4,6-Tetr	0.372	0.357	0.389	0.397	0.423	0.393	0.349	0.363	0.380	6.45
65)	Diethylphtha	2.242	1.918	1.787	1.778	1.763	1.782	2.432	1.761	1.933	13.43
66)	Fluorene	1.508	1.573	1.614	1.659	1.716	1.631	1.514	1.556	1.596	4.52
67)	4-Chlorophen	0.752	0.728	0.728	0.747	0.765	0.736	0.815	0.718	0.749	4.11
68)	4-Nitroanili	0.311	0.360	0.387	0.399	0.399	0.398	0.298	0.366	0.365	11.01
69)	I Phenanthrene-d10	ISTD									
70)	4,6-Dinitro-	0.111	0.143	0.169	0.183	0.182	0.175	0.119	0.147	0.154	18.29
71)	n-Nitrosodip	0.605	0.615	0.639	0.659	0.645	0.639	0.637	0.610	0.631	2.97
72)	1,2-Diphenyl	0.974	1.017	1.035	1.068	0.954	1.038	0.956	1.023	1.008	4.14
73)	2,4,6-Tribro	0.106	0.114	0.116	0.129	0.134	0.121	0.120	0.112	0.119	7.51
74)	4-Bromopheny	0.228	0.212	0.227	0.235	0.238	0.223	0.234	0.213	0.226	4.30
75)	Hexachlorobe	0.255	0.254	0.245	0.256	0.261	0.251	0.251	0.249	0.253	2.00
76)	Pentachlorop	0.140	0.142	0.164	0.186	0.199	0.177	0.141	0.151	0.162	14.05
77)	Phenanthrene	1.220	1.229	1.222	1.276	1.260	1.229	1.296	1.195	1.241	2.71
78)	Anthracene	1.246	1.190	1.222	1.286	1.284	1.260	1.240	1.197	1.241	2.91
79)	Carbazole	1.062	1.117	1.172	1.243	1.205	1.194	1.174	1.129	1.162	4.92
80)	Di-n-butylph	1.699	1.542	1.589	1.684	1.615	1.634	1.865	1.553	1.647	6.32
81)	Fluoranthene	1.187	1.182	1.242	1.333	1.330	1.295	1.226	1.200	1.249	4.97
82)	Octadecane	0.533	0.580	0.638	0.688	0.617	0.663	0.540	0.612	0.609	9.11
83)	I Chrysene-d12	ISTD									
84)	Pyrene	1.470	1.440	1.450	1.453	1.379	1.462	1.489	1.424	1.446	2.30
85)	Terphenyl-d1	0.907	0.938	0.966	0.974	0.944	0.974	0.964	0.960	0.953	2.37
86)	Butylbenzylp	0.670	0.656	0.729	0.740	0.695	0.753	0.706	0.703	0.707	4.74
87)	Benzo[a]anth	1.248	1.234	1.261	1.322	1.301	1.302	1.467	1.236	1.296	5.90
88)	3,3'-Dichlor	0.388	0.415	0.481	0.513	0.512	0.505	0.428	0.450	0.461	10.45
89)	Chrysene	1.273	1.237	1.243	1.242	1.199	1.241	1.327	1.227	1.249	3.02
90)	bis(2-Ethylh	0.924	0.904	0.982	1.025	0.976	1.013	1.036	0.952	0.976	4.89
91)	I Perylene-d12	ISTD									
92)	Di-n-octylph	1.107	1.200	1.516	1.780	1.771	1.711	1.169	1.343	1.450	19.43
93)	Benzo[b]fluo	1.104	1.127	1.276	1.450	1.509	1.395	1.142	1.139	1.268	12.87
94)	Benzo[k]fluo	1.232	1.294	1.297	1.367	1.302	1.321	1.305	1.282	1.300	2.90
95)	Benzo[a]pyre	0.960	0.989	1.081	1.202	1.218	1.149	0.971	1.010	1.072	9.84
96)	Indeno[1,2,3	1.017	1.121	1.313	1.467	1.471	1.405	1.184	1.217	1.274	13.11
97)	Dibenz(a,h)a	0.689	0.734	0.908	1.089	1.092	1.018	0.856	0.844	0.904	16.94
98)	Dibenz[a,h]a	0.790	0.955	1.102	1.242	1.262	1.174	0.821	0.945	1.036	17.81

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-ICC4551
Lab FileID: 2M102238.D

```
 99) 7,12-Dimethy 0.444 0.462 0.565 0.667 0.676 0.630       0.480 0.561  17.73
100) Benzo[g,h,i] 0.895 0.927 1.041 1.186 1.171 1.132 0.934 0.964 1.031  11.40
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M2M4551.M         Mon Mar 05 13:19:30 2018
```

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-ICV4551
Lab FileID: 2M102240.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4551\2M102240.D Vial: 10
Acq On : 28 Feb 2018 6:51 pm Operator: seanb1
Sample : icv4551-50 Inst : MS2M
Misc : op8718,e2m4551,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Feb 28 22:00:45 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	135	0.00	4.69
4	t	N-Nitrosodimethylamine	0.894	0.685	23.4	102	0.01	2.54
11	t	bis(2-Chloroethyl)ether	1.398	1.351	3.4	129	0.00	4.49
14	t	1,3-Dichlorobenzene	1.680	1.555	7.4	124	0.00	4.65
15	t	1,4-Dichlorobenzene	1.731	1.561	9.8	122	0.00	4.70
17	t	1,2-Dichlorobenzene	1.587	1.494	5.9	126	0.00	4.83
20	t	2,2'-oxybis(1-Chloropropa	1.897	1.856	2.2	129	0.00	4.90
22	t	n-Nitroso-di-n-propylamin	1.296	1.118	13.7	110	0.00	5.01
23	t	Hexachloroethane	0.553	0.518	6.3	124	0.00	5.10
24	I	Naphthalene-d8	1.000	1.000	0.0	129	0.00	5.79
26	t	Nitrobenzene	0.471	0.411	12.7	110	0.00	5.15
28	t	Isophorone	0.774	0.731	5.6	118	-0.01	5.35
32	t	bis(2-Chloroethoxy)methan	0.407	0.406	0.2	126	0.00	5.55
36	t	1,2,4-Trichlorobenzene	0.342	0.322	5.8	123	0.00	5.74
38	t	Naphthalene	1.118	1.048	6.3	122	0.00	5.81
42	t	Hexachlorobutadiene	0.194	0.190	2.1	129	0.00	5.94
47	I	Acenaphthene-d10	1.000	1.000	0.0	122	0.00	7.86
48	t	Hexachlorocyclopentadiene	0.423	0.414	2.1	118	0.00	6.74
52	t	2-Chloronaphthalene	1.403	1.331	5.1	116	0.00	7.13
55	t	Dimethylphthalate	1.653	1.528	7.6	114	0.00	7.52
56	t	Acenaphthylene	2.187	2.082	4.8	113	0.00	7.66
57	t	2,6-Dinitrotoluene	0.344	0.324	5.8	107	-0.01	7.58
59	t	Acenaphthene	1.485	1.398	5.9	114	0.00	7.90
63	t	2,4-Dinitrotoluene	0.494	0.413	16.4	96	-0.02	8.13
65	t	Diethylphthalate	1.933	1.610	16.7	110	-0.01	8.51
66	t	Fluorene	1.596	1.516	5.0	113	0.00	8.63
67	t	4-Chlorophenyl-phenylethe	0.749	0.669	10.7	111	0.00	8.65
69	I	Phenanthrene-d10	1.000	1.000	0.0	115	0.00	10.02
71	t	n-Nitrosodiphenylamine	0.631	0.561	11.1	101	0.00	8.83
72	t	1,2-Diphenylhydrazine	1.008	0.985	2.3	109	0.00	8.88
74	t	4-Bromophenyl-phenylether	0.226	0.220	2.7	114	0.00	9.38
75	t	Hexachlorobenzene	0.253	0.244	3.6	112	0.00	9.46
77	t	Phenanthrene	1.241	1.185	4.5	111	0.00	10.06
78	t	Anthracene	1.241	1.155	6.9	106	0.00	10.14
80	t	Di-n-butylphthalate	1.647	1.462	11.2	103	0.00	11.05
81	t	Fluoranthene	1.249	1.151	7.8	102	0.00	11.92
83	I	Chrysene-d12	1.000	1.000	0.0	112	0.00	14.20
84	t	Pyrene	1.446	1.320	8.7	101	0.00	12.27

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-ICV4551
Lab FileID: 2M102240.D

86	t	Butylbenzylphthalate	0.707	0.671	5.1	100	0.00	13.42
87	t	Benzo[a]anthracene	1.296	1.237	4.6	106	0.00	14.19
88	t	3,3'-Dichlorobenzidine	0.461	0.337	26.9	73	0.00	14.20
89	t	Chrysene	1.249	1.137	9.0	103	0.00	14.24
90	t	bis(2-Ethylhexyl)phthalat	0.976	0.916	6.1	101	0.00	14.39
91	I	Perylene-d12	1.000	1.000	0.0	116	0.00	16.31
92	t	Di-n-octylphthalate	1.450	1.600	-10.3	108	0.00	15.37
93	t	Benzo[b]fluoranthene	1.268	1.177	7.2	97	-0.01	15.79
94	t	Benzo[k]fluoranthene	1.300	1.243	4.4	109	-0.01	15.83
95	t	Benzo[a]pyrene	1.072	1.104	-3.0	111	0.00	16.23
96	t	Indeno[1,2,3-cd]pyrene	1.274	1.303	-2.3	107	-0.01	17.84
98	t	Dibenz[a,h]anthracene	1.036	1.085	-4.7	107	-0.01	17.88
100	t	Benzo[g,h,i]perylene	1.031	1.104	-7.1	113	-0.02	18.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102238.D M2M4551.M Thu Mar 01 02:46:02 2018

8.6.2

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-ICV4551
Lab FileID: 2M102241.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4551\2M102241.D Vial: 11
Acq On : 28 Feb 2018 7:17 pm Operator: seanb1
Sample : icv4551-50 Inst : MS2M
Misc : op8718,e2m4551,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Feb 28 22:00:45 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	137	0.00	4.69
2	t	1,4-Dioxane	0.548	0.469	14.4	120	0.02	2.26
6	t	Indene	2.372	2.409	-1.6	135	0.00	4.90
7	t	Cumene	3.783	3.438	9.1	123	0.00	4.10
13	t	Decane	1.864	1.557	16.5	111	0.00	4.57
18	t	Acetophenone	2.240	1.964	12.3	114	-0.01	5.00
24	I	Naphthalene-d8	1.000	1.000	0.0	135	0.00	5.78
27	t	Quinoline	0.714	0.663	7.1	122	-0.02	6.14
40	t	2,3-Dichloroaniline	0.390	0.313	19.7	106	0.00	6.87
41	t	Caprolactam	0.189	0.152	19.6	104	-0.05	6.19
45	t	1-Methylnaphthalene	0.669	0.561	16.1	111	0.00	6.66
46	t	Dimethylnaphthalene	0.685	0.618	9.8	117	0.00	7.31
47	I	Acenaphthene-d10	1.000	1.000	0.0	142	0.00	7.86
53	t	Biphenyl	1.856	1.571	15.4	119	0.00	7.11
69	I	Phenanthrene-d10	1.000	1.000	0.0	118	0.00	10.02
82	t	Octadecane	0.609	0.606	0.5	108	0.00	9.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102238.D M2M4551.M Thu Mar 01 02:46:04 2018

8.6.3

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-ICV4551
Lab FileID: 2M102242.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4551\2M102242.D Vial: 12
Acq On : 28 Feb 2018 7:43 pm Operator: seanb1
Sample : icv4551-50 Inst : MS2M
Misc : op8718,e2m4551,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Mon Mar 05 13:16:59 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	134	0.00	4.69
9	t	Phenol	2.074	1.654	20.3	103	0.00	4.42
12	t	2-Chlorophenol	1.530	1.358	11.2	116	0.00	4.53
19	t	2-Methylphenol	1.309	1.146	12.5	113	0.00	4.88
21	t	3&4-Methylphenol	1.481	1.246	15.9	104	-0.01	5.00
24	I	Naphthalene-d8	1.000	1.000	0.0	128	0.00	5.79
29	t	2-Nitrophenol	0.212	0.188	11.3	110	0.00	5.42
30	t	2,4-Dimethylphenol	0.370	0.339	8.4	110	0.00	5.46
31	t	Benzoic acid	0.297	0.260	12.5	101	-0.03	5.56
33	t	2,4-Dichlorophenol	0.309	0.279	9.7	112	-0.01	5.64
34	t	2,6-Dichlorophenol	0.313	0.278	11.2	113	0.00	5.87
43	t	4-Chloro-3-methylphenol	0.353	0.306	13.3	107	-0.01	6.37
47	I	Acenaphthene-d10	1.000	1.000	0.0	123	0.00	7.86
49	t	2,4,6-Trichlorophenol	0.455	0.399	12.3	105	0.00	6.88
50	t	2,4,5-Trichlorophenol	0.464	0.422	9.1	109	-0.01	6.92
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	40.005	20.0	100	-0.02	7.94
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.272	0.227	16.5	94	-0.02	8.05
64		2,3,4,6-Tetrachlorophenol	0.380	0.331	12.9	103	0.00	8.32
69	I	Phenanthrene-d10	1.000	1.000	0.0	117	0.00	10.02
70	t	4,6-Dinitro-2-methylpheno	0.154	0.144	6.5	96	-0.02	8.71
76	t	Pentachlorophenol	0.162	0.173	-6.8	126	0.00	9.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102238.D M2M4551.M Mon Mar 05 13:19:08 2018

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4551-ICV4551
Lab FileID: 2M102244.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4551\2M102244.D Vial: 14
Acq On : 28 Feb 2018 8:34 pm Operator: seanb1
Sample : icv4551-50 Inst : MS2M
Misc : op8718,e2m4551,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Feb 28 22:00:45 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	128	0.00	4.69
5	S	2-Fluorophenol	1.403	1.259	10.3	111	0.00	3.70
8	S	Phenol-d5	1.781	1.581	11.2	109	0.00	4.41
24	I	Naphthalene-d8	1.000	1.000	0.0	122	0.00	5.78
25	S	Nitrobenzene-d5	0.479	0.430	10.2	105	0.00	5.13
47	I	Acenaphthene-d10	1.000	1.000	0.0	132	0.00	7.86
51	S	2-Fluorobiphenyl	1.680	1.382	17.7	109	0.00	6.99
69	I	Phenanthrene-d10	1.000	1.000	0.0	110	0.00	10.02
73	S	2,4,6-Tribromophenol	0.119	0.113	5.0	103	0.00	8.98
83	I	Chrysene-d12	1.000	1.000	0.0	103	-0.01	14.20
85	S	Terphenyl-d14	0.953	0.976	-2.4	103	0.00	12.58

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102238.D M2M4551.M Thu Mar 01 02:46:08 2018

8.6.5

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4552-ICV4551
Lab FileID: 2M102247.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4552\2M102247.D Vial: 3
Acq On : 1 Mar 2018 1:06 am Operator: chriss2
Sample : icv4551-50 Inst : MS2M
Misc : op8718,e2m4552,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Feb 28 22:00:45 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	128	-0.01	4.68
3	t	Pyridine	1.535	1.463	4.7	123	0.08	2.63
10		Aniline	2.121	2.280	-7.5	149	0.00	4.44
16	t	Benzyl alcohol	0.918	0.942	-2.6	124	-0.02	4.78
24	I	Naphthalene-d8	1.000	1.000	0.0	128	-0.02	5.77
39	t	4-Chloroaniline	0.464	0.433	6.7	120	-0.03	5.84
44	t	2-Methylnaphthalene	0.645	0.630	2.3	124	-0.02	6.53
47	I	Acenaphthene-d10	1.000	1.000	0.0	149	-0.02	7.84
54	t	2-Nitroaniline	0.515	0.398	22.7	108	-0.03	7.24
58	t	3-Nitroaniline	0.383	0.311	18.8	112	-0.03	7.78
62	t	Dibenzofuran	2.004	1.609	19.7	119	-0.03	8.12
68	t	4-Nitroaniline	0.365	0.317	13.2	119	-0.04	8.65
69	I	Phenanthrene-d10	1.000	1.000	0.0	131	-0.03	10.00
79	t	Carbazole	1.162	1.070	7.9	117	-0.03	10.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102238.D M2M4551.M Thu Mar 01 02:42:45 2018

8.6.6

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4555-ICC4555
Lab FileID: 2M102396.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration

Calibration Files
2 =2M102392.D 5 =2M102393.D 25 =2M102395.D 80 =2M102397.D
100 =2M102398.D 50 =2M102396.D 1 =2M102391.D 10 =2M102394.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) 1,4-Dichlorobenzene-d	ISTD									
102) Benzaldehyde	1.285	1.330	1.195	1.184	1.174	1.144	1.372	1.147	1.229	7.15
103) Acenaphthene-d10a	ISTD									
104) 1,2,4,5-Tetr	0.671	0.686	0.603	0.628	0.624	0.597	0.658	0.604	0.634	5.34
105) Chrysene-d12a	ISTD									
106) Benzidine	0.562	0.685	0.793	0.904	0.895	0.855		0.679	0.768	16.83
107) 1-chloroocta	0.321	0.374	0.400	0.424	0.417	0.403	0.328	0.364	0.379	10.30
108) Phenanthrene-d10a	ISTD									
109) Atrazine	0.101	0.104	0.110	0.118	0.115	0.109	0.099	0.103	0.107	6.35
110) o-terphenyl	0.602	0.613	0.568	0.606	0.593	0.575	0.587	0.559	0.588	3.24
111) Pentachloron	0.028	0.034	0.036	0.039	0.039	0.036		0.033	0.035#	11.09
112) Naphthalene-d8a	ISTD									
113) Hydroquinone	0.333	0.371	0.374	0.372	0.363	0.368	0.286	0.362	0.354	8.60

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

M2M4551.M Fri Mar 09 08:03:21 2018

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4556-ICV4555
Lab FileID: 2M102400.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4556\2M102400.D Vial: 2
Acq On : 6 Mar 2018 8:21 pm Operator: chriss2
Sample : icv4555-50 Inst : MS2M
Misc : op8718,e2m4556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Mar 07 09:38:50 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	Chrysene-d12a	1.000	1.000	0.0	163	0.00	14.15
106	Benzidine	0.768	0.779	-1.4	148	0.00	12.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102396a.D M2M4551.M Fri Mar 09 08:01:56 2018

8.6.8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4556-ICV4555
Lab FileID: 2M102401.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4556\2M102401.D Vial: 3
Acq On : 6 Mar 2018 8:47 pm Operator: chriss2
Sample : icv4555-50 Inst : MS2M
Misc : op8718,e2m4556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Mar 07 09:38:50 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.
112	Naphthalene-d8a	1.000	1.000	0.0	133	0.00	5.76
113	Hydroquinone	0.354	0.447	-26.3	162	0.01	6.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102396a.D M2M4551.M Fri Mar 09 08:01:58 2018

8.6.9

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4556-ICV4555
Lab FileID: 2M102402.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4556\2M102402.D Vial: 4
Acq On : 6 Mar 2018 9:12 pm Operator: chriss2
Sample : icv4555-50 Inst : MS2M
Misc : op8718,e2m4556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Mar 07 09:38:50 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	Acenaphthene-d10a	1.000	1.000	0.0	147	0.00	7.82
104	1,2,4,5-Tetrachlorobenzen	0.634	0.717	-13.1	176	0.00	6.71

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102396a.D M2M4551.M Fri Mar 09 08:02:00 2018

8.6.10

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4556-ICV4555
Lab FileID: 2M102403.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4556\2M102403.D Vial: 5
Acq On : 6 Mar 2018 9:38 pm Operator: chriss2
Sample : icv4555-50 Inst : MS2M
Misc : op8718,e2m4556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Mar 07 09:38:50 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	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	152	0.00	4.67
102	Benzaldehyde	1.229	0.994	19.1	132	0.00	4.33
108	Phenanthrene-d10a	1.000	1.000	0.0	145	0.00	9.98
109	Atrazine	0.107	0.115	-7.5	153	0.00	9.63

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102396a.D M2M4551.M Fri Mar 09 08:02:02 2018

8.6.11

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4556-ICV4555
Lab FileID: 2M102404.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4556\2M102404.D Vial: 6
Acq On : 6 Mar 2018 10:03 pm Operator: chriss2
Sample : icv4555-50 Inst : MS2M
Misc : op8718,e2m4556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Mar 07 09:38:50 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.
108	Phenanthrene-d10a	1.000	1.000	0.0	147	0.00	9.98
111	Pentachloronitrobenzene	0.035	0.038#	-8.6	157	0.00	9.74

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102396a.D M2M4551.M Fri Mar 09 08:02:04 2018

8.6.12

8

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4581-CC4551
Lab FileID: 2M102960.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4581\2m102960.D Vial: 2
Acq On : 2 Apr 2018 12:12 pm Operator: christc2
Sample : cc4551-50 Inst : MS2M
Misc : op10486,e2m4581,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Thu Mar 22 15:07:36 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	150	0.03	4.57
2	t	1,4-Dioxane	0.548	0.520	5.1	146	-0.08	2.09
3	t	Pyridine	1.535	1.436	6.4	141	-0.06	2.41
4	t	N-Nitrosodimethylamine	0.894	0.849	5.0	141	-0.06	2.39
5	S	2-Fluorophenol	1.403	1.311	6.6	136	0.02	3.61
6	t	Indene	2.372	2.192	7.6	135	0.03	4.77
7	t	Cumene	3.783	3.627	4.1	142	0.00	3.97
8	S	Phenol-d5	1.781	1.762	1.1	143	0.06	4.33
9	t	Phenol	2.074	1.928	7.0	135	0.06	4.34
10		Aniline	2.121	1.680	20.8#	129	0.03	4.33
11	t	bis(2-Chloroethyl)ether	1.398	1.286	8.0	137	0.03	4.37
12	t	2-Chlorophenol	1.530	1.419	7.3	136	0.03	4.42
13	t	Decane	1.864	1.586	14.9	124	0.02	4.45
14	t	1,3-Dichlorobenzene	1.680	1.607	4.3	143	0.03	4.53
15	t	1,4-Dichlorobenzene	1.731	1.610	7.0	140	0.03	4.58
16	t	Benzyl alcohol	0.918	0.958	-4.4	147	0.04	4.69
17	t	1,2-Dichlorobenzene	1.587	1.514	4.6	143	0.03	4.70
18	t	Acetophenone	2.240	2.057	8.2	131	0.03	4.88
19	t	2-Methylphenol	1.309	1.232	5.9	137	0.05	4.79
20	t	2,2'-oxybis(1-Chloropropa	1.897	1.586	16.4	123	0.03	4.78
21	t	3&4-Methylphenol	1.481	1.337	9.7	125	0.05	4.91
22	t	n-Nitroso-di-n-propylamin	1.296	1.155	10.9	126	0.04	4.89
23	t	Hexachloroethane	0.553	0.536	3.1	143	0.03	4.96
24	I	Naphthalene-d8	1.000	1.000	0.0	145	0.04	5.64
25	S	Nitrobenzene-d5	0.479	0.471	1.7	137	0.03	5.01
26	t	Nitrobenzene	0.471	0.438	7.0	131	0.03	5.02
27	t	Quinoline	0.714	0.678	5.0	134	0.05	6.01
28	t	Isophorone	0.774	0.721	6.8	130	0.03	5.22
29	t	2-Nitrophenol	0.212	0.218	-2.8	143	0.04	5.30
30	t	2,4-Dimethylphenol	0.370	0.350	5.4	129	0.05	5.34
31	t	Benzoic acid	0.297	0.310	-4.4	135	0.07	5.48
32	t	bis(2-Chloroethoxy)methan	0.407	0.370	9.1	128	0.03	5.41
33	t	2,4-Dichlorophenol	0.309	0.308	0.3	139	0.05	5.53
34	t	2,6-Dichlorophenol	0.313	0.303	3.2	139	0.04	5.73
35		1,3,5-Trichlorobenzene	0.356	0.344	3.4	141	0.04	5.31
36	t	1,2,4-Trichlorobenzene	0.342	0.332	2.9	142	0.04	5.59
37		1,2,3-Trichlorobenzene	0.334	0.315	5.7	139	0.03	5.80
38	t	Naphthalene	1.118	1.057	5.5	137	0.03	5.66
39	t	4-Chloroaniline	0.464	0.418	9.9	131	0.04	5.72
40	t	2,3-Dichloroaniline	0.390	0.376	3.6	137	0.06	6.72
41	t	Caprolactam	0.189	0.172	9.0	127	0.04	6.09

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4581-CC4551
Lab FileID: 2M102960.D

42	t	Hexachlorobutadiene	0.194	0.193	0.5	146	0.03	5.79
43	t	4-Chloro-3-methylphenol	0.353	0.334	5.4	132	0.08	6.25
44	t	2-Methylnaphthalene	0.645	0.631	2.2	140	0.04	6.38
45	t	1-Methylnaphthalene	0.669	0.650	2.8	138	0.04	6.49
46	t	Dimethylnaphthalene	0.685	0.696	-1.6	142	0.05	7.14
47	I	Acenaphthene-d10	1.000	1.000	0.0	147	0.04	7.68
48	t	Hexachlorocyclopentadiene	0.423	0.407	3.8	135	0.03	6.57
49	t	2,4,6-Trichlorophenol	0.455	0.437	4.0	138	0.04	6.73
50	t	2,4,5-Trichlorophenol	0.464	0.467	-0.6	145	0.05	6.78
51	S	2-Fluorobiphenyl	1.680	1.669	0.7	148	0.03	6.82
52	t	2-Chloronaphthalene	1.403	1.324	5.6	139	0.03	6.96
53	t	Biphenyl	1.856	1.793	3.4	141	0.03	6.94
54	t	2-Nitroaniline	0.515	0.500	2.9	134	0.05	7.10
55	t	Dimethylphthalate	1.653	1.543	6.7	139	0.04	7.35
56	t	Acenaphthylene	2.187	2.129	2.7	139	0.04	7.48
57	t	2,6-Dinitrotoluene	0.344	0.354	-2.9	141	0.05	7.42
58	t	3-Nitroaniline	0.383	0.394	-2.9	139	0.06	7.65
59	t	Acenaphthene	1.485	1.416	4.6	140	0.04	7.72
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	94.165	5.8	134	0.06	7.79
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.272	0.322	-18.4	160	0.11	7.95
62	t	Dibenzofuran	2.004	1.962	2.1	144	0.05	7.96
63	t	2,4-Dinitrotoluene	0.494	0.526	-6.5	147	0.06	7.97
64		2,3,4,6-Tetrachlorophenol	0.380	0.387	-1.8	145	0.07	8.16
65	t	Diethylphthalate	1.933	1.687	12.7	139	0.06	8.33
66	t	Fluorene	1.596	1.640	-2.8	148	0.05	8.45
67	t	4-Chlorophenyl-phenylethe	0.749	0.734	2.0	147	0.05	8.46
68	t	4-Nitroaniline	0.365	0.396	-8.5	147	0.08	8.52
69	I	Phenanthrene-d10	1.000	1.000	0.0	150	0.05	9.83
70	t	4,6-Dinitro-2-methylpheno	0.154	0.163	-5.8	139	0.04	8.56
71	t	n-Nitrosodiphenylamine	0.631	0.562	10.9	132	0.03	8.65
72	t	1,2-Diphenylhydrazine	1.008	0.923	8.4	134	0.03	8.69
73	S	2,4,6-Tribromophenol	0.119	0.122	-2.5	152	0.03	8.80
74	t	4-Bromophenyl-phenylether	0.226	0.228	-0.9	154	0.04	9.18
75	t	Hexachlorobenzene	0.253	0.251	0.8	150	0.04	9.27
76	t	Pentachlorophenol	0.162	0.168	-3.7	143	0.06	9.58
77	t	Phenanthrene	1.241	1.191	4.0	146	0.04	9.86
78	t	Anthracene	1.241	1.181	4.8	141	0.05	9.94
79	t	Carbazole	1.162	1.163	-0.1	147	0.06	10.22
80	t	Di-n-butylphthalate	1.647	1.551	5.8	143	0.07	10.85
81	t	Fluoranthene	1.249	1.306	-4.6	152	0.08	11.71
82	t	Octadecane	0.609	0.587	3.6	133	0.04	9.79
83	I	Chrysene-d12	1.000	1.000	0.0	174	0.05	13.99
84	t	Pyrene	1.446	1.279	11.5	152	0.02	12.06
85	S	Terphenyl-d14	0.953	0.920	3.5	165	0.03	12.37
86	t	Butylbenzylphthalate	0.707	0.654	7.5	151	0.04	13.21
87	t	Benzo[a]anthracene	1.296	1.200	7.4	161	0.05	13.97
88	t	3,3'-Dichlorobenzidine	0.461	0.473	-2.6	163	0.06	13.98
89	t	Chrysene	1.249	1.096	12.2	154	0.05	14.03
90	t	bis(2-Ethylhexyl)phthalat	0.976	0.892	8.6	154	0.06	14.17
91	I	Perylene-d12	1.000	1.000	0.0	158	0.05	16.08
92	t	Di-n-octylphthalate	1.450	1.755	-21.0#	162	0.04	15.15
93	t	Benzo[b]fluoranthene	1.268	1.410	-11.2	160	0.06	15.57

8.6.13

8

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4581-CC4551
Lab FileID: 2M102960.D

94	t	Benzo[k]fluoranthene	1.300	1.241	4.5	149	0.06	15.61
95	t	Benzo[a]pyrene	1.072	1.153	-7.6	159	0.06	16.01
96	t	Indeno[1,2,3-cd]pyrene	1.274	1.163	8.7	131	0.05	17.54
97	t	Dibenz(a,h)acridine	0.904	1.043	-15.4	162	0.01	17.21
98	t	Dibenz[a,h]anthracene	1.036	1.178	-13.7	159	0.04	17.58
99	t	7,12-Dimethylbenz(a)anthr	0.561	0.594	-5.9	149	0.06	15.58
100	t	Benzo[g,h,i]perylene	1.031	1.064	-3.2	149	0.04	17.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102396a.D M2M4551.M Tue Apr 03 16:49:03 2018

8.6.13

8

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4581-CC4555
Lab FileID: 2M102961.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4581\2m102961.D Vial: 3
Acq On : 2 Apr 2018 12:44 pm Operator: christc2
Sample : cc4555-50 Inst : MS2M
Misc : op10486,e2m4581,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4551.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Thu Mar 22 15:07:36 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		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	91	0.03	4.57
102		Benzaldehyde	1.229	0.988	19.6	78	0.02	4.24
103		Acenaphthene-d10a	1.000	1.000	0.0	92	0.04	7.68
104		1,2,4,5-Tetrachlorobenzen	0.634	0.606	4.4	93	0.03	6.58
105		Chrysene-d12a	1.000	1.000	0.0	99	0.04	13.98
106		Benzidine	0.768	0.412	46.4#	47#	0.02	11.97
107	s	1-chlorooctadecane	0.379	0.397	-4.7	97	0.02	11.68
108		Phenanthrene-d10a	1.000	1.000	0.0	92	0.04	9.83
109		Atrazine	0.107	0.125	-16.8	106	0.05	9.49
110	s	o-terphenyl	0.588	0.610	-3.7	98	0.04	10.47
111		Pentachloronitrobenzene	0.035	0.041#	-17.1	103	0.04	9.59
112		Naphthalene-d8a	1.000	1.000	0.0	89	0.03	5.64
113		Hydroquinone	0.354	0.348	1.7	85	0.08	6.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2M102396a.D M2M4551.M Tue Apr 03 16:51:07 2018

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6121-ICC6121
Lab FileID: M144291.D

Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6121.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu Mar 01 12:08:50 2018
Response via : Initial Calibration

Calibration Files
2 =M144292.D 5 =M144290.D 100 =M144287.D 50 =M144291.D
1 =M144288.D 10 =M144294.D 80 =M144289.D 25 =M144293.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.758	0.831	0.792	0.832	0.877	0.820	0.810	0.831	0.819	4.21
3) Pyridine	1.963	2.095	1.844	2.019	2.193	2.002	1.890	2.077	2.010	5.64
4) N-Nitrosodim	0.773	0.808	0.756	0.785		0.781	0.752	0.793	0.778	2.57
5) 2-Fluorophen	1.710	1.861	1.684	1.844	1.807	1.878	1.763	1.904	1.807	4.45
6) Indene	2.663	2.670	1.674	2.061	2.778	2.549	1.863	2.340	2.325	17.77
7) Cumene	4.044	4.215	3.069	3.611	4.395	4.169	3.301	3.969	3.846	12.24
8) Phenol-d5	2.102	2.241	1.864	2.039	2.185	2.205	1.932	2.186	2.094	6.58
9) Phenol	2.472	2.518	1.757	2.083	2.443	2.485	1.907	2.336	2.250	13.12
10) Aniline	2.670	2.787	1.693	1.929	2.876	2.516	1.859	2.323	2.332	19.49
11) bis(2-Chloro	1.642	1.697	1.250	1.386	1.779	1.627	1.302	1.516	1.525	12.71
12) 2-Chlorophen	1.860	1.935	1.332	1.520	1.982	1.836	1.424	1.697	1.698	14.48
13) Decane	1.654	1.641		1.163	1.819	1.510	1.055	1.361	1.458	19.07
14) 1,3-Dichloro	2.060	1.996	1.446	1.623	2.142	1.907	1.524	1.767	1.808	14.31
15) 1,4-Dichloro	1.858	1.847	1.354	1.534	1.861	1.756	1.460	1.676	1.668	11.85
16) Benzyl alcoh	1.052	1.112	0.931	1.011	1.101	1.073	0.957	1.045	1.035	6.29
17) 1,2-Dichloro	1.772	1.783	1.201	1.406	1.789	1.690	1.286	1.587	1.564	15.15
18) Acetophenone	2.178	2.161		1.581	2.333	2.041	1.413	1.843	1.936	17.47
19) 2-Methylphen	1.469	1.529	1.085	1.272	1.569	1.482	1.179	1.443	1.378	12.84
20) 2,2'-oxybis(	0.499	0.484	0.370	0.409	0.535	0.490	0.384	0.443	0.452	13.18
21) 3&4-Methylph	1.537	1.564	1.024	1.248	1.486	1.532	1.136	1.441	1.371	15.10
22) n-Nitroso-di	1.100	1.098		0.781	1.219	1.021	0.707	0.909	0.977	18.99
23) Hexachloroet	0.653	0.617	0.513	0.557	0.613	0.605	0.537	0.596	0.586	7.93
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.452	0.453	0.353	0.379	0.449	0.431	0.361	0.408	0.411	10.17
26) Nitrobenzene	0.436	0.431	0.312	0.346	0.483	0.418	0.322	0.378	0.391	15.63
27) Quinoline	0.864	0.864	0.739	0.802	0.907	0.869	0.768	0.832	0.831	6.86
28) Isophorone	0.757	0.781	0.635	0.688	0.869	0.780	0.656	0.740	0.738	10.35
29) 2-Nitropheno	0.235	0.249	0.213	0.236	0.235	0.250	0.224	0.252	0.237	5.77
30) 2,4-Dimethyl	0.354	0.383	0.307	0.333	0.368	0.368	0.319	0.353	0.348	7.53
31) Benzoic acid		0.205	0.324	0.318		0.236	0.321	0.286	0.282	17.85
32) bis(2-Chloro	0.440	0.474	0.358	0.396	0.505	0.455	0.369	0.423	0.427	11.95
33) 2,4-Dichloro	0.321	0.360	0.279	0.324	0.324	0.362	0.302	0.341	0.327	8.58
34) 2,6-Dichloro	0.341	0.332	0.249	0.291	0.336	0.334	0.269	0.317	0.309	11.23
35) 1,3,5-Trichl	0.445	0.450	0.290	0.344	0.456	0.425	0.316	0.387	0.389	16.78
36) 1,2,4-Trichl	0.441	0.433	0.311	0.354	0.442	0.413	0.327	0.382	0.388	13.46
37) 1,2,3-Trichl	0.394	0.399	0.280	0.323	0.424	0.378	0.295	0.349	0.355	14.67
38) Naphthalene	1.203	1.221	0.871	1.009	1.275	1.182	0.933	1.093	1.098	13.37
39) 4-Chloroanil	0.536	0.566	0.399	0.466	0.583	0.537	0.432	0.517	0.504	12.97
40) 2,3-Dichloro	0.449	0.455	0.325	0.371	0.458	0.441	0.344	0.405	0.406	13.06
41) Caprolactam	0.196	0.207	0.181	0.188	0.252	0.200	0.182	0.190	0.199	11.48
42) Hexachlorobu	0.219	0.228	0.167	0.190	0.241	0.217	0.179	0.202	0.205	12.48
43) 4-Chloro-3-m	0.363	0.386	0.312	0.351	0.397	0.375	0.331	0.375	0.361	7.95
44) 2-Methylnaph	0.720	0.742	0.531	0.610	0.742	0.707	0.569	0.672	0.662	12.36
45) 1-Methylnaph	0.892	0.867	0.633	0.729	0.919	0.853	0.670	0.788	0.794	13.42

Initial Calibration Summary

Job Number: JC62881 **Sample:** EM6121-ICC6121
Account: BBLNYS Arcadis **Lab FileID:** M144291.D
Project: National Grid, Philly Coke, Philadelphia PA

46)	Dimethylnaph	0.739	0.740	0.543	0.623	0.802	0.719	0.571	0.682	0.677	13.37
47)	I Acenaphthene-d10	----------	ISTD	----------							
48)	Hexachlorocy	0.416	0.467	0.362	0.398	0.435	0.449	0.381	0.433	0.418	8.49
49)	2,4,6-Trichl	0.542	0.545	0.384	0.436	0.561	0.517	0.412	0.485	0.485	13.81
50)	2,4,5-Trichl	0.531	0.575	0.445	0.492	0.633	0.557	0.467	0.512	0.526	11.66
51)	2-Fluorobiph	1.829	1.798	1.274	1.463	1.935	1.770	1.356	1.596	1.628	14.90
52)	2-Chloronaph	1.674	1.605	1.079	1.236	1.809	1.519	1.155	1.370	1.431	18.34
53)	Biphenyl	2.184	2.092	1.441	1.652	2.239	1.984	1.539	1.806	1.867	16.21
54)	2-Nitroanili	0.447	0.455	0.398	0.415	0.499	0.446	0.398	0.432	0.436	7.73
55)	Dimethylphth	1.797	1.826	1.430	1.564	1.984	1.746	1.498	1.661	1.688	10.98
56)	Acenaphthyle	2.512	2.559	1.861	2.114	2.732	2.428	1.979	2.335	2.315	13.11
57)	2,6-Dinitrot	0.369	0.387	0.344	0.362	0.370	0.360	0.350	0.368	0.364	3.67
58)	3-Nitroanili	0.451	0.521	0.464	0.484	0.514	0.499	0.469	0.491	0.486	5.04
59)	Acenaphthene	1.566	1.504	1.128	1.260	1.635	1.439	1.192	1.356	1.385	13.15
60)	2,4-Dinitrop	0.066	0.137	0.237	0.221	0.096	0.156	0.229	0.198	0.168	38.33
	---- Quadratic regression ---- Coefficient = 0.9997										
	Response Ratio = -0.01587 + 0.20683 *A + 0.00674 *A^2										
61)	4-Nitropheno	0.160	0.206	0.228	0.227	0.202	0.226	0.223	0.223	0.212	10.95
62)	Dibenzofuran	2.239	2.222	1.479	1.715	2.433	2.135	1.588	1.904	1.964	17.57
63)	2,4-Dinitrot	0.426	0.505	0.384	0.441	0.472	0.509	0.413	0.478	0.454	9.88
64)	2,3,4,6-Tetr	0.449	0.494	0.428	0.461	0.492	0.499	0.448	0.496	0.471	5.88
65)	Diethylphtha	1.935	1.940	1.452	1.604		1.819	1.533	1.727	1.716	11.27
66)	Fluorene	1.767	1.825	1.307	1.480	1.846	1.725	1.383	1.597	1.616	12.80
67)	4-Chlorophen	0.873	0.872	0.598	0.684	0.904	0.820	0.641	0.753	0.768	15.19
68)	4-Nitroanili	0.455	0.507	0.425	0.431	0.488	0.485	0.432	0.454	0.460	6.63
69)	I Phenanthrene-d10	----------	ISTD	----------							
70)	4,6-Dinitro-	0.075	0.124	0.188	0.176	0.093	0.140	0.181	0.160	0.142	29.53
	---- Quadratic regression ---- Coefficient = 0.9999										
	Response Ratio = -0.00460 + 0.16498 *A + 0.00982 *A^2										
71)	n-Nitrosodip	0.673	0.671	0.587	0.613	0.720	0.640	0.595	0.632	0.641	6.97
72)	1,2-Diphenyl	0.904	0.895	0.742	0.774	1.026	0.861	0.741	0.816	0.845	11.52
73)	2,4,6-Tribro	0.172	0.175	0.162	0.171	0.182	0.178	0.167	0.178	0.173	3.71
74)	4-Bromopheny	0.284	0.298	0.268	0.278	0.317	0.302	0.273	0.287	0.289	5.68
75)	Hexachlorobe	0.349	0.350	0.280	0.300	0.366	0.336	0.292	0.321	0.324	9.58
76)	Pentachlorop	0.148	0.197	0.197	0.205	0.188	0.206	0.198	0.208	0.193	9.99
77)	Phenanthrene	1.305	1.276	1.081	1.155	1.390	1.251	1.098	1.194	1.219	8.73
78)	Anthracene	1.332	1.341	1.140	1.212	1.424	1.300	1.161	1.261	1.271	7.62
79)	Carbazole	1.257	1.297	1.146	1.214	1.330	1.273	1.154	1.239	1.239	5.26
80)	Di-n-butylph	1.561	1.670	1.527	1.613	1.829	1.637	1.546	1.653	1.630	5.88
81)	Fluoranthene	1.449	1.521	1.302	1.389	1.503	1.498	1.334	1.442	1.429	5.66
82)	Octadecane	0.495	0.517	0.448	0.467	0.555	0.495	0.453	0.483	0.489	7.20
83)	I Chrysene-d12	----------	ISTD	----------							
84)	Pyrene	1.545	1.557	1.437	1.491	1.685	1.527	1.456	1.480	1.522	5.13
85)	Terphenyl-d1	1.120	1.127	1.087	1.112	1.187	1.119	1.120	1.097	1.121	2.66
86)	Butylbenzylp	0.637	0.743	0.806	0.803	0.835	0.720	0.803	0.762	0.764	8.34
87)	Benzo[a]anth	1.428	1.446	1.462	1.480	1.579	1.415	1.482	1.442	1.467	3.48
88)	3,3'-Dichlor	0.442	0.490	0.524	0.519	0.492	0.477	0.529	0.510	0.498	5.84
89)	Chrysene	1.373	1.322	1.270	1.284	1.440	1.308	1.291	1.283	1.321	4.38
90)	bis(2-Ethylh	0.980	1.021	1.025	1.016		0.955	1.022	0.979	1.000	2.80
91)	I Perylene-d12	----------	ISTD	----------							
92)	Di-n-octylph	1.362	1.571	1.420	1.563	1.490	1.507	1.490	1.608	1.502	5.41
93)	Benzo[b]fluo	1.446	1.436	1.116	1.248	1.552	1.428	1.188	1.355	1.346	11.06
94)	Benzo[k]fluo	1.394	1.350	0.967	1.089	1.389	1.315	1.039	1.186	1.216	13.89
95)	Benzo[a]pyre	1.250	1.305	1.031	1.164	1.392	1.264	1.101	1.230	1.217	9.46

Initial Calibration Summary

Job Number: JC62881 **Sample:** EM6121-ICC6121
Account: BBLNYS Arcadis **Lab FileID:** M144291.D
Project: National Grid, Philly Coke, Philadelphia PA

```
 96) Indeno[1,2,3 1.163 1.208 1.022 1.161 1.211 1.218 1.078 1.186 1.156   6.07
 97) Dibenz(a,h)a 1.112 1.177 0.983 1.134 1.172 1.181 1.055 1.183 1.125   6.43
 98) Dibenz[a,h]a 1.265 1.286 1.000 1.163 1.261 1.255 1.070 1.197 1.187   8.75
 99) 7,12-Dimethy 0.536 0.583 0.475 0.525 0.519 0.561 0.500 0.561 0.533   6.62
100) Benzo[g,h,i] 1.221 1.244 0.989 1.158 1.302 1.222 1.055 1.219 1.176   8.89

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

           MM6121.M          Thu Mar 01 12:15:11 2018   MSM
```

8.6.15

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6121-ICV6121
Lab FileID: M144295.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6121\M144295.D Vial: 10
Acq On : 28 Feb 2018 2:44 pm Operator: kristis
Sample : icv6121-50 Inst : Instrument #1
Misc : op9152,em6121,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6121.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Wed Feb 28 14:31:03 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	117	0.00	4.79
5	S	2-Fluorophenol	1.807	1.508	16.5	96	0.00	3.80
8	S	Phenol-d5	2.094	1.701	18.8	98	0.00	4.51
24	I	Naphthalene-d8	1.000	1.000	0.0	110	0.00	5.95
25	S	Nitrobenzene-d5	0.411	0.368	10.5	107	0.00	5.25
47	I	Acenaphthene-d10	1.000	1.000	0.0	117	0.00	8.33
51	S	2-Fluorobiphenyl	1.628	1.254	23.0	100	0.00	7.30
69	I	Phenanthrene-d10	1.000	1.000	0.0	109	0.00	10.96
73	S	2,4,6-Tribromophenol	0.173	0.151	12.7	97	0.00	9.68
83	I	Chrysene-d12	1.000	1.000	0.0	115	0.00	16.12
85	S	Terphenyl-d14	1.121	0.895	20.2	92	0.00	14.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144291.D MM6121.M Thu Mar 01 12:06:04 2018 MSM

8.6.16

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6121-ICV6121
Lab FileID: M144298.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6121\M144298.D Vial: 13
Acq On : 28 Feb 2018 4:14 pm Operator: kristis
Sample : icv6121-50 Inst : Instrument #1
Misc : op9152,em6121,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6121.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Wed Feb 28 14:31:03 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	116	0.00	4.79
2	t	1,4-Dioxane	0.819	0.665	18.8	92	0.01	2.36
6	t	Indene	2.325	2.308	0.7	129	0.00	5.00
7	t	Cumene	3.846	3.127	18.7	100	0.00	4.19
13	t	Decane	1.458	1.123	23.0	112	0.00	4.67
18	t	Acetophenone	1.936	1.738	10.2	127	0.00	5.12
24	I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	5.95
26	t	Nitrobenzene	0.391	0.328	16.1	109	-0.15	5.12
27	t	Quinoline	0.831	0.677	18.5	98	0.00	6.35
40	t	2,3-Dichloroaniline	0.406	0.310	23.6	96	0.00	7.18
41	t	Caprolactam	0.199	0.142	28.6	87	0.00	6.41
45	t	1-Methylnaphthalene	0.794	0.592	25.4	94	0.00	6.93
46	t	Dimethylnaphthalene	0.677	0.538	20.5	100	0.00	7.68
47	I	Acenaphthene-d10	1.000	1.000	0.0	120	0.00	8.33
53	t	Biphenyl	1.867	1.392	25.4	101	0.00	7.45
69	I	Phenanthrene-d10	1.000	1.000	0.0	101	0.00	10.96
82	t	Octadecane	0.489	0.453	7.4	98	0.00	10.96
91	I	Perylene-d12	1.000	1.000	0.0	85	0.00	18.74
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.386	27.6	62	0.00	18.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144291.D MM6121.M Thu Mar 01 12:06:08 2018 MSM

8.6.17

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6121-ICV6121
Lab FileID: M144299.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6121\M144299.D Vial: 14
Acq On : 28 Feb 2018 4:45 pm Operator: kristis
Sample : icv6121-50 Inst : Instrument #1
Misc : op9152,em6121,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6121.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Wed Feb 28 14:31:03 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.
83 I	Chrysene-d12	1.000	1.000	0.0	144	0.00	16.12
88 t	3,3'-Dichlorobenzidine	0.498	0.413	17.1	115	0.01	16.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144291.D MM6121.M Thu Mar 01 12:06:10 2018 MSM

8.6.18

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6122-ICV6121
Lab FileID: M144303.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6122\M144303.D Vial: 4
Acq On : 28 Feb 2018 8:31 pm Operator: chriss2
Sample : icv6121-50 Inst : Instrument #1
Misc : op9152,em6122,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6121.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu Mar 01 12:08:50 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	-0.01	4.78
3	t	Pyridine	2.010	1.577	21.5	69	0.05	2.71
10	t	Aniline	2.332	2.350	-0.8	108	0.00	4.53
16	t	Benzyl alcohol	1.035	0.961	7.1	84	-0.01	4.88
24	I	Naphthalene-d8	1.000	1.000	0.0	91	-0.02	5.93
39	t	4-Chloroaniline	0.504	0.443	12.1	87	-0.02	6.01
44	t	2-Methylnaphthalene	0.662	0.560	15.4	83	-0.02	6.78
47	I	Acenaphthene-d10	1.000	1.000	0.0	94	-0.02	8.30
54	t	2-Nitroaniline	0.436	0.363	16.7	83	-0.02	7.60
58	t	3-Nitroaniline	0.486	0.399	17.9	78	-0.02	8.24
62	t	Dibenzofuran	1.964	1.598	18.6	88	-0.03	8.64
68	t	4-Nitroaniline	0.460	0.403	12.4	88	-0.02	9.28
69	I	Phenanthrene-d10	1.000	1.000	0.0	95	-0.03	10.93
79	t	Carbazole	1.239	1.000	19.3	79	-0.02	11.41

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144291.D MM6121.M Thu Mar 01 12:20:58 2018 MSM

8.6.19

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6123-ICV6121
Lab FileID: M144314.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6123\M144314.D Vial: 10
Acq On : 1 Mar 2018 4:36 am Operator: chriss2
Sample : icv6121-50 Inst : Instrument #1
Misc : op9152,em6123,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6121.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu Mar 01 13:09:51 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	87	-0.01	4.78
4	t	N-Nitrosodimethylamine	0.778	0.564	27.5	63	-0.02	2.61
11	t	bis(2-Chloroethyl)ether	1.525	1.556	-2.0	98	-0.02	4.57
14	t	1,3-Dichlorobenzene	1.808	1.647	8.9	89	-0.02	4.73
15	t	1,4-Dichlorobenzene	1.668	1.486	10.9	85	-0.02	4.79
17	t	1,2-Dichlorobenzene	1.564	1.475	5.7	92	-0.02	4.91
20	t	2,2'-oxybis(1-Chloropropa	0.452	0.450	0.4	96	-0.02	4.99
22	t	n-Nitroso-di-n-propylamin	0.977	0.909	7.0	102	-0.02	5.10
23	t	Hexachloroethane	0.586	0.506	13.7	79	-0.02	5.20
24	I	Naphthalene-d8	1.000	1.000	0.0	85	-0.02	5.93
26	t	Nitrobenzene	0.391	0.331	15.3	82	-0.02	5.25
28	t	Isophorone	0.738	0.617	16.4	76	-0.02	5.46
32	t	bis(2-Chloroethoxy)methan	0.427	0.419	1.9	90	-0.02	5.67
36	t	1,2,4-Trichlorobenzene	0.388	0.341	12.1	82	-0.02	5.87
38	t	Naphthalene	1.098	0.954	13.1	81	-0.02	5.96
42	t	Hexachlorobutadiene	0.205	0.186	9.3	84	-0.02	6.10
47	I	Acenaphthene-d10	1.000	1.000	0.0	83	-0.03	8.30
48	t	Hexachlorocyclopentadiene	0.418	0.359	14.1	66	-0.03	7.00
52	t	2-Chloronaphthalene	1.431	1.319	7.8	88	-0.03	7.44
55	t	Dimethylphthalate	1.688	1.453	13.9	77	-0.02	7.90
56	t	Acenaphthylene	2.315	1.949	15.8	76	-0.02	8.07
57	t	2,6-Dinitrotoluene	0.364	0.276	24.2	63	-0.02	7.98
59	t	Acenaphthene	1.385	1.179	14.9	77	-0.03	8.35
63	t	2,4-Dinitrotoluene	0.454	0.376	17.2	70	-0.02	8.64
65	t	Diethylphthalate	1.716	1.462	14.8	75	-0.03	9.10
66	t	Fluorene	1.616	1.369	15.3	76	-0.03	9.23
67	t	4-Chlorophenyl-phenylethe	0.768	0.625	18.6	75	-0.03	9.26
69	I	Phenanthrene-d10	1.000	1.000	0.0	88	-0.03	10.93
71	t	n-Nitrosodiphenylamine	0.641	0.474	26.1	68	-0.02	9.47
72	t	1,2-Diphenylhydrazine	0.845	0.686	18.8	78	-0.03	9.54
74	t	4-Bromophenyl-phenylether	0.289	0.233	19.4	74	-0.02	10.14
75	t	Hexachlorobenzene	0.324	0.262	19.1	77	-0.03	10.23
77	t	Phenanthrene	1.219	1.034	15.2	79	-0.03	10.97
78	t	Anthracene	1.271	1.014	20.2	74	-0.03	11.07
80	t	Di-n-butylphthalate	1.630	1.299	20.3	71	-0.02	12.23
81	t	Fluoranthene	1.429	1.140	20.2	73	-0.03	13.26
83	I	Chrysene-d12	1.000	1.000	0.0	79	-0.03	16.10
84	t	Pyrene	1.522	1.330	12.6	70	-0.03	13.69

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6123-ICV6121
Lab FileID: M144314.D

86	t	Butylbenzylphthalate	0.764	0.683	10.6	67	-0.02	15.17
87	t	Benzo[a]anthracene	1.467	1.335	9.0	71	-0.03	16.08
89	t	Chrysene	1.321	1.166	11.7	71	-0.02	16.15
90	t	bis(2-Ethylhexyl)phthalat	1.000	0.859	14.1	66	-0.02	16.39
91	I	Perylene-d12	1.000	1.000	0.0	76	-0.03	18.71
92	t	Di-n-octylphthalate	1.502	1.333	11.3	65	-0.03	17.61
93	t	Benzo[b]fluoranthene	1.346	1.155	14.2	70	-0.02	18.07
94	t	Benzo[k]fluoranthene	1.216	1.108	8.9	77	-0.02	18.12
95	t	Benzo[a]pyrene	1.217	1.091	10.4	71	-0.02	18.62
96	t	Indeno[1,2,3-cd]pyrene	1.156	1.113	3.7	73	-0.02	20.46
98	t	Dibenz[a,h]anthracene	1.187	1.066	10.2	70	-0.03	20.51
100	t	Benzo[g,h,i]perylene	1.176	1.150	2.2	75	-0.02	20.93

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144308a.D MM6121.M Thu Mar 01 13:11:58 2018 MSM

8.6.20

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6126-ICV6121
Lab FileID: M144345.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6126\M144345.D Vial: 2
Acq On : 1 Mar 2018 11:08 pm Operator: chriss2
Sample : icv6121-50 Inst : Instrument #1
Misc : op9152,em6126,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6121.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu Mar 01 13:09:51 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	86	-0.03	4.76
9	t	Phenol	2.250	1.937	13.9	80	-0.03	4.49
12	t	2-Chlorophenol	1.698	1.514	10.8	86	-0.03	4.60
19	t	2-Methylphenol	1.378	1.282	7.0	87	-0.03	4.96
21	t	3&4-Methylphenol	1.371	1.373	-0.1	95	-0.03	5.08
24	I	Naphthalene-d8	1.000	1.000	0.0	81	-0.04	5.91
29	t	2-Nitrophenol	0.237	0.220	7.2	75	-0.04	5.52
30	t	2,4-Dimethylphenol	0.348	0.324	6.9	79	-0.04	5.56
31	t	Benzoic acid	0.282	0.258	8.5	66	0.00	5.66
33	t	2,4-Dichlorophenol	0.327	0.284	13.1	71	-0.04	5.76
34	t	2,6-Dichlorophenol	0.309	0.281	9.1	79	-0.04	6.00
43	t	4-Chloro-3-methylphenol	0.361	0.323	10.5	75	-0.05	6.55
47	I	Acenaphthene-d10	1.000	1.000	0.0	82	-0.05	8.27
49	t	2,4,6-Trichlorophenol	0.485	0.426	12.2	80	-0.05	7.13
50	t	2,4,5-Trichlorophenol	0.526	0.420	20.2	70	-0.05	7.17
		----------	True	Calc.	% Drift		----------	
60	t	2,4-Dinitrophenol	50.000	43.061	13.9	69	-0.05	8.38
		----------	AvgRF	CCRF	% Dev		----------	
61	t	4-Nitrophenol	0.212	0.198	6.6	72	-0.05	8.52
64	t	2,3,4,6-Tetrachlorophenol	0.471	0.371	21.2	66	-0.05	8.83
69	I	Phenanthrene-d10	1.000	1.000	0.0	86	-0.06	10.90
		----------	True	Calc.	% Drift		----------	
70	t	4,6-Dinitro-2-methylpheno	50.000	41.732	16.5	70	-0.05	9.31
		----------	AvgRF	CCRF	% Dev		----------	
76	t	Pentachlorophenol	0.193	0.197	-2.1	76	-0.06	10.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144308a.D MM6121.M Fri Mar 02 02:14:59 2018 MSM

8.6.21
8

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6131-ICC6131
Lab FileID: M144448.D

Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6131.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration

Calibration Files
2 =M144452.D 5 =M144451.D 100 =M144446.D 50 =M144448.D
1 =M144453.D 10 =M144450.D 80 =M144447.D 25 =M144449.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
101) I 1,4-Dichlorobenzene-d	ISTD									
102) Benzaldehyde	1.480	1.468	1.073	1.199	1.369	1.317	1.144	1.292	1.293	11.38
103) I Acenaphthene-d10a	ISTD									
104) 1,2,4,5-Tetr	0.837	0.819	0.527	0.580	0.832	0.687	0.559	0.648	0.686	18.76
105) Atrazine	0.240	0.247	0.195	0.209	0.206	0.239	0.203	0.225	0.221	8.91
106) I Chrysene-d12a	ISTD									
107) Benzidine	0.743	0.910	0.776	0.859	0.698	0.869	0.842	0.921	0.827	9.69
108) 1-chloroocta	0.431	0.437	0.331	0.367	0.420	0.406	0.347	0.405	0.393	10.15
109) I Phenanthrene-d10a	ISTD									
110) o-terphenyl	0.738	0.725	0.528	0.584	0.744	0.660	0.561	0.634	0.647	13.02
111) Pentachloron	0.053	0.050	0.047	0.048		0.053	0.047	0.051	0.050#	4.98
112) I Naphthalene-d8a	ISTD									
113) Hydroquinone	0.440	0.488	0.417	0.427	0.406	0.443	0.425	0.444	0.436	5.72

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

MM6131.M Tue Mar 06 19:51:17 2018 MSM

8.6.22

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6131-ICV6131
Lab FileID: M144454.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6131\M144454.D Vial: 10
Acq On : 6 Mar 2018 4:14 pm Operator: seanb1
Sample : icv6131-50 Inst : Instrument #1
Misc : op9152,em6131,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6131.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Mar 06 19:43:41 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	Acenaphthene-d10a	1.000	1.000	0.0	123	-0.07	8.23
104 I	1,2,4,5-Tetrachlorobenzen	0.686	0.628	8.5	133	-0.06	6.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144448a.D MM6131.M Tue Mar 06 19:50:05 2018 MSM

8.6.23

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6131-ICV6131
Lab FileID: M144455.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6131\M144455.D Vial: 11
Acq On : 6 Mar 2018 4:44 pm Operator: seanb1
Sample : icv6131-50 Inst : Instrument #1
Misc : op9152,em6131,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6131.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Mar 06 19:43:41 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	129	-0.04	4.73
102 t	Benzaldehyde	1.293	1.051	18.7	113	-0.04	4.40
103 I	Acenaphthene-d10a	1.000	1.000	0.0	141	-0.07	8.23
105 t	Atrazine	0.221	0.189	14.5	127	-0.06	10.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144448a.D MM6131.M Tue Mar 06 19:50:07 2018 MSM

8.6.24
8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6131-ICV6131
Lab FileID: M144456.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6131\M144456.D Vial: 12
Acq On : 6 Mar 2018 5:14 pm Operator: seanb1
Sample : icv6131-50 Inst : Instrument #1
Misc : op9152,em6131,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6131.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Mar 06 19:43:41 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.
106 I	Chrysene-d12a	1.000	1.000	0.0	143	-0.08	16.02
107 t	Benzidine	0.827	0.818	1.1	136	-0.06	13.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144448a.D MM6131.M Tue Mar 06 19:50:09 2018 MSM

8.6.25

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6131-ICV6131
Lab FileID: M144457.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6131\M144457.D Vial: 13
Acq On : 6 Mar 2018 5:44 pm Operator: seanb1
Sample : icv6131-50 Inst : Instrument #1
Misc : op9152,em6131,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6131.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Mar 06 19:43:41 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.
112 I	Naphthalene-d8a	1.000	1.000	0.0	130	-0.05	5.88
113	Hydroquinone	0.436	0.523	-20.0	159	-0.04	6.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144448a.D MM6131.M Tue Mar 06 19:50:11 2018 MSM

8.6.26

8

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6131-ICV6131
Lab FileID: M144458.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6131\M144458.D Vial: 14
Acq On : 6 Mar 2018 6:15 pm Operator: seanb1
Sample : icv6131-50 Inst : Instrument #1
Misc : op9152,em6131,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6131.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Mar 06 19:43:41 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.
109 I	Phenanthrene-d10a	1.000	1.000	0.0	122	-0.07	10.85
111	Pentachloronitrobenzene	0.050	0.050#	0.0	126	0.00	10.56

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144448a.D MM6131.M Tue Mar 06 19:50:13 2018 MSM

8.6.27

8

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6152-CC6121
Lab FileID: M144906.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6152\M144906.D Vial: 2
Acq On : 28 Mar 2018 1:06 pm Operator: christc2
Sample : cc6121-50 Inst : Instrument #1
Misc : op10492,em6152,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6131.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Wed Mar 28 13:32:12 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	70	0.00	4.70
2	t	1,4-Dioxane	0.819	0.774	5.5	65	-0.11	2.22
3	t	Pyridine	2.010	1.918	4.6	66	-0.09	2.55
4	t	N-Nitrosodimethylamine	0.778	1.175	-51.0#	104	-0.09	2.52
5	S	2-Fluorophenol	1.807	1.692	6.4	64	-0.06	3.71
6	t	Indene	2.325	2.314	0.5	78	-0.06	4.90
7	t	Cumene	3.846	3.893	-1.2	75	-0.07	4.09
8	S	Phenol-d5	2.094	2.051	2.1	70	-0.03	4.43
9	t	Phenol	2.250	2.096	6.8	70	-0.04	4.44
10	t	Aniline	2.332	1.840	21.1#	66	0.00	4.44
11	t	bis(2-Chloroethyl)ether	1.525	1.463	4.1	74	-0.05	4.49
12	t	2-Chlorophenol	1.698	1.493	12.1	68	-0.05	4.54
13	t	Decane	1.458	1.879	-28.9#	113	-0.06	4.57
14	t	1,3-Dichlorobenzene	1.808	1.615	10.7	69	0.00	4.65
15	t	1,4-Dichlorobenzene	1.668	1.568	6.0	71	-0.06	4.71
16	t	Benzyl alcohol	1.035	1.014	2.0	70	-0.05	4.81
17	t	1,2-Dichlorobenzene	1.564	1.407	10.0	70	-0.06	4.83
18	t	Acetophenone	1.936	1.972	-1.9	87	-0.05	5.02
19	t	2-Methylphenol	1.378	1.258	8.7	69	-0.04	4.90
20	t	2,2'-oxybis(1-Chloropropa	0.452	0.421	6.9	72	-0.06	4.91
21	t	3&4-Methylphenol	1.371	1.361	0.7	76	-0.04	5.03
22	t	n-Nitroso-di-n-propylamin	0.977	1.022	-4.6	91	-0.05	5.02
23	t	Hexachloroethane	0.586	0.546	6.8	68	-0.07	5.11
24	I	Naphthalene-d8	1.000	1.000	0.0	73	0.00	5.83
25	S	Nitrobenzene-d5	0.411	0.435	-5.8	84	0.00	5.15
26	t	Nitrobenzene	0.391	0.392	-0.3	83	0.00	5.17
27	t	Quinoline	0.831	0.771	7.2	70	0.02	6.24
28	t	Isophorone	0.738	0.737	0.1	78	0.00	5.38
29	t	2-Nitrophenol	0.237	0.220	7.2	68	0.00	5.45
30	t	2,4-Dimethylphenol	0.348	0.338	2.9	74	0.01	5.50
31	t	Benzoic acid	0.282	0.333	-18.1	77	0.08	5.64
32	t	bis(2-Chloroethoxy)methan	0.427	0.400	6.3	74	0.00	5.58
33	t	2,4-Dichlorophenol	0.327	0.294	10.1	66	0.01	5.70
34	t	2,6-Dichlorophenol	0.309	0.265	14.2	67	0.00	5.93
35	t	1,3,5-Trichlorobenzene	0.389	0.331	14.9	70	0.00	5.47
36	t	1,2,4-Trichlorobenzene	0.388	0.335	13.7	69	0.00	5.77
37	t	1,2,3-Trichlorobenzene	0.355	0.306	13.8	70	0.00	6.02
38	t	Naphthalene	1.098	1.009	8.1	73	0.00	5.85
39	t	4-Chloroaniline	0.504	0.436	13.5	69	0.01	5.92
40	t	2,3-Dichloroaniline	0.406	0.368	9.4	73	0.00	7.04
41	t	Caprolactam	0.199	0.240	-20.6#	93	0.04	6.31

Continuing Calibration Summary

Job Number: JC62881 **Sample:** EM6152-CC6121
Account: BBLNYS Arcadis **Lab FileID:** M144906.D
Project: National Grid, Philly Coke, Philadelphia PA

42	t	Hexachlorobutadiene	0.205	0.189	7.8	73	0.00	5.99
43	t	4-Chloro-3-methylphenol	0.361	0.359	0.6	75	0.03	6.50
44	t	2-Methylnaphthalene	0.662	0.608	8.2	73	0.00	6.66
45	t	1-Methylnaphthalene	0.794	0.716	9.8	72	0.00	6.79
46	t	Dimethylnaphthalene	0.677	0.605	10.6	71	0.00	7.54
47	I	Acenaphthene-d10	1.000	1.000	0.0	71	0.00	8.17
48	t	Hexachlorocyclopentadiene	0.418	0.387	7.4	69	-0.01	6.88
49	t	2,4,6-Trichlorophenol	0.485	0.430	11.3	71	0.00	7.05
50	t	2,4,5-Trichlorophenol	0.526	0.470	10.6	68	0.02	7.11
51	S	2-Fluorobiphenyl	1.628	1.490	8.5	73	0.00	7.16
52	t	2-Chloronaphthalene	1.431	1.237	13.6	71	0.00	7.33
53	t	Biphenyl	1.867	1.707	8.6	74	0.00	7.30
54	t	2-Nitroaniline	0.436	0.515	-18.1	89	0.01	7.49
55	t	Dimethylphthalate	1.688	1.559	7.6	71	0.00	7.78
56	t	Acenaphthylene	2.315	2.134	7.8	72	0.00	7.94
57	t	2,6-Dinitrotoluene	0.364	0.354	2.7	70	0.02	7.87
58	t	3-Nitroaniline	0.486	0.467	3.9	69	0.02	8.13
59	t	Acenaphthene	1.385	1.294	6.6	73	0.00	8.23
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	103.883	-3.9	73	0.03	8.31
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.212	0.282	-33.0#	89	0.06	8.47
62	t	Dibenzofuran	1.964	1.810	7.8	75	0.00	8.51
63	t	2,4-Dinitrotoluene	0.454	0.454	0.0	74	0.03	8.53
64	t	2,3,4,6-Tetrachlorophenol	0.471	0.446	5.3	69	0.02	8.74
65	t	Diethylphthalate	1.716	1.681	2.0	75	0.01	8.97
66	t	Fluorene	1.616	1.520	5.9	73	0.01	9.10
67	t	4-Chlorophenyl-phenylethe	0.768	0.675	12.1	71	0.01	9.13
68	t	4-Nitroaniline	0.460	0.413	10.2	68	0.04	9.17
69	I	Phenanthrene-d10	1.000	1.000	0.0	77	0.00	10.79
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	46.818	6.4	71	0.02	9.24
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.641	0.506	21.1#	64	-0.01	9.34
72	t	1,2-Diphenylhydrazine	0.845	0.848	-0.4	85	-0.02	9.41
73	S	2,4,6-Tribromophenol	0.173	0.149	13.9	68	0.00	9.52
74	t	4-Bromophenyl-phenylether	0.289	0.254	12.1	71	-0.01	10.00
75	t	Hexachlorobenzene	0.324	0.275	15.1	71	0.00	10.10
76	t	Pentachlorophenol	0.193	0.185	4.1	70	0.01	10.48
77	t	Phenanthrene	1.219	1.089	10.7	73	0.00	10.83
78	t	Anthracene	1.271	1.141	10.2	73	0.00	10.93
79	t	Carbazole	1.239	1.117	9.8	71	0.02	11.27
80	t	Di-n-butylphthalate	1.630	1.562	4.2	75	0.01	12.08
81	t	Fluoranthene	1.429	1.321	7.6	74	0.03	13.12
82	t	Octadecane	0.489	0.626	-28.0#	104	0.00	10.78
83	I	Chrysene-d12	1.000	1.000	0.0	75	0.00	15.96
84	t	Pyrene	1.522	1.454	4.5	74	-0.03	13.55
85	S	Terphenyl-d14	1.121	1.087	3.0	74	-0.03	13.96
86	t	Butylbenzylphthalate	0.764	0.754	1.3	71	-0.02	15.01
87	t	Benzo[a]anthracene	1.467	1.323	9.8	67	0.00	15.94
88	t	3,3'-Dichlorobenzidine	0.498	0.488	2.0	71	0.00	15.97
89	t	Chrysene	1.321	1.186	10.2	70	0.00	16.01
90	t	bis(2-Ethylhexyl)phthalat	1.000	0.943	5.7	70	0.00	16.24

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6152-CC6121
Lab FileID: M144906.D

91	I	Perylene-d12	1.000	1.000	0.0	63	0.00	18.58
92	t	Di-n-octylphthalate	1.502	1.616	-7.6	65	-0.02	17.47
93	t	Benzo[b]fluoranthene	1.346	1.229	8.7	62	0.00	17.94
94	t	Benzo[k]fluoranthene	1.216	1.158	4.8	67	0.01	17.99
95	t	Benzo[a]pyrene	1.217	1.113	8.5	60	0.00	18.48
96	t	Indeno[1,2,3-cd]pyrene	1.156	1.045	9.6	57	0.00	20.30
97	t	Dibenz(a,h)acridine	1.125	0.992	11.8	55	0.00	19.93
98	t	Dibenz[a,h]anthracene	1.187	1.091	8.1	59	0.00	20.35
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.533	0.0	64	0.00	17.95
100	t	Benzo[g,h,i]perylene	1.176	1.028	12.6	56	0.00	20.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144448a.D MM6131.M Wed Mar 28 17:22:07 2018 MSM

8.6.28

8

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6152-CC6131
Lab FileID: M144907.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6152\M144907.D Vial: 3
Acq On : 28 Mar 2018 1:37 pm Operator: christc2
Sample : cc6131-50 Inst : Instrument #1
Misc : op10492,em6152,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6131.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Wed Mar 28 13:32:12 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	94	-0.06	4.69
102	t	Benzaldehyde	1.293	1.140	11.8	89	-0.14	4.36
103	I	Acenaphthene-d10a	1.000	1.000	0.0	93	-0.08	8.17
104	I	1,2,4,5-Tetrachlorobenzen	0.686	0.601	12.4	96	-0.08	6.89
105	t	Atrazine	0.221	0.219	0.9	97	-0.06	10.39
106	I	Chrysene-d12a	1.000	1.000	0.0	90	-0.11	15.95
107	t	Benzidine	0.827	0.555	32.9#	58	-0.08	13.47
108	s	1-chlorooctadecane	0.393	0.482	-22.6#	118	-0.18	13.12
109	I	Phenanthrene-d10a	1.000	1.000	0.0	96	-0.10	10.78
110	s	o-terphenyl	0.647	0.607	6.2	100	-0.10	11.60
111		Pentachloronitrobenzene	0.050	0.046#	8.0	93	-0.03	10.50
112	I	Naphthalene-d8a	1.000	1.000	0.0	96	-0.06	5.83
113		Hydroquinone	0.436	0.384	11.9	86	-0.03	6.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M144448a.D MM6131.M Wed Mar 28 17:22:09 2018 MSM

8.6.29

8

MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102973.D
Acq On : 2 Apr 2018 5:56 pm
Operator : christc2
Sample : jc62881-1
Misc : op10986,e2m4581,955,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 03 17:08:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

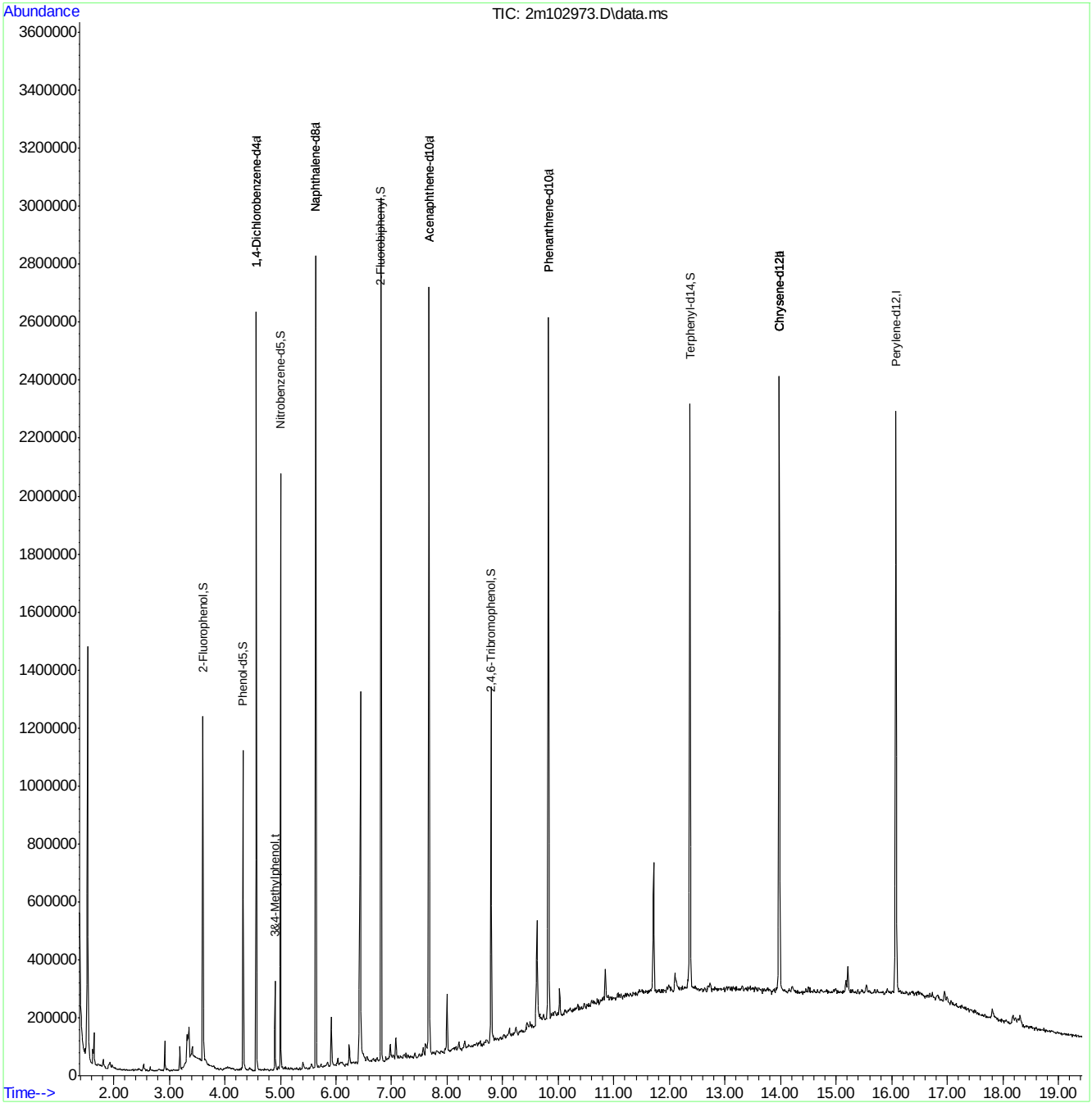
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.564	152	270386	40.00	ppm	0.02
24) Naphthalene-d8	5.634	136	1066815	40.00	ppm	0.03
47) Acenaphthene-d10	7.671	164	583010	40.00	ppm	0.04
69) Phenanthrene-d10	9.822	188	984258	40.00	ppm	0.04
83) Chrysene-d12	13.978	240	910306	40.00	ppm	0.04
91) Perylene-d12	16.074	264	911964	40.00	ppm	0.04
101) 1,4-Dichlorobenzene-d4a	4.564	152	270386	40.00	ppm	0.02
103) Acenaphthene-d10a	7.671	164	583010	40.00	ppm	0.04
105) Chrysene-d12a	13.978	240	910306	40.00	ppm	0.04
108) Phenanthrene-d10a	9.822	188	984258	40.00	ppm	0.04
112) Naphthalene-d8a	5.634	136	1066815	40.00	ppm	0.03
114) Chrysene-d12b	13.978	240	910306	40.00	ppm	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.607	112	271100	28.59	ppm	0.02
Spiked Amount 50.000			Recovery = 57.18%			
8) Phenol-d5	4.329	99	242044	20.11	ppm	0.05
Spiked Amount 50.000			Recovery = 40.22%			
25) Nitrobenzene-d5	5.003	82	509588	39.93	ppm	0.03
Spiked Amount 50.000			Recovery = 79.86%			
51) 2-Fluorobiphenyl	6.810	172	880635	35.96	ppm	0.02
Spiked Amount 50.000			Recovery = 71.92%			
73) 2,4,6-Tribromophenol	8.795	330	130193	44.50	ppm	0.03
Spiked Amount 50.000			Recovery = 89.00%			
85) Terphenyl-d14	12.368	244	761731	35.11	ppm	0.02
Spiked Amount 50.000			Recovery = 70.22%			
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
21) 3&4-Methylphenol	4.901	108	41487	4.15	ppm	95

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

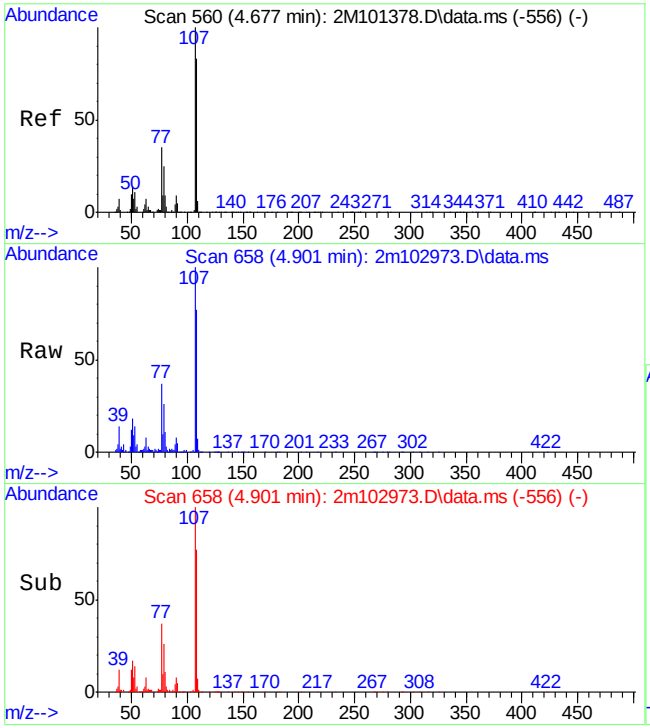
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102973.D
Acq On : 2 Apr 2018 5:56 pm
Operator : christc2
Sample : jc62881-1
Misc : op10986,e2m4581,955,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 03 17:08:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration



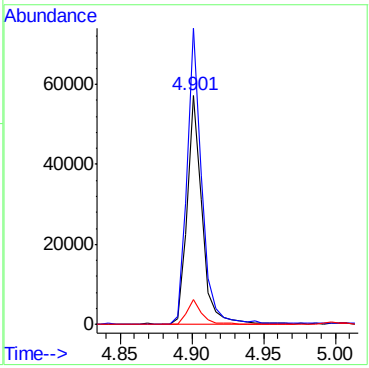
M2M4551.M Tue Apr 03 17:08:16 2018 Page: 2



#21
3&4-Methylphenol
Concen: 4.15 ppm
RT: 4.901 min Scan# 658
Delta R.T. 0.048 min
Lab File: 2m102973.D
Acq: 2 Apr 2018 5:56 pm

Tgt Ion:108 Resp: 41487

Ion	Ratio	Lower	Upper
108	100		
107	129.3	93.3	153.3
90	10.9	0.0	40.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144918.D
Acq On : 28 Mar 2018 8:03 pm
Operator : christc2
Sample : jc62881-2
Misc : op10886,em6152,920,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 29 09:12:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

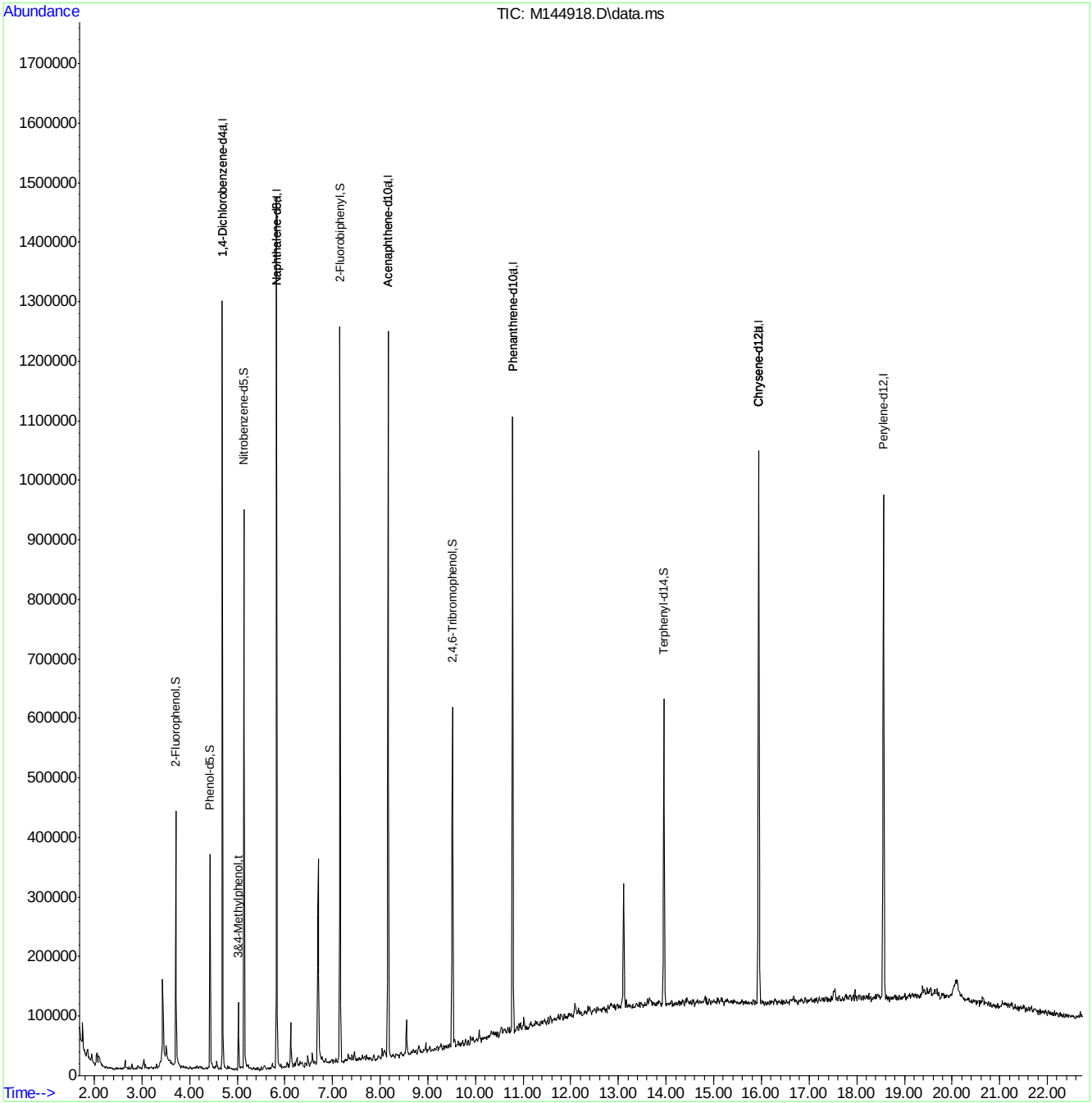
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.690	152	157867	40.00	ppm	0.00
24) Naphthalene-d8	5.827	136	621463	40.00	ppm	0.00
47) Acenaphthene-d10	8.167	164	319691	40.00	ppm	0.00
69) Phenanthrene-d10	10.778	188	544944	40.00	ppm	-0.01
83) Chrysene-d12	15.943	240	512402	40.00	ppm	-0.02
91) Perylene-d12	18.566	264	491406	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.690	152	157867	40.00	ppm	-0.06
103) Acenaphthene-d10a	8.167	164	319691	40.00	ppm	-0.09
106) Chrysene-d12a	15.943	240	512402	40.00	ppm	-0.12
109) Phenanthrene-d10a	10.778	188	544944	40.00	ppm	-0.11
112) Naphthalene-d8a	5.827	136	621463	40.00	ppm	-0.07
114) Chrysene-d12b	15.943	240	512402	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.712	112	107060	15.02	ppm	-0.05
Spiked Amount 50.000			Recovery = 30.04%			
8) Phenol-d5	4.428	99	100467	12.16	ppm	-0.04
Spiked Amount 50.000			Recovery = 24.32%			
25) Nitrobenzene-d5	5.144	82	240734	37.73	ppm	0.00
Spiked Amount 50.000			Recovery = 75.46%			
51) 2-Fluorobiphenyl	7.157	172	401824	30.89	ppm	-0.01
Spiked Amount 50.000			Recovery = 61.78%			
73) 2,4,6-Tribromophenol	9.518	330	87393	37.00	ppm	-0.01
Spiked Amount 50.000			Recovery = 74.00%			
85) Terphenyl-d14	13.951	244	248159	17.28	ppm	-0.04
Spiked Amount 50.000			Recovery = 34.56%			
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
21) 3&4-Methylphenol	5.026	108	23006	4.25	ppm	# 69

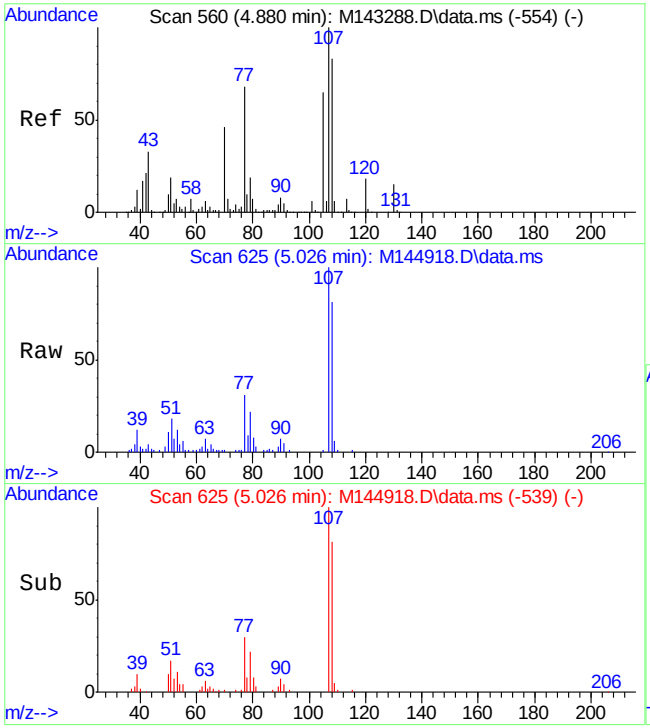
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144918.D
Acq On : 28 Mar 2018 8:03 pm
Operator : christc2
Sample : jc62881-2
Misc : op10886,em6152,920,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 29 09:12:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

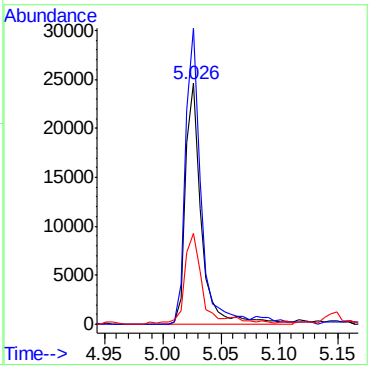




#21
3&4-Methylphenol
Concen: 4.25 ppm
RT: 5.026 min Scan# 625
Delta R.T. -0.043 min
Lab File: M144918.D
Acq: 28 Mar 2018 8:03 pm

Tgt Ion:108 Resp: 23006

Ion	Ratio	Lower	Upper
108	100		
107	122.7	84.2	144.2
77	37.1	65.0	125.0#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144919.D
Acq On : 28 Mar 2018 8:32 pm
Operator : christc2
Sample : jc62881-3
Misc : op10886,em6152,1000,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 29 09:13:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.694	152	156488	40.00	ppm	0.00
24) Naphthalene-d8	5.832	136	609907	40.00	ppm	0.00
47) Acenaphthene-d10	8.166	164	285114	40.00	ppm	0.00
69) Phenanthrene-d10	10.783	188	502086	40.00	ppm	0.00
83) Chrysene-d12	15.942	240	511904	40.00	ppm	-0.02
91) Perylene-d12	18.560	264	506888	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.694	152	156488	40.00	ppm	-0.05
103) Acenaphthene-d10a	8.166	164	285114	40.00	ppm	-0.09
106) Chrysene-d12a	15.942	240	511904	40.00	ppm	-0.12
109) Phenanthrene-d10a	10.783	188	502086	40.00	ppm	-0.10
112) Naphthalene-d8a	5.832	136	609907	40.00	ppm	-0.07
114) Chrysene-d12b	15.942	240	511904	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.711	112	113622	16.08	ppm	-0.05
Spiked Amount 50.000			Recovery = 32.16%			
8) Phenol-d5	4.432	99	98336	12.00	ppm	-0.03
Spiked Amount 50.000			Recovery = 24.00%			
25) Nitrobenzene-d5	5.143	82	273305	43.65	ppm	0.00
Spiked Amount 50.000			Recovery = 87.30%			
51) 2-Fluorobiphenyl	7.162	172	432531	37.28	ppm	0.00
Spiked Amount 50.000			Recovery = 74.56%			
73) 2,4,6-Tribromophenol	9.517	330	84800	38.97	ppm	-0.02
Spiked Amount 50.000			Recovery = 77.94%			
85) Terphenyl-d14	13.956	244	415414	28.96	ppm	-0.03
Spiked Amount 50.000			Recovery = 57.92%			
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

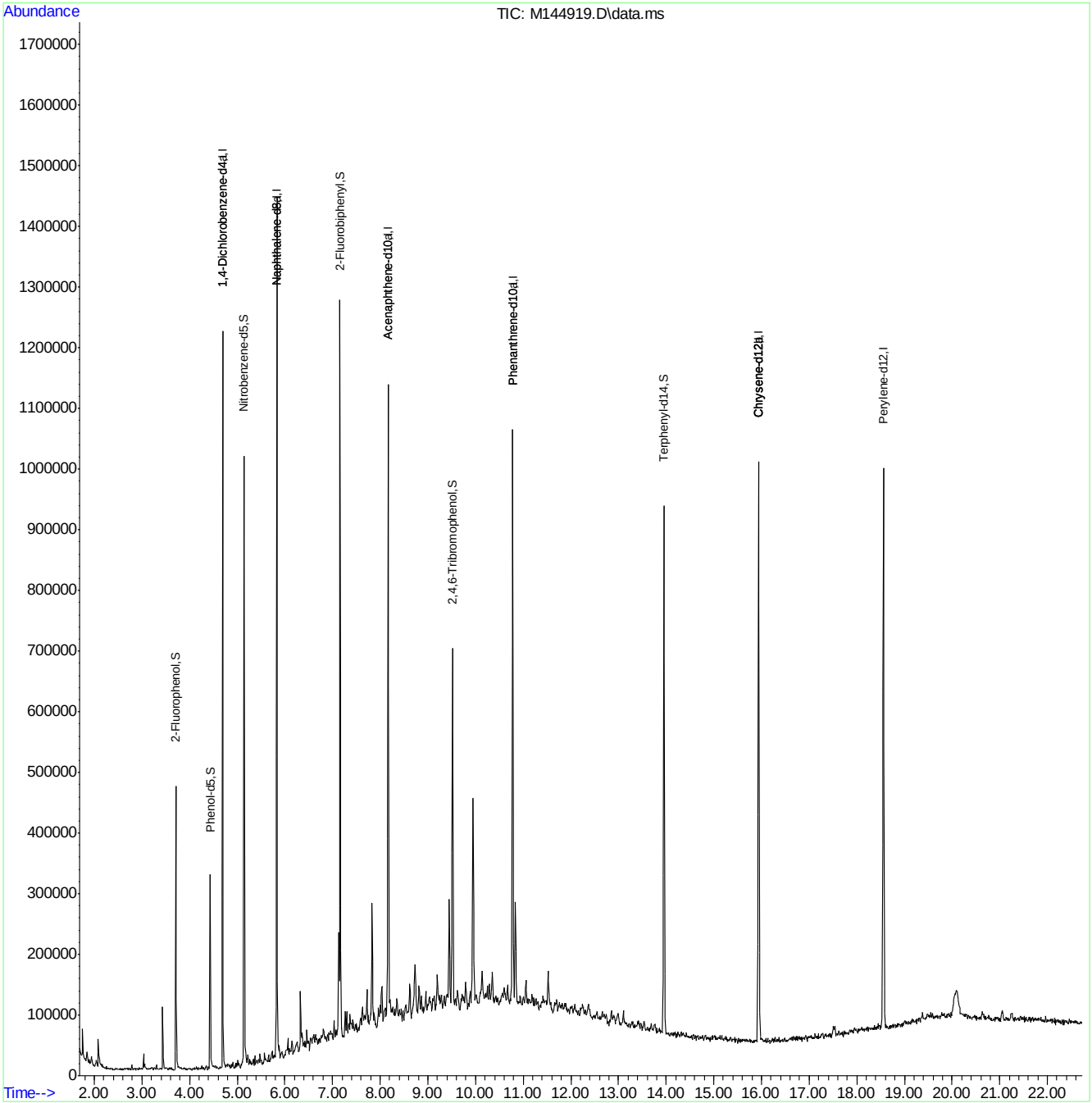
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144919.D
Acq On : 28 Mar 2018 8:32 pm
Operator : christc2
Sample : jc62881-3
Misc : op10886,em6152,1000,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 29 09:13:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144920.D
Acq On : 28 Mar 2018 9:01 pm
Operator : christc2
Sample : jc62881-4
Misc : op10886,em6152,900,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 29 09:15:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

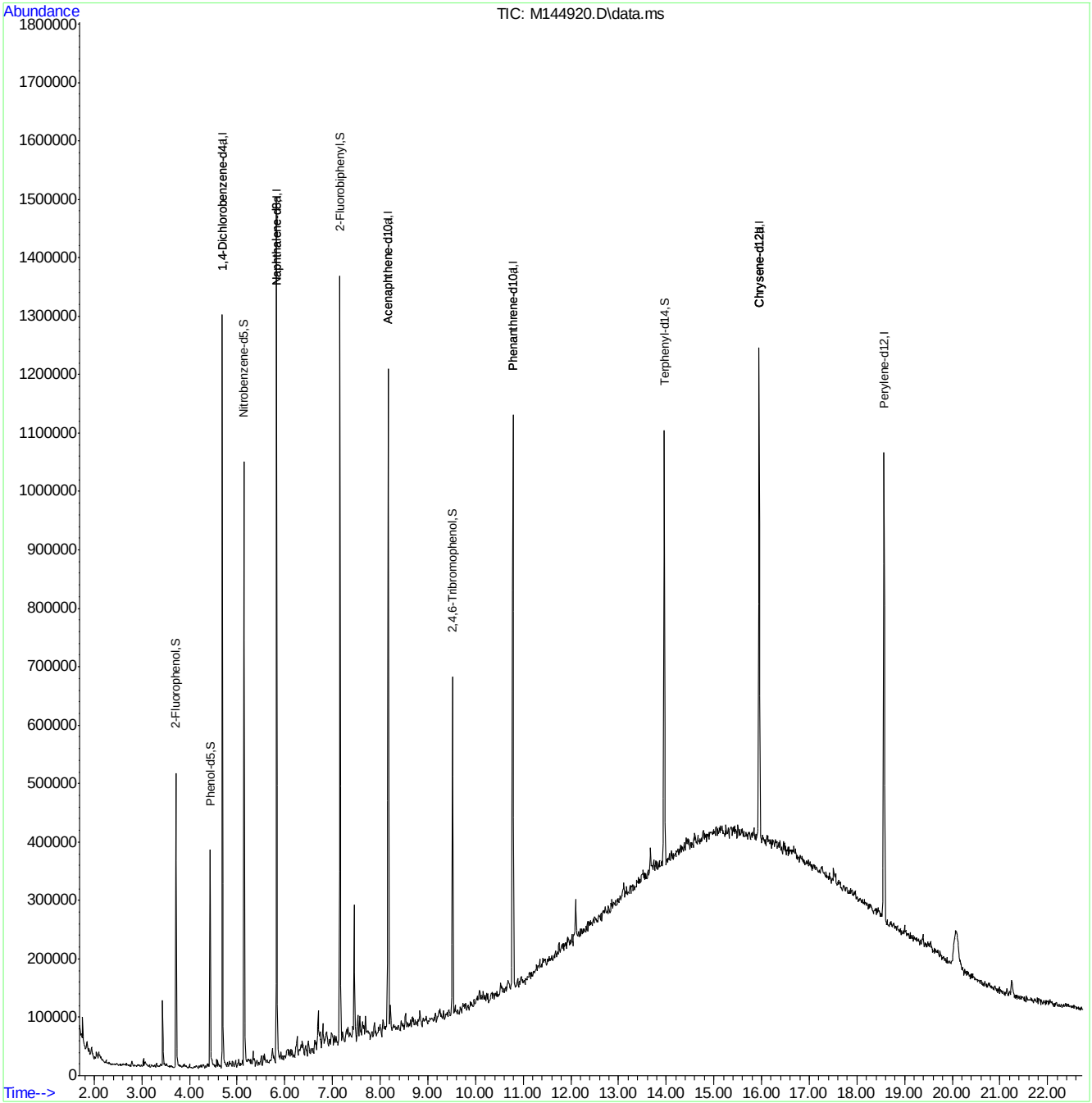
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.690	152	160725	40.00	ppm	0.00
24) Naphthalene-d8	5.827	136	622229	40.00	ppm	0.00
47) Acenaphthene-d10	8.167	164	302751	40.00	ppm	0.00
69) Phenanthrene-d10	10.784	188	525835	40.00	ppm	0.00
83) Chrysene-d12	15.954	240	456638	40.00	ppm	0.00
91) Perylene-d12	18.571	264	451803	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.690	152	160725	40.00	ppm	-0.06
103) Acenaphthene-d10a	8.167	164	302751	40.00	ppm	-0.09
106) Chrysene-d12a	15.954	240	456638	40.00	ppm	-0.11
109) Phenanthrene-d10a	10.784	188	525835	40.00	ppm	-0.10
112) Naphthalene-d8a	5.827	136	622229	40.00	ppm	-0.07
114) Chrysene-d12b	15.954	240	456638	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	3.712	112	124964	17.22	ppm	-0.05
Spiked Amount 50.000			Recovery = 34.44%			
8) Phenol-d5	4.433	99	111590	13.26	ppm	-0.03
Spiked Amount 50.000			Recovery = 26.52%			
25) Nitrobenzene-d5	5.144	82	270619	42.36	ppm	0.00
Spiked Amount 50.000			Recovery = 84.72%			
51) 2-Fluorobiphenyl	7.157	172	429805	34.89	ppm	-0.01
Spiked Amount 50.000			Recovery = 69.78%			
73) 2,4,6-Tribromophenol	9.518	330	86861	38.11	ppm	-0.01
Spiked Amount 50.000			Recovery = 76.22%			
85) Terphenyl-d14	13.962	244	382419	29.88	ppm	-0.03
Spiked Amount 50.000			Recovery = 59.76%			
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			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\EM6152\
Data File : M144920.D
Acq On : 28 Mar 2018 9:01 pm
Operator : christc2
Sample : jc62881-4
Misc : op10886,em6152,900,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 29 09:15:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144921.D
Acq On : 28 Mar 2018 9:31 pm
Operator : christc2
Sample : jc62881-5
Misc : op10886,em6152,900,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 29 09:17:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

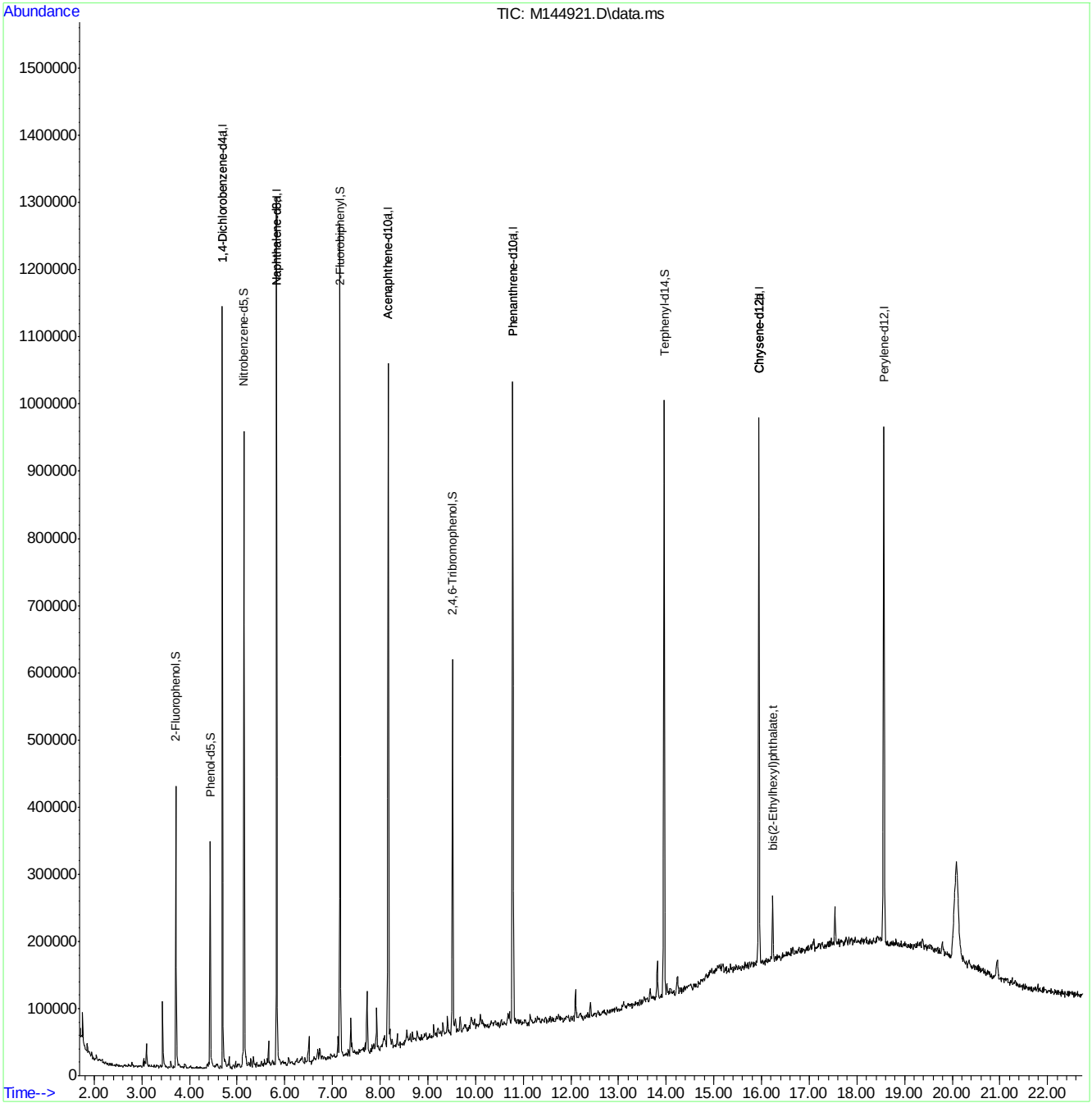
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.690	152	139697	40.00	ppm	0.00
24) Naphthalene-d8	5.827	136	555875	40.00	ppm	0.00
47) Acenaphthene-d10	8.167	164	276118	40.00	ppm	0.00
69) Phenanthrene-d10	10.779	188	486070	40.00	ppm	-0.01
83) Chrysene-d12	15.943	240	451027	40.00	ppm	-0.02
91) Perylene-d12	18.566	264	433132	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.690	152	139697	40.00	ppm	-0.06
103) Acenaphthene-d10a	8.167	164	276118	40.00	ppm	-0.09
106) Chrysene-d12a	15.943	240	451027	40.00	ppm	-0.12
109) Phenanthrene-d10a	10.779	188	486070	40.00	ppm	-0.11
112) Naphthalene-d8a	5.827	136	555875	40.00	ppm	-0.07
114) Chrysene-d12b	15.943	240	451027	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.712	112	107150	16.98	ppm	-0.05
Spiked Amount 50.000			Recovery = 33.96%			
8) Phenol-d5	4.433	99	95780	13.10	ppm	-0.03
Spiked Amount 50.000			Recovery = 26.20%			
25) Nitrobenzene-d5	5.144	82	245569	43.03	ppm	0.00
Spiked Amount 50.000			Recovery = 86.06%			
51) 2-Fluorobiphenyl	7.157	172	404066	35.96	ppm	-0.01
Spiked Amount 50.000			Recovery = 71.92%			
73) 2,4,6-Tribromophenol	9.518	330	80768	38.34	ppm	-0.01
Spiked Amount 50.000			Recovery = 76.68%			
85) Terphenyl-d14	13.957	244	411934	32.59	ppm	-0.03
Spiked Amount 50.000			Recovery = 65.18%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
90) bis(2-Ethylhexyl)phtha...	16.232	149	37142	3.30	ppm	99

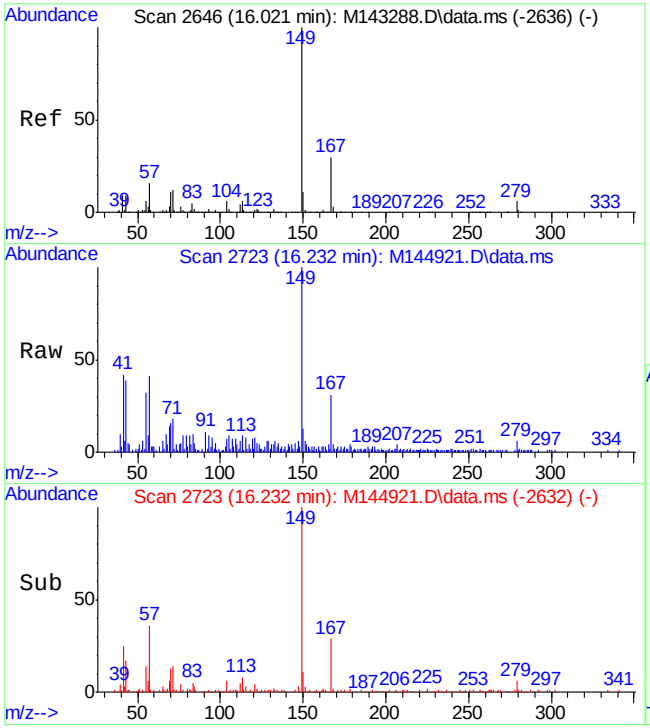
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144921.D
Acq On : 28 Mar 2018 9:31 pm
Operator : christc2
Sample : jc62881-5
Misc : op10886,em6152,900,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 29 09:17:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

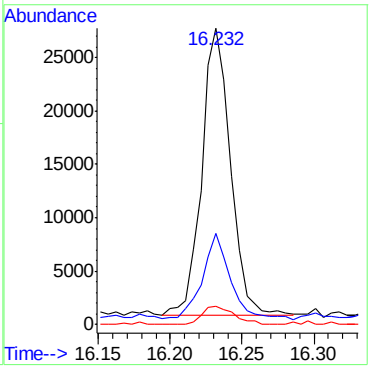




#90
bis(2-Ethylhexyl)phthalate
Concen: 3.30 ppm
RT: 16.232 min Scan# 2723
Delta R.T. -0.013 min
Lab File: M144921.D
Acq: 28 Mar 2018 9:31 pm

Tgt Ion:149 Resp: 37142

Ion	Ratio	Lower	Upper
149	100		
167	29.8	0.0	60.0
279	5.8	0.0	36.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144922.D
Acq On : 28 Mar 2018 10:00 pm
Operator : christc2
Sample : jc62881-6
Misc : op10886,em6152,900,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 05 13:41:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Apr 05 11:18:54 2018
Response via : Initial Calibration

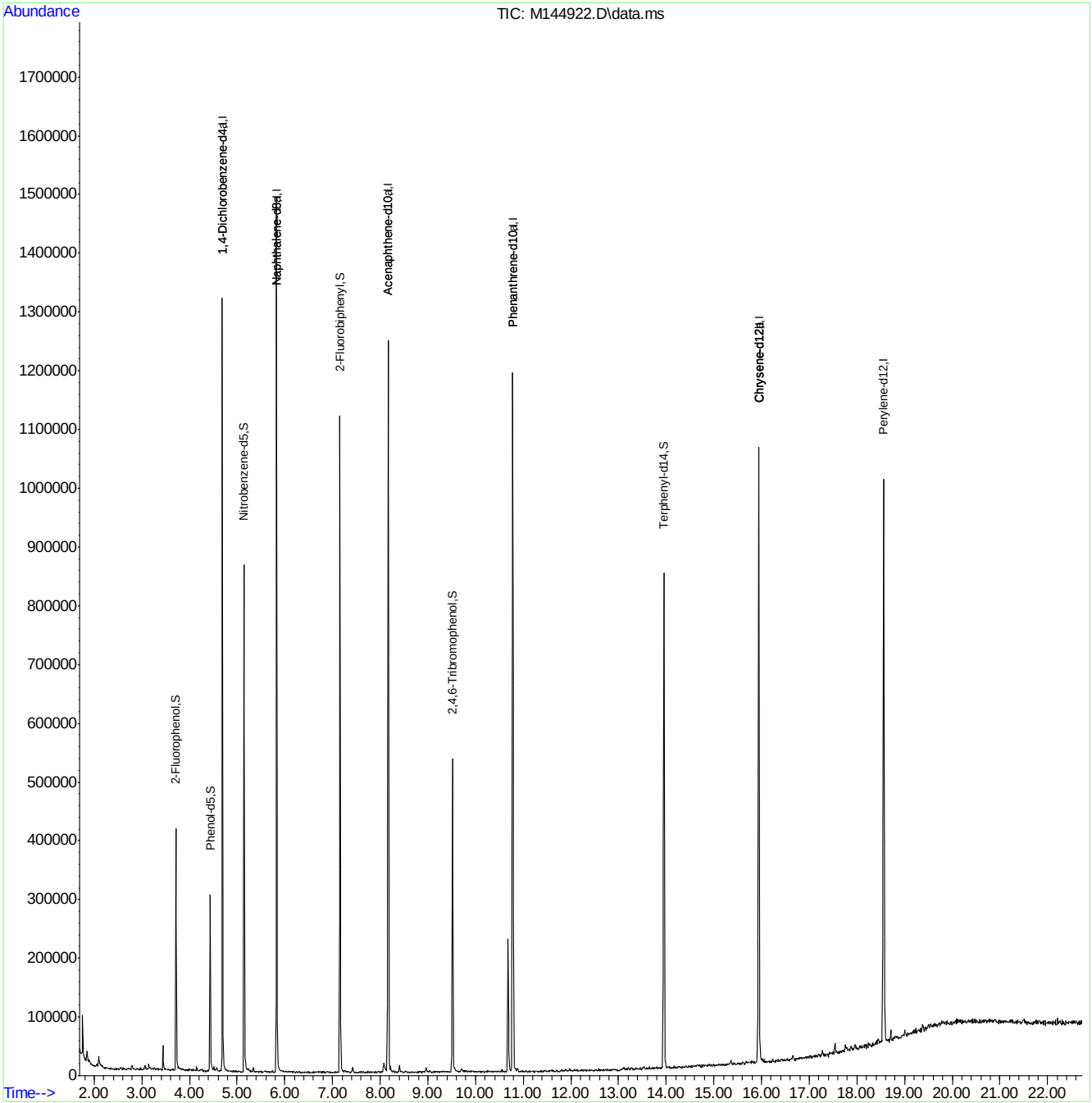
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.690	152	156717	40.00	ppm	0.02
24) Naphthalene-d8	5.827	136	627741	40.00	ppm	0.02
47) Acenaphthene-d10	8.167	164	328148	40.00	ppm	0.04
69) Phenanthrene-d10	10.778	188	591991	40.00	ppm	0.04
83) Chrysene-d12	15.943	240	557465	40.00	ppm	0.04
91) Perylene-d12	18.560	264	528225	40.00	ppm	0.04
101) 1,4-Dichlorobenzene-d4a	4.690	152	156717	40.00	ppm	0.02
103) Acenaphthene-d10a	8.167	164	328148	40.00	ppm	0.04
106) Chrysene-d12a	15.943	240	557465	40.00	ppm	0.04
109) Phenanthrene-d10a	10.778	188	591991	40.00	ppm	0.04
112) Naphthalene-d8a	5.827	136	627741	40.00	ppm	0.02
114) Chrysene-d12b	15.943	240	557465	40.00	ppm	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.712	112	95787	13.53	ppm	-0.03
Spiked Amount 50.000			Recovery = 27.06%			
8) Phenol-d5	4.433	99	85849	10.46	ppm	0.00
Spiked Amount 50.000			Recovery = 20.92%			
25) Nitrobenzene-d5	5.144	82	226328	35.12	ppm	0.02
Spiked Amount 50.000			Recovery = 70.24%			
51) 2-Fluorobiphenyl	7.157	172	363589	27.23	ppm	0.02
Spiked Amount 50.000			Recovery = 54.46%			
73) 2,4,6-Tribromophenol	9.518	330	82192	32.03	ppm	0.03
Spiked Amount 50.000			Recovery = 64.06%			
85) Terphenyl-d14	13.951	244	402366	25.75	ppm	0.00
Spiked Amount 50.000			Recovery = 51.50%			
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			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\EM6152\
Data File : M144922.D
Acq On : 28 Mar 2018 10:00 pm
Operator : christc2
Sample : jc62881-6
Misc : op10886,em6152,900,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 05 13:41:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Apr 05 11:18:54 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144909.D
Acq On : 28 Mar 2018 2:38 pm
Operator : christc2
Sample : op10886-mb1
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 17:56:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

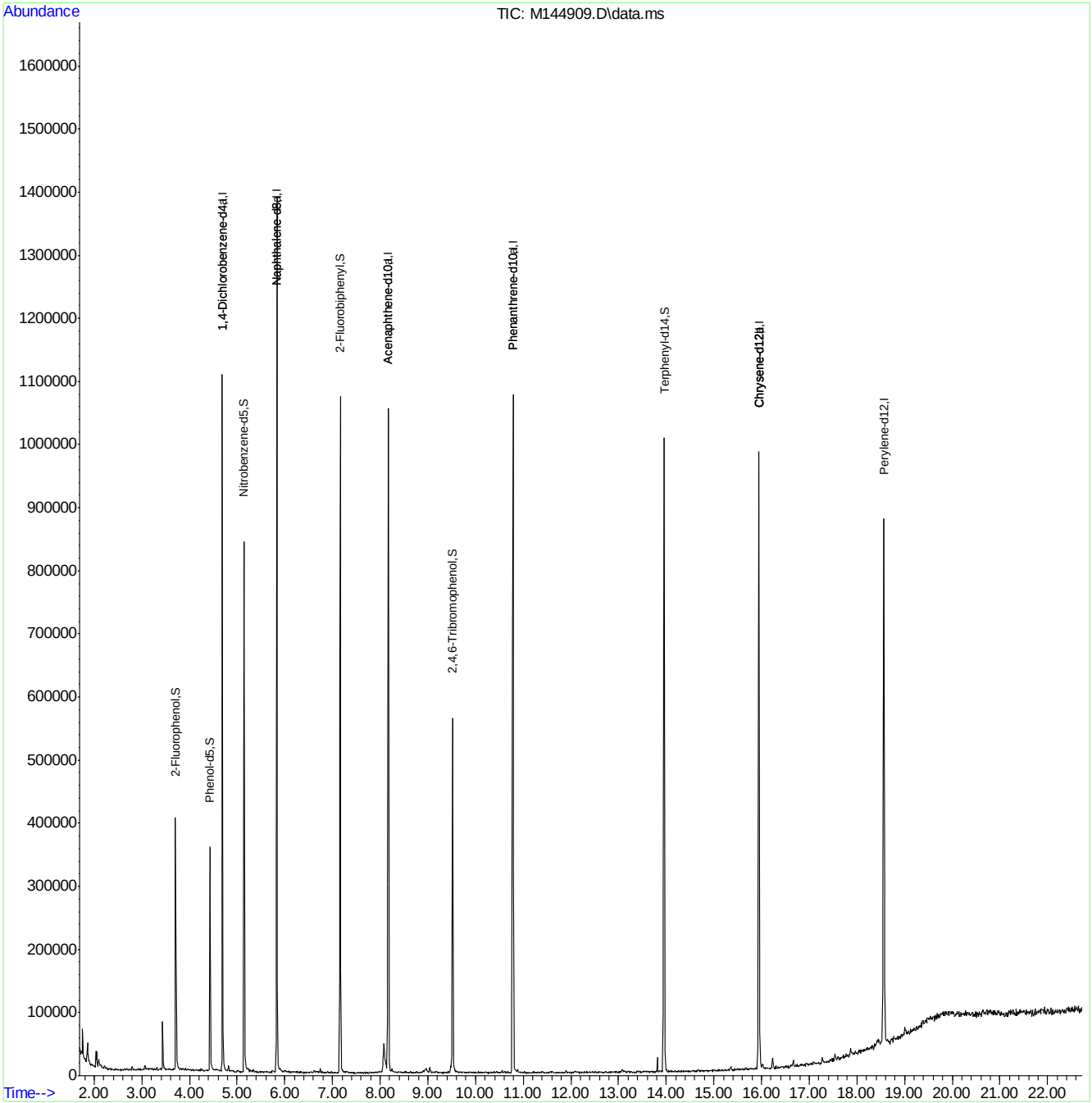
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.690	152	141316	40.00	ppm	0.00
24) Naphthalene-d8	5.833	136	572051	40.00	ppm	0.00
47) Acenaphthene-d10	8.167	164	295284	40.00	ppm	0.00
69) Phenanthrene-d10	10.784	188	555487	40.00	ppm	0.00
83) Chrysene-d12	15.943	240	521165	40.00	ppm	-0.02
91) Perylene-d12	18.566	264	470787	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.690	152	141316	40.00	ppm	-0.06
103) Acenaphthene-d10a	8.167	164	295284	40.00	ppm	-0.09
106) Chrysene-d12a	15.943	240	521165	40.00	ppm	-0.12
109) Phenanthrene-d10a	10.784	188	555487	40.00	ppm	-0.10
112) Naphthalene-d8a	5.833	136	572051	40.00	ppm	-0.06
114) Chrysene-d12b	15.943	240	521165	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.712	112	107968	16.92	ppm	-0.05
Spiked Amount 50.000			Recovery = 33.84%			
8) Phenol-d5	4.428	99	95853	12.96	ppm	-0.04
Spiked Amount 50.000			Recovery = 25.92%			
25) Nitrobenzene-d5	5.144	82	232204	39.54	ppm	0.00
Spiked Amount 50.000			Recovery = 79.08%			
51) 2-Fluorobiphenyl	7.163	172	375128	31.22	ppm	0.00
Spiked Amount 50.000			Recovery = 62.44%			
73) 2,4,6-Tribromophenol	9.518	330	86646	35.99	ppm	-0.01
Spiked Amount 50.000			Recovery = 71.98%			
85) Terphenyl-d14	13.956	244	488996	33.48	ppm	-0.03
Spiked Amount 50.000			Recovery = 66.96%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			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\EM6152\
Data File : M144909.D
Acq On : 28 Mar 2018 2:38 pm
Operator : christc2
Sample : op10886-mb1
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 17:56:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102968.D
Acq On : 2 Apr 2018 3:50 pm
Operator : christc2
Sample : op10986-mb1
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 03 17:01:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

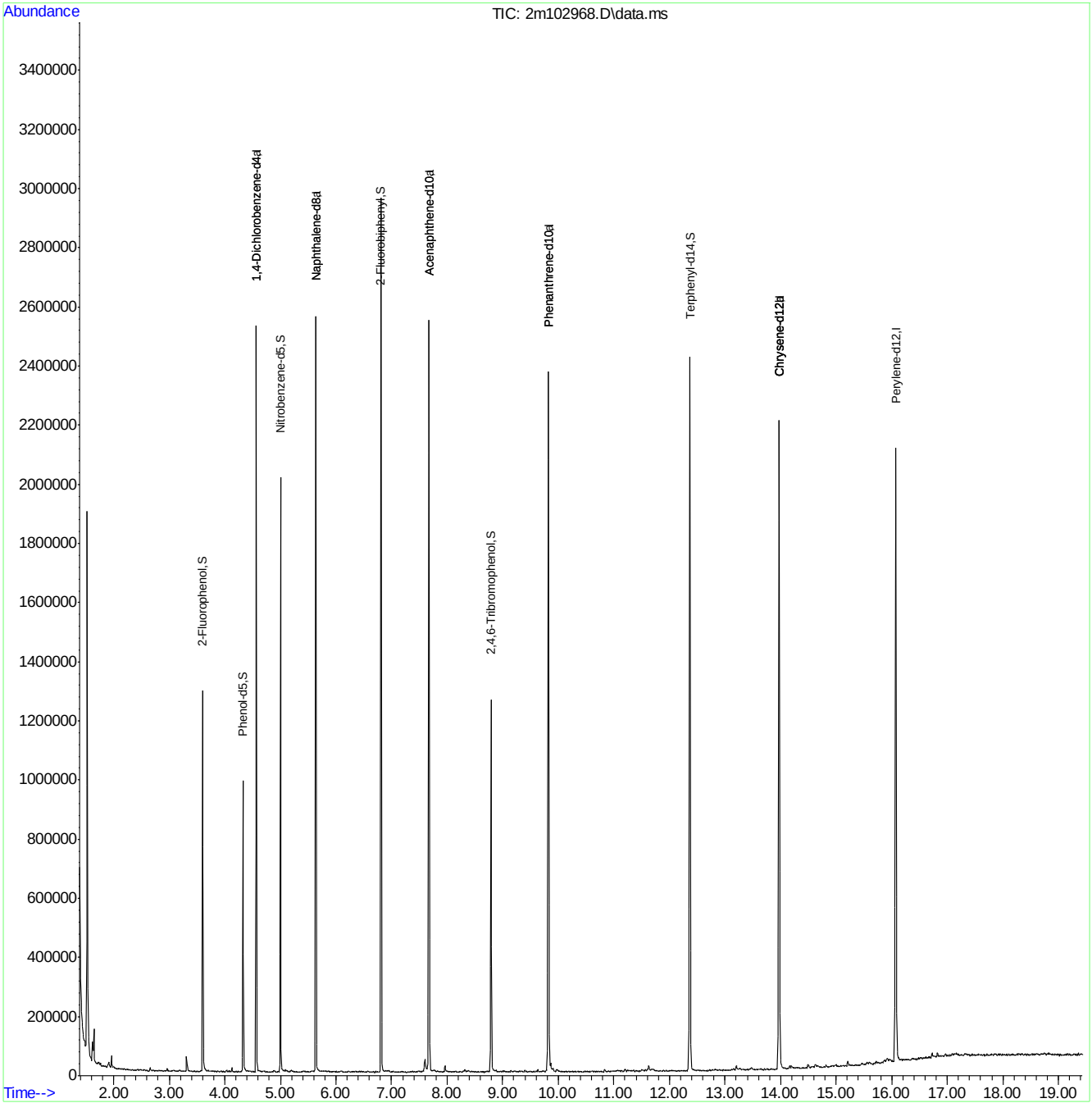
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.564	152	255172	40.00	ppm	0.02
24) Naphthalene-d8	5.639	136	1015093	40.00	ppm	0.03
47) Acenaphthene-d10	7.672	164	562102	40.00	ppm	0.04
69) Phenanthrene-d10	9.822	188	982197	40.00	ppm	0.04
83) Chrysene-d12	13.972	240	918136	40.00	ppm	0.04
91) Perylene-d12	16.074	264	938408	40.00	ppm	0.04
101) 1,4-Dichlorobenzene-d4a	4.564	152	255172	40.00	ppm	0.02
103) Acenaphthene-d10a	7.672	164	562102	40.00	ppm	0.04
105) Chrysene-d12a	13.972	240	918136	40.00	ppm	0.04
108) Phenanthrene-d10a	9.822	188	982197	40.00	ppm	0.04
112) Naphthalene-d8a	5.639	136	1015093	40.00	ppm	0.03
114) Chrysene-d12b	13.972	240	918136	40.00	ppm	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.601	112	248052	27.71	ppm	0.02
Spiked Amount 50.000			Recovery =	55.42%		
8) Phenol-d5	4.329	99	207189	18.24	ppm	0.05
Spiked Amount 50.000			Recovery =	36.48%		
25) Nitrobenzene-d5	5.003	82	523186	43.08	ppm	0.03
Spiked Amount 50.000			Recovery =	86.16%		
51) 2-Fluorobiphenyl	6.810	172	902267	38.22	ppm	0.02
Spiked Amount 50.000			Recovery =	76.44%		
73) 2,4,6-Tribromophenol	8.789	330	136370	46.71	ppm	0.02
Spiked Amount 50.000			Recovery =	93.42%		
85) Terphenyl-d14	12.368	244	958532	43.80	ppm	0.02
Spiked Amount 50.000			Recovery =	87.60%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102968.D
Acq On : 2 Apr 2018 3:50 pm
Operator : christc2
Sample : op10986-mb1
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 03 17:01:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144910.D
Acq On : 28 Mar 2018 4:06 pm
Operator : christc2
Sample : op10886-bs1
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 17:58:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.693	152	142861	40.00	ppm	0.00
24) Naphthalene-d8	5.830	136	560090	40.00	ppm	0.00
47) Acenaphthene-d10	8.170	164	303449	40.00	ppm	0.00
69) Phenanthrene-d10	10.782	188	545091	40.00	ppm	0.00
83) Chrysene-d12	15.946	240	517447	40.00	ppm	-0.01
91) Perylene-d12	18.564	264	506511	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.693	152	142861	40.00	ppm	-0.06
103) Acenaphthene-d10a	8.170	164	303449	40.00	ppm	-0.09
106) Chrysene-d12a	15.946	240	517447	40.00	ppm	-0.11
109) Phenanthrene-d10a	10.782	188	545091	40.00	ppm	-0.10
112) Naphthalene-d8a	5.830	136	560090	40.00	ppm	-0.07
114) Chrysene-d12b	15.946	240	517447	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	3.710	112	116802	18.10	ppm	-0.05
Spiked Amount 50.000			Recovery = 36.20%			
8) Phenol-d5	4.431	99	108851	14.55	ppm	-0.03
Spiked Amount 50.000			Recovery = 29.10%			
25) Nitrobenzene-d5	5.147	82	215080	37.40	ppm	0.00
Spiked Amount 50.000			Recovery = 74.80%			
51) 2-Fluorobiphenyl	7.160	172	362184	29.33	ppm	-0.01
Spiked Amount 50.000			Recovery = 58.66%			
73) 2,4,6-Tribromophenol	9.521	330	85686	36.27	ppm	-0.01
Spiked Amount 50.000			Recovery = 72.54%			
85) Terphenyl-d14	13.954	244	495590	34.17	ppm	-0.03
Spiked Amount 50.000			Recovery = 68.34%			
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.231	88	39150	13.39	ppm	83
3) Pyridine	2.556	79	79257	11.04	ppm #	65
4) N-Nitrosodimethylamine	2.524	42	68879	24.78	ppm #	57
6) Indene	4.896	116	312307	37.62	ppm	96
7) Cumene	4.089	105	395531	28.79	ppm	95
9) Phenol	4.436	94	117816	14.66	ppm	65
10) Aniline	4.442	93	111874	13.43	ppm	64
11) bis(2-Chloroethyl)ether	4.490	93	190606	35.00	ppm	93
12) 2-Chlorophenol	4.538	128	168585	27.79	ppm	93
13) Decane	4.570	43	173614	33.35	ppm	79
14) 1,3-Dichlorobenzene	4.650	146	160110	24.80	ppm	98
15) 1,4-Dichlorobenzene	4.704	146	154451	25.92	ppm	95
16) Benzyl alcohol	4.805	108	100273	27.12	ppm	88
17) 1,2-Dichlorobenzene	4.826	146	157422	28.18	ppm	95
18) Acetophenone	5.013	105	258994	37.46	ppm	93
19) 2-Methylphenol	4.901	108	122180	24.82	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.906	121	55539	34.43	ppm #	27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144910.D
Acq On : 28 Mar 2018 4:06 pm
Operator : christc2
Sample : op10886-bs1
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 17:58:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.024	108	125840	25.70	ppm		88
22) n-Nitroso-di-n-propyla...	5.013	70	134524	38.57	ppm		74
23) Hexachloroethane	5.109	201	48896	23.35	ppm		96
26) Nitrobenzene	5.163	77	192254	35.16	ppm		87
27) Quinoline	6.226	129	325985	28.03	ppm		98
28) Isophorone	5.371	82	383910	37.14	ppm		88
29) 2-Nitrophenol	5.451	139	107761	32.54	ppm		76
30) 2,4-Dimethylphenol	5.494	107	177509	36.43	ppm		93
31) Benzoic acid	5.595	105	84192	21.36	ppm		92
32) bis(2-Chloroethoxy)met...	5.579	93	219852	36.73	ppm		99
33) 2,4-Dichlorophenol	5.692	162	142116	31.08	ppm		93
34) 2,6-Dichlorophenol	5.921	162	139073	32.19	ppm		96
36) 1,2,4-Trichlorobenzene	5.777	180	139605	25.70	ppm		97
38) Naphthalene	5.852	128	466201	30.31	ppm		99
39) 4-Chloroaniline	5.911	127	105091	14.88	ppm		93
40) 2,3-Dichloroaniline	7.038	161	186699	32.84	ppm		96
41) Caprolactam	6.284	55	40750	14.60	ppm		82
42) Hexachlorobutadiene	5.991	225	70089	24.37	ppm		99
43) 4-Chloro-3-methylphenol	6.482	107	182040	35.99	ppm		84
44) 2-Methylnaphthalene	6.658	141	257454	27.79	ppm		94
45) 1-Methylnaphthalene	6.787	142	344909	31.03	ppm		96
46) Dimethylnaphthalene	7.529	156	308075	32.49	ppm		96
48) Hexachlorocyclopentadiene	6.877	237	115604	36.49	ppm		98
49) 2,4,6-Trichlorophenol	7.048	196	115457	31.37	ppm		97
50) 2,4,5-Trichlorophenol	7.102	196	124725	31.23	ppm		98
52) 2-Chloronaphthalene	7.321	162	293815	27.07	ppm		96
53) Biphenyl	7.299	154	440732	31.11	ppm		99
54) 2-Nitroaniline	7.481	65	139967	42.30	ppm	#	79
55) Dimethylphthalate	7.780	163	449725	35.11	ppm		98
56) Acenaphthylene	7.940	152	552079	31.44	ppm		98
57) 2,6-Dinitrotoluene	7.860	165	99605	36.09	ppm		79
58) 3-Nitroaniline	8.122	138	77344	20.96	ppm		90
59) Acenaphthene	8.223	153	332694	31.67	ppm		98
60) 2,4-Dinitrophenol	8.303	184	110882	69.77	ppm		82
61) 4-Nitrophenol	8.464	109	39407	24.51	ppm	#	77
62) Dibenzofuran	8.506	168	469253	31.49	ppm		99
63) 2,4-Dinitrotoluene	8.522	165	130765	38.01	ppm		96
64) 2,3,4,6-Tetrachlorophenol	8.736	232	119276	33.38	ppm		93
65) Diethylphthalate	8.971	149	495722	38.08	ppm		99
66) Fluorene	9.094	166	417615	34.06	ppm		97
67) 4-Chlorophenyl-phenyle...	9.121	204	186478	32.00	ppm		91
68) 4-Nitroaniline	9.158	138	106559	30.55	ppm		76
70) 4,6-Dinitro-2-methylph...	9.227	198	82409	35.86	ppm		92
71) n-Nitrosodiphenylamine	9.340	169	297015	33.98	ppm		98
72) 1,2-Diphenylhydrazine	9.398	77	485363	42.15	ppm		93
74) 4-Bromophenyl-phenylether	9.996	248	135368	34.43	ppm		94
75) Hexachlorobenzene	10.087	284	153063	34.63	ppm		88
76) Pentachlorophenol	10.472	266	105817	40.14	ppm		96
77) Phenanthrene	10.830	178	640051	38.54	ppm		99
78) Anthracene	10.921	178	651797	37.62	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144910.D
Acq On : 28 Mar 2018 4:06 pm
Operator : christc2
Sample : op10886-bs1
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 17:58:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

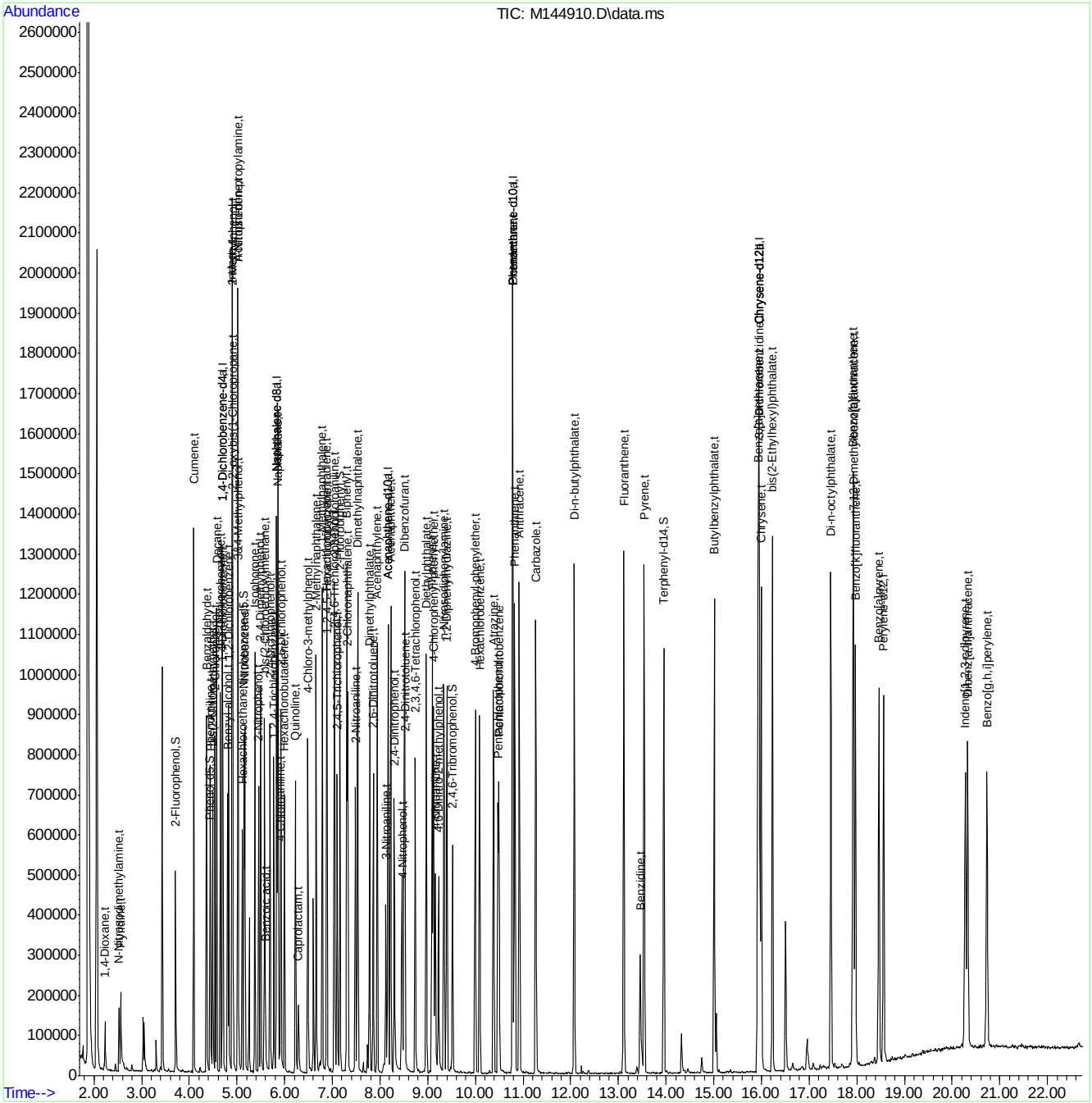
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
79) Carbazole	11.268	167	643144	38.10	ppm		99
80) Di-n-butylphthalate	12.074	149	893416	40.23	ppm		100
81) Fluoranthene	13.116	202	761608	39.10	ppm		99
82) Octadecane	10.782	57	291377	43.72	ppm		86
84) Pyrene	13.538	202	745053	37.83	ppm		98
86) Butylbenzylphthalate	15.012	149	398492	40.34	ppm		90
87) Benzo[a]anthracene	15.930	228	722705	38.09	ppm		98
88) 3,3'-Dichlorobenzidine	15.957	252	329062	51.09	ppm		98
89) Chrysene	15.995	228	620732	36.32	ppm		100
90) bis(2-Ethylhexyl)phtha...	16.230	149	500563	38.71	ppm		98
92) Di-n-octylphthalate	17.458	149	875052	46.02	ppm		93
93) Benzo[b]fluoranthene	17.923	252	665840	39.06	ppm		98
94) Benzo[k]fluoranthene	17.976	252	589429	38.27	ppm		99
95) Benzo[a]pyrene	18.462	252	569764	36.97	ppm		99
96) Indeno[1,2,3-cd]pyrene	20.278	276	517787	35.38	ppm		97
98) Dibenz[a,h]anthracene	20.326	278	540254	35.93	ppm		99
99) 7,12-Dimethylbenz(a)an...	17.933	256	225850	33.48	ppm		98
100) Benzo[g,h,i]perylene	20.732	276	539993	36.25	ppm		98
102) Benzaldehyde	4.362	105	144598	31.32	ppm		93
104) 1,2,4,5-Tetrachloroben...	6.888	216	144697	27.80	ppm		96
105) Atrazine	10.381	215	69219	41.37	ppm	#	81
107) Benzidine	13.458	184	186467	17.43	ppm		98
111) Pentachloronitrobenzene	10.493	295	26594	39.26	ppm		90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144910.D
Acq On : 28 Mar 2018 4:06 pm
Operator : christc2
Sample : op10886-bs1
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 17:58:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : M144911.D
Acq On : 28 Mar 2018 4:36 pm
Operator : christc2
Sample : op10886-bsd
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 17:59:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.690	152	135443	40.00	ppm	0.00
24) Naphthalene-d8	5.833	136	520913	40.00	ppm	0.00
47) Acenaphthene-d10	8.167	164	284357	40.00	ppm	0.00
69) Phenanthrene-d10	10.784	188	518156	40.00	ppm	0.00
83) Chrysene-d12	15.944	240	485928	40.00	ppm	-0.02
91) Perylene-d12	18.561	264	482949	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.690	152	135443	40.00	ppm	-0.06
103) Acenaphthene-d10a	8.167	164	284357	40.00	ppm	-0.09
106) Chrysene-d12a	15.944	240	485928	40.00	ppm	-0.12
109) Phenanthrene-d10a	10.784	188	518156	40.00	ppm	-0.10
112) Naphthalene-d8a	5.833	136	520913	40.00	ppm	-0.06
114) Chrysene-d12b	15.944	240	485928	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.713	112	118168	19.32	ppm	-0.05
Spiked Amount 50.000			Recovery = 38.64%			
8) Phenol-d5	4.428	99	109986	15.51	ppm	-0.04
Spiked Amount 50.000			Recovery = 31.02%			
25) Nitrobenzene-d5	5.144	82	226432	42.34	ppm	0.00
Spiked Amount 50.000			Recovery = 84.68%			
51) 2-Fluorobiphenyl	7.163	172	383161	33.11	ppm	0.00
Spiked Amount 50.000			Recovery = 66.22%			
73) 2,4,6-Tribromophenol	9.518	330	79968	35.61	ppm	-0.01
Spiked Amount 50.000			Recovery = 71.22%			
85) Terphenyl-d14	13.952	244	475805	34.94	ppm	-0.04
Spiked Amount 50.000			Recovery = 69.88%			
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.233	88	43889	15.83	ppm	87
3) Pyridine	2.559	79	95535	14.03	ppm	72
4) N-Nitrosodimethylamine	2.527	42	73323	27.82	ppm #	59
6) Indene	4.898	116	348879	44.32	ppm	97
7) Cumene	4.092	105	453183	34.79	ppm	97
9) Phenol	4.439	94	121902	16.00	ppm #	42
10) Aniline	4.444	93	146105	18.51	ppm	92
11) bis(2-Chloroethyl)ether	4.487	93	211173	40.90	ppm	89
12) 2-Chlorophenol	4.535	128	164723	28.65	ppm	86
13) Decane	4.573	43	195492	39.60	ppm	81
14) 1,3-Dichlorobenzene	4.647	146	182992	29.89	ppm	94
15) 1,4-Dichlorobenzene	4.706	146	180126	31.89	ppm	96
16) Benzyl alcohol	4.802	108	106180	30.29	ppm	86
17) 1,2-Dichlorobenzene	4.829	146	177098	33.43	ppm	97
18) Acetophenone	5.016	105	280955	42.87	ppm	95
19) 2-Methylphenol	4.904	108	120622	25.84	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.909	121	61423	40.16	ppm #	22

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : M144911.D
Acq On : 28 Mar 2018 4:36 pm
Operator : christc2
Sample : op10886-bsd
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 17:59:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.027	108	123631	26.63	ppm	#	79
22) n-Nitroso-di-n-propyla...	5.016	70	147308	44.55	ppm		78
23) Hexachloroethane	5.107	201	59085	29.76	ppm		96
26) Nitrobenzene	5.165	77	212226	41.73	ppm		90
27) Quinoline	6.223	129	350159	32.37	ppm		98
28) Isophorone	5.374	82	416918	43.37	ppm		92
29) 2-Nitrophenol	5.454	139	110821	35.98	ppm		93
30) 2,4-Dimethylphenol	5.497	107	176681	38.98	ppm		93
31) Benzoic acid	5.593	105	76779	20.94	ppm		94
32) bis(2-Chloroethoxy)met...	5.577	93	239704	43.06	ppm		98
33) 2,4-Dichlorophenol	5.694	162	142330	33.47	ppm		96
34) 2,6-Dichlorophenol	5.924	162	138488	34.46	ppm		96
36) 1,2,4-Trichlorobenzene	5.774	180	157868	31.24	ppm		99
38) Naphthalene	5.854	128	529079	36.99	ppm		100
39) 4-Chloroaniline	5.913	127	124792	19.00	ppm		92
40) 2,3-Dichloroaniline	7.035	161	197961	37.44	ppm		96
41) Caprolactam	6.287	55	39223	15.11	ppm		88
42) Hexachlorobutadiene	5.993	225	82483	30.84	ppm		97
43) 4-Chloro-3-methylphenol	6.485	107	165507	35.18	ppm		91
44) 2-Methylnaphthalene	6.661	141	284377	33.00	ppm		95
45) 1-Methylnaphthalene	6.789	142	379479	36.70	ppm		95
46) Dimethylnaphthalene	7.532	156	336005	38.10	ppm		96
48) Hexachlorocyclopentadiene	6.880	237	120239	40.50	ppm		99
49) 2,4,6-Trichlorophenol	7.046	196	115342	33.45	ppm		99
50) 2,4,5-Trichlorophenol	7.099	196	119780	32.00	ppm		97
52) 2-Chloronaphthalene	7.323	162	320983	31.56	ppm		96
53) Biphenyl	7.302	154	475908	35.85	ppm		99
54) 2-Nitroaniline	7.484	65	142329	45.90	ppm		83
55) Dimethylphthalate	7.777	163	442908	36.90	ppm		99
56) Acenaphthylene	7.938	152	592675	36.01	ppm		99
57) 2,6-Dinitrotoluene	7.857	165	106360	41.13	ppm		81
58) 3-Nitroaniline	8.119	138	82461	23.85	ppm		87
59) Acenaphthene	8.221	153	360780	36.64	ppm		97
60) 2,4-Dinitrophenol	8.301	184	106623	71.43	ppm		72
61) 4-Nitrophenol	8.461	109	34361	22.81	ppm	#	75
62) Dibenzofuran	8.509	168	498711	35.71	ppm		97
63) 2,4-Dinitrotoluene	8.520	165	131800	40.88	ppm		94
64) 2,3,4,6-Tetrachlorophenol	8.739	232	116287	34.73	ppm		94
65) Diethylphthalate	8.968	149	495458	40.62	ppm		98
66) Fluorene	9.091	166	434218	37.79	ppm		97
67) 4-Chlorophenyl-phenyle...	9.123	204	188715	34.56	ppm		91
68) 4-Nitroaniline	9.155	138	105112	32.16	ppm		75
70) 4,6-Dinitro-2-methylph...	9.225	198	79712	36.44	ppm		86
71) n-Nitrosodiphenylamine	9.337	169	300097	36.12	ppm		99
72) 1,2-Diphenylhydrazine	9.401	77	493995	45.13	ppm		95
74) 4-Bromophenyl-phenylether	9.994	248	139688	37.37	ppm		92
75) Hexachlorobenzene	10.090	284	155725	37.07	ppm		96
76) Pentachlorophenol	10.475	266	101555	40.53	ppm		97
77) Phenanthrene	10.827	178	648893	41.10	ppm		98
78) Anthracene	10.923	178	650646	39.51	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : M144911.D
Acq On : 28 Mar 2018 4:36 pm
Operator : christc2
Sample : op10886-bsd
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 17:59:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

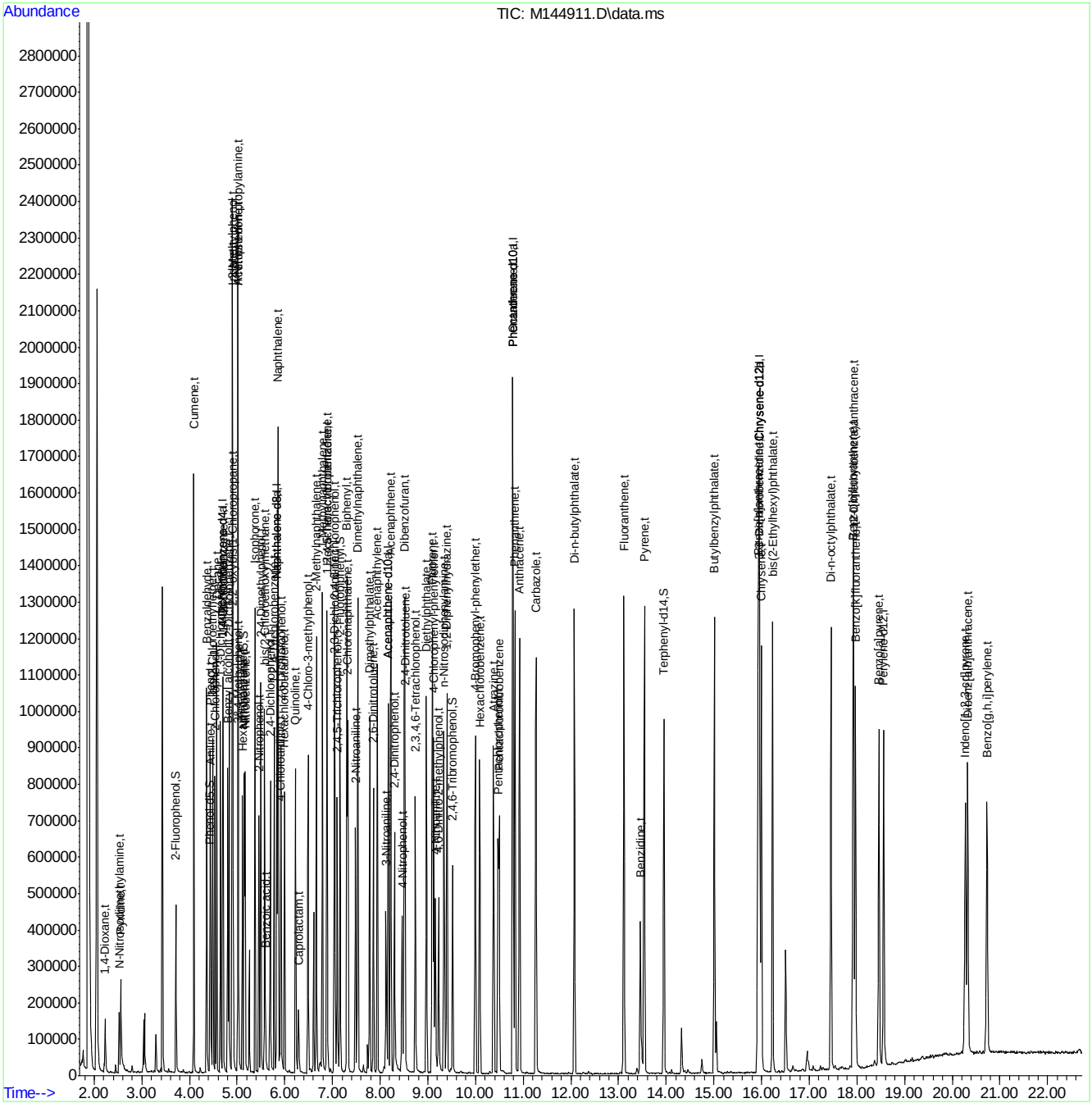
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) Carbazole	11.265	167	655365	40.84	ppm	99
80) Di-n-butylphthalate	12.071	149	894243	42.36	ppm	99
81) Fluoranthene	13.113	202	762635	41.19	ppm	99
82) Octadecane	10.779	57	279795	44.16	ppm	86
84) Pyrene	13.540	202	747504	40.42	ppm	98
86) Butylbenzylphthalate	15.009	149	396687	42.77	ppm	89
87) Benzo[a]anthracene	15.928	228	710045	39.85	ppm	100
88) 3,3'-Dichlorobenzidine	15.960	252	338955	56.04	ppm	98
89) Chrysene	15.997	228	610835	38.06	ppm	100
90) bis(2-Ethylhexyl)phtha...	16.232	149	489752	40.33	ppm	99
92) Di-n-octylphthalate	17.455	149	863277	47.62	ppm	94
93) Benzo[b]fluoranthene	17.920	252	665496	40.95	ppm	98
94) Benzo[k]fluoranthene	17.973	252	602456	41.03	ppm	98
95) Benzo[a]pyrene	18.465	252	562317	38.26	ppm	100
96) Indeno[1,2,3-cd]pyrene	20.275	276	522888	37.47	ppm	98
98) Dibenz[a,h]anthracene	20.323	278	550931	38.43	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.931	256	219330	34.10	ppm	99
100) Benzo[g,h,i]perylene	20.729	276	547344	38.54	ppm	99
102) Benzaldehyde	4.359	105	147029	33.59	ppm	88
104) 1,2,4,5-Tetrachloroben...	6.885	216	161051	33.02	ppm	97
105) Atrazine	10.384	215	68165	43.48	ppm	85
107) Benzidine	13.455	184	244301	24.31	ppm	98
111) Pentachloronitrobenzene	10.496	295	26922	41.81	ppm	89

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : M144911.D
Acq On : 28 Mar 2018 4:36 pm
Operator : christc2
Sample : op10886-bsd
Misc : op10886,em6152,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 17:59:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102969.D
Acq On : 2 Apr 2018 4:15 pm
Operator : christc2
Sample : op10986-bs1
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 03 17:02:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.569	152	283601	40.00	ppm	0.03
24) Naphthalene-d8	5.639	136	1066316	40.00	ppm	0.03
47) Acenaphthene-d10	7.671	164	562991	40.00	ppm	0.04
69) Phenanthrene-d10	9.822	188	954236	40.00	ppm	0.04
83) Chrysene-d12	13.977	240	949452	40.00	ppm	0.04
91) Perylene-d12	16.074	264	907902	40.00	ppm	0.04
101) 1,4-Dichlorobenzene-d4a	4.569	152	283601	40.00	ppm	0.03
103) Acenaphthene-d10a	7.671	164	562991	40.00	ppm	0.04
105) Chrysene-d12a	13.977	240	949452	40.00	ppm	0.04
108) Phenanthrene-d10a	9.822	188	954236	40.00	ppm	0.04
112) Naphthalene-d8a	5.639	136	1066316	40.00	ppm	0.03
114) Chrysene-d12b	13.977	240	949452	40.00	ppm	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.606	112	304214	30.58	ppm	0.02
Spiked Amount 50.000			Recovery = 61.16%			
8) Phenol-d5	4.329	99	284685	22.55	ppm	0.05
Spiked Amount 50.000			Recovery = 45.10%			
25) Nitrobenzene-d5	5.002	82	571958	44.84	ppm	0.03
Spiked Amount 50.000			Recovery = 89.68%			
51) 2-Fluorobiphenyl	6.816	172	954787	40.38	ppm	0.02
Spiked Amount 50.000			Recovery = 80.76%			
73) 2,4,6-Tribromophenol	8.795	330	138875	48.96	ppm	0.03
Spiked Amount 50.000			Recovery = 97.92%			
85) Terphenyl-d14	12.368	244	997496	44.08	ppm	0.02
Spiked Amount 50.000			Recovery = 88.16%			
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.104	88	100113	25.76	ppm	94
3) Pyridine	2.430	79	266923	24.53	ppm	97
4) N-Nitrosodimethylamine	2.398	74	158179	24.96	ppm	99
6) Indene	4.762	116	774057	46.04	ppm	99
7) Cumene	3.970	105	985434	36.74	ppm	99
9) Phenol	4.339	94	299264	20.36	ppm	95
10) Aniline	4.329	93	303832	20.20	ppm	90
11) bis(2-Chloroethyl)ether	4.371	93	438369	44.22	ppm	97
12) 2-Chlorophenol	4.419	128	425999	39.26	ppm	95
13) Decane	4.452	43	371083	28.08	ppm	99
14) 1,3-Dichlorobenzene	4.526	146	420486	35.30	ppm	100
15) 1,4-Dichlorobenzene	4.580	146	435169	35.45	ppm	97
16) Benzyl alcohol	4.682	108	257865	39.60	ppm	96
17) 1,2-Dichlorobenzene	4.698	146	414086	36.80	ppm	99
18) Acetophenone	4.879	105	664109	41.82	ppm	79
19) 2-Methylphenol	4.783	108	346144	37.28	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.778	45	581595	43.25	ppm	77
21) 3&4-Methylphenol	4.901	108	345644	32.93	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102969.D
Acq On : 2 Apr 2018 4:15 pm
Operator : christc2
Sample : op10986-bs1
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 03 17:02:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	4.885	70	368360	40.10	ppm	95
23) Hexachloroethane	4.965	201	130682	33.31	ppm	83
26) Nitrobenzene	5.019	77	526162	41.89	ppm	97
27) Quinoline	5.992	129	817037	42.94	ppm	99
28) Isophorone	5.216	82	905557	43.90	ppm	99
29) 2-Nitrophenol	5.291	139	243095	43.09	ppm	98
30) 2,4-Dimethylphenol	5.339	107	454980	46.17	ppm	98
31) Benzoic acid	5.446	105	210158	26.56	ppm	97
32) bis(2-Chloroethoxy)met...	5.409	93	488677	45.08	ppm	99
33) 2,4-Dichlorophenol	5.521	162	355410	43.08	ppm	99
34) 2,6-Dichlorophenol	5.730	162	359586	43.06	ppm	98
36) 1,2,4-Trichlorobenzene	5.585	180	340414	37.34	ppm	98
38) Naphthalene	5.660	128	1239615	41.58	ppm	100
39) 4-Chloroaniline	5.719	127	176636	14.29	ppm	97
40) 2,3-Dichloroaniline	6.714	161	353103	33.96	ppm	99
41) Caprolactam	6.062	55	66896	13.30	ppm	95
42) Hexachlorobutadiene	5.783	225	179571	34.69	ppm	98
43) 4-Chloro-3-methylphenol	6.243	107	384820	40.88	ppm	95
44) 2-Methylnaphthalene	6.377	141	693141	40.33	ppm	97
45) 1-Methylnaphthalene	6.489	141	713862	40.04	ppm	96
46) Dimethylnaphthalene	7.131	156	780728	42.78	ppm	99
48) Hexachlorocyclopentadiene	6.570	237	389552	65.45	ppm	98
49) 2,4,6-Trichlorophenol	6.725	196	259163	40.49	ppm	100
50) 2,4,5-Trichlorophenol	6.773	196	264669	40.56	ppm	97
52) 2-Chloronaphthalene	6.955	162	757922	38.39	ppm	98
53) Biphenyl	6.933	154	1074576	41.13	ppm	97
54) 2-Nitroaniline	7.094	65	289279	39.87	ppm	98
55) Dimethylphthalate	7.340	163	940733	40.43	ppm	98
56) Acenaphthylene	7.479	152	1216442	39.52	ppm	99
57) 2,6-Dinitrotoluene	7.415	165	201976	41.70	ppm	88
58) 3-Nitroaniline	7.634	138	111891	20.73	ppm	97
59) Acenaphthene	7.720	153	813814	38.92	ppm	97
60) 2,4-Dinitrophenol	7.784	184	240654	73.98	ppm	95
61) 4-Nitrophenol	7.939	109	108247	28.23	ppm	89
62) Dibenzofuran	7.955	168	1104529	39.15	ppm	100
63) 2,4-Dinitrotoluene	7.960	165	291554	41.91	ppm	98
64) 2,3,4,6-Tetrachlorophenol	8.153	232	201401	37.61	ppm	95
65) Diethylphthalate	8.329	149	987038	36.28	ppm	100
66) Fluorene	8.442	166	913031	40.64	ppm	99
67) 4-Chlorophenyl-phenyle...	8.458	204	412645	39.16	ppm	98
68) 4-Nitroaniline	8.501	138	215775	42.02	ppm	98
70) 4,6-Dinitro-2-methylph...	8.549	198	166283	45.40	ppm	96
71) n-Nitrosodiphenylamine	8.640	169	625108	41.53	ppm	99
72) 1,2-Diphenylhydrazine	8.688	77	1047034	43.54	ppm	99
74) 4-Bromophenyl-phenylether	9.174	248	238386	44.17	ppm	99
75) Hexachlorobenzene	9.255	284	275165	45.67	ppm	95
76) Pentachlorophenol	9.576	266	161981	41.79	ppm	96
77) Phenanthrene	9.859	178	1271056	42.94	ppm	100
78) Anthracene	9.934	178	1275554	43.10	ppm	98
79) Carbazole	10.217	167	1213558	43.78	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102969.D
Acq On : 2 Apr 2018 4:15 pm
Operator : christc2
Sample : op10986-bs1
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 03 17:02:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

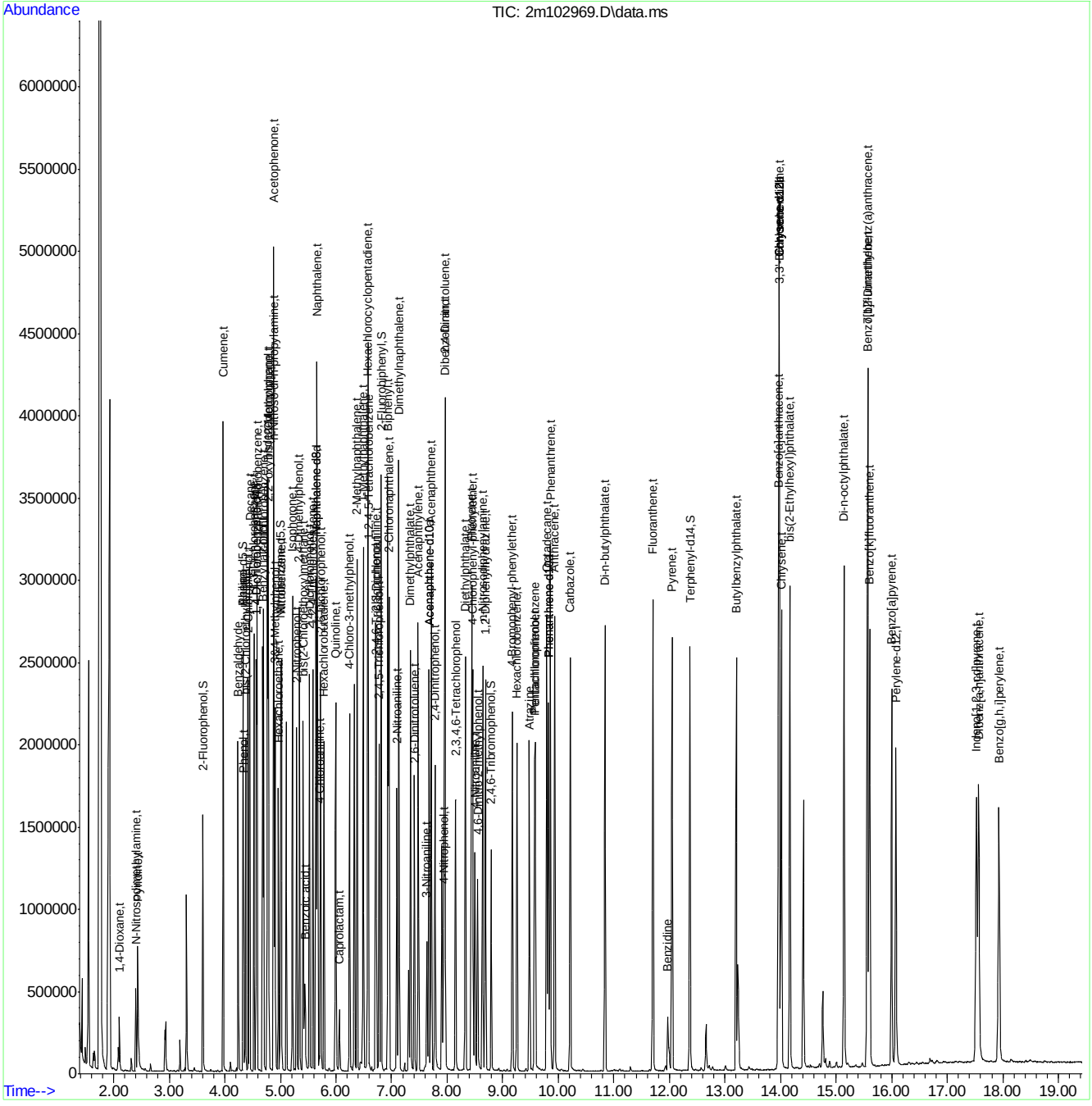
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
80)	Di-n-butylphthalate	10.843	149	1604790	40.83	ppm	100
81)	Fluoranthene	11.704	202	1354600	45.45	ppm	98
82)	Octadecane	9.790	57	573187	39.46	ppm	97
84)	Pyrene	12.052	202	1382533	40.29	ppm	98
86)	Butylbenzylphthalate	13.202	149	715154	42.64	ppm	95
87)	Benzo[a]anthracene	13.961	228	1318332	42.84	ppm	99
88)	3,3'-Dichlorobenzidine	13.972	252	478612	43.71	ppm	99
89)	Chrysene	14.020	228	1218109	41.10	ppm	99
90)	bis(2-Ethylhexyl)phtha...	14.165	149	969835	41.85	ppm	97
92)	Di-n-octylphthalate	15.144	149	1728535	52.53	ppm	70
93)	Benzo[b]fluoranthene	15.561	252	1378622	47.92	ppm	98
94)	Benzo[k]fluoranthene	15.603	252	1246719	42.26	ppm	91
95)	Benzo[a]pyrene	15.999	252	1152518	47.35	ppm	92
96)	Indeno[1,2,3-cd]pyrene	17.524	276	1108320	38.32	ppm	86
98)	Dibenz[a,h]anthracene	17.566	278	1163459	49.46	ppm	87
99)	7,12-Dimethylbenz(a)an...	15.566	256	529057	41.58	ppm	92
100)	Benzo[g,h,i]perylene	17.930	276	1134051	48.45	ppm	94
102)	Benzaldehyde	4.238	105	264478	30.36	ppm	93
104)	1,2,4,5-Tetrachloroben...	6.580	216	399608	44.80	ppm	98
106)	Benzidine	11.966	184	175476	9.63	ppm	99
109)	Atrazine	9.485	215	138406	54.01	ppm	86
111)	Pentachloronitrobenzene	9.586	295	46710	56.19	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102969.D
Acq On : 2 Apr 2018 4:15 pm
Operator : christc2
Sample : op10986-bs1
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 03 17:02:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102970.D
Acq On : 2 Apr 2018 4:40 pm
Operator : christc2
Sample : op10986-bsd
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 03 17:02:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.569	152	292336	40.00	ppm	0.03
24) Naphthalene-d8	5.639	136	1086838	40.00	ppm	0.03
47) Acenaphthene-d10	7.671	164	580081	40.00	ppm	0.04
69) Phenanthrene-d10	9.822	188	976651	40.00	ppm	0.04
83) Chrysene-d12	13.977	240	997006	40.00	ppm	0.04
91) Perylene-d12	16.074	264	932436	40.00	ppm	0.04
101) 1,4-Dichlorobenzene-d4a	4.569	152	292336	40.00	ppm	0.03
103) Acenaphthene-d10a	7.671	164	580081	40.00	ppm	0.04
105) Chrysene-d12a	13.977	240	997006	40.00	ppm	0.04
108) Phenanthrene-d10a	9.822	188	976651	40.00	ppm	0.04
112) Naphthalene-d8a	5.639	136	1086838	40.00	ppm	0.03
114) Chrysene-d12b	13.977	240	997006	40.00	ppm	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.606	112	234941	22.91	ppm	0.02
Spiked Amount 50.000			Recovery =	45.82%		
8) Phenol-d5	4.328	99	225079	17.29	ppm	0.05
Spiked Amount 50.000			Recovery =	34.58%		
25) Nitrobenzene-d5	5.002	82	520967	40.07	ppm	0.03
Spiked Amount 50.000			Recovery =	80.14%		
51) 2-Fluorobiphenyl	6.816	172	893933	36.69	ppm	0.02
Spiked Amount 50.000			Recovery =	73.38%		
73) 2,4,6-Tribromophenol	8.795	330	132421	45.61	ppm	0.03
Spiked Amount 50.000			Recovery =	91.22%		
85) Terphenyl-d14	12.368	244	936508	39.41	ppm	0.02
Spiked Amount 50.000			Recovery =	78.82%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.103	88	78520	19.60	ppm	98
3) Pyridine	2.430	79	262539	23.41	ppm	97
4) N-Nitrosodimethylamine	2.398	74	139534	21.36	ppm	98
6) Indene	4.767	116	674657	38.92	ppm	99
7) Cumene	3.970	105	860833	31.14	ppm	98
9) Phenol	4.339	94	258586	17.06	ppm	94
10) Aniline	4.328	93	436486	28.15	ppm	94
11) bis(2-Chloroethyl)ether	4.371	93	386203	37.80	ppm	100
12) 2-Chlorophenol	4.425	128	352161	31.49	ppm	95
13) Decane	4.452	43	324706	23.84	ppm	99
14) 1,3-Dichlorobenzene	4.526	146	365269	29.75	ppm	99
15) 1,4-Dichlorobenzene	4.580	146	384211	30.37	ppm	100
16) Benzyl alcohol	4.681	108	238422	35.52	ppm	92
17) 1,2-Dichlorobenzene	4.698	146	367327	31.67	ppm	96
18) Acetophenone	4.879	105	599408	36.62	ppm	81
19) 2-Methylphenol	4.783	108	284915	29.77	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.778	45	516071	37.23	ppm	76
21) 3&4-Methylphenol	4.901	108	289784	26.78	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102970.D
Acq On : 2 Apr 2018 4:40 pm
Operator : christc2
Sample : op10986-bsd
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 03 17:02:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	4.885	70	334083	35.28	ppm	95
23) Hexachloroethane	4.965	201	114177	28.24	ppm	84
26) Nitrobenzene	5.018	77	484506	37.84	ppm	98
27) Quinoline	5.992	129	783298	40.39	ppm	99
28) Isophorone	5.216	82	849088	40.39	ppm	99
29) 2-Nitrophenol	5.291	139	225753	39.26	ppm	91
30) 2,4-Dimethylphenol	5.339	107	410208	40.84	ppm	98
31) Benzoic acid	5.441	105	178370	22.12	ppm	97
32) bis(2-Chloroethoxy)met...	5.409	93	446540	40.41	ppm	99
33) 2,4-Dichlorophenol	5.521	162	320411	38.11	ppm	99
34) 2,6-Dichlorophenol	5.730	162	325355	38.23	ppm	99
36) 1,2,4-Trichlorobenzene	5.585	180	308223	33.17	ppm	99
38) Naphthalene	5.660	128	1100114	36.21	ppm	100
39) 4-Chloroaniline	5.719	127	302849	24.04	ppm	97
40) 2,3-Dichloroaniline	6.714	161	386761	36.50	ppm	99
41) Caprolactam	6.056	55	61522	12.00	ppm	98
42) Hexachlorobutadiene	5.783	225	160184	30.36	ppm	97
43) 4-Chloro-3-methylphenol	6.238	107	352258	36.72	ppm	98
44) 2-Methylnaphthalene	6.377	141	639224	36.49	ppm	99
45) 1-Methylnaphthalene	6.489	141	664160	36.55	ppm	94
46) Dimethylnaphthalene	7.131	156	745996	40.11	ppm	98
48) Hexachlorocyclopentadiene	6.570	237	352703	57.51	ppm	99
49) 2,4,6-Trichlorophenol	6.725	196	248971	37.75	ppm	98
50) 2,4,5-Trichlorophenol	6.773	196	246755	36.70	ppm	98
52) 2-Chloronaphthalene	6.955	162	705240	34.67	ppm	100
53) Biphenyl	6.933	154	1007131	37.42	ppm	99
54) 2-Nitroaniline	7.094	65	282773	37.83	ppm	99
55) Dimethylphthalate	7.340	163	895880	37.37	ppm	98
56) Acenaphthylene	7.479	152	1170666	36.91	ppm	100
57) 2,6-Dinitrotoluene	7.409	165	197116	39.49	ppm	98
58) 3-Nitroaniline	7.639	138	161362	29.02	ppm	92
59) Acenaphthene	7.714	153	776158	36.03	ppm	98
60) 2,4-Dinitrophenol	7.784	184	226327	68.13	ppm	93
61) 4-Nitrophenol	7.939	109	93673	23.71	ppm	86
62) Dibenzofuran	7.955	168	1070307	36.82	ppm	98
63) 2,4-Dinitrotoluene	7.960	165	278356	38.83	ppm	97
64) 2,3,4,6-Tetrachlorophenol	8.147	232	188579	34.18	ppm	98
65) Diethylphthalate	8.329	149	947115	33.79	ppm	100
66) Fluorene	8.442	166	877912	37.92	ppm	99
67) 4-Chlorophenyl-phenyle...	8.458	204	398366	36.69	ppm	98
68) 4-Nitroaniline	8.500	138	207577	39.23	ppm	96
70) 4,6-Dinitro-2-methylph...	8.549	198	154387	41.19	ppm	97
71) n-Nitrosodiphenylamine	8.639	169	598823	38.87	ppm	96
72) 1,2-Diphenylhydrazine	8.688	77	1007304	40.92	ppm	97
74) 4-Bromophenyl-phenylether	9.174	248	230170	41.67	ppm	96
75) Hexachlorobenzene	9.255	284	260269	42.20	ppm	93
76) Pentachlorophenol	9.575	266	151828	38.27	ppm	99
77) Phenanthrene	9.859	178	1224135	40.40	ppm	99
78) Anthracene	9.939	178	1240043	40.94	ppm	99
79) Carbazole	10.212	167	1170416	41.25	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102970.D
Acq On : 2 Apr 2018 4:40 pm
Operator : christc2
Sample : op10986-bsd
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 03 17:02:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

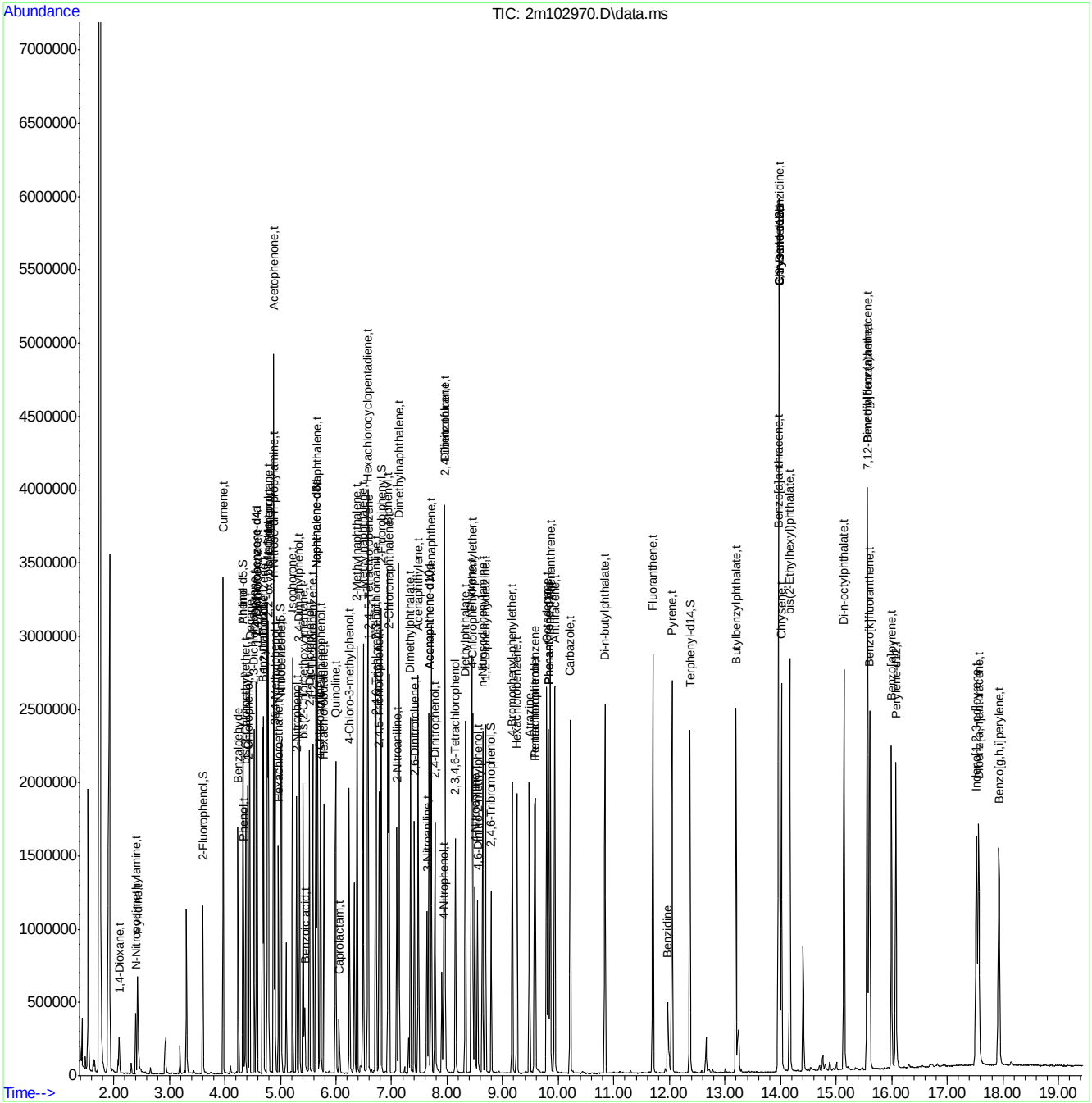
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) Di-n-butylphthalate	10.838	149	1516606	37.70	ppm	99
81) Fluoranthene	11.704	202	1286152	42.16	ppm	97
82) Octadecane	9.789	57	526538	35.42	ppm	97
84) Pyrene	12.047	202	1309167	36.33	ppm	99
86) Butylbenzylphthalate	13.197	149	679871	38.60	ppm	99
87) Benzo[a]anthracene	13.961	228	1276994	39.52	ppm	98
88) 3,3'-Dichlorobenzidine	13.977	252	706429	61.44	ppm	98
89) Chrysene	14.015	228	1180002	37.92	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.165	149	902218	37.07	ppm	97
92) Di-n-octylphthalate	15.143	149	1623434	48.04	ppm	70
93) Benzo[b]fluoranthene	15.561	252	1316248	44.54	ppm	96
94) Benzo[k]fluoranthene	15.603	252	1178349	38.89	ppm	91
95) Benzo[a]pyrene	15.994	252	1099898	44.00	ppm	93
96) Indeno[1,2,3-cd]pyrene	17.524	276	1057128	35.59	ppm	88
98) Dibenz[a,h]anthracene	17.566	278	1099927	45.53	ppm	86
99) 7,12-Dimethylbenz(a)an...	15.566	256	437501	33.48	ppm	93
100) Benzo[g,h,i]perylene	17.930	276	1071608	44.58	ppm	93
102) Benzaldehyde	4.238	105	229818	25.59	ppm	96
104) 1,2,4,5-Tetrachloroben...	6.580	216	377353	41.06	ppm	98
106) Benzidine	11.966	184	247453	12.93	ppm	98
109) Atrazine	9.479	215	127811	48.73	ppm	98
111) Pentachloronitrobenzene	9.586	295	44788	52.64	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102970.D
Acq On : 2 Apr 2018 4:40 pm
Operator : christc2
Sample : op10986-bsd
Misc : op10986,e2m4581,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

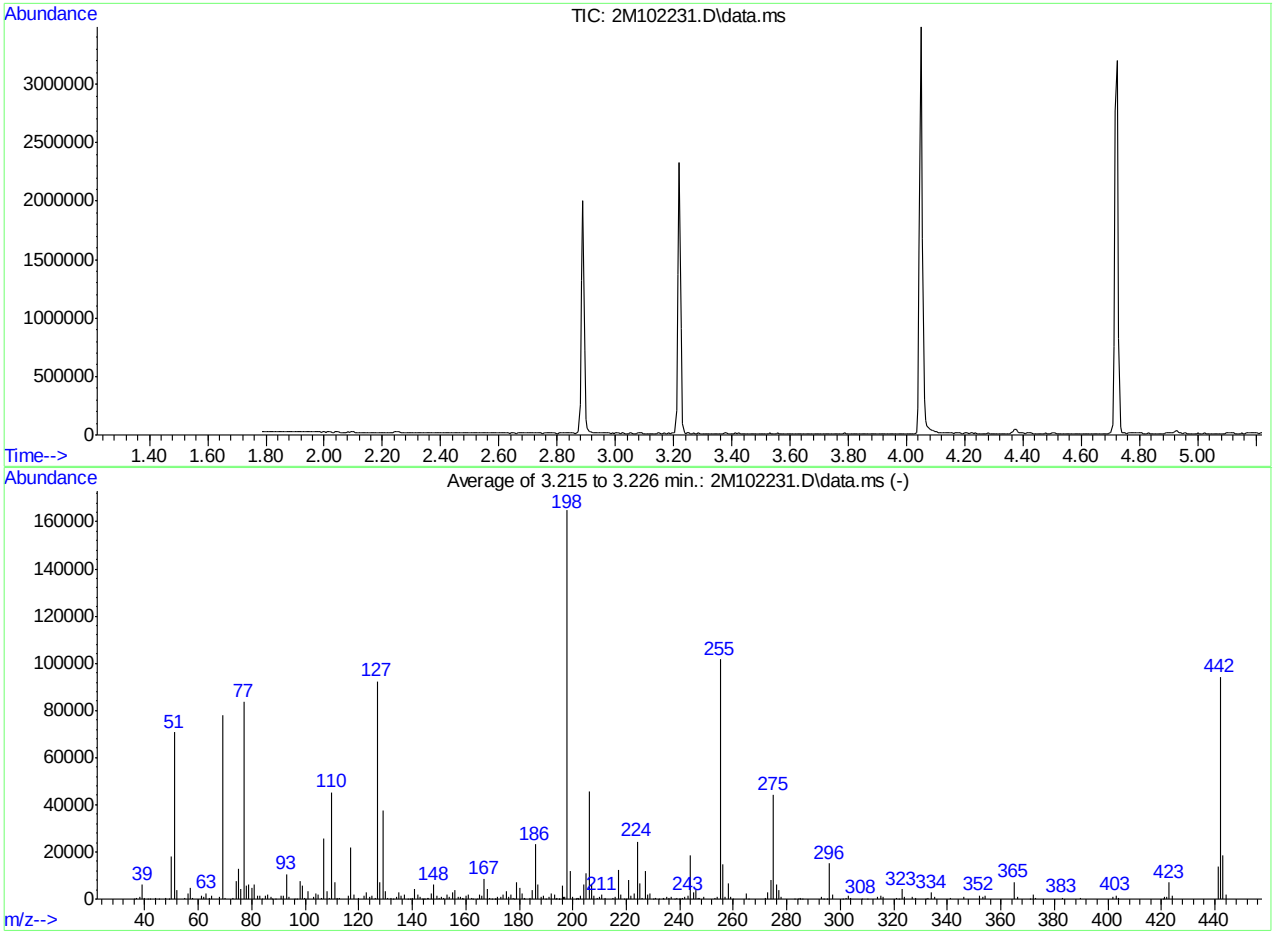
Quant Time: Apr 03 17:02:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration



DFTPP

Data File : C:\msdchem\1\DATA\E2M4551\2M102231.D Vial: 1
Acq On : 28 Feb 2018 2:49 pm Operator: seanb1
Sample : dftpp Inst : MS2M
Misc : op8718,e2m4551,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 268, 269, 270; Background Corrected with Scan 263

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.0	70794	PASS
68	69	0.00	2	1.4	1128	PASS
69	198	0.00	100	47.3	77960	PASS
70	69	0.00	2	0.7	510	PASS
127	198	40	60	56.0	92304	PASS
197	198	0.00	1	0.6	993	PASS
198	198	100	100	100.0	164808	PASS
199	198	5	9	7.1	11711	PASS
275	198	10	30	26.8	44112	PASS
365	198	1	100	4.4	7190	PASS
441	443	0.10	100	76.4	14003	PASS
442	198	40	100	57.3	94360	PASS
443	442	17	23	19.4	18332	PASS

2M102231.D DFTPP2M.M Thu Mar 01 02:43:48 2018

Average of 3.215 to 3.226 min.: 2M102231.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	229	50.00	18219	65.00	1492	80.00	4769
37.00	498	51.05	70794	68.00	1128	81.00	6123
38.00	886	52.00	3642	69.00	77960	81.95	1645
39.10	6056	55.05	335	69.95	510	83.00	1531
40.00	258	56.00	2162	73.10	572	83.95	104
41.00	69	57.00	4963	74.05	7522	85.00	1420
41.90	105	58.00	279	75.00	12715	86.00	2010
44.00	500	61.00	1284	76.05	4369	87.00	837
45.10	139	62.05	1205	77.05	83514	87.80	43
47.90	413	63.00	2561	78.05	5928	89.05	228
49.00	184	64.00	518	79.00	6070	90.95	1396

Average of 3.215 to 3.226 min.: 2M102231.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.95	1482	104.90	1933	118.00	1703	130.95	541
93.00	10530	106.00	652	119.95	329	131.95	360
94.00	746	107.00	25545	121.90	1551	132.80	102
95.90	211	108.00	3538	123.00	2939	133.95	1172
97.00	112	109.05	617	123.95	1154	135.00	2759
98.00	7834	110.00	45293	124.95	1288	135.95	1256
99.00	5918	111.00	6922	126.00	556	137.05	1909
99.95	434	112.00	685	127.00	92304	138.10	123
101.00	3334	112.95	271	128.00	7083	139.00	131
102.95	1025	116.05	1622	129.00	37528	139.95	557
104.00	2523	117.00	22005	129.95	3332	141.00	4365

Average of 3.215 to 3.226 min.: 2M102231.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.00	1895	151.05	825	161.00	1945	171.10	157
143.00	913	151.85	398	162.00	687	171.95	937
143.80	125	153.00	1820	162.70	103	173.00	894
144.00	160	153.95	1197	164.10	168	174.00	1803
144.70	128	155.00	2633	165.00	1915	175.00	3511
145.80	357	156.05	3825	165.95	1307	175.95	894
146.00	468	156.95	754	167.00	8465	177.05	1713
147.00	2314	158.00	837	168.00	4181	177.80	561
148.00	5980	158.80	176	169.00	650	178.10	127
149.00	1264	159.00	675	169.90	126	178.95	6917
150.00	444	160.00	1411	170.90	133	180.00	4644

Average of 3.215 to 3.226 min.: 2M102231.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.05	2468	192.00	2504	200.00	1068	208.95	569
181.80	108	193.00	2097	201.00	235	210.05	809
182.05	487	193.80	150	201.50	278	211.00	1830
184.05	411	194.05	547	201.80	678	212.05	366
185.00	3698	194.70	103	202.00	239	214.95	634
186.00	23219	194.90	115	202.95	1659	215.95	1188
187.05	6411	196.00	5528	204.00	6428	217.00	12488
188.00	747	196.70	754	205.00	10795	217.95	1695
189.00	1480	197.05	993	206.00	45661	219.10	129
189.90	123	198.00	164808	207.05	6094	219.80	116
191.00	896	199.00	11711	207.95	1664	221.00	8245

Average of 3.215 to 3.226 min.: 2M102231.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
221.80	1656	232.10	155	241.95	1124	256.00	14602
223.05	2440	233.80	192	243.10	1560	257.05	1081
224.00	24265	233.95	493	244.10	18759	258.00	6526
225.05	6562	235.05	794	245.00	2930	259.00	971

226.00	665	235.95	468	245.95	3996	259.90	107
227.00	11879	236.95	912	246.90	397	264.95	2583
228.00	1815	237.90	142	247.10	445	265.80	192
229.00	2616	238.90	560	248.95	755	272.05	396
229.95	253	239.90	109	253.00	285	273.00	2969
230.90	294	240.20	174	254.05	802	274.00	8017
231.10	596	240.90	632	255.00	101621	275.00	44112

Average of 3.215 to 3.226 min.: 2M102231.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
276.00	6260	296.00	15044	320.90	356	346.00	1128
277.00	3930	297.00	1991	321.90	122	352.00	1674
277.95	758	300.70	103	323.00	4152	353.05	880
282.90	219	301.95	272	323.95	770	354.00	1240
284.00	158	303.00	1512	327.00	845	364.95	7190
284.90	162	303.95	382	328.00	351	366.05	896
285.05	695	308.00	223	331.90	175	370.90	169
285.90	154	309.90	129	332.90	343	372.00	1935
292.95	899	314.05	787	334.00	2669	372.90	512
293.90	109	315.00	1657	335.05	838	382.95	618
294.90	146	315.95	750	340.95	513	389.90	259

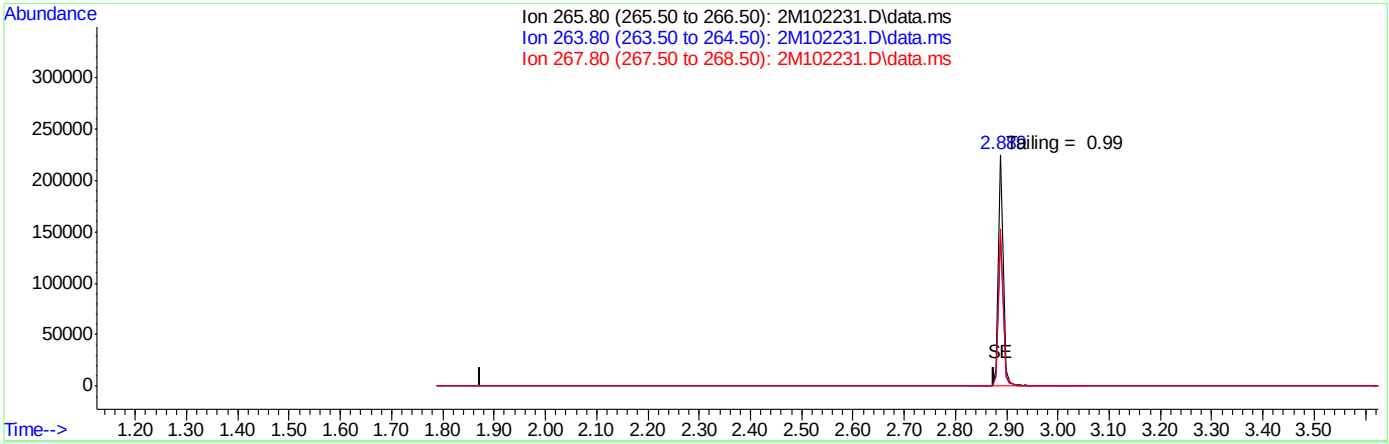
Average of 3.215 to 3.226 min.: 2M102231.D\data.ms
dftpp
Modified:subtracted

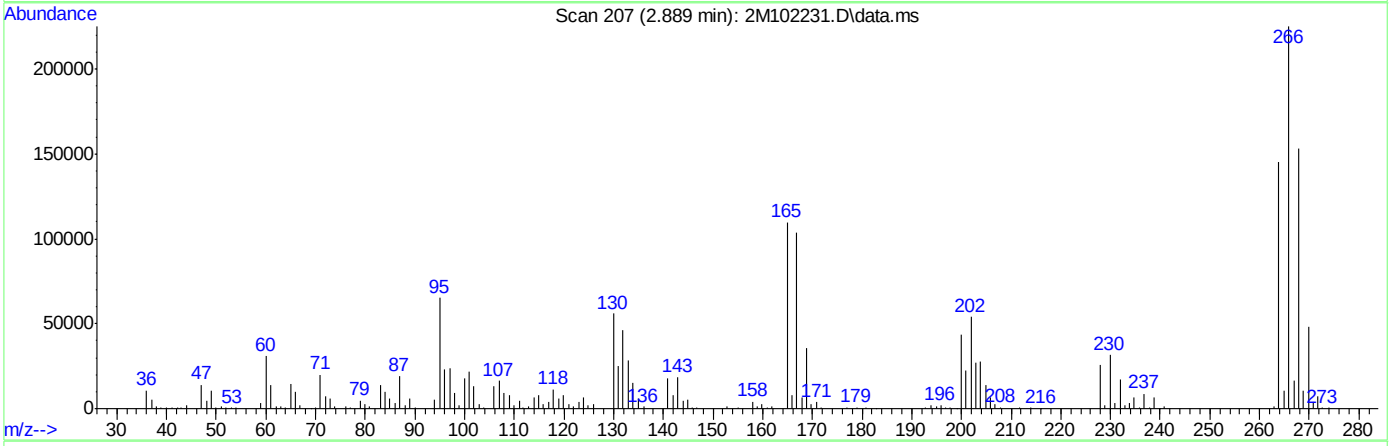
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
402.05	1028	444.00	1705				
402.95	1482						
404.05	446						
420.80	109						
421.00	865						
422.05	1014						
423.00	7033						
424.00	1296						
441.05	14003						
442.05	94360						
443.00	18332						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102231.D
Acq On : 28 Feb 2018 2:49 pm
Operator : seanb1
Sample : dftpp
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 14:55:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102231.D\data.ms

(1) Pentachlorophenol (t)

2.375min (-2.375) 0.00ppb

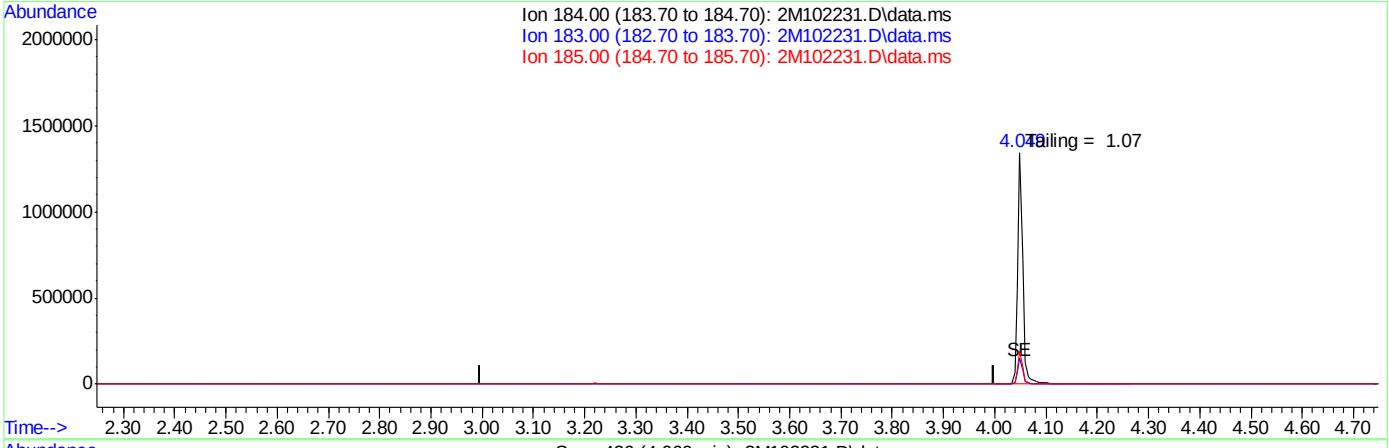
response 0

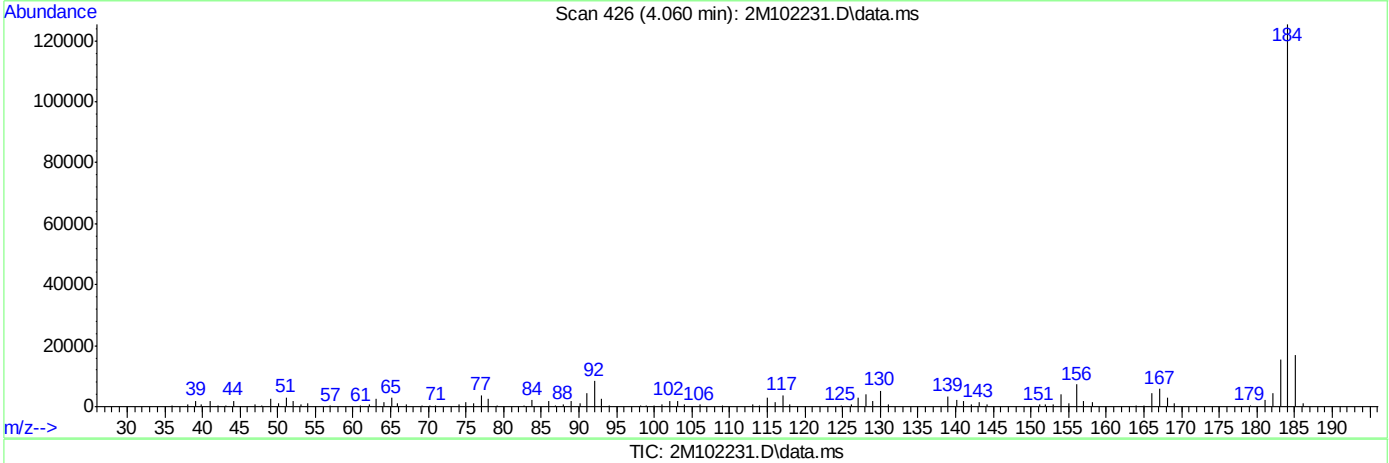
Ion	Exp%	Act%
265.80	100	0.00
263.80	61.00	0.00#
267.80	65.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102231.D
Acq On : 28 Feb 2018 2:49 pm
Operator : seanb1
Sample : dftpp
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 14:55:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102231.D\data.ms

(2) Benzidine (t)

3.498min (-3.498) 0.00ppb

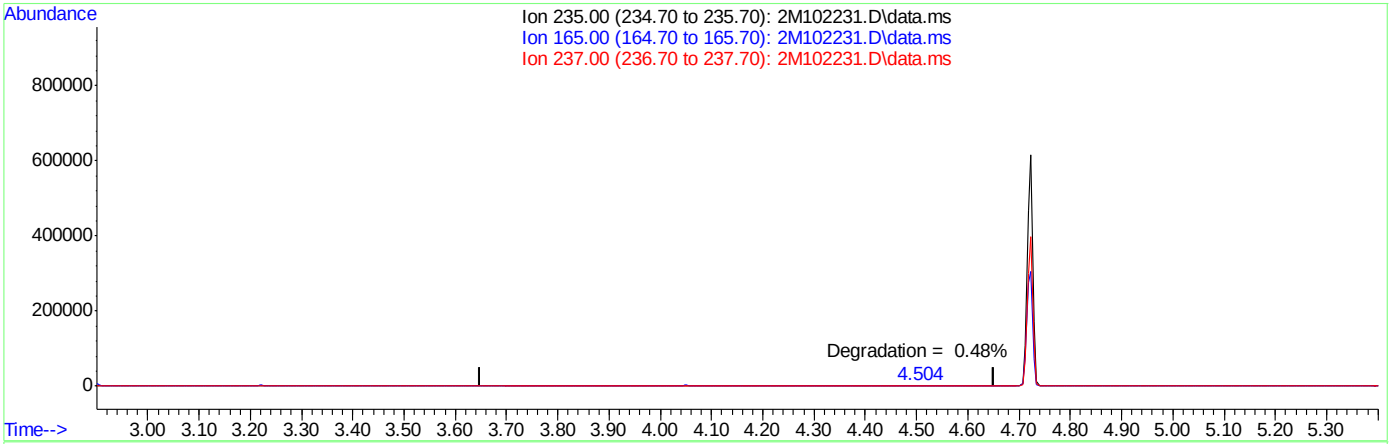
response 0

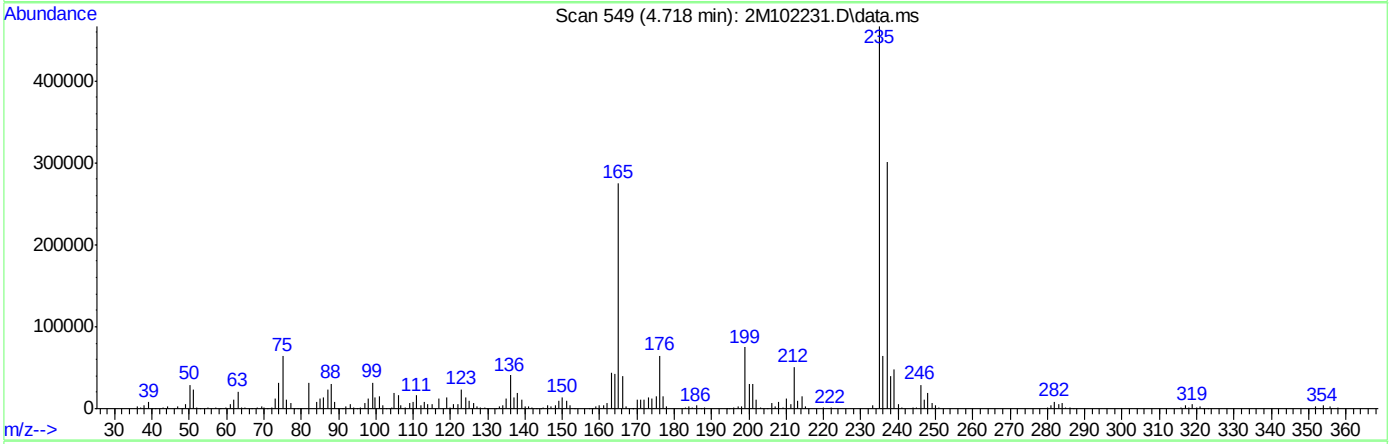
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00
185.00	13.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102231.D
Acq On : 28 Feb 2018 2:49 pm
Operator : seanb1
Sample : dftpp
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 14:55:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102231.D\data.ms

(3) PP-DDT (t)

4.151min 0.00ppb d

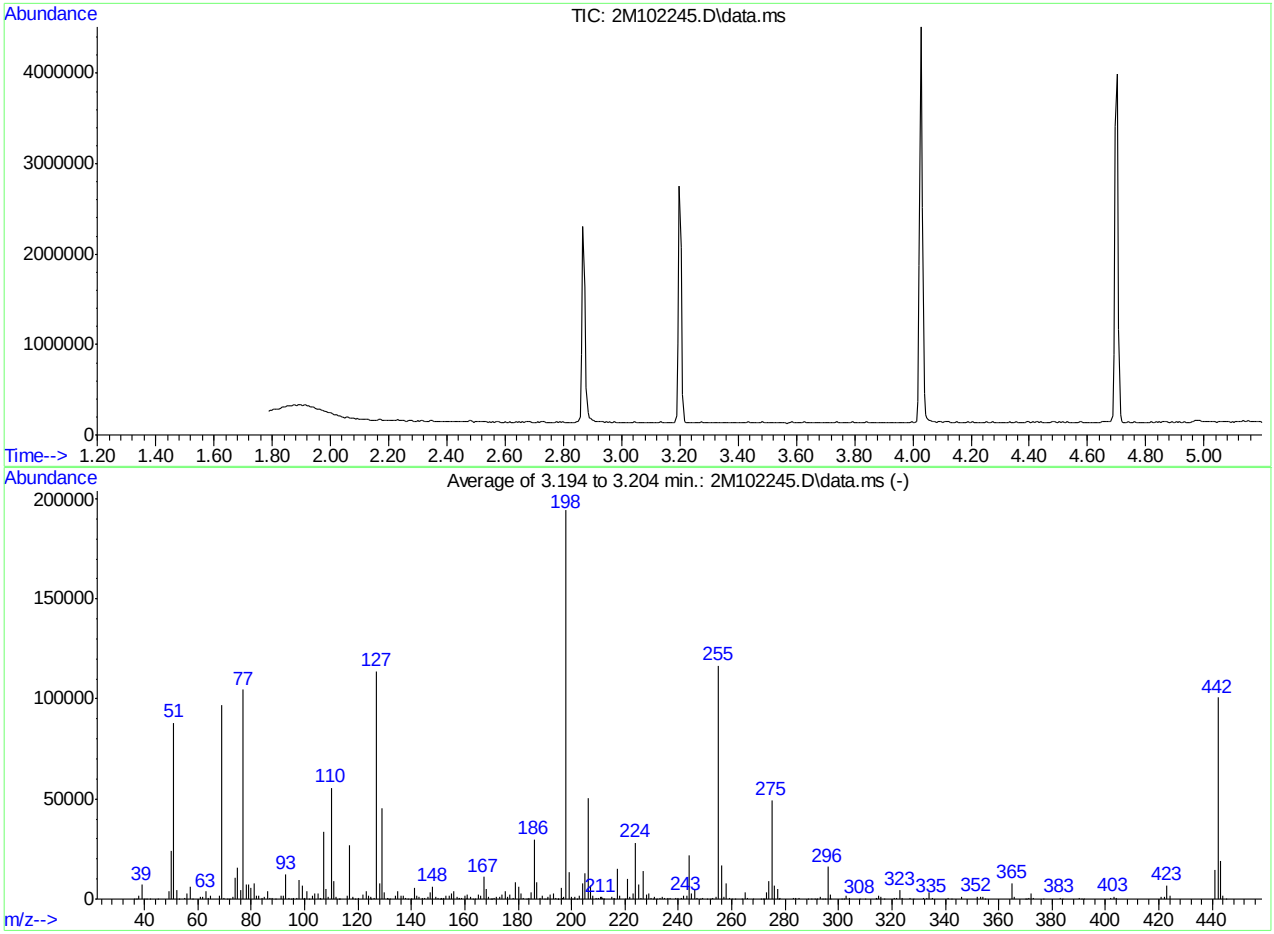
response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	52.20	0.00
237.00	60.60	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E2M4552\2M102245.D Vial: 1
Acq On : 1 Mar 2018 12:08 am Operator: chriss2
Sample : dftpp Inst : MS2M
Misc : op8718,e2m4552,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 264, 265, 266; Background Corrected with Scan 260

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.4	88084	PASS
68	69	0.00	2	1.6	1528	PASS
69	198	0.00	100	49.9	96946	PASS
70	69	0.00	2	0.9	842	PASS
127	198	40	60	58.6	113816	PASS
197	198	0.00	1	0.7	1325	PASS
198	198	100	100	100.0	194173	PASS
199	198	5	9	7.1	13707	PASS
275	198	10	30	25.5	49457	PASS
365	198	1	100	4.1	7871	PASS
441	443	0.10	100	75.5	14377	PASS
442	198	40	100	51.9	100778	PASS
443	442	17	23	18.9	19037	PASS

2M102245.D DFTPP2M.M Thu Mar 01 02:41:26 2018

Average of 3.194 to 3.204 min.: 2M102245.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	83	52.05	4398	67.95	1528	78.95	7093
37.00	186	53.10	229	69.00	96946	80.00	5773
38.00	1731	55.00	575	69.95	842	81.00	8004
39.10	7207	56.00	3037	71.05	266	81.90	1566
39.95	183	57.00	6108	71.95	262	82.95	1725
40.95	242	57.90	232	73.05	1114	83.90	352
41.90	250	61.00	1184	74.00	10544	84.95	1185
45.00	270	61.95	1253	75.00	15536	86.00	3693
49.00	3829	63.00	3714	76.05	4627	86.95	830
49.95	24234	63.95	553	77.10	104701	87.90	394
51.05	88084	64.95	1971	78.05	7046	89.00	116

Average of 3.194 to 3.204 min.: 2M102245.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	1661	101.00	4148	110.95	8751	123.00	3787
92.00	1880	101.80	190	111.95	1018	124.00	1596
93.00	12403	102.95	1465	112.90	262	124.80	212
93.95	829	104.00	3031	113.20	112	124.95	1232
94.90	124	105.00	2656	115.95	1846	125.95	537
96.00	730	105.90	233	117.00	26809	127.00	113816
97.15	422	106.10	758	117.90	330	127.95	8096
98.00	9322	107.00	33413	118.05	1252	129.00	45557
99.00	6965	108.00	4829	118.85	278	130.00	3346
99.80	223	108.95	871	120.00	424	130.90	135
99.95	569	110.00	55669	122.05	2148	131.10	639

Average of 3.194 to 3.204 min.: 2M102245.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.10	202	142.90	1298	151.95	433	160.95	2197
133.95	1518	143.95	396	152.95	1943	161.95	978
134.95	4082	144.95	340	154.00	1787	162.90	143
135.95	1506	146.00	1173	155.05	2922	164.00	140
136.95	1947	147.00	3168	156.00	4211	164.95	2234
137.95	508	148.00	6354	156.95	958	165.95	1706
138.80	100	149.10	1206	157.85	559	167.00	10987
139.80	285	149.95	434	158.10	461	168.00	5227
140.00	210	151.00	102	158.85	823	169.05	1017
141.00	5389	151.10	241	160.00	1603	169.80	146
141.95	1718	151.25	512	160.80	311	170.00	123

Average of 3.194 to 3.204 min.: 2M102245.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.90	359	181.95	442	192.00	2396	200.05	1039
171.90	1127	183.00	209	193.05	2847	200.70	101
172.95	1358	183.95	806	194.00	617	201.40	864
174.00	2509	185.00	3584	194.90	144	202.00	134
175.10	3868	186.00	29921	195.10	228	203.00	1581
176.00	1344	187.00	8387	196.00	5654	204.00	7642
176.95	2035	188.00	848	196.70	350	205.00	12766
178.05	548	188.95	1845	197.05	1325	206.05	50528
179.00	8490	190.05	262	198.00	194173	207.05	6639
180.00	5947	190.80	192	199.00	13707	208.00	1739
181.00	2796	190.95	997	199.90	125	209.05	676

Average of 3.194 to 3.204 min.: 2M102245.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
210.05	627	221.00	10104	231.10	1088	243.05	1895
210.90	1012	221.90	934	231.80	111	244.10	22002
211.10	1102	223.00	3012	232.95	389	245.00	2717
211.75	480	224.00	28242	234.00	968	246.00	4962

212.00	102	225.00	7441	234.90	741	246.95	797
215.00	955	226.00	655	236.00	467	248.10	116
215.80	248	227.00	13844	236.95	735	248.95	797
216.05	707	228.00	2237	238.95	622	250.80	100
216.95	15038	229.00	2936	239.95	338	252.00	120
218.00	1794	229.95	376	241.05	645	252.90	375
220.20	243	230.70	108	242.00	1437	254.05	941

Average of 3.194 to 3.204 min.: 2M102245.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
255.00	116693	271.00	127	283.95	328	297.05	2172
256.00	17087	271.80	146	285.00	661	301.10	104
257.00	1351	272.10	166	288.70	110	302.05	250
258.00	7600	273.00	3371	289.90	100	303.00	1505
259.00	840	274.00	9200	291.00	107	304.00	475
260.00	139	275.00	49457	291.85	225	307.95	279
261.05	301	276.00	6748	293.00	1094	310.00	123
263.90	167	277.00	5044	293.90	130	313.95	699
265.00	3333	277.80	105	295.00	184	314.20	103
265.95	520	278.00	656	296.00	16015	315.00	1820
267.90	102	282.95	504	296.80	195	316.00	1140

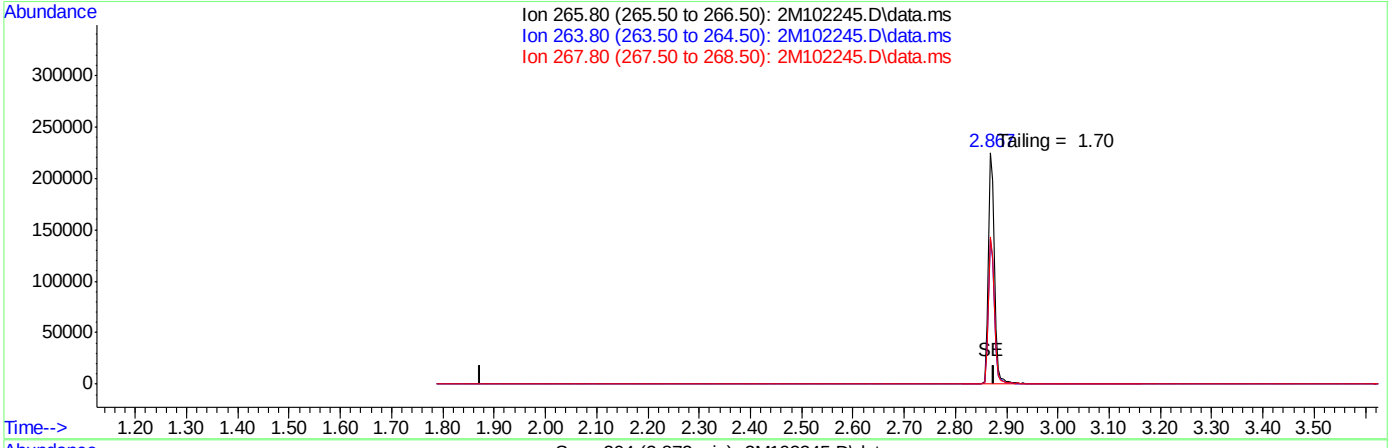
Average of 3.194 to 3.204 min.: 2M102245.D\data.ms
dftpp
Modified:subtracted

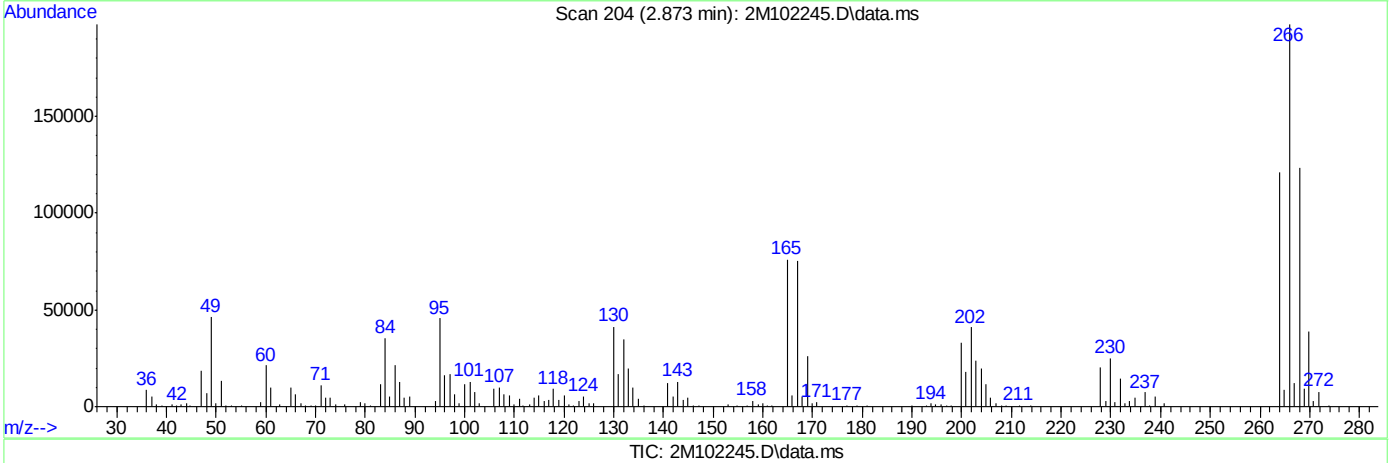
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
316.90	139	341.05	604	371.10	353	403.90	520
320.95	512	342.10	101	372.00	2564	421.00	1172
321.90	378	345.95	1218	373.00	454	422.00	1045
323.00	4693	351.95	1374	376.90	100	423.05	6760
323.95	763	353.00	1062	382.95	694	424.05	1565
326.95	672	354.05	1223	384.00	102	441.10	14377
328.10	284	354.90	227	390.00	445	442.05	100778
331.95	349	365.00	7871	391.10	136	443.05	19037
333.00	550	366.00	1091	392.00	104	444.00	1531
334.00	3202	370.00	109	401.95	852	445.00	149
335.00	625	370.60	151	403.00	1142		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4552\
Data File : 2M102245.D
Acq On : 1 Mar 2018 12:08 am
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4552,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 00:13:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102245.D\data.ms

(1) Pentachlorophenol (t)

2.375min (-2.375) 0.00ppb

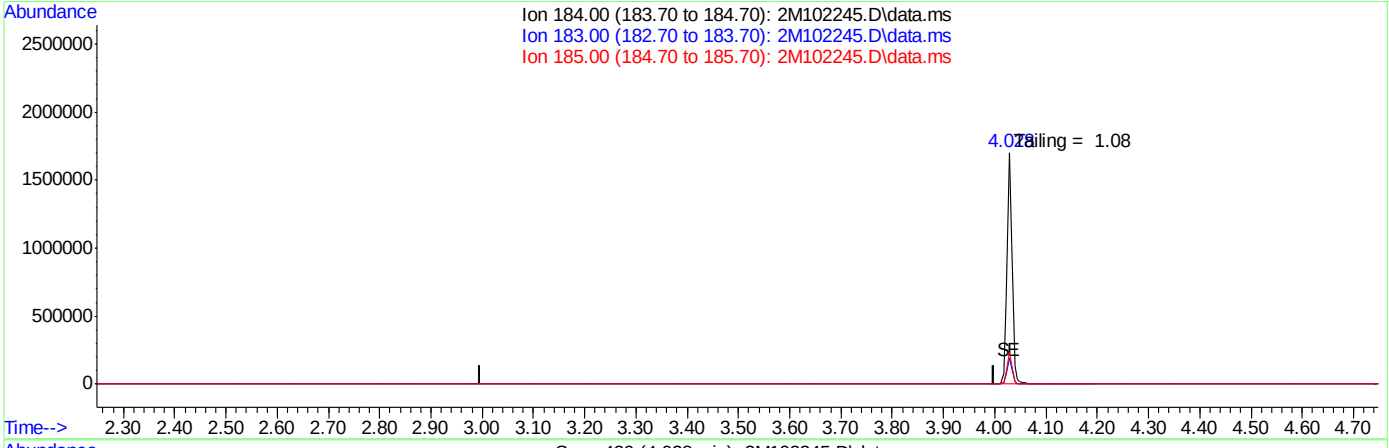
response 0

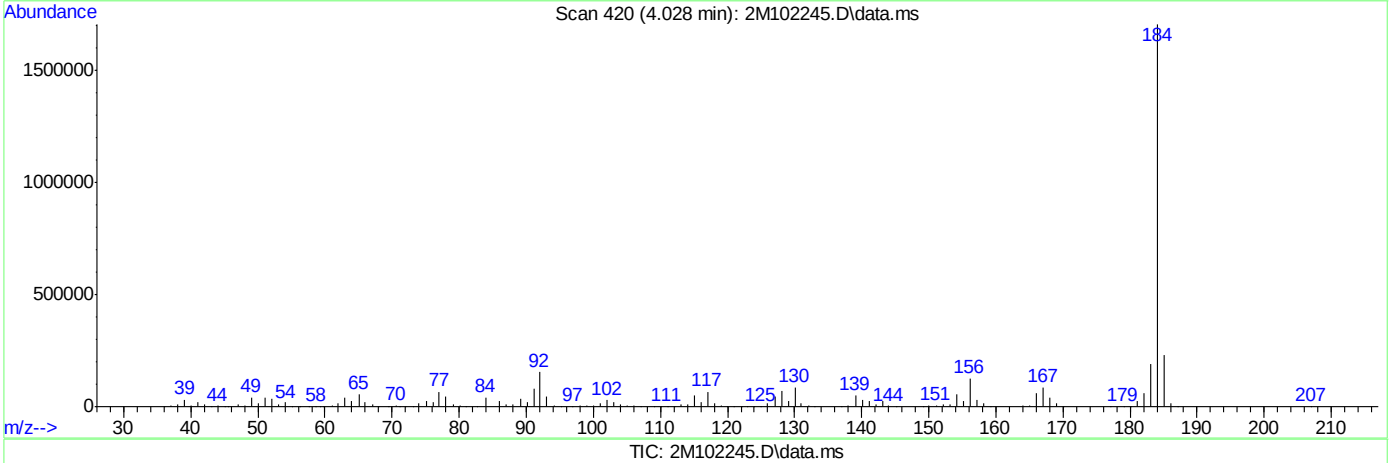
Ion	Exp%	Act%
265.80	100	0.00
263.80	61.00	0.00#
267.80	65.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4552\
Data File : 2M102245.D
Acq On : 1 Mar 2018 12:08 am
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4552,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 00:13:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102245.D\data.ms

(2) Benzidine (t)

3.498min (-3.498) 0.00ppb

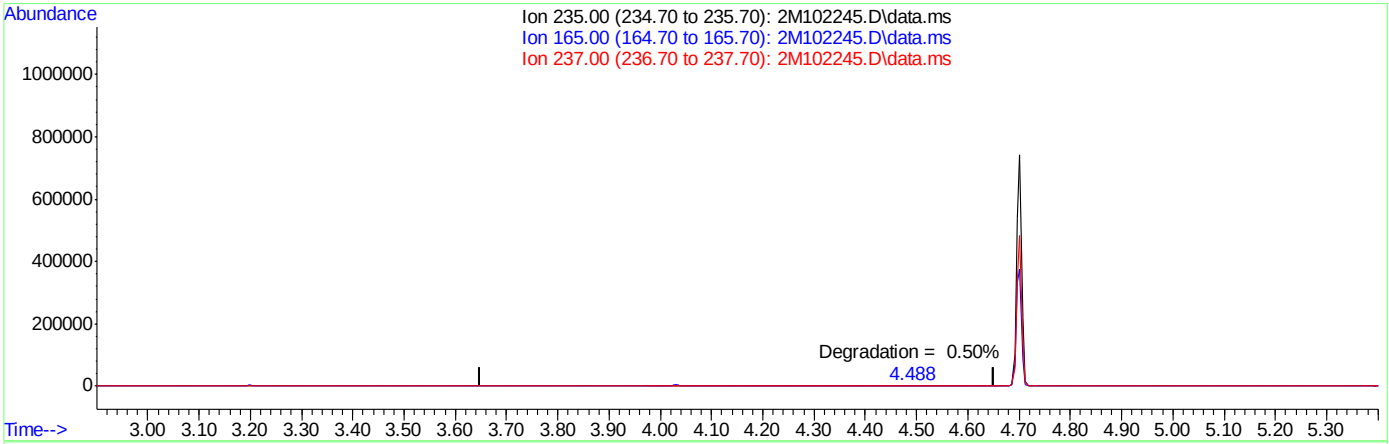
response 0

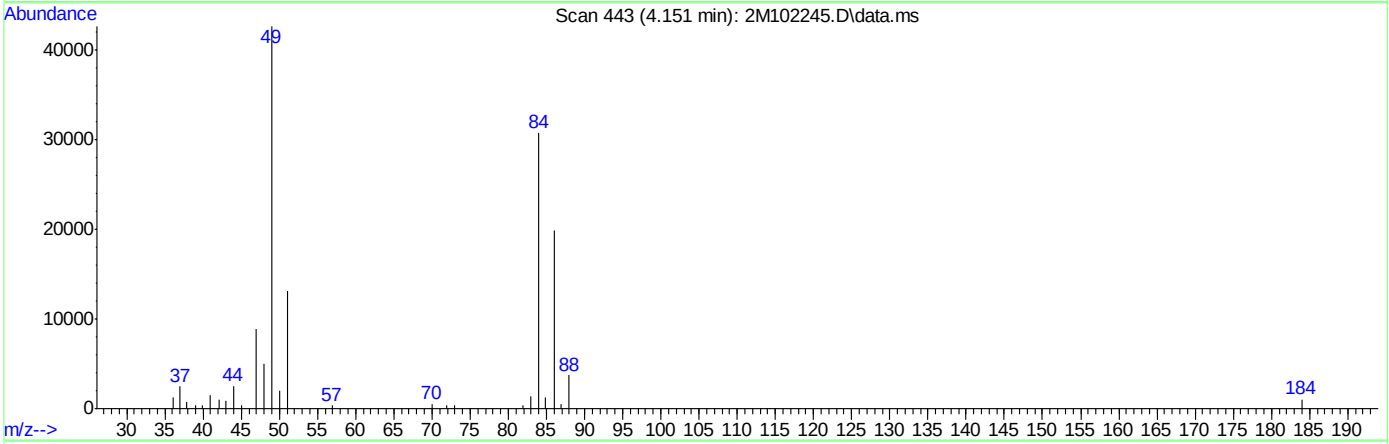
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00
185.00	13.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4552\
Data File : 2M102245.D
Acq On : 1 Mar 2018 12:08 am
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4552,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 00:13:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102245.D\data.ms

(3) PP-DDT (t)

4.151min (-4.151) 0.00ppb

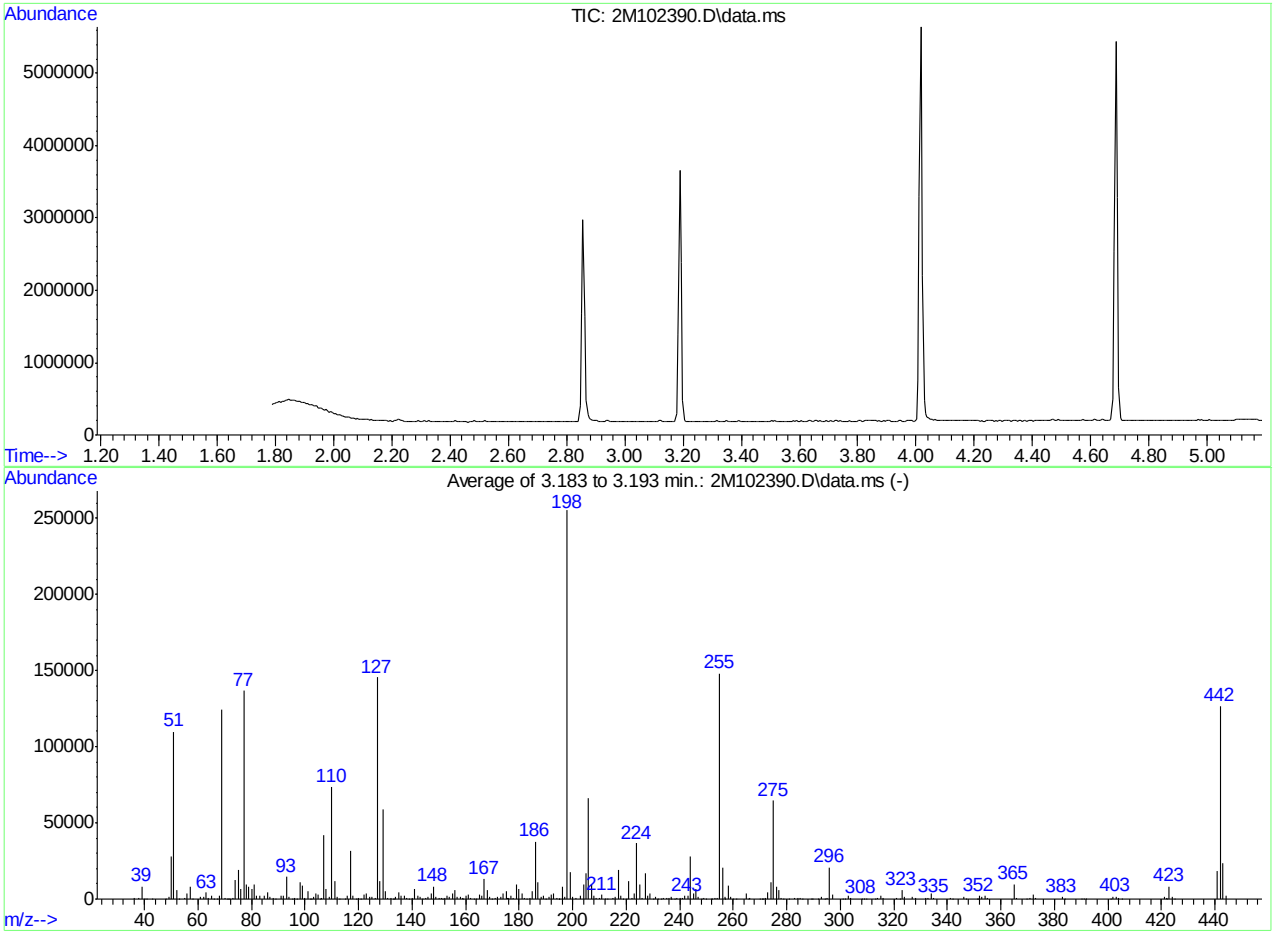
response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	52.20	0.00#
237.00	60.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E2M4555\2M102390.D Vial: 1
Acq On : 5 Mar 2018 11:51 pm Operator: chriss2
Sample : dftpp Inst : MS2M
Misc : op8718,e2m4555,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 262, 263, 264; Background Corrected with Scan 257

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.1	109933	PASS
68	69	0.00	2	1.7	2145	PASS
69	198	0.00	100	48.8	124325	PASS
70	69	0.00	2	0.3	407	PASS
127	198	40	60	57.1	145533	PASS
197	198	0.00	1	0.6	1628	PASS
198	198	100	100	100.0	255005	PASS
199	198	5	9	6.9	17569	PASS
275	198	10	30	25.3	64520	PASS
365	198	1	100	3.8	9650	PASS
441	443	0.10	100	79.6	18655	PASS
442	198	40	100	49.7	126842	PASS
443	442	17	23	18.5	23440	PASS

2M102390.D DFTPP2M.M Fri Mar 09 07:54:02 2018

Average of 3.183 to 3.193 min.: 2M102390.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	679	52.95	263	67.10	110	77.05	136712
37.95	826	55.00	510	68.00	2145	78.05	9642
39.05	8441	55.95	3762	69.00	124325	79.00	8354
39.90	363	56.95	7959	69.90	407	80.00	6778
40.95	285	57.95	395	70.90	109	81.00	9682
43.00	45	60.95	1410	71.20	102	81.90	2408
48.00	64	62.05	1779	71.90	106	82.95	2250
49.00	1525	63.00	4323	72.95	641	84.90	2174
50.05	28229	64.00	726	74.05	12656	85.90	4344
51.00	109933	65.05	2382	75.00	19301	86.90	1179
52.05	5593	65.90	108	76.05	6388	87.95	878

Average of 3.183 to 3.193 min.: 2M102390.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.90	281	101.00	5088	110.00	73544	121.95	2845
91.00	2226	101.95	225	111.00	11586	123.05	3809
92.00	2344	102.20	157	111.95	1530	123.95	1856
93.00	14689	103.00	1732	113.00	133	124.95	1752
93.95	1204	104.00	3404	115.00	104	126.10	459
95.10	114	104.95	3257	115.95	2134	127.00	145533
95.95	654	105.85	390	117.00	31493	128.00	11457
96.80	172	106.10	457	118.00	2536	129.00	58765
98.00	11309	107.00	41800	118.90	234	130.00	4970
99.00	8688	108.00	7007	120.05	450	130.90	1002
99.95	830	109.05	1195	120.80	150	132.00	629

Average of 3.183 to 3.193 min.: 2M102390.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.80	115	142.95	1686	153.00	2052	162.90	171
133.20	188	143.95	334	153.95	1600	164.00	206
133.90	1302	145.05	453	155.00	3924	165.00	2773
135.00	4084	146.05	1315	156.00	5676	166.05	2201
135.95	2167	147.05	3706	157.00	1327	167.00	12945
137.05	2172	148.00	8405	158.00	1208	168.00	6250
137.95	690	148.95	1788	158.80	156	169.05	1149
139.00	245	150.05	594	158.95	987	170.00	355
140.00	875	151.05	1084	160.00	2122	171.00	546
141.00	6364	151.40	148	161.05	3089	171.95	1460
142.05	2237	152.00	538	162.00	1126	172.95	1471

Average of 3.183 to 3.193 min.: 2M102390.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.00	3361	184.10	791	194.80	127	206.00	66186
175.05	5065	185.00	4850	195.10	155	207.00	9386
175.85	556	186.00	37904	196.00	8314	207.95	2445
176.10	1063	187.05	10827	197.00	1628	208.95	519
177.00	2590	188.05	1325	198.00	255005	210.00	690
177.90	978	188.90	2576	199.00	17569	211.05	2664
179.00	9754	190.05	277	200.00	1322	212.10	103
180.00	6805	191.05	1271	201.35	872	212.90	140
180.95	3955	192.00	3029	203.00	2396	214.95	873
181.95	406	193.00	3710	204.05	9674	216.00	1662
182.90	356	194.05	713	205.00	16758	217.00	19199

Average of 3.183 to 3.193 min.: 2M102390.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
218.00	2076	229.00	3405	239.00	431	249.85	327
219.00	135	230.00	293	240.00	409	251.70	118
220.00	253	231.05	1293	240.95	1046	252.00	109
221.00	11999	231.90	112	242.00	1876	253.00	790

222.05	963	233.00	138	243.00	2127	254.10	959
223.00	4074	233.95	949	244.05	27785	255.00	148208
224.00	36704	234.95	948	245.00	3461	256.00	20950
225.00	9358	235.95	774	246.00	6449	256.80	211
226.05	1055	236.80	192	246.95	1577	257.00	1397
227.00	17110	236.95	1268	248.00	317	258.00	8801
227.95	2430	238.00	101	249.00	1048	259.00	1290

Average of 3.183 to 3.193 min.: 2M102390.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
259.90	148	275.00	64520	289.70	125	307.90	154
261.10	146	276.00	8067	291.90	260	308.90	112
265.00	3909	277.00	6113	293.00	1191	309.80	118
265.70	133	277.90	996	294.05	268	312.95	255
265.95	516	278.80	132	294.95	447	314.00	915
269.80	109	281.00	107	296.00	20710	314.95	2515
270.85	298	283.00	851	297.00	3241	316.00	960
271.10	125	283.95	515	300.90	150	320.95	539
271.95	418	285.00	964	301.95	390	322.10	158
273.00	4427	285.90	116	303.05	2577	323.00	5966
274.00	10893	289.00	304	303.95	563	323.95	1330

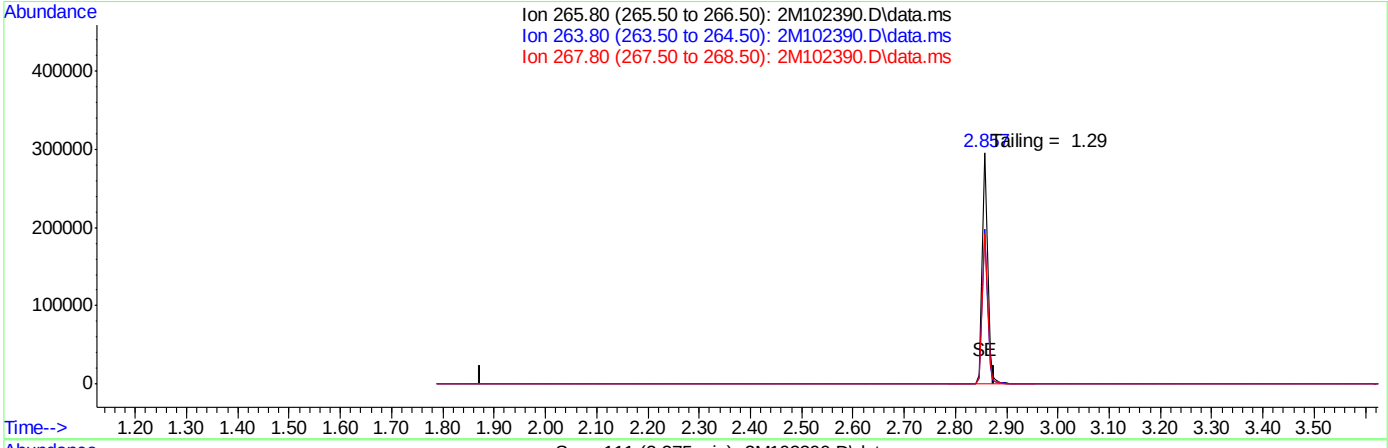
Average of 3.183 to 3.193 min.: 2M102390.D\data.ms
dftpp
Modified:subtracted

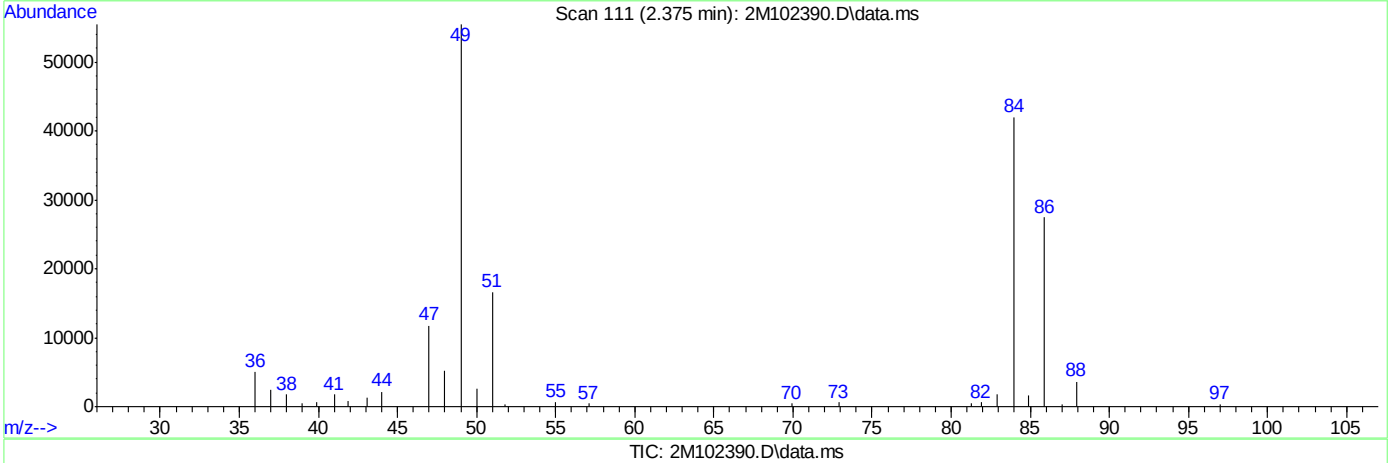
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
327.00	1243	351.80	139	382.95	1251	421.90	383
327.95	453	352.00	2168	383.90	150	422.10	473
332.05	585	352.90	1174	390.00	374	423.00	8351
332.85	482	354.00	2084	391.00	115	424.00	1474
334.00	3748	354.95	534	391.90	208	425.00	112
335.05	1126	365.00	9650	401.10	143	441.00	18655
341.05	461	365.95	906	402.00	1346	442.00	126842
342.10	133	369.70	139	403.00	1711	443.00	23440
345.95	1266	370.90	469	403.95	592	444.00	2259
346.95	215	372.00	3178	405.10	124		
351.10	131	373.00	744	421.00	1266		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102390.D
Acq On : 5 Mar 2018 11:51 pm
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 07 09:00:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102390.D\data.ms

(1) Pentachlorophenol (t)

2.375min (-2.375) 0.00ppb

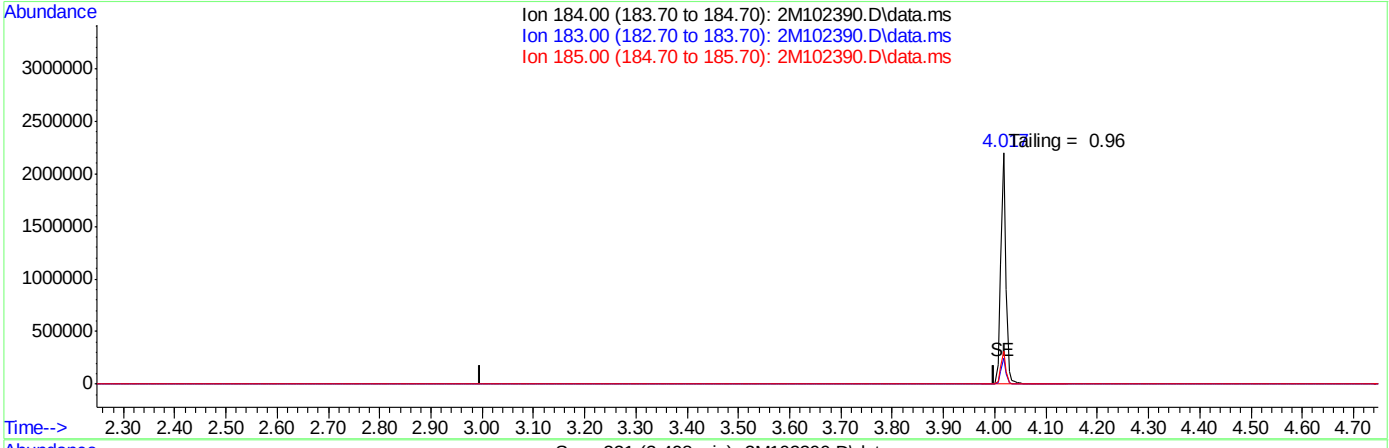
response 0

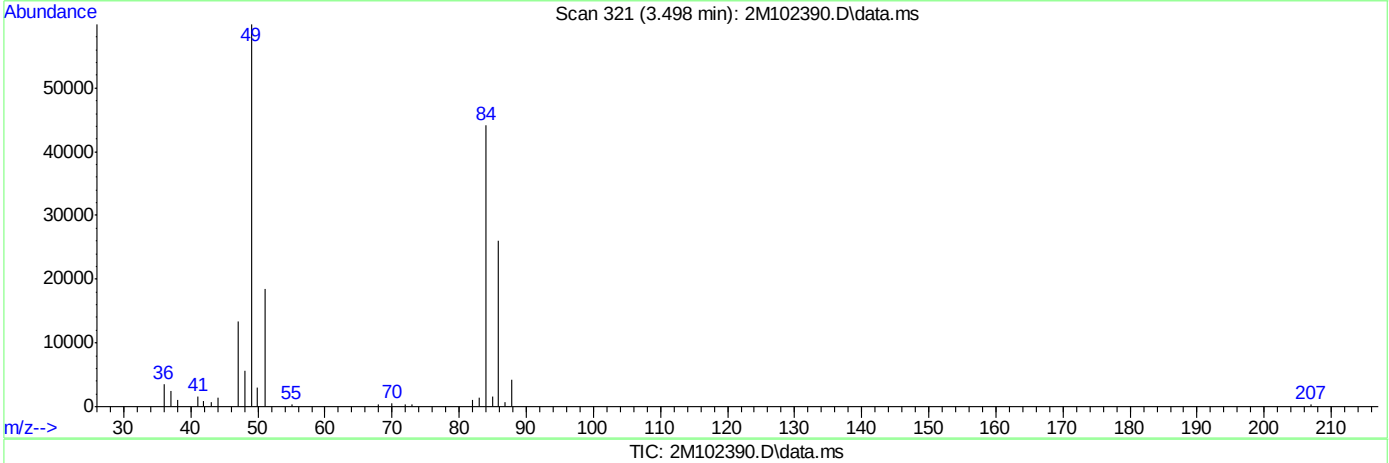
Ion	Exp%	Act%
265.80	100	0.00
263.80	61.00	0.00#
267.80	65.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102390.D
Acq On : 5 Mar 2018 11:51 pm
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 07 09:00:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102390.D\data.ms

(2) Benzidine (t)

3.498min (-3.498) 0.00ppb

response 0

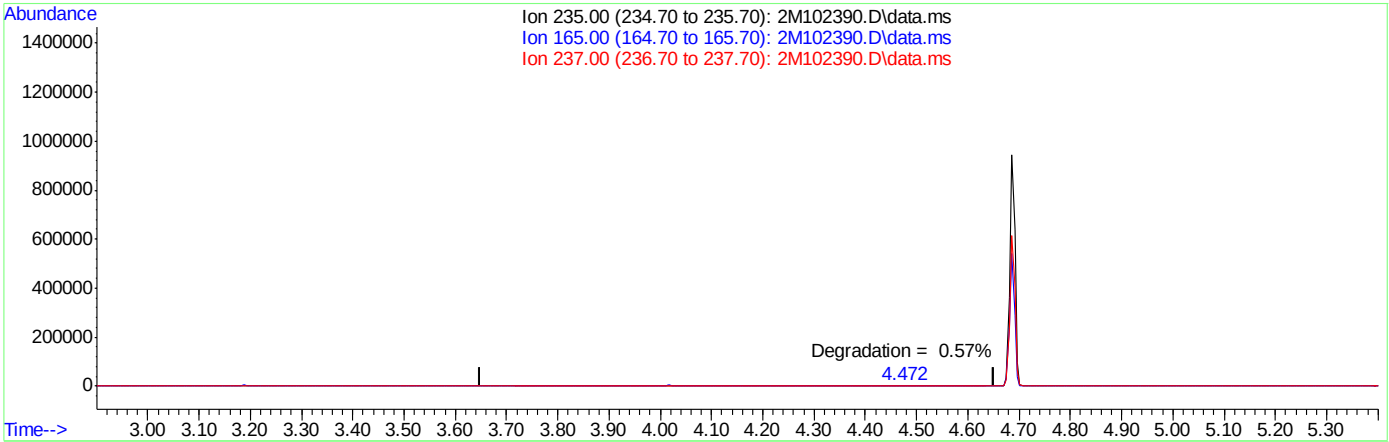
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00
185.00	13.50	0.00
0.00	0.00	0.00

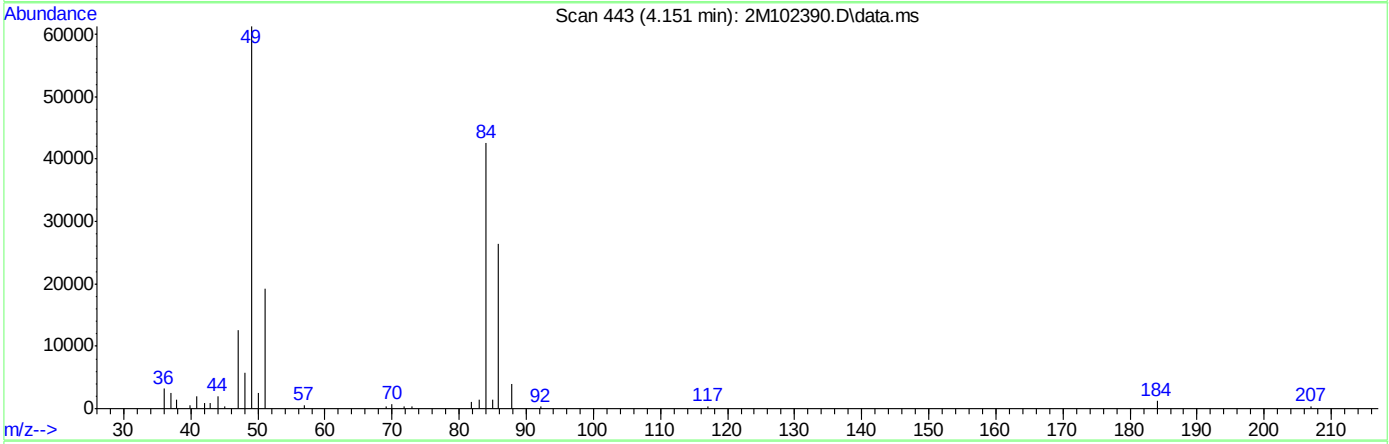
SGS JC62881

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102390.D
Acq On : 5 Mar 2018 11:51 pm
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 07 09:00:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102390.D\data.ms

(3) PP-DDT (t)

4.151min 0.00ppb d

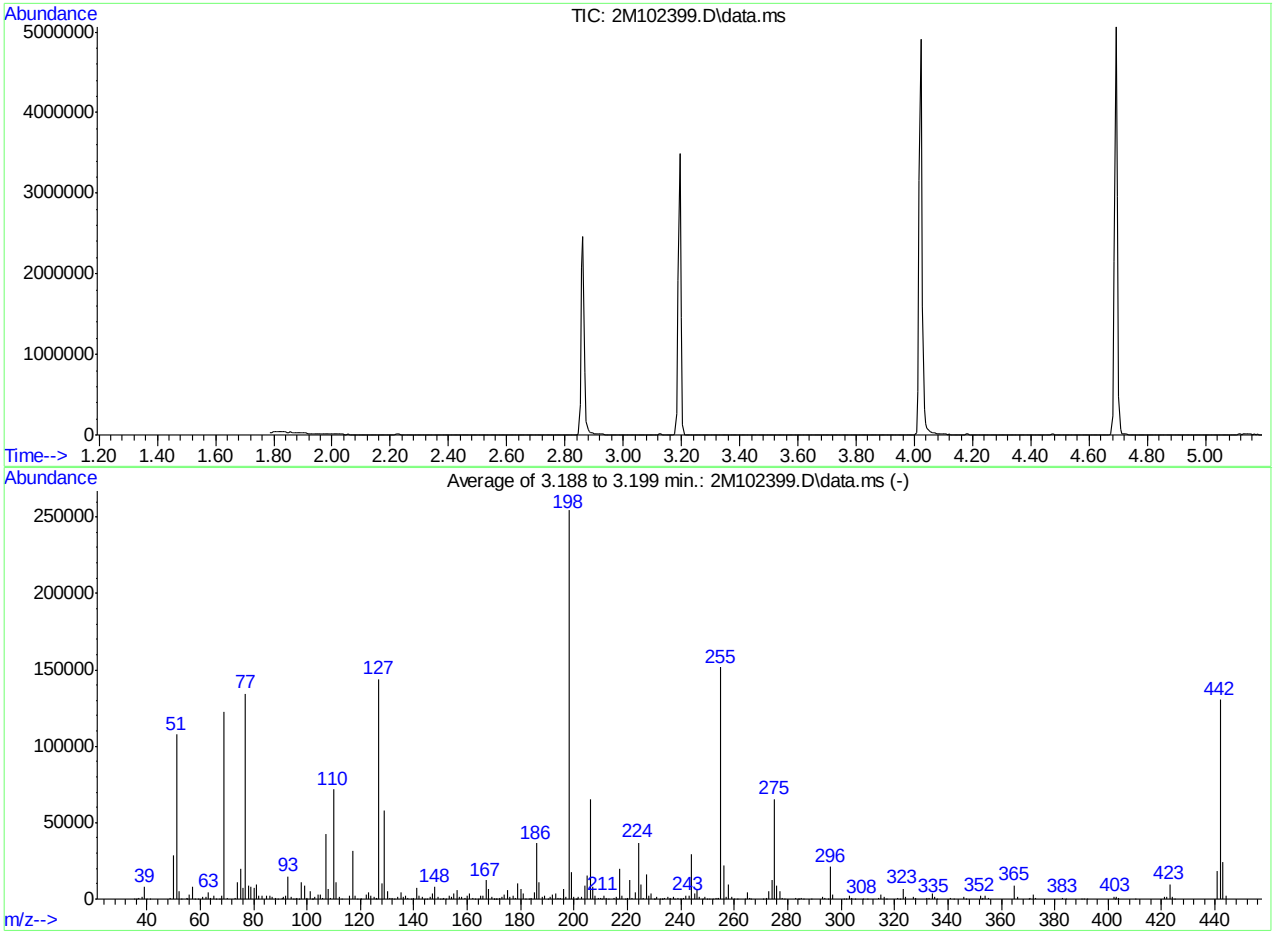
response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	52.20	0.00
237.00	60.60	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E2M4556\2M102399.D Vial: 1
Acq On : 6 Mar 2018 8:07 pm Operator: chriss2
Sample : dftpp Inst : MS2M
Misc : op8718,e2m4556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 263, 264, 265; Background Corrected with Scan 258

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.3	107525	PASS
68	69	0.00	2	1.5	1884	PASS
69	198	0.00	100	48.3	122730	PASS
70	69	0.00	2	0.3	415	PASS
127	198	40	60	56.6	143933	PASS
197	198	0.00	1	0.6	1575	PASS
198	198	100	100	100.0	254250	PASS
199	198	5	9	6.9	17433	PASS
275	198	10	30	25.7	65306	PASS
365	198	1	100	3.6	9082	PASS
441	443	0.10	100	76.7	18698	PASS
442	198	40	100	51.3	130306	PASS
443	442	17	23	18.7	24387	PASS

2M102399.D DFTPP2M.M Fri Mar 09 07:57:10 2018

Average of 3.188 to 3.199 min.: 2M102399.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	140	52.90	110	65.10	2070	78.05	9093
36.00	394	54.90	515	66.00	116	79.00	8430
37.00	731	55.10	143	67.00	122	80.00	7023
38.05	1710	56.00	3103	68.05	1884	81.00	9427
39.10	7734	57.00	7928	69.00	122730	82.00	2394
39.95	332	57.95	337	70.05	415	83.00	1889
41.00	119	59.10	120	73.00	995	85.00	1952
48.90	785	61.05	1473	74.00	11006	86.00	2397
50.00	28502	62.00	1533	75.00	19480	86.95	1239
51.10	107525	63.05	4715	76.10	7016	88.00	682
52.05	5510	64.00	677	77.05	134552	88.90	103

Average of 3.188 to 3.199 min.: 2M102399.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.90	879	100.00	767	110.00	71616	123.00	4078
91.10	1558	101.00	5533	111.00	11270	124.00	1885
91.95	2115	102.00	162	111.95	1304	125.05	1654
93.00	14672	102.20	134	113.00	345	125.80	166
93.95	1153	102.95	1466	116.00	1953	126.15	485
95.00	154	104.00	3253	117.00	31802	127.00	143933
95.80	270	105.00	2971	117.95	2381	128.00	10477
96.00	453	106.00	760	118.95	259	129.00	57650
96.95	295	107.00	42458	120.00	361	130.00	5096
98.00	11031	108.00	6418	120.20	127	130.85	654
99.00	8850	108.95	1076	122.00	2754	131.95	490

Average of 3.188 to 3.199 min.: 2M102399.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.80	105	143.90	350	153.95	1562	165.00	2576
133.95	1411	145.00	398	155.00	3811	166.00	2248
135.00	4411	145.95	1224	156.00	6062	167.00	12395
135.90	1573	147.00	3846	157.05	1457	168.00	6617
137.00	2236	148.00	7980	158.00	1259	169.00	1200
137.90	644	149.05	1472	159.00	908	169.85	391
138.85	299	149.90	142	160.00	2306	170.10	156
139.95	648	150.80	144	161.00	3661	170.80	134
141.00	7122	151.05	825	161.95	949	170.95	335
142.00	2104	151.85	380	162.90	122	171.95	1081
143.00	1647	153.05	2378	164.00	229	172.95	1559

Average of 3.188 to 3.199 min.: 2M102399.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.00	2834	185.00	4462	196.00	6542	206.05	65114
175.00	5551	186.00	36370	197.05	1575	207.05	8381
176.00	1280	187.00	10737	198.00	254250	208.00	2208
177.00	2302	187.90	1278	199.00	17433	209.00	951
177.95	843	189.00	2281	199.95	1220	209.85	889
179.00	10611	190.00	204	200.80	118	210.20	240
180.05	6912	190.90	1149	201.30	265	211.05	2409
181.00	3825	191.95	3065	201.55	1305	211.90	415
181.80	201	193.00	3431	202.95	1797	212.80	150
182.90	304	194.00	809	204.00	9089	215.00	599
183.95	921	195.00	442	205.00	15457	216.00	1334

Average of 3.188 to 3.199 min.: 2M102399.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.20	199	227.00	16004	235.80	156	245.00	3816
217.00	19510	228.00	2326	236.00	848	246.00	6282
218.00	1881	228.95	3434	237.00	1306	247.00	1167
219.00	269	229.90	190	237.80	136	248.00	158

219.95	405	230.10	159	239.00	652	249.00	1260
221.00	12155	231.00	1228	239.85	380	249.80	153
221.70	786	232.00	115	240.10	145	250.80	129
223.00	4075	232.80	134	240.85	993	251.90	252
224.05	36858	233.00	214	242.00	2167	252.95	725
225.00	9335	233.95	902	243.00	2340	253.90	656
225.95	983	234.95	1312	244.10	29296	254.10	487

Average of 3.188 to 3.199 min.: 2M102399.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
255.00	151581	270.95	259	284.05	345	303.00	2285
256.00	21901	271.95	456	284.95	1123	304.05	477
257.05	1615	273.00	5007	286.00	105	305.00	106
257.95	9844	274.00	12429	288.70	104	307.95	266
259.00	1406	275.00	65306	292.95	1420	310.00	119
259.90	152	276.00	8658	293.90	401	314.10	811
261.00	176	277.00	5352	295.10	218	315.00	2768
263.90	314	278.00	831	296.00	20948	315.95	1374
265.00	4403	278.90	121	296.95	3037	316.90	130
265.90	515	283.00	728	300.95	360	321.05	520
266.10	166	283.80	200	302.05	324	322.00	299

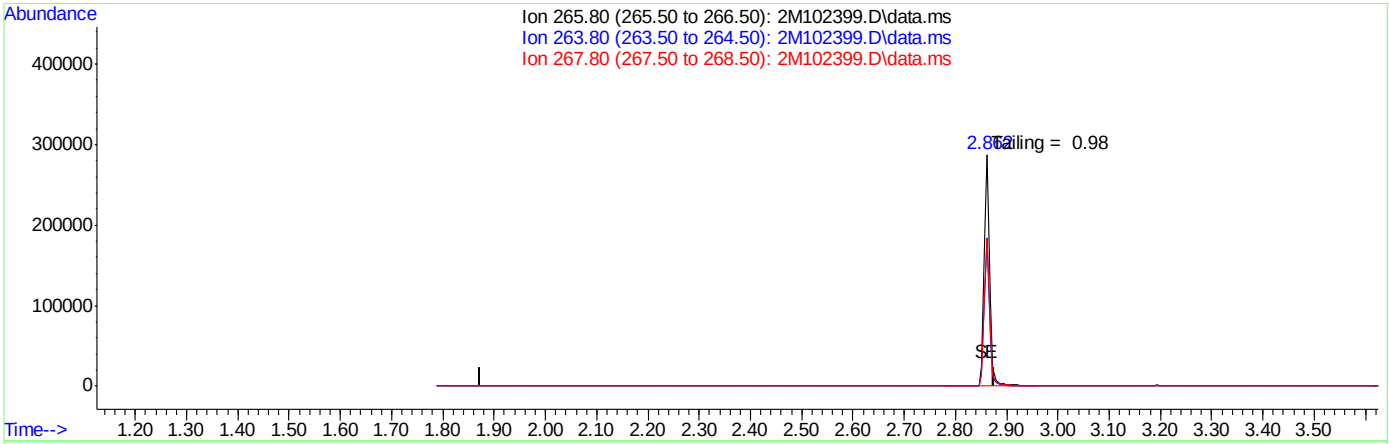
Average of 3.188 to 3.199 min.: 2M102399.D\data.ms
dftpp
Modified:subtracted

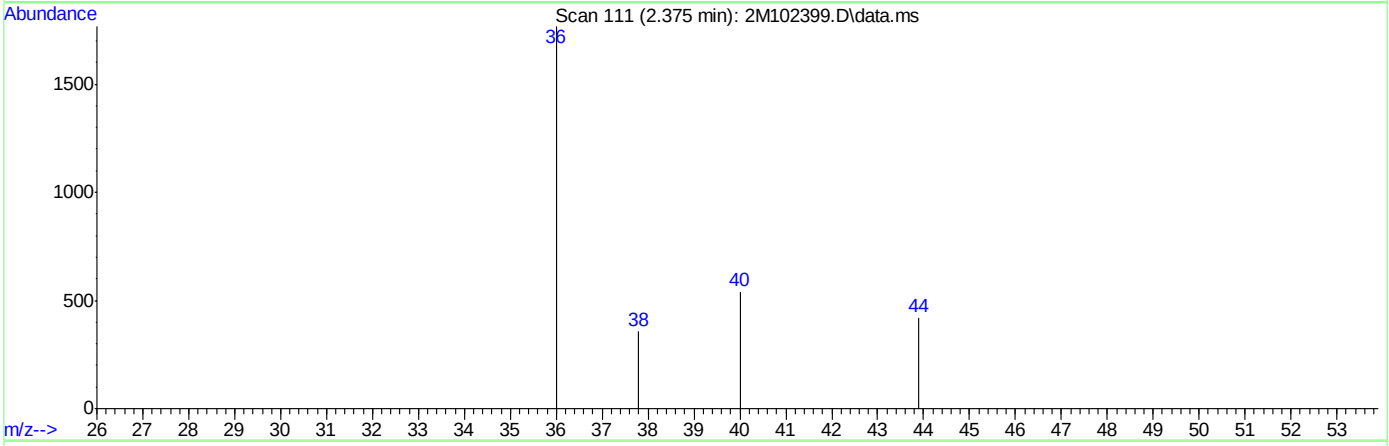
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
323.05	6693	346.00	1375	372.00	2824	410.00	110
324.00	1222	346.90	320	373.00	777	420.95	1178
326.95	1544	352.10	1936	382.95	779	421.95	1219
327.95	509	352.80	226	384.00	146	423.05	9934
332.00	400	353.00	965	389.95	265	423.95	1643
333.00	446	354.00	1924	391.05	304	424.70	117
334.05	3816	355.00	408	392.00	137	441.00	18698
335.00	1219	365.00	9082	402.00	1166	442.00	130306
336.00	129	366.00	1239	402.80	264	443.00	24387
340.90	668	370.10	105	403.00	1488	444.00	2091
342.00	101	370.90	410	404.00	662		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102399.D
Acq On : 6 Mar 2018 8:07 pm
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 20:12:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102399.D\data.ms

(1) Pentachlorophenol (t)

2.375min (-2.375) 0.00ppb

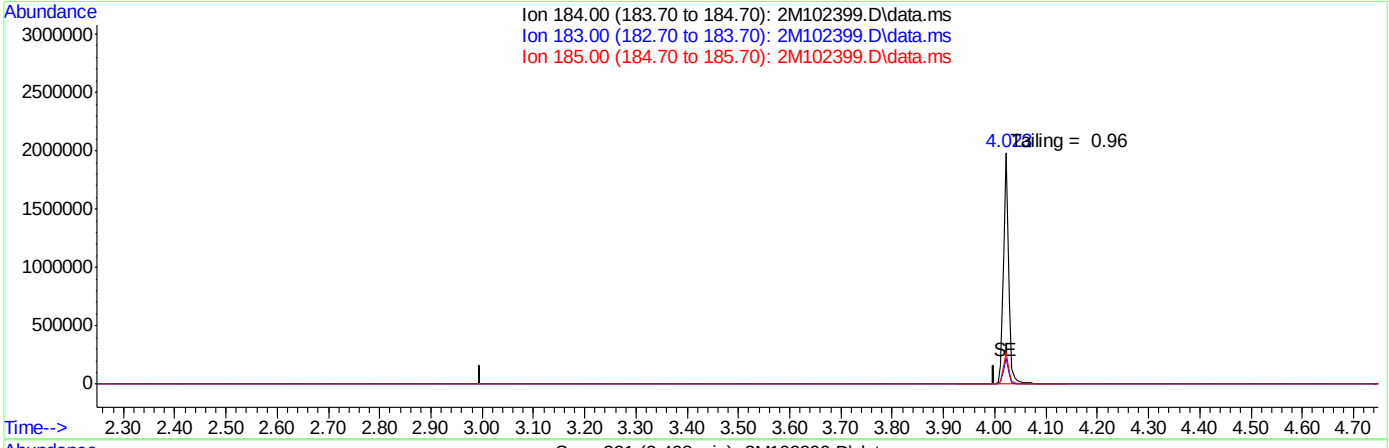
response 0

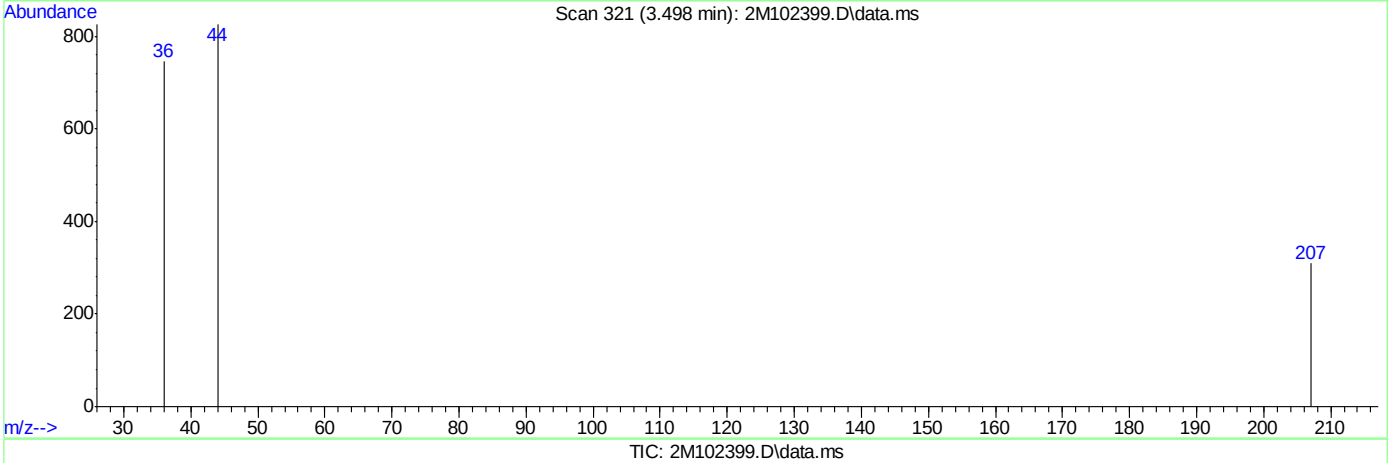
Ion	Exp%	Act%
265.80	100	0.00
263.80	61.00	0.00#
267.80	65.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102399.D
Acq On : 6 Mar 2018 8:07 pm
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 20:12:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102399.D\data.ms

(2) Benzidine (t)

3.498min (-3.498) 0.00ppb

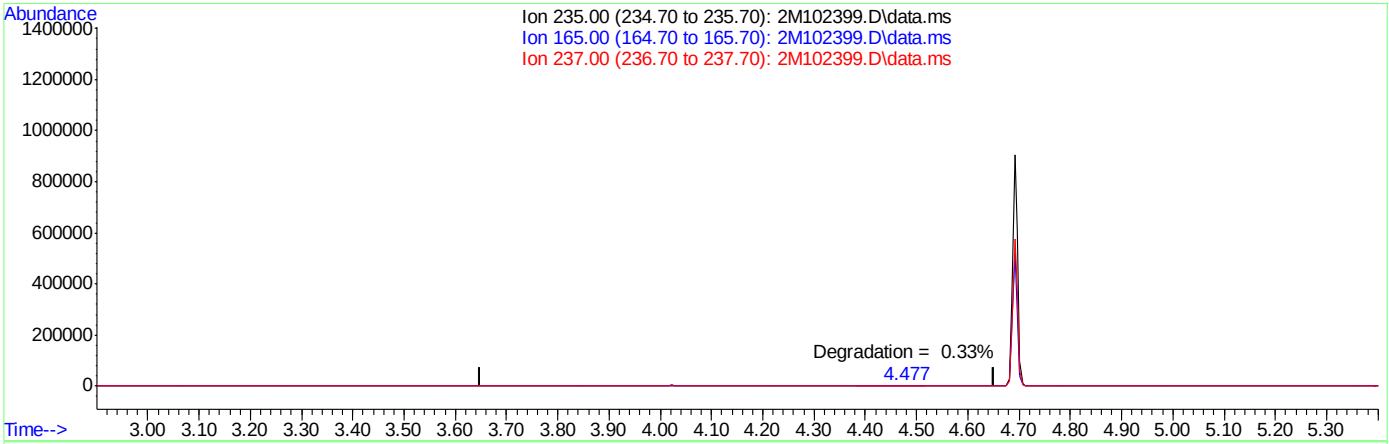
response 0

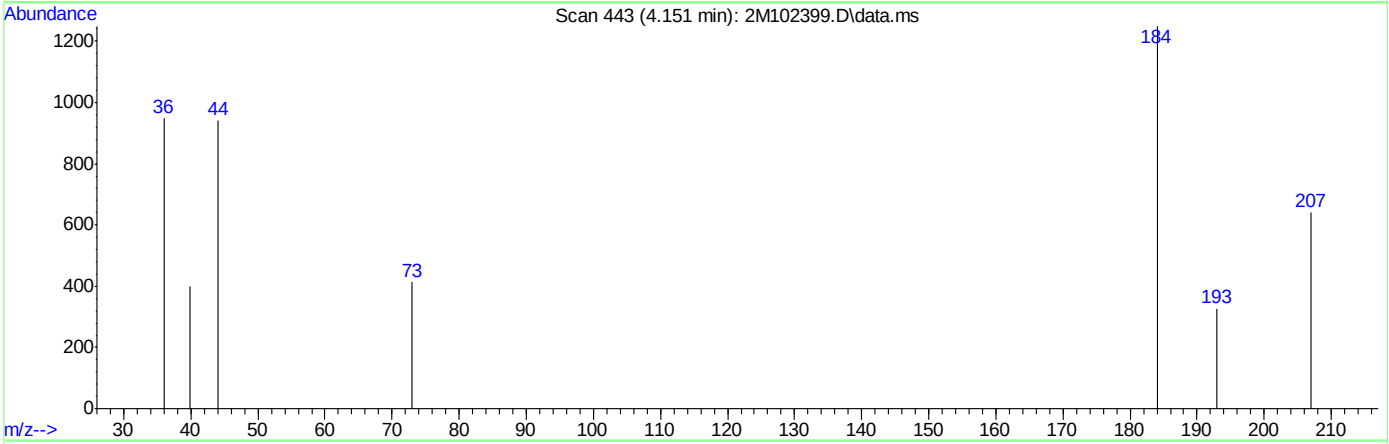
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00
185.00	13.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102399.D
Acq On : 6 Mar 2018 8:07 pm
Operator : chriss2
Sample : dftpp
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 20:12:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2M102399.D\data.ms

(3) PP-DDT (t)

4.151min 0.00ppb d

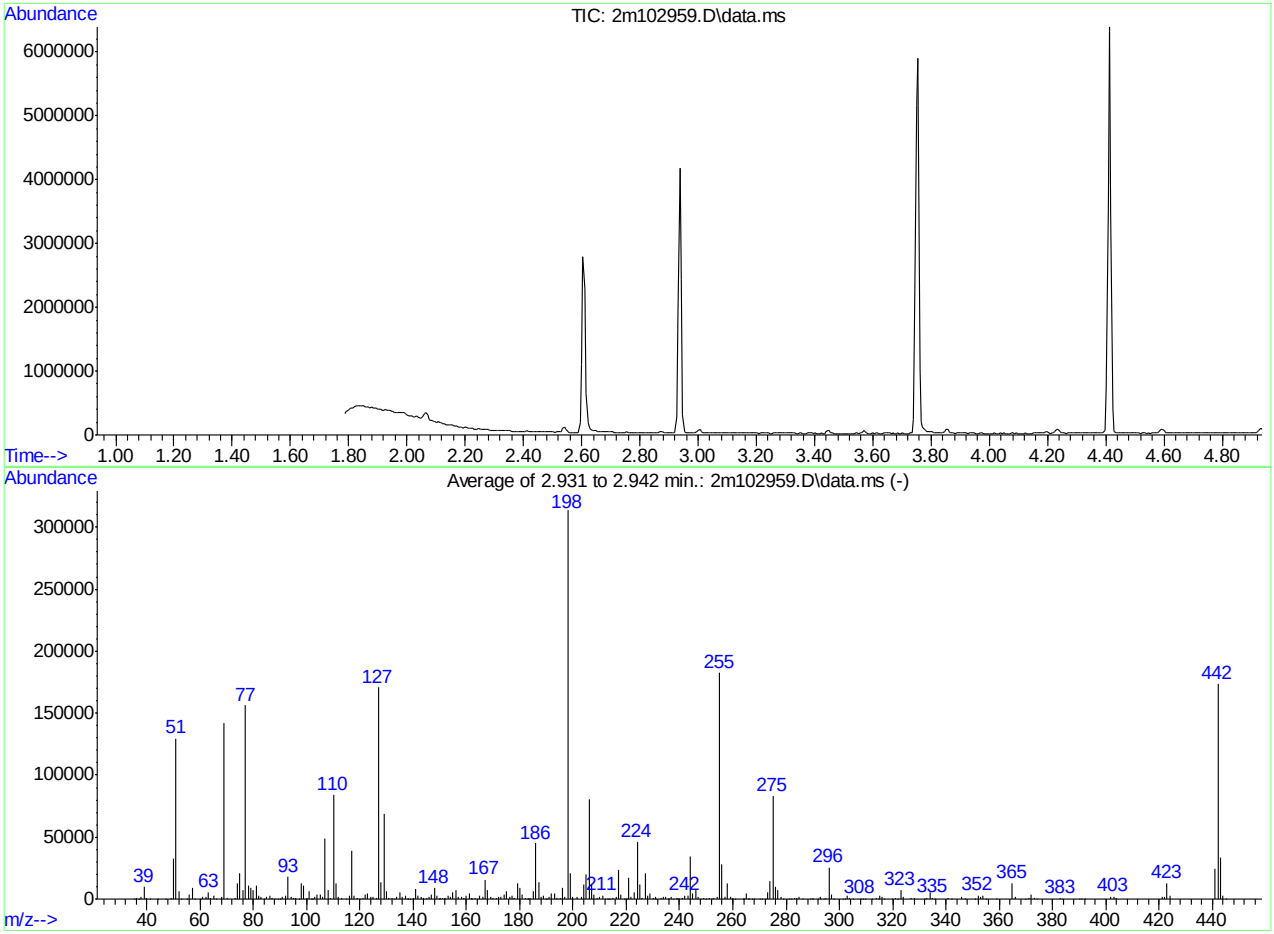
response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	52.20	0.00
237.00	60.60	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E2M4581\2m102959.D Vial: 1
Acq On : 2 Apr 2018 12:01 pm Operator: christc2
Sample : dftpp Inst : MS2M
Misc : op10486,e2m4581,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 215, 216, 217; Background Corrected with Scan 210

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.3	129458	PASS
68	69	0.00	2	1.4	2005	PASS
69	198	0.00	100	45.3	142172	PASS
70	69	0.00	2	0.4	556	PASS
127	198	40	60	54.4	170677	PASS
197	198	0.00	1	0.6	1950	PASS
198	198	100	100	100.0	313514	PASS
199	198	5	9	6.7	21095	PASS
275	198	10	30	26.4	82917	PASS
365	198	1	100	4.2	13129	PASS
441	443	0.10	100	74.1	24504	PASS
442	198	40	100	55.4	173562	PASS
443	442	17	23	19.1	33066	PASS

2m102959.D DFTPP2M.M Tue Apr 03 16:46:30 2018

Average of 2.931 to 2.942 min.: 2m102959.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	105	51.05	129458	63.95	726	78.05	10633
35.95	537	52.05	6540	65.05	2973	79.00	9163
37.05	381	53.00	202	65.95	272	80.00	7718
38.00	1469	55.05	305	68.00	2005	81.00	10742
39.05	9837	55.95	3718	69.00	142172	82.00	2633
39.95	649	57.00	9055	70.00	556	83.00	2272
41.05	391	57.90	335	73.00	816	83.90	135
44.00	340	60.00	293	74.00	12964	85.00	1851
46.95	248	61.05	1840	74.95	21124	86.00	3044
49.00	665	62.05	2054	76.05	7697	87.00	1125
50.05	32338	63.10	5541	77.05	156093	87.95	434

Average of 2.931 to 2.942 min.: 2m102959.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.05	321	100.00	879	110.00	83757	122.00	3209
90.00	108	101.00	6050	111.00	12699	123.00	4410
91.00	2277	101.80	152	111.95	1828	123.95	1729
92.05	2944	102.00	190	113.00	572	125.00	2025
93.00	18038	103.00	1954	115.00	417	126.10	629
94.00	1481	104.00	4109	116.00	2718	127.00	170677
95.05	732	105.00	3640	117.00	38957	128.00	13179
96.00	1157	106.00	1412	117.95	2824	129.00	68624
96.95	69	107.00	49201	119.00	728	130.00	6499
98.00	12706	108.00	7639	120.00	208	130.95	1325
99.00	10620	109.00	1309	121.00	534	131.95	580

Average of 2.931 to 2.942 min.: 2m102959.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.95	490	142.95	2050	151.85	563	162.10	881
133.95	1729	144.00	715	153.00	2877	163.00	546
135.00	5444	145.00	657	154.00	1817	163.85	404
136.05	2027	146.00	1541	155.00	5305	165.00	2781
137.00	2801	146.95	4098	156.00	7051	165.95	2174
137.80	225	148.00	8772	157.00	1525	167.00	15656
138.05	439	149.00	2353	157.95	1605	168.00	7227
139.00	487	149.90	141	158.95	1251	169.00	1444
140.00	660	150.05	541	160.00	2790	170.10	548
141.00	8266	151.05	1266	161.00	4737	171.10	724
141.95	3039	151.70	155	161.80	184	171.95	1544

Average of 2.931 to 2.942 min.: 2m102959.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.95	1763	183.15	300	193.00	4216	205.00	19951
174.00	3421	183.95	902	194.05	1209	206.05	80266
175.00	6689	185.00	6310	195.05	873	207.10	12143
176.10	1987	186.00	45229	196.00	9295	208.00	3550
176.95	2731	187.05	13393	197.05	1950	209.00	1006
178.00	1148	188.05	1533	198.00	313514	210.10	1833
179.00	12482	189.00	2907	199.00	21095	211.00	3101
180.00	8711	189.80	249	199.95	1613	212.00	240
181.00	3967	190.00	184	201.55	1660	212.90	124
182.05	654	191.00	1456	203.00	2097	213.10	132
182.90	109	191.95	4321	204.05	12084	213.80	121

Average of 2.931 to 2.942 min.: 2m102959.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
215.00	939	225.00	11473	235.95	956	246.00	6856
216.05	1889	226.05	1132	237.00	1674	246.95	1652
217.00	23746	227.00	20583	237.90	176	247.90	118
218.00	3404	228.00	3050	238.80	111	249.05	1235

219.00	178	229.00	4124	238.95	885	249.90	136
219.90	271	230.05	656	239.95	572	251.00	552
220.10	129	230.80	213	241.00	1071	251.85	441
221.00	17281	231.00	1699	242.05	2811	252.95	911
221.80	1734	233.00	579	243.05	2589	254.05	1475
223.00	5015	233.90	1594	244.05	34496	255.00	182333
224.05	46010	234.95	1555	245.05	4730	256.00	27958

Average of 2.931 to 2.942 min.: 2m102959.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
257.00	2233	267.90	110	281.05	282	293.00	1818
258.00	12246	269.95	235	281.95	404	294.05	358
259.00	1733	270.90	398	282.95	909	295.05	588
259.95	618	272.00	445	284.05	746	296.00	25731
260.95	331	273.00	5525	285.00	1517	297.00	4076
263.80	106	274.00	14669	285.90	113	298.00	159
264.00	458	275.00	82917	289.00	359	301.05	406
265.00	4432	276.00	10260	289.80	106	301.90	347
265.80	214	277.00	7107	290.00	110	303.00	2896
265.90	220	278.00	1398	292.00	235	303.95	576
267.00	122	279.00	232	292.70	250	305.00	101

Average of 2.931 to 2.942 min.: 2m102959.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
307.90	385	322.00	398	341.90	414	370.00	312
309.00	274	323.00	7298	346.00	1770	370.90	689
309.85	354	324.05	1494	347.00	383	371.95	4041
312.00	119	327.00	1234	351.00	130	373.05	1005
314.05	1144	328.00	907	352.05	2810	373.90	148
314.80	270	332.00	465	352.95	1585	383.00	851
314.95	2671	333.00	654	354.05	2441	383.90	323
316.00	1436	334.00	5565	355.05	317	389.95	354
316.95	320	335.00	1333	358.90	110	391.00	325
319.90	124	335.90	168	365.00	13129	392.05	293
321.00	779	341.00	1097	366.00	1900	402.00	1421

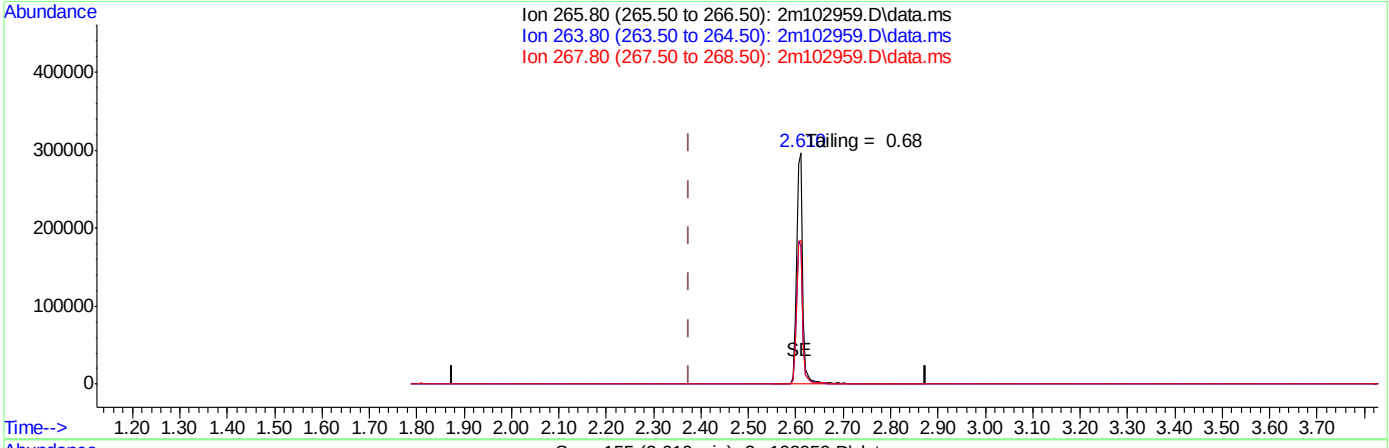
Average of 2.931 to 2.942 min.: 2m102959.D\data.ms
dftpp
Modified:subtracted

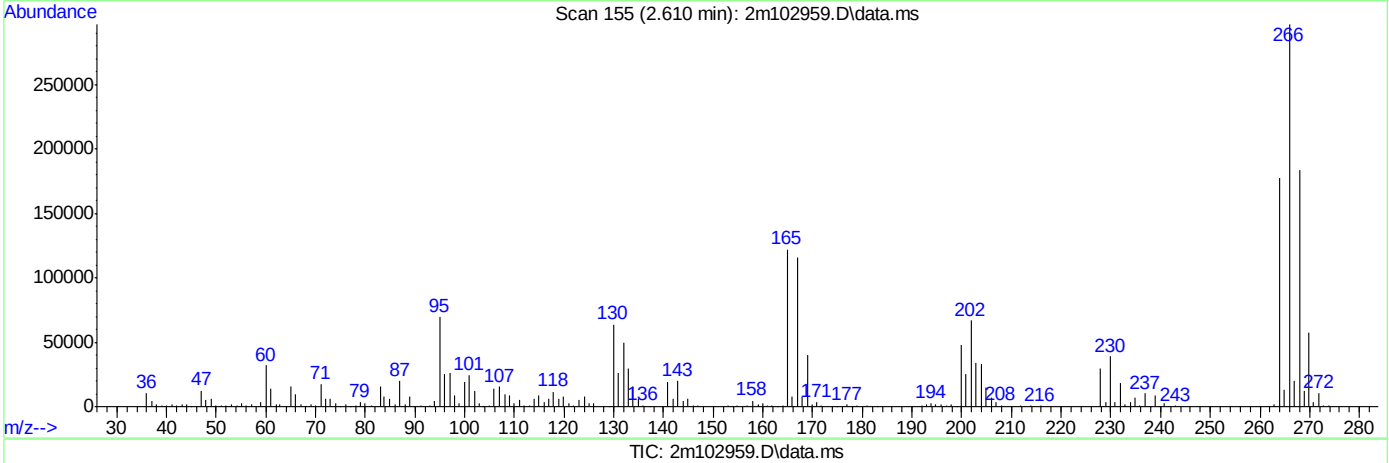
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
403.05	2216						
404.05	697						
421.00	1976						
422.00	1903						
423.05	12739						
424.00	2606						
441.05	24504						
442.05	173562						
443.00	33066						
444.10	3089						
445.00	223						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102959.D
Acq On : 2 Apr 2018 12:01 pm
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 12:07:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m102959.D\data.ms

(1) Pentachlorophenol (t)

2.610min (+0.235) 0.00ppb m

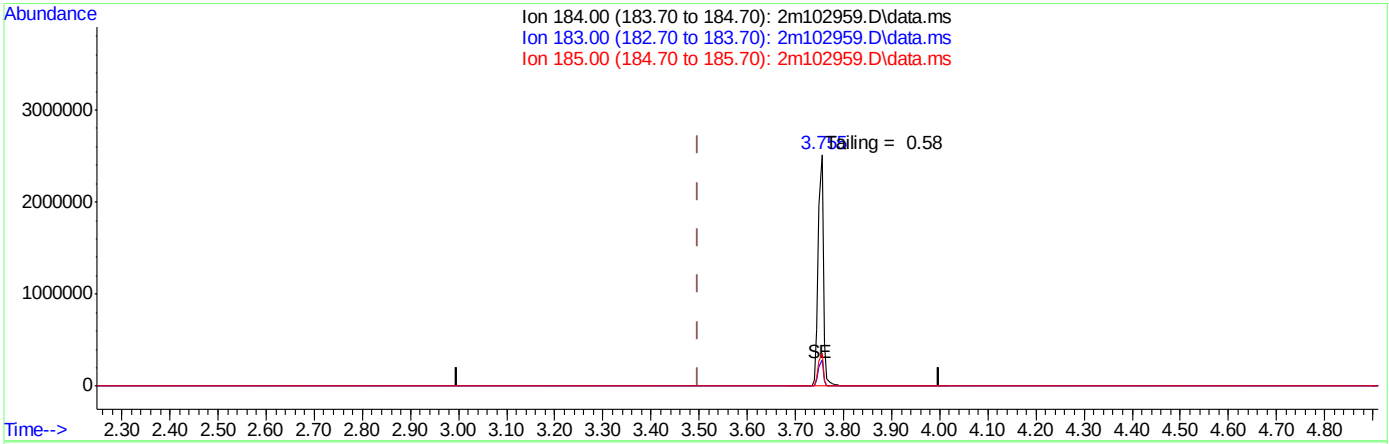
response 268226

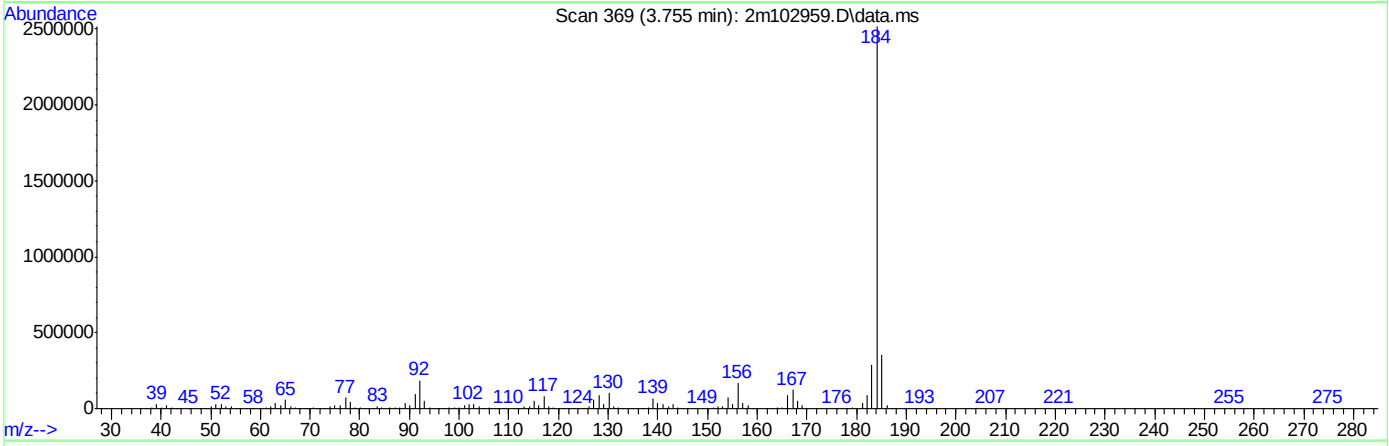
Ion	Exp%	Act%
265.80	100	100
263.80	61.00	59.78
267.80	65.30	62.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102959.D
Acq On : 2 Apr 2018 12:01 pm
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 12:07:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m102959.D\data.ms

(2) Benzidine (t)

3.755min (+0.257) 0.00ppb m

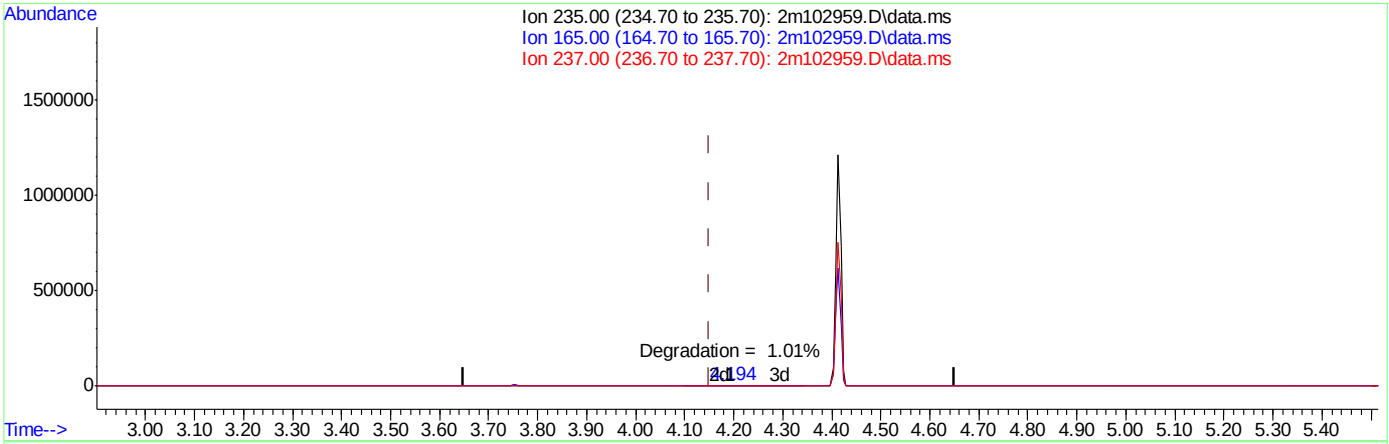
response 1889406

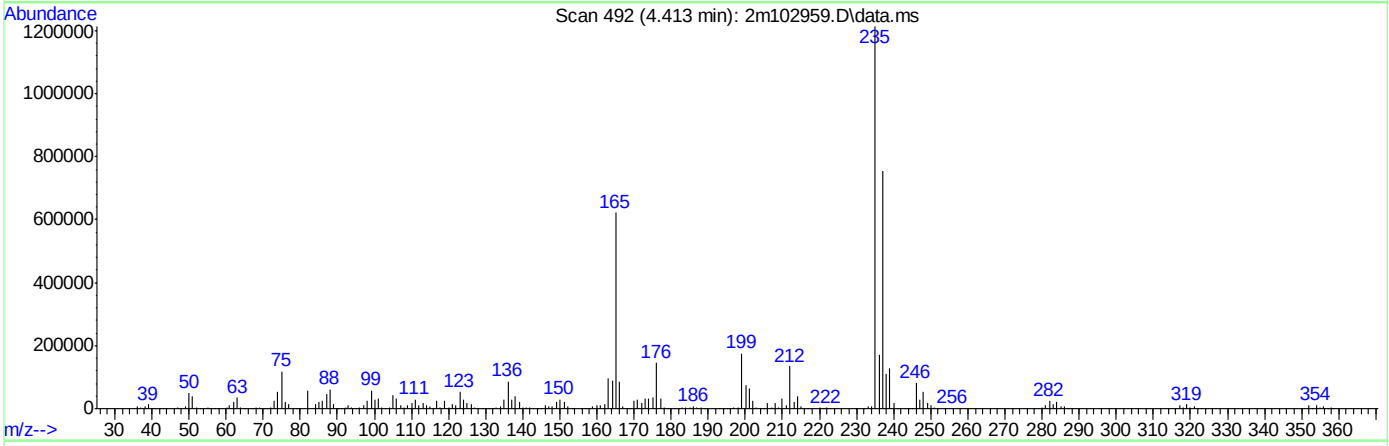
Ion	Exp%	Act%
184.00	100	100
183.00	10.60	11.39
185.00	13.50	14.10
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102959.D
Acq On : 2 Apr 2018 12:01 pm
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 12:07:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m102959.D\data.ms

(3) PP-DDT (t)

4.413min (+0.262) 0.00ppb m

response 874138

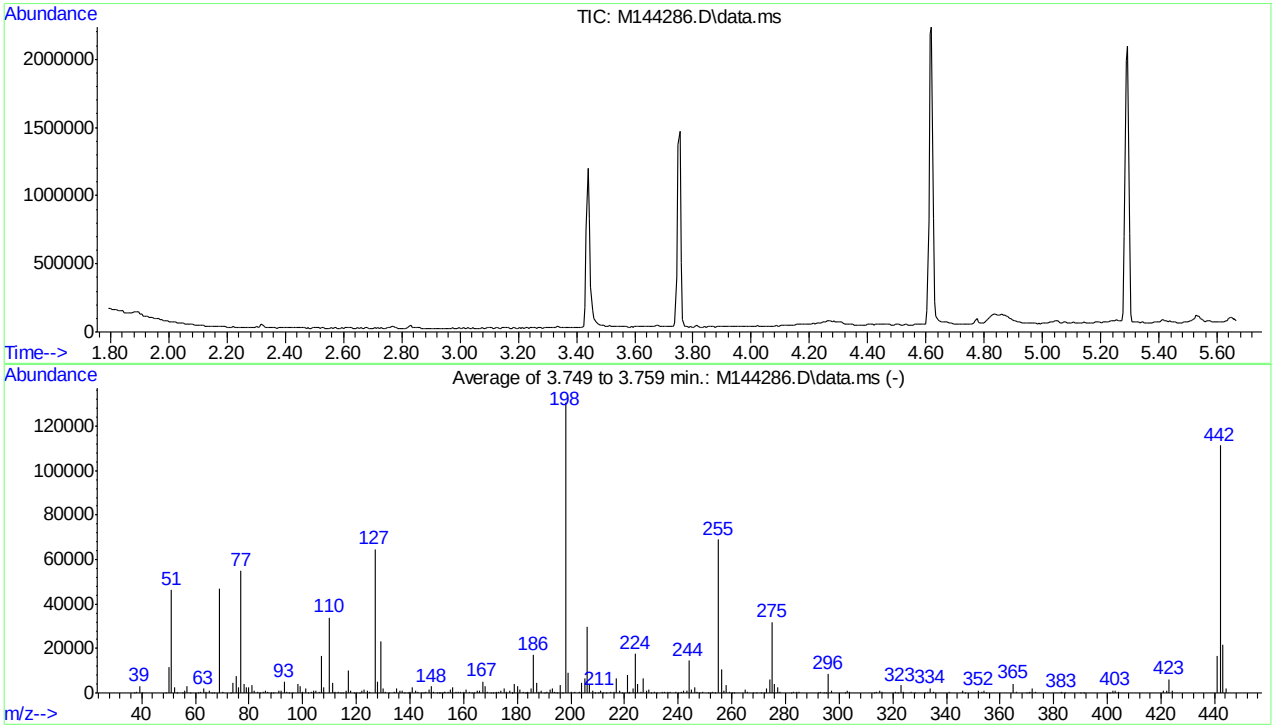
Ion	Exp%	Act%
235.00	100	100
165.00	52.20	0.22#
237.00	60.60	0.28#
0.00	0.00	0.00

DFTPP

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144286.D
Acq On : 28 Feb 2018 10:02 am
Operator : kristis
Sample : DFTPP
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6121.M
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu Mar 01 12:08:50 2018



AutoFind: Scans 367, 368, 369; Background Corrected with Scan 362

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.4	46287	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	36.0	46966	PASS
70	69	0.00	2	0.6	287	PASS
127	198	40	60	49.5	64608	PASS
197	198	0.00	1	0.1	147	PASS
198	198	100	100	100.0	130642	PASS
199	198	5	9	6.9	9011	PASS
275	198	10	30	24.4	31818	PASS
365	198	1	100	3.2	4158	PASS
441	443	0.10	100	76.3	16429	PASS
442	198	40	100	85.2	111368	PASS
443	442	17	23	19.3	21529	PASS

Average of 3.749 to 3.759 min.: M144286.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.05	93	57.05	2810	73.10	231	84.10	52
38.10	537	58.05	78	74.05	4615	85.10	384
39.15	3218	61.05	217	75.05	7563	86.00	972
40.05	220	62.05	622	76.15	2787	87.05	394
49.05	94	63.05	1892	77.05	54842	88.05	204
50.05	11463	64.05	303	78.10	4056	88.95	85
51.05	46287	65.05	852	79.05	2586	91.00	1085
52.10	2367	66.00	174	80.05	2511	92.05	965
53.00	111	67.05	96	81.05	3586	93.05	4961
55.10	202	69.05	46966	82.05	1073	94.00	461
56.05	1058	70.15	287	83.05	531	95.05	27

Average of 3.749 to 3.759 min.: M144286.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.05	258	108.05	2740	120.00	208	131.95	147
98.05	3926	110.05	33969	121.25	67	134.00	744
99.05	2985	111.05	4596	122.00	847	135.05	1846
99.95	332	112.05	747	123.05	1529	136.05	829
101.05	1965	113.10	295	124.00	858	137.10	941
101.95	73	114.15	259	125.05	604	137.95	179
103.05	610	115.15	212	127.05	64608	139.00	202
104.05	862	116.05	884	128.05	4916	140.05	311
105.05	936	117.05	10224	129.00	23187	141.05	2475
106.10	499	118.05	922	130.05	1873	142.05	1069
107.05	16711	119.10	254	131.00	404	143.00	758

Average of 3.749 to 3.759 min.: M144286.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.10	188	153.15	536	163.95	86	175.05	2228
144.95	70	154.05	713	165.05	794	176.10	768
146.05	431	155.05	1762	166.00	875	177.00	1129
147.05	1560	156.05	2403	167.05	5221	177.95	169
148.05	3030	157.05	536	168.05	2904	178.15	138
149.00	514	158.05	449	169.00	535	179.00	4015
149.95	91	159.00	353	170.05	79	180.05	3038
151.05	256	160.00	696	171.00	230	181.05	1523
151.25	163	161.05	1338	172.00	409	182.10	402
152.00	163	162.05	339	173.05	644	182.95	175
152.95	343	163.05	79	174.05	1068	183.45	70

Average of 3.749 to 3.759 min.: M144286.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
183.95	301	194.95	135	207.05	3832	219.05	187
185.05	2009	196.00	3758	208.00	956	221.05	7975
186.05	17030	196.85	147	209.05	263	221.65	234
187.05	4482	197.95	130642	210.25	250	222.05	534
188.05	452	198.95	9011	211.00	1270	223.00	1869
189.05	931	200.00	584	212.05	140	224.05	17495
190.00	195	201.55	733	213.15	77	225.05	4133
191.10	518	203.05	670	215.00	299	226.00	430
192.05	1519	204.05	4346	216.00	553	227.05	6323
193.05	1921	205.05	6732	216.95	6766	228.05	1033
194.00	314	206.05	30000	218.00	879	229.00	1486

Average of 3.749 to 3.759 min.: M144286.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
230.05	87	243.05	844	255.05	68968	270.95	81
231.00	732	244.05	14401	256.05	10695	272.00	221
232.05	91	245.00	1783	257.00	812	273.00	2281
234.00	420	246.00	2354	257.95	3438	274.00	6042

MM6121.M Thu Mar 01 12:17:26 2018 MSM

235.00	449	247.05	431	259.05	472	275.00	31818
236.05	299	247.95	77	260.15	72	276.00	4189
237.00	581	248.95	572	260.95	149	276.95	2566
239.00	331	251.05	71	264.95	1515	278.00	572
240.00	224	251.85	75	265.85	309	282.05	75
241.05	401	253.00	374	267.85	69	283.05	313
242.05	1008	253.75	119	269.15	76	284.10	283

Average of 3.749 to 3.759 min.: M144286.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
284.95	452	314.00	508	334.00	2123	369.85	83
291.95	81	314.95	1001	335.05	597	370.75	72
292.95	655	315.95	572	340.95	489	371.00	305
294.05	96	320.95	420	345.95	787	372.00	1986
294.95	82	321.95	89	346.95	86	373.00	527
295.95	8438	323.05	3301	352.00	1205	382.75	136
297.00	1235	323.90	674	353.00	737	383.00	419
302.05	112	326.95	673	354.00	992	383.85	89
303.00	1149	328.05	204	355.00	198	390.05	200
304.00	389	331.95	146	364.95	4158	390.95	69
313.05	75	333.00	407	366.00	678	400.95	81

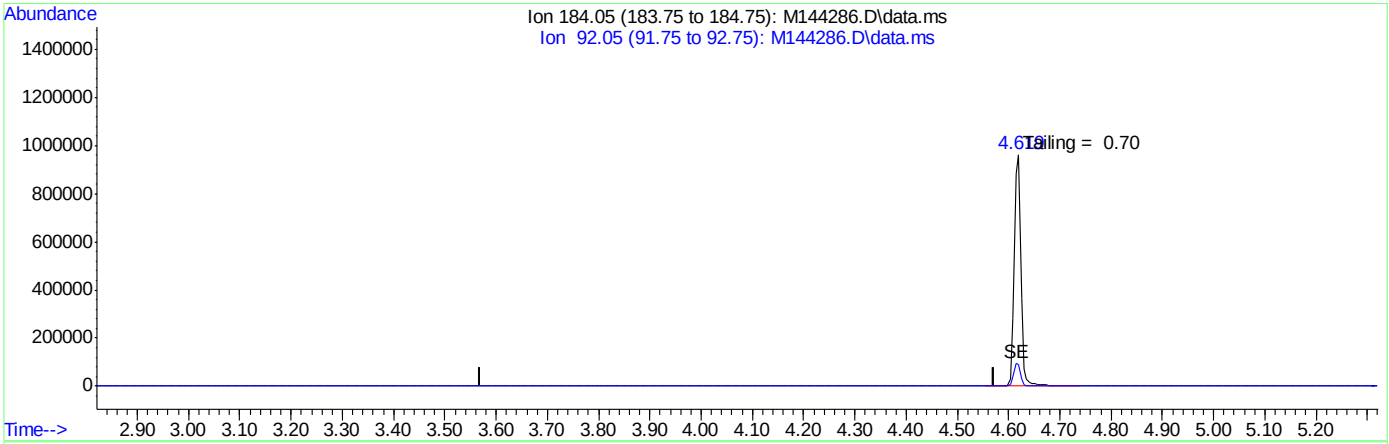
Average of 3.749 to 3.759 min.: M144286.D\data.ms
DFTPP
Modified:subtracted

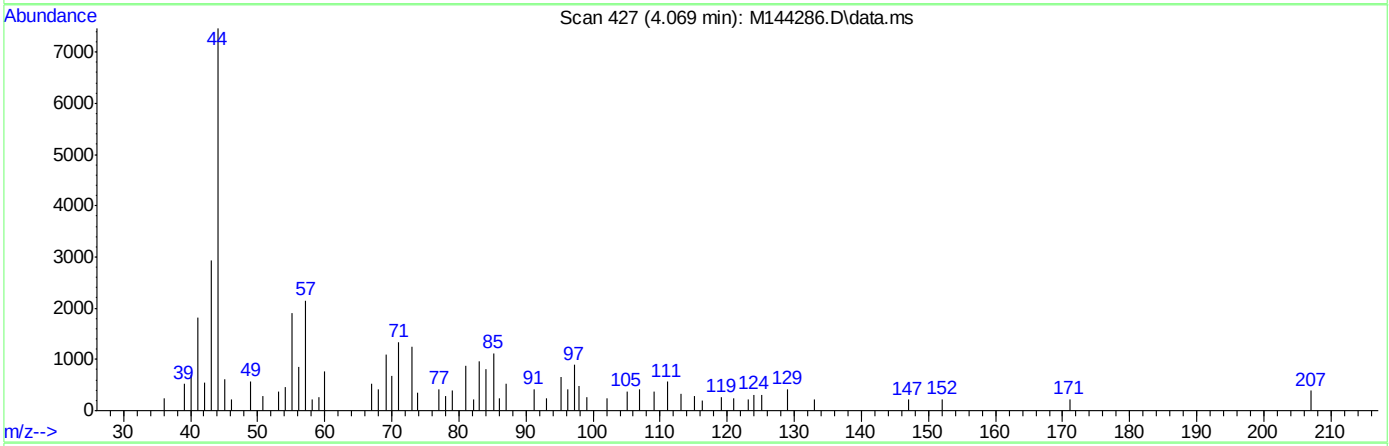
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
401.90	884						
402.95	1146						
403.95	335						
421.00	875						
421.95	916						
423.00	6161						
424.00	1156						
441.00	16429						
442.00	111368						
442.95	21529						
444.05	1914						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144286.D
Acq On : 28 Feb 2018 10:02 am
Operator : kristis
Sample : DFTPP
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 10:08:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144286.D\data.ms

(2) Benzidine (M)

4.071min (-4.071) 0.00ppm

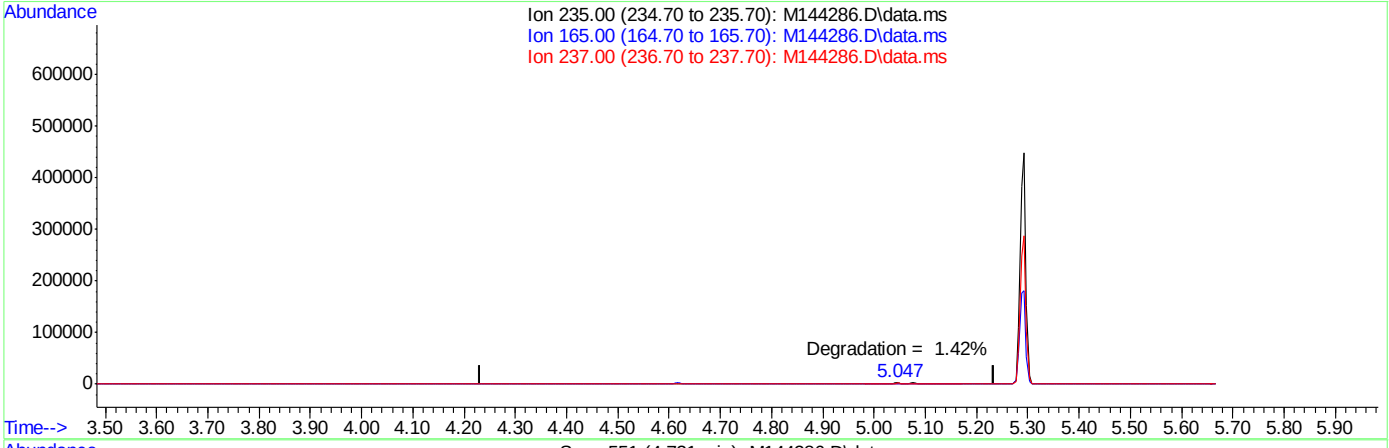
response 0

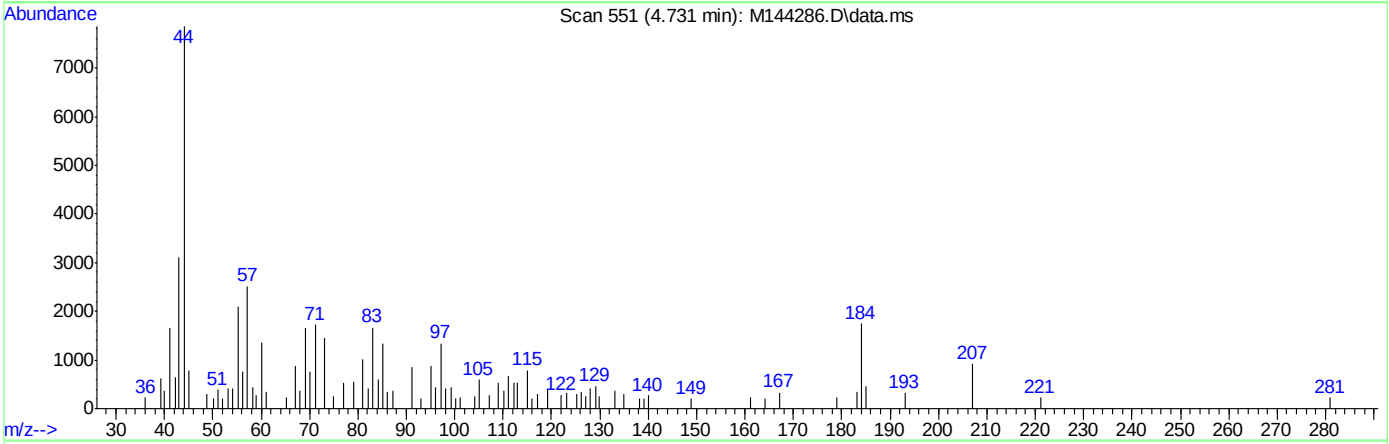
Ion	Exp%	Act%
184.05	100	0.00
92.05	7.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144286.D
Acq On : 28 Feb 2018 10:02 am
Operator : kristis
Sample : DFTPP
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 10:08:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144286.D\data.ms

(3) PP-DDT (MC)

4.734min (-4.734) 0.00ppm

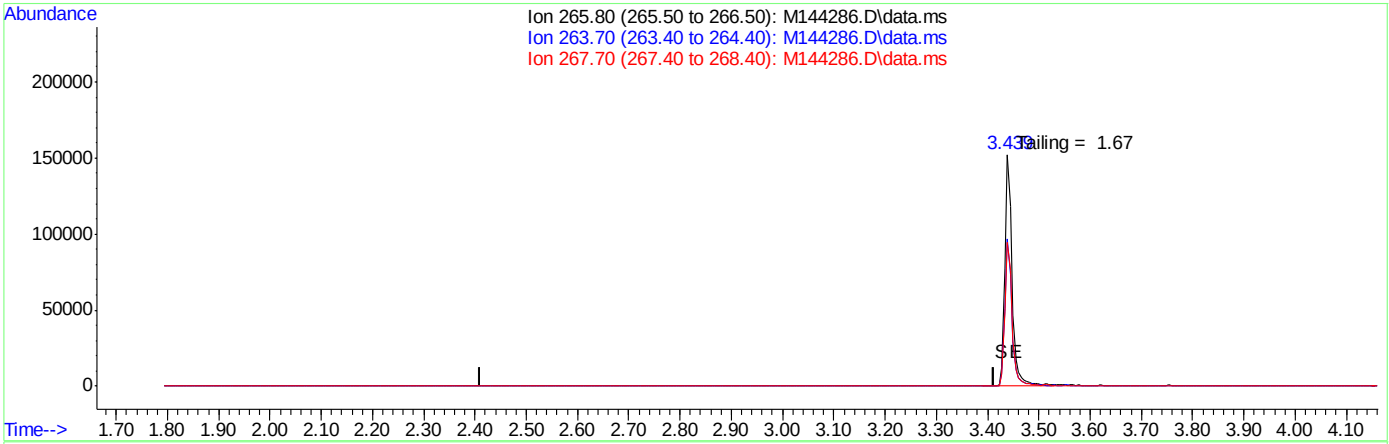
response 0

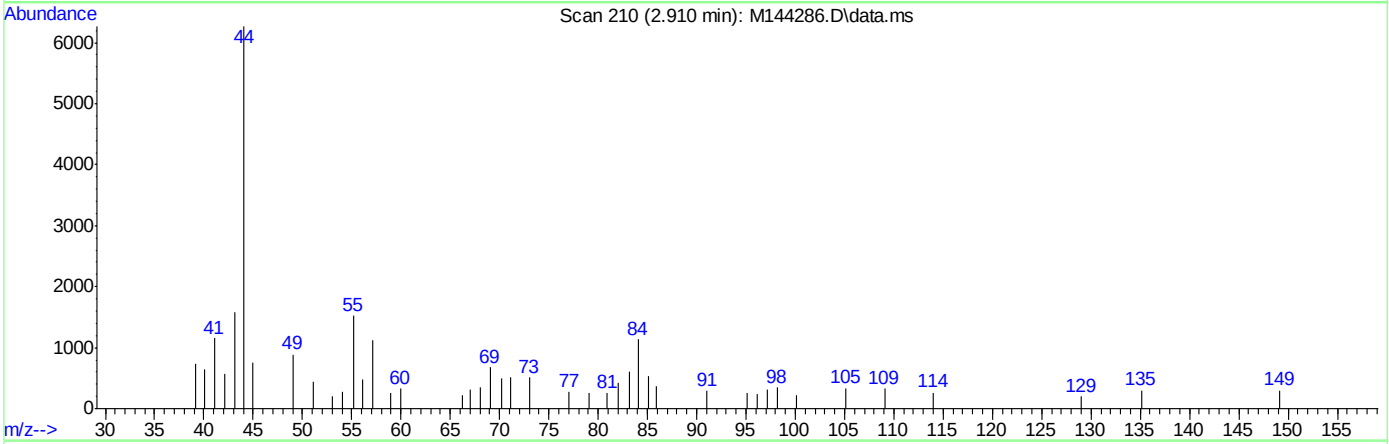
Ion	Exp%	Act%
235.00	100	0.00
165.00	42.80	0.00#
237.00	66.60	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144286.D
Acq On : 28 Feb 2018 10:02 am
Operator : kristis
Sample : DFTPP
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 10:08:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144286.D\data.ms

(1) Pentachlorophenol (MC)

2.912min (-2.912) 0.00ppm

response 0

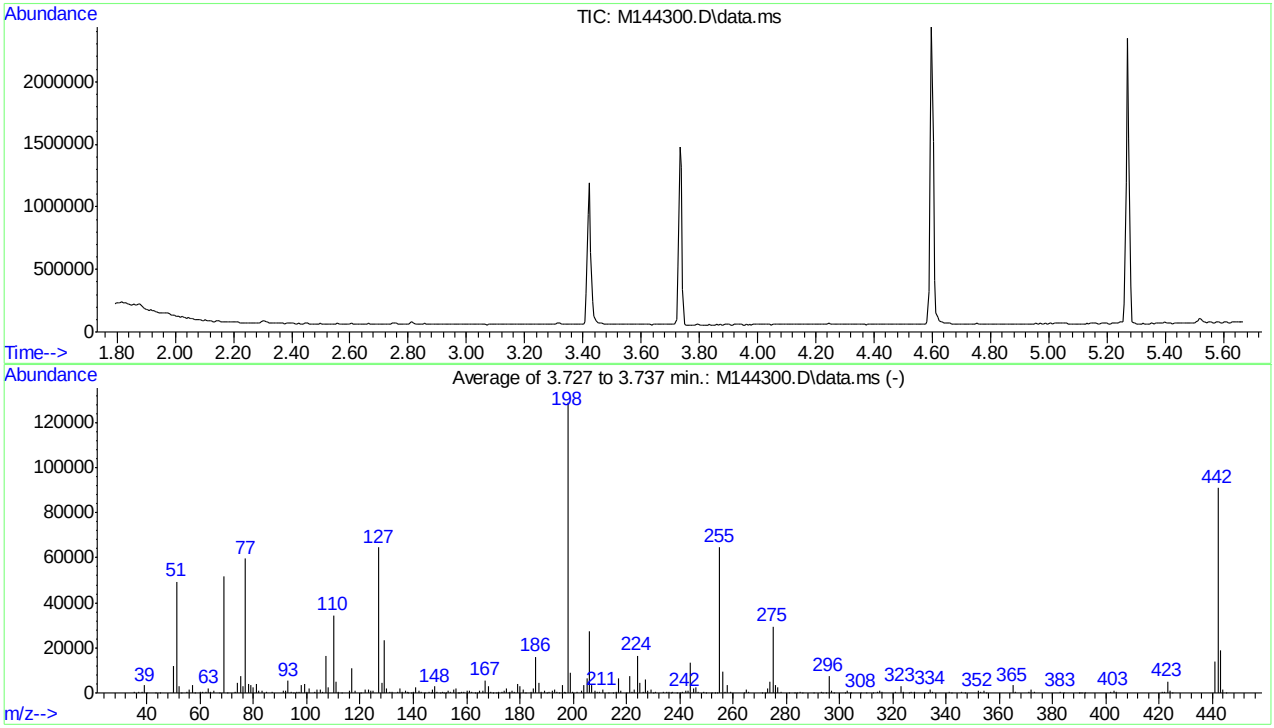
Ion	Exp%	Act%
265.80	100	0.00
263.70	61.50	0.00#
267.70	64.40	0.00#
0.00	0.00	0.00

DFTPPR

Data Path : C:\msdchem\1\DATA\EM6122\
Data File : M144300.D
Acq On : 28 Feb 2018 7:17 pm
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
Last Update : Sun Feb 18 15:20:41 2018



AutoFind: Scans 363, 364, 365; Background Corrected with Scan 359

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.3	49355	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.1	51626	PASS
70	69	0.00	2	0.2	121	PASS
127	198	40	60	50.2	64650	PASS
197	198	0.00	1	0.3	337	PASS
198	198	100	100	100.0	128853	PASS
199	198	5	9	6.9	8914	PASS
275	198	10	30	22.8	29422	PASS
365	198	1	100	2.7	3463	PASS
441	443	0.10	100	74.1	14073	PASS
442	198	40	100	70.6	90994	PASS
443	442	17	23	20.9	19001	PASS

Average of 3.727 to 3.737 min.: M144300.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.05	408	55.05	300	69.00	51626	82.00	893
37.05	362	56.05	1589	70.00	121	83.05	1139
38.10	661	57.05	3411	73.05	274	85.05	677
39.10	3411	58.00	202	74.05	4631	87.00	305
40.05	1	60.10	305	75.05	7484	91.00	814
43.05	1	61.05	638	76.10	2782	92.00	948
45.05	4	62.05	716	77.05	59615	93.05	5463
50.05	11867	63.05	2024	78.05	4134	94.05	455
51.05	49355	64.00	329	79.05	3356	95.05	175
52.05	2949	65.05	1058	80.00	2554	96.10	436
53.05	151	67.05	173	81.05	3888	97.10	284

Average of 3.727 to 3.737 min.: M144300.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
98.05	3718	111.05	4863	127.05	64650	138.00	353
99.05	4012	112.00	701	128.05	4634	139.15	81
100.05	346	113.10	185	129.05	23495	140.00	351
101.05	2210	116.05	854	130.05	2018	141.00	2702
103.00	645	117.05	10961	131.10	368	142.00	1007
104.00	1300	118.00	940	132.10	365	143.00	619
105.05	1271	120.10	215	134.00	757	144.00	240
106.00	418	122.10	1264	135.05	2074	146.00	508
107.05	16673	123.05	1585	136.00	755	146.85	175
108.05	2722	124.00	906	137.10	1132	147.05	1377
110.05	34389	125.05	793	137.75	142	148.05	2833

Average of 3.727 to 3.737 min.: M144300.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
149.00	721	157.90	489	169.10	602	179.00	3910
150.05	146	159.00	375	169.75	70	180.05	3071
151.15	447	160.05	876	171.05	101	181.05	1352
151.35	140	161.05	1156	172.05	422	182.00	176
152.10	242	162.00	332	173.10	684	184.05	292
153.00	869	163.10	204	174.05	962	185.05	1941
154.00	646	163.95	82	175.05	1959	186.05	15992
155.00	1573	165.00	991	175.75	96	187.05	4328
156.10	2114	166.05	875	176.10	592	188.00	483
156.95	258	167.05	5525	177.05	875	189.05	1104
157.15	203	168.05	2879	178.05	307	189.95	67

Average of 3.727 to 3.737 min.: M144300.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
191.00	512	201.50	666	215.05	243	226.95	6113
192.05	1211	203.00	783	216.00	720	228.00	790
193.05	1415	204.05	3590	216.95	6518	229.00	1596
194.00	348	205.05	6490	218.05	888	229.95	99
194.85	76	206.05	27285	219.75	80	231.00	672
196.05	3521	207.05	3512	221.05	7670	234.00	330
196.65	91	208.05	778	221.85	483	235.00	616
196.85	337	208.95	312	223.00	1708	235.95	346
197.95	128853	210.00	303	224.05	16471	236.85	113
199.05	8914	211.05	1267	225.05	4331	237.00	570
199.95	674	213.05	71	226.10	470	239.05	145

Average of 3.727 to 3.737 min.: M144300.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
240.05	140	253.00	263	272.05	160	286.05	67
240.95	368	253.85	175	273.00	2007	290.05	144
242.05	856	255.05	64709	274.00	5233	293.00	535
243.05	853	256.05	9666	274.95	29422	293.65	95

DFTPPM.M Thu Mar 01 12:20:37 2018 MSM

244.05	13302	256.95	762	276.00	3554	295.05	79
245.05	1889	258.00	3597	276.95	2318	295.95	7609
245.95	2499	258.95	623	277.90	355	296.95	1197
246.95	330	264.00	141	280.85	70	297.95	74
249.00	497	265.00	1410	283.00	218	301.95	156
249.85	76	265.90	305	284.05	95	303.05	1065
251.95	75	271.05	75	285.05	468	303.95	103

Average of 3.727 to 3.737 min.: M144300.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
304.15	185	326.95	639	353.00	635	390.05	115
308.00	150	327.95	317	354.00	1095	390.85	103
309.95	81	332.00	200	355.05	113	391.90	167
312.65	74	332.95	231	364.95	3463	401.90	726
314.05	347	334.00	1671	365.90	480	403.00	1025
314.95	1075	334.95	420	370.95	310	404.00	419
316.00	484	341.00	327	371.95	1695	421.00	756
320.95	283	341.85	125	373.00	408	421.95	681
323.05	3114	345.95	698	382.95	508	423.00	5034
323.95	419	347.05	69	384.05	101	423.95	980
325.85	91	351.95	942	389.85	81	424.95	131

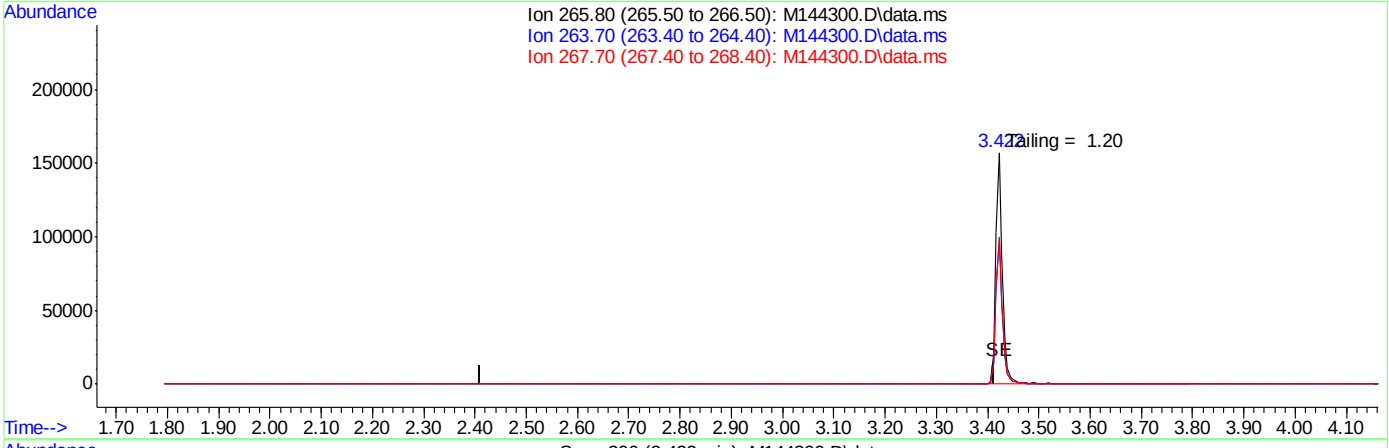
Average of 3.727 to 3.737 min.: M144300.D\data.ms
DFTPP
Modified:subtracted

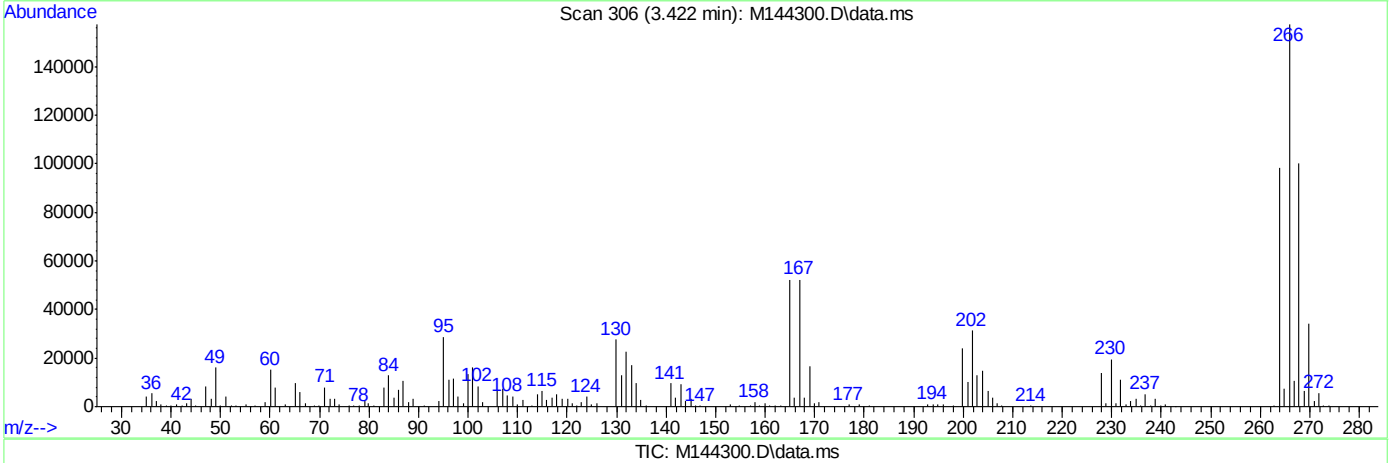
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
440.95	14073						
441.95	90994						
442.95	19001						
443.95	1319						
444.90	154						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6122\
Data File : M144300.D
Acq On : 28 Feb 2018 7:17 pm
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 19:22:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144300.D\data.ms

(1) Pentachlorophenol (MC)

2.912min (-2.912) 0.00ppm

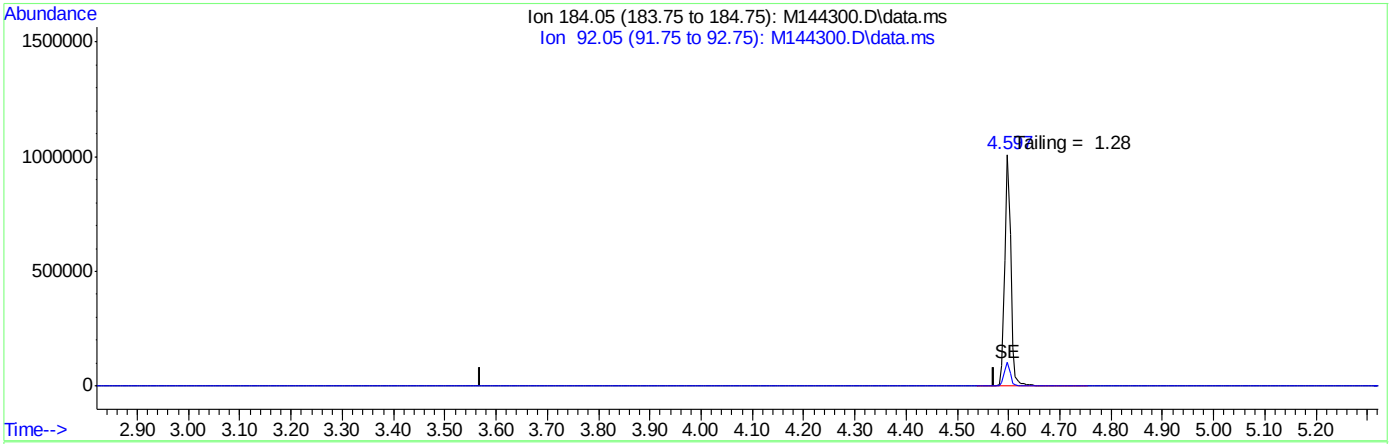
response 0

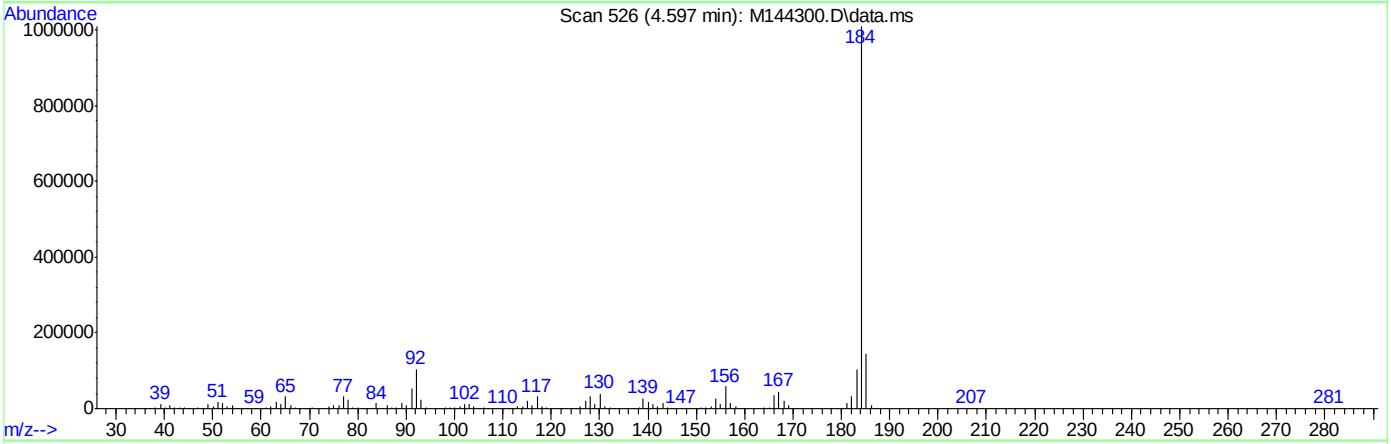
Ion	Exp%	Act%
265.80	100	0.00
263.70	61.50	0.00#
267.70	64.40	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6122\
Data File : M144300.D
Acq On : 28 Feb 2018 7:17 pm
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 19:22:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144300.D\data.ms

(2) Benzidine (M)

4.071min (-4.071) 0.00ppm

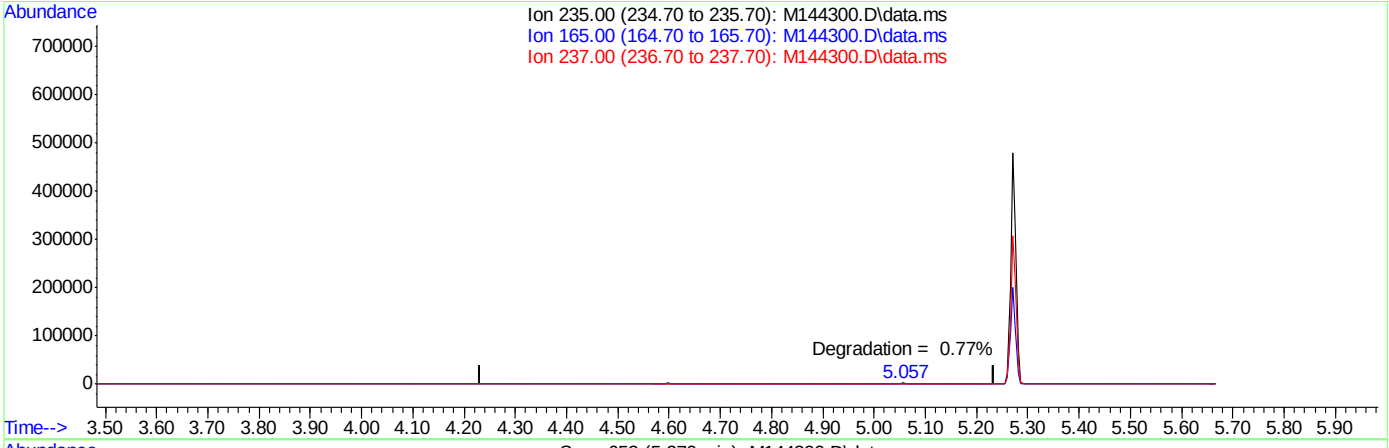
response 0

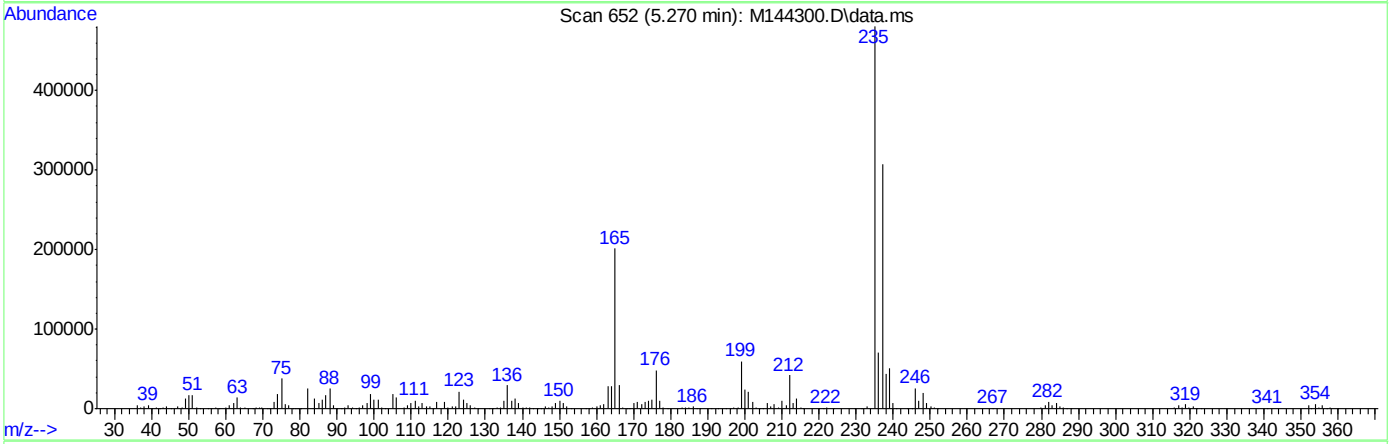
Ion	Exp%	Act%
184.05	100	0.00
92.05	7.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6122\
Data File : M144300.D
Acq On : 28 Feb 2018 7:17 pm
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 19:22:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144300.D\data.ms

(3) PP-DDT (MC)

4.734min (-4.734) 0.00ppm

response 0

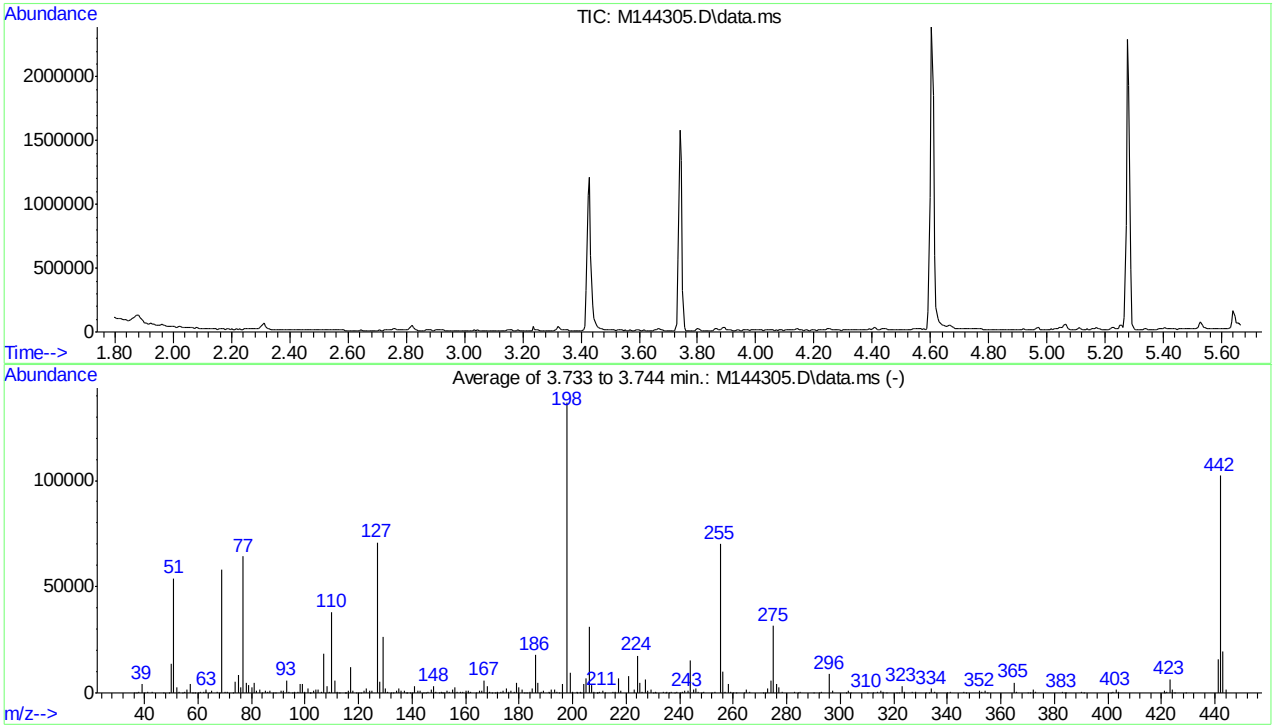
Ion	Exp%	Act%
235.00	100	0.00
165.00	42.80	0.00#
237.00	66.60	0.00#
0.00	0.00	0.00

DFTPPR

Data Path : C:\msdchem\1\DATA\EM6123\
Data File : M144305.D
Acq On : 1 Mar 2018 12:07 am
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
Last Update : Sun Feb 18 15:20:41 2018



AutoFind: Scans 364, 365, 366; Background Corrected with Scan 360

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.5	53928	PASS
68	69	0.00	2	0.1	47	PASS
69	198	0.00	100	42.3	57887	PASS
70	69	0.00	2	0.9	507	PASS
127	198	40	60	51.8	70821	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	136698	PASS
199	198	5	9	7.0	9537	PASS
275	198	10	30	23.1	31616	PASS
365	198	1	100	3.5	4759	PASS
441	443	0.10	100	80.2	15699	PASS
442	198	40	100	74.8	102218	PASS
443	442	17	23	19.2	19583	PASS

Average of 3.733 to 3.744 min.: M144305.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	70	52.10	2644	62.95	549	75.05	8679
37.10	274	53.10	394	63.10	1562	76.10	2908
38.05	733	54.05	88	64.10	282	77.00	64306
39.10	4082	55.05	604	65.05	1117	78.10	4527
40.00	164	56.00	1793	67.00	365	79.05	3660
41.05	726	57.00	4315	68.00	47	80.00	2801
43.10	451	58.10	183	69.00	57887	81.05	4711
46.95	68	58.95	77	70.05	507	82.05	1105
49.00	147	60.05	151	71.10	456	83.05	1346
50.10	13654	61.05	755	72.95	203	83.95	37
51.00	53928	62.05	589	74.05	5368	85.00	876

Average of 3.733 to 3.744 min.: M144305.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.95	789	98.05	4256	108.05	3420	118.95	111
87.05	882	99.05	4092	109.05	540	120.00	254
88.05	204	100.00	539	110.05	38178	120.95	97
89.10	146	101.05	2292	111.05	5789	122.00	1073
91.05	848	101.95	81	112.10	601	123.05	1925
92.00	1032	102.15	80	113.00	282	124.10	981
93.05	6004	103.05	864	114.95	74	125.05	825
94.05	506	104.05	1374	115.15	81	127.05	70821
95.05	94	105.05	1467	116.05	1093	128.05	5442
96.10	597	106.00	434	117.05	11996	129.05	26161
97.15	369	107.05	18581	118.00	1057	130.00	2348

Average of 3.733 to 3.744 min.: M144305.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.00	424	141.05	2951	151.15	103	160.85	217
132.00	196	142.05	942	151.55	209	161.00	1283
132.95	91	143.00	864	151.95	113	162.00	361
134.00	822	144.05	200	153.00	905	164.05	97
135.05	2012	144.95	84	154.00	639	165.00	1156
136.05	881	146.00	567	155.00	1717	166.05	842
137.10	1325	147.00	1569	156.05	2488	167.00	5876
137.95	186	148.05	3256	157.00	673	168.05	3080
138.15	112	149.05	628	157.95	547	169.00	624
139.05	256	150.05	173	159.05	441	170.00	184
140.00	225	150.95	289	160.00	858	171.00	241

Average of 3.733 to 3.744 min.: M144305.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.00	453	182.95	94	194.00	289	205.05	6794
172.95	773	184.00	341	194.95	163	206.05	31055
174.05	1148	185.05	2324	196.05	4013	207.00	3782
175.05	2263	186.05	17771	197.95	136698	207.95	702
176.00	640	187.05	4960	198.95	9537	208.95	124
177.05	1118	188.05	532	200.05	660	209.15	143
178.00	460	188.90	1016	201.45	508	210.00	619
179.00	4789	190.95	174	201.65	280	211.10	1103
180.05	2803	191.20	296	202.75	110	212.05	108
181.05	1531	192.00	1396	203.00	608	215.00	333
181.95	249	193.05	1520	204.05	4135	216.00	613

Average of 3.733 to 3.744 min.: M144305.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.95	6795	230.85	80	242.00	829	256.05	10303
218.00	1131	231.00	584	243.05	884	257.00	744
221.05	7970	234.00	400	244.05	15149	258.00	4035
223.00	1641	234.85	96	245.00	1837	259.00	571

DFTPPM.M Thu Mar 01 12:35:05 2018 MSM

224.05	17674	235.00	290	245.95	2166	259.95	85
225.05	4518	236.00	254	247.00	566	260.95	76
226.00	470	237.00	668	248.05	87	263.85	196
227.00	6538	237.95	76	249.00	412	265.00	1373
228.00	1109	239.05	358	251.95	91	266.00	356
229.05	1684	240.15	68	253.00	305	271.05	98
230.00	178	240.90	338	255.05	70064	272.05	214

Average of 3.733 to 3.744 min.: M144305.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.95	2250	292.95	502	317.05	102	339.75	91
273.95	5824	295.95	8834	320.90	207	341.05	468
275.00	31616	296.95	1057	321.95	66	345.95	672
276.00	4342	301.95	88	323.05	3384	346.75	75
277.00	2536	303.00	1237	324.00	637	352.00	906
278.05	356	304.00	277	326.95	508	352.95	731
282.90	310	310.00	145	328.00	308	354.00	1033
284.00	207	312.05	74	332.00	225	355.00	218
284.95	525	314.00	433	332.95	285	364.95	4759
289.95	71	314.95	845	334.05	1884	365.95	641
292.15	102	316.05	600	335.00	472	370.05	94

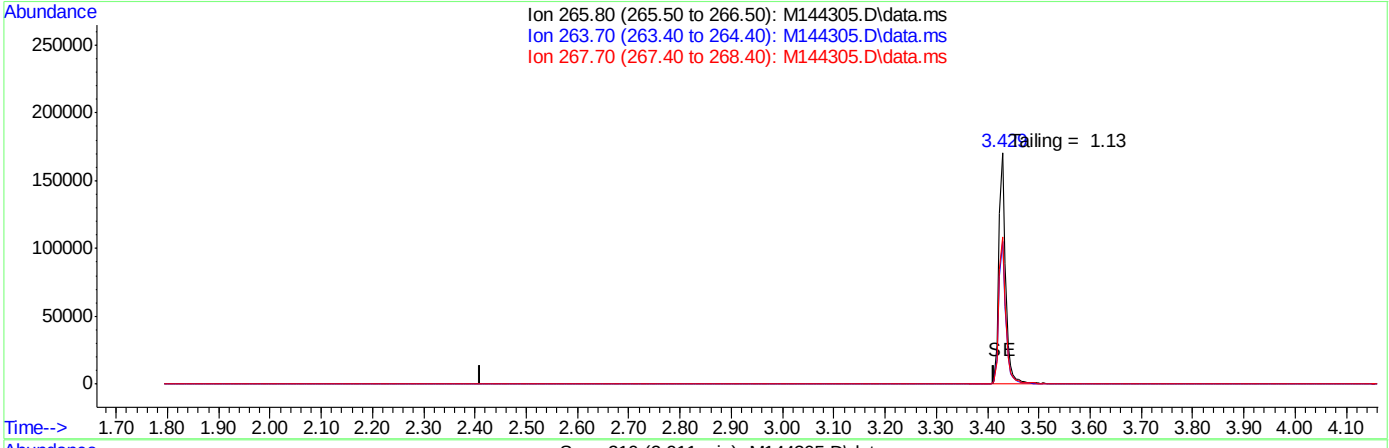
Average of 3.733 to 3.744 min.: M144305.D\data.ms
DFTPP
Modified:subtracted

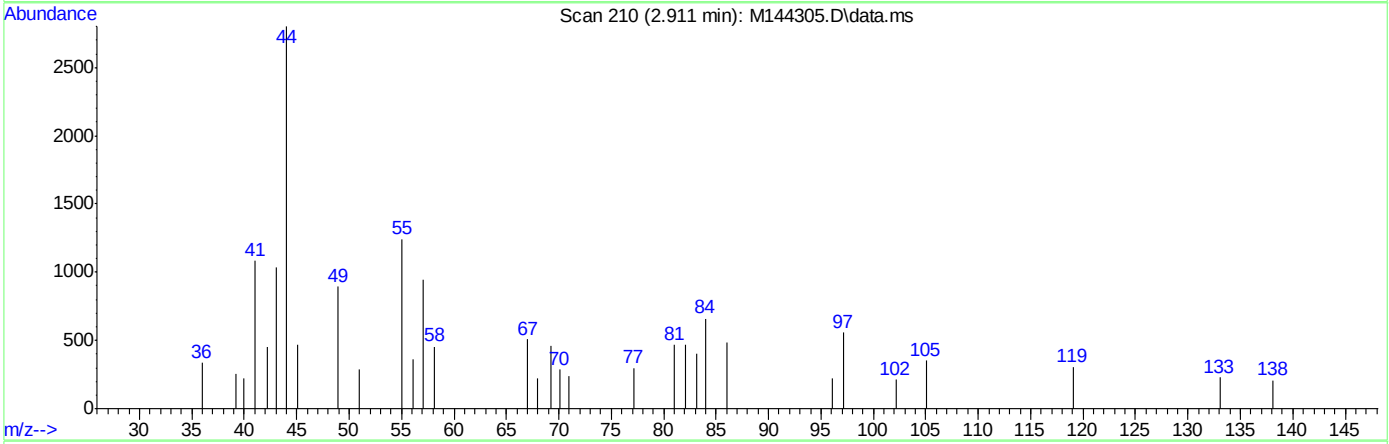
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
370.95	283	404.00	421	443.95	1767		
372.00	1835	420.85	78				
373.00	351	421.00	824				
382.95	365	421.95	737				
383.75	78	422.95	6360				
384.05	81	424.00	1606				
389.95	330	424.95	124				
390.90	194	429.05	71				
400.85	102	440.95	15699				
402.00	758	441.95	102218				
403.05	1345	442.95	19583				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6123\
Data File : M144305.D
Acq On : 1 Mar 2018 12:07 am
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 00:13:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144305.D\data.ms

(1) Pentachlorophenol (MC)

2.912min (-2.912) 0.00ppm

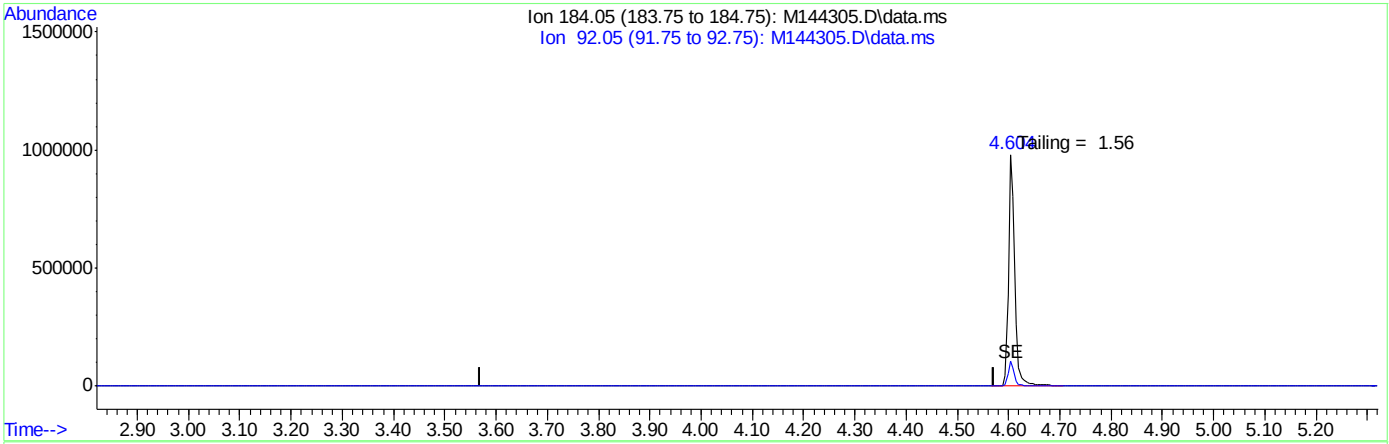
response 0

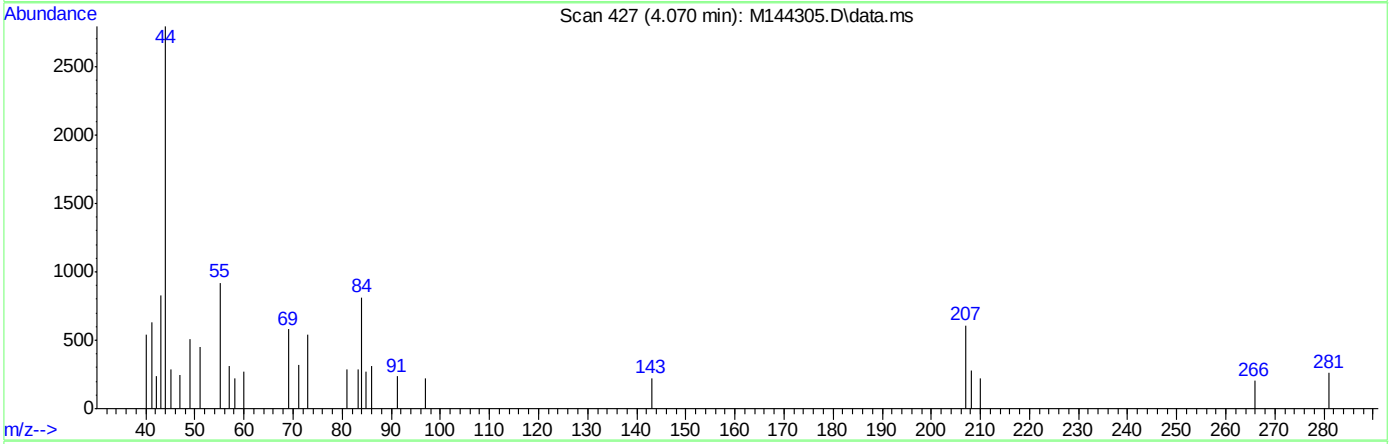
Ion	Exp%	Act%
265.80	100	0.00
263.70	61.50	0.00#
267.70	64.40	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6123\
Data File : M144305.D
Acq On : 1 Mar 2018 12:07 am
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 00:13:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144305.D\data.ms

(2) Benzidine (M)

4.071min (-4.071) 0.00ppm

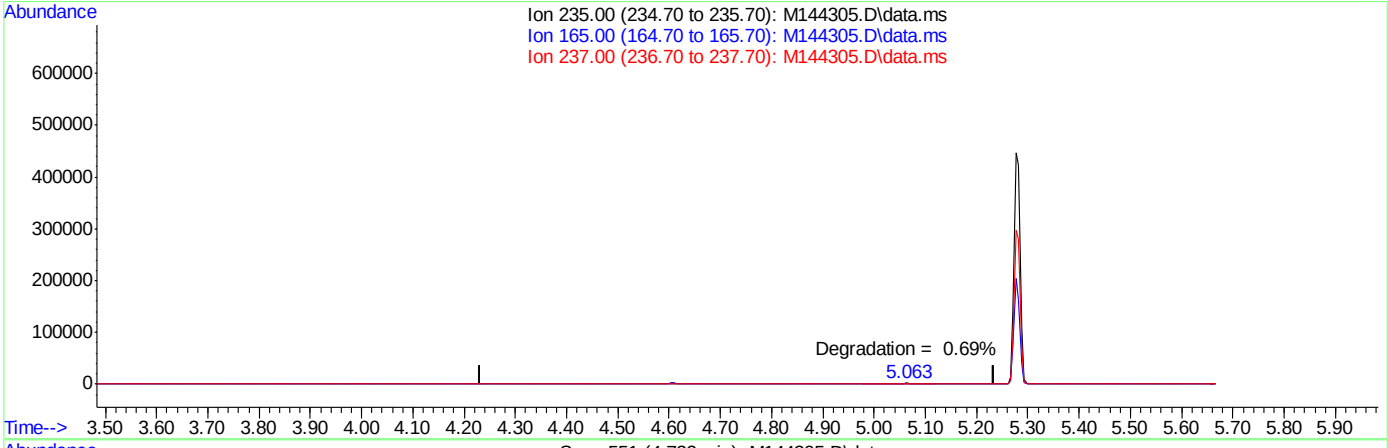
response 0

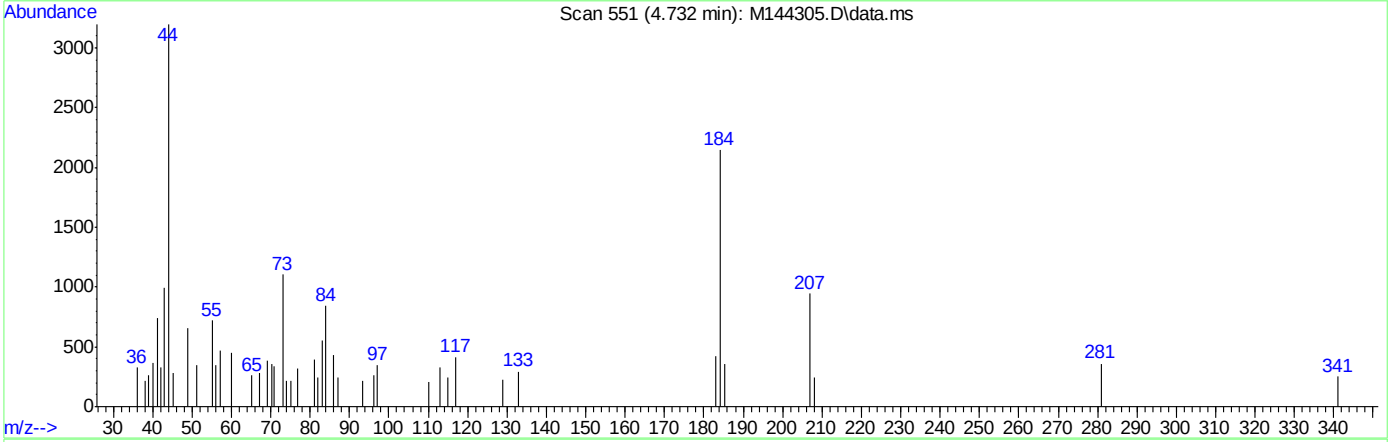
Ion	Exp%	Act%
184.05	100	0.00
92.05	7.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6123\
Data File : M144305.D
Acq On : 1 Mar 2018 12:07 am
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 00:13:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144305.D\data.ms

(3) PP-DDT (MC)

4.734min (-4.734) 0.00ppm

response 0

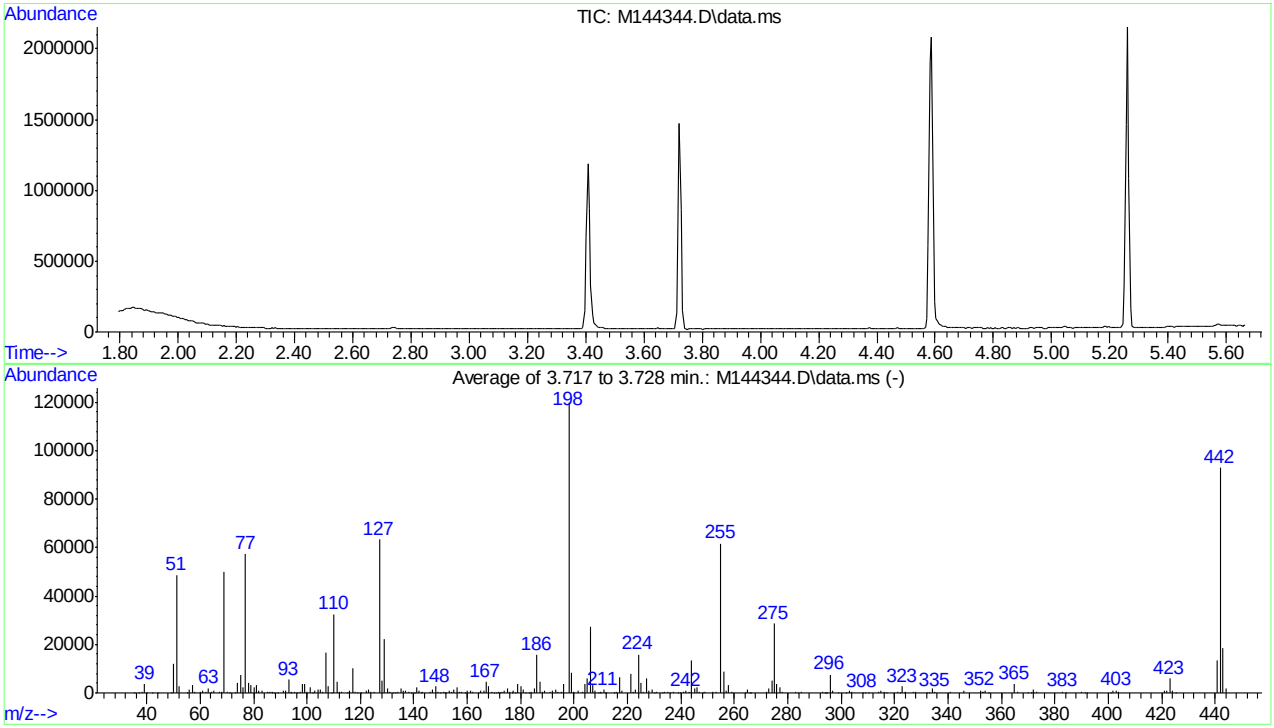
Ion	Exp%	Act%
235.00	100	0.00
165.00	42.80	0.00#
237.00	66.60	0.00#
0.00	0.00	0.00

DFTPPR

Data Path : C:\msdchem\1\DATA\EM6126\
Data File : M144344.D
Acq On : 1 Mar 2018 10:54 pm
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6126,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
Last Update : Sun Feb 18 15:20:41 2018



AutoFind: Scans 361, 362, 363; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.6	48602	PASS
68	69	0.00	2	0.6	290	PASS
69	198	0.00	100	41.8	50122	PASS
70	69	0.00	2	0.9	471	PASS
127	198	40	60	52.8	63301	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	119816	PASS
199	198	5	9	6.9	8315	PASS
275	198	10	30	23.9	28642	PASS
365	198	1	100	3.1	3689	PASS
441	443	0.10	100	74.0	13635	PASS
442	198	40	100	77.5	92893	PASS
443	442	17	23	19.8	18427	PASS

Average of 3.717 to 3.728 min.: M144344.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	229	55.10	163	67.95	290	80.05	2387
37.05	222	56.05	1560	69.05	50122	81.00	3388
38.05	560	57.05	3198	69.95	471	82.00	795
39.10	3557	58.00	316	71.00	58	83.00	740
40.00	5	60.05	263	73.00	117	85.05	637
42.05	64	61.05	760	74.05	4227	85.95	282
44.05	85	62.05	670	75.05	7637	86.85	95
49.00	98	63.05	1857	76.05	2411	87.10	429
50.05	11997	64.10	392	77.05	57280	87.90	144
51.05	48602	65.00	794	78.05	4084	89.05	78
52.05	2609	67.10	298	79.05	3081	91.05	728

Average of 3.717 to 3.728 min.: M144344.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.05	1093	102.15	91	113.00	253	127.05	63301
93.05	5470	103.00	842	115.05	84	128.05	4996
93.85	142	104.00	1382	116.05	810	129.05	22325
94.05	326	105.05	1204	117.05	10370	130.00	2022
95.10	312	106.00	447	118.10	611	131.00	395
96.05	190	107.05	16563	118.95	76	132.25	134
97.20	325	108.05	2855	120.15	184	133.05	110
98.05	3642	109.05	185	122.00	946	133.95	475
99.05	3567	110.05	32597	123.05	1558	135.05	1650
100.05	265	111.05	4710	124.00	568	136.00	895
101.00	2140	112.00	640	125.05	704	137.05	882

Average of 3.717 to 3.728 min.: M144344.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
138.00	289	150.00	220	160.05	852	171.90	335
139.05	69	151.25	269	161.00	1111	172.15	133
140.05	223	151.75	118	162.00	318	172.95	503
141.00	2467	152.10	196	164.05	92	174.00	1054
142.05	853	153.05	848	164.95	888	175.05	1918
142.85	171	154.00	661	166.05	812	176.05	484
143.00	457	155.05	1492	167.00	4597	176.85	171
146.00	470	156.05	2126	168.00	2801	177.05	908
147.00	1451	157.05	541	169.10	589	178.00	232
148.00	2661	158.00	534	169.95	149	179.00	3605
149.00	680	159.00	215	170.95	171	180.05	2936

Average of 3.717 to 3.728 min.: M144344.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.00	1279	193.00	1378	206.05	27072	216.95	6468
181.95	142	193.95	257	207.00	3313	218.00	714
183.05	113	195.00	276	208.00	761	221.05	7755
184.00	459	196.05	3547	209.05	189	221.95	387
185.00	1838	197.95	119816	209.95	185	222.95	1625
186.05	15522	198.95	8315	210.10	416	224.05	15892
187.05	4595	199.95	660	211.05	1189	225.05	3960
187.95	561	201.45	802	211.75	239	226.00	368
189.00	903	203.00	668	212.05	78	227.00	6236
191.00	442	204.05	3713	215.00	221	228.00	798
192.00	1131	205.05	6122	215.95	628	229.00	1349

Average of 3.717 to 3.728 min.: M144344.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.85	81	243.05	685	256.95	719	276.00	3777
231.00	564	244.05	13311	257.95	3384	277.00	2182
233.10	175	245.00	1723	259.00	505	277.95	443
233.90	505	246.00	2137	263.95	245	283.00	367

DFTPPM.M Fri Mar 02 02:13:42 2018 MSM

234.95	384	247.00	472	265.00	1211	283.95	215
235.95	218	247.95	68	265.85	207	284.95	418
237.00	533	248.85	373	266.05	104	292.95	404
239.00	165	252.05	254	271.95	261	293.85	93
239.90	166	253.00	266	273.05	2056	294.15	69
241.00	468	255.00	61672	274.00	5209	294.85	68
242.00	836	256.00	8921	274.95	28642	295.95	7624

Average of 3.717 to 3.728 min.: M144344.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.95	1116	317.05	81	335.05	523	371.05	169
299.05	67	320.95	354	341.00	435	371.85	218
301.95	158	321.85	69	345.90	810	372.00	1576
303.05	1151	323.00	2729	352.00	977	373.05	313
304.00	326	323.85	151	352.85	381	382.95	562
307.95	164	324.05	569	353.05	317	383.95	111
308.95	74	326.85	452	354.05	933	389.95	319
310.15	66	327.90	324	355.05	120	391.05	177
314.00	384	331.95	88	364.95	3689	392.05	81
314.90	956	332.95	238	365.95	463	400.95	115
316.00	436	333.95	1855	369.95	74	401.90	837

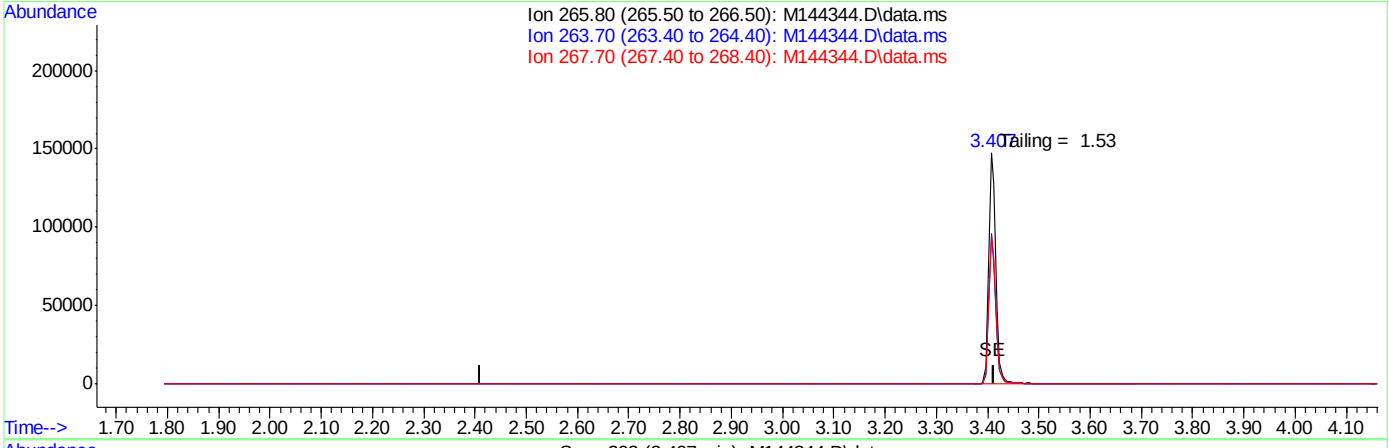
Average of 3.717 to 3.728 min.: M144344.D\data.ms
DFTPP
Modified:subtracted

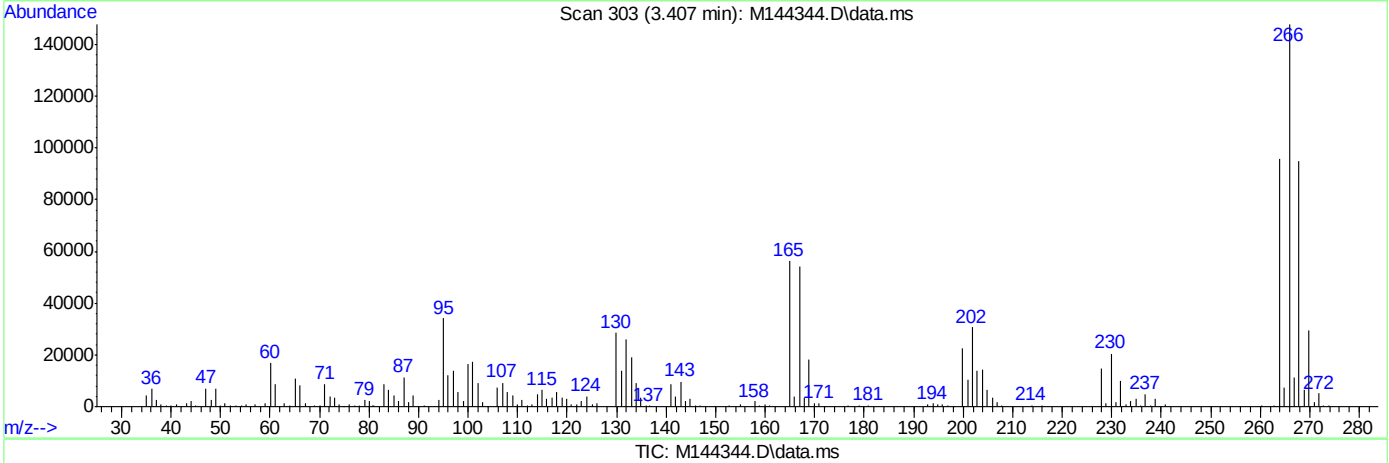
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
403.05	1068						
403.95	408						
420.85	918						
421.95	800						
423.00	5854						
423.95	1060						
425.05	74						
440.95	13635						
441.95	92893						
442.95	18427						
443.95	1794						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6126\
Data File : M144344.D
Acq On : 1 Mar 2018 10:54 pm
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6126,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 23:00:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144344.D\data.ms

(1) Pentachlorophenol (MC)

2.912min (-2.912) 0.00ppm

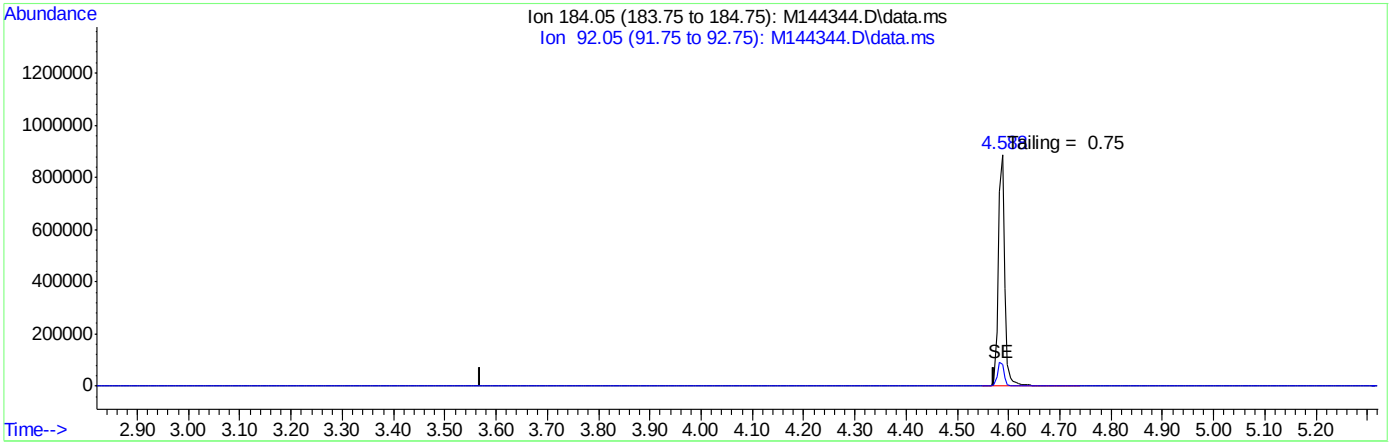
response 0

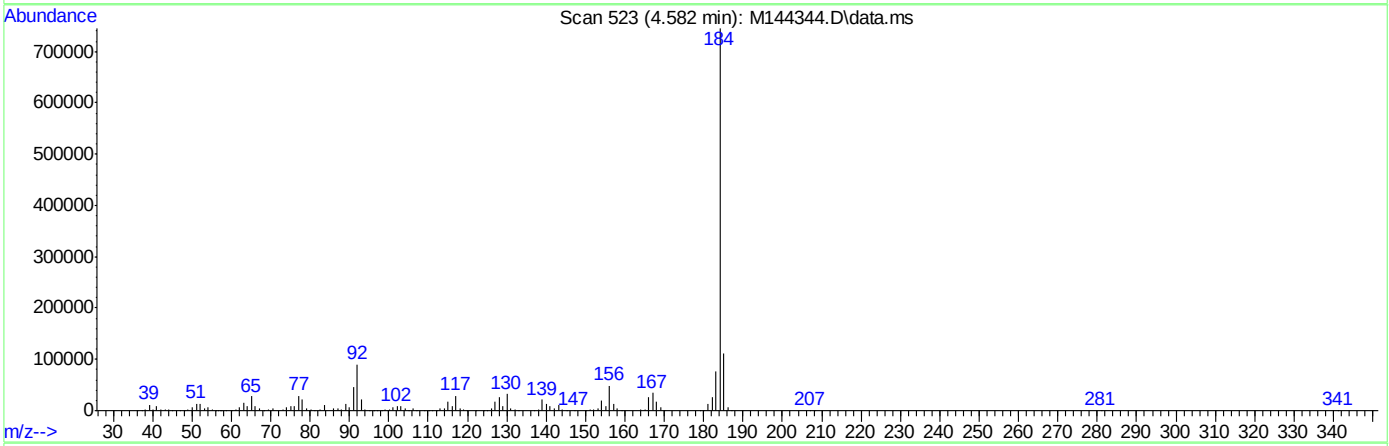
Ion	Exp%	Act%
265.80	100	0.00
263.70	61.50	0.00#
267.70	64.40	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6126\
Data File : M144344.D
Acq On : 1 Mar 2018 10:54 pm
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6126,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 23:00:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144344.D\data.ms

(2) Benzidine (M)

4.071min (-4.071) 0.00ppm

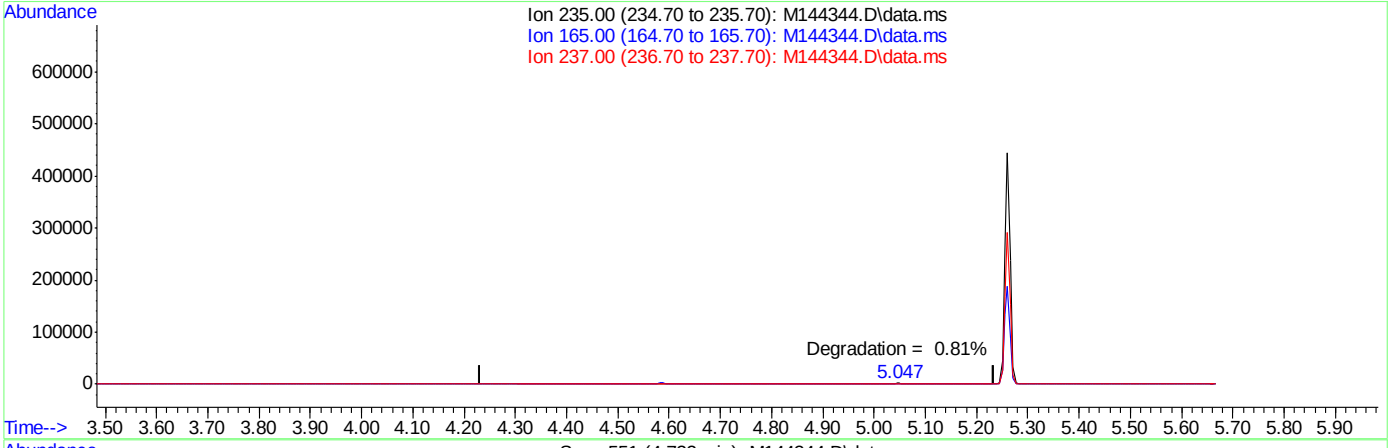
response 0

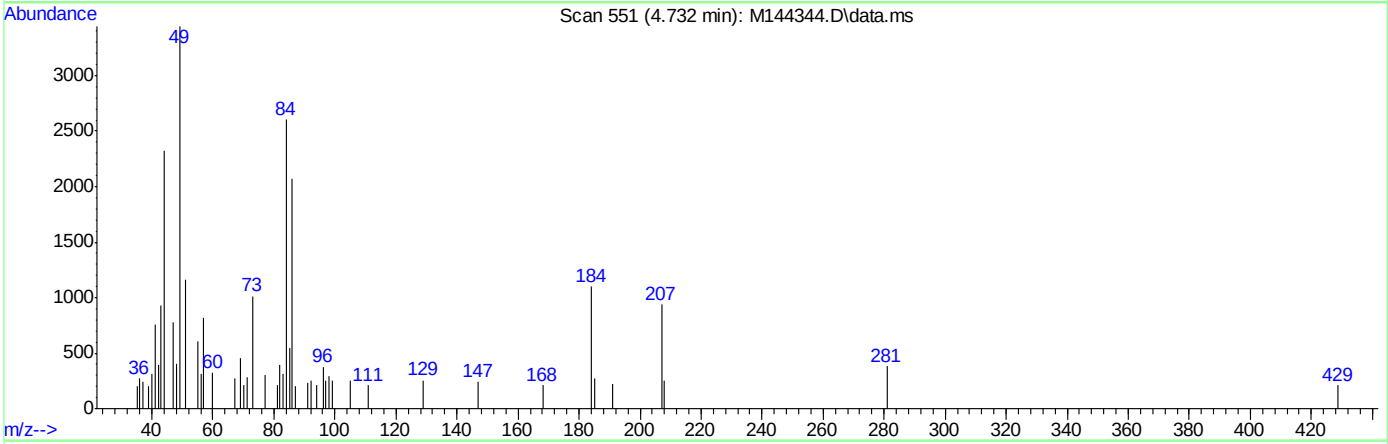
Ion	Exp%	Act%
184.05	100	0.00
92.05	7.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6126\
Data File : M144344.D
Acq On : 1 Mar 2018 10:54 pm
Operator : chriss2
Sample : DFTPP
Misc : op9152,em6126,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 23:00:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144344.D\data.ms

(3) PP-DDT (MC)

4.734min (-4.734) 0.00ppm

response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	42.80	0.00#
237.00	66.60	0.00#
0.00	0.00	0.00

9.4.9.3

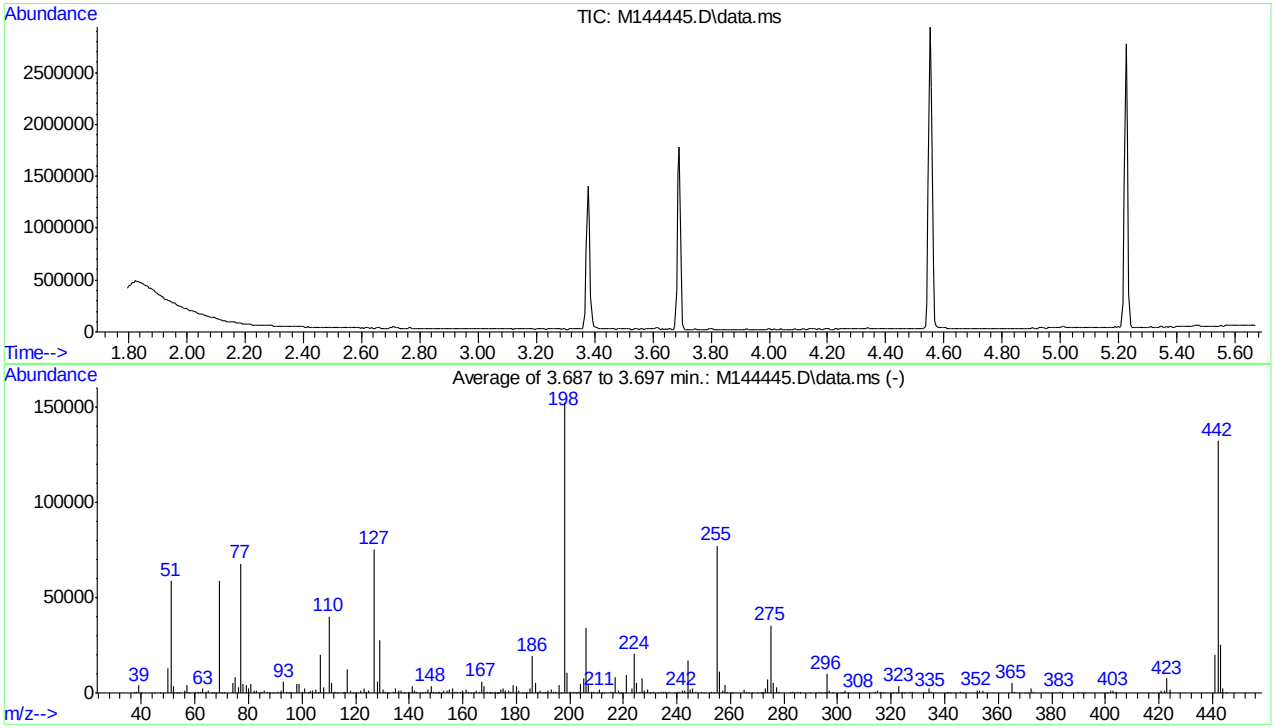
9

DFTPPR

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144445.D
Acq On : 6 Mar 2018 11:49 am
Operator : seanb1
Sample : DFTPP
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
Last Update : Sun Feb 18 15:20:41 2018



AutoFind: Scans 355, 356, 357; Background Corrected with Scan 350

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.6	58877	PASS
68	69	0.00	2	0.2	128	PASS
69	198	0.00	100	38.7	59041	PASS
70	69	0.00	2	0.3	186	PASS
127	198	40	60	49.5	75480	PASS
197	198	0.00	1	0.1	115	PASS
198	198	100	100	100.0	152578	PASS
199	198	5	9	7.0	10691	PASS
275	198	10	30	23.3	35581	PASS
365	198	1	100	3.3	5069	PASS
441	443	0.10	100	79.5	20101	PASS
442	198	40	100	86.8	132413	PASS
443	442	17	23	19.1	25272	PASS

Average of 3.687 to 3.697 min.: M144445.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	248	56.05	1450	68.05	128	81.05	4812
38.05	457	57.05	4136	69.05	59041	82.05	1012
39.05	4013	57.95	7	70.05	186	83.05	1147
39.95	77	60.05	99	70.95	105	84.00	85
45.00	319	61.10	683	74.05	5230	85.00	647
47.05	151	62.05	548	75.00	8400	86.00	1105
50.05	13261	63.05	2243	76.05	3208	87.05	828
51.05	58877	64.05	444	77.05	68001	88.00	198
52.05	3477	65.10	1168	78.05	4777	89.10	177
53.10	308	66.05	185	79.00	3896	91.05	563
54.10	142	66.95	316	80.00	2671	92.00	1036

Average of 3.687 to 3.697 min.: M144445.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	5631	105.05	1549	118.05	1099	131.05	654
94.05	552	105.95	264	119.05	303	132.05	98
95.15	163	107.00	20104	120.05	261	132.35	181
96.10	481	108.05	3099	122.00	1074	133.95	831
98.00	4456	110.05	40342	123.05	2256	135.05	2122
99.05	4493	111.00	5395	124.00	896	136.05	997
100.00	397	112.05	800	124.95	915	137.00	1187
101.05	2598	113.10	220	127.05	75480	138.05	249
102.00	214	115.05	135	128.05	5987	140.05	465
103.00	964	116.00	841	129.05	27536	141.05	3327
103.95	1442	117.05	12097	130.05	1996	142.05	997

Average of 3.687 to 3.697 min.: M144445.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.00	734	153.00	1022	164.05	110	173.05	214
143.95	225	154.05	981	165.00	997	173.25	69
145.00	193	155.05	1865	166.05	846	174.05	1569
146.10	588	156.05	2665	167.05	6194	175.05	2598
147.05	1575	157.00	596	168.05	3360	176.05	970
148.05	3571	157.95	639	169.05	704	177.05	1221
149.05	553	158.95	526	169.95	83	177.90	432
150.05	219	160.05	1042	170.15	171	178.95	4330
150.95	75	161.05	1598	171.00	239	180.05	3525
151.30	457	162.00	508	172.00	424	181.05	1362
152.00	232	162.95	264	172.85	239	182.00	215

Average of 3.687 to 3.697 min.: M144445.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
183.00	211	194.00	408	205.05	7395	216.95	8092
184.05	476	194.90	334	206.05	33951	218.05	1047
185.05	2227	196.00	4305	207.00	3950	218.75	70
186.05	19342	196.75	115	208.00	628	219.05	106
187.05	5185	197.95	152578	209.00	357	221.05	9588
188.05	429	198.95	10691	210.05	265	223.00	2296
189.05	1041	200.00	765	211.10	1531	224.05	20450
190.00	160	201.50	860	211.95	114	225.00	5304
191.05	752	202.15	92	212.85	74	226.00	732
191.95	1326	203.00	804	215.05	327	227.00	7825
193.05	1548	204.05	4600	216.00	608	228.00	1140

Average of 3.687 to 3.697 min.: M144445.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.00	1711	242.00	1197	255.00	77448	269.95	75
229.95	206	243.00	1074	256.00	11309	271.15	93
231.00	727	244.05	16814	257.00	1031	271.85	67
232.85	94	245.05	1910	257.95	4245	272.05	137

DFTPPM.M Tue Mar 06 19:34:19 2018 MSM

234.00	426	246.00	2583	258.95	777	272.95	2661
235.00	520	246.90	596	260.05	196	273.95	7068
235.95	359	249.00	576	260.95	107	274.95	35581
237.05	638	249.85	74	265.00	1670	276.05	5440
238.95	316	252.05	104	266.00	465	277.00	2809
240.00	210	252.95	320	266.90	193	278.00	407
240.95	504	253.85	251	267.85	70	282.05	118

Average of 3.687 to 3.697 min.: M144445.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
283.00	521	296.95	1205	320.90	310	340.85	200
284.00	160	298.05	103	321.85	78	341.05	420
285.05	666	300.95	128	323.00	3743	341.95	127
285.95	97	301.95	88	324.00	848	345.90	876
286.15	92	302.95	1151	324.85	85	346.85	101
289.95	67	304.05	288	326.95	720	351.95	1199
291.95	70	307.95	106	327.95	355	353.00	1026
293.00	778	314.00	631	331.95	88	354.05	1441
293.90	158	314.95	1049	332.95	312	364.95	5069
295.00	228	316.00	699	334.00	2455	365.80	730
295.95	9856	316.95	78	334.95	736	370.05	94

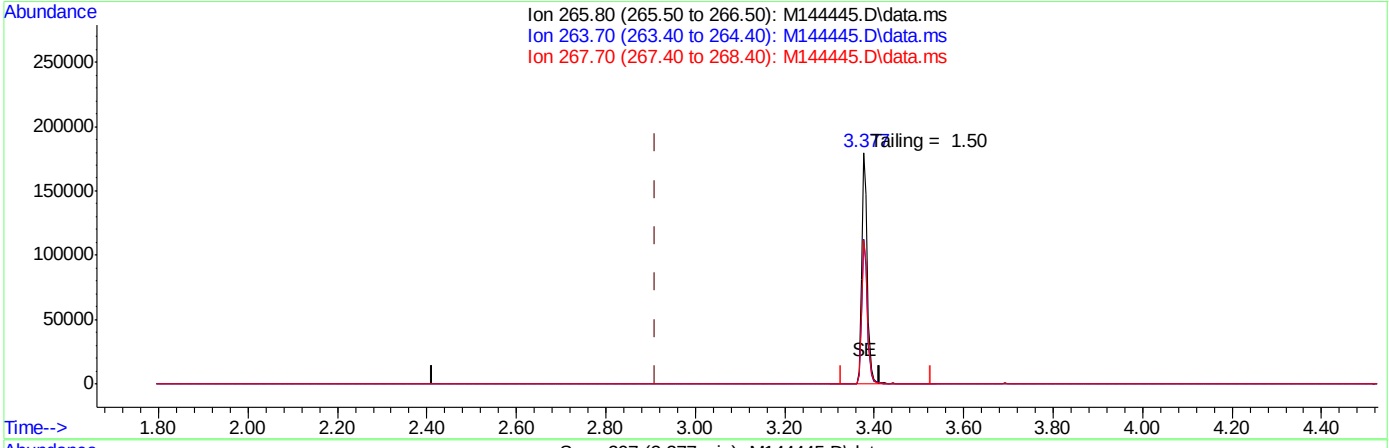
Average of 3.687 to 3.697 min.: M144445.D\data.ms
DFTPP
Modified:subtracted

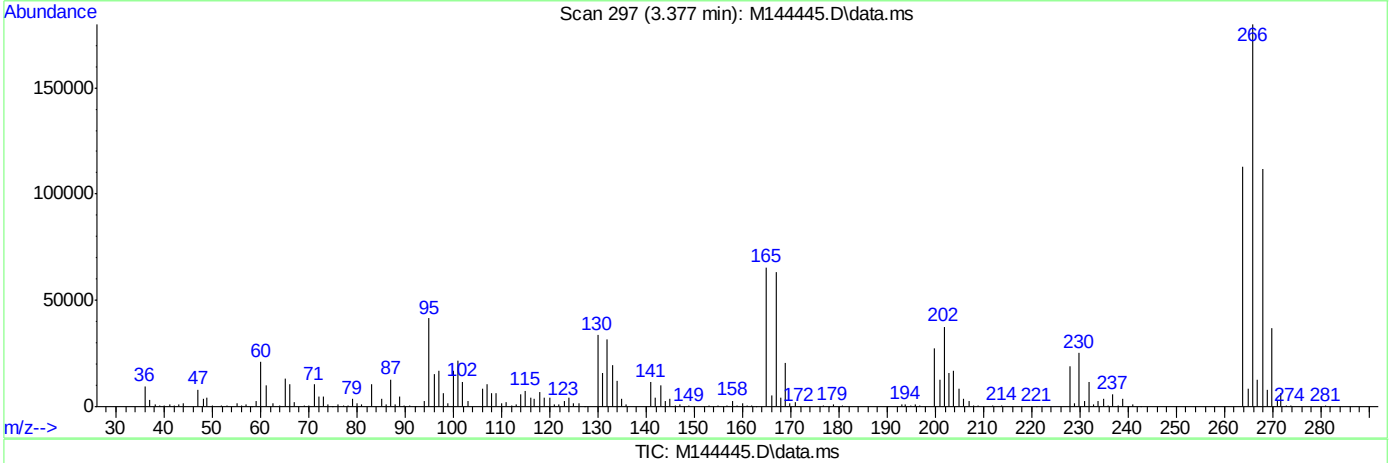
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
370.90	238	403.95	571				
372.05	2445	421.00	1157				
373.00	525	421.90	1024				
382.95	702	422.95	7538				
383.95	172	424.00	1662				
390.00	393	440.95	20101				
391.00	217	441.95	132413				
392.15	79	442.95	25272				
400.90	182	444.00	2325				
401.90	939	444.95	90				
403.00	1381						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144445.D
Acq On : 6 Mar 2018 11:49 am
Operator : seanb1
Sample : DFTPP
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 12:53:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144445.D\data.ms

(1) Pentachlorophenol (MC)

3.377min (+0.465) 0.00ppm m

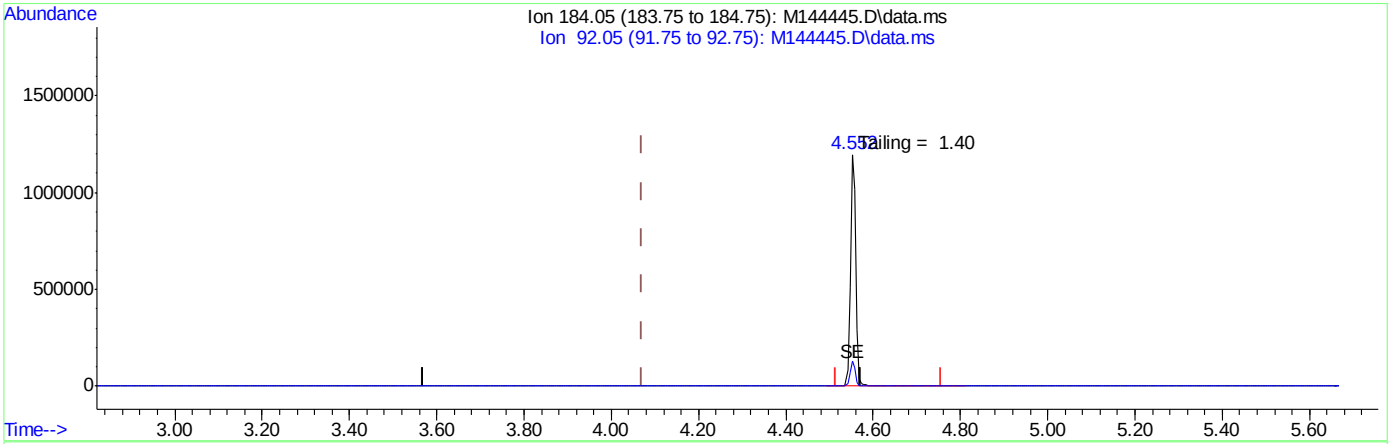
response 159610

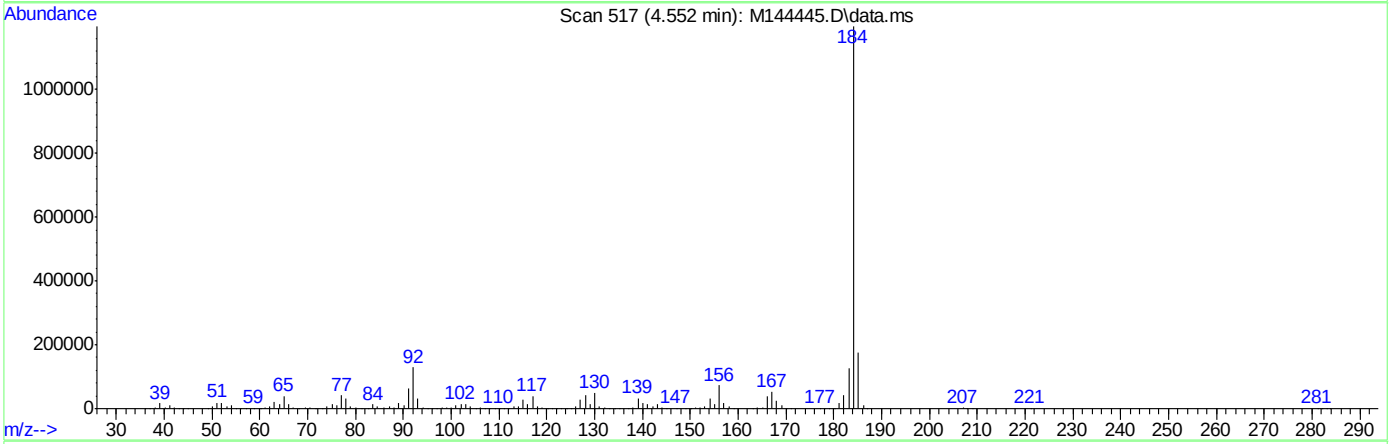
Ion	Exp%	Act%
265.80	100	100
263.70	61.50	62.78
267.70	64.40	62.30
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144445.D
Acq On : 6 Mar 2018 11:49 am
Operator : seanb1
Sample : DFTPP
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 12:53:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144445.D\data.ms

(2) Benzidine (M)

4.552min (+0.481) 0.00ppm m

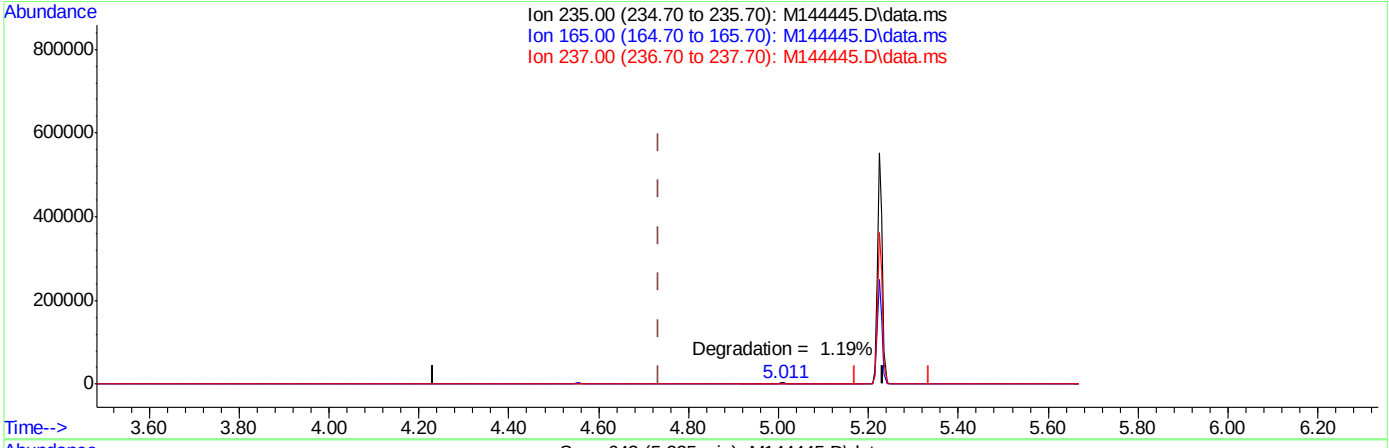
response 1029545

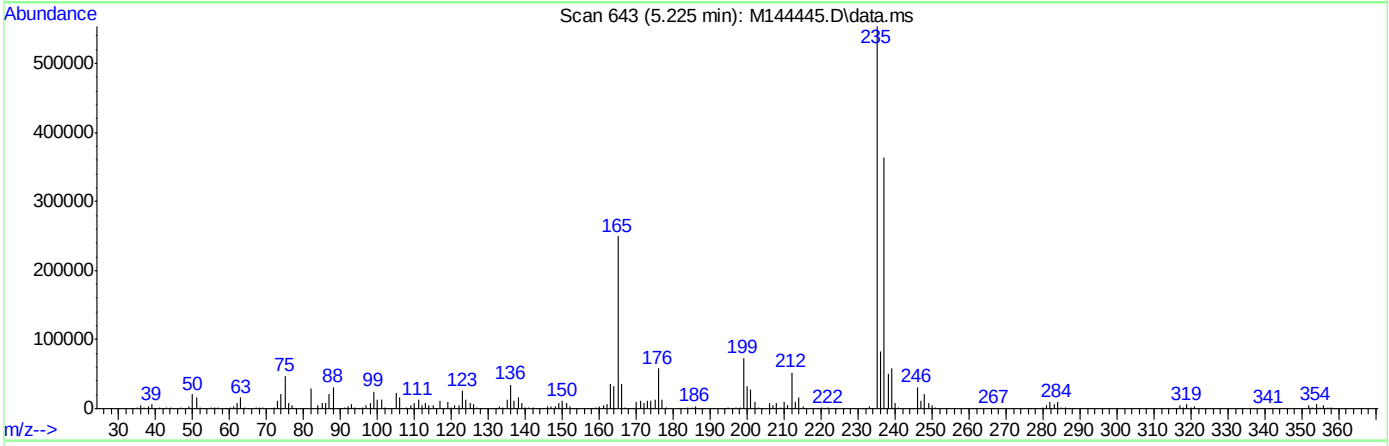
Ion	Exp%	Act%
184.05	100	100
92.05	7.20	10.82#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144445.D
Acq On : 6 Mar 2018 11:49 am
Operator : seanb1
Sample : DFTPP
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 12:53:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144445.D\data.ms

(3) PP-DDT (MC)

5.225min (+0.491) 0.00ppm m

response 426493

Ion	Exp%	Act%
235.00	100	100
165.00	42.80	45.14
237.00	66.60	65.58
0.00	0.00	0.00

9.4.10.3

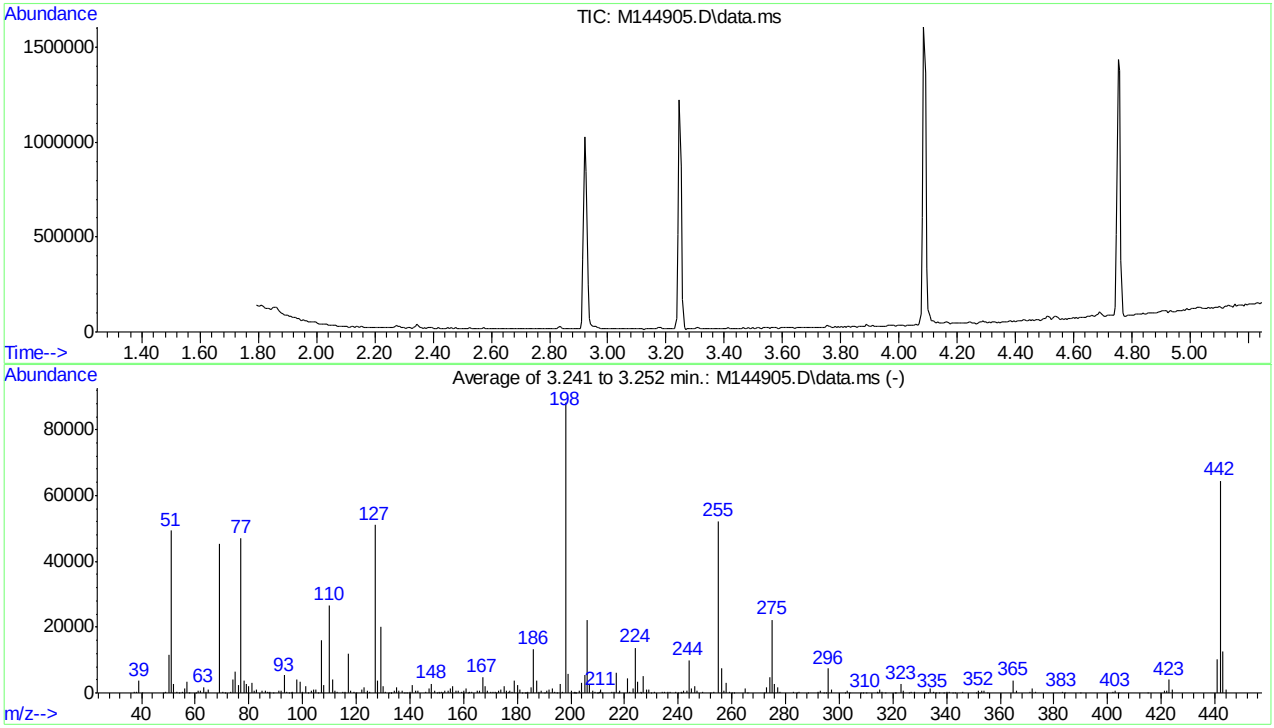
9

DFTPPR

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144905.D
Acq On : 28 Mar 2018 12:54 pm
Operator : christc2
Sample : dftpp
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
Last Update : Sun Feb 18 15:20:41 2018



AutoFind: Scans 272, 273, 274; Background Corrected with Scan 268

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	55.9	49330	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.2	45187	PASS
70	69	0.00	2	1.1	485	PASS
127	198	40	60	57.9	51117	PASS
197	198	0.00	1	0.4	317	PASS
198	198	100	100	100.0	88282	PASS
199	198	5	9	6.4	5650	PASS
275	198	10	30	25.3	22293	PASS
365	198	1	100	4.3	3752	PASS
441	443	0.10	100	81.1	10310	PASS
442	198	40	100	73.2	64586	PASS
443	442	17	23	19.7	12718	PASS

Average of 3.241 to 3.252 min.: M144905.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	235	55.05	266	70.10	485	82.00	819
38.05	495	56.05	1395	71.10	70	83.00	938
39.05	3749	57.05	3560	73.10	386	85.10	540
40.00	181	57.95	161	74.05	3972	86.00	791
47.95	74	60.05	66	75.05	6659	87.05	301
49.05	414	61.05	832	76.05	2295	87.25	132
50.05	11585	62.05	615	77.05	47149	88.00	200
51.05	49330	63.10	1792	78.05	3692	88.95	80
52.10	2676	64.00	331	79.05	2679	91.05	678
53.10	293	65.05	957	80.05	2071	92.00	850
54.15	92	69.00	45187	81.05	2965	93.05	5320

Average of 3.241 to 3.252 min.: M144905.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	464	105.05	1158	118.00	862	131.05	474
95.10	108	105.95	93	119.00	309	132.05	107
95.95	123	107.05	15911	119.95	168	132.75	84
96.10	363	108.05	2343	122.00	1042	133.05	86
98.05	3989	110.05	26712	123.00	1632	134.00	768
99.05	3285	111.05	4115	124.05	680	135.05	1660
100.00	278	112.00	639	125.05	515	136.00	725
101.00	1912	113.05	212	127.05	51117	137.05	806
102.05	82	115.00	209	128.05	3850	138.10	160
103.10	719	115.95	398	129.05	20184	138.95	100
104.00	1124	117.05	12056	130.05	1904	140.05	335

Average of 3.241 to 3.252 min.: M144905.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.00	2361	152.05	102	162.05	389	173.00	619
142.10	842	153.00	813	163.05	186	174.05	985
143.05	723	154.05	613	165.00	667	175.00	2132
146.00	385	155.00	1470	166.05	657	176.00	718
147.00	1258	156.05	1943	167.05	4874	176.95	218
148.00	2889	157.05	587	168.05	2055	177.10	855
149.10	766	158.05	531	169.05	550	177.95	306
150.05	33	159.05	378	170.00	269	179.00	3677
150.85	70	160.00	773	170.90	233	180.00	2461
151.10	267	161.00	1354	171.95	294	181.00	1175
151.55	222	161.75	72	172.15	135	182.00	177

Average of 3.241 to 3.252 min.: M144905.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
182.95	71	193.00	1249	201.95	160	211.10	866
183.15	82	194.10	325	203.00	719	211.65	83
184.05	327	194.95	80	204.05	3066	215.10	315
185.05	1649	196.00	2653	205.05	5464	216.05	448
186.05	13346	196.85	317	206.05	22114	217.00	6019
187.10	3815	198.00	88282	207.05	2834	217.85	150
188.15	421	199.00	5650	207.95	679	218.05	629
189.00	862	200.00	601	209.00	230	221.05	4365
190.05	85	200.85	121	209.95	136	221.85	272
190.90	621	201.35	152	210.25	115	223.05	1458
192.00	1040	201.65	193	210.75	317	224.05	13665

Average of 3.241 to 3.252 min.: M144905.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.00	3348	236.95	464	249.05	336	265.95	77
225.95	147	239.00	225	251.85	71	272.05	182
226.10	268	239.95	100	253.05	248	273.00	1710
227.00	5257	240.95	226	255.05	52322	274.05	4810

DFTPPM.M Wed Mar 28 17:13:22 2018 MSM

228.00	993	241.15	173	256.05	7594	275.05	22293
229.00	1188	242.00	689	257.00	655	275.95	2888
229.85	80	243.05	795	258.00	3087	277.00	1856
231.05	374	244.05	10000	258.95	432	278.05	307
233.95	341	245.05	1254	260.05	82	283.00	233
234.95	420	246.00	2159	260.95	92	284.05	103
236.00	216	247.00	527	264.95	1380	285.00	452

Average of 3.241 to 3.252 min.: M144905.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
288.15	76	308.85	67	326.05	80	340.10	227
291.95	192	309.90	168	326.90	476	341.05	475
292.95	560	314.05	221	327.95	212	342.15	74
294.05	95	314.25	79	331.85	87	343.05	71
295.05	76	314.95	877	332.05	87	345.95	429
295.95	7348	316.05	468	333.05	120	351.05	81
296.95	1091	317.05	83	333.95	1414	351.95	770
302.05	80	320.85	83	335.00	329	352.25	119
303.00	816	321.10	152	336.05	81	352.90	570
303.95	166	323.05	2568	337.15	98	354.00	821
308.05	68	324.05	533	338.95	104	355.05	123

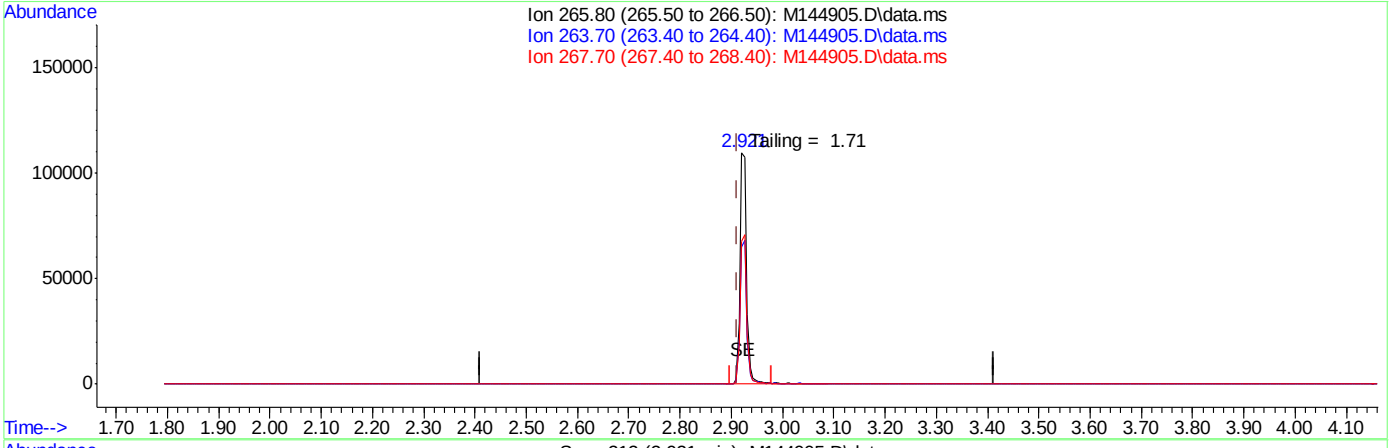
Average of 3.241 to 3.252 min.: M144905.D\data.ms
dftpp
Modified:subtracted

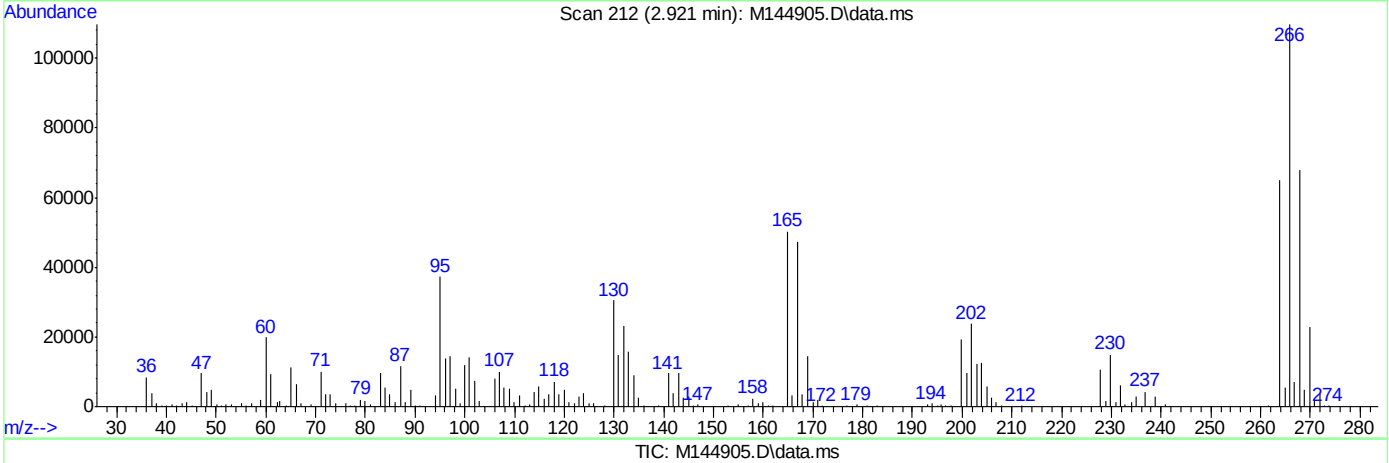
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
364.95	3752	414.95	86				
365.95	720	421.00	634				
371.00	332	422.00	553				
371.95	1235	423.00	4013				
373.00	295	424.00	941				
383.00	506	440.95	10310				
383.95	100	442.00	64586				
390.00	160	443.00	12718				
402.00	462	444.00	1198				
402.95	676						
404.00	179						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144905.D
Acq On : 28 Mar 2018 12:54 pm
Operator : christc2
Sample : dftpp
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 28 13:00:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144905.D\data.ms

(1) Pentachlorophenol (MC)

2.921min (+0.008) 0.00ppm

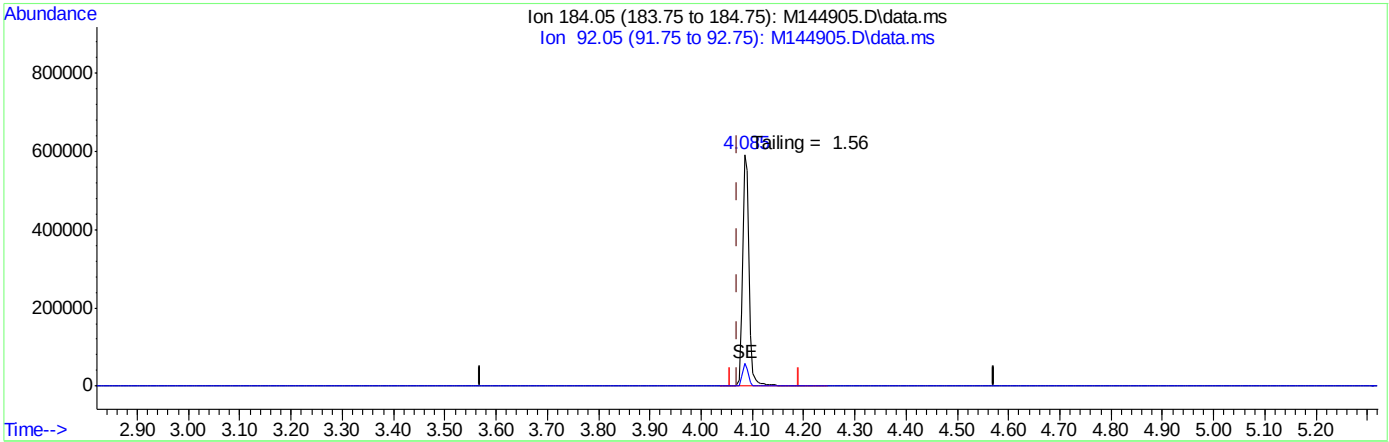
response 95546

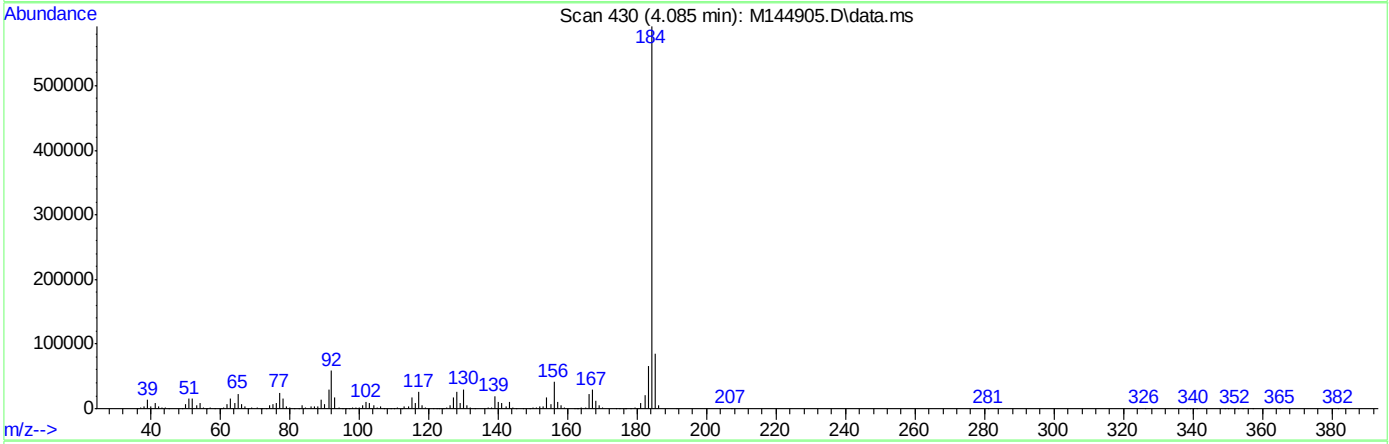
Ion	Exp%	Act%
265.80	100	100
263.70	61.50	59.33
267.70	64.40	61.72
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144905.D
Acq On : 28 Mar 2018 12:54 pm
Operator : christc2
Sample : dftpp
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 28 13:00:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144905.D\data.ms

(2) Benzidine (M)

4.085min (+0.014) 0.00ppm

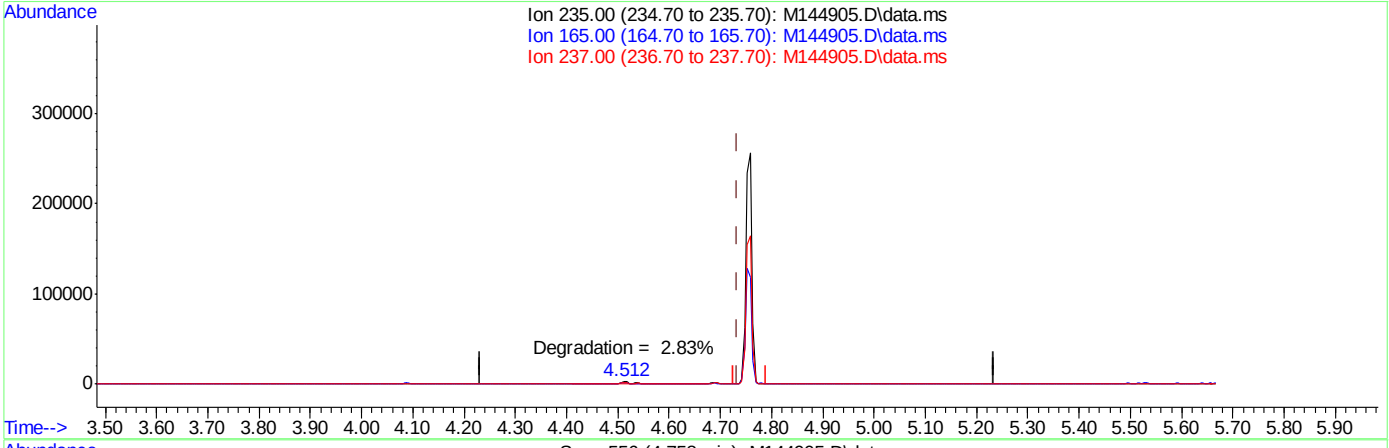
response 505244

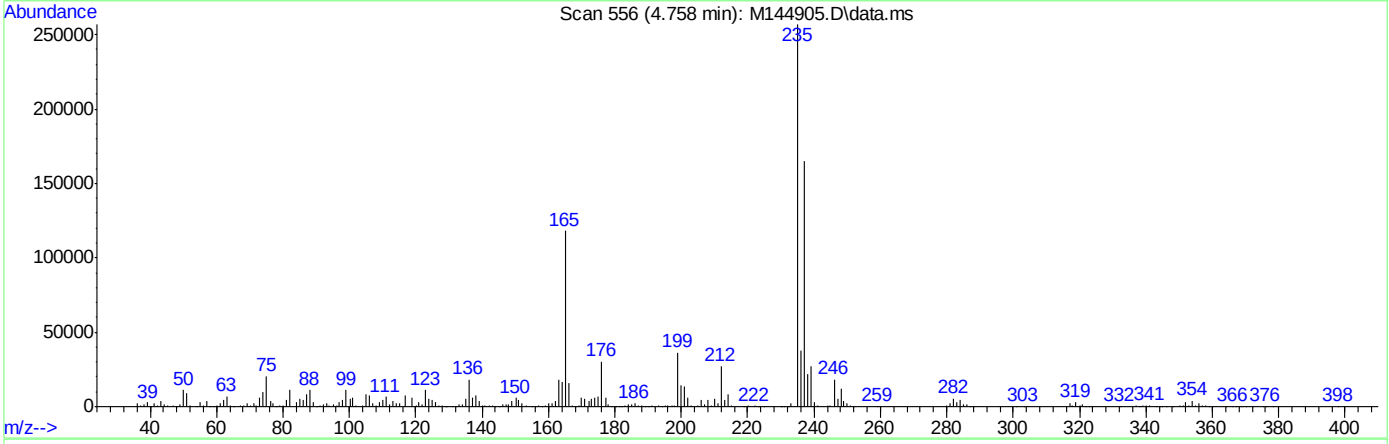
Ion	Exp%	Act%
184.05	100	100
92.05	7.20	9.98#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144905.D
Acq On : 28 Mar 2018 12:54 pm
Operator : christc2
Sample : dftpp
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 28 13:00:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M144905.D\data.ms

(3) PP-DDT (MC)

4.758min (+0.024) 0.00ppm

response 201782

Ion	Exp%	Act%
235.00	100	100
165.00	42.80	45.79
237.00	66.60	64.04
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102232.D
Acq On : 28 Feb 2018 3:04 pm
Operator : seanb1
Sample : ic4551-100
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 21:11:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.692	152	233988	40.00	ppm	0.00
24) Naphthalene-d8	5.789	136	913020	40.00	ppm	0.00
47) Acenaphthene-d10	7.859	164	471134	40.00	ppm	0.00
69) Phenanthrene-d10	10.030	188	888580	40.00	ppm	0.00
83) Chrysene-d12	14.207	240	905464	40.00	ppm	0.00
91) Perylene-d12	16.309	264	851685	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.692	152	233988	40.00	ppm	0.00
103) Acenaphthene-d10a	7.859	164	471134	40.00	ppm	0.00
105) Chrysene-d12a	14.207	240	905464	40.00	ppm	0.00
108) Phenanthrene-d10a	10.030	188	888580	40.00	ppm	0.00
112) Naphthalene-d8a	5.789	136	913020	40.00	ppm	0.00
114) Chrysene-d12b	14.207	240	905464	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.703	112	823673	100.00	ppm	0.10
Spiked Amount 50.000			Recovery =	200.00%		
8) Phenol-d5	4.419	99	1067157	100.00	ppm	-0.02
Spiked Amount 50.000			Recovery =	200.00%		
25) Nitrobenzene-d5	5.136	82	1061753	100.00	ppm	0.00
Spiked Amount 50.000			Recovery =	200.00%		
51) 2-Fluorobiphenyl	6.992	172	2009775	100.00	ppm	0.03
Spiked Amount 50.000			Recovery =	200.00%		
73) 2,4,6-Tribromophenol	8.987	330	296578	100.00	ppm	0.05
Spiked Amount 50.000			Recovery =	200.00%		
85) Terphenyl-d14	12.587	244	2137357	100.00	ppm	0.07
Spiked Amount 50.000			Recovery =	200.00%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.242	88	302701	100.00	ppm	100
3) Pyridine	2.558	79	884133	100.00	ppm	100
4) N-Nitrosodimethylamine	2.526	74	494215	100.00	ppm	100
6) Indene	4.895	116	1435460	100.00	ppm	98
7) Cumene	4.093	105	2195203	100.00	ppm	99
9) Phenol	4.430	94	1227121	100.00	ppm	90
10) Aniline	4.441	93	1124117	100.00	ppm	89
11) bis(2-Chloroethyl)ether	4.489	93	799415	100.00	ppm	91
12) 2-Chlorophenol	4.537	128	905287	100.00	ppm	98
13) Decane	4.574	43	974224	100.00	ppm	95
14) 1,3-Dichlorobenzene	4.649	146	978161	100.00	ppm	99
15) 1,4-Dichlorobenzene	4.703	146	1008407	100.00	ppm	99
16) Benzyl alcohol	4.799	108	564787	100.00	ppm	96
17) 1,2-Dichlorobenzene	4.826	146	938296	100.00	ppm	97
18) Acetophenone	5.013	105	1338526	100.00	ppm	84
19) 2-Methylphenol	4.890	108	804876	100.00	ppm	93
20) 2,2'-oxybis(1-Chloropr...	4.906	45	991840	100.00	ppm	89
21) 3&4-Methylphenol	5.013	108	952731	100.00	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102232.D
Acq On : 28 Feb 2018 3:04 pm
Operator : seanb1
Sample : ic4551-100
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 21:11:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.013	70	733647	100.00	ppm	98
23) Hexachloroethane	5.099	201	326674	100.00	ppm	83
26) Nitrobenzene	5.152	77	1019485	100.00	ppm	99
27) Quinoline	6.158	129	1648983	100.00	ppm	99
28) Isophorone	5.361	82	1715003	100.00	ppm	99
29) 2-Nitrophenol	5.430	139	512786	100.00	ppm	81
30) 2,4-Dimethylphenol	5.468	107	923847	100.00	ppm	98
31) Benzoic acid	5.591	105	783226m	100.37	ppm	
32) bis(2-Chloroethoxy)met...	5.553	93	909612	100.00	ppm	99
33) 2,4-Dichlorophenol	5.655	162	752308	100.00	ppm	97
34) 2,6-Dichlorophenol	5.874	162	743893	100.00	ppm	99
35) 1,3,5-Trichlorobenzene	5.441	180	829846	100.00	ppm	98
36) 1,2,4-Trichlorobenzene	5.735	180	788414	100.00	ppm	99
37) 1,2,3-Trichlorobenzene	5.960	180	763571	100.00	ppm	99
38) Naphthalene	5.810	128	2591389	100.00	ppm	99
39) 4-Chloroaniline	5.864	127	1081894	100.00	ppm	98
40) 2,3-Dichloroaniline	6.880	161	941813	100.00	ppm	98
41) Caprolactam	6.243	55	410518	100.00	ppm	86
42) Hexachlorobutadiene	5.944	225	457113	100.00	ppm	99
43) 4-Chloro-3-methylphenol	6.377	107	825534	100.00	ppm	95
44) 2-Methylnaphthalene	6.548	141	1542210	100.00	ppm	99
45) 1-Methylnaphthalene	6.660	141	1575599	100.00	ppm	97
46) Dimethylnaphthalene	7.313	156	1651270	100.00	ppm	99
48) Hexachlorocyclopentadiene	6.741	237	1134478	200.00	ppm	99
49) 2,4,6-Trichlorophenol	6.885	196	575836	100.00	ppm	98
50) 2,4,5-Trichlorophenol	6.928	196	580229	100.00	ppm	94
52) 2-Chloronaphthalene	7.131	162	1652193	100.00	ppm	99
53) Biphenyl	7.115	154	2246655	100.00	ppm	99
54) 2-Nitroaniline	7.265	65	602386	100.00	ppm	98
55) Dimethylphthalate	7.522	163	1927432	100.00	ppm	99
56) Acenaphthylene	7.666	152	2666084	100.00	ppm	99
57) 2,6-Dinitrotoluene	7.591	165	442919	100.00	ppm	88
58) 3-Nitroaniline	7.816	138	495349	100.00	ppm	94
59) Acenaphthene	7.907	153	1793735	100.00	ppm	98
60) 2,4-Dinitrophenol	7.960	184	631263	200.00	ppm	79
61) 4-Nitrophenol	8.067	109	348582	100.00	ppm	99
62) Dibenzofuran	8.147	168	2449039	100.00	ppm	99
63) 2,4-Dinitrotoluene	8.147	165	646750	100.00	ppm	92
64) 2,3,4,6-Tetrachlorophenol	8.329	232	498647	100.00	ppm	99
65) Diethylphthalate	8.522	149	2076899	100.00	ppm	98
66) Fluorene	8.639	166	2020748	100.00	ppm	97
67) 4-Chlorophenyl-phenyle...	8.656	204	901086	100.00	ppm	96
68) 4-Nitroaniline	8.688	138	469758	100.00	ppm	96
70) 4,6-Dinitro-2-methylph...	8.730	198	403959	100.00	ppm	87
71) n-Nitrosodiphenylamine	8.832	169	1432248	100.00	ppm	97
72) 1,2-Diphenylhydrazine	8.885	77	2119344	100.00	ppm	100
74) 4-Bromophenyl-phenylether	9.378	248	528853	100.00	ppm	94
75) Hexachlorobenzene	9.458	284	580174	100.00	ppm	98
76) Pentachlorophenol	9.763	266	885995	200.00	ppm	98
77) Phenanthrene	10.068	178	2799026	100.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102232.D
Acq On : 28 Feb 2018 3:04 pm
Operator : seanb1
Sample : ic4551-100
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 21:11:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

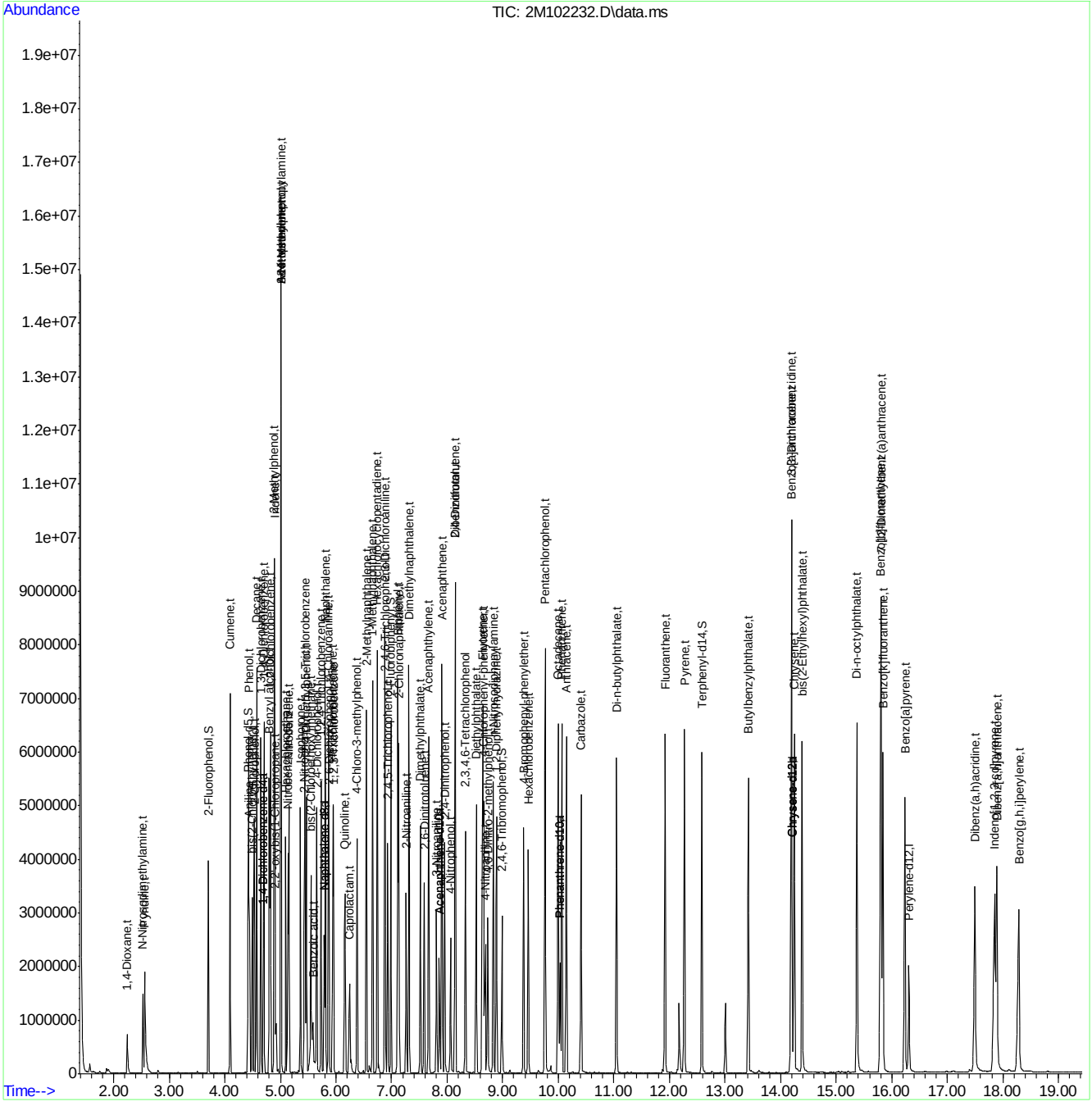
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.148	178	2852745	100.00	ppm	99
79) Carbazole	10.415	167	2677681	100.00	ppm	100
80) Di-n-butylphthalate	11.046	149	3587008	100.00	ppm	100
81) Fluoranthene	11.924	202	2954127	100.00	ppm	98
82) Octadecane	9.998	57	1369947	100.00	ppm	93
84) Pyrene	12.271	202	3121741	100.00	ppm	98
86) Butylbenzylphthalate	13.421	149	1573295	100.00	ppm	97
87) Benzo[a]anthracene	14.191	228	2944417	100.00	ppm	99
88) 3,3'-Dichlorobenzidine	14.197	252	1158248	100.00	ppm	99
89) Chrysene	14.250	228	2714341	100.00	ppm	100
90) bis(2-Ethylhexyl)phtha...	14.389	149	2208221	100.00	ppm	99
92) Di-n-octylphthalate	15.373	149	3770983	100.00	ppm	99
93) Benzo[b]fluoranthene	15.801	252	3212114	100.00	ppm	99
94) Benzo[k]fluoranthene	15.844	252	2772710	100.00	ppm	100
95) Benzo[a]pyrene	16.240	252	2593708	100.00	ppm	99
96) Indeno[1,2,3-cd]pyrene	17.850	276	3131022m	120.10	ppm	
97) Dibenz(a,h)acridine	17.497	279	2325511	100.00	ppm	99
98) Dibenz[a,h]anthracene	17.893	278	2686113	100.00	ppm	99
99) 7,12-Dimethylbenz(a)an...	15.807	256	1440309	100.00	ppm	97
100) Benzo[g,h,i]perylene	18.288	276	2492706	100.00	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102232.D
Acq On : 28 Feb 2018 3:04 pm
Operator : seanb1
Sample : ic4551-100
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 21:11:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration



Manual Integration Approval Summary

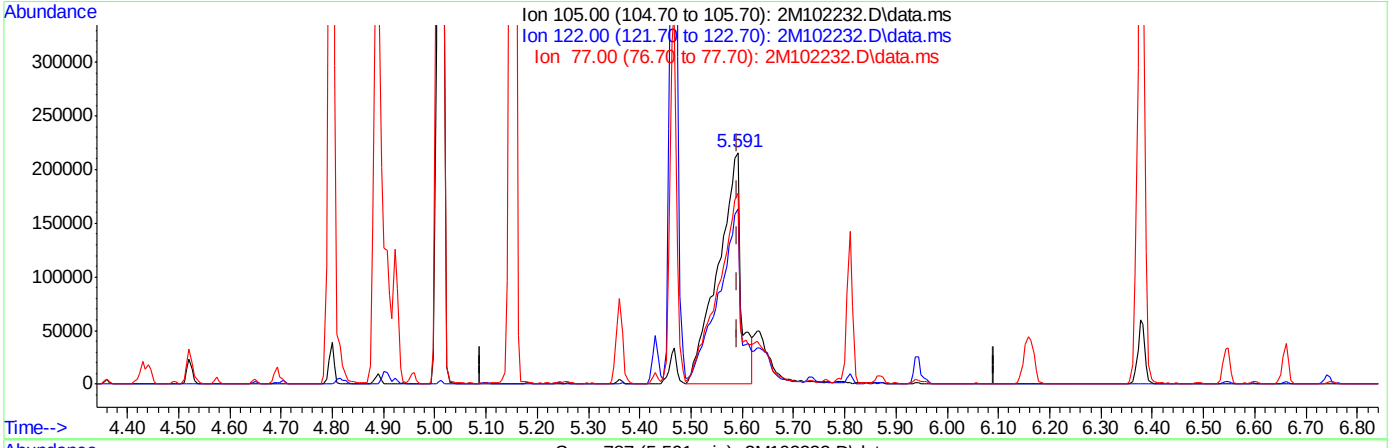
Sample Number:	E2M4551-IC4551	**Method:**	SW846 8270D
Lab FileID:	2M102232.D	**Analyst approved:**	03/01/18 03:02 Christopher Sowa
Injection Time:	02/28/18 15:04	**Supervisor approved:**	03/05/18 18:00 Nina Pandya

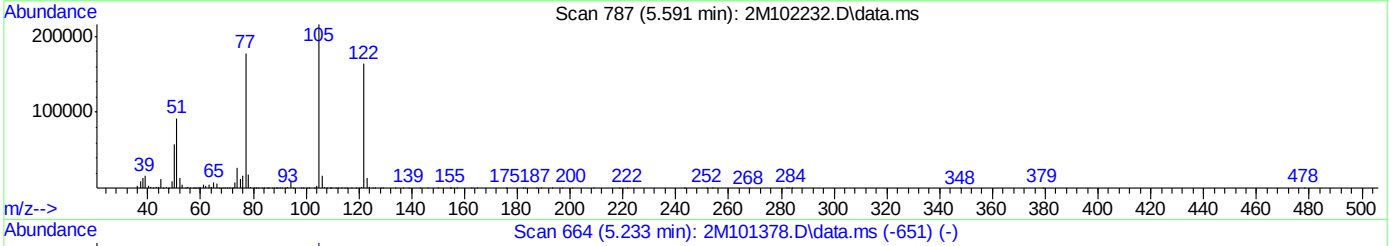
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.59	Split peak
Indeno(1,2,3-cd)pyrene	193-39-5		17.85	Split peak

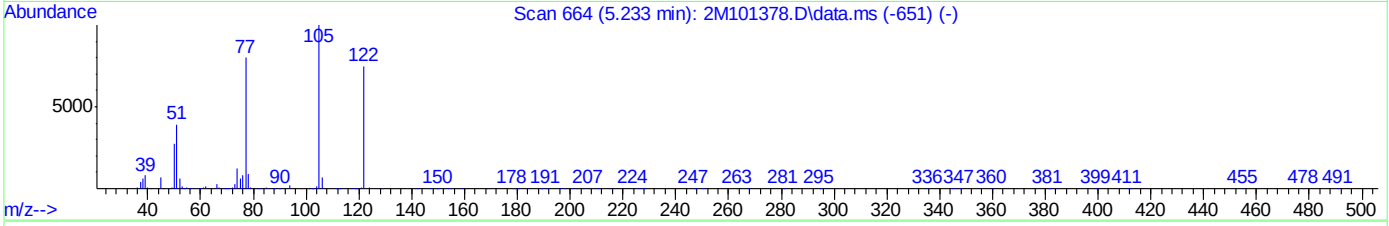
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102232.D
Acq On : 28 Feb 2018 3:04 pm
Operator : seanb1
Sample : ic4551-100
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 20:49:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102232.D\data.ms

(31) Benzoic acid (t)

5.591min (0.000) 86.06ppm

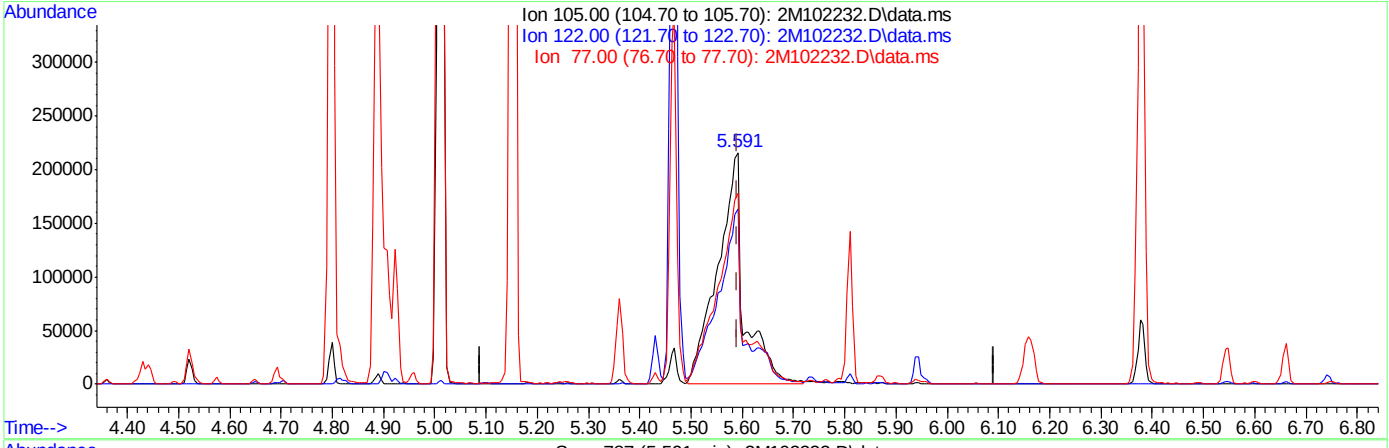
response 671578

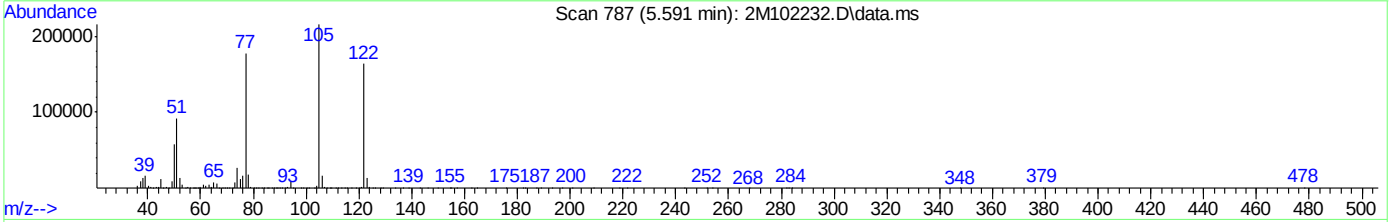
Ion	Exp%	Act%
105.00	100	100
122.00	75.80	75.17
77.00	82.50	81.54
0.00	0.00	0.00

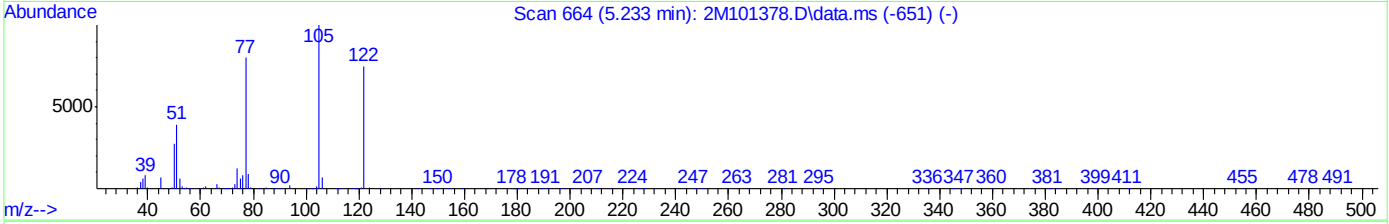
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102232.D
Acq On : 28 Feb 2018 3:04 pm
Operator : seanb1
Sample : ic4551-100
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 20:49:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102232.D\data.ms

(31) Benzoic acid (t)

5.591min (0.000) 100.37ppm m

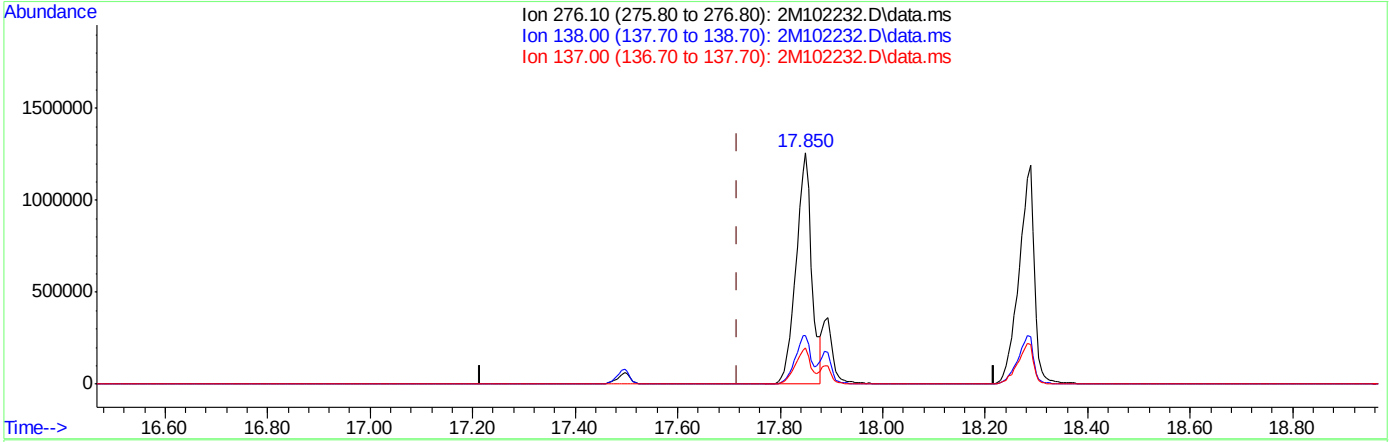
response 783226

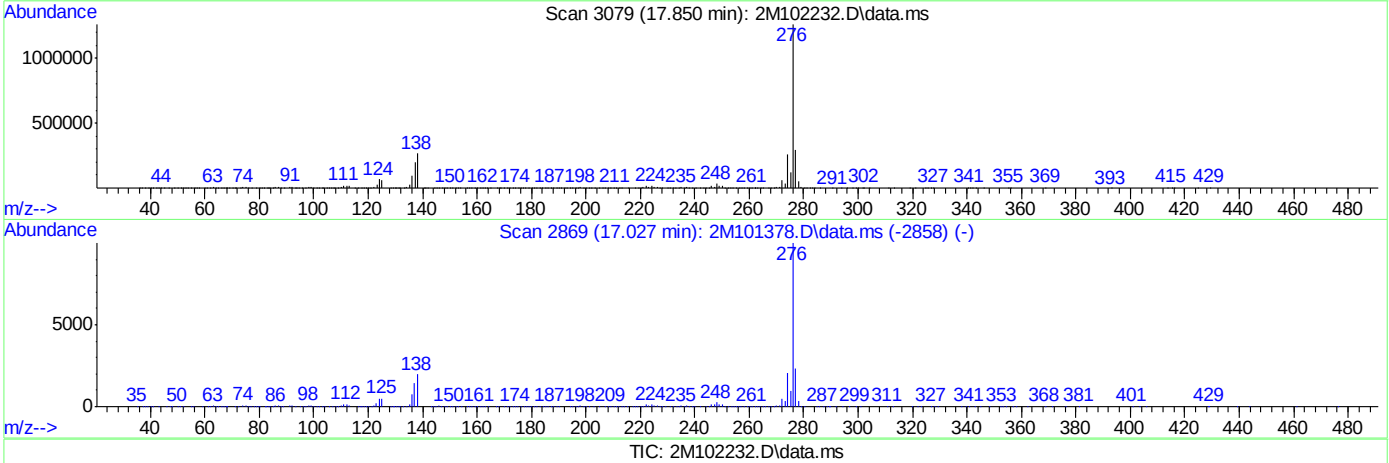
Ion	Exp%	Act%
105.00	100	100
122.00	75.80	75.77
77.00	82.50	82.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102232.D
Acq On : 28 Feb 2018 3:04 pm
Operator : seanb1
Sample : ic4551-100
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 20:51:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration





TIC: 2M102232.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.850min (+0.133) 100.00ppm

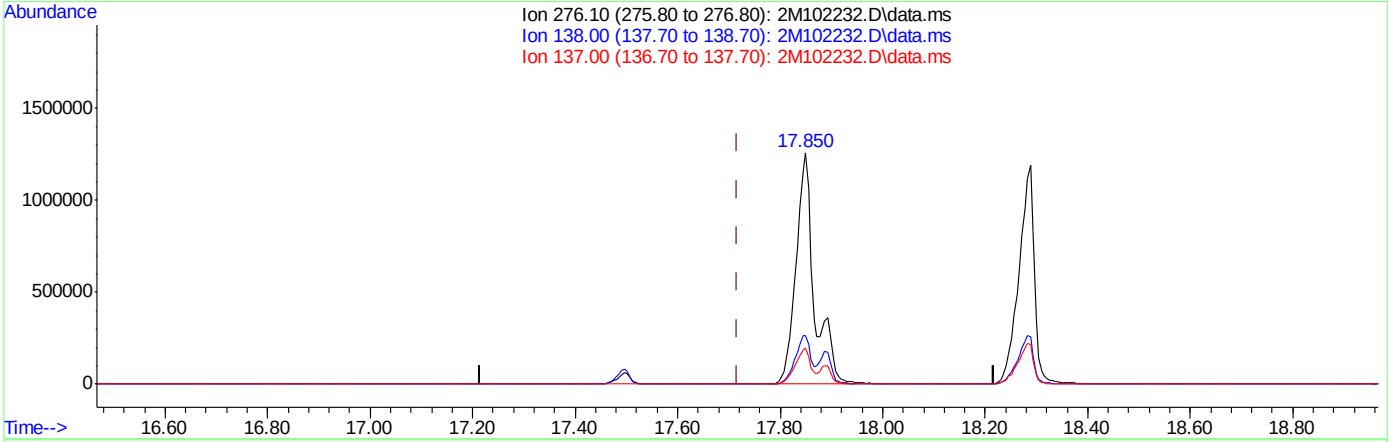
response 2606953

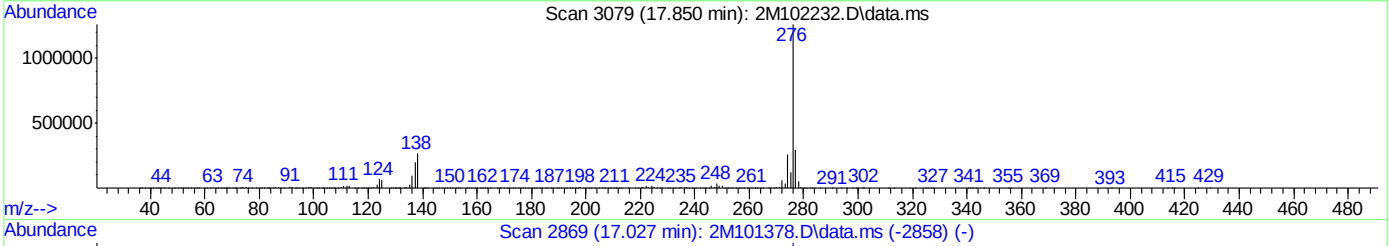
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	18.19
137.00	14.70	14.69
0.00	0.00	0.00

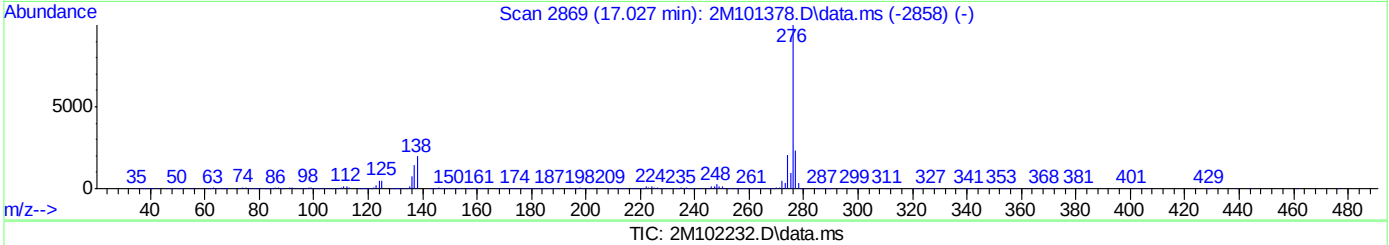
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102232.D
Acq On : 28 Feb 2018 3:04 pm
Operator : seanb1
Sample : ic4551-100
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 20:51:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102232.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.850min (+0.133) 120.10ppm m

response 3131022

Ion	Exp%	Act%
276.10	100	100
138.00	19.60	21.18
137.00	14.70	15.88
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102233.D
Acq On : 28 Feb 2018 3:50 pm
Operator : seanb1
Sample : ic4551-1
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 20:55:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.687	152	303522	40.00	ppm		0.00
24) Naphthalene-d8	5.783	136	1164412	40.00	ppm		0.00
47) Acenaphthene-d10	7.859	164	580022	40.00	ppm		0.00
69) Phenanthrene-d10	10.025	188	1074126	40.00	ppm		0.00
83) Chrysene-d12	14.197	240	964521	40.00	ppm		-0.01
91) Perylene-d12	16.304	264	968995	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.687	152	303522	40.00	ppm		0.00
103) Acenaphthene-d10a	7.859	164	580022	40.00	ppm		0.00
105) Chrysene-d12a	14.197	240	964521	40.00	ppm		-0.01
108) Phenanthrene-d10a	10.025	188	1074126	40.00	ppm		0.00
112) Naphthalene-d8a	5.783	136	1164412	40.00	ppm		0.00
114) Chrysene-d12b	14.197	240	964521	40.00	ppm		-0.01
System Monitoring Compounds							
5) 2-Fluorophenol	3.697	112	10626	0.99	ppm		0.10
Spiked Amount 50.000			Recovery	=	1.98%		
8) Phenol-d5	4.409	99	13055	0.94	ppm		-0.03
Spiked Amount 50.000			Recovery	=	1.88%		
25) Nitrobenzene-d5	5.131	82	13128	0.97	ppm		0.00
Spiked Amount 50.000			Recovery	=	1.94%		
51) 2-Fluorobiphenyl	6.982	172	25193	1.02	ppm		0.02
Spiked Amount 50.000			Recovery	=	2.04%		
73) 2,4,6-Tribromophenol	8.982	330	3230	0.90	ppm		0.05
Spiked Amount 50.000			Recovery	=	1.80%		
85) Terphenyl-d14	12.576	244	23245	1.02	ppm		0.06
Spiked Amount 50.000			Recovery	=	2.04%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm		
Target Compounds							Qvalue
2) 1,4-Dioxane	2.253	88	4288	1.09	ppm		92
3) Pyridine	2.601	79	11762	1.03	ppm		95
4) N-Nitrosodimethylamine	2.537	74	6737	1.05	ppm		91
6) Indene	4.890	116	16439	0.88	ppm		78
7) Cumene	4.093	105	28248	0.99	ppm		99
9) Phenol	4.420	94	15761	0.99	ppm		96
10) Aniline	4.441	93	17251	1.18	ppm		84
11) bis(2-Chloroethyl)ether	4.489	93	10794	1.04	ppm		95
12) 2-Chlorophenol	4.532	128	11187	0.95	ppm		88
13) Decane	4.569	43	13653	1.08	ppm		80
14) 1,3-Dichlorobenzene	4.649	146	12831	1.01	ppm		96
15) 1,4-Dichlorobenzene	4.703	146	13689	1.05	ppm		92
16) Benzyl alcohol	4.794	108	5825	0.80	ppm	#	77
17) 1,2-Dichlorobenzene	4.826	146	11723	0.96	ppm		89
18) Acetophenone	5.003	105	15965	0.92	ppm	#	66
19) 2-Methylphenol	4.880	108	8997	0.86	ppm		96
20) 2,2'-oxybis(1-Chloropr...	4.901	45	14083	1.09	ppm		85
21) 3&4-Methylphenol	5.003	108	10069	0.81	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102233.D
Acq On : 28 Feb 2018 3:50 pm
Operator : seanb1
Sample : ic4551-1
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 20:55:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	5.003	70	9781	1.03	ppm		90
23) Hexachloroethane	5.099	201	4030	0.95	ppm	#	69
26) Nitrobenzene	5.147	77	13846	1.06	ppm		92
27) Quinoline	6.142	129	21324	1.01	ppm		96
28) Isophorone	5.350	82	21828	1.00	ppm		95
29) 2-Nitrophenol	5.425	139	5602	0.86	ppm		84
30) 2,4-Dimethylphenol	5.457	107	8859	0.75	ppm		96
31) Benzoic acid	5.489	105	5503	0.55	ppm		86
32) bis(2-Chloroethoxy)met...	5.543	93	11310	0.97	ppm		94
33) 2,4-Dichlorophenol	5.644	162	8020	0.84	ppm		85
34) 2,6-Dichlorophenol	5.864	162	9383	0.99	ppm		96
35) 1,3,5-Trichlorobenzene	5.441	180	10694	1.01	ppm		99
36) 1,2,4-Trichlorobenzene	5.730	180	10987	1.09	ppm		93
37) 1,2,3-Trichlorobenzene	5.955	180	11004	1.13	ppm		82
38) Naphthalene	5.805	128	33018	1.00	ppm		99
39) 4-Chloroaniline	5.853	127	13295	0.96	ppm		95
40) 2,3-Dichloroaniline	6.875	161	11465	0.95	ppm		95
41) Caprolactam	6.174	55	5241	1.00	ppm		79
42) Hexachlorobutadiene	5.939	225	5717	0.98	ppm		80
43) 4-Chloro-3-methylphenol	6.361	107	9678	0.92	ppm		98
44) 2-Methylnaphthalene	6.543	141	17582	0.89	ppm		94
45) 1-Methylnaphthalene	6.655	141	19315	0.96	ppm		92
46) Dimethylnaphthalene	7.302	156	19319	0.92	ppm		94
48) Hexachlorocyclopentadiene	6.741	237	10639	1.52	ppm		92
49) 2,4,6-Trichlorophenol	6.875	196	6272	0.88	ppm		96
50) 2,4,5-Trichlorophenol	6.912	196	6305	0.88	ppm		85
52) 2-Chloronaphthalene	7.126	162	20698	1.02	ppm		97
53) Biphenyl	7.105	154	26508	0.96	ppm		98
54) 2-Nitroaniline	7.254	65	6908	0.93	ppm		92
55) Dimethylphthalate	7.506	163	25328	1.07	ppm		96
56) Acenaphthylene	7.661	152	30473	0.93	ppm		97
57) 2,6-Dinitrotoluene	7.575	165	4133	0.76	ppm		97
58) 3-Nitroaniline	7.795	138	4491	0.74	ppm		77
59) Acenaphthene	7.896	153	21212	0.96	ppm		88
60) 2,4-Dinitrophenol	7.939	184	3653	0.94	ppm		75
61) 4-Nitrophenol	8.046	109	1585	0.37	ppm	#	83
62) Dibenzofuran	8.137	168	30418	1.01	ppm		93
63) 2,4-Dinitrotoluene	8.126	165	6322	0.79	ppm		86
64) 2,3,4,6-Tetrachlorophenol	8.319	232	5065	0.83	ppm		87
65) Diethylphthalate	8.506	149	35268	1.38	ppm		99
66) Fluorene	8.629	166	21954	0.88	ppm		97
67) 4-Chlorophenyl-phenyle...	8.645	204	11816	1.07	ppm		91
68) 4-Nitroaniline	8.656	138	4324m	0.75	ppm		
70) 4,6-Dinitro-2-methylph...	8.709	198	3190	0.65	ppm		92
71) n-Nitrosodiphenylamine	8.821	169	17098	0.99	ppm		95
72) 1,2-Diphenylhydrazine	8.875	77	25681	1.00	ppm		97
74) 4-Bromophenyl-phenylether	9.372	248	6274	0.98	ppm		84
75) Hexachlorobenzene	9.447	284	6730	0.96	ppm		96
76) Pentachlorophenol	9.752	266	7552	1.41	ppm		90
77) Phenanthrene	10.057	178	34812	1.03	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102233.D
Acq On : 28 Feb 2018 3:50 pm
Operator : seanb1
Sample : ic4551-1
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 20:55:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

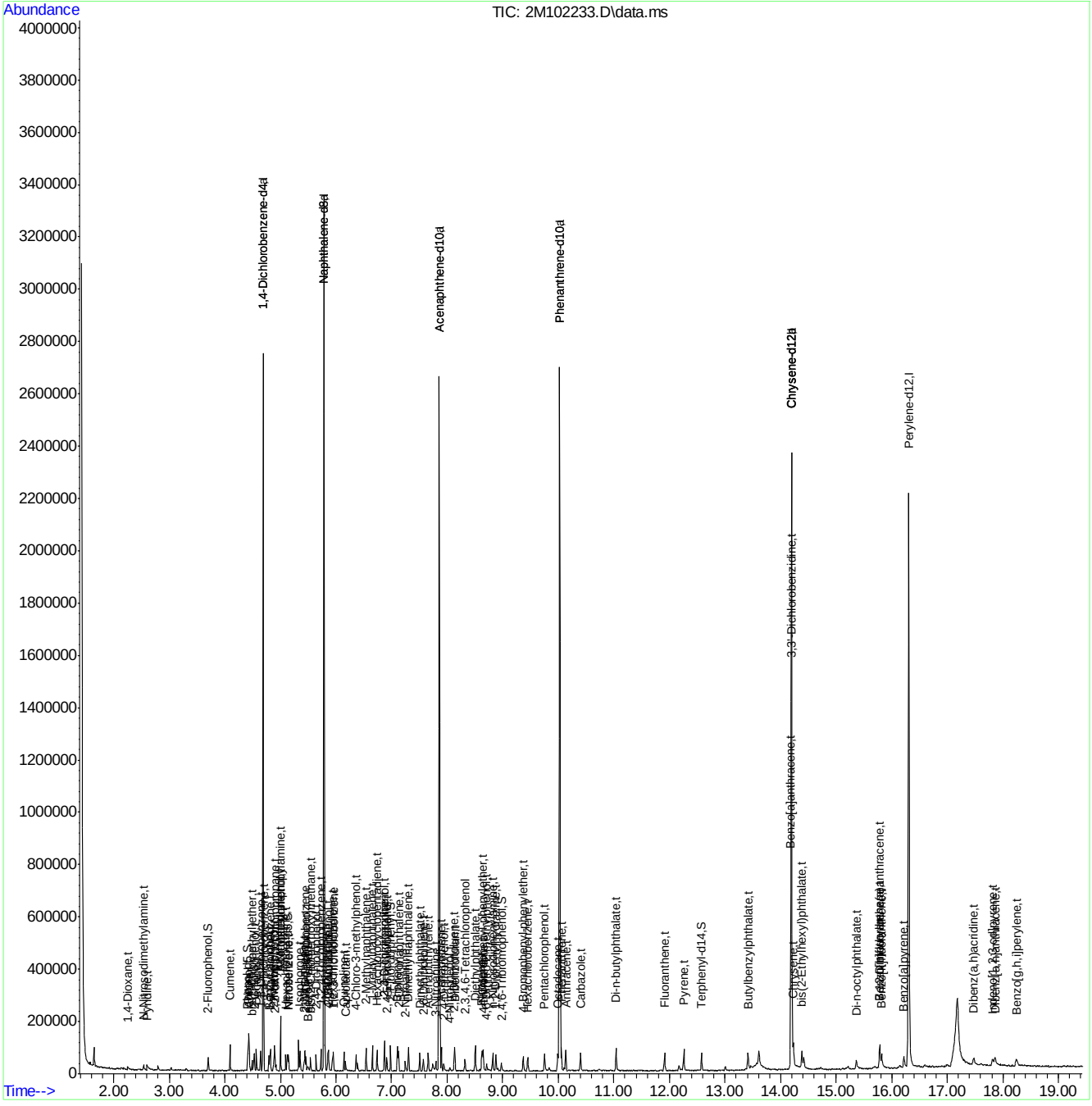
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.137	178	33290	0.97	ppm	97
79) Carbazole	10.399	167	31537	0.97	ppm	94
80) Di-n-butylphthalate	11.041	149	50082	1.16	ppm	99
81) Fluoranthene	11.913	202	32935	0.92	ppm	93
82) Octadecane	9.987	57	14497	0.88	ppm	89
84) Pyrene	12.261	202	35905	1.08	ppm	95
86) Butylbenzylphthalate	13.416	149	17020	1.02	ppm	99
87) Benzo[a]anthracene	14.181	228	35371	1.13	ppm	96
88) 3,3'-Dichlorobenzidine	14.186	252	10309	0.84	ppm	90
89) Chrysene	14.229	228	31998	1.11	ppm	98
90) bis(2-Ethylhexyl)phtha...	14.384	149	24992	1.06	ppm	94
92) Di-n-octylphthalate	15.363	149	28309	0.66	ppm	98
93) Benzo[b]fluoranthene	15.780	252	27664	0.76	ppm	95
94) Benzo[k]fluoranthene	15.817	252	31605	1.00	ppm	93
95) Benzo[a]pyrene	16.219	252	23518	0.80	ppm	90
96) Indeno[1,2,3-cd]pyrene	17.813	276	28681m	0.97	ppm	
97) Dibenz(a,h)acridine	17.476	279	20725	0.78	ppm	100
98) Dibenz[a,h]anthracene	17.861	278	19890	0.65	ppm	92
99) 7,12-Dimethylbenz(a)an...	15.785	256	9533	0.58	ppm	93
100) Benzo[g,h,i]perylene	18.240	276	22637	0.80	ppm	86

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102233.D
Acq On : 28 Feb 2018 3:50 pm
Operator : seanb1
Sample : ic4551-1
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 20:55:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration



Manual Integration Approval Summary

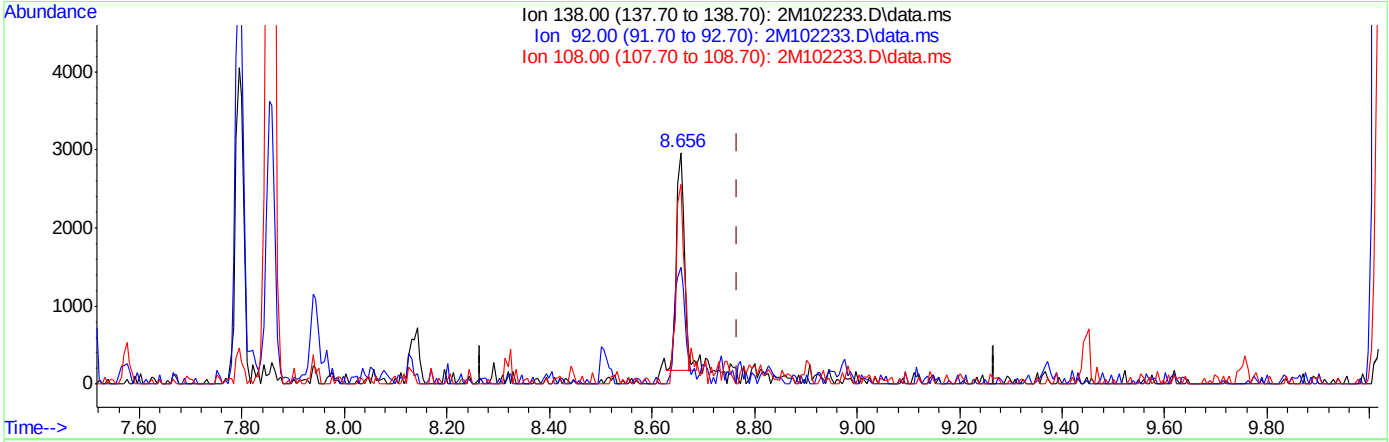
Sample Number:	E2M4551-IC4551	**Method:**	SW846 8270D
Lab FileID:	2M102233.D	**Analyst approved:**	03/01/18 03:02 Christopher Sowa
Injection Time:	02/28/18 15:50	**Supervisor approved:**	03/05/18 18:00 Nina Pandya

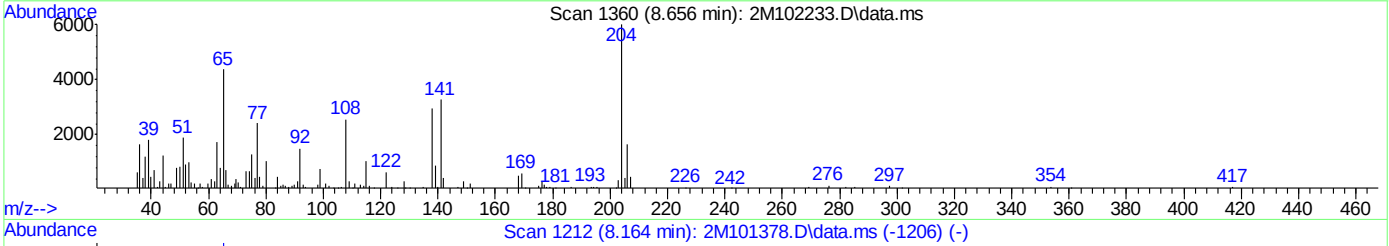
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitroaniline	100-01-6		8.66	Poor instrument integration
Indeno(1,2,3-cd)pyrene	193-39-5		17.81	Split peak

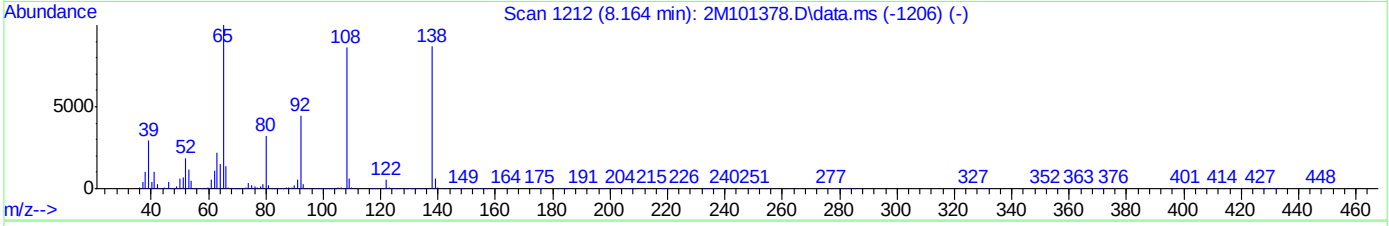
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102233.D
Acq On : 28 Feb 2018 3:50 pm
Operator : seanb1
Sample : ic4551-1
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 20:52:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102233.D\data.ms

(68) 4-Nitroaniline (t)

8.656min (-0.111) 0.53ppm

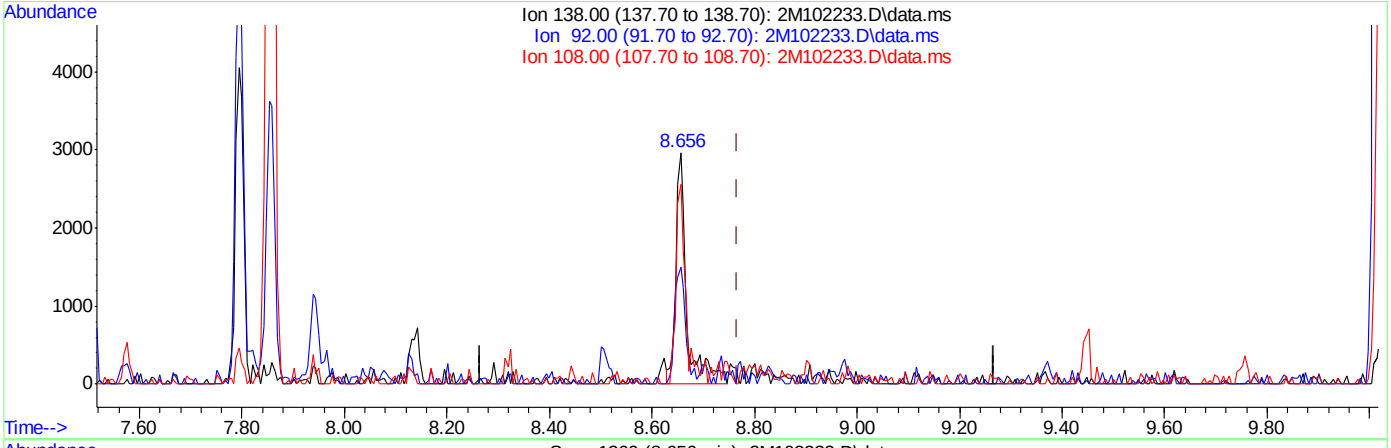
response 3044

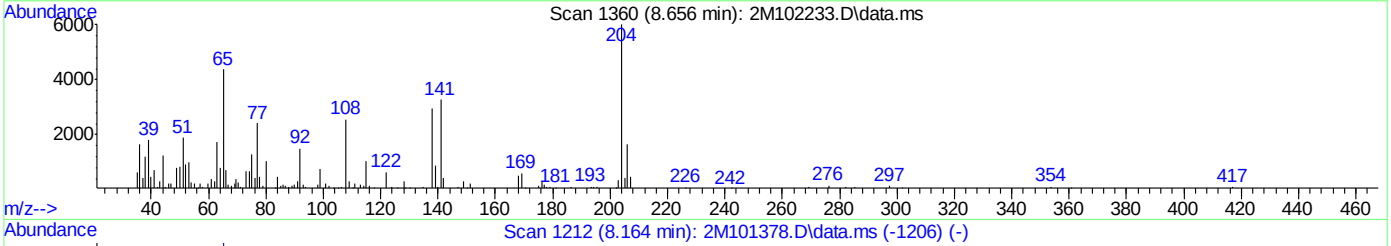
Ion	Exp%	Act%
138.00	100	100
92.00	50.70	53.27
108.00	98.70	87.44
0.00	0.00	0.00

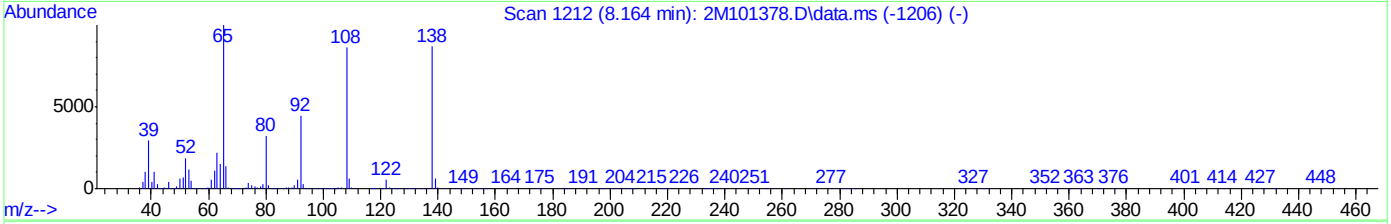
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102233.D
Acq On : 28 Feb 2018 3:50 pm
Operator : seanb1
Sample : ic4551-1
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 20:52:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102233.D\data.ms

(68) 4-Nitroaniline (t)

8.656min (-0.111) 0.75ppm m

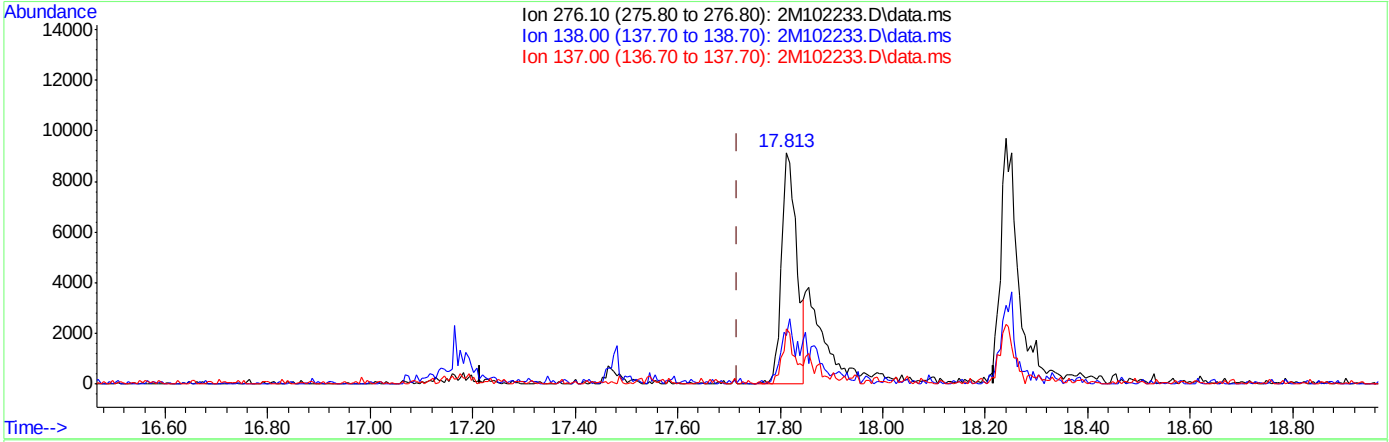
response 4324

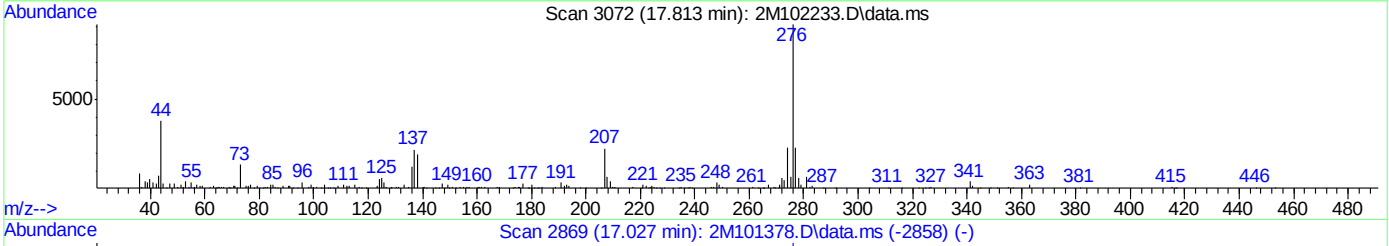
Ion	Exp%	Act%
138.00	100	100
92.00	50.70	50.59
108.00	98.70	86.25
0.00	0.00	0.00

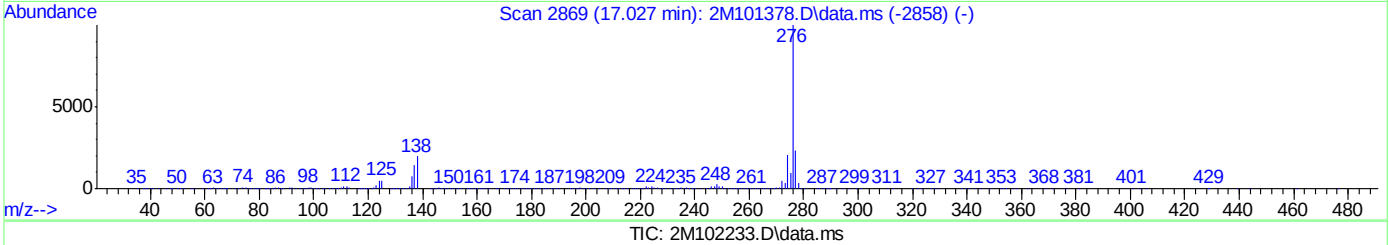
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102233.D
Acq On : 28 Feb 2018 3:50 pm
Operator : seanb1
Sample : ic4551-1
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 20:52:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102233.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.813min (+0.096) 0.63ppm

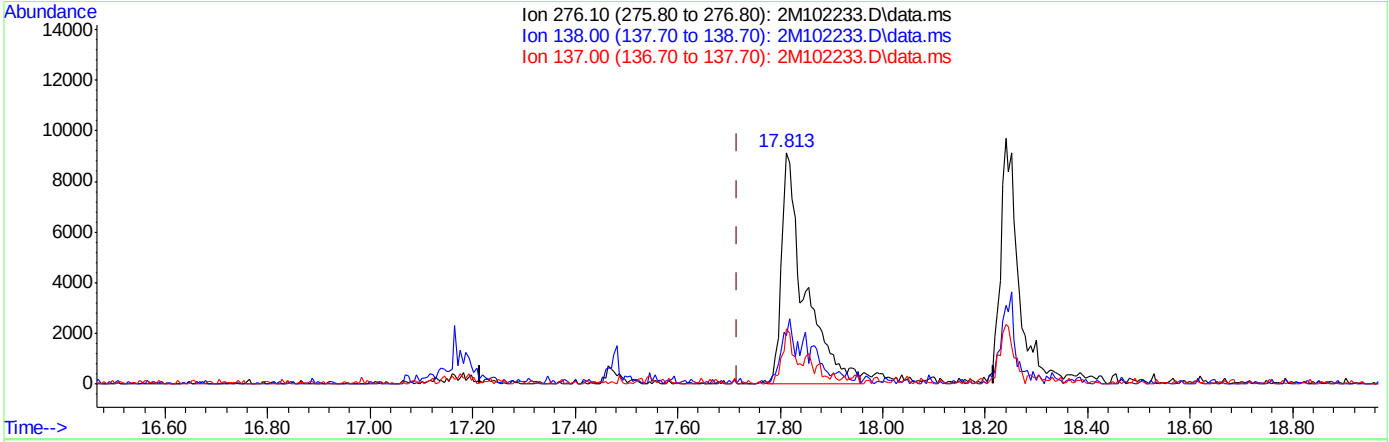
response 18703

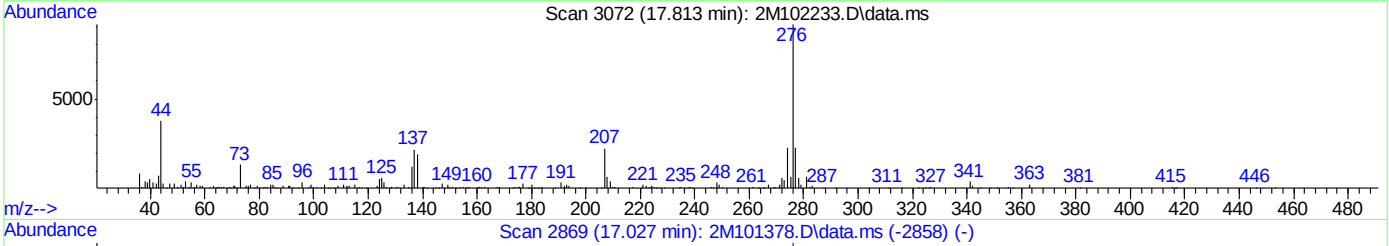
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	14.05
137.00	14.70	24.11
0.00	0.00	0.00

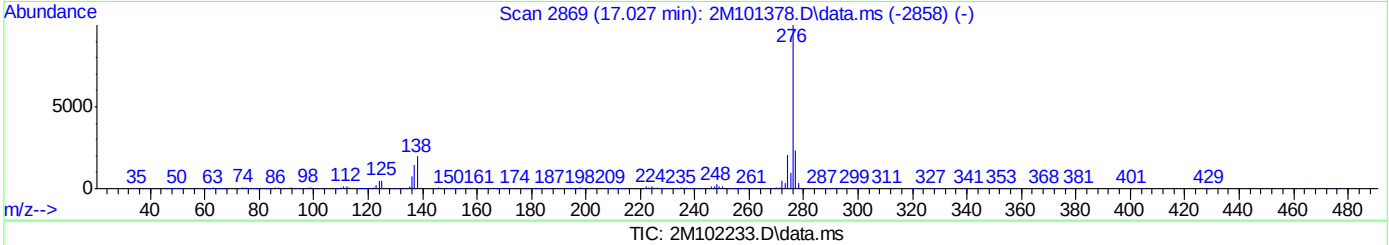
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102233.D
Acq On : 28 Feb 2018 3:50 pm
Operator : seanb1
Sample : ic4551-1
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 20:52:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102233.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.813min (+0.096) 0.97ppm m

response 28681

Ion	Exp%	Act%
276.10	100	100
138.00	19.60	21.09
137.00	14.70	23.76
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 21:03:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.687	152	266017	40.00	ppm	0.00
24) Naphthalene-d8	5.783	136	1030102	40.00	ppm	0.00
47) Acenaphthene-d10	7.853	164	507731	40.00	ppm	0.00
69) Phenanthrene-d10	10.019	188	936162	40.00	ppm	-0.01
83) Chrysene-d12	14.191	240	848667	40.00	ppm	-0.02
91) Perylene-d12	16.304	264	835342	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.687	152	266017	40.00	ppm	0.00
103) Acenaphthene-d10a	7.853	164	507731	40.00	ppm	0.00
105) Chrysene-d12a	14.191	240	848667	40.00	ppm	-0.02
108) Phenanthrene-d10a	10.019	188	936162	40.00	ppm	-0.01
112) Naphthalene-d8a	5.783	136	1030102	40.00	ppm	0.00
114) Chrysene-d12b	14.191	240	848667	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.697	112	18061	1.93	ppm	0.10
Spiked Amount 50.000			Recovery =	3.86%		
8) Phenol-d5	4.409	99	23010	1.90	ppm	-0.03
Spiked Amount 50.000			Recovery =	3.80%		
25) Nitrobenzene-d5	5.131	82	24323	2.03	ppm	0.00
Spiked Amount 50.000			Recovery =	4.06%		
51) 2-Fluorobiphenyl	6.981	172	43447	2.01	ppm	0.02
Spiked Amount 50.000			Recovery =	4.02%		
73) 2,4,6-Tribromophenol	8.976	330	4978	1.59	ppm	0.04
Spiked Amount 50.000			Recovery =	3.18%		
85) Terphenyl-d14	12.576	244	38506	1.92	ppm	0.06
Spiked Amount 50.000			Recovery =	3.84%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.253	88	7863	2.28	ppm	95
3) Pyridine	2.596	79	19754	1.97	ppm	96
4) N-Nitrosodimethylamine	2.537	74	11937	2.12	ppm	98
6) Indene	4.890	116	31597	1.94	ppm	97
7) Cumene	4.093	105	51445	2.06	ppm	95
9) Phenol	4.419	94	26512	1.90	ppm	93
10) Aniline	4.441	93	30344	2.37	ppm	94
11) bis(2-Chloroethyl)ether	4.484	93	17699	1.95	ppm	85
12) 2-Chlorophenol	4.532	128	20791	2.02	ppm	99
13) Decane	4.569	43	25322	2.29	ppm	85
14) 1,3-Dichlorobenzene	4.649	146	23010	2.07	ppm	100
15) 1,4-Dichlorobenzene	4.703	146	23402	2.04	ppm	95
16) Benzyl alcohol	4.794	108	11193	1.74	ppm	93
17) 1,2-Dichlorobenzene	4.821	146	21819	2.05	ppm	90
18) Acetophenone	5.002	105	28020	1.84	ppm	79
19) 2-Methylphenol	4.879	108	17369	1.90	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.901	45	26518	2.35	ppm	83
21) 3&4-Methylphenol	5.002	108	17312	1.60	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 21:03:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	5.002	70	16525	1.98	ppm		87
23) Hexachloroethane	5.099	201	7653	2.06	ppm	#	73
26) Nitrobenzene	5.147	77	24127	2.10	ppm		95
27) Quinoline	6.142	129	35059	1.88	ppm		95
28) Isophorone	5.350	82	38625	2.00	ppm		99
29) 2-Nitrophenol	5.425	139	10460	1.81	ppm		72
30) 2,4-Dimethylphenol	5.457	107	17664	1.69	ppm		95
31) Benzoic acid	5.495	105	11869	1.35	ppm		86
32) bis(2-Chloroethoxy)met...	5.543	93	21237	2.07	ppm		97
33) 2,4-Dichlorophenol	5.644	162	15693	1.85	ppm		97
34) 2,6-Dichlorophenol	5.864	162	15375	1.83	ppm		97
35) 1,3,5-Trichlorobenzene	5.441	180	18712	2.00	ppm		96
36) 1,2,4-Trichlorobenzene	5.730	180	17240	1.94	ppm		98
37) 1,2,3-Trichlorobenzene	5.949	180	16864	1.96	ppm		94
38) Naphthalene	5.805	128	59519	2.04	ppm		97
39) 4-Chloroaniline	5.853	127	23277	1.91	ppm		95
40) 2,3-Dichloroaniline	6.869	161	18977	1.79	ppm		95
41) Caprolactam	6.174	55	9232	1.99	ppm	#	76
42) Hexachlorobutadiene	5.938	225	10586	2.05	ppm		93
43) 4-Chloro-3-methylphenol	6.361	107	17642	1.89	ppm		96
44) 2-Methylnaphthalene	6.543	141	32329	1.86	ppm		97
45) 1-Methylnaphthalene	6.655	141	33448	1.88	ppm		91
46) Dimethylnaphthalene	7.302	156	33175	1.78	ppm		96
48) Hexachlorocyclopentadiene	6.741	237	19345	3.16	ppm		99
49) 2,4,6-Trichlorophenol	6.874	196	11214	1.81	ppm		94
50) 2,4,5-Trichlorophenol	6.912	196	11857	1.90	ppm		95
52) 2-Chloronaphthalene	7.120	162	35695	2.00	ppm		92
53) Biphenyl	7.104	154	47107	1.95	ppm		98
54) 2-Nitroaniline	7.249	65	12043	1.86	ppm		93
55) Dimethylphthalate	7.506	163	42414	2.04	ppm		95
56) Acenaphthylene	7.661	152	54223	1.89	ppm		97
57) 2,6-Dinitrotoluene	7.575	165	8244	1.73	ppm		89
58) 3-Nitroaniline	7.794	138	8605	1.61	ppm		97
59) Acenaphthene	7.896	153	38097	1.97	ppm		93
60) 2,4-Dinitrophenol	7.939	184	6292	1.85	ppm		95
61) 4-Nitrophenol	8.046	109	3888	1.03	ppm		87
62) Dibenzofuran	8.137	168	50651	1.92	ppm		99
63) 2,4-Dinitrotoluene	8.126	165	10775	1.55	ppm		80
64) 2,3,4,6-Tetrachlorophenol	8.324	232	9453	1.76	ppm		94
65) Diethylphthalate	8.506	149	56928	2.54	ppm		97
66) Fluorene	8.623	166	38276	1.76	ppm		94
67) 4-Chlorophenyl-phenyle...	8.645	204	19081	1.96	ppm		89
68) 4-Nitroaniline	8.656	138	7891m	1.56	ppm		
70) 4,6-Dinitro-2-methylph...	8.709	198	5200	1.22	ppm		85
71) n-Nitrosodiphenylamine	8.816	169	28320	1.88	ppm		97
72) 1,2-Diphenylhydrazine	8.875	77	45595	2.04	ppm		98
74) 4-Bromophenyl-phenylether	9.367	248	10678	1.92	ppm		94
75) Hexachlorobenzene	9.447	284	11919	1.95	ppm		92
76) Pentachlorophenol	9.752	266	13102	2.81	ppm		94
77) Phenanthrene	10.057	178	57083	1.94	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 21:03:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

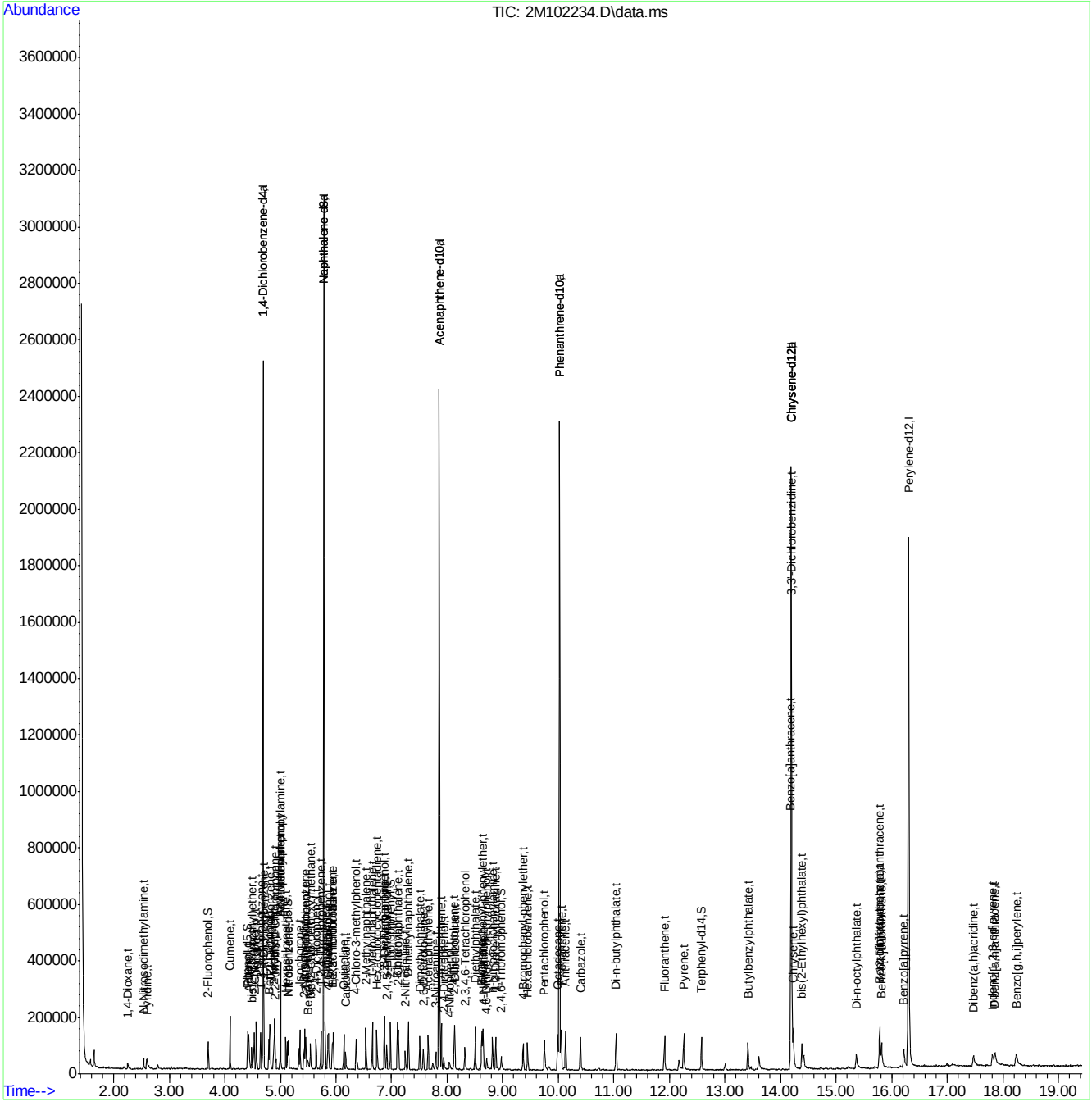
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.132	178	58315	1.94	ppm	99
79) Carbazole	10.399	167	49705	1.76	ppm	96
80) Di-n-butylphthalate	11.041	149	79504	2.10	ppm	100
81) Fluoranthene	11.913	202	55564	1.79	ppm	96
82) Octadecane	9.987	57	24953	1.73	ppm	90
84) Pyrene	12.261	202	62361	2.13	ppm	98
86) Butylbenzylphthalate	13.410	149	28441	1.93	ppm	90
87) Benzo[a]anthracene	14.181	228	52966	1.92	ppm	98
88) 3,3'-Dichlorobenzidine	14.186	252	16454	1.52	ppm	90
89) Chrysene	14.229	228	54001	2.12	ppm	98
90) bis(2-Ethylhexyl)phtha...	14.384	149	39193	1.89	ppm	99
92) Di-n-octylphthalate	15.363	149	46218	1.25	ppm	97
93) Benzo[b]fluoranthene	15.780	252	46114	1.46	ppm	96
94) Benzo[k]fluoranthene	15.817	252	51457	1.89	ppm	96
95) Benzo[a]pyrene	16.219	252	40082	1.58	ppm	99
96) Indeno[1,2,3-cd]pyrene	17.812	276	42475m	1.66	ppm	
97) Dibenz(a,h)acridine	17.475	279	28761m	1.26	ppm	
98) Dibenz[a,h]anthracene	17.855	278	32987	1.25	ppm	78
99) 7,12-Dimethylbenz(a)an...	15.785	256	18560	1.31	ppm	94
100) Benzo[g,h,i]perylene	18.240	276	37381	1.53	ppm	90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 21:03:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration



Manual Integration Approval Summary

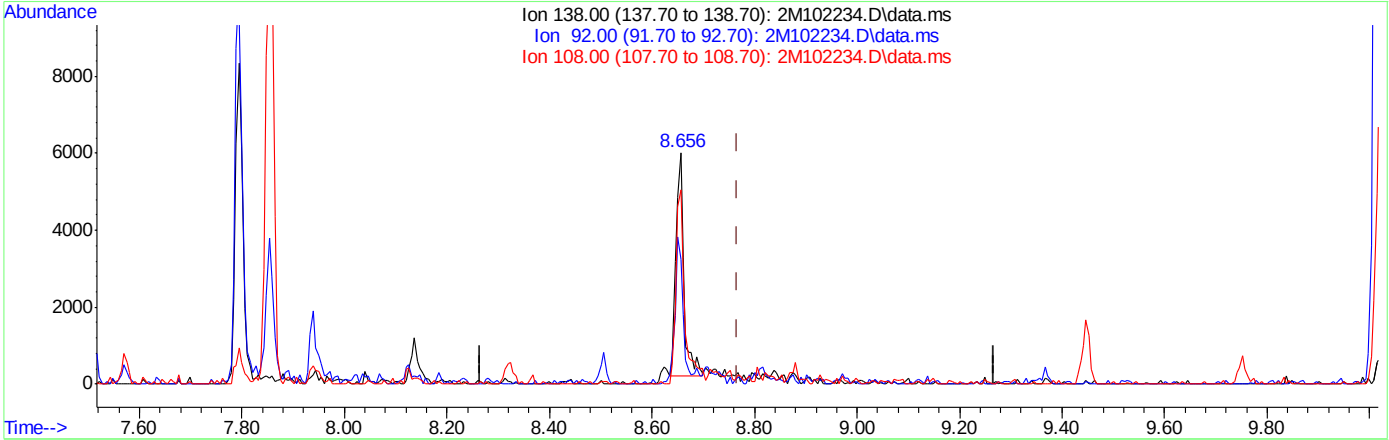
Sample Number: E2M4551-IC4551 **Method:** SW846 8270D
Lab FileID: 2M102234.D **Analyst approved:** 03/01/18 03:02 Christopher Sowa
Injection Time: 02/28/18 16:16 **Supervisor approved:** 03/05/18 18:00 Nina Pandya

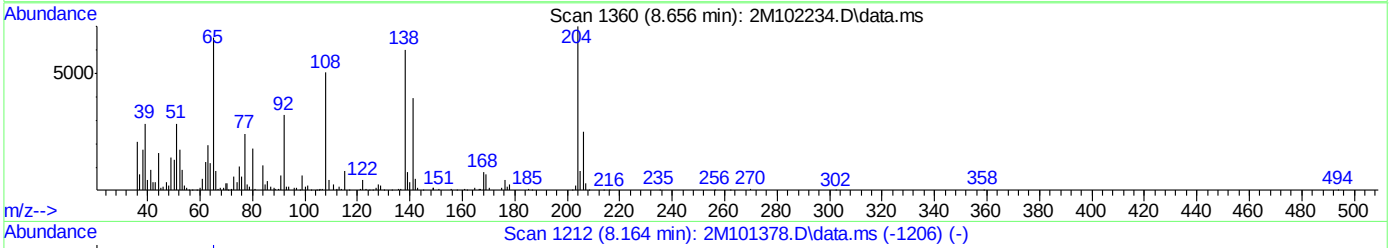
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitroaniline	100-01-6		8.66	Poor instrument integration
Dibenz(a,h)acridine	226-36-8		17.48	Poor instrument integration
Indeno(1,2,3-cd)pyrene	193-39-5		17.81	Split peak

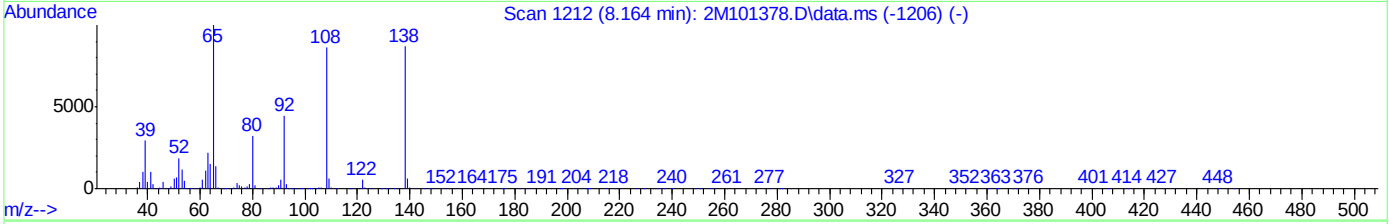
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 20:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102234.D\data.ms

(68) 4-Nitroaniline (t)

8.656min (-0.111) 1.26ppm

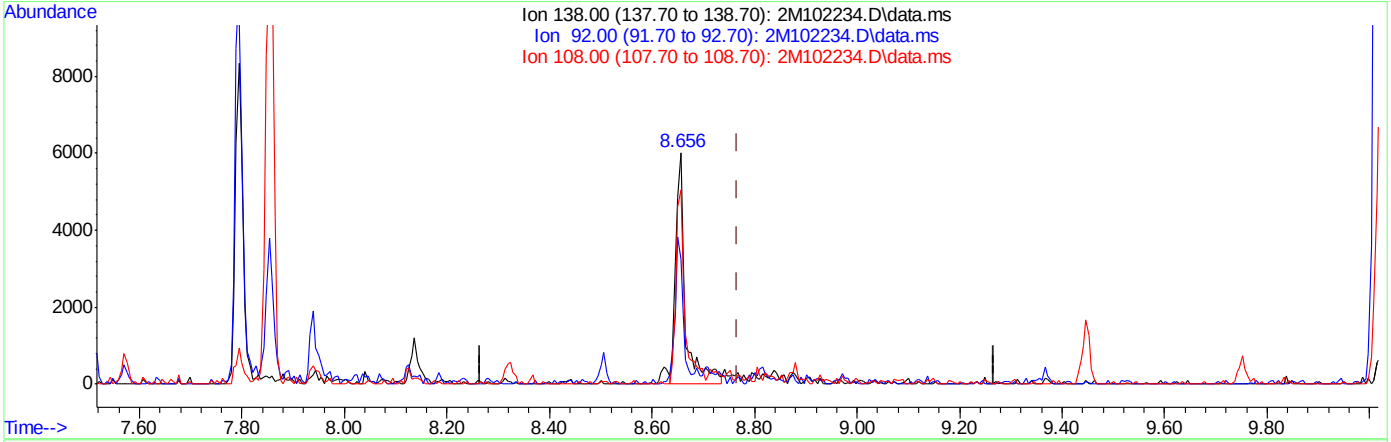
response 6383

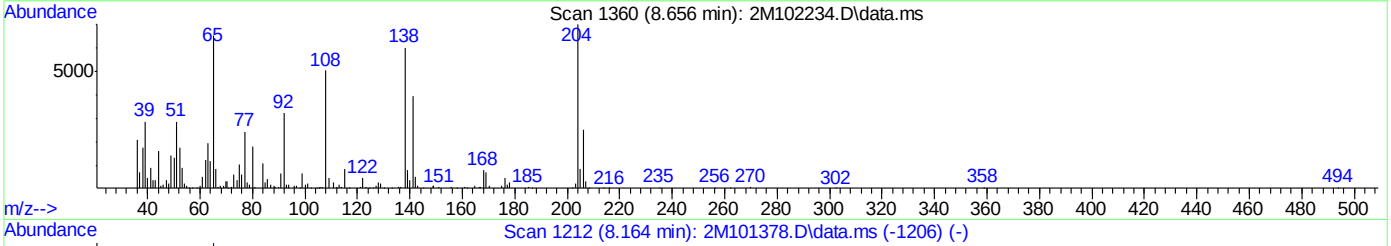
Ion	Exp%	Act%
138.00	100	100
92.00	50.70	52.30
108.00	98.70	84.16
0.00	0.00	0.00

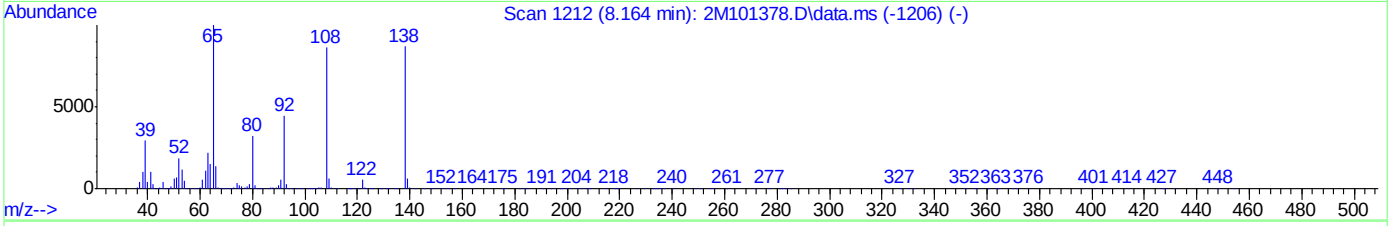
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 20:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102234.D\data.ms

(68) 4-Nitroaniline (t)

8.656min (-0.111) 1.56ppm m

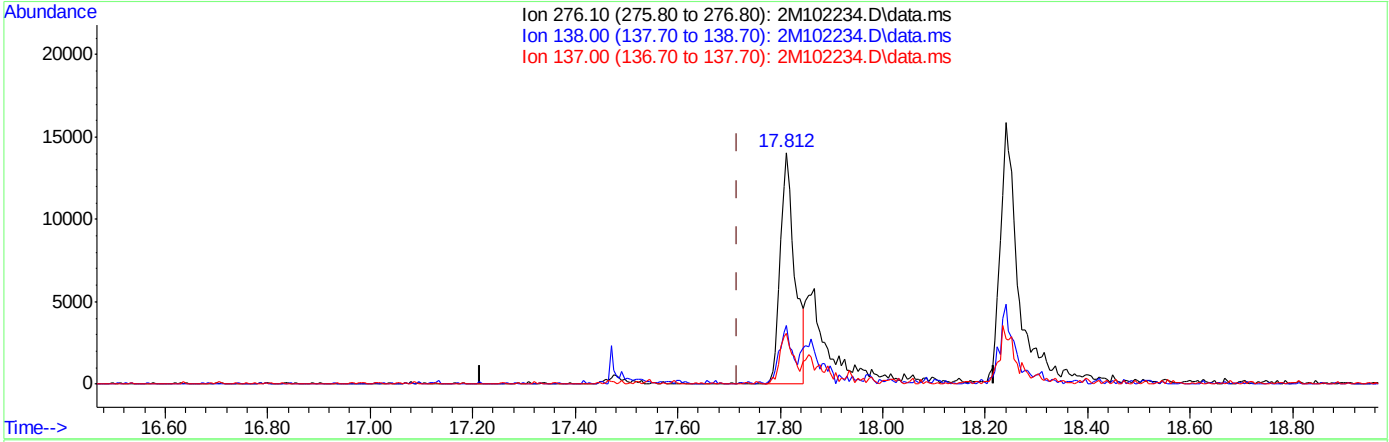
response 7891

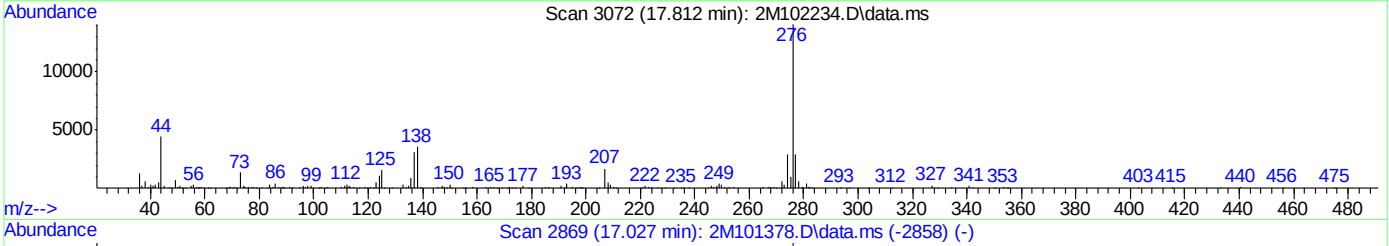
Ion	Exp%	Act%
138.00	100	100
92.00	50.70	53.70
108.00	98.70	83.94
0.00	0.00	0.00

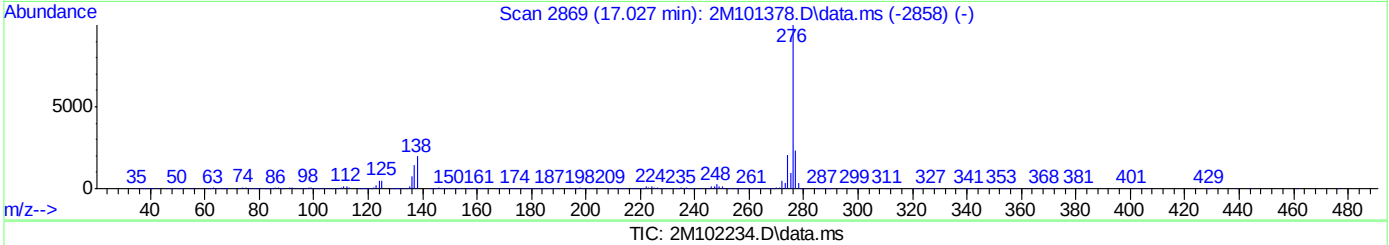
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 20:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102234.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.812min (+0.096) 1.07ppm

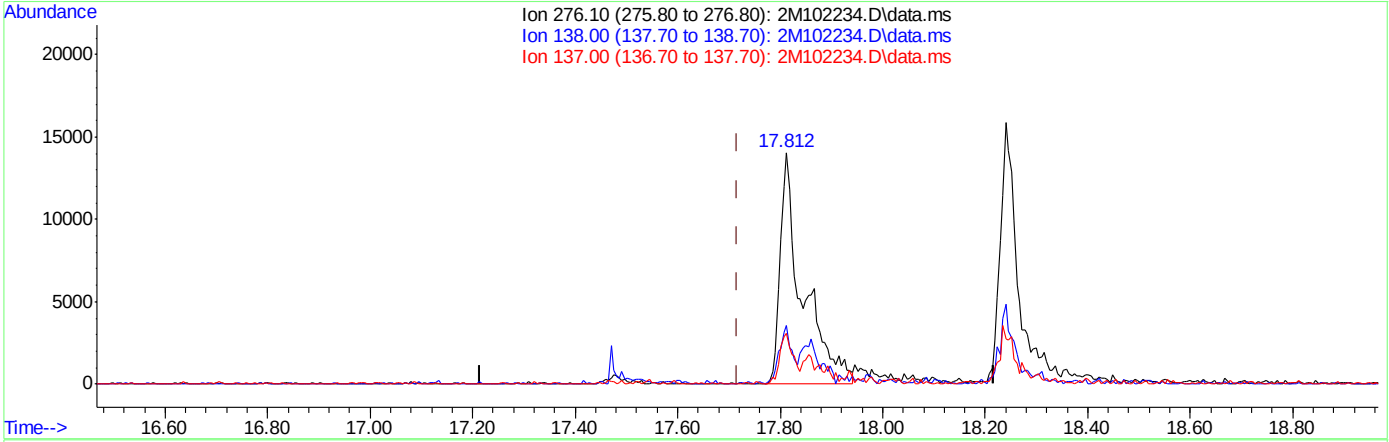
response 27466

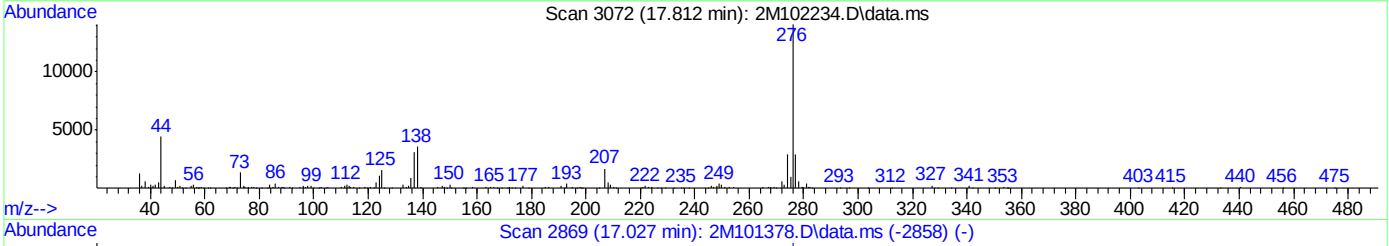
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	21.05
137.00	14.70	20.47
0.00	0.00	0.00

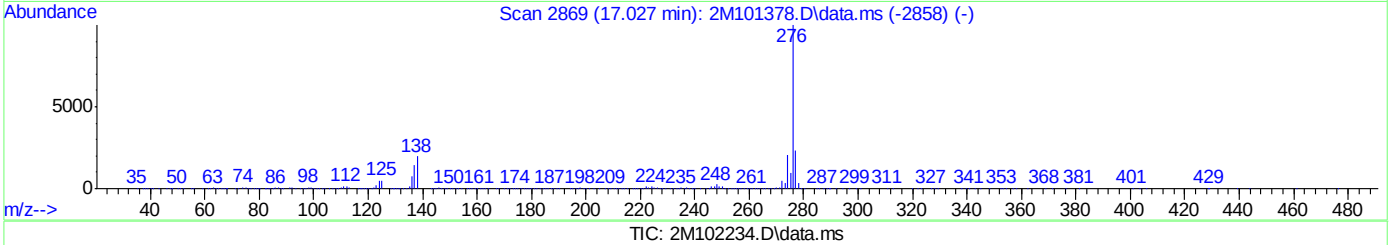
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 20:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102234.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.812min (+0.096) 1.66ppm m

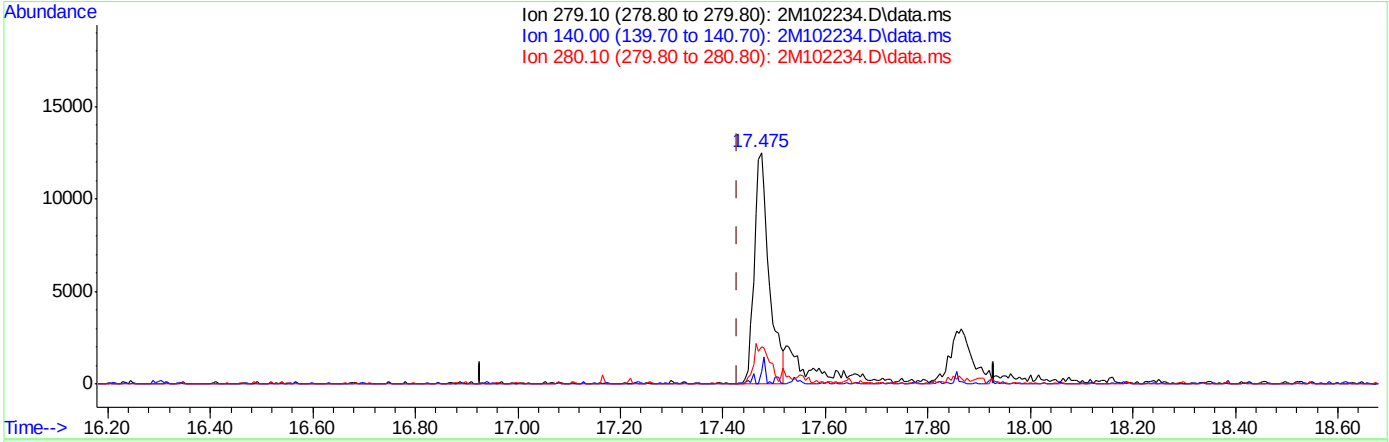
response 42475

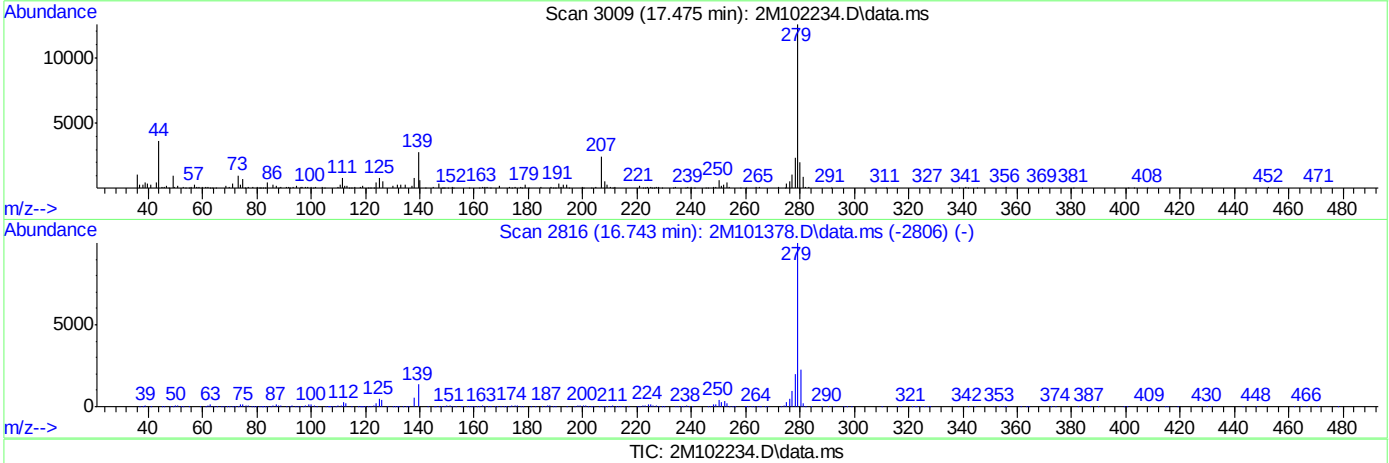
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	25.49
137.00	14.70	22.09
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 20:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration





TIC: 2M102234.D\data.ms

(97) Dibenz(a,h)acridine (t)

17.475min (+0.047) 1.11ppm

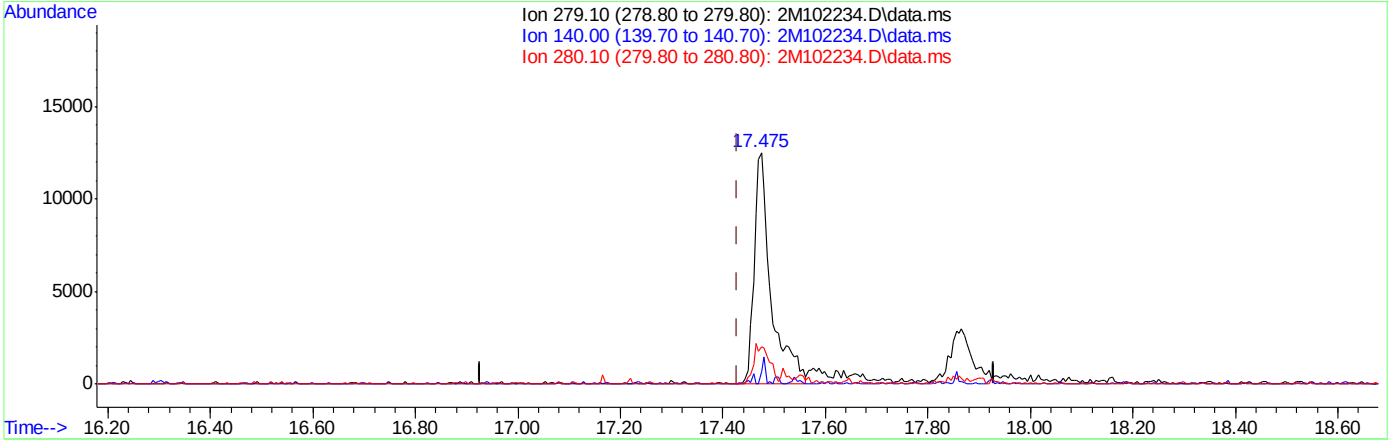
response 25366

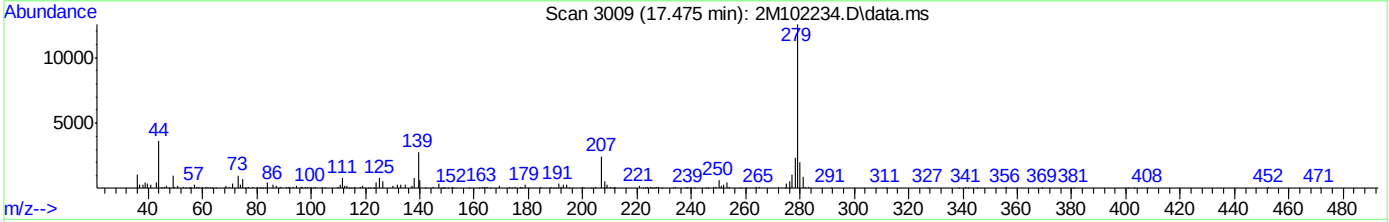
Ion	Exp%	Act%
279.10	100	100
140.00	0.00	5.89
280.10	22.50	13.97
0.00	0.00	0.00

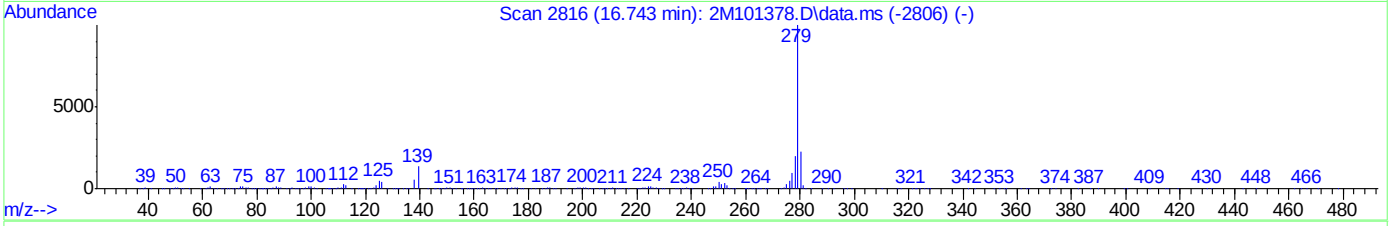
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102234.D
Acq On : 28 Feb 2018 4:16 pm
Operator : seanb1
Sample : ic4551-2
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 20:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102234.D\data.ms

(97) Dibenz(a,h)acridine (t)

17.475min (+0.047) 1.26ppm m

response 28761

Ion	Exp%	Act%
279.10	100	100
140.00	0.00	5.47
280.10	22.50	16.33
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102235.D
Acq On : 28 Feb 2018 4:42 pm
Operator : seanb1
Sample : ic4551-5
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 21:05:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.687	152	292302	40.00	ppm	0.00
24) Naphthalene-d8	5.783	136	1126482	40.00	ppm	0.00
47) Acenaphthene-d10	7.853	164	569347	40.00	ppm	0.00
69) Phenanthrene-d10	10.025	188	1059800	40.00	ppm	0.00
83) Chrysene-d12	14.197	240	951191	40.00	ppm	-0.01
91) Perylene-d12	16.304	264	909465	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.687	152	292302	40.00	ppm	0.00
103) Acenaphthene-d10a	7.853	164	569347	40.00	ppm	0.00
105) Chrysene-d12a	14.197	240	951191	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.025	188	1059800	40.00	ppm	0.00
112) Naphthalene-d8a	5.783	136	1126482	40.00	ppm	0.00
114) Chrysene-d12b	14.197	240	951191	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.697	112	49756	4.84	ppm	0.10
Spiked Amount 50.000			Recovery	=	9.68%	
8) Phenol-d5	4.409	99	61876	4.64	ppm	-0.03
Spiked Amount 50.000			Recovery	=	9.28%	
25) Nitrobenzene-d5	5.131	82	68907	5.26	ppm	0.00
Spiked Amount 50.000			Recovery	=	10.52%	
51) 2-Fluorobiphenyl	6.982	172	118889	4.90	ppm	0.02
Spiked Amount 50.000			Recovery	=	9.80%	
73) 2,4,6-Tribromophenol	8.977	330	15045	4.25	ppm	0.04
Spiked Amount 50.000			Recovery	=	8.50%	
85) Terphenyl-d14	12.576	244	111538	4.97	ppm	0.06
Spiked Amount 50.000			Recovery	=	9.94%	
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.248	88	19985	5.29	ppm	85
3) Pyridine	2.580	79	53063	4.80	ppm	97
4) N-Nitrosodimethylamine	2.531	74	32848	5.32	ppm	95
6) Indene	4.890	116	82539	4.60	ppm	94
7) Cumene	4.093	105	130895	4.77	ppm	98
9) Phenol	4.420	94	71901	4.69	ppm	91
10) Aniline	4.441	93	79926	5.69	ppm	88
11) bis(2-Chloroethyl)ether	4.484	93	52204	5.23	ppm	88
12) 2-Chlorophenol	4.532	128	54797	4.85	ppm	97
13) Decane	4.569	43	69269	5.69	ppm	86
14) 1,3-Dichlorobenzene	4.650	146	60287	4.93	ppm	94
15) 1,4-Dichlorobenzene	4.703	146	62928	5.00	ppm	97
16) Benzyl alcohol	4.794	108	33226	4.71	ppm	95
17) 1,2-Dichlorobenzene	4.821	146	57548	4.91	ppm	95
18) Acetophenone	5.003	105	78738	4.71	ppm	78
19) 2-Methylphenol	4.880	108	45306	4.51	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.901	45	71177	5.74	ppm	83
21) 3&4-Methylphenol	5.003	108	50663	4.26	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102235.D
Acq On : 28 Feb 2018 4:42 pm
Operator : seanb1
Sample : ic4551-5
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 21:05:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	5.003	70	43884	4.79	ppm		83
23) Hexachloroethane	5.099	201	19570	4.80	ppm	#	79
26) Nitrobenzene	5.147	77	65580	5.21	ppm		93
27) Quinoline	6.142	129	100093	4.92	ppm		99
28) Isophorone	5.350	82	110357	5.22	ppm		97
29) 2-Nitrophenol	5.425	139	28141	4.45	ppm		76
30) 2,4-Dimethylphenol	5.457	107	51265	4.50	ppm		89
31) Benzoic acid	5.505	105	35546	3.69	ppm		92
32) bis(2-Chloroethoxy)met...	5.543	93	57097	5.09	ppm		97
33) 2,4-Dichlorophenol	5.644	162	42553	4.58	ppm		97
34) 2,6-Dichlorophenol	5.864	162	43446	4.73	ppm		99
35) 1,3,5-Trichlorobenzene	5.441	180	49817	4.87	ppm		97
36) 1,2,4-Trichlorobenzene	5.730	180	47965	4.93	ppm		99
37) 1,2,3-Trichlorobenzene	5.949	180	46428	4.93	ppm		99
38) Naphthalene	5.805	128	154874	4.84	ppm		98
39) 4-Chloroaniline	5.853	127	65770	4.93	ppm		96
40) 2,3-Dichloroaniline	6.869	161	53554	4.61	ppm		98
41) Caprolactam	6.179	55	26346	5.20	ppm		80
42) Hexachlorobutadiene	5.939	225	26436	4.69	ppm		99
43) 4-Chloro-3-methylphenol	6.361	107	49342	4.84	ppm		99
44) 2-Methylnaphthalene	6.543	141	91459	4.81	ppm		95
45) 1-Methylnaphthalene	6.655	141	90438	4.65	ppm		96
46) Dimethylnaphthalene	7.302	156	94302	4.63	ppm		99
48) Hexachlorocyclopentadiene	6.741	237	54601	7.97	ppm		100
49) 2,4,6-Trichlorophenol	6.875	196	31332	4.50	ppm		97
50) 2,4,5-Trichlorophenol	6.912	196	31290	4.46	ppm		96
52) 2-Chloronaphthalene	7.121	162	99240	4.97	ppm		99
53) Biphenyl	7.105	154	128369	4.73	ppm		99
54) 2-Nitroaniline	7.249	65	36289	4.99	ppm		83
55) Dimethylphthalate	7.506	163	116334	4.99	ppm		99
56) Acenaphthylene	7.661	152	152057	4.72	ppm		100
57) 2,6-Dinitrotoluene	7.575	165	22456	4.20	ppm		98
58) 3-Nitroaniline	7.795	138	25766	4.30	ppm		98
59) Acenaphthene	7.896	153	105446	4.86	ppm		92
60) 2,4-Dinitrophenol	7.939	184	22948	6.02	ppm		85
61) 4-Nitrophenol	8.046	109	15143	3.59	ppm		91
62) Dibenzofuran	8.137	168	138163	4.67	ppm		94
63) 2,4-Dinitrotoluene	8.126	165	34224	4.38	ppm		87
64) 2,3,4,6-Tetrachlorophenol	8.319	232	25415	4.22	ppm		94
65) Diethylphthalate	8.506	149	136467	5.44	ppm		97
66) Fluorene	8.629	166	111974	4.59	ppm		100
67) 4-Chlorophenyl-phenyle...	8.645	204	51833	4.76	ppm		88
68) 4-Nitroaniline	8.656	138	25654	4.52	ppm		93
70) 4,6-Dinitro-2-methylph...	8.709	198	18889	3.92	ppm		97
71) n-Nitrosodiphenylamine	8.821	169	81472	4.77	ppm		94
72) 1,2-Diphenylhydrazine	8.875	77	134670	5.33	ppm		98
74) 4-Bromophenyl-phenylether	9.367	248	28057	4.45	ppm		83
75) Hexachlorobenzene	9.447	284	33610	4.86	ppm		97
76) Pentachlorophenol	9.752	266	37678	7.13	ppm		98
77) Phenanthrene	10.057	178	162845	4.88	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102235.D
Acq On : 28 Feb 2018 4:42 pm
Operator : seanb1
Sample : ic4551-5
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 21:05:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

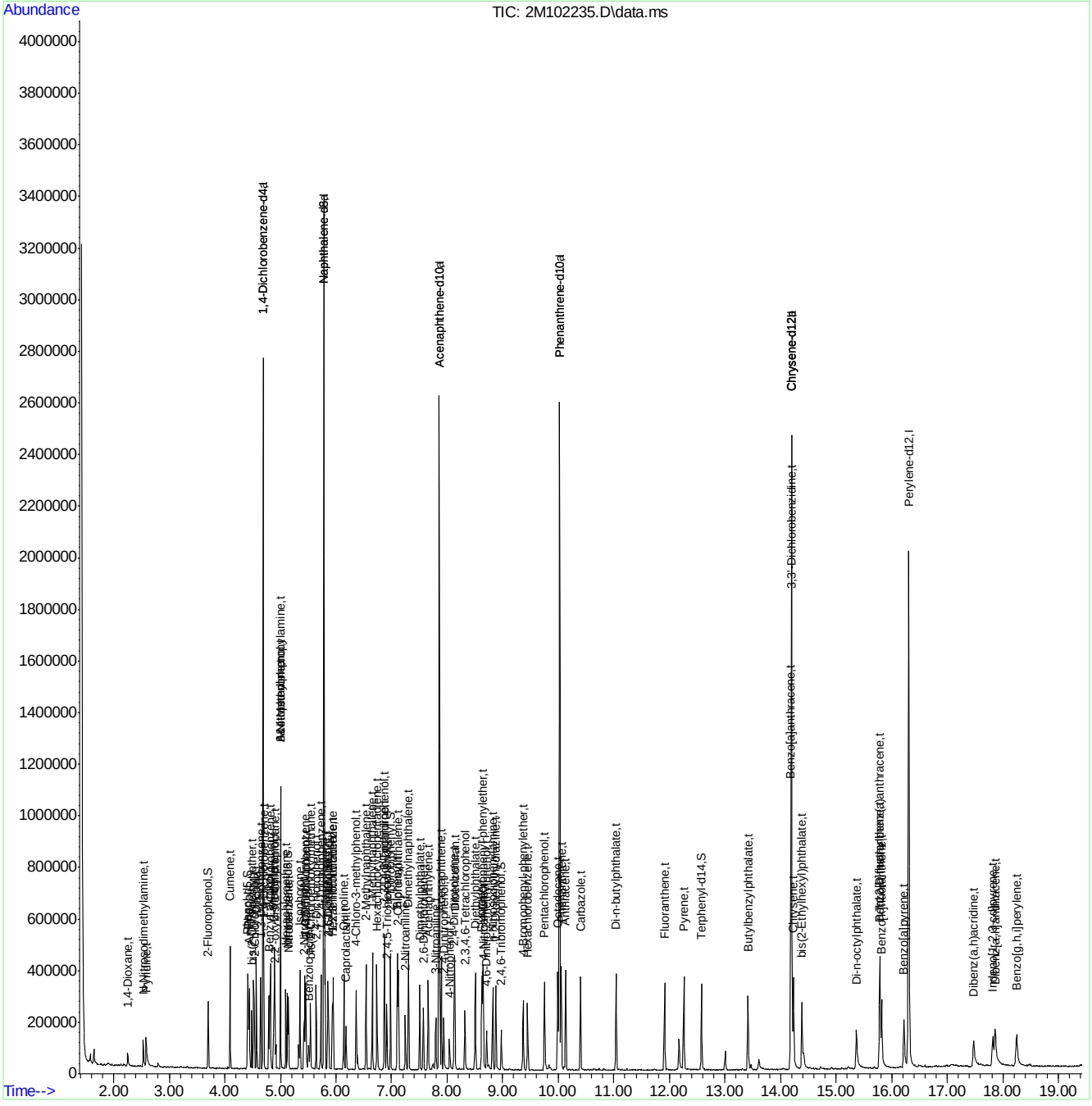
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.132	178	157636	4.63	ppm	99
79) Carbazole	10.399	167	147926	4.63	ppm	98
80) Di-n-butylphthalate	11.041	149	204332	4.78	ppm	98
81) Fluoranthene	11.913	202	156577	4.44	ppm	99
82) Octadecane	9.987	57	76820	4.70	ppm	91
84) Pyrene	12.261	202	171182	5.22	ppm	98
86) Butylbenzylphthalate	13.411	149	78004	4.72	ppm	92
87) Benzo[a]anthracene	14.181	228	146715	4.74	ppm	99
88) 3,3'-Dichlorobenzidine	14.186	252	49375	4.06	ppm	97
89) Chrysene	14.234	228	147115	5.16	ppm	96
90) bis(2-Ethylhexyl)phtha...	14.384	149	107479	4.63	ppm	96
92) Di-n-octylphthalate	15.363	149	136439	3.39	ppm	99
93) Benzo[b]fluoranthene	15.780	252	128148	3.74	ppm	95
94) Benzo[k]fluoranthene	15.817	252	147066	4.97	ppm	99
95) Benzo[a]pyrene	16.219	252	112378	4.06	ppm	95
96) Indeno[1,2,3-cd]pyrene	17.818	276	127398m	4.58	ppm	
97) Dibenz(a,h)acridine	17.476	279	83394	3.36	ppm	98
98) Dibenz[a,h]anthracene	17.861	278	108577	3.79	ppm	97
99) 7,12-Dimethylbenz(a)an...	15.785	256	52511	3.41	ppm	96
100) Benzo[g,h,i]perylene	18.251	276	105374	3.96	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102235.D
Acq On : 28 Feb 2018 4:42 pm
Operator : seanb1
Sample : ic4551-5
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 21:05:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration



Manual Integration Approval Summary

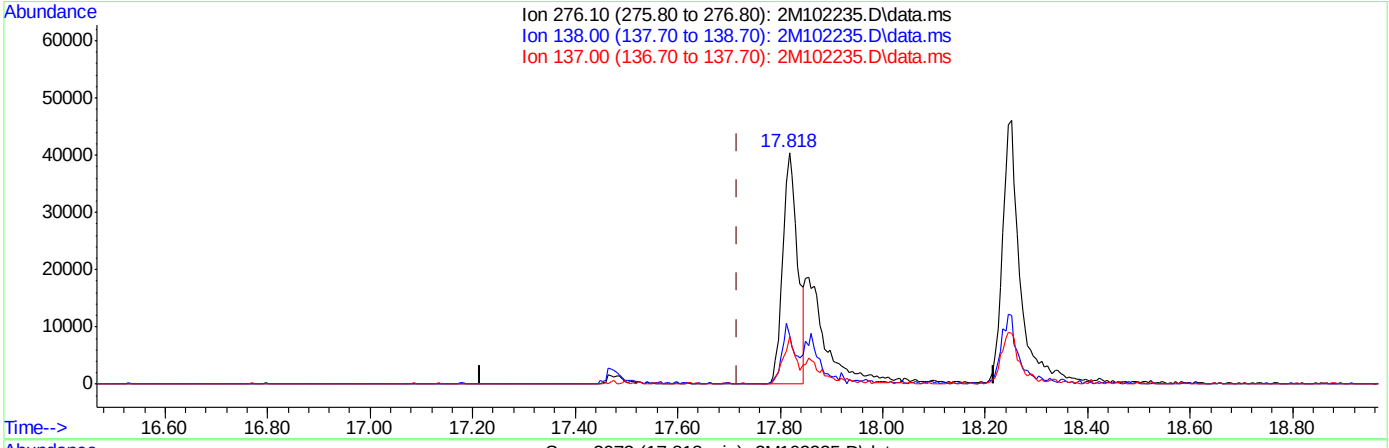
Sample Number:	E2M4551-IC4551	**Method:**	SW846 8270D
Lab FileID:	2M102235.D	**Analyst approved:**	03/01/18 03:02 Christopher Sowa
Injection Time:	02/28/18 16:42	**Supervisor approved:**	03/05/18 18:00 Nina Pandya

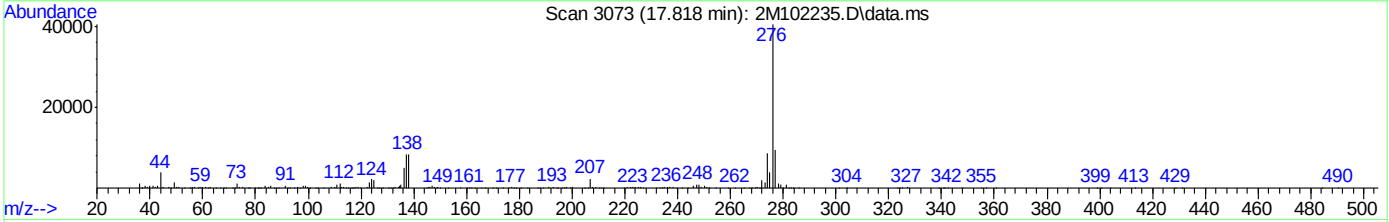
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.82	Split peak

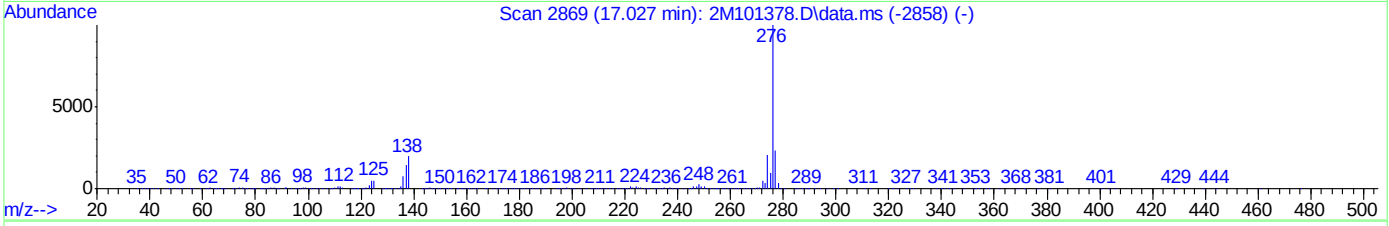
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102235.D
Acq On : 28 Feb 2018 4:42 pm
Operator : seanb1
Sample : ic4551-5
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 21:03:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102235.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.818min (+0.101) 2.90ppm

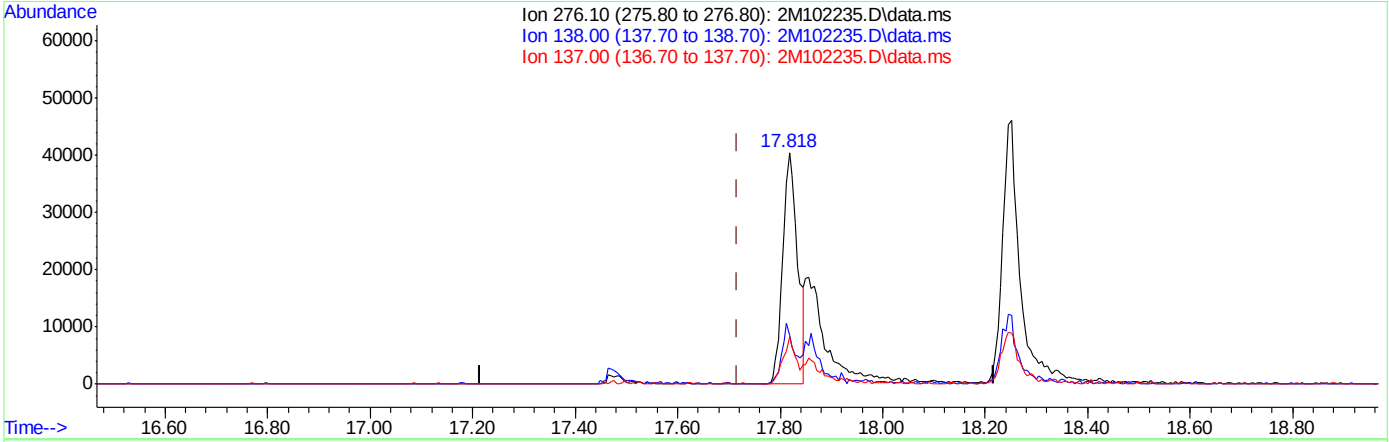
response 80757

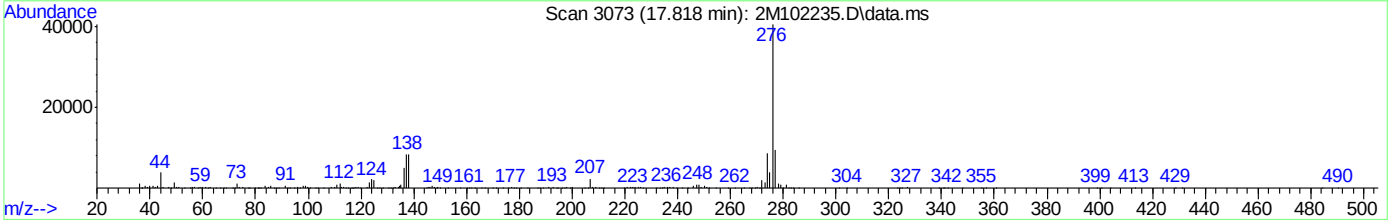
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	18.20
137.00	14.70	20.45
0.00	0.00	0.00

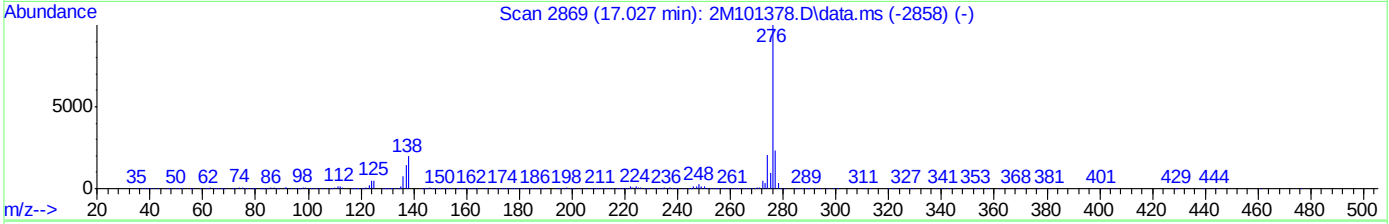
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102235.D
Acq On : 28 Feb 2018 4:42 pm
Operator : seanb1
Sample : ic4551-5
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 21:03:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102235.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.818min (+0.101) 2.90ppm

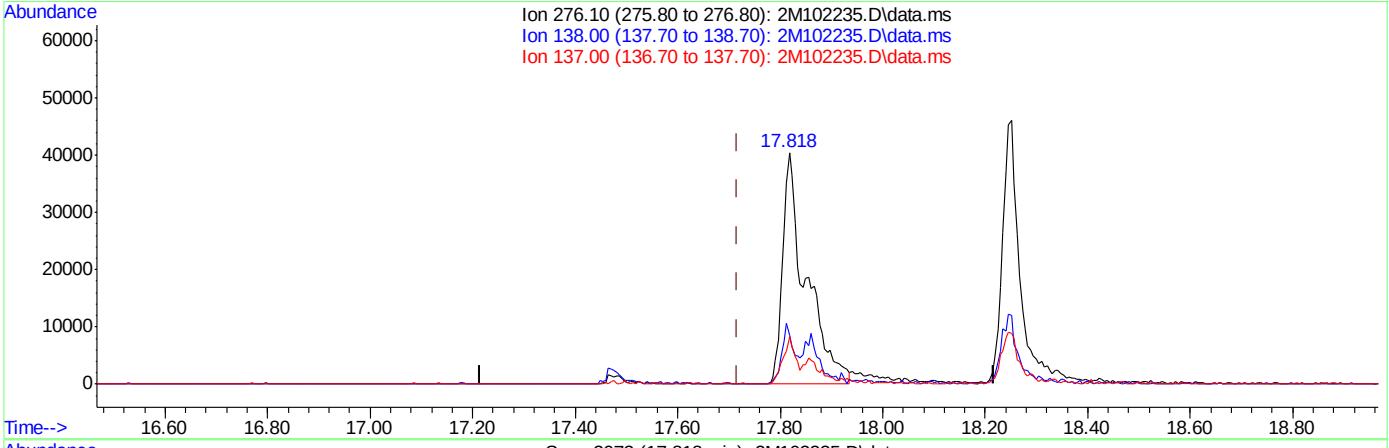
response 80757

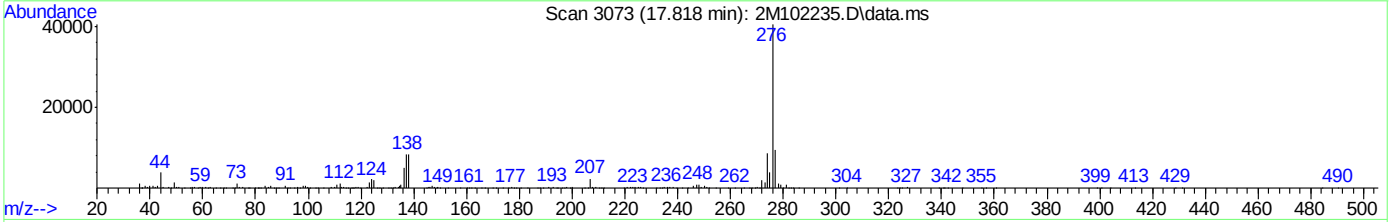
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	18.20
137.00	14.70	20.45
0.00	0.00	0.00

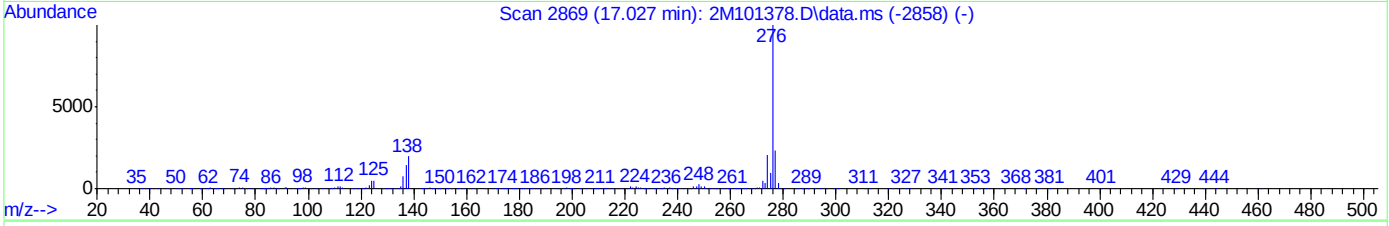
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102235.D
Acq On : 28 Feb 2018 4:42 pm
Operator : seanb1
Sample : ic4551-5
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 21:03:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102235.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.818min (+0.101) 4.58ppm m

response 127398

Ion	Exp%	Act%
276.10	100	100
138.00	19.60	20.82
137.00	14.70	20.40
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:09:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.692	152	273437	40.00	ppm	0.00
24) Naphthalene-d8	5.783	136	1088224	40.00	ppm	0.00
47) Acenaphthene-d10	7.859	164	544967	40.00	ppm	0.00
69) Phenanthrene-d10	10.025	188	998816	40.00	ppm	0.00
83) Chrysene-d12	14.197	240	906592	40.00	ppm	-0.01
91) Perylene-d12	16.304	264	894649	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.692	152	273437	40.00	ppm	0.00
103) Acenaphthene-d10a	7.859	164	544967	40.00	ppm	0.00
105) Chrysene-d12a	14.197	240	906592	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.025	188	998816	40.00	ppm	0.00
112) Naphthalene-d8a	5.783	136	1088224	40.00	ppm	0.00
114) Chrysene-d12b	14.197	240	906592	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.697	112	96065	9.98	ppm	0.10
Spiked Amount 50.000			Recovery =	19.96%		
8) Phenol-d5	4.409	99	121929	9.78	ppm	-0.03
Spiked Amount 50.000			Recovery =	19.56%		
25) Nitrobenzene-d5	5.131	82	130584	10.32	ppm	0.00
Spiked Amount 50.000			Recovery =	20.64%		
51) 2-Fluorobiphenyl	6.981	172	220540	9.49	ppm	0.02
Spiked Amount 50.000			Recovery =	18.98%		
73) 2,4,6-Tribromophenol	8.976	330	27885	8.36	ppm	0.04
Spiked Amount 50.000			Recovery =	16.72%		
85) Terphenyl-d14	12.576	244	217539	10.17	ppm	0.06
Spiked Amount 50.000			Recovery =	20.34%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.248	88	38220	10.80	ppm	97
3) Pyridine	2.569	79	108421	10.49	ppm	94
4) N-Nitrosodimethylamine	2.531	74	63843	11.05	ppm	97
6) Indene	4.890	116	164214	9.79	ppm	97
7) Cumene	4.093	105	259075	10.10	ppm	100
9) Phenol	4.419	94	140891	9.82	ppm	90
10) Aniline	4.441	93	151003	11.50	ppm	90
11) bis(2-Chloroethyl)ether	4.484	93	96405	10.32	ppm	87
12) 2-Chlorophenol	4.532	128	103749	9.81	ppm	95
13) Decane	4.569	43	131736	11.57	ppm	84
14) 1,3-Dichlorobenzene	4.649	146	116049	10.15	ppm	97
15) 1,4-Dichlorobenzene	4.703	146	116523	9.89	ppm	98
16) Benzyl alcohol	4.794	108	64726	9.81	ppm	95
17) 1,2-Dichlorobenzene	4.821	146	109056	9.95	ppm	95
18) Acetophenone	5.002	105	155466	9.94	ppm	76
19) 2-Methylphenol	4.879	108	89514	9.52	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.901	45	132143	11.40	ppm	87
21) 3&4-Methylphenol	5.002	108	98670	8.86	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:09:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	5.002	70	87954	10.26	ppm		88
23) Hexachloroethane	5.099	201	36416	9.54	ppm	#	79
26) Nitrobenzene	5.147	77	127873	10.52	ppm		99
27) Quinoline	6.142	129	189467	9.64	ppm		98
28) Isophorone	5.350	82	210999	10.32	ppm		99
29) 2-Nitrophenol	5.425	139	56766	9.29	ppm		80
30) 2,4-Dimethylphenol	5.457	107	98979	8.99	ppm		93
31) Benzoic acid	5.521	105	72803	7.83	ppm		98
32) bis(2-Chloroethoxy)met...	5.543	93	109034	10.06	ppm		98
33) 2,4-Dichlorophenol	5.644	162	84301	9.40	ppm		97
34) 2,6-Dichlorophenol	5.864	162	82524	9.31	ppm		96
35) 1,3,5-Trichlorobenzene	5.441	180	94475	9.55	ppm		96
36) 1,2,4-Trichlorobenzene	5.730	180	91383	9.72	ppm		100
37) 1,2,3-Trichlorobenzene	5.949	180	88212	9.69	ppm		98
38) Naphthalene	5.805	128	293645	9.51	ppm		99
39) 4-Chloroaniline	5.853	127	122867	9.53	ppm		95
40) 2,3-Dichloroaniline	6.874	161	102950m	9.17	ppm		
41) Caprolactam	6.184	55	54294	11.10	ppm		77
42) Hexachlorobutadiene	5.938	225	50760	9.32	ppm		98
43) 4-Chloro-3-methylphenol	6.366	107	92789	9.43	ppm		93
44) 2-Methylnaphthalene	6.543	141	172076	9.36	ppm		98
45) 1-Methylnaphthalene	6.655	141	181123	9.64	ppm		98
46) Dimethylnaphthalene	7.302	156	182469	9.27	ppm		98
48) Hexachlorocyclopentadiene	6.741	237	113452	17.29	ppm		98
49) 2,4,6-Trichlorophenol	6.874	196	59604	8.95	ppm		94
50) 2,4,5-Trichlorophenol	6.917	196	61523	9.17	ppm		97
52) 2-Chloronaphthalene	7.126	162	187780	9.83	ppm		98
53) Biphenyl	7.104	154	248714	9.57	ppm		99
54) 2-Nitroaniline	7.254	65	69325	9.95	ppm		96
55) Dimethylphthalate	7.511	163	217524	9.76	ppm		100
56) Acenaphthylene	7.661	152	288994	9.37	ppm		98
57) 2,6-Dinitrotoluene	7.575	165	47087	9.19	ppm		98
58) 3-Nitroaniline	7.794	138	52077	9.09	ppm		98
59) Acenaphthene	7.896	153	193648	9.33	ppm		99
60) 2,4-Dinitrophenol	7.939	184	52557	14.40	ppm		89
61) 4-Nitrophenol	8.046	109	33381	8.28	ppm		96
62) Dibenzofuran	8.137	168	263535	9.30	ppm		96
63) 2,4-Dinitrotoluene	8.126	165	66461	8.88	ppm		90
64) 2,3,4,6-Tetrachlorophenol	8.324	232	49472	8.58	ppm		96
65) Diethylphthalate	8.506	149	239905	9.99	ppm		96
66) Fluorene	8.629	166	211983	9.07	ppm		99
67) 4-Chlorophenyl-phenyle...	8.650	204	97810	9.38	ppm		95
68) 4-Nitroaniline	8.655	138	49923	9.19	ppm		95
70) 4,6-Dinitro-2-methylph...	8.714	198	36780	8.10	ppm		80
71) n-Nitrosodiphenylamine	8.821	169	152440	9.47	ppm		96
72) 1,2-Diphenylhydrazine	8.875	77	255564	10.73	ppm		95
74) 4-Bromophenyl-phenylether	9.372	248	53252	8.96	ppm		92
75) Hexachlorobenzene	9.452	284	62079	9.52	ppm		93
76) Pentachlorophenol	9.752	266	75371	15.14	ppm		97
77) Phenanthrene	10.057	178	298414	9.48	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:09:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

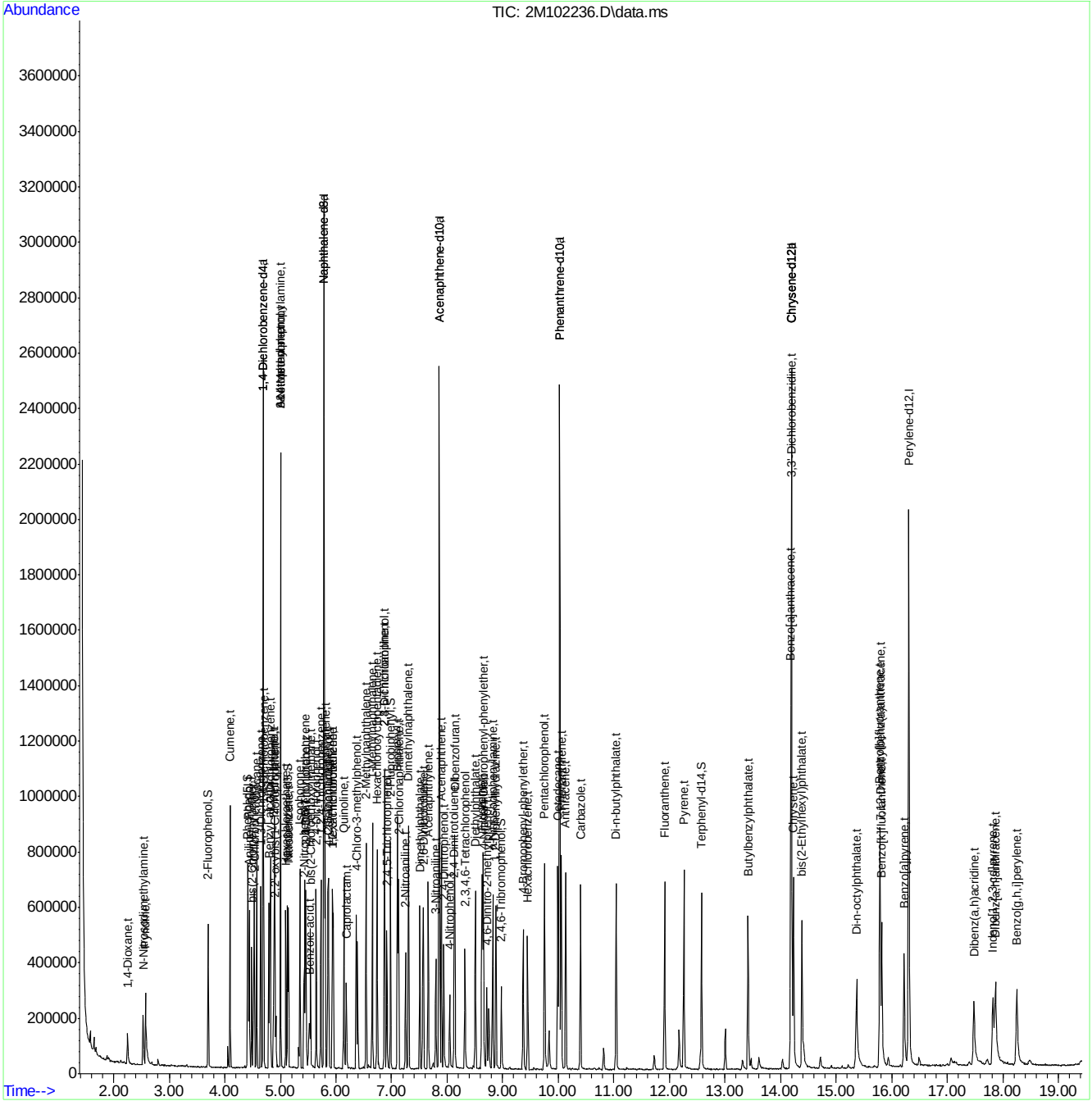
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.132	178	299012	9.32	ppm	99
79) Carbazole	10.399	167	281922	9.37	ppm	99
80) Di-n-butylphthalate	11.041	149	387737	9.62	ppm	99
81) Fluoranthene	11.913	202	299671	9.02	ppm	97
82) Octadecane	9.993	57	152837	9.93	ppm	92
84) Pyrene	12.260	202	322688	10.32	ppm	97
86) Butylbenzylphthalate	13.416	149	159326	10.11	ppm	94
87) Benzo[a]anthracene	14.181	228	280056	9.50	ppm	98
88) 3,3'-Dichlorobenzidine	14.186	252	101970	8.79	ppm	99
89) Chrysene	14.234	228	278019	10.23	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.384	149	215747	9.76	ppm	99
92) Di-n-octylphthalate	15.368	149	300367	7.58	ppm	99
93) Benzo[b]fluoranthene	15.785	252	254641	7.55	ppm	99
94) Benzo[k]fluoranthene	15.823	252	286714	9.84	ppm	100
95) Benzo[a]pyrene	16.224	252	225938	8.29	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.823	276	272285m	9.94	ppm	
97) Dibenz(a,h)acridine	17.481	279	188714	7.73	ppm	96
98) Dibenz[a,h]anthracene	17.866	278	211409m	7.49	ppm	
99) 7,12-Dimethylbenz(a)an...	15.791	256	107388	7.10	ppm	97
100) Benzo[g,h,i]perylene	18.251	276	215721	8.24	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:09:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration



Manual Integration Approval Summary

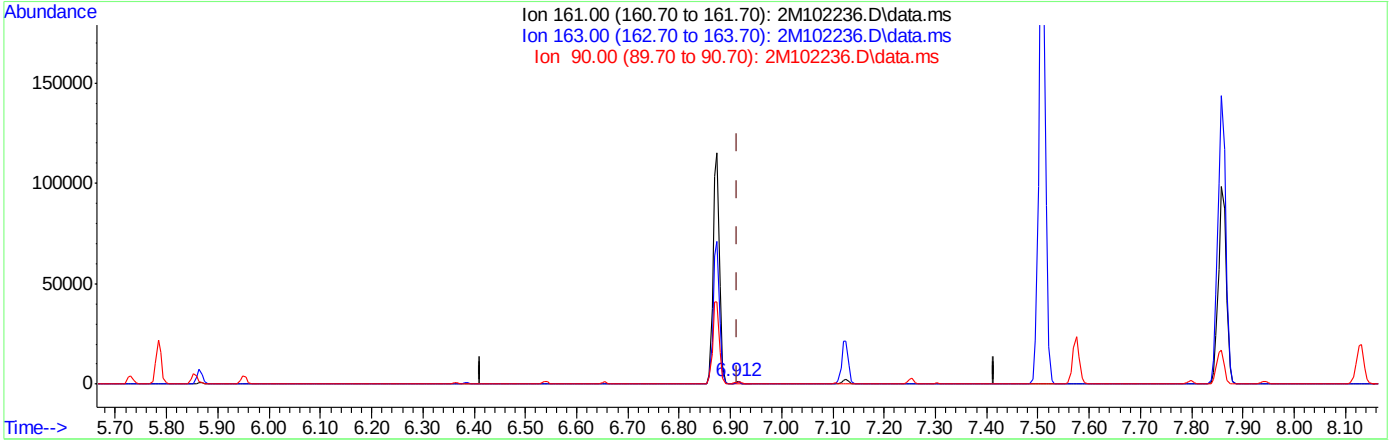
Sample Number:	E2M4551-IC4551	**Method:**	SW846 8270D
Lab FileID:	2M102236.D	**Analyst approved:**	03/01/18 03:02 Christopher Sowa
Injection Time:	02/28/18 17:08	**Supervisor approved:**	03/05/18 18:00 Nina Pandya

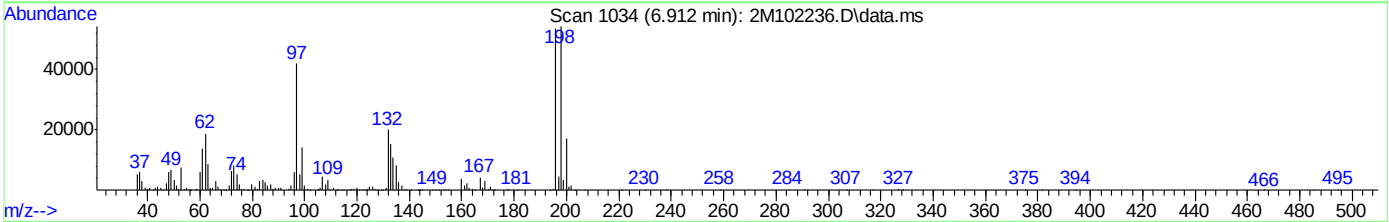
Parameter	CAS	Sig#	R.T. (min.)	Reason
2,3-Dichloroaniline	608-27-5		6.87	Missed peak
Indeno(1,2,3-cd)pyrene	193-39-5		17.82	Split peak
Dibenzo(a,h)anthracene	53-70-3		17.87	Missed peak

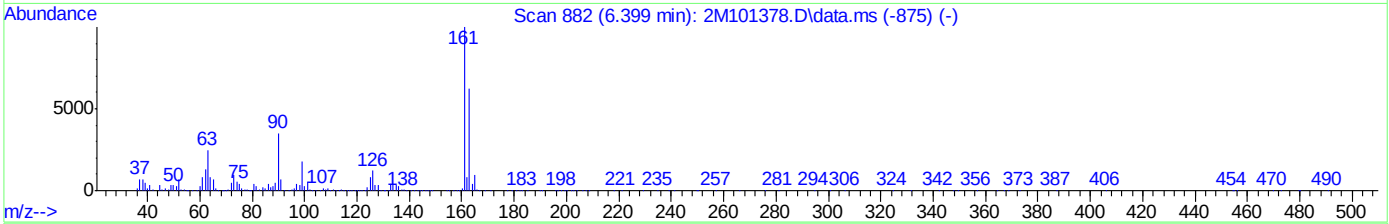
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:07:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102236.D\data.ms

(40) 2,3-Dichloroaniline (t)

6.912min (-0.002) 0.11ppm

response 1218

Ion	Exp%	Act%
161.00	100	100
163.00	62.50	48.35
90.00	35.20	38.19
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:07:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

TIC: 2M102236.D\data.ms

(40) 2,3-Dichloroaniline (t)

6.874min (-0.040) 9.17ppm m

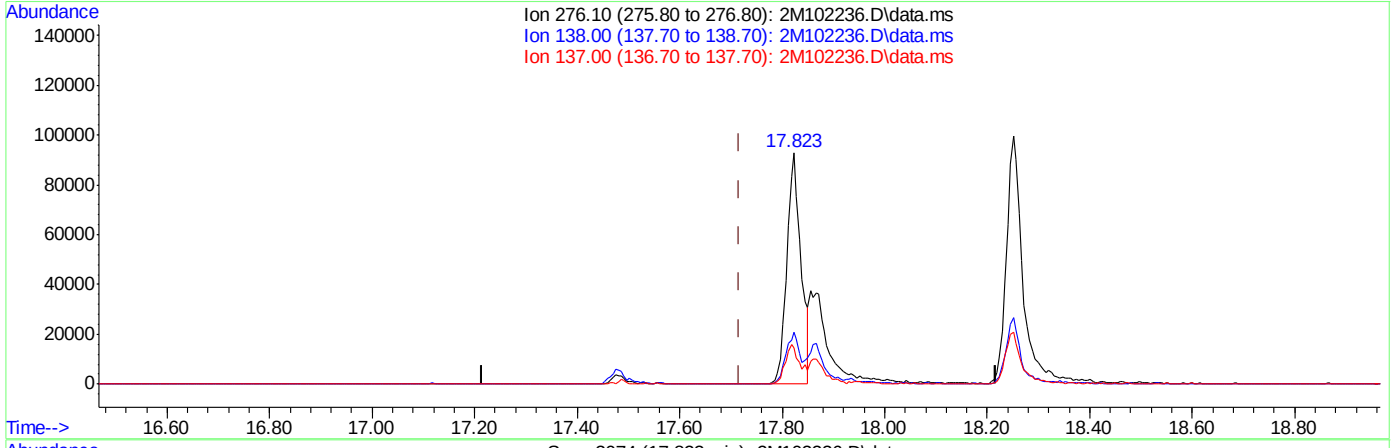
response 102950

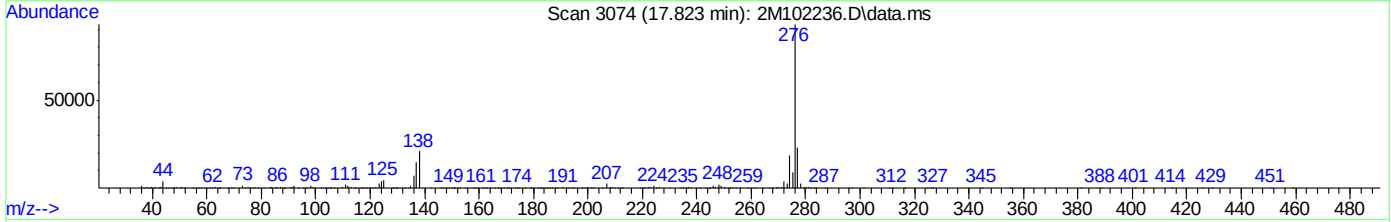
Ion	Exp%	Act%
161.00	100	100
163.00	62.50	61.65
90.00	35.20	35.34
0.00	0.00	0.00

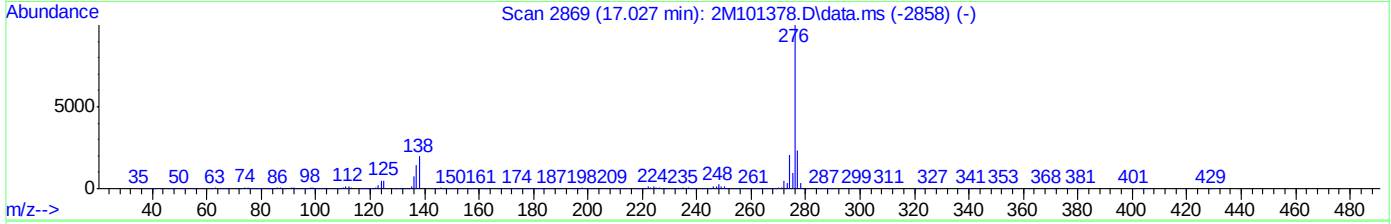
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:07:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102236.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.823min (+0.106) 6.58ppm

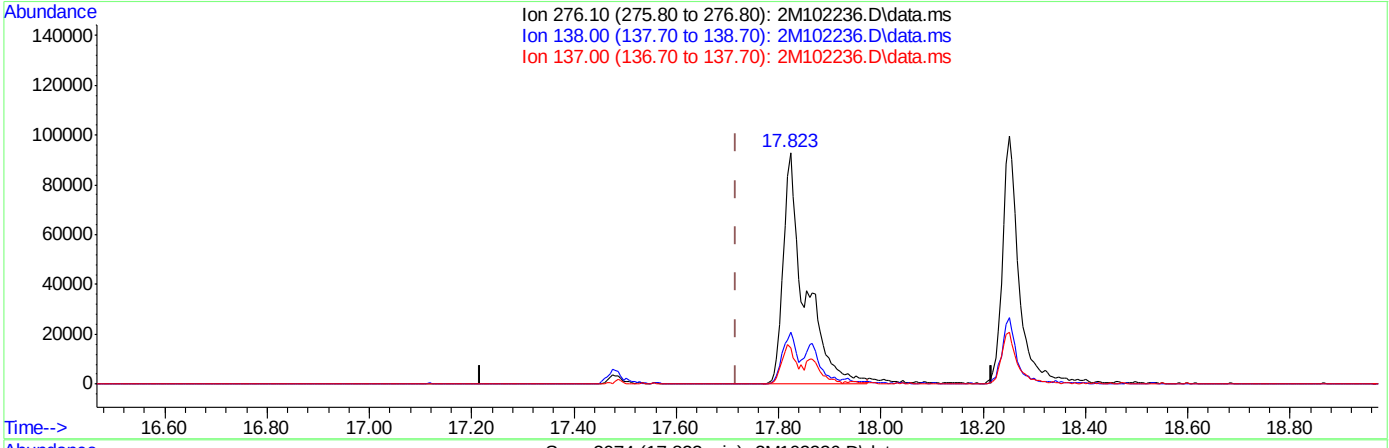
response 180109

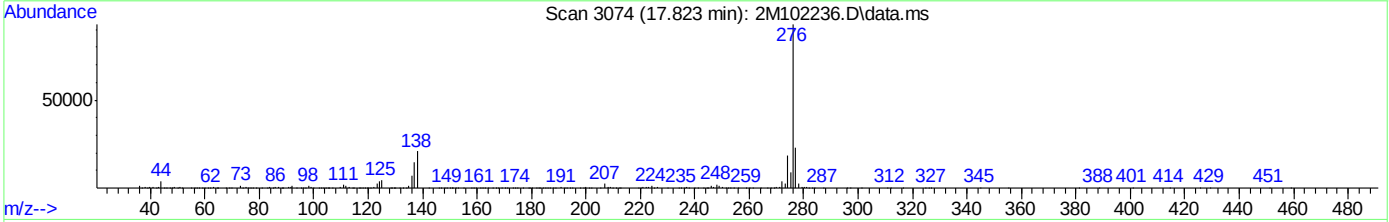
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	20.10
137.00	14.70	14.97
0.00	0.00	0.00

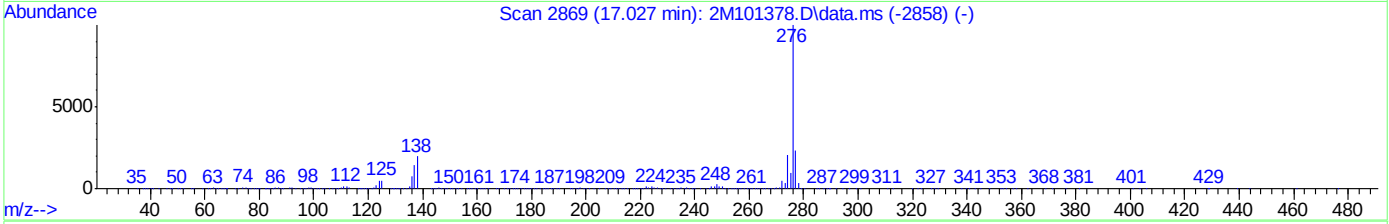
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:07:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102236.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.823min (+0.106) 9.94ppm m

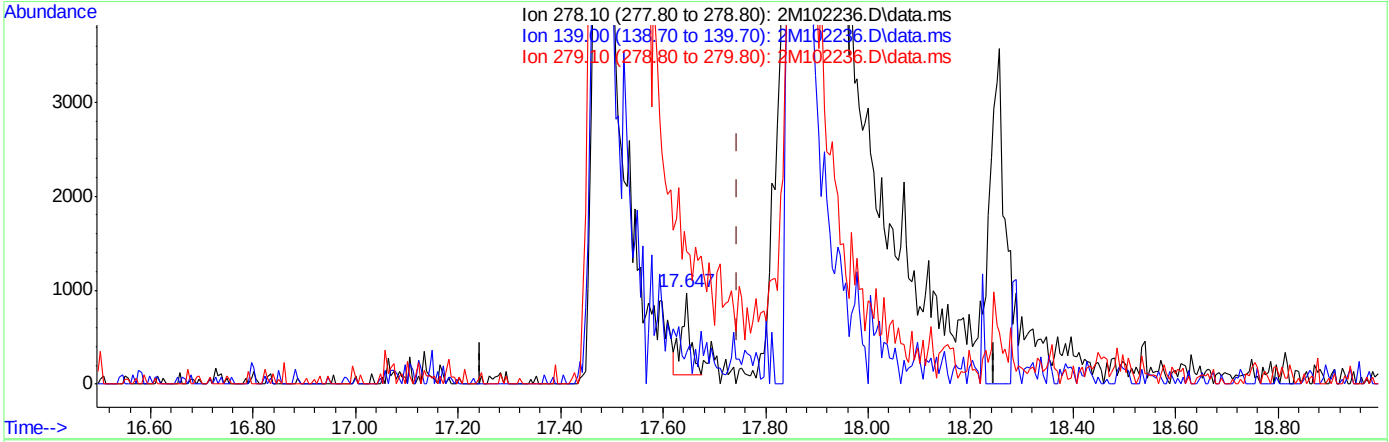
response 272285

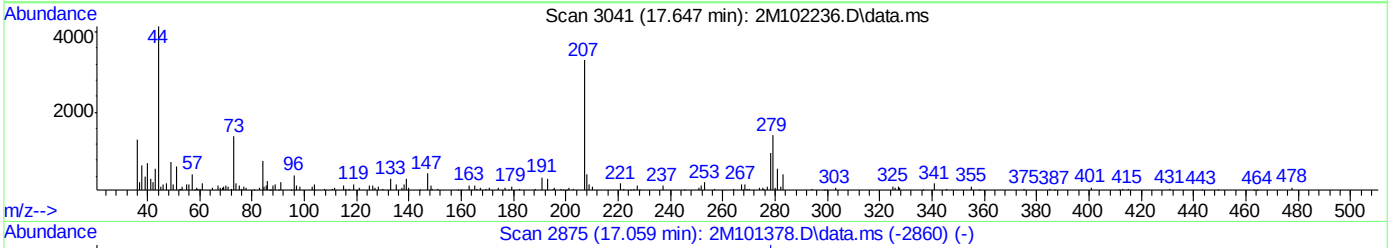
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	22.47
137.00	14.70	15.62
0.00	0.00	0.00

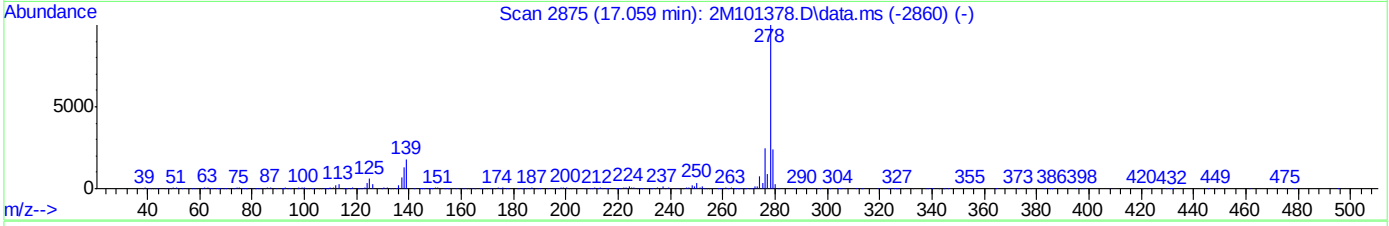
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:07:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102236.D\data.ms

(98) Dibenz[a,h]anthracene (t)

17.647min (-0.099) 0.04ppm

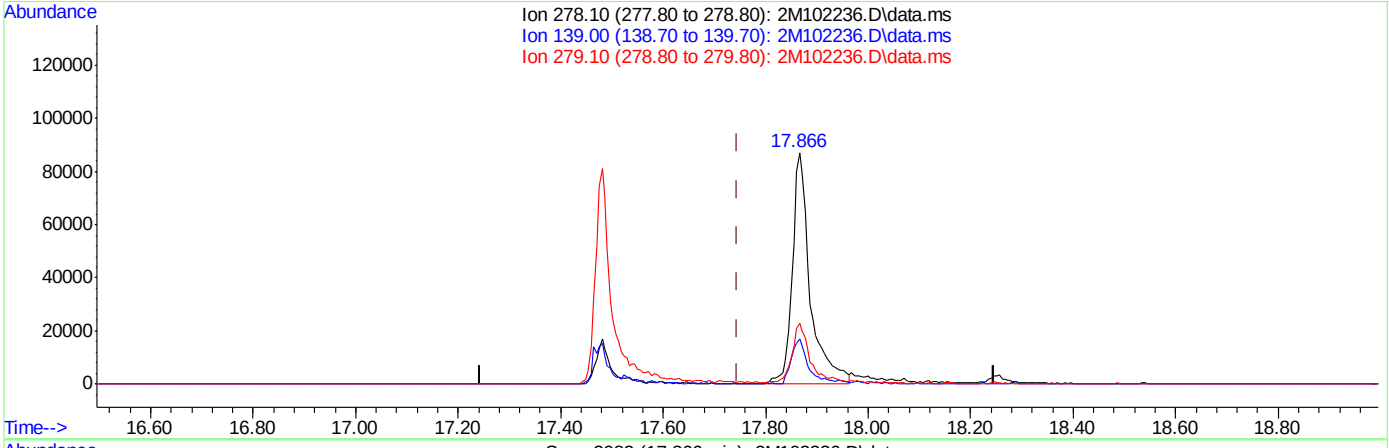
response 1040

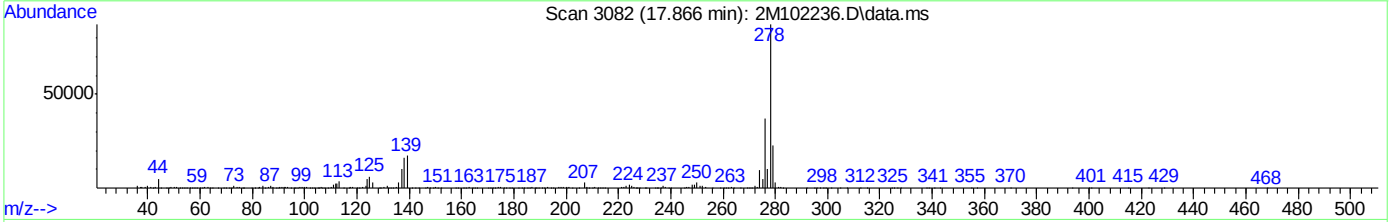
Ion	Exp%	Act%
278.10	100	100
139.00	18.10	0.00
279.10	23.70	0.00
0.00	0.00	0.00

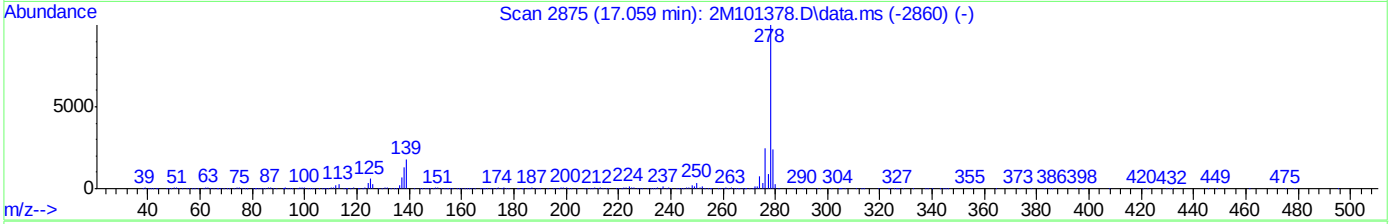
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102236.D
Acq On : 28 Feb 2018 5:08 pm
Operator : seanb1
Sample : ic4551-10
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 21:07:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration







TIC: 2M102236.D\data.ms

(98) Dibenz[a,h]anthracene (t)

17.866min (+0.121) 7.49ppm m

response 211409

Ion	Exp%	Act%
278.10	100	100
139.00	18.10	19.63
279.10	23.70	26.22
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102237.D
Acq On : 28 Feb 2018 5:34 pm
Operator : seanb1
Sample : ic4551-25
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 21:19:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.687	152	258787	40.00	ppm		0.00
24) Naphthalene-d8	5.783	136	1018173	40.00	ppm		0.00
47) Acenaphthene-d10	7.859	164	505925	40.00	ppm		0.00
69) Phenanthrene-d10	10.025	188	940784	40.00	ppm		0.00
83) Chrysene-d12	14.197	240	861602	40.00	ppm		-0.01
91) Perylene-d12	16.304	264	839706	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.687	152	258787	40.00	ppm		0.00
103) Acenaphthene-d10a	7.859	164	505925	40.00	ppm		0.00
105) Chrysene-d12a	14.197	240	861602	40.00	ppm		-0.01
108) Phenanthrene-d10a	10.025	188	940784	40.00	ppm		0.00
112) Naphthalene-d8a	5.783	136	1018173	40.00	ppm		0.00
114) Chrysene-d12b	14.197	240	861602	40.00	ppm		-0.01
System Monitoring Compounds							
5) 2-Fluorophenol	3.697	112	224680	24.66	ppm		0.10
Spiked Amount 50.000			Recovery =	49.32%			
8) Phenol-d5	4.409	99	285383	24.18	ppm		-0.03
Spiked Amount 50.000			Recovery =	48.36%			
25) Nitrobenzene-d5	5.131	82	305519	25.80	ppm		0.00
Spiked Amount 50.000			Recovery =	51.60%			
51) 2-Fluorobiphenyl	6.981	172	519297	24.06	ppm		0.02
Spiked Amount 50.000			Recovery =	48.12%			
73) 2,4,6-Tribromophenol	8.982	330	68461	21.80	ppm		0.05
Spiked Amount 50.000			Recovery =	43.60%			
85) Terphenyl-d14	12.576	244	520358	25.59	ppm		0.06
Spiked Amount 50.000			Recovery =	51.18%			
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm		
Target Compounds							Qvalue
2) 1,4-Dioxane	2.242	88	85715	25.60	ppm		93
3) Pyridine	2.563	79	249052	25.47	ppm		97
4) N-Nitrosodimethylamine	2.526	74	143327	26.22	ppm		95
6) Indene	4.890	116	379169	23.88	ppm		94
7) Cumene	4.093	105	616487	25.39	ppm		98
9) Phenol	4.419	94	335904	24.75	ppm		86
10) Aniline	4.441	93	337941	27.18	ppm		87
11) bis(2-Chloroethyl)ether	4.484	93	225191	25.47	ppm		86
12) 2-Chlorophenol	4.532	128	245039	24.47	ppm		93
13) Decane	4.574	43	307987	28.58	ppm		91
14) 1,3-Dichlorobenzene	4.649	146	262419	24.26	ppm		97
15) 1,4-Dichlorobenzene	4.703	146	267969	24.03	ppm		100
16) Benzyl alcohol	4.794	108	152215	24.37	ppm		93
17) 1,2-Dichlorobenzene	4.821	146	247873	23.89	ppm		97
18) Acetophenone	5.002	105	361688	24.43	ppm	#	71
19) 2-Methylphenol	4.885	108	210603	23.66	ppm		94
20) 2,2'-oxybis(1-Chloropr...	4.901	45	308444	28.12	ppm		85
21) 3&4-Methylphenol	5.002	108	241875	22.95	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102237.D
Acq On : 28 Feb 2018 5:34 pm
Operator : seanb1
Sample : ic4551-25
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 21:19:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.008	70	216036	26.63	ppm	97
23) Hexachloroethane	5.099	201	90822	25.14	ppm	87
26) Nitrobenzene	5.147	77	303403	26.69	ppm	98
27) Quinoline	6.142	129	447544	24.34	ppm	97
28) Isophorone	5.350	82	500427	26.17	ppm	97
29) 2-Nitrophenol	5.425	139	136773	23.92	ppm	75
30) 2,4-Dimethylphenol	5.457	107	237108	23.01	ppm	93
31) Benzoic acid	5.537	105	197634	22.71	ppm	98
32) bis(2-Chloroethoxy)met...	5.543	93	259812	25.61	ppm	98
33) 2,4-Dichlorophenol	5.644	162	194721	23.21	ppm	93
34) 2,6-Dichlorophenol	5.863	162	195022	23.51	ppm	97
35) 1,3,5-Trichlorobenzene	5.441	180	220083	23.78	ppm	99
36) 1,2,4-Trichlorobenzene	5.730	180	206553	23.49	ppm	98
37) 1,2,3-Trichlorobenzene	5.954	180	203375	23.88	ppm	100
38) Naphthalene	5.805	128	694959	24.05	ppm	99
39) 4-Chloroaniline	5.853	127	293875	24.36	ppm	96
40) 2,3-Dichloroaniline	6.874	161	243259	23.16	ppm	97
41) Caprolactam	6.200	55	122216	26.70	ppm	85
42) Hexachlorobutadiene	5.938	225	121367	23.81	ppm	99
43) 4-Chloro-3-methylphenol	6.366	107	228178	24.79	ppm	96
44) 2-Methylnaphthalene	6.543	141	408216	23.74	ppm	98
45) 1-Methylnaphthalene	6.655	141	420514	23.93	ppm	98
46) Dimethylnaphthalene	7.308	156	429885	23.34	ppm	97
48) Hexachlorocyclopentadiene	6.741	237	277905	45.62	ppm	100
49) 2,4,6-Trichlorophenol	6.880	196	142754	23.09	ppm	96
50) 2,4,5-Trichlorophenol	6.917	196	147791	23.72	ppm	94
52) 2-Chloronaphthalene	7.126	162	442914	24.96	ppm	98
53) Biphenyl	7.104	154	585929	24.29	ppm	99
54) 2-Nitroaniline	7.254	65	171424	26.50	ppm	96
55) Dimethylphthalate	7.511	163	519013	25.08	ppm	99
56) Acenaphthylene	7.661	152	702070	24.52	ppm	99
57) 2,6-Dinitrotoluene	7.580	165	115498	24.28	ppm	93
58) 3-Nitroaniline	7.800	138	129996	24.44	ppm	96
59) Acenaphthene	7.901	153	468763	24.34	ppm	93
60) 2,4-Dinitrophenol	7.944	184	137982	40.71	ppm	85
61) 4-Nitrophenol	8.051	109	86559	23.12	ppm	95
62) Dibenzofuran	8.142	168	614292	23.36	ppm	96
63) 2,4-Dinitrotoluene	8.131	165	160944	23.17	ppm	93
64) 2,3,4,6-Tetrachlorophenol	8.324	232	122971	22.97	ppm	99
65) Diethylphthalate	8.511	149	565038	25.33	ppm	97
66) Fluorene	8.629	166	510372	23.52	ppm	99
67) 4-Chlorophenyl-phenyle...	8.650	204	230249	23.80	ppm	92
68) 4-Nitroaniline	8.661	138	122495	24.28	ppm	97
70) 4,6-Dinitro-2-methylph...	8.714	198	99092	23.17	ppm	81
71) n-Nitrosodiphenylamine	8.821	169	375659	24.77	ppm	96
72) 1,2-Diphenylhydrazine	8.880	77	608574	27.12	ppm	98
74) 4-Bromophenyl-phenylether	9.372	248	133734	23.88	ppm	94
75) Hexachlorobenzene	9.452	284	143834	23.42	ppm	97
76) Pentachlorophenol	9.757	266	193187	41.19	ppm	99
77) Phenanthrene	10.057	178	718250	24.24	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102237.D
Acq On : 28 Feb 2018 5:34 pm
Operator : seanb1
Sample : ic4551-25
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 21:19:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

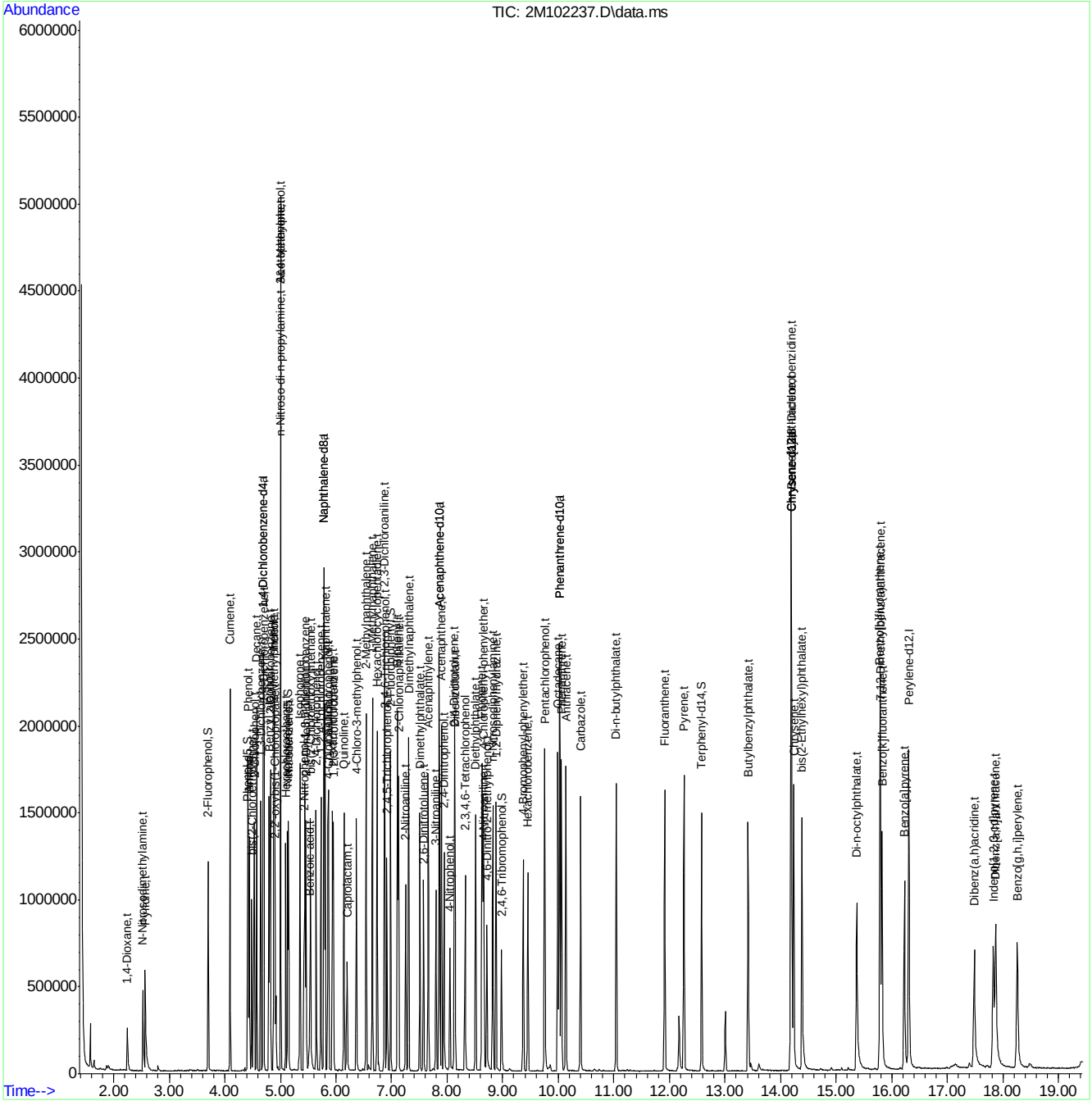
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.137	178	718478	23.79	ppm	100
79) Carbazole	10.404	167	688845	24.30	ppm	99
80) Di-n-butylphthalate	11.041	149	934075	24.60	ppm	99
81) Fluoranthene	11.913	202	730135	23.34	ppm	97
82) Octadecane	9.993	57	375402	25.88	ppm	92
84) Pyrene	12.260	202	780866	26.29	ppm	99
86) Butylbenzylphthalate	13.416	149	392630	26.23	ppm	99
87) Benzo[a]anthracene	14.186	228	679273	24.24	ppm	98
88) 3,3'-Dichlorobenzidine	14.191	252	258908	23.49	ppm	98
89) Chrysene	14.239	228	669193	25.91	ppm	100
90) bis(2-Ethylhexyl)phtha...	14.384	149	528762	25.16	ppm	99
92) Di-n-octylphthalate	15.368	149	795854	21.41	ppm	97
93) Benzo[b]fluoranthene	15.785	252	669673	21.15	ppm	98
94) Benzo[k]fluoranthene	15.828	252	680674	24.90	ppm	99
95) Benzo[a]pyrene	16.229	252	567422	22.19	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.828	276	688880m	26.80	ppm	
97) Dibenz(a,h)acridine	17.486	279	476557	20.78	ppm	99
98) Dibenz[a,h]anthracene	17.871	278	578299	21.84	ppm	97
99) 7,12-Dimethylbenz(a)an...	15.796	256	296260	20.86	ppm	99
100) Benzo[g,h,i]perylene	18.262	276	546312	22.23	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102237.D
Acq On : 28 Feb 2018 5:34 pm
Operator : seanb1
Sample : ic4551-25
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 21:19:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration



Manual Integration Approval Summary

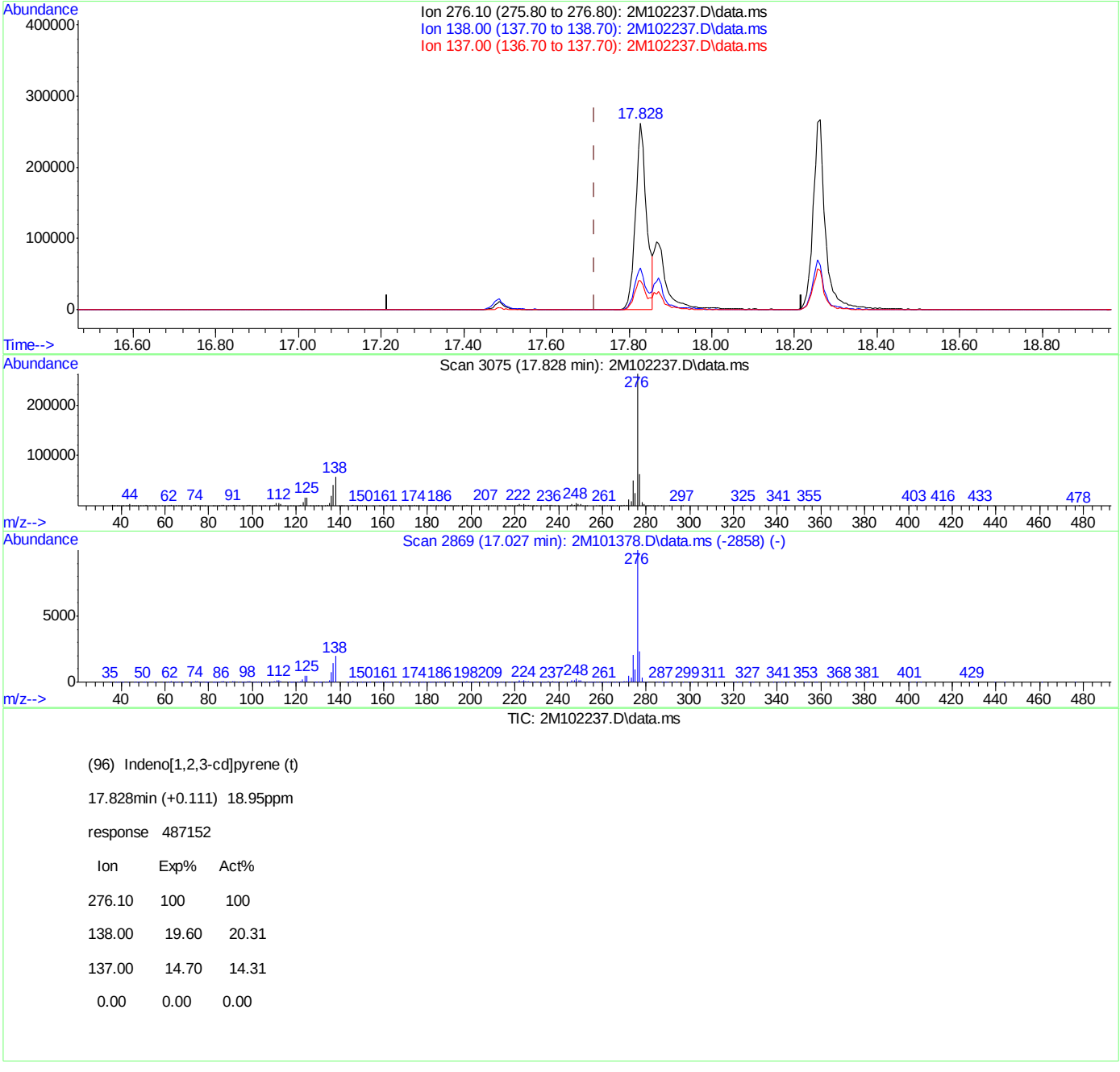
Sample Number:	E2M4551-IC4551	**Method:**	SW846 8270D
Lab FileID:	2M102237.D	**Analyst approved:**	03/01/18 03:02 Christopher Sowa
Injection Time:	02/28/18 17:34	**Supervisor approved:**	03/05/18 18:00 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.83	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102237.D
Acq On : 28 Feb 2018 5:34 pm
Operator : seanb1
Sample : ic4551-25
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 21:17:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration



TIC: 2M102237.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.828min (+0.111) 18.95ppm

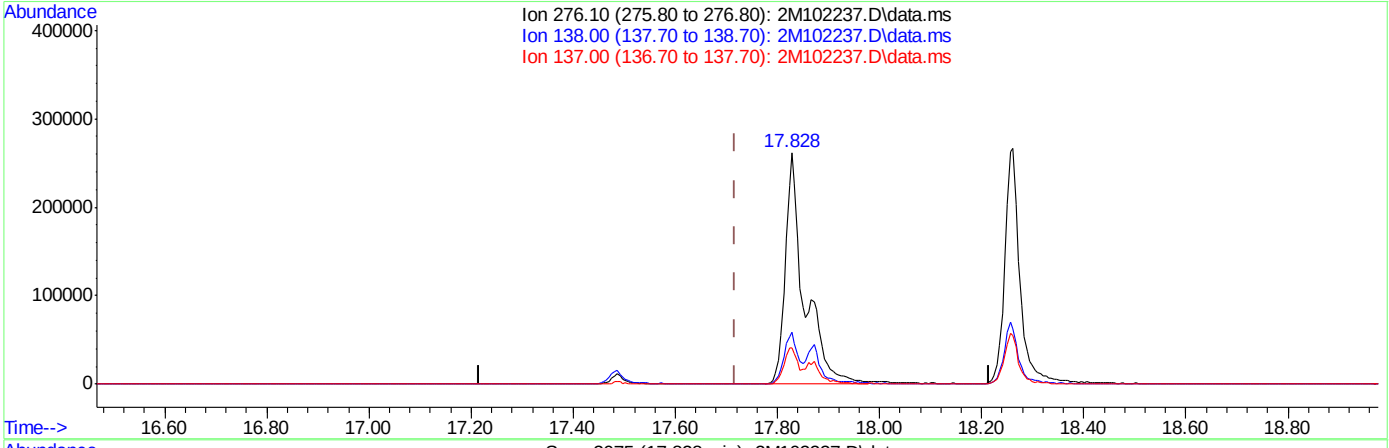
response 487152

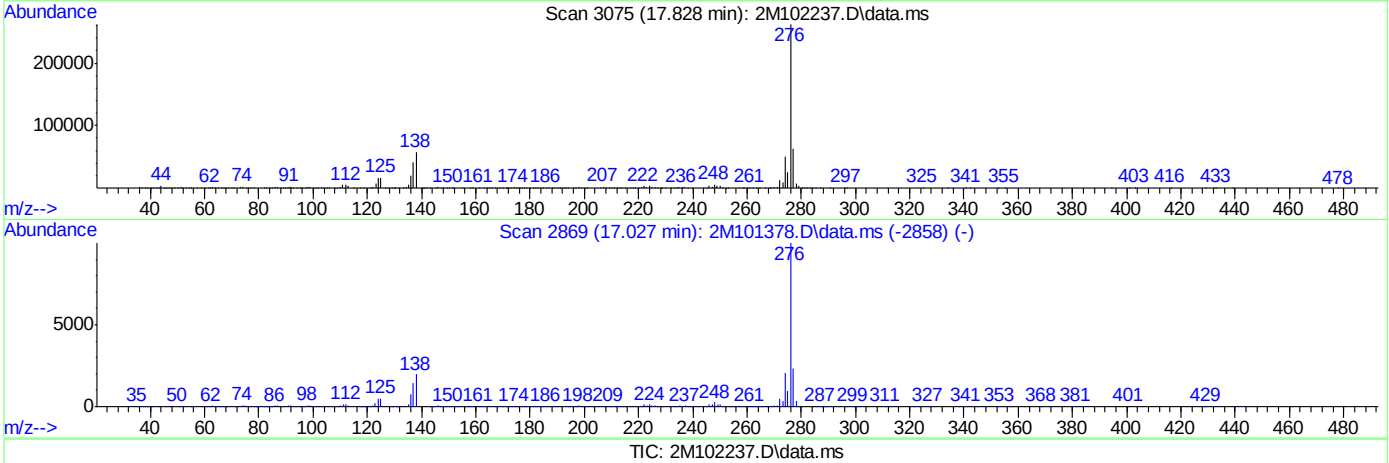
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	20.31
137.00	14.70	14.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102237.D
Acq On : 28 Feb 2018 5:34 pm
Operator : seanb1
Sample : ic4551-25
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 21:17:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration





TIC: 2M102237.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.828min (+0.111) 26.80ppm m

response 688880

Ion	Exp%	Act%
276.10	100	100
138.00	19.60	22.29
137.00	14.70	15.62
0.00	0.00	0.00

2M102238.D

Manual Integrations APPROVED (compounds with "m" flag)

Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102238.D
Acq On : 28 Feb 2018 5:59 pm
Operator : seanb1
Sample : icc4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 21:21:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.692	152	256282	40.00	ppm	0.00
24) Naphthalene-d8	5.789	136	1019038	40.00	ppm	0.00
47) Acenaphthene-d10	7.859	164	520114	40.00	ppm	0.00
69) Phenanthrene-d10	10.025	188	964147	40.00	ppm	0.00
83) Chrysene-d12	14.202	240	894057	40.00	ppm	0.00
91) Perylene-d12	16.309	264	854838	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.692	152	256282	40.00	ppm	0.00
103) Acenaphthene-d10a	7.859	164	520114	40.00	ppm	0.00
105) Chrysene-d12a	14.202	240	894057	40.00	ppm	0.00
108) Phenanthrene-d10a	10.025	188	964147	40.00	ppm	0.00
112) Naphthalene-d8a	5.789	136	1019038	40.00	ppm	0.00
114) Chrysene-d12b	14.202	240	894057	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.697	112	465628	51.61	ppm	0.10
Spiked Amount 50.000			Recovery =	103.22%		
8) Phenol-d5	4.414	99	594711	50.88	ppm	-0.03
Spiked Amount 50.000			Recovery =	101.76%		
25) Nitrobenzene-d5	5.131	82	635653	53.64	ppm	0.00
Spiked Amount 50.000			Recovery =	107.28%		
51) 2-Fluorobiphenyl	6.987	172	1082732	48.80	ppm	0.02
Spiked Amount 50.000			Recovery =	97.60%		
73) 2,4,6-Tribromophenol	8.982	330	145572	45.24	ppm	0.05
Spiked Amount 50.000			Recovery =	90.48%		
85) Terphenyl-d14	12.581	244	1088183	51.56	ppm	0.07
Spiked Amount 50.000			Recovery =	103.12%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.242	88	172046	51.89	ppm	95
3) Pyridine	2.558	79	489979	50.60	ppm	97
4) N-Nitrosodimethylamine	2.526	74	290421	53.65	ppm	95
6) Indene	4.895	116	784903	49.92	ppm	97
7) Cumene	4.093	105	1231645	51.23	ppm	99
9) Phenol	4.425	94	689071	51.27	ppm	91
10) Aniline	4.441	93	628902	51.08	ppm	88
11) bis(2-Chloroethyl)ether	4.489	93	453927	51.84	ppm	91
12) 2-Chlorophenol	4.532	128	500975	50.52	ppm	90
13) Decane	4.574	43	615691	57.70	ppm	90
14) 1,3-Dichlorobenzene	4.649	146	542582	50.64	ppm	98
15) 1,4-Dichlorobenzene	4.703	146	555364	50.28	ppm	97
16) Benzyl alcohol	4.794	108	313089	50.61	ppm	87
17) 1,2-Dichlorobenzene	4.826	146	511420	49.76	ppm	99
18) Acetophenone	5.008	105	755317	51.52	ppm	79
19) 2-Methylphenol	4.885	108	434781	49.32	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.901	45	621143	57.18	ppm	85
21) 3&4-Methylphenol	5.008	108	513395	49.20	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102238.D
Acq On : 28 Feb 2018 5:59 pm
Operator : seanb1
Sample : icc4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 21:21:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.008	70	441107	54.89	ppm	92
23) Hexachloroethane	5.099	201	180875	50.55	ppm	81
26) Nitrobenzene	5.147	77	618342	54.34	ppm	97
27) Quinoline	6.152	129	932809	50.68	ppm	99
28) Isophorone	5.355	82	1021021	53.34	ppm	99
29) 2-Nitrophenol	5.430	139	280813	49.06	ppm	84
30) 2,4-Dimethylphenol	5.462	107	502771	48.76	ppm	94
31) Benzoic acid	5.564	105	422496	48.51	ppm	96
32) bis(2-Chloroethoxy)met...	5.548	93	531998	52.40	ppm	99
33) 2,4-Dichlorophenol	5.650	162	409198	48.73	ppm	96
34) 2,6-Dichlorophenol	5.869	162	402658	48.50	ppm	99
35) 1,3,5-Trichlorobenzene	5.441	180	449262	48.51	ppm	97
36) 1,2,4-Trichlorobenzene	5.735	180	431103	48.99	ppm	98
37) 1,2,3-Trichlorobenzene	5.954	180	419492	49.22	ppm	99
38) Naphthalene	5.810	128	1421161	49.14	ppm	100
39) 4-Chloroaniline	5.858	127	590391	48.89	ppm	97
40) 2,3-Dichloroaniline	6.874	161	506398	48.17	ppm	99
41) Caprolactam	6.217	55	250341	54.64	ppm	83
42) Hexachlorobutadiene	5.938	225	243394	47.71	ppm	98
43) 4-Chloro-3-methylphenol	6.372	107	467318	50.72	ppm	98
44) 2-Methylnaphthalene	6.543	141	831455	48.30	ppm	96
45) 1-Methylnaphthalene	6.660	141	868596	49.39	ppm	99
46) Dimethylnaphthalene	7.308	156	902167	48.95	ppm	98
48) Hexachlorocyclopentadiene	6.741	237	577672	92.25	ppm	99
49) 2,4,6-Trichlorophenol	6.880	196	303647	47.77	ppm	100
50) 2,4,5-Trichlorophenol	6.923	196	308874	48.22	ppm	96
52) 2-Chloronaphthalene	7.126	162	909719	49.88	ppm	99
53) Biphenyl	7.110	154	1217515	49.09	ppm	100
54) 2-Nitroaniline	7.260	65	357693	53.79	ppm	97
55) Dimethylphthalate	7.516	163	1066511	50.12	ppm	98
56) Acenaphthylene	7.661	152	1464231	49.75	ppm	99
57) 2,6-Dinitrotoluene	7.580	165	240035	49.09	ppm	97
58) 3-Nitroaniline	7.805	138	271133	49.58	ppm	94
59) Acenaphthene	7.901	153	968962	48.93	ppm	96
60) 2,4-Dinitrophenol	7.949	184	319509	91.70	ppm	97
61) 4-Nitrophenol	8.056	109	193040	50.16	ppm	98
62) Dibenzofuran	8.142	168	1307650	48.37	ppm	95
63) 2,4-Dinitrotoluene	8.137	165	342694	48.00	ppm	99
64) 2,3,4,6-Tetrachlorophenol	8.324	232	255344	46.39	ppm	94
65) Diethylphthalate	8.516	149	1158717	50.54	ppm	97
66) Fluorene	8.634	166	1060408	47.53	ppm	99
67) 4-Chlorophenyl-phenyle...	8.650	204	478246	48.08	ppm	91
68) 4-Nitroaniline	8.672	138	258587	49.86	ppm	98
70) 4,6-Dinitro-2-methylph...	8.725	198	211280	48.20	ppm	91
71) n-Nitrosodiphenylamine	8.827	169	769692	49.53	ppm	98
72) 1,2-Diphenylhydrazine	8.880	77	1250693	54.39	ppm	96
74) 4-Bromophenyl-phenylether	9.372	248	268576	46.80	ppm	90
75) Hexachlorobenzene	9.458	284	302356	48.03	ppm	95
76) Pentachlorophenol	9.757	266	425441	88.51	ppm	98
77) Phenanthrene	10.062	178	1481041	48.77	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102238.D
Acq On : 28 Feb 2018 5:59 pm
Operator : seanb1
Sample : icc4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 21:21:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration

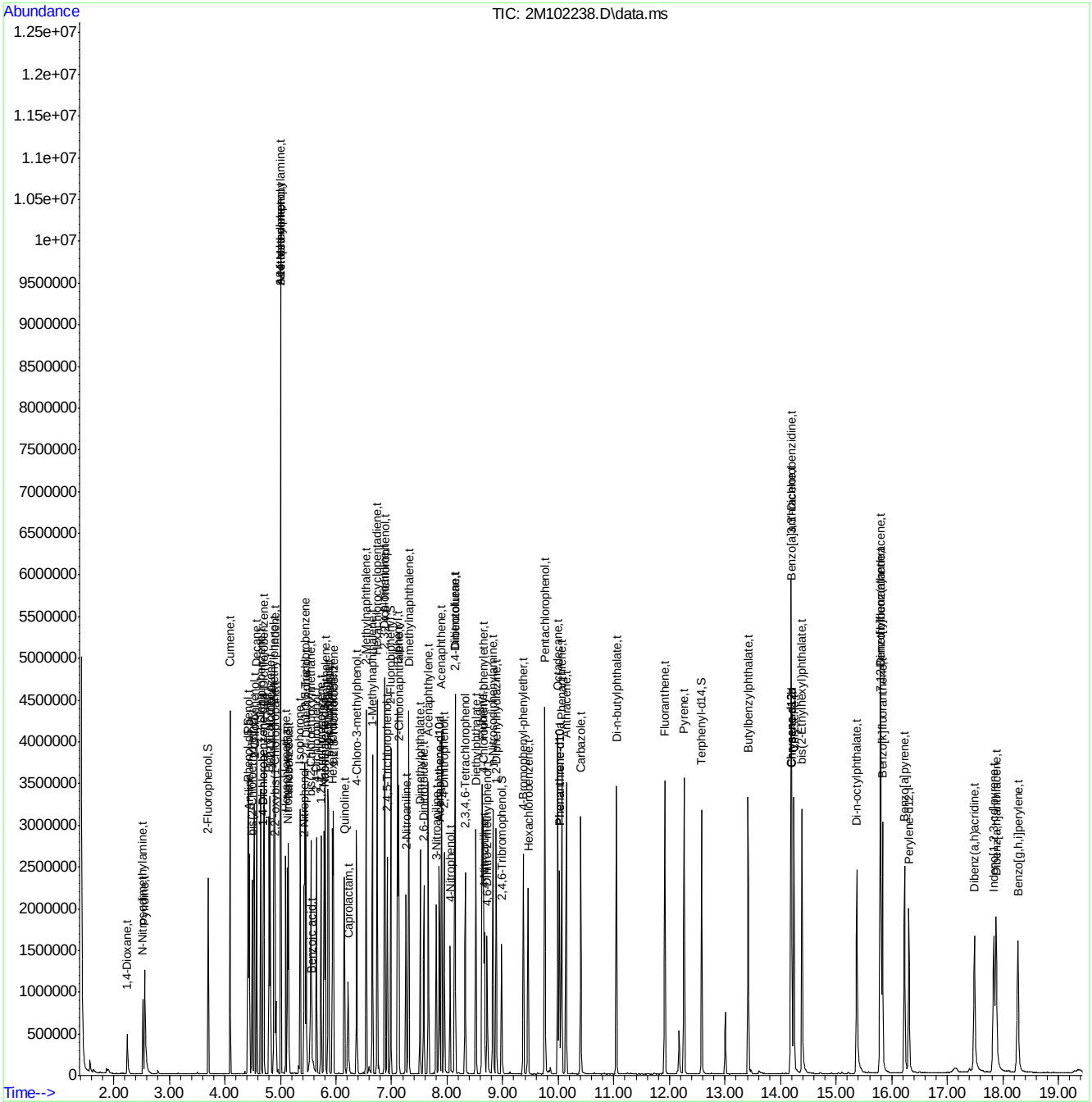
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.142	178	1518049	49.04	ppm	99
79) Carbazole	10.405	167	1438741	49.52	ppm	99
80) Di-n-butylphthalate	11.046	149	1968884	50.59	ppm	100
81) Fluoranthene	11.918	202	1561064	48.70	ppm	98
82) Octadecane	9.993	57	798879	53.74	ppm	91
84) Pyrene	12.266	202	1633628	53.00	ppm	99
86) Butylbenzylphthalate	13.416	149	841702	54.18	ppm	98
87) Benzo[a]anthracene	14.186	228	1455147	50.05	ppm	98
88) 3,3'-Dichlorobenzidine	14.191	252	564410	49.35	ppm	96
89) Chrysene	14.239	228	1386868	51.75	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.384	149	1131947	51.91	ppm	98
92) Di-n-octylphthalate	15.368	149	1828673	48.31	ppm	97
93) Benzo[b]fluoranthene	15.791	252	1490576	46.23	ppm	99
94) Benzo[k]fluoranthene	15.833	252	1411191	50.71	ppm	99
95) Benzo[a]pyrene	16.229	252	1227467	47.15	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.839	276	1501587m	57.39	ppm	
97) Dibenz(a,h)acridine	17.491	279	1087447	46.59	ppm	100
98) Dibenz[a,h]anthracene	17.882	278	1254599	46.53	ppm	98
99) 7,12-Dimethylbenz(a)an...	15.801	256	672663	46.53	ppm	98
100) Benzo[g,h,i]perylene	18.272	276	1209173	48.33	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102238.D
Acq On : 28 Feb 2018 5:59 pm
Operator : seanb1
Sample : icc4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 21:21:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration



Manual Integration Approval Summary

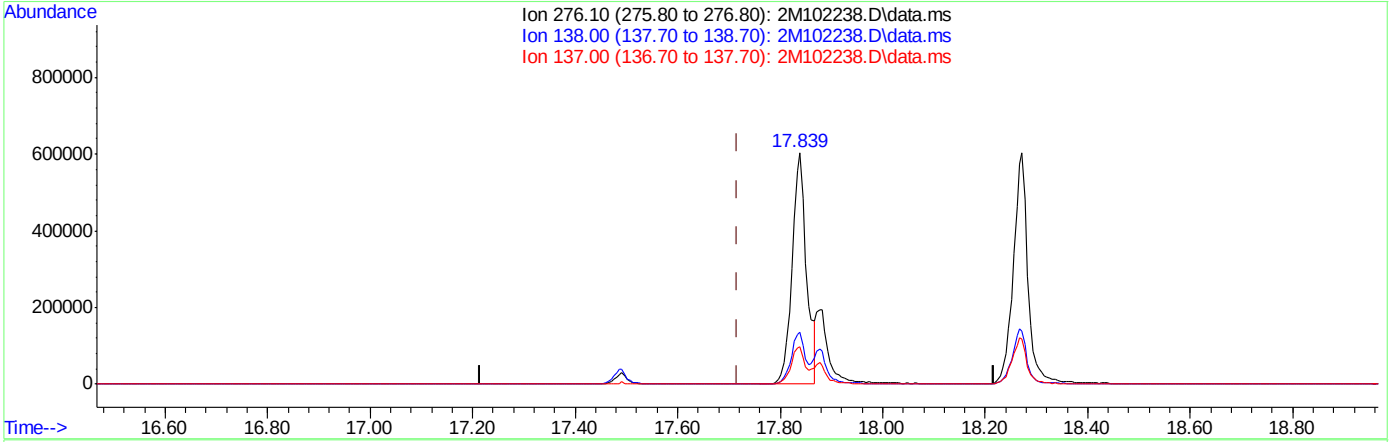
Sample Number:	E2M4551-ICC4551	**Method:**	SW846 8270D
Lab FileID:	2M102238.D	**Analyst approved:**	03/01/18 03:02 Christopher Sowa
Injection Time:	02/28/18 17:59	**Supervisor approved:**	03/05/18 18:00 Nina Pandya

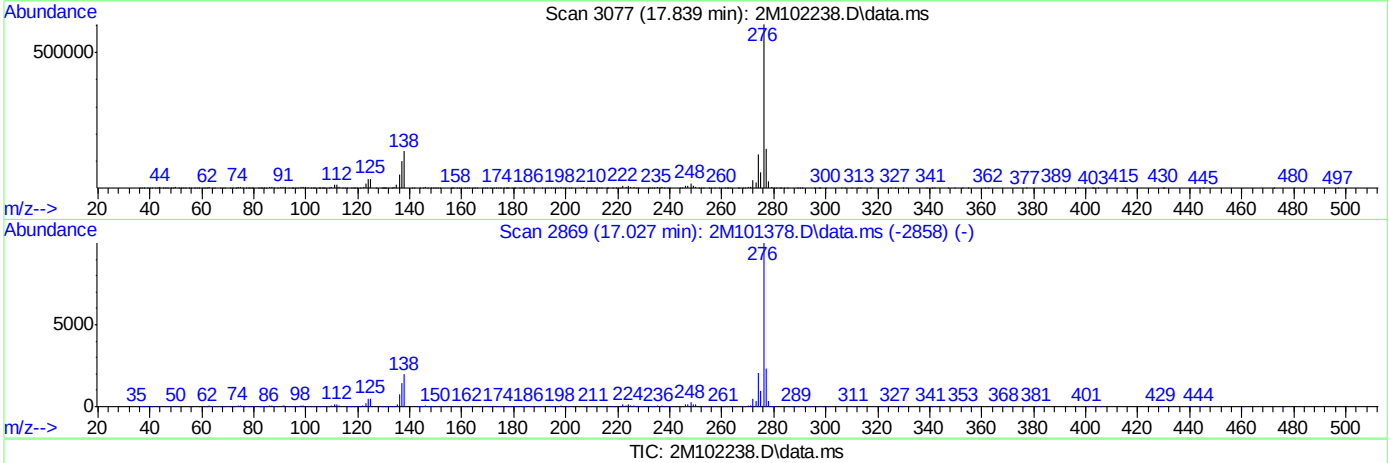
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.84	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102238.D
Acq On : 28 Feb 2018 5:59 pm
Operator : seanb1
Sample : icc4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 21:19:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration





TIC: 2M102238.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.839min (+0.122) 44.37ppm

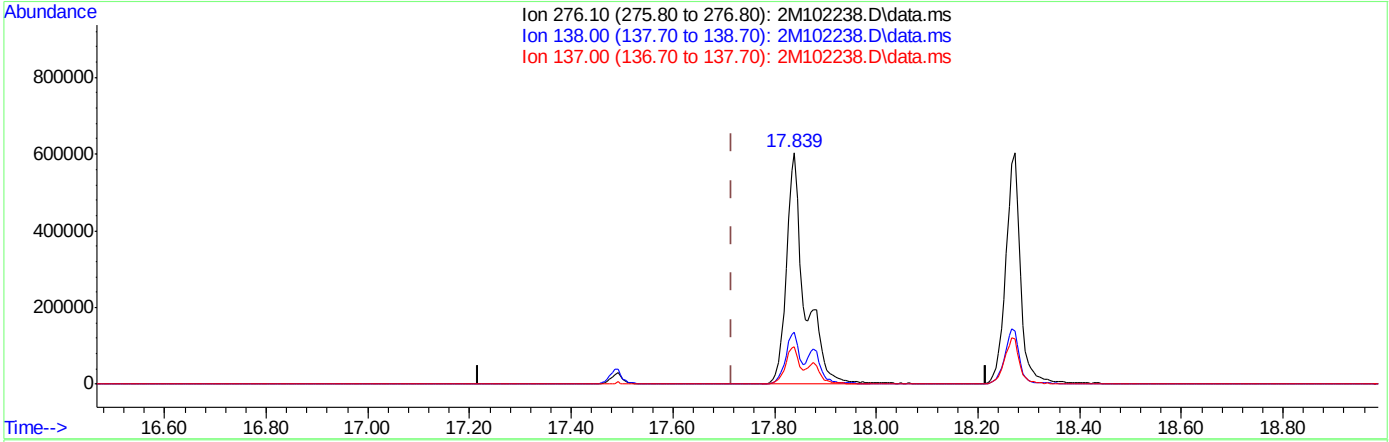
response 1161109

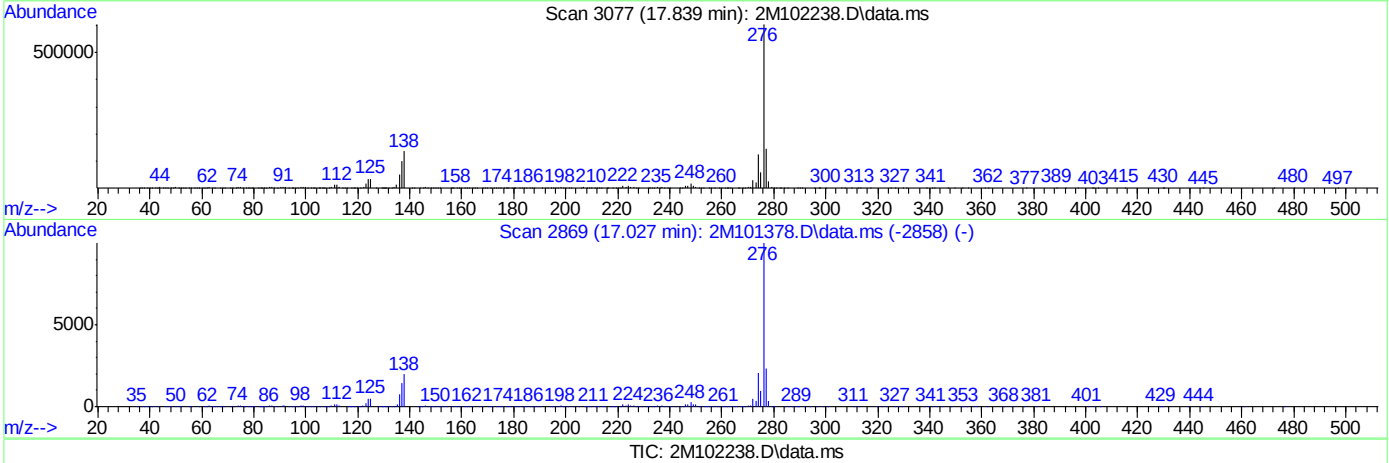
Ion	Exp%	Act%
276.10	100	100
138.00	19.60	19.41
137.00	14.70	14.75
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102238.D
Acq On : 28 Feb 2018 5:59 pm
Operator : seanb1
Sample : icc4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 21:19:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 20:49:05 2018
Response via : Initial Calibration





TIC: 2M102238.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.839min (+0.122) 57.39ppm m

response 1501587

Ion	Exp%	Act%
276.10	100	100
138.00	19.60	22.43
137.00	14.70	16.34
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102239.D
Acq On : 28 Feb 2018 6:25 pm
Operator : seanb1
Sample : ic4551-80
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 21:24:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 21:23:23 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.692	152	247565	40.00	ppm	0.00
24) Naphthalene-d8	5.789	136	984558	40.00	ppm	0.00
47) Acenaphthene-d10	7.859	164	501069	40.00	ppm	0.00
69) Phenanthrene-d10	10.030	188	914373	40.00	ppm	0.00
83) Chrysene-d12	14.202	240	881630	40.00	ppm	0.00
91) Perylene-d12	16.310	264	830235	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.692	152	247565	40.00	ppm	0.00
103) Acenaphthene-d10a	7.859	164	501069	40.00	ppm	0.00
105) Chrysene-d12a	14.202	240	881630	40.00	ppm	0.00
108) Phenanthrene-d10a	10.030	188	914373	40.00	ppm	0.00
112) Naphthalene-d8a	5.789	136	984558	40.00	ppm	0.00
114) Chrysene-d12b	14.202	240	881630	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.703	112	716940	82.27	ppm	0.10
Spiked Amount 50.000			Recovery =	164.54%		
8) Phenol-d5	4.420	99	928283	82.22	ppm	-0.02
Spiked Amount 50.000			Recovery =	164.44%		
25) Nitrobenzene-d5	5.136	82	967712	84.52	ppm	0.00
Spiked Amount 50.000			Recovery =	169.04%		
51) 2-Fluorobiphenyl	6.987	172	1691304	79.13	ppm	0.02
Spiked Amount 50.000			Recovery =	158.26%		
73) 2,4,6-Tribromophenol	8.987	330	235252	77.08	ppm	0.05
Spiked Amount 50.000			Recovery =	154.16%		
85) Terphenyl-d14	12.582	244	1716895	82.50	ppm	0.07
Spiked Amount 50.000			Recovery =	165.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.243	88	266442	83.19	ppm	95
3) Pyridine	2.558	79	803944	85.94	ppm	98
4) N-Nitrosodimethylamine	2.526	74	442500	84.63	ppm	93
6) Indene	4.896	116	1248221	82.19	ppm	97
7) Cumene	4.093	105	1926812	82.96	ppm	100
9) Phenol	4.425	94	1071456	82.53	ppm	85
10) Aniline	4.441	93	1012538	85.13	ppm	88
11) bis(2-Chloroethyl)ether	4.489	93	701642	82.96	ppm	91
12) 2-Chlorophenol	4.532	128	773005	80.70	ppm	89
13) Decane	4.575	43	936747	90.88	ppm	92
14) 1,3-Dichlorobenzene	4.650	146	834294	80.61	ppm	98
15) 1,4-Dichlorobenzene	4.703	146	863998	80.98	ppm	98
16) Benzyl alcohol	4.799	108	493806	82.64	ppm	93
17) 1,2-Dichlorobenzene	4.826	146	796316	80.21	ppm	98
18) Acetophenone	5.008	105	1186800	83.80	ppm #	72
19) 2-Methylphenol	4.885	108	692783	81.35	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.901	45	941571	89.73	ppm	86
21) 3&4-Methylphenol	5.008	108	821513	81.50	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102239.D
Acq On : 28 Feb 2018 6:25 pm
Operator : seanb1
Sample : ic4551-80
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 21:24:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 21:23:23 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.013	70	683169	88.01	ppm	98
23) Hexachloroethane	5.099	201	280661	81.20	ppm	82
26) Nitrobenzene	5.152	77	947109	86.15	ppm	100
27) Quinoline	6.158	129	1441359	81.06	ppm	98
28) Isophorone	5.356	82	1559075	84.30	ppm	97
29) 2-Nitrophenol	5.430	139	450637	81.49	ppm	83
30) 2,4-Dimethylphenol	5.463	107	806898	80.99	ppm	95
31) Benzoic acid	5.580	105	673044	79.98	ppm	98
32) bis(2-Chloroethoxy)met...	5.548	93	830847	84.70	ppm	98
33) 2,4-Dichlorophenol	5.650	162	642887	79.25	ppm	96
34) 2,6-Dichlorophenol	5.869	162	639156	79.68	ppm	98
35) 1,3,5-Trichlorobenzene	5.441	180	704170	78.69	ppm	99
36) 1,2,4-Trichlorobenzene	5.735	180	666582	78.40	ppm	99
37) 1,2,3-Trichlorobenzene	5.955	180	654681	79.51	ppm	99
38) Naphthalene	5.810	128	2233379	79.92	ppm	99
39) 4-Chloroaniline	5.858	127	949636	81.40	ppm	96
40) 2,3-Dichloroaniline	6.875	161	800404	78.81	ppm	98
41) Caprolactam	6.233	55	384145	86.78	ppm	82
42) Hexachlorobutadiene	5.939	225	384356	77.97	ppm	98
43) 4-Chloro-3-methylphenol	6.377	107	730725	82.08	ppm	94
44) 2-Methylnaphthalene	6.543	141	1327691	79.83	ppm	98
45) 1-Methylnaphthalene	6.661	141	1370577	80.67	ppm	99
46) Dimethylnaphthalene	7.308	156	1419781	79.73	ppm	98
48) Hexachlorocyclopentadiene	6.741	237	942242	156.19	ppm	99
49) 2,4,6-Trichlorophenol	6.885	196	479421	78.28	ppm	99
50) 2,4,5-Trichlorophenol	6.928	196	481905	78.09	ppm	97
52) 2-Chloronaphthalene	7.131	162	1416859	80.63	ppm	99
53) Biphenyl	7.110	154	1907059	79.81	ppm	98
54) 2-Nitroaniline	7.265	65	551521	86.09	ppm	98
55) Dimethylphthalate	7.516	163	1661722	81.06	ppm	100
56) Acenaphthylene	7.666	152	2270283	80.07	ppm	99
57) 2,6-Dinitrotoluene	7.586	165	372733	79.13	ppm	99
58) 3-Nitroaniline	7.811	138	426430	80.94	ppm	98
59) Acenaphthene	7.907	153	1524609	79.92	ppm	99
60) 2,4-Dinitrophenol	7.955	184	504199	150.20	ppm	92
61) 4-Nitrophenol	8.062	109	310640	83.79	ppm	97
62) Dibenzofuran	8.148	168	2037676	78.23	ppm	98
63) 2,4-Dinitrotoluene	8.142	165	541278	78.69	ppm	100
64) 2,3,4,6-Tetrachlorophenol	8.329	232	397778	75.01	ppm	98
65) Diethylphthalate	8.522	149	1781952	80.67	ppm	98
66) Fluorene	8.634	166	1662404	77.35	ppm	99
67) 4-Chlorophenyl-phenyle...	8.656	204	748912	78.15	ppm	95
68) 4-Nitroaniline	8.682	138	400006	80.06	ppm	97
70) 4,6-Dinitro-2-methylph...	8.731	198	334190	80.40	ppm	89
71) n-Nitrosodiphenylamine	8.832	169	1204581	81.73	ppm	98
72) 1,2-Diphenylhydrazine	8.886	77	1952413	89.52	ppm	98
74) 4-Bromophenyl-phenylether	9.378	248	429432	78.91	ppm	93
75) Hexachlorobenzene	9.458	284	468745	78.51	ppm	98
76) Pentachlorophenol	9.763	266	680338	149.24	ppm	98
77) Phenanthrene	10.068	178	2334372	81.05	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102239.D
Acq On : 28 Feb 2018 6:25 pm
Operator : seanb1
Sample : ic4551-80
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 21:24:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 21:23:23 2018
Response via : Initial Calibration

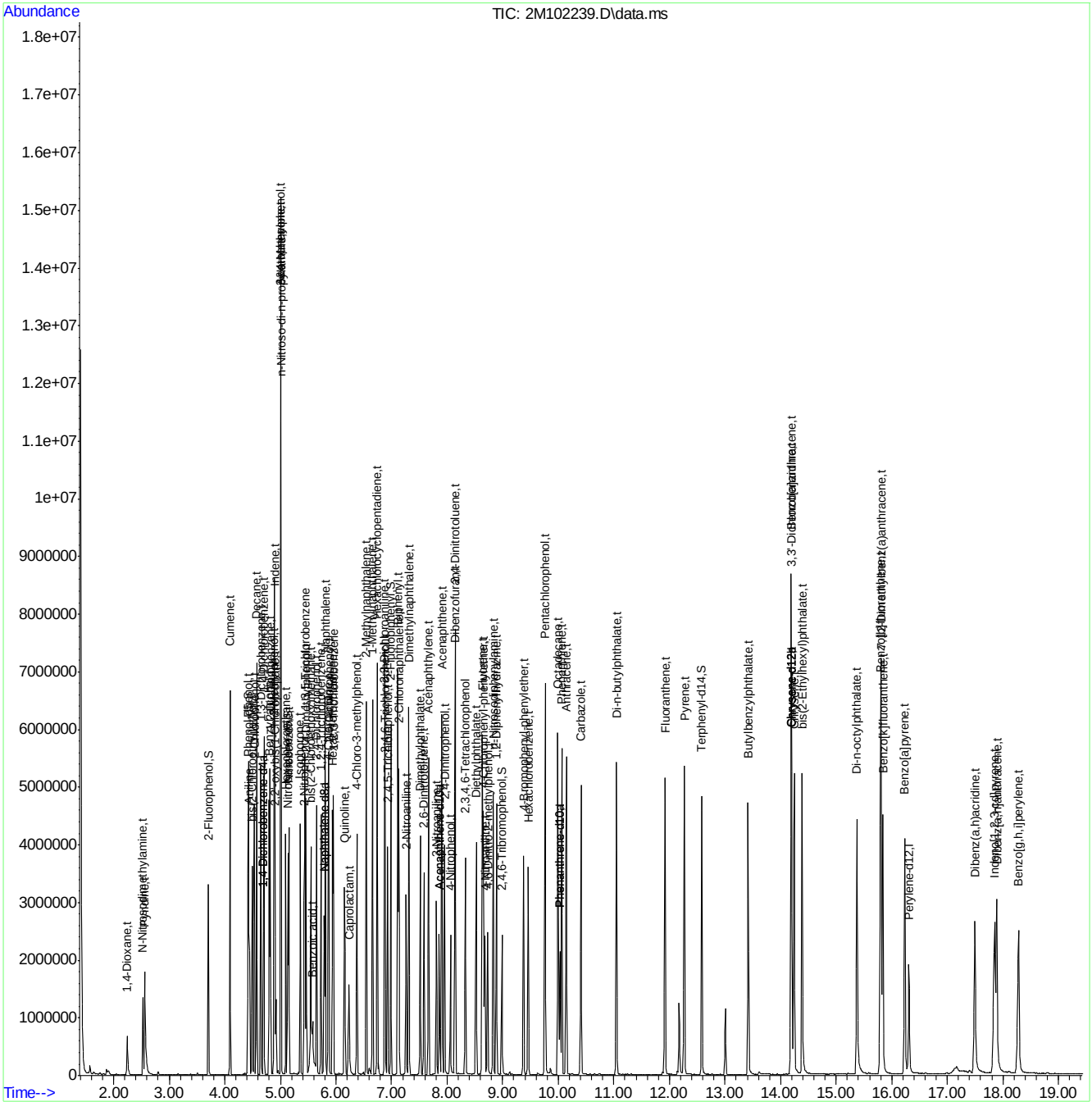
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.143	178	2351334	80.10	ppm	100
79) Carbazole	10.410	167	2273015	82.49	ppm	99
80) Di-n-butylphthalate	11.047	149	3079587	83.43	ppm	100
81) Fluoranthene	11.924	202	2437209	80.17	ppm	100
82) Octadecane	9.993	57	1258810	89.30	ppm	92
84) Pyrene	12.271	202	2561255	84.26	ppm	100
86) Butylbenzylphthalate	13.416	149	1305504	85.22	ppm	97
87) Benzo[a]anthracene	14.192	228	2330946	81.31	ppm	99
88) 3,3'-Dichlorobenzidine	14.197	252	903830	80.14	ppm	96
89) Chrysene	14.245	228	2189446	82.84	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.389	149	1807413	84.06	ppm	100
92) Di-n-octylphthalate	15.374	149	2955290	80.39	ppm	97
93) Benzo[b]fluoranthene	15.796	252	2407093	76.87	ppm	99
94) Benzo[k]fluoranthene	15.844	252	2269821	83.98	ppm	98
95) Benzo[a]pyrene	16.235	252	1996175	78.95	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.850	276	2435183m	95.82	ppm	
97) Dibenz(a,h)acridine	17.497	279	1808075	79.76	ppm	99
98) Dibenz[a,h]anthracene	17.893	278	2062474	78.77	ppm	98
99) 7,12-Dimethylbenz(a)an...	15.807	256	1107626	78.89	ppm	96
100) Benzo[g,h,i]perylene	18.283	276	1968915	81.03	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102239.D
Acq On : 28 Feb 2018 6:25 pm
Operator : seanb1
Sample : ic4551-80
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 21:24:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 21:23:23 2018
Response via : Initial Calibration



M2M4551.M Wed Feb 28 21:25:02 2018 Page: 4

Manual Integration Approval Summary

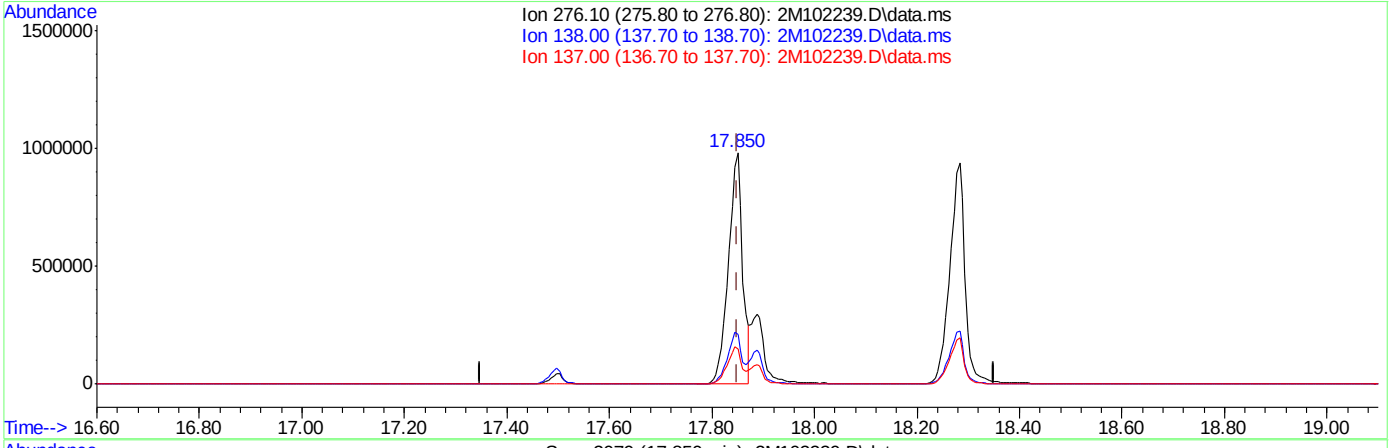
Sample Number:	E2M4551-IC4551	**Method:**	SW846 8270D
Lab FileID:	2M102239.D	**Analyst approved:**	03/01/18 03:02 Christopher Sowa
Injection Time:	02/28/18 18:25	**Supervisor approved:**	03/05/18 18:00 Nina Pandya

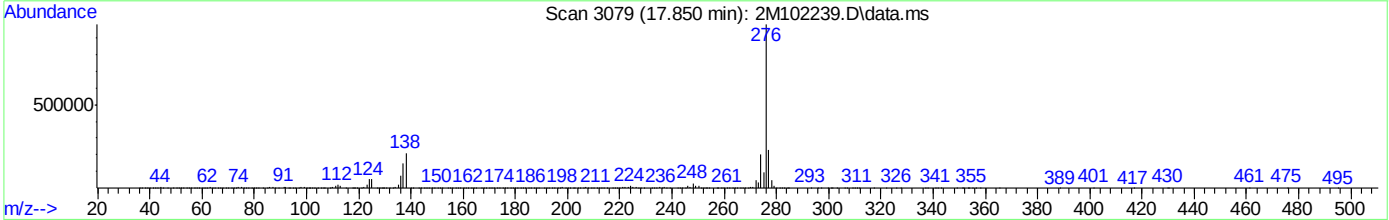
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.85	Split peak

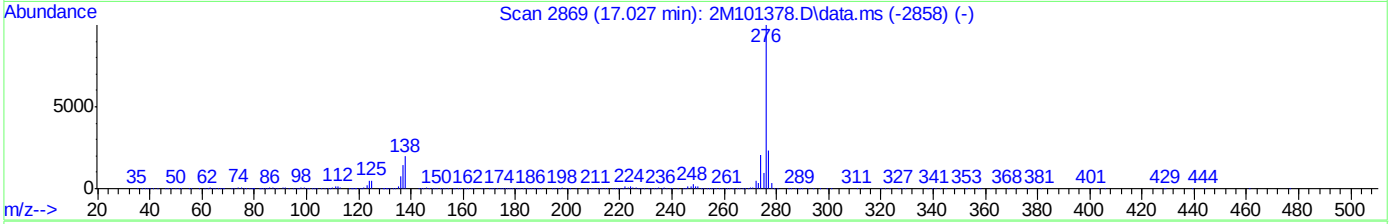
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102239.D
Acq On : 28 Feb 2018 6:25 pm
Operator : seanb1
Sample : ic4551-80
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 21:23:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 21:23:23 2018
Response via : Initial Calibration







TIC: 2M102239.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.850min (0.000) 74.93ppm

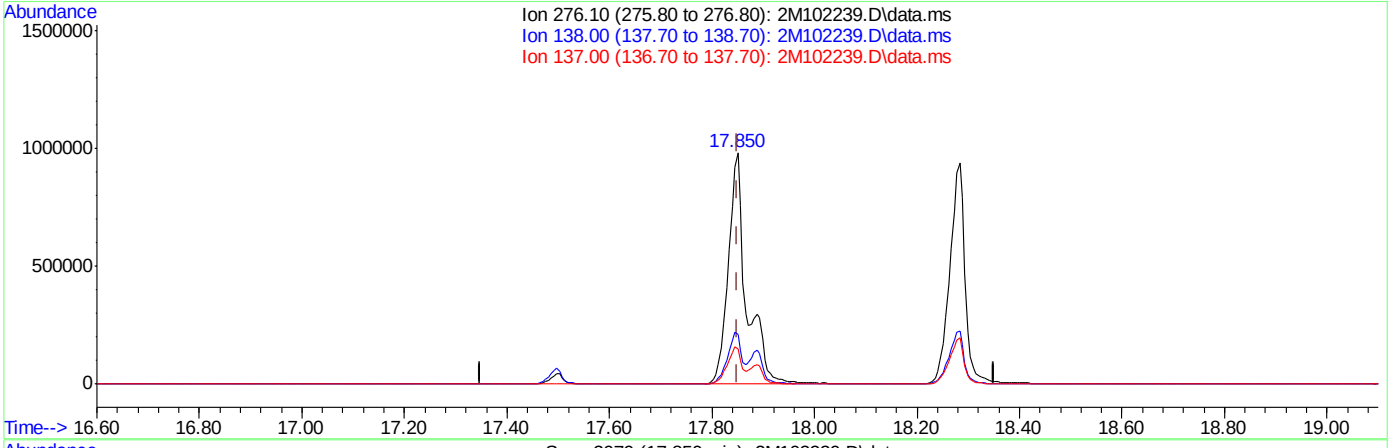
response 1904109

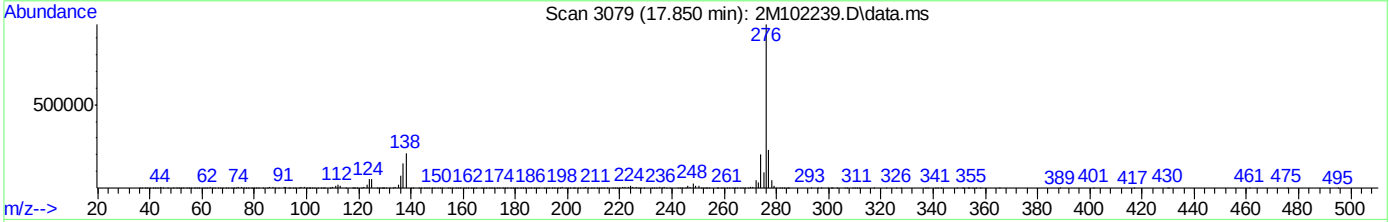
Ion	Exp%	Act%
276.10	100	100
138.00	21.60	19.28
137.00	15.40	14.26
0.00	0.00	0.00

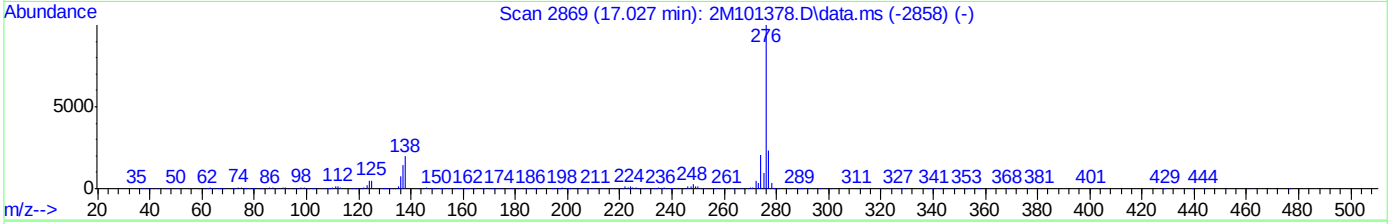
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102239.D
Acq On : 28 Feb 2018 6:25 pm
Operator : seanb1
Sample : ic4551-80
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 21:23:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 21:23:23 2018
Response via : Initial Calibration







TIC: 2M102239.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.850min (0.000) 95.82ppm m

response 2435183

Ion	Exp%	Act%
276.10	100	100
138.00	21.60	21.58
137.00	15.40	15.37
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/05/18 18:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102240.D
Acq On : 28 Feb 2018 6:51 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 00:48:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.692	152	346338	40.00	ppm	0.00
24) Naphthalene-d8	5.789	136	1318999	40.00	ppm	0.00
47) Acenaphthene-d10	7.859	164	633977	40.00	ppm	0.00
69) Phenanthrene-d10	10.025	188	1110564	40.00	ppm	0.00
83) Chrysene-d12	14.202	240	1002044	40.00	ppm	0.00
91) Perylene-d12	16.310	264	987713	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.692	152	346338	40.00	ppm	0.00
103) Acenaphthene-d10a	7.859	164	633977	40.00	ppm	0.00
105) Chrysene-d12a	14.202	240	1002044	40.00	ppm	0.00
108) Phenanthrene-d10a	10.025	188	1110564	40.00	ppm	0.00
112) Naphthalene-d8a	5.789	136	1318999	40.00	ppm	0.00
114) Chrysene-d12b	14.202	240	1002044	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
4) N-Nitrosodimethylamine	2.537	74	296648	38.34	ppm	99
11) bis(2-Chloroethyl)ether	4.489	93	585020	48.33	ppm	95
14) 1,3-Dichlorobenzene	4.650	146	673168	46.27	ppm	99
15) 1,4-Dichlorobenzene	4.703	146	675888	45.09	ppm	97
17) 1,2-Dichlorobenzene	4.826	146	646764	47.06	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.901	45	803518	48.93	ppm	99
22) n-Nitroso-di-n-propyla...	5.008	70	483858	43.13	ppm	93
23) Hexachloroethane	5.099	201	224087	46.78	ppm	96
26) Nitrobenzene	5.147	77	678127	43.64	ppm	99
28) Isophorone	5.350	82	1206056	47.27	ppm	100
32) bis(2-Chloroethoxy)met...	5.548	93	669821	49.95	ppm	99
36) 1,2,4-Trichlorobenzene	5.735	180	530578	47.05	ppm	99
38) Naphthalene	5.810	128	1728627	46.88	ppm	100
42) Hexachlorobutadiene	5.939	225	313991	49.04	ppm	96
48) Hexachlorocyclopentadiene	6.741	237	327969	48.93	ppm	98
52) 2-Chloronaphthalene	7.126	162	1054489	47.43	ppm	99
55) Dimethylphthalate	7.516	163	1210606	46.20	ppm	98
56) Acenaphthylene	7.661	152	1650193	47.61	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102240.D
Acq On : 28 Feb 2018 6:51 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 00:48:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration

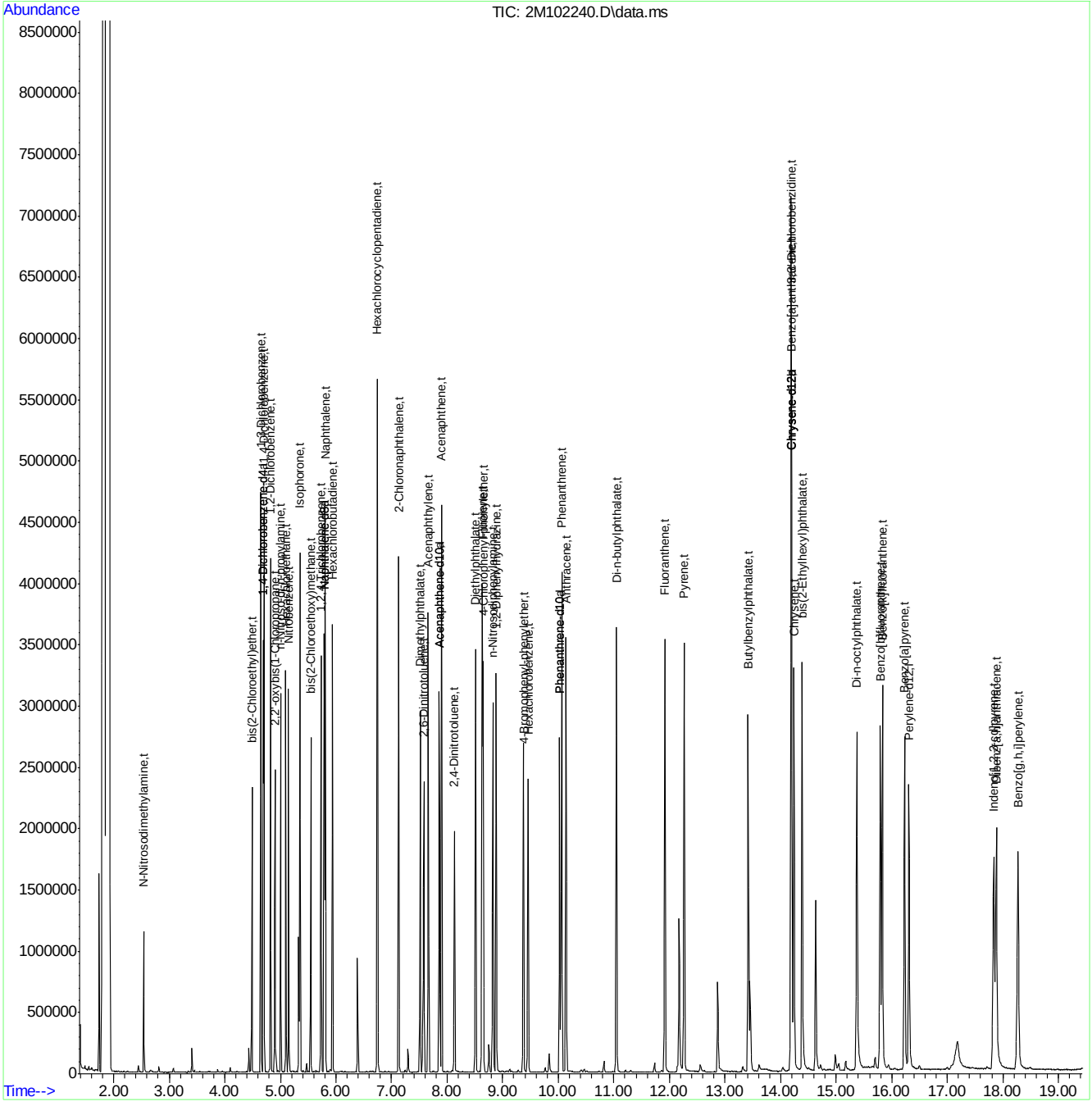
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) 2,6-Dinitrotoluene	7.581	165	256573	47.04	ppm	96
59) Acenaphthene	7.902	153	1108149	47.07	ppm	98
63) 2,4-Dinitrotoluene	8.132	165	327299	41.78	ppm	83
65) Diethylphthalate	8.511	149	1275813	41.64	ppm	99
66) Fluorene	8.634	166	1201469	47.49	ppm	100
67) 4-Chlorophenyl-phenyle...	8.650	204	529975	44.67	ppm	99
71) n-Nitrosodiphenylamine	8.827	169	778803	44.45	ppm	99
72) 1,2-Diphenylhydrazine	8.880	77	1366888	48.84	ppm	98
74) 4-Bromophenyl-phenylether	9.378	248	305239	48.59	ppm	91
75) Hexachlorobenzene	9.458	284	339303	48.39	ppm	97
77) Phenanthrene	10.062	178	1644948	47.75	ppm	99
78) Anthracene	10.143	178	1602748	46.53	ppm	99
80) Di-n-butylphthalate	11.047	149	2029542	44.37	ppm	100
81) Fluoranthene	11.918	202	1597187	46.04	ppm	100
84) Pyrene	12.266	202	1652862	45.64	ppm	98
86) Butylbenzylphthalate	13.416	149	840998	47.51	ppm	99
87) Benzo[a]anthracene	14.186	228	1548789	47.69	ppm	100
88) 3,3'-Dichlorobenzidine	14.197	252	844196	73.05	ppm	98
89) Chrysene	14.245	228	1424091	45.53	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.389	149	1146722	46.88	ppm	98
92) Di-n-octylphthalate	15.374	149	1975412	55.19	ppm	98
93) Benzo[b]fluoranthene	15.791	252	1452935	46.42	ppm	98
94) Benzo[k]fluoranthene	15.834	252	1534289	47.80	ppm	99
95) Benzo[a]pyrene	16.235	252	1362574	51.45	ppm	97
96) Indeno[1,2,3-cd]pyrene	17.839	276	1608990m	51.14	ppm	
98) Dibenz[a,h]anthracene	17.882	278	1339910	52.36	ppm	99
100) Benzo[g,h,i]perylene	18.273	276	1362664	53.51	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102240.D
Acq On : 28 Feb 2018 6:51 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 00:48:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration



Manual Integration Approval Summary

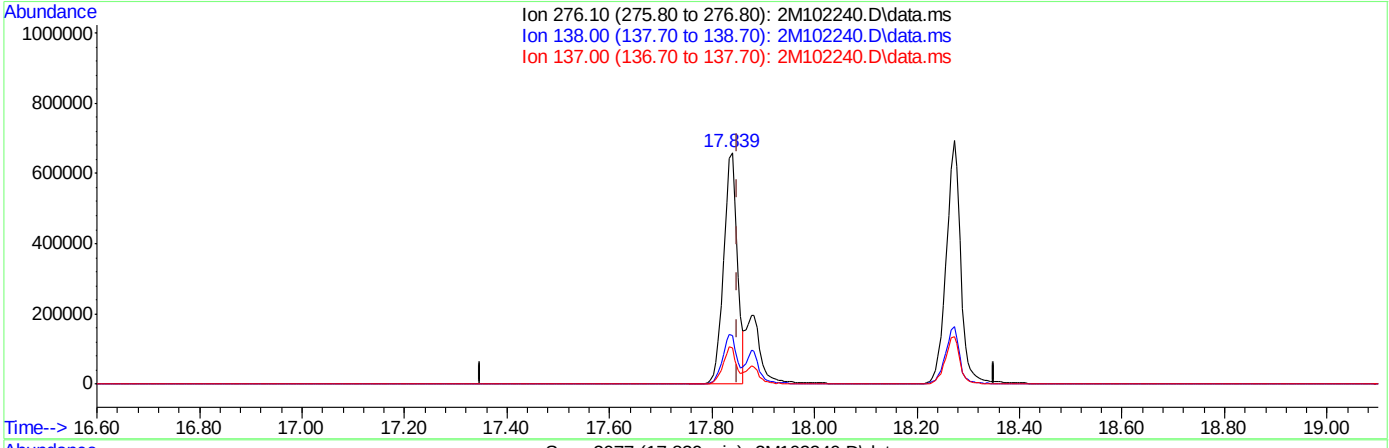
Sample Number:	E2M4551-ICV4551	**Method:**	SW846 8270D
Lab FileID:	2M102240.D	**Analyst approved:**	03/01/18 03:02 Christopher Sowa
Injection Time:	02/28/18 18:51	**Supervisor approved:**	03/05/18 18:00 Nina Pandya

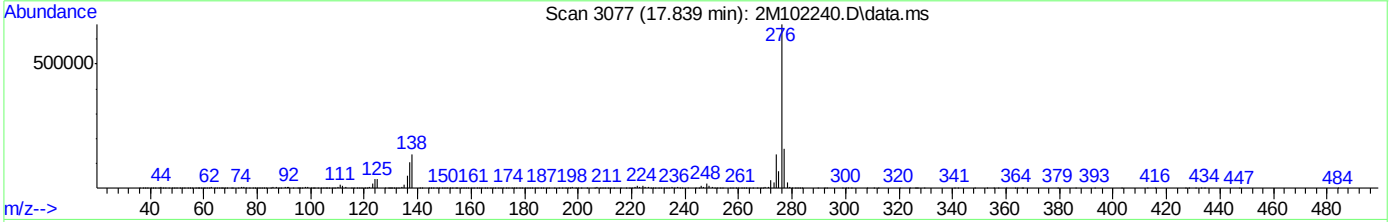
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.84	Split peak

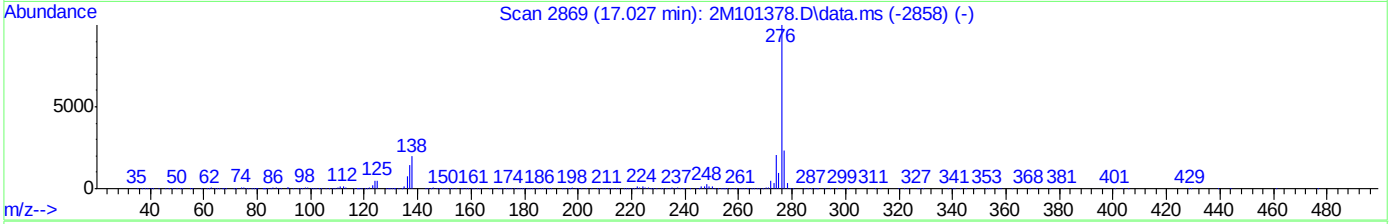
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102240.D
Acq On : 28 Feb 2018 6:51 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 00:46:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration







TIC: 2M102240.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.839min (-0.011) 38.73ppm

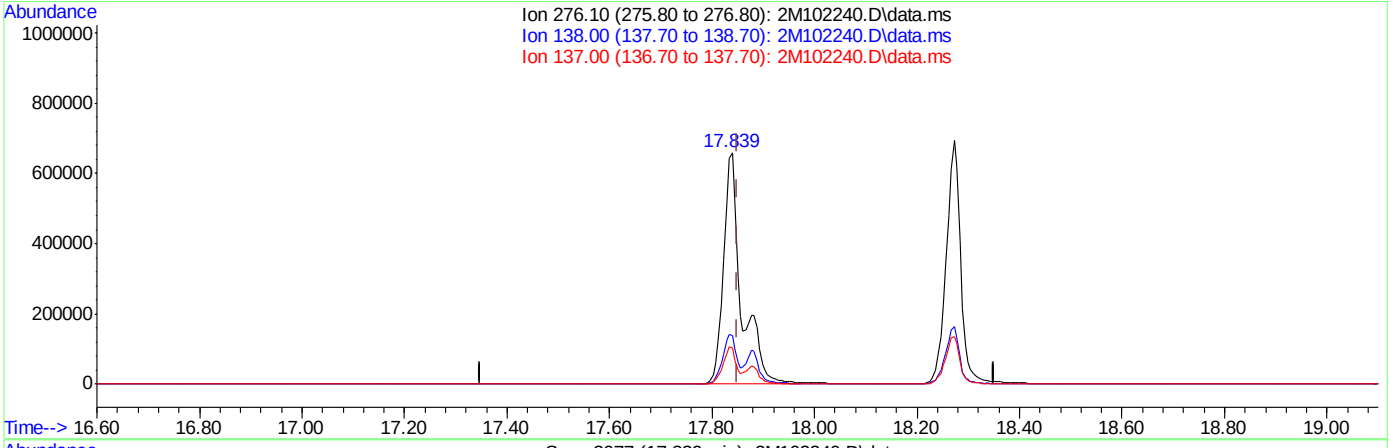
response 1218466

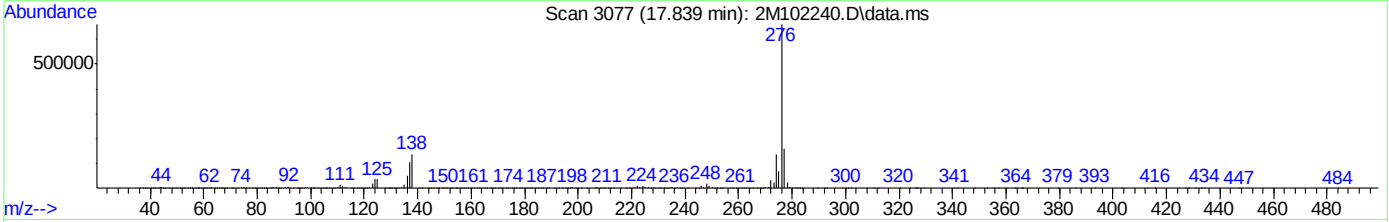
Ion	Exp%	Act%
276.10	100	100
138.00	22.40	19.25
137.00	16.30	15.08
0.00	0.00	0.00

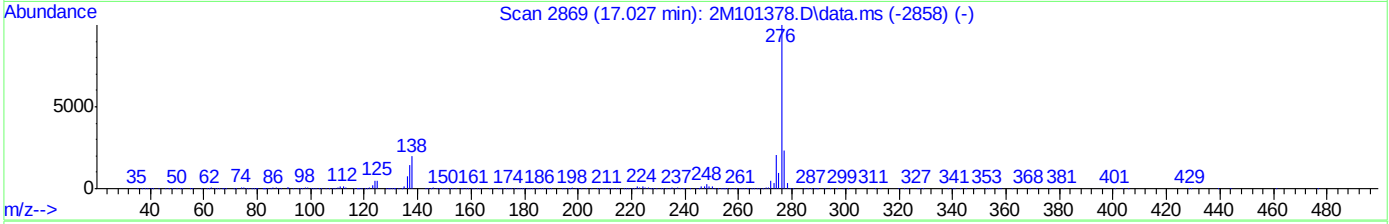
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102240.D
Acq On : 28 Feb 2018 6:51 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 00:46:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration







TIC: 2M102240.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.839min (-0.011) 51.14ppm m

response 1608990

Ion	Exp%	Act%
276.10	100	100
138.00	22.40	20.84
137.00	16.30	15.81
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102241.D
Acq On : 28 Feb 2018 7:17 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 01 00:54:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration

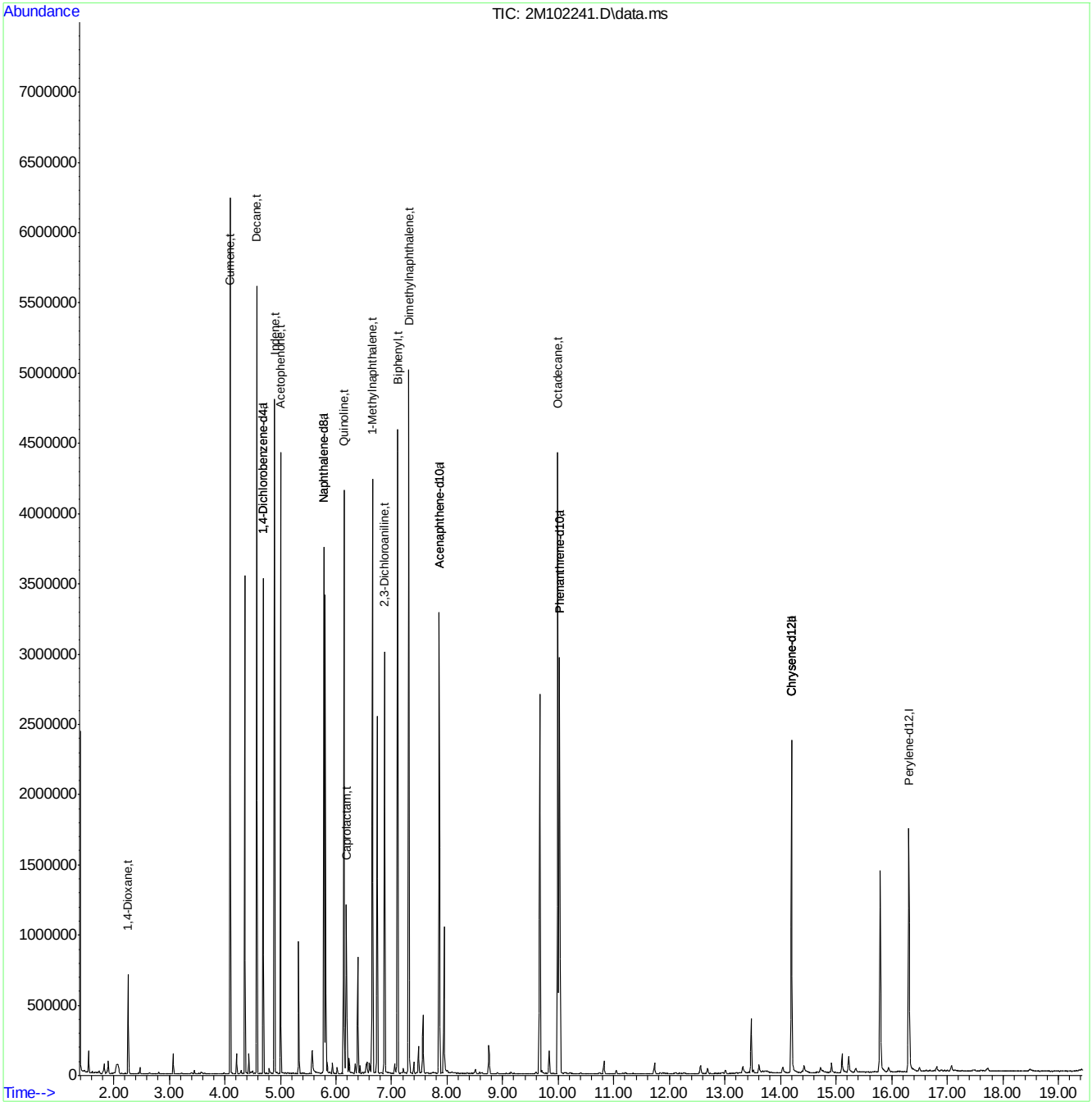
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.692	152	351179	40.00	ppm	0.00
24) Naphthalene-d8	5.783	136	1370728	40.00	ppm	0.00
47) Acenaphthene-d10	7.859	164	739650	40.00	ppm	0.00
69) Phenanthrene-d10	10.025	188	1135953	40.00	ppm	0.00
83) Chrysene-d12	14.197	240	971785	40.00	ppm	-0.01
91) Perylene-d12	16.309	264	801783	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.692	152	351179	40.00	ppm	0.00
103) Acenaphthene-d10a	7.859	164	739650	40.00	ppm	0.00
105) Chrysene-d12a	14.197	240	971785	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.025	188	1135953	40.00	ppm	0.00
112) Naphthalene-d8a	5.783	136	1370728	40.00	ppm	0.00
114) Chrysene-d12b	14.197	240	971785	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.259	88	205678	42.74	ppm	95
6) Indene	4.896	116	1057605	50.79	ppm	99
7) Cumene	4.099	105	1509041	45.44	ppm	97
13) Decane	4.575	43	683670	41.78	ppm	97
18) Acetophenone	5.002	105	862214	43.85	ppm	82
27) Quinoline	6.142	129	1136173	46.45	ppm	99
40) 2,3-Dichloroaniline	6.874	161	535460	40.07	ppm	99
41) Caprolactam	6.190	55	260147	40.23	ppm	95
45) 1-Methylnaphthalene	6.661	141	960589	41.92	ppm	99
46) Dimethylnaphthalene	7.308	156	1059577	45.17	ppm	99
53) Biphenyl	7.110	154	1452171	42.31	ppm	99
82) Octadecane	9.993	57	861017	49.79	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102241.D
Acq On : 28 Feb 2018 7:17 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 01 00:54:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration



M2M4551.M Thu Mar 01 00:54:27 2018 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102242.D
Acq On : 28 Feb 2018 7:43 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 05 13:18:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon Mar 05 13:16:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.692	152	342635	40.00	ppm	0.00
24) Naphthalene-d8	5.789	136	1308680	40.00	ppm	0.00
47) Acenaphthene-d10	7.859	164	639150	40.00	ppm	0.00
69) Phenanthrene-d10	10.025	188	1129273	40.00	ppm	0.00
83) Chrysene-d12	14.197	240	910730	40.00	ppm	-0.01
91) Perylene-d12	16.304	264	922725	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.692	152	342635	40.00	ppm	0.00
103) Acenaphthene-d10a	7.859	164	639150	40.00	ppm	0.00
105) Chrysene-d12a	14.197	240	910730	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.025	188	1129273	40.00	ppm	0.00
112) Naphthalene-d8a	5.789	136	1308680	40.00	ppm	0.00
114) Chrysene-d12b	14.197	240	910730	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
9) Phenol	4.425	94	708241	39.87	ppm	97
12) 2-Chlorophenol	4.532	128	581488	44.36	ppm	95
19) 2-Methylphenol	4.885	108	490998	43.78	ppm	99
21) 3&4-Methylphenol	5.002	108	533681	42.08	ppm	100
29) 2-Nitrophenol	5.425	139	308056	44.49	ppm	88
30) 2,4-Dimethylphenol	5.462	107	555214	45.91	ppm	95
31) Benzoic acid	5.564	105	424915	43.76	ppm	97
33) 2,4-Dichlorophenol	5.644	162	456635	45.10	ppm	98
34) 2,6-Dichlorophenol	5.869	162	454091	44.31	ppm	98
43) 4-Chloro-3-methylphenol	6.366	107	499944	43.28	ppm	94
49) 2,4,6-Trichlorophenol	6.880	196	318836	43.88	ppm	99
50) 2,4,5-Trichlorophenol	6.917	196	337134	45.51	ppm	99
60) 2,4-Dinitrophenol	7.944	184	138537	40.00	ppm	95
61) 4-Nitrophenol	8.051	109	181721	41.75	ppm	99
64) 2,3,4,6-Tetrachlorophenol	8.324	232	264175	43.45	ppm	97
70) 4,6-Dinitro-2-methylph...	8.714	198	202582	46.74	ppm	97
76) Pentachlorophenol	9.757	266	244332	53.26	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102242.D
Acq On : 28 Feb 2018 7:43 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 05 13:18:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon Mar 05 13:16:59 2018
Response via : Initial Calibration

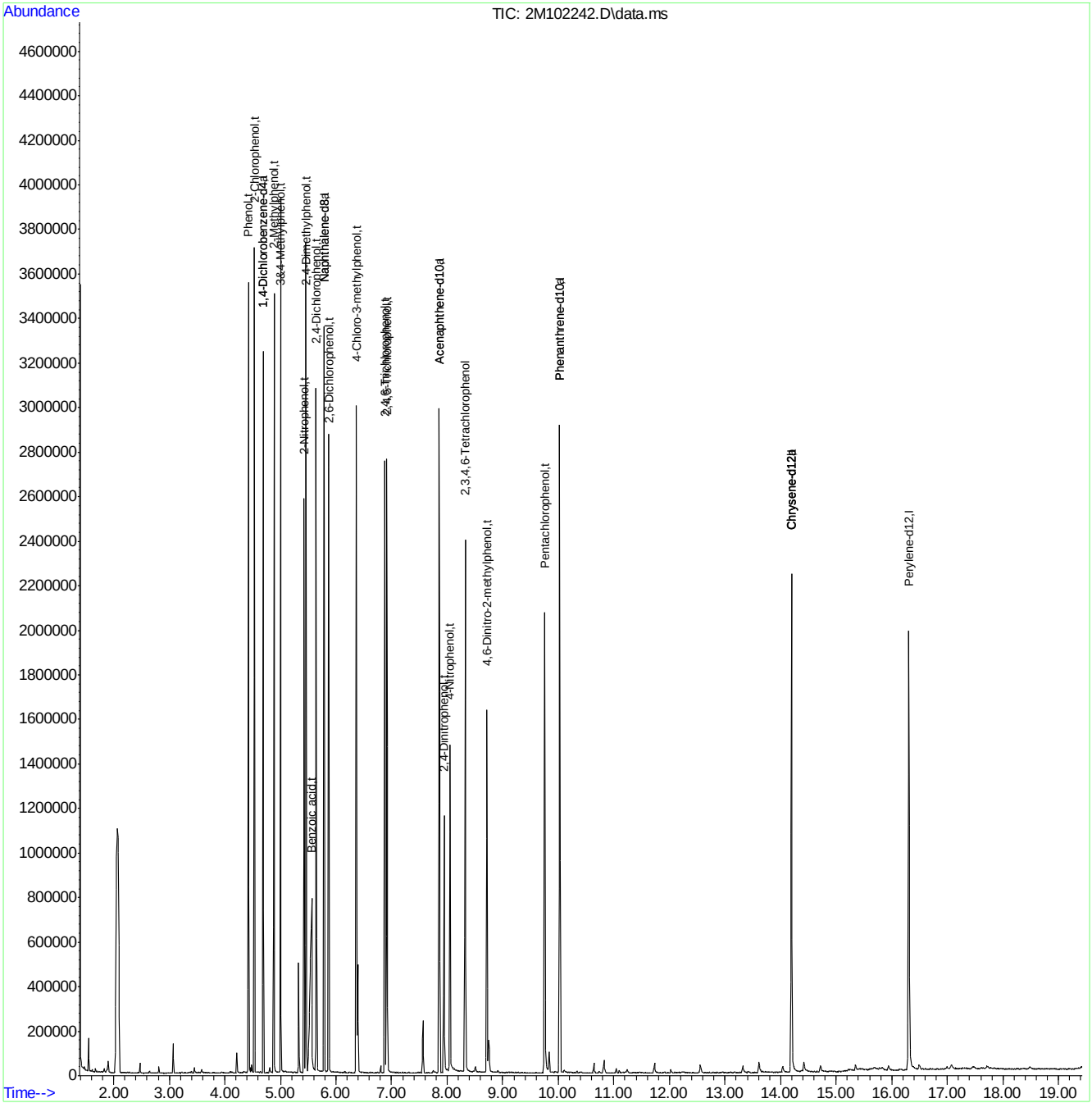
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102242.D
Acq On : 28 Feb 2018 7:43 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 05 13:18:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon Mar 05 13:16:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102244.D
Acq On : 28 Feb 2018 8:34 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 01 01:08:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration

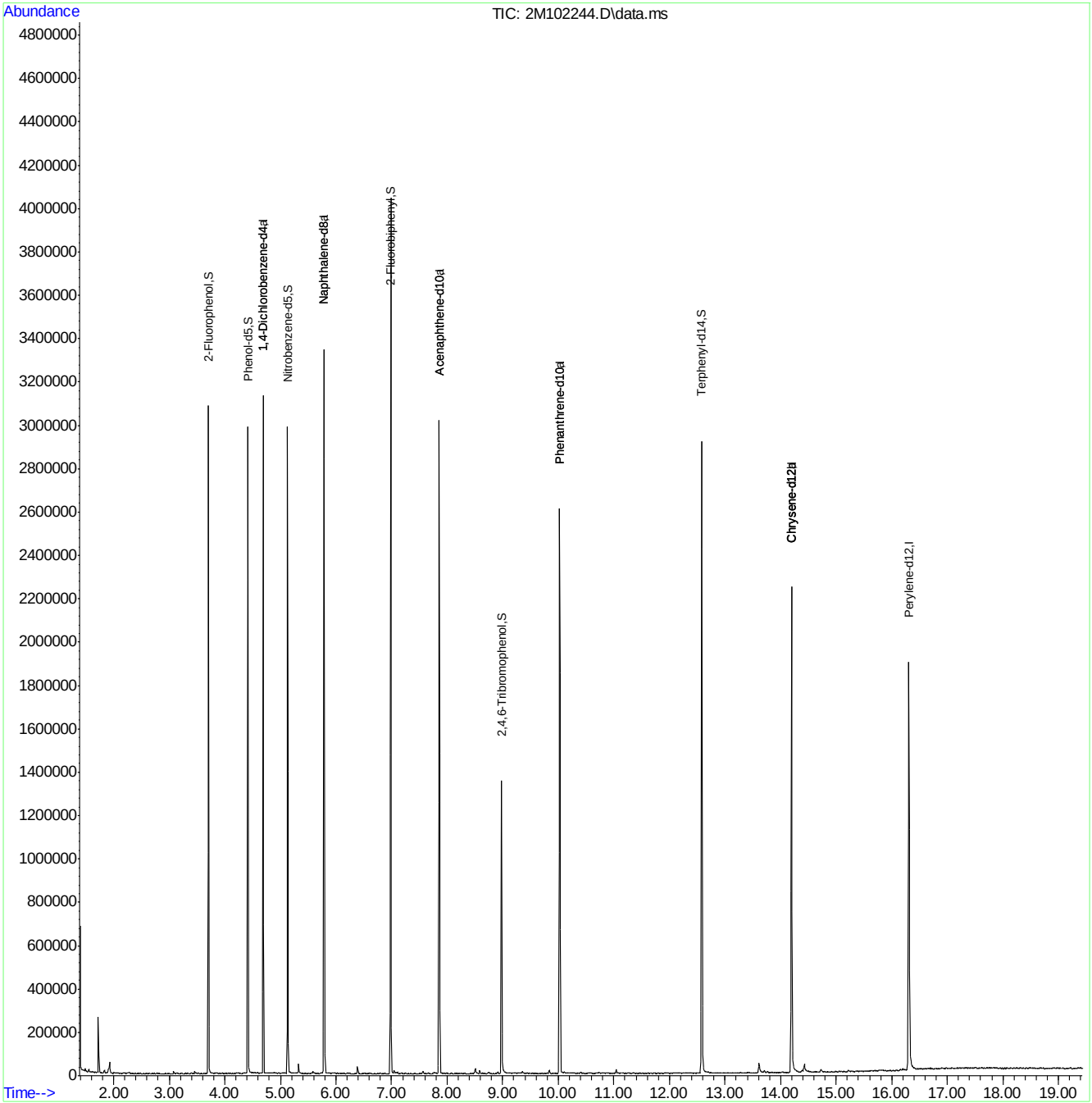
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.692	152	327152	40.00	ppm	0.00
24) Naphthalene-d8	5.783	136	1242116	40.00	ppm	0.00
47) Acenaphthene-d10	7.859	164	685828	40.00	ppm	0.00
69) Phenanthrene-d10	10.025	188	1064755	40.00	ppm	0.00
83) Chrysene-d12	14.197	240	917505	40.00	ppm	-0.01
91) Perylene-d12	16.310	264	860408	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.692	152	327152	40.00	ppm	0.00
103) Acenaphthene-d10a	7.859	164	685828	40.00	ppm	0.00
105) Chrysene-d12a	14.197	240	917505	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.025	188	1064755	40.00	ppm	0.00
112) Naphthalene-d8a	5.783	136	1242116	40.00	ppm	0.00
114) Chrysene-d12b	14.197	240	917505	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.703	112	514861	44.87	ppm	0.00
Spiked Amount 50.000			Recovery =	89.74%		
8) Phenol-d5	4.414	99	646467	44.38	ppm	0.00
Spiked Amount 50.000			Recovery =	88.76%		
25) Nitrobenzene-d5	5.131	82	667071	44.89	ppm	0.00
Spiked Amount 50.000			Recovery =	89.78%		
51) 2-Fluorobiphenyl	6.987	172	1184545	41.12	ppm	0.00
Spiked Amount 50.000			Recovery =	82.24%		
73) 2,4,6-Tribromophenol	8.982	330	149926	47.37	ppm	0.00
Spiked Amount 50.000			Recovery =	94.74%		
85) Terphenyl-d14	12.582	244	1119865	51.21	ppm	0.00
Spiked Amount 50.000			Recovery =	102.42%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4551\
Data File : 2M102244.D
Acq On : 28 Feb 2018 8:34 pm
Operator : seanb1
Sample : icv4551-50
Misc : op8718,e2m4551,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 01 01:08:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4552\
Data File : 2M102247.D
Acq On : 1 Mar 2018 1:06 am
Operator : chriss2
Sample : icv4551-50
Misc : op8718,e2m4552,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 01:41:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration

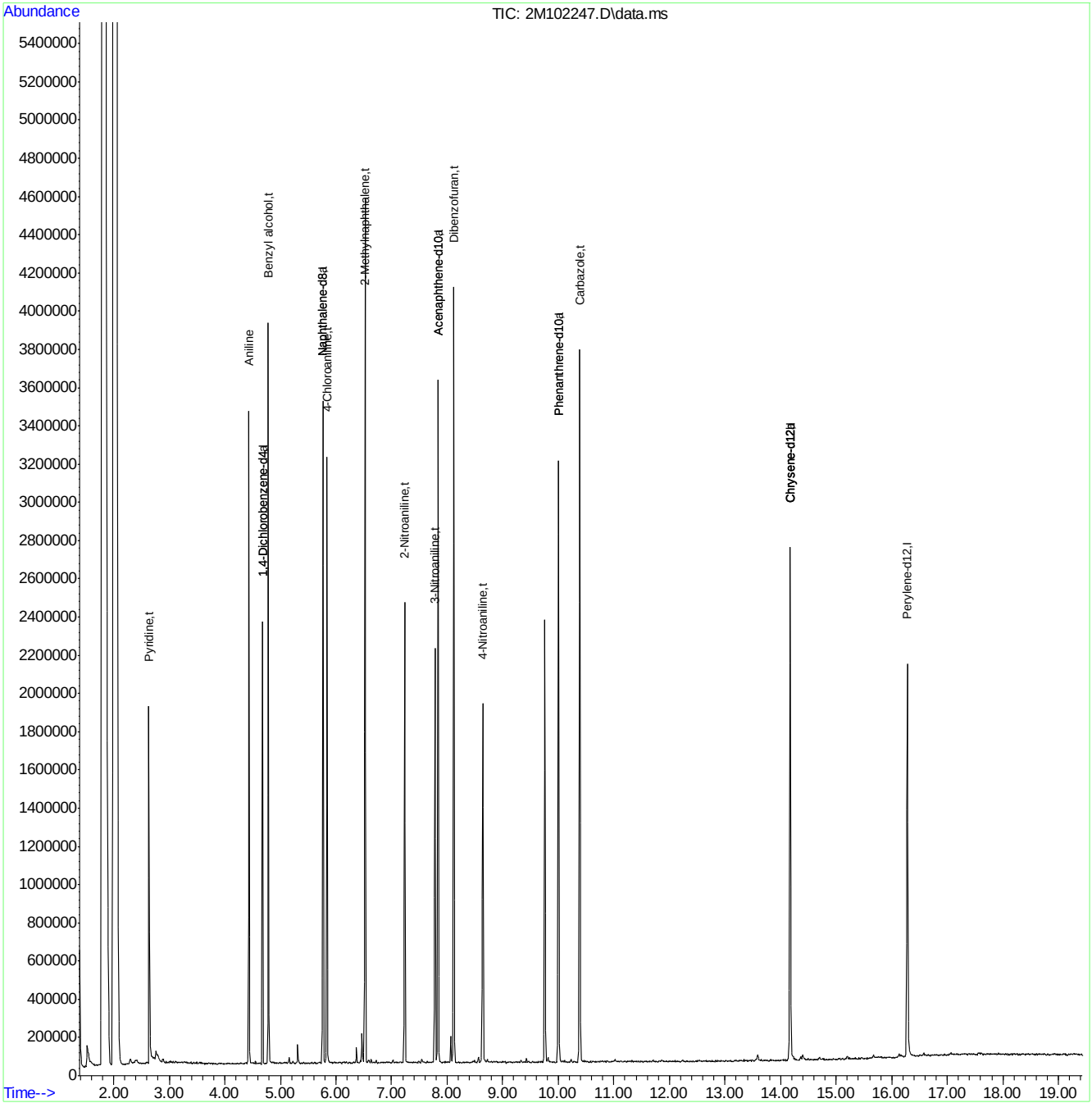
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.682	152	328539	40.00	ppm	-0.01
24) Naphthalene-d8	5.767	136	1306664	40.00	ppm	-0.02
47) Acenaphthene-d10	7.837	164	776572	40.00	ppm	-0.02
69) Phenanthrene-d10	10.004	188	1261009	40.00	ppm	-0.03
83) Chrysene-d12	14.170	240	1113340	40.00	ppm	-0.04
91) Perylene-d12	16.283	264	963923	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.682	152	328539	40.00	ppm	-0.01
103) Acenaphthene-d10a	7.837	164	776572	40.00	ppm	-0.02
105) Chrysene-d12a	14.170	240	1113340	40.00	ppm	-0.04
108) Phenanthrene-d10a	10.004	188	1261009	40.00	ppm	-0.03
112) Naphthalene-d8a	5.767	136	1306664	40.00	ppm	-0.02
114) Chrysene-d12b	14.170	240	1113340	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
3) Pyridine	2.633	79	600882	47.67	ppm	96
10) Aniline	4.436	93	936484	53.75	ppm	96
16) Benzyl alcohol	4.783	108	386826	51.28	ppm	97
39) 4-Chloroaniline	5.837	127	706423	46.65	ppm	99
44) 2-Methylnaphthalene	6.527	141	1029215	48.87	ppm	96
54) 2-Nitroaniline	7.238	65	386359	38.61	ppm	97
58) 3-Nitroaniline	7.784	138	302370	40.62	ppm	94
62) Dibenzofuran	8.121	168	1562262	40.15	ppm	97
68) 4-Nitroaniline	8.645	138	307936	43.47	ppm	97
79) Carbazole	10.383	167	1685938	46.03	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4552\
Data File : 2M102247.D
Acq On : 1 Mar 2018 1:06 am
Operator : chriss2
Sample : icv4551-50
Misc : op8718,e2m4552,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 01:41:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Feb 28 22:00:45 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102391.D
Acq On : 6 Mar 2018 12:07 am
Operator : chriss2
Sample : ic4555-1
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 07 09:28:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration

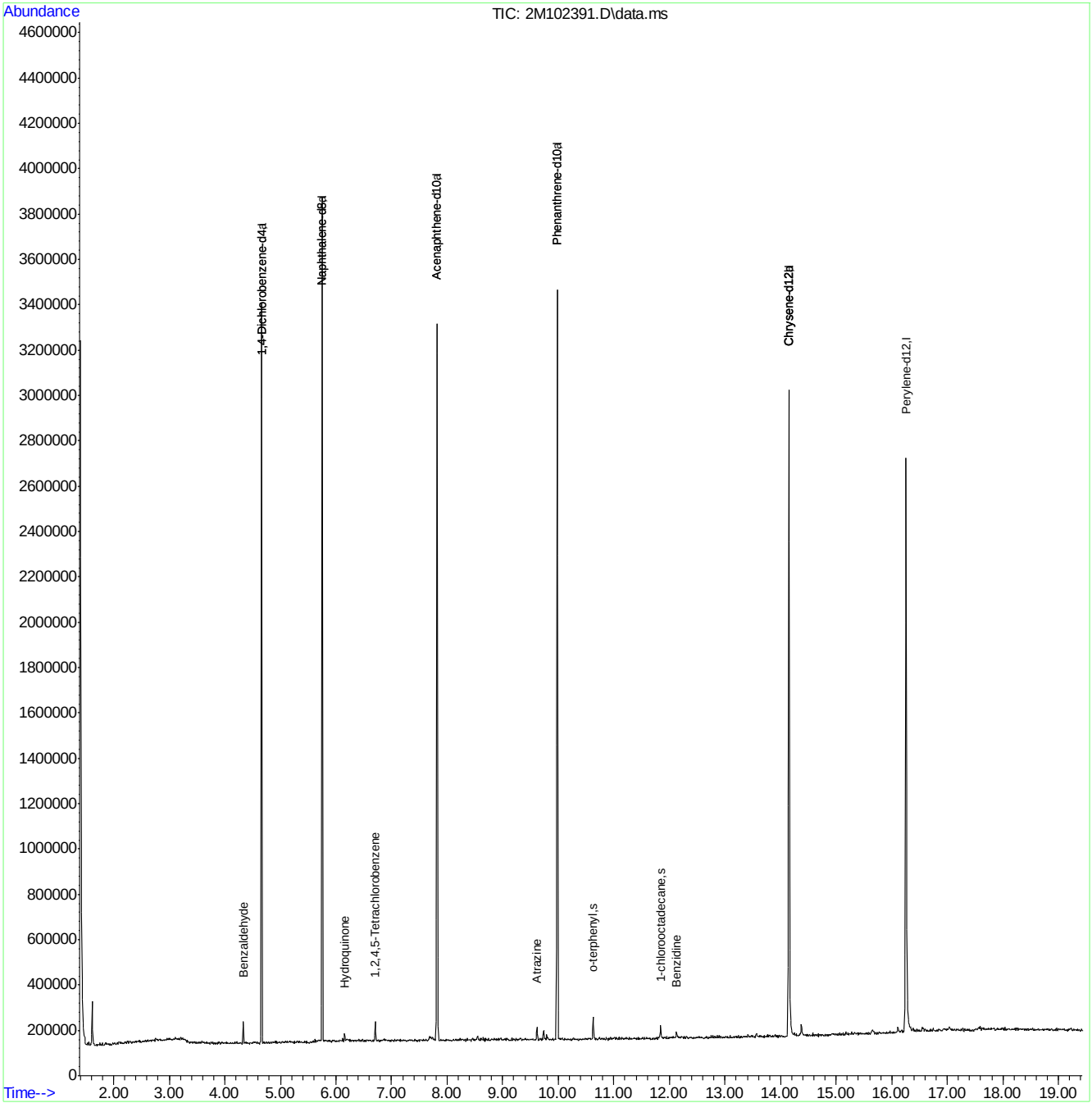
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.666	152	370008	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	1442774	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	715158	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1310977	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1152765	40.00	ppm	-0.06
91) Perylene-d12	16.256	264	1166574	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.666	152	370008	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	715158	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1152765	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1310977	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	1442774	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1152765	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.838	57	9453	0.81	ppm	0.00
Spiked Amount 50.000			Recovery =	1.62%		
110) o-terphenyl	10.629	230	19231	1.02	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.334	105	12695	1.20	ppm	94
104) 1,2,4,5-Tetrachloroben...	6.709	216	11767	1.10	ppm	94
106) Benzidine	12.127	184	14187	0.58	ppm	95
109) Atrazine	9.618	215	3257	0.91	ppm #	86
113) Hydroquinone	6.152	110	10310	0.78	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102391.D
Acq On : 6 Mar 2018 12:07 am
Operator : chriss2
Sample : ic4555-1
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 07 09:28:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102392.D
Acq On : 6 Mar 2018 12:32 am
Operator : chriss2
Sample : ic4555-2
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 07 09:29:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration

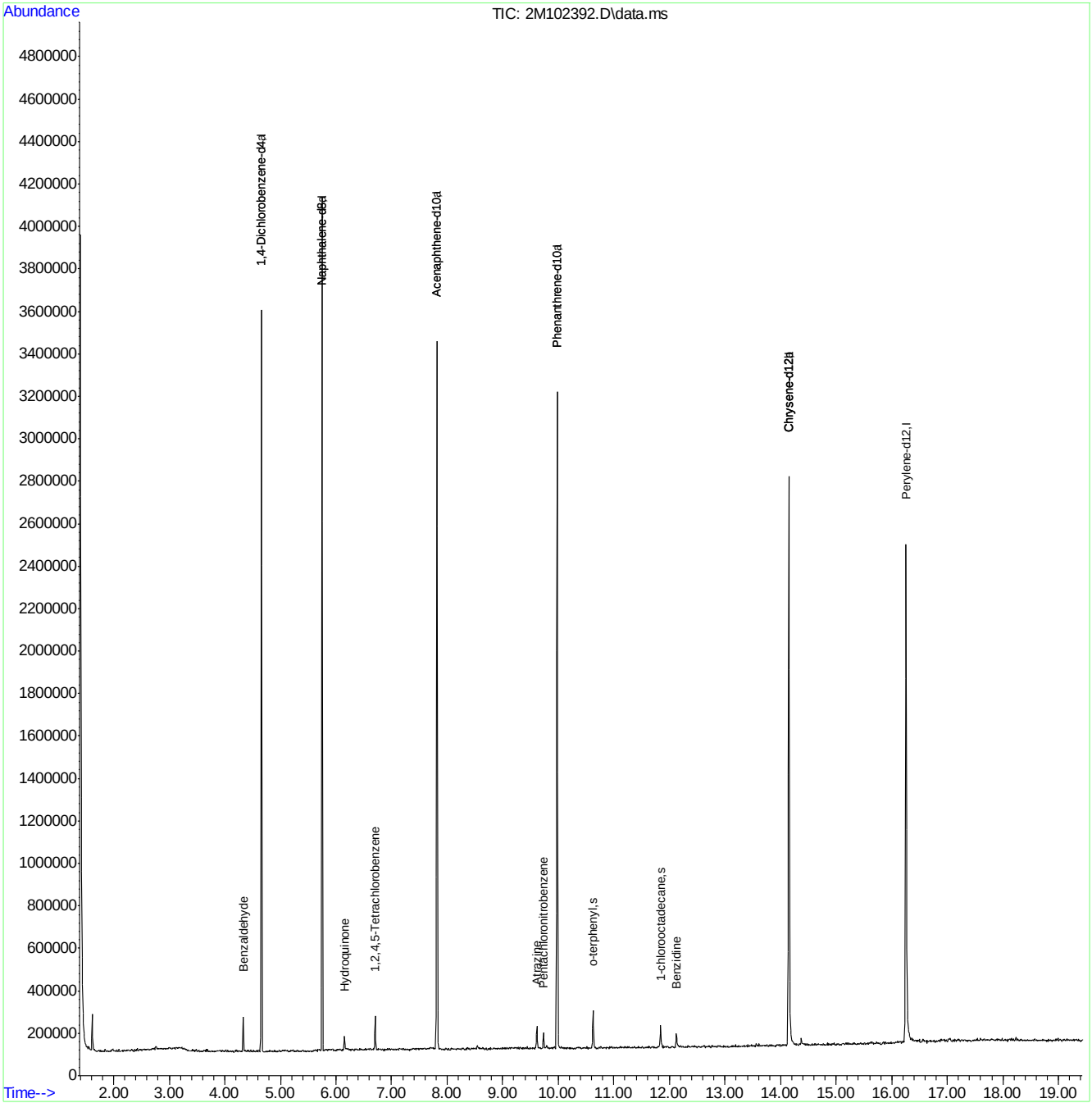
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.660	152	360978	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	1393670	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	687225	40.00	ppm	-0.04
69) Phenanthrene-d10	9.977	188	1255854	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1097976	40.00	ppm	-0.06
91) Perylene-d12	16.256	264	1107690	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.660	152	360978	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	687225	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1097976	40.00	ppm	0.00
108) Phenanthrene-d10a	9.977	188	1255854	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	1393670	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1097976	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.838	57	17627	1.59	ppm	0.00
Spiked Amount 50.000			Recovery =	3.18%		
110) o-terphenyl	10.629	230	37784	2.09	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.334	105	23189	2.25	ppm	97
104) 1,2,4,5-Tetrachloroben...	6.703	216	23055	2.25	ppm	97
106) Benzidine	12.127	184	30845	1.31	ppm	97
109) Atrazine	9.618	215	6334	1.85	ppm	82
111) Pentachloronitrobenzene	9.736	295	1737	1.53	ppm	98
113) Hydroquinone	6.152	110	23171	1.81	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102392.D
Acq On : 6 Mar 2018 12:32 am
Operator : chriss2
Sample : ic4555-2
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 07 09:29:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102393.D
Acq On : 6 Mar 2018 12:58 am
Operator : chriss2
Sample : ic4555-5
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 07 09:29:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration

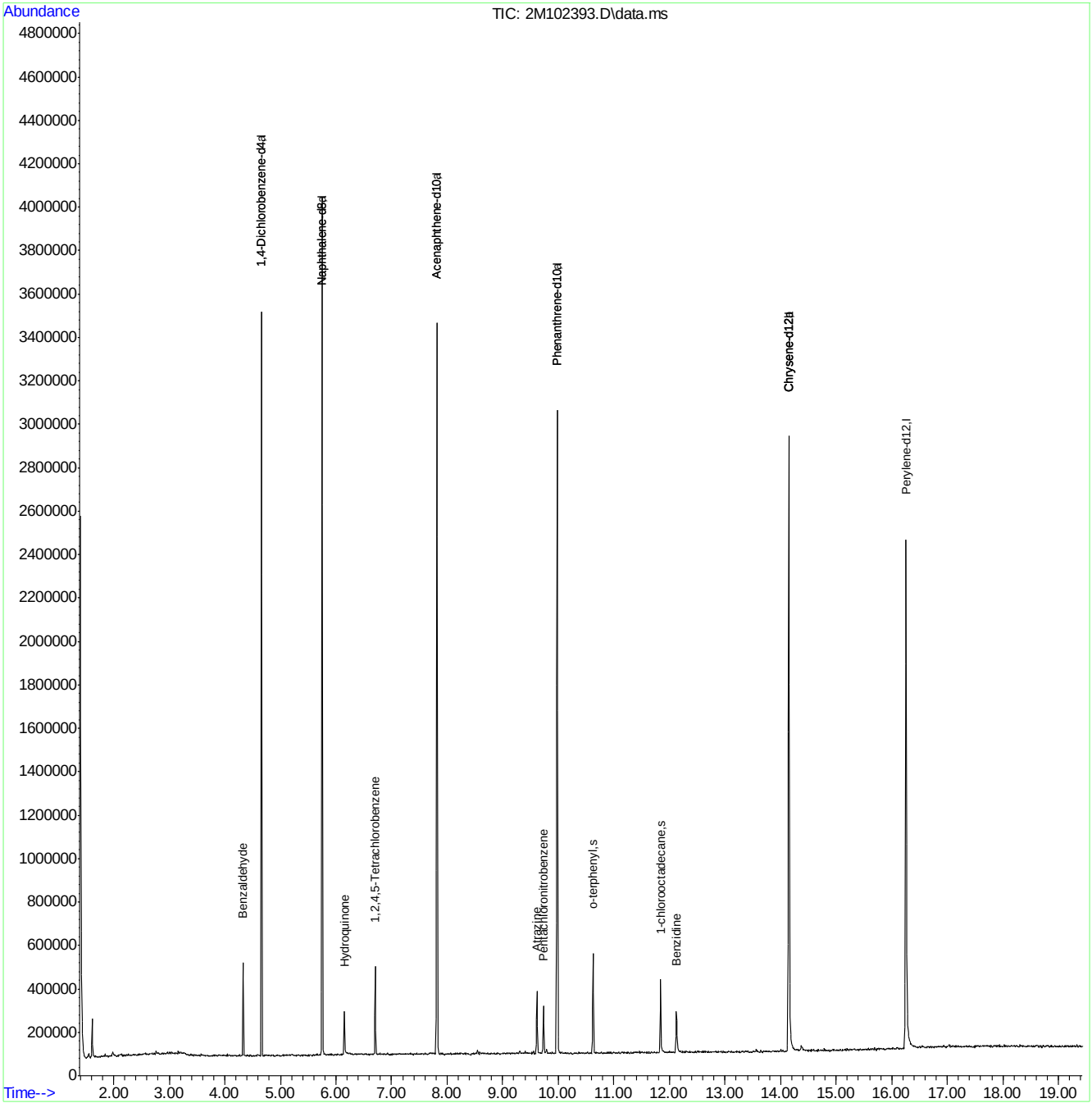
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.660	152	348622	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	1375657	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	685431	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1255719	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1099129	40.00	ppm	-0.06
91) Perylene-d12	16.256	264	1090252	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.660	152	348622	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	685431	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1099129	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1255719	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	1375657	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1099129	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.838	57	51401	4.64	ppm	0.00
Spiked Amount 50.000			Recovery =	9.28%		
110) o-terphenyl	10.629	230	96239	5.33	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.329	105	57945	5.81	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.703	216	58756	5.74	ppm	98
106) Benzidine	12.127	184	94167	4.01	ppm	97
109) Atrazine	9.618	215	16301	4.76	ppm	93
111) Pentachloronitrobenzene	9.736	295	5322	4.69	ppm	98
113) Hydroquinone	6.152	110	63860	5.05	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102393.D
Acq On : 6 Mar 2018 12:58 am
Operator : chriss2
Sample : ic4555-5
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 07 09:29:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102394.D
Acq On : 6 Mar 2018 1:23 am
Operator : chriss2
Sample : ic4555-10
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 07 09:30:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration

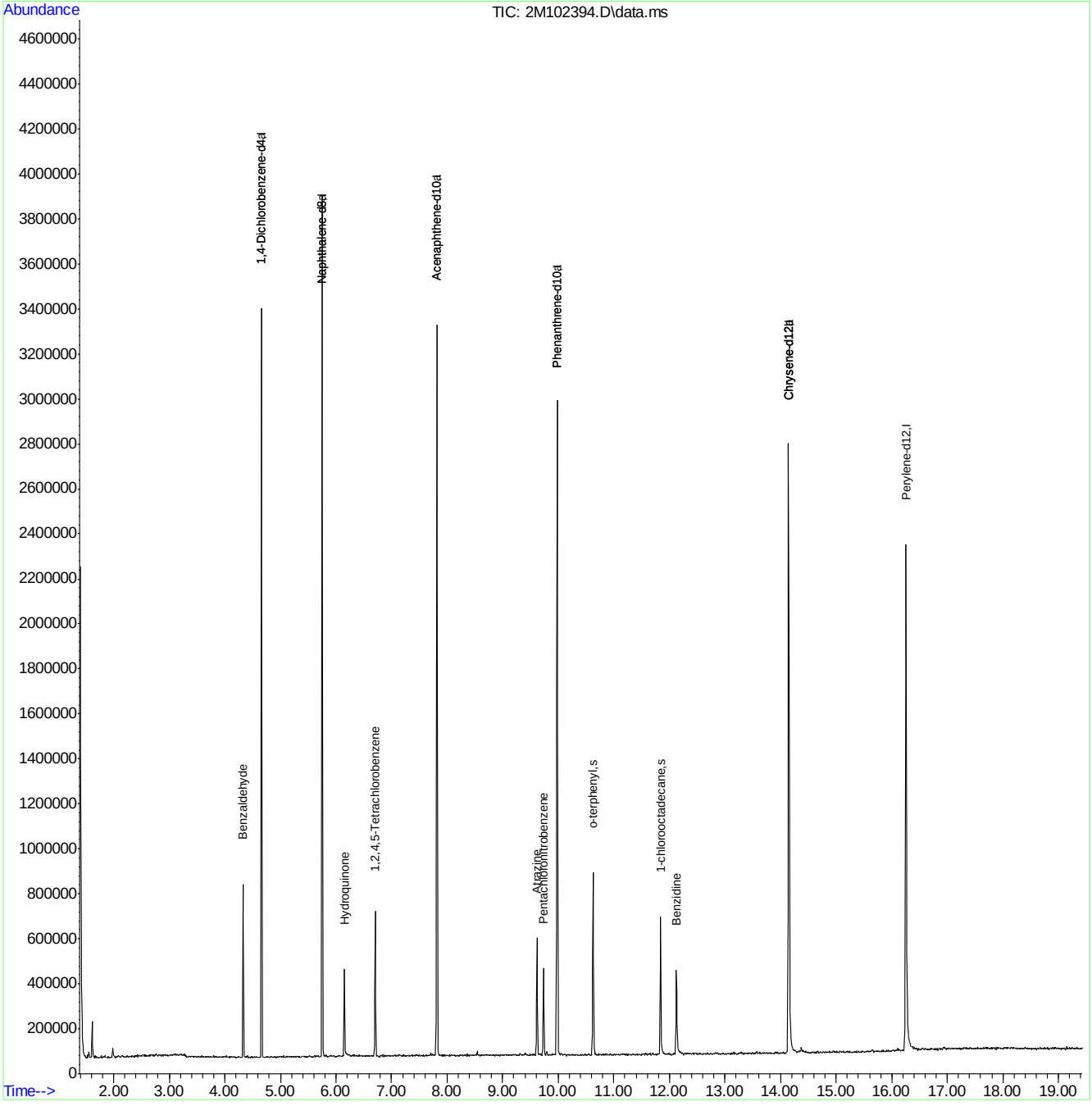
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.660	152	342098	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	1335985	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	659734	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1207450	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1070632	40.00	ppm	-0.06
91) Perylene-d12	16.256	264	1047954	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.660	152	342098	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	659734	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1070632	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1207450	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	1335985	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1070632	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.838	57	97363	9.02	ppm	0.00
Spiked Amount 50.000			Recovery =	18.04%		
110) o-terphenyl	10.629	230	168849	9.72	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.329	105	98097	10.03	ppm	97
104) 1,2,4,5-Tetrachloroben...	6.709	216	99544	10.10	ppm	96
106) Benzidine	12.127	184	181680	7.94	ppm	99
109) Atrazine	9.618	215	30966	9.40	ppm	87
111) Pentachloronitrobenzene	9.736	295	9848	9.02	ppm	96
113) Hydroquinone	6.152	110	120758	9.83	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102394.D
Acq On : 6 Mar 2018 1:23 am
Operator : chriss2
Sample : ic4555-10
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 07 09:30:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102395.D
Acq On : 6 Mar 2018 1:49 am
Operator : chriss2
Sample : ic4555-25
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 07:55:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration

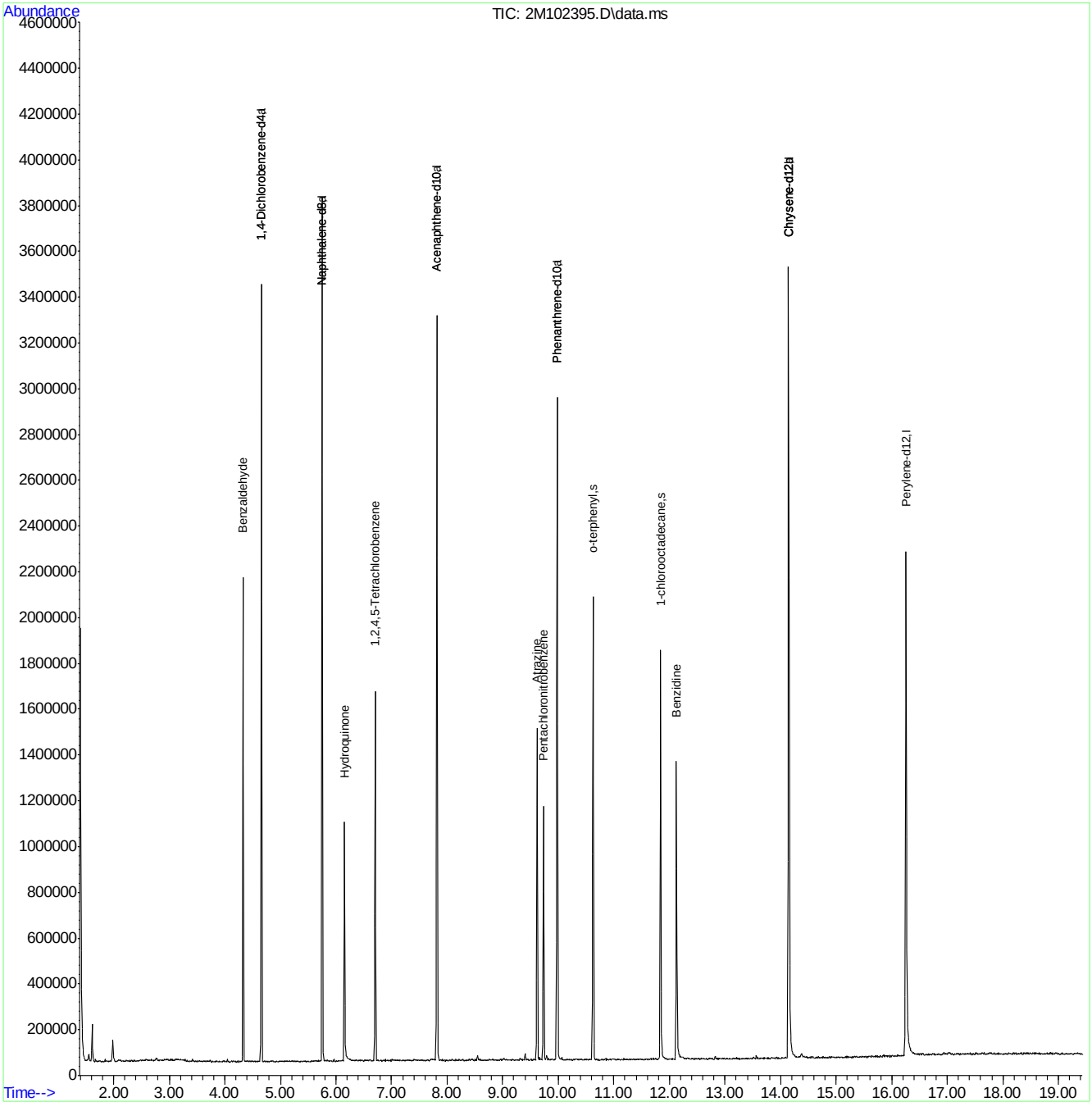
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.660	152	338848	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	1341475	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	656264	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1194577	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1079761	40.00	ppm	-0.06
91) Perylene-d12	16.256	264	1038316	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.660	152	338848	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	656264	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1079761	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1194577	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	1341475	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1079761	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.838	57	269983	26.40	ppm	0.00
Spiked Amount 50.000			Recovery =	52.80%		
110) o-terphenyl	10.629	230	424274	24.16	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.329	105	253106	24.31	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.709	216	247260	23.78	ppm	99
106) Benzidine	12.127	184	535465	25.84	ppm	99
109) Atrazine	9.618	215	82319	25.66	ppm	94
111) Pentachloronitrobenzene	9.736	295	27192	26.13	ppm	94
113) Hydroquinone	6.152	110	313569	26.45	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102395.D
Acq On : 6 Mar 2018 1:49 am
Operator : chriss2
Sample : ic4555-25
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 07:55:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102396.D
Acq On : 6 Mar 2018 2:14 am
Operator : chriss2
Sample : icc4555-50
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 07 09:31:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration

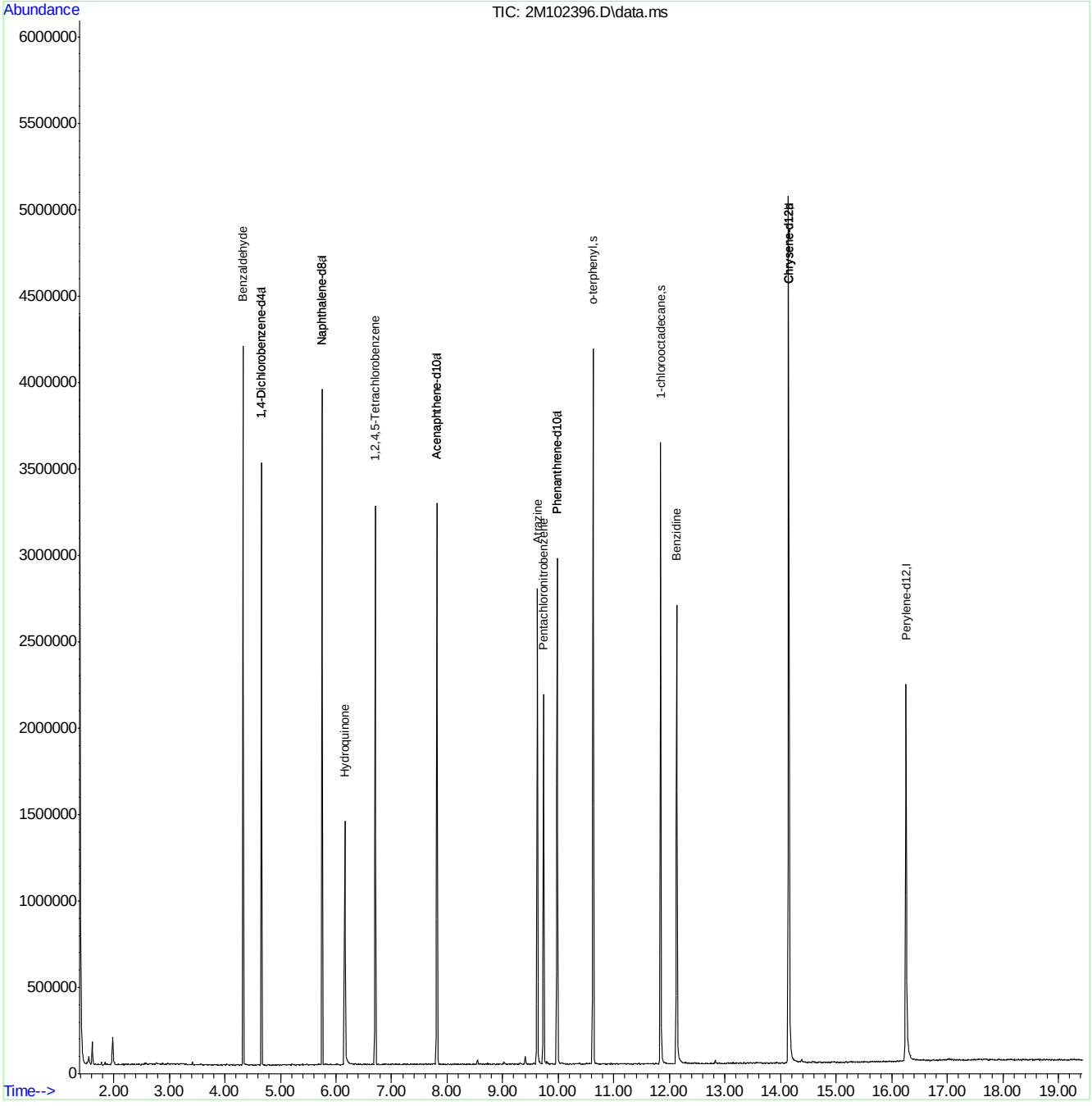
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.660	152	339391	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	1338697	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	654628	40.00	ppm	-0.04
69) Phenanthrene-d10	9.977	188	1188692	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1094992	40.00	ppm	-0.06
91) Perylene-d12	16.256	264	1048891	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.660	152	339391	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	654628	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1094992	40.00	ppm	0.00
108) Phenanthrene-d10a	9.977	188	1188692	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	1338697	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1094992	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.838	57	552121	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
110) o-terphenyl	10.629	230	855035	50.00	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.329	105	485240	50.00	ppm	100
104) 1,2,4,5-Tetrachloroben...	6.709	216	488762	50.00	ppm	100
106) Benzidine	12.132	184	1170327	50.00	ppm	100
109) Atrazine	9.624	215	162167	50.00	ppm	100
111) Pentachloronitrobenzene	9.736	295	53717	50.00	ppm	100
113) Hydroquinone	6.158	110	615748	50.00	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102396.D
Acq On : 6 Mar 2018 2:14 am
Operator : chriss2
Sample : icc4555-50
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 07 09:31:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102397.D
Acq On : 6 Mar 2018 2:40 am
Operator : chriss2
Sample : ic4555-80
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 07 09:32:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration

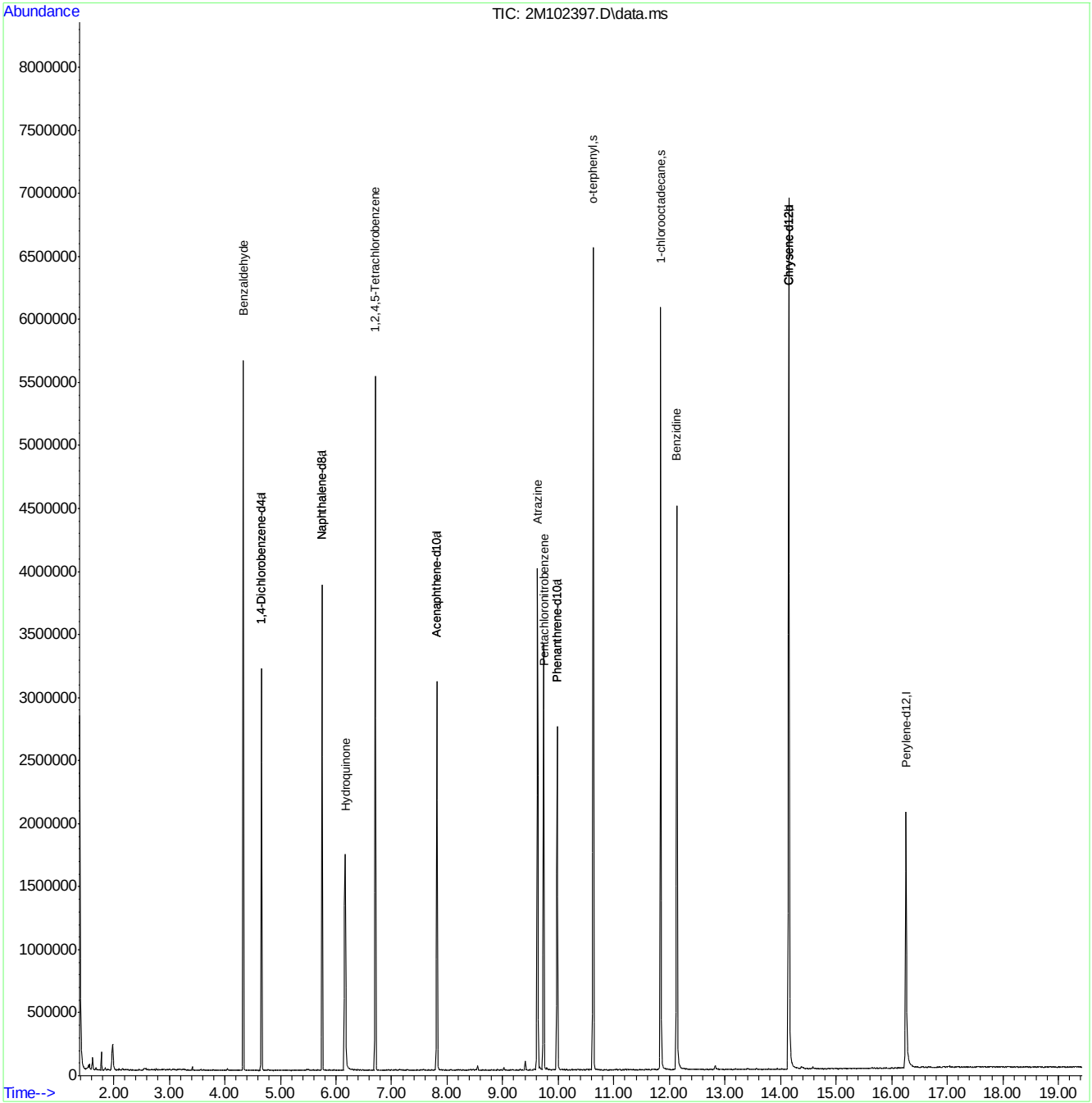
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.660	152	337811	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	1324932	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	639796	40.00	ppm	-0.04
69) Phenanthrene-d10	9.977	188	1137317	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1071423	40.00	ppm	-0.06
91) Perylene-d12	16.256	264	1005723	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.660	152	337811	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	639796	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1071423	40.00	ppm	0.00
108) Phenanthrene-d10a	9.977	188	1137317	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	1324932	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1071423	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.843	57	907752	84.01	ppm	0.00
Spiked Amount 50.000			Recovery =	168.02%		
110) o-terphenyl	10.629	230	1379079	84.29	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.334	105	800070	82.83	ppm	94
104) 1,2,4,5-Tetrachloroben...	6.709	216	803526	84.11	ppm	97
106) Benzidine	12.132	184	1937668	84.60	ppm	99
109) Atrazine	9.629	215	267776	86.29	ppm	93
111) Pentachloronitrobenzene	9.741	295	87885	85.50	ppm	98
113) Hydroquinone	6.168	110	986791	80.96	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102397.D
Acq On : 6 Mar 2018 2:40 am
Operator : chriss2
Sample : ic4555-80
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 07 09:32:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:27:32 2018
Response via : Initial Calibration



JC62881

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102398.D
Acq On : 6 Mar 2018 3:05 am
Operator : chriss2
Sample : ic4555-100
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 10:47:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration

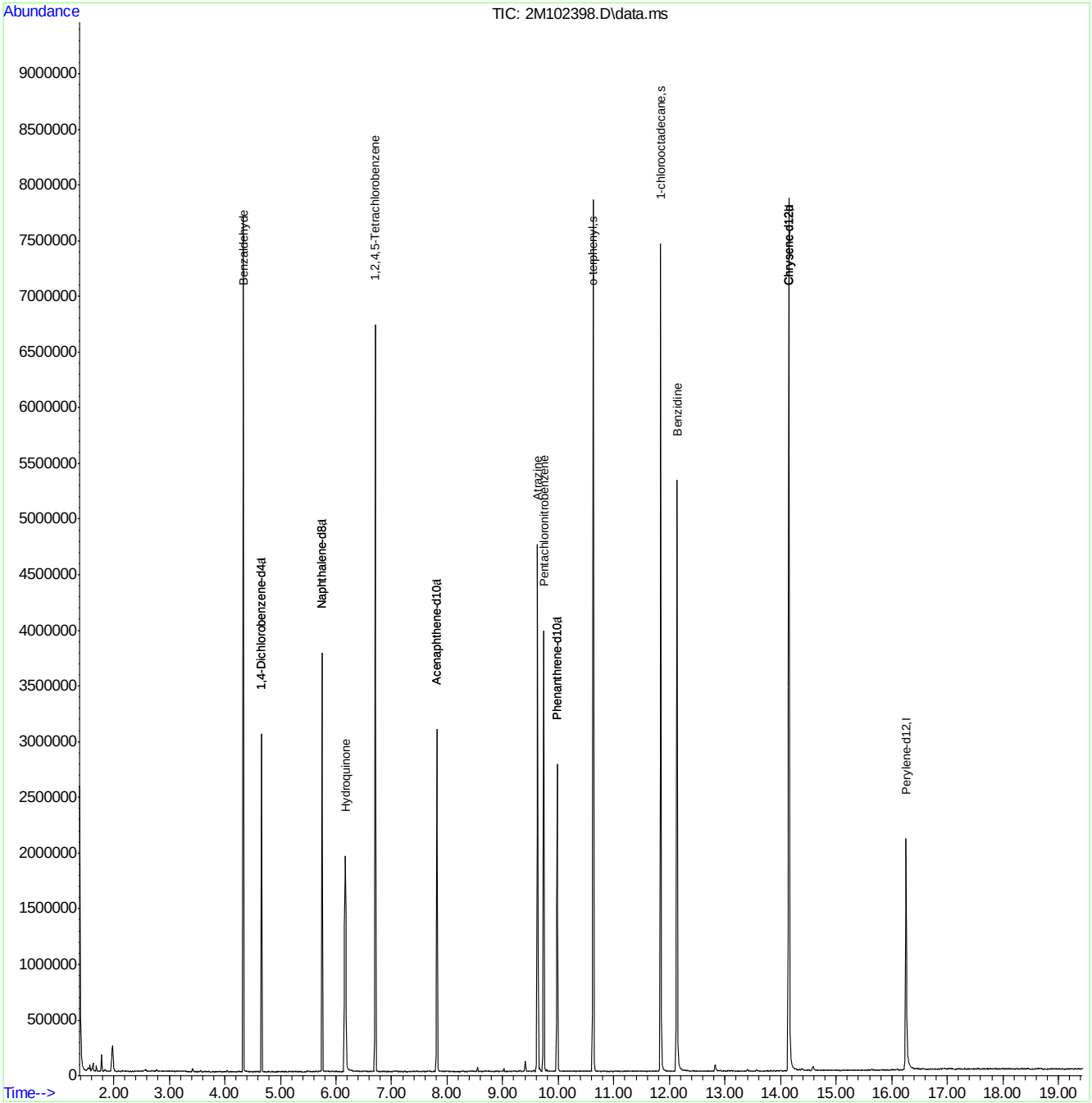
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.660	152	334281	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	1309436	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	624456	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1122076	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1056155	40.00	ppm	-0.06
91) Perylene-d12	16.256	264	1014838	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.660	152	334281	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	624456	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1056155	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1122076	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	1309436	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1056155	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) 1-chlorooctadecane	11.843	57	1100016	109.97	ppm	0.00
Spiked Amount 50.000			Recovery = 219.94%			
110) o-terphenyl	10.629	230	1663595	100.86	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.334	105	981162	95.54	ppm	94
104) 1,2,4,5-Tetrachloroben...	6.709	216	973762	98.42	ppm	98
106) Benzidine	12.138	184	2362421	116.55	ppm	100
109) Atrazine	9.629	215	323995	107.53	ppm	95
111) Pentachloronitrobenzene	9.741	295	108114	110.59	ppm	99
113) Hydroquinone	6.174	110	1187738	102.62	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4555\
Data File : 2M102398.D
Acq On : 6 Mar 2018 3:05 am
Operator : chriss2
Sample : ic4555-100
Misc : op8718,e2m4555,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 10:47:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration



M2M4551.M Fri Mar 09 12:15:48 2018 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102400.D
Acq On : 6 Mar 2018 8:21 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 07:57:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration

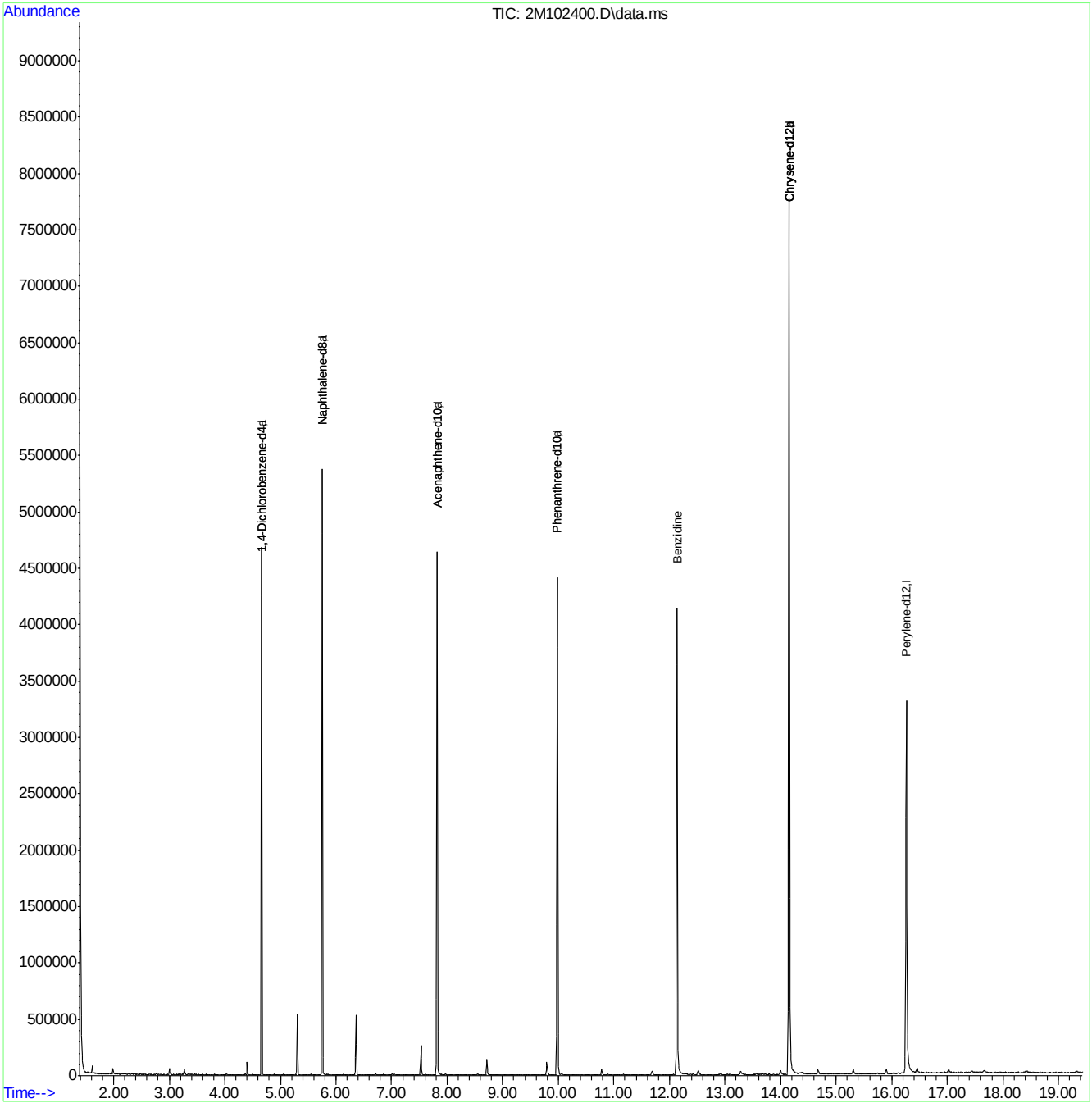
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.665	152	531362	40.00	ppm	-0.03
24) Naphthalene-d8	5.757	136	2014698	40.00	ppm	-0.03
47) Acenaphthene-d10	7.821	164	1120933	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1764582	40.00	ppm	-0.05
83) Chrysene-d12	14.154	240	1783137	40.00	ppm	-0.05
91) Perylene-d12	16.261	264	1421159	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.665	152	531362	40.00	ppm	0.00
103) Acenaphthene-d10a	7.821	164	1120933	40.00	ppm	0.00
105) Chrysene-d12a	14.154	240	1783137	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1764582	40.00	ppm	0.00
112) Naphthalene-d8a	5.757	136	2014698	40.00	ppm	0.00
114) Chrysene-d12b	14.154	240	1783137	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
106) Benzidine	12.137	184	1736245	50.74	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102400.D
Acq On : 6 Mar 2018 8:21 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 07:57:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration



JC62881

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102401.D
Acq On : 6 Mar 2018 8:47 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 07:58:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration

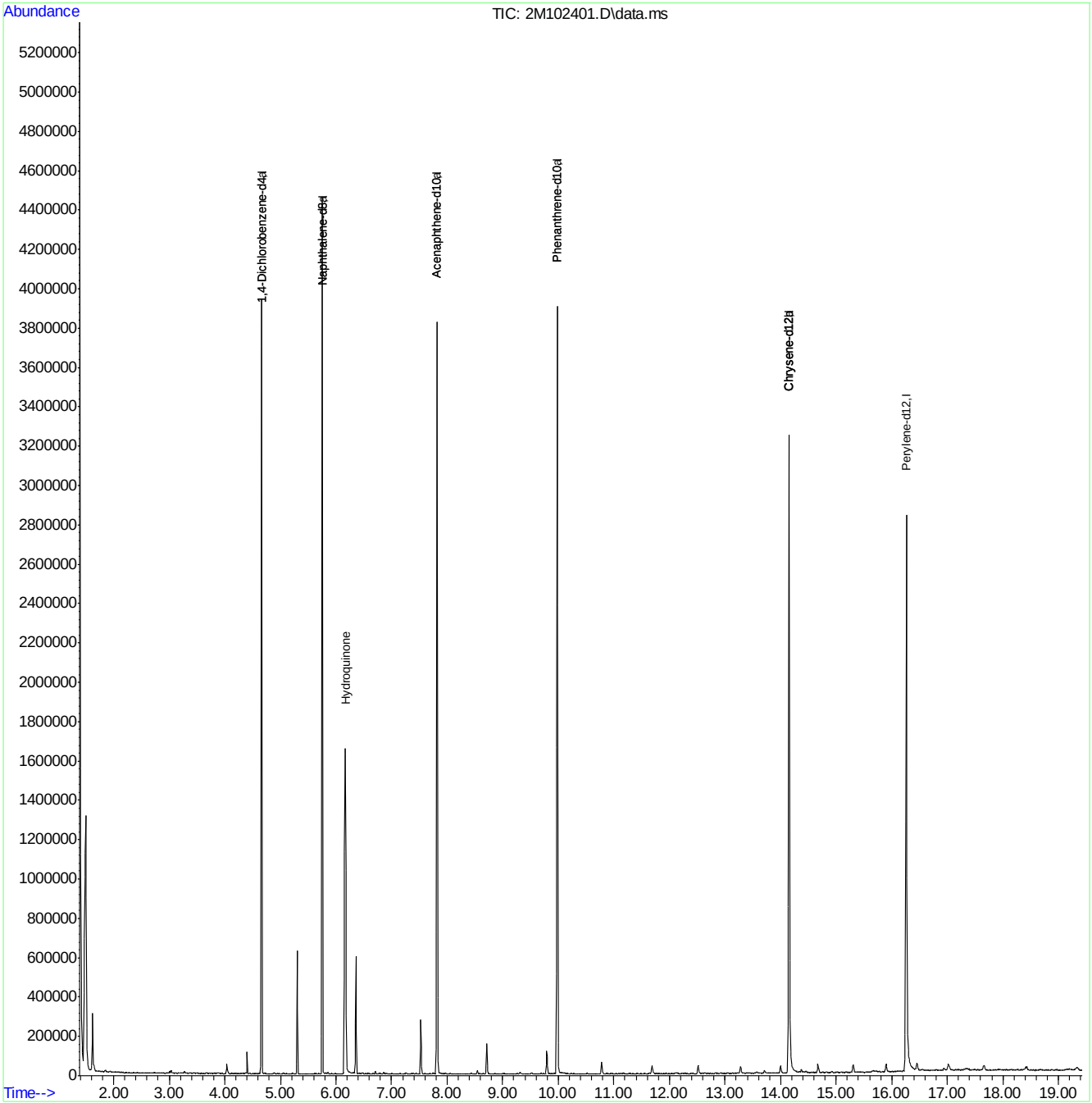
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.665	152	447311	40.00	ppm	-0.03
24) Naphthalene-d8	5.757	136	1781568	40.00	ppm	-0.03
47) Acenaphthene-d10	7.816	164	843637	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1569365	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1464866	40.00	ppm	-0.06
91) Perylene-d12	16.261	264	1355350	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.665	152	447311	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	843637	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1464866	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1569365	40.00	ppm	0.00
112) Naphthalene-d8a	5.757	136	1781568	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1464866	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
113) Hydroquinone	6.168	110	995650	63.23	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102401.D
Acq On : 6 Mar 2018 8:47 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 07:58:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration



M2M4551.M Fri Mar 09 07:58:12 2018 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102402.D
Acq On : 6 Mar 2018 9:12 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 07:59:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration

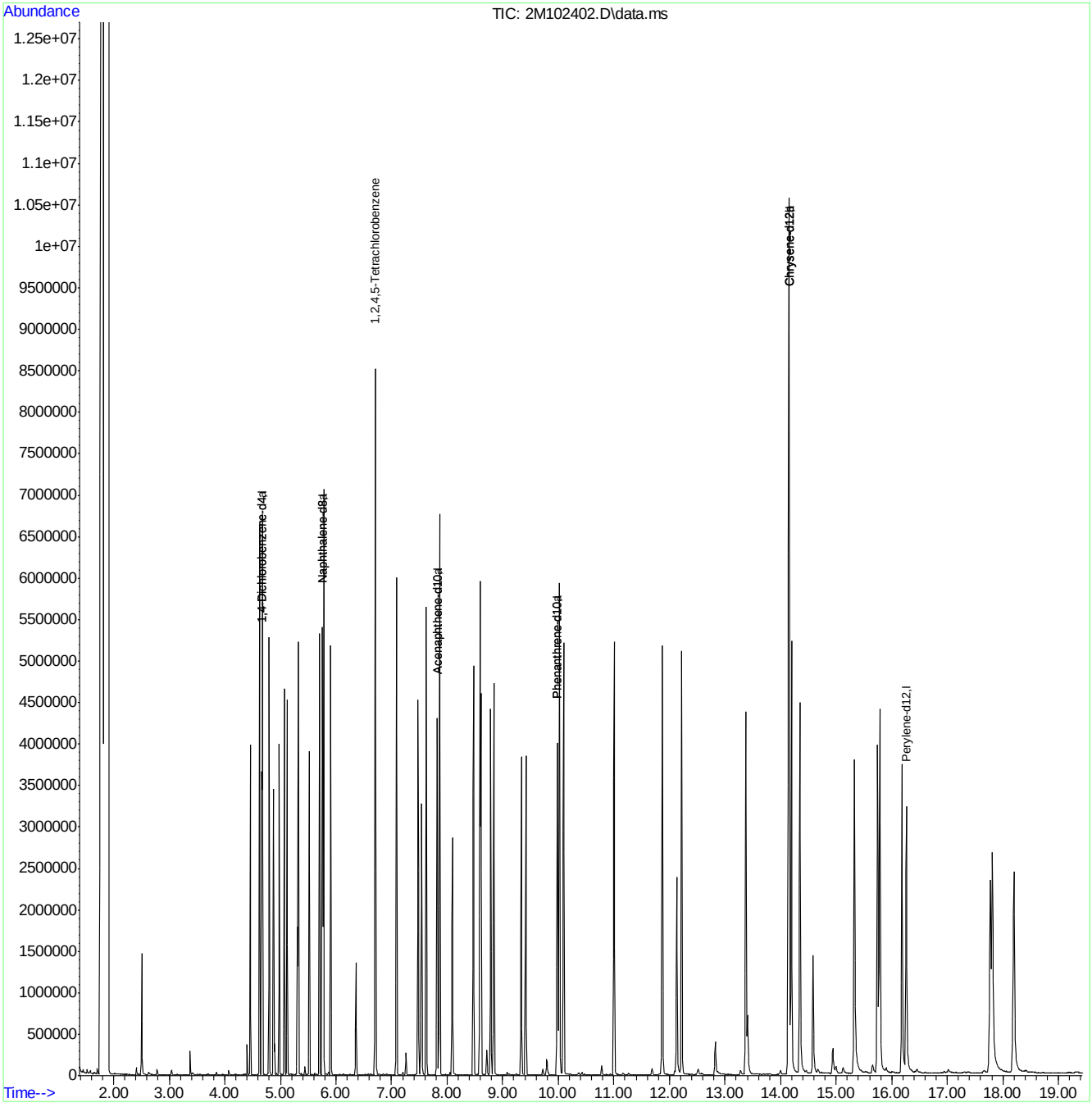
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.666	152	522325	40.00	ppm	-0.03
24) Naphthalene-d8	5.757	136	1955852	40.00	ppm	-0.03
47) Acenaphthene-d10	7.821	164	960785	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1692957	40.00	ppm	-0.05
83) Chrysene-d12	14.154	240	1501842	40.00	ppm	-0.05
91) Perylene-d12	16.261	264	1460585	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.666	152	522325	40.00	ppm	0.00
103) Acenaphthene-d10a	7.821	164	960785	40.00	ppm	0.00
105) Chrysene-d12a	14.154	240	1501842	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1692957	40.00	ppm	0.00
112) Naphthalene-d8a	5.757	136	1955852	40.00	ppm	0.00
114) Chrysene-d12b	14.154	240	1501842	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
104) 1,2,4,5-Tetrachloroben...	6.709	216	861587	56.60	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102402.D
Acq On : 6 Mar 2018 9:12 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 07:59:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration



M2M4551.M Fri Mar 09 07:59:13 2018 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102403.D
Acq On : 6 Mar 2018 9:38 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 08:00:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration

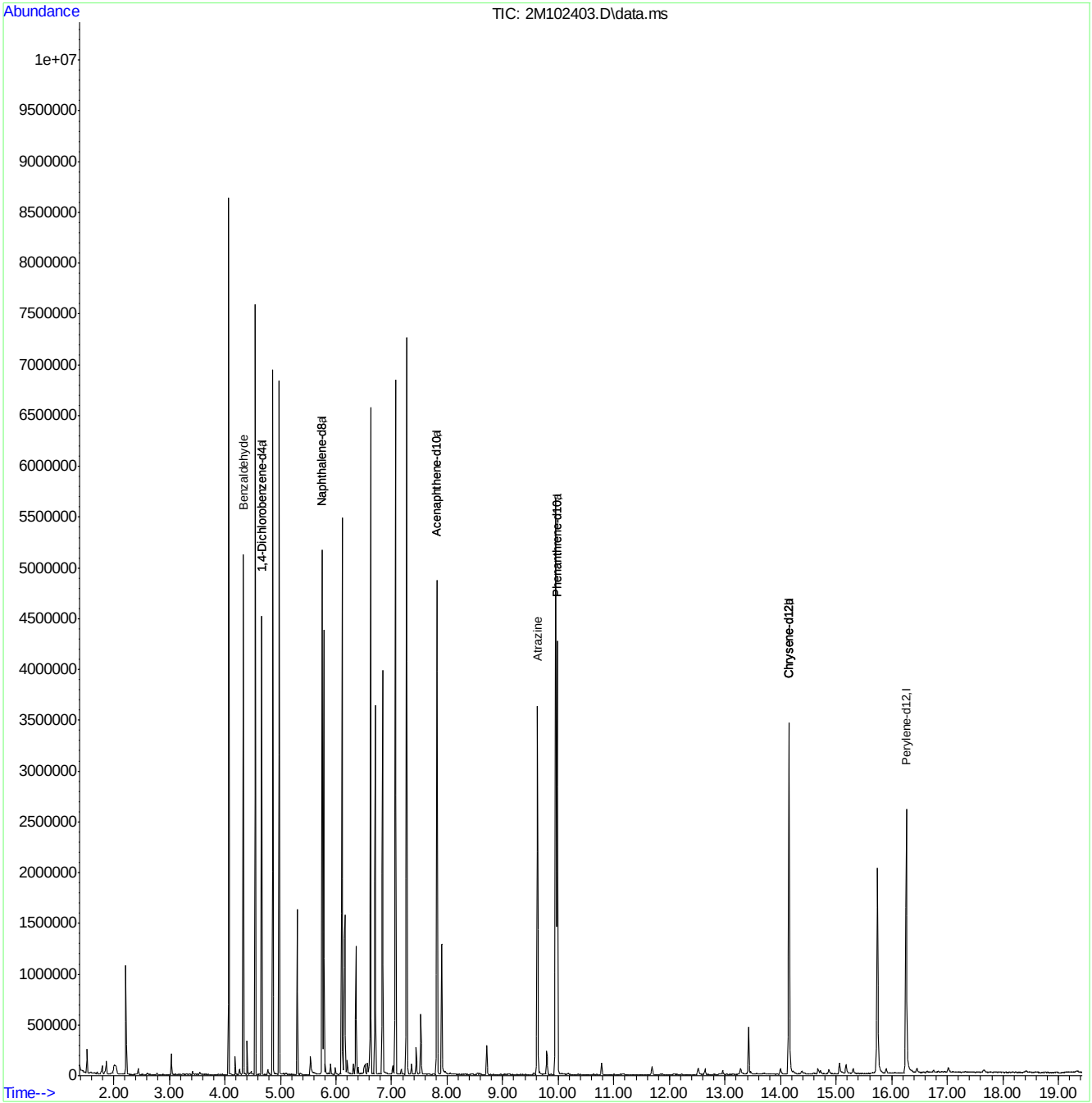
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.666	152	515626	40.00	ppm	-0.03
24) Naphthalene-d8	5.751	136	2014826	40.00	ppm	-0.04
47) Acenaphthene-d10	7.816	164	1114044	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1724332	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1522859	40.00	ppm	-0.06
91) Perylene-d12	16.261	264	1247728	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.666	152	515626	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	1114044	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1522859	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1724332	40.00	ppm	0.00
112) Naphthalene-d8a	5.751	136	2014826	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1522859	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
102) Benzaldehyde	4.334	105	640726	40.45	ppm	94
109) Atrazine	9.629	215	248194	53.60	ppm	86

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102403.D
Acq On : 6 Mar 2018 9:38 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 08:00:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration



M2M4551.M Fri Mar 09 08:00:05 2018 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102404.D
Acq On : 6 Mar 2018 10:03 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 08:00:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration

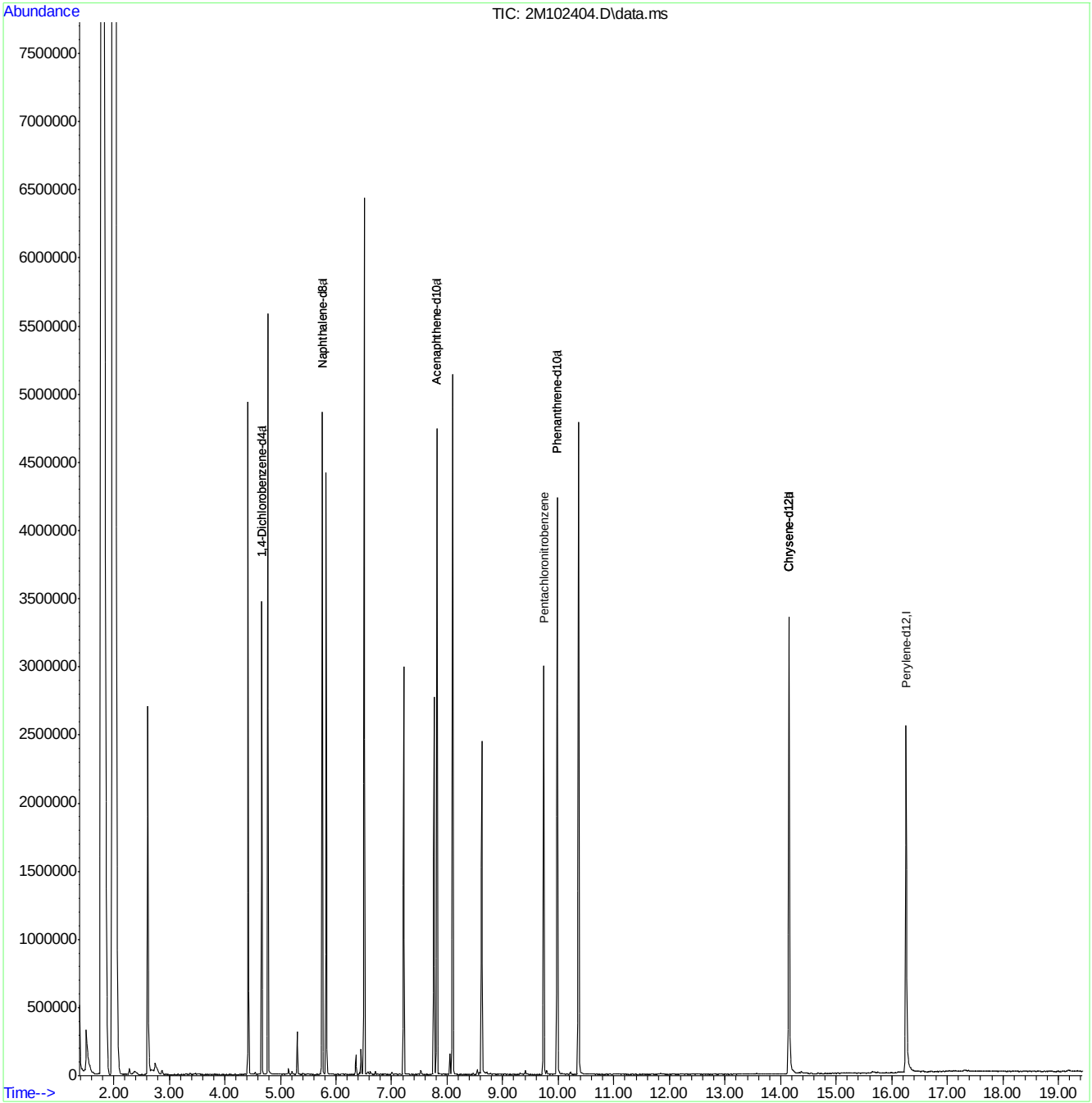
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.665	152	453565	40.00	ppm	-0.03
24) Naphthalene-d8	5.757	136	1829111	40.00	ppm	-0.03
47) Acenaphthene-d10	7.816	164	1085267	40.00	ppm	-0.04
69) Phenanthrene-d10	9.982	188	1753080	40.00	ppm	-0.05
83) Chrysene-d12	14.149	240	1511143	40.00	ppm	-0.06
91) Perylene-d12	16.261	264	1307124	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.665	152	453565	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	1085267	40.00	ppm	0.00
105) Chrysene-d12a	14.149	240	1511143	40.00	ppm	0.00
108) Phenanthrene-d10a	9.982	188	1753080	40.00	ppm	0.00
112) Naphthalene-d8a	5.757	136	1829111	40.00	ppm	0.00
114) Chrysene-d12b	14.149	240	1511143	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
111) Pentachloronitrobenzene	9.741	295	84275	55.18	ppm	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4556\
Data File : 2M102404.D
Acq On : 6 Mar 2018 10:03 pm
Operator : chriss2
Sample : icv4555-50
Misc : op8718,e2m4556,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 08:00:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Mar 07 09:38:50 2018
Response via : Initial Calibration



JC62881

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
04/03/18 17:46

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102960.D
Acq On : 2 Apr 2018 12:12 pm
Operator : christc2
Sample : cc4551-50
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 16:48:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.569	152	385394	40.00	ppm	0.03
24) Naphthalene-d8	5.644	136	1475570	40.00	ppm	0.04
47) Acenaphthene-d10	7.677	164	766241	40.00	ppm	0.04
69) Phenanthrene-d10	9.832	188	1450217	40.00	ppm	0.05
83) Chrysene-d12	13.988	240	1558697	40.00	ppm	0.05
91) Perylene-d12	16.085	264	1352404	40.00	ppm	0.05
101) 1,4-Dichlorobenzene-d4a	4.569	152	385394	40.00	ppm	0.03
103) Acenaphthene-d10a	7.677	164	766241	40.00	ppm	0.04
105) Chrysene-d12a	13.988	240	1558697	40.00	ppm	0.05
108) Phenanthrene-d10a	9.832	188	1450217	40.00	ppm	0.05
112) Naphthalene-d8a	5.644	136	1475570	40.00	ppm	0.04
114) Chrysene-d12b	13.988	240	1558697	40.00	ppm	0.05
System Monitoring Compounds						
5) 2-Fluorophenol	3.606	112	631596	46.72	ppm	0.02
Spiked Amount 50.000			Recovery =	93.44%		
8) Phenol-d5	4.334	99	848897	49.47	ppm	0.06
Spiked Amount 50.000			Recovery =	98.94%		
25) Nitrobenzene-d5	5.008	82	869156	49.24	ppm	0.03
Spiked Amount 50.000			Recovery =	98.48%		
51) 2-Fluorobiphenyl	6.821	172	1598701	49.68	ppm	0.03
Spiked Amount 50.000			Recovery =	99.36%		
73) 2,4,6-Tribromophenol	8.800	330	221649	51.42	ppm	0.03
Spiked Amount 50.000			Recovery =	102.84%		
85) Terphenyl-d14	12.373	244	1793350	48.27	ppm	0.03
Spiked Amount 50.000			Recovery =	96.54%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.087	88	250690	47.47	ppm	98
3) Pyridine	2.414	79	691847	46.79	ppm	99
4) N-Nitrosodimethylamine	2.387	74	409097	47.51	ppm	99
6) Indene	4.767	116	1056078	46.22	ppm	99
7) Cumene	3.970	105	1747321	47.94	ppm	98
9) Phenol	4.344	94	928656	46.48	ppm	97
10) Aniline	4.328	93	809224	39.59	ppm	97
11) bis(2-Chloroethyl)ether	4.371	93	619758	46.01	ppm	99
12) 2-Chlorophenol	4.425	128	683481	46.36	ppm	96
13) Decane	4.451	43	764030	42.55	ppm	97
14) 1,3-Dichlorobenzene	4.526	146	773998	47.81	ppm	99
15) 1,4-Dichlorobenzene	4.580	146	775757	46.51	ppm	98
16) Benzyl alcohol	4.687	108	461505	52.16	ppm	91
17) 1,2-Dichlorobenzene	4.697	146	729183	47.68	ppm	98
18) Acetophenone	4.885	105	990857	45.91	ppm #	77
19) 2-Methylphenol	4.788	108	593724	47.06	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.778	45	763988	41.81	ppm	87
21) 3&4-Methylphenol	4.906	108	643953	45.14	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102960.D
Acq On : 2 Apr 2018 12:12 pm
Operator : christc2
Sample : cc4551-50
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 16:48:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.890	70	556597	44.58	ppm		95
23) Hexachloroethane	4.965	201	258013	48.40	ppm		93
26) Nitrobenzene	5.024	77	808448	46.51	ppm		95
27) Quinoline	6.013	129	1251172	47.52	ppm		99
28) Isophorone	5.222	82	1330047	46.60	ppm		99
29) 2-Nitrophenol	5.297	139	401703	51.46	ppm		92
30) 2,4-Dimethylphenol	5.345	107	646183	47.39	ppm		97
31) Benzoic acid	5.484	105	570892	52.14	ppm		99
32) bis(2-Chloroethoxy)met...	5.414	93	681635	45.44	ppm		99
33) 2,4-Dichlorophenol	5.527	162	567687	49.73	ppm		98
34) 2,6-Dichlorophenol	5.730	162	558190	48.31	ppm		98
35) 1,3,5-Trichlorobenzene	5.307	180	634448	48.25	ppm		98
36) 1,2,4-Trichlorobenzene	5.591	180	613251	48.61	ppm		100
37) 1,2,3-Trichlorobenzene	5.805	180	581306	47.12	ppm		99
38) Naphthalene	5.660	128	1949070	47.25	ppm		100
39) 4-Chloroaniline	5.724	127	771881	45.13	ppm		98
40) 2,3-Dichloroaniline	6.719	161	694174	48.25	ppm		99
41) Caprolactam	6.088	55	317954m	45.68	ppm		
42) Hexachlorobutadiene	5.789	225	355598	49.64	ppm		98
43) 4-Chloro-3-methylphenol	6.254	107	616906	47.36	ppm		92
44) 2-Methylnaphthalene	6.382	141	1163457	48.92	ppm		98
45) 1-Methylnaphthalene	6.495	141	1199478	48.62	ppm		97
46) Dimethylnaphthalene	7.136	156	1284001	50.85	ppm		99
48) Hexachlorocyclopentadiene	6.575	237	779741	96.25	ppm		99
49) 2,4,6-Trichlorophenol	6.730	196	418371	48.03	ppm		96
50) 2,4,5-Trichlorophenol	6.783	196	447587	50.40	ppm		99
52) 2-Chloronaphthalene	6.960	162	1268166	47.19	ppm		99
53) Biphenyl	6.939	154	1717634	48.31	ppm		99
54) 2-Nitroaniline	7.104	65	478760	48.49	ppm		96
55) Dimethylphthalate	7.345	163	1478139	46.68	ppm		98
56) Acenaphthylene	7.484	152	2038817	48.66	ppm		99
57) 2,6-Dinitrotoluene	7.420	165	339203	51.45	ppm		90
58) 3-Nitroaniline	7.650	138	377288	51.37	ppm		90
59) Acenaphthene	7.725	153	1356443	47.67	ppm		98
60) 2,4-Dinitrophenol	7.794	184	428597	94.17	ppm		92
61) 4-Nitrophenol	7.949	109	308032	59.03	ppm	#	70
62) Dibenzofuran	7.960	168	1879236	48.94	ppm		96
63) 2,4-Dinitrotoluene	7.971	165	503800	53.21	ppm		84
64) 2,3,4,6-Tetrachlorophenol	8.158	232	370993	50.90	ppm		94
65) Diethylphthalate	8.335	149	1615923	43.64	ppm		99
66) Fluorene	8.447	166	1570965	51.37	ppm		99
67) 4-Chlorophenyl-phenyle...	8.463	204	703164	49.03	ppm		98
68) 4-Nitroaniline	8.516	138	379144	54.24	ppm		95
70) 4,6-Dinitro-2-methylph...	8.559	198	294593	52.93	ppm		97
71) n-Nitrosodiphenylamine	8.650	169	1019053	44.54	ppm		99
72) 1,2-Diphenylhydrazine	8.693	77	1673770	45.79	ppm		97
74) 4-Bromophenyl-phenylether	9.185	248	413493	50.41	ppm		90
75) Hexachlorobenzene	9.265	284	454791	49.67	ppm		99
76) Pentachlorophenol	9.581	266	608605	103.31	ppm		99
77) Phenanthrene	9.864	178	2159805	48.01	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102960.D
Acq On : 2 Apr 2018 12:12 pm
Operator : christc2
Sample : cc4551-50
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 16:48:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

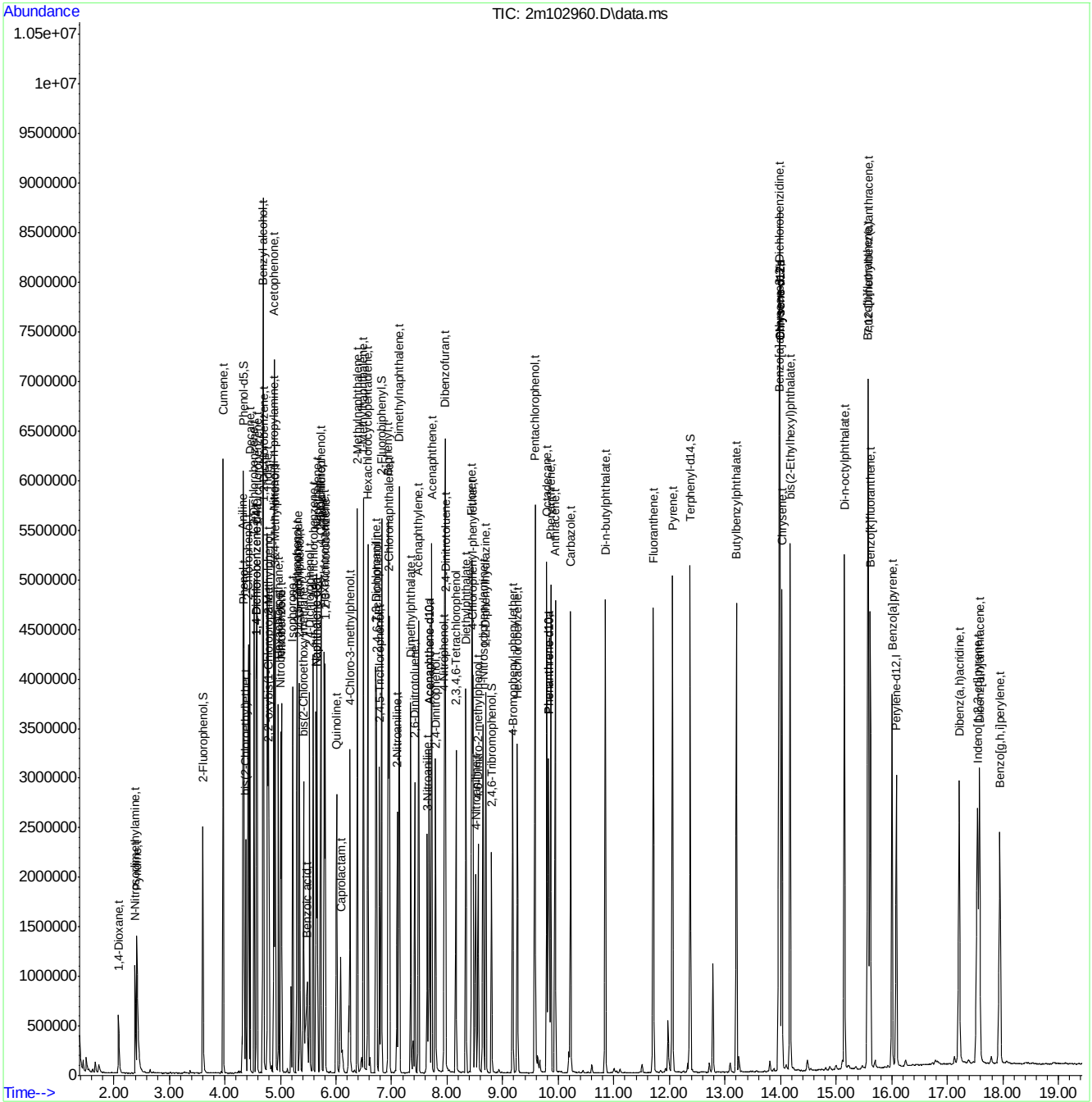
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	9.944	178	2141553	47.61	ppm	99
79) Carbazole	10.223	167	2109058	50.06	ppm	99
80) Di-n-butylphthalate	10.848	149	2811846	47.08	ppm	99
81) Fluoranthene	11.715	202	2366580	52.25	ppm	97
82) Octadecane	9.795	57	1064835	48.23	ppm	97
84) Pyrene	12.057	202	2491118	44.22	ppm	99
86) Butylbenzylphthalate	13.207	149	1275031	46.31	ppm	94
87) Benzo[a]anthracene	13.972	228	2338274	46.29	ppm	100
88) 3,3'-Dichlorobenzidine	13.983	252	921727	51.27	ppm	99
89) Chrysene	14.026	228	2135396	43.89	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.170	149	1738396	45.69	ppm	96
92) Di-n-octylphthalate	15.149	149	2966923	60.53	ppm	70
93) Benzo[b]fluoranthene	15.571	252	2383073	55.60	ppm	98
94) Benzo[k]fluoranthene	15.614	252	2097717	47.73	ppm	91
95) Benzo[a]pyrene	16.010	252	1949755	53.77	ppm	90
96) Indeno[1,2,3-cd]pyrene	17.545	276	1966785	45.65	ppm	83
97) Dibenz(a,h)acridine	17.213	279	1762367	57.69	ppm	99
98) Dibenz[a,h]anthracene	17.577	278	1991561	56.84	ppm	87
99) 7,12-Dimethylbenz(a)an...	15.577	256	1003727	52.96	ppm	91
100) Benzo[g,h,i]perylene	17.946	276	1798429	51.58	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102960.D
Acq On : 2 Apr 2018 12:12 pm
Operator : christc2
Sample : cc4551-50
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 16:48:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration



Manual Integration Approval Summary

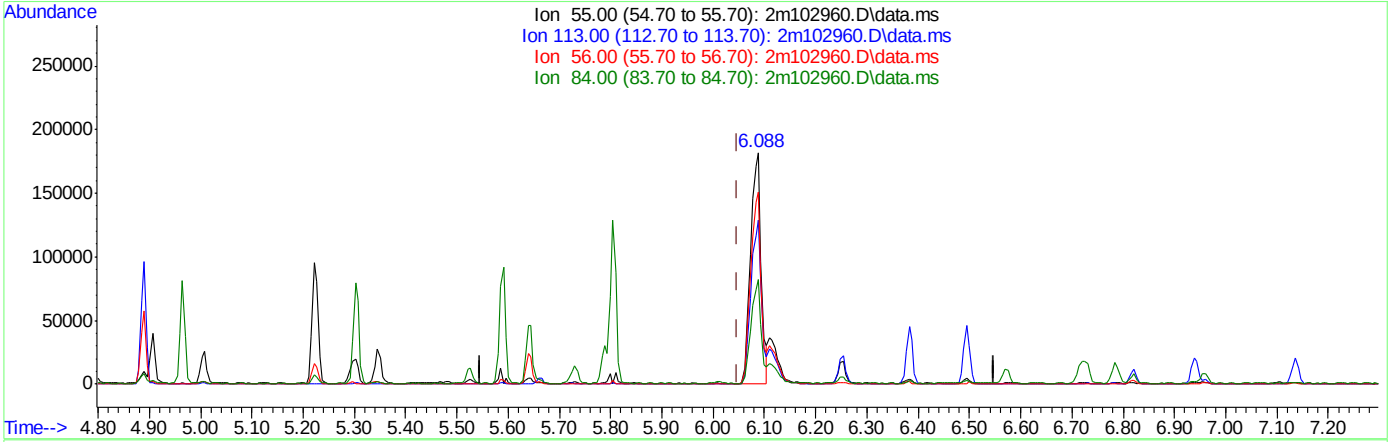
Sample Number:	E2M4581-CC4551	**Method:**	SW846 8270D
Lab FileID:	2M102960.D	**Analyst approved:**	04/03/18 17:14 Ying Li
Injection Time:	04/02/18 12:12	**Supervisor approved:**	04/03/18 17:46 Nina Pandya

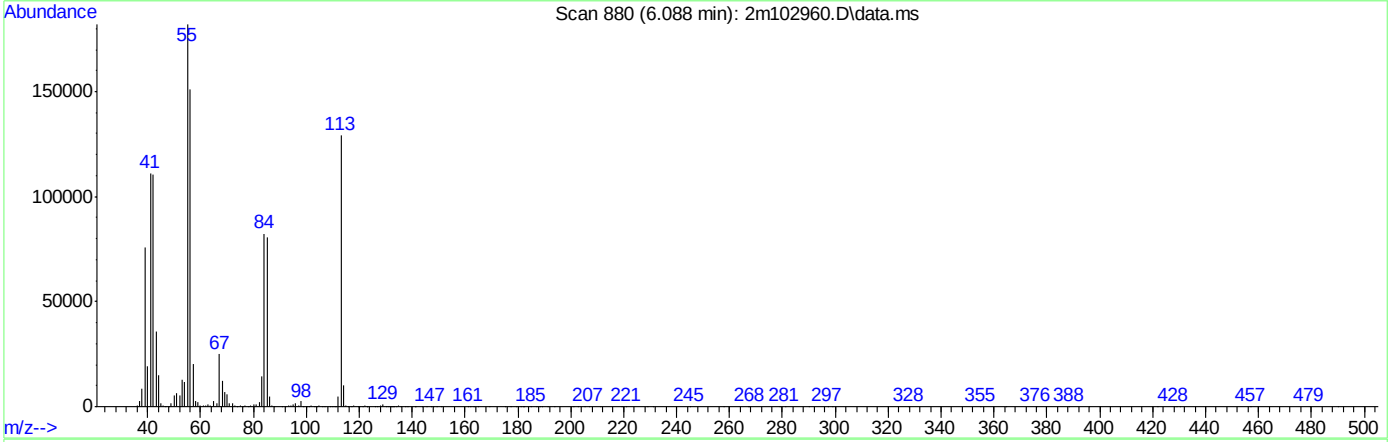
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.09	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102960.D
Acq On : 2 Apr 2018 12:12 pm
Operator : christc2
Sample : cc4551-50
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 16:47:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration





TIC: 2m102960.D\data.ms

(41) Caprolactam (t)

6.088min (+0.040) 37.95ppm

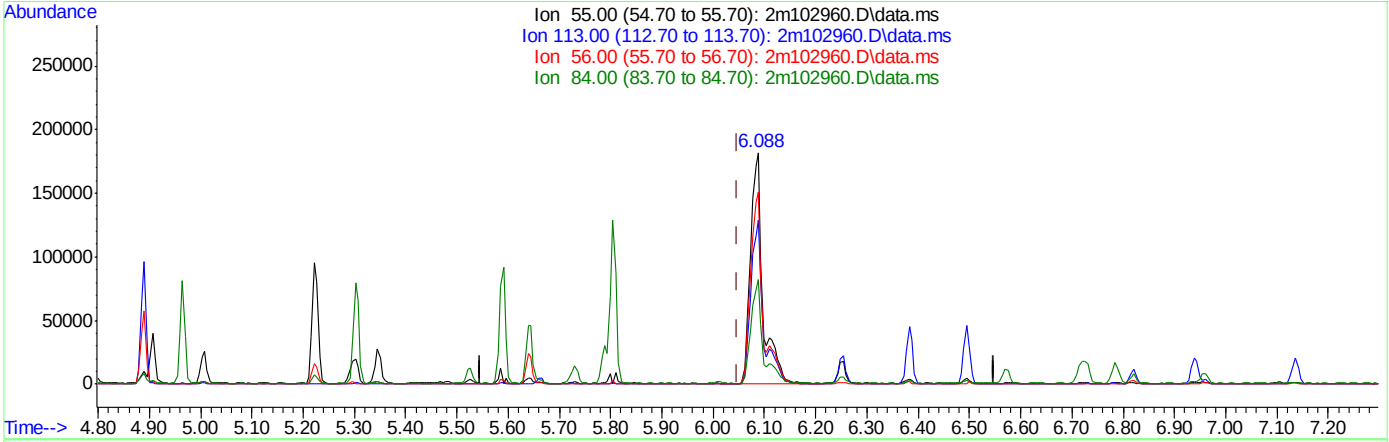
response 264125

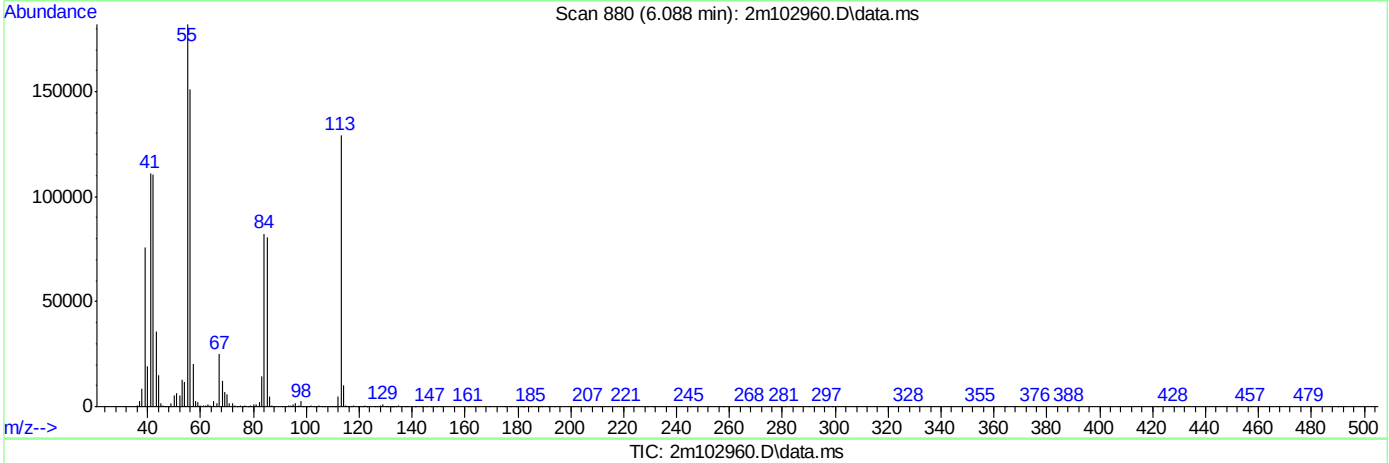
Ion	Exp%	Act%
55.00	100	100
113.00	63.60	71.24
56.00	81.00	83.24
84.00	41.70	45.12

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102960.D
Acq On : 2 Apr 2018 12:12 pm
Operator : christc2
Sample : cc4551-50
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 16:47:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration





TIC: 2m102960.D\data.ms

(41) Caprolactam (t)

6.088min (+0.040) 45.68ppm m

response 317954

Ion	Exp%	Act%
55.00	100	100
113.00	63.60	71.04
56.00	81.00	82.95
84.00	41.70	45.17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102961.D
Acq On : 2 Apr 2018 12:44 pm
Operator : christc2
Sample : cc4555-50
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 03 16:50:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration

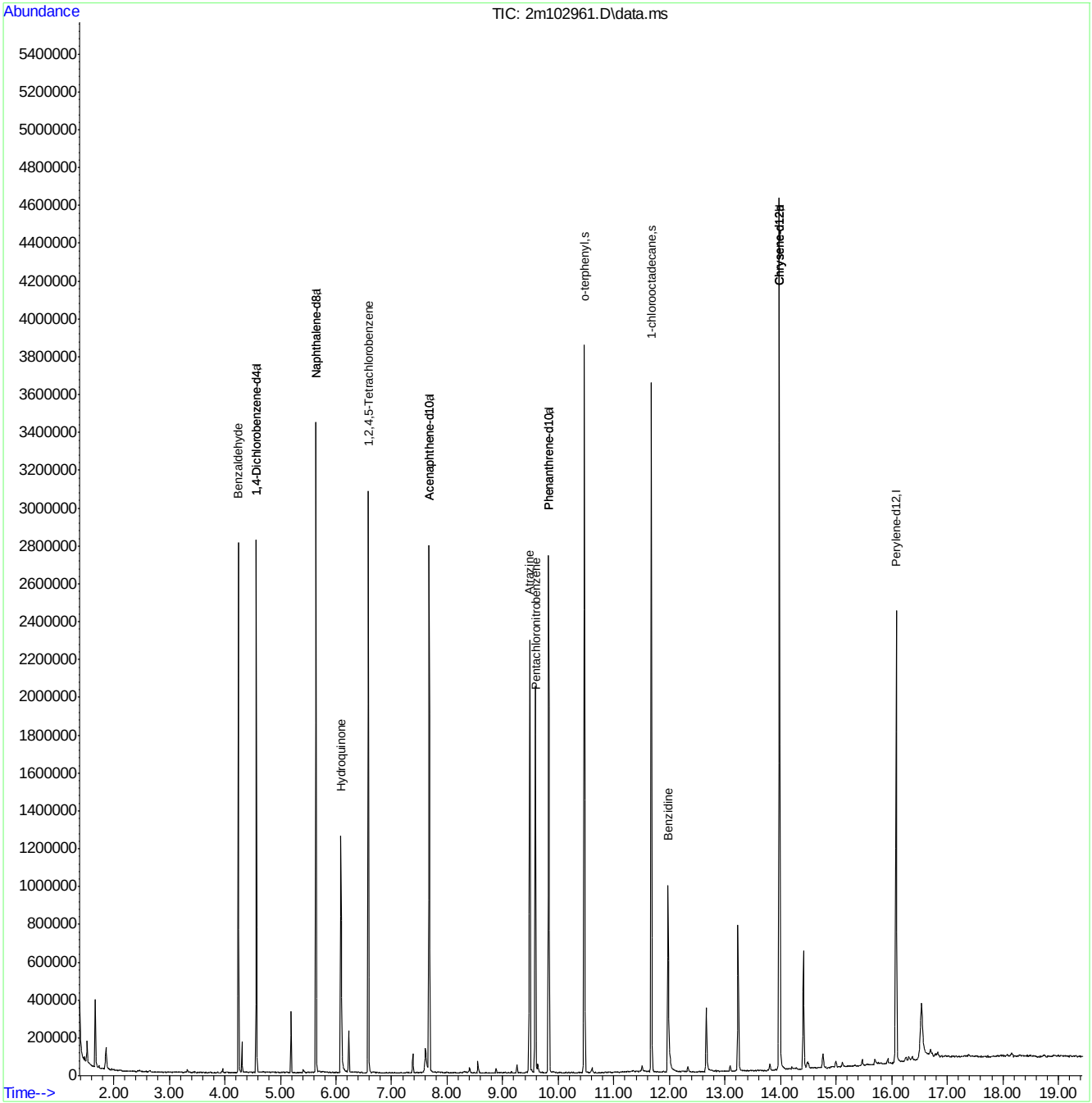
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.569	152	307278	40.00	ppm	0.03
24) Naphthalene-d8	5.639	136	1195955	40.00	ppm	0.03
47) Acenaphthene-d10	7.677	164	599562	40.00	ppm	0.04
69) Phenanthrene-d10	9.827	188	1096136	40.00	ppm	0.04
83) Chrysene-d12	13.977	240	1079673	40.00	ppm	0.04
91) Perylene-d12	16.079	264	1058767	40.00	ppm	0.05
101) 1,4-Dichlorobenzene-d4a	4.569	152	307278	40.00	ppm	0.03
103) Acenaphthene-d10a	7.677	164	599562	40.00	ppm	0.04
105) Chrysene-d12a	13.977	240	1079673	40.00	ppm	0.04
108) Phenanthrene-d10a	9.827	188	1096136	40.00	ppm	0.04
112) Naphthalene-d8a	5.639	136	1195955	40.00	ppm	0.03
114) Chrysene-d12b	13.977	240	1079673	40.00	ppm	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.677	57	536256	52.44	ppm	0.02
Spiked Amount 50.000			Recovery =	104.88%		
110) o-terphenyl	10.469	230	836260	51.90	ppm	0.04
Target Compounds						Qvalue
102) Benzaldehyde	4.243	105	379653	40.22	ppm	97
104) 1,2,4,5-Tetrachloroben...	6.580	216	454532	47.85	ppm	98
106) Benzidine	11.972	184	555678	26.82	ppm	99
109) Atrazine	9.490	215	171238	58.18	ppm	84
111) Pentachloronitrobenzene	9.592	295	55513	58.13	ppm	97
113) Hydroquinone	6.088	110	520554	49.24	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4581\
Data File : 2m102961.D
Acq On : 2 Apr 2018 12:44 pm
Operator : christc2
Sample : cc4555-50
Misc : op10486,e2m4581,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 03 16:50:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4551.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Mar 22 15:07:36 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 18:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144287.D
Acq On : 28 Feb 2018 10:16 am
Operator : kristis
Sample : ic6121-100
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 12:08:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.791	152	209634	40.00	ppm		0.00
24) Naphthalene-d8	5.956	136	821730	40.00	ppm		0.00
47) Acenaphthene-d10	8.332	164	415109	40.00	ppm		0.00
69) Phenanthrene-d10	10.960	188	704968	40.00	ppm		0.00
83) Chrysene-d12	16.141	240	626728	40.00	ppm		0.00
91) Perylene-d12	18.753	264	824315	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.791	152	209634	40.00	ppm		0.00
103) Acenaphthene-d10a	8.332	164	415109	40.00	ppm		0.00
106) Chrysene-d12a	16.141	240	626728	40.00	ppm		0.00
109) Phenanthrene-d10a	10.960	188	704968	40.00	ppm		0.00
112) Naphthalene-d8a	5.956	136	821730	40.00	ppm		0.00
114) Chrysene-d12b	16.141	240	626728	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	3.798	112	882525	114.18	ppm		0.00
Spiked Amount 50.000			Recovery = 228.36%				
8) Phenol-d5	4.513	99	976636	111.92	ppm		0.00
Spiked Amount 50.000			Recovery = 223.84%				
25) Nitrobenzene-d5	5.256	82	724369	104.61	ppm		0.00
Spiked Amount 50.000			Recovery = 209.22%				
51) 2-Fluorobiphenyl	7.312	172	1322230	90.14	ppm		0.00
Spiked Amount 50.000			Recovery = 180.28%				
73) 2,4,6-Tribromophenol	9.694	330	286212	126.63	ppm		0.00
Spiked Amount 50.000			Recovery = 253.26%				
85) Terphenyl-d14	14.143	244	1703219	124.13	ppm		0.00
Spiked Amount 50.000			Recovery = 248.26%				
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.345	88	415322	120.13	ppm		72
3) Pyridine	2.660	79	966370	117.57	ppm		97
4) N-Nitrosodimethylamine	2.633	42	396234	140.47	ppm		91
6) Indene	5.005	116	877568	81.38	ppm		96
7) Cumene	4.193	105	1608559	92.47	ppm		96
9) Phenol	4.524	94	921019	94.99	ppm		89
10) Aniline	4.540	93	887519	91.27	ppm		99
11) bis(2-Chloroethyl)ether	4.588	93	655263	105.14	ppm		93
12) 2-Chlorophenol	4.636	128	697927	91.83	ppm		94
13) Decane	4.668	43	513349	130.30	ppm	#	1
14) 1,3-Dichlorobenzene	4.748	146	757573	84.82	ppm		97
15) 1,4-Dichlorobenzene	4.807	146	709542	85.11	ppm		97
16) Benzyl alcohol	4.903	108	487838	112.37	ppm		97
17) 1,2-Dichlorobenzene	4.935	146	629181	80.54	ppm		97
18) Acetophenone	5.128	105	681930	78.16	ppm	#	17
19) 2-Methylphenol	4.994	108	568455	94.90	ppm		93
20) 2,2'-oxybis(1-Chloropr...	5.010	121	193913	98.69	ppm	#	49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144287.D
Acq On : 28 Feb 2018 10:16 am
Operator : kristis
Sample : ic6121-100
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 12:08:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.122	108	536650	86.52	ppm		84
22) n-Nitroso-di-n-propyla...	5.133	70	354012	92.72	ppm		95
23) Hexachloroethane	5.219	201	268897	87.65	ppm		90
26) Nitrobenzene	5.277	77	640379	93.50	ppm	#	45
27) Quinoline	6.367	129	1518545	93.49	ppm		99
28) Isophorone	5.491	82	1304855	100.85	ppm		95
29) 2-Nitrophenol	5.566	139	436675	100.52	ppm		82
30) 2,4-Dimethylphenol	5.608	107	630912	94.40	ppm		97
31) Benzoic acid	5.753	105	664846m	136.03	ppm		
32) bis(2-Chloroethoxy)met...	5.694	93	734728	99.21	ppm		98
33) 2,4-Dichlorophenol	5.811	162	573637	77.71	ppm		95
34) 2,6-Dichlorophenol	6.052	162	512139	73.85	ppm		96
35) 1,3,5-Trichlorobenzene	5.582	180	595100	69.92	ppm		92
36) 1,2,4-Trichlorobenzene	5.897	180	639604	75.01	ppm		94
37) 1,2,3-Trichlorobenzene	6.143	180	575545	74.74	ppm		96
38) Naphthalene	5.982	128	1789618	78.91	ppm		96
39) 4-Chloroaniline	6.036	127	820369	86.08	ppm		96
40) 2,3-Dichloroaniline	7.179	161	668634	76.56	ppm		97
41) Caprolactam	6.468	55	372285	172.20	ppm	#	1
42) Hexachlorobutadiene	6.121	225	342997	83.14	ppm		99
43) 4-Chloro-3-methylphenol	6.613	107	640469	96.09	ppm		96
44) 2-Methylnaphthalene	6.799	141	1090495	76.79	ppm	#	77
45) 1-Methylnaphthalene	6.933	142	1301168	79.08	ppm		84
46) Dimethylnaphthalene	7.686	156	1115015	74.05	ppm		96
48) Hexachlorocyclopentadiene	7.024	237	750354	244.00	ppm		99
49) 2,4,6-Trichlorophenol	7.189	196	398700	100.01	ppm		98
50) 2,4,5-Trichlorophenol	7.243	196	462064	109.53	ppm		98
52) 2-Chloronaphthalene	7.478	162	1119320	93.59	ppm		96
53) Biphenyl	7.456	154	1495565	92.57	ppm		99
54) 2-Nitroaniline	7.633	65	413073	185.81	ppm		82
55) Dimethylphthalate	7.937	163	1484344	101.88	ppm		98
56) Acenaphthylene	8.103	152	1930893	98.68	ppm		92
57) 2,6-Dinitrotoluene	8.017	165	356572	145.03	ppm		91
58) 3-Nitroaniline	8.284	138	481791	151.76	ppm		99
59) Acenaphthene	8.391	153	1170976	95.27	ppm		90
60) 2,4-Dinitrophenol	8.455	184	492478	416.88	ppm		91
61) 4-Nitrophenol	8.599	109	236813	165.84	ppm		91
62) Dibenzofuran	8.680	168	1534791	82.85	ppm		92
63) 2,4-Dinitrotoluene	8.680	165	398177	120.67	ppm		72
64) 2,3,4,6-Tetrachlorophenol	8.899	232	443906	124.48	ppm		98
65) Diethylphthalate	9.144	149	1506653	110.54	ppm		99
66) Fluorene	9.267	166	1356772	92.36	ppm		90
67) 4-Chlorophenyl-phenyle...	9.294	204	620936	90.31	ppm		95
68) 4-Nitroaniline	9.342	138	440899	150.57	ppm		99
70) 4,6-Dinitro-2-methylph...	9.390	198	331071	196.98	ppm		91
71) n-Nitrosodiphenylamine	9.518	169	1034812	102.72	ppm		97
72) 1,2-Diphenylhydrazine	9.577	77	1307063	125.94	ppm		93
74) 4-Bromophenyl-phenylether	10.175	248	473203	113.12	ppm		95
75) Hexachlorobenzene	10.266	284	494003	99.17	ppm		91
76) Pentachlorophenol	10.645	266	694953	250.54	ppm		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144287.D
Acq On : 28 Feb 2018 10:16 am
Operator : kristis
Sample : ic6121-100
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 12:08:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

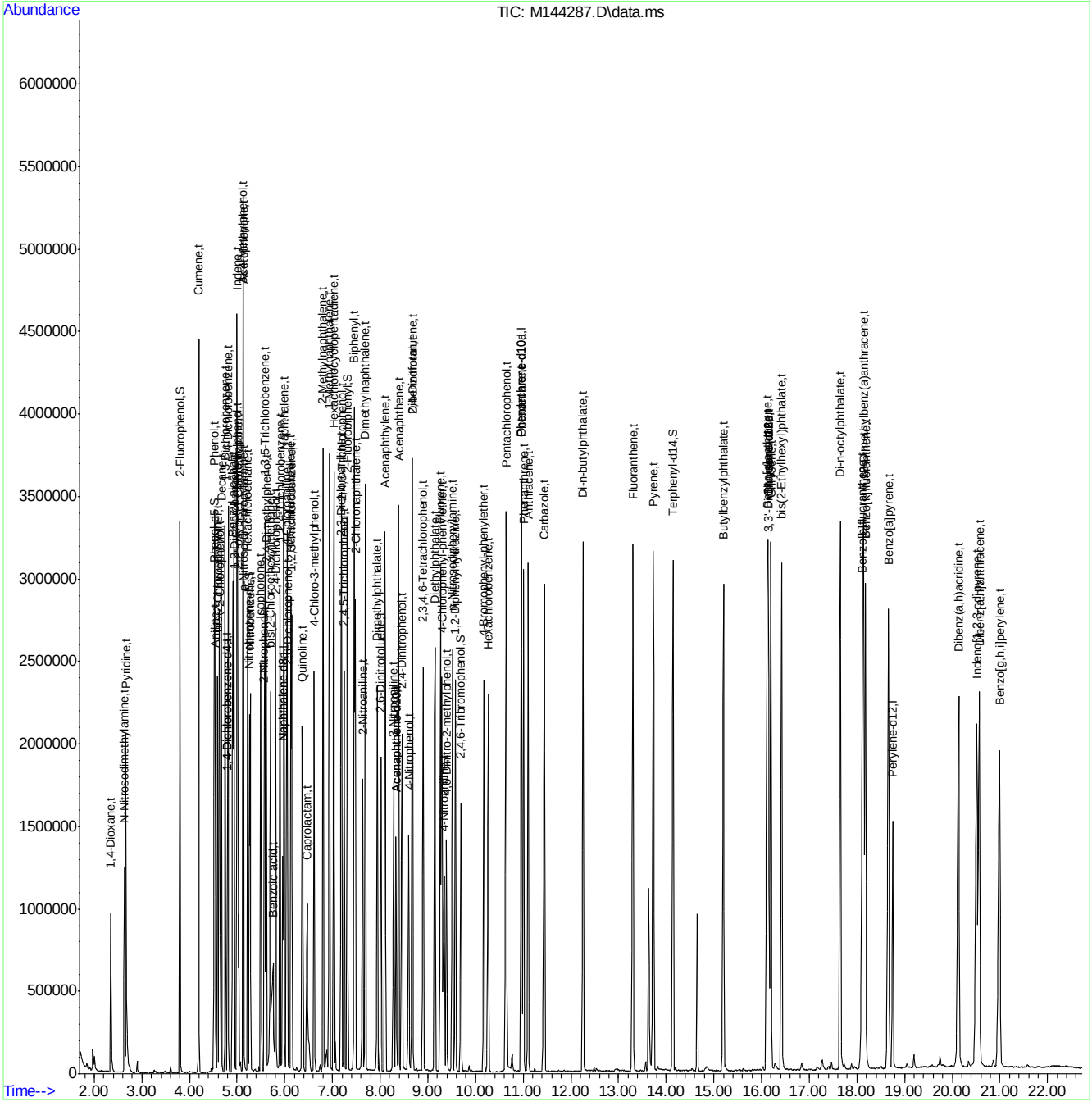
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	11.014	178	1905061	97.34	ppm	96
78) Anthracene	11.104	178	2009392	101.68	ppm	99
79) Carbazole	11.446	167	2019087	102.80	ppm	99
80) Di-n-butylphthalate	12.258	149	2691614	133.88	ppm	98
81) Fluoranthene	13.305	202	2293896	104.96	ppm	98
82) Octadecane	10.966	57	788955	203.64	ppm	87
84) Pyrene	13.732	202	2251965	105.56	ppm	98
86) Butylbenzylphthalate	15.201	149	1263410	178.04	ppm	98
87) Benzo[a]anthracene	16.120	228	2291444	129.21	ppm	98
88) 3,3'-Dichlorobenzidine	16.146	252	820826	174.65	ppm	99
89) Chrysene	16.194	228	1989401	117.22	ppm	94
90) bis(2-Ethylhexyl)phtha...	16.419	149	1605249	194.54	ppm	100
92) Di-n-octylphthalate	17.653	149	2927143	177.12	ppm	96
93) Benzo[b]fluoranthene	18.117	252	2299692	100.06	ppm	86
94) Benzo[k]fluoranthene	18.181	252	1992677	82.39	ppm	81
95) Benzo[a]pyrene	18.662	252	2125371	102.10	ppm	87
96) Indeno[1,2,3-cd]pyrene	20.515	276	2105508	85.97	ppm	84
97) Dibenz(a,h)acridine	20.136	279	2026319	124.99	ppm	85
98) Dibenz[a,h]anthracene	20.569	278	2060093	108.73	ppm	65
99) 7,12-Dimethylbenz(a)an...	18.139	256	979614	99.20	ppm	99
100) Benzo[g,h,i]perylene	20.996	276	2038103	104.40	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144287.D
Acq On : 28 Feb 2018 10:16 am
Operator : kristis
Sample : ic6121-100
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 12:08:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration



Manual Integration Approval Summary

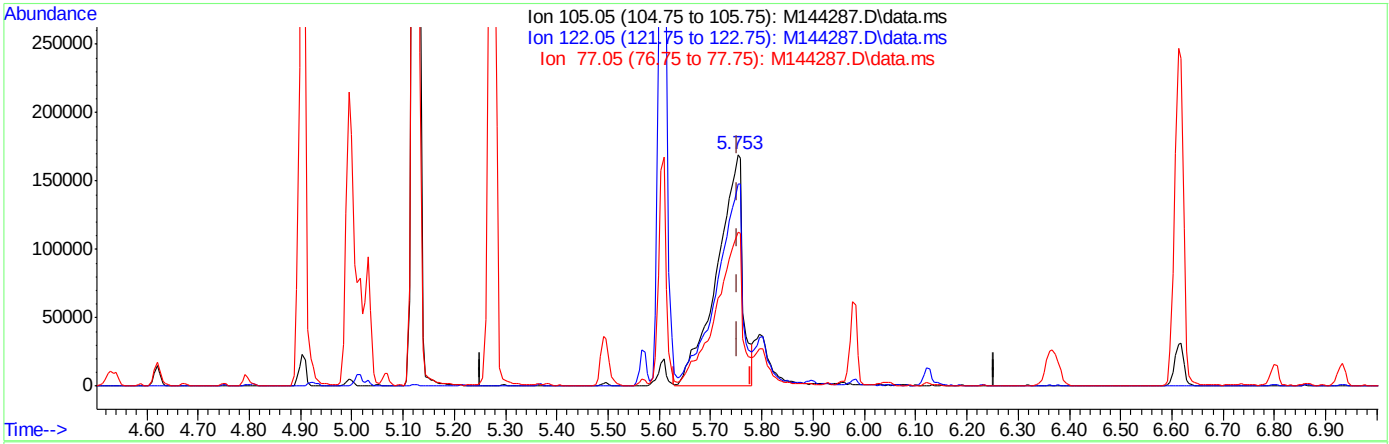
Sample Number:	EM6121-IC6121	**Method:**	SW846 8270D
Lab FileID:	M144287.D	**Analyst approved:**	03/01/18 12:16 Kristi Schollenberger
Injection Time:	02/28/18 10:16	**Supervisor approved:**	03/01/18 18:16 Nina Pandya

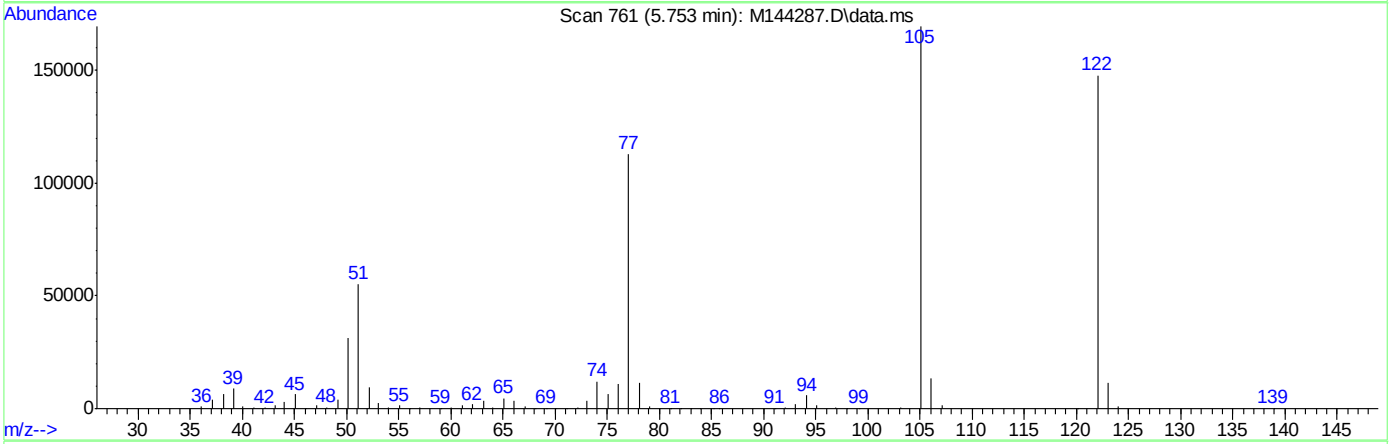
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.75	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144287.D
Acq On : 28 Feb 2018 10:16 am
Operator : kristis
Sample : ic6121-100
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 10:53:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration





TIC: M144287.D\data.ms

(31) Benzoic acid (t)

5.753min (0.000) 120.55ppm

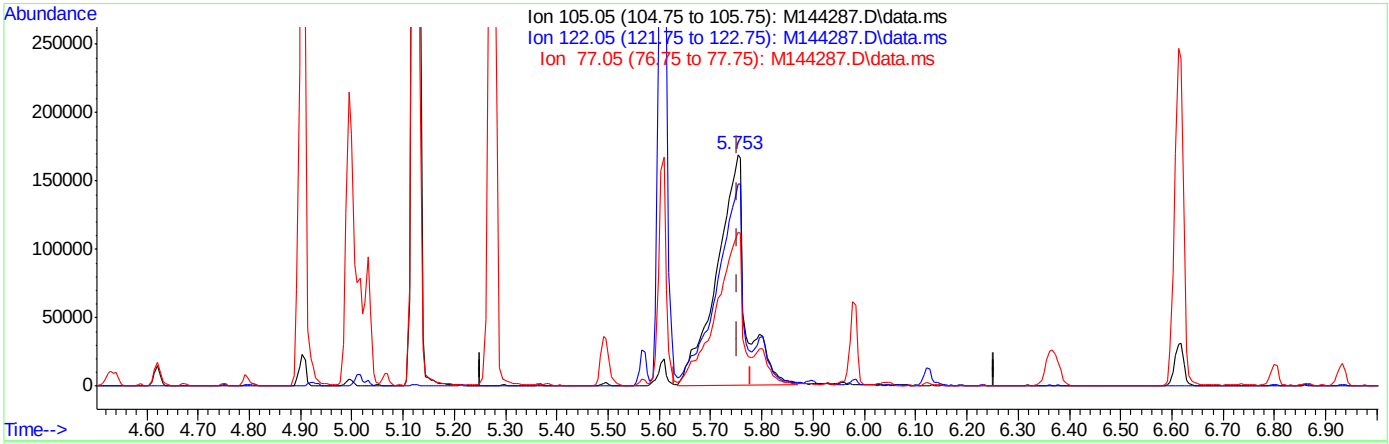
response 589188

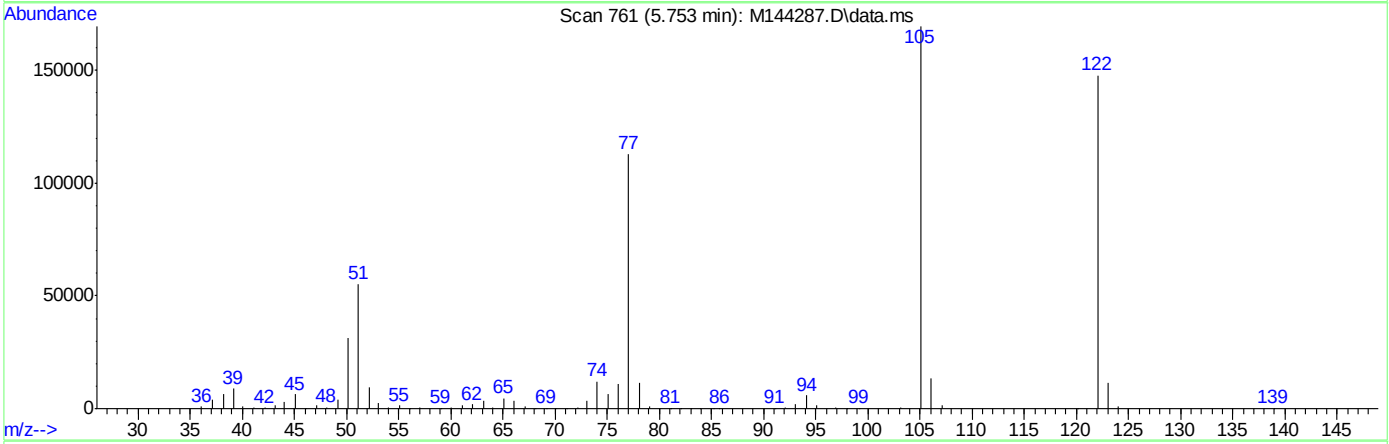
Ion	Exp%	Act%
105.05	100	100
122.05	82.00	85.05
77.05	65.60	65.69
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144287.D
Acq On : 28 Feb 2018 10:16 am
Operator : kristis
Sample : ic6121-100
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 10:53:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration





TIC: M144287.D\data.ms

(31) Benzoic acid (t)

5.753min (0.000) 136.03ppm m

response 664846

Ion	Exp%	Act%
105.05	100	100
122.05	82.00	87.16
77.05	65.60	66.69
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144288.D
Acq On : 28 Feb 2018 10:58 am
Operator : kristis
Sample : ic6121-1
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 12:10:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.788	152	305864	40.00	ppm		0.00
24) Naphthalene-d8	5.952	136	1103533	40.00	ppm		0.00
47) Acenaphthene-d10	8.329	164	540070	40.00	ppm		0.00
69) Phenanthrene-d10	10.957	188	1036074	40.00	ppm		0.00
83) Chrysene-d12	16.127	240	1023635	40.00	ppm		-0.01
91) Perylene-d12	18.744	264	1080244	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.788	152	305864	40.00	ppm		0.00
103) Acenaphthene-d10a	8.329	164	540070	40.00	ppm		0.00
106) Chrysene-d12a	16.127	240	1023635	40.00	ppm		-0.01
109) Phenanthrene-d10a	10.957	188	1036074	40.00	ppm		0.00
112) Naphthalene-d8a	5.952	136	1103533	40.00	ppm		0.00
114) Chrysene-d12b	16.127	240	1023635	40.00	ppm		-0.01
System Monitoring Compounds							
5) 2-Fluorophenol	3.794	112	13820	1.23	ppm		0.00
Spiked Amount 50.000			Recovery =	2.46%			
8) Phenol-d5	4.505	99	16704	1.31	ppm		0.00
Spiked Amount 50.000			Recovery =	2.62%			
25) Nitrobenzene-d5	5.247	82	12383	1.33	ppm		0.00
Spiked Amount 50.000			Recovery =	2.66%			
51) 2-Fluorobiphenyl	7.303	172	26128	1.37	ppm		0.00
Spiked Amount 50.000			Recovery =	2.74%			
73) 2,4,6-Tribromophenol	9.680	330	4721	1.42	ppm		-0.01
Spiked Amount 50.000			Recovery =	2.84%			
85) Terphenyl-d14	14.129	244	30374	1.36	ppm		-0.01
Spiked Amount 50.000			Recovery =	2.72%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) 1,4-Dioxane	2.358	88	6709	1.33	ppm		81
3) Pyridine	2.689	79	16771	1.40	ppm		83
4) N-Nitrosodimethylamine	2.635	42	6554	1.59	ppm	#	52
6) Indene	5.001	116	21239	1.35	ppm		94
7) Cumene	4.190	105	33605	1.32	ppm		97
9) Phenol	4.515	94	18683	1.32	ppm		98
10) Aniline	4.531	93	21990	1.55	ppm		91
11) bis(2-Chloroethyl)ether	4.580	93	13606	1.50	ppm		96
12) 2-Chlorophenol	4.628	128	15158	1.37	ppm		89
13) Decane	4.670	43	13911	2.42	ppm	#	1
14) 1,3-Dichlorobenzene	4.745	146	16380	1.26	ppm		90
15) 1,4-Dichlorobenzene	4.804	146	14232	1.17	ppm		95
16) Benzyl alcohol	4.895	108	8421	1.33	ppm		97
17) 1,2-Dichlorobenzene	4.927	146	13682	1.20	ppm		96
18) Acetophenone	5.114	105	17843	1.40	ppm	#	12
19) 2-Methylphenol	4.985	108	11994	1.37	ppm		95
20) 2,2'-oxybis(1-Chloropr...	5.007	121	4092	1.43	ppm	#	20

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144288.D
Acq On : 28 Feb 2018 10:58 am
Operator : kristis
Sample : ic6121-1
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 12:10:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.114	108	11361	1.26	ppm	#	82
22) n-Nitroso-di-n-propyla...	5.114	70	9325	1.67	ppm		91
23) Hexachloroethane	5.220	201	4687	1.05	ppm		95
26) Nitrobenzene	5.263	77	13323	1.45	ppm	#	41
27) Quinoline	6.347	129	25033	1.15	ppm		99
28) Isophorone	5.482	82	23973	1.38	ppm		97
29) 2-Nitrophenol	5.562	139	6474	1.11	ppm		87
30) 2,4-Dimethylphenol	5.594	107	10139	1.13	ppm		88
31) Benzoic acid	5.648	105	4825	0.74	ppm		83
32) bis(2-Chloroethoxy)met...	5.685	93	13921	1.40	ppm		97
33) 2,4-Dichlorophenol	5.803	162	8927	0.90	ppm		90
34) 2,6-Dichlorophenol	6.038	162	9257	0.99	ppm		89
35) 1,3,5-Trichlorobenzene	5.578	180	12573	1.10	ppm		94
36) 1,2,4-Trichlorobenzene	5.893	180	12200	1.07	ppm		97
37) 1,2,3-Trichlorobenzene	6.134	180	11688	1.13	ppm		95
38) Naphthalene	5.974	128	35171	1.15	ppm		96
39) 4-Chloroaniline	6.027	127	16071	1.26	ppm		95
40) 2,3-Dichloroaniline	7.175	161	12626	1.08	ppm		89
41) Caprolactam	6.385	55	6946	2.39	ppm	#	1
42) Hexachlorobutadiene	6.118	225	6662	1.20	ppm		95
43) 4-Chloro-3-methylphenol	6.598	107	10960	1.22	ppm		90
44) 2-Methylnaphthalene	6.796	141	20480	1.07	ppm	#	73
45) 1-Methylnaphthalene	6.924	142	25344	1.15	ppm		83
46) Dimethylnaphthalene	7.677	156	22117	1.09	ppm		98
48) Hexachlorocyclopentadiene	7.020	237	11736	2.93	ppm		89
49) 2,4,6-Trichlorophenol	7.181	196	7571	1.46	ppm		92
50) 2,4,5-Trichlorophenol	7.229	196	8553	1.56	ppm		95
52) 2-Chloronaphthalene	7.464	162	24422	1.57	ppm		97
53) Biphenyl	7.442	154	30228	1.44	ppm		99
54) 2-Nitroaniline	7.619	65	6740	2.33	ppm	#	81
55) Dimethylphthalate	7.923	163	26790	1.41	ppm		98
56) Acenaphthylene	8.094	152	36882	1.45	ppm		89
57) 2,6-Dinitrotoluene	7.998	165	4990	1.56	ppm		83
58) 3-Nitroaniline	8.260	138	6937	1.68	ppm		92
59) Acenaphthene	8.377	153	22073	1.38	ppm		85
60) 2,4-Dinitrophenol	8.436	184	2585	1.68	ppm		90
61) 4-Nitrophenol	8.585	109	2732	1.47	ppm	#	57
62) Dibenzofuran	8.665	168	32856	1.36	ppm		98
63) 2,4-Dinitrotoluene	8.655	165	6377	1.49	ppm		70
64) 2,3,4,6-Tetrachlorophenol	8.890	232	6646	1.43	ppm		99
65) Diethylphthalate	9.125	149	37636	2.12	ppm		97
66) Fluorene	9.253	166	24919	1.30	ppm		97
67) 4-Chlorophenyl-phenyle...	9.285	204	12207	1.36	ppm		94
68) 4-Nitroaniline	9.296	138	6587	1.73	ppm		86
70) 4,6-Dinitro-2-methylph...	9.360	198	2408	0.97	ppm		83
71) n-Nitrosodiphenylamine	9.499	169	18648	1.26	ppm		94
72) 1,2-Diphenylhydrazine	9.563	77	26587	1.74	ppm		90
74) 4-Bromophenyl-phenylether	10.166	248	8216	1.34	ppm		88
75) Hexachlorobenzene	10.252	284	9485	1.30	ppm		87
76) Pentachlorophenol	10.631	266	9753	2.39	ppm		83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144288.D
Acq On : 28 Feb 2018 10:58 am
Operator : kristis
Sample : ic6121-1
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 12:10:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

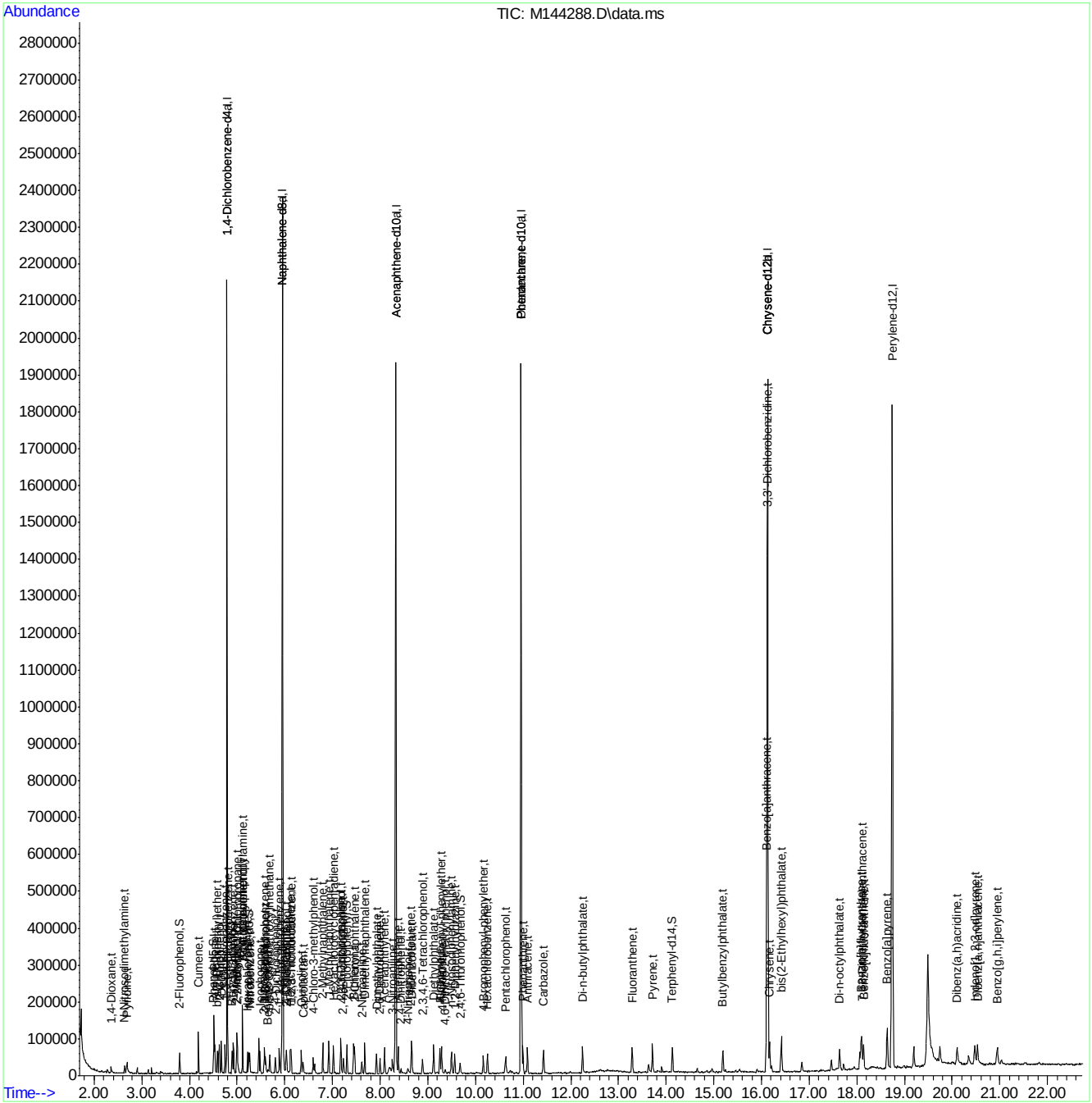
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.994	178	36003	1.25	ppm	100
78) Anthracene	11.090	178	36893	1.27	ppm	96
79) Carbazole	11.427	167	34456	1.19	ppm	99
80) Di-n-butylphthalate	12.249	149	47377	1.60	ppm	97
81) Fluoranthene	13.285	202	38919	1.21	ppm	96
82) Octadecane	10.957	57	14374	2.52	ppm	87
84) Pyrene	13.713	202	43123	1.24	ppm	97
86) Butylbenzylphthalate	15.187	149	21364	1.84	ppm	95
87) Benzo[a]anthracene	16.106	228	40403	1.39	ppm	96
88) 3,3'-Dichlorobenzidine	16.132	252	12585	1.64	ppm	95
89) Chrysene	16.170	228	36848	1.33	ppm	92
90) bis(2-Ethylhexyl)phtha...	16.415	149	43337	3.22	ppm	99
92) Di-n-octylphthalate	17.638	149	40250	1.86	ppm	95
93) Benzo[b]fluoranthene	18.092	252	41922	1.39	ppm	88
94) Benzo[k]fluoranthene	18.140	252	37510	1.18	ppm	83
95) Benzo[a]pyrene	18.632	252	37605	1.38	ppm	89
96) Indeno[1,2,3-cd]pyrene	20.475	276	32698	1.02	ppm	92
97) Dibenz(a,h)acridine	20.106	279	31654	1.49	ppm	87
98) Dibenz[a,h]anthracene	20.533	278	34065	1.37	ppm	66
99) 7,12-Dimethylbenz(a)an...	18.108	256	14027	1.08	ppm	91
100) Benzo[g,h,i]perylene	20.939	276	35173	1.37	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144288.D
Acq On : 28 Feb 2018 10:58 am
Operator : kristis
Sample : ic6121-1
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 12:10:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 18:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144289.D
Acq On : 28 Feb 2018 11:28 am
Operator : kristis
Sample : ic6121-80
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 12:11:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.793	152	199524	40.00	ppm		0.00
24) Naphthalene-d8	5.952	136	782105	40.00	ppm		0.00
47) Acenaphthene-d10	8.329	164	397006	40.00	ppm		0.00
69) Phenanthrene-d10	10.957	188	701184	40.00	ppm		0.00
83) Chrysene-d12	16.133	240	626066	40.00	ppm		0.00
91) Perylene-d12	18.744	264	797128	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.793	152	199524	40.00	ppm		0.00
103) Acenaphthene-d10a	8.329	164	397006	40.00	ppm		0.00
106) Chrysene-d12a	16.133	240	626066	40.00	ppm		0.00
109) Phenanthrene-d10a	10.957	188	701184	40.00	ppm		0.00
112) Naphthalene-d8a	5.952	136	782105	40.00	ppm		0.00
114) Chrysene-d12b	16.133	240	626066	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	3.795	112	703635	95.65	ppm		0.00
Spiked Amount 50.000			Recovery =	191.30%			
8) Phenol-d5	4.510	99	771097	92.85	ppm		0.00
Spiked Amount 50.000			Recovery =	185.70%			
25) Nitrobenzene-d5	5.253	82	564628	85.67	ppm		0.00
Spiked Amount 50.000			Recovery =	171.34%			
51) 2-Fluorobiphenyl	7.309	172	1076298	76.72	ppm		0.00
Spiked Amount 50.000			Recovery =	153.44%			
73) 2,4,6-Tribromophenol	9.691	330	234804	104.44	ppm		0.00
Spiked Amount 50.000			Recovery =	208.88%			
85) Terphenyl-d14	14.140	244	1402153	102.29	ppm		0.00
Spiked Amount 50.000			Recovery =	204.58%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) 1,4-Dioxane	2.347	88	323261	98.24	ppm		76
3) Pyridine	2.657	79	754002	96.38	ppm		98
4) N-Nitrosodimethylamine	2.630	42	300092	111.77	ppm		94
6) Indene	5.002	116	743338	72.43	ppm		97
7) Cumene	4.190	105	1317085	79.55	ppm		97
9) Phenol	4.521	94	760853	82.45	ppm		92
10) Aniline	4.537	93	741774	80.14	ppm		95
11) bis(2-Chloroethyl)ether	4.585	93	519641	87.60	ppm		94
12) 2-Chlorophenol	4.633	128	568138	78.54	ppm		93
13) Decane	4.671	43	421125	112.30	ppm	#	1
14) 1,3-Dichlorobenzene	4.751	146	608089	71.54	ppm		97
15) 1,4-Dichlorobenzene	4.804	146	582681	73.44	ppm		95
16) Benzyl alcohol	4.900	108	381791	92.40	ppm		96
17) 1,2-Dichlorobenzene	4.932	146	512989	69.00	ppm		97
18) Acetophenone	5.125	105	563755	67.89	ppm	#	16
19) 2-Methylphenol	4.996	108	470506	82.53	ppm		94
20) 2,2'-oxybis(1-Chloropr...	5.012	121	153349	82.00	ppm	#	38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144289.D
Acq On : 28 Feb 2018 11:28 am
Operator : kristis
Sample : ic6121-80
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 12:11:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.119	108	453199	76.77	ppm	#	80
22) n-Nitroso-di-n-propyla...	5.125	70	282233	77.66	ppm		93
23) Hexachloroethane	5.221	201	214355	73.41	ppm		95
26) Nitrobenzene	5.274	77	503383	77.22	ppm	#	46
27) Quinoline	6.358	129	1201221	77.70	ppm		99
28) Isophorone	5.488	82	1026540	83.36	ppm		96
29) 2-Nitrophenol	5.568	139	349929	84.63	ppm		89
30) 2,4-Dimethylphenol	5.605	107	498780	78.41	ppm		98
31) Benzoic acid	5.739	105	501755m	107.86	ppm		
32) bis(2-Chloroethoxy)met...	5.696	93	577789	81.97	ppm		98
33) 2,4-Dichlorophenol	5.808	162	471922	67.17	ppm		97
34) 2,6-Dichlorophenol	6.049	162	421105	63.80	ppm		97
35) 1,3,5-Trichlorobenzene	5.579	180	494234	61.01	ppm		91
36) 1,2,4-Trichlorobenzene	5.894	180	511964	63.08	ppm		96
37) 1,2,3-Trichlorobenzene	6.139	180	461102	62.91	ppm		97
38) Naphthalene	5.979	128	1459916	67.64	ppm		95
39) 4-Chloroaniline	6.033	127	675374	74.45	ppm		95
40) 2,3-Dichloroaniline	7.181	161	538091	64.73	ppm		98
41) Caprolactam	6.460	55	284809	138.41	ppm	#	1
42) Hexachlorobutadiene	6.123	225	279286	71.13	ppm		100
43) 4-Chloro-3-methylphenol	6.609	107	517730	81.61	ppm		95
44) 2-Methylnaphthalene	6.802	141	890360	65.88	ppm		77
45) 1-Methylnaphthalene	6.930	142	1047485	66.89	ppm		84
46) Dimethylnaphthalene	7.683	156	892951	62.30	ppm		97
48) Hexachlorocyclopentadiene	7.026	237	605521	205.88	ppm		99
49) 2,4,6-Trichlorophenol	7.192	196	327272	85.84	ppm		98
50) 2,4,5-Trichlorophenol	7.240	196	370427	91.82	ppm		98
52) 2-Chloronaphthalene	7.475	162	917234	80.19	ppm		96
53) Biphenyl	7.453	154	1222223	79.10	ppm		100
54) 2-Nitroaniline	7.630	65	315809	148.54	ppm		84
55) Dimethylphthalate	7.939	163	1189820	85.39	ppm		99
56) Acenaphthylene	8.100	152	1571392	83.97	ppm		92
57) 2,6-Dinitrotoluene	8.014	165	278220	118.32	ppm		94
58) 3-Nitroaniline	8.281	138	372025	122.53	ppm		98
59) Acenaphthene	8.388	153	946482	80.52	ppm		90
60) 2,4-Dinitrophenol	8.452	184	363993	322.17	ppm		92
61) 4-Nitrophenol	8.596	109	176719	129.40	ppm		96
62) Dibenzofuran	8.676	168	1260837	71.17	ppm		94
63) 2,4-Dinitrotoluene	8.676	165	328308	104.03	ppm		75
64) 2,3,4,6-Tetrachlorophenol	8.895	232	355763	104.31	ppm		97
65) Diethylphthalate	9.141	149	1217185	93.38	ppm		98
66) Fluorene	9.264	166	1098104	78.16	ppm		89
67) 4-Chlorophenyl-phenyle...	9.296	204	508602	77.35	ppm		97
68) 4-Nitroaniline	9.333	138	343345	122.60	ppm		97
70) 4,6-Dinitro-2-methylph...	9.387	198	254488	152.23	ppm		96
71) n-Nitrosodiphenylamine	9.510	169	834691	83.31	ppm		98
72) 1,2-Diphenylhydrazine	9.574	77	1039649	100.71	ppm		93
74) 4-Bromophenyl-phenylether	10.172	248	382564	91.95	ppm		95
75) Hexachlorobenzene	10.263	284	408851	82.52	ppm		89
76) Pentachlorophenol	10.642	266	556551	201.73	ppm		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144289.D
Acq On : 28 Feb 2018 11:28 am
Operator : kristis
Sample : ic6121-80
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 12:11:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

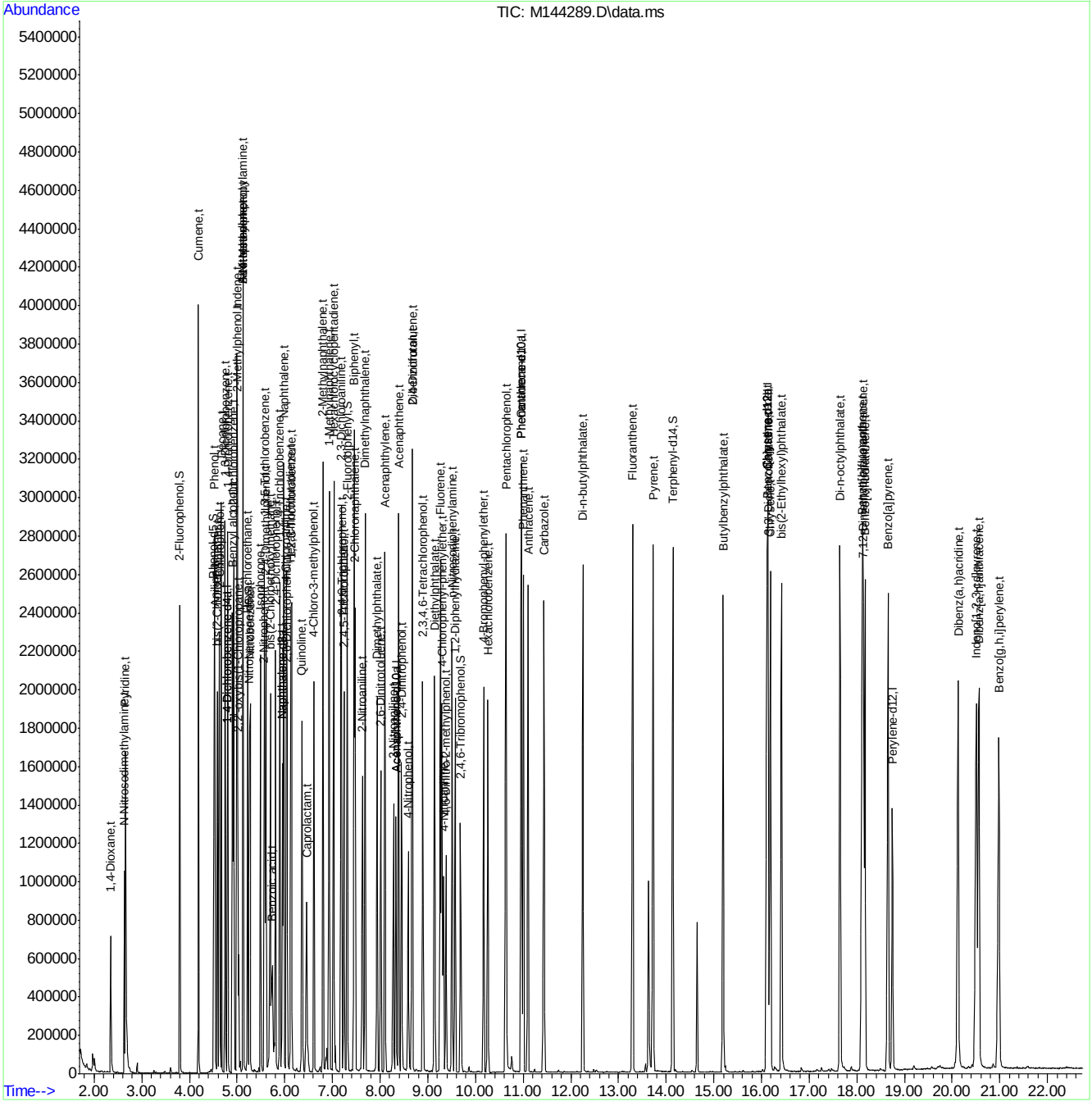
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	11.005	178	1540407	79.13	ppm	95
78) Anthracene	11.107	178	1627962	82.82	ppm	99
79) Carbazole	11.438	167	1618662	82.86	ppm	98
80) Di-n-butylphthalate	12.255	149	2168622	108.45	ppm	98
81) Fluoranthene	13.296	202	1870885	86.07	ppm	98
82) Octadecane	10.962	57	635811	165.00	ppm	86
84) Pyrene	13.729	202	1823160	85.55	ppm	98
86) Butylbenzylphthalate	15.198	149	1005006	141.77	ppm	98
87) Benzo[a]anthracene	16.117	228	1855285	104.72	ppm	98
88) 3,3'-Dichlorobenzidine	16.143	252	662031	141.02	ppm	97
89) Chrysene	16.191	228	1615959	95.32	ppm	93
90) bis(2-Ethylhexyl)phtha...	16.421	149	1279961	155.28	ppm	99
92) Di-n-octylphthalate	17.644	149	2376169	148.69	ppm	96
93) Benzo[b]fluoranthene	18.114	252	1893239	85.18	ppm	86
94) Benzo[k]fluoranthene	18.173	252	1656548	70.83	ppm	80
95) Benzo[a]pyrene	18.659	252	1754976	87.18	ppm	86
96) Indeno[1,2,3-cd]pyrene	20.507	276	1719191	72.59	ppm	84
97) Dibenz(a,h)acridine	20.128	279	1682090	107.29	ppm	85
98) Dibenz[a,h]anthracene	20.560	278	1706640	93.15	ppm	65
99) 7,12-Dimethylbenz(a)an...	18.135	256	797914	83.56	ppm	99
100) Benzo[g,h,i]perylene	20.982	276	1682489	89.13	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144289.D
Acq On : 28 Feb 2018 11:28 am
Operator : kristis
Sample : ic6121-80
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 12:11:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration



Manual Integration Approval Summary

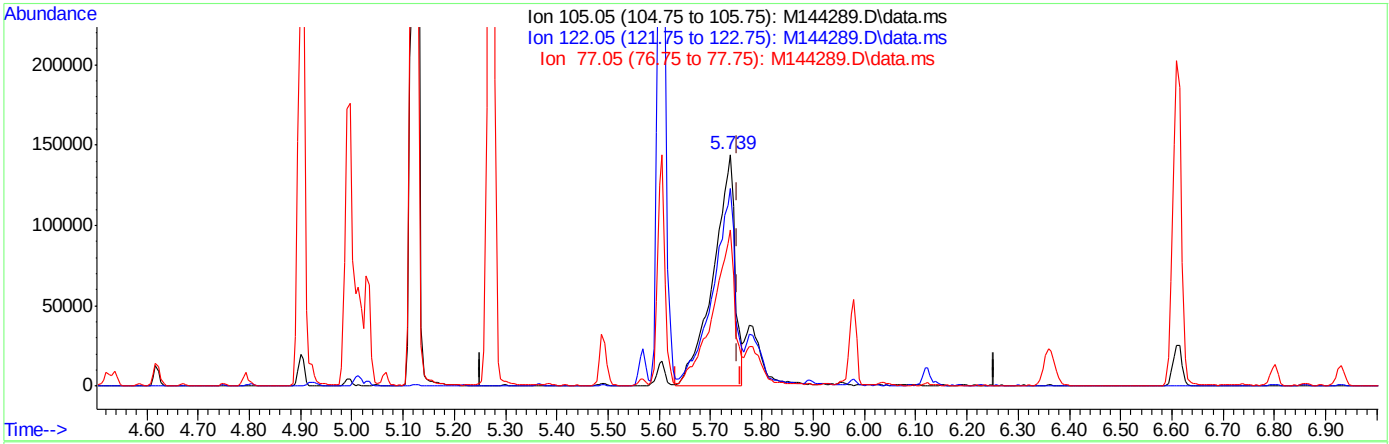
Sample Number:	EM6121-IC6121	**Method:**	SW846 8270D
Lab FileID:	M144289.D	**Analyst approved:**	03/01/18 12:16 Kristi Schollenberger
Injection Time:	02/28/18 11:28	**Supervisor approved:**	03/01/18 18:16 Nina Pandya

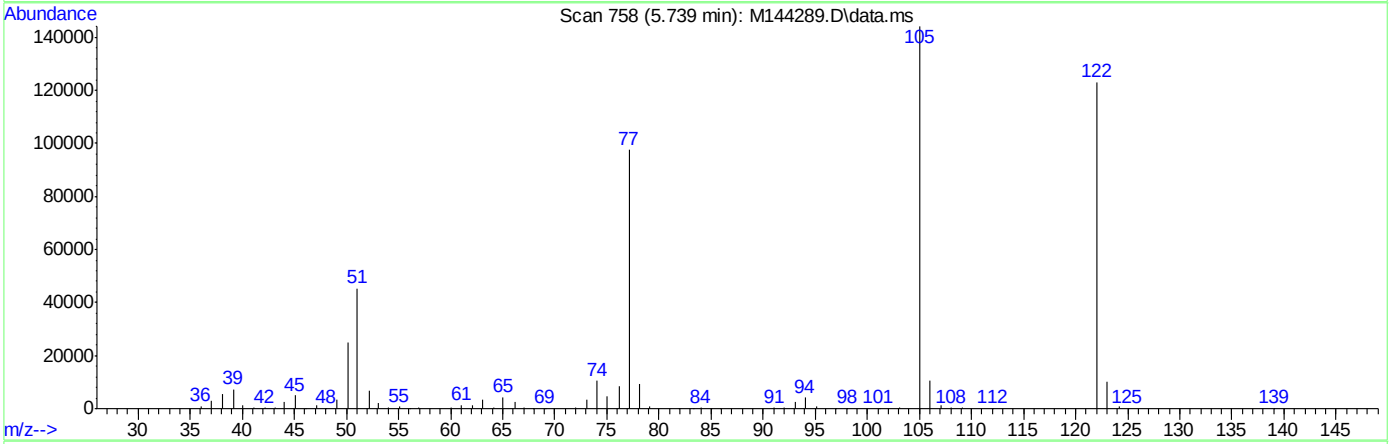
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.74	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144289.D
Acq On : 28 Feb 2018 11:28 am
Operator : kristis
Sample : ic6121-80
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 12:10:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration





TIC: M144289.D\data.ms

(31) Benzoic acid (t)

5.739min (-0.014) 90.18ppm

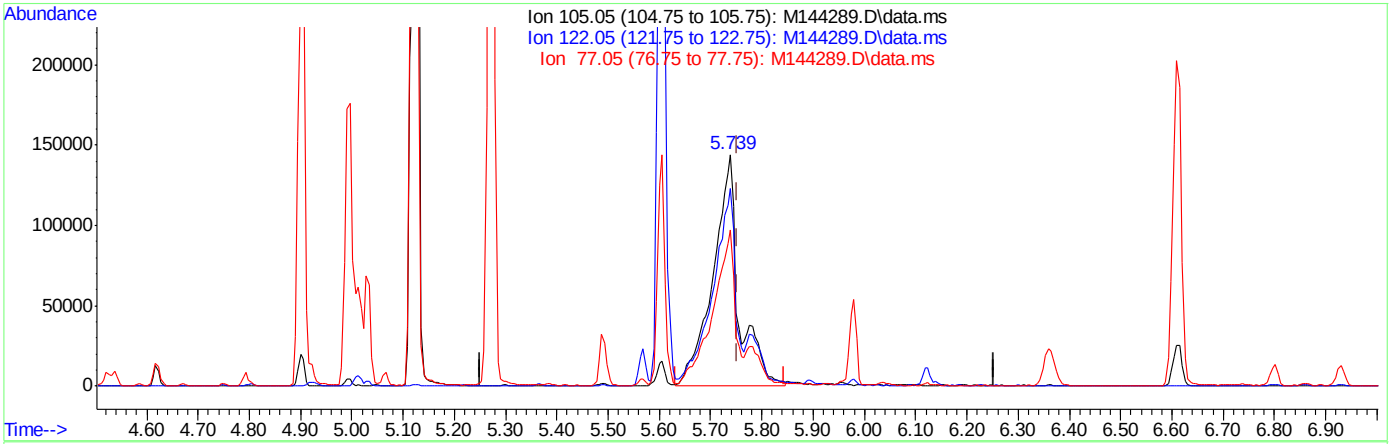
response 419493

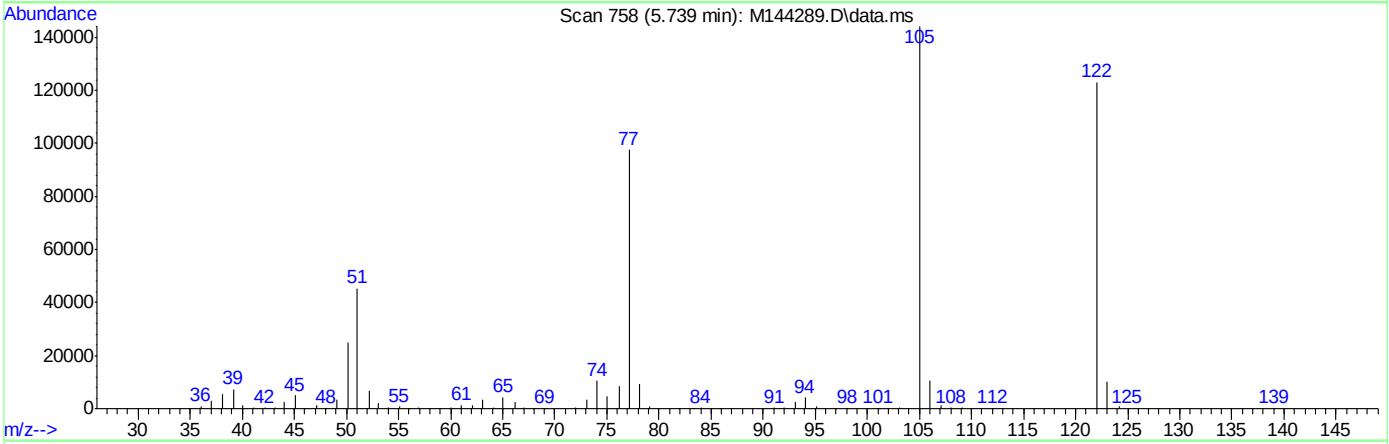
Ion	Exp%	Act%
105.05	100	100
122.05	82.00	83.24
77.05	65.60	66.94
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144289.D
Acq On : 28 Feb 2018 11:28 am
Operator : kristis
Sample : ic6121-80
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 12:10:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration





TIC: M144289.D\data.ms

(31) Benzoic acid (t)

5.739min (-0.014) 107.86ppm m

response 501755

Ion	Exp%	Act%
105.05	100	100
122.05	82.00	85.46
77.05	65.60	67.65
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 18:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144290.D
Acq On : 28 Feb 2018 11:58 am
Operator : kristis
Sample : ic6121-5
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 12:46:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.791	152	291232	40.00	ppm		0.00
24) Naphthalene-d8	5.950	136	1074335	40.00	ppm		0.00
47) Acenaphthene-d10	8.327	164	532344	40.00	ppm		0.00
69) Phenanthrene-d10	10.954	188	1035890	40.00	ppm		0.00
83) Chrysene-d12	16.125	240	1032467	40.00	ppm		-0.02
91) Perylene-d12	18.747	264	1089502	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.791	152	291232	40.00	ppm		0.00
103) Acenaphthene-d10a	8.327	164	532344	40.00	ppm		0.00
106) Chrysene-d12a	16.125	240	1032467	40.00	ppm		-0.02
109) Phenanthrene-d10a	10.954	188	1035890	40.00	ppm		0.00
112) Naphthalene-d8a	5.950	136	1074335	40.00	ppm		0.00
114) Chrysene-d12b	16.125	240	1032467	40.00	ppm		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	3.797	112	67754	6.31	ppm		0.00
Spiked Amount 50.000			Recovery = 12.62%				
8) Phenol-d5	4.502	99	81586	6.73	ppm		-0.01
Spiked Amount 50.000			Recovery = 13.46%				
25) Nitrobenzene-d5	5.250	82	60831	6.72	ppm		0.00
Spiked Amount 50.000			Recovery = 13.44%				
51) 2-Fluorobiphenyl	7.301	172	119645	6.36	ppm		-0.01
Spiked Amount 50.000			Recovery = 12.72%				
73) 2,4,6-Tribromophenol	9.678	330	22716	6.84	ppm		-0.02
Spiked Amount 50.000			Recovery = 13.68%				
85) Terphenyl-d14	14.132	244	145405	6.43	ppm		-0.01
Spiked Amount 50.000			Recovery = 12.86%				
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.355	88	30248	6.30	ppm		77
3) Pyridine	2.670	79	76282	6.68	ppm		98
4) N-Nitrosodimethylamine	2.633	42	29427	7.51	ppm		85
6) Indene	4.999	116	97186	6.49	ppm		98
7) Cumene	4.193	105	153426	6.35	ppm		98
9) Phenol	4.513	94	91668	6.81	ppm		94
10) Aniline	4.534	93	101461	7.51	ppm		97
11) bis(2-Chloroethyl)ether	4.582	93	61783	7.14	ppm		96
12) 2-Chlorophenol	4.631	128	70431	6.67	ppm		94
13) Decane	4.668	43	59730	10.91	ppm	#	1
14) 1,3-Dichlorobenzene	4.748	146	72651	5.86	ppm		92
15) 1,4-Dichlorobenzene	4.807	146	67254	5.81	ppm		96
16) Benzyl alcohol	4.898	108	40468	6.71	ppm		93
17) 1,2-Dichlorobenzene	4.930	146	64914	5.98	ppm		92
18) Acetophenone	5.117	105	78656	6.49	ppm	#	11
19) 2-Methylphenol	4.988	108	55675	6.69	ppm		93
20) 2,2'-oxybis(1-Chloropr...	5.010	121	17608	6.45	ppm	#	25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144290.D
Acq On : 28 Feb 2018 11:58 am
Operator : kristis
Sample : ic6121-5
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 12:46:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.111	108	56932	6.61	ppm		85
22) n-Nitroso-di-n-propyla...	5.117	70	39958	7.53	ppm		96
23) Hexachloroethane	5.218	201	22453	5.27	ppm		90
26) Nitrobenzene	5.266	77	57857	6.46	ppm	#	48
27) Quinoline	6.345	129	116075	5.47	ppm		99
28) Isophorone	5.480	82	104911	6.20	ppm		96
29) 2-Nitrophenol	5.560	139	33372	5.88	ppm		88
30) 2,4-Dimethylphenol	5.597	107	51433	5.89	ppm		98
31) Benzoic acid	5.656	105	27487	4.30	ppm		85
32) bis(2-Chloroethoxy)met...	5.688	93	63623	6.57	ppm		98
33) 2,4-Dichlorophenol	5.800	162	48347	5.01	ppm		95
34) 2,6-Dichlorophenol	6.041	162	44526	4.91	ppm		96
35) 1,3,5-Trichlorobenzene	5.576	180	60445	5.43	ppm		94
36) 1,2,4-Trichlorobenzene	5.891	180	58149	5.22	ppm		98
37) 1,2,3-Trichlorobenzene	6.137	180	53539	5.32	ppm		94
38) Naphthalene	5.971	128	163967	5.53	ppm		95
39) 4-Chloroaniline	6.025	127	75959	6.10	ppm		94
40) 2,3-Dichloroaniline	7.173	161	61103	5.35	ppm		94
41) Caprolactam	6.388	55	27738	9.81	ppm	#	1
42) Hexachlorobutadiene	6.121	225	30677	5.69	ppm		97
43) 4-Chloro-3-methylphenol	6.596	107	51894	5.95	ppm		96
44) 2-Methylnaphthalene	6.794	141	99635	5.37	ppm		78
45) 1-Methylnaphthalene	6.922	142	116459	5.41	ppm		84
46) Dimethylnaphthalene	7.675	156	99369	5.05	ppm		93
48) Hexachlorocyclopentadiene	7.018	237	62123	15.75	ppm		99
49) 2,4,6-Trichlorophenol	7.178	196	36245	7.09	ppm		99
50) 2,4,5-Trichlorophenol	7.226	196	38270	7.07	ppm		97
52) 2-Chloronaphthalene	7.467	162	106798	6.96	ppm		97
53) Biphenyl	7.445	154	139241	6.72	ppm		99
54) 2-Nitroaniline	7.616	65	30265	10.62	ppm	#	78
55) Dimethylphthalate	7.921	163	121516	6.50	ppm		99
56) Acenaphthylene	8.092	152	170309	6.79	ppm		93
57) 2,6-Dinitrotoluene	8.001	165	25779	8.18	ppm		96
58) 3-Nitroaniline	8.257	138	34658	8.51	ppm		96
59) Acenaphthene	8.375	153	100058	6.35	ppm		92
60) 2,4-Dinitrophenol	8.433	184	18214	12.02	ppm		91
61) 4-Nitrophenol	8.572	109	13731	7.50	ppm		92
62) Dibenzofuran	8.663	168	147830	6.22	ppm		95
63) 2,4-Dinitrotoluene	8.658	165	33593	7.94	ppm		62
64) 2,3,4,6-Tetrachlorophenol	8.887	232	32889	7.19	ppm		93
65) Diethylphthalate	9.122	149	129065	7.38	ppm		97
66) Fluorene	9.251	166	121449	6.45	ppm		92
67) 4-Chlorophenyl-phenyle...	9.283	204	58023	6.58	ppm		98
68) 4-Nitroaniline	9.293	138	33732	8.98	ppm		99
70) 4,6-Dinitro-2-methylph...	9.363	198	16004	6.48	ppm		91
71) n-Nitrosodiphenylamine	9.496	169	86920	5.87	ppm		97
72) 1,2-Diphenylhydrazine	9.560	77	115848	7.60	ppm		87
74) 4-Bromophenyl-phenylether	10.164	248	38565	6.27	ppm		95
75) Hexachlorobenzene	10.249	284	45306	6.19	ppm		90
76) Pentachlorophenol	10.629	266	51017	12.52	ppm		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144290.D
Acq On : 28 Feb 2018 11:58 am
Operator : kristis
Sample : ic6121-5
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 12:46:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

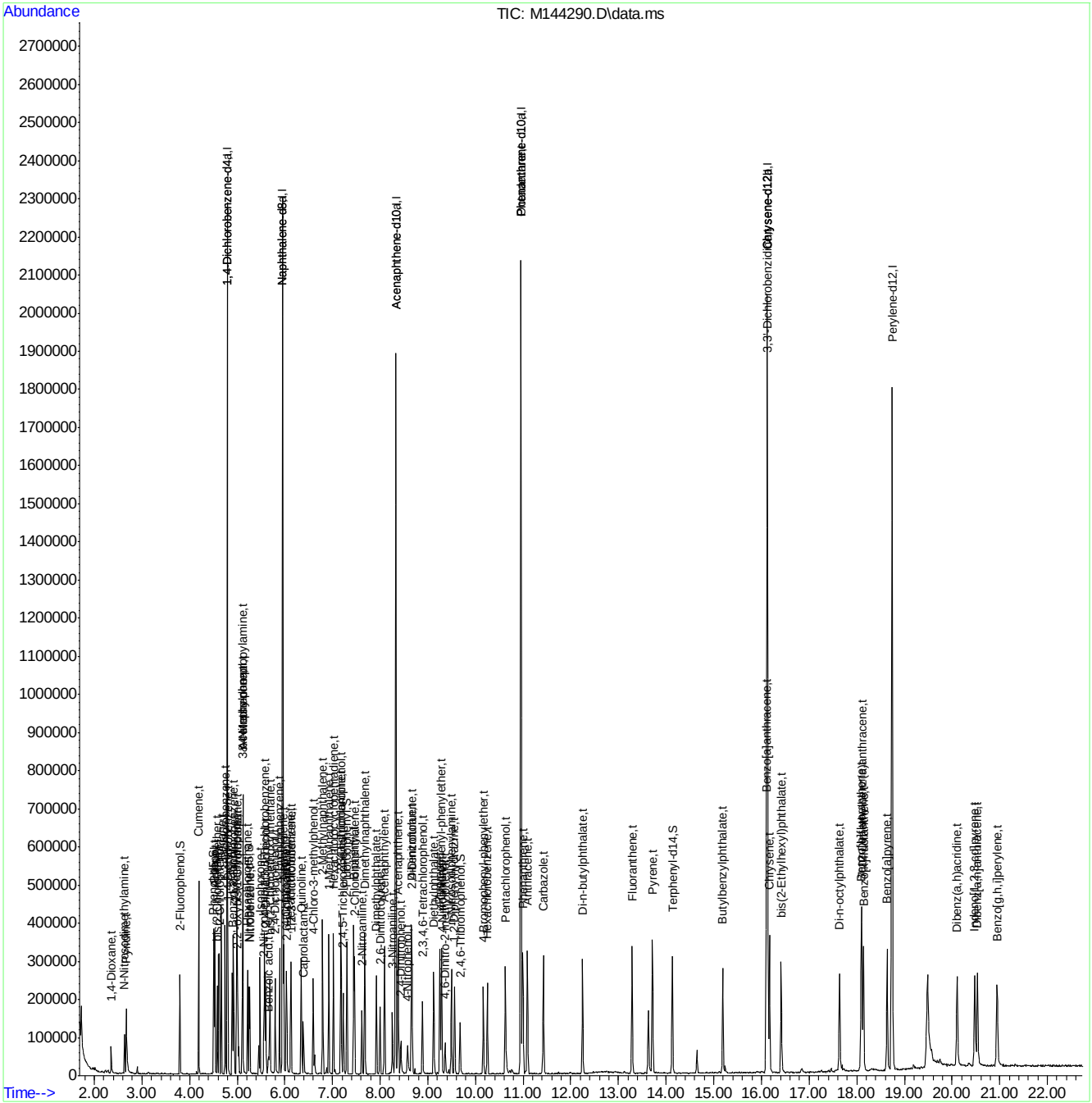
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.997	178	165233	5.75	ppm	97
78) Anthracene	11.088	178	173591	5.98	ppm	99
79) Carbazole	11.424	167	167939	5.82	ppm	97
80) Di-n-butylphthalate	12.247	149	216203	7.32	ppm	100
81) Fluoranthene	13.288	202	196895	6.13	ppm	98
82) Octadecane	10.954	57	66933	11.76	ppm	84
84) Pyrene	13.710	202	200937	5.72	ppm	98
86) Butylbenzylphthalate	15.190	149	95948	8.21	ppm	98
87) Benzo[a]anthracene	16.103	228	186588	6.39	ppm	95
88) 3,3'-Dichlorobenzidine	16.130	252	63278	8.17	ppm	97
89) Chrysene	16.167	228	170593	6.10	ppm	93
90) bis(2-Ethylhexyl)phtha...	16.413	149	131713	9.69	ppm	97
92) Di-n-octylphthalate	17.636	149	213962	9.80	ppm	95
93) Benzo[b]fluoranthene	18.090	252	195530	6.44	ppm	88
94) Benzo[k]fluoranthene	18.143	252	183848m	5.75	ppm	
95) Benzo[a]pyrene	18.635	252	177750	6.46	ppm	90
96) Indeno[1,2,3-cd]pyrene	20.472	276	164462	5.08	ppm	87
97) Dibenz(a,h)acridine	20.104	279	160297	7.48	ppm	86
98) Dibenz[a,h]anthracene	20.531	278	175150	6.99	ppm	65
99) 7,12-Dimethylbenz(a)an...	18.106	256	79397	6.08	ppm	99
100) Benzo[g,h,i]perylene	20.948	276	169474	6.57	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144290.D
Acq On : 28 Feb 2018 11:58 am
Operator : kristis
Sample : ic6121-5
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 12:46:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration



Manual Integration Approval Summary

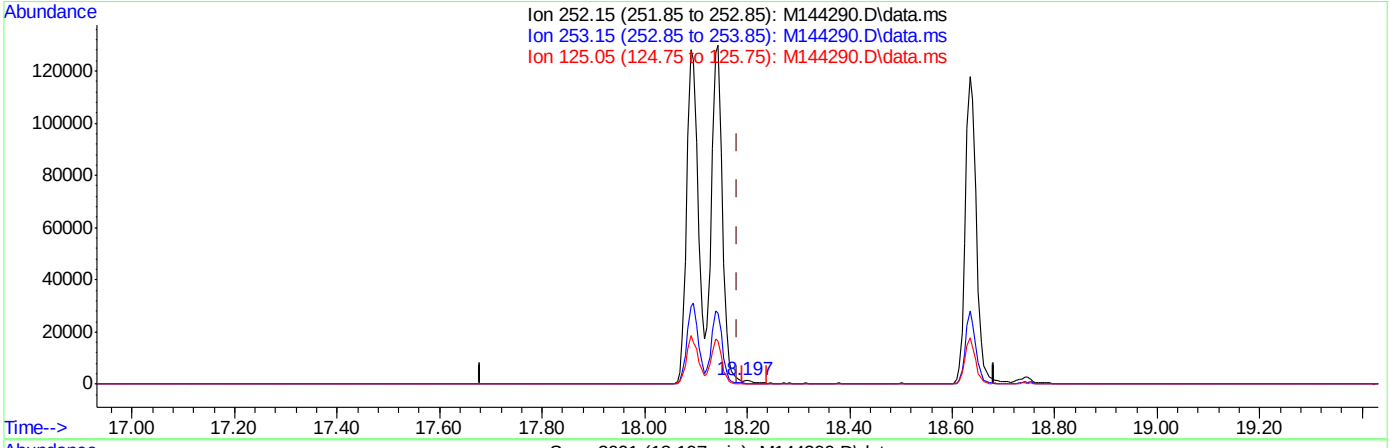
Sample Number:	EM6121-IC6121	**Method:**	SW846 8270D
Lab FileID:	M144290.D	**Analyst approved:**	03/01/18 12:16 Kristi Schollenberger
Injection Time:	02/28/18 11:58	**Supervisor approved:**	03/01/18 18:16 Nina Pandya

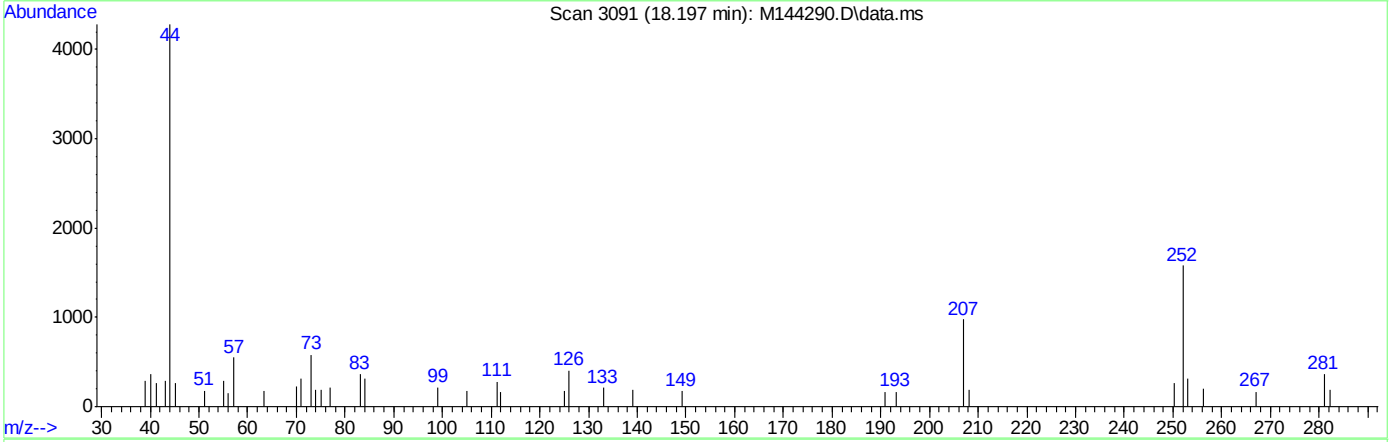
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzo(k)fluoranthene	207-08-9		18.14	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144290.D
Acq On : 28 Feb 2018 11:58 am
Operator : kristis
Sample : ic6121-5
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 12:20:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration





TIC: M144290.D\data.ms

(94) Benzo[k]fluoranthene (t)

18.197min (+0.016) 0.07ppm

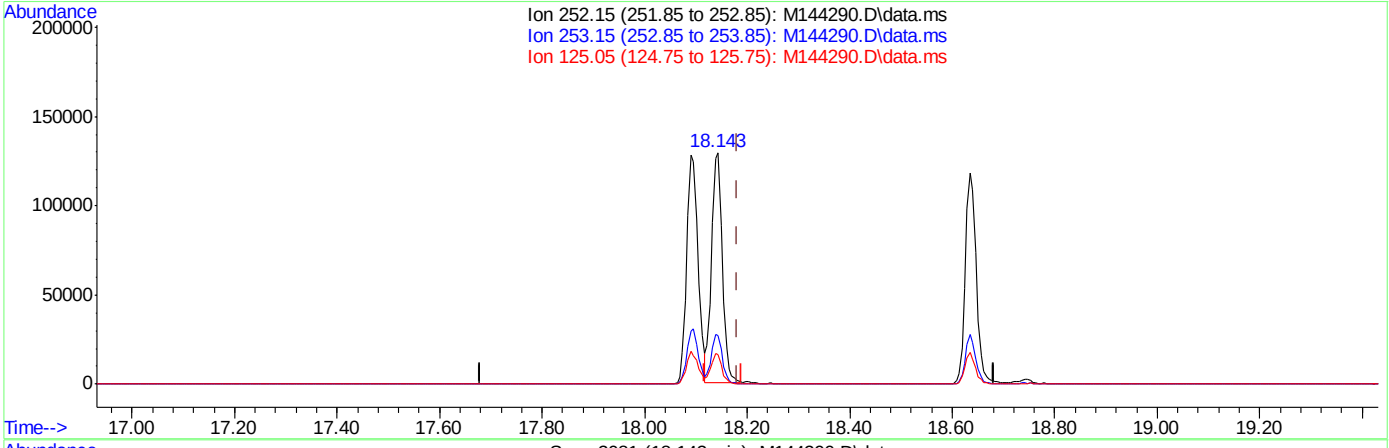
response 2220

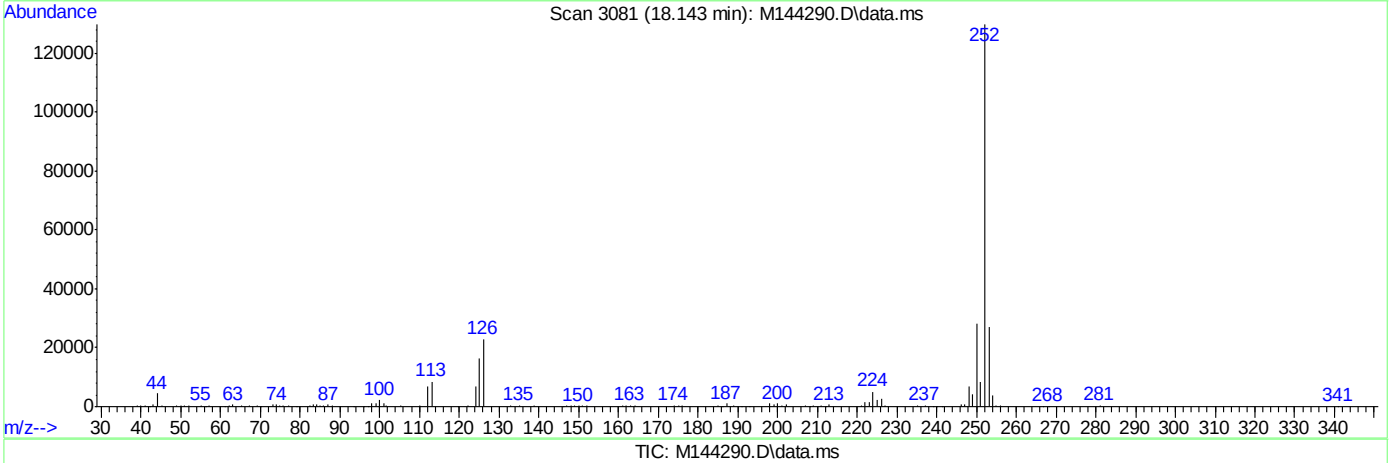
Ion	Exp%	Act%
252.15	100	100
253.15	28.00	11.76
125.05	24.90	5.59
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144290.D
Acq On : 28 Feb 2018 11:58 am
Operator : kristis
Sample : ic6121-5
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 12:20:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration





TIC: M144290.D\data.ms

(94) Benzo[k]fluoranthene (t)

18.143min (-0.038) 5.75ppm m

response 183848

Ion	Exp%	Act%
252.15	100	100
253.15	28.00	20.82
125.05	24.90	12.69
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144291.D
Acq On : 28 Feb 2018 12:27 pm
Operator : kristis
Sample : icc6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 13:14:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.792	152	223572	40.00	ppm		0.00
24) Naphthalene-d8	5.956	136	861759	40.00	ppm		0.00
47) Acenaphthene-d10	8.333	164	441834	40.00	ppm		0.00
69) Phenanthrene-d10	10.955	188	798843	40.00	ppm		0.00
83) Chrysene-d12	16.131	240	746883	40.00	ppm		-0.01
91) Perylene-d12	18.748	264	897868	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.792	152	223572	40.00	ppm		0.00
103) Acenaphthene-d10a	8.333	164	441834	40.00	ppm		0.00
106) Chrysene-d12a	16.131	240	746883	40.00	ppm		-0.01
109) Phenanthrene-d10a	10.955	188	798843	40.00	ppm		0.00
112) Naphthalene-d8a	5.956	136	861759	40.00	ppm		0.00
114) Chrysene-d12b	16.131	240	746883	40.00	ppm		-0.01
System Monitoring Compounds							
5) 2-Fluorophenol	3.798	112	515417	62.53	ppm		0.00
Spiked Amount 50.000			Recovery = 125.06%				
8) Phenol-d5	4.508	99	569813	61.23	ppm		0.00
Spiked Amount 50.000			Recovery = 122.46%				
25) Nitrobenzene-d5	5.251	82	408399	56.24	ppm		0.00
Spiked Amount 50.000			Recovery = 112.48%				
51) 2-Fluorobiphenyl	7.307	172	808231	51.77	ppm		0.00
Spiked Amount 50.000			Recovery = 103.54%				
73) 2,4,6-Tribromophenol	9.684	330	170694	66.64	ppm		-0.01
Spiked Amount 50.000			Recovery = 133.28%				
85) Terphenyl-d14	14.138	244	1037774	63.46	ppm		0.00
Spiked Amount 50.000			Recovery = 126.92%				
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.345	88	232436	63.04	ppm		68
3) Pyridine	2.660	79	564168	64.36	ppm		96
4) N-Nitrosodimethylamine	2.628	42	219451	72.95	ppm		88
6) Indene	5.005	116	576000	50.09	ppm		97
7) Cumene	4.193	105	1009116	54.39	ppm		98
9) Phenol	4.519	94	582023	56.29	ppm		93
10) Aniline	4.535	93	539001	51.97	ppm		92
11) bis(2-Chloroethyl)ether	4.583	93	387211	58.25	ppm		93
12) 2-Chlorophenol	4.631	128	424797	52.41	ppm		92
13) Decane	4.669	43	325081	77.37	ppm	#	1
14) 1,3-Dichlorobenzene	4.749	146	453496	47.61	ppm		97
15) 1,4-Dichlorobenzene	4.808	146	428564	48.20	ppm		96
16) Benzyl alcohol	4.898	108	282643	61.05	ppm		97
17) 1,2-Dichlorobenzene	4.930	146	392901	47.16	ppm		94
18) Acetophenone	5.123	105	441950	47.50	ppm	#	14
19) 2-Methylphenol	4.994	108	355617	55.67	ppm		95
20) 2,2'-oxybis(1-Chloropr...	5.011	121	114289	54.54	ppm	#	39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144291.D
Acq On : 28 Feb 2018 12:27 pm
Operator : kristis
Sample : icc6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 13:14:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.117	108	348674	52.71	ppm	#	82
22) n-Nitroso-di-n-propyla...	5.123	70	218296	53.61	ppm		93
23) Hexachloroethane	5.219	201	155677	47.58	ppm		88
26) Nitrobenzene	5.272	77	372329	51.84	ppm	#	45
27) Quinoline	6.356	129	863747	50.71	ppm		99
28) Isophorone	5.486	82	741230	54.63	ppm		95
29) 2-Nitrophenol	5.566	139	254394	55.84	ppm		90
30) 2,4-Dimethylphenol	5.603	107	358712	51.18	ppm		100
31) Benzoic acid	5.721	105	342557	66.83	ppm		99
32) bis(2-Chloroethoxy)met...	5.694	93	426755	54.95	ppm		99
33) 2,4-Dichlorophenol	5.806	162	349016	45.09	ppm		96
34) 2,6-Dichlorophenol	6.047	162	313435	43.10	ppm		96
35) 1,3,5-Trichlorobenzene	5.582	180	370414	41.50	ppm		93
36) 1,2,4-Trichlorobenzene	5.897	180	381816	42.70	ppm		95
37) 1,2,3-Trichlorobenzene	6.137	180	347446	43.02	ppm		96
38) Naphthalene	5.977	128	1086811	45.70	ppm		96
39) 4-Chloroaniline	6.031	127	501448	50.17	ppm		96
40) 2,3-Dichloroaniline	7.179	161	399878	43.66	ppm		97
41) Caprolactam	6.442	55	202616	89.36	ppm	#	1
42) Hexachlorobutadiene	6.121	225	204381	47.24	ppm		98
43) 4-Chloro-3-methylphenol	6.607	107	378199	54.10	ppm		99
44) 2-Methylnaphthalene	6.800	141	657309	44.14	ppm	#	76
45) 1-Methylnaphthalene	6.928	142	785427	45.52	ppm		83
46) Dimethylnaphthalene	7.681	156	670993	42.49	ppm		96
48) Hexachlorocyclopentadiene	7.024	237	439585	134.30	ppm		100
49) 2,4,6-Trichlorophenol	7.184	196	240691	56.73	ppm		99
50) 2,4,5-Trichlorophenol	7.238	196	271457	60.46	ppm		99
52) 2-Chloronaphthalene	7.473	162	682710	53.63	ppm		97
53) Biphenyl	7.451	154	912553	53.07	ppm		99
54) 2-Nitroaniline	7.628	65	228947	96.76	ppm		82
55) Dimethylphthalate	7.932	163	864044	55.72	ppm		98
56) Acenaphthylene	8.098	152	1167346	56.05	ppm		91
57) 2,6-Dinitrotoluene	8.012	165	200024	76.44	ppm		97
58) 3-Nitroaniline	8.274	138	267077	79.04	ppm		98
59) Acenaphthene	8.386	153	695707	53.18	ppm		89
60) 2,4-Dinitrophenol	8.445	184	244446	194.41	ppm		91
61) 4-Nitrophenol	8.584	109	125603	82.64	ppm		91
62) Dibenzofuran	8.674	168	947258	48.04	ppm		93
63) 2,4-Dinitrotoluene	8.669	165	243287	69.27	ppm		72
64) 2,3,4,6-Tetrachlorophenol	8.893	232	254765	67.12	ppm		97
65) Diethylphthalate	9.139	149	886144	61.08	ppm		99
66) Fluorene	9.262	166	817314	52.27	ppm		90
67) 4-Chlorophenyl-phenyle...	9.294	204	377746	51.62	ppm		97
68) 4-Nitroaniline	9.321	138	238211	76.43	ppm		99
70) 4,6-Dinitro-2-methylph...	9.380	198	176091	92.46	ppm		96
71) n-Nitrosodiphenylamine	9.508	169	612467	53.65	ppm		96
72) 1,2-Diphenylhydrazine	9.572	77	772911	65.72	ppm		91
74) 4-Bromophenyl-phenylether	10.170	248	277654	58.58	ppm		96
75) Hexachlorobenzene	10.261	284	299845	53.12	ppm		89
76) Pentachlorophenol	10.635	266	408779	130.05	ppm		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144291.D
Acq On : 28 Feb 2018 12:27 pm
Operator : kristis
Sample : icc6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 13:14:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

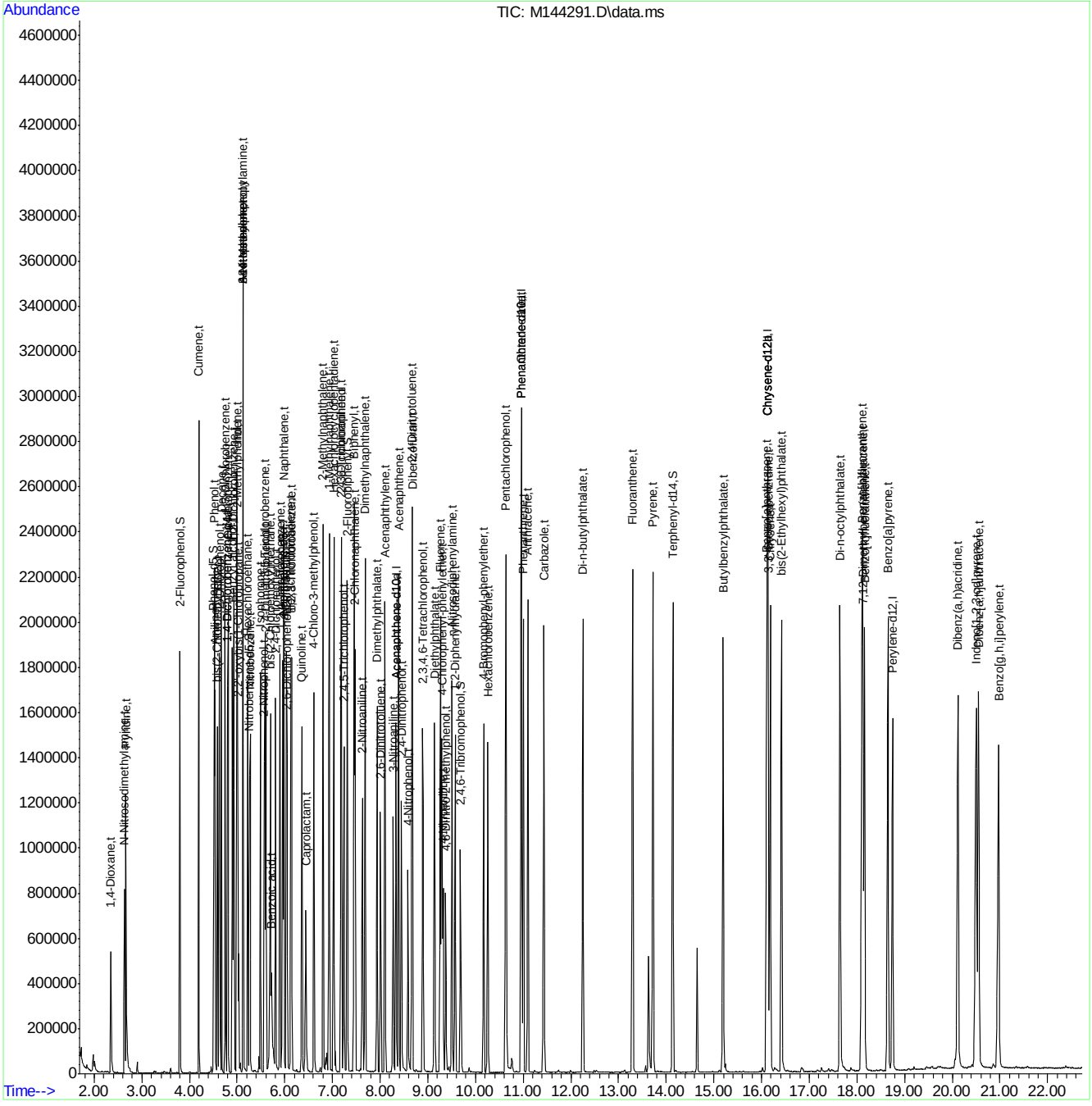
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	11.003	178	1153484	52.01	ppm	95
78) Anthracene	11.099	178	1209920	54.03	ppm	100
79) Carbazole	11.436	167	1212308	54.47	ppm	98
80) Di-n-butylphthalate	12.253	149	1610637	70.70	ppm	99
81) Fluoranthene	13.294	202	1386894	56.00	ppm	99
82) Octadecane	10.960	57	466559	106.27	ppm	86
84) Pyrene	13.722	202	1391971	54.75	ppm	99
86) Butylbenzylphthalate	15.196	149	749302	88.60	ppm	99
87) Benzo[a]anthracene	16.109	228	1381440	65.36	ppm	98
88) 3,3'-Dichlorobenzidine	16.141	252	484991	86.59	ppm	97
89) Chrysene	16.184	228	1199018	59.28	ppm	94
90) bis(2-Ethylhexyl)phtha...	16.419	149	948440	96.45	ppm	99
92) Di-n-octylphthalate	17.642	149	1753929	97.44	ppm	96
93) Benzo[b]fluoranthene	18.107	252	1400623	55.95	ppm	87
94) Benzo[k]fluoranthene	18.166	252	1222622	46.41	ppm	81
95) Benzo[a]pyrene	18.652	252	1305980	57.60	ppm	86
96) Indeno[1,2,3-cd]pyrene	20.500	276	1302841	48.84	ppm	83
97) Dibenz(a,h)acridine	20.120	279	1272822	72.08	ppm	86
98) Dibenz[a,h]anthracene	20.553	278	1305069	63.24	ppm	66
99) 7,12-Dimethylbenz(a)an...	18.128	256	589687	54.82	ppm	100
100) Benzo[g,h,i]perylene	20.975	276	1299192	61.10	ppm	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144291.D
Acq On : 28 Feb 2018 12:27 pm
Operator : kristis
Sample : icc6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 13:14:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration



MM6121.M Wed Feb 28 13:14:37 2018 MSM Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144292.D
Acq On : 28 Feb 2018 12:57 pm
Operator : kristis
Sample : ic6121-2
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 13:21:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.792	152	277982	40.00	ppm	0.00
24) Naphthalene-d8	5.951	136	1000335	40.00	ppm	0.00
47) Acenaphthene-d10	8.327	164	490830	40.00	ppm	0.00
69) Phenanthrene-d10	10.955	188	951327	40.00	ppm	0.00
83) Chrysene-d12	16.120	240	952972	40.00	ppm	-0.02
91) Perylene-d12	18.742	264	972008	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.792	152	277982	40.00	ppm	0.00
103) Acenaphthene-d10a	8.327	164	490830	40.00	ppm	0.00
106) Chrysene-d12a	16.120	240	952972	40.00	ppm	-0.02
109) Phenanthrene-d10a	10.955	188	951327	40.00	ppm	0.00
112) Naphthalene-d8a	5.951	136	1000335	40.00	ppm	0.00
114) Chrysene-d12b	16.120	240	952972	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.798	112	23772	2.32	ppm	0.00
Spiked Amount 50.000			Recovery =	4.64%		
8) Phenol-d5	4.503	99	29222	2.53	ppm	-0.01
Spiked Amount 50.000			Recovery =	5.06%		
25) Nitrobenzene-d5	5.251	82	22614	2.68	ppm	0.00
Spiked Amount 50.000			Recovery =	5.36%		
51) 2-Fluorobiphenyl	7.302	172	44880	2.59	ppm	-0.01
Spiked Amount 50.000			Recovery =	5.18%		
73) 2,4,6-Tribromophenol	9.679	330	8200	2.69	ppm	-0.02
Spiked Amount 50.000			Recovery =	5.38%		
85) Terphenyl-d14	14.128	244	53374	2.56	ppm	-0.02
Spiked Amount 50.000			Recovery =	5.12%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.356	88	10538	2.30	ppm	# 62
3) Pyridine	2.682	79	27277	2.50	ppm	91
4) N-Nitrosodimethylamine	2.639	42	10738	2.87	ppm	87
6) Indene	5.000	116	37008	2.59	ppm	99
7) Cumene	4.193	105	56206	2.44	ppm	99
9) Phenol	4.514	94	34353	2.67	ppm	94
10) Aniline	4.535	93	37115	2.88	ppm	82
11) bis(2-Chloroethyl)ether	4.583	93	22817	2.76	ppm	93
12) 2-Chlorophenol	4.626	128	25857	2.57	ppm	87
13) Decane	4.669	43	22995	4.40	ppm	# 1
14) 1,3-Dichlorobenzene	4.749	146	28629	2.42	ppm	96
15) 1,4-Dichlorobenzene	4.808	146	25824	2.34	ppm	99
16) Benzyl alcohol	4.898	108	14627	2.54	ppm	93
17) 1,2-Dichlorobenzene	4.930	146	24636	2.38	ppm	94
18) Acetophenone	5.117	105	30268	2.62	ppm	# 13
19) 2-Methylphenol	4.989	108	20421	2.57	ppm	91
20) 2,2'-oxybis(1-Chloropr...	5.011	121	6936	2.66	ppm	# 21

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144292.D
Acq On : 28 Feb 2018 12:57 pm
Operator : kristis
Sample : ic6121-2
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 13:21:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.112	108	21362	2.60	ppm		92
22) n-Nitroso-di-n-propyla...	5.117	70	15290	3.02	ppm		95
23) Hexachloroethane	5.219	201	9074	2.23	ppm		96
26) Nitrobenzene	5.267	77	21789	2.61	ppm	#	44
27) Quinoline	6.346	129	43212	2.19	ppm		98
28) Isophorone	5.481	82	37846	2.40	ppm		94
29) 2-Nitrophenol	5.561	139	11740	2.22	ppm		88
30) 2,4-Dimethylphenol	5.598	107	17696	2.18	ppm		96
31) Benzoic acid	5.662	105	5154	0.87	ppm		81
32) bis(2-Chloroethoxy)met...	5.689	93	22018	2.44	ppm		99
33) 2,4-Dichlorophenol	5.801	162	16041	1.79	ppm		96
34) 2,6-Dichlorophenol	6.041	162	17057	2.02	ppm		96
35) 1,3,5-Trichlorobenzene	5.577	180	22242	2.15	ppm		95
36) 1,2,4-Trichlorobenzene	5.892	180	22049	2.12	ppm		96
37) 1,2,3-Trichlorobenzene	6.132	180	19724	2.10	ppm		87
38) Naphthalene	5.972	128	60177	2.18	ppm		96
39) 4-Chloroaniline	6.025	127	26831	2.31	ppm		97
40) 2,3-Dichloroaniline	7.174	161	22459	2.11	ppm		92
41) Caprolactam	6.383	55	9784	3.72	ppm	#	1
42) Hexachlorobutadiene	6.121	225	10937	2.18	ppm		91
43) 4-Chloro-3-methylphenol	6.597	107	18134	2.23	ppm		96
44) 2-Methylnaphthalene	6.794	141	36001	2.08	ppm	#	76
45) 1-Methylnaphthalene	6.923	142	44624	2.23	ppm		83
46) Dimethylnaphthalene	7.676	156	36985	2.02	ppm		94
48) Hexachlorocyclopentadiene	7.019	237	20436	5.62	ppm		97
49) 2,4,6-Trichlorophenol	7.179	196	13293	2.82	ppm		97
50) 2,4,5-Trichlorophenol	7.227	196	13043	2.61	ppm		93
52) 2-Chloronaphthalene	7.467	162	41091	2.91	ppm		96
53) Biphenyl	7.446	154	53587	2.81	ppm		99
54) 2-Nitroaniline	7.617	65	10982	4.18	ppm	#	73
55) Dimethylphthalate	7.921	163	44104	2.56	ppm		96
56) Acenaphthylene	8.092	152	61639	2.66	ppm		92
57) 2,6-Dinitrotoluene	7.996	165	9058	3.12	ppm		98
58) 3-Nitroaniline	8.263	138	11058	2.95	ppm		95
59) Acenaphthene	8.375	153	38444	2.65	ppm		89
60) 2,4-Dinitrophenol	8.434	184	3264	2.34	ppm	#	60
61) 4-Nitrophenol	8.578	109	3923	2.32	ppm	#	85
62) Dibenzofuran	8.664	168	54950	2.51	ppm		93
63) 2,4-Dinitrotoluene	8.658	165	10457	2.68	ppm		61
64) 2,3,4,6-Tetrachlorophenol	8.888	232	11023	2.61	ppm		98
65) Diethylphthalate	9.123	149	47484	2.95	ppm		97
66) Fluorene	9.251	166	43364	2.50	ppm		92
67) 4-Chlorophenyl-phenyle...	9.283	204	21418	2.63	ppm		95
68) 4-Nitroaniline	9.294	138	11176	3.23	ppm		93
70) 4,6-Dinitro-2-methylph...	9.363	198	3589	1.58	ppm		86
71) n-Nitrosodiphenylamine	9.497	169	32000	2.35	ppm		97
72) 1,2-Diphenylhydrazine	9.561	77	42983	3.07	ppm		91
74) 4-Bromophenyl-phenylether	10.165	248	13524	2.40	ppm		99
75) Hexachlorobenzene	10.250	284	16617	2.47	ppm		89
76) Pentachlorophenol	10.629	266	14097	3.77	ppm		86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144292.D
Acq On : 28 Feb 2018 12:57 pm
Operator : kristis
Sample : ic6121-2
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 13:21:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration

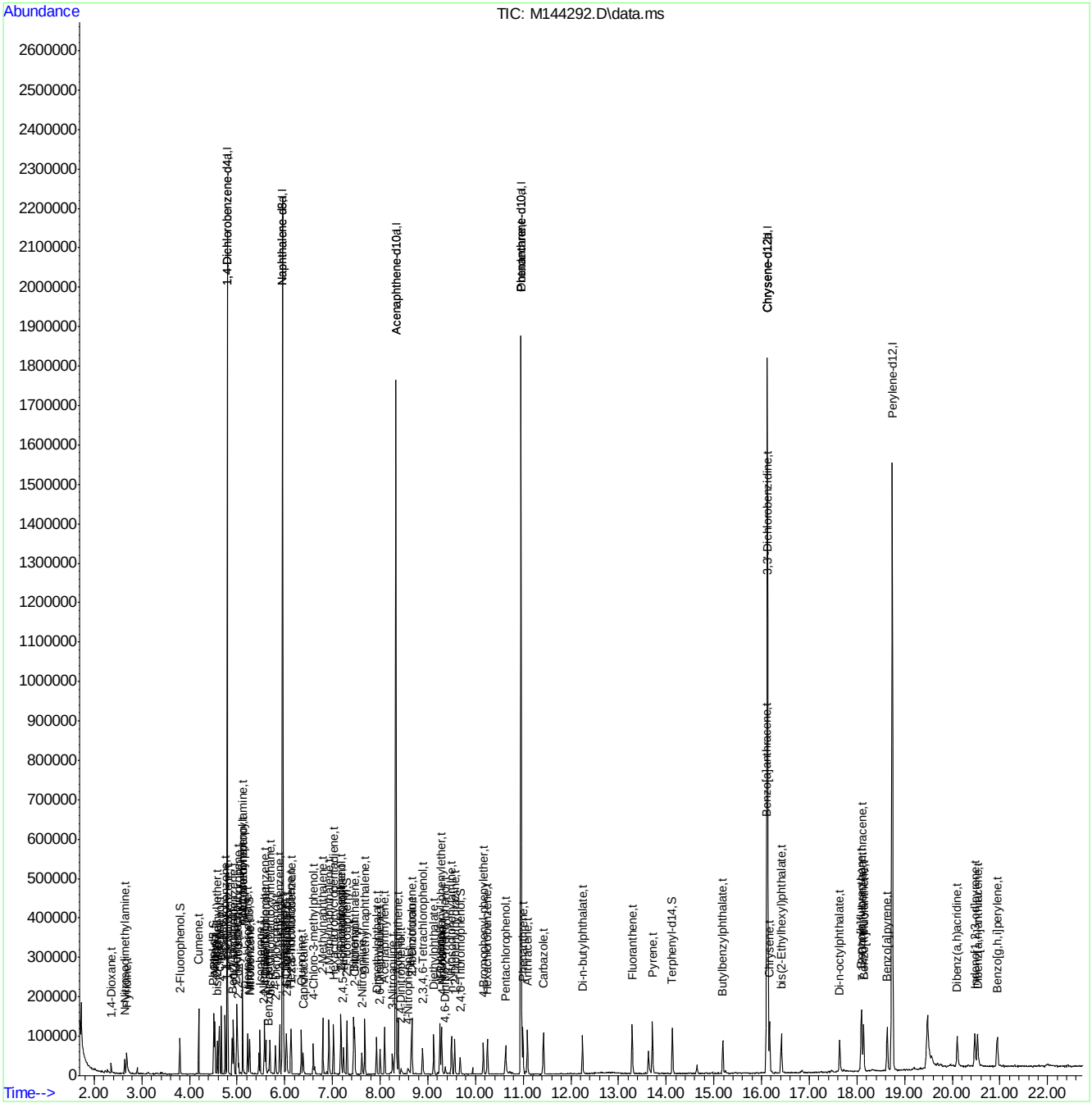
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.992	178	62091	2.35	ppm	96
78) Anthracene	11.089	178	63339	2.38	ppm	97
79) Carbazole	11.425	167	59796	2.26	ppm	95
80) Di-n-butylphthalate	12.248	149	74273	2.74	ppm	100
81) Fluoranthene	13.284	202	68910	2.34	ppm	95
82) Octadecane	10.955	57	23537	4.50	ppm	88
84) Pyrene	13.711	202	73614	2.27	ppm	98
86) Butylbenzylphthalate	15.185	149	30346	2.81	ppm	91
87) Benzo[a]anthracene	16.104	228	68034	2.52	ppm	97
88) 3,3'-Dichlorobenzidine	16.131	252	21066	2.95	ppm	97
89) Chrysene	16.168	228	65439	2.54	ppm	94
90) bis(2-Ethylhexyl)phtha...	16.414	149	46675	3.72	ppm	99
92) Di-n-octylphthalate	17.637	149	66208	3.40	ppm	96
93) Benzo[b]fluoranthene	18.091	252	70264	2.59	ppm	88
94) Benzo[k]fluoranthene	18.139	252	67766	2.38	ppm	87
95) Benzo[a]pyrene	18.636	252	60752	2.48	ppm	87
96) Indeno[1,2,3-cd]pyrene	20.473	276	56524	1.96	ppm	87
97) Dibenz(a,h)acridine	20.104	279	54043	2.83	ppm	89
98) Dibenz[a,h]anthracene	20.532	278	61494	2.75	ppm	66
99) 7,12-Dimethylbenz(a)an...	18.107	256	26033	2.24	ppm	93
100) Benzo[g,h,i]perylene	20.943	276	59353	2.58	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144292.D
Acq On : 28 Feb 2018 12:57 pm
Operator : kristis
Sample : ic6121-2
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 13:21:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 10:53:32 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144293.D
Acq On : 28 Feb 2018 1:27 pm
Operator : kristis
Sample : ic6121-25
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 14:20:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 13:23:08 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.791	152	235509	40.00	ppm	0.00
24) Naphthalene-d8	5.955	136	895564	40.00	ppm	0.00
47) Acenaphthene-d10	8.332	164	455752	40.00	ppm	0.00
69) Phenanthrene-d10	10.954	188	855350	40.00	ppm	0.00
83) Chrysene-d12	16.124	240	839346	40.00	ppm	0.00
91) Perylene-d12	18.747	264	935233	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.791	152	235509	40.00	ppm	0.00
103) Acenaphthene-d10a	8.332	164	455752	40.00	ppm	0.00
106) Chrysene-d12a	16.124	240	839346	40.00	ppm	0.00
109) Phenanthrene-d10a	10.954	188	855350	40.00	ppm	0.00
112) Naphthalene-d8a	5.955	136	895564	40.00	ppm	0.00
114) Chrysene-d12b	16.124	240	839346	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.797	112	280314	26.77	ppm	0.00
Spiked Amount 50.000			Recovery = 53.54%			
8) Phenol-d5	4.508	99	321815	26.53	ppm	0.00
Spiked Amount 50.000			Recovery = 53.06%			
25) Nitrobenzene-d5	5.250	82	228389	25.02	ppm	0.00
Spiked Amount 50.000			Recovery = 50.04%			
51) 2-Fluorobiphenyl	7.306	172	454483	24.79	ppm	0.00
Spiked Amount 50.000			Recovery = 49.58%			
73) 2,4,6-Tribromophenol	9.683	330	95099	25.88	ppm	0.00
Spiked Amount 50.000			Recovery = 51.76%			
85) Terphenyl-d14	14.132	244	575217	24.36	ppm	0.00
Spiked Amount 50.000			Recovery = 48.72%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.350	88	122276	25.43	ppm	96
3) Pyridine	2.665	79	305756	25.96	ppm	99
4) N-Nitrosodimethylamine	2.627	42	116782	25.15	ppm	97
6) Indene	5.004	116	344402	25.60	ppm	98
7) Cumene	4.192	105	584169	26.30	ppm	100
9) Phenol	4.518	94	343852	26.59	ppm	94
10) Aniline	4.534	93	341968	25.23	ppm	99
11) bis(2-Chloroethyl)ether	4.582	93	223107	25.11	ppm	98
12) 2-Chlorophenol	4.630	128	249820	25.32	ppm	99
13) Decane	4.668	43	200376	24.57	ppm	98
14) 1,3-Dichlorobenzene	4.748	146	260021	24.56	ppm	99
15) 1,4-Dichlorobenzene	4.807	146	246688	25.36	ppm	98
16) Benzyl alcohol	4.897	108	153811	25.43	ppm	97
17) 1,2-Dichlorobenzene	4.930	146	233644	25.78	ppm	99
18) Acetophenone	5.116	105	271205	25.20	ppm	92
19) 2-Methylphenol	4.988	108	212395	26.71	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.010	121	65138	24.76	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144293.D
Acq On : 28 Feb 2018 1:27 pm
Operator : kristis
Sample : ic6121-25
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 14:20:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 13:23:08 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	5.116	108	212055	27.03	ppm	86
22) n-Nitroso-di-n-propyla...	5.116	70	133772	24.43	ppm	98
23) Hexachloroethane	5.218	201	87782	25.63	ppm	97
26) Nitrobenzene	5.266	77	211323	24.32	ppm	96
27) Quinoline	6.350	129	465746	25.24	ppm	99
28) Isophorone	5.485	82	413919	25.29	ppm	97
29) 2-Nitrophenol	5.565	139	140806	27.14	ppm	99
30) 2,4-Dimethylphenol	5.597	107	197586	25.66	ppm	96
31) Benzoic acid	5.693	105	160055	29.68	ppm	99
32) bis(2-Chloroethoxy)met...	5.688	93	236759	24.96	ppm	100
33) 2,4-Dichlorophenol	5.800	162	190948	26.80	ppm	95
34) 2,6-Dichlorophenol	6.040	162	177260	26.14	ppm	98
35) 1,3,5-Trichlorobenzene	5.576	180	216602	25.24	ppm	99
36) 1,2,4-Trichlorobenzene	5.891	180	213806	24.81	ppm	98
37) 1,2,3-Trichlorobenzene	6.137	180	195491	24.78	ppm	98
38) Naphthalene	5.976	128	611529	25.16	ppm	99
39) 4-Chloroaniline	6.030	127	289531	26.03	ppm	99
40) 2,3-Dichloroaniline	7.178	161	226496	25.27	ppm	97
41) Caprolactam	6.420	55	106075	23.58	ppm	99
42) Hexachlorobutadiene	6.121	225	113147	24.78	ppm	99
43) 4-Chloro-3-methylphenol	6.601	107	209764	26.27	ppm	96
44) 2-Methylnaphthalene	6.799	141	375945	25.74	ppm	99
45) 1-Methylnaphthalene	6.927	142	441232	25.10	ppm	99
46) Dimethylnaphthalene	7.680	156	381493	25.45	ppm	99
48) Hexachlorocyclopentadiene	7.023	237	246585	52.82	ppm	99
49) 2,4,6-Trichlorophenol	7.183	196	138071	25.25	ppm	98
50) 2,4,5-Trichlorophenol	7.232	196	145791	24.42	ppm	97
52) 2-Chloronaphthalene	7.467	162	390148	24.01	ppm	99
53) Biphenyl	7.445	154	514443	24.30	ppm	99
54) 2-Nitroaniline	7.621	65	123021	24.80	ppm	99
55) Dimethylphthalate	7.926	163	473000	24.66	ppm	99
56) Acenaphthylene	8.097	152	665034	25.46	ppm	98
57) 2,6-Dinitrotoluene	8.006	165	104946	25.32	ppm	95
58) 3-Nitroaniline	8.268	138	139810	25.37	ppm	98
59) Acenaphthene	8.380	153	386119	24.54	ppm	98
60) 2,4-Dinitrophenol	8.439	184	112632	60.10	ppm	98
61) 4-Nitrophenol	8.577	109	63438	26.80	ppm	97
62) Dibenzofuran	8.668	168	542416	24.46	ppm	100
63) 2,4-Dinitrotoluene	8.663	165	136281	27.17	ppm	97
64) 2,3,4,6-Tetrachlorophenol	8.887	232	141291	26.83	ppm	98
65) Diethylphthalate	9.133	149	492066	23.03	ppm	98
66) Fluorene	9.256	166	455021	24.94	ppm	99
67) 4-Chlorophenyl-phenyle...	9.288	204	214489	24.71	ppm	98
68) 4-Nitroaniline	9.309	138	129184	24.84	ppm	99
70) 4,6-Dinitro-2-methylph...	9.368	198	85795	28.74	ppm	95
71) n-Nitrosodiphenylamine	9.501	169	338108	24.58	ppm	99
72) 1,2-Diphenylhydrazine	9.566	77	436493	24.10	ppm	99
74) 4-Bromophenyl-phenylether	10.169	248	153529	25.06	ppm	96
75) Hexachlorobenzene	10.255	284	171731	24.87	ppm	98
76) Pentachlorophenol	10.628	266	222193	54.99	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144293.D
Acq On : 28 Feb 2018 1:27 pm
Operator : kristis
Sample : ic6121-25
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 14:20:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 13:23:08 2018
Response via : Initial Calibration

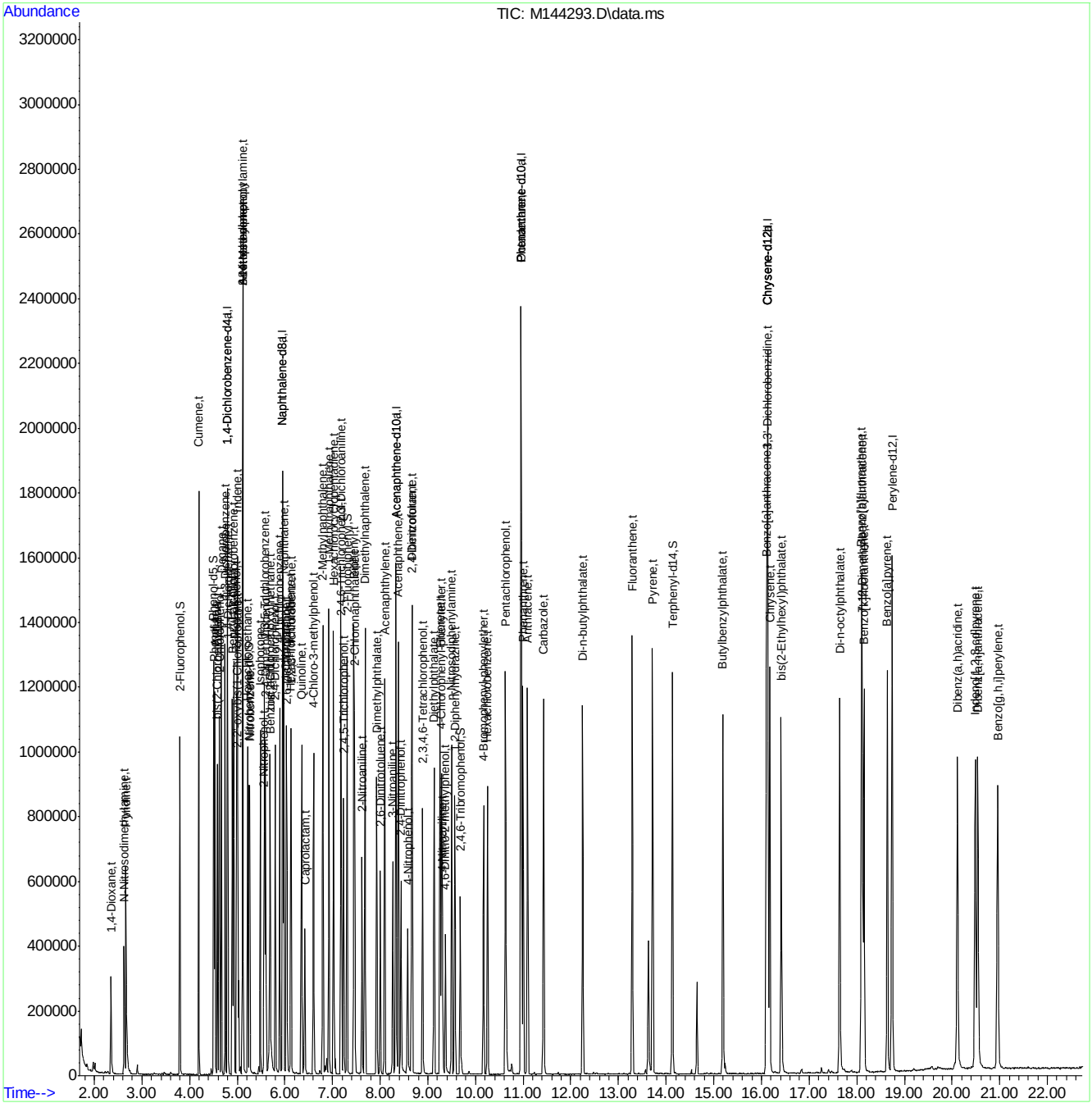
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.997	178	638153	24.51	ppm	99
78) Anthracene	11.093	178	674135	24.86	ppm	99
79) Carbazole	11.430	167	662621	25.13	ppm	99
80) Di-n-butylphthalate	12.247	149	883939	25.45	ppm	99
81) Fluoranthene	13.288	202	770750	25.45	ppm	99
82) Octadecane	10.954	57	258217	24.69	ppm	99
84) Pyrene	13.716	202	776422	24.21	ppm	100
86) Butylbenzylphthalate	15.190	149	399698	24.70	ppm	94
87) Benzo[a]anthracene	16.108	228	756358	24.37	ppm	99
88) 3,3'-Dichlorobenzidine	16.135	252	267774	25.55	ppm	99
89) Chrysene	16.178	228	672791	24.11	ppm	100
90) bis(2-Ethylhexyl)phtha...	16.418	149	513694	21.74	ppm	99
92) Di-n-octylphthalate	17.641	149	939844	27.11	ppm	100
93) Benzo[b]fluoranthene	18.101	252	791955	25.45	ppm	99
94) Benzo[k]fluoranthene	18.154	252	693496	24.62	ppm	99
95) Benzo[a]pyrene	18.640	252	719065	25.47	ppm	99
96) Indeno[1,2,3-cd]pyrene	20.488	276	693071	25.99	ppm	98
97) Dibenz(a,h)acridine	20.114	279	691293	26.74	ppm	99
98) Dibenz[a,h]anthracene	20.541	278	699942	25.49	ppm	98
99) 7,12-Dimethylbenz(a)an...	18.117	256	328200	26.83	ppm	98
100) Benzo[g,h,i]perylene	20.958	276	712518	26.23	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144293.D
Acq On : 28 Feb 2018 1:27 pm
Operator : kristis
Sample : ic6121-25
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 14:20:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 13:23:08 2018
Response via : Initial Calibration



MM6121.M Wed Feb 28 14:20:33 2018 MSM Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144294.D
Acq On : 28 Feb 2018 1:57 pm
Operator : kristis
Sample : ic6121-10
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 14:21:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 13:23:08 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.791	152	264573	40.00	ppm	0.00
24) Naphthalene-d8	5.950	136	974552	40.00	ppm	0.00
47) Acenaphthene-d10	8.327	164	488916	40.00	ppm	0.00
69) Phenanthrene-d10	10.955	188	941912	40.00	ppm	0.00
83) Chrysene-d12	16.125	240	937622	40.00	ppm	0.00
91) Perylene-d12	18.747	264	1004954	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.791	152	264573	40.00	ppm	0.00
103) Acenaphthene-d10a	8.327	164	488916	40.00	ppm	0.00
106) Chrysene-d12a	16.125	240	937622	40.00	ppm	0.00
109) Phenanthrene-d10a	10.955	188	941912	40.00	ppm	0.00
112) Naphthalene-d8a	5.950	136	974552	40.00	ppm	0.00
114) Chrysene-d12b	16.125	240	937622	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.798	112	124197	10.56	ppm	0.00
Spiked Amount 50.000			Recovery =	21.12%		
8) Phenol-d5	4.503	99	145840	10.70	ppm	0.00
Spiked Amount 50.000			Recovery =	21.40%		
25) Nitrobenzene-d5	5.251	82	104926	10.56	ppm	0.00
Spiked Amount 50.000			Recovery =	21.12%		
51) 2-Fluorobiphenyl	7.307	172	216405	11.00	ppm	0.00
Spiked Amount 50.000			Recovery =	22.00%		
73) 2,4,6-Tribromophenol	9.678	330	41957	10.37	ppm	0.00
Spiked Amount 50.000			Recovery =	20.74%		
85) Terphenyl-d14	14.133	244	262404	9.95	ppm	0.00
Spiked Amount 50.000			Recovery =	19.90%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.350	88	54212	10.03	ppm	98
3) Pyridine	2.665	79	132413	10.01	ppm	96
4) N-Nitrosodimethylamine	2.633	42	51627	9.90	ppm	92
6) Indene	4.999	116	168581	11.16	ppm	98
7) Cumene	4.193	105	275769	11.05	ppm	98
9) Phenol	4.513	94	164387	11.31	ppm	97
10) Aniline	4.535	93	166398	10.93	ppm	99
11) bis(2-Chloroethyl)ether	4.583	93	107638	10.78	ppm	95
12) 2-Chlorophenol	4.631	128	121443	10.96	ppm	98
13) Decane	4.668	43	99884	10.90	ppm	97
14) 1,3-Dichlorobenzene	4.748	146	126125	10.60	ppm	95
15) 1,4-Dichlorobenzene	4.807	146	116129	10.63	ppm	97
16) Benzyl alcohol	4.898	108	70970	10.44	ppm	97
17) 1,2-Dichlorobenzene	4.930	146	111790	10.98	ppm	100
18) Acetophenone	5.117	105	134985	11.16	ppm	100
19) 2-Methylphenol	4.989	108	97992	10.97	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.010	121	32379	10.96	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144294.D
Acq On : 28 Feb 2018 1:57 pm
Operator : kristis
Sample : ic6121-10
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 14:21:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 13:23:08 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	5.112	108	101344	11.50	ppm	93
22) n-Nitroso-di-n-propyla...	5.117	70	67558	10.98	ppm	98
23) Hexachloroethane	5.218	201	40010	10.40	ppm	99
26) Nitrobenzene	5.267	77	101865	10.77	ppm	95
27) Quinoline	6.345	129	211645	10.54	ppm	98
28) Isophorone	5.480	82	190014	10.67	ppm	96
29) 2-Nitrophenol	5.560	139	60977	10.80	ppm	91
30) 2,4-Dimethylphenol	5.598	107	89642	10.70	ppm	95
31) Benzoic acid	5.667	105	57532	9.80	ppm	94
32) bis(2-Chloroethoxy)met...	5.688	93	110869	10.74	ppm	99
33) 2,4-Dichlorophenol	5.801	162	88199	11.38	ppm	94
34) 2,6-Dichlorophenol	6.041	162	81415	11.03	ppm	98
35) 1,3,5-Trichlorobenzene	5.576	180	103547	11.09	ppm	99
36) 1,2,4-Trichlorobenzene	5.891	180	100615	10.73	ppm	98
37) 1,2,3-Trichlorobenzene	6.137	180	92055	10.72	ppm	99
38) Naphthalene	5.977	128	287882	10.89	ppm	99
39) 4-Chloroaniline	6.025	127	130866	10.81	ppm	98
40) 2,3-Dichloroaniline	7.173	161	107384	11.01	ppm	98
41) Caprolactam	6.399	55	48779	9.97	ppm	92
42) Hexachlorobutadiene	6.121	225	52916	10.65	ppm	98
43) 4-Chloro-3-methylphenol	6.596	107	91385	10.52	ppm	96
44) 2-Methylnaphthalene	6.794	141	172315	10.84	ppm	98
45) 1-Methylnaphthalene	6.928	142	207836	10.87	ppm	99
46) Dimethylnaphthalene	7.681	156	175183	10.74	ppm	99
48) Hexachlorocyclopentadiene	7.024	237	109876	21.94	ppm	98
49) 2,4,6-Trichlorophenol	7.184	196	63160	10.77	ppm	98
50) 2,4,5-Trichlorophenol	7.227	196	68035	10.62	ppm	98
52) 2-Chloronaphthalene	7.467	162	185694	10.65	ppm	98
53) Biphenyl	7.446	154	242503	10.68	ppm	99
54) 2-Nitroaniline	7.617	65	54521	10.25	ppm	97
55) Dimethylphthalate	7.926	163	213448	10.37	ppm	97
56) Acenaphthylene	8.092	152	296823	10.59	ppm	97
57) 2,6-Dinitrotoluene	8.001	165	43944	9.88	ppm	97
58) 3-Nitroaniline	8.263	138	60985	10.32	ppm	100
59) Acenaphthene	8.380	153	175881	10.42	ppm	95
60) 2,4-Dinitrophenol	8.434	184	38241	19.02	ppm	89
61) 4-Nitrophenol	8.573	109	27629	10.88	ppm	95
62) Dibenzofuran	8.669	168	260982	10.97	ppm	98
63) 2,4-Dinitrotoluene	8.658	165	62187	11.56	ppm	97
64) 2,3,4,6-Tetrachlorophenol	8.888	232	61005	10.80	ppm	95
65) Diethylphthalate	9.128	149	222362	9.70	ppm	100
66) Fluorene	9.256	166	210848	10.77	ppm	98
67) 4-Chlorophenyl-phenyle...	9.288	204	100232	10.76	ppm	98
68) 4-Nitroaniline	9.299	138	59339	10.64	ppm	96
70) 4,6-Dinitro-2-methylph...	9.363	198	32980	10.03	ppm	95
71) n-Nitrosodiphenylamine	9.497	169	150592	9.94	ppm	93
72) 1,2-Diphenylhydrazine	9.566	77	202841	10.17	ppm	98
74) 4-Bromophenyl-phenylether	10.164	248	71206	10.56	ppm	93
75) Hexachlorobenzene	10.255	284	79055	10.40	ppm	96
76) Pentachlorophenol	10.629	266	96962	21.79	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144294.D
Acq On : 28 Feb 2018 1:57 pm
Operator : kristis
Sample : ic6121-10
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 14:21:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 13:23:08 2018
Response via : Initial Calibration

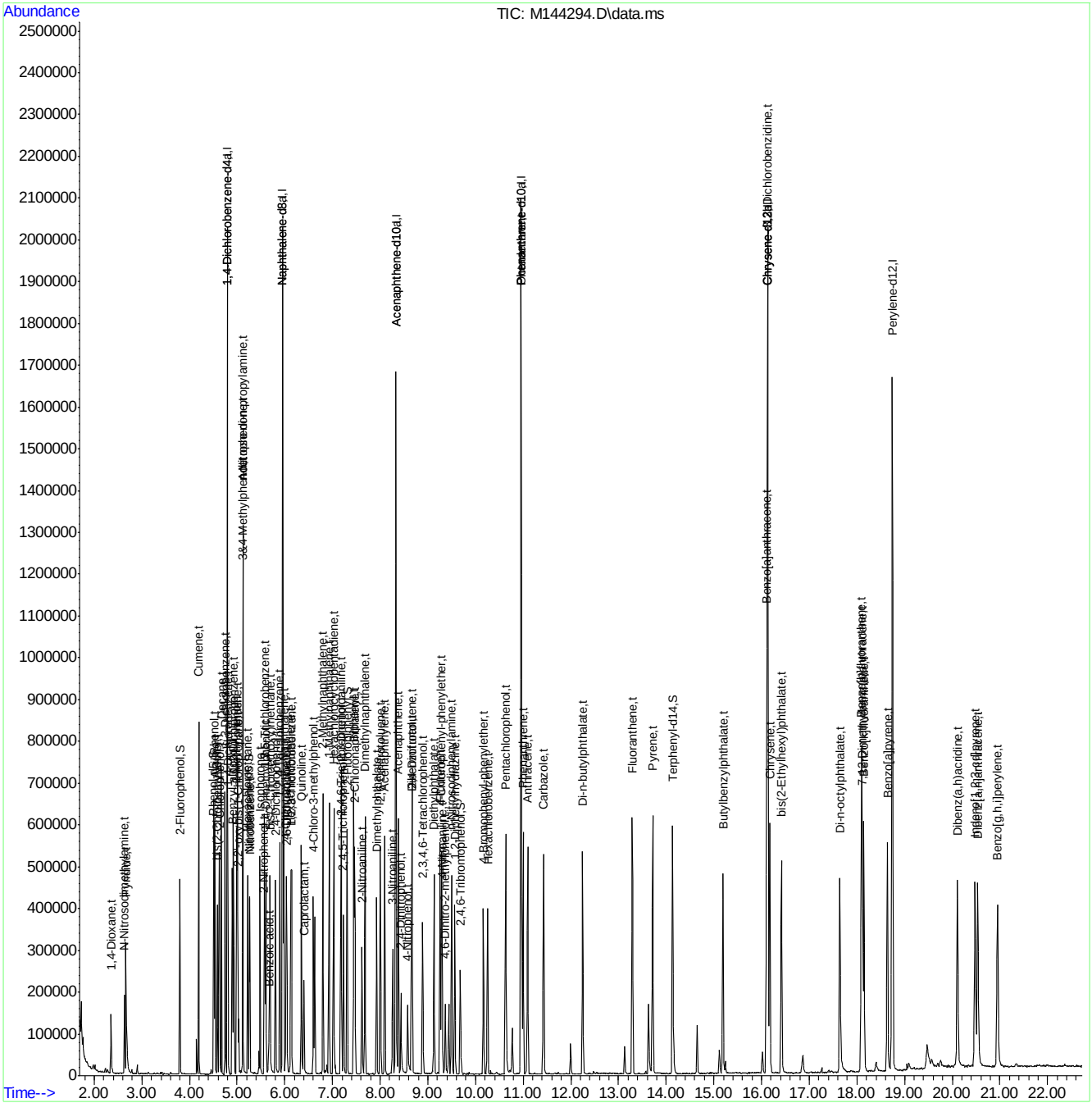
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.998	178	294607	10.27	ppm	99
78) Anthracene	11.094	178	306049	10.25	ppm	99
79) Carbazole	11.425	167	299840	10.33	ppm	99
80) Di-n-butylphthalate	12.247	149	385588	10.08	ppm	99
81) Fluoranthene	13.289	202	352631	10.58	ppm	97
82) Octadecane	10.955	57	116537	10.12	ppm	99
84) Pyrene	13.716	202	357948	9.99	ppm	98
86) Butylbenzylphthalate	15.190	149	168671	9.33	ppm	95
87) Benzo[a]anthracene	16.109	228	331710	9.57	ppm	98
88) 3,3'-Dichlorobenzidine	16.130	252	111713	9.54	ppm	97
89) Chrysene	16.173	228	306555	9.83	ppm	99
90) bis(2-Ethylhexyl)phtha...	16.413	149	223741	8.48	ppm	98
92) Di-n-octylphthalate	17.642	149	378601	10.16	ppm	100
93) Benzo[b]fluoranthene	18.096	252	358870	10.73	ppm	99
94) Benzo[k]fluoranthene	18.144	252	330288	10.91	ppm	98
95) Benzo[a]pyrene	18.641	252	317615	10.47	ppm	99
96) Indeno[1,2,3-cd]pyrene	20.478	276	305928	10.68	ppm	96
97) Dibenz(a,h)acridine	20.109	279	296763	10.68	ppm	81
98) Dibenz[a,h]anthracene	20.537	278	315420	10.69	ppm	96
99) 7,12-Dimethylbenz(a)an...	18.112	256	140870	10.72	ppm	97
100) Benzo[g,h,i]perylene	20.948	276	306949	10.52	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144294.D
Acq On : 28 Feb 2018 1:57 pm
Operator : kristis
Sample : ic6121-10
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 14:21:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 13:23:08 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144295.D
Acq On : 28 Feb 2018 2:44 pm
Operator : kristis
Sample : icv6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 15:40:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 14:31:03 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.794	152	261284	40.00	ppm	0.00
24) Naphthalene-d8	5.953	136	948660	40.00	ppm	0.00
47) Acenaphthene-d10	8.330	164	515689	40.00	ppm	0.00
69) Phenanthrene-d10	10.958	188	874449	40.00	ppm	0.00
83) Chrysene-d12	16.123	240	856445	40.00	ppm	0.00
91) Perylene-d12	18.745	264	797946	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.794	152	261284	40.00	ppm	0.00
103) Acenaphthene-d10a	8.330	164	515689	40.00	ppm	0.00
106) Chrysene-d12a	16.123	240	856445	40.00	ppm	0.00
109) Phenanthrene-d10a	10.958	188	874449	40.00	ppm	0.00
112) Naphthalene-d8a	5.953	136	948660	40.00	ppm	0.00
114) Chrysene-d12b	16.123	240	856445	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.801	112	492633	41.75	ppm	0.00
Spiked Amount 50.000			Recovery = 83.50%			
8) Phenol-d5	4.506	99	555717	40.62	ppm	0.00
Spiked Amount 50.000			Recovery = 81.24%			
25) Nitrobenzene-d5	5.248	82	436921	44.86	ppm	0.00
Spiked Amount 50.000			Recovery = 89.72%			
51) 2-Fluorobiphenyl	7.305	172	808543	38.53	ppm	0.00
Spiked Amount 50.000			Recovery = 77.06%			
73) 2,4,6-Tribromophenol	9.681	330	165585	43.69	ppm	0.00
Spiked Amount 50.000			Recovery = 87.38%			
85) Terphenyl-d14	14.136	244	957863	39.91	ppm	0.00
Spiked Amount 50.000			Recovery = 79.82%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

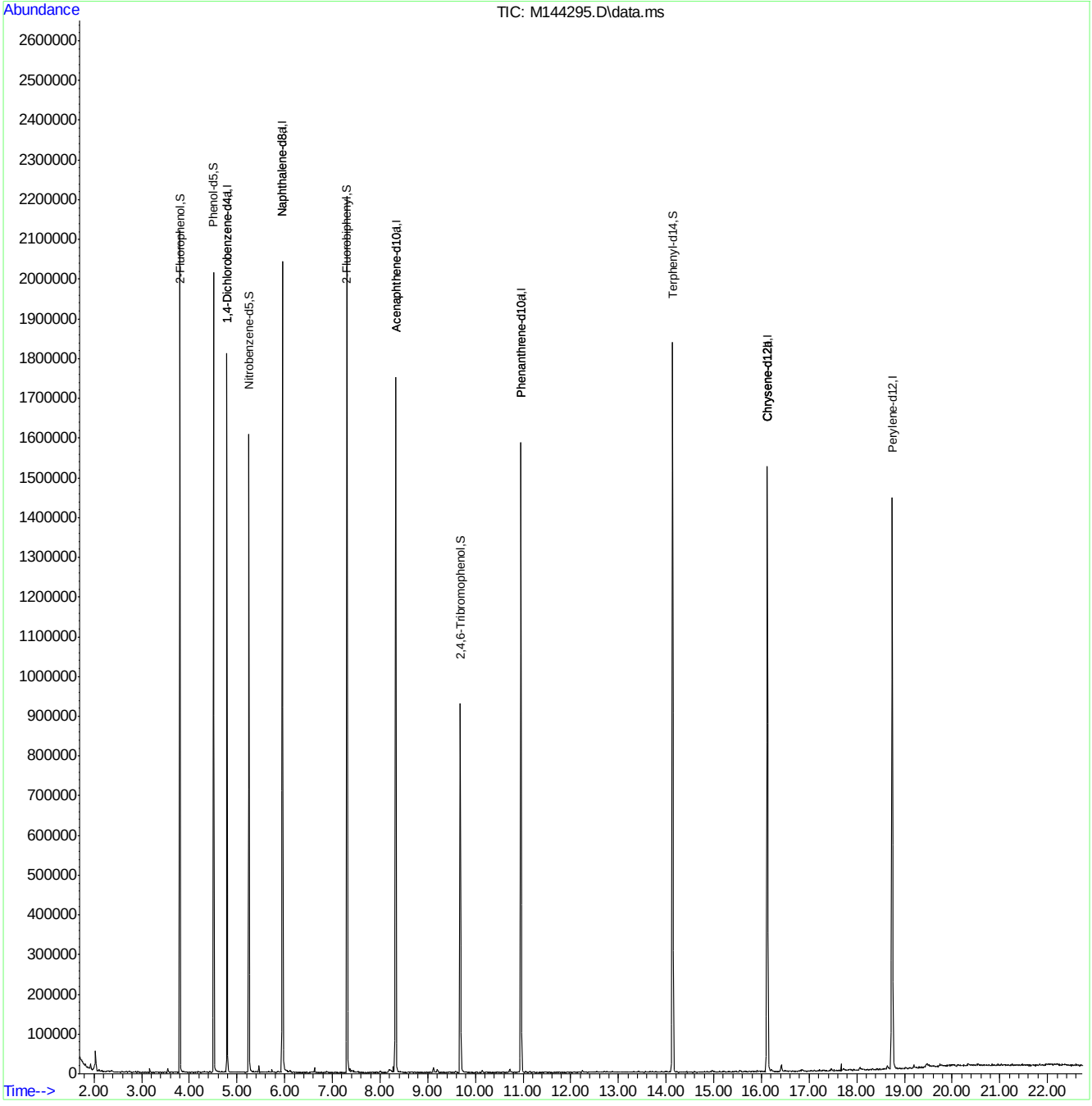
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144295.D
Acq On : 28 Feb 2018 2:44 pm
Operator : kristis
Sample : icv6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 15:40:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 14:31:03 2018
Response via : Initial Calibration



MM6121.M Thu Mar 01 13:20:09 2018 MSM Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144298.D
Acq On : 28 Feb 2018 4:14 pm
Operator : kristis
Sample : icv6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 28 16:50:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 14:31:03 2018
Response via : Initial Calibration

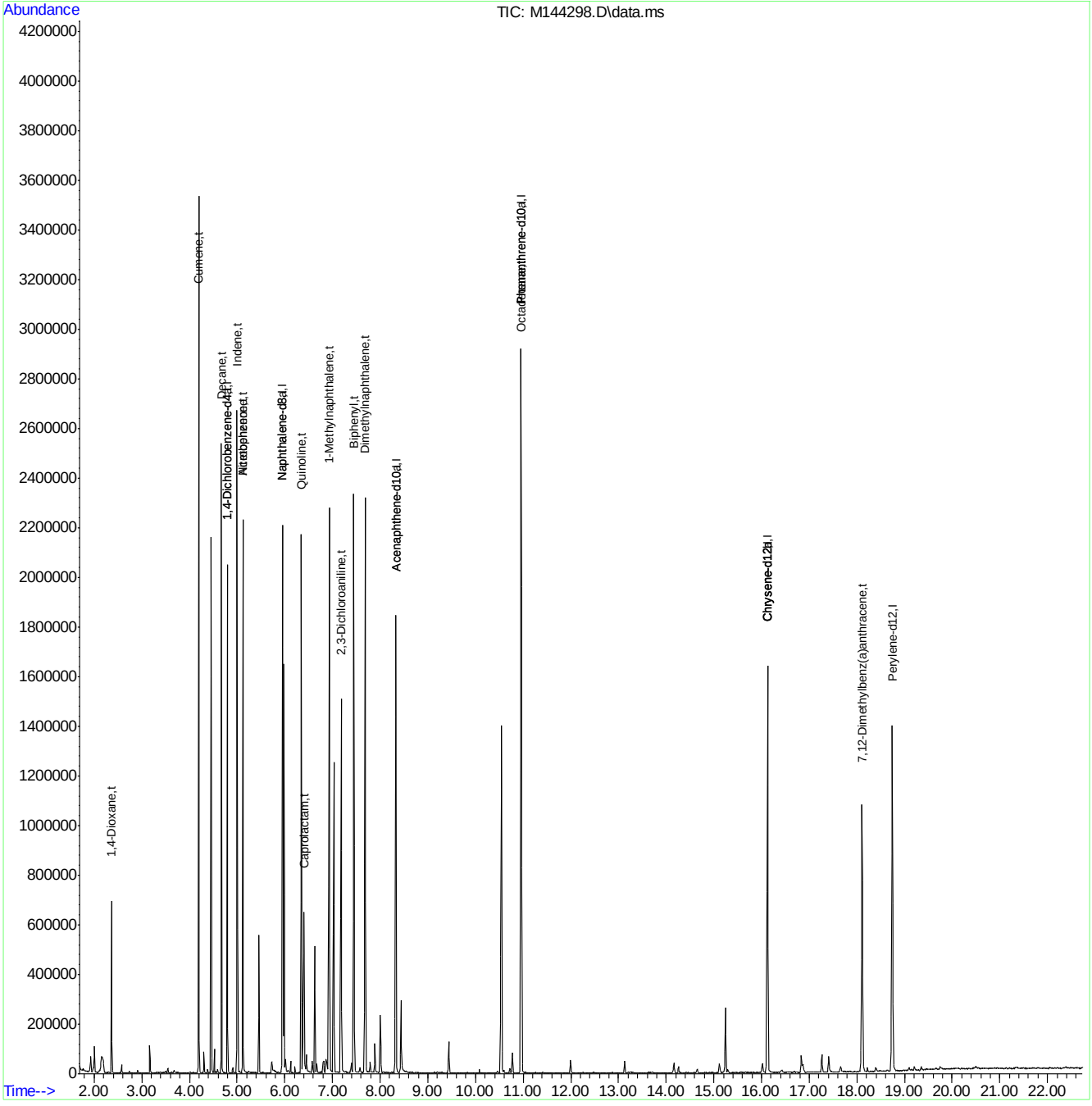
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.793	152	258305	40.00	ppm	0.00
24) Naphthalene-d8	5.952	136	994983	40.00	ppm	0.00
47) Acenaphthene-d10	8.329	164	529899	40.00	ppm	0.00
69) Phenanthrene-d10	10.956	188	808918	40.00	ppm	0.00
83) Chrysene-d12	16.127	240	919648	40.00	ppm	0.00
91) Perylene-d12	18.744	264	764370	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.793	152	258305	40.00	ppm	0.00
103) Acenaphthene-d10a	8.329	164	529899	40.00	ppm	0.00
106) Chrysene-d12a	16.127	240	919648	40.00	ppm	0.00
109) Phenanthrene-d10a	10.956	188	808918	40.00	ppm	0.00
112) Naphthalene-d8a	5.952	136	994983	40.00	ppm	0.00
114) Chrysene-d12b	16.127	240	919648	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.363	88	214861	40.63	ppm	96
6) Indene	5.001	116	745327	49.65	ppm	97
7) Cumene	4.195	105	1009566	40.64	ppm	99
13) Decane	4.670	43	362726	38.53	ppm	100
18) Acetophenone	5.119	105	561247	44.90	ppm	86
26) Nitrobenzene	5.119	77	407568	41.96	ppm #	31
27) Quinoline	6.347	129	842239	40.76	ppm	99
40) 2,3-Dichloroaniline	7.180	161	385224	38.15	ppm	100
41) Caprolactam	6.406	55	176351	35.56	ppm	99
45) 1-Methylnaphthalene	6.929	142	736522	37.29	ppm	100
46) Dimethylnaphthalene	7.682	156	669357	39.73	ppm	99
53) Biphenyl	7.447	154	922112	37.28	ppm	100
82) Octadecane	10.962	57	457911	46.29	ppm	99
99) 7,12-Dimethylbenz(a)an...	18.113	256	368466	36.20	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144298.D
Acq On : 28 Feb 2018 4:14 pm
Operator : kristis
Sample : icv6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 28 16:50:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 14:31:03 2018
Response via : Initial Calibration



MM6121.M Thu Mar 01 13:20:14 2018 MSM Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144299.D
Acq On : 28 Feb 2018 4:45 pm
Operator : kristis
Sample : icv6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 17:28:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 14:31:03 2018
Response via : Initial Calibration

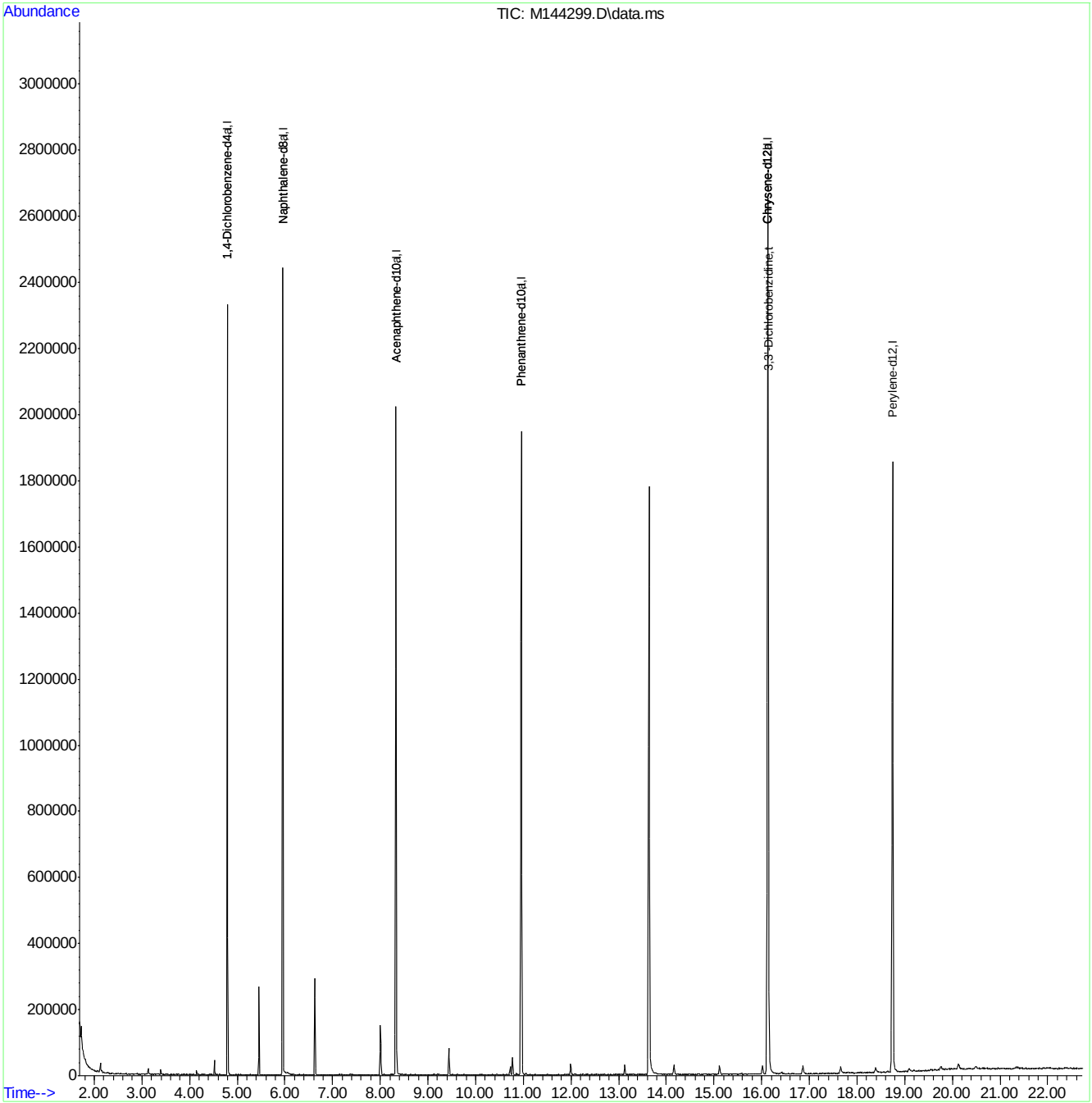
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.791	152	318571	40.00	ppm	0.00
24) Naphthalene-d8	5.955	136	1125412	40.00	ppm	0.00
47) Acenaphthene-d10	8.332	164	609614	40.00	ppm	0.00
69) Phenanthrene-d10	10.960	188	1061197	40.00	ppm	0.00
83) Chrysene-d12	16.125	240	1076684	40.00	ppm	0.00
91) Perylene-d12	18.747	264	990171	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.791	152	318571	40.00	ppm	0.00
103) Acenaphthene-d10a	8.332	164	609614	40.00	ppm	0.00
106) Chrysene-d12a	16.125	240	1076684	40.00	ppm	0.00
109) Phenanthrene-d10a	10.960	188	1061197	40.00	ppm	0.00
112) Naphthalene-d8a	5.955	136	1125412	40.00	ppm	0.00
114) Chrysene-d12b	16.125	240	1076684	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	16.141	252	556371	41.51	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6121\
Data File : M144299.D
Acq On : 28 Feb 2018 4:45 pm
Operator : kristis
Sample : icv6121-50
Misc : op9152,em6121,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 17:28:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 14:31:03 2018
Response via : Initial Calibration



MM6121.M Wed Feb 28 17:28:27 2018 MSM Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6122\
Data File : M144303.D
Acq On : 28 Feb 2018 8:31 pm
Operator : chriss2
Sample : icv6121-50
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 20:58:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 14:31:03 2018
Response via : Initial Calibration

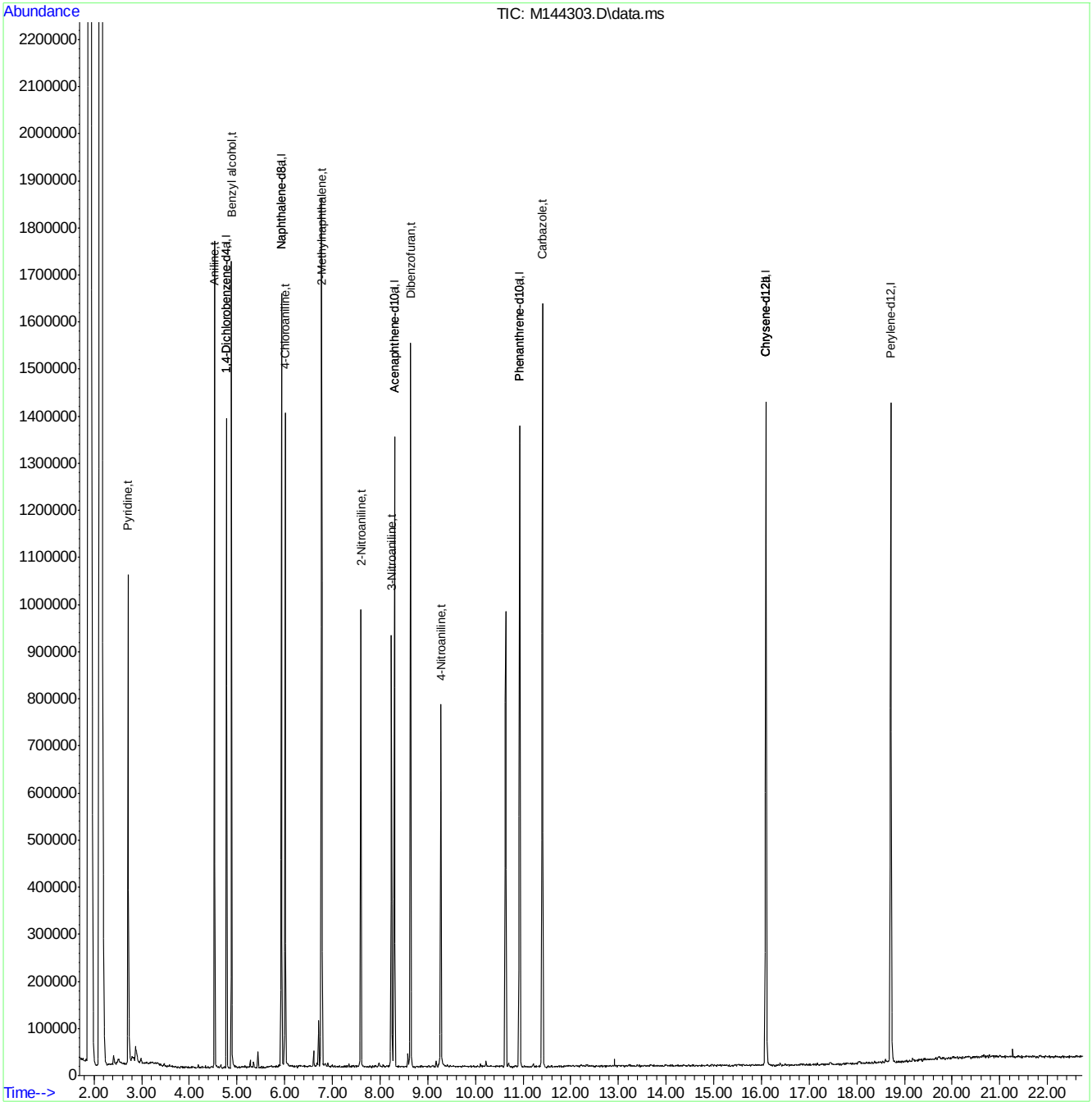
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.778	152	197699	40.00	ppm	-0.01
24) Naphthalene-d8	5.932	136	784018	40.00	ppm	-0.02
47) Acenaphthene-d10	8.303	164	417118	40.00	ppm	-0.02
69) Phenanthrene-d10	10.926	188	762564	40.00	ppm	-0.03
83) Chrysene-d12	16.096	240	807856	40.00	ppm	-0.03
91) Perylene-d12	18.713	264	772430	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.778	152	197699	40.00	ppm	-0.01
103) Acenaphthene-d10a	8.303	164	417118	40.00	ppm	-0.02
106) Chrysene-d12a	16.096	240	807856	40.00	ppm	-0.03
109) Phenanthrene-d10a	10.926	188	762564	40.00	ppm	-0.03
112) Naphthalene-d8a	5.932	136	784018	40.00	ppm	-0.02
114) Chrysene-d12b	16.096	240	807856	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
3) Pyridine	2.711	79	389623	39.21	ppm	99
10) Aniline	4.527	93	580638	50.38	ppm	95
16) Benzyl alcohol	4.885	108	237441	46.40	ppm	99
39) 4-Chloroaniline	6.007	127	434428	43.94	ppm	99
44) 2-Methylnaphthalene	6.776	141	548378	42.28	ppm	99
54) 2-Nitroaniline	7.598	65	189444	41.65	ppm	98
58) 3-Nitroaniline	8.239	138	207931	40.99	ppm	98
62) Dibenzofuran	8.640	168	833107	40.67	ppm	99
68) 4-Nitroaniline	9.281	138	210311	43.87	ppm	97
79) Carbazole	11.406	167	953530	40.37	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6122\
Data File : M144303.D
Acq On : 28 Feb 2018 8:31 pm
Operator : chriss2
Sample : icv6121-50
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 20:58:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Feb 28 14:31:03 2018
Response via : Initial Calibration



MM6121.M Thu Mar 01 12:20:46 2018 MSM Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6123\
Data File : M144314.D
Acq On : 1 Mar 2018 4:36 am
Operator : chriss2
Sample : icv6121-50
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 13:01:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Mar 01 12:56:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.780	152	195551	40.00	ppm	-0.01
24) Naphthalene-d8	5.934	136	733556	40.00	ppm	-0.02
47) Acenaphthene-d10	8.300	164	364656	40.00	ppm	-0.03
69) Phenanthrene-d10	10.928	188	706138	40.00	ppm	-0.03
83) Chrysene-d12	16.098	240	586621	40.00	ppm	-0.03
91) Perylene-d12	18.715	264	681619	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.780	152	195551	40.00	ppm	0.00
103) Acenaphthene-d10a	8.300	164	364656	40.00	ppm	0.00
106) Chrysene-d12a	16.098	240	586621	40.00	ppm	0.00
109) Phenanthrene-d10a	10.928	188	706138	40.00	ppm	0.00
112) Naphthalene-d8a	5.934	136	733556	40.00	ppm	0.00
114) Chrysene-d12b	16.098	240	586621	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
4) N-Nitrosodimethylamine	2.611	42	137973	36.26	ppm	100
11) bis(2-Chloroethyl)ether	4.566	93	380368	51.02	ppm	99
14) 1,3-Dichlorobenzene	4.732	146	402650	45.56	ppm	98
15) 1,4-Dichlorobenzene	4.791	146	363252	44.54	ppm	98
17) 1,2-Dichlorobenzene	4.914	146	360434	47.13	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.994	121	110075	49.85	ppm	99
22) n-Nitroso-di-n-propyla...	5.100	70	222140	46.53	ppm	97
23) Hexachloroethane	5.202	201	123582	43.11	ppm	100
26) Nitrobenzene	5.250	77	303905	42.43	ppm	95
28) Isophorone	5.464	82	566167	41.82	ppm	99
32) bis(2-Chloroethoxy)met...	5.672	93	383911	48.97	ppm	99
36) 1,2,4-Trichlorobenzene	5.875	180	312690	43.94	ppm	99
38) Naphthalene	5.955	128	875184	43.45	ppm	99
42) Hexachlorobutadiene	6.099	225	170699	45.32	ppm	98
48) Hexachlorocyclopentadiene	6.997	237	163553	42.96	ppm	97
52) 2-Chloronaphthalene	7.440	162	601041	46.08	ppm	99
55) Dimethylphthalate	7.904	163	662398	43.03	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6123\
Data File : M144314.D
Acq On : 1 Mar 2018 4:36 am
Operator : chriss2
Sample : icv6121-50
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 13:01:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Mar 01 12:56:19 2018
Response via : Initial Calibration

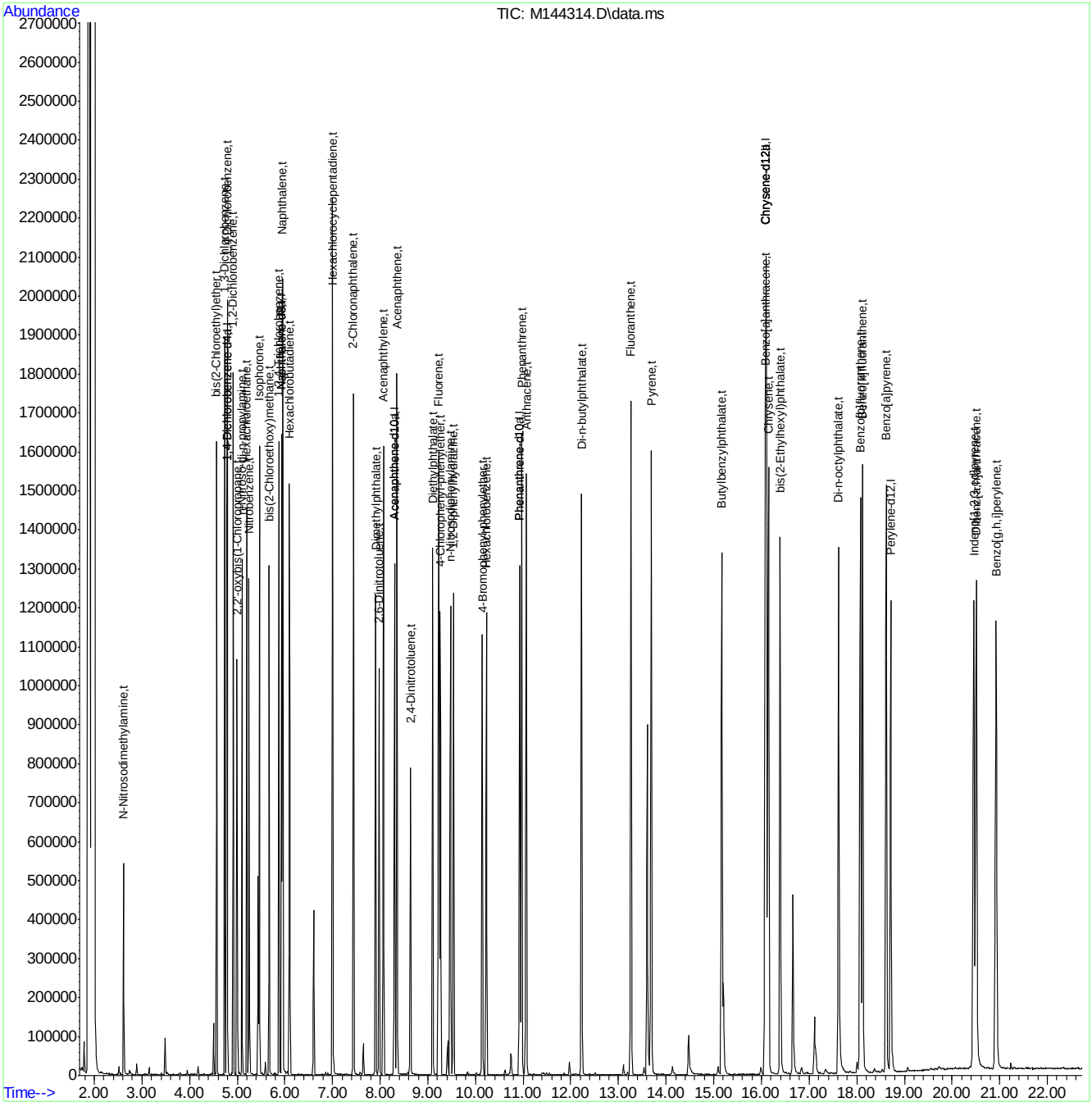
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) Acenaphthylene	8.070	152	888388	42.10	ppm	99
57) 2,6-Dinitrotoluene	7.979	165	125949	37.98	ppm	93
59) Acenaphthene	8.353	153	537270	42.55	ppm	96
63) 2,4-Dinitrotoluene	8.636	165	171215	41.41	ppm	82
65) Diethylphthalate	9.101	149	666392	42.60	ppm	98
66) Fluorene	9.229	166	623960	42.35	ppm	99
67) 4-Chlorophenyl-phenyle...	9.261	204	284823	40.68	ppm	96
71) n-Nitrosodiphenylamine	9.475	169	418566	36.96	ppm	99
72) 1,2-Diphenylhydrazine	9.539	77	605153	40.57	ppm	99
74) 4-Bromophenyl-phenylether	10.142	248	205965	40.44	ppm	96
75) Hexachlorobenzene	10.228	284	231302	40.40	ppm	99
77) Phenanthrene	10.970	178	912985	42.43	ppm	99
78) Anthracene	11.066	178	894684	39.87	ppm	100
80) Di-n-butylphthalate	12.225	149	1146604	39.85	ppm	99
81) Fluoranthene	13.262	202	1006149	39.87	ppm	98
84) Pyrene	13.689	202	975291	43.69	ppm	99
86) Butylbenzylphthalate	15.168	149	500524	44.70	ppm	96
87) Benzo[a]anthracene	16.082	228	979137	45.52	ppm	98
89) Chrysene	16.151	228	854672	44.11	ppm	99
90) bis(2-Ethylhexyl)phtha...	16.391	149	629633	42.95	ppm	98
92) Di-n-octylphthalate	17.615	149	1135710	44.39	ppm	99
93) Benzo[b]fluoranthene	18.074	252	984118	42.90	ppm	99
94) Benzo[k]fluoranthene	18.122	252	944218	45.56	ppm	97
95) Benzo[a]pyrene	18.619	252	929533	44.81	ppm	99
96) Indeno[1,2,3-cd]pyrene	20.456	276	948514	48.16	ppm	98
98) Dibenz[a,h]anthracene	20.509	278	907904	44.87	ppm	98
100) Benzo[g,h,i]perylene	20.926	276	979955	48.89	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6123\
Data File : M144314.D
Acq On : 1 Mar 2018 4:36 am
Operator : chriss2
Sample : icv6121-50
Misc : op9152,em6122,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 13:01:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Mar 01 12:56:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6126\
Data File : M144345.D
Acq On : 1 Mar 2018 11:08 pm
Operator : chriss2
Sample : icv6121-50
Misc : op9152,em6126,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 23:36:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Mar 01 13:09:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.759	152	192584	40.00	ppm	-0.03
24) Naphthalene-d8	5.913	136	699899	40.00	ppm	-0.04
47) Acenaphthene-d10	8.274	164	363914	40.00	ppm	-0.05
69) Phenanthrene-d10	10.896	188	689984	40.00	ppm	-0.06
83) Chrysene-d12	16.066	240	700916	40.00	ppm	-0.06
91) Perylene-d12	18.689	264	726717	40.00	ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.759	152	192584	40.00	ppm	-0.01
103) Acenaphthene-d10a	8.274	164	363914	40.00	ppm	-0.03
106) Chrysene-d12a	16.066	240	700916	40.00	ppm	-0.03
109) Phenanthrene-d10a	10.896	188	689984	40.00	ppm	-0.03
112) Naphthalene-d8a	5.913	136	699899	40.00	ppm	-0.02
114) Chrysene-d12b	16.066	240	700916	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Phenol	4.487	94	466398	43.05	ppm	94
12) 2-Chlorophenol	4.599	128	364422	44.57	ppm	99
19) 2-Methylphenol	4.957	108	308684	46.51	ppm	97
21) 3&4-Methylphenol	5.080	108	330603	50.09	ppm #	69
29) 2-Nitrophenol	5.523	139	192054	46.41	ppm	91
30) 2,4-Dimethylphenol	5.561	107	283296	46.52	ppm	97
31) Benzoic acid	5.662	105	226008	45.88	ppm	97
33) 2,4-Dichlorophenol	5.758	162	248727	43.53	ppm	94
34) 2,6-Dichlorophenol	5.999	162	246050	45.57	ppm	99
43) 4-Chloro-3-methylphenol	6.549	107	282666	44.72	ppm	95
49) 2,4,6-Trichlorophenol	7.131	196	193691	43.89	ppm	97
50) 2,4,5-Trichlorophenol	7.174	196	191156	39.91	ppm	99
60) 2,4-Dinitrophenol	8.381	184	78095	43.06	ppm	96
61) 4-Nitrophenol	8.520	109	90251	46.81	ppm	95
64) 2,3,4,6-Tetrachlorophenol	8.835	232	168802	39.39	ppm	98
70) 4,6-Dinitro-2-methylph...	9.310	198	122966	41.73	ppm	93
76) Pentachlorophenol	10.571	266	169575	50.82	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6126\
Data File : M144345.D
Acq On : 1 Mar 2018 11:08 pm
Operator : chriss2
Sample : icv6121-50
Misc : op9152,em6126,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 23:36:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Mar 01 13:09:51 2018
Response via : Initial Calibration

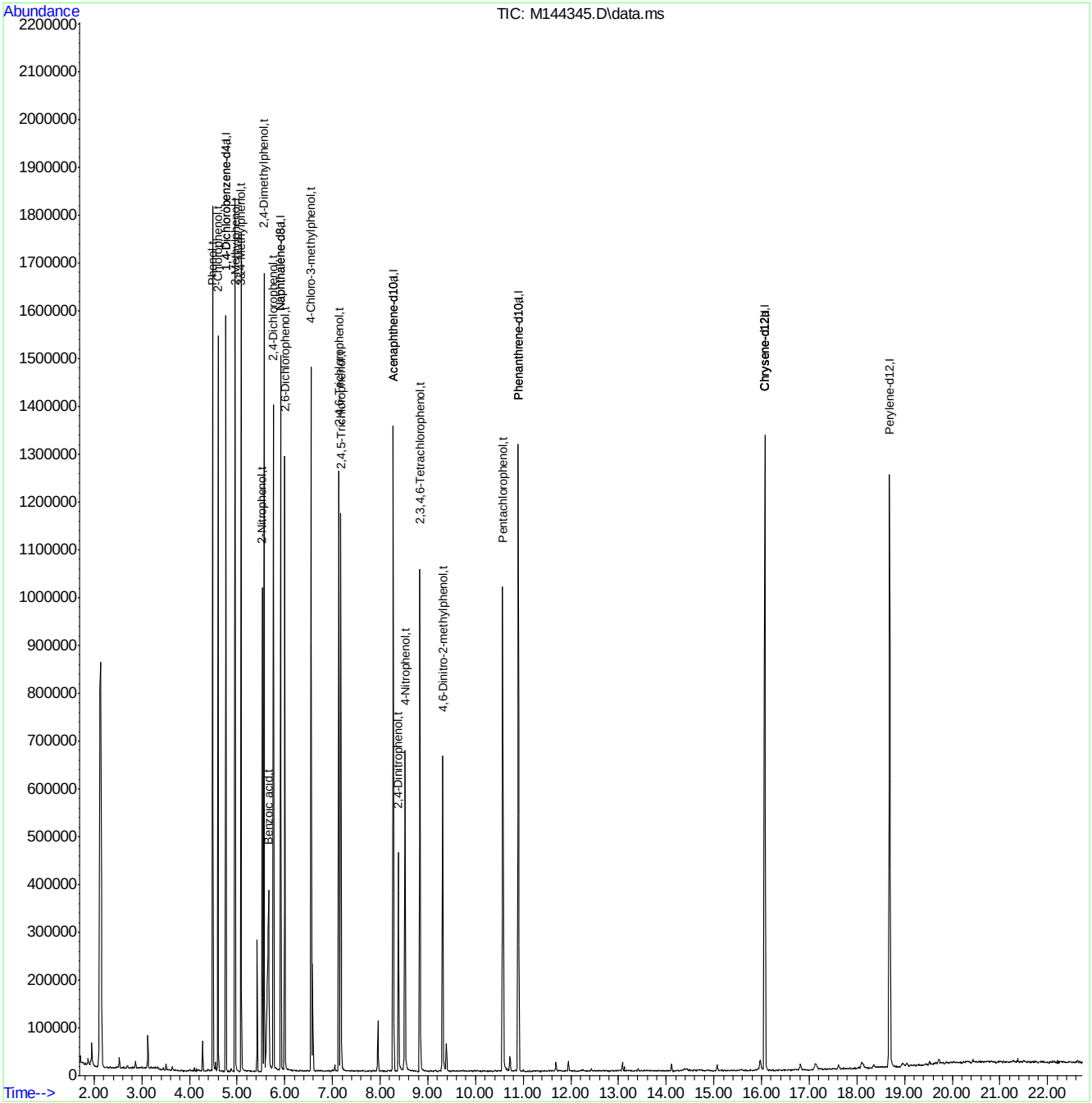
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6126\
Data File : M144345.D
Acq On : 1 Mar 2018 11:08 pm
Operator : chriss2
Sample : icv6121-50
Misc : op9152,em6126,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 23:36:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6121.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Mar 01 13:09:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144446.D
Acq On : 6 Mar 2018 12:12 pm
Operator : seanb1
Sample : ic6131-100
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 10:50:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration

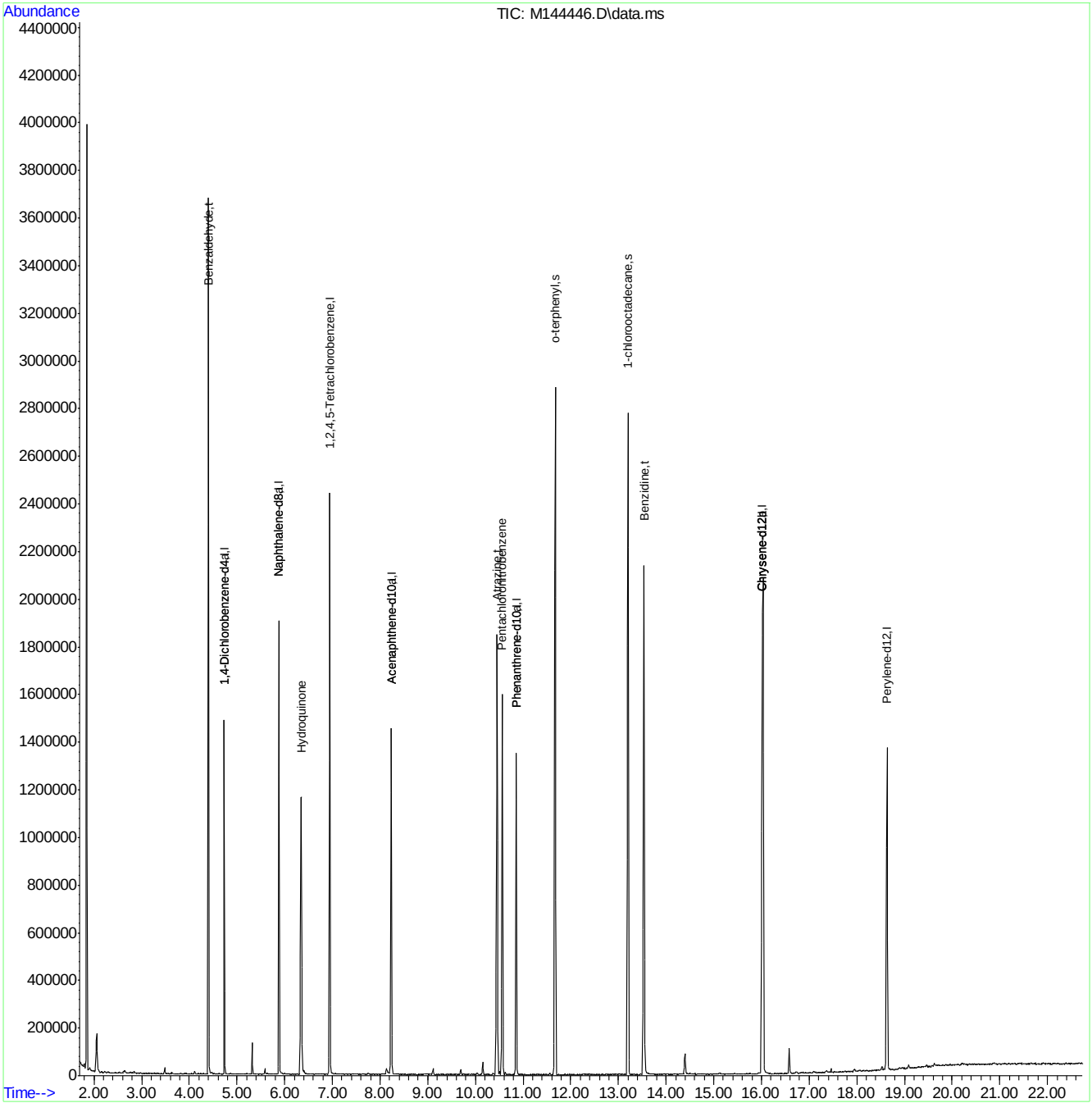
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.736	152	206168	40.00	ppm	0.05
24) Naphthalene-d8	5.879	136	820244	40.00	ppm	0.00
47) Acenaphthene-d10	8.234	164	387858	40.00	ppm	0.00
69) Phenanthrene-d10	10.857	188	696026	40.00	ppm	0.00
83) Chrysene-d12	16.016	240	698330	40.00	ppm	0.00
91) Perylene-d12	18.633	264	753521	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.736	152	206168	40.00	ppm	0.05
103) Acenaphthene-d10a	8.234	164	387858	40.00	ppm	-0.06
106) Chrysene-d12a	16.016	240	698330	40.00	ppm	0.00
109) Phenanthrene-d10a	10.857	188	696026	40.00	ppm	-0.07
112) Naphthalene-d8a	5.879	136	820244	40.00	ppm	-0.05
114) Chrysene-d12b	16.016	240	698330	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.202	57	577651	84.18	ppm	-0.07
Spiked Amount 50.000			Recovery =	168.36%		
110) o-terphenyl	11.674	230	918532	81.62	ppm	-0.07
Spiked Amount 50.000			Recovery =	163.24%		
Target Compounds						Qvalue
102) Benzaldehyde	4.399	105	552895	82.98	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.947	216	511423	76.87	ppm	98
105) Atrazine	10.462	215	188943	88.35	ppm	96
107) Benzidine	13.538	184	1354631	93.80	ppm	99
111) Pentachloronitrobenzene	10.563	295	81307	93.99	ppm	99
113) Hydroquinone	6.349	110	855008	95.58	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144446.D
Acq On : 6 Mar 2018 12:12 pm
Operator : seanb1
Sample : ic6131-100
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 10:50:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144447.D
Acq On : 6 Mar 2018 12:42 pm
Operator : seanb1
Sample : ic6131-80
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 10:52:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration

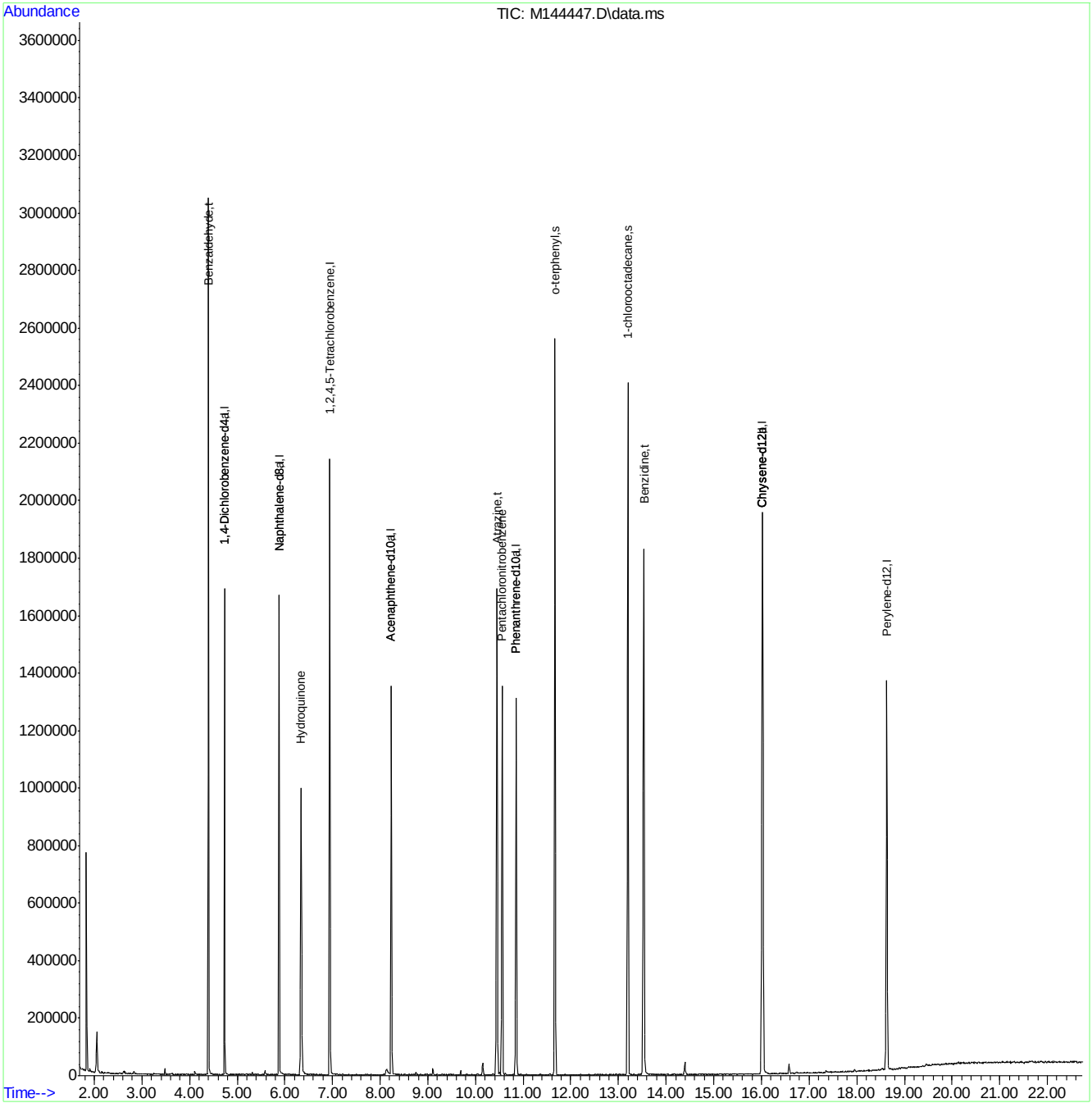
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.732	152	200506	40.00	ppm	0.05
24) Naphthalene-d8	5.880	136	798171	40.00	ppm	0.00
47) Acenaphthene-d10	8.230	164	380092	40.00	ppm	0.00
69) Phenanthrene-d10	10.853	188	697494	40.00	ppm	0.00
83) Chrysene-d12	16.012	240	712731	40.00	ppm	-0.01
91) Perylene-d12	18.629	264	765450	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.732	152	200506	40.00	ppm	0.05
103) Acenaphthene-d10a	8.230	164	380092	40.00	ppm	-0.07
106) Chrysene-d12a	16.012	240	712731	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.853	188	697494	40.00	ppm	-0.07
112) Naphthalene-d8a	5.880	136	798171	40.00	ppm	-0.05
114) Chrysene-d12b	16.012	240	712731	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.197	57	494562	70.62	ppm	-0.07
Spiked Amount 50.000			Recovery =	141.24%		
110) o-terphenyl	11.670	230	781921	69.33	ppm	-0.07
Spiked Amount 50.000			Recovery =	138.66%		
Target Compounds						Qvalue
102) Benzaldehyde	4.395	105	458599	70.77	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.943	216	424723	65.14	ppm	98
105) Atrazine	10.452	215	154615	73.78	ppm	89
107) Benzidine	13.534	184	1200818	81.47	ppm	99
111) Pentachloronitrobenzene	10.559	295	65802	75.91	ppm	99
113) Hydroquinone	6.340	110	678034	77.90	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144447.D
Acq On : 6 Mar 2018 12:42 pm
Operator : seanb1
Sample : ic6131-80
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 10:52:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144448.D
Acq On : 6 Mar 2018 1:13 pm
Operator : seanb1
Sample : icc6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 12 10:53:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration

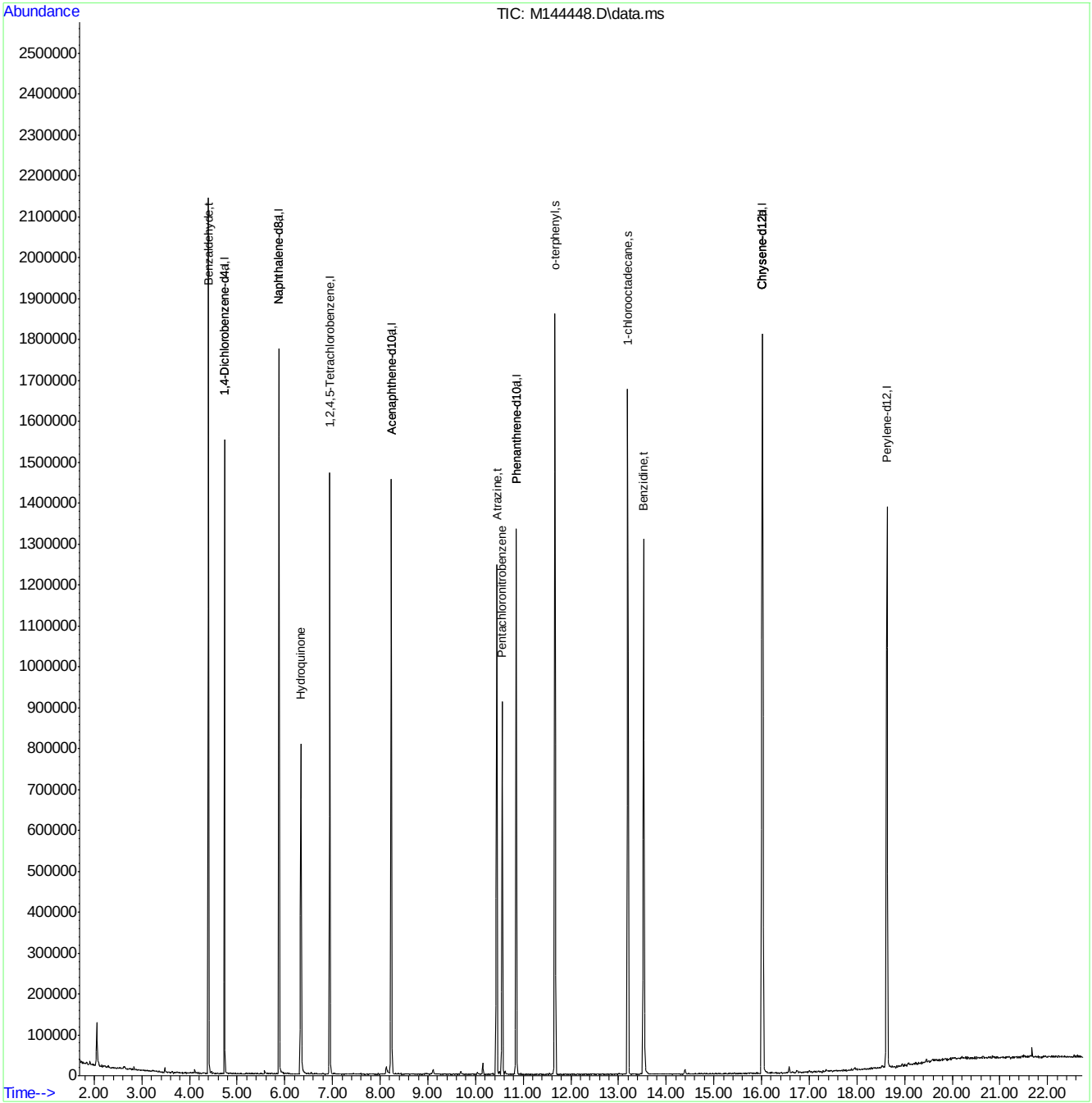
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.733	152	205605	40.00	ppm	0.05
24) Naphthalene-d8	5.876	136	812848	40.00	ppm	0.00
47) Acenaphthene-d10	8.231	164	394202	40.00	ppm	0.00
69) Phenanthrene-d10	10.854	188	724683	40.00	ppm	0.00
83) Chrysene-d12	16.013	240	741477	40.00	ppm	-0.01
91) Perylene-d12	18.630	264	790525	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.733	152	205605	40.00	ppm	0.05
103) Acenaphthene-d10a	8.231	164	394202	40.00	ppm	-0.07
106) Chrysene-d12a	16.013	240	741477	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.854	188	724683	40.00	ppm	-0.07
112) Naphthalene-d8a	5.876	136	812848	40.00	ppm	-0.06
114) Chrysene-d12b	16.013	240	741477	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.193	57	339906	46.65	ppm	-0.08
Spiked Amount 50.000			Recovery =	93.30%		
110) o-terphenyl	11.666	230	529365	45.18	ppm	-0.07
Spiked Amount 50.000			Recovery =	90.36%		
Target Compounds						Qvalue
102) Benzaldehyde	4.396	105	308211	46.38	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.944	216	285826	42.27	ppm	97
105) Atrazine	10.448	215	103158	47.46	ppm	90
107) Benzidine	13.530	184	795824	51.90	ppm	100
111) Pentachloronitrobenzene	10.560	295	43371	48.16	ppm	98
113) Hydroquinone	6.335	110	433957	48.95	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144448.D
Acq On : 6 Mar 2018 1:13 pm
Operator : seanb1
Sample : icc6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 12 10:53:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144449.D
Acq On : 6 Mar 2018 1:43 pm
Operator : seanb1
Sample : ic6131-25
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 10:54:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration

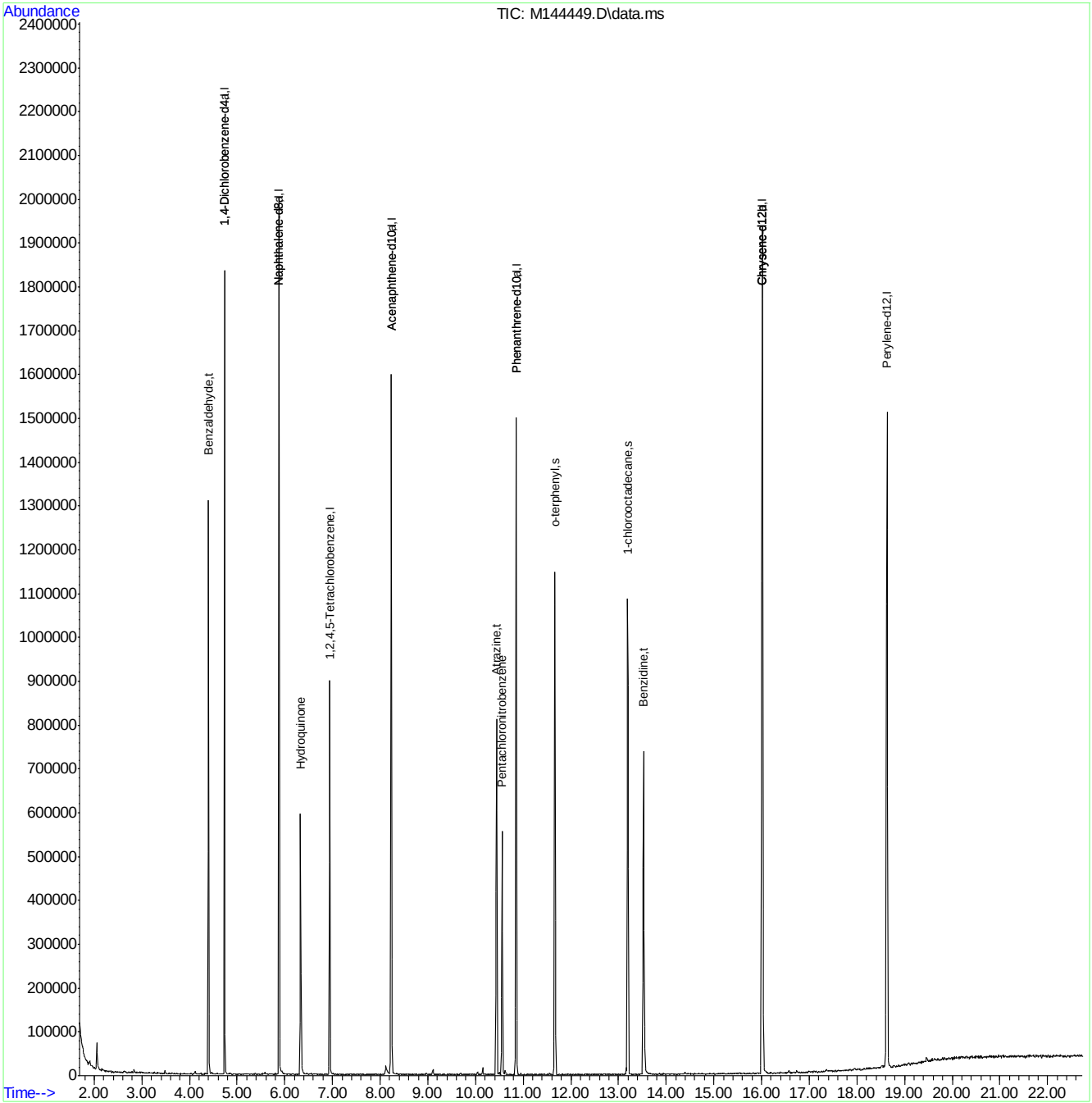
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.733	152	236301	40.00	ppm	0.05
24) Naphthalene-d8	5.876	136	924419	40.00	ppm	0.00
47) Acenaphthene-d10	8.231	164	438085	40.00	ppm	0.00
69) Phenanthrene-d10	10.854	188	825336	40.00	ppm	0.00
83) Chrysene-d12	16.013	240	825922	40.00	ppm	-0.01
91) Perylene-d12	18.630	264	879739	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.733	152	236301	40.00	ppm	0.05
103) Acenaphthene-d10a	8.231	164	438085	40.00	ppm	-0.07
106) Chrysene-d12a	16.013	240	825922	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.854	188	825336	40.00	ppm	-0.07
112) Naphthalene-d8a	5.876	136	924419	40.00	ppm	-0.06
114) Chrysene-d12b	16.013	240	825922	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.193	57	208940	25.75	ppm	-0.08
Spiked Amount 50.000			Recovery =	51.50%		
110) o-terphenyl	11.665	230	327291	24.53	ppm	-0.07
Spiked Amount 50.000			Recovery =	49.06%		
Target Compounds						Qvalue
102) Benzaldehyde	4.396	105	190845	24.99	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.944	216	177345	23.60	ppm	98
105) Atrazine	10.442	215	61532	25.47	ppm	88
107) Benzidine	13.524	184	475554	27.84	ppm	99
111) Pentachloronitrobenzene	10.555	295	26204	25.55	ppm	98
113) Hydroquinone	6.330	110	256415	25.43	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144449.D
Acq On : 6 Mar 2018 1:43 pm
Operator : seanb1
Sample : ic6131-25
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 10:54:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144450.D
Acq On : 6 Mar 2018 2:13 pm
Operator : seanb1
Sample : ic6131-10
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 12 10:56:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration

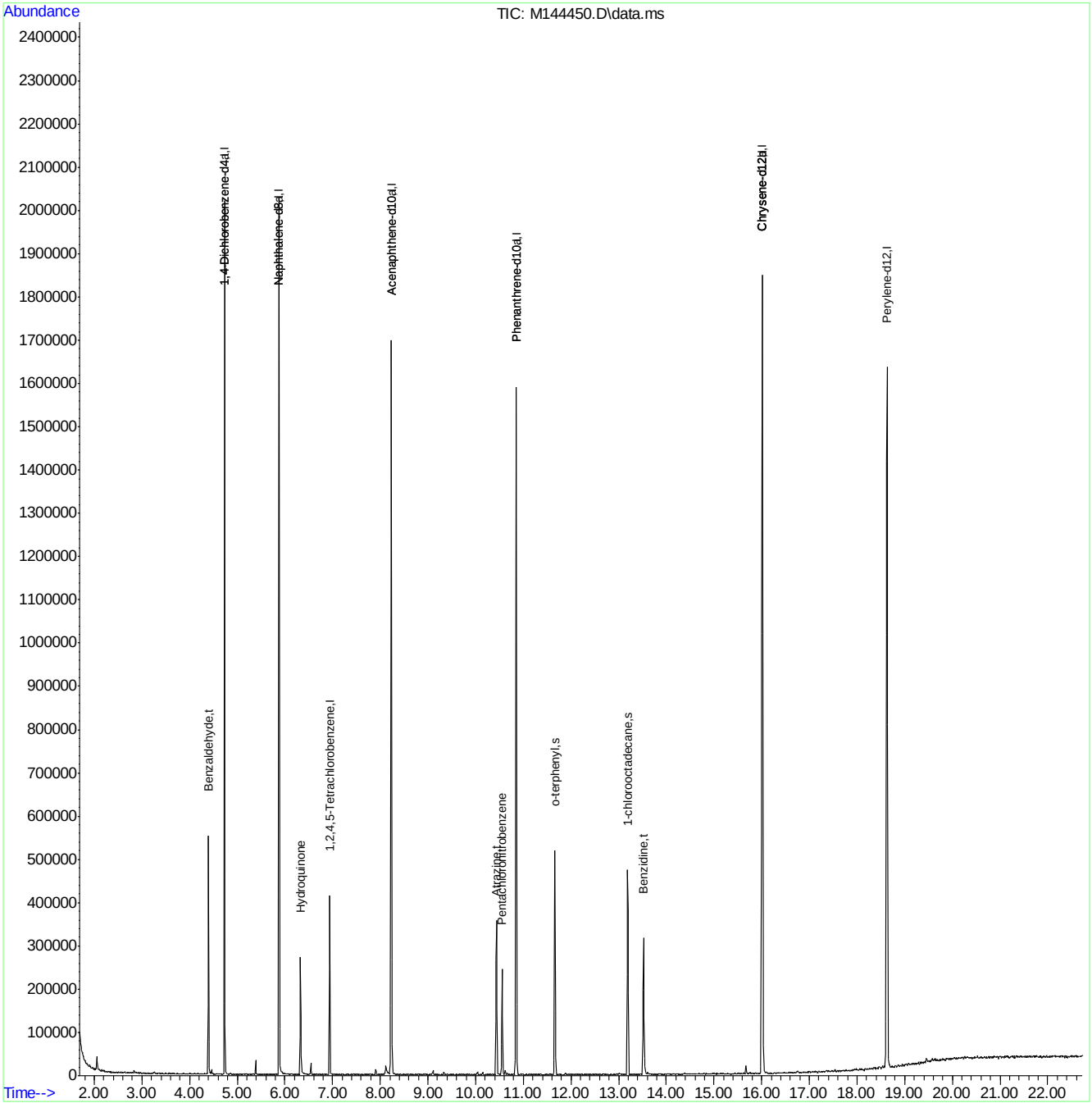
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.732	152	249430	40.00	ppm	0.05
24) Naphthalene-d8	5.875	136	947719	40.00	ppm	0.00
47) Acenaphthene-d10	8.231	164	460271	40.00	ppm	0.00
69) Phenanthrene-d10	10.853	188	878281	40.00	ppm	0.00
83) Chrysene-d12	16.013	240	887400	40.00	ppm	-0.01
91) Perylene-d12	18.630	264	923453	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.732	152	249430	40.00	ppm	0.05
103) Acenaphthene-d10a	8.231	164	460271	40.00	ppm	-0.07
106) Chrysene-d12a	16.013	240	887400	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.853	188	878281	40.00	ppm	-0.07
112) Naphthalene-d8a	5.875	136	947719	40.00	ppm	-0.06
114) Chrysene-d12b	16.013	240	887400	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.193	57	90176	10.34	ppm	-0.08
Spiked Amount 50.000			Recovery =	20.68%		
110) o-terphenyl	11.665	230	144981	10.21	ppm	-0.07
Spiked Amount 50.000			Recovery =	20.42%		
Target Compounds						Qvalue
102) Benzaldehyde	4.396	105	82125	10.19	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.938	216	79021	10.01	ppm	96
105) Atrazine	10.442	215	27484	10.83	ppm	93
107) Benzidine	13.524	184	192738	10.50	ppm	98
111) Pentachloronitrobenzene	10.554	295	11530	10.56	ppm	98
113) Hydroquinone	6.329	110	104994	10.16	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144450.D
Acq On : 6 Mar 2018 2:13 pm
Operator : seanb1
Sample : ic6131-10
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 12 10:56:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:29:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144451.D
Acq On : 6 Mar 2018 2:43 pm
Operator : seanb1
Sample : ic6131-5
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 10:57:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:57:09 2018
Response via : Initial Calibration

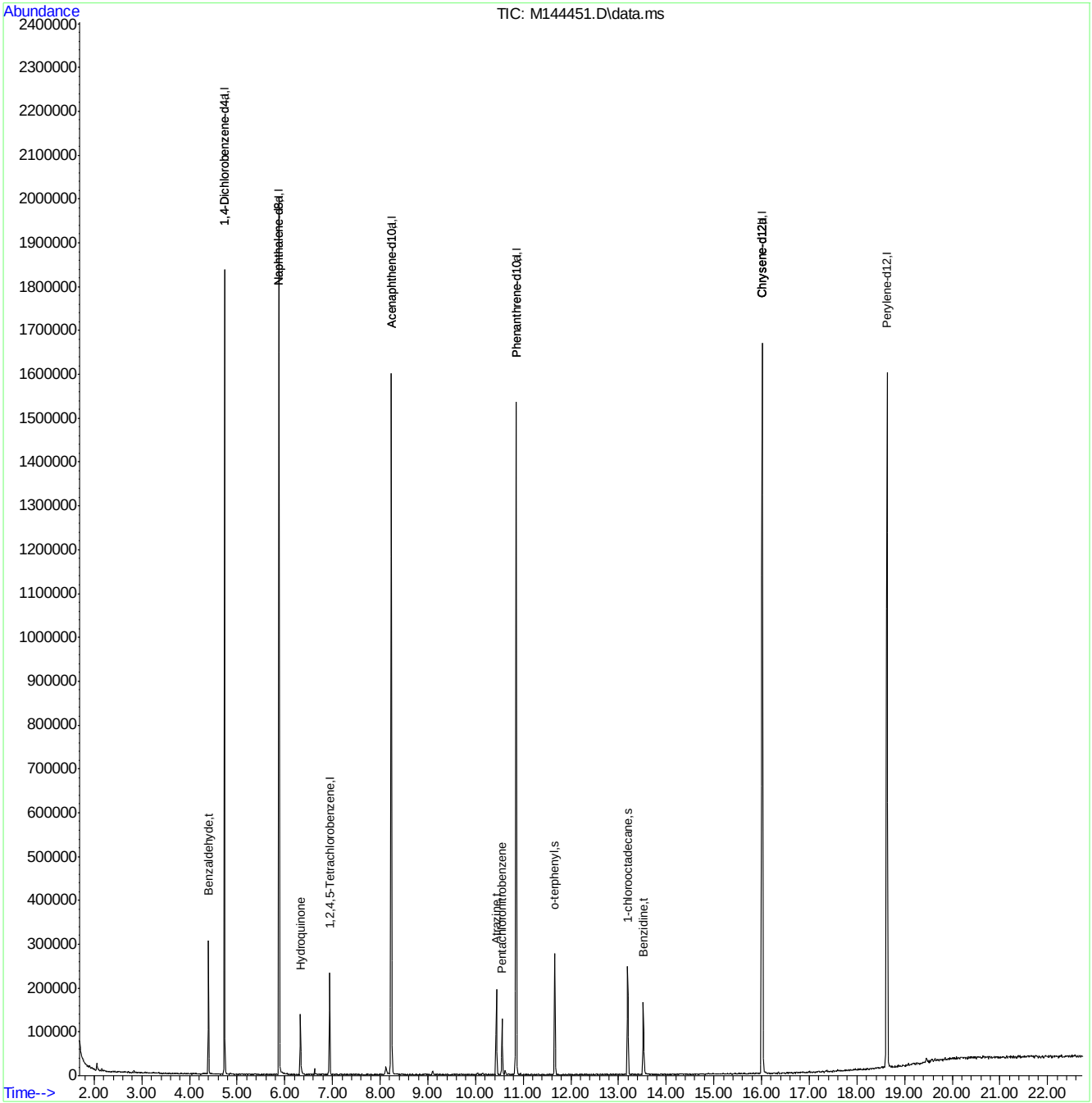
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.733	152	236836	40.00	ppm	0.05
24) Naphthalene-d8	5.876	136	896072	40.00	ppm	0.00
47) Acenaphthene-d10	8.232	164	435005	40.00	ppm	0.00
69) Phenanthrene-d10	10.854	188	847294	40.00	ppm	0.00
83) Chrysene-d12	16.013	240	851039	40.00	ppm	-0.01
91) Perylene-d12	18.631	264	871757	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.733	152	236836	40.00	ppm	0.05
103) Acenaphthene-d10a	8.232	164	435005	40.00	ppm	-0.07
106) Chrysene-d12a	16.013	240	851039	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.854	188	847294	40.00	ppm	-0.07
112) Naphthalene-d8a	5.876	136	896072	40.00	ppm	-0.06
114) Chrysene-d12b	16.013	240	851039	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.193	57	46524	5.56	ppm	-0.08
Spiked Amount 50.000			Recovery =	11.12%		
110) o-terphenyl	11.660	230	76750	5.60	ppm	-0.08
Spiked Amount 50.000			Recovery =	11.20%		
Target Compounds						Qvalue
102) Benzaldehyde	4.397	105	43452	5.68	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.939	216	44549	5.97	ppm	93
105) Atrazine	10.437	215	13416	5.59	ppm	75
107) Benzidine	13.519	184	96754	5.50	ppm	100
111) Pentachloronitrobenzene	10.555	295	5320	5.05	ppm	88
113) Hydroquinone	6.325	110	54715	5.60	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144451.D
Acq On : 6 Mar 2018 2:43 pm
Operator : seanb1
Sample : ic6131-5
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 10:57:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:57:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144452.D
Acq On : 6 Mar 2018 3:13 pm
Operator : seanb1
Sample : ic6131-2
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 12 12:47:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:57:09 2018
Response via : Initial Calibration

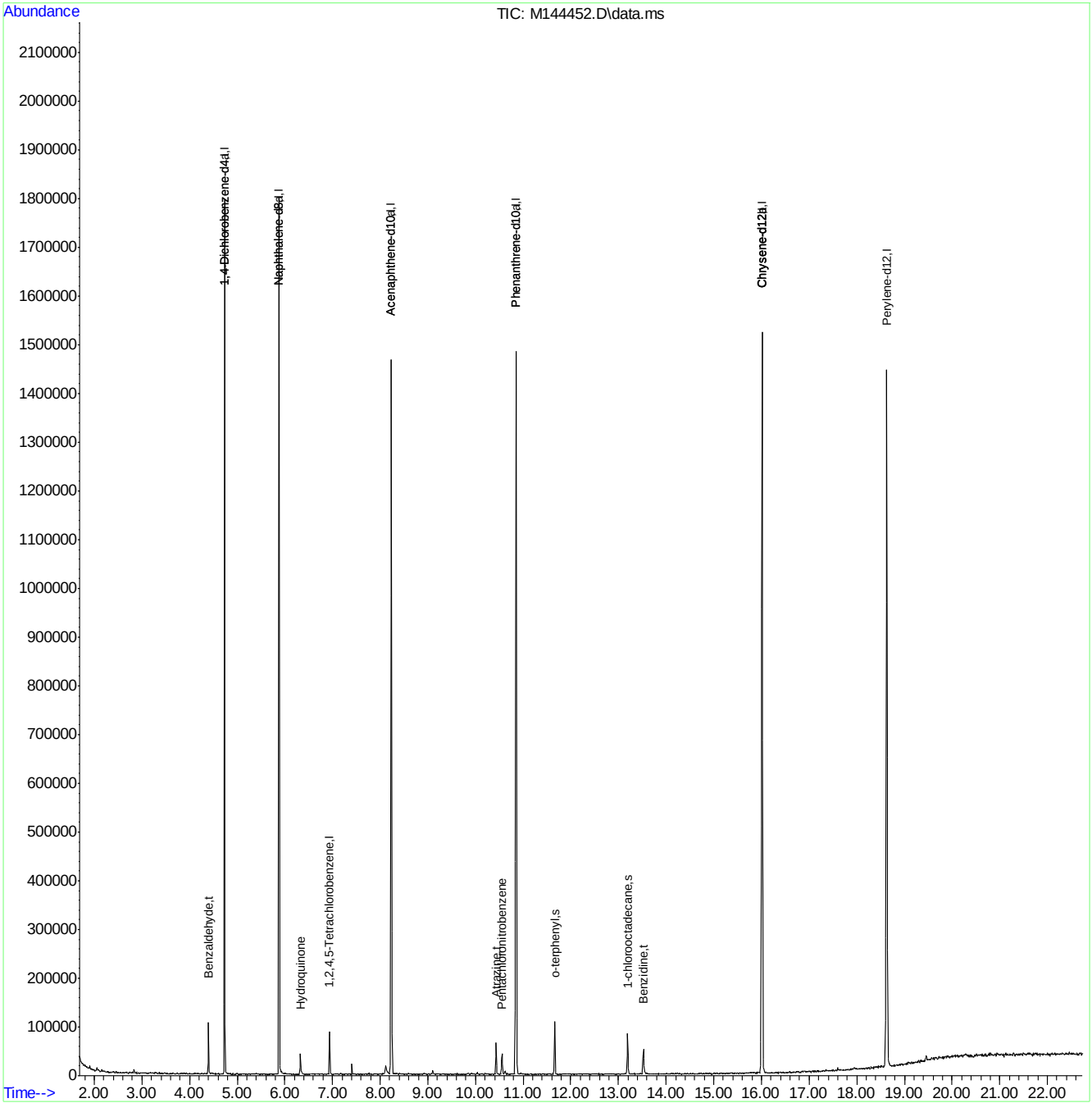
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.732	152	224561	40.00	ppm	0.05
24) Naphthalene-d8	5.875	136	850017	40.00	ppm	0.00
47) Acenaphthene-d10	8.231	164	404060	40.00	ppm	0.00
69) Phenanthrene-d10	10.853	188	791378	40.00	ppm	0.00
83) Chrysene-d12	16.012	240	788788	40.00	ppm	-0.01
91) Perylene-d12	18.630	264	806812	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.732	152	224561	40.00	ppm	0.05
103) Acenaphthene-d10a	8.231	164	404060	40.00	ppm	-0.07
106) Chrysene-d12a	16.012	240	788788	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.853	188	791378	40.00	ppm	-0.07
112) Naphthalene-d8a	5.875	136	850017	40.00	ppm	-0.06
114) Chrysene-d12b	16.012	240	788788	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.192	57	17004	2.19	ppm	-0.08
Spiked Amount 50.000			Recovery =	4.38%		
110) o-terphenyl	11.665	230	29210	2.28	ppm	-0.07
Spiked Amount 50.000			Recovery =	4.56%		
Target Compounds						Qvalue
102) Benzaldehyde	4.396	105	16619	2.29	ppm	89
104) 1,2,4,5-Tetrachloroben...	6.938	216	16917	2.44	ppm	91
105) Atrazine	10.436	215	4851	2.18	ppm #	77
107) Benzidine	13.524	184	29321	1.80	ppm	94
111) Pentachloronitrobenzene	10.554	295	2084	2.12	ppm	86
113) Hydroquinone	6.329	110	18683	2.02	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144452.D
Acq On : 6 Mar 2018 3:13 pm
Operator : seanb1
Sample : ic6131-2
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 12 12:47:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:57:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144453.D
Acq On : 6 Mar 2018 3:43 pm
Operator : seanb1
Sample : ic6131-1
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 12 12:49:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:57:09 2018
Response via : Initial Calibration

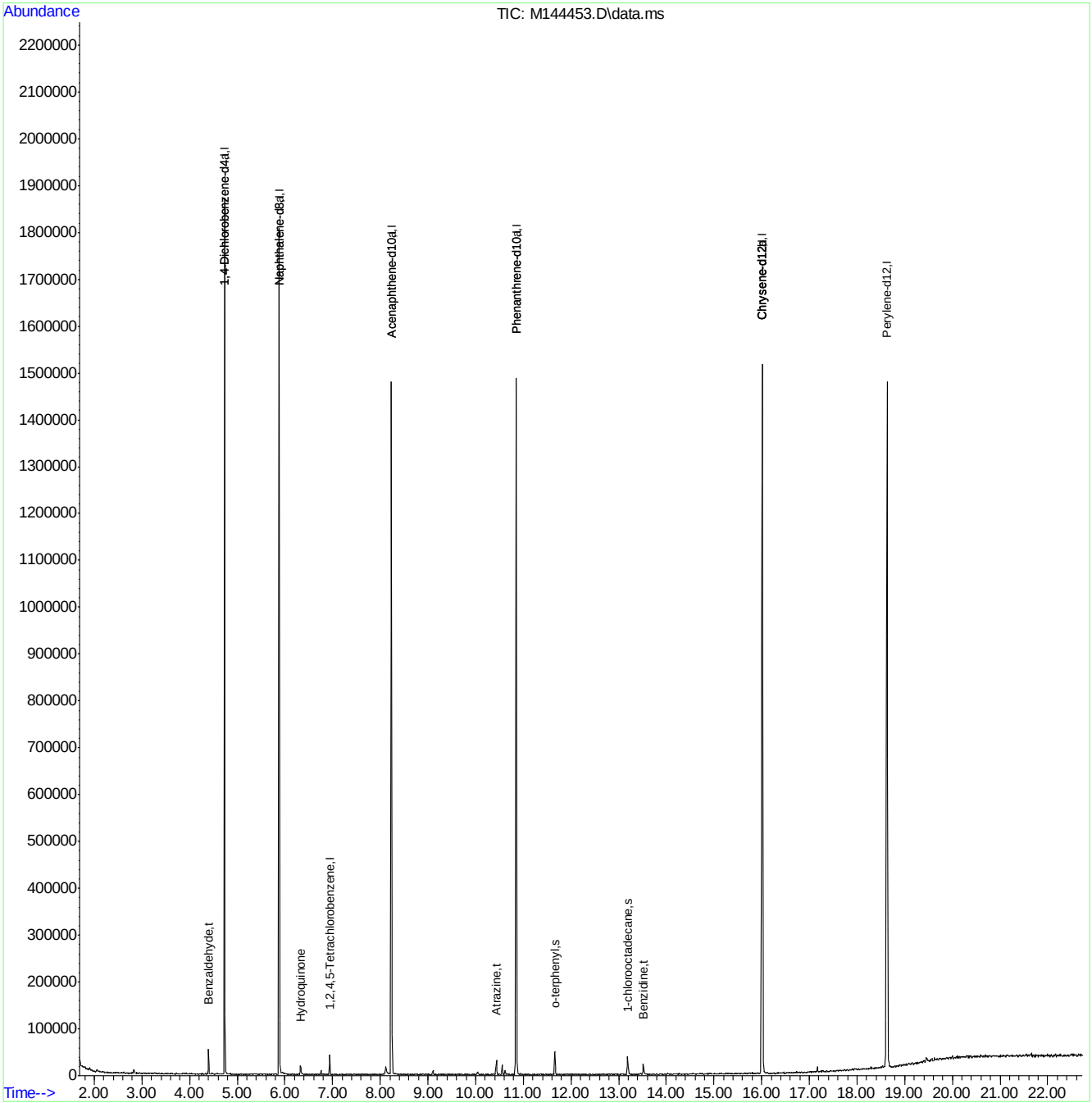
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.732	152	228250	40.00	ppm	0.05
24) Naphthalene-d8	5.881	136	864791	40.00	ppm	0.00
47) Acenaphthene-d10	8.231	164	415045	40.00	ppm	0.00
69) Phenanthrene-d10	10.853	188	793965	40.00	ppm	0.00
83) Chrysene-d12	16.013	240	795589	40.00	ppm	-0.01
91) Perylene-d12	18.630	264	812459	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.732	152	228250	40.00	ppm	0.05
103) Acenaphthene-d10a	8.231	164	415045	40.00	ppm	-0.07
106) Chrysene-d12a	16.013	240	795589	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.853	188	793965	40.00	ppm	-0.07
112) Naphthalene-d8a	5.881	136	864791	40.00	ppm	-0.05
114) Chrysene-d12b	16.013	240	795589	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.193	57	8355	1.07	ppm	-0.08
Spiked Amount 50.000			Recovery =	2.14%		
110) o-terphenyl	11.665	230	14761	1.15	ppm	-0.07
Spiked Amount 50.000			Recovery =	2.30%		
Target Compounds						Qvalue
102) Benzaldehyde	4.401	105	7812	1.06	ppm	90
104) 1,2,4,5-Tetrachloroben...	6.938	216	8634	1.21	ppm	95
105) Atrazine	10.437	215	2141	0.94	ppm #	78
107) Benzidine	13.518	184	13876	0.84	ppm	98
113) Hydroquinone	6.329	110	8776	0.93	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144453.D
Acq On : 6 Mar 2018 3:43 pm
Operator : seanb1
Sample : ic6131-1
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 12 12:49:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Mar 12 10:57:09 2018
Response via : Initial Calibration



MM6131.M Mon Mar 12 12:50:07 2018 MSM Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144454.D
Acq On : 6 Mar 2018 4:14 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 06 19:45:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration

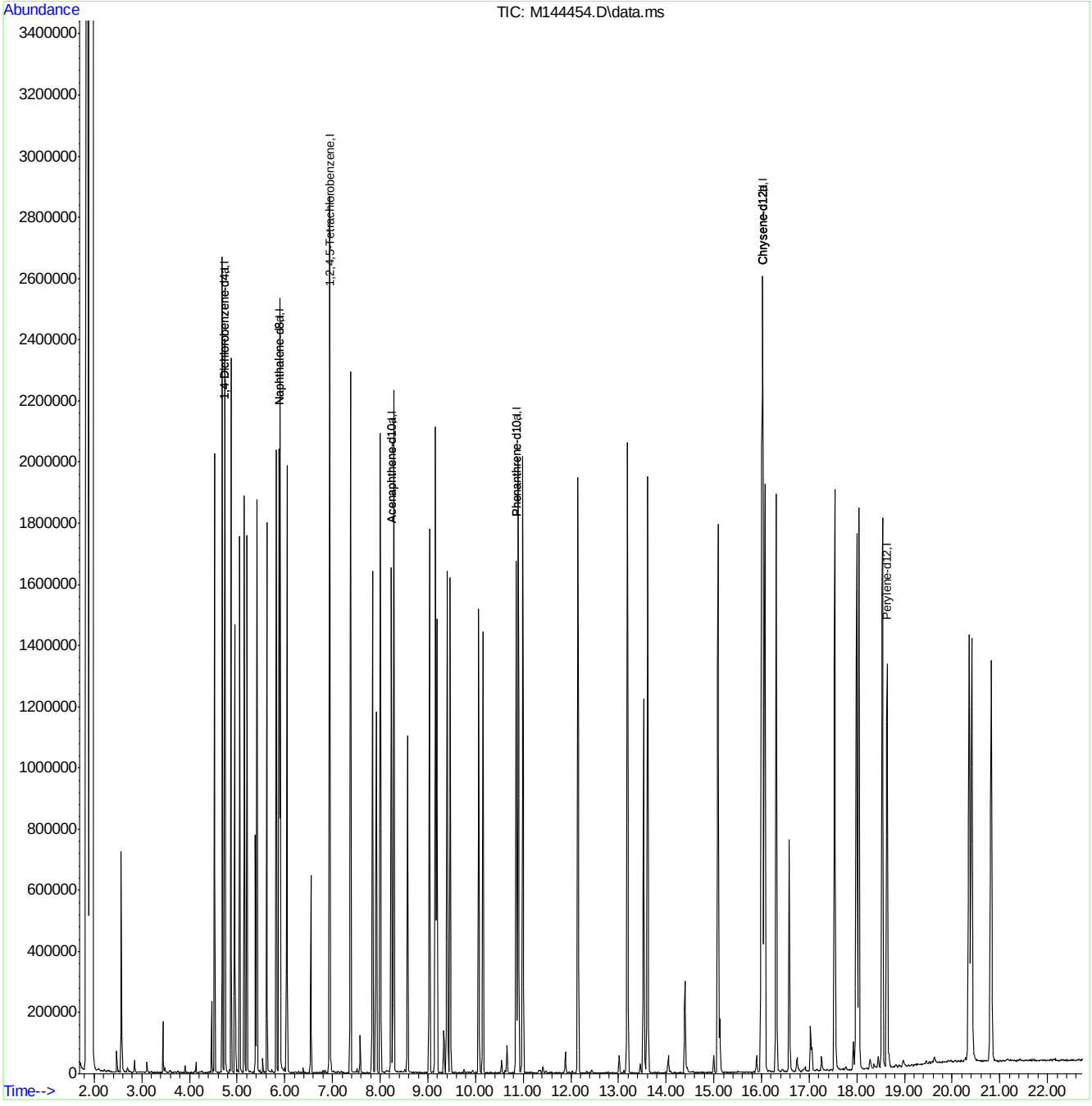
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.735	152	261145	40.00	ppm	0.00
24) Naphthalene-d8	5.883	136	954175	40.00	ppm	0.00
47) Acenaphthene-d10	8.233	164	485280	40.00	ppm	0.00
69) Phenanthrene-d10	10.856	188	933835	40.00	ppm	0.00
83) Chrysene-d12	16.021	240	695884	40.00	ppm	0.00
91) Perylene-d12	18.638	264	797510	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.735	152	261145	40.00	ppm	-0.04
103) Acenaphthene-d10a	8.233	164	485280	40.00	ppm	-0.07
106) Chrysene-d12a	16.021	240	695884	40.00	ppm	-0.08
109) Phenanthrene-d10a	10.856	188	933835	40.00	ppm	-0.07
112) Naphthalene-d8a	5.883	136	954175	40.00	ppm	-0.05
114) Chrysene-d12b	16.021	240	695884	40.00	ppm	-0.07
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
104) 1,2,4,5-Tetrachloroben...	6.946	216	381139	45.78	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144454.D
Acq On : 6 Mar 2018 4:14 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 06 19:45:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144455.D
Acq On : 6 Mar 2018 4:44 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 06 19:46:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration

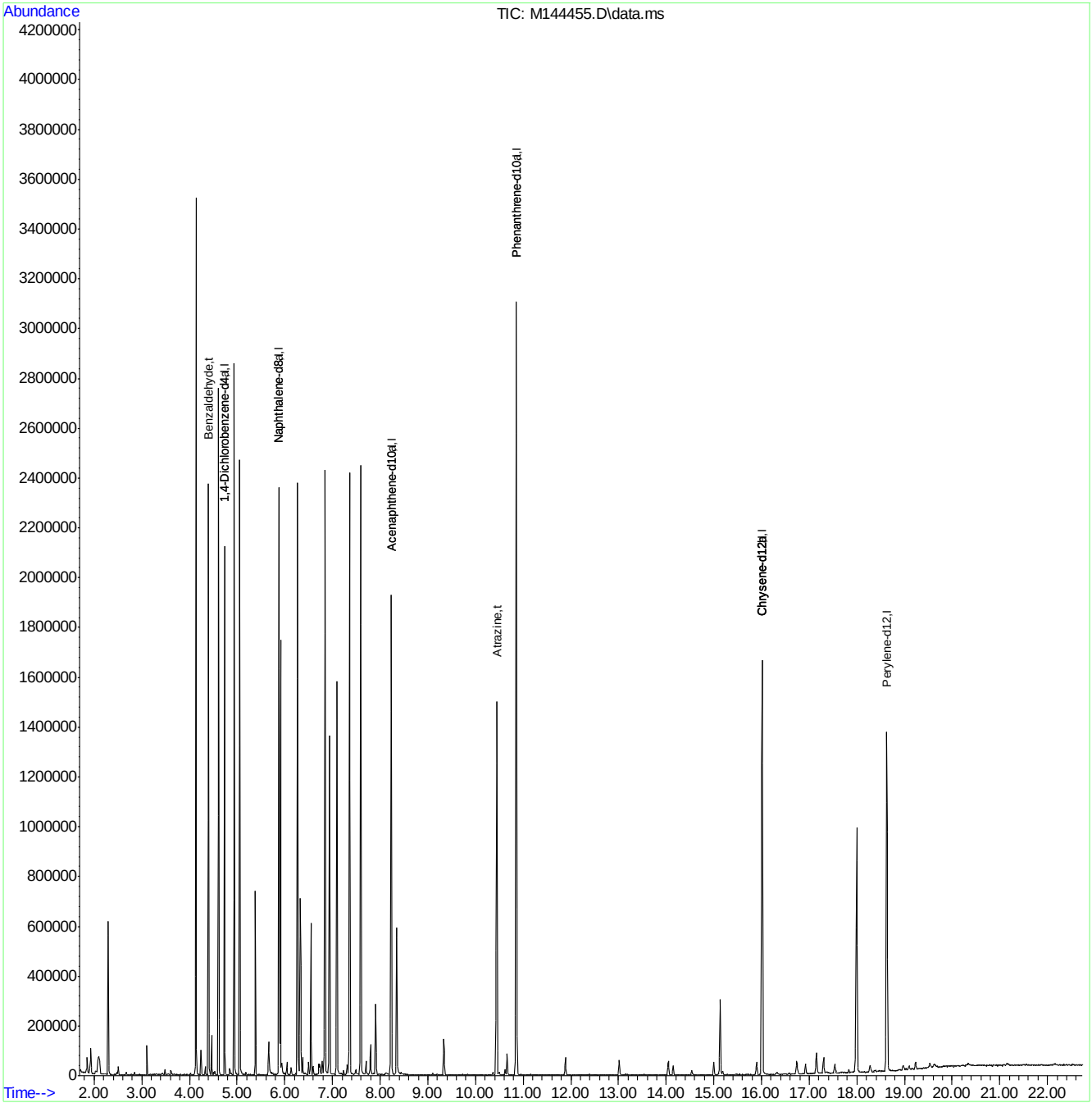
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.734	152	265442	40.00	ppm	0.00
24) Naphthalene-d8	5.877	136	1025533	40.00	ppm	0.00
47) Acenaphthene-d10	8.233	164	557299	40.00	ppm	0.00
69) Phenanthrene-d10	10.855	188	844711	40.00	ppm	0.00
83) Chrysene-d12	16.015	240	936102	40.00	ppm	0.00
91) Perylene-d12	18.626	264	761544	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.734	152	265442	40.00	ppm	-0.04
103) Acenaphthene-d10a	8.233	164	557299	40.00	ppm	-0.07
106) Chrysene-d12a	16.015	240	936158	40.00	ppm	-0.08
109) Phenanthrene-d10a	10.855	188	844711	40.00	ppm	-0.07
112) Naphthalene-d8a	5.877	136	1025533	40.00	ppm	-0.06
114) Chrysene-d12b	16.015	240	936158	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.398	105	348713	40.65	ppm	98
105) Atrazine	10.449	215	131339	42.74	ppm	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144455.D
Acq On : 6 Mar 2018 4:44 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 06 19:46:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144456.D
Acq On : 6 Mar 2018 5:14 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 06 19:46:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration

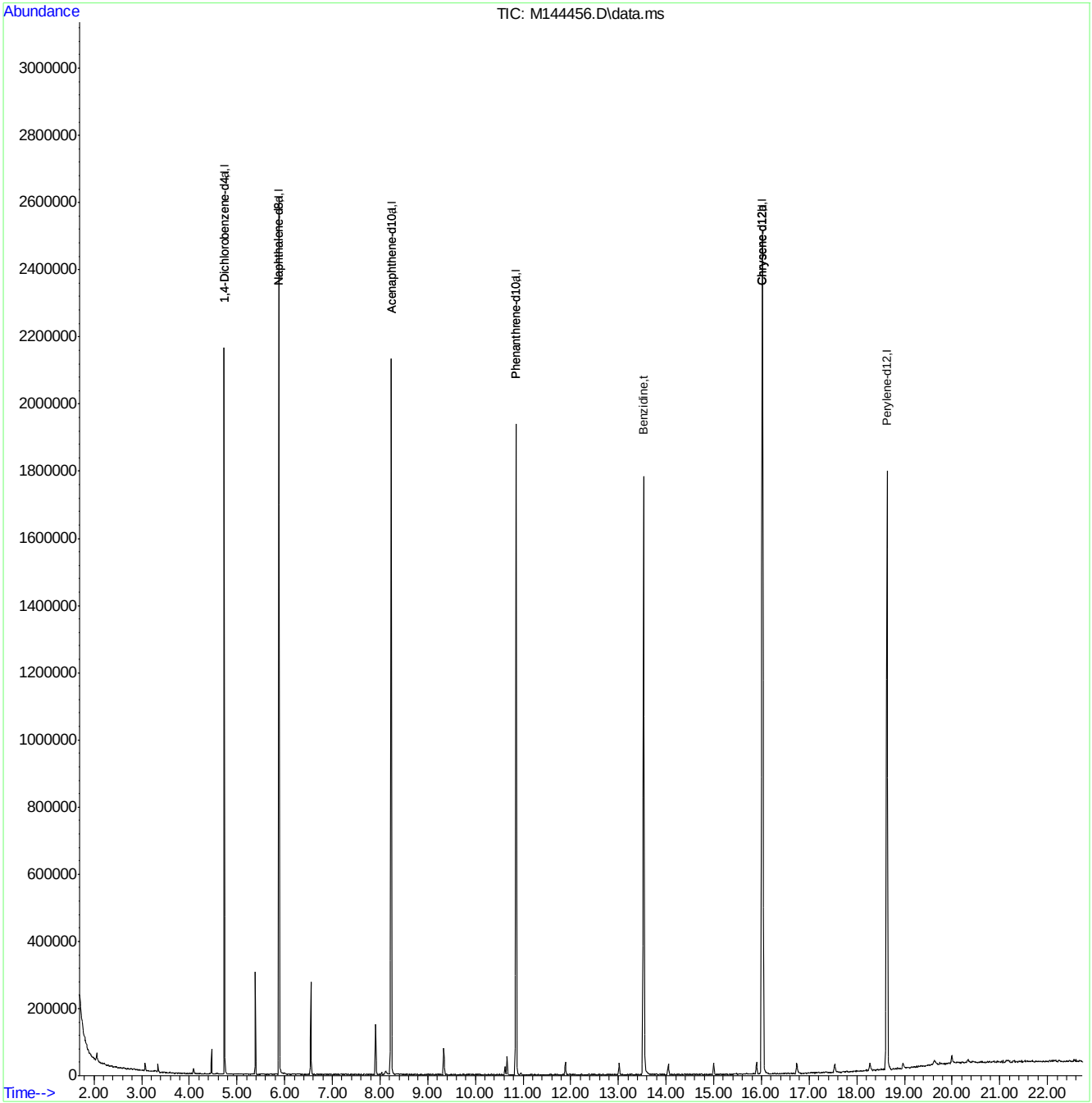
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.730	152	301386	40.00	ppm	0.00
24) Naphthalene-d8	5.878	136	1108274	40.00	ppm	0.00
47) Acenaphthene-d10	8.234	164	607195	40.00	ppm	0.00
69) Phenanthrene-d10	10.851	188	1051794	40.00	ppm	0.00
83) Chrysene-d12	16.016	240	1059612	40.00	ppm	0.00
91) Perylene-d12	18.633	264	958187	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.730	152	301386	40.00	ppm	-0.04
103) Acenaphthene-d10a	8.234	164	607195	40.00	ppm	-0.07
106) Chrysene-d12a	16.016	240	1059612	40.00	ppm	-0.08
109) Phenanthrene-d10a	10.851	188	1051794	40.00	ppm	-0.08
112) Naphthalene-d8a	5.878	136	1108274	40.00	ppm	-0.06
114) Chrysene-d12b	16.016	240	1059612	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	13.532	184	1082981	49.42	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144456.D
Acq On : 6 Mar 2018 5:14 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 06 19:46:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144457.D
Acq On : 6 Mar 2018 5:44 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 19:47:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration

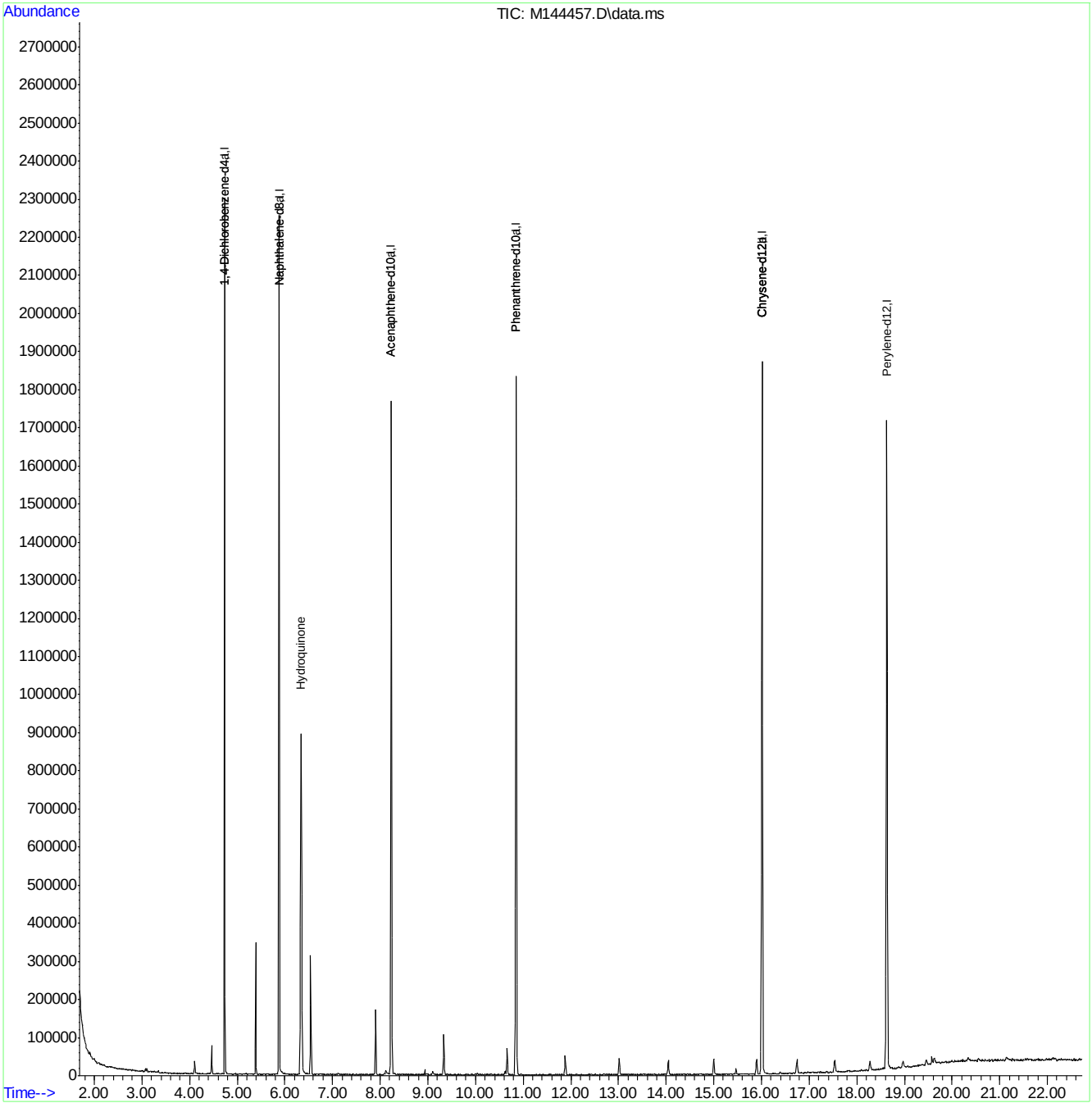
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.732	152	283054	40.00	ppm	0.00
24) Naphthalene-d8	5.880	136	1053758	40.00	ppm	0.00
47) Acenaphthene-d10	8.230	164	499277	40.00	ppm	0.00
69) Phenanthrene-d10	10.852	188	992937	40.00	ppm	0.00
83) Chrysene-d12	16.012	240	1043637	40.00	ppm	-0.01
91) Perylene-d12	18.629	264	983147	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.732	152	283054	40.00	ppm	-0.04
103) Acenaphthene-d10a	8.230	164	499277	40.00	ppm	-0.07
106) Chrysene-d12a	16.012	240	1043637	40.00	ppm	-0.09
109) Phenanthrene-d10a	10.852	188	992937	40.00	ppm	-0.07
112) Naphthalene-d8a	5.880	136	1053758	40.00	ppm	-0.05
114) Chrysene-d12b	16.012	240	1043637	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
113) Hydroquinone	6.339	110	688978	59.95	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144457.D
Acq On : 6 Mar 2018 5:44 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 19:47:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144458.D
Acq On : 6 Mar 2018 6:15 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 19:48:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration

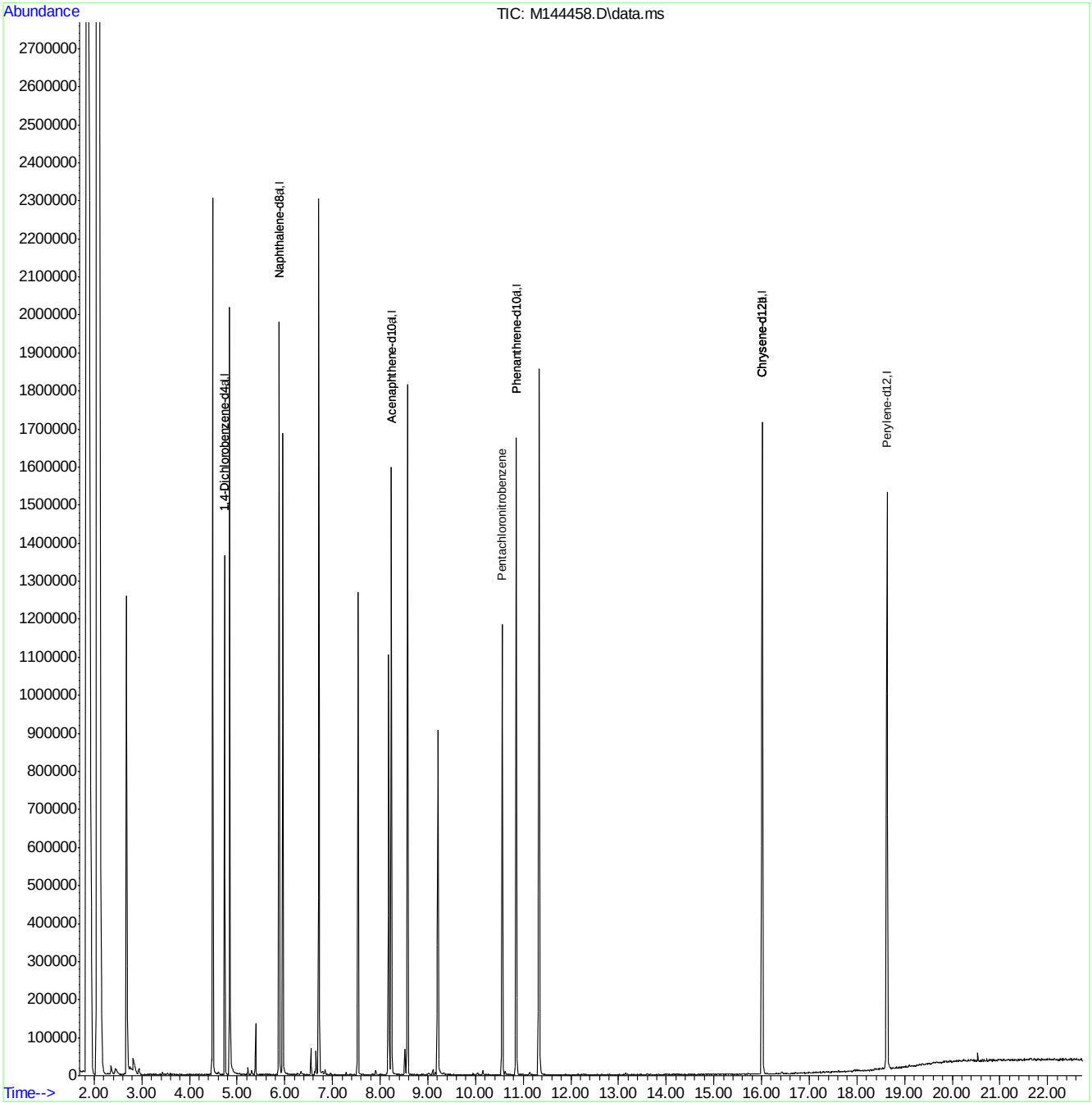
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.738	152	229769	40.00	ppm	0.00
24) Naphthalene-d8	5.881	136	924868	40.00	ppm	0.00
47) Acenaphthene-d10	8.236	164	489223	40.00	ppm	0.00
69) Phenanthrene-d10	10.853	188	885078	40.00	ppm	0.00
83) Chrysene-d12	16.013	240	933050	40.00	ppm	-0.01
91) Perylene-d12	18.630	264	850634	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.738	152	229769	40.00	ppm	-0.04
103) Acenaphthene-d10a	8.236	164	489223	40.00	ppm	-0.06
106) Chrysene-d12a	16.013	240	933050	40.00	ppm	-0.08
109) Phenanthrene-d10a	10.853	188	885078	40.00	ppm	-0.07
112) Naphthalene-d8a	5.881	136	924868	40.00	ppm	-0.05
114) Chrysene-d12b	16.013	240	933050	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
111) Pentachloronitrobenzene	10.560	295	54794	49.81	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6131\
Data File : M144458.D
Acq On : 6 Mar 2018 6:15 pm
Operator : seanb1
Sample : icv6131-50
Misc : op9152,em6131,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 19:48:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Mar 06 19:43:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144906.D
Acq On : 28 Mar 2018 1:06 pm
Operator : christc2
Sample : cc6121-50
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 17:14:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:33:24 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.696	152	155762	40.00	ppm	0.00
24) Naphthalene-d8	5.833	136	630691	40.00	ppm	0.00
47) Acenaphthene-d10	8.173	164	315547	40.00	ppm	0.00
69) Phenanthrene-d10	10.790	188	618604	40.00	ppm	0.00
83) Chrysene-d12	15.960	240	563313	40.00	ppm	0.00
91) Perylene-d12	18.577	264	566212	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.696	152	155762	40.00	ppm	-0.05
103) Acenaphthene-d10a	8.173	164	315547	40.00	ppm	-0.08
106) Chrysene-d12a	15.960	240	563381	40.00	ppm	-0.10
109) Phenanthrene-d10a	10.790	188	618604	40.00	ppm	-0.10
112) Naphthalene-d8a	5.833	136	630691	40.00	ppm	-0.06
114) Chrysene-d12b	15.960	240	563381	40.00	ppm	-0.10
System Monitoring Compounds						
5) 2-Fluorophenol	3.708	112	329532	46.84	ppm	-0.06
Spiked Amount 50.000			Recovery = 93.68%			
8) Phenol-d5	4.434	99	399257	48.96	ppm	-0.03
Spiked Amount 50.000			Recovery = 97.92%			
25) Nitrobenzene-d5	5.150	82	342789	52.94	ppm	0.00
Spiked Amount 50.000			Recovery = 105.88%			
51) 2-Fluorobiphenyl	7.163	172	587740	45.77	ppm	0.00
Spiked Amount 50.000			Recovery = 91.54%			
73) 2,4,6-Tribromophenol	9.524	330	115288	43.00	ppm	0.00
Spiked Amount 50.000			Recovery = 86.00%			
85) Terphenyl-d14	13.963	244	765092	48.46	ppm	-0.03
Spiked Amount 50.000			Recovery = 96.92%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.223	88	150716	47.26	ppm	84
3) Pyridine	2.549	79	373516	47.71	ppm	71
4) N-Nitrosodimethylamine	2.517	42	228696	75.46	ppm #	57
6) Indene	4.899	116	450581	49.78	ppm	98
7) Cumene	4.092	105	757997	50.61	ppm	98
9) Phenol	4.439	94	408161	46.58	ppm #	55
10) Aniline	4.445	93	358307	39.46	ppm	65
11) bis(2-Chloroethyl)ether	4.493	93	284869	47.97	ppm	93
12) 2-Chlorophenol	4.541	128	290705	43.96	ppm	93
13) Decane	4.573	43	365887	64.45	ppm	82
14) 1,3-Dichlorobenzene	4.648	146	314501	44.67	ppm	97
15) 1,4-Dichlorobenzene	4.707	146	305359	47.01	ppm	96
16) Benzyl alcohol	4.808	108	197477	48.98	ppm	89
17) 1,2-Dichlorobenzene	4.829	146	273979	44.98	ppm	97
18) Acetophenone	5.022	105	384047	50.95	ppm	99
19) 2-Methylphenol	4.904	108	244971	45.64	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.909	121	81994	46.62	ppm #	40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144906.D
Acq On : 28 Mar 2018 1:06 pm
Operator : christc2
Sample : cc6121-50
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 17:14:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:33:24 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.027	108	264995	49.64	ppm		88
22) n-Nitroso-di-n-propyla...	5.022	70	199037	52.34	ppm		82
23) Hexachloroethane	5.107	201	106316	46.56	ppm		86
26) Nitrobenzene	5.166	77	309154	50.21	ppm		87
27) Quinoline	6.239	129	608114	46.43	ppm		98
28) Isophorone	5.380	82	580979	49.91	ppm		92
29) 2-Nitrophenol	5.454	139	173308	46.47	ppm		76
30) 2,4-Dimethylphenol	5.502	107	266742	48.61	ppm		94
31) Benzoic acid	5.636	105	262446	59.12	ppm		96
32) bis(2-Chloroethoxy)met...	5.582	93	315322	46.78	ppm		100
33) 2,4-Dichlorophenol	5.700	162	231657	44.99	ppm		96
34) 2,6-Dichlorophenol	5.930	162	209225	43.01	ppm		96
35) 1,3,5-Trichlorobenzene	5.470	180	260768	42.52	ppm		98
36) 1,2,4-Trichlorobenzene	5.775	180	263798	43.12	ppm		97
37) 1,2,3-Trichlorobenzene	6.015	180	241604	43.14	ppm		99
38) Naphthalene	5.855	128	795794	45.95	ppm		99
39) 4-Chloroaniline	5.919	127	344024	43.25	ppm		95
40) 2,3-Dichloroaniline	7.041	161	290476	45.38	ppm		95
41) Caprolactam	6.314	55	189123	60.16	ppm		86
42) Hexachlorobutadiene	5.994	225	148704	45.92	ppm		99
43) 4-Chloro-3-methylphenol	6.496	107	283247	49.73	ppm		89
44) 2-Methylnaphthalene	6.661	141	479158	45.93	ppm		95
45) 1-Methylnaphthalene	6.790	142	564521	45.10	ppm		96
46) Dimethylnaphthalene	7.537	156	476755	44.64	ppm		97
48) Hexachlorocyclopentadiene	6.880	237	305378	92.70	ppm		99
49) 2,4,6-Trichlorophenol	7.051	196	169739	44.36	ppm		98
50) 2,4,5-Trichlorophenol	7.110	196	185392	44.64	ppm		100
52) 2-Chloronaphthalene	7.329	162	487843	43.22	ppm		97
53) Biphenyl	7.302	154	673134	45.70	ppm		100
54) 2-Nitroaniline	7.489	65	203137	59.03	ppm		83
55) Dimethylphthalate	7.783	163	614787	46.16	ppm		98
56) Acenaphthylene	7.943	152	841697	46.09	ppm		99
57) 2,6-Dinitrotoluene	7.868	165	139710	48.68	ppm		83
58) 3-Nitroaniline	8.130	138	184319	48.03	ppm		89
59) Acenaphthene	8.226	153	510532	46.73	ppm		96
60) 2,4-Dinitrophenol	8.312	184	178834	103.88	ppm		76
61) 4-Nitrophenol	8.472	109	111381	66.62	ppm	#	84
62) Dibenzofuran	8.515	168	714120	46.08	ppm		93
63) 2,4-Dinitrotoluene	8.531	165	178946	50.02	ppm		92
64) 2,3,4,6-Tetrachlorophenol	8.744	232	175762	47.31	ppm		96
65) Diethylphthalate	8.974	149	663143	48.99	ppm		98
66) Fluorene	9.097	166	599607	47.03	ppm		100
67) 4-Chlorophenyl-phenyle...	9.129	204	266324	43.95	ppm		92
68) 4-Nitroaniline	9.172	138	162909	44.92	ppm		76
70) 4,6-Dinitro-2-methylph...	9.241	198	124933	46.82	ppm		91
71) n-Nitrosodiphenylamine	9.343	169	391453	39.46	ppm		95
72) 1,2-Diphenylhydrazine	9.407	77	656073	50.21	ppm		95
74) 4-Bromophenyl-phenylether	10.000	248	196689	44.08	ppm		94
75) Hexachlorobenzene	10.096	284	213001	42.47	ppm		94
76) Pentachlorophenol	10.480	266	286583	95.80	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144906.D
Acq On : 28 Mar 2018 1:06 pm
Operator : christc2
Sample : cc6121-50
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 17:14:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:33:24 2018
Response via : Initial Calibration

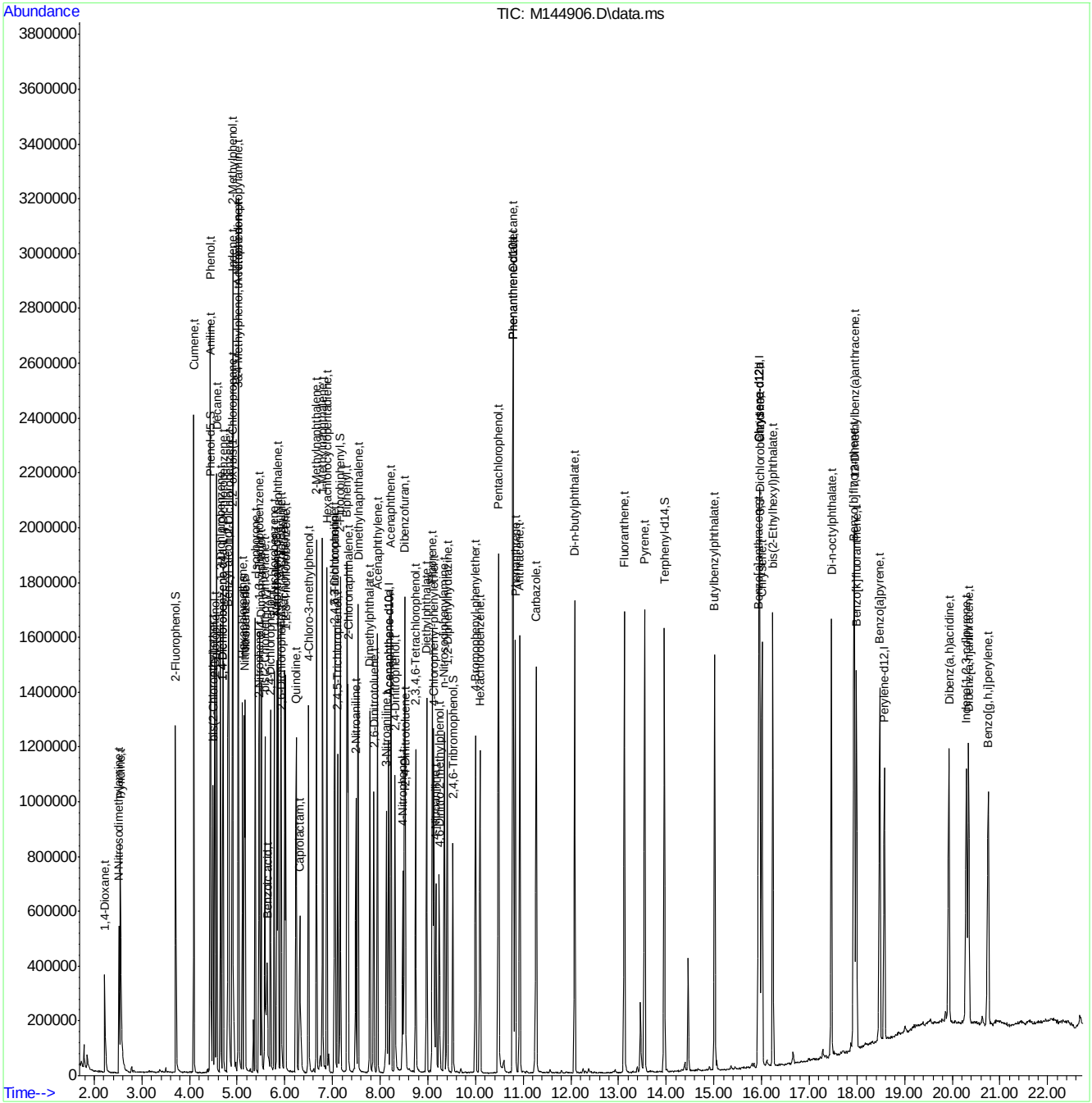
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.833	178	842301	44.69	ppm	100
78) Anthracene	10.929	178	882566	44.89	ppm	100
79) Carbazole	11.271	167	863539	45.07	ppm	98
80) Di-n-butylphthalate	12.077	149	1208210	47.94	ppm	99
81) Fluoranthene	13.124	202	1021087	46.19	ppm	99
82) Octadecane	10.785	57	483957	63.98	ppm	88
84) Pyrene	13.546	202	1024155	47.77	ppm	99
86) Butylbenzylphthalate	15.015	149	531184	49.40	ppm	88
87) Benzo[a]anthracene	15.939	228	931554	45.10	ppm	98
88) 3,3'-Dichlorobenzidine	15.966	252	343422	48.98	ppm	97
89) Chrysene	16.008	228	835066	44.88	ppm	100
90) bis(2-Ethylhexyl)phtha...	16.238	149	663891	47.17	ppm	97
92) Di-n-octylphthalate	17.466	149	1143914	53.82	ppm	94
93) Benzo[b]fluoranthene	17.936	252	870116	45.67	ppm	98
94) Benzo[k]fluoranthene	17.990	252	819756	47.62	ppm	98
95) Benzo[a]pyrene	18.481	252	787786	45.72	ppm	100
96) Indeno[1,2,3-cd]pyrene	20.297	276	739889	45.23	ppm	99
97) Dibenz(a,h)acridine	19.934	279	702306	44.11	ppm	98
98) Dibenz[a,h]anthracene	20.351	278	772433	45.96	ppm	95
99) 7,12-Dimethylbenz(a)an...	17.947	256	377055	50.00	ppm	98
100) Benzo[g,h,i]perylene	20.756	276	727849	43.71	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144906.D
Acq On : 28 Mar 2018 1:06 pm
Operator : christc2
Sample : cc6121-50
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 17:14:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:33:24 2018
Response via : Initial Calibration



MM6131.M Wed Mar 28 17:15:00 2018 MSM Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144907.D
Acq On : 28 Mar 2018 1:37 pm
Operator : christc2
Sample : cc6131-50
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 17:16:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration

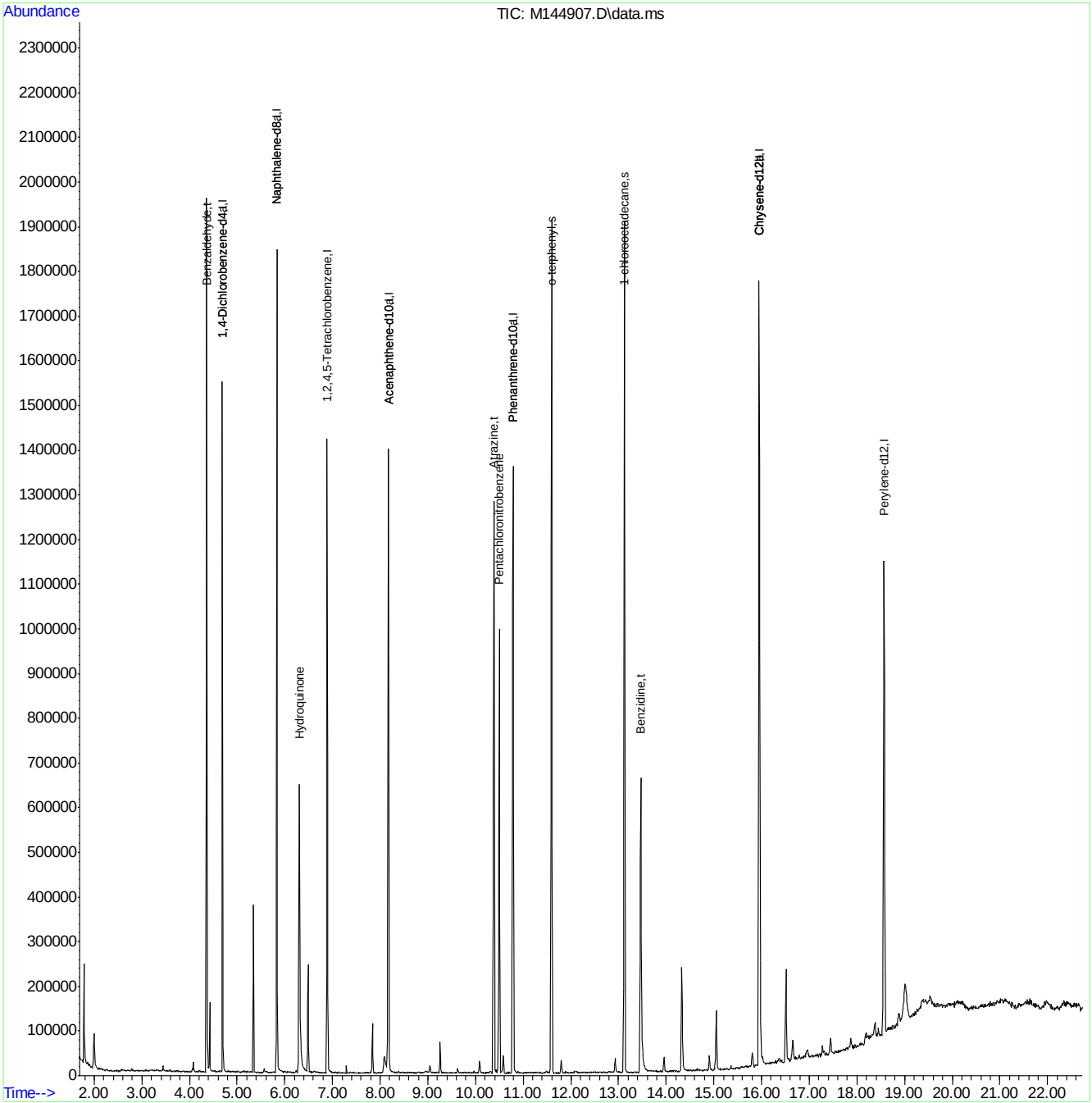
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.690	152	192360	40.00	ppm	0.00
24) Naphthalene-d8	5.833	136	776543	40.00	ppm	0.00
47) Acenaphthene-d10	8.173	164	365065	40.00	ppm	0.00
69) Phenanthrene-d10	10.785	188	696764	40.00	ppm	0.00
83) Chrysene-d12	15.949	240	668326	40.00	ppm	-0.01
91) Perylene-d12	18.572	264	617842	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.690	152	192360	40.00	ppm	-0.06
103) Acenaphthene-d10a	8.173	164	365065	40.00	ppm	-0.08
106) Chrysene-d12a	15.949	240	668326	40.00	ppm	-0.11
109) Phenanthrene-d10a	10.785	188	696764	40.00	ppm	-0.10
112) Naphthalene-d8a	5.833	136	776543	40.00	ppm	-0.06
114) Chrysene-d12b	15.949	240	668326	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.124	57	402606	61.31	ppm	-0.18
Spiked Amount 50.000			Recovery =	122.62%		
110) o-terphenyl	11.596	230	528260	46.89	ppm	-0.10
Spiked Amount 50.000			Recovery =	93.78%		
Target Compounds						Qvalue
102) Benzaldehyde	4.359	105	274053	44.08	ppm	92
104) 1,2,4,5-Tetrachloroben...	6.891	216	274394	43.82	ppm	95
105) Atrazine	10.389	215	100029	49.70	ppm	88
107) Benzidine	13.466	184	463603	33.54	ppm	98
111) Pentachloronitrobenzene	10.496	295	40369	46.62	ppm	93
113) Hydroquinone	6.303	110	372545	43.99	ppm	80

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6152\
Data File : M144907.D
Acq On : 28 Mar 2018 1:37 pm
Operator : christc2
Sample : cc6131-50
Misc : op10492,em6152,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 17:16:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6131.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Mar 28 13:32:12 2018
Response via : Initial Calibration



SGS

Batch ID: E2M4551

Print Analyst Name: Sean Blake

Date: 2/28/18

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU 172359-01	DFTPP	50
A0132453	IS00	2000
179199	DCM Rinse	—

Columns: Rx - 5 slms 30m x 25 x 25

Method 8270D/625

Initial Cal. Method M2M4551

Injection Volume: 1

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: 3/5/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2M102229	DFTPP				1					not using	68T, re-inject
	102230	DFTPP				1					↓	68T, lower 219,502
	102231	DFTPP				1					OK	2.99 pm
	102232	IC4551-100		BNA		2					OK	SU172359-45A
	102233	-1				3					OK	-45B
	102234	-2				4					OK	-45H
	102235	-5				5					OK	-45G
	102236	-10				6					OK	-45E
	102237	-25				7					OK	-45D
	102238	ICC4551-50				8					OK	-45C
	102239	IC4551-50				9					OK	-45B
	102240	ICV4551-50		BN1		10					OK	OP182158-03
	102241	-50		BN2		11					OK	OP172106-137
	102242	-50		Acids		12					OK	OP172106-139
	102243	-50		Analyses		13					not using	OP172106-109 #336
	102244	-50		ABN Surr		14					OK	OP172158-02
	102245	-50		Analyses		13					not run	~~[illegible]~~ 8:34 pm CS 2/28/18

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

99

Form: OR015-08

Rev. Date: 5/25/17

9.6.1

9

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: E2M4552

Print Analyst Name: Christopher Sowe

Date: 3/11/18

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV132357-61	d-PDPA	50 ppm
AC132433	ISTD	2000 ppm
180494	dcm (flight)	

Columns: Rxi 5 Sil MS 30 m x 25 m x 25 [illegible]

Method 82700/625

Initial Cal. Method M2M4551

Injection Volume: 1 ml

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: 3/8/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	1m 102245	d-PDPA				1					OK	12:08am
	102246	ICV4551-50		Aniline		2					not using	#2396 OP132106-104
	102247	-50		Aniline		3					OK	OP132106-124 1:06am

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

101

Form: OR015-08

Rev. Date: 5/25/17

9.6.2

9

SGS

... by GCMS ANALYSIS

Batch ID: E2M4555

Print Analyst Name: Christopher Sou

Analyst Signature: [signature]

Date: 3/5/18

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU172355-61	d-PHP	50ppm
A0132433	ISTD	2000ppm
A80495	dcm (MM)	

Columns: RA155, 1-530, 1-525, 1-525

Method: 82700/525

Initial Cal. Method: M2M4555

Injection Volume: 1 M

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: 3/7/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	2M102390	d-PHP				1					ok	11.51pm
	102391	IC4555-1		TCVA		2					ok	SU172355-24I
	102392	-2				3					ok	-24A
	102393	-5				4					ok	-24G
	102394	-10				5					ok	-24E
	102395	-25				6					ok	-24D
	102396	IC4555-50				7					ok	-24C
	102397	IC4555-80				8					ok	-24B
	102398	-100				9					ok	-24A 3:05am
											~~ok~~	
											SU 3/9/18	

TX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

strikeouts must be initialed, dated, and reason applied if not transcription error

mple volume/weight used and final volumes refer to extraction log.

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rm: OR015-08

v. Date: 5/25/17

9.6.3

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SGS

Batch ID: E2M4556

Print Analyst Name: Christopher Sam

Date: 3/6/18

Analyst Signature:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
5015253-01	1 ftpp	50ppm
A0172933	IS00	2000ppm
180495	dw CAM)	

Columns: Rxi5sil_30m_25mm_.25u

Method: 8270D/625

Initial Cal. Method: m_E2M4551

Injection Volume: 1uL

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: Date: 3/7/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	e2m102393	1 ftpp				1					ok	8:02pm
	102900	IC0455550		8270D		2					ok	5015253-37
	102901	-50		HQ1		3					ok	0A182158-17
	102902	-50		PN1		4					ok	-03
	102903	-50		PN2		5					ok	0A172100-137
	102904	-50		Acid 3-1		6					ok	-124 10:03pm
												SB

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08
Rev. Date: 5/25/17

SGS

Batch ID: E2M4581

Print Analyst Name: Christina Chang

Analyst Signature: [signature]

Date: 4/2/2018

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172359-61	DFTPP	50ppm
SV172359-61B	BNA	50ppm
SV172359-75B	TCL42	50ppm
A1033758	ISTD	4000ppm
181347	DCM	

Columns: Rx 5 sil ms 30mx.25mm x.25mm

Method 8270D/625

Initial Cal. Method M2M4551

Injection Volume: 1 ml

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: 4/04/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2M102959	DFTPP				1					ok	12:01 pm
	102960	CC4551-50		BNA		2					ok	10↓ 41↓
	102961	CC4555-50		TCL42		3					ok	106↓
	102962	BNA 1ppm verf		BNA		4					ok	SV172359-50E
	102963	OP81205-MB1AS	81205	DOC		5			✓	✓	ok	
	964	-BS1AS				6			✓	✓	ok	
	965	-BS2AS				7			✓	✓	ok	
	966	-BS3AS				8			✓	✓	ok	
	967	-BS4AS				9			✓	✓	ok	
	968	OP10986-MB1	10986			10		✓	✓	✓	ok	
	969	-bs1				11			✓	✓	ok	
	970	-bsD				12			✓	✓	ok	
	971	OP10742-MB1	10742		W	13			✓	✓	ok	
	972	OP10742-BS13				14			✓	✓	ok	
	973	JC62551-1	10986	ABTCL20		15			✓	✓	ok	
	974	JC63165-1A		ABSC		16			✓	✓	ok	
	975	-2A				17			✓	✓	ok	

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-08
Rev. Date: 5/25/17

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9.6.5

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SGS

Batch ID: E2M4581

Print Analyst Name: Christina Chen

Date: 4/2/2018

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	cu pg 1	

Columns: Rx 5 Silica 30mx-25mx-25mx

Method: 8270D/625

Initial Cal. Method: M2M4551

Injection Volume: 1 ml

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: 4/04/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2M102976	JC63183-2	10986	BMNAP	W	18			✓	✓	OK	
	977	JC63185-1		ABTCL20+		19		✓	✓	✓	OK	
	978	-2				20		✓	✓	✓	OK	
	979	-3				21		✓	✓	✓	OK/DL	5X
	980	-6				22		✓	✓	✓	OK	
	981	-8				23		✓	✓	✓	OK	
	982	-10				24		✓	✓	✓	OK	
	983	-7				25		✓	✓	✓	OK/DL	2X
	984	-9				26		✓	✓	✓	OK	
	985	JC62413-1	10742	ABSL+HQ		27	5		✓	✓	OK	8:56Am

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

9.6.5

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SEMI VOLATILE by GCMS ANALYSIS

SGS

Batch ID: EM6121

Print Analyst Name: Kristi Schollenberger

Date: 2-28-18

Analyst Signature: [signature]

Standard Data			Standard Data		
Lot #	Description	Conc.	Lot #	Description	Conc.
SU17-2355-45A	BNA	100 ppm	SU17-2355-23	DFTPP	50 ppm
SU17-2355-45B	↓	50 ppm	SU17-2355-54	BNA	2 ppm
SU17-2355-45C		50 ppm	SU17-2355-57	↓	1 ppm
SU17-2355-45D		25 ppm			
SU17-2355-45E		10 ppm			
SU17-2355-45F		5 ppm			

Columns: Rxi5 Sil MS 30mx.25mmx.25m

Method: EPA 501/1625

Initial Cal. Method: AM6017 (6121) (5/2/2018)

Injection Volume: 1 ml

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: 3/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	M144284	DFTPP			W	1					Not using	PCPT Reinject
	144285	DFTPP			W	1					Not using	PCPT-chrysochemicals
	144286	DFTPP			W	1					ok	10:02 AM
	144287	IC6121-100			W	2					ok	
	144288	IC6121-1			W	3					ok	
	144289	IC6121-50			W	4					ok	
	144290	IC6121-5			W	5					ok	
	144291	ICC6121-50			W	6					ok	
	144292	IC6121-2			W	7					ok	
	144293	IC6121-25			W	8					ok	
	144294	IC6121-10			W	9					ok	
	144295	ICV6121-50	Surr.		W	10					ok	CP18-2158-02
	144296	ICV6121-50	BN1		W	11					ok Not using	CP18-2158-03 4↓
	144297	ICV6121-50	Aniline		W	12					Not using	CP17-2106-104 35↓
	144298	ICV6121-50	BN2		W	13					ok	CP17-2106-137
	144299	ICV6121-50	Benzene 3rd source		W	14					ok	SU17-2355-37

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

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SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: EM 6122

Print Analyst Name: Christopher Sown

Date: 2/28/18

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
[illegible]	[illegible]	50 ppm
[illegible]	Aniline 2nd	50 ppm
[illegible]	ABN [illegible] 2nd	50 ppm
A0132433	ISOD	2000 ppm
[illegible]	[illegible]	

Columns: [illegible]

Method: 8270D/625

Initial Cal. Method: MM 6121

Injection Volume: 1 M

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: 2/7/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	M 144300	ABN pp				1					ok	7:17 pm
	144301	IC v 6121-50	~~Aniline~~	Aniline		2					not using	OP132106-104 1031
	144302	-50	~~ABN~~ [illegible]	ABN [illegible]		3					↓	OP182158[illegible]
	144303	-50		Aniline		4					ok	OP132106-124
	144304	-50		ABN [illegible]		5					not needed	OP132106116

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

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SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID EM6123

Print Analyst Name: Christopher Sam

Analyst Signature:

Date: 2/3/18 3/11/18

Columns: Rtx5ms 30m x 25mm x 0.25um

Method 8270D / 525

Initial Cal. Method MA 6121

Injection Volume: 1 uL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172353-C1	Mix 1	5 ppm
A0172473	IS 1	200 ppm
180414	d14-CHCl3	

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: Date: 3/11/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	M 149305	Mix 1 ppm				1					A	12.07 mm
	149306	EM6123-100				2					A	SV172353-331
	149307	-50				3					A	-338
	149308	EM6123-25				4					A	-339
	149309	EM6123-25				5					A	-340
	149310	-10				6					A	-346
	149311	-5				7					A	-396
	149312	-2				8					A	-3914
	149313	-1				9					A	-392
	149314	EM6123-50		5531118 1,4-DN1		10					A	OP172158.D
	149315	-50		DN2		11					A	OP172166.D
	149316	-50		4NQ 2nd		12					Not Sig	OP172158.D Bx5
	149317	-50		Pred 3rd		13					Not Sig	SV172353-33 Bx5
	149318	-50		Acridine		14					Not needed	OP172166.D (Anode 2nd)
												NO PLNR2 in ICAL

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08
Rev. Date: 5/25/17

SGS

SEMI-VOLATILE by GCMS ANALYSIS

Batch ID: Em 6126

Print Analyst Name: Christopher Sam

Date: 3/1/18

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU132352-61	d-Phpp	50 ppm
M132433	Istd	2000 ppm
180494	dcm (Fish)	

Columns: Rtx 5 sil-ms 30 m x .25 mm x .25 µm

Method: 8270D Lvl 5

Initial Cal. Method: MM 6121

Injection Volume: 1 M

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: 3/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	M 144344	d-Phpp				1					OK	10:54 pm
	144345	DCV6121-50		Acid 2nd		2					OK	OP132100-133 11:08 pm

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-08

Rev. Date: 5/25/17

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SGS

Batch ID: EM6131

Print Analyst Name: Sean Black

Date: 3/6/18

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU 172359-61	DFTPP	50
AC 132433	DFTPP	2000
180495	DCM (Rebel)	-

Columns: Rtx-5 Sil 30m 250 225

Method 8270D/625

Initial Cal. Method MM6131

Injection Volume: [illegible]

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: 3/9/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	M144445	DFTPP				1					ok	SB 3/6/18 11:49
	144446	IC6131-100		TICAL		2					ok	SU172359-74A
	144447	-80				3					ok	-74B
	144448	ICC6131-50				4					ok	-74C
	144449	IC6131-25				5					ok	-74D
	144450	-10				6					ok	-74E
	144451	-5				7					ok	-74G
	144452	-2				8					ok	-74H
	144453	-1				9					ok	-74E
	144454	ICV6131-50		BN1		10					ok	OP182158-03
	144455	-50		BN2		11					ok	OP172106-137
	144456	-50		B2D 3rd		12					ok	SU172359-37
	144457	-50		HQ		13					ok	SB 3/6/18 OP182158-17
	144458	-50		Anilines (PCNB)		14					ok	OP172106-124 6:15 pm

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

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SGS

SEMI-VOLATILE by GCMS ANALYSIS

Batch ID: EM 6152

Print Analyst Name: Christina Chang

Analyst Signature: [signature]

Date: 3/28/2018

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172355-11	DFTPP	50ppm
SV172355-6 OC	BNA	50ppm
SV172355-7 3A	TCL42	50ppm
A1033788	ISTD	4000ppm
181347	DCM	

Columns: Rx: 5 silms 30mx.25mm x.25m

Method: 8270D/625

Initial Cal. Method: MM 6131

Injection Volume: 1ml

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: 4/6/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	M144905	DFTPP				1					ok	12:54 pm
	144906	CC6121-50		BNA		2					ok	10↓ 71↓ 4,13,41,82↑
	144907	CC3128 CC6131-50		TCL42		3					ok	107↓ 108↑
	144908	BNA1ppm VOF		BNA		4					ok	SV172355-50C
	144909	OP10886-MS1	10886	AB8215	W	5		X	/	✓	ok	
	910	-bs1				6			/	✓	ok	
	911	bsD				7			/	✓	ok	
	912	JC62942-2	10895			8	10		✓	✓	ok	
	913	-3				9	10		✓	✓	ok	
	914	-4				10	2		✓	✓	ok	
	915	JC62867-8	10886	ABATCL20-1 PAH		11			/	/	ok	run after 144928
	916	JC62870-6		BTCL20+		12		✓	✓	✓	ok	
	917	JC62881-1		ABTCL20-14DX		13		✓	✓	⊘	ok/R	RX
	918	-2				14			✓	✓	ok	
	919	-3				15			✓	✓	ok	
	920	-4				16			✓	✓	ok	
	921	-5				17			✓	✓	ok	

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Rev. Date: 5/25/17

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SGS

SEMI-VOLATILE by GCMS ANALYSIS

Batch ID: EM6152

Print Analyst Name: Christine Chang

Date: 3/28/2018

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see pg 169	

Columns: Rxi 5Sil ms 30m x .25mm x .25μm

Method: 8270D/625

Initial Cal. Method: MM6131

Injection Volume: 1 ml

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: 4/28

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	M144922	JC62881-6	10886	ABTCL20-14DX		18			✓	✓	ok	
	923	JC62926-1F		NJTCL20+		19			✓	✓	ok	
	924	-2F				20			✓	✓	ok	
	925	-3F				21			✓	✓	ok	
	926	-4F				22			✓	✓	ok/DL	RR 5X
	927	OP10809-MB1	10809	ABCD5+	W	23		X	/	/	ok	run after 144 ~~94~~ 9cs 5a 2.5ml
	928	JC62723-6		ADML		24	5		/	/	ok	
	929	JC62728-2	10834	BNJTCL20	W	25			All out		HG	Bad injection VF=10 ~~Re~~-dried sample 12:28 Am
												3/29/2018

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-08

Rev. Date: 5/25/17

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LOGBOOK ID:

ABN Aqueous Extraction Logbook

Date Started: 3/28/18 Time Started: 0630
Date Finished: 3/28/18 Time Finished: 12.45

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other √ 3510C SIM
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # MS 108860 RACK# S1

Set-up by:	BJ
Extracted by:	BJ
Concentrated by:	JS
Final Vol. Top-up:	
Vialed by:	JS
Supervisor Review:	

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	3,11	121,75	12 -1	74.1,74	—
Waterbath Chiller (GPM)	F-3	3	—	—	2.0
NEVAP (32-38°C, LPM)	4	36.2	-1.0	35.2	1.0

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	18-2158-54	50 ppm	1.0
ABN DOD SIM			

WITNESS SIGN: BJ SPIKE SIGN: IM

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	18-2158-19	50ppm	Acid: 1.0
Acid (for SIM)			A(SIM): 0.1
Base #1	18-2158-29	50ppm	1.0
Base #2	18-2158-27	50ppm	1.0
Anilines	18-2158-34	50ppm	1.0
BSIM	18-2158-09	1ppm	1.0

WITNESS SIGN: BJ SPIKE SIGN: IM

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	181879	Fisher	60x6

REAGENT	LOT #	BATCH #	BRAND
NaOH	172010		Fisher
H2SO4	270833		Ricca
Sodium Sulfate	176006	3-15-18A	Fisher
Glass Wool	10818-4		LAB
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:

Final Volume:

Other: MT 3/30 DD 3/28

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust(mL) <2 H2SO4	pH Adjust(mL) >11 NaOH	Final Extract Color	Final Extract Vol(mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN		DI H2O	1000	1	4	clear	1.0		
	BS1	1		DI H2O	1000	1	4	yellow	1.0		
	BSD ~~MS~~	1		DI H2O	1000	1	4	yellow	1.0		
	MSD										
	BS2 ~~BS~~	SIM		DI H2O	1000	1	4	Hyellow	1.0		
	BSD2 ~~MS~~	1		DI H2O	1000	1	4	Hyellow	1.0		
	MSD										
	BS										
	MS										
	MSD										
1	JC62867-8	ABN	4	1000	Clear	1	4	clear	1.0		
2	JC62855-14		2	1000	Yellow	1	4	brown	1.0		*
3	-15		2	1006	Yellow	1	4	brown	1.0		*
4	JC62870-6		3	1006	Clear	1	4	clear	1.0		
5	JC62873-1		1	1006	Clear	1	4	clear	1.0		
6	-2		2	1000	Clear	1	4	clear	1.0		
7	-3		1	1006	Yellow	1	4	clear	1.0		
8	-4		1	1000	Clear	1	4	clear	1.0		
9	-5		2	900	Clear	1	4	clear	1.0		
10	JC62881-1		3	1006	Yellow	1	4	Hyellow	1.0		
11	-2		3	926	Yellow	1	4	yellow	1.0		
12	-3		3	1000	Clear	1	4	Hyellow	1.0		
13	-4		3	906	Yellow	1	4	yellow	1.0		
14	-5		3	900	Clear	1	4	Hyellow	1.0		
15	-6		3	900	Clear	1	4	clear	1.0		
16	~~JC62877~~										
17	JC62926-1		1	1000	Clear	1	4	clear	1.0		
18	2		2	900	Clear	1	4	clear	1.0		
19	3		1	1000	Clear	1	4	Hyellow	1.0		
20	4		1	1000	Yellow	1	4	yellow	1.0		

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:
* dk color check - high amount of sediment present, AC

SGS
Form: OP022A-12
Rev Date: 8/2/17

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8-2195

ABN Aqueous Extraction Logbook

LOGBOOK ID:

Date Started: 3/30/18 Time Started: 17:00.
Date Finished: 3/30/18. Time Finished: 21:00

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓ 3510C SIM
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # MS 109860 RACK# R46

Set-up by:	AF, NIT, AY
Extracted by:	AF, NIT
Concentrated by:	RG.
Final Vol. Top-up:	RG
Vialed by:	RG
Supervisor Review:	RM Micha 3/30/18.

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	3;11	74.76	+2.-1	76.75	NA
Waterbath Chiller (GPM)	F3	0	—	—	2
NEVAP (32-38°C, LPM)	4	36.2	-1.0	35.2	10

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	OP182158.67	50	1.0
ABN DOD SIM			

WITNESS SIGN: RG/NIT SPIKE SIGN: AF

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	OP182158 32	50	Acid: 1.0
Acid (for SIM)			A(SIM): 0.1
Base #1	OP182158 29	50	1.0
Base #2	OP182158 27	50	1.0
Anilines	OP182158 34	50	1.0
BSIM	OP182158 09	1	1.0

WITNESS SIGN: RG/NIT SPIKE SIGN: AF

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	180785	Fisher	60x6

REAGENT	LOT #	BATCH #	BRAND
NaOH	1+2020		Fisher
H2SO4	270733		RICCA
Sodium Sulfate	176006	3/23/18A	Fisher
Glass Wool	10R18-4		lab
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: Low Surrogate.
Spiking:
Weights/Volumes:
Required MS/MSD:
Final Volume:
Other: DD4/12 ~~HF4/12~~

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust(mL) <2 H2SO4	pH Adjust(mL) >11 NaOH	Final Extract Color	Final Extract Vol(mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN		diH2O	1000	1	4	Clear	1.0		
	BS1			diH2O	1000	1	4	Yellow	1.0		
	BSD ~~MS~~	1		diH2O	1000	1	4	Yellow	1.0		
	MSD										
	BS12	SIM		diH2O	1000	1	4	Yellow	1.0		
	BSD12 ~~MS~~	1		diH2O	1000	1	4	Yellow	1.0		
	MSD										
	BS										
	MS										
	MSD										
1	JC63185-1A	ABN	1	Clear	910	1	4	Clear	1.0		
2	-2A		1	Clear	925	1	4	Clear	1.0		
3	JC63167-1		1	Yellow	1020	1	4	Yellow	1.0		
4	-2		1	black	890	1	4	Brown	1.0		
5	-3		1	Clear	1020	1	4	Yellow	1.0		
6	-4		2	Yellow	1015	1	4	Yellow	1.0		
7	-5		2	Yellow	1015	1	4	Yellow	1.0		
8	JC63183-1		2	Yellow	1020	1	4	Yellow	1.0		
9	-2		1	Yellow	1020	1	4	Yellow	1.0		
10	JC63185-1		4	Yellow	1020	1	4	Clear	1.0		
11	-2		3	Yellow	1020	1	4	Clear	1.0		
12	-3		1	Yellow	9100	1	4	Clear	1.0		
13	-6		2	Yellow	1020	1	4	Clear	1.0		
14	-7		1	Yellow	1020	1	4	Yellow	1.0		
15	-8		2	Yellow	945	1	4	Yellow	1.0		
16	-9		2	Yellow	1020	1	4	Yellow	1.0		
17	-10		4	Clear	1020	1	4	Clear	1.0		
18	JC63706-2		2	Clear	1020	1	4	Clear	1.0		
19	JC62881-1 RX		2	Yellow	955	1	4	Yellow	1.0		
20											

HT 3/30

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP022A-12
Rev Date: 8/2/17

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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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10885-MB1	1G144704.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0020	0.0010	ug/l	
319-84-6	alpha-BHC	ND	0.0020	0.0010	ug/l	
319-85-7	beta-BHC	ND	0.0020	0.0016	ug/l	
319-86-8	delta-BHC	ND	0.0020	0.0013	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0020	0.0012	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0020	0.00099	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0020	0.00085	ug/l	
60-57-1	Dieldrin	ND	0.0020	0.0015	ug/l	
72-54-8	4,4'-DDD	ND	0.0020	0.0011	ug/l	
72-55-9	4,4'-DDE	ND	0.0020	0.0010	ug/l	
50-29-3	4,4'-DDT	ND	0.0020	0.0014	ug/l	
72-20-8	Endrin	ND	0.0020	0.0012	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0020	0.0011	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0020	0.0013	ug/l	
53494-70-5	Endrin ketone	ND	0.0020	0.0012	ug/l	
959-98-8	Endosulfan-I	ND	0.0020	0.0011	ug/l	
33213-65-9	Endosulfan-II	ND	0.0020	0.00098	ug/l	
76-44-8	Heptachlor	ND	0.0020	0.00090	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0020	0.0012	ug/l	
72-43-5	Methoxychlor	ND	0.0040	0.0013	ug/l	
8001-35-2	Toxaphene	ND	0.050	0.032	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	85%	13-153%
877-09-8	Tetrachloro-m-xylene	77%	13-153%
2051-24-3	Decachlorobiphenyl	40%	10-138%
2051-24-3	Decachlorobiphenyl	30%	10-138%

Method Blank Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10884-MB1	EF181218.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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	70%	11-166%
877-09-8	Tetrachloro-m-xylene	72%	11-166%
2051-24-3	Decachlorobiphenyl	45%	10-150%
2051-24-3	Decachlorobiphenyl	43%	10-150%

Blank Spike Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10885-BS1	1G144705.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.05	0.034	68	13-135
319-84-6	alpha-BHC	0.05	0.052	104	36-139
319-85-7	beta-BHC	0.05	0.044	88	44-136
319-86-8	delta-BHC	0.05	0.047	94	40-139
58-89-9	gamma-BHC (Lindane)	0.05	0.051	102	43-136
5103-71-9	alpha-Chlordane	0.05	0.049	98	32-140
5103-74-2	gamma-Chlordane	0.05	0.047	94	28-143
60-57-1	Dieldrin	0.05	0.053	106	39-142
72-54-8	4,4'-DDD	0.05	0.042	84	36-142
72-55-9	4,4'-DDE	0.05	0.039	78	27-140
50-29-3	4,4'-DDT	0.05	0.052	104	30-144
72-20-8	Endrin	0.05	0.055	110	44-151
1031-07-8	Endosulfan sulfate	0.05	0.056	112	41-144
7421-93-4	Endrin aldehyde	0.05	0.051	102	42-144
53494-70-5	Endrin ketone	0.05	0.058	116	41-149
959-98-8	Endosulfan-I	0.05	0.052	104	40-136
33213-65-9	Endosulfan-II	0.05	0.052	104	42-140
76-44-8	Heptachlor	0.05	0.041	82	11-140
1024-57-3	Heptachlor epoxide	0.05	0.051	102	41-138
72-43-5	Methoxychlor	0.05	0.048	96	31-149

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	83%	13-153%
877-09-8	Tetrachloro-m-xylene	79%	13-153%
2051-24-3	Decachlorobiphenyl	51%	10-138%
2051-24-3	Decachlorobiphenyl	43%	10-138%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10884-BS1	EF181219.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	1.33	1.3	97	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	1.2	90	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	81%	11-166%
877-09-8	Tetrachloro-m-xylene	87%	11-166%
2051-24-3	Decachlorobiphenyl	38%	10-150%
2051-24-3	Decachlorobiphenyl	37%	10-150%

(a) Advisory control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10885-MS	1G144709.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598
OP10885-MSD	1G144710.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598
JC62879-9	1G144708.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Compound	JC62879-9 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	0.31	186* [a]	0.167	0.32	192* [a]	3	10-157/46
319-84-6	alpha-BHC	ND		0.167	0.22	132	0.167	0.23	138	4	33-154/45
319-85-7	beta-BHC	ND		0.167	0.13	78	0.167	0.13	78	0	36-154/45
319-86-8	delta-BHC	ND		0.167	0.16	96	0.167	0.17	102	6	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	0.11	66	0.167	0.11	66	0	26-158/44
5103-74-2	gamma-Chlordane	ND		0.167	0.14	84	0.167	0.14	84	0	20-163/44
60-57-1	Dieldrin	ND		0.167	0.16	96	0.167	0.17	102	6	24-165/44
72-54-8	4,4'-DDD	ND		0.167	0.10	60	0.167	0.11	66	10	27-157/45
72-55-9	4,4'-DDE	ND		0.167	0.066	40	0.167	0.058	35	13	13-164/43
50-29-3	4,4'-DDT	ND		0.167	0.076	46	0.167	0.077	46	1	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	0.19	114	0.167	0.19	114	0	22-164/49
7421-93-4	Endrin aldehyde	ND		0.167	0.17	102	0.167	0.20	120	16	21-176/48
53494-70-5	Endrin ketone	ND		0.167	0.20	120	0.167	0.20	120	0	33-166/45
959-98-8	Endosulfan-I	ND		0.167	0.16	96	0.167	0.16	96	0	23-161/44
33213-65-9	Endosulfan-II	ND		0.167	0.17	102	0.167	0.17	102	0	30-161/43
76-44-8	Heptachlor	ND		0.167	0.20	120	0.167	0.14	84	35	10-158/47
1024-57-3	Heptachlor epoxide	ND		0.167	0.15	90	0.167	0.15	90	0	29-163/43
72-43-5	Methoxychlor	ND		0.167	0.14	84	0.167	0.15	90	7	15-164/46
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-9	Limits
877-09-8	Tetrachloro-m-xylene	57%	62%	49%	13-153%
877-09-8	Tetrachloro-m-xylene	63%	73%	53%	13-153%
2051-24-3	Decachlorobiphenyl	41%	43%	22%	10-138%
2051-24-3	Decachlorobiphenyl	36%	41%	23%	10-138%

(a) Outside the QC limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10884-MS	EF181221.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203
OP10884-MSD	EF181222.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203
JC62879-9	EF181220.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

CAS No.	Compound	JC62879-9 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	1.3	97	1.33	1.4	105	7	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	0.41	31	1.33	0.44	33	7	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	JC62879-9	Limits
877-09-8	Tetrachloro-m-xylene	64%	73%	54%	11-166%
877-09-8	Tetrachloro-m-xylene	63%	65%	53%	11-166%
2051-24-3	Decachlorobiphenyl	35%	39%	29%	10-150%
2051-24-3	Decachlorobiphenyl	34%	37%	28%	10-150%

* = Outside of Control Limits.

Internal Standard Area Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

	IS 1 AREA	RT	IS 2 AREA	RT
Check Std	111572894	2.45	495338569	2.16
Upper Limit [a]	223145788	2.95	990677138	2.66
Lower Limit [b]	55786447	1.95	247669285	1.66

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP10885-MB1	108613636	2.45	463652880	2.16
OP10885-BS1	110519122	2.45	495362824	2.16
ZZZZZZ	110515708	2.45	498670808	2.16
ZZZZZZ	106932392	2.45	472124341	2.16
JC62879-9	115258454	2.45	564134012	2.16
OP10885-MS	120734132	2.46	577140894	2.16
OP10885-MSD	115624118	2.46	598697088	2.16
ZZZZZZ	112259810	2.46	462393170	2.17
JC62879-11	120804279	2.45	531976744	2.16
OP10885-MS2	107727741	2.45	474779256	2.16
OP10885-MSD2	110409316	2.45	472444248	2.16
ZZZZZZ	100081531	2.46	445634360	2.16
ZZZZZZ	119368273	2.45	653083395	2.16
ZZZZZZ	114625306	2.45	534007080	2.16
ZZZZZZ	119275690	2.45	502813008	2.16
ZZZZZZ	118262698	2.45	498061444	2.16
ZZZZZZ	117103886	2.45	513754992	2.16

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.

Internal Standard Area Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144723.D	**Injection Time:**	06:53
Instrument ID:	GC1G	**Method:**	SW846 8081B

	IS 1 AREA	RT	IS 2 AREA	RT
Check Std	115564152	2.45	528561057	2.16
Upper Limit [a]	231128304	2.95	1057122114	2.66
Lower Limit [b]	57782076	1.95	264280529	1.66

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
ZZZZZZ	114626024	2.45	600921914	2.16
ZZZZZZ	117385515	2.45	488629556	2.16
JC62881-1	112242603	2.45	494365760	2.16
JC62881-2	104748320	2.45	435179062	2.16
JC62881-3	103492023	2.45	437366368	2.16
JC62881-4	99668433	2.45	394671782	2.16
JC62881-5	115912912	2.45	403697436	2.16
JC62881-6	113947371	2.45	508290456	2.16

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-DDT
Lab File ID: 1G143263.D
Instrument ID: GC1G
Injection Date: 02/08/18
Injection Time: 09:19

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	12494289	5407524
4,4'-DDE	11036658	3279560
4,4'-DDT	654388534	133609366
DDT Breakdown [a]	3.5 %	6.1 %
Endrin aldehyde	2254334	571873
Endrin ketone	2509313	826010
Endrin	394482642	95115906
Endrin Breakdown [b]	1.2 %	1.4 %

(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
G1G4557-IC4557	1G143265.D	02/08/18	09:54	00:35	Initial cal 100
G1G4557-IC4557	1G143266.D	02/08/18	10:11	00:52	Initial cal 75
G1G4557-IC4557	1G143267.D	02/08/18	10:28	01:09	Initial cal 50
G1G4557-ICC4557	1G143268.D	02/08/18	10:45	01:26	Initial cal 25
G1G4557-IC4557	1G143269.D	02/08/18	11:02	01:43	Initial cal 10
G1G4557-IC4557	1G143270.D	02/08/18	11:19	02:00	Initial cal 5
G1G4557-IC4557	1G143271.D	02/08/18	11:37	02:18	Initial cal 2
G1G4557-IC4557	1G143272.D	02/08/18	11:54	02:35	Initial cal 1
G1G4557-IC4557	1G143273.D	02/08/18	12:11	02:52	Initial cal 500
G1G4557-IC4557	1G143274.D	02/08/18	12:28	03:09	Initial cal 500
G1G4557-ICV4557	1G143276.D	02/08/18	13:03	03:44	Initial cal verification 500
G1G4557-ICV4557	1G143277.D	02/08/18	13:20	04:01	Initial cal verification 500
G1G4557-ICV4557	1G143278.D	02/08/18	13:37	04:18	Initial cal verification 50
G1G4557-ICV4557	1G143279.D	02/08/18	13:54	04:35	Initial cal verification 50
G1G4558-ICV4557	1G143283.D	02/08/18	16:50	07:31	Initial cal verification 25
G1G4559-CC4557	1G143284.D	02/08/18	17:07	07:48	Continuing cal 50
OP9834-MB1	1G143286.D	02/08/18	17:41	08:23	Method Blank
ZZZZZZ	1G143288.D	02/08/18	18:16	08:57	(unrelated sample)
ZZZZZZ	1G143289.D	02/08/18	18:33	09:14	(unrelated sample)
JC60235-5	1G143290.D	02/08/18	18:50	09:31	(used for QC only; not part of job JC62881)
OP9834-MS	1G143291.D	02/08/18	19:07	09:48	Matrix Spike
OP9834-MSD	1G143292.D	02/08/18	19:24	10:06	Matrix Spike Duplicate
ZZZZZZ	1G143293.D	02/08/18	19:41	10:23	(unrelated sample)
ZZZZZZ	1G143294.D	02/08/18	19:59	10:40	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G1G4557-DDT	**Injection Date:**	02/08/18
Lab File ID:	1G143263.D	**Injection Time:**	09:19
Instrument ID:	GC1G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	1G143295.D	02/08/18	20:16	10:57	(unrelated sample)
ZZZZZZ	1G143296.D	02/08/18	20:33	11:14	(unrelated sample)
ZZZZZZ	1G143297.D	02/08/18	20:50	11:31	(unrelated sample)
ZZZZZZ	1G143298.D	02/08/18	21:07	11:48	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-DDT
Lab File ID: 1G144701.D
Instrument ID: GC1G
Injection Date: 03/28/18
Injection Time: 00:30

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	8481928	6292746
4,4'-DDE	14182701	2622428
4,4'-DDT	760798857	155355991
DDT Breakdown [a]	2.9 %	5.4 %
Endrin aldehyde	2670001	822543
Endrin ketone	3185936	1178531
Endrin	515626384	111116445
Endrin Breakdown [b]	1.1 %	1.8 %

(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
G1G4598-CC4557	1G144702.D	03/28/18	00:47	00:17	Continuing cal 25
OP10885-MB1	1G144704.D	03/28/18	01:26	00:57	Method Blank
OP10885-BS1	1G144705.D	03/28/18	01:43	01:14	Blank Spike
ZZZZZZ	1G144706.D	03/28/18	02:01	01:31	(unrelated sample)
ZZZZZZ	1G144707.D	03/28/18	02:18	01:48	(unrelated sample)
JC62879-9	1G144708.D	03/28/18	02:35	02:05	(used for QC only; not part of job JC62881)
OP10885-MS	1G144709.D	03/28/18	02:52	02:23	Matrix Spike
OP10885-MSD	1G144710.D	03/28/18	03:09	02:40	Matrix Spike Duplicate
ZZZZZZ	1G144711.D	03/28/18	03:27	02:57	(unrelated sample)
JC62879-11	1G144712.D	03/28/18	03:44	03:14	(used for QC only; not part of job JC62881)
OP10885-MS2	1G144713.D	03/28/18	04:01	03:31	Matrix Spike
OP10885-MSD2	1G144714.D	03/28/18	04:18	03:48	Matrix Spike Duplicate
ZZZZZZ	1G144715.D	03/28/18	04:35	04:06	(unrelated sample)
ZZZZZZ	1G144716.D	03/28/18	04:52	04:23	(unrelated sample)
ZZZZZZ	1G144717.D	03/28/18	05:09	04:40	(unrelated sample)
ZZZZZZ	1G144718.D	03/28/18	05:27	04:57	(unrelated sample)
ZZZZZZ	1G144719.D	03/28/18	05:44	05:14	(unrelated sample)
ZZZZZZ	1G144720.D	03/28/18	06:01	05:32	(unrelated sample)
G1G4598-CC4557	1G144723.D	03/28/18	06:53	06:23	Continuing cal 50
ZZZZZZ	1G144725.D	03/28/18	07:27	06:58	(unrelated sample)
ZZZZZZ	1G144726.D	03/28/18	07:44	07:15	(unrelated sample)
JC62881-1	1G144727.D	03/28/18	08:02	07:32	PCMW-05
JC62881-2	1G144728.D	03/28/18	08:19	07:49	DUP-03232018
JC62881-3	1G144729.D	03/28/18	08:36	08:07	PCMW-06

DDT/Endrin Breakdown Check

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G1G4598-DDT	**Injection Date:**	03/28/18
Lab File ID:	1G144701.D	**Injection Time:**	00:30
Instrument ID:	GC1G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC62881-4	1G144730.D	03/28/18	08:53	08:24	PCMW-11S
JC62881-5	1G144731.D	03/28/18	09:11	08:41	PCMW-18S
JC62881-6	1G144732.D	03/28/18	09:28	08:58	PCMW-18D

GC Identification Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP10885-BS1	**Injection Date:**	03/28/18
Lab File ID:	1G144705.D	**Injection Time:**	01:43
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.45	4.45	0.034		ug/l	2.9
Aldrin	2	5.64	5.64	0.035		ug/l	
alpha-BHC	1	3.27	3.27	0.055		ug/l	5.6
alpha-BHC	2 [a]	4.06	4.06	0.052		ug/l	
beta-BHC	1	3.66	3.66	0.046		ug/l	4.4
beta-BHC	2 [a]	4.62	4.62	0.044		ug/l	
delta-BHC	1	3.87	3.87	0.049		ug/l	4.2
delta-BHC	2 [a]	5.05	5.05	0.047		ug/l	
gamma-BHC (Lindane)	1	3.58	3.58	0.053		ug/l	3.8
gamma-BHC (Lindane)	2 [a]	4.53	4.53	0.051		ug/l	
alpha-Chlordane	1 [a]	5.53	5.53	0.049		ug/l	0.0
alpha-Chlordane	2	7.03	7.03	0.049		ug/l	
gamma-Chlordane	1	5.35	5.35	0.060		ug/l	24.3
gamma-Chlordane	2 [a]	6.80	6.80	0.047		ug/l	
Dieldrin	1	6.04	6.04	0.057		ug/l	7.3
Dieldrin	2 [a]	7.60	7.60	0.053		ug/l	
4,4'-DDD	1	6.52	6.52	0.043		ug/l	2.4
4,4'-DDD	2 [a]	8.29	8.29	0.042		ug/l	
4,4'-DDE	1	5.65	5.64	0.040		ug/l	2.5
4,4'-DDE	2 [a]	7.29	7.29	0.039		ug/l	
4,4'-DDT	1 [a]	6.93	6.92	0.052		ug/l	10.9
4,4'-DDT	2	8.83	8.83	0.058		ug/l	
Endrin	1	6.38	6.38	0.059		ug/l	7.0
Endrin	2 [a]	8.13	8.13	0.055		ug/l	
Endosulfan sulfate	1 [a]	8.04	8.04	0.056		ug/l	3.5
Endosulfan sulfate	2	9.53	9.53	0.058		ug/l	
Endrin aldehyde	1	7.35	7.35	0.053		ug/l	3.8
Endrin aldehyde	2 [a]	9.07	9.07	0.051		ug/l	
Endrin ketone	1	8.50	8.50	0.066		ug/l	12.9
Endrin ketone	2 [a]	10.32	10.32	0.058		ug/l	
Endosulfan-I	1	5.72	5.71	0.062		ug/l	17.5
Endosulfan-I	2 [a]	7.15	7.15	0.052		ug/l	
Endosulfan-II	1	6.72	6.71	0.057		ug/l	9.2
Endosulfan-II	2 [a]	8.49	8.49	0.052		ug/l	
Heptachlor	1	4.09	4.09	0.041		ug/l	0.0
Heptachlor	2 [a]	5.15	5.15	0.041		ug/l	
Heptachlor epoxide	1	5.18	5.18	0.053		ug/l	3.8
Heptachlor epoxide	2 [a]	6.50	6.50	0.051		ug/l	
Methoxychlor	1	7.73	7.73	0.049		ug/l	2.1
Methoxychlor	2 [a]	9.96	9.96	0.048		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP10885-MS	**Injection Date:**	03/28/18
Lab File ID:	1G144709.D	**Injection Time:**	02:52
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.42	4.45	0.31		ug/l	117.9
Aldrin	2	5.64	5.64	0.080		ug/l	
alpha-BHC	1 [a]	3.27	3.27	0.22		ug/l	31.6
alpha-BHC	2	4.06	4.06	0.16		ug/l	
beta-BHC	1 [a]	3.66	3.66	0.13		ug/l	7.4
beta-BHC	2	4.61	4.62	0.14		ug/l	
delta-BHC	1 [a]	3.86	3.87	0.16		ug/l	11.8
delta-BHC	2	5.05	5.05	0.18		ug/l	
gamma-BHC (Lindane)	1 [a]	3.58	3.58	0.16		ug/l	0.0
gamma-BHC (Lindane)	2	4.53	4.53	0.16		ug/l	
alpha-Chlordane	1 [a]	5.53	5.53	0.11		ug/l	8.7
alpha-Chlordane	2	7.03	7.03	0.12		ug/l	
gamma-Chlordane	1 [a]	5.35	5.35	0.14		ug/l	7.4
gamma-Chlordane	2	6.80	6.80	0.13		ug/l	
Dieldrin	1 [a]	6.04	6.04	0.16		ug/l	0.0
Dieldrin	2	7.60	7.60	0.16		ug/l	
4,4'-DDD	1 [a]	6.50	6.52	0.10		ug/l	2.0
4,4'-DDD	2	8.28	8.29	0.098		ug/l	
4,4'-DDE	1 [a]	5.63	5.64	0.066		ug/l	14.6
4,4'-DDE	2	7.29	7.29	0.057		ug/l	
4,4'-DDT	1 [a]	6.91	6.92	0.076		ug/l	0.0
4,4'-DDT	2	8.82	8.83	0.076		ug/l	
Endrin	1 [a]	6.38	6.38	0.17		ug/l	0.0
Endrin	2	8.13	8.13	0.17		ug/l	
Endosulfan sulfate	1 [a]	8.03	8.04	0.19		ug/l	0.0
Endosulfan sulfate	2	9.53	9.53	0.19		ug/l	
Endrin aldehyde	1 [a]	7.34	7.35	0.17		ug/l	6.1
Endrin aldehyde	2	9.07	9.07	0.16		ug/l	
Endrin ketone	1 [a]	8.49	8.50	0.20		ug/l	4.9
Endrin ketone	2	10.31	10.32	0.21		ug/l	
Endosulfan-I	1 [a]	5.71	5.71	0.16		ug/l	0.0
Endosulfan-I	2	7.15	7.15	0.16		ug/l	
Endosulfan-II	1 [a]	6.71	6.71	0.17		ug/l	0.0
Endosulfan-II	2	8.49	8.49	0.17		ug/l	
Heptachlor	1 [a]	4.10	4.09	0.20		ug/l	58.1
Heptachlor	2	5.15	5.15	0.11		ug/l	
Heptachlor epoxide	1 [a]	5.18	5.18	0.15		ug/l	6.5
Heptachlor epoxide	2	6.50	6.50	0.16		ug/l	
Methoxychlor	1 [a]	7.71	7.73	0.14		ug/l	7.4
Methoxychlor	2	9.96	9.96	0.13		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP10885-MSD	**Injection Date:**	03/28/18
Lab File ID:	1G144710.D	**Injection Time:**	03:09
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.42	4.45	0.32		ug/l	120.8
Aldrin	2	5.64	5.64	0.079		ug/l	
alpha-BHC	1 [a]	3.27	3.27	0.23		ug/l	24.4
alpha-BHC	2	4.06	4.06	0.18		ug/l	
beta-BHC	1 [a]	3.66	3.66	0.13		ug/l	20.7
beta-BHC	2	4.61	4.62	0.16		ug/l	
delta-BHC	1 [a]	3.86	3.87	0.17		ug/l	11.1
delta-BHC	2	5.04	5.05	0.19		ug/l	
gamma-BHC (Lindane)	1 [a]	3.58	3.58	0.16		ug/l	11.8
gamma-BHC (Lindane)	2	4.52	4.53	0.18		ug/l	
alpha-Chlordane	1 [a]	5.52	5.53	0.11		ug/l	16.7
alpha-Chlordane	2	7.03	7.03	0.13		ug/l	
gamma-Chlordane	1 [a]	5.35	5.35	0.14		ug/l	0.0
gamma-Chlordane	2	6.80	6.80	0.14		ug/l	
Dieldrin	1 [a]	6.04	6.04	0.17		ug/l	0.0
Dieldrin	2	7.60	7.60	0.17		ug/l	
4,4'-DDD	1 [a]	6.49	6.52	0.11		ug/l	0.0
4,4'-DDD	2	8.27	8.29	0.11		ug/l	
4,4'-DDE	1 [a]	5.63	5.64	0.058		ug/l	5.0
4,4'-DDE	2	7.28	7.29	0.061		ug/l	
4,4'-DDT	1 [a]	6.91	6.92	0.077		ug/l	12.2
4,4'-DDT	2	8.82	8.83	0.087		ug/l	
Endrin	1 [a]	6.37	6.38	0.17		ug/l	11.1
Endrin	2	8.12	8.13	0.19		ug/l	
Endosulfan sulfate	1 [a]	8.03	8.04	0.19		ug/l	14.6
Endosulfan sulfate	2	9.53	9.53	0.22		ug/l	
Endrin aldehyde	1 [a]	7.34	7.35	0.20		ug/l	0.0
Endrin aldehyde	2	9.07	9.07	0.20		ug/l	
Endrin ketone	1 [a]	8.49	8.50	0.20		ug/l	18.2
Endrin ketone	2	10.31	10.32	0.24		ug/l	
Endosulfan-I	1 [a]	5.71	5.71	0.16		ug/l	11.8
Endosulfan-I	2	7.14	7.15	0.18		ug/l	
Endosulfan-II	1 [a]	6.71	6.71	0.17		ug/l	5.7
Endosulfan-II	2	8.48	8.49	0.18		ug/l	
Heptachlor	1 [a]	4.10	4.09	0.14		ug/l	24.0
Heptachlor	2	5.15	5.15	0.11		ug/l	
Heptachlor epoxide	1 [a]	5.18	5.18	0.15		ug/l	18.2
Heptachlor epoxide	2	6.50	6.50	0.18		ug/l	
Methoxychlor	1 [a]	7.71	7.73	0.15		ug/l	6.5
Methoxychlor	2	9.95	9.96	0.16		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181216.D	**Injection Time:**	16:59
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10884-BS1	**Injection Date:**	03/28/18
Lab File ID:	EF181219.D	**Injection Time:**	18:14
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.3		ug/l	7.4
Aroclor 1016	2			1.4		ug/l	
AR1016-A	1	3.77	3.75	1.5		ug/l	
AR1016-A	2	5.18	5.17	1.7		ug/l	
AR1016-B	1	4.29	4.28	1.3		ug/l	
AR1016-B	2	6.00	5.99	1.4		ug/l	
AR1016-C	1	5.13	5.08	1.2		ug/l	
AR1016-C	2	6.96	6.94	1.3		ug/l	
AR1016-D	1	5.34	5.32	1.4		ug/l	
AR1016-D	2	7.25	7.24	1.4		ug/l	
AR1016-E	1	6.07	6.05	1.2		ug/l	
AR1016-E	2	8.26	8.25	1.3		ug/l	
Aroclor 1260	1			1.3		ug/l	8.0
Aroclor 1260	2 [a]			1.2		ug/l	
AR1260-A	1	9.70	9.67	1.1		ug/l	
AR1260-A	2	12.36	12.35	1.1		ug/l	
AR1260-B	1	9.93	9.92	1.5		ug/l	
AR1260-B	2	12.56	12.54	1.4		ug/l	
AR1260-C	1	10.46	10.45	1.4		ug/l	
AR1260-C	2	13.24	13.23	1.3		ug/l	
AR1260-D	1	11.15	11.13	1.3		ug/l	
AR1260-D	2	13.80	13.79	1.3		ug/l	
AR1260-E	1	11.77	11.75	1.1		ug/l	
AR1260-E	2	14.66	14.65	1.1		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181216.D	**Injection Time:**	16:59
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10884-MS	**Injection Date:**	03/28/18
Lab File ID:	EF181221.D	**Injection Time:**	19:04
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.3		ug/l	8.0
Aroclor 1016	2			1.2		ug/l	
AR1016-B	1	4.28	4.28	1.1		ug/l	
AR1016-B	2	6.00	5.99	1.5		ug/l	
AR1016-C	1	5.10	5.08	1.3		ug/l	
AR1016-C	2	6.95	6.94	1.2		ug/l	
AR1016-E	1	6.05	6.05	1.4		ug/l	
AR1016-E	2	8.25	8.25	1.0		ug/l	
Aroclor 1260	1 [a]			0.41		ug/l	10.3
Aroclor 1260	2			0.37		ug/l	
AR1260-A	1	9.68	9.67	0.32	J	ug/l	
AR1260-A	2	12.36	12.35	0.31	J	ug/l	
AR1260-B	1	9.93	9.92	0.40		ug/l	
AR1260-B	2	12.55	12.54	0.38		ug/l	
AR1260-C	1	10.45	10.45	0.61		ug/l	
AR1260-C	2	13.24	13.23	0.37		ug/l	
AR1260-D	1	11.14	11.13	0.36		ug/l	
AR1260-D	2	13.79	13.79	0.38		ug/l	
AR1260-E	1	11.76	11.75	0.37		ug/l	
AR1260-E	2	14.65	14.65	0.40		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181216.D	**Injection Time:**	16:59
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10884-MSD	**Injection Date:**	03/28/18
Lab File ID:	EF181222.D	**Injection Time:**	19:29
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.4		ug/l	7.4
Aroclor 1016	2			1.3		ug/l	
AR1016-B	1	4.28	4.28	1.2		ug/l	
AR1016-B	2	6.00	5.99	1.5		ug/l	
AR1016-C	1	5.10	5.08	1.8		ug/l	
AR1016-C	2	6.96	6.94	1.2		ug/l	
AR1016-E	1	6.06	6.05	1.2		ug/l	
AR1016-E	2	8.26	8.25	1.1		ug/l	
Aroclor 1260	1 [a]			0.44		ug/l	2.3
Aroclor 1260	2			0.43		ug/l	
AR1260-A	1	9.69	9.67	0.37		ug/l	
AR1260-A	2	12.36	12.35	0.39		ug/l	
AR1260-B	1	9.93	9.92	0.47		ug/l	
AR1260-B	2	12.56	12.54	0.47		ug/l	
AR1260-C	1	10.46	10.45	0.60		ug/l	
AR1260-C	2	13.24	13.23	0.48		ug/l	
AR1260-D	1	11.15	11.13	0.39		ug/l	
AR1260-D	2	13.80	13.79	0.41		ug/l	
AR1260-E	1	11.76	11.75	0.39		ug/l	
AR1260-E	2	14.66	14.65	0.42		ug/l	

(a) QC results reported from this column.

Surrogate Recovery Summary

Job Number: JC62881
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]
JC62881-1	1G144727.D	72	69	71	58
JC62881-2	1G144728.D	82	76	78	65
JC62881-3	1G144729.D	72	81	98	87
JC62881-4	1G144730.D	76	76	63	47
JC62881-5	1G144731.D	80	67	80	55
JC62881-6	1G144732.D	69	77	58	43
OP10885-BS1	1G144705.D	83	79	51	43
OP10885-MB1	1G144704.D	85	77	40	30
OP10885-MS	1G144709.D	57	63	41	36
OP10885-MSD	1G144710.D	62	73	43	41

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: JC62881
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]
JC62881-1	EF181245.D	70	68	49	52
JC62881-2	EF181246.D	73	70	53	59
JC62881-3	EF181251.D	75	73	76	78
JC62881-4	EF181252.D	77	67	31	36
JC62881-5	EF181253.D	61	72	52	55
JC62881-6	EF181254.D	73	86	47	47
OP10884-BS1	EF181219.D	81	87	38	37
OP10884-MB1	EF181218.D	70	72	45	43
OP10884-MS	EF181221.D	64	63	35	34
OP10884-MSD	EF181222.D	73	65	39	37

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.35	10.13	12.03

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP10885-MB1	1G144704.D	03/28/18	01:26	2.78	3.34	10.13	12.03
OP10885-BS1	1G144705.D	03/28/18	01:43	2.78	3.35	10.13	12.03
ZZZZZZ	1G144706.D	03/28/18	02:01	2.78	3.35	10.13	12.03
ZZZZZZ	1G144707.D	03/28/18	02:18	2.78	3.35	10.12	12.02
JC62879-9	1G144708.D	03/28/18	02:35	2.78	3.35	10.13	12.03
OP10885-MS	1G144709.D	03/28/18	02:52	2.78	3.35	10.13	12.03
OP10885-MSD	1G144710.D	03/28/18	03:09	2.78	3.35	10.13	12.03
ZZZZZZ	1G144711.D	03/28/18	03:27	2.78	3.35	10.12	12.02
JC62879-11	1G144712.D	03/28/18	03:44	2.77	3.35	10.13	12.03
OP10885-MS2	1G144713.D	03/28/18	04:01	2.77	3.35	10.13	12.03
OP10885-MSD2	1G144714.D	03/28/18	04:18	2.78	3.35	10.13	12.03
ZZZZZZ	1G144715.D	03/28/18	04:35	2.78	3.35	10.13	12.03
ZZZZZZ	1G144716.D	03/28/18	04:52	2.77	3.34	10.13	12.03
ZZZZZZ	1G144717.D	03/28/18	05:09	2.78	3.35	10.13	12.02
ZZZZZZ	1G144718.D	03/28/18	05:27	2.77	3.35	10.12	12.03
ZZZZZZ	1G144719.D	03/28/18	05:44	2.77	3.34	10.12	12.02
ZZZZZZ	1G144720.D	03/28/18	06:01	2.78	3.35	10.12	12.03

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144723.D	**Injection Time:**	06:53
Instrument ID:	GC1G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.34	10.13	12.03

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
ZZZZZZ	1G144725.D	03/28/18	07:27	2.78	3.35	10.12	12.02
ZZZZZZ	1G144726.D	03/28/18	07:44	2.77	3.35	10.13	12.03
JC62881-1	1G144727.D	03/28/18	08:02	2.77	3.34	10.12	12.02
JC62881-2	1G144728.D	03/28/18	08:19	2.78	3.34	10.12	12.02
JC62881-3	1G144729.D	03/28/18	08:36	2.77	3.34	10.12	12.02
JC62881-4	1G144730.D	03/28/18	08:53	2.77	3.34	10.12	12.02
JC62881-5	1G144731.D	03/28/18	09:11	2.77	3.34	10.12	12.02
JC62881-6	1G144732.D	03/28/18	09:28	2.77	3.34	10.13	12.03

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181216.D	**Injection Time:**	16:59
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.21	4.22	14.19	17.32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP10884-MB1	EF181218.D	03/28/18	17:49	3.21	4.22	14.21	17.33
OP10884-BS1	EF181219.D	03/28/18	18:14	3.22	4.22	14.20	17.33
JC62879-9	EF181220.D	03/28/18	18:39	3.21	4.22	14.20	17.33
OP10884-MS	EF181221.D	03/28/18	19:04	3.21	4.22	14.20	17.33
OP10884-MSD	EF181222.D	03/28/18	19:29	3.22	4.23	14.20	17.33
ZZZZZZ	EF181223.D	03/28/18	19:54	3.22	4.22	14.20	17.33
ZZZZZZ	EF181224.D	03/28/18	20:19	3.22	4.22	14.20	17.33

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/29/18
Lab File ID:	EF181238.D	**Injection Time:**	02:09
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.22	4.22	14.19	17.32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
ZZZZZZ	EF181240.D	03/29/18	02:59	3.22	4.22	14.20	17.32
ZZZZZZ	EF181241.D	03/29/18	03:24	3.21	4.22	14.19	17.32
ZZZZZZ	EF181242.D	03/29/18	03:49	3.22	4.22	14.19	17.32
ZZZZZZ	EF181243.D	03/29/18	04:14	3.21	4.22	14.19	17.32
ZZZZZZ	EF181244.D	03/29/18	04:39	3.22	4.22	14.20	17.32
JC62881-1	EF181245.D	03/29/18	05:04	3.21	4.22	14.19	17.32
JC62881-2	EF181246.D	03/29/18	05:29	3.21	4.22	14.20	17.33

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/29/18
Lab File ID:	EF181249.D	**Injection Time:**	06:44
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.21	4.22	14.20	17.33

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
JC62881-3	EF181251.D	03/29/18	07:34	3.21	4.22	14.20	17.32
JC62881-4	EF181252.D	03/29/18	07:59	3.21	4.22	14.19	17.32
JC62881-5	EF181253.D	03/29/18	08:24	3.21	4.22	14.19	17.32
JC62881-6	EF181254.D	03/29/18	08:49	3.21	4.22	14.20	17.33

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: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICC4557
Lab FileID: 1G143268.D

Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration

Calibration Files
2 =1G143271.D 5 =1G143270.D 10 =1G143269.D 25 =1G143268.D
50 =1G143267.D 100 =1G143265.D 1 =1G143272.D 75 =1G143266.D

Compound	2	5	10	25	50	100	1	75	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.850	0.879	0.895	0.866	0.889	0.909		0.907	0.885	2.42
3) Hexachlorobe	1.145	1.111	1.101	1.093	1.102	1.099	1.176	1.100	1.116	2.63
4) alpha-BHC	1.021	1.044	1.056	1.116	1.183	1.275	0.915	1.241	1.106	10.95
5) gamma-BHC	1.020	1.018	1.030	1.049	1.102	1.162	0.853	1.140	1.047	9.15
6) Heptachlor	1.081	1.063	1.089	1.076	1.109	1.146	1.025	1.127	1.090	3.47
7) beta-BHC	0.562	0.533	0.537	0.529	0.511	0.507	0.485	0.514	0.522	4.47
8) delta-BHC	0.759	0.786	0.817	0.871	0.946	1.008	0.770	0.977	0.867	11.39
9) Aldrin	1.030	0.967	0.975	0.985	1.023	1.062	0.881	1.046	0.996	5.80
10) Alachlor	0.162	0.146	0.147	0.141	0.137	0.131		0.132	0.142	7.47
11) Heptachlor E	1.108	1.063	1.026	0.971	0.947	0.913	1.169	0.941	1.017	8.89
12) gamma-Chlord	0.668	0.759	0.822	0.849	0.874	0.889	0.474	0.884	0.777	18.49
13) alpha-Chlord	1.022	0.932	0.976	0.925	0.948	0.947	0.933	0.946	0.954	3.32
14) Endosulfan I	1.038	0.918	0.940	0.900	0.915	0.914	0.942	0.914	0.935	4.71
15) 4,4'-DDE	1.046	0.801	0.861	0.816	0.874	0.907	0.970	0.891	0.896	8.96
16) Dieldrin	0.951	0.934	0.939	0.943	0.977	1.004	0.837	0.990	0.947	5.41
17) Endrin	0.840	0.847	0.865	0.870	0.904	0.937	0.773	0.919	0.869	5.98
18) 4,4'-DDD	0.660	0.652	0.671	0.663	0.714	0.751	0.476	0.733	0.665	12.75
19) Endosulfan I	0.899	0.866	0.878	0.864	0.882	0.893	0.778	0.884	0.868	4.39
20) 4,4'-DDT	0.540	0.530	0.575	0.621	0.681	0.745	0.495	0.713	0.613	15.09
21) Endrin Aldeh	0.766	0.737	0.744	0.721	0.737	0.735	0.643	0.734	0.727	4.97
22) Endosulfan S	0.672	0.666	0.670	0.683	0.711	0.734	0.575	0.723	0.679	7.27
23) Methoxychlor	0.313	0.337	0.349	0.359	0.379	0.393	0.238	0.383	0.344	14.56
24) Mirex	0.910	0.855	0.857	0.805	0.778	0.739	0.848	0.751	0.818	7.28
25) Endrin Keton	0.737	0.714	0.720	0.722	0.749	0.788	0.603	0.770	0.725	7.67
26) Decachlorobi	0.788	0.746	0.729	0.702	0.694	0.701		0.699	0.723	4.77
27) I 1-bromo-2-nitrobenzen	ISTD									
28) Toxaphene{A}				0.018					0.018	0.00
29) Toxaphene{B}				0.044					0.044	0.00
30) Toxaphene{C}				0.034					0.034	0.00
31) Toxaphene{D}				0.025					0.025	0.00
32) Toxaphene{E}				0.030					0.030	0.00
33) I 1-bromo-2-nitrobenzen	ISTD									
34) Chlordane {A				0.056					0.056	0.00
35) Chlordane {B				0.049					0.049	0.00
36) Chlordane {C				0.134					0.134	0.00
37) Chlordane {D				0.218					0.218	0.00
38) Chlordane {E				0.039					0.039	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.974	0.942	0.922	0.874	0.877	0.880		0.883	0.908	4.32

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICC4557
Lab FileID: 1G143268.D

3)	Hexachlorobe	1.422	1.291	1.295	1.225	1.209	1.217	1.382	1.215	1.282	6.40
4)	alpha-BHC	1.251	1.230	1.215	1.199	1.219	1.267	1.150	1.255	1.223	3.05
5)	gamma-BHC	1.139	1.100	1.105	1.082	1.099	1.133	1.092	1.122	1.109	1.82
6)	Heptachlor	1.053	1.060	1.047	1.036	1.029	1.053	1.000	1.043	1.040	1.85
7)	beta-BHC	0.526	0.489	0.497	0.458	0.465	0.464	0.516	0.469	0.486	5.27
8)	delta-BHC	1.054	0.971	0.951	0.973	0.990	1.034	1.022	1.015	1.001	3.54
9)	Aldrin	1.148	1.090	1.061	1.038	1.028	1.040	1.021	1.037	1.058	4.01
10)	Alachlor	0.170	0.144	0.140	0.137	0.126	0.122		0.126	0.138	11.76
11)	Heptachlor E	1.072	1.038	1.012	0.964	0.963	0.958	0.983	0.959	0.994	4.31
12)	gamma-Chlord	1.041	0.979	0.972	0.933	0.930	0.936	0.970	0.937	0.962	3.89
13)	alpha-Chlord	1.012	0.969	0.944	0.913	0.900	0.902	1.043	0.901	0.948	5.86
14)	Endosulfan I	1.004	0.932	0.911	0.893	0.878	0.883	0.953	0.877	0.916	4.86
15)	4,4'-DDE	1.106	1.030	0.977	0.953	0.935	0.943	1.122	0.938	1.000	7.67
16)	Dieldrin	1.085	1.039	1.022	0.985	0.982	0.991	1.046	0.988	1.017	3.66
17)	Endrin	0.928	0.912	0.903	0.880	0.876	0.890	0.886	0.882	0.895	2.02
18)	4,4'-DDD	0.787	0.785	0.776	0.748	0.751	0.764	0.809	0.753	0.772	2.75
19)	Endosulfan I	0.942	0.905	0.879	0.858	0.848	0.855	0.986	0.848	0.890	5.70
20)	4,4'-DDT	0.433	0.475	0.497	0.550	0.590	0.639	0.368	0.615	0.521	18.08
21)	Endrin Aldeh	0.763	0.727	0.690	0.671	0.668	0.666	0.761	0.661	0.701	6.15
22)	Endosulfan S	0.656	0.626	0.614	0.615	0.623	0.644	0.546	0.633	0.620	5.30
23)	Methoxychlor	0.242	0.243	0.271	0.285	0.299	0.334	0.195	0.317	0.273	16.61
24)	Mirex	0.611	0.556	0.553	0.536	0.515	0.508	0.572	0.512	0.545	6.46
25)	Endrin Keton	0.685	0.684	0.689	0.713	0.735	0.770	0.607	0.753	0.705	7.24
26)	Decachlorobi	0.710	0.656	0.645	0.641	0.641	0.647		0.647	0.655	3.75

27)	I 1-bromo-2-nitrobenzen	----------ISTD----------		
28)	Toxaphene{A}	0.019	0.019	0.00
29)	Toxaphene{B}	0.020	0.020	0.00
30)	Toxaphene{C}	0.037	0.037	0.00
31)	Toxaphene{D}	0.021	0.021	0.00
32)	Toxaphene{E}	0.016	0.016	0.00

33)	I 1-bromo-2-nitrobenzen	----------ISTD----------		
34)	Chlordane {A	0.052	0.052	0.00
35)	Chlordane {B	0.040	0.040	0.00
36)	Chlordane {C	0.125	0.125	0.00
37)	Chlordane {D	0.207	0.207	0.00
38)	Chlordane {E	0.034	0.034	0.00

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

1PST4557.M Fri Feb 09 07:07:45 2018 RPT1

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICV4557
Lab FileID: 1G143276.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 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 : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	2.07- 2.27
34	Chlordane {A}	0.056	0.063	-12.5	116	0.00	4.01- 4.21
35	Chlordane {B}	0.049	0.043	12.2	90	0.00	4.51- 4.71
36	Chlordane {C}	0.134	0.134	0.0	103	0.00	5.28- 5.48
37	Chlordane {D}	0.218	0.214	1.8	102	0.00	5.44- 5.64
38	Chlordane {E}	0.039	0.032	17.9	85	0.00	6.55- 6.75

***** Signal #2 *****

33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	2.36- 2.56
34	Chlordane {A}	0.052	0.058	-11.5	116	0.00	5.08- 5.28
35	Chlordane {B}	0.040	0.034	15.0	88	0.00	5.76- 5.96
36	Chlordane {C}	0.125	0.120	4.0	100	0.00	6.74- 6.94
37	Chlordane {D}	0.207	0.197	4.8	99	0.00	6.97- 7.17
38	Chlordane {E}	0.034	0.029	14.7	88	0.00	8.51- 8.71

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143267.D 1PST4557.M Fri Feb 09 07:07:12 2018 RPT1

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICV4557
Lab FileID: 1G143277.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 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 : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	2.07- 2.27
28 L8	Toxaphene{A}	0.018	0.018	0.0	108	0.00	5.98- 6.18
29 L8	Toxaphene{B}	0.044	0.043	2.3	103	0.00	6.62- 6.82
30 L8	Toxaphene{C}	0.034	0.035	-2.9	110	0.00	6.80- 7.00
31 L8	Toxaphene{D}	0.025	0.030	-20.0	126	0.00	7.15- 7.35
32 L8	Toxaphene{E}	0.030	0.028	6.7	100	0.00	7.82- 8.02

***** Signal #2 *****

27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	2.36- 2.56
28 L8	Toxaphene{A}	0.019	0.017	10.5	93	0.00	7.49- 7.69
29 L8	Toxaphene{B}	0.020	0.020	0.0	102	0.00	8.39- 8.59
30 L8	Toxaphene{C}	0.037	0.036	2.7	102	0.00	8.56- 8.76
31 L8	Toxaphene{D}	0.021	0.020	4.8	104	0.00	9.00- 9.20
32 L8	Toxaphene{E}	0.016	0.016	0.0	103	0.00	9.84-10.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143267.D 1PST4557.M Fri Feb 09 07:07:13 2018 RPT1

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICV4557
Lab FileID: 1G143278.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD2B.CH
Acq On : 2-8-18 01:37:39 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 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 : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	2.14- 2.20
10	Alachlor	0.142	0.145	-2.1	114	0.00	4.56- 4.62

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	2.43- 2.49
10	Alachlor	0.138	0.139	-0.7	117	0.00	5.40- 5.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143267.D 1PST4557.M Fri Feb 09 07:07:14 2018 RPT1

10.9.4 10

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICV4557
Lab FileID: 1G143279.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD2B.CH
Acq On : 2-8-18 01:54:52 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 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 : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	2.14- 2.20
3	Hexachlorobenzene	1.116	1.134	-1.6	112	0.00	3.11- 3.17

***** Signal #2 *****

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	2.43- 2.49
3	Hexachlorobenzene	1.282	1.250	2.5	112	0.00	3.89- 3.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143267.D 1PST4557.M Fri Feb 09 07:07:15 2018 RPT1

10.9.5 10

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4558-ICV4557
Lab FileID: 1G143283.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	2.15- 2.21
2	SAB	Tetrachloro-m-xylene	0.885	0.825	6.8	89	0.00	2.76- 2.82
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC	1.106	1.108	-0.2	93	0.00	3.26- 3.32
5	MA	gamma-BHC	1.047	1.073	-2.5	95	0.00	3.57- 3.63
6	MA	Heptachlor	1.090	1.109	-1.7	96	0.00	4.09- 4.15
7	B	beta-BHC	0.522	0.422	19.2	75	0.00	3.64- 3.70
8	B	delta-BHC	0.867	0.774	10.7	83	0.00	3.84- 3.90
9	MB	Aldrin	0.996	0.981	1.5	93	0.00	4.44- 4.50
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide	1.017	0.821	19.3	79	0.00	5.18- 5.24
12	B	gamma-Chlordane	0.777	0.842	-8.4	93	0.00	5.35- 5.41
13	B	alpha-Chlordane	0.954	0.938	1.7	95	0.00	5.52- 5.58
14	A	Endosulfan I	0.935	0.894	4.4	93	0.00	5.71- 5.77
15	B	4,4'-DDE	0.896	0.858	4.2	98	0.00	5.62- 5.68
16	MA	Dieldrin	0.947	0.938	1.0	93	0.00	6.04- 6.10
17	MA	Endrin	0.869	0.876	-0.8	94	0.00	6.38- 6.44
18	A	4,4'-DDD	0.665	0.713	-7.2	100	0.00	6.47- 6.54
19	B	Endosulfan II	0.868	0.845	2.6	91	0.00	6.71- 6.77
20	MA	4,4'-DDT	0.613	0.678	-10.6	102	0.00	6.91- 6.97
21	B	Endrin Aldehyde	0.727	0.719	1.1	93	0.00	7.35- 7.41
22	B	Endosulfan Sulfate	0.679	0.702	-3.4	96	0.00	8.04- 8.10
23	A	Methoxychlor	0.344	0.404	-17.4	105	0.00	7.69- 7.75
24		Mirex	0.818	0.778	4.9	90	0.00	7.91- 7.97
25	B	Endrin Ketone	0.725	0.812	-12.0	105	0.00	8.50- 8.56
26	SA	Decachlorobiphenyl	0.723	0.828	-14.5	110	0.00	10.12-10.18
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	2.08- 2.28
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	2.08- 2.28
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4558-ICV4557
Lab FileID: 1G143283.D

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	2.44- 2.50
2	SAB	Tetrachloro-m-xylene	0.908	0.804	11.5	89	0.00	3.34- 3.40
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC	1.223	1.202	1.7	97	0.00	4.06- 4.12
5	MA	gamma-BHC	1.109	1.071	3.4	96	0.00	4.52- 4.58
6	MA	Heptachlor	1.040	1.042	-0.2	97	0.00	5.15- 5.21
7	B	beta-BHC	0.486	0.437	10.1	92	0.00	4.61- 4.67
8	B	delta-BHC	1.001	0.955	4.6	95	0.00	5.04- 5.10
9	MB	Aldrin	1.058	1.008	4.7	94	0.00	5.64- 5.70
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide	0.994	0.936	5.8	94	0.00	6.51- 6.57
12	B	gamma-Chlordane	0.962	0.918	4.6	95	0.00	6.81- 6.87
13	B	alpha-Chlordane	0.948	0.889	6.2	94	0.00	7.04- 7.10
14	A	Endosulfan I	0.916	0.967	-5.6	105	0.00	7.15- 7.21
15	B	4,4'-DDE	1.000	0.944	5.6	96	0.00	7.29- 7.35
16	MA	Dieldrin	1.017	0.967	4.9	95	0.00	7.61- 7.67
17	MA	Endrin	0.895	0.877	2.0	96	0.00	8.14- 8.20
18	A	4,4'-DDD	0.772	0.765	0.9	99	0.00	8.28- 8.34
19	B	Endosulfan II	0.890	0.839	5.7	94	0.00	8.50- 8.56
20	MA	4,4'-DDT	0.521	0.587	-12.7	103	0.00	8.83- 8.89
21	B	Endrin Aldehyde	0.701	0.656	6.4	94	0.00	9.08- 9.14
22	B	Endosulfan Sulfate	0.620	0.632	-1.9	99	0.00	9.53- 9.59
23	A	Methoxychlor	0.273	0.304	-11.4	103	0.00	9.95-10.01
24		Mirex	0.545	0.523	4.0	94	0.00	10.28-10.34
25	B	Endrin Ketone	0.705	0.800	-13.5	108	0.00	10.31-10.37
26	SA	Decachlorobiphenyl	0.655	0.661	-0.9	100	0.00	12.04-12.10
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	2.37- 2.57
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	2.37- 2.57
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1G143268.D 1PST4557.M Thu Feb 08 17:07:05 2018 RPT1

10.9.6 10

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-CC4557
Lab FileID: 1G144702.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 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 : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	2.13- 2.19
2 SAB	Tetrachloro-m-xylene	0.885	0.900	-1.7	109	0.00	2.74- 2.80
3	Hexachlorobenzene	1.116	1.476	-32.3#	142	0.00	3.09- 3.15
4 A	alpha-BHC	1.106	1.159	-4.8	109	0.00	3.24- 3.30
5 MA	gamma-BHC	1.047	1.081	-3.2	108	0.00	3.55- 3.61
6 MA	Heptachlor	1.090	1.176	-7.9	115	0.00	4.06- 4.12
7 B	beta-BHC	0.522	0.449	14.0	89	0.00	3.63- 3.69
8 B	delta-BHC	0.867	0.831	4.2	100	0.00	3.84- 3.90
9 MB	Aldrin	0.996	1.053	-5.7	112	0.00	4.42- 4.48
10	Alachlor	0.142	0.126	11.3	94	0.00	4.54- 4.60
11 B	Heptachlor Epoxide	1.017	1.048	-3.0	113	0.00	5.15- 5.21
12 B	gamma-Chlordane	0.777	0.892	-14.8	110	0.00	5.32- 5.38
13 B	alpha-Chlordane	0.954	0.980	-2.7	111	0.00	5.50- 5.56
14 A	Endosulfan I	0.935	1.096	-17.2	128	0.00	5.68- 5.74
15 B	4,4'-DDE	0.896	0.964	-7.6	124	0.00	5.61- 5.67
16 MA	Dieldrin	0.947	1.013	-7.0	113	0.00	6.01- 6.07
17 MA	Endrin	0.869	0.926	-6.6	112	0.00	6.35- 6.41
18 A	4,4'-DDD	0.665	0.551	17.1	87	0.02	6.48- 6.55
19 B	Endosulfan II	0.868	0.878	-1.2	107	0.00	6.68- 6.74
20 MA	4,4'-DDT	0.613	0.572	6.7	97	0.00	6.89- 6.95
21 B	Endrin Aldehyde	0.727	0.671	7.7	98	0.00	7.32- 7.38
22 B	Endosulfan Sulfate	0.679	0.654	3.7	100	0.00	8.01- 8.07
23 A	Methoxychlor	0.344	0.257	25.3#	75	0.02	7.70- 7.76
24	Mirex	0.818	0.775	5.3	101	0.00	7.87- 7.93
25 B	Endrin Ketone	0.725	0.791	-9.1	115	0.00	8.47- 8.53
26 SA	Decachlorobiphenyl	0.723	0.712	1.5	106	0.00	10.10-10.16

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	2.42- 2.48
2 SAB	Tetrachloro-m-xylene	0.908	0.907	0.1	106	0.00	3.32- 3.38
3	Hexachlorobenzene	1.282	1.229	4.1	103	0.00	3.88- 3.94
4 A	alpha-BHC	1.223	1.254	-2.5	107	0.00	4.03- 4.09
5 MA	gamma-BHC	1.109	1.111	-0.2	105	0.00	4.50- 4.56
6 MA	Heptachlor	1.040	1.130	-8.7	112	0.00	5.12- 5.18
7 B	beta-BHC	0.486	0.405	16.7	91	0.00	4.59- 4.65
8 B	delta-BHC	1.001	0.938	6.3	99	0.00	5.02- 5.08
9 MB	Aldrin	1.058	1.103	-4.3	109	0.00	5.61- 5.67
10	Alachlor	0.138	0.126	8.7	94	0.00	5.36- 5.42

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-CC4557
Lab FileID: 1G144702.D

11	B	Heptachlor Epoxide	0.994	0.978	1.6	104	0.00	6.47- 6.53
12	B	gamma-Chlordane	0.962	0.975	-1.4	107	0.00	6.77- 6.83
13	B	alpha-Chlordane	0.948	0.960	-1.3	108	0.00	7.00- 7.06
14	A	Endosulfan I	0.916	0.900	1.7	103	0.00	7.12- 7.18
15	B	4,4'-DDE	1.000	0.908	9.2	98	0.00	7.26- 7.32
16	MA	Dieldrin	1.017	1.024	-0.7	107	0.00	7.57- 7.63
17	MA	Endrin	0.895	0.913	-2.0	106	0.00	8.10- 8.16
18	A	4,4'-DDD	0.772	0.619	19.8	85	0.01	8.26- 8.32
19	B	Endosulfan II	0.890	0.846	4.9	101	0.00	8.46- 8.52
20	MA	4,4'-DDT	0.521	0.546	-4.8	102	0.00	8.80- 8.86
21	B	Endrin Aldehyde	0.701	0.651	7.1	100	0.00	9.04- 9.10
22	B	Endosulfan Sulfate	0.620	0.648	-4.5	108	0.00	9.50- 9.56
23	A	Methoxychlor	0.273	0.224	17.9	81	0.00	9.93- 9.99
24		Mirex	0.545	0.581	-6.6	111	0.00	10.25-10.31
25	B	Endrin Ketone	0.705	0.728	-3.3	105	0.00	10.29-10.35
26	SA	Decachlorobiphenyl	0.655	0.566	13.6	91	0.00	12.00-12.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143268.D 1PST4557.M Wed Mar 28 09:22:14 2018 RPT1

10.9.7
10

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-CC4557
Lab FileID: 1G144723.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	113	0.00	2.13- 2.19
2	SAB	Tetrachloro-m-xylene	0.885	0.955	-7.9	122	0.00	2.74- 2.80
3		Hexachlorobenzene	1.116	1.523	-36.5#	157	0.00	3.09- 3.15
4	A	alpha-BHC	1.106	1.313	-18.7	126	0.00	3.24- 3.30
5	MA	gamma-BHC	1.047	1.157	-10.5	119	0.00	3.55- 3.61
6	MA	Heptachlor	1.090	1.222	-12.1	125	0.00	4.06- 4.12
7	B	beta-BHC	0.522	0.475	9.0	105	-0.01	3.62- 3.68
8	B	delta-BHC	0.867	0.862	0.6	103	-0.01	3.83- 3.89
9	MB	Aldrin	0.996	1.219	-22.4#	135	0.00	4.42- 4.48
10		Alachlor	0.142	0.117	17.6	97	0.00	4.54- 4.60
11	B	Heptachlor Epoxide	1.017	1.124	-10.5	135	0.00	5.15- 5.21
12	B	gamma-Chlordane	0.777	1.144	-47.2#	148	0.00	5.32- 5.38
13	B	alpha-Chlordane	0.954	1.120	-17.4	134	0.00	5.50- 5.56
14	A	Endosulfan I	0.935	1.465	-56.7#	182	0.00	5.68- 5.74
15	B	4,4'-DDE	0.896	0.504	43.8#	65	0.03	5.63- 5.69
16	MA	Dieldrin	0.947	1.152	-21.6#	134	0.00	6.01- 6.07
17	MA	Endrin	0.869	0.992	-14.2	124	0.00	6.35- 6.41
18	A	4,4'-DDD	0.665	0.541	18.6	86	0.06	6.52- 6.59
19	B	Endosulfan II	0.868	1.049	-20.9#	135	0.00	6.69- 6.75
20	MA	4,4'-DDT	0.613	0.591	3.6	98	0.03	6.91- 6.97
21	B	Endrin Aldehyde	0.727	0.783	-7.7	120	0.00	7.32- 7.38
22	B	Endosulfan Sulfate	0.679	0.783	-15.3	125	0.00	8.01- 8.07
23	A	Methoxychlor	0.344	0.259	24.7#	77	0.03	7.71- 7.77
24		Mirex	0.818	0.886	-8.3	129	0.00	7.87- 7.93
25	B	Endrin Ketone	0.725	0.953	-31.4#	144	0.00	8.47- 8.53
26	SA	Decachlorobiphenyl	0.723	0.785	-8.6	128	0.00	10.10-10.16

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	2.42- 2.48
2	SAB	Tetrachloro-m-xylene	0.908	0.951	-4.7	117	0.00	3.31- 3.37
3		Hexachlorobenzene	1.282	1.258	1.9	112	0.00	3.87- 3.93
4	A	alpha-BHC	1.223	1.317	-7.7	116	0.00	4.03- 4.09
5	MA	gamma-BHC	1.109	1.206	-8.7	118	0.00	4.49- 4.55
6	MA	Heptachlor	1.040	1.210	-16.3	127	0.00	5.12- 5.18
7	B	beta-BHC	0.486	0.512	-5.3	119	0.00	4.59- 4.65
8	B	delta-BHC	1.001	0.988	1.3	107	0.00	5.02- 5.08
9	MB	Aldrin	1.058	1.187	-12.2	124	0.00	5.61- 5.67

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-CC4557
Lab FileID: 1G144723.D

10		Alachlor	0.138	0.145	-5.1	123	0.00	5.37- 5.43
11	B	Heptachlor Epoxide	0.994	1.073	-7.9	120	0.00	6.47- 6.53
12	B	gamma-Chlordane	0.962	1.070	-11.2	124	0.00	6.77- 6.83
13	B	alpha-Chlordane	0.948	1.035	-9.2	124	0.00	7.00- 7.06
14	A	Endosulfan I	0.916	0.985	-7.5	121	0.00	7.12- 7.18
15	B	4,4'-DDE	1.000	0.905	9.5	104	0.02	7.27- 7.33
16	MA	Dieldrin	1.017	1.116	-9.7	122	0.00	7.57- 7.63
17	MA	Endrin	0.895	0.923	-3.1	113	0.00	8.10- 8.16
18	A	4,4'-DDD	0.772	0.643	16.7	92	0.03	8.28- 8.34
19	B	Endosulfan II	0.890	0.921	-3.5	117	0.00	8.46- 8.52
20	MA	4,4'-DDT	0.521	0.549	-5.4	100	0.01	8.80- 8.86
21	B	Endrin Aldehyde	0.701	0.748	-6.7	121	0.00	9.04- 9.10
22	B	Endosulfan Sulfate	0.620	0.735	-18.5	127	0.00	9.50- 9.56
23	A	Methoxychlor	0.273	0.227	16.8	82	0.01	9.94-10.00
24		Mirex	0.545	0.628	-15.2	131	0.00	10.25-10.31
25	B	Endrin Ketone	0.705	0.837	-18.7	123	0.00	10.29-10.35
26	SA	Decachlorobiphenyl	0.655	0.565	13.7	95	0.00	12.00-12.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G144658.D 1PST4557.M Wed Mar 28 09:26:29 2018 RPT1

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

Response Factor Report gcef

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration

Calibration Files
3000=EF180978.D 2000=EF180977.D 1000=EF180976.D 500 =EF180975.D
250 =EF180974.D 50 =EF180973.D

	Compound	3000	2000	1000	500	250	50	Avg	%RSD
1) S	Tetrachloro-m-xylen	1.177	1.162	1.110	1.102	1.103	1.282	1.156 E4	6.02
2)	AR1221-A			1.261				1.261 E2	0.00
3)	AR1221-B			1.646				1.646 E2	0.00
4)	AR1221-C			5.623				5.623 E2	0.00
5)	AR1221-D			5.934				5.934 E1	0.00
6)	AR1221-E			1.207				1.207 E2	0.00
7)	AR1232-A			4.044				4.044 E2	0.00
8)	AR1232-B			2.644				2.644 E2	0.00
9)	AR1232-C			5.784				5.784 E2	0.00
10)	AR1232-D			2.215				2.215 E2	0.00
11)	AR1232-E			2.064				2.064 E2	0.00
12)	AR1242-A			4.679				4.679 E2	0.00
13)	AR1242-B			1.037				1.037 E3	0.00
14)	AR1242-C			4.037				4.037 E2	0.00
15)	AR1242-D			4.226				4.226 E2	0.00
16)	AR1242-E			5.053				5.053 E2	0.00
17)	AR1248-A			2.458				2.458 E2	0.00
18)	AR1248-B			6.987				6.987 E2	0.00
19)	AR1248-C			6.899				6.899 E2	0.00
20)	AR1248-D			6.247				6.247 E2	0.00
21)	AR1248-E			5.382				5.382 E2	0.00
22)	AR1248-F			7.076				7.076 E2	0.00
23)	AR1248-G			5.006				5.006 E2	0.00
24)	AR1254-A			5.570				5.570 E2	0.00
25)	AR1254-B			7.121				7.121 E2	0.00
26)	AR1254-C			5.215				5.215 E2	0.00
27)	AR1254-D			9.701				9.701 E2	0.00
28)	AR1254-E			8.638				8.638 E2	0.00
29)	AR1254-F			7.208				7.208 E2	0.00
30)	AR1254-G			9.509				9.509 E2	0.00
31)	AR1262-A			7.553				7.553 E2	0.00
32)	AR1262-B			1.090				1.090 E3	0.00
33)	AR1262-C			8.378				8.378 E2	0.00
34)	AR1262-D			2.000				2.000 E3	0.00
35)	AR1262-E			2.424				2.424 E3	0.00
36)	AR1268-A			2.189				2.189 E3	0.00
37)	AR1268-B			2.278				2.278 E3	0.00
38)	AR1268-C			1.828				1.828 E3	0.00
39)	AR1268-D			7.984				7.984 E2	0.00
40)	AR1268-E			4.915				4.915 E3	0.00
41)	AR1016-A	2.789	2.910	3.090	3.242	3.309	3.669	3.168 E2	9.90
42)	AR1016-B	4.573	4.840	5.276	5.702	5.915	6.779	5.514 E2	14.49
43)	AR1016-C	1.047	1.105	1.190	1.267	1.295	1.462	1.228 E3	12.10
44)	AR1016-D	4.047	4.279	4.638	4.943	5.028	5.633	4.761 E2	11.96
45)	AR1016-E	4.239	4.443	4.745	5.044	5.148	6.035	4.942 E2	12.89
46)	AR1260-A	1.169	1.224	1.320	1.405	1.434	1.617	1.362 E3	11.85
47)	AR1260-B	5.506	5.760	6.360	6.874	7.049	7.894	6.574 E2	13.44

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

48)		AR1260-C	5.323	5.556	5.982	6.370	6.495	7.165	6.148	E2	10.94
49)		AR1260-D	1.388	1.452	1.529	1.636	1.640	1.759	1.567	E3	8.73
50)		AR1260-E	1.422	1.470	1.528	1.576	1.567	1.697	1.543	E3	6.19
51)	S	Decachlorobiphenyl	1.446	1.526	1.631	1.747	1.832	2.088	1.712	E4	13.54

Signal #2

1)	S	Tetrachloro-m-xylen	1.598	1.596	1.542	1.514	1.530	1.562	1.557	E4	2.23
2)		AR1221-A			1.609				1.609	E2	0.00
3)		AR1221-B			2.344				2.344	E2	0.00
4)		AR1221-C			6.182				6.182	E2	0.00
5)		AR1221-D			1.321				1.321	E2	0.00
6)		AR1221-E			1.275				1.275	E2	0.00
7)		AR1232-A			4.834				4.834	E2	0.00
8)		AR1232-B			3.750				3.750	E2	0.00
9)		AR1232-C			7.681				7.681	E2	0.00
10)		AR1232-D			3.317				3.317	E2	0.00
11)		AR1232-E			2.122				2.122	E2	0.00
12)		AR1242-A			6.810				6.810	E2	0.00
13)		AR1242-B			1.342				1.342	E3	0.00
14)		AR1242-C			5.864				5.864	E2	0.00
15)		AR1242-D			4.146				4.146	E2	0.00
16)		AR1242-E			5.511				5.511	E2	0.00
17)		AR1248-A			3.481				3.481	E2	0.00
18)		AR1248-B			8.815				8.815	E2	0.00
19)		AR1248-C			5.045				5.045	E2	0.00
20)		AR1248-D			6.091				6.091	E2	0.00
21)		AR1248-E			6.759				6.759	E2	0.00
22)		AR1248-F			8.819				8.819	E2	0.00
23)		AR1248-G			7.666				7.666	E2	0.00
24)		AR1254-A			7.793				7.793	E2	0.00
25)		AR1254-B			8.229				8.229	E2	0.00
26)		AR1254-C			6.027				6.027	E2	0.00
27)		AR1254-D			1.271				1.271	E3	0.00
28)		AR1254-E			1.022				1.022	E3	0.00
29)		AR1254-F			1.005				1.005	E3	0.00
30)		AR1254-G			1.192				1.192	E3	0.00
31)		AR1262-A			8.906				8.906	E2	0.00
32)		AR1262-B			1.222				1.222	E3	0.00
33)		AR1262-C			1.046				1.046	E3	0.00
34)		AR1262-D			2.191				2.191	E3	0.00
35)		AR1262-E			2.884				2.884	E3	0.00
36)		AR1268-A			2.553				2.553	E3	0.00
37)		AR1268-B			2.736				2.736	E3	0.00
38)		AR1268-C			2.210				2.210	E3	0.00
39)		AR1268-D			9.624				9.624	E2	0.00
40)		AR1268-E			6.029				6.029	E3	0.00
41)		AR1016-A	3.329	3.545	3.912	4.250	4.407	5.144	4.098	E2	15.99
42)		AR1016-B	0.642	0.685	0.759	0.834	0.873	1.039	0.805	E3	17.88
43)		AR1016-C	1.281	1.364	1.514	1.671	1.756	2.052	1.606	E3	17.56
44)		AR1016-D	5.656	6.000	6.618	7.210	7.447	8.278	6.868	E2	14.15
45)		AR1016-E	3.933	4.199	4.615	4.979	5.154	5.925	4.801	E2	14.93
46)		AR1260-A	1.494	1.567	1.696	1.822	1.894	2.220	1.782	E3	14.68
47)		AR1260-B	0.646	0.681	0.755	0.826	0.875	1.052	0.806	E3	18.39
48)		AR1260-C	0.720	0.754	0.813	0.880	0.912	1.084	0.861	E3	15.24
49)		AR1260-D	1.538	1.600	1.713	1.844	1.901	2.163	1.793	E3	12.71
50)		AR1260-E	1.692	1.748	1.839	1.905	1.928	2.082	1.866	E3	7.47
51)	S	Decachlorobiphenyl	1.751	1.851	1.957	2.118	2.261	2.658	2.099	E4	15.68

(#) = Out of Range

Initial Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

PCB6195.M Tue Mar 20 15:30:12 2018 GCEF

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180983.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 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	11.561	12.223 E3	-5.7	110	0.00	3.06- 3.31
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	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A	316.814	309.406	2.3	100	0.00	3.62- 3.80

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180983.D

42		AR1016-B	551.418	561.120		-1.8	106	0.00	4.19- 4.31
43		AR1016-C	1.228	1.257	E3	-2.4	106	0.00	5.00- 5.07
44		AR1016-D	476.117	489.003		-2.7	105	0.00	5.25- 5.31
45		AR1016-E	494.247	493.626		0.1	104	0.00	5.99- 6.05
46		AR1260-A	1.362	1.285	E3	5.7	97	0.00	9.58- 9.72
47		AR1260-B	657.364	668.843		-1.7	105	0.00	9.83- 9.97
48		AR1260-C	614.837	628.445		-2.2	105	0.00	10.36-10.50
49		AR1260-D	1.567	1.614	E3	-3.0	106	0.00	11.04-11.17
50		AR1260-E	1.543	1.585	E3	-2.7	104	0.00	11.66-11.79
51	S	Decachlorobiphenyl	17.116	16.367	E3	4.4	100	0.00	14.11-14.25
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	17.137	E3	-10.1	111	0.00	4.09- 4.31
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		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	398.131		2.8	102	0.00	5.09- 5.22
42		AR1016-B	805.373	806.851		-0.2	106	0.00	5.95- 6.01
43		AR1016-C	1.606	1.605	E3	0.1	106	0.00	6.89- 6.95
44		AR1016-D	686.807	701.220		-2.1	106	0.00	7.19- 7.25
45		AR1016-E	480.106	477.766		0.5	104	0.00	8.20- 8.27
46		AR1260-A	1.782	1.664	E3	6.6	98	0.00	12.28-12.40
47		AR1260-B	805.827	790.890		1.9	105	0.00	12.48-12.60

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180983.D

48		AR1260-C	860.698	844.364		1.9	104	0.00	13.16-13.29
49		AR1260-D	1.793	1.815	E3	-1.2	106	0.00	13.72-13.85
50		AR1260-E	1.866	1.929	E3	-3.4	105	0.00	14.58-14.70
51	S	Decachlorobiphenyl	20.993	19.899	E3	5.2	102	0.00	17.26-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF180976.D PCB6195.M Tue Mar 20 16:01:41 2018 GCEF

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180984.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 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	11.561	11.556 E3	0.0	104	0.00	3.06- 3.31
2	AR1221-A	126.056	122.976	2.4	98	0.00	2.46- 2.66
3	AR1221-B	164.608	145.221	11.8	88	0.00	3.34- 3.54
4	AR1221-C	562.318	500.891	10.9	89	0.00	3.60- 3.80
5	AR1221-D	59.345	48.286	18.6	81	0.00	4.15- 4.35
6	AR1221-E	120.744	107.610	10.9	89	0.00	4.46- 4.66
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	556.970	543.387	2.4	98	0.00	6.65- 6.85
25	AR1254-B	712.084	700.171	1.7	98	0.00	7.17- 7.37
26	AR1254-C	521.535	512.333	1.8	98	0.00	7.73- 7.93
27	AR1254-D	970.110	956.789	1.4	99	0.00	7.98- 8.18
28	AR1254-E	863.799	845.674	2.1	98	0.00	8.58- 8.78
29	AR1254-F	720.837	709.799	1.5	98	0.00	8.96- 9.16
30	AR1254-G	950.863	925.780	2.6	97	0.00	9.55- 9.75
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

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Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180984.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	17.116	13.732 E3	19.8	84	0.00	14.11-14.25	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	14.656 E3	5.9	95	0.00	4.09- 4.31	
2		AR1221-A	160.898	162.899	-1.2	101	0.00	3.33- 3.53	
3		AR1221-B	234.434	213.027	9.1	91	0.00	4.66- 4.86	
4		AR1221-C	618.180	558.957	9.6	90	0.00	5.05- 5.25	
5		AR1221-D	132.079	112.348	14.9	85	0.00	5.87- 6.07	
6		AR1221-E	127.522	123.741	3.0	97	0.00	6.00- 6.20	
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	779.263	770.234	1.2	99	0.00	9.06- 9.26	
25		AR1254-B	822.851	812.435	1.3	99	0.00	9.47- 9.67	
26		AR1254-C	602.713	594.810	1.3	99	0.00	10.26-10.46	
27		AR1254-D	1.271	1.258 E3	1.0	99	0.00	10.52-10.72	
28		AR1254-E	1.022	1.015 E3	0.7	99	0.00	11.02-11.22	
29		AR1254-F	1.005	0.965 E3	4.0	96	0.00	11.83-12.03	
30		AR1254-G	1.192	1.176 E3	1.3	99	0.00	12.25-12.45	
31		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180984.D

48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	20.993	16.858 E3	19.7	86	0.00	17.26-17.38	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180976.D PCB6195.M Tue Mar 20 16:01:43 2018 GCEF

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Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180985.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 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	11.561	13.112 E3	-13.4	118	0.00	3.06- 3.31
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A	404.407	395.321	2.2	98	0.00	3.60- 3.80
8	AR1232-B	264.446	260.887	1.3	99	0.00	4.15- 4.35
9	AR1232-C	578.429	568.466	1.7	98	0.00	4.94- 5.14
10	AR1232-D	221.540	218.232	1.5	99	0.00	5.18- 5.38
11	AR1232-E	206.412	203.538	1.4	99	0.00	5.92- 6.12
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	AR1262-A	755.327	758.700	-0.4	100	0.00	8.95- 9.15
32	AR1262-B	1.090	1.095 E3	-0.5	100	0.00	9.80-10.00
33	AR1262-C	837.822	844.948	-0.9	101	0.00	10.32-10.52
34	AR1262-D	2.000	2.015 E3	-0.8	101	0.00	11.00-11.20
35	AR1262-E	2.424	2.428 E3	-0.2	100	0.00	11.71-11.91
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180985.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	17.116	16.840	E3	1.6	103	0.00	14.11-14.25
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	17.585	E3	-12.9	114	0.00	4.09- 4.31
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A	483.417	477.984		1.1	99	0.00	5.05- 5.25
8		AR1232-B	375.015	371.666		0.9	99	0.00	5.88- 6.08
9		AR1232-C	768.128	758.875		1.2	99	0.00	6.82- 7.02
10		AR1232-D	331.656	328.461		1.0	99	0.00	7.12- 7.32
11		AR1232-E	212.228	210.348		0.9	99	0.00	8.13- 8.33
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		AR1262-A	890.638	891.501		-0.1	100	0.00	11.41-11.61
32		AR1262-B	1.222	1.228	E3	-0.5	101	0.00	12.44-12.64
33		AR1262-C	1.046	1.056	E3	-1.0	101	0.00	13.12-13.32
34		AR1262-D	2.191	2.206	E3	-0.7	101	0.00	13.68-13.88
35		AR1262-E	2.884	2.913	E3	-1.0	101	0.00	14.51-14.71
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180985.D

48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	20.993	20.646 E3	1.7	105	0.00	17.26-17.38	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180976.D PCB6195.M Tue Mar 20 16:01:45 2018 GCEF

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Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180986.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD1A.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD2B.CH
Acq On : 19 Mar 2018 10:49 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 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	11.561	12.784	E3	-10.6	115	0.00	3.06- 3.31
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	467.930	448.898		4.1	96	0.00	4.15- 4.35
13	AR1242-B	1.037	0.997	E3	3.9	96	0.00	4.94- 5.14
14	AR1242-C	403.731	389.150		3.6	96	0.00	5.18- 5.38
15	AR1242-D	422.603	398.757		5.6	94	0.00	5.92- 6.12
16	AR1242-E	505.265	470.247		6.9	93	0.00	6.81- 7.01
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	AR1262-A		----------NA----------					
32	AR1262-B		----------NA----------					
33	AR1262-C		----------NA----------					
34	AR1262-D		----------NA----------					
35	AR1262-E		----------NA----------					
36	AR1268-A	2.189	2.123	E3	3.0	97	0.00	11.71-11.91
37	AR1268-B	2.278	2.224	E3	2.4	98	0.00	11.79-11.99
38	AR1268-C	1.828	1.768	E3	3.3	97	0.00	12.23-12.43
39	AR1268-D	798.448	777.585		2.6	97	0.00	13.01-13.21
40	AR1268-E	4.915	4.748	E3	3.4	97	0.00	13.65-13.85
41	AR1016-A		----------NA----------					

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180986.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	17.116	42.605 E3	-148.9#	261#	0.00	14.11-14.25	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	18.054 E3	-16.0	117	0.00	4.09- 4.31	
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	680.960	660.002	3.1	97	0.00	5.88- 6.08	
13		AR1242-B	1.342	1.290 E3	3.9	96	0.00	6.82- 7.02	
14		AR1242-C	586.418	564.055	3.8	96	0.00	7.12- 7.32	
15		AR1242-D	414.642	390.799	5.8	94	0.00	8.13- 8.33	
16		AR1242-E	551.061	514.728	6.6	93	0.00	9.07- 9.27	
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		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A	2.553	2.491 E3	2.4	98	0.00	14.51-14.71	
37		AR1268-B	2.736	2.688 E3	1.8	98	0.00	14.61-14.81	
38		AR1268-C	2.210	2.146 E3	2.9	97	0.00	15.21-15.41	
39		AR1268-D	962.393	946.845	1.6	98	0.00	15.85-16.05	
40		AR1268-E	6.029	5.869 E3	2.7	97	0.00	16.61-16.81	
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180986.D

48		AR1260-C			----------NA----------			
49		AR1260-D			----------NA----------			
50		AR1260-E			----------NA----------			
51	S	Decachlorobiphenyl	20.993	51.321 E3	-144.5#	262#	-0.01	17.25-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180976.D PCB6195.M Tue Mar 20 16:01:47 2018 GCEF

10.9.13
10

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180987.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 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	11.561	12.439 E3	-7.6	112	0.00	3.06- 3.31
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	245.800	227.637	7.4	93	0.00	4.15- 4.35
18	AR1248-B	698.707	679.849	2.7	97	0.00	4.94- 5.14
19	AR1248-C	689.945	678.423	1.7	98	0.00	5.53- 5.73
20	AR1248-D	624.750	627.783	-0.5	100	0.00	5.92- 6.12
21	AR1248-E	538.162	535.719	0.5	100	0.00	6.08- 6.28
22	AR1248-F	707.574	757.058	-7.0	107	0.00	6.80- 7.00
23	AR1248-G	500.560	526.907	-5.3	105	0.00	7.18- 7.38
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	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

10.9.14
10

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180987.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	17.116	17.603	E3 -2.8	108	0.00	14.11-14.25	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	18.425	E3 -18.3	119	0.00	4.09- 4.31	
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	348.145	321.735	7.6	92	0.00	5.87- 6.07	
18		AR1248-B	881.505	864.093	2.0	98	0.00	6.82- 7.02	
19		AR1248-C	504.455	503.158	0.3	100	0.00	7.54- 7.74	
20		AR1248-D	609.081	611.724	-0.4	100	0.00	8.13- 8.33	
21		AR1248-E	675.931	693.518	-2.6	103	0.00	8.40- 8.60	
22		AR1248-F	881.937	919.702	-4.3	104	0.00	9.06- 9.26	
23		AR1248-G	766.598	811.006	-5.8	106	0.00	9.59- 9.79	
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		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180987.D

48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	20.993	21.508	E3	-2.5	110	-0.01	17.25-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180976.D PCB6195.M Tue Mar 20 16:01:49 2018 GCEF

10.9.14 10

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181216.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 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	11.561	12.396 E3	-7.2	112	0.00	3.09- 3.34
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		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	316.814	309.908	2.2	100	0.00	3.65- 3.84

10.9.15 10

Continuing Calibration Summary

Job Number: JC62881 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181216.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	579.392		-5.1	110	0.00	4.21- 4.34
43		AR1016-C	1.228	1.244	E3	-1.3	105	0.00	5.04- 5.11
44		AR1016-D	476.117	513.879		-7.9	111	0.00	5.29- 5.35
45		AR1016-E	494.247	529.020		-7.0	111	0.01	6.02- 6.08
46		AR1260-A	1.362	1.421	E3	-4.3	108	0.01	9.60- 9.74
47		AR1260-B	657.364	781.937		-19.0	123	0.01	9.85- 9.99
48		AR1260-C	614.837	616.762		-0.3	103	0.01	10.38-10.51
49		AR1260-D	1.567	1.764	E3	-12.6	115	0.00	11.07-11.19
50		AR1260-E	1.543	1.734	E3	-12.4	113	0.00	11.68-11.82
51	S	Decachlorobiphenyl	17.116	18.499	E3	-8.1	113	0.00	14.13-14.26
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.772	E3	-7.7	109	0.00	4.11- 4.33
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		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	422.462		-3.1	108	0.00	5.11- 5.24
42		AR1016-B	805.373	753.075		6.5	99	0.01	5.96- 6.02
43		AR1016-C	1.606	1.602	E3	0.2	106	0.01	6.91- 6.97
44		AR1016-D	686.807	723.803		-5.4	109	0.01	7.21- 7.27
45		AR1016-E	480.106	484.265		-0.9	105	0.01	8.21- 8.28
46		AR1260-A	1.782	1.834	E3	-2.9	108	0.00	12.29-12.41
47		AR1260-B	805.827	819.985		-1.8	109	0.01	12.48-12.61

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181216.D

48		AR1260-C	860.698	876.582		-1.8	108	0.01	13.17-13.29
49		AR1260-D	1.793	1.829	E3	-2.0	107	0.00	13.73-13.85
50		AR1260-E	1.866	1.971	E3	-5.6	107	0.00	14.58-14.71
51	S	Decachlorobiphenyl	20.993	21.137	E3	-0.7	108	0.00	17.26-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF181197.D PCB6195.M Thu Mar 29 08:41:08 2018 GCEF

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181227.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 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	11.561	12.026 E3	-4.0	109	0.01	3.09- 3.34
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		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	316.814	302.767	4.4	93	0.02	3.67- 3.85

10.9.16 10

Continuing Calibration Summary

Job Number: JC62881 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181227.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	608.697		-10.4	107	0.02	4.22- 4.34
43		AR1016-C	1.228	1.227	E3	0.1	97	0.03	5.07- 5.14
44		AR1016-D	476.117	543.958		-14.2	110	0.02	5.30- 5.36
45		AR1016-E	494.247	553.285		-11.9	110	0.02	6.03- 6.09
46		AR1260-A	1.362	1.511	E3	-10.9	108	0.02	9.62- 9.75
47		AR1260-B	657.364	784.692		-19.4	114	0.02	9.86- 9.99
48		AR1260-C	614.837	669.192		-8.8	105	0.02	10.38-10.52
49		AR1260-D	1.567	1.867	E3	-19.1	114	0.02	11.08-11.20
50		AR1260-E	1.543	1.787	E3	-15.8	113	0.02	11.69-11.83
51	S	Decachlorobiphenyl	17.116	19.910	E3	-16.3	114	0.01	14.13-14.27
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.239	E3	-4.3	107	0.01	4.11- 4.33
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		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	436.171		-6.4	103	0.02	5.12- 5.24
42		AR1016-B	805.373	827.971		-2.8	99	0.02	5.97- 6.03
43		AR1016-C	1.606	1.722	E3	-7.2	103	0.02	6.92- 6.98
44		AR1016-D	686.807	774.169		-12.7	107	0.02	7.21- 7.27
45		AR1016-E	480.106	523.924		-9.1	105	0.02	8.22- 8.29
46		AR1260-A	1.782	1.979	E3	-11.1	109	0.02	12.29-12.42
47		AR1260-B	805.827	910.751		-13.0	110	0.02	12.49-12.61

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181227.D

48		AR1260-C	860.698	956.102		-11.1	109	0.02	13.17-13.30
49		AR1260-D	1.793	1.991	E3	-11.0	108	0.02	13.73-13.86
50		AR1260-E	1.866	2.111	E3	-13.1	111	0.02	14.59-14.72
51	S	Decachlorobiphenyl	20.993	24.005	E3	-14.3	113	0.01	17.26-17.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180975.D PCB6195.M Thu Mar 29 09:30:17 2018 GCEF

10.9.16
10

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181238.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 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	11.561	12.564 E3	-8.7	113	0.01	3.09- 3.34
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	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A	316.814	313.657	1.0	102	0.01	3.66- 3.84

10.9.17 10

Continuing Calibration Summary

Job Number: JC62881 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181238.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	590.833		-7.1	112	0.01	4.22- 4.34
43		AR1016-C	1.228	1.252	E3	-2.0	105	0.01	5.05- 5.12
44		AR1016-D	476.117	521.357		-9.5	112	0.01	5.29- 5.35
45		AR1016-E	494.247	542.982		-9.9	114	0.02	6.02- 6.08
46		AR1260-A	1.362	1.452	E3	-6.6	110	0.01	9.61- 9.74
47		AR1260-B	657.364	731.480		-11.3	115	0.01	9.85- 9.99
48		AR1260-C	614.837	626.539		-1.9	105	0.01	10.38-10.52
49		AR1260-D	1.567	1.820	E3	-16.1	119	0.01	11.07-11.19
50		AR1260-E	1.543	1.762	E3	-14.2	115	0.01	11.68-11.82
51	S	Decachlorobiphenyl	17.116	19.191	E3	-12.1	118	0.00	14.13-14.26
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.867	E3	-8.3	109	0.01	4.11- 4.33
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		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	418.734		-2.2	107	0.01	5.11- 5.24
42		AR1016-B	805.373	765.108		5.0	101	0.01	5.96- 6.02
43		AR1016-C	1.606	1.626	E3	-1.2	107	0.01	6.91- 6.97
44		AR1016-D	686.807	736.209		-7.2	111	0.01	7.21- 7.27
45		AR1016-E	480.106	491.293		-2.3	106	0.01	8.21- 8.28
46		AR1260-A	1.782	1.898	E3	-6.5	112	0.00	12.29-12.41
47		AR1260-B	805.827	851.690		-5.7	113	0.01	12.48-12.61

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181238.D

48		AR1260-C	860.698	913.462		-6.1	112	0.01	13.17-13.29
49		AR1260-D	1.793	1.931	E3	-7.7	113	0.00	13.73-13.85
50		AR1260-E	1.866	2.092	E3	-12.1	114	0.01	14.59-14.71
51	S	Decachlorobiphenyl	20.993	22.938	E3	-9.3	117	0.00	17.26-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF181197.D PCB6195.M Thu Mar 29 09:31:07 2018 GCEF

10.9.17
10

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181249.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 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	11.561	12.312 E3	-6.5	112	0.01	3.09- 3.34
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		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	316.814	309.531	2.3	95	0.02	3.67- 3.85

10.9.18 10

Continuing Calibration Summary

Job Number: JC62881 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181249.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	614.109		-11.4	108	0.02	4.22- 4.34
43		AR1016-C	1.228	1.240	E3	-1.0	98	0.03	5.07- 5.14
44		AR1016-D	476.117	538.161		-13.0	109	0.02	5.30- 5.36
45		AR1016-E	494.247	534.797		-8.2	106	0.02	6.03- 6.09
46		AR1260-A	1.362	1.480	E3	-8.7	105	0.02	9.61- 9.75
47		AR1260-B	657.364	759.996		-15.6	111	0.02	9.86- 9.99
48		AR1260-C	614.837	661.781		-7.6	104	0.02	10.38-10.52
49		AR1260-D	1.567	1.808	E3	-15.4	110	0.02	11.08-11.20
50		AR1260-E	1.543	1.727	E3	-11.9	110	0.02	11.69-11.83
51	S	Decachlorobiphenyl	17.116	19.707	E3	-15.1	113	0.01	14.13-14.27
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.433	E3	-5.5	109	0.01	4.11- 4.33
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		AR1262-A	----------NA----------						
32		AR1262-B	----------NA----------						
33		AR1262-C	----------NA----------						
34		AR1262-D	----------NA----------						
35		AR1262-E	----------NA----------						
36		AR1268-A	----------NA----------						
37		AR1268-B	----------NA----------						
38		AR1268-C	----------NA----------						
39		AR1268-D	----------NA----------						
40		AR1268-E	----------NA----------						
41		AR1016-A	409.781	443.795		-8.3	104	0.01	5.12- 5.24
42		AR1016-B	805.373	826.899		-2.7	99	0.02	5.97- 6.03
43		AR1016-C	1.606	1.725	E3	-7.4	103	0.02	6.92- 6.98
44		AR1016-D	686.807	771.143		-12.3	107	0.02	7.21- 7.27
45		AR1016-E	480.106	515.023		-7.3	103	0.02	8.22- 8.29
46		AR1260-A	1.782	1.950	E3	-9.4	107	0.02	12.30-12.42
47		AR1260-B	805.827	893.892		-10.9	108	0.02	12.49-12.61

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181249.D

48		AR1260-C	860.698	936.871		-8.9	106	0.02	13.17-13.30
49		AR1260-D	1.793	1.957	E3	-9.1	106	0.02	13.73-13.86
50		AR1260-E	1.866	2.065	E3	-10.7	108	0.01	14.59-14.71
51	S	Decachlorobiphenyl	20.993	24.096	E3	-14.8	114	0.01	17.26-17.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180975.D PCB6195.M Thu Mar 29 09:30:19 2018 GCEF

10.9.18
10

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181260.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD1A.CH Vial: 70
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD2B.CH
Acq On : 29 Mar 2018 11:19 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 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	11.561	12.385 E3	-7.1	112	0.02	3.10- 3.35
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	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A	316.814	309.509	2.3	100	0.02	3.67- 3.85

10.9.19 10

Continuing Calibration Summary

Job Number: JC62881 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181260.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	576.147		-4.5	109	0.02	4.22- 4.35
43		AR1016-C	1.228	1.245	E3	-1.4	105	0.02	5.06- 5.13
44		AR1016-D	476.117	511.271		-7.4	110	0.02	5.30- 5.36
45		AR1016-E	494.247	523.041		-5.8	110	0.02	6.03- 6.09
46		AR1260-A	1.362	1.441	E3	-5.8	109	0.02	9.62- 9.76
47		AR1260-B	657.364	721.704		-9.8	113	0.02	9.86-10.00
48		AR1260-C	614.837	646.179		-5.1	108	0.03	10.39-10.53
49		AR1260-D	1.567	1.778	E3	-13.5	116	0.02	11.08-11.20
50		AR1260-E	1.543	1.712	E3	-11.0	112	0.02	11.69-11.83
51	S	Decachlorobiphenyl	17.116	18.917	E3	-10.5	116	0.02	14.14-14.28
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.855	E3	-8.3	109	0.02	4.12- 4.34
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		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	425.668		-3.9	109	0.02	5.12- 5.25
42		AR1016-B	805.373	757.543		5.9	100	0.02	5.97- 6.03
43		AR1016-C	1.606	1.616	E3	-0.6	107	0.02	6.92- 6.98
44		AR1016-D	686.807	724.345		-5.5	109	0.02	7.22- 7.28
45		AR1016-E	480.106	497.113		-3.5	108	0.02	8.23- 8.30
46		AR1260-A	1.782	1.870	E3	-4.9	110	0.03	12.30-12.43
47		AR1260-B	805.827	841.007		-4.4	111	0.03	12.50-12.62

Continuing Calibration Summary

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181260.D

48		AR1260-C	860.698	899.675		-4.5	111	0.03	13.18-13.31
49		AR1260-D	1.793	1.903	E3	-6.1	111	0.03	13.74-13.87
50		AR1260-E	1.866	2.046	E3	-9.6	111	0.03	14.60-14.73
51	S	Decachlorobiphenyl	20.993	22.625	E3	-7.8	116	0.03	17.28-17.40

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF181197.D PCB6195.M Thu Mar 29 12:06:14 2018 GCEF

10.9.19
10

GC/LC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144727.D\ECD1A.CH Vial: 45
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144727.D\ECD2B.CH
Acq On : 3-28-18 08:02:01 AM Operator: christp
Sample : jc62881-1 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	494.4E6	112.2E6	50.000	50.000
27)	I 1-bromo-2-nitrob	2.16	2.45	494.4E6	112.2E6	50.000	50.000
33)	I 1-bromo-2-nitrob	2.16	2.45	494.4E6	112.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.77	3.34	251.5E6	56368738	28.738	27.667
	Spiked Amount 40.000	Range 30 - 150		Recovery =		71.84%	69.17%
26)	SA Decachlorobiphen	10.12	12.02	203.7E6	33969958	28.499	23.092
	Spiked Amount 40.000			Recovery =		71.25%	57.73%
	Target Compounds						

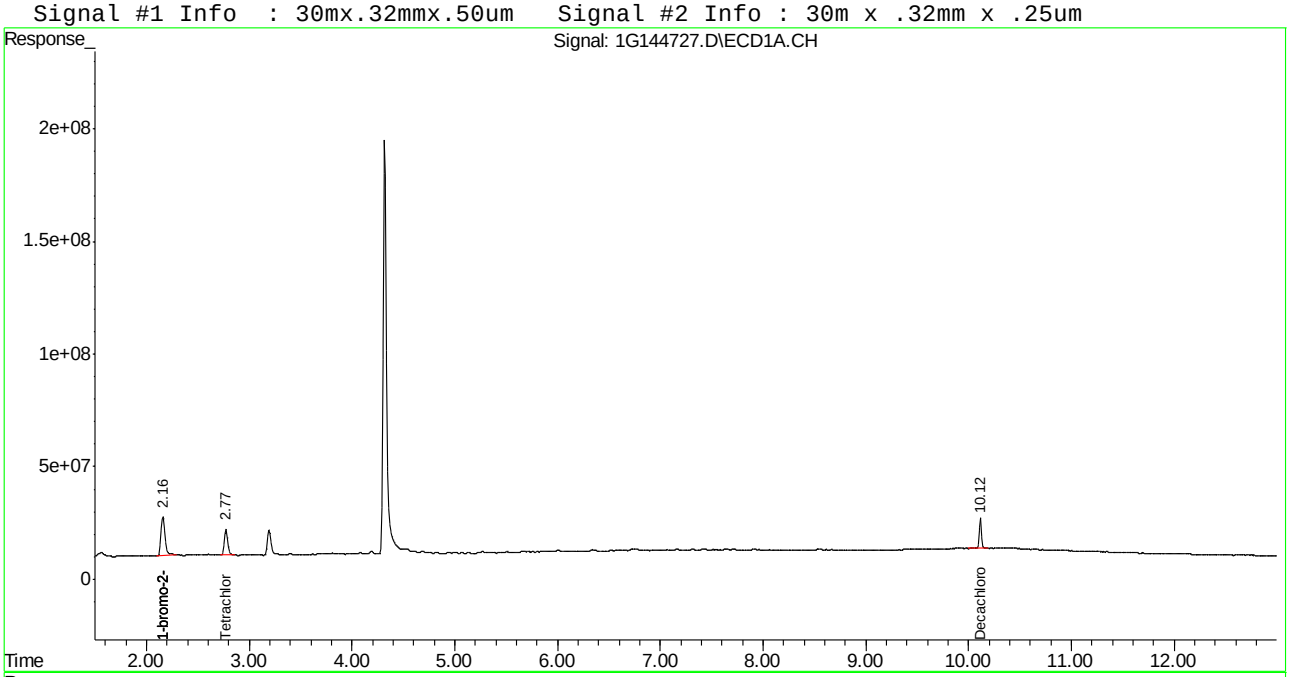
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144727.D 1PST4557.M Wed Mar 28 09:16:31 2018 RPT1 Page 1

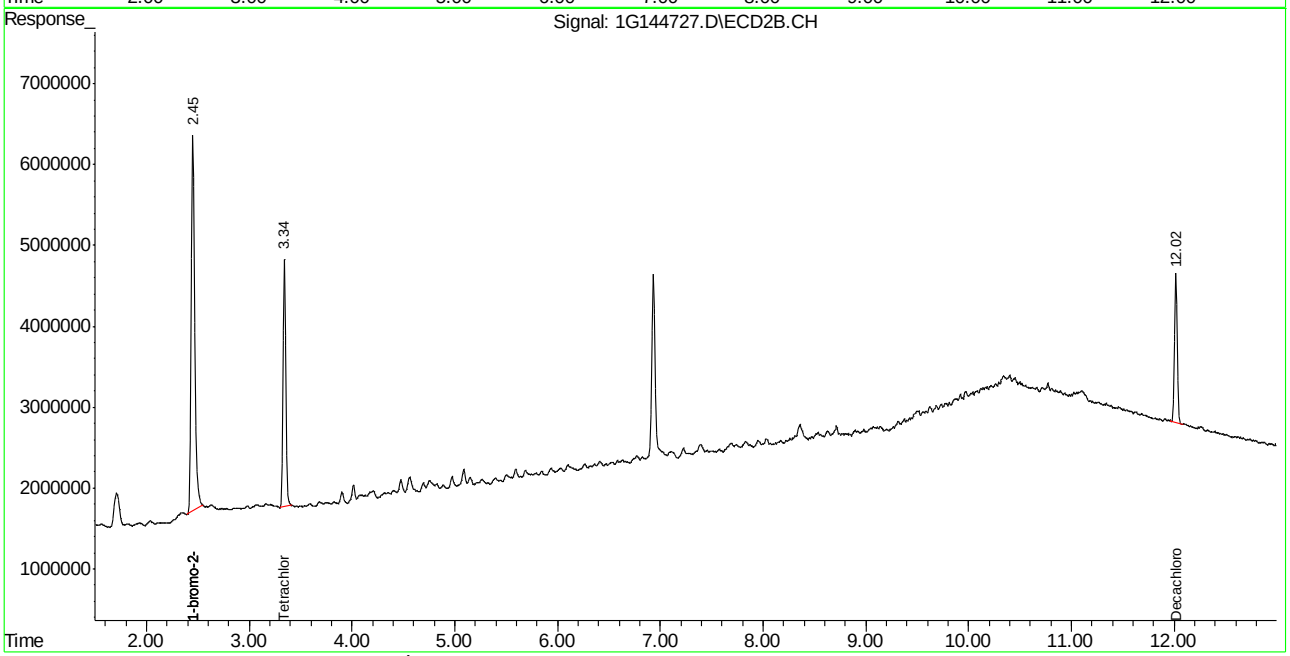
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144727.D\ECD1A.CH Vial: 45
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144727.D\ECD2B.CH
Acq On : 3-28-18 08:02:01 AM Operator: christp
Sample : jc62881-1 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144728.D\ECD1A.CH Vial: 46
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144728.D\ECD2B.CH
Acq On : 3-28-18 08:19:21 AM Operator: christp
Sample : jc62881-2 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	435.2E6	104.7E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	435.2E6	104.7E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	435.2E6	104.7E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.34	251.4E6	57563001	32.637	30.274
Spiked Amount	40.000	Range	30 - 150	Recovery	=	81.59%	75.69%
26) SA	Decachlorobiphen	10.12	12.02	195.1E6	35960864	31.021	26.195
Spiked Amount	40.000			Recovery	=	77.55%	65.49%
	Target Compounds						

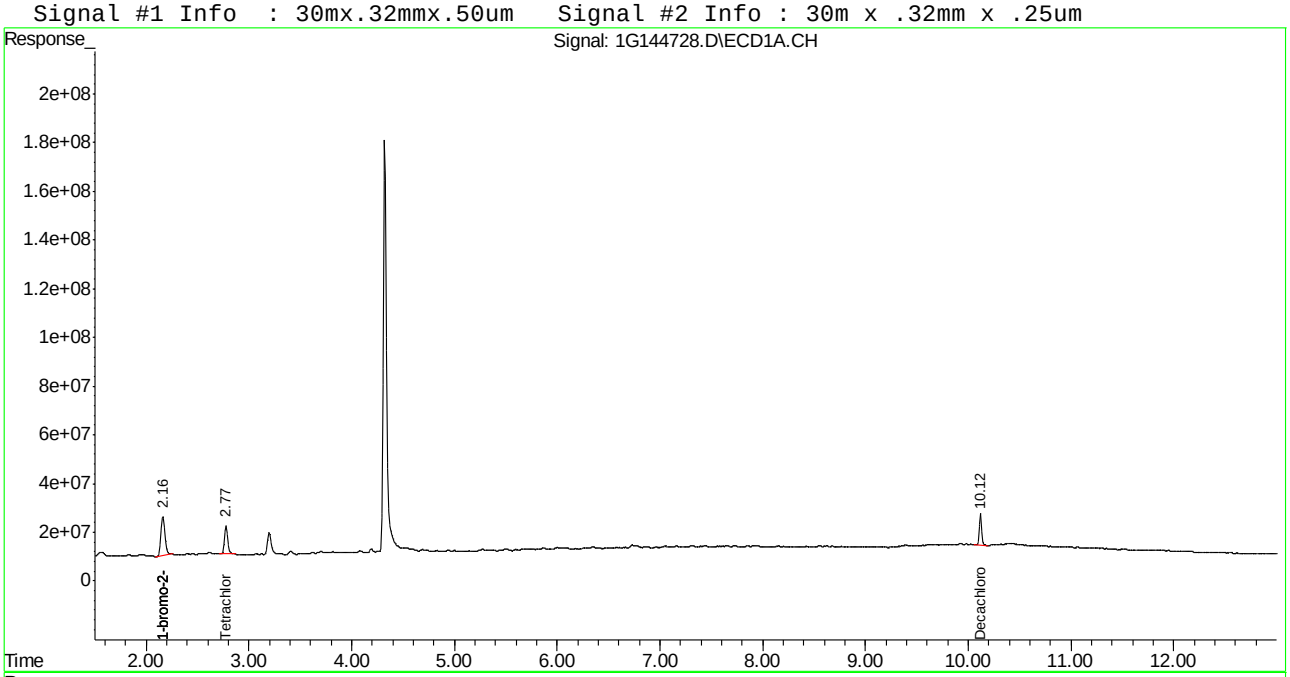
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144728.D 1PST4557.M Wed Mar 28 09:17:18 2018 RPT1 Page 1

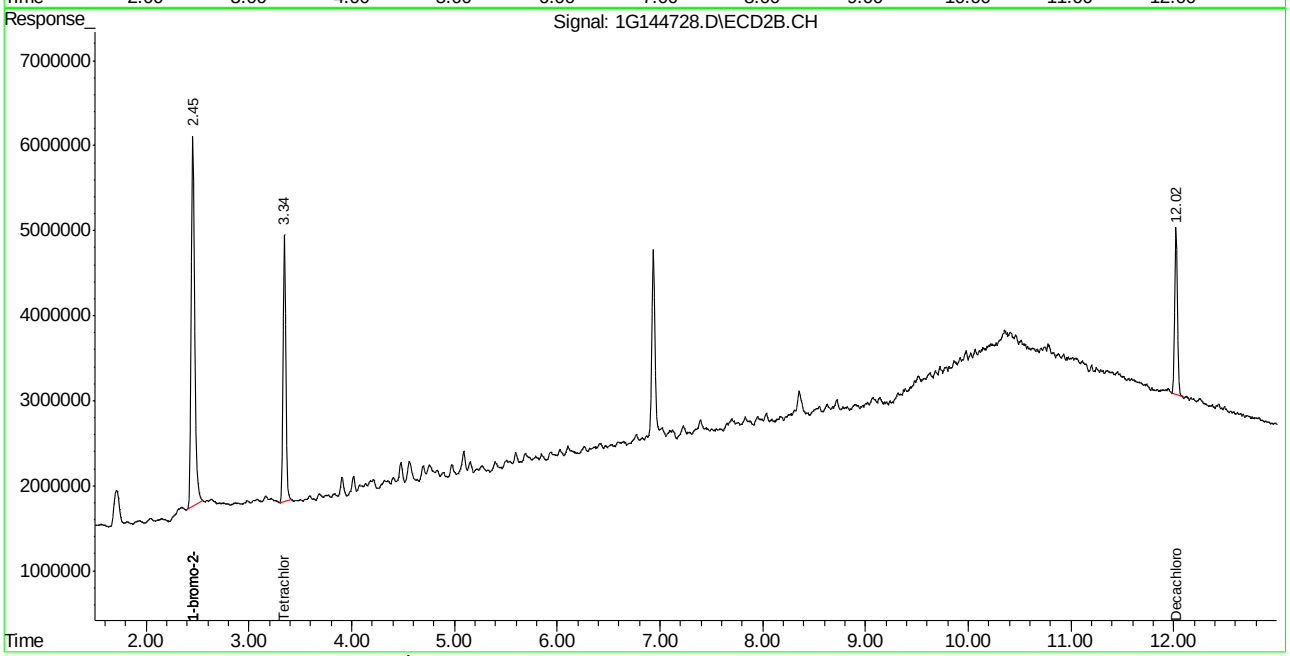
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144728.D\ECD1A.CH Vial: 46
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144728.D\ECD2B.CH
Acq On : 3-28-18 08:19:21 AM Operator: christp
Sample : jc62881-2 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144729.D\ECD1A.CH Vial: 47
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144729.D\ECD2B.CH
Acq On : 3-28-18 08:36:37 AM Operator: christp
Sample : jc62881-3 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	437.4E6	103.5E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	437.4E6	103.5E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	437.4E6	103.5E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.34	223.4E6	61213330	28.850	32.585
	Spiked Amount 40.000	Range 30 - 150		Recovery =		72.13%	81.46%
26) SA	Decachlorobiphen	10.12	12.02	248.1E6	47041132	39.246	34.682
	Spiked Amount 40.000			Recovery =		98.12%	86.71%
	Target Compounds						

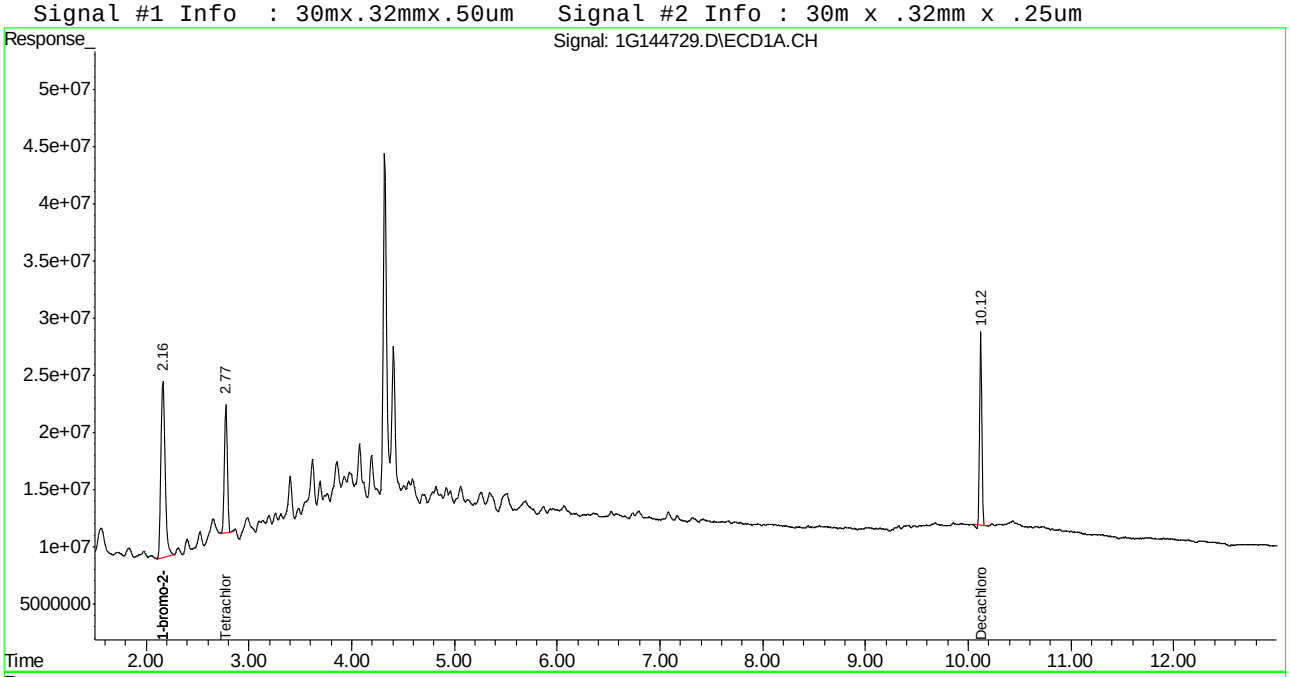
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144729.D 1PST4557.M Wed Mar 28 09:18:35 2018 RPT1 Page 1

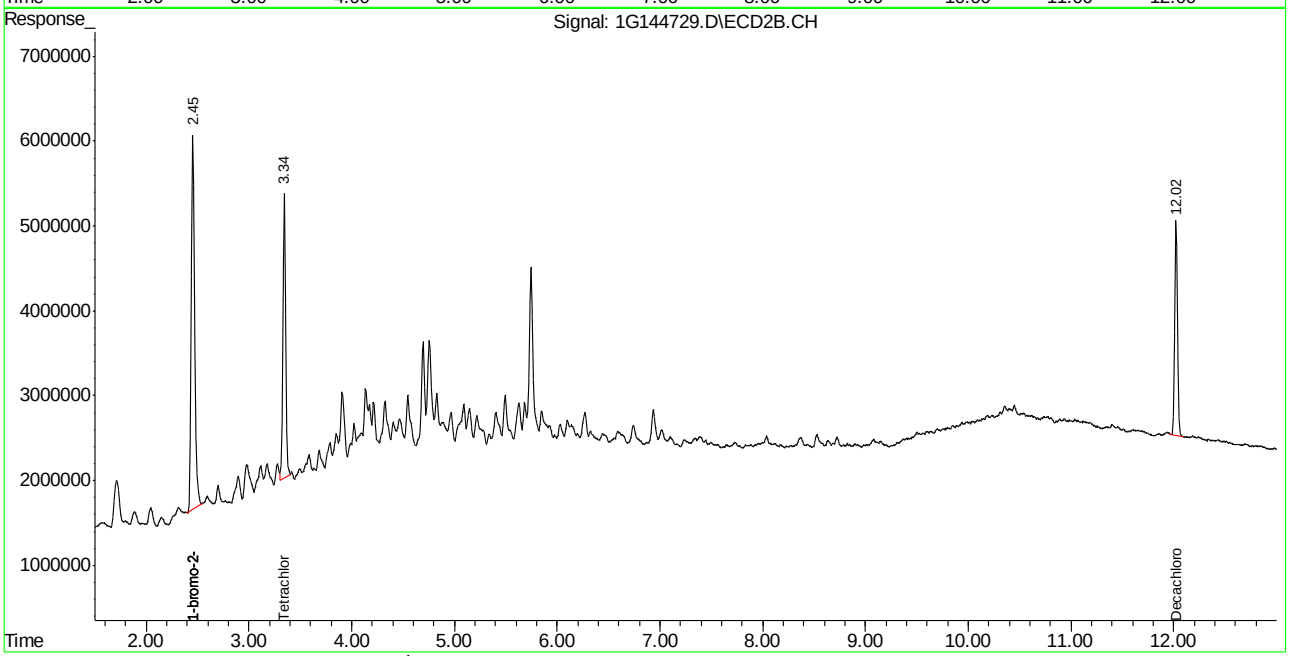
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144729.D\ECD1A.CH Vial: 47
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144729.D\ECD2B.CH
Acq On : 3-28-18 08:36:37 AM Operator: christp
Sample : jc62881-3 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144730.D\ECD1A.CH Vial: 48
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144730.D\ECD2B.CH
Acq On : 3-28-18 08:53:55 AM Operator: christp
Sample : jc62881-4 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:19 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	394.7E6	99668433	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	394.7E6	99668433	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	394.7E6	99668433	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.34	212.5E6	54677774	30.422	30.222
Spiked Amount	40.000	Range 30 - 150		Recovery =		76.06%	75.56%
26) SA	Decachlorobiphen	10.12	12.02	143.8E6	24356605	25.201	18.646
Spiked Amount	40.000			Recovery =		63.00%	46.62%
	Target Compounds						

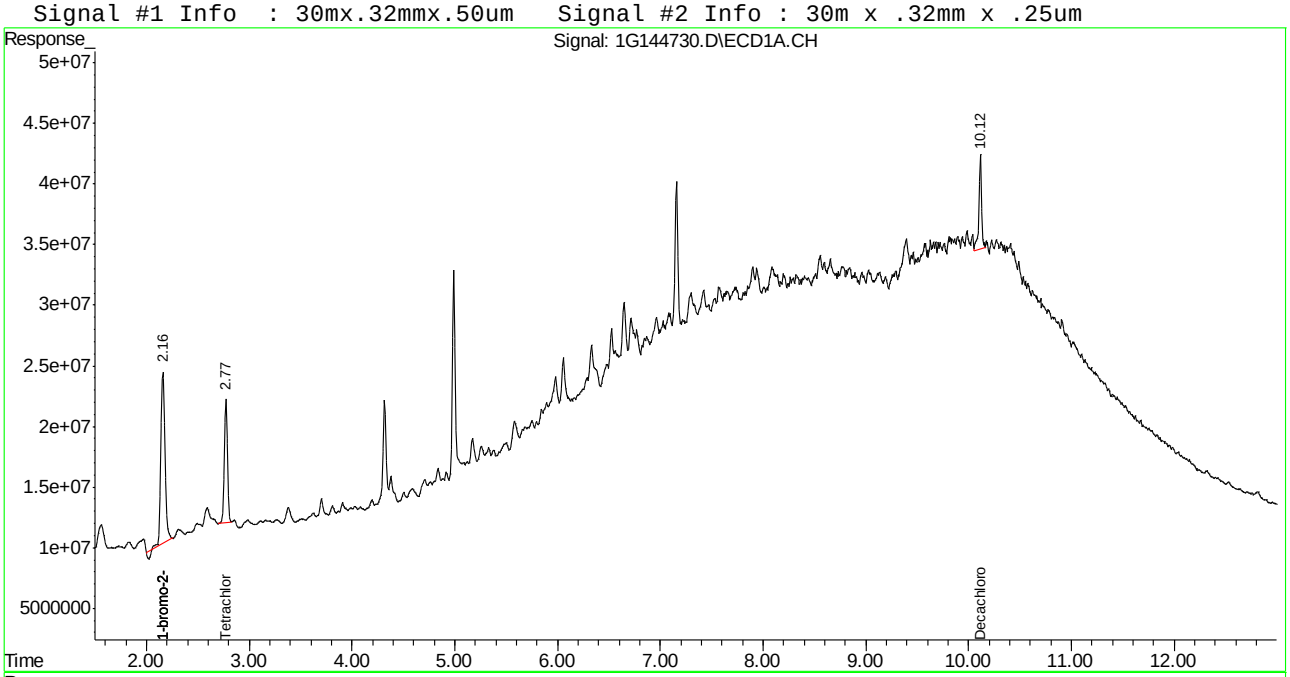
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144730.D 1PST4557.M Wed Mar 28 09:19:40 2018 RPT1 Page 1

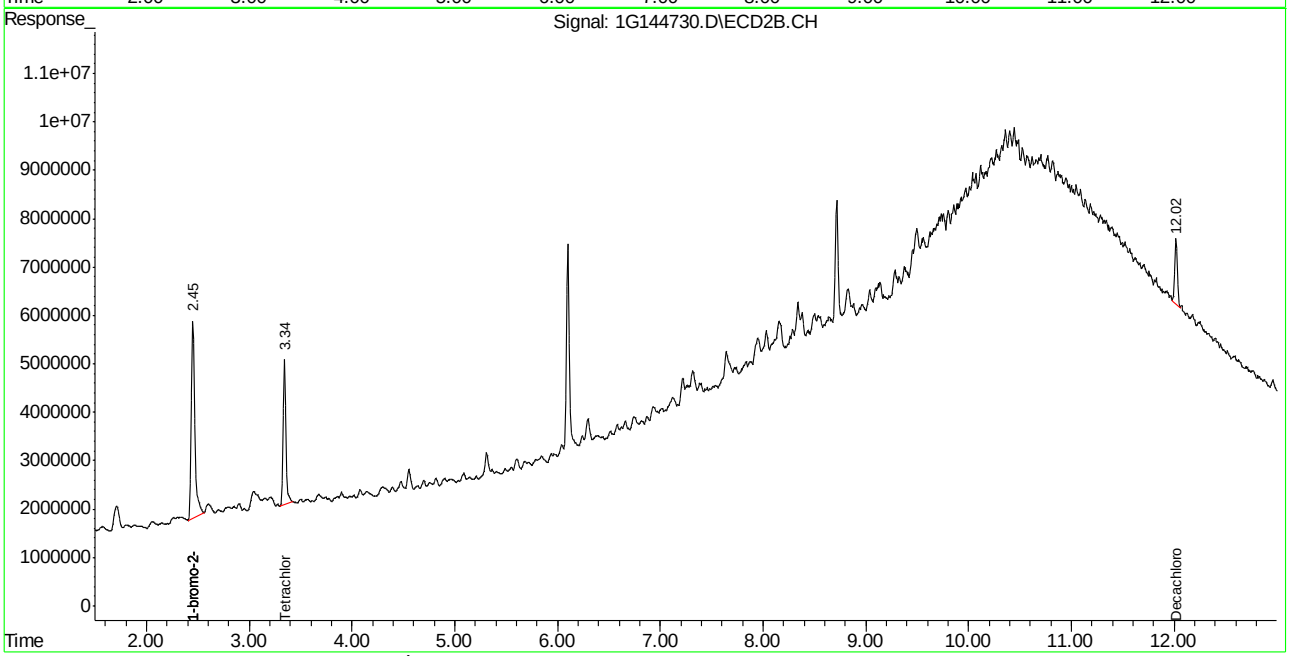
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144730.D\ECD1A.CH Vial: 48
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144730.D\ECD2B.CH
Acq On : 3-28-18 08:53:55 AM Operator: christp
Sample : jc62881-4 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:19 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144731.D\ECD1A.CH Vial: 49
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144731.D\ECD2B.CH
Acq On : 3-28-18 09:11:04 AM Operator: christp
Sample : jc62881-5 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:33 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	403.7E6	115.9E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	403.7E6	115.9E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	403.7E6	115.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.34	229.1E6	56407048	32.054	26.809
	Spiked Amount 40.000	Range 30 - 150		Recovery =		80.14%	67.02%
26) SA	Decachlorobiphen	10.12	12.02	187.1E6	33139484	32.055	21.815
	Spiked Amount 40.000			Recovery =		80.14%	54.54%
	Target Compounds						

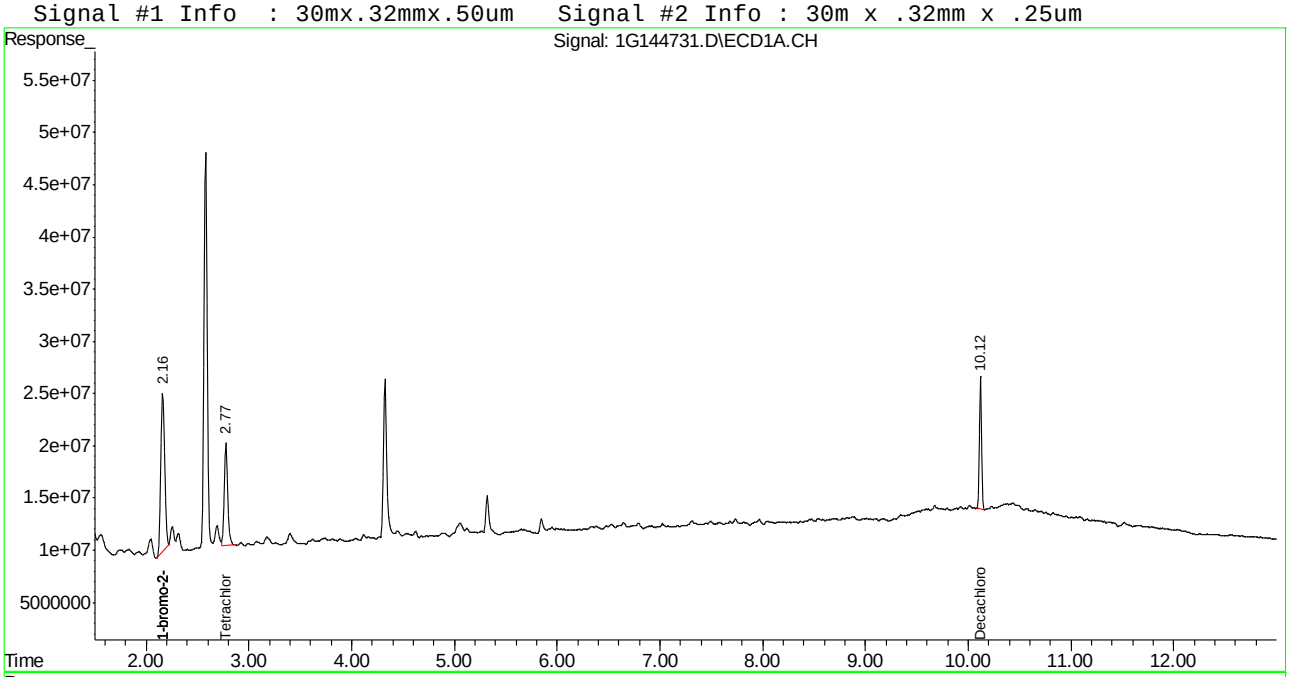
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144731.D 1PST4557.M Wed Mar 28 09:33:22 2018 RPT1 Page 1

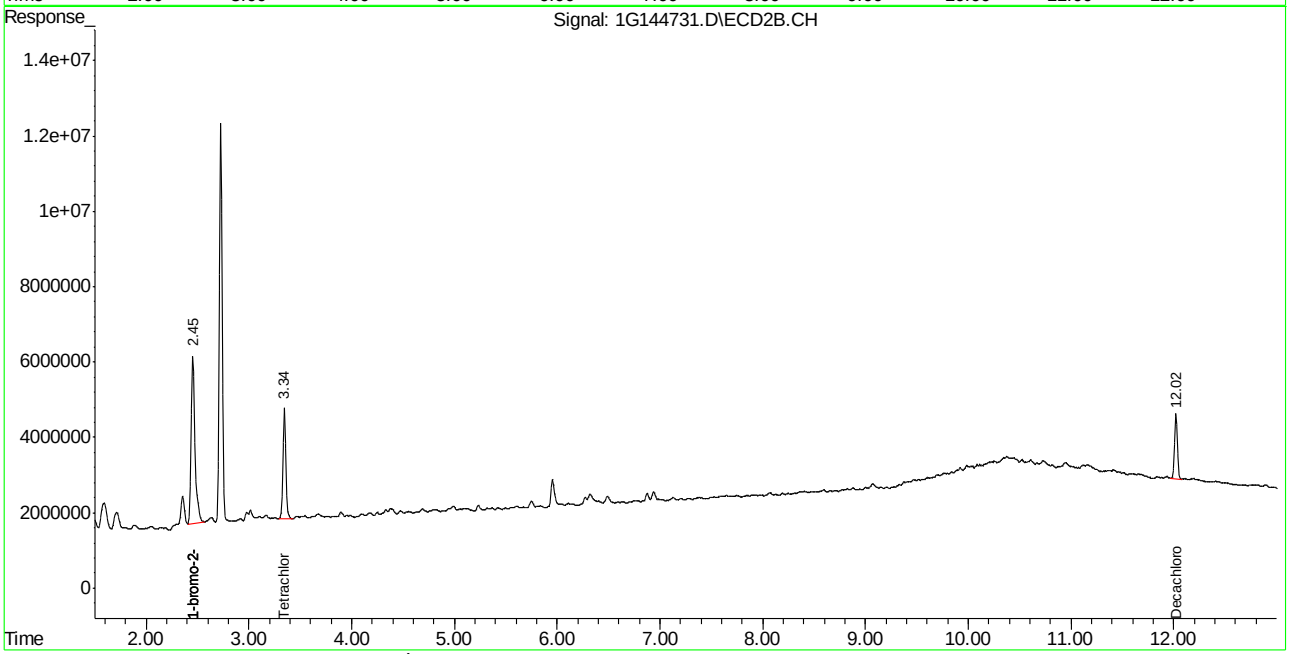
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144731.D\ECD1A.CH Vial: 49
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144731.D\ECD2B.CH
Acq On : 3-28-18 09:11:04 AM Operator: christp
Sample : jc62881-5 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:33 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144732.D\ECD1A.CH Vial: 50
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144732.D\ECD2B.CH
Acq On : 3-28-18 09:28:20 AM Operator: christp
Sample : jc62881-6 Inst : GC1G
Misc : op10885,g1g4598,295,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 11:28 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	508.3E6	113.9E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	508.3E6	113.9E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	508.3E6	113.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.34	247.0E6	63741655	27.457	30.817
Spiked Amount	40.000	Range	30 - 150	Recovery	=	68.64%	77.04%
26) SA	Decachlorobiphen	10.13	12.03f	169.4E6	25953734	23.053	17.379m
Spiked Amount	40.000			Recovery	=	57.63%	43.45%
	Target Compounds						

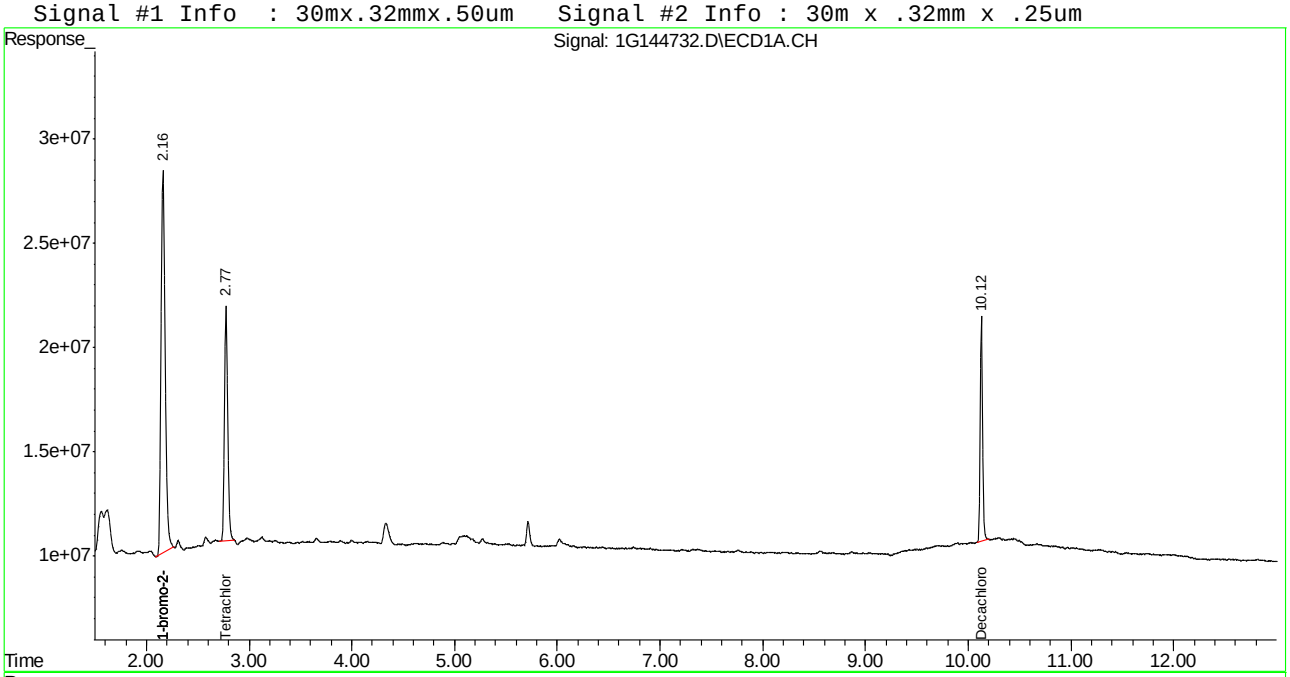
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144732.D 1PST4557.M Wed Mar 28 11:28:59 2018 RPT1 Page 1

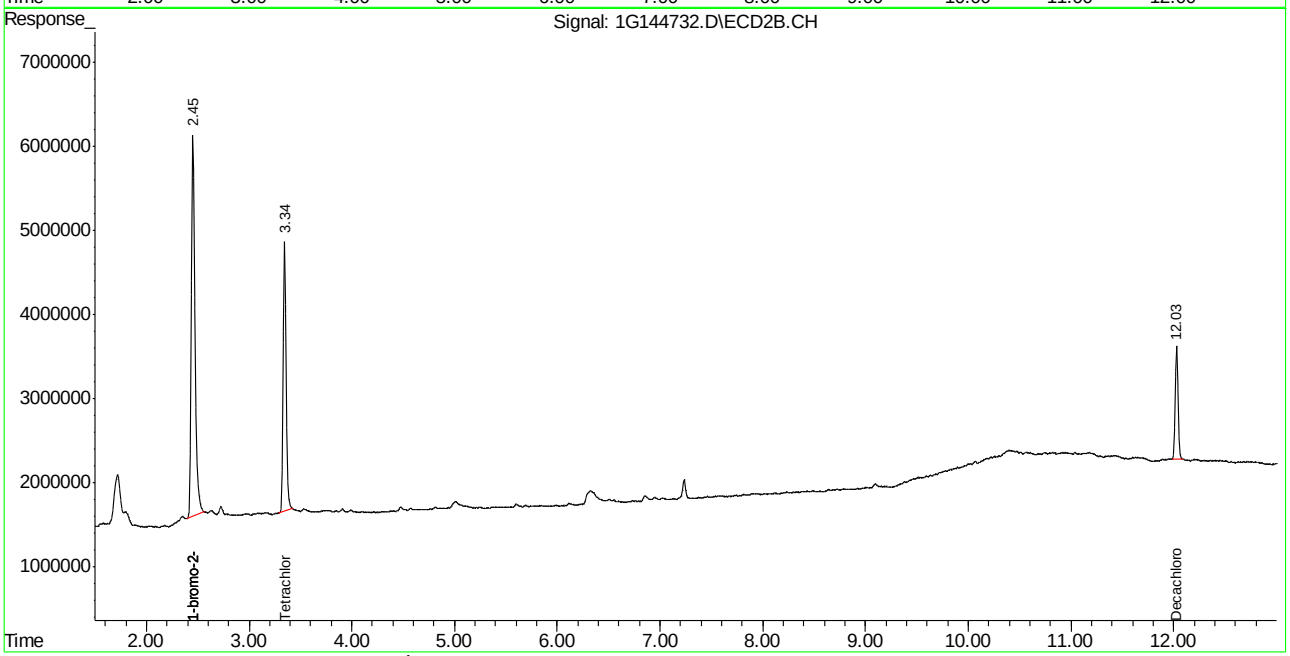
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144732.D\ECD1A.CH Vial: 50
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144732.D\ECD2B.CH
Acq On : 3-28-18 09:28:20 AM Operator: christp
Sample : jc62881-6 Inst : GC1G
Misc : op10885,g1g4598,295,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 11:28 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

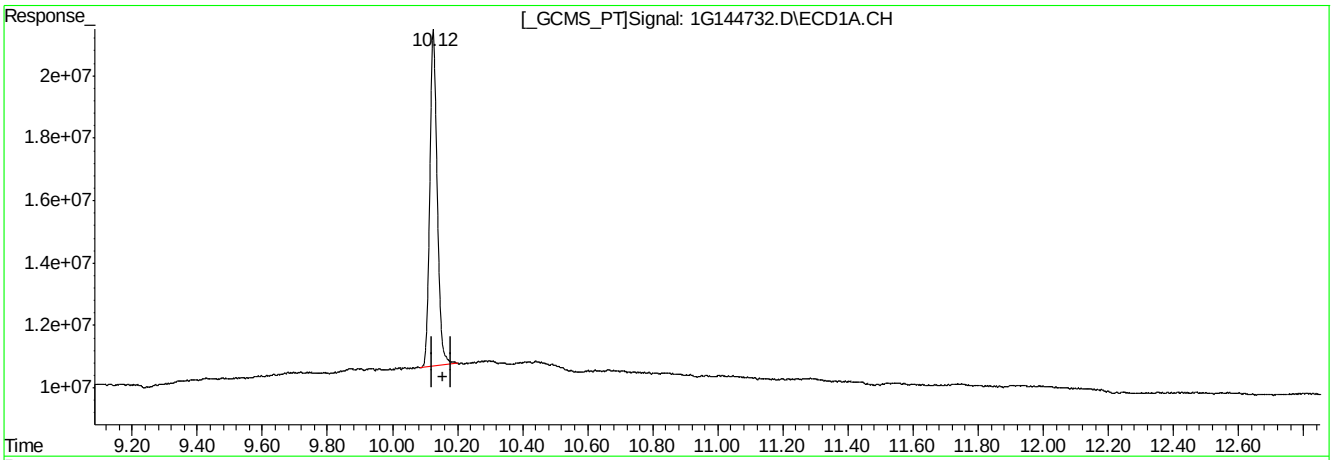
Sample Number:	JC62881-6	**Method:**	SW846 8081B
Lab FileID:	1G144732.D	**Analyst approved:**	03/28/18 11:31 Dharmistha Mehta
Injection Time:	03/28/18 09:28	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

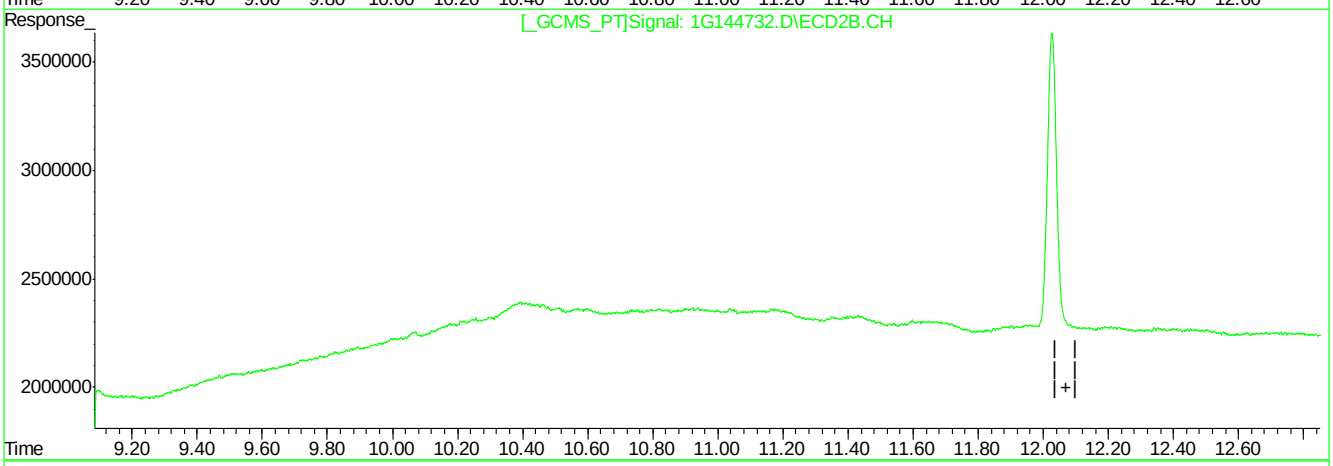
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	2	12.03	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144732.D\ECD1A.CH Vial: 50
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144732.D\ECD2B.CH
Acq On : 3-28-18 09:28:20 AM Operator: christp
Sample : jc62881-6 Inst : GC1G
Misc : op10885,g1g4598,295,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 11:28 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.13min 23.053PPB

response 169384497

(26) Decachlorobiphenyl #2 (SA)

0.00min 0.000PPB

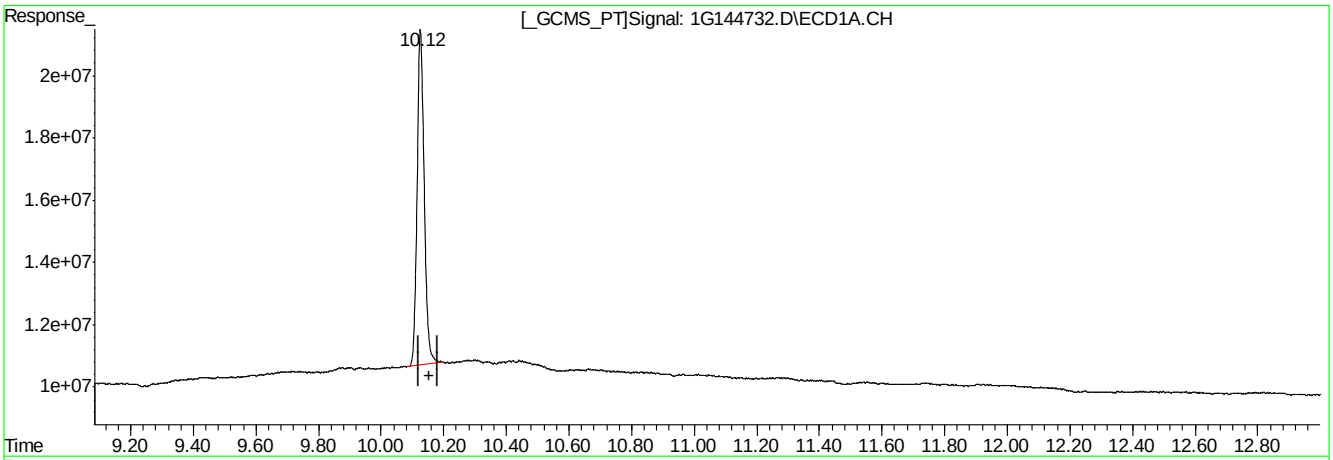
response 0

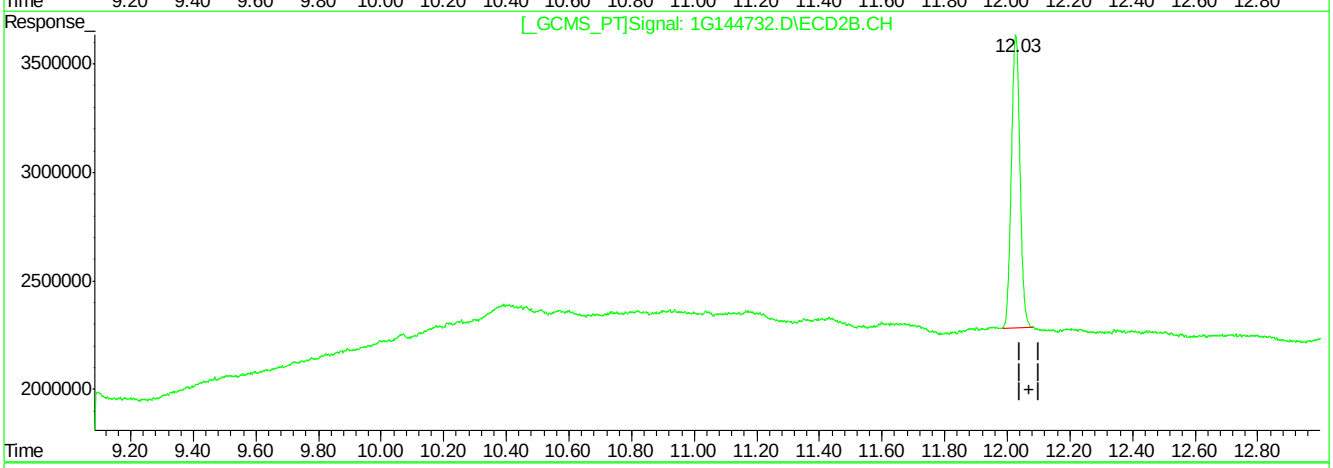
(+) = Expected Retention Time
1G144732.D 1PST4557.M Wed Mar 28 11:28:26 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144732.D\ECD1A.CH Vial: 50
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144732.D\ECD2B.CH
Acq On : 3-28-18 09:28:20 AM Operator: christp
Sample : jc62881-6 Inst : GC1G
Misc : op10885,g1g4598,295,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 11:28 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.13min 23.053PPB

response 169384497

(26) Decachlorobiphenyl #2 (SA)

12.03min 17.379PPB m

response 25953734

(+) = Expected Retention Time
1G144732.D 1PST4557.M Wed Mar 28 11:28:42 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/30/18 10:10

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181245.D\ECD1A.CH Vial: 59
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181245.D\ECD2B.CH
Acq On : 29 Mar 2018 5:04 am Operator: humarahb
Sample : jc62881-1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:31 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	325238	420819	28.132	27.029
	Spiked Amount 40.000			Recovery	=	70.33%	67.57%
51)	S Decachlorobiphen	14.19	17.32	336570	434395	19.664m	20.692
	Spiked Amount 40.000			Recovery	=	49.16%	51.73%
	Target Compounds						

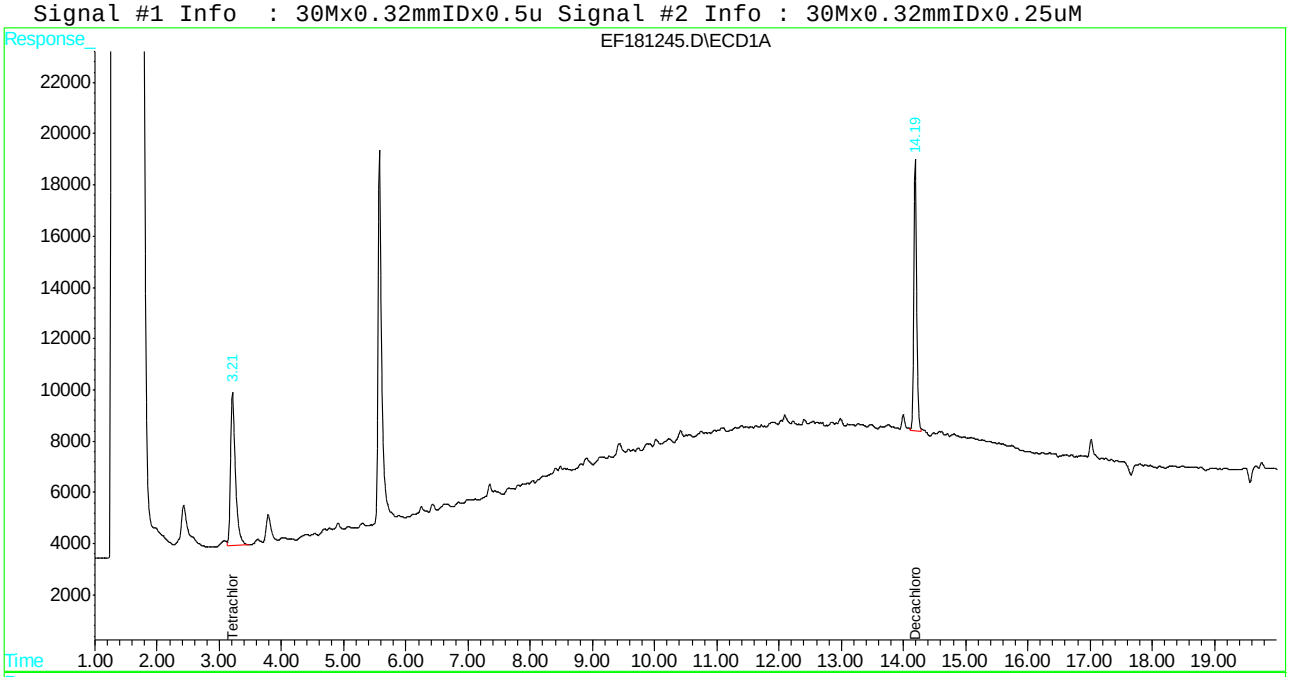
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181245.D PCB6195.M Thu Mar 29 10:32:03 2018 GCEF Page 1

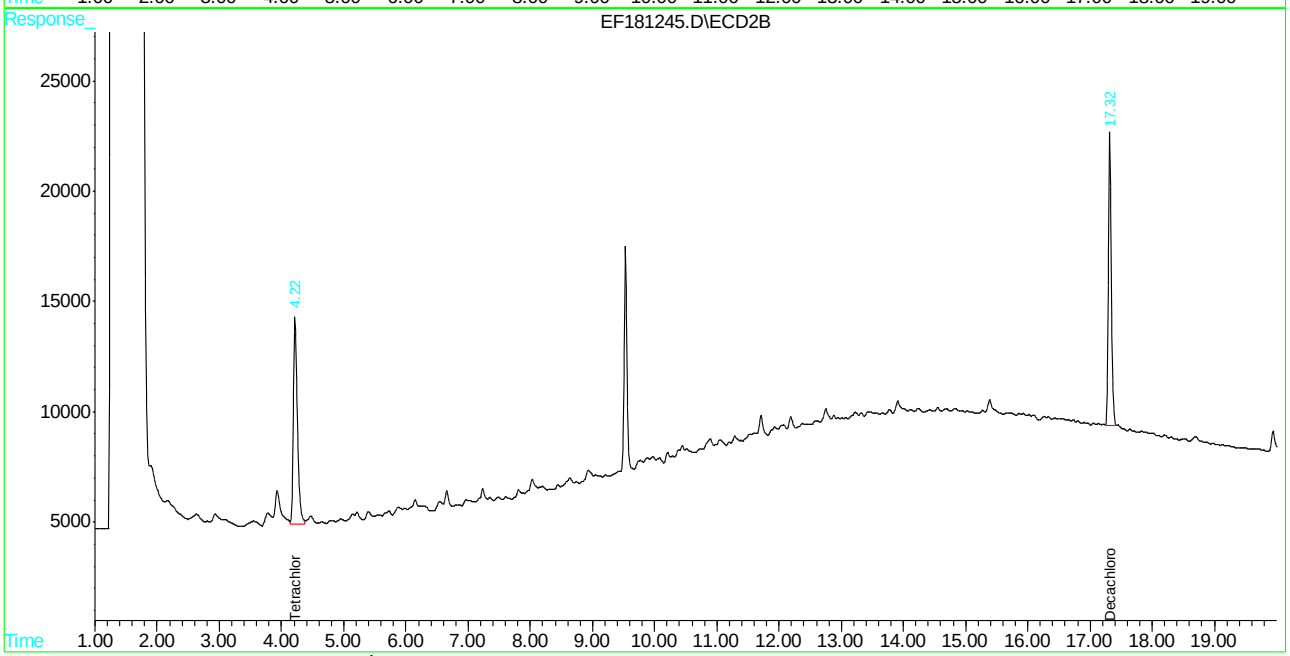
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181245.D\ECD1A.CH Vial: 59
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181245.D\ECD2B.CH
Acq On : 29 Mar 2018 5:04 am Operator: humarahb
Sample : jc62881-1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:31 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





EF181245.D PCB6195.M Thu Mar 29 10:32:04 2018 GCEF Page 2

Manual Integration Approval Summary

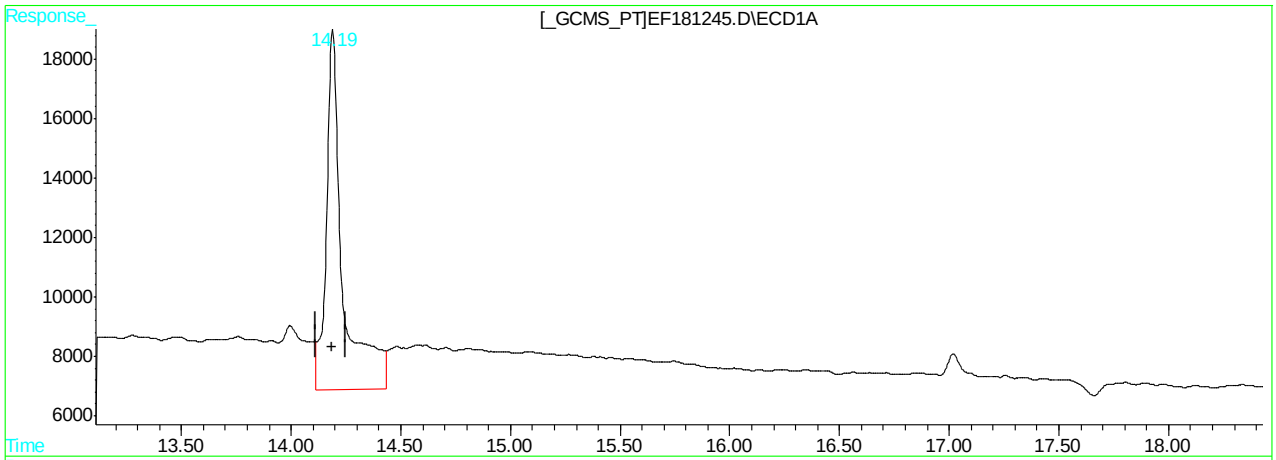
Sample Number:	JC62881-1	**Method:**	SW846 8082A
Lab FileID:	EF181245.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/29/18 05:04	**Supervisor approved:**	03/30/18 10:10 Gwendolyn Burns

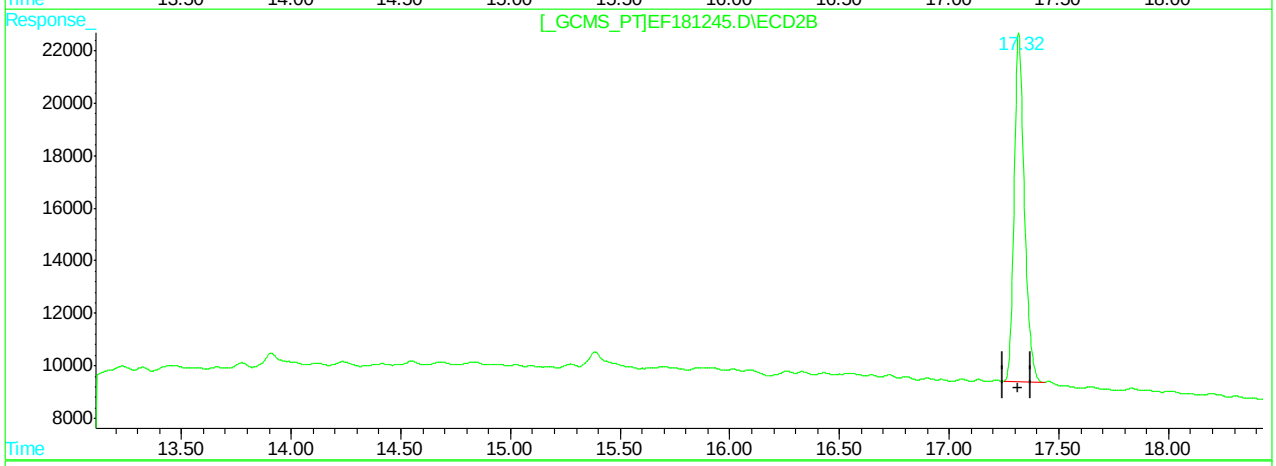
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181245.D\ECD1A.CH Vial: 59
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181245.D\ECD2B.CH
Acq On : 29 Mar 2018 5:04 am Operator: humarahb
Sample : jc62881-1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:31 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 36.485PPB

response 624477

(51) Decachlorobiphenyl #2 (S)

17.32min 20.692PPB

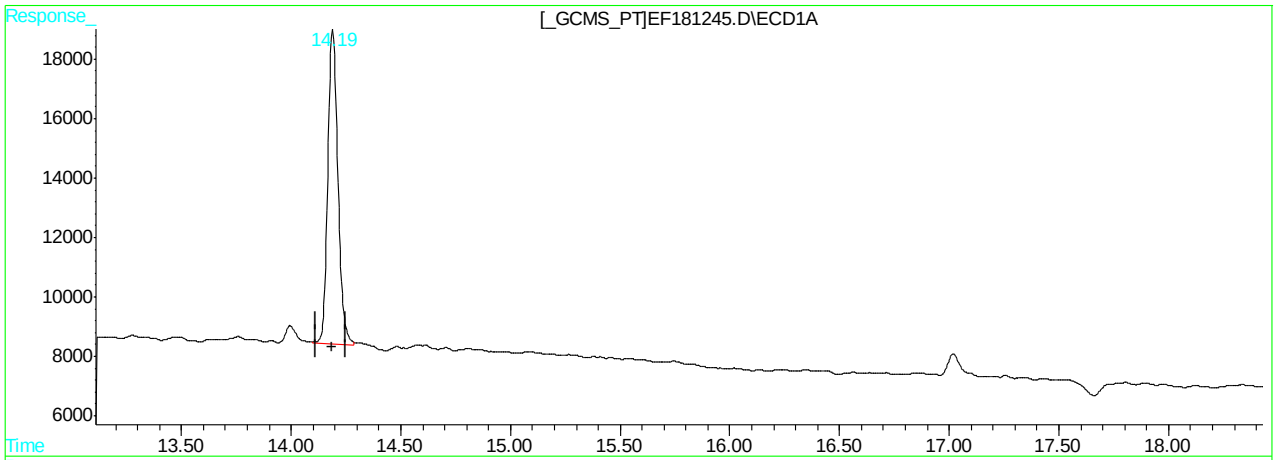
response 434395

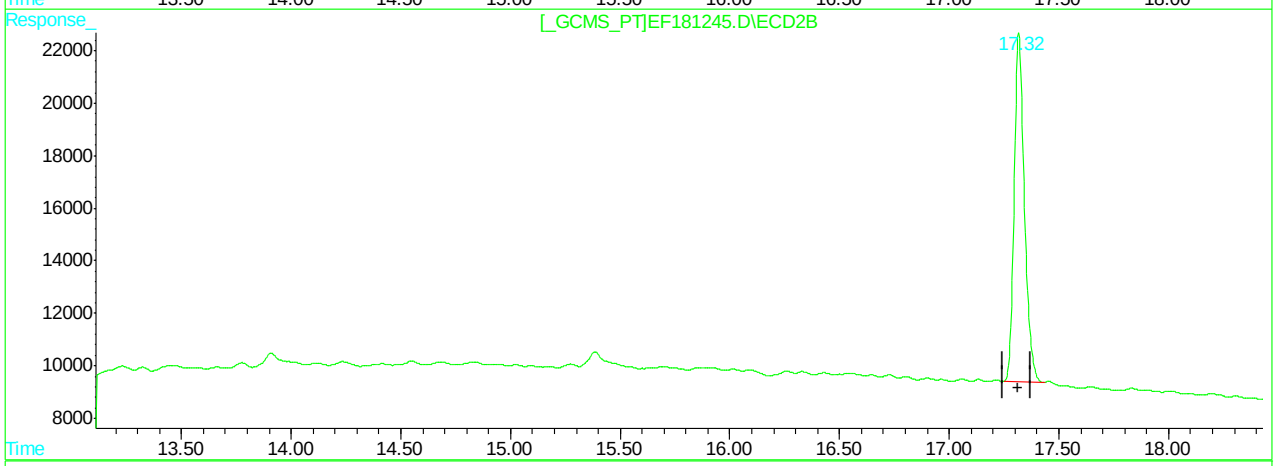
(+) = Expected Retention Time
EF181245.D PCB6195.M Thu Mar 29 10:31:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181245.D\ECD1A.CH Vial: 59
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181245.D\ECD2B.CH
Acq On : 29 Mar 2018 5:04 am Operator: humarahb
Sample : jc62881-1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:31 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 19.664PPB m

response 336570

(51) Decachlorobiphenyl #2 (S)

17.32min 20.692PPB

response 434395

(+) = Expected Retention Time
EF181245.D PCB6195.M Thu Mar 29 10:31:58 2018 GCEF

11.1.7.3 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/30/18 10:10

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD1A.CH Vial: 60
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD2B.CH
Acq On : 29 Mar 2018 5:29 am Operator: humarahb
Sample : jc62881-2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:32 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.21	4.22	338772	436190	29.303m	28.017
	Spiked Amount 40.000			Recovery =		73.26%	70.04%
51) S	Decachlorobiphen	14.20	17.33	365191	497183	21.336m	23.683
	Spiked Amount 40.000			Recovery =		53.34%	59.21%
	Target Compounds						

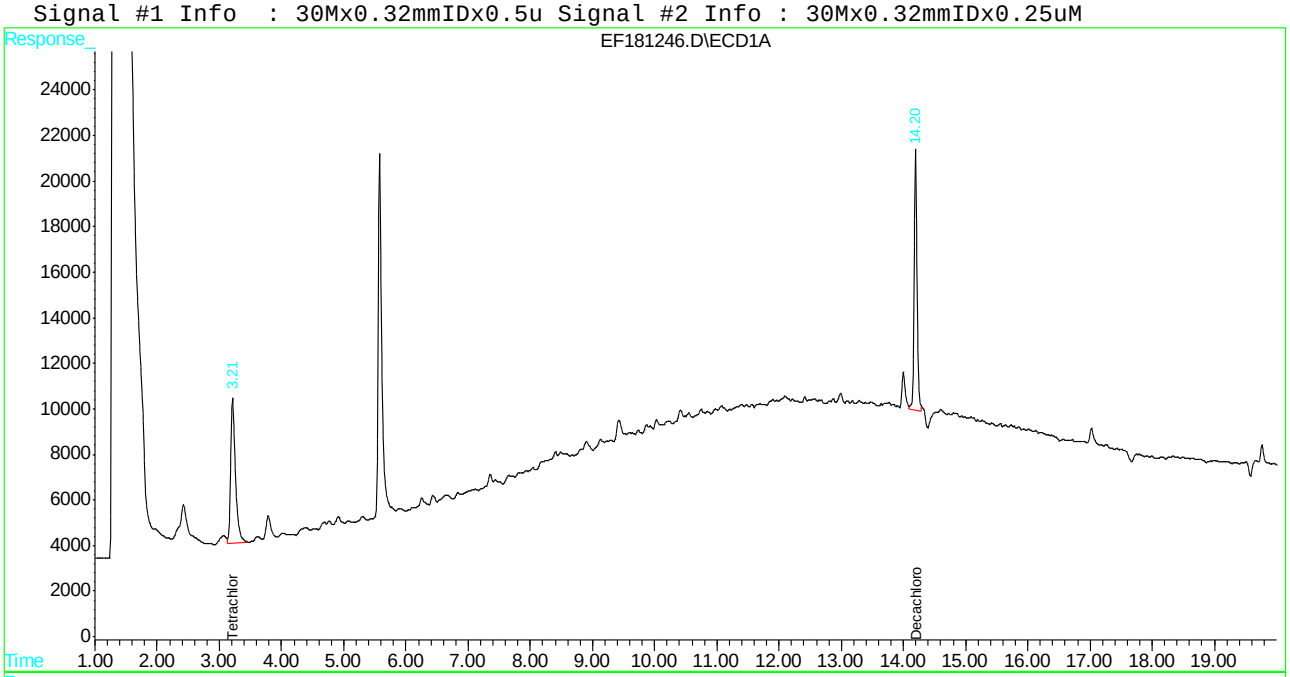
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181246.D PCB6195.M Thu Mar 29 10:32:51 2018 GCEF Page 1

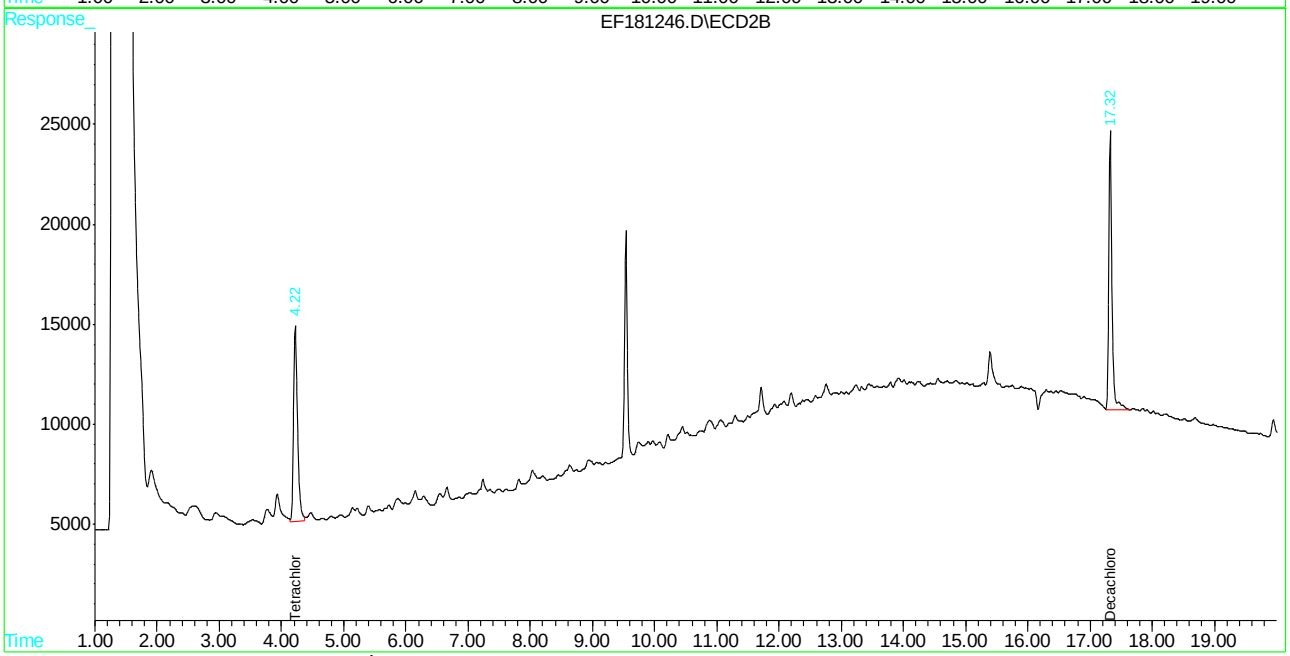
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD1A.CH Vial: 60
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD2B.CH
Acq On : 29 Mar 2018 5:29 am Operator: humarahb
Sample : jc62881-2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:32 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

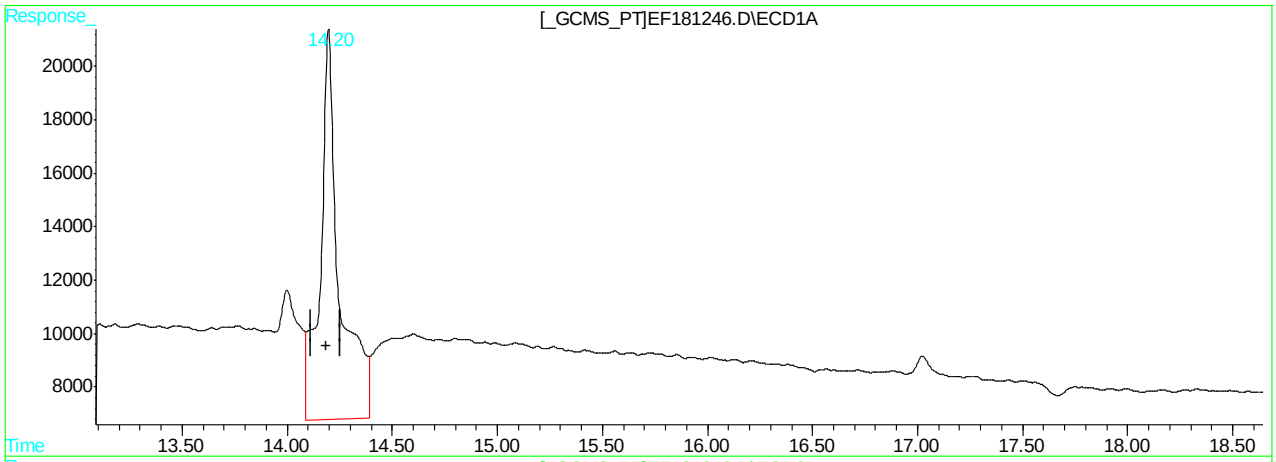
Sample Number: JC62881-2
Lab FileID: EF181246.D
Injection Time: 03/29/18 05:29
Method: SW846 8082A
Analyst approved: 03/29/18 11:01 Tianwei Ruan
Supervisor approved: 03/30/18 10:10 Gwendolyn Burns

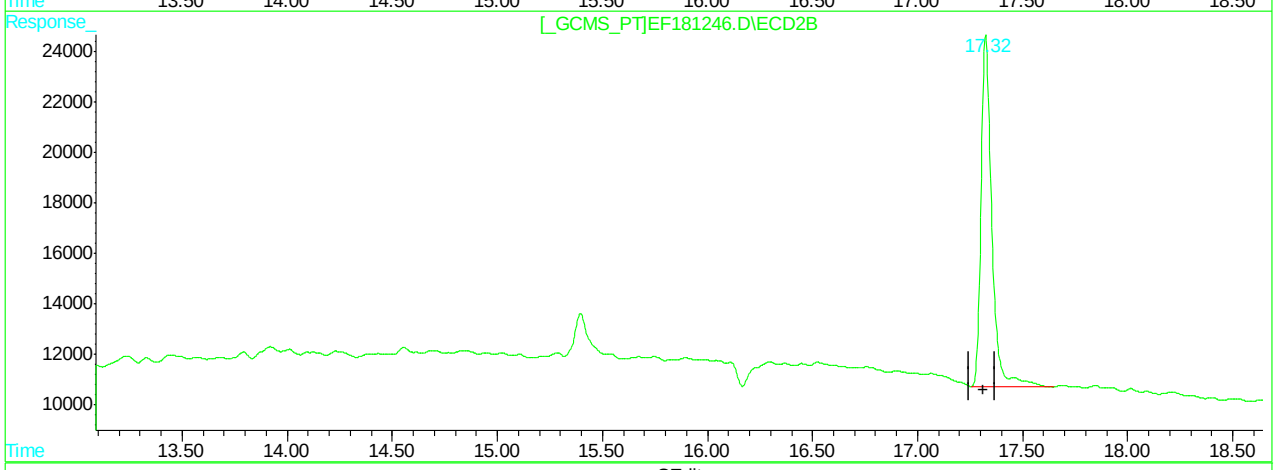
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	14.20	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD1A.CH Vial: 60
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD2B.CH
Acq On : 29 Mar 2018 5:29 am Operator: humarahb
Sample : jc62881-2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:32 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 53.645PPB

response 918202

(51) Decachlorobiphenyl #2 (S)

17.33min 23.683PPB

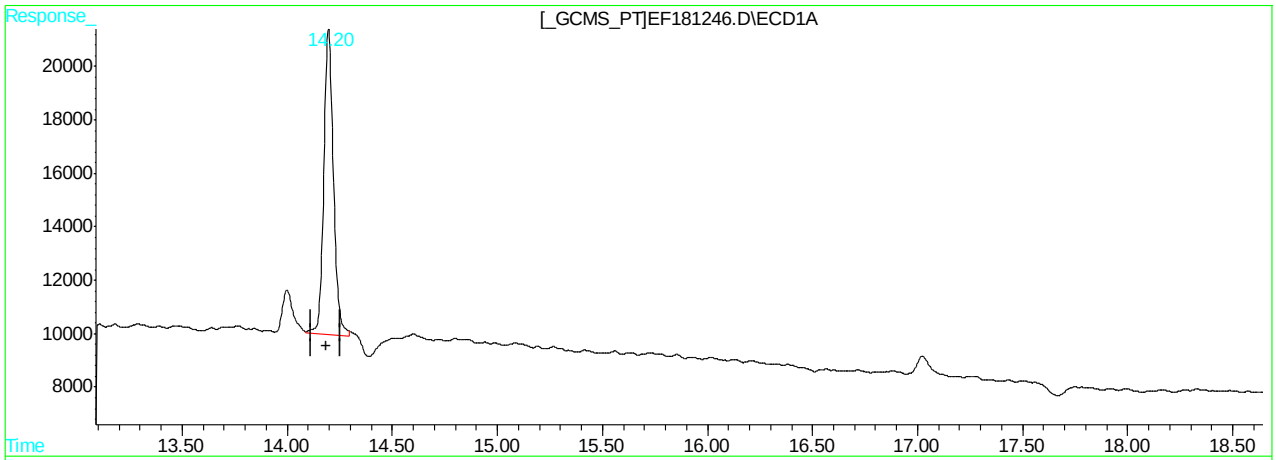
response 497183

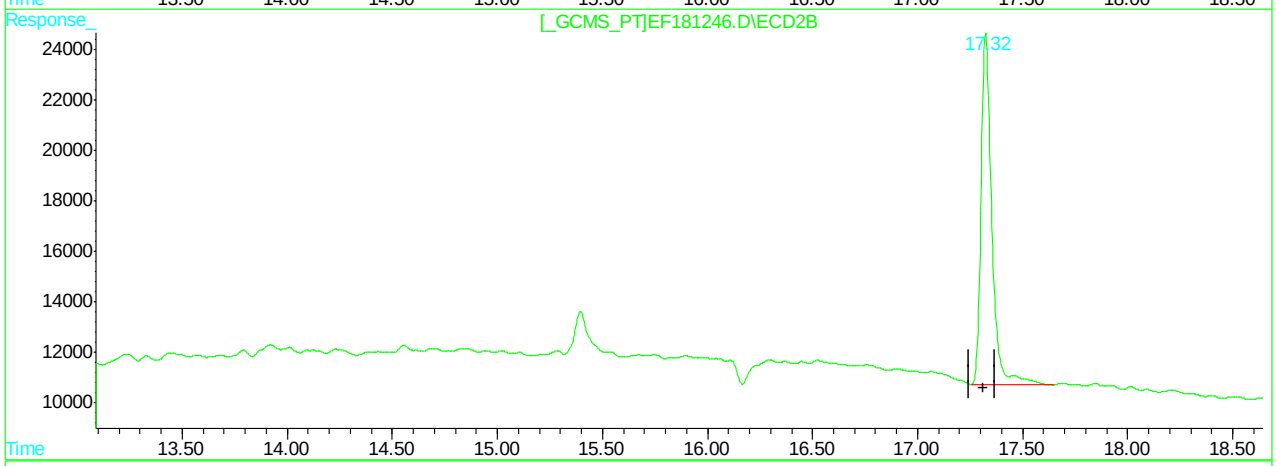
(+) = Expected Retention Time
EF181246.D PCB6195.M Thu Mar 29 10:32:28 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD1A.CH Vial: 60
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD2B.CH
Acq On : 29 Mar 2018 5:29 am Operator: humarahb
Sample : jc62881-2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:32 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 21.336PPB m

response 365191

(51) Decachlorobiphenyl #2 (S)

17.33min 23.683PPB

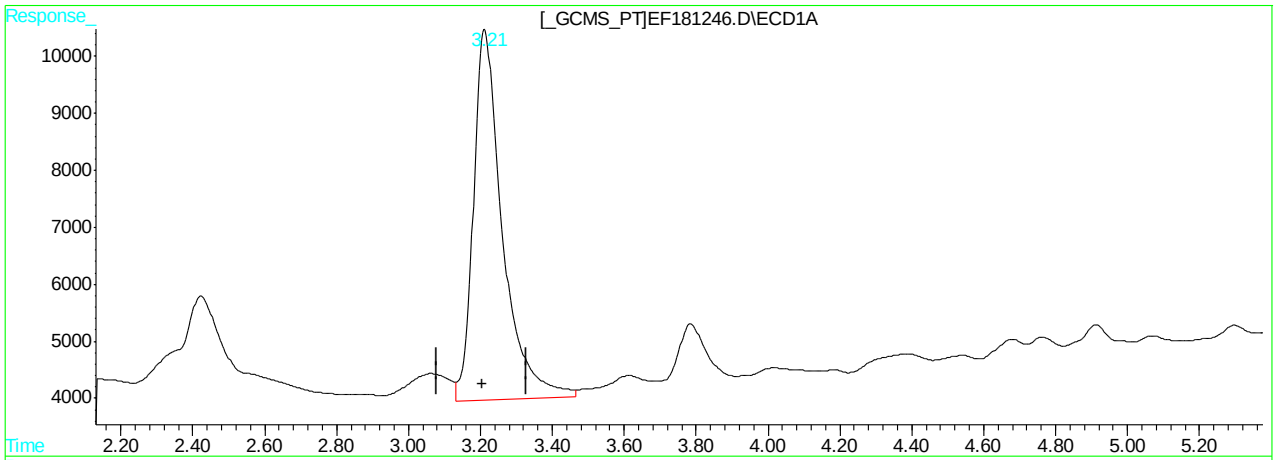
response 497183

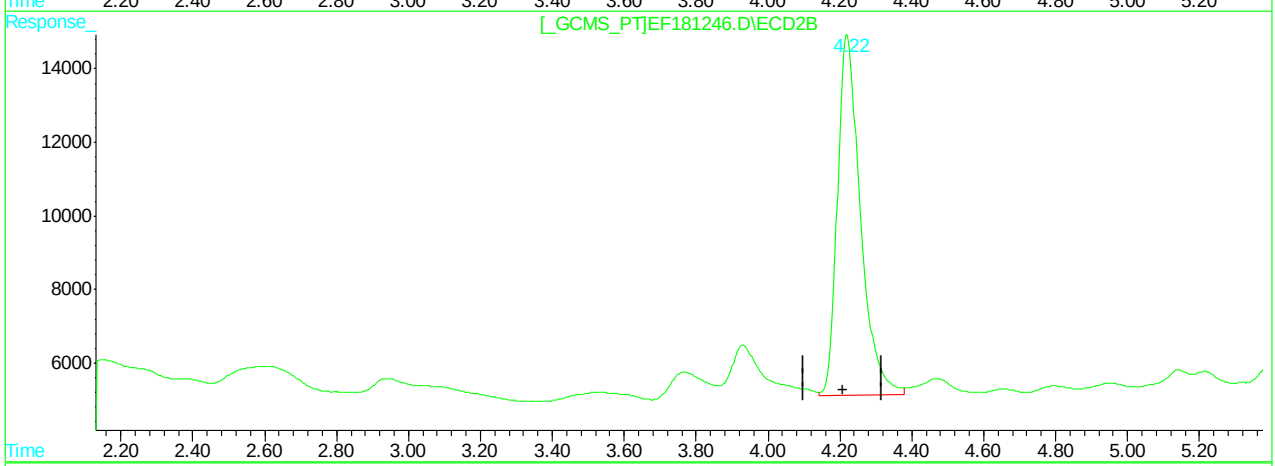
(+) = Expected Retention Time
EF181246.D PCB6195.M Thu Mar 29 10:32:36 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD1A.CH Vial: 60
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD2B.CH
Acq On : 29 Mar 2018 5:29 am Operator: humarahb
Sample : jc62881-2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:32 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 31.581PPB

response 365105

(1) Tetrachloro-m-xylene #2 (S)

4.22min 28.017PPB

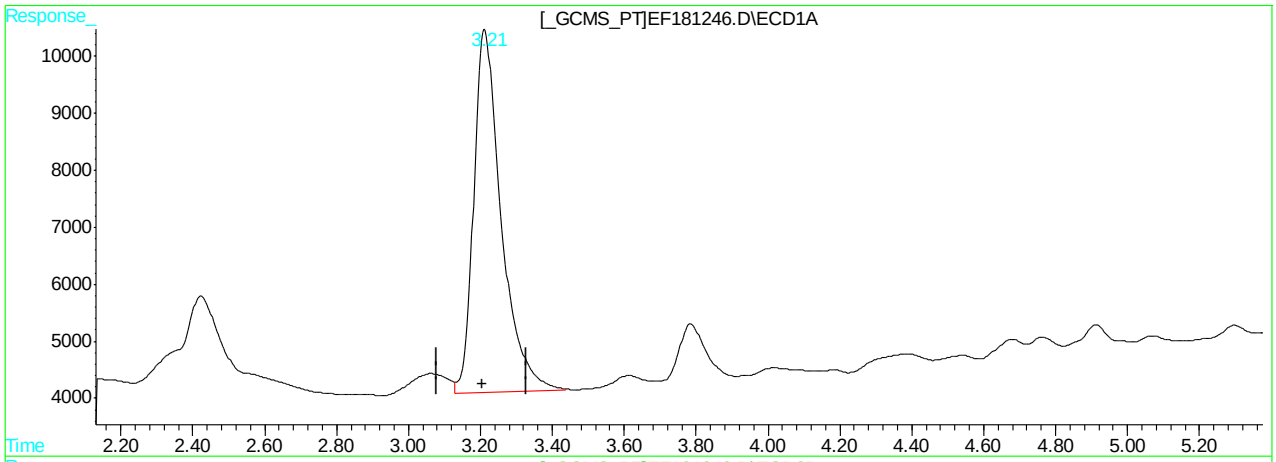
response 436190

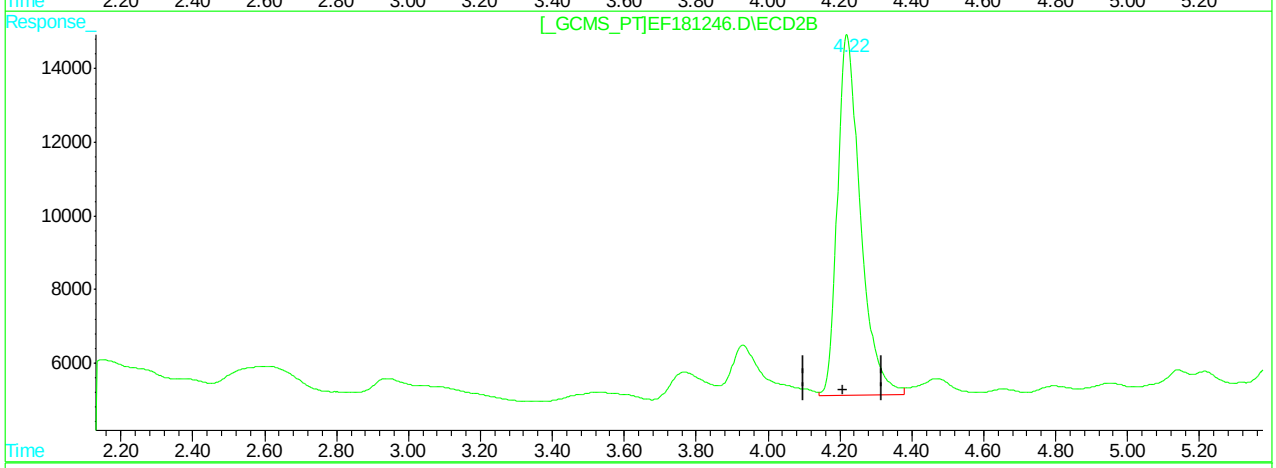
(+) = Expected Retention Time
EF181246.D PCB6195.M Thu Mar 29 10:32:40 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD1A.CH Vial: 60
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181246.D\ECD2B.CH
Acq On : 29 Mar 2018 5:29 am Operator: humarahb
Sample : jc62881-2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:32 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 29.303PPB m

response 338772

(1) Tetrachloro-m-xylene #2 (S)

4.22min 28.017PPB

response 436190

(+) = Expected Retention Time
EF181246.D PCB6195.M Thu Mar 29 10:32:46 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/30/18 10:10

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181251.D\ECD1A.CH Vial: 62
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181251.D\ECD2B.CH
Acq On : 29 Mar 2018 7:34 am Operator: humarahb
Sample : jc62881-3 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:34 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	345617	456823	29.895m	29.342m
	Spiked Amount 40.000			Recovery	=	74.74%	73.35%
51)	S Decachlorobiphen	14.20	17.32	518460	652367	30.291	31.075
	Spiked Amount 40.000			Recovery	=	75.73%	77.69%
	Target Compounds						

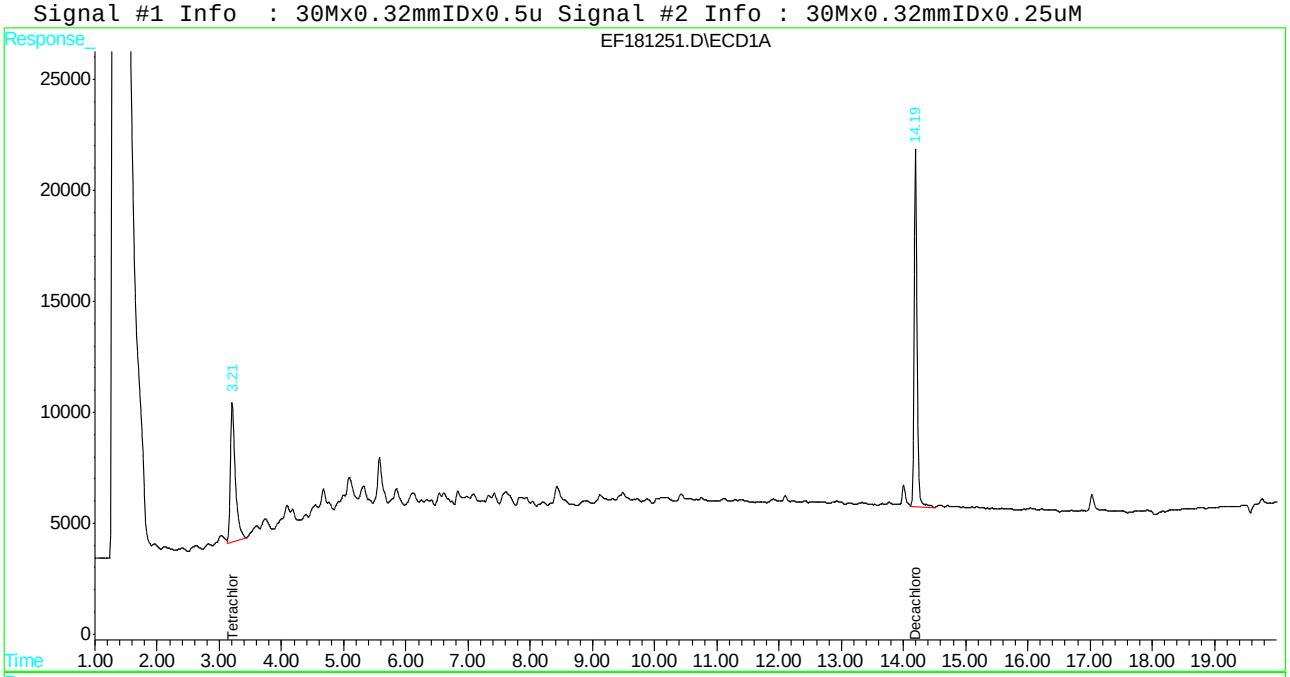
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181251.D PCB6195.M Thu Mar 29 10:34:26 2018 GCEF Page 1

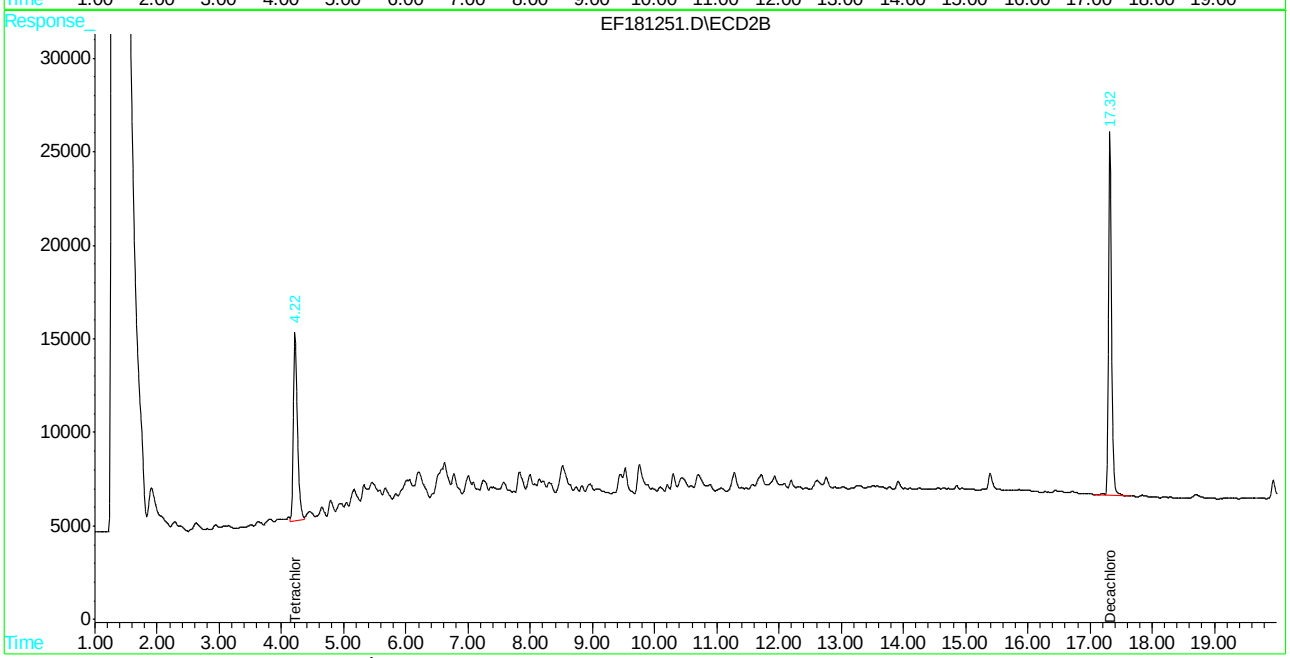
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181251.D\ECD1A.CH Vial: 62
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181251.D\ECD2B.CH
Acq On : 29 Mar 2018 7:34 am Operator: humarahb
Sample : jc62881-3 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:34 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

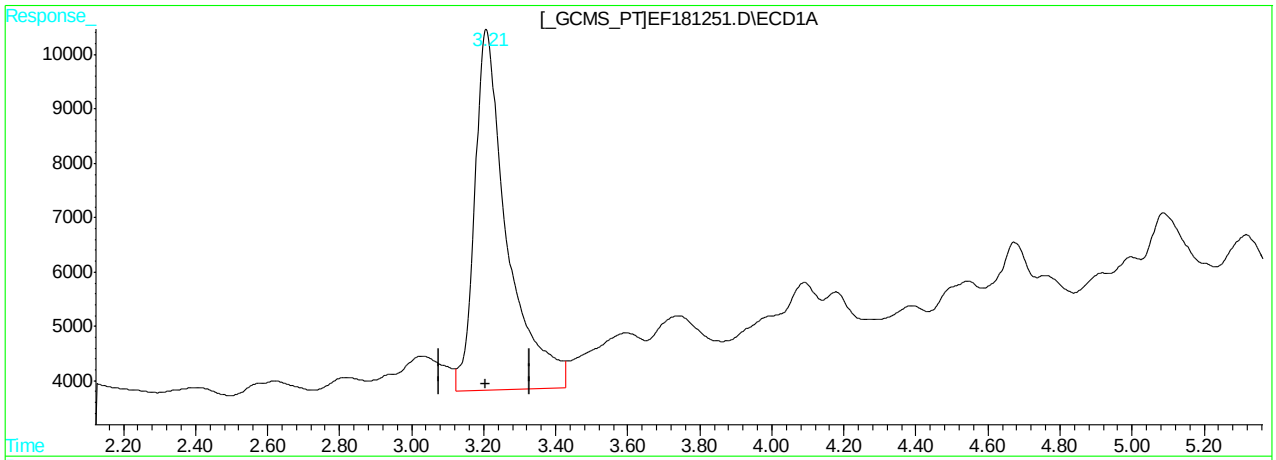
Sample Number:	JC62881-3	**Method:**	SW846 8082A
Lab FileID:	EF181251.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/29/18 07:34	**Supervisor approved:**	03/30/18 10:10 Gwendolyn Burns

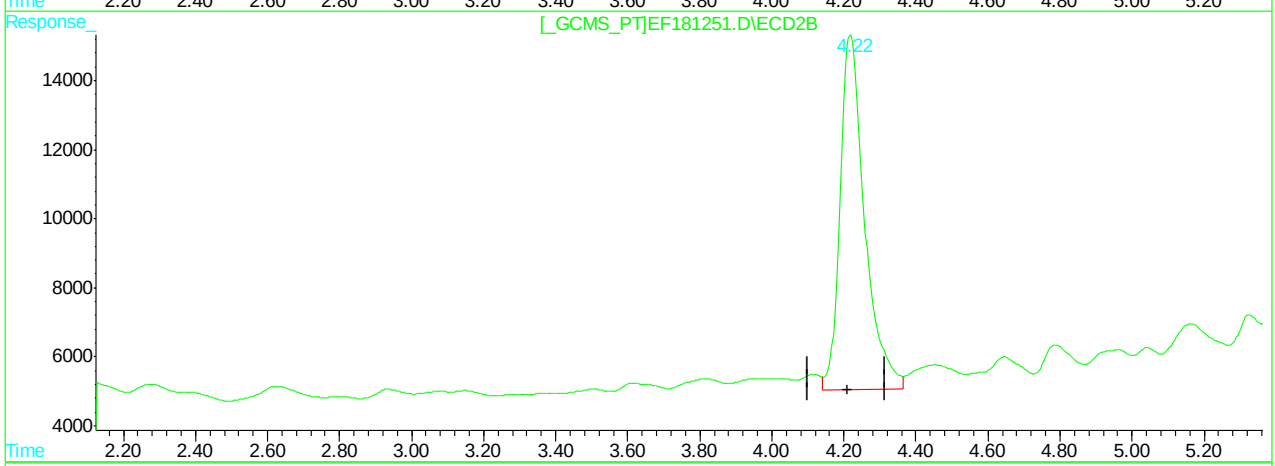
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181251.D\ECD1A.CH Vial: 62
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181251.D\ECD2B.CH
Acq On : 29 Mar 2018 7:34 am Operator: humarahb
Sample : jc62881-3 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 35.726PPB

response 413025

(1) Tetrachloro-m-xylene #2 (S)

4.22min 31.218PPB

response 486026

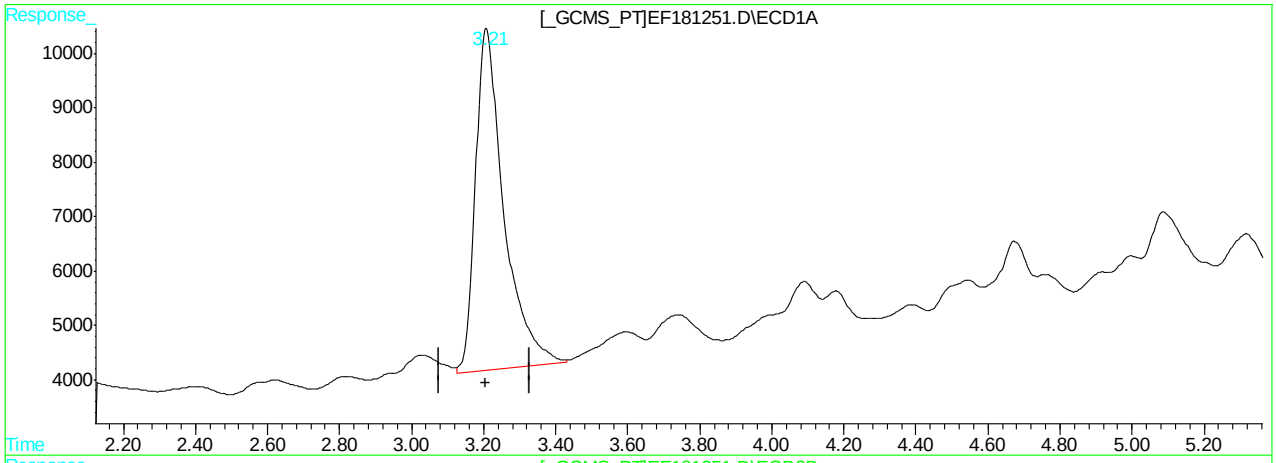
(+) = Expected Retention Time
EF181251.D PCB6195.M Thu Mar 29 10:34:03 2018 GCEF

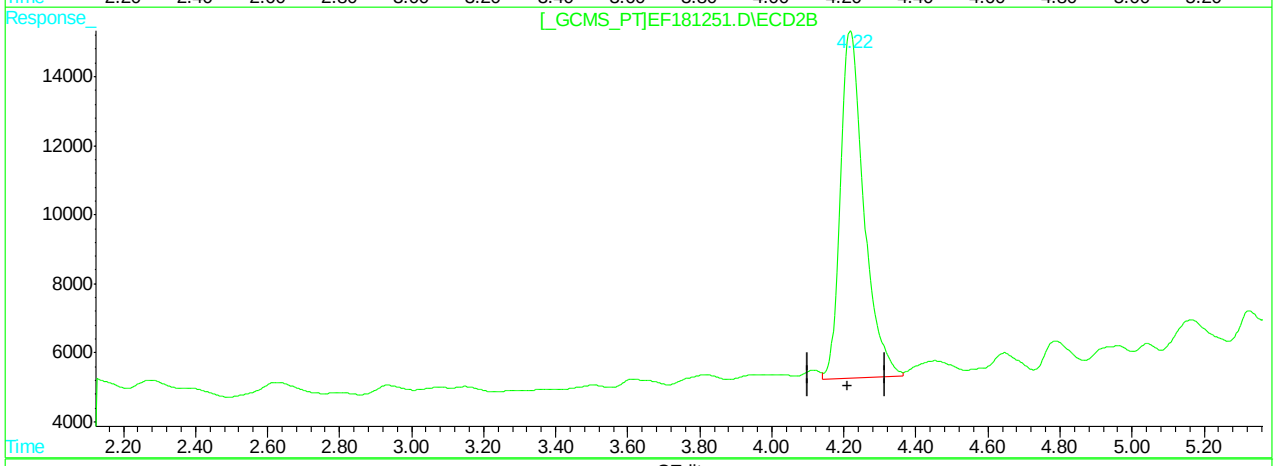
11.1.9.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181251.D\ECD1A.CH Vial: 62
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181251.D\ECD2B.CH
Acq On : 29 Mar 2018 7:34 am Operator: humarahb
Sample : jc62881-3 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 29.895PPB m

response 345617

(1) Tetrachloro-m-xylene #2 (S)

4.22min 29.342PPB m

response 456823

(+) = Expected Retention Time
EF181251.D PCB6195.M Thu Mar 29 10:34:20 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/30/18 10:10

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD1A.CH Vial: 63
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD2B.CH
Acq On : 29 Mar 2018 7:59 am Operator: humarahb
Sample : jc62881-4 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:35 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.21	4.22	357520	417805	30.925m	26.836
	Spiked Amount 40.000			Recovery =		77.31%	67.09%
51) S	Decachlorobiphen	14.19	17.32	214609	298255	12.538m	14.207m
	Spiked Amount 40.000			Recovery =		31.34%	35.52%
	Target Compounds						

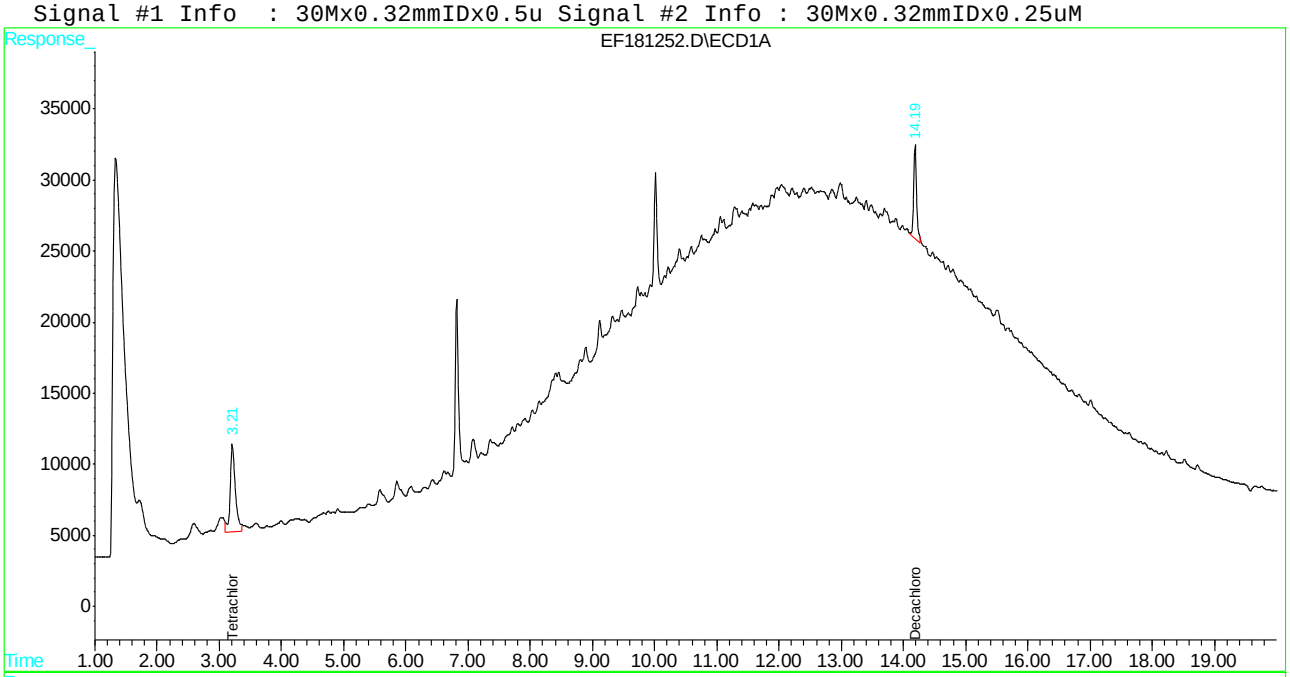
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181252.D PCB6195.M Thu Mar 29 10:35:41 2018 GCEF Page 1

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD1A.CH Vial: 63
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD2B.CH
Acq On : 29 Mar 2018 7:59 am Operator: humarahb
Sample : jc62881-4 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:35 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM



Manual Integration Approval Summary

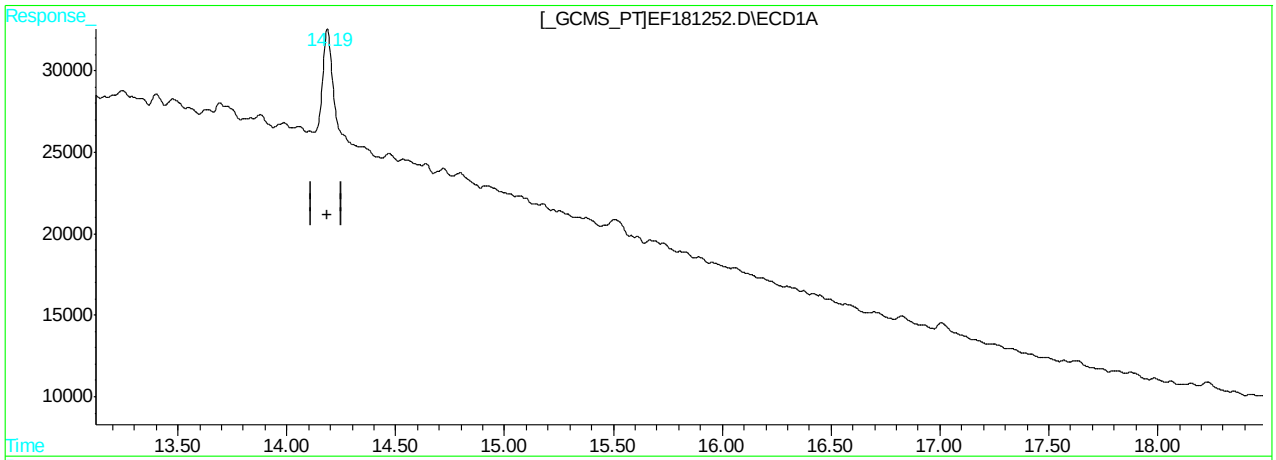
Sample Number: JC62881-4
Lab FileID: EF181252.D
Injection Time: 03/29/18 07:59
Method: SW846 8082A
Analyst approved: 03/29/18 11:01 Tianwei Ruan
Supervisor approved: 03/30/18 10:10 Gwendolyn Burns

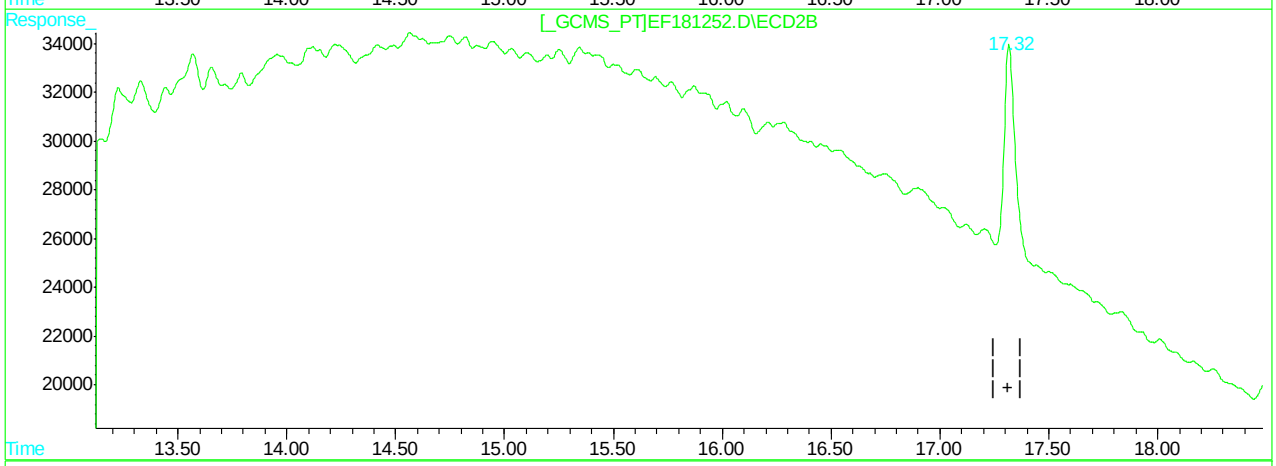
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD1A.CH Vial: 63
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD2B.CH
Acq On : 29 Mar 2018 7:59 am Operator: humarahb
Sample : jc62881-4 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:34 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 219.185PPB

response 3751624

(51) Decachlorobiphenyl #2 (S)

17.32min 99.850PPB

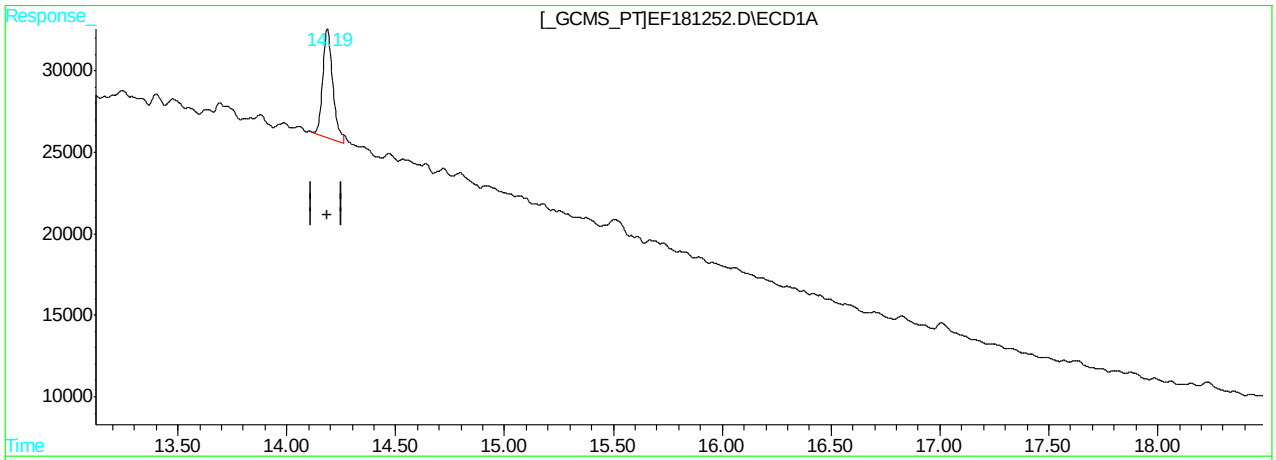
response 2096200

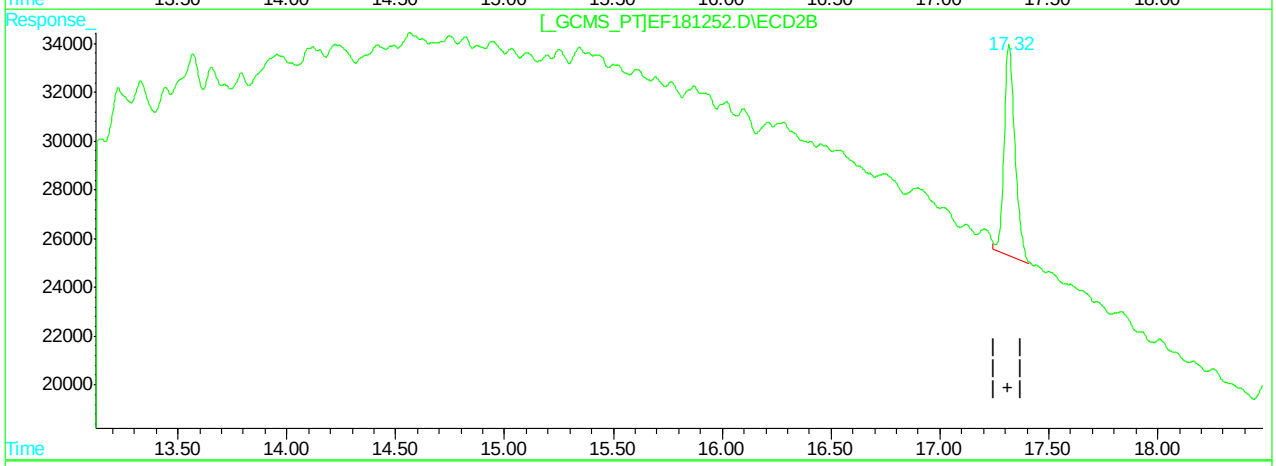
(+) = Expected Retention Time
EF181252.D PCB6195.M Thu Mar 29 10:35:05 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD1A.CH Vial: 63
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD2B.CH
Acq On : 29 Mar 2018 7:59 am Operator: humarahb
Sample : jc62881-4 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:34 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 12.538PPB m

response 214609

(51) Decachlorobiphenyl #2 (S)

17.32min 14.207PPB m

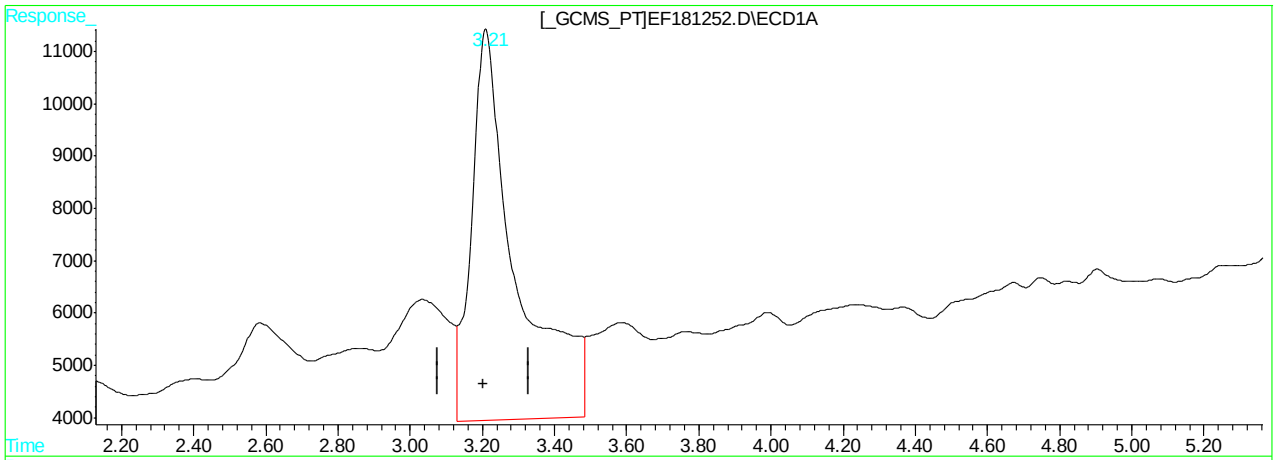
response 298255

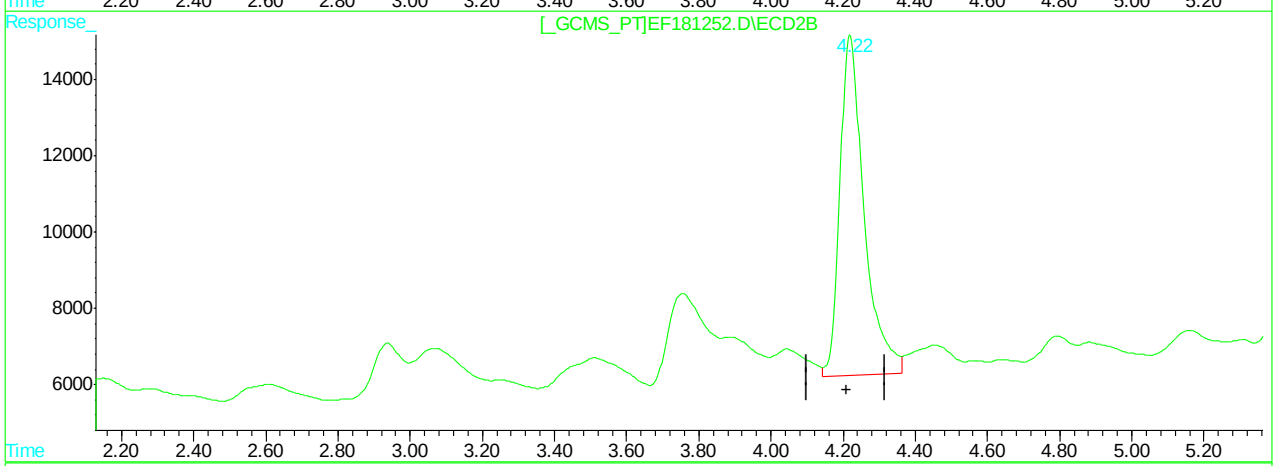
(+) = Expected Retention Time
EF181252.D PCB6195.M Thu Mar 29 10:35:15 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD1A.CH Vial: 63
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD2B.CH
Acq On : 29 Mar 2018 7:59 am Operator: humarahb
Sample : jc62881-4 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:34 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 55.509PPB

response 641740

(1) Tetrachloro-m-xylene #2 (S)

4.22min 26.836PPB

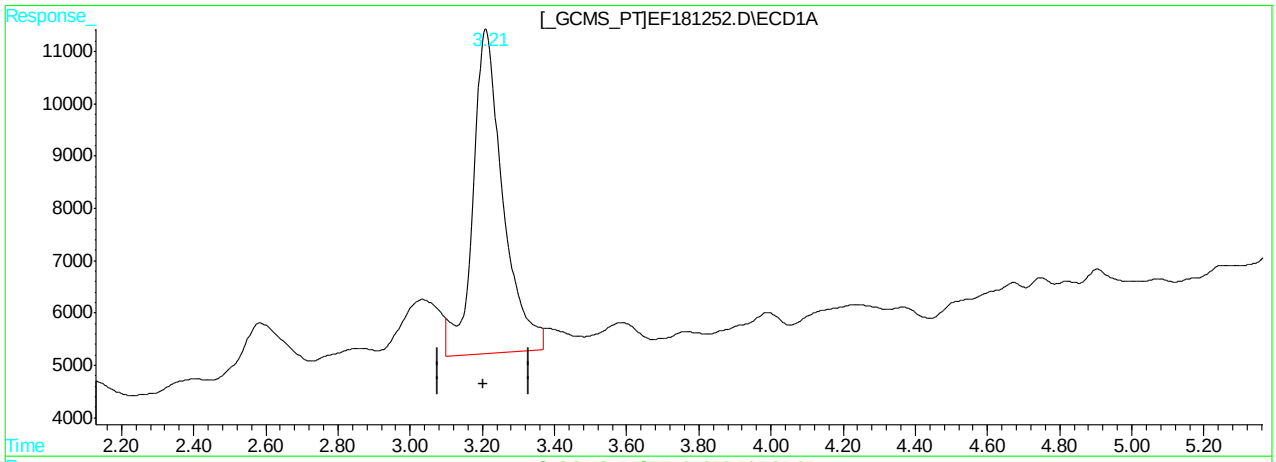
response 417805

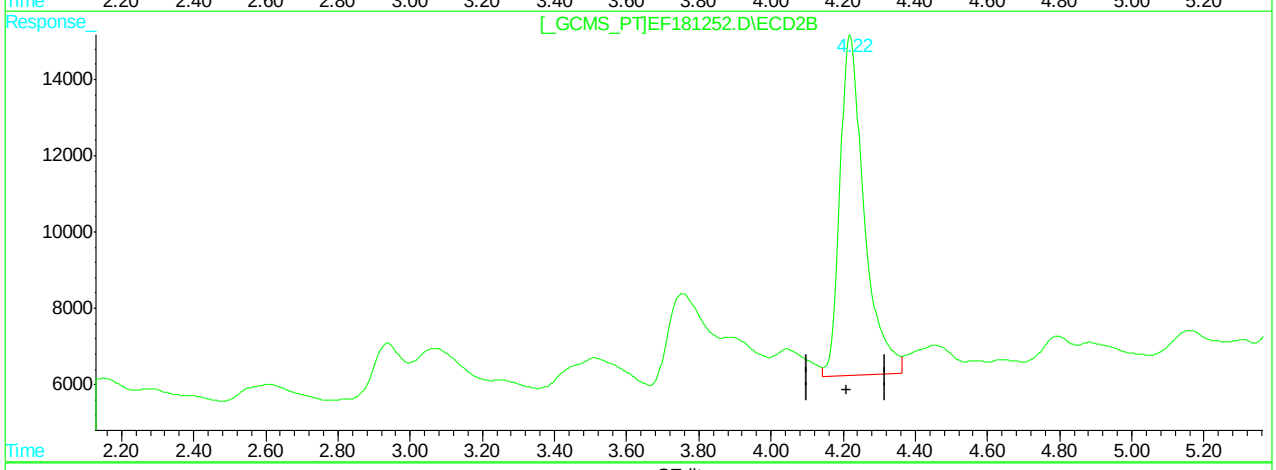
(+) = Expected Retention Time
EF181252.D PCB6195.M Thu Mar 29 10:35:19 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD1A.CH Vial: 63
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181252.D\ECD2B.CH
Acq On : 29 Mar 2018 7:59 am Operator: humarahb
Sample : jc62881-4 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:34 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 30.925PPB m

response 357520

(1) Tetrachloro-m-xylene #2 (S)

4.22min 26.836PPB

response 417805

(+) = Expected Retention Time
EF181252.D PCB6195.M Thu Mar 29 10:35:27 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/30/18 10:10

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD1A.CH Vial: 64
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD2B.CH
Acq On : 29 Mar 2018 8:24 am Operator: humarahb
Sample : jc62881-5 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:38 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.21	4.22	284070	448223	24.571m	28.790
Spiked Amount 40.000			Recovery =		61.43%	71.97%
51) S Decachlorobiphen	14.19	17.32	354867	458093	20.733m	21.821m
Spiked Amount 40.000			Recovery =		51.83%	54.55%
Target Compounds						

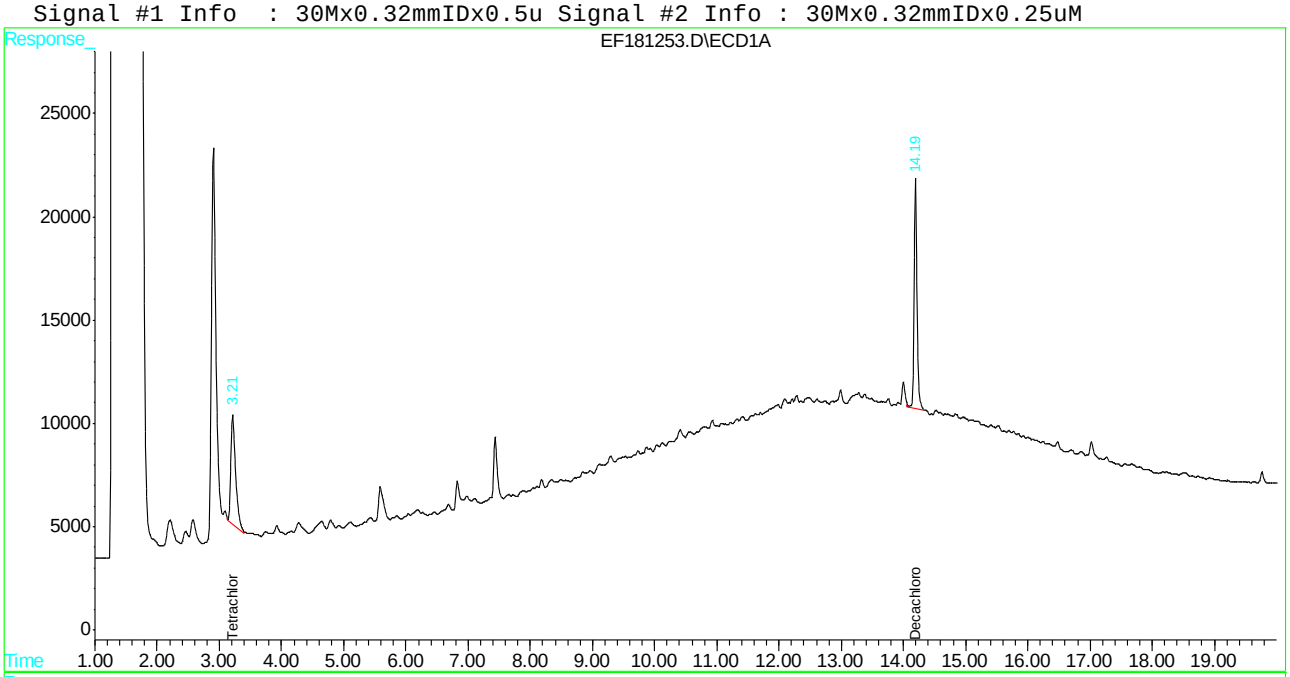
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181253.D PCB6195.M Thu Mar 29 10:38:10 2018 GCEF Page 1

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD1A.CH Vial: 64
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD2B.CH
Acq On : 29 Mar 2018 8:24 am Operator: humarahb
Sample : jc62881-5 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:38 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM



Manual Integration Approval Summary

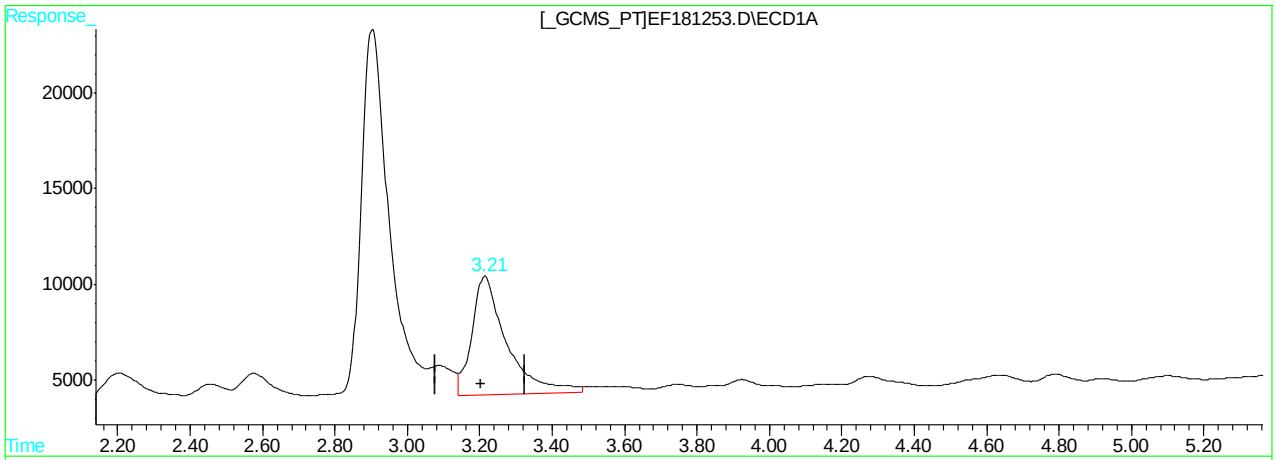
Sample Number: JC62881-5
Lab FileID: EF181253.D
Injection Time: 03/29/18 08:24
Method: SW846 8082A
Analyst approved: 03/29/18 11:01 Tianwei Ruan
Supervisor approved: 03/30/18 10:10 Gwendolyn Burns

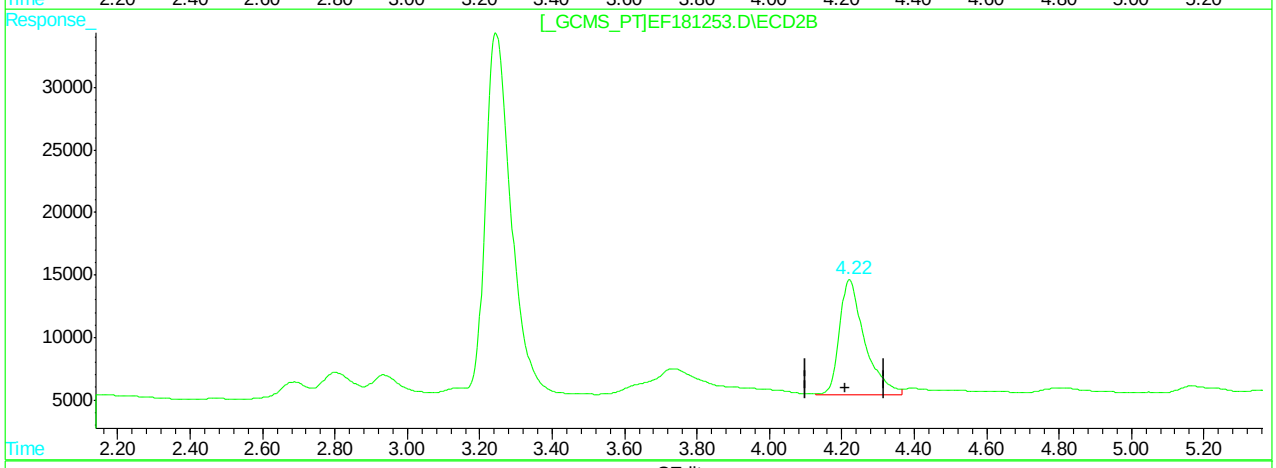
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD1A.CH Vial: 64
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD2B.CH
Acq On : 29 Mar 2018 8:24 am Operator: humarahb
Sample : jc62881-5 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 36.112PPB

response 417492

(1) Tetrachloro-m-xylene #2 (S)

4.22min 28.790PPB

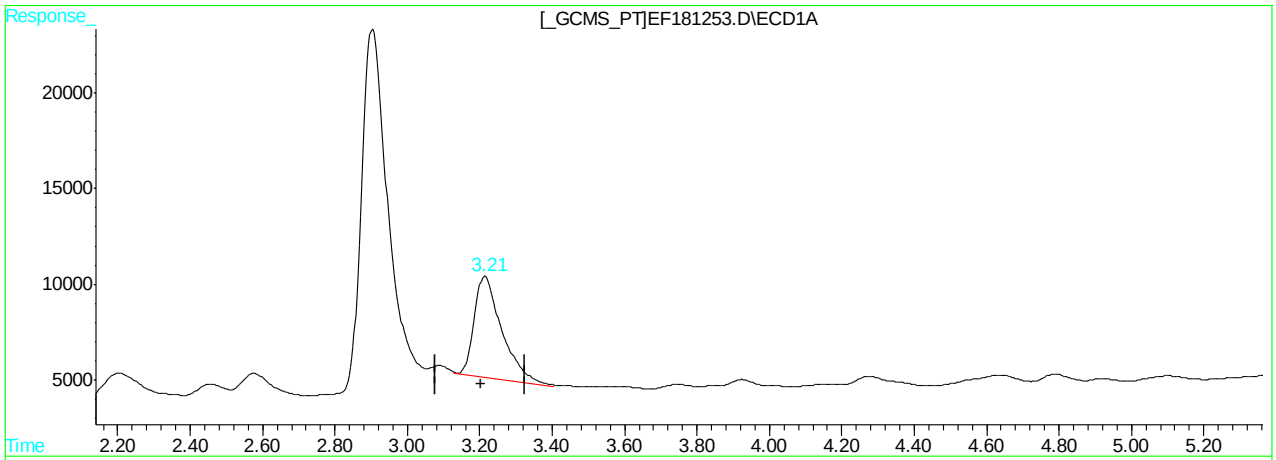
response 448223

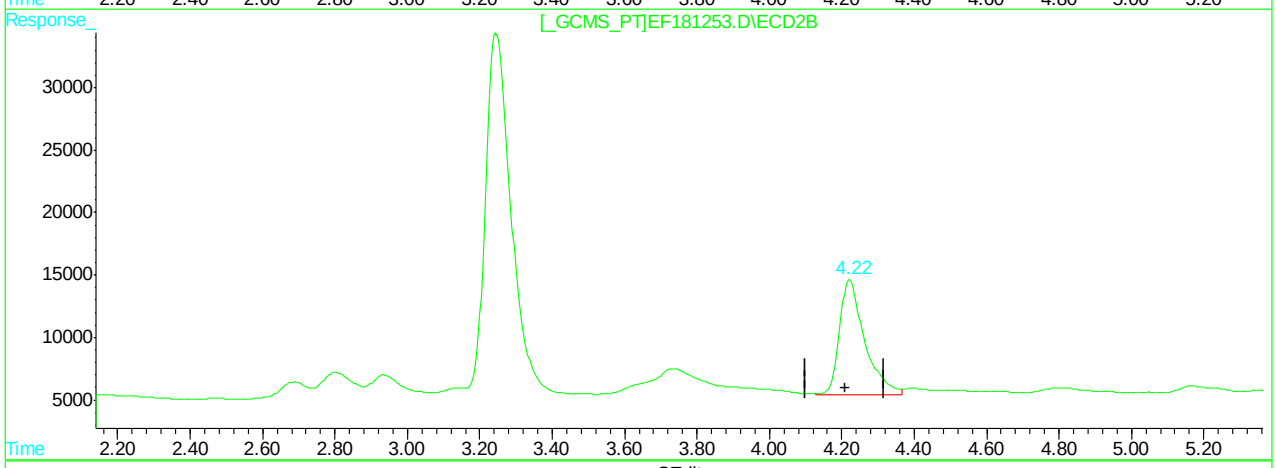
(+) = Expected Retention Time
EF181253.D PCB6195.M Thu Mar 29 10:37:47 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD1A.CH Vial: 64
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD2B.CH
Acq On : 29 Mar 2018 8:24 am Operator: humarahb
Sample : jc62881-5 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 24.571PPB m

response 284070

(1) Tetrachloro-m-xylene #2 (S)

4.22min 28.790PPB

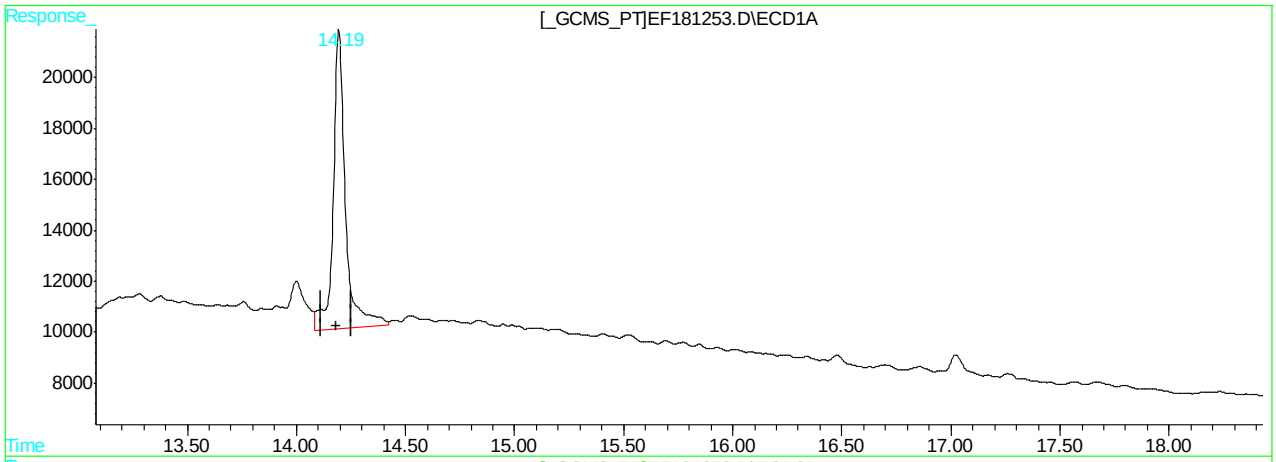
response 448223

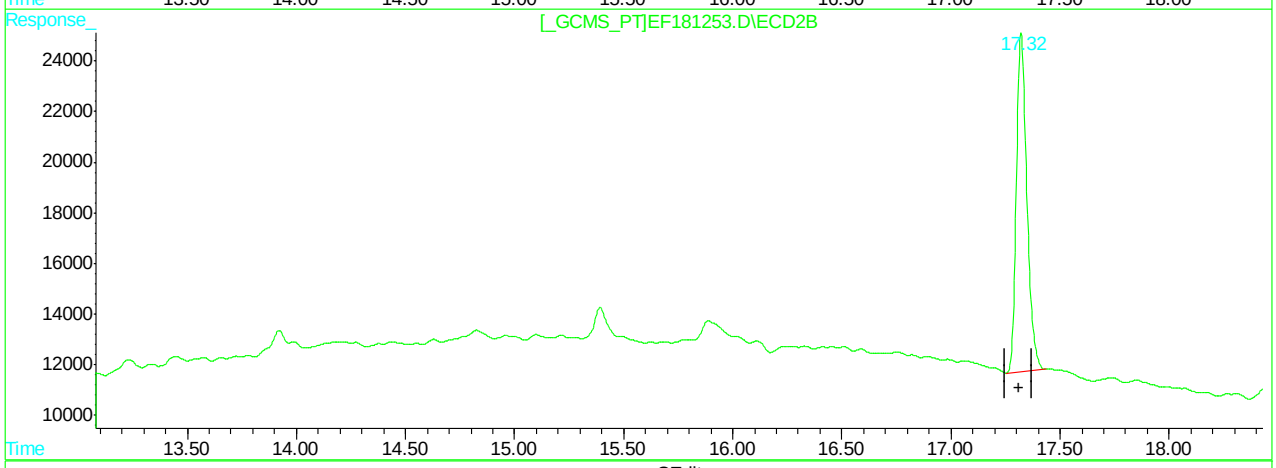
(+) = Expected Retention Time
EF181253.D PCB6195.M Thu Mar 29 10:37:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD1A.CH Vial: 64
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD2B.CH
Acq On : 29 Mar 2018 8:24 am Operator: humarahb
Sample : jc62881-5 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 26.831PPB

response 459245

(51) Decachlorobiphenyl #2 (S)

17.32min 21.204PPB

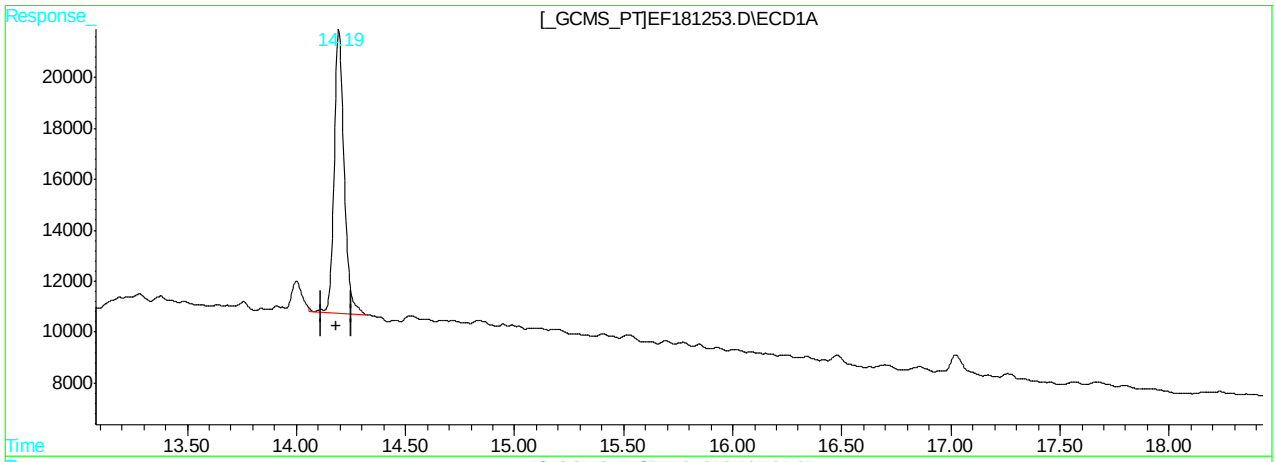
response 445148

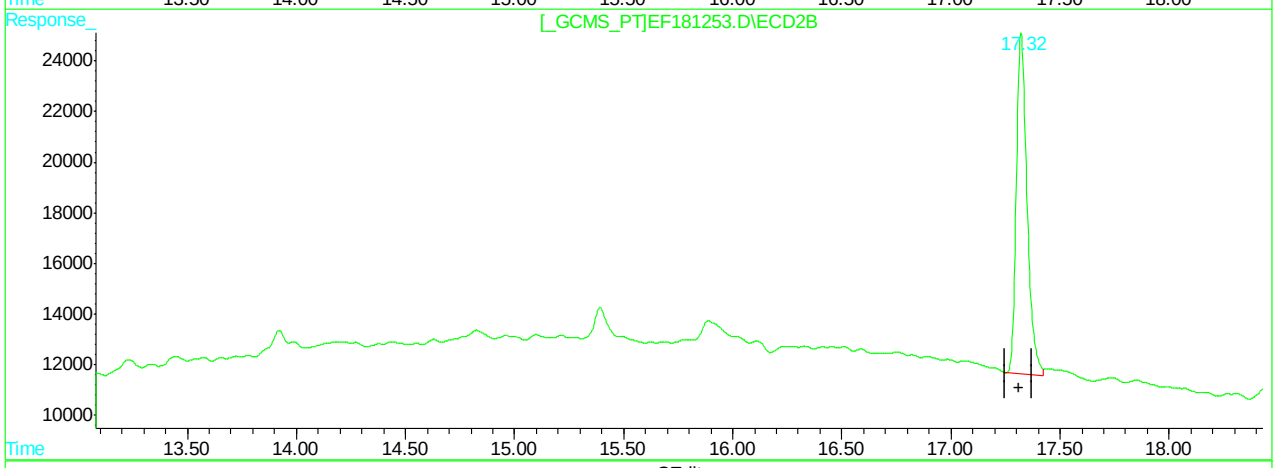
(+) = Expected Retention Time
EF181253.D PCB6195.M Thu Mar 29 10:37:55 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD1A.CH Vial: 64
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181253.D\ECD2B.CH
Acq On : 29 Mar 2018 8:24 am Operator: humarahb
Sample : jc62881-5 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 20.733PPB m

response 354867

(51) Decachlorobiphenyl #2 (S)

17.32min 21.821PPB m

response 458093

(+) = Expected Retention Time
EF181253.D PCB6195.M Thu Mar 29 10:38:03 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/30/18 10:10

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181254.D\ECD1A.CH Vial: 65
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181254.D\ECD2B.CH
Acq On : 29 Mar 2018 8:49 am Operator: humarahb
Sample : jc62881-6 Inst : gcef
Misc : op10884,GEF6203,295,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:38 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	338065	537070	29.242	34.496
	Spiked Amount 40.000			Recovery	=	73.11%	86.24%
51)	S Decachlorobiphen	14.20	17.33	318966	398400	18.635	18.977m
	Spiked Amount 40.000			Recovery	=	46.59%	47.44%
	Target Compounds						

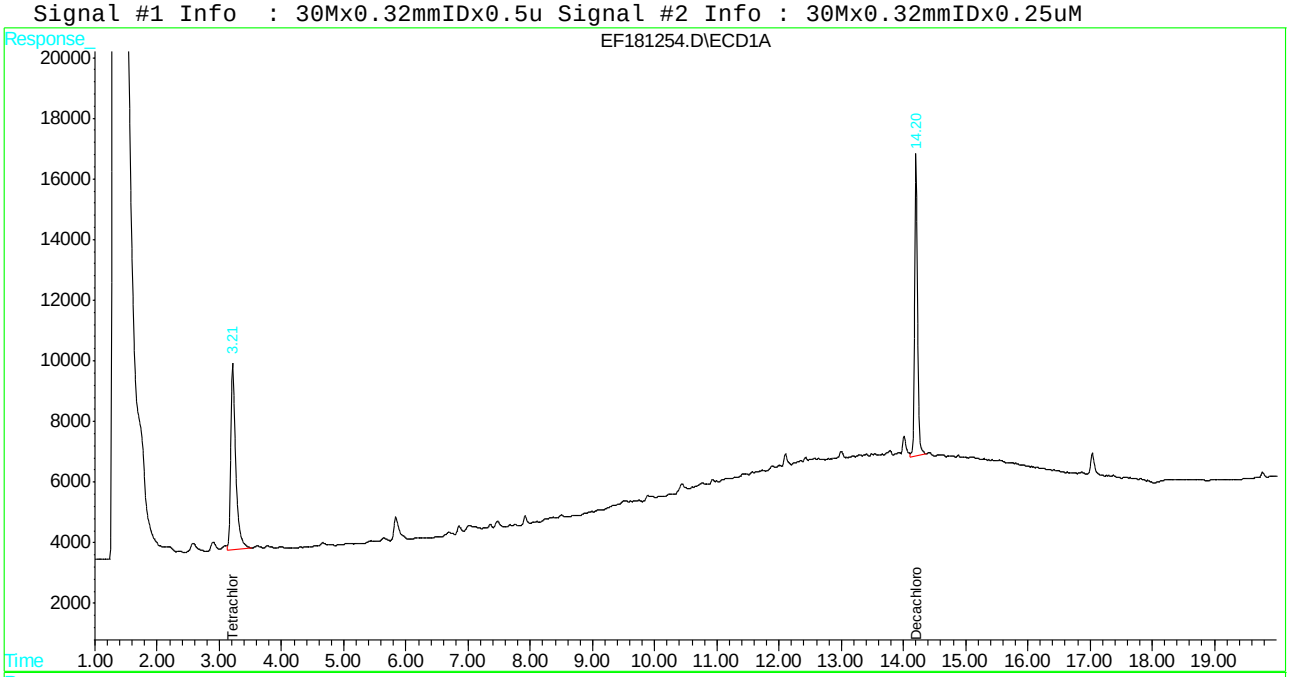
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181254.D PCB6195.M Thu Mar 29 10:38:57 2018 GCEF Page 1

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181254.D\ECD1A.CH Vial: 65
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181254.D\ECD2B.CH
Acq On : 29 Mar 2018 8:49 am Operator: humarahb
Sample : jc62881-6 Inst : gcef
Misc : op10884,GEF6203,295,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:38 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM



Manual Integration Approval Summary

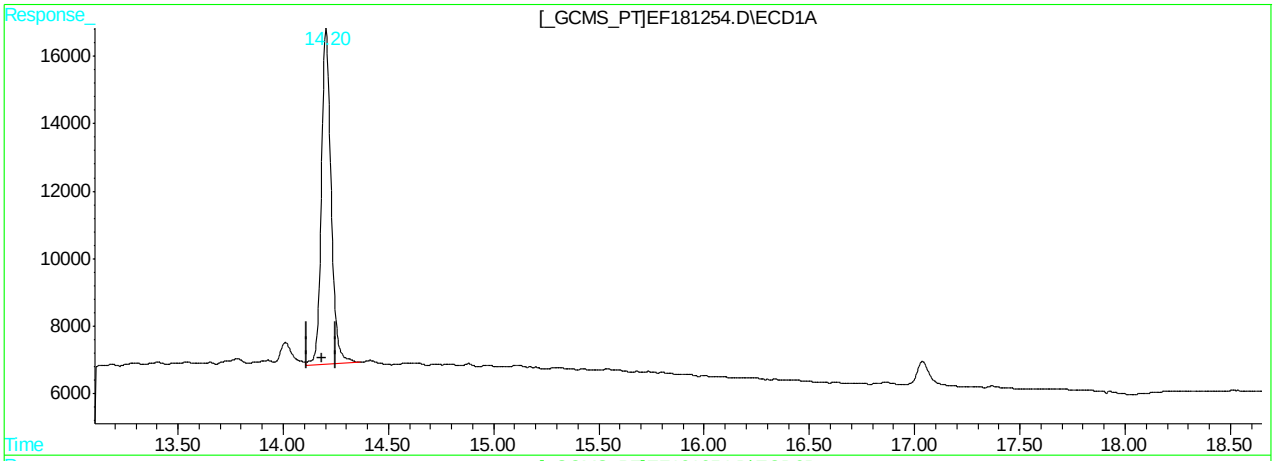
Sample Number:	JC62881-6	**Method:**	SW846 8082A
Lab FileID:	EF181254.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/29/18 08:49	**Supervisor approved:**	03/30/18 10:10 Gwendolyn Burns

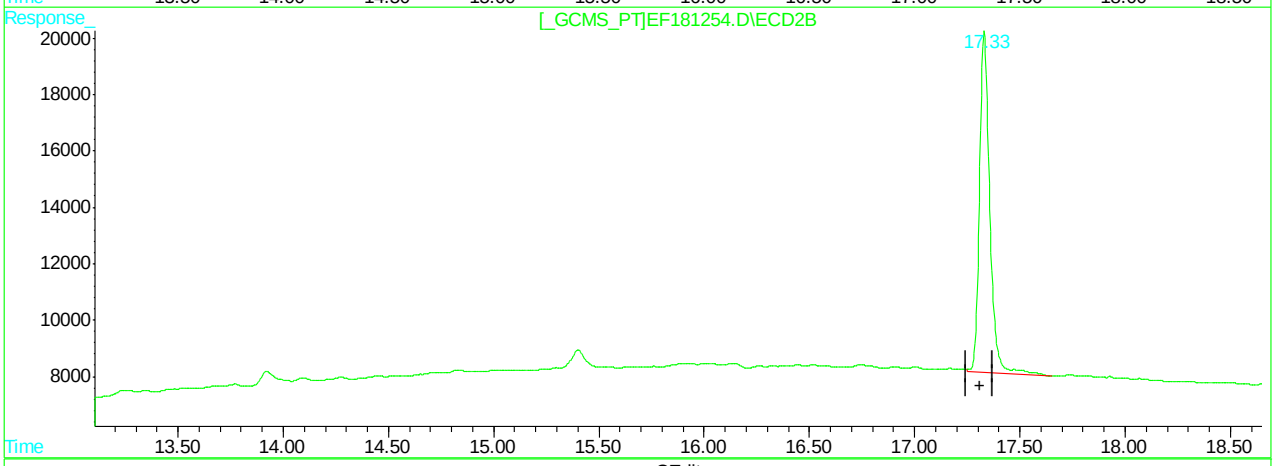
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181254.D\ECD1A.CH Vial: 65
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181254.D\ECD2B.CH
Acq On : 29 Mar 2018 8:49 am Operator: humarahb
Sample : jc62881-6 Inst : gcef
Misc : op10884,GEF6203,295,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:38 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 18.635PPB

response 318966

(51) Decachlorobiphenyl #2 (S)

17.33min 19.571PPB

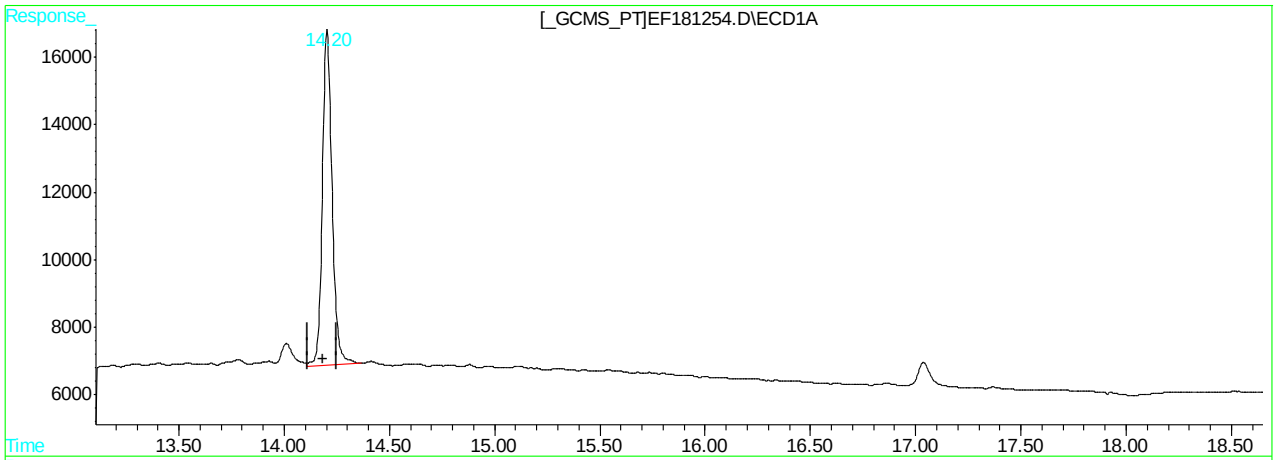
response 410862

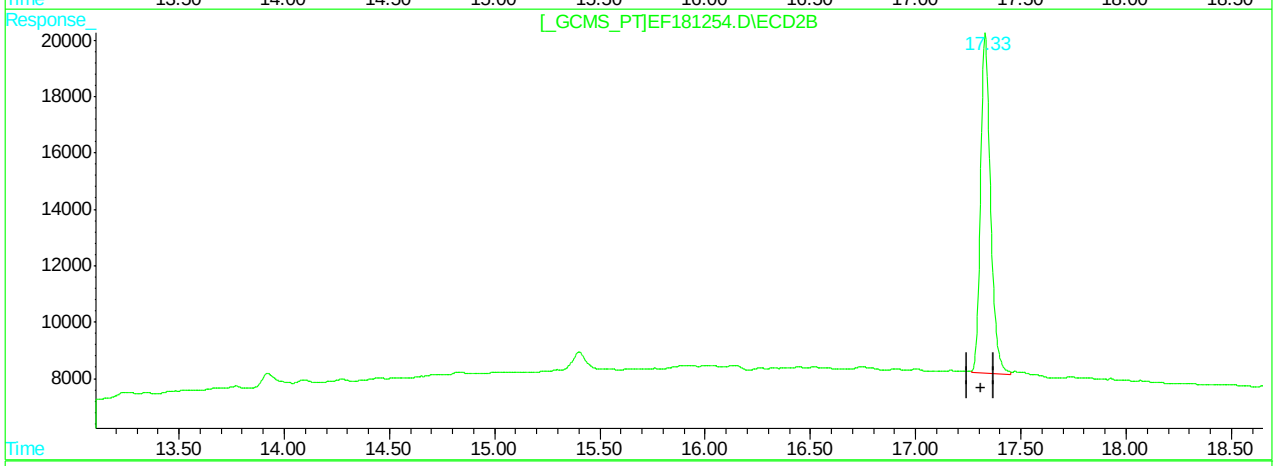
(+) = Expected Retention Time
EF181254.D PCB6195.M Thu Mar 29 10:38:44 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181254.D\ECD1A.CH Vial: 65
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181254.D\ECD2B.CH
Acq On : 29 Mar 2018 8:49 am Operator: humarahb
Sample : jc62881-6 Inst : gcef
Misc : op10884,GEF6203,295,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:38 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 18.635PPB

response 318966

(51) Decachlorobiphenyl #2 (S)

17.33min 18.977PPB m

response 398400

(+) = Expected Retention Time
EF181254.D PCB6195.M Thu Mar 29 10:38:50 2018 GCEF

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144704.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144704.D\ECD2B.CH
Acq On : 3-28-18 01:26:39 AM Operator: christp
Sample : op10885-mb1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:39 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	463.7E6	108.6E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	463.7E6	108.6E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	463.7E6	108.6E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.34	278.0E6	60731456	33.875	30.804
	Spiked Amount 40.000	Range 30 - 150		Recovery =		84.69%	77.01%
26) SA	Decachlorobiphen	10.13	12.03	107.9E6	17170368	16.102	12.062
	Spiked Amount 40.000			Recovery =		40.26%	30.15%
	Target Compounds						

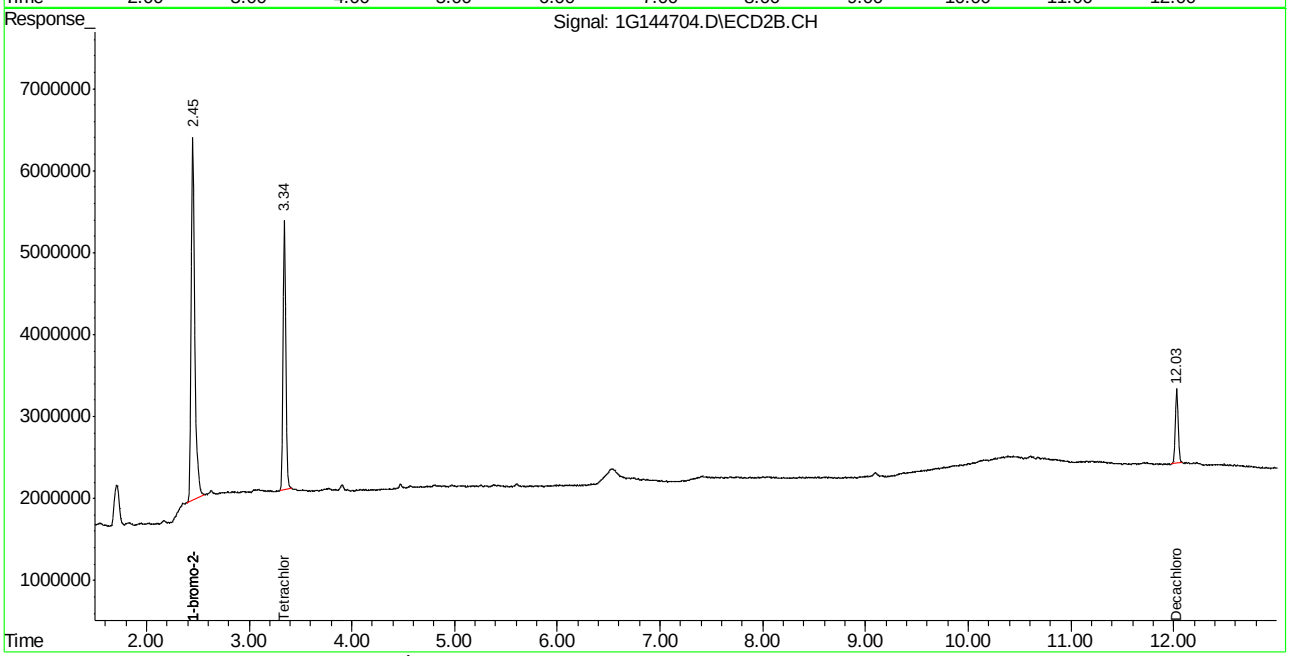
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144704.D 1PST4557.M Wed Mar 28 08:39:43 2018 RPT1 Page 1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144704.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144704.D\ECD2B.CH
Acq On : 3-28-18 01:26:39 AM Operator: christp
Sample : op10885-mb1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:39 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181218.D\ECD1A.CH Vial: 38
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181218.D\ECD2B.CH
Acq On : 28 Mar 2018 5:49 pm Operator: humarahb
Sample : op10884-mb1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:34 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.21	4.22	325619	446671	28.165	28.690
	Spiked Amount 40.000			Recovery	=	70.41%	71.73%
51) S	Decachlorobiphen	14.21	17.33	307121	359631	17.943	17.131
	Spiked Amount 40.000			Recovery	=	44.86%	42.83%
	Target Compounds						

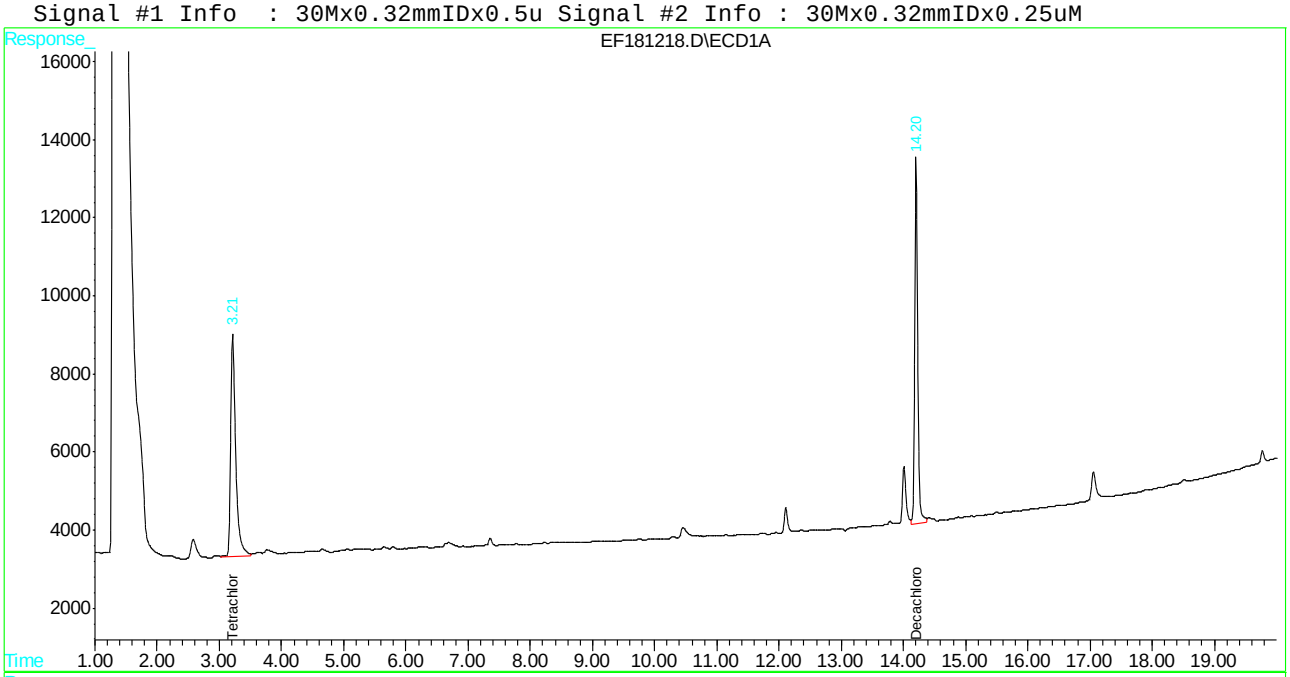
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181218.D PCB6195.M Thu Mar 29 09:35:03 2018 GCEF Page 1

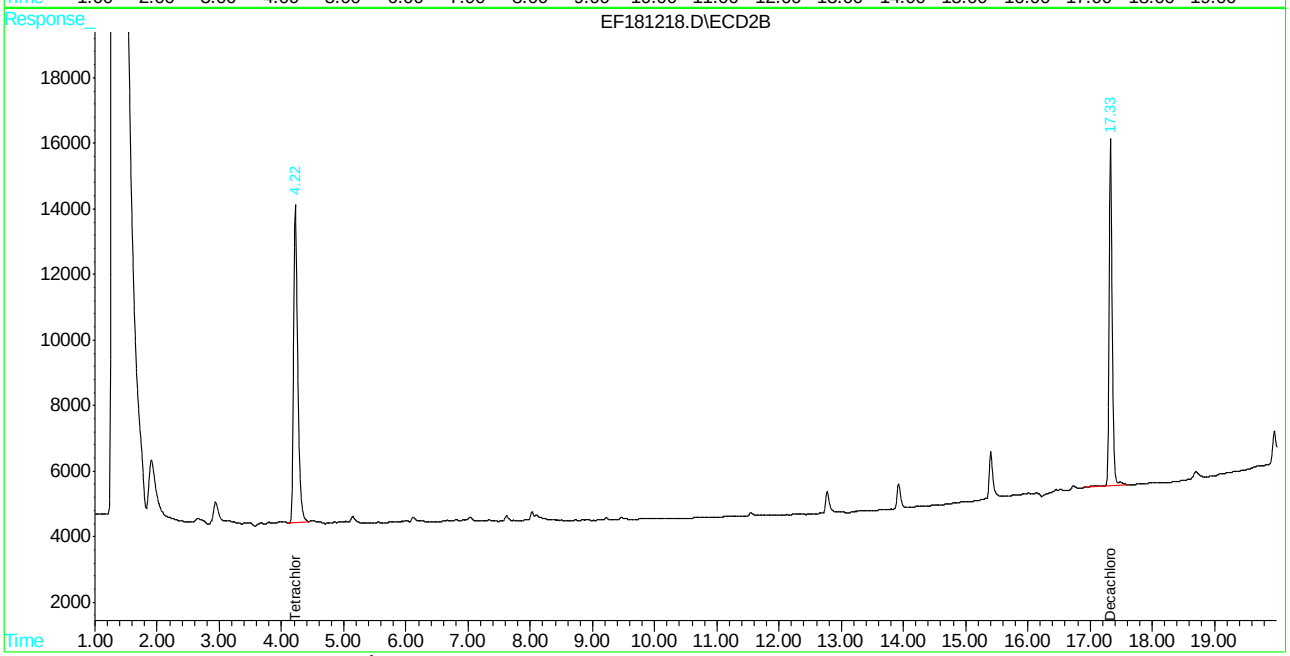
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181218.D\ECD1A.CH Vial: 38
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181218.D\ECD2B.CH
Acq On : 28 Mar 2018 5:49 pm Operator: humarahb
Sample : op10884-mb1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:34 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:41 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	495.4E6	110.5E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.45	495.4E6	110.5E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.45	495.4E6	110.5E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.35	290.0E6	63177693	33.070	31.492
		Spiked Amount 40.000	Range 30 - 150		Recovery =		82.67%	78.73%
26)	SA	Decachlorobiphen	10.13	12.03	146.7E6	24721425	20.493	17.067
		Spiked Amount 40.000			Recovery =		51.23%	42.67%
		Target Compounds						
3)		Hexachlorobenzen	3.13	3.91	255.3E6	46343053	23.098	16.355
4)	A	alpha-BHC	3.27	4.06	299.1E6	70962048	27.283	26.243
5)	MA	gamma-BHC	3.58	4.53	274.2E6	62221048	26.437	25.387
6)	MA	Heptachlor	4.09	5.15	221.9E6	47255741	20.556	20.553
7)	B	beta-BHC	3.66	4.62	118.3E6	23524673	22.865	21.917
8)	B	delta-BHC	3.87	5.05	209.2E6	52482854	24.362	23.709
9)	MB	Aldrin	4.45	5.64	170.2E6	41394457	17.240	17.702
10)		Alachlor	4.57	5.40	38688259	9033543	27.464m	29.678m
11)	B	Heptachlor Epoxi	5.18	6.50	265.5E6	55954964	26.343	25.476
12)	B	gamma-Chlordane	5.35	6.80	230.5E6	49987182	29.929	23.499
13)	B	alpha-Chlordane	5.53	7.03	231.8E6	51505625	24.536	24.580
14)	A	Endosulfan I	5.72	7.15	286.1E6	53050016	30.888	26.188
15)	B	4,4'-DDE	5.65	7.29	175.8E6	43437032	19.814	19.642
16)	MA	Dieldrin	6.04	7.60	269.6E6	59795290	28.732	26.593
17)	MA	Endrin	6.38	8.13	254.8E6	54837125	29.586	27.727
18)	A	4,4'-DDD	6.52	8.29	141.8E6	35587630	21.509	20.863
19)	B	Endosulfan II	6.72	8.49	243.9E6	51011737	28.361	25.922
20)	MA	4,4'-DDT	6.93	8.83	156.3E6	33165180	25.757	28.812
21)	B	Endrin Aldehyde	7.35	9.07	189.5E6	39305256	26.308	25.373
22)	B	Endosulfan Sulfa	8.04	9.53	188.4E6	39743359	28.003	29.016
23)	A	Methoxychlor	7.73	9.96	82703496	14557378	24.276	24.106m
25)	B	Endrin Ketone	8.50	10.32	237.8E6	45385229	33.097	29.142

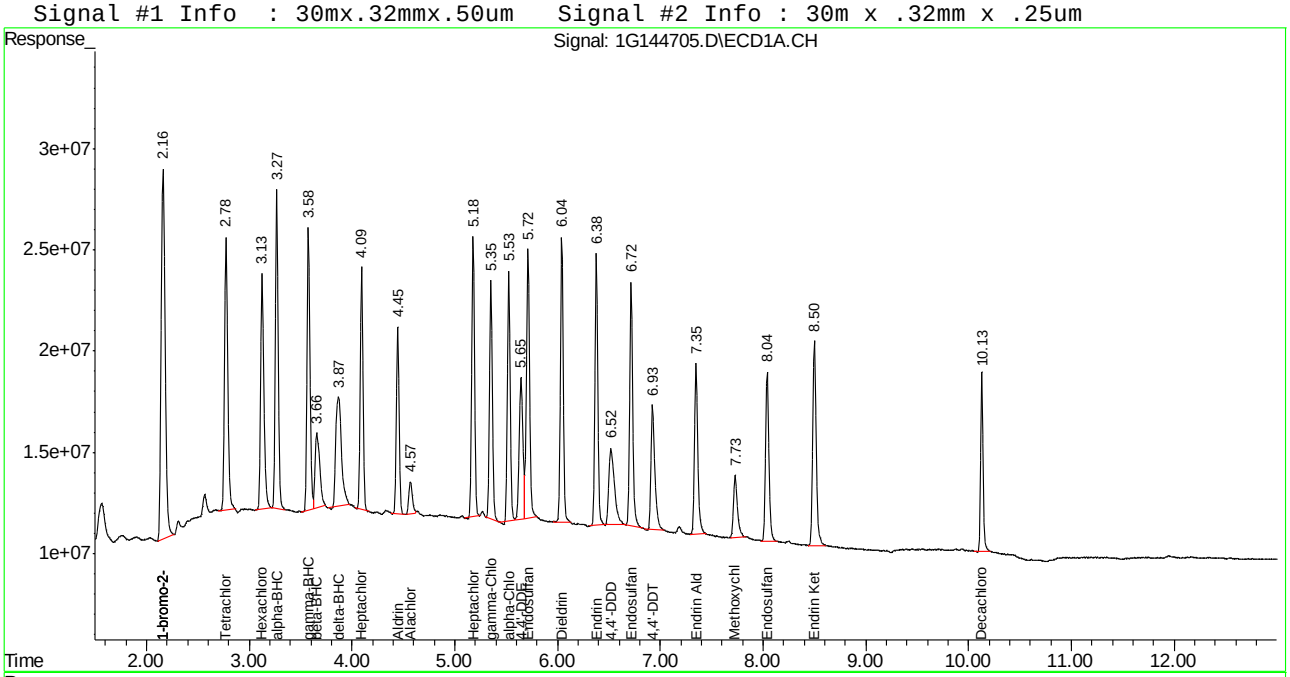
(f)=RT Delta > 1/2 Window (m)=manual int.

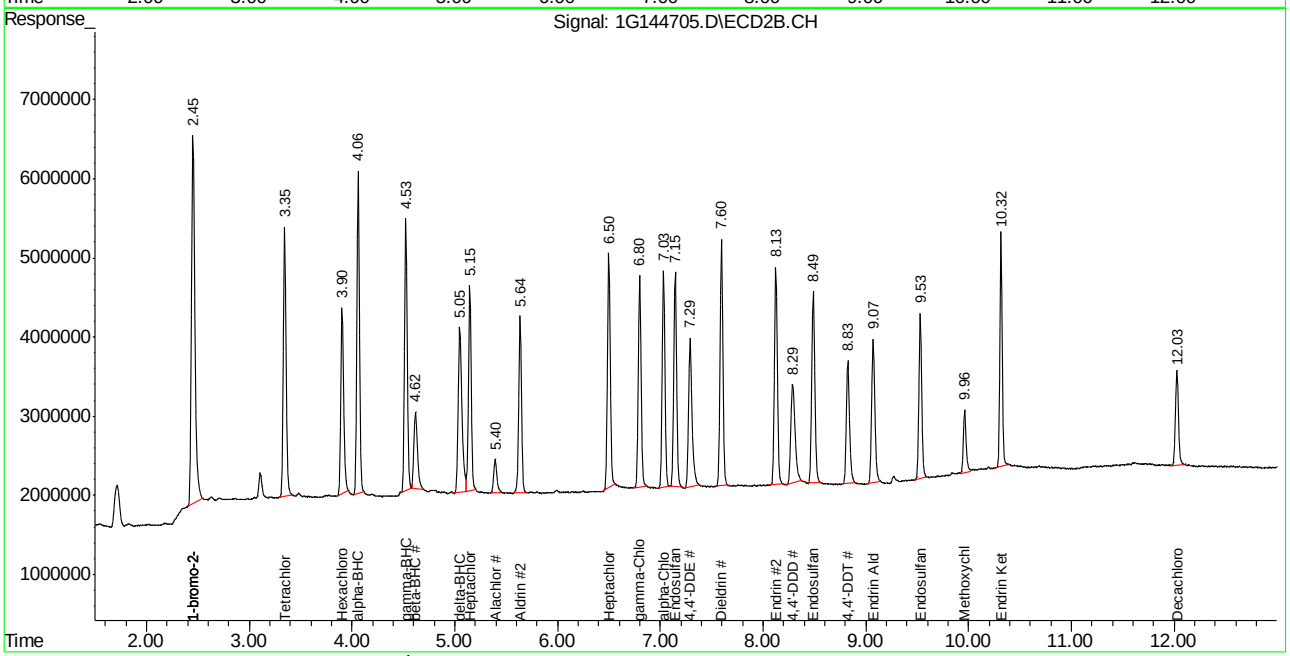
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:41 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

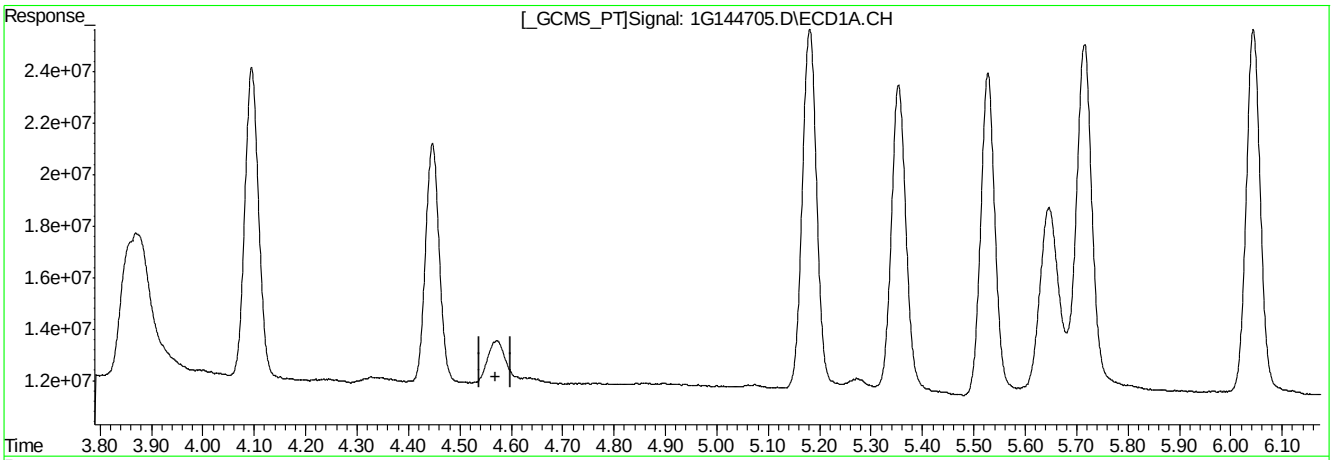
Sample Number: OP10885-BS1
Lab FileID: 1G144705.D
Injection Time: 03/28/18 01:43
Method: SW846 8081B
Analyst approved: 03/28/18 09:29 Dharmistha Mehta
Supervisor approved: 03/29/18 09:44 Gwendolyn Burns

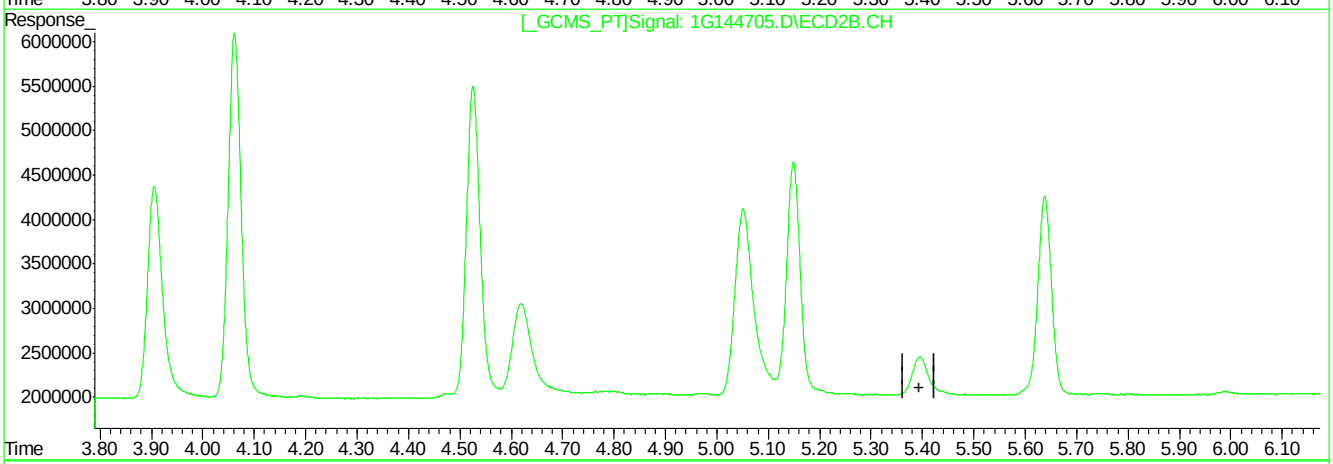
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.57	Poorly defined baseline
Alachlor	15972-60-8	2	5.40	Poorly defined baseline
Methoxychlor	72-43-5	2	9.96	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:40 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

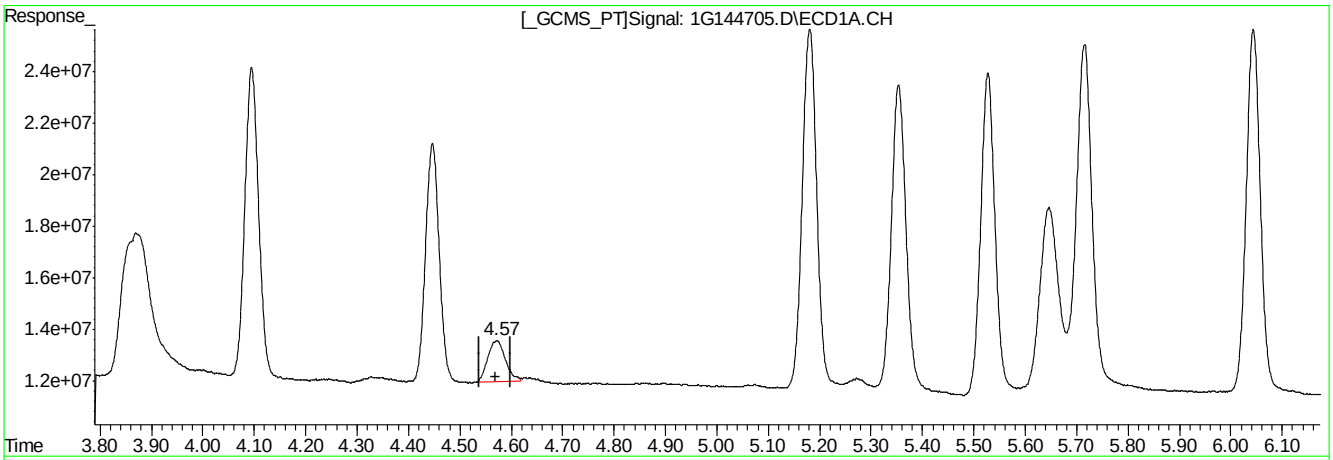
response 0

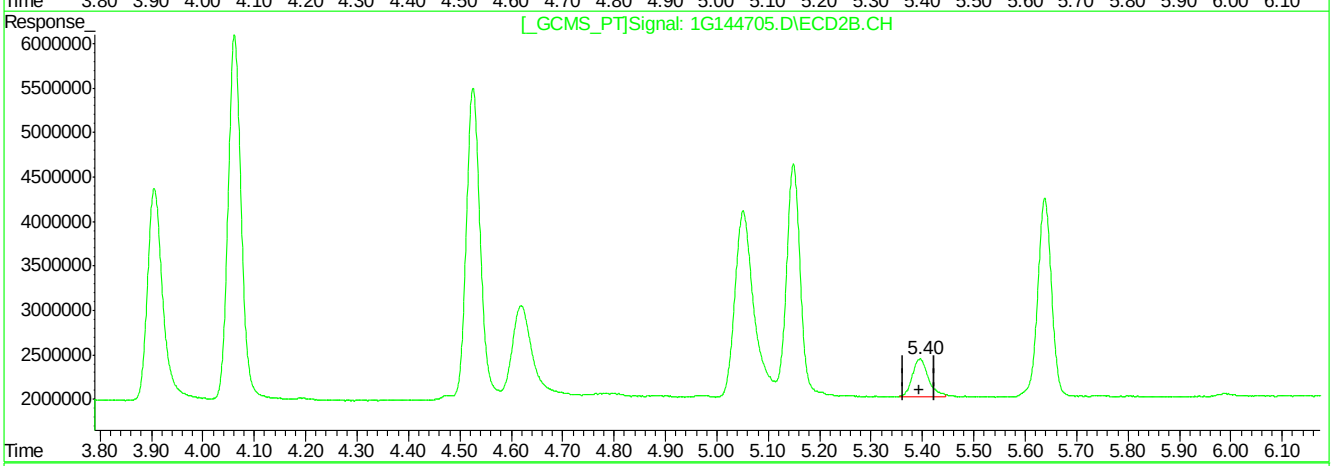
(+) = Expected Retention Time
1G144705.D 1PST4557.M Wed Mar 28 08:40:45 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:40 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.57min 27.464PPB m

response 38688259

(10) Alachlor #2

5.40min 29.678PPB m

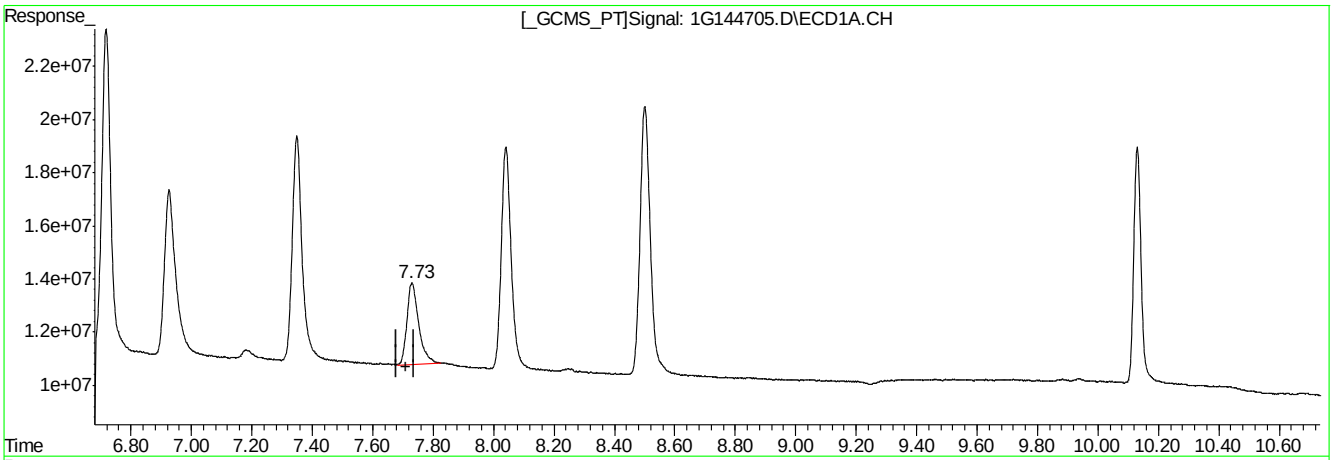
response 9033543

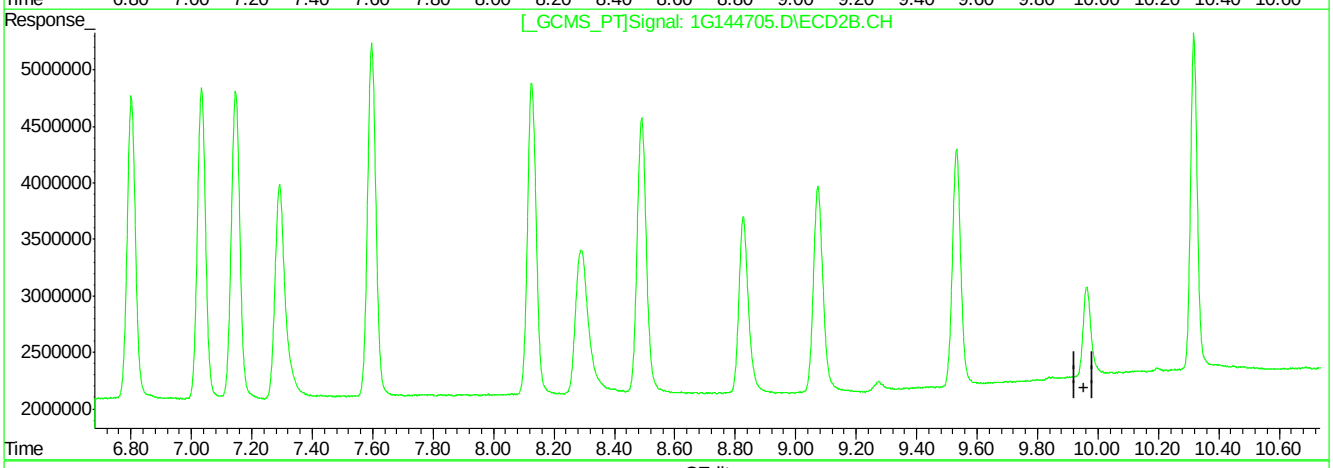
(+) = Expected Retention Time
1G144705.D 1PST4557.M Wed Mar 28 08:41:11 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:40 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 24.276PPB

response 82703496

(23) Methoxychlor #2 (A)

0.00min 0.000PPB

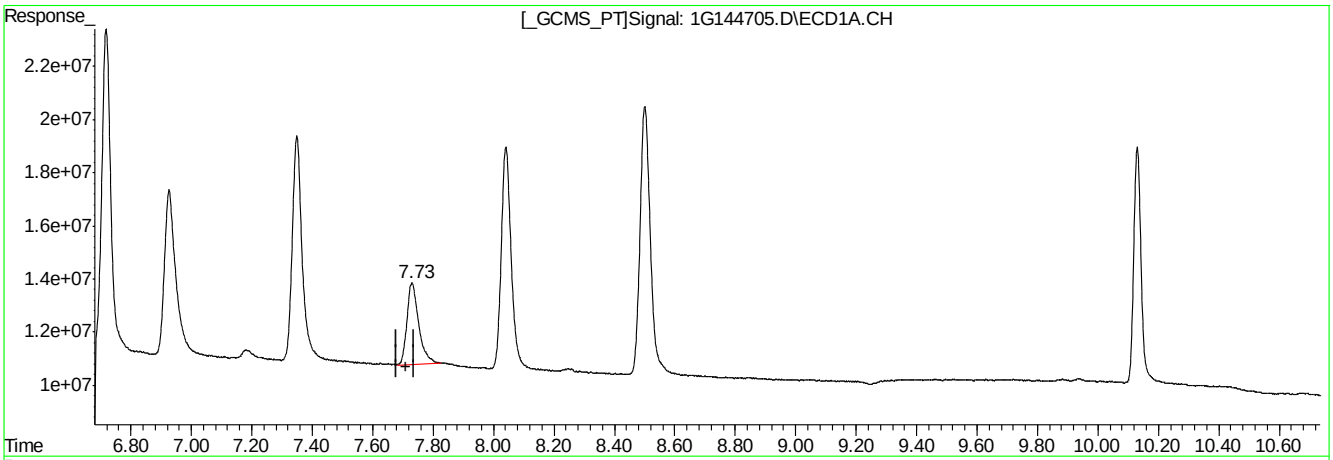
response 0

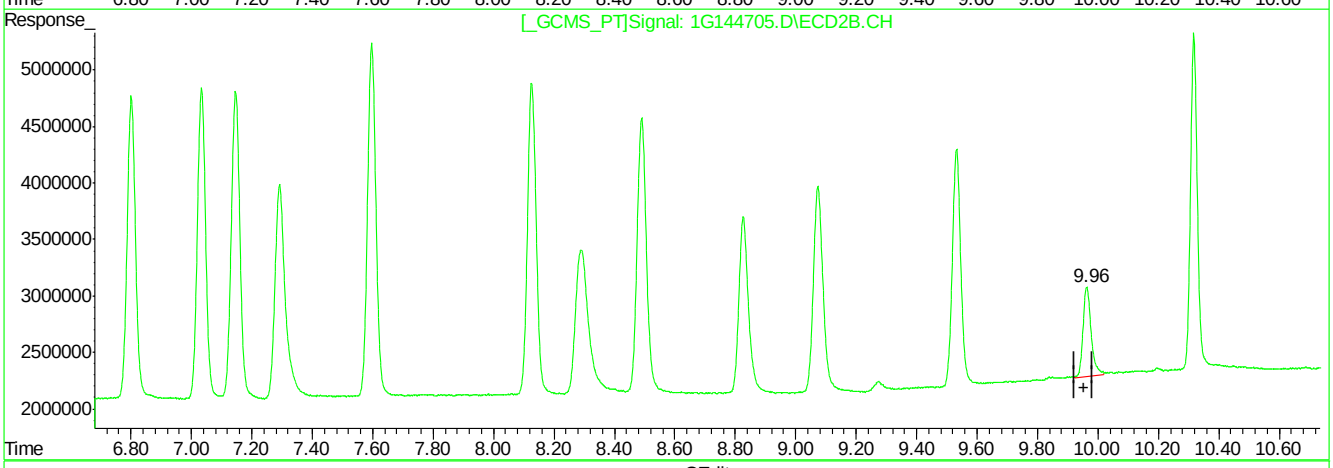
(+) = Expected Retention Time
1G144705.D 1PST4557.M Wed Mar 28 08:41:38 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:40 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 24.276PPB

response 82703496

(23) Methoxychlor #2 (A)

9.96min 24.106PPB m

response 14557378

(+) = Expected Retention Time
1G144705.D 1PST4557.M Wed Mar 28 08:41:48 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:37 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.22	4.22	376027	541597	32.526m	34.787m
	Spiked Amount 40.000			Recovery =		81.31%	86.97%
51)	S Decachlorobiphen	14.20	17.33	258236	310867	15.087m	14.808m
	Spiked Amount 40.000			Recovery =		37.72%	37.02%
	Target Compounds						
41)	AR1016-A	3.77	5.18	72187	104027	227.854m	253.859m
42)	AR1016-B	4.29f	6.00f	108923	166681	197.532	206.961m
43)	AR1016-C	5.13f	6.96f	212593	320886	173.168m	199.761
44)	AR1016-D	5.34f	7.25f	97454	141506	204.686m	206.035
45)	AR1016-E	6.07f	8.26f	90447	96706	182.999	201.427
46)	AR1260-A	9.70f	12.36	221659	293955	162.787	164.954
47)	AR1260-B	9.93	12.56	143549	173337	218.370	215.104
48)	AR1260-C	10.46	13.24	127524	170180	207.411	197.723
49)	AR1260-D	11.15	13.80	297739	338781	189.979	188.943m
50)	AR1260-E	11.77	14.66	247938	313682	160.647m	168.139

11.3.2 11

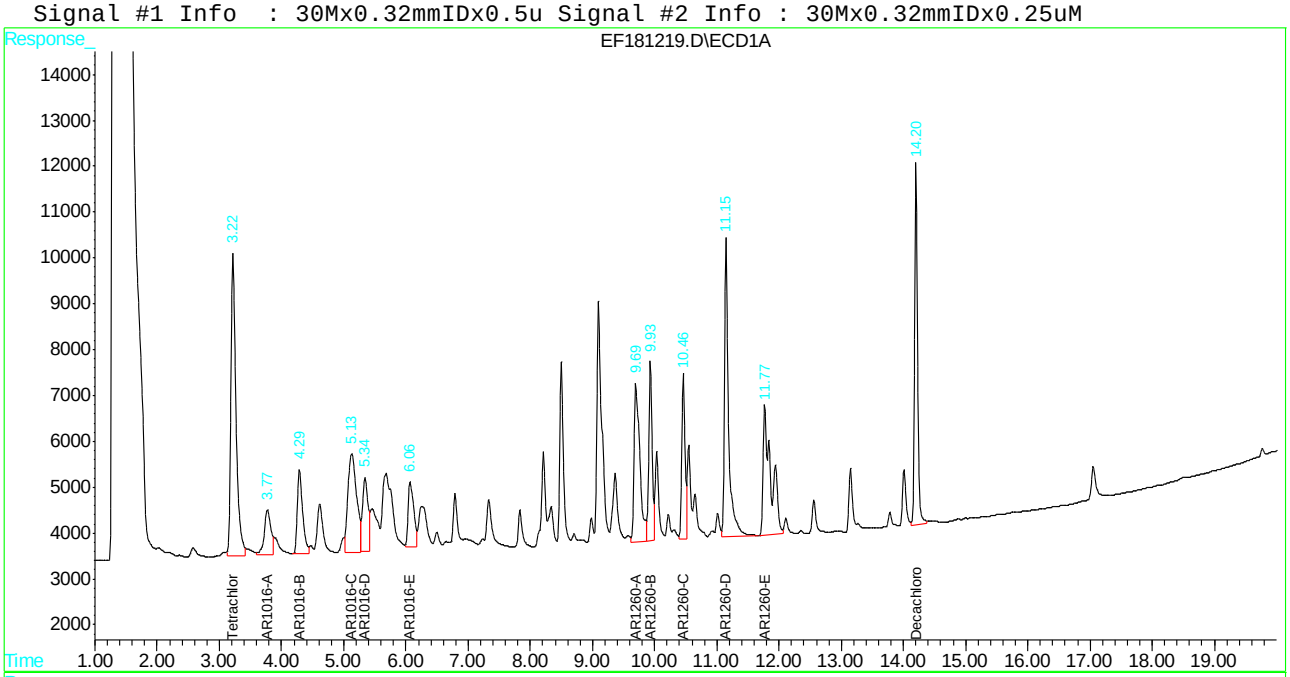
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181219.D PCB6195.M Thu Mar 29 09:38:09 2018 GCEF Page 1

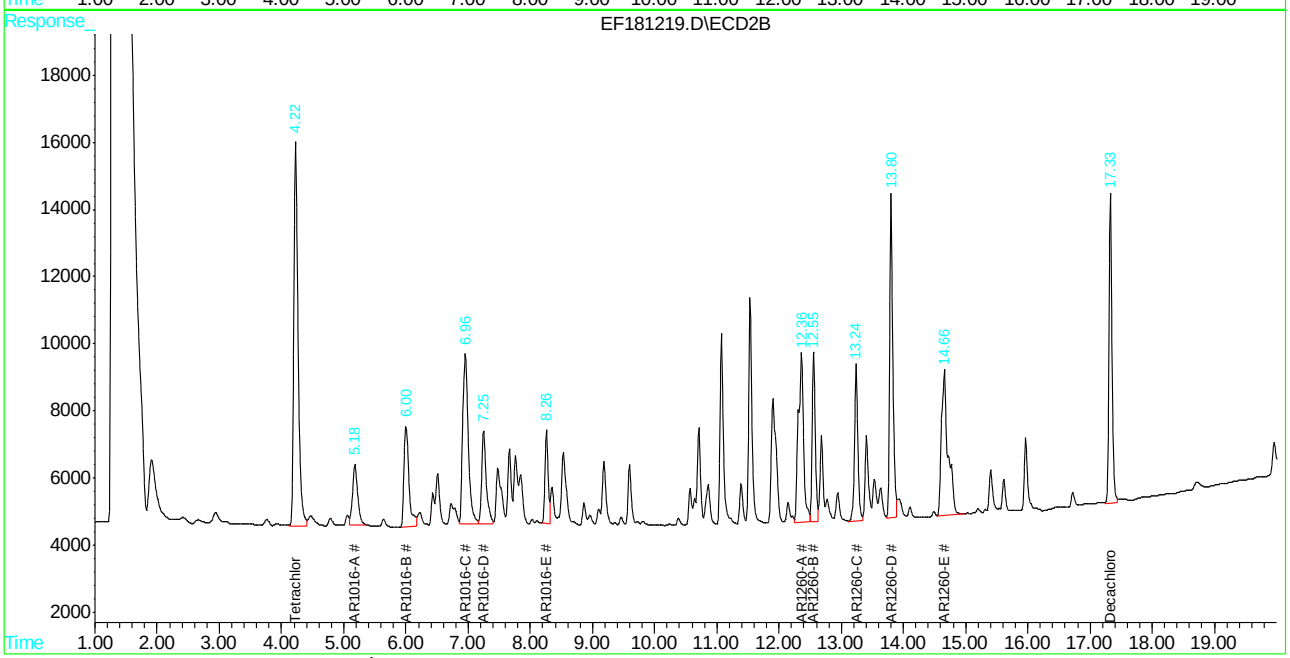
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:37 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

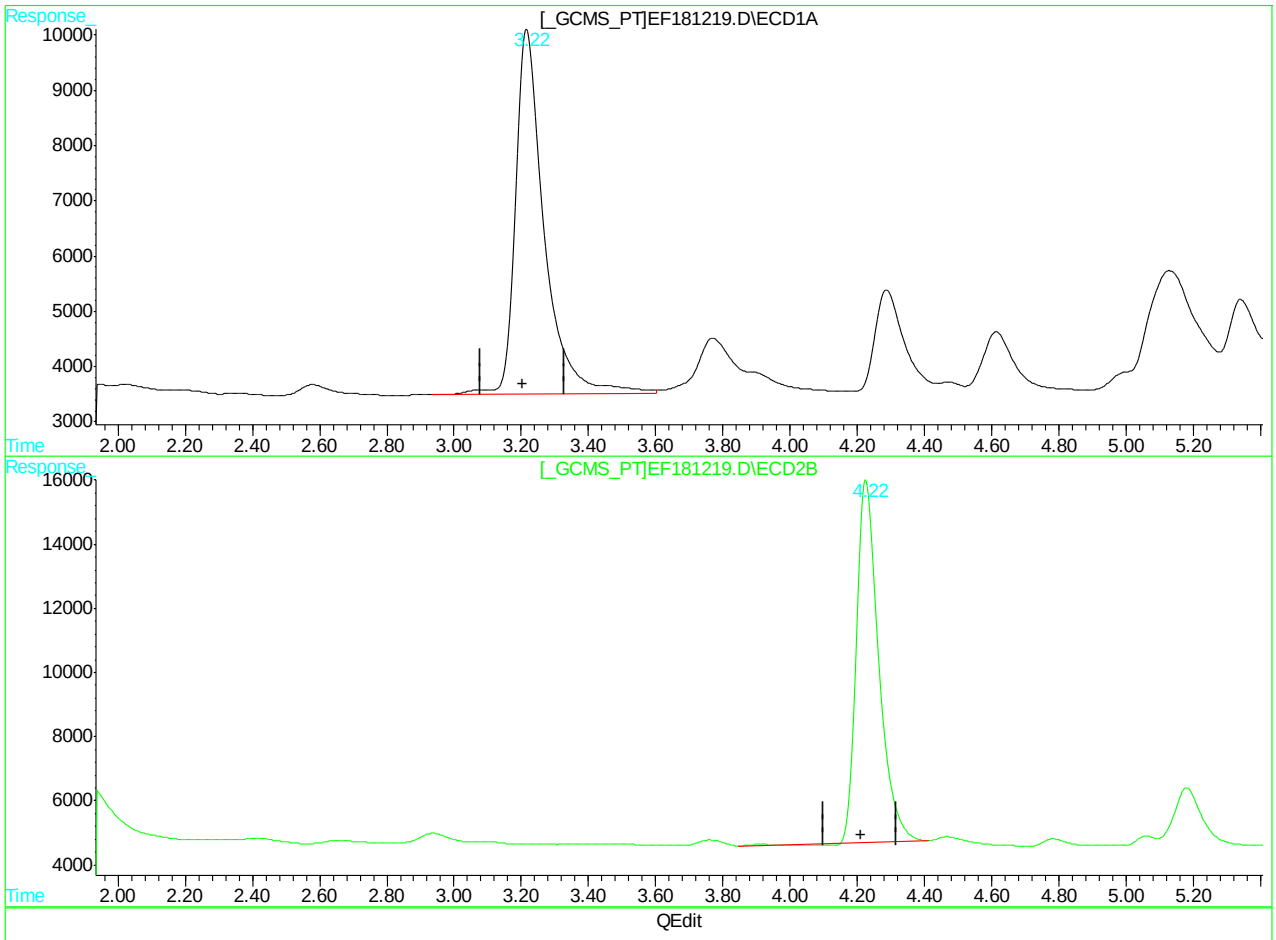
Sample Number: OP10884-BS1
Lab FileID: EF181219.D
Injection Time: 03/28/18 18:14
Method: SW846 8082A
Analyst approved: 03/29/18 11:01 Tianwei Ruan
Supervisor approved: 03/29/18 17:48 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.22	Poorly defined baseline
AR1016-A		1	3.77	Split peak
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline
AR1016-C		1	5.13	Split peak
AR1016-A		2	5.18	Split peak
AR1016-D		1	5.34	Split peak
AR1016-B		2	6.00	Split peak
AR1260-E		1	11.77	Split peak
AR1260-D		2	13.80	Split peak
Decachlorobiphenyl	2051-24-3	1	14.20	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.22min 33.892PPB

response 391823

(1) Tetrachloro-m-xylene #2 (S)

4.23min 33.272PPB

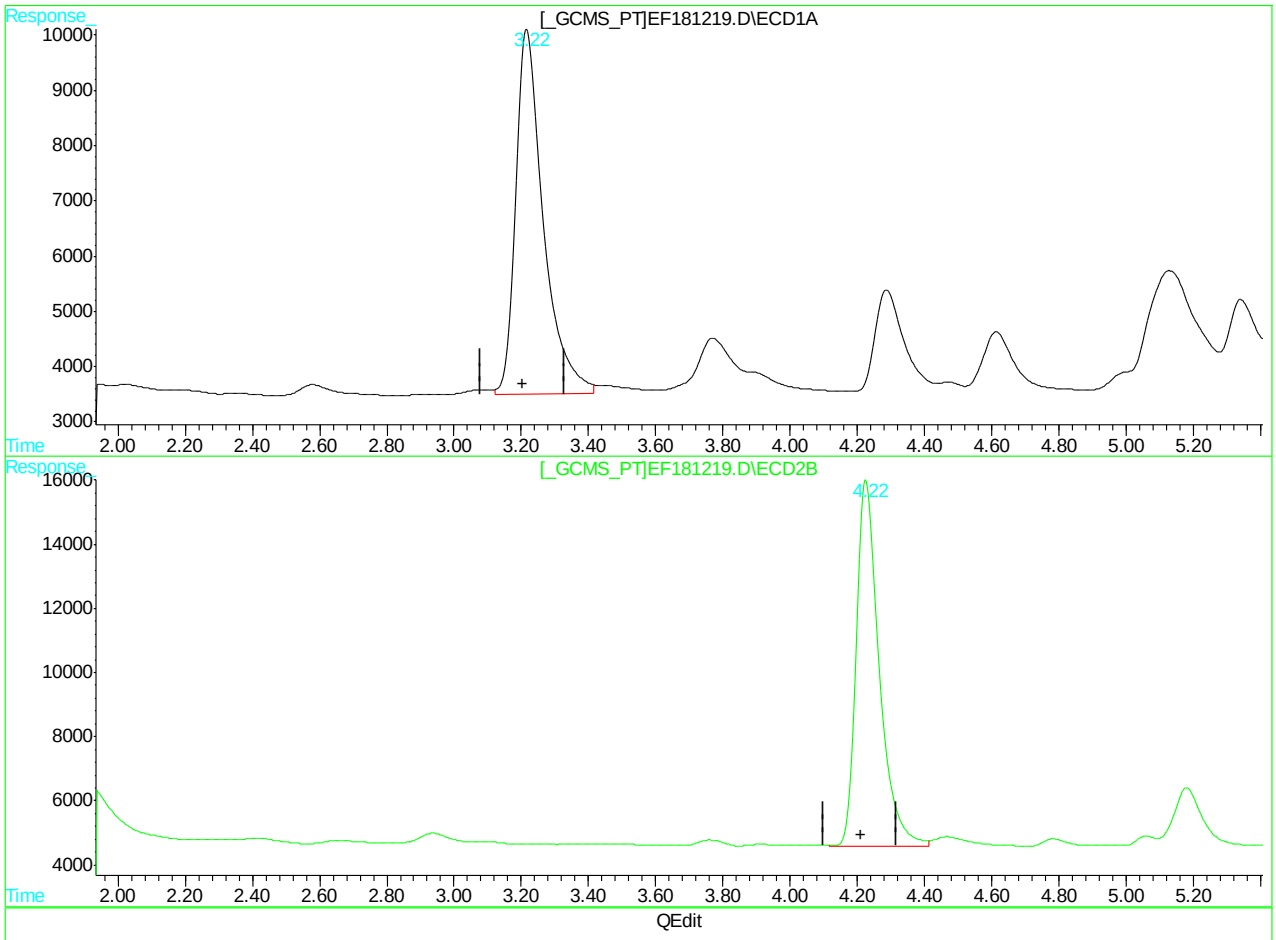
response 518009

(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:35:30 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.22min 32.526PPB m

response 376027

(1) Tetrachloro-m-xylene #2 (S)

4.22min 34.787PPB m

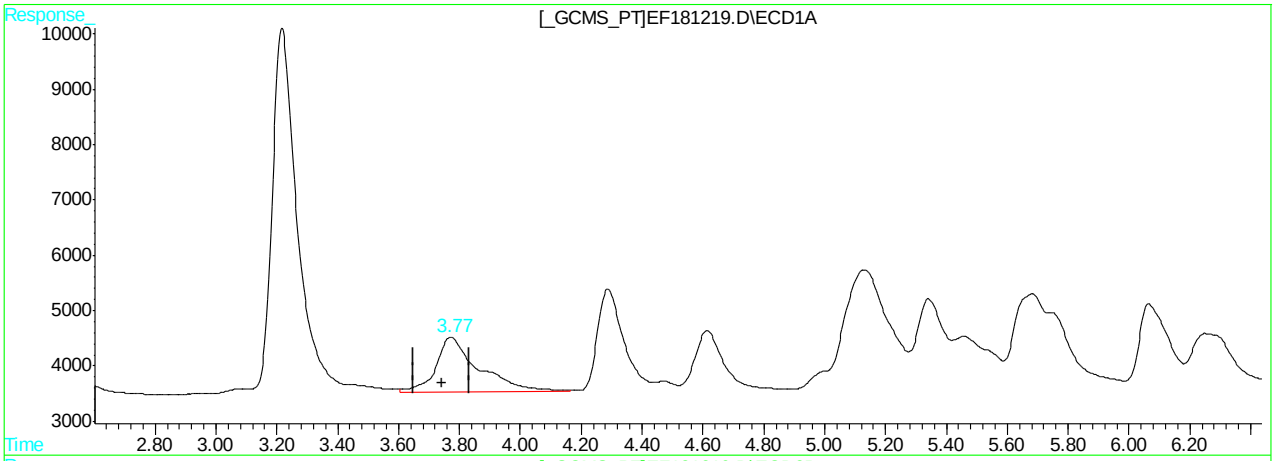
response 541597

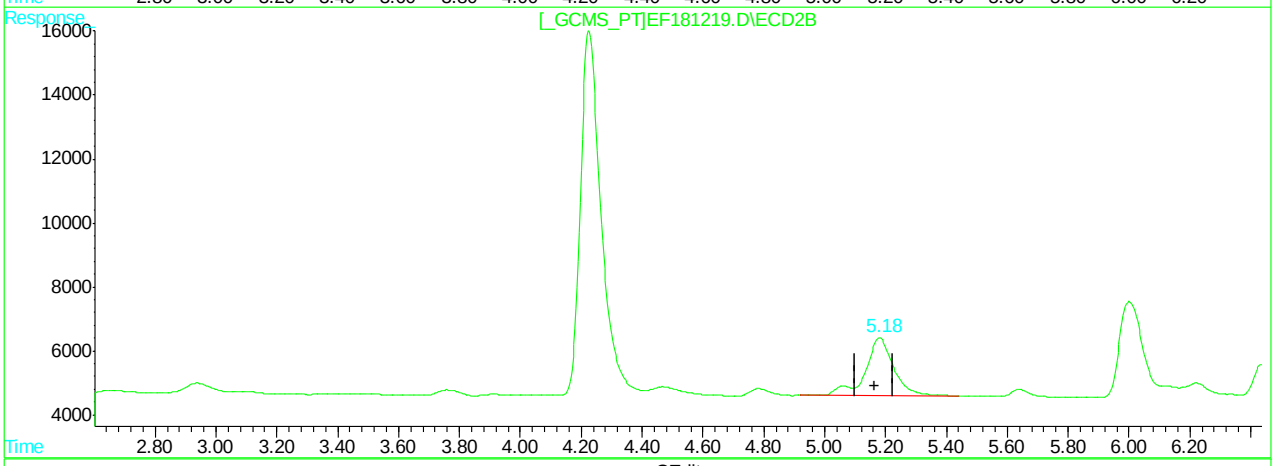
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:35:45 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.77min 303.613PPB

response 96189

(41) AR1016-A #2

5.18min 286.398PPB

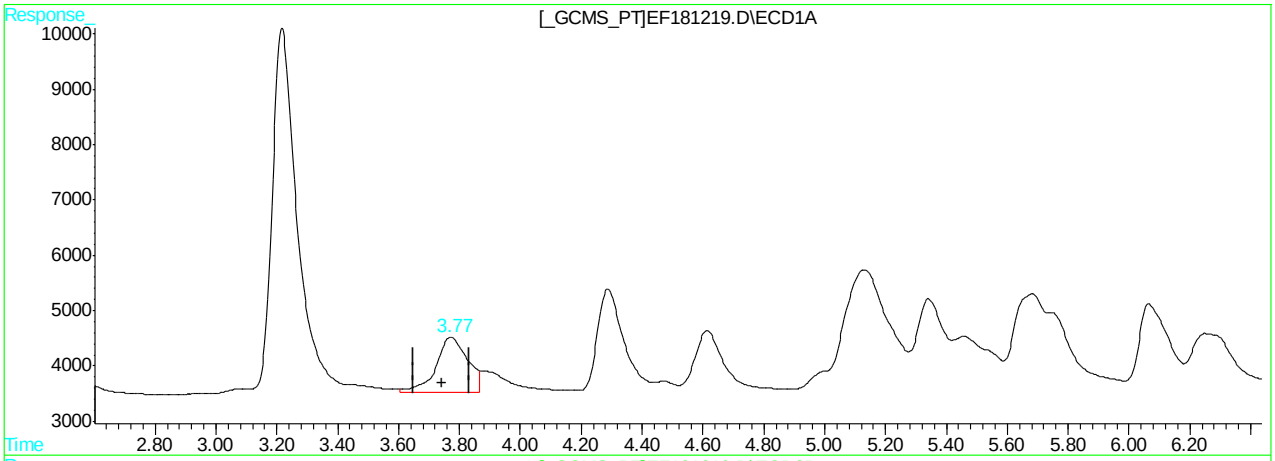
response 117361

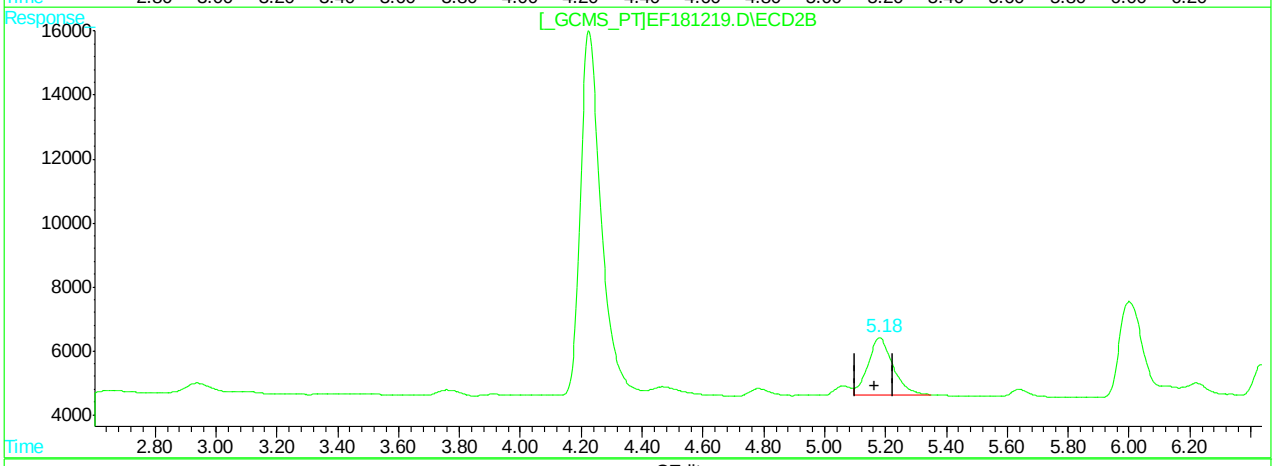
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:35:55 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.77min 227.854PPB m

response 72187

(41) AR1016-A #2

5.18min 253.859PPB m

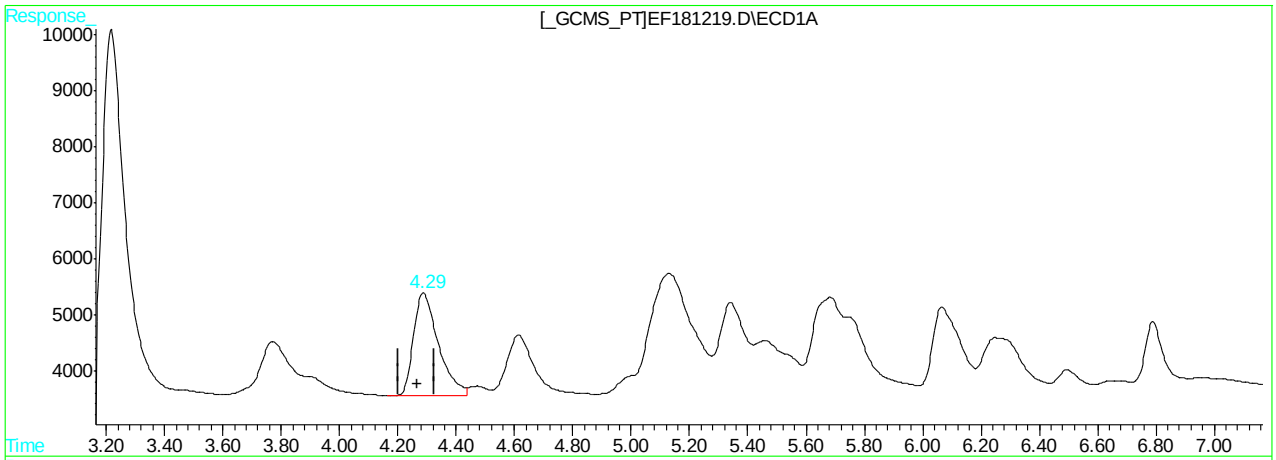
response 104027

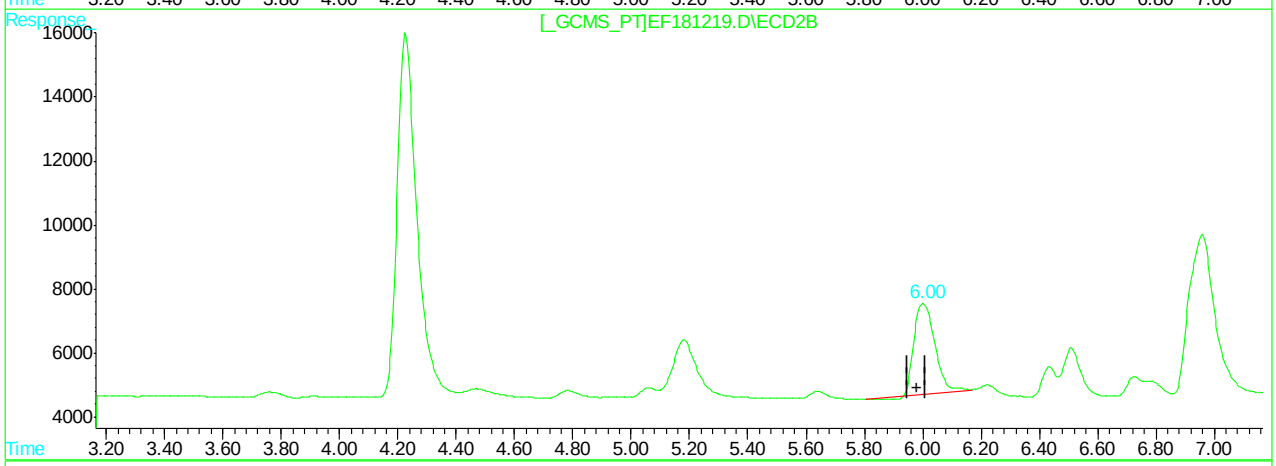
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:13 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(42) AR1016-B

4.29min 197.532PPB

response 108923

(42) AR1016-B #2

6.00min 170.364PPB

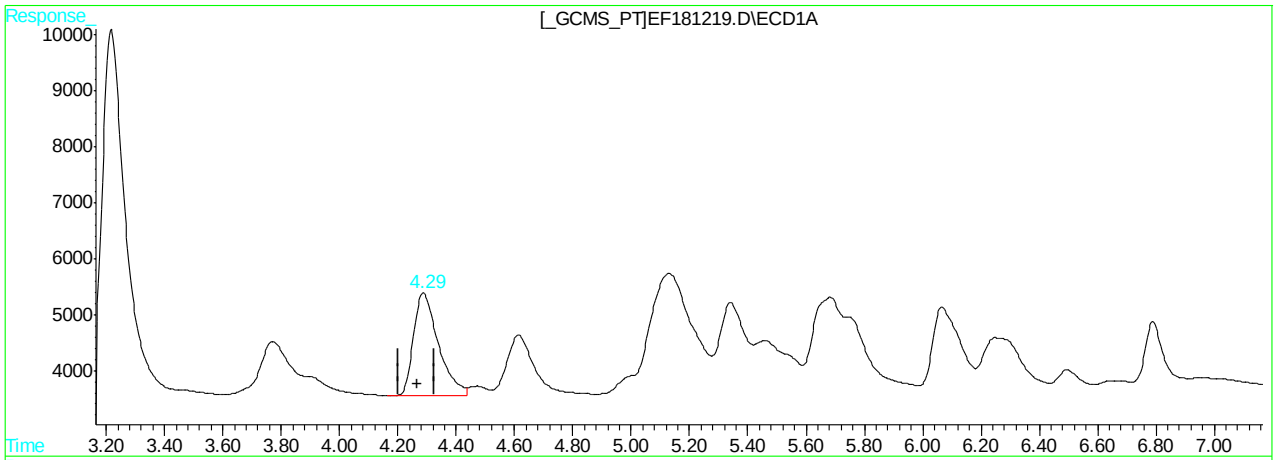
response 137206

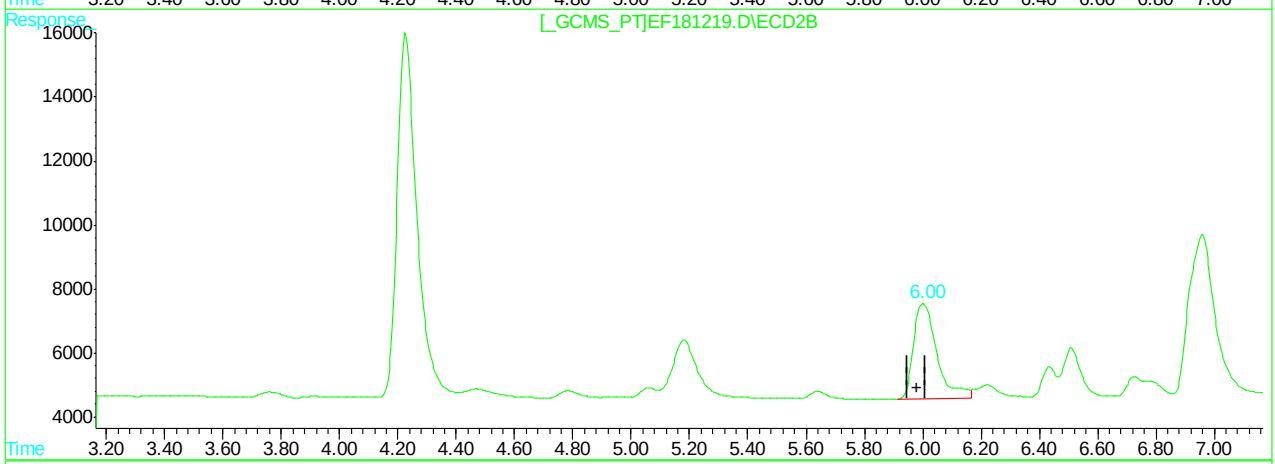
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:17 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(42) AR1016-B

4.29min 197.532PPB

response 108923

(42) AR1016-B #2

6.00min 206.961PPB m

response 166681

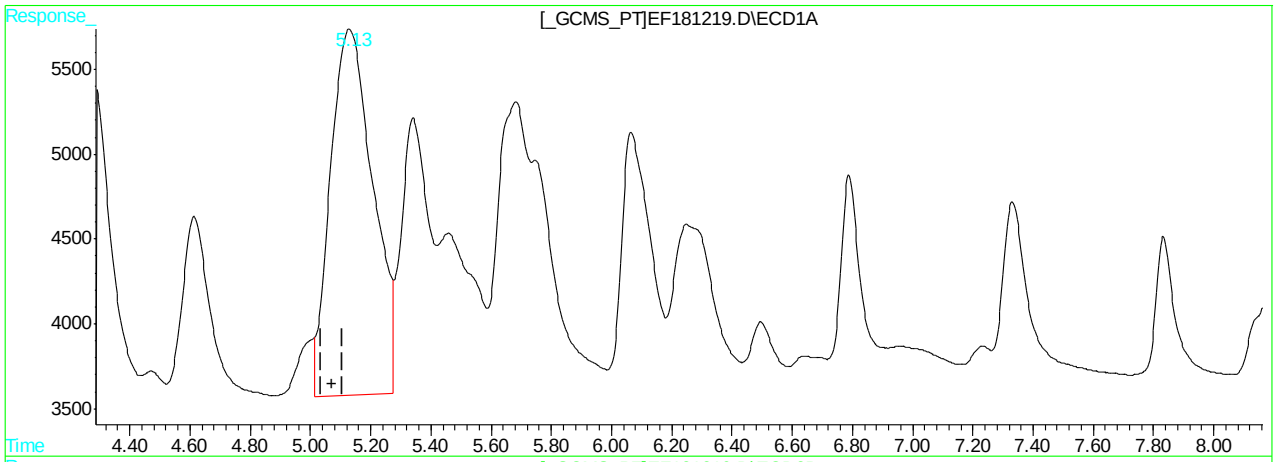
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:24 2018 GCEF

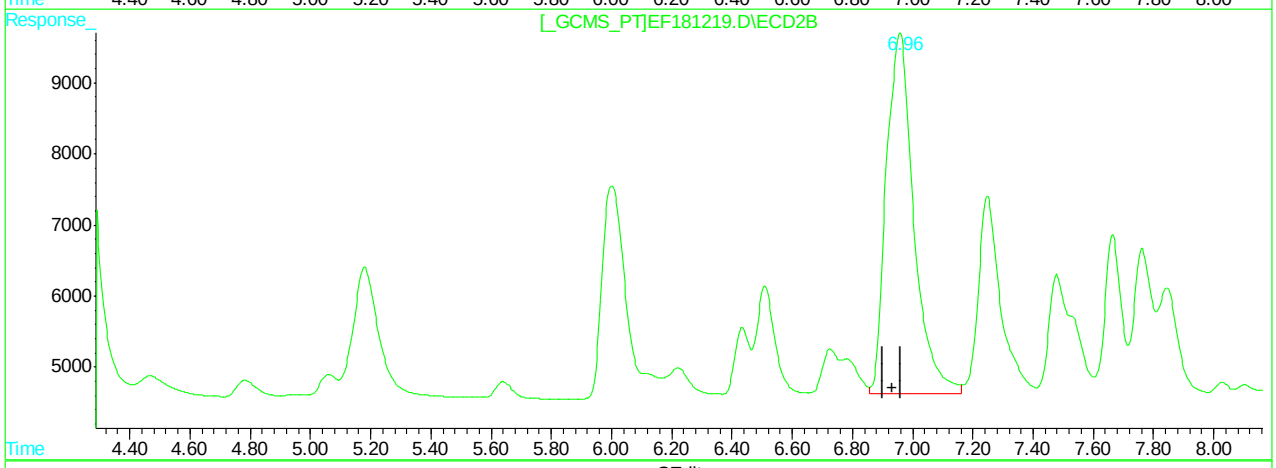
11.3.2.7 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.13min 173.168PPB m

response 212593

(43) AR1016-C #2

6.96min 199.761PPB

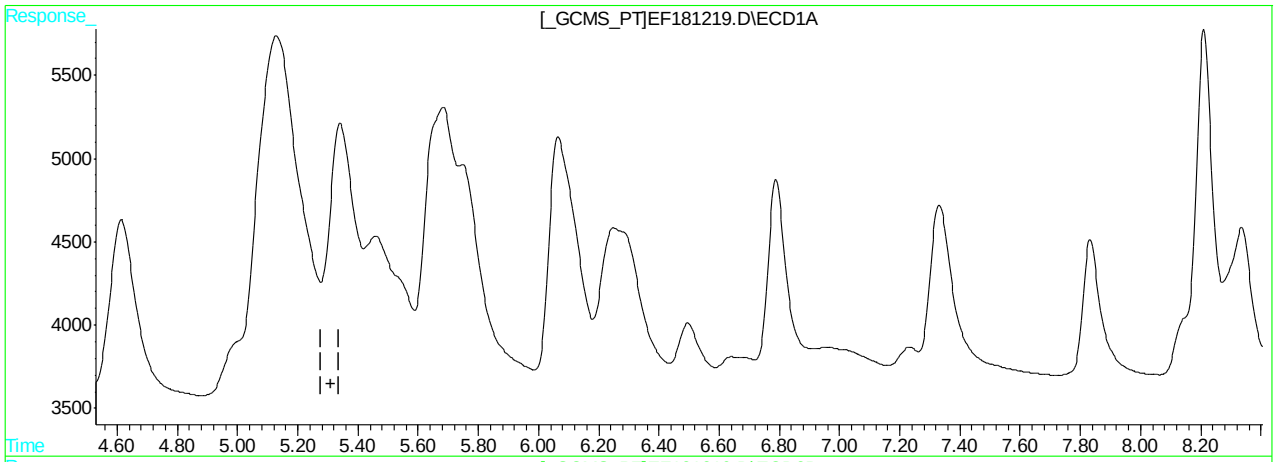
response 320886

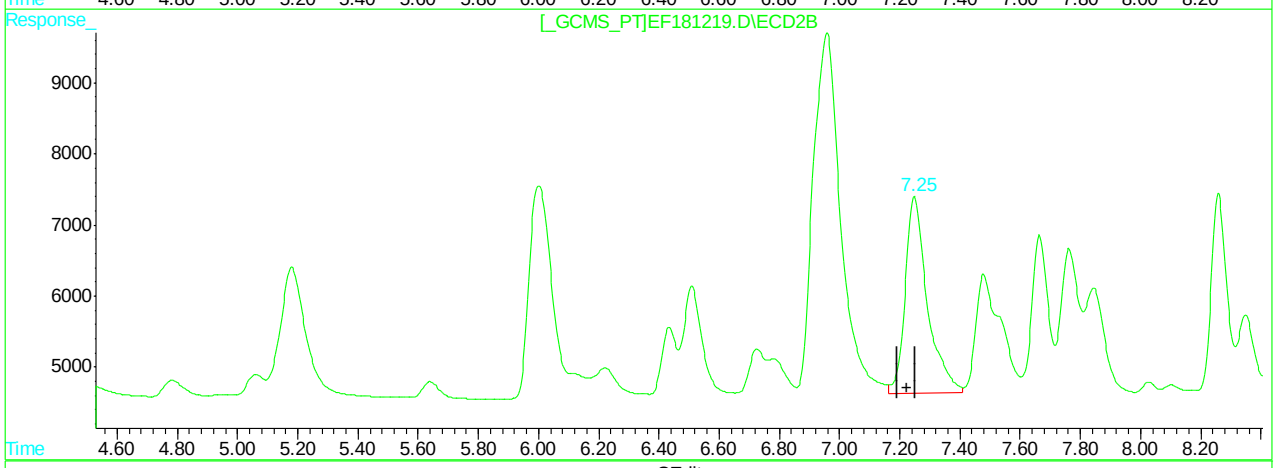
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:50 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(44) AR1016-D

0.00min 0.000PPB

response 0

(44) AR1016-D #2

7.25min 206.035PPB

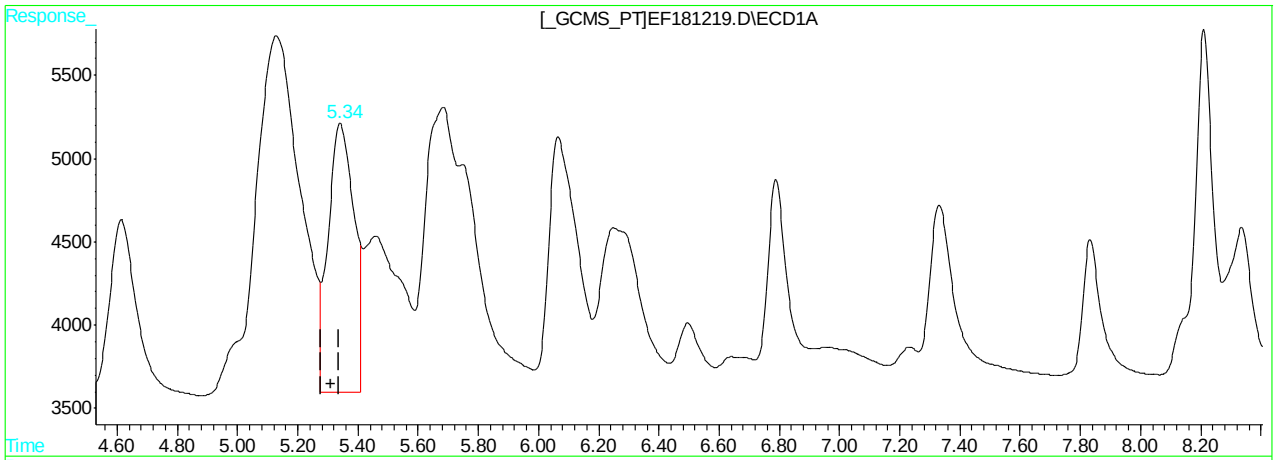
response 141506

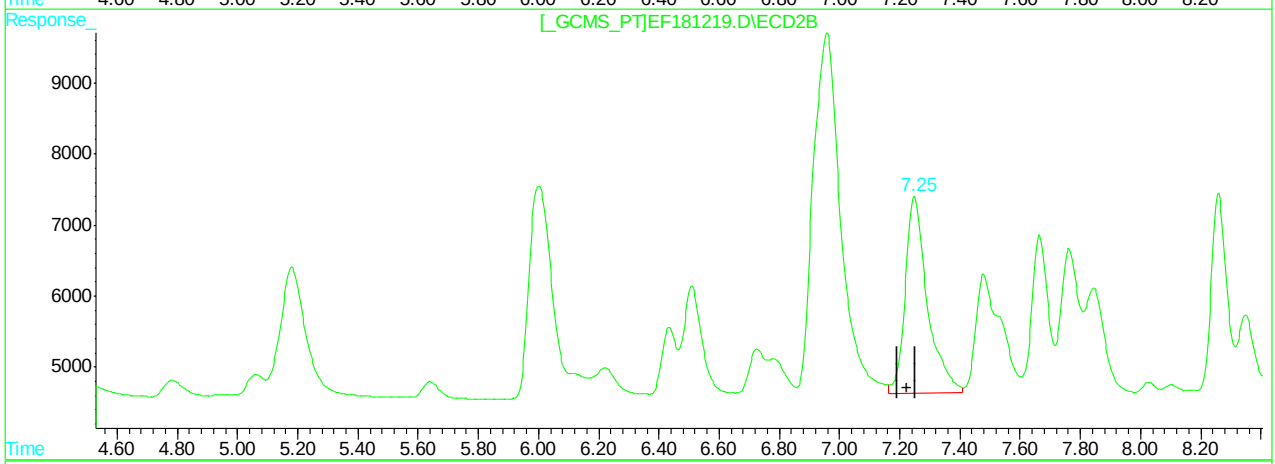
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:53 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(44) AR1016-D

5.34min 204.686PPB m

response 97454

(44) AR1016-D #2

7.25min 206.035PPB

response 141506

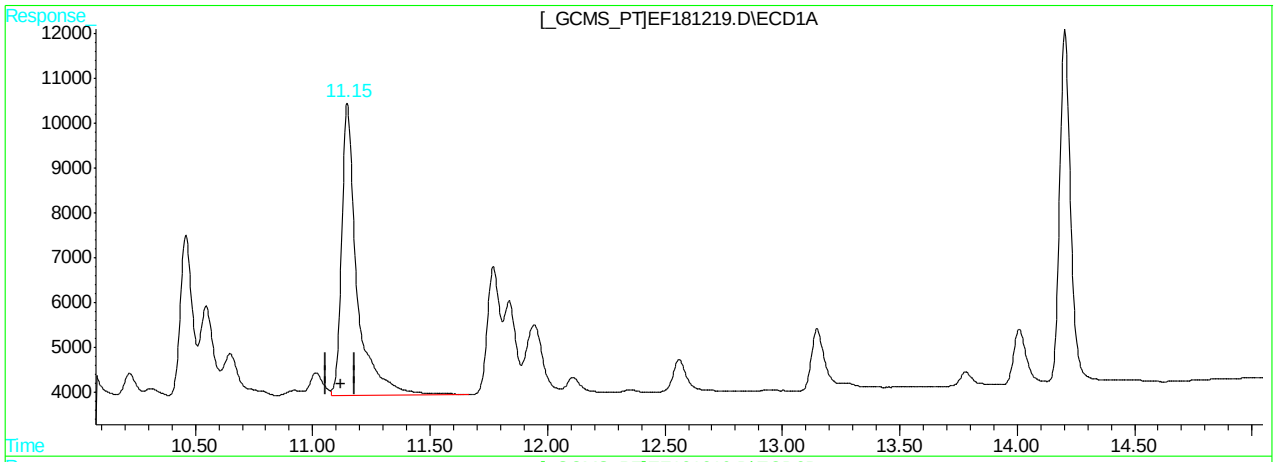
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:07 2018 GCEF

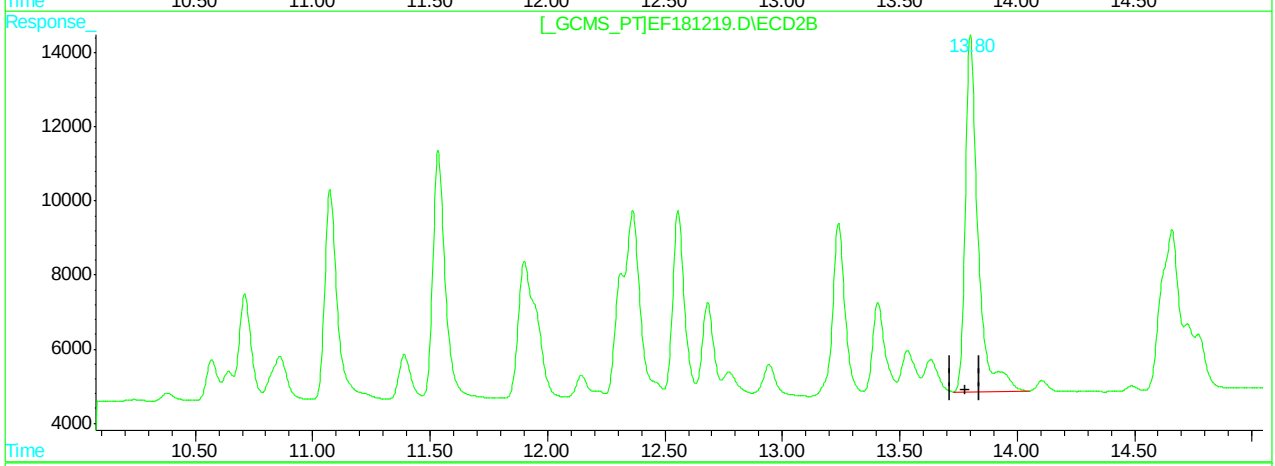
11.3.2.10 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.15min 189.979PPB

response 297739

(49) AR1260-D #2

13.80min 204.022PPB

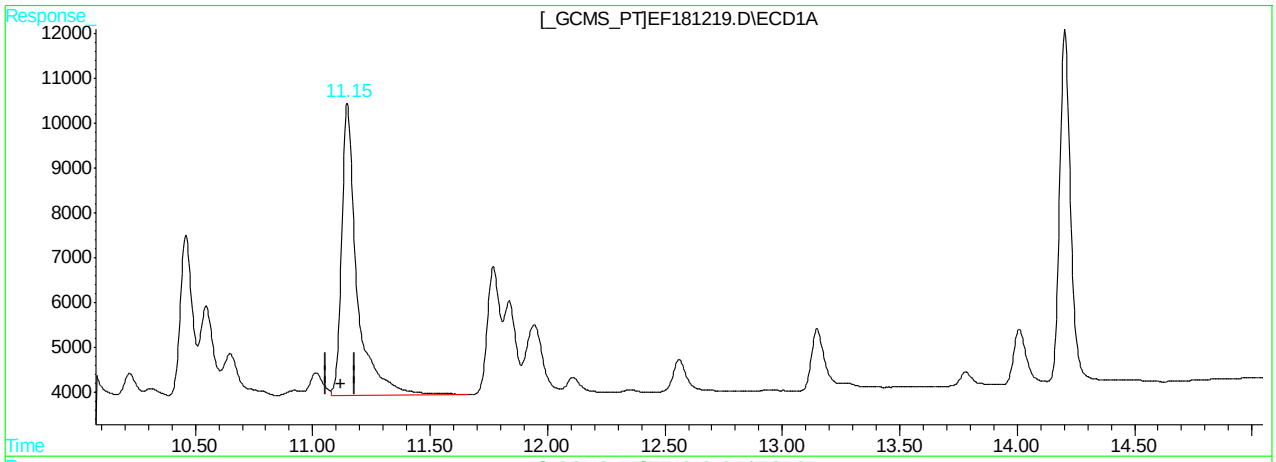
response 365818

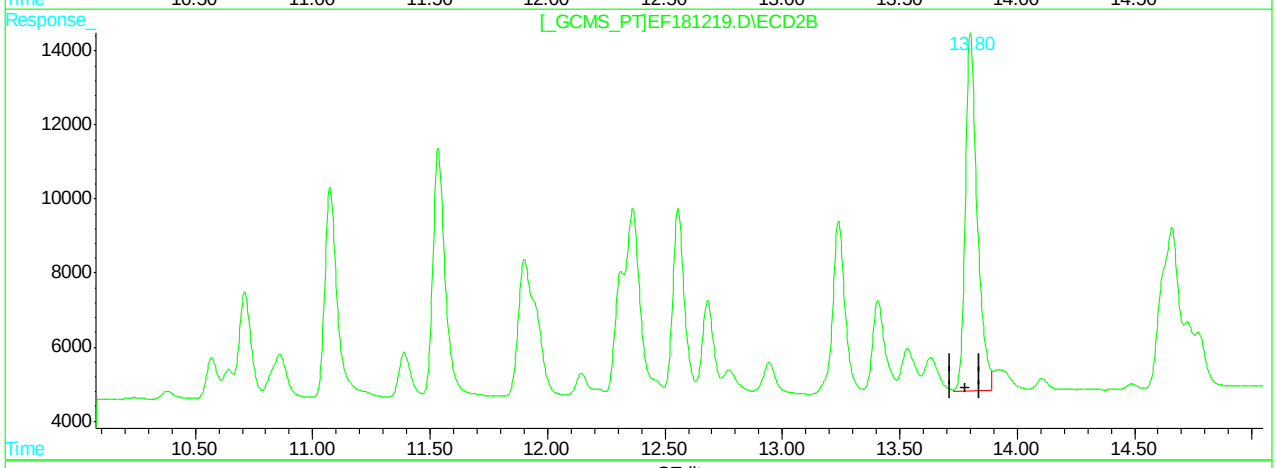
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:17 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.15min 189.979PPB

response 297739

(49) AR1260-D #2

13.80min 188.943PPB m

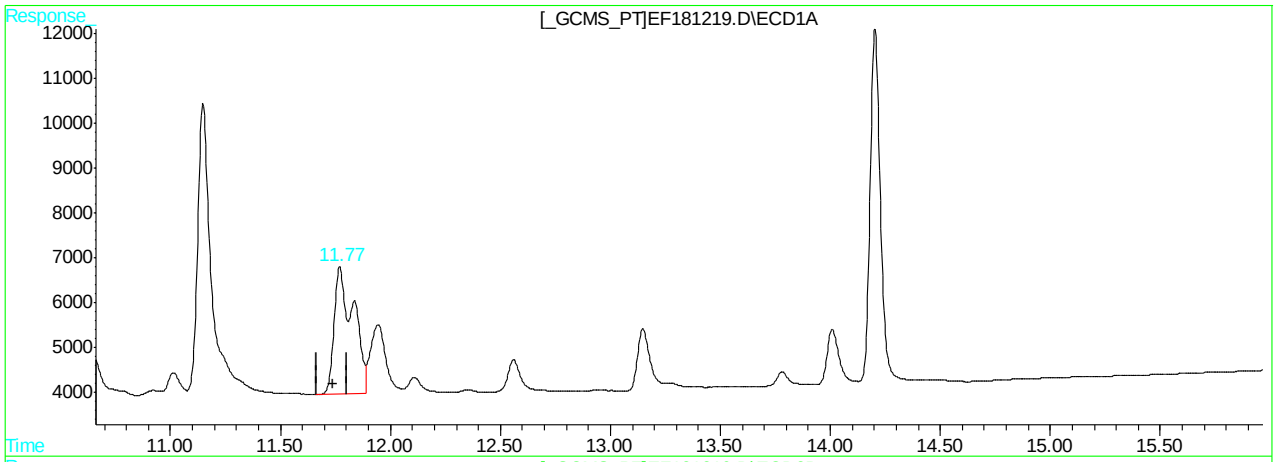
response 338781

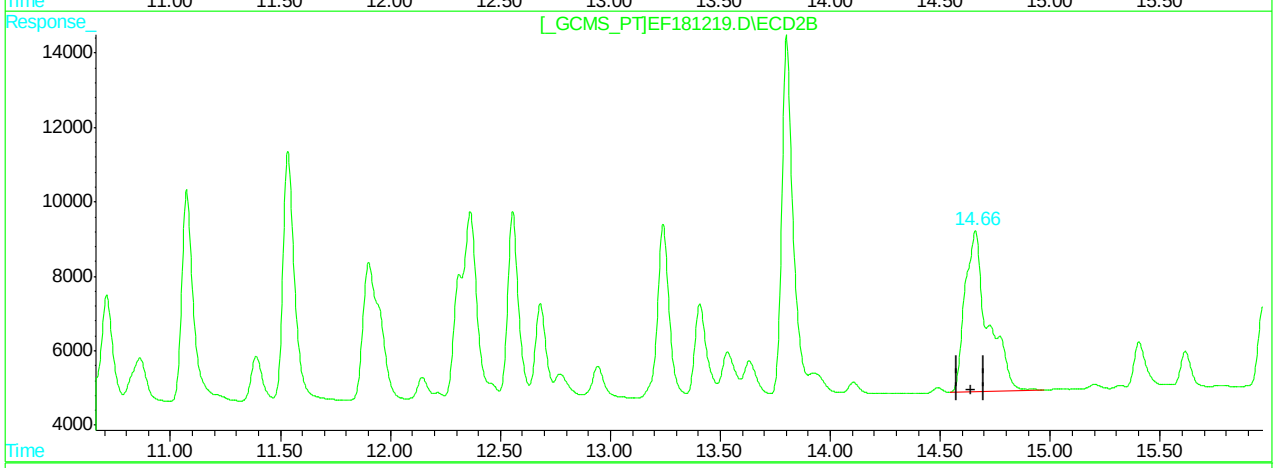
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:23 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.77min 111.671PPB

response 172350

(50) AR1260-E #2

14.66min 168.139PPB

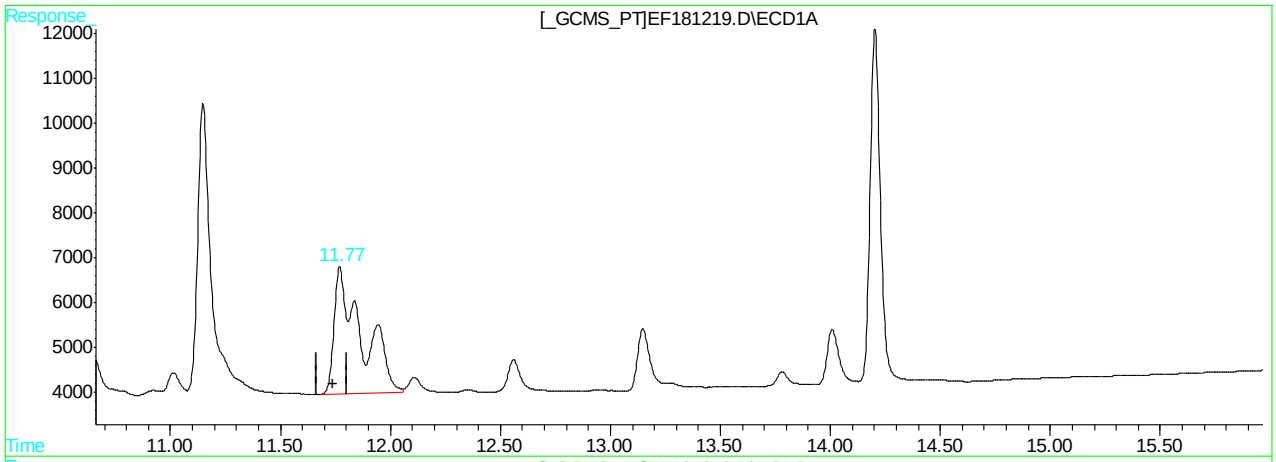
response 313682

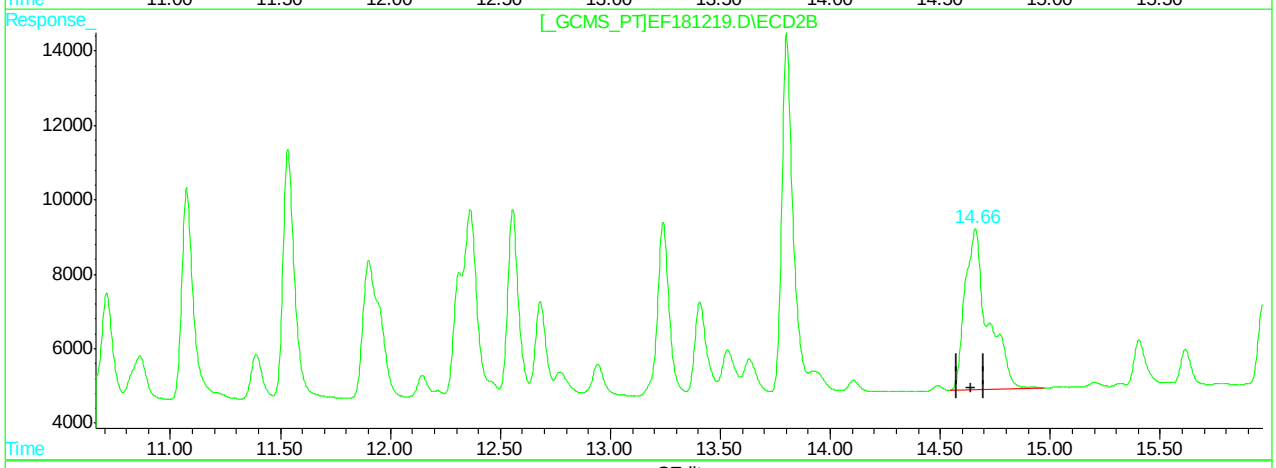
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:29 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.77min 160.647PPB m

response 247938

(50) AR1260-E #2

14.66min 168.139PPB

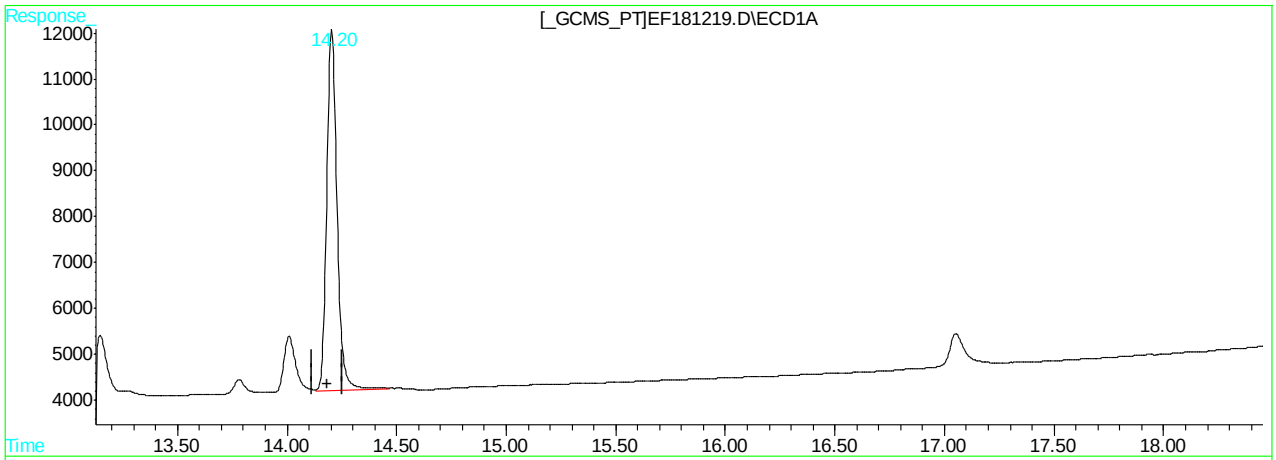
response 313682

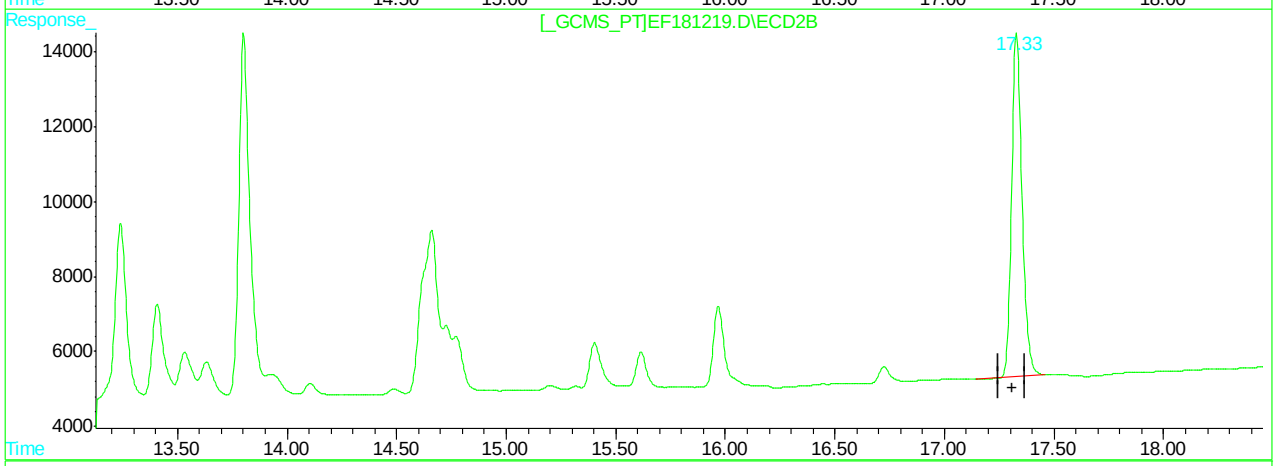
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:34 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 14.819PPB

response 253645

(51) Decachlorobiphenyl #2 (S)

17.33min 14.332PPB

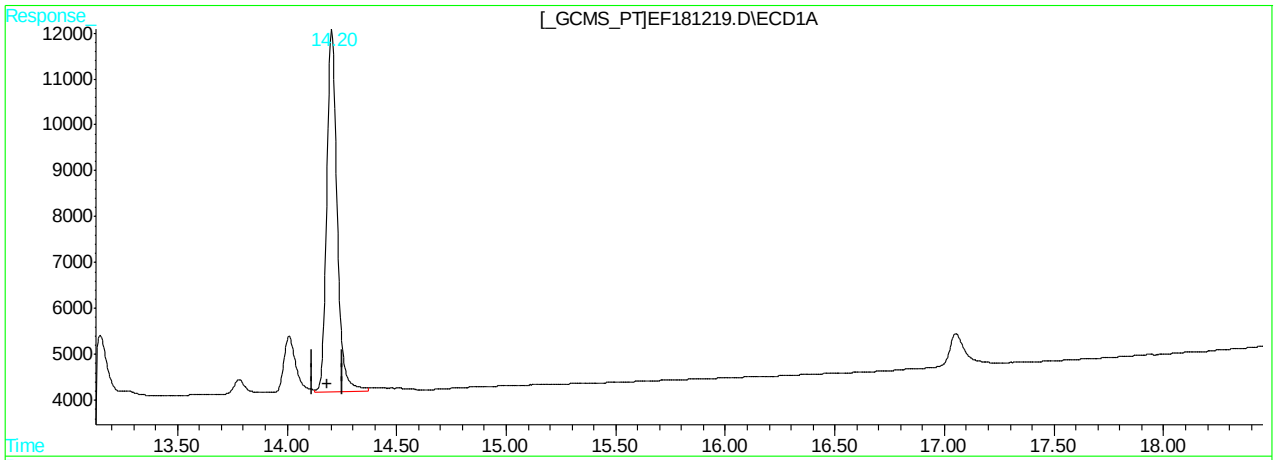
response 300880

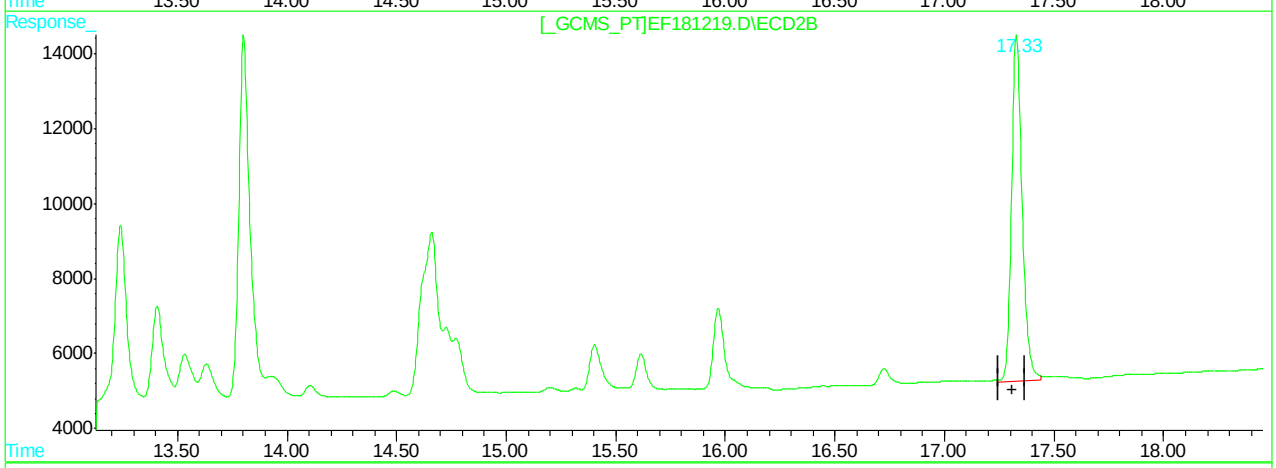
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:43 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 15.087PPB m

response 258236

(51) Decachlorobiphenyl #2 (S)

17.33min 14.808PPB m

response 310867

(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:38:02 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:53 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.46	577.1E6	120.7E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.46	577.1E6	120.7E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.46	577.1E6	120.7E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.35	232.4E6	55078975	22.743	25.132
		Spiked Amount 40.000	Range 30 - 150		Recovery =		56.86%	62.83%
26)	SA	Decachlorobiphen	10.13	12.03	136.4E6	22528887	16.350	14.238
		Spiked Amount 40.000			Recovery =		40.88%	35.59%
		Target Compounds						
3)		Hexachlorobenzen	3.13	3.91	276.5E6	50558800	21.466	16.333
4)	A	alpha-BHC	3.27	4.06	420.3E6	71367056	32.906	24.159
5)	MA	gamma-BHC	3.58	4.53	287.2E6	63969015	23.770	23.892
6)	MA	Heptachlor	4.10	5.15	373.6E6	40361073	29.701	16.069
7)	B	beta-BHC	3.66	4.61	113.7E6	25134300	18.864	21.435
8)	B	delta-BHC	3.86	5.05	241.2E6	63625820	24.110	26.311
9)	MB	Aldrin	4.42f	5.64	528.2E6	30747130	45.929m	12.036
11)	B	Heptachlor Epoxi	5.18	6.50	262.7E6	57880205	22.376	24.122
12)	B	gamma-Chlordane	5.35	6.80	183.7E6	45278936	20.475	19.485
13)	B	alpha-Chlordane	5.53	7.03	183.8E6	40962509	16.694	17.894
14)	A	Endosulfan I	5.71	7.15	263.6E6	54068120	24.427	24.433
15)	B	4,4'-DDE	5.63	7.29	102.0E6	20529513	9.862	8.498
16)	MA	Dieldrin	6.04	7.60	268.7E6	58317621	24.577	23.741
17)	MA	Endrin	6.38	8.13	261.6E6	54631851	26.067	25.286
18)	A	4,4'-DDD	6.50	8.28	116.6E6	27468607	15.178	14.741
19)	B	Endosulfan II	6.71	8.49	254.0E6	54029203	25.355	25.132
20)	MA	4,4'-DDT	6.91	8.82	80857470	14269631	11.436	11.348m
21)	B	Endrin Aldehyde	7.34	9.07	219.8E6	41776010	26.183	24.686
22)	B	Endosulfan Sulfa	8.03	9.53	219.7E6	43538077	28.025	29.097
23)	A	Methoxychlor	7.71	9.96	81302872	12973255	20.483	19.665
25)	B	Endrin Ketone	8.49	10.31	254.7E6	54465795	30.427	32.014

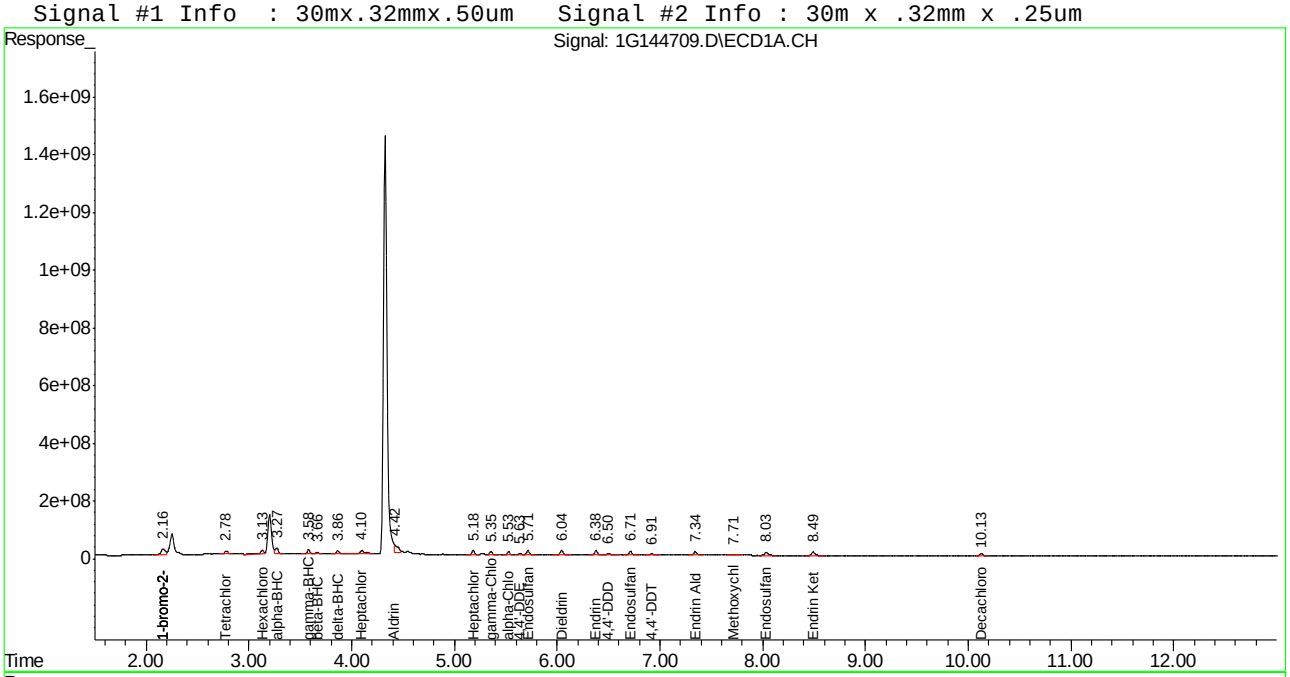
(f)=RT Delta > 1/2 Window (m)=manual int.

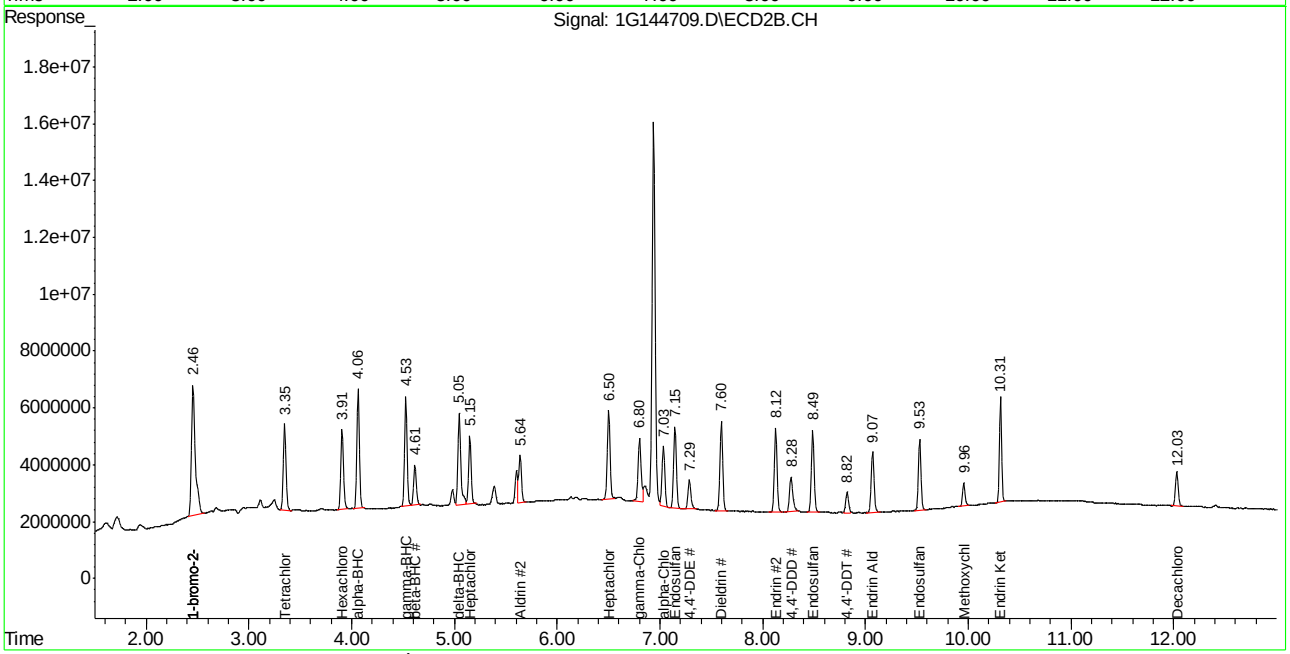
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:53 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS JC62881

Manual Integration Approval Summary

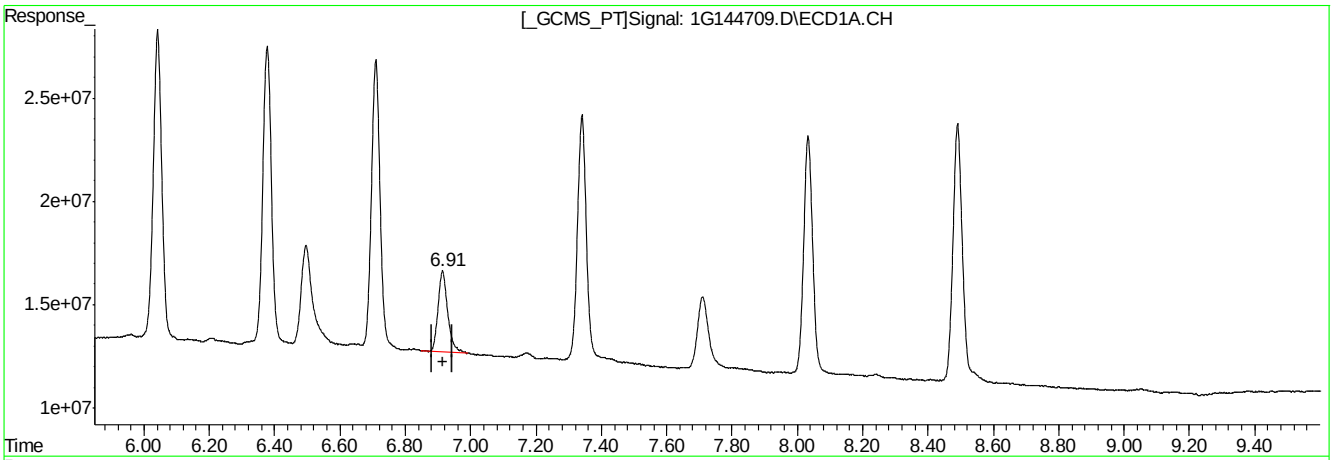
Sample Number:	OP10885-MS	**Method:**	SW846 8081B
Lab FileID:	1G144709.D	**Analyst approved:**	03/28/18 09:29 Dharmistha Mehta
Injection Time:	03/28/18 02:52	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

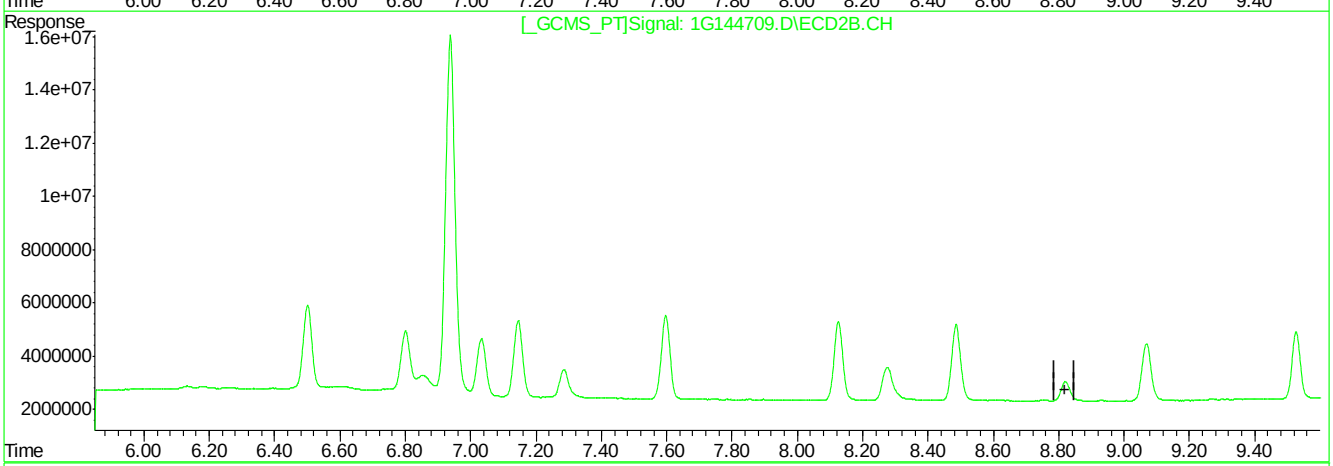
Parameter	CAS	Sig#	R.T. (min.)	Reason
Aldrin	309-00-2	1	4.42	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.82	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:50 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.91min 11.436PPB

response 80857470

(20) 4,4'-DDT #2 (MA)

0.00min 0.000PPB

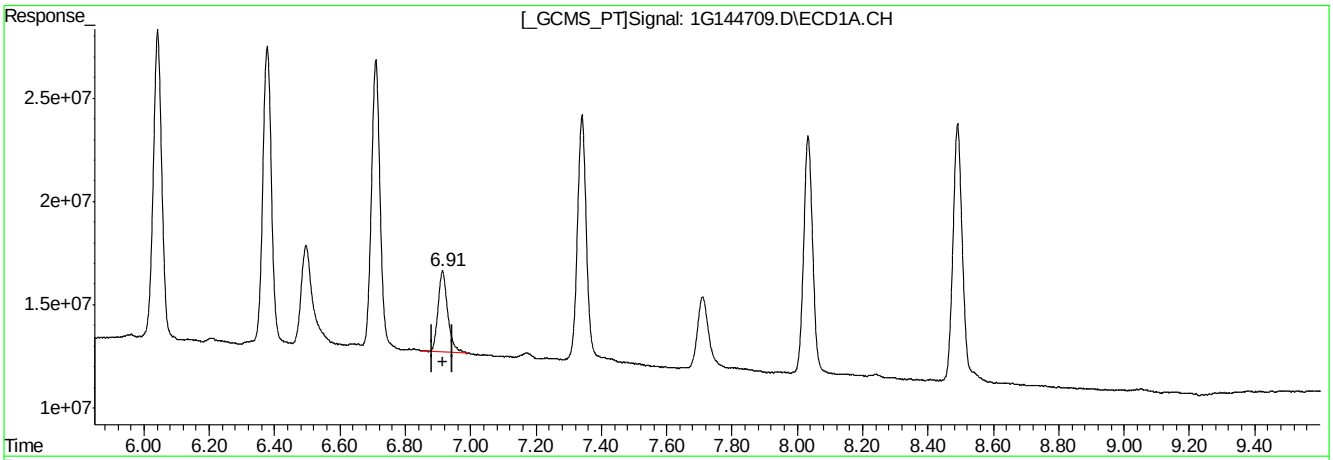
response 0

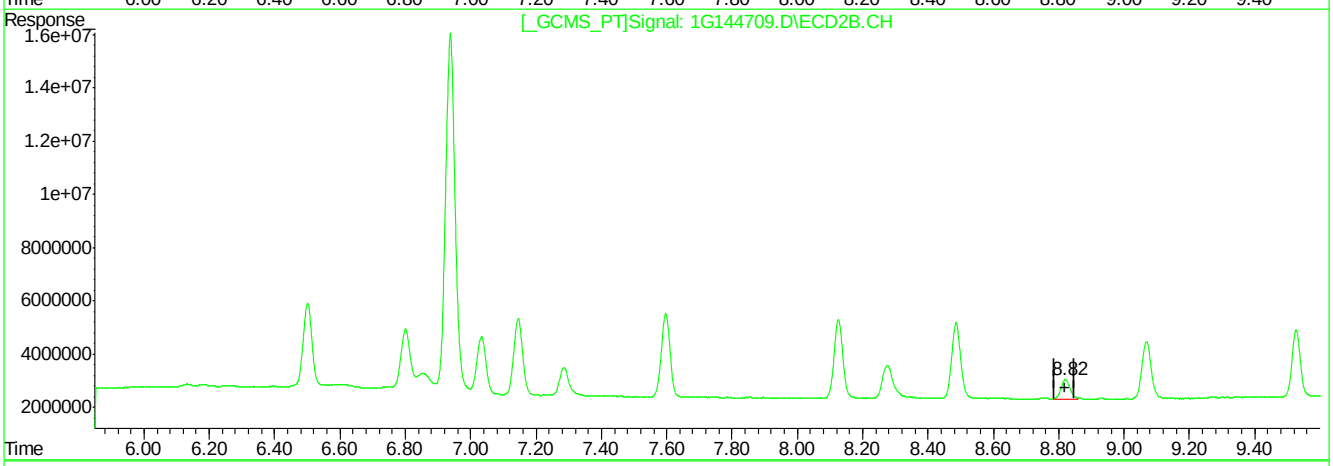
(+) = Expected Retention Time
1G144709.D 1PST4557.M Wed Mar 28 08:51:21 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:50 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.91min 11.436PPB

response 80857470

(20) 4,4'-DDT #2 (MA)

8.82min 11.348PPB m

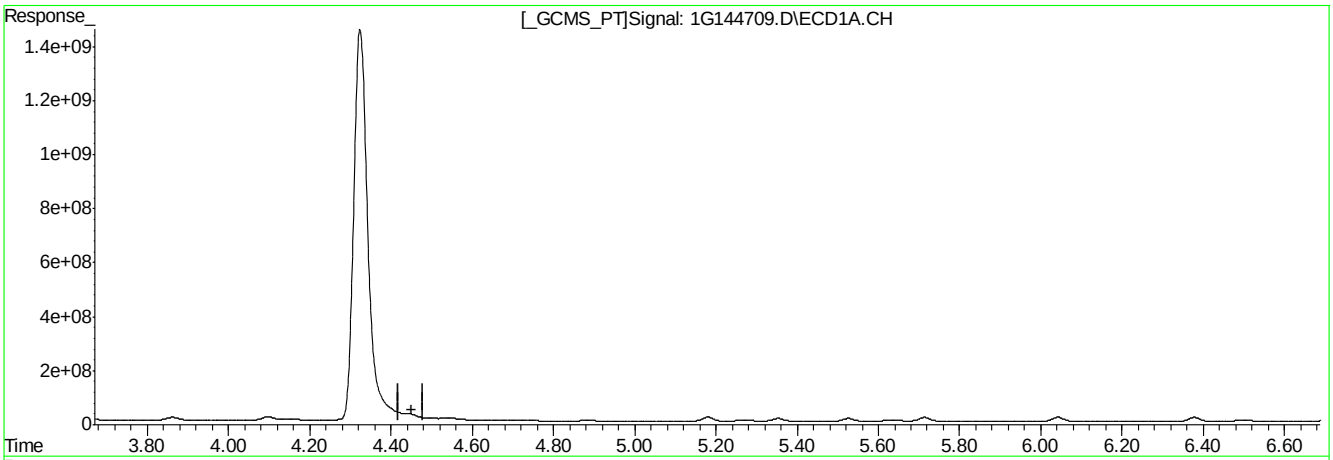
response 14269631

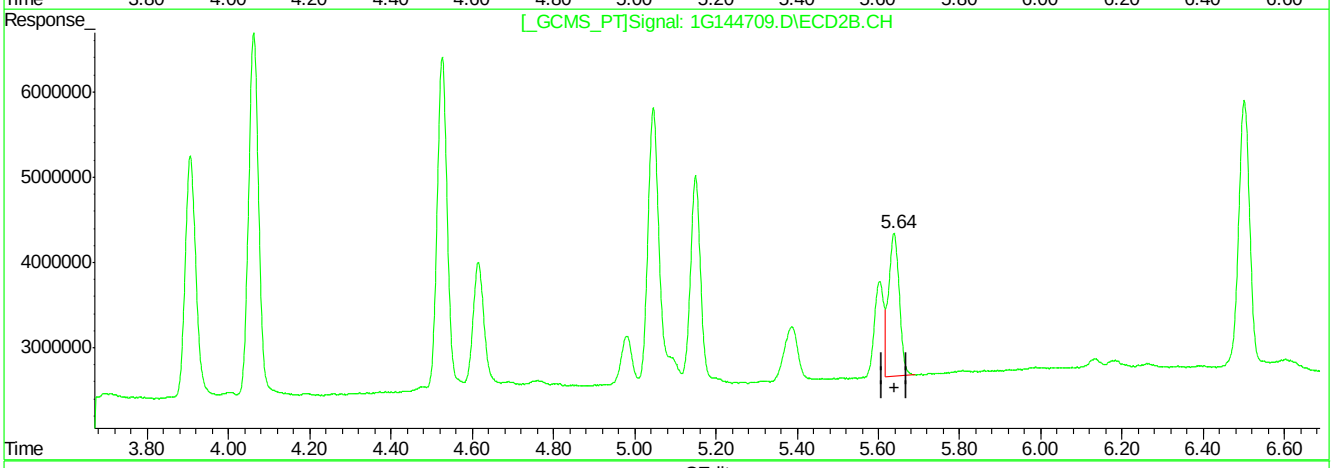
(+) = Expected Retention Time
1G144709.D 1PST4557.M Wed Mar 28 08:51:33 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:50 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(9) Aldrin (MB)

0.00min 0.000PPB

response 0

(9) Aldrin #2 (MB)

5.64min 12.036PPB

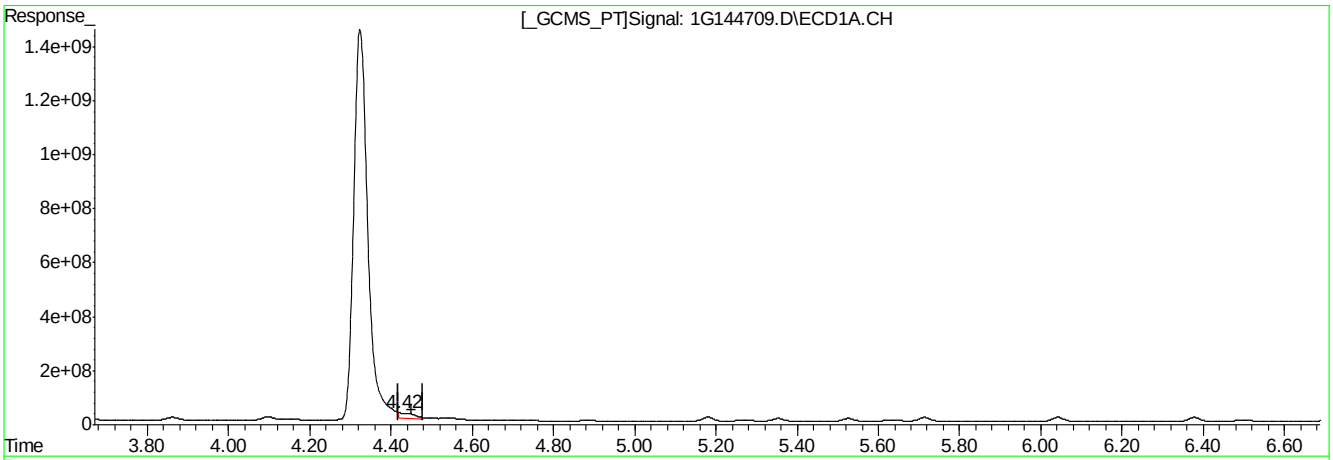
response 30747130

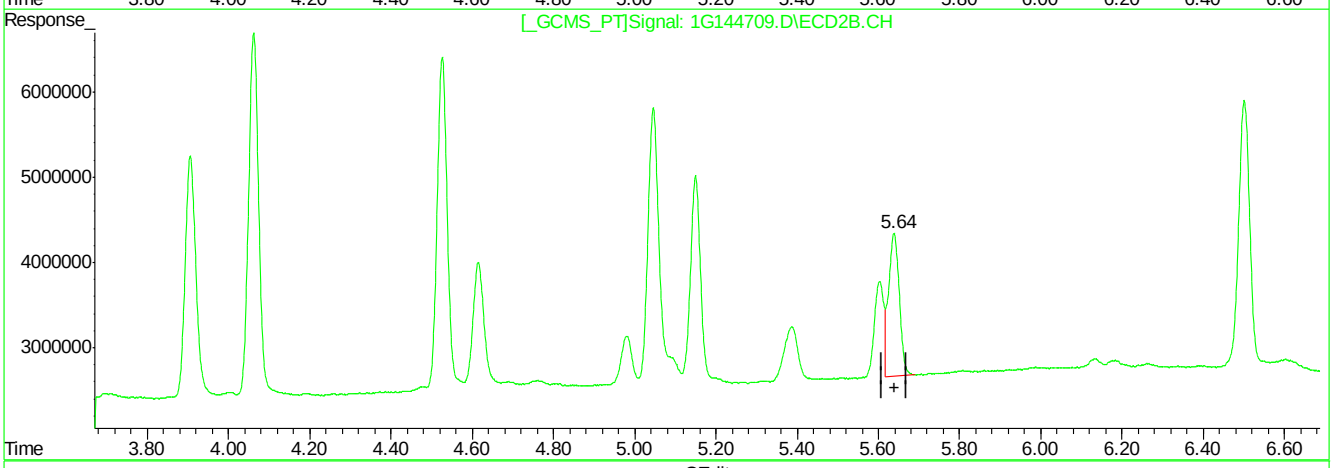
(+) = Expected Retention Time
1G144709.D 1PST4557.M Wed Mar 28 08:53:00 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:50 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(9) Aldrin (MB)

4.42min 45.929PPB m

response 528194576

(9) Aldrin #2 (MB)

5.64min 12.036PPB

response 30747130

(+) = Expected Retention Time
1G144709.D 1PST4557.M Wed Mar 28 08:53:12 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:55 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.46	598.7E6	115.6E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.46	598.7E6	115.6E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.46	598.7E6	115.6E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.35	260.9E6	61152587	24.615	29.137
		Spiked Amount 40.000	Range 30 - 150		Recovery =		61.54%	72.84%
26)	SA	Decachlorobiphen	10.13	12.03	147.8E6	24984390	17.073	16.487
		Spiked Amount 40.000			Recovery =		42.68%	41.22%
		Target Compounds						
3)		Hexachlorobenzen	3.13	3.90	268.5E6	52118209	20.100	17.581
4)	A	alpha-BHC	3.27	4.06	447.6E6	76266805	33.787	26.959
5)	MA	gamma-BHC	3.58	4.52	308.6E6	68444912	24.623	26.693
6)	MA	Heptachlor	4.10	5.15	270.0E6	38433754	20.692	15.978
7)	B	beta-BHC	3.66	4.61	117.6E6	26650460	18.812	23.733
8)	B	delta-BHC	3.86	5.04	263.9E6	65019722	25.434	28.076
9)	MB	Aldrin	4.42f	5.64	576.7E6	28945904	48.341m	11.832
11)	B	Heptachlor Epoxi	5.18	6.50	273.0E6	60431598	22.417	26.299
12)	B	gamma-Chlordane	5.35	6.80	191.6E6	45869252	20.585	20.611
13)	B	alpha-Chlordane	5.52	7.03	187.3E6	42873483	16.406	19.557
14)	A	Endosulfan I	5.71	7.14	269.2E6	56001672	24.041	26.425
15)	B	4,4'-DDE	5.63	7.28	93084850	21066202	8.680	9.105
16)	MA	Dieldrin	6.04	7.60	286.4E6	61148852	25.252	25.994
17)	MA	Endrin	6.37	8.12	270.2E6	57536837	25.953	27.807
18)	A	4,4'-DDD	6.49	8.27	127.4E6	30149382	15.989	16.894
19)	B	Endosulfan II	6.71	8.48	271.2E6	56491032	26.093	27.439
20)	MA	4,4'-DDT	6.91	8.82	84675600	15743841	11.545	13.073m
21)	B	Endrin Aldehyde	7.34	9.07	258.2E6	48448942	29.656	29.894
22)	B	Endosulfan Sulfa	8.03	9.53	233.2E6	46221632	28.673	32.256
23)	A	Methoxychlor	7.71	9.95	91332480	14825869	22.181	23.467
25)	B	Endrin Ketone	8.49	10.31	259.8E6	58221538	29.914	35.733

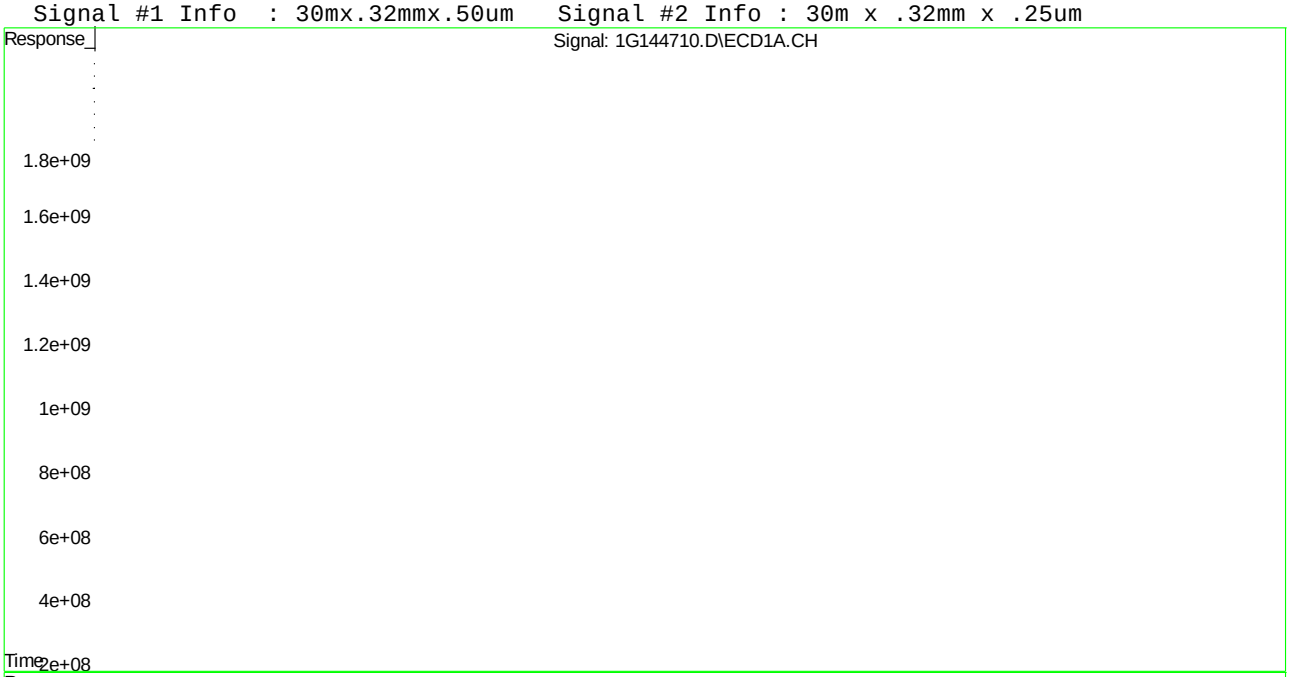
(f)=RT Delta > 1/2 Window (m)=manual int.

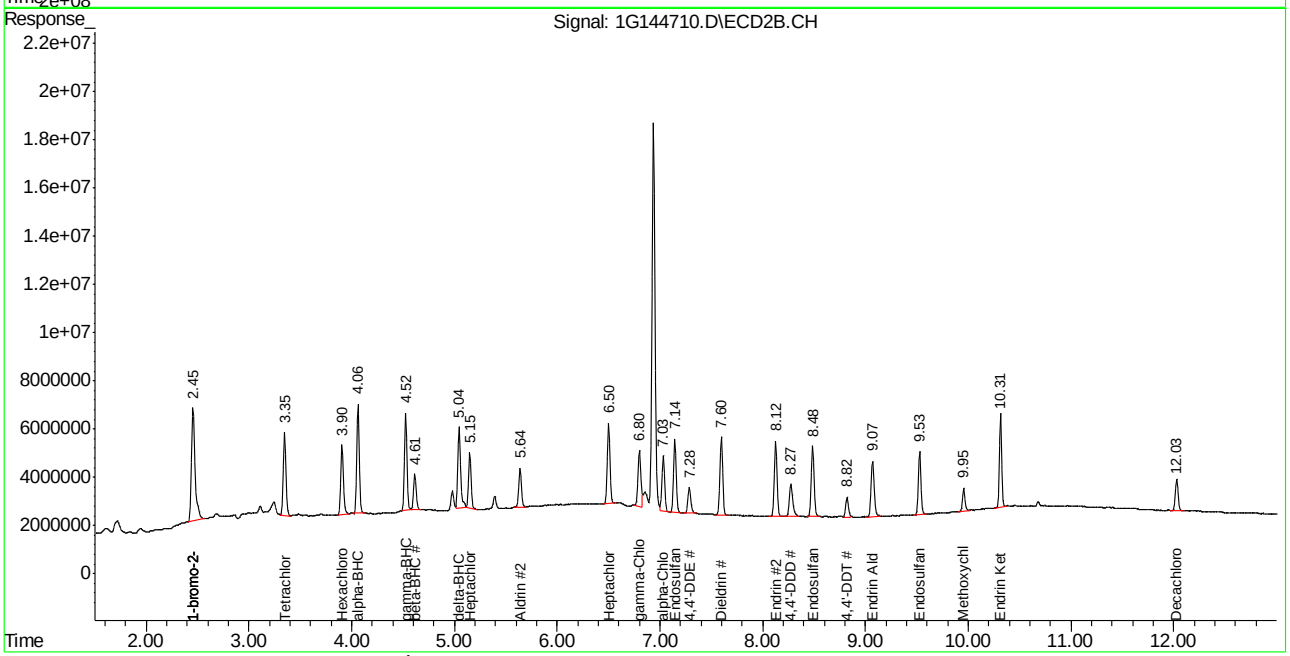
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:55 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

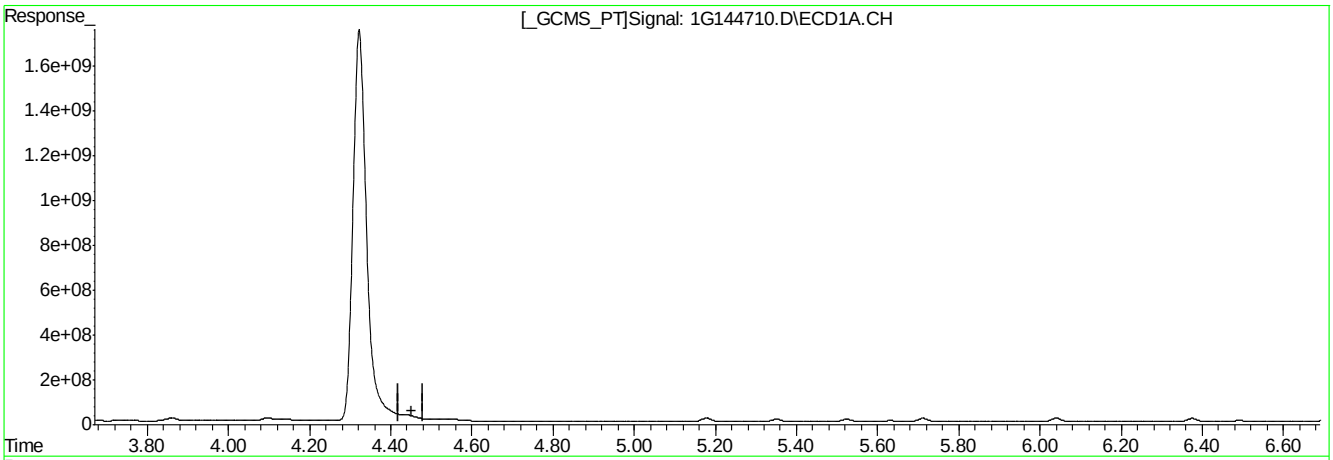
Sample Number:	OP10885-MSD	**Method:**	SW846 8081B
Lab FileID:	1G144710.D	**Analyst approved:**	03/28/18 09:29 Dharmistha Mehta
Injection Time:	03/28/18 03:09	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

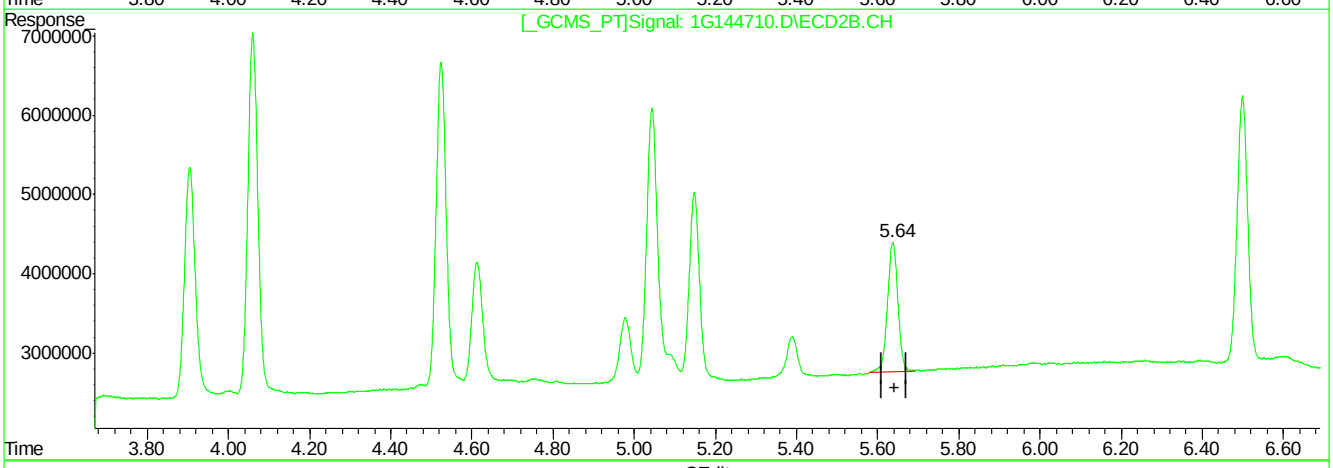
Parameter	CAS	Sig#	R.T. (min.)	Reason
Aldrin	309-00-2	1	4.42	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.82	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:54 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(9) Aldrin (MB)

0.00min 0.000PPB

response 0

(9) Aldrin #2 (MB)

5.64min 11.832PPB

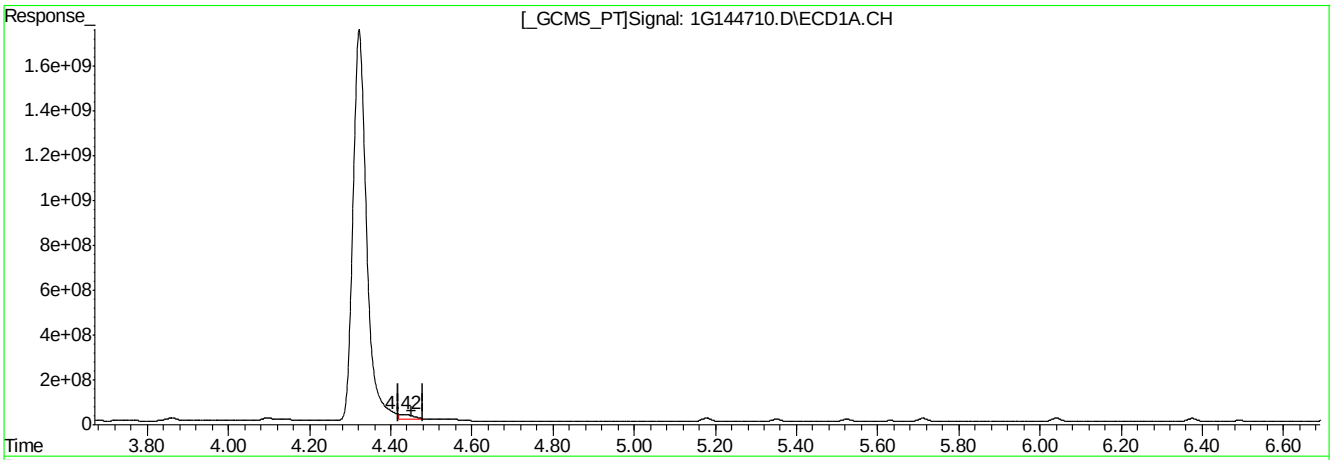
response 28945904

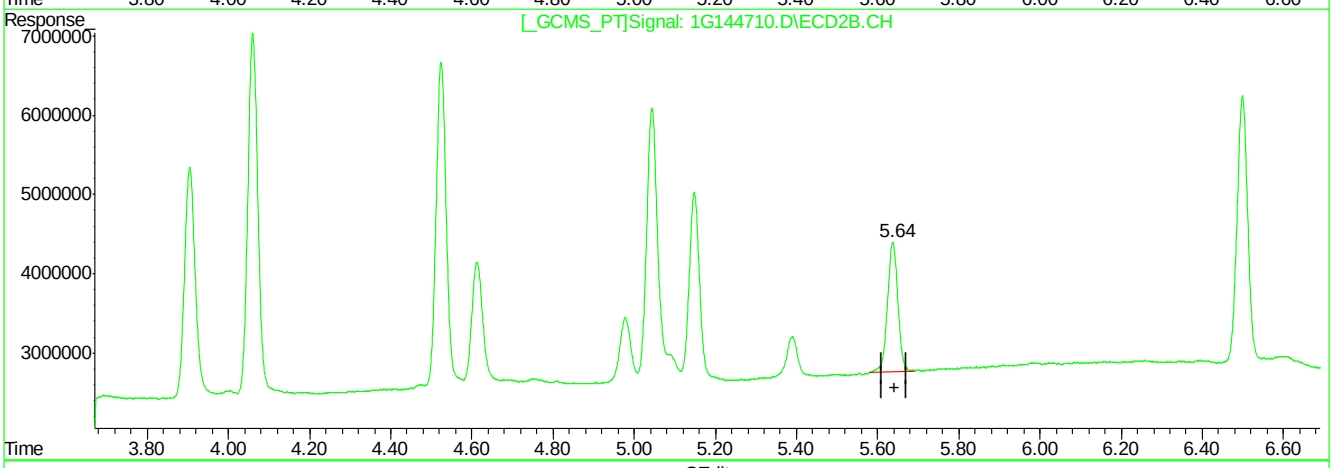
(+) = Expected Retention Time
1G144710.D 1PST4557.M Wed Mar 28 08:54:35 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:54 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(9) Aldrin (MB)

4.42min 48.341PPB m

response 576697667

(9) Aldrin #2 (MB)

5.64min 11.832PPB

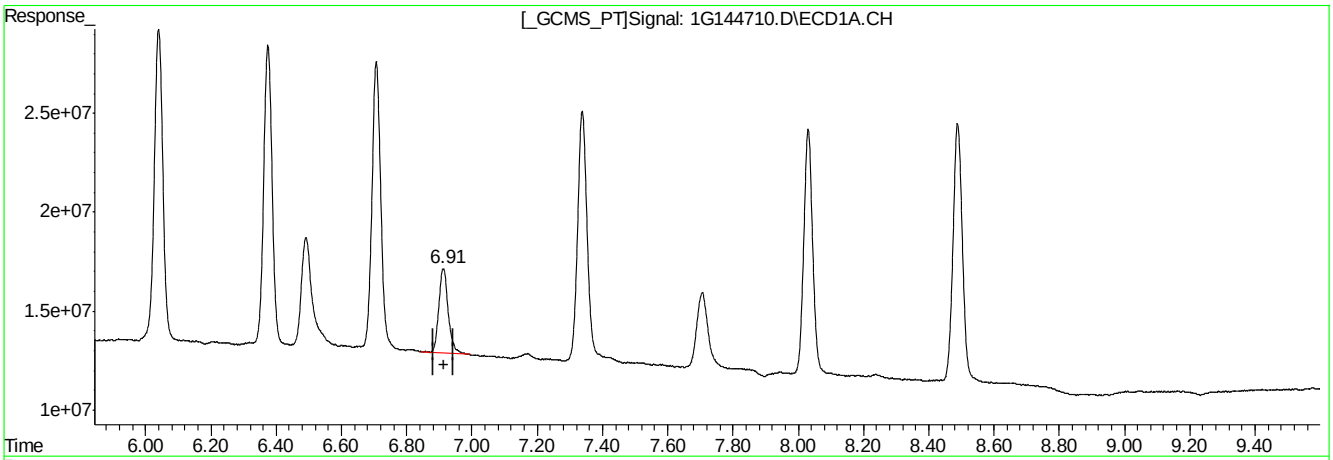
response 28945904

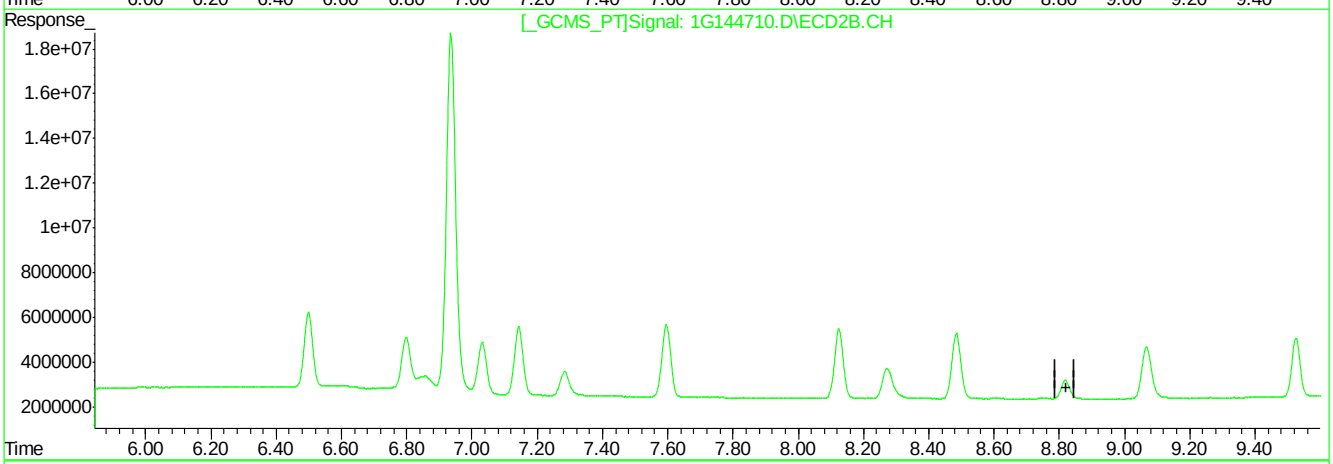
(+) = Expected Retention Time
1G144710.D 1PST4557.M Wed Mar 28 08:54:45 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:54 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.91min 11.545PPB

response 84675600

(20) 4,4'-DDT #2 (MA)

0.00min 0.000PPB

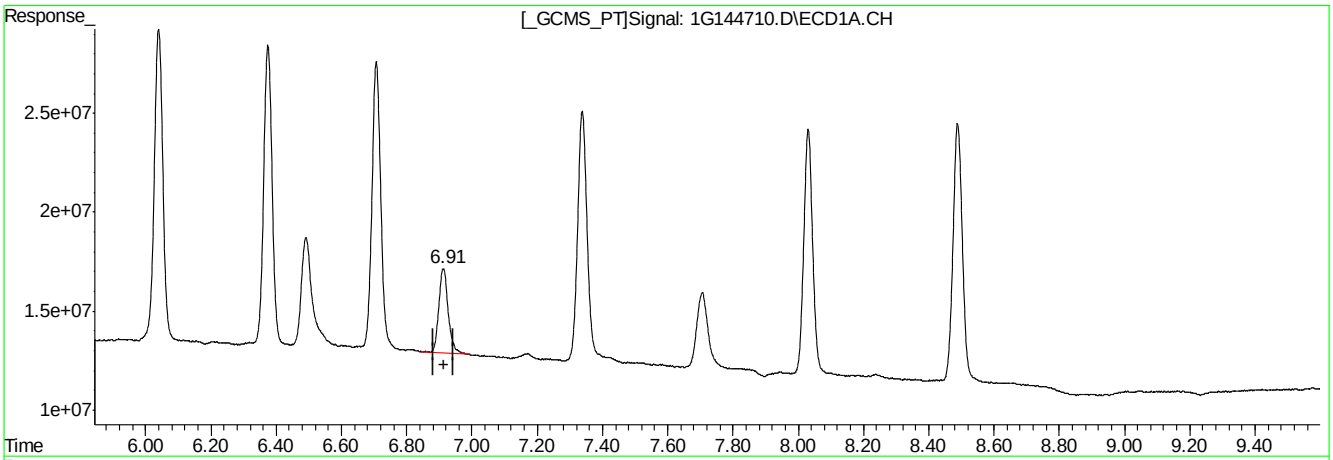
response 0

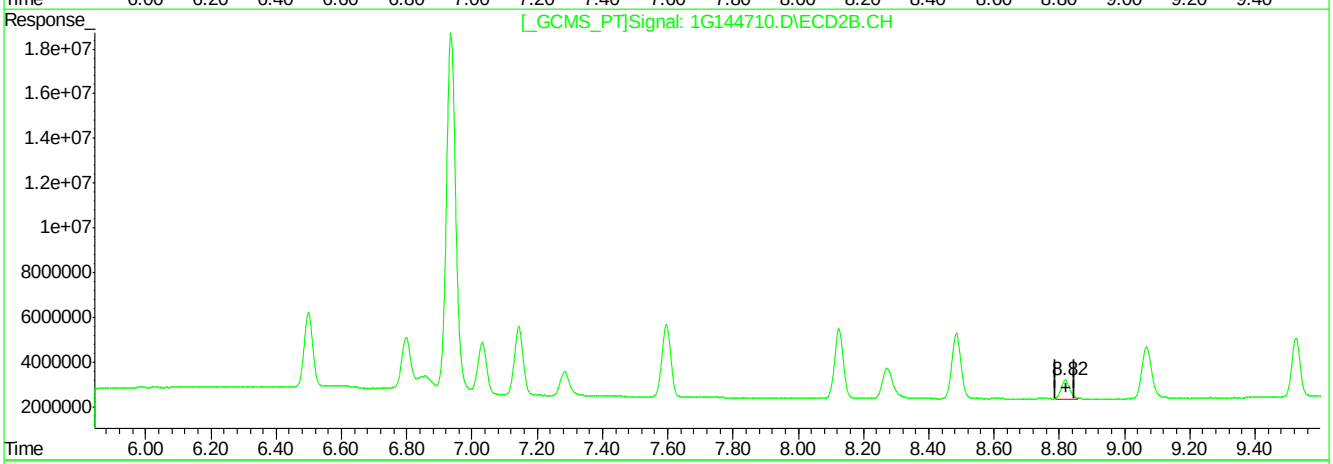
(+) = Expected Retention Time
1G144710.D 1PST4557.M Wed Mar 28 08:55:21 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:54 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.91min 11.545PPB

response 84675600

(20) 4,4'-DDT #2 (MA)

8.82min 13.073PPB m

response 15743841

(+) = Expected Retention Time
1G144710.D 1PST4557.M Wed Mar 28 08:55:32 2018 RPT1

11.4.2.5 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/03/18 09:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Apr 3 9:08 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	295708	389641	25.578m	25.027m
	Spiked Amount 40.000			Recovery =		63.94%	62.57%
51)	S Decachlorobiphen	14.20	17.33	237467	286405	13.874	13.643
	Spiked Amount 40.000			Recovery =		34.69%	34.11%
	Target Compounds						
42)	AR1016-B	4.28	6.00	90835	178774	164.730m	221.976m#
43)	AR1016-C	5.10f	6.95f	246358	300388	200.671m	187.000
45)	AR1016-E	6.05	8.25	100821	73475	203.990	153.039m
46)	AR1260-A	9.68	12.36	66128	83587	48.564	46.905
47)	AR1260-B	9.93	12.55	39731	46163	60.440	57.287
48)	AR1260-C	10.45	13.24	56527	48192	91.938	55.991 #
49)	AR1260-D	11.14	13.79	83471	102316	53.261	57.063m
50)	AR1260-E	11.76	14.65	85770	112177	55.573m	60.129m

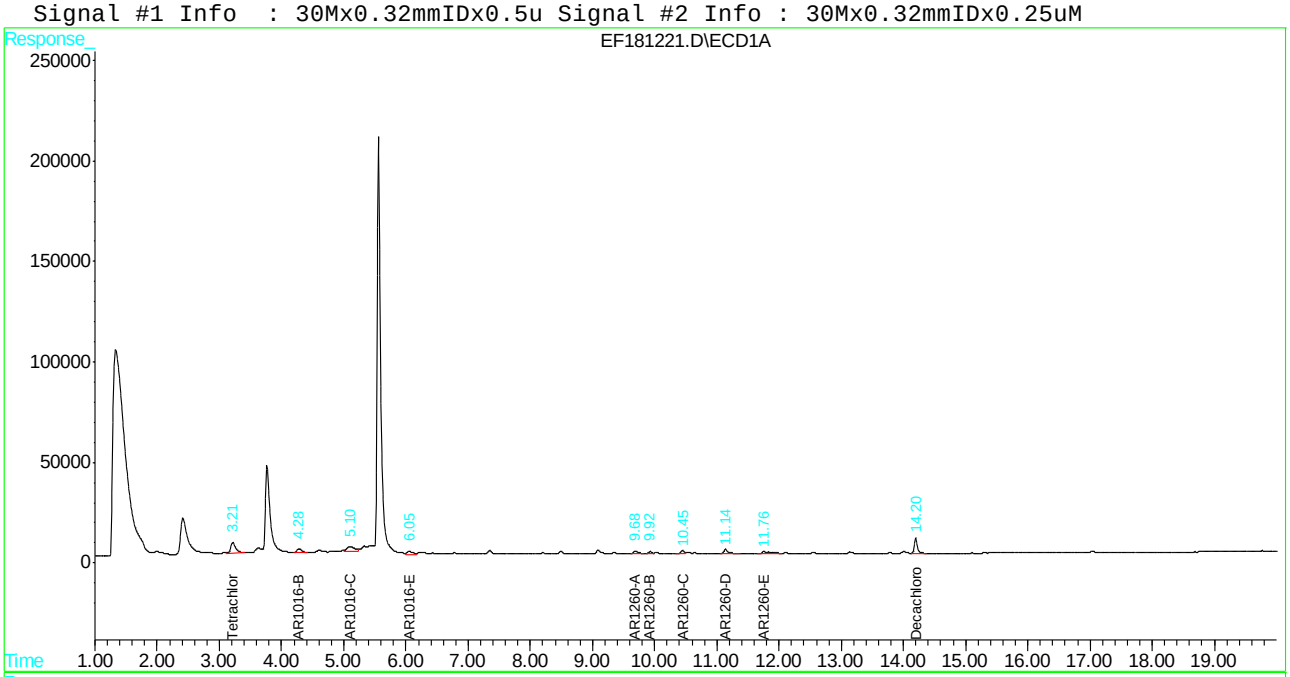
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181221.D PCB6195.M Tue Apr 03 09:09:02 2018 GCEF Page 1

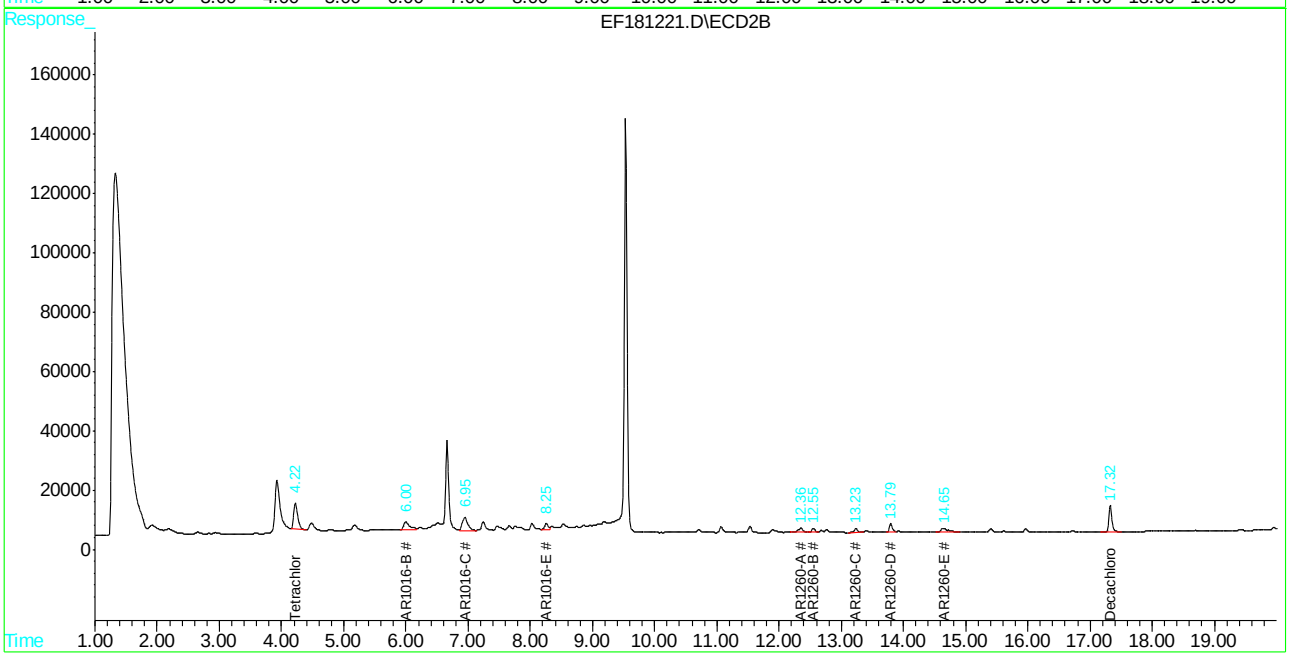
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Apr 3 9:08 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62881

Manual Integration Approval Summary

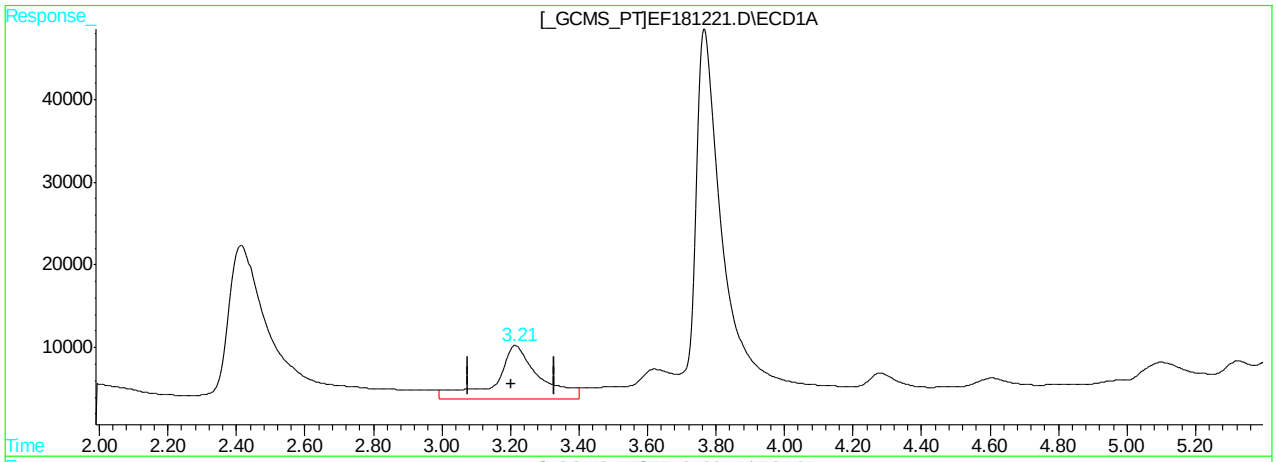
Sample Number: OP10884-MS
Lab FileID: EF181221.D
Injection Time: 03/28/18 19:04
Method: SW846 8082A
Analyst approved: 04/03/18 09:16 Tianwei Ruan
Supervisor approved: 04/03/18 09:47 Gwendolyn Burns

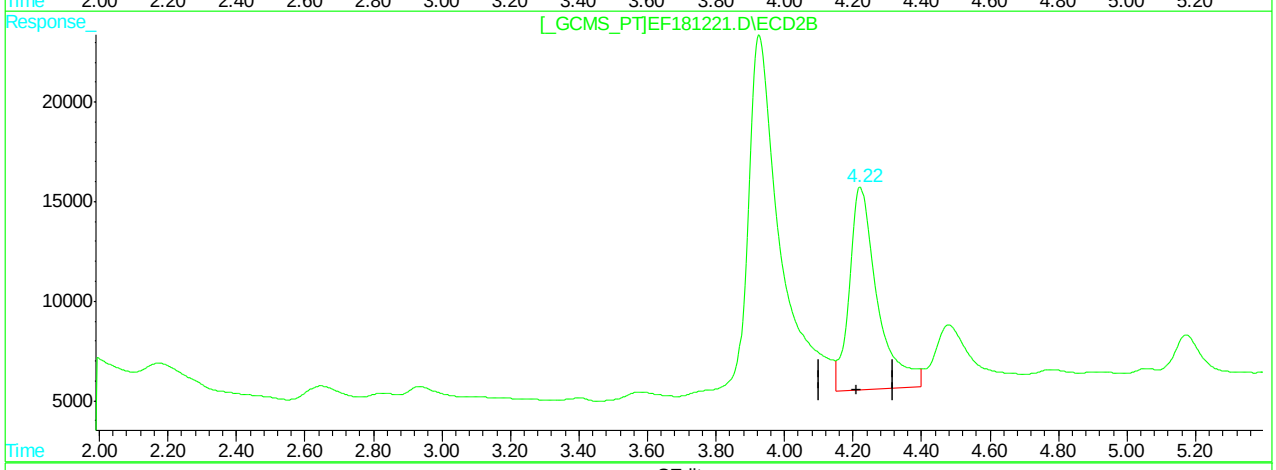
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline
AR1016-B		1	4.28	Split peak
AR1016-C		1	5.10	Split peak
AR1016-B		2	6.00	Split peak
AR1016-E		2	8.25	Split peak
AR1260-E		1	11.76	Split peak
AR1260-D		2	13.79	Split peak
AR1260-E		2	14.65	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 50.114PPB

response 579363

(1) Tetrachloro-m-xylene #2 (S)

4.22min 36.620PPB

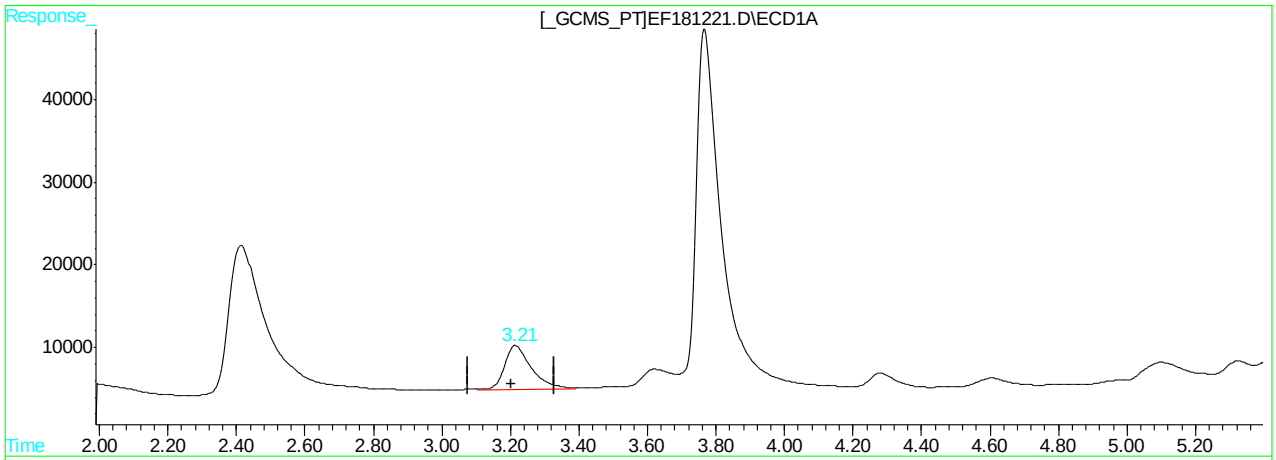
response 570127

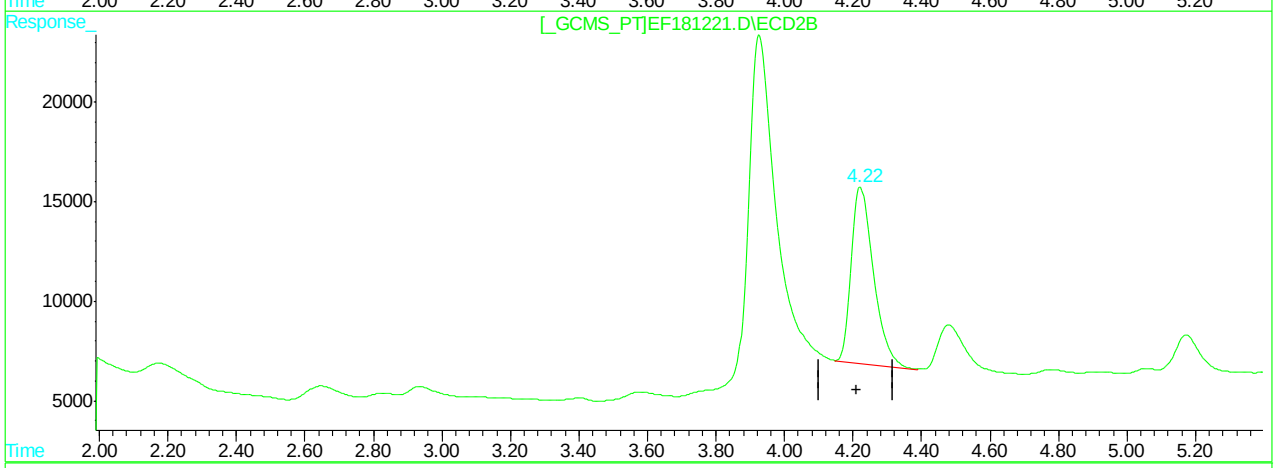
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:39:20 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 25.578PPB m

response 295708

(1) Tetrachloro-m-xylene #2 (S)

4.22min 25.027PPB m

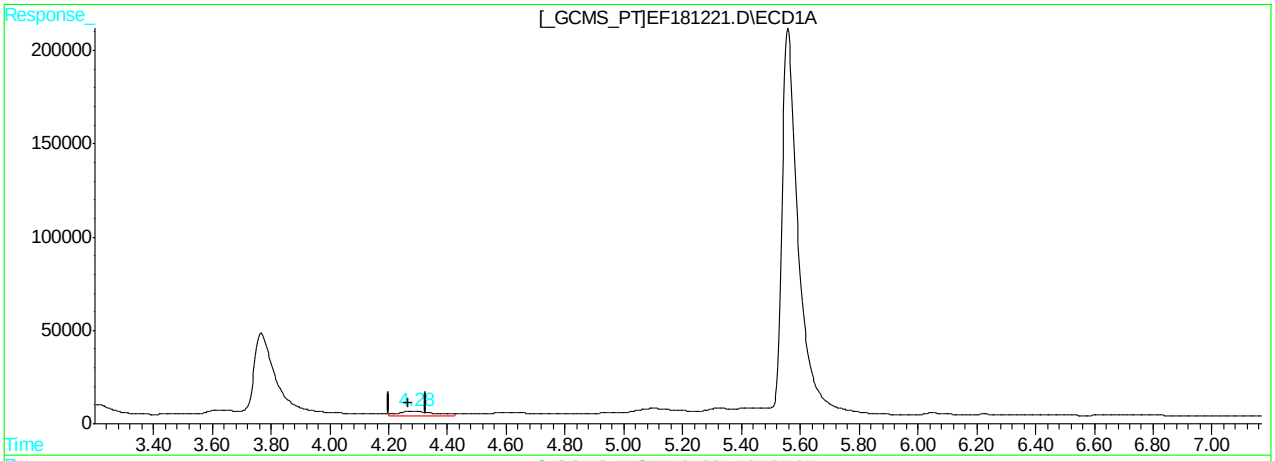
response 389641

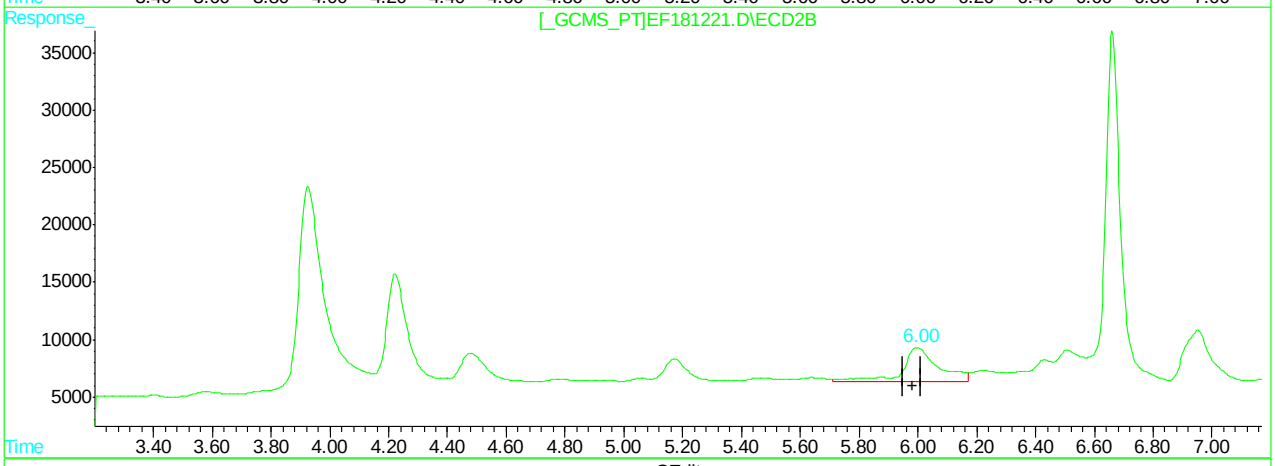
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:39:29 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(42) AR1016-B

4.28min 457.410PPB

response 252224

(42) AR1016-B #2

6.00min 318.404PPB

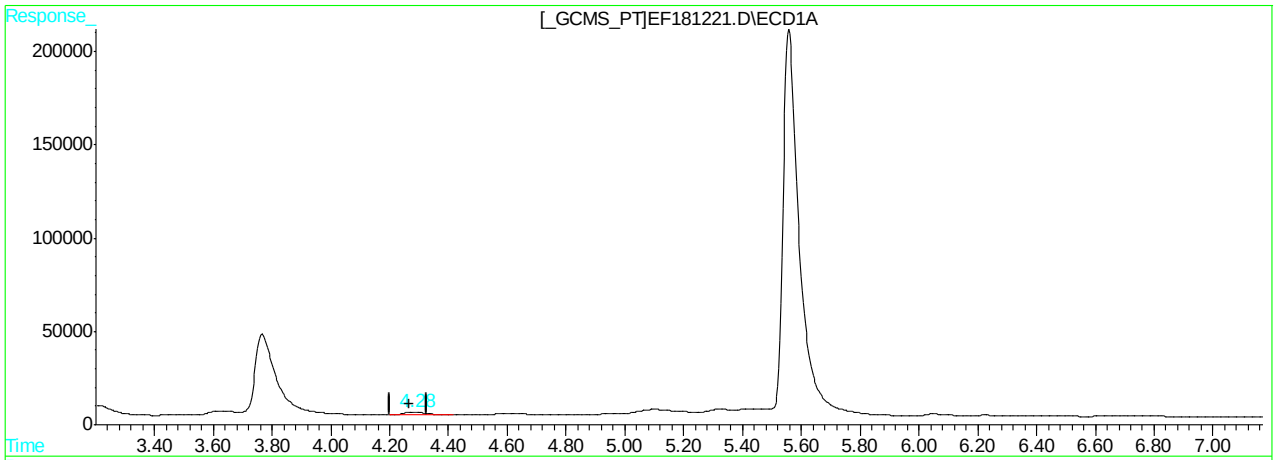
response 256434

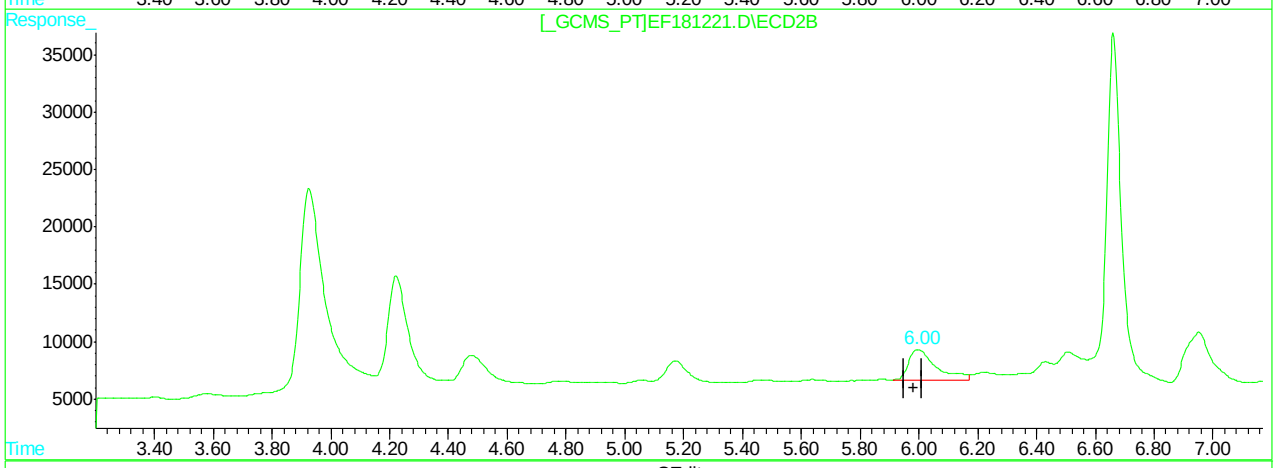
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:39:59 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(42) AR1016-B

4.28min 164.730PPB m

response 90835

(42) AR1016-B #2

6.00min 221.976PPB m

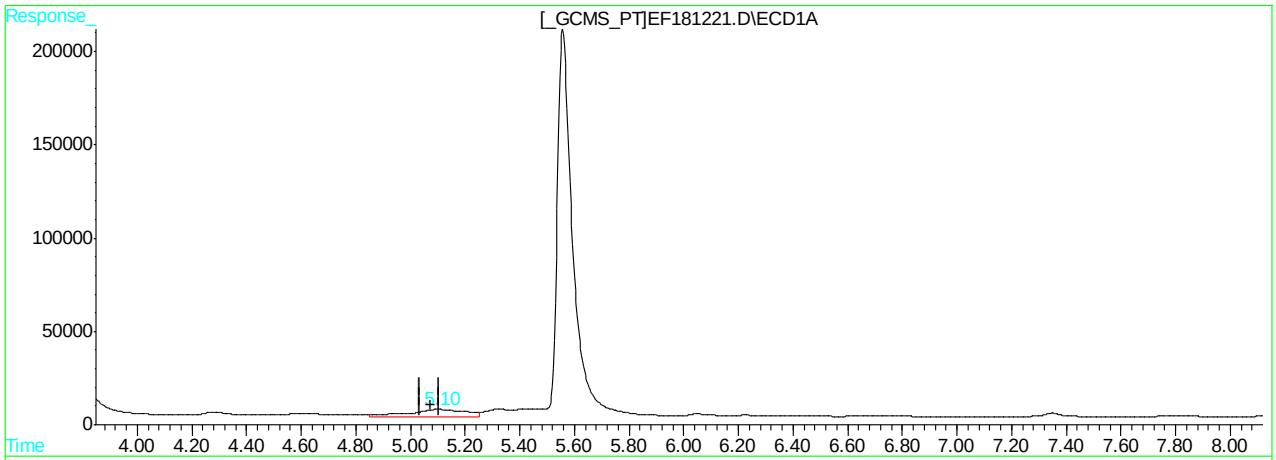
response 178774

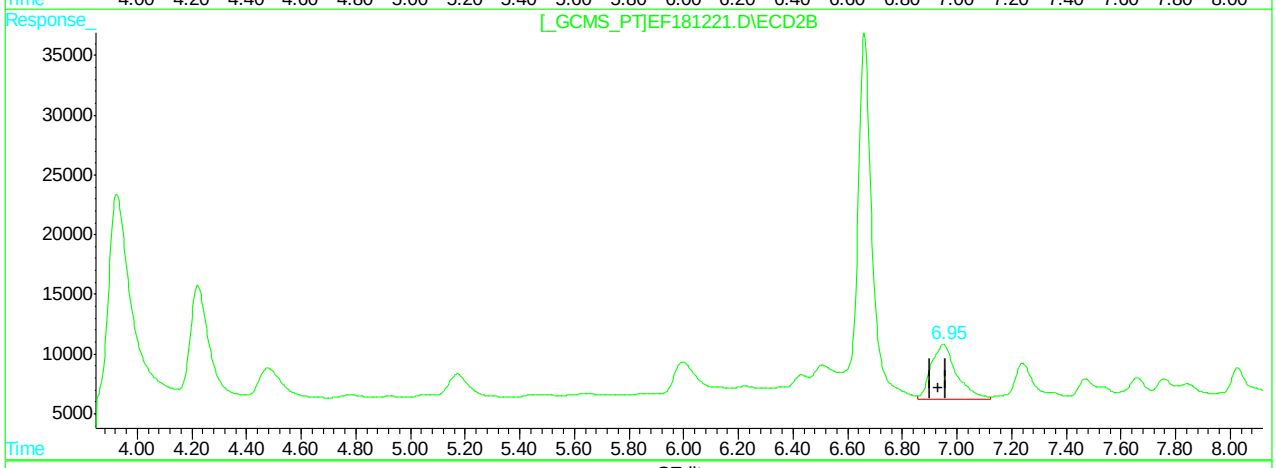
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:40:11 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 510.744PPB

response 627026

(43) AR1016-C #2

6.95min 187.000PPB

response 300388

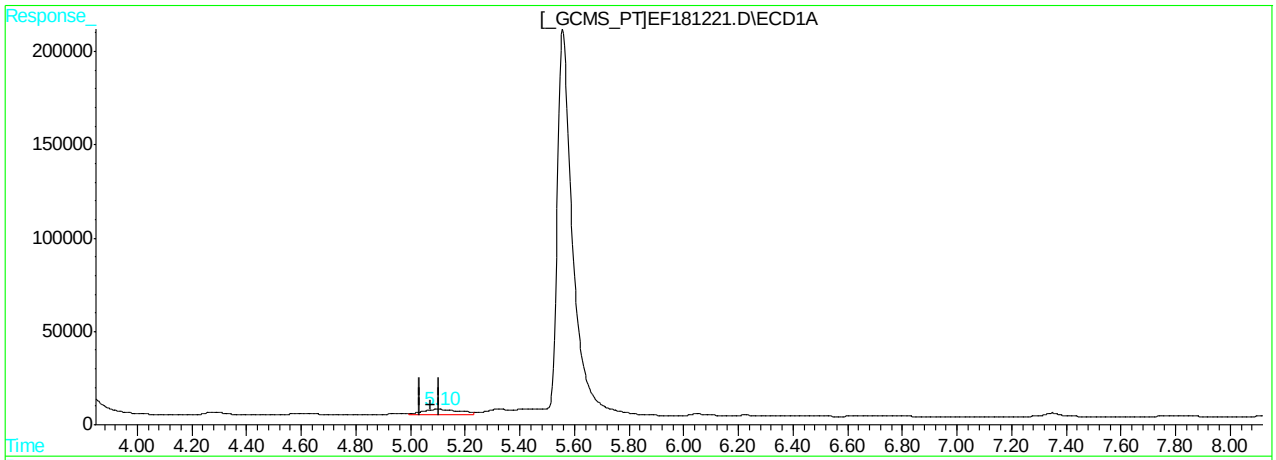
(+) = Expected Retention Time

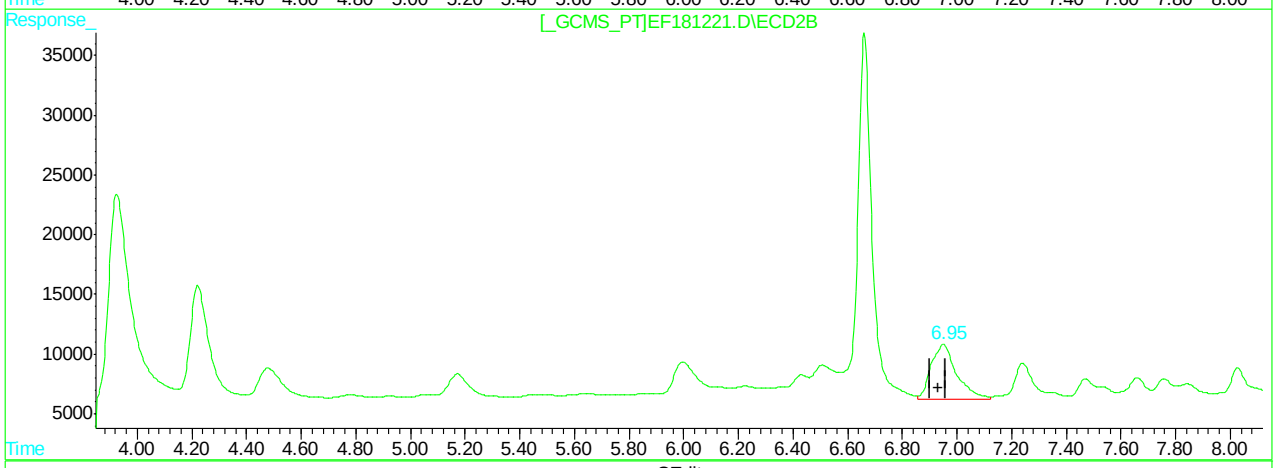
EF181221.D PCB6195.M Thu Mar 29 09:40:14 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 200.671PPB m

response 246358

(43) AR1016-C #2

6.95min 187.000PPB

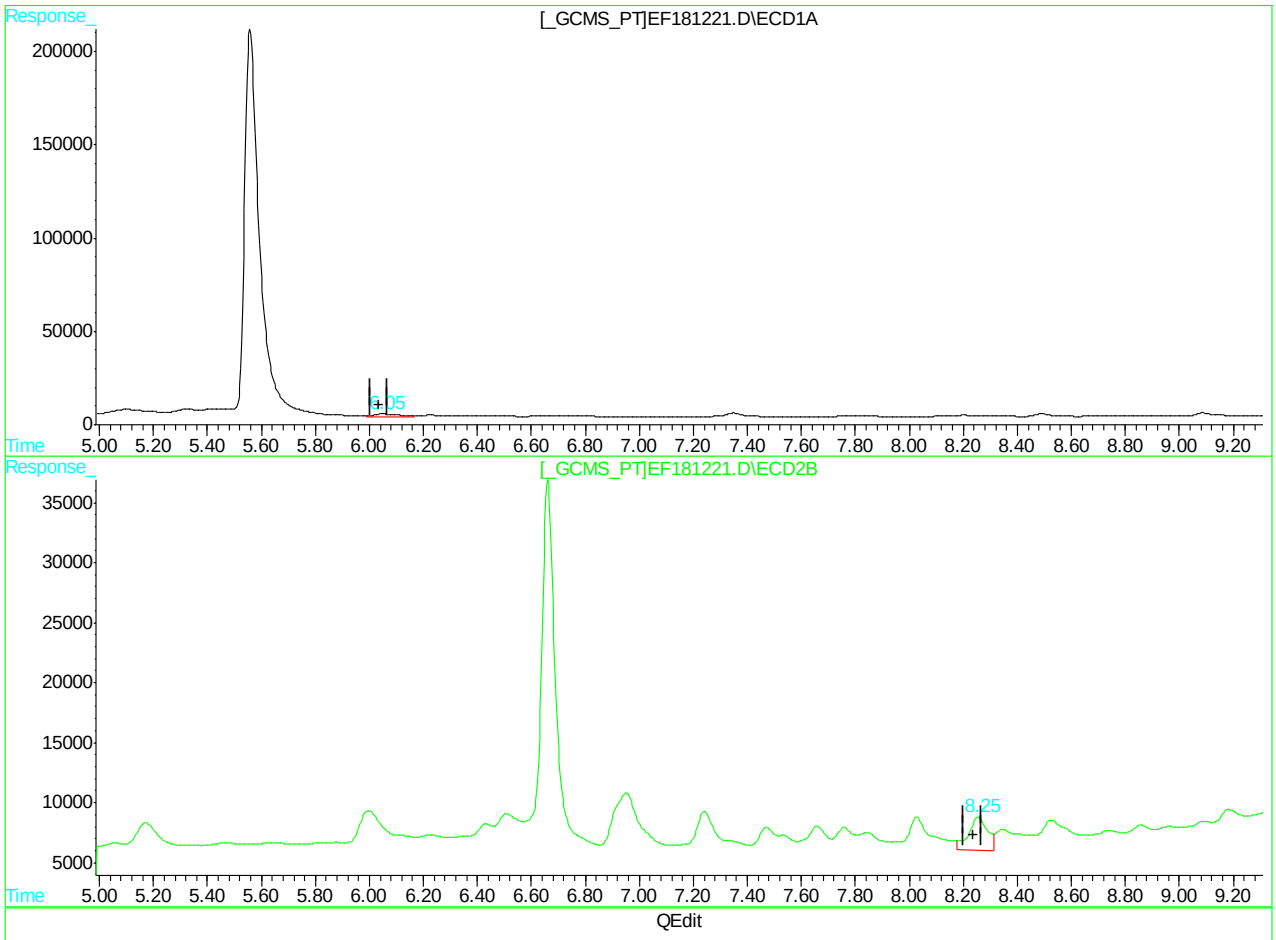
response 300388

(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:40:33 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(45) AR1016-E

6.05min 203.990PPB

response 100821

(45) AR1016-E #2

8.26min 277.020PPB

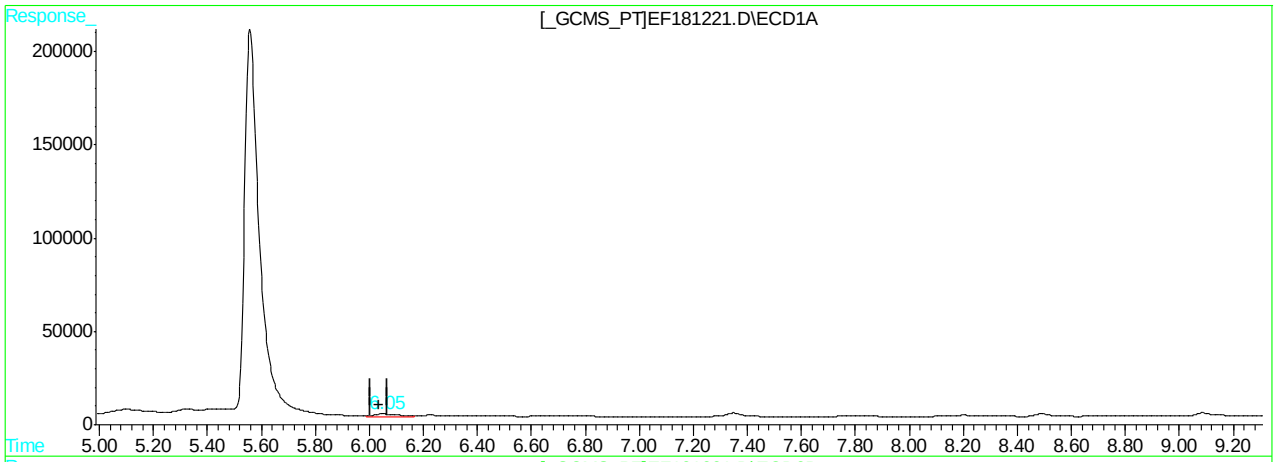
response 132999

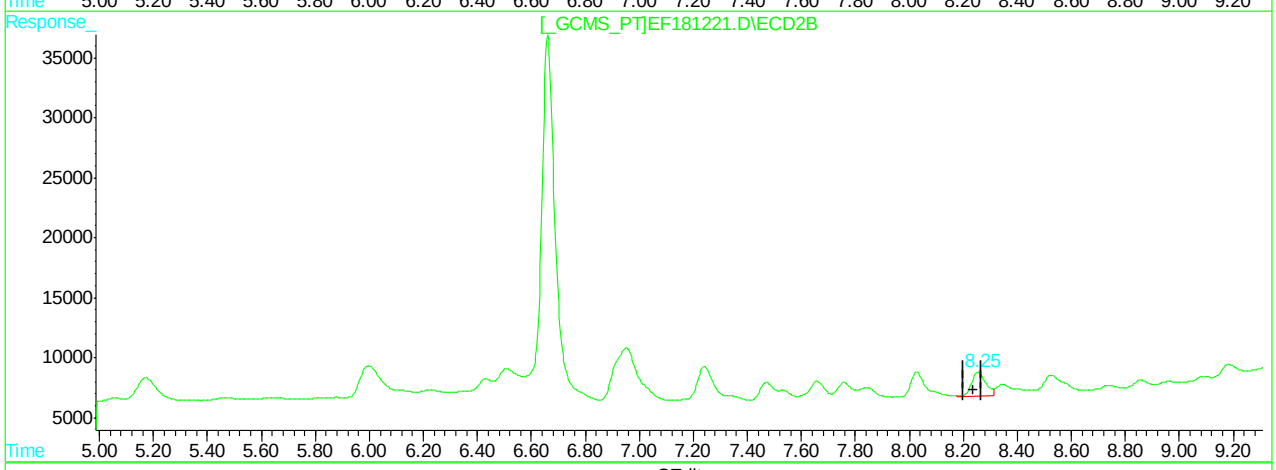
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.05min 203.990PPB

response 100821

(45) AR1016-E #2

8.25min 153.039PPB m

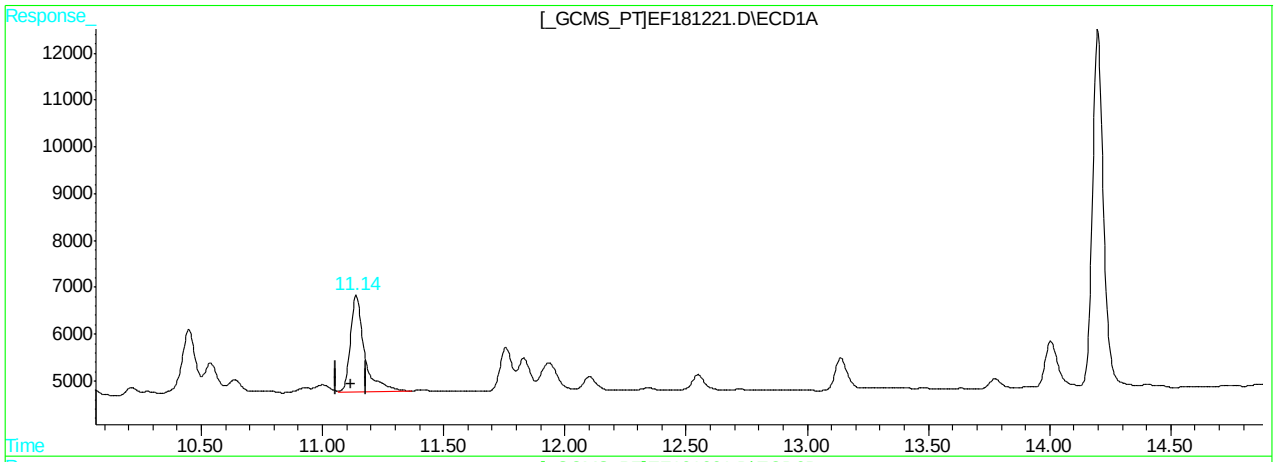
response 73475

(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:28 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(49) AR1260-D

11.14min 53.261PPB

response 83471

(49) AR1260-D #2

13.80min 52.494PPB

response 94124

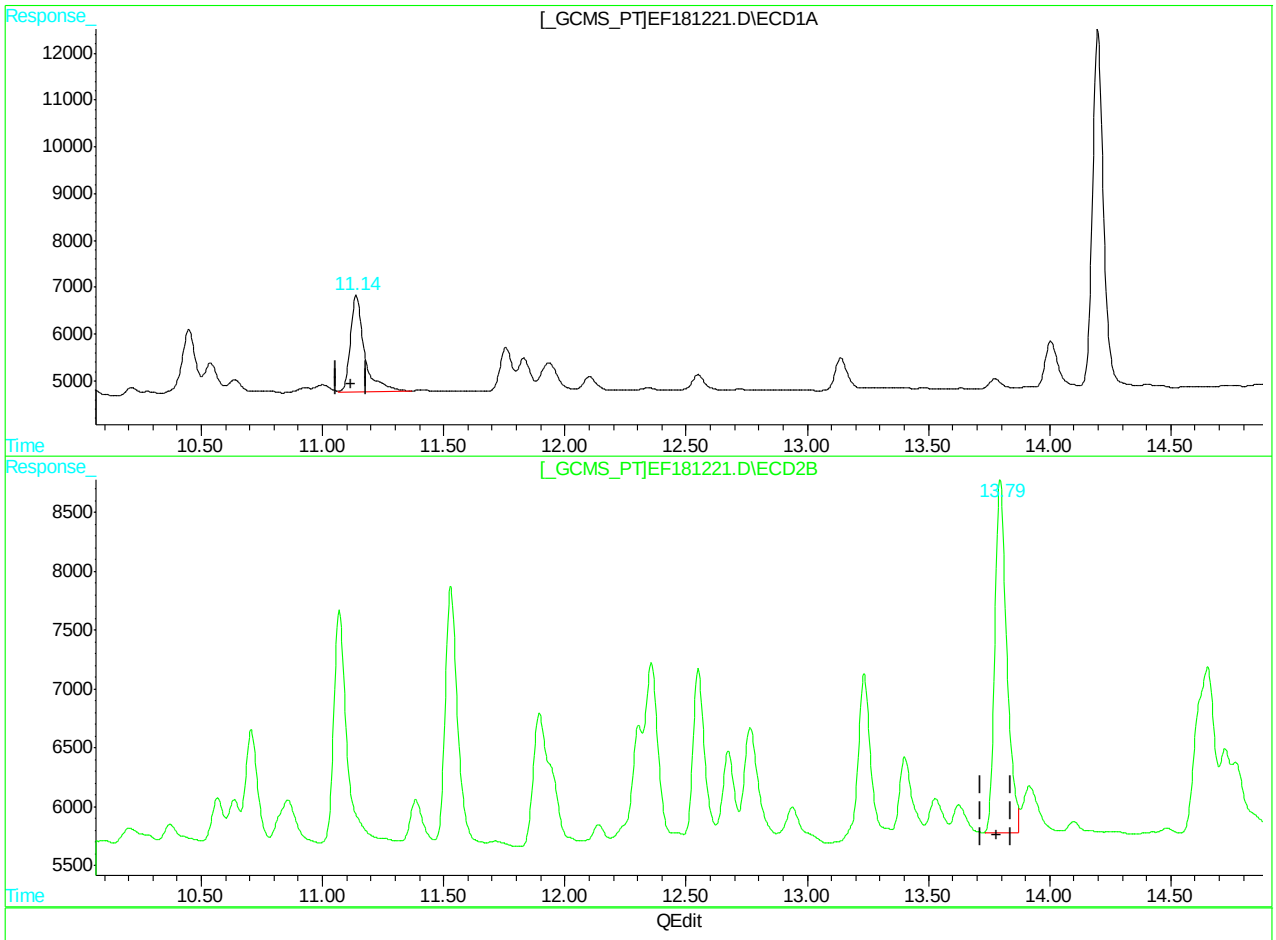
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:45 2018 GCEF

11.4.3.10 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(49) AR1260-D

11.14min 53.261PPB

response 83471

(49) AR1260-D #2

13.79min 57.063PPB m

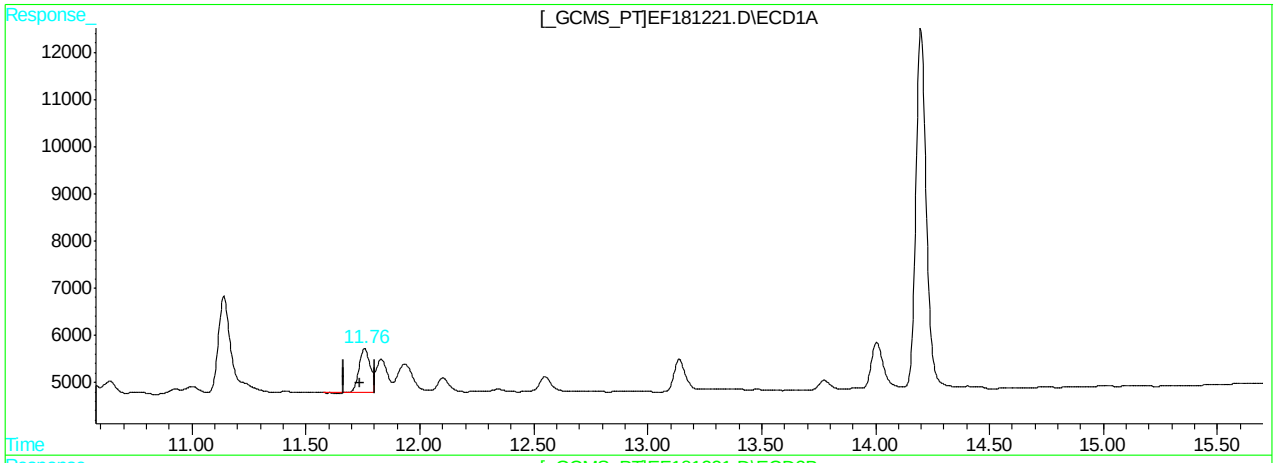
response 102316

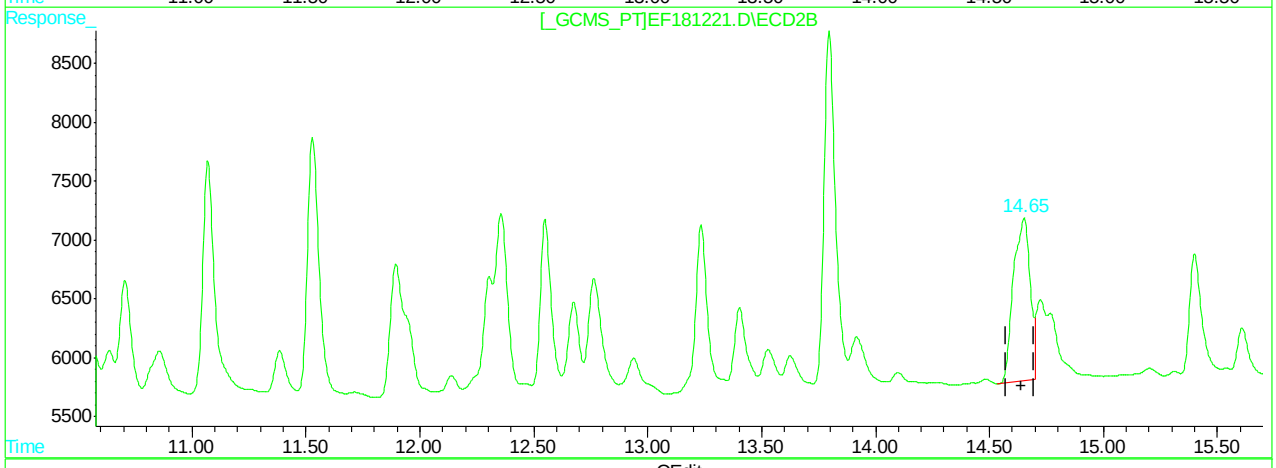
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:51 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 20.353PPB

response 31412

(50) AR1260-E #2

14.65min 37.557PPB

response 70067

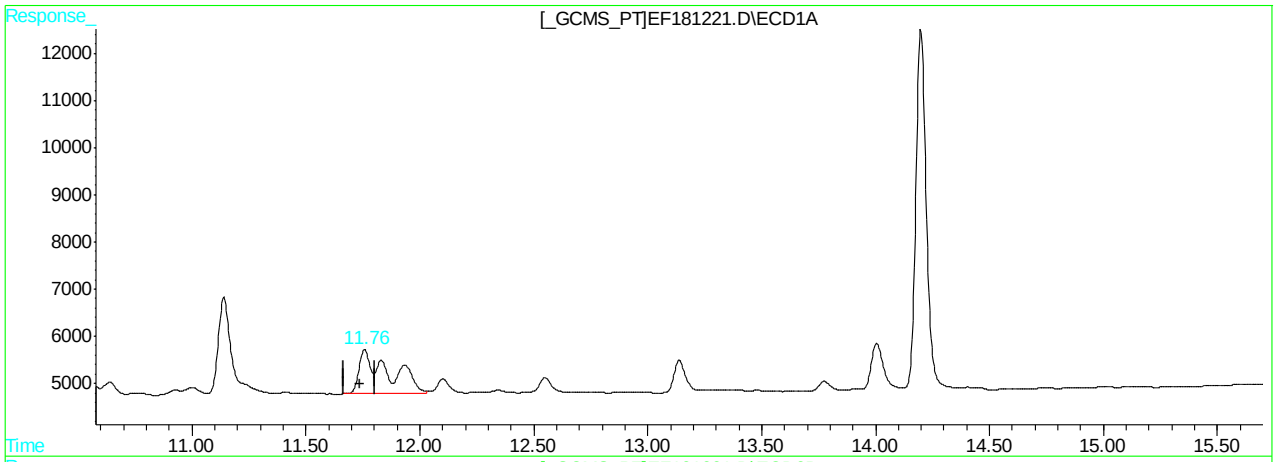
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:55 2018 GCEF

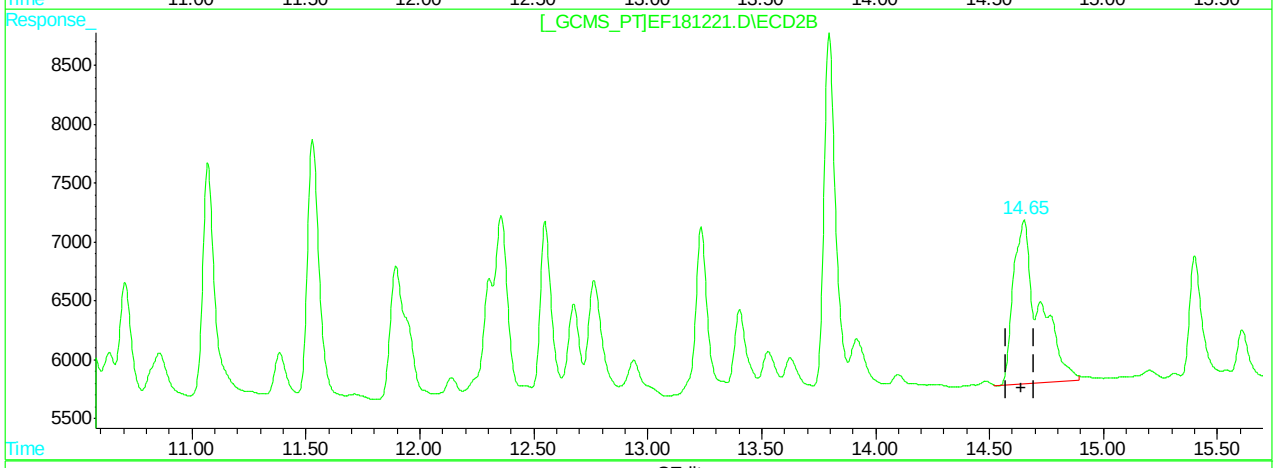
11.4.3.12 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 55.573PPB m

response 85770

(50) AR1260-E #2

14.65min 60.129PPB m

response 112177

(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:42:04 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/03/18 09:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Apr 3 9:09 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.22	4.23	338023	405244	29.238	26.029m
	Spiked Amount 40.000			Recovery =		73.09%	65.07%
51)	S Decachlorobiphen	14.20	17.33	270330	310257	15.794m	14.779m
	Spiked Amount 40.000			Recovery =		39.49%	36.95%
	Target Compounds						
42)	AR1016-B	4.28f	6.00f	100383	183235	182.045m	227.516m
43)	AR1016-C	5.10f	6.96f	333874	285310	271.957m	177.613 #
45)	AR1016-E	6.06f	8.26f	85448	81068	172.885	168.855
46)	AR1260-A	9.69	12.36	74823	103202	54.951	57.912
47)	AR1260-B	9.93	12.56	46052	56373	70.055	69.957
48)	AR1260-C	10.46	13.24	55247	61499	89.857	71.452
49)	AR1260-D	11.15	13.80	90992	110959	58.059	61.883
50)	AR1260-E	11.76	14.66	89737	116566	58.144m	62.481m

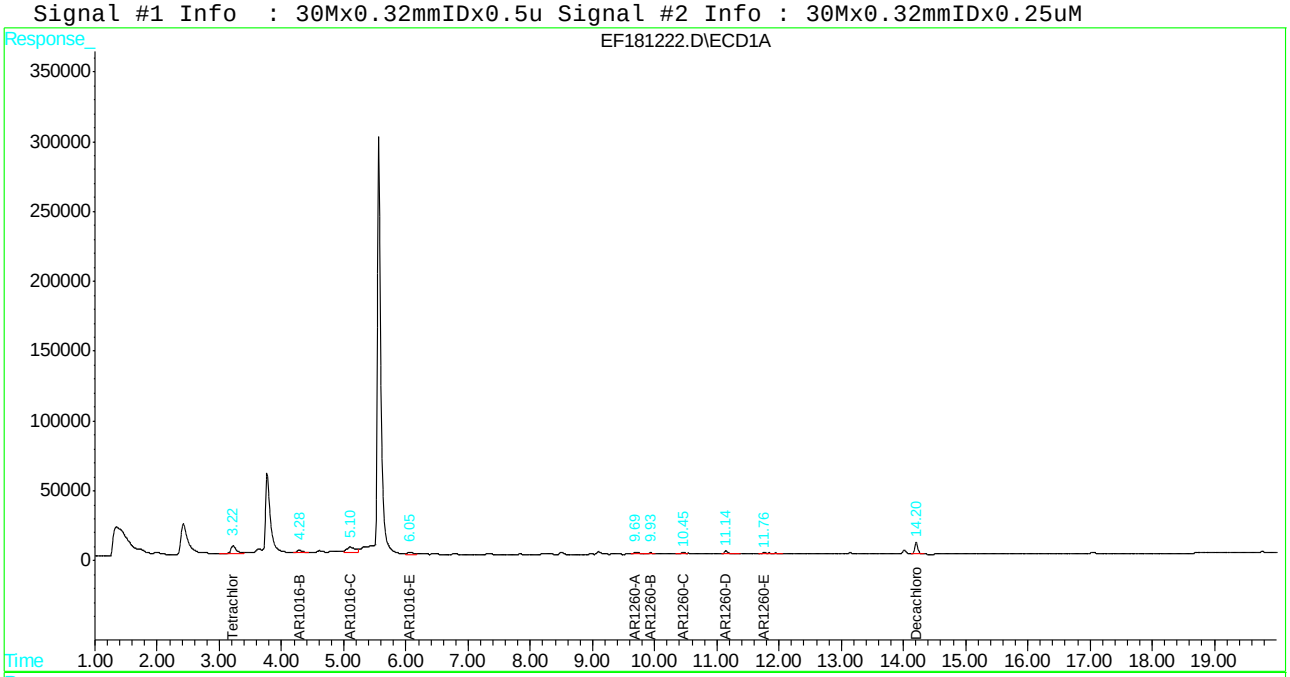
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181222.D PCB6195.M Tue Apr 03 09:09:22 2018 GCEF Page 1

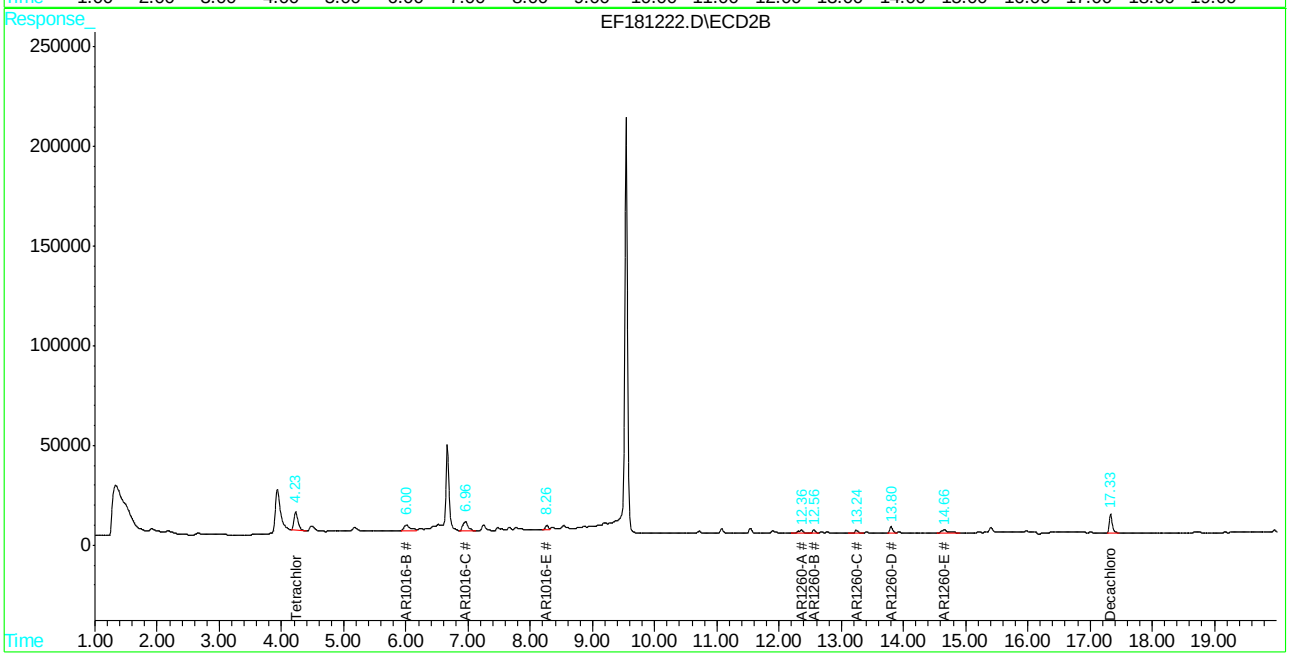
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Apr 3 9:09 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

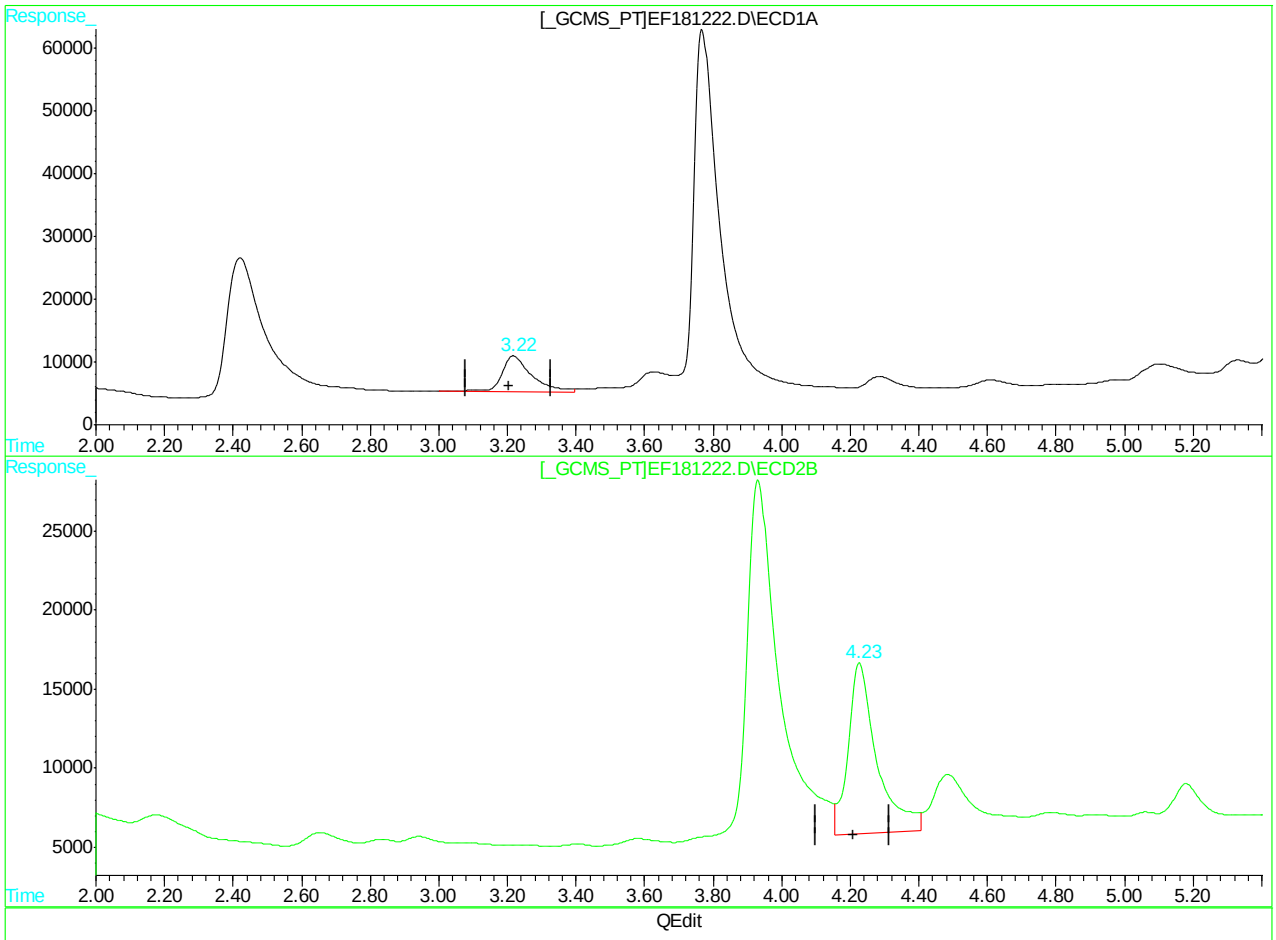
Sample Number: OP10884-MSD
Lab FileID: EF181222.D
Injection Time: 03/28/18 19:29
Method: SW846 8082A
Analyst approved: 04/03/18 09:16 Tianwei Ruan
Supervisor approved: 04/03/18 09:47 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	4.23	Poorly defined baseline
AR1016-B		1	4.28	Split peak
AR1016-C		1	5.10	Split peak
AR1016-B		2	6.00	Split peak
AR1260-E		1	11.76	Split peak
Decachlorobiphenyl	2051-24-3	1	14.20	Poorly defined baseline
AR1260-E		2	14.66	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.22min 29.238PPB

response 338023

(1) Tetrachloro-m-xylene #2 (S)

4.23min 40.701PPB

response 633677

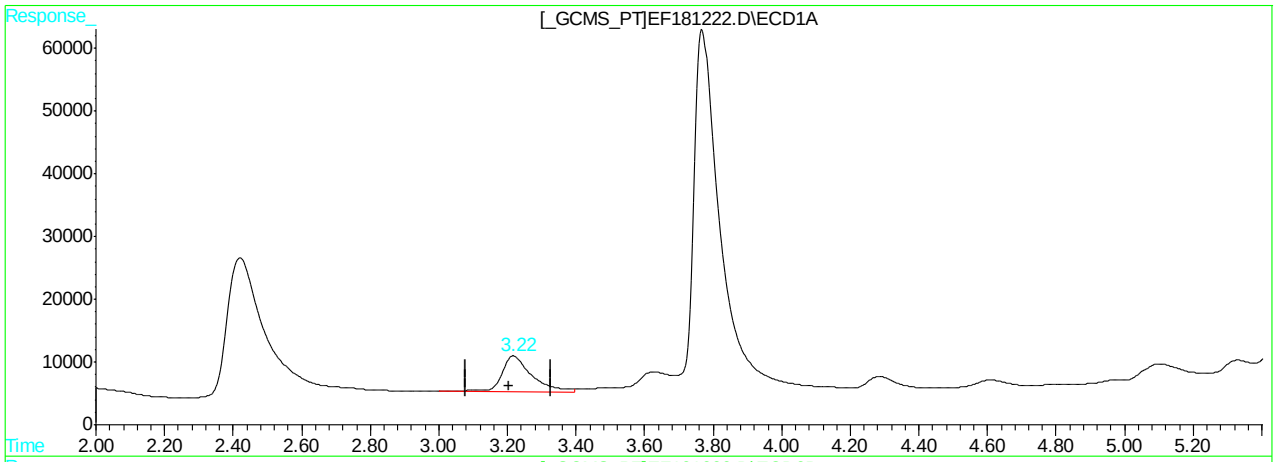
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:45:49 2018 GCEF

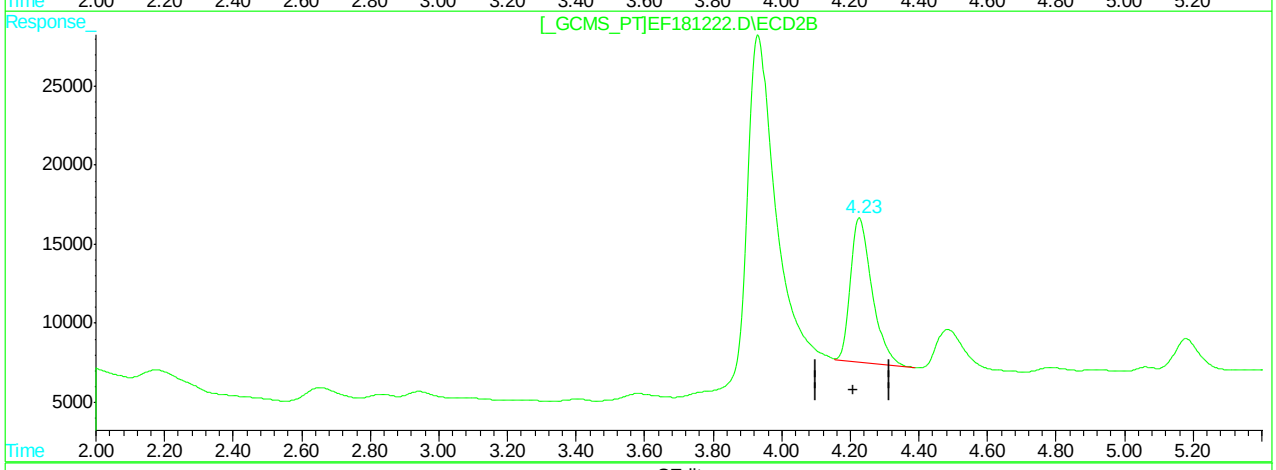
11.4.4.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.22min 29.238PPB

response 338023

(1) Tetrachloro-m-xylene #2 (S)

4.23min 26.029PPB m

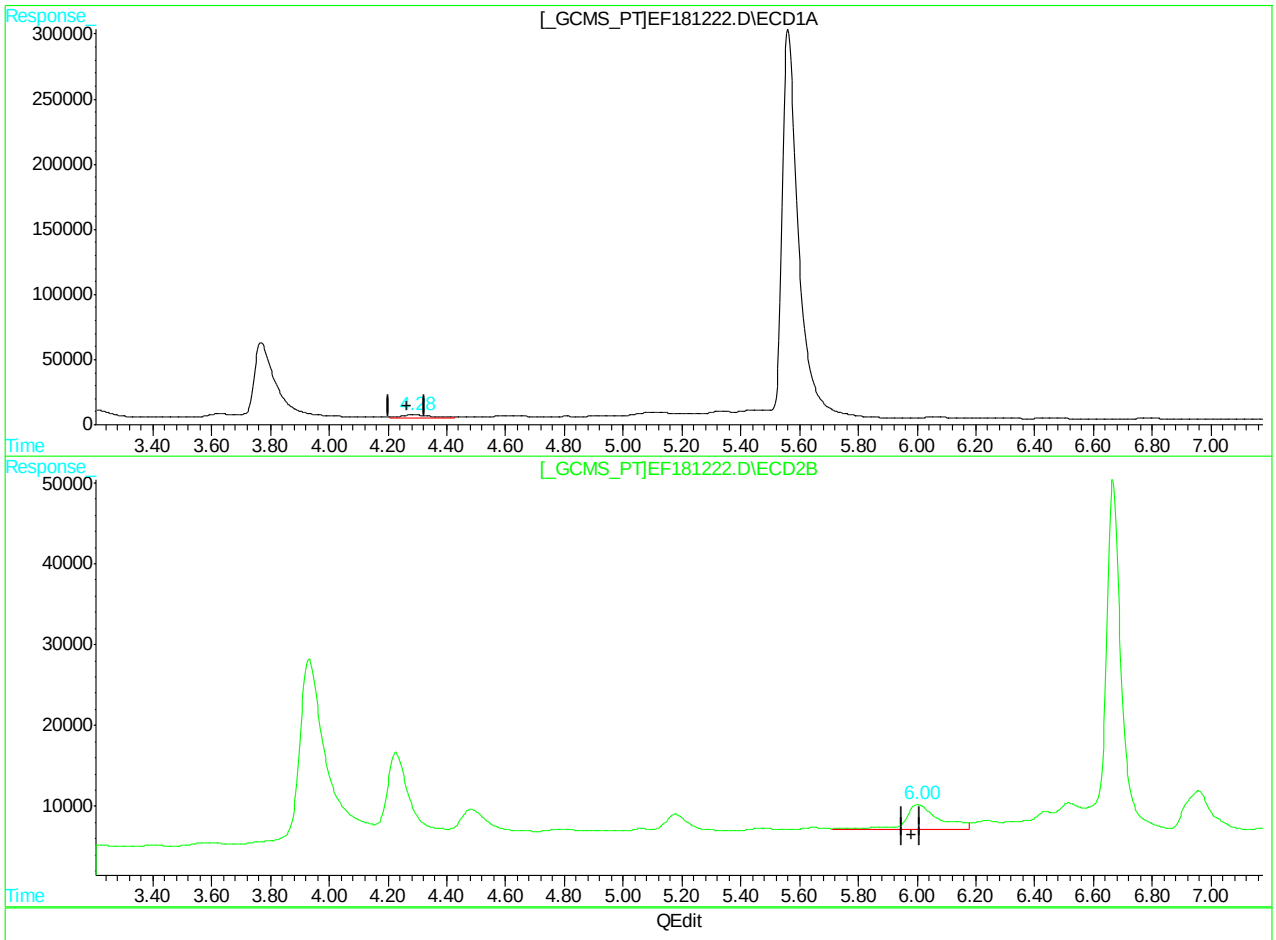
response 405244

(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:45:54 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(42) AR1016-B

4.29min 356.620PPB

response 196647

(42) AR1016-B #2

6.00min 304.654PPB

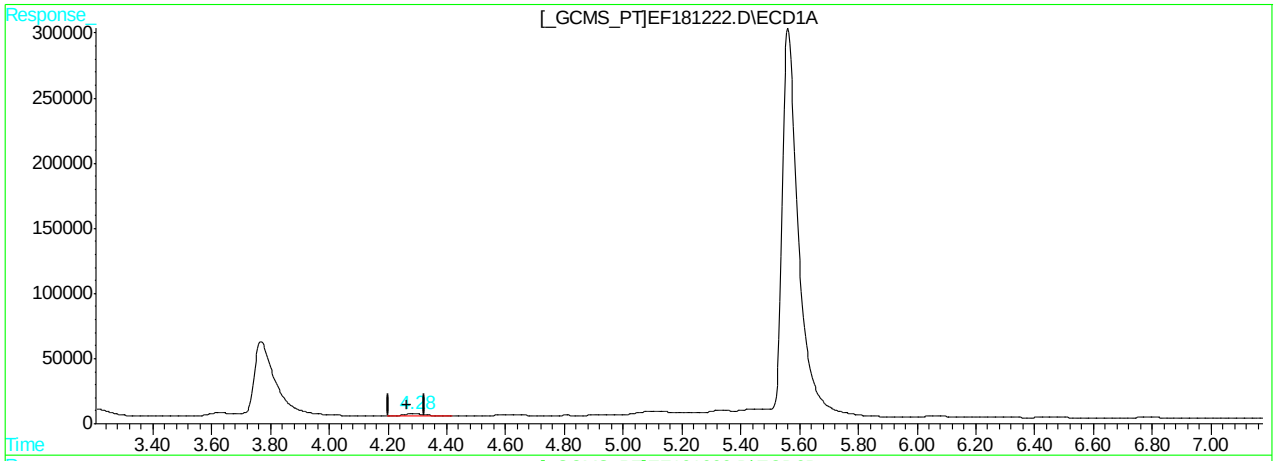
response 245360

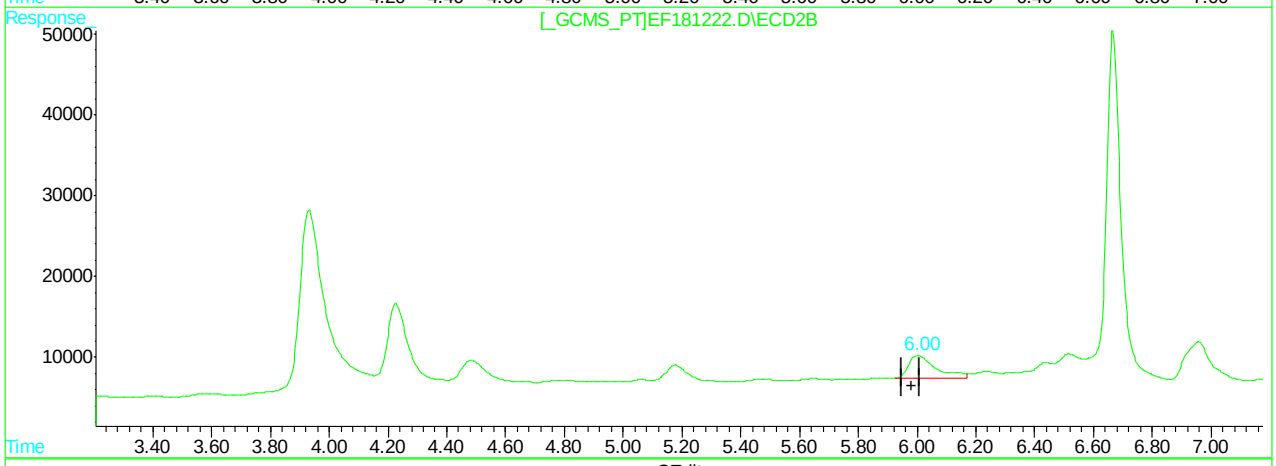
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:46:11 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(42) AR1016-B

4.28min 182.045PPB m

response 100383

(42) AR1016-B #2

6.00min 227.516PPB m

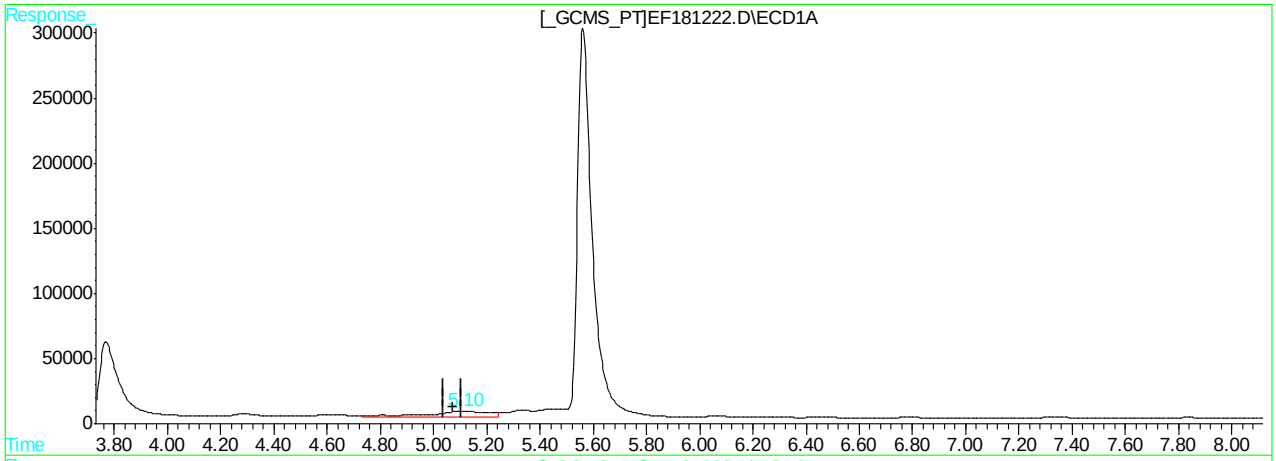
response 183235

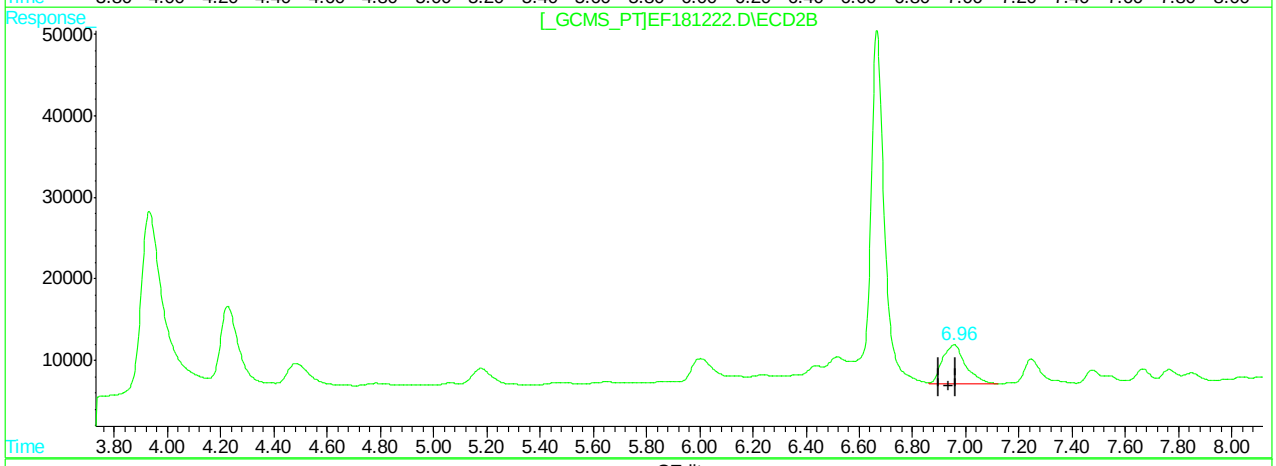
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:46:26 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 660.198PPB

response 810506

(43) AR1016-C #2

6.96min 177.613PPB

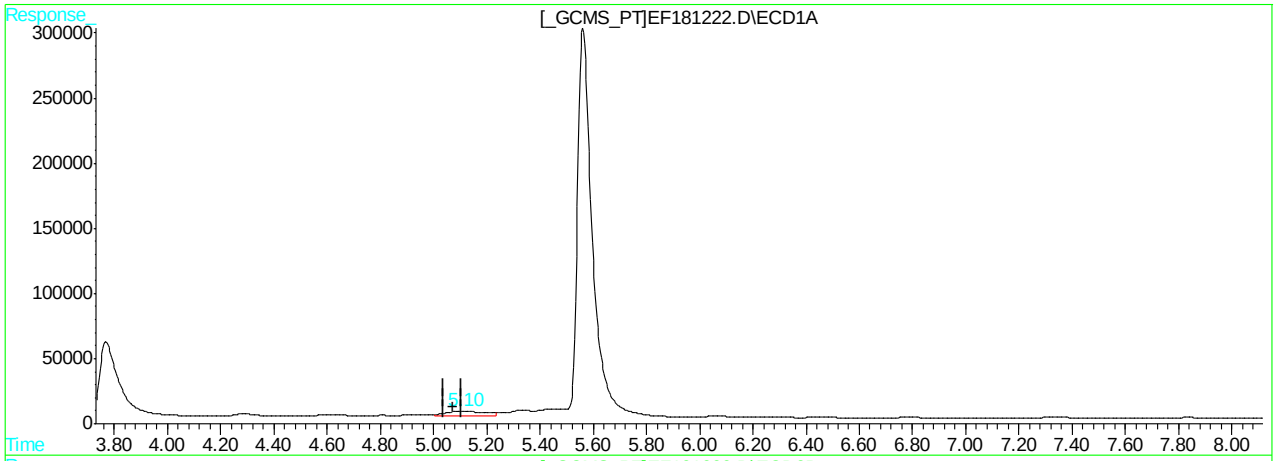
response 285310

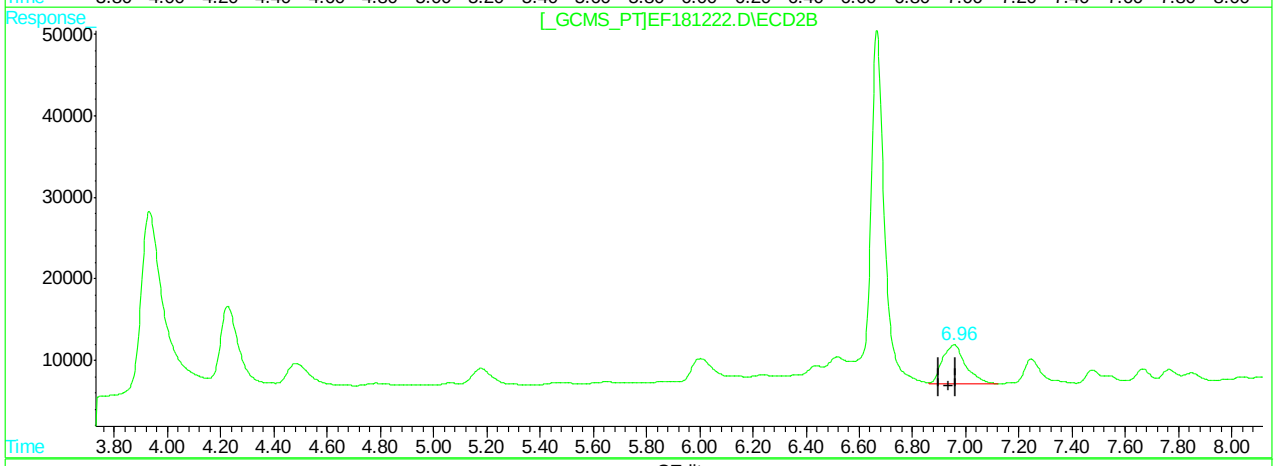
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:46:31 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 271.957PPB m

response 333874

(43) AR1016-C #2

6.96min 177.613PPB

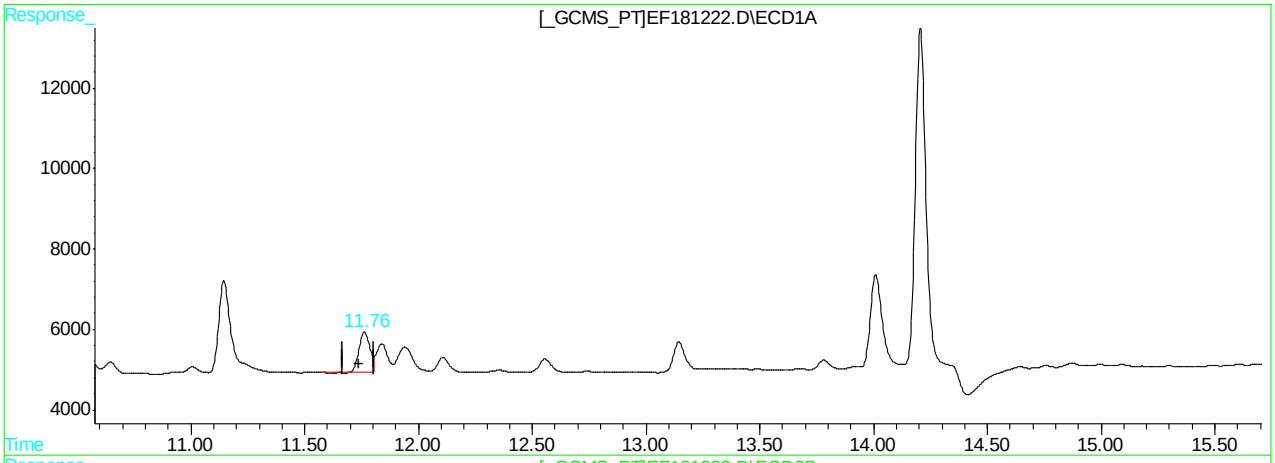
response 285310

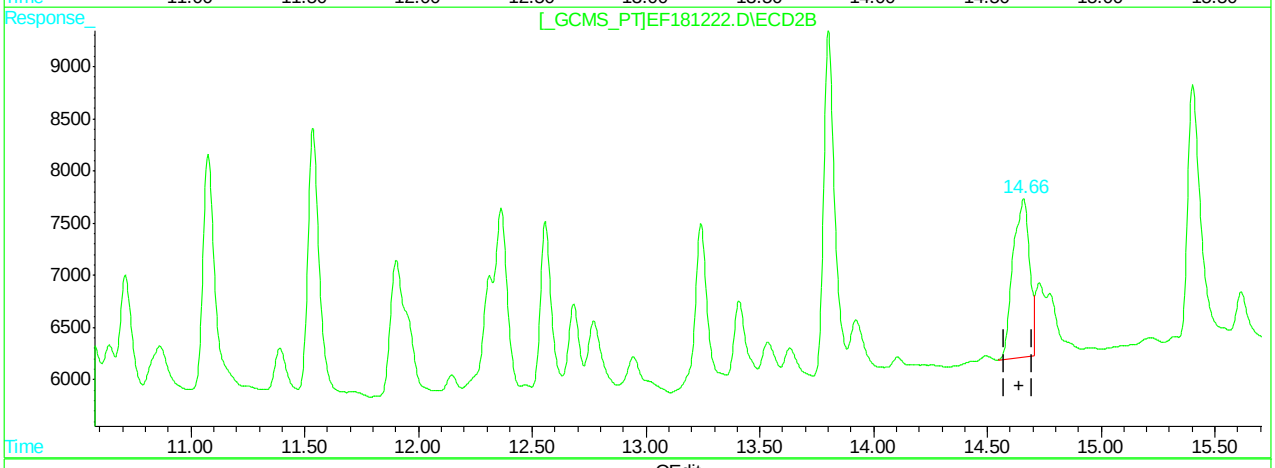
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:46:44 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 22.257PPB

response 34351

(50) AR1260-E #2

14.66min 40.937PPB

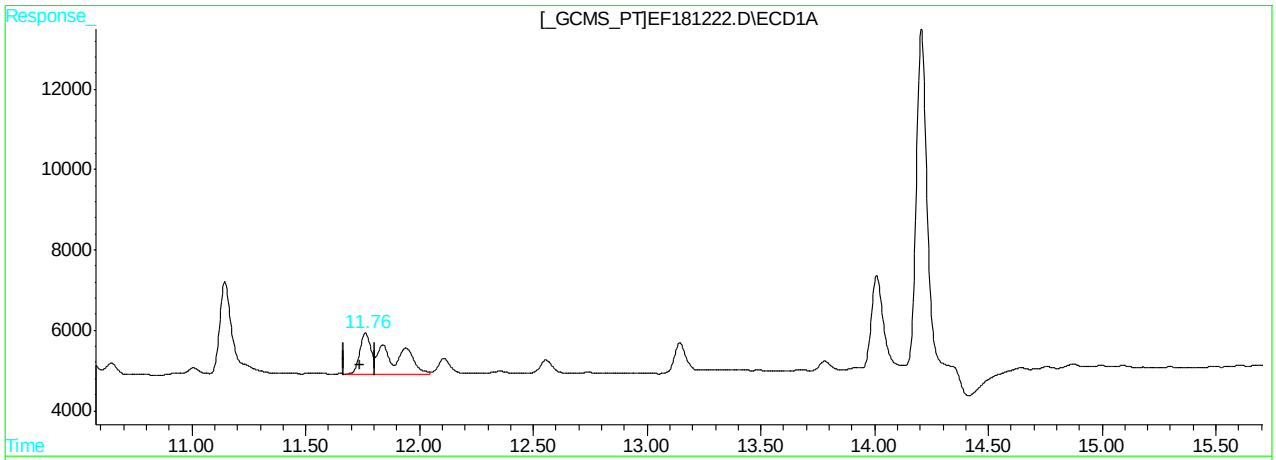
response 76373

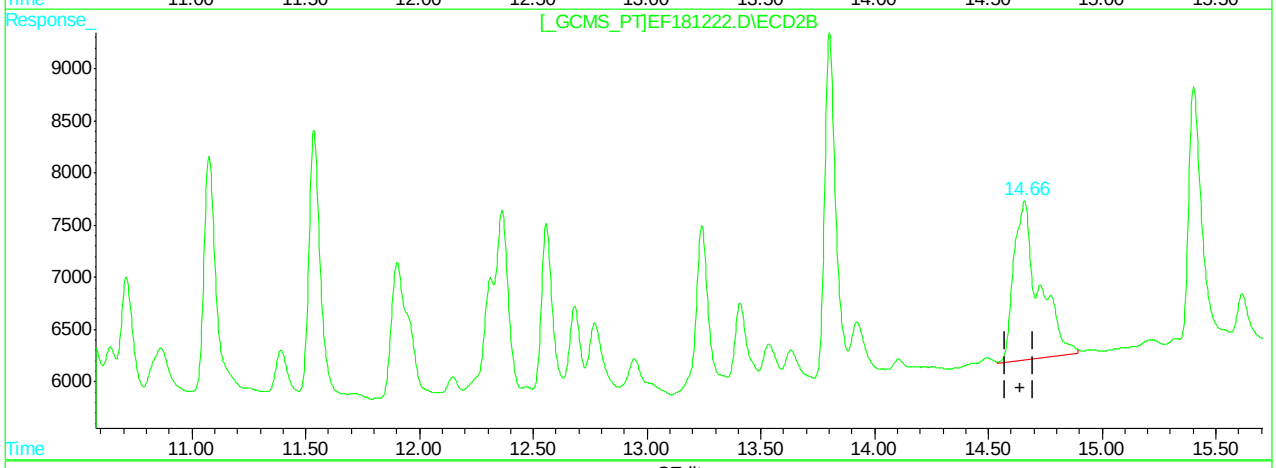
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:47:26 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 58.144PPB m

response 89737

(50) AR1260-E #2

14.66min 62.481PPB m

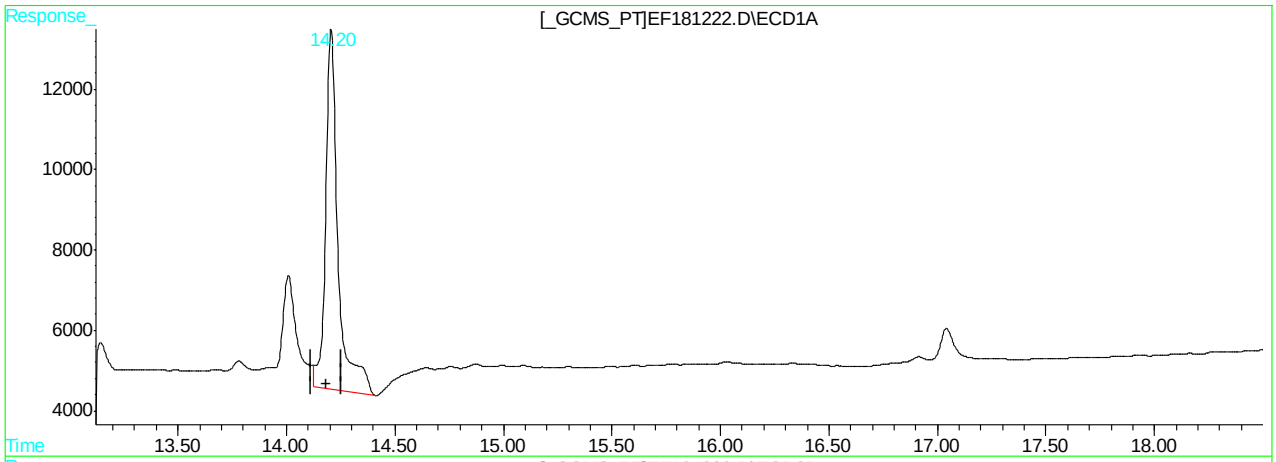
response 116566

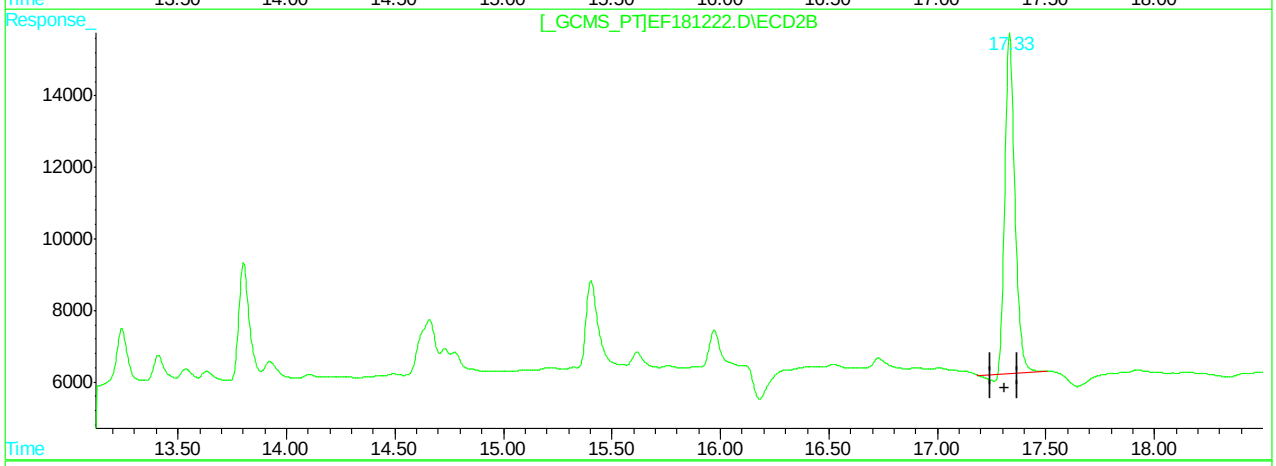
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:47:37 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.21min 20.917PPB

response 358023

(51) Decachlorobiphenyl #2 (S)

17.33min 14.314PPB

response 300509

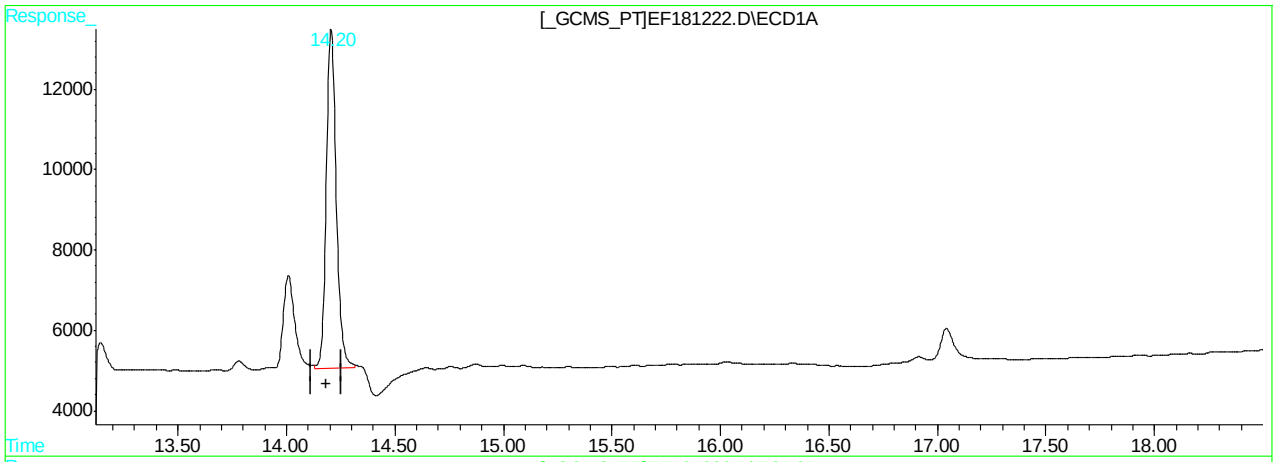
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:47:41 2018 GCEF

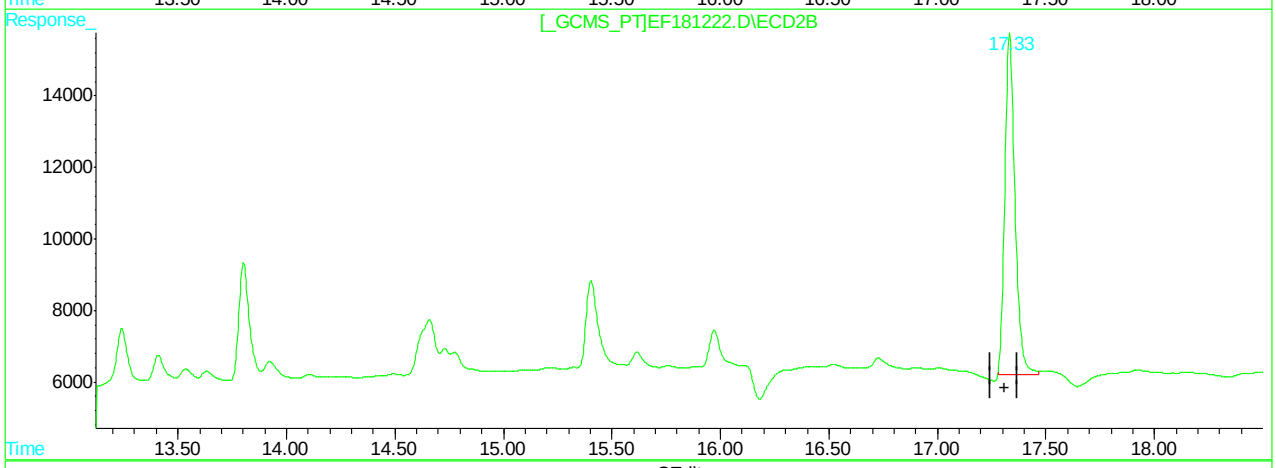
11.4.4.10 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 15.794PPB m

response 270330

(51) Decachlorobiphenyl #2 (S)

17.33min 14.779PPB m

response 310257

(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:47:54 2018 GCEF

11.4.4.11

11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4553.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	419.6E6	98846287	50.000	50.000
27)	I 1-bromo-2-nitrob	2.17	2.46	419.6E6	98846287	50.000	50.000
33)	I 1-bromo-2-nitrob	2.17	2.46	419.6E6	98846287	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.79	3.36	378.2E6	87917680	44.509	44.046
	Spiked Amount 40.000	Range 30 - 150		Recovery =		111.27%	110.12%
26)	SA Decachlorobiphen	10.15	12.07	307.2E6	69607144	38.959	46.197
	Spiked Amount 40.000			Recovery =		97.40%	115.49%
	Target Compounds						
15)	B 4,4'-DDE	5.65	7.32	11036658	3279560	1.326m	1.553
17)	MA Endrin	6.41	8.17	394.5E6	95115906	45.266	46.823
18)	A 4,4'-DDD	6.51	8.31	12494289	5407524	1.788m	3.146
20)	MA 4,4'-DDT	6.94	8.86	654.4E6	133.6E6	111.208	108.010
21)	B Endrin Aldehyde	7.37	9.12	2254334	571873	0.304m	0.363m
25)	B Endrin Ketone	8.53	10.34	2509313	826010	0.325m	0.475m

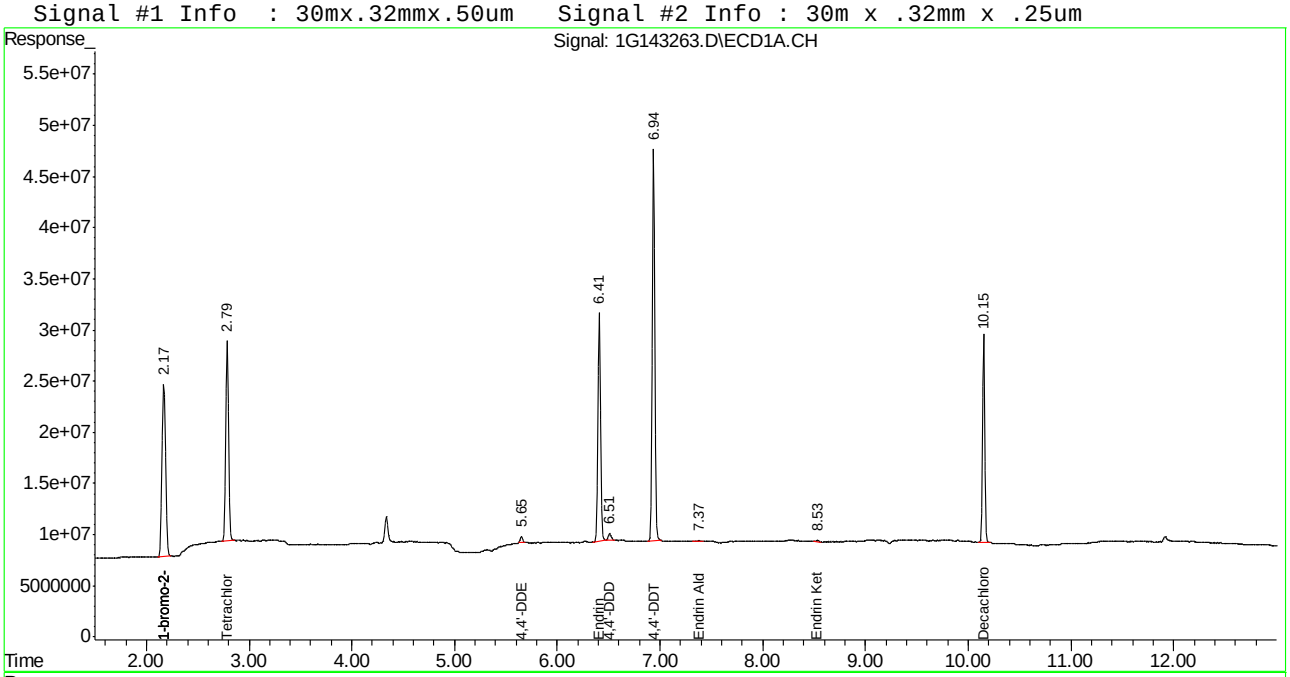
(f)=RT Delta > 1/2 Window (m)=manual int.
1G143263.D 1PST4557.M Thu Feb 08 11:05:06 2018 RPT1 Page 1

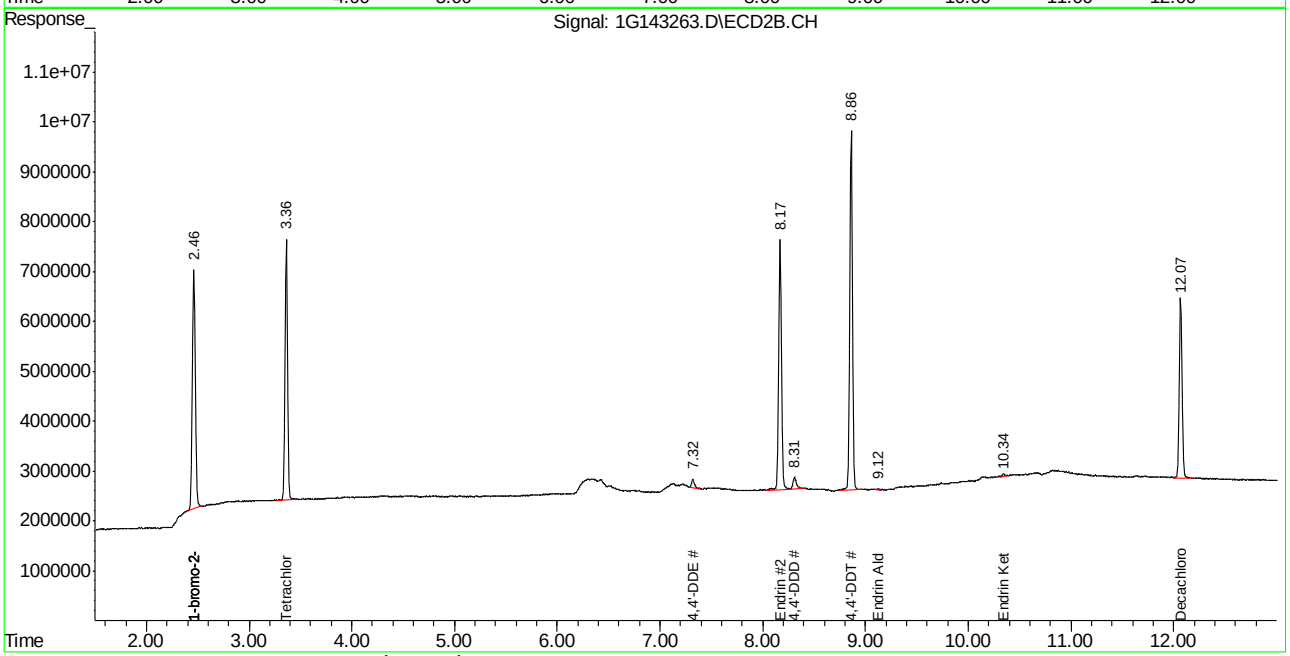
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4553.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integration Approval Summary

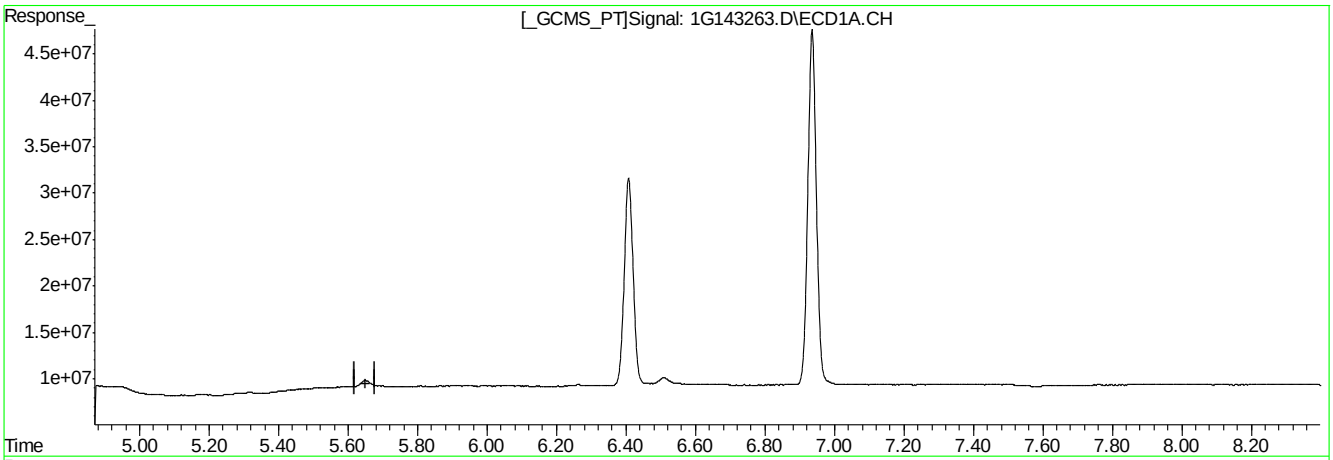
Sample Number: G1G4557-DDT
Lab FileID: 1G143263.D
Injection Time: 02/08/18 09:19
Method: SW846 8081B
Analyst approved: 02/08/18 14:13 Kristen Drake
Supervisor approved: 02/09/18 10:15 Gwendolyn Burns

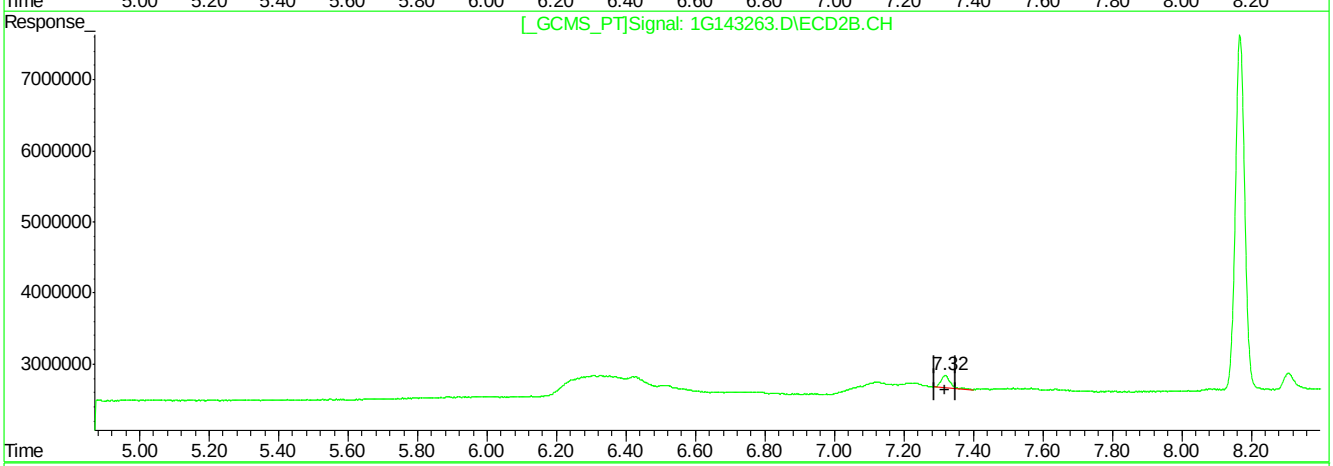
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.65	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.51	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	7.37	Poorly defined baseline
Endrin ketone	53494-70-5	1	8.53	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	9.12	Poorly defined baseline
Endrin ketone	53494-70-5	2	10.34	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(15) 4,4'-DDE (B)

0.00min 0.000PPB

response 0

(15) 4,4'-DDE #2 (B)

7.32min 1.553PPB

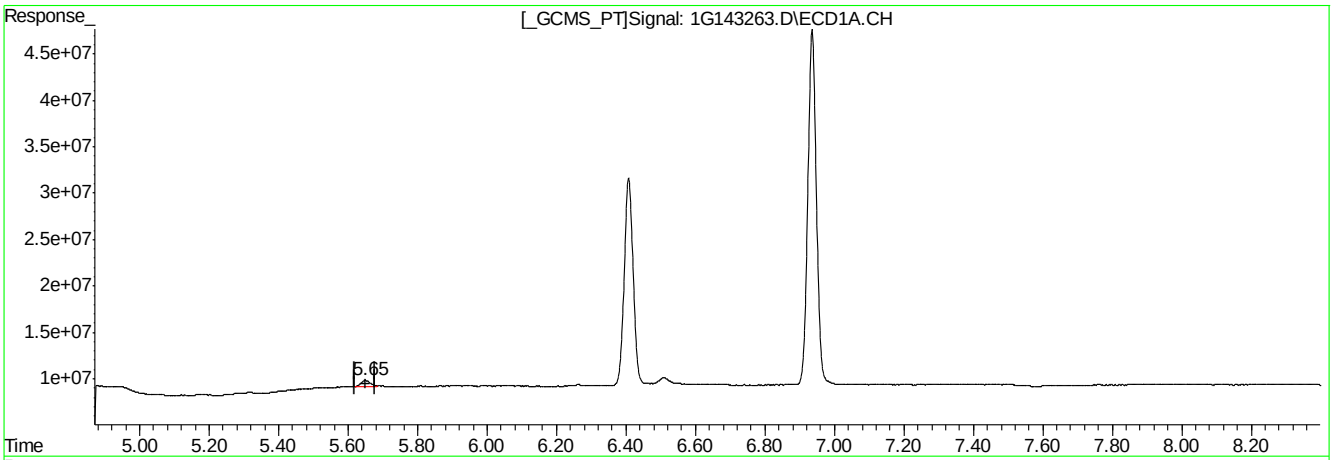
response 3279560

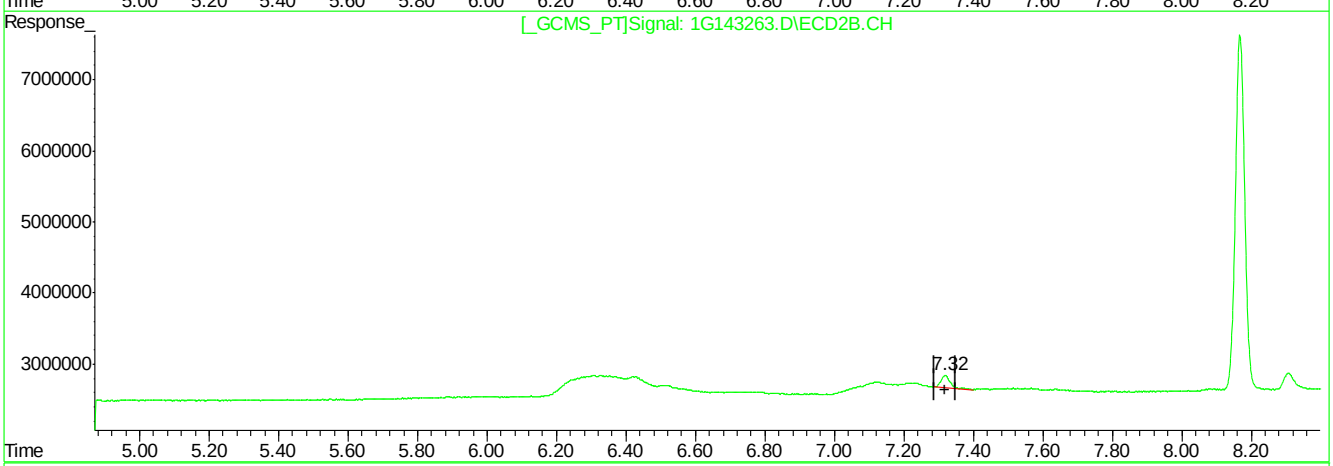
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:35 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(15) 4,4'-DDE (B)

5.65min 1.326PPB m

response 11036658

(15) 4,4'-DDE #2 (B)

7.32min 1.553PPB

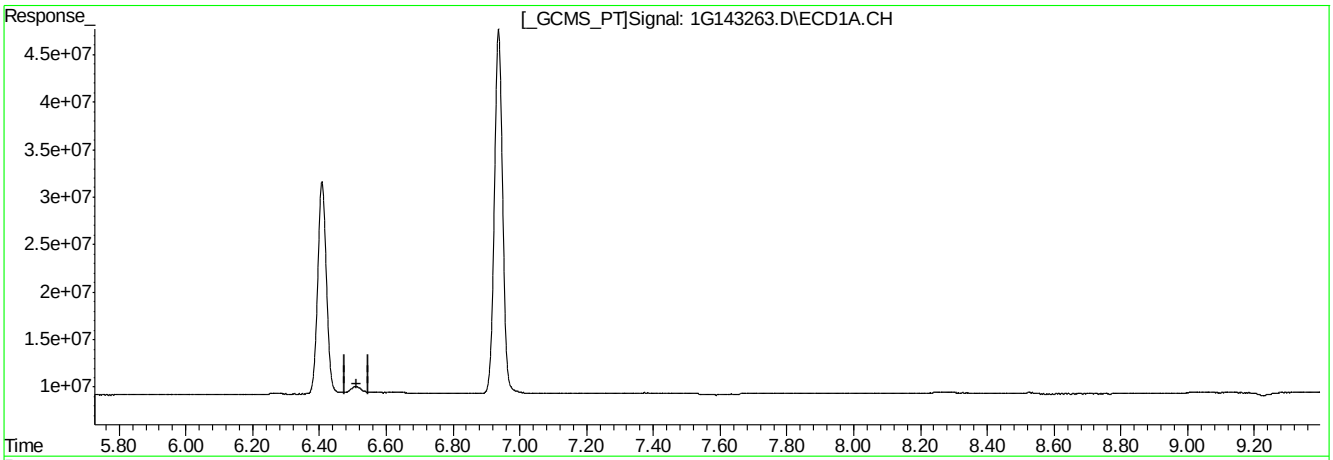
response 3279560

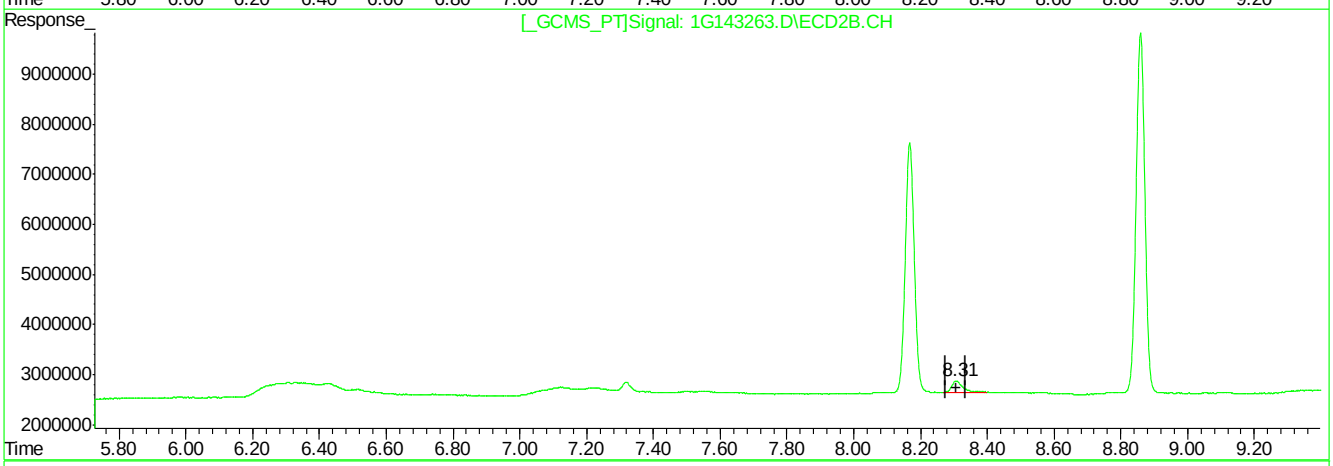
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:42 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(18) 4,4'-DDD #2 (A)

8.31min 3.146PPB

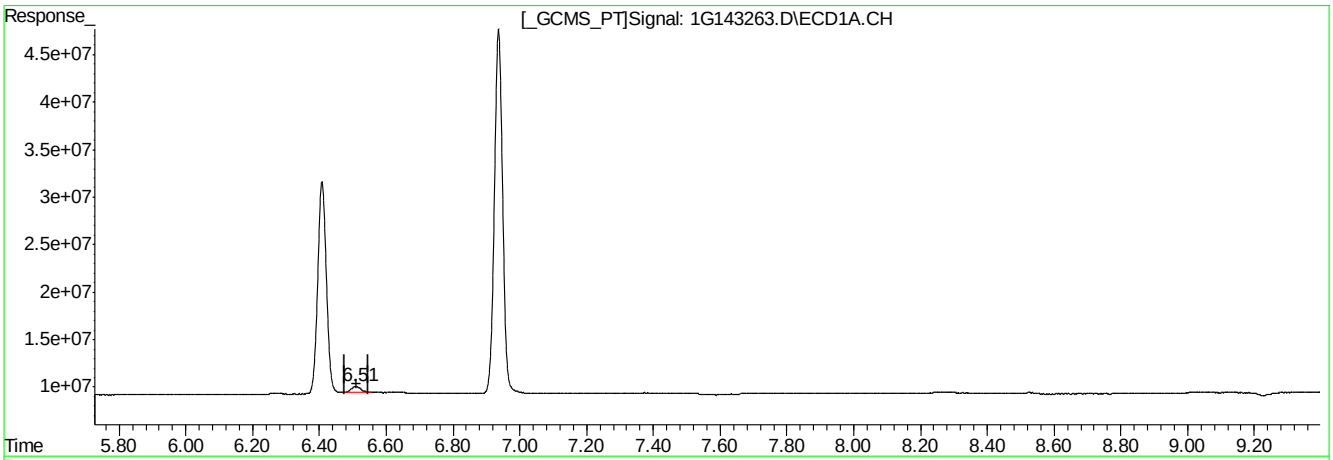
response 5407524

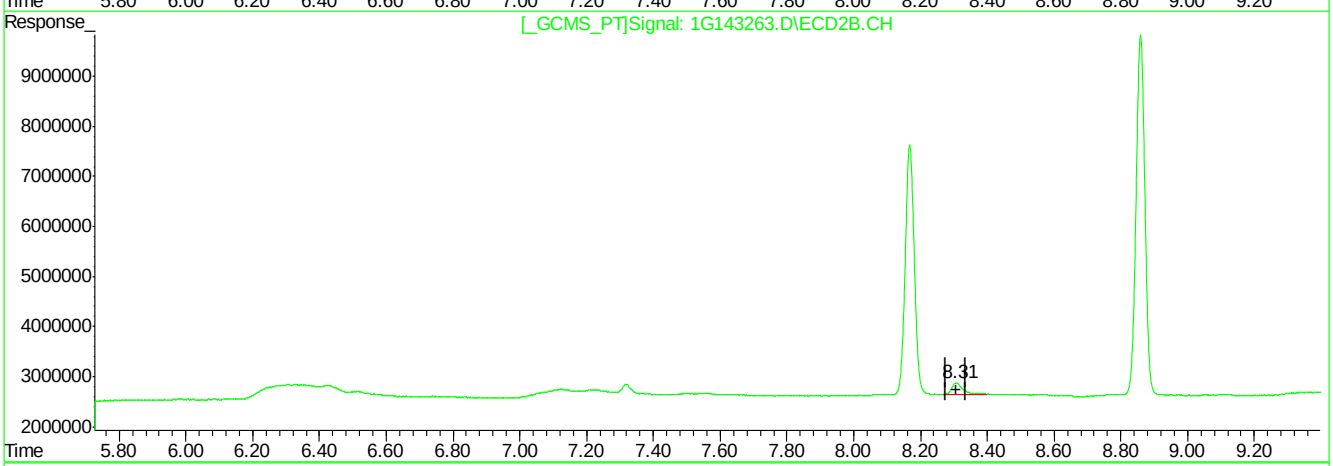
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:47 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

6.51min 1.788PPB m

response 12494289

(18) 4,4'-DDD #2 (A)

8.31min 3.146PPB

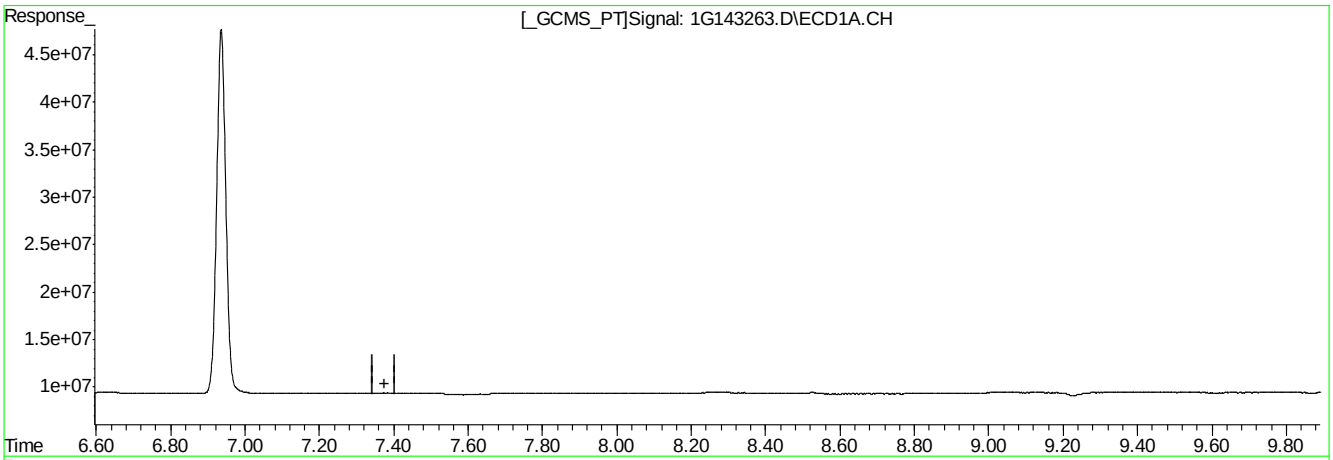
response 5407524

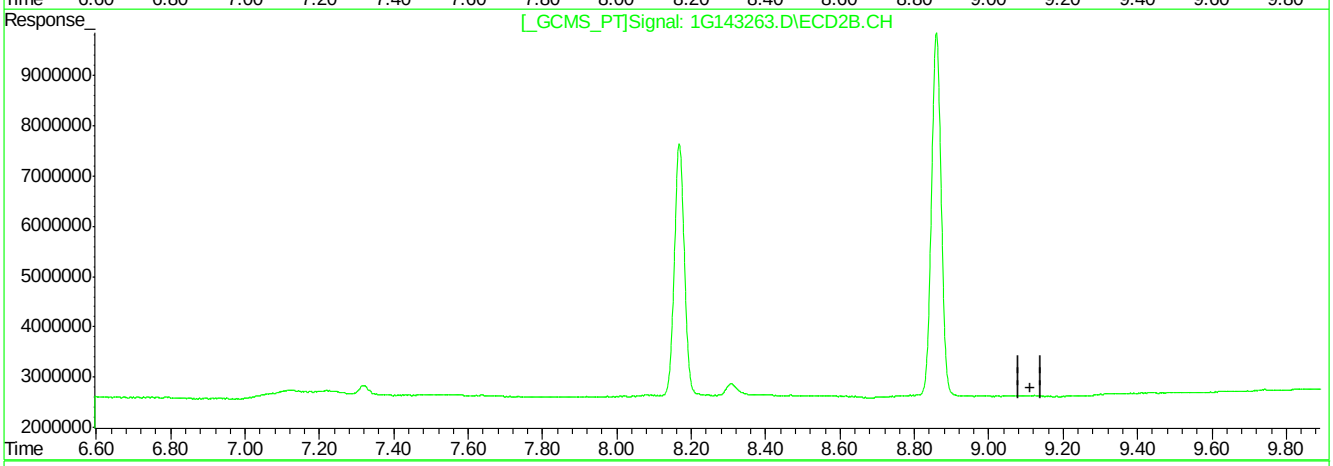
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:52 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(21) Endrin Aldehyde (B)

0.00min 0.000PPB

response 0

(21) Endrin Aldehyde #2 (B)

0.00min 0.000PPB

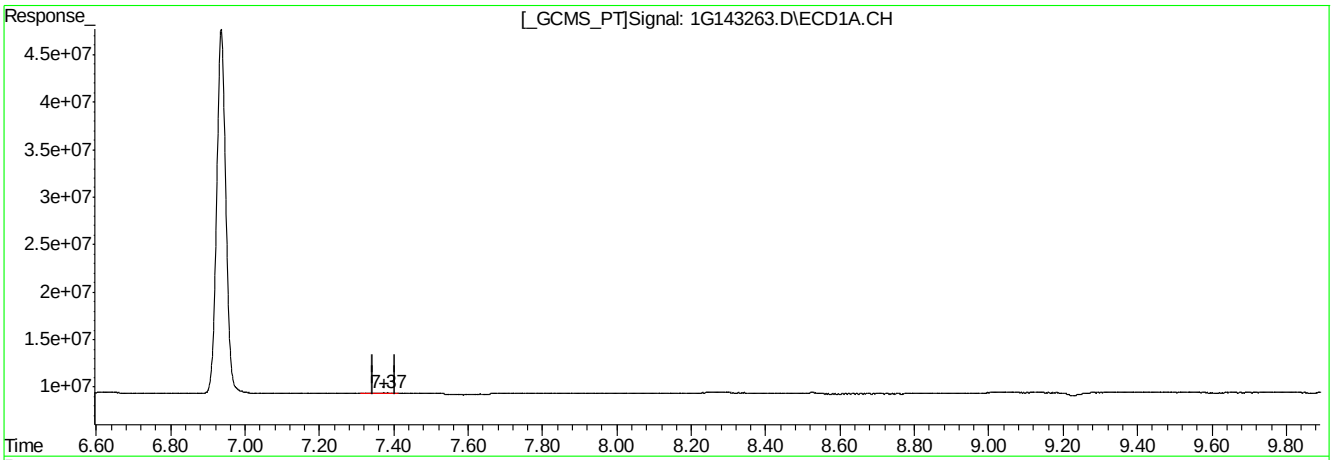
response 0

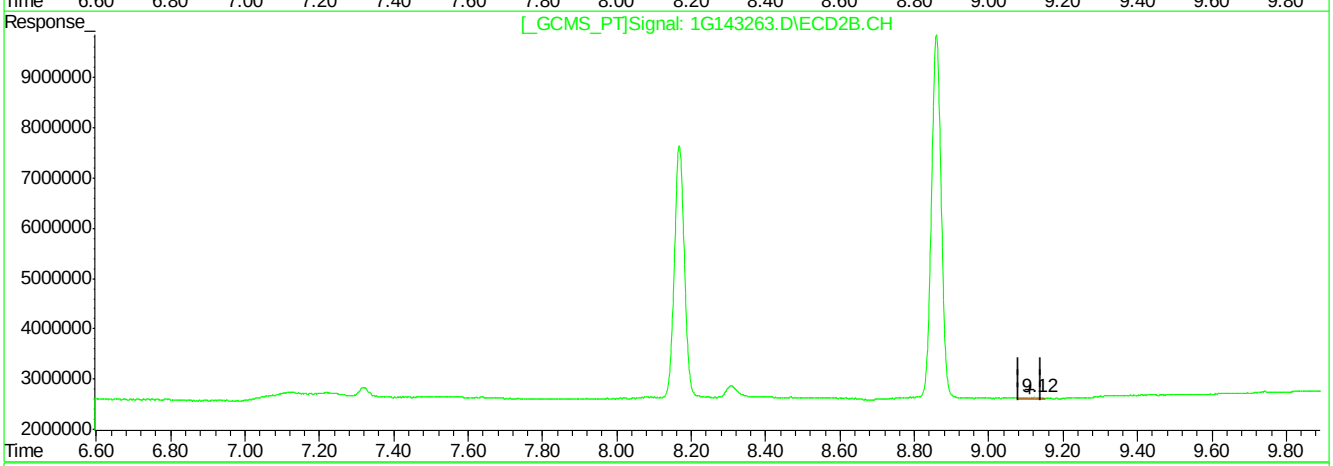
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:59 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(21) Endrin Aldehyde (B)

7.37min 0.304PPB m

response 2254334

(21) Endrin Aldehyde #2 (B)

9.12min 0.363PPB m

response 571873

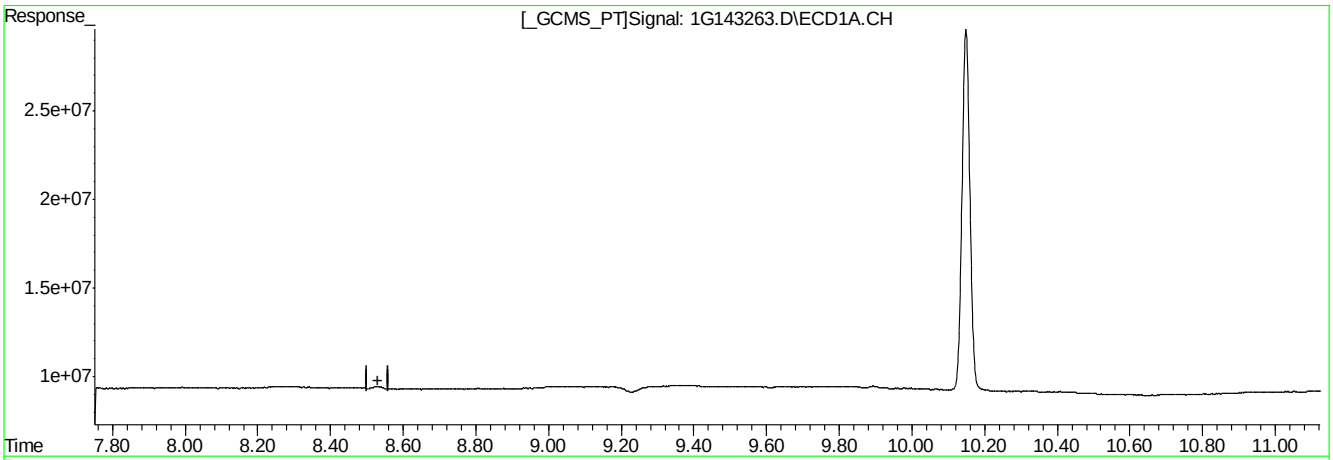
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:04:09 2018 RPT1

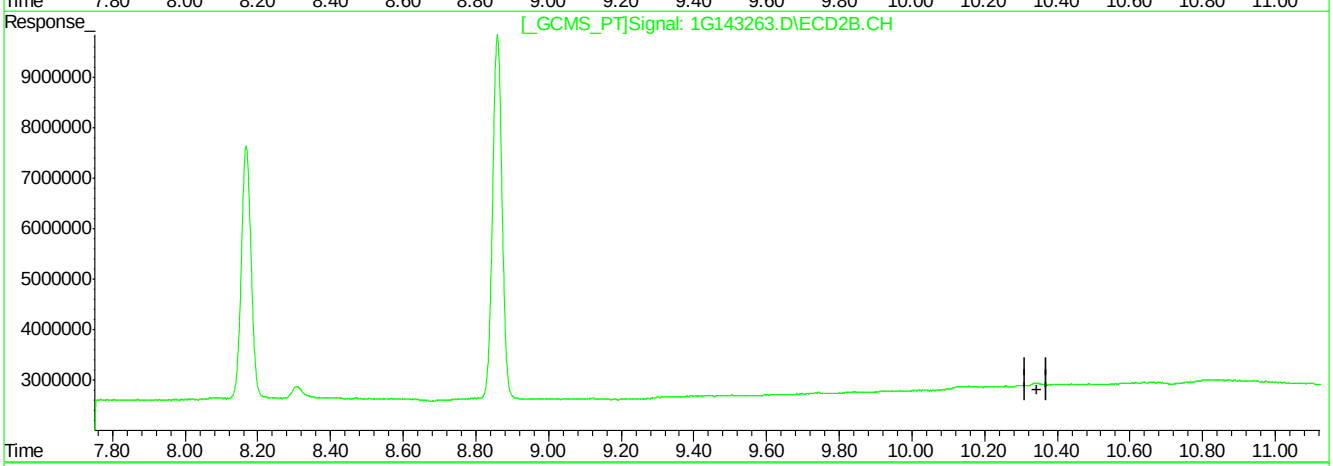
11.5.1.7 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

0.00min 0.000PPB

response 0

(25) Endrin Ketone #2 (B)

0.00min 0.000PPB

response 0

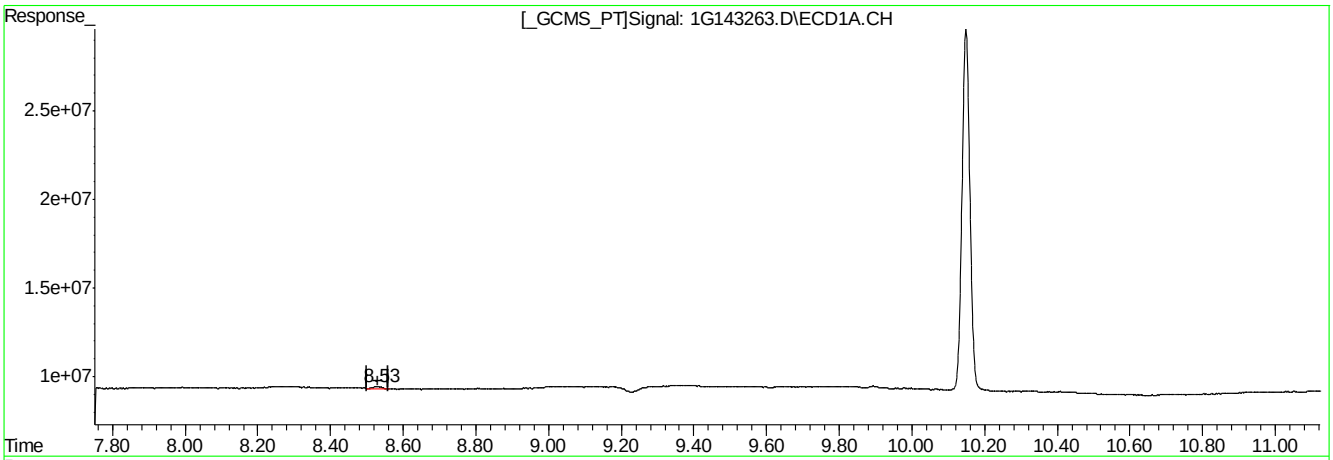
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:04:17 2018 RPT1

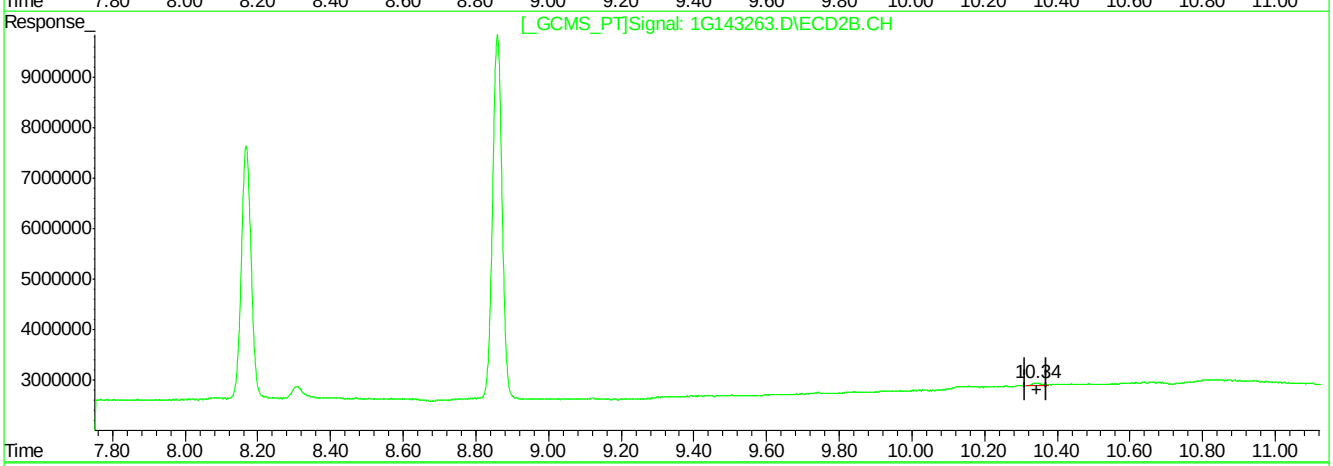
11.5.1.8 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

8.53min 0.325PPB m

response 2509313

(25) Endrin Ketone #2 (B)

10.34min 0.475PPB m

response 826010

(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:04:39 2018 RPT1

11.5.1.9 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:21

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:37 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	488.8E6	112.3E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	488.8E6	112.3E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	488.8E6	112.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.34	459.2E6	104.9E6	53.064	51.471
Spiked Amount	40.000	Range	30 - 150	Recovery	=	132.66%	128.68%
26) SA	Decachlorobiphen	10.12	12.03	391.2E6	73415051	55.366	49.894
Spiked Amount	40.000			Recovery	=	138.41%	124.74%
	Target Compounds						
15) B	4,4'-DDE	5.63	7.29	14182701	2622428	1.620m	1.167m
17) MA	Endrin	6.37	8.13	515.6E6	111.1E6	60.664	55.305
18) A	4,4'-DDD	6.50	8.28	8481928	6292746	1.304m	3.631m
20) MA	4,4'-DDT	6.91	8.82	760.8E6	155.4E6	127.038	132.857
21) B	Endrin Aldehyde	7.34	9.07	2670001	822543	0.376m	0.523m
25) B	Endrin Ketone	8.49	10.32	3185936	1178531	0.449m	0.745m

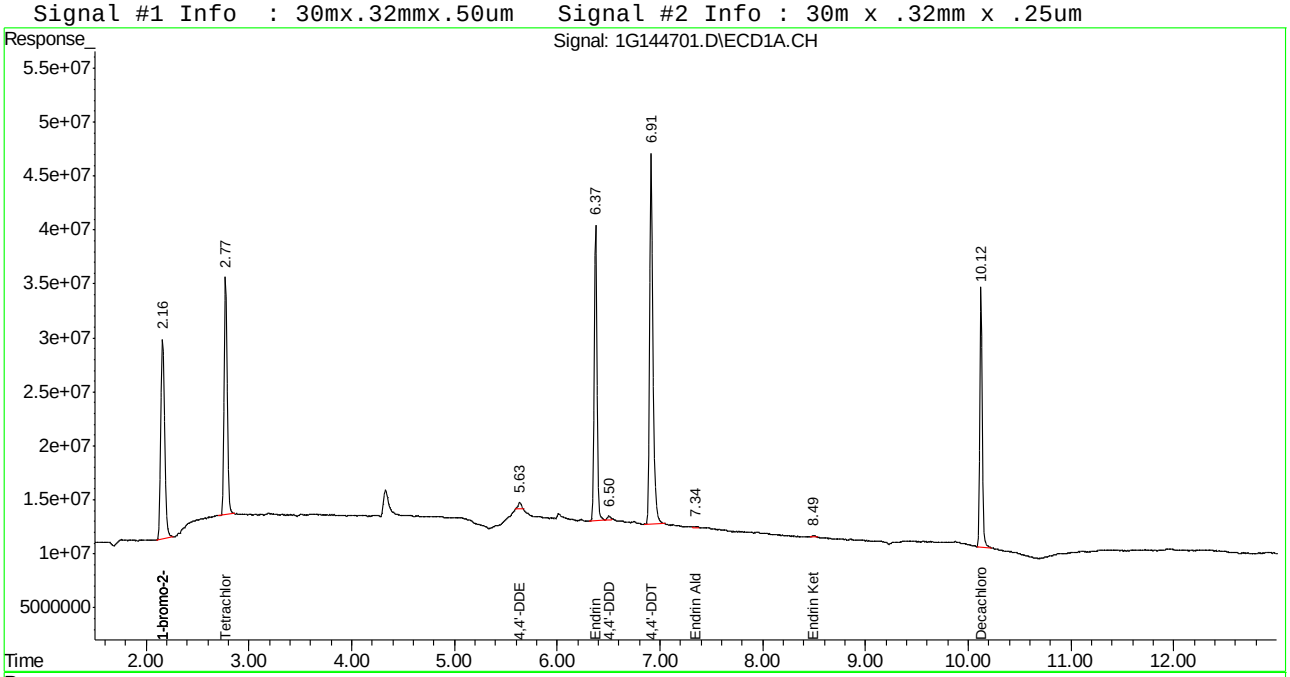
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144701.D 1PST4557.M Wed Mar 28 08:38:13 2018 RPT1 Page 1

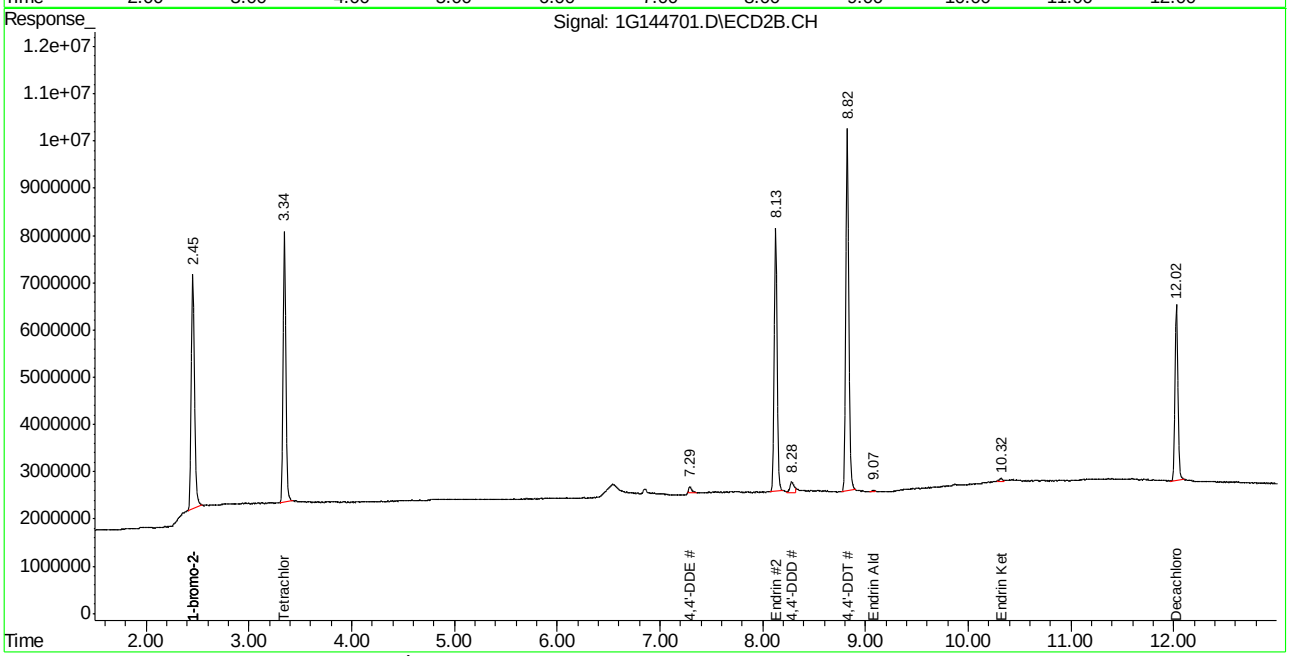
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:37 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

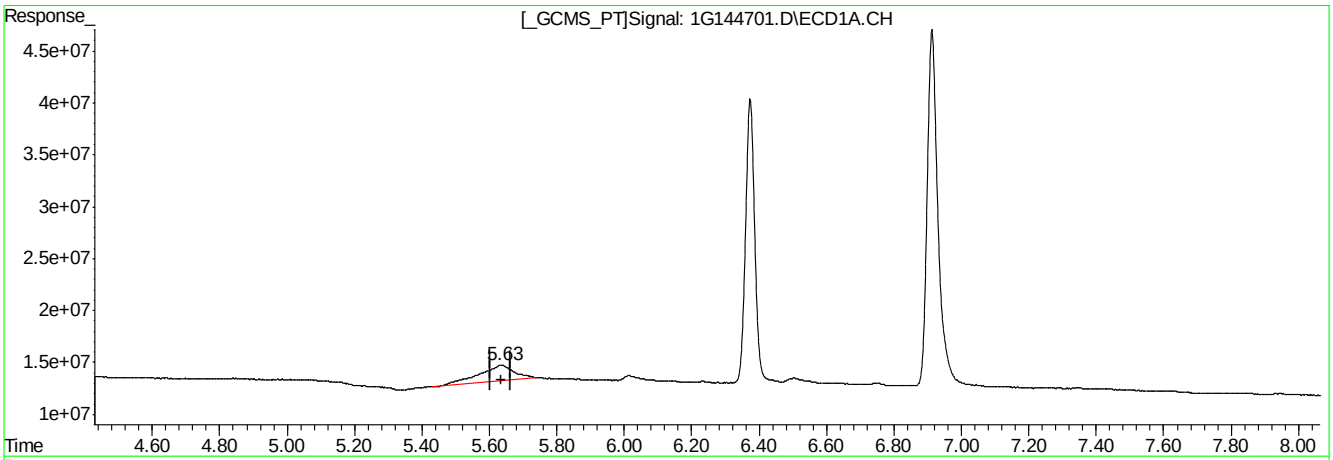
Sample Number: G1G4598-DDT
Lab FileID: 1G144701.D
Injection Time: 03/28/18 00:30
Method: SW846 8081B
Analyst approved: 03/28/18 09:29 Dharmistha Mehta
Supervisor approved: 03/29/18 09:21 Gwendolyn Burns

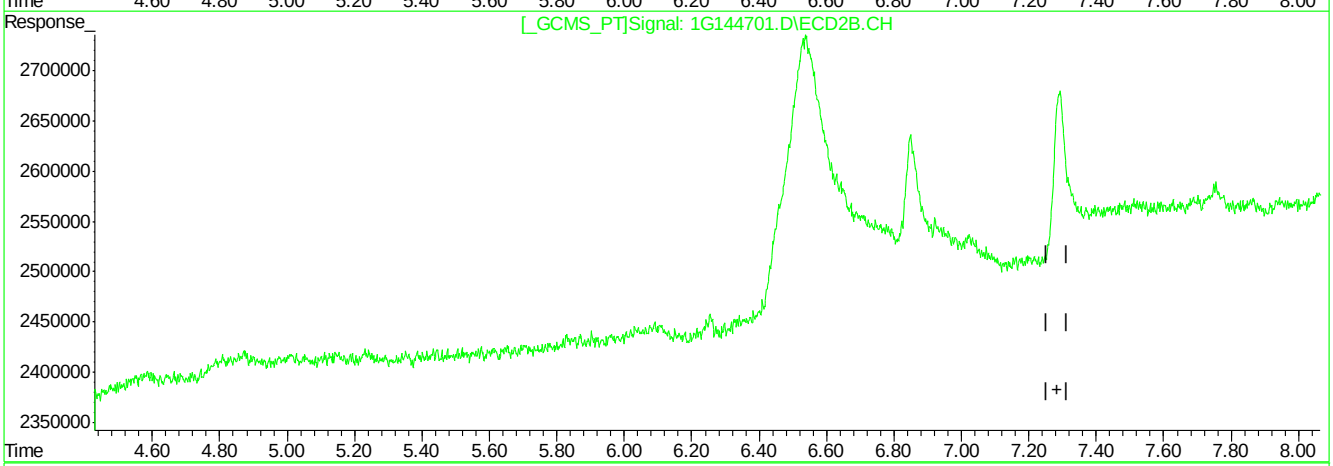
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.63	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.50	Poorly defined baseline
4,4'-DDE	72-55-9	2	7.29	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	7.34	Poorly defined baseline
4,4'-DDD	72-54-8	2	8.28	Poorly defined baseline
Endrin ketone	53494-70-5	1	8.49	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	9.07	Poorly defined baseline
Endrin ketone	53494-70-5	2	10.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(15) 4,4'-DDE (B)

5.63min 12.617PPB

response 110486800

(15) 4,4'-DDE #2 (B)

0.00min 0.000PPB

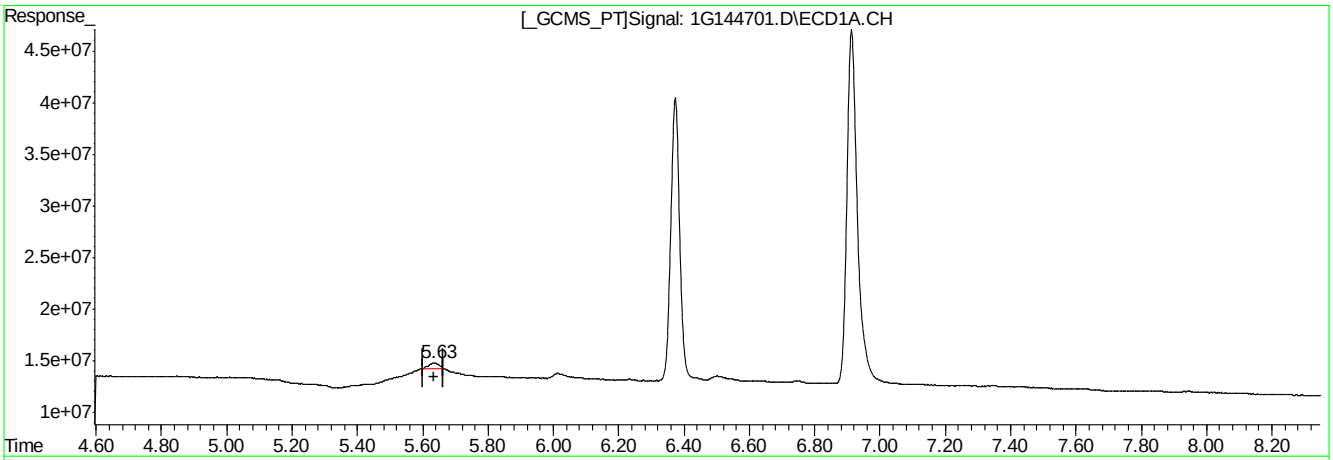
response 0

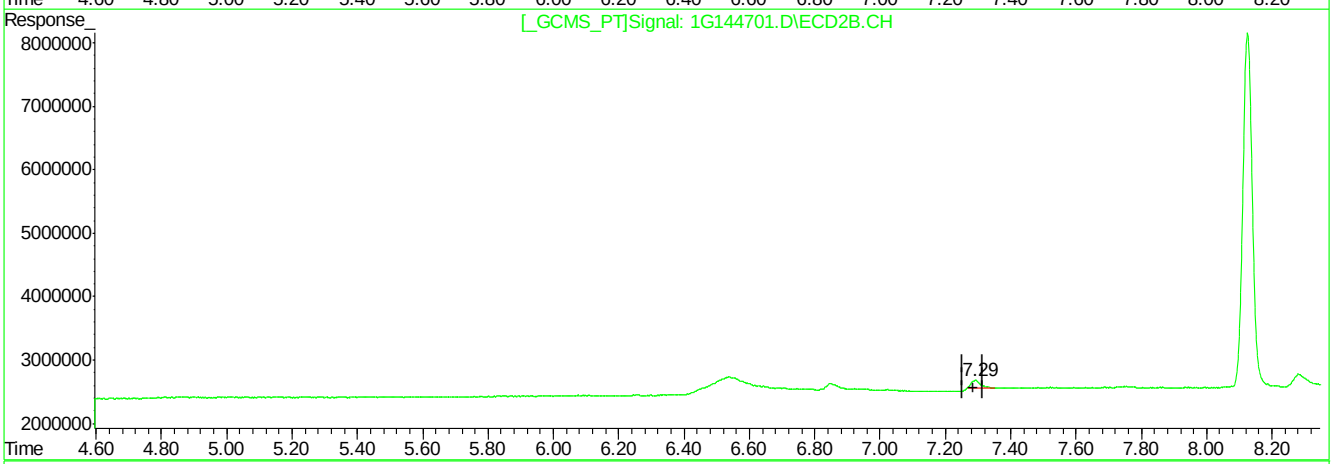
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:35:30 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(15) 4,4'-DDE (B)

5.63min 1.620PPB m

response 14182701

(15) 4,4'-DDE #2 (B)

7.29min 1.167PPB m

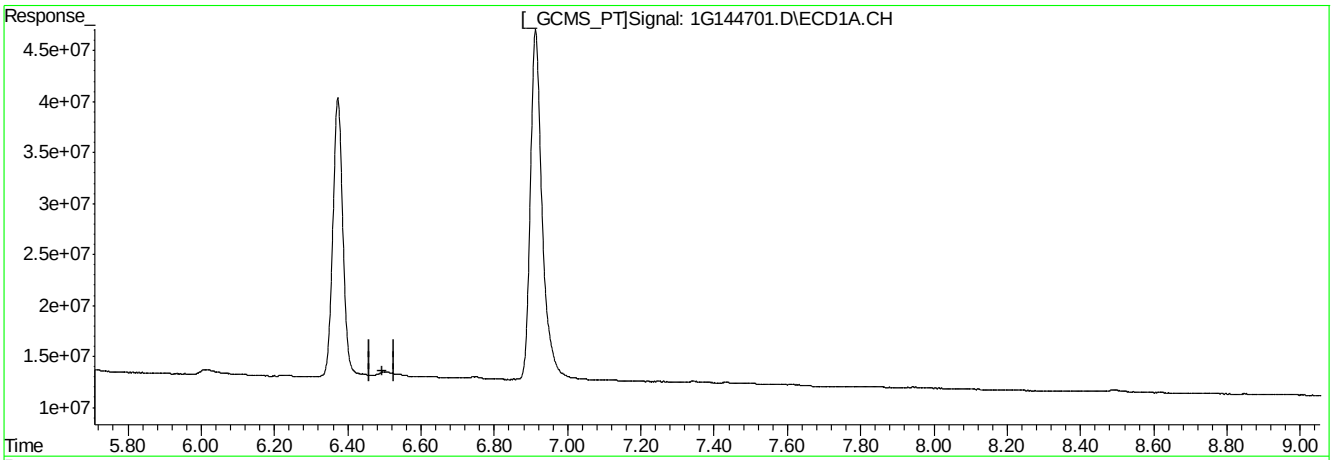
response 2622428

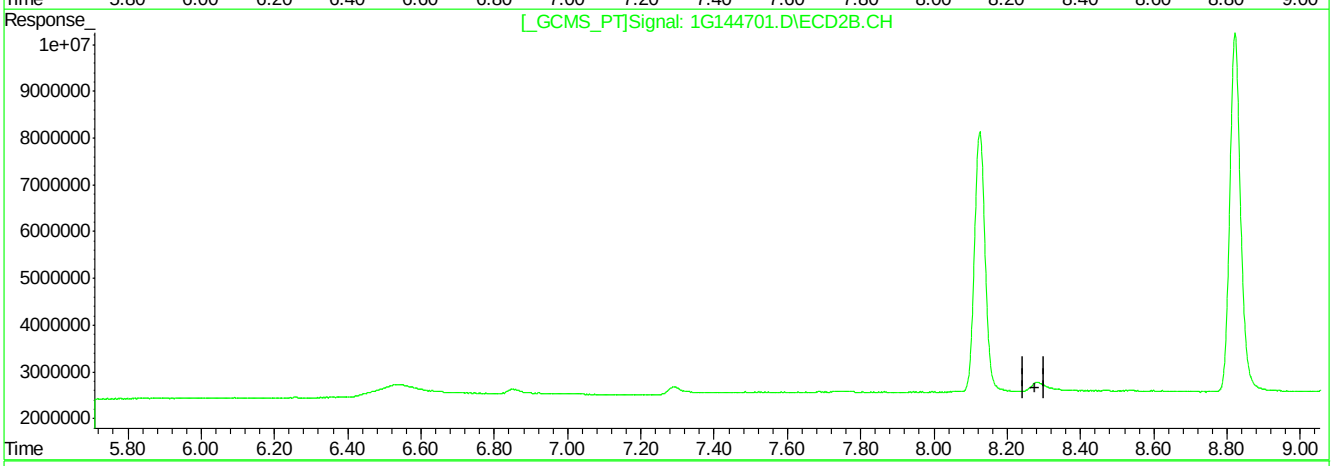
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:35:52 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(18) 4,4'-DDD #2 (A)

0.00min 0.000PPB

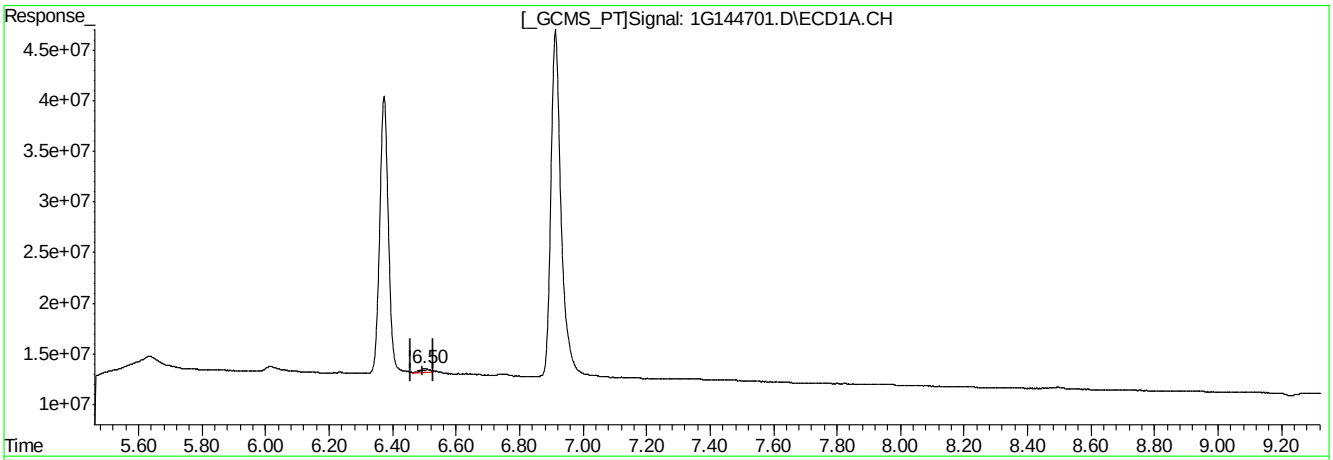
response 0

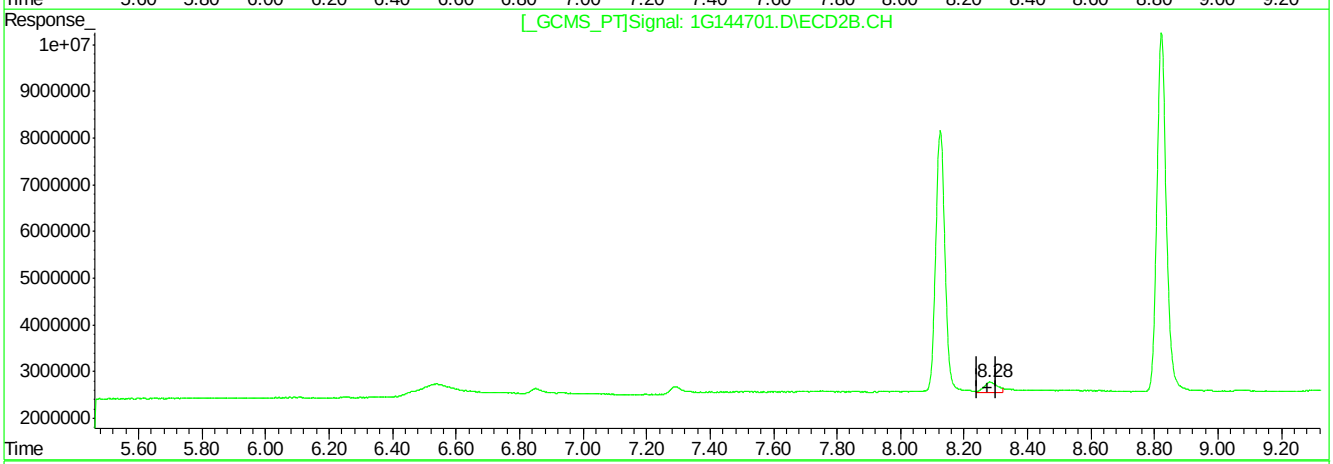
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:36:02 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

6.50min 1.304PPB m

response 8481928

(18) 4,4'-DDD #2 (A)

8.28min 3.631PPB m

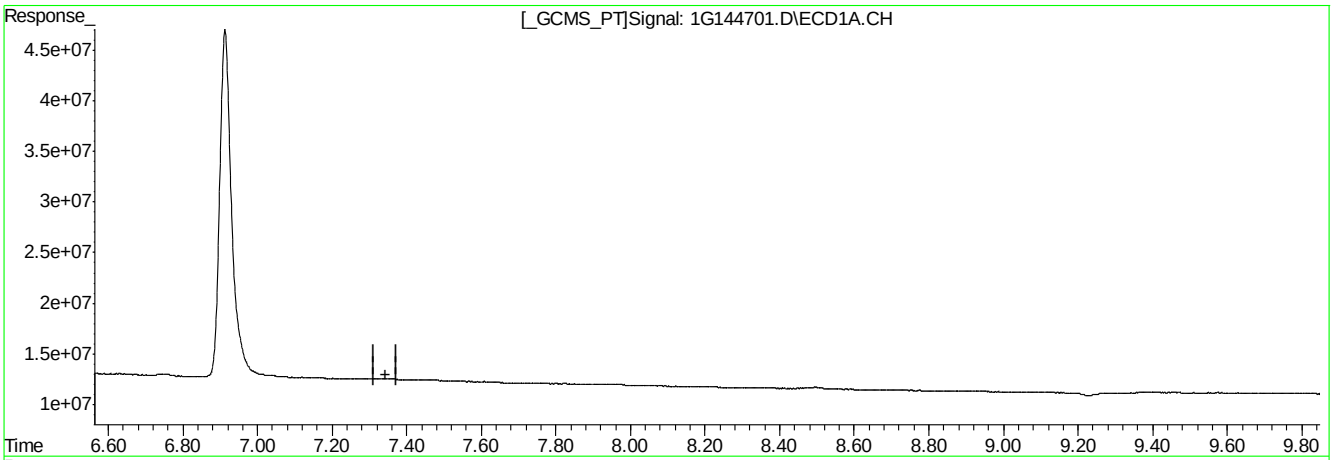
response 6292746

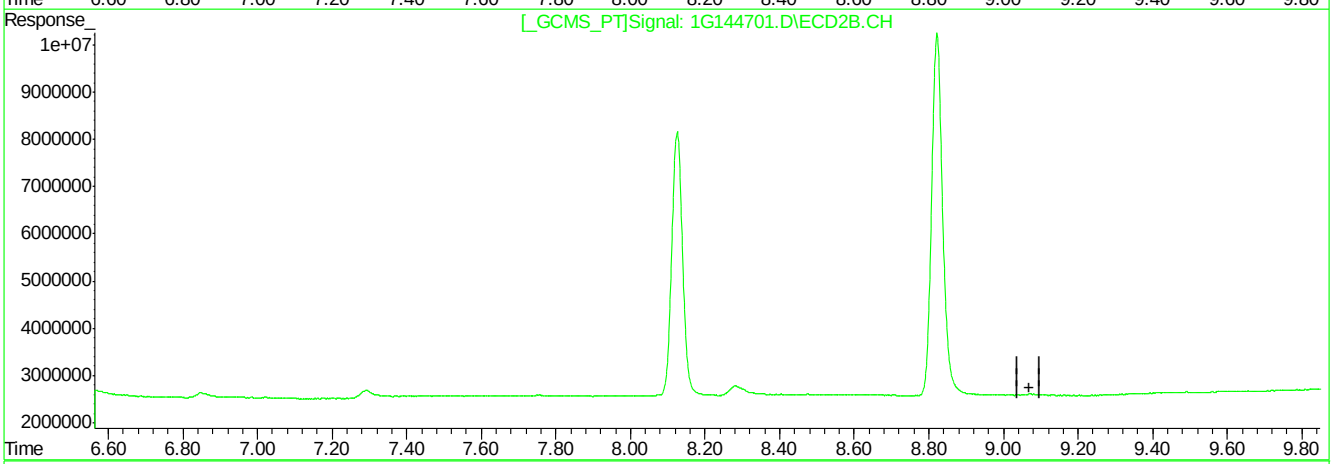
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:36:24 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(21) Endrin Aldehyde (B)

0.00min 0.000PPB

response 0

(21) Endrin Aldehyde #2 (B)

0.00min 0.000PPB

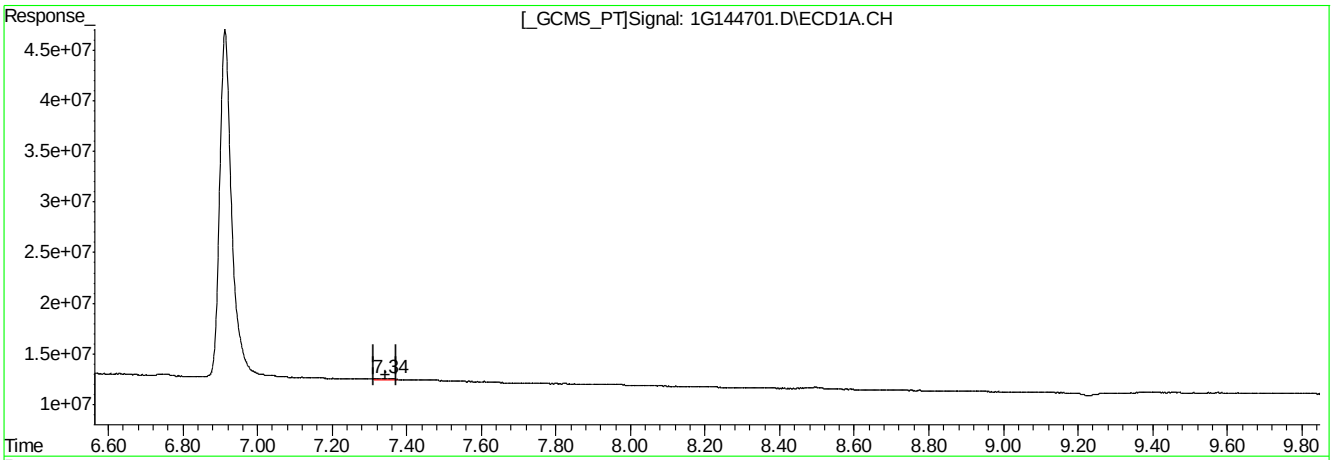
response 0

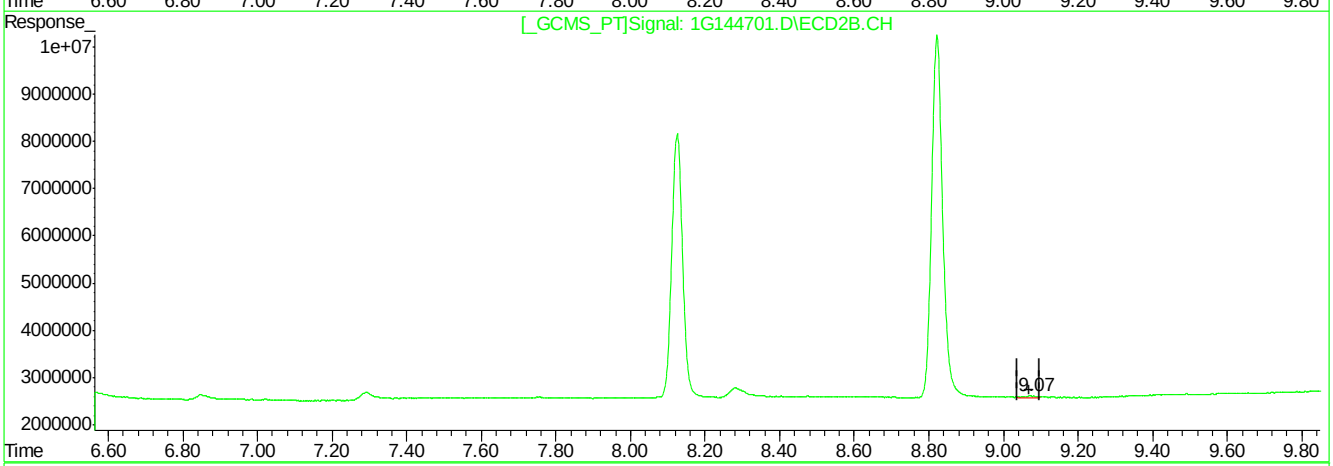
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:36:37 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(21) Endrin Aldehyde (B)

7.34min 0.376PPB m

response 2670001

(21) Endrin Aldehyde #2 (B)

9.07min 0.523PPB m

response 822543

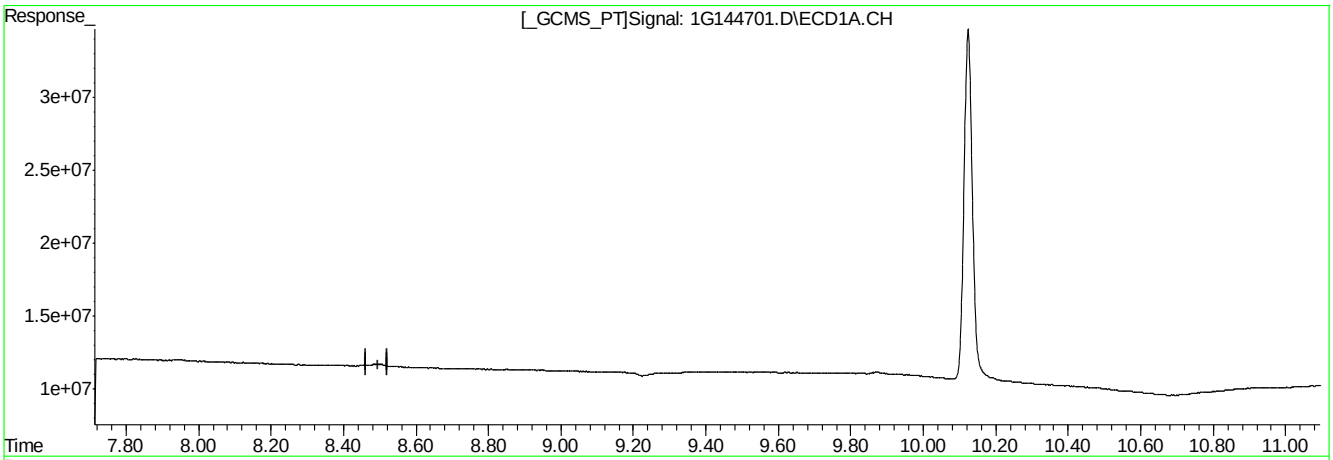
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:37:00 2018 RPT1

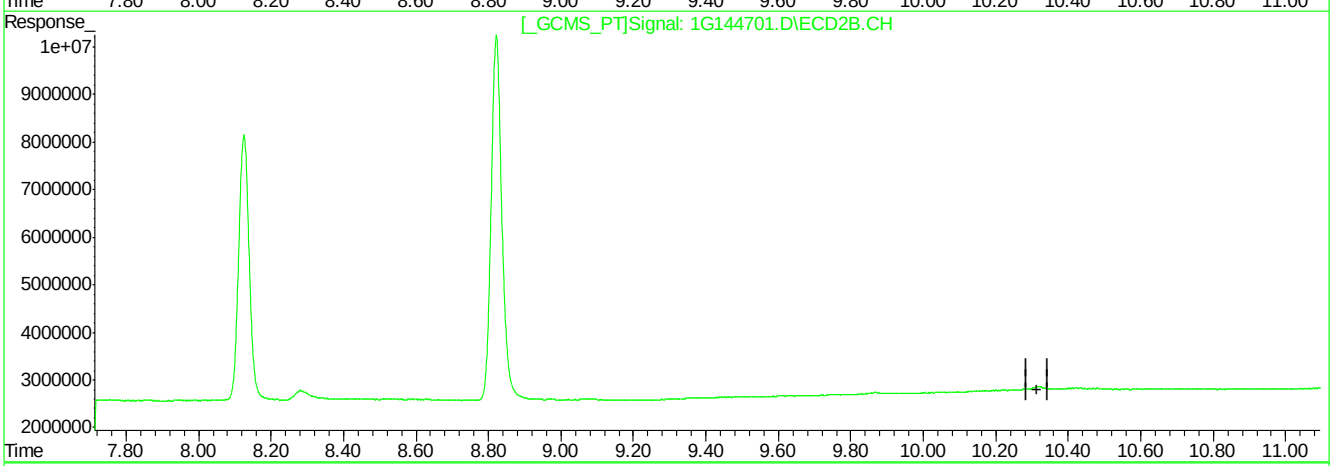
11.5.2.7 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

0.00min 0.000PPB

response 0

(25) Endrin Ketone #2 (B)

0.00min 0.000PPB

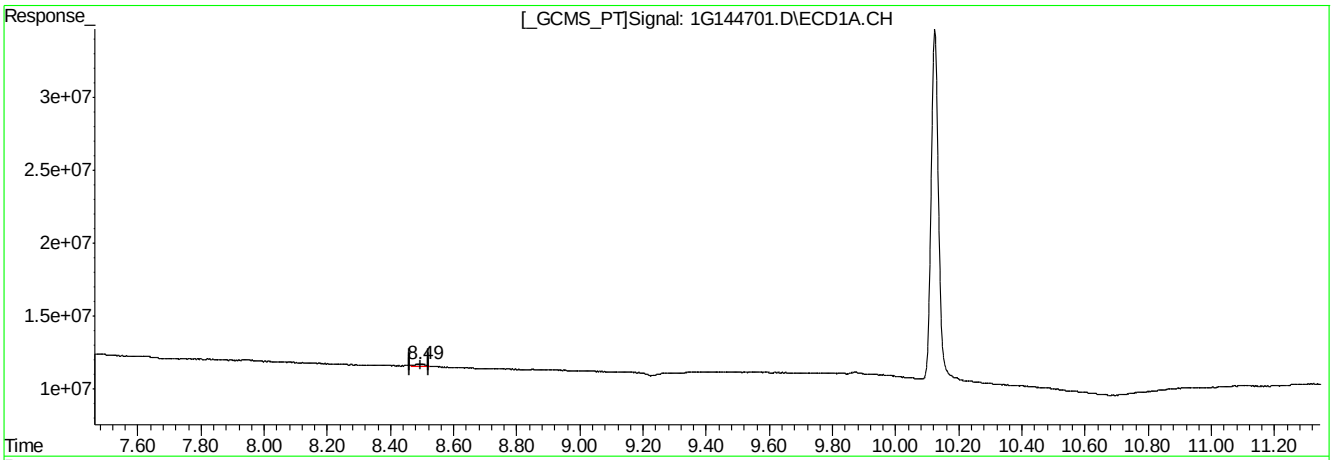
response 0

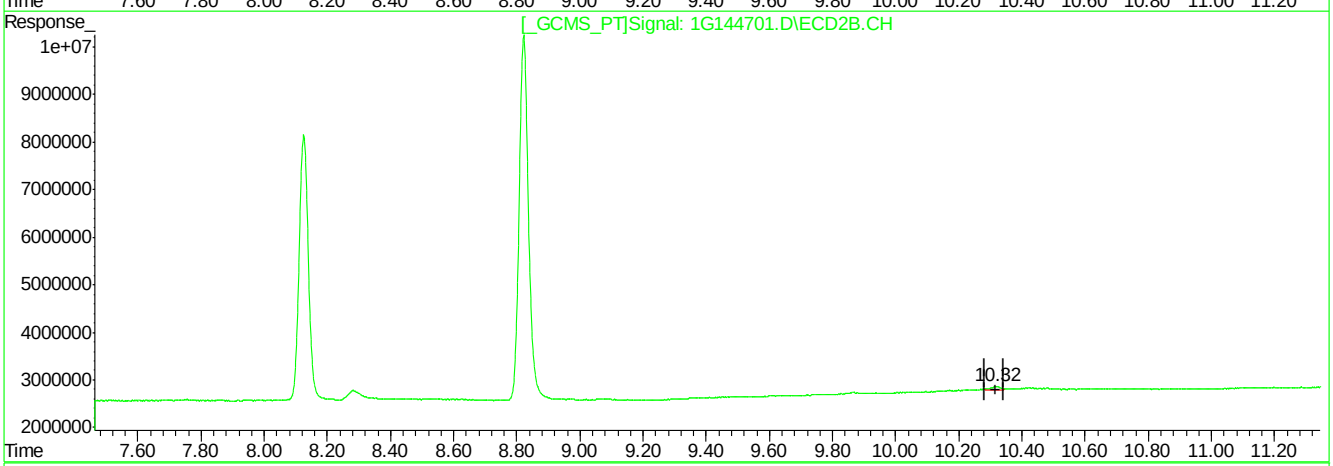
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:37:09 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

8.49min 0.449PPB m

response 3185936

(25) Endrin Ketone #2 (B)

10.32min 0.745PPB m

response 1178531

(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:37:42 2018 RPT1

11.5.2.9 11

SGS JC62881

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143265.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143265.D\ECD2B.CH
Acq On : 2-8-18 09:54:08 AM Operator: minam
Sample : ic4557-100 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	455.2E6	106.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.79	3.36	827.7E6	187.0E6	89.801	87.195
	Spiked Amount 40.000	Range 30 - 150		Recovery =		224.50%#	217.99%#
26) SA	Decachlorobiphen	10.15	12.07	638.4E6	137.5E6	74.652	84.936
	Spiked Amount 40.000			Recovery =		186.63%	212.34%
	Target Compounds						
3)	Hexachlorobenzen	3.14	3.92	1000.5E6	258.4E6	86.104	84.602
4) A	alpha-BHC	3.28	4.09	1160.7E6	269.1E6	96.608	92.133
5) MA	gamma-BHC	3.59	4.55	1057.8E6	240.6E6	88.176	90.501
6) MA	Heptachlor	4.11	5.18	1043.0E6	223.7E6	85.057	88.657
7) B	beta-BHC	3.67	4.63	461.2E6	98550083	75.088	82.929
8) B	delta-BHC	3.87	5.07	917.4E6	219.6E6	101.993	92.476
9) MB	Aldrin	4.47	5.67	967.2E6	220.9E6	89.220	85.066
10)	Alachlor	4.59	5.42	118.9E6	25960455	74.702	77.844
11) B	Heptachlor Epoxi	5.20	6.54	831.2E6	203.3E6	80.568	85.198
12) B	gamma-Chlordane	5.38	6.84	809.5E6	198.8E6	99.794	84.862
13) B	alpha-Chlordane	5.55	7.07	862.5E6	191.6E6	82.529	84.421
14) A	Endosulfan I	5.74	7.18	832.2E6	187.5E6	82.600	85.637
15) B	4,4'-DDE	5.65	7.32	825.9E6	200.3E6	91.496	88.309
16) MA	Dieldrin	6.07	7.64	914.5E6	210.5E6	87.887	84.727
17) MA	Endrin	6.41	8.17	852.7E6	189.1E6	90.198	86.653
18) A	4,4'-DDD	6.51	8.31	683.8E6	162.3E6	90.234	87.882
19) B	Endosulfan II	6.74	8.53	813.4E6	181.6E6	85.347	84.516
20) MA	4,4'-DDT	6.94	8.86	678.5E6	135.6E6	106.300	102.053
21) B	Endrin Aldehyde	7.37	9.11	669.5E6	141.3E6	83.308	83.407
22) B	Endosulfan Sulfa	8.07	9.56	668.2E6	136.7E6	82.467	82.961
23) A	Methoxychlor	7.72	9.98	357.4E6	70838310	82.401	99.707
24)	Mirex	7.94	10.31	672.4E6	107.8E6	72.622	76.140
25) B	Endrin Ketone	8.53	10.34	717.1E6	163.6E6	85.491	87.589

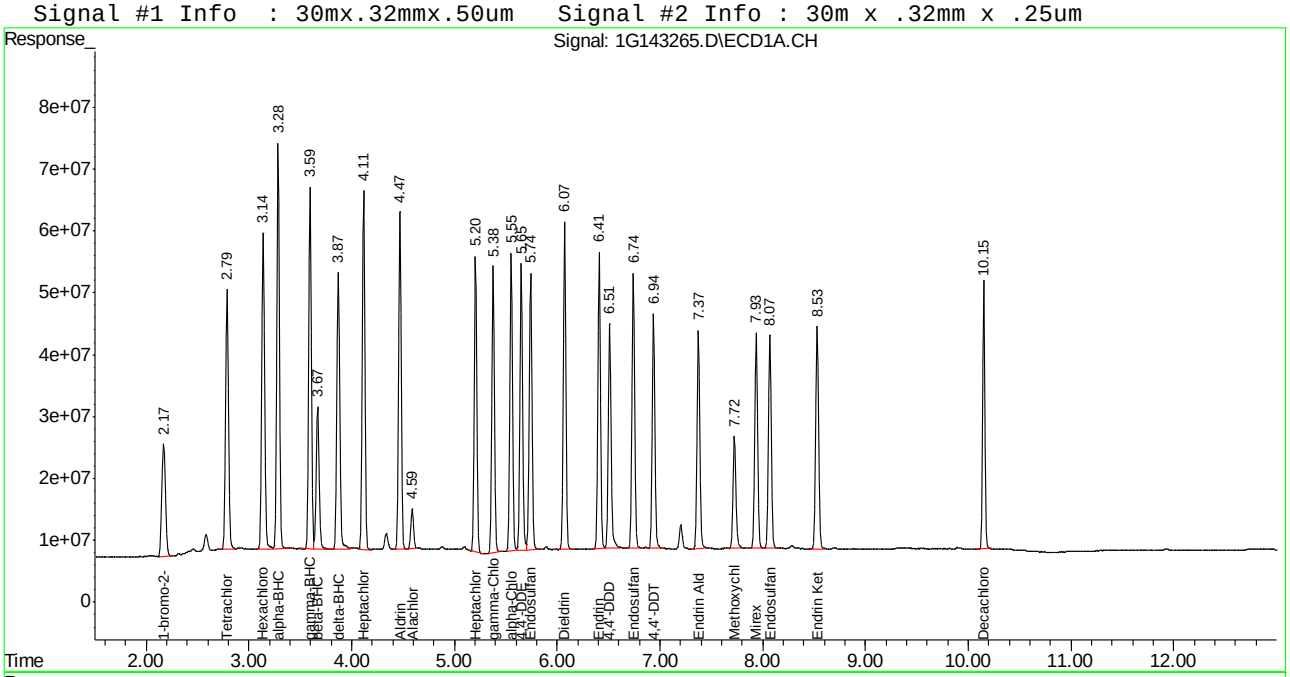
(f)=RT Delta > 1/2 Window (m)=manual int.

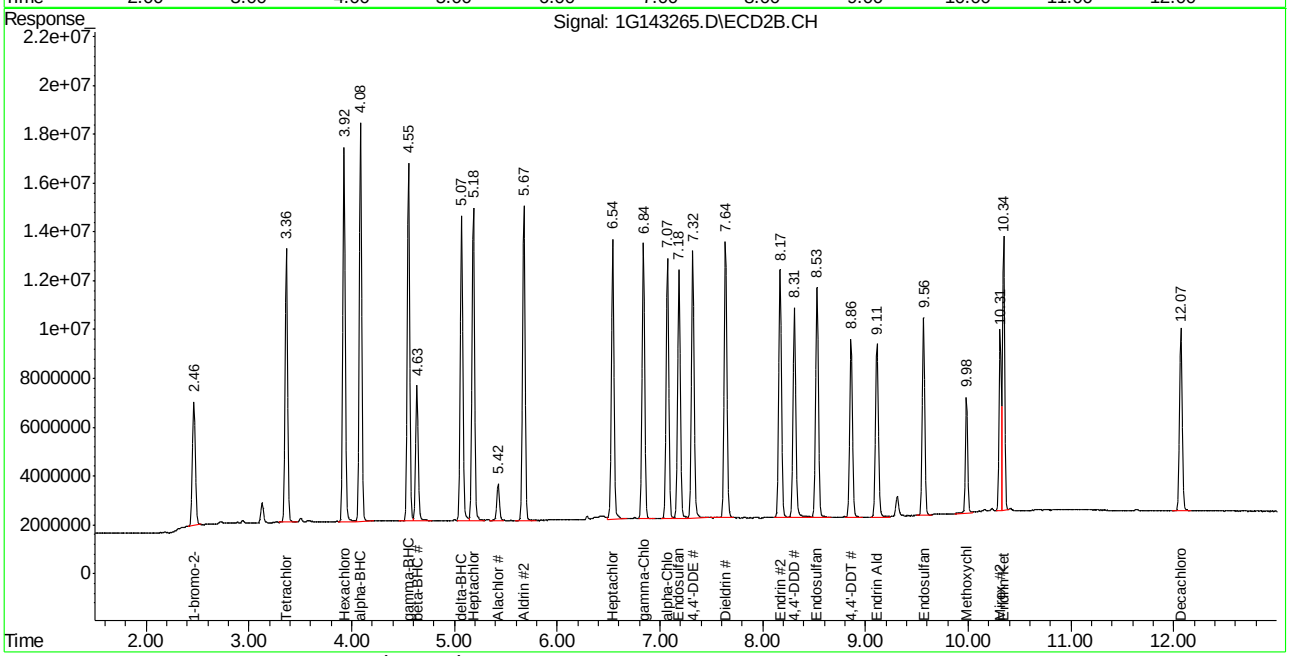
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143265.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143265.D\ECD2B.CH
Acq On : 2-8-18 09:54:08 AM Operator: minam
Sample : ic4557-100 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143266.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143266.D\ECD2B.CH
Acq On : 08 Feb 2018 10:11 am Operator: minam
Sample : ic4557-75 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	458.4E6	106.4E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	623.4E6	140.9E6	67.158	65.567
		Spiked Amount 40.000	Range 30 - 150		Recovery =		167.89%#	163.92%#
26)	SA	Decachlorobiphen	10.15	12.07	480.8E6	103.3E6	55.822	63.681
		Spiked Amount 40.000			Recovery =		139.56%	159.20%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	756.4E6	193.9E6	64.638	63.359
4)	A	alpha-BHC	3.28	4.08	853.4E6	200.3E6	70.527	68.439
5)	MA	gamma-BHC	3.59	4.55	783.7E6	179.0E6	64.864	67.214
6)	MA	Heptachlor	4.11	5.18	775.0E6	166.5E6	62.750	65.866
7)	B	beta-BHC	3.67	4.63	353.3E6	74824038	57.112	62.844
8)	B	delta-BHC	3.87	5.07	671.8E6	161.9E6	74.158	68.061
9)	MB	Aldrin	4.47	5.67	719.3E6	165.5E6	65.879	63.628
10)		Alachlor	4.59	5.42	91052480	20077501	56.804	60.090
11)	B	Heptachlor Epoxi	5.20	6.54	647.0E6	153.1E6	62.271	64.015
12)	B	gamma-Chlordane	5.38	6.84	607.7E6	149.6E6	74.380	63.705
13)	B	alpha-Chlordane	5.55	7.07	650.4E6	143.7E6	61.798	63.227
14)	A	Endosulfan I	5.74	7.19	628.8E6	140.0E6	61.969	63.813
15)	B	4,4'-DDE	5.65	7.32	612.7E6	149.6E6	67.390	65.835
16)	MA	Dieldrin	6.07	7.64	680.9E6	157.6E6	64.973	63.333
17)	MA	Endrin	6.41	8.17	632.1E6	140.7E6	66.385	64.372
18)	A	4,4'-DDD	6.51	8.31	504.4E6	120.2E6	66.087	64.979
19)	B	Endosulfan II	6.74	8.53	607.7E6	135.4E6	63.315	62.868
20)	MA	4,4'-DDT	6.94	8.86	490.5E6	98090393	76.295	73.681
21)	B	Endrin Aldehyde	7.37	9.11	504.4E6	105.5E6	62.326	62.116
22)	B	Endosulfan Sulfa	8.07	9.56	496.9E6	101.1E6	60.892	61.201
23)	A	Methoxychlor	7.73	9.98	263.4E6	50655138	60.286	71.163
24)		Mirex	7.94	10.31	516.3E6	81641089	55.368	57.557
25)	B	Endrin Ketone	8.53	10.34	529.4E6	120.1E6	62.663	64.178

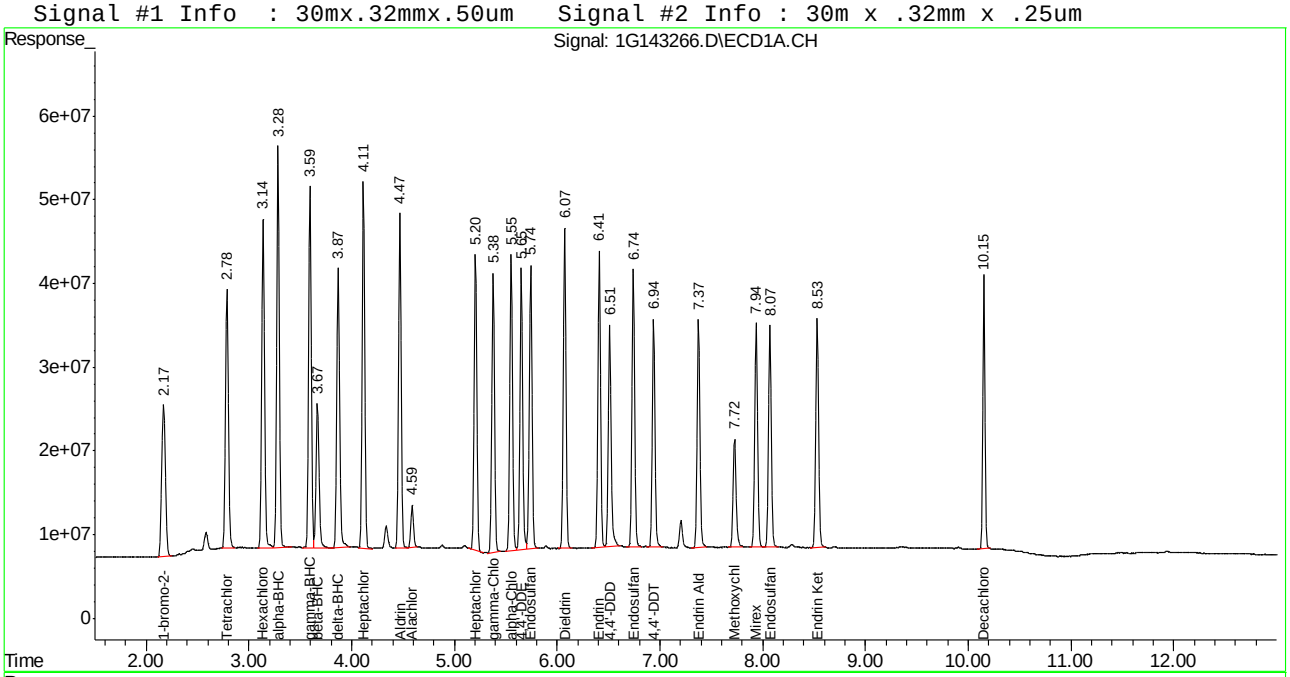
(f)=RT Delta > 1/2 Window (m)=manual int.

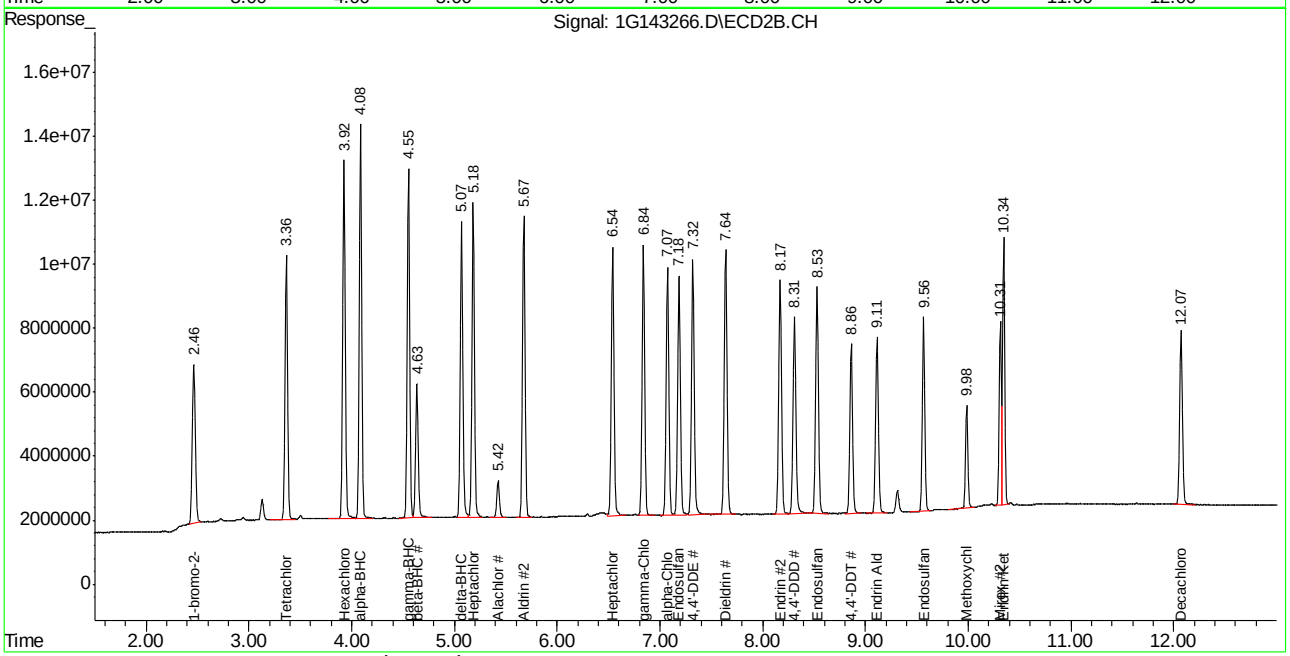
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143266.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143266.D\ECD2B.CH
Acq On : 08 Feb 2018 10:11 am Operator: minam
Sample : ic4557-75 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





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Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143267.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143267.D\ECD2B.CH
Acq On : 08 Feb 2018 10:28 am Operator: minam
Sample : ic4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	466.1E6	107.3E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.79	3.36	414.5E6	94166878	43.921	43.449
		Spiked Amount 40.000	Range 30 - 150		Recovery =		109.80%	108.62%
26)	SA	Decachlorobiphen	10.15	12.07	323.5E6	68819867	36.942	42.065
		Spiked Amount 40.000			Recovery =		92.36%	105.16%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	513.5E6	129.7E6	43.159	42.016
4)	A	alpha-BHC	3.28	4.08	551.6E6	130.9E6	44.833	44.325
5)	MA	gamma-BHC	3.59	4.55	513.7E6	118.0E6	41.817	43.916
6)	MA	Heptachlor	4.11	5.18	517.1E6	110.4E6	41.176	43.303
7)	B	beta-BHC	3.67	4.63	238.3E6	49940023	37.883	41.574
8)	B	delta-BHC	3.87	5.07	440.9E6	106.3E6	47.872	44.283
9)	MB	Aldrin	4.47	5.67	477.1E6	110.3E6	42.975	42.019
10)		Alachlor	4.59	5.42	63958408	13559572	39.243	40.224
11)	B	Heptachlor Epoxi	5.20	6.54	441.3E6	103.3E6	41.773	42.837
12)	B	gamma-Chlordane	5.38	6.84	407.2E6	99833080	49.019	42.151
13)	B	alpha-Chlordane	5.55	7.07	442.1E6	96594063	41.310	42.114
14)	A	Endosulfan I	5.74	7.18	426.4E6	94284793	41.333	42.601
15)	B	4,4'-DDE	5.65	7.32	407.3E6	100.4E6	44.057	43.787
16)	MA	Dieldrin	6.07	7.64	455.6E6	105.4E6	42.758	41.989
17)	MA	Endrin	6.41	8.17	421.5E6	94027826	43.538	42.630
18)	A	4,4'-DDD	6.51	8.31	333.0E6	80625581	42.907	43.199
19)	B	Endosulfan II	6.74	8.53	411.2E6	91060152	42.130	41.923
20)	MA	4,4'-DDT	6.94	8.86	317.4E6	63349623	48.561	47.165
21)	B	Endrin Aldehyde	7.38	9.11	343.5E6	71742480	41.746	41.884
22)	B	Endosulfan Sulfa	8.07	9.56	331.3E6	66838531	39.926	40.117
23)	A	Methoxychlor	7.73	9.98	176.6E6	32082371	39.757	44.673
24)		Mirex	7.94	10.31	362.7E6	55316133	38.254	38.654
25)	B	Endrin Ketone	8.53	10.34	349.1E6	78926119	40.647	41.808

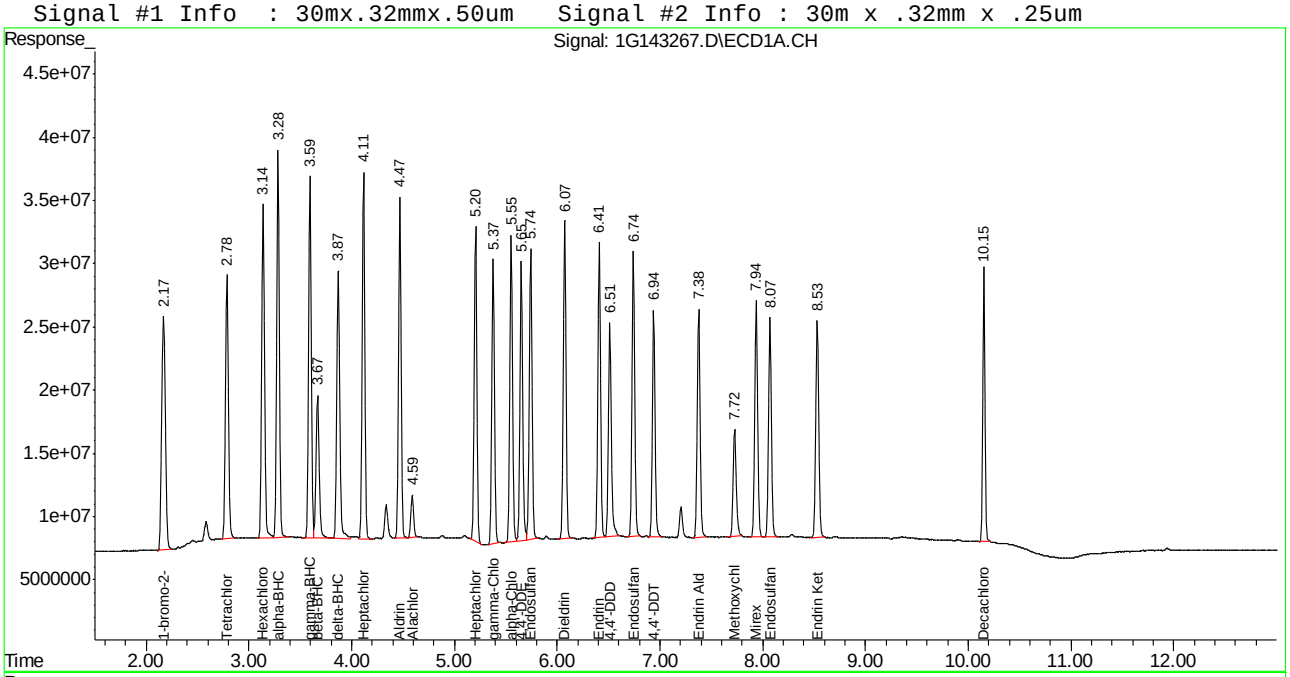
(f)=RT Delta > 1/2 Window (m)=manual int.

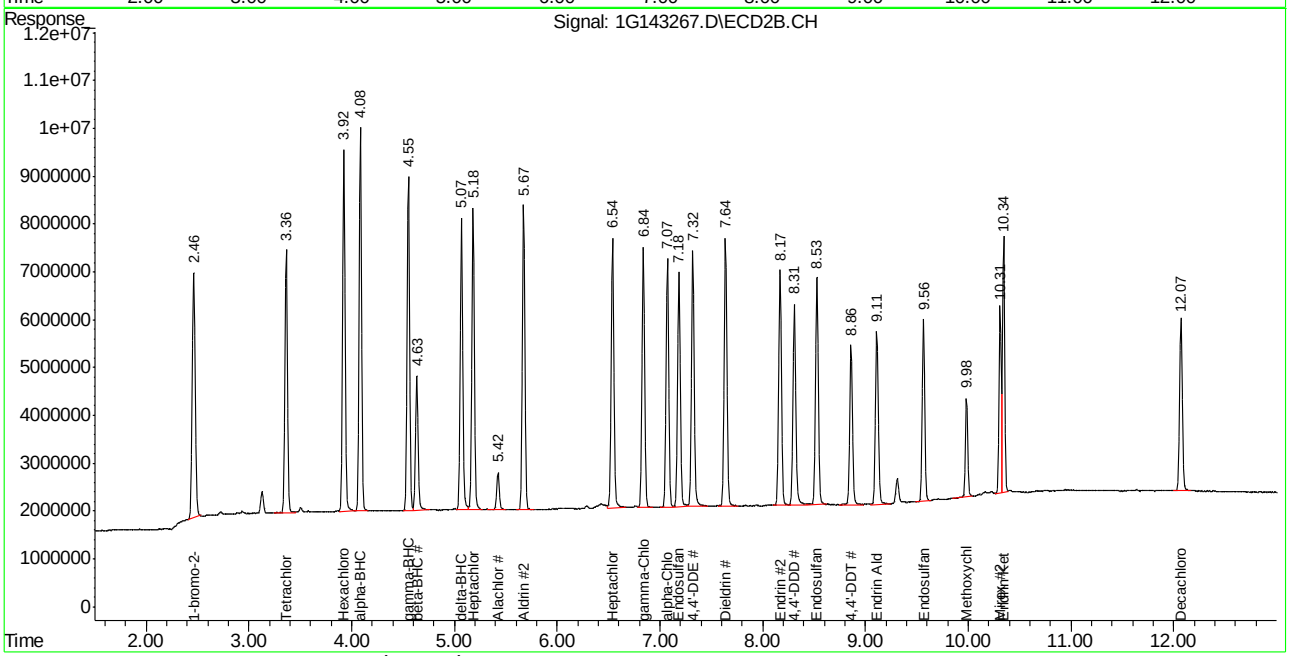
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143267.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143267.D\ECD2B.CH
Acq On : 08 Feb 2018 10:28 am Operator: minam
Sample : ic4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD2B.CH
Acq On : 08 Feb 2018 10:45 am Operator: minam
Sample : icc4557-25 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	471.8E6	108.8E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	204.4E6	47571681	21.393	21.652
		Spiked Amount 40.000	Range 30 - 150		Recovery =		53.48%	54.13%
26)	SA	Decachlorobiphen	10.15	12.07	165.6E6	34849183	18.684	21.012
		Spiked Amount 40.000			Recovery =		46.71%	52.53%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	257.8E6	66640340	21.410	21.291
4)	A	alpha-BHC	3.28	4.08	263.3E6	65230056	21.142	21.796
5)	MA	gamma-BHC	3.59	4.55	247.5E6	58847584	19.907	21.604
6)	MA	Heptachlor	4.11	5.18	253.9E6	56344557	19.977	21.795
7)	B	beta-BHC	3.67	4.63	124.8E6	24934025	19.600	20.476
8)	B	delta-BHC	3.87	5.07	205.5E6	52943925	22.046	21.762
9)	MB	Aldrin	4.47	5.67	232.4E6	56457942	20.684	21.216
10)		Alachlor	4.59	5.42	33163799	7428032	20.105	21.736
11)	B	Heptachlor Epoxi	5.20	6.54	229.0E6	52449229	21.413	21.445m
12)	B	gamma-Chlordane	5.38	6.84	200.2E6	50735816	23.810	21.131
13)	B	alpha-Chlordane	5.55	7.07	218.2E6	49650636	20.147	21.354
14)	A	Endosulfan I	5.74	7.19	212.2E6	48602152	20.325	21.663
15)	B	4,4'-DDE	5.65	7.32	192.5E6	51816722	20.576	22.293
16)	MA	Dieldrin	6.07	7.64	222.5E6	53563020	20.629	21.040
17)	MA	Endrin	6.41	8.17	205.2E6	47876824	20.942	21.412
18)	A	4,4'-DDD	6.51	8.31	156.5E6	40712304	19.925	21.518
19)	B	Endosulfan II	6.74	8.53	203.7E6	46680328	20.627	21.200
20)	MA	4,4'-DDT	6.94	8.86	146.4E6	29900448	22.127	21.960
21)	B	Endrin Aldehyde	7.38	9.11	170.2E6	36489430	20.431	21.014
22)	B	Endosulfan Sulfa	8.07	9.56	161.1E6	33443774	19.189	19.801
23)	A	Methoxychlor	7.73	9.98	84643049	15502521	18.828	21.294
24)		Mirex	7.94	10.31	189.9E6	29174128	19.788	20.110
25)	B	Endrin Ketone	8.53	10.34	170.4E6	38799232	19.601	20.274

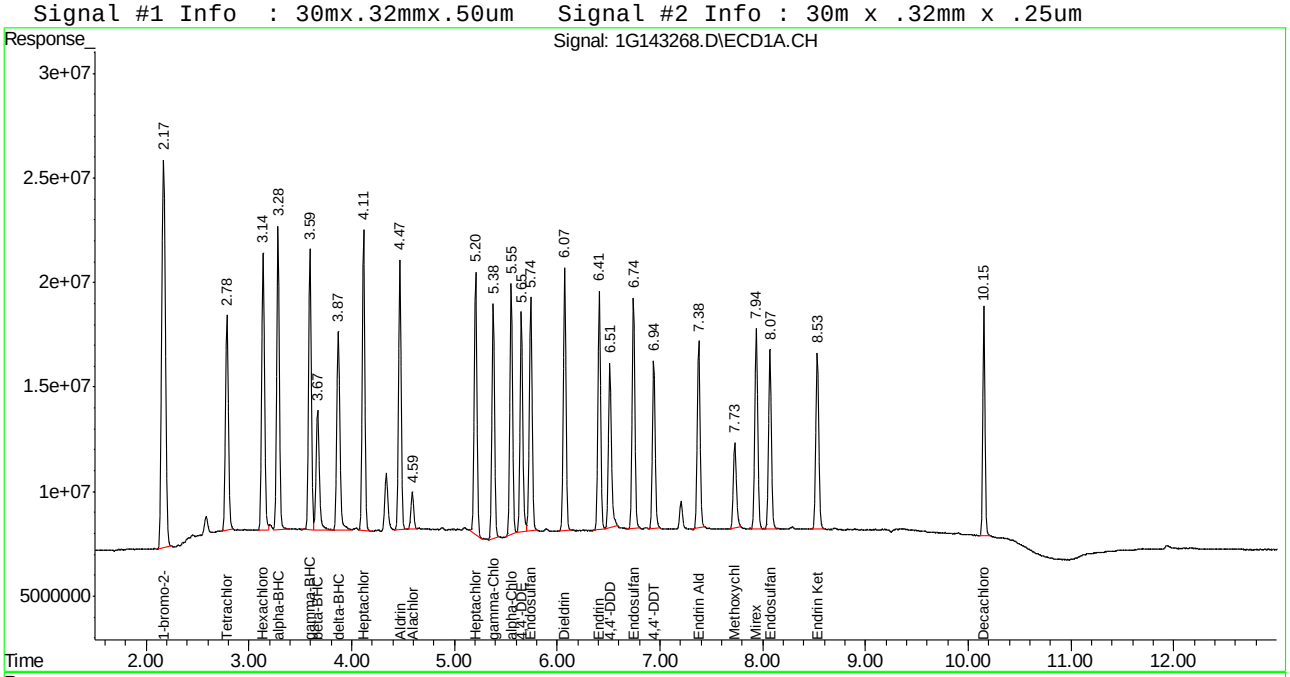
(f)=RT Delta > 1/2 Window (m)=manual int.

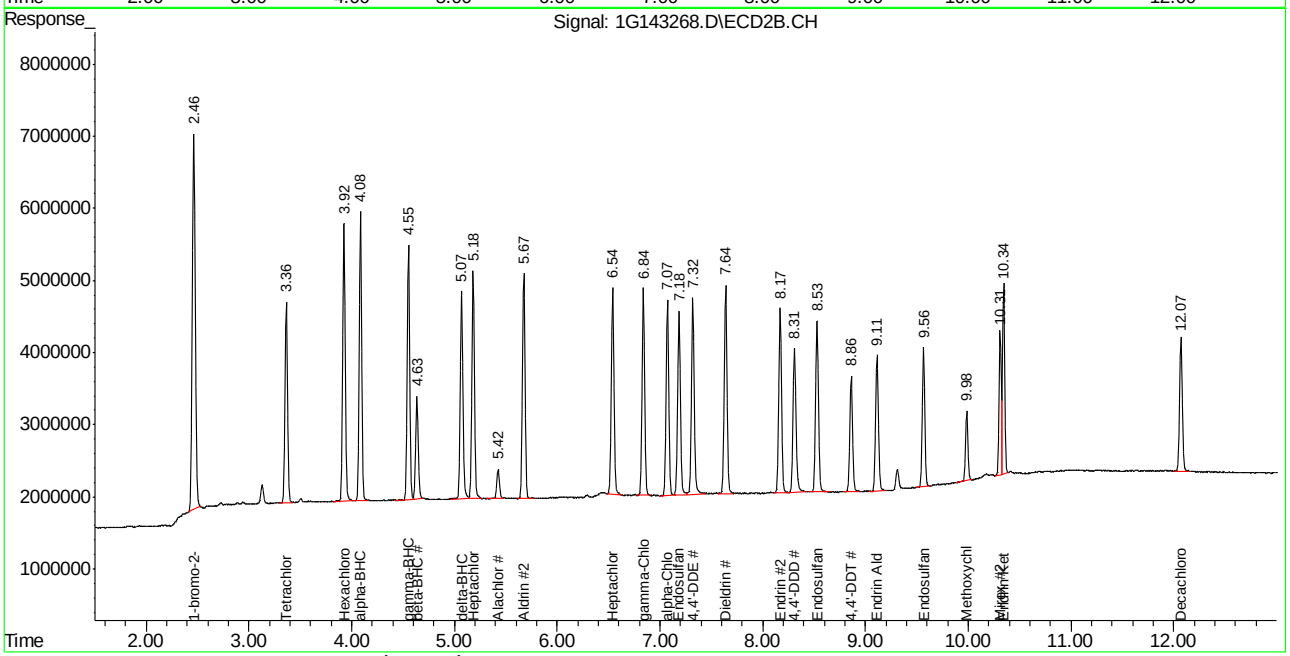
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD2B.CH
Acq On : 08 Feb 2018 10:45 am Operator: minam
Sample : icc4557-25 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integration Approval Summary

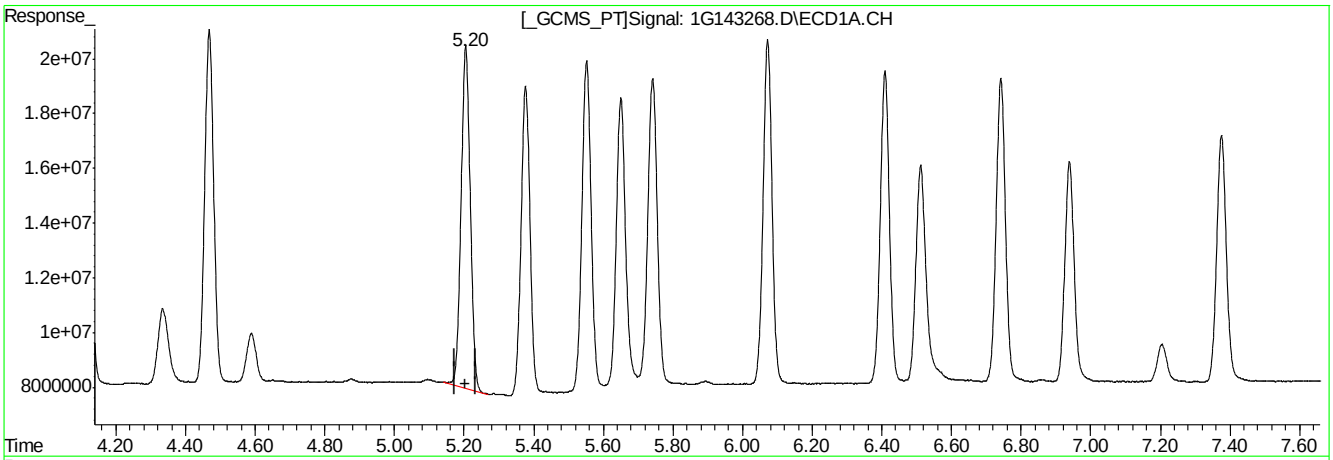
Sample Number:	G1G4557-ICC4557	**Method:**	SW846 8081B
Lab FileID:	1G143268.D	**Analyst approved:**	02/08/18 14:13 Kristen Drake
Injection Time:	02/08/18 10:45	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

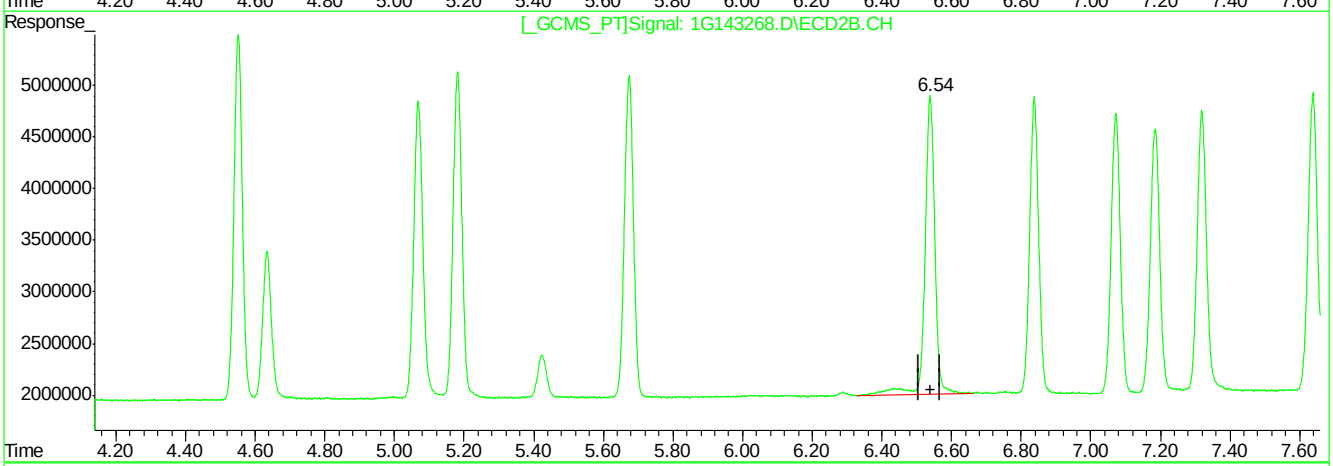
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	2	6.54	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD2B.CH
Acq On : 08 Feb 2018 10:45 am Operator: minam
Sample : icc4557-25 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 21.413PPB

response 228961263

(11) Heptachlor Epoxide #2 (B)

6.54min 23.368PPB

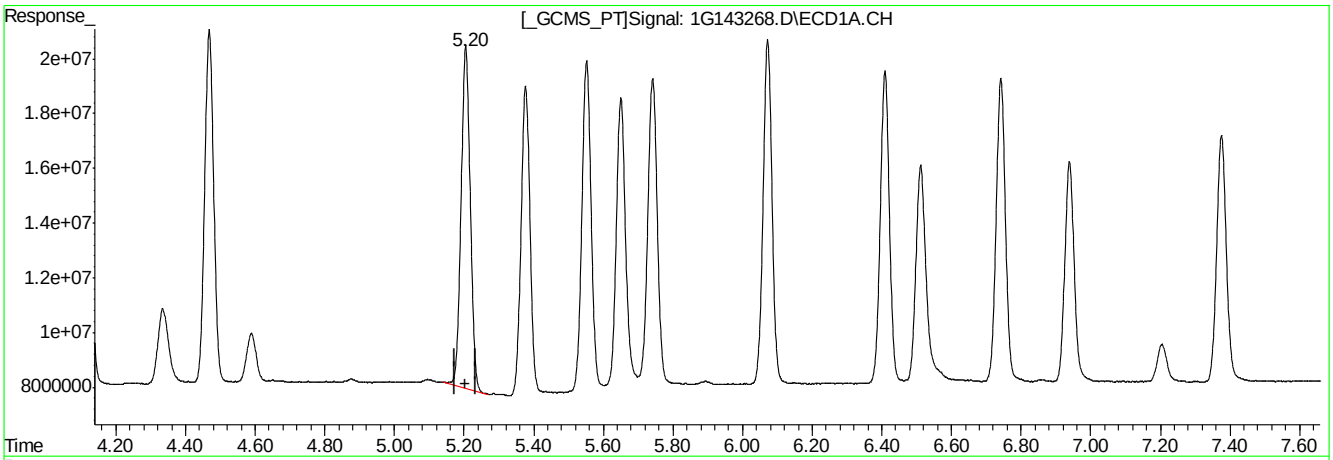
response 57150824

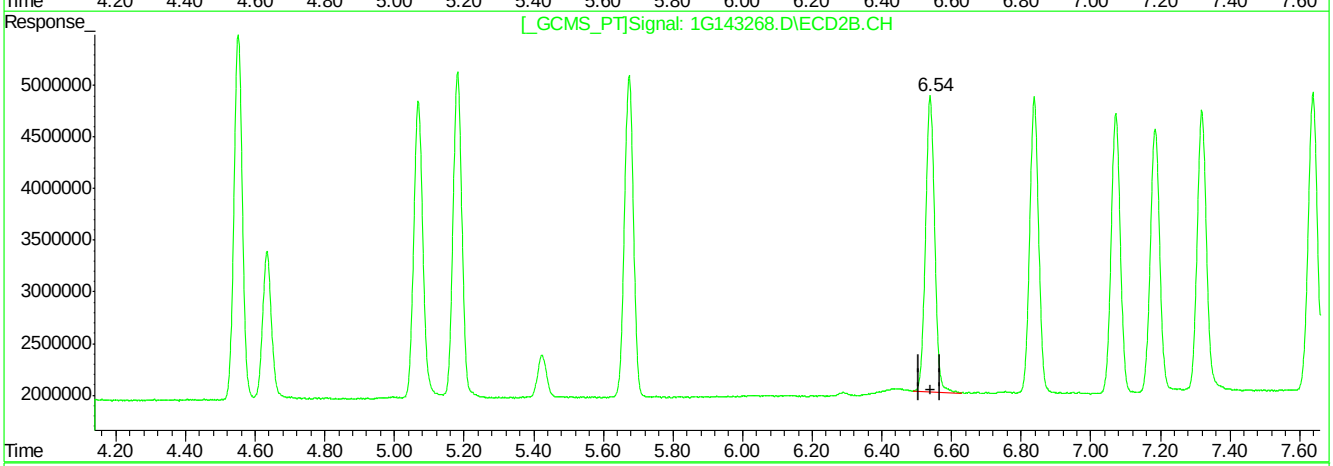
(+) = Expected Retention Time
1G143268.D 1PST4557.M Thu Feb 08 11:02:42 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD2B.CH
Acq On : 08 Feb 2018 10:45 am Operator: minam
Sample : icc4557-25 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 21.413PPB

response 228961263

(11) Heptachlor Epoxide #2 (B)

6.54min 21.445PPB m

response 52449229

(+) = Expected Retention Time
1G143268.D 1PST4557.M Thu Feb 08 11:02:49 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	466.4E6	107.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.36	83515475	19798072	8.844	9.130
	Spiked Amount 40.000	Range 30 - 150		Recovery =		22.11%#	22.82%#
26) SA	Decachlorobiphen	10.15	12.07	67959168	13859466	7.756	8.466
	Spiked Amount 40.000			Recovery =		19.39%	21.16%
	Target Compounds						
3)	Hexachlorobenzen	3.14	3.92	102.7E6	27816777	8.626	9.004
4) A	alpha-BHC	3.28	4.08	98527572	26098992	8.004	8.836
5) MA	gamma-BHC	3.59	4.55	96105660	23723878	7.819	8.824
6) MA	Heptachlor	4.11	5.18	101.6E6	22488752	8.084	8.813
7) B	beta-BHC	3.67	4.63	50046711	10674162	7.952	8.881
8) B	delta-BHC	3.87	5.07	76221333	20435811	8.271	8.510
9) MB	Aldrin	4.47	5.67	90969956	22786657	8.190	8.676
10)	Alachlor	4.59	5.42	13698808	2997849	8.401	8.888
11) B	Heptachlor Epoxi	5.20	6.54	95723864	21739352	9.056	9.006
12) B	gamma-Chlordane	5.38	6.84	76680618	20880088	9.226	8.811
13) B	alpha-Chlordane	5.55	7.07	91025100	20272815	8.501	8.834
14) A	Endosulfan I	5.74	7.18	87636025	19556509	8.490	8.831
15) B	4,4'-DDE	5.65	7.32	80280034	20975807	8.680	9.143
16) MA	Dieldrin	6.07	7.64	87571570	21947784	8.214	8.734
17) MA	Endrin	6.41	8.17	80720278	19403524	8.334	8.792
18) A	4,4'-DDD	6.51	8.31	62617056	16670688	8.064	8.927
19) B	Endosulfan II	6.74	8.53	81866239	18880884	8.384	8.687
20) MA	4,4'-DDT	6.94	8.86	53637825	10668566	8.201	7.938
21) B	Endrin Aldehyde	7.38	9.11	69409649	14827207	8.430	8.651
22) B	Endosulfan Sulfa	8.07	9.57	62499784	13192278	7.529	7.913
23) A	Methoxychlor	7.73	9.99	32559435	5824803	7.326	8.106m
24)	Mirex	7.94	10.31	79960809	11886472	8.429	8.301m
25) B	Endrin Ketone	8.53	10.35	67146671	14793401	7.813	7.832

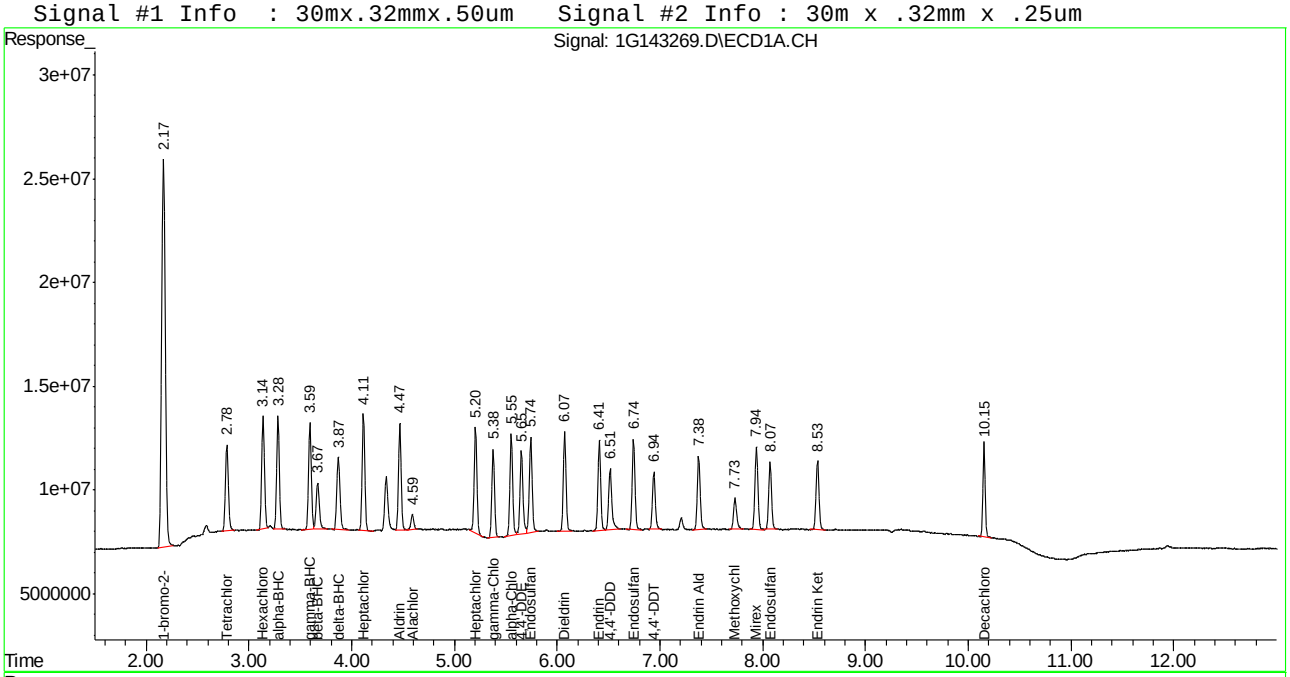
(f)=RT Delta > 1/2 Window (m)=manual int.

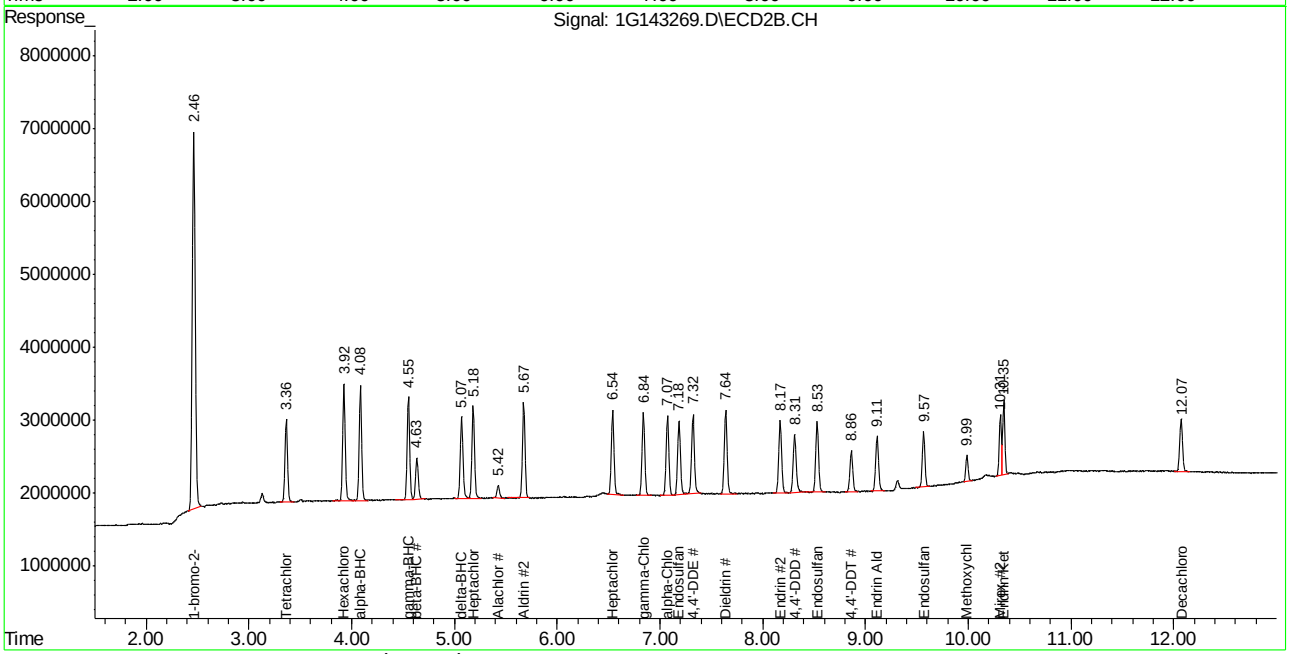
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

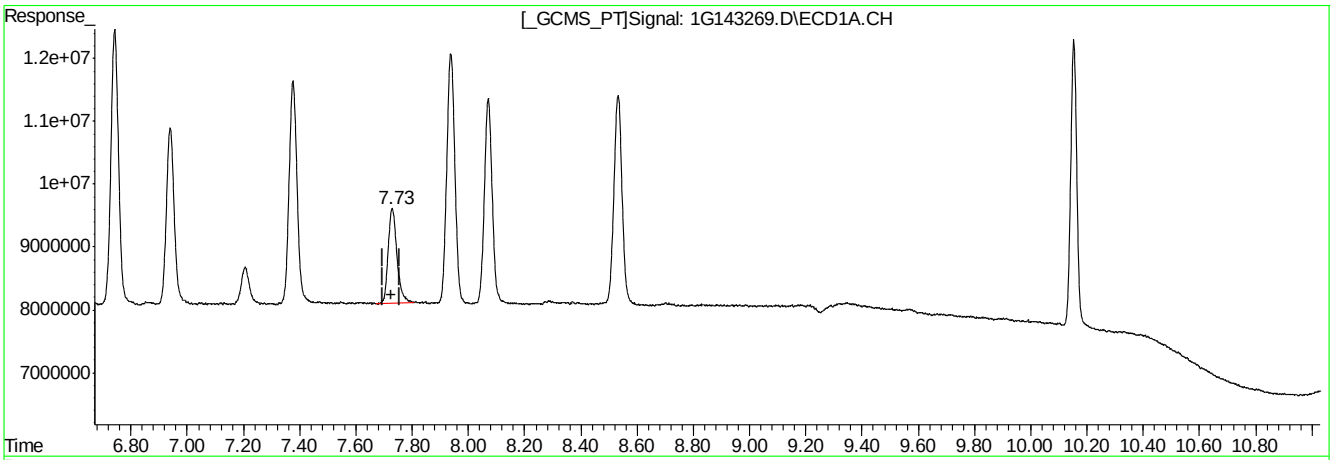
Sample Number:	G1G4557-IC4557	**Method:**	SW846 8081B
Lab FileID:	1G143269.D	**Analyst approved:**	02/08/18 14:13 Kristen Drake
Injection Time:	02/08/18 11:02	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

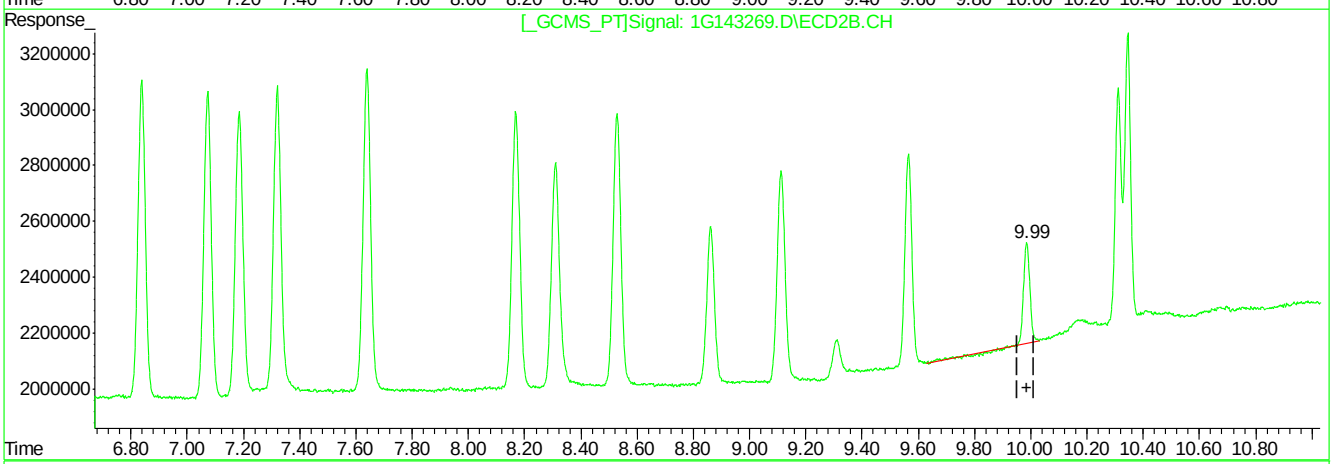
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.99	Poorly defined baseline
Mirex	2385-85-5	2	10.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:41 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 7.326PPB

response 32559435

(23) Methoxychlor #2 (A)

9.99min 7.411PPB

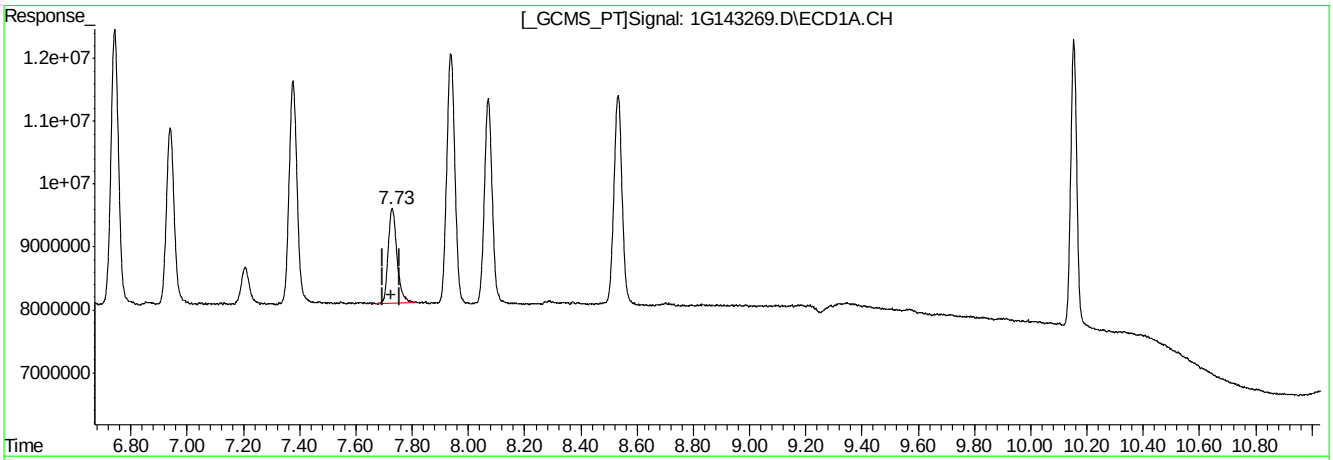
response 5325143

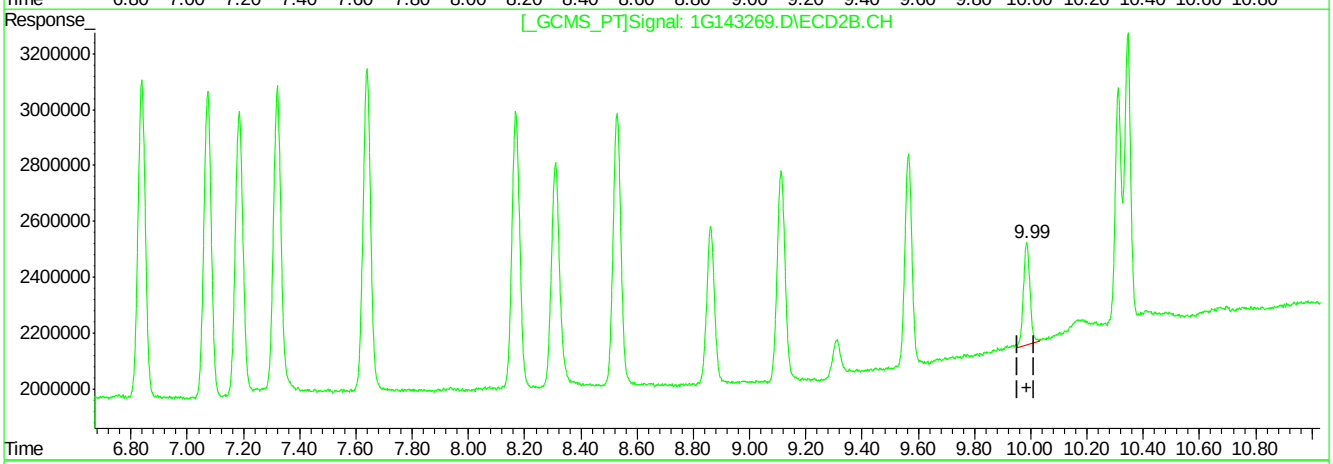
(+) = Expected Retention Time
1G143269.D 1PST4557.M Thu Feb 08 11:41:39 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:41 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 7.326PPB

response 32559435

(23) Methoxychlor #2 (A)

9.99min 8.106PPB m

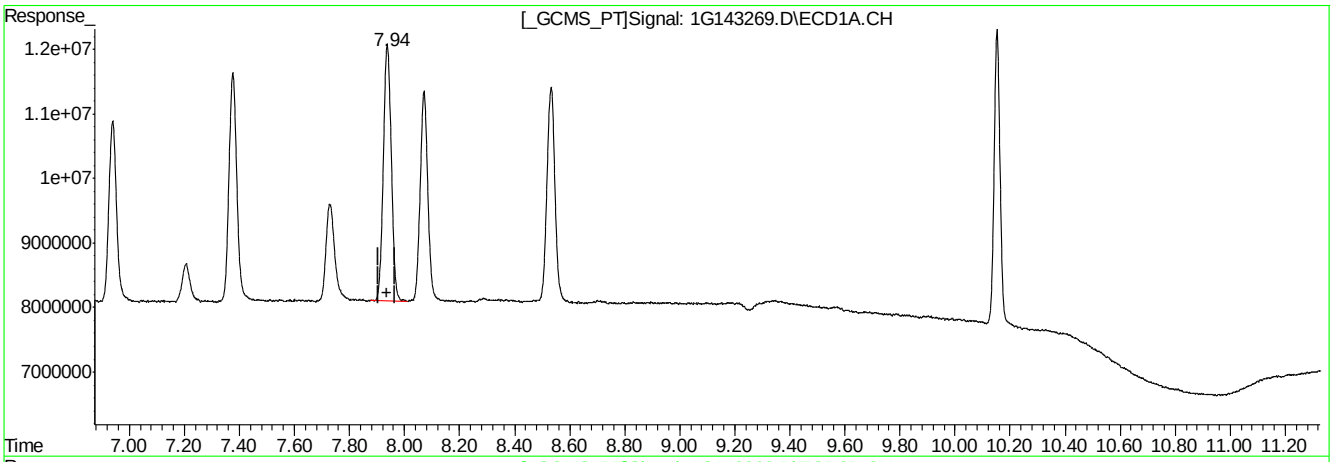
response 5824803

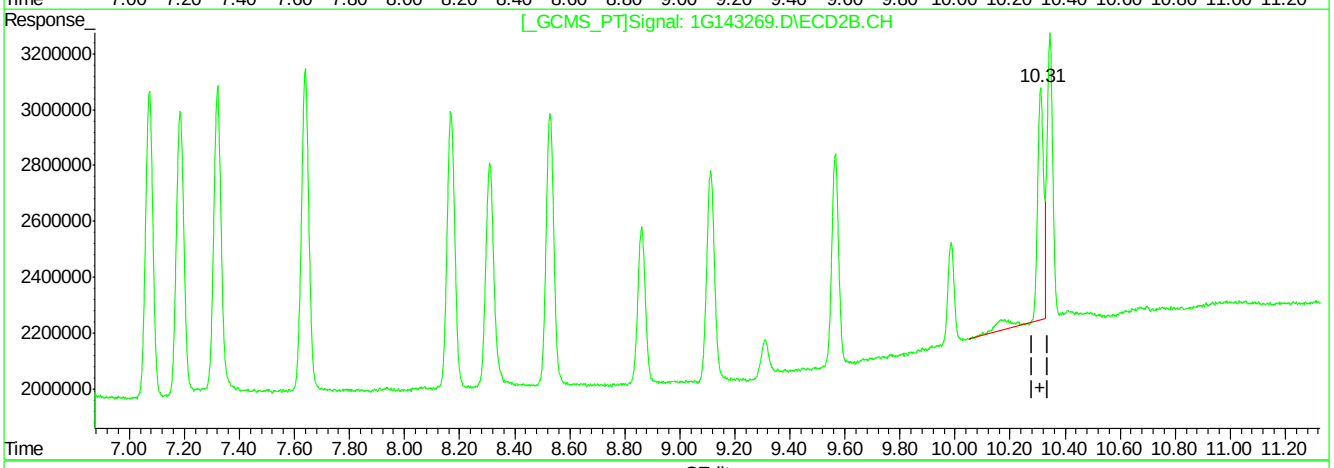
(+) = Expected Retention Time
1G143269.D 1PST4557.M Thu Feb 08 11:41:45 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:41 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 8.429PPB

response 79960809

(24) Mirex #2

10.31min 9.439PPB

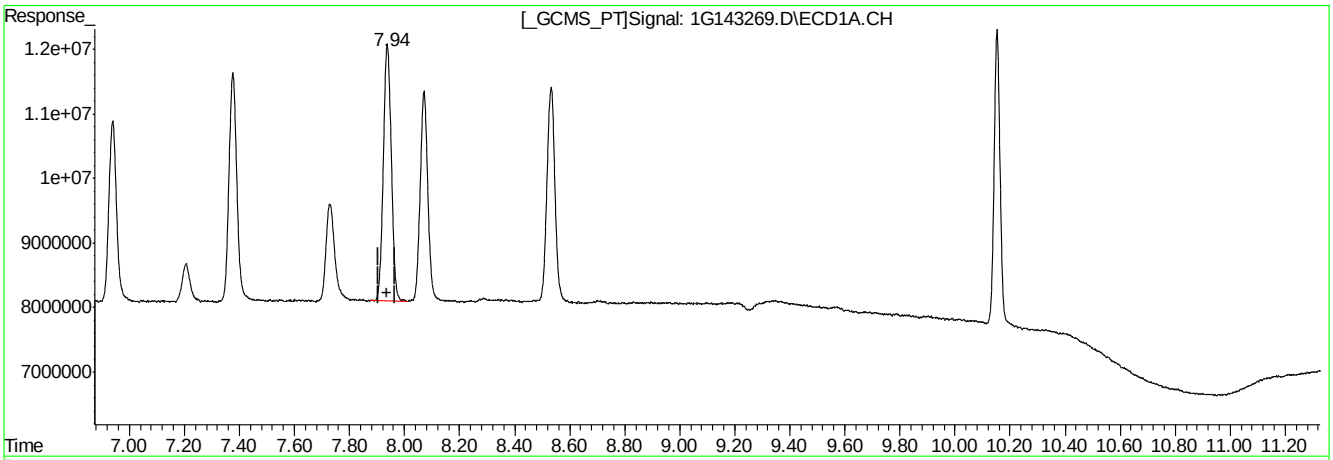
response 13515137

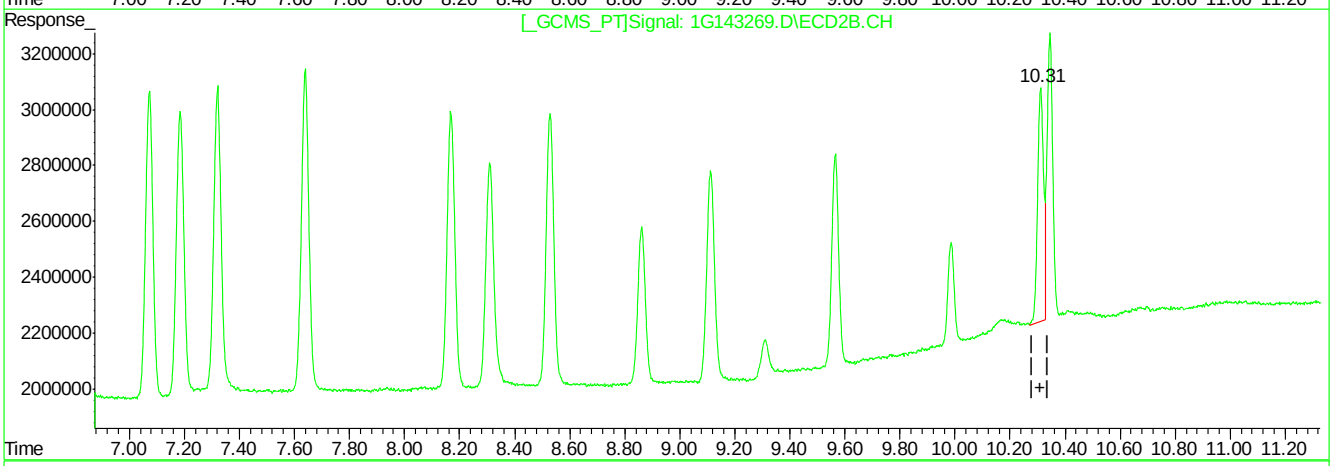
(+) = Expected Retention Time
1G143269.D 1PST4557.M Thu Feb 08 11:41:49 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:41 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 8.429PPB

response 79960809

(24) Mirex #2

10.31min 8.301PPB m

response 11886472

(+) = Expected Retention Time
1G143269.D 1PST4557.M Thu Feb 08 11:42:23 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	475.0E6	109.1E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	41730472	10278016	4.339	4.666
		Spiked Amount 40.000	Range 30 - 150		Recovery =		10.85%#	11.67%#
26)	SA	Decachlorobiphen	10.15	12.07	35421613	7151526	3.969	4.301
		Spiked Amount 40.000			Recovery =		9.92%	10.75%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	52744338	14084176	4.350	4.488
4)	A	alpha-BHC	3.28	4.08	49571876	13413608	3.954	4.471
5)	MA	gamma-BHC	3.59	4.55	48346252	11993470	3.863	4.392
6)	MA	Heptachlor	4.11	5.18	50508585	11566519	3.947	4.463
7)	B	beta-BHC	3.67	4.64	25311873	5335167	3.949	4.370
8)	B	delta-BHC	3.87	5.07	37310633	10597101	3.976	4.345
9)	MB	Aldrin	4.47	5.67	45939056	11887490	4.061	4.456
10)		Alachlor	4.59	5.42	6929468	1568014	4.173m	4.577m
11)	B	Heptachlor Epoxi	5.21	6.54	50485391	11327528	4.690	4.620
12)	B	gamma-Chlordane	5.38	6.84	36070878	10683445	4.262	4.438
13)	B	alpha-Chlordane	5.55	7.07	44258384	10570503	4.059	4.535
14)	A	Endosulfan I	5.74	7.19	43590328	10169100	4.147	4.521
15)	B	4,4'-DDE	5.65	7.32	38051500	11236108	4.040	4.822
16)	MA	Dieldrin	6.07	7.64	44344179	11338079	4.084	4.442
17)	MA	Endrin	6.41	8.17	40228704	9946268	4.078	4.437
18)	A	4,4'-DDD	6.52	8.31	30975516	8561232	3.917	4.513
19)	B	Endosulfan II	6.74	8.53	41113866	9869189	4.135	4.471
20)	MA	4,4'-DDT	6.94	8.86	25177374	5180456	3.780	3.795
21)	B	Endrin Aldehyde	7.38	9.11	35020849	7931772	4.177	4.556
22)	B	Endosulfan Sulfa	8.07	9.57	31628084	6829198	3.741	4.033
23)	A	Methoxychlor	7.73	9.99	16014790	2646159	3.538m	3.625
24)		Mirex	7.94	10.31	40598826	6063828	4.202	4.169m
25)	B	Endrin Ketone	8.53	10.35	33891384	7465672	3.872	3.891

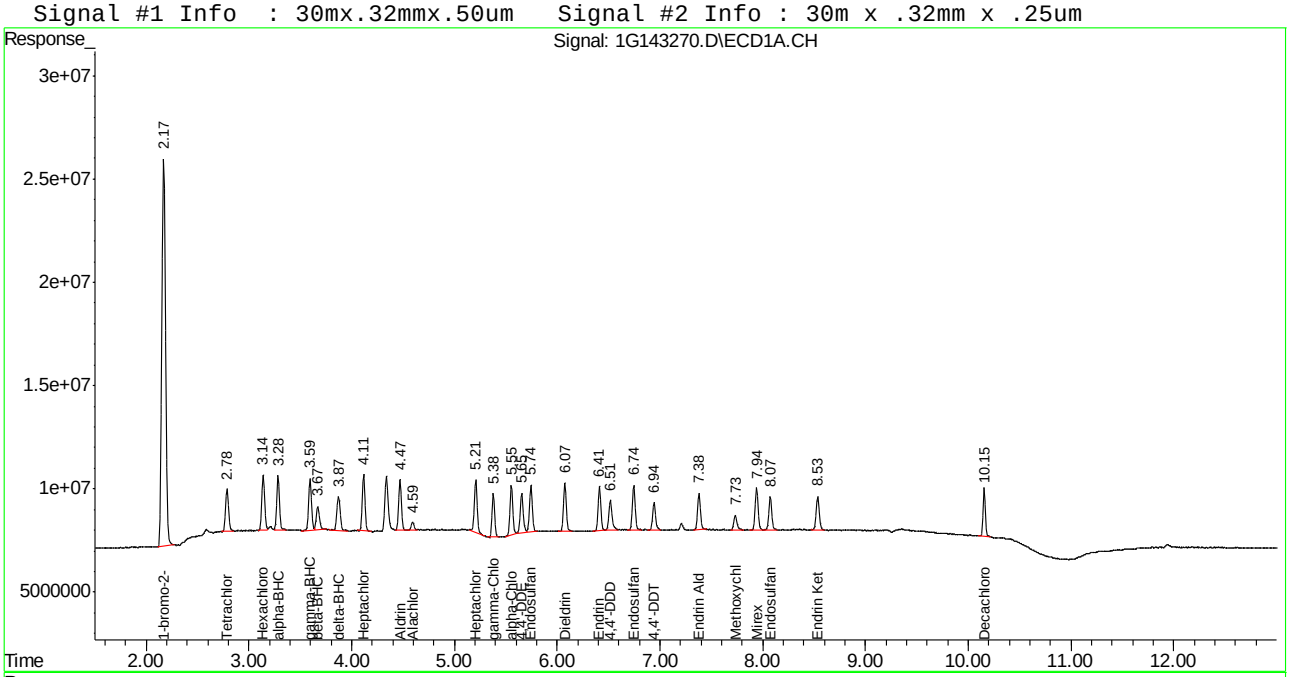
(f)=RT Delta > 1/2 Window (m)=manual int.

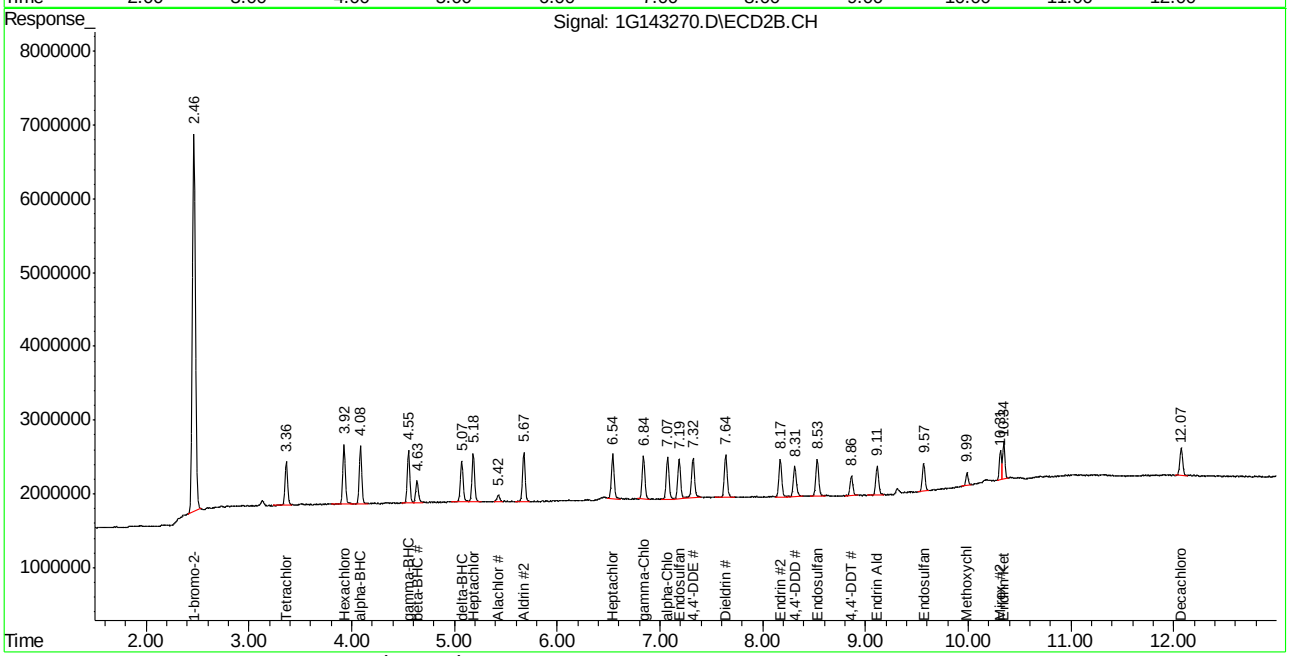
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integration Approval Summary

Sample Number: G1G4557-IC4557
Lab FileID: 1G143270.D
Injection Time: 02/08/18 11:19

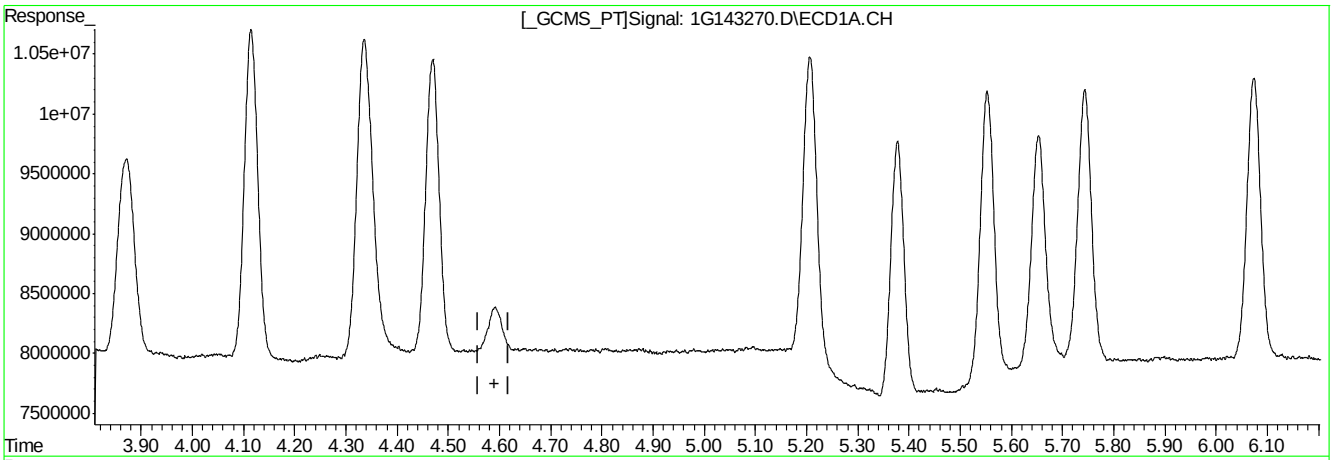
Method: SW846 8081B
Analyst approved: 02/08/18 14:13 Kristen Drake
Supervisor approved: 02/09/18 10:15 Gwendolyn Burns

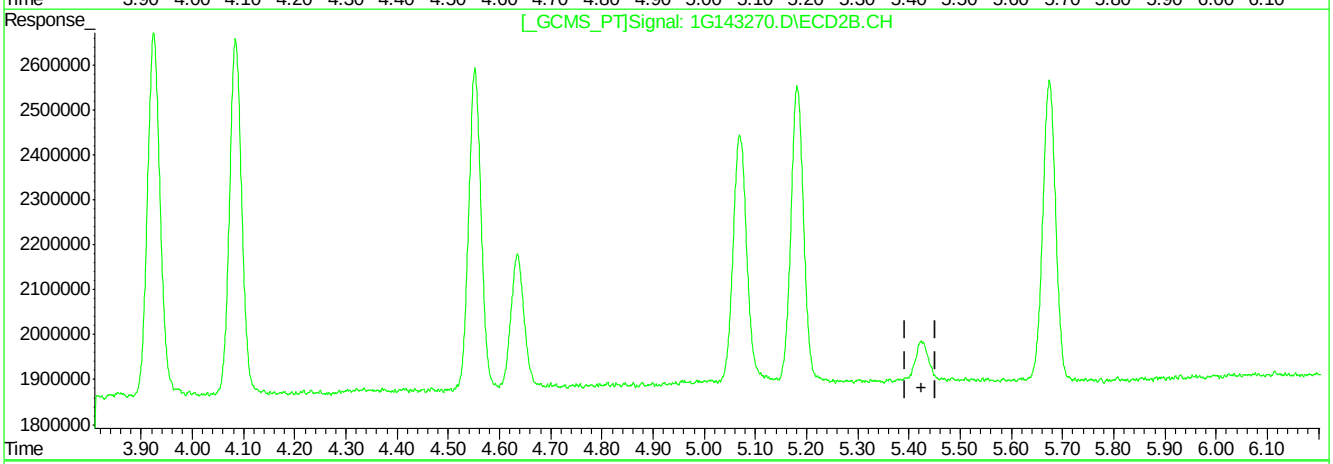
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.59	Poorly defined baseline
Alachlor	15972-60-8	2	5.42	Poorly defined baseline
Methoxychlor	72-43-5	1	7.73	Poorly defined baseline
Mirex	2385-85-5	2	10.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

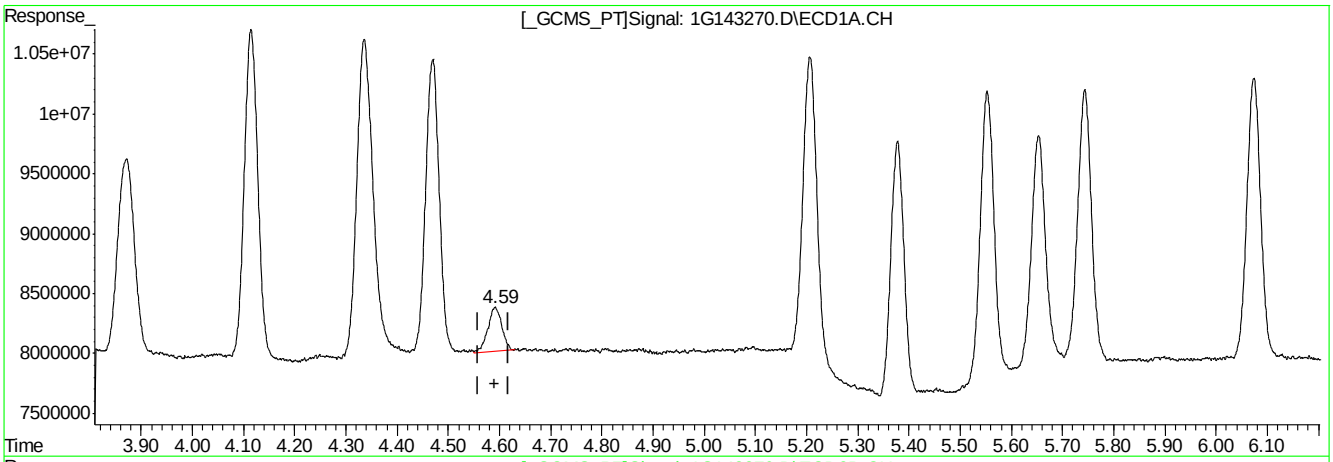
response 0

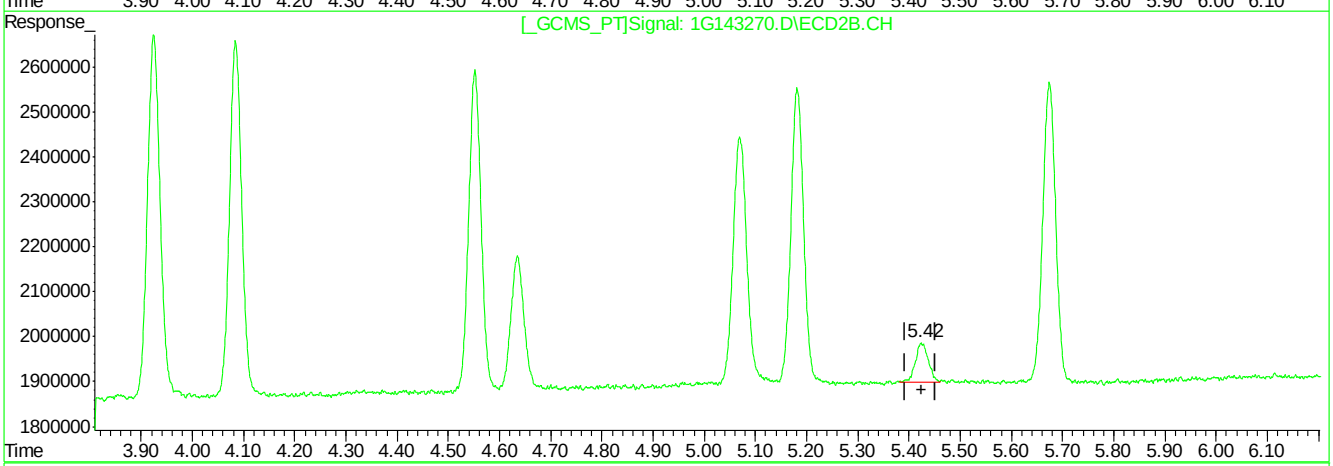
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:12 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.59min 4.173PPB m

response 6929468

(10) Alachlor #2

5.42min 4.577PPB m

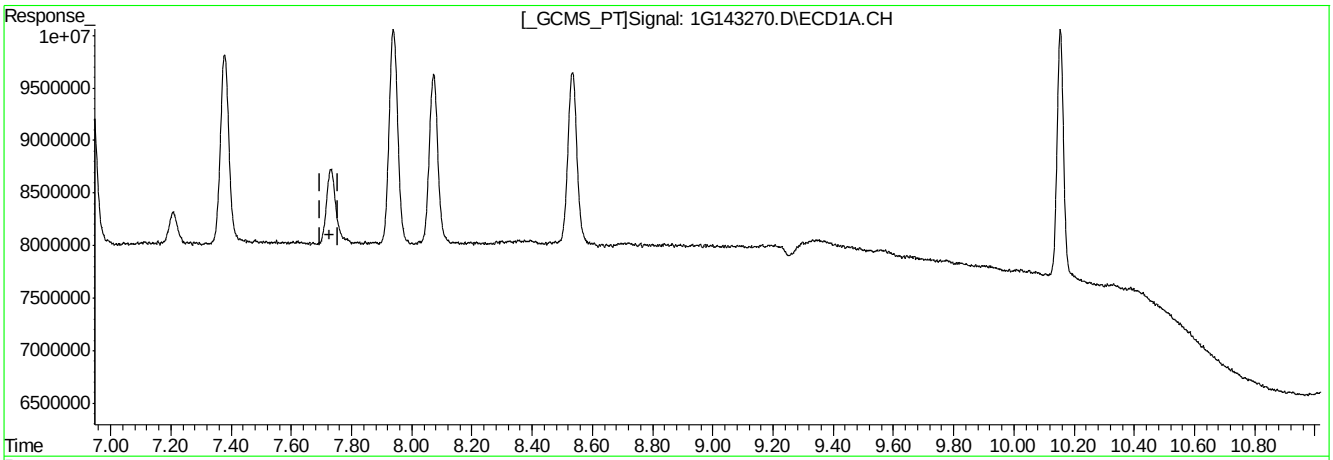
response 1568014

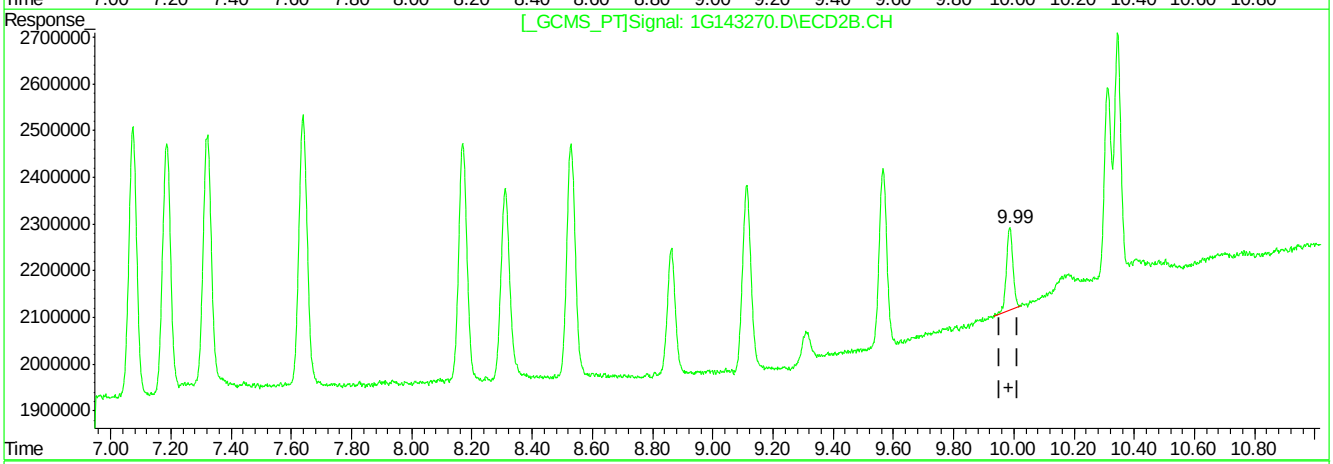
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:21 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

9.99min 3.625PPB

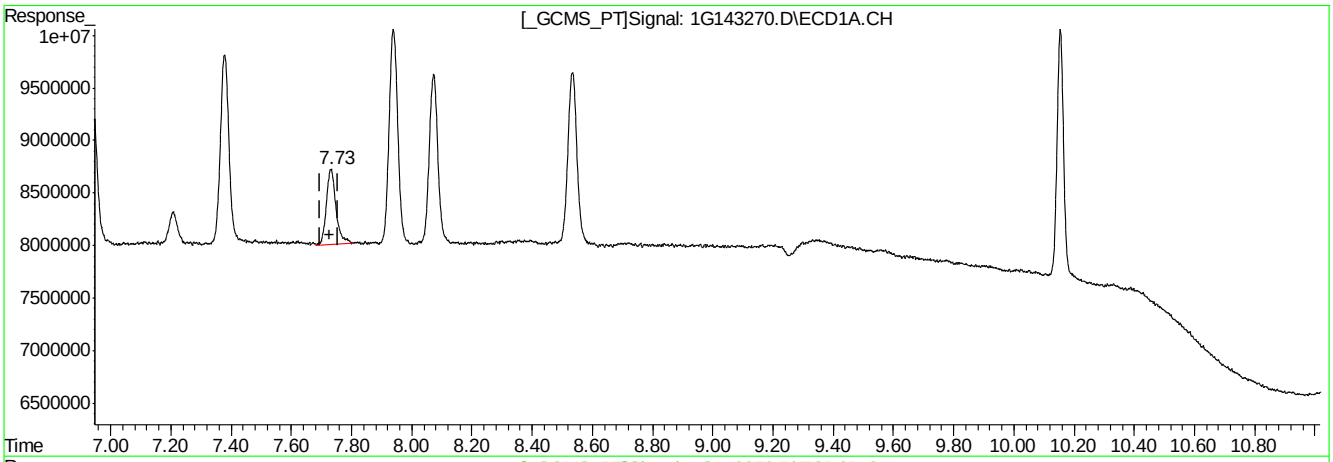
response 2646159

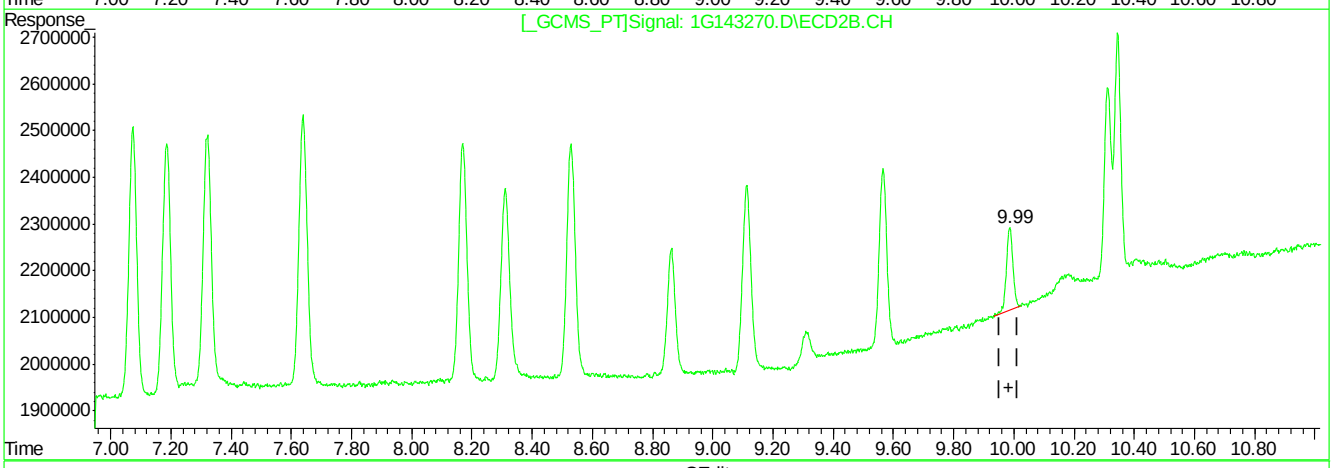
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:33 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 3.538PPB m

response 16014790

(23) Methoxychlor #2 (A)

9.99min 3.625PPB

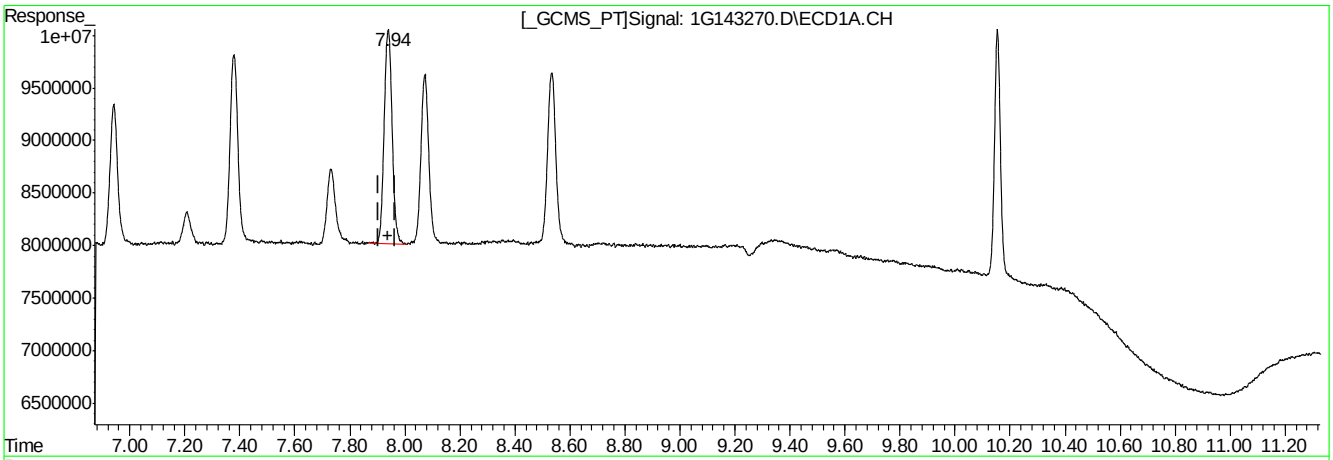
response 2646159

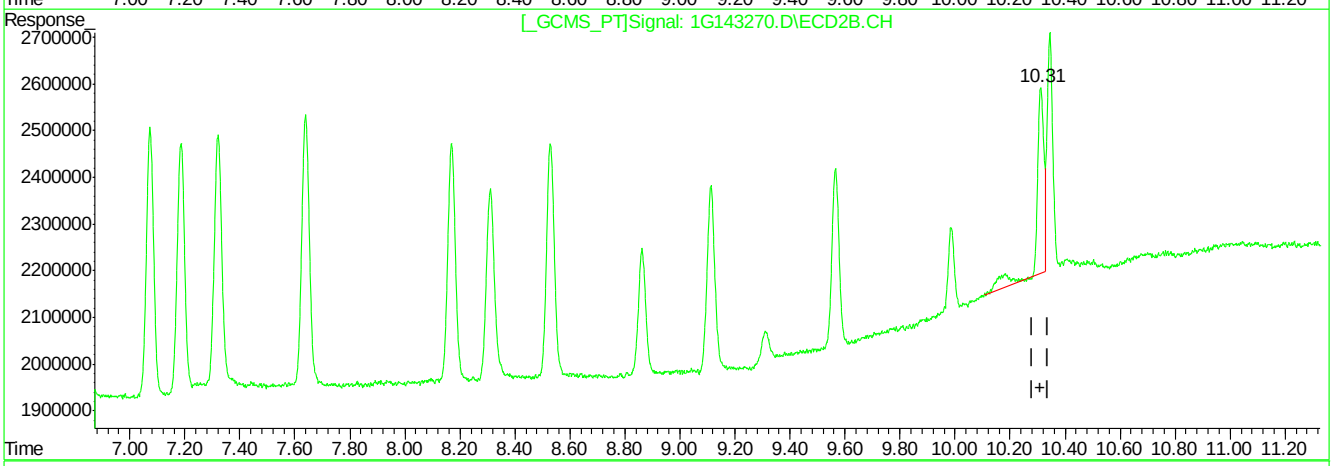
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:39 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 4.202PPB

response 40598826

(24) Mirex #2

10.31min 4.768PPB

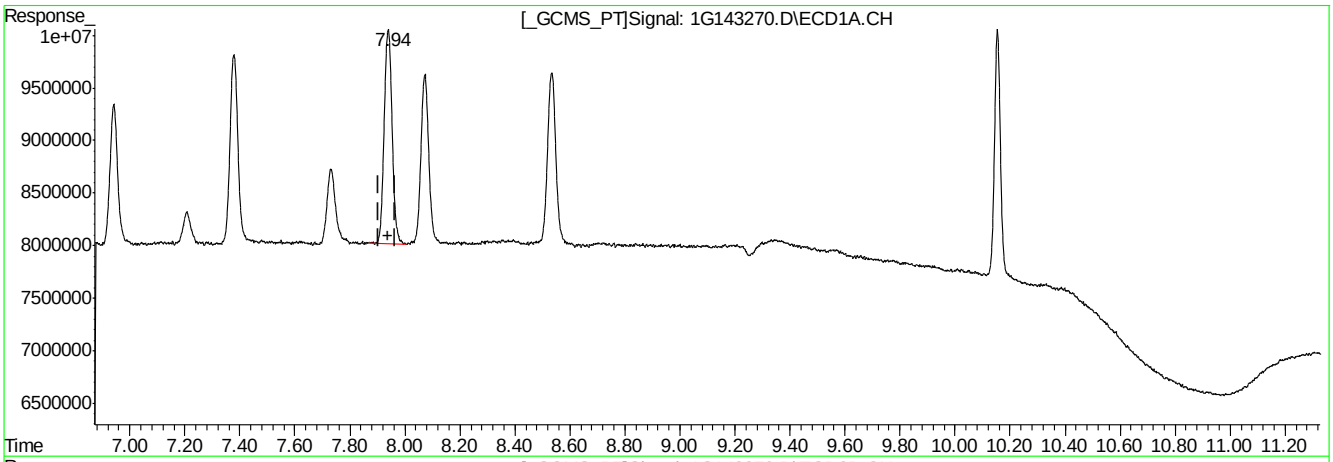
response 6935121

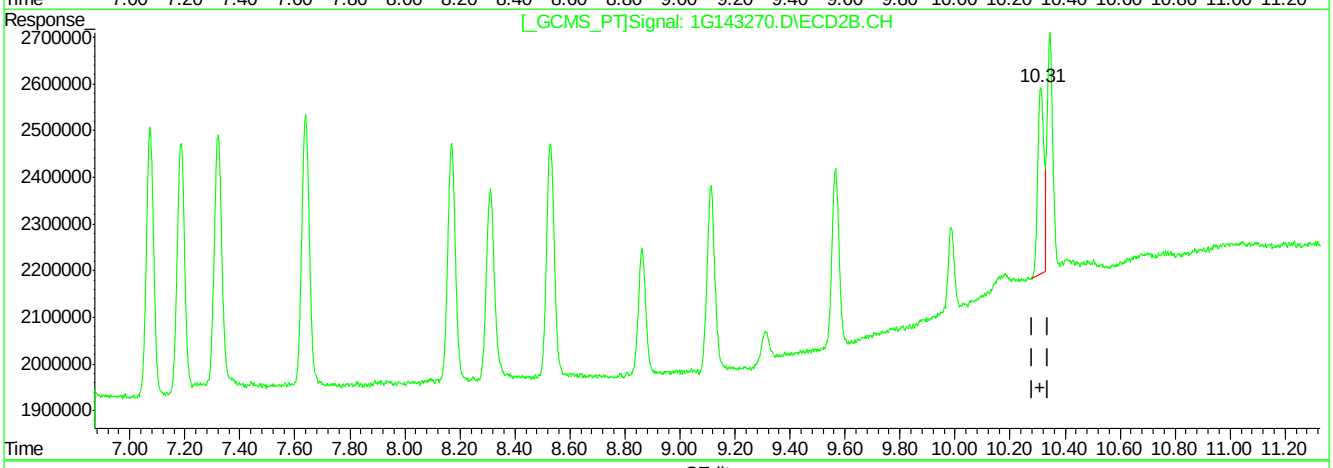
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:42 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 4.202PPB

response 40598826

(24) Mirex #2

10.31min 4.169PPB m

response 6063828

(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:57 2018 RPT1

1G143271.D

Manual Integrations APPROVED (compounds with "m" flag)

Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	468.2E6	108.1E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	15926829	4213538	1.680	1.930
		Spiked Amount 40.000	Range 30 - 150		Recovery =		4.20%#	4.83%#
26)	SA	Decachlorobiphen	10.15	12.07	14765895	3070171	1.678	1.863
		Spiked Amount 40.000			Recovery =		4.20%	4.66%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	21444235	6150682	1.794	1.977
4)	A	alpha-BHC	3.28	4.08	19125440	5411523	1.548	1.820
5)	MA	gamma-BHC	3.59	4.55	19108397	4924900	1.549	1.819
6)	MA	Heptachlor	4.11	5.18	20244728	4554244	1.605	1.773
7)	B	beta-BHC	3.67	4.63	10532588	2273052	1.667	1.878
8)	B	delta-BHC	3.87	5.07	14213901	4560344	1.536	1.886
9)	MB	Aldrin	4.47	5.67	19288519	4966749	1.730	1.878
10)		Alachlor	4.59	5.42	3029760	733882	1.851m	2.161m
11)	B	Heptachlor Epoxi	5.20	6.54	20747885	4634933	1.955	1.907m
12)	B	gamma-Chlordane	5.38	6.84	12502805	4501457	1.498	1.887
13)	B	alpha-Chlordane	5.55	7.07	19145145	4377913	1.781	1.895
14)	A	Endosulfan I	5.74	7.19	19447512	4342244	1.877	1.947
15)	B	4,4'-DDE	5.65	7.32	19584767	4783368	2.109	2.071
16)	MA	Dieldrin	6.07	7.64	17817406	4691064	1.665	1.854
17)	MA	Endrin	6.41	8.17	15737534	4013915	1.618	1.806
18)	A	4,4'-DDD	6.52	8.31	12364620	3403754	1.586	1.810
19)	B	Endosulfan II	6.74	8.53	16835624	4074685	1.717	1.862
20)	MA	4,4'-DDT	6.94	8.86	10118360	1874591	1.541	1.385m
21)	B	Endrin Aldehyde	7.38	9.11	14346152	3299474	1.736	1.912
22)	B	Endosulfan Sulfa	8.07	9.56	12580487	2836561	1.509	1.690
23)	A	Methoxychlor	7.73	9.98	5870130	1045217	1.316m	1.445m
24)		Mirex	7.94	10.31	17042072	2641300	1.789	1.832m
25)	B	Endrin Ketone	8.53	10.34	13802059	2962106	1.600	1.557

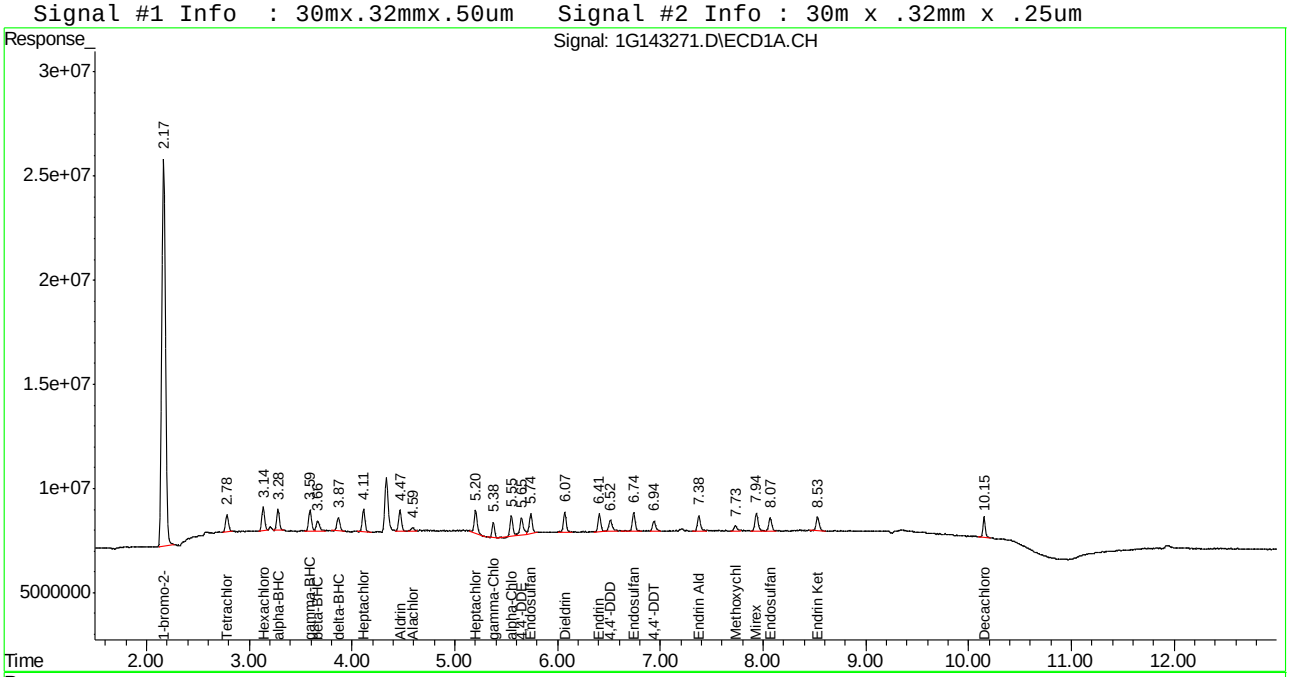
(f)=RT Delta > 1/2 Window (m)=manual int.

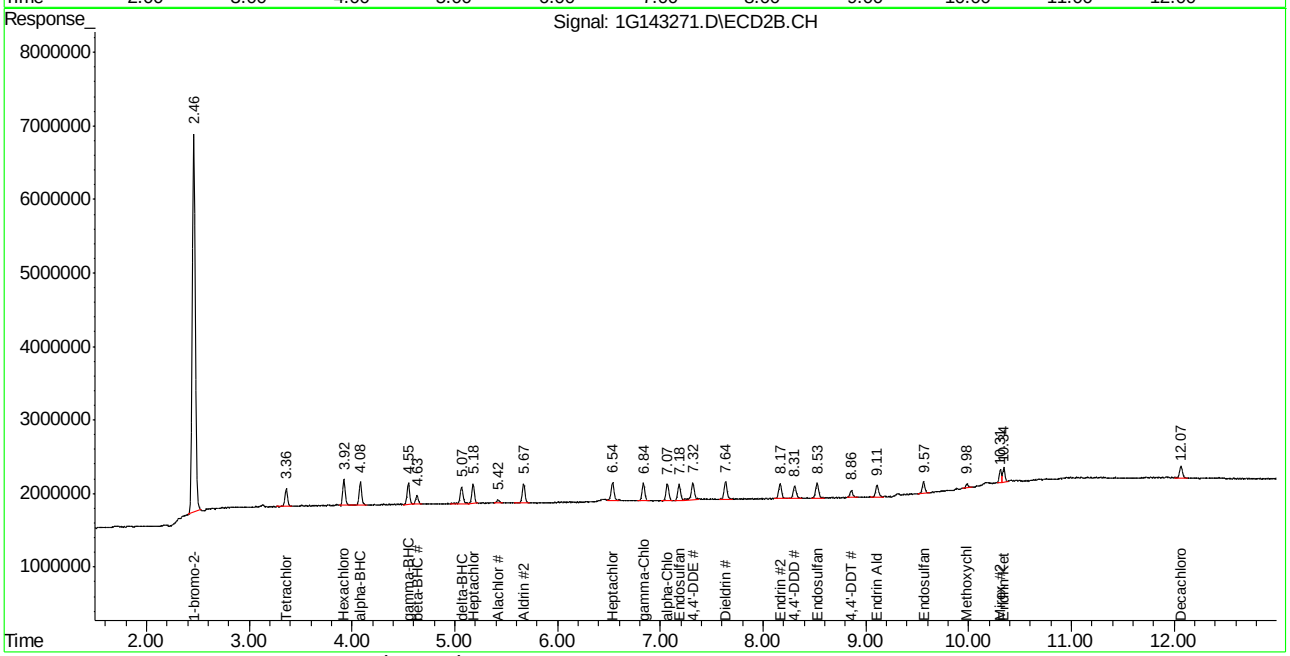
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integration Approval Summary

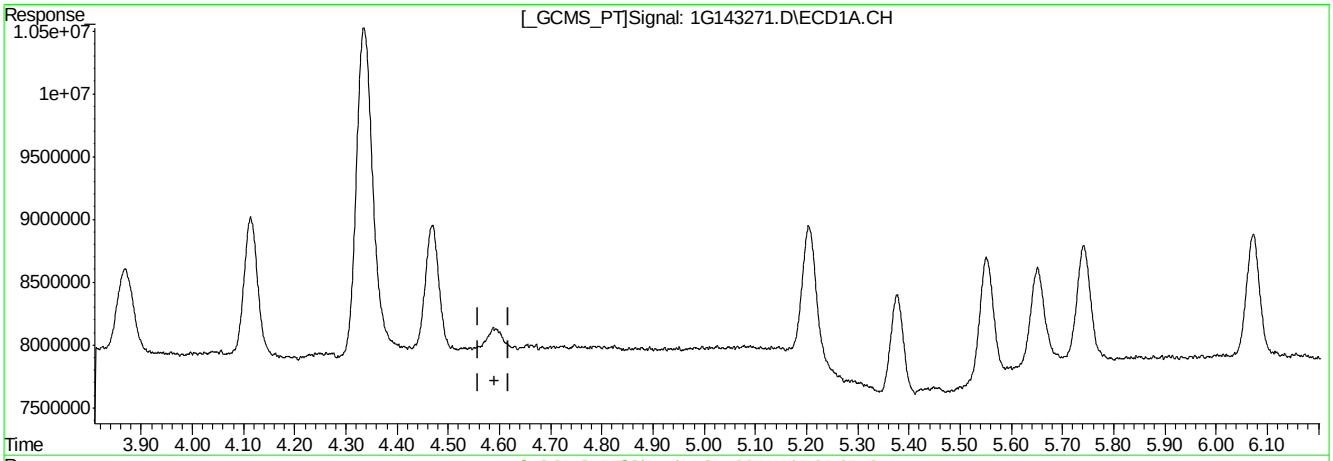
Sample Number: G1G4557-IC4557
Lab FileID: 1G143271.D
Injection Time: 02/08/18 11:37
Method: SW846 8081B
Analyst approved: 02/08/18 14:13 Kristen Drake
Supervisor approved: 02/09/18 10:15 Gwendolyn Burns

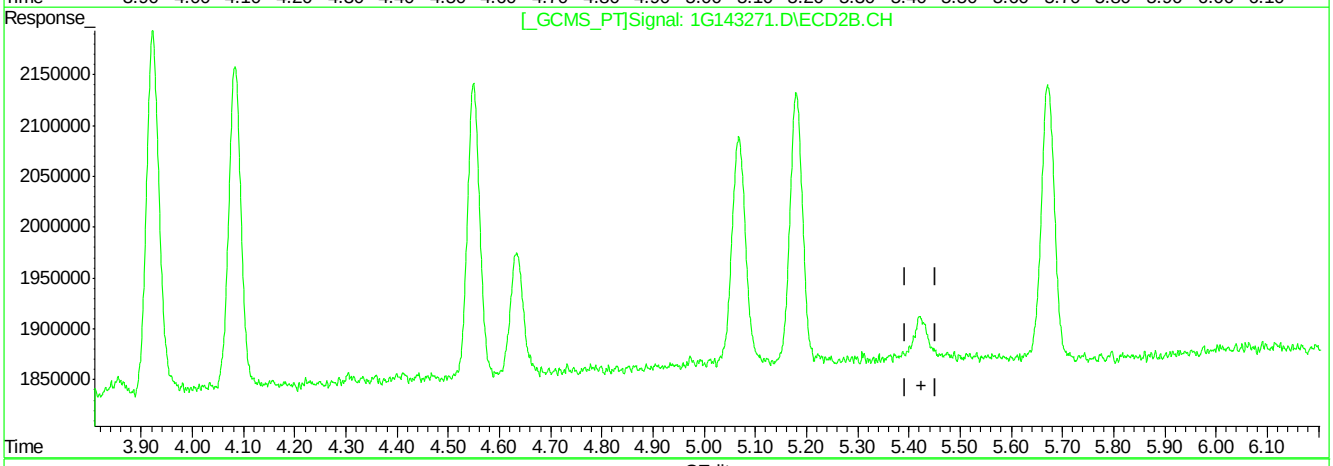
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.59	Poorly defined baseline
Alachlor	15972-60-8	2	5.42	Poorly defined baseline
Heptachlor epoxide	1024-57-3	2	6.54	Poorly defined baseline
Methoxychlor	72-43-5	1	7.73	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.86	Poorly defined baseline
Methoxychlor	72-43-5	2	9.98	Poorly defined baseline
Mirex	2385-85-5	2	10.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

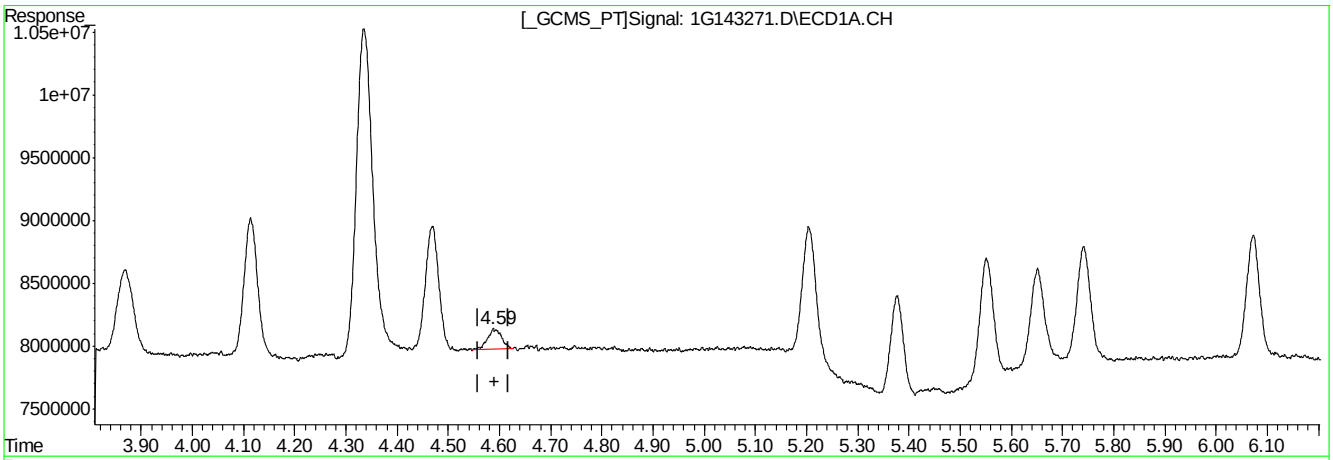
response 0

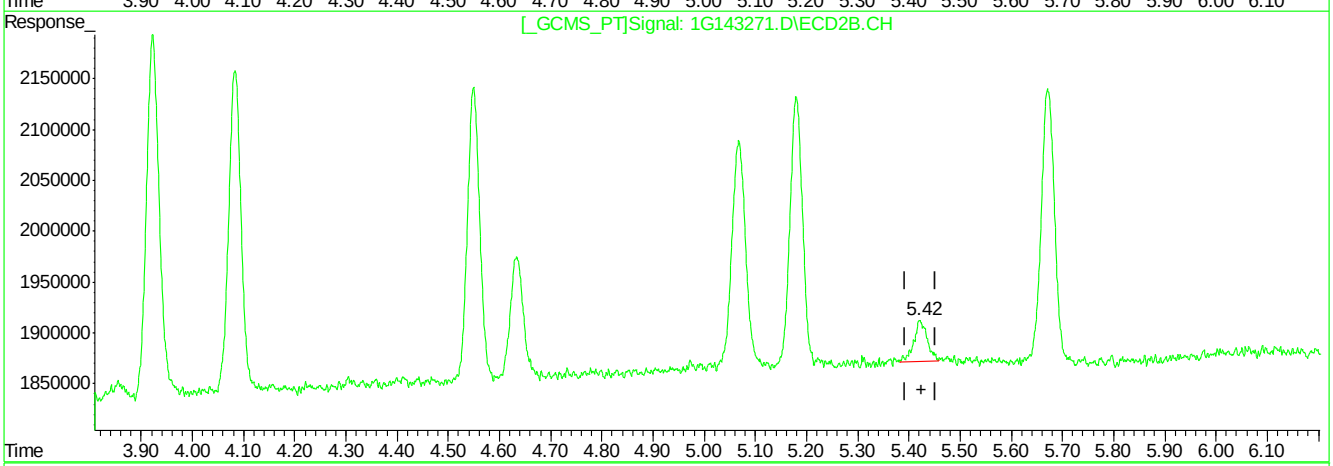
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:09:52 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.59min 1.851PPB m

response 3029760

(10) Alachlor #2

5.42min 2.161PPB m

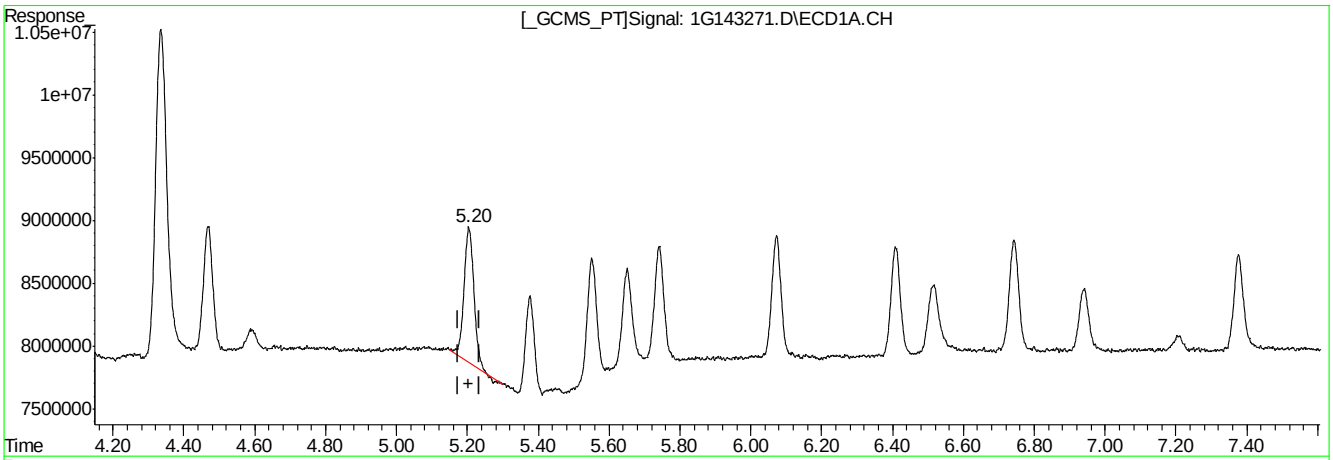
response 733882

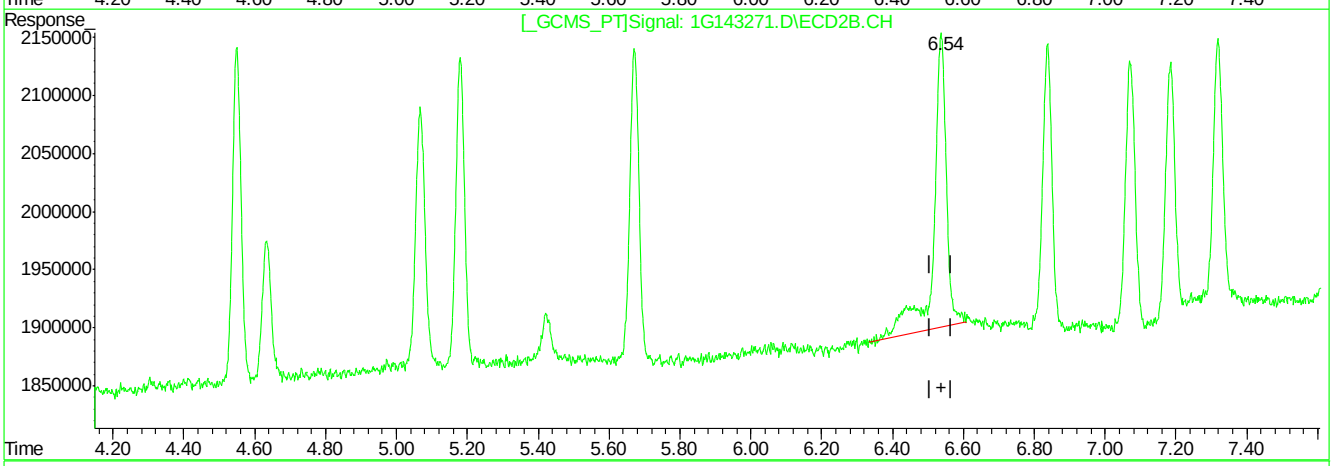
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:02 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 1.955PPB

response 20747885

(11) Heptachlor Epoxide #2 (B)

6.54min 2.606PPB

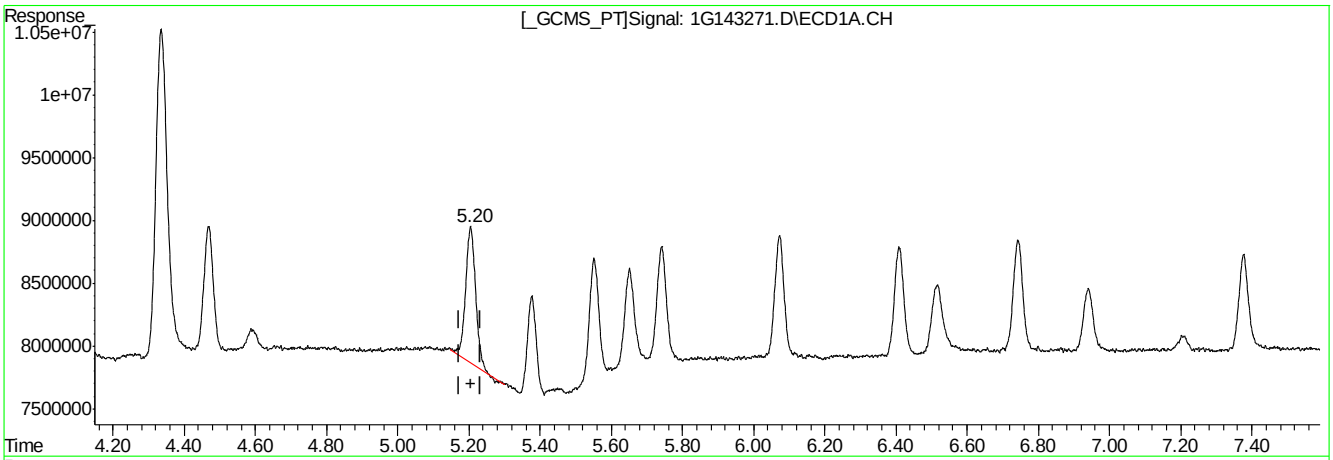
response 6335141

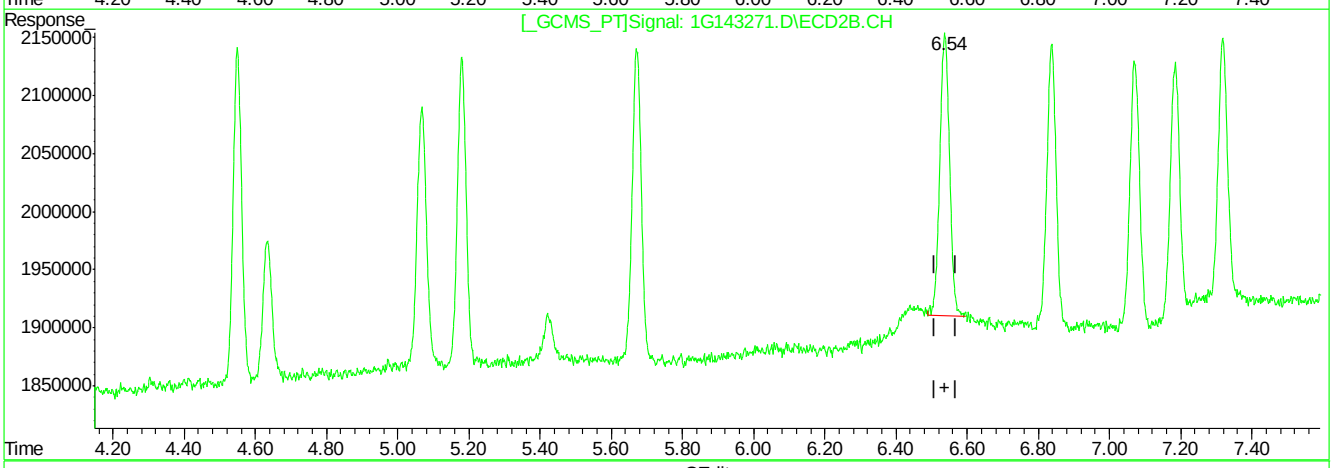
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:06 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 1.955PPB

response 20747885

(11) Heptachlor Epoxide #2 (B)

6.54min 1.907PPB m

response 4634933

(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:14 2018 RPT1

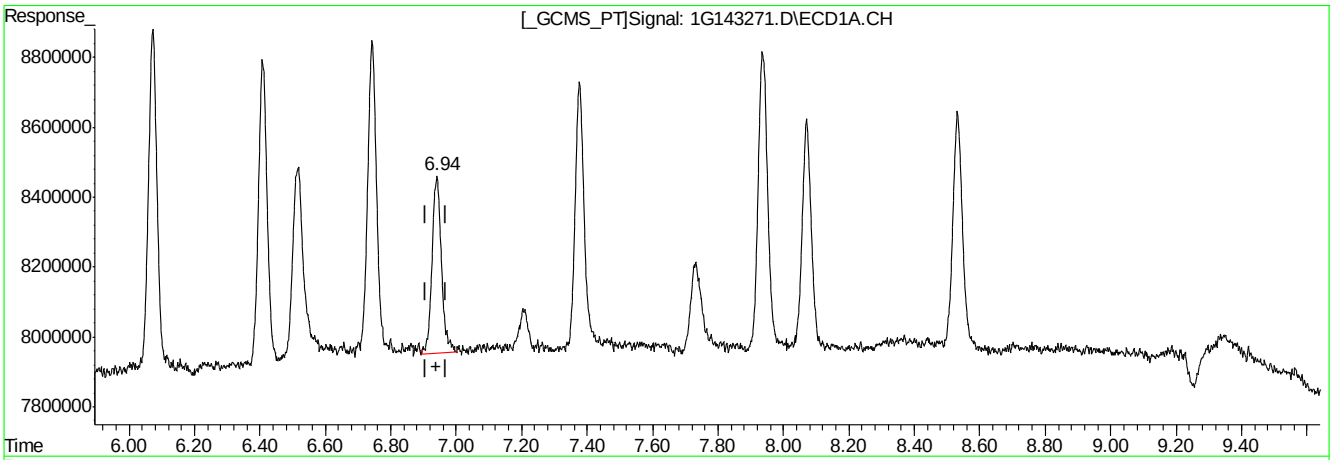
11.6.7.5 11

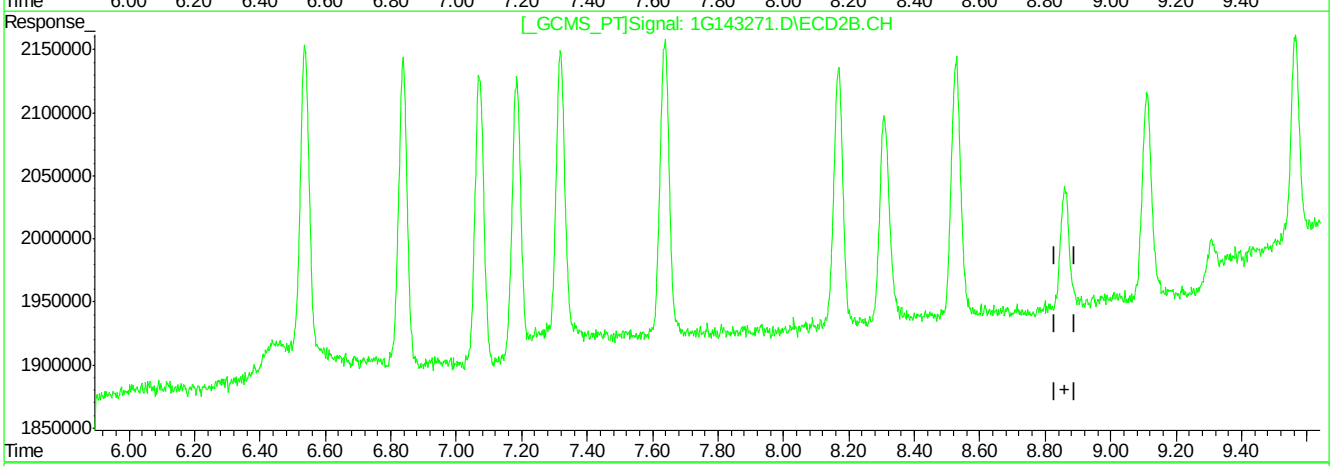
1G143271.D edits: Heptachlor Epoxide

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.94min 1.541PPB

response 10118360

(20) 4,4'-DDT #2 (MA)

0.00min 0.000PPB

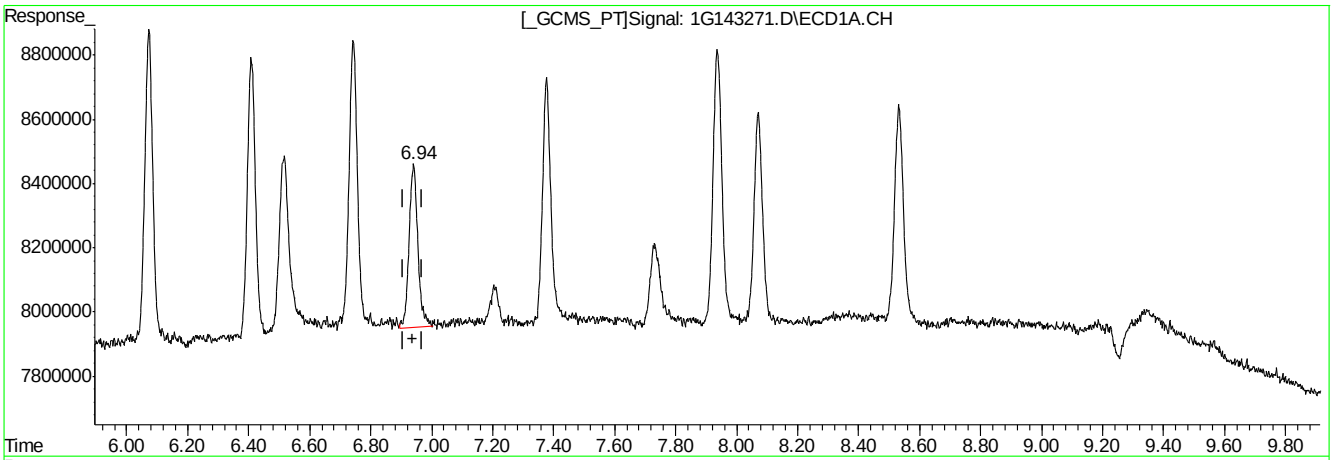
response 0

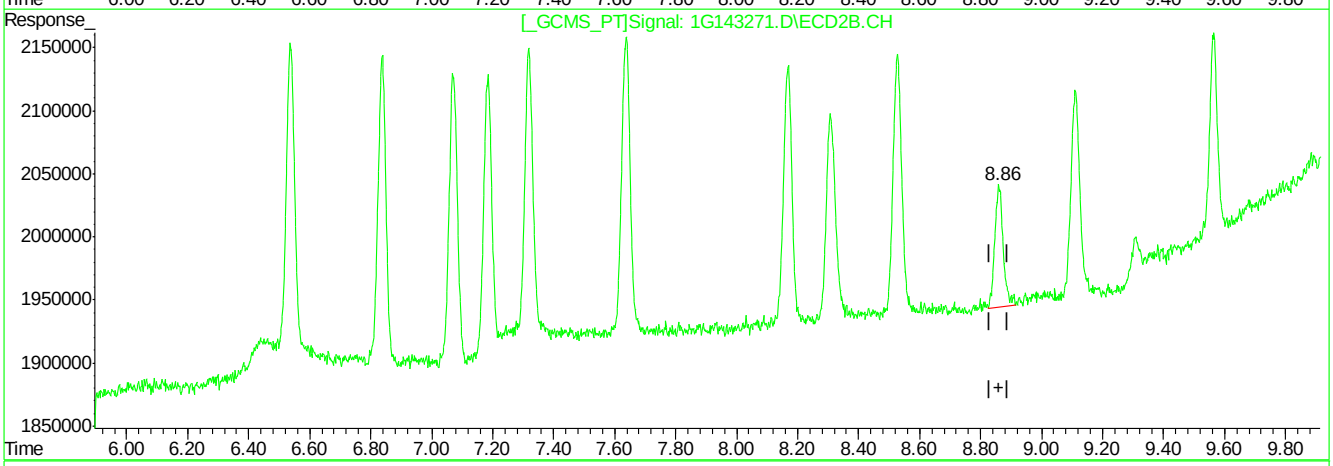
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:27 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.94min 1.541PPB

response 10118360

(20) 4,4'-DDT #2 (MA)

8.86min 1.385PPB m

response 1874591

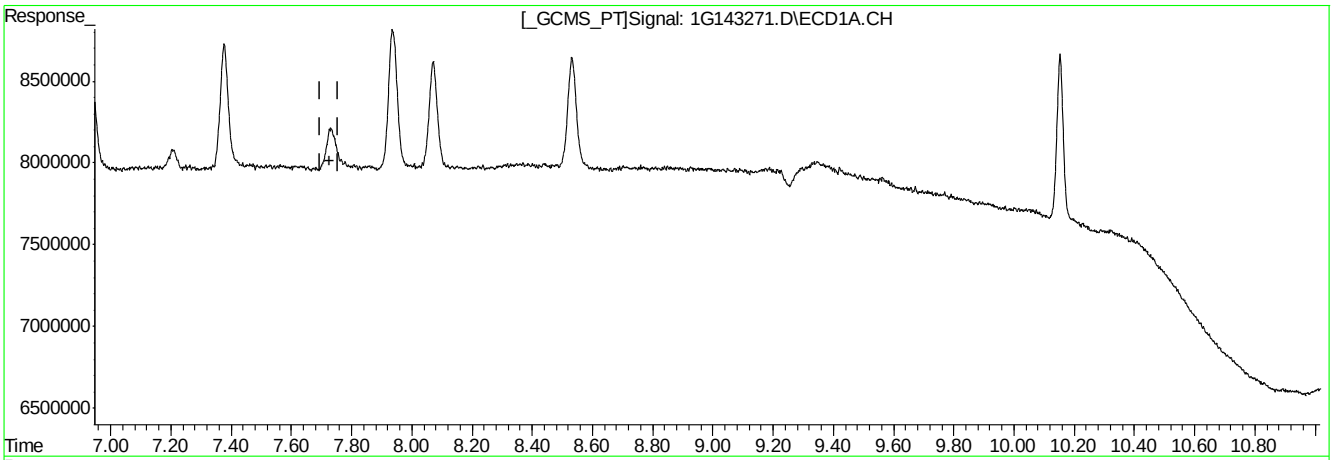
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:40 2018 RPT1

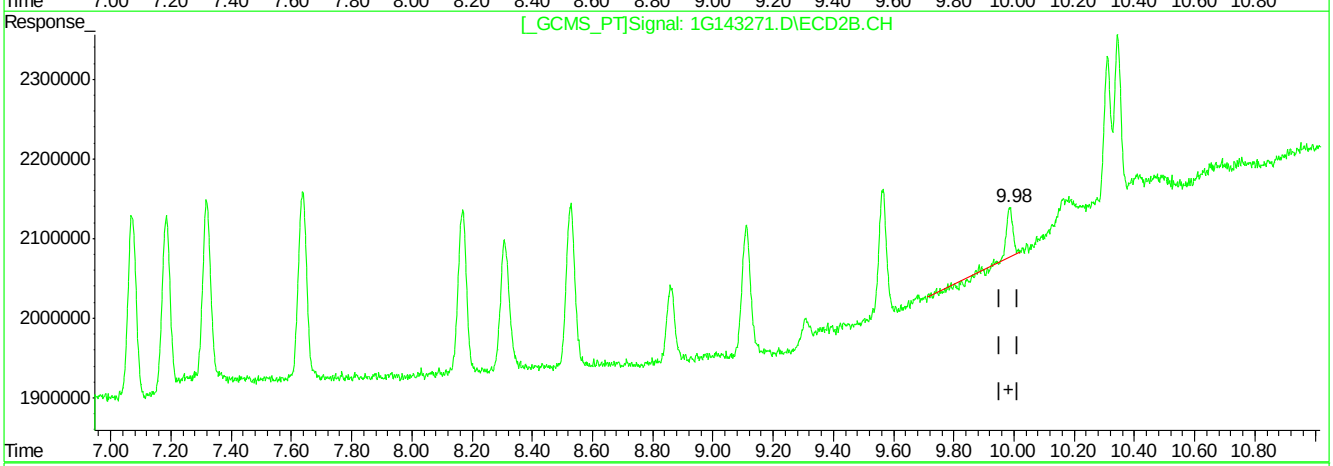
11.6.7.7 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

9.99min 0.933PPB

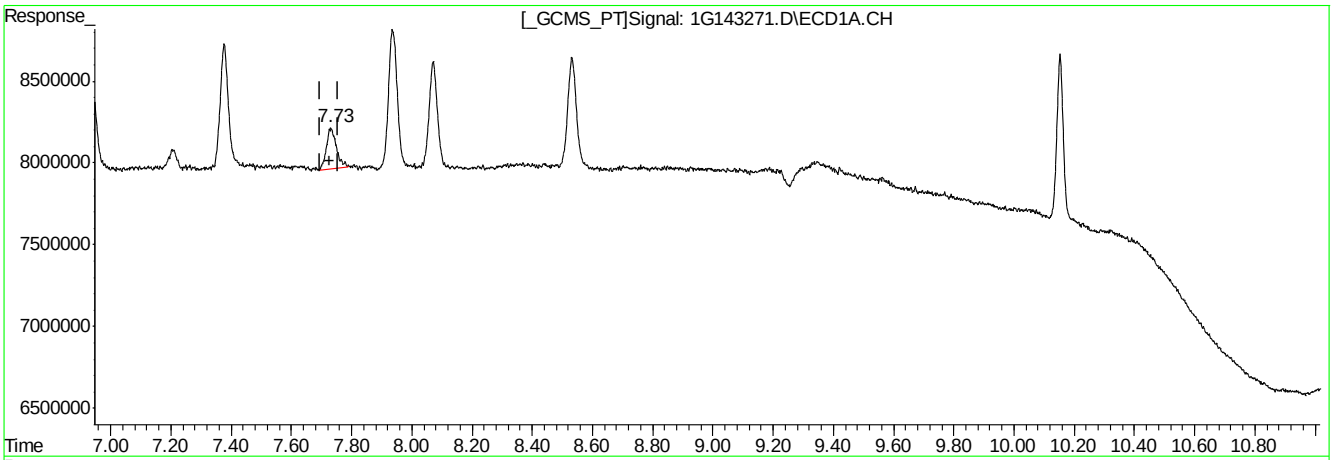
response 674920

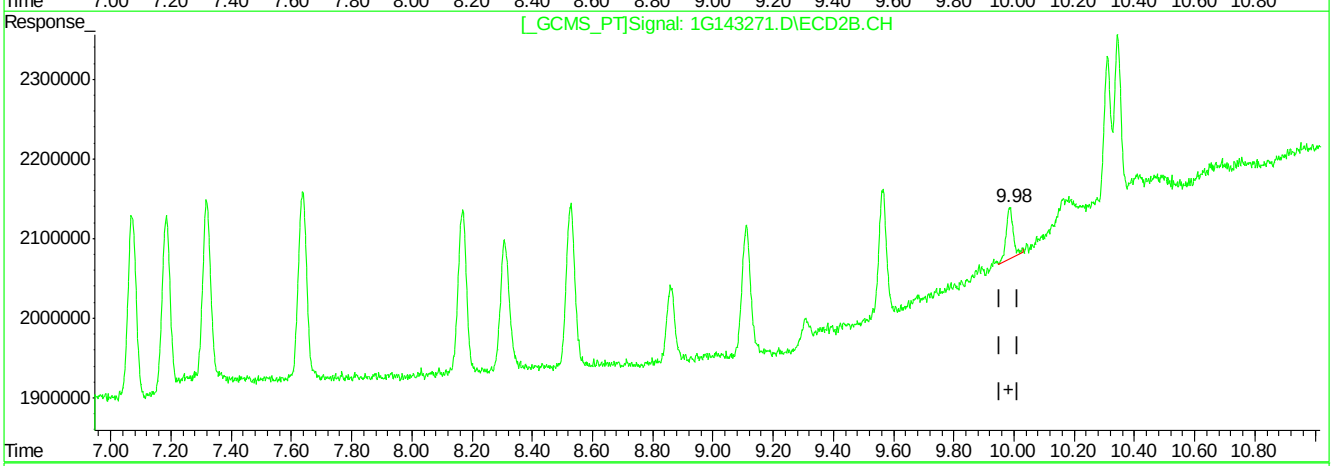
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:45 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 1.316PPB m

response 5870130

(23) Methoxychlor #2 (A)

9.98min 1.445PPB m

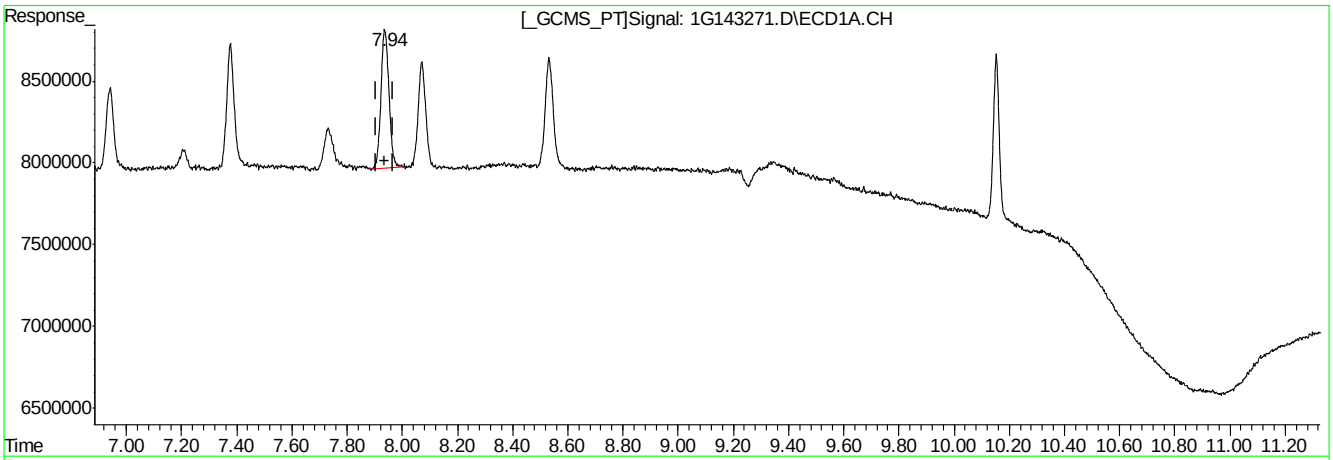
response 1045217

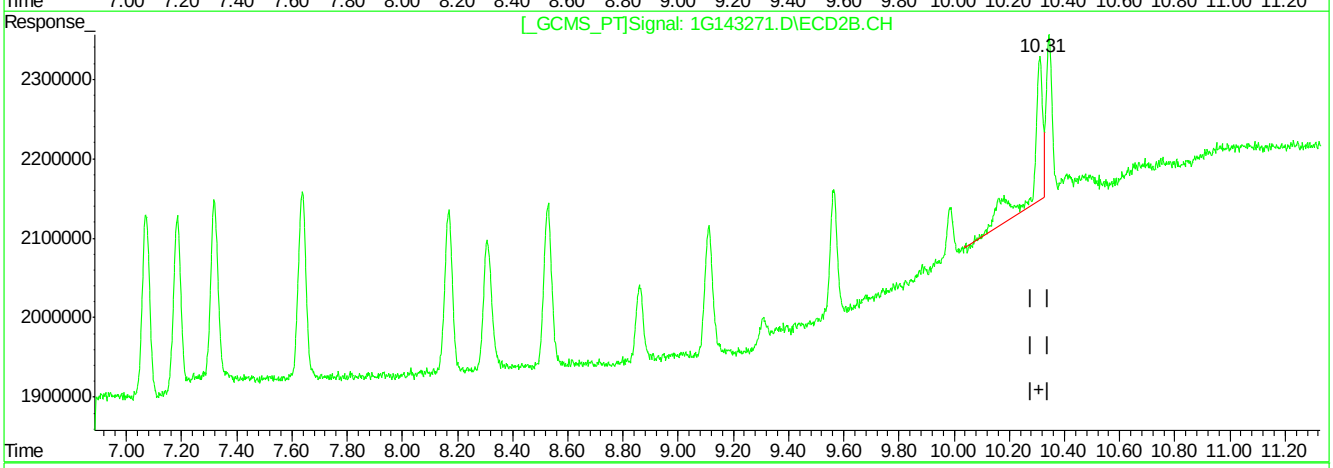
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:54 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 1.789PPB

response 17042072

(24) Mirex #2

10.31min 2.993PPB

response 4314501

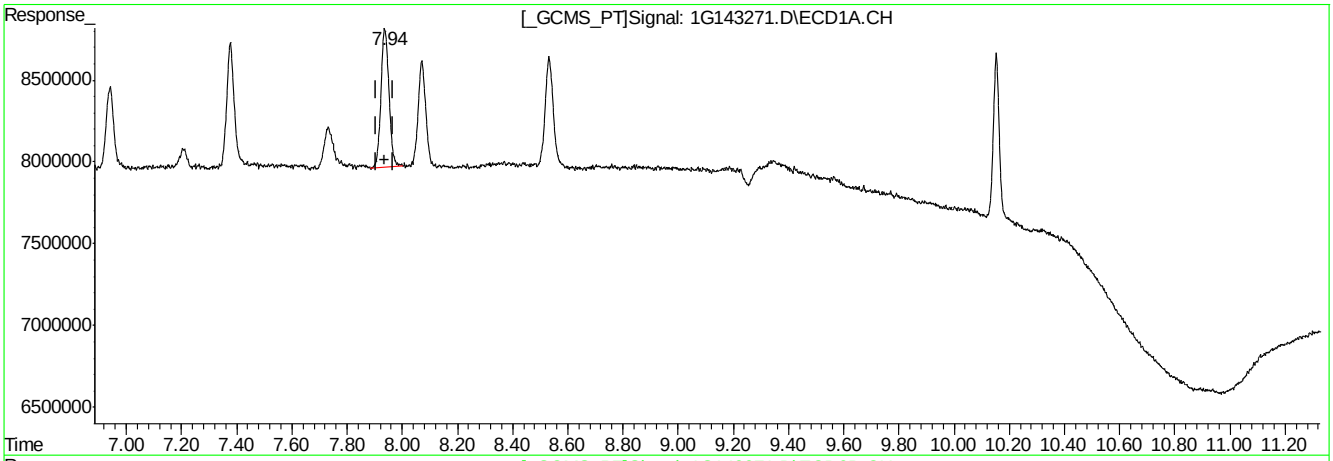
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:57 2018 RPT1

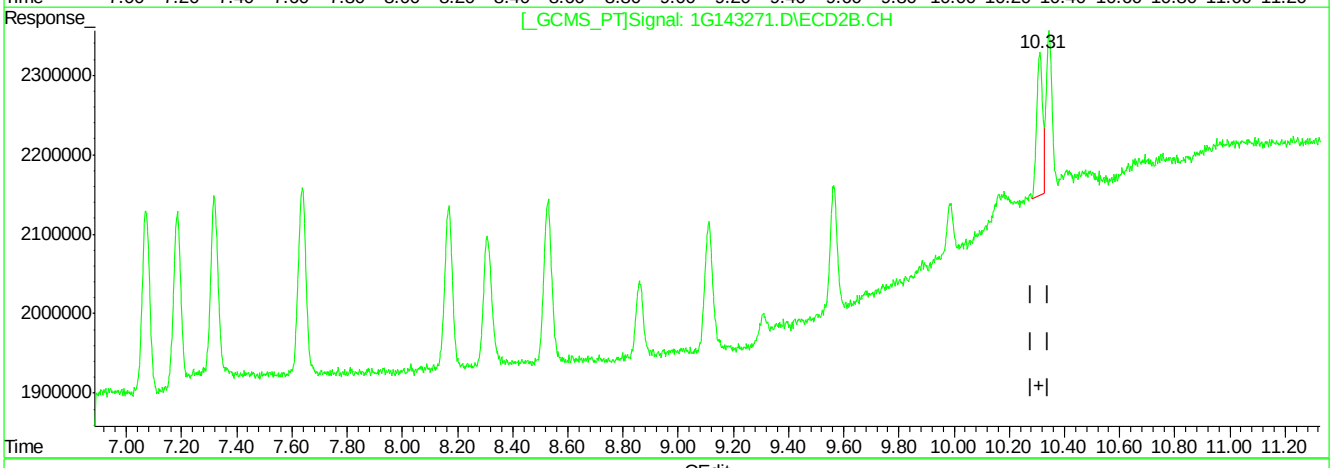
11.6.7.10 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 1.789PPB

response 17042072

(24) Mirex #2

10.31min 1.832PPB m

response 2641300

(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:11:08 2018 RPT1

11.6.7.11

11

1G143271.D edits: Mirex

JC62881

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:22 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	473.2E6	108.0E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.79	3.36	7694499	1941736	0.803m	0.890
		Spiked Amount 40.000	Range 30 - 150		Recovery =		2.01%#	2.23%#
26)	SA	Decachlorobiphen	10.15	12.07	6379042	1408972	0.718	0.856m
		Spiked Amount 40.000			Recovery =		1.80%	2.14%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	11132594	2984733	0.922	0.961
4)	A	alpha-BHC	3.28	4.08	8663679	2485205	0.694	0.836
5)	MA	gamma-BHC	3.59	4.55	8074183	2358989	0.647	0.872
6)	MA	Heptachlor	4.11	5.18	9704142	2159629	0.761	0.841
7)	B	beta-BHC	3.67	4.63	4588398	1115799	0.719m	0.923
8)	B	delta-BHC	3.87	5.07	7289625	2208607	0.780	0.914
9)	MB	Aldrin	4.47	5.67	8339021	2205679	0.740	0.835
10)		Alachlor	4.59	5.43	1745562	388410	1.055m	1.145m
11)	B	Heptachlor Epoxi	5.20	6.54	11063828	2124204	1.032	0.875m
12)	B	gamma-Chlordane	5.38	6.84	4486288	2096080	0.532	0.879
13)	B	alpha-Chlordane	5.55	7.07	8830583	2254046	0.813	0.976
14)	A	Endosulfan I	5.74	7.18	8910907	2058174	0.851	0.924
15)	B	4,4'-DDE	5.65	7.32	9178558	2424710	0.978	1.051
16)	MA	Dieldrin	6.07	7.64	7925481	2259755	0.733	0.894
17)	MA	Endrin	6.41	8.17	7311800	1914825	0.744	0.863
18)	A	4,4'-DDD	6.51	8.31	4508680	1747162	0.572	0.930
19)	B	Endosulfan II	6.74	8.53	7367442	2131096	0.744m	0.975
20)	MA	4,4'-DDT	6.94	8.86	4683571	794757	0.706m	0.588m
21)	B	Endrin Aldehyde	7.38	9.11	6088610	1643290	0.729	0.953
22)	B	Endosulfan Sulfa	8.07	9.56	5441846	1180375	0.646	0.704
23)	A	Methoxychlor	7.73	9.98	2253265	421861	0.500m	0.584
24)		Mirex	7.94	10.31	8021433	1235561	0.833	0.858m
25)	B	Endrin Ketone	8.53	10.35	5708723	1311496	0.655	0.690m

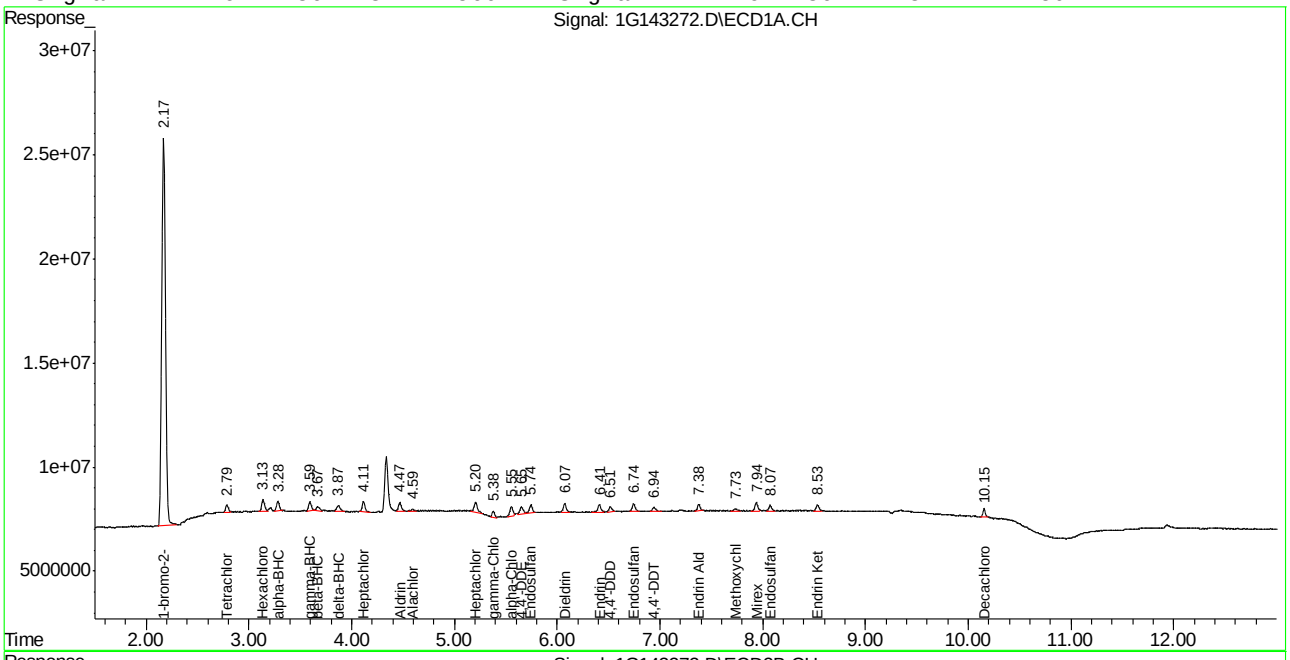
(f)=RT Delta > 1/2 Window (m)=manual int.

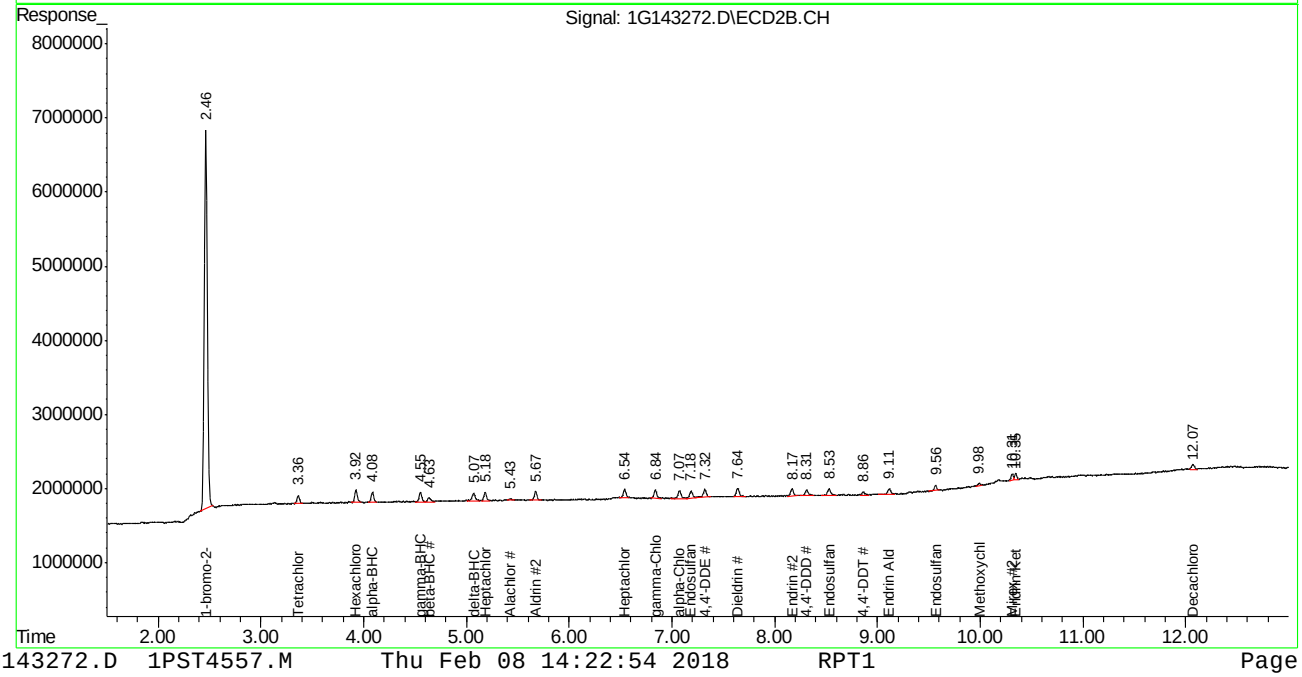
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:22 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integration Approval Summary

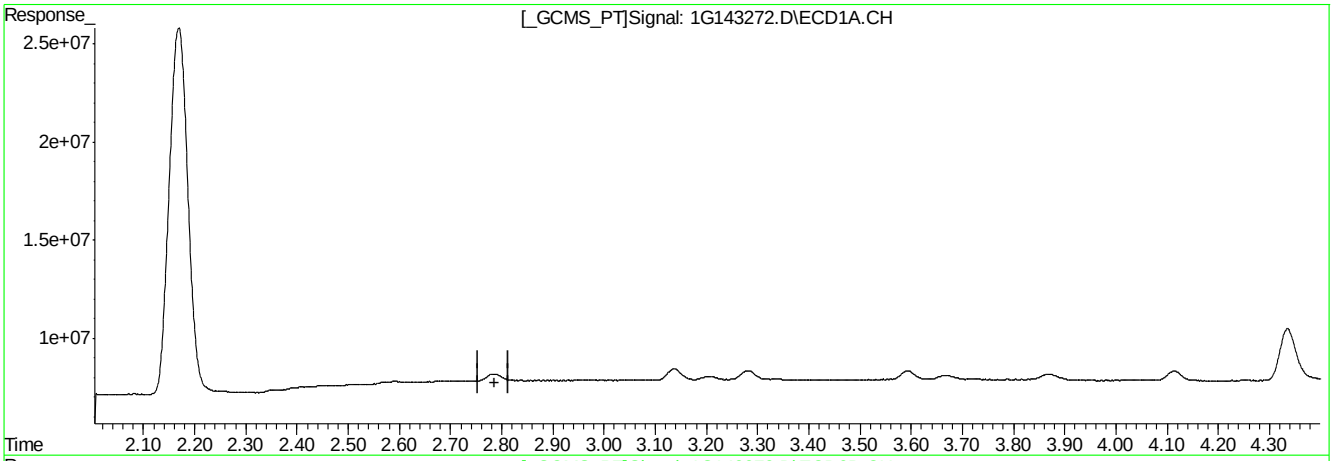
Sample Number: G1G4557-IC4557
Lab FileID: 1G143272.D
Injection Time: 02/08/18 11:54
Method: SW846 8081B
Analyst approved: 02/08/18 14:23 Kristen Drake
Supervisor approved: 02/09/18 10:15 Gwendolyn Burns

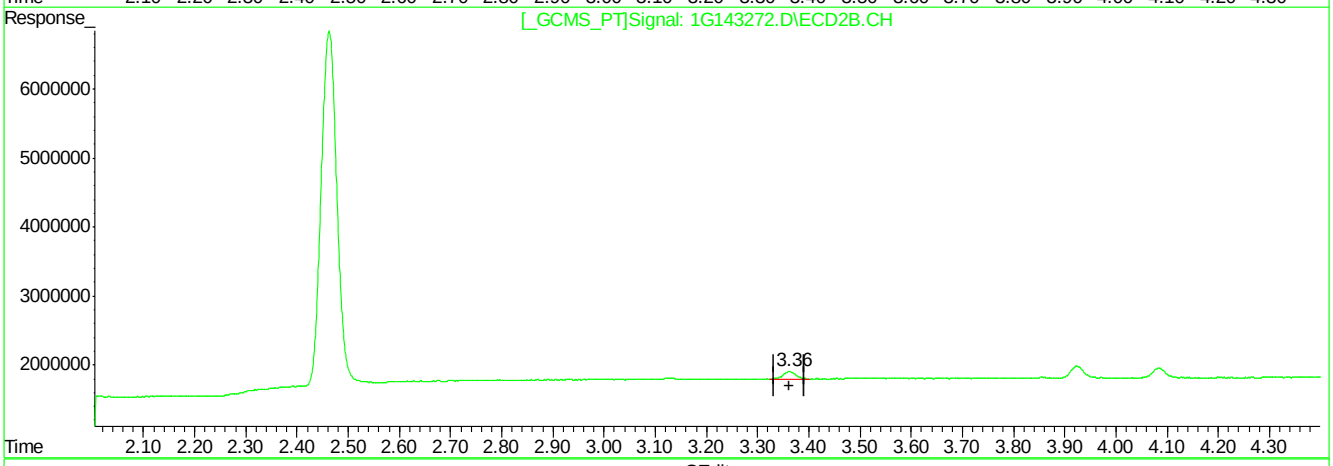
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.79	Poorly defined baseline
beta-BHC	319-85-7	1	3.67	Poorly defined baseline
Alachlor	15972-60-8	1	4.59	Poorly defined baseline
Alachlor	15972-60-8	2	5.43	Poorly defined baseline
Heptachlor epoxide	1024-57-3	2	6.54	Poorly defined baseline
Endosulfan-II	33213-65-9	1	6.74	Poorly defined baseline
4,4'-DDT	50-29-3	1	6.94	Poorly defined baseline
Methoxychlor	72-43-5	1	7.73	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.86	Poorly defined baseline
Mirex	2385-85-5	2	10.31	Poorly defined baseline
Endrin ketone	53494-70-5	2	10.35	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	12.07	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

0.00min 0.000PPB

response 0

(2) Tetrachloro-m-xylene #2 (SAB)

3.36min 0.890PPB

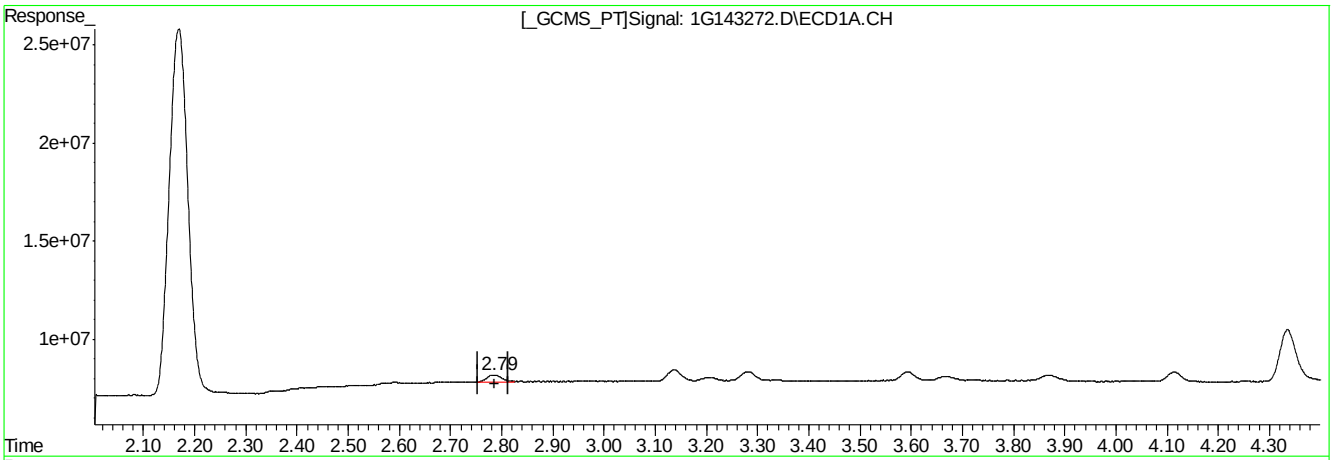
response 1941736

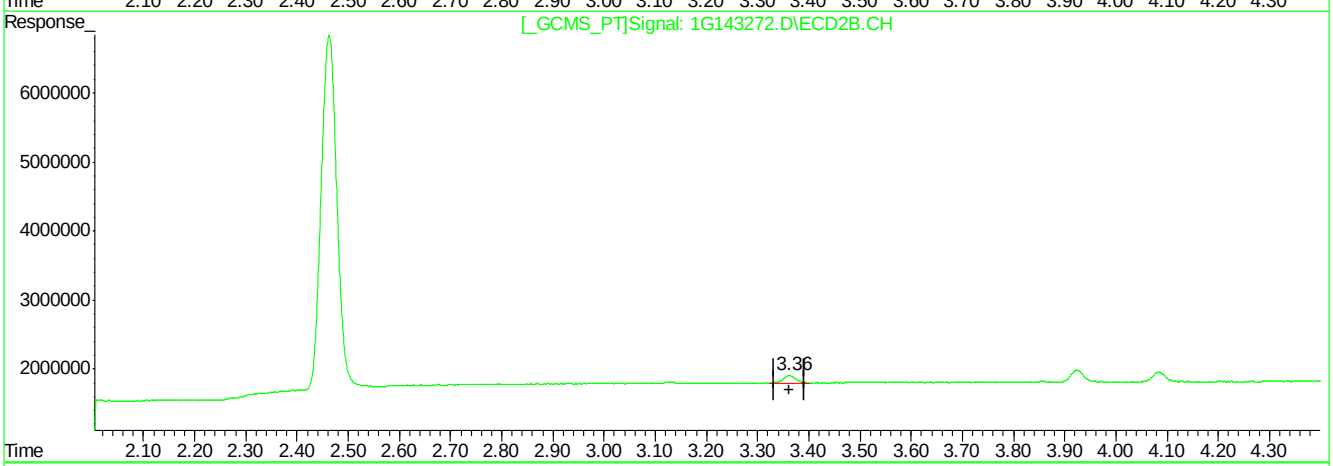
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:12:27 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

2.79min 0.803PPB m

response 7694499

(2) Tetrachloro-m-xylene #2 (SAB)

3.36min 0.890PPB

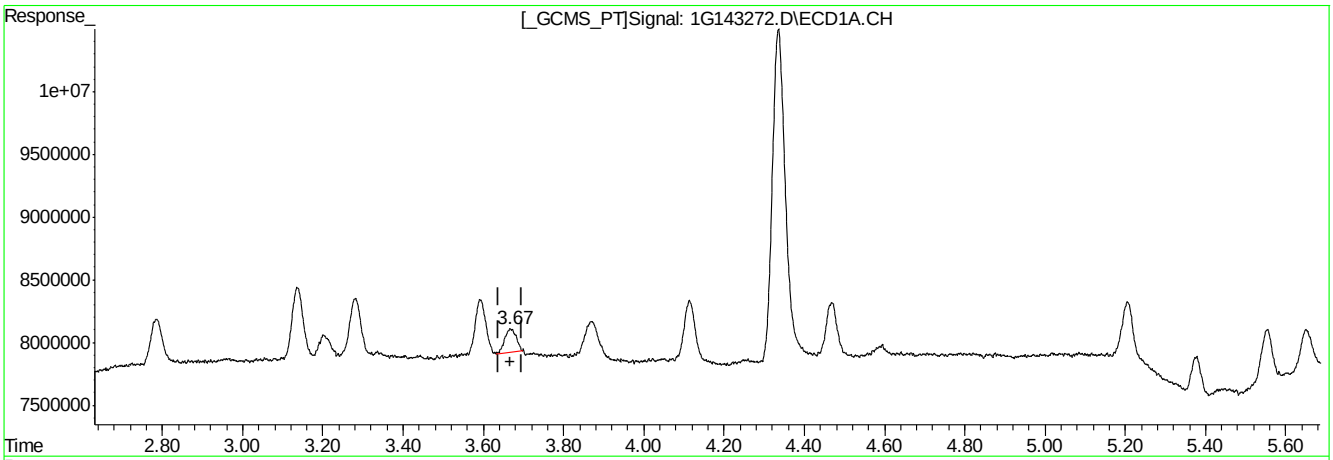
response 1941736

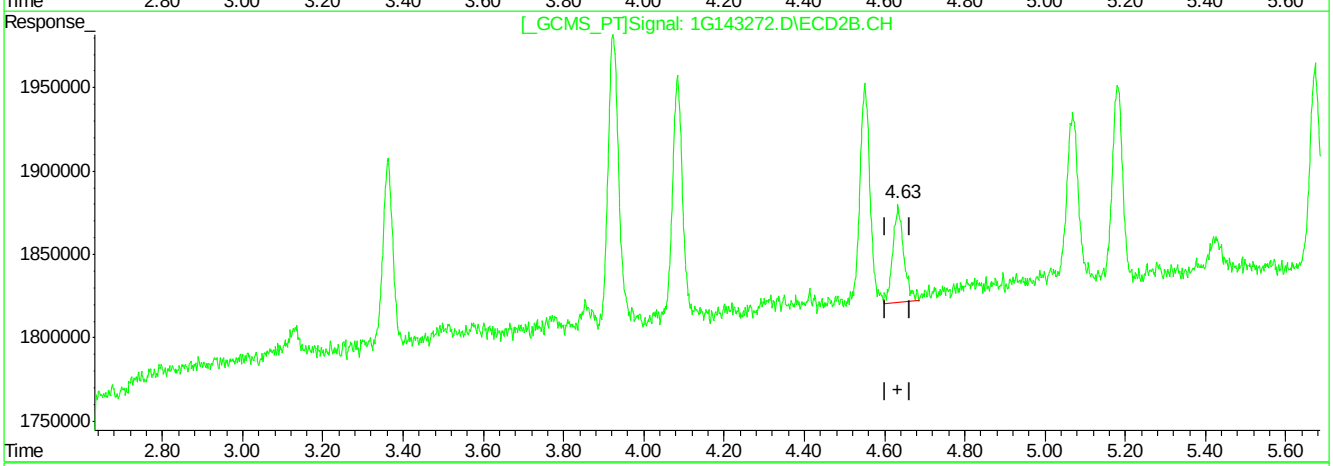
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:12:33 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(7) beta-BHC (B)

3.67min 0.579PPB

response 3695320

(7) beta-BHC #2 (B)

4.63min 0.923PPB

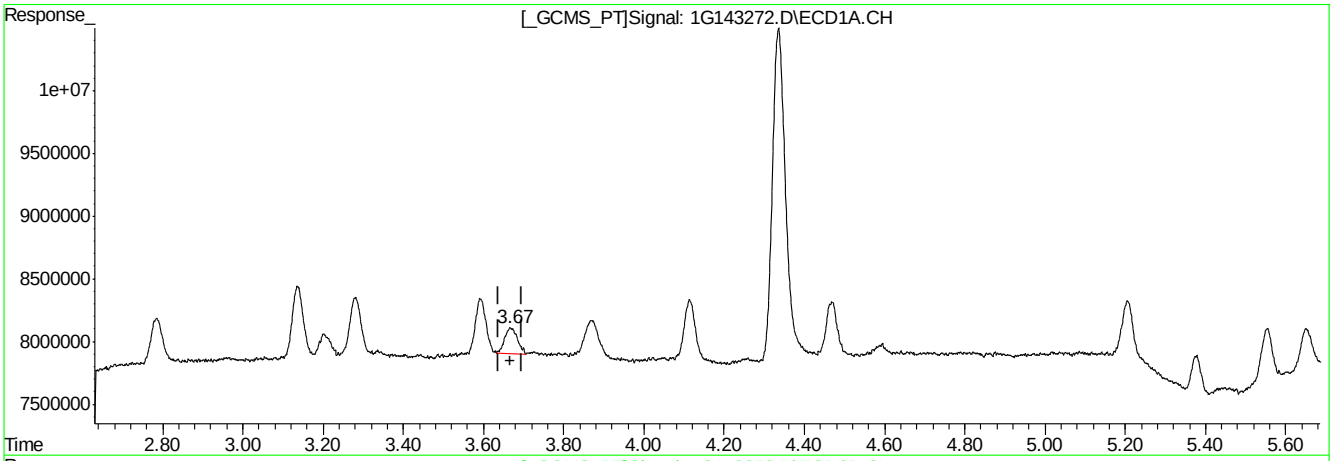
response 1115799

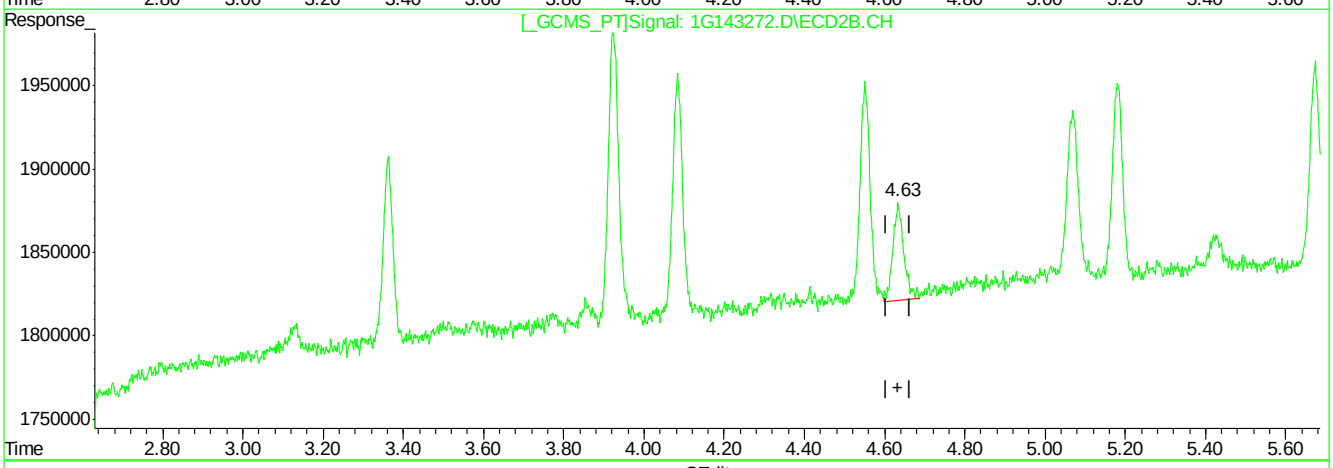
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:12:39 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(7) beta-BHC (B)

3.67min 0.719PPB m

response 4588398

(7) beta-BHC #2 (B)

4.63min 0.923PPB

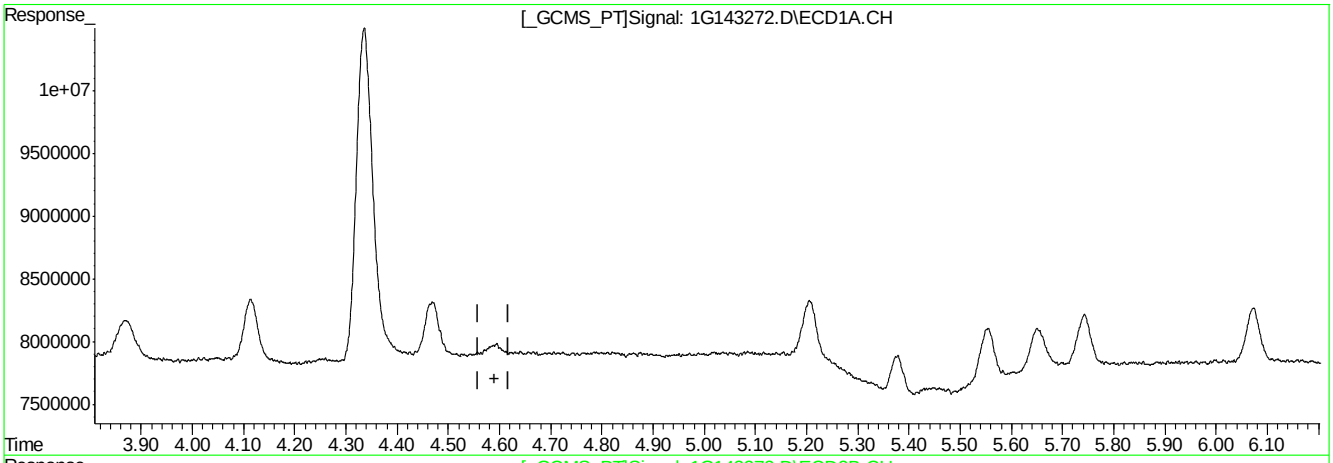
response 1115799

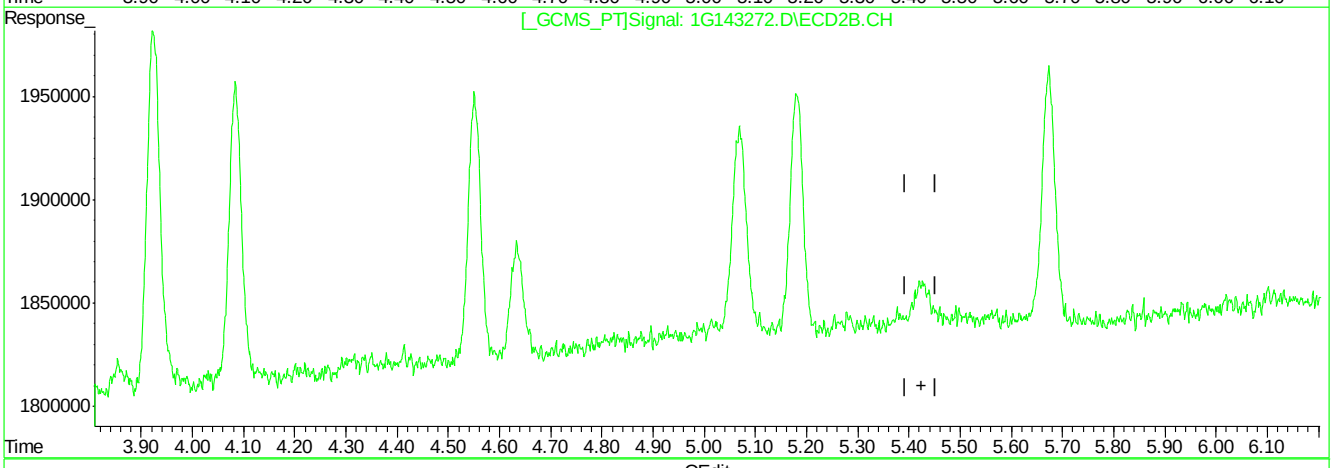
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:01 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

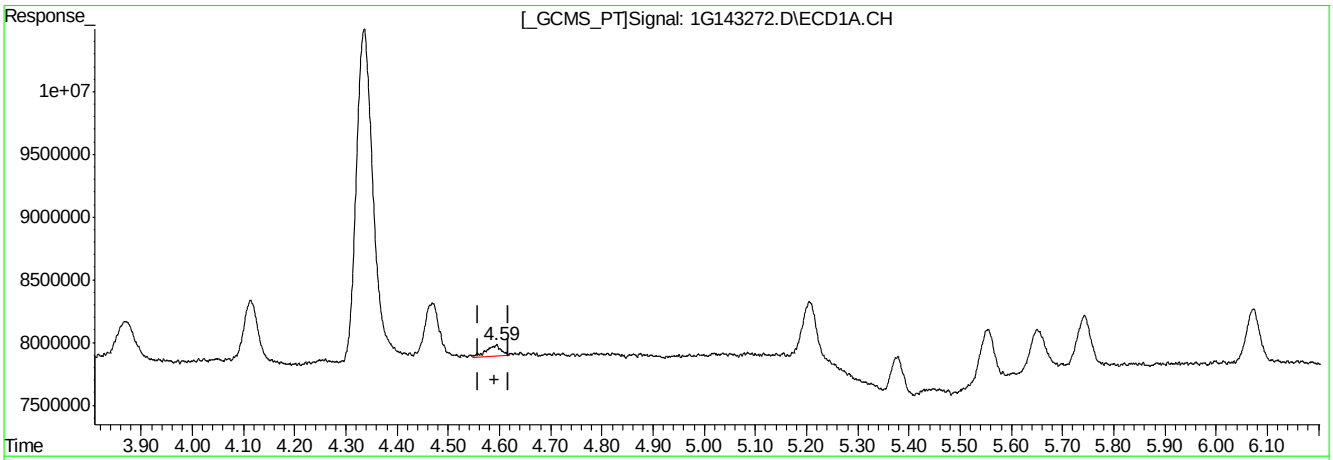
response 0

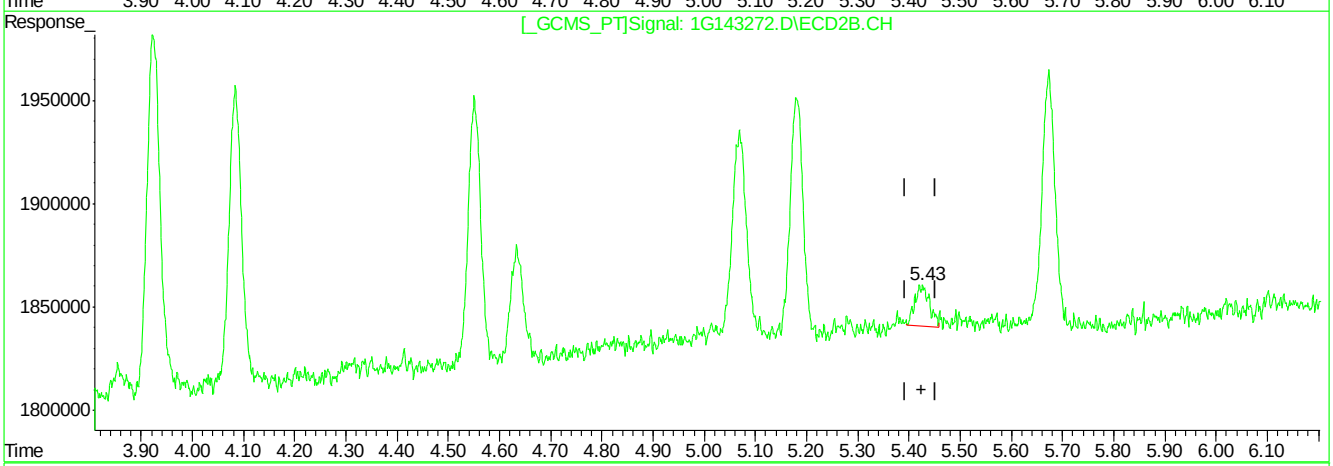
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:05 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.59min 1.055PPB m

response 1745562

(10) Alachlor #2

5.43min 1.145PPB m

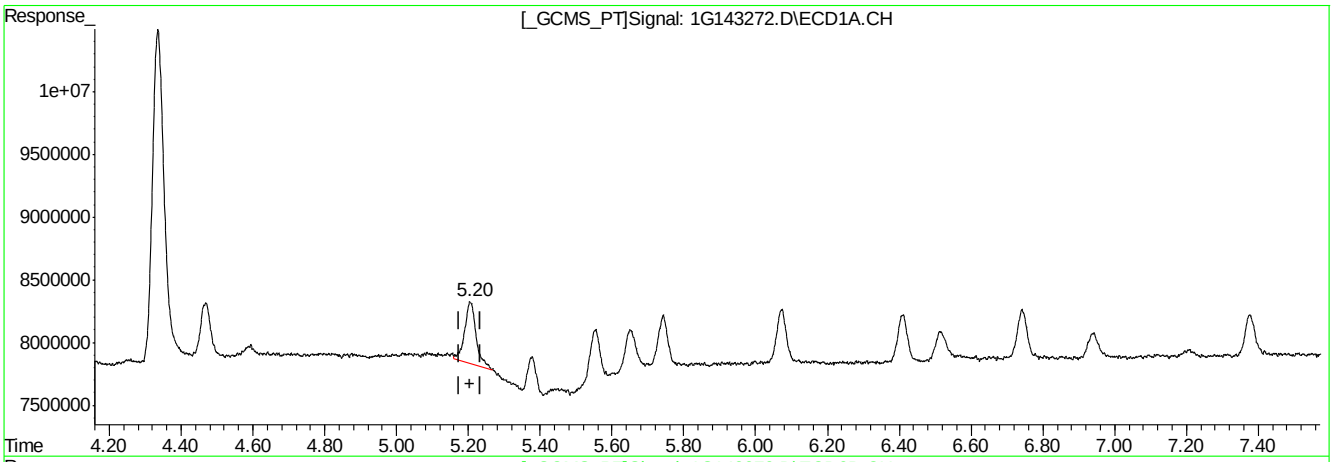
response 388410

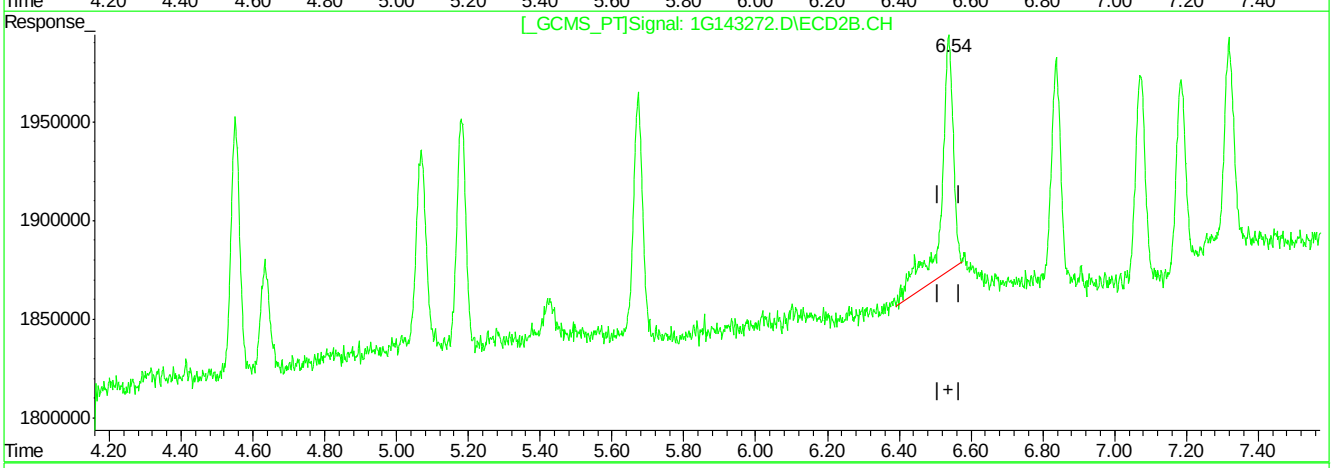
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:18 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 1.032PPB

response 11063828

(11) Heptachlor Epoxide #2 (B)

6.54min 1.173PPB

response 2848320

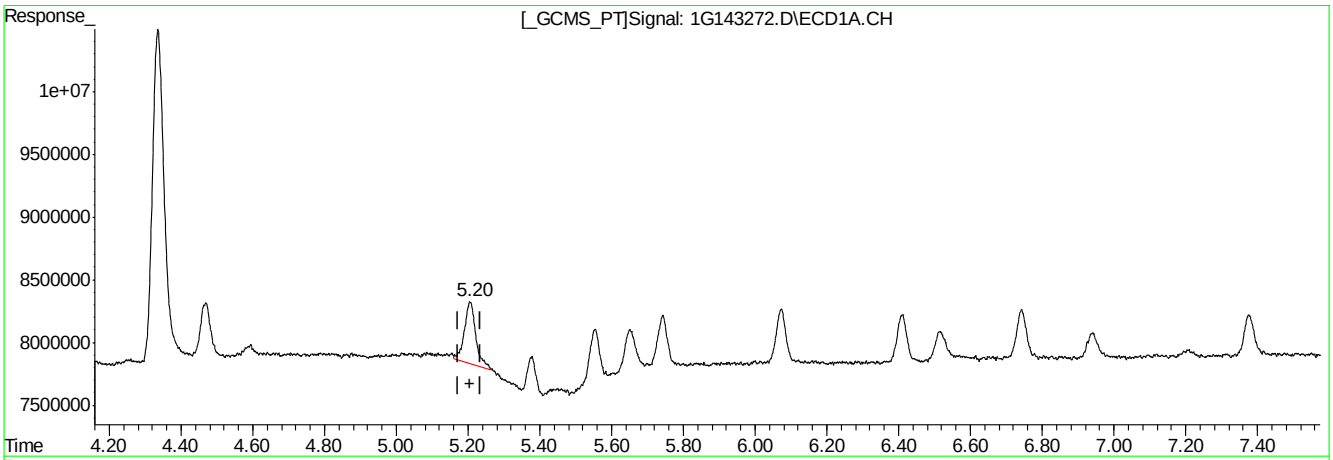
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:21 2018 RPT1

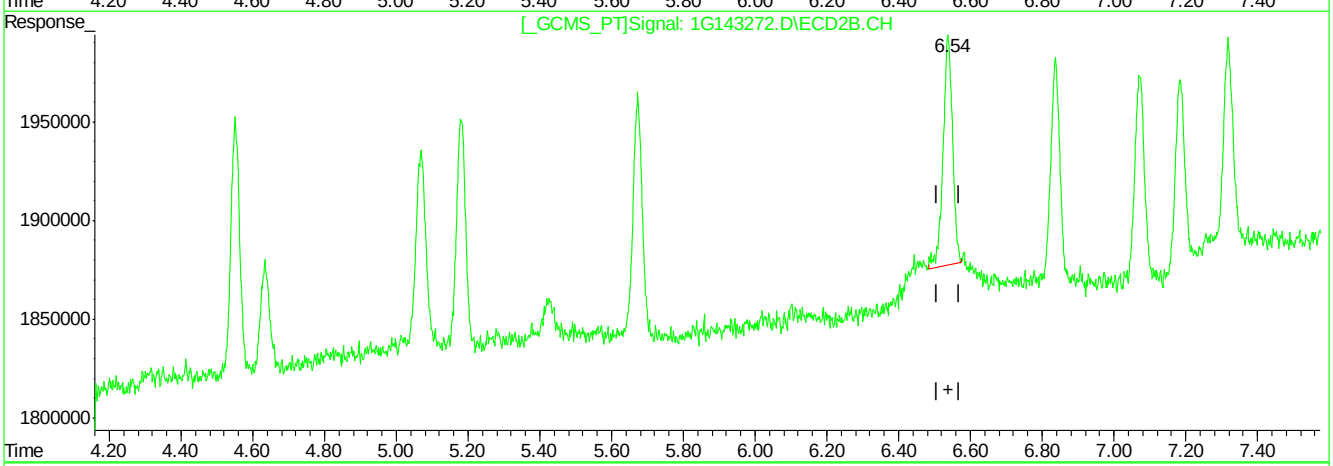
11.6.8.8 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 1.032PPB

response 11063828

(11) Heptachlor Epoxide #2 (B)

6.54min 0.875PPB m

response 2124204

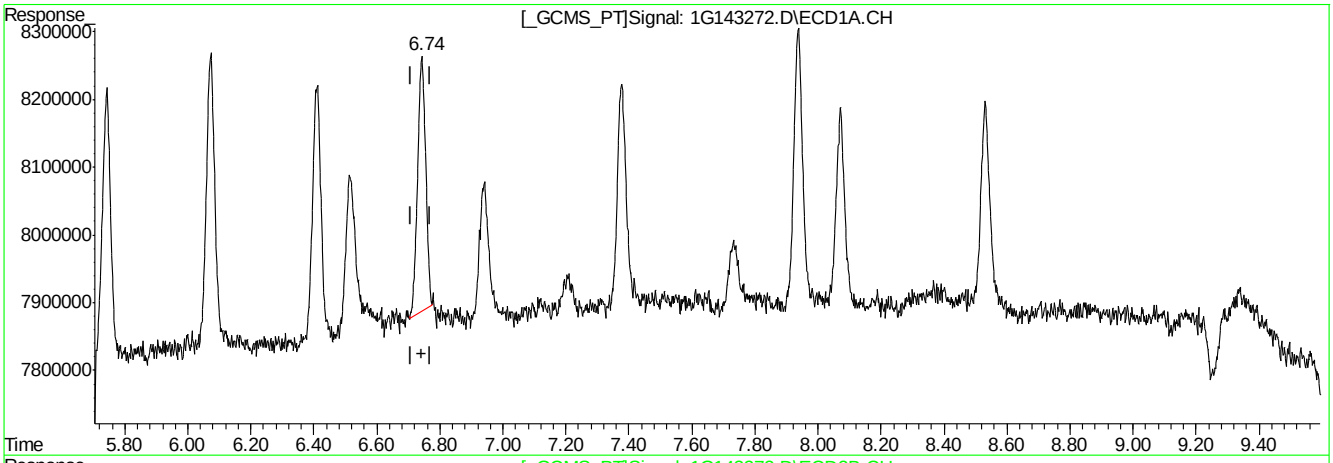
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:38 2018 RPT1

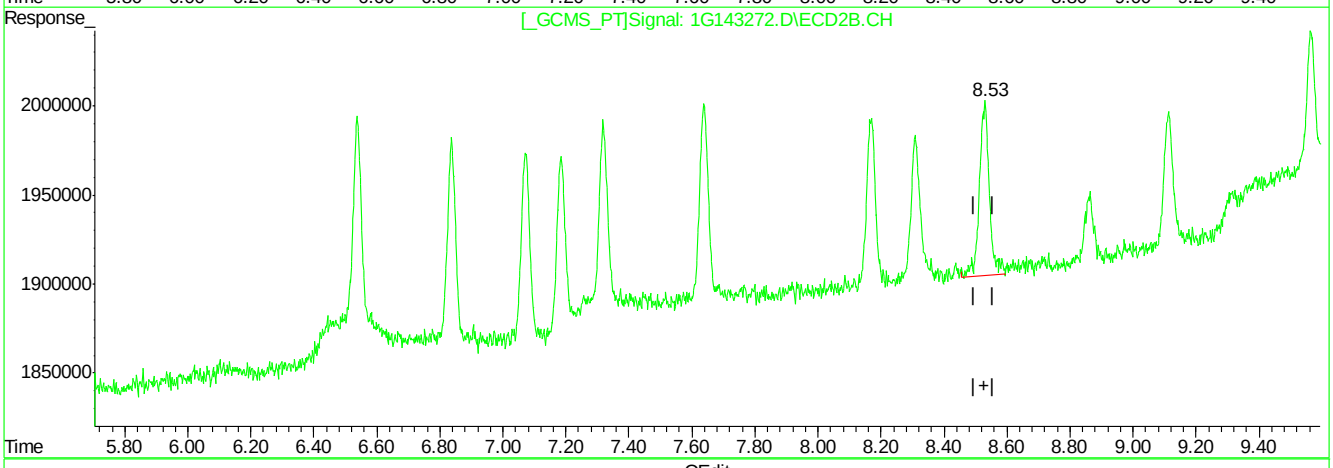
11.6.8.9 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(19) Endosulfan II (B)

6.74min 0.676PPB

response 6692916

(19) Endosulfan II #2 (B)

8.53min 0.975PPB

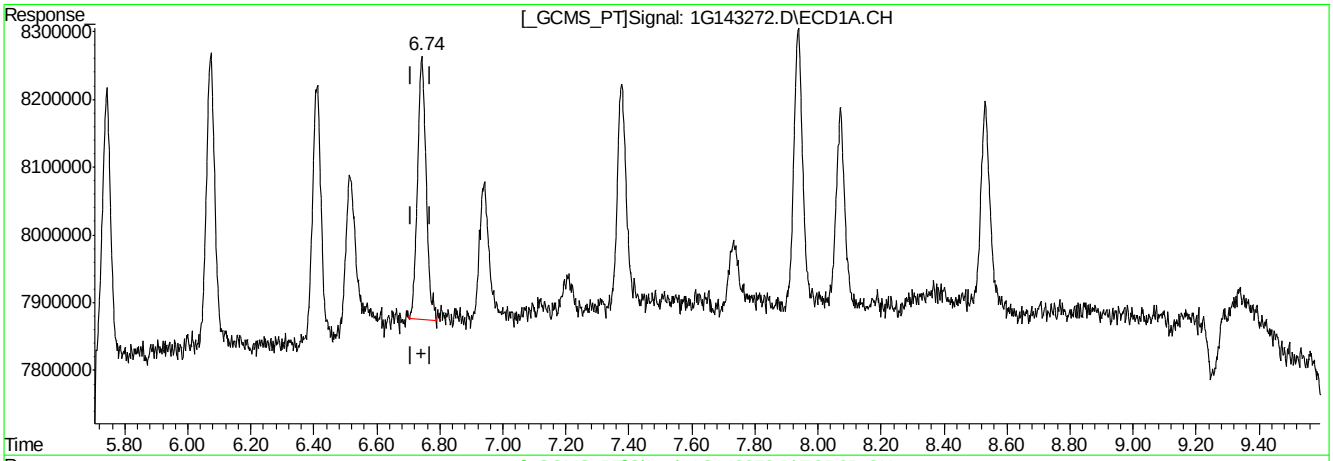
response 2131096

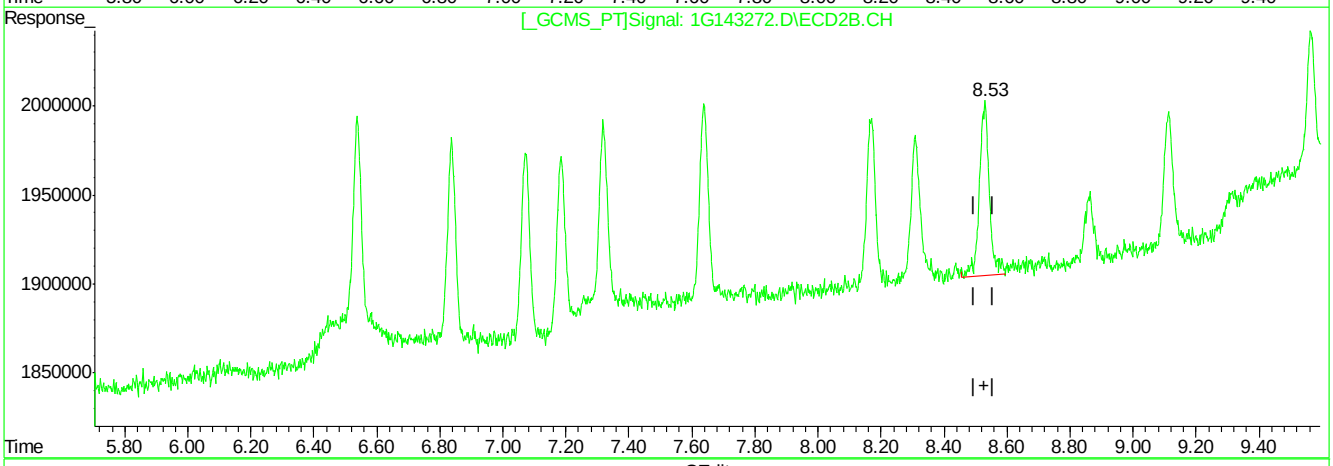
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:56 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(19) Endosulfan II (B)

6.74min 0.744PPB m

response 7367442

(19) Endosulfan II #2 (B)

8.53min 0.975PPB

response 2131096

(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:14:02 2018 RPT1

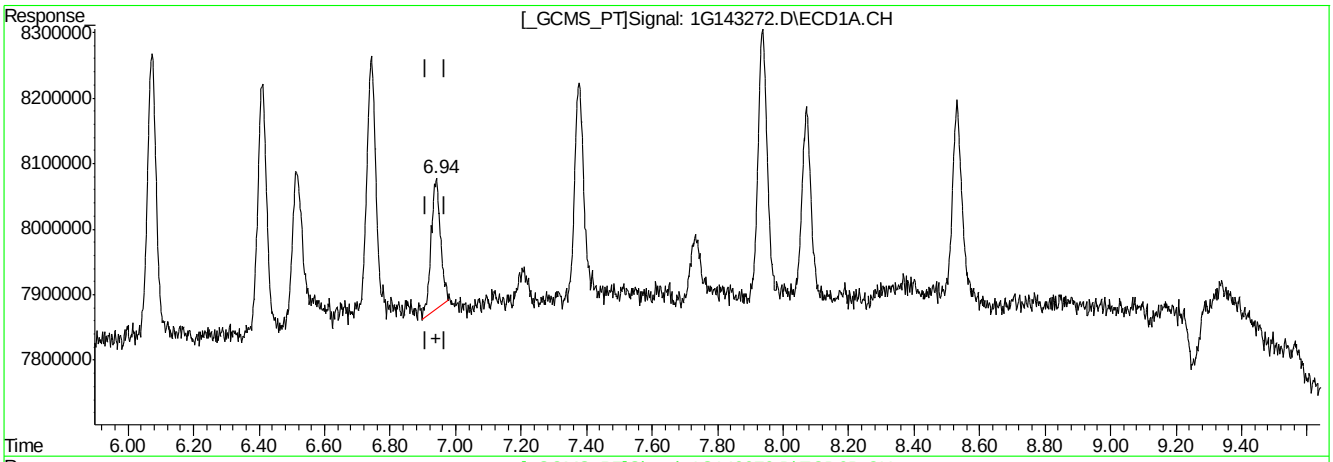
11.6.8.11

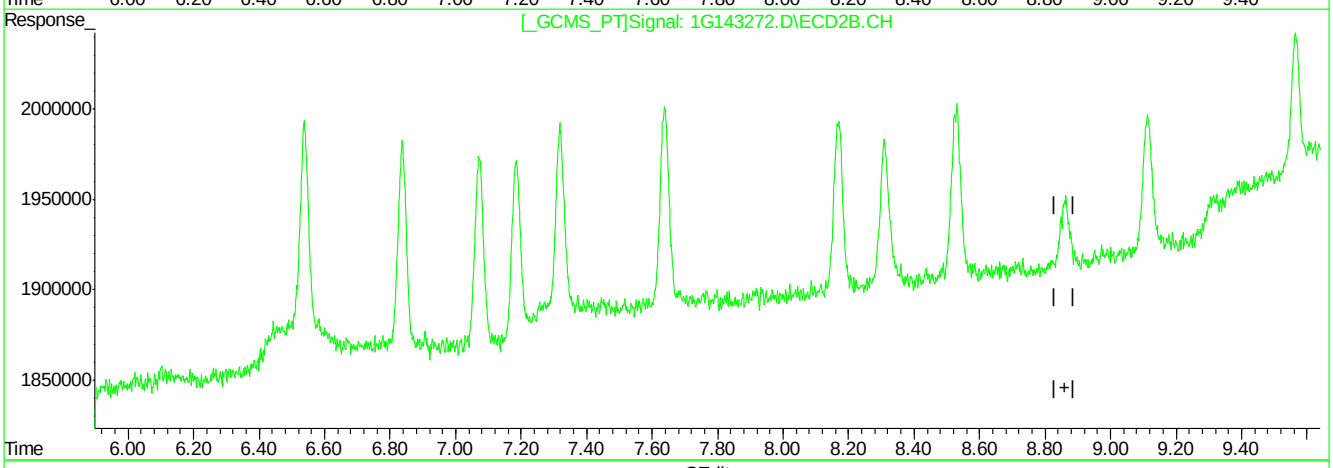
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.94min 0.598PPB

response 3968144

(20) 4,4'-DDT #2 (MA)

0.00min 0.000PPB

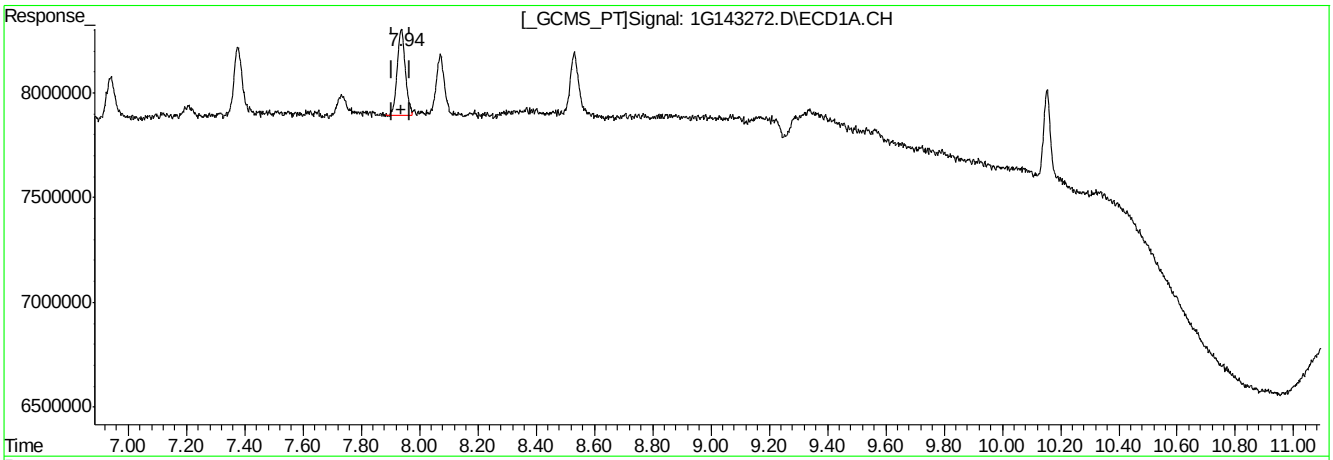
response 0

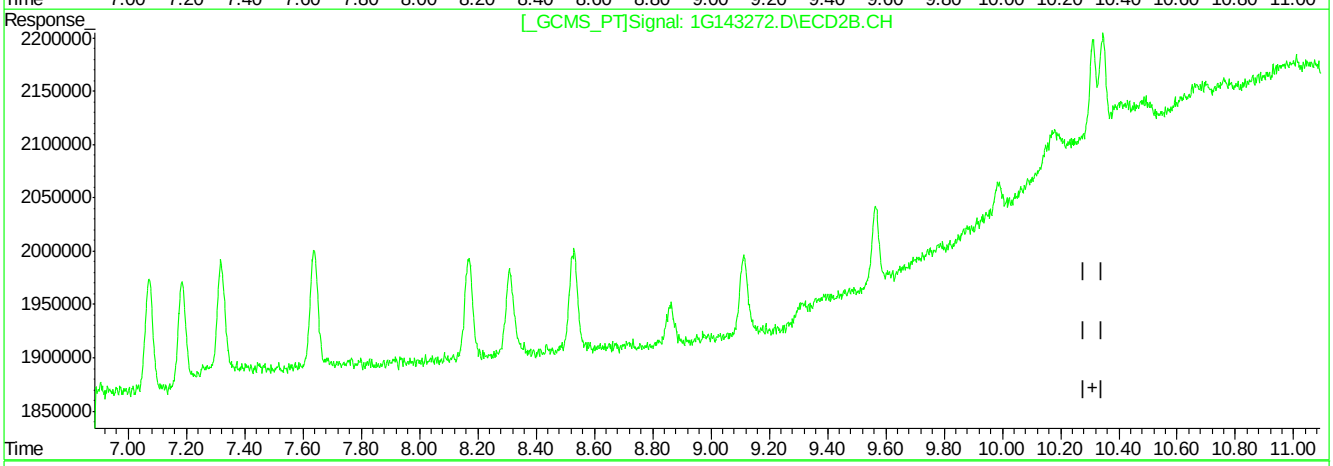
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:14:04 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 0.833PPB

response 8021433

(24) Mirex #2

0.00min 0.000PPB

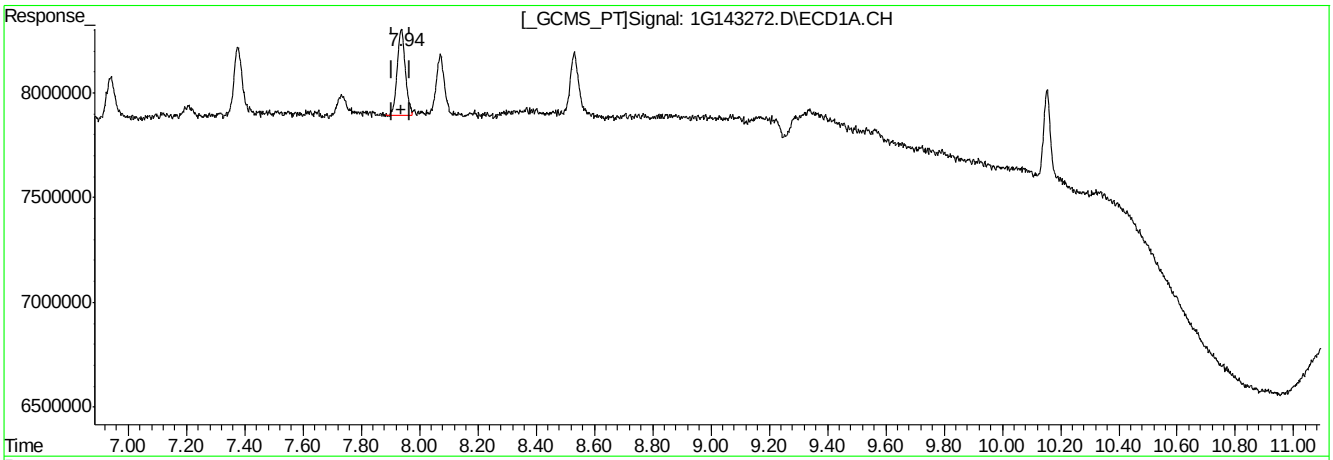
response 0

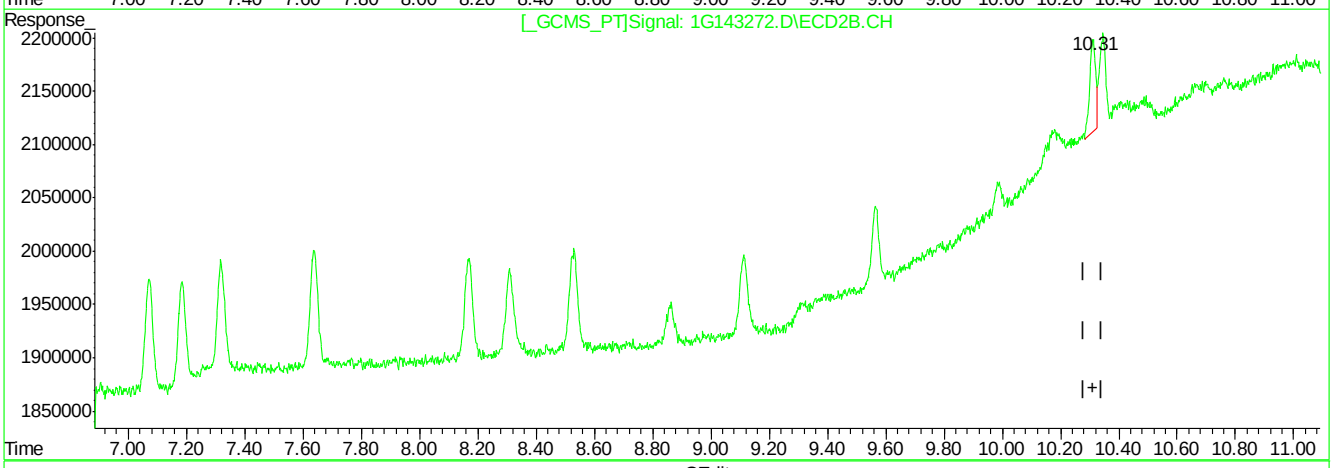
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:14:35 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 0.833PPB

response 8021433

(24) Mirex #2

10.31min 0.858PPB m

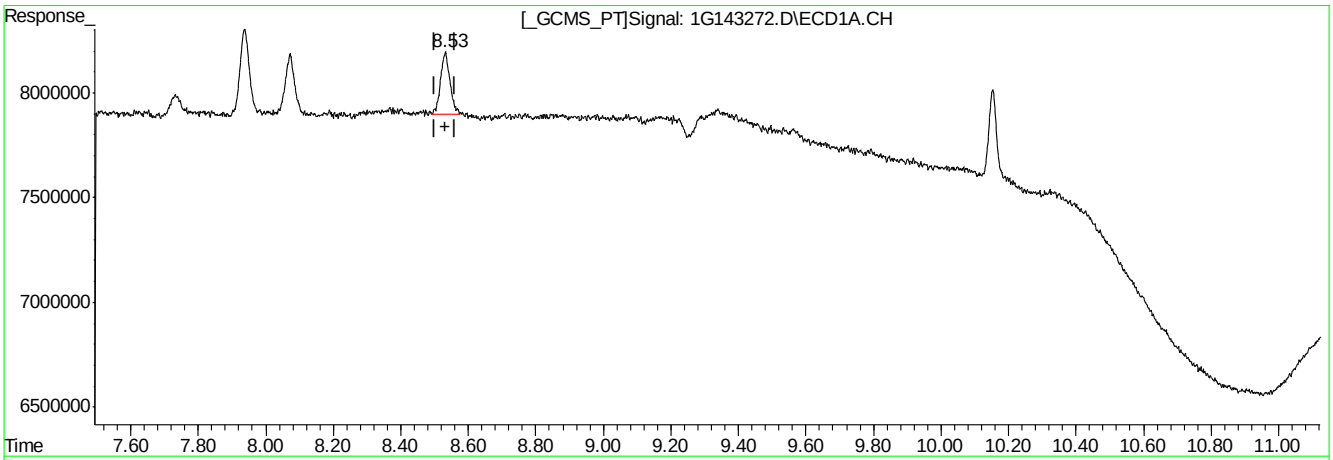
response 1235561

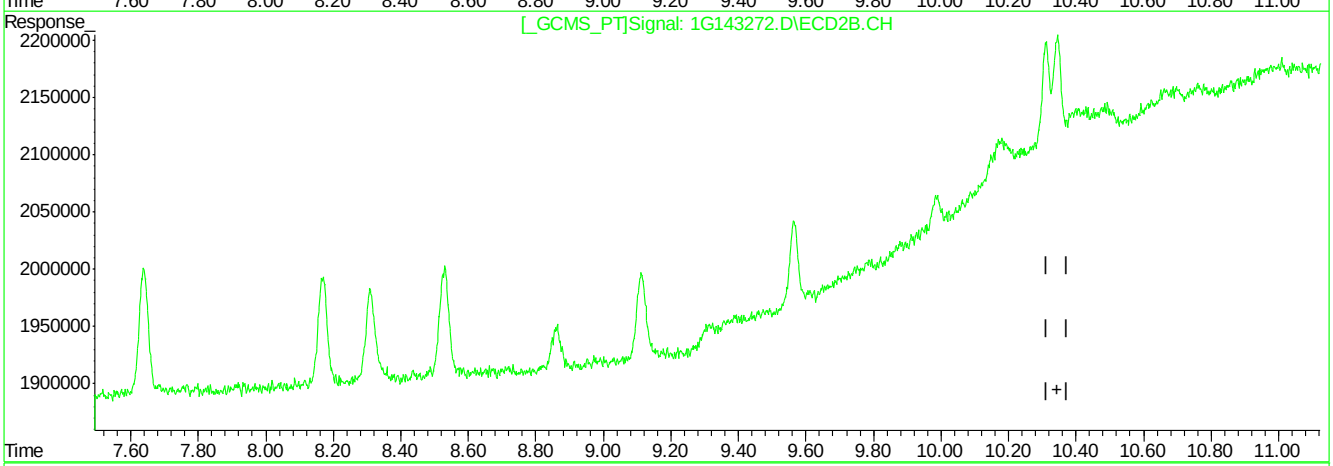
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:14:59 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

8.53min 0.655PPB

response 5708723

(25) Endrin Ketone #2 (B)

0.00min 0.000PPB

response 0

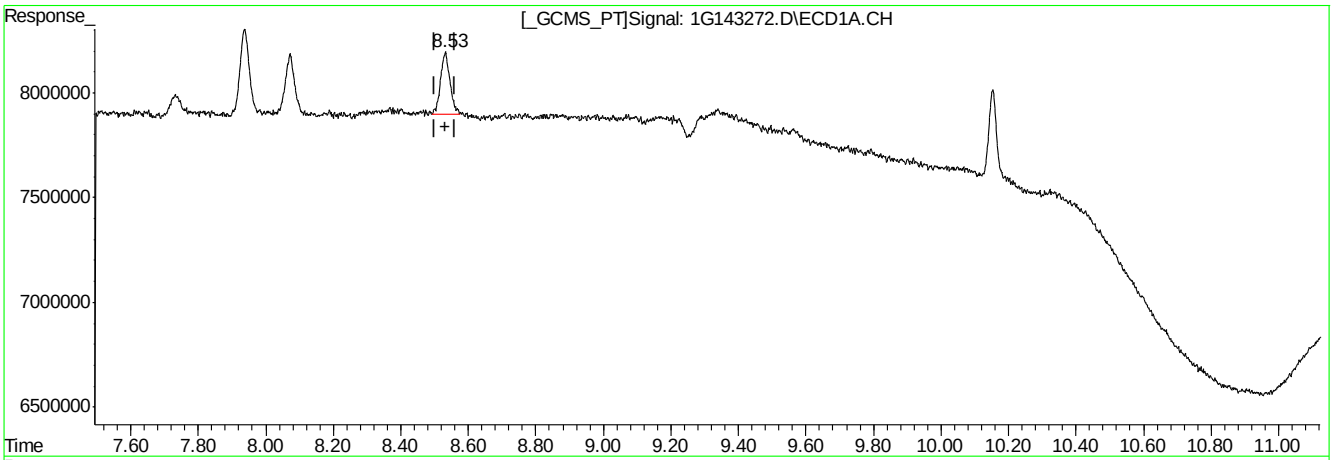
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:15:01 2018 RPT1

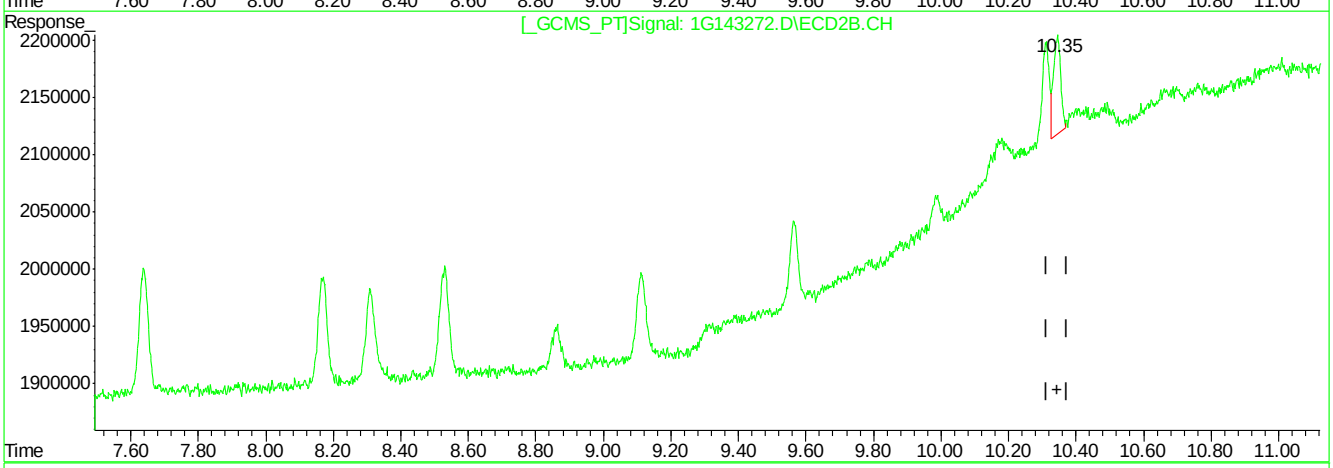
11.6.8.15 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

8.53min 0.655PPB

response 5708723

(25) Endrin Ketone #2 (B)

10.35min 0.690PPB m

response 1311496

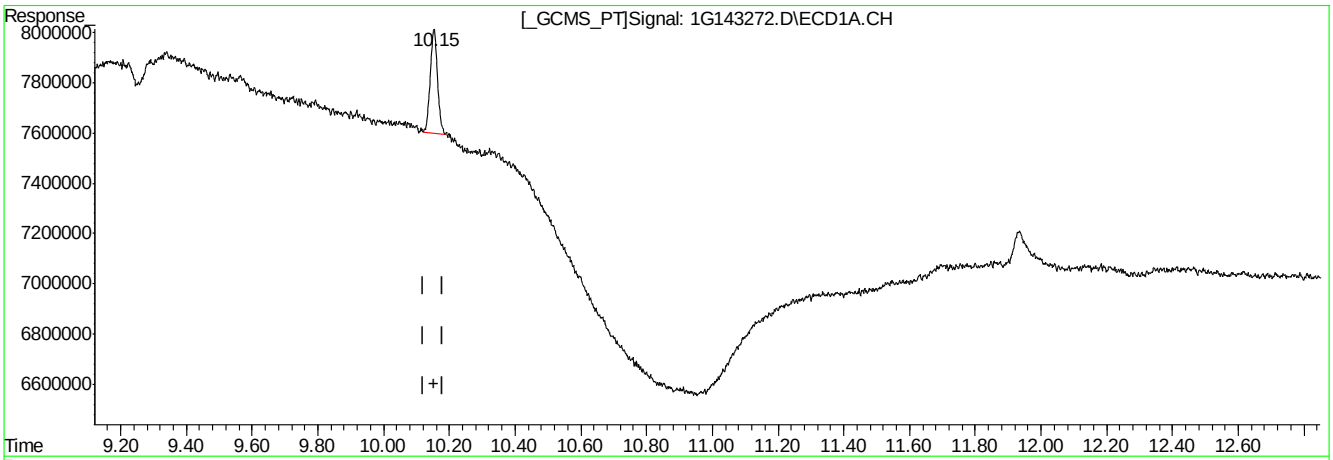
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:15:14 2018 RPT1

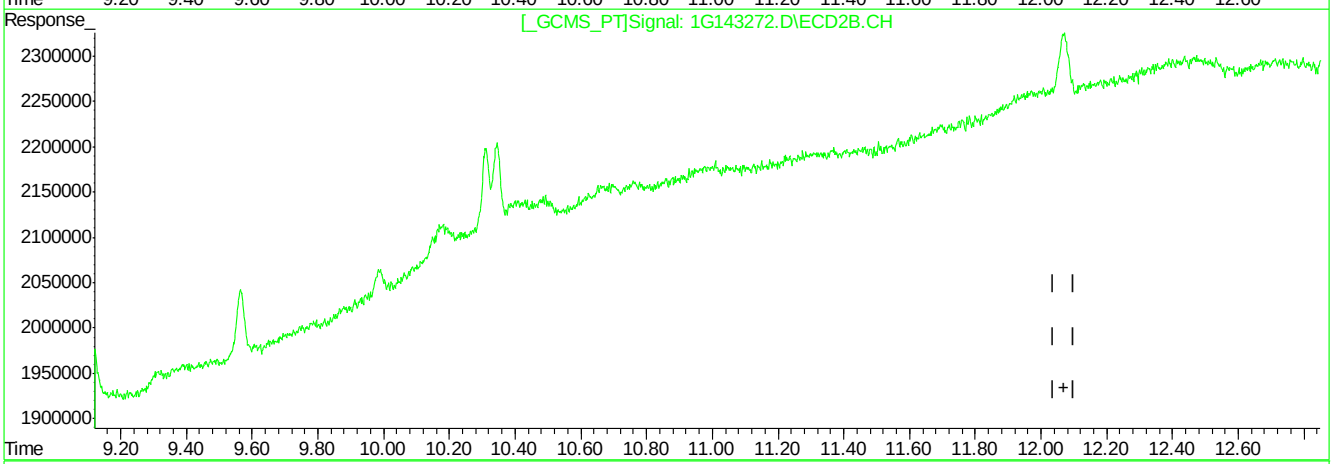
11.6.8.16 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.15min 0.718PPB

response 6379042

(26) Decachlorobiphenyl #2 (SA)

0.00min 0.000PPB

response 0

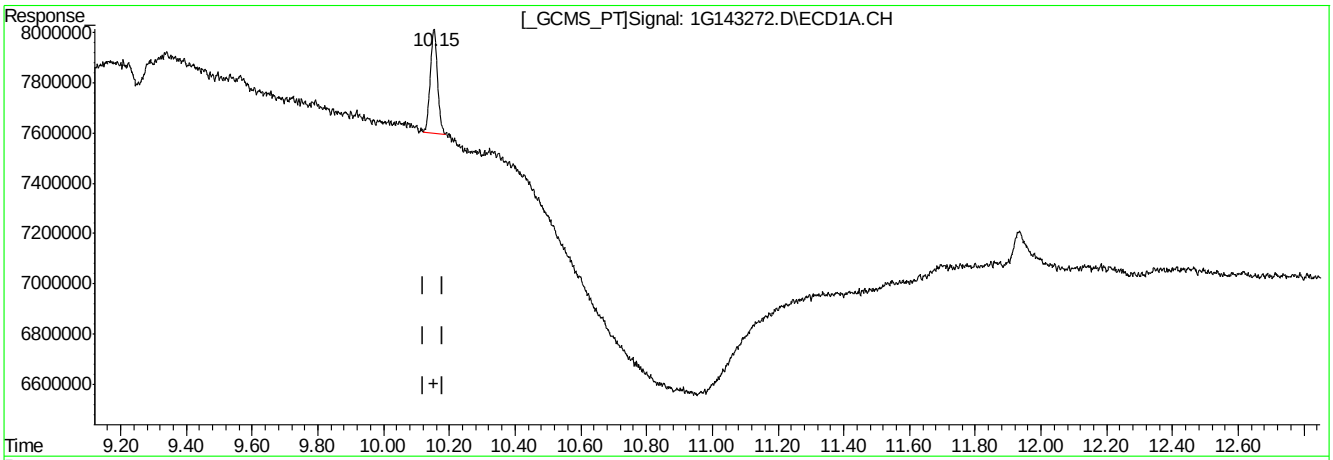
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:15:17 2018 RPT1

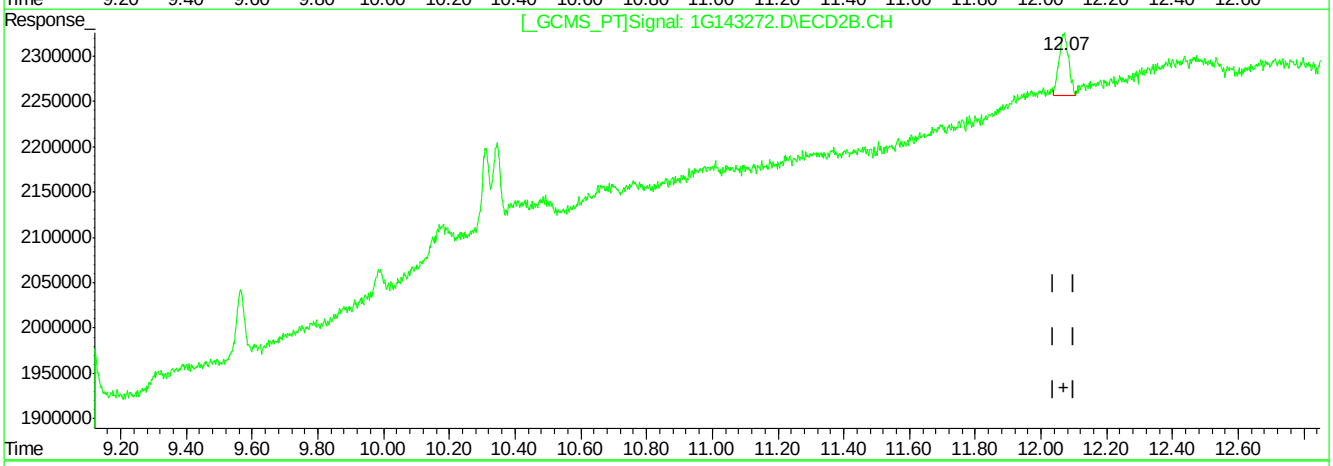
11.6.8.17 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.15min 0.718PPB

response 6379042

(26) Decachlorobiphenyl #2 (SA)

12.07min 0.856PPB m

response 1408972

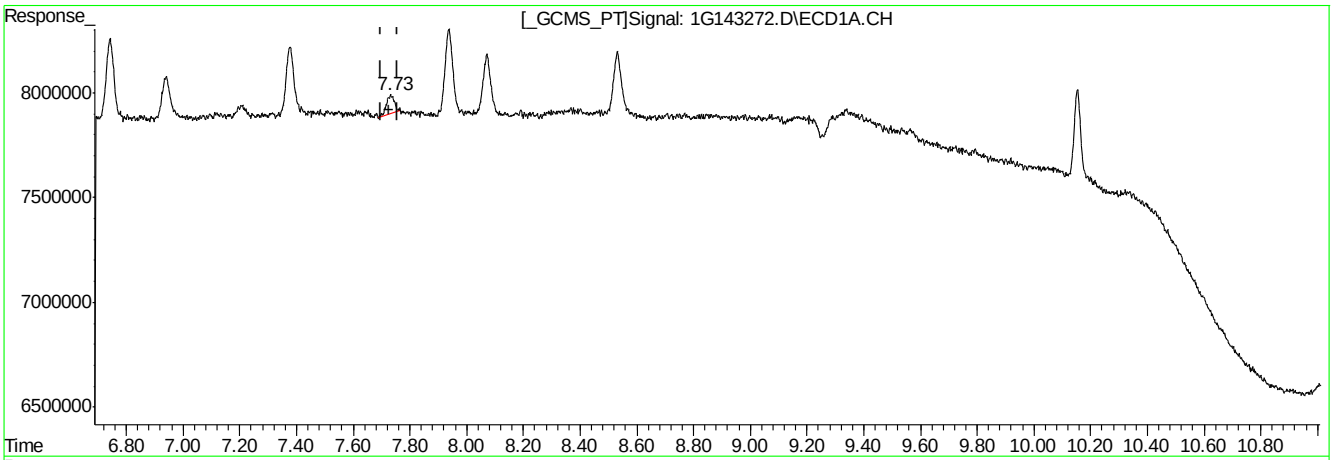
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:15:23 2018 RPT1

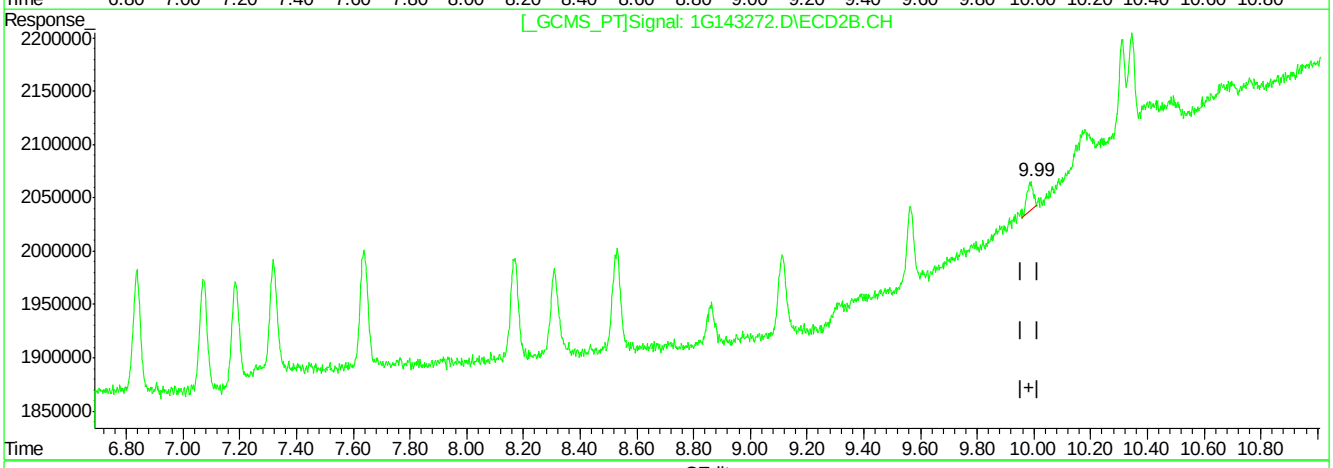
11.6.8.18 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:20:07 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 0.368PPB

response 1658560

(23) Methoxychlor #2 (A)

9.98min 0.584PPB

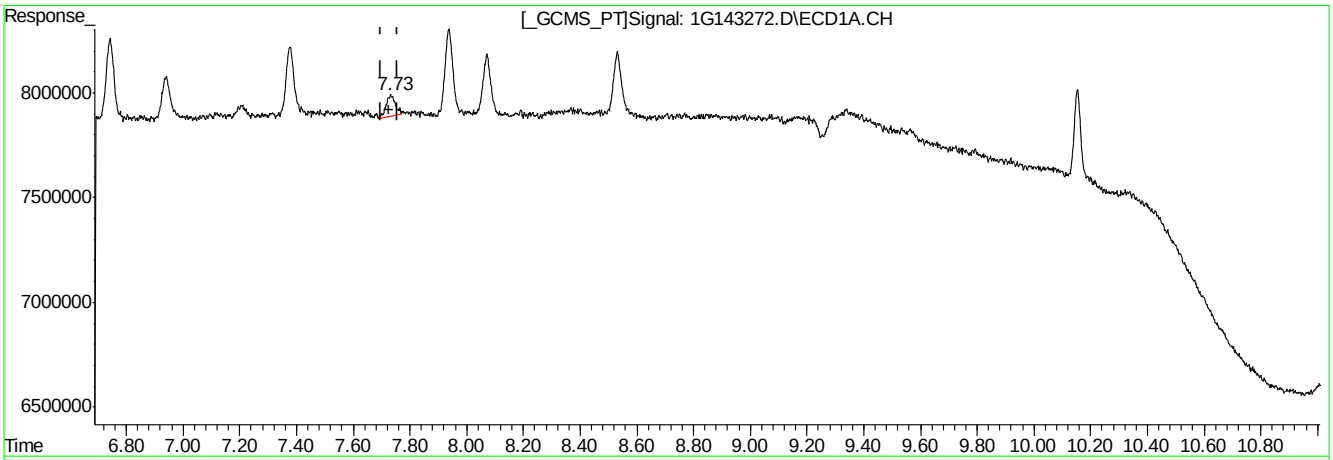
response 421861

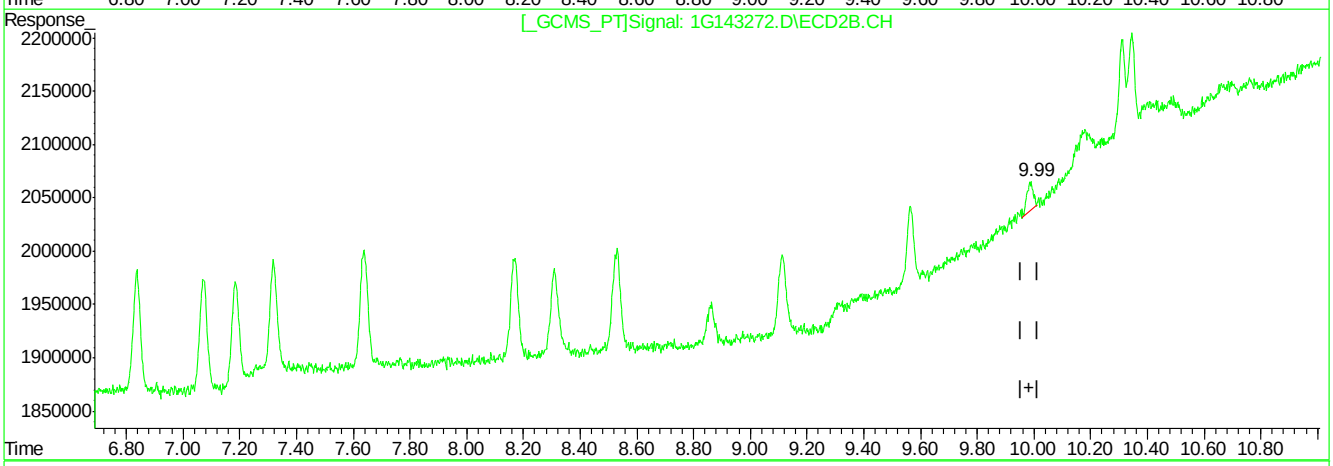
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 14:20:46 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:20:07 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 0.500PPB m

response 2253265

(23) Methoxychlor #2 (A)

9.98min 0.584PPB

response 421861

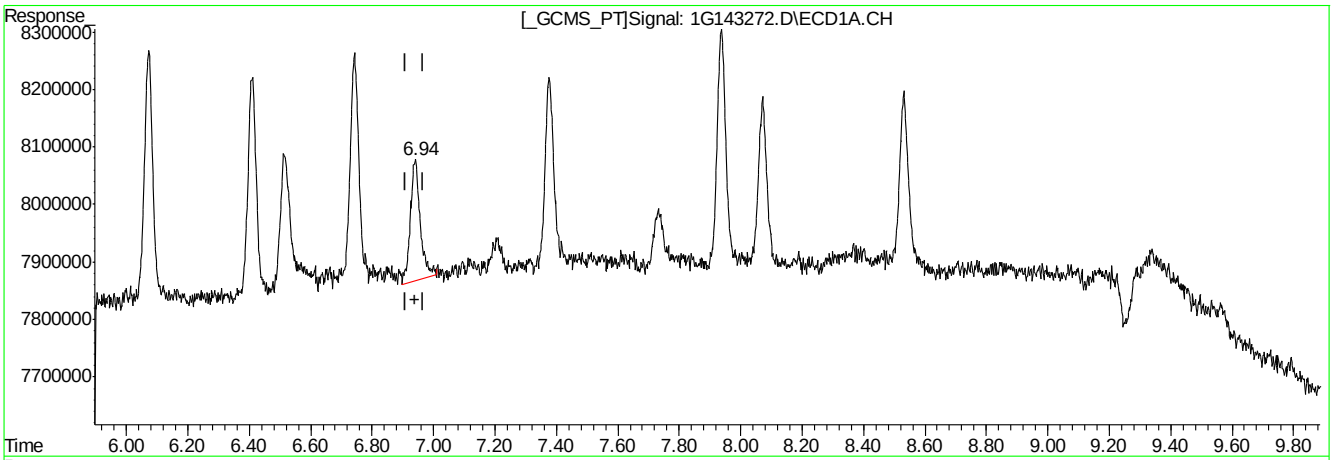
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 14:20:57 2018 RPT1

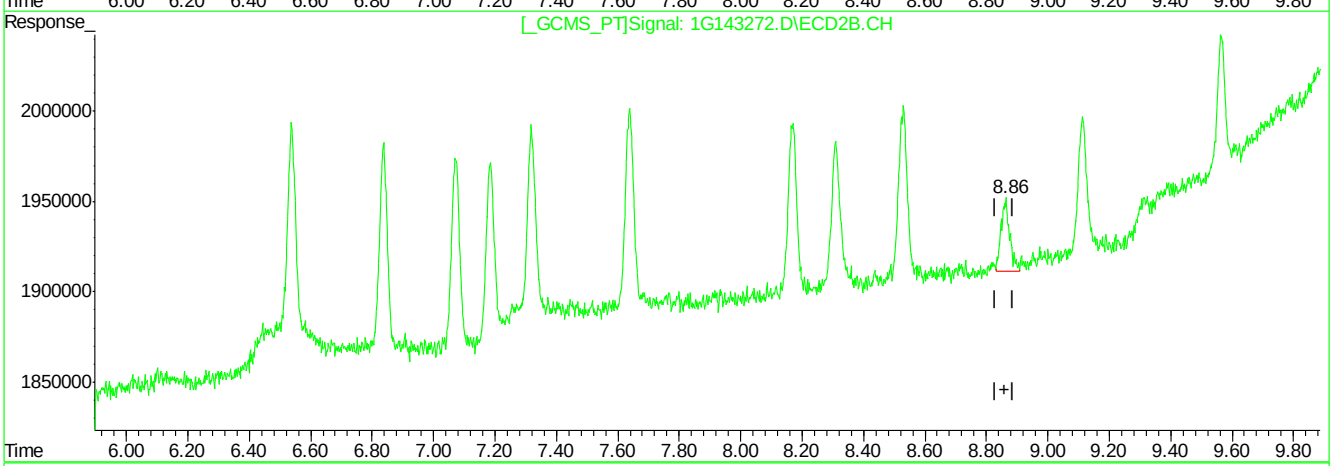
11.6.8.20 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:20 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:21:24 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.94min 0.706PPB m

response 4683571

(20) 4,4'-DDT #2 (MA)

8.86min 0.588PPB m

response 794757

(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 14:22:48 2018 RPT1

11.6.8.21
11

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD2B.CH
Acq On : 08 Feb 2018 12:11 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
33) I	1-bromo-2-nitrob	2.17	2.46	455.4E6	104.4E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
34)	Chlordane {A}	4.11	5.18	256.8E6	54748506	506.342	513.973
35)	Chlordane {B}	4.61	5.86	224.5E6	42141793	482.202	533.657
36)	Chlordane {C}	5.38	6.84	611.9E6	130.4E6	563.648	523.894
37)	Chlordane {D}	5.54	7.07	992.2E6	216.3E6	524.482	524.481m
38)	Chlordane {E}	6.65	8.61	177.6E6	35303774	518.748	488.800

11.6.9
11

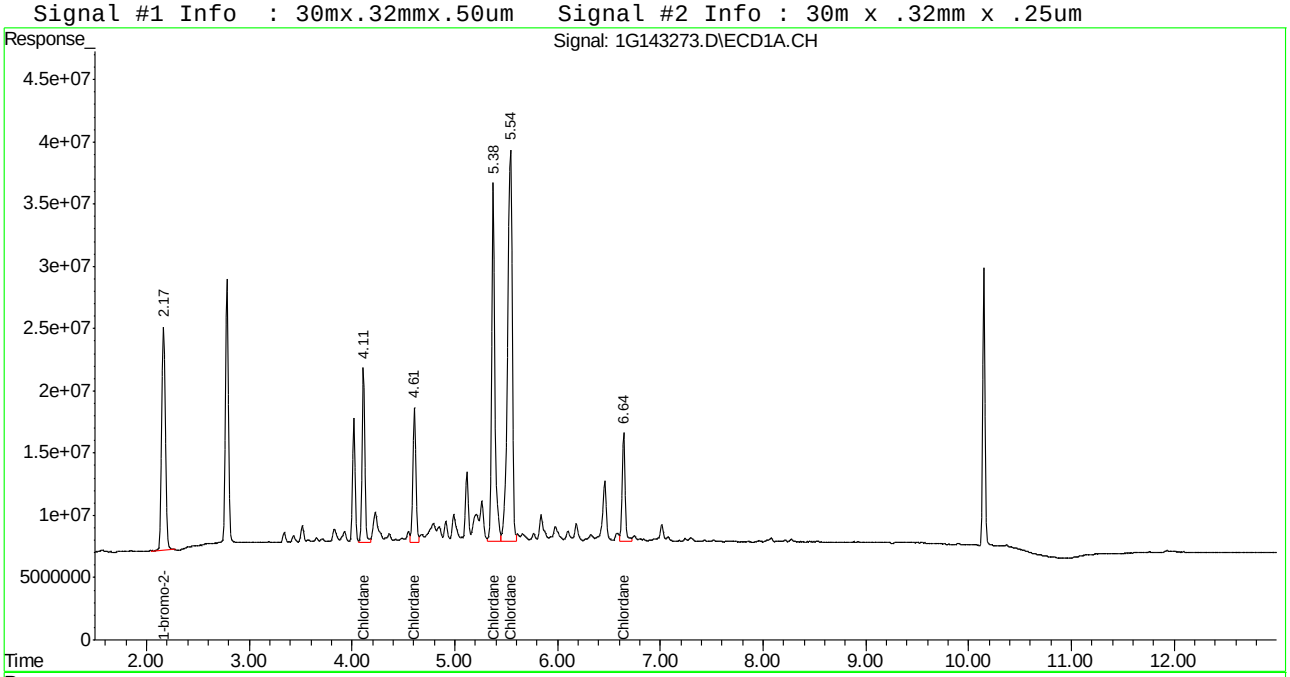
(f)=RT Delta > 1/2 Window (m)=manual int.

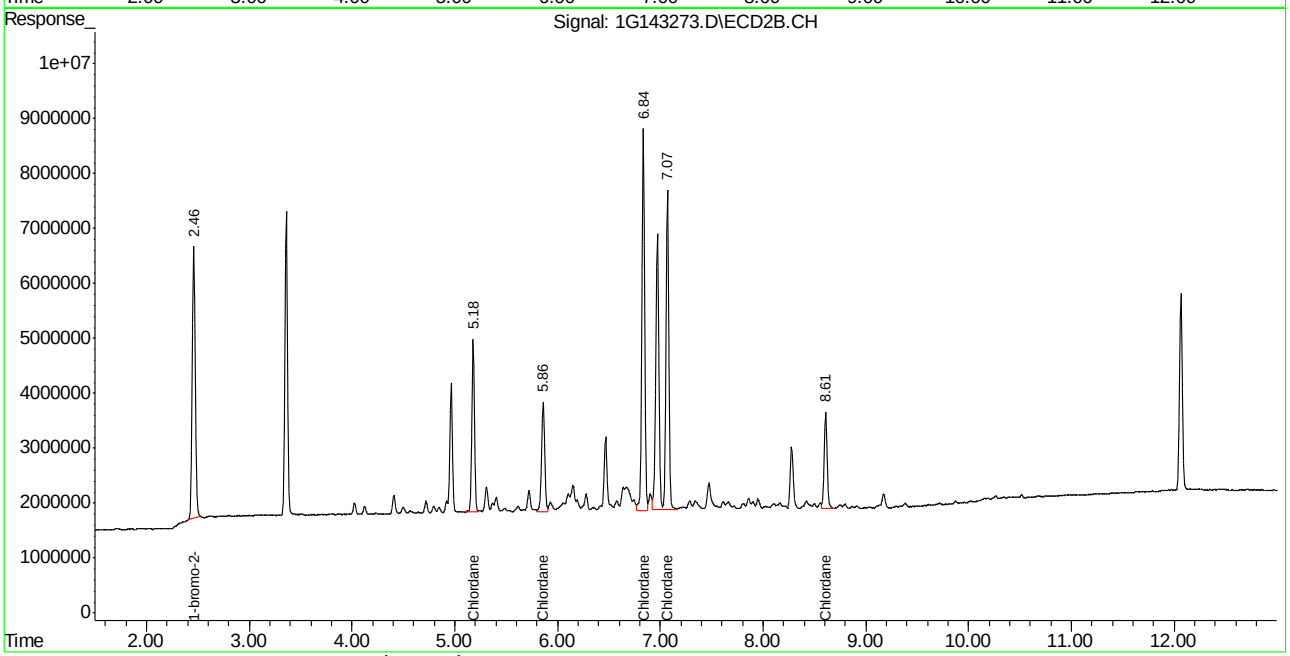
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD2B.CH
Acq On : 08 Feb 2018 12:11 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

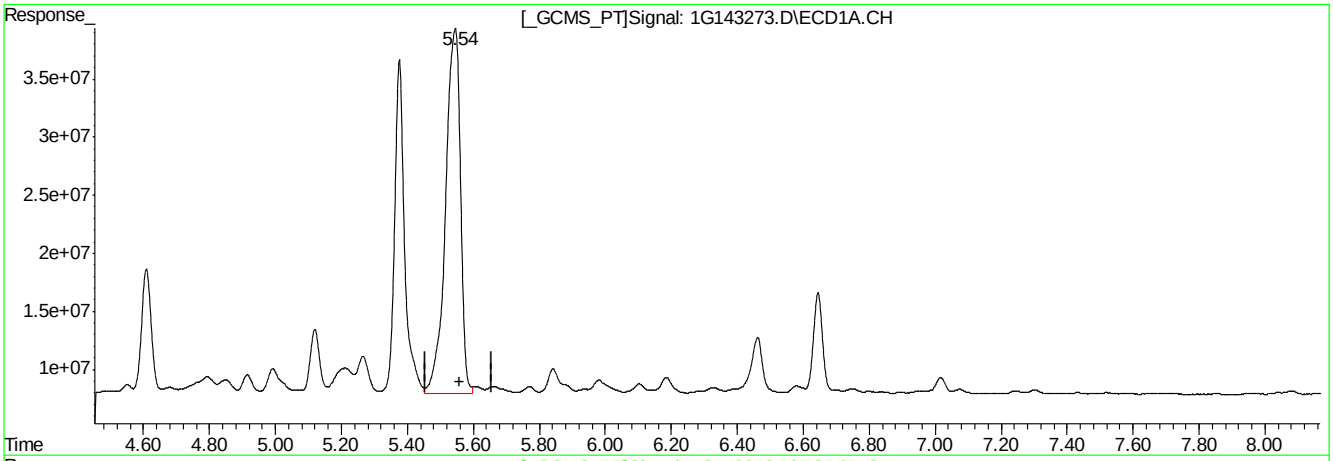
Sample Number:	G1G4557-IC4557	**Method:**	SW846 8081B
Lab FileID:	1G143273.D	**Analyst approved:**	02/08/18 14:13 Kristen Drake
Injection Time:	02/08/18 12:11	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

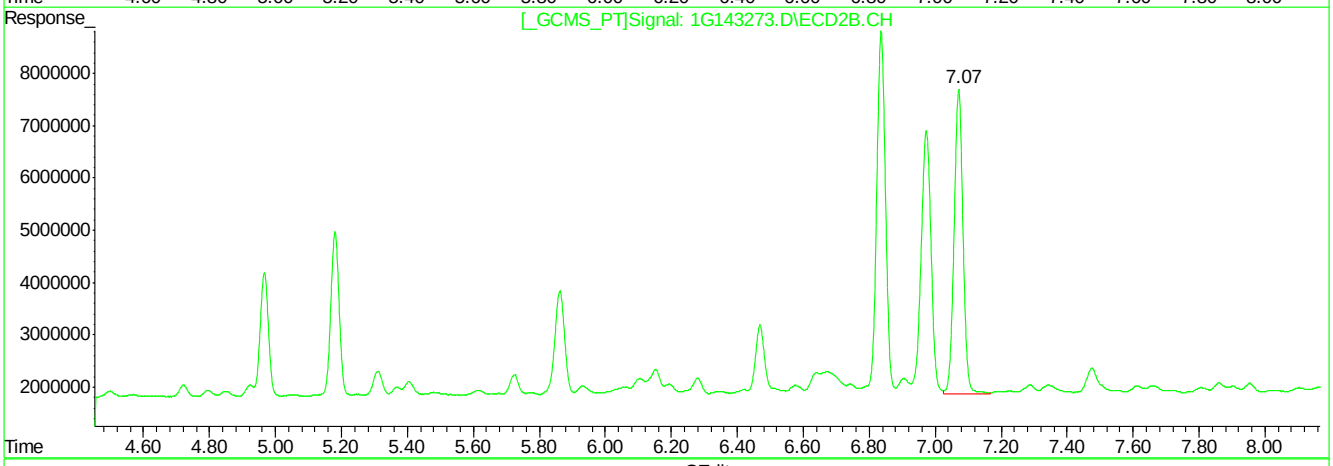
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	7.07	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD2B.CH
Acq On : 08 Feb 2018 12:11 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:08 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(37) Chlordane {D}

5.54min 524.482PPB

response 992242673

(37) Chlordane {D} #2

7.07min 267.051PPB

response 110149409

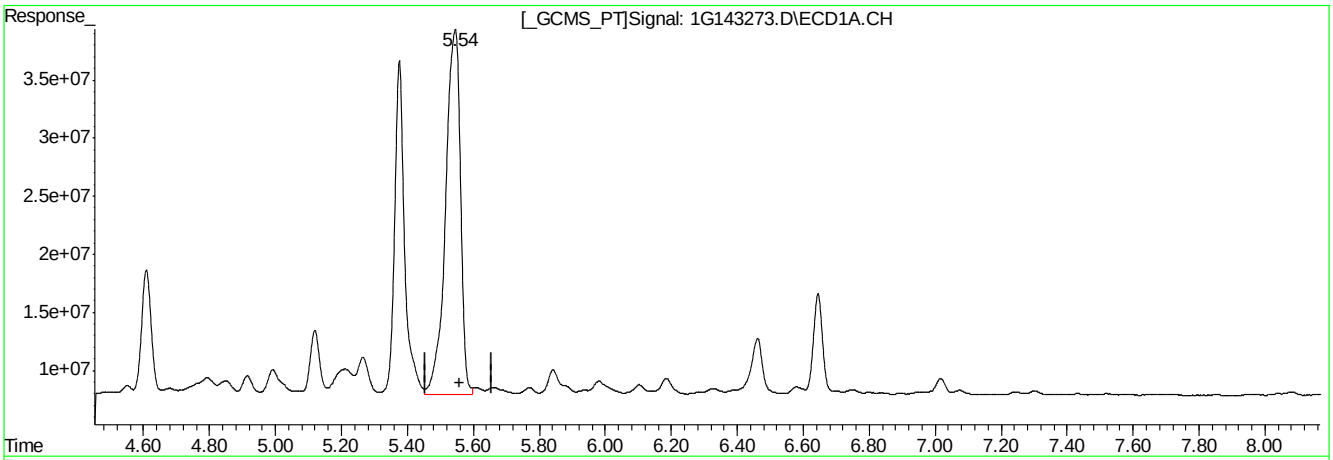
(+) = Expected Retention Time
1G143273.D 1PST4557.M Thu Feb 08 14:09:43 2018 RPT1

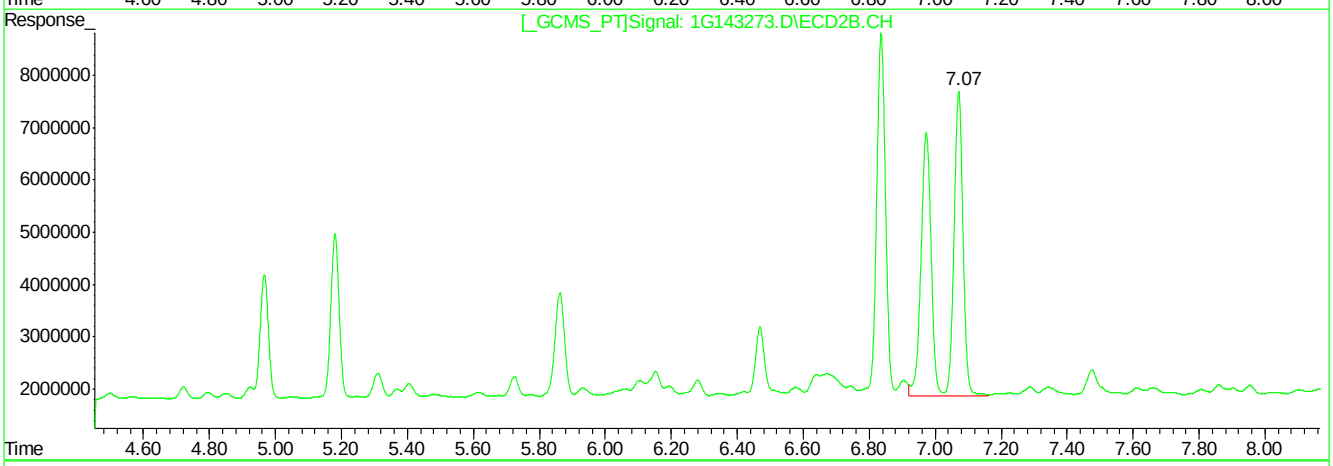
11.6.9.2 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD2B.CH
Acq On : 08 Feb 2018 12:11 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:08 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(37) Chlordane {D}

5.54min 524.482PPB

response 992242673

(37) Chlordane {D} #2

7.07min 524.481PPB m

response 216330282

(+) = Expected Retention Time
1G143273.D 1PST4557.M Thu Feb 08 14:09:57 2018 RPT1

11.6.9.3 11

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD2B.CH
Acq On : 08 Feb 2018 12:28 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
27)	I	1-bromo-2-nitrob	2.17	2.46	463.6E6	106.1E6	50.000	50.000
		System Monitoring Compounds						
		Target Compounds						
28)	L8	Toxaphene{A}	6.08	7.59	83345273	20136592	443.614	485.323m
29)	L8	Toxaphene{B}	6.73	8.49	203.9E6	21504341	456.725	464.285
30)	L8	Toxaphene{C}	6.91	8.66	157.2E6	38884616	447.991m	455.997
31)	L8	Toxaphene{D}	7.25	9.10	117.5E6	21832420	445.421	430.790
32)	L8	Toxaphene{E}	7.92	9.94	137.7E6	17109359	463.514	411.675

11.6.10
11

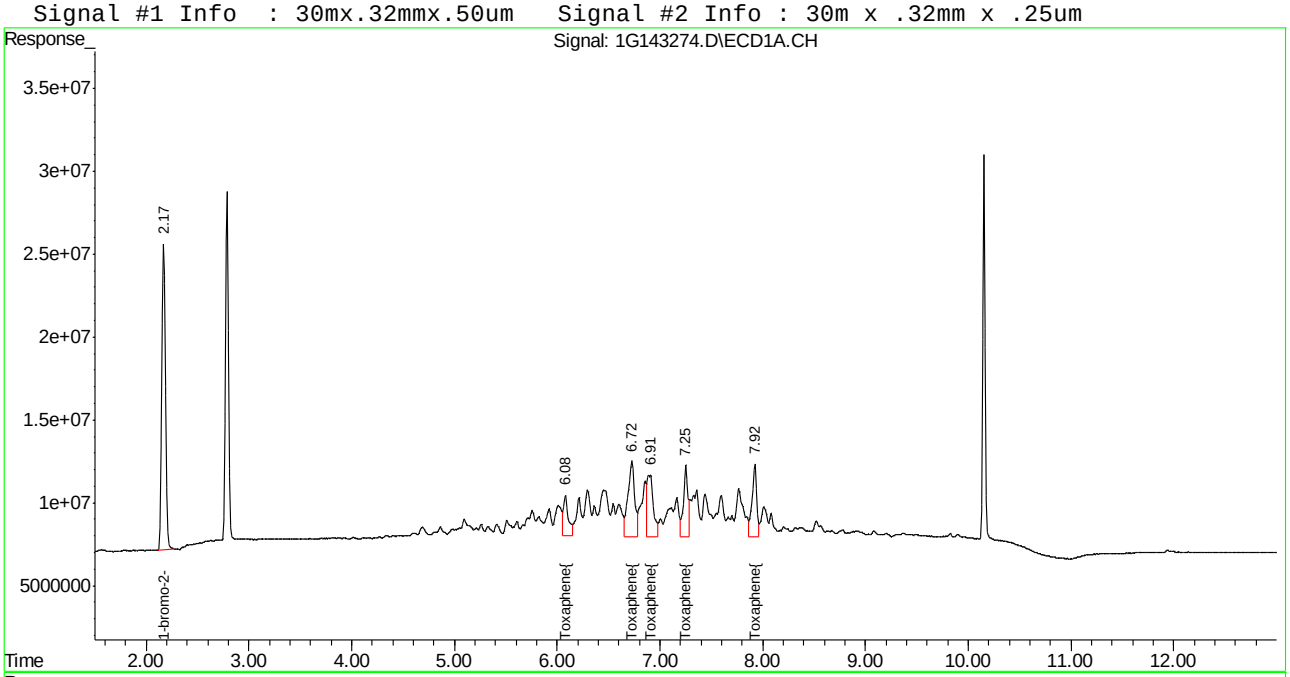
(f)=RT Delta > 1/2 Window (m)=manual int.

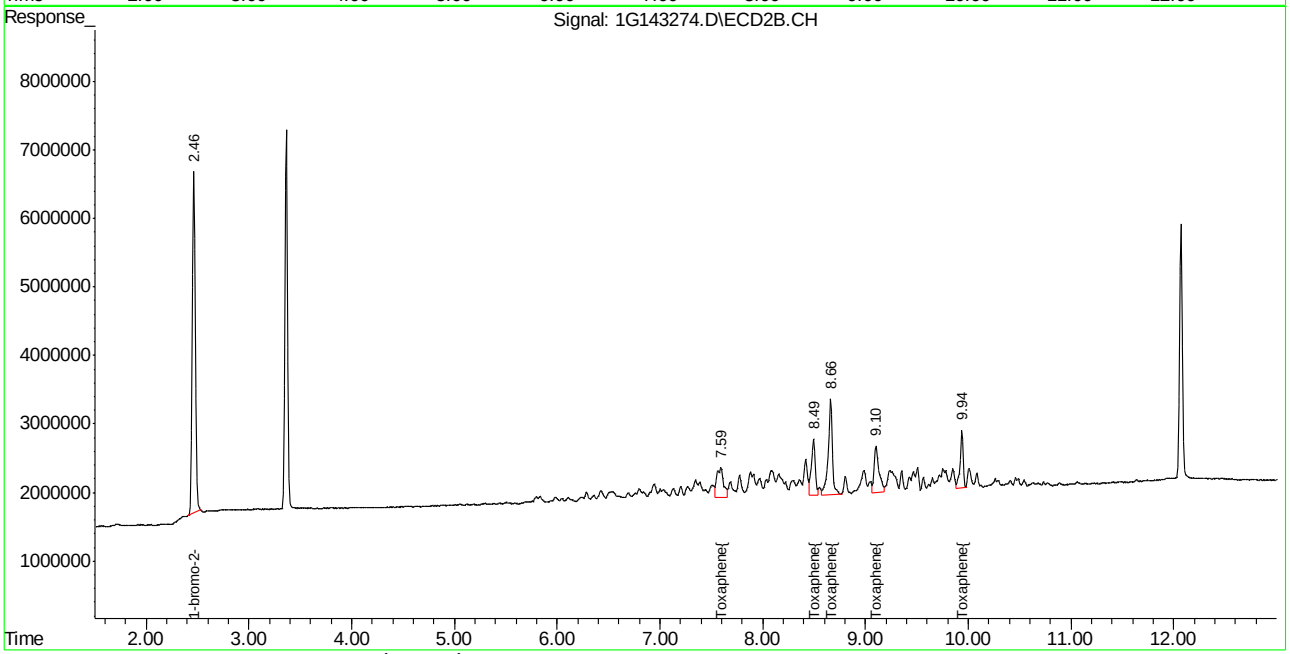
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD2B.CH
Acq On : 08 Feb 2018 12:28 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

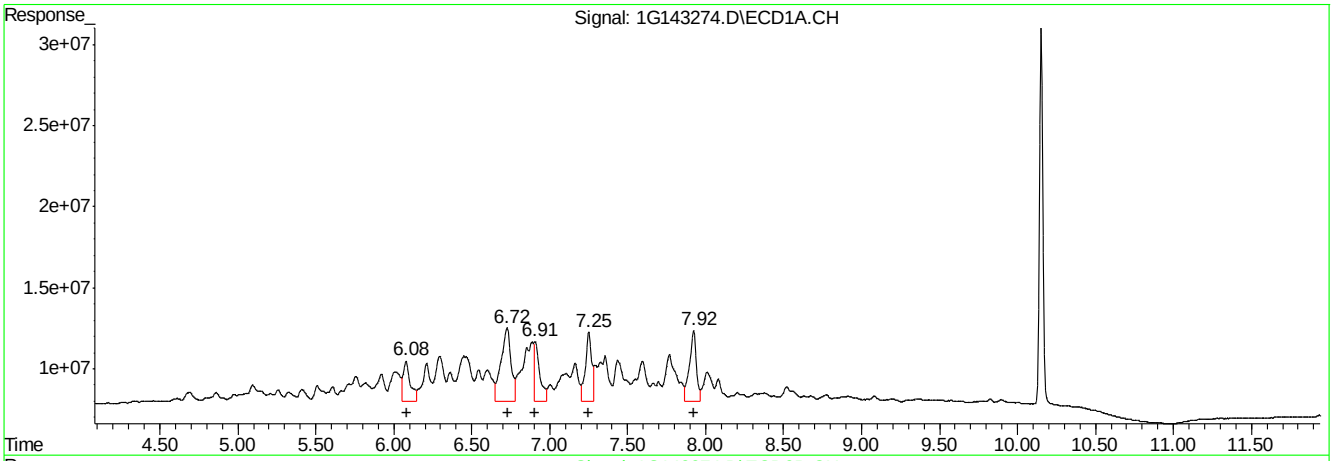
Sample Number:	G1G4557-IC4557	**Method:**	SW846 8081B
Lab FileID:	1G143274.D	**Analyst approved:**	02/08/18 14:13 Kristen Drake
Injection Time:	02/08/18 12:28	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

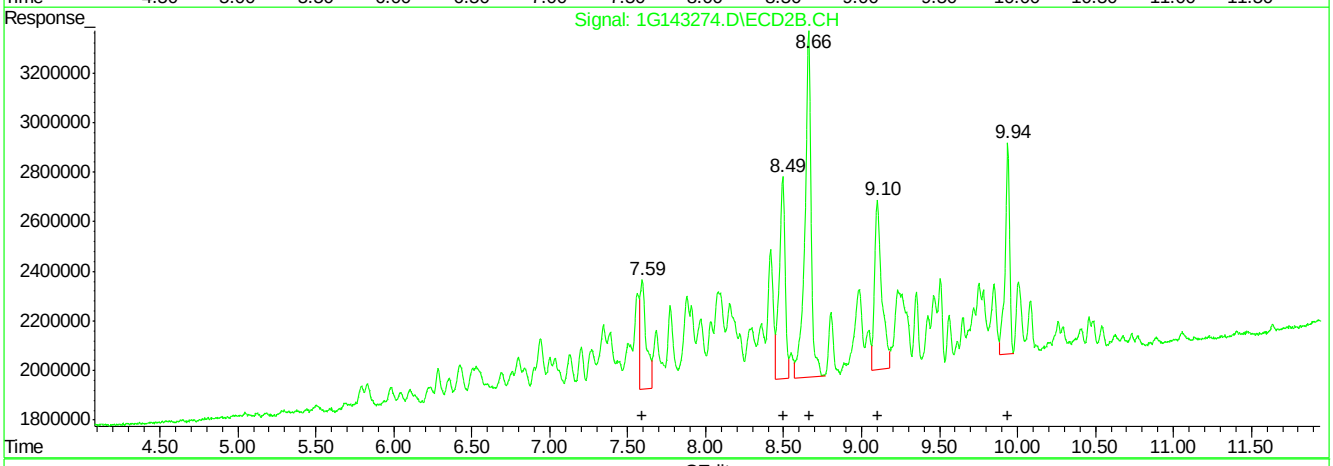
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-C		1	6.91	Split peak
Toxaphene-A		2	7.59	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD2B.CH
Acq On : 08 Feb 2018 12:28 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:11 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} (L8)

R.T.	Response	Conc
6.08	83345273	443.61
6.73	203908137	456.73
6.91	97217820	277.10
7.25	117464735	445.42
7.92	137726036	463.51

(28) Toxaphene{A} #2 (L8)

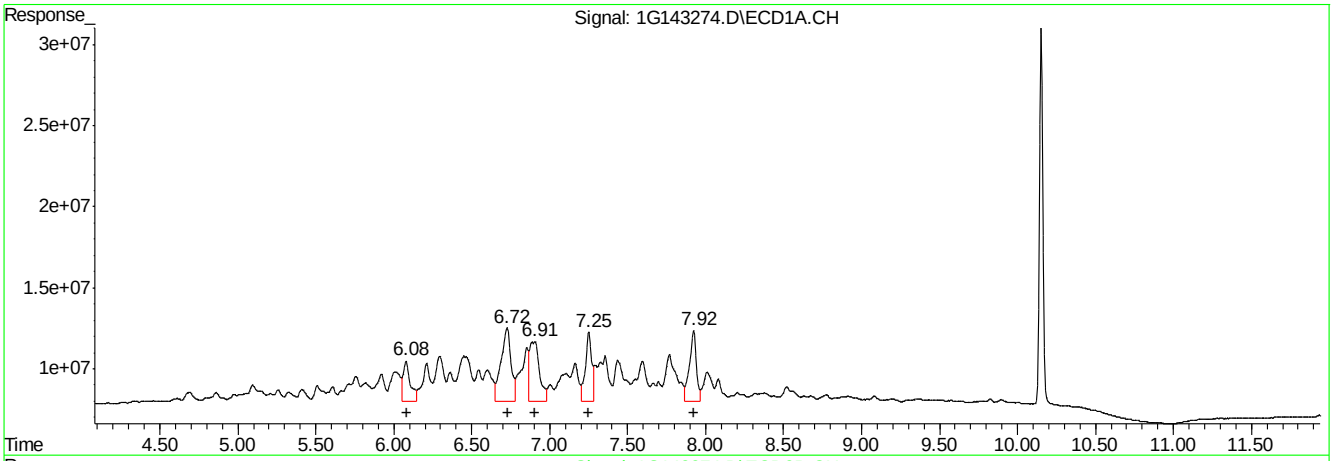
R.T.	Response	Conc
7.59	12491789	301.07
8.49	21504341	464.29
8.66	38884616	456.00
9.10	21832420	430.79
9.94	17109359	411.68

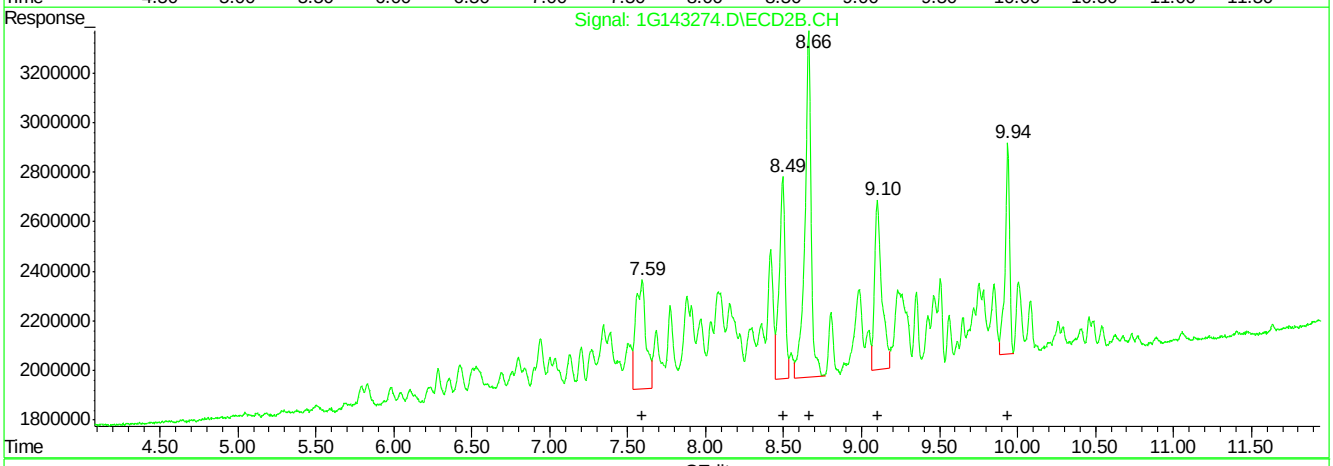
(+) = Expected Retention Time
1G143274.D 1PST4557.M Thu Feb 08 14:11:44 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD2B.CH
Acq On : 08 Feb 2018 12:28 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:11 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.08	83345273	443.61
6.73	203908137	456.73
6.91	157171206	447.99
7.25	117464735	445.42
7.92	137726036	463.51

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
7.59	20136592	485.32
8.49	21504341	464.29
8.66	38884616	456.00
9.10	21832420	430.79
9.94	17109359	411.68

(+) = Expected Retention Time
1G143274.D 1PST4557.M Thu Feb 08 14:12:07 2018 RPT1

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:43 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	469.8E6	108.4E6	50.000	50.000
27)	I 1-bromo-2-nitrob	2.17	2.46	469.8E6	108.4E6	50.000	50.000
33)	I 1-bromo-2-nitrob	2.17	2.46	469.8E6	108.4E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.78	3.36	385.1E6	86550040	46.306	43.993
	Spiked Amount 40.000	Range 30 - 150		Recovery =		115.76%	109.98%
26)	SA Decachlorobiphen	10.15	12.07	338.2E6	65135608	49.802	45.855
	Spiked Amount 40.000			Recovery =		124.51%	114.64%
	Target Compounds						
34)	Chlordane {A}	4.11	5.18	297.0E6	63282121	560.498	556.480
35)	Chlordane {B}	4.61	5.86	202.3E6	37023241	436.628	422.963
36)	Chlordane {C}	5.38	6.84	630.1E6	129.8E6	499.136	479.295
37)	Chlordane {D}	5.54	7.07	1007.7E6	214.0E6	492.260	476.287m
38)	Chlordane {E}	6.65	8.61	151.3E6	31131415	412.999	424.540

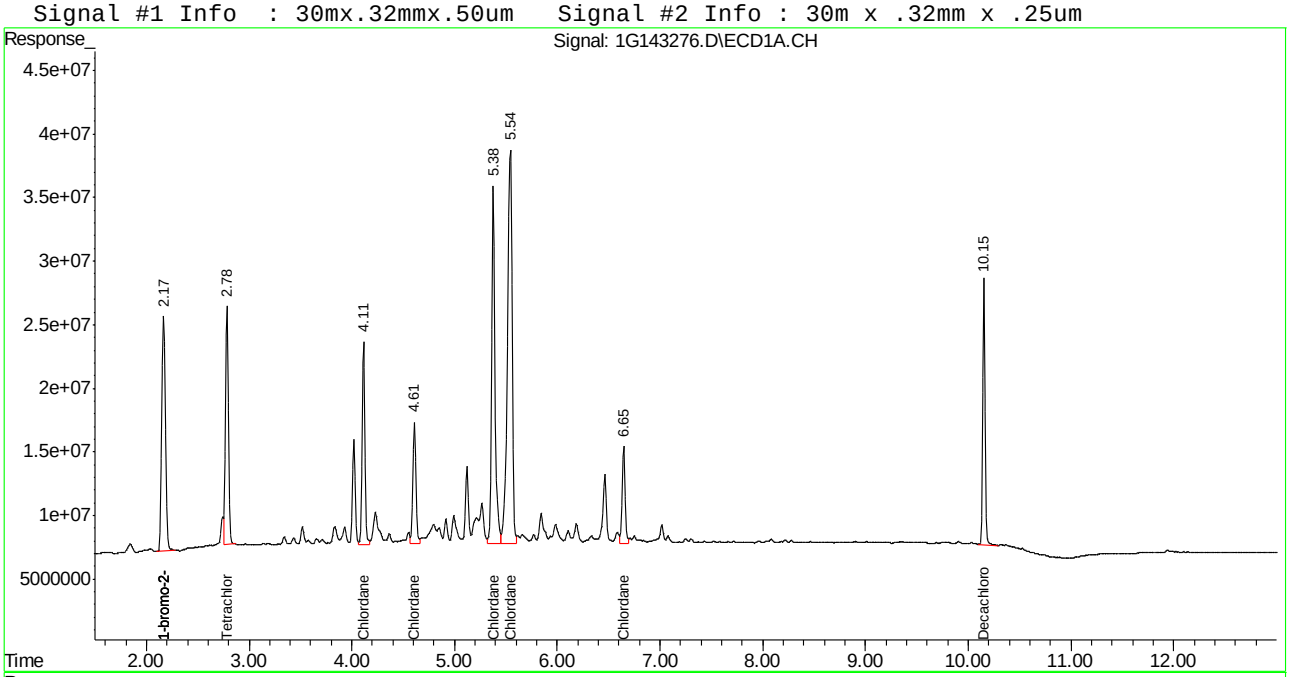
11.6.11
11

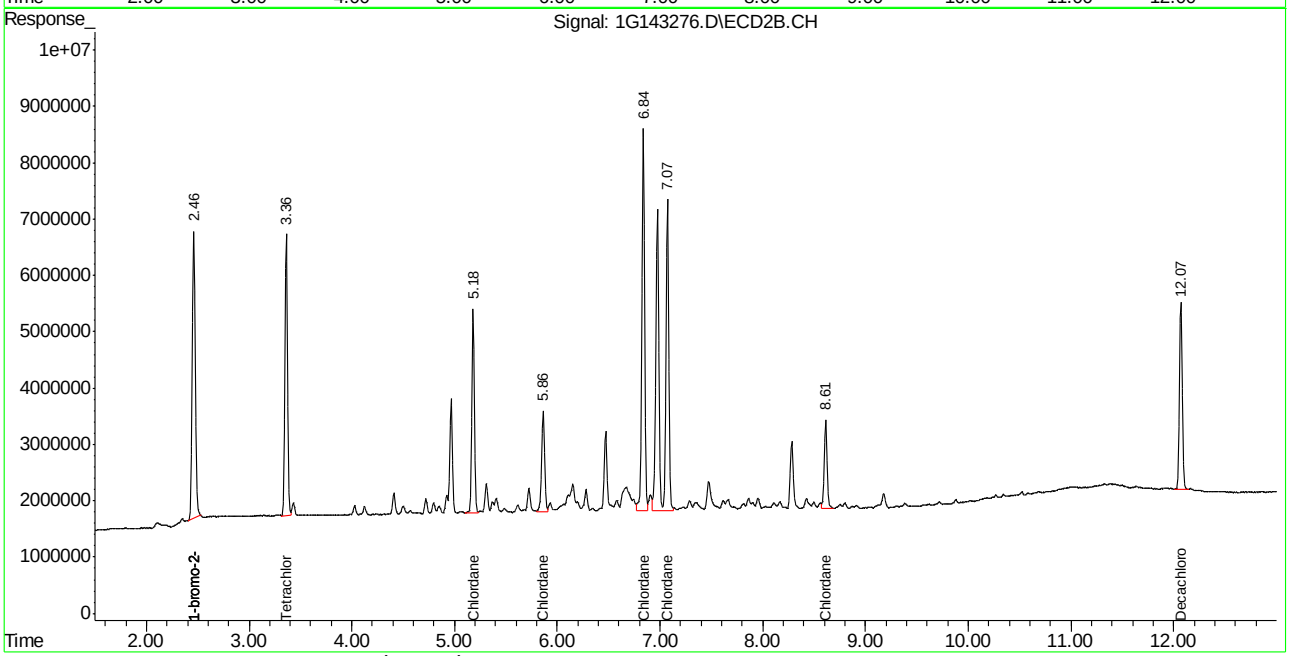
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:43 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integration Approval Summary

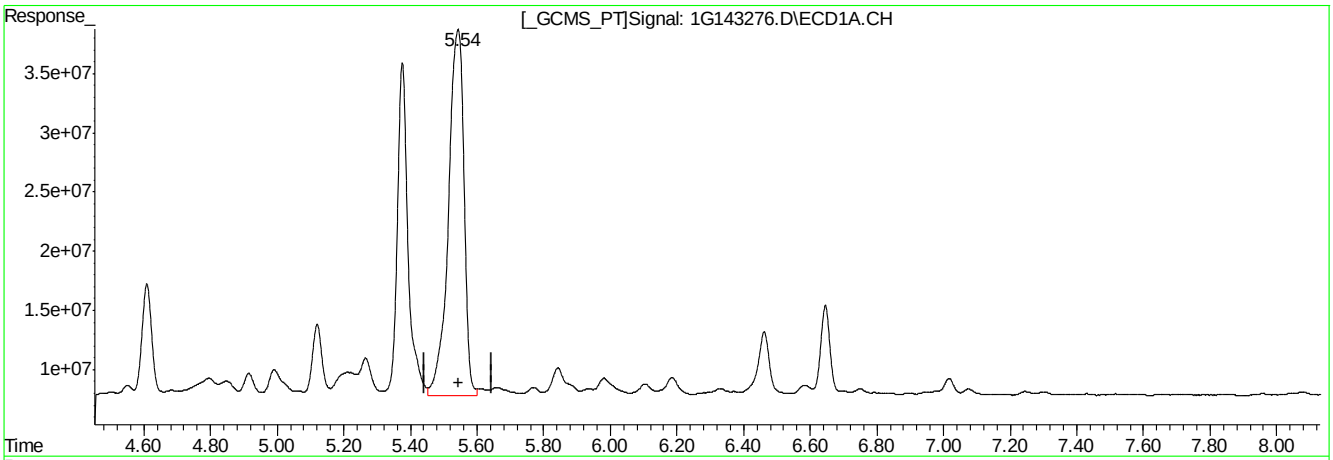
Sample Number:	G1G4557-ICV4557	**Method:**	SW846 8081B
Lab FileID:	1G143276.D	**Analyst approved:**	02/09/18 09:52 Gwendolyn Burns
Injection Time:	02/08/18 13:03	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

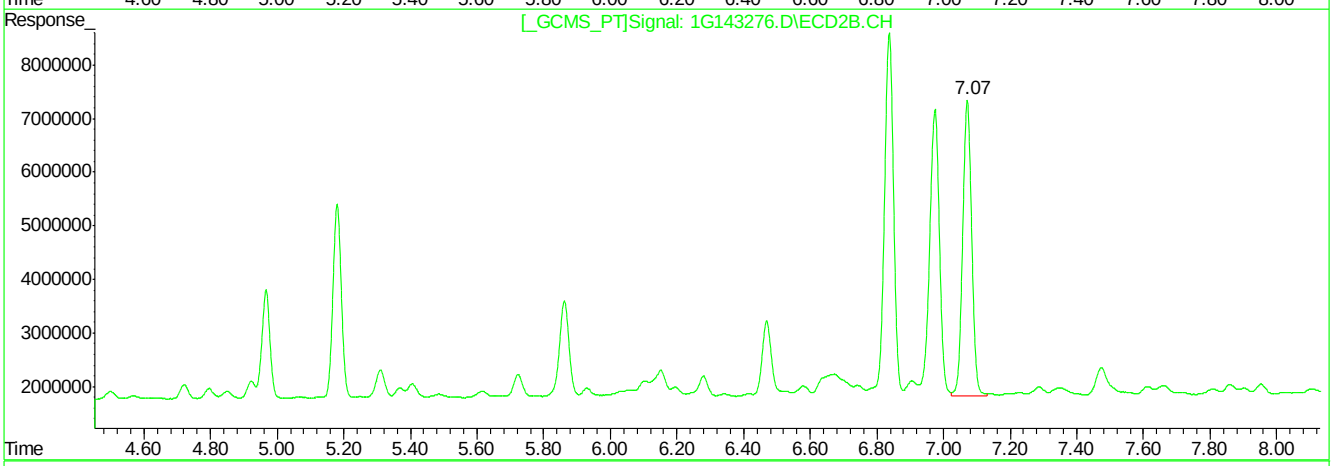
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	7.07	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:42 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(37) Chlordane {D}

5.54min 492.260PPB

response 1007697965

(37) Chlordane {D} #2

7.07min 230.687PPB

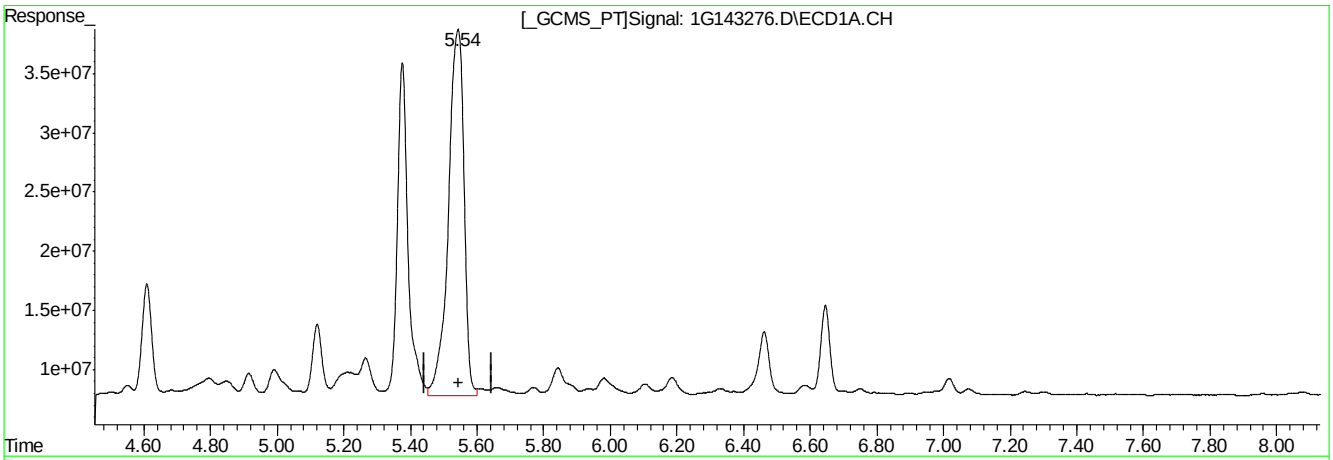
response 103657373

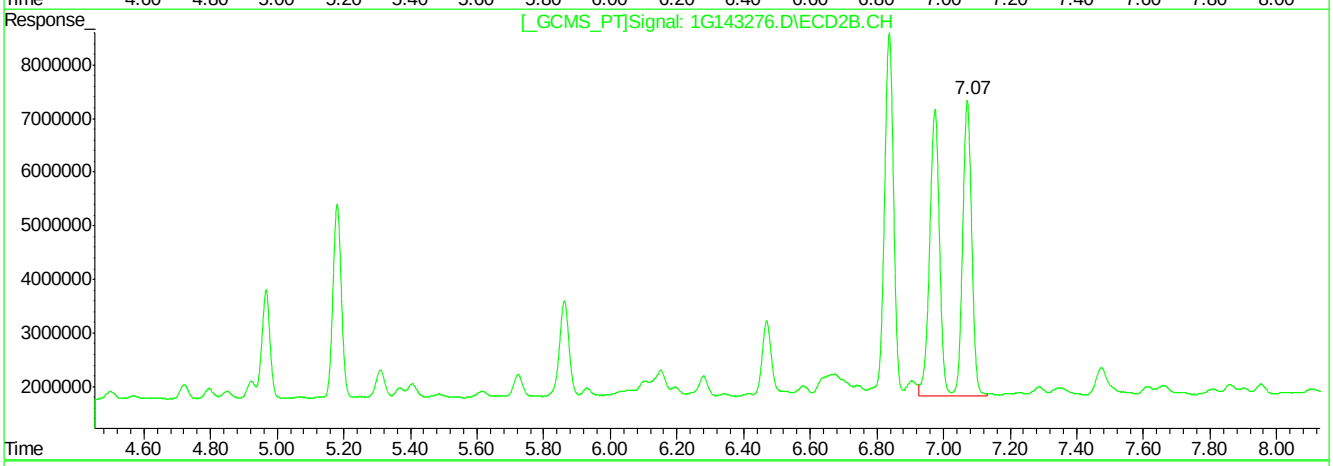
(+) = Expected Retention Time
1G143276.D 1PST4557.M Thu Feb 08 14:43:00 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:42 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(37) Chlordane {D}

5.54min 492.260PPB

response 1007697965

(37) Chlordane {D} #2

7.07min 476.287PPB m

response 214015718

(+) = Expected Retention Time
1G143276.D 1PST4557.M Thu Feb 08 14:43:09 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:29 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	490.2E6	111.2E6	50.000	50.000
27)	I 1-bromo-2-nitrob	2.17	2.46	490.2E6	111.2E6	50.000	50.000
33)	I 1-bromo-2-nitrob	2.17	2.46	490.2E6	111.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.78	3.36	366.0E6	84277297	42.174	41.756
	Spiked Amount 40.000	Range 30 - 150		Recovery =		105.43%	104.39%
26)	SA Decachlorobiphen	10.15	12.07	327.0E6	64028595	46.137	43.938
	Spiked Amount 40.000			Recovery =		115.34%	109.85%
	Target Compounds						
28)	L8 Toxaphene{A}	6.08	7.59	89757131	18803696	509.201	445.730m
29)	L8 Toxaphene{B}	6.72	8.49	209.2E6	22018000	484.990	488.728
30)	L8 Toxaphene{C}	6.90	8.66	173.5E6	39539933	521.944m	485.370
31)	L8 Toxaphene{D}	7.25	9.10	148.5E6	22756115	597.634	497.521
32)	L8 Toxaphene{E}	7.92	9.94	138.2E6	17607362	474.288	491.220

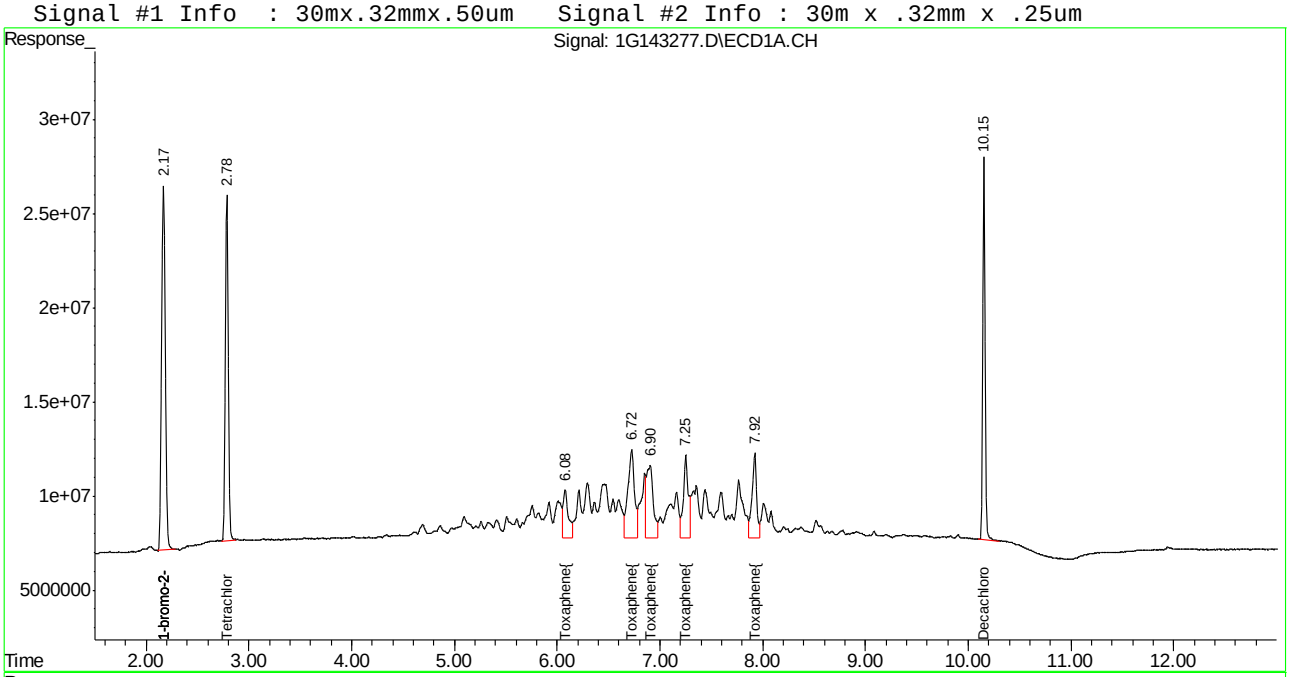
(f)=RT Delta > 1/2 Window (m)=manual int.
1G143277.D 1PST4557.M Thu Feb 08 14:29:34 2018 RPT1 Page 1

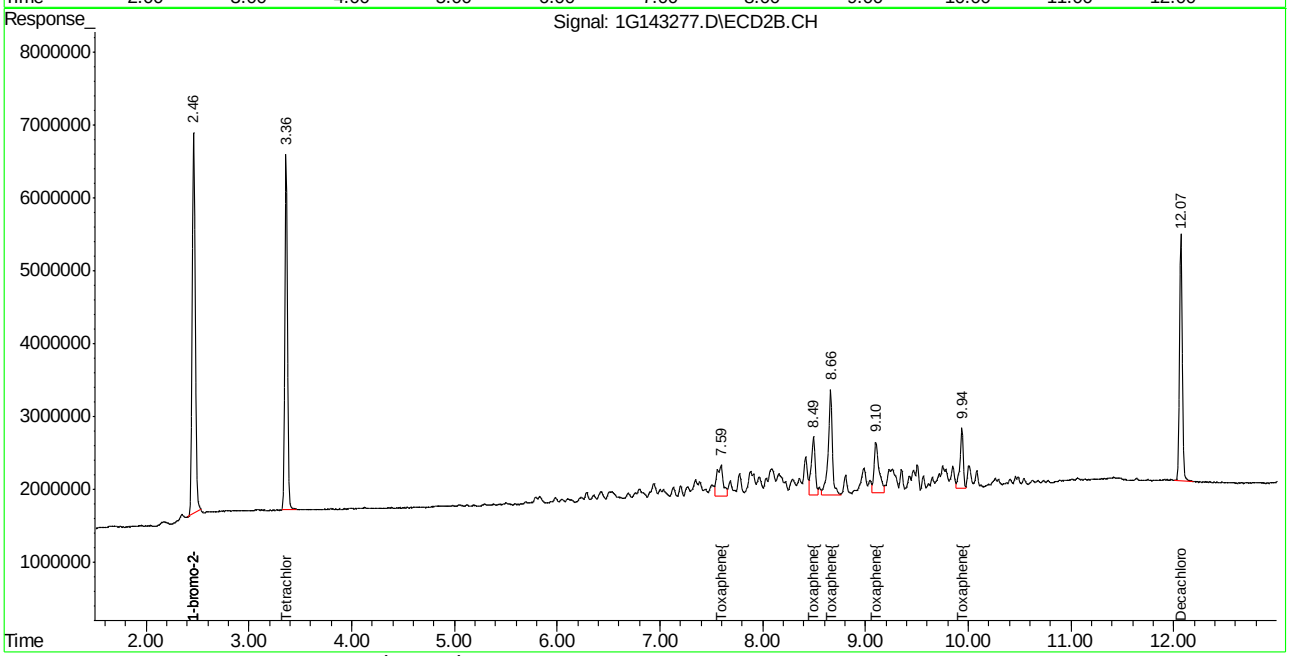
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:29 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

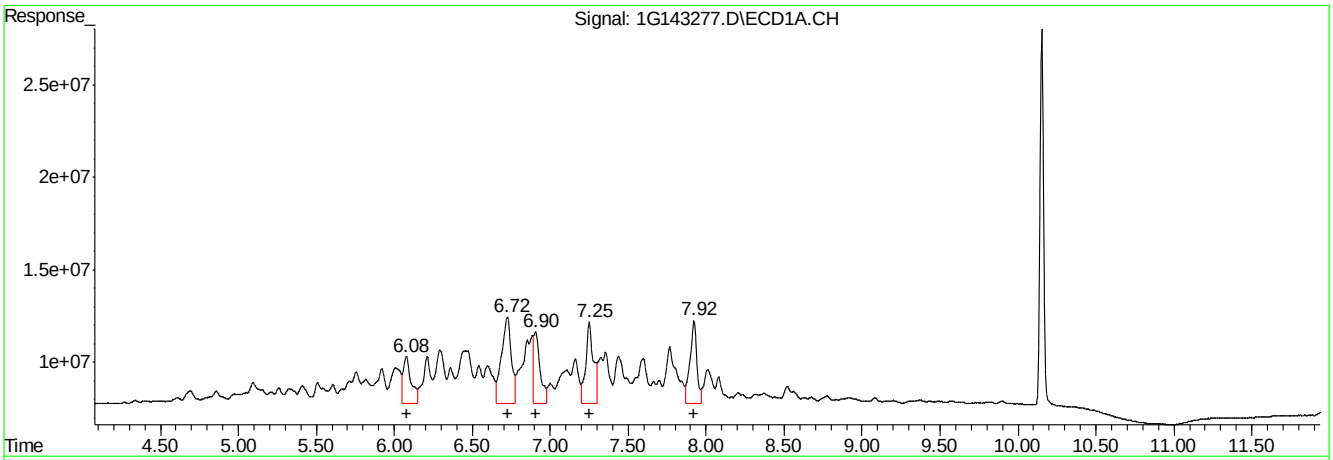
Sample Number:	G1G4557-ICV4557	**Method:**	SW846 8081B
Lab FileID:	1G143277.D	**Analyst approved:**	02/09/18 09:52 Gwendolyn Burns
Injection Time:	02/08/18 13:20	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

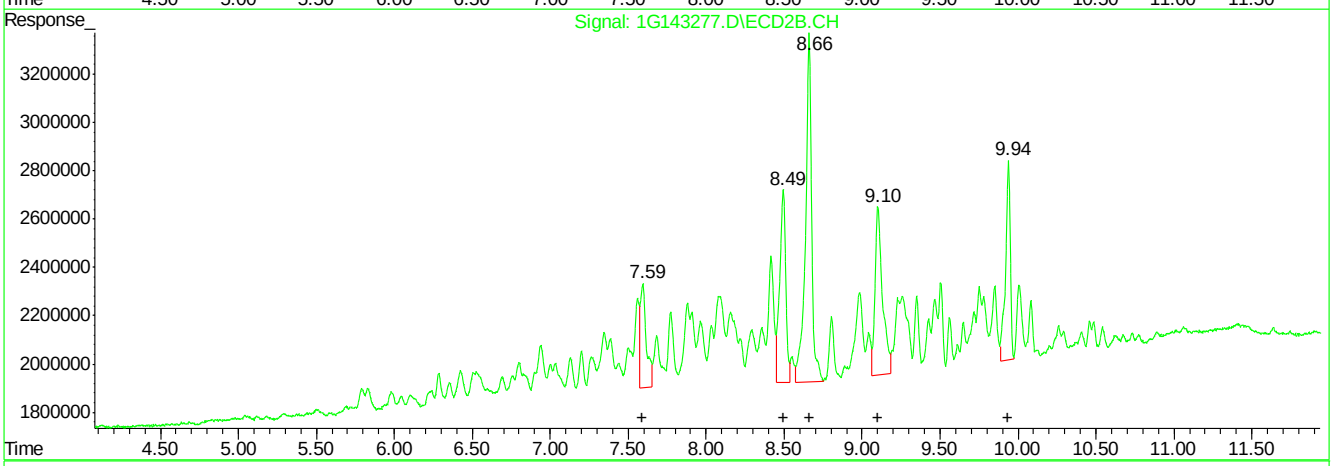
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-C		1	6.90	Poorly defined baseline
Toxaphene-A		2	7.59	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:28 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} (L8)

R.T.	Response	Conc
6.08	89757131	509.20
6.72	209153691	484.99
6.91	107954967	324.77
7.25	148470830	597.63
7.92	138151878	474.29

(28) Toxaphene{A} #2 (L8)

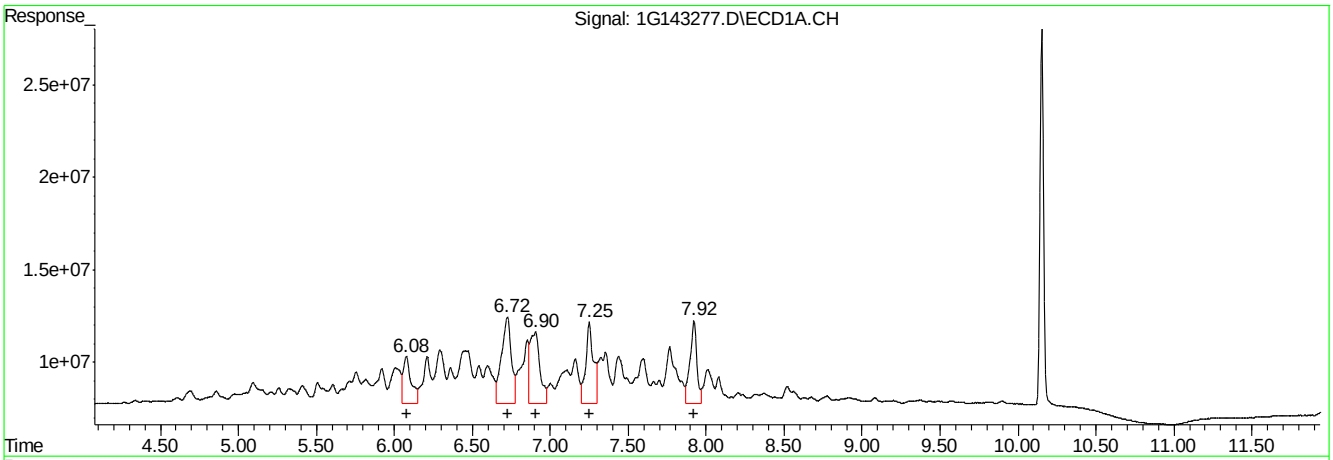
R.T.	Response	Conc
7.59	11508136	272.79
8.49	22018000	488.73
8.66	39539933	485.37
9.10	22756115	497.52
9.94	17607362	491.22

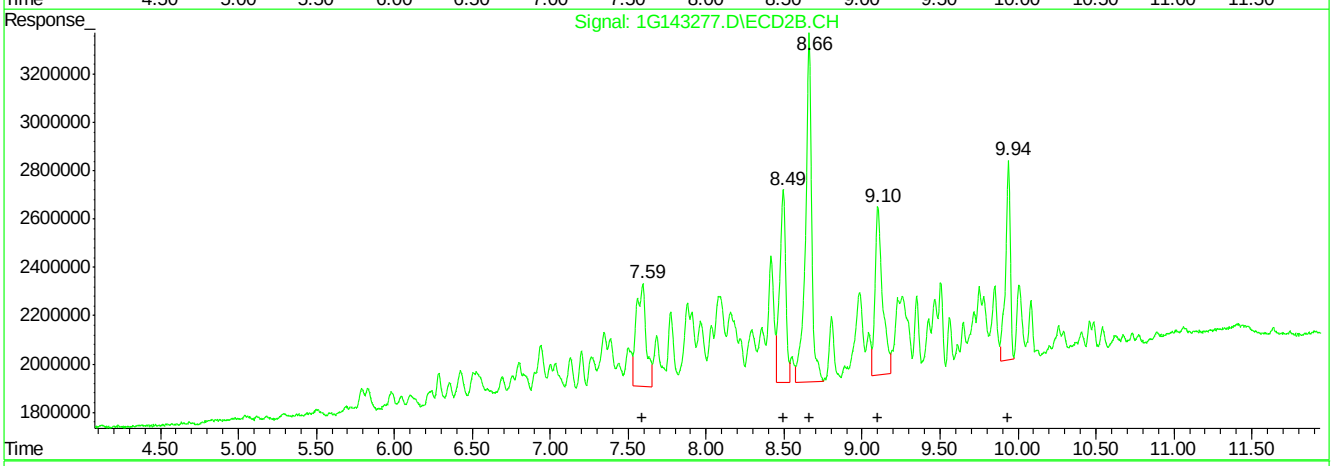
(+) = Expected Retention Time
1G143277.D 1PST4557.M Thu Feb 08 14:29:01 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:28 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.08	89757131	509.20
6.72	209153691	484.99
6.90	173498298	521.94
7.25	148470830	597.63
7.92	138151878	474.29

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
7.59	18803696	445.73
8.49	22018000	488.73
8.66	39539933	485.37
9.10	22756115	497.52
9.94	17607362	491.22

(+) = Expected Retention Time
1G143277.D 1PST4557.M Thu Feb 08 14:29:27 2018 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD2B.CH
Acq On : 2-8-18 01:37:39 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:31 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	503.1E6	114.1E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.17	2.46	503.1E6	114.1E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.17	2.46	503.1E6	114.1E6	50.000	50.000
		System Monitoring Compounds						
		Target Compounds						
10)		Alachlor	4.59	5.43	72849632	15826460	50.920	50.383

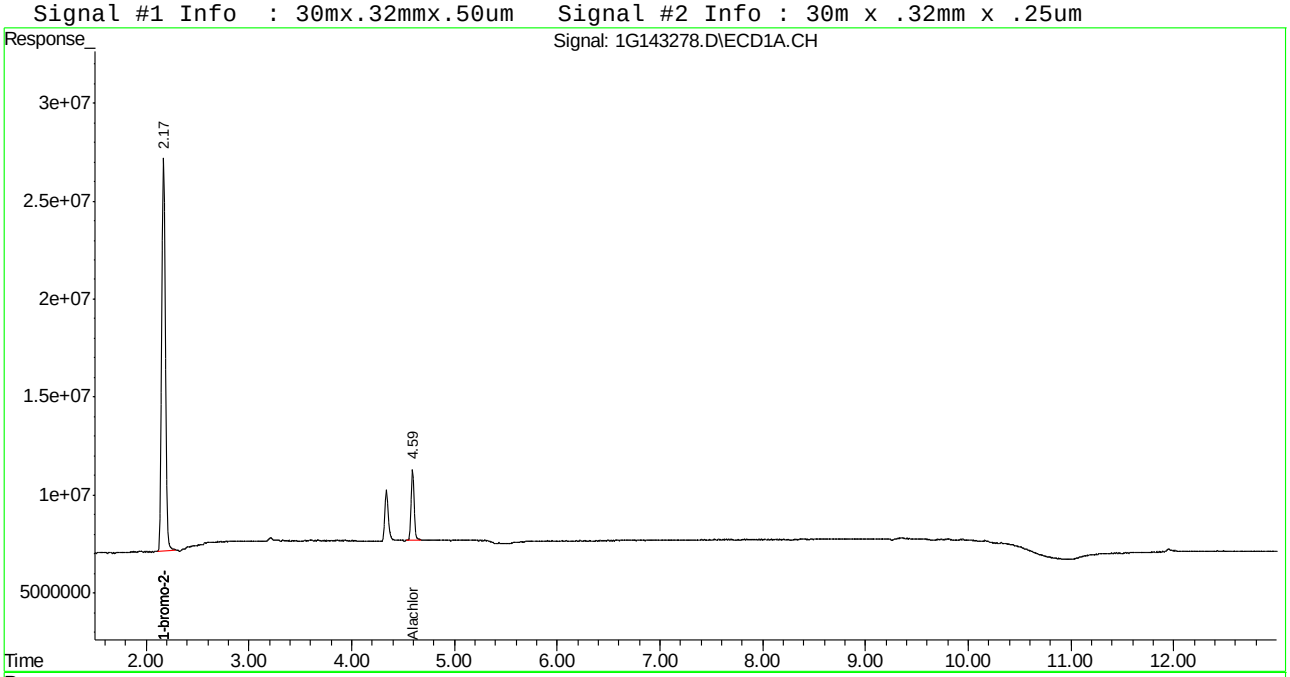
(f)=RT Delta > 1/2 Window (m)=manual int.
1G143278.D 1PST4557.M Thu Feb 08 14:31:44 2018 RPT1 Page 1

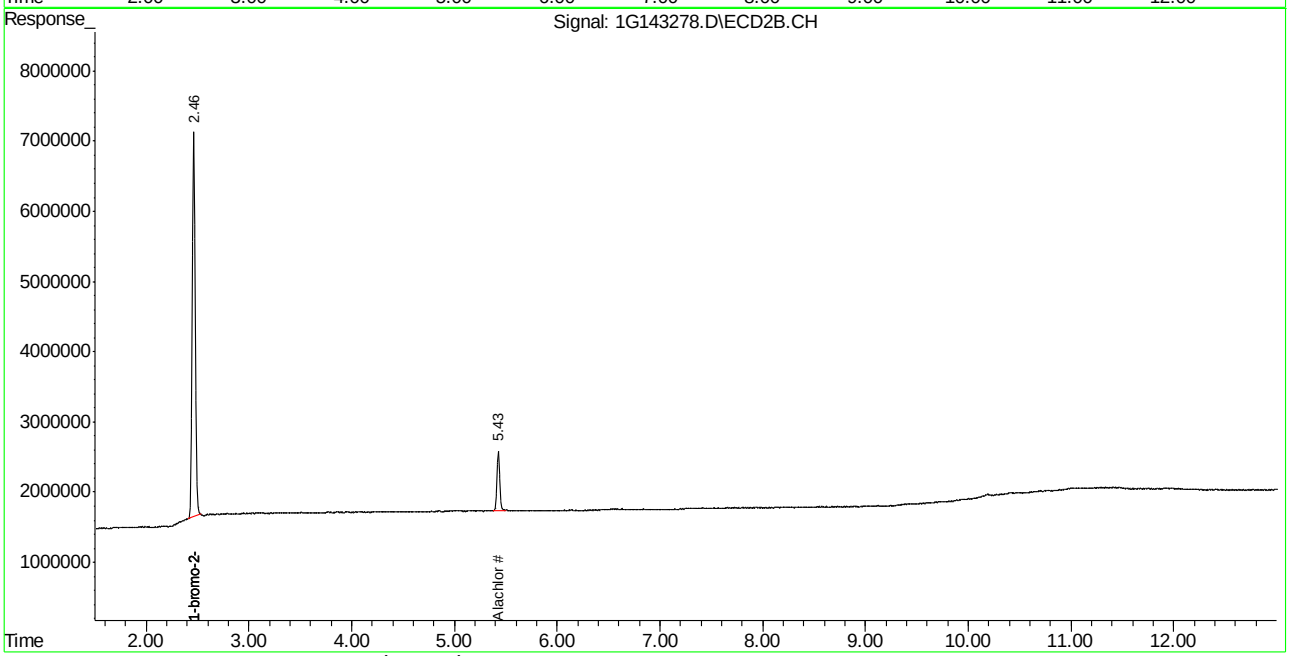
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD2B.CH
Acq On : 2-8-18 01:37:39 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:31 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD2B.CH
Acq On : 2-8-18 01:54:52 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:32 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.17	2.46	505.9E6	115.8E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.17	2.46	505.9E6	115.8E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.17	2.46	505.9E6	115.8E6	50.000	50.000
		System Monitoring Compounds						
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	573.7E6	144.8E6	50.816	48.764

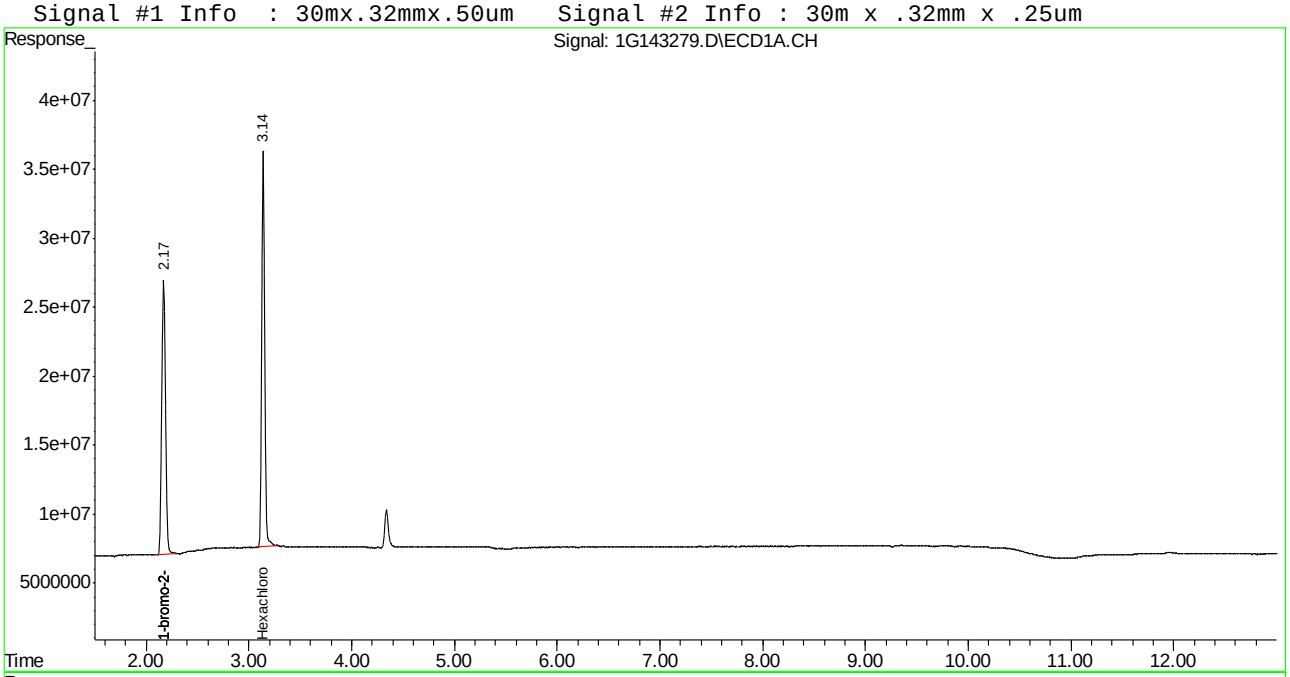
(f)=RT Delta > 1/2 Window (m)=manual int.
1G143279.D 1PST4557.M Thu Feb 08 14:32:11 2018 RPT1 Page 1

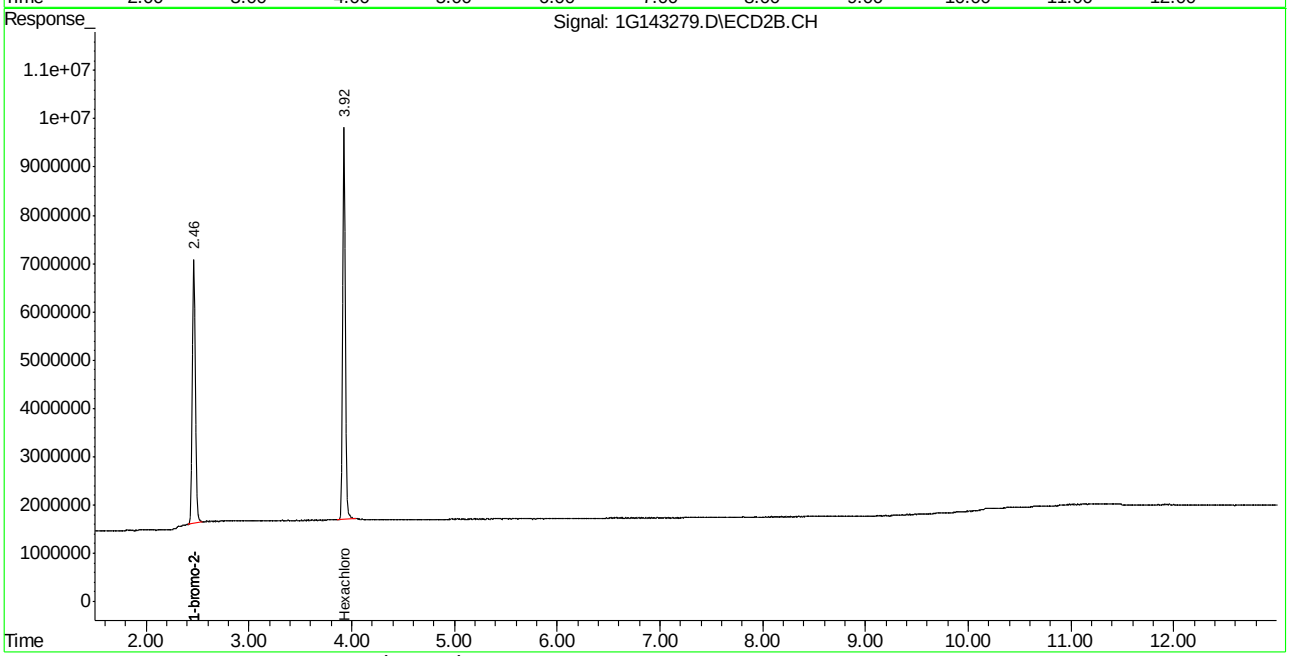
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD2B.CH
Acq On : 2-8-18 01:54:52 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:32 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:06 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.18	2.47	440.7E6	105.1E6	50.000	50.000
27)	I 1-bromo-2-nitrob	2.18	2.47	440.7E6	105.1E6	50.000	50.000
33)	I 1-bromo-2-nitrob	2.18	2.47	440.7E6	105.1E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.79	3.37	181.7E6	42267096	23.293m	22.151
	Spiked Amount 40.000	Range 30 - 150		Recovery =		58.23%	55.38%
26)	SA Decachlorobiphen	10.15	12.07	182.5E6	34767479	28.646	25.235
	Spiked Amount 40.000			Recovery =		71.62%	63.09%
	Target Compounds						
4)	A alpha-BHC	3.29	4.09	244.2E6	63193342	25.039	24.569
5)	MA gamma-BHC	3.60	4.55	236.3E6	56306229	25.614	24.153
6)	MA Heptachlor	4.12	5.18	244.4E6	54776661	25.448	25.048
7)	B beta-BHC	3.67	4.64	92973791	22950463	20.200	22.480
8)	B delta-BHC	3.87	5.07	170.5E6	50179075	22.317	23.832
9)	MB Aldrin	4.47	5.67	216.2E6	53000164	24.617	23.829
11)	B Heptachlor Epoxi	5.21	6.54	180.9E6	49203373	20.171	23.552
12)	B gamma-Chlordane	5.38	6.84	185.6E6	48259883	27.087m	23.852
13)	B alpha-Chlordane	5.55	7.07	206.7E6	46734840	24.584	23.448
14)	A Endosulfan I	5.74	7.18	197.1E6	50820764	23.909	26.376
15)	B 4,4'-DDE	5.65	7.32	189.1E6	49613196	23.947	23.586
16)	MA Dieldrin	6.07	7.64	206.6E6	50823744	24.750	23.763
17)	MA Endrin	6.41	8.17	193.1E6	46108940	25.198	24.510
18)	A 4,4'-DDD	6.51	8.31	157.2E6	40223356	26.802	24.791
19)	B Endosulfan II	6.74	8.53	186.2E6	44080513	24.342	23.550
20)	MA 4,4'-DDT	6.94	8.86	149.5E6	30854223	27.689	28.180
21)	B Endrin Aldehyde	7.38	9.11	158.5E6	34464815	24.729	23.390
22)	B Endosulfan Sulfa	8.07	9.56	154.7E6	33206381	25.843	25.488
23)	A Methoxychlor	7.72	9.98	89024302	15999744	29.370m	27.855
24)	Mirex	7.94	10.31	171.4E6	27469465	23.777	23.958
25)	B Endrin Ketone	8.53	10.34	178.9E6	42052977	27.977	28.388

(f)=RT Delta > 1/2 Window (m)=manual int.
1G143283.D 1PST4557.M Thu Feb 08 17:06:40 2018 RPT1 Page 1

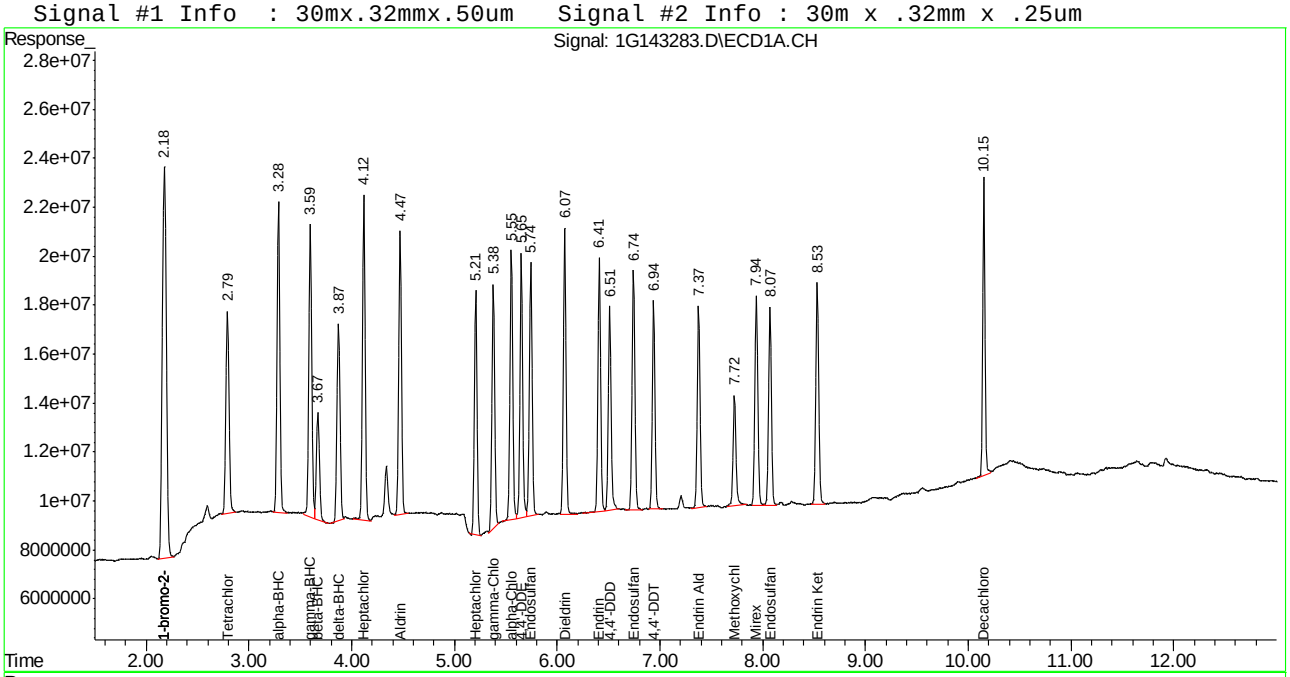
11.6.15 11

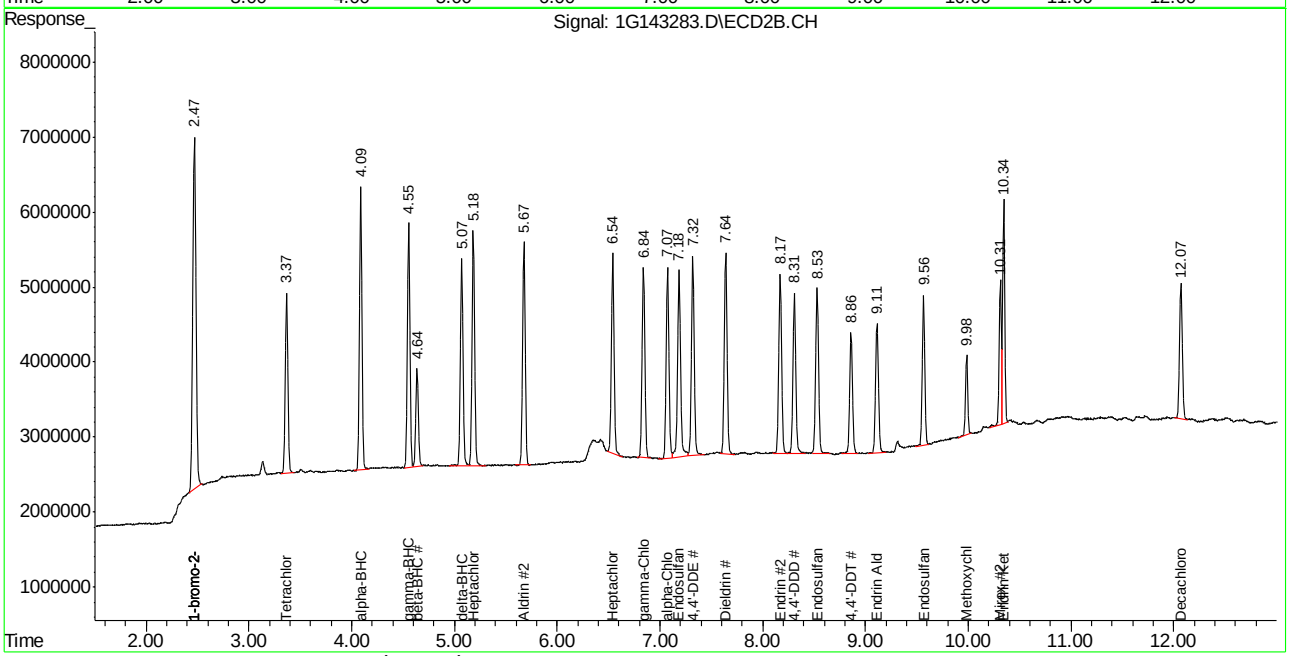
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:06 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integration Approval Summary

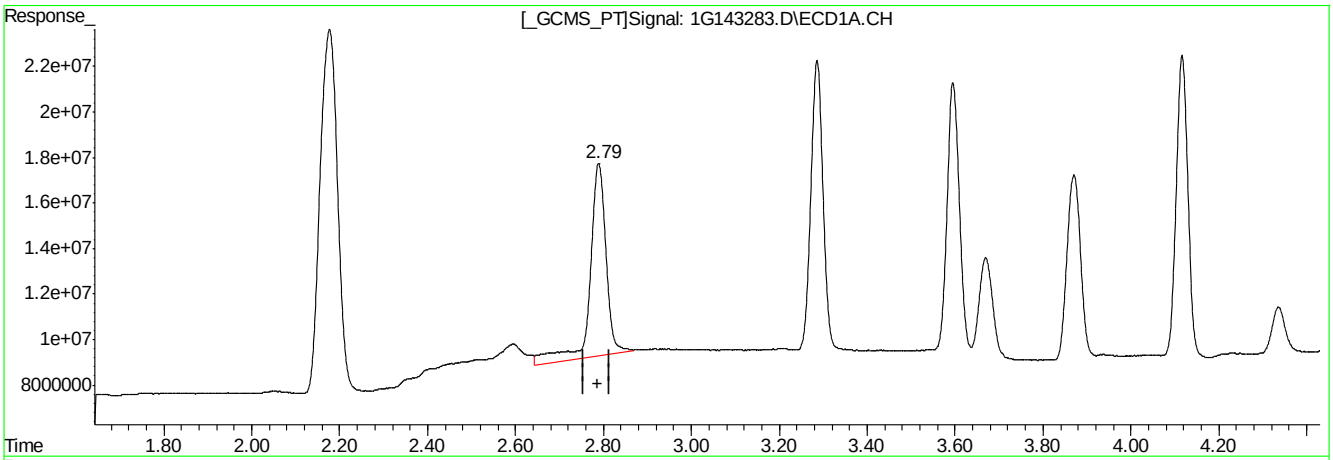
Sample Number:	G1G4558-ICV4557	**Method:**	SW846 8081B
Lab FileID:	1G143283.D	**Analyst approved:**	02/08/18 17:09 Rebecca Krug
Injection Time:	02/08/18 16:50	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

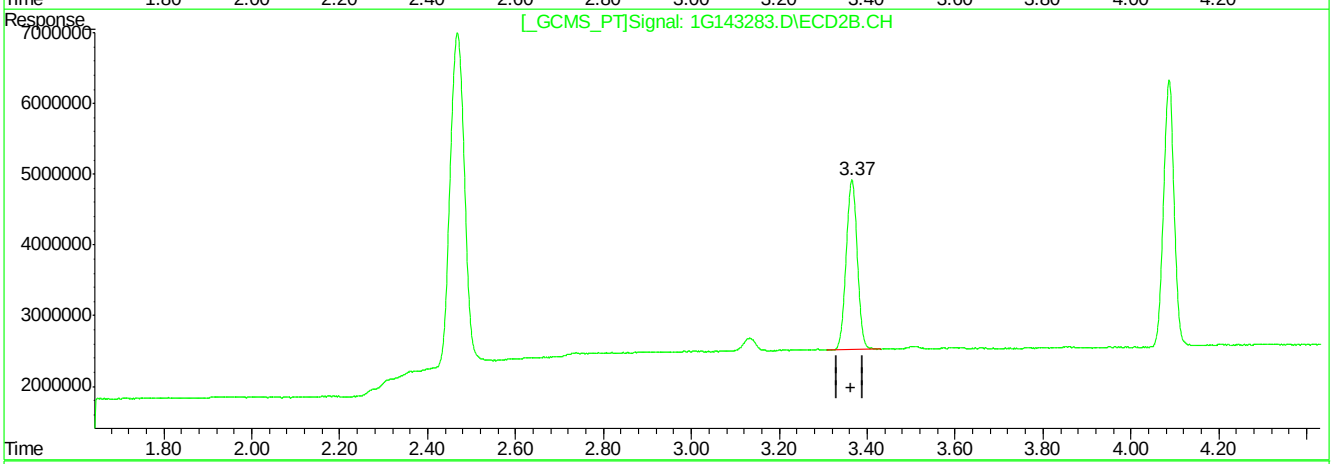
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.79	Poorly defined baseline
gamma-Chlordane	5103-74-2	1	5.38	Poorly defined baseline
Methoxychlor	72-43-5	1	7.72	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

2.79min 27.786PPB

response 216784569

(2) Tetrachloro-m-xylene #2 (SAB)

3.37min 22.151PPB

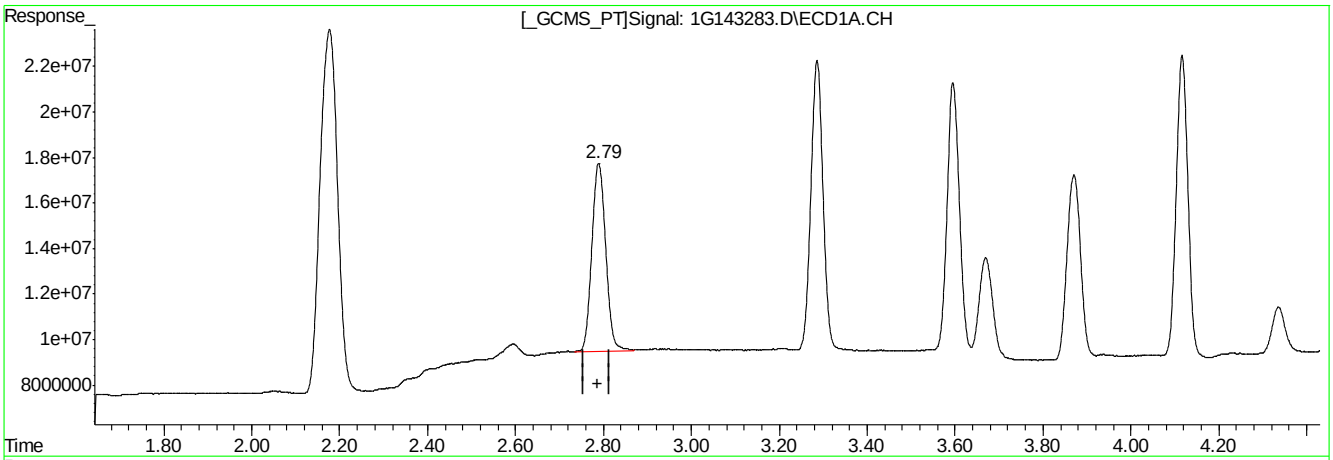
response 42267096

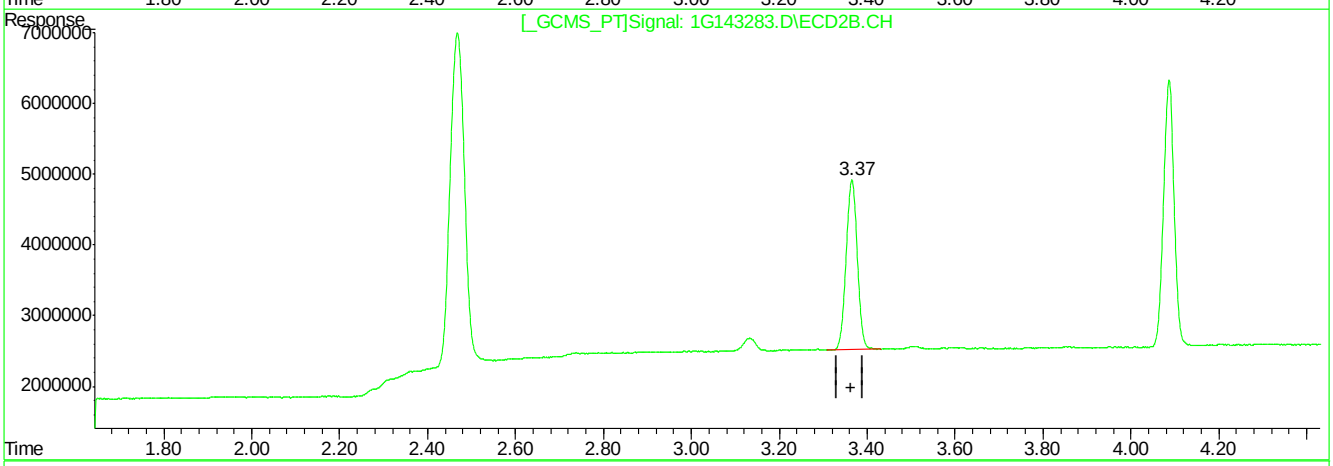
(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:05:52 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

2.79min 23.293PPB m

response 181728047

(2) Tetrachloro-m-xylene #2 (SAB)

3.37min 22.151PPB

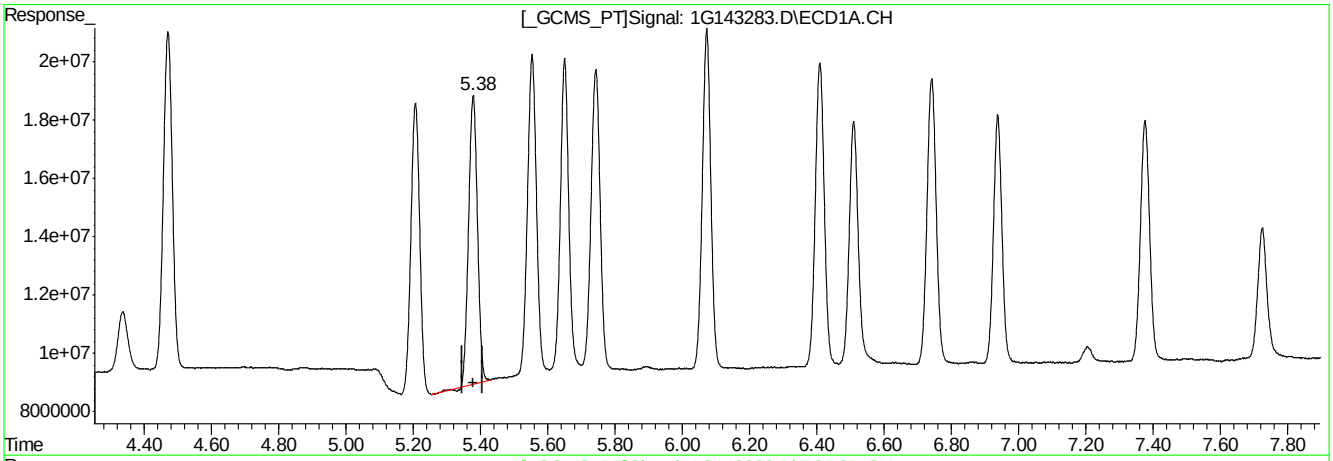
response 42267096

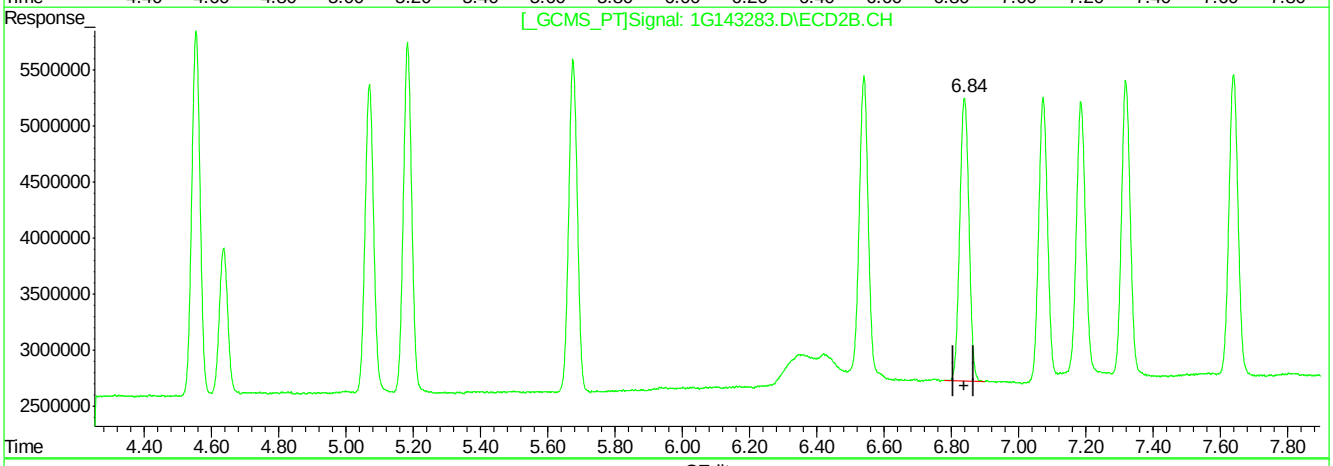
(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:05:56 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(12) gamma-Chlordane (B)

5.38min 26.277PPB

response 180030096

(12) gamma-Chlordane #2 (B)

6.84min 23.852PPB

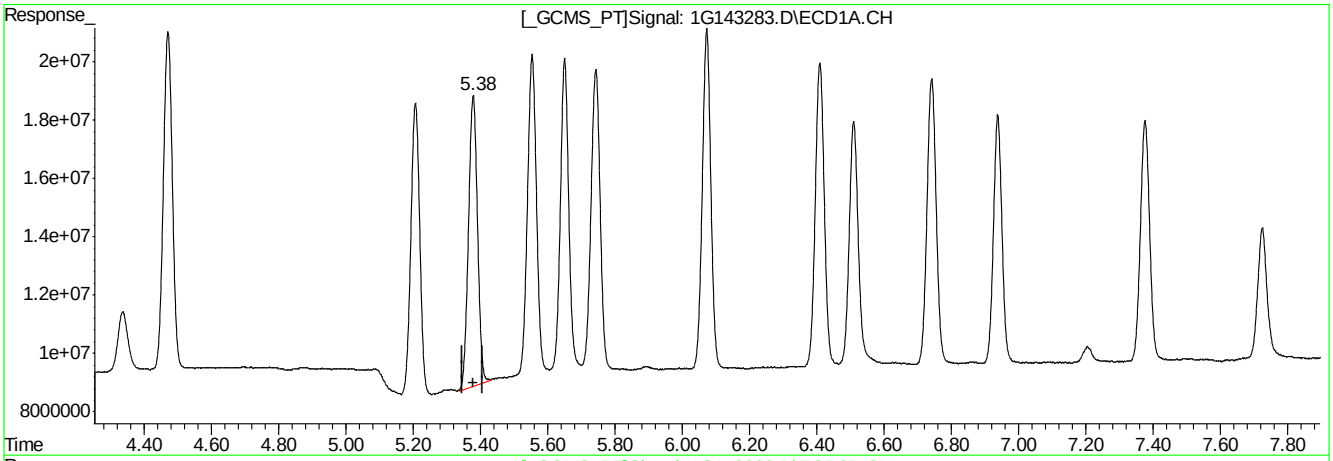
response 48259883

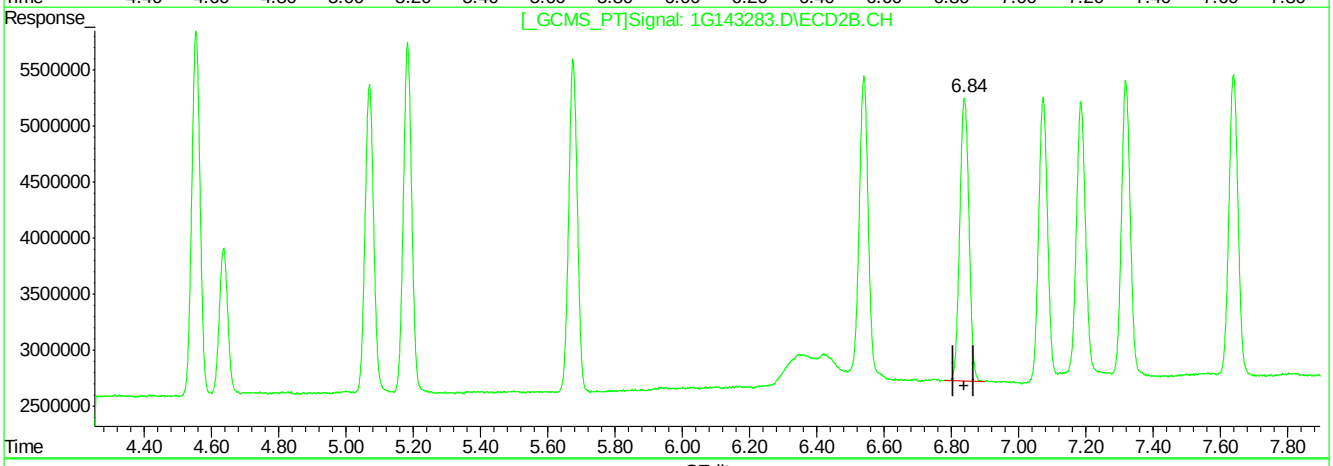
(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:06:09 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(12) gamma-Chlordane (B)

5.38min 27.087PPB m

response 185582607

(12) gamma-Chlordane #2 (B)

6.84min 23.852PPB

response 48259883

(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:06:13 2018 RPT1

11.6.15.5 11

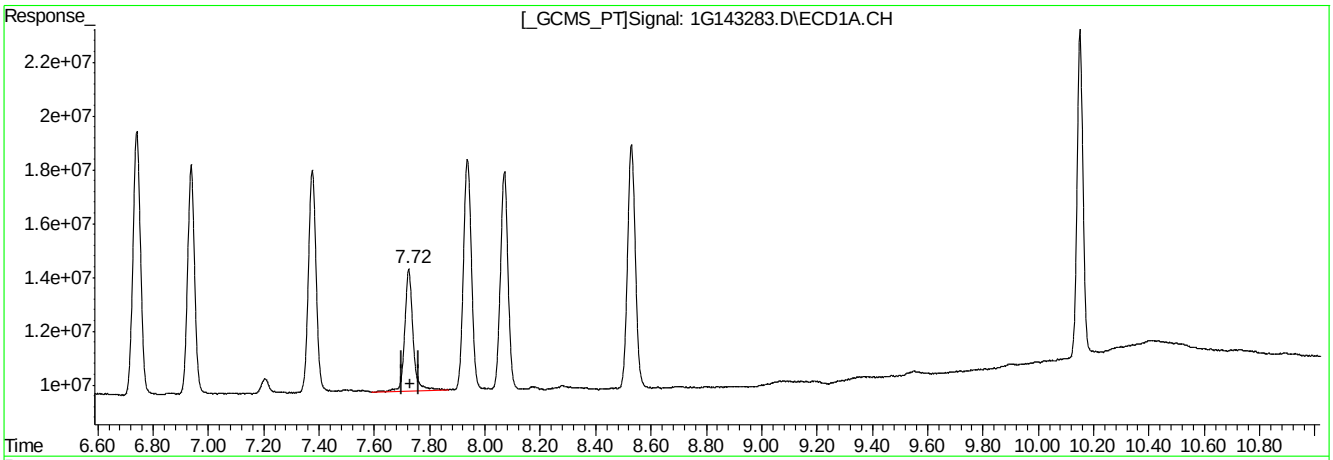
1G143283.D edits: gamma-Chlordane

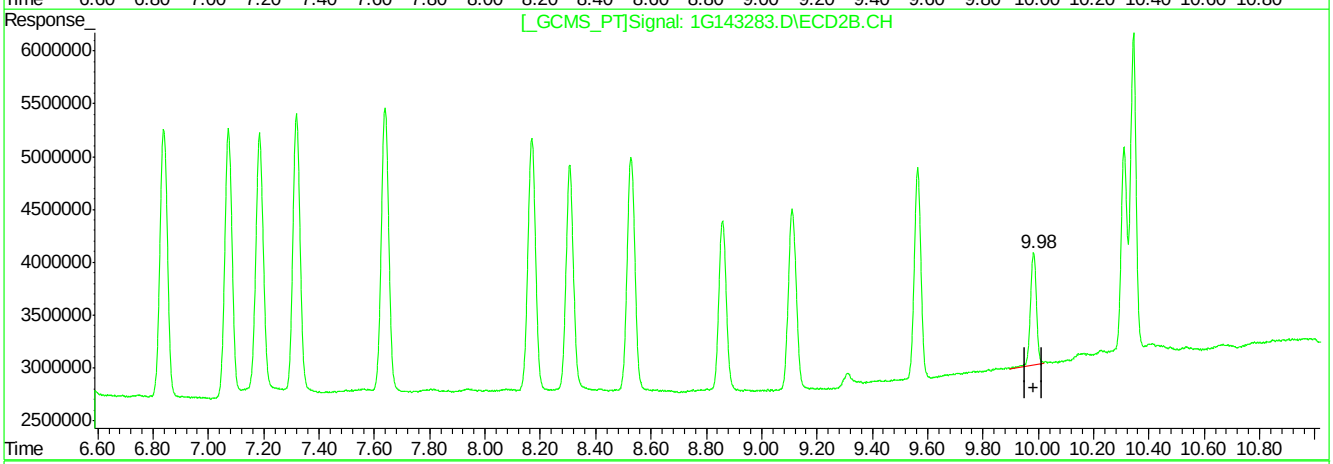
JC62881

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.72min 31.301PPB

response 94877240

(23) Methoxychlor #2 (A)

9.98min 27.855PPB

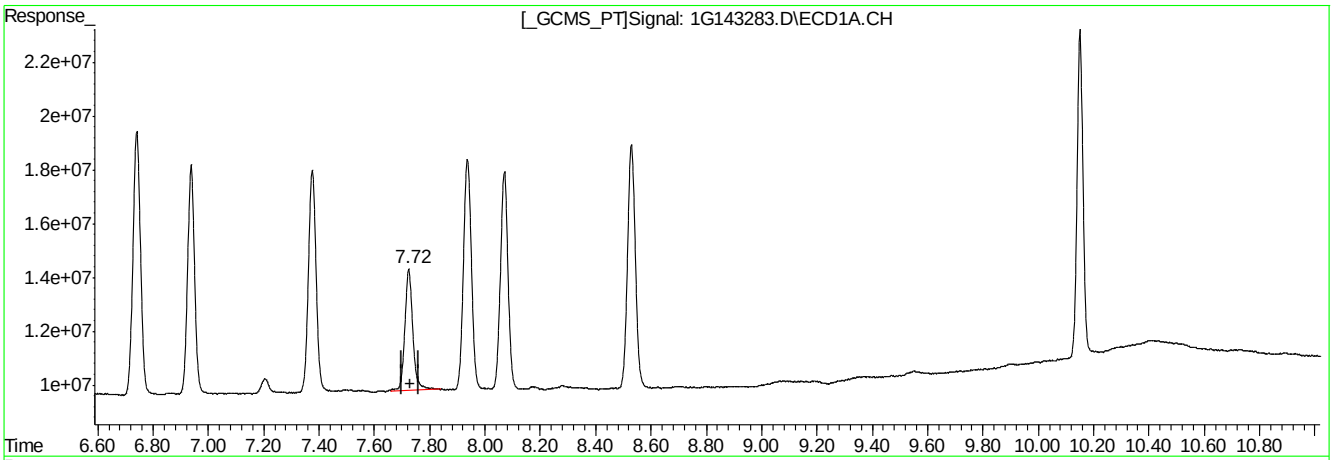
response 15999744

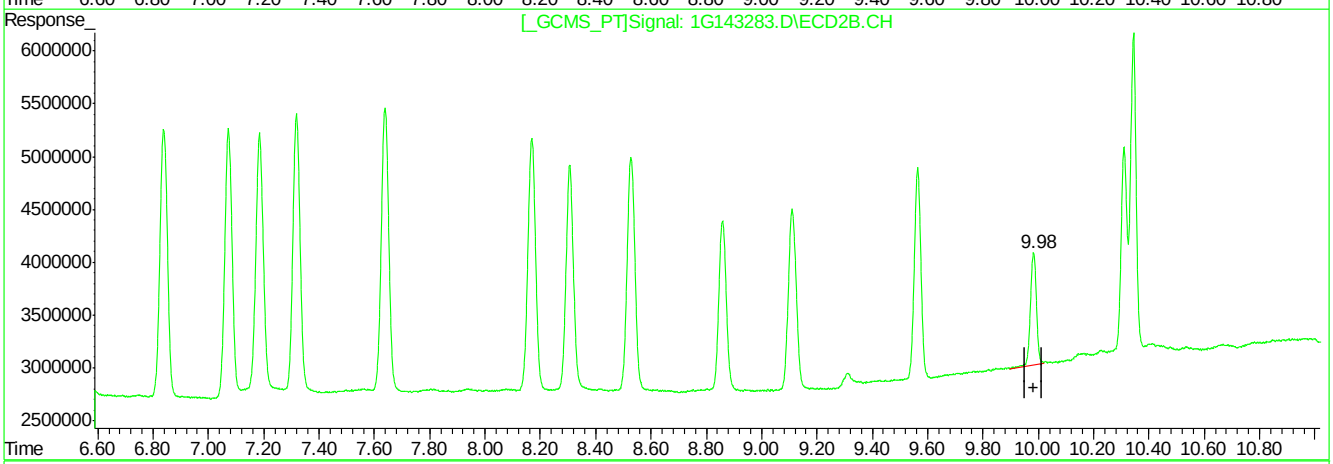
(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:06:23 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.72min 29.370PPB m

response 89024302

(23) Methoxychlor #2 (A)

9.98min 27.855PPB

response 15999744

(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:06:33 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:21

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	495.3E6	111.6E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.45	495.3E6	111.6E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.45	495.3E6	111.6E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.77	3.35	223.0E6	50596604	25.429	24.983
		Spiked Amount 40.000	Range 30 - 150		Recovery =		63.57%	62.46%
26)	SA	Decachlorobiphen	10.13	12.03	176.2E6	31572043	24.612	21.591
		Spiked Amount 40.000			Recovery =		61.53%	53.98%
		Target Compounds						
3)		Hexachlorobenzen	3.12	3.91	365.6E6	68545660	33.075	23.962
4)	A	alpha-BHC	3.27	4.06	287.0E6	69939096	26.180	25.620
5)	MA	gamma-BHC	3.58	4.53	267.6E6	61962827	25.809	25.043
6)	MA	Heptachlor	4.09	5.15	291.3E6	63034334	26.986	27.157
7)	B	beta-BHC	3.66	4.62	111.1E6	22582665	21.482	20.841
8)	B	delta-BHC	3.87	5.05	205.7E6	52317557	23.961	23.411
9)	MB	Aldrin	4.45	5.64	260.8E6	61527479	26.419	26.063
10)		Alachlor	4.57	5.39	31195297	7013428	22.146m	22.823m
11)	B	Heptachlor Epoxi	5.18	6.50	259.5E6	54569219	25.755	24.610
12)	B	gamma-Chlordane	5.35	6.80	220.8E6	54396012	28.675	25.330
13)	B	alpha-Chlordane	5.53	7.03	242.8E6	53546354	25.702	25.312
14)	A	Endosulfan I	5.71	7.15	271.3E6	50231464	29.293	24.563
15)	B	4,4'-DDE	5.64	7.29	238.7E6	50662929	26.904	22.693
16)	MA	Dieldrin	6.04	7.60	251.0E6	57121877	26.751	25.164
17)	MA	Endrin	6.38	8.13	229.3E6	50926997	26.624	25.506
18)	A	4,4'-DDD	6.52	8.29	136.4E6	34534949	20.691	20.054
19)	B	Endosulfan II	6.71	8.49	217.4E6	47195480	25.285	23.756
20)	MA	4,4'-DDT	6.92	8.83	141.6E6	30452856	23.340	26.206
21)	B	Endrin Aldehyde	7.35	9.07	166.3E6	36311251	23.082	23.219
22)	B	Endosulfan Sulfa	8.04	9.53	161.9E6	36124120	24.066	26.125
23)	A	Methoxychlor	7.73	9.96	63689405	12500644	18.695	20.505m
24)		Mirex	7.90	10.28	191.9E6	32418723	23.690	26.639
25)	B	Endrin Ketone	8.50	10.32	196.0E6	40632629	27.278	25.844

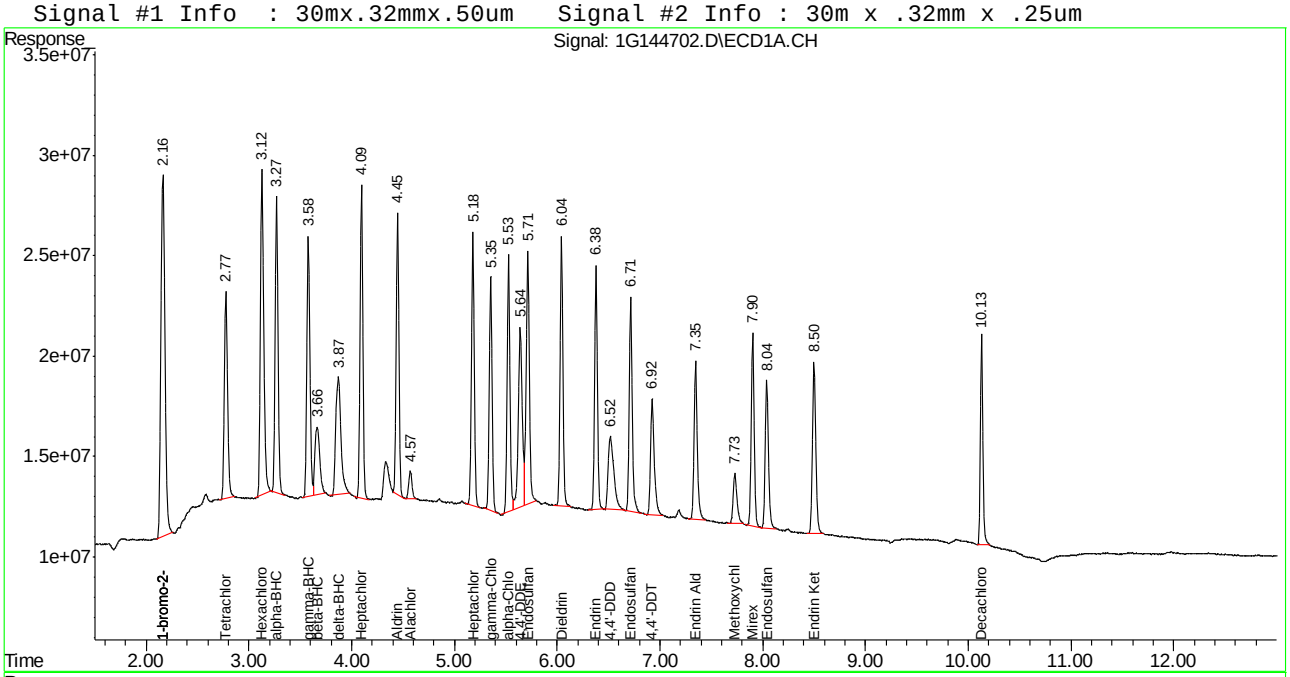
(f)=RT Delta > 1/2 Window (m)=manual int.

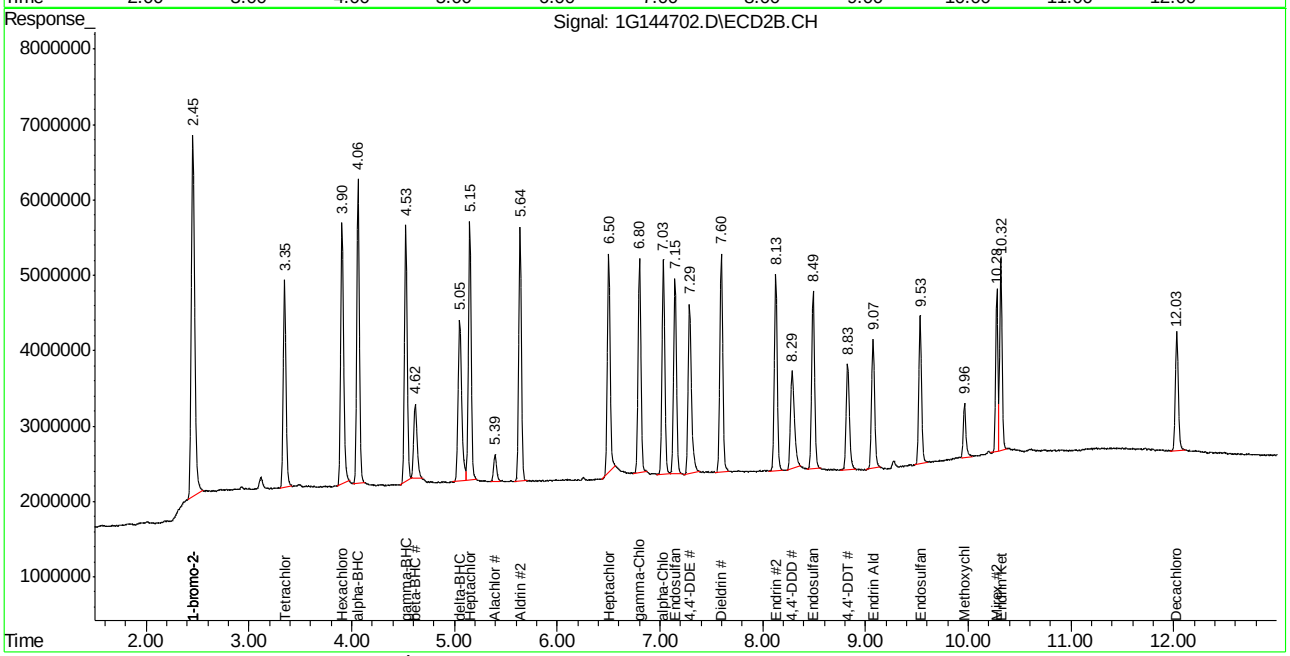
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

Manual Integration Approval Summary

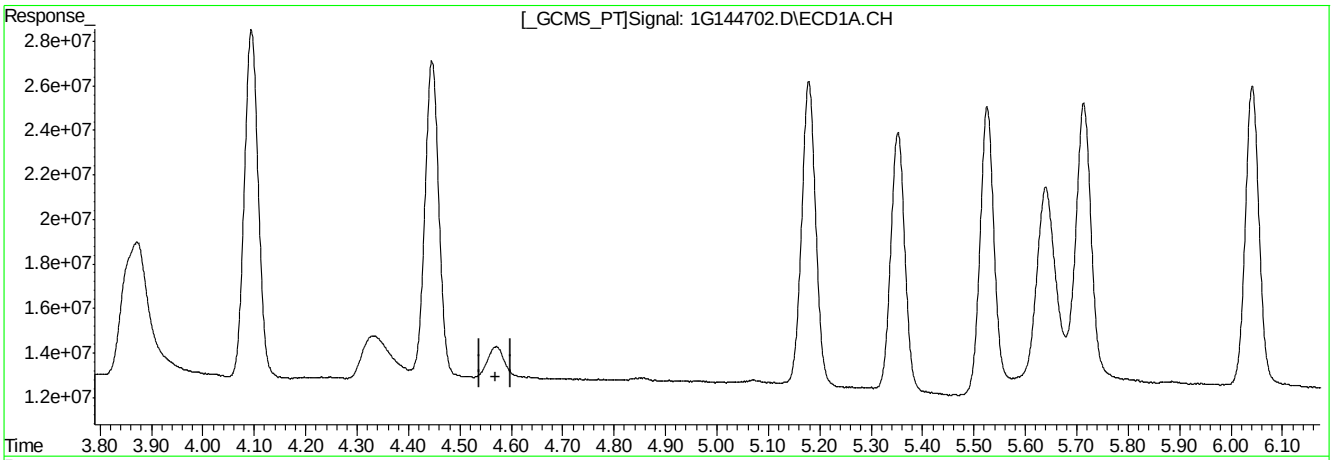
Sample Number: G1G4598-CC4557 **Method:** SW846 8081B
Lab FileID: 1G144702.D **Analyst approved:** 03/28/18 09:29 Dharmistha Mehta
Injection Time: 03/28/18 00:47 **Supervisor approved:** 03/29/18 09:21 Gwendolyn Burns

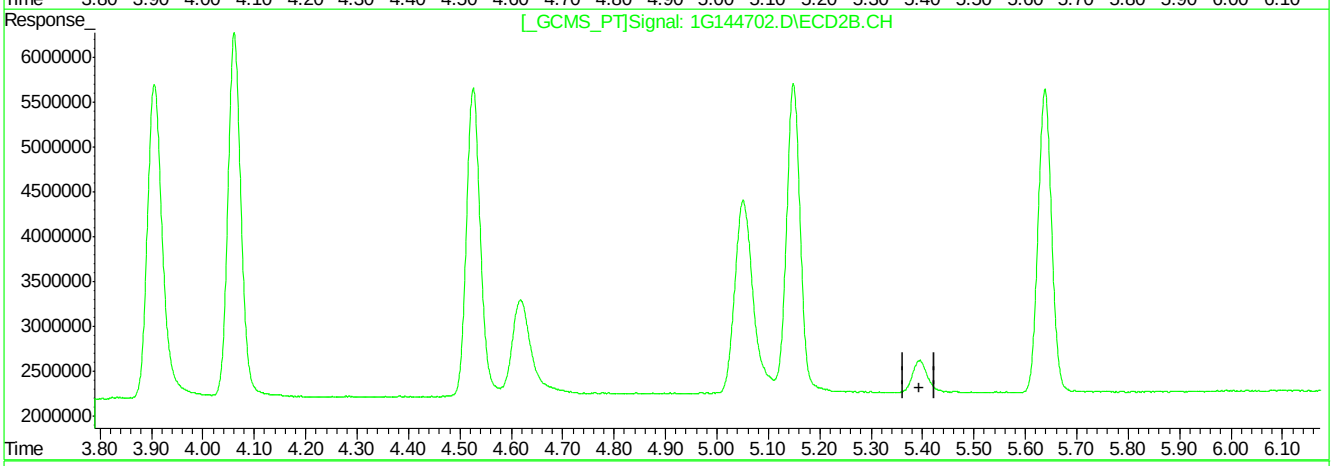
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.57	Poorly defined baseline
Alachlor	15972-60-8	2	5.39	Poorly defined baseline
Methoxychlor	72-43-5	2	9.96	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

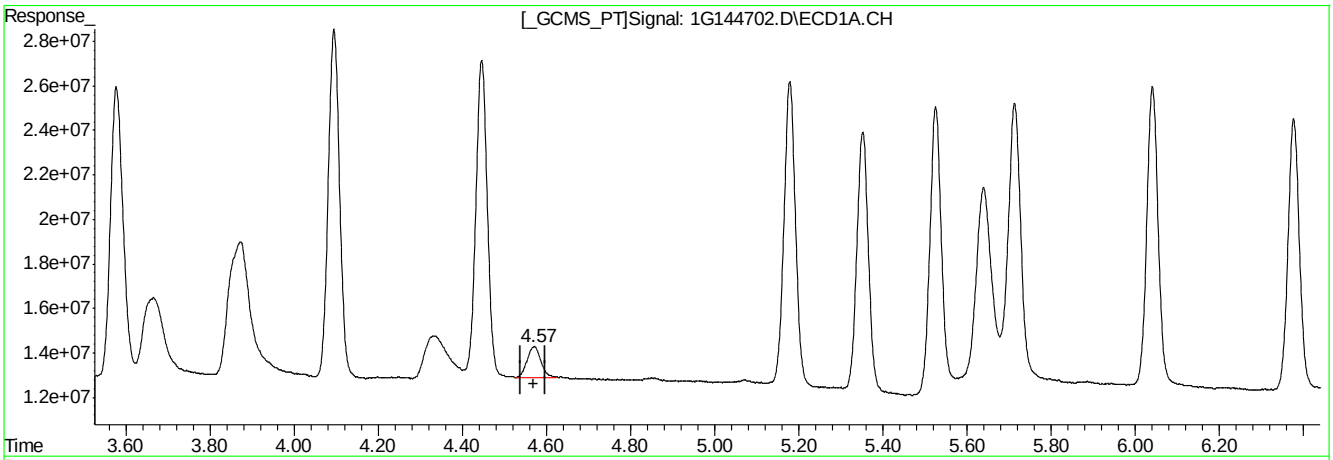
response 0

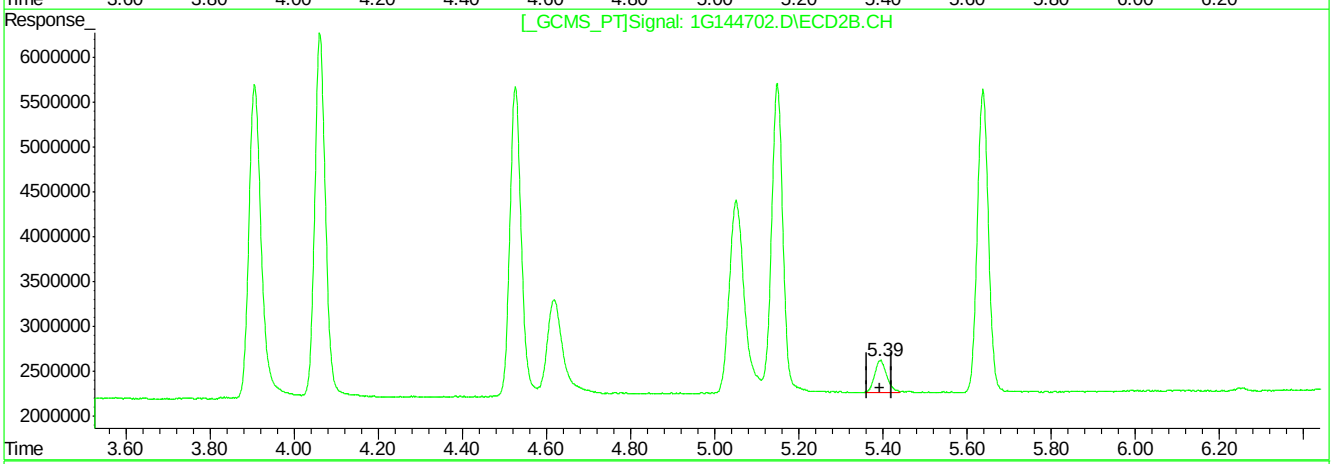
(+) = Expected Retention Time
1G144702.D 1PST4557.M Wed Mar 28 01:03:07 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.57min 22.146PPB m

response 31195297

(10) Alachlor #2

5.39min 22.823PPB m

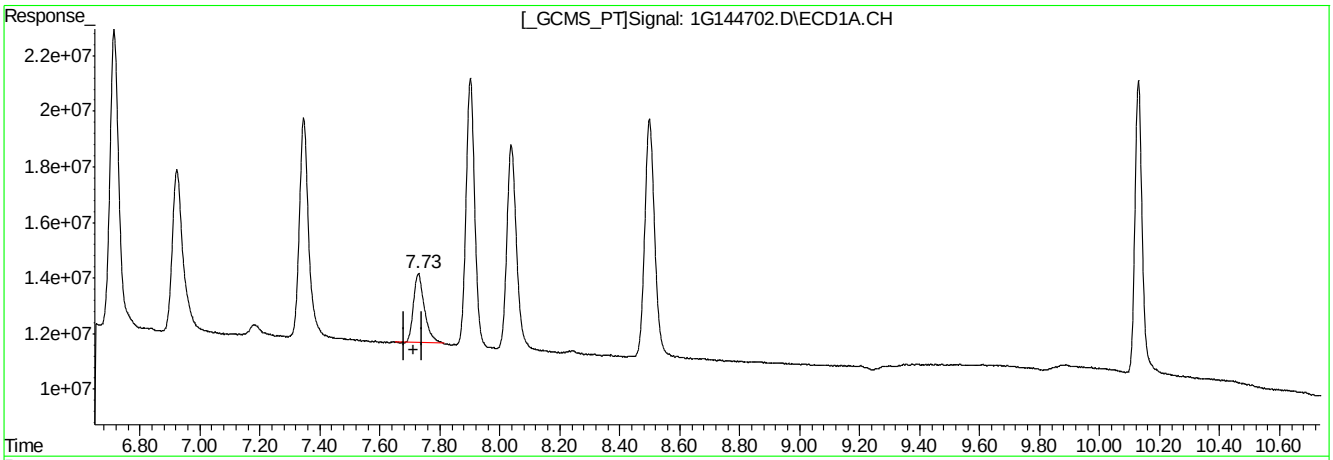
response 7013428

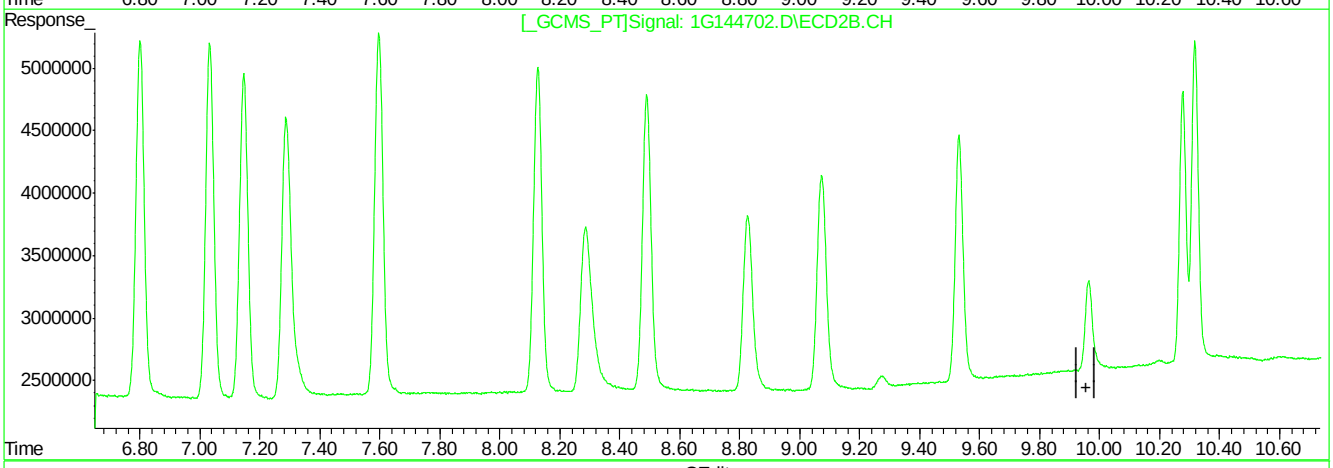
(+) = Expected Retention Time
1G144702.D 1PST4557.M Wed Mar 28 01:03:31 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 18.695PPB

response 63689405

(23) Methoxychlor #2 (A)

0.00min 0.000PPB

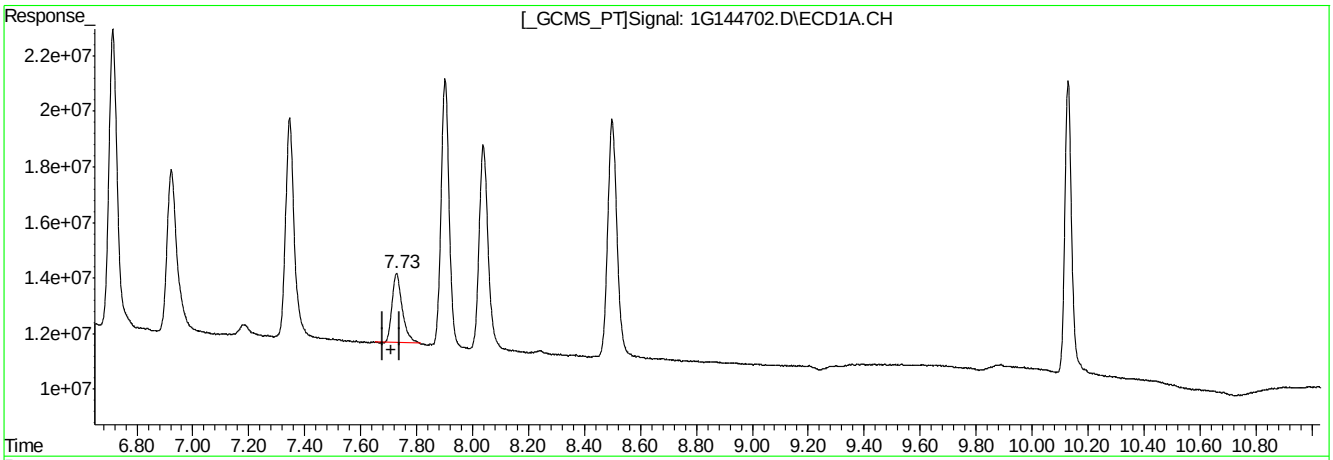
response 0

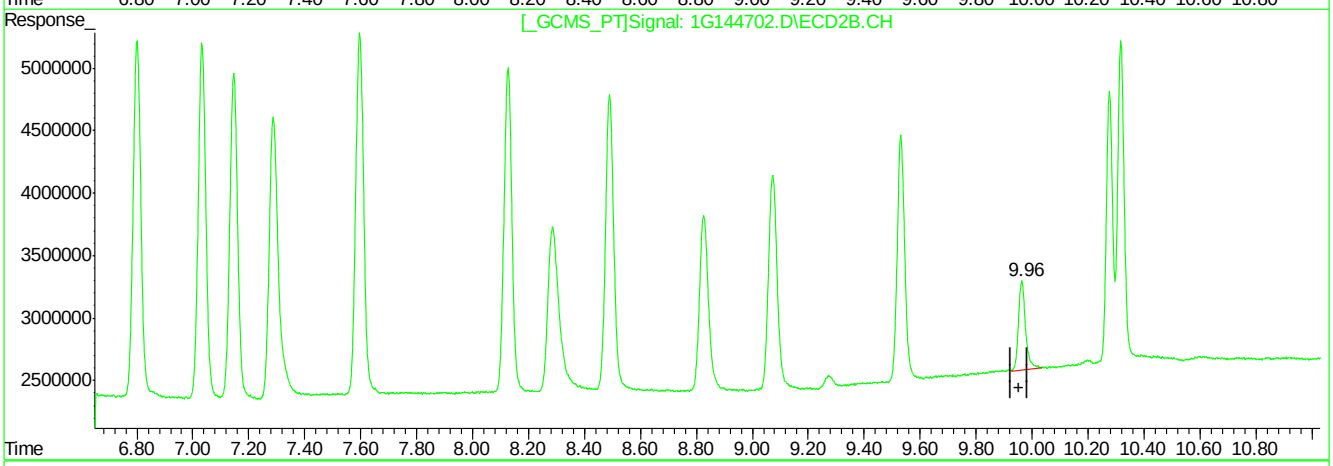
(+) = Expected Retention Time
1G144702.D 1PST4557.M Wed Mar 28 01:04:03 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 18.695PPB

response 63689405

(23) Methoxychlor #2 (A)

9.96min 20.505PPB m

response 12500644

(+) = Expected Retention Time
1G144702.D 1PST4557.M Wed Mar 28 01:04:16 2018 RPT1

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 09:21

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:23 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	2.16	2.45	528.6E6	115.6E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.45	528.6E6	115.6E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.45	528.6E6	115.6E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.77	3.34	505.0E6	110.0E6	53.970	52.416
		Spiked Amount 40.000	Range 30 - 150		Recovery =		134.93%	131.04%
26)	SA	Decachlorobiphen	10.13	12.03	415.0E6	65345280	54.311	43.144
		Spiked Amount 40.000			Recovery =		135.78%	107.86%
		Target Compounds						
3)		Hexachlorobenzen	3.12	3.90	804.7E6	145.4E6	68.225	49.080
4)	A	alpha-BHC	3.27	4.06	694.0E6	152.2E6	59.332	53.845
5)	MA	gamma-BHC	3.58	4.52	611.7E6	139.4E6	55.280	54.396
6)	MA	Heptachlor	4.09	5.15	646.0E6	139.9E6	56.083	58.172
7)	B	beta-BHC	3.65	4.62	251.1E6	59208387	45.485	52.754
8)	B	delta-BHC	3.86	5.05	455.8E6	114.2E6	49.746	49.320
9)	MB	Aldrin	4.45	5.64	644.4E6	137.1E6	61.185	56.084
10)		Alachlor	4.57	5.40	61726133	16706059	41.065m	52.488m
11)	B	Heptachlor Epoxi	5.18	6.50	594.2E6	124.0E6	55.265	54.009
12)	B	gamma-Chlordane	5.35	6.80	604.5E6	123.7E6	73.571	55.593
13)	B	alpha-Chlordane	5.53	7.03	592.3E6	119.6E6	58.745	54.570
14)	A	Endosulfan I	5.71	7.15	774.2E6	113.9E6	78.331	53.765
15)	B	4,4'-DDE	5.66	7.30	266.2E6	104.6E6	28.114	45.252
16)	MA	Dieldrin	6.04	7.60	609.1E6	128.9E6	60.840	54.832
17)	MA	Endrin	6.38	8.13	524.3E6	106.6E6	57.046	51.560
18)	A	4,4'-DDD	6.56f	8.31f	285.8E6	74251670	40.640m	41.629m
19)	B	Endosulfan II	6.72	8.49	554.5E6	106.4E6	60.437	51.704
20)	MA	4,4'-DDT	6.94	8.83	312.3E6	63445466	48.225	52.712
21)	B	Endrin Aldehyde	7.35	9.07	413.7E6	86468784	53.807	53.381
22)	B	Endosulfan Sulfa	8.04	9.53	413.6E6	84906614	57.617	59.283
23)	A	Methoxychlor	7.74	9.97	136.8E6	26236785	37.638m	41.550
24)		Mirex	7.90	10.28	468.4E6	72619892	54.180	57.613
25)	B	Endrin Ketone	8.50	10.32	503.9E6	96779560	65.714	59.429

(f)=RT Delta > 1/2 Window (m)=manual int.
1G144723.D 1PST4557.M Wed Mar 28 09:23:56 2018 RPT1 Page 1

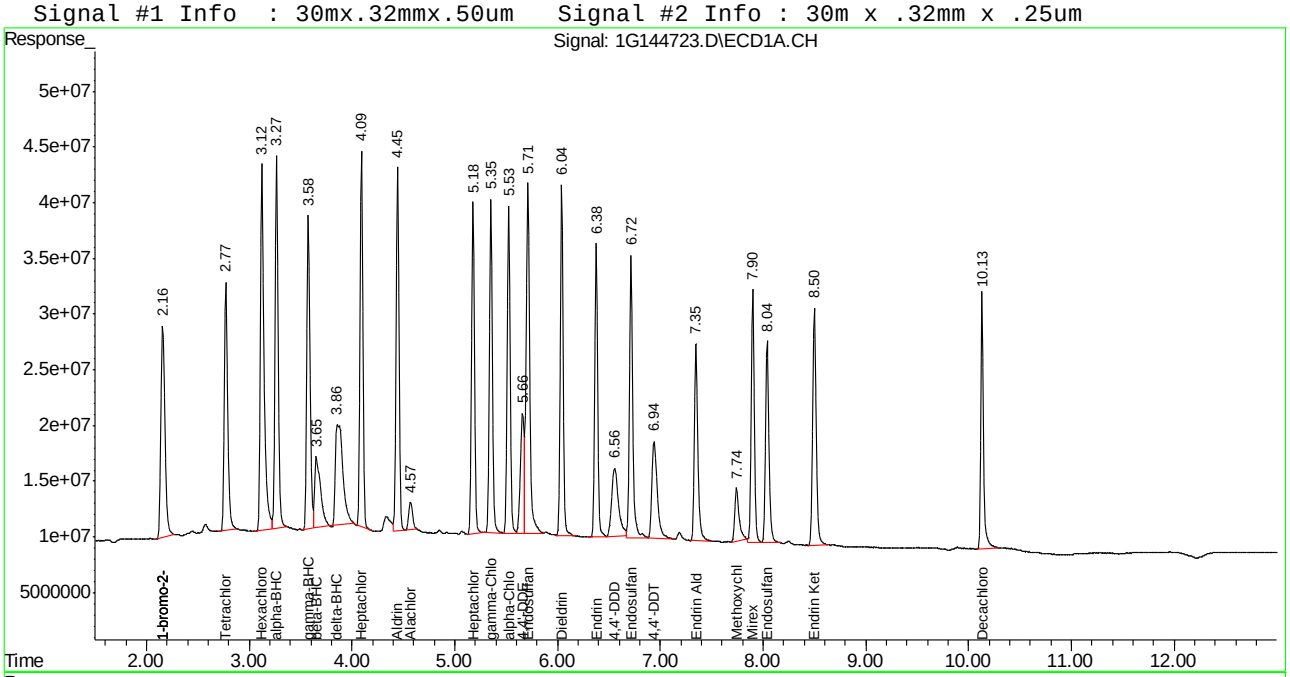
11.6.17 11

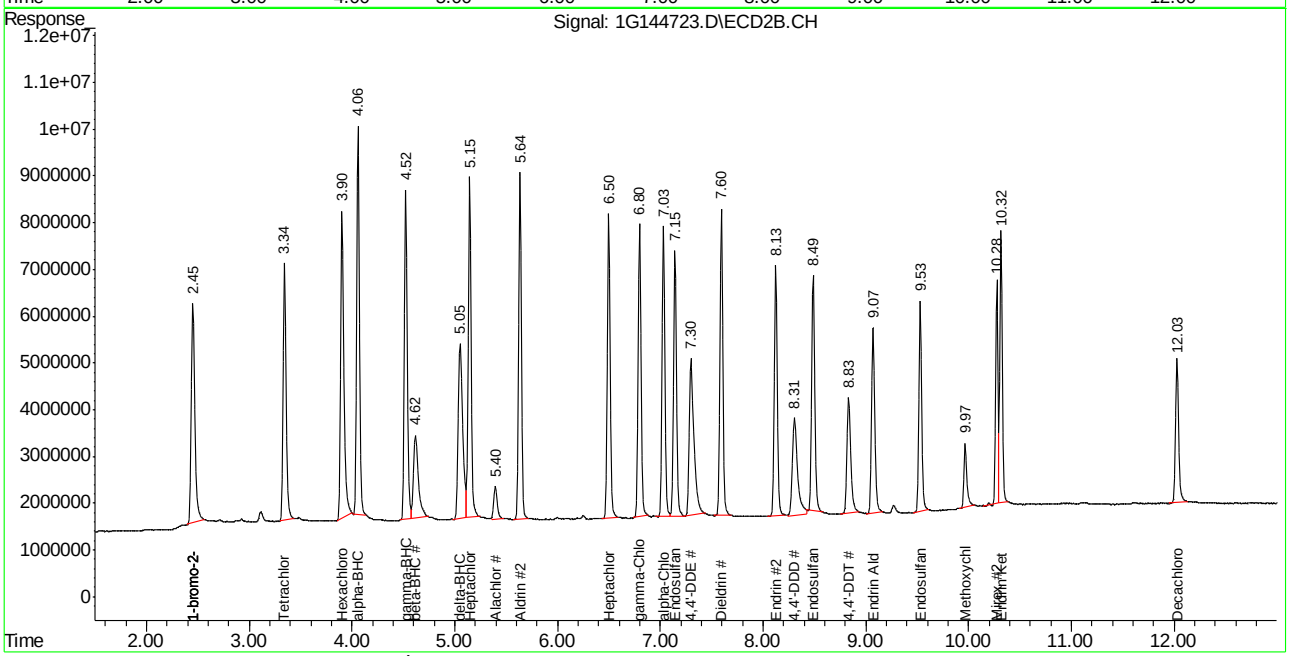
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:23 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62881

11.6.17 11

Manual Integration Approval Summary

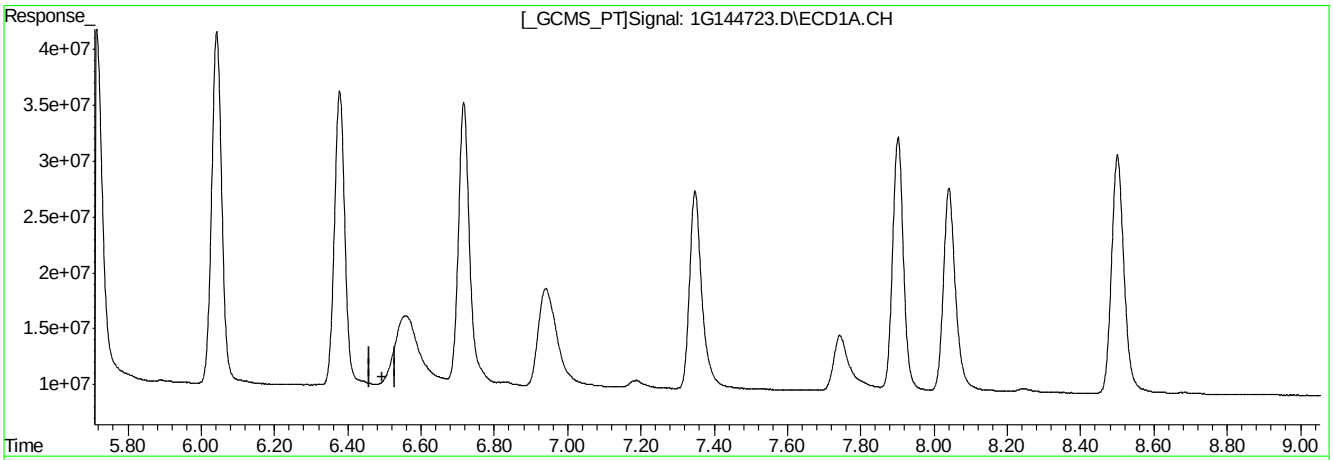
Sample Number:	G1G4598-CC4557	**Method:**	SW846 8081B
Lab FileID:	1G144723.D	**Analyst approved:**	03/28/18 09:30 Dharmistha Mehta
Injection Time:	03/28/18 06:53	**Supervisor approved:**	03/29/18 09:21 Gwendolyn Burns

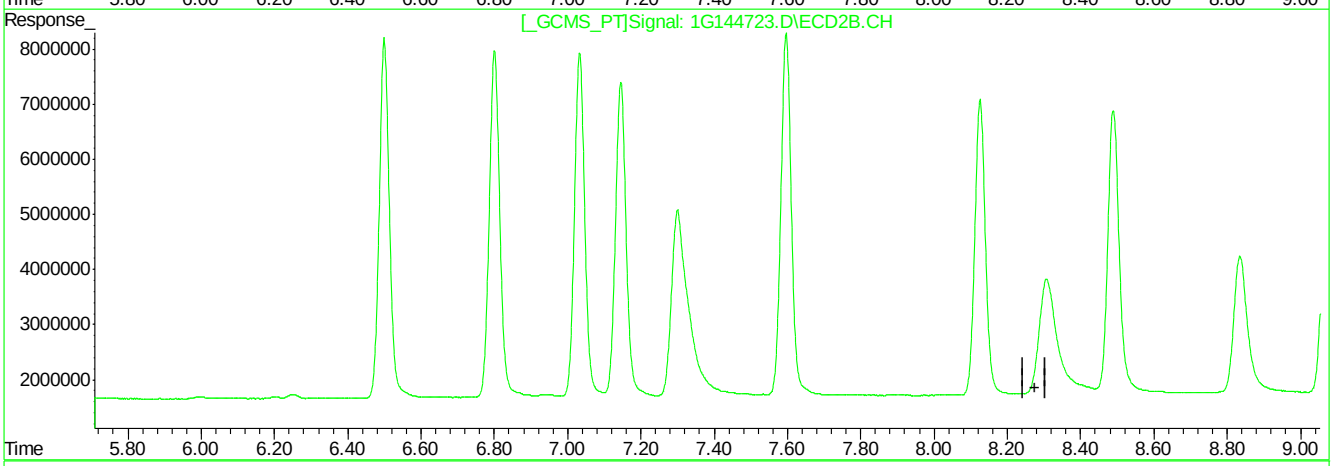
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.57	Poorly defined baseline
Alachlor	15972-60-8	2	5.40	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.56	Poorly defined baseline
Methoxychlor	72-43-5	1	7.74	Poorly defined baseline
4,4'-DDD	72-54-8	2	8.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:22 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(18) 4,4'-DDD #2 (A)

0.00min 0.000PPB

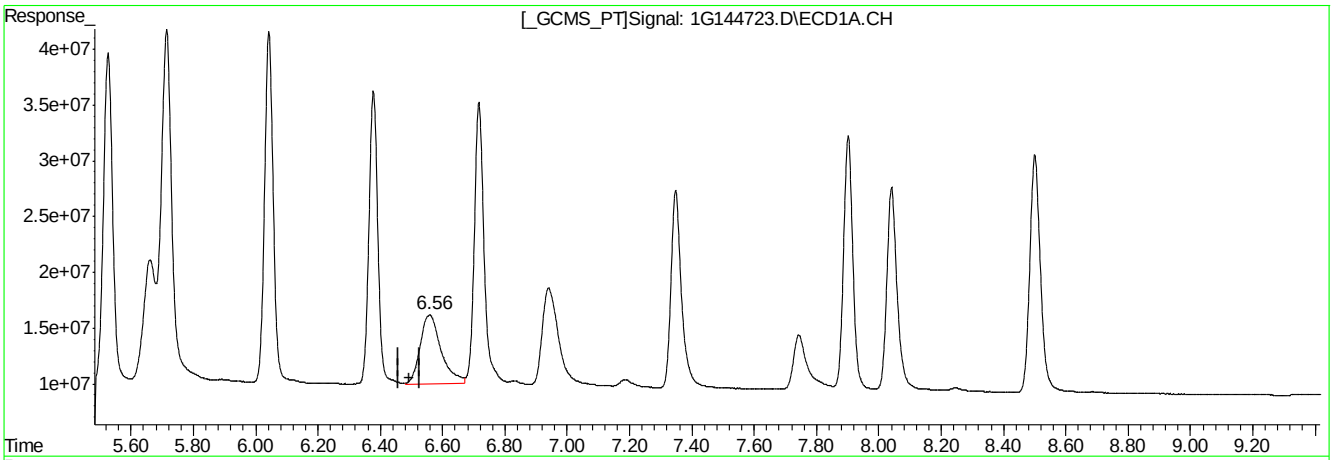
response 0

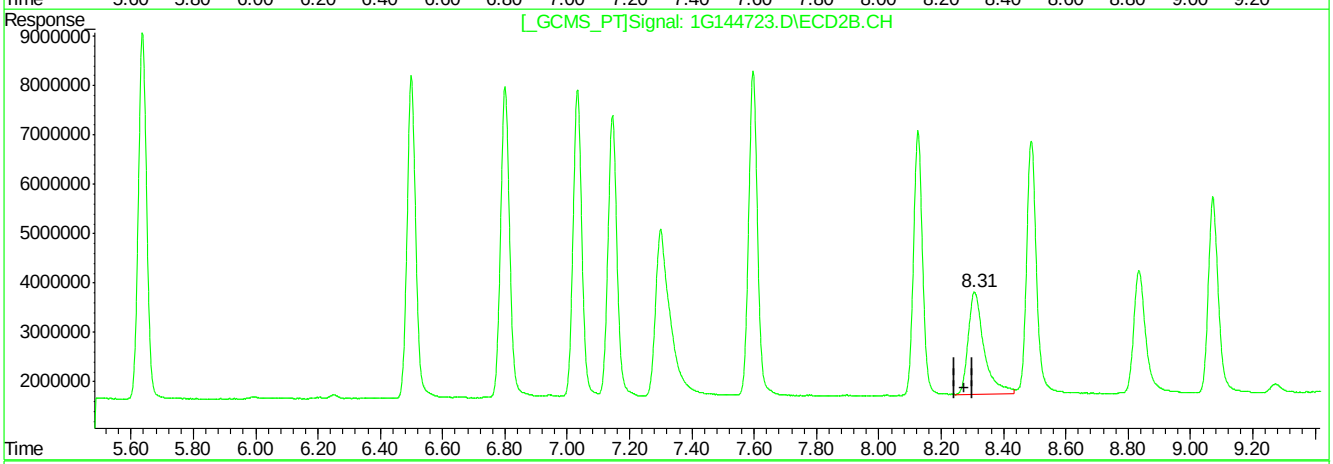
(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 08:23:17 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:22 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

6.56min 40.640PPB m

response 285821272

(18) 4,4'-DDD #2 (A)

8.31min 41.629PPB m

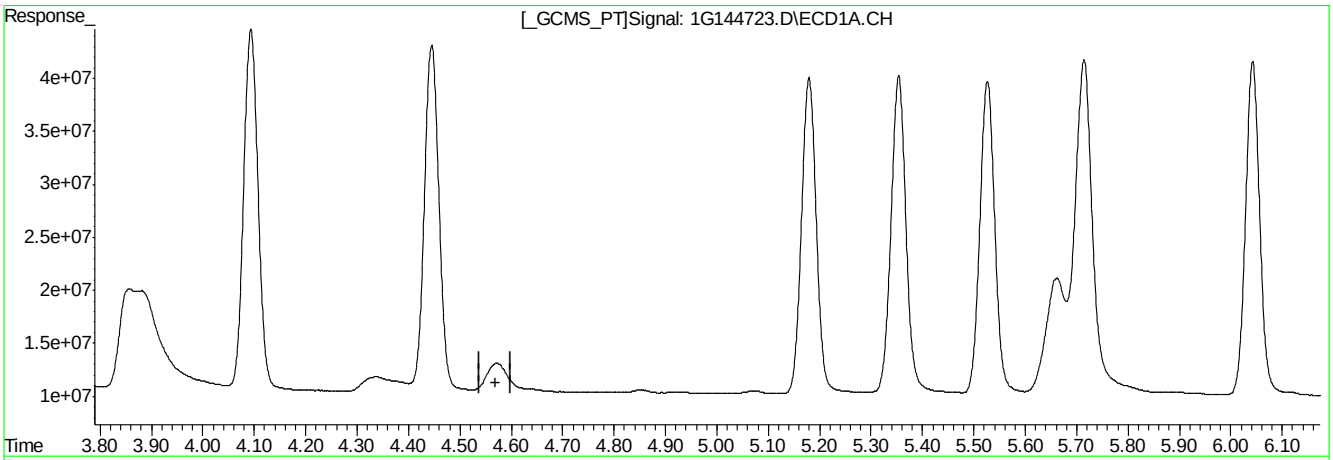
response 74251670

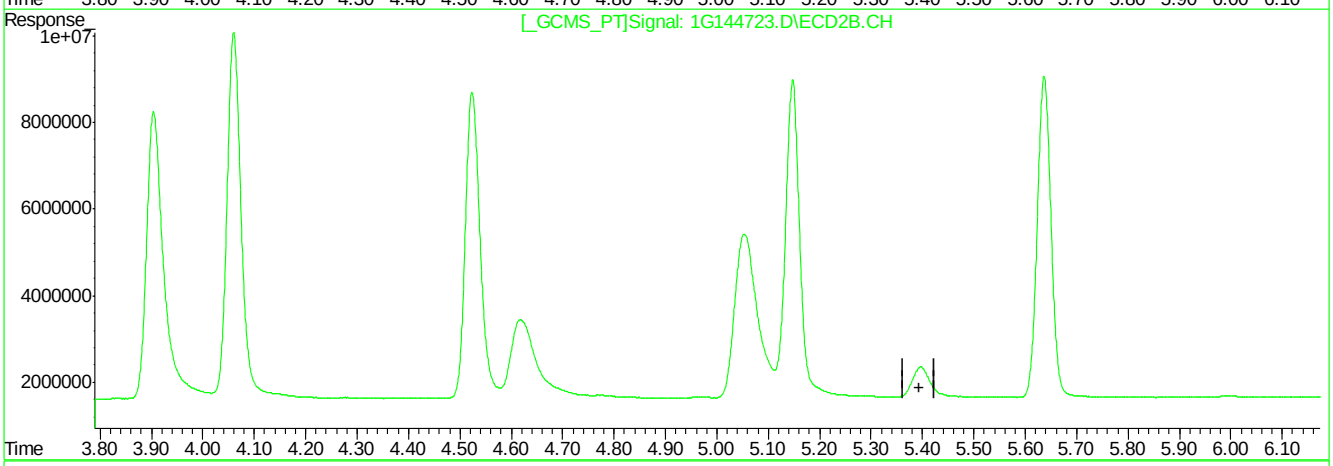
(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 08:24:07 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:22 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

response 0

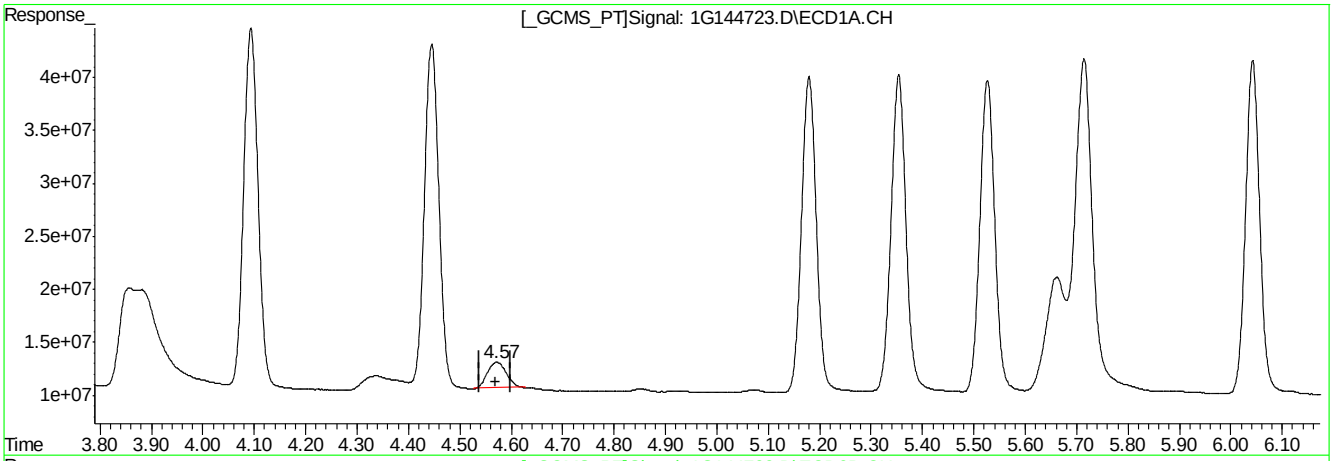
(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 08:24:12 2018 RPT1

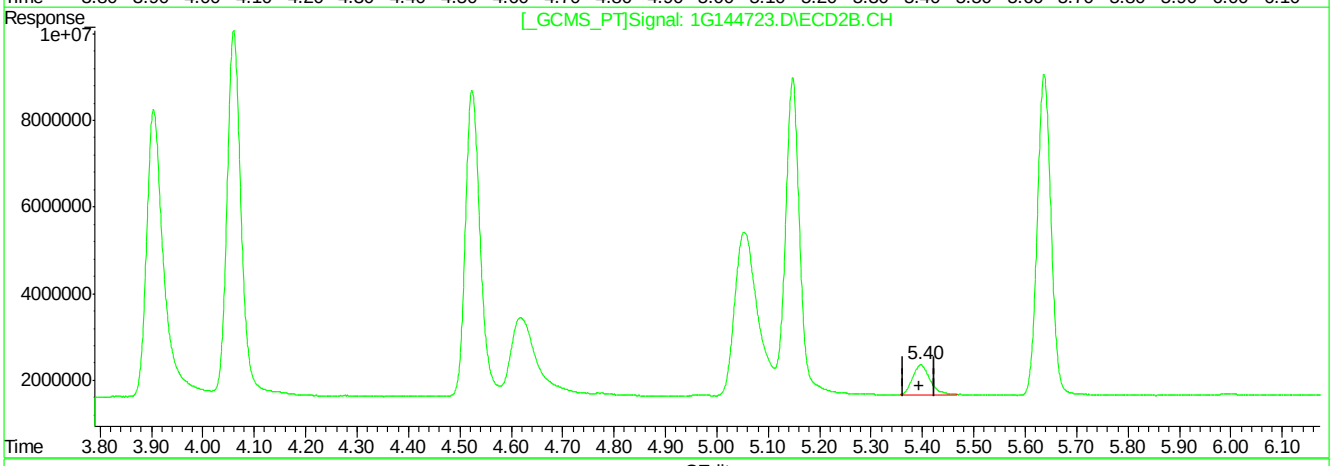
11.6.17.4 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:22 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.57min 41.065PPB m

response 61726133

(10) Alachlor #2

5.40min 52.488PPB m

response 16706059

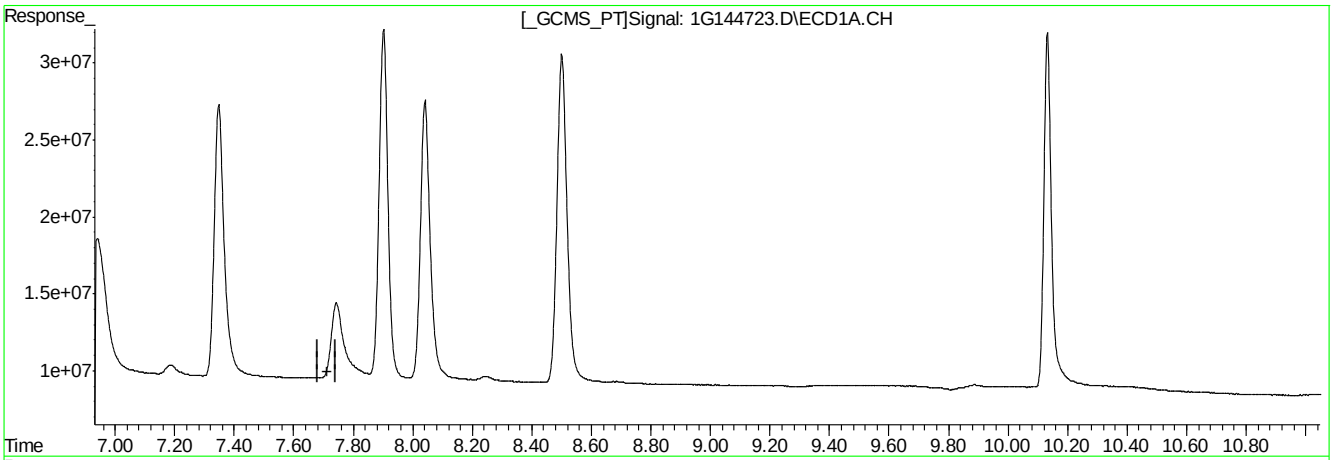
(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 08:24:32 2018 RPT1

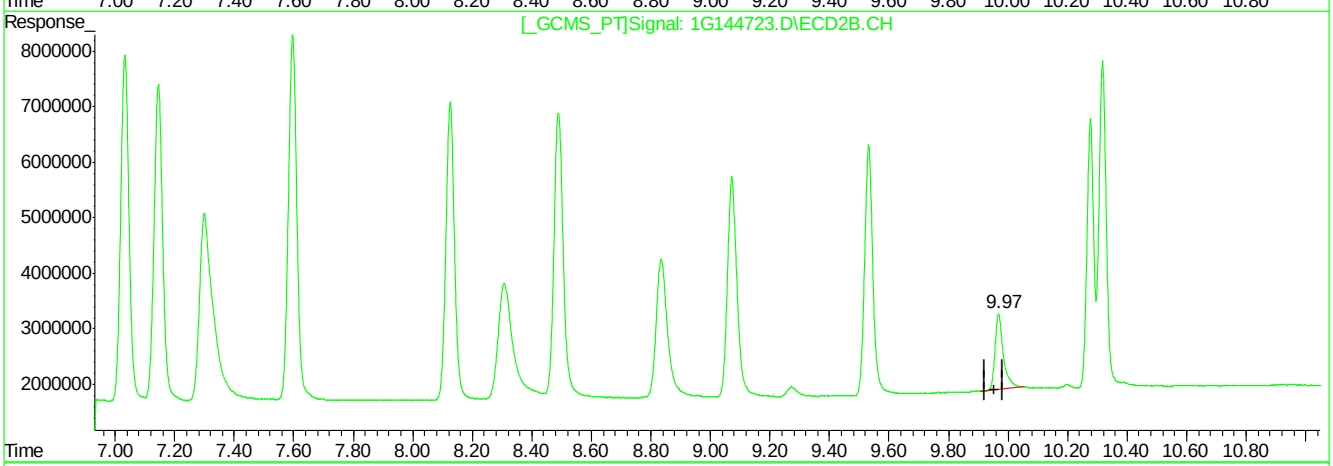
11.6.17.5 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:24 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

9.97min 41.550PPB

response 26236785

(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 09:23:42 2018 RPT1

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:26 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	25649	31232	2.219	2.006
	Spiked Amount 40.000			Recovery	=	5.55%	5.01%
51) S	Decachlorobiphen	14.19	17.33	41752	53159	2.445m	2.520m
	Spiked Amount 40.000			Recovery	=	6.11%	6.30%
	Target Compounds						
41)	AR1016-A	3.72	5.16	18345	25722	57.906	62.745m
42)	AR1016-B	4.26	5.99	33896	51975	61.471	64.484
43)	AR1016-C	5.06	6.94	73105	102581	59.548	62.980
44)	AR1016-D	5.30	7.23	28166	41388	59.157	58.559
45)	AR1016-E	6.03	8.25	30175	29627	61.053	61.944
46)	AR1260-A	9.66	12.36	80860	111005	59.384	62.291
47)	AR1260-B	9.91	12.55	39468	52612	60.039	65.290
48)	AR1260-C	10.44	13.24	35823	54185	58.264	62.956
49)	AR1260-D	11.12	13.80	87928	108139	56.104	60.321
50)	AR1260-E	11.74	14.66	84866	104122	54.944m	55.899m

11.6.18 11

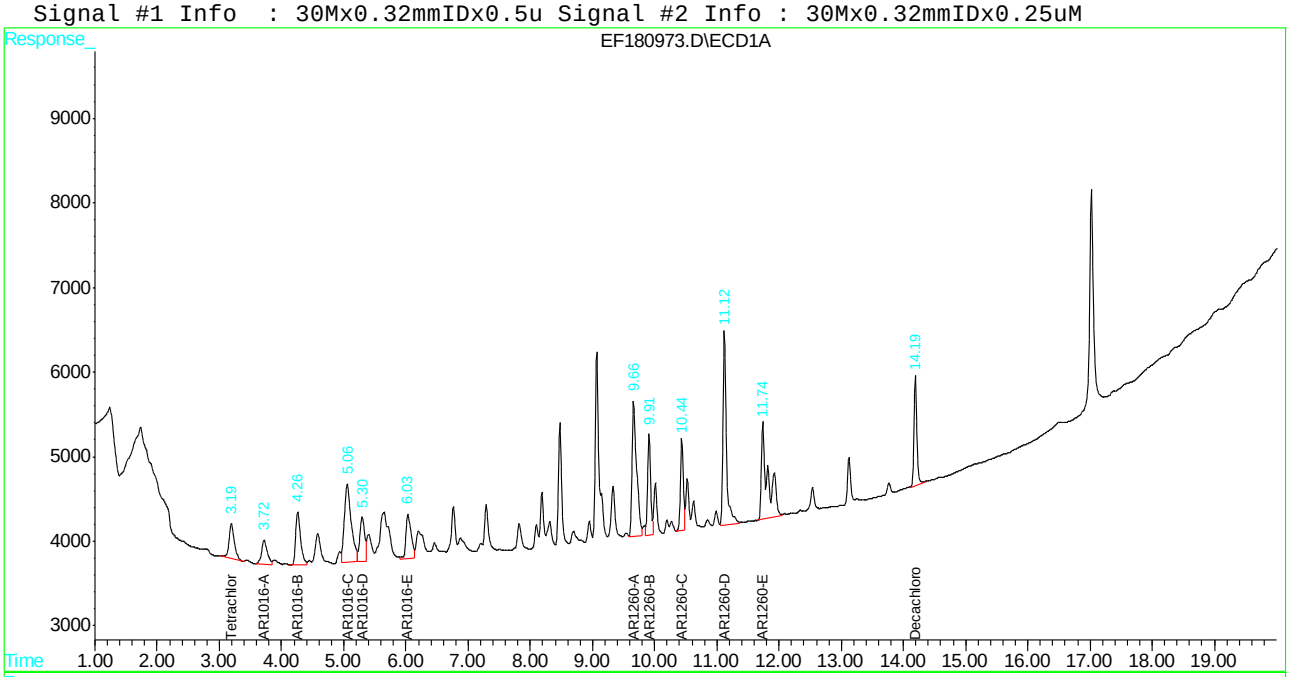
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180973.D PCB6195.M Tue Mar 20 15:27:04 2018 GCEF Page 1

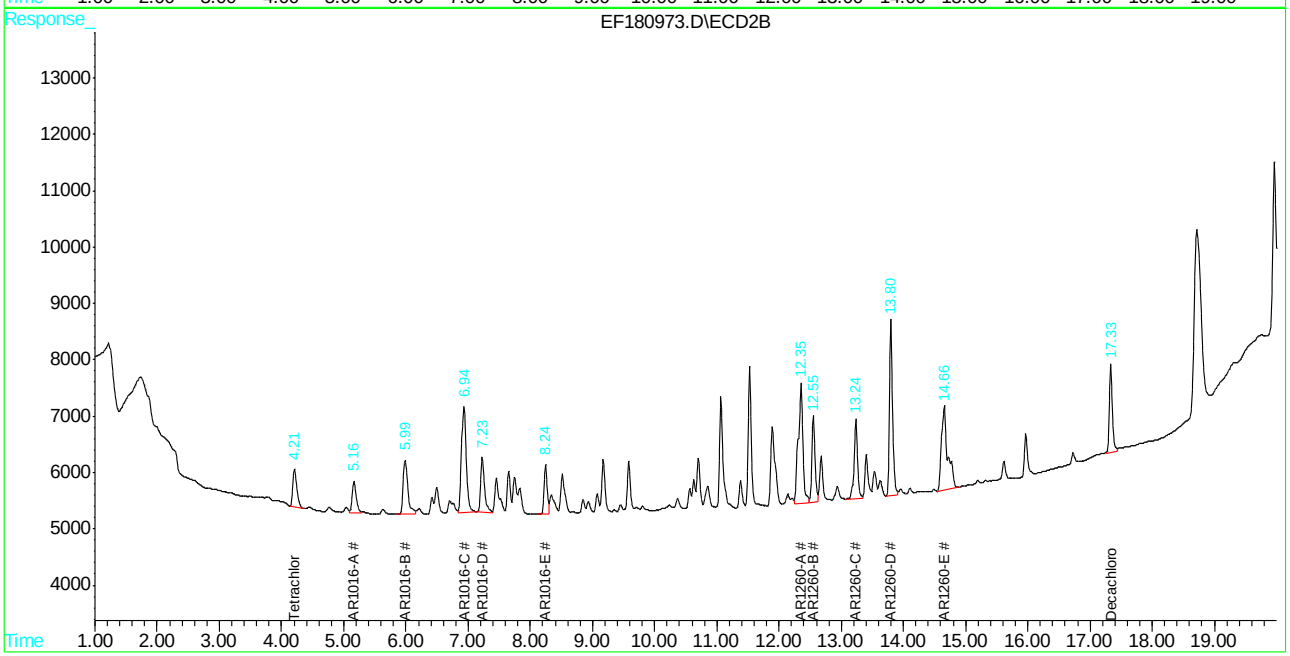
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:26 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integration Approval Summary

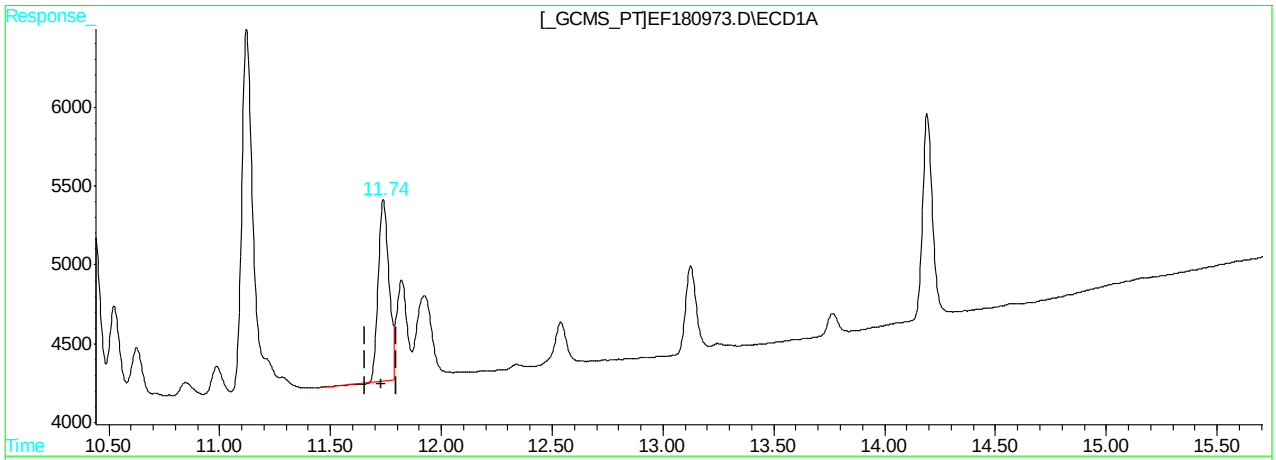
Sample Number:	GEF6195-IC6195	**Method:**	SW846 8082A
Lab FileID:	EF180973.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 17:24	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

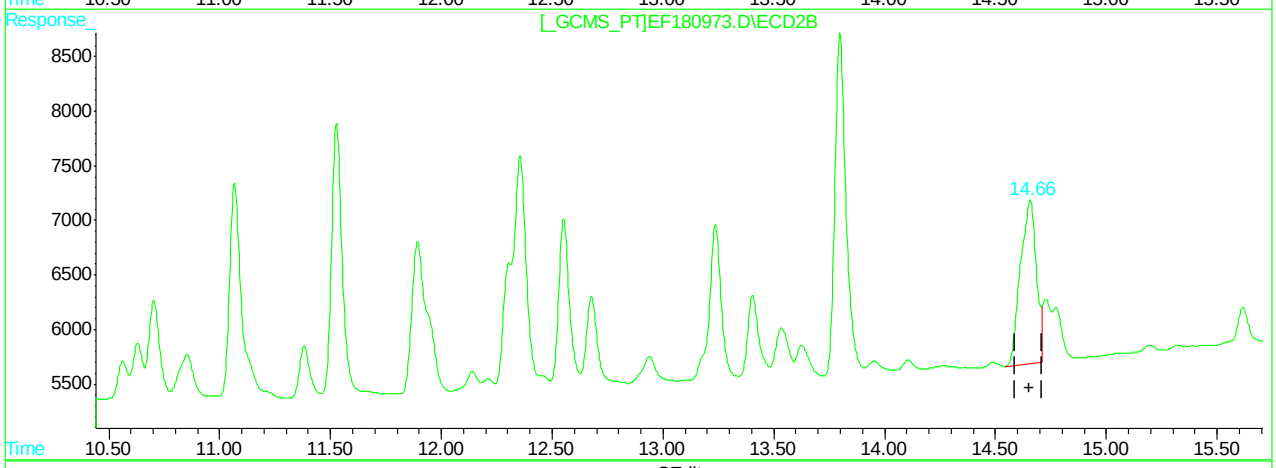
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		2	5.16	Split peak
AR1260-E		1	11.74	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
AR1260-E		2	14.66	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 24.593PPB

response 37987

(50) AR1260-E #2

14.66min 39.735PPB

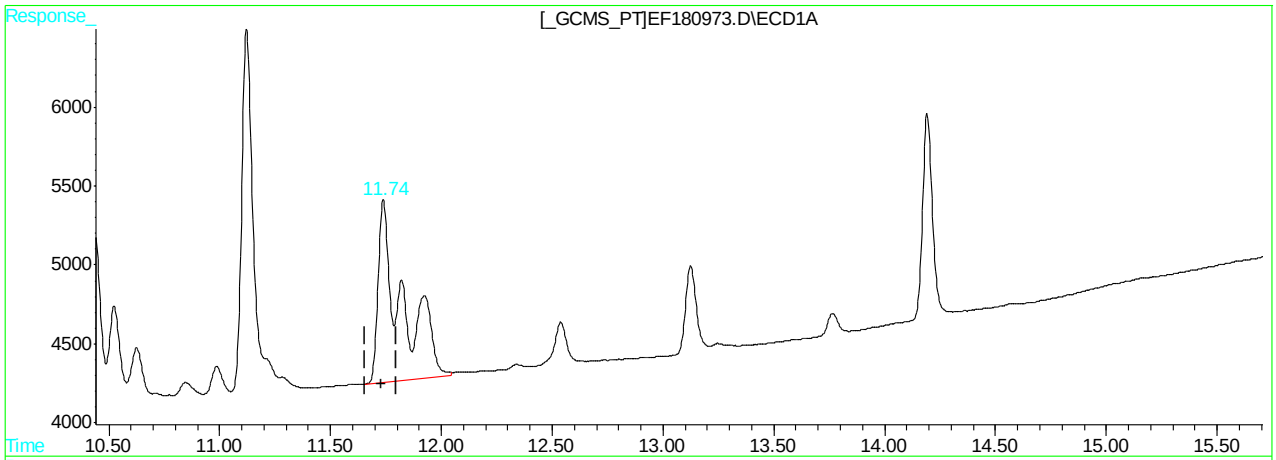
response 74013

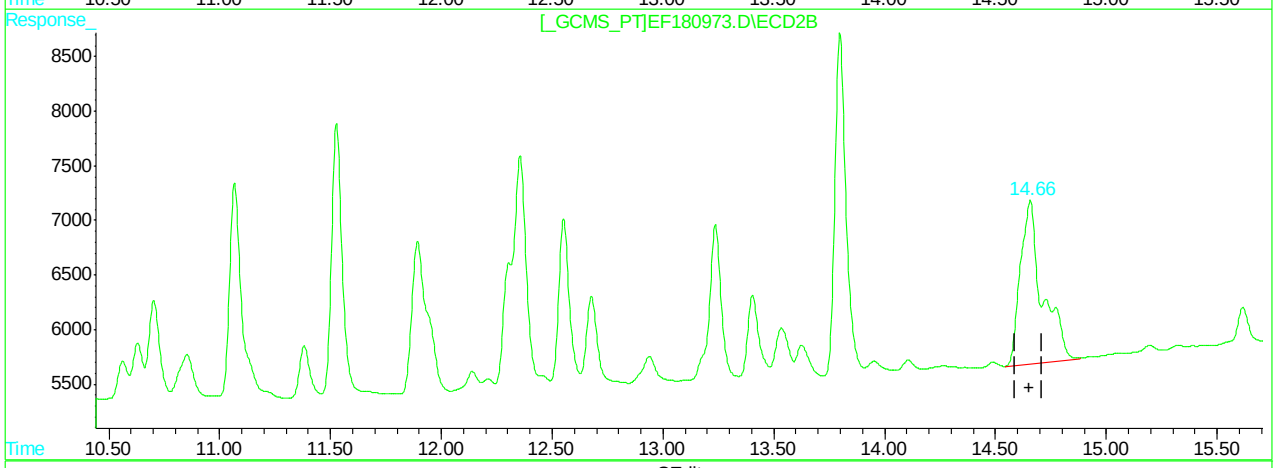
(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:25:27 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 54.944PPB m

response 84866

(50) AR1260-E #2

14.66min 55.899PPB m

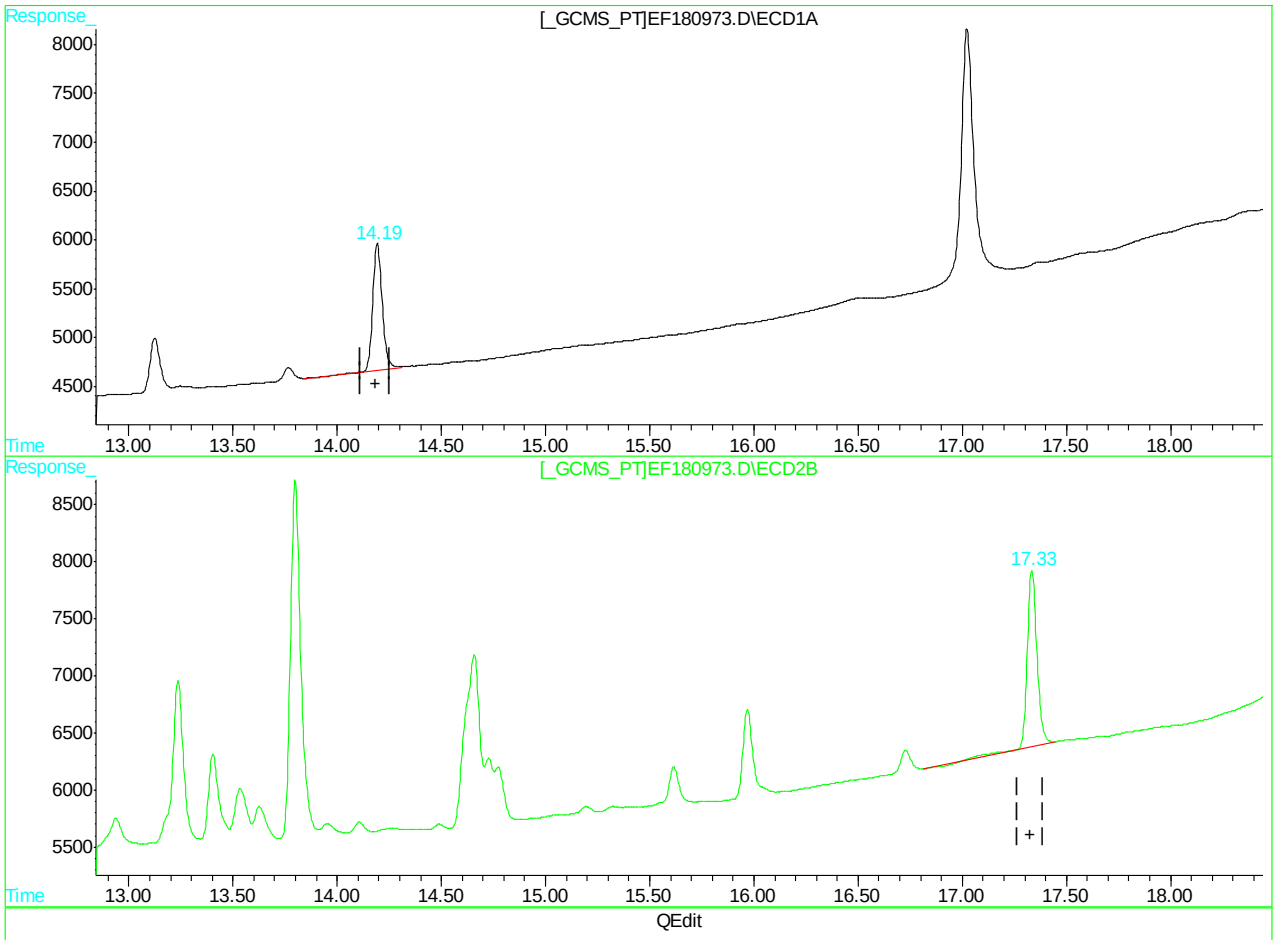
response 104122

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:25:39 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 2.406PPB

response 41081

(51) Decachlorobiphenyl #2 (S)

17.34min 2.331PPB

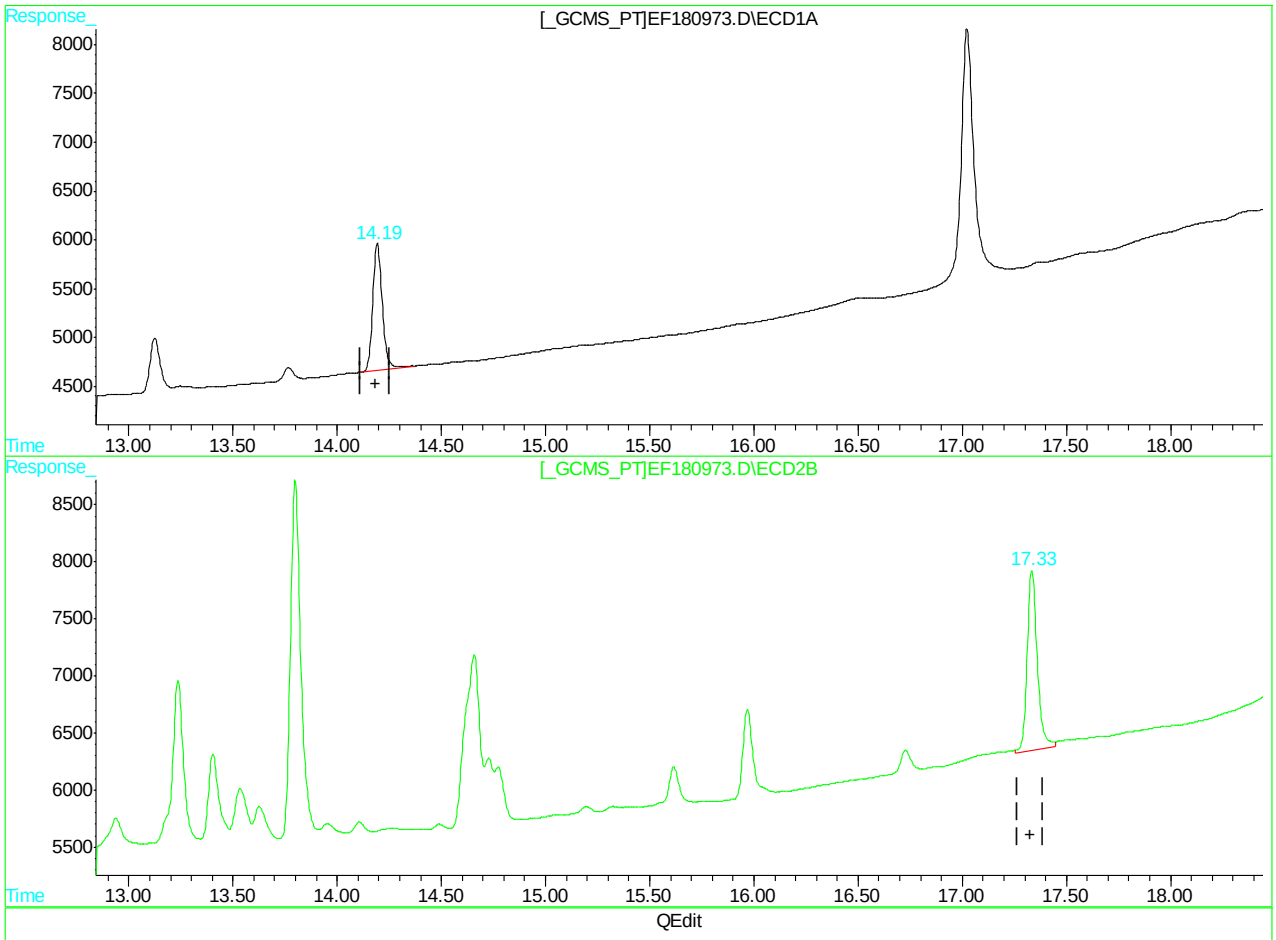
response 49165

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:25:43 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 2.445PPB m

response 41752

(51) Decachlorobiphenyl #2 (S)

17.33min 2.520PPB m

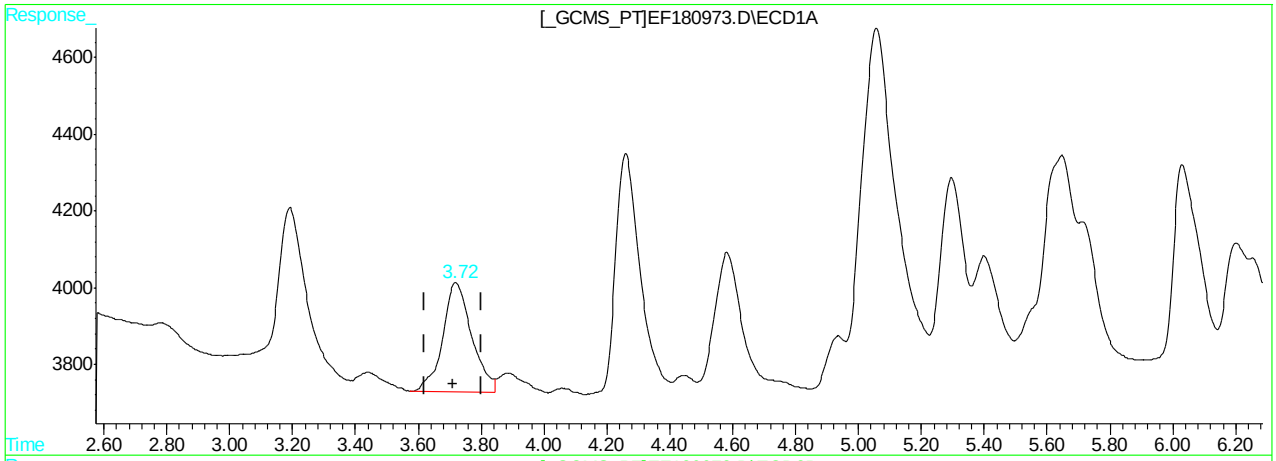
response 53159

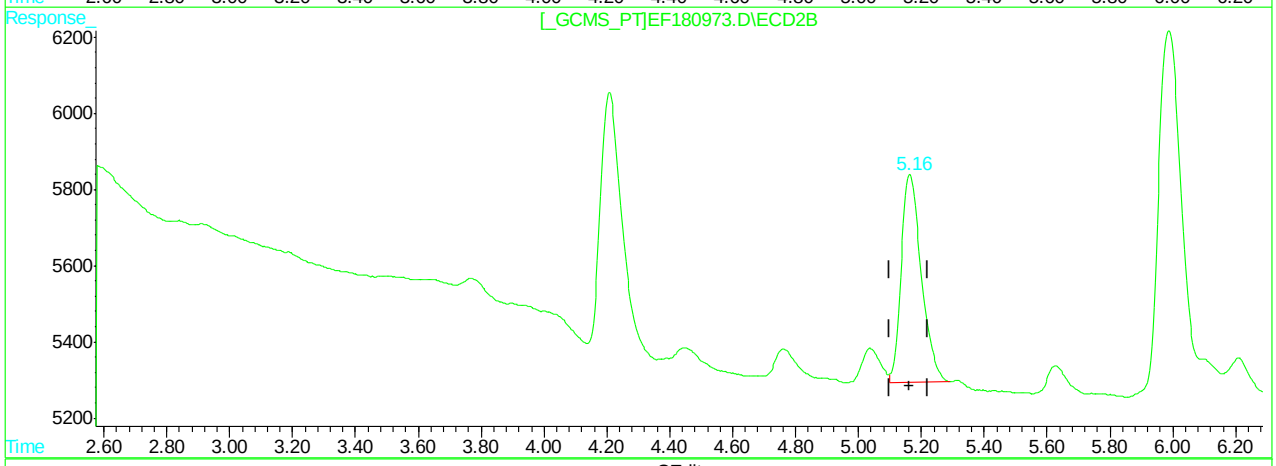
(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:26:09 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.72min 57.906PPB

response 18345

(41) AR1016-A #2

5.16min 58.992PPB

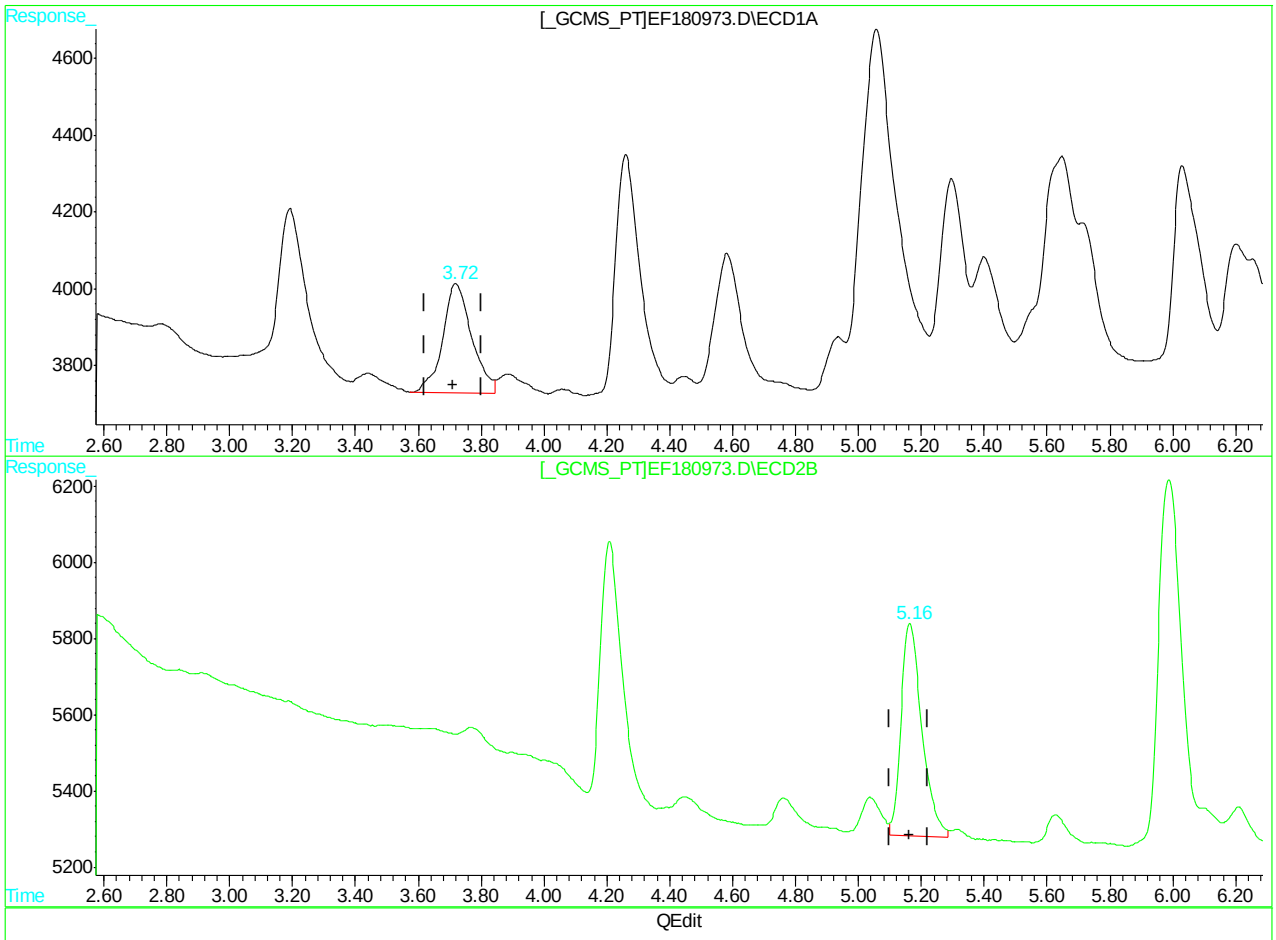
response 24183

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:26:19 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration



(41) AR1016-A

3.72min 57.906PPB

response 18345

(41) AR1016-A #2

5.16min 62.745PPB m

response 25722

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:26:27 2018 GCEF

11.6.18.7 11

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.19	4.21	110296	152957	9.283	9.797m
	Spiked Amount 40.000			Recovery =		23.21%	24.49%
51)	S Decachlorobiphen	14.19	17.33	183182	226077	10.057m	10.309m
	Spiked Amount 40.000			Recovery =		25.14%	25.77%
	Target Compounds						
41)	AR1016-A	3.72	5.16	82714	110175	247.651	277.746
42)	AR1016-B	4.26	5.99	147886	218249	254.108	272.322
43)	AR1016-C	5.05	6.94	323824	439109	241.889	272.948
44)	AR1016-D	5.29	7.23	125696	186172	252.045	271.732
45)	AR1016-E	6.03	8.24	128712	128853	245.418	265.558m
46)	AR1260-A	9.66	12.36	358610	473406	249.838	264.962
47)	AR1260-B	9.91	12.55	176213	218853	258.523	270.553
48)	AR1260-C	10.44	13.24	162372	228115	254.913	265.419
49)	AR1260-D	11.12	13.80	410074	475230	245.490	256.311
50)	AR1260-E	11.74	14.66	391699	481880	239.079m	250.609m

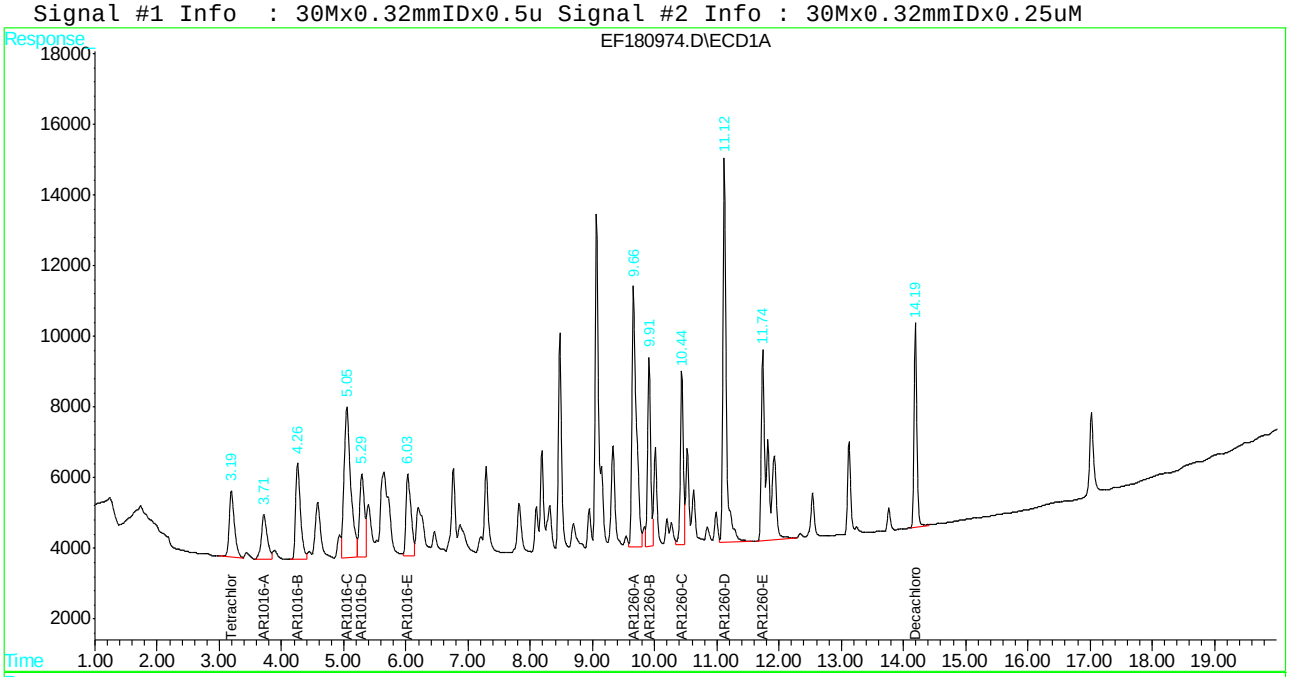
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

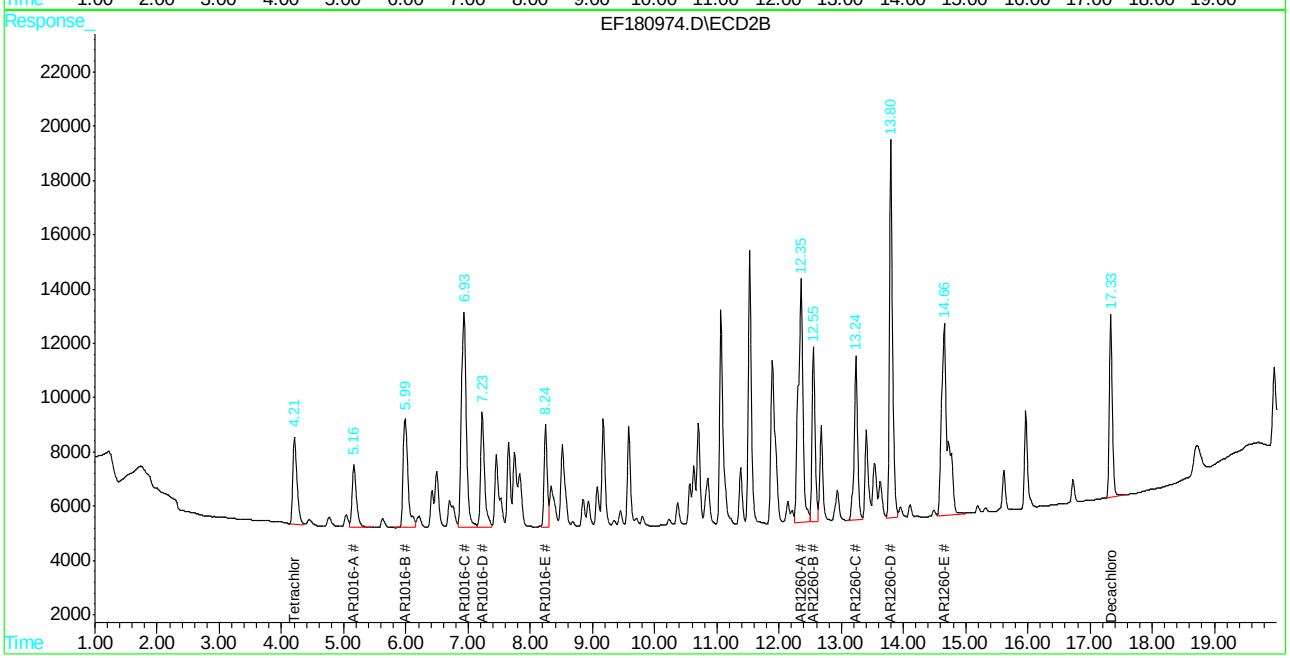
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

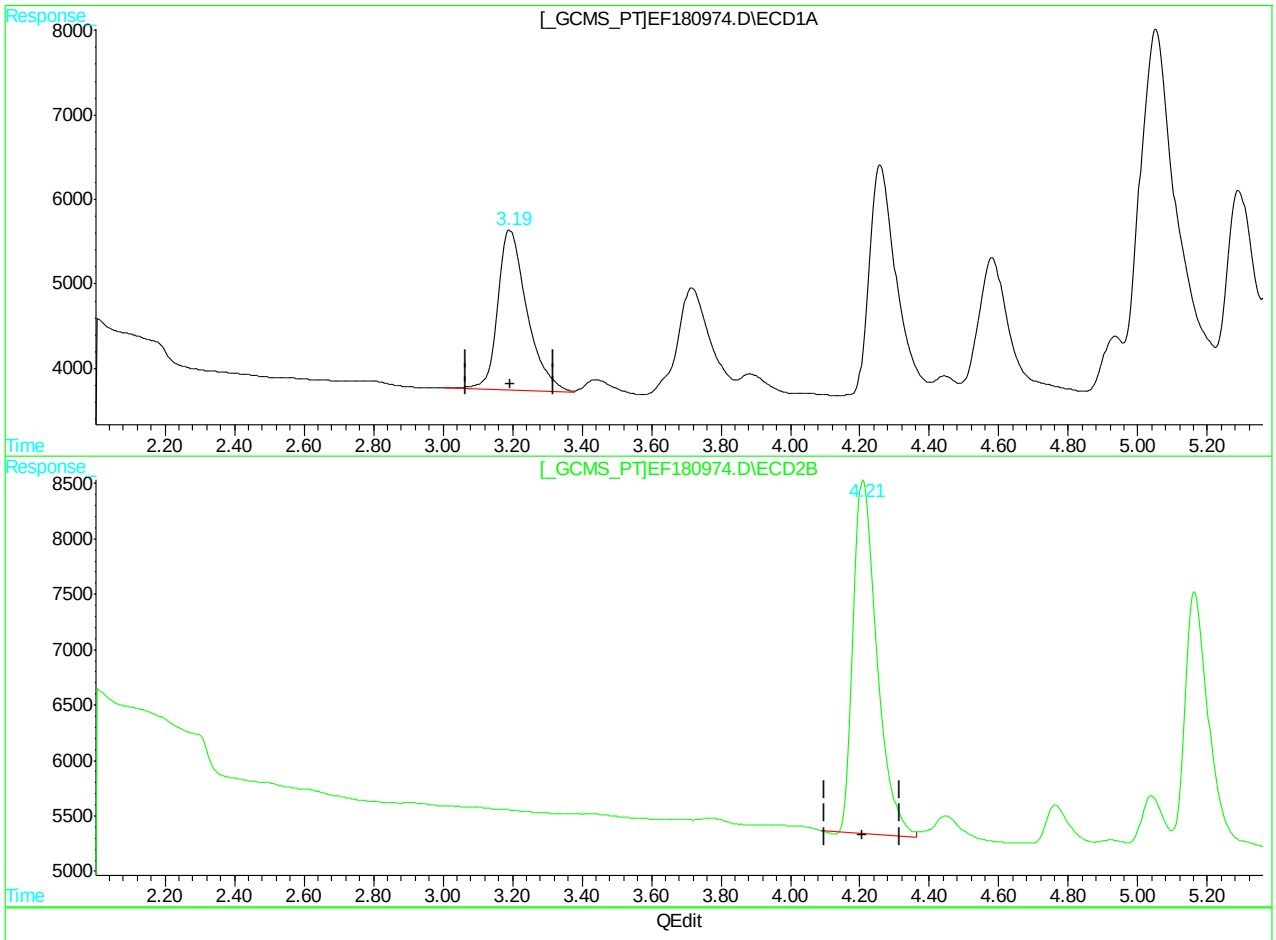
Sample Number: GEF6195-IC6195 **Method:** SW846 8082A
Lab FileID: EF180974.D **Analyst approved:** 03/20/18 15:40 Tianwei Ruan
Injection Time: 03/19/18 17:49 **Supervisor approved:** 03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	4.21	Poorly defined baseline
AR1016-E		2	8.24	Split peak
AR1260-E		1	11.74	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
AR1260-E		2	14.66	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 9.283PPB

response 110296

(1) Tetrachloro-m-xylene #2 (S)

4.21min 9.614PPB

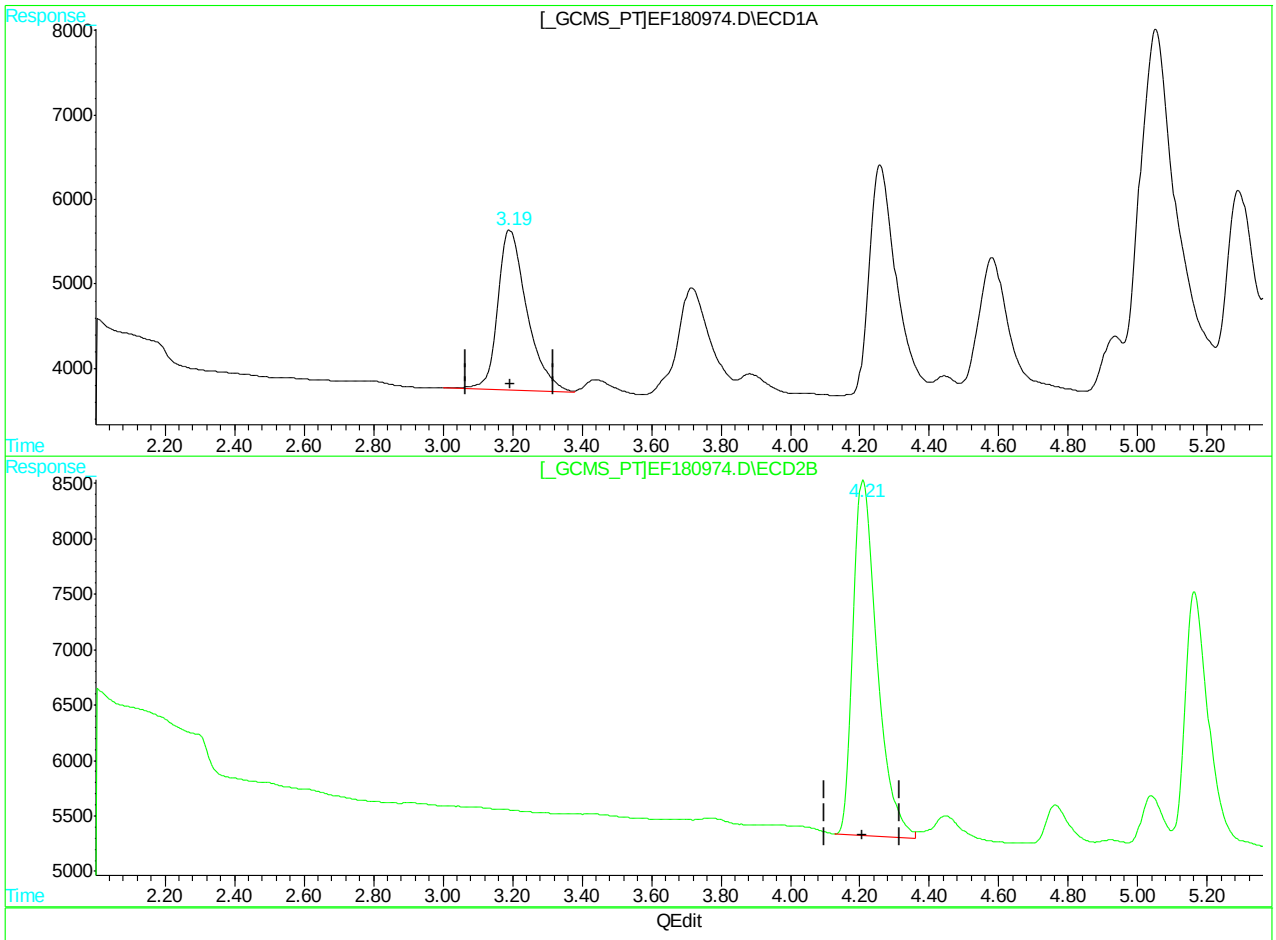
response 150102

(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:09:21 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 9.283PPB

response 110296

(1) Tetrachloro-m-xylene #2 (S)

4.21min 9.797PPB m

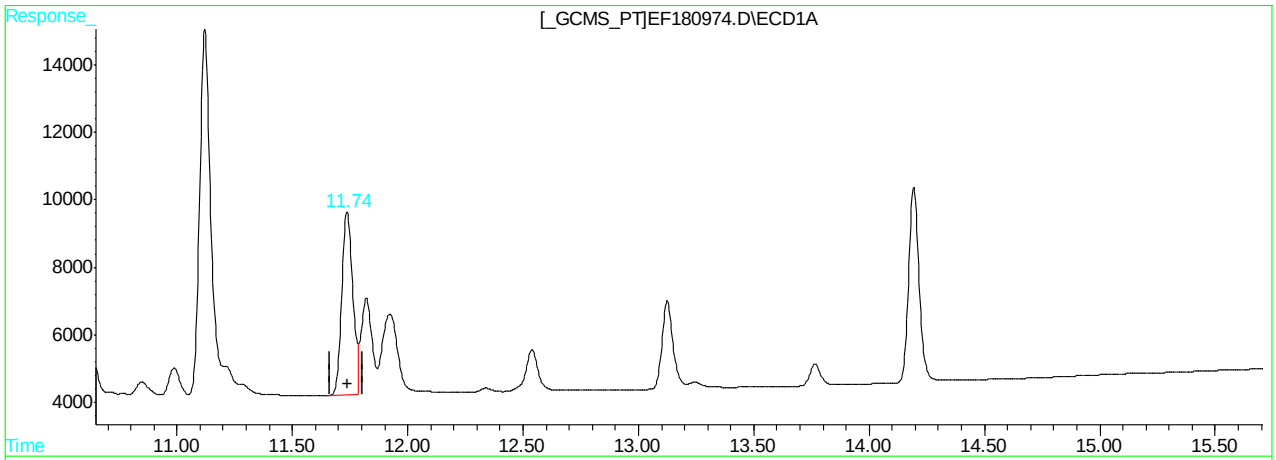
response 152957

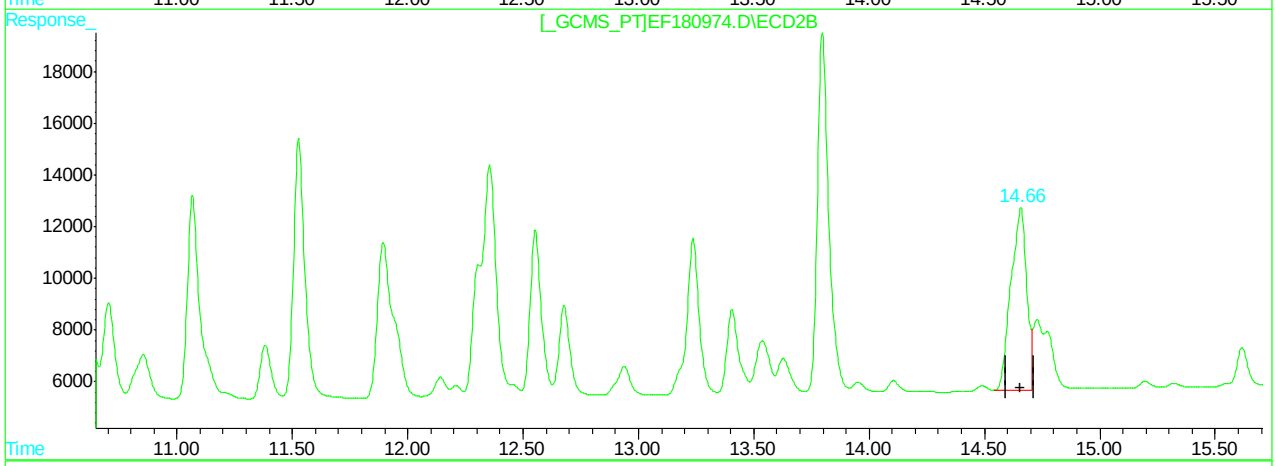
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:09:49 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 110.153PPB

response 180470

(50) AR1260-E #2

14.66min 175.078PPB

response 336647

(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:10:23 2018 GCEF

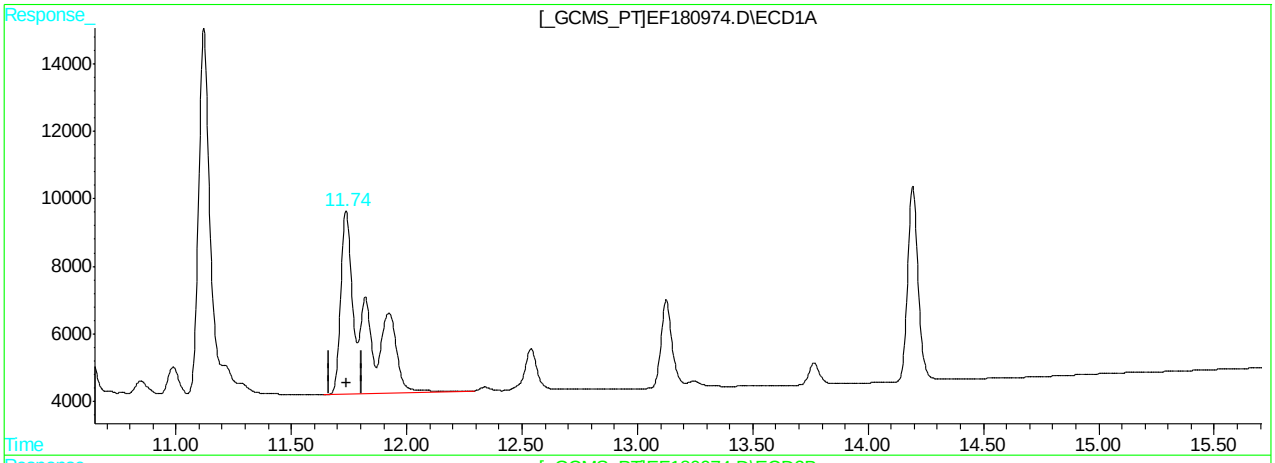
11.6.19.4 11

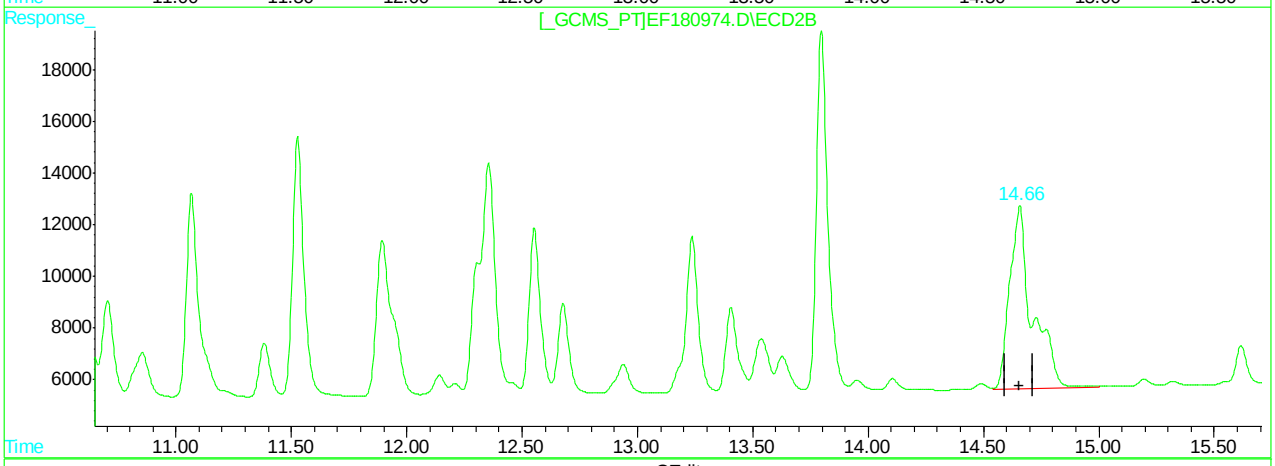
EF180974.D edits: AR1260-E

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 239.079PPB m

response 391699

(50) AR1260-E #2

14.66min 250.609PPB m

response 481880

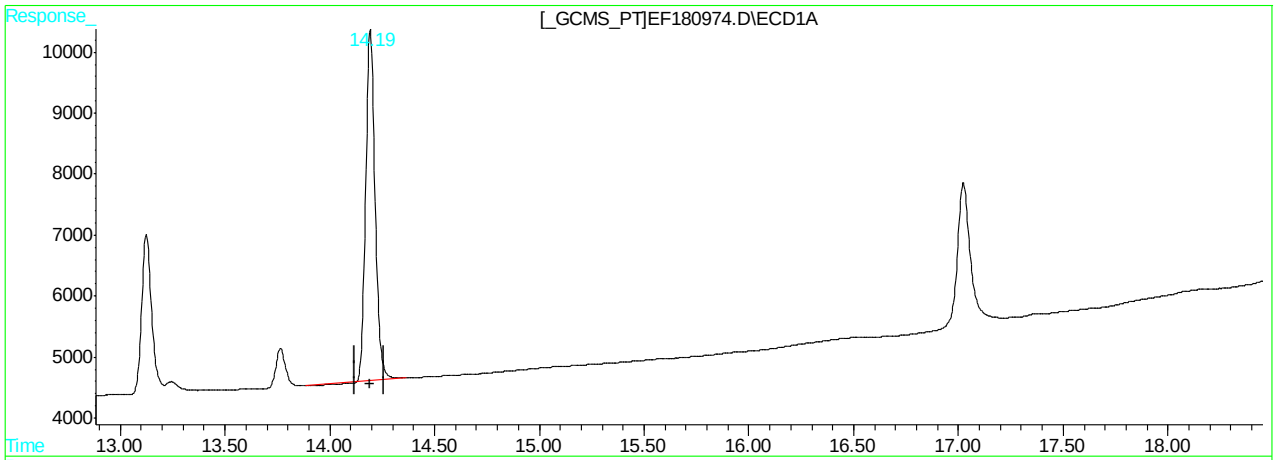
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:11:33 2018 GCEF

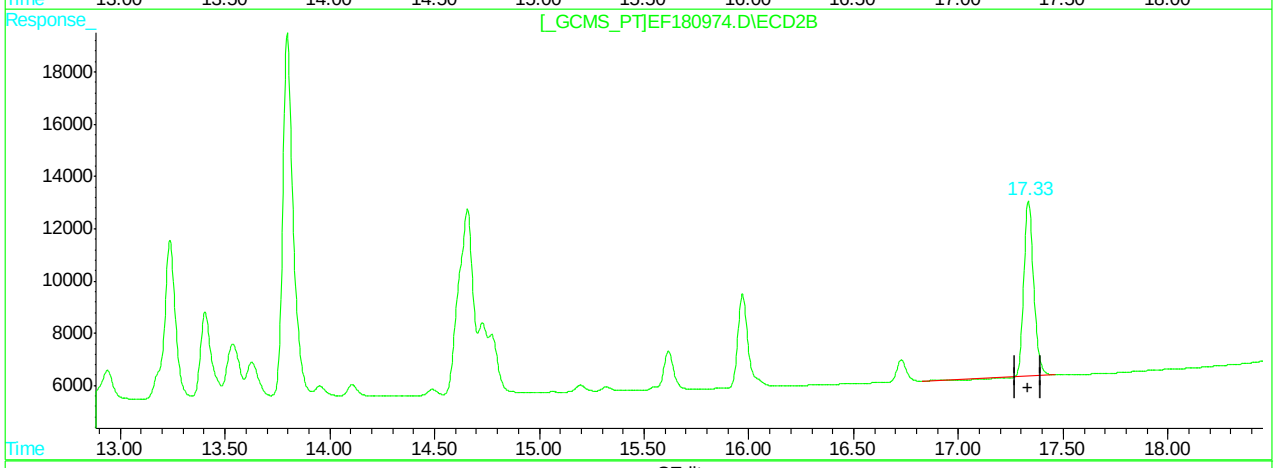
11.6.19.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 9.798PPB

response 178455

(51) Decachlorobiphenyl #2 (S)

17.33min 9.776PPB

response 214396

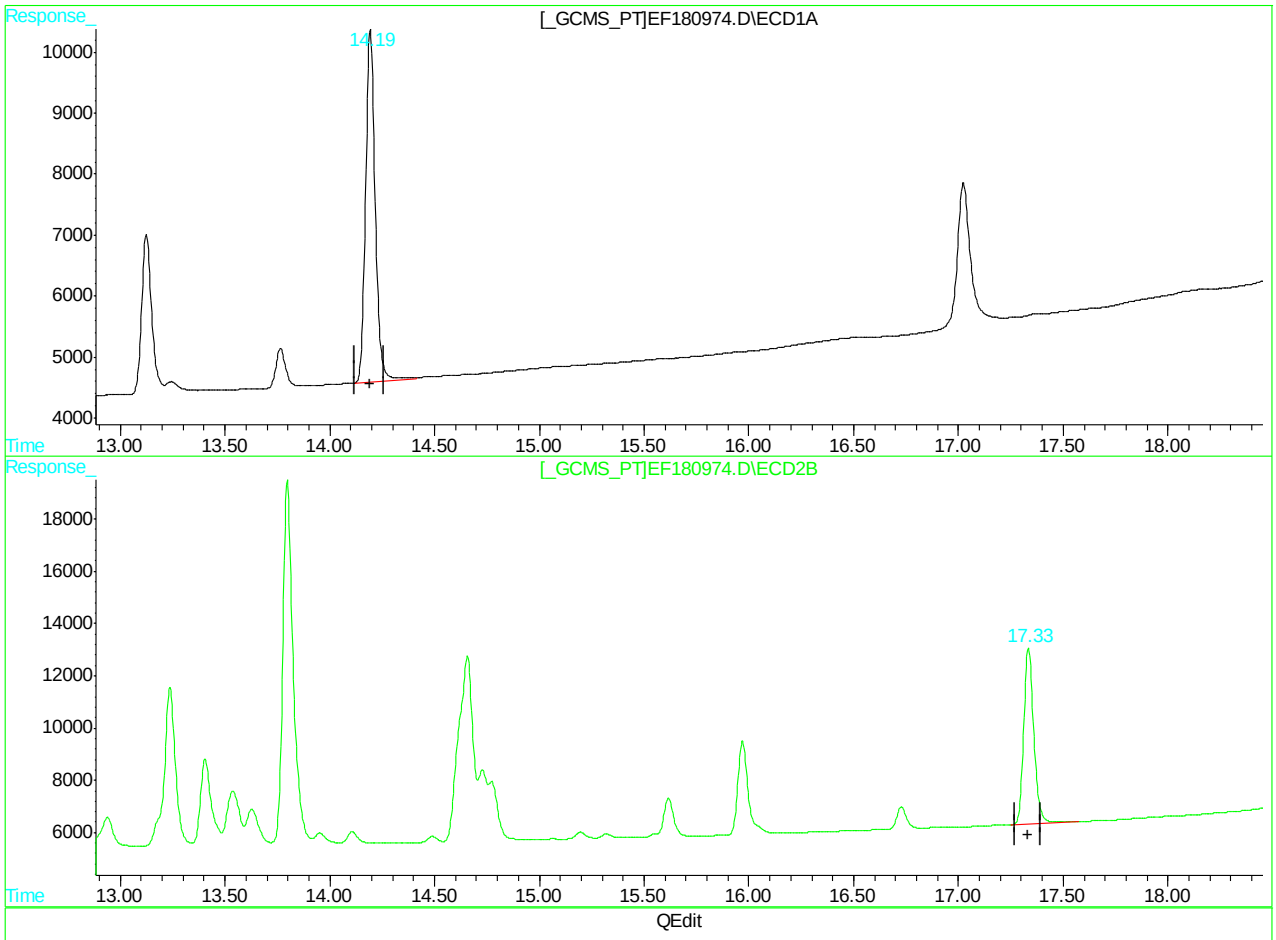
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:11:41 2018 GCEF

11.6.19.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 10.057PPB m

response 183182

(51) Decachlorobiphenyl #2 (S)

17.33min 10.309PPB m

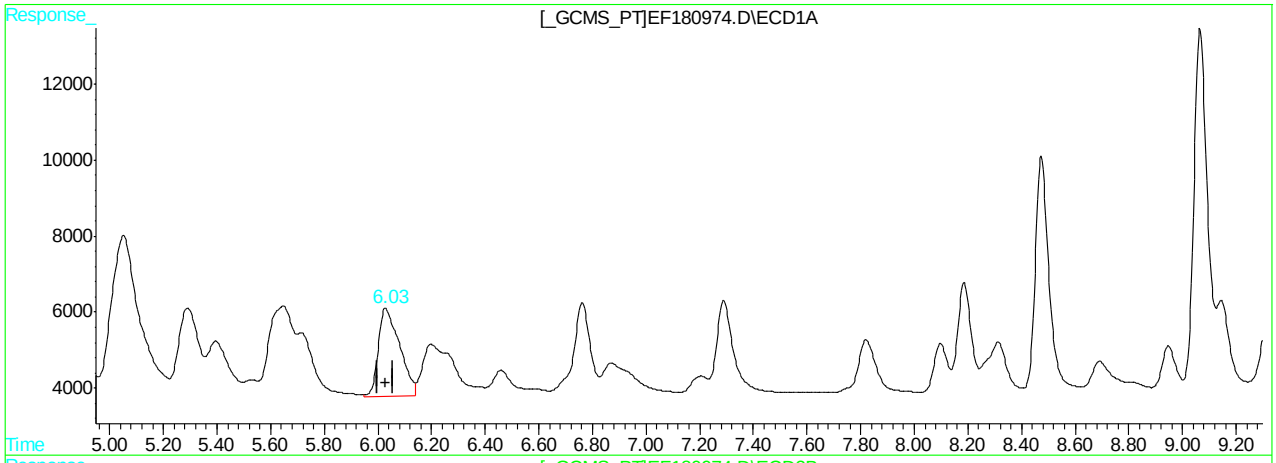
response 226077

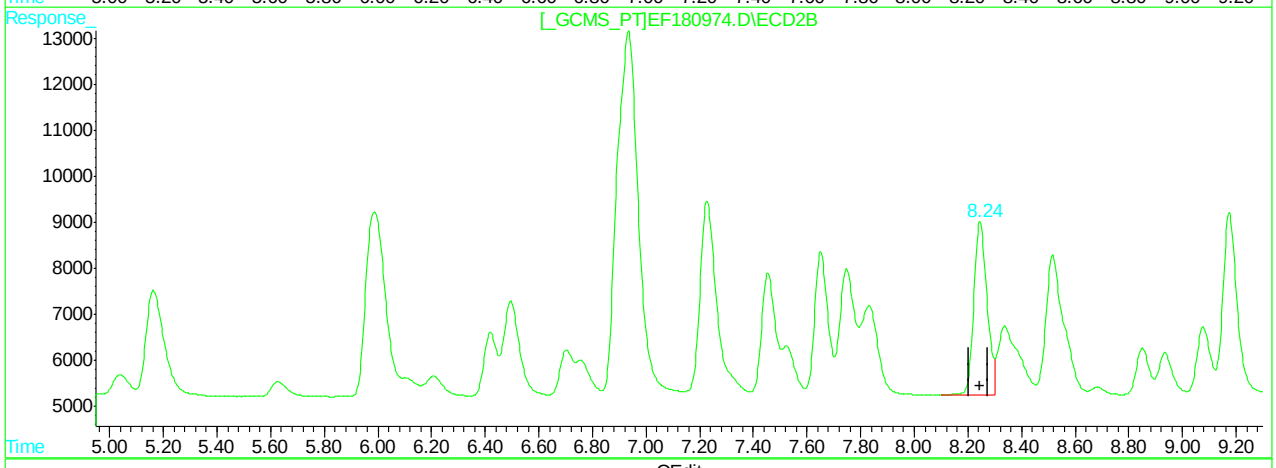
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:12:23 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:12 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.03min 245.418PPB

response 128712

(45) AR1016-E #2

8.25min 265.963PPB

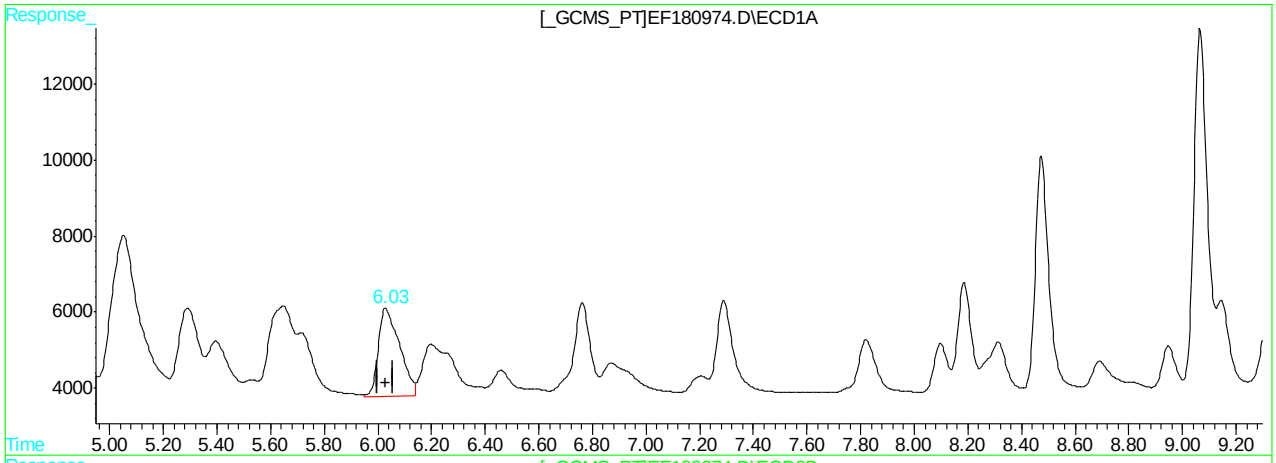
response 129050

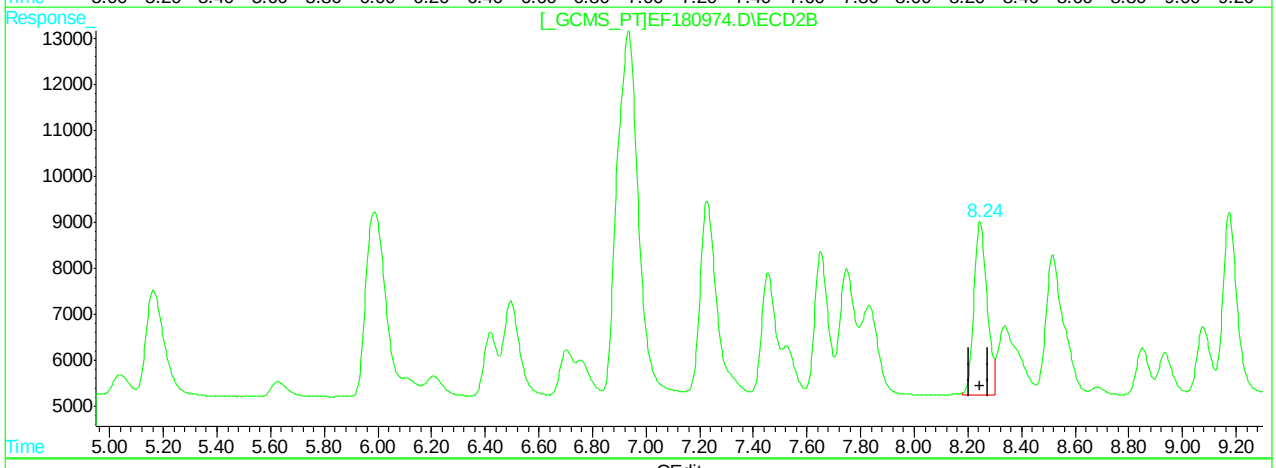
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:21:58 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:12 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.03min 245.418PPB

response 128712

(45) AR1016-E #2

8.24min 265.558PPB m

response 128853

(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:22:12 2018 GCEF

11.6.19.9 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:21 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	220447	302809	18.554	19.394
	Spiked Amount 40.000			Recovery =		46.38%	48.48%
51) S	Decachlorobiphen	14.19	17.33	349492	423625	19.188m	19.317m
	Spiked Amount 40.000			Recovery =		47.97%	48.29%
	Target Compounds						
41)	AR1016-A	3.71	5.16	162085	212513	485.292	535.733
42)	AR1016-B	4.26	5.98	285087	417196	489.855	520.561
43)	AR1016-C	5.04	6.93	633540	835297	473.241	519.218
44)	AR1016-D	5.28	7.22	247136	360490	495.556	526.163
45)	AR1016-E	6.02	8.24	252199	248957	480.872	513.083m
46)	AR1260-A	9.65	12.35	702493	910758	489.415	509.746
47)	AR1260-B	9.90	12.55	343699	412812	504.245	510.330
48)	AR1260-C	10.43	13.23	318509	440053	500.037	512.017
49)	AR1260-D	11.11	13.79	817904	921784	489.638	497.155
50)	AR1260-E	11.73	14.65	787872	952374	480.889m	495.295m

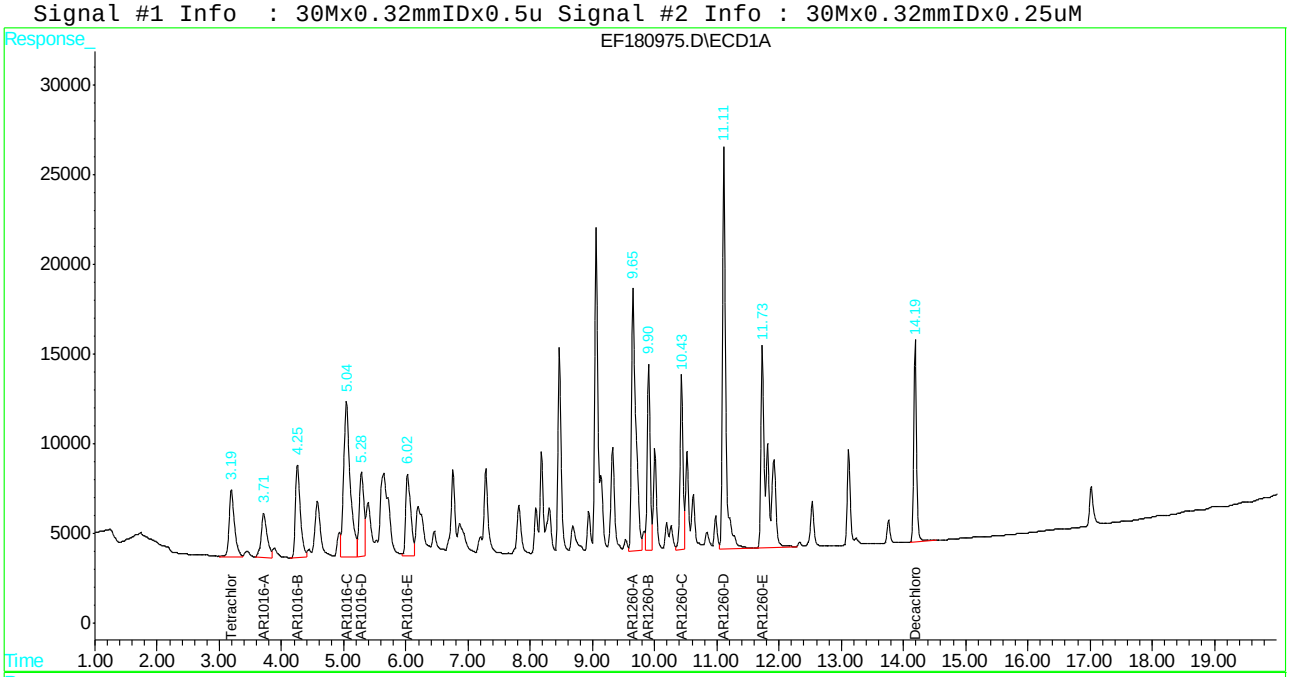
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

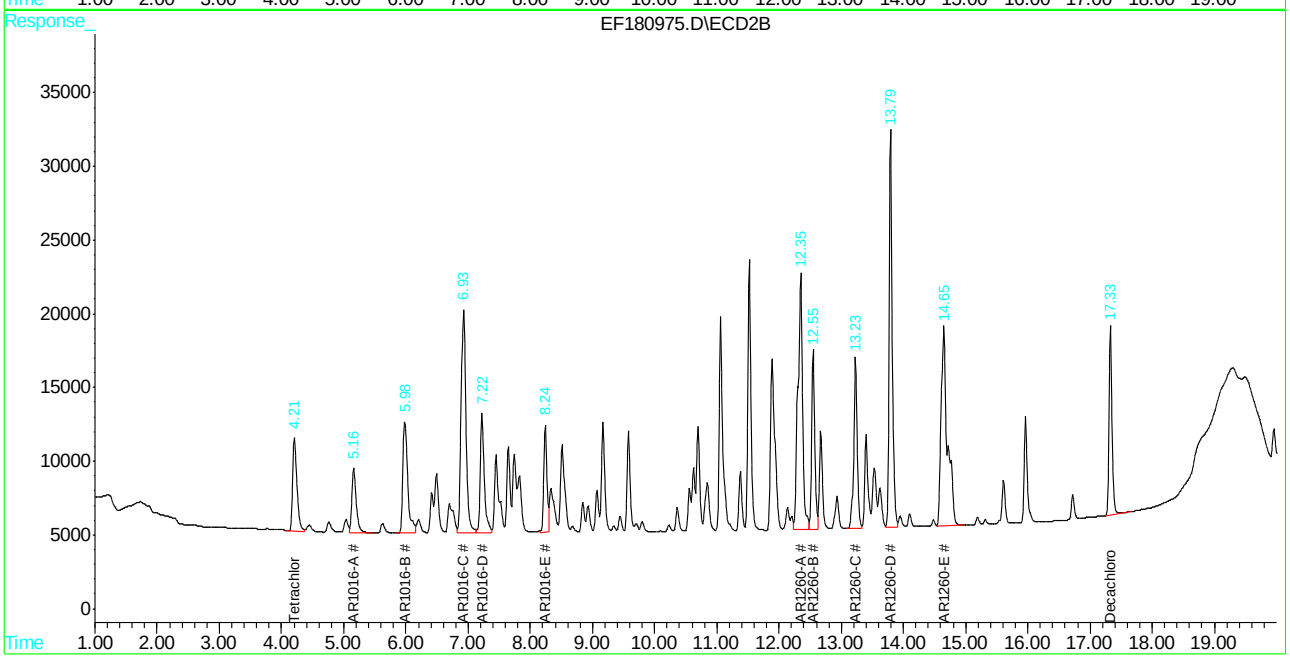
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:21 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

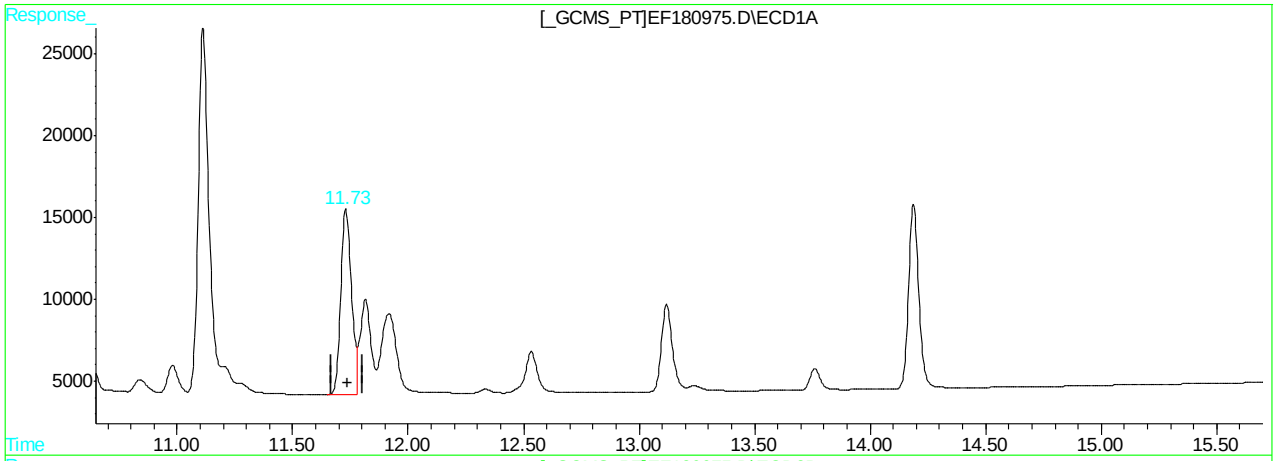
Sample Number:	GEF6195-IC6195	**Method:**	SW846 8082A
Lab FileID:	EF180975.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 18:14	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

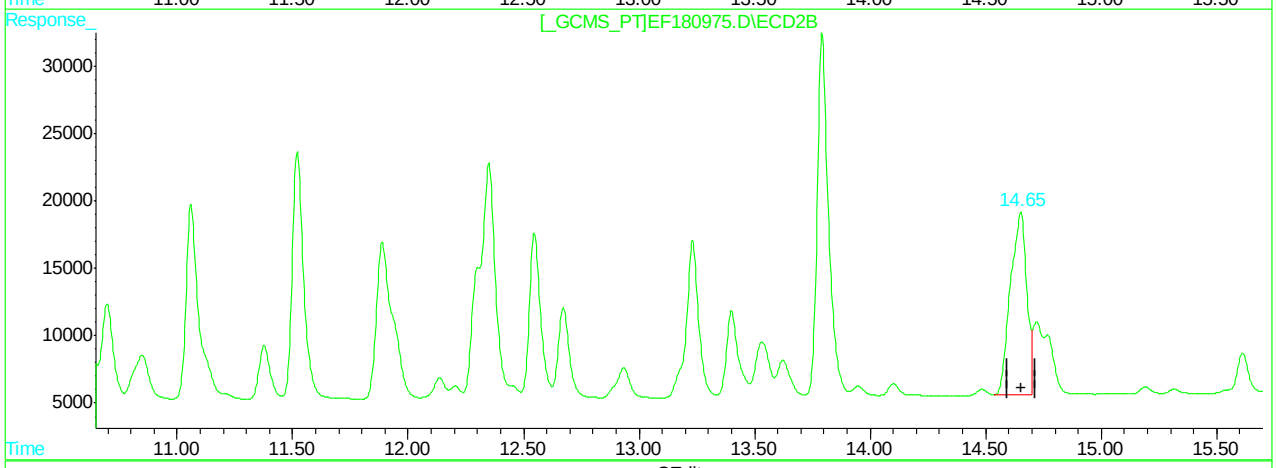
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		2	8.24	Split peak
AR1260-E		1	11.73	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
AR1260-E		2	14.65	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 223.836PPB

response 366724

(50) AR1260-E #2

14.65min 347.556PPB

response 668295

(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:19:01 2018 GCEF

11.6.20.2 11

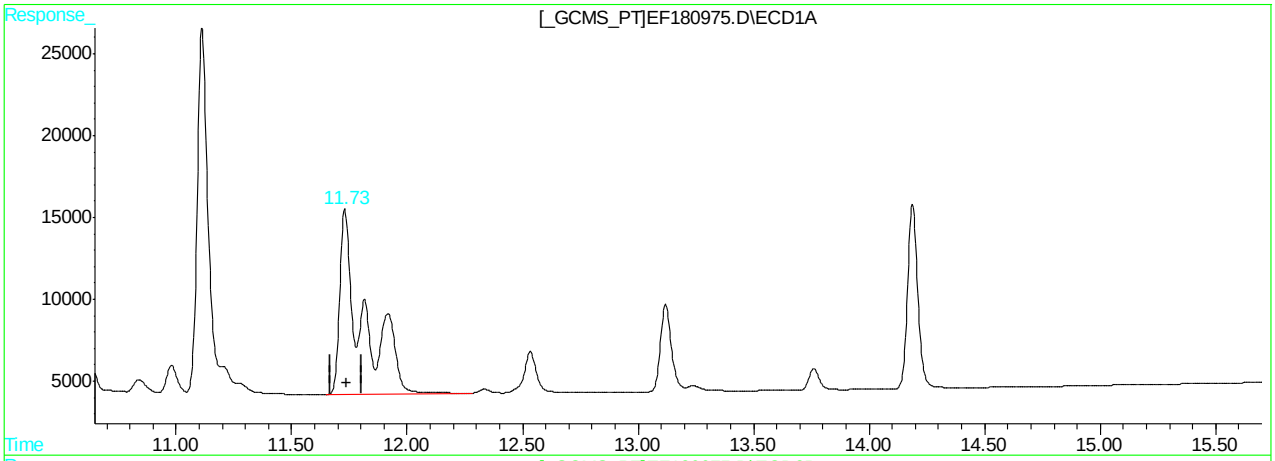
EF180975.D edits: AR1260-E

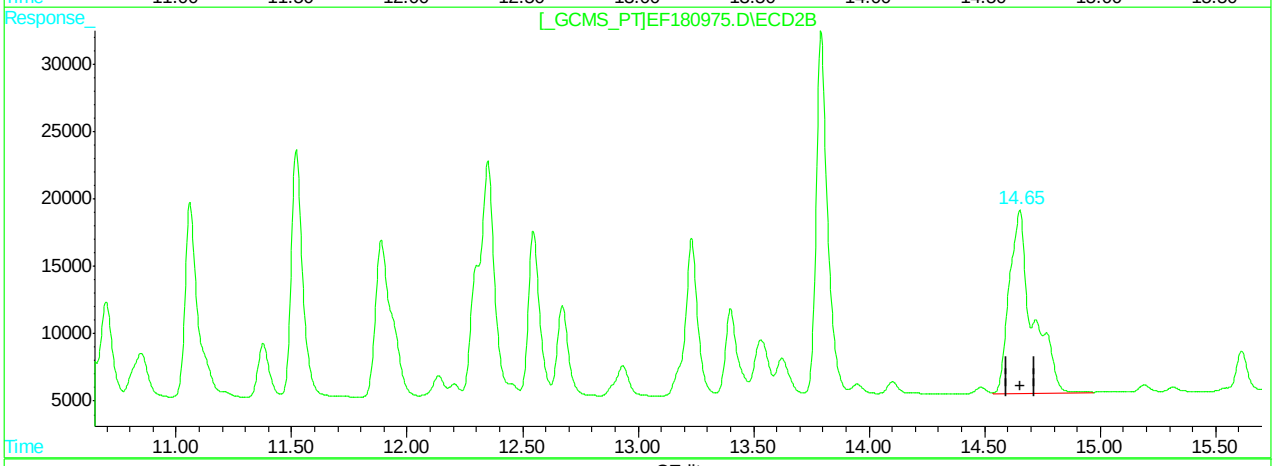
JC62881

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 480.889PPB m

response 787872

(50) AR1260-E #2

14.65min 495.295PPB m

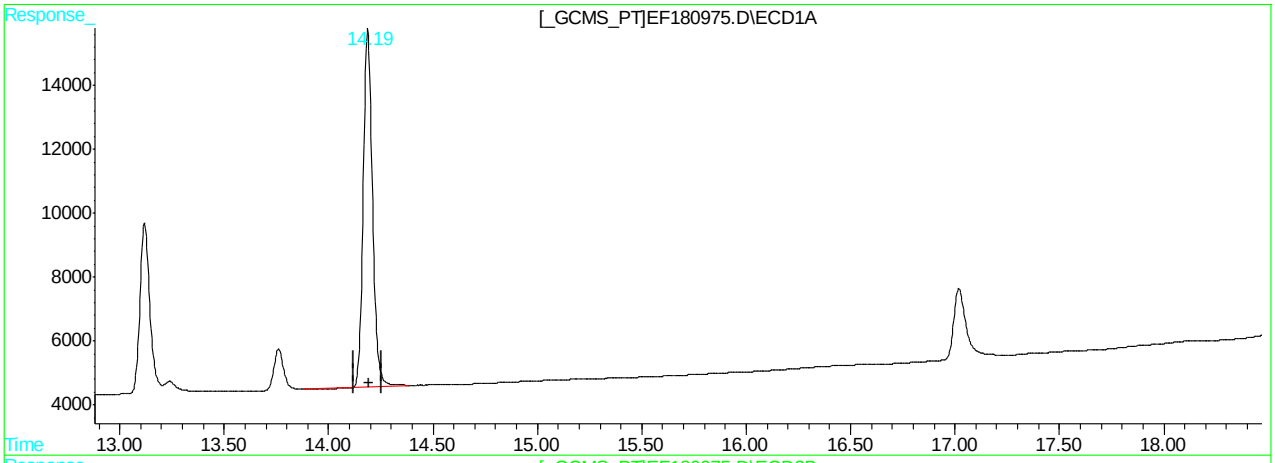
response 952374

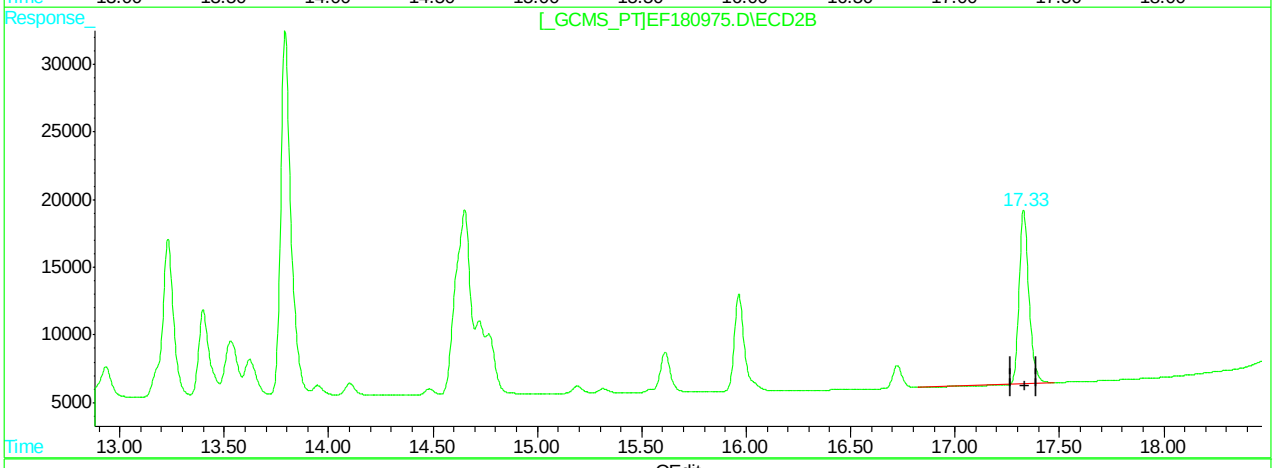
(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:19:48 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 18.774PPB

response 341952

(51) Decachlorobiphenyl #2 (S)

17.33min 18.485PPB

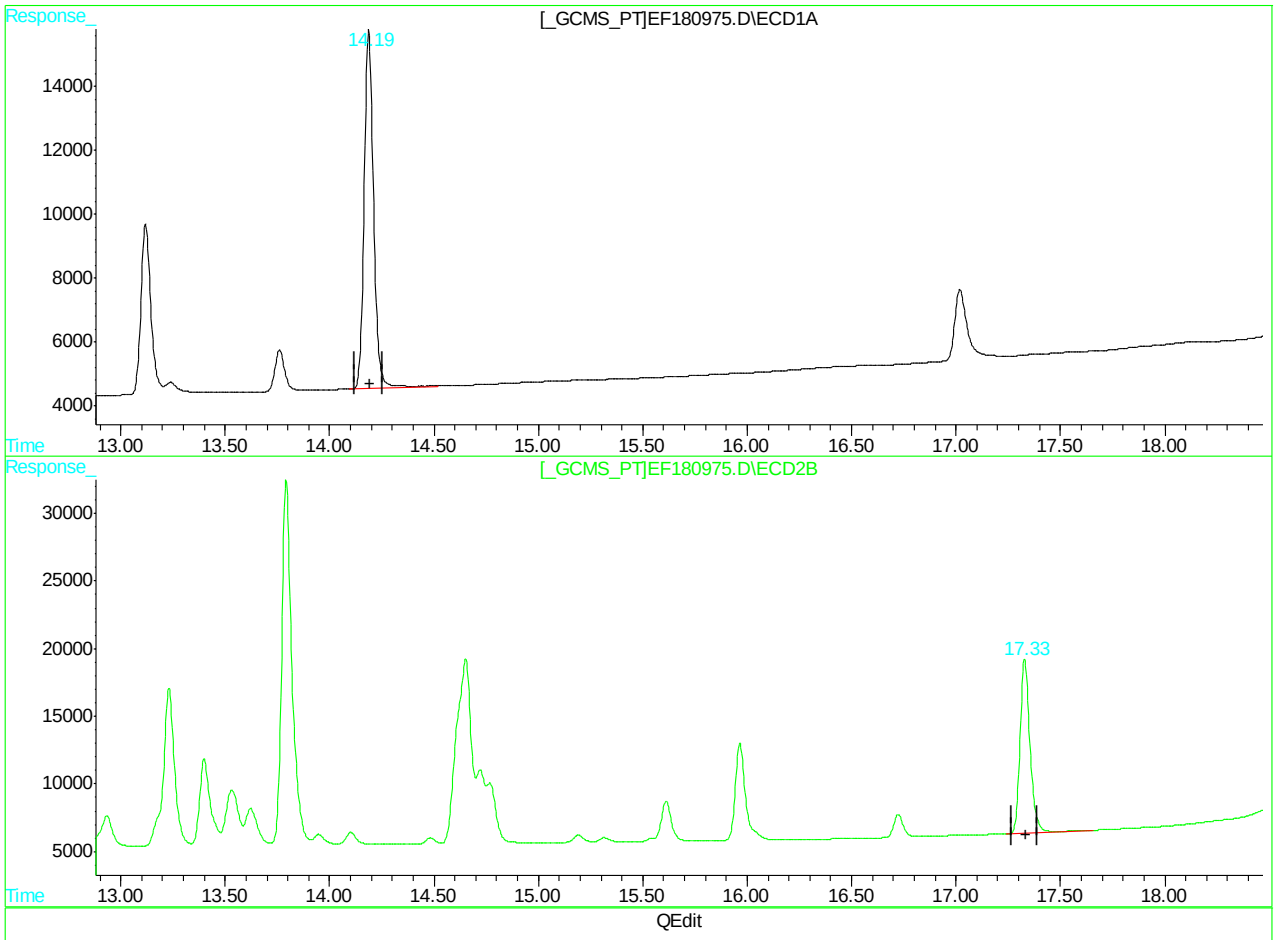
response 405379

(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:19:54 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 19.188PPB m

response 349492

(51) Decachlorobiphenyl #2 (S)

17.33min 19.317PPB m

response 423625

(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:20:34 2018 GCEF

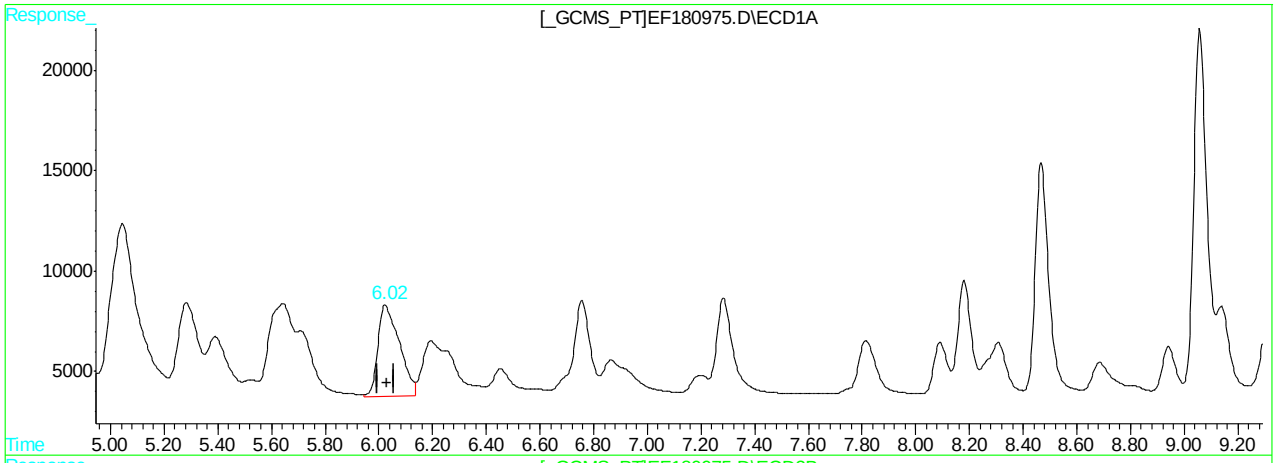
11.6.20.5 11

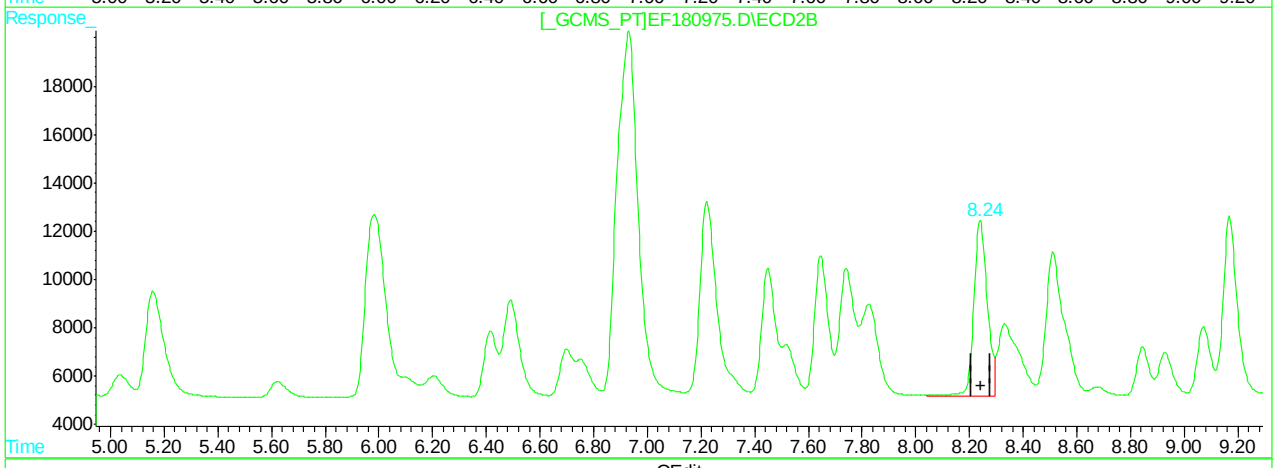
EF180975.D edits: Decachlorobiphenyl

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 480.872PPB

response 252199

(45) AR1016-E #2

8.24min 523.158PPB

response 253846

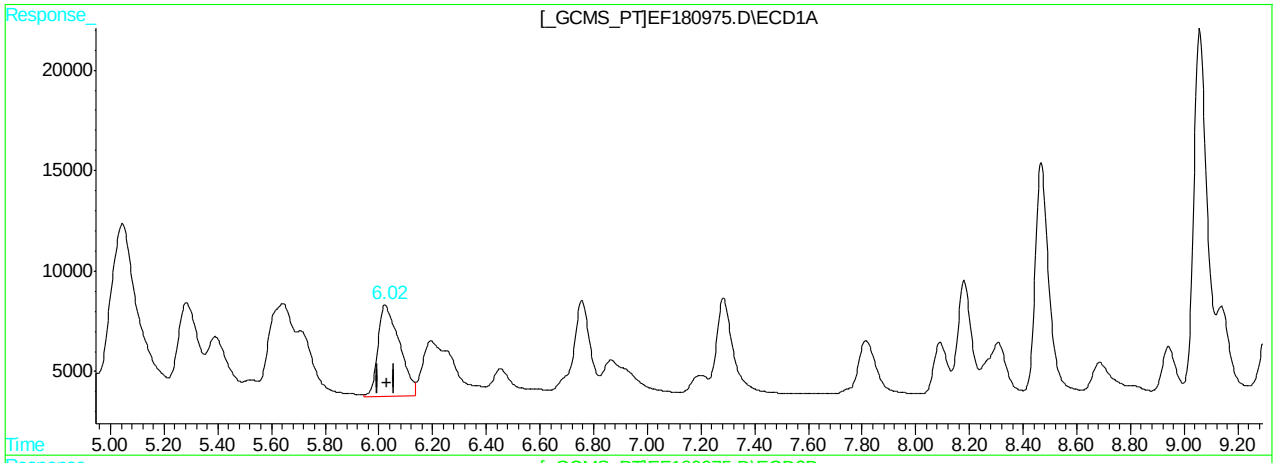
(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:20:57 2018 GCEF

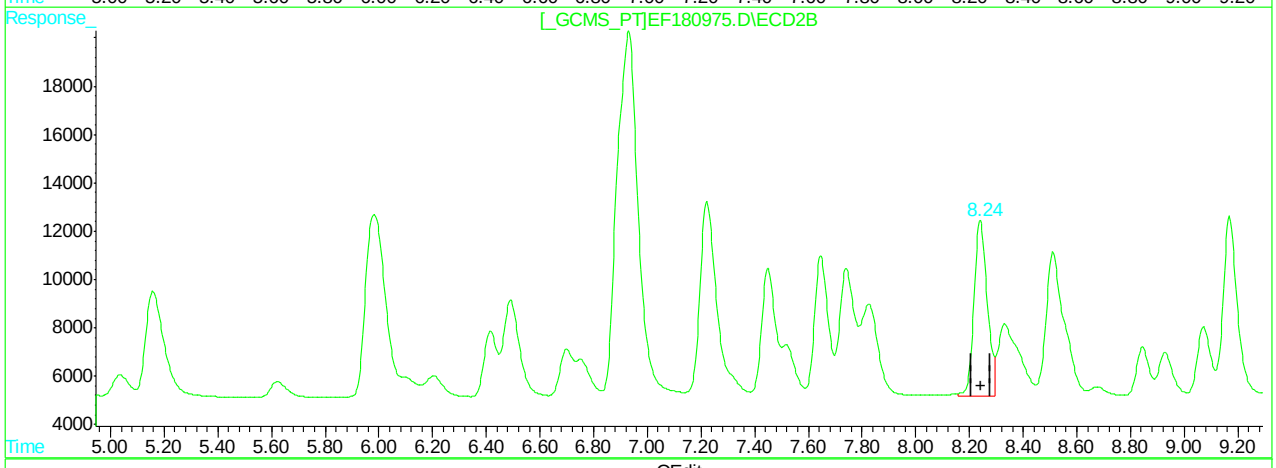
11.6.20.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 480.872PPB

response 252199

(45) AR1016-E #2

8.24min 513.083PPB m

response 248957

(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:21:33 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:25 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	444066	616894	37.375	39.511
	Spiked Amount 40.000			Recovery =		93.44%	98.78%
51) S	Decachlorobiphen	14.19	17.33	652309	782949	35.814m	35.701m
	Spiked Amount 40.000			Recovery =		89.53%	89.25%
	Target Compounds						
41)	AR1016-A	3.71	5.16	309007	391153	925.183	986.073
42)	AR1016-B	4.26	5.99	527568	758620	906.503	946.576
43)	AR1016-C	5.04	6.93	1190267	1514148	889.104	941.189
44)	AR1016-D	5.28	7.23	463752	661840	929.914	966.007
45)	AR1016-E	6.03	8.24	474473	461519	904.686	951.159
46)	AR1260-A	9.65	12.35	1320334	1695643	919.855	949.041
47)	AR1260-B	9.91	12.55	635962	755113	933.027	933.491
48)	AR1260-C	10.43	13.23	598159	813208	939.068	946.197
49)	AR1260-D	11.11	13.79	1528754	1713365	915.188m	924.087
50)	AR1260-E	11.73	14.65	1528241	1839470	932.785m	956.642m

11.6.21
11

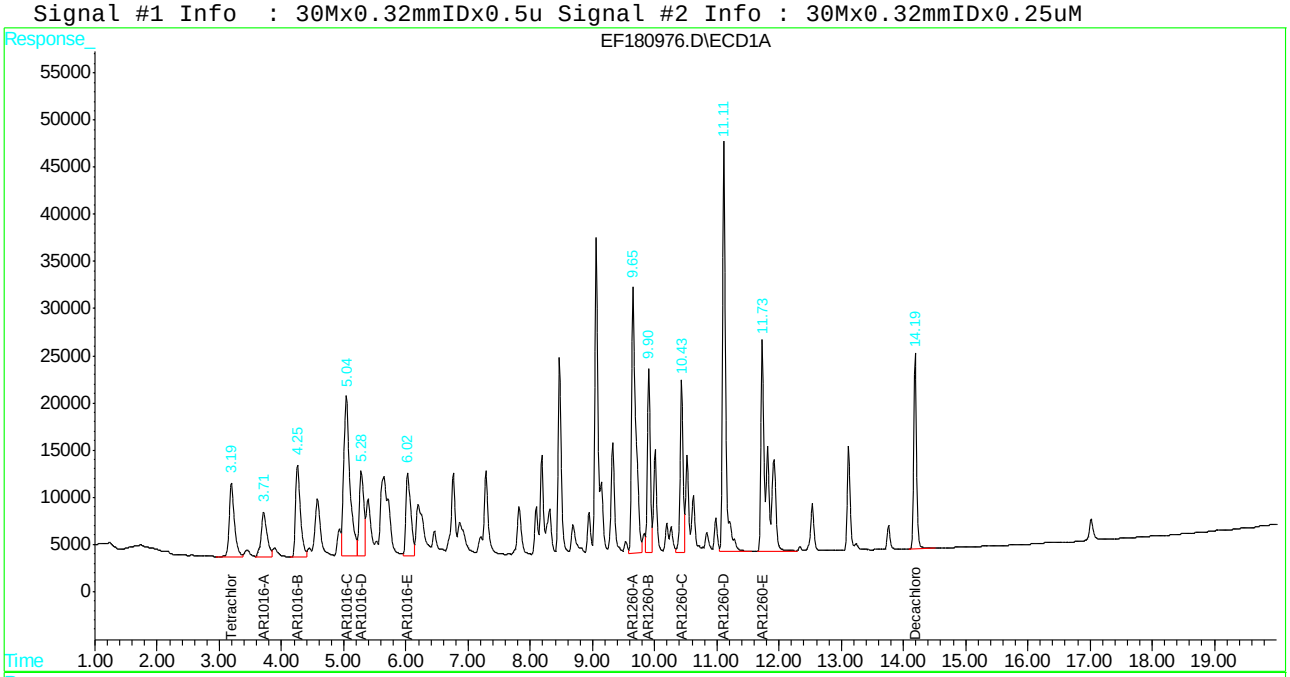
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180976.D PCB6195.M Tue Mar 20 12:25:15 2018 GCEF Page 1

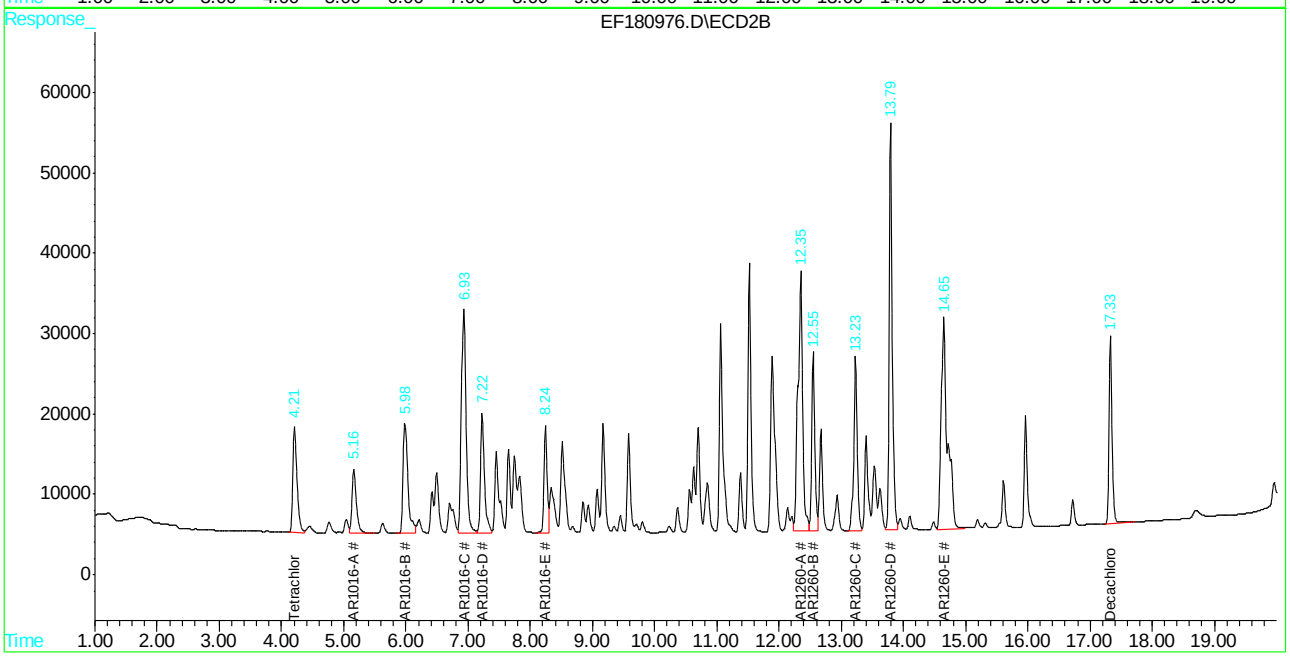
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:25 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integration Approval Summary

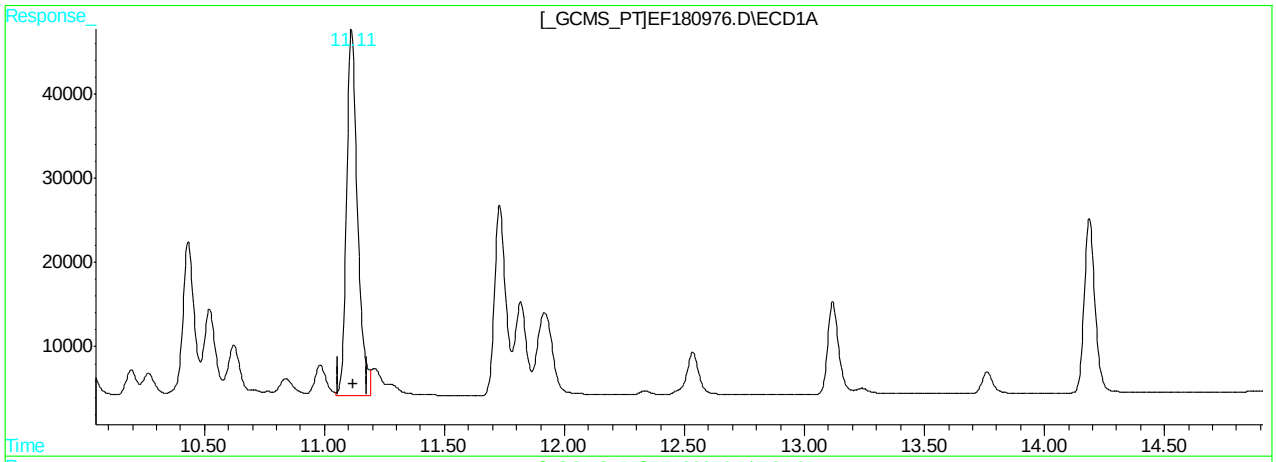
Sample Number:	GEF6195-ICC6195	**Method:**	SW846 8082A
Lab FileID:	EF180976.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 18:39	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

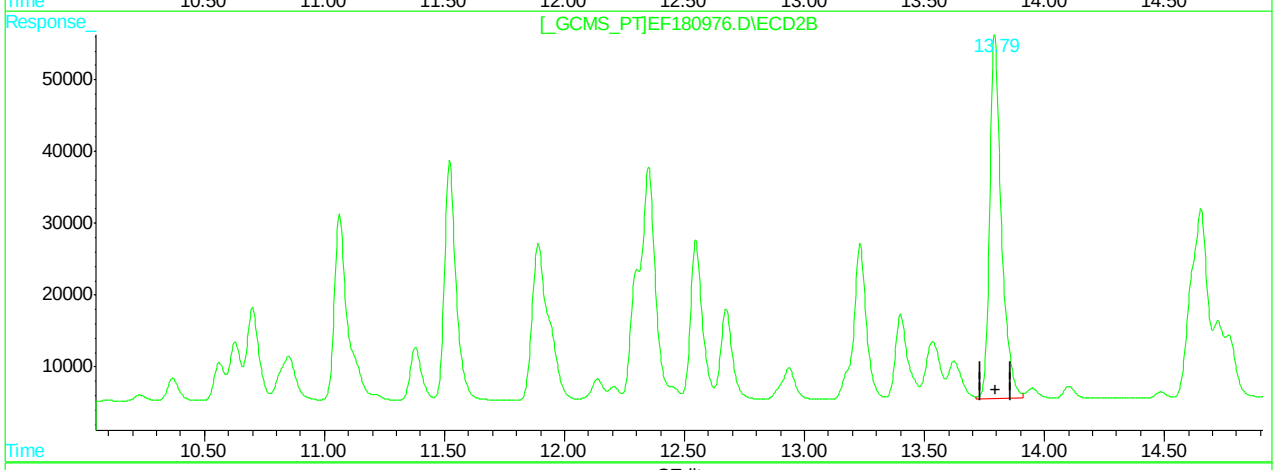
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	11.11	Split peak
AR1260-E		1	11.73	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
AR1260-E		2	14.65	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 827.695PPB

response 1382604

(49) AR1260-D #2

13.79min 924.087PPB

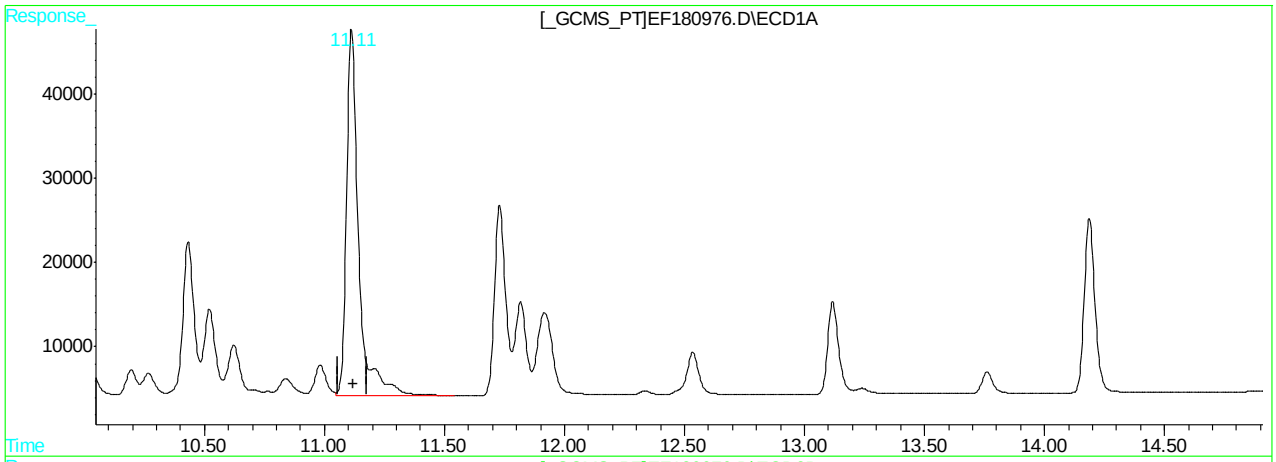
response 1713365

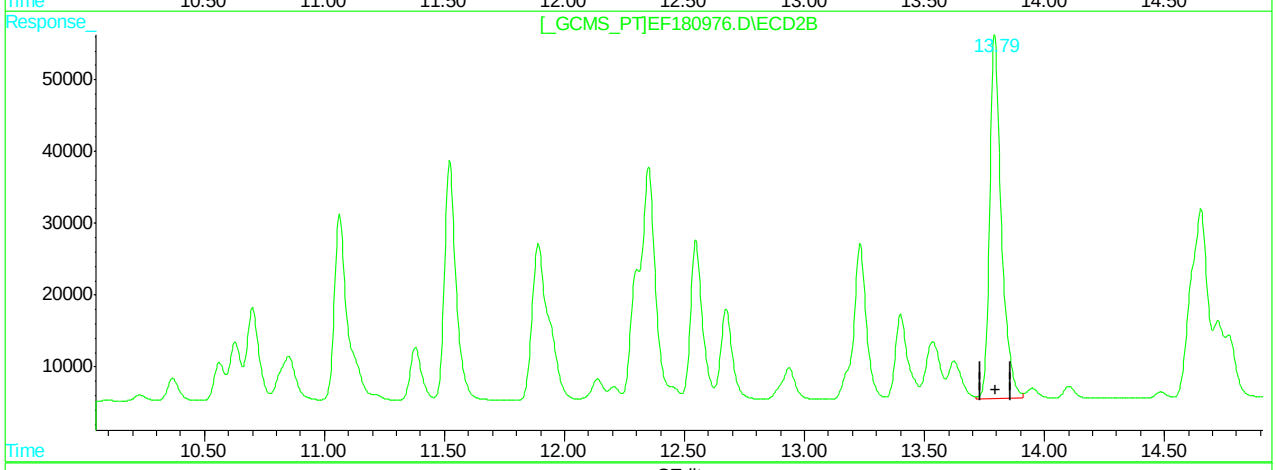
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:23:27 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 915.188PPB m

response 1528754

(49) AR1260-D #2

13.79min 924.087PPB

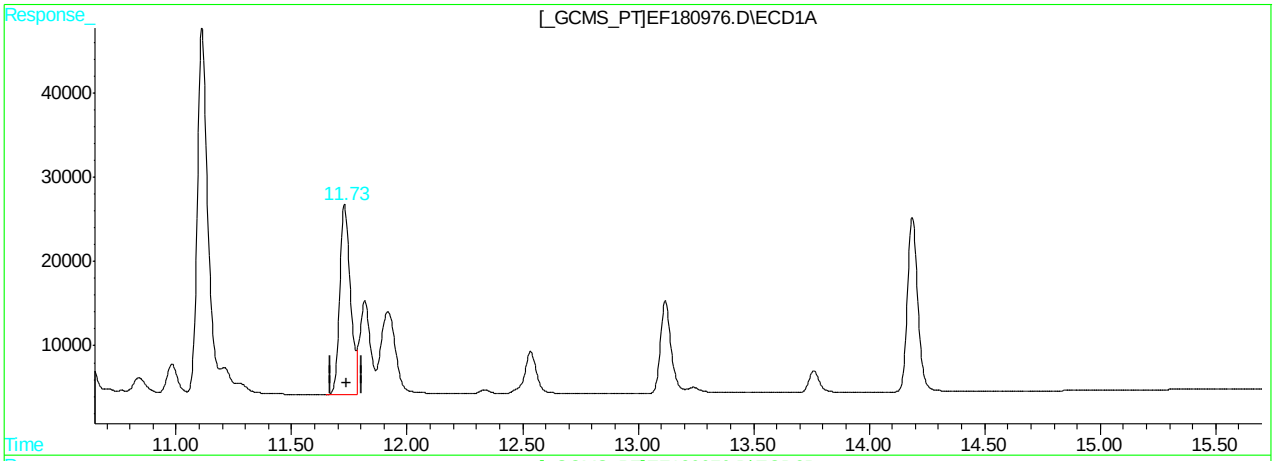
response 1713365

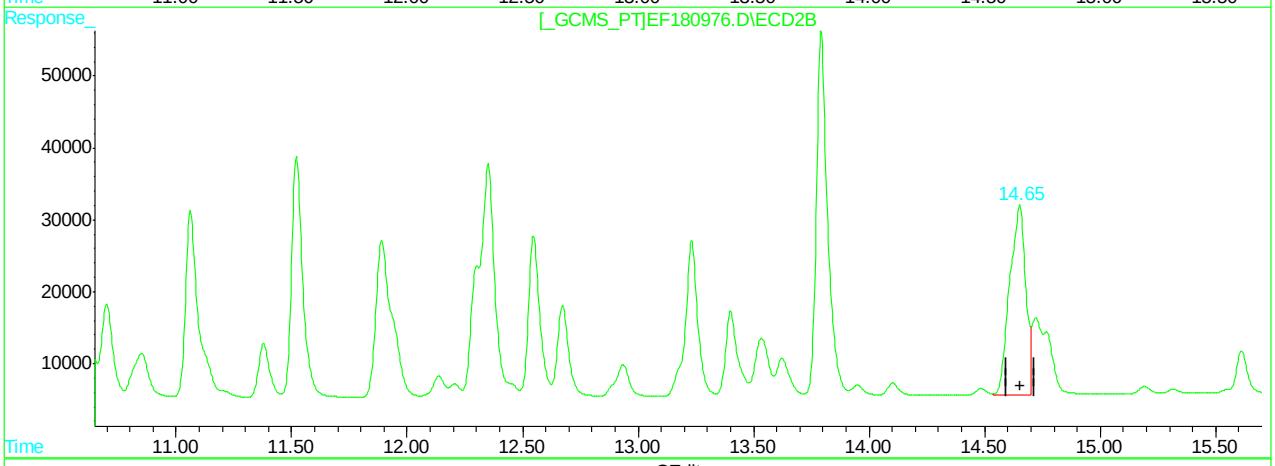
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:23:56 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 437.592PPB

response 716935

(50) AR1260-E #2

14.65min 660.941PPB

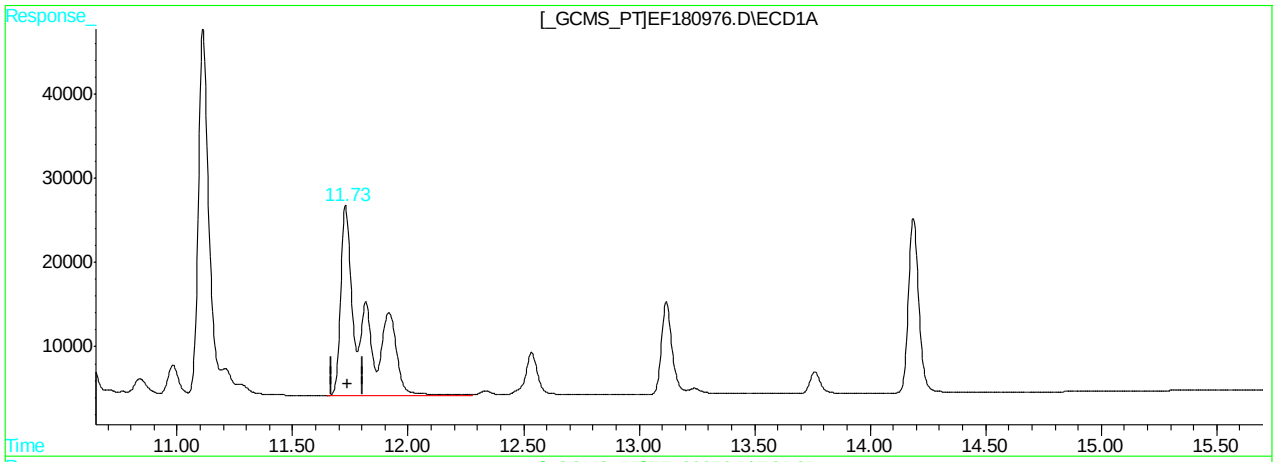
response 1270885

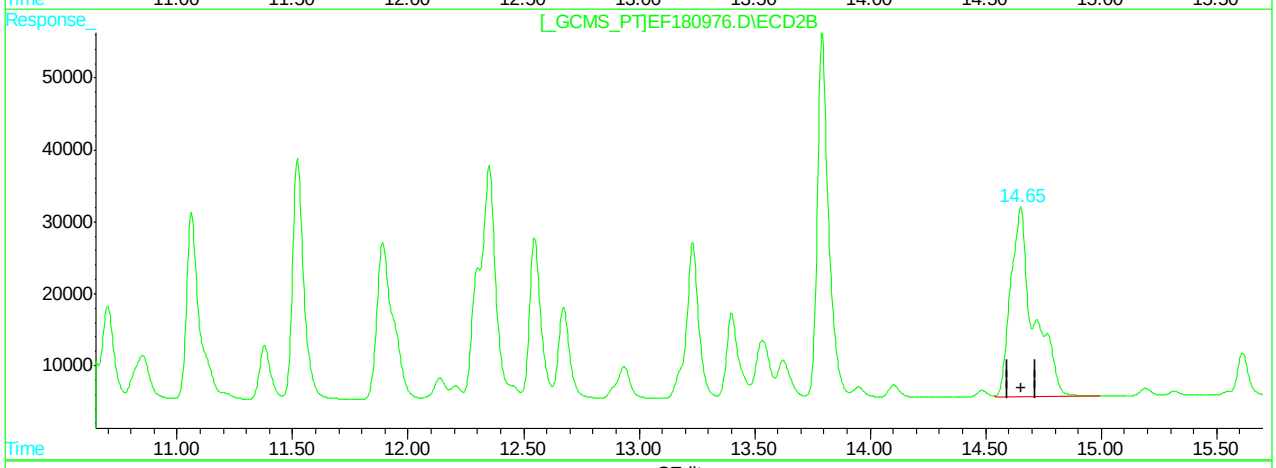
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:24:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 932.785PPB m

response 1528241

(50) AR1260-E #2

14.65min 956.642PPB m

response 1839470

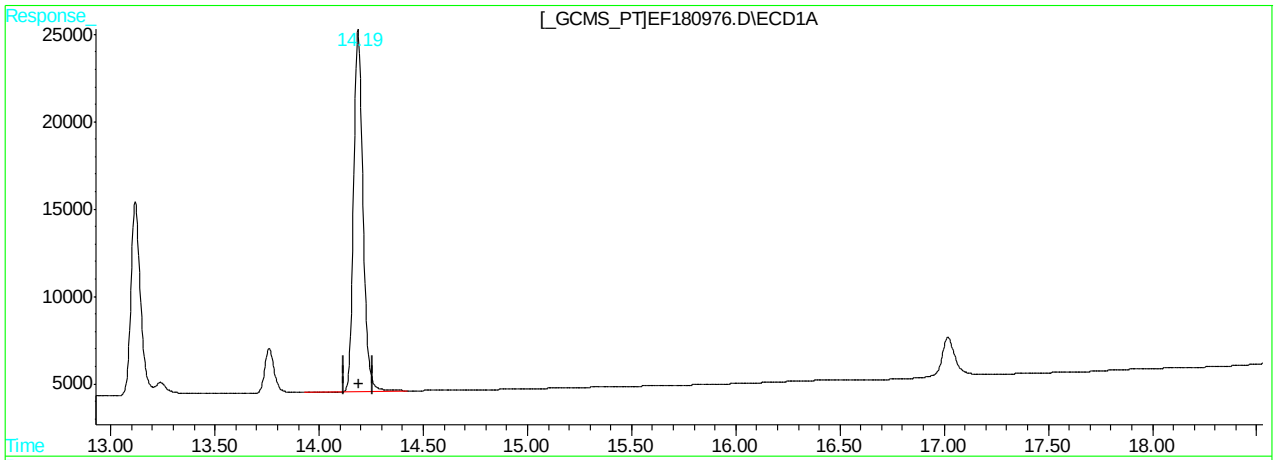
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:24:42 2018 GCEF

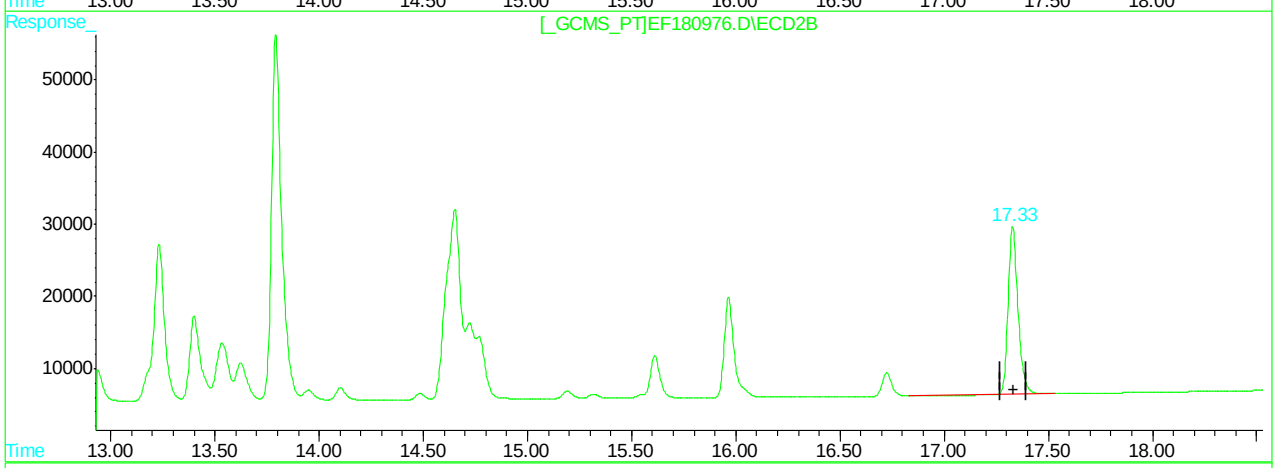
11.6.21.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 35.466PPB

response 645983

(51) Decachlorobiphenyl #2 (S)

17.33min 34.788PPB

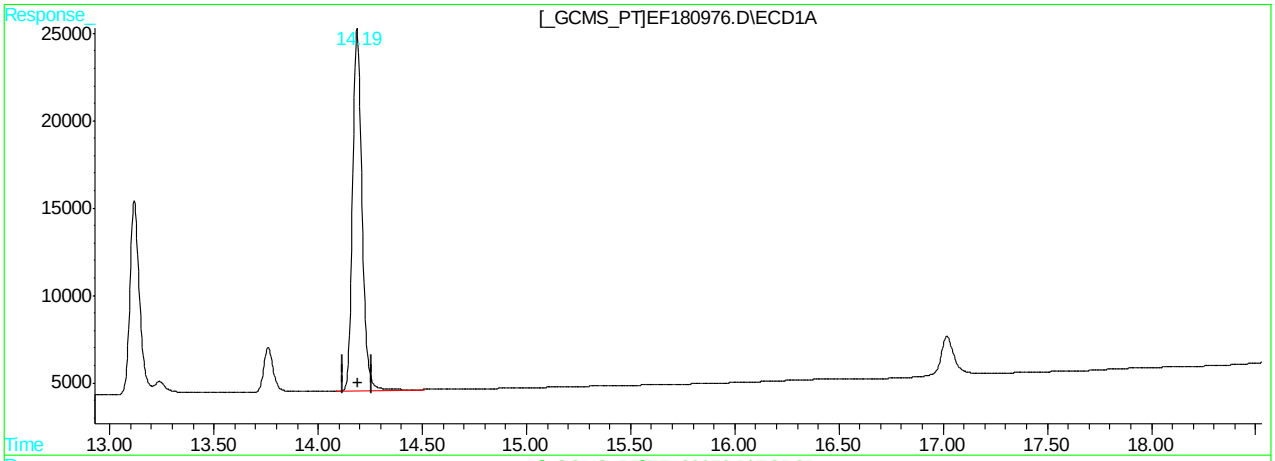
response 762934

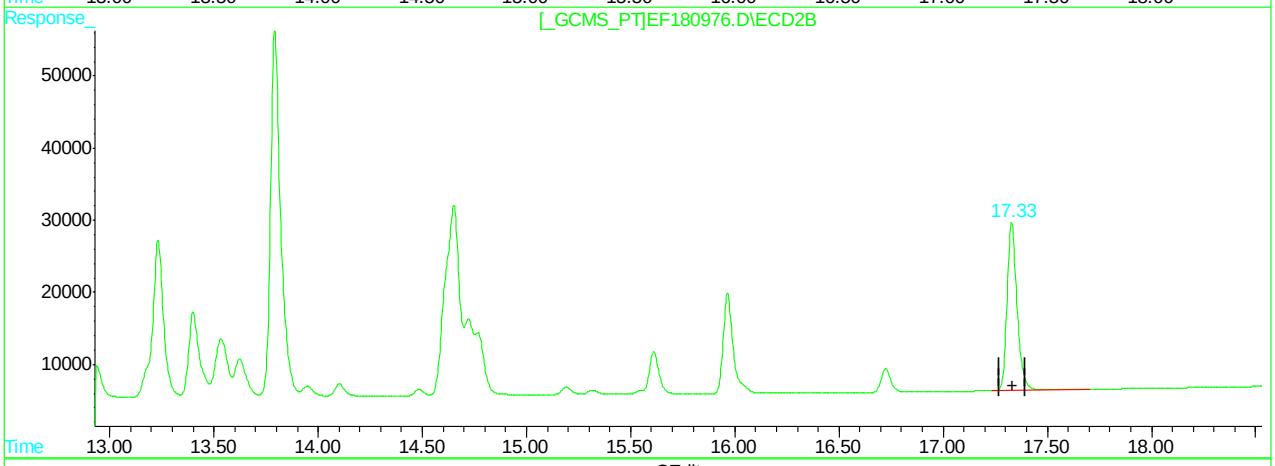
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:24:48 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 35.814PPB m

response 652309

(51) Decachlorobiphenyl #2 (S)

17.33min 35.701PPB m

response 782949

(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:25:07 2018 GCEF

11.6.21.7 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:27 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	929764	1276827	78.254	81.778
	Spiked Amount 40.000			Recovery	=	195.63%	204.45%
51) S	Decachlorobiphen	14.18	17.32	1220887	1480740	67.030m	67.519m
	Spiked Amount 40.000			Recovery	=	167.58%	168.80%
	Target Compounds						
41)	AR1016-A	3.71	5.16	582053	709007	1742.695	1787.365
42)	AR1016-B	4.25	5.98	967935	1369915	1663.170	1709.325
43)	AR1016-C	5.03f	6.93	2209403	2728494	1650.377	1696.023
44)	AR1016-D	5.27f	7.22	855727	1199985	1715.900	1751.471
45)	AR1016-E	6.02	8.24	888678	839810	1694.459	1730.791m
46)	AR1260-A	9.64	12.35	2447277	3133839	1704.979	1753.991
47)	AR1260-B	9.90	12.54	1151991	1361694	1690.097	1683.364
48)	AR1260-C	10.43	13.23	1111109	1508789	1744.364	1755.530
49)	AR1260-D	11.11	13.79	2904367	3199380	1738.698m	1725.556
50)	AR1260-E	11.72	14.65	2939304	3495842	1794.048m	1818.061m

11.6.22 11

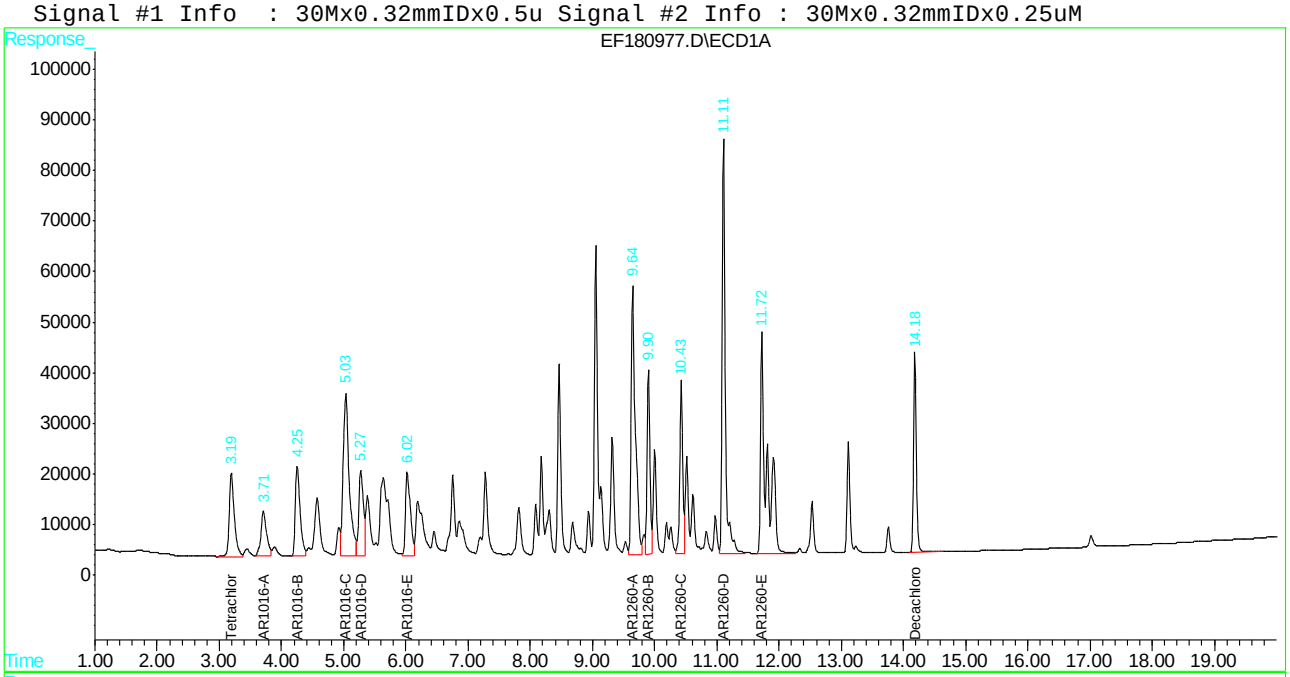
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180977.D PCB6195.M Tue Mar 20 13:27:21 2018 GCEF Page 1

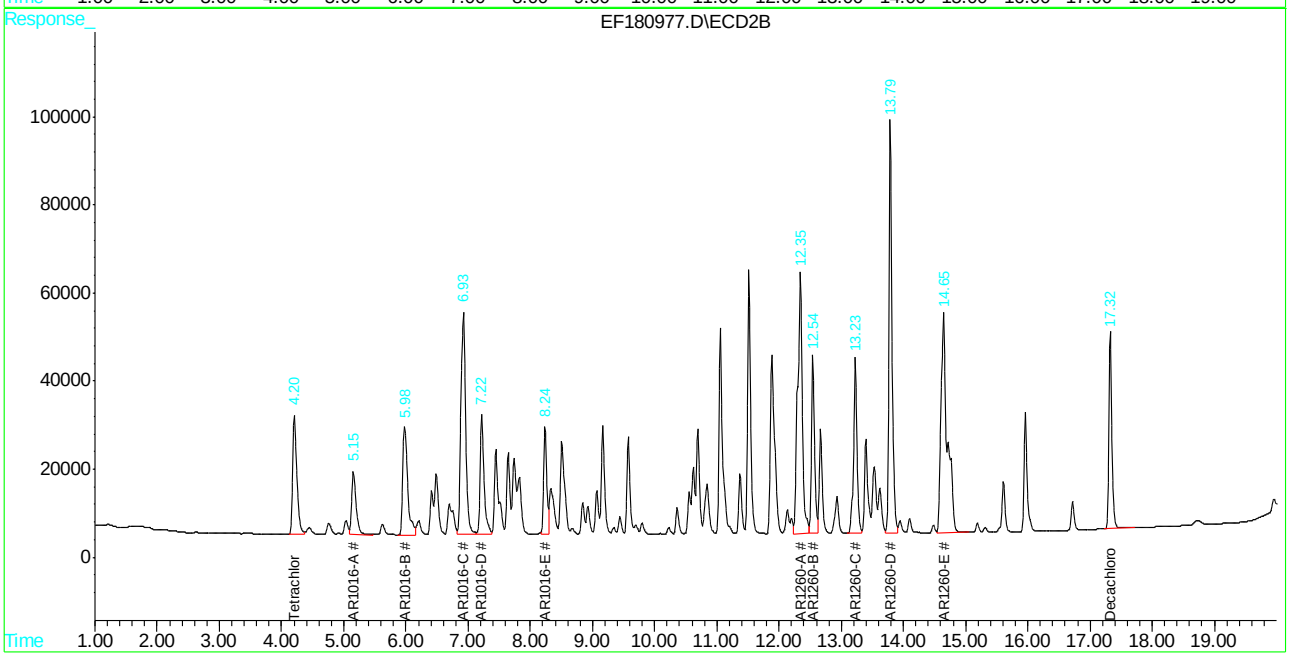
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:27 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





11.6.22 11

JC62881

Manual Integration Approval Summary

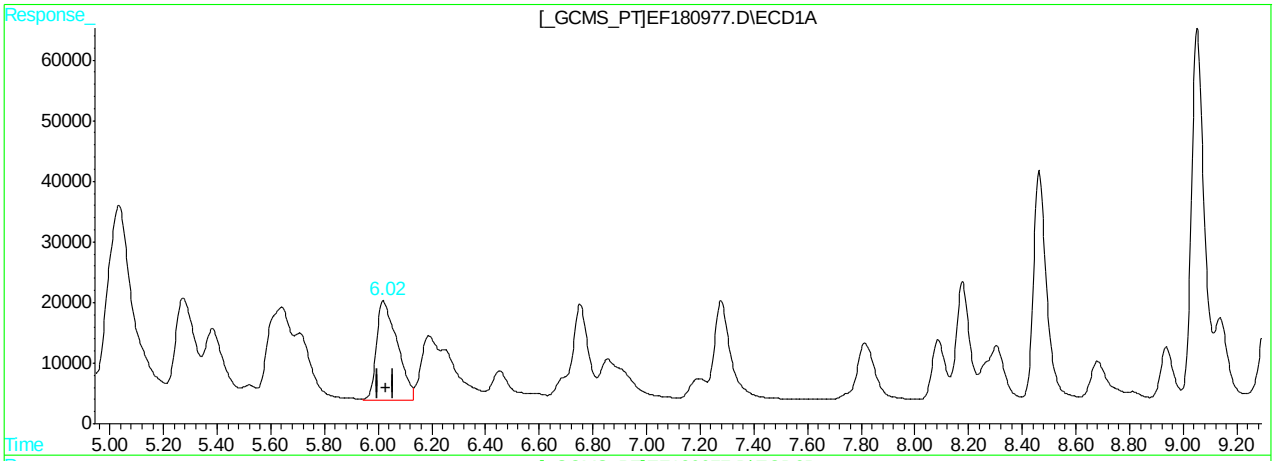
Sample Number: GEF6195-IC6195 **Method:** SW846 8082A
Lab FileID: EF180977.D **Analyst approved:** 03/20/18 15:40 Tianwei Ruan
Injection Time: 03/19/18 19:04 **Supervisor approved:** 03/21/18 11:23 Gwendolyn Burns

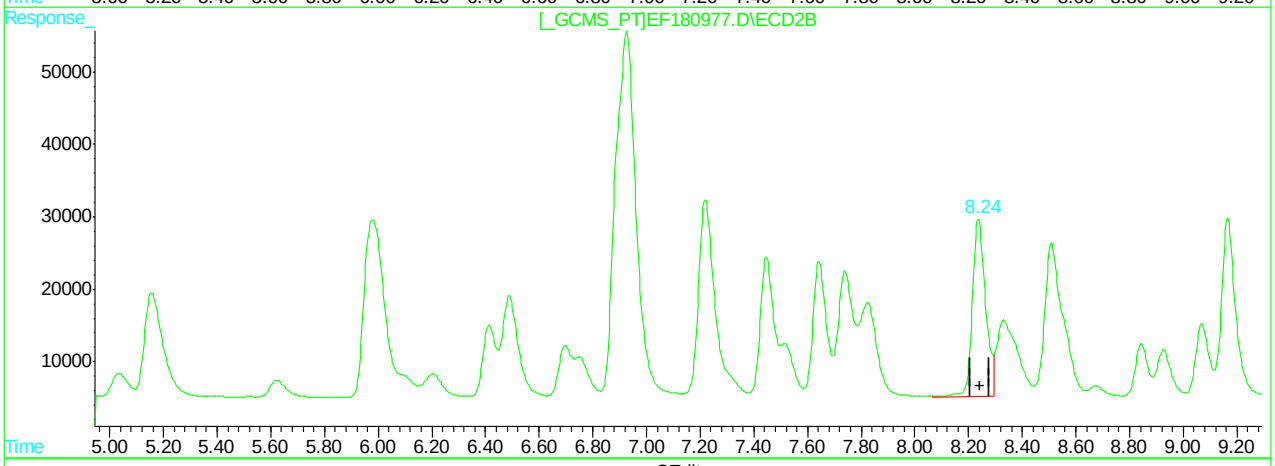
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		2	8.24	Split peak
AR1260-D		1	11.11	Split peak
AR1260-E		1	11.72	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
AR1260-E		2	14.65	Split peak
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 1694.459PPB

response 888678

(45) AR1016-E #2

8.24min 1728.259PPB

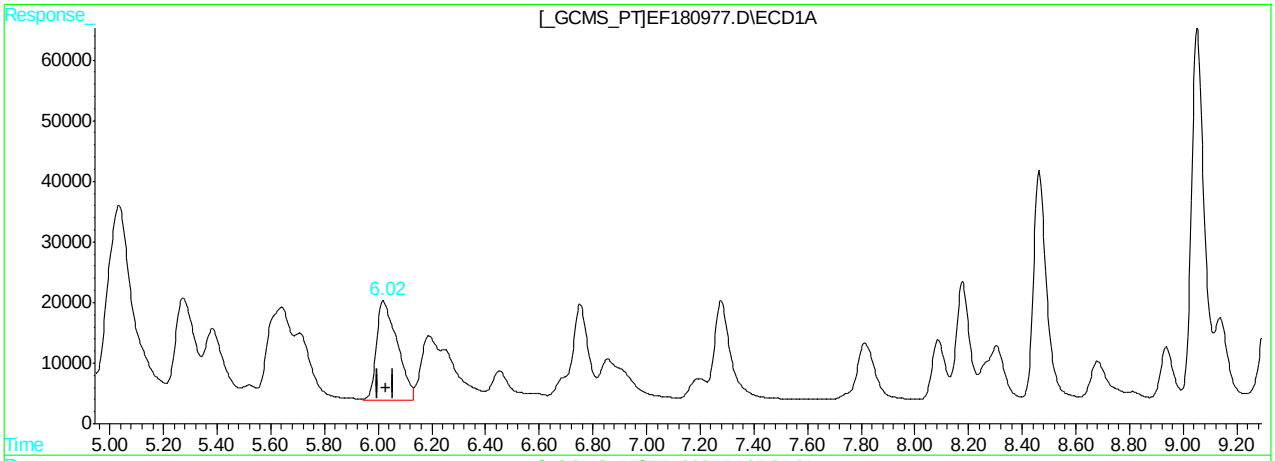
response 838582

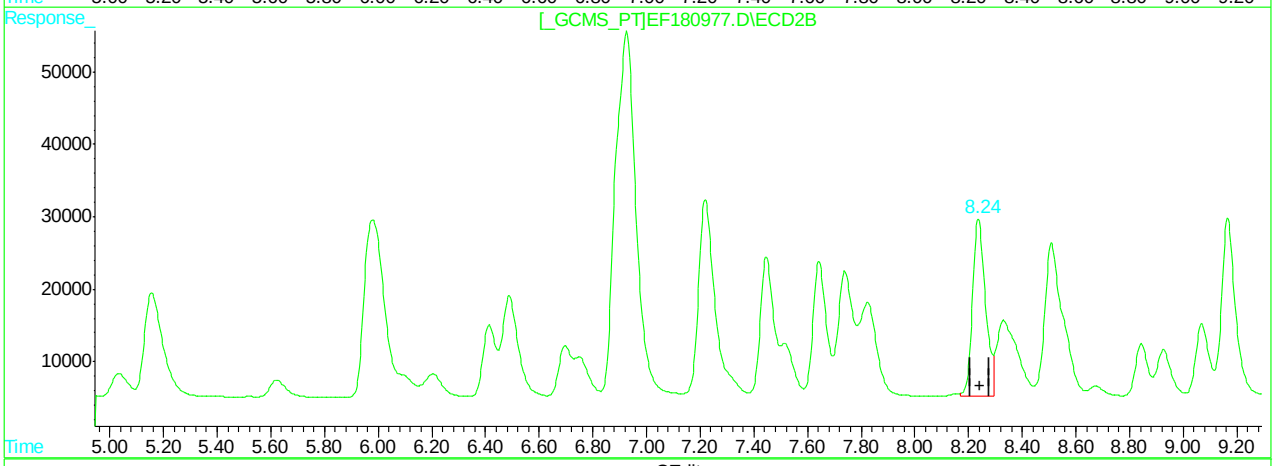
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:24:49 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 1694.459PPB

response 888678

(45) AR1016-E #2

8.24min 1730.791PPB m

response 839810

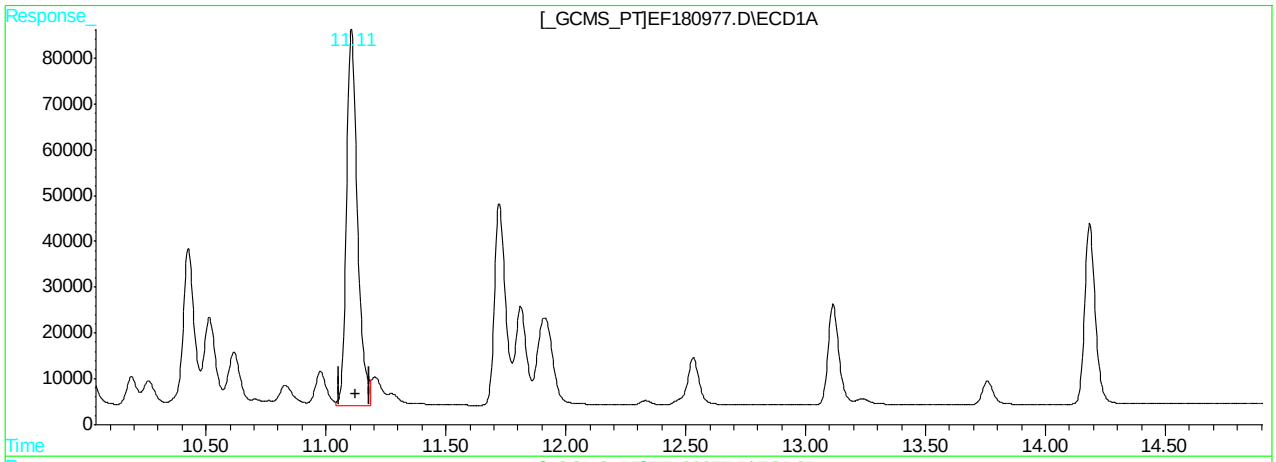
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:25:00 2018 GCEF

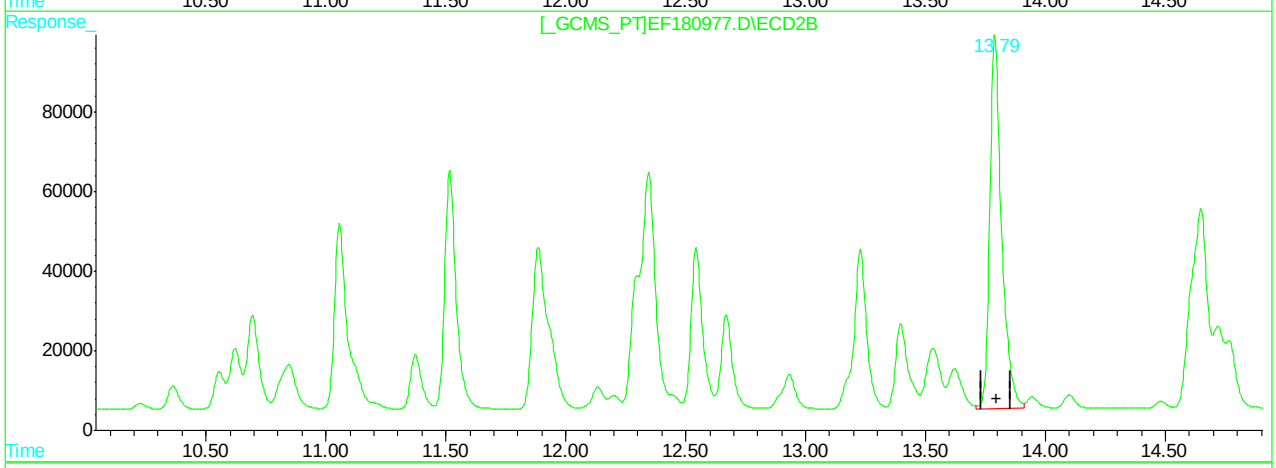
11.6.22.3 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 1552.953PPB

response 2594094

(49) AR1260-D #2

13.79min 1725.556PPB

response 3199380

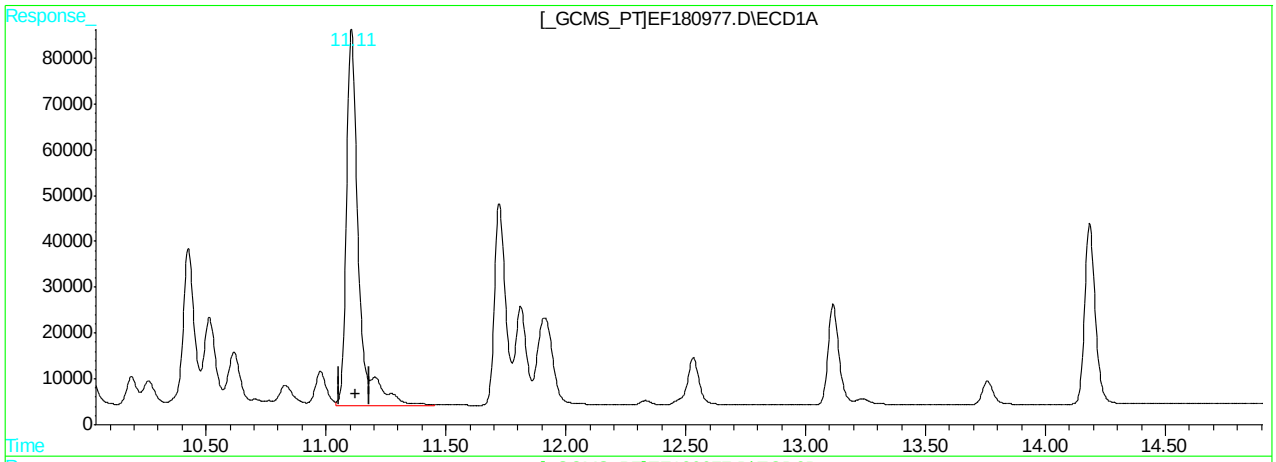
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:25:24 2018 GCEF

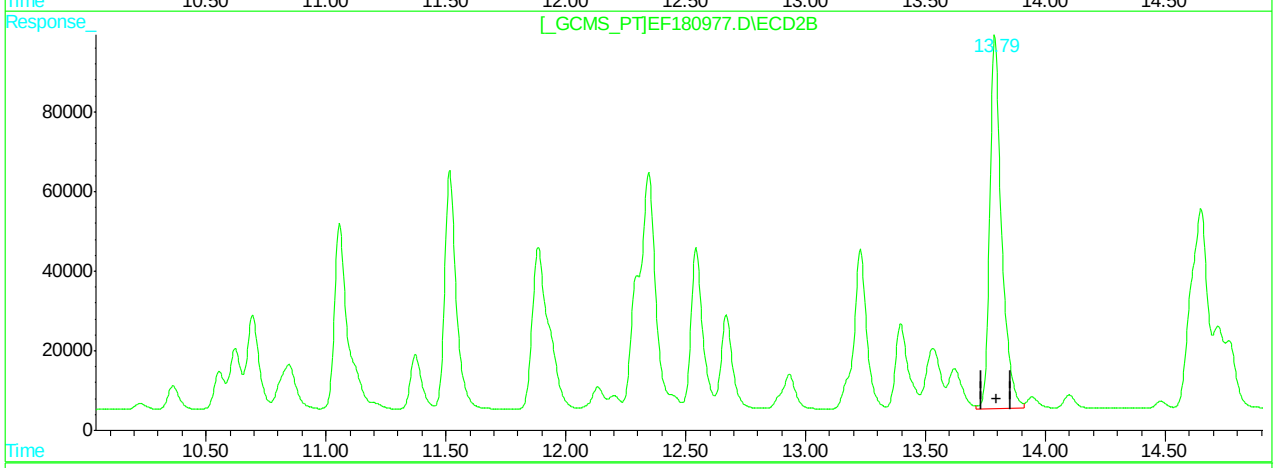
11.6.22.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 1738.698PPB m

response 2904367

(49) AR1260-D #2

13.79min 1725.556PPB

response 3199380

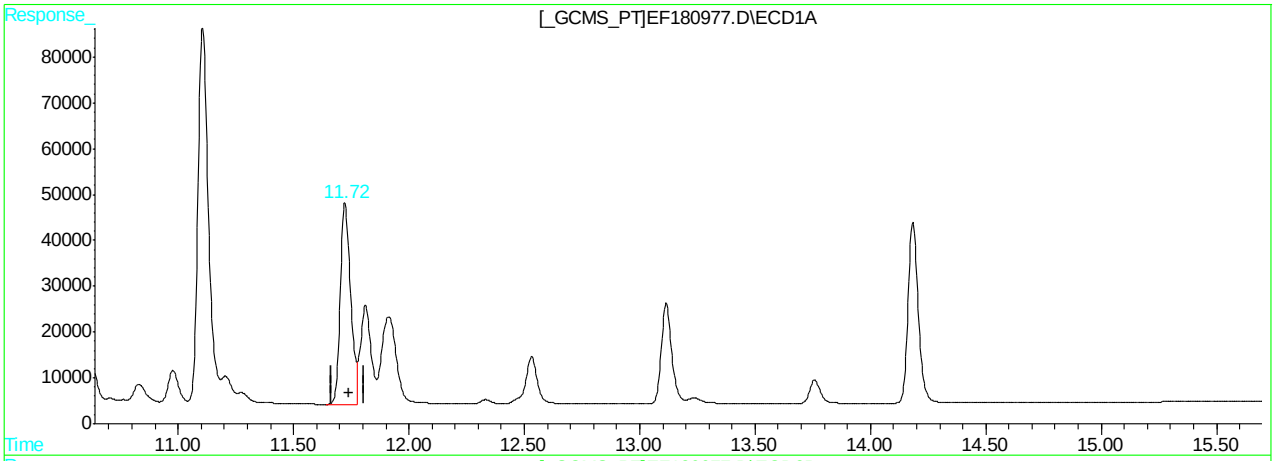
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:25:33 2018 GCEF

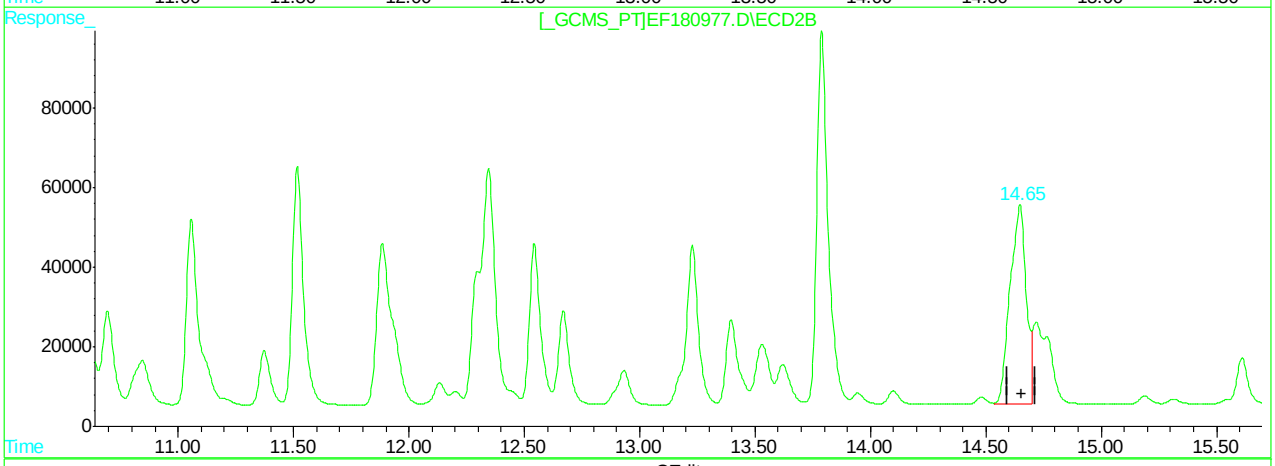
11.6.22.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 836.859PPB

response 1371080

(50) AR1260-E #2

14.65min 1248.758PPB

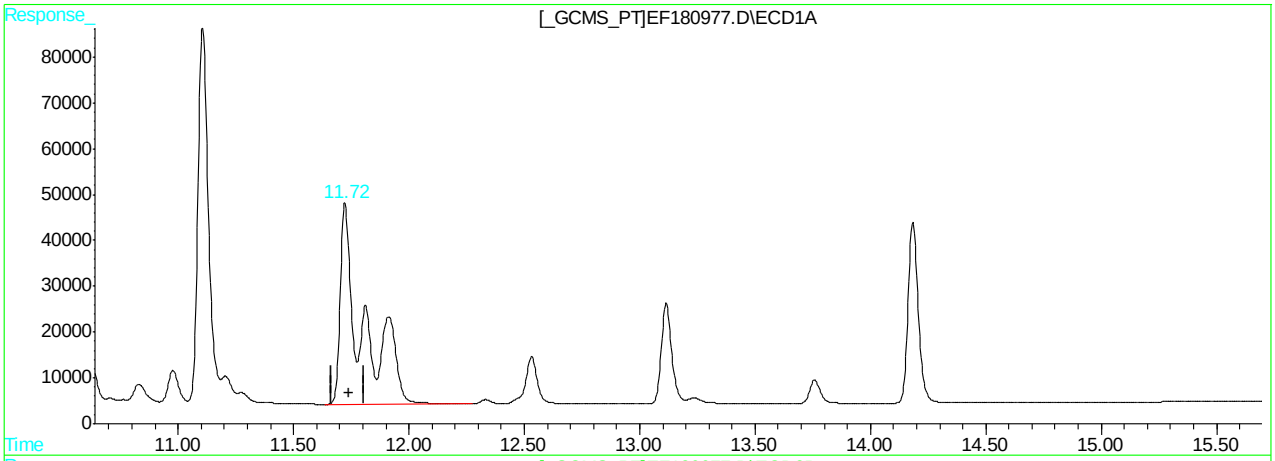
response 2401162

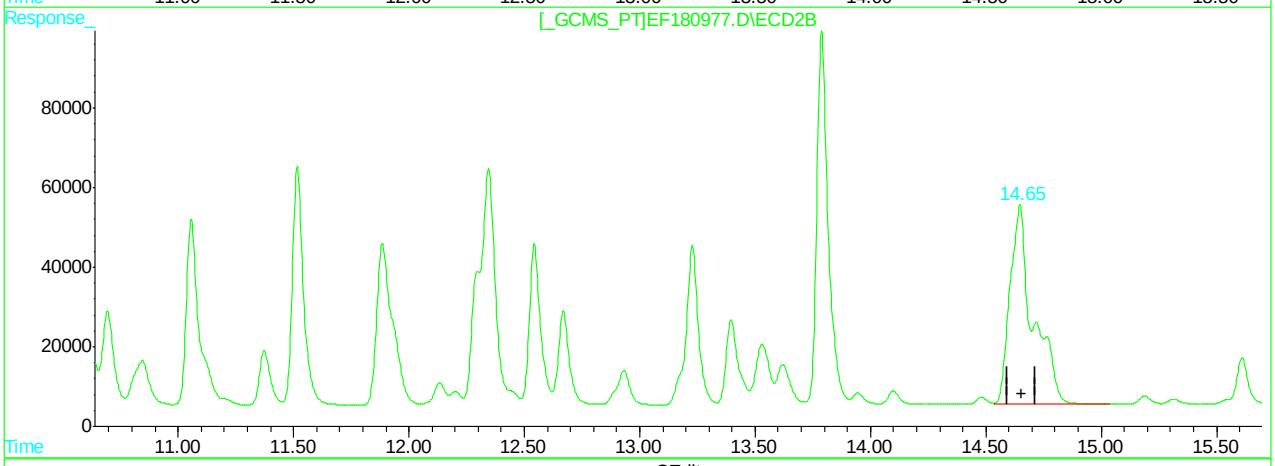
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:25:38 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 1794.048PPB m

response 2939304

(50) AR1260-E #2

14.65min 1818.061PPB m

response 3495842

(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:26:45 2018 GCEF

11.6.22.7 11

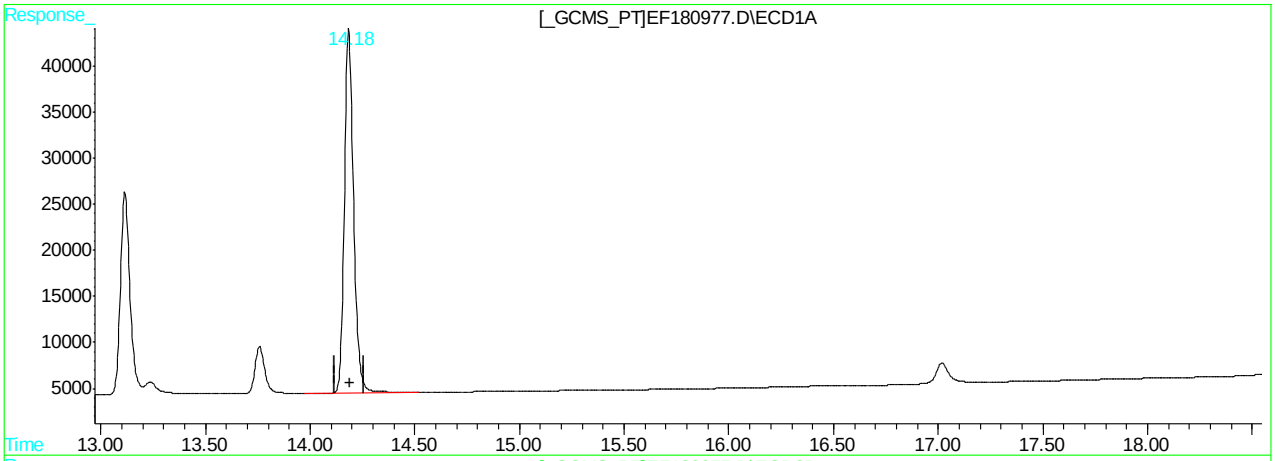
EF180977.D edits: AR1260-E

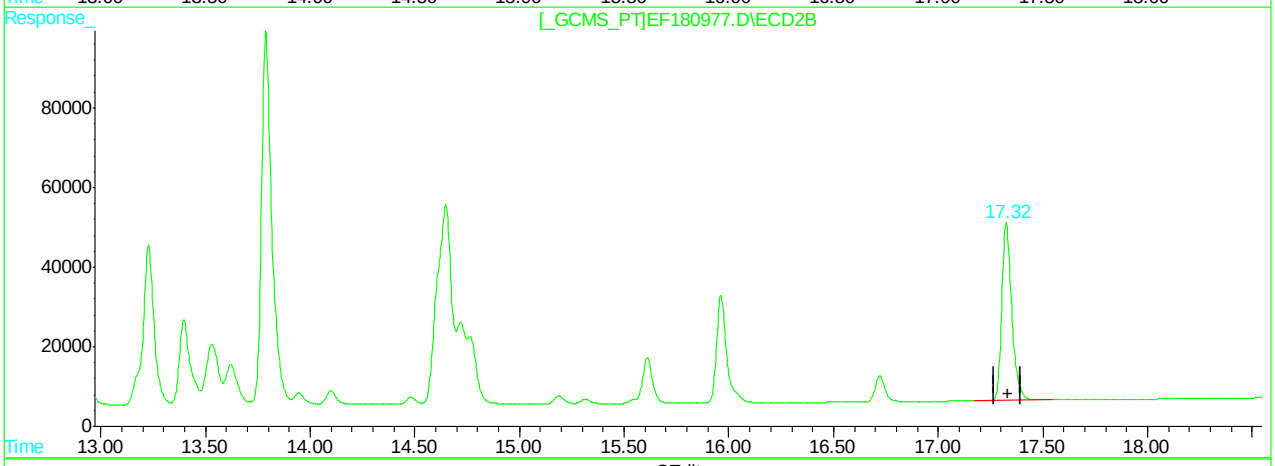
JC62881

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 66.749PPB

response 1215763

(51) Decachlorobiphenyl #2 (S)

17.33min 67.025PPB

response 1469911

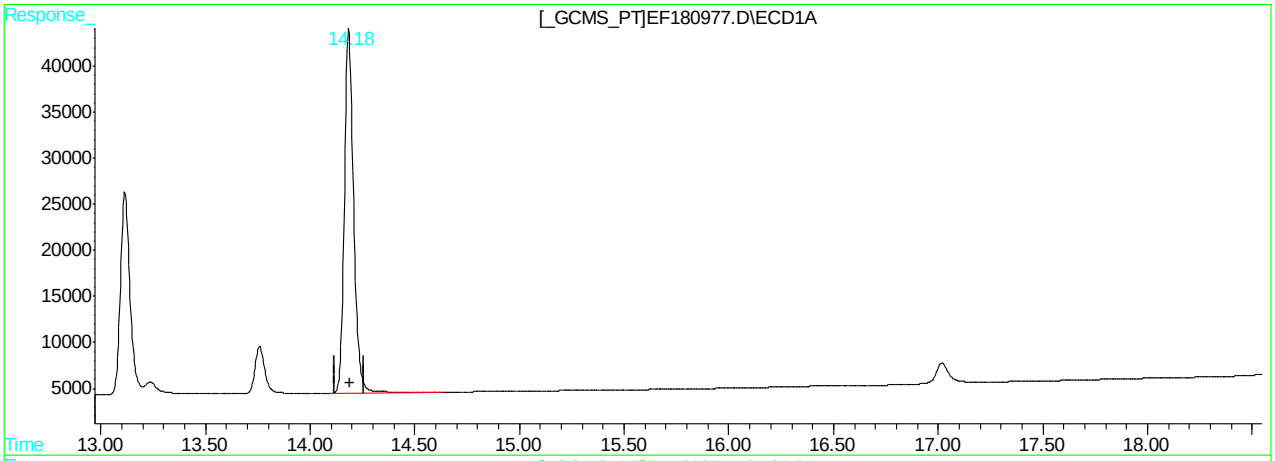
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:26:52 2018 GCEF

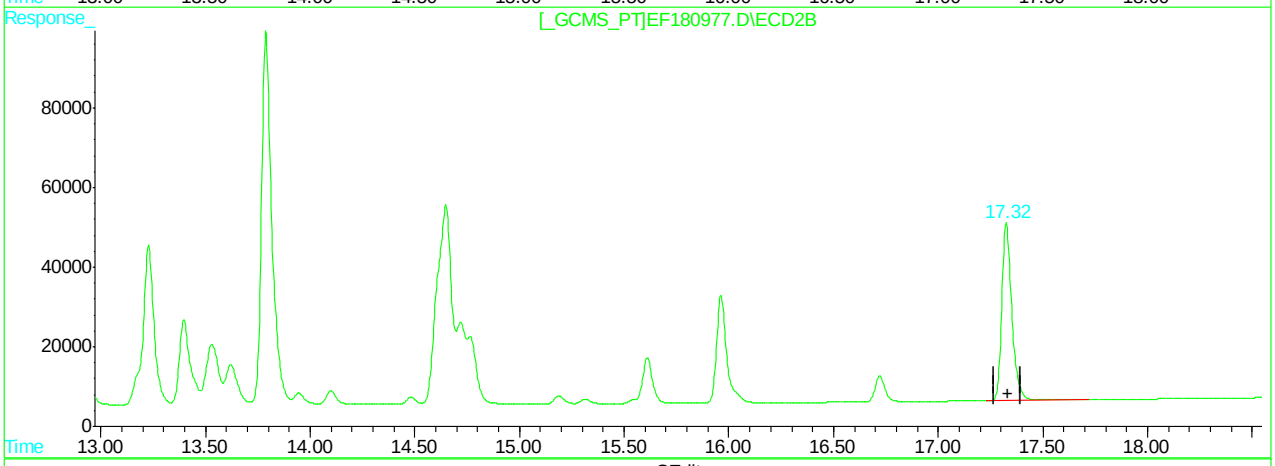
11.6.22.8 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 67.030PPB m

response 1220887

(51) Decachlorobiphenyl #2 (S)

17.32min 67.519PPB m

response 1480740

(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:27:13 2018 GCEF

11.6.22.9 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:30 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	1411880	1917405	118.832	122.805
	Spiked Amount 40.000			Recovery	=	297.08%	307.01%
51) S	Decachlorobiphen	14.18	17.32	1735151	2101116	95.265m	95.807
	Spiked Amount 40.000			Recovery	=	238.16%	239.52%
	Target Compounds						
41)	AR1016-A	3.70	5.15	836734	998596	2505.225	2517.402
42)	AR1016-B	4.25	5.98	1371994	1925330	2357.452	2402.350
43)	AR1016-C	5.03f	6.92	3139749	3843282	2345.325	2388.972
44)	AR1016-D	5.27f	7.22	1214150	1696715	2434.609	2476.487
45)	AR1016-E	6.02	8.23	1271747	1180032	2424.864	2431.963m
46)	AR1260-A	9.64	12.34	3507842	4483401	2443.858	2509.332
47)	AR1260-B	9.90	12.54	1651866	1937145	2423.469	2394.752
48)	AR1260-C	10.43	13.23	1597030	2160958	2507.225	2514.352
49)	AR1260-D	11.10	13.79	4163206	4613634	2492.301m	2488.320
50)	AR1260-E	11.72	14.64	4267376	5074780	2604.656m	2639.210m

11.6.23 11

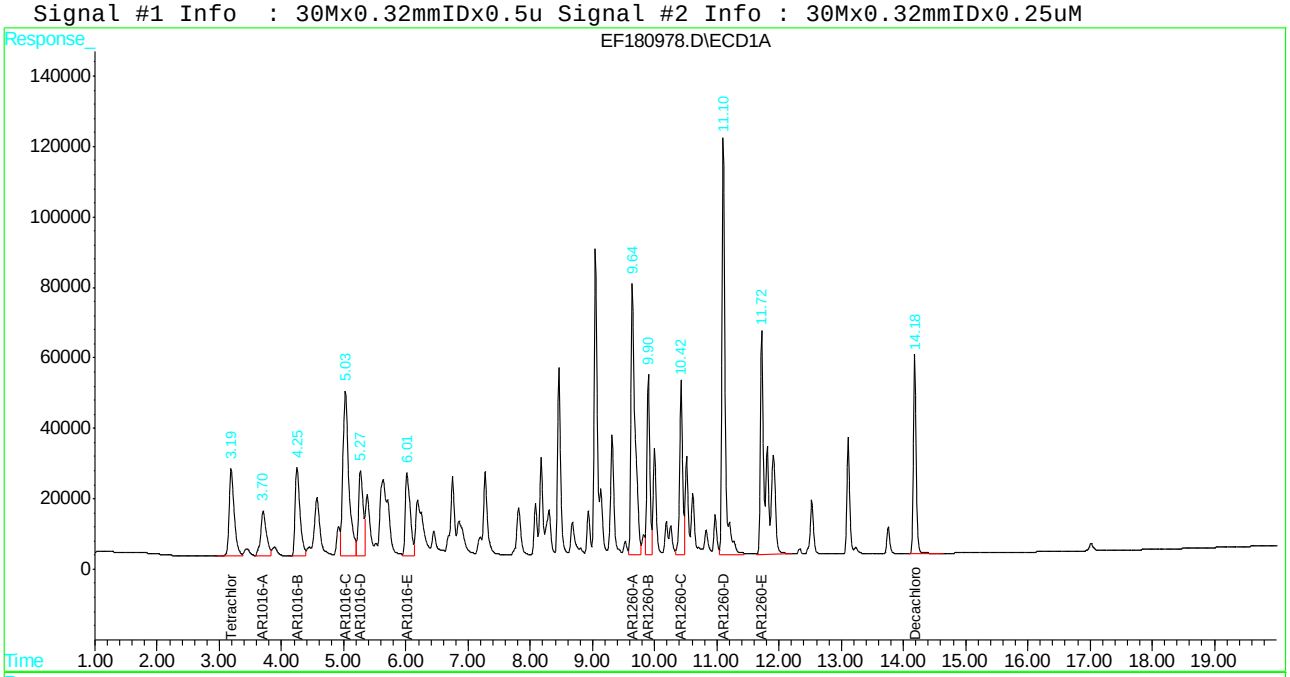
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180978.D PCB6195.M Tue Mar 20 13:30:16 2018 GCEF Page 1

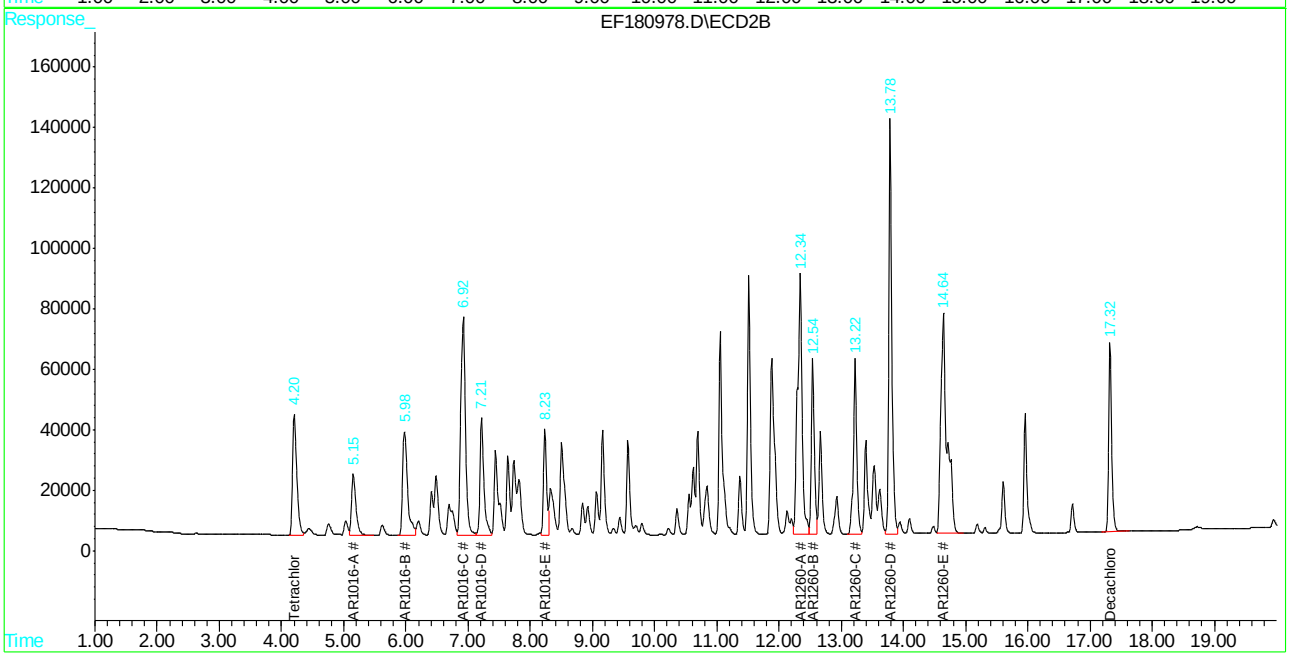
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:30 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62881

Manual Integration Approval Summary

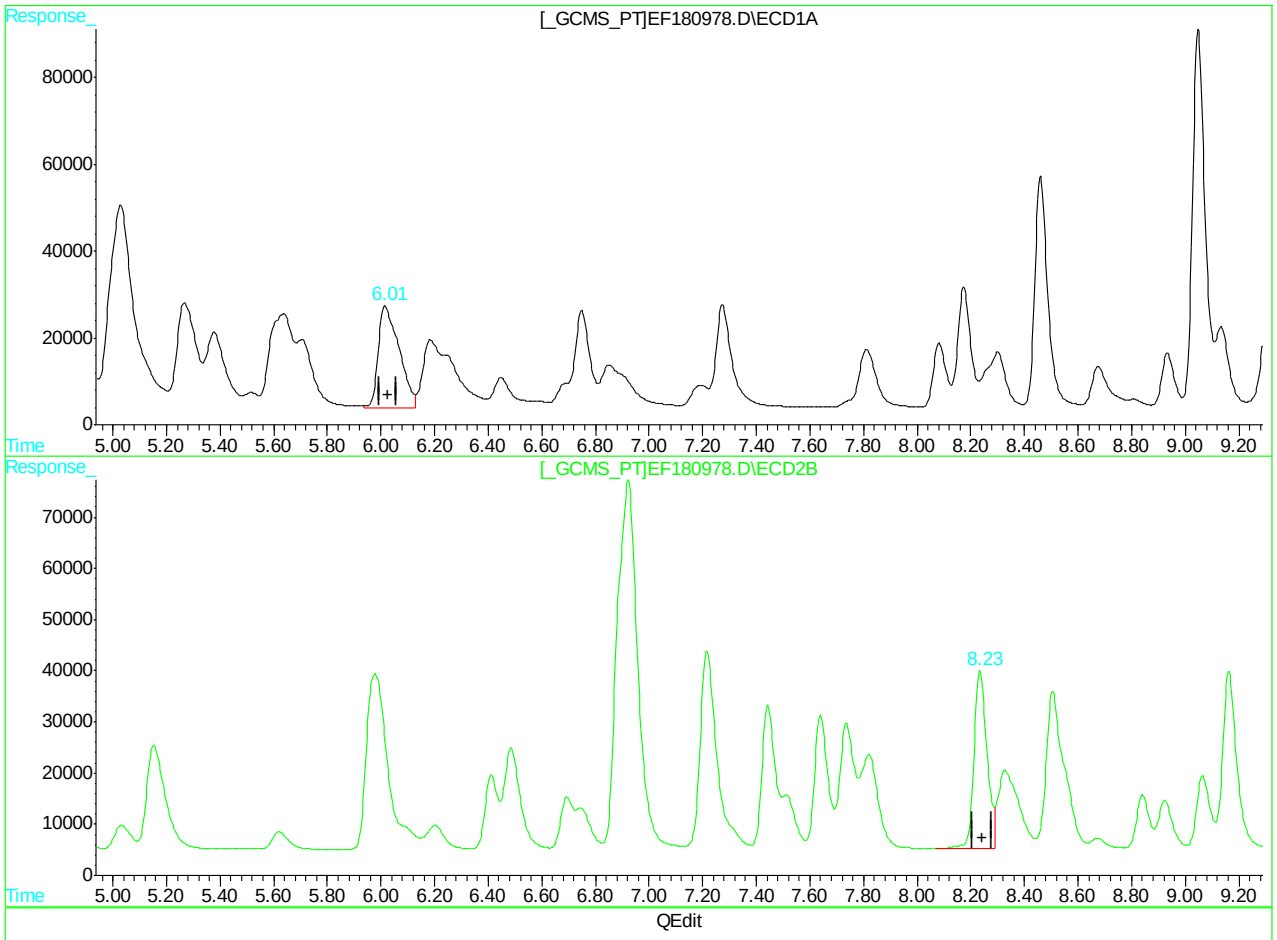
Sample Number:	GEF6195-IC6195	**Method:**	SW846 8082A
Lab FileID:	EF180978.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 19:29	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		2	8.23	Split peak
AR1260-D		1	11.10	Split peak
AR1260-E		1	11.72	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
AR1260-E		2	14.64	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(45) AR1016-E

6.02min 2424.864PPB

response 1271747

(45) AR1016-E #2

8.23min 2448.640PPB

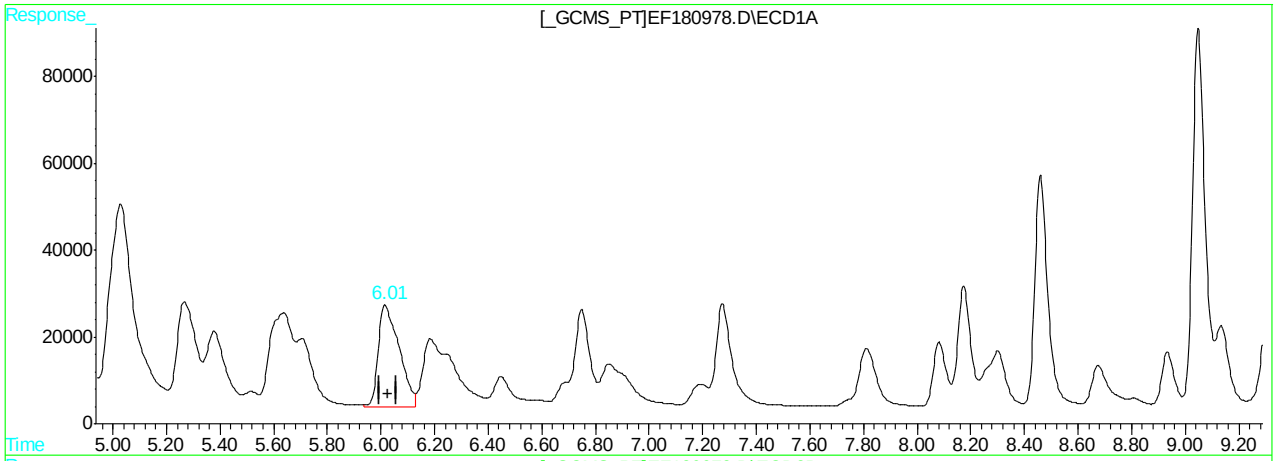
response 1188123

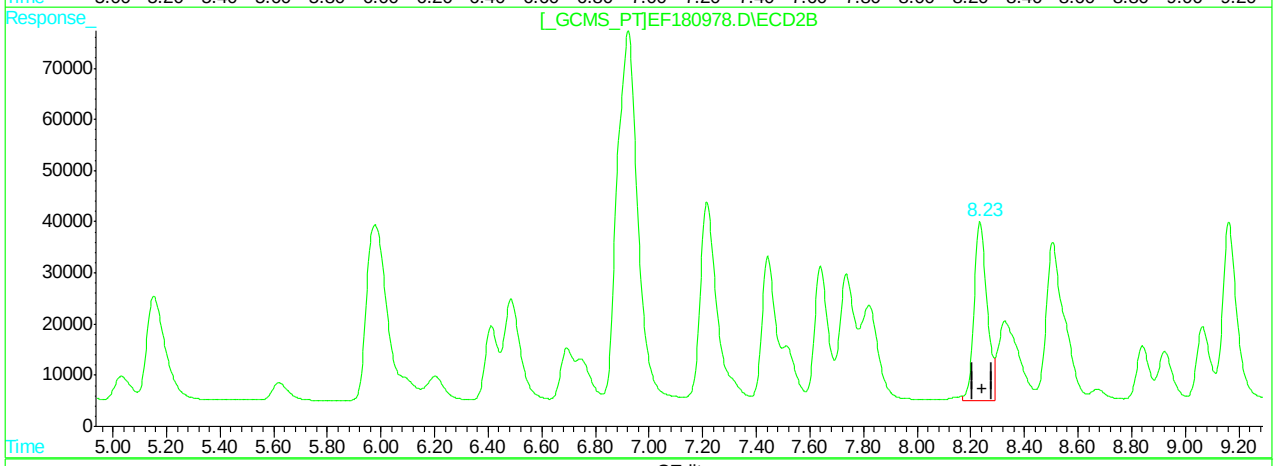
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:28:54 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 2424.864PPB

response 1271747

(45) AR1016-E #2

8.23min 2431.963PPB m

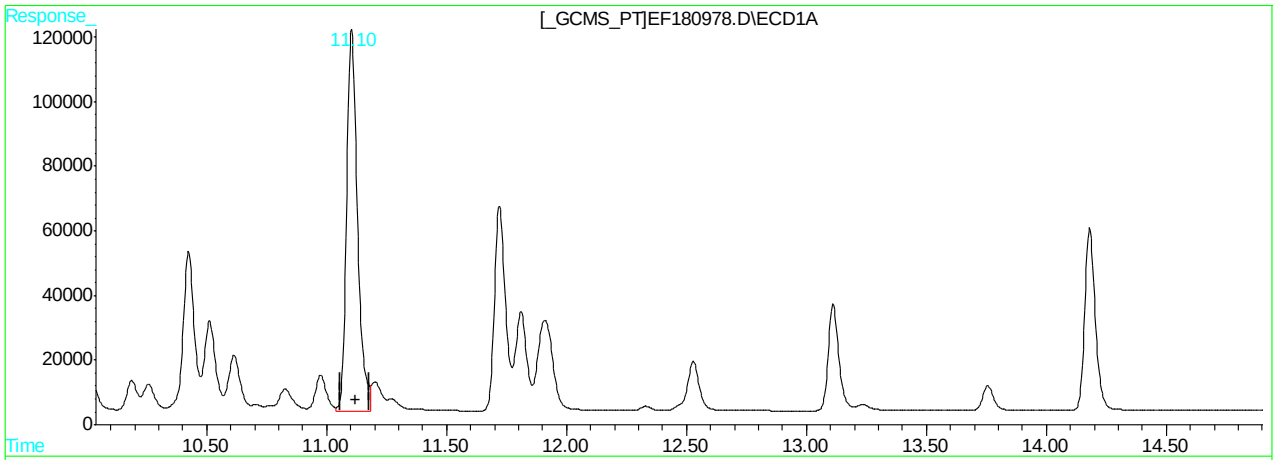
response 1180032

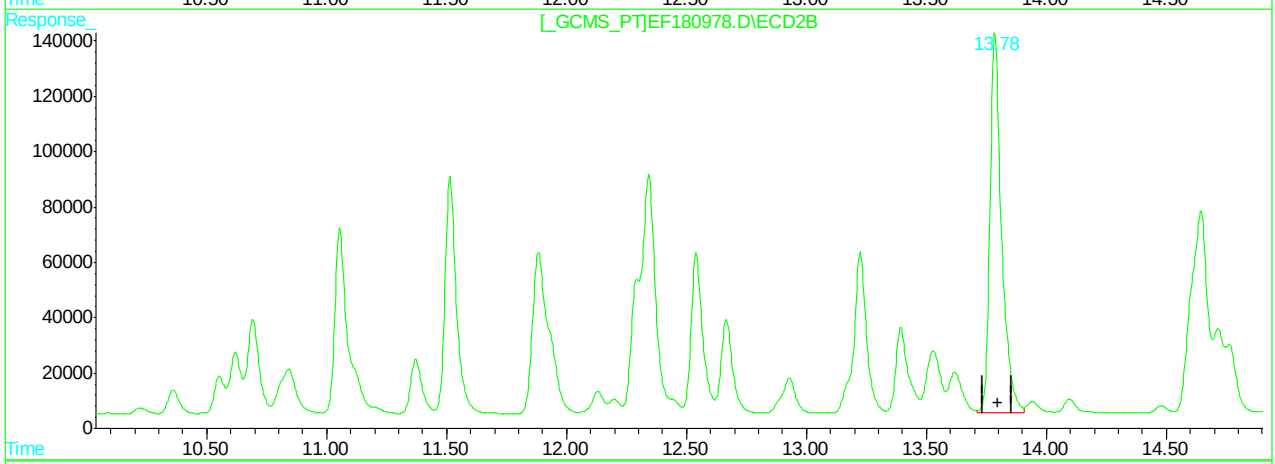
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:03 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.10min 2231.078PPB

response 3726852

(49) AR1260-D #2

13.79min 2488.320PPB

response 4613634

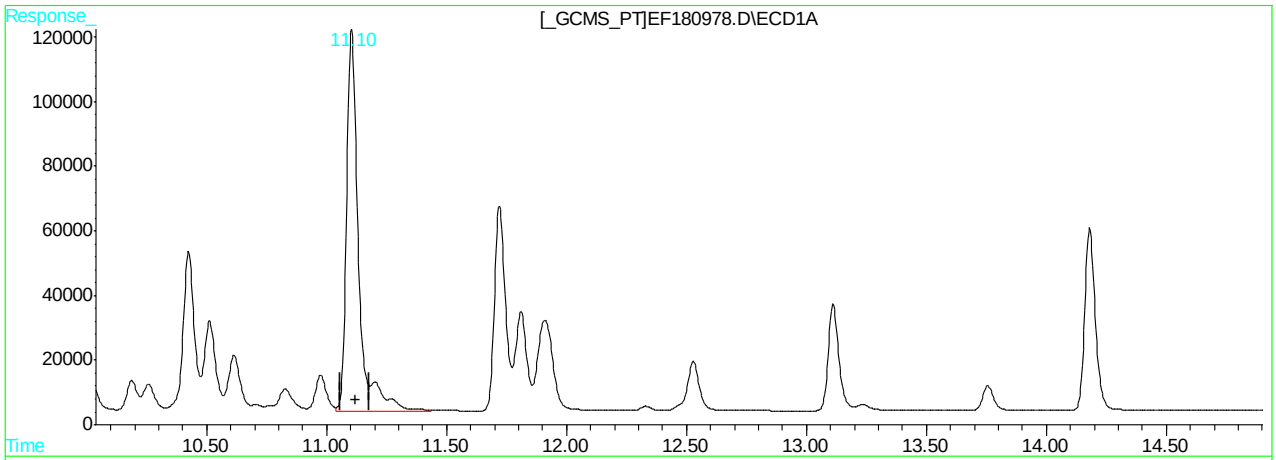
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:11 2018 GCEF

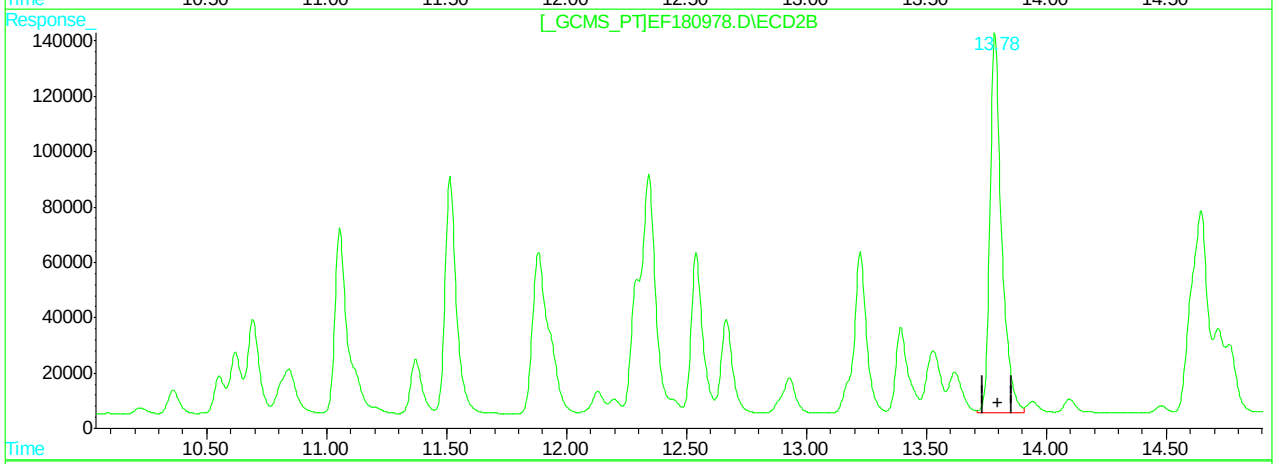
11.6.23.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.10min 2492.301PPB m

response 4163206

(49) AR1260-D #2

13.79min 2488.320PPB

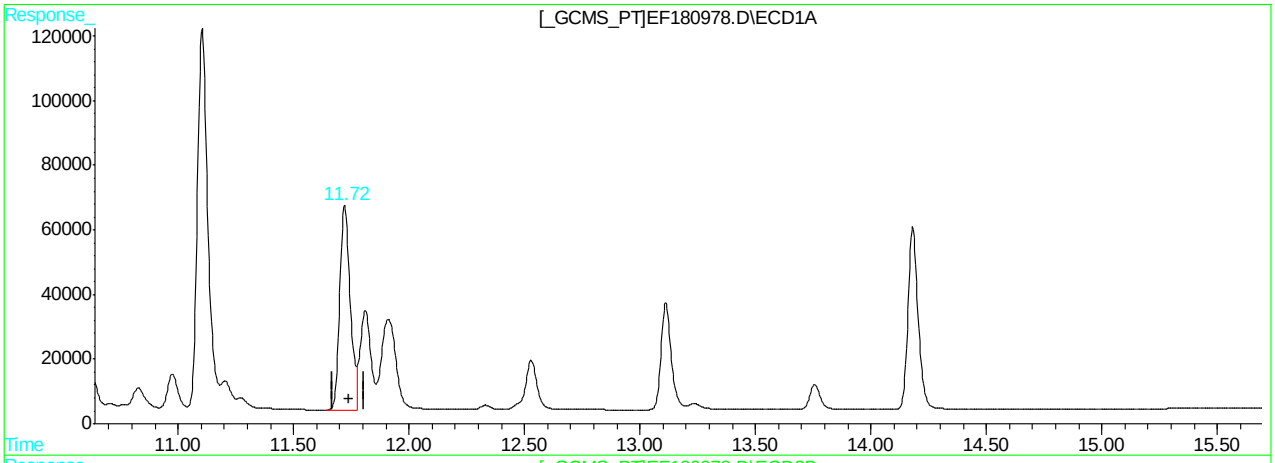
response 4613634

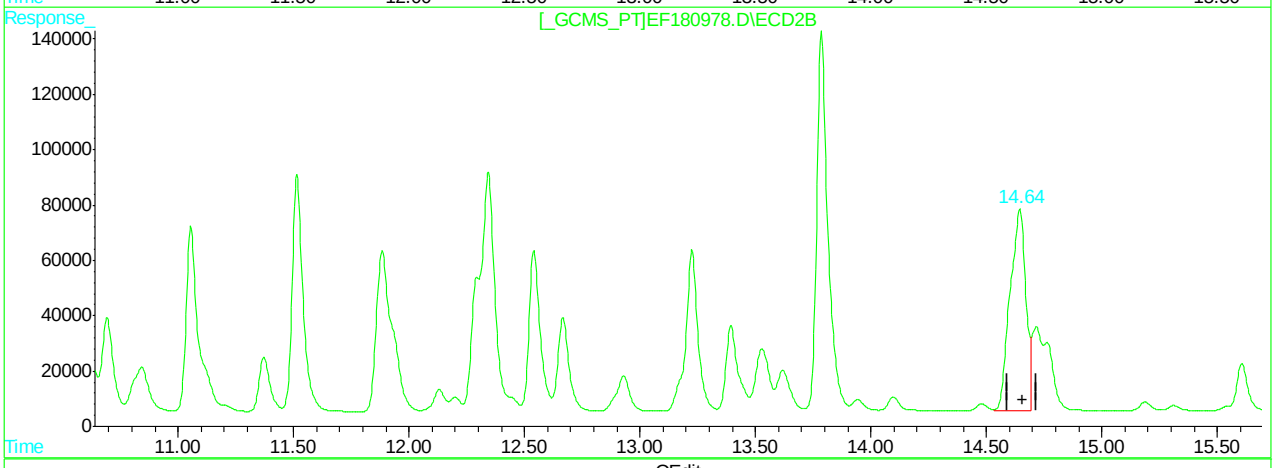
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:20 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 1216.786PPB

response 1993539

(50) AR1260-E #2

14.65min 1798.798PPB

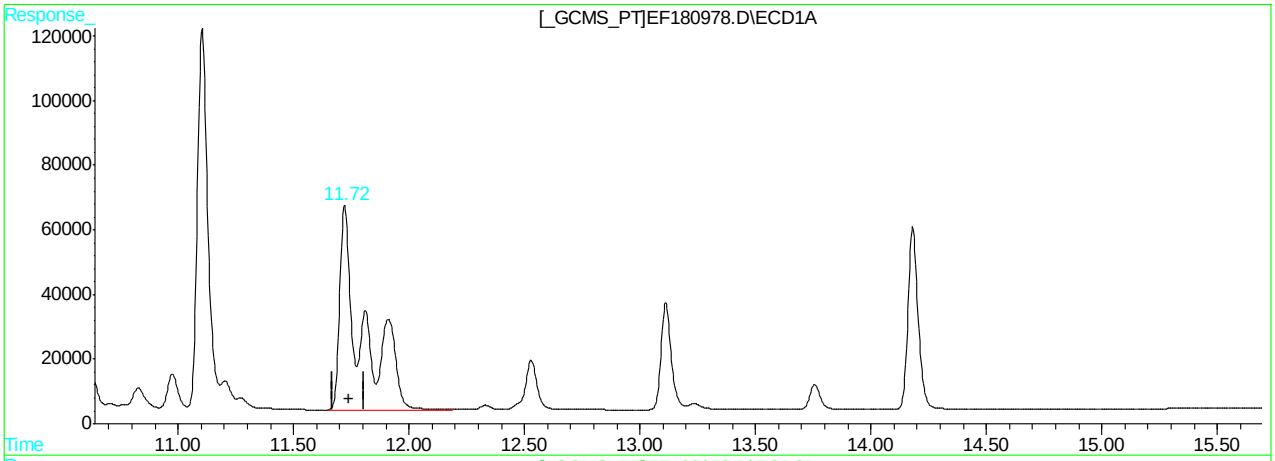
response 3458802

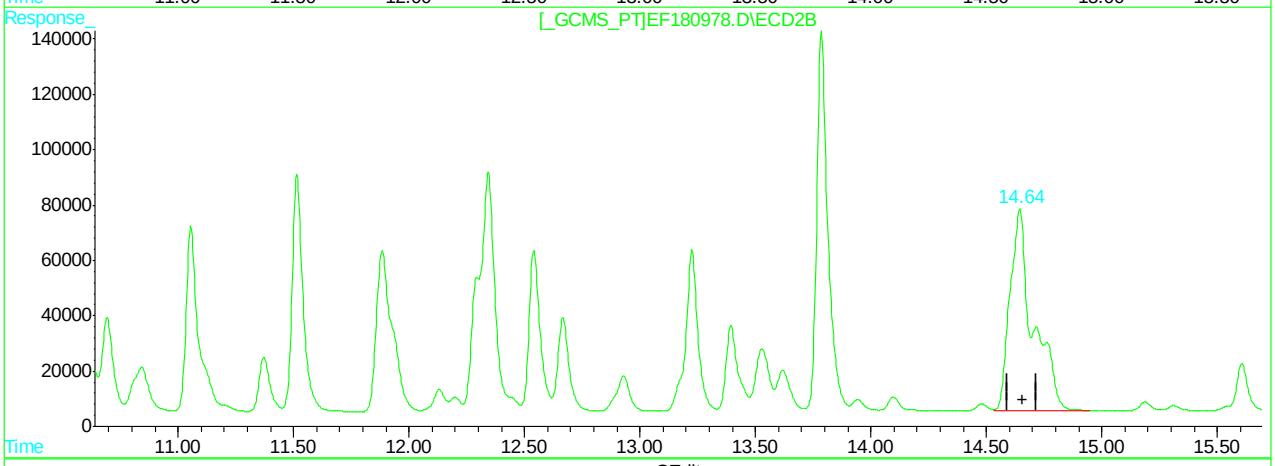
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:25 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 2604.656PPB m

response 4267376

(50) AR1260-E #2

14.64min 2639.210PPB m

response 5074780

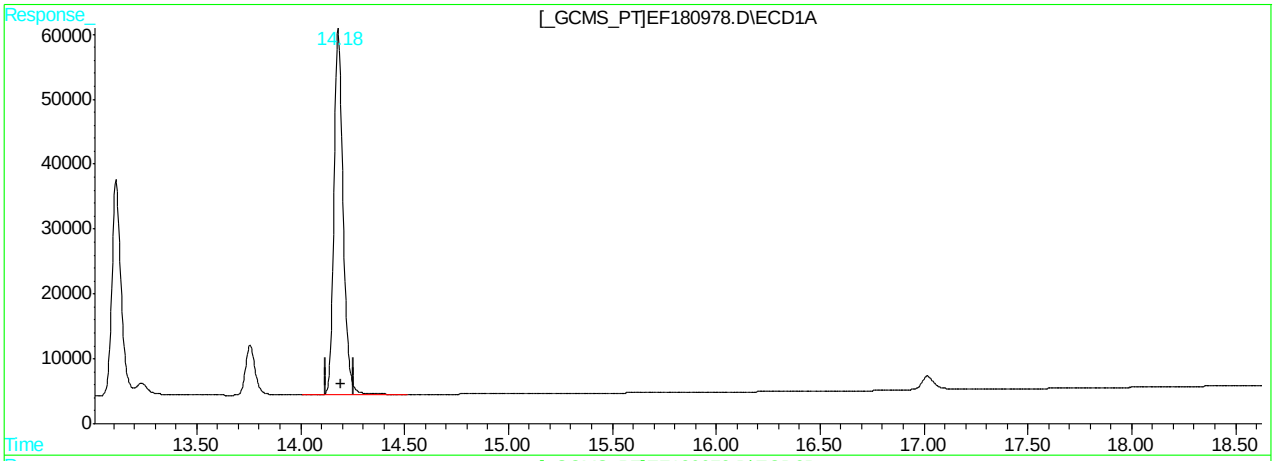
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:47 2018 GCEF

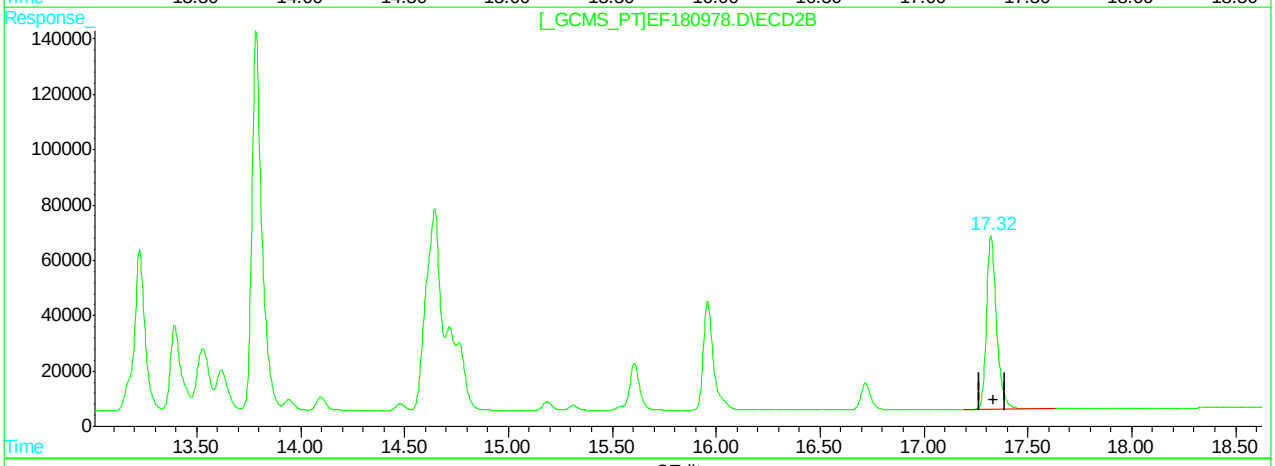
11.6.23.7 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 95.171PPB

response 1733442

(51) Decachlorobiphenyl #2 (S)

17.32min 95.807PPB

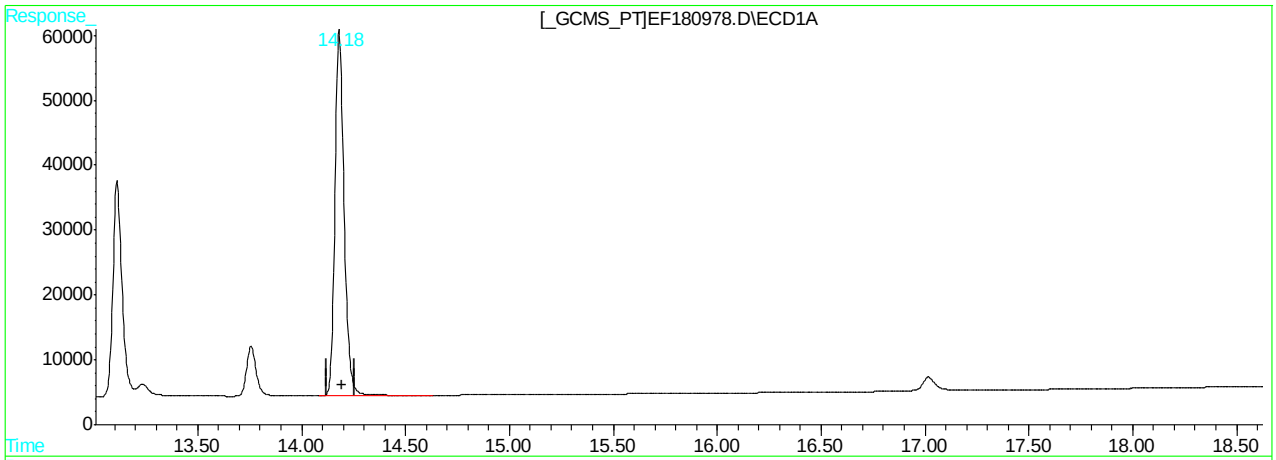
response 2101116

(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:57 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.18min 95.265PPB m

response 1735151

(51) Decachlorobiphenyl #2 (S)

17.32min 95.807PPB

response 2101116

(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:30:09 2018 GCEF

EF180979.D

Manual Integrations APPROVED (compounds with "m" flag)

Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	532043	669180	44.780m	42.859
	Spiked Amount 40.000			Recovery =		111.95%	107.15%
51) S	Decachlorobiphen	14.18	17.32	697471	844886	38.293m	38.525m
	Spiked Amount 40.000			Recovery =		95.73%	96.31%
	Target Compounds						
2)	AR1221-A	2.56	3.43	126056	160898	995.783	1002.279
3)	AR1221-B	3.44	4.76	164608	234434	933.037	992.890
4)	AR1221-C	3.70	5.15	562318	618180	934.996	994.451
5)	AR1221-D	4.26	5.97	59345	132079	936.141	983.748
6)	AR1221-E	4.57	6.10	120744	127522	955.485	980.397
24)	AR1254-A	6.75	9.16	556970	779263	937.548	998.965
25)	AR1254-B	7.27	9.57	712084	822851	930.593	989.024
26)	AR1254-C	7.83	10.36	521535	602713	941.171	982.352
27)	AR1254-D	8.08	10.62	970110	1271381	933.779m	936.877
28)	AR1254-E	8.67	11.12	863799	1022397	938.606	976.203
29)	AR1254-F	9.05	11.93	720837	1005324	936.415	997.223m
30)	AR1254-G	9.65	12.35	950863	1191987	941.058	967.388

11.6.24 11

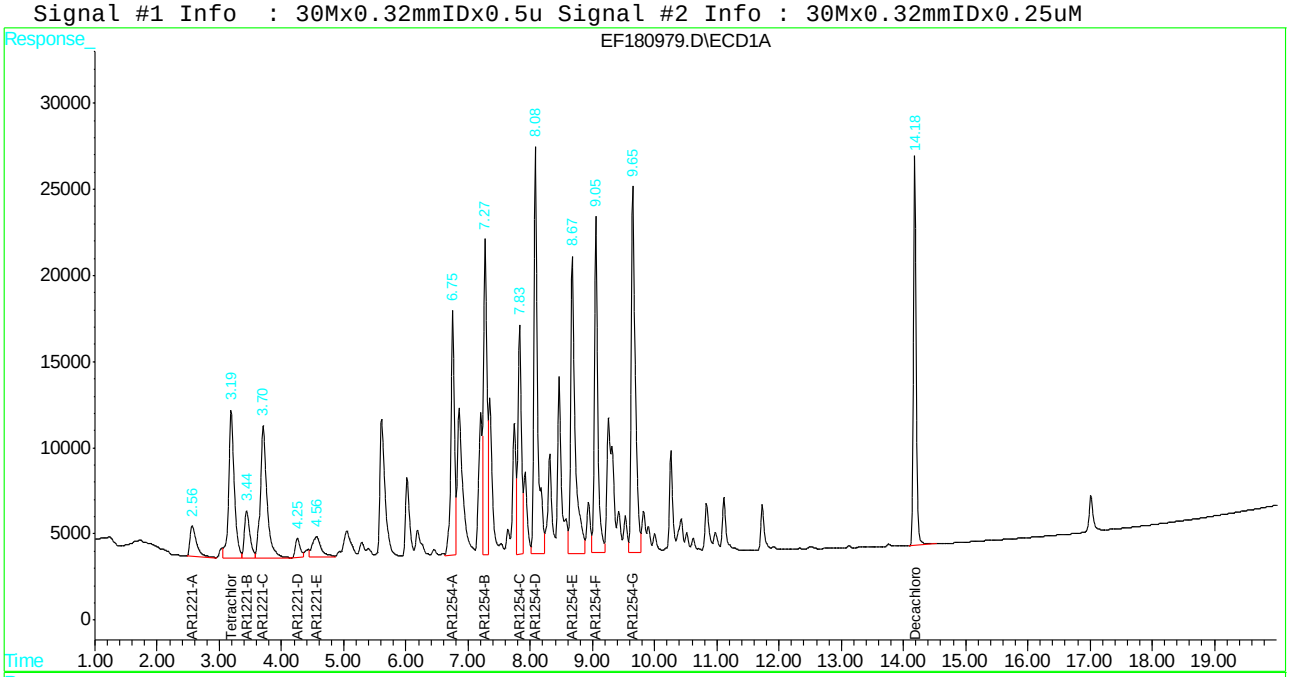
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

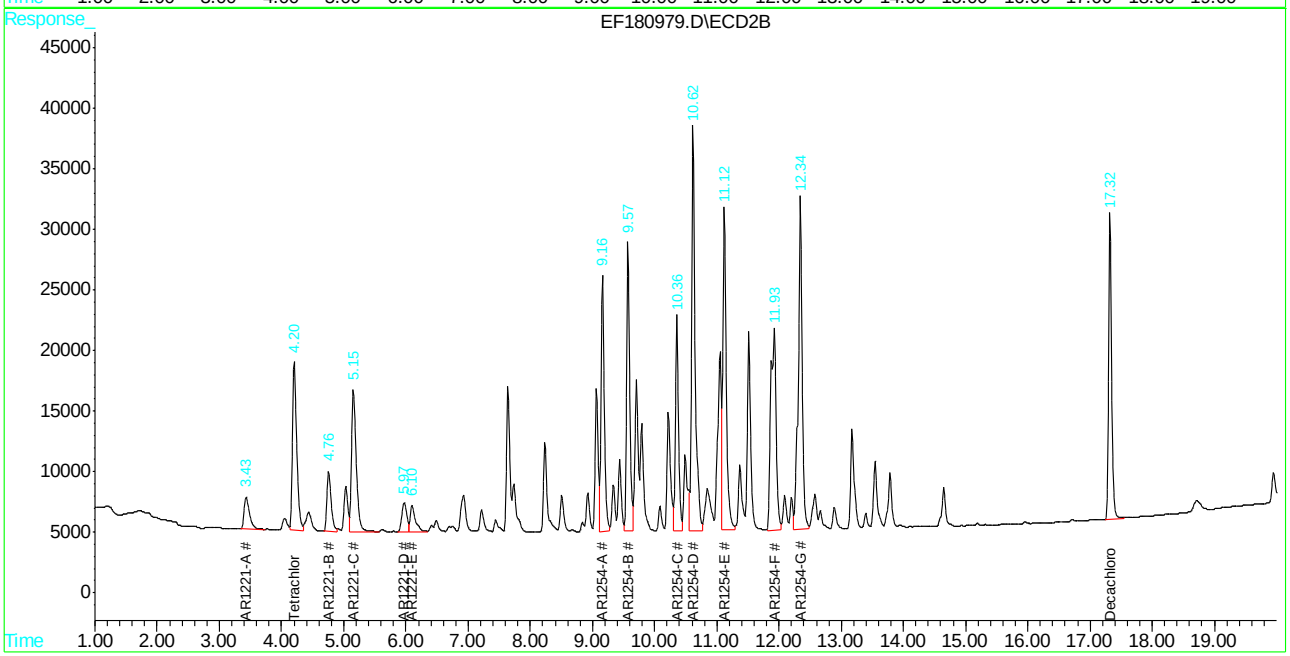
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





EF180979.D PCB6195.M Tue Mar 20 14:47:30 2018 GCEF Page 2

11.6.24 11

Manual Integration Approval Summary

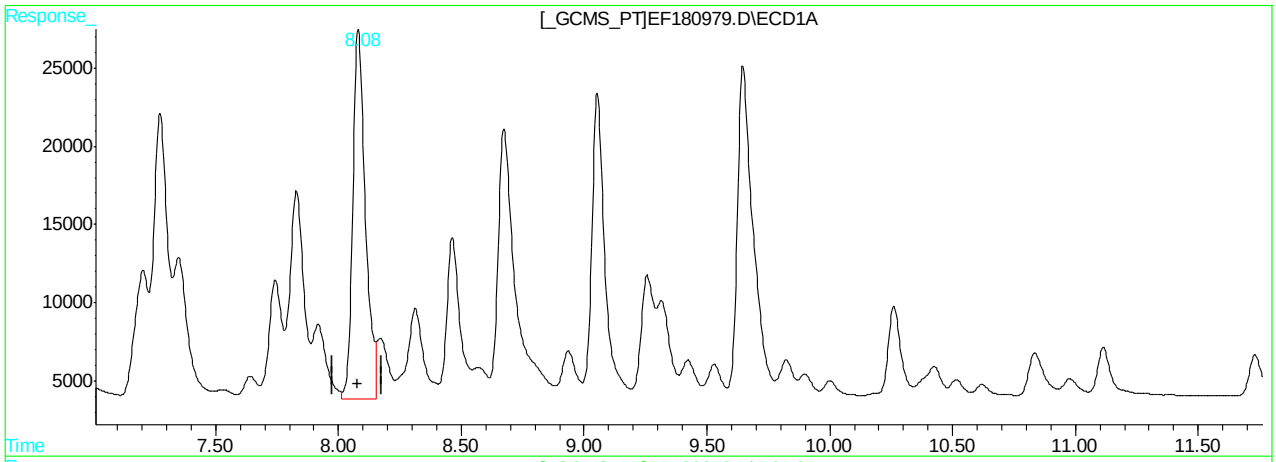
Sample Number: GEF6195-IC6195
Lab FileID: EF180979.D
Injection Time: 03/19/18 19:54
Method: SW846 8082A
Analyst approved: 03/20/18 15:40 Tianwei Ruan
Supervisor approved: 03/21/18 11:23 Gwendolyn Burns

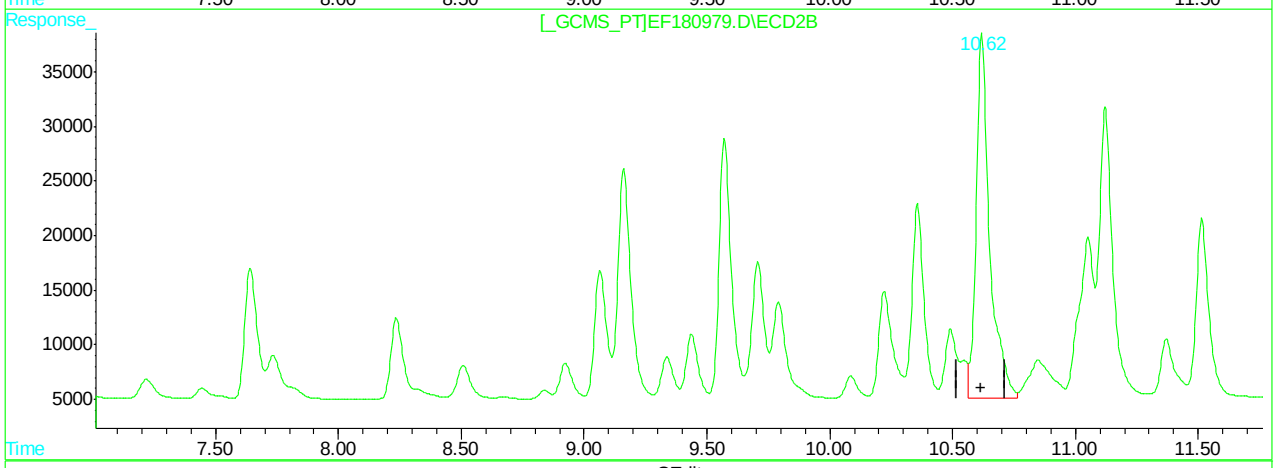
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.19	Poorly defined baseline
AR1254-D		1	8.08	Split peak
AR1254-F		2	11.93	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Single Level Calibration





QEdit

(27) AR1254-D

8.08min 814.618PPB

response 846312

(27) AR1254-D #2

10.62min 936.877PPB

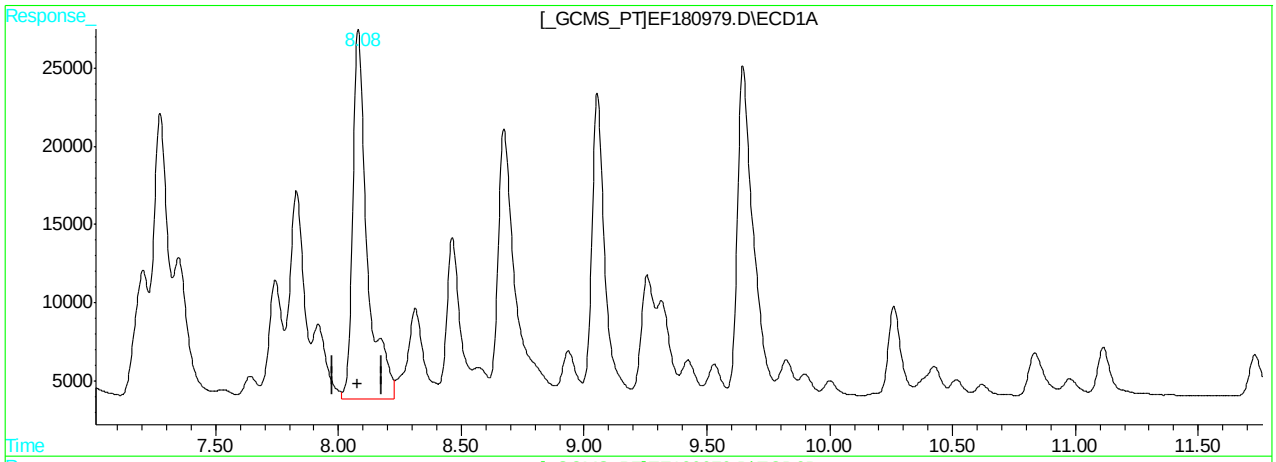
response 1271381

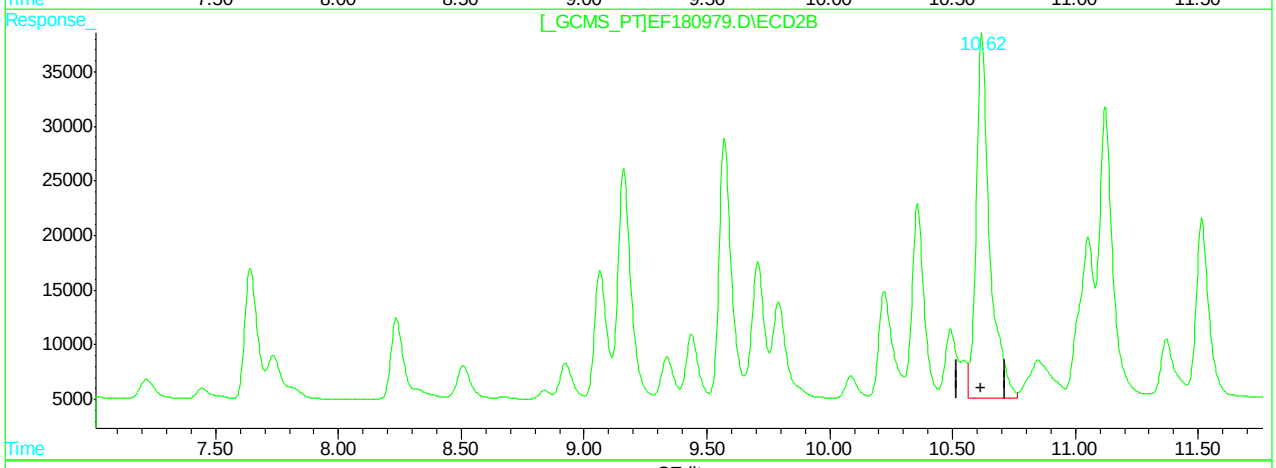
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:45:43 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Single Level Calibration





QEdit

(27) AR1254-D

8.08min 933.779PPB m

response 970110

(27) AR1254-D #2

10.62min 936.877PPB

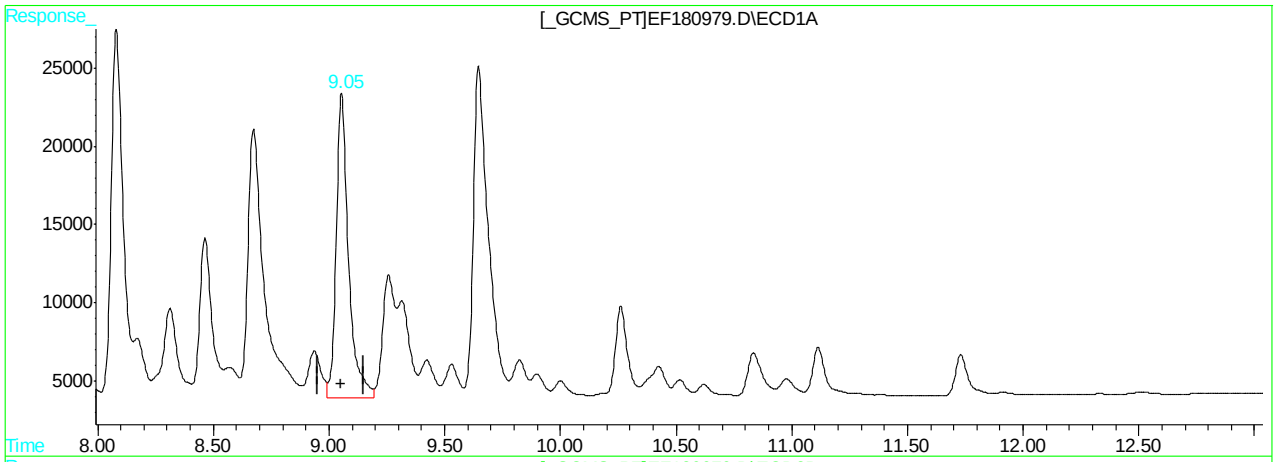
response 1271381

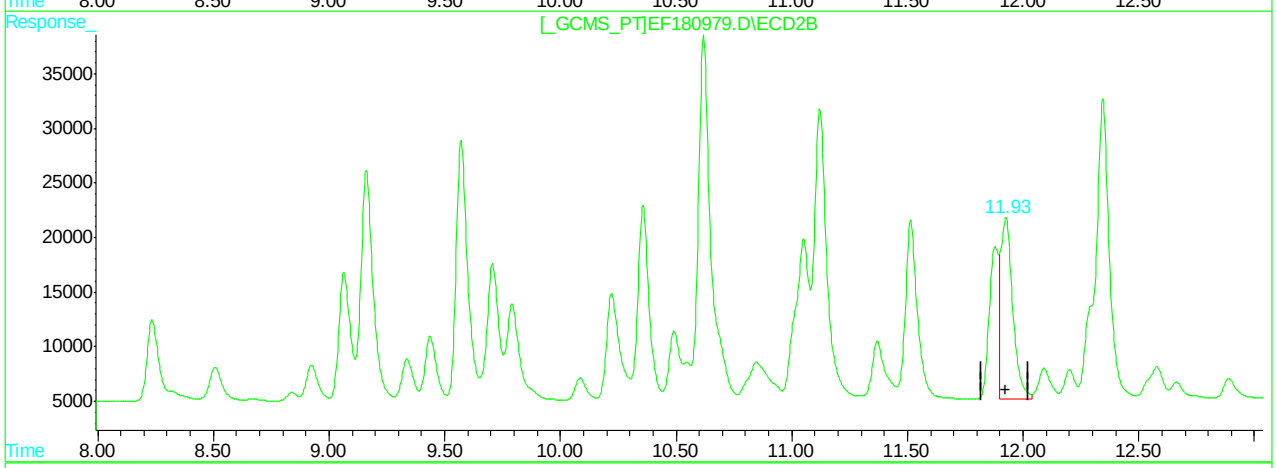
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.05min 936.415PPB

response 720837

(29) AR1254-F #2

11.93min 618.981PPB

response 624009

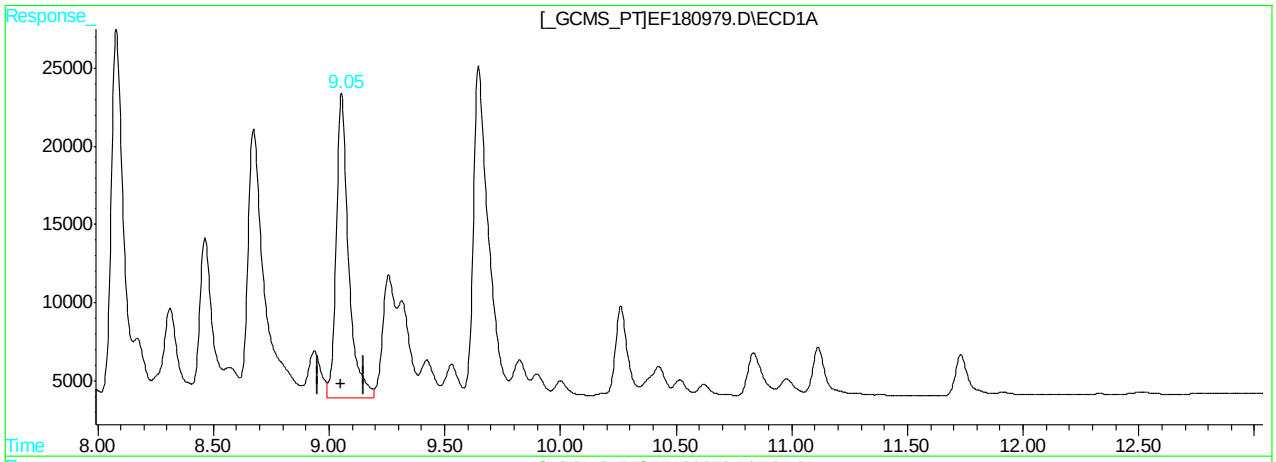
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:10 2018 GCEF

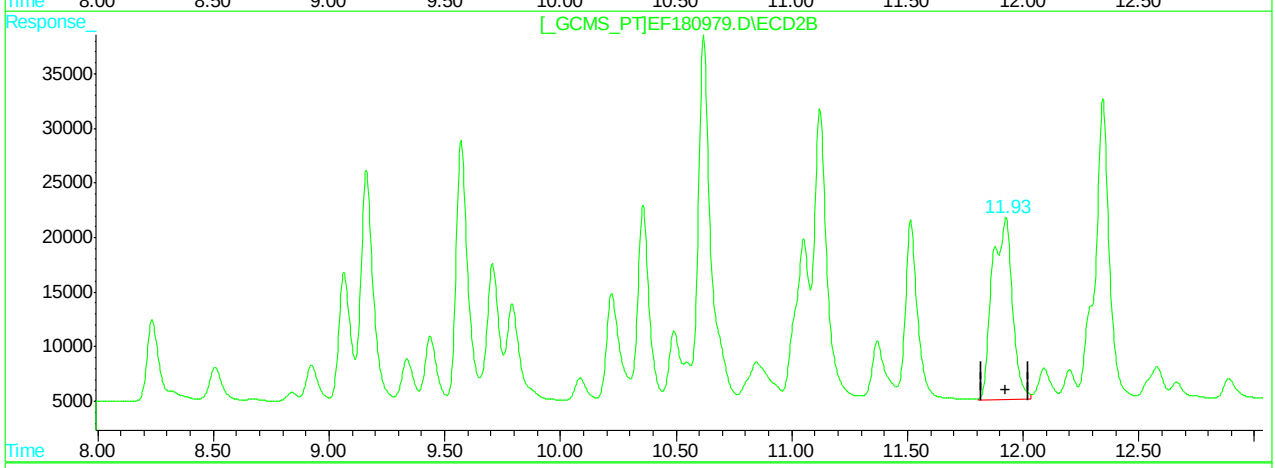
11.6.24.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.05min 936.415PPB

response 720837

(29) AR1254-F #2

11.93min 997.223PPB m

response 1005324

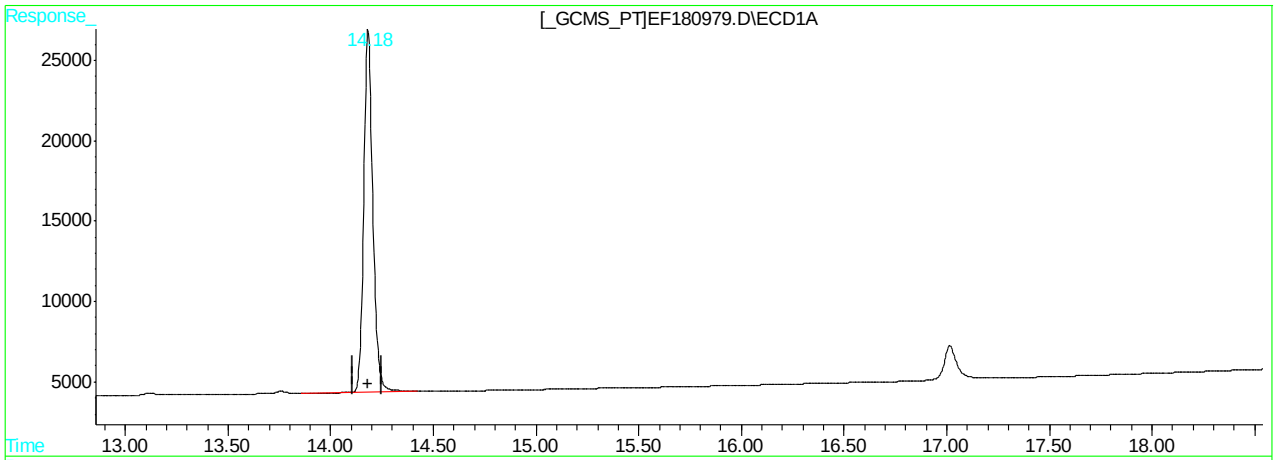
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:17 2018 GCEF

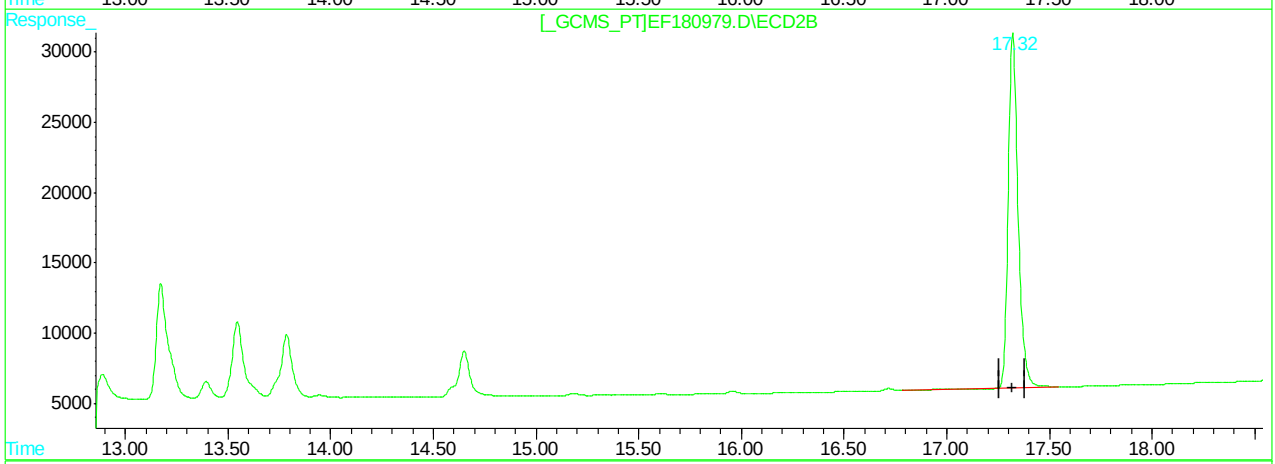
11.6.24.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 38.107PPB

response 694081

(51) Decachlorobiphenyl #2 (S)

17.32min 38.177PPB

response 837244

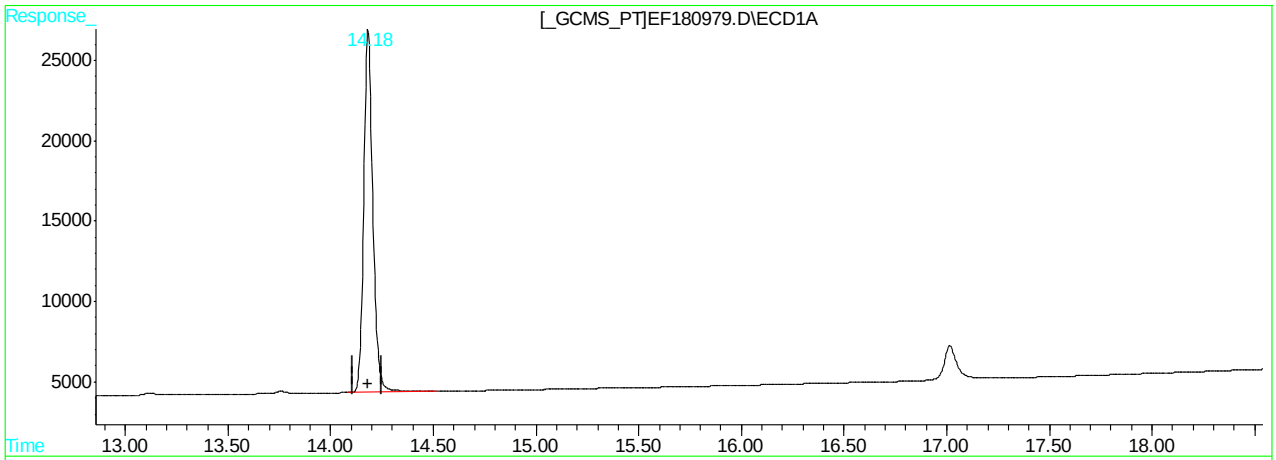
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:29 2018 GCEF

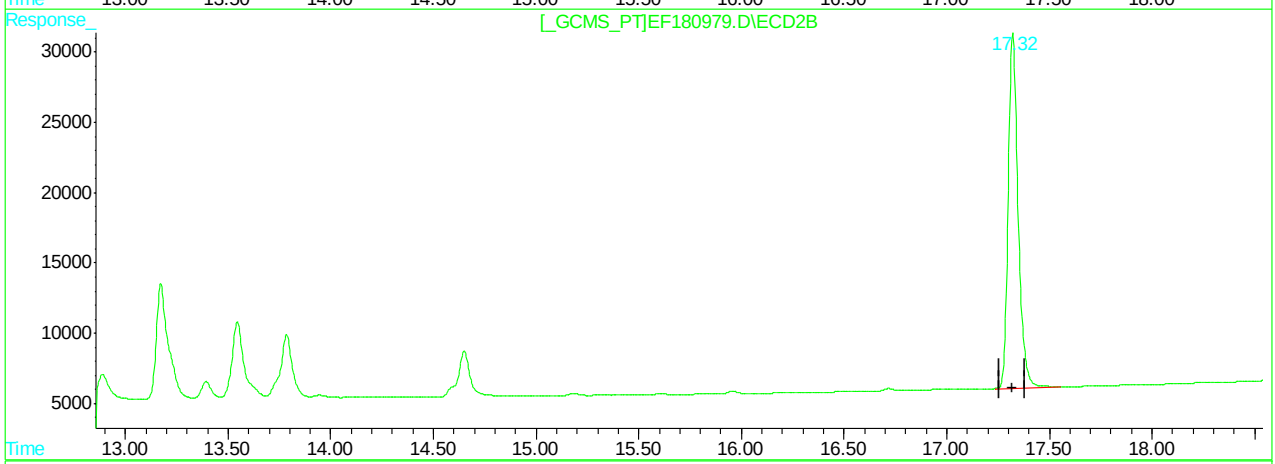
11.6.24.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 38.293PPB m

response 697471

(51) Decachlorobiphenyl #2 (S)

17.32min 38.525PPB m

response 844886

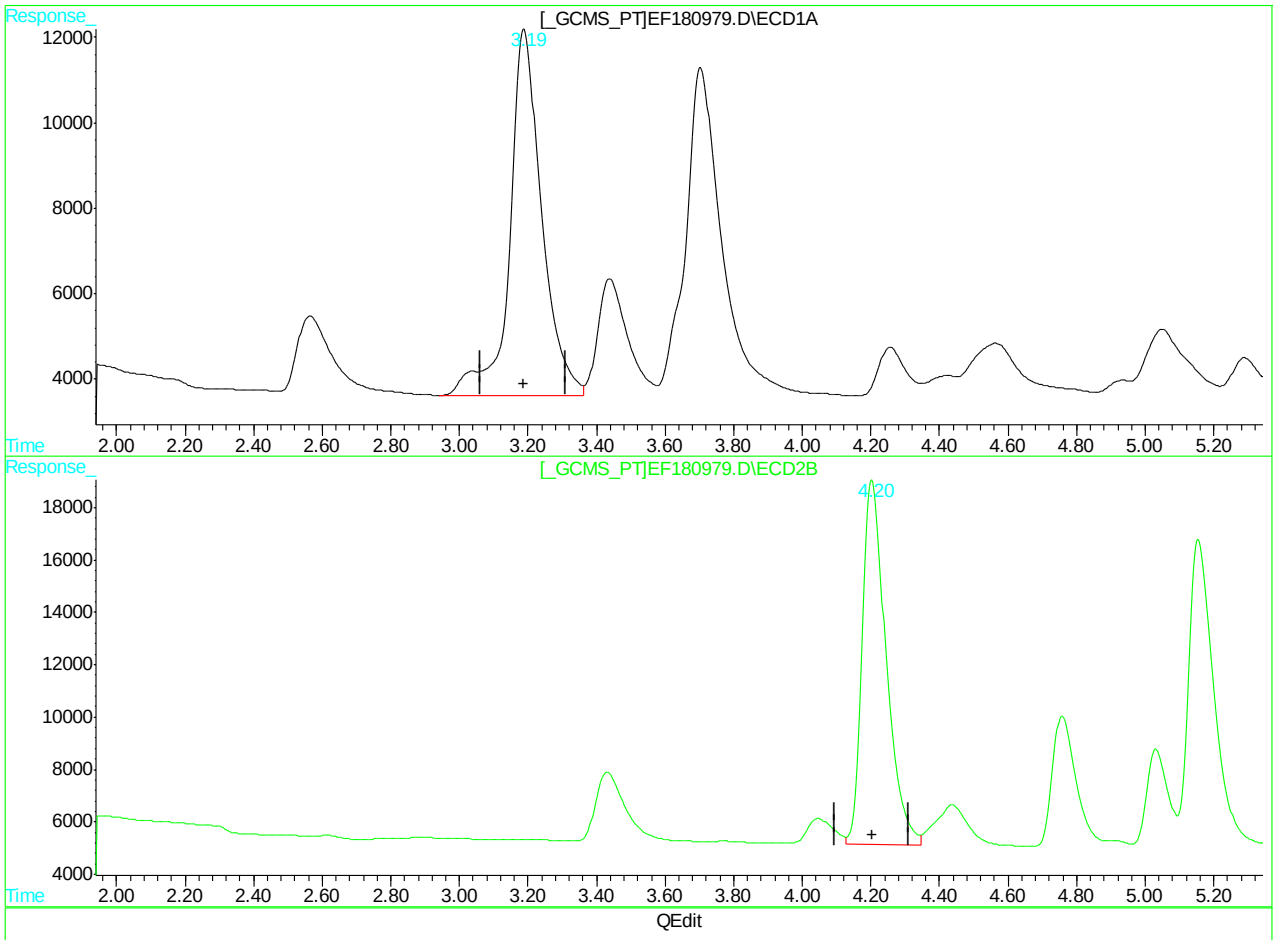
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:51 2018 GCEF

11.6.24.7 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration



QEdit

(1) Tetrachloro-m-xylene (S)

3.19min 46.359PPB

response 550807

(1) Tetrachloro-m-xylene #2 (S)

4.20min 42.859PPB

response 669180

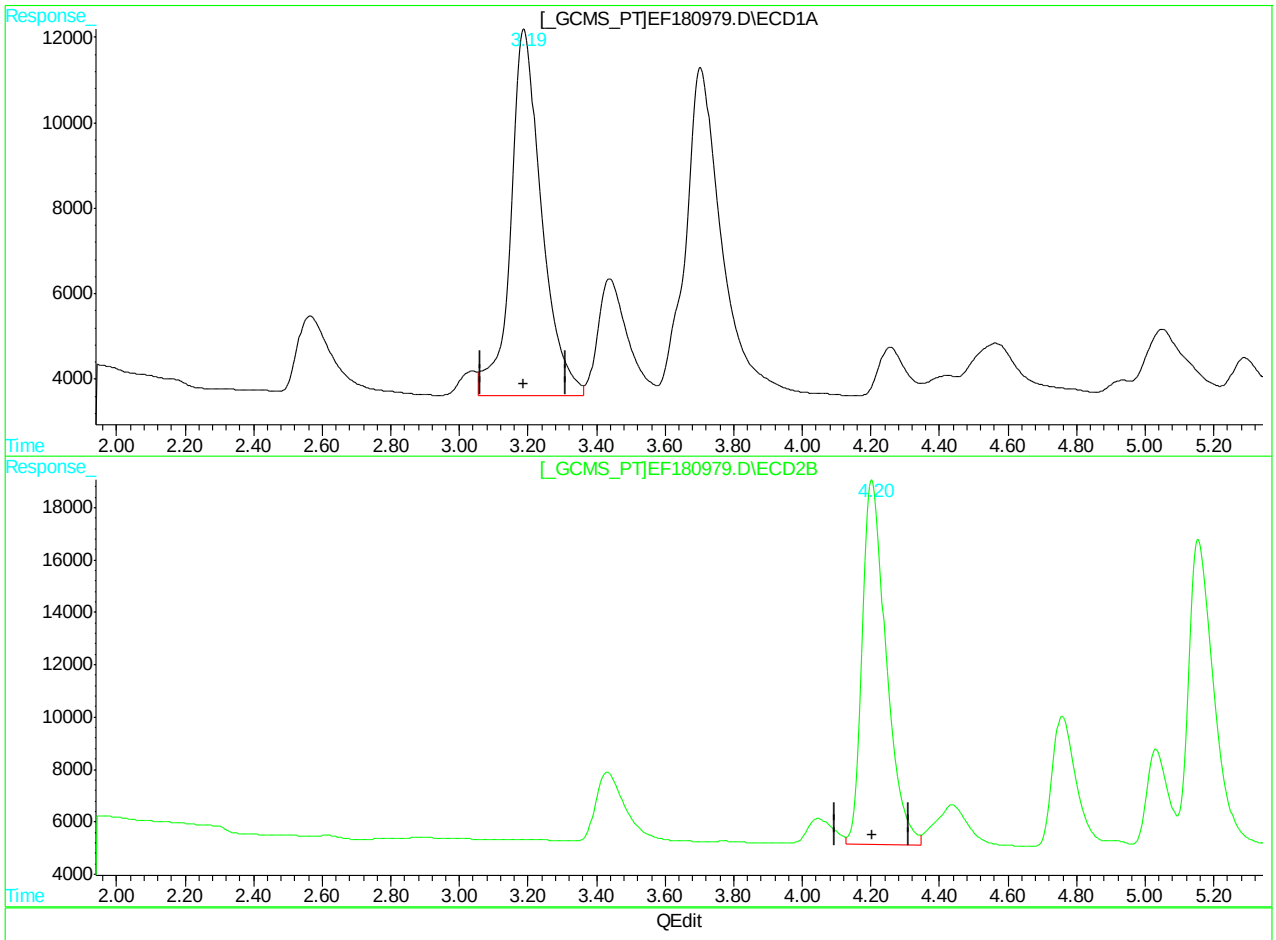
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:47:01 2018 GCEF

11.6.24.8 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 44.780PPB m

response 532043

(1) Tetrachloro-m-xylene #2 (S)

4.20min 42.859PPB

response 669180

(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:47:08 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	539539	720702	45.411m	46.159
	Spiked Amount 40.000			Recovery =		113.53%	115.40%
51) S	Decachlorobiphen	14.18	17.32	746178	905635	40.967m	41.295m
	Spiked Amount 40.000			Recovery =		102.42%	103.24%
	Target Compounds						
7)	AR1232-A	3.70	5.15	404407	483417	915.190m	985.815
8)	AR1232-B	4.25	5.98	264446	375015	921.228	964.740
9)	AR1232-C	5.04	6.93	578429	768128	912.924	976.718
10)	AR1232-D	5.28	7.22	221540	331656	938.869	983.439
11)	AR1232-E	6.02	8.24	206412	212228	933.193	963.072
31)	AR1262-A	9.05	11.51	755327	890638	949.101	963.837
32)	AR1262-B	9.90	12.54	1089935	1222039	955.545	965.090
33)	AR1262-C	10.43	13.22	837822	1046418	954.211	967.728
34)	AR1262-D	11.11	13.79	1999509	2191429	914.155	946.726
35)	AR1262-E	11.81	14.61	2424270	2883888	911.677m	935.870m

11.6.25 11

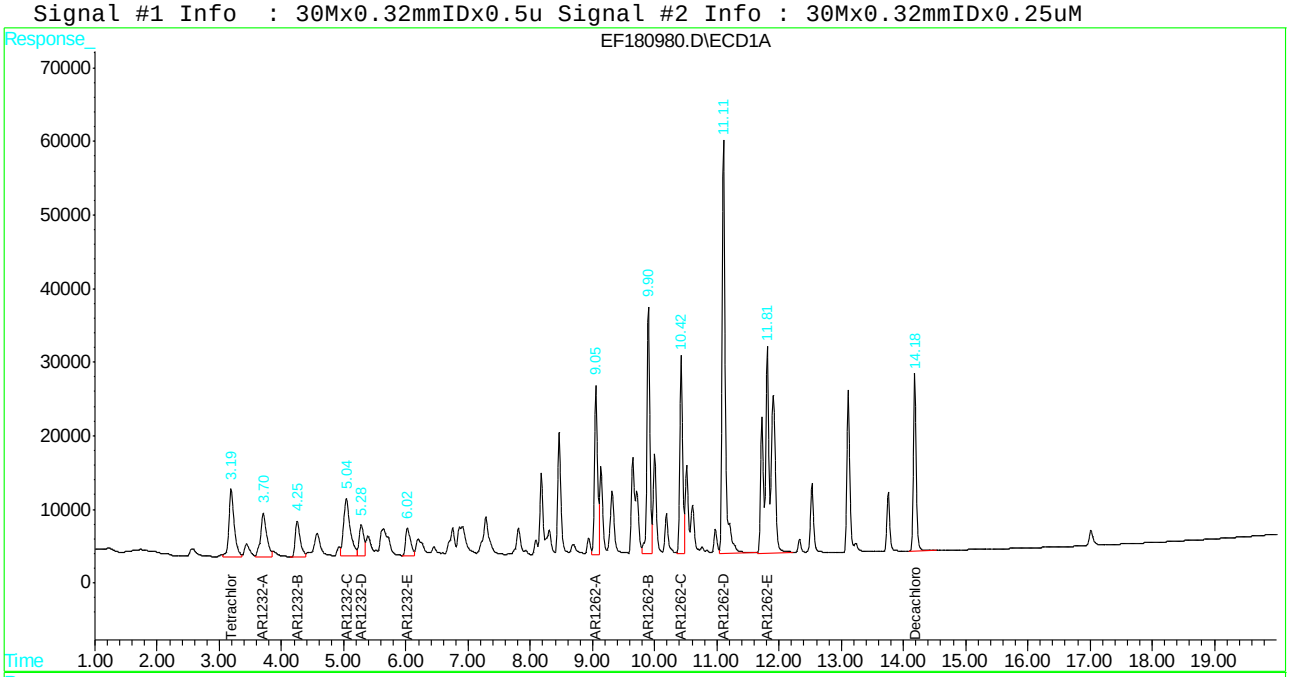
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180980.D PCB6195.M Tue Mar 20 14:52:08 2018 GCEF Page 1

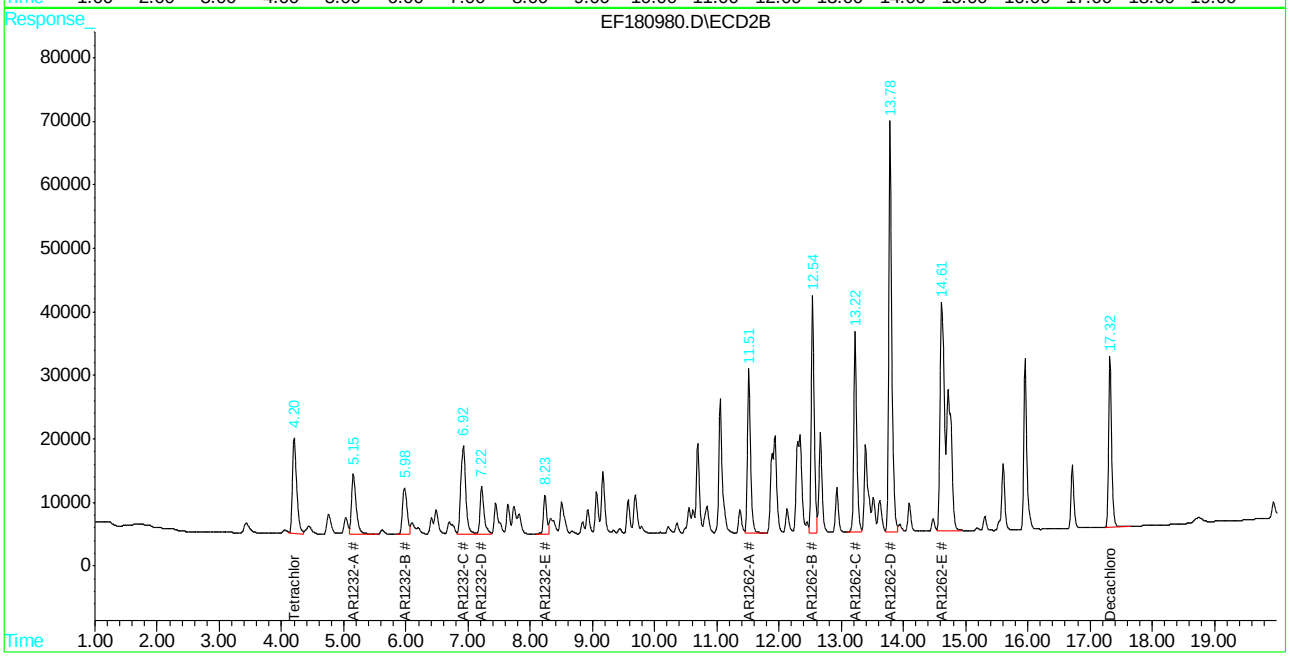
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

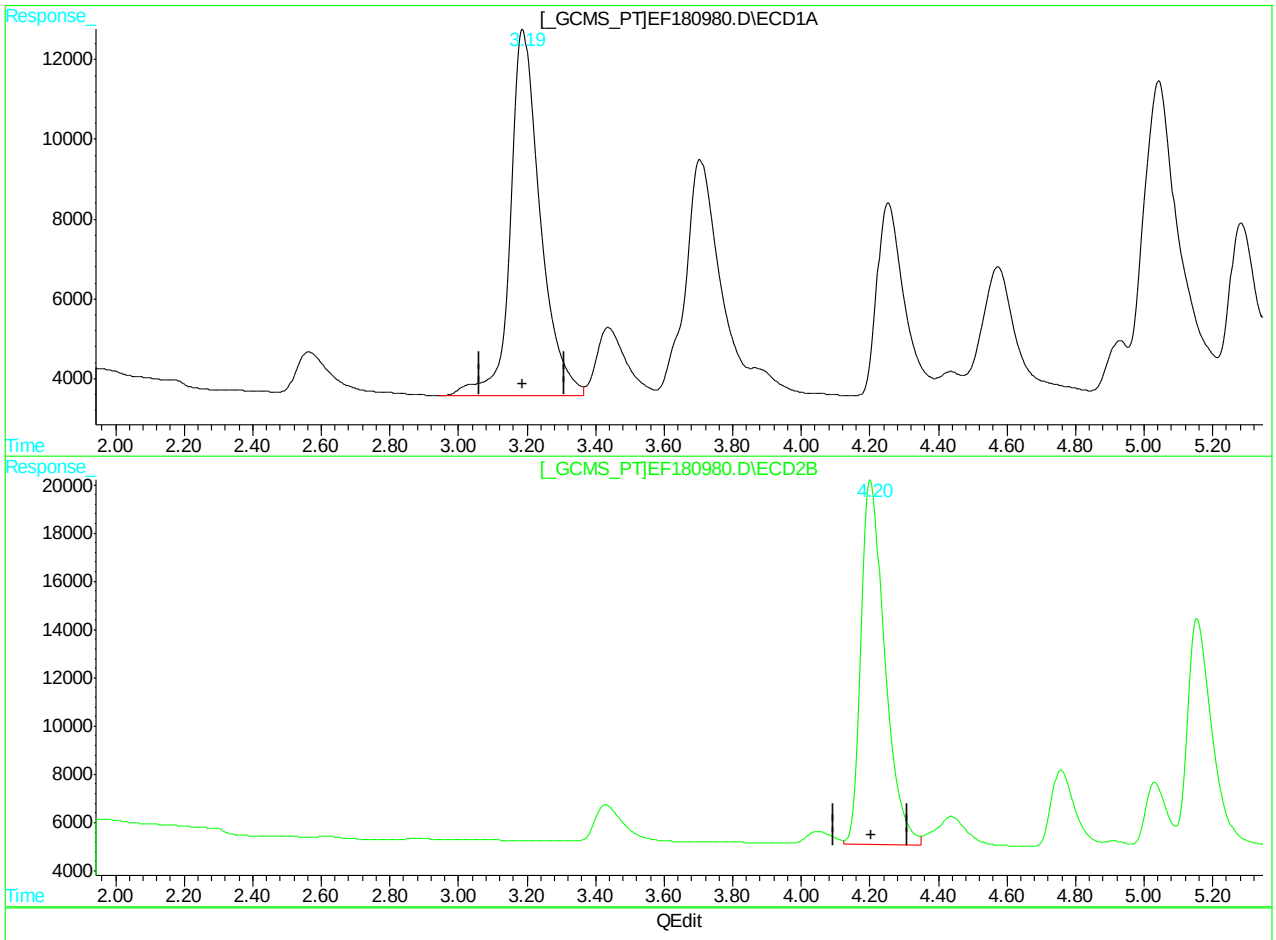
Sample Number: GEF6195-IC6195 **Method:** SW846 8082A
Lab FileID: EF180980.D **Analyst approved:** 03/20/18 15:40 Tianwei Ruan
Injection Time: 03/19/18 20:19 **Supervisor approved:** 03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.19	Poorly defined baseline
AR1232-A		1	3.70	Split peak
AR1262-E		1	11.81	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
AR1262-E		2	14.61	Split peak
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 46.119PPB

response 547954

(1) Tetrachloro-m-xylene #2 (S)

4.20min 46.159PPB

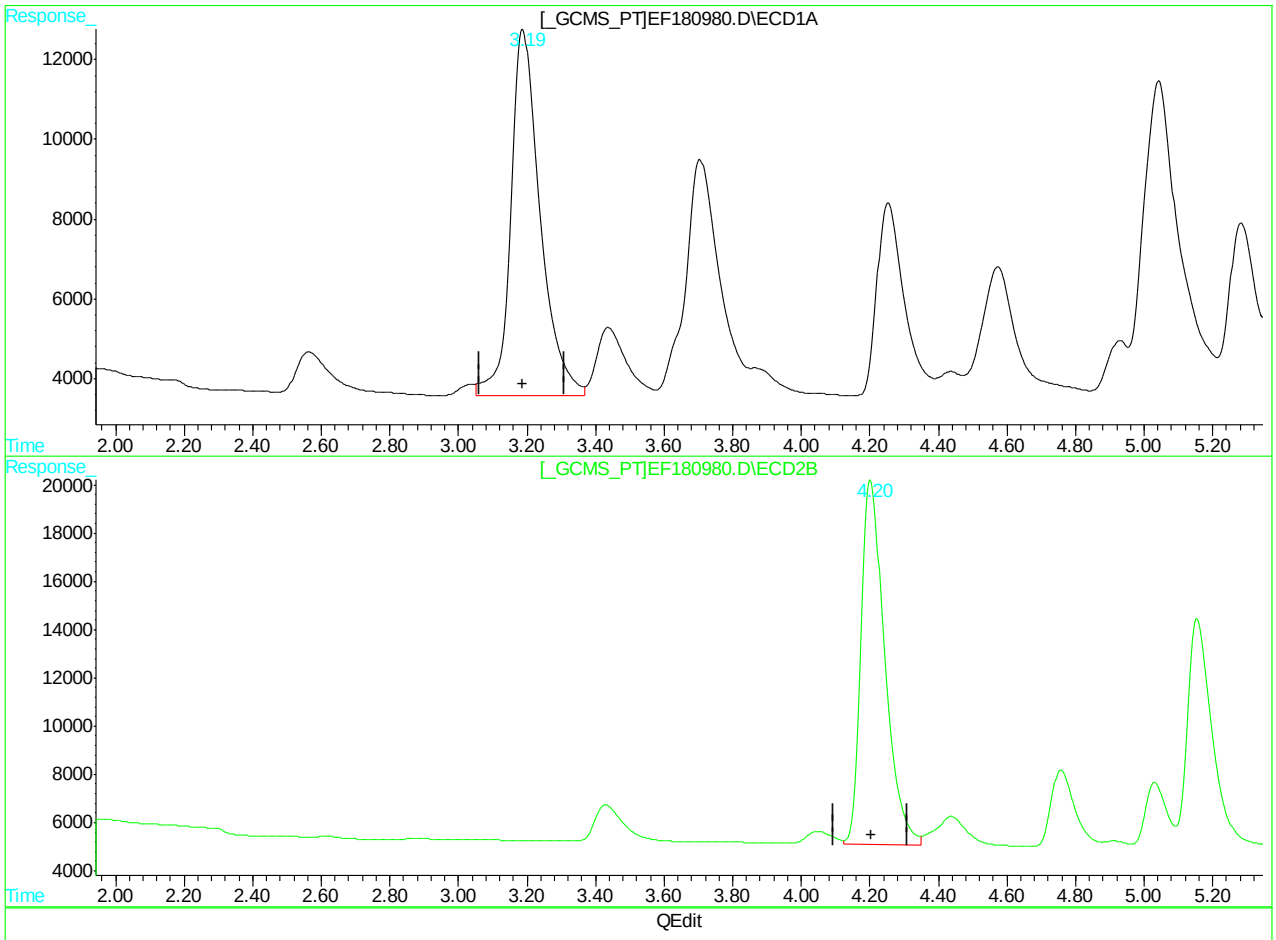
response 720702

(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:50:16 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 45.411PPB m

response 539539

(1) Tetrachloro-m-xylene #2 (S)

4.20min 46.159PPB

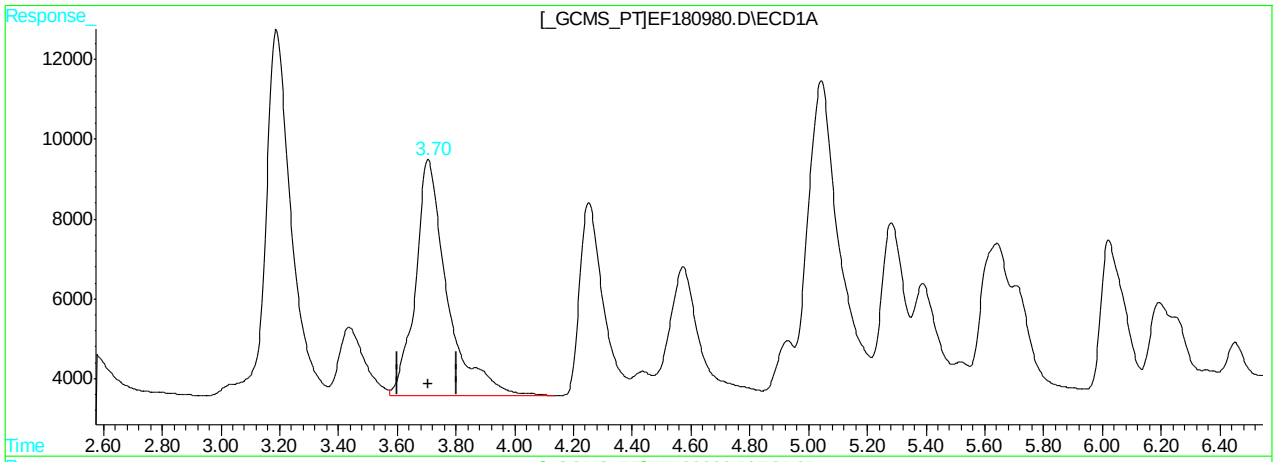
response 720702

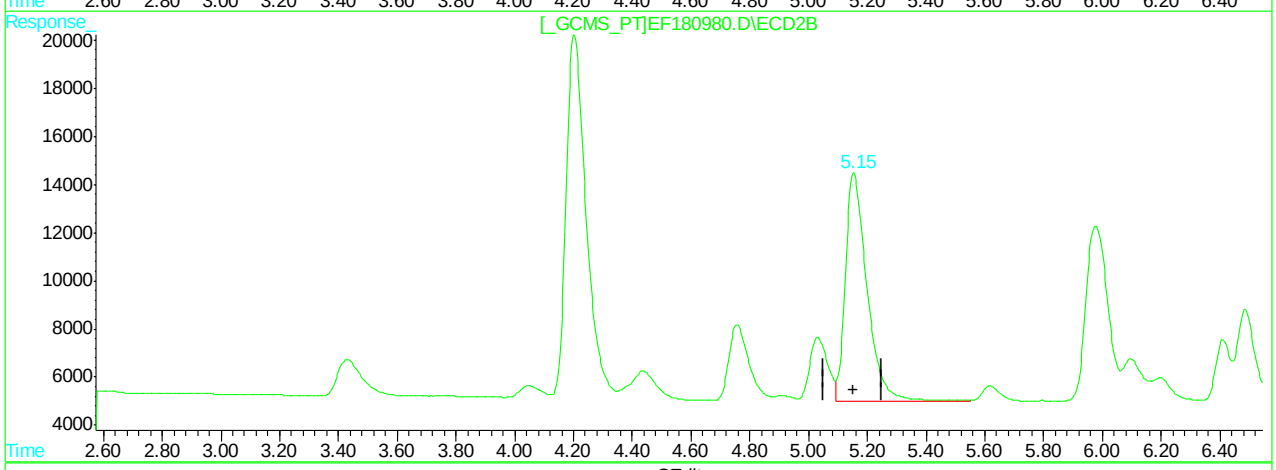
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:50:25 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Single Level Calibration





QEdit

(7) AR1232-A

3.71min 1001.596PPB

response 442589

(7) AR1232-A #2

5.15min 985.815PPB

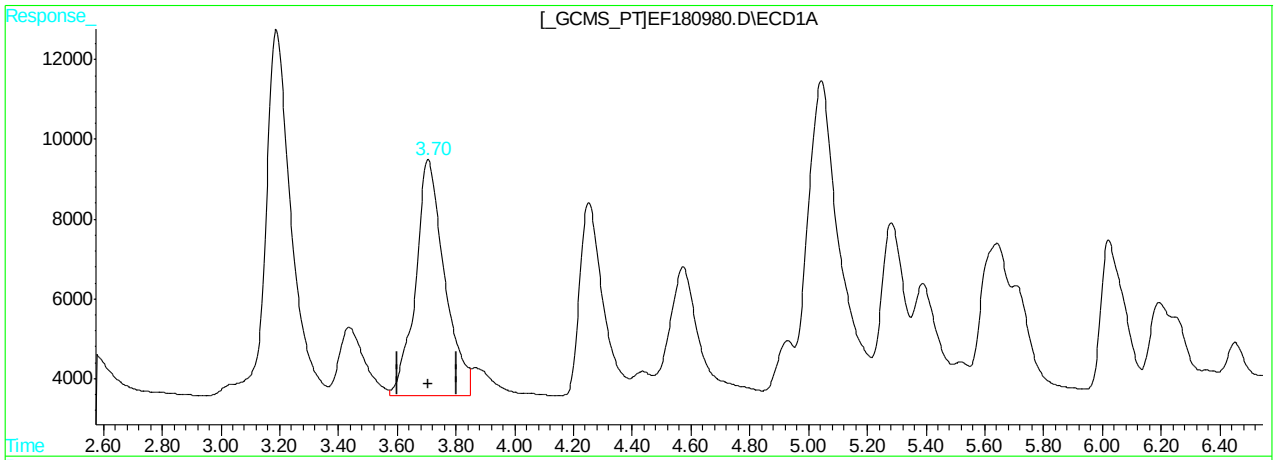
response 483417

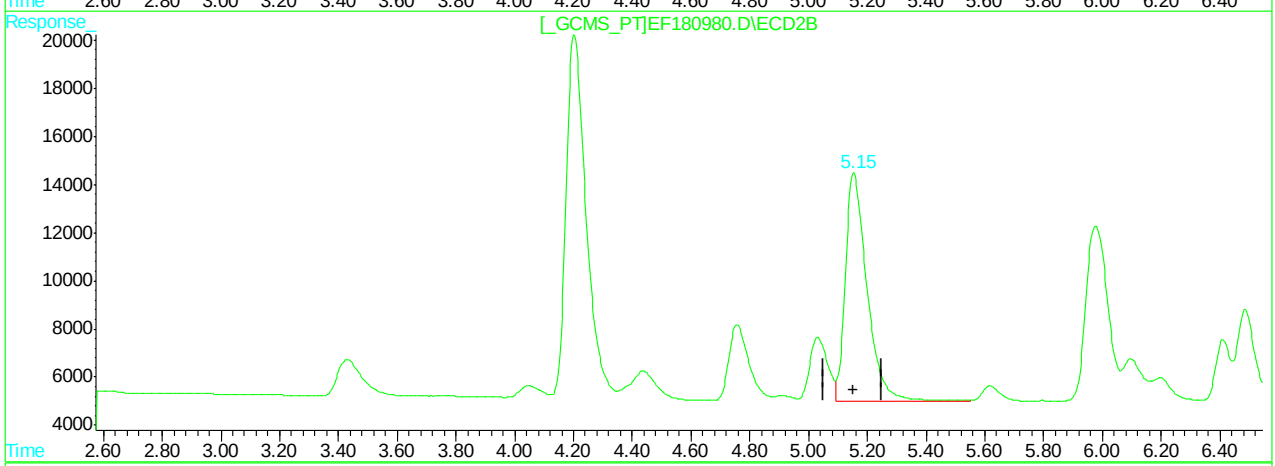
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:50:32 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Single Level Calibration





QEdit

(7) AR1232-A

3.70min 915.190PPB m

response 404407

(7) AR1232-A #2

5.15min 985.815PPB

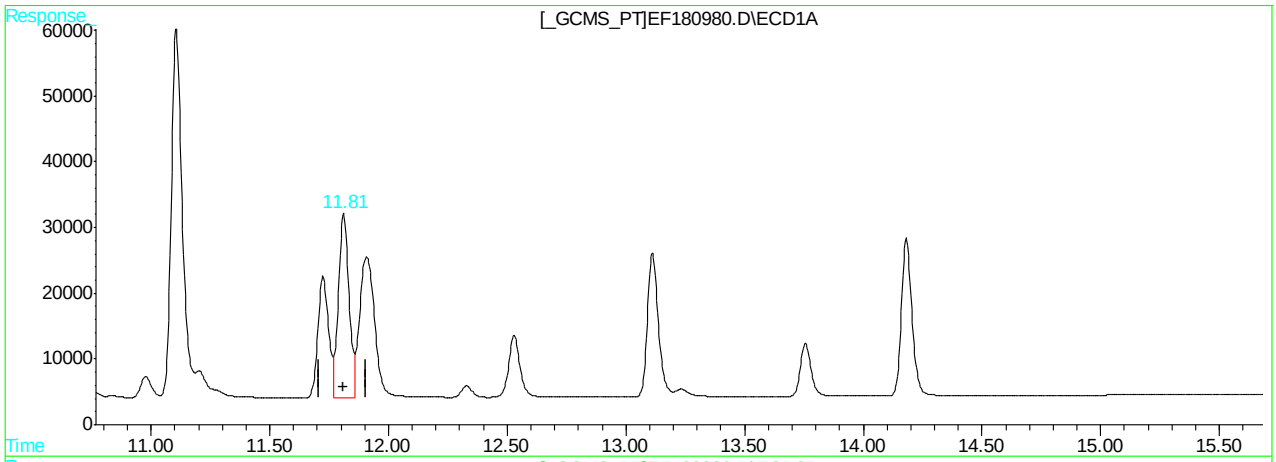
response 483417

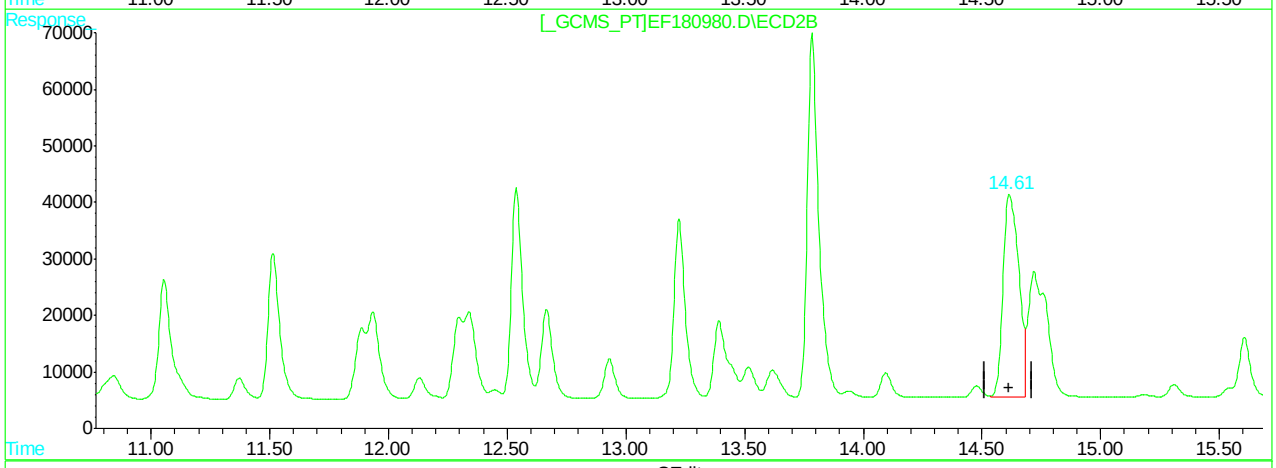
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:50:47 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Single Level Calibration





QEdit

(35) AR1262-E

11.81min 330.522PPB

response 878902

(35) AR1262-E #2

14.62min 538.670PPB

response 1659915

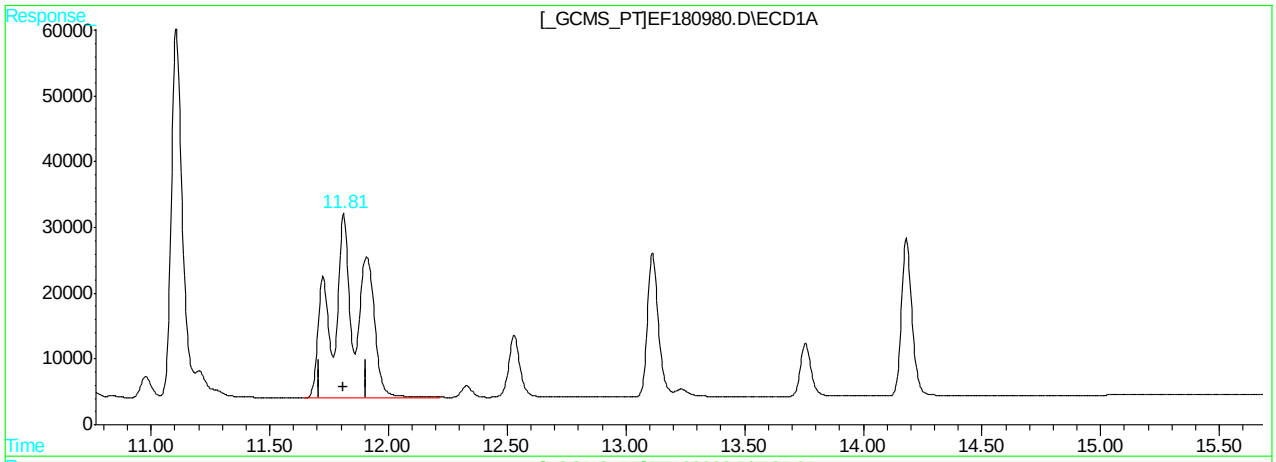
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:51:16 2018 GCEF

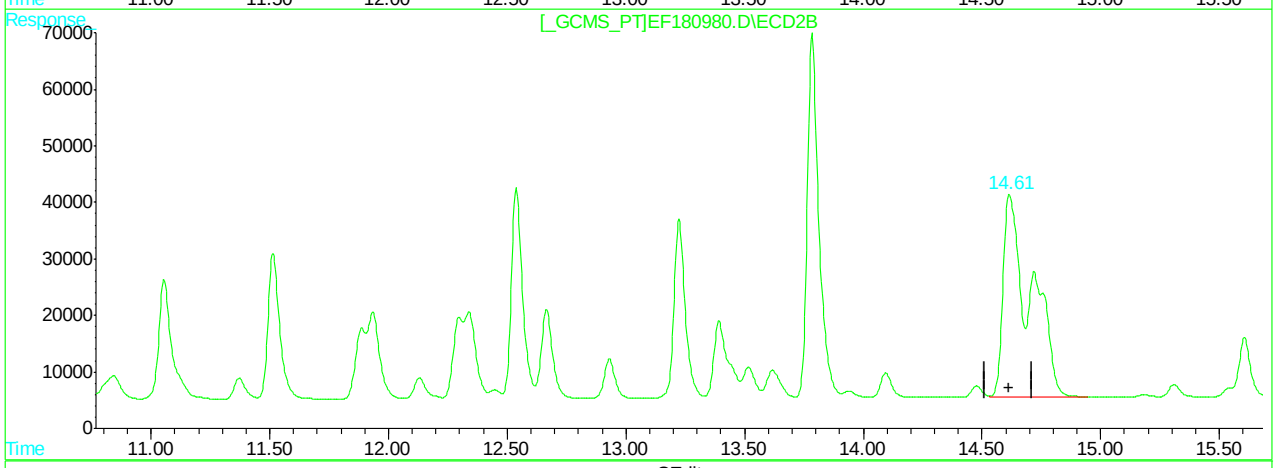
11.6.25.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Single Level Calibration





QEdit

(35) AR1262-E

11.81min 911.677PPB m

response 2424270

(35) AR1262-E #2

14.61min 935.870PPB m

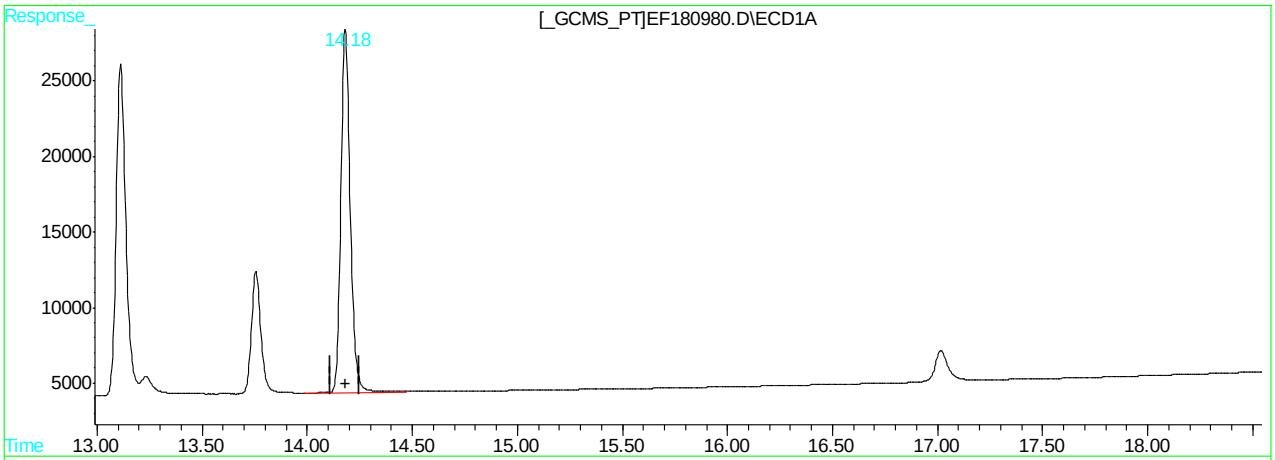
response 2883888

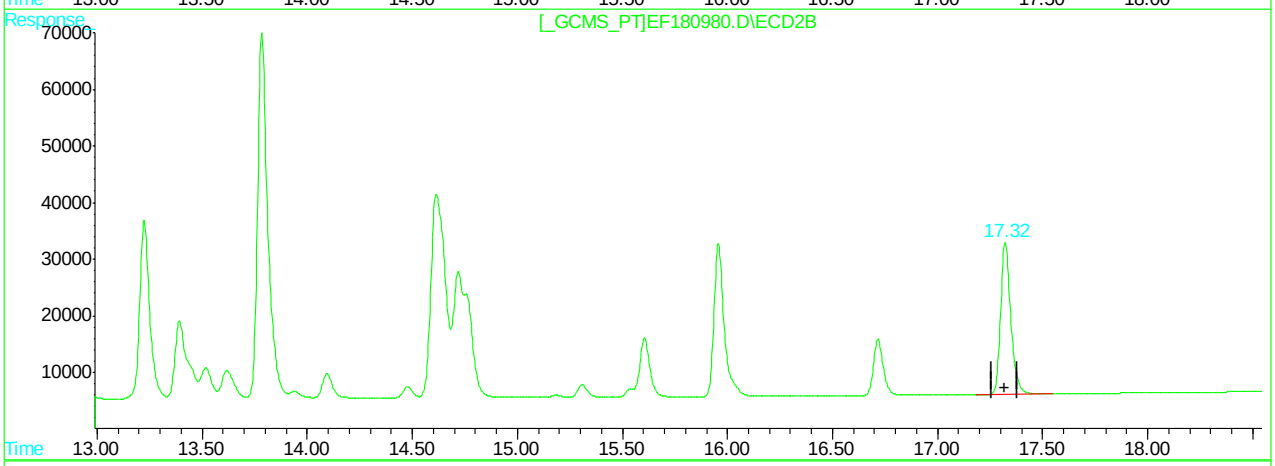
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:51:31 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 40.950PPB

response 745870

(51) Decachlorobiphenyl #2 (S)

17.32min 41.156PPB

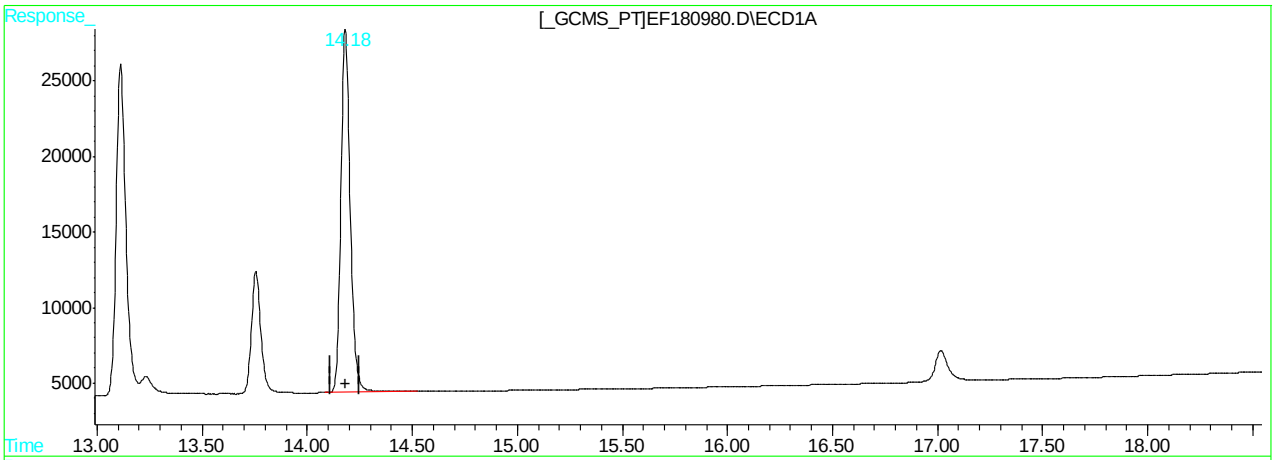
response 902575

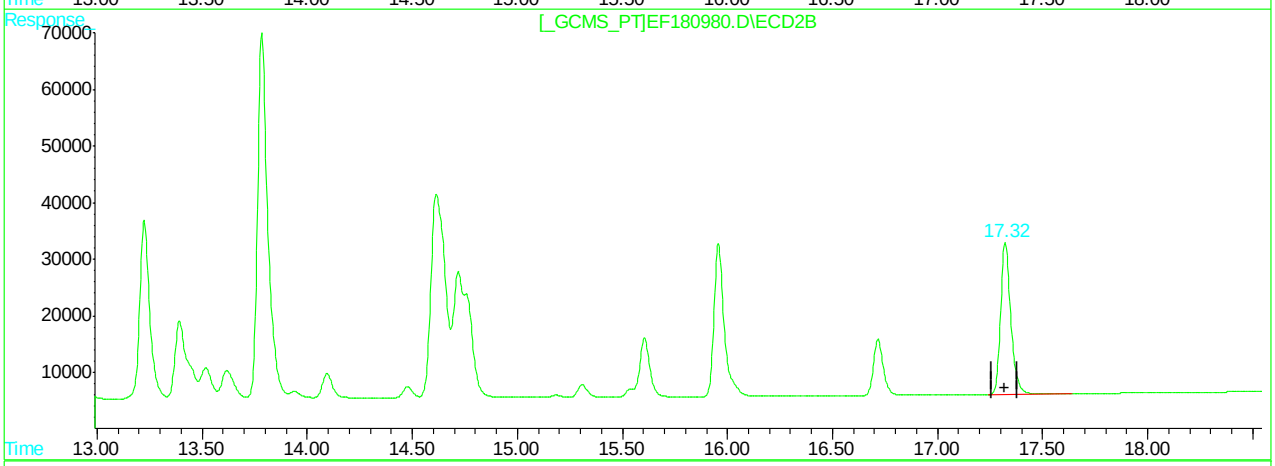
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:51:40 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 40.967PPB m

response 746178

(51) Decachlorobiphenyl #2 (S)

17.32min 41.295PPB m

response 905635

(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:51:54 2018 GCEF

11.6.25.9 11

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180981.D\ECD1A.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180981.D\ECD2B.CH
Acq On : 19 Mar 2018 8:44 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:53 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:52:22 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	497056	700464	41.835	44.863
	Spiked Amount 40.000			Recovery =		104.59%	112.16%
51) S	Decachlorobiphen	14.18	17.32	1772346	2122577	97.307	96.786
	Spiked Amount 40.000			Recovery =		243.27%	241.96%
	Target Compounds						
12)	AR1242-A	4.25	5.98	467930	680960	912.571	953.947
13)	AR1242-B	5.04	6.93	1036965	1341631	902.510	973.280
14)	AR1242-C	5.28	7.22	403731	586418	917.992	981.248
15)	AR1242-D	6.02	8.24	422603	414642	919.065	971.472
16)	AR1242-E	6.91	9.17	505265	551061	934.686	977.006
36)	AR1268-A	11.81	14.61	2189015	2553354	952.451	937.820
37)	AR1268-B	11.90	14.72	2277820	2735608	867.554	896.218
38)	AR1268-C	12.33	15.31	1827935	2210113	907.361	925.978
39)	AR1268-D	13.11	15.96	798448	962393	903.739	905.471
40)	AR1268-E	13.75	16.72	4914889	6029381	865.858	892.710

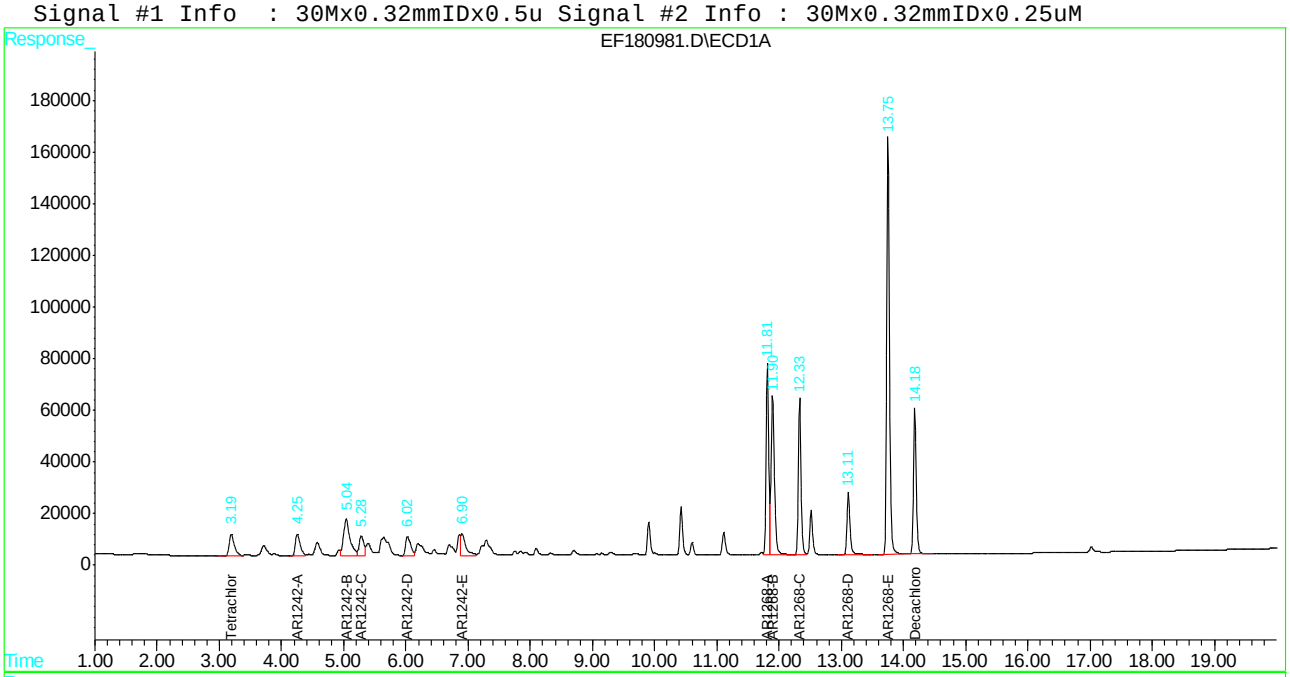
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180981.D PCB6195.M Tue Mar 20 14:55:30 2018 GCEF Page 1

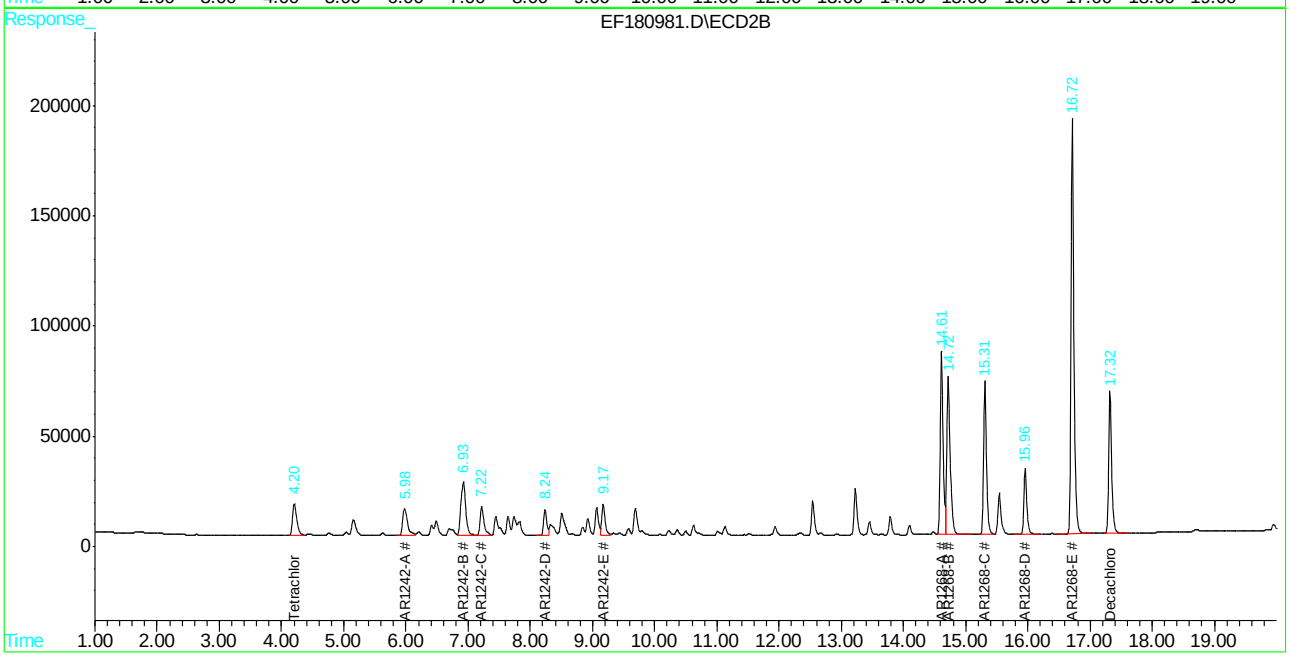
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180981.D\ECD1A.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180981.D\ECD2B.CH
Acq On : 19 Mar 2018 8:44 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:53 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:52:22 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62881

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	482241	709989	40.588	45.473
	Spiked Amount 40.000			Recovery =		101.47%	113.68%
51) S	Decachlorobiphen	14.18	17.32	731654	888784	40.170m	40.527m
	Spiked Amount 40.000			Recovery =		100.43%	101.32%
	Target Compounds						
17)	AR1248-A	4.25	5.98	245800	348145	906.926	952.945
18)	AR1248-B	5.05	6.92	698707	881505	899.923	960.349
19)	AR1248-C	5.64	7.64	689945	504455	967.935m	952.575
20)	AR1248-D	6.02	8.24	624750	609081	911.805	951.339
21)	AR1248-E	6.19	8.51	538162	675931	907.594m	965.094
22)	AR1248-F	6.90	9.17	707574	881937	891.876	973.220
23)	AR1248-G	7.28	9.69	500560	766598	898.305m	973.609

11.6.27 11

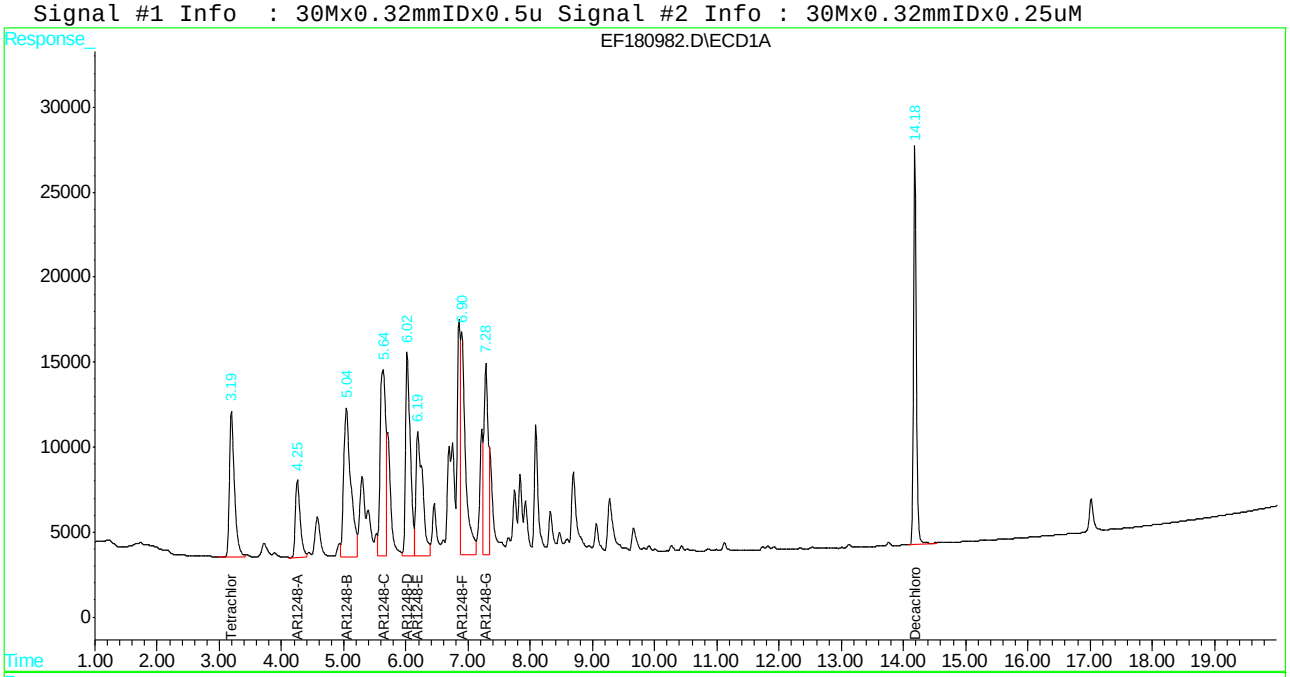
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180982.D PCB6195.M Tue Mar 20 14:58:27 2018 GCEF Page 1

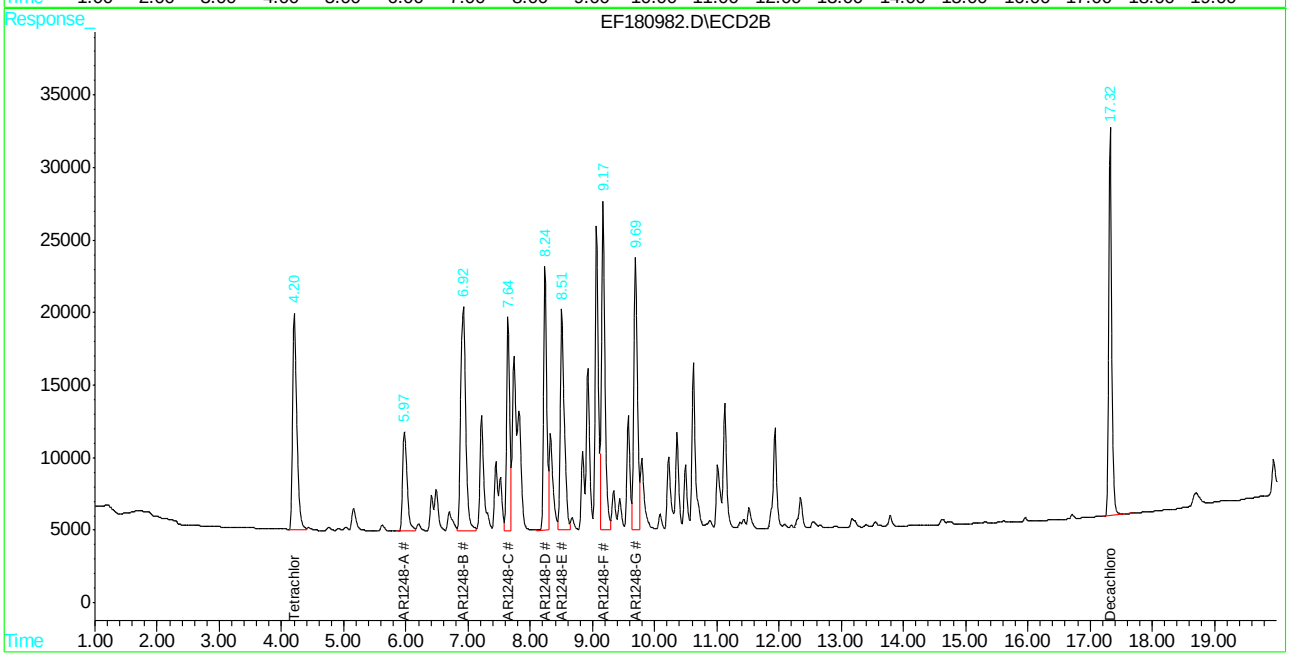
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

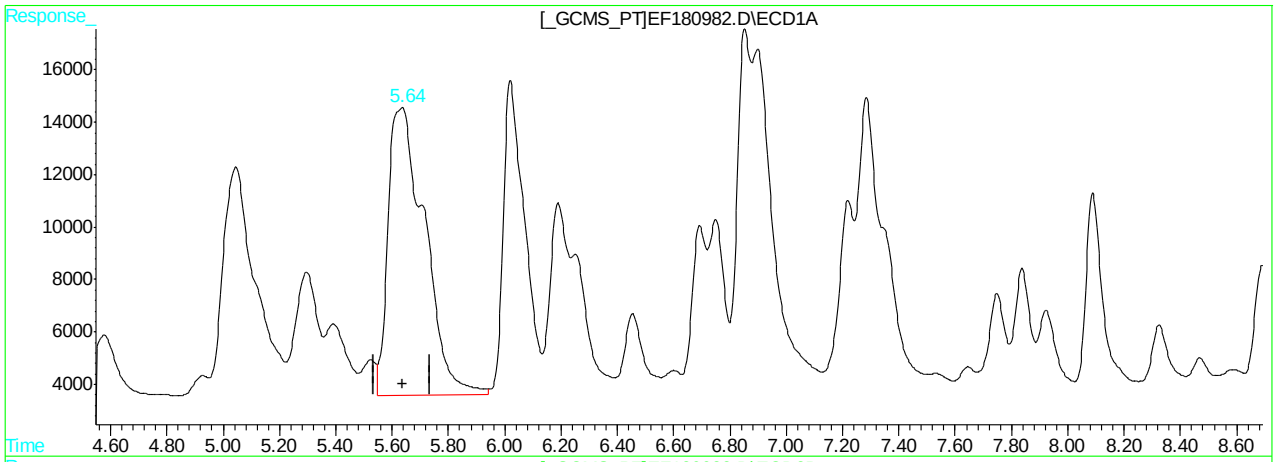
Sample Number: GEF6195-IC6195 **Method:** SW846 8082A
Lab FileID: EF180982.D **Analyst approved:** 03/20/18 15:40 Tianwei Ruan
Injection Time: 03/19/18 21:09 **Supervisor approved:** 03/21/18 11:23 Gwendolyn Burns

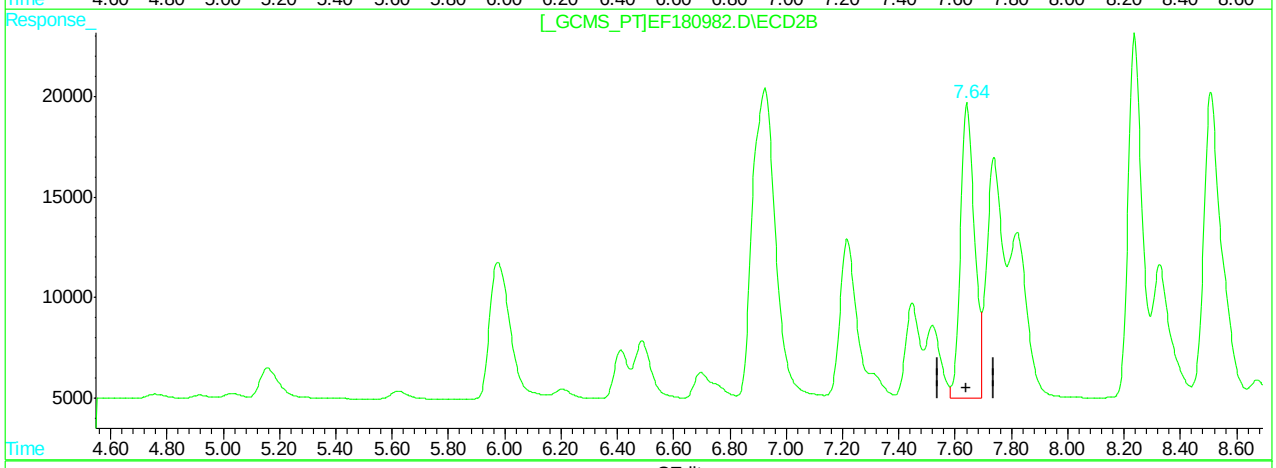
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	5.64	Split peak
AR1248-E		1	6.19	Split peak
Ar1248-G		1	7.28	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(19) AR1248-C

5.64min 1392.618PPB

response 992659

(19) AR1248-C #2

7.64min 952.575PPB

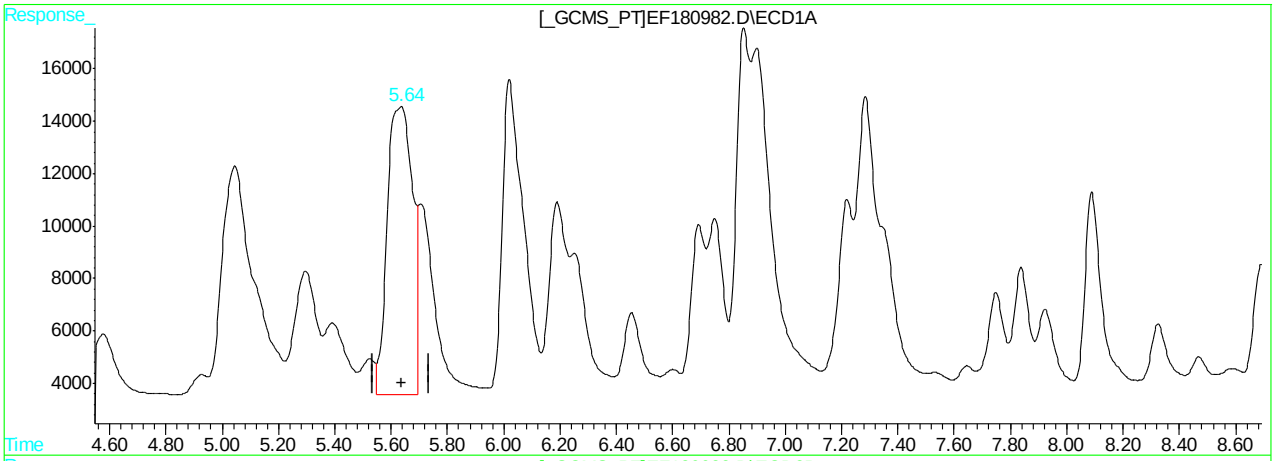
response 504455

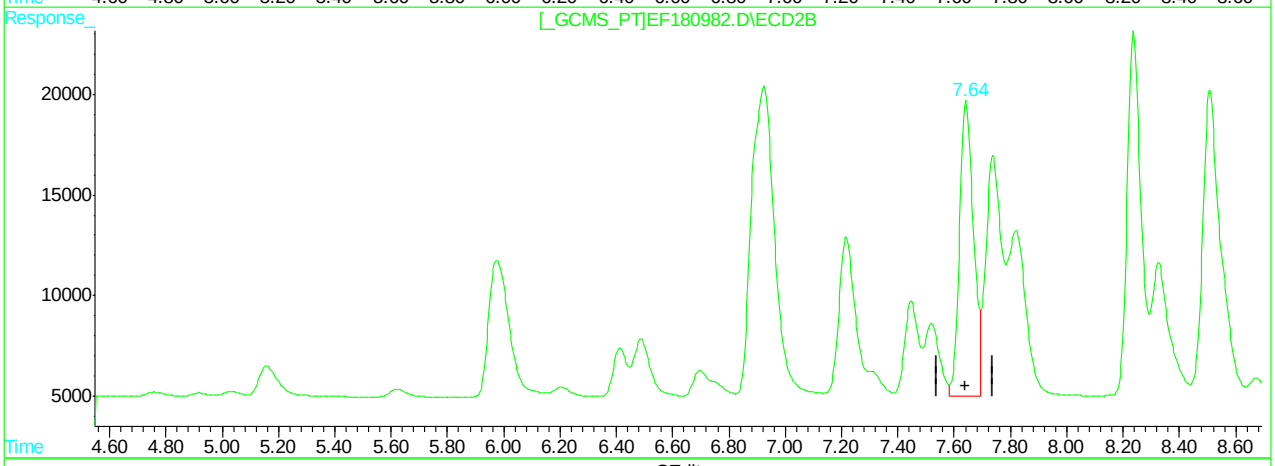
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:56:57 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(19) AR1248-C

5.64min 967.935PPB m

response 689945

(19) AR1248-C #2

7.64min 952.575PPB

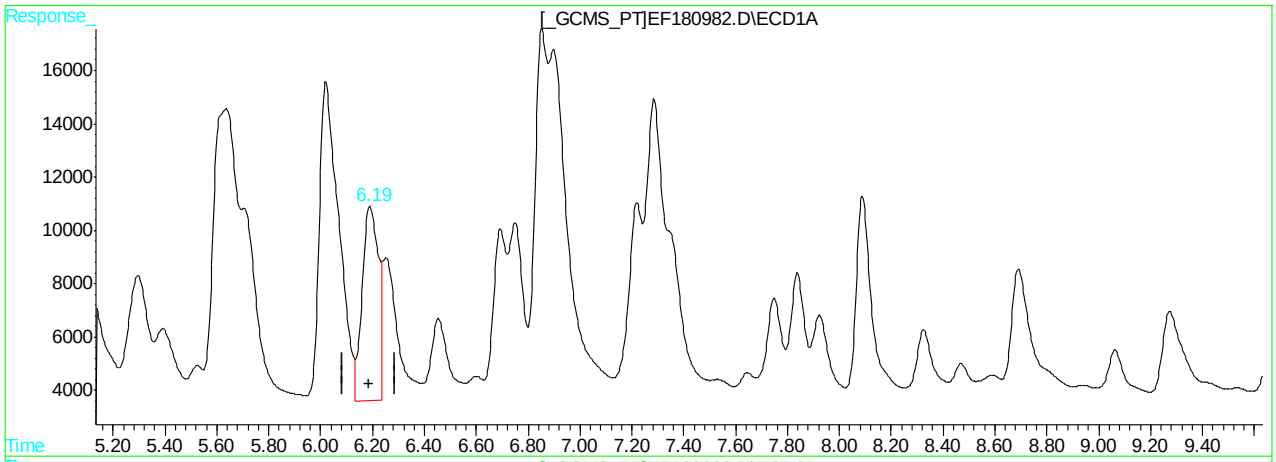
response 504455

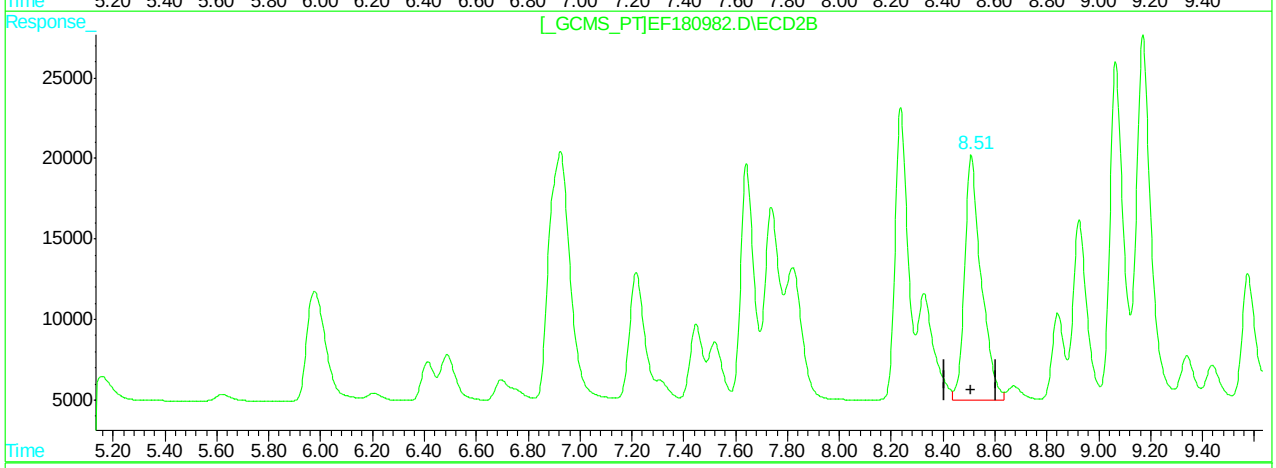
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.19min 536.470PPB

response 318102

(21) AR1248-E #2

8.51min 965.094PPB

response 675931

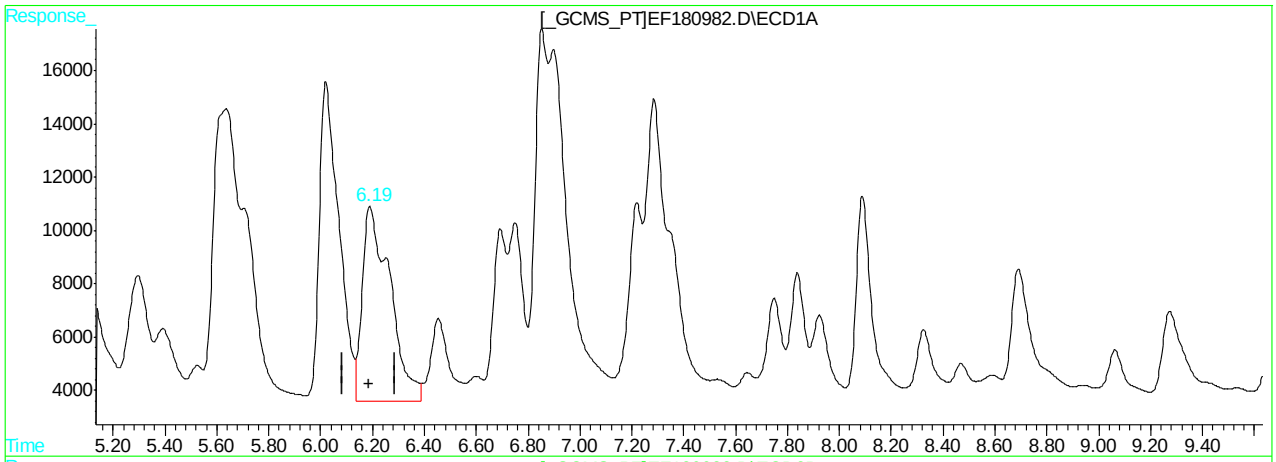
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:20 2018 GCEF

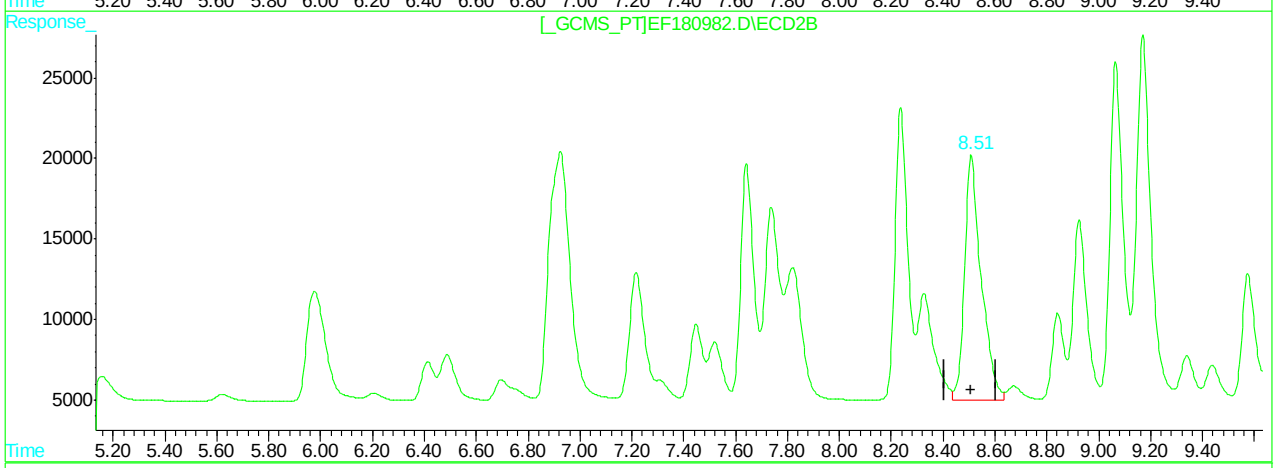
11.6.27.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.19min 907.594PPB m

response 538162

(21) AR1248-E #2

8.51min 965.094PPB

response 675931

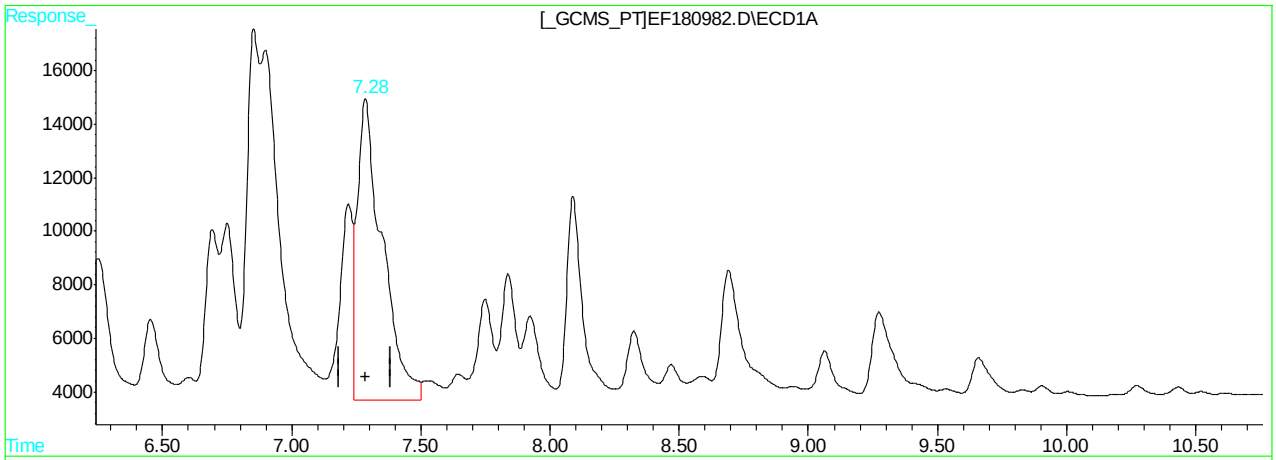
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:32 2018 GCEF

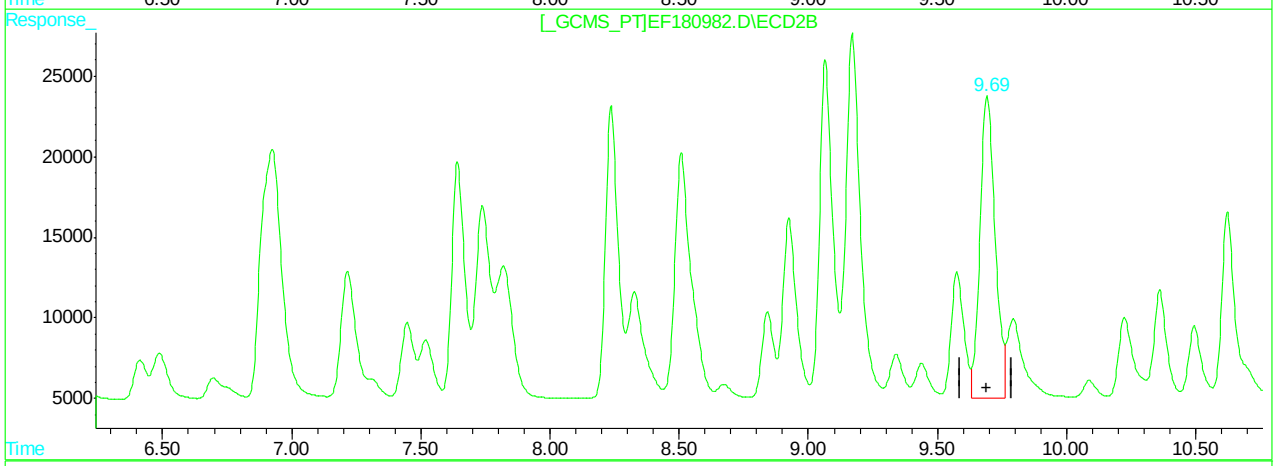
11.6.27.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(23) AR1248-G

7.29min 1357.283PPB

response 756315

(23) AR1248-G #2

9.69min 973.609PPB

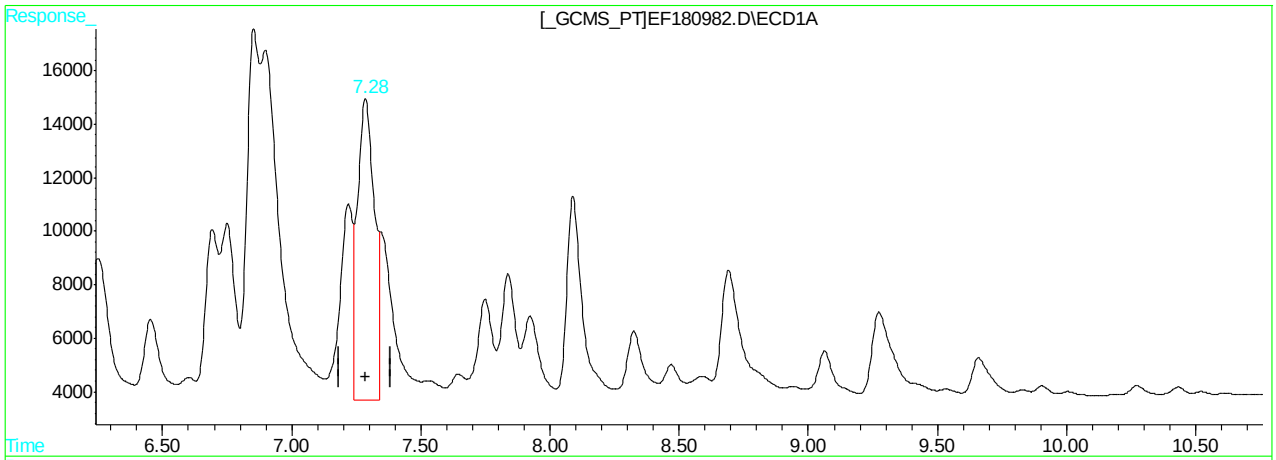
response 766598

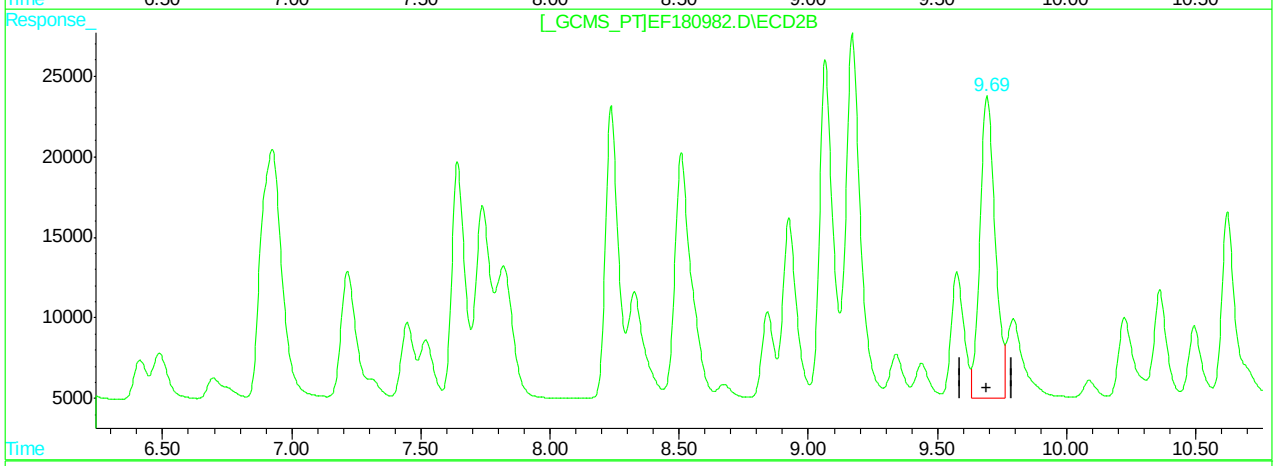
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:39 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(23) AR1248-G

7.28min 898.305PPB m

response 500560

(23) AR1248-G #2

9.69min 973.609PPB

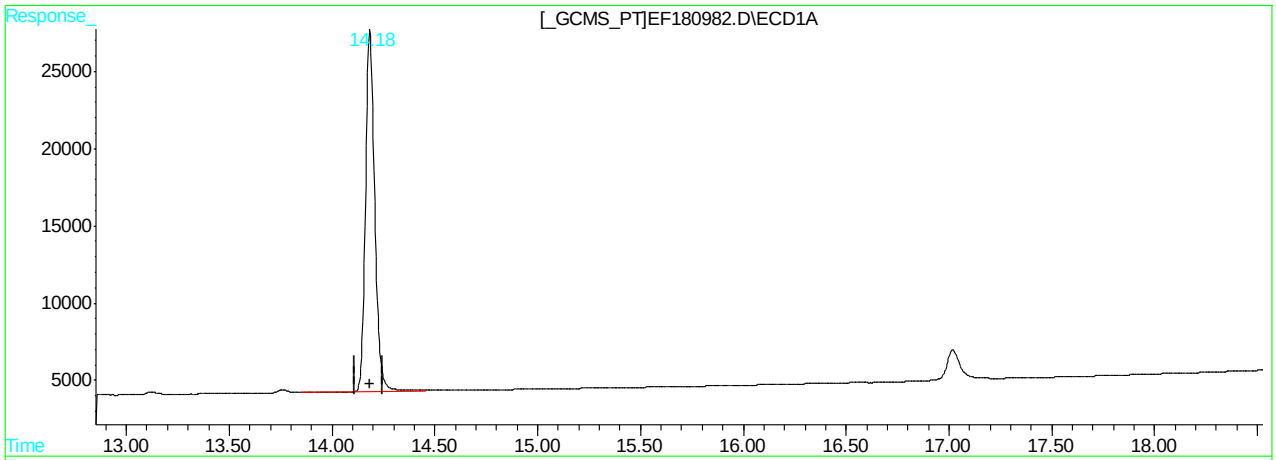
response 766598

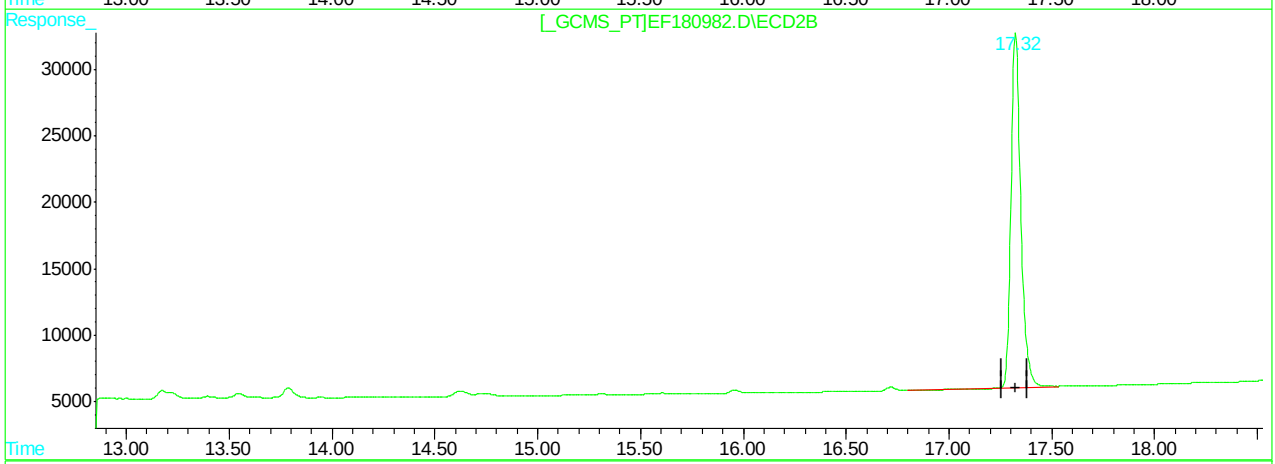
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 39.917PPB

response 727041

(51) Decachlorobiphenyl #2 (S)

17.32min 40.020PPB

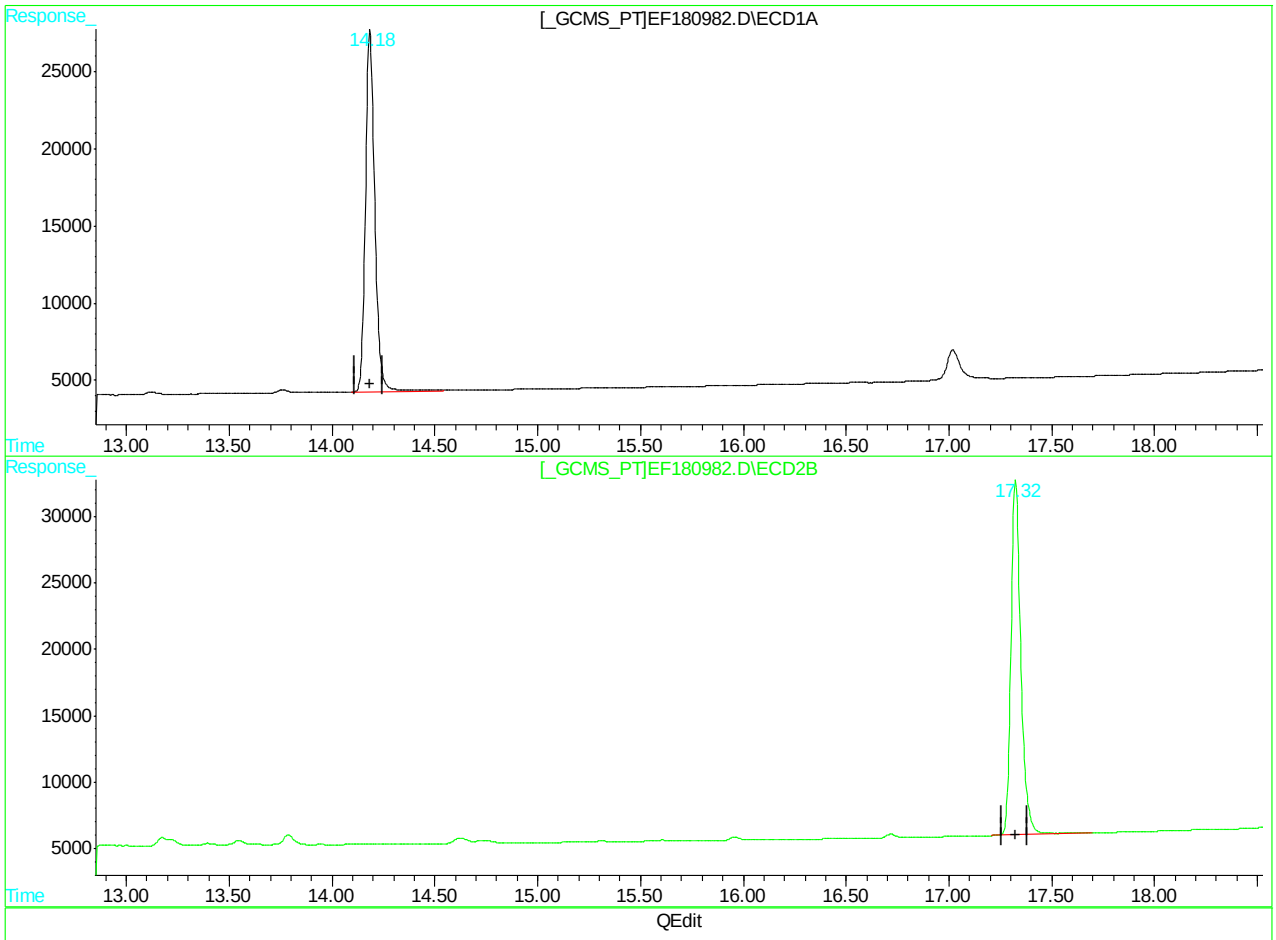
response 877674

(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:59 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.18min 40.170PPB m

response 731654

(51) Decachlorobiphenyl #2 (S)

17.32min 40.527PPB m

response 888784

(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:58:17 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	488907	685488	42.290	44.029
	Spiked Amount 40.000			Recovery =		105.73%	110.07%
51) S	Decachlorobiphen	14.18	17.32	654669	795978	38.248	37.916
	Spiked Amount 40.000			Recovery =		95.62%	94.79%
	Target Compounds						
41)	AR1016-A	3.71	5.15	309406	398131	976.619	971.569
42)	AR1016-B	4.25	5.98	561120	806851	1017.595	1001.835
43)	AR1016-C	5.04	6.92	1256818	1604773	1023.741	999.015
44)	AR1016-D	5.28	7.22	489003	701220	1027.065	1020.986
45)	AR1016-E	6.02	8.23	493626	477766	998.745	995.127
46)	AR1260-A	9.65	12.34	1284828	1664026	943.583	933.773
47)	AR1260-B	9.90	12.54	668843	790890	1017.463	981.464
48)	AR1260-C	10.43	13.22	628445	844364	1022.133	981.022
49)	AR1260-D	11.11	13.78	1614221	1814619	1029.989m	1012.039
50)	AR1260-E	11.72	14.64	1584786	1929171	1026.835m	1034.067m

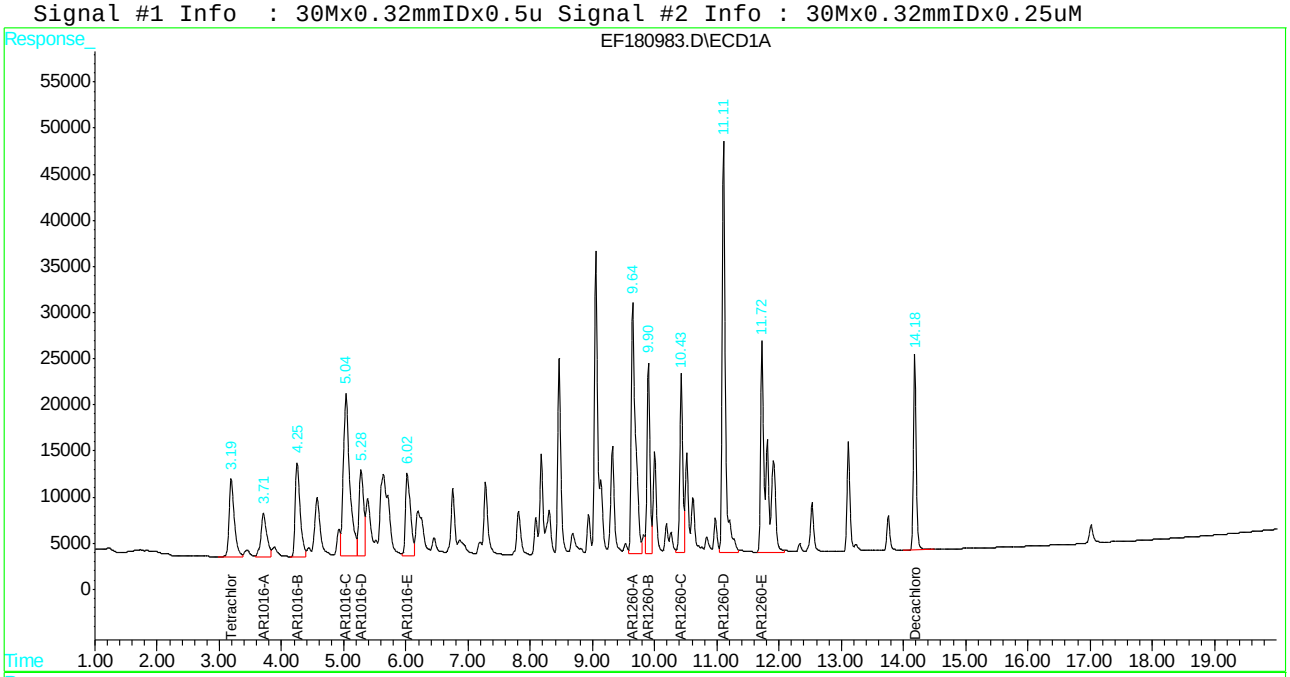
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

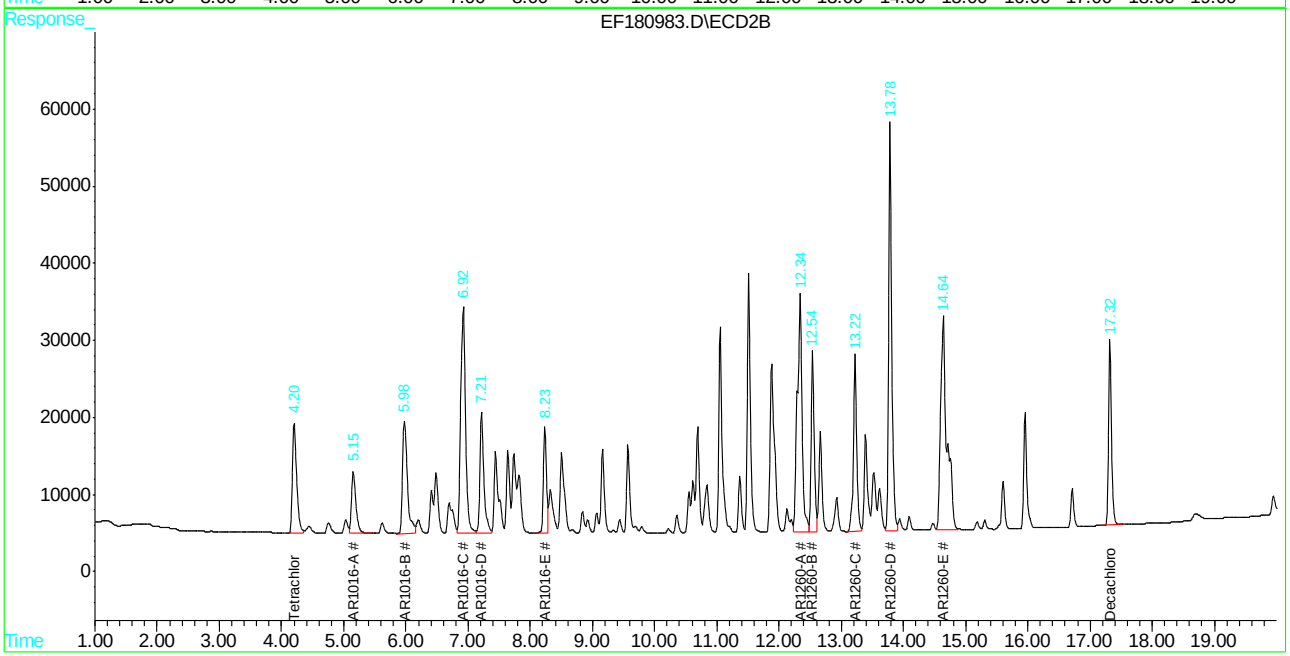
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integration Approval Summary

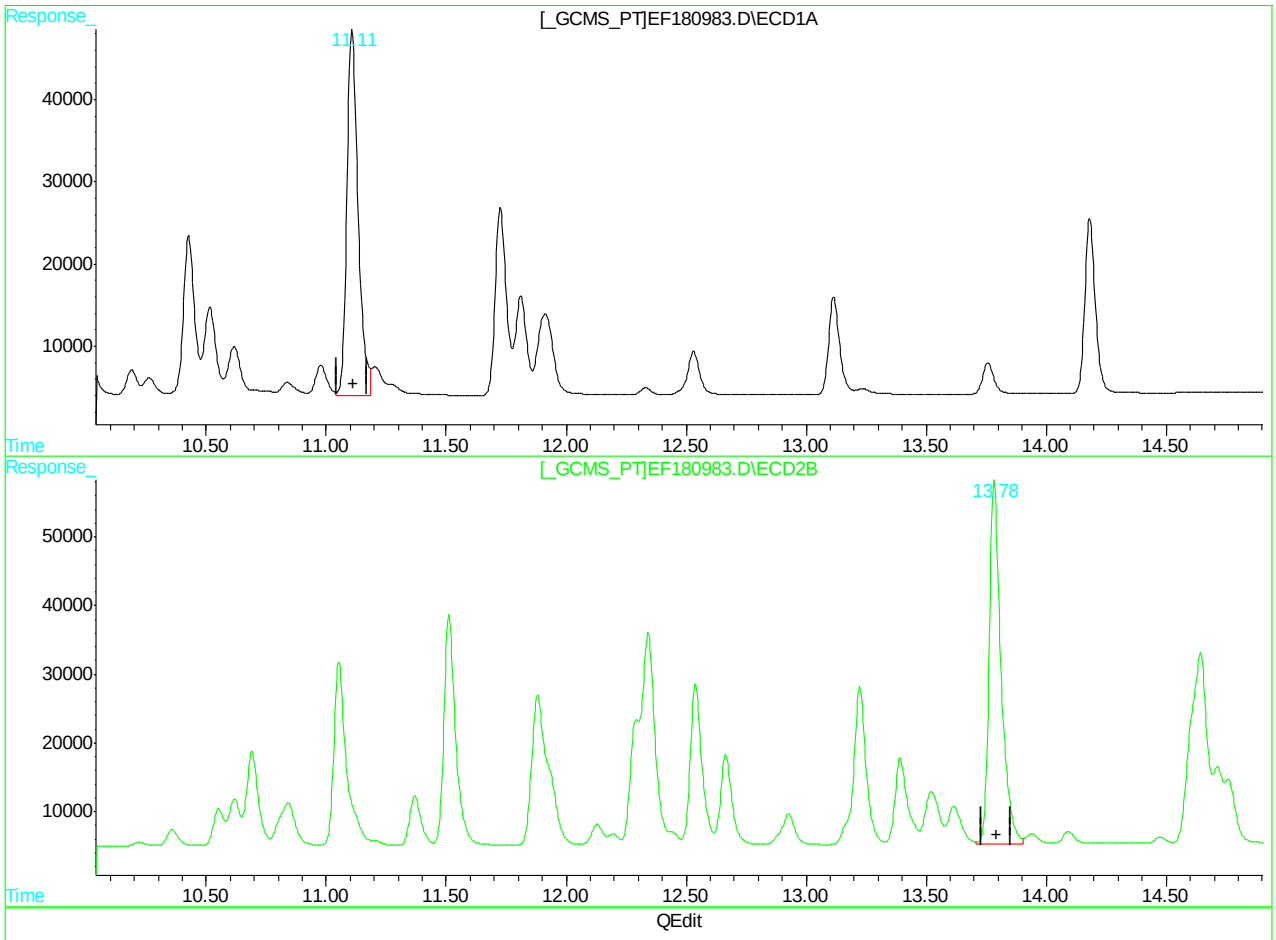
Sample Number:	GEF6195-ICV6195	**Method:**	SW846 8082A
Lab FileID:	EF180983.D	**Analyst approved:**	03/20/18 16:10 Tianwei Ruan
Injection Time:	03/19/18 21:34	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	11.11	Split peak
AR1260-E		1	11.72	Split peak
AR1260-E		2	14.64	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(49) AR1260-D

11.11min 927.428PPB

response 1453485

(49) AR1260-D #2

13.78min 1012.039PPB

response 1814619

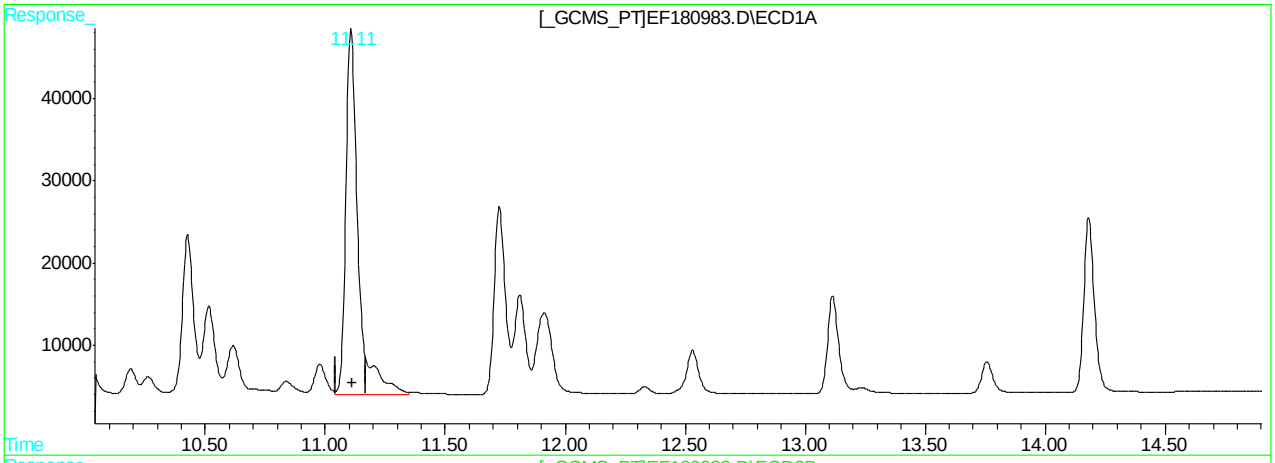
(+) = Expected Retention Time
EF180983.D PCB6195.M Tue Mar 20 15:43:46 2018 GCEF

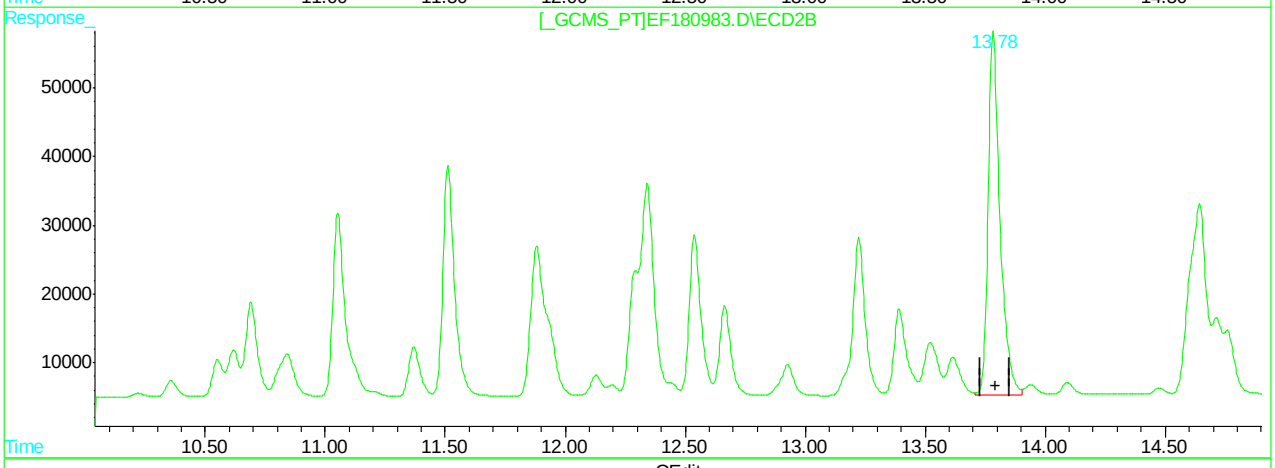
11.6.28.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 1029.989PPB m

response 1614221

(49) AR1260-D #2

13.78min 1012.039PPB

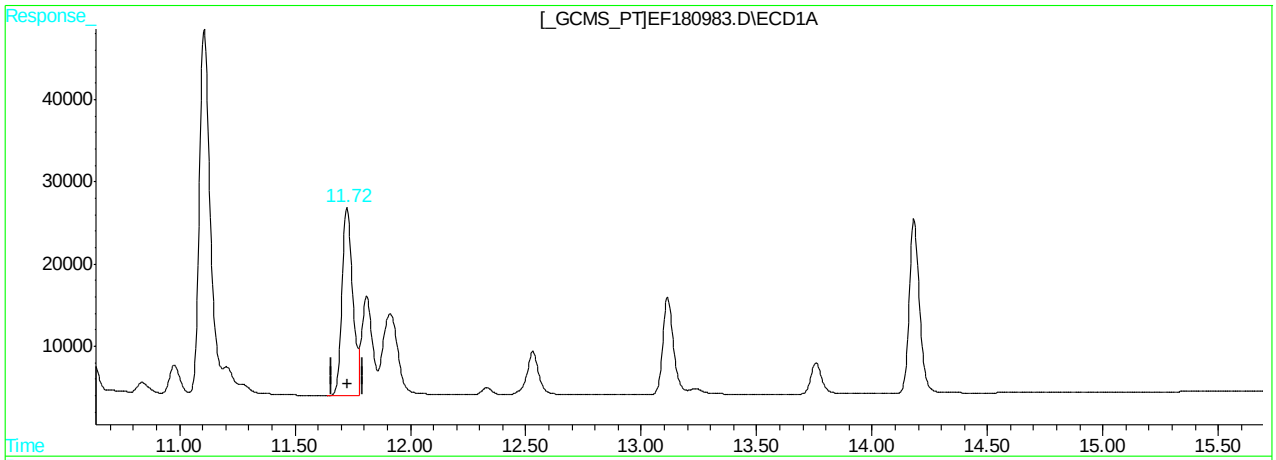
response 1814619

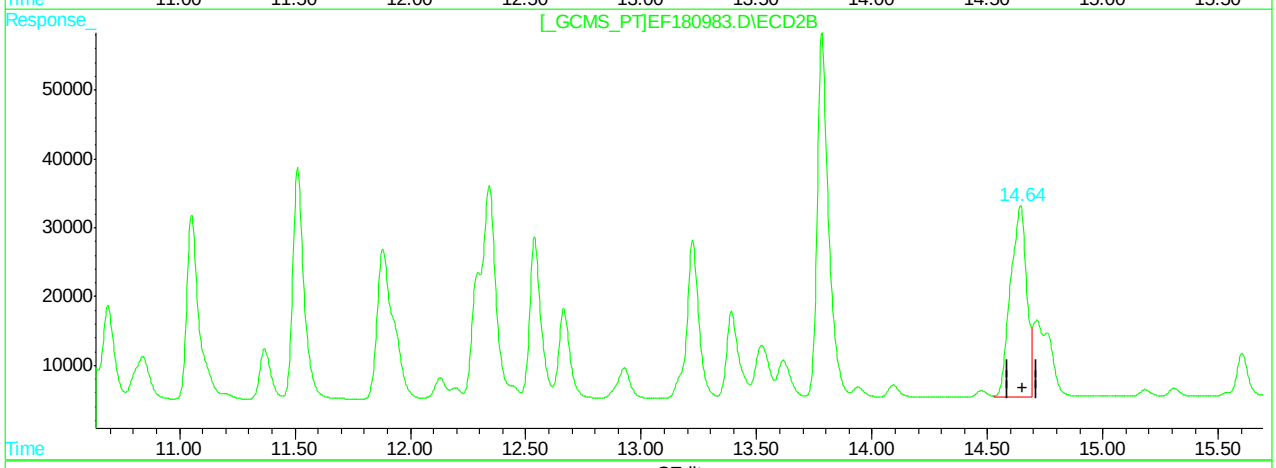
(+) = Expected Retention Time
EF180983.D PCB6195.M Tue Mar 20 15:43:58 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 471.988PPB

response 728452

(50) AR1260-E #2

14.64min 720.779PPB

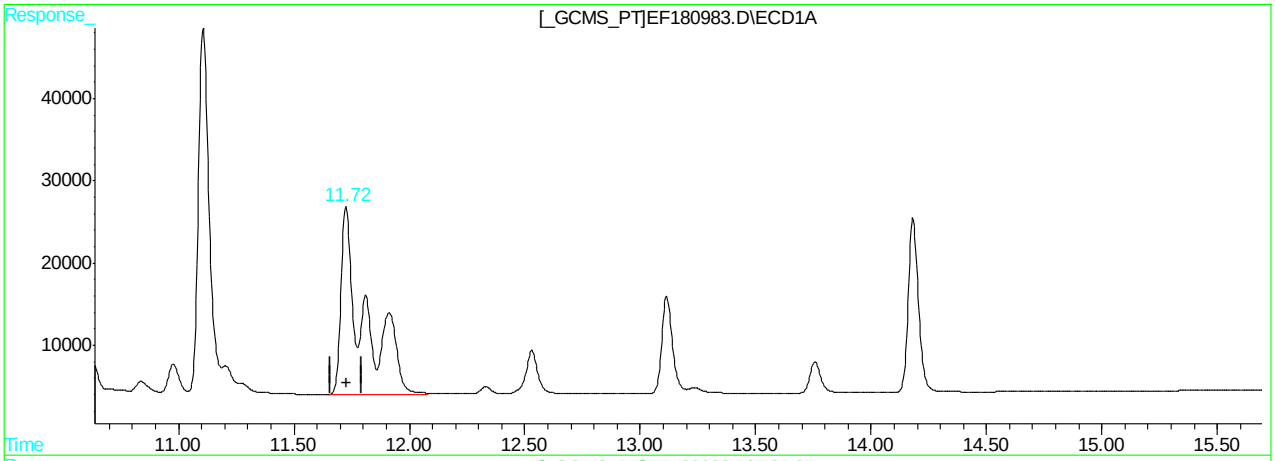
response 1344697

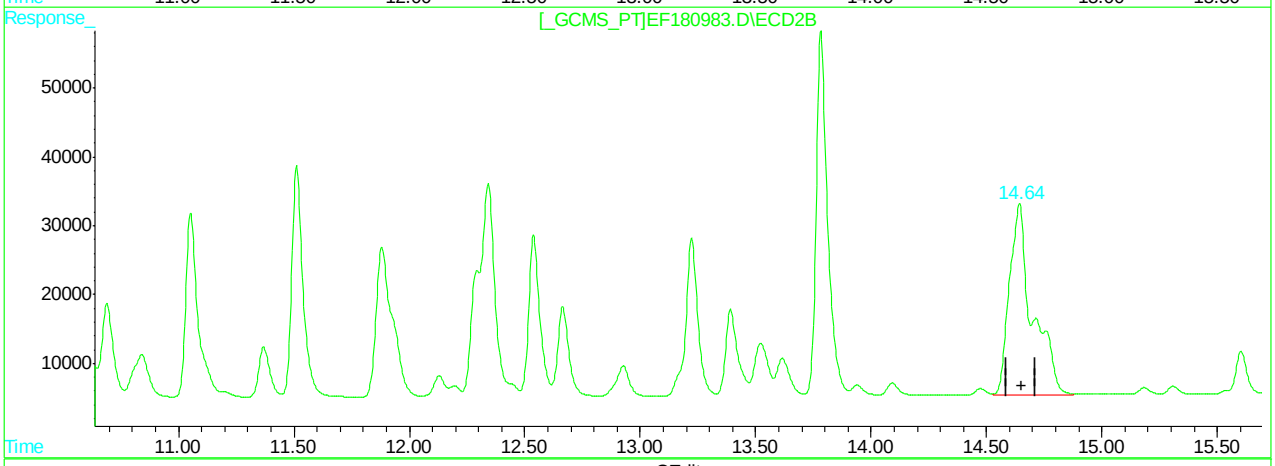
(+) = Expected Retention Time
EF180983.D PCB6195.M Tue Mar 20 15:44:02 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 1026.835PPB m

response 1584786

(50) AR1260-E #2

14.64min 1034.067PPB m

response 1929171

(+) = Expected Retention Time
EF180983.D PCB6195.M Tue Mar 20 15:44:15 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	462244	586231	39.983m	37.654
	Spiked Amount 40.000			Recovery =		99.96%	94.14%
51) S	Decachlorobiphen	14.18	17.32	549275	674305	32.091m	32.120m
	Spiked Amount 40.000			Recovery =		80.23%	80.30%
	Target Compounds						
2)	AR1221-A	2.56	3.43	122976	162899	975.567	1012.438
3)	AR1221-B	3.44	4.76	145221	213027	882.223	908.686
4)	AR1221-C	3.70	5.15	500891	558957	890.761	904.198
5)	AR1221-D	4.25	5.97	48286	112348	813.655m	850.607m
6)	AR1221-E	4.56	6.10	107610	123741	891.226	970.348
24)	AR1254-A	6.75	9.16	543387	770234	975.612	988.413
25)	AR1254-B	7.27	9.57	700171	812435	983.270	987.341
26)	AR1254-C	7.83	10.36	512333	594810	982.357	986.888
27)	AR1254-D	8.08	10.62	956789	1257529	986.268m	989.105
28)	AR1254-E	8.68	11.12	845674	1015304	979.018	993.063
29)	AR1254-F	9.06	11.93	709799	965363	984.687	960.251m
30)	AR1254-G	9.65	12.35	925780	1176430	973.621	986.949

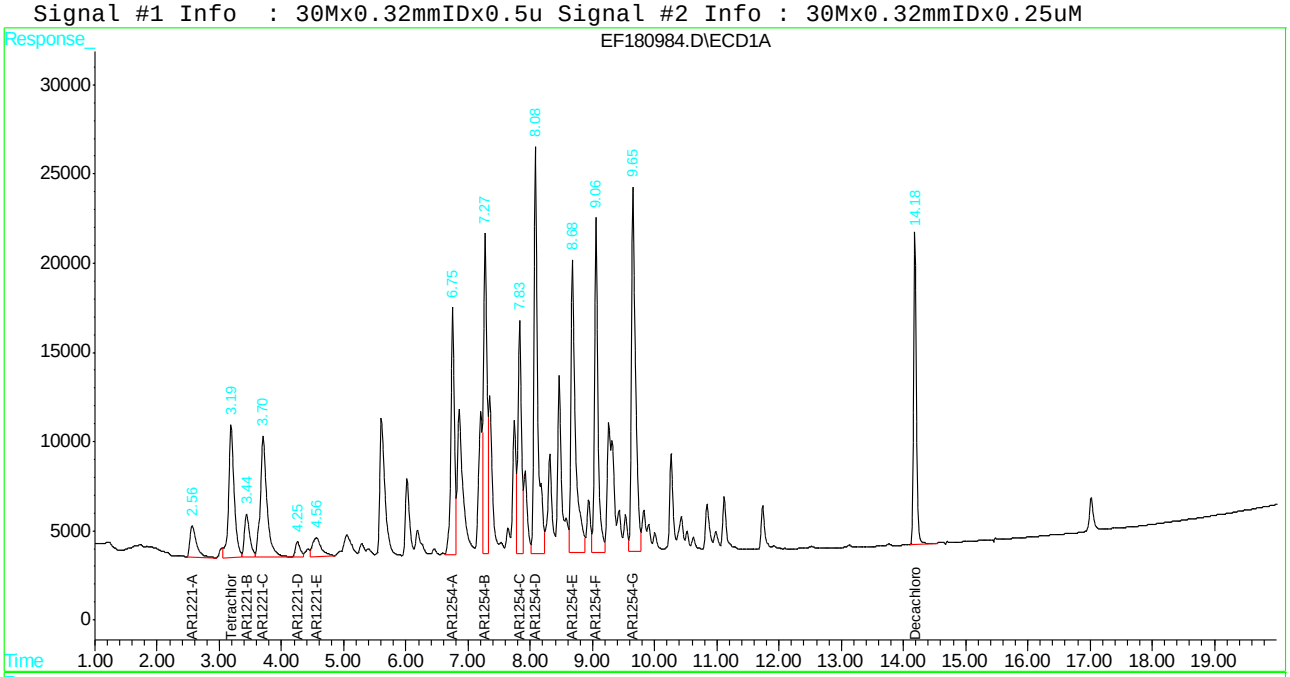
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

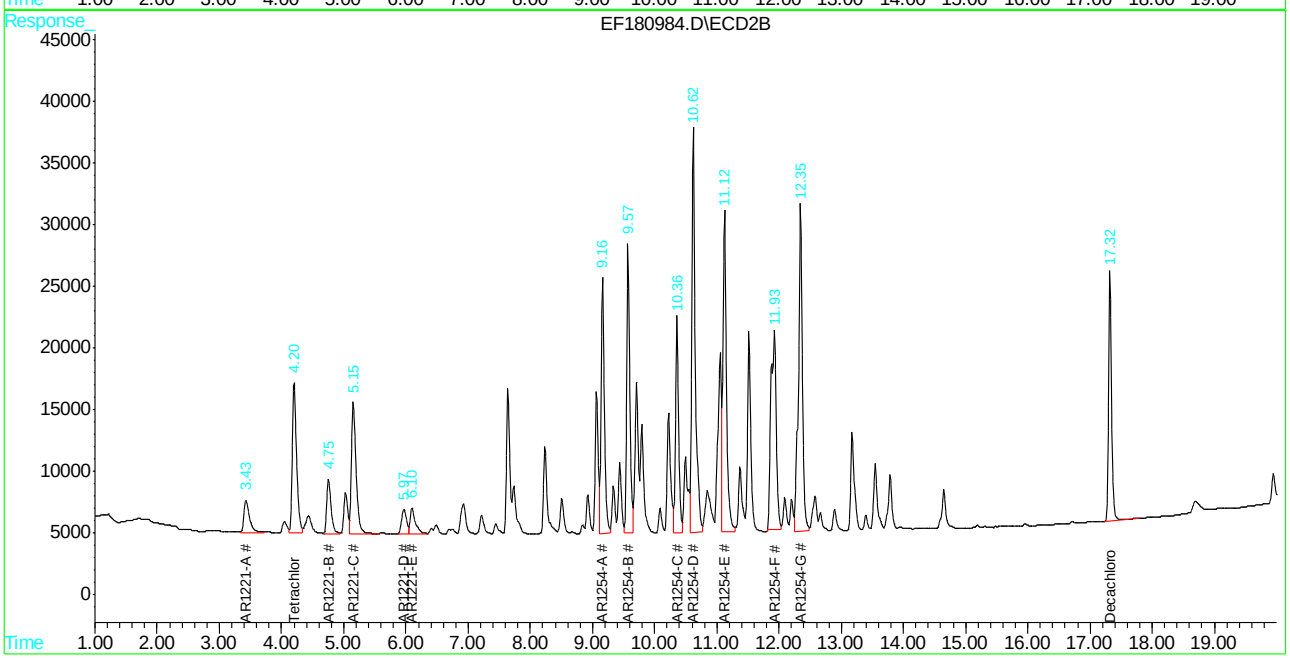
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62881

Manual Integration Approval Summary

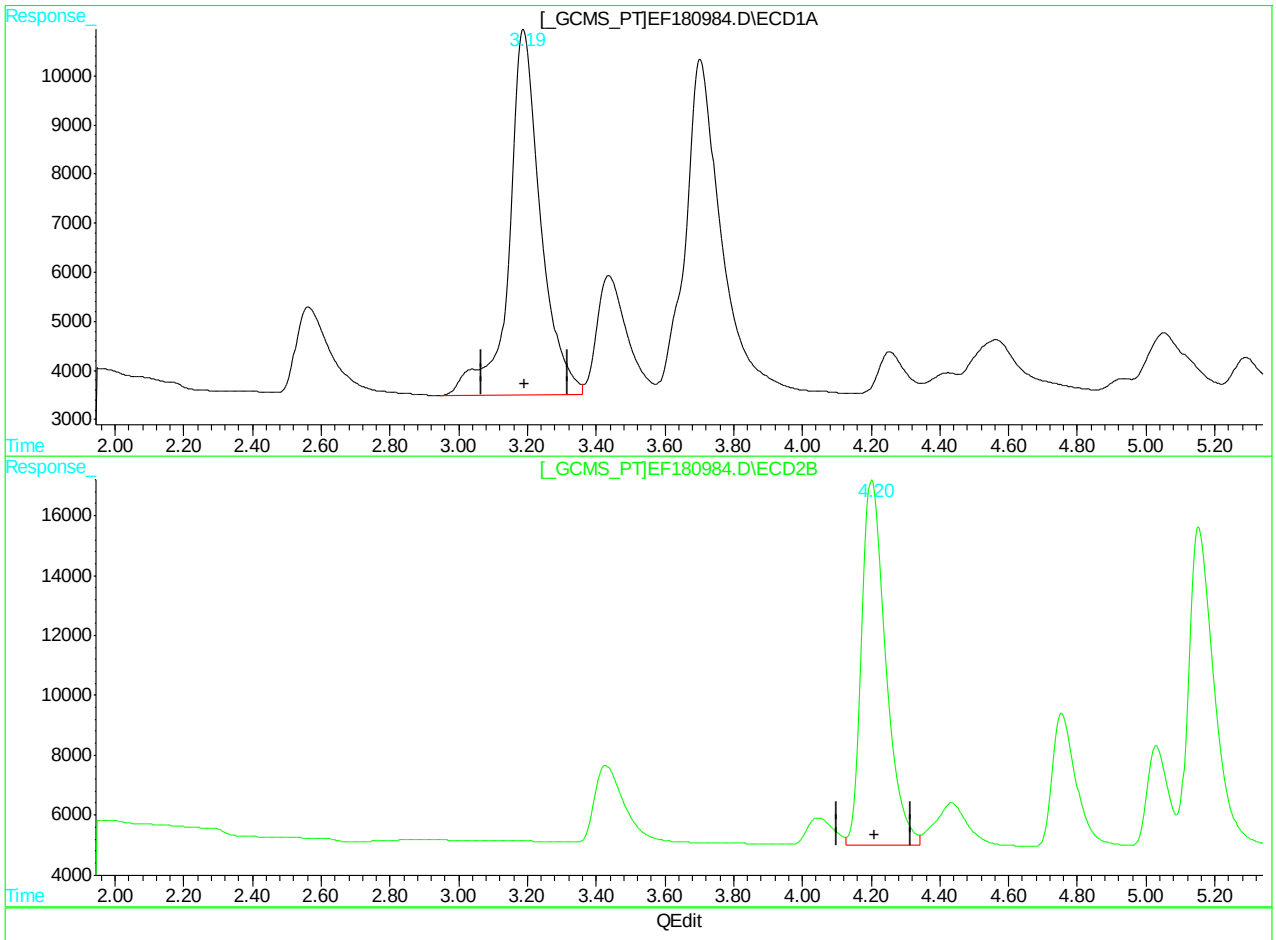
Sample Number: GEF6195-ICV6195 **Method:** SW846 8082A
Lab FileID: EF180984.D **Analyst approved:** 03/20/18 16:10 Tianwei Ruan
Injection Time: 03/19/18 21:59 **Supervisor approved:** 03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.19	Poorly defined baseline
AR1221-D		1	4.25	Split peak
AR1221-D		2	5.97	Split peak
AR1254-D		1	8.08	Split peak
AR1254-F		2	11.93	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 41.427PPB

response 478937

(1) Tetrachloro-m-xylene #2 (S)

4.20min 37.654PPB

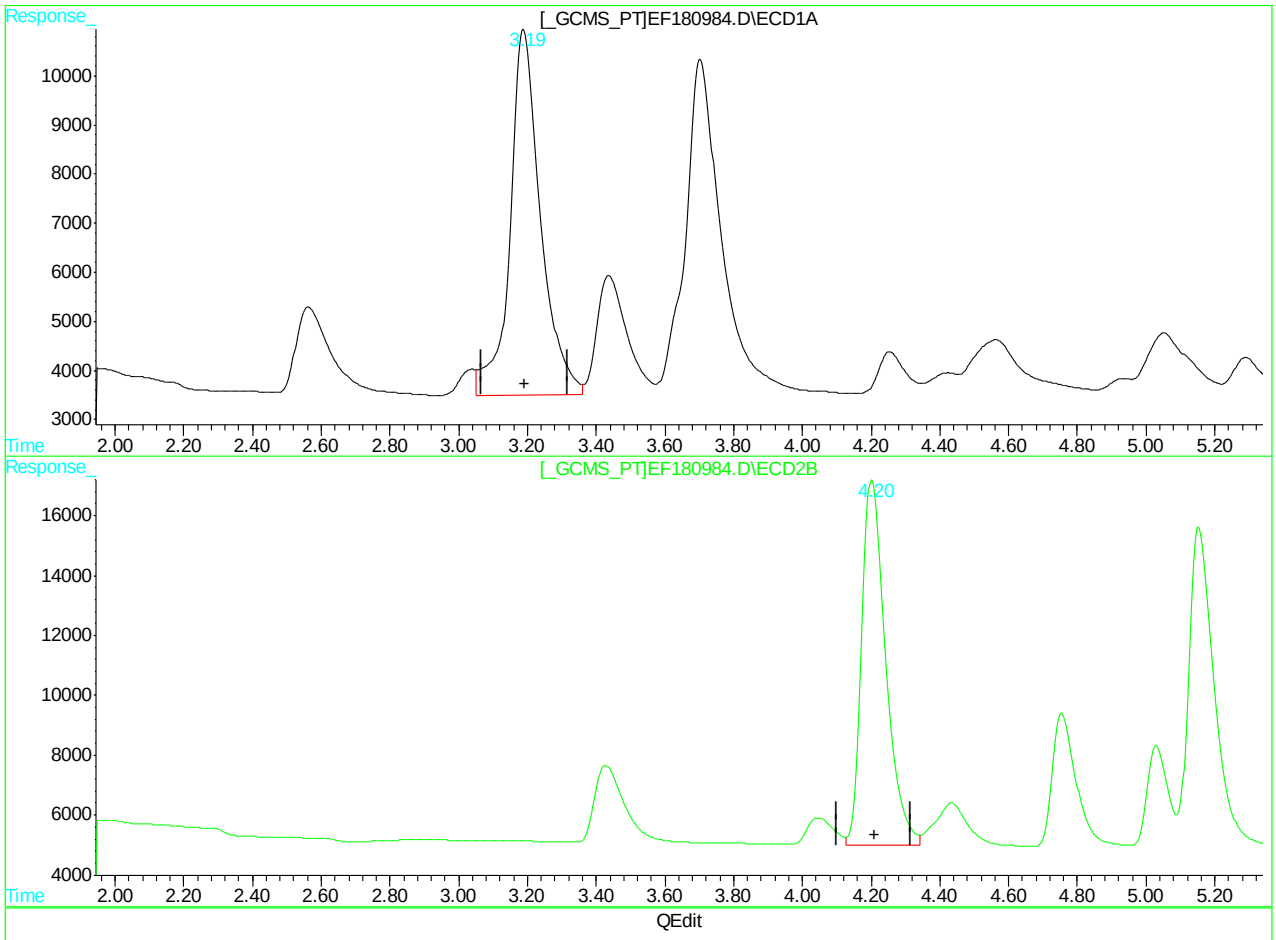
response 586231

(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:45:50 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 39.983PPB m

response 462244

(1) Tetrachloro-m-xylene #2 (S)

4.20min 37.654PPB

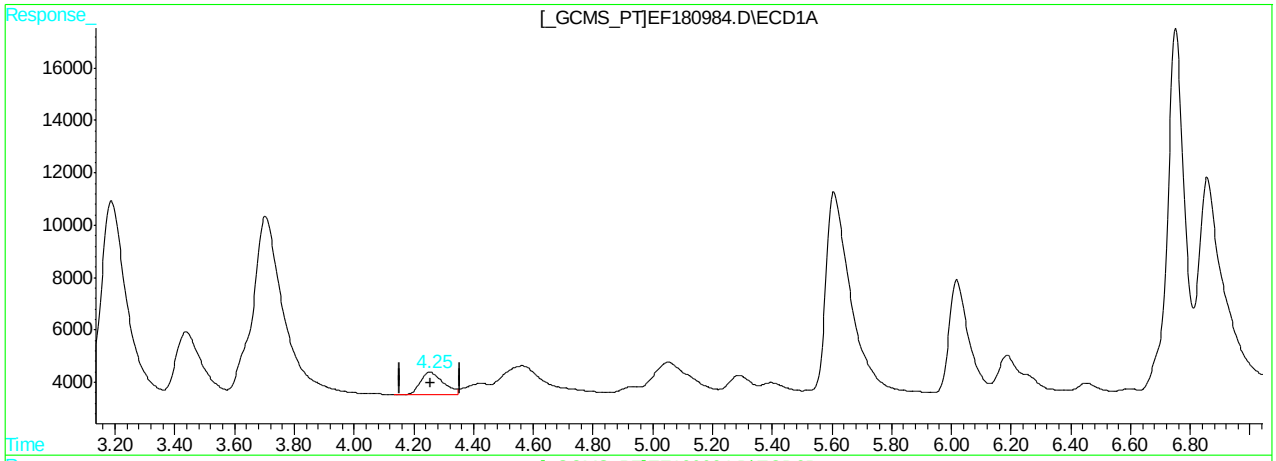
response 586231

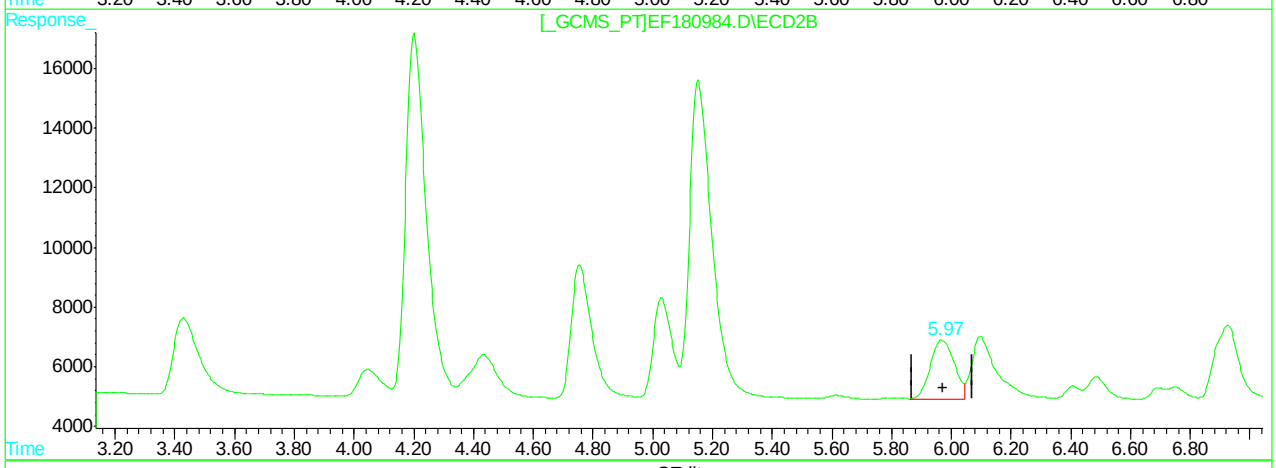
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:46:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(5) AR1221-D

4.25min 749.652PPB

response 44488

(5) AR1221-D #2

5.97min 837.851PPB

response 110663

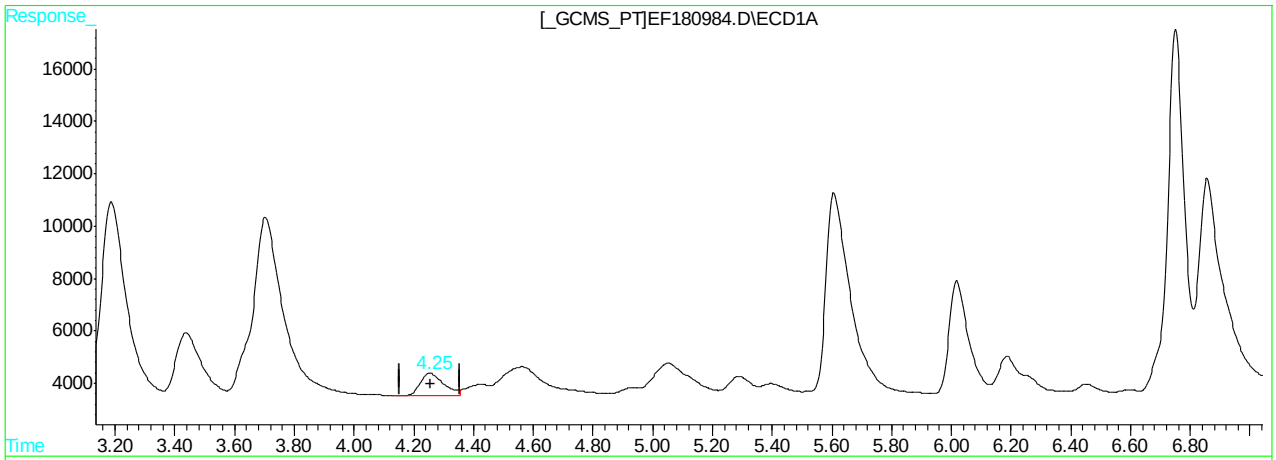
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:46:49 2018 GCEF

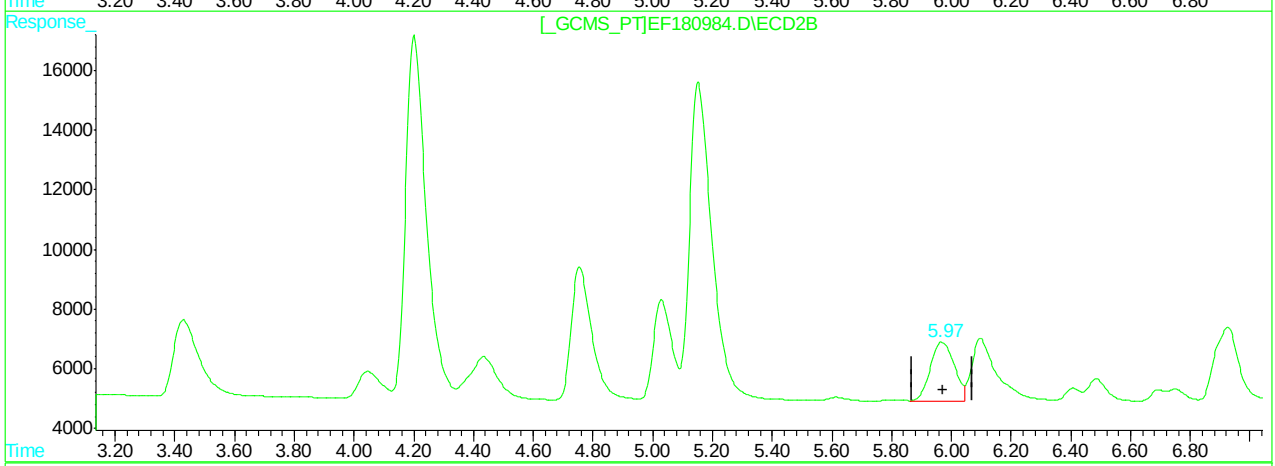
11.6.29.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(5) AR1221-D

4.25min 813.655PPB m

response 48286

(5) AR1221-D #2

5.97min 850.607PPB m

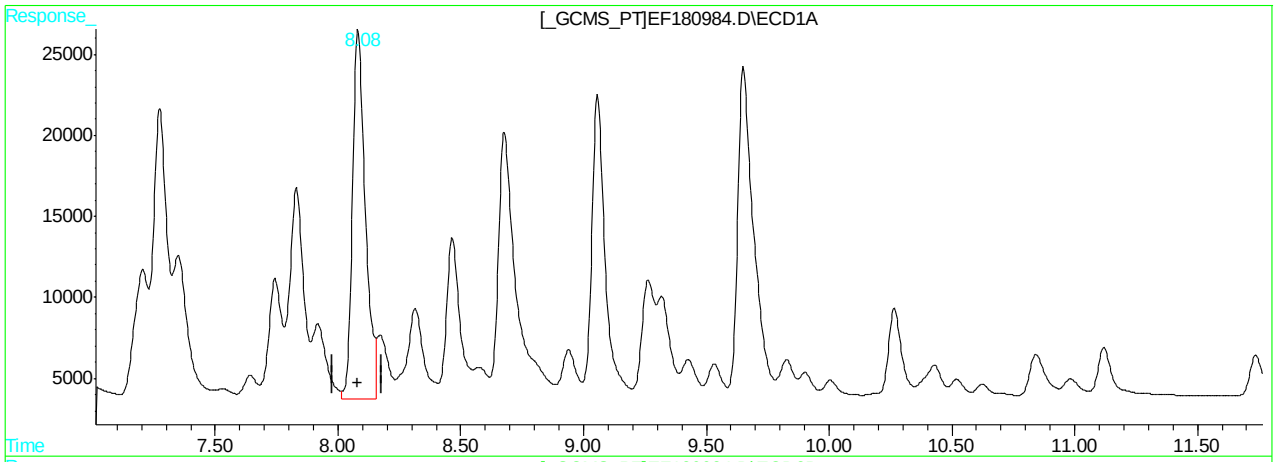
response 112348

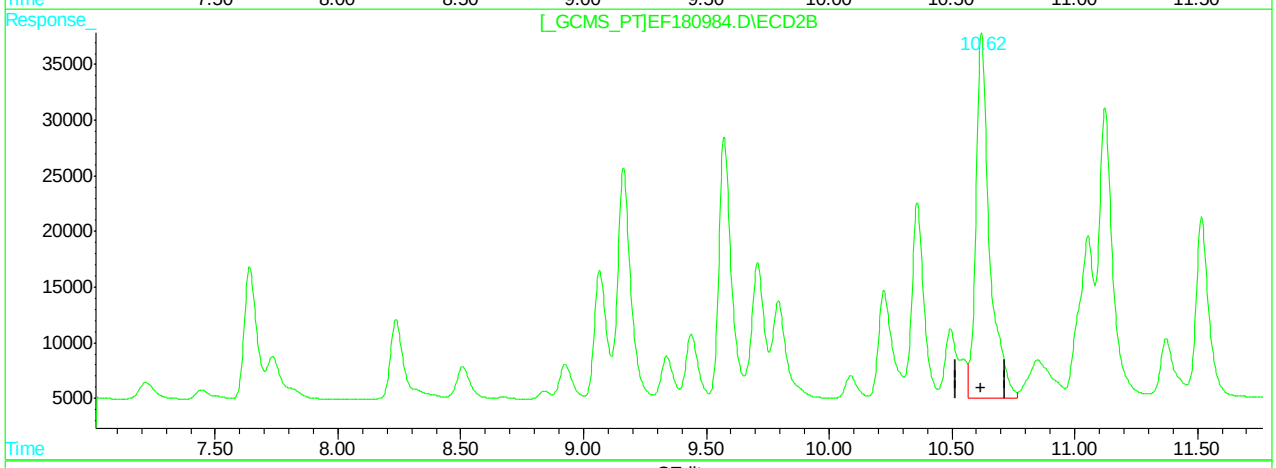
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:48:48 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(27) AR1254-D

8.08min 857.748PPB

response 832110

(27) AR1254-D #2

10.62min 989.105PPB

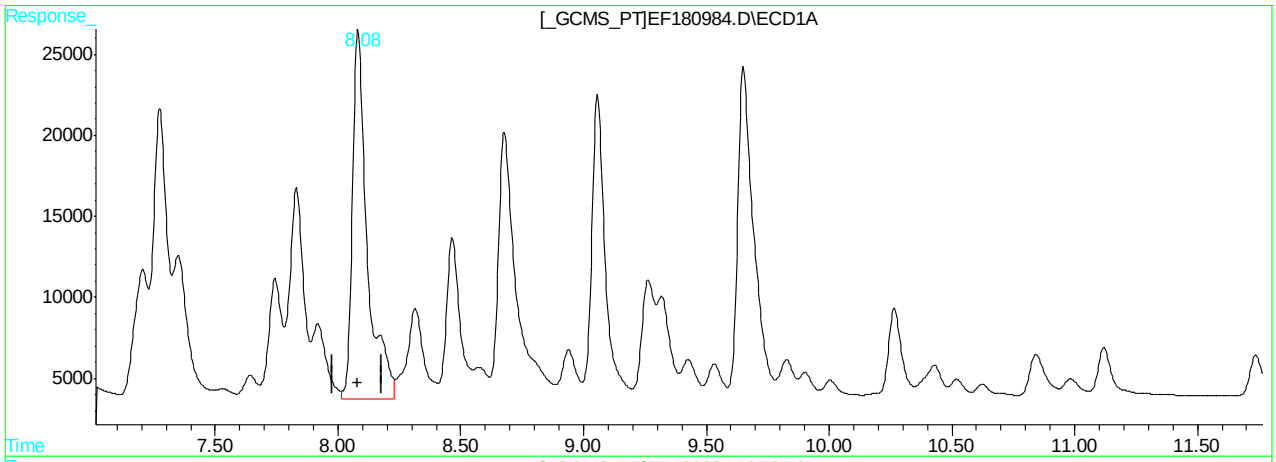
response 1257529

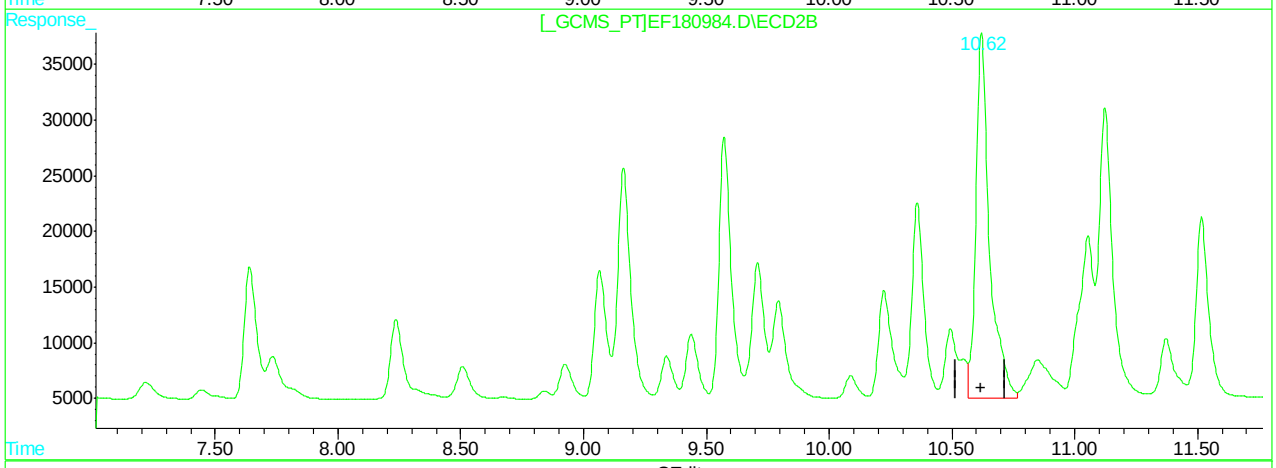
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:04 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(27) AR1254-D

8.08min 986.268PPB m

response 956789

(27) AR1254-D #2

10.62min 989.105PPB

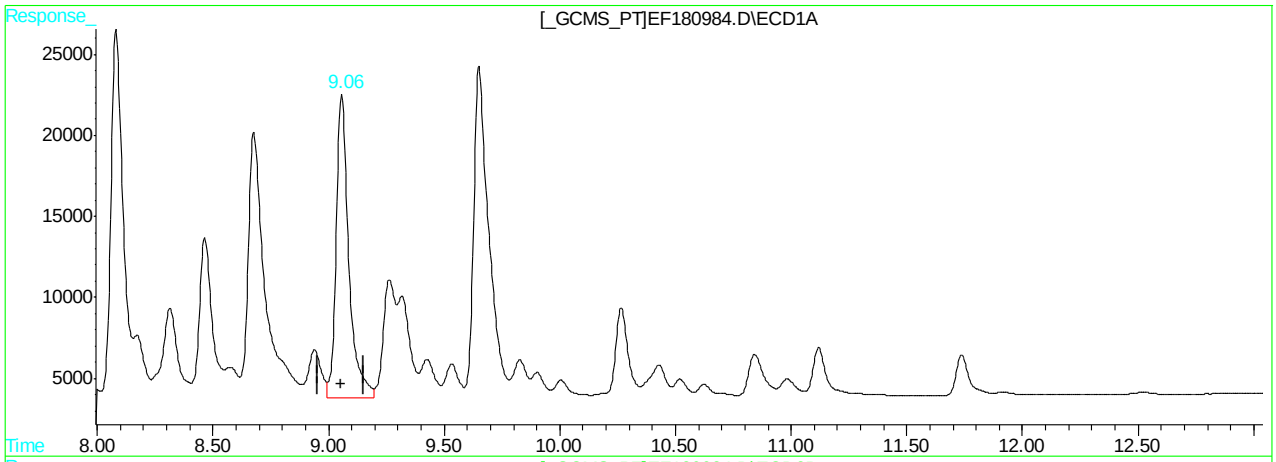
response 1257529

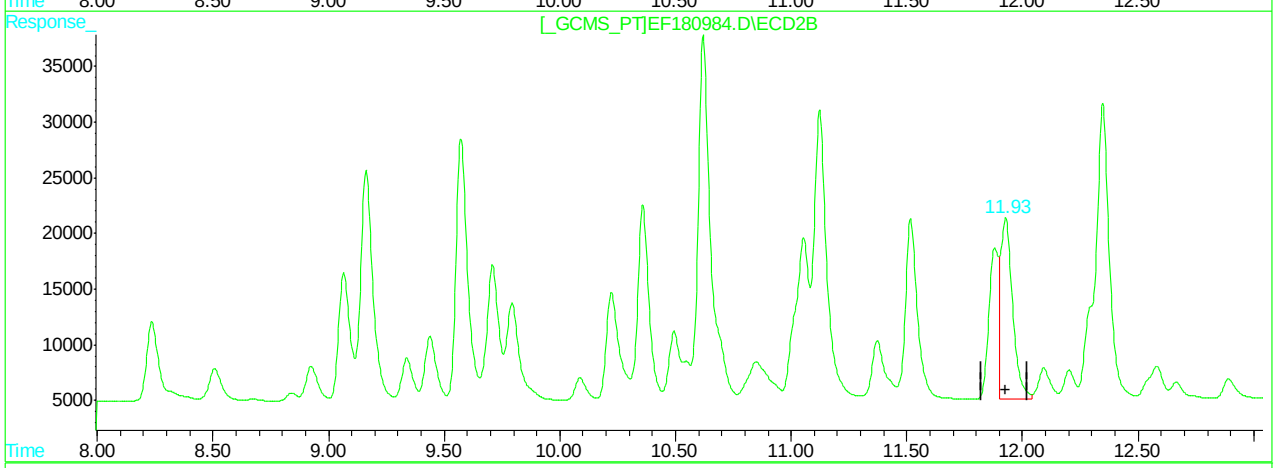
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.06min 984.687PPB

response 709799

(29) AR1254-F #2

11.93min 604.947PPB

response 608168

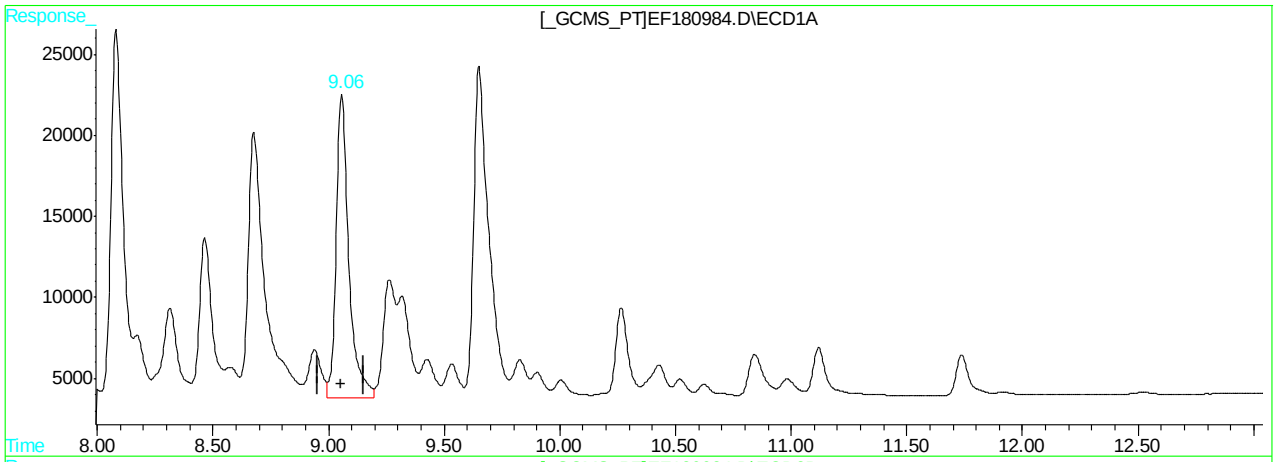
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:19 2018 GCEF

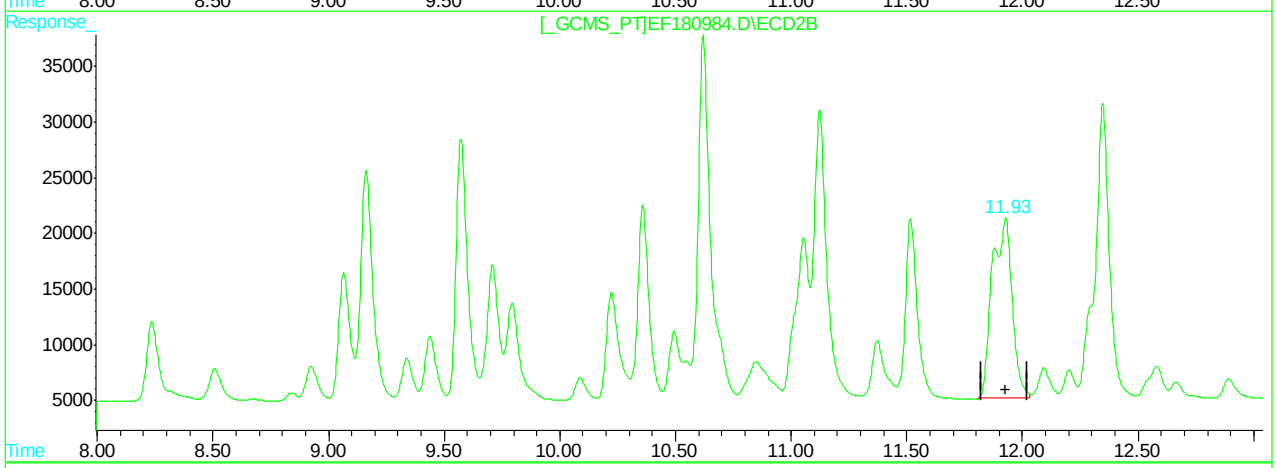
11.6.29.8 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.06min 984.687PPB

response 709799

(29) AR1254-F #2

11.93min 960.251PPB m

response 965363

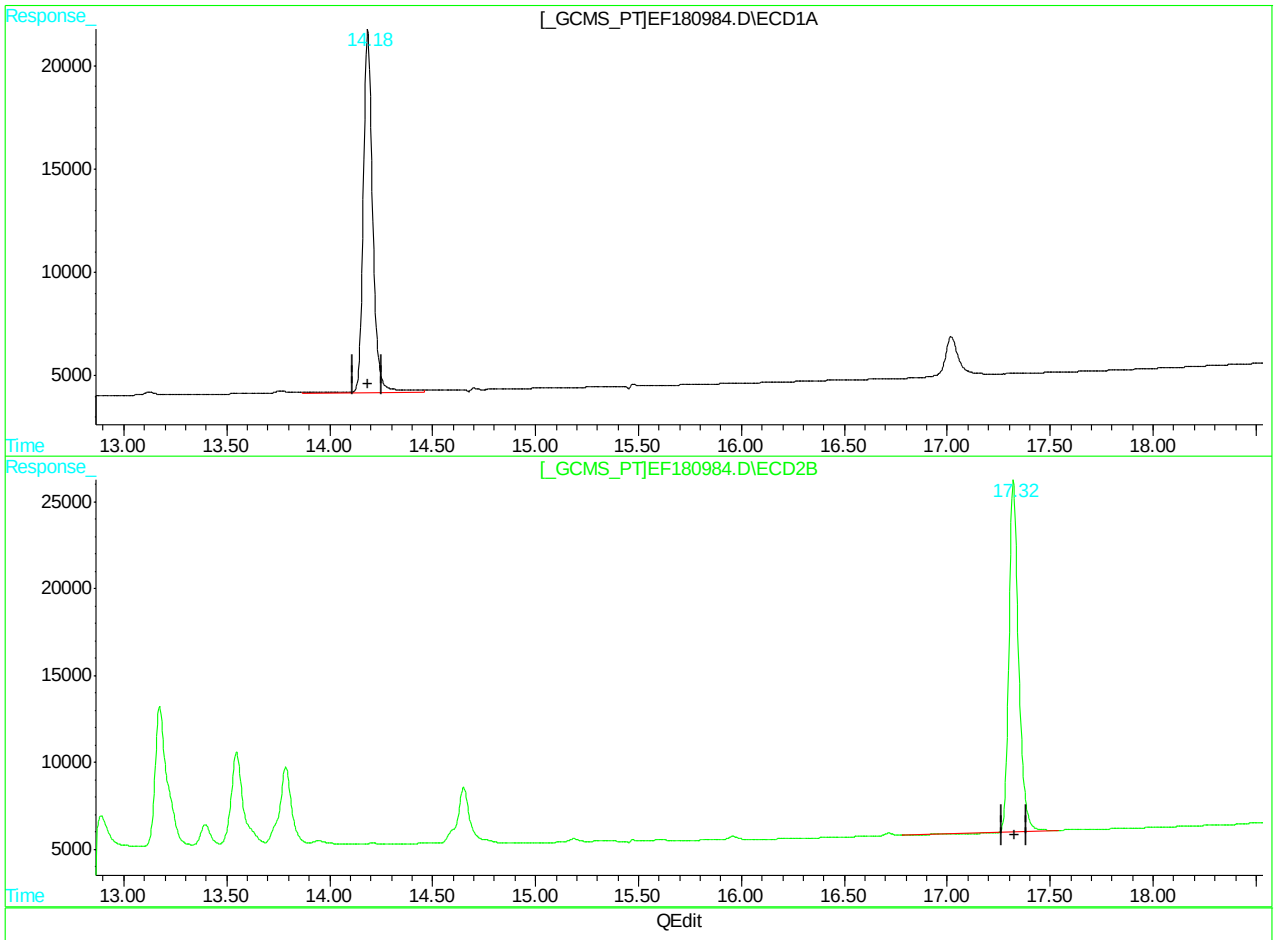
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:25 2018 GCEF

11.6.29.9 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 32.824PPB

response 561819

(51) Decachlorobiphenyl #2 (S)

17.32min 31.230PPB

response 655625

(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:36 2018 GCEF

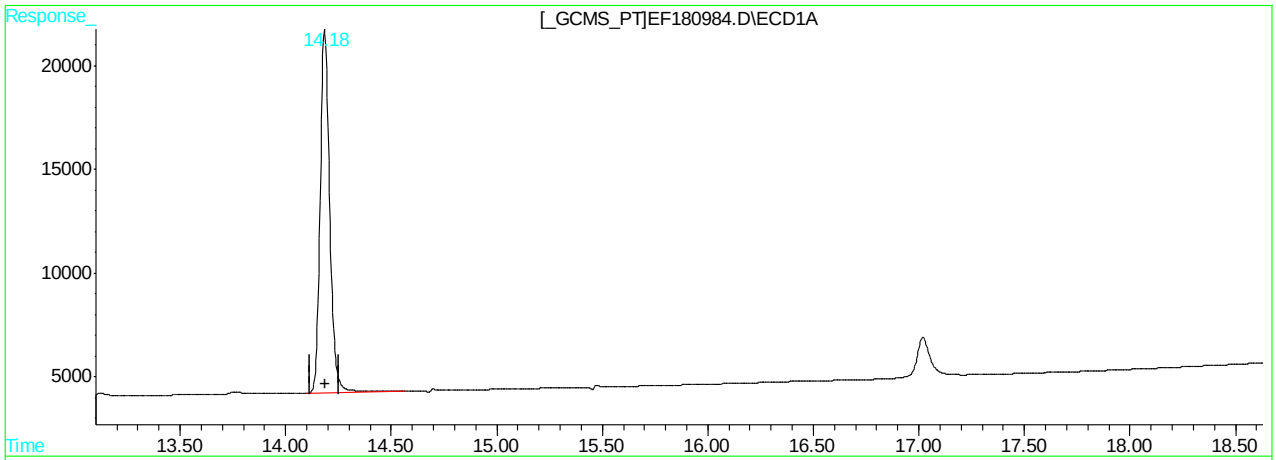
11.6.29.10

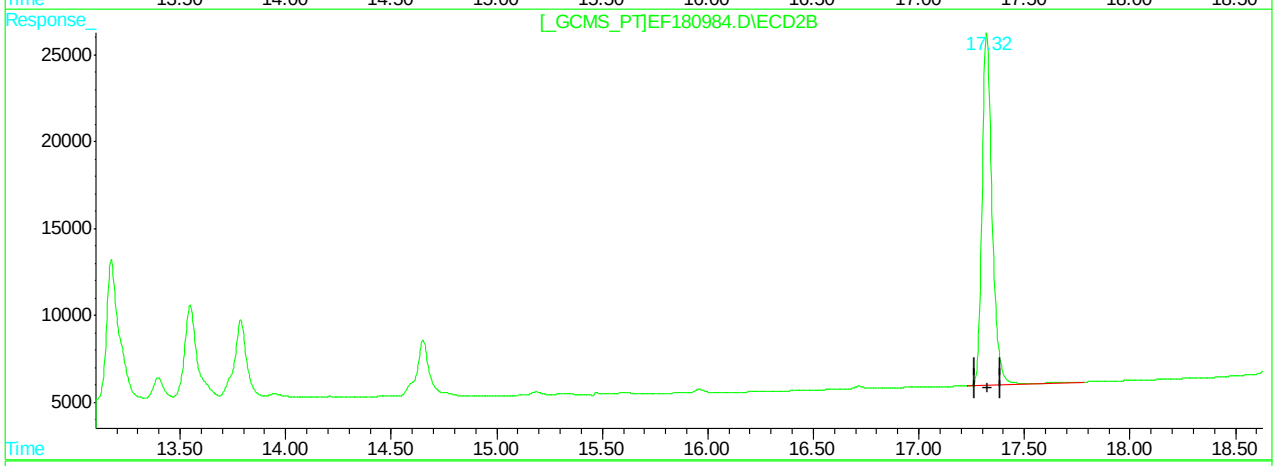
11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 32.091PPB m

response 549275

(51) Decachlorobiphenyl #2 (S)

17.32min 32.120PPB m

response 674305

(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:51:48 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:56 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.19	4.20	524475	703383	45.366m	45.179
	Spiked Amount 40.000			Recovery	=	113.41%	112.95%
51)	S Decachlorobiphen	14.18	17.32	673605	825831	39.355	39.338
	Spiked Amount 40.000			Recovery	=	98.39%	98.34%
	Target Compounds						
7)	AR1232-A	3.70	5.15	395321	477984	977.532m	988.763
8)	AR1232-B	4.25	5.98	260887	371666	986.541	991.070
9)	AR1232-C	5.04	6.92	568466	758875	982.776	987.953
10)	AR1232-D	5.28	7.22	218232	328461	985.068	990.366
11)	AR1232-E	6.02	8.23	203538	210348	986.076	991.144
31)	AR1262-A	9.05	11.51	758700	891501	1004.465	1000.968
32)	AR1262-B	9.90	12.54	1094690	1228458	1004.362	1005.253
33)	AR1262-C	10.42	13.22	844948	1056373	1008.505	1009.514
34)	AR1262-D	11.10	13.78	2014912	2205641	1007.704	1006.485
35)	AR1262-E	11.81	14.61	2428147	2912782	1001.599m	1010.019m

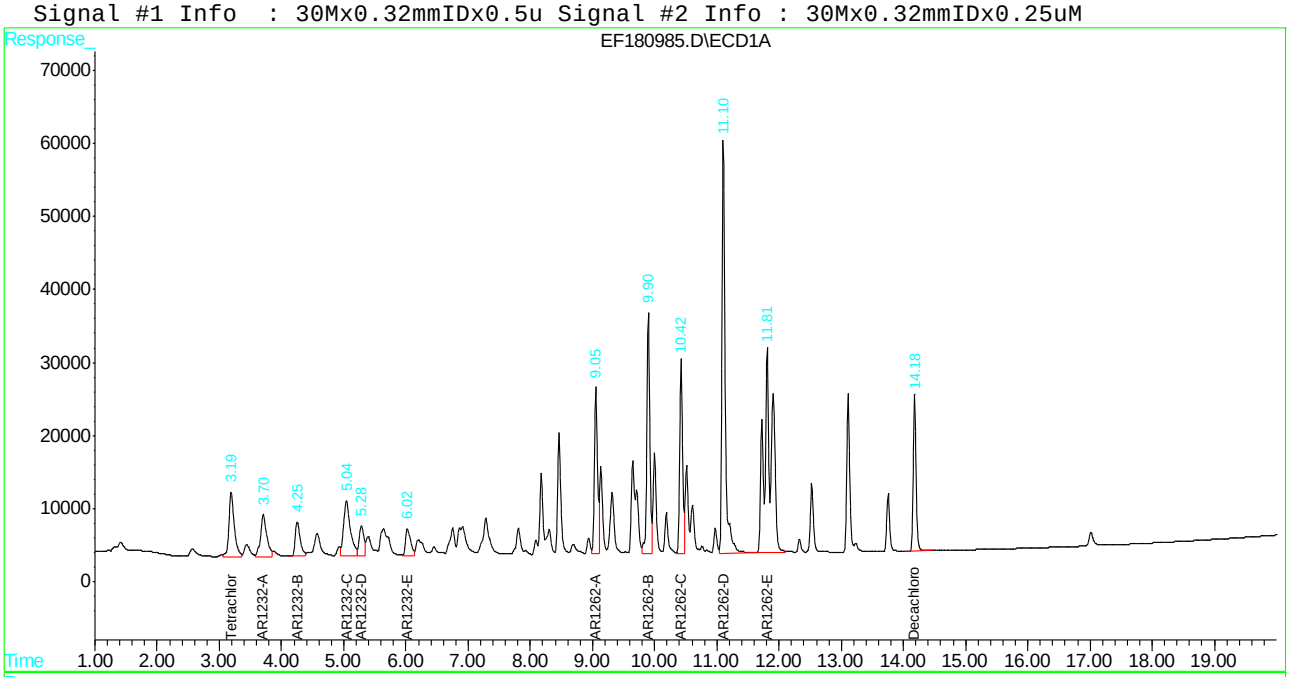
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180985.D PCB6195.M Tue Mar 20 15:58:10 2018 GCEF Page 1

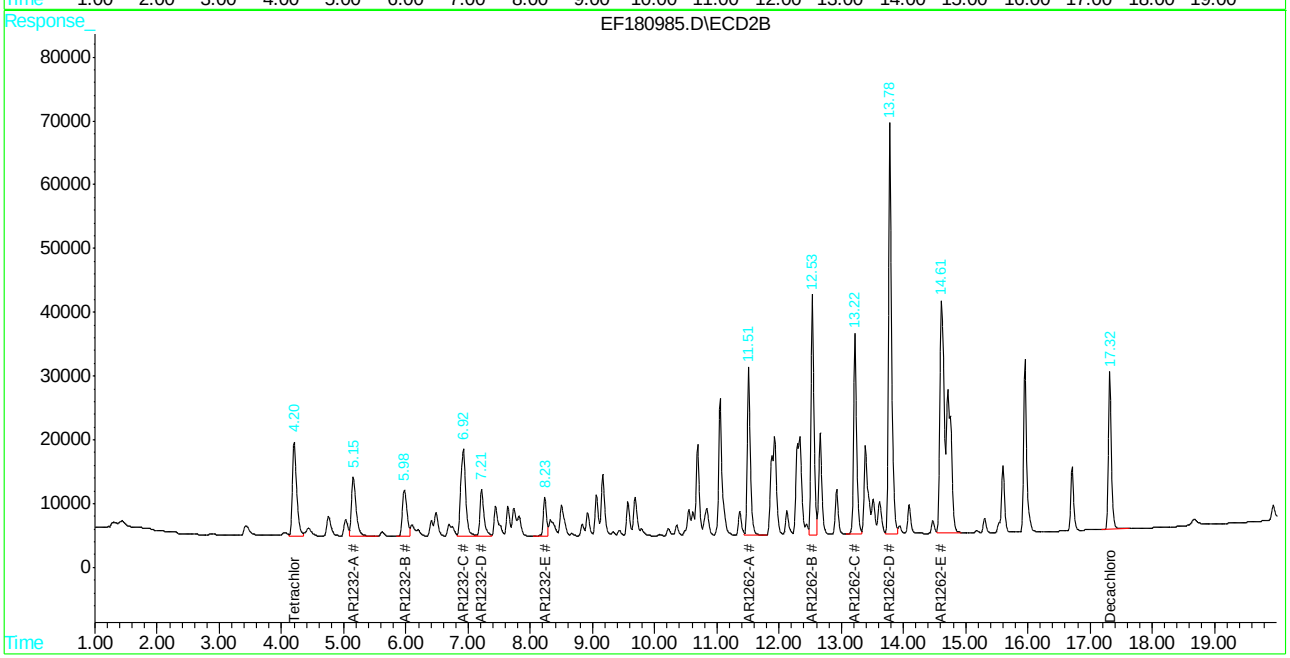
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:56 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integration Approval Summary

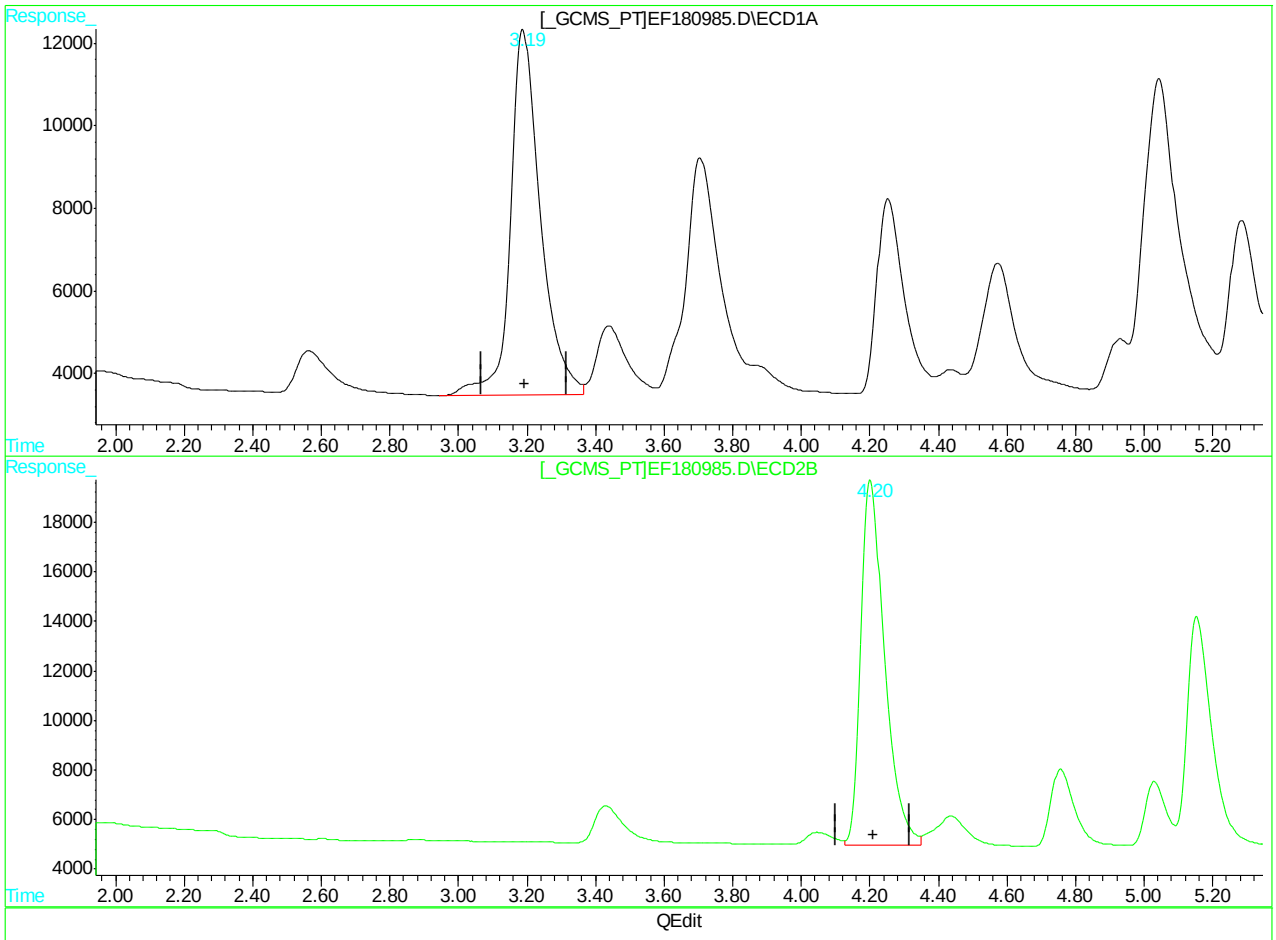
Sample Number:	GEF6195-ICV6195	**Method:**	SW846 8082A
Lab FileID:	EF180985.D	**Analyst approved:**	03/20/18 16:10 Tianwei Ruan
Injection Time:	03/19/18 22:24	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.19	Poorly defined baseline
AR1232-A		1	3.70	Split peak
AR1262-E		1	11.81	Split peak
AR1262-E		2	14.61	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 46.102PPB

response 532978

(1) Tetrachloro-m-xylene #2 (S)

4.20min 45.179PPB

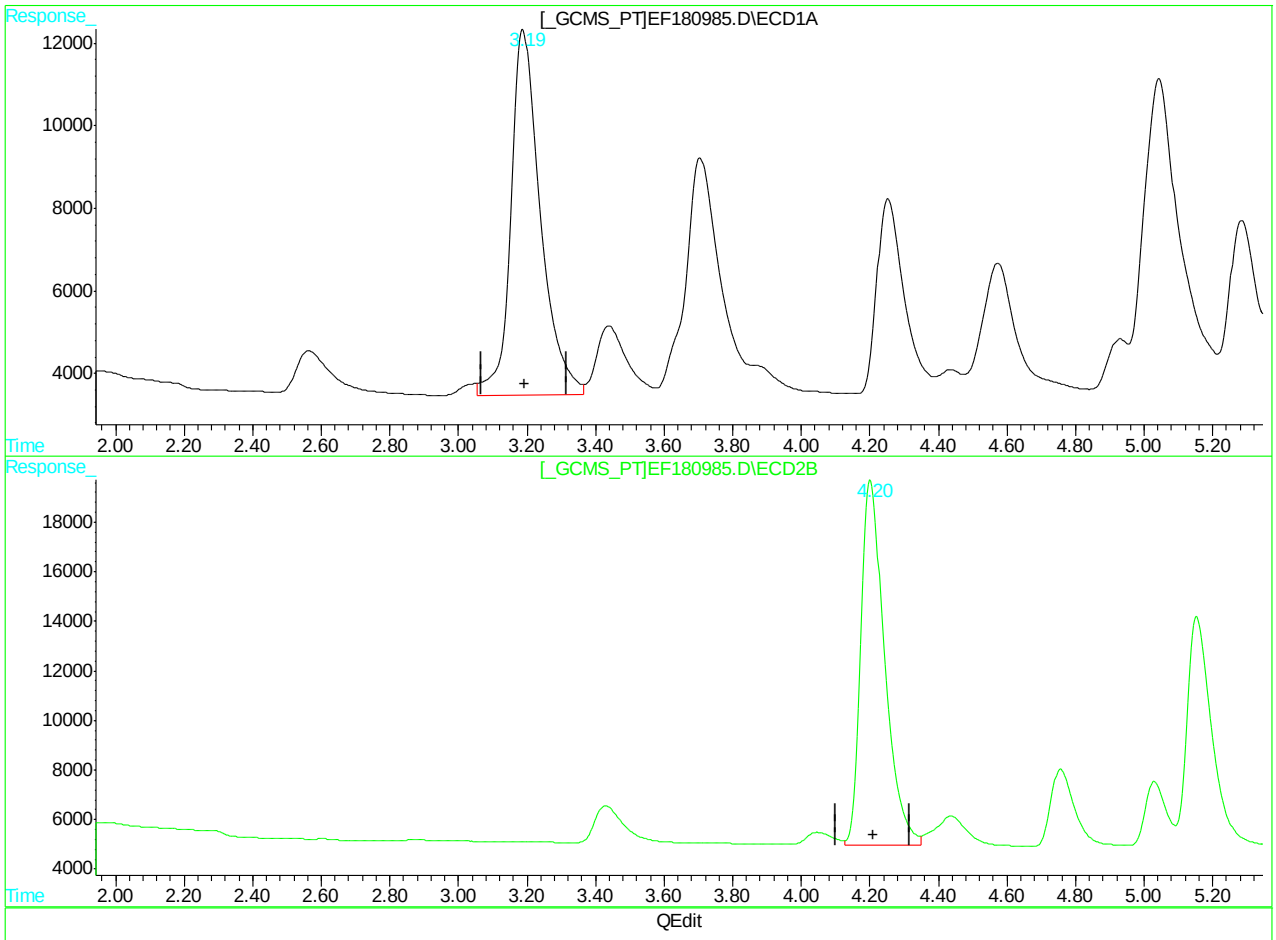
response 703383

(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:55:18 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 45.366PPB m

response 524475

(1) Tetrachloro-m-xylene #2 (S)

4.20min 45.179PPB

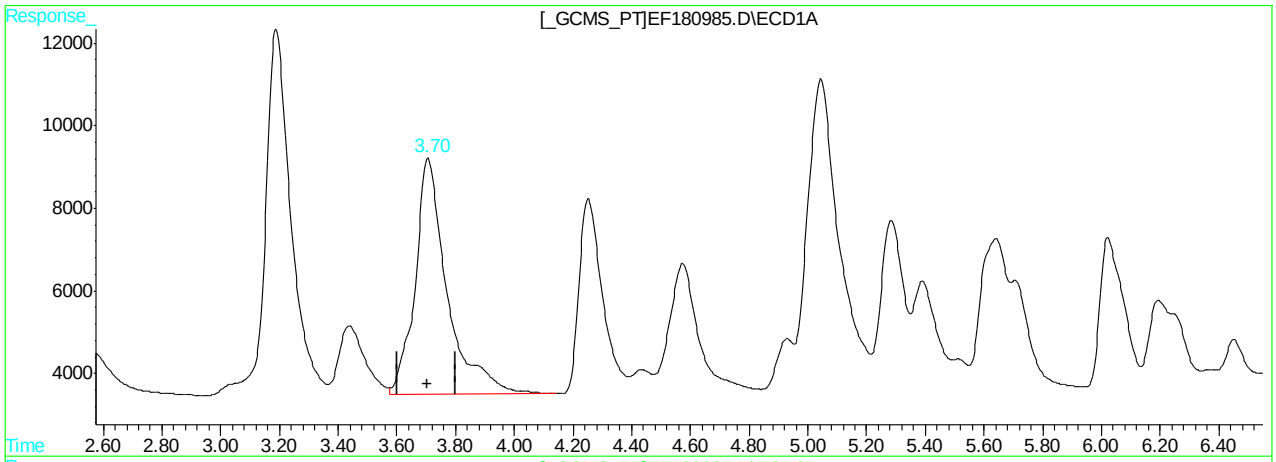
response 703383

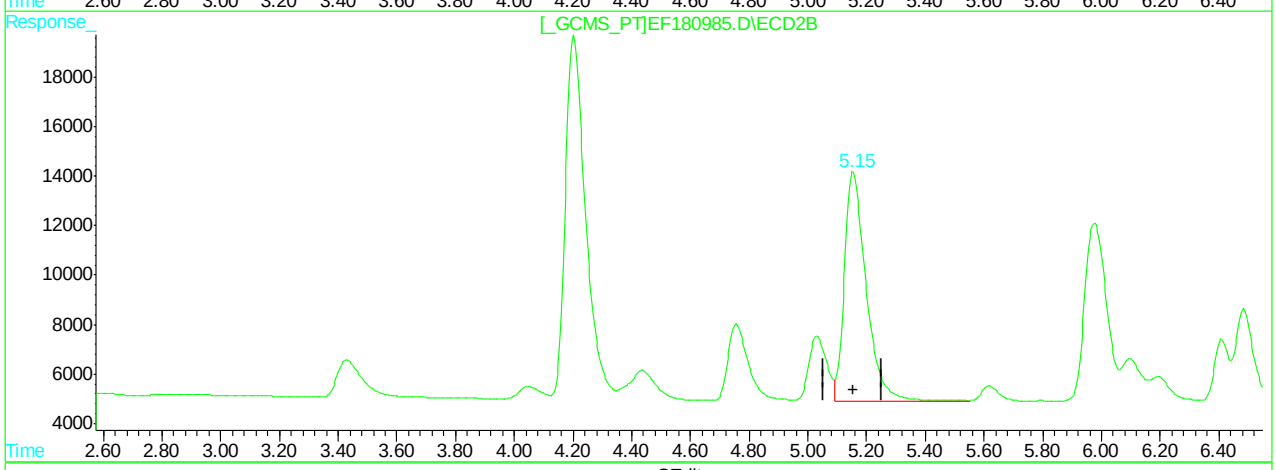
(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:55:30 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(7) AR1232-A

3.71min 1079.334PPB

response 436491

(7) AR1232-A #2

5.15min 988.763PPB

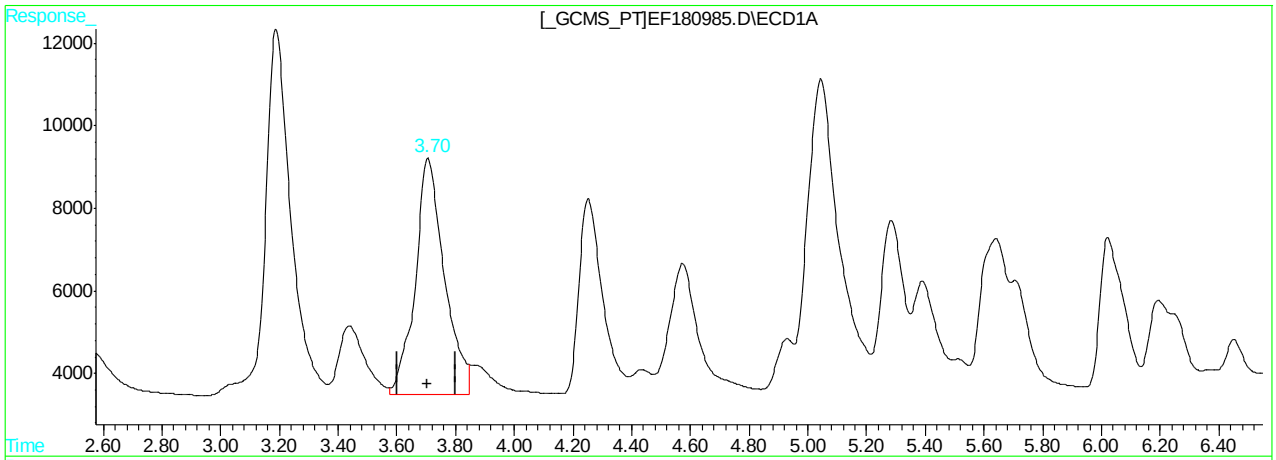
response 477984

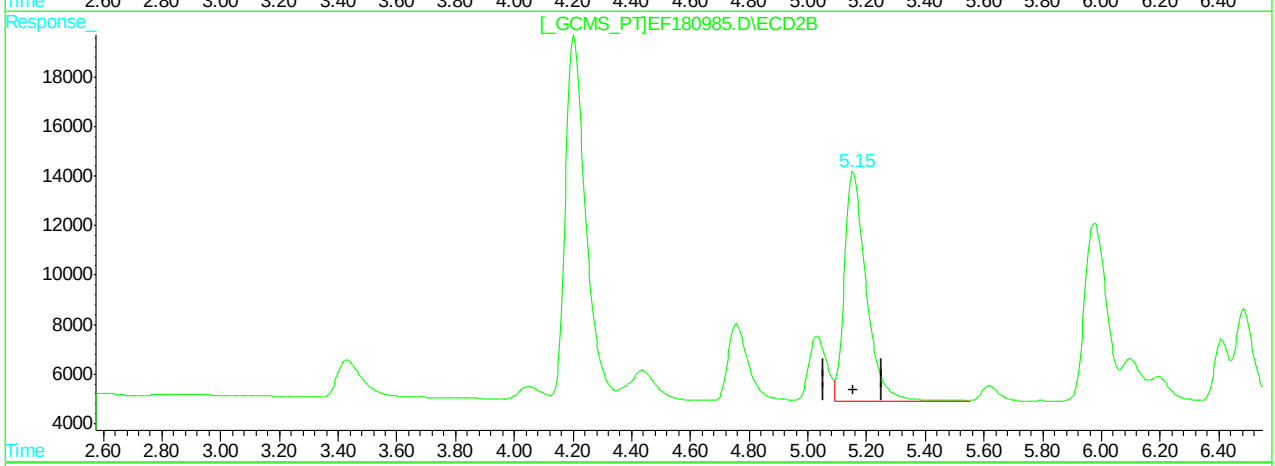
(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:55:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(7) AR1232-A

3.70min 977.532PPB m

response 395321

(7) AR1232-A #2

5.15min 988.763PPB

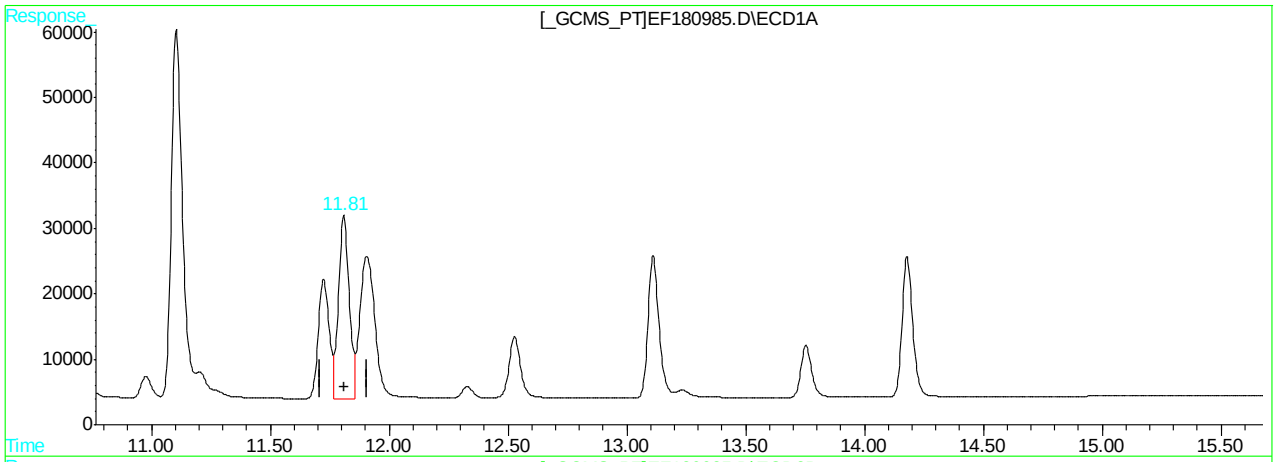
response 477984

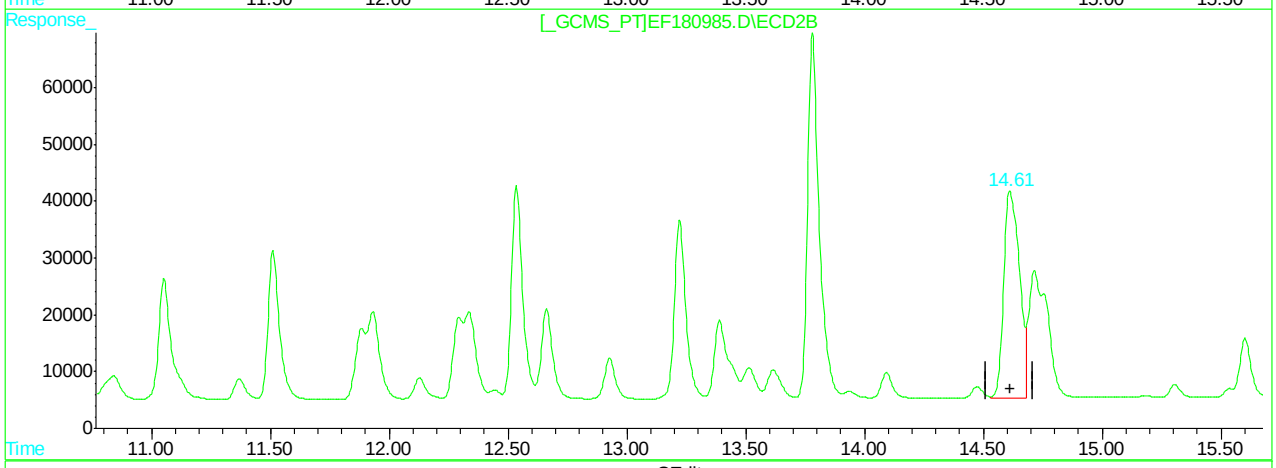
(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:56:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(35) AR1262-E

11.81min 367.376PPB

response 890617

(35) AR1262-E #2

14.61min 577.917PPB

response 1666648

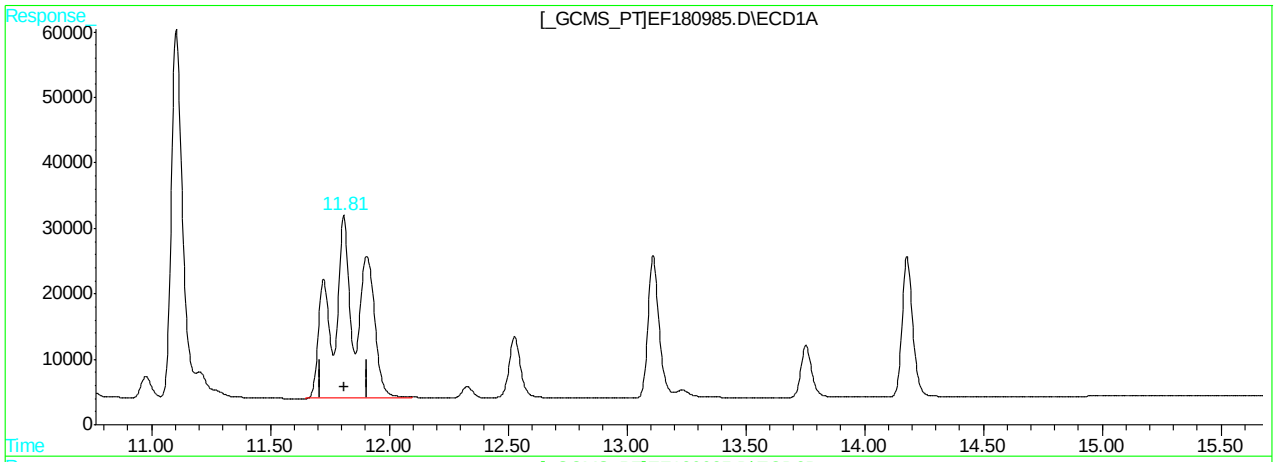
(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:56:21 2018 GCEF

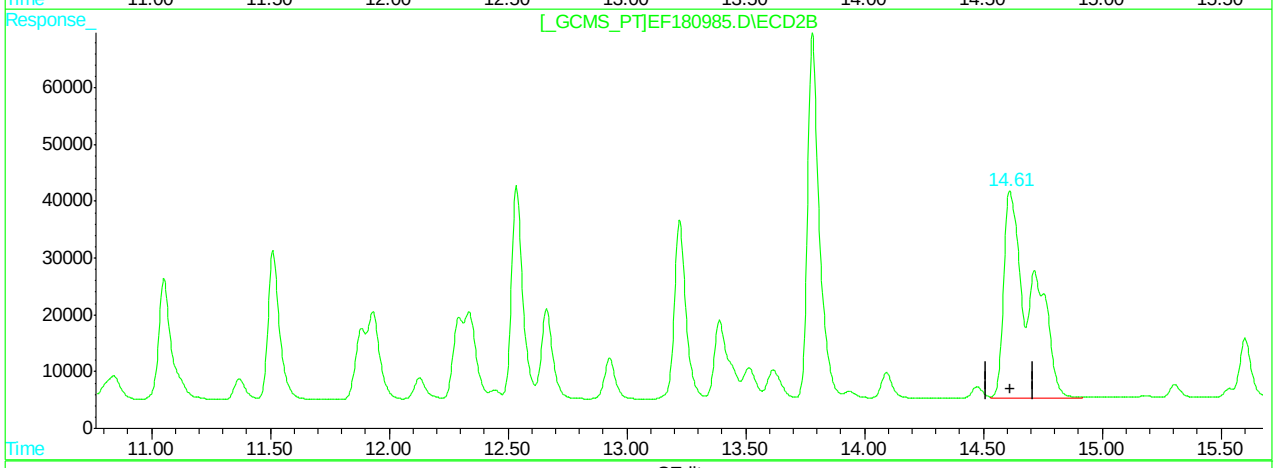
11.6.30.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(35) AR1262-E

11.81min 1001.599PPB m

response 2428147

(35) AR1262-E #2

14.61min 1010.019PPB m

response 2912782

(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:56:34 2018 GCEF

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD1A.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD2B.CH
Acq On : 19 Mar 2018 10:49 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	511368	722172	44.232	46.385
	Spiked Amount 40.000			Recovery	=	110.58%	115.96%
51) S	Decachlorobiphen	14.18	17.32	1704184	2052856	99.566	97.785
	Spiked Amount 40.000			Recovery	=	248.91%	244.46%
	Target Compounds						
12)	AR1242-A	4.25	5.98	448898	660002	959.325	969.222
13)	AR1242-B	5.04	6.92	996795	1290438	961.262	961.843
14)	AR1242-C	5.28	7.22	389150	564055	963.885	961.865
15)	AR1242-D	6.02	8.23	398757	390799	943.574	942.497
16)	AR1242-E	6.91	9.17	470247	514728	930.693	934.066
36)	AR1268-A	11.81	14.61	2123209	2490961	969.938	975.564
37)	AR1268-B	11.89	14.71	2224029	2688074	976.385	982.624
38)	AR1268-C	12.33	15.31	1767784	2146177	967.093	971.071
39)	AR1268-D	13.11	15.95	777585	946845	973.871	983.845
40)	AR1268-E	13.75	16.71	4747816	5868684	966.007	973.348

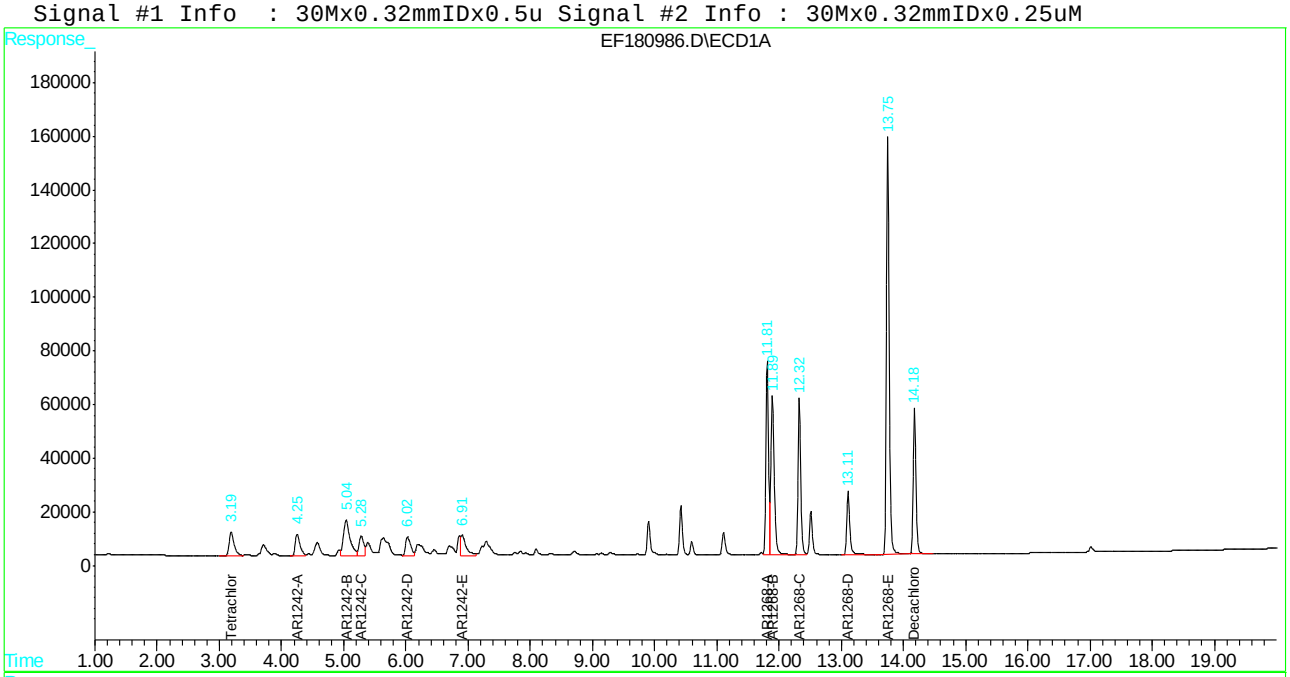
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180986.D PCB6195.M Tue Mar 20 15:59:42 2018 GCEF Page 1

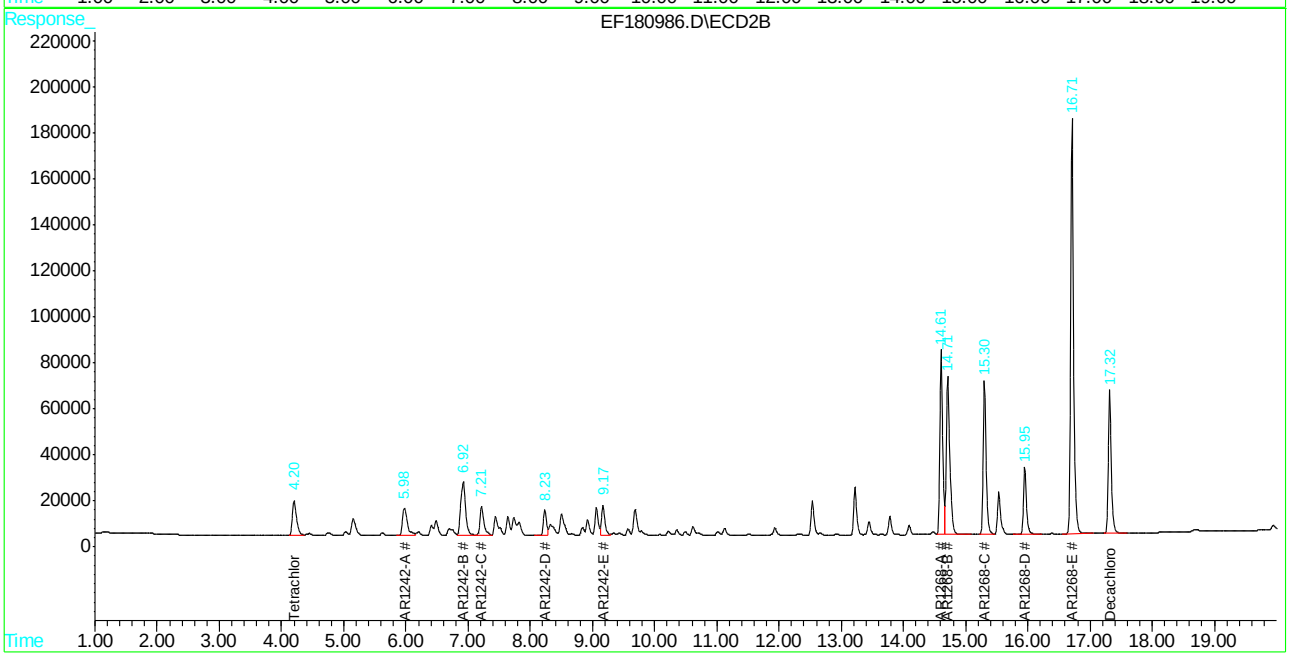
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD1A.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD2B.CH
Acq On : 19 Mar 2018 10:49 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 16:00 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	497552	736993	43.037	47.337
	Spiked Amount 40.000			Recovery =		107.59%	118.34%
51) S	Decachlorobiphen	14.18	17.32	704118	860316	41.138	40.980
	Spiked Amount 40.000			Recovery =		102.84%	102.45%
	Target Compounds						
17)	AR1248-A	4.25	5.97	227637	321735	926.106	924.139
18)	AR1248-B	5.04	6.92	679849	864093	973.009	980.247
19)	AR1248-C	5.63	7.64	678423	503158	983.300m	997.429
20)	AR1248-D	6.02	8.23	627783	611724	1004.855	1004.339
21)	AR1248-E	6.18	8.50	535719	693518	995.460m	1026.019
22)	AR1248-F	6.90	9.16	757058	919702	1069.934	1042.821
23)	AR1248-G	7.28	9.69	526907	811006	1052.635m	1057.929

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180987.D PCB6195.M Tue Mar 20 16:01:06 2018 GCEF Page 1

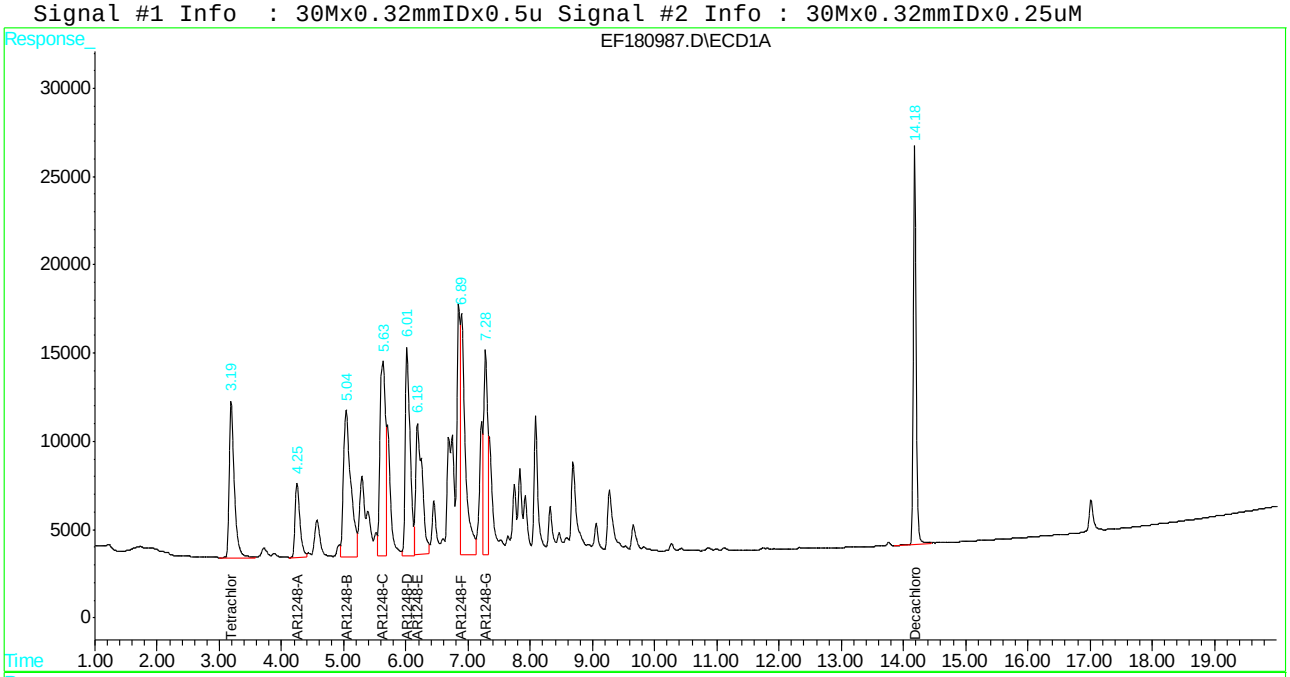
11.6.32 11

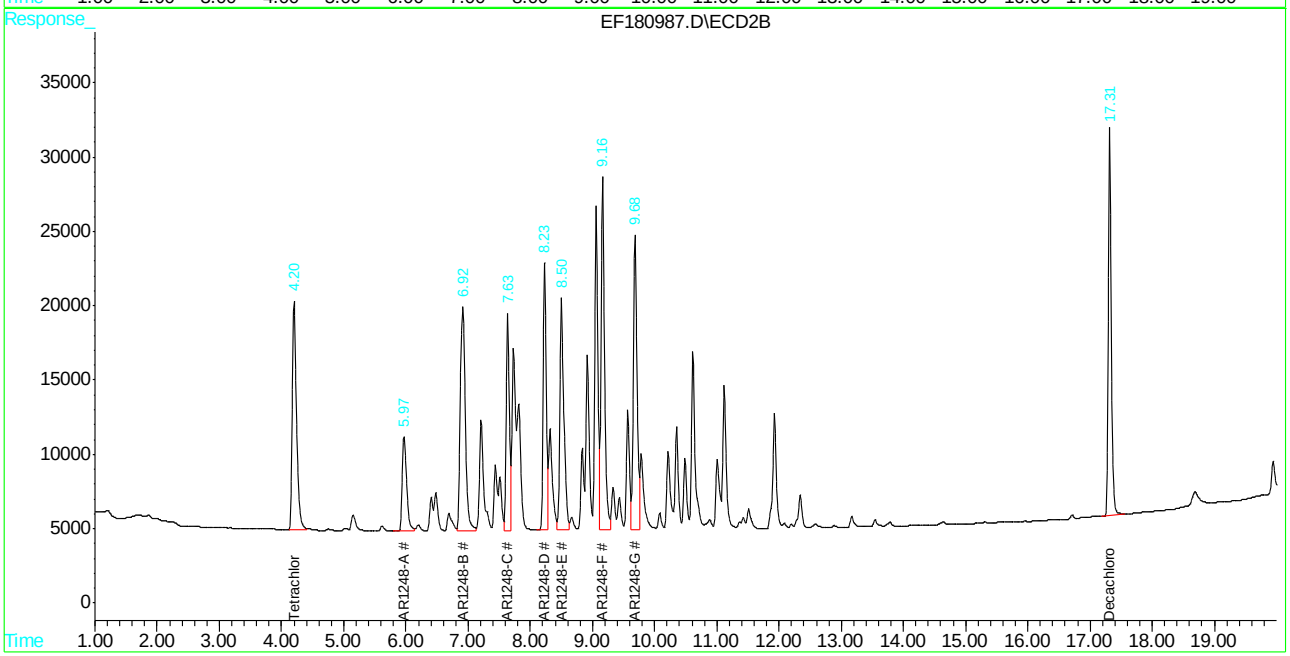
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 16:00 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62881

Manual Integration Approval Summary

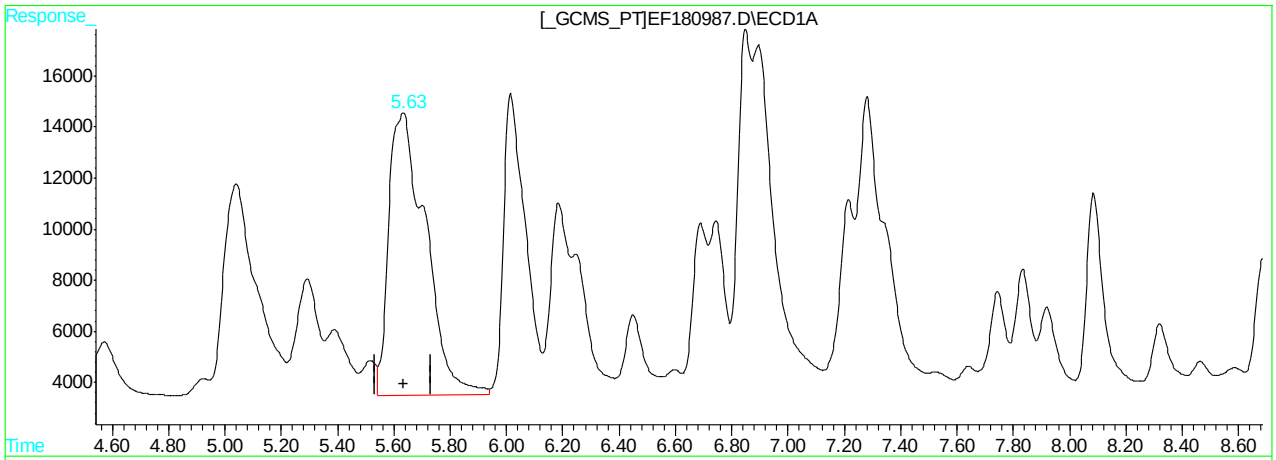
Sample Number:	GEF6195-ICV6195	**Method:**	SW846 8082A
Lab FileID:	EF180987.D	**Analyst approved:**	03/20/18 16:10 Tianwei Ruan
Injection Time:	03/19/18 23:14	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

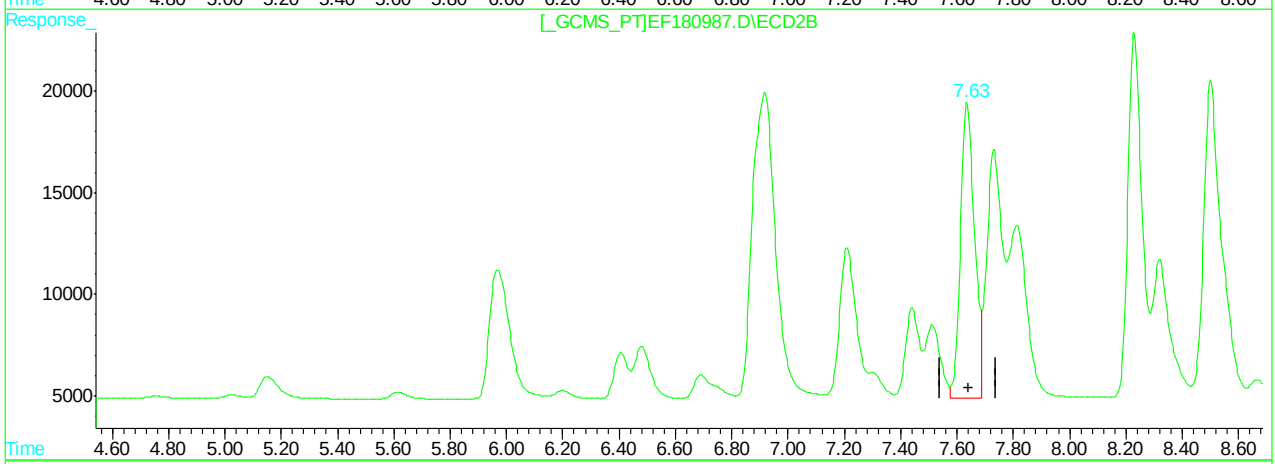
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	5.63	Split peak
AR1248-E		1	6.18	Split peak
Ar1248-G		1	7.28	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(19) AR1248-C

5.63min 1456.143PPB

response 1004659

(19) AR1248-C #2

7.64min 997.429PPB

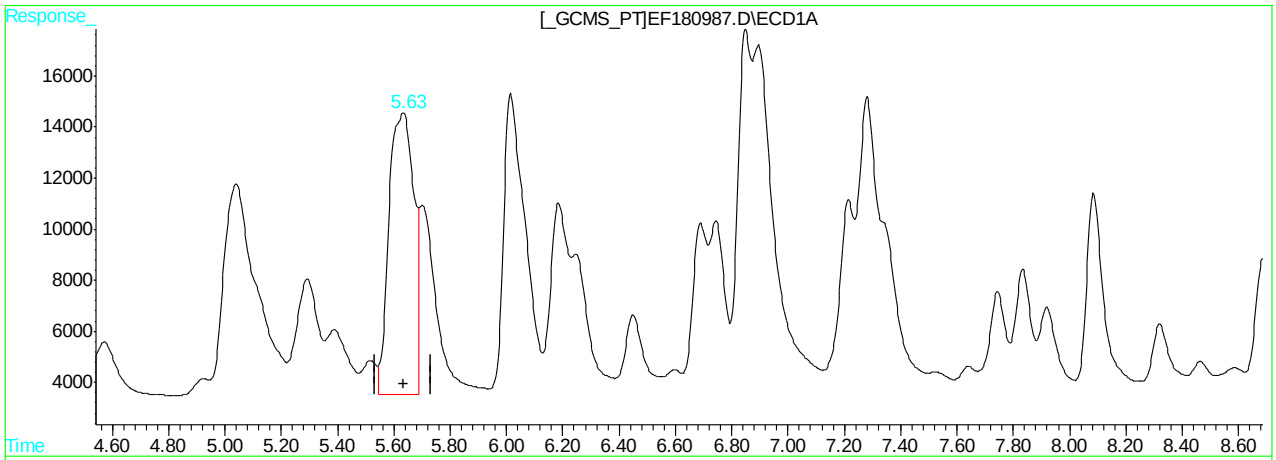
response 503158

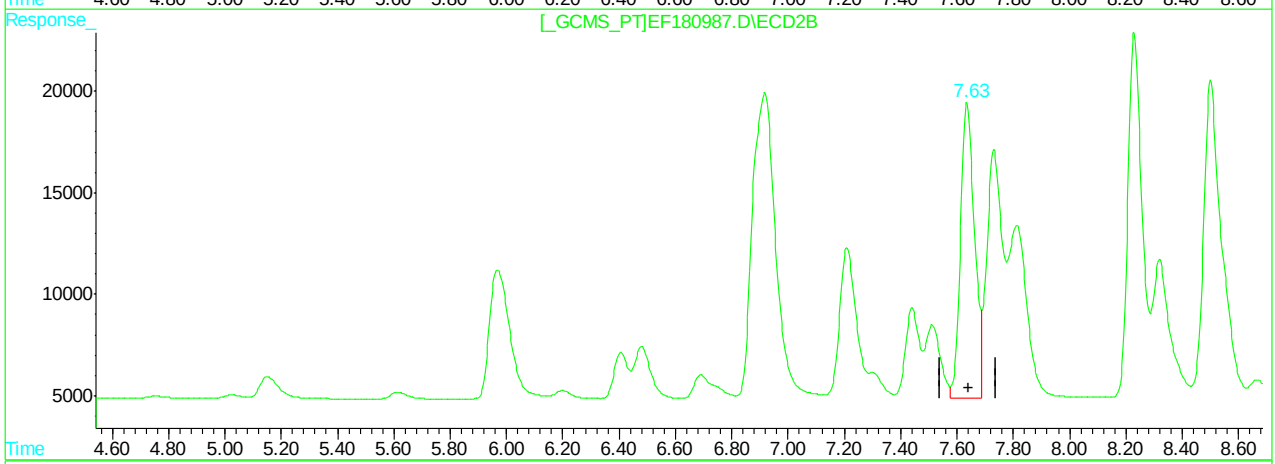
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(19) AR1248-C

5.63min 983.300PPB m

response 678423

(19) AR1248-C #2

7.64min 997.429PPB

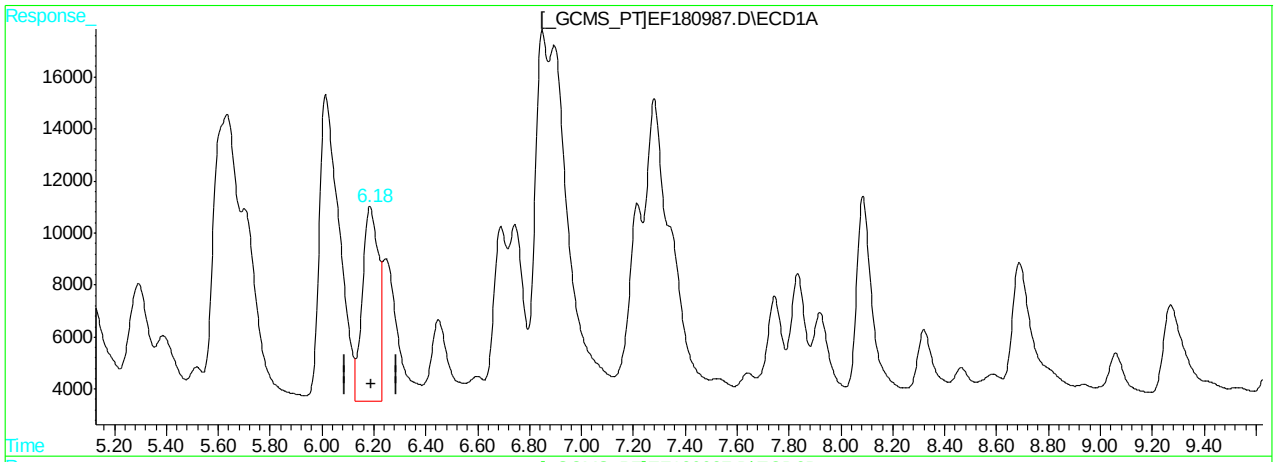
response 503158

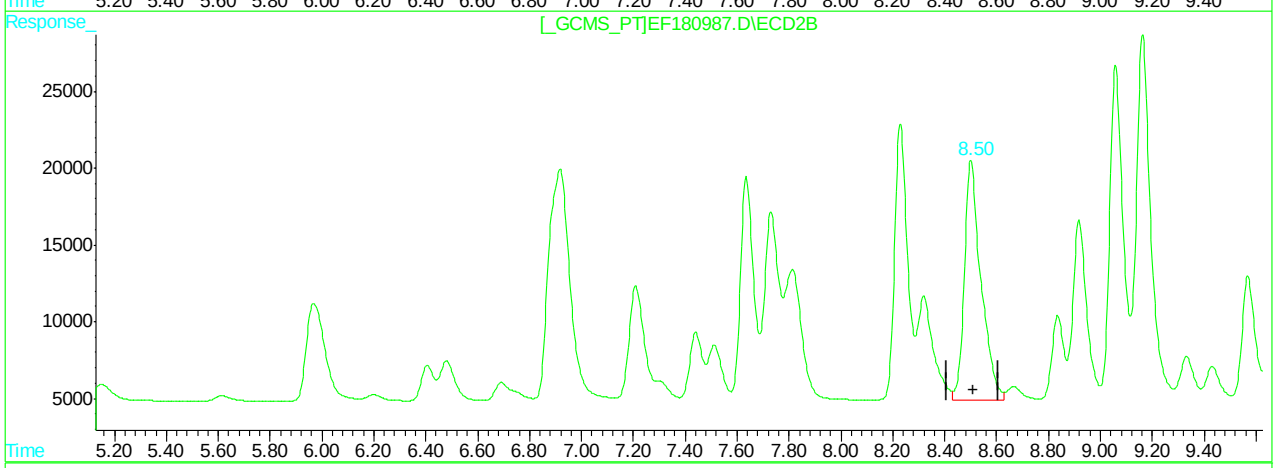
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:23 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.19min 608.192PPB

response 327306

(21) AR1248-E #2

8.50min 1026.019PPB

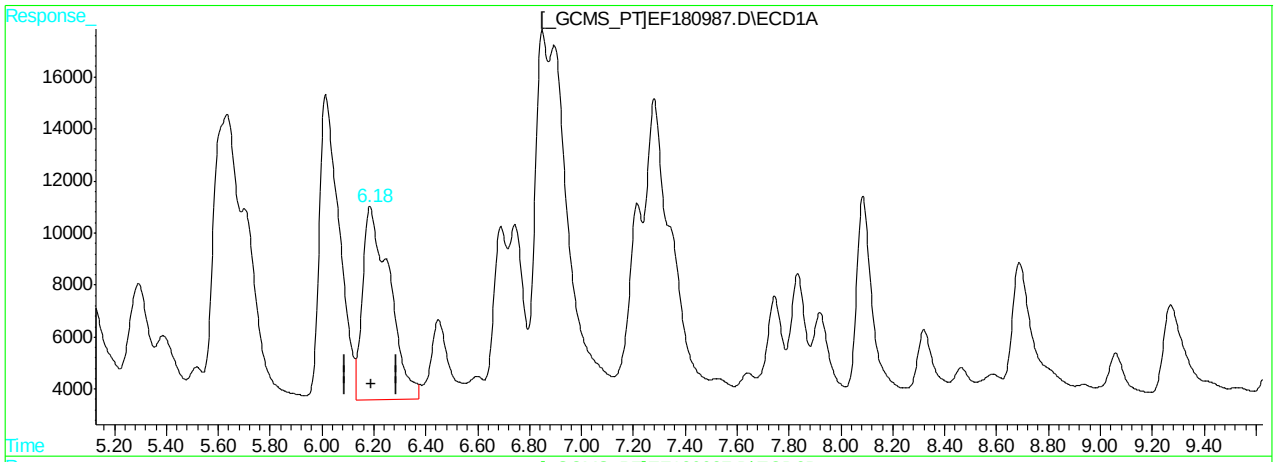
response 693518

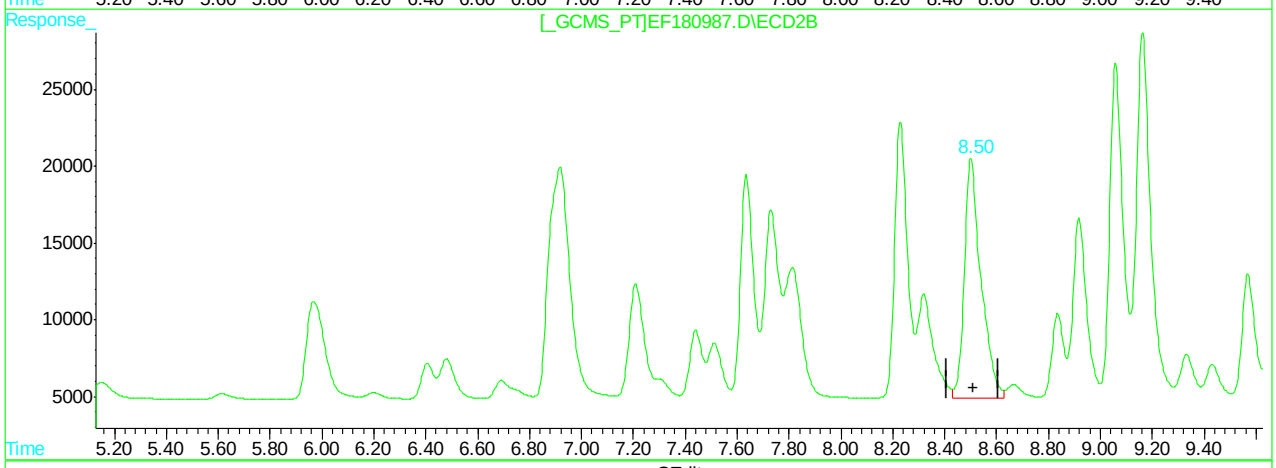
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:30 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.18min 995.460PPB m

response 535719

(21) AR1248-E #2

8.50min 1026.019PPB

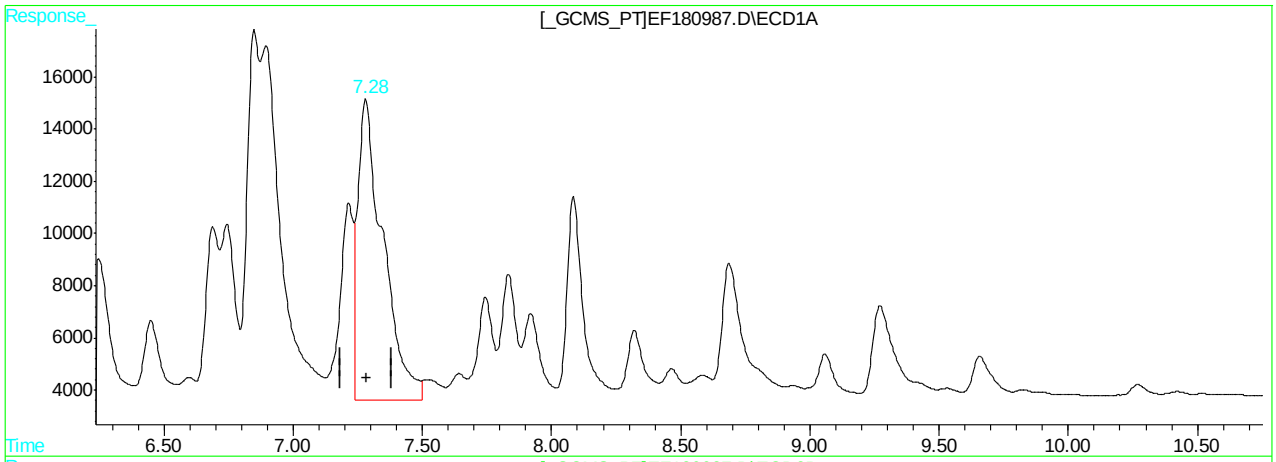
response 693518

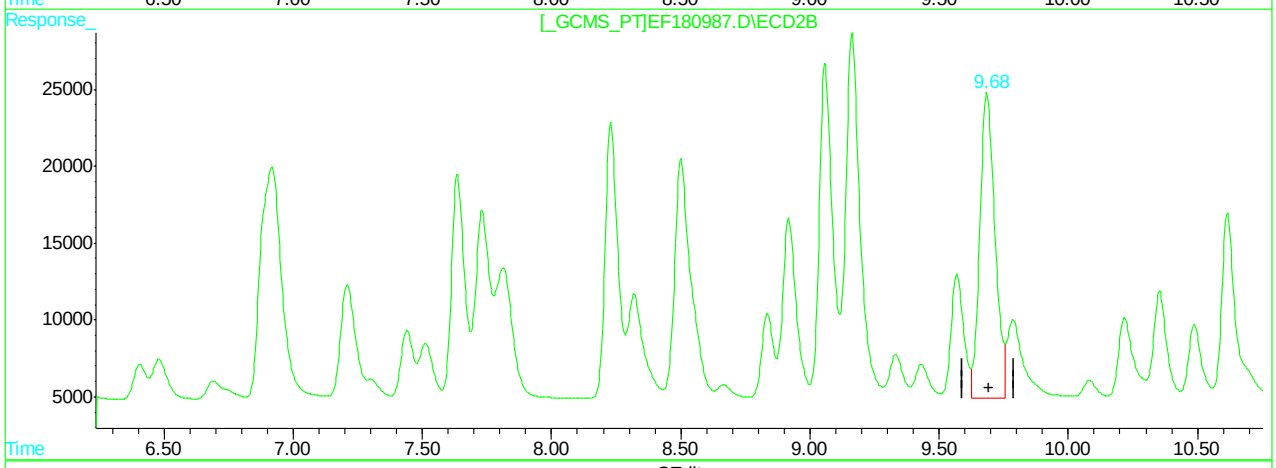
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:38 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(23) AR1248-G

7.28min 1585.937PPB

response 793857

(23) AR1248-G #2

9.69min 1057.929PPB

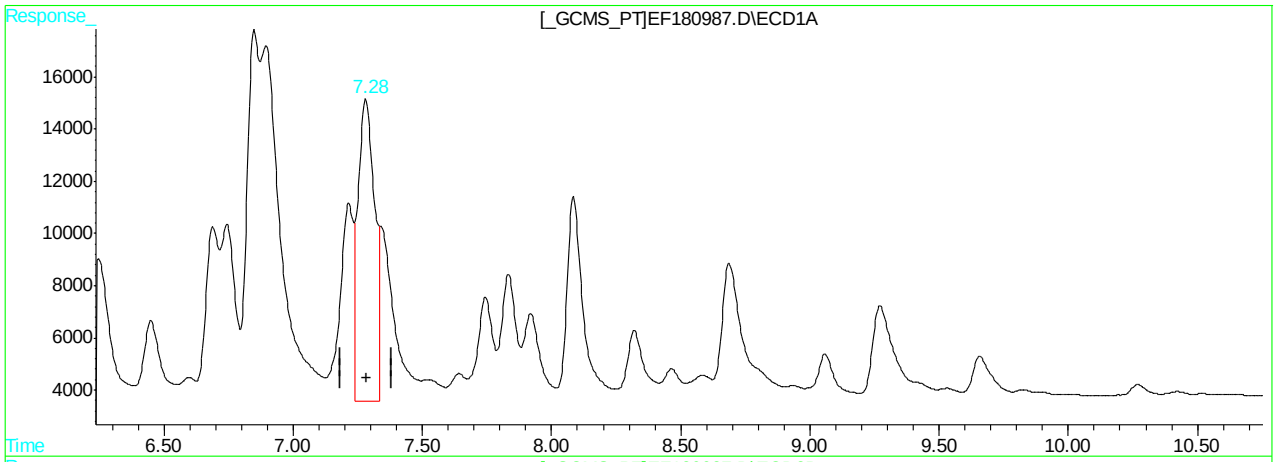
response 811006

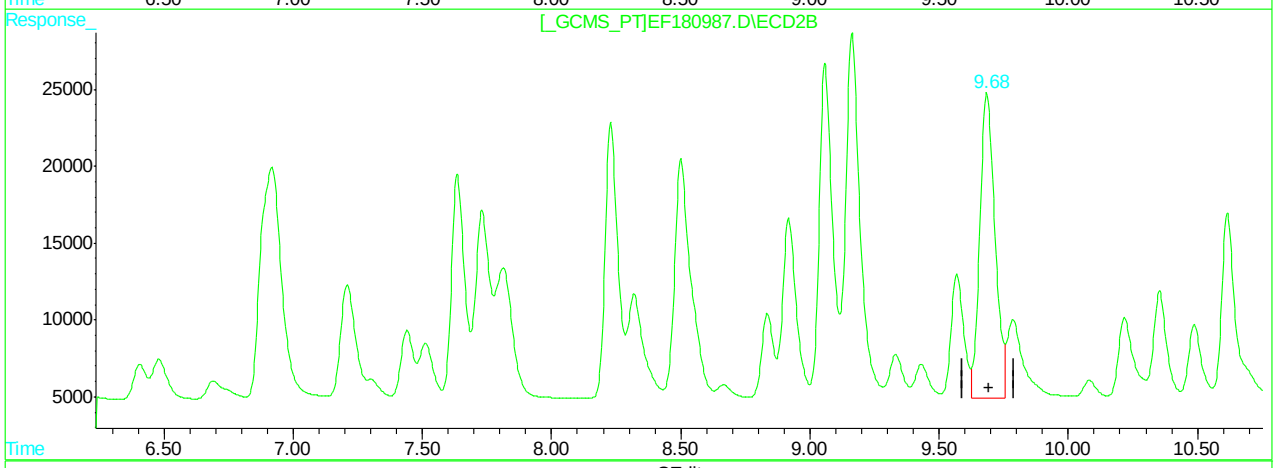
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:45 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(23) AR1248-G

7.28min 1052.635PPB m

response 526907

(23) AR1248-G #2

9.69min 1057.929PPB

response 811006

(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:59 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:40 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.21	4.22	495853	670874	42.890	43.091
	Spiked Amount 40.000			Recovery =		107.22%	107.73%
51) S	Decachlorobiphen	14.19	17.32	739970	845493	43.232	40.274
	Spiked Amount 40.000			Recovery =		108.08%	100.69%
	Target Compounds						
41)	AR1016-A	3.75	5.17	309908	422462	978.202	1030.946
42)	AR1016-B	4.28	5.99	579392	753075	1050.731	935.064
43)	AR1016-C	5.08	6.94	1243904	1601598	1013.222m	997.038
44)	AR1016-D	5.32	7.24	513879	723803	1079.311	1053.867
45)	AR1016-E	6.05	8.25	529020	484265	1070.356	1008.663
46)	AR1260-A	9.67	12.35	1421283	1833854	1043.797	1029.073
47)	AR1260-B	9.92	12.54	781937	819985	1189.505	1017.570
48)	AR1260-C	10.45	13.23	616762	876582	1003.131	1018.455
49)	AR1260-D	11.13	13.79	1763580	1829280	1125.290	1020.216
50)	AR1260-E	11.75	14.65	1734352	1971023	1123.744m	1056.500m

11.6.33 11

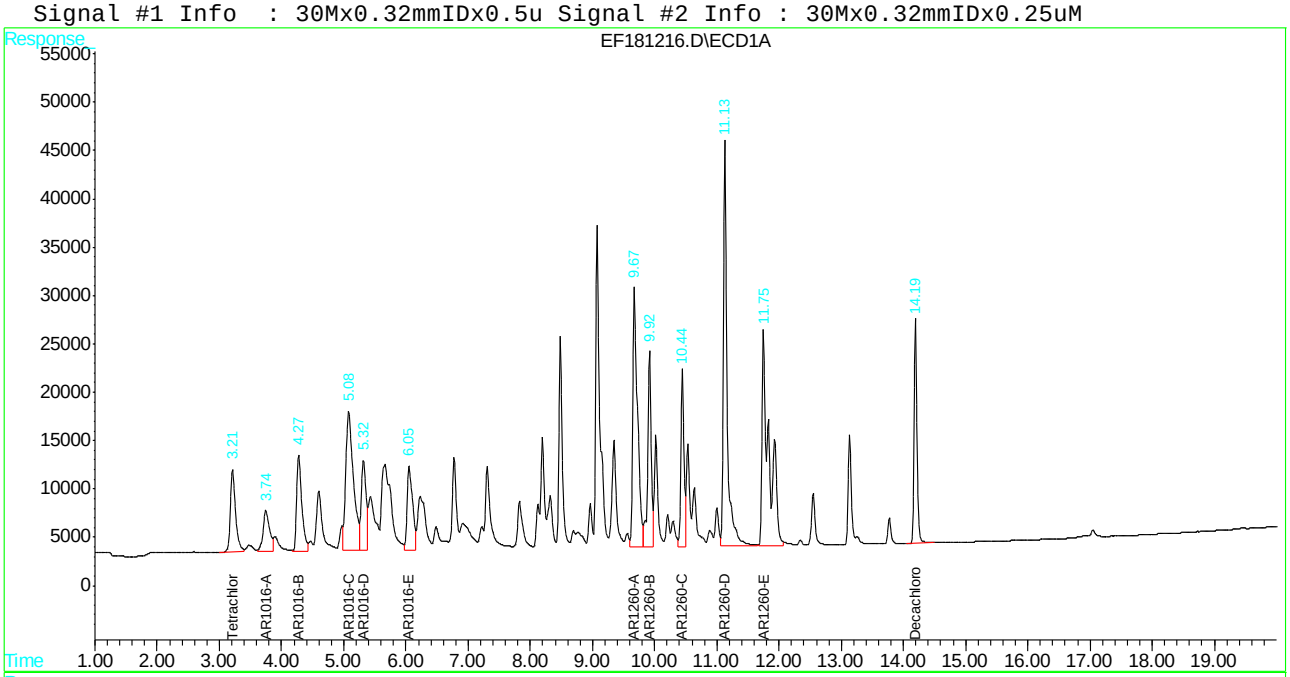
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181216.D PCB6195.M Thu Mar 29 08:40:47 2018 GCEF Page 1

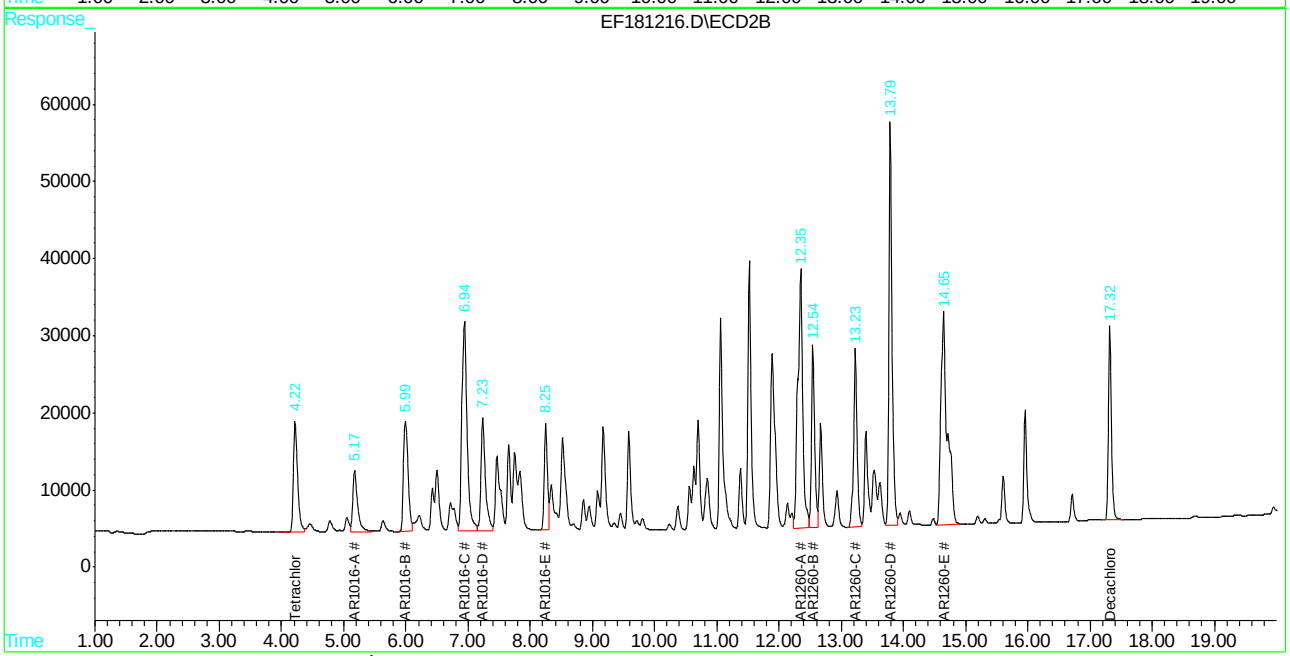
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:40 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integration Approval Summary

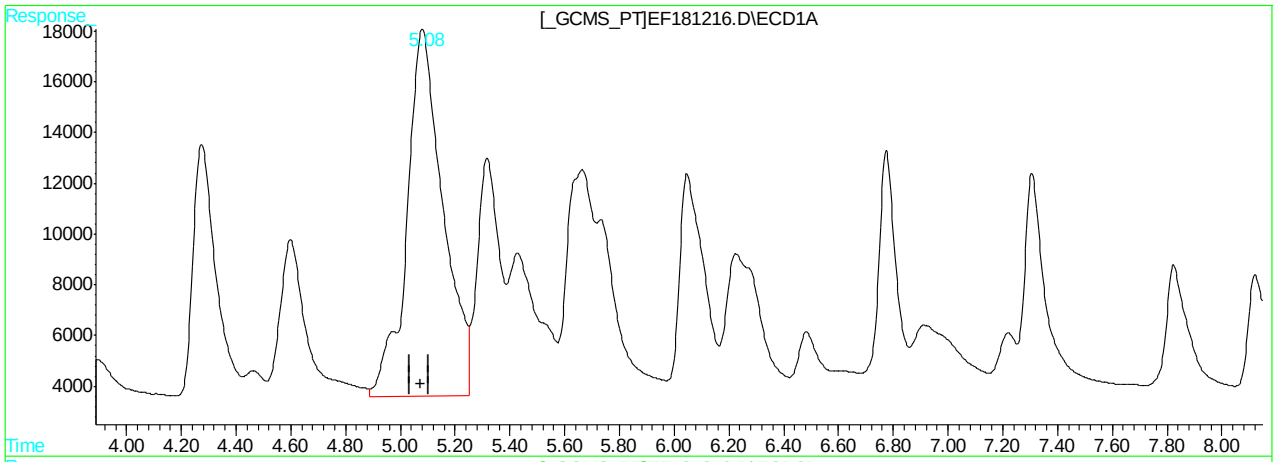
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181216.D	**Analyst approved:**	03/29/18 08:49 Tianwei Ruan
Injection Time:	03/28/18 16:59	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

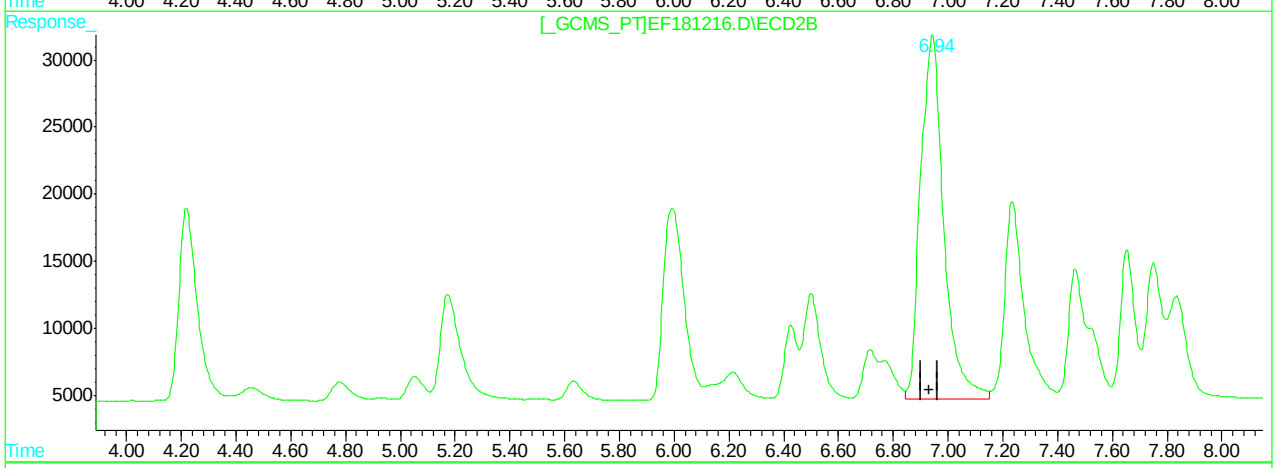
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.08	Split peak
AR1260-E		1	11.75	Split peak
AR1260-E		2	14.65	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.08min 1081.353PPB

response 1327546

(43) AR1016-C #2

6.94min 997.038PPB

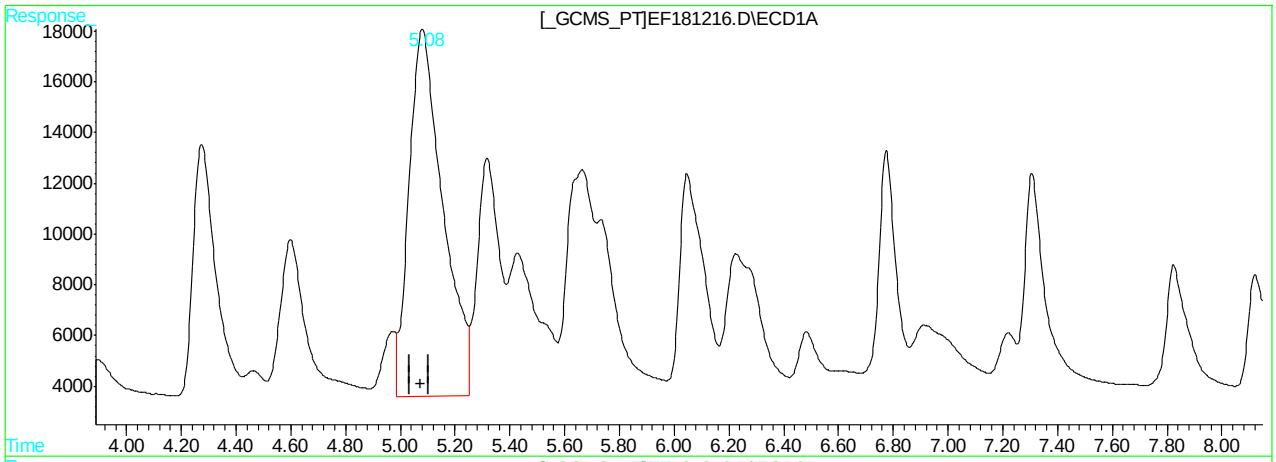
response 1601598

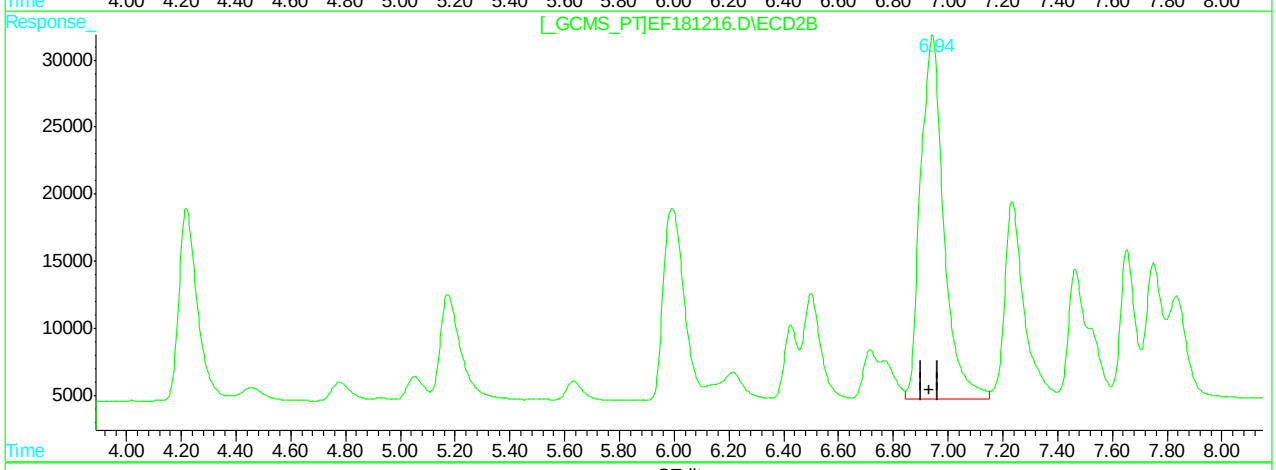
(+) = Expected Retention Time
EF181216.D PCB6195.M Thu Mar 29 08:40:14 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.08min 1013.222PPB m

response 1243904

(43) AR1016-C #2

6.94min 997.038PPB

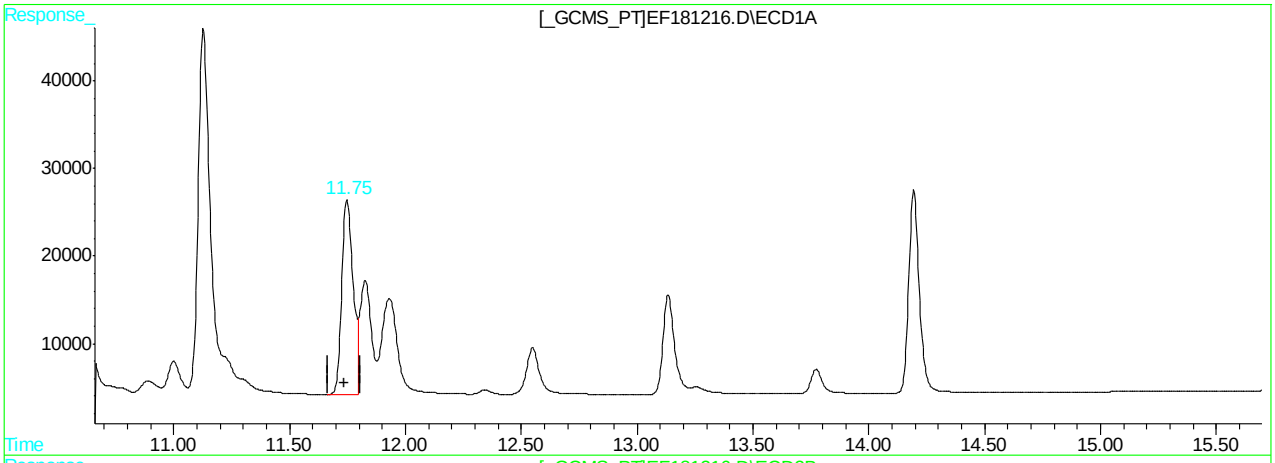
response 1601598

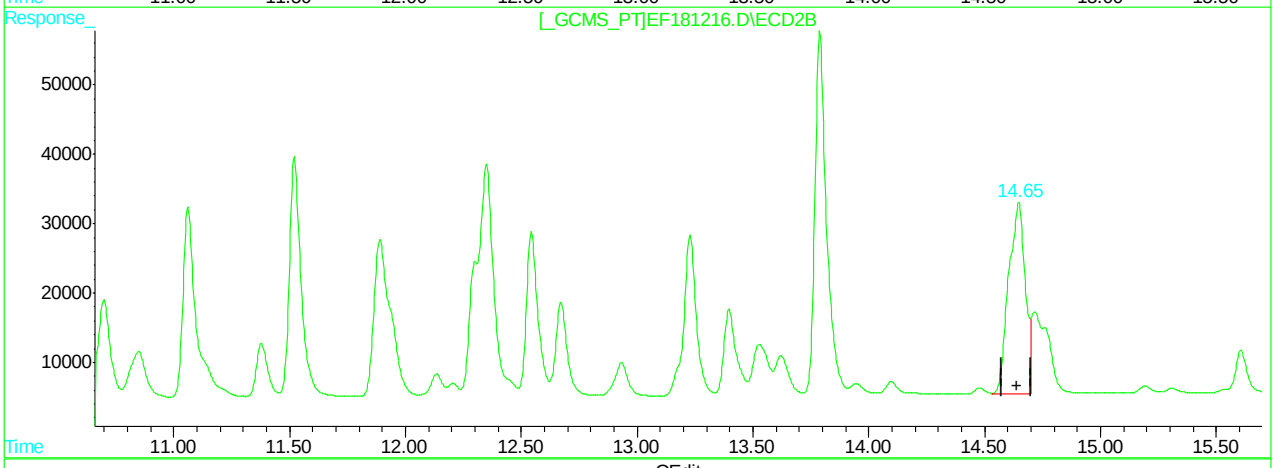
(+) = Expected Retention Time
EF181216.D PCB6195.M Thu Mar 29 08:40:20 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 488.496PPB

response 753929

(50) AR1260-E #2

14.65min 728.769PPB

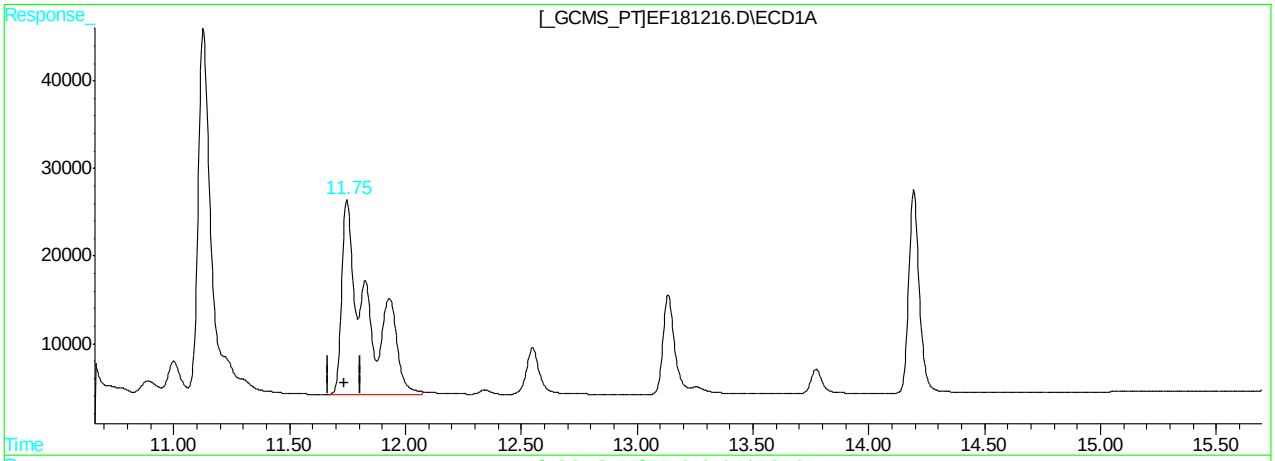
response 1359603

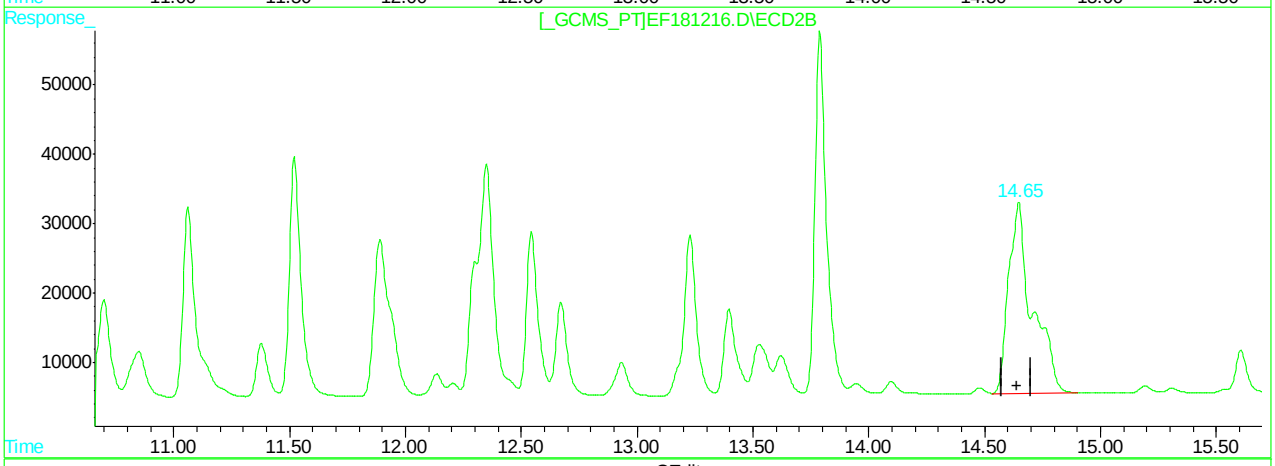
(+) = Expected Retention Time
EF181216.D PCB6195.M Thu Mar 29 08:40:31 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 1123.744PPB m

response 1734352

(50) AR1260-E #2

14.65min 1056.500PPB m

response 1971023

(+) = Expected Retention Time
EF181216.D PCB6195.M Thu Mar 29 08:40:41 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:46 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.22	4.22	240524	324774	20.805	20.860
	Spiked Amount 40.000			Recovery =		52.01%	52.15%
51) S	Decachlorobiphen	14.20	17.32	398195	480097	23.264	22.869
	Spiked Amount 40.000			Recovery =		58.16%	57.17%
	Target Compounds						
41)	AR1016-A	3.76	5.18	151384	218085	477.832	532.199
42)	AR1016-B	4.28f	6.00f	304349	413985	551.939	514.029
43)	AR1016-C	5.10f	6.95f	613504	861084	499.730m	536.048
44)	AR1016-D	5.33f	7.24f	271979	387084	571.244	563.600
45)	AR1016-E	6.06f	8.25	276643	261962	559.726	545.633
46)	AR1260-A	9.68	12.36	755607	989643	554.921	555.341
47)	AR1260-B	9.92	12.55	392346	455376	596.848	565.103
48)	AR1260-C	10.45	13.23	334596	478051	544.203	555.422
49)	AR1260-D	11.14	13.79	933540	995314	595.666	555.101
50)	AR1260-E	11.76	14.65	893445	1055504	578.893m	565.767m

11.6.34
11

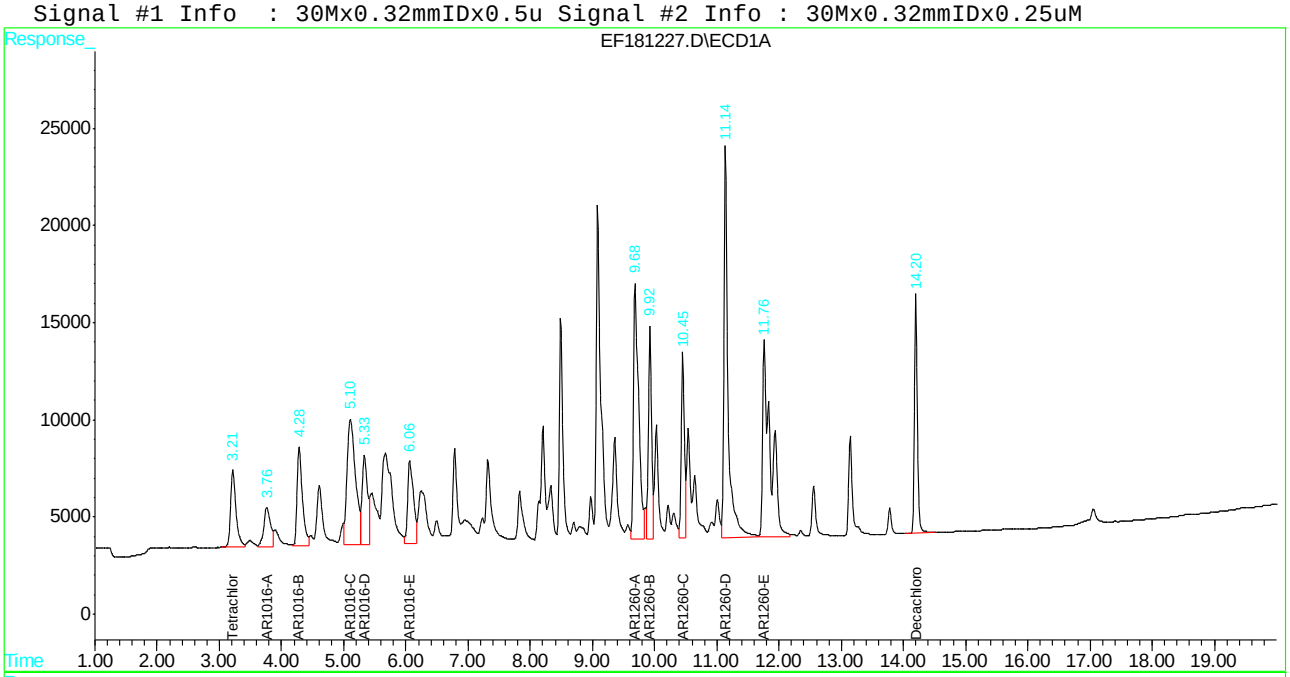
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181227.D PCB6195.M Thu Mar 29 08:46:39 2018 GCEF Page 1

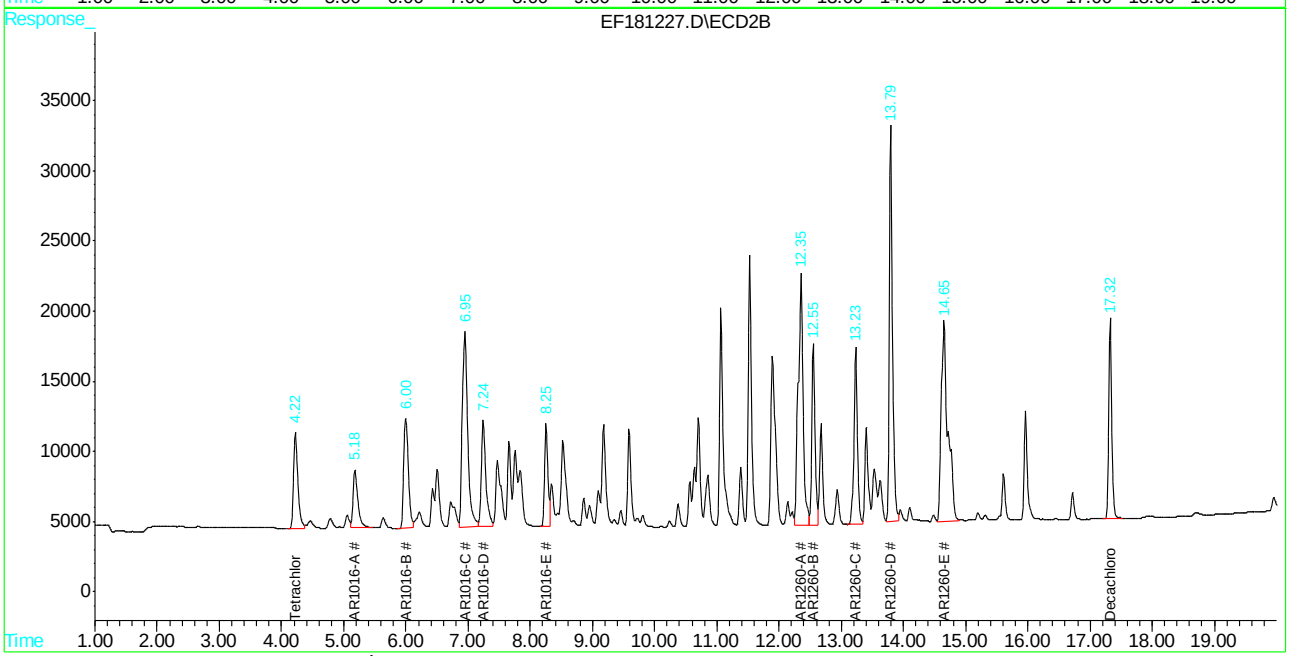
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:46 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62881

Manual Integration Approval Summary

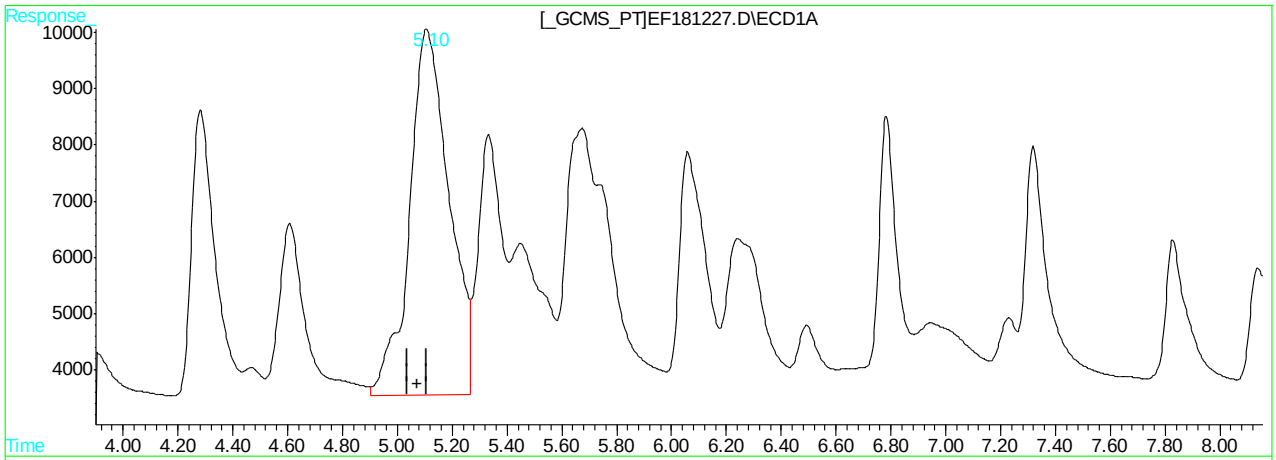
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181227.D	**Analyst approved:**	03/29/18 09:38 Tianwei Ruan
Injection Time:	03/28/18 21:34	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

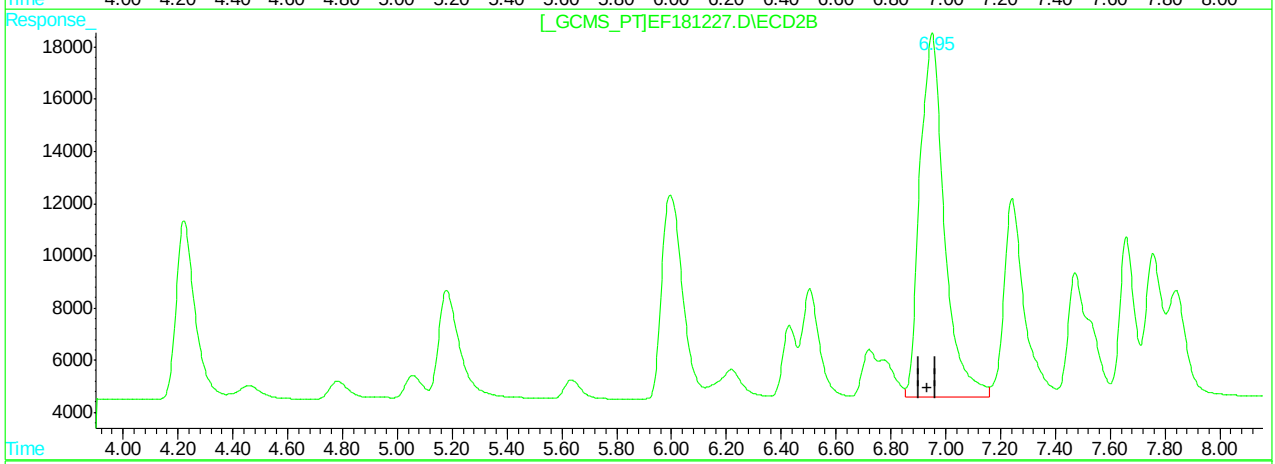
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.10	Split peak
AR1260-E		1	11.76	Split peak
AR1260-E		2	14.65	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.11min 531.395PPB

response 652378

(43) AR1016-C #2

6.95min 536.048PPB

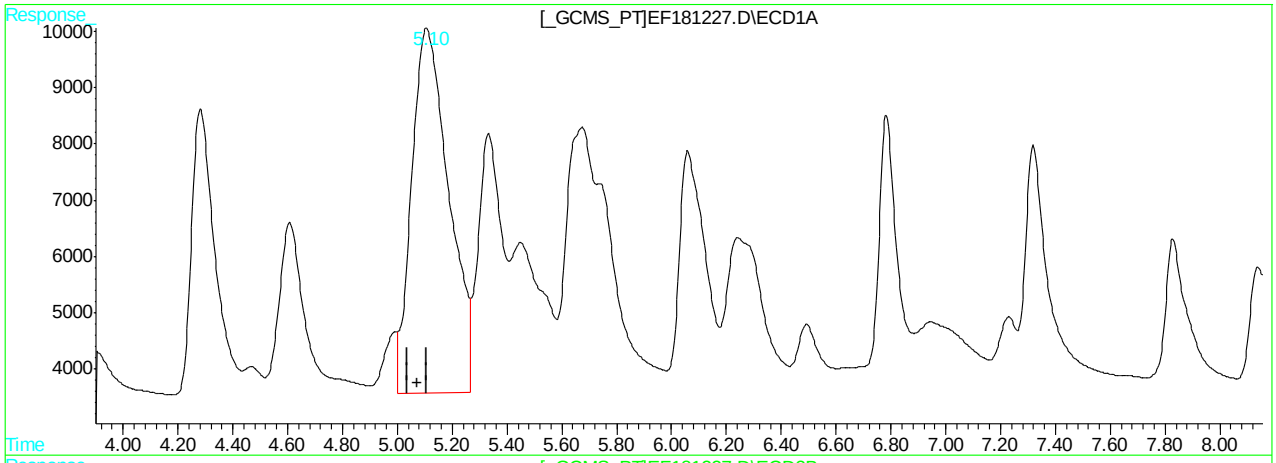
response 861084

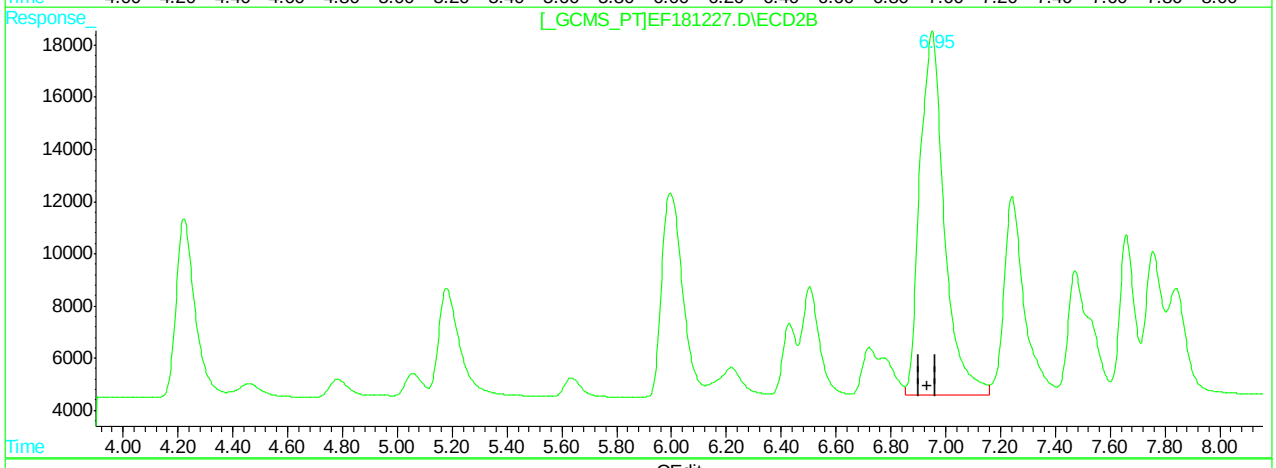
(+) = Expected Retention Time
EF181227.D PCB6195.M Thu Mar 29 08:46:06 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 499.730PPB m

response 613504

(43) AR1016-C #2

6.95min 536.048PPB

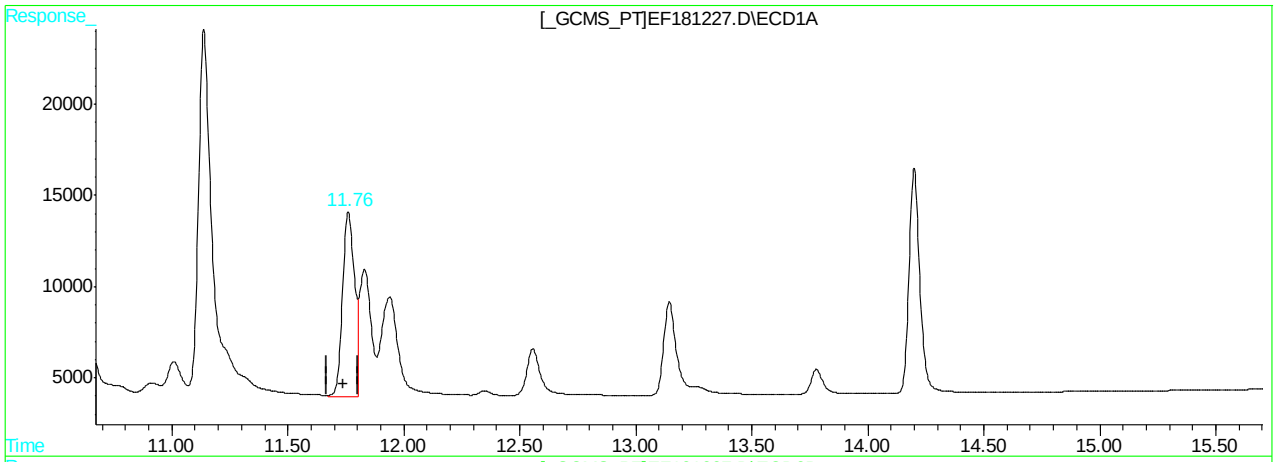
response 861084

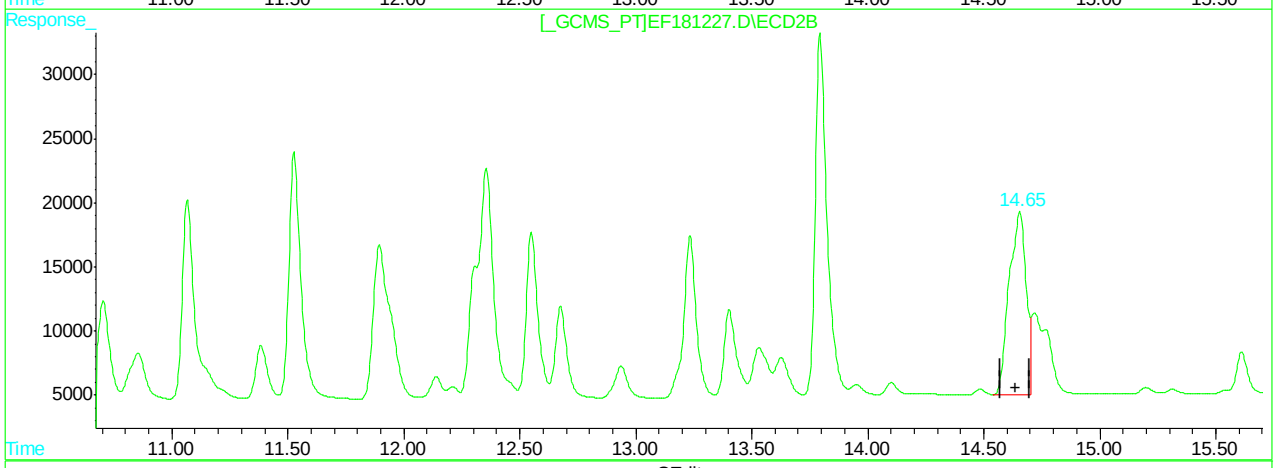
(+) = Expected Retention Time
EF181227.D PCB6195.M Thu Mar 29 08:46:14 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 233.223PPB

response 359949

(50) AR1260-E #2

14.66min 388.367PPB

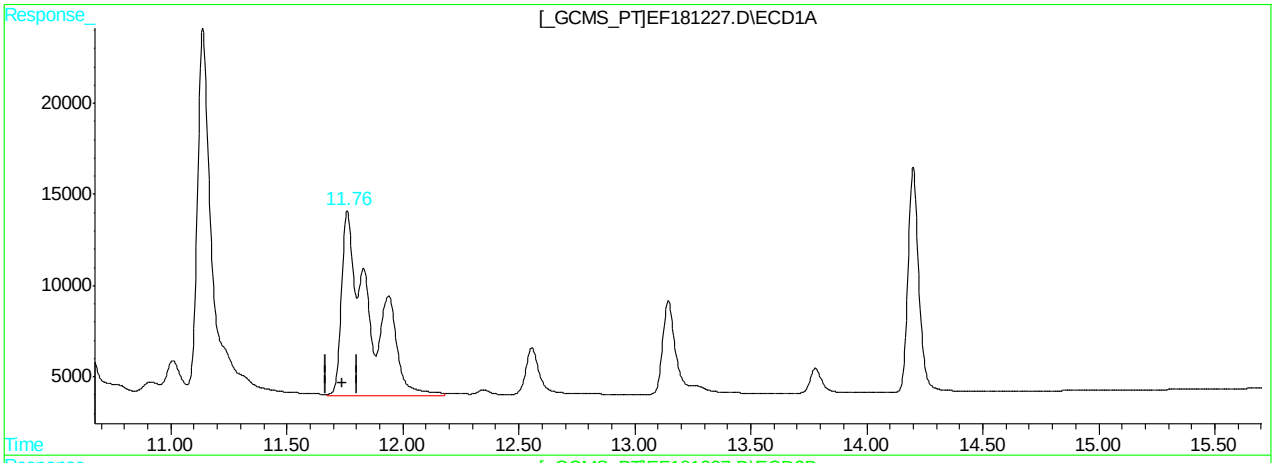
response 724544

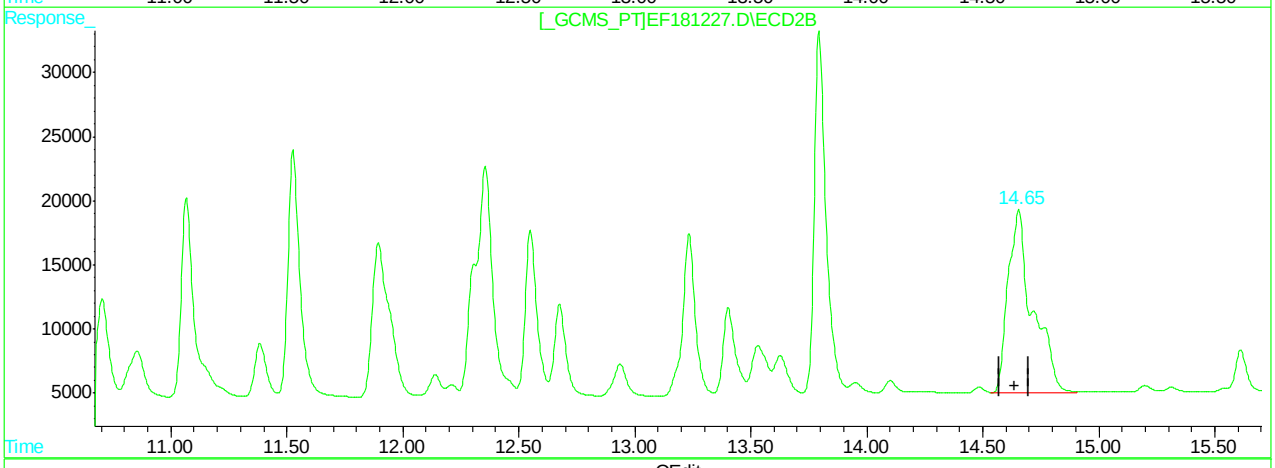
(+) = Expected Retention Time
EF181227.D PCB6195.M Thu Mar 29 08:46:22 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 578.893PPB m

response 893445

(50) AR1260-E #2

14.65min 565.767PPB m

response 1055504

(+) = Expected Retention Time
EF181227.D PCB6195.M Thu Mar 29 08:46:33 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:48 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.22	4.22	502573	674689	43.472	43.336
	Spiked Amount 40.000			Recovery =		108.68%	108.34%
51) S	Decachlorobiphen	14.19	17.32	767635	917538	44.848	43.706
	Spiked Amount 40.000			Recovery =		112.12%	109.27%
	Target Compounds						
41)	AR1016-A	3.75	5.18	313657	418734	990.035	1021.847
42)	AR1016-B	4.28	5.99	590833	765108	1071.481	950.004
43)	AR1016-C	5.09	6.94	1252187	1625616	1019.969m	1011.990
44)	AR1016-D	5.32	7.24	521357	736209	1095.018	1071.931
45)	AR1016-E	6.05	8.25	542982	491293	1098.605	1023.300
46)	AR1260-A	9.68	12.35	1451557	1898303	1066.030	1065.238
47)	AR1260-B	9.92	12.54	731480	851690	1112.748	1056.914
48)	AR1260-C	10.45	13.23	626539	913462	1019.032	1061.303
49)	AR1260-D	11.13	13.79	1819684	1930661	1161.089	1076.757
50)	AR1260-E	11.75	14.65	1762500	2092235	1141.982m	1121.471

11.6.35 11

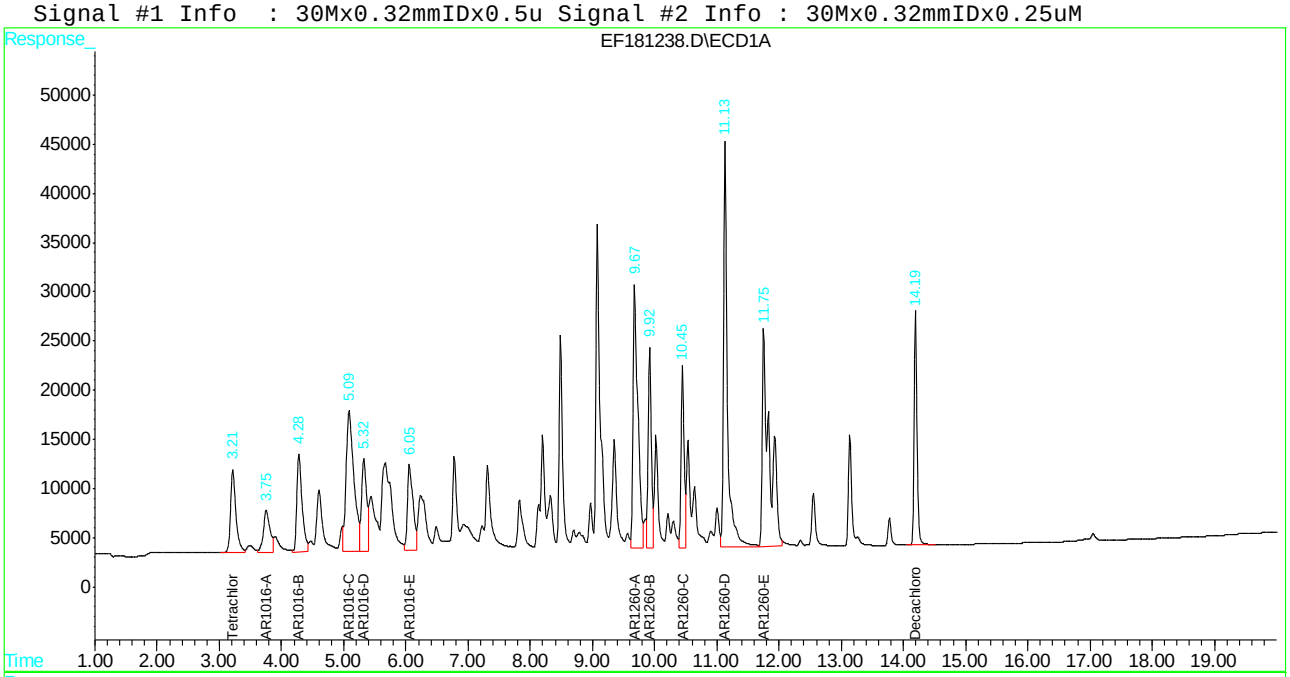
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181238.D PCB6195.M Thu Mar 29 08:48:42 2018 GCEF Page 1

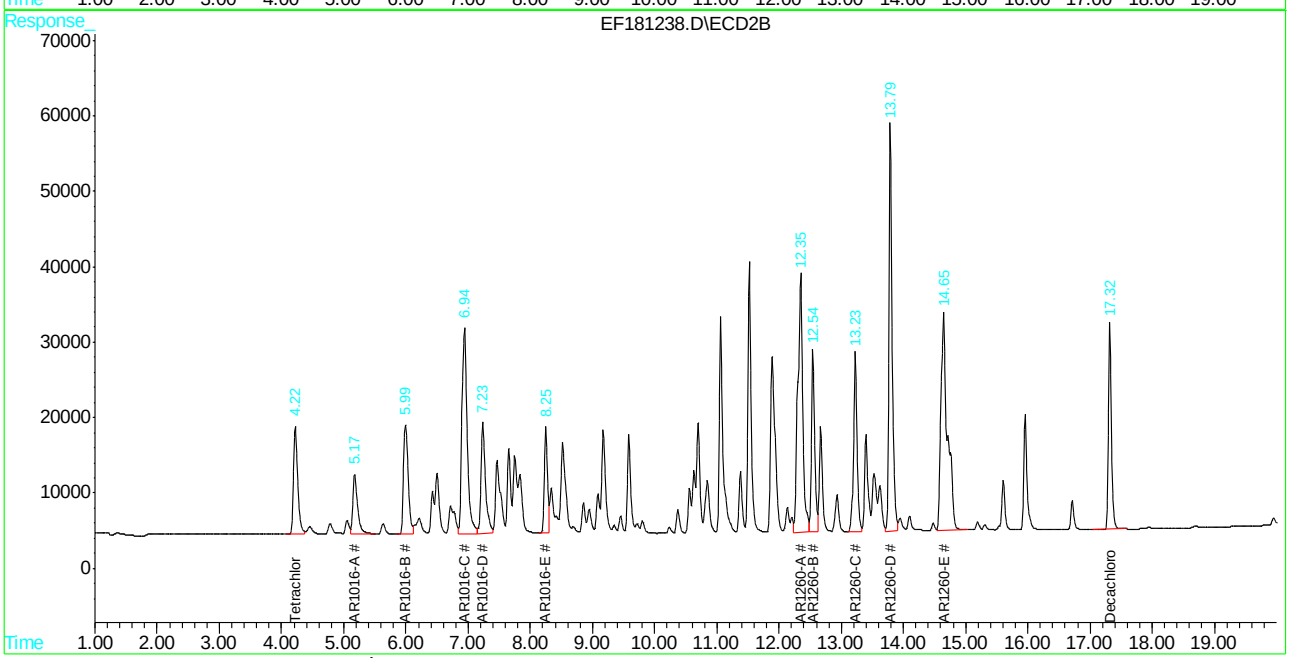
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:48 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integration Approval Summary

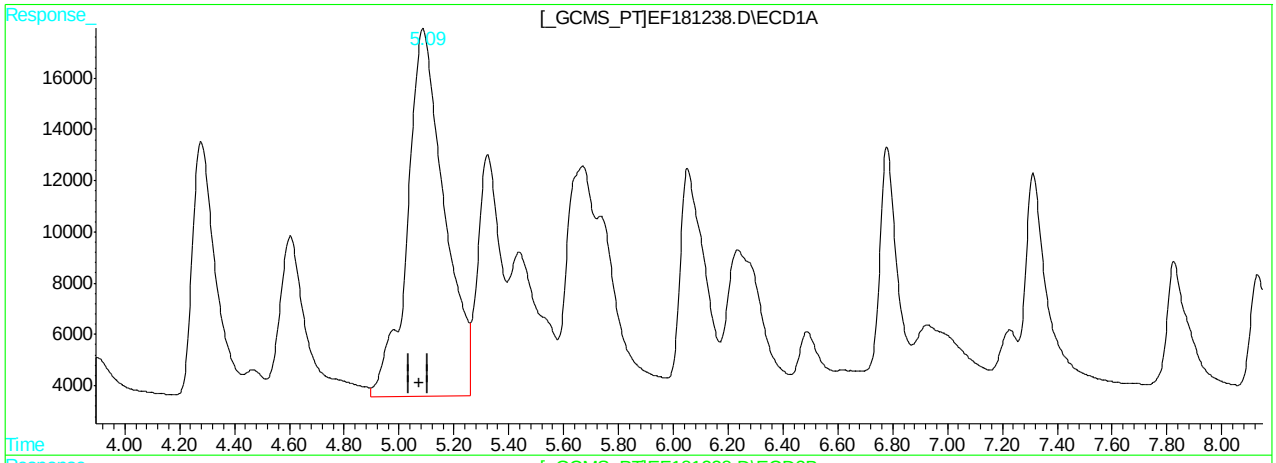
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181238.D	**Analyst approved:**	03/29/18 09:38 Tianwei Ruan
Injection Time:	03/29/18 02:09	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

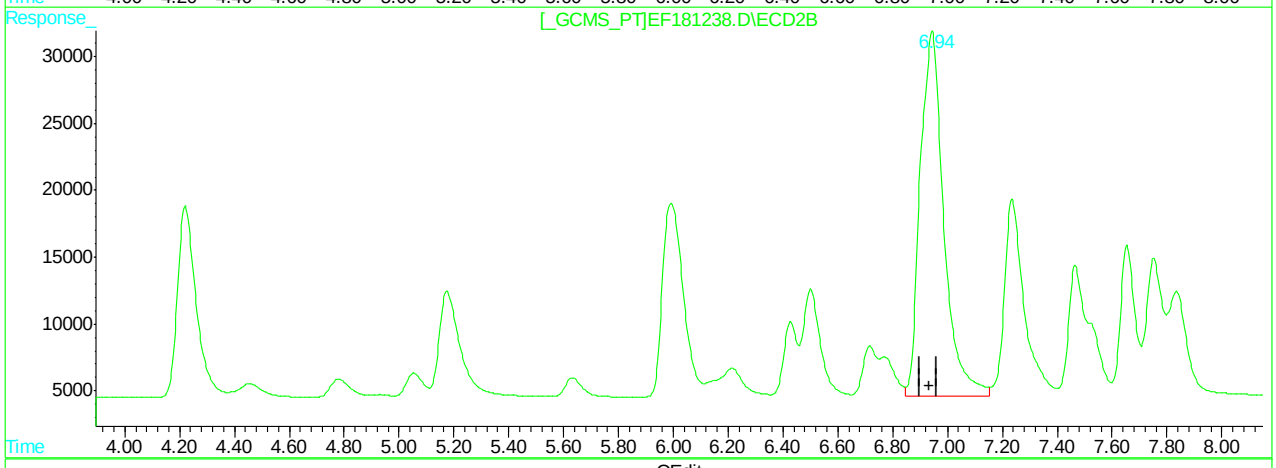
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.09	Split peak
AR1260-E		1	11.75	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.09min 1087.802PPB

response 1335464

(43) AR1016-C #2

6.94min 1011.990PPB

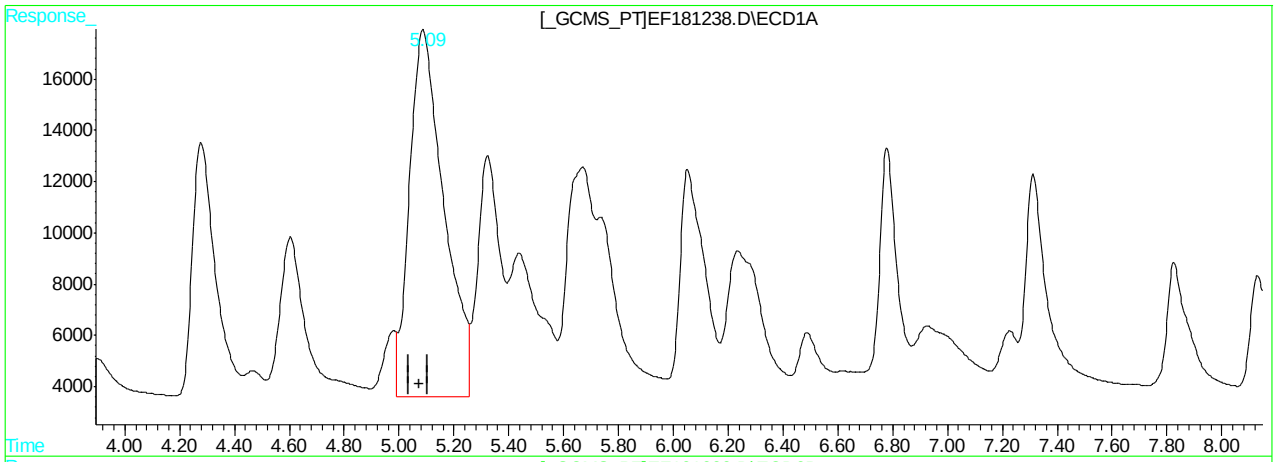
response 1625616

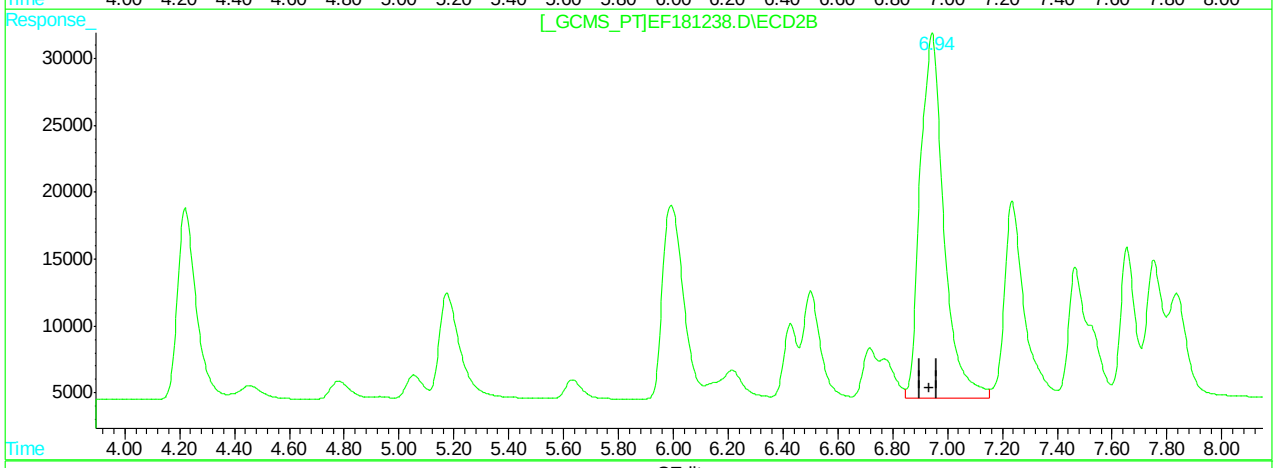
(+) = Expected Retention Time
EF181238.D PCB6195.M Thu Mar 29 08:48:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.09min 1019.969PPB m

response 1252187

(43) AR1016-C #2

6.94min 1011.990PPB

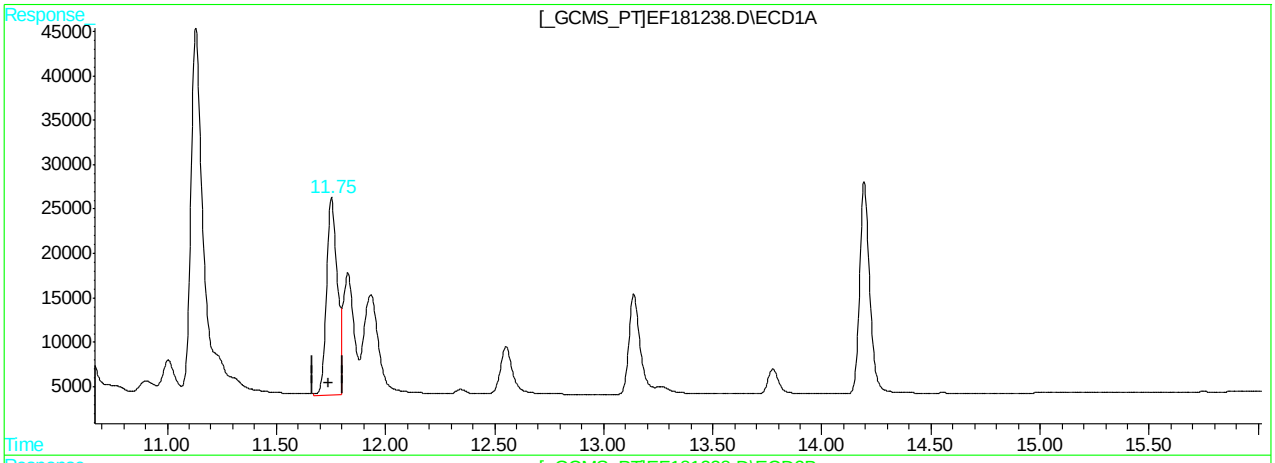
response 1625616

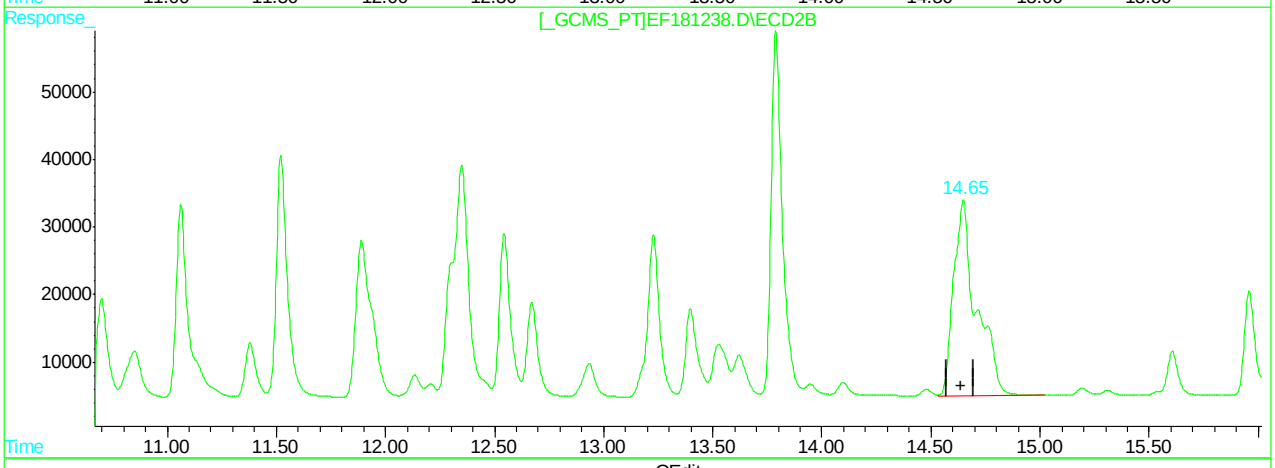
(+) = Expected Retention Time
EF181238.D PCB6195.M Thu Mar 29 08:48:19 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 490.562PPB

response 757118

(50) AR1260-E #2

14.65min 1121.471PPB

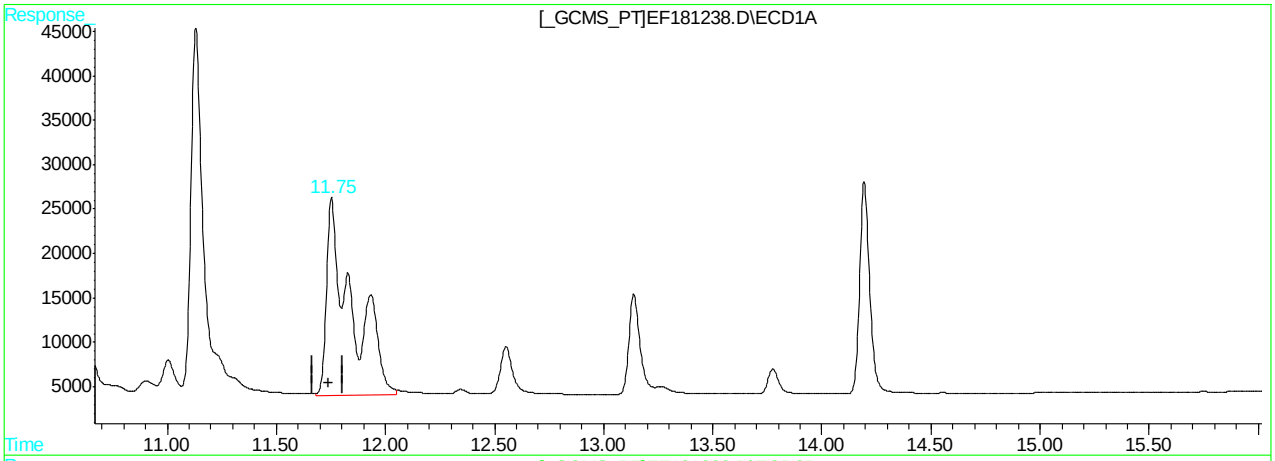
response 2092235

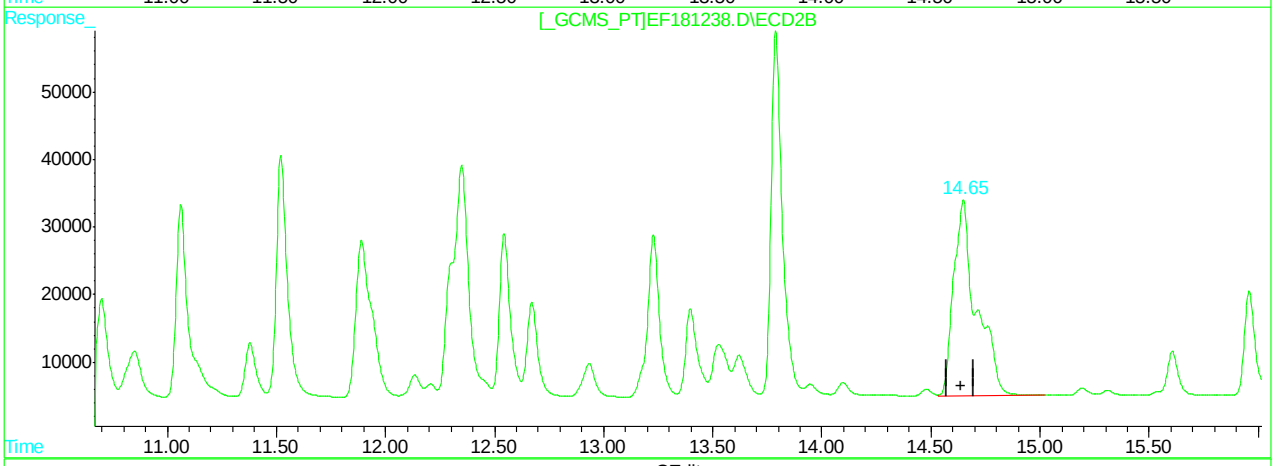
(+) = Expected Retention Time
EF181238.D PCB6195.M Thu Mar 29 08:48:26 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 1141.982PPB m

response 1762500

(50) AR1260-E #2

14.65min 1121.471PPB

response 2092235

(+) = Expected Retention Time
EF181238.D PCB6195.M Thu Mar 29 08:48:32 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:50 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.21	4.22	246233	328659	21.299	21.110
	Spiked Amount 40.000			Recovery =		53.25%	52.77%
51) S	Decachlorobiphen	14.20	17.33	394132	481929	23.027	22.956
	Spiked Amount 40.000			Recovery =		57.57%	57.39%
	Target Compounds						
41)	AR1016-A	3.76	5.18	154765	221898	488.506	541.502
42)	AR1016-B	4.28f	6.00f	307054	413449	556.846	513.364
43)	AR1016-C	5.10f	6.95f	620114	862710	505.114m	537.061
44)	AR1016-D	5.33f	7.24f	269081	385571	565.157	561.397
45)	AR1016-E	6.06f	8.25f	267398	257512	541.022	536.364
46)	AR1260-A	9.68	12.36	740217	974975	543.619	547.110
47)	AR1260-B	9.93	12.55	379998	446946	578.064	554.643
48)	AR1260-C	10.45	13.23	330891	468436	538.176	544.251
49)	AR1260-D	11.14	13.80	903772	978315	576.671	545.620
50)	AR1260-E	11.76	14.65	863486	1032715	559.481m	553.552m

11.6.36
11

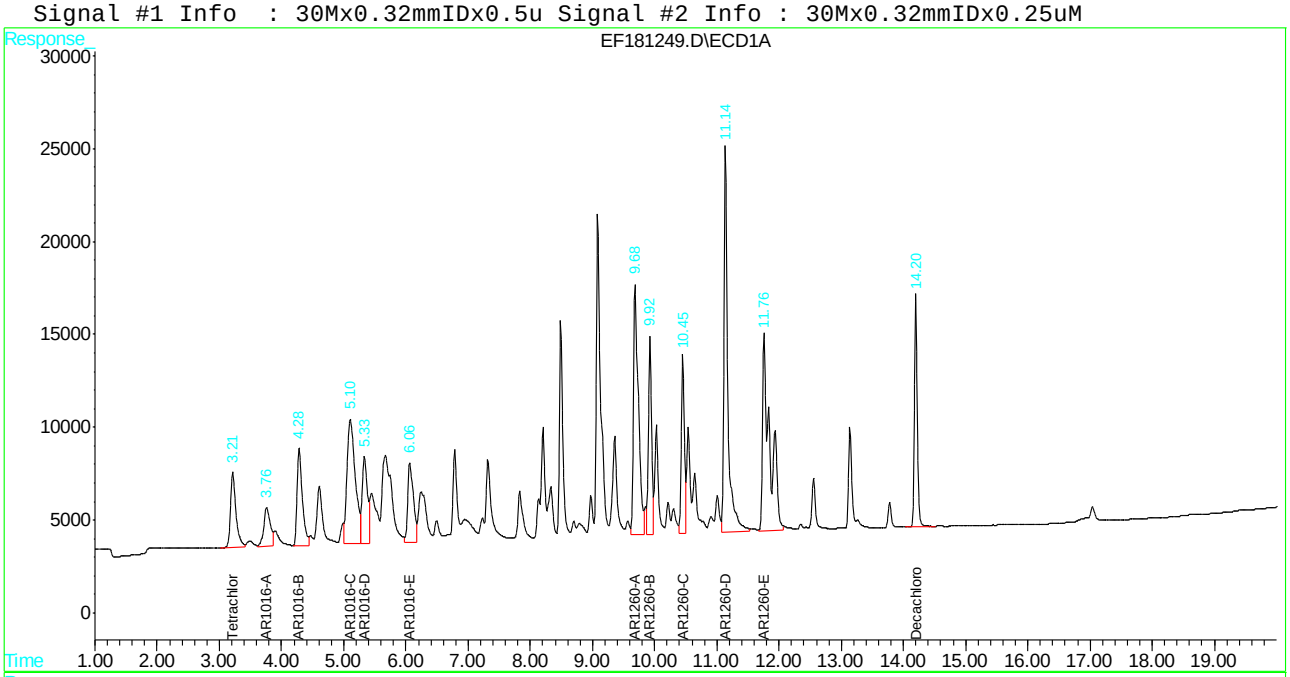
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181249.D PCB6195.M Thu Mar 29 09:26:50 2018 GCEF

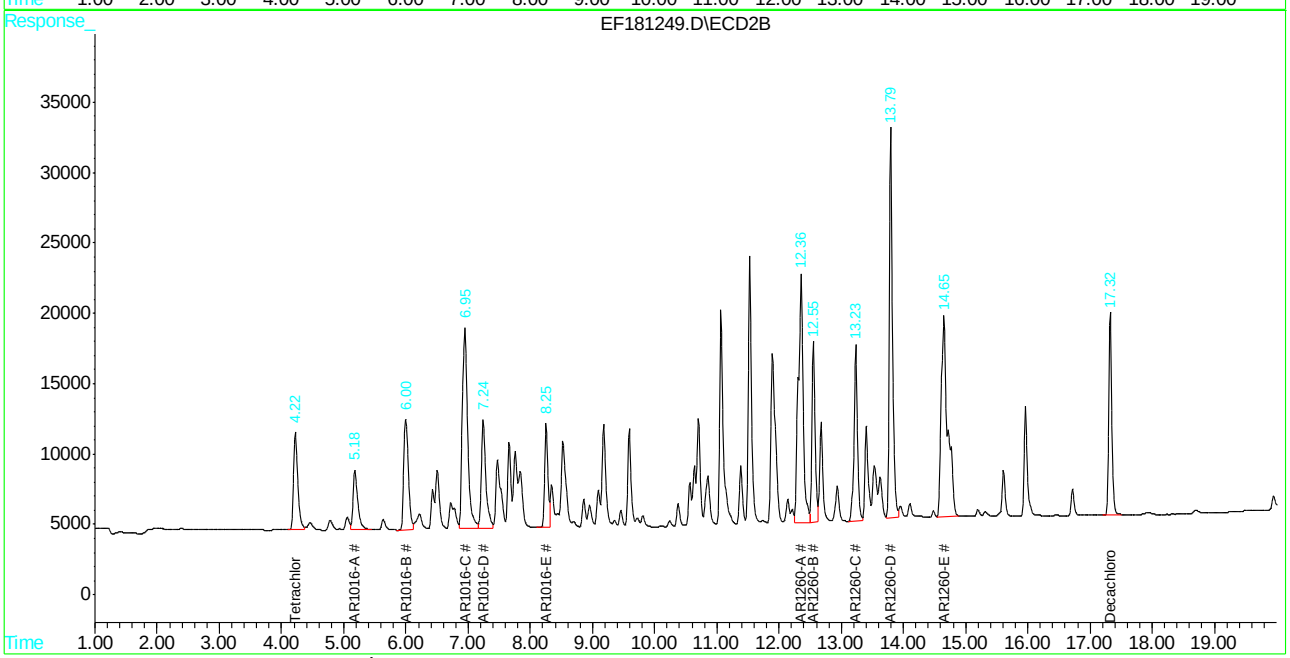
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:50 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

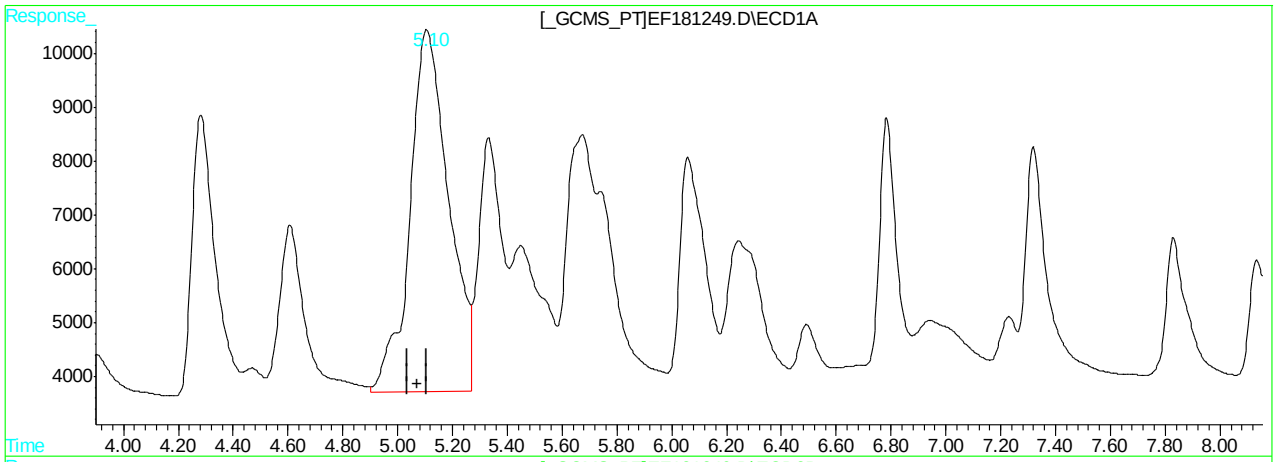
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181249.D	**Analyst approved:**	03/29/18 09:38 Tianwei Ruan
Injection Time:	03/29/18 06:44	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

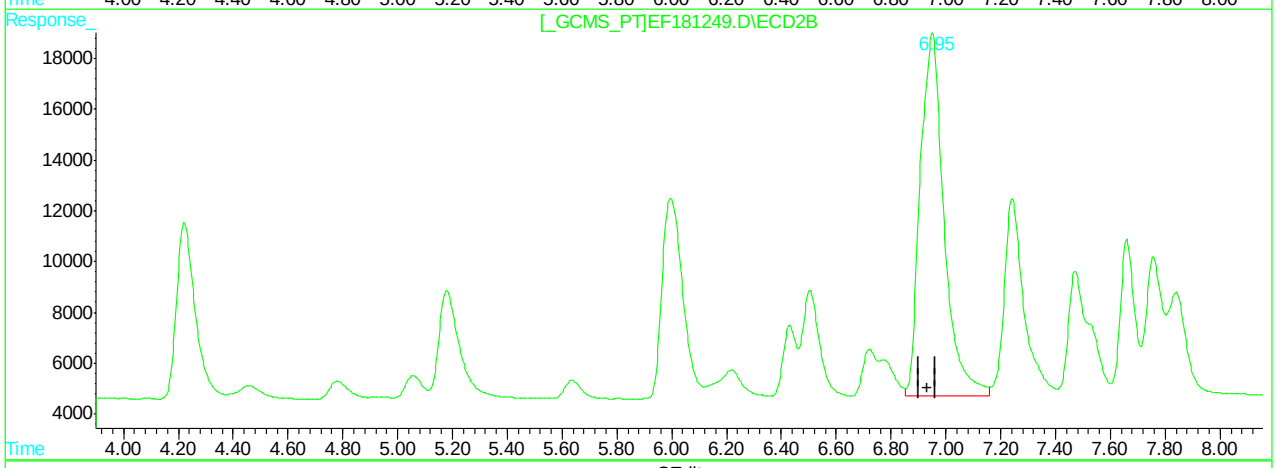
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.10	Split peak
AR1260-E		1	11.76	Split peak
AR1260-E		2	14.65	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.11min 537.651PPB

response 660059

(43) AR1016-C #2

6.95min 537.061PPB

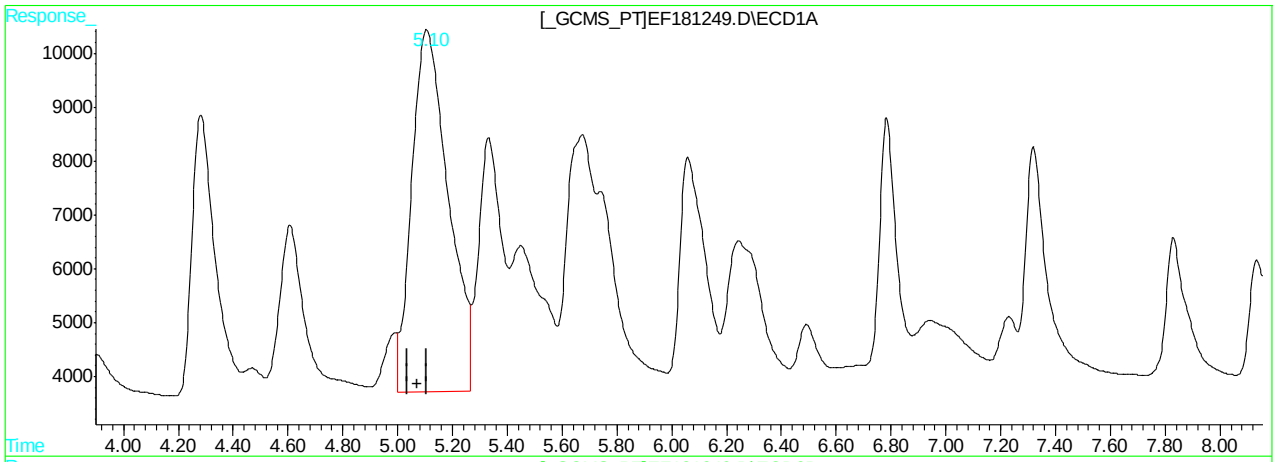
response 862710

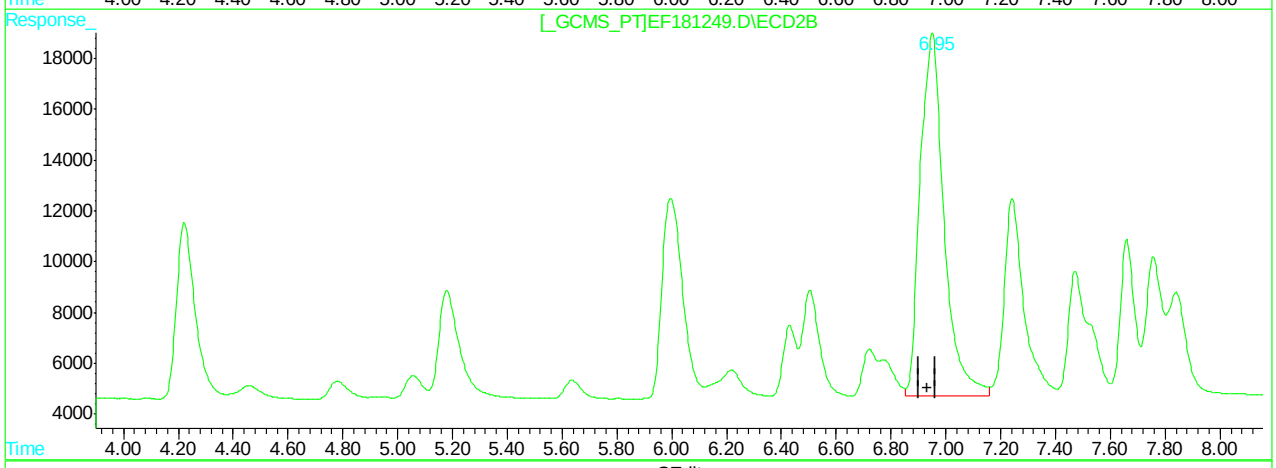
(+) = Expected Retention Time
EF181249.D PCB6195.M Thu Mar 29 08:50:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 505.114PPB m

response 620114

(43) AR1016-C #2

6.95min 537.061PPB

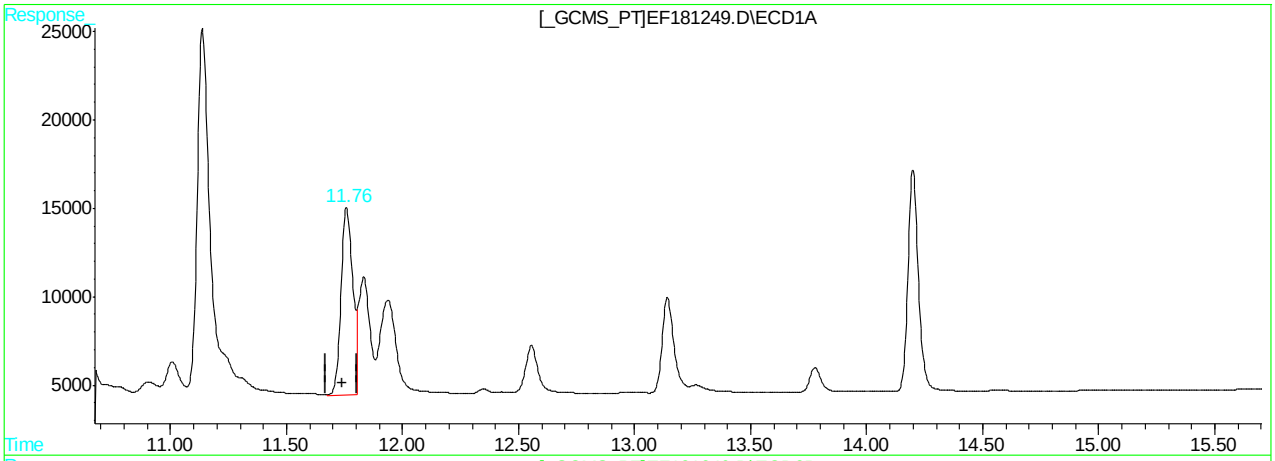
response 862710

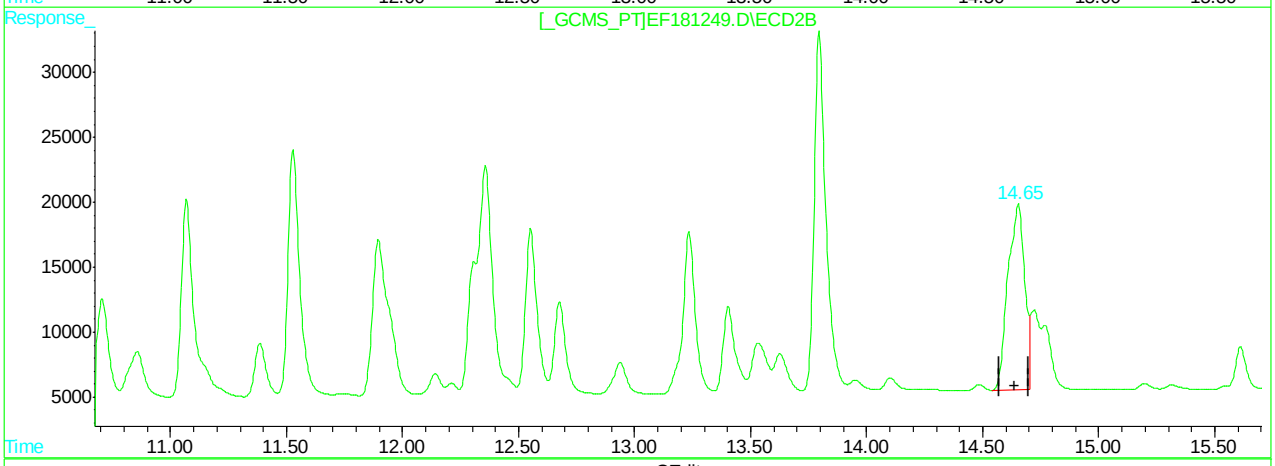
(+) = Expected Retention Time
EF181249.D PCB6195.M Thu Mar 29 08:50:18 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 240.132PPB

response 370612

(50) AR1260-E #2

14.65min 385.605PPB

response 719392

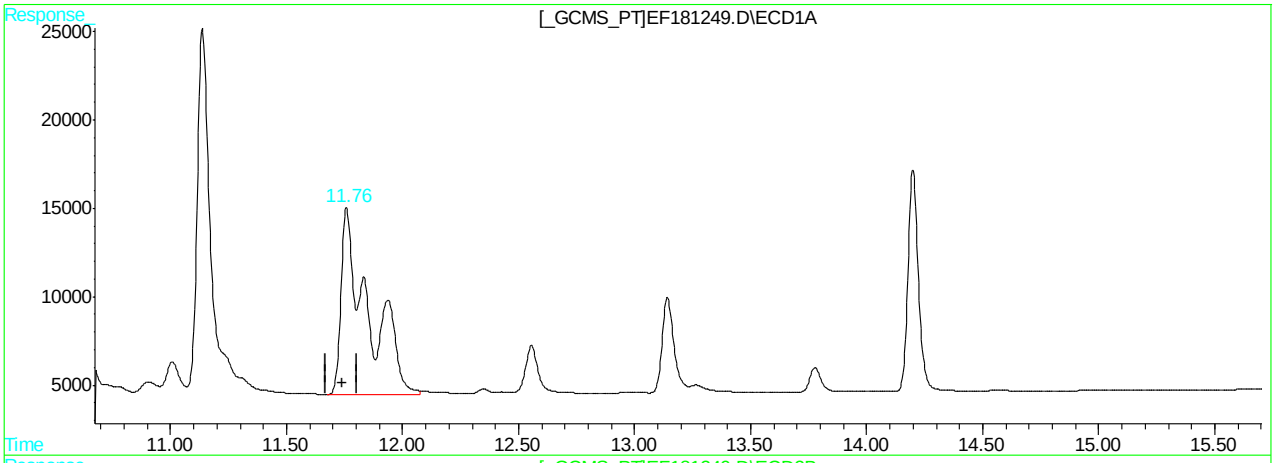
(+) = Expected Retention Time
EF181249.D PCB6195.M Thu Mar 29 08:50:25 2018 GCEF

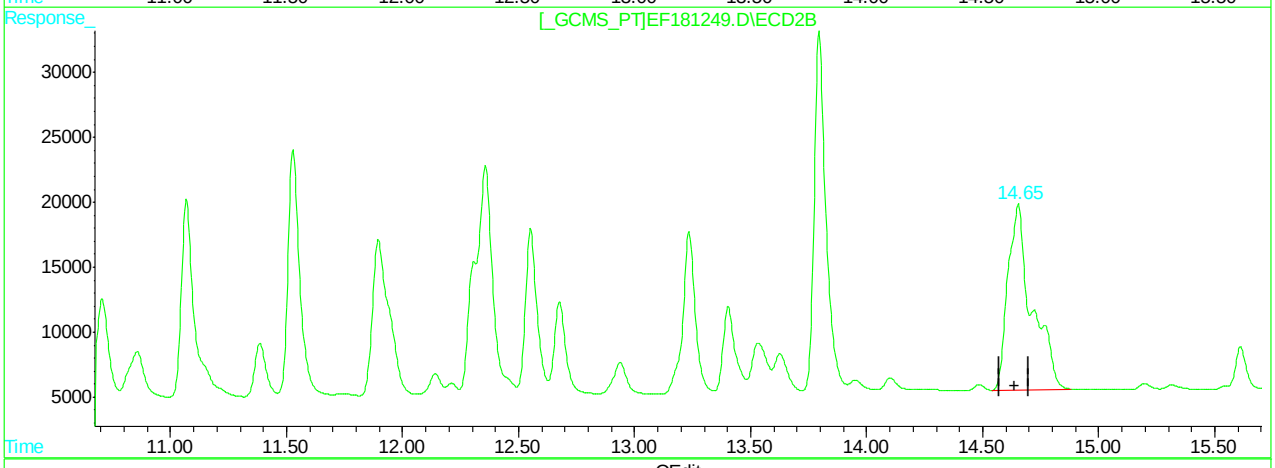
11.6.36.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 559.481PPB m

response 863486

(50) AR1260-E #2

14.65min 553.552PPB m

response 1032715

(+) = Expected Retention Time
EF181249.D PCB6195.M Thu Mar 29 08:50:35 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD1A.CH Vial: 70
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD2B.CH
Acq On : 29 Mar 2018 11:19 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 12:05 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.22	4.23	495390	674199	42.850	43.304
	Spiked Amount 40.000			Recovery =		107.13%	108.26%
51) S	Decachlorobiphen	14.21	17.34	756674	905004	44.208	43.109
	Spiked Amount 40.000			Recovery =		110.52%	107.77%
	Target Compounds						
41)	AR1016-A	3.76	5.18	309509	425668	976.944	1038.769
42)	AR1016-B	4.29f	6.00f	576147	757543	1044.846	940.612
43)	AR1016-C	5.09f	6.95f	1244830	1616137	1013.976	1006.089
44)	AR1016-D	5.33f	7.25f	511271	724345	1073.834	1054.656
45)	AR1016-E	6.06f	8.26f	523041	497113	1058.258	1035.424
46)	AR1260-A	9.69	12.37	1440682	1869690	1058.043	1049.182
47)	AR1260-B	9.93	12.56	721704	841007	1097.876	1043.657
48)	AR1260-C	10.46	13.25	646179	899675	1050.976	1045.285
49)	AR1260-D	11.14	13.81	1777628	1902531	1134.254	1061.069
50)	AR1260-E	11.76	14.66	1712017	2045621	1109.273m	1096.486m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181260.D PCB6195.M Thu Mar 29 12:05:43 2018 GCEF Page 1

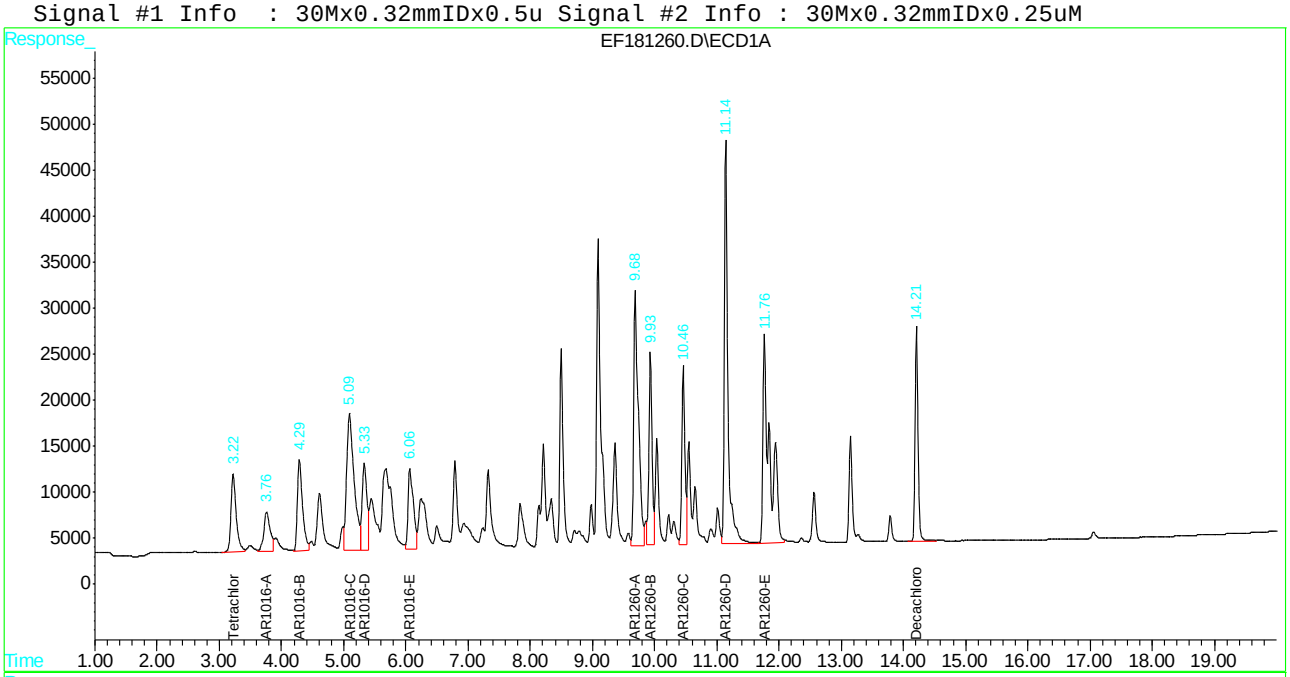
11.6.37 11

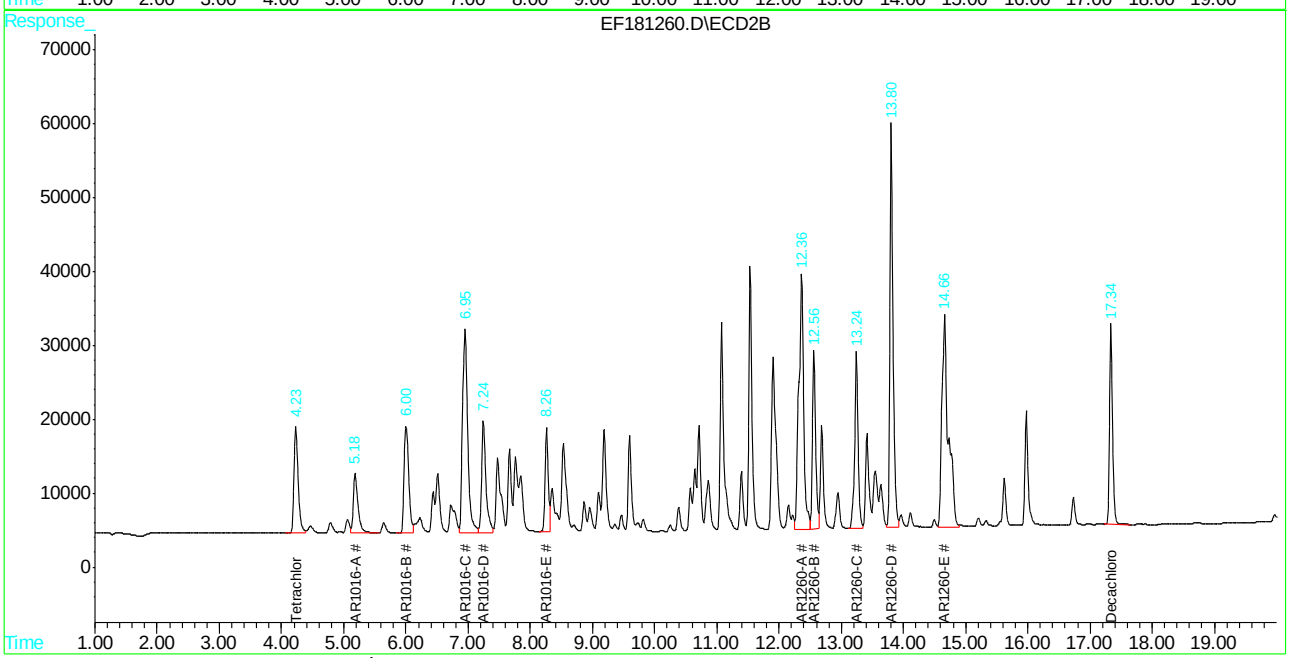
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD1A.CH Vial: 70
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD2B.CH
Acq On : 29 Mar 2018 11:19 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 12:05 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62881

Manual Integration Approval Summary

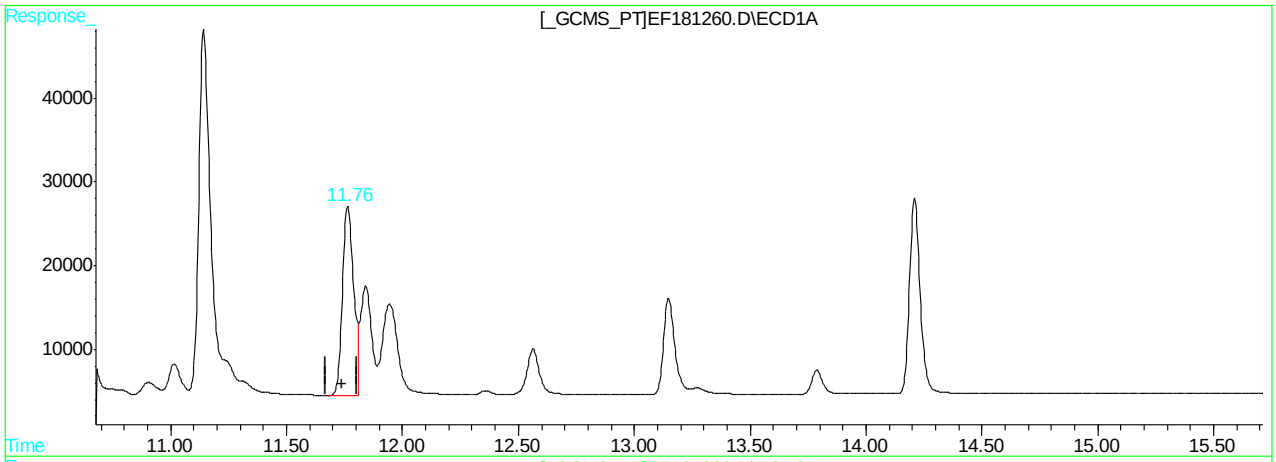
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181260.D	**Analyst approved:**	03/29/18 12:13 Tianwei Ruan
Injection Time:	03/29/18 11:19	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

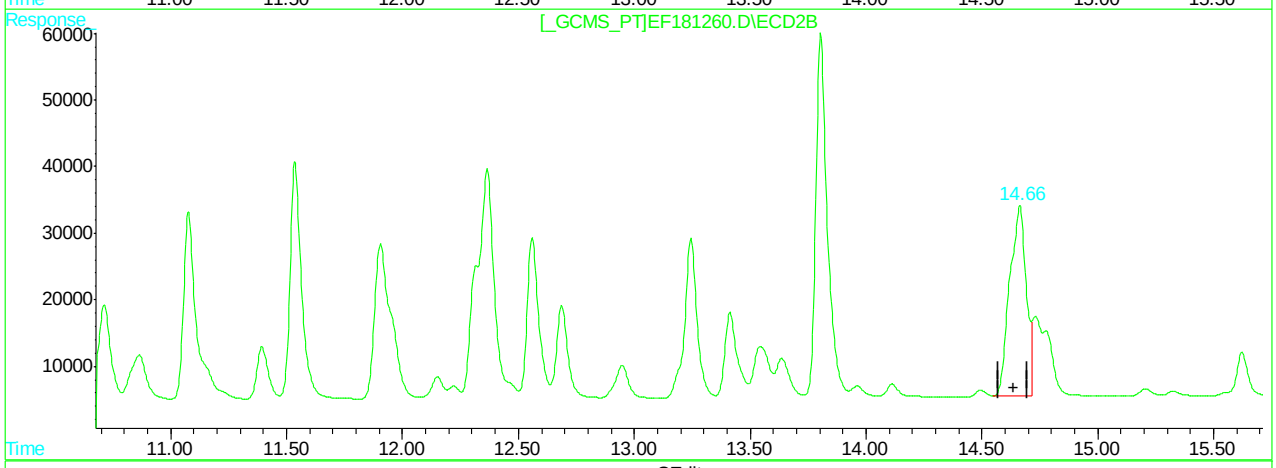
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	11.76	Split peak
AR1260-E		2	14.66	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD1A.CH Vial: 70
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD2B.CH
Acq On : 29 Mar 2018 11:19 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 12:05 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 493.391PPB

response 761485

(50) AR1260-E #2

14.66min 754.771PPB

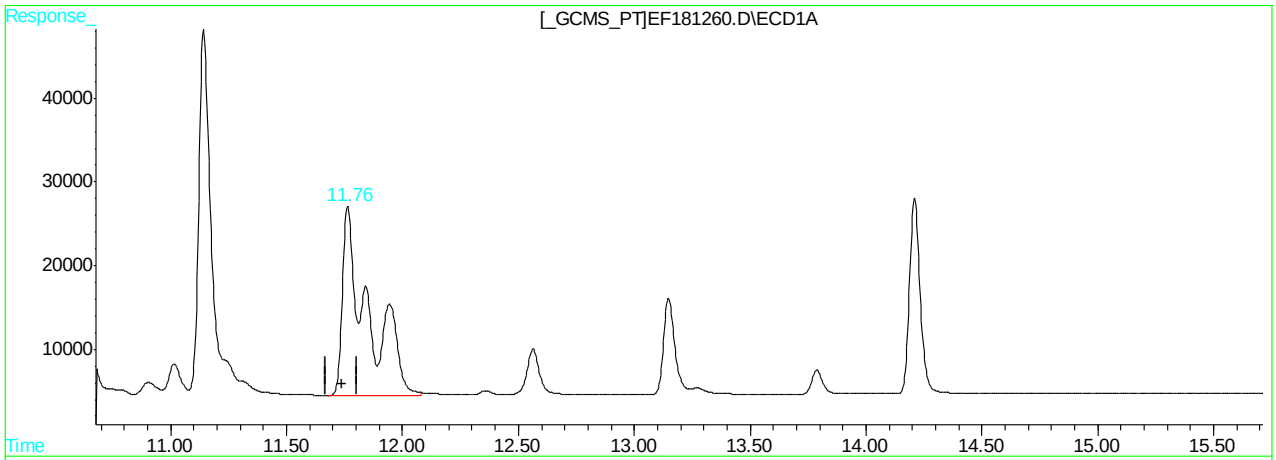
response 1408114

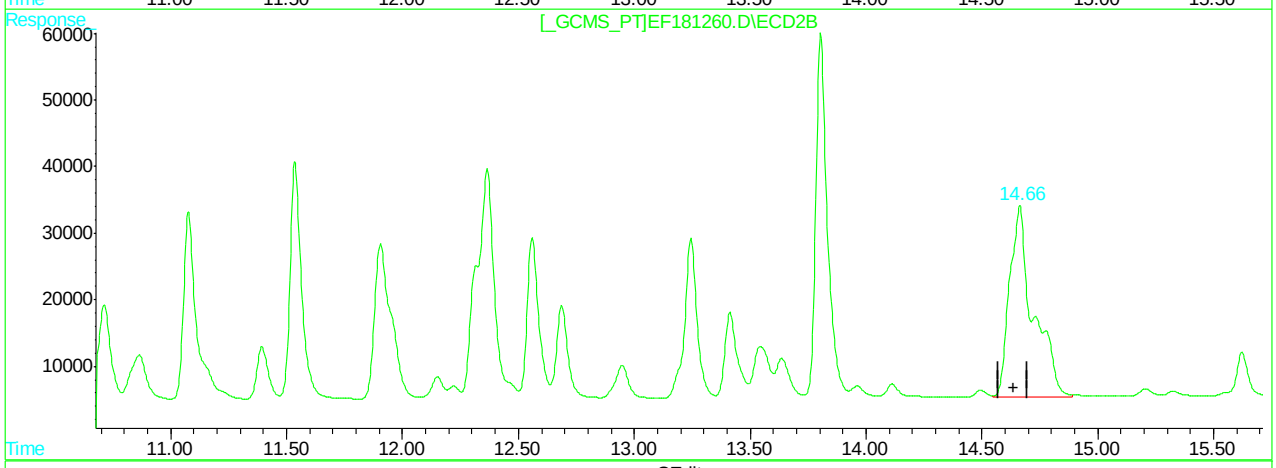
(+) = Expected Retention Time
EF181260.D PCB6195.M Thu Mar 29 12:05:29 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD1A.CH Vial: 70
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181260.D\ECD2B.CH
Acq On : 29 Mar 2018 11:19 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 12:05 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 1109.273PPB m

response 1712017

(50) AR1260-E #2

14.66min 1096.486PPB m

response 2045621

(+) = Expected Retention Time
EF181260.D PCB6195.M Thu Mar 29 12:05:37 2018 GCEF

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4555

Print Analyst Name: Rebecca Krug

Analyst Signature: RK

Date: 2/7/18

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method IPST4553

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17.2285.96	PEM	50.25 ppb
SV 17.2362.28	Pest ISTD	5 ppm
.33A	Pest Mix	25 ppb
.33B	Pest Mix	50 ppb
.40	IB	20 ppb
173818	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: 2/12/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G143235	DDT				1		/	/	OK	
	236	CC4553-25				2		/	/	OK	various ↓ 1#
	237	IB				3		/	/	OK	
	238	op9834-mb	9834	8081 rel	S	5		/	/	OK	
	239	-bs1				6		/	/	OK	
	240	jc60235-1				7				NG	Needs TBA
	241	-3				8				NG	↓
	242	-5				9				NG	↓
	243	op9834-ms				10				NG	Needs TBA
	244	-msd				11				NG	↓
	245	jc60235-7				12		/	/	OK	
	246	-9				13				NG	Needs TBA
	247	-11				14				NG	Needs TBA
	248	-13				15		/	/	OK	
	249	-15				16		/	/	OK	
	250	-17				17				NG	Needs TBA
	251	-19				18				NG	Needs TBA
	252	-21				19				NG	Needs TBA
	253	-23				20		/	/	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

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GIG4555

Print Analyst Name: Dharmistha Me

Date: 2/7/18

Analyst Signature: DM

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method IPSTG553

Injection Volume: 1.0 µL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 177235-96	PEM	50-250ppb
SV 172362-28	PEST ESTD	5PPM
-33A	PEST MIX	25PPb
-33B	PEST MIX	50PPb
-40	IB	20PPb
173818	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: 2/12/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	19143254	jc60235-25				21				NG	needs TBA
	255	jc60028-30				22				OK	
	256	jc60028-6q	a83c	8081 ICLP	W	23				OK	
	257	ddt				1				OK	
	258	gc4553-50				4				NOT USING	
	259	IB				3				NOT USING	

2/8/18 CAP

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

71

11.7.1 11

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4547 5 pm 2/8

Print Analyst Name: Dharmistha Meh

Date: 2/8/18

Analyst Signature: DM

Standard Data

Lot #	Description	Conc.
172285-106	Pest mix	1 ppb
-107	↓	2 ppb
-108	↓	5 ppb
-109	↓	10 ppb
-112	↓	25 ppb
-113	↓	100 ppb

Standard Data

Lot #	Description	Conc.
172285-96	PEM	50-250 ppb
-110	PEST MIX	25 ppb
-111	PEST MIX	50 ppb
172362-28	PEST ISTD	5 ppm
-40	IB	20 ppb
173818	hexane (Fisher)	—

Columns: 2BCLPI / 2BCLPL

Method 8081 608

Initial Cal. Method 1PST4557

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: 2/12/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1g143263	ddt				1			/	OK	
	264	ib				2			/	OK	
	265	IC4557-100				3			/	OK	
	266	-75				4			/	OK	
	267	-50				5			/	OK	
	268	ICC4557-25				6			/	OK	
	269	IC4557-10				7			/	OK	
	270	-5				8			/	OK	
	271	-2				9			/	OK	
	272	-1				10			/	OK	
	273	-500				11			/	OK	
	274	-500				12			/	OK	
	275	ICV4557-25				13			/	not using	gch1↑ 1st
	276	-500				14			/	OK	
	277	-500				15			/	OK	
	278	-50				16			/	OK	
	279	-50				17			/	OK	
											pm 2/8/18

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

75

11.7.1

11

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4558

Print Analyst Name: Kristen Drake

Date: 2/8/18

Analyst Signature: KD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.

Columns: ZBCVFI/ZBCVFIL

Method 8081

Initial Cal. Method 1PST4557

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: 2/12/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	lg143280	CC4557-25				2				not using	
	281	IB				3				not using	
	282	DDT				1				ok	
	283	~~ICC4~~ ICV4557-25 KD 2/8	pest	2nd		5			/	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

77

11.7.2

11

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4598

Print Analyst Name: CHRISTINE PHILLIPS

Date: 3/28/18

Analyst Signature: CP

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-236279	IB	20ppb
-80A	PEST MIX	25ppb
-80B	PEST MIX	50ppb
-84	PEST ISTD	5ppm
-89	PCN	50-250ppb
173818	HEXANE (FISHER)	—

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method PST4557

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: 3/28/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G144701	ddt				1		/	/	OK	
	702	CC4557-25				2		/	/	OK	HCB↑, METHOXY↓ 1ST
	703	IB				3		/	/	OK	
	704	OP10885-MB1	10885	8081tcl	W	26		/	/	OK	
	705	-BS1				27		/	/	OK	
	706	jc62942-6				28		/	/	OK	
	707	jc62879-8				29		/	/	OK	
	708	-9				30		/	/	OK	
	709	OP10885-MS				31		/	/	OK	
	710	-MSD				32		/	/	OK	
	711	jc62879-10				33		/	/	OK	
	712	-11				34		/	/	OK	
	713	OP10885-MS2				35		/	/	OK	
	714	-MSD2				36		/	/	OK	
	715	jc62879-12				37		/	/	OK	
	716	-13				38		/	/	OK	
	717	-14				39		/	/	OK	
	718	-15				40		/	/	OK	
	719	-16				41		/	/	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: G1G4598

Print Analyst Name: CHRISTINE PHILLIPS

Date: 3/28/18

Analyst Signature: CNP

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-2362-79	1B	20ppb
.80A	PEST MIX	25ppb
.80B	PEST MIX	50ppb
.84	PEST ISTD	5ppm
.89	PEM	50-250ppb
173818	HEXANE (FISHER)	—

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method VPST4557

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: 3/28/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1G144720	jC 62879-17	10885	8081tcl	W	42		/	/	OK	
	721/722	HEXANE				100		/	/	OK	
	723	CC 4557-50				4		/	/	OK	
	724	1B				3		/	/	OK	
	725	jC62879-18				43		/	/	OK	
	726	-20				44		/	/	OK	
	727	jC62881-1				45		/	/	OK	
	728	-2				46		/	/	OK	
	729	-3				47		/	/	OK	
	730	-4				48		/	/	OK	
	731	-5				49		/	/	OK	
	732	-6				50		/	/	OK	

KD 3/28

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: GEF6195

Print Analyst Name: Tianwei Ruan

Analyst Signature: TR

Date: 3/19/18

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB6195

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.
172362-71	IB	20 ppb
-20	Ar1221/1254	1000ppb
-21	Ar1232/1262	
-22	Ar1242/1268	
-23	Ar1248	
-13	Ar1016/1260	
-12	Ar1221/1254	

Standard Data

Lot #	Description	Conc.
SV 172285-86	Ar1016/1260	50ppb
-85B		250ppb
-85C		2000ppb
-85D		3000ppb
SV 172362-91A	Ar1016/1260	500ppb
-91B		1000ppb
173818	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: 3/20/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF180972	IB				16			/	ok	
	973	IC6195-50	1016/1260	1st		17			/	ok	
	974	-250				18			/	ok	
	975	-500				19			/	ok	
	976	ICC6195-1000				20			/	ok	
	977	IC6195-2000				21			/	ok	
	978	-3000				22			/	ok	
	979	IC6195-1000	1221/1254			23			/	OK	
	980	-1000	1232/1262			24			/	ok	
	981	-1000	1242/1268			25			/	OK	
	982	-1000	1248			26			/	ok	
	983	ICV6132-1000	1016/1260	2nd		27			/	ok	
	984	-1000	1221/1254			28			/	ok	
	985	-1000	1232/1262			29			/	ok	SV 17-2362-10 @1000ppb
	986	-1000	1242/1268			30			/	ok	SV 17-2362-15 @1000ppb
	987	-1000	1248			31			/	OK	SV 17-2362-16 @1000ppb
	988	Pest Mix				32			/	ok	SV 17-2285-111 @50 ppb
											TR 3/19

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

Initial Calibration Summary

Laboratory DRAFT - Not for Release

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

Response Factor Report gcef

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration

Calibration Files
3000=EF180978.D 2000=EF180977.D 1000=EF180976.D 500 =EF180975.D
250 =EF180974.D 50 =EF180973.D

	Compound	3000	2000	1000	500	250	50	Avg	%RSD
1) S	Tetrachloro-m-xylen	1.177	1.162	1.110	1.102	1.103	1.282	1.156 E4	6.02
2)	AR1221-A			1.261				1.261 E2	0.00
3)	AR1221-B			1.646				1.646 E2	0.00
4)	AR1221-C			5.623				5.623 E2	0.00
5)	AR1221-D			5.934				5.934 E1	0.00
6)	AR1221-E			1.207				1.207 E2	0.00
7)	AR1232-A			4.044				4.044 E2	0.00
8)	AR1232-B			2.644				2.644 E2	0.00
9)	AR1232-C			5.784				5.784 E2	0.00
10)	AR1232-D			2.215				2.215 E2	0.00
11)	AR1232-E			2.064				2.064 E2	0.00
12)	AR1242-A			4.679				4.679 E2	0.00
13)	AR1242-B			1.037				1.037 E3	0.00
14)	AR1242-C			4.037				4.037 E2	0.00
15)	AR1242-D			4.226				4.226 E2	0.00
16)	AR1242-E			5.053				5.053 E2	0.00
17)	AR1248-A			2.458				2.458 E2	0.00
18)	AR1248-B			6.987				6.987 E2	0.00
19)	AR1248-C			6.899				6.899 E2	0.00
20)	AR1248-D			6.247				6.247 E2	0.00
21)	AR1248-E			5.382				5.382 E2	0.00
22)	AR1248-F			7.076				7.076 E2	0.00
23)	AR1248-G			5.006				5.006 E2	0.00
24)	AR1254-A			5.570				5.570 E2	0.00
25)	AR1254-B			7.121				7.121 E2	0.00
26)	AR1254-C			5.215				5.215 E2	0.00
27)	AR1254-D			9.701				9.701 E2	0.00
28)	AR1254-E			8.638				8.638 E2	0.00
29)	AR1254-F			7.208				7.208 E2	0.00
30)	AR1254-G			9.509				9.509 E2	0.00
31)	AR1262-A			7.553				7.553 E2	0.00
32)	AR1262-B			1.090				1.090 E3	0.00
33)	AR1262-C			8.378				8.378 E2	0.00
34)	AR1262-D			2.000				2.000 E3	0.00
35)	AR1262-E			2.424				2.424 E3	0.00
36)	AR1268-A			2.189				2.189 E3	0.00
37)	AR1268-B			2.278				2.278 E3	0.00
38)	AR1268-C			1.828				1.828 E3	0.00
39)	AR1268-D			7.984				7.984 E2	0.00
40)	AR1268-E			4.915				4.915 E3	0.00
41)	AR1016-A	2.789	2.910	3.090	3.242	3.309	3.669	3.168 E2	9.90
42)	AR1016-B	4.573	4.840	5.276	5.702	5.915	6.779	5.514 E2	14.49
43)	AR1016-C	1.047	1.105	1.190	1.267	1.295	1.462	1.228 E3	12.10
44)	AR1016-D	4.047	4.279	4.638	4.943	5.028	5.633	4.761 E2	11.96
45)	AR1016-E	4.239	4.443	4.745	5.044	5.148	6.035	4.942 E2	12.89
46)	AR1260-A	1.169	1.224	1.320	1.405	1.434	1.617	1.362 E3	11.85
47)	AR1260-B	5.506	5.760	6.360	6.874	7.049	7.894	6.574 E2	13.44

Initial Calibration Summary

Laboratory DRAFT - Not for Release

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

48)		AR1260-C	5.323	5.556	5.982	6.370	6.495	7.165	6.148	E2	10.94
49)		AR1260-D	1.388	1.452	1.529	1.636	1.640	1.759	1.567	E3	8.73
50)		AR1260-E	1.422	1.470	1.528	1.576	1.567	1.697	1.543	E3	6.19
51)	S	Decachlorobiphenyl	1.446	1.526	1.631	1.747	1.832	2.088	1.712	E4	13.54

Signal #2

1)	S	Tetrachloro-m-xylen	1.598	1.596	1.542	1.514	1.530	1.562	1.557	E4	2.23
2)		AR1221-A			1.609				1.609	E2	0.00
3)		AR1221-B			2.344				2.344	E2	0.00
4)		AR1221-C			6.182				6.182	E2	0.00
5)		AR1221-D			1.321				1.321	E2	0.00
6)		AR1221-E			1.275				1.275	E2	0.00
7)		AR1232-A			4.834				4.834	E2	0.00
8)		AR1232-B			3.750				3.750	E2	0.00
9)		AR1232-C			7.681				7.681	E2	0.00
10)		AR1232-D			3.317				3.317	E2	0.00
11)		AR1232-E			2.122				2.122	E2	0.00
12)		AR1242-A			6.810				6.810	E2	0.00
13)		AR1242-B			1.342				1.342	E3	0.00
14)		AR1242-C			5.864				5.864	E2	0.00
15)		AR1242-D			4.146				4.146	E2	0.00
16)		AR1242-E			5.511				5.511	E2	0.00
17)		AR1248-A			3.481				3.481	E2	0.00
18)		AR1248-B			8.815				8.815	E2	0.00
19)		AR1248-C			5.045				5.045	E2	0.00
20)		AR1248-D			6.091				6.091	E2	0.00
21)		AR1248-E			6.759				6.759	E2	0.00
22)		AR1248-F			8.819				8.819	E2	0.00
23)		AR1248-G			7.666				7.666	E2	0.00
24)		AR1254-A			7.793				7.793	E2	0.00
25)		AR1254-B			8.229				8.229	E2	0.00
26)		AR1254-C			6.027				6.027	E2	0.00
27)		AR1254-D			1.271				1.271	E3	0.00
28)		AR1254-E			1.022				1.022	E3	0.00
29)		AR1254-F			1.005				1.005	E3	0.00
30)		AR1254-G			1.192				1.192	E3	0.00
31)		AR1262-A			8.906				8.906	E2	0.00
32)		AR1262-B			1.222				1.222	E3	0.00
33)		AR1262-C			1.046				1.046	E3	0.00
34)		AR1262-D			2.191				2.191	E3	0.00
35)		AR1262-E			2.884				2.884	E3	0.00
36)		AR1268-A			2.553				2.553	E3	0.00
37)		AR1268-B			2.736				2.736	E3	0.00
38)		AR1268-C			2.210				2.210	E3	0.00
39)		AR1268-D			9.624				9.624	E2	0.00
40)		AR1268-E			6.029				6.029	E3	0.00
41)		AR1016-A	3.329	3.545	3.912	4.250	4.407	5.144	4.098	E2	15.99
42)		AR1016-B	0.642	0.685	0.759	0.834	0.873	1.039	0.805	E3	17.88
43)		AR1016-C	1.281	1.364	1.514	1.671	1.756	2.052	1.606	E3	17.56
44)		AR1016-D	5.656	6.000	6.618	7.210	7.447	8.278	6.868	E2	14.15
45)		AR1016-E	3.933	4.199	4.615	4.979	5.154	5.925	4.801	E2	14.93
46)		AR1260-A	1.494	1.567	1.696	1.822	1.894	2.220	1.782	E3	14.68
47)		AR1260-B	0.646	0.681	0.755	0.826	0.875	1.052	0.806	E3	18.39
48)		AR1260-C	0.720	0.754	0.813	0.880	0.912	1.084	0.861	E3	15.24
49)		AR1260-D	1.538	1.600	1.713	1.844	1.901	2.163	1.793	E3	12.71
50)		AR1260-E	1.692	1.748	1.839	1.905	1.928	2.082	1.866	E3	7.47
51)	S	Decachlorobiphenyl	1.751	1.851	1.957	2.118	2.261	2.658	2.099	E4	15.68

(#) = Out of Range

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GCEF
Method: SW846 8082A

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	EF180976.D	03/19/18 18:39	GEF6195-ICC6195	TIANWEIR
Std#2	EF180989.D	03/20/18 09:59	GEF6196-CC6195	TIANWEIR
Std#3	EF180999.D	03/20/18 14:09	GEF6196-CC6195	TIANWEIR

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
Tetrachloro-m-xylene	1	SURR	3.19	3.19	3.20	3.19	0.006	+/- 0.030 [a]
Decachlorobiphenyl	1	SURR	14.19	14.18	14.19	14.19	0.006	+/- 0.030 [a]
Tetrachloro-m-xylene	2	SURR	4.21	4.20	4.21	4.21	0.006	+/- 0.030 [a]
Decachlorobiphenyl	2	SURR	17.33	17.32	17.32	17.32	0.006	+/- 0.030 [a]
AR1016-A	1	REG	3.71	3.72	3.73	3.72	0.010	+/- 0.030
AR1016-B	1	REG	4.26	4.25	4.26	4.26	0.006	+/- 0.030 [a]
AR1016-C	1	REG	5.04	5.05	5.07	5.05	0.015	+/- 0.046
AR1016-D	1	REG	5.28	5.29	5.31	5.29	0.015	+/- 0.046
AR1016-E	1	REG	6.03	6.02	6.04	6.03	0.010	+/- 0.030
AR1260-A	1	REG	9.65	9.65	9.67	9.66	0.012	+/- 0.035
AR1260-B	1	REG	9.91	9.90	9.91	9.91	0.006	+/- 0.030 [a]
AR1260-C	1	REG	10.43	10.43	10.44	10.43	0.006	+/- 0.030 [a]
AR1260-D	1	REG	11.11	11.11	11.12	11.11	0.006	+/- 0.030 [a]
AR1260-E	1	REG	11.73	11.73	11.74	11.73	0.006	+/- 0.030 [a]
AR1016-A	2	REG	5.16	5.15	5.16	5.16	0.006	+/- 0.030 [a]
AR1016-B	2	REG	5.99	5.98	5.98	5.98	0.006	+/- 0.030 [a]
AR1016-C	2	REG	6.93	6.93	6.93	6.93	0.000	+/- 0.030 [a]
AR1016-D	2	REG	7.23	7.22	7.23	7.23	0.006	+/- 0.030 [a]
AR1016-E	2	REG	8.24	8.23	8.24	8.24	0.006	+/- 0.030 [a]
AR1260-A	2	REG	12.35	12.34	12.35	12.35	0.006	+/- 0.030 [a]
AR1260-B	2	REG	12.55	12.54	12.54	12.54	0.006	+/- 0.030 [a]
AR1260-C	2	REG	13.23	13.22	13.23	13.23	0.006	+/- 0.030 [a]
AR1260-D	2	REG	13.79	13.79	13.79	13.79	0.000	+/- 0.030 [a]
AR1260-E	2	REG	14.65	14.64	14.65	14.65	0.006	+/- 0.030 [a]

(a) Default minimum StdDev of .01 minutes employed.

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF6203

Print Analyst Name: Tianwei Ruan

Date: 3/28/18

Analyst Signature: TR

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB6195

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SC 173236-1198	AR1016/1260	500ppb
1198	AR1016/1260	1000ppb
79	IB	20ppb
-102	TBA solution	-
173818	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: 3/30/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF18197	cc6195-1000				21			/	OK	
	198	IB				2			/	OK	
	199	OP10898-MB1	10898	8082	S	22			/	OK	
	200	-BS1				23			/	OK	
	201	JC62867-3A				24			/	OK	
	202	JC62901-1				25			/	OK	
	203	OP10898-MS				26			/	OK	
	204	-MSD				27			/	OK	
	205	cc6195-500				28			/	OK	
	206	IB				2			/	OK	
	207	JC62942-1				29			/	OK	HAD TBA cleanup
	208	-2				30			/	OK	
	209	-3				31			/	OK	
	210	-4				32			/	OK	
	211	-5				33			/	OK	
	212	JC62875-1				34			/	OK	
	213	JC62920-1				35			/	OK	
	214	JC62274-2R				36			/	OK	
	215	Hexane				100			/	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

199

11.7.5 11

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF 6203

Print Analyst Name: HUMARAH BANO

Date: 3/28/18

Analyst Signature: HB

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-2362119A	AR 1016/1260	500 ppb
-119B	↓	1000 ppb
-79	IB	20 ppb
173818	hexane (Fisher)	-

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB 6195

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: HB Date: 3/30/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF181216	CC6195-1000				37				OK	
	217	IB				2				OK	
	218	OP10884-MB1	10884	8082	W	38				OK	
	219	-BS1				39				OK	
	220	JC62879-9				40				OK	
	221	OP10884-MS				41				OK	
	222	-MSD				42				OK	
	223	JC62879-20				43				OK	
	224	JC62879-8				44				OK	
	225/226	Hexane				100				OK	
	227	CC6295-500				45				OK	
	228	IB				2				OK	
	229	JC62879-10				46				OK	
	230	-11				47				OK	
	231	OP10884-MS2				48				OK	
	232	-MSD2				49				OK	
	233	JC62879-12				50				OK	
	234	-13				51				OK	
	235	-14				52				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: OR01609

Rev. Date: 5/25/17

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11.7.5 11

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF 6203

Print Analyst Name: HUMARAH BAND

Date: 3/28/18

Analyst Signature: HB

Standard Data

Lot #	Description	Conc.

SV

Standard Data

Lot #	Description	Conc.
172362-119A	AC 1016/1260	500 ppb
-119B	↓	1000 ppb
-79	IB	20 ppb
173818	Hexane (Fisher)	-

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB 6195

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: HB Date: 3/30/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF181236/237	Hexane				100				OK	
	238	CC6195-1000				53			/	OK	
	239	IB				2			/	OK	
	240	JC62879-15				54			/	OK	
	241	-16				55			/	OK	
	242	-17				56			/	OK	
	243	-18				57			/	OK	
	244	JC62942-6				58			/	OK	
	245	JC62881-1				59			/	OK	
	246	-2				60			/	OK	
	247/248	Hexane				100				OK	
	249	CC6195-500				61			/	OK	
	250	IB				2			/	OK	
	251	JC62881-3				62			/	OK	
	252	-4				63			/	OK	
	253	-5				64			/	OK	
	254	-6				65			/	OK	
	255	OP10898-MS	10898	8082	S	66			/	OK	HAD TBA
	256	-MSD				67			/	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: GEF 6203

Print Analyst Name: Humaira Band

Date: 3/28/18

Analyst Signature: HB

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB 6195

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-2362119A	AC 1016/1260	500 PPB
-119B	↓	1000 PPB
-79	IB	20 PPB
173818	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: HB Date: 3/30/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF181257	Hexane				100				OK	
	258	OP10898-MB1 BS1	7R 3/29			68				OK	HAD TBA
	259	MB1 BS1				69				OK	↓
	260	CC 6195-1000				70				OK	
	261	IB				2				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

JR 3/29

Form: OR016-09

Rev. Date: 5/25/17

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11.7.5 11

Pest/PCB Extraction Log - Aqueous

LOGBOOK ID: 8 7188

Date Started: 3/27/18 Time Started: 1810

Date Finished: 3/27/18 Time Finished: 2300

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):

Separatory Funnel: SW846 3510C/CLP/other ✓

Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # GC 10884	RACK# PCB-14
Set-up by:	AF, RC
Extracted by:	AF, RC
Concentrated by:	RG
Final Vol. Top-up:	AF
Vialed by:	AF
Supervisor Review:	R Yuca 3/27/18

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)	Extract Cleanup GPC	Copper	H2SO4	Florisil	KMnO4	Comments
MB1	PCB			diH2O	~~1000~~ 300	clear	2.0						
BS1	LV1			diH2O	~~16~~ 300	clear	2.0						
JC62879-9 MS		16		orange	300	clear	2.0						
MSD		18		orange	300	clear	2.0						
BS													
JC62879-11 MS	2	12		yellow	300	clear	2.0						
MSD	2	19		yellow	300	clear	2.0						
JC62879-8	PCB	5		clear	300	clear	2.0						
-9	LV1	21		orange	290	1 yellow	2.0						
-10		4		yellow	290	1 yellow	2.0						
-11		11		yellow	290	clear	2.0						
-12		6		yellow	300	1 yellow	2.0						
-13		7		orange	300	clear	2.0						
-14		7		orange	300	clear	2.0						
-15		4		orange	290	clear	2.0						
-16		6		orange	300	clear	2.0						
-17		4		yellow	300	clear	2.0						
-18		4		orange	300	clear	2.0						
JC62881-1		5		yellow	300	clear	2.0						
-2		7		yellow	300	1 yellow	2.0						
-3		4		clear	300	clear	2.0						
-4		6		yellow	300	1 yellow	2.0						
-5		7		yellow	290	clear	2.0						
-6		4		orange	295	clear	2.0						
JC62879-20		4		yellow	300	clear	2.0						
JC62942-6		6		clear	300	clear	2.0						

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

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	11	–	–	Ok.
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	18215864	400	0.2
PPCB LL			

WITNESS SIGN: AF SPIKE SIGN: RC

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST			
PEST LL			
PCB	18215830	2ppm	0.2
PCB LL			

WITNESS SIGN: AF SPIKE SIGN: RC

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	151347	fisher.	15x3.
HEXANE	173528.	Fisher	50

REAGENT	LOT #	BAKE BATCH #	BRAND
Sodium Sulfate	1716006	3-23-18A	fisher.
Glass Wool	10R18-4.		lab.
Filter Paper			
Copper	08182160001		Aldrich
Florisil			
1:1 Sulfuric Acid			
Chlorine Strips			

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC62879-9 JC62879-11

Final Volume:

Other:

HT 3/28 DD 4/6 3/29

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SGS
Form: OP021A-10
Rev Date: 8/2/17

11.8.1 11

8 2188

LOGBOOK ID:

Pest/PCB Extraction Log - Aqueous

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other √
Continuous Liquid Liquid: SW846 3520C/CLP/other

Date Started: 3/27/18 Time Started: 1810
Date Finished: 3/27/18 Time Finished: 2360

BATCH # GC 10885 RACK# Pest 23

Set-up by:	AF KC
Extracted by:	AF KC
Concentrated by:	KC
Final Vol. Top-up:	AF
Vialed by:	AF
Supervisor Review:	LGlucha 3/27/18.

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	11	—	—	ok
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	OP18215864.	400	0.2
PPCB LL			
WITNESS SIGN: AF		SPIKE SIGN: KC	

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST	18215858A	250 ppb	0.2
PEST LL			
PCB			
PCB LL			
WITNESS SIGN: AF		SPIKE SIGN: KC	

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	181347.	Fisher.	15x3
HEXANE	173528.	Fisher.	50.

REAGENT	LOT #	BAKE BATCH #	BRAND
Sodium Sulfate	M16046	3-23-18A	Fisher
Glass Wool	10118-4		Lab.
Filter Paper			
Copper	OP18211000001		Alfa Aesar
Florisil			
1:1 Sulfuric Acid			
Chlorine 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:
JC62879-9
JC62879-11

Final Volume:

Other:
MT 3/28
DSA/6

	Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	Extract Cleanup GPC	Copper	H2SO4	Florisil	KMnO4	Comments
	MB1	Pest			diH_2O	1000	clear	2.0		✓				
	BS1	LV1			diH_2O	1000	clear	2.0		✓				
	JC62879-9 MS		15		orange	300		2.0		✓				
	MSD		17		orange	300		2.0						
	BS													
	JC62879-11 MS	2	21		yellow	290	clear	2.0		✓				
	MSD	2	20		yellow	300	clear	2.0		✓				
1	JC62879-8	Pest	5		clear	300	Clear	2.0		✓				
2	-9	LV1	21		orange	290	Yellow	2.0		✓				
3	-10		4		yellow	290	Yellow	2.0		✓				
4	-11		11		yellow	290	clear	2.0		✓				
5	-12		6		yellow	300	Yellow	2.0		✓				
6	-13		7		orange	300	Clear	2.0		✓				
7	-14		7		orange	300	clear	2.0		✓				
8	-15		4		orange	290	clear	2.0		✓				
9	-16		6		orange	300	Clear	2.0		✓				
10	-17		4		yellow	300	Clear	2.0		✓				
11	-18		4		orange	300	clear	2.0		✓				
12	JC62881 - 1		5		yellow	300	Clear	2.0		✓				
13	-2		7		yellow	300	Yellow	2.0		✓				
14	-3		4		clear	300	Clear	2.0		✓				
15	-4		6		yellow	300	Yellow	2.0		✓				
16	-5		7		yellow	290	Clear	2.0		✓				
17	-6		4		orange	295	Clear	2.0		✓				
18	JC62879-10		9		yellow	300	Clear	2.0		✓				
19	JC62879-6		6		clear	300	Clear	2.0		✓				
20														

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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
Analyst: MS Run ID: MA44075
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:44	MA44075-STD1	1		B=1.9213e-004,C=5.3133e-002,R=0.9998070
12:45	MA44075-STD2	1		STDB
12:46	MA44075-STD3	1		STDC
12:48	MA44075-STD4	1		STDD
12:49	MA44075-STD5	1		STDE
12:51	MA44075-STD6	1		STDF
12:56	MA44075-ICV1	1		
12:57	MA44075-ICB1	1		
13:00	MA44075-CCV1	1		
13:01	MA44075-CCB1	1		
13:03	MA44075-CRI1	1		
13:06	MP6348-MB1	1		
13:07	MP6348-B1	1		
13:09	ZZZZZZ	1		
13:10	MP6348-S2	1		
13:12	JC62798-2	1		(sample used for QC only; not part of login JC62881)
13:14	MP6348-S1	1		
13:17	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:19	MA44075-CCV2	1		
13:21	MA44075-CCB2	1		
13:22	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:25	ZZZZZZ	1		
13:26	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:29	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:33	MA44075-CCV3	1		
13:34	MA44075-CCB3	1		
13:36	ZZZZZZ	1		
13:37	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
Analyst: MS Run ID: MA44075
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:38	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:41	ZZZZZZ	1		
13:42	ZZZZZZ	1		
13:44	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:46	MA44075-CCV4	1		
13:48	MA44075-CCB4	1		
13:49	ZZZZZZ	1		
13:51	MP6349-MB1	1		
13:52	MP6349-B1	1		
13:53	MP6349-S1	1		
13:55	MP6349-S2	1		
13:57	JC62558-5	1		(sample used for QC only; not part of login JC62881)
13:59	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:01	MA44075-CCV5	1		
14:03	MA44075-CCB5	1		
14:04	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:07	ZZZZZZ	1		
14:08	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:11	ZZZZZZ	1		
14:12	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:15	MA44075-CCV6	1		
14:16	MA44075-CCB6	1		
14:18	ZZZZZZ	1		
14:19	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:22	ZZZZZZ	1		
14:23	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
Analyst: MS Run ID: MA44075
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:24	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:30	MA44075-CCV7	1		
14:32	MA44075-CCB7	1		
15:02	MP6360-MB1	1		
15:03	MP6360-B1	1		
15:05	MP6360-S1	1		
15:07	MP6360-S2	1		
15:08	JC62734-7	1		(sample used for QC only; not part of login JC62881)
15:10	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:13	ZZZZZZ	1		
15:14	MA44075-CCV8	1		
15:15	MA44075-CCB8	1		
15:17	ZZZZZZ	1		
15:19	ZZZZZZ	1		
15:20	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:22	ZZZZZZ	1		
15:24	ZZZZZZ	1		
15:25	ZZZZZZ	1		
15:26	ZZZZZZ	1		
15:28	MA44075-CCV9	1		
15:29	MA44075-CCB9	1		
15:31	ZZZZZZ	1		
15:32	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:36	ZZZZZZ	1		
15:37	ZZZZZZ	1		
15:38	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
Analyst: MS Run ID: MA44075
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:40	ZZZZZZ	1		
15:41	MA44075-CCV10	1		
15:42	MA44075-CCB10	1		
15:44	MP6361-MB1	1		
15:45	MP6361-B1	1		
15:47	MP6361-S1	1		Strong odor
15:49	MP6361-S2	1		Strong odor
15:50	JC62881-1	1		Strong odor
15:52	JC62881-2	1		
15:53	JC62881-3	1		
15:55	JC62881-4	1		
15:56	MA44075-CCV11	1		
15:57	MA44075-CCB11	1		
15:59	JC62881-5	1		
16:01	JC62881-6	1		Red, turbid
---------->	Last reportable sample/prep for job JC62881			
16:02	ZZZZZZ	1		
16:03	ZZZZZZ	1		
16:04	ZZZZZZ	1		
16:06	ZZZZZZ	1		
16:07	ZZZZZZ	1		
16:08	MA44075-CCV12	1		
16:10	MA44075-CCB12	1		
---------->	Last reportable CCB for job JC62881			
	Refer to raw data for calibration curve and standards.			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44075 Units: ug/l

Time:			12:57		13:01		13:21		13:34	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.059	-0.0089	<0.20	-0.024	<0.20	-0.017	<0.20	-0.0095	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44075 Units: ug/l

Time:			13:48		14:03		14:16		14:32	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.059	-0.0030	<0.20	-0.0078	<0.20	-0.0032	<0.20	0.0043	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44075 Units: ug/l

Time:			15:15		15:29		15:42		15:57	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.059	-0.0049	<0.20	-0.0014	<0.20	0.010	<0.20	0.0045	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44075 Units: ug/l

Time:			16:10	
Sample ID:			CCB12	
Metal	RL	IDL	raw	final
Mercury	0.20	.059	-0.0045	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44075 Units: ug/l

Time:		12:56			13:00			13:19	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	2.5	2.6	104.0	2.5	2.6	104.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44075 Units: ug/l

Time:		13:33			13:46			14:01	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.5	100.0	2.5	2.5	100.0	2.5	2.4	96.0

(*) Outside of QC limits
(anr) Analyte not requested

12.1.2
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44075 Units: ug/l

Time:		14:15			14:30			15:14	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.4	96.0	2.5	2.3	92.0	2.5	2.6	104.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44075 Units: ug/l

Time:		15:28			15:41			15:56	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.6	104.0	2.5	2.6	104.0	2.5	2.4	96.0

(*) Outside of QC limits
(anr) Analyte not requested

12.1.2
12

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44075 Units: ug/l

Time:		16:08	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Mercury	2.5	2.4	96.0

(*) Outside of QC limits
(anr) Analyte not requested

12.1.2
12

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032618W1.CSV Date Analyzed: 03/26/18 Methods: SW846 7470A
QC Limits: 70 to 130 % Recovery Run ID: MA44075 Units: ug/l

Time:			13:03	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Mercury	0.20		0.24	120.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:32	MA44114-STD1	1		STDA
13:35	MA44114-STD2	1		STDB
13:38	ZZZZZZ	1		
13:41	ZZZZZZ	1		
13:55	MA44114-ICV1	1		
14:08	MA44114-ICB1	1		
14:12	MA44114-ICCV1	1		
14:17	MA44114-ICCV2	1		
14:22	MA44114-CCB1	1		
14:32	MA44114-CRI1	1		
14:35	MA44114-CRID1	1		
14:38	MA44114-ICSA1	1		
14:41	MA44114-ICSAB1	1		
14:44	MA44114-HSTD1	1		
14:47	MA44114-HSTD2	1		
14:50	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:56	ZZZZZZ	1		
14:59	MA44114-CCV1	1		
15:01	MA44114-CCB2	1		
15:04	ZZZZZZ	1		
15:08	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:14	MA44114-CRI2	1		
15:17	MA44114-CRID2	1		
15:20	MP6399-MB1	1		
15:23	MP6399-MB2	1		
15:26	MP6399-B1	1		
15:29	MP6399-B2	1		
15:32	MA44114-CCV2	1		
15:34	MA44114-CCB3	1		
15:37	MP6399-S1	1		
15:40	MA44114-CCV3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:43	MA44114-CCB4	1		
15:48	ZZZZZZ	1		
15:51	ZZZZZZ	1		
15:54	ZZZZZZ	1		
15:57	ZZZZZZ	1		
16:00	MA44114-CCV4	1		
16:02	MA44114-CCB5	1		
16:09	ZZZZZZ	1		
16:12	ZZZZZZ	1		
16:15	ZZZZZZ	1		
16:18	ZZZZZZ	1		
16:21	ZZZZZZ	1		
16:24	ZZZZZZ	1		
16:27	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:36	MA44114-CCV5	1		
16:39	MA44114-CCB6	1		
16:46	ZZZZZZ	1		
16:49	ZZZZZZ	1		
16:52	ZZZZZZ	1		
16:55	ZZZZZZ	1		
16:58	ZZZZZZ	1		
17:01	ZZZZZZ	1		
17:05	ZZZZZZ	1		
17:07	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:14	MA44114-CCV6	1		
17:16	MA44114-CCB7	1		
17:19	ZZZZZZ	5		
17:22	ZZZZZZ	25		
17:25	MP6399-S2	1		
17:28	JC62879-9	1		(sample used for QC only; not part of login JC62881)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	17:31	MP6399-SD1	5		
	17:34	ZZZZZZ	1		
	17:37	ZZZZZZ	1		
	17:40	ZZZZZZ	1		
	17:43	ZZZZZZ	1		
	17:46	JC62881-1	1		
	17:49	MA44114-CCV7	1		
	17:52	MA44114-CCB8	1		
	17:55	JC62881-2	1		
	17:58	JC62881-3	1		
	18:01	JC62881-4	1		S high
	18:04	JC62881-5	1		S high
	18:07	JC62881-6	1		
---------->		Last reportable sample/prep for job JC62881			
	18:10	MP6414-B1	1		
	18:13	MP6414-B2	1		
	18:15	MP6414-MB1	1		
	18:18	MP6414-S1	1		Na high
	18:21	MP6414-S2	1		Na high
	18:25	MA44114-CCV8	1		
	18:27	MA44114-CCB9	1		
	18:30	JC63032-3	1		(sample used for QC only; not part of login JC62881)
	18:33	MP6414-SD1	5		Na high
	18:37	ZZZZZZ	1		
	18:40	MP6400-MB1	1		
	18:42	MP6400-B1	1		
	18:45	MP6400-S1	1		high rsd
	18:48	MP6400-S2	1		high rsd
	18:51	JC62779-2	1		(sample used for QC only; not part of login JC62881)
	18:54	MP6400-SD1	5		high rsd
	18:57	ZZZZZZ	1		
	19:00	MA44114-CCV9	1		
	19:03	MA44114-CCB10	1		
	19:06	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:09	ZZZZZZ	1		
19:12	ZZZZZZ	1		
19:15	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:21	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:27	ZZZZZZ	1		
19:30	ZZZZZZ	1		
19:33	ZZZZZZ	1		
19:36	MA44114-CCV10	1		
19:39	MA44114-CCB11	1		
19:42	ZZZZZZ	1		
19:45	ZZZZZZ	1		
19:48	ZZZZZZ	1		
19:51	ZZZZZZ	1		
19:54	ZZZZZZ	1		
19:57	ZZZZZZ	1		
20:01	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:07	MA44114-CCV11	1		
20:09	MA44114-CCB12	1		
20:12	MA44114-CRI3	1		
20:15	MA44114-CRID3	1		
20:18	MA44114-ICSA2	1		
20:21	MA44114-ICSAB2	1		
20:24	MA44114-CCV12	1		
20:27	MA44114-CCB13	1		
---------->	Last reportable CCB for job JC62881			
20:30	ZZZZZZ	1		
20:33	ZZZZZZ	1		
20:36	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:45	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:48	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:54	ZZZZZZ	1		
20:57	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:03	ZZZZZZ	1		
21:06	MA44114-CCV13	1		
21:09	MA44114-CCB14	1		
21:12	MP6403-MB1	1		
21:15	MP6403-B1	1		
21:18	MP6403-S1	1		
21:21	MP6403-S2	1		
21:24	JC63041-1	1		(sample used for QC only; not part of login JC62881)
21:27	MP6403-SD1	5		
21:30	ZZZZZZ	1		
21:33	ZZZZZZ	1		
21:36	ZZZZZZ	1		
21:39	ZZZZZZ	1		
21:42	MA44114-CCV14	1		
21:45	MA44114-CCB15	1		
21:48	ZZZZZZ	1		
21:50	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:56	ZZZZZZ	1		
21:59	ZZZZZZ	1		
22:03	ZZZZZZ	1		
22:06	ZZZZZZ	1		
22:09	ZZZZZZ	1		
22:12	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:18	MA44114-CCV15	1		
22:21	MA44114-CCB16	1		
22:24	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:26	ZZZZZZ	1		
22:29	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:35	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:41	ZZZZZZ	10		
22:44	ZZZZZZ	1		
22:47	ZZZZZZ	10		
22:50	MA44114-CCV16	1		
22:53	MA44114-CCB17	1		
22:56	ZZZZZZ	2		
22:59	ZZZZZZ	5		
23:02	ZZZZZZ	50		
23:05	ZZZZZZ	2		
23:08	ZZZZZZ	10		
23:11	ZZZZZZ	2		
23:13	ZZZZZZ	10		
23:16	ZZZZZZ	5		
23:19	ZZZZZZ	10		
23:22	ZZZZZZ	2		
23:25	MA44114-CCV17	1		
23:28	MA44114-CCB18	1		
23:31	ZZZZZZ	1		
23:34	ZZZZZZ	10		
23:37	ZZZZZZ	1		
23:40	ZZZZZZ	3		
23:43	ZZZZZZ	10		
23:46	ZZZZZZ	25		
23:49	ZZZZZZ	5		
23:51	ZZZZZZ	10		
23:54	ZZZZZZ	1		
23:57	ZZZZZZ	10		
00:00	MA44114-CCV18	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:03	MA44114-CCB19	1		
00:06	ZZZZZZ	1		
00:09	ZZZZZZ	5		
00:12	ZZZZZZ	10		
00:15	MP6394-MB2	5		
00:18	MP6394-B2	5		
00:21	ZZZZZZ	5		
00:24	MP6422-B1	1		
00:27	MP6422-MB1	1		
00:30	MP6422-S1	1		Y out. Mn an FE high
00:33	MP6422-S2	1		Y out. Mn an FE high
00:36	MA44114-CCV19	1		
00:39	MA44114-CCB20	1		
00:42	JC63038-6	1		(sample used for QC only; not part of login JC62881)
00:45	MP6422-SD1	5		Y out. Mn an FE high
00:48	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:54	ZZZZZZ	1		
00:57	ZZZZZZ	1		
01:00	ZZZZZZ	1		
01:03	ZZZZZZ	1		
01:06	ZZZZZZ	1		
01:09	ZZZZZZ	1		
01:12	MA44114-CCV20	1		
01:15	MA44114-CCB21	1		
01:18	ZZZZZZ	1		
01:21	ZZZZZZ	1		
01:24	ZZZZZZ	1		
01:27	ZZZZZZ	1		
01:30	ZZZZZZ	1		
01:33	ZZZZZZ	1		
01:36	ZZZZZZ	1		
01:39	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:42	MA44114-CCV21	1		
01:45	MA44114-CCB22	1		
01:48	MA44114-CRI4	1		
01:51	MA44114-CRID4	1		
01:54	MA44114-CCV22	1		
01:57	MA44114-CCB23	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:32	MA44114-STD1	6846 R	159920 R	21139 R	11271 R
13:35	MA44114-STD2	6517	151770	20889	10409
13:38	ZZZZZZ	6817	158180	21525	10841
13:41	ZZZZZZ	6927	162550	21644	11420
13:55	MA44114-ICV1	6788	158180	21394	10845
14:08	MA44114-ICB1	6851	161300	21393	11360
14:12	MA44114-ICCV1	No results reported for the elements associated with this internal standard.			
14:17	MA44114-ICCV2	6710	156530	21144	10703
14:22	MA44114-CCB1	6848	160670	21551	11316
14:32	MA44114-CRI1	No results reported for the elements associated with this internal standard.			
14:35	MA44114-CRID1	No results reported for the elements associated with this internal standard.			
14:38	MA44114-ICSA1	6227	143980	20432	9787
14:41	MA44114-ICSAB1	6323	146260	20637	9922
14:44	MA44114-HSTD1	6791	159160	21617	11252
14:47	MA44114-HSTD2	6334	146970	20594	9841
14:50	ZZZZZZ	6716	159810	21424	11245
14:53	ZZZZZZ	6694	160450	21480	11258
14:56	ZZZZZZ	6858	161180	21425	11300
14:59	MA44114-CCV1	6614	155750	21202	10578
15:01	MA44114-CCB2	6853	161330	21403	11301
15:04	ZZZZZZ	7011	164100	22038	11509
15:08	ZZZZZZ	6742	158990	21525	10831
15:11	ZZZZZZ	6041	143250	20442	9159
15:14	MA44114-CRI2	6921	166690	21259	11279
15:17	MA44114-CRID2	6835	160530	21251	11209
15:20	MP6399-MB1	6998	164720	22007	11463
15:23	MP6399-MB2	6953	164390	21623	11384
15:26	MP6399-B1	6747	157890	21282	10784
15:29	MP6399-B2	6848	161340	21615	10895
15:32	MA44114-CCV2	6738	157540	21169	10636
15:34	MA44114-CCB3	6853	161730	21414	11206
15:37	MP6399-S1	6886	160710	21761	10909
15:40	MA44114-CCV3	6818	157800	21389	10745

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:43	MA44114-CCB4	7023	163320	21436	11428
15:48	ZZZZZZ	6771	159380	21722	10693
15:51	ZZZZZZ	6840	159830	21815	10809
15:54	ZZZZZZ	6785	159280	21857	10698
15:57	ZZZZZZ	6720	157610	21499	10573
16:00	MA44114-CCV4	6767	156440	21171	10634
16:02	MA44114-CCB5	6933	162690	21030	11268
16:09	ZZZZZZ	6859	158510	21722	10415
16:12	ZZZZZZ	6989	163990	21720	11205
16:15	ZZZZZZ	7028	163480	21609	11249
16:18	ZZZZZZ	7093	164700	21884	11269
16:21	ZZZZZZ	No results reported for the elements associated with this internal standard.			
16:24	ZZZZZZ	7191	167980	21866	11551
16:27	ZZZZZZ	7048	161890	21843	11055
16:30	ZZZZZZ	7056	163720	21976	10951
16:33	ZZZZZZ	6829	158420	21602	10246
16:36	MA44114-CCV5	6968	158390	20594	10775
16:39	MA44114-CCB6	7232	167510	21654	11546
16:46	ZZZZZZ	6899	158600	21396	10409
16:49	ZZZZZZ	6924	159530	21271	10454
16:52	ZZZZZZ	7289	168560	22049	11241
16:55	ZZZZZZ	7256	168710	21750	11460
16:58	ZZZZZZ	6942	158740	21154	10452
17:01	ZZZZZZ	6567	152830	20633	9848
17:05	ZZZZZZ	7015	161930	21183	10765
17:07	ZZZZZZ	6695	154610	20649	10063
17:11	ZZZZZZ	6622	153720	20357	9959
17:14	MA44114-CCV6	7061	161440	20860	10792
17:16	MA44114-CCB7	7055	162750	20654	11202
17:19	ZZZZZZ	7055	162650	20828	11110
17:22	ZZZZZZ	7236	165760	21083	11433
17:25	MP6399-S2	6991	159800	20870	10784
17:28	JC62879-9	6924	163580	21001	10862

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:31	MP6399-SD1	7282	167060	21339	11482
17:34	ZZZZZZ	7289	166730	21409	11324
17:37	ZZZZZZ	7272	167130	21513	11227
17:40	ZZZZZZ	7107	164650	21139	10968
17:43	ZZZZZZ	7170	164510	21311	10970
17:46	JC62881-1	7201	166190	21260	11080
17:49	MA44114-CCV7	6862	159190	20630	10474
17:52	MA44114-CCB8	6919	159720	20256	10940
17:55	JC62881-2	6986	162370	20924	10782
17:58	JC62881-3	7119	164510	21166	10991
18:01	JC62881-4	6826	159050	21066	10383
18:04	JC62881-5	6797	157030	20730	10229
18:07	JC62881-6	7226	166990	21167	11185
18:10	MP6414-B1	7082	162410	21004	10830
18:13	MP6414-B2	7085	162270	20658	10814
18:15	MP6414-MB1	7230	166560	20984	11307
18:18	MP6414-S1	6293	142260	20097	9000
18:21	MP6414-S2	6407	143680	20376	9149
18:25	MA44114-CCV8	6918	157760	20412	10509
18:27	MA44114-CCB9	7050	161820	20464	11111
18:30	JC63032-3	6403	143170	20104	9140
18:33	MP6414-SD1	6810	155150	20701	10089
18:37	ZZZZZZ	7359	169510	21492	11506
18:40	MP6400-MB1	7326	168790	21513	11467
18:42	MP6400-B1	7112	162420	21054	10864
18:45	MP6400-S1	6958	158450	20930	10473
18:48	MP6400-S2	7011	161400	21220	10566
18:51	JC62779-2	7096	162800	21286	10779
18:54	MP6400-SD1	7220	165170	21334	11245
18:57	ZZZZZZ	7317	168310	21718	11351
19:00	MA44114-CCV9	7028	159820	20616	10771
19:03	MA44114-CCB10	7062	168670	21374	11229
19:06	ZZZZZZ	6995	159960	20947	10771

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:09	ZZZZZZ	7079	163040	21412	10753
19:12	ZZZZZZ	6763	154150	21207	10183
19:15	ZZZZZZ	6965	159710	21172	10706
19:18	ZZZZZZ	6984	160150	21298	10658
19:21	ZZZZZZ	7052	161950	21384	10859
19:24	ZZZZZZ	7138	163990	21552	10902
19:27	ZZZZZZ	7023	161910	21471	10823
19:30	ZZZZZZ	7256	167200	21712	11316
19:33	ZZZZZZ	7076	162630	21643	10880
19:36	MA44114-CCV10	6979	160070	20962	10762
19:39	MA44114-CCB11	7020	162270	20917	11256
19:42	ZZZZZZ	7012	162480	21361	10871
19:45	ZZZZZZ	6934	161270	21495	10684
19:48	ZZZZZZ	6691	153580	20978	10146
19:51	ZZZZZZ	6997	161720	21235	10823
19:54	ZZZZZZ	6971	160540	21364	10686
19:57	ZZZZZZ	7051	161920	21323	10887
20:01	ZZZZZZ	6945	160230	21328	10763
20:04	ZZZZZZ	6989	161890	21265	10819
20:07	MA44114-CCV11	7022	160780	21180	10835
20:09	MA44114-CCB12	7197	166520	21651	11491
20:12	MA44114-CRI3	7143	165010	21340	11316
20:15	MA44114-CRID3	7080	164460	21115	11310
20:18	MA44114-ICSA2	6489	148190	20294	9850
20:21	MA44114-ICSAB2	6543	148510	20552	9961
20:24	MA44114-CCV12	7007	160820	21257	10815
20:27	MA44114-CCB13	7226	166800	21585	11536
20:30	ZZZZZZ	7227	166750	21775	11554
20:33	ZZZZZZ	7110	164110	21360	11431
20:36	ZZZZZZ	7259	168490	21669	11594
20:39	ZZZZZZ	7171	165100	21553	11443
20:42	ZZZZZZ	7254	167550	21917	11574
20:45	ZZZZZZ	7147	166890	21612	11496

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:48	ZZZZZZ	7187	166370	21620	11483
20:51	ZZZZZZ	7242	167460	21884	11562
20:54	ZZZZZZ	7050	163620	21126	11328
20:57	ZZZZZZ	6698	155850	20721	10340
21:01	ZZZZZZ	6924	152290	20557	10351
21:03	ZZZZZZ	6537	150790	20131	10027
21:06	MA44114-CCV13	6948	160120	21195	10761
21:09	MA44114-CCB14	7066	163940	21282	11318
21:12	MP6403-MB1	7287	169210	22115	11611
21:15	MP6403-B1	7110	164620	21636	11091
21:18	MP6403-S1	6876	158330	21460	10442
21:21	MP6403-S2	6933	160060	21633	10575
21:24	JC63041-1	6915	158760	21581	10320
21:27	MP6403-SD1	7103	163520	21734	10998
21:30	ZZZZZZ	7218	166450	22223	11127
21:33	ZZZZZZ	7228	166410	22182	11163
21:36	ZZZZZZ	7202	166430	22013	11132
21:39	ZZZZZZ	7204	165940	22076	11131
21:42	MA44114-CCV14	6902	157850	21065	10716
21:45	MA44114-CCB15	7187	166190	21515	11496
21:48	ZZZZZZ	7275	166850	22458	11189
21:50	ZZZZZZ	7141	163090	21737	10968
21:53	ZZZZZZ	7119	164710	21948	10960
21:56	ZZZZZZ	7006	160000	21604	10800
21:59	ZZZZZZ	7167	165430	21816	11058
22:03	ZZZZZZ	7247	165190	22008	11174
22:06	ZZZZZZ	7453	165490	22830	11177
22:09	ZZZZZZ	7097	162800	21632	10999
22:12	ZZZZZZ	7301	167500	21944	11228
22:15	ZZZZZZ	6868	160110	21689	10509
22:18	MA44114-CCV15	6777	158710	20695	10501
22:21	MA44114-CCB16	7048	162950	21036	11276
22:24	ZZZZZZ	7276	166710	22021	10989

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:26	ZZZZZZ	7357	170350	22136	11436
22:29	ZZZZZZ	7183	166260	21841	11178
22:32	ZZZZZZ	7197	168350	21797	11452
22:35	ZZZZZZ	7064	162900	21489	10990
22:38	ZZZZZZ	999999 !a	149690	20283	10984
22:41	ZZZZZZ	6396	161760	20993	11126
22:44	ZZZZZZ	2715 !a	155060	20089	11459
22:47	ZZZZZZ	6749	165250	21400	11332
22:50	MA44114-CCV16	6971	159380	20880	10746
22:53	MA44114-CCB17	7134	164240	21166	11364
22:56	ZZZZZZ	7017	163100	21441	11149
22:59	ZZZZZZ	7216	167420	21670	11394
23:02	ZZZZZZ	7193	166920	21583	11425
23:05	ZZZZZZ	6790	156310	20275	10868
23:08	ZZZZZZ	6786	154200	19725	10757
23:11	ZZZZZZ	6747	154470	19972	11227
23:13	ZZZZZZ	6727	153260	19453	10755
23:16	ZZZZZZ	6598	144850	19530	10635
23:19	ZZZZZZ	6765	154130	19662	10650
23:22	ZZZZZZ	6780	154490	19898	10467
23:25	MA44114-CCV17	6576	148810	19233	10195
23:28	MA44114-CCB18	6703	152940	19423	10680
23:31	ZZZZZZ	6879	157070	20537	10461
23:34	ZZZZZZ	6873	156840	20034	10977
23:37	ZZZZZZ	6808	155260	19941	10650
23:40	ZZZZZZ	6681	152500	19557	11031
23:43	ZZZZZZ	6676	152660	19449	10657
23:46	ZZZZZZ	6785	154100	19526	10737
23:49	ZZZZZZ	6893	155070	19863	10792
23:51	ZZZZZZ	6900	158920	20059	10822
23:54	ZZZZZZ	6578	148550	19818	10092
23:57	ZZZZZZ	6429	146480	18937	10000
00:00	MA44114-CCV18	6706	150370	19385	10359

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:03	MA44114-CCB19	6831	155170	19659	10853
00:06	ZZZZZZ	5842	133580	18226	8767
00:09	ZZZZZZ	6621	150340	19290	10725
00:12	ZZZZZZ	6787	154030	19551	10801
00:15	MP6394-MB2	6715	153420	19504	10661
00:18	MP6394-B2	6810	154990	19781	10684
00:21	ZZZZZZ	6774	152450	19737	10470
00:24	MP6422-B1	6546	148280	19172	10192
00:27	MP6422-MB1	6872	156840	19838	10838
00:30	MP6422-S1	9000 !a	201890	26374	10737
00:33	MP6422-S2	9922 !a	223290 !a	30093 !a	11223
00:36	MA44114-CCV19	7064	161510	21290	10808
00:39	MA44114-CCB20	7228	166750	21481	11441
00:42	JC63038-6	10149 !a	229720 !a	30565 !a	11463
00:45	MP6422-SD1	7904	180620	22871	11386
00:48	ZZZZZZ	7313	167030	21611	11326
00:51	ZZZZZZ	8562	194360	25696	11282
00:54	ZZZZZZ	8614	196790	25926	11358
00:57	ZZZZZZ	8177	185000	24659	10850
01:00	ZZZZZZ	8278	187260	24971	11172
01:03	ZZZZZZ	7366	169830	21645	11227
01:06	ZZZZZZ	7390	168960	22086	11318
01:09	ZZZZZZ	7426	171110	22145	11193
01:12	MA44114-CCV20	6958	159340	20740	10667
01:15	MA44114-CCB21	7248	167950	21438	11451
01:18	ZZZZZZ	7455	170660	22222	11467
01:21	ZZZZZZ	7466	170510	22352	11426
01:24	ZZZZZZ	7352	169670	23098	11364
01:27	ZZZZZZ	7100	163630	21828	10777
01:30	ZZZZZZ	7372	168430	22204	11094
01:33	ZZZZZZ	7343	167210	22065	11138
01:36	ZZZZZZ	7258	165170	21651	10989
01:39	ZZZZZZ	7500	170710	22267	11094

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:42	MA44114-CCV21	7138	163590	21310	10880
01:45	MA44114-CCB22	7161	165430	21215	11298
01:48	MA44114-CRI4	7065	162960	21018	11084
01:51	MA44114-CRID4	7114	164720	21081	11221
01:54	MA44114-CCV22	6952	158910	20825	10614
01:57	MA44114-CCB23	7270	167800	21512	11467

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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			14:08 ICB1		14:22 CCB1		15:01 CCB2		15:34 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	-0.10	<200	10.7	<200	-10	<200	5.8	<200
Antimony	6.0	2.4	-0.80	<6.0	-0.80	<6.0	-0.50	<6.0	0.10	<6.0
Arsenic	3.0	1.2	-0.60	<3.0	-1.7	<3.0	1.6	<3.0	-0.80	<3.0
Barium	200	.6	0.0	<200	0.40	<200	0.60	<200	0.10	<200
Beryllium	1.0	.2	0.0	<1.0	0.10	<1.0	0.0	<1.0	0.0	<1.0
Bismuth	20	3.2								
Boron	100	1.5	anr							
Cadmium	3.0	.4	0.10	<3.0	0.10	<3.0	0.20	<3.0	0.20	<3.0
Calcium	5000	5.5	-2.4	<5000	-1.5	<5000	-2.2	<5000	-2.8	<5000
Chromium	10	.7	0.30	<10	-0.20	<10	0.0	<10	-0.10	<10
Cobalt	50	.4	0.10	<50	-0.10	<50	-0.20	<50	0.0	<50
Copper	10	1.1	0.70	<10	0.40	<10	0.50	<10	0.30	<10
Iron	100	3.5	-2.3	<100	1.2	<100	0.80	<100	-0.10	<100
Lead	3.0	2.2	-0.30	<3.0	-0.40	<3.0	0.40	<3.0	-0.60	<3.0
Lithium	50	3.4								
Magnesium	5000	25	0.90	<5000	-9.1	<5000	-13	<5000	-9.9	<5000
Manganese	15	.14	0.0	<15	0.0	<15	-0.10	<15	0.0	<15
Molybdenum	20	.4								
Nickel	10	.5	0.0	<10	0.0	<10	-0.30	<10	-0.20	<10
Phosphorus	50	2								
Potassium	10000	60	-21	<10000	119	<10000	68.5	<10000	95.5	<10000
Selenium	10	3.7	-1.2	<10	-1.0	<10	2.1	<10	1.2	<10
Silicon	200	1.8								
Silver	10	.7	0.20	<10	0.50	<10	0.30	<10	0.30	<10
Sodium	10000	35	21.4	<10000	35.6	<10000	51.1	<10000	38.2	<10000
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	-0.20	<2.0	1.7	<2.0	0.90	<2.0	1.4	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	-0.40	<50	-0.20	<50	-0.30	<50	-0.20	<50
Zinc	20	.2	0.0	<20	0.10	<20	0.0	<20	0.0	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	14:08 ICB1 raw	final	14:22 CCB1 raw	final	15:01 CCB2 raw	final	15:34 CCB3 raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			15:43 CCB4		16:02 CCB5		16:39 CCB6		17:16 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	5.0	<200	4.0	<200	10.1	<200	-6.9	<200
Antimony	6.0	2.4	0.20	<6.0	0.20	<6.0	2.0	<6.0	1.2	<6.0
Arsenic	3.0	1.2	0.30	<3.0	-0.50	<3.0	0.90	<3.0	1.2	<3.0
Barium	200	.6	0.80	<200	0.30	<200	1.0	<200	0.80	<200
Beryllium	1.0	.2	0.10	<1.0	-0.10	<1.0	-0.10	<1.0	-0.10	<1.0
Bismuth	20	3.2								
Boron	100	1.5	anr							
Cadmium	3.0	.4	0.20	<3.0	0.20	<3.0	-0.10	<3.0	0.20	<3.0
Calcium	5000	5.5	-2.8	<5000	-0.80	<5000	-0.60	<5000	10.3	<5000
Chromium	10	.7	-0.40	<10	0.0	<10	0.0	<10	0.30	<10
Cobalt	50	.4	-0.30	<50	0.10	<50	0.0	<50	0.10	<50
Copper	10	1.1	-0.70	<10	-0.10	<10	-0.50	<10	0.10	<10
Iron	100	3.5	0.90	<100	-1.5	<100	-1.2	<100	2.0	<100
Lead	3.0	2.2	-0.40	<3.0	-0.10	<3.0	-0.50	<3.0	0.30	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-26	<5000	-15	<5000	-23	<5000	0.50	<5000
Manganese	15	.14	0.0	<15	0.0	<15	0.0	<15	0.10	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.10	<10	0.10	<10	-0.30	<10	0.60	<10
Phosphorus	50	2								
Potassium	10000	60	77.7	<10000	83.6	<10000	200	<10000	106	<10000
Selenium	10	3.7	1.4	<10	0.90	<10	-0.60	<10	-1.0	<10
Silicon	200	1.8								
Silver	10	.7	0.20	<10	0.0	<10	0.30	<10	0.10	<10
Sodium	10000	35	25.5	<10000	47.6	<10000	99.6	<10000	97.3	<10000
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	1.1	<2.0	1.4	<2.0	1.5	<2.0	0.70	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.0	<50	-0.40	<50	-0.30	<50	-0.20	<50
Zinc	20	.2	0.20	<20	0.0	<20	0.10	<20	1.7	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			15:43 CCB4		16:02 CCB5		16:39 CCB6		17:16 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			17:52 CCB8		18:27 CCB9		19:03 CCB10		19:39 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	4.7	<200	1.7	<200	3.6	<200	1.2	<200
Antimony	6.0	2.4	0.10	<6.0	-1.6	<6.0	-2.0	<6.0	0.0	<6.0
Arsenic	3.0	1.2	0.40	<3.0	0.60	<3.0	1.0	<3.0	0.30	<3.0
Barium	200	.6	1.5	<200	1.0	<200	0.90	<200	1.1	<200
Beryllium	1.0	.2	0.0	<1.0	0.0	<1.0	0.0	<1.0	0.10	<1.0
Bismuth	20	3.2								
Boron	100	1.5	anr							
Cadmium	3.0	.4	0.10	<3.0	-0.10	<3.0	-0.10	<3.0	0.10	<3.0
Calcium	5000	5.5	15.7	<5000	16.1	<5000	16.9	<5000	14.2	<5000
Chromium	10	.7	-0.30	<10	-0.40	<10	0.10	<10	0.30	<10
Cobalt	50	.4	-0.10	<50	-0.20	<50	-0.20	<50	-0.20	<50
Copper	10	1.1	-0.80	<10	-1.2	<10	-0.90	<10	-0.20	<10
Iron	100	3.5	-2.5	<100	0.80	<100	1.8	<100	0.90	<100
Lead	3.0	2.2	0.30	<3.0	0.90	<3.0	-0.60	<3.0	-0.30	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-4.7	<5000	-9.1	<5000	-3.5	<5000	-7.4	<5000
Manganese	15	.14	0.0	<15	0.0	<15	0.0	<15	0.10	<15
Molybdenum	20	.4								
Nickel	10	.5	0.40	<10	-0.10	<10	0.20	<10	0.50	<10
Phosphorus	50	2								
Potassium	10000	60	136	<10000	353	<10000	130	<10000	109	<10000
Selenium	10	3.7	0.80	<10	-1.2	<10	-0.40	<10	-1.7	<10
Silicon	200	1.8								
Silver	10	.7	-0.50	<10	-0.80	<10	-0.40	<10	0.20	<10
Sodium	10000	35	36.1	<10000	488	<10000	166	<10000	151	<10000
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	0.40	<2.0	1.3	<2.0	0.90	<2.0	0.0	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	-0.20	<50	-0.10	<50	0.20	<50	-0.30	<50
Zinc	20	.2	2.0	<20	1.9	<20	2.0	<20	2.0	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			17:52 CCB8		18:27 CCB9		19:03 CCB10		19:39 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			20:09 CCB12		20:27 CCB13	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	19	1.5	<200	11.9	<200
Antimony	6.0	2.4	0.60	<6.0	-0.30	<6.0
Arsenic	3.0	1.2	-0.50	<3.0	-0.20	<3.0
Barium	200	.6	0.80	<200	1.3	<200
Beryllium	1.0	.2	-0.10	<1.0	-0.20	<1.0
Bismuth	20	3.2				
Boron	100	1.5	anr			
Cadmium	3.0	.4	-0.10	<3.0	0.0	<3.0
Calcium	5000	5.5	13.6	<5000	-0.50	<5000
Chromium	10	.7	-0.20	<10	0.20	<10
Cobalt	50	.4	0.0	<50	0.0	<50
Copper	10	1.1	-1.0	<10	-0.10	<10
Iron	100	3.5	-0.60	<100	-1.4	<100
Lead	3.0	2.2	-0.70	<3.0	0.0	<3.0
Lithium	50	3.4				
Magnesium	5000	25	-8.1	<5000	2.3	<5000
Manganese	15	.14	0.10	<15	0.0	<15
Molybdenum	20	.4				
Nickel	10	.5	0.20	<10	0.20	<10
Phosphorus	50	2				
Potassium	10000	60	36.4	<10000	82.1	<10000
Selenium	10	3.7	-1.3	<10	-1.0	<10
Silicon	200	1.8				
Silver	10	.7	0.30	<10	0.0	<10
Sodium	10000	35	138	<10000	94.5	<10000
Strontium	10	.2				
Sulfur	50	3.1				
Thallium	2.0	1.8	0.90	<2.0	1.1	<2.0
Tin	10	.9				
Titanium	10	.7				
Tungsten	50	2.2				
Vanadium	50	.8	-0.20	<50	-0.30	<50
Zinc	20	.2	2.0	<20	0.40	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time:			20:09		20:27	
Sample ID:			CCB12		CCB13	
Metal	RL	IDL	raw	final	raw	final
Zirconium	10	.3				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		14:17	
Sample ID:	ICCV	ICCV2	
Metal	True	Results	% Rec
Aluminum	40000	40800	102.0
Antimony	2000	2010	100.5
Arsenic	2000	2010	100.5
Barium	2000	2050	102.5
Beryllium	2000	2060	103.0
Bismuth			
Boron	anr		
Cadmium	2000	2020	101.0
Calcium	40000	41200	103.0
Chromium	2000	2040	102.0
Cobalt	2000	2050	102.5
Copper	2000	2010	100.5
Iron	40000	41100	102.8
Lead	2000	2050	102.5
Lithium			
Magnesium	40000	41200	103.0
Manganese	2000	2100	105.0
Molybdenum			
Nickel	2000	2060	103.0
Phosphorus			
Potassium	40000	40700	101.8
Selenium	2000	2030	101.5
Silicon			
Silver	250	252	100.8
Sodium	40000	41000	102.5
Strontium			
Sulfur			
Thallium	2000	2080	104.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	2040	102.0
Zinc	2000	2050	102.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		14:17	
Sample ID:	ICCV	ICCV2	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		13:55			14:59			15:32	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39200	98.0	40000	39600	99.0	40000	39400	98.5
Antimony	2000	1960	98.0	2000	2010	100.5	2000	1980	99.0
Arsenic	2000	1960	98.0	2000	2010	100.5	2000	1980	99.0
Barium	2000	1970	98.5	2000	1990	99.5	2000	1980	99.0
Beryllium	2000	1990	99.5	2000	2000	100.0	2000	1980	99.0
Bismuth									
Boron	anr								
Cadmium	2000	1970	98.5	2000	2020	101.0	2000	1980	99.0
Calcium	40000	39500	98.8	40000	40000	100.0	40000	39900	99.8
Chromium	2000	1990	99.5	2000	2000	100.0	2000	1970	98.5
Cobalt	2000	2000	100.0	2000	2040	102.0	2000	2020	101.0
Copper	2000	1950	97.5	2000	1970	98.5	2000	1950	97.5
Iron	40000	39600	99.0	40000	39900	99.8	40000	39600	99.0
Lead	2000	2000	100.0	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	40000	39600	99.0	40000	40000	100.0	40000	40100	100.3
Manganese	2000	2040	102.0	2000	2060	103.0	2000	2020	101.0
Molybdenum									
Nickel	2000	2010	100.5	2000	2050	102.5	2000	2040	102.0
Phosphorus									
Potassium	40000	39200	98.0	40000	39600	99.0	40000	39400	98.5
Selenium	2000	1960	98.0	2000	2030	101.5	2000	1990	99.5
Silicon									
Silver	250	246	98.4	250	248	99.2	250	244	97.6
Sodium	40000	39500	98.8	40000	39900	99.8	40000	39900	99.8
Strontium									
Sulfur									
Thallium	2000	2030	101.5	2000	2080	104.0	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	1990	99.5	2000	1960	98.0
Zinc	2000	2000	100.0	2000	2050	102.5	2000	2010	100.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		13:55			14:59			15:32	
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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		15:40			16:00			16:36	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38700	96.8	40000	39300	98.3	40000	40400	101.0
Antimony	2000	1950	97.5	2000	1970	98.5	2000	1900	95.0
Arsenic	2000	1960	98.0	2000	1970	98.5	2000	1900	95.0
Barium	2000	1950	97.5	2000	1980	99.0	2000	2030	101.5
Beryllium	2000	1950	97.5	2000	1970	98.5	2000	2020	101.0
Bismuth									
Boron	anr								
Cadmium	2000	1950	97.5	2000	1960	98.0	2000	1890	94.5
Calcium	40000	39300	98.3	40000	39900	99.8	40000	41300	103.3
Chromium	2000	1960	98.0	2000	1980	99.0	2000	1960	98.0
Cobalt	2000	2000	100.0	2000	2010	100.5	2000	1960	98.0
Copper	2000	1940	97.0	2000	1960	98.0	2000	1950	97.5
Iron	40000	39100	97.8	40000	39600	99.0	40000	40700	101.8
Lead	2000	2010	100.5	2000	2020	101.0	2000	1990	99.5
Lithium									
Magnesium	40000	39600	99.0	40000	40200	100.5	40000	41800	104.5
Manganese	2000	2010	100.5	2000	2020	101.0	2000	1990	99.5
Molybdenum									
Nickel	2000	2020	101.0	2000	2030	101.5	2000	2000	100.0
Phosphorus									
Potassium	40000	38800	97.0	40000	39300	98.3	40000	40200	100.5
Selenium	2000	1970	98.5	2000	1980	99.0	2000	1920	96.0
Silicon									
Silver	250	243	97.2	250	244	97.6	250	243	97.2
Sodium	40000	39300	98.3	40000	39800	99.5	40000	41200	103.0
Strontium									
Sulfur									
Thallium	2000	2040	102.0	2000	2060	103.0	2000	2010	100.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	1940	97.0	2000	1950	97.5	2000	1930	96.5
Zinc	2000	1980	99.0	2000	2000	100.0	2000	1930	96.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		15:40			16:00			16:36	
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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		17:14			17:49			18:25	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38200	95.5	40000	39100	97.8	40000	39100	97.8
Antimony	2000	1850	92.5	2000	1930	96.5	2000	1900	95.0
Arsenic	2000	1860	93.0	2000	1940	97.0	2000	1910	95.5
Barium	2000	1900	95.0	2000	1960	98.0	2000	1960	98.0
Beryllium	2000	1890	94.5	2000	1930	96.5	2000	1930	96.5
Bismuth									
Boron	anr								
Cadmium	2000	1840	92.0	2000	1910	95.5	2000	1880	94.0
Calcium	40000	39300	98.3	40000	40500	101.3	40000	40500	101.3
Chromium	2000	1890	94.5	2000	1930	96.5	2000	1940	97.0
Cobalt	2000	1930	96.5	2000	2000	100.0	2000	1980	99.0
Copper	2000	1890	94.5	2000	1920	96.0	2000	1940	97.0
Iron	40000	38400	96.0	40000	39400	98.5	40000	39300	98.3
Lead	2000	1970	98.5	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	40000	39900	99.8	40000	41000	102.5	40000	41200	103.0
Manganese	2000	1910	95.5	2000	1940	97.0	2000	1950	97.5
Molybdenum									
Nickel	2000	1990	99.5	2000	2070	103.5	2000	2050	102.5
Phosphorus									
Potassium	40000	38100	95.3	40000	39100	97.8	40000	39600	99.0
Selenium	2000	1890	94.5	2000	1960	98.0	2000	1940	97.0
Silicon									
Silver	250	234	93.6	250	238	95.2	250	240	96.0
Sodium	40000	39200	98.0	40000	40300	100.8	40000	39900	99.8
Strontium									
Sulfur									
Thallium	2000	1990	99.5	2000	2070	103.5	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1840	92.0	2000	1870	93.5	2000	1880	94.0
Zinc	2000	1890	94.5	2000	1960	98.0	2000	1930	96.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		17:14			17:49			18:25	
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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		19:00			19:36			20:07	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39600	99.0	40000	38800	97.0	40000	38700	96.8
Antimony	2000	1900	95.0	2000	1910	95.5	2000	1890	94.5
Arsenic	2000	1910	95.5	2000	1920	96.0	2000	1900	95.0
Barium	2000	1990	99.5	2000	1950	97.5	2000	1940	97.0
Beryllium	2000	1960	98.0	2000	1940	97.0	2000	1930	96.5
Bismuth									
Boron	anr								
Cadmium	2000	1880	94.0	2000	1890	94.5	2000	1880	94.0
Calcium	40000	40900	102.3	40000	39900	99.8	40000	39600	99.0
Chromium	2000	1940	97.0	2000	1940	97.0	2000	1930	96.5
Cobalt	2000	1970	98.5	2000	1980	99.0	2000	1960	98.0
Copper	2000	1920	96.0	2000	1920	96.0	2000	1900	95.0
Iron	40000	39800	99.5	40000	39200	98.0	40000	38900	97.3
Lead	2000	2010	100.5	2000	2010	100.5	2000	1990	99.5
Lithium									
Magnesium	40000	41200	103.0	40000	40300	100.8	40000	40000	100.0
Manganese	2000	1940	97.0	2000	1960	98.0	2000	1940	97.0
Molybdenum									
Nickel	2000	2020	101.0	2000	2020	101.0	2000	2000	100.0
Phosphorus									
Potassium	40000	39600	99.0	40000	38800	97.0	40000	38400	96.0
Selenium	2000	1930	96.5	2000	1940	97.0	2000	1920	96.0
Silicon									
Silver	250	237	94.8	250	239	95.6	250	237	94.8
Sodium	40000	40200	100.5	40000	39500	98.8	40000	39100	97.8
Strontium									
Sulfur									
Thallium	2000	2030	101.5	2000	2030	101.5	2000	2020	101.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1870	93.5	2000	1890	94.5	2000	1880	94.0
Zinc	2000	1930	96.5	2000	1950	97.5	2000	1930	96.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		19:00			19:36			20:07	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		20:24	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Aluminum	40000	38300	95.8
Antimony	2000	1890	94.5
Arsenic	2000	1900	95.0
Barium	2000	1920	96.0
Beryllium	2000	1910	95.5
Bismuth			
Boron	anr		
Cadmium	2000	1880	94.0
Calcium	40000	39200	98.0
Chromium	2000	1920	96.0
Cobalt	2000	1960	98.0
Copper	2000	1900	95.0
Iron	40000	38600	96.5
Lead	2000	1990	99.5
Lithium			
Magnesium	40000	39600	99.0
Manganese	2000	1940	97.0
Molybdenum			
Nickel	2000	2000	100.0
Phosphorus			
Potassium	40000	38100	95.3
Selenium	2000	1920	96.0
Silicon			
Silver	250	237	94.8
Sodium	40000	38900	97.3
Strontium			
Sulfur			
Thallium	2000	2020	101.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	1870	93.5
Zinc	2000	1920	96.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		20:24	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44114 Units: ug/l

Time:		14:44			14:47	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum				300000	309000	103.0
Antimony	5000	5050	101.0			
Arsenic	5000	4980	99.6			
Barium	5000	5020	100.4			
Beryllium	5000	4890	97.8			
Bismuth						
Boron	anr					
Cadmium	5000	5100	102.0			
Calcium				150000	143000	95.3
Chromium	5000	5140	102.8			
Cobalt	5000	5130	102.6			
Copper	5000	5130	102.6			
Iron				150000	155000	103.3
Lead	5000	5220	104.4			
Lithium						
Magnesium				300000	312000	104.0
Manganese	5000	5200	104.0			
Molybdenum						
Nickel	5000	5160	103.2			
Phosphorus						
Potassium				150000	159000	106.0
Selenium	5000	5080	101.6			
Silicon						
Silver	630	630	100.8			
Sodium				150000	151000	100.7
Strontium						
Sulfur						
Thallium	5000	5270	105.4			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5070	101.4			
Zinc	5000	5260	105.2			

HIGH STANDARD CHECK SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44114 Units: ug/l

Time:		14:44			14:47	
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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44114 Units: ug/l

Time:				15:14		15:17		20:12	
Sample ID:	CRI	CRIA	CRID	CRI2		CRID2		CRI3	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	217	108.5	120	120.0	192	96.0
Antimony	6.0	20	3.0	4.9	81.7			4.6	76.7
Arsenic	8.0	20	3.0	8.1	101.3	2.9	96.7	8.2	102.5
Barium	200		4.0	199	99.5	4.6	115.0	189	94.5
Beryllium	2.0		1.0	1.9	95.0	1.0	100.0	1.8	90.0
Bismuth	20								
Boron	100		10	anr					
Cadmium	3.0		1.0	3.0	100.0	1.3	130.0	2.9	96.7
Calcium	5000	2000	1000	5160	103.2	1070	107.0	4950	99.0
Chromium	10		2.0	10.0	100.0	2.3	115.0	9.4	94.0
Cobalt	50		3.0	50.0	100.0	3.0	100.0	48.9	97.8
Copper	10		2.0	8.7	87.0			8.8	88.0
Iron	100	500		105	105.0			94.1	94.1
Lead	3.0	20	2.5	2.5	83.3			3.0	100.0
Lithium	50								
Magnesium	5000	2000	100	5240	104.8	108	108.0	5040	100.8
Manganese	15		3.0	15.4	102.7	3.3	110.0	15.0	100.0
Molybdenum	20								
Nickel	10		4.0	9.6	96.0	4.2	105.0	10.0	100.0
Phosphorus	50								
Potassium	5000		2000	5080	101.6	2140	107.0	4790	95.8
Selenium	10	20	5.0	8.2	82.0			8.3	83.0
Silicon	200								
Silver	5.0		2.0	4.7	94.0			4.0	80.0
Sodium	5000		1000	5160	103.2	1100	110.0	5030	100.6
Strontium	10								
Sulfur	50								
Thallium	10		2.0	9.8	98.0	2.1	105.0	9.4	94.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	47.9	95.8	2.0	100.0	47.0	94.0
Zinc	20		10	20.6	103.0	11.2	112.0	19.8	99.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44114 Units: ug/l

Time:				15:14		15:17		20:12	
Sample ID:	CRI	CRIA	CRID	CRI2		CRID2		CRI3	
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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44114 Units: ug/l

Time:				20:15	
Sample ID:	CRI	CRIA	CRID	CRID3	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100	123	123.0
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	3.7	123.3
Barium	200		4.0	4.9	122.5
Beryllium	2.0		1.0	1.0	100.0
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	1.1	110.0
Calcium	5000	2000	1000	1070	107.0
Chromium	10		2.0	2.3	115.0
Cobalt	50		3.0	3.2	106.7
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100	71.2	71.2
Manganese	15		3.0	3.1	103.3
Molybdenum	20				
Nickel	10		4.0	4.2	105.0
Phosphorus	50				
Potassium	5000		2000	2120	106.0
Selenium	10	20	5.0	4.2	84.0
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	1170	117.0
Strontium	10				
Sulfur	50				
Thallium	10		2.0	1.8	90.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	2.2	110.0
Zinc	20		10	11.1	111.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44114 Units: ug/l

Time:				20:15	
Sample ID:	CRI	CRIA	CRID	CRID3	
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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44114 Units: ug/l

Time:			14:38		14:41		20:18		20:21	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	511000	102.2	504000	100.8	512000	102.4	489000	97.8
Antimony		1000	3.1		1040	104.0	3.0		1020	102.0
Arsenic		1000	-0.50		1020	102.0	3.4		1000	100.0
Barium		500	1.3		498	99.6	2.2		491	98.2
Beryllium		500	0.0		488	97.6	0.0		474	94.8
Bismuth		500	16.0		551	110.2	13.1		552	110.4
Boron		500	-2.4		506	101.2	-4.7		493	98.6
Cadmium		1000	1.1		1010	101.0	0.60		982	98.2
Calcium	400000	400000	387000	96.8	385000	96.3	388000	97.0	378000	94.5
Chromium		500	0.40		482	96.4	0.90		484	96.8
Cobalt		500	-0.70		494	98.8	-0.50		492	98.4
Copper		500	1.0		499	99.8	1.9		504	100.8
Iron	200000	200000	191000	95.5	187000	93.5	189000	94.5	183000	91.5
Lead		1000	0.10		974	97.4	4.7		979	97.9
Lithium		500	-5.6		507	101.4	-4.9		492	98.4
Magnesium	500000	500000	501000	100.2	492000	98.4	509000	101.8	495000	99.0
Manganese		500	0.70		505	101.0	-0.20		498	99.6
Molybdenum		500	1.2		487	97.4	1.2		468	93.6
Nickel		1000	-0.70		976	97.6	-1.4		987	98.7
Phosphorus		500	7.2		510	102.0	14.1		498	99.6
Potassium			271		216		230		222	
Selenium		1000	-2.0		996	99.6	6.1		976	97.6
Silicon		500	42.0		523	104.6	-11		506	101.2
Silver		1000	2.8		998	99.8	-1.1		992	99.2
Sodium			12.0		35.2		186		176	
Strontium		500	-2.7		527	105.4	-2.5		521	104.2
Sulfur		500	-4.2		488	97.6	-1.3		471	94.2
Thallium		1000	-1.1		1090	109.0	-3.0		1090	109.0
Tin		500	-5.8		468	93.6	-4.8		448	89.6
Titanium		500	-1.9		485	97.0	-2.3		501	100.2
Tungsten		500	-0.40		480	96.0	-0.50		476	95.2
Vanadium		500	-1.2		491	98.2	-0.60		485	97.0
Zinc		1000	3.6		961	96.1	2.9		942	94.2

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44114 Units: ug/l

Time:			14:38		14:41		20:18		20:21	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	0.20		498	99.6	-0.70		493	98.6

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:32	MA44142-STD1	1		STDA
09:36	MA44142-STD2	1		STDB
09:40	ZZZZZZ	1		
09:44	ZZZZZZ	1		
09:52	MA44142-ICV1	1		
10:02	MA44142-ICB1	1		
10:08	MA44142-ICV2	1		
10:21	MA44142-ICB2	1		
10:24	MA44142-ICCV1	1		
10:32	MA44142-CCB1	1		
10:36	MA44142-CRI1	1		
10:41	MA44142-CRID1	1		
10:45	MA44142-ICSA1	1		
10:50	MA44142-ICSAB1	1		
10:54	MA44142-HSTD1	1		
10:58	MA44142-HSTD2	1		
11:02	ZZZZZZ	1		
11:07	ZZZZZZ	1		
11:11	ZZZZZZ	1		
11:15	MA44142-CCV1	1		
11:19	MA44142-CCB2	1		
11:24	MA44142-CRID2	1		
11:28	ZZZZZZ	1		
11:33	ZZZZZZ	3		
11:37	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:45	MP6387-S1	2		
11:49	MP6387-S2	2		
11:54	JC62857-4	2		(sample used for QC only; not part of login JC62881)
11:58	MP6387-SD1	10		
12:02	MA44142-CCV2	1		
12:06	MA44142-CCB3	1		
12:11	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:15	ZZZZZZ	1		
12:19	JC62881-4	2		
12:24	JC62881-5	2		
---------->	Last reportable sample/prep for job JC62881			
12:28	ZZZZZZ	1		
12:32	ZZZZZZ	1		
12:37	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:50	MA44142-CCV3	1		
12:54	MA44142-CCB4	1		
12:58	ZZZZZZ	1		
13:02	ZZZZZZ	2		
13:06	ZZZZZZ	2		
13:10	ZZZZZZ	2		
13:15	ZZZZZZ	10		
13:19	ZZZZZZ	5		
13:24	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:32	MA44142-CCV4	1		
13:36	MA44142-CCB5	1		
13:41	MP6466-MB1	5		
13:45	MP6466-B1	5		
13:49	MP6466-S1	5		
13:53	MP6466-S2	5		
13:58	FA52915-1	5		(sample used for QC only; not part of login JC62881)
14:02	MP6466-SD1	25		
14:06	ZZZZZZ	1		
14:10	ZZZZZZ	10		
14:15	ZZZZZZ	10		
14:19	MA44142-CCV5	1		
14:23	MA44142-CCB6	1		
14:28	ZZZZZZ	1		
14:32	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:36	ZZZZZZ	5		
14:40	ZZZZZZ	5		
14:45	ZZZZZZ	3		
14:49	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:57	MP6401-S1	5		
15:01	MP6401-S2	5		
15:05	MA44142-CCV6	1		
15:10	MA44142-CCB7	1		
15:14	JC62909-1F	5		(sample used for QC only; not part of login JC62881)
15:18	MP6401-SD1	25		
15:23	MP6334-PS1	1		
15:27	MP6334-B3	1		
15:31	MP6334-B4	1		
15:35	ZZZZZZ	1		
15:39	MP6334-MB3	1		
15:44	MP6334-MB4	1		
15:48	ZZZZZZ	1		
15:52	MA44142-CCV7	1		
15:56	MA44142-CCB8	1		
16:01	ZZZZZZ	1		
16:05	ZZZZZZ	1		
16:10	ZZZZZZ	1		
16:14	ZZZZZZ	50		
16:18	ZZZZZZ	1		
16:22	ZZZZZZ	1		
16:26	ZZZZZZ	2		
16:30	ZZZZZZ	1		
16:35	ZZZZZZ	1		
16:39	MA44142-CCV8	1		
16:43	MA44142-CCB9	1		
16:47	ZZZZZZ	1		
16:51	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:56	ZZZZZZ	1		
17:00	MP6465-S1	2		
17:04	MP6465-S2	2		
17:08	ZZZZZZ	1		
17:12	ZZZZZZ	1		
17:16	MA44142-CCV9	1		
17:21	MA44142-CCB10	1		
17:25	MA44142-CRID3	1		
17:29	MA44142-CRI2	1		
17:34	MA44142-ICSA2	1		
17:38	MA44142-ICSAB2	1		
17:42	MA44142-CCV10	1		
17:46	MA44142-CCB11	1		
---------->	Last reportable CCB for job JC62881			
17:51	MP6468-MB1	1		
17:55	MP6468-B1	1		
17:59	MP6468-S1	1		
18:03	MP6468-S2	1		
18:07	JC63128-1	1		(sample used for QC only; not part of login JC62881)
18:12	MP6468-SD1	5		
18:16	ZZZZZZ	1		
18:20	ZZZZZZ	1		
18:24	ZZZZZZ	1		
18:29	MA44142-CCV11	1		
18:33	MA44142-CCB12	1		
18:37	ZZZZZZ	1		
18:41	ZZZZZZ	1		
18:46	ZZZZZZ	1		
18:50	ZZZZZZ	1		
18:54	ZZZZZZ	1		
18:59	ZZZZZZ	1		
19:03	ZZZZZZ	1		
19:07	ZZZZZZ	1		
19:11	MA44142-CCV12	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:16	MA44142-CCB13	1		
19:20	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:29	ZZZZZZ	1		
19:33	ZZZZZZ	1		
19:37	ZZZZZZ	1		
19:42	ZZZZZZ	1		
19:46	ZZZZZZ	1		
19:50	MA44142-CCV13	1		
19:54	MA44142-CCB14	1		
19:59	MA44142-CRID4	1		
20:03	MA44142-CRI3	1		
20:07	MA44142-ICSA3	1		
20:12	MA44142-ICSAB3	1		
20:16	MA44142-CCV14	1		
20:20	MA44142-CCB15	1		
20:25	ZZZZZZ	1		
20:29	ZZZZZZ	1		
20:33	ZZZZZZ	1		
20:38	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:46	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:55	ZZZZZZ	1		
21:00	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:08	ZZZZZZ	1		
21:13	ZZZZZZ	1		
21:17	MA44142-CCV15	1		
21:21	MA44142-CCB16	1		
21:26	ZZZZZZ	5		
21:30	ZZZZZZ	5		
21:34	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:39	ZZZZZZ	5		
21:43	ZZZZZZ	5		
21:48	ZZZZZZ	5		
21:52	ZZZZZZ	5		
21:56	ZZZZZZ	5		
22:01	ZZZZZZ	5		
22:05	MA44142-CCV16	1		
22:09	MA44142-CCB17	1		
22:13	MP6414-S1	10		
22:18	MP6414-S2	10		
22:22	JC63032-3	10		(sample used for QC only; not part of login JC62881)
22:26	MP6414-SD1	50		
22:31	MA44142-CCV17	1		
22:35	MA44142-CCB18	1		
22:39	MA44142-CRI4	1		
22:43	MA44142-CRID5	1		
22:48	MP6477-MB1	1		
22:52	MP6477-B1	1		
22:56	MP6477-S1	1		
23:00	MP6477-S2	1		
23:04	JC63299-1	1		(sample used for QC only; not part of login JC62881)
23:09	MP6477-SD1	5		
23:13	MA44142-CCV18	1		
23:17	MA44142-CCB19	1		
23:21	ZZZZZZ	1		
23:26	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:38	ZZZZZZ	1		
23:43	ZZZZZZ	1		
23:47	ZZZZZZ	1		
23:51	ZZZZZZ	1		
23:56	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:00	MA44142-CCV19	1		
00:04	MA44142-CCB20	1		
00:08	MP6482-MB1	1		
00:13	MP6482-B1	1		
00:17	MP6482-S1	1		S high
00:21	MP6482-S2	1		S high
00:25	JC63425-1	1		(sample used for QC only; not part of login JC62881)
00:29	MP6482-SD1	5		S high
00:33	ZZZZZZ	1		
00:38	ZZZZZZ	1		
00:42	ZZZZZZ	1		
00:47	ZZZZZZ	1		
00:51	MA44142-CCV20	1		
00:55	MA44142-CCB21	1		
00:59	ZZZZZZ	1		
01:04	ZZZZZZ	1		
01:08	ZZZZZZ	1		
01:12	ZZZZZZ	1		
01:16	ZZZZZZ	1		
01:21	MA44142-CCV21	1		
01:25	MA44142-CCB22	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:32	MA44142-STD1	3998 R	108650 R	14838 R	9224 R
09:36	MA44142-STD2	3757	101720	14664	7970
09:40	ZZZZZZ	3842	104120	14733	8282
09:44	ZZZZZZ	3952	109080	14890	9137
09:52	MA44142-ICV1	No results reported for the elements associated with this internal standard.			
10:02	MA44142-ICB1	No results reported for the elements associated with this internal standard.			
10:08	MA44142-ICV2	3836	104420	14837	8285
10:21	MA44142-ICB2	3977	109420	14907	9206
10:24	MA44142-ICCV1	3852	105050	14828	8317
10:32	MA44142-CCB1	3950	108750	15006	9148
10:36	MA44142-CRI1	3924	107940	15019	8980
10:41	MA44142-CRID1	3933	108400	14947	9080
10:45	MA44142-ICSA1	3510	94539	14332	7177
10:50	MA44142-ICSAB1	3513	94632	14358	7184
10:54	MA44142-HSTD1	3888	106930	15025	8869
10:58	MA44142-HSTD2	3568	96550	14457	7305
11:02	ZZZZZZ	3830	105560	14885	8899
11:07	ZZZZZZ	3842	107910	15024	9041
11:11	ZZZZZZ	3886	107860	14979	9027
11:15	MA44142-CCV1	3741	102900	14777	8115
11:19	MA44142-CCB2	3879	107210	14867	9011
11:24	MA44142-CRID2	3882	106480	14868	8990
11:28	ZZZZZZ	3889	107720	14912	9024
11:33	ZZZZZZ	3739	101460	14823	8100
11:37	ZZZZZZ	3895	108110	15052	9049
11:41	ZZZZZZ	3813	104790	14983	8352
11:45	MP6387-S1	3803	104480	14850	8347
11:49	MP6387-S2	3818	104540	14894	8375
11:54	JC62857-4	3848	105650	14788	8658
11:58	MP6387-SD1	3909	106710	14957	8953
12:02	MA44142-CCV2	3819	103400	14823	8166
12:06	MA44142-CCB3	3955	108120	15043	9071
12:11	ZZZZZZ	3860	105370	14934	8597

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:15	ZZZZZZ	3936	108200	15035	9042
12:19	JC62881-4	3736	102320	14904	8250
12:24	JC62881-5	3715	101340	14761	8103
12:28	ZZZZZZ	4046	110030	15300	9264
12:32	ZZZZZZ	4051	109470	15298	9271
12:37	ZZZZZZ	3986	107120	15029	9094
12:41	ZZZZZZ	4059	109530	15415	9296
12:45	ZZZZZZ	3963	108340	15212	9078
12:50	MA44142-CCV3	3852	103130	14886	8204
12:54	MA44142-CCB4	3972	107530	15033	9089
12:58	ZZZZZZ	3867	104270	15083	8388
13:02	ZZZZZZ	3532	93566	14691	7067
13:06	ZZZZZZ	3545	94133	14609	7097
13:10	ZZZZZZ	3527	93458	14667	7169
13:15	ZZZZZZ	3792	101050	14965	8126
13:19	ZZZZZZ	3851	103910	14916	8523
13:24	ZZZZZZ	3971	108260	14901	9109
13:28	ZZZZZZ	3962	107720	15145	8788
13:32	MA44142-CCV4	3851	103720	14770	8233
13:36	MA44142-CCB5	3960	107910	14918	9094
13:41	MP6466-MB1	3347	87449	14013	6959
13:45	MP6466-B1	3363	88551	14049	6929
13:49	MP6466-S1	3675	98149	14649	7734
13:53	MP6466-S2	3656	98394	14662	7700
13:58	FA52915-1	3561	96104	14368	7671
14:02	MP6466-SD1	3801	102920	14703	8450
14:06	ZZZZZZ	3909	108280	15020	9083
14:10	ZZZZZZ	3818	104350	14781	8522
14:15	ZZZZZZ	3800	104310	14789	8492
14:19	MA44142-CCV5	3778	102590	14722	8192
14:23	MA44142-CCB6	3906	108110	14945	9087
14:28	ZZZZZZ	3877	108260	14916	9047
14:32	ZZZZZZ	3552	99150	14413	7845

INTERNAL STANDARD SUMMARY

Login Number: JC62881
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File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:36	ZZZZZZ	3759	103920	14568	8526
14:40	ZZZZZZ	3824	105880	14766	8768
14:45	ZZZZZZ	3682	102330	14509	8274
14:49	ZZZZZZ	3868	108030	14904	9049
14:53	ZZZZZZ	3778	104730	14775	8358
14:57	MP6401-S1	3741	103190	14363	8321
15:01	MP6401-S2	3746	103740	14608	8342
15:05	MA44142-CCV6	3752	103140	14490	8178
15:10	MA44142-CCB7	3896	107830	14784	9087
15:14	JC62909-1F	3744	103260	14559	8396
15:18	MP6401-SD1	3838	106290	14717	8844
15:23	MP6334-PS1	4022	113700	17209	7761
15:27	MP6334-B3	3747	103730	14446	8315
15:31	MP6334-B4	3743	103890	14520	8298
15:35	ZZZZZZ	3844	108040	14826	9015
15:39	MP6334-MB3	3835	107840	14881	9002
15:44	MP6334-MB4	3848	108270	14896	9036
15:48	ZZZZZZ	3843	108050	14938	9026
15:52	MA44142-CCV7	3750	103240	14584	8171
15:56	MA44142-CCB8	3882	108440	14726	9083
16:01	ZZZZZZ	3836	108020	14768	9018
16:05	ZZZZZZ	3865	108450	14847	9049
16:10	ZZZZZZ	3766	104580	14833	8357
16:14	ZZZZZZ	3741	102720	14587	8349
16:18	ZZZZZZ	3850	107610	14857	9012
16:22	ZZZZZZ	3728	103230	14428	8279
16:26	ZZZZZZ	3790	105110	14712	8256
16:30	ZZZZZZ	3855	107640	14677	9034
16:35	ZZZZZZ	3721	103030	14350	8278
16:39	MA44142-CCV8	3742	103160	14572	8189
16:43	MA44142-CCB9	3888	108310	14683	9074
16:47	ZZZZZZ	3924	107820	15185	8385
16:51	ZZZZZZ	3832	107060	14466	8991

INTERNAL STANDARD SUMMARY

Login Number: JC62881
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File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:56	ZZZZZZ	3715	102650	14192	8252
17:00	MP6465-S1	3780	104090	14659	8359
17:04	MP6465-S2	3807	104500	14744	8366
17:08	ZZZZZZ	3904	105900	14828	8370
17:12	ZZZZZZ	3863	106030	14773	8363
17:16	MA44142-CCV9	3764	103090	14356	8209
17:21	MA44142-CCB10	3914	108280	14626	9146
17:25	MA44142-CRID3	3874	107660	14433	9027
17:29	MA44142-CRI2	3847	106630	14424	8889
17:34	MA44142-ICSA2	3462	94082	14198	7177
17:38	MA44142-ICSAB2	3448	93782	13835	7158
17:42	MA44142-CCV10	3760	103330	14267	8209
17:46	MA44142-CCB11	3908	108280	14524	9130
17:51	MP6468-MB1	3874	108220	14579	9085
17:55	MP6468-B1	3781	104620	14484	8404
17:59	MP6468-S1	3671	101600	14279	7924
18:03	MP6468-S2	3658	100970	14129	7879
18:07	JC63128-1	3659	101970	14168	8201
18:12	MP6468-SD1	3833	106180	14287	8819
18:16	ZZZZZZ	3707	103180	14205	8358
18:20	ZZZZZZ	3645	100600	14124	8101
18:24	ZZZZZZ	3698	102840	14149	8321
18:29	MA44142-CCV11	3788	103590	14197	8250
18:33	MA44142-CCB12	3936	108380	14521	9182
18:37	ZZZZZZ	3658	100910	14122	8132
18:41	ZZZZZZ	3910	108480	14469	9152
18:46	ZZZZZZ	3684	102230	14216	8273
18:50	ZZZZZZ	3714	103550	14205	8384
18:54	ZZZZZZ	3664	101240	14104	8160
18:59	ZZZZZZ	3680	103620	14160	8290
19:03	ZZZZZZ	3685	101500	14187	8202
19:07	ZZZZZZ	3894	108430	14430	9118
19:11	MA44142-CCV12	3788	103570	14215	8269

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:16	MA44142-CCB13	3941	108640	14320	9202
19:20	ZZZZZZ	3392	91583	13609	7113
19:24	ZZZZZZ	3322	90139	13586	6867
19:29	ZZZZZZ	3573	98408	13681	7708
19:33	ZZZZZZ	3326	90649	13562	6964
19:37	ZZZZZZ	3925	109230	14441	9181
19:42	ZZZZZZ	3742	102280	14203	8232
19:46	ZZZZZZ	3919	109260	14363	9174
19:50	MA44142-CCV13	3810	103780	14138	8293
19:54	MA44142-CCB14	3953	108830	14340	9205
19:59	MA44142-CRID4	3929	108310	14270	9133
20:03	MA44142-CRI3	3891	107270	14157	8973
20:07	MA44142-ICSA3	3514	95014	13617	7260
20:12	MA44142-ICSAB3	3533	95440	13610	7292
20:16	MA44142-CCV14	3815	103970	14032	8297
20:20	MA44142-CCB15	3962	109120	14240	9225
20:25	ZZZZZZ	3960	109010	14205	9193
20:29	ZZZZZZ	3960	109300	14290	9201
20:33	ZZZZZZ	3958	108790	14188	9187
20:38	ZZZZZZ	3981	109570	14324	9293
20:42	ZZZZZZ	3988	109230	14318	9241
20:46	ZZZZZZ	3991	109600	14278	9291
20:51	ZZZZZZ	3607	97905	13536	7879
20:55	ZZZZZZ	4083	102850	14533	8229
21:00	ZZZZZZ	3644	99455	13699	7984
21:04	ZZZZZZ	3984	109150	14204	9258
21:08	ZZZZZZ	3970	108570	14126	9251
21:13	ZZZZZZ	4005	109930	14287	9294
21:17	MA44142-CCV15	3862	104850	14023	8389
21:21	MA44142-CCB16	4024	110060	14357	9339
21:26	ZZZZZZ	3778	101850	14044	8190
21:30	ZZZZZZ	3801	102380	13998	8131
21:34	ZZZZZZ	3785	101670	13980	8157

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:39	ZZZZZZ	3795	102110	14083	8191
21:43	ZZZZZZ	3795	101790	13999	8199
21:48	ZZZZZZ	3783	101760	13938	8160
21:52	ZZZZZZ	3800	101740	14045	8200
21:56	ZZZZZZ	3814	102120	14002	8245
22:01	ZZZZZZ	3803	101830	13978	8199
22:05	MA44142-CCV16	3900	105520	14060	8446
22:09	MA44142-CCB17	4059	111120	14167	9400
22:13	MP6414-S1	3852	103910	14100	8300
22:18	MP6414-S2	3858	104070	14050	8331
22:22	JC63032-3	3854	103520	14147	8349
22:26	MP6414-SD1	3983	107630	14162	8957
22:31	MA44142-CCV17	3939	106370	14211	8512
22:35	MA44142-CCB18	4070	110890	14285	9414
22:39	MA44142-CRI4	4016	109310	14208	9193
22:43	MA44142-CRID5	4048	110550	14164	9357
22:48	MP6477-MB1	4139	113930	14767	9656
22:52	MP6477-B1	4054	110620	14753	8951
22:56	MP6477-S1	3909	107300	14599	8436
23:00	MP6477-S2	3905	107070	14633	8431
23:04	JC63299-1	3935	108460	14609	8746
23:09	MP6477-SD1	3984	108730	14332	9055
23:13	MA44142-CCV18	3923	106110	14094	8495
23:17	MA44142-CCB19	4074	111140	14311	9430
23:21	ZZZZZZ	3920	107160	14602	8635
23:26	ZZZZZZ	3815	104170	14437	8279
23:30	ZZZZZZ	3966	108730	14575	8837
23:34	ZZZZZZ	4007	110030	14690	8982
23:38	ZZZZZZ	3778	108840	14503	8845
23:43	ZZZZZZ	3747	108030	14466	8747
23:47	ZZZZZZ	3910	109120	14592	8943
23:51	ZZZZZZ	3963	109750	14561	8994
23:56	ZZZZZZ	3888	106700	14404	8582

INTERNAL STANDARD SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:00	MA44142-CCV19	3913	105870	14116	8481
00:04	MA44142-CCB20	4066	111160	14212	9420
00:08	MP6482-MB1	4137	113750	14667	9656
00:13	MP6482-B1	4041	110610	14654	8922
00:17	MP6482-S1	3965	108740	14921	8324
00:21	MP6482-S2	3968	108680	14886	8340
00:25	JC63425-1	4007	110560	14901	8582
00:29	MP6482-SD1	4043	109920	14243	9046
00:33	ZZZZZZ	3770	101050	14205	7971
00:38	ZZZZZZ	3961	107720	14558	8660
00:42	ZZZZZZ	3704	102100	14135	8029
00:47	ZZZZZZ	3821	104970	14219	8371
00:51	MA44142-CCV20	3930	106100	14019	8516
00:55	MA44142-CCB21	4071	111220	14092	9426
00:59	ZZZZZZ	3848	105520	14220	8403
01:04	ZZZZZZ	3831	105040	14312	8365
01:08	ZZZZZZ	4023	109990	14984	8562
01:12	ZZZZZZ	3851	105350	14358	8418
01:16	ZZZZZZ	3977	108890	14537	8942
01:21	MA44142-CCV21	3927	105910	13976	8508
01:25	MA44142-CCB22	4073	111470	14236	9435

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 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time:			10:21		10:32		11:19		12:06	
Sample ID:			ICB2		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	anr							
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9	anr							
Cadmium	3.0	.3	anr							
Calcium	5000	8.7	anr							
Chromium	10	.6	anr							
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	anr							
Lithium	50	2.8								
Magnesium	5000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	10000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	10000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	0.0	<2.0	-0.30	<2.0	0.50	<2.0	0.50	<2.0
Tin	10	1	anr							
Titanium	10	.7	anr							
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time:			10:21		10:32		11:19		12:06	
Sample ID:			ICB2		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time:			12:54		13:36		14:23		15:10	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	anr							
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9	anr							
Cadmium	3.0	.3	anr							
Calcium	5000	8.7	anr							
Chromium	10	.6	anr							
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	anr							
Lithium	50	2.8								
Magnesium	5000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	10000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	10000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	0.0	<2.0	0.60	<2.0	0.80	<2.0	0.70	<2.0
Tin	10	1	anr							
Titanium	10	.7	anr							
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time: / Sample ID:			12:54 CCB4		13:36 CCB5		14:23 CCB6		15:10 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time:			15:56		16:43		17:21		17:46	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	anr							
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9	anr							
Cadmium	3.0	.3	anr							
Calcium	5000	8.7	anr							
Chromium	10	.6	anr							
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	anr							
Lithium	50	2.8								
Magnesium	5000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	10000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	10000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	0.50	<2.0	0.80	<2.0	1.3	<2.0	1.6	<2.0
Tin	10	1	anr							
Titanium	10	.7	anr							
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time: / Sample ID:			15:56 CCB8		16:43 CCB9		17:21 CCB10		17:46 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:24	
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			
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	anr		
Silicon			
Silver	anr		
Sodium	anr		
Strontium			
Sulfur			
Thallium	2000	2030	101.5
Tin	anr		
Titanium	anr		
Tungsten			
Vanadium	anr		
Zinc	anr		

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:24	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:08			11:15			12:02	
Sample ID:	ICV	ICV2		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									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	2000	2030	101.5	2000	2070	103.5	2000	2150	107.5
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:08			11:15			12:02	
Sample ID:	ICV	ICV2		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		12:50			13:32			14:19	
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									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	2000	2180	109.0	2000	2140	107.0	2000	2050	102.5
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		12:50			13:32			14:19	
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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		15:05			15:52			16:39	
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									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	2000	2000	100.0	2000	1980	99.0	2000	1970	98.5
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		15:05			15:52			16:39	
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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		17:16			17:42	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	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						
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	anr					
Silicon						
Silver	anr					
Sodium	anr					
Strontium						
Sulfur						
Thallium	2000	1950	97.5	2000	1950	97.5
Tin	anr					
Titanium	anr					
Tungsten						
Vanadium	anr					
Zinc	anr					

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		17:16			17:42	
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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:54			10:58	
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						
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium	5000	5220	104.4			
Tin	anr					
Titanium	anr					
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:54			10:58	
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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44142 Units: ug/l

Time:				10:36		10:41		11:24	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRID2	
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								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20			anr					
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	anr					
Silicon	200								
Silver	5.0		2.0	anr					
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50								
Thallium	10		2.0	11.0	110.0	2.1	105.0	2.2	110.0
Tin	10			anr					
Titanium	10			anr					
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44142 Units: ug/l

Time:				10:36		10:41		11:24	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRID2	
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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44142 Units: ug/l

Time:				17:25		17:29	
Sample ID:	CRI	CRIA	CRID	CRID3		CRI2	
Metal	True	True	True	Results	% Rec	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	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						
Silver	5.0		2.0				
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0	2.6	130.0	10.6	106.0
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			
Zinc	20		10	anr			

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44142 Units: ug/l

Time:				17:25		17:29	
Sample ID:	CRI	CRIA	CRID	CRID3		CRI2	
Metal	True	True	True	Results	% Rec	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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44142 Units: ug/l

Time:			10:45		10:50		17:34		17:38	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	518000	103.6	524000	104.8	518000	103.6	527000	105.4
Antimony		1000	-6.3		1090	109.0	-4.0		1110	111.0
Arsenic		1000	2.0		1080	108.0	0.0		1110	111.0
Barium		500	-0.20		531	106.2	-0.30		533	106.6
Beryllium		500	0.20		513	102.6	0.20		500	100.0
Bismuth		500	-8.2		544	108.8	-4.6		548	109.6
Boron		500	-2.4		515	103.0	-1.4		503	100.6
Cadmium		1000	0.10		1070	107.0	0.10		1090	109.0
Calcium	400000	400000	393000	98.3	398000	99.5	398000	99.5	405000	101.3
Chromium		500	-3.0		502	100.4	-2.7		496	99.2
Cobalt		500	-1.1		509	101.8	-0.60		492	98.4
Copper		500	5.3		534	106.8	3.1		523	104.6
Iron	200000	200000	195000	97.5	192000	96.0	190000	95.0	191000	95.5
Lead		1000	1.0		1010	101.0	1.1		995	99.5
Lithium		500	-8.8		535	107.0	-9.5		520	104.0
Magnesium	500000	500000	514000	102.8	518000	103.6	505000	101.0	522000	104.4
Manganese		500	-4.8		514	102.8	-3.3		509	101.8
Molybdenum		500	-1.1		510	102.0	-1.4		506	101.2
Nickel		1000	-3.2		1020	102.0	-2.6		1010	101.0
Phosphorus		500	-5.7		531	106.2	-18		538	107.6
Potassium			-420		-450		-510		-460	
Selenium		1000	3.6		1030	103.0	-0.70		1040	104.0
Silicon		500	-15		492	98.4	-16		476	95.2
Silver		1000	-0.40		1070	107.0	2.9		1070	107.0
Sodium			32.5		34.3		22.9		33.8	
Strontium		500	4.9		551	110.2	4.4		548	109.6
Sulfur		500	53.7		574	114.8	54.9		569	113.8
Thallium		1000	-0.90		1110	111.0	-0.70		1030	103.0
Tin		500	-2.0		486	97.2	-1.4		486	97.2
Titanium		500	-0.70		529	105.8	-0.90		528	105.6
Tungsten		500	9.0		507	101.4	8.5		507	101.4
Vanadium		500	-0.20		509	101.8	-0.90		506	101.2
Zinc		1000	4.2		998	99.8	4.1		997	99.7

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44142 Units: ug/l

Time:			10:45		10:50		17:34		17:38	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	1.2		529	105.8	2.2		530	106.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6361 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/26/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.059	.13	0.068	<0.20

Associated samples MP6361: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6361
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/26/18

Metal	JC62881-1 Original	MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	4.0 (a)	4	100.0	75-125

Associated samples MP6361: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated sample detection limit due to difficult sample matrix.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6361 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/26/18

Metal	JC62881-1 Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.9 (a)	4	97.5	2.5	20

Associated samples MP6361: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated sample detection limit due to difficult sample matrix.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6361
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/26/18

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	2.0	2	100.0	80-120

Associated samples MP6361: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:				03/29/18		03/29/18	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	19	33	1.9	<200	-2.1	<200
Antimony	6.0	2.4	4.3	1.1	<6.0	1.1	<6.0
Arsenic	3.0	1.2	2.7	1.7	<3.0	1.5	<3.0
Barium	200	.6	1.3	0.60	<200	-0.10	<200
Beryllium	1.0	.2	.4	-0.10	<1.0	0.0	<1.0
Bismuth	20	3.2	5				
Boron	100	1.5	13				
Cadmium	3.0	.4	.7	0.20	<3.0	0.20	<3.0
Calcium	5000	5.5	29	3.2	<5000	2.7	<5000
Chromium	10	.7	.85	0.40	<10	0.0	<10
Cobalt	50	.4	.72	-0.20	<50	-0.10	<50
Copper	10	1.1	3.2	2.5	<10	0.40	<10
Iron	100	3.5	32	1.1	<100	4.0	<100
Lead	3.0	2.2	2.6	-0.50	<3.0	0.10	<3.0
Lithium	50	3.4	15				
Magnesium	5000	25	64	-0.30	<5000	-20	<5000
Manganese	15	.14	.42	0.10	<15	0.10	<15
Molybdenum	20	.4	1.4				
Nickel	10	.5	1.3	-0.40	<10	0.10	<10
Phosphorus	50	2	13				
Potassium	10000	60	230	39.8	<10000	-4.2	<10000
Selenium	10	3.7	6.6	-1.0	<10	1.8	<10
Silicon	200	1.8	45				
Silver	10	.7	3.1	0.70	<10	0.20	<10
Sodium	10000	35	130	42.8	<10000	58.4	<10000
Strontium	10	.2	.3				
Sulfur	50	3.1	15				
Thallium	2.0	1.8	1.6	-0.30	<2.0	-0.90	<2.0
Tin	10	.9	2.4				
Titanium	10	.7	1.8				
Tungsten	50	2.2	14				
Vanadium	50	.8	1.3	0.0	<50	-0.10	<50
Zinc	20	.2	4	2.5	<20	0.80	<20

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date:				03/29/18		03/29/18	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Zirconium	10	.3	2				

Associated samples MP6399: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	0.00	120000	125000	96.0	75-125
Antimony	0.0	9870	10000	98.7	75-125
Arsenic	0.0	9830	10000	98.3	75-125
Barium	403	10100	10000	97.0	75-125
Beryllium	0.0	9790	10000	97.9	75-125
Bismuth					
Boron	anr				
Cadmium	0.0	9760	10000	97.6	75-125
Calcium	63500	178000	125000	91.6	75-125
Chromium	0.0	9940	10000	99.4	75-125
Cobalt	0.0	9990	10000	99.9	75-125
Copper	0.0	9920	10000	99.2	75-125
Iron	165000	269000	125000	83.2	75-125
Lead	0.0	10000	10000	100.0	75-125
Lithium					
Magnesium	26800	145000	125000	94.6	75-125
Manganese	6640	16100	10000	94.6	75-125
Molybdenum					
Nickel	0.0	10100	10000	101.0	75-125
Phosphorus					
Potassium	2470	122000	125000	95.6	75-125
Selenium	0.00	9780	10000	97.8	75-125
Silicon					
Silver	0.0	1200	1250	96.0	75-125
Sodium	79000	192000	125000	90.4	75-125
Strontium					
Sulfur					
Thallium	0.0	10200	10000	102.0	75-125
Tin					
Titanium					
Tungsten					
Vanadium	5.5	9890	10000	98.8	75-125
Zinc	4.0	9850	10000	98.5	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP6399: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	0.00	120000	125000	96.0	0.0	20
Antimony	0.0	9500	10000	95.0	3.8	20
Arsenic	0.0	9470	10000	94.7	3.7	20
Barium	403	10100	10000	97.0	0.0	20
Beryllium	0.0	9660	10000	96.6	1.3	20
Bismuth						
Boron	anr					
Cadmium	0.0	9350	10000	93.5	4.3	20
Calcium	63500	182000	125000	94.8	2.2	20
Chromium	0.0	9590	10000	95.9	3.6	20
Cobalt	0.0	9740	10000	97.4	2.5	20
Copper	0.0	9640	10000	96.4	2.9	20
Iron	165000	270000	125000	84.0	0.4	20
Lead	0.0	9930	10000	99.3	0.7	20
Lithium						
Magnesium	26800	150000	125000	98.6	3.4	20
Manganese	6640	15500	10000	88.6	3.8	20
Molybdenum						
Nickel	0.0	10000	10000	100.0	1.0	20
Phosphorus						
Potassium	2470	121000	125000	94.8	0.8	20
Selenium	0.00	9540	10000	95.4	2.5	20
Silicon						
Silver	0.0	1150	1250	92.0	4.3	20
Sodium	79000	194000	125000	92.0	1.0	20
Strontium						
Sulfur						
Thallium	0.0	10100	10000	101.0	1.0	20
Tin						
Titanium						
Tungsten						
Vanadium	5.5	9340	10000	93.3	5.7	20
Zinc	4.0	9540	10000	95.4	3.2	20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium					

Associated samples MP6399: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			03/29/18				03/29/18	
Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	23800	25000	95.2	80-120	24100	25000	96.4	80-120
Antimony	1980	2000	99.0	80-120	1930	2000	96.5	80-120
Arsenic	1960	2000	98.0	80-120	1920	2000	96.0	80-120
Barium	1950	2000	97.5	80-120	1940	2000	97.0	80-120
Beryllium	1960	2000	98.0	80-120	1950	2000	97.5	80-120
Bismuth								
Boron	anr							
Cadmium	1980	2000	99.0	80-120	1920	2000	96.0	80-120
Calcium	24200	25000	96.8	80-120	24400	25000	97.6	80-120
Chromium	1960	2000	98.0	80-120	1930	2000	96.5	80-120
Cobalt	2010	2000	100.5	80-120	1970	2000	98.5	80-120
Copper	1950	2000	97.5	80-120	1920	2000	96.0	80-120
Iron	24100	25000	96.4	80-120	24300	25000	97.2	80-120
Lead	2020	2000	101.0	80-120	1980	2000	99.0	80-120
Lithium								
Magnesium	24300	25000	97.2	80-120	24500	25000	98.0	80-120
Manganese	2020	2000	101.0	80-120	1980	2000	99.0	80-120
Molybdenum								
Nickel	2020	2000	101.0	80-120	1980	2000	99.0	80-120
Phosphorus								
Potassium	23800	25000	95.2	80-120	23800	25000	95.2	80-120
Selenium	1970	2000	98.5	80-120	1910	2000	95.5	80-120
Silicon								
Silver	237	250	94.8	80-120	231	250	92.4	80-120
Sodium	24300	25000	97.2	80-120	24200	25000	96.8	80-120
Strontium								
Sulfur								
Thallium	2060	2000	103.0	80-120	2030	2000	101.5	80-120
Tin								
Titanium								
Tungsten								
Vanadium	1950	2000	97.5	80-120	1910	2000	95.5	80-120
Zinc	2000	2000	100.0	80-120	1950	2000	97.5	80-120

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:		03/29/18				03/29/18		
Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium								

Associated samples MP6399: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original	SDL 1:5	%DIF	QC Limits
Aluminum	0.00	0.00	NC	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	6.90	NC	0-10
Barium	80.5	87.9	9.2	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron	anr			
Cadmium	0.00	0.00	NC	0-10
Calcium	12700	13100	3.2	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	0.00	0.00	NC	0-10
Iron	33000	33900	2.7	0-10
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	5360	5350	0.1	0-10
Manganese	1330	1350	1.7	0-10
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Phosphorus				
Potassium	494	590	19.5 (a)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	15800	16200	2.4	0-10
Strontium				
Sulfur				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	1.10	0.00	100.0(a)	0-10
Zinc	0.800	2.20	175.0(a)	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original SDL 1:5	%DIF	QC Limits
Zirconium			

Associated samples MP6399: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6

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).

Instrument Detection Limits

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: LEEMANHG7 **Effective Date:** 02/14/18

Analyte	IDL ug/l
Mercury	.05937

The above applies to the following instrument runs:
MA44075

Instrument Detection Limits

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE3 **Effective Date:** 03/16/18

Analyte	IDL ug/l
Aluminum	18.9
Antimony	2.4
Arsenic	1.2
Barium	.6
Beryllium	.2
Bismuth	3.2
Boron	1.5
Cadmium	.4
Calcium	5.5
Chromium	.7
Cobalt	.4
Copper	1.1
Iron	3.5
Lead	2.2
Lithium	3.4
Magnesium	24.5
Manganese	.14
Molybdenum	.4
Nickel	.5
Phosphorus	2
Potassium	59.5
Selenium	3.7
Silicon	1.8
Silver	.7
Sodium	34.5
Sulfur	3.1
Strontium	.2
Thallium	1.8
Tin	.9
Titanium	.7
Tungsten	2.2
Vanadium	.8
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA44114

Instrument Detection Limits

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE5 **Effective Date:** 03/05/18

Analyte	IDL ug/l
Aluminum	34.2
Antimony	1.4
Arsenic	1.4
Barium	.5
Beryllium	.2
Bismuth	2.5
Boron	1.9
Cadmium	.3
Calcium	8.7
Chromium	.6
Cobalt	.5
Copper	1.2
Iron	4.6
Lead	1.4
Lithium	2.8
Magnesium	32.6
Manganese	.1
Molybdenum	.4
Nickel	.5
Phosphorus	1.7
Potassium	68.4
Selenium	3.8
Silicon	2.1
Silver	.5
Sodium	15.3
Sulfur	19.9
Strontium	.2
Thallium	1.6
Tin	1
Titanium	.7
Tungsten	1.8
Vanadium	.4
Zinc	.3
Zirconium	.3

The above applies to the following instrument runs:
MA44142

Instrument Linear Ranges

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: LEEMANHG7 **Effective Date:** 03/10/17

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA44075

Instrument Linear Ranges

Job Number: JC62881
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE3 **Effective Date:** 12/09/15

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
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:
MA44114

Instrument Linear Ranges

Job Number: JC62881
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:
MA44142

Metals Analysis

Raw Data

MA44075

Method: ACCUTEST Operator: Admin Date of Analysis: 26 Mar 2018 12:33:30

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
STDA - 1	26 Mar 2018 12:44:16	Std	ug/l	-	-5	1.000	1.000
STDB - 1	26 Mar 2018 12:45:34	Std	ug/l	-	860	1.000	1.000
STDC - 1	26 Mar 2018 12:46:52	Std	ug/l	-	2241	1.000	1.000
STDD - 1	26 Mar 2018 12:48:15	Std	ug/l	-	4647	1.000	1.000
STDE - 1	26 Mar 2018 12:49:49	Std	ug/l	-	12627	1.000	1.000
STDF - 1	26 Mar 2018 12:51:29	Std	ug/l	-	25856	1.000	1.000
ICV - 1	26 Mar 2018 12:56:38	SMPL	ug/l	3.0916	15815	1.000	1.000
ICB - 1	26 Mar 2018 12:57:56	SMPL	ug/l	-0.0089	-323	1.000	1.000
CCV - 1	26 Mar 2018 13:00:10	CK STND	ug/l	102.7% 2.5679	13089	1.000	1.000
CCB - 1	26 Mar 2018 13:01:26	CK STND	ug/l	-0.0237	-400	1.000	1.000
CRI - 1	26 Mar 2018 13:03:18	SMPL	ug/l	0.2416	981	1.000	1.000
MP6348-MB1 - 1	26 Mar 2018 13:06:33	SMPL	ug/l	0.0451	-42	1.000	1.000
MP6348-B1 - 1	26 Mar 2018 13:07:50	SMPL	ug/l	1.9406	9824	1.000	1.000
SAMPLECONF - 1	26 Mar 2018 13:09:07	SMPL	ug/l	1.3260	6625	1.000	1.000
MP6348-S2 - 1	26 Mar 2018 13:10:55	SMPL	ug/l	2.0987	10647	1.000	1.000
JC62798-2 - 1	26 Mar 2018 13:12:39	SMPL	ug/l	0.0249	-147	1.000	1.000
MP6348-S1 - 1	26 Mar 2018 13:14:47	SMPL	ug/l	2.1421	10873	1.000	1.000
JC62798-4 - 1	26 Mar 2018 13:17:14	SMPL	ug/l	0.0506	-13	1.000	1.000
JC62798-6 - 1	26 Mar 2018 13:18:33	SMPL	ug/l	0.0364	-87	1.000	1.000
CCV - 1	26 Mar 2018 13:19:51	CK STND	ug/l	102.8% 2.5692	13096	1.000	1.000
CCB - 1	26 Mar 2018 13:21:07	CK STND	ug/l	-0.0170	-365	1.000	1.000
JC62798-9 - 1	26 Mar 2018 13:22:58	SMPL	ug/l	0.0566	18	1.000	1.000
JC62798-11 - 1	26 Mar 2018 13:24:16	SMPL	ug/l	0.0516	-8	1.000	1.000
JC62798-13 - 1	26 Mar 2018 13:25:34	SMPL	ug/l	0.0727	102	1.000	1.000
JC62420-1 - 1	26 Mar 2018 13:26:51	SMPL	ug/l	0.0107	-221	1.000	1.000
JC62420-1F - 1	26 Mar 2018 13:28:07	SMPL	ug/l	0.0516	-8	1.000	1.000
JC62420-2 - 1	26 Mar 2018 13:29:25	SMPL	ug/l	0.1048	269	1.000	1.000
JC62420-2F - 1	26 Mar 2018 13:30:41	SMPL	ug/l	0.0255	-144	1.000	1.000
JC62420-3 - 1	26 Mar 2018 13:32:00	SMPL	ug/l	0.0652	63	1.000	1.000
CCV - 1	26 Mar 2018 13:33:16	CK STND	ug/l	98.3% 2.4564	12509	1.000	1.000
CCB - 1	26 Mar 2018 13:34:32	CK STND	ug/l	-0.0095	-326	1.000	1.000
JC62420-3F - 1	26 Mar 2018 13:36:21	SMPL	ug/l	0.0604	38	1.000	1.000
JC62420-4 - 1	26 Mar 2018 13:37:38	SMPL	ug/l	0.0754	116	1.000	1.000
JC62420-4F - 1	26 Mar 2018 13:38:56	SMPL	ug/l	0.0435	-50	1.000	1.000
JC62420-5 - 1	26 Mar 2018 13:40:15	SMPL	ug/l	0.1334	418	1.000	1.000
JC62420-5F - 1	26 Mar 2018 13:41:32	SMPL	ug/l	0.0053	-249	1.000	1.000
JC62420-6 - 1	26 Mar 2018 13:42:53	SMPL	ug/l	0.0478	-28	1.000	1.000
JC62420-6F - 1	26 Mar 2018 13:44:11	SMPL	ug/l	0.0495	-19	1.000	1.000
JC62420-7 - 1	26 Mar 2018 13:45:28	SMPL	ug/l	0.0508	-12	1.000	1.000
CCV - 1	26 Mar 2018 13:46:45	CK STND	ug/l	100.2% 2.5054	12764	1.000	1.000
CCB - 1	26 Mar 2018 13:48:01	CK STND	ug/l	-0.0030	-292	1.000	1.000
JC62420-7F - 1	26 Mar 2018 13:49:51	SMPL	ug/l	0.0625	49	1.000	1.000
MP6349-MB1 - 1	26 Mar 2018 13:51:08	SMPL	ug/l	0.0633	53	1.000	1.000
MP6349-B1 - 1	26 Mar 2018 13:52:25	SMPL	ug/l	2.0149	10211	1.000	1.000
MP6349-S1 - 1	26 Mar 2018 13:53:41	SMPL	ug/l	1.8535	9371	1.000	1.000
MP6349-S2 - 1	26 Mar 2018 13:55:29	SMPL	ug/l	1.9108	9669	1.000	1.000
JC62558-5 - 1	26 Mar 2018 13:57:18	SMPL	ug/l	0.0137	-205	1.000	1.000
JC62558-1 - 1	26 Mar 2018 13:59:08	SMPL	ug/l	0.0355	-92	1.000	1.000
JC62558-2 - 1	26 Mar 2018 14:00:26	SMPL	ug/l	0.0581	26	1.000	1.000
CCV - 1	26 Mar 2018 14:01:44	CK STND	ug/l	97.1% 2.4286	12364	1.000	1.000
CCB - 1	26 Mar 2018 14:03:00	CK STND	ug/l	-0.0078	-317	1.000	1.000
JC62558-3 - 1	26 Mar 2018 14:04:51	SMPL	ug/l	0.0775	127	1.000	1.000
JC62558-4 - 1	26 Mar 2018 14:06:09	SMPL	ug/l	0.0531	0	1.000	1.000
JC62558-6 - 1	26 Mar 2018 14:07:27	SMPL	ug/l	0.0670	72	1.000	1.000
JC62558-7 - 1	26 Mar 2018 14:08:44	SMPL	ug/l	0.0637	55	1.000	1.000
JC62558-10 - 1	26 Mar 2018 14:10:01	SMPL	ug/l	0.0654	64	1.000	1.000
JC62558-11 - 1	26 Mar 2018 14:11:18	SMPL	ug/l	0.0652	63	1.000	1.000
JC62558-12 - 1	26 Mar 2018 14:12:36	SMPL	ug/l	0.0643	58	1.000	1.000
JC62797-3 - 1	26 Mar 2018 14:13:52	SMPL	ug/l	0.0635	54	1.000	1.000
CCV - 1	26 Mar 2018 14:15:09	CK STND	ug/l	96.2% 2.4040	12236	1.000	1.000
CCB - 1	26 Mar 2018 14:16:25	CK STND	ug/l	-0.0032	-293	1.000	1.000
JC62797-5 - 1	26 Mar 2018 14:18:16	SMPL	ug/l	0.0704	90	1.000	1.000
JC62797-7 - 1	26 Mar 2018 14:19:33	SMPL	ug/l	0.0620	46	1.000	1.000
JC62797-9 - 1	26 Mar 2018 14:20:50	SMPL	ug/l	0.0700	88	1.000	1.000
JC62797-11 - 1	26 Mar 2018 14:22:08	SMPL	ug/l	0.0581	26	1.000	1.000
JC62797-13 - 1	26 Mar 2018 14:23:25	SMPL	ug/l	0.2203	870	1.000	1.000
JC62797-15 - 1	26 Mar 2018 14:24:43	SMPL	ug/l	0.1371	437	1.000	1.000
JC62468-2 - 1	26 Mar 2018 14:26:27	SMPL	ug/l	0.1215	356	1.000	1.000
JC62623-1 - 1	26 Mar 2018 14:28:11	SMPL	ug/l	0.0009	-272	1.000	1.000

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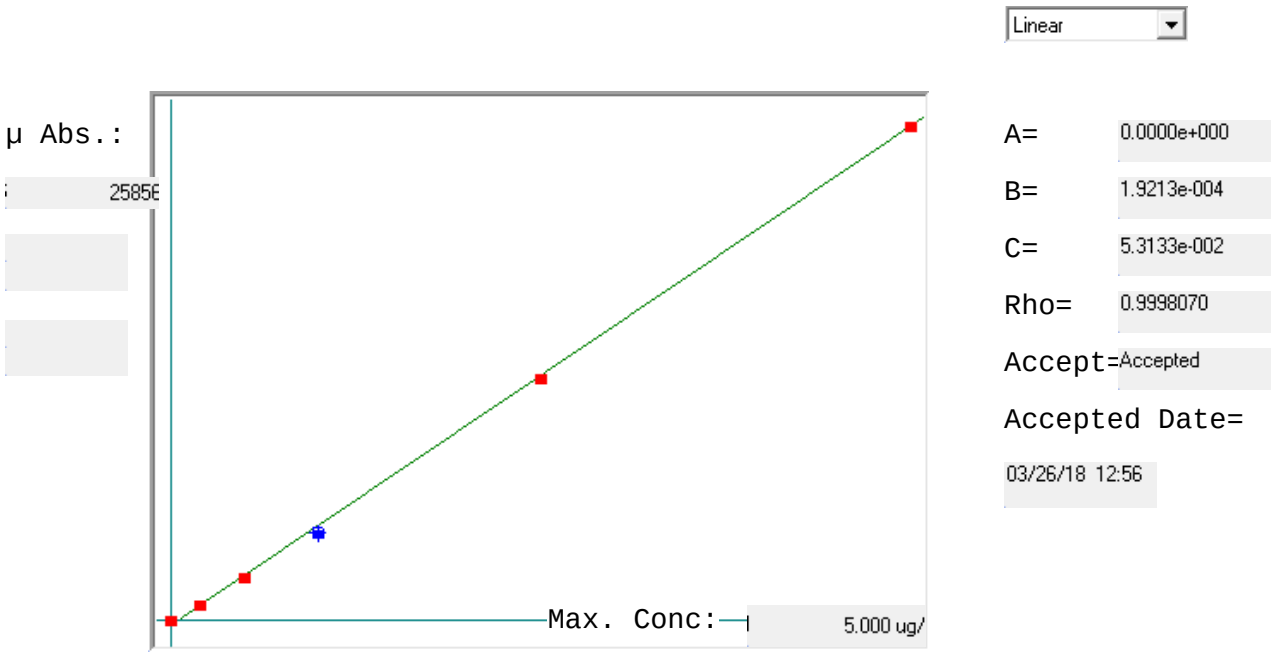
MA44075

Method: ACCUTEST Operator: Admin Date of Analysis: 26 Mar 2018 12:33:30

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
JC62569-1 - 1	26 Mar 2018 14:29:31	SMPL	ug/l	0.2355	949	1.000	1.000
CCV - 1	26 Mar 2018 14:30:48	CK STND	ug/l	93.0% 2.3239	11819	1.000	1.000
CCB - 1	26 Mar 2018 14:32:10	CK STND	ug/l	0.0043	-254	1.000	1.000
MP6360-MB1 - 1	26 Mar 2018 15:02:40	SMPL	ug/l	0.0260	-141	1.000	1.000
MP6360-B1 - 1	26 Mar 2018 15:03:56	SMPL	ug/l	1.8426	9314	1.000	1.000
MP6360-S1 - 1	26 Mar 2018 15:05:14	SMPL	ug/l	1.9919	10091	1.000	1.000
MP6360-S2 - 1	26 Mar 2018 15:07:02	SMPL	ug/l	1.9911	10087	1.000	1.000
JC62734-7 - 1	26 Mar 2018 15:08:50	SMPL	ug/l	0.0197	-174	1.000	1.000
JC62734-1 - 1	26 Mar 2018 15:10:40	SMPL	ug/l	0.0420	-58	1.000	1.000
JC62734-2 - 1	26 Mar 2018 15:11:58	SMPL	ug/l	0.0610	41	1.000	1.000
JC62734-3 - 1	26 Mar 2018 15:13:16	SMPL	ug/l	0.0537	3	1.000	1.000
CCV - 1	26 Mar 2018 15:14:36	CK STND	ug/l	103.2% 2.5798	13151	1.000	1.000
CCB - 1	26 Mar 2018 15:15:52	CK STND	ug/l	-0.0049	-302	1.000	1.000
JC62734-5 - 1	26 Mar 2018 15:17:43	SMPL	ug/l	0.0625	49	1.000	1.000
JC62734-6 - 1	26 Mar 2018 15:19:01	SMPL	ug/l	0.0497	-18	1.000	1.000
JC62734-8 - 1	26 Mar 2018 15:20:18	SMPL	ug/l	0.1630	572	1.000	1.000
JC62734-9 - 1	26 Mar 2018 15:21:35	SMPL	ug/l	0.0005	-274	1.000	1.000
JC62734-14 - 1	26 Mar 2018 15:22:55	SMPL	ug/l	0.0481	-26	1.000	1.000
JC62734-15 - 1	26 Mar 2018 15:24:13	SMPL	ug/l	0.0454	-40	1.000	1.000
JC62734-16 - 1	26 Mar 2018 15:25:30	SMPL	ug/l	0.0504	-14	1.000	1.000
JC62476-1 - 1	26 Mar 2018 15:26:47	SMPL	ug/l	0.0487	-23	1.000	1.000
CCV - 1	26 Mar 2018 15:28:04	CK STND	ug/l	103.3% 2.5827	13166	1.000	1.000
CCB - 1	26 Mar 2018 15:29:20	CK STND	ug/l	-0.0014	-284	1.000	1.000
JC62476-2 - 1	26 Mar 2018 15:31:10	SMPL	ug/l	0.0562	16	1.000	1.000
JC62476-3 - 1	26 Mar 2018 15:32:27	SMPL	ug/l	0.0570	20	1.000	1.000
JC62476-4 - 1	26 Mar 2018 15:33:44	SMPL	ug/l	0.0556	13	1.000	1.000
JC62476-5 - 1	26 Mar 2018 15:35:02	SMPL	ug/l	0.0531	0	1.000	1.000
JC62476-6 - 1	26 Mar 2018 15:36:21	SMPL	ug/l	0.0560	15	1.000	1.000
JC62631-1 - 1	26 Mar 2018 15:37:39	SMPL	ug/l	0.1792	656	1.000	1.000
JC62668-8 - 1	26 Mar 2018 15:38:57	SMPL	ug/l	0.0132	-208	1.000	1.000
JC62870-6 - 1	26 Mar 2018 15:40:17	SMPL	ug/l	0.0618	45	1.000	1.000
CCV - 1	26 Mar 2018 15:41:35	CK STND	ug/l	104.2% 2.6059	13287	1.000	1.000
CCB - 1	26 Mar 2018 15:42:51	CK STND	ug/l	0.0103	-223	1.000	1.000
MP6361-MB1 - 1	26 Mar 2018 15:44:40	SMPL	ug/l	0.0679	77	1.000	1.000
MP6361-B1 - 1	26 Mar 2018 15:45:58	SMPL	ug/l	2.0153	10213	1.000	1.000
MP6361-S1 - 1	26 Mar 2018 15:47:15	SMPL	ug/l	2.0132	10202	1.000	1.000
MP6361-S2 - 1	26 Mar 2018 15:49:04	SMPL	ug/l	1.9692	9973	1.000	1.000
JC62881-1 - 1	26 Mar 2018 15:50:52	SMPL	ug/l	0.0285	-128	1.000	1.000
JC62881-2 - 1	26 Mar 2018 15:52:41	SMPL	ug/l	0.0658	66	1.000	1.000
JC62881-3 - 1	26 Mar 2018 15:53:59	SMPL	ug/l	0.0929	207	1.000	1.000
JC62881-4 - 1	26 Mar 2018 15:55:18	SMPL	ug/l	0.0933	209	1.000	1.000
CCV - 1	26 Mar 2018 15:56:38	CK STND	ug/l	97.6% 2.4401	12424	1.000	1.000
CCB - 1	26 Mar 2018 15:57:55	CK STND	ug/l	0.0045	-253	1.000	1.000
JC62881-5 - 1	26 Mar 2018 15:59:45	SMPL	ug/l	0.0825	153	1.000	1.000
JC62881-6 - 1	26 Mar 2018 16:01:04	SMPL	ug/l	0.0841	161	1.000	1.000
JC62851-1F - 1	26 Mar 2018 16:02:23	SMPL	ug/l	0.0245	-149	1.000	1.000
JC62851-2F - 1	26 Mar 2018 16:03:41	SMPL	ug/l	0.0512	-10	1.000	1.000
JC62851-3F - 1	26 Mar 2018 16:04:58	SMPL	ug/l	0.0643	58	1.000	1.000
JC62851-4F - 1	26 Mar 2018 16:06:16	SMPL	ug/l	0.0581	26	1.000	1.000
JC62867-8 - 1	26 Mar 2018 16:07:34	SMPL	ug/l	0.0514	-9	1.000	1.000
CCV - 1	26 Mar 2018 16:08:51	CK STND	ug/l	97.6% 2.4403	12425	1.000	1.000
CCB - 1	26 Mar 2018 16:10:07	CK STND	ug/l	-0.0045	-300	1.000	1.000

ACCUTEST



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.052	0.052	-5	0.000	-5				
STDB	0.200	0.218	0.018	860	0.0 %	860				
STDC	0.500	0.484	-0.016	2241	0.0 %	2241				
STDD	1.000	0.946	-0.054	4647	0.0 %	4647				
STDE	2.500	2.479	-0.021	12627	0.0 %	12627				
STDF	5.000	5.021	0.021	25856	0.0 %	25856				

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/31/2018 13:32:18 Type: Cal
Method: Accutest XPress(v95) 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	**-.0008**	**.0002**	**.0002**	**.0003**	**-.0001**	**.0041**	**.0000**	**-.0000**	**-.0003**
Stddev	.0005	.0004	.0000	.0001	.0000	.0000	.0000	.0000	.0000
%RSD	68.21	191.5	9.008	17.34	18.81	.6961	21.44	90.76	2.856
#1	-.0004	.0005	.0002	.0004	-.0001	.0040	.0000	-.0000	-.0003
#2	-.0012	-.0001	.0002	.0003	-.0001	.0041	.0000	-.0001	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**-.0001**	**-.0001**	**-.0003**	**-.0002**	**-.0000**	**.0002**	**-.0010**	**.0082**
Stddev	.0001	.0000	.0000	.0001	.0001	.0000	.0000	.0001	.0001
%RSD	29.47	24.50	9.105	29.76	29.66	90.42	20.74	7.027	.9543
#1	.0002	-.0002	-.0001	-.0002	-.0001	-.0000	.0002	-.0009	.0082
#2	.0002	-.0001	-.0001	-.0003	-.0002	-.0000	.0002	-.0010	.0083

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**	**.0019**	**-.0059**	**.0009**	**-.0007**	**.0030**	**.0000**	**-.0005**
Stddev	.0000	.0001	.0000	.0001	.0001	.0000	.0000	.0001	.0002
%RSD	33.88	106.8	1.188	1.869	8.872	1.922	1.007	289.4	42.21
#1	.0001	.0000	.0018	-.0059	.0010	-.0007	.0030	-.0000	-.0004
#2	.0001	.0002	.0019	-.0060	.0009	-.0007	.0031	.0001	-.0007

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**.0001**	**-.0007**	**-.0031**	**.0003**	**-.0067**	**-.0096**
Stddev	.0001	.0002	.0001	.0000	.0003	.0001	.0000
%RSD	70.75	147.2	8.636	1.223	101.0	1.524	.4181
#1	-.0000	-.0000	-.0008	-.0031	.0004	-.0067	-.0096
#2	-.0001	.0003	-.0007	-.0031	.0001	-.0066	-.0097

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/31/2018 13:32:18 Type: Cal
Method: Accutest XPress(v95) 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	**159920.**	**21139.**	**6846.2**	**11271.**
Stddev	835.	85.	33.8	60.
%RSD	.52212	.40220	.49319	.53538
#1	159330.	21200.	6822.3	11228.
#2	160510.	21079.	6870.0	11314.

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 3/31/2018 13:35:18 Type: Cal
Method: Accutest XPress(v95) 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	**4.732**	**8.892**	**3.854**	**2.279**	**.4395**	**.7574**	**2.706**	**1.692**	**.0604**
Stddev	.025	.045	.004	.001	.0008	.0013	.032	.001	.0000
%RSD	.5252	.5069	.0905	.0358	.1870	.1698	1.172	.0642	.0450
#1	4.749	8.924	3.857	2.280	.4401	.7583	2.729	1.693	.0604
#2	4.714	8.860	3.852	2.278	.4390	.7565	2.684	1.691	.0604

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	**.7047**	**5.272**	**.4211**	**.2848**	**.7313**	**.2989**	**.5067**	**2.481**	**5.156**
Stddev	.0005	.000	.0004	.0003	.0002	.0006	.0017	.014	.020
%RSD	.0639	.0075	.0860	.0915	.0267	.1990	.3306	.5422	.3796
#1	.7050	5.271	.4214	.2850	.7314	.2993	.5078	2.491	5.170
#2	.7044	5.272	.4209	.2846	.7311	.2985	.5055	2.472	5.143

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	**3.701**	**.5767**	**1.192**	**4.811**	**.8225**	**2.992**	**1.763**	**.9536**	**9.451**
Stddev	.016	.0017	.003	.002	.0002	.002	.003	.0001	.036
%RSD	.4362	.2919	.2353	.0439	.0210	.0725	.1488	.0053	.3785
#1	3.713	.5779	1.194	4.813	.8226	2.993	1.765	.9537	9.477
#2	3.690	.5755	1.190	4.810	.8224	2.990	1.761	.9536	9.426

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	**.4238**	**1.156**	**1.636**	**.2294**	**.4824**	**1.521**	**.5682**
Stddev	.0012	.000	.003	.0004	.0011	.006	.0005
%RSD	.2780	.0231	.1909	.1677	.2280	.3999	.0879
#1	.4246	1.157	1.639	.2297	.4832	1.525	.5686
#2	.4230	1.156	1.634	.2291	.4816	1.516	.5679

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 3/31/2018 13:35:18 Type: Cal
Method: Accutest XPress(v95) 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	**151770.**	**20889.**	**6517.3**	**10409.**
Stddev	117.	137.	10.7	20.
%RSD	.07701	.65600	.16443	.19450
#1	151690.	20986.	6509.7	10394.
#2	151850.	20792.	6524.9	10423.

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 3/31/2018 13:38:19 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.911**	**1.920**	**1.968**	**2.005**	**2.003**	**1.964**	**2.050**	**2.012**	**.2459**
Stddev	.099	.102	.003	.002	.003	.002	.003	.002	.0002
%RSD	5.178	5.300	.1702	.1020	.1606	.0801	.1364	.0842	.0747
#1	1.841	1.848	1.970	2.006	2.005	1.963	2.052	2.013	.2458
#2	1.981	1.992	1.965	2.003	2.001	1.965	2.048	2.011	.2460
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	**1.991**	**2.001**	**1.959**	**2.038**	**2.003**	**1.972**	**1.960**	**37.85**	**38.42**
Stddev	.002	.003	.001	.001	.004	.002	.000	2.17	1.93
%RSD	.0769	.1568	.0491	.0445	.1809	.1113	.0002	5.733	5.022
#1	1.992	1.999	1.959	2.039	2.005	1.971	1.960	36.32	37.06
#2	1.989	2.003	1.958	2.038	2.000	1.974	1.960	39.39	39.79
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.18**	**38.47**	**38.66**	**38.73**	**1.987**	**1.972**	**5.014**	**1.991**	**1.920**
Stddev	2.12	1.95	1.20	1.48	.003	.001	.002	.001	.097
%RSD	5.542	5.075	3.112	3.824	.1497	.0418	.0317	.0554	5.040
#1	36.68	37.09	37.81	37.68	1.989	1.972	5.015	1.992	1.852
#2	39.68	39.85	39.51	39.78	1.985	1.971	5.012	1.990	1.989
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: 3/31/2018 13:38:19 Type: QC
Method: Accutest XPress(v95) 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	**1.982**	**1.941**	**1.982**	**1.947**	**1.995**	**1.925**	**1.973**
Stddev	.003	.000	.001	.001	.008	.087	.002
%RSD	.1250	.0068	.0650	.0681	.3842	4.530	.1015
#1	1.984	1.941	1.983	1.947	2.000	1.863	1.972
#2	1.981	1.941	1.981	1.948	1.990	1.987	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	**158180.**	**21525.**	**6816.8**	**10841.**
Stddev	481.	80.	4.3	4.
%RSD	.30390	.36956	.06243	.03471
#1	157840.	21469.	6819.8	10839.
#2	158520.	21582.	6813.8	10844.

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 3/31/2018 13:41:08 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0002**	**.0000**	**-.0001**	**.0000**	**-.0000**	**-.0001**	**.0003**
Stddev	.0005	.0001	.0000	.0003	.0001	.0001	.0001	.0002	.0003
%RSD	1876.	377.1	.6603	606.8	60.86	363.2	114.5	202.1	94.15
#1	-.0003	-.0000	.0002	.0002	-.0001	-.0001	-.0000	-.0002	.0001
#2	.0004	.0001	.0002	-.0001	-.0001	.0001	-.0001	.0000	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0000**	**-.0001**	F **.0025**	**-.0002**	**.0006**	**-.0019**	**.0041**	**.0033**
Stddev	.0001	.0001	.0008	.0009	.0014	.0019	.0008	.0038	.0013
%RSD	17.04	265.4	745.1	36.67	845.7	308.3	44.12	93.26	38.90
#1	-.0005	-.0000	.0004	.0031	-.0011	.0020	-.0013	.0014	.0024
#2	-.0007	.0001	-.0007	.0018	.0008	-.0007	-.0025	.0068	.0043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020					
Low Limit				-.0020					

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0027**	**-.0201**	**.1219**	**.0339**	**.0055**	**.0005**	**.0003**	**.0003**	**-.0002**
Stddev	.0006	.0235	.0159	.0205	.0008	.0001	.0003	.0000	.0001
%RSD	22.35	117.1	13.03	60.52	14.49	16.92	116.5	5.200	34.32
#1	-.0032	-.0034	.1107	.0484	.0060	.0005	.0005	.0003	-.0001
#2	-.0023	-.0367	.1331	.0194	.0049	.0004	.0001	.0003	-.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: ccbconf Acquired: 3/31/2018 13:41:08 Type: QC
Method: Accutest XPress(v95) 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**	**.0009**	**.0002**	**.0031**	**.0005**	**.0030**	**-.0005**
Stddev	.0002	.0024	.0001	.0010	.0016	.0024	.0005
%RSD	117.5	281.3	80.15	30.68	316.0	79.00	108.1
#1	-.0003	-.0008	.0001	.0024	-.0006	.0047	-.0009
#2	-.0000	.0026	.0003	.0038	.0017	.0013	-.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	**162550.**	**21644.**	**6926.7**	**11420.**
Stddev	591.	127.	26.4	52.
%RSD	.36373	.58637	.38170	.45185
#1	162970.	21555.	6908.0	11384.
#2	162130.	21734.	6945.4	11457.

Zoom In Zoom Out

Sample Name: icv Acquired: 3/31/2018 13:55:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.971**	**1.985**	**1.971**	**2.002**	**1.989**	**1.951**	**2.041**	**2.005**	**.2456**
Stddev	.009	.008	.003	.005	.005	.006	.004	.004	.0009
%RSD	.4638	.4014	.1646	.2617	.2546	.3316	.1983	.2193	.3655
#1	1.968	1.983	1.975	2.008	1.994	1.957	2.044	2.009	.2464
#2	1.982	1.993	1.971	2.001	1.990	1.953	2.043	2.004	.2456
#3	1.964	1.977	1.968	1.997	1.984	1.944	2.036	2.001	.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	**1.985**	**2.001**	**1.959**	**2.026**	**1.996**	**1.964**	**1.961**	**39.21**	**39.54**
Stddev	.005	.006	.003	.003	.006	.008	.005	.19	.15
%RSD	.2511	.2875	.1685	.1224	.3069	.4079	.2350	.4814	.3698
#1	1.989	2.007	1.962	2.029	2.002	1.973	1.967	39.19	39.48
#2	1.987	2.000	1.957	2.024	1.996	1.961	1.958	39.41	39.70
#3	1.979	1.996	1.957	2.024	1.990	1.958	1.960	39.03	39.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.57**	**39.63**	**39.23**	**39.47**	**1.981**	**1.982**	**5.019**	**1.993**	**1.972**
Stddev	.14	.20	.08	.11	.002	.003	.009	.005	.007
%RSD	.3572	.5033	.2090	.2884	.0935	.1401	.1817	.2455	.3523
#1	39.57	39.56	39.17	39.42	1.983	1.984	5.029	1.998	1.973
#2	39.71	39.85	39.32	39.61	1.980	1.983	5.014	1.993	1.978
#3	39.43	39.47	39.20	39.40	1.980	1.978	5.013	1.988	1.965
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: 3/31/2018 13:55:04 Type: QC
Method: Accutest XPress(v95) 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	**1.962**	**1.939**	**1.972**	**1.951**	**1.982**	**1.974**	**1.983**
Stddev	.008	.005	.005	.006	.008	.011	.004
%RSD	.3955	.2759	.2467	.2864	.4126	.5672	.1815
#1	1.969	1.944	1.977	1.956	1.991	1.967	1.987
#2	1.962	1.938	1.973	1.951	1.981	1.987	1.982
#3	1.954	1.933	1.967	1.945	1.975	1.969	1.979
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	**158180.**	**21394.**	**6788.3**	**10845.**
Stddev	771.	134.	21.6	40.
%RSD	.48748	.62664	.31868	.36490
#1	157800.	21394.	6763.7	10800.
#2	157680.	21260.	6804.1	10873.
#3	159070.	21528.	6797.3	10864.

Zoom In Zoom Out

Sample Name: icb Acquired: 3/31/2018 14:08:56 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0002**
Stddev	.0001	.0001	.0001	.0002	.0006	.0002	.0000	.0004	.0000
%RSD	511.5	4200.	110.1	217.6	237.2	27.16	79.26	8896.	24.75
#1	-.0001	-.0001	.0000	.0002	.0007	.0005	-.0000	.0003	.0001
#2	.0001	.0001	.0001	-.0000	-.0002	.0008	-.0000	-.0003	.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	**-.0004**	**-.0000**	**-.0006**	**-.0002**	**-.0003**	**-.0012**	**-.0008**	**-.0001**	**-.0024**
Stddev	.0002	.0002	.0003	.0006	.0002	.0005	.0017	.0000	.0065
%RSD	63.21	932.3	46.83	330.7	74.85	40.75	206.4	6.177	274.9
#1	-.0005	-.0002	-.0004	.0002	-.0005	-.0008	.0004	-.0001	.0022
#2	-.0002	.0001	-.0009	-.0006	-.0002	-.0015	-.0020	-.0001	-.0070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0023**	**.0009**	**-.0213**	**.0214**	**.0006**	**.0001**	**-.0016**	**-.0000**	**-.0001**
Stddev	.0003	.0190	.0595	.0003	.0004	.0002	.0010	.0002	.0000
%RSD	11.36	2039.	278.9	1.337	77.75	244.7	64.86	697.6	36.03
#1	-.0021	-.0125	.0207	.0212	.0009	-.0001	-.0023	.0001	-.0001
#2	-.0024	.0144	-.0634	.0216	.0002	.0002	-.0009	-.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: icb Acquired: 3/31/2018 14:08:56 Type: QC
Method: Accutest XPress(v95) 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**	**.0004**	**.0013**	**-.0008**
Stddev	.0005	.0018	.0001	.0002	.0001	.0004	.0006
%RSD	151.7	172.7	92.92	44.46	18.46	26.96	82.90
#1	-.0000	-.0002	.0001	.0007	.0003	.0011	-.0012
#2	.0007	.0023	.0000	.0004	.0004	.0016	-.0003
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	**161300.**	**21393.**	**6851.3**	**11360.**
Stddev	903.	151.	18.2	18.
%RSD	.55962	.70537	.26566	.16247
#1	161940.	21286.	6838.4	11347.
#2	160660.	21500.	6864.2	11373.

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/31/2018 14:12:30 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**1.994**	**2.011**	**2.041**	**2.080**	**2.042**	F **2.136**	**2.046**	**.2557**
Stddev	.008	.009	.023	.020	.132	.125	.133	.020	.0152
%RSD	.4000	.4548	1.139	.9620	6.334	6.123	6.225	.9644	5.944
#1	1.988	2.006	2.036	2.062	2.005	1.968	2.060	2.067	.2474
#2	1.972	1.986	2.024	2.051	2.007	1.974	2.060	2.056	.2477
#3	1.975	1.988	2.001	2.035	2.277	2.228	2.334	2.040	.2785
#4	1.985	1.995	1.985	2.017	2.031	1.995	2.088	2.022	.2493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							2.000		
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	**2.072**	**2.046**	**2.002**	**2.065**	**2.038**	**2.016**	**2.000**	**39.27**	**39.70**
Stddev	.130	.020	.021	.022	.022	.022	.022	.23	.21
%RSD	6.255	.9602	1.058	1.086	1.096	1.089	1.099	.5748	.5211
#1	1.999	2.065	2.022	2.088	2.058	2.033	2.026	39.58	39.91
#2	1.998	2.059	2.017	2.077	2.052	2.035	2.010	39.09	39.49
#3	2.265	2.037	1.992	2.060	2.033	2.004	1.988	39.11	39.56
#4	2.024	2.022	1.977	2.037	2.008	1.991	1.977	39.30	39.83
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: 3/31/2018 14:12:30 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.63**	**39.68**	**39.60**	**39.70**	**2.024**	**2.020**	**5.117**	**2.041**	**1.980**
Stddev	.22	.21	.22	.21	.024	.020	.059	.018	.009
%RSD	.5509	.5293	.5553	.5324	1.200	.9964	1.152	.9055	.4630
#1	39.93	39.94	39.70	39.86	2.048	2.042	5.178	2.060	1.991
#2	39.46	39.45	39.31	39.40	2.040	2.031	5.150	2.052	1.972
#3	39.48	39.58	39.58	39.69	2.014	2.012	5.091	2.033	1.973
#4	39.63	39.74	39.82	39.84	1.995	1.997	5.047	2.019	1.984
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	**2.051**	**1.983**	**2.062**	**1.995**	**2.032**	**1.988**	**2.021**
Stddev	.127	.018	.129	.030	.019	.008	.022
%RSD	6.204	.9320	6.255	1.498	.9399	.3882	1.103
#1	1.977	2.003	1.988	2.025	2.043	1.994	2.043
#2	1.984	1.994	1.991	2.013	2.028	1.979	2.033
#3	2.242	1.973	2.255	1.979	2.049	1.984	2.014
#4	2.003	1.963	2.015	1.961	2.006	1.995	1.993
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: 3/31/2018 14:12:30 Type: QC
Method: Accutest XPress(v95) 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	**152040.**	**21107.**	**6676.9**	**10676.**
Stddev	7540.	135.	43.5	59.
%RSD	4.9589	.64066	.65094	.54955
#1	155200.	20942.	6648.0	10637.
#2	156730.	21268.	6633.2	10622.
#3	140780.	21078.	6701.6	10695.
#4	155470.	21139.	6725.0	10750.

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/31/2018 14:17:06 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.063**	**2.017**	**2.050**	**2.043**	**2.007**	**2.097**	**2.056**	**.2515**
Stddev	.008	.006	.014	.013	.021	.015	.017	.014	.0018
%RSD	.3756	.3138	.6756	.6452	1.005	.7450	.7912	.6648	.7241
#1	2.051	2.064	2.023	2.055	2.068	2.027	2.117	2.062	.2538
#2	2.063	2.070	2.028	2.062	2.042	2.007	2.096	2.068	.2510
#3	2.057	2.064	2.021	2.052	2.044	2.003	2.098	2.056	.2517
#4	2.044	2.055	1.997	2.031	2.018	1.992	2.076	2.037	.2494
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	**2.036**	**2.050**	**2.010**	**2.079**	**2.048**	**2.027**	**2.009**	**40.78**	**41.16**
Stddev	.017	.013	.014	.015	.016	.018	.013	.17	.16
%RSD	.8255	.6440	.7072	.7120	.7781	.8647	.6693	.4160	.3985
#1	2.057	2.057	2.017	2.082	2.053	2.032	2.011	40.65	41.07
#2	2.036	2.062	2.021	2.094	2.066	2.041	2.022	41.00	41.38
#3	2.037	2.049	2.011	2.082	2.046	2.033	2.011	40.82	41.19
#4	2.016	2.032	1.989	2.059	2.028	2.001	1.990	40.64	41.00
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: 3/31/2018 14:17:06 Type: QC
Method: Accutest XPress(v95) 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	**41.13**	**41.24**	**40.70**	**40.98**	**2.035**	**2.024**	**5.140**	**2.045**	**2.055**
Stddev	.16	.23	.12	.22	.015	.014	.039	.014	.009
%RSD	.3916	.5574	.2902	.5350	.7287	.7015	.7543	.6792	.4275
#1	40.99	41.01	40.66	40.82	2.039	2.031	5.153	2.051	2.047
#2	41.31	41.53	40.86	41.18	2.048	2.035	5.176	2.057	2.062
#3	41.23	41.30	40.69	41.15	2.041	2.026	5.146	2.049	2.063
#4	41.01	41.11	40.58	40.75	2.014	2.003	5.085	2.025	2.047
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	**2.015**	**1.989**	**2.030**	**2.002**	**2.034**	**2.053**	**2.026**
Stddev	.020	.016	.015	.017	.018	.009	.014
%RSD	.9898	.8009	.7322	.8263	.9032	.4236	.7070
#1	2.040	1.995	2.048	2.008	2.042	2.053	2.033
#2	2.014	2.005	2.029	2.018	2.048	2.060	2.036
#3	2.013	1.988	2.031	2.003	2.040	2.057	2.029
#4	1.991	1.968	2.012	1.979	2.007	2.041	2.005
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: 3/31/2018 14:17:06 Type: QC
Method: Accutest XPress(v95) 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	**156530.**	**21144.**	**6710.1**	**10703.**
Stddev	1591.	73.	35.0	52.
%RSD	1.0166	.34372	.52232	.48632
#1	154530.	21229.	6688.3	10674.
#2	156740.	21051.	6685.2	10657.
#3	156420.	21153.	6705.9	10706.
#4	158410.	21144.	6760.8	10775.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 14:22:30 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0001**	**.0001**	**-.0001**	**-.0002**	**.0004**	**.0000**	**.0000**	**.0005**
Stddev	.0002	.0001	.0002	.0002	.0001	.0004	.0000	.0001	.0002
%RSD	37.45	108.7	130.8	167.5	20.91	108.5	171.8	307.2	44.08
#1	.0003	.0001	.0002	-.0002	-.0003	.0007	.0000	-.0000	.0004
#2	.0006	.0000	.0000	.0000	-.0002	.0001	-.0000	.0001	.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	**-.0002**	**.0001**	**-.0017**	**.0017**	**-.0004**	**-.0010**	**-.0008**	**.0107**	**-.0015**
Stddev	.0001	.0001	.0000	.0004	.0011	.0006	.0007	.0181	.0014
%RSD	57.31	171.6	2.228	25.00	265.8	61.87	93.35	168.8	93.08
#1	-.0001	.0001	-.0018	.0020	-.0012	-.0005	-.0003	-.0021	-.0025
#2	-.0003	-.0000	-.0017	.0014	.0004	-.0014	-.0013	.0235	-.0005
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	**.0012**	**-.0091**	**.1193**	**.0356**	**.0055**	**.0005**	**-.0000**	**.0000**	**-.0003**
Stddev	.0015	.0072	.0334	.0069	.0002	.0001	.0011	.0004	.0000
%RSD	130.6	79.68	27.99	19.39	3.238	22.88	48240.	7498.	3.869
#1	.0001	-.0142	.0957	.0307	.0057	.0006	-.0008	-.0003	-.0003
#2	.0023	-.0040	.1429	.0404	.0054	.0005	.0008	.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									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 14:22:30 Type: QC
Method: Accutest XPress(v95) 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**	**.0022**	**.0001**	**.0014**	**.0023**	**.0015**	**-.0008**
Stddev	.0001	.0011	.0002	.0010	.0006	.0046	.0003
%RSD	1136.	47.98	164.6	72.87	26.17	302.8	35.07
#1	-.0001	.0030	-.0000	.0021	.0027	.0048	-.0010
#2	.0001	.0015	.0002	.0007	.0019	-.0017	-.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	**160670.**	**21551.**	**6847.7**	**11316.**
Stddev	465.	10.	13.1	16.
%RSD	.28930	.04640	.19161	.14370
#1	161000.	21558.	6838.5	11305.
#2	160340.	21544.	6857.0	11328.

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 14:32:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1938**	**.0019**	**.0031**	**.0498**	**.0100**	**.0101**	**.0158**	**.0099**	**.0043**
Stddev	.0001	.0001	.0000	.0001	.0001	.0007	.0001	.0000	.0009
%RSD	.0686	3.253	.5734	.3006	.7194	6.680	.5031	.4571	20.74
#1	.1939	.0019	.0031	.0499	.0099	.0096	.0158	.0099	.0036
#2	.1937	.0020	.0031	.0497	.0100	.0106	.0159	.0099	.0049
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**	**.0208**	**.0088**	**.0107**	F **.0020**	**.0109**	**.0054**	**.1925**	**4.970**
Stddev	.0002	.0001	.0010	.0004	.0002	.0029	.0019	.0148	.001
%RSD	.3791	.5101	11.11	3.911	9.363	26.47	35.83	7.703	.0101
#1	.0492	.0207	.0081	.0110	.0019	.0088	.0068	.1821	4.969
#2	.0489	.0209	.0095	.0104	.0022	.0129	.0040	.2030	4.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					.0030				
Range					-30.00%				

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1008**	**5.036**	**4.886**	**4.990**	**.0998**	**.0202**	**.1739**	**.0105**	**.0095**
Stddev	.0046	.013	.075	.025	.0002	.0002	.0020	.0002	.0001
%RSD	4.553	.2588	1.545	.4913	.2005	.8322	1.148	2.077	.8475
#1	.1041	5.046	4.832	4.973	.0999	.0204	.1725	.0107	.0095
#2	.0976	5.027	4.939	5.008	.0997	.0201	.1753	.0104	.0096
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: 3/31/2018 14:32:03 Type: QC
Method: Accutest XPress(v95) 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	**.0091**	**.0489**	**.0102**	**.0476**	**.0220**	**.0512**	**.0490**
Stddev	.0003	.0035	.0001	.0023	.0017	.0020	.0001
%RSD	3.806	7.156	.6175	4.825	7.761	3.956	.2739
#1	.0093	.0464	.0102	.0460	.0208	.0527	.0490
#2	.0088	.0513	.0101	.0492	.0232	.0498	.0491
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	**160130.**	**21400.**	**6788.6**	**11176.**
Stddev	1001.	194.	51.5	73.
%RSD	.62528	.90488	.75843	.65479
#1	159420.	21263.	6752.2	11124.
#2	160840.	21537.	6825.0	11228.

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 14:35:00 Type: QC
Method: Accutest XPress(v95) 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	**.0045**	**.0010**	**.0009**	**.0030**	**.0020**	F **.0001**	**.0033**	**.0044**
Stddev	.0004	.0000	.0000	.0003	.0000	.0003	.0000	.0003
%RSD	8.349	3.413	2.839	8.802	1.643	231.2	1.396	6.542
#1	.0048	.0010	.0009	.0028	.0020	.0003	.0034	.0046
#2	.0042	.0009	.0009	.0032	.0020	-.0001	.0033	.0042
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**	**.0016**	**.0110**	**.0029**	F **.0028**	F **.0005**	**.0046**	F **-.0011**
Stddev	.0002	.0001	.0001	.0005	.0010	.0002	.0028	.0015
%RSD	29.23	7.831	.9343	18.86	34.14	39.00	61.38	131.2
#1	.0005	.0015	.0109	.0025	.0021	.0007	.0065	-.0001
#2	.0008	.0017	.0111	.0033	.0035	.0004	.0026	-.0022
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail
Value	.0020				.0020	.0025		.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	**.1021**	**1.057**	**-.0013**	**.1125**	**2.093**	**1.080**	**.0008**	**.0001**
Stddev	.0089	.005	.0013	.0235	.005	.003	.0006	.0001
%RSD	8.666	.4773	102.8	20.90	.2258	.2603	85.76	78.48
#1	.0959	1.061	-.0022	.1291	2.096	1.078	.0012	.0002
#2	.1084	1.053	-.0004	.0958	2.090	1.082	.0003	.0001
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 14:35:00 Type: QC
Method: Accutest XPress(v95) 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	**.0025**	**.0016**	**-.0001**	**-.0000**	**.0002**	**-.0000**	**.0039**	**-.0005**
Stddev	.0006	.0000	.0002	.0001	.0001	.0002	.0006	.0018
%RSD	23.32	2.656	172.5	453.8	76.56	438.9	15.67	370.9
#1	.0029	.0017	-.0003	.0000	.0003	-.0002	.0035	.0008
#2	.0021	.0016	.0000	-.0001	.0001	.0001	.0044	-.0018
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0009**	**-.0007**
Stddev	.0001	.0011
%RSD	12.05	145.8
#1	-.0008	-.0015
#2	-.0010	.0000
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159150.**	**21296.**	**6910.7**	**11405.**
Stddev	293.	96.	13.4	12.
%RSD	.18425	.45016	.19330	.10715
#1	158950.	21228.	6901.2	11397.
#2	159360.	21363.	6920.1	11414.

Zoom In Zoom Out

Sample Name: icsa Acquired: 3/31/2018 14:38:00 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0000**	**.0011**	**-.0007**	**.0004**	**.0010**	**.0007**	**-.0007**	**.0028**
Stddev	.0003	.0000	.0001	.0005	.0002	.0007	.0001	.0004	.0000
%RSD	23.42	83.42	12.31	71.93	59.19	74.04	12.25	55.21	.1504
#1	.0016	.0000	.0012	-.0011	.0005	.0005	.0007	-.0004	.0028
#2	.0011	.0001	.0010	-.0004	.0002	.0015	.0008	-.0010	.0028
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	**-.0012**	**.0036**	**-.0005**	**-.0011**	**.0001**	**-.0020**	**.0031**	**510.8**	**386.7**
Stddev	.0003	.0001	.0019	.0016	.0010	.0003	.0010	.3	2.6
%RSD	24.09	3.114	383.7	144.4	736.1	12.72	31.01	.0629	.6687
#1	-.0010	.0037	.0009	-.0023	.0008	-.0018	.0024	511.0	388.5
#2	-.0014	.0035	-.0019	.0000	-.0006	-.0022	.0038	510.5	384.9
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	**191.3**	**501.1**	**.2713**	**.0120**	**-.0024**	**.0012**	**.0420**	**-.0058**	**-.0027**
Stddev	.3	.2	.0471	.0169	.0001	.0002	.0699	.0007	.0000
%RSD	.1518	.0493	17.37	140.1	2.691	17.96	166.6	11.43	.7761
#1	191.5	501.3	.2380	.0240	-.0024	.0014	.0914	-.0054	-.0027
#2	191.1	500.9	.3046	.0001	-.0023	.0011	-.0075	-.0063	-.0027
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: 3/31/2018 14:38:00 Type: QC
Method: Accutest XPress(v95) 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	**-.0019**	**-.0004**	**.0002**	**-.0042**	**.0160**	**-.0056**	**.0072**
Stddev	.0006	.0006	.0001	.0003	.0003	.0005	.0007
%RSD	29.74	157.2	33.44	6.994	1.750	9.142	10.03
#1	-.0024	-.0008	.0002	-.0045	.0162	-.0060	.0077
#2	-.0015	.0000	.0002	-.0040	.0158	-.0052	.0067
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	**143980.**	**20432.**	**6226.8**	**9786.8**
Stddev	915.	.	.3	7.2
%RSD	.63549	.00084	.00488	.07336
#1	143340.	20432.	6227.0	9791.9
#2	144630.	20432.	6226.5	9781.7

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/31/2018 14:41:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4980**	**.4879**	**1.011**	**.4936**	**.4815**	**.4990**	**.5053**	**.9758**	**.9978**
Stddev	.0014	.0003	.000	.0009	.0003	.0007	.0009	.0003	.0028
%RSD	.2812	.0562	.0278	.1900	.0533	.1448	.1685	.0280	.2835
#1	.4970	.4877	1.011	.4929	.4813	.4985	.5047	.9760	.9958
#2	.4990	.4881	1.011	.4943	.4816	.4995	.5059	.9756	.9998
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	**.4905**	**.9605**	**1.018**	**1.089**	**.9736**	**.9960**	**1.035**	**504.1**	**384.7**
Stddev	.0002	.0004	.003	.002	.0051	.0027	.003	6.1	5.8
%RSD	.0472	.0457	.2792	.1742	.5249	.2759	.2827	1.218	1.504
#1	.4906	.9608	1.016	1.090	.9700	.9940	1.033	499.7	380.6
#2	.4903	.9602	1.020	1.087	.9772	.9979	1.037	508.4	388.8
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	**186.8**	**492.3**	**.2162**	**.0352**	**.5062**	**.4874**	**.5229**	**.4675**	**.5269**
Stddev	.2	1.2	.0474	.0058	.0004	.0001	.0024	.0002	.0012
%RSD	.0814	.2487	21.92	16.58	.0799	.0180	.4563	.0356	.2344
#1	186.7	491.4	.1827	.0311	.5059	.4875	.5212	.4677	.5260
#2	186.9	493.1	.2497	.0393	.5065	.4873	.5245	.4674	.5278
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: 3/31/2018 14:41:04 Type: QC
Method: Accutest XPress(v95) 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	**.4852**	**.4804**	**.4977**	**.4883**	**.5509**	**.5066**	**.5101**
Stddev	.0009	.0020	.0001	.0026	.0025	.0023	.0020
%RSD	.1952	.4202	.0127	.5390	.4511	.4448	.3937
#1	.4846	.4789	.4977	.4865	.5491	.5050	.5087
#2	.4859	.4818	.4977	.4902	.5527	.5082	.5115
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	**146260.**	**20637.**	**6323.3**	**9922.3**
Stddev	524.	98.	32.0	50.2
%RSD	.35822	.47350	.50648	.50638
#1	146630.	20706.	6300.6	9886.8
#2	145890.	20568.	6345.9	9957.8

Zoom In Zoom Out

Sample Name: hstd Acquired: 3/31/2018 14:44:02 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.016**	**4.892**	**5.096**	**5.133**	**5.144**	**5.134**	**5.203**	**5.162**	**.6295**
Stddev	.005	.093	.000	.004	.031	.035	.042	.005	.0041
%RSD	.1054	1.903	.0018	.0674	.5972	.6827	.8143	.0994	.6519
#1	5.020	4.826	5.097	5.130	5.122	5.109	5.173	5.158	.6266
#2	5.012	4.958	5.096	5.135	5.166	5.158	5.233	5.165	.6324
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	**5.074**	**5.264**	**4.978**	**5.269**	**5.219**	**5.077**	**5.046**	**.0574**	**-.1293**
Stddev	.034	.003	.001	.012	.005	.002	.003	.0009	.0027
%RSD	.6602	.0642	.0184	.2280	.0882	.0432	.0668	1.599	2.099
#1	5.050	5.262	4.978	5.277	5.222	5.078	5.048	.0580	-.1312
#2	5.098	5.267	4.977	5.260	5.216	5.075	5.043	.0567	-.1274
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	**-.0110**	**.0802**	**.3361**	**.0648**	**5.088**	**5.064**	**25.52**	**5.176**	**4.870**
Stddev	.0032	.0290	.0277	.0115	.003	.000	.02	.001	.060
%RSD	28.59	36.22	8.245	17.75	.0673	.0020	.0763	.0142	1.223
#1	-.0088	.0597	.3165	.0567	5.091	5.064	25.51	5.175	4.912
#2	-.0133	.1007	.3557	.0729	5.086	5.065	25.53	5.176	4.827
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd Acquired: 3/31/2018 14:44:02 Type: QC
Method: Accutest XPress(v95) 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	**5.009**	**5.118**	**4.894**	**47.79**	**5.125**	**5.017**	**5.036**
Stddev	.032	.005	.059	.06	.002	.005	.002
%RSD	.6421	.0980	1.205	.1338	.0442	.0947	.0433
#1	4.987	5.115	4.853	47.83	5.124	5.013	5.038
#2	5.032	5.122	4.936	47.74	5.127	5.020	5.035
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	**159160.**	**21617.**	**6791.0**	**11252.**
Stddev	414.	24.	19.4	28.
%RSD	.26008	.11158	.28506	.24868
#1	158870.	21600.	6777.3	11232.
#2	159450.	21634.	6804.7	11272.

Zoom In Zoom Out

Sample Name: hstd Acquired: 3/31/2018 14:47:13 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0001**	**.0010**	**-.0003**	**-.0002**	**.0014**	**.0006**	**-.0010**	**.0029**
Stddev	.0004	.0000	.0001	.0000	.0002	.0003	.0001	.0005	.0002
%RSD	32.22	23.17	10.27	13.29	121.9	21.92	26.10	54.04	6.262
#1	.0010	.0001	.0009	-.0004	-.0000	.0012	.0007	-.0006	.0028
#2	.0017	.0001	.0011	-.0003	-.0003	.0016	.0005	-.0013	.0031
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	**-.0007**	**.0023**	**.0020**	**.0008**	**-.0010**	**.0020**	**.0026**	**309.3**	**142.8**
Stddev	.0000	.0000	.0002	.0017	.0002	.0027	.0018	.0	1.7
%RSD	4.427	2.016	7.722	205.2	21.81	130.6	71.50	.0014	1.199
#1	-.0007	.0023	.0019	-.0004	-.0012	.0002	.0013	309.3	141.6
#2	-.0008	.0023	.0021	.0020	-.0009	.0039	.0039	309.3	144.0
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	**154.5**	**312.3**	**158.6**	**151.0**	**.0048**	**.0008**	**.0003**	**-.0046**	**-.0010**
Stddev	.0	.1	.9	.3	.0004	.0000	.0047	.0006	.0002
%RSD	.0131	.0371	.5715	.1831	8.479	6.022	1515.	12.22	24.35
#1	154.5	312.2	157.9	150.8	.0051	.0009	.0037	-.0042	-.0008
#2	154.5	312.4	159.2	151.2	.0045	.0008	-.0030	-.0050	-.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd Acquired: 3/31/2018 14:47:13 Type: QC
Method: Accutest XPress(v95) 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**	**.0023**	**.0005**	**-.0068**	**.0115**	**.0038**	**.0046**
Stddev	.0001	.0021	.0001	.0002	.0034	.0014	.0005
%RSD	38.68	90.66	26.21	3.023	29.78	35.38	11.06
#1	-.0003	.0038	.0006	-.0069	.0091	.0029	.0049
#2	-.0005	.0008	.0004	-.0066	.0140	.0048	.0042
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	**146970.**	**20594.**	**6333.9**	**9841.0**
Stddev	206.	88.	6.7	18.1
%RSD	.13995	.42961	.10521	.18361
#1	146820.	20657.	6329.2	9828.3
#2	147110.	20531.	6338.6	9853.8

Zoom In Zoom Out

Sample Name: feconf Acquired: 3/31/2018 14:50:11 Type: Unk
Method: Accutest XPress(v95) Mode: 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**	**-.0000**	**.0006**	**-.0007**	**-.0009**	**-.0011**	**.0026**	**-.0008**	**.0033**
Stddev	.0001	.0000	.0000	.0000	.0004	.0002	.0000	.0001	.0006
%RSD	75.38	21.76	.4826	.9004	42.09	14.75	1.472	15.20	19.57
#1	.0001	-.0000	.0006	-.0007	-.0012	-.0010	.0026	-.0007	.0028
#2	.0002	-.0000	.0006	-.0007	-.0007	-.0012	.0026	-.0008	.0037

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0022**	**-.0014**	**-.0000**	**-.0005**	**-.0003**	**.0000**	**.0031**	**.0013**	**.0068**
Stddev	.0000	.0000	.0006	.0009	.0022	.0022	.0003	.0036	.0023
%RSD	.4558	3.133	1282.	202.5	788.8	6194.	10.59	278.2	34.13
#1	-.0023	-.0015	.0004	.0002	.0013	.0016	.0033	.0038	.0084
#2	-.0022	-.0014	-.0005	-.0011	-.0018	-.0015	.0028	-.0012	.0051

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**203.0**	**-.0126**	**.3768**	**.0742**	**.0013**	**.0007**	**.0058**	**-.0011**	**-.0002**
Stddev	.5	.0114	.0190	.0065	.0017	.0002	.0004	.0003	.0001
%RSD	.2477	90.26	5.044	8.785	126.6	28.62	7.613	23.86	86.58
#1	202.6	-.0207	.3902	.0696	.0025	.0005	.0055	-.0013	-.0003
#2	203.4	-.0046	.3634	.0788	.0001	.0008	.0061	-.0009	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0004**	**.0003**	**-.0306**	**.0118**	**-.0024**	**-.0033**
Stddev	.0007	.0019	.0002	.0003	.0012	.0016	.0014
%RSD	555.6	475.5	85.57	1.021	10.43	67.11	42.73
#1	.0004	.0018	.0001	-.0304	.0127	-.0035	-.0023
#2	-.0006	-.0010	.0004	-.0308	.0109	-.0012	-.0043

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159810.**	**21424.**	**6716.4**	**11245.**
Stddev	162.	67.	9.9	31.
%RSD	.10114	.31202	.14680	.27818
#1	159700.	21472.	6709.4	11223.
#2	159930.	21377.	6723.4	11267.

Zoom In Zoom Out

Sample Name: crconf Acquired: 3/31/2018 14:53:08 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0006**	**.0000**	**.0000**	**.0005**	F **10.44**	**-.0013**	**-.0014**	**-.0005**	**-.0000**
Stddev	.0001	.0001	.0000	.0002	.02	.0006	.0000	.0003	.0005
%RSD	19.86	1384.	204.4	52.65	.1954	45.86	.9891	55.05	17950.
#1	.0005	.0000	.0000	.0006	10.43	-.0009	-.0014	-.0006	-.0003
#2	.0007	-.0000	-.0000	.0003	10.46	-.0017	-.0014	-.0003	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0016**	**.0000**	**-.0003**	**-.0007**	**-.0025**	**.0006**	**-.0029**	**.0100**	**-.0017**
Stddev	.0001	.0001	.0009	.0002	.0010	.0024	.0031	.0192	.0015
%RSD	7.560	769.2	263.4	35.69	38.84	400.6	105.7	191.3	84.82
#1	-.0015	.0001	.0003	-.0005	-.0031	-.0011	-.0007	.0236	-.0007
#2	-.0017	-.0000	-.0010	-.0009	-.0018	.0023	-.0051	-.0035	-.0028

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0155**	**-.0024**	**.0091**	**.0397**	**.0014**	**.0009**	**.0027**	**-.0001**	**-.0001**
Stddev	.0005	.0335	.0006	.0013	.0002	.0005	.0005	.0002	.0002
%RSD	3.388	1378.	6.632	3.171	11.29	56.10	18.33	245.7	311.8
#1	.0159	-.0262	.0087	.0388	.0015	.0005	.0023	-.0002	.0001
#2	.0152	.0213	.0095	.0406	.0013	.0012	.0030	.0001	-.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0035**	**.0045**	**.0055**	**.0030**	**.0123**	**.0033**	**-.0021**
Stddev	.0001	.0021	.0002	.0015	.0017	.0021	.0001
%RSD	2.131	46.40	3.703	48.75	13.45	63.01	6.821
#1	-.0035	.0030	.0053	.0020	.0134	.0019	-.0022
#2	-.0036	.0060	.0056	.0040	.0111	.0048	-.0020

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160450.**	**21480.**	**6693.6**	**11258.**
Stddev	271.	103.	15.1	14.
%RSD	.16865	.48003	.22590	.12066
#1	160260.	21407.	6704.3	11268.
#2	160640.	21553.	6682.9	11249.

Zoom In Zoom Out

Sample Name: asconf Acquired: 3/31/2018 14:56:08 Type: Unk
Method: Accutest XPress(v95) Mode: 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**	**-.0000**	**-.0003**	**-.0001**	**.0006**	**.0001**	**-.0000**	**-.0002**	**.0000**
Stddev	.0001	.0000	.0000	.0000	.0002	.0002	.0001	.0001	.0001
%RSD	32.44	137.7	13.53	53.18	37.96	306.2	268.3	63.44	410.3
#1	-.0002	-.0000	-.0003	-.0001	.0008	-.0001	-.0001	-.0002	-.0001
#2	-.0003	-.0000	-.0003	-.0000	.0005	.0002	.0000	-.0001	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0003**	**5.241**	**-.0002**	**.0003**	**-.0006**	**-.0008**	**-.0008**	**-.0389**
Stddev	.0003	.0001	.007	.0005	.0008	.0001	.0002	.0018	.0015
%RSD	96.00	19.50	.1365	227.1	247.5	16.53	23.71	222.2	3.921
#1	-.0001	.0004	5.236	.0001	-.0002	-.0005	-.0006	-.0021	-.0379
#2	-.0005	.0003	5.246	-.0006	.0008	-.0007	-.0009	.0005	-.0400

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0015**	**-.0054**	**.0476**	**.0341**	**.0008**	**-.0001**	**-.0012**	**.0009**	**-.0003**
Stddev	.0009	.0032	.0100	.0082	.0009	.0001	.0008	.0004	.0001
%RSD	56.36	58.87	20.99	24.18	112.7	120.5	67.30	40.35	20.64
#1	.0009	-.0076	.0546	.0283	.0015	-.0000	-.0006	.0011	-.0002
#2	.0021	-.0031	.0405	.0399	.0002	-.0001	-.0018	.0006	-.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**.0006**	**.0002**	**.0043**	**-.0010**	**.0026**	**.0001**
Stddev	.0000	.0000	.0003	.0004	.0006	.0003	.0001
%RSD	12.78	7.448	182.2	8.455	66.73	11.82	76.28
#1	-.0003	.0005	-.0000	.0041	-.0014	.0024	.0001
#2	-.0002	.0006	.0003	.0046	-.0005	.0028	.0000

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161180.**	**21425.**	**6858.3**	**11300.**
Stddev	285.	105.	7.2	.
%RSD	.17674	.49185	.10554	.00061
#1	161380.	21500.	6853.2	11300.
#2	160980.	21351.	6863.4	11300.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 14:59:06 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.994**	**2.001**	**2.019**	**2.042**	**2.003**	**1.974**	**2.057**	**2.048**	**.2479**
Stddev	.005	.001	.000	.005	.001	.004	.004	.003	.0011
%RSD	.2479	.0316	.0074	.2673	.0673	.2161	.1995	.1334	.4493
#1	1.998	2.002	2.019	2.038	2.002	1.971	2.054	2.046	.2471
#2	1.991	2.001	2.019	2.046	2.004	1.977	2.060	2.050	.2487
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	**1.994**	**2.053**	**2.012**	**2.077**	**2.048**	**2.028**	**2.012**	**39.56**	**40.01**
Stddev	.003	.004	.003	.004	.004	.006	.002	.12	.00
%RSD	.1260	.1713	.1698	.1974	.2121	.3107	.1208	.2930	.0119
#1	1.992	2.051	2.009	2.075	2.045	2.023	2.014	39.64	40.02
#2	1.995	2.056	2.014	2.080	2.051	2.032	2.010	39.48	40.01
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	**39.93**	**40.03**	**39.57**	**39.90**	**2.037**	**2.021**	**5.145**	**2.039**	**1.999**
Stddev	.01	.08	.03	.11	.006	.002	.009	.005	.000
%RSD	.0372	.2036	.0853	.2743	.2916	.1166	.1742	.2581	.0194
#1	39.94	39.97	39.59	39.83	2.032	2.019	5.138	2.035	1.999
#2	39.92	40.09	39.54	39.98	2.041	2.022	5.151	2.042	1.998
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: 3/31/2018 14:59:06 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**1.994**	**1.990**	**2.009**	**2.029**	**1.988**	**2.024**
Stddev	.006	.008	.005	.000	.002	.002	.001
%RSD	.2993	.4198	.2470	.0214	.1042	.1008	.0608
#1	1.980	1.988	1.986	2.008	2.028	1.989	2.023
#2	1.989	2.000	1.993	2.009	2.031	1.986	2.025
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	**155750.**	**21202.**	**6613.6**	**10578.**
Stddev	140.	23.	5.6	2.
%RSD	.08967	.10968	.08496	.02166
#1	155650.	21218.	6609.6	10576.
#2	155850.	21185.	6617.6	10579.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:01:55 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0000**	**.0002**	**-.0002**	**-.0000**	**.0005**	**-.0001**	**-.0003**	**.0003**
Stddev	.0005	.0001	.0000	.0002	.0001	.0003	.0000	.0001	.0006
%RSD	83.29	479.4	7.175	105.4	470.3	61.94	28.23	51.48	178.3
#1	.0009	-.0000	.0002	-.0003	.0001	.0006	-.0001	-.0002	.0007
#2	.0002	.0001	.0002	-.0000	-.0001	.0003	-.0001	-.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0000**	**.0016**	**.0009**	**.0004**	**.0021**	**-.0005**	**-.0100**	**-.0022**
Stddev	.0000	.0001	.0001	.0003	.0008	.0002	.0002	.0034	.0010
%RSD	9.771	323.3	3.543	26.68	193.3	8.870	38.65	34.01	42.62
#1	-.0003	-.0000	.0016	.0008	-.0002	.0020	-.0004	-.0076	-.0029
#2	-.0003	.0001	.0017	.0011	.0010	.0022	-.0006	-.0124	-.0016
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	**.0008**	**-.0133**	**.0685**	**.0511**	**.0029**	**.0001**	**.0004**	**.0002**	**-.0001**
Stddev	.0009	.0151	.0249	.0039	.0001	.0000	.0001	.0007	.0001
%RSD	105.5	113.6	36.36	7.601	4.560	19.52	27.24	364.5	85.17
#1	.0002	-.0026	.0862	.0539	.0030	.0001	.0004	-.0003	-.0000
#2	.0014	-.0240	.0509	.0484	.0028	.0002	.0003	.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									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:01:55 Type: QC
Method: Accutest XPress(v95) 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**	**-.0004**	**.0001**	**.0018**	**.0016**	**.0028**	**-.0007**
Stddev	.0001	.0010	.0001	.0019	.0015	.0010	.0001
%RSD	29.38	271.6	249.4	105.2	95.13	34.30	8.861
#1	-.0004	-.0010	-.0000	.0032	.0005	.0034	-.0007
#2	-.0003	.0003	.0001	.0005	.0026	.0021	-.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	**161330.**	**21403.**	**6853.2**	**11301.**
Stddev	248.	79.	44.6	58.
%RSD	.15399	.37056	.65018	.51510
#1	161500.	21459.	6821.7	11260.
#2	161150.	21347.	6884.7	11342.

Zoom In Zoom Out

Sample Name: mp6393-mb1conf Acquired: 3/31/2018 15:04:55 Type: Unk
Method: Accutest XPress(v95) Mode: 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**	**-.0000**	**.0002**	**-.0002**	**.0005**	**.0013**	**.0003**	**.0005**	**.0008**
Stddev	.0004	.0001	.0000	.0002	.0001	.0001	.0000	.0003	.0004
%RSD	90.40	1702.	9.129	94.39	20.15	4.068	.7692	62.73	44.46
#1	.0002	-.0001	.0002	-.0001	.0005	.0012	.0003	.0007	.0006
#2	.0007	.0000	.0002	-.0004	.0006	.0013	.0003	.0003	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0031**	**-.0004**	**.0011**	**-.0002**	**-.0009**	**.0007**	**.0302**	**.1127**
Stddev	.0002	.0000	.0015	.0005	.0024	.0023	.0003	.0071	.0087
%RSD	92.19	1.505	380.2	46.66	1089.	255.6	47.53	23.35	7.699
#1	-.0001	.0030	-.0014	.0007	.0015	.0007	.0005	.0252	.1188
#2	-.0004	.0031	.0007	.0014	-.0020	-.0025	.0010	.0352	.1065

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0202**	**.0344**	**.0900**	**.1367**	**.0017**	**.0004**	**.0406**	**.0203**	**.0004**
Stddev	.0012	.0181	.0362	.0076	.0004	.0001	.0016	.0005	.0000
%RSD	6.013	52.57	40.21	5.526	25.77	14.68	3.994	2.325	.0690
#1	.0211	.0472	.0644	.1314	.0021	.0005	.0394	.0206	.0004
#2	.0194	.0216	.1156	.1421	.0014	.0004	.0417	.0199	.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0016**	**.0001**	**.0113**	**.0015**	**.0040**	**.0197**
Stddev	.0000	.0002	.0001	.0015	.0027	.0016	.0003
%RSD	10.33	13.52	58.65	13.73	182.1	40.99	1.561
#1	.0004	.0014	.0002	.0102	-.0004	.0052	.0195
#2	.0005	.0018	.0001	.0123	.0034	.0028	.0199

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164100.**	**22038.**	**7011.0**	**11509.**
Stddev	768.	20.	39.7	59.
%RSD	.46781	.09200	.56640	.51248
#1	163560.	22052.	6982.9	11468.
#2	164640.	22023.	7039.1	11551.

Zoom In Zoom Out

Sample Name: mp6393-b1conf Acquired: 3/31/2018 15:08:39 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**1.904**	**1.918**	**1.924**	**1.949**	**1.920**	**1.901**	**1.974**	**1.958**	**.2294**
Stddev	.003	.004	.009	.014	.011	.011	.015	.014	.0017
%RSD	.1358	.1879	.4431	.7269	.5520	.5730	.7542	.7275	.7245
#1	1.902	1.915	1.918	1.939	1.912	1.894	1.963	1.948	.2282
#2	1.906	1.920	1.930	1.959	1.927	1.909	1.984	1.968	.2306

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.902**	**1.962**	**1.918**	**2.005**	**1.964**	**1.909**	**1.918**	**23.40**	**23.79**
Stddev	.010	.014	.010	.017	.015	.012	.011	.03	.05
%RSD	.5289	.7270	.5153	.8648	.7618	.6216	.5888	.1213	.2199
#1	1.895	1.952	1.911	1.993	1.953	1.901	1.910	23.38	23.75
#2	1.909	1.972	1.925	2.017	1.974	1.917	1.926	23.42	23.82

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.67**	**23.86**	**23.23**	**23.79**	**1.897**	**1.943**	**.0426**	**1.987**	**1.908**
Stddev	.01	.07	.14	.05	.010	.013	.0015	.008	.000
%RSD	.0491	.2931	.6212	.2100	.5355	.6676	3.476	.3994	.0227
#1	23.66	23.81	23.12	23.76	1.890	1.934	.0416	1.981	1.908
#2	23.68	23.91	23.33	23.83	1.904	1.952	.0436	1.993	1.907

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.920**	**1.637**	**1.921**	**.0257**	**.0433**	**.0015**	**1.924**
Stddev	.010	.008	.012	.0002	.0006	.0004	.010
%RSD	.5254	.5076	.6256	.9314	1.352	24.52	.5003
#1	1.913	1.631	1.913	.0256	.0437	.0017	1.917
#2	1.927	1.643	1.930	.0259	.0429	.0012	1.930

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158990.**	**21525.**	**6742.0**	**10831.**
Stddev	1050.	70.	5.1	24.
%RSD	.66055	.32621	.07508	.22188
#1	159730.	21575.	6745.6	10848.
#2	158240.	21475.	6738.4	10814.

Zoom In Zoom Out

Sample Name: jc63012-5 2 Acquired: 3/31/2018 15:11:28 Type: Unk
Method: Accutest XPress(v95) 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	**.3548**	**.0033**	**.0013**	**.0281**	**.0569**	**.0960**	**3.405**	**.0533**
Stddev	.0008	.0000	.0004	.0004	.0001	.0008	.017	.0001
%RSD	.2312	.4562	32.00	1.269	.0906	.8226	.5114	.1047
#1	.3554	.0033	.0010	.0279	.0569	.0954	3.393	.0532
#2	.3542	.0033	.0016	.0284	.0570	.0965	3.417	.0533

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0028**	**.1046**	**.2720**	**.0144**	F **-.0027**	**.2363**	**-.0017**	**.0006**
Stddev	.0004	.0002	.0001	.0012	.0020	.0018	.0003	.0002
%RSD	15.27	.1953	.0447	8.200	74.73	.7665	14.82	34.71
#1	-.0025	.1047	.2719	.0136	-.0013	.2376	-.0019	.0004
#2	-.0031	.1044	.2721	.0153	-.0041	.2350	-.0016	.0007

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**39.46**	F **1201.**	**64.56**	F **770.5**	**7.661**	**.7768**	**.0232**	**.0023**
Stddev	.09	17.	.16	.9	.037	.0016	.0004	.0001
%RSD	.2310	1.382	.2433	.1207	.4785	.2110	1.527	3.233
#1	39.52	1190.	64.68	771.2	7.687	.7756	.0235	.0022
#2	39.39	1213.	64.45	769.9	7.635	.7779	.0230	.0024

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**5.001**	**.0256**	**.3168**	**.7831**	**.0020**	**.0241**	**1.216**	**.0532**
Stddev	.014	.0002	.0011	.0042	.0009	.0001	.001	.0026
%RSD	.2776	.9299	.3473	.5377	44.28	.5614	.0431	4.961
#1	5.011	.0257	.3175	.7801	.0026	.0241	1.215	.0514
#2	4.991	.0254	.3160	.7861	.0013	.0240	1.216	.0551

Elem	Li6707	P_1774
Avg	**.0685**	**2.356**
Stddev	.0011	.001
%RSD	1.601	.0471
#1	.0693	2.355
#2	.0678	2.357

Zoom In Zoom Out

Sample Name: jc63012-5 2 Acquired: 3/31/2018 15:11:28 Type: Unk
Method: Accutest XPress(v95) 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	**143250.**	**20442.**	**6040.6**	**9159.4**
Stddev	259.	51.	36.1	33.2
%RSD	.18054	.24724	.59750	.36259
#1	143070.	20478.	6015.1	9135.9
#2	143440.	20407.	6066.1	9182.9

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 15:14:33 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0030**	**.0500**	**.0100**	**.0087**	**.0154**	**.0096**	**.0047**
Stddev	.0002	.0001	.0003	.0000	.0005	.0003	.0008	.0001	.0004
%RSD	.1086	4.313	9.961	.0306	4.644	3.514	5.120	.6877	8.374
#1	.1993	.0020	.0027	.0500	.0097	.0084	.0148	.0096	.0050
#2	.1996	.0019	.0032	.0500	.0103	.0089	.0159	.0095	.0045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0479**	**.0206**	**.0081**	**.0098**	**.0025**	**.0082**	**.0049**	**.2167**	**5.158**
Stddev	.0024	.0002	.0002	.0002	.0007	.0018	.0008	.0051	.025
%RSD	4.919	1.007	2.152	2.134	26.03	21.90	16.10	2.359	.4745
#1	.0462	.0208	.0082	.0100	.0030	.0069	.0054	.2131	5.175
#2	.0495	.0205	.0080	.0097	.0021	.0094	.0043	.2203	5.140
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**	**5.242**	**5.080**	**5.164**	**.0988**	**.0201**	**.1729**	**.0106**	**.0099**
Stddev	.0010	.029	.008	.014	.0018	.0002	.0002	.0007	.0001
%RSD	.9174	.5571	.1658	.2662	1.869	1.123	.1385	6.118	.9309
#1	.1041	5.263	5.086	5.173	.1001	.0203	.1731	.0111	.0098
#2	.1055	5.221	5.074	5.154	.0975	.0200	.1728	.0102	.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: 3/31/2018 15:14:33 Type: QC
Method: Accutest XPress(v95) 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	**.0088**	**.0504**	**.0106**	**.0482**	**.0207**	**.0529**	**.0498**
Stddev	.0002	.0006	.0005	.0021	.0003	.0010	.0005
%RSD	1.997	1.235	4.368	4.274	1.366	1.820	.9120
#1	.0087	.0508	.0103	.0468	.0209	.0522	.0501
#2	.0090	.0499	.0109	.0497	.0205	.0535	.0495
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	**166690.**	**21259.**	**6920.8**	**11279.**
Stddev	7358.	182.	40.4	63.
%RSD	4.4141	.85426	.58416	.55563
#1	171900.	21130.	6892.2	11234.
#2	161490.	21387.	6949.4	11323.

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 15:17:31 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**.0010**	F **.0013**	**.0030**	**.0023**	F **.0001**	**.0033**	**.0042**	F **.0006**
Stddev	.0001	.0001	.0001	.0003	.0004	.0001	.0000	.0000	.0002
%RSD	1.322	7.593	10.18	8.686	16.31	143.4	.0271	.8656	34.69
#1	.0046	.0010	.0014	.0028	.0025	.0002	.0033	.0042	.0004
#2	.0047	.0009	.0012	.0032	.0020	-.0000	.0033	.0042	.0007
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value			.0010			.0020			.0020
Range			30.00%			-30.00%			-30.00%

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**.0112**	**.0029**	**.0021**	F **.0006**	F **.0067**	F **.0001**	**.1196**	**1.071**
Stddev	.0003	.0002	.0005	.0000	.0005	.0014	.0002	.0050	.002
%RSD	14.64	1.733	16.68	2.025	91.36	21.07	175.0	4.215	.1653
#1	.0017	.0113	.0026	.0021	.0002	.0057	.0003	.1160	1.072
#2	.0022	.0111	.0033	.0021	.0010	.0077	-.0000	.1232	1.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value					.0025	.0050	.0030		
Range					-30.00%	30.00%	-30.00%		

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0020**	**.1081**	**2.137**	**1.099**	**-.0001**	**.0002**	**.0014**	**.0013**	**-.0002**
Stddev	.0018	.0458	.053	.004	.0003	.0000	.0003	.0004	.0002
%RSD	90.51	42.31	2.479	.3940	492.7	16.90	21.41	32.78	73.87
#1	-.0007	.1405	2.175	1.102	-.0003	.0002	.0016	.0010	-.0001
#2	-.0033	.0758	2.100	1.096	.0001	.0002	.0012	.0016	-.0003
Check ?	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 15:17:31 Type: QC
Method: Accutest XPress(v95) 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	**-.0007**	**.0019**	**-.0000**	**.0032**	**.0009**	**.0019**	**.0004**
Stddev	.0002	.0003	.0002	.0021	.0012	.0018	.0004
%RSD	28.63	17.89	764.6	66.71	138.4	95.42	99.78
#1	-.0008	.0021	-.0001	.0017	.0017	.0006	.0006
#2	-.0005	.0016	.0001	.0046	.0000	.0031	.0001
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	**160530.**	**21251.**	**6834.5**	**11209.**
Stddev	18.	191.	38.4	53.
%RSD	.01138	.90093	.56113	.47486
#1	160540.	21116.	6807.4	11172.
#2	160520.	21386.	6861.6	11247.

Zoom In Zoom Out

Sample Name: mp6399-mb1 2 Acquired: 3/31/2018 15:20:30 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0006**	**-.0001**	**.0002**	**-.0002**	**.0004**	**.0025**	**.0001**	**-.0004**	**.0007**
Stddev	.0006	.0000	.0001	.0000	.0005	.0005	.0000	.0000	.0004
%RSD	101.2	89.22	44.40	20.91	113.9	18.50	21.31	6.152	52.45
#1	.0010	-.0001	.0002	-.0002	.0008	.0029	.0001	-.0005	.0005
#2	.0002	-.0000	.0001	-.0002	.0001	.0022	.0001	-.0004	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0025**	**.0017**	**-.0003**	**-.0005**	**-.0010**	**.0011**	**.0019**	**.0032**
Stddev	.0002	.0000	.0002	.0012	.0003	.0002	.0004	.0137	.0010
%RSD	652.7	1.499	11.34	456.3	51.57	17.75	33.99	704.8	30.60
#1	.0001	.0026	.0016	.0006	-.0003	-.0008	.0014	.0116	.0025
#2	-.0002	.0025	.0018	-.0011	-.0007	-.0011	.0009	-.0077	.0039

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0011**	**-.0003**	**.0398**	**.0428**	**-.0002**	**.0011**	**-.0029**	**.0004**	**-.0001**
Stddev	.0006	.0190	.0071	.0015	.0008	.0002	.0003	.0004	.0000
%RSD	54.24	6127.	17.79	3.421	357.2	20.16	11.34	110.0	3.659
#1	.0015	-.0137	.0448	.0439	-.0008	.0010	-.0032	.0001	-.0001
#2	.0007	.0131	.0348	.0418	.0003	.0013	-.0027	.0007	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0006**	**.0038**	**.0005**	**.0088**	**.0010**	**.0022**	**.0015**
Stddev	.0004	.0002	.0001	.0001	.0004	.0032	.0013
%RSD	72.89	4.534	11.70	1.686	35.07	143.4	84.41
#1	.0003	.0039	.0004	.0089	.0008	.0045	.0024
#2	.0009	.0037	.0005	.0087	.0013	-.0000	.0006

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164720.**	**22007.**	**6997.7**	**11463.**
Stddev	1224.	77.	18.3	11.
%RSD	.74279	.34832	.26088	.10017
#1	163850.	21953.	7010.6	11471.
#2	165580.	22061.	6984.8	11455.

Zoom In Zoom Out

Sample Name: mp6399-mb2 Acquired: 3/31/2018 15:23:30 Type: Unk
Method: Accutest XPress(v95) Mode: 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**	**-.0000**	**.0002**	**-.0001**	**.0000**	**.0004**	**.0001**	**.0001**	**.0002**
Stddev	.0001	.0000	.0000	.0000	.0003	.0006	.0000	.0003	.0005
%RSD	198.0	9.721	18.01	9.495	669.2	161.5	43.42	283.2	224.9
#1	.0000	-.0000	.0002	-.0001	.0003	.0008	.0000	-.0001	-.0001
#2	-.0002	-.0001	.0002	-.0001	-.0002	-.0001	.0001	.0004	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0008**	**.0015**	**-.0009**	**.0001**	**.0018**	**.0011**	**-.0021**	**.0027**
Stddev	.0003	.0000	.0002	.0007	.0008	.0014	.0003	.0019	.0015
%RSD	336.9	.3165	10.70	75.62	743.7	75.15	27.77	88.52	54.73
#1	-.0003	.0008	.0016	-.0013	.0006	.0028	.0013	-.0008	.0037
#2	.0001	.0008	.0014	-.0004	-.0004	.0008	.0008	-.0035	.0017

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0040**	**-.0203**	**-.0042**	**.0584**	**-.0013**	**.0015**	**-.0030**	**.0010**	**-.0001**
Stddev	.0010	.0047	.0402	.0119	.0004	.0001	.0009	.0007	.0001
%RSD	25.84	22.94	954.4	20.29	30.76	3.985	28.75	69.05	99.17
#1	.0033	-.0170	.0242	.0500	-.0016	.0016	-.0024	.0015	-.0000
#2	.0047	-.0236	-.0326	.0668	-.0010	.0015	-.0036	.0005	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0061**	**.0005**	**.0048**	**-.0005**	**.0038**	**.0019**
Stddev	.0001	.0007	.0001	.0014	.0009	.0013	.0001
%RSD	28.40	11.61	12.39	28.97	186.2	33.13	6.942
#1	.0003	.0056	.0004	.0038	-.0011	.0047	.0019
#2	.0002	.0066	.0005	.0058	.0002	.0029	.0018

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164390.**	**21623.**	**6952.9**	**11384.**
Stddev	363.	349.	40.7	57.
%RSD	.22069	1.6143	.58517	.50279
#1	164140.	21376.	6924.1	11344.
#2	164650.	21870.	6981.7	11425.

Zoom In Zoom Out

Sample Name: mp6399-b1 Acquired: 3/31/2018 15:26:29 Type: Unk
Method: Accutest XPress(v95) Mode: 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**	**1.956**	**1.975**	**2.010**	**1.963**	**1.950**	**2.019**	**2.023**	**.2371**
Stddev	.002	.001	.005	.005	.000	.004	.004	.007	.0000
%RSD	.1161	.0439	.2766	.2704	.0219	.2228	.1904	.3302	.0179
#1	1.947	1.956	1.971	2.006	1.964	1.953	2.022	2.019	.2371
#2	1.951	1.955	1.979	2.014	1.963	1.947	2.017	2.028	.2371

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.951**	**2.003**	**1.964**	**2.062**	**2.018**	**1.965**	**1.981**	**23.84**	**24.18**
Stddev	.002	.002	.004	.005	.009	.002	.009	.04	.00
%RSD	.1026	.1187	.2078	.2614	.4533	.0980	.4572	.1849	.0062
#1	1.953	2.001	1.961	2.058	2.012	1.964	1.975	23.87	24.18
#2	1.950	2.004	1.967	2.066	2.025	1.967	1.987	23.81	24.18

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.10**	**24.32**	**23.82**	**24.25**	**1.980**	**1.991**	**-.0348**	**2.005**	**1.952**
Stddev	.01	.03	.10	.04	.005	.002	.0006	.005	.001
%RSD	.0535	.1364	.4063	.1554	.2615	.1084	1.753	.2305	.0378
#1	24.09	24.34	23.75	24.22	1.976	1.990	-.0353	2.002	1.951
#2	24.11	24.29	23.89	24.27	1.984	1.993	-.0344	2.008	1.952

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.961**	**1.939**	**1.956**	**.0229**	**.0481**	**.0001**	**1.955**
Stddev	.002	.001	.003	.0008	.0037	.0017	.001
%RSD	.0960	.0604	.1522	3.372	7.704	1491.	.0628
#1	1.962	1.939	1.958	.0234	.0455	-.0011	1.954
#2	1.959	1.940	1.954	.0223	.0507	.0013	1.956

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157890.**	**21282.**	**6746.8**	**10784.**
Stddev	1344.	47.	14.8	8.
%RSD	.85158	.22087	.22006	.07209
#1	156940.	21315.	6736.3	10779.
#2	158840.	21249.	6757.3	10790.

Zoom In Zoom Out

Sample Name: mp6399-b2 Acquired: 3/31/2018 15:29:17 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**1.937**	**1.948**	**1.922**	**1.971**	**1.931**	**1.920**	**1.978**	**1.984**	**.2308**
Stddev	.005	.001	.005	.008	.004	.004	.001	.006	.0015
%RSD	.2802	.0352	.2580	.3895	.2053	.2257	.0572	.2929	.6293
#1	1.933	1.949	1.918	1.965	1.929	1.917	1.977	1.980	.2298
#2	1.941	1.948	1.925	1.976	1.934	1.923	1.979	1.988	.2318

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.914**	**1.950**	**1.924**	**2.028**	**1.982**	**1.910**	**1.933**	**24.07**	**24.38**
Stddev	.002	.007	.007	.006	.010	.009	.004	.00	.01
%RSD	.0900	.3399	.3910	.2937	.5059	.4532	.2270	.0007	.0356
#1	1.913	1.946	1.918	2.024	1.975	1.904	1.930	24.07	24.39
#2	1.915	1.955	1.929	2.033	1.989	1.916	1.936	24.07	24.37

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.29**	**24.51**	**23.75**	**24.23**	**1.924**	**1.952**	**-.0115**	**1.959**	**1.941**
Stddev	.02	.05	.06	.05	.005	.005	.0008	.008	.002
%RSD	.0743	.2125	.2363	.2255	.2727	.2825	6.967	.4014	.0901
#1	24.27	24.55	23.71	24.20	1.921	1.948	-.0109	1.953	1.939
#2	24.30	24.47	23.79	24.27	1.928	1.956	-.0120	1.964	1.942

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.940**	**1.824**	**1.931**	**.0230**	**.0549**	**.0013**	**1.898**
Stddev	.006	.008	.001	.0020	.0027	.0001	.006
%RSD	.3250	.4217	.0539	8.565	4.985	8.751	.3226
#1	1.936	1.819	1.930	.0217	.0530	.0012	1.894
#2	1.945	1.829	1.931	.0244	.0568	.0013	1.903

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161340.**	**21615.**	**6847.9**	**10895.**
Stddev	115.	18.	24.2	33.
%RSD	.07127	.08512	.35267	.30419
#1	161420.	21628.	6830.9	10872.
#2	161260.	21602.	6865.0	10919.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 15:32:07 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.979**	**1.978**	**1.975**	**2.023**	**1.973**	**1.951**	**2.022**	**2.040**	**.2442**
Stddev	.009	.008	.004	.006	.001	.002	.001	.007	.0006
%RSD	.4285	.3910	.1775	.3199	.0695	.0837	.0625	.3217	.2410
#1	1.985	1.983	1.973	2.019	1.973	1.950	2.021	2.035	.2438
#2	1.973	1.972	1.978	2.028	1.974	1.952	2.022	2.045	.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	**1.959**	**2.006**	**1.977**	**2.062**	**2.026**	**1.992**	**1.980**	**39.35**	**39.85**
Stddev	.002	.007	.006	.005	.007	.004	.001	.23	.12
%RSD	.1085	.3503	.3236	.2601	.3436	.1980	.0530	.5825	.3072
#1	1.958	2.001	1.973	2.058	2.021	1.989	1.979	39.51	39.94
#2	1.961	2.011	1.982	2.066	2.031	1.994	1.981	39.19	39.76
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	**39.62**	**40.08**	**39.38**	**39.89**	**2.009**	**1.972**	**5.052**	**1.982**	**1.992**
Stddev	.16	.18	.04	.05	.005	.004	.008	.004	.005
%RSD	.4049	.4545	.0913	.1133	.2738	.1855	.1669	.2098	.2580
#1	39.74	40.21	39.36	39.92	2.005	1.969	5.046	1.979	1.996
#2	39.51	39.95	39.41	39.85	2.012	1.974	5.058	1.985	1.988
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: 3/31/2018 15:32:07 Type: QC
Method: Accutest XPress(v95) 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	**1.966**	**1.967**	**1.957**	**1.956**	**2.017**	**1.960**	**1.970**
Stddev	.001	.006	.002	.000	.002	.003	.005
%RSD	.0714	.3083	.0859	.0100	.1131	.1301	.2424
#1	1.965	1.963	1.956	1.956	2.016	1.962	1.967
#2	1.967	1.971	1.958	1.956	2.019	1.958	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	**157540.**	**21169.**	**6738.2**	**10636.**
Stddev	185.	70.	13.5	15.
%RSD	.11718	.33237	.20069	.14185
#1	157400.	21120.	6728.6	10625.
#2	157670.	21219.	6747.8	10647.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:34:57 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0002**	**-.0000**	**-.0001**	**.0003**	**.0000**	**-.0002**	**.0003**
Stddev	.0001	.0001	.0001	.0000	.0005	.0005	.0001	.0001	.0005
%RSD	102.6	853.1	69.90	78.41	487.0	160.1	158.9	70.10	175.6
#1	.0000	.0001	.0002	-.0000	-.0005	.0007	.0001	-.0003	-.0001
#2	.0002	-.0000	.0001	-.0001	.0003	-.0000	-.0000	-.0001	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0000**	**-.0008**	**.0014**	**-.0006**	**.0012**	**.0001**	**.0058**	**-.0028**
Stddev	.0000	.0000	.0003	.0000	.0004	.0007	.0027	.0136	.0037
%RSD	14.29	46.09	34.09	1.955	66.30	62.71	2237.	232.8	132.5
#1	-.0002	.0000	-.0006	.0014	-.0003	.0017	-.0018	.0155	-.0002
#2	-.0003	.0000	-.0010	.0014	-.0008	.0006	.0020	-.0038	-.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	**-.0001**	**-.0099**	**.0955**	**.0382**	**.0036**	**.0002**	**-.0012**	**.0007**	**-.0001**
Stddev	.0024	.0043	.0756	.0009	.0005	.0003	.0010	.0000	.0000
%RSD	3079.	43.39	79.17	2.235	14.89	178.8	84.38	.6684	26.49
#1	-.0018	-.0068	.1489	.0376	.0032	.0004	-.0005	.0007	-.0002
#2	.0016	-.0129	.0420	.0388	.0040	-.0000	-.0018	.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									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:34:57 Type: QC
Method: Accutest XPress(v95) 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**	**.0046**	**.0002**	**.0028**	**.0017**	**.0010**	**.0022**
Stddev	.0004	.0004	.0001	.0027	.0014	.0033	.0008
%RSD	437.7	9.635	38.15	95.96	80.10	339.5	37.51
#1	-.0003	.0043	.0001	.0009	.0027	.0033	.0016
#2	.0002	.0049	.0002	.0046	.0007	-.0014	.0028
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	**161730.**	**21414.**	**6853.1**	**11206.**
Stddev	70.	78.	.2	6.
%RSD	.04327	.36312	.00260	.05110
#1	161780.	21359.	6853.0	11202.
#2	161680.	21469.	6853.3	11210.

Zoom In Zoom Out

Sample Name: mp6399-s1 Acquired: 3/31/2018 15:37:57 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**2.028**	**1.957**	**1.951**	**1.997**	**1.988**	**1.984**	**3.222**	**2.011**	**.2393**
Stddev	.048	.048	.004	.001	.007	.009	.052	.003	.0007
%RSD	2.380	2.469	.2301	.0371	.3425	.4295	1.616	.1295	.2980
#1	1.994	1.923	1.954	1.997	1.993	1.990	3.259	2.013	.2398
#2	2.062	1.991	1.947	1.996	1.983	1.978	3.185	2.009	.2388

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.977**	**1.969**	**1.966**	**2.041**	**2.000**	**1.956**	**1.973**	**23.92**	**35.64**
Stddev	.006	.006	.001	.002	.001	.000	.004	.59	.89
%RSD	.3149	.2876	.0405	.0772	.0374	.0216	.1758	2.477	2.499
#1	1.982	1.973	1.966	2.042	2.000	1.956	1.975	23.50	35.01
#2	1.973	1.965	1.965	2.039	1.999	1.955	1.970	24.34	36.27

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**53.87**	**29.06**	**24.32**	**38.40**	**1.967**	**1.968**	**2.057**	**1.981**	**2.026**
Stddev	1.41	.66	.46	.86	.005	.004	.004	.005	.050
%RSD	2.614	2.279	1.903	2.231	.2476	.2064	.1704	.2320	2.452
#1	52.87	28.59	24.00	37.80	1.971	1.971	2.059	1.984	1.991
#2	54.86	29.53	24.65	39.01	1.964	1.965	2.054	1.977	2.062

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.003**	**1.943**	**1.990**	**13.13**	**.0664**	**.0029**	**2.201**
Stddev	.004	.002	.007	.01	.0021	.0010	.007
%RSD	.2205	.0750	.3785	.0899	3.215	33.10	.3403
#1	2.006	1.944	1.996	13.13	.0679	.0022	2.206
#2	2.000	1.942	1.985	13.12	.0649	.0036	2.196

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160710.**	**21761.**	**6885.8**	**10909.**
Stddev	147.	5.	42.7	52.
%RSD	.09133	.02103	.62030	.47669
#1	160810.	21757.	6855.6	10873.
#2	160610.	21764.	6916.0	10946.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 15:40:51 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.948**	**1.950**	**1.953**	**2.002**	**1.960**	**1.938**	**2.007**	**2.019**	**.2428**
Stddev	.003	.005	.010	.011	.006	.007	.005	.010	.0002
%RSD	.1694	.2662	.4931	.5522	.3199	.3552	.2660	.5050	.0868
#1	1.950	1.953	1.946	1.994	1.965	1.942	2.011	2.012	.2429
#2	1.945	1.946	1.960	2.010	1.956	1.933	2.003	2.026	.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	**1.943**	**1.981**	**1.955**	**2.044**	**2.008**	**1.971**	**1.953**	**38.70**	**39.30**
Stddev	.004	.011	.009	.012	.016	.008	.006	.12	.04
%RSD	.2226	.5647	.4605	.5953	.7812	.4054	.3267	.3089	.1092
#1	1.946	1.973	1.949	2.035	1.997	1.965	1.948	38.78	39.33
#2	1.940	1.989	1.962	2.052	2.019	1.976	1.957	38.61	39.27
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	**39.06**	**39.55**	**38.76**	**39.30**	**1.989**	**1.946**	**4.991**	**1.961**	**1.964**
Stddev	.13	.07	.07	.02	.009	.011	.023	.011	.006
%RSD	.3389	.1800	.1874	.0417	.4426	.5645	.4590	.5733	.3015
#1	39.15	39.60	38.71	39.31	1.983	1.938	4.975	1.953	1.968
#2	38.96	39.50	38.81	39.28	1.995	1.954	5.007	1.969	1.960
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: 3/31/2018 15:40:51 Type: QC
Method: Accutest XPress(v95) 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	**1.954**	**1.937**	**1.943**	**1.937**	**1.994**	**1.927**	**1.949**
Stddev	.008	.009	.007	.011	.002	.005	.007
%RSD	.4178	.4848	.3406	.5680	.0888	.2719	.3849
#1	1.960	1.931	1.948	1.929	1.993	1.931	1.944
#2	1.948	1.944	1.939	1.945	1.995	1.923	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	**157800.**	**21389.**	**6817.9**	**10745.**
Stddev	627.	13.	17.4	29.
%RSD	.39754	.06006	.25523	.27132
#1	157350.	21398.	6830.2	10766.
#2	158240.	21380.	6805.6	10725.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:43:40 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0001**	**.0002**	**-.0003**	**-.0004**	**-.0007**	**.0000**	**-.0001**	**.0002**
Stddev	.0001	.0001	.0002	.0002	.0001	.0002	.0000	.0002	.0003
%RSD	16.33	173.6	108.8	79.96	32.36	24.28	3625.	132.1	131.6
#1	.0009	-.0000	.0003	-.0001	-.0003	-.0005	-.0000	-.0003	.0000
#2	.0007	.0001	.0000	-.0005	-.0006	-.0008	.0000	-.0000	.0005
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**	**.0002**	**.0003**	**.0011**	**-.0004**	**.0014**	**.0002**	**.0050**	**-.0028**
Stddev	.0001	.0001	.0007	.0005	.0005	.0000	.0019	.0051	.0051
%RSD	147.8	80.75	229.1	41.15	142.8	.8208	1152.	102.6	180.8
#1	.0001	.0003	-.0002	.0015	.0000	.0014	-.0012	.0014	-.0064
#2	-.0000	.0001	.0008	.0008	-.0007	.0014	.0015	.0086	.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	**.0009**	**-.0259**	**.0777**	**.0255**	**.0047**	**.0003**	**.0013**	**.0003**	**-.0002**
Stddev	.0006	.0153	.0557	.0240	.0004	.0001	.0001	.0005	.0000
%RSD	67.36	58.88	71.68	94.23	8.226	48.32	8.273	156.3	16.72
#1	.0005	-.0151	.0383	.0085	.0050	.0004	.0014	-.0000	-.0002
#2	.0013	-.0367	.1170	.0424	.0044	.0002	.0012	.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: 3/31/2018 15:43:40 Type: QC
Method: Accutest XPress(v95) 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**	**.0029**	**.0002**	**.0029**	**-.0005**	**.0011**	**.0022**
Stddev	.0003	.0007	.0002	.0007	.0000	.0026	.0007
%RSD	52810.	23.95	92.15	25.02	1.643	248.2	30.98
#1	-.0002	.0034	.0004	.0024	-.0004	-.0008	.0027
#2	.0002	.0024	.0001	.0035	-.0005	.0029	.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	**163320.**	**21436.**	**7022.7**	**11428.**
Stddev	1019.	49.	17.9	20.
%RSD	.62390	.22792	.25423	.17796
#1	162600.	21402.	7010.1	11414.
#2	164050.	21471.	7035.3	11442.

Zoom In Zoom Out

Sample Name: jc63053-7f Acquired: 3/31/2018 15:48:12 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0406**	**.0000**	**.0001**	**.0100**	**.0006**	**.0016**	**.3446**	**.0164**	**.0003**
Stddev	.0003	.0002	.0001	.0000	.0005	.0007	.0024	.0004	.0002
%RSD	.7886	1622.	59.22	.0606	78.61	44.29	.6876	2.270	61.91
#1	.0404	-.0001	.0000	.0100	.0010	.0022	.3463	.0166	.0004
#2	.0408	.0001	.0001	.0100	.0003	.0011	.3430	.0161	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0027**	**-.0007**	**-.0011**	**-.0023**	**.0005**	**-.0010**	**.0160**	**82.32**
Stddev	.0001	.0000	.0006	.0007	.0006	.0022	.0018	.0003	.50
%RSD	43.15	.5050	92.48	62.11	25.12	484.1	180.2	1.823	.6017
#1	.0004	.0027	-.0002	-.0015	-.0027	-.0011	-.0022	.0158	81.97
#2	.0002	.0027	-.0011	-.0006	-.0019	.0020	.0003	.0162	82.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0471**	**31.21**	**5.420**	**78.93**	**.1483**	**.0031**	**9.458**	**-.0006**	**.3121**
Stddev	.0007	.21	.014	.68	.0008	.0000	.045	.0001	.0017
%RSD	1.440	.6685	.2532	.8623	.5075	.7943	.4771	10.29	.5467
#1	.0476	31.07	5.411	78.45	.1477	.0032	9.426	-.0005	.3109
#2	.0466	31.36	5.430	79.41	.1488	.0031	9.490	-.0006	.3133

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0038**	**-.0045**	**34.50**	**.0005**	**.0055**	**.0409**
Stddev	.0006	.0003	.0000	.12	.0007	.0011	.0013
%RSD	196.9	8.917	.6933	.3340	122.0	20.28	3.230
#1	.0001	.0040	-.0044	34.42	.0010	.0047	.0399
#2	-.0007	.0036	-.0045	34.58	.0001	.0063	.0418

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159380.**	**21722.**	**6771.3**	**10693.**
Stddev	1186.	166.	32.8	35.
%RSD	.74404	.76314	.48385	.32868
#1	158540.	21839.	6748.1	10669.
#2	160220.	21605.	6794.5	10718.

Zoom In Zoom Out

Sample Name: jc63053-8f Acquired: 3/31/2018 15:51:08 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0369**	**-.0000**	**.0002**	**.0001**	**.0014**	**.0007**	**.0756**	**.0054**	**-.0004**
Stddev	.0001	.0000	.0002	.0001	.0006	.0006	.0001	.0004	.0001
%RSD	.2541	99.75	79.39	59.46	40.02	86.45	.1020	7.336	25.84
#1	.0370	-.0001	.0003	.0002	.0018	.0003	.0757	.0057	-.0003
#2	.0369	-.0000	.0001	.0001	.0010	.0011	.0755	.0051	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0033**	**-.0001**	**-.0012**	**-.0013**	**.0032**	**-.0008**	**.0126**	**89.73**
Stddev	.0001	.0000	.0004	.0003	.0000	.0022	.0011	.0059	1.38
%RSD	37.73	1.247	442.4	24.35	1.574	69.26	139.4	46.61	1.543
#1	.0002	.0033	.0002	-.0010	-.0014	.0016	-.0000	.0168	90.71
#2	.0004	.0032	-.0004	-.0014	-.0013	.0048	-.0015	.0085	88.75

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0010**	**38.13**	**2.926**	**60.11**	**.1368**	**.0012**	**11.51**	**-.0018**	**.3169**
Stddev	.0019	.64	.026	.75	.0009	.0002	.01	.0001	.0045
%RSD	181.3	1.671	.8974	1.245	.6616	19.82	.1073	4.718	1.410
#1	.0003	38.58	2.945	60.63	.1374	.0010	11.52	-.0018	.3201
#2	-.0024	37.68	2.908	59.58	.1361	.0014	11.50	-.0019	.3138

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0009**	**.0022**	**-.0060**	**36.90**	**.0004**	**.0047**	**.0812**
Stddev	.0003	.0013	.0001	.01	.0018	.0004	.0004
%RSD	30.14	59.19	1.495	.0151	526.5	7.853	.4622
#1	-.0011	.0031	-.0060	36.91	-.0010	.0044	.0809
#2	-.0007	.0013	-.0059	36.90	.0017	.0050	.0815

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159830.**	**21815.**	**6839.7**	**10809.**
Stddev	633.	175.	35.3	56.
%RSD	.39613	.80041	.51590	.51638
#1	159380.	21692.	6814.7	10769.
#2	160280.	21939.	6864.6	10848.

Zoom In Zoom Out

Sample Name: jc63053-9f Acquired: 3/31/2018 15:54:04 Type: Unk
Method: Accutest XPress(v95) 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	**.0134**	**-.0000**	**.0001**	**-.0003**	**.0008**	**.0003**	**.0117**	**.0005**
Stddev	.0007	.0000	.0001	.0001	.0002	.0003	.0000	.0002
%RSD	5.578	224.7	163.9	34.19	21.02	78.93	.1163	34.56
#1	.0129	-.0000	-.0000	-.0002	.0007	.0005	.0117	.0006
#2	.0140	.0000	.0001	-.0004	.0009	.0002	.0118	.0004

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0002**	**.0002**	**.0055**	**.0002**	**.0000**	**-.0017**	**.0025**	F **-.0032**
Stddev	.0010	.0000	.0000	.0009	.0004	.0007	.0007	.0014
%RSD	610.8	11.73	.3832	418.6	1480.	42.07	27.33	44.07
#1	-.0005	.0002	.0054	.0009	-.0002	-.0012	.0020	-.0042
#2	.0008	.0002	.0055	-.0004	.0003	-.0022	.0030	-.0022

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0016**	**128.9**	**-.0032**	**45.84**	**2.941**	**62.95**	**.1437**	**.0020**
Stddev	.0110	.6	.0023	.19	.063	.50	.0001	.0001
%RSD	689.8	.4498	72.38	.4069	2.124	.7945	.0672	4.600
#1	-.0062	128.5	-.0048	45.71	2.897	62.59	.1438	.0021
#2	.0094	129.4	-.0015	45.98	2.985	63.30	.1437	.0019

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.20**	**-.0015**	**.3272**	**-.0009**	**.0022**	**-.0059**	**38.14**	**.0024**
Stddev	.03	.0000	.0021	.0006	.0006	.0001	.05	.0006
%RSD	.2603	1.535	.6494	61.47	26.40	.9554	.1230	24.93
#1	12.18	-.0015	.3257	-.0013	.0018	-.0059	38.10	.0020
#2	12.23	-.0015	.3287	-.0005	.0026	-.0060	38.17	.0028

Elem	Li6707	P_1774
Avg	**.0086**	**.0489**
Stddev	.0011	.0009
%RSD	12.48	1.826
#1	.0093	.0495
#2	.0078	.0483

Zoom In Zoom Out

Sample Name: jc63053-9f Acquired: 3/31/2018 15:54:04 Type: Unk
Method: Accutest XPress(v95) 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	**159280.**	**21857.**	**6784.8**	**10698.**
Stddev	513.	49.	29.5	27.
%RSD	.32196	.22273	.43511	.25492
#1	159650.	21823.	6763.9	10678.
#2	158920.	21891.	6805.7	10717.

Zoom In Zoom Out

Sample Name: jc63053-10f Acquired: 3/31/2018 15:57:07 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0336**	**-.0000**	**.0003**	**-.0000**	**.0007**	**.0003**	**.0501**	**.0017**	**.0002**
Stddev	.0004	.0001	.0000	.0002	.0002	.0005	.0003	.0001	.0002
%RSD	1.233	124.2	19.85	849.9	29.30	139.1	.6392	5.118	113.5
#1	.0339	-.0000	.0003	-.0002	.0008	.0007	.0499	.0017	.0003
#2	.0333	-.0001	.0002	.0001	.0005	.0000	.0503	.0018	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0006**	**.0030**	**-.0008**	**-.0006**	**-.0006**	**.0012**	**-.0004**	**-.0005**	**125.5**
Stddev	.0002	.0001	.0001	.0007	.0005	.0026	.0014	.0061	1.5
%RSD	25.58	4.269	13.99	121.8	81.15	221.3	346.8	1179.	1.195
#1	.0007	.0031	-.0007	-.0011	-.0009	.0030	-.0014	-.0048	126.6
#2	.0005	.0029	-.0008	-.0001	-.0002	-.0007	.0006	.0038	124.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0018**	**40.56**	**2.160**	**69.88**	**.1079**	**.0027**	**11.40**	**-.0017**	**.3127**
Stddev	.0019	.47	.017	.55	.0010	.0001	.05	.0004	.0046
%RSD	104.1	1.149	.7717	.7931	.9466	3.311	.4763	20.91	1.459
#1	-.0031	40.89	2.172	70.27	.1087	.0026	11.44	-.0014	.3159
#2	-.0005	40.23	2.148	69.49	.1072	.0027	11.37	-.0019	.3095

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0009**	**.0009**	**-.0063**	**26.91**	**.0012**	**.0092**	**.1198**
Stddev	.0003	.0011	.0000	.11	.0003	.0029	.0005
%RSD	35.09	118.6	.0650	.4246	25.80	31.89	.4383
#1	-.0012	.0001	-.0063	26.99	.0010	.0071	.1202
#2	-.0007	.0017	-.0063	26.83	.0015	.0112	.1194

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157610.**	**21499.**	**6719.6**	**10573.**
Stddev	665.	33.	21.3	27.
%RSD	.42179	.15218	.31727	.25702
#1	157140.	21522.	6704.6	10554.
#2	158080.	21476.	6734.7	10592.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 16:00:07 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**1.973**	**1.964**	**2.012**	**1.984**	**1.959**	**2.019**	**2.033**	**.2442**
Stddev	.001	.004	.006	.003	.005	.003	.005	.004	.0009
%RSD	.0715	.2153	.3061	.1338	.2726	.1391	.2259	.2079	.3646
#1	1.977	1.976	1.960	2.010	1.980	1.957	2.016	2.030	.2435
#2	1.975	1.970	1.968	2.014	1.988	1.961	2.022	2.036	.2448
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	**1.953**	**1.997**	**1.965**	**2.061**	**2.024**	**1.978**	**1.968**	**39.34**	**39.92**
Stddev	.003	.003	.002	.002	.002	.001	.003	.05	.00
%RSD	.1727	.1479	.1080	.0902	.1184	.0612	.1615	.1249	.0011
#1	1.950	1.995	1.963	2.063	2.023	1.978	1.966	39.37	39.92
#2	1.955	1.999	1.966	2.060	2.026	1.979	1.971	39.30	39.92
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	**39.57**	**40.15**	**39.31**	**39.83**	**1.996**	**1.950**	**5.013**	**1.963**	**1.990**
Stddev	.05	.01	.17	.01	.003	.005	.009	.004	.002
%RSD	.1354	.0240	.4404	.0329	.1431	.2465	.1832	.2038	.0901
#1	39.60	40.15	39.19	39.84	1.994	1.947	5.007	1.960	1.991
#2	39.53	40.14	39.43	39.82	1.998	1.953	5.020	1.966	1.988
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: 3/31/2018 16:00:07 Type: QC
Method: Accutest XPress(v95) 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	**1.987**	**1.953**	**1.954**	**1.945**	**2.013**	**1.949**	**1.950**
Stddev	.007	.004	.004	.002	.002	.001	.000
%RSD	.3506	.2314	.1932	.1147	.0735	.0268	.0177
#1	1.982	1.950	1.952	1.947	2.012	1.949	1.950
#2	1.992	1.956	1.957	1.944	2.014	1.949	1.950
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	**156440.**	**21171.**	**6767.3**	**10634.**
Stddev	423.	122.	20.3	33.
%RSD	.27047	.57437	.29938	.30601
#1	156740.	21257.	6753.0	10611.
#2	156140.	21085.	6781.6	10657.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 16:02:56 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0002**	**.0001**	**.0000**	**-.0001**	**.0000**	**.0001**	**.0000**
Stddev	.0003	.0000	.0002	.0002	.0002	.0001	.0000	.0002	.0002
%RSD	95.13	.8165	95.50	259.3	676.5	101.1	12.04	147.5	600.7
#1	.0006	-.0001	.0003	-.0001	.0002	-.0000	.0000	.0002	.0002
#2	.0001	-.0001	.0001	.0002	-.0001	-.0001	.0000	-.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0000**	**-.0005**	**.0014**	**-.0001**	**.0009**	**.0002**	**.0040**	**-.0008**
Stddev	.0003	.0002	.0006	.0004	.0001	.0034	.0002	.0128	.0010
%RSD	73.32	1039.	140.5	29.09	108.2	385.1	99.19	319.8	128.5
#1	-.0006	-.0001	-.0009	.0011	-.0000	.0033	.0004	-.0051	-.0015
#2	-.0002	.0001	-.0000	.0017	-.0001	-.0015	.0001	.0131	-.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	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0015**	**-.0148**	**.0836**	**.0476**	**.0022**	**.0001**	**.0023**	**.0007**	**-.0001**
Stddev	.0009	.0180	.0649	.0067	.0011	.0001	.0003	.0003	.0000
%RSD	59.95	122.0	77.60	14.07	51.86	134.8	12.31	38.71	5.010
#1	-.0009	-.0275	.0377	.0523	.0030	.0000	.0021	.0009	-.0000
#2	-.0021	-.0020	.1295	.0428	.0014	.0002	.0025	.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: 3/31/2018 16:02:56 Type: QC
Method: Accutest XPress(v95) 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**	**.0034**	**.0003**	**.0042**	**.0017**	**.0033**	**.0032**
Stddev	.0005	.0009	.0001	.0005	.0001	.0002	.0003
%RSD	590.9	25.95	50.50	11.43	6.717	6.752	9.354
#1	.0003	.0027	.0002	.0039	.0018	.0032	.0034
#2	-.0004	.0040	.0004	.0046	.0016	.0035	.0029
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	**162690.**	**21030.**	**6932.7**	**11268.**
Stddev	335.	159.	28.0	47.
%RSD	.20596	.75666	.40431	.41938
#1	162920.	20918.	6912.9	11235.
#2	162450.	21143.	6952.5	11302.

Zoom In Zoom Out

Sample Name: jc62910-1f Acquired: 3/31/2018 16:09:06 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1637**	**.0004**	**.0003**	**.0029**	**.0004**	**.0041**	**.1024**	**.0028**	**.0007**
Stddev	.0003	.0000	.0000	.0001	.0001	.0000	.0004	.0000	.0000
%RSD	.1878	6.018	14.94	2.140	16.28	.5437	.3633	.1694	5.151
#1	.1635	.0005	.0003	.0028	.0005	.0041	.1026	.0028	.0007
#2	.1639	.0004	.0004	.0029	.0004	.0041	.1021	.0028	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0304**	**.0029**	**-.0000**	**.0013**	**-.0014**	**-.0006**	**.7792**	**6.795**
Stddev	.0003	.0001	.0002	.0009	.0005	.0004	.0013	.0088	.002
%RSD	449.3	.1702	5.549	3648.	36.50	30.31	225.3	1.133	.0263
#1	.0001	.0304	.0027	.0006	.0010	-.0011	.0003	.7729	6.793
#2	-.0003	.0304	.0030	-.0006	.0017	-.0017	-.0014	.7854	6.796

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0376**	**.5208**	**2.005**	**F 356.1**	**.0119**	**.0003**	**3.002**	**.0005**	**.0578**
Stddev	.0010	.0020	.059	2.0	.0002	.0001	.014	.0000	.0000
%RSD	2.540	.3844	2.920	.5594	1.413	34.37	.4783	5.715	.0246
#1	.0370	.5193	1.964	357.5	.0118	.0004	2.991	.0005	.0578
#2	.0383	.5222	2.047	354.7	.0120	.0003	3.012	.0005	.0578

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0007**	**.0011**	**-.0012**	**6.188**	**-.0004**	**.0065**	**.0102**
Stddev	.0005	.0000	.0001	.026	.0001	.0014	.0001
%RSD	73.43	3.471	11.04	.4249	19.01	21.61	.6707
#1	.0010	.0012	-.0013	6.169	-.0004	.0055	.0101
#2	.0003	.0011	-.0011	6.206	-.0005	.0075	.0102

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158510.**	**21722.**	**6858.7**	**10415.**
Stddev	1232.	51.	12.3	17.
%RSD	.77737	.23273	.17945	.16544
#1	157640.	21758.	6850.0	10403.
#2	159380.	21687.	6867.4	10427.

Zoom In Zoom Out

Sample Name: jc62910-2f Acquired: 3/31/2018 16:12:10 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0064**	**-.0000**	**.0002**	**-.0003**	**.0002**	**.0033**	**.0008**	**.0007**	**.0001**
Stddev	.0002	.0000	.0001	.0002	.0007	.0003	.0000	.0001	.0002
%RSD	2.484	69.60	62.14	61.64	409.3	9.519	1.574	13.16	228.5
#1	.0066	-.0001	.0001	-.0004	-.0003	.0031	.0008	.0007	-.0001
#2	.0063	-.0000	.0002	-.0001	.0007	.0035	.0008	.0008	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0005**	**.0113**	**-.0001**	**.0006**	**-.0006**	**-.0006**	**.0001**	**.0233**	**22.75**
Stddev	.0004	.0000	.0003	.0005	.0011	.0007	.0006	.0106	.14
%RSD	69.60	.2168	275.0	85.49	175.6	128.9	506.4	45.33	.5977
#1	-.0003	.0113	-.0004	.0010	.0002	-.0001	-.0003	.0308	22.85
#2	-.0008	.0113	.0001	.0002	-.0014	-.0011	.0005	.0158	22.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0063**	**4.822**	**2.253**	**12.47**	**.0206**	**.0008**	**7.282**	**-.0009**	**.0716**
Stddev	.0024	.042	.007	.02	.0006	.0000	.025	.0000	.0002
%RSD	38.44	.8669	.3239	.1457	3.035	3.573	.3396	.7717	.3278
#1	.0081	4.851	2.258	12.48	.0202	.0007	7.300	-.0009	.0718
#2	.0046	4.792	2.248	12.46	.0210	.0008	7.265	-.0009	.0714

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**-.0001**	**-.0040**	**4.227**	**-.0018**	**.0171**	**.0076**
Stddev	.0002	.0012	.0001	.008	.0023	.0008	.0007
%RSD	307.4	811.3	1.358	.1900	129.5	4.516	9.823
#1	.0002	.0007	-.0041	4.232	-.0001	.0176	.0071
#2	-.0001	-.0010	-.0040	4.221	-.0034	.0165	.0081

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163990.**	**21720.**	**6989.1**	**11205.**
Stddev	925.	81.	12.7	15.
%RSD	.56409	.37101	.18177	.13549
#1	164640.	21663.	6980.1	11194.
#2	163340.	21777.	6998.1	11215.

Zoom In Zoom Out

Sample Name: jc62923-1 Acquired: 3/31/2018 16:15:08 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0590**	**-.0000**	**-.0001**	**.0001**	**.0021**	**.0082**	**.0234**	**.0009**	**.0001**
Stddev	.0001	.0000	.0000	.0002	.0002	.0002	.0001	.0000	.0000
%RSD	.0940	247.3	41.02	107.6	11.00	1.948	.5107	.5778	46.74
#1	.0589	.0000	-.0001	.0000	.0020	.0083	.0233	.0009	.0001
#2	.0590	-.0000	-.0001	.0002	.0023	.0081	.0234	.0009	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0025**	**.0074**	**.0018**	**-.0001**	**.0012**	**.0013**	**.0008**	**1.170**	**17.90**
Stddev	.0003	.0001	.0011	.0006	.0004	.0031	.0005	.001	.02
%RSD	13.29	1.474	59.01	431.0	33.59	248.9	57.00	.1019	.1015
#1	.0022	.0073	.0011	.0003	.0009	.0035	.0011	1.171	17.92
#2	.0027	.0074	.0026	-.0006	.0015	-.0010	.0005	1.170	17.89

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.091**	**3.815**	**1.762**	**3.366**	**.0546**	**.0010**	**4.943**	**-.0008**	**.0808**
Stddev	.003	.003	.017	.012	.0014	.0001	.001	.0006	.0000
%RSD	.2583	.0899	.9466	.3522	2.603	9.057	.0178	73.38	.0371
#1	1.093	3.818	1.750	3.375	.0536	.0009	4.942	-.0012	.0809
#2	1.089	3.813	1.773	3.358	.0556	.0010	4.943	-.0004	.0808

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0229**	**-.0000**	**-.0021**	**.9507**	**-.0002**	**.0011**	**.0904**
Stddev	.0008	.0014	.0001	.0039	.0015	.0005	.0007
%RSD	3.320	4408.	5.738	.4085	987.1	46.84	.7662
#1	.0235	.0010	-.0022	.9534	.0009	.0015	.0899
#2	.0224	-.0010	-.0020	.9479	-.0012	.0007	.0909

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163480.**	**21609.**	**7027.7**	**11249.**
Stddev	235.	12.	53.6	79.
%RSD	.14369	.05367	.76338	.70652
#1	163650.	21601.	6989.8	11192.
#2	163310.	21617.	7065.6	11305.

Zoom In Zoom Out

Sample Name: jc62923-2 Acquired: 3/31/2018 16:18:06 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0425**	**-.0000**	**.0003**	**.0000**	**.0021**	**.0045**	**.0274**	**.0008**	**-.0001**
Stddev	.0016	.0000	.0001	.0002	.0001	.0002	.0001	.0003	.0001
%RSD	3.685	139.6	23.15	7078.	4.493	4.120	.3667	34.82	125.2
#1	.0414	-.0000	.0003	.0002	.0021	.0043	.0274	.0006	-.0000
#2	.0436	-.0000	.0002	-.0001	.0020	.0046	.0275	.0010	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0029**	**.0076**	**-.0002**	**-.0010**	**.0024**	**.0018**	**.0017**	**.7680**	**37.27**
Stddev	.0002	.0001	.0002	.0009	.0010	.0002	.0020	.0335	.66
%RSD	5.938	.7445	79.83	88.59	43.28	9.891	117.7	4.362	1.776
#1	.0030	.0076	-.0004	-.0004	.0031	.0017	.0030	.7443	36.80
#2	.0027	.0075	-.0001	-.0017	.0017	.0019	.0003	.7917	37.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.7327**	**4.169**	**1.675**	**12.11**	**.0574**	**.0025**	**4.831**	**-.0004**	**.2052**
Stddev	.0111	.070	.082	.18	.0001	.0000	.014	.0007	.0035
%RSD	1.519	1.675	4.884	1.472	.0886	.4183	.2854	185.3	1.696
#1	.7248	4.120	1.733	11.99	.0574	.0025	4.841	-.0009	.2027
#2	.7405	4.218	1.617	12.24	.0574	.0025	4.821	.0001	.2076

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0178**	**-.0004**	**-.0023**	**2.417**	**-.0000**	**.0040**	**.0563**
Stddev	.0008	.0019	.0000	.005	.0011	.0003	.0009
%RSD	4.283	457.8	.7047	.2135	14200.	7.936	1.617
#1	.0183	.0009	-.0023	2.421	-.0008	.0042	.0569
#2	.0173	-.0017	-.0023	2.414	.0007	.0038	.0556

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164700.**	**21884.**	**7093.4**	**11269.**
Stddev	891.	9.	29.5	40.
%RSD	.54098	.04056	.41546	.35769
#1	165330.	21878.	7072.6	11240.
#2	164070.	21890.	7114.3	11297.

Zoom In Zoom Out

Sample Name: jc62923-5 Acquired: 3/31/2018 16:21:05 Type: Unk
Method: Accutest XPress(v95) 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	**.2372**	**-.0003**	**-.0010**	**.0008**	**.0031**	**.0047**	F **26.53**	**.0034**
Stddev	.0005	.0000	.0001	.0001	.0006	.0005	.08	.0002
%RSD	.1979	10.26	6.114	11.05	19.56	10.77	.2998	4.823
#1	.2375	-.0003	-.0010	.0008	.0035	.0051	26.47	.0033
#2	.2369	-.0003	-.0009	.0007	.0027	.0044	26.59	.0035

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0010**	**-.0119**	**.0023**	**.0001**	F **-.0068**	**.0034**	**-.0057**	**-.0011**
Stddev	.0003	.0001	.0001	.0002	.0015	.0001	.0010	.0007
%RSD	26.50	.6880	4.425	136.8	22.69	3.822	16.84	62.67
#1	-.0008	-.0120	.0022	.0000	-.0057	.0033	-.0063	-.0006
#2	-.0012	-.0119	.0024	.0002	-.0079	.0035	-.0050	-.0016

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0796**	**162.0**	**11.20**	**90.31**	**3.315**	**169.3**	**.0543**	**-.0006**
Stddev	.0053	.4	.01	.14	.019	1.0	.0005	.0001
%RSD	6.609	.2187	.0863	.1558	.5788	.5716	.9535	17.81
#1	.0833	162.3	11.19	90.21	3.301	168.6	.0539	-.0006
#2	.0759	161.8	11.21	90.41	3.328	170.0	.0547	-.0005

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**5.073**	**-.0003**	**.6808**	**.0006**	**-.0003**	**-.0022**	**19.95**	**.0044**
Stddev	.018	.0001	.0023	.0002	.0003	.0000	.04	.0004
%RSD	.3522	19.54	.3337	32.10	75.78	.8853	.2190	8.556
#1	5.060	-.0003	.6792	.0005	-.0005	-.0022	19.92	.0046
#2	5.085	-.0002	.6824	.0008	-.0002	-.0022	19.98	.0041

Elem	Li6707	P_1774
Avg	**.0093**	**.2438**
Stddev	.0006	.0001
%RSD	6.917	.0442
#1	.0089	.2438
#2	.0098	.2439

Zoom In Zoom Out

Sample Name: jc62923-5 Acquired: 3/31/2018 16:21:05 Type: Unk
Method: Accutest XPress(v95) 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	**158120.**	**21279.**	**6820.2**	**10428.**
Stddev	598.	37.	10.3	17.
%RSD	.37805	.17500	.15138	.16596
#1	157700.	21252.	6812.9	10416.
#2	158550.	21305.	6827.5	10441.

Zoom In Zoom Out

Sample Name: jc62923-6 Acquired: 3/31/2018 16:24:14 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0024**	**-.0001**	**.0000**	**-.0002**	**-.0004**	**.0001**	**.0006**	**.0006**	**.0001**
Stddev	.0002	.0000	.0001	.0002	.0003	.0007	.0000	.0002	.0001
%RSD	10.51	2.436	478.7	78.41	85.93	1063.	1.977	33.37	120.2
#1	.0022	-.0001	.0001	-.0003	-.0006	-.0004	.0006	.0008	.0002
#2	.0026	-.0001	-.0001	-.0001	-.0002	.0005	.0006	.0005	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0004**	**.0007**	**-.0011**	**.0001**	**.0001**	**.0000**	**.0007**	**.0071**	**.0180**
Stddev	.0000	.0001	.0012	.0008	.0010	.0004	.0005	.0174	.0021
%RSD	4.633	7.983	106.2	924.5	1841.	1186.	63.63	245.5	11.87
#1	-.0004	.0006	-.0020	.0006	-.0006	.0003	.0011	.0194	.0165
#2	-.0004	.0007	-.0003	-.0004	.0007	-.0002	.0004	-.0052	.0195

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0006**	**.0134**	**.1165**	**.1533**	**-.0015**	**-.0000**	**.1673**	**.0002**	**.0016**
Stddev	.0013	.0037	.0208	.0104	.0006	.0000	.0014	.0001	.0000
%RSD	201.6	27.93	17.81	6.807	40.30	882.9	.8618	29.59	1.259
#1	.0003	.0160	.1018	.1607	-.0011	.0000	.1683	.0002	.0016
#2	-.0016	.0107	.1312	.1459	-.0019	-.0000	.1662	.0003	.0016

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0003**	**-.0000**	**.0099**	**.0010**	**.0022**	**.0062**
Stddev	.0000	.0002	.0003	.0002	.0004	.0005	.0000
%RSD	59.16	58.66	879.3	2.523	35.88	25.04	.8019
#1	-.0001	-.0002	.0002	.0100	.0013	.0026	.0063
#2	-.0000	-.0004	-.0002	.0097	.0008	.0018	.0062

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167980.**	**21866.**	**7190.7**	**11551.**
Stddev	1151.	122.	11.1	15.
%RSD	.68534	.55628	.15497	.12767
#1	168800.	21780.	7182.8	11540.
#2	167170.	21952.	7198.6	11561.

Zoom In Zoom Out

Sample Name: jc62923-7 Acquired: 3/31/2018 16:27:14 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.5357**	**-.0001**	**.0001**	**-.0004**	**.0004**	**.0001**	**.8616**	**.0001**	**.0000**
Stddev	.0032	.0000	.0002	.0001	.0005	.0005	.0222	.0002	.0004
%RSD	.6020	17.87	205.7	35.39	119.3	353.3	2.582	162.8	929.1
#1	.5380	-.0001	-.0000	-.0003	.0008	.0005	.8773	-.0000	.0003
#2	.5334	-.0001	.0002	-.0005	.0001	-.0002	.8459	.0003	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0010**	**.0010**	**.0017**	**-.0017**	**-.0011**	**-.0015**	**-.0007**	**-.0051**	**71.78**
Stddev	.0000	.0001	.0004	.0001	.0017	.0013	.0001	.0019	.66
%RSD	.3352	10.45	26.77	8.008	151.2	89.38	13.22	37.81	.9171
#1	.0010	.0011	.0013	-.0016	.0001	-.0006	-.0006	-.0065	72.25
#2	.0010	.0010	.0020	-.0018	-.0023	-.0024	-.0007	-.0037	71.32

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.3902**	**15.54**	**1.996**	**23.23**	**.1139**	**.0011**	**9.952**	**-.0017**	**.3963**
Stddev	.0018	.18	.080	.16	.0013	.0001	.031	.0009	.0029
%RSD	.4501	1.144	3.985	.6772	1.131	9.506	.3096	52.65	.7290
#1	.3914	15.66	2.053	23.34	.1130	.0012	9.930	-.0011	.3983
#2	.3890	15.41	1.940	23.12	.1148	.0010	9.974	-.0023	.3942

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0010**	**.0000**	**-.0060**	**2.580**	**-.0019**	**.0155**	**.1054**
Stddev	.0003	.0003	.0001	.008	.0038	.0014	.0006
%RSD	29.09	720.2	2.454	.2982	193.7	8.998	.6131
#1	-.0012	.0003	-.0059	2.574	.0007	.0145	.1058
#2	-.0008	-.0002	-.0061	2.585	-.0046	.0164	.1049

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161890.**	**21843.**	**7048.2**	**11055.**
Stddev	3681.	177.	34.9	51.
%RSD	2.2739	.81160	.49471	.46485
#1	159280.	21717.	7023.6	11018.
#2	164490.	21968.	7072.9	11091.

Zoom In Zoom Out

Sample Name: jc62924-5 Acquired: 3/31/2018 16:30:10 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0877**	**-.0001**	**-.0000**	**.0022**	**.0010**	**.0013**	**6.284**	**.0035**	**-.0001**
Stddev	.0005	.0001	.0000	.0001	.0002	.0001	.058	.0001	.0006
%RSD	.5708	115.3	159.2	6.149	22.92	10.85	.9295	2.302	692.2
#1	.0881	-.0002	.0000	.0021	.0009	.0014	6.325	.0034	.0004
#2	.0873	-.0000	-.0001	.0023	.0012	.0012	6.242	.0035	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0042**	**1.203**	**.0005**	**-.0008**	**.0002**	**-.0016**	**.0010**	**.0402**	**50.62**
Stddev	.0002	.003	.0022	.0015	.0006	.0027	.0008	.0074	.25
%RSD	3.812	.2389	445.7	182.9	269.8	168.5	72.66	18.36	.4847
#1	.0043	1.205	-.0010	.0002	-.0002	-.0035	.0016	.0350	50.79
#2	.0041	1.201	.0020	-.0019	.0007	.0003	.0005	.0454	50.44

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2051**	**14.07**	**4.375**	**96.57**	**.3320**	**.0016**	**9.527**	**-.0005**	**.1938**
Stddev	.0015	.07	.028	.23	.0019	.0000	.030	.0008	.0010
%RSD	.7452	.5007	.6484	.2354	.5664	1.002	.3142	166.3	.5124
#1	.2062	14.12	4.355	96.73	.3333	.0016	9.548	.0001	.1945
#2	.2041	14.02	4.395	96.41	.3306	.0016	9.506	-.0011	.1931

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**-.0003**	**-.0054**	**13.14**	**.0005**	**.0041**	**.0341**
Stddev	.0004	.0005	.0001	.04	.0011	.0019	.0002
%RSD	109.6	147.2	2.077	.3098	205.3	45.42	.7286
#1	.0001	.0000	-.0054	13.16	-.0002	.0028	.0343
#2	.0006	-.0007	-.0053	13.11	.0013	.0054	.0339

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163720.**	**21976.**	**7055.7**	**10951.**
Stddev	382.	44.	11.7	.
%RSD	.23349	.20047	.16588	.00256
#1	163990.	21945.	7047.4	10951.
#2	163440.	22007.	7064.0	10951.

Zoom In Zoom Out

Sample Name: jc63032-1 Acquired: 3/31/2018 16:33:13 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.2185**	**.0001**	**.0064**	**.0022**	**.0243**	**.1496**	**1.621**	**.0116**	**.0003**
Stddev	.0008	.0000	.0000	.0003	.0001	.0008	.004	.0009	.0001
%RSD	.3476	6.543	.2532	14.40	.3808	.5634	.2497	7.515	54.88
#1	.2190	.0001	.0064	.0020	.0243	.1502	1.624	.0122	.0003
#2	.2180	.0001	.0064	.0025	.0244	.1490	1.618	.0109	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0109**	**.0964**	**.0031**	**-.0016**	**.0119**	**-.0028**	**.0016**	**3.800**	**47.90**
Stddev	.0001	.0013	.0004	.0004	.0016	.0004	.0003	.038	.01
%RSD	1.059	1.369	13.06	24.53	13.33	12.98	19.42	.9958	.0299
#1	.0108	.0973	.0034	-.0019	.0130	-.0030	.0014	3.826	47.89
#2	.0109	.0954	.0028	-.0013	.0108	-.0025	.0019	3.773	47.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.745**	**5.132**	**6.445**	**F 416.7**	**.0152**	**.0015**	**9.915**	**-.0001**	**.2015**
Stddev	.015	.034	.142	.2	.0004	.0001	.135	.0000	.0004
%RSD	.2157	.6532	2.199	.0411	2.478	8.293	1.362	19.80	.1949
#1	6.756	5.156	6.344	416.9	.0155	.0016	10.01	-.0001	.2013
#2	6.735	5.109	6.545	416.6	.0150	.0014	9.819	-.0001	.2018

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1314**	**.0018**	**-.0050**	**4.031**	**.0031**	**.0120**	**.9768**
Stddev	.0005	.0007	.0001	.059	.0001	.0003	.0137
%RSD	.3749	38.02	1.128	1.455	2.917	2.863	1.398
#1	.1317	.0022	-.0051	4.073	.0032	.0118	.9864
#2	.1310	.0013	-.0050	3.990	.0031	.0123	.9671

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158420.**	**21602.**	**6828.9**	**10246.**
Stddev	506.	81.	104.8	155.
%RSD	.31955	.37648	1.5349	1.5086
#1	158060.	21545.	6754.8	10137.
#2	158770.	21660.	6903.0	10355.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 16:36:15 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**2.015**	**1.889**	**1.964**	**1.964**	**1.952**	**1.992**	**2.004**	**.2433**
Stddev	.048	.046	.007	.006	.053	.047	.049	.005	.0065
%RSD	2.348	2.295	.3840	.2944	2.693	2.406	2.436	.2757	2.663
#1	1.992	1.982	1.894	1.968	2.002	1.985	2.027	2.008	.2479
#2	2.059	2.048	1.884	1.960	1.927	1.918	1.958	2.000	.2387
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	**1.926**	**1.926**	**1.899**	**2.014**	**1.985**	**1.915**	**1.897**	**40.41**	**41.33**
Stddev	.047	.004	.004	.008	.003	.007	.006	1.00	.98
%RSD	2.427	.2243	.2307	.3826	.1450	.3601	.3404	2.476	2.374
#1	1.959	1.929	1.902	2.019	1.987	1.920	1.901	39.71	40.63
#2	1.893	1.923	1.896	2.008	1.983	1.910	1.892	41.12	42.02
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	**40.70**	**41.78**	**40.23**	**41.20**	**1.931**	**1.866**	**4.832**	**1.875**	**2.053**
Stddev	.97	.99	.97	1.12	.004	.007	.015	.006	.052
%RSD	2.395	2.371	2.400	2.714	.1811	.3544	.3119	.3173	2.526
#1	40.02	41.08	39.55	40.41	1.933	1.871	4.843	1.879	2.016
#2	41.39	42.48	40.91	41.99	1.928	1.861	4.821	1.871	2.090
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: 3/31/2018 16:36:15 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**1.899**	**1.933**	**1.851**	**1.980**	**1.984**	**1.858**
Stddev	.057	.007	.047	.005	.015	.043	.009
%RSD	2.872	.3644	2.416	.2922	.7460	2.154	.5105
#1	2.025	1.903	1.966	1.854	1.991	1.954	1.865
#2	1.945	1.894	1.900	1.847	1.970	2.015	1.851
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	**158390.**	**20594.**	**6968.3**	**10775.**
Stddev	3174.	531.	13.8	16.
%RSD	2.0038	2.5785	.19769	.15240
#1	156140.	20969.	6958.6	10763.
#2	160630.	20218.	6978.1	10786.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 16:39:05 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**-.0001**	**-.0001**	**.0000**	**.0000**	**-.0005**	**.0000**	**-.0003**	**.0003**
Stddev	.0001	.0002	.0001	.0001	.0002	.0004	.0000	.0002	.0002
%RSD	11.01	292.2	127.0	976.2	1750.	82.99	120.6	58.55	65.31
#1	.0010	.0001	-.0000	.0001	-.0001	-.0002	.0000	-.0002	.0004
#2	.0011	-.0002	-.0001	-.0001	.0002	-.0008	.0000	-.0004	.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	**-.0003**	**.0001**	**.0009**	**.0015**	**-.0005**	**-.0006**	**.0020**	**.0101**	**-.0006**
Stddev	.0004	.0001	.0008	.0010	.0002	.0005	.0004	.0153	.0037
%RSD	143.2	110.0	85.70	65.84	30.33	95.03	18.41	152.2	585.1
#1	-.0006	.0001	.0004	.0023	-.0004	-.0002	.0022	-.0008	-.0032
#2	.0000	.0000	.0015	.0008	-.0007	-.0009	.0017	.0209	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**-.0226**	**.1996**	**.0996**	**-.0005**	**.0005**	**.0010**	**.0002**	**-.0002**
Stddev	.0019	.0113	.0268	.0044	.0005	.0001	.0004	.0001	.0000
%RSD	163.1	49.76	13.42	4.455	112.8	28.92	44.27	26.92	5.873
#1	-.0025	-.0306	.2186	.1027	-.0001	.0004	.0007	.0003	-.0002
#2	.0002	-.0147	.1807	.0964	-.0008	.0006	.0013	.0002	-.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: 3/31/2018 16:39:05 Type: QC
Method: Accutest XPress(v95) 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**	**.0005**	**.0001**	**.0065**	**.0014**	**.0030**	**.0073**
Stddev	.0004	.0010	.0001	.0010	.0016	.0006	.0005
%RSD	124.6	219.9	67.01	15.19	110.7	19.57	6.496
#1	.0000	-.0003	.0002	.0058	.0026	.0026	.0076
#2	.0006	.0012	.0001	.0072	.0003	.0034	.0070
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	**167510.**	**21654.**	**7232.3**	**11546.**
Stddev	13.	109.	4.9	25.
%RSD	.00772	.50419	.06760	.22000
#1	167520.	21577.	7235.7	11564.
#2	167510.	21731.	7228.8	11528.

Zoom In Zoom Out

Sample Name: jc63032-2 Acquired: 3/31/2018 16:46:42 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.6052**	**.0003**	**.0088**	**.0034**	**.0107**	**.1088**	**1.077**	**.0152**	**-.0001**
Stddev	.0006	.0000	.0002	.0006	.0004	.0004	.002	.0001	.0001
%RSD	.0922	11.80	2.344	16.82	3.717	.3594	.1467	.8234	103.6
#1	.6056	.0004	.0087	.0030	.0104	.1085	1.075	.0151	-.0000
#2	.6048	.0003	.0090	.0038	.0109	.1091	1.078	.0153	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0147**	**.0789**	**.0022**	**-.0005**	**.0096**	**.0008**	**.0009**	**5.078**	**153.4**
Stddev	.0000	.0001	.0000	.0005	.0028	.0006	.0014	.031	.6
%RSD	.1520	.1398	.7358	90.99	29.50	82.81	156.7	.6102	.3769
#1	.0147	.0790	.0022	-.0009	.0076	.0012	.0019	5.100	153.8
#2	.0147	.0788	.0022	-.0002	.0116	.0003	-.0001	5.056	153.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.710**	**25.73**	**5.390**	**214.4**	**.0701**	**.0012**	**14.07**	**.0007**	**.3816**
Stddev	.018	.05	.067	2.3	.0003	.0004	.06	.0007	.0006
%RSD	.2657	.2134	1.237	1.078	.4716	32.94	.4080	101.9	.1461
#1	6.722	25.77	5.343	216.0	.0699	.0015	14.03	.0002	.3820
#2	6.697	25.69	5.437	212.7	.0704	.0009	14.11	.0011	.3812

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1637**	**.0013**	**-.0074**	**8.933**	**.0090**	**.0135**	**.3835**
Stddev	.0008	.0016	.0002	.026	.0010	.0015	.0018
%RSD	.5061	123.4	2.869	.2874	11.58	10.88	.4824
#1	.1631	.0025	-.0076	8.915	.0083	.0124	.3822
#2	.1643	.0002	-.0073	8.951	.0097	.0145	.3848

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158600.**	**21396.**	**6898.9**	**10409.**
Stddev	208.	131.	30.4	31.
%RSD	.13125	.61021	.44129	.30102
#1	158750.	21304.	6877.4	10387.
#2	158450.	21488.	6920.4	10431.

Zoom In Zoom Out

Sample Name: jc63032-4 Acquired: 3/31/2018 16:49:49 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.2859**	**.0002**	**.1469**	**.0057**	**.0189**	**.5467**	**1.434**	**.1627**	**.0008**
Stddev	.0008	.0000	.0002	.0001	.0002	.0007	.002	.0003	.0003
%RSD	.2960	13.78	.1367	2.488	.8682	.1279	.1191	.1921	33.04
#1	.2853	.0002	.1470	.0056	.0190	.5472	1.433	.1625	.0010
#2	.2865	.0001	.1467	.0058	.0188	.5462	1.435	.1629	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0235**	**3.791**	**.0027**	**-.0007**	**.1096**	**-.0010**	**.0024**	**5.637**	**135.1**
Stddev	.0003	.003	.0008	.0009	.0009	.0023	.0010	.015	1.4
%RSD	1.157	.0669	30.12	125.7	.7850	238.4	38.91	.2650	1.008
#1	.0237	3.789	.0033	-.0001	.1102	-.0026	.0031	5.647	136.1
#2	.0233	3.793	.0022	-.0014	.1090	.0007	.0018	5.626	134.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.16**	**13.74**	**3.489**	**232.4**	**.0803**	**.0021**	**17.57**	**.0188**	**.3640**
Stddev	.10	.03	.056	3.8	.0011	.0002	.02	.0000	.0005
%RSD	.3998	.2474	1.594	1.639	1.375	8.175	.0874	.2493	.1368
#1	26.23	13.76	3.450	235.1	.0811	.0020	17.56	.0188	.3644
#2	26.08	13.71	3.528	229.7	.0796	.0022	17.58	.0187	.3637

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1989**	**-.0006**	**-.0079**	**6.123**	**.0112**	**.0157**	**.3644**
Stddev	.0001	.0010	.0001	.014	.0006	.0024	.0006
%RSD	.0401	157.6	.7225	.2200	5.248	15.49	.1559
#1	.1988	-.0013	-.0079	6.132	.0108	.0140	.3640
#2	.1990	.0001	-.0080	6.113	.0117	.0174	.3648

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159530.**	**21271.**	**6924.0**	**10454.**
Stddev	655.	106.	30.5	49.
%RSD	.41061	.50003	.44091	.47078
#1	159990.	21196.	6902.4	10419.
#2	159070.	21346.	6945.6	10488.

Zoom In Zoom Out

Sample Name: jc63032-5 Acquired: 3/31/2018 16:52:52 Type: Unk
Method: Accutest XPress(v95) 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	**.1011**	**.0006**	**.0120**	**.0117**	**.0201**	**.5039**	**.2076**	**.0207**
Stddev	.0002	.0001	.0002	.0002	.0003	.0018	.0004	.0007
%RSD	.2309	9.527	1.306	1.803	1.547	.3593	.1748	3.347
#1	.1012	.0005	.0118	.0116	.0199	.5052	.2079	.0202
#2	.1009	.0006	.0121	.0119	.0203	.5026	.2074	.0212

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0008**	**.0447**	**.3762**	**.0060**	**-.0012**	**.0190**	**.0020**	**.0035**
Stddev	.0000	.0001	.0003	.0006	.0007	.0019	.0003	.0007
%RSD	2.573	.2147	.0860	10.48	56.13	9.994	13.66	18.70
#1	.0008	.0448	.3765	.0065	-.0008	.0203	.0022	.0031
#2	.0008	.0447	.3760	.0056	-.0017	.0176	.0018	.0040

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**13.81**	**9.737**	**20.52**	**6.308**	**2.906**	**34.64**	**.0389**	**.0046**
Stddev	.04	.009	.01	.030	.002	.11	.0000	.0004
%RSD	.2686	.0911	.0674	.4842	.0787	.3201	.0192	9.533
#1	13.84	9.731	20.53	6.330	2.908	34.57	.0389	.0049
#2	13.79	9.744	20.51	6.287	2.905	34.72	.0389	.0043

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**23.01**	**-.0018**	**.0373**	**.3880**	**.0004**	F **-.0132**	**1.643**	**.0151**
Stddev	.02	.0003	.0001	.0016	.0018	.0002	.003	.0016
%RSD	.0776	15.29	.3806	.4016	431.7	1.392	.1759	10.61
#1	23.00	-.0016	.0374	.3891	-.0009	-.0133	1.641	.0163
#2	23.02	-.0020	.0372	.3869	.0017	-.0131	1.645	.0140

Elem	Li6707	P_1774
Avg	**.0103**	**.9259**
Stddev	.0000	.0017
%RSD	.3924	.1810
#1	.0103	.9270
#2	.0103	.9247

Zoom In Zoom Out

Sample Name: jc63032-5 Acquired: 3/31/2018 16:52:52 Type: Unk
Method: Accutest XPress(v95) 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	**168560.**	**22049.**	**7289.3**	**11241.**
Stddev	53.	79.	58.5	66.
%RSD	.03143	.35676	.80252	.58528
#1	168520.	22105.	7247.9	11194.
#2	168590.	21994.	7330.6	11287.

Zoom In Zoom Out

Sample Name: jc63085-1 Acquired: 3/31/2018 16:55:46 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0246**	**-.0001**	**.0002**	**-.0001**	**.0007**	**.0069**	**.0173**	**.0010**	**.0001**
Stddev	.0000	.0000	.0000	.0000	.0003	.0001	.0001	.0001	.0004
%RSD	.0491	41.34	15.09	60.28	34.01	1.019	.3613	6.581	411.0
#1	.0246	-.0001	.0002	-.0000	.0009	.0068	.0172	.0009	.0003
#2	.0246	-.0000	.0002	-.0001	.0006	.0069	.0173	.0010	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0479**	**-.0002**	**-.0002**	**.0008**	**-.0014**	**.0016**	**.0817**	**6.620**
Stddev	.0002	.0001	.0022	.0009	.0001	.0030	.0014	.0085	.069
%RSD	69.89	.2930	917.6	502.8	10.72	205.9	90.71	10.46	1.040
#1	.0002	.0480	-.0018	.0005	.0009	.0007	.0006	.0757	6.572
#2	.0005	.0478	.0013	-.0008	.0008	-.0035	.0026	.0878	6.669

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2139**	**.5014**	**.6454**	**4.910**	**.0019**	**.0006**	**.1812**	**.0008**	**.0187**
Stddev	.0012	.0024	.0462	.057	.0004	.0001	.0009	.0003	.0000
%RSD	.5488	.4800	7.159	1.158	20.25	15.76	.4992	41.83	.0847
#1	.2148	.4997	.6127	4.870	.0022	.0007	.1819	.0006	.0187
#2	.2131	.5031	.6781	4.950	.0017	.0005	.1806	.0011	.0187

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0017**	**-.0007**	**.0003**	**1.249**	**.0027**	**.0030**	**.0903**
Stddev	.0006	.0017	.0001	.001	.0004	.0003	.0011
%RSD	33.93	258.7	21.56	.0835	16.73	10.46	1.210
#1	.0021	-.0019	.0002	1.250	.0023	.0028	.0911
#2	.0013	.0006	.0003	1.249	.0030	.0032	.0896

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**168710.**	**21750.**	**7255.6**	**11460.**
Stddev	10.	176.	9.8	5.
%RSD	.00567	.80972	.13516	.04103
#1	168700.	21626.	7248.7	11457.
#2	168710.	21875.	7262.5	11464.

Zoom In Zoom Out

Sample Name: jc63108-4 Acquired: 3/31/2018 16:58:44 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1394**	**-.0002**	**.0003**	**.0009**	**.0006**	**.0021**	**1.498**	**.0028**	**-.0001**
Stddev	.0004	.0000	.0002	.0001	.0002	.0003	.003	.0002	.0003
%RSD	.2716	25.45	83.25	5.720	26.81	16.68	.1746	6.442	215.8
#1	.1396	-.0001	.0005	.0009	.0008	.0018	1.496	.0026	.0001
#2	.1391	-.0002	.0001	.0009	.0005	.0023	1.500	.0029	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0017**	**.0512**	**-.0002**	**.0002**	**.0100**	**-.0013**	**-.0009**	**.0221**	**80.83**
Stddev	.0000	.0002	.0018	.0006	.0008	.0005	.0001	.0067	.30
%RSD	.5524	.4445	741.5	313.0	7.641	39.25	6.499	30.35	.3722
#1	.0017	.0510	.0010	.0006	.0105	-.0010	-.0008	.0269	81.05
#2	.0017	.0514	-.0015	-.0002	.0095	-.0017	-.0009	.0174	80.62

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.3828**	**12.60**	**2.308**	F **312.7**	**.0567**	**.0003**	**6.406**	**-.0008**	**.3493**
Stddev	.0026	.06	.057	1.4	.0000	.0002	.035	.0000	.0021
%RSD	.6905	.5155	2.455	.4483	.0329	63.01	.5486	1.084	.6123
#1	.3847	12.64	2.268	311.7	.0567	.0004	6.382	-.0008	.3508
#2	.3809	12.55	2.348	313.7	.0567	.0002	6.431	-.0008	.3478

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0009**	**-.0010**	**-.0035**	**6.834**	**-.0005**	**.0053**	**.0256**
Stddev	.0000	.0009	.0000	.029	.0019	.0010	.0002
%RSD	3.060	85.16	.7719	.4319	387.3	19.79	.8458
#1	-.0009	-.0017	-.0035	6.813	-.0018	.0045	.0257
#2	-.0009	-.0004	-.0034	6.855	.0009	.0060	.0254

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158740.**	**21154.**	**6941.5**	**10452.**
Stddev	112.	10.	24.7	35.
%RSD	.07056	.04552	.35653	.33166
#1	158670.	21161.	6924.0	10428.
#2	158820.	21148.	6959.0	10477.

Zoom In Zoom Out

Sample Name: jc63108-9 Acquired: 3/31/2018 17:01:47 Type: Unk
Method: Accutest XPress(v95) 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	**.2856**	**-.0001**	**-.0002**	**.0058**	**.0008**	**.0014**	**6.570**	**.0042**
Stddev	.0075	.0000	.0001	.0003	.0007	.0007	.020	.0003
%RSD	2.617	1.184	42.79	5.704	90.28	47.95	.3035	7.201
#1	.2804	-.0001	-.0001	.0061	.0003	.0009	6.585	.0040
#2	.2909	-.0001	-.0002	.0056	.0013	.0018	6.556	.0044

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0012**	**.0041**	**.0064**	**.0048**	F **-.0023**	**-.0006**	**-.0009**	**-.0013**
Stddev	.0000	.0001	.0001	.0002	.0007	.0016	.0005	.0013
%RSD	.2735	2.676	.9305	4.767	28.78	254.6	54.05	97.72
#1	-.0012	.0040	.0064	.0049	-.0028	-.0018	-.0006	-.0022
#2	-.0012	.0042	.0064	.0046	-.0019	.0005	-.0013	-.0004

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0316**	F **426.2**	**7.938**	**170.5**	**3.621**	**229.4**	**.0891**	**.0008**
Stddev	.0020	6.6	.186	4.0	.119	4.6	.0016	.0002
%RSD	6.350	1.552	2.347	2.364	3.298	1.988	1.832	18.77
#1	.0330	421.5	7.806	167.6	3.537	226.1	.0902	.0007
#2	.0302	430.8	8.070	173.3	3.706	232.6	.0879	.0009

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**16.42**	**-.0020**	**1.113**	**-.0003**	**-.0007**	**-.0098**	**1.339**	**.0097**
Stddev	.18	.0003	.029	.0008	.0015	.0002	.013	.0015
%RSD	1.084	14.72	2.567	331.4	218.6	2.205	.9939	15.44
#1	16.55	-.0022	1.093	-.0008	.0004	-.0099	1.348	.0086
#2	16.30	-.0018	1.133	.0003	-.0017	-.0096	1.329	.0108

Elem	Li6707	P_1774
Avg	**.0262**	**.0629**
Stddev	.0003	.0017
%RSD	1.087	2.761
#1	.0264	.0642
#2	.0260	.0617

Zoom In Zoom Out

Sample Name: jc63108-9 Acquired: 3/31/2018 17:01:47 Type: Unk
Method: Accutest XPress(v95) 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	**152830.**	**20633.**	**6567.3**	**9847.7**
Stddev	126.	94.	72.1	99.3
%RSD	.08257	.45666	1.0984	1.0087
#1	152920.	20700.	6516.3	9775.5
#2	152740.	20567.	6618.3	9918.0

Zoom In Zoom Out

Sample Name: jc63108-10 Acquired: 3/31/2018 17:05:01 Type: Unk
Method: Accutest XPress(v95) Mode: 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**	**-.0001**	**.0002**	**-.0003**	**.0009**	**-.0000**	**.0782**	**.0002**	**-.0004**
Stddev	.0002	.0000	.0001	.0001	.0000	.0005	.0000	.0001	.0003
%RSD	.4528	18.40	51.85	42.58	3.754	1429.	.0482	27.26	79.74
#1	.0528	-.0001	.0003	-.0002	.0008	-.0004	.0782	.0003	-.0002
#2	.0532	-.0001	.0001	-.0004	.0009	.0003	.0782	.0002	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0005**	**.0032**	**.0038**	**-.0019**	**-.0002**	**.0020**	**-.0008**	**.0784**	**133.8**
Stddev	.0002	.0001	.0002	.0005	.0002	.0027	.0002	.0032	.5
%RSD	43.01	4.262	6.413	25.95	97.71	136.9	20.05	4.084	.3895
#1	.0004	.0031	.0040	-.0023	-.0001	.0001	-.0007	.0761	134.2
#2	.0007	.0033	.0036	-.0016	-.0004	.0039	-.0009	.0806	133.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.397**	**46.82**	**1.945**	**22.88**	**.1015**	**.0012**	**12.96**	**-.0003**	**.3917**
Stddev	.015	.16	.012	.07	.0011	.0002	.06	.0004	.0015
%RSD	.6127	.3375	.6157	.2841	1.060	12.99	.4963	123.9	.3760
#1	2.407	46.94	1.953	22.93	.1007	.0011	12.91	-.0005	.3927
#2	2.386	46.71	1.937	22.83	.1022	.0013	13.00	-.0000	.3906

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0016**	**.0015**	**-.0075**	**6.643**	**.0022**	**.0070**	**.0814**
Stddev	.0001	.0022	.0000	.040	.0028	.0007	.0014
%RSD	5.152	151.5	.5809	.6022	122.6	10.39	1.767
#1	.0015	.0031	-.0075	6.615	.0003	.0075	.0824
#2	.0016	-.0001	-.0075	6.671	.0042	.0065	.0804

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161930.**	**21183.**	**7014.9**	**10765.**
Stddev	936.	51.	25.9	38.
%RSD	.57775	.24168	.36990	.34976
#1	161270.	21146.	6996.6	10738.
#2	162590.	21219.	7033.3	10791.

Zoom In Zoom Out

Sample Name: jc63108-11 Acquired: 3/31/2018 17:07:59 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.3518**	**.0001**	**.0002**	**.0006**	**.0026**	**.0053**	**.3164**	**.0051**	**-.0005**
Stddev	.0005	.0000	.0000	.0004	.0002	.0001	.0002	.0016	.0001
%RSD	.1320	80.66	21.92	73.24	7.181	1.246	.0479	31.04	18.03
#1	.3522	.0001	.0001	.0003	.0024	.0053	.3165	.0040	-.0005
#2	.3515	.0000	.0002	.0009	.0027	.0052	.3163	.0062	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0022**	**.0457**	**.0003**	**-.0013**	**.0000**	**-.0005**	**-.0014**	**.5621**	F **367.1**
Stddev	.0000	.0003	.0006	.0004	.0006	.0014	.0008	.0192	5.5
%RSD	.3373	.7270	168.2	27.80	3273.	263.3	56.60	3.422	1.510
#1	.0022	.0460	-.0001	-.0015	.0004	-.0015	-.0020	.5757	363.2
#2	.0022	.0455	.0007	-.0010	-.0004	.0005	-.0009	.5485	371.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.453**	**137.9**	**3.794**	**92.63**	**.1430**	**.0005**	**14.36**	**-.0015**	**1.276**
Stddev	.014	.5	.033	.13	.0014	.0001	.29	.0010	.002
%RSD	.4071	.3740	.8707	.1365	.9516	12.08	2.026	65.15	.1476
#1	3.443	137.5	3.770	92.54	.1440	.0005	14.16	-.0021	1.275
#2	3.463	138.3	3.817	92.72	.1421	.0006	14.57	-.0008	1.278

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0137**	**.0009**	**-.0079**	**4.142**	**.0077**	**.0070**	**.0600**
Stddev	.0004	.0012	.0000	.001	.0002	.0013	.0004
%RSD	3.030	134.1	.2340	.0301	2.148	18.88	.5971
#1	.0140	.0000	-.0079	4.143	.0078	.0079	.0602
#2	.0134	.0017	-.0079	4.141	.0076	.0060	.0597

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154610.**	**20649.**	**6694.8**	**10063.**
Stddev	978.	76.	29.7	47.
%RSD	.63265	.36808	.44289	.46623
#1	155300.	20703.	6673.9	10030.
#2	153920.	20596.	6715.8	10096.

Zoom In Zoom Out

Sample Name: jc63108-13 Acquired: 3/31/2018 17:11:01 Type: Unk
Method: Accutest XPress(v95) 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	**.2101**	**-.0000**	**.0002**	**-.0003**	**.0021**	**.0029**	**.6885**	**.0014**
Stddev	.0035	.0001	.0001	.0002	.0000	.0002	.0036	.0009
%RSD	1.643	169.1	39.85	84.52	1.875	8.203	.5299	64.45
#1	.2125	.0000	.0002	-.0001	.0021	.0031	.6859	.0007
#2	.2076	-.0001	.0003	-.0005	.0022	.0027	.6911	.0020

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0012**	**.0014**	**.0078**	**-.0005**	F **-.0031**	**-.0027**	**-.0009**	**-.0012**
Stddev	.0008	.0007	.0000	.0009	.0012	.0006	.0010	.0011
%RSD	62.32	47.80	.5982	159.7	39.26	23.38	103.0	97.67
#1	-.0007	.0009	.0078	.0001	-.0039	-.0023	-.0003	-.0020
#2	-.0018	.0019	.0079	-.0011	-.0022	-.0032	-.0016	-.0004

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.1395**	F **485.8**	**6.555**	**194.4**	**4.943**	**48.71**	**.1092**	**.0049**
Stddev	.0092	.7	.088	1.9	.053	.47	.0006	.0001
%RSD	6.611	.1379	1.351	.9953	1.071	.9604	.5894	2.068
#1	.1330	485.3	6.617	195.8	4.981	49.04	.1087	.0049
#2	.1460	486.3	6.492	193.0	4.906	48.38	.1096	.0048

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**14.56**	**-.0015**	**1.292**	**.0050**	**.0002**	**-.0085**	**1.827**	**.0079**
Stddev	.03	.0005	.018	.0001	.0004	.0000	.003	.0009
%RSD	.2087	31.89	1.374	2.476	183.0	.4429	.1734	10.72
#1	14.54	-.0018	1.305	.0049	.0005	-.0086	1.825	.0073
#2	14.58	-.0011	1.280	.0051	-.0001	-.0085	1.830	.0085

Elem	Li6707	P_1774
Avg	**.0101**	**.0465**
Stddev	.0002	.0006
%RSD	1.544	1.312
#1	.0102	.0469
#2	.0100	.0460

Zoom In Zoom Out

Sample Name: jc63108-13 Acquired: 3/31/2018 17:11:01 Type: Unk
Method: Accutest XPress(v95) 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	**153720.**	**20357.**	**6621.7**	**9958.9**
Stddev	467.	57.	22.1	30.9
%RSD	.30395	.28189	.33314	.31056
#1	154050.	20316.	6606.1	9937.1
#2	153390.	20398.	6637.3	9980.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 17:14:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.904**	**1.892**	**1.842**	**1.933**	**1.893**	**1.888**	**1.909**	**1.985**	**.2340**
Stddev	.010	.009	.003	.001	.011	.017	.009	.002	.0019
%RSD	.5067	.4758	.1433	.0655	.5530	.8770	.4695	.1133	.8294
#1	1.911	1.898	1.841	1.932	1.901	1.900	1.916	1.983	.2353
#2	1.897	1.885	1.844	1.934	1.886	1.877	1.903	1.986	.2326
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	**1.844**	**1.887**	**1.861**	**1.994**	**1.966**	**1.886**	**1.850**	**38.16**	**39.26**
Stddev	.012	.001	.000	.001	.001	.006	.003	.13	.19
%RSD	.6211	.0415	.0237	.0453	.0655	.2949	.1347	.3428	.4803
#1	1.852	1.887	1.861	1.993	1.965	1.882	1.848	38.25	39.40
#2	1.835	1.888	1.862	1.994	1.966	1.890	1.852	38.07	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	**38.38**	**39.85**	**38.13**	**39.21**	**1.893**	**1.809**	**4.726**	**1.819**	**1.941**
Stddev	.19	.26	.11	.09	.005	.000	.007	.002	.010
%RSD	.4850	.6509	.2884	.2280	.2828	.0131	.1418	.0957	.4969
#1	38.52	40.03	38.21	39.28	1.890	1.809	4.721	1.820	1.948
#2	38.25	39.67	38.05	39.15	1.897	1.809	4.731	1.818	1.934
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: 3/31/2018 17:14:04 Type: QC
Method: Accutest XPress(v95) 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	**1.926**	**1.863**	**1.852**	**1.803**	**1.952**	**1.859**	**1.800**
Stddev	.012	.004	.011	.002	.004	.006	.002
%RSD	.5961	.1896	.5993	.1121	.1817	.3177	.0902
#1	1.934	1.860	1.859	1.802	1.950	1.863	1.801
#2	1.918	1.865	1.844	1.805	1.955	1.855	1.799
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	**161440.**	**20860.**	**7060.9**	**10792.**
Stddev	380.	41.	24.0	41.
%RSD	.23518	.19820	.34024	.38307
#1	161180.	20831.	7043.9	10763.
#2	161710.	20890.	7077.9	10822.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 17:16:55 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0001**	**.0002**	**.0001**	**.0003**	**.0001**	**.0001**	**.0006**	**.0001**
Stddev	.0001	.0001	.0002	.0003	.0000	.0000	.0000	.0002	.0005
%RSD	13.00	99.57	120.8	192.4	2.693	11.89	34.74	35.81	397.6
#1	.0009	-.0001	.0000	.0003	.0003	.0001	.0001	.0007	.0005
#2	.0007	-.0000	.0004	-.0001	.0003	.0002	.0001	.0004	-.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	**-.0002**	**.0017**	**.0012**	**.0007**	**.0003**	**-.0010**	**.0012**	**-.0069**	**.0103**
Stddev	.0000	.0001	.0013	.0005	.0004	.0000	.0006	.0173	.0031
%RSD	20.83	5.234	112.1	75.09	117.9	4.902	51.80	252.2	30.37
#1	-.0002	.0016	.0021	.0010	.0006	-.0009	.0008	.0054	.0081
#2	-.0003	.0017	.0002	.0003	.0001	-.0010	.0016	-.0191	.0126
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**	**.0005**	**.1060**	**.0973**	**-.0016**	**-.0001**	**-.0034**	**.0005**	**.0000**
Stddev	.0010	.0243	.0061	.0021	.0002	.0001	.0003	.0006	.0001
%RSD	51.00	5038.	5.752	2.196	13.25	74.77	9.154	128.1	265.8
#1	.0027	-.0167	.1017	.0958	-.0017	-.0001	-.0032	.0009	.0001
#2	.0013	.0177	.1103	.0988	-.0014	-.0002	-.0037	.0000	-.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: 3/31/2018 17:16:55 Type: QC
Method: Accutest XPress(v95) 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**	**-.0002**	**.0003**	**.0036**	**.0016**	**.0010**	**.0091**
Stddev	.0000	.0010	.0001	.0033	.0006	.0014	.0006
%RSD	6.224	632.3	17.48	92.31	36.03	133.1	6.346
#1	.0005	.0006	.0003	.0013	.0021	.0020	.0087
#2	.0005	-.0009	.0003	.0060	.0012	.0001	.0095
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	**162750.**	**20654.**	**7054.8**	**11202.**
Stddev	207.	4.	27.8	41.
%RSD	.12723	.02026	.39464	.36485
#1	162900.	20657.	7035.1	11174.
#2	162600.	20651.	7074.4	11231.

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 3/31/2018 17:19:54 Type: Unk
Method: Accutest XPress(v95) 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	**.9491**	**.0089**	**.0149**	**.2484**	**.0481**	**.0429**	**.0764**	**.0508**	**.0201**
Stddev	.0133	.0001	.0002	.0022	.0006	.0009	.0009	.0022	.0007
%RSD	1.401	1.008	1.424	.9018	1.246	2.049	1.214	4.413	3.243
#1	.9586	.0090	.0147	.2500	.0477	.0423	.0758	.0523	.0196
#2	.9397	.0089	.0150	.2468	.0485	.0436	.0771	.0492	.0205

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2376**	**.1010**	**.0409**	**.0480**	**.0133**	**.0473**	**.0233**	**1.032**	**24.92**
Stddev	.0050	.0009	.0020	.0072	.0001	.0036	.0134	.054	.24
%RSD	2.086	.8482	4.767	14.94	.6499	7.681	57.59	5.247	.9631
#1	.2341	.1016	.0423	.0429	.0134	.0447	.0328	.9941	25.09
#2	.2411	.1004	.0396	.0530	.0133	.0499	.0138	1.071	24.75

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.4889**	**25.45**	**24.37**	**25.31**	**.4757**	**.0964**	**.8251**	**.0484**	**.0476**
Stddev	.0047	.33	.16	.12	.0065	.0009	.0006	.0001	.0009
%RSD	.9604	1.300	.6417	.4801	1.367	.8890	.0750	.2544	1.839
#1	.4922	25.69	24.48	25.39	.4803	.0970	.8255	.0483	.0483
#2	.4856	25.22	24.26	25.22	.4711	.0958	.8246	.0485	.0470

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0481**	**.2414**	**.0494**	**.2290**	**.1115**	**.2500**	**.2781**
Stddev	.0009	.0090	.0005	.0108	.0170	.0004	.0039
%RSD	1.944	3.729	.9644	4.707	15.21	.1775	1.401
#1	.0474	.2478	.0498	.2367	.1235	.2503	.2808
#2	.0487	.2350	.0491	.2214	.0995	.2497	.2753

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162650.**	**20828.**	**7055.0**	**11110.**
Stddev	434.	64.	39.5	47.
%RSD	.26707	.30954	.55978	.42353
#1	162960.	20873.	7027.1	11077.
#2	162340.	20782.	7082.9	11143.

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 3/31/2018 17:22:52 Type: Unk
Method: Accutest XPress(v95) 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	**.1128**	**.0202**	**.0252**	**.0745**	**.0594**	**-.0149**	**.0778**	**.0961**	**-.0128**
Stddev	.0083	.0040	.0003	.0011	.0025	.0140	.0002	.0005	.0073
%RSD	7.354	19.80	1.196	1.520	4.282	94.13	.2926	.5481	56.99
#1	.1069	.0230	.0254	.0753	.0576	-.0248	.0780	.0964	-.0076
#2	.1187	.0174	.0250	.0737	.0612	-.0050	.0777	.0957	-.0179

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0456**	**.2637**	**.0689**	**.0726**	**-.0107**	**.1277**	**.0112**	**2.475**	**25.91**
Stddev	.0131	.0024	.0350	.0133	.0217	.0124	.0107	.236	.18
%RSD	28.78	.9133	50.74	18.33	202.3	9.688	95.42	9.542	.6884
#1	.0549	.2620	.0442	.0632	-.0260	.1364	.0036	2.642	26.04
#2	.0363	.2655	.0936	.0820	.0046	.1189	.0187	2.308	25.78

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0608**	**2.237**	**51.09**	**26.92**	**-.0422**	**.0035**	**.0175**	**.0159**	**-.0004**
Stddev	.0238	.051	.51	.09	.0113	.0032	.0146	.0062	.0003
%RSD	39.20	2.267	.9979	.3474	26.73	89.67	83.58	39.14	80.07
#1	-.0440	2.201	50.73	26.85	-.0502	.0013	.0278	.0203	-.0002
#2	-.0777	2.273	51.45	26.98	-.0342	.0058	.0071	.0115	-.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0053**	**.0142**	**.0000**	**.0848**	**.0180**	**.0212**	**.2348**
Stddev	.0065	.0272	.0028	.0007	.0214	.0006	.0088
%RSD	124.0	192.1	9418.	.7830	118.9	2.657	3.734
#1	.0099	-.0051	.0020	.0853	.0029	.0216	.2410
#2	.0006	.0334	-.0020	.0844	.0331	.0208	.2286

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**165760.**	**21083.**	**7236.0**	**11433.**
Stddev	235.	152.	39.2	57.
%RSD	.14172	.72014	.54122	.49968
#1	165600.	20975.	7208.3	11393.
#2	165930.	21190.	7263.7	11473.

Zoom In Zoom Out

Sample Name: mp6399-s2 Acquired: 3/31/2018 17:25:50 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**2.020**	**1.932**	**1.870**	**1.947**	**1.918**	**1.928**	**3.106**	**2.001**	**.2304**
Stddev	.006	.008	.002	.004	.007	.003	.009	.004	.0002
%RSD	.2929	.4003	.1050	.2088	.3633	.1612	.3035	.1870	.0896
#1	2.016	1.927	1.869	1.944	1.922	1.930	3.113	1.999	.2303
#2	2.025	1.938	1.871	1.949	1.913	1.926	3.099	2.004	.2305

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.868**	**1.907**	**1.893**	**2.024**	**1.985**	**1.908**	**1.899**	**24.03**	**36.32**
Stddev	.004	.002	.001	.005	.005	.004	.000	.09	.18
%RSD	.2275	.0809	.0609	.2461	.2508	.1933	.0019	.3697	.5081
#1	1.871	1.906	1.894	2.020	1.981	1.905	1.899	23.97	36.19
#2	1.865	1.908	1.893	2.027	1.989	1.911	1.899	24.10	36.45

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**54.01**	**29.97**	**24.29**	**38.89**	**1.915**	**1.842**	**2.009**	**1.849**	**2.039**
Stddev	.20	.11	.11	.16	.004	.003	.005	.001	.006
%RSD	.3788	.3547	.4629	.3997	.1999	.1367	.2685	.0308	.2821
#1	53.87	29.89	24.21	38.78	1.912	1.840	2.005	1.850	2.035
#2	54.16	30.04	24.37	39.00	1.917	1.844	2.012	1.849	2.043

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.965**	**1.878**	**1.879**	**12.52**	**.1050**	**.0011**	**2.065**
Stddev	.003	.005	.006	.02	.0008	.0028	.006
%RSD	.1658	.2812	.3056	.1627	.7584	259.0	.2760
#1	1.967	1.874	1.883	12.51	.1055	.0031	2.061
#2	1.963	1.881	1.875	12.54	.1044	-.0009	2.069

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159800.**	**20870.**	**6991.2**	**10784.**
Stddev	816.	84.	16.1	15.
%RSD	.51075	.40053	.23012	.14304
#1	159220.	20929.	6979.8	10773.
#2	160380.	20810.	7002.6	10795.

Zoom In Zoom Out

Sample Name: jc62879-9 Acquired: 3/31/2018 17:28:44 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0805**	**-.0001**	**-.0000**	**.0003**	**.0005**	**-.0001**	**1.327**	**-.0002**	**-.0010**
Stddev	.0039	.0001	.0002	.0002	.0004	.0004	.055	.0005	.0008
%RSD	4.830	104.1	641.1	62.61	73.74	306.8	4.173	202.4	80.16
#1	.0832	-.0000	-.0002	.0005	.0007	.0002	1.288	-.0006	-.0004
#2	.0777	-.0001	.0001	.0002	.0002	-.0004	1.366	.0001	-.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0011**	**.0008**	**.0009**	**.0003**	**-.0003**	**.0021**	**.0001**	**.0061**	**12.69**
Stddev	.0001	.0001	.0021	.0018	.0015	.0010	.0001	.0069	.56
%RSD	7.721	16.41	228.0	567.1	462.4	48.53	103.1	112.7	4.385
#1	.0011	.0007	.0025	-.0009	-.0014	.0028	.0000	.0110	13.09
#2	.0012	.0009	-.0006	.0015	.0008	.0014	.0002	.0012	12.30

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**33.00**	**5.360**	**.4936**	**15.80**	**.0020**	**.0003**	**2.330**	**-.0004**	**.0663**
Stddev	1.57	.270	.0485	.57	.0001	.0001	.085	.0000	.0026
%RSD	4.761	5.043	9.823	3.608	6.999	18.48	3.643	9.150	3.995
#1	34.12	5.551	.5278	16.20	.0022	.0004	2.270	-.0004	.0682
#2	31.89	5.169	.4593	15.40	.0019	.0003	2.390	-.0004	.0645

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0010**	**-.0008**	**14.38**	**.0004**	**.0007**	**.2951**
Stddev	.0003	.0007	.0001	.53	.0028	.0018	.0104
%RSD	305.3	65.96	9.368	3.653	791.3	257.3	3.519
#1	.0001	.0005	-.0008	14.01	.0023	-.0006	.2878
#2	-.0003	.0015	-.0007	14.75	-.0016	.0020	.3025

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163580.**	**21001.**	**6923.8**	**10862.**
Stddev	682.	691.	221.7	307.
%RSD	.41708	3.2884	3.2020	2.8277
#1	164060.	20513.	7080.6	11080.
#2	163090.	21490.	6767.0	10645.

Zoom In Zoom Out

Sample Name: mp6399-sd1 Acquired: 3/31/2018 17:31:40 Type: Unk
Method: Accutest XPress(v95) 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	**.0879**	**-.0009**	**.0001**	**-.0005**	**.0009**	**.0023**	**1.349**	**-.0005**	**.0010**
Stddev	.0000	.0003	.0008	.0008	.0029	.0015	.000	.0013	.0015
%RSD	.0239	27.96	545.7	162.0	333.9	66.61	.0070	263.6	151.9
#1	.0879	-.0011	-.0004	.0001	-.0012	.0034	1.349	-.0014	-.0001
#2	.0879	-.0007	.0007	-.0010	.0029	.0012	1.349	.0004	.0020

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0006**	**.0022**	**.0069**	**.0007**	**-.0032**	**.0084**	**.0033**	**.0221**	**13.09**
Stddev	.0013	.0002	.0043	.0020	.0108	.0095	.0067	.0045	.01
%RSD	203.0	7.380	62.56	279.1	336.0	112.7	200.3	20.44	.0764
#1	.0015	.0021	.0038	.0021	-.0109	.0017	.0080	.0189	13.08
#2	-.0003	.0023	.0099	-.0007	.0044	.0152	-.0014	.0253	13.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**33.90**	**5.353**	**.5900**	**16.18**	**-.0014**	**.0006**	**2.241**	**.0012**	**.0675**
Stddev	.10	.000	.2944	.08	.0003	.0002	.002	.0005	.0001
%RSD	.3062	.0011	49.89	.5219	20.46	24.35	.1030	41.60	.1187
#1	33.83	5.353	.3819	16.24	-.0012	.0007	2.239	.0008	.0674
#2	33.98	5.353	.7982	16.12	-.0016	.0005	2.243	.0015	.0676

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0021**	**.0051**	**.0003**	**13.63**	**.0029**	**.0093**	**.3134**
Stddev	.0015	.0020	.0002	.00	.0131	.0114	.0011
%RSD	73.11	40.49	72.39	.0039	450.8	121.8	.3653
#1	-.0031	.0065	.0002	13.63	-.0064	.0174	.3142
#2	-.0010	.0036	.0005	13.63	.0122	.0013	.3126

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167060.**	**21339.**	**7281.8**	**11482.**
Stddev	401.	44.	4.8	9.
%RSD	.23980	.20735	.06638	.07888
#1	166770.	21308.	7278.4	11476.
#2	167340.	21371.	7285.2	11488.

Zoom In Zoom Out

Sample Name: jc62789-1 Acquired: 3/31/2018 17:34:38 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0096**	**-.0001**	**-.0000**	**-.0001**	**.0008**	**.0007**	**.0119**	**.0007**	**-.0002**
Stddev	.0001	.0000	.0001	.0001	.0002	.0005	.0002	.0002	.0002
%RSD	1.201	57.04	4241.	112.4	26.38	71.48	1.332	28.35	92.51
#1	.0097	-.0001	.0000	-.0001	.0007	.0010	.0118	.0008	-.0001
#2	.0095	-.0001	-.0000	-.0000	.0010	.0003	.0120	.0005	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0017**	**.0012**	**-.0004**	**.0005**	**.0003**	**.0001**	**.0283**	**19.35**
Stddev	.0002	.0001	.0003	.0011	.0005	.0021	.0014	.0076	.05
%RSD	74.75	3.394	24.75	242.2	96.78	636.8	1839.	26.87	.2440
#1	.0001	.0016	.0014	-.0012	.0009	-.0011	-.0009	.0229	19.32
#2	.0005	.0017	.0010	.0003	.0002	.0018	.0011	.0337	19.39

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0456**	**8.083**	**1.070**	**15.82**	**.0235**	**.0007**	**3.131**	**.0005**	**.0813**
Stddev	.0007	.020	.039	.03	.0005	.0001	.019	.0002	.0001
%RSD	1.487	.2436	3.606	.1970	2.286	15.94	.6140	47.72	.1190
#1	.0461	8.070	1.043	15.79	.0238	.0008	3.145	.0007	.0813
#2	.0451	8.097	1.098	15.84	.0231	.0006	3.117	.0003	.0814

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0008**	**.0010**	**-.0014**	**3.646**	**-.0007**	**.0005**	**.0140**
Stddev	.0001	.0009	.0002	.026	.0000	.0014	.0003
%RSD	7.442	85.03	15.67	.7026	5.889	298.4	1.859
#1	.0008	.0004	-.0012	3.664	-.0007	-.0005	.0142
#2	.0008	.0016	-.0016	3.628	-.0008	.0015	.0138

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166730.**	**21409.**	**7288.8**	**11324.**
Stddev	50.	106.	50.5	78.
%RSD	.02981	.49288	.69228	.68881
#1	166700.	21335.	7253.1	11269.
#2	166770.	21484.	7324.4	11379.

Zoom In Zoom Out

Sample Name: jc62789-2 Acquired: 3/31/2018 17:37:36 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0205**	**-.0001**	**.0002**	**-.0001**	**.0001**	**.0002**	**.0194**	**.0011**	**.0001**
Stddev	.0002	.0001	.0002	.0002	.0002	.0002	.0000	.0003	.0002
%RSD	1.193	71.28	82.26	377.6	173.6	126.4	.1702	31.10	163.6
#1	.0207	-.0000	.0001	-.0002	-.0000	.0000	.0194	.0014	-.0000
#2	.0203	-.0001	.0004	.0001	.0002	.0003	.0194	.0009	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0021**	**-.0001**	**.0001**	**.0012**	**-.0007**	**-.0003**	**.0101**	**22.01**
Stddev	.0003	.0001	.0011	.0013	.0012	.0004	.0000	.0136	.05
%RSD	112.2	4.806	1094.	1111.	96.70	63.87	3.863	135.2	.2369
#1	.0001	.0022	-.0009	.0010	.0021	-.0004	-.0003	.0004	22.04
#2	.0005	.0020	.0007	-.0008	.0004	-.0010	-.0003	.0197	21.97

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0568**	**3.664**	**3.032**	**34.91**	**.0244**	**.0004**	**4.191**	**.0148**	**.1167**
Stddev	.0014	.020	.033	.03	.0002	.0002	.019	.0002	.0001
%RSD	2.480	.5482	1.086	.0806	1.010	53.74	.4556	1.334	.0883
#1	.0559	3.678	3.009	34.93	.0242	.0006	4.178	.0146	.1167
#2	.0578	3.650	3.056	34.89	.0245	.0003	4.205	.0149	.1166

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0006**	**-.0021**	**7.031**	**-.0011**	**.0032**	**.0140**
Stddev	.0003	.0008	.0001	.037	.0016	.0003	.0001
%RSD	1134.	143.2	4.900	.5312	144.7	9.070	.3837
#1	-.0002	.0011	-.0022	7.005	-.0023	.0030	.0141
#2	.0002	-.0000	-.0020	7.058	.0000	.0034	.0140

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167130.**	**21513.**	**7272.3**	**11227.**
Stddev	376.	4.	23.8	32.
%RSD	.22508	.02066	.32757	.28369
#1	167390.	21510.	7255.5	11204.
#2	166860.	21516.	7289.2	11249.

Zoom In Zoom Out

Sample Name: jc62789-3 Acquired: 3/31/2018 17:40:35 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0295**	**-.0001**	**.0000**	**-.0000**	**.0009**	**.0034**	**.0037**	**.0008**	**-.0003**
Stddev	.0000	.0000	.0000	.0001	.0001	.0002	.0000	.0000	.0001
%RSD	.0516	33.46	54.53	760.5	16.66	5.226	.5716	5.785	33.00
#1	.0295	-.0001	.0000	.0001	.0008	.0035	.0038	.0008	-.0003
#2	.0295	-.0002	.0000	-.0001	.0010	.0033	.0037	.0008	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**.0018**	**.0002**	**-.0006**	**.0010**	**-.0000**	**-.0007**	**.0159**	**81.13**
Stddev	.0003	.0001	.0007	.0004	.0012	.0018	.0019	.0206	.13
%RSD	72.29	3.209	360.4	62.40	119.7	7599.	263.1	129.5	.1570
#1	.0002	.0019	-.0003	-.0004	.0002	.0012	.0006	.0305	81.22
#2	.0006	.0018	.0007	-.0009	.0018	-.0013	-.0021	.0013	81.04

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0090**	**6.369**	**7.011**	**20.02**	**.0425**	**.0034**	**5.742**	**-.0009**	**.2958**
Stddev	.0013	.054	.017	.04	.0001	.0000	.006	.0004	.0007
%RSD	14.50	.8424	.2458	.2153	.2412	.5041	.1117	45.38	.2393
#1	.0081	6.407	6.998	20.05	.0425	.0035	5.737	-.0011	.2963
#2	.0100	6.331	7.023	19.99	.0426	.0034	5.746	-.0006	.2953

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0005**	**-.0007**	**-.0027**	**17.09**	**.0007**	**.0030**	**.0176**
Stddev	.0007	.0002	.0001	.00	.0008	.0016	.0008
%RSD	135.0	27.95	2.886	.0064	114.8	51.67	4.675
#1	-.0000	-.0009	-.0026	17.09	.0012	.0041	.0170
#2	-.0010	-.0006	-.0027	17.09	.0001	.0019	.0182

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164650.**	**21139.**	**7107.4**	**10968.**
Stddev	1064.	202.	8.0	1.
%RSD	.64593	.95647	.11294	.01240
#1	163900.	20996.	7101.8	10969.
#2	165410.	21282.	7113.1	10967.

Zoom In Zoom Out

Sample Name: jc62789-4 Acquired: 3/31/2018 17:43:33 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0205**	**-.0001**	**.0001**	**.0008**	**.0017**	**.0006**	**.3894**	**.0015**	**-.0003**
Stddev	.0003	.0000	.0001	.0001	.0002	.0002	.0006	.0001	.0003
%RSD	1.433	.4259	202.5	13.75	10.04	41.98	.1658	5.592	81.50
#1	.0203	-.0001	-.0000	.0009	.0018	.0007	.3889	.0015	-.0001
#2	.0207	-.0001	.0001	.0007	.0016	.0004	.3898	.0014	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0101**	**.0024**	**.0097**	**-.0006**	**.0006**	**-.0007**	**-.0007**	**.0968**	**24.48**
Stddev	.0005	.0000	.0009	.0009	.0004	.0020	.0001	.0046	.09
%RSD	5.328	1.042	9.376	157.5	59.66	284.1	9.555	4.734	.3601
#1	.0105	.0024	.0091	-.0013	.0004	-.0021	-.0007	.1000	24.41
#2	.0097	.0023	.0104	.0001	.0009	.0007	-.0008	.0935	24.54

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.612**	**2.409**	**16.62**	**66.72**	**.0776**	**.0082**	**5.656**	**-.0005**	**.1566**
Stddev	.006	.024	.15	.31	.0010	.0001	.026	.0000	.0004
%RSD	.3489	1.002	.9235	.4645	1.231	.7036	.4591	10.06	.2451
#1	1.608	2.427	16.51	66.50	.0769	.0083	5.638	-.0004	.1563
#2	1.616	2.392	16.73	66.94	.0783	.0082	5.674	-.0005	.1568

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0055**	**.0040**	**-.0021**	**19.68**	**.0006**	**.0016**	**.4072**
Stddev	.0003	.0004	.0001	.07	.0000	.0038	.0015
%RSD	4.833	10.75	4.392	.3681	2.738	240.5	.3670
#1	.0057	.0037	-.0022	19.62	.0006	.0043	.4061
#2	.0053	.0043	-.0020	19.73	.0007	-.0011	.4083

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164510.**	**21311.**	**7169.5**	**10970.**
Stddev	363.	114.	20.3	21.
%RSD	.22088	.53619	.28376	.19198
#1	164250.	21392.	7155.1	10955.
#2	164760.	21231.	7183.9	10985.

Zoom In Zoom Out

Sample Name: jc62881-1 Acquired: 3/31/2018 17:46:30 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.2397**	**-.0001**	**.0027**	**.0052**	**.0013**	**.0274**	**.1567**	**.4497**	**-.0004**
Stddev	.0005	.0000	.0000	.0002	.0000	.0009	.0017	.0033	.0000
%RSD	.2162	34.96	.1366	4.007	2.694	3.459	1.064	.7250	11.97
#1	.2401	-.0001	.0027	.0050	.0014	.0281	.1578	.4520	-.0004
#2	.2393	-.0001	.0027	.0053	.0013	.0267	.1555	.4474	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0011**	**2.675**	**.0034**	**-.0019**	**.1119**	**-.0025**	**.0018**	**.0733**	**103.6**
Stddev	.0001	.018	.0008	.0017	.0008	.0013	.0003	.0312	.5
%RSD	8.676	.6867	22.41	87.60	.7160	53.56	19.74	42.60	.5118
#1	.0010	2.688	.0029	-.0031	.1125	-.0035	.0015	.0954	103.9
#2	.0011	2.662	.0039	-.0007	.1113	-.0016	.0020	.0512	103.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.126**	**11.31**	**1.446**	**4.583**	**.0163**	**.0017**	**8.427**	**-.0005**	**.4343**
Stddev	.012	.12	.042	.031	.0003	.0002	.054	.0004	.0022
%RSD	.3729	1.086	2.901	.6811	1.740	10.50	.6446	73.39	.5174
#1	3.135	11.40	1.476	4.605	.0165	.0015	8.465	-.0008	.4359
#2	3.118	11.22	1.416	4.560	.0161	.0018	8.388	-.0002	.4327

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0006**	**.0010**	**-.0045**	**9.115**	**-.0009**	**.0133**	**.1273**
Stddev	.0000	.0005	.0001	.046	.0024	.0010	.0003
%RSD	1.225	50.39	2.189	.5057	250.9	7.535	.2123
#1	.0006	.0006	-.0046	9.148	-.0026	.0140	.1275
#2	.0007	.0013	-.0045	9.082	.0007	.0126	.1271

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166190.**	**21260.**	**7200.8**	**11080.**
Stddev	1376.	73.	69.7	95.
%RSD	.82774	.34530	.96845	.85669
#1	165220.	21312.	7151.5	11013.
#2	167170.	21208.	7250.1	11147.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 17:49:28 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 1

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.961**	**1.933**	**1.913**	**2.004**	**1.929**	**1.924**	**1.939**	**2.068**	**.2378**
Stddev	.009	.010	.030	.034	.005	.005	.008	.036	.0008
%RSD	.4516	.5292	1.558	1.677	.2740	.2620	.4102	1.759	.3536
#1	1.968	1.941	1.892	1.980	1.933	1.928	1.944	2.042	.2383
#2	1.955	1.926	1.934	2.028	1.925	1.921	1.933	2.094	.2372
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	**1.868**	**1.963**	**1.938**	**2.072**	**2.049**	**1.962**	**1.930**	**39.14**	**40.45**
Stddev	.007	.029	.034	.032	.034	.034	.032	.25	.20
%RSD	.3816	1.493	1.774	1.540	1.652	1.755	1.679	.6417	.5024
#1	1.873	1.942	1.913	2.050	2.025	1.937	1.907	39.32	40.59
#2	1.863	1.983	1.962	2.095	2.073	1.986	1.953	38.96	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	**39.37**	**40.98**	**39.12**	**40.25**	**1.975**	**1.871**	**4.914**	**1.883**	**1.994**
Stddev	.21	.25	.08	.22	.035	.028	.078	.030	.008
%RSD	.5252	.6088	.1922	.5519	1.768	1.499	1.587	1.589	.4112
#1	39.51	41.16	39.17	40.40	1.950	1.851	4.858	1.861	2.000
#2	39.22	40.80	39.06	40.09	2.000	1.891	4.969	1.904	1.988
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: 3/31/2018 17:49:28 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 1

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.967**	**1.945**	**1.881**	**1.869**	**2.038**	**1.898**	**1.857**
Stddev	.002	.027	.008	.031	.028	.009	.029
%RSD	.0896	1.384	.4317	1.672	1.386	.4982	1.541
#1	1.968	1.926	1.886	1.847	2.018	1.904	1.836
#2	1.966	1.964	1.875	1.891	2.058	1.891	1.877
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	**159190.**	**20630.**	**6862.2**	**10474.**
Stddev	810.	138.	40.3	76.
%RSD	.50881	.66821	.58695	.72640
#1	158620.	20533.	6890.7	10528.
#2	159770.	20728.	6833.7	10421.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 17:52:17 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**-.0000**	**.0001**	**-.0001**	**-.0003**	**-.0008**	**.0000**	**.0004**	**-.0005**
Stddev	.0001	.0000	.0001	.0003	.0001	.0004	.0000	.0002	.0012
%RSD	3.967	49.73	206.8	368.0	39.69	48.02	81.56	65.07	230.9
#1	.0015	-.0000	-.0000	-.0003	-.0004	-.0010	.0000	.0002	-.0014
#2	.0014	-.0000	.0002	.0001	-.0002	-.0005	.0000	.0005	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0020**	**.0004**	**.0004**	**.0003**	**.0008**	**.0001**	**.0047**	**.0157**
Stddev	.0001	.0001	.0004	.0008	.0015	.0018	.0010	.0102	.0026
%RSD	65.07	4.827	118.5	178.0	433.8	234.2	904.7	218.7	16.58
#1	-.0001	.0020	.0007	.0010	.0014	.0021	.0008	.0119	.0138
#2	-.0003	.0019	.0001	-.0001	-.0007	-.0005	-.0006	-.0026	.0175
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**	**-.0047**	**.1357**	**.0361**	**-.0006**	**.0002**	**-.0033**	**.0003**	**.0001**
Stddev	.0013	.0093	.0134	.0128	.0002	.0001	.0005	.0000	.0001
%RSD	49.70	196.9	9.867	35.45	33.22	47.05	14.82	7.317	66.03
#1	-.0016	.0019	.1452	.0271	-.0007	.0003	-.0037	.0003	.0002
#2	-.0034	-.0113	.1262	.0452	-.0004	.0001	-.0030	.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: 3/31/2018 17:52:17 Type: QC
Method: Accutest XPress(v95) 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**	**-.0004**	**.0001**	**.0021**	**.0003**	**.0003**	**.0111**
Stddev	.0004	.0002	.0000	.0006	.0033	.0003	.0001
%RSD	128.4	41.73	12.37	27.39	1036.	81.11	.7510
#1	.0006	-.0003	.0001	.0017	.0027	.0005	.0111
#2	.0000	-.0006	.0001	.0025	-.0020	.0001	.0110
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	**159720.**	**20256.**	**6918.8**	**10940.**
Stddev	704.	124.	1.2	3.
%RSD	.44091	.61225	.01706	.02540
#1	159220.	20168.	6919.6	10938.
#2	160220.	20344.	6917.9	10942.

Zoom In Zoom Out

Sample Name: jc62881-2 Acquired: 3/31/2018 17:55:16 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.2378**	**-.0001**	**.0026**	**.0058**	**.0010**	**.0286**	**.1599**	**.4651**	**-.0002**
Stddev	.0005	.0000	.0002	.0001	.0009	.0006	.0001	.0025	.0000
%RSD	.1893	47.30	6.533	1.206	87.75	1.924	.0368	.5440	1.789
#1	.2375	-.0001	.0025	.0057	.0004	.0290	.1599	.4633	-.0002
#2	.2382	-.0001	.0027	.0058	.0016	.0282	.1598	.4669	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0011**	**2.700**	**.0037**	**-.0002**	**.1099**	**-.0007**	**.0005**	**.0630**	**104.0**
Stddev	.0007	.007	.0008	.0001	.0001	.0012	.0002	.0011	.1
%RSD	63.37	.2687	21.49	94.64	.0888	170.1	40.13	1.717	.1075
#1	.0015	2.695	.0043	-.0003	.1098	-.0015	.0003	.0638	103.9
#2	.0006	2.705	.0032	-.0001	.1099	.0001	.0006	.0622	104.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.087**	**11.22**	**1.309**	**4.340**	**.0172**	**.0014**	**8.493**	**-.0010**	**.4342**
Stddev	.005	.01	.032	.016	.0008	.0004	.039	.0003	.0004
%RSD	.1726	.0759	2.413	.3713	4.387	29.37	.4639	34.47	.0985
#1	3.083	11.23	1.287	4.328	.0178	.0016	8.465	-.0007	.4339
#2	3.090	11.22	1.331	4.351	.0167	.0011	8.521	-.0012	.4345

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0010**	**.0010**	**-.0045**	**9.960**	**.0007**	**.0107**	**.1249**
Stddev	.0003	.0008	.0001	.039	.0005	.0005	.0010
%RSD	32.28	80.97	2.068	.3862	66.19	4.262	.8392
#1	.0008	.0015	-.0045	9.933	.0011	.0110	.1242
#2	.0012	.0004	-.0046	9.987	.0004	.0104	.1257

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162370.**	**20924.**	**6986.1**	**10782.**
Stddev	969.	42.	49.8	64.
%RSD	.59656	.19917	.71219	.59083
#1	163050.	20894.	6950.9	10737.
#2	161680.	20953.	7021.3	10827.

Zoom In Zoom Out

Sample Name: jc62881-3 Acquired: 3/31/2018 17:58:12 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1453**	**-.0001**	**.0008**	**.0003**	**.0015**	**.0169**	**.0489**	**.0063**	**.0003**
Stddev	.0016	.0001	.0001	.0001	.0001	.0002	.0004	.0002	.0005
%RSD	1.098	48.91	6.625	42.46	3.871	.9773	.7987	3.383	182.3
#1	.1464	-.0001	.0008	.0004	.0014	.0168	.0487	.0061	-.0001
#2	.1441	-.0002	.0009	.0002	.0015	.0170	.0492	.0064	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0010**	**.1584**	**.0032**	**-.0006**	**.0423**	**-.0022**	**.0027**	**.1649**	**72.07**
Stddev	.0000	.0009	.0009	.0017	.0011	.0011	.0007	.0126	.22
%RSD	4.949	.5825	27.58	281.5	2.552	48.64	27.35	7.647	.3107
#1	.0010	.1577	.0038	-.0018	.0415	-.0014	.0032	.1738	72.22
#2	.0010	.1590	.0026	.0006	.0431	-.0029	.0022	.1559	71.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.030**	**8.072**	**1.388**	**2.218**	**.0263**	**.0031**	**9.377**	**-.0006**	**.2976**
Stddev	.001	.067	.001	.004	.0006	.0000	.052	.0000	.0008
%RSD	.1336	.8288	.0356	.1715	2.363	.6255	.5540	8.100	.2846
#1	1.029	8.120	1.387	2.216	.0258	.0031	9.341	-.0005	.2982
#2	1.031	8.025	1.388	2.221	.0267	.0031	9.414	-.0006	.2970

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0022**	**.0008**	**-.0052**	**2.699**	**.0013**	**.0077**	**.0584**
Stddev	.0002	.0014	.0001	.021	.0010	.0002	.0001
%RSD	7.459	180.4	1.325	.7794	81.16	2.701	.2321
#1	.0021	-.0002	-.0052	2.684	.0020	.0075	.0585
#2	.0023	.0018	-.0051	2.714	.0005	.0078	.0583

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164510.**	**21166.**	**7118.7**	**10991.**
Stddev	625.	115.	13.5	7.
%RSD	.37963	.54422	.19031	.06474
#1	164070.	21085.	7128.3	10996.
#2	164950.	21248.	7109.1	10986.

Zoom In Zoom Out

Sample Name: jc62881-4 Acquired: 3/31/2018 18:01:08 Type: Unk
Method: Accutest XPress(v95) 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	**.0706**	**-.0000**	**.0005**	**.0264**	**.0024**	**.0234**	**1.301**	**.0683**
Stddev	.0001	.0001	.0002	.0003	.0001	.0001	.004	.0003
%RSD	.1243	1337.	39.96	1.096	2.673	.2716	.3128	.4311
#1	.0707	-.0001	.0006	.0261	.0023	.0233	1.304	.0681
#2	.0706	.0001	.0003	.0266	.0024	.0234	1.298	.0685

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0015**	**.0031**	**.2326**	**.0063**	F **-.0032**	**.0013**	**.0043**	**.0001**
Stddev	.0000	.0003	.0014	.0000	.0001	.0002	.0017	.0009
%RSD	.4814	10.69	.5810	.7335	3.762	14.75	39.35	1379.
#1	-.0015	.0033	.2316	.0062	-.0033	.0012	.0056	.0007
#2	-.0015	.0029	.2335	.0063	-.0031	.0014	.0031	-.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.2263**	**203.0**	**40.50**	**96.25**	**13.76**	**19.00**	**.2533**	**.0022**
Stddev	.0183	3.4	.08	.18	.05	.06	.0012	.0000
%RSD	8.085	1.655	.2056	.1892	.3362	.3109	.4776	.8448
#1	.2133	200.6	40.44	96.12	13.72	18.96	.2524	.0022
#2	.2392	205.4	40.56	96.37	13.79	19.04	.2542	.0022

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**18.36**	**-.0027**	**1.028**	**.0011**	**-.0002**	**-.0072**	F **123.2**	**.0047**
Stddev	.10	.0001	.002	.0004	.0005	.0001	.6	.0012
%RSD	.5674	4.029	.1455	33.18	324.9	.9636	.4623	26.26
#1	18.28	-.0028	1.027	.0008	-.0005	-.0071	122.8	.0056
#2	18.43	-.0027	1.029	.0014	.0002	-.0072	123.6	.0038

Elem	Li6707	P_1774
Avg	**.0308**	**.1117**
Stddev	.0009	.0020
%RSD	2.902	1.756
#1	.0315	.1103
#2	.0302	.1131

Zoom In Zoom Out

Sample Name: jc62881-4 Acquired: 3/31/2018 18:01:08 Type: Unk
Method: Accutest XPress(v95) 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	**159050.**	**21066.**	**6825.6**	**10383.**
Stddev	701.	112.	6.1	5.
%RSD	.44092	.53069	.08927	.05116
#1	158550.	21145.	6821.3	10379.
#2	159540.	20987.	6830.0	10387.

Zoom In Zoom Out

Sample Name: jc62881-5 Acquired: 3/31/2018 18:04:09 Type: Unk
Method: Accutest XPress(v95) 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	**.0461**	**-.0001**	**.0000**	**.0048**	**.0005**	**.0018**	**4.432**	**.0028**
Stddev	.0013	.0000	.0001	.0002	.0000	.0001	.045	.0010
%RSD	2.720	8.650	494.0	4.659	3.250	5.244	1.023	34.65
#1	.0452	-.0001	-.0001	.0049	.0006	.0017	4.400	.0035
#2	.0470	-.0001	.0001	.0046	.0005	.0019	4.464	.0021

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0012**	**.0034**	**.0041**	**.0049**	F **-.0037**	**-.0009**	**-.0015**	**.0002**
Stddev	.0006	.0001	.0001	.0002	.0003	.0005	.0004	.0012
%RSD	54.66	2.296	2.849	4.575	9.163	55.78	28.85	627.1
#1	-.0007	.0033	.0040	.0047	-.0035	-.0012	-.0012	-.0007
#2	-.0016	.0034	.0041	.0050	-.0040	-.0005	-.0018	.0010

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0550**	**217.4**	**2.956**	**77.62**	**94.97**	**49.12**	**2.367**	**.0074**
Stddev	.0067	5.4	.062	1.54	1.95	.89	.001	.0002
%RSD	12.13	2.486	2.109	1.984	2.051	1.820	.0331	2.807
#1	.0597	213.5	2.912	76.53	93.59	48.49	2.368	.0072
#2	.0503	221.2	3.000	78.71	96.34	49.75	2.367	.0075

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.766**	**-.0001**	**3.130**	**.0002**	**.0021**	**.0020**	F **105.5**	**.0039**
Stddev	.006	.0007	.059	.0000	.0019	.0000	.2	.0008
%RSD	.2297	921.5	1.885	4.762	89.40	2.244	.1777	20.61
#1	2.771	.0004	3.088	.0002	.0034	.0019	105.6	.0033
#2	2.762	-.0005	3.172	.0002	.0008	.0020	105.3	.0044

Elem	Li6707	P_1774
Avg	**.0060**	**.0954**
Stddev	.0002	.0000
%RSD	3.565	.0432
#1	.0062	.0955
#2	.0059	.0954

Zoom In Zoom Out

Sample Name: jc62881-5 Acquired: 3/31/2018 18:04:09 Type: Unk
Method: Accutest XPress(v95) 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	**157030.**	**20730.**	**6797.3**	**10229.**
Stddev	119.	102.	10.2	15.
%RSD	.07597	.49014	.14957	.14342
#1	156950.	20802.	6790.1	10218.
#2	157120.	20658.	6804.5	10239.

Zoom In Zoom Out

Sample Name: jc62881-6 Acquired: 3/31/2018 18:07:17 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0153**	**.0006**	**.0001**	**.0025**	**.0075**	**.0022**	**.1222**	**.0006**	**-.0005**
Stddev	.0004	.0000	.0001	.0000	.0002	.0000	.0003	.0002	.0001
%RSD	2.840	6.547	124.9	.3620	2.570	.7613	.2562	42.14	12.73
#1	.0156	.0006	.0002	.0025	.0073	.0022	.1220	.0004	-.0006
#2	.0150	.0006	.0000	.0025	.0076	.0022	.1225	.0008	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0015**	**.0120**	**.0016**	**-.0001**	**.0024**	**.0050**	**.0009**	**1.863**	**9.653**
Stddev	.0002	.0000	.0005	.0020	.0006	.0030	.0015	.001	.025
%RSD	14.61	.1078	32.12	3594.	26.56	59.19	163.6	.0754	.2607
#1	.0016	.0120	.0012	.0014	.0020	.0029	.0020	1.862	9.671
#2	.0013	.0120	.0019	-.0015	.0029	.0072	-.0001	1.864	9.635

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**48.92**	**2.047**	**1.382**	**11.69**	**.0137**	**.0003**	**3.020**	**-.0008**	**.0665**
Stddev	.25	.005	.039	.01	.0002	.0002	.025	.0003	.0005
%RSD	.5148	.2566	2.818	.0717	1.374	51.61	.8393	30.43	.7446
#1	49.10	2.051	1.409	11.68	.0135	.0002	3.002	-.0010	.0669
#2	48.74	2.043	1.354	11.69	.0138	.0005	3.038	-.0007	.0662

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0117**	**-.0006**	**-.0007**	**3.395**	**.0006**	**.0019**	**.0384**
Stddev	.0008	.0009	.0001	.021	.0018	.0004	.0003
%RSD	6.704	169.2	9.068	.6078	285.3	23.65	.7221
#1	.0122	.0001	-.0007	3.380	-.0006	.0022	.0386
#2	.0111	-.0012	-.0007	3.410	.0019	.0016	.0382

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166990.**	**21167.**	**7225.9**	**11185.**
Stddev	397.	53.	7.5	15.
%RSD	.23757	.25258	.10425	.13125
#1	166710.	21205.	7220.6	11175.
#2	167270.	21129.	7231.2	11196.

Zoom In Zoom Out

Sample Name: mp6414-b1 Acquired: 3/31/2018 18:10:15 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**1.925**	**1.899**	**1.844**	**1.939**	**1.895**	**1.905**	**1.905**	**2.008**	**.2275**
Stddev	.006	.008	.007	.009	.008	.004	.005	.009	.0004
%RSD	.3138	.4017	.4057	.4364	.4269	.1969	.2587	.4561	.1953
#1	1.921	1.894	1.839	1.933	1.901	1.908	1.909	2.001	.2271
#2	1.930	1.904	1.850	1.945	1.890	1.902	1.902	2.014	.2278

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.831**	**1.897**	**1.872**	**2.034**	**1.994**	**1.894**	**1.871**	**23.58**	**24.42**
Stddev	.006	.010	.009	.006	.007	.021	.007	.12	.11
%RSD	.3472	.5261	.4942	.3204	.3583	1.099	.3783	.5100	.4525
#1	1.835	1.890	1.866	2.029	1.989	1.880	1.866	23.49	24.34
#2	1.826	1.904	1.879	2.038	1.999	1.909	1.876	23.66	24.50

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.78**	**24.95**	**23.34**	**24.24**	**1.900**	**1.817**	**.0804**	**1.829**	**1.956**
Stddev	.06	.09	.21	.13	.011	.007	.0013	.006	.007
%RSD	.2630	.3757	.8924	.5463	.5812	.3686	1.603	.3532	.3544
#1	23.73	24.89	23.20	24.14	1.893	1.812	.0795	1.824	1.951
#2	23.82	25.02	23.49	24.33	1.908	1.822	.0813	1.833	1.961

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.953**	**1.873**	**1.858**	**.0400**	**.1157**	**.0017**	**1.774**
Stddev	.009	.005	.006	.0003	.0013	.0015	.006
%RSD	.4327	.2767	.3336	.7986	1.142	91.78	.3475
#1	1.959	1.869	1.862	.0398	.1166	.0028	1.769
#2	1.947	1.877	1.853	.0402	.1148	.0006	1.778

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162410.**	**21004.**	**7081.5**	**10830.**
Stddev	1618.	29.	17.4	21.
%RSD	.99651	.13971	.24556	.19129
#1	161270.	21024.	7093.8	10845.
#2	163560.	20983.	7069.2	10816.

Zoom In Zoom Out

Sample Name: mp6414-b2 Acquired: 3/31/2018 18:13:03 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**2.010**	**1.979**	**1.872**	**1.975**	**1.951**	**1.959**	**1.964**	**2.045**	**.2339**
Stddev	.020	.021	.003	.005	.009	.004	.011	.004	.0001
%RSD	1.008	1.049	.1630	.2388	.4479	.1961	.5488	.1941	.0343
#1	2.024	1.994	1.874	1.978	1.957	1.961	1.972	2.047	.2338
#2	1.995	1.964	1.870	1.972	1.944	1.956	1.957	2.042	.2339

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.887**	**1.925**	**1.899**	**2.062**	**2.023**	**1.917**	**1.903**	**24.73**	**25.66**
Stddev	.009	.001	.001	.004	.002	.003	.000	.23	.25
%RSD	.4568	.0452	.0705	.2116	.0892	.1516	.0155	.9258	.9768
#1	1.893	1.926	1.900	2.065	2.025	1.919	1.903	24.89	25.83
#2	1.881	1.925	1.898	2.059	2.022	1.915	1.903	24.57	25.48

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.92**	**26.13**	**24.75**	**25.60**	**1.927**	**1.845**	**.0176**	**1.862**	**2.043**
Stddev	.22	.30	.23	.20	.002	.003	.0022	.005	.018
%RSD	.8845	1.146	.9466	.7673	.1145	.1464	12.45	.2545	.8882
#1	25.08	26.34	24.92	25.74	1.928	1.847	.0160	1.865	2.056
#2	24.77	25.92	24.58	25.46	1.925	1.843	.0191	1.858	2.030

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.009**	**1.898**	**1.917**	**.0343**	**.1206**	**.0016**	**1.800**
Stddev	.008	.003	.009	.0018	.0017	.0015	.002
%RSD	.3759	.1698	.4887	5.377	1.377	92.26	.1200
#1	2.014	1.900	1.924	.0356	.1217	.0027	1.802
#2	2.004	1.895	1.911	.0330	.1194	.0006	1.799

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162270.**	**20658.**	**7084.9**	**10814.**
Stddev	940.	94.	4.1	7.
%RSD	.57937	.45631	.05797	.06148
#1	161600.	20591.	7087.8	10810.
#2	162930.	20724.	7082.0	10819.

Zoom In Zoom Out

Sample Name: mp6414-mb1 2 Acquired: 3/31/2018 18:15:52 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0013**	**-.0000**	**-.0000**	**-.0002**	**.0001**	**-.0011**	**-.0000**	**-.0001**	**-.0004**
Stddev	.0002	.0001	.0001	.0000	.0001	.0010	.0000	.0005	.0001
%RSD	15.83	290.3	585.1	20.43	94.63	89.18	454.2	808.2	22.86
#1	.0014	.0000	.0001	-.0002	.0000	-.0004	.0000	.0003	-.0005
#2	.0011	-.0001	-.0001	-.0002	.0001	-.0018	-.0000	-.0004	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0004**	**.0007**	**-.0006**	**.0002**	**-.0008**	**-.0015**	**.0011**	**-.0075**	**.0023**
Stddev	.0005	.0000	.0002	.0013	.0001	.0015	.0005	.0180	.0045
%RSD	123.0	1.175	32.31	530.6	6.807	101.6	44.73	241.5	195.4
#1	-.0007	.0007	-.0005	.0012	-.0009	-.0025	.0015	-.0202	-.0009
#2	-.0001	.0007	-.0007	-.0007	-.0008	-.0004	.0008	.0053	.0055

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0011**	**-.0151**	**.0964**	**.0205**	**.0018**	**.0003**	**-.0026**	**.0005**	**.0001**
Stddev	.0019	.0091	.0607	.0005	.0004	.0000	.0016	.0002	.0001
%RSD	167.7	60.33	62.93	2.624	21.89	4.891	60.21	45.69	105.7
#1	-.0002	-.0087	.0535	.0208	.0020	.0003	-.0037	.0007	.0001
#2	.0025	-.0216	.1393	.0201	.0015	.0003	-.0015	.0004	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0025**	**.0005**	**.0089**	**.0010**	**.0016**	**.0126**
Stddev	.0002	.0014	.0001	.0012	.0024	.0014	.0007
%RSD	60.84	54.48	23.83	13.31	236.4	86.73	5.491
#1	.0006	.0015	.0006	.0081	.0027	.0006	.0131
#2	.0002	.0034	.0004	.0098	-.0007	.0026	.0121

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166560.**	**20984.**	**7229.7**	**11307.**
Stddev	1362.	30.	12.3	14.
%RSD	.81756	.14263	.16999	.12712
#1	165600.	21005.	7238.4	11318.
#2	167530.	20963.	7221.0	11297.

Zoom In Zoom Out

Sample Name: mp6414-s1 Acquired: 3/31/2018 18:18:51 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**2.843**	**1.974**	**2.030**	**2.087**	**1.935**	**2.073**	**8.999**	**2.175**	**.2543**
Stddev	.002	.000	.009	.015	.004	.005	.031	.015	.0010
%RSD	.0651	.0159	.4219	.7070	.2219	.2543	.3407	.6960	.3810
#1	2.842	1.974	2.024	2.076	1.932	2.070	9.021	2.164	.2536
#2	2.845	1.974	2.036	2.097	1.938	2.077	8.977	2.186	.2550

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.921**	**2.067**	**2.099**	**2.029**	**2.117**	**2.009**	**2.020**	**24.61**	**171.3**
Stddev	.005	.011	.010	.006	.014	.009	.012	.02	1.4
%RSD	.2531	.5505	.4885	.3049	.6390	.4623	.5948	.0970	.7919
#1	1.918	2.059	2.091	2.025	2.107	2.002	2.012	24.63	170.3
#2	1.925	2.075	2.106	2.034	2.126	2.015	2.029	24.59	172.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**37.27**	**40.68**	**42.49**	F **1736.**	**2.061**	**1.878**	**7.334**	**1.839**	**2.837**
Stddev	.03	.09	.81	43.	.011	.009	.043	.010	.002
%RSD	.0771	.2139	1.895	2.492	.5349	.5027	.5814	.5616	.0799
#1	37.25	40.74	41.93	1766.	2.054	1.872	7.304	1.832	2.839
#2	37.29	40.62	43.06	1705.	2.069	1.885	7.364	1.847	2.836

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.034**	**1.976**	**1.945**	**5.395**	**.1300**	**.0559**	**3.603**
Stddev	.006	.011	.004	.032	.0030	.0041	.021
%RSD	.3049	.5650	.1942	.5947	2.295	7.389	.5694
#1	2.029	1.968	1.942	5.373	.1279	.0530	3.589
#2	2.038	1.984	1.948	5.418	.1321	.0588	3.618

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**142260.**	**20097.**	**6292.7**	**9000.2**
Stddev	283.	82.	5.0	16.2
%RSD	.19858	.40557	.08021	.18043
#1	142460.	20155.	6296.3	9011.7
#2	142060.	20040.	6289.1	8988.7

Zoom In Zoom Out

Sample Name: mp6414-s2 Acquired: 3/31/2018 18:21:57 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**2.811**	**1.964**	**2.011**	**2.069**	**1.927**	**2.067**	**8.844**	**2.158**	**.2525**
Stddev	.003	.005	.016	.016	.001	.007	.096	.017	.0020
%RSD	.1220	.2401	.7758	.7912	.0414	.3452	1.087	.7667	.7870
#1	2.813	1.968	2.000	2.057	1.926	2.062	8.912	2.147	.2511
#2	2.808	1.961	2.022	2.081	1.928	2.072	8.776	2.170	.2539

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.912**	**2.046**	**2.071**	**2.017**	**2.104**	**1.994**	**2.001**	**24.45**	**168.5**
Stddev	.001	.013	.012	.012	.016	.010	.016	.03	4.4
%RSD	.0282	.6421	.5801	.5714	.7659	.4980	.8076	.1277	2.608
#1	1.912	2.037	2.063	2.009	2.092	1.987	1.990	24.47	165.4
#2	1.912	2.056	2.080	2.025	2.115	2.001	2.013	24.43	171.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**36.89**	**40.34**	**43.15**	F **1642.**	**2.040**	**1.857**	**7.131**	**1.819**	**2.811**
Stddev	.05	.06	.31	1.	.017	.014	.059	.011	.001
%RSD	.1383	.1562	.7241	.0572	.8504	.7524	.8318	.6159	.0247
#1	36.93	40.29	42.92	1643.	2.027	1.847	7.089	1.811	2.811
#2	36.86	40.38	43.37	1641.	2.052	1.867	7.173	1.827	2.812

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.025**	**1.954**	**1.933**	**5.324**	**.1298**	**.0598**	**3.547**
Stddev	.000	.014	.004	.048	.0024	.0025	.028
%RSD	.0212	.7249	.1943	.9096	1.819	4.118	.7986
#1	2.025	1.944	1.930	5.289	.1314	.0580	3.527
#2	2.025	1.964	1.936	5.358	.1281	.0615	3.567

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**143680.**	**20376.**	**6406.9**	**9149.1**
Stddev	141.	133.	7.3	16.0
%RSD	.09807	.65515	.11440	.17487
#1	143580.	20470.	6412.1	9160.4
#2	143780.	20281.	6401.7	9137.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 18:25:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 2

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**	**1.882**	**1.975**	**1.938**	**1.944**	**1.946**	**2.045**	**.2401**
Stddev	.005	.003	.004	.004	.002	.002	.003	.007	.0005
%RSD	.2521	.1721	.1938	.2262	.1042	.0983	.1510	.3675	.1894
#1	1.954	1.923	1.880	1.972	1.937	1.942	1.948	2.040	.2398
#2	1.961	1.928	1.885	1.978	1.940	1.945	1.944	2.051	.2404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.875**	**1.933**	**1.910**	**2.057**	**2.031**	**1.939**	**1.899**	**39.12**	**40.54**
Stddev	.004	.007	.009	.008	.006	.005	.002	.17	.07
%RSD	.2053	.3877	.4752	.3792	.2965	.2400	.1026	.4292	.1707
#1	1.878	1.928	1.903	2.052	2.027	1.936	1.898	39.00	40.49
#2	1.872	1.939	1.916	2.063	2.035	1.943	1.900	39.24	40.59
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	**39.31**	**41.16**	**39.56**	**39.90**	**1.957**	**1.833**	**4.832**	**1.845**	**1.993**
Stddev	.08	.02	.19	.16	.006	.003	.009	.007	.006
%RSD	.2075	.0599	.4782	.4046	.3063	.1795	.1797	.3621	.2928
#1	39.25	41.15	39.43	39.79	1.953	1.830	4.826	1.841	1.989
#2	39.37	41.18	39.69	40.02	1.961	1.835	4.839	1.850	1.997
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: 3/31/2018 18:25:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 2

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**1.922**	**1.889**	**1.841**	**2.022**	**1.893**	**1.819**
Stddev	.004	.002	.005	.005	.002	.003	.001
%RSD	.1846	.0973	.2572	.2902	.1041	.1434	.0791
#1	1.982	1.921	1.892	1.837	2.020	1.891	1.818
#2	1.987	1.924	1.885	1.845	2.023	1.895	1.820
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	**157760.**	**20412.**	**6918.4**	**10509.**
Stddev	620.	247.	3.5	8.
%RSD	.39271	1.2085	.05062	.07163
#1	158200.	20586.	6916.0	10504.
#2	157330.	20237.	6920.9	10514.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 18:27:52 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0000**	**-.0001**	**-.0002**	**-.0004**	**-.0012**	**.0000**	**-.0001**	**-.0008**
Stddev	.0002	.0001	.0001	.0004	.0005	.0005	.0000	.0001	.0000
%RSD	21.91	1393.	119.1	218.1	145.3	41.16	11.33	68.16	3.797
#1	.0009	.0001	-.0002	.0001	.0000	-.0008	.0000	-.0002	-.0008
#2	.0012	-.0001	-.0000	-.0005	-.0007	-.0015	.0000	-.0001	-.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**	**.0019**	**.0006**	**.0013**	**.0009**	**-.0012**	**-.0016**	**.0017**	**.0161**
Stddev	.0004	.0000	.0017	.0018	.0015	.0032	.0011	.0099	.0015
%RSD	546.9	1.806	299.2	139.4	162.8	269.6	66.61	588.7	9.112
#1	-.0004	.0019	.0018	.0000	-.0001	.0011	-.0008	-.0053	.0151
#2	.0002	.0020	-.0006	.0026	.0020	-.0035	-.0023	.0086	.0171
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	**.0008**	**-.0091**	**.3533**	**.4879**	**.0031**	**.0002**	**-.0030**	**.0005**	**.0000**
Stddev	.0012	.0135	.0354	.0236	.0006	.0000	.0006	.0000	.0001
%RSD	150.7	148.4	10.01	4.829	18.54	21.40	21.70	9.938	771.3
#1	.0016	.0004	.3283	.5046	.0027	.0002	-.0025	.0004	-.0001
#2	-.0001	-.0186	.3783	.4713	.0035	.0002	-.0034	.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: 3/31/2018 18:27:52 Type: QC
Method: Accutest XPress(v95) 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**	**.0021**	**.0000**	**.0062**	**-.0008**	F **.0043**	**.0120**
Stddev	.0003	.0020	.0001	.0025	.0010	.0040	.0002
%RSD	88.38	96.42	255.8	40.58	125.8	93.19	1.277
#1	.0006	.0007	-.0000	.0044	-.0016	.0071	.0119
#2	.0001	.0035	.0001	.0080	-.0001	.0015	.0121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**161820.**	**20464.**	**7050.0**	**11111.**
Stddev	297.	174.	48.4	66.
%RSD	.18373	.84916	.68694	.59480
#1	161610.	20587.	7015.7	11064.
#2	162030.	20341.	7084.2	11157.

Zoom In Zoom Out

Sample Name: jc63032-3 Acquired: 3/31/2018 18:30:51 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.8314**	**-.0001**	**.0192**	**.0003**	**.0016**	**.0824**	**6.996**	**.0167**	**-.0019**
Stddev	.0002	.0001	.0000	.0002	.0005	.0000	.017	.0001	.0001
%RSD	.0239	60.41	.1503	84.96	34.17	.0220	.2382	.4374	7.300
#1	.8315	-.0001	.0192	.0001	.0020	.0824	6.984	.0166	-.0020
#2	.8312	-.0002	.0191	.0004	.0012	.0824	7.008	.0167	-.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0070**	**.0712**	**.0007**	**-.0016**	**.0013**	**-.0013**	**-.0014**	**.0977**	**144.8**
Stddev	.0005	.0000	.0003	.0005	.0003	.0009	.0000	.0094	.1
%RSD	6.694	.0524	43.09	28.87	23.34	66.11	.4334	9.587	.0773
#1	.0073	.0712	.0005	-.0019	.0011	-.0007	-.0014	.0911	144.7
#2	.0067	.0712	.0009	-.0013	.0015	-.0019	-.0014	.1043	144.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.66**	**15.65**	**16.00**	F **1690.**	**.0868**	**.0011**	**6.914**	**-.0006**	**.8025**
Stddev	.01	.01	.51	7.	.0004	.0001	.021	.0002	.0012
%RSD	.0963	.0512	3.172	.4073	.5145	5.836	.3110	34.77	.1550
#1	12.67	15.64	15.64	1686.	.0865	.0011	6.899	-.0008	.8033
#2	12.65	15.66	16.36	1695.	.0872	.0010	6.929	-.0005	.8016

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0037**	**.0042**	**-.0032**	**5.325**	**.0053**	**.0547**	**1.602**
Stddev	.0001	.0016	.0000	.034	.0021	.0007	.003
%RSD	3.547	36.72	.0608	.6322	39.58	1.189	.1951
#1	.0036	.0031	-.0032	5.301	.0068	.0543	1.600
#2	.0038	.0053	-.0032	5.349	.0038	.0552	1.604

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**143170.**	**20104.**	**6403.4**	**9139.7**
Stddev	223.	87.	14.8	15.9
%RSD	.15605	.43053	.23183	.17376
#1	143330.	20165.	6413.9	9151.0
#2	143010.	20043.	6392.9	9128.5

Zoom In Zoom Out

Sample Name: mp6414-sd1 Acquired: 3/31/2018 18:33:57 Type: Unk
Method: Accutest XPress(v95) 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	**.8108**	**-.0004**	**.0194**	**-.0009**	**-.0004**	**.0879**	**7.246**	**.0186**	**-.0037**
Stddev	.0010	.0006	.0003	.0002	.0028	.0013	.011	.0008	.0020
%RSD	.1199	154.8	1.566	17.30	622.3	1.447	.1518	4.039	54.34
#1	.8101	-.0008	.0192	-.0008	.0015	.0888	7.254	.0191	-.0023
#2	.8115	.0000	.0196	-.0010	-.0024	.0870	7.238	.0180	-.0052

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0095**	**.0758**	**.0018**	**.0019**	**.0017**	**-.0129**	**.0073**	**.0871**	**143.9**
Stddev	.0015	.0000	.0045	.0065	.0094	.0072	.0053	.0283	.1
%RSD	15.56	.0254	249.0	337.6	571.2	55.93	73.25	32.55	.1015
#1	.0084	.0758	-.0014	-.0027	.0083	-.0078	.0110	.1071	143.8
#2	.0105	.0758	.0050	.0065	-.0050	-.0180	.0035	.0670	144.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.61**	**15.75**	**17.18**	F **1880.**	**.0943**	**.0020**	**6.854**	**.0023**	**.7900**
Stddev	.01	.05	.46	14.	.0045	.0006	.016	.0005	.0015
%RSD	.0714	.3355	2.671	.7500	4.752	27.03	.2352	20.75	.1849
#1	12.61	15.78	17.51	1870.	.0975	.0024	6.842	.0020	.7889
#2	12.60	15.71	16.86	1890.	.0911	.0017	6.865	.0026	.7910

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0006**	**.0124**	**-.0023**	**4.733**	**.0052**	**.0728**	**1.593**
Stddev	.0012	.0056	.0002	.003	.0058	.0143	.005
%RSD	193.0	44.85	8.332	.0615	111.2	19.68	.3020
#1	.0015	.0085	-.0021	4.735	.0011	.0829	1.596
#2	-.0002	.0164	-.0024	4.731	.0093	.0627	1.590

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155150.**	**20701.**	**6810.3**	**10089.**
Stddev	13.	100.	12.7	10.
%RSD	.00866	.48340	.18679	.09913
#1	155160.	20630.	6819.3	10096.
#2	155140.	20772.	6801.3	10082.

Zoom In Zoom Out

Sample Name: jc62930-6 Acquired: 3/31/2018 18:37:00 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0058**	**.0001**	**.0001**	**-.0002**	**.0003**	**-.0007**	**.0003**	**.0013**	**-.0003**
Stddev	.0001	.0000	.0001	.0001	.0001	.0004	.0001	.0001	.0002
%RSD	.9706	5.725	81.16	63.09	26.25	57.01	27.57	8.477	66.42
#1	.0058	.0001	.0002	-.0001	.0004	-.0004	.0002	.0012	-.0004
#2	.0059	.0001	.0001	-.0002	.0003	-.0009	.0003	.0014	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0014**	**-.0006**	**-.0002**	**.0010**	**.0002**	**.0010**	**.0777**	**.0362**
Stddev	.0005	.0001	.0002	.0002	.0010	.0012	.0001	.0052	.0005
%RSD	525.3	5.123	34.77	97.78	104.6	578.8	7.162	6.699	1.445
#1	-.0002	.0014	-.0004	-.0001	.0017	-.0006	.0010	.0814	.0366
#2	.0004	.0015	-.0007	-.0004	.0003	.0010	.0009	.0740	.0359

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0051**	**-.0147**	**.3412**	**.7795**	**.0009**	**.0004**	**.4484**	**-.0001**	**.0048**
Stddev	.0038	.0002	.0838	.0365	.0010	.0002	.0030	.0003	.0000
%RSD	74.03	1.268	24.56	4.677	111.9	46.67	.6672	302.3	.6659
#1	.0077	-.0145	.4004	.8053	.0002	.0003	.4462	-.0003	.0049
#2	.0024	-.0148	.2819	.7537	.0016	.0006	.4505	.0001	.0048

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**.0008**	**.0000**	**.0153**	**-.0004**	**.0045**	**.0126**
Stddev	.0007	.0004	.0001	.0010	.0017	.0000	.0001
%RSD	201.5	48.66	265.3	6.362	401.3	.2485	.9635
#1	.0008	.0011	.0001	.0146	.0008	.0045	.0127
#2	-.0001	.0005	-.0000	.0160	-.0016	.0045	.0125

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**169510.**	**21492.**	**7359.2**	**11506.**
Stddev	763.	22.	4.7	13.
%RSD	.45009	.10081	.06327	.11025
#1	168970.	21507.	7355.9	11497.
#2	170050.	21476.	7362.4	11515.

Zoom In Zoom Out

Sample Name: mp6400-mb1 2 Acquired: 3/31/2018 18:40:00 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0008**	**-.0001**	**-.0002**	**-.0001**	**-.0001**	**-.0012**	**-.0000**	**.0000**	**-.0002**
Stddev	.0000	.0000	.0002	.0002	.0002	.0004	.0000	.0002	.0005
%RSD	6.034	33.30	123.8	166.3	269.9	30.46	813.3	511.1	217.8
#1	.0008	-.0001	-.0000	.0000	-.0002	-.0015	.0000	.0002	-.0006
#2	.0008	-.0000	-.0003	.0001	-.0010	-.0000	-.0000	-.0001	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0009**	**.0014**	**-.0000**	**.0009**	**-.0025**	**.0007**	**-.0027**	**.0015**
Stddev	.0000	.0001	.0007	.0003	.0001	.0025	.0013	.0016	.0023
%RSD	24.74	11.51	48.36	1032.	13.33	100.5	181.9	60.94	149.7
#1	-.0001	.0008	.0009	-.0002	.0009	-.0043	.0017	-.0038	-.0001
#2	-.0002	.0009	.0019	.0002	.0008	-.0007	-.0002	-.0015	.0031

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0018**	**-.0253**	**.2037**	**.4068**	**-.0006**	**.0002**	**.0009**	**.0006**	**-.0000**
Stddev	.0023	.0023	.0034	.0059	.0009	.0002	.0019	.0003	.0000
%RSD	127.7	9.256	1.661	1.452	144.8	88.10	207.4	43.65	182.5
#1	.0002	-.0237	.2061	.4109	.0000	.0001	-.0004	.0004	.0000
#2	.0035	-.0270	.2013	.4026	-.0012	.0003	.0022	.0008	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0014**	**.0004**	**.0075**	**.0009**	**.0041**	**.0121**
Stddev	.0002	.0012	.0000	.0005	.0006	.0004	.0003
%RSD	94.13	90.24	4.723	6.340	68.03	9.643	2.728
#1	.0003	.0022	.0004	.0071	.0005	.0039	.0123
#2	.0001	.0005	.0004	.0078	.0013	.0044	.0119

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**168790.**	**21513.**	**7325.5**	**11467.**
Stddev	457.	60.	13.5	12.
%RSD	.27091	.27707	.18403	.10791
#1	168470.	21471.	7316.0	11459.
#2	169120.	21555.	7335.0	11476.

Zoom In Zoom Out

Sample Name: mp6400-b1 Acquired: 3/31/2018 18:42:59 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**1.979**	**1.950**	**1.953**	**2.062**	**1.994**	**2.006**	**2.008**	**2.129**	**.2403**
Stddev	.012	.015	.019	.018	.012	.012	.015	.019	.0010
%RSD	.5823	.7692	.9573	.8805	.6198	.5712	.7539	.8745	.4009
#1	1.970	1.939	1.940	2.049	1.985	1.998	1.997	2.116	.2397
#2	1.987	1.961	1.966	2.075	2.003	2.014	2.018	2.142	.2410

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.932**	**2.011**	**1.981**	**2.153**	**2.114**	**2.009**	**1.983**	**24.56**	**25.60**
Stddev	.015	.015	.017	.016	.013	.006	.019	.15	.19
%RSD	.7495	.7295	.8514	.7465	.6060	.3091	.9753	.6202	.7428
#1	1.922	2.000	1.969	2.142	2.105	2.005	1.969	24.46	25.47
#2	1.943	2.021	1.993	2.165	2.124	2.013	1.996	24.67	25.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.87**	**26.04**	**24.95**	**25.69**	**2.006**	**1.921**	**.0067**	**1.933**	**2.014**
Stddev	.20	.30	.25	.36	.015	.016	.0014	.015	.016
%RSD	.7868	1.141	.9872	1.384	.7493	.8428	20.79	.7842	.8135
#1	24.73	25.83	24.77	25.44	1.996	1.910	.0058	1.922	2.003
#2	25.00	26.25	25.12	25.94	2.017	1.932	.0077	1.943	2.026

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.046**	**1.959**	**1.948**	**.0332**	**.1160**	**-.0001**	**1.893**
Stddev	.011	.019	.012	.0025	.0004	.0022	.013
%RSD	.5303	.9901	.6174	7.629	.3874	2977.	.7074
#1	2.038	1.945	1.940	.0350	.1157	.0015	1.884
#2	2.054	1.973	1.957	.0314	.1163	-.0017	1.903

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162420.**	**21054.**	**7112.0**	**10864.**
Stddev	78.	398.	3.4	7.
%RSD	.04828	1.8884	.04835	.06300
#1	162370.	21335.	7114.5	10869.
#2	162480.	20773.	7109.6	10860.

Zoom In Zoom Out

Sample Name: mp6400-s1 Acquired: 3/31/2018 18:45:48 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**2.333**	**2.032**	**1.980**	**2.094**	**2.007**	**2.038**	**8.454**	**2.154**	**.2425**
Stddev	.002	.003	.007	.008	.004	.000	.014	.007	.0001
%RSD	.0830	.1278	.3683	.3614	.1932	.0138	.1642	.3185	.0606
#1	2.331	2.030	1.975	2.088	2.010	2.039	8.444	2.149	.2426
#2	2.334	2.033	1.985	2.099	2.005	2.038	8.464	2.159	.2424

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.966**	**2.009**	**2.050**	**2.146**	**2.123**	**2.045**	**2.019**	**25.56**	**88.17**
Stddev	.000	.007	.006	.009	.008	.007	.006	.01	.16
%RSD	.0001	.3283	.2983	.4063	.3739	.3330	.3229	.0447	.1858
#1	1.966	2.004	2.046	2.140	2.117	2.040	2.014	25.55	88.06
#2	1.966	2.013	2.054	2.152	2.128	2.049	2.024	25.57	88.29

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**34.54**	**57.84**	**28.75**	**111.7**	**2.066**	**1.952**	**9.191**	**1.938**	**2.402**
Stddev	.04	.09	.18	.3	.010	.008	.044	.006	.005
%RSD	.1040	.1575	.6348	.2297	.4878	.3927	.4845	.3051	.2048
#1	34.52	57.77	28.62	111.5	2.059	1.946	9.160	1.934	2.399
#2	34.57	57.90	28.88	111.9	2.074	1.957	9.223	1.942	2.406

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.091**	**2.018**	**1.983**	**1.736**	**.1214**	**.0048**	**2.729**
Stddev	.003	.011	.001	.004	.0008	.0002	.012
%RSD	.1503	.5568	.0373	.1994	.6983	4.208	.4288
#1	2.093	2.010	1.982	1.734	.1220	.0046	2.721
#2	2.088	2.026	1.983	1.739	.1208	.0049	2.737

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158450.**	**20930.**	**6957.9**	**10473.**
Stddev	446.	93.	34.4	53.
%RSD	.28144	.44196	.49422	.50707
#1	158130.	20996.	6933.6	10435.
#2	158760.	20865.	6982.2	10510.

Zoom In Zoom Out

Sample Name: mp6400-s2 Acquired: 3/31/2018 18:48:42 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**2.243**	**1.972**	**1.933**	**2.041**	**1.946**	**1.975**	**8.125**	**2.097**	**.2371**
Stddev	.005	.003	.030	.030	.000	.000	.009	.029	.0016
%RSD	.2455	.1688	1.541	1.453	.0205	.0123	.1158	1.364	.6597
#1	2.247	1.974	1.911	2.020	1.946	1.975	8.131	2.077	.2360
#2	2.239	1.969	1.954	2.062	1.945	1.976	8.118	2.118	.2382

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.902**	**1.961**	**1.996**	**2.094**	**2.065**	**1.988**	**1.964**	**24.83**	**85.24**
Stddev	.003	.032	.031	.026	.025	.028	.032	.12	.18
%RSD	.1346	1.633	1.565	1.250	1.223	1.392	1.621	.4678	.2091
#1	1.901	1.938	1.974	2.075	2.047	1.968	1.941	24.91	85.37
#2	1.904	1.983	2.019	2.112	2.083	2.008	1.986	24.75	85.12

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**33.48**	**56.13**	**28.04**	**108.4**	**2.015**	**1.901**	**8.912**	**1.888**	**2.336**
Stddev	.06	.06	.07	.1	.032	.032	.130	.029	.000
%RSD	.1832	.1086	.2427	.0497	1.572	1.675	1.459	1.528	.0115
#1	33.53	56.17	28.00	108.4	1.992	1.879	8.820	1.867	2.336
#2	33.44	56.09	28.09	108.5	2.037	1.924	9.004	1.908	2.336

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.025**	**1.955**	**1.915**	**1.676**	**.1170**	**.0045**	**2.659**
Stddev	.001	.033	.001	.030	.0029	.0016	.038
%RSD	.0593	1.689	.0355	1.809	2.497	36.92	1.441
#1	2.024	1.932	1.915	1.655	.1191	.0056	2.632
#2	2.026	1.979	1.914	1.698	.1149	.0033	2.686

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161400.**	**21220.**	**7011.3**	**10566.**
Stddev	312.	33.	74.6	92.
%RSD	.19361	.15493	1.0644	.87506
#1	161180.	21197.	7064.1	10632.
#2	161620.	21244.	6958.5	10501.

Zoom In Zoom Out

Sample Name: jc62779-2 Acquired: 3/31/2018 18:51:37 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.2515**	**-.0002**	**-.0002**	**.0136**	**.0009**	**.0083**	**6.518**	**.0122**	**-.0006**
Stddev	.0003	.0000	.0001	.0000	.0006	.0001	.068	.0004	.0001
%RSD	.1133	.2797	49.33	.0299	69.23	1.524	1.037	3.264	22.87
#1	.2513	-.0002	-.0002	.0136	.0014	.0084	6.566	.0125	-.0007
#2	.2517	-.0002	-.0003	.0136	.0005	.0083	6.471	.0119	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0031**	**.0073**	**.0202**	**.0001**	**-.0003**	**-.0016**	**.0022**	**.1837**	**61.01**
Stddev	.0001	.0001	.0010	.0011	.0001	.0028	.0005	.0028	.02
%RSD	3.606	1.900	5.032	1226.	31.98	171.2	22.89	1.497	.0292
#1	.0030	.0072	.0194	.0008	-.0003	.0003	.0025	.1817	61.02
#2	.0032	.0074	.0209	-.0007	-.0002	-.0036	.0018	.1856	60.99

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**9.021**	**31.21**	**3.561**	**84.93**	**.0337**	**.0034**	**8.937**	**-.0010**	**.3178**
Stddev	.011	.00	.006	.12	.0004	.0003	.061	.0003	.0002
%RSD	.1238	.0107	.1785	.1424	1.197	8.563	.6805	25.04	.0482
#1	9.029	31.21	3.557	84.85	.0339	.0036	8.894	-.0009	.3177
#2	9.013	31.21	3.566	85.02	.0334	.0032	8.980	-.0012	.3179

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0022**	**.0010**	**-.0049**	**1.682**	**.0003**	**.0064**	**.7993**
Stddev	.0008	.0001	.0001	.013	.0018	.0011	.0041
%RSD	34.01	7.345	2.572	.7897	569.5	16.71	.5154
#1	.0017	.0010	-.0049	1.673	-.0010	.0072	.7964
#2	.0028	.0011	-.0050	1.692	.0016	.0057	.8023

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162800.**	**21286.**	**7095.7**	**10779.**
Stddev	617.	83.	26.8	35.
%RSD	.37871	.38972	.37794	.32695
#1	162360.	21227.	7076.8	10754.
#2	163240.	21344.	7114.7	10803.

Zoom In Zoom Out

Sample Name: mp6400-sd1 Acquired: 3/31/2018 18:54:39 Type: Unk
Method: Accutest XPress(v95) 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	**.2570**	**-.0007**	**-.0003**	**.0124**	**-.0006**	**.0143**	**6.822**	**.0135**	**-.0016**
Stddev	.0020	.0000	.0001	.0001	.0011	.0008	.006	.0002	.0007
%RSD	.7807	.8296	53.25	1.012	183.7	5.273	.0897	1.658	43.73
#1	.2584	-.0007	-.0002	.0123	.0002	.0137	6.817	.0133	-.0011
#2	.2556	-.0007	-.0004	.0125	-.0014	.0148	6.826	.0136	-.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0060**	**.0092**	**.0202**	**-.0010**	**.0022**	**.0006**	**-.0042**	**.1316**	**61.49**
Stddev	.0023	.0003	.0012	.0015	.0015	.0012	.0010	.0006	.03
%RSD	38.87	3.702	6.034	146.4	70.61	218.6	23.99	.4296	.0432
#1	.0076	.0094	.0194	.0000	.0033	.0014	-.0035	.1320	61.51
#2	.0043	.0089	.0211	-.0020	.0011	-.0003	-.0049	.1312	61.47

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**9.145**	**31.88**	**4.021**	**87.86**	**.0415**	**.0039**	**8.948**	**.0021**	**.3223**
Stddev	.006	.06	.192	.38	.0013	.0020	.038	.0000	.0001
%RSD	.0653	.2032	4.772	.4280	3.224	50.64	.4243	.7123	.0216
#1	9.150	31.93	4.156	87.59	.0425	.0053	8.921	.0021	.3223
#2	9.141	31.84	3.885	88.12	.0406	.0025	8.975	.0021	.3222

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0011**	**.0032**	**-.0047**	**1.686**	**.0071**	**.0174**	**.8246**
Stddev	.0028	.0032	.0000	.017	.0015	.0003	.0055
%RSD	253.3	99.49	.4348	.9768	21.09	1.555	.6618
#1	-.0009	.0009	-.0047	1.675	.0060	.0176	.8207
#2	.0031	.0054	-.0047	1.698	.0081	.0172	.8284

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**165170.**	**21334.**	**7219.8**	**11245.**
Stddev	324.	73.	9.0	11.
%RSD	.19598	.34314	.12460	.09525
#1	164940.	21385.	7213.5	11237.
#2	165400.	21282.	7226.2	11252.

Zoom In Zoom Out

Sample Name: jc62779-1 Acquired: 3/31/2018 18:57:38 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0400**	**.0001**	**.0003**	**.0048**	**.0073**	**.0123**	**.2631**	**.0135**	**-.0003**
Stddev	.0006	.0001	.0000	.0000	.0002	.0002	.0015	.0003	.0003
%RSD	1.574	71.21	11.44	.9523	3.212	1.991	.5871	2.463	112.5
#1	.0404	.0001	.0003	.0048	.0075	.0121	.2620	.0137	-.0001
#2	.0395	.0000	.0003	.0048	.0072	.0125	.2642	.0133	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0095**	**.0281**	**.0024**	**-.0006**	**.0041**	**.0017**	**.0033**	**5.778**	**1.597**
Stddev	.0007	.0000	.0010	.0012	.0012	.0000	.0006	.007	.005
%RSD	7.305	.0475	42.14	197.7	28.36	1.854	17.19	.1163	.2862
#1	.0090	.0281	.0032	-.0014	.0049	.0017	.0037	5.774	1.594
#2	.0100	.0281	.0017	.0002	.0033	.0017	.0029	5.783	1.600

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.613**	**1.284**	**1.427**	**9.837**	**.0086**	**.0009**	**12.56**	**-.0005**	**.0127**
Stddev	.007	.020	.013	.019	.0006	.0004	.03	.0001	.0001
%RSD	.1067	1.581	.9176	.1920	7.059	44.07	.2440	14.60	1.008
#1	6.617	1.298	1.436	9.823	.0081	.0011	12.53	-.0005	.0127
#2	6.608	1.270	1.418	9.850	.0090	.0006	12.58	-.0004	.0128

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0758**	**-.0009**	**-.0048**	**.9083**	**.0038**	**.0068**	**.2254**
Stddev	.0005	.0014	.0008	.0037	.0007	.0039	.0008
%RSD	.6365	156.2	15.78	.4046	18.24	56.89	.3466
#1	.0761	-.0019	-.0043	.9057	.0034	.0095	.2249
#2	.0754	.0001	-.0054	.9109	.0043	.0041	.2260

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**168310.**	**21718.**	**7316.6**	**11351.**
Stddev	825.	108.	10.7	6.
%RSD	.49040	.49507	.14662	.05241
#1	168900.	21642.	7309.1	11346.
#2	167730.	21794.	7324.2	11355.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 19:00:36 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 3

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**1.963**	**1.880**	**1.968**	**1.935**	**1.916**	**1.941**	**2.023**	**.2367**
Stddev	.052	.050	.000	.002	.003	.000	.002	.003	.0002
%RSD	2.634	2.570	.0177	.1114	.1637	.0070	.1111	.1647	.0765
#1	2.029	1.999	1.880	1.966	1.933	1.916	1.940	2.021	.2368
#2	1.954	1.927	1.881	1.969	1.938	1.917	1.943	2.025	.2366
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	**1.873**	**1.934**	**1.908**	**2.033**	**2.007**	**1.931**	**1.896**	**39.63**	**40.87**
Stddev	.002	.001	.001	.004	.003	.008	.007	1.10	.98
%RSD	.1099	.0460	.0340	.2052	.1443	.3928	.3647	2.770	2.409
#1	1.871	1.934	1.907	2.030	2.005	1.926	1.891	40.41	41.56
#2	1.874	1.935	1.908	2.036	2.009	1.937	1.901	38.85	40.17
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	**39.78**	**41.22**	**39.61**	**40.23**	**1.936**	**1.847**	**4.828**	**1.859**	**2.009**
Stddev	.98	.99	.91	.81	.004	.001	.013	.003	.046
%RSD	2.467	2.391	2.286	2.013	.2347	.0308	.2686	.1560	2.288
#1	40.48	41.92	40.25	40.80	1.933	1.848	4.819	1.857	2.041
#2	39.09	40.53	38.97	39.66	1.939	1.847	4.837	1.861	1.976
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: 3/31/2018 19:00:36 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 3

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.972**	**1.905**	**1.880**	**1.855**	**1.994**	**1.920**	**1.847**
Stddev	.003	.001	.003	.000	.009	.045	.003
%RSD	.1668	.0621	.1671	.0123	.4625	2.359	.1686
#1	1.970	1.904	1.878	1.855	1.988	1.952	1.844
#2	1.974	1.906	1.882	1.855	2.001	1.888	1.849
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	**159820.**	**20616.**	**7028.0**	**10771.**
Stddev	71.	532.	28.3	34.
%RSD	.04428	2.5817	.40289	.32006
#1	159770.	20239.	7008.0	10746.
#2	159870.	20992.	7048.0	10795.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 19:03:25 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0000**	**-.0001**	**-.0002**	**.0001**	**-.0009**	**.0000**	**.0002**	**-.0004**
Stddev	.0001	.0000	.0000	.0001	.0006	.0001	.0000	.0003	.0001
%RSD	9.692	7.441	62.43	54.18	692.6	15.61	750.9	138.1	29.29
#1	.0009	-.0000	-.0001	-.0001	-.0004	-.0008	.0000	.0005	-.0003
#2	.0010	-.0000	-.0000	-.0003	.0005	-.0009	-.0000	.0000	-.0005
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**	**.0020**	**.0010**	**.0009**	**-.0006**	**-.0004**	**-.0020**	**.0036**	**.0169**
Stddev	.0004	.0001	.0004	.0004	.0007	.0011	.0007	.0135	.0032
%RSD	209.1	3.029	38.46	45.55	119.2	258.2	35.74	372.1	18.79
#1	.0005	.0019	.0012	.0012	-.0001	-.0012	-.0015	-.0059	.0147
#2	-.0001	.0020	.0007	.0006	-.0011	.0004	-.0025	.0131	.0192
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**	**-.0035**	**.1304**	**.1656**	**.0016**	**.0002**	**-.0034**	**.0006**	**-.0002**
Stddev	.0038	.0146	.0074	.0058	.0004	.0002	.0000	.0004	.0000
%RSD	209.2	421.6	5.702	3.531	26.79	93.98	.2158	69.25	2.362
#1	-.0009	.0069	.1356	.1697	.0013	.0003	-.0034	.0008	-.0002
#2	.0045	-.0138	.1251	.1614	.0019	.0001	-.0034	.0003	-.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: 3/31/2018 19:03:25 Type: QC
Method: Accutest XPress(v95) 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**	**.0002**	**.0025**	**.0025**	**.0007**	**.0101**
Stddev	.0005	.0010	.0001	.0004	.0005	.0036	.0004
%RSD	431.9	238.2	26.31	14.31	20.59	515.8	4.078
#1	-.0002	-.0011	.0002	.0027	.0029	-.0019	.0104
#2	.0004	.0003	.0003	.0022	.0021	.0033	.0098
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	**168670.**	**21374.**	**7061.5**	**11229.**
Stddev	1910.	67.	137.3	204.
%RSD	1.1323	.31273	1.9442	1.8139
#1	170020.	21327.	6964.4	11085.
#2	167320.	21421.	7158.6	11374.

Zoom In Zoom Out

Sample Name: jc62779-3 Acquired: 3/31/2018 19:06:25 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1030**	**-.0001**	**.0006**	**.0042**	**.0009**	**.0012**	**2.785**	**.0092**	**-.0005**
Stddev	.0009	.0000	.0002	.0004	.0001	.0002	.015	.0003	.0002
%RSD	.8274	.5699	27.17	8.676	8.910	13.71	.5444	3.279	33.30
#1	.1024	-.0001	.0007	.0040	.0010	.0011	2.774	.0090	-.0004
#2	.1036	-.0001	.0005	.0045	.0009	.0013	2.796	.0094	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0027**	**.0056**	**.0002**	**-.0009**	**-.0001**	**-.0011**	**-.0012**	**.1527**	**48.94**
Stddev	.0001	.0001	.0002	.0003	.0016	.0025	.0021	.0043	.22
%RSD	2.726	1.118	78.87	33.79	1188.	233.9	174.3	2.832	.4593
#1	.0028	.0056	.0004	-.0007	.0010	-.0029	.0003	.1497	48.78
#2	.0027	.0055	.0001	-.0011	-.0013	.0007	-.0027	.1558	49.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1583**	**23.01**	**2.052**	**88.39**	**.0174**	**.0003**	**8.623**	**-.0007**	**.1872**
Stddev	.0035	.11	.064	.45	.0005	.0001	.088	.0002	.0010
%RSD	2.197	.4587	3.124	.5068	3.112	38.09	1.016	26.15	.5487
#1	.1559	22.94	2.007	88.07	.0170	.0004	8.561	-.0009	.1865
#2	.1608	23.09	2.098	88.70	.0178	.0002	8.685	-.0006	.1880

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0021**	**.0002**	**-.0049**	**5.510**	**-.0005**	**.0053**	**.1764**
Stddev	.0003	.0007	.0000	.057	.0002	.0011	.0025
%RSD	13.84	359.5	.5796	1.041	38.37	20.09	1.407
#1	.0023	-.0003	-.0049	5.469	-.0007	.0060	.1746
#2	.0019	.0006	-.0049	5.550	-.0004	.0045	.1781

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159960.**	**20947.**	**6995.1**	**10771.**
Stddev	361.	.	9.7	20.
%RSD	.22562	.00060	.13877	.18529
#1	160220.	20946.	6988.2	10757.
#2	159710.	20947.	7001.9	10785.

Zoom In Zoom Out

Sample Name: jc62779-4 Acquired: 3/31/2018 19:09:28 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1960**	**-.0001**	**-.0000**	**.0051**	**.0043**	**.0059**	F **15.18**	**.0084**	**-.0010**
Stddev	.0083	.0001	.0000	.0002	.0001	.0002	.24	.0002	.0009
%RSD	4.237	66.08	51.78	4.278	2.628	2.636	1.609	2.040	87.68
#1	.1901	-.0002	-.0000	.0049	.0042	.0058	15.35	.0086	-.0017
#2	.2018	-.0001	-.0000	.0052	.0044	.0061	15.00	.0083	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0034**	**.0126**	**.0036**	**-.0018**	**.0017**	**-.0037**	**-.0008**	**2.171**	**88.20**
Stddev	.0000	.0001	.0016	.0005	.0015	.0008	.0005	.092	3.48
%RSD	.6407	.9946	46.18	25.29	90.41	21.95	62.73	4.257	3.946
#1	.0034	.0125	.0024	-.0021	.0006	-.0043	-.0005	2.105	85.74
#2	.0034	.0127	.0047	-.0015	.0028	-.0032	-.0012	2.236	90.66

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.471**	**25.00**	**2.161**	**89.70**	**.0175**	**.0016**	**12.10**	**-.0021**	**.2855**
Stddev	.101	1.03	.041	2.86	.0000	.0000	.01	.0006	.0111
%RSD	4.090	4.108	1.890	3.191	.0198	2.893	.0810	26.13	3.873
#1	2.399	24.27	2.132	87.68	.0175	.0016	12.11	-.0025	.2777
#2	2.542	25.73	2.190	91.72	.0175	.0016	12.09	-.0017	.2933

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0295**	**-.0011**	**-.0061**	**1.219**	**.0018**	**.0110**	**1.874**
Stddev	.0005	.0004	.0003	.005	.0001	.0027	.005
%RSD	1.544	40.58	4.665	.3824	8.277	24.89	.2498
#1	.0299	-.0008	-.0063	1.216	.0017	.0091	1.877
#2	.0292	-.0014	-.0059	1.223	.0019	.0129	1.871

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163040.**	**21412.**	**7078.8**	**10753.**
Stddev	42.	89.	16.9	24.
%RSD	.02596	.41630	.23901	.22404
#1	163070.	21349.	7066.9	10736.
#2	163010.	21475.	7090.8	10770.

Zoom In Zoom Out

Sample Name: jc62779-5 Acquired: 3/31/2018 19:12:31 Type: Unk
Method: Accutest XPress(v95) 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	**1.678**	**-.0004**	**-.0010**	**.0825**	**.0037**	**.0164**	F **37.20**	**.0427**
Stddev	.012	.0001	.0001	.0005	.0007	.0001	.19	.0008
%RSD	.6925	21.29	14.81	.6254	18.70	.4932	.5101	1.810
#1	1.686	-.0004	-.0011	.0821	.0032	.0164	37.33	.0433
#2	1.670	-.0005	-.0009	.0828	.0042	.0165	37.06	.0422

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0029**	**-.0369**	**.0138**	**.0420**	F **-.0039**	**.0050**	**-.0021**	**.0024**
Stddev	.0000	.0003	.0001	.0005	.0012	.0017	.0004	.0024
%RSD	.7157	.7673	.3712	1.073	32.01	34.31	19.29	102.7
#1	-.0029	-.0371	.0138	.0416	-.0030	.0062	-.0023	.0007
#2	-.0029	-.0367	.0139	.0423	-.0048	.0038	-.0018	.0041

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.3362**	**144.1**	**99.29**	**75.05**	**4.155**	F **487.3**	**.0267**	**.0029**
Stddev	.0271	.1	.54	.29	.130	.0	.0003	.0001
%RSD	8.053	.0986	.5467	.3892	3.126	.0008	1.208	4.778
#1	.3553	144.0	99.67	75.26	4.063	487.3	.0269	.0028
#2	.3170	144.2	98.91	74.85	4.247	487.3	.0264	.0030

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.49**	**-.0029**	**.8951**	**.0044**	**-.0031**	**-.0073**	**1.499**	**.0058**
Stddev	.00	.0002	.0056	.0002	.0006	.0003	.001	.0010
%RSD	.0044	6.214	.6208	4.378	19.52	3.457	.0494	17.82
#1	12.49	-.0030	.8990	.0045	-.0027	-.0075	1.499	.0065
#2	12.49	-.0027	.8912	.0042	-.0035	-.0072	1.498	.0051

Elem	Li6707	P_1774
Avg	**.0159**	**1.813**
Stddev	.0001	.000
%RSD	.6426	.0102
#1	.0159	1.814
#2	.0158	1.813

Zoom In Zoom Out

Sample Name: jc62779-5 Acquired: 3/31/2018 19:12:31 Type: Unk
Method: Accutest XPress(v95) 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	**154150.**	**21207.**	**6762.8**	**10183.**
Stddev	63.	12.	12.3	17.
%RSD	.04067	.05547	.18217	.16923
#1	154200.	21198.	6754.1	10170.
#2	154110.	21215.	6771.5	10195.

Zoom In Zoom Out

Sample Name: jc62779-6 Acquired: 3/31/2018 19:15:43 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1191**	**-.0001**	**-.0000**	**.0021**	**.0039**	**.0024**	**.9581**	**.0066**	**.0000**
Stddev	.0002	.0000	.0000	.0001	.0007	.0002	.0067	.0000	.0004
%RSD	.1850	20.60	429.0	4.993	17.65	8.168	.6961	.2407	2090.
#1	.1190	-.0001	-.0000	.0020	.0044	.0023	.9628	.0065	.0003
#2	.1193	-.0001	.0000	.0022	.0034	.0025	.9534	.0066	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0029**	**.0091**	**.0001**	**-.0013**	**.0004**	**.0005**	**.0008**	**1.035**	**70.32**
Stddev	.0001	.0001	.0003	.0001	.0001	.0012	.0006	.004	.16
%RSD	2.625	.6978	213.7	8.074	31.52	215.0	71.68	.3843	.2265
#1	.0030	.0091	-.0001	-.0014	.0003	.0014	.0012	1.032	70.44
#2	.0029	.0091	.0003	-.0012	.0005	-.0003	.0004	1.037	70.21

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.733**	**31.43**	**4.628**	**57.17**	**.0448**	**.0007**	**9.834**	**-.0008**	**.2522**
Stddev	.007	.13	.047	.05	.0001	.0000	.028	.0004	.0002
%RSD	.4100	.4010	1.008	.0833	.1322	7.071	.2884	49.80	.0746
#1	1.738	31.51	4.661	57.21	.0448	.0007	9.814	-.0005	.2524
#2	1.728	31.34	4.595	57.14	.0449	.0006	9.854	-.0011	.2521

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0220**	**.0007**	**-.0049**	**1.370**	**.0035**	**.0073**	**.1981**
Stddev	.0001	.0009	.0001	.008	.0015	.0004	.0008
%RSD	.5148	139.8	2.477	.5545	41.14	5.197	.3940
#1	.0221	.0000	-.0048	1.365	.0025	.0076	.1986
#2	.0219	.0013	-.0050	1.376	.0046	.0070	.1975

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159710.**	**21172.**	**6965.2**	**10706.**
Stddev	970.	45.	64.5	68.
%RSD	.60730	.21440	.92584	.63967
#1	159020.	21140.	6919.6	10658.
#2	160390.	21204.	7010.8	10755.

Zoom In Zoom Out

Sample Name: jc62779-7 Acquired: 3/31/2018 19:18:42 Type: Unk
Method: Accutest XPress(v95) 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	**.1061**	**-.0001**	**.0001**	**.0026**	**.0040**	**.0023**	W **9.149**	**.0158**
Stddev	.0003	.0000	.0002	.0001	.0003	.0005	.049	.0002
%RSD	.3007	28.66	356.9	5.293	6.735	24.04	.5347	1.474
#1	.1058	-.0001	-.0001	.0025	.0038	.0027	9.114	.0160
#2	.1063	-.0002	.0002	.0027	.0042	.0019	9.183	.0157

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0007**	**.0043**	**.0107**	**-.0002**	**-.0014**	**.0015**	**-.0018**	**.0001**
Stddev	.0002	.0002	.0002	.0008	.0004	.0004	.0017	.0017
%RSD	23.74	5.007	1.409	517.3	27.74	27.73	92.60	1381.
#1	-.0009	.0041	.0108	-.0007	-.0011	.0012	-.0030	.0013
#2	-.0006	.0044	.0106	.0004	-.0017	.0018	-.0006	-.0011

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.6402**	**74.16**	**.6647**	**26.26**	**2.643**	**144.0**	**.0329**	**.0007**
Stddev	.0011	.19	.0021	.10	.003	.4	.0001	.0001
%RSD	.1721	.2561	.3183	.3970	.0950	.3046	.4396	8.072
#1	.6410	74.02	.6632	26.19	2.644	143.6	.0330	.0006
#2	.6394	74.29	.6662	26.33	2.641	144.3	.0328	.0007

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.56**	**-.0013**	**.2131**	**.0130**	**-.0007**	**-.0071**	**5.361**	**.0011**
Stddev	.02	.0001	.0007	.0000	.0011	.0000	.012	.0014
%RSD	.1791	4.717	.3380	.2549	153.4	.1421	.2306	128.7
#1	12.58	-.0012	.2126	.0131	-.0015	-.0071	5.370	.0021
#2	12.54	-.0013	.2136	.0130	.0001	-.0071	5.352	.0001

Elem	Li6707	P_1774
Avg	**.0098**	**1.095**
Stddev	.0010	.003
%RSD	9.900	.2845
#1	.0105	1.097
#2	.0091	1.092

Zoom In Zoom Out

Sample Name: jc62779-7 Acquired: 3/31/2018 19:18:42 Type: Unk
Method: Accutest XPress(v95) 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	**160150.**	**21298.**	**6983.7**	**10658.**
Stddev	680.	98.	89.2	118.
%RSD	.42482	.46132	1.2768	1.1106
#1	159670.	21367.	6920.6	10574.
#2	160640.	21228.	7046.7	10742.

Zoom In Zoom Out

Sample Name: jc62779-8 Acquired: 3/31/2018 19:21:44 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.3035**	**-.0001**	**.0001**	**.0012**	**.0030**	**.0024**	**4.607**	**.0060**	**-.0009**
Stddev	.0008	.0000	.0000	.0000	.0002	.0002	.015	.0001	.0000
%RSD	.2701	15.05	20.13	2.408	5.993	9.225	.3325	1.914	5.113
#1	.3040	-.0001	.0002	.0012	.0032	.0026	4.618	.0061	-.0009
#2	.3029	-.0001	.0001	.0011	.0029	.0023	4.596	.0059	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0039**	**.0085**	**.0013**	**-.0006**	**.0005**	**-.0025**	**.0000**	**.9249**	**58.12**
Stddev	.0002	.0000	.0012	.0017	.0017	.0016	.0022	.0063	.09
%RSD	5.710	.5744	85.61	292.8	305.5	63.21	12990.	.6759	.1473
#1	.0041	.0085	.0022	.0006	.0017	-.0014	.0016	.9293	58.18
#2	.0038	.0085	.0005	-.0018	-.0006	-.0036	-.0015	.9205	58.06

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.208**	**13.32**	**1.592**	**85.99**	**.0155**	**.0020**	**8.903**	**-.0004**	**.1744**
Stddev	.001	.04	.021	.01	.0003	.0003	.034	.0003	.0008
%RSD	.0990	.2828	1.347	.0087	1.618	13.60	.3866	77.68	.4369
#1	1.207	13.29	1.607	85.99	.0153	.0022	8.878	-.0002	.1749
#2	1.209	13.35	1.576	86.00	.0157	.0018	8.927	-.0007	.1739

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0167**	**-.0002**	**-.0042**	**8.967**	**.0006**	**.0104**	**.3114**
Stddev	.0002	.0005	.0002	.030	.0008	.0006	.0007
%RSD	1.271	227.7	4.832	.3356	136.6	5.298	.2394
#1	.0165	.0001	-.0043	8.946	.0000	.0100	.3109
#2	.0168	-.0006	-.0041	8.989	.0012	.0108	.3119

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161950.**	**21384.**	**7051.6**	**10859.**
Stddev	392.	45.	29.6	37.
%RSD	.24212	.20833	.41947	.33762
#1	161670.	21416.	7030.7	10833.
#2	162220.	21353.	7072.5	10885.

Zoom In Zoom Out

Sample Name: jc62779-9 Acquired: 3/31/2018 19:24:47 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.2462**	**.0000**	**.0002**	**.0045**	**.0127**	**.0074**	F **12.37**	**.0120**	**-.0009**
Stddev	.0009	.0000	.0000	.0002	.0000	.0001	.09	.0003	.0006
%RSD	.3483	30.30	8.953	4.026	.3164	1.750	.7254	2.731	64.72
#1	.2456	.0000	.0002	.0044	.0127	.0075	12.30	.0117	-.0012
#2	.2468	.0000	.0002	.0047	.0128	.0073	12.43	.0122	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0098**	**.0208**	**.0020**	**-.0018**	**.0034**	**-.0020**	**.0007**	**4.202**	**76.51**
Stddev	.0001	.0000	.0004	.0002	.0003	.0005	.0019	.004	.32
%RSD	1.338	.0834	17.49	10.95	7.685	27.52	270.0	.0938	.4246
#1	.0099	.0208	.0023	-.0020	.0032	-.0024	-.0007	4.200	76.28
#2	.0097	.0208	.0018	-.0017	.0036	-.0016	.0021	4.205	76.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.586**	**18.36**	**2.679**	**58.55**	**.0126**	**.0075**	**13.90**	**-.0017**	**.2235**
Stddev	.023	.10	.054	.39	.0001	.0001	.05	.0004	.0008
%RSD	.3542	.5645	2.025	.6725	1.121	.7910	.3385	22.48	.3718
#1	6.570	18.29	2.640	58.27	.0125	.0075	13.87	-.0015	.2229
#2	6.603	18.44	2.717	58.83	.0127	.0076	13.94	-.0020	.2241

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0719**	**.0007**	**-.0059**	**1.998**	**.0036**	**.0153**	**.9794**
Stddev	.0004	.0015	.0002	.008	.0009	.0015	.0056
%RSD	.4929	237.6	3.989	.4145	24.34	9.947	.5714
#1	.0721	-.0004	-.0057	1.992	.0042	.0142	.9755
#2	.0716	.0017	-.0060	2.004	.0030	.0164	.9834

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163990.**	**21552.**	**7137.5**	**10902.**
Stddev	275.	117.	38.4	57.
%RSD	.16774	.54242	.53791	.51873
#1	163800.	21635.	7110.3	10862.
#2	164190.	21469.	7164.6	10942.

Zoom In Zoom Out

Sample Name: jc62779-10 Acquired: 3/31/2018 19:27:48 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1212**	**-.0001**	**-.0001**	**.0020**	**.0038**	**.0029**	**.9853**	**.0066**	**-.0004**
Stddev	.0002	.0000	.0000	.0001	.0004	.0008	.0015	.0001	.0003
%RSD	.1894	48.64	9.856	7.443	10.65	27.92	.1551	1.856	81.78
#1	.1213	-.0001	-.0001	.0021	.0041	.0023	.9842	.0065	-.0002
#2	.1210	-.0001	-.0001	.0019	.0035	.0034	.9863	.0067	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0026**	**.0097**	**.0008**	**-.0016**	**.0006**	**-.0011**	**.0010**	**1.025**	**71.67**
Stddev	.0004	.0001	.0001	.0015	.0003	.0003	.0024	.028	.14
%RSD	14.31	1.336	15.02	91.61	51.28	28.80	238.0	2.728	.1902
#1	.0024	.0096	.0007	-.0027	.0004	-.0009	.0027	1.006	71.58
#2	.0029	.0098	.0009	-.0006	.0008	-.0013	-.0007	1.045	71.77

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.746**	**32.04**	**4.471**	**59.27**	**.0444**	**.0008**	**10.00**	**-.0011**	**.2578**
Stddev	.001	.00	.057	.34	.0002	.0001	.02	.0002	.0004
%RSD	.0642	.0072	1.271	.5700	.5599	8.140	.2434	21.74	.1717
#1	1.747	32.04	4.431	59.03	.0446	.0008	9.984	-.0009	.2575
#2	1.745	32.04	4.511	59.50	.0442	.0007	10.02	-.0013	.2581

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0200**	**.0016**	**-.0051**	**1.421**	**.0005**	**.0045**	**.2009**
Stddev	.0010	.0003	.0001	.001	.0028	.0016	.0001
%RSD	4.797	16.54	2.726	.1015	580.9	35.02	.0259
#1	.0194	.0014	-.0052	1.420	-.0015	.0056	.2008
#2	.0207	.0018	-.0050	1.422	.0025	.0034	.2009

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161910.**	**21471.**	**7022.9**	**10823.**
Stddev	386.	41.	15.2	21.
%RSD	.23820	.19190	.21669	.19557
#1	162180.	21500.	7012.1	10808.
#2	161640.	21442.	7033.6	10838.

Zoom In Zoom Out

Sample Name: jc62779-1f Acquired: 3/31/2018 19:30:46 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.0409**	**.0001**	**.0002**	**.0056**	**.0067**	**.0110**	**.3001**	**.0134**	**-.0000**
Stddev	.0001	.0000	.0001	.0002	.0003	.0002	.0000	.0003	.0003
%RSD	.1836	23.34	27.14	3.980	4.219	1.831	.0005	2.177	693.1
#1	.0409	.0001	.0003	.0057	.0065	.0109	.3001	.0132	-.0003
#2	.0408	.0001	.0002	.0054	.0069	.0112	.3001	.0136	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0083**	**.0277**	**.0023**	**-.0003**	**.0042**	**.0006**	**-.0001**	**4.896**	**2.710**
Stddev	.0002	.0001	.0005	.0001	.0004	.0020	.0013	.025	.004
%RSD	2.130	.2895	21.92	29.80	8.543	338.7	1695.	.5072	.1484
#1	.0084	.0277	.0027	-.0002	.0045	-.0008	-.0010	4.878	2.713
#2	.0081	.0278	.0020	-.0003	.0040	.0020	.0008	4.913	2.707

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.152**	**1.781**	**1.540**	**19.48**	**.0116**	**.0006**	**15.91**	**-.0008**	**.0190**
Stddev	.018	.040	.012	.06	.0002	.0000	.06	.0004	.0001
%RSD	.2863	2.257	.7444	.3135	1.623	.8757	.3845	46.28	.3053
#1	6.165	1.810	1.532	19.44	.0114	.0006	15.86	-.0006	.0190
#2	6.140	1.753	1.548	19.53	.0117	.0005	15.95	-.0011	.0190

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0646**	**-.0015**	**-.0076**	**1.883**	**.0017**	**.0083**	**.2594**
Stddev	.0004	.0013	.0000	.004	.0027	.0015	.0021
%RSD	.6485	84.63	.3703	.2356	159.4	17.74	.8048
#1	.0649	-.0025	-.0076	1.880	.0036	.0072	.2579
#2	.0643	-.0006	-.0075	1.886	-.0002	.0093	.2609

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167200.**	**21712.**	**7255.6**	**11316.**
Stddev	248.	173.	34.9	44.
%RSD	.14841	.79718	.48134	.39115
#1	167020.	21835.	7230.9	11284.
#2	167370.	21590.	7280.3	11347.

Zoom In Zoom Out

Sample Name: jc62779-2f Acquired: 3/31/2018 19:33:44 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.2490**	**-.0001**	**.0002**	**.0127**	**.0009**	**.0022**	**6.565**	**.0111**	**-.0007**
Stddev	.0009	.0001	.0001	.0003	.0002	.0001	.011	.0003	.0002
%RSD	.3739	75.23	96.04	2.723	17.36	4.097	.1632	2.292	23.36
#1	.2497	-.0002	.0000	.0130	.0011	.0021	6.573	.0112	-.0006
#2	.2484	-.0000	.0003	.0125	.0008	.0022	6.558	.0109	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0039**	**.0055**	**.0184**	**-.0014**	**.0009**	**-.0013**	**.0008**	**.0074**	**61.01**
Stddev	.0002	.0001	.0007	.0003	.0007	.0011	.0018	.0047	.07
%RSD	5.307	1.528	3.606	20.44	81.52	82.66	228.2	63.29	.1182
#1	.0040	.0055	.0179	-.0016	.0004	-.0005	.0020	.0108	61.06
#2	.0037	.0056	.0188	-.0012	.0014	-.0020	-.0005	.0041	60.95

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**8.374**	**31.16**	**3.219**	**84.71**	**.0286**	**.0036**	**8.702**	**-.0012**	**.3178**
Stddev	.028	.01	.014	.13	.0006	.0001	.015	.0004	.0006
%RSD	.3348	.0265	.4199	.1489	2.017	2.293	.1692	29.39	.1830
#1	8.394	31.16	3.228	84.80	.0290	.0036	8.692	-.0014	.3182
#2	8.354	31.17	3.209	84.62	.0282	.0035	8.713	-.0009	.3174

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**-.0000**	**-.0050**	**1.625**	**.0008**	**.0080**	**.6298**
Stddev	.0001	.0008	.0001	.008	.0040	.0034	.0021
%RSD	44.75	1971.	2.689	.4762	509.1	42.44	.3395
#1	-.0003	.0005	-.0049	1.619	-.0020	.0103	.6283
#2	-.0002	-.0006	-.0051	1.630	.0036	.0056	.6313

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162630.**	**21643.**	**7076.3**	**10880.**
Stddev	143.	127.	33.1	50.
%RSD	.08811	.58795	.46740	.45755
#1	162530.	21553.	7052.9	10844.
#2	162730.	21733.	7099.7	10915.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 19:36:47 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 4

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.951**	**1.936**	**1.893**	**1.977**	**1.943**	**1.924**	**1.958**	**2.020**	**.2386**
Stddev	.003	.003	.005	.007	.008	.002	.003	.005	.0007
%RSD	.1419	.1618	.2617	.3479	.3912	.0969	.1750	.2401	.3060
#1	1.949	1.934	1.890	1.972	1.949	1.925	1.961	2.017	.2381
#2	1.953	1.938	1.897	1.981	1.938	1.922	1.956	2.024	.2391
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	**1.893**	**1.947**	**1.916**	**2.031**	**2.008**	**1.937**	**1.908**	**38.84**	**39.91**
Stddev	.005	.006	.005	.007	.007	.006	.007	.05	.08
%RSD	.2618	.3277	.2705	.3708	.3333	.3112	.3459	.1190	.1967
#1	1.896	1.942	1.912	2.025	2.004	1.933	1.904	38.81	39.85
#2	1.889	1.952	1.920	2.036	2.013	1.942	1.913	38.87	39.97
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	**39.15**	**40.33**	**38.82**	**39.53**	**1.945**	**1.868**	**4.856**	**1.882**	**1.973**
Stddev	.05	.00	.19	.11	.005	.007	.023	.005	.004
%RSD	.1231	.0016	.4983	.2721	.2510	.3672	.4752	.2614	.1945
#1	39.12	40.33	38.68	39.46	1.941	1.863	4.840	1.879	1.970
#2	39.18	40.33	38.96	39.61	1.948	1.873	4.872	1.886	1.976
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: 3/31/2018 19:36:47 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 4

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.968**	**1.908**	**1.897**	**1.871**	**1.990**	**1.896**	**1.876**
Stddev	.008	.004	.005	.014	.000	.001	.006
%RSD	.4011	.2221	.2654	.7523	.0189	.0429	.3484
#1	1.974	1.905	1.901	1.861	1.990	1.897	1.871
#2	1.963	1.911	1.893	1.881	1.989	1.896	1.881
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	**160070.**	**20962.**	**6978.7**	**10762.**
Stddev	858.	38.	13.6	19.
%RSD	.53592	.18115	.19541	.17538
#1	159460.	20935.	6969.1	10748.
#2	160680.	20989.	6988.4	10775.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 19:39:37 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0001**	**.0001**	**-.0002**	**.0003**	**-.0002**	**.0001**	**.0005**	**.0002**
Stddev	.0004	.0001	.0002	.0002	.0000	.0004	.0000	.0002	.0002
%RSD	35.66	225.5	250.8	70.95	1.451	170.0	14.80	32.16	100.6
#1	.0014	.0002	.0002	-.0001	.0003	-.0005	.0001	.0006	.0003
#2	.0008	-.0000	-.0001	-.0003	.0003	.0000	.0001	.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0020**	**.0003**	**.0000**	**-.0003**	**-.0017**	**-.0000**	**.0012**	**.0142**
Stddev	.0000	.0001	.0002	.0011	.0003	.0000	.0005	.0068	.0061
%RSD	.1192	4.609	98.06	14960.	73.64	1.733	4077.	557.3	43.08
#1	-.0003	.0021	.0004	-.0008	-.0005	-.0017	-.0003	.0060	.0186
#2	-.0003	.0019	.0001	.0008	-.0002	-.0017	.0003	-.0036	.0099
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	**.0009**	**-.0074**	**.1091**	**.1514**	**-.0009**	**.0002**	**-.0027**	**.0004**	**-.0000**
Stddev	.0008	.0138	.0269	.0054	.0003	.0002	.0006	.0000	.0000
%RSD	91.61	186.3	24.64	3.560	32.15	121.3	21.71	.6828	172.4
#1	.0003	-.0171	.0901	.1476	-.0007	.0000	-.0023	.0004	.0000
#2	.0015	.0023	.1281	.1552	-.0012	.0003	-.0032	.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: ccb Acquired: 3/31/2018 19:39:37 Type: QC
Method: Accutest XPress(v95) 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**	**.0005**	**.0002**	**.0058**	**.0006**	**.0006**	**.0067**
Stddev	.0000	.0002	.0000	.0023	.0037	.0038	.0004
%RSD	1.190	37.66	7.616	38.56	656.7	648.7	6.591
#1	.0005	.0007	.0002	.0042	.0032	-.0021	.0064
#2	.0005	.0004	.0002	.0074	-.0020	.0033	.0070
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	**162270.**	**20917.**	**7019.7**	**11256.**
Stddev	1065.	20.	10.9	7.
%RSD	.65607	.09662	.15473	.06412
#1	161520.	20931.	7027.4	11261.
#2	163020.	20902.	7012.0	11250.

Zoom In Zoom Out

Sample Name: jc62779-3f Acquired: 3/31/2018 19:42:36 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1027**	**-.0001**	**.0008**	**.0039**	**.0005**	**.0007**	**2.670**	**.0090**	**-.0001**
Stddev	.0008	.0000	.0000	.0002	.0004	.0001	.007	.0002	.0001
%RSD	.7376	30.37	3.481	4.666	82.39	13.92	.2741	2.272	101.8
#1	.1032	-.0001	.0008	.0038	.0002	.0007	2.665	.0088	-.0001
#2	.1022	-.0001	.0009	.0041	.0008	.0008	2.675	.0091	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0023**	**.0050**	**.0002**	**-.0006**	**.0002**	**-.0027**	**.0001**	**.0058**	**49.43**
Stddev	.0000	.0002	.0000	.0011	.0006	.0013	.0004	.0134	.43
%RSD	2.159	4.696	12.74	179.6	280.8	49.09	351.5	229.5	.8728
#1	.0023	.0048	.0002	-.0013	-.0002	-.0037	.0004	-.0036	49.74
#2	.0024	.0052	.0002	.0002	.0006	-.0018	-.0002	.0153	49.13

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0293**	**23.30**	**2.034**	**89.71**	**.0160**	**.0002**	**8.406**	**-.0006**	**.1890**
Stddev	.0029	.15	.015	.71	.0003	.0004	.013	.0004	.0014
%RSD	9.919	.6479	.7186	.7888	1.793	200.0	.1489	75.59	.7588
#1	.0314	23.41	2.044	90.21	.0162	-.0001	8.397	-.0003	.1900
#2	.0272	23.19	2.023	89.21	.0158	.0004	8.414	-.0009	.1879

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**-.0011**	**-.0046**	**5.516**	**-.0004**	**.0046**	**.1697**
Stddev	.0005	.0012	.0003	.001	.0008	.0018	.0008
%RSD	106.8	104.0	7.152	.0232	199.9	38.67	.4463
#1	-.0008	-.0003	-.0048	5.515	-.0010	.0033	.1692
#2	-.0001	-.0019	-.0044	5.517	.0002	.0059	.1702

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162480.**	**21361.**	**7011.5**	**10871.**
Stddev	68.	233.	8.6	30.
%RSD	.04201	1.0920	.12321	.28000
#1	162530.	21197.	7005.4	10849.
#2	162430.	21526.	7017.7	10892.

Zoom In Zoom Out

Sample Name: jc62779-4f Acquired: 3/31/2018 19:45:41 Type: Unk
Method: Accutest XPress(v95) 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	**.1812**	**-.0002**	**-.0003**	**.0037**	**.0007**	**.0026**	F **14.45**	**.0054**
Stddev	.0003	.0001	.0000	.0001	.0002	.0001	.00	.0002
%RSD	.1542	49.79	15.33	3.780	33.04	2.171	.0048	2.918
#1	.1814	-.0001	-.0003	.0036	.0009	.0027	14.45	.0053
#2	.1810	-.0002	-.0003	.0038	.0006	.0026	14.45	.0056

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0008**	**.0027**	**.0073**	**.0022**	F **-.0020**	**.0018**	**-.0044**	**-.0015**
Stddev	.0002	.0001	.0000	.0000	.0008	.0012	.0011	.0031
%RSD	25.50	4.979	.0163	1.574	37.64	70.20	24.51	210.2
#1	-.0007	.0026	.0073	.0022	-.0015	.0009	-.0051	.0007
#2	-.0009	.0028	.0073	.0022	-.0026	.0027	-.0036	-.0037

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0083**	**86.76**	**.2636**	**24.51**	**1.724**	**88.50**	**.0154**	**.0015**
Stddev	.0009	.07	.0007	.01	.006	.15	.0005	.0002
%RSD	10.32	.0856	.2618	.0369	.3537	.1679	3.273	13.84
#1	.0089	86.81	.2641	24.52	1.729	88.61	.0158	.0016
#2	.0077	86.71	.2631	24.51	1.720	88.40	.0150	.0013

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**8.637**	**-.0010**	**.2820**	**-.0003**	**-.0010**	**-.0051**	**1.181**	**-.0002**
Stddev	.039	.0002	.0006	.0002	.0002	.0001	.008	.0032
%RSD	.4454	22.80	.2219	80.21	18.75	1.150	.6736	1849.
#1	8.609	-.0012	.2825	-.0001	-.0011	-.0051	1.176	.0021
#2	8.664	-.0008	.2816	-.0004	-.0009	-.0052	1.187	-.0024

Elem	Li6707	P_1774
Avg	**.0076**	**1.769**
Stddev	.0006	.005
%RSD	7.676	.2681
#1	.0080	1.766
#2	.0072	1.772

Zoom In Zoom Out

Sample Name: jc62779-4f Acquired: 3/31/2018 19:45:41 Type: Unk
Method: Accutest XPress(v95) 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	**161270.**	**21495.**	**6934.4**	**10684.**
Stddev	54.	135.	9.0	17.
%RSD	.03319	.62978	.12997	.16145
#1	161310.	21591.	6940.8	10696.
#2	161230.	21400.	6928.0	10671.

Zoom In Zoom Out

Sample Name: jc62779-5f Acquired: 3/31/2018 19:48:43 Type: Unk
Method: Accutest XPress(v95) 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	**1.661**	**-.0003**	W **-.0011**	**.0826**	**.0034**	**.0048**	F **37.35**	**.0423**
Stddev	.000	.0000	.0002	.0004	.0004	.0001	.06	.0003
%RSD	.0136	.2596	14.52	.4412	12.37	2.628	.1526	.8171
#1	1.661	-.0003	-.0013	.0824	.0031	.0047	37.39	.0421
#2	1.660	-.0003	-.0010	.0829	.0036	.0049	37.31	.0426

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0023**	**-.0360**	**.0118**	**.0405**	F **-.0065**	**.0048**	**-.0024**	**.0009**
Stddev	.0005	.0005	.0002	.0004	.0018	.0011	.0007	.0003
%RSD	23.23	1.520	1.622	.8807	27.32	23.68	29.01	33.66
#1	-.0019	-.0356	.0117	.0407	-.0077	.0056	-.0029	.0007
#2	-.0027	-.0364	.0119	.0402	-.0052	.0040	-.0019	.0011

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0040**	**143.8**	**97.93**	**74.19**	**4.067**	F **479.3**	**.0253**	**.0026**
Stddev	.0233	.7	.22	.06	.116	8.8	.0010	.0000
%RSD	579.3	.4813	.2240	.0816	2.843	1.829	4.042	1.676
#1	.0125	144.3	98.08	74.15	3.985	485.5	.0245	.0026
#2	-.0205	143.3	97.77	74.23	4.149	473.1	.0260	.0026

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.36**	**-.0030**	**.8828**	**-.0015**	**-.0025**	**-.0076**	**1.531**	**.0067**
Stddev	.05	.0005	.0000	.0008	.0005	.0002	.010	.0018
%RSD	.3934	15.82	.0003	49.49	18.95	2.699	.6685	26.31
#1	12.32	-.0033	.8828	-.0010	-.0022	-.0074	1.524	.0079
#2	12.39	-.0026	.8828	-.0021	-.0028	-.0077	1.539	.0054

Elem	Li6707	P_1774
Avg	**.0141**	**1.830**
Stddev	.0006	.008
%RSD	4.230	.4187
#1	.0145	1.824
#2	.0137	1.835

Zoom In Zoom Out

Sample Name: jc62779-5f Acquired: 3/31/2018 19:48:43 Type: Unk
Method: Accutest XPress(v95) 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	**153580.**	**20978.**	**6691.2**	**10146.**
Stddev	205.	73.	15.1	21.
%RSD	.13335	.34753	.22587	.20555
#1	153440.	20927.	6680.5	10131.
#2	153730.	21030.	6701.9	10161.

Zoom In Zoom Out

Sample Name: jc62779-6f Acquired: 3/31/2018 19:51:56 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1140**	**-.0000**	**.0002**	**.0010**	**.0008**	**.0007**	**.9270**	**.0046**	**.0001**
Stddev	.0013	.0001	.0001	.0001	.0001	.0007	.0008	.0003	.0004
%RSD	1.179	122.2	81.39	14.04	7.085	105.6	.0911	6.021	309.3
#1	.1149	-.0000	.0001	.0011	.0008	.0011	.9276	.0048	.0004
#2	.1130	-.0001	.0003	.0009	.0008	.0002	.9264	.0044	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0012**	**.0064**	**.0013**	**-.0009**	**.0015**	**.0006**	**.0011**	**.0173**	**70.85**
Stddev	.0005	.0000	.0020	.0017	.0003	.0018	.0021	.0034	.77
%RSD	37.18	.2705	157.5	184.0	18.63	282.2	191.0	19.62	1.086
#1	.0015	.0064	.0027	.0003	.0017	-.0006	-.0004	.0149	71.40
#2	.0009	.0064	-.0001	-.0021	.0013	.0019	.0026	.0197	70.31

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0204**	**31.53**	**4.364**	**59.31**	**.0427**	**.0007**	**8.280**	**-.0009**	**.2538**
Stddev	.0003	.40	.018	.65	.0002	.0000	.017	.0003	.0030
%RSD	1.299	1.276	.4174	1.102	.4787	4.561	.1988	35.53	1.167
#1	.0206	31.81	4.377	59.77	.0429	.0007	8.268	-.0006	.2559
#2	.0202	31.24	4.351	58.84	.0426	.0007	8.292	-.0011	.2517

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0004**	**-.0049**	**1.420**	**.0004**	**.0073**	**.1550**
Stddev	.0002	.0014	.0000	.006	.0002	.0001	.0010
%RSD	55.17	378.3	.0264	.4341	44.68	1.313	.6681
#1	-.0004	.0014	-.0049	1.416	.0005	.0072	.1557
#2	-.0002	-.0006	-.0048	1.425	.0003	.0074	.1542

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161720.**	**21235.**	**6997.3**	**10823.**
Stddev	951.	240.	12.9	12.
%RSD	.58802	1.1313	.18410	.11264
#1	161040.	21065.	6988.1	10814.
#2	162390.	21404.	7006.4	10832.

Zoom In Zoom Out

Sample Name: jc62779-7f Acquired: 3/31/2018 19:54:54 Type: Unk
Method: Accutest XPress(v95) 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	**.1056**	**-.0002**	**.0000**	**.0019**	**.0014**	**.0025**	W **9.495**	**.0158**
Stddev	.0005	.0001	.0002	.0000	.0003	.0001	.023	.0001
%RSD	.4744	35.06	729.6	1.655	19.76	4.072	.2433	.7650
#1	.1060	-.0002	.0002	.0019	.0012	.0024	9.512	.0157
#2	.1053	-.0001	-.0001	.0020	.0016	.0025	9.479	.0159

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0009**	**.0032**	**.0104**	**-.0006**	**-.0009**	**.0007**	**-.0019**	**-.0001**
Stddev	.0001	.0000	.0001	.0007	.0005	.0004	.0025	.0019
%RSD	11.58	.5094	.5155	115.9	56.42	61.48	128.6	1767.
#1	-.0009	.0032	.0103	-.0001	-.0005	.0004	-.0002	-.0014
#2	-.0010	.0032	.0104	-.0012	-.0013	.0010	-.0037	.0012

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0002**	**76.26**	**-.0100**	**26.85**	**2.555**	**148.7**	**.0334**	**.0008**
Stddev	.0024	.33	.0009	.09	.019	.4	.0010	.0002
%RSD	1437.	.4309	9.341	.3526	.7310	.2766	2.994	28.70
#1	.0019	76.49	-.0093	26.92	2.542	149.0	.0327	.0010
#2	-.0016	76.03	-.0106	26.79	2.568	148.5	.0341	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**11.84**	**-.0011**	**.2195**	**-.0009**	**.0000**	**-.0070**	**5.559**	**.0002**
Stddev	.04	.0003	.0007	.0004	.0010	.0001	.024	.0009
%RSD	.3096	23.86	.3035	47.32	2876.	.7620	.4379	543.4
#1	11.81	-.0009	.2200	-.0012	-.0007	-.0070	5.542	-.0005
#2	11.87	-.0013	.2190	-.0006	.0008	-.0071	5.577	.0008

Elem	Li6707	P_1774
Avg	**.0068**	**1.143**
Stddev	.0002	.003
%RSD	2.354	.3008
#1	.0069	1.141
#2	.0067	1.146

Zoom In Zoom Out

Sample Name: jc62779-7f Acquired: 3/31/2018 19:54:54 Type: Unk
Method: Accutest XPress(v95) 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	**160540.**	**21364.**	**6970.7**	**10686.**
Stddev	226.	193.	43.1	64.
%RSD	.14081	.90199	.61786	.59552
#1	160380.	21228.	6940.2	10641.
#2	160700.	21500.	7001.1	10731.

Zoom In Zoom Out

Sample Name: jc62779-8f Acquired: 3/31/2018 19:57:57 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.3691**	**-.0000**	**.0001**	**.0011**	**.0010**	**.0014**	**5.041**	**.0051**	**-.0001**
Stddev	.0023	.0000	.0000	.0003	.0002	.0006	.030	.0002	.0000
%RSD	.6109	18.18	11.31	24.30	19.16	43.63	.5988	3.070	1.518
#1	.3706	-.0001	.0001	.0013	.0012	.0018	5.020	.0052	-.0001
#2	.3675	-.0000	.0001	.0009	.0009	.0010	5.063	.0050	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0028**	**.0059**	**.0015**	**-.0016**	**.0003**	**.0005**	**-.0016**	**.0650**	**63.90**
Stddev	.0004	.0001	.0019	.0002	.0008	.0020	.0005	.0082	.32
%RSD	12.78	.9728	125.6	12.34	247.8	437.0	29.90	12.66	.5062
#1	.0031	.0059	.0029	-.0018	-.0002	.0019	-.0019	.0592	64.13
#2	.0026	.0059	.0002	-.0015	.0008	-.0009	-.0013	.0708	63.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1471**	**13.96**	**1.494**	**91.43**	**.0152**	**.0025**	**7.602**	**-.0006**	**.1908**
Stddev	.0011	.03	.006	.07	.0005	.0000	.010	.0001	.0009
%RSD	.7340	.2479	.3730	.0816	3.387	1.142	.1330	20.94	.4753
#1	.1479	13.98	1.490	91.48	.0148	.0025	7.609	-.0007	.1914
#2	.1464	13.93	1.498	91.38	.0155	.0026	7.595	-.0005	.1901

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0007**	**.0010**	**-.0043**	**7.546**	**.0012**	**.0124**	**.3054**
Stddev	.0007	.0010	.0001	.005	.0011	.0031	.0009
%RSD	91.08	104.0	1.499	.0652	89.49	24.79	.2812
#1	.0003	.0017	-.0042	7.550	.0020	.0102	.3060
#2	.0012	.0003	-.0043	7.543	.0005	.0146	.3048

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161920.**	**21323.**	**7050.7**	**10887.**
Stddev	332.	143.	22.8	24.
%RSD	.20510	.67223	.32349	.22363
#1	162150.	21424.	7034.6	10870.
#2	161690.	21221.	7066.8	10904.

Zoom In Zoom Out

Sample Name: jc62779-9f Acquired: 3/31/2018 20:01:01 Type: Unk
Method: Accutest XPress(v95) 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	**.2213**	**-.0001**	**-.0003**	**.0024**	**.0011**	**.0013**	F **12.22**	**.0057**
Stddev	.0042	.0000	.0001	.0001	.0001	.0004	.11	.0001
%RSD	1.880	9.371	32.85	2.732	8.966	28.40	.9149	1.836
#1	.2183	-.0001	-.0002	.0024	.0011	.0011	12.15	.0057
#2	.2242	-.0001	-.0004	.0025	.0012	.0016	12.30	.0056

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0012**	**.0030**	**.0055**	**.0007**	F **-.0042**	**.0006**	**-.0035**	**-.0011**
Stddev	.0002	.0002	.0000	.0010	.0006	.0021	.0006	.0007
%RSD	15.19	7.075	.3489	133.9	14.23	353.8	16.00	62.37
#1	-.0010	.0029	.0055	.0000	-.0038	-.0009	-.0039	-.0016
#2	-.0013	.0032	.0055	.0014	-.0046	.0021	-.0031	-.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0146**	**80.66**	**.3923**	**18.68**	**1.844**	**62.16**	**.0112**	**.0074**
Stddev	.0106	1.32	.0058	.32	.078	1.02	.0009	.0001
%RSD	72.45	1.633	1.477	1.705	4.240	1.648	8.260	1.561
#1	.0221	79.73	.3882	18.46	1.789	61.43	.0105	.0075
#2	.0071	81.59	.3964	18.91	1.899	62.88	.0118	.0073

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**7.810**	**-.0008**	**.2325**	**.0004**	**-.0003**	**-.0042**	**1.963**	**.0018**
Stddev	.027	.0002	.0043	.0007	.0009	.0001	.010	.0042
%RSD	.3441	20.14	1.832	170.8	288.9	2.478	.5255	237.5
#1	7.829	-.0007	.2295	-.0001	.0003	-.0042	1.970	-.0012
#2	7.791	-.0009	.2355	.0008	-.0009	-.0043	1.956	.0047

Elem	Li6707	P_1774
Avg	**.0078**	**.8948**
Stddev	.0002	.0004
%RSD	2.200	.0426
#1	.0079	.8951
#2	.0077	.8946

Zoom In Zoom Out

Sample Name: jc62779-9f Acquired: 3/31/2018 20:01:01 Type: Unk
Method: Accutest XPress(v95) 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	**160230.**	**21328.**	**6945.4**	**10763.**
Stddev	1211.	7.	9.2	6.
%RSD	.75605	.03345	.13202	.05828
#1	161090.	21323.	6938.9	10758.
#2	159380.	21333.	6951.8	10767.

Zoom In Zoom Out

Sample Name: jc62779-10f Acquired: 3/31/2018 20:04:04 Type: Unk
Method: Accutest XPress(v95) Mode: 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	**.1115**	**-.0001**	**.0002**	**.0010**	**.0006**	**.0011**	**.9404**	**.0052**	**-.0000**
Stddev	.0013	.0000	.0000	.0000	.0002	.0002	.0044	.0004	.0003
%RSD	1.138	37.52	21.76	.8157	32.56	17.93	.4667	8.115	1171.
#1	.1124	-.0001	.0002	.0010	.0005	.0013	.9373	.0055	-.0002
#2	.1106	-.0001	.0001	.0011	.0008	.0010	.9435	.0049	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0009**	**.0061**	**.0009**	**-.0009**	**-.0008**	**.0008**	**.0008**	**.0087**	**69.87**
Stddev	.0003	.0000	.0012	.0003	.0009	.0004	.0016	.0022	.22
%RSD	32.82	.3285	132.0	32.52	106.5	55.21	201.5	25.03	.3143
#1	.0011	.0061	.0001	-.0007	-.0014	.0011	.0019	.0071	70.02
#2	.0007	.0061	.0017	-.0012	-.0002	.0005	-.0003	.0102	69.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0167**	**31.09**	**4.270**	**59.23**	**.0430**	**.0005**	**8.449**	**-.0007**	**.2505**
Stddev	.0034	.10	.011	.07	.0010	.0002	.012	.0005	.0006
%RSD	20.24	.3242	.2590	.1266	2.360	36.03	.1379	67.13	.2370
#1	.0143	31.16	4.278	59.29	.0423	.0004	8.457	-.0004	.2509
#2	.0191	31.02	4.262	59.18	.0438	.0006	8.441	-.0010	.2501

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0006**	**-.0017**	**-.0049**	**1.445**	**-.0002**	**.0018**	**.1598**
Stddev	.0000	.0003	.0003	.004	.0022	.0002	.0004
%RSD	.5529	15.34	6.369	.2845	1243.	9.063	.2381
#1	-.0006	-.0019	-.0046	1.448	-.0017	.0019	.1601
#2	-.0006	-.0015	-.0051	1.442	.0014	.0017	.1595

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161890.**	**21265.**	**6989.0**	**10819.**
Stddev	101.	175.	11.3	23.
%RSD	.06263	.82341	.16228	.21627
#1	161960.	21141.	6981.0	10802.
#2	161820.	21389.	6997.0	10836.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 20:07:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 5

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.939**	**1.929**	**1.880**	**1.962**	**1.927**	**1.902**	**1.943**	**2.003**	**.2366**
Stddev	.013	.013	.005	.004	.007	.004	.002	.005	.0007
%RSD	.6681	.6822	.2837	.2262	.3454	.1929	.0925	.2621	.2789
#1	1.948	1.938	1.876	1.959	1.932	1.904	1.945	2.000	.2361
#2	1.930	1.920	1.884	1.965	1.923	1.899	1.942	2.007	.2370
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	**1.881**	**1.927**	**1.896**	**2.015**	**1.986**	**1.917**	**1.891**	**38.65**	**39.60**
Stddev	.004	.004	.005	.007	.006	.011	.004	.23	.20
%RSD	.1902	.1923	.2764	.3335	.3296	.5700	.2169	.6046	.5073
#1	1.883	1.925	1.893	2.011	1.982	1.910	1.888	38.81	39.74
#2	1.878	1.930	1.900	2.020	1.991	1.925	1.894	38.48	39.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.92**	**39.98**	**38.43**	**39.12**	**1.924**	**1.858**	**4.816**	**1.870**	**1.960**
Stddev	.23	.17	.13	.05	.006	.003	.013	.001	.009
%RSD	.5955	.4129	.3343	.1231	.3119	.1331	.2701	.0471	.4535
#1	39.09	40.10	38.53	39.16	1.920	1.856	4.806	1.869	1.967
#2	38.76	39.87	38.34	39.09	1.928	1.860	4.825	1.871	1.954
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: 3/31/2018 20:07:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 5

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.948**	**1.888**	**1.884**	**1.857**	**1.971**	**1.887**	**1.862**
Stddev	.008	.000	.005	.005	.005	.015	.005
%RSD	.4052	.0116	.2420	.2779	.2492	.7853	.2787
#1	1.954	1.887	1.887	1.854	1.968	1.898	1.858
#2	1.942	1.888	1.881	1.861	1.975	1.877	1.865
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	**160780.**	**21180.**	**7021.8**	**10835.**
Stddev	135.	21.	16.1	18.
%RSD	.08407	.09890	.22959	.16933
#1	160680.	21194.	7010.4	10822.
#2	160870.	21165.	7033.2	10848.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 20:09:52 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0001**	**-.0001**	**.0000**	**-.0002**	**-.0010**	**.0001**	**.0002**	**.0003**
Stddev	.0002	.0000	.0000	.0003	.0000	.0003	.0000	.0001	.0005
%RSD	26.20	38.32	27.65	3475.	1.336	33.38	.1029	35.34	148.0
#1	.0007	-.0001	-.0001	.0002	-.0002	-.0007	.0001	.0003	.0006
#2	.0010	-.0001	-.0001	-.0002	-.0002	-.0012	.0001	.0002	-.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	**-.0002**	**.0020**	**-.0005**	**.0009**	**-.0007**	**-.0013**	**.0006**	**.0015**	**.0136**
Stddev	.0006	.0001	.0003	.0002	.0004	.0004	.0010	.0029	.0000
%RSD	312.9	3.913	60.37	17.76	53.94	28.23	148.9	192.1	.3326
#1	.0002	.0019	-.0007	.0010	-.0004	-.0016	-.0000	-.0005	.0136
#2	-.0006	.0021	-.0003	.0008	-.0009	-.0011	.0013	.0035	.0137
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**	**-.0081**	**.0364**	**.1384**	**-.0011**	**.0004**	**-.0038**	**.0004**	**-.0002**
Stddev	.0004	.0101	.0340	.0128	.0002	.0001	.0002	.0000	.0001
%RSD	67.81	123.8	93.55	9.246	21.89	26.08	6.608	3.714	30.73
#1	-.0008	-.0010	.0604	.1475	-.0010	.0004	-.0039	.0005	-.0001
#2	-.0003	-.0153	.0123	.1294	-.0013	.0003	-.0036	.0004	-.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: 3/31/2018 20:09:52 Type: QC
Method: Accutest XPress(v95) 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**	**.0010**	**.0002**	**.0062**	**.0025**	**.0004**	**.0069**
Stddev	.0001	.0013	.0000	.0002	.0010	.0026	.0000
%RSD	30.74	133.9	25.30	2.640	40.42	630.3	.3926
#1	.0003	.0019	.0002	.0063	.0033	.0022	.0069
#2	.0005	.0001	.0001	.0061	.0018	-.0014	.0069
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	**166520.**	**21651.**	**7196.9**	**11491.**
Stddev	121.	22.	3.7	12.
%RSD	.07272	.10071	.05103	.10839
#1	166610.	21636.	7194.3	11482.
#2	166430.	21667.	7199.5	11499.

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 20:12:53 Type: QC
Method: Accutest XPress(v95) 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	**.1894**	**.0018**	**.0029**	**.0489**	**.0094**	**.0088**	**.0150**	**.0100**
Stddev	.0009	.0001	.0001	.0000	.0002	.0003	.0000	.0002
%RSD	.4927	3.764	2.956	.0395	2.486	3.664	.0862	1.774
#1	.1900	.0018	.0029	.0489	.0096	.0086	.0150	.0101
#2	.1887	.0019	.0030	.0489	.0093	.0091	.0150	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.0040**	**.0470**	**.0198**	**.0082**	**.0094**	**.0030**	**.0083**	W **.0046**
Stddev	.0007	.0006	.0001	.0004	.0004	.0014	.0008	.0017
%RSD	18.36	1.318	.5702	4.376	4.368	47.28	9.737	36.24
#1	.0045	.0474	.0199	.0080	.0097	.0020	.0077	.0034
#2	.0034	.0466	.0198	.0085	.0091	.0039	.0088	.0058
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value	.0050							.0060
Range	-20.00%							-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1921**	**4.947**	**.0941**	**5.042**	**4.787**	**5.026**	**.0928**	**.0190**
Stddev	.0068	.026	.0001	.011	.016	.003	.0005	.0004
%RSD	3.561	.5302	.0647	.2082	.3415	.0673	.4904	2.006
#1	.1970	4.966	.0940	5.050	4.775	5.029	.0932	.0187
#2	.1873	4.928	.0941	5.035	4.798	5.024	.0925	.0192
Check ?	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: 3/31/2018 20:12:53 Type: QC
Method: Accutest XPress(v95) 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	**.1633**	**.0100**	**.0093**	**.0099**	**.0475**	**.0100**	**.0479**	**.0206**
Stddev	.0016	.0003	.0000	.0000	.0011	.0002	.0002	.0002
%RSD	.9780	3.211	.1358	.0098	2.387	1.986	.3140	.8970
#1	.1644	.0103	.0093	.0099	.0467	.0098	.0478	.0207
#2	.1621	.0098	.0093	.0099	.0483	.0101	.0480	.0205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0486**	**.0534**
Stddev	.0021	.0004
%RSD	4.261	.8360
#1	.0501	.0531
#2	.0472	.0537
Check ?	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	**165010.**	**21340.**	**7143.1**	**11316.**
Stddev	238.	121.	23.3	48.
%RSD	.14432	.56823	.32589	.42569
#1	165180.	21254.	7126.6	11282.
#2	164840.	21426.	7159.6	11351.

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 20:15:51 Type: QC
Method: Accutest XPress(v95) 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	**.0049**	**.0010**	**.0011**	**.0032**	**.0023**	F **-.0004**	**.0031**	**.0042**
Stddev	.0007	.0000	.0001	.0002	.0001	.0003	.0000	.0001
%RSD	13.50	4.132	9.769	4.999	3.160	81.25	1.508	3.495
#1	.0044	.0010	.0010	.0033	.0023	-.0002	.0031	.0041
#2	.0053	.0010	.0011	.0030	.0022	-.0007	.0032	.0043
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 **.0003**	**.0022**	**.0111**	**.0037**	**.0018**	F **-.0009**	**.0042**	F **.0011**
Stddev	.0003	.0000	.0000	.0006	.0008	.0007	.0021	.0009
%RSD	111.5	1.424	.1643	16.76	43.22	84.13	48.63	83.24
#1	.0001	.0022	.0111	.0033	.0012	-.0014	.0028	.0017
#2	.0005	.0022	.0111	.0041	.0023	-.0004	.0057	.0005
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	**.1225**	**1.068**	**.0016**	**.0712**	**2.120**	**1.166**	**-.0029**	**.0002**
Stddev	.0100	.008	.0039	.0108	.062	.001	.0002	.0002
%RSD	8.200	.7693	246.4	15.11	2.941	.0703	7.717	135.8
#1	.1154	1.062	.0043	.0636	2.164	1.167	-.0027	.0000
#2	.1296	1.073	-.0012	.0788	2.076	1.165	-.0030	.0003
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 20:15:51 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0008**	**-.0002**	**-.0001**	**.0006**	**-.0001**	**-.0000**	**.0035**
Stddev	.0003	.0004	.0000	.0002	.0004	.0001	.0021	.0011
%RSD	30.39	44.53	30.47	150.3	74.15	202.7	61170.	31.77
#1	.0009	.0006	-.0001	-.0003	.0009	-.0002	-.0015	.0043
#2	.0014	.0011	-.0002	.0000	.0003	.0000	.0014	.0027
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0023**	**.0072**
Stddev	.0009	.0001
%RSD	38.87	1.865
#1	-.0017	.0073
#2	-.0029	.0071
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**164460.**	**21115.**	**7080.3**	**11310.**
Stddev	711.	78.	11.2	24.
%RSD	.43255	.36910	.15830	.21419
#1	163960.	21060.	7072.3	11293.
#2	164970.	21170.	7088.2	11327.

Zoom In Zoom Out

Sample Name: icsa Acquired: 3/31/2018 20:18:50 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0000**	**.0006**	**-.0005**	**.0009**	**.0019**	**-.0002**	**-.0014**	**-.0011**
Stddev	.0003	.0000	.0001	.0000	.0001	.0005	.0001	.0006	.0003
%RSD	13.76	396.2	17.26	8.632	6.227	26.21	47.60	43.36	26.40
#1	.0024	-.0000	.0006	-.0005	.0008	.0015	-.0002	-.0010	-.0009
#2	.0020	.0000	.0007	-.0006	.0009	.0022	-.0001	-.0018	-.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	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0029**	**.0034**	**-.0030**	**.0047**	**.0061**	**.0030**	**512.4**	**387.5**
Stddev	.0001	.0001	.0001	.0002	.0007	.0011	.0026	5.4	6.5
%RSD	19.29	3.716	2.916	7.781	15.70	17.58	85.31	1.055	1.688
#1	-.0005	.0029	.0035	-.0029	.0042	.0069	.0048	508.6	382.9
#2	-.0007	.0028	.0033	-.0032	.0052	.0054	.0012	516.2	392.2
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	**189.2**	**509.0**	**.2300**	**.1858**	**-.0047**	**.0012**	**-.0108**	**-.0048**	**-.0025**
Stddev	.3	1.1	.0165	.0008	.0008	.0004	.0001	.0003	.0004
%RSD	.1661	.2204	7.164	.4374	17.92	35.46	.7008	6.336	16.68
#1	189.0	508.2	.2416	.1863	-.0053	.0009	-.0107	-.0050	-.0022
#2	189.5	509.8	.2183	.1852	-.0041	.0015	-.0108	-.0046	-.0028
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: 3/31/2018 20:18:50 Type: QC
Method: Accutest XPress(v95) 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	**-.0023**	**-.0005**	**-.0007**	**-.0013**	**.0131**	**-.0049**	**.0141**
Stddev	.0003	.0021	.0000	.0038	.0003	.0010	.0001
%RSD	14.78	379.4	7.390	301.9	1.986	20.80	.6280
#1	-.0025	.0009	-.0006	.0014	.0129	-.0056	.0140
#2	-.0021	-.0020	-.0007	-.0039	.0132	-.0041	.0142
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	**148190.**	**20294.**	**6488.8**	**9849.8**
Stddev	1051.	28.	12.1	4.4
%RSD	.70903	.13935	.18690	.04443
#1	147440.	20314.	6480.2	9846.7
#2	148930.	20274.	6497.4	9852.9

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/31/2018 20:21:53 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4905**	**.4735**	**.9821**	**.4916**	**.4837**	**.5038**	**.4978**	**.9866**	**.9916**
Stddev	.0090	.0083	.0027	.0013	.0010	.0024	.0001	.0017	.0011
%RSD	1.830	1.749	.2737	.2659	.2059	.4767	.0280	.1690	.1145
#1	.4841	.4676	.9840	.4925	.4844	.5021	.4977	.9878	.9908
#2	.4968	.4793	.9802	.4907	.4830	.5055	.4979	.9854	.9925
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	**.4847**	**.9417**	**1.000**	**1.094**	**.9787**	**.9761**	**1.021**	**488.6**	**378.4**
Stddev	.0009	.0043	.004	.001	.0012	.0033	.001	7.6	1.0
%RSD	.1922	.4608	.3505	.0648	.1210	.3340	.1169	1.551	.2700
#1	.4853	.9448	1.003	1.095	.9779	.9738	1.022	494.0	377.7
#2	.4840	.9386	.9979	1.094	.9796	.9784	1.020	483.3	379.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**182.8**	**494.8**	**.2222**	**.1759**	**.4930**	**.4677**	**.5059**	**.4481**	**.5213**
Stddev	3.6	9.1	.0481	.0158	.0006	.0017	.0003	.0017	.0094
%RSD	1.946	1.846	21.64	8.958	.1158	.3716	.0632	.3749	1.804
#1	180.3	488.3	.1882	.1871	.4934	.4690	.5061	.4493	.5146
#2	185.3	501.2	.2562	.1648	.4926	.4665	.5056	.4469	.5279
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: 3/31/2018 20:21:53 Type: QC
Method: Accutest XPress(v95) 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	**.5007**	**.4755**	**.4929**	**.4710**	**.5524**	**.4922**	**.4983**
Stddev	.0008	.0023	.0000	.0018	.0023	.0093	.0007
%RSD	.1683	.4856	.0096	.3772	.4126	1.881	.1362
#1	.5013	.4772	.4929	.4697	.5508	.4856	.4988
#2	.5001	.4739	.4930	.4723	.5540	.4987	.4979
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	**148510.**	**20552.**	**6542.8**	**9961.3**
Stddev	327.	6.	5.4	2.9
%RSD	.21996	.02972	.08237	.02879
#1	148280.	20557.	6539.0	9963.4
#2	148740.	20548.	6546.6	9959.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 20:24:54 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 1

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.920**	**1.910**	**1.878**	**1.958**	**1.922**	**1.903**	**1.937**	**1.999**	**.2366**
Stddev	.003	.001	.004	.003	.005	.007	.005	.003	.0004
%RSD	.1628	.0663	.2314	.1492	.2790	.3777	.2767	.1615	.1629
#1	1.918	1.909	1.875	1.956	1.918	1.898	1.933	1.996	.2364
#2	1.923	1.911	1.881	1.960	1.926	1.908	1.941	2.001	.2369
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	**1.874**	**1.924**	**1.899**	**2.017**	**1.985**	**1.916**	**1.890**	**38.28**	**39.24**
Stddev	.004	.005	.005	.004	.003	.005	.006	.03	.01
%RSD	.2191	.2797	.2442	.1911	.1456	.2730	.3454	.0866	.0130
#1	1.871	1.921	1.896	2.014	1.983	1.912	1.885	38.25	39.23
#2	1.877	1.928	1.902	2.019	1.987	1.920	1.894	38.30	39.24
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**	**39.60**	**38.12**	**38.85**	**1.925**	**1.854**	**4.812**	**1.867**	**1.942**
Stddev	.00	.06	.14	.02	.007	.005	.011	.003	.002
%RSD	.0011	.1434	.3558	.0503	.3779	.2966	.2351	.1607	.0880
#1	38.55	39.64	38.03	38.83	1.920	1.850	4.804	1.865	1.940
#2	38.55	39.56	38.22	38.86	1.930	1.858	4.820	1.869	1.943
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: 3/31/2018 20:24:54 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 1

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.946**	**1.887**	**1.881**	**1.858**	**1.965**	**1.865**	**1.862**
Stddev	.007	.004	.004	.007	.005	.002	.005
%RSD	.3593	.2269	.2397	.3823	.2356	.0908	.2800
#1	1.941	1.884	1.878	1.853	1.961	1.863	1.858
#2	1.951	1.890	1.884	1.864	1.968	1.866	1.866
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	**160820.**	**21257.**	**7006.6**	**10815.**
Stddev	524.	8.	9.2	11.
%RSD	.32592	.03902	.13100	.09874
#1	161200.	21263.	7013.1	10822.
#2	160450.	21252.	7000.1	10807.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 20:27:43 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0002**	**-.0000**	**-.0000**	**.0002**	**-.0001**	**-.0000**	**.0002**	**-.0000**
Stddev	.0001	.0001	.0000	.0002	.0000	.0006	.0000	.0000	.0002
%RSD	4.219	47.17	47.41	1487.	1.757	838.2	128.0	4.101	373.2
#1	.0013	-.0001	-.0000	-.0002	.0002	.0004	-.0000	.0002	-.0001
#2	.0014	-.0002	-.0000	.0002	.0002	-.0005	-.0000	.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0004**	**-.0002**	**.0011**	**-.0000**	**-.0010**	**-.0003**	**.0119**	**-.0005**
Stddev	.0003	.0001	.0005	.0008	.0002	.0018	.0018	.0031	.0039
%RSD	122.3	14.18	247.4	71.94	411.8	175.0	721.6	25.97	849.4
#1	-.0000	.0003	-.0006	.0016	.0001	.0002	.0010	.0140	.0023
#2	-.0005	.0004	.0002	.0005	-.0002	-.0023	-.0016	.0097	-.0032
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**	**.0023**	**.0821**	**.0945**	**.0003**	**.0002**	**-.0026**	**.0001**	**.0001**
Stddev	.0024	.0030	.0186	.0049	.0009	.0001	.0003	.0002	.0000
%RSD	169.1	133.5	22.63	5.158	304.9	43.81	10.64	147.0	43.86
#1	.0003	.0044	.0952	.0911	.0010	.0003	-.0024	.0003	.0001
#2	-.0031	.0001	.0689	.0980	-.0004	.0002	-.0028	-.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: 3/31/2018 20:27:43 Type: QC
Method: Accutest XPress(v95) 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**	**.0011**	**.0001**	**.0042**	**.0003**	**.0015**	**.0069**
Stddev	.0006	.0014	.0001	.0013	.0014	.0011	.0005
%RSD	402.7	133.2	144.1	30.22	472.2	73.90	7.656
#1	.0003	.0021	-.0000	.0051	-.0007	.0007	.0066
#2	-.0006	.0001	.0001	.0033	.0012	.0023	.0073
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	**166800.**	**21585.**	**7225.8**	**11536.**
Stddev	114.	157.	26.0	40.
%RSD	.06808	.72595	.35972	.34450
#1	166880.	21474.	7207.4	11508.
#2	166720.	21696.	7244.1	11564.

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}	☒	1	Zr	0.001380	0.000000	No
Be 313.042 {108}	☒	6	V	0.000593	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000415	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	☒	11	As	0.019630	0.000000	No
			Ni	-0.000511	0.000000	No
			Fe	0.000002	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001890	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	0.000000	0.000000	No
			W	-0.001000	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000024	0.000000	No
			Mo	-0.001050	0.000000	No
			Ni	0.000256	0.000000	No
			Ti	0.002036	0.000000	No
			Ba	0.000329	0.000000	No
			W	-0.001840	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	8	Mn	0.000495	0.000000	No
			V	-0.000027	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000013	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	13	Cr	0.000100	0.000000	No
			V	-0.000428	0.000000	No
			Mo	0.000672	0.000000	No
			Ti	-0.000185	0.000000	No
			Fe	-0.000231	0.000000	No
			Zn	-0.000004	0.000000	No
			Co	-0.001420	0.000000	No
			Si	0.000028	0.000000	No
			Mn	-0.000102	0.000000	No
			Se	0.000050	0.000000	No
			Sb	-0.000130	0.000000	No
			W	0.000000	0.000000	No
			Al	-0.000001	0.000000	No
Mn 257.610 {131}	☒	4	Fe	-0.000077	0.000000	No
			Si	0.000050	0.000000	No
			Ba	0.000100	0.000000	No
			Ni	0.000028	0.000000	No
Ni 231.604 {446}	☒	8	Fe	0.000035	0.000000	No
			Zn	0.000079	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000125	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No
			Cu	0.000050	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Se	0.000100	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000249	0.000000	No
			Mo	-0.000015	-0.000003	No
			Ti	-0.000417	0.000000	No
			Fe	-0.000182	0.000000	No
			Zn	-0.000104	0.000000	No
			Ca	0.000002	0.000000	No
			Zr	0.007638	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000001	0.000000	No
			Ba	-0.000000	0.000000	No
			Cr	0.000039	0.000000	No
			V	-0.005234	0.000000	No
			Al	-0.000003	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000689	0.000000	No
			Mo	-0.000100	0.000000	No
			Fe	0.000014	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.008057	0.000000	No
			Mn	-0.001937	0.000000	No
Zn 206.200 {464}	☒	9	Cr	-0.000850	0.000000	No
			Fe	0.000021	0.000000	No
			Si	-0.000035	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	0.000255	0.000000	No
			Cu	0.001248	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000364	0.000000	No
As 189.042 {478}	☒	17	Al	-0.000003	0.000000	No
			Fe	-0.000018	0.000000	No
			Ca	0.000005	0.000000	No
			Mo	0.004257	0.000000	No
			Cr	0.003320	0.000000	No
			Ba	0.000083	0.000000	No
			Sn	-0.000037	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000031	0.000000	No
			Zn	0.000020	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.000000	0.000000	No
			Cu	0.000143	0.000000	No
			Co	-0.001066	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	-0.000095	0.000000	No
			S	0.000004	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000303	0.000000	No
			Mo	-0.005110	0.000000	No
			Al	-0.000002	0.000000	No
			Fe	-0.000024	0.000000	No
			V	-0.000180	0.000000	No
			Mn	0.000300	0.000000	No
			Si	0.000010	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000520	0.000000	No
			Mg	-0.000002	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Co	0.001822	0.000000	No
			Sr	0.000610	0.000000	No
			B	0.000205	0.000000	No
			Ba	0.000100	0.000000	No
			Zn	-0.000023	0.000000	No
			As	0.000101	0.000000	No
			W	0.000000	0.000000	No
			Cu	-0.000010	0.000000	No
			Zr	0.000056	0.000000	No
			Pb	-0.000020	0.000000	No
			S	0.000010	0.000000	No
			Sn	-0.000086	0.000000	No
			Li	0.000000	0.000000	No
			K	0.000000	0.000000	No
Pb 220.353 {453}	☒	20	Al	-0.000166	0.000000	No
			Fe	0.000022	0.000000	No
			Ca	0.000002	0.000000	No
			Mn	0.000008	0.000000	No
			Mo	-0.001550	0.000000	No
			Cu	0.000711	0.000000	No
			Co	0.000110	0.000000	No
			Ti	0.000039	0.000000	No
			Si	0.000207	0.000000	No
			Ba	0.000020	0.000000	No
			Sb	-0.000200	0.000000	No
			Sr	-0.000033	0.000000	No
			W	0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
			Cd	0.000012	0.000000	No
			Cr	-0.000037	0.000000	No
			Zr	-0.000280	0.000000	No
			Ni	0.000270	0.000000	No
			S	0.000008	0.000000	No
			Zn	-0.000050	0.000000	No
Se 196.090 {472}	☒	22	Al	-0.000004	0.000000	No
			Ca	0.000002	0.000000	No
			Mn	0.000824	0.000000	No
			Mo	0.000381	0.000000	No
			Fe	-0.000302	0.000000	No
			Co	0.000159	0.000000	No
			Sr	-0.000011	0.000000	No
			Cu	0.000059	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000053	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	0.000050	0.000000	No
			B	-0.000097	0.000000	No
			Ti	0.000045	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000300	0.000000	No
			Ba	-0.000045	0.000000	No
			Mg	-0.000001	0.000000	No
			Pb	-0.000011	0.000000	No
			Ni	-0.000100	0.000000	No
			Cr	-0.000024	0.000000	No
			S	-0.000009	0.000000	No
Sb 206.833 {463}	☒	16	Fe	0.000023	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Al	-0.000006	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000600	0.000000	No
			Cr	0.022410	0.000000	No
			V	-0.001774	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	-0.012880	0.000000	No
			Ti	-0.000872	0.000000	No
			Sn	-0.007300	0.000000	No
			Mg	-0.000001	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	0.000050	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000101	0.000000	No
			Mo	0.034800	0.000000	No
			Zr	-0.005018	0.000000	No
			Ti	0.000419	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	0.003280	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.002602	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	0.000778	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	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}	☒	3	Mo	-0.020250	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.005360	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.015570	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.002700	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.037400	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.031055	0.000000	No
			V	0.030619	0.000000	No
			Ti	0.003744	0.000000	No
			Al	0.000014	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	0.003000	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.002900	0.000000	No
			Fe	0.000018	0.000000	No
			Si	0.000131	0.000000	No
			Zr	-0.000500	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000043	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001070	0.000000	No
			Si	0.000035	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}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.009921	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	-0.002570	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.001000	0.000000	No
			Se	-0.002600	0.000000	No
			Cu	-0.001300	0.000000	No
			Tl	-0.002600	0.000000	No
Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
			Ti	0.000400	0.000000	No
			Fe	-0.000055	0.000000	No
			Si	0.000615	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				S	-0.000030	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	☒	7	Mo	-0.005000	0.000000	No
				Al	-0.000087	0.000000	No
				Fe	0.000143	0.000000	No
				Mn	0.005000	0.000000	No
				W	-0.045000	0.000000	No
				Ca	0.000015	0.000000	No
				Mg	0.000009	0.000000	No
	Bi 223.061 {451}	☒	6	Ti	-0.140123	0.000000	No
				V	-0.000680	0.000000	No
				Co	-0.003770	0.000000	No
				Ca	-0.000015	0.000000	No
				Mg	-0.000014	0.000000	No
				Fe	0.000190	0.000000	No
	Li 670.784 { 50}	☒	2	Ca	0.000038	0.000000	No
				Fe	0.000040	0.000000	No
	P 177.495 {490}	☒	1	Mn	-0.005212	0.000000	No

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
	Ba 455.403 { 74}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000780	1.181528	0.000000	1.000000
	Be 313.042 {108}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000198	2.222538	0.000000	1.000000
	Cd 228.802 {448}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000226	0.947963	0.000000	1.000000
	Co 228.616 {448}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000312	0.569852	0.000000	1.000000
	Cr 267.716 {126}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000119	0.109890	0.000000	1.000000
	Cu 324.754 {104}2	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.004052	0.189471	0.000000	1.000000
	Mn 257.610 {131}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000036	0.677400	0.000000	1.000000
	Ni 231.604 {446}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000046	0.422508	0.000000	1.000000
	Ag 328.068 {103}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000278	0.122862	0.000000	1.000000
	V 292.402 {115}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000193	0.177763	0.000000	1.000000
	Zn 206.200 {464}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000145	1.316236	0.000000	1.000000
	As 189.042 {478}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000110	0.104680	0.000000	1.000000
	Tl 190.856 {477}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000266	0.071484	0.000000	1.000000
	Pb 220.353 {453}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000179	0.183462	0.000000	1.000000
	Se 196.090 {472}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000023	0.075128	0.000000	1.000000
	Sb 206.833 {463}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000213	0.126776	0.000000	1.000000
	Al 396.152 { 85}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000972	0.030975	0.000000	1.000000
	Ca 317.933 {106}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.008247	0.064241	0.000000	1.000000
	Fe 259.940 {130}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000080	0.046260	0.000000	1.000000
	Mg 279.079 {121}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000134	0.007218	0.000000	1.000000
	K 766.490 { 44}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.001861	0.014923	0.000000	1.000000
	Na 589.592 { 57}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.005938	0.060248	0.000000	1.000000
	B 208.959 {462}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000946	0.197986	0.000000	1.000000
	Mo 202.030 {467}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000727	0.748372	0.000000	1.000000
	Si 212.412 {459}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.003030	0.170659	0.000000	1.000000
	Sn 189.989 {478}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000039	0.239049	0.000000	1.000000
	Sr 407.771 { 83}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000509	2.360718	0.000000	1.000000
	Ti 334.904 {101}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000094	0.105827	0.000000	1.000000
	Y 360.073 { 94}*	4/1/2018 8:37:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 371.030 { 91}*	4/1/2018 8:37:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 224.306 {451}*	4/1/2018 8:37:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	In 230.606 {446}*	4/1/2018 8:37:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	W 207.911 {462}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000134	0.291296	0.000000	1.000000
	Zr 339.198 { 99}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000710	0.408776	0.000000	1.000000
	S 182.034 {485}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.003115	0.060765	0.000000	1.000000
	Bi 223.061 {451}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000250	0.140386	0.000000	1.000000
	Li 670.784 { 50}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.006672	0.381214	0.000000	1.000000
	P 177.495 {490}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	1/Conc	-0.009628	0.145225	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	0.000530	0.001766	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000105	0.000349	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000273	0.000909	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000330	0.001100	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000463	0.001543	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000623	0.002078	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000069	0.000230	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000510	0.001699	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000635	0.002118	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000497	0.001658	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000164	0.000547	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001577	0.005256	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001519	0.005065	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001639	0.005463	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.003021	0.010070	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.002216	0.007386	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.016356	0.054521	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.004547	0.015155	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.003265	0.010882	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.026717	0.089056	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.063557	0.211856	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.015762	0.052539	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.001010	0.003367	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000331	0.001104	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001637	0.005455	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000702	0.002340	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000181	0.000602	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000615	0.002050	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	0.001660	0.005533	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000245	0.000818	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.002892	0.009642	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.002655	0.008852	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.002585	0.008615	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.001263	0.004209	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 4/4/2018 9:32:26 Type: Cal
Method: Accutest 2(v145) 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	**.0019**	**.0001**	**.0003**	**-.0004**	**.0000**	**.0023**	**.0000**	**-.0002**	**-.0001**
Stddev	.0003	.0001	.0001	.0003	.0000	.0000	.0000	.0001	.0000
%RSD	17.10	72.63	22.32	80.28	493.7	.1534	88.31	59.85	6.349
#1	.0017	.0001	.0003	-.0006	-.0000	.0023	.0000	-.0001	-.0001
#2	.0021	.0000	.0002	-.0002	.0000	.0023	.0000	-.0002	-.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	**.0000**	**.0005**	**.0002**	**-.0001**	**-.0002**	**.0003**	**.0001**	**-.0015**	**.0037**
Stddev	.0000	.0003	.0001	.0000	.0002	.0001	.0000	.0003	.0001
%RSD	173.9	60.96	32.21	10.17	69.84	41.55	15.84	20.38	1.514
#1	-.0000	.0003	.0001	-.0001	-.0001	.0002	.0001	-.0013	.0037
#2	.0001	.0007	.0002	-.0001	-.0004	.0004	.0001	-.0017	.0037

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	**.0000**	**.0000**	**.0015**	**.0004**	**.0001**	**.0001**	**.0040**	**.0000**	**.0000**
Stddev	.0001	.0000	.0001	.0008	.0000	.0001	.0002	.0000	.0000
%RSD	240.7	776.2	3.387	191.4	22.36	52.30	4.393	66.63	96.59
#1	-.0000	-.0000	.0015	-.0002	.0001	.0002	.0039	.0000	.0000
#2	.0001	.0000	.0015	.0010	.0001	.0001	.0042	.0000	.0001

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**	**.0010**	**-.0002**	**-.0005**	**-.0002**	**-.0026**	**-.0092**
Stddev	.0001	.0004	.0000	.0000	.0000	.0004	.0001
%RSD	624.8	37.85	10.31	8.194	21.95	16.61	1.503
#1	-.0000	.0007	-.0002	-.0005	-.0001	-.0023	-.0091
#2	.0000	.0012	-.0002	-.0004	-.0002	-.0029	-.0093

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 4/4/2018 9:32:26 Type: Cal
Method: Accutest 2(v145) 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	**108650.**	**14838.**	**3997.9**	**9224.0**
Stddev	19.	74.	5.2	20.4
%RSD	.01741	.49628	.13081	.22161
#1	108660.	14890.	3994.2	9209.6
#2	108630.	14786.	4001.6	9238.5

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 4/4/2018 9:36:45 Type: Cal
Method: Accutest 2(v145) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.795**	**4.940**	**3.327**	**1.659**	**.2235**	**.6318**	**1.258**	**1.275**	**.0445**
Stddev	.005	.017	.001	.001	.0000	.0002	.000	.002	.0000
%RSD	.0711	.3421	.0379	.0636	.0102	.0304	.0310	.1707	.0759
#1	7.791	4.952	3.328	1.660	.2235	.6319	1.258	1.276	.0446
#2	7.799	4.928	3.326	1.658	.2235	.6316	1.258	1.273	.0445

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	**.3650**	**4.543**	**.4819**	**.2553**	**.5792**	**.3647**	**.6790**	**2.690**	**3.481**
Stddev	.0002	.002	.0006	.0002	.0003	.0002	.0011	.012	.024
%RSD	.0500	.0499	.1340	.0684	.0448	.0678	.1689	.4413	.6739
#1	.3651	4.545	.4823	.2552	.5790	.3649	.6782	2.698	3.497
#2	.3648	4.542	.4814	.2555	.5794	.3645	.6799	2.681	3.464

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	**1.308**	**.2472**	**2.684**	**7.434**	**.7868**	**3.356**	**2.264**	**.7430**	**13.77**
Stddev	.005	.0019	.006	.018	.0004	.001	.000	.0005	.02
%RSD	.4038	.7828	.2084	.2474	.0464	.0355	.0051	.0607	.1719
#1	1.311	.2485	2.688	7.447	.7866	3.357	2.264	.7434	13.78
#2	1.304	.2458	2.680	7.421	.7871	3.355	2.264	.7427	13.75

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	**.4392**	**1.630**	**1.087**	**.2137**	**.7899**	**2.567**	**.4638**
Stddev	.0004	.000	.001	.0000	.0008	.002	.0004
%RSD	.0858	.0035	.0441	.0126	.0992	.0639	.0946
#1	.4395	1.630	1.086	.2137	.7904	2.568	.4641
#2	.4389	1.630	1.087	.2137	.7893	2.566	.4635

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 4/4/2018 9:36:45 Type: Cal
Method: Accutest 2(v145) 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	**101720.**	**14664.**	**3756.9**	**7970.0**
Stddev	217.	102.	5.5	15.1
%RSD	.21330	.69308	.14573	.18988
#1	101570.	14592.	3753.0	7959.3
#2	101880.	14736.	3760.8	7980.7

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 4/4/2018 9:40:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.027**	**2.034**	**2.009**	**1.995**	**2.041**	**1.970**	**2.049**	**2.017**	**.2506**
Stddev	.002	.004	.009	.004	.006	.004	.004	.005	.0006
%RSD	.1028	.1713	.4260	.1786	.3099	.1993	.1945	.2709	.2589
#1	2.028	2.031	2.015	1.998	2.045	1.973	2.052	2.021	.2510
#2	2.025	2.036	2.003	1.993	2.037	1.967	2.046	2.013	.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	**2.014**	**2.044**	**2.002**	**2.050**	**2.031**	**1.996**	**2.017**	**39.67**	**40.41**
Stddev	.003	.006	.003	.008	.004	.009	.006	.01	.03
%RSD	.1516	.3125	.1701	.3706	.1866	.4261	.2999	.0330	.0731
#1	2.016	2.049	2.005	2.055	2.034	2.002	2.021	39.66	40.43
#2	2.012	2.040	2.000	2.044	2.028	1.990	2.013	39.68	40.38
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.79**	**40.23**	**39.75**	**40.16**	**2.008**	**2.049**	**4.854**	**2.069**	**2.018**
Stddev	.04	.01	.01	.05	.007	.007	.020	.012	.001
%RSD	.1095	.0235	.0228	.1179	.3585	.3233	.4133	.5699	.0542
#1	40.75	40.23	39.74	40.19	2.013	2.053	4.868	2.077	2.017
#2	40.82	40.22	39.75	40.12	2.003	2.044	4.840	2.061	2.019
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: 4/4/2018 9:40:47 Type: QC
Method: Accutest 2(v145) 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	**2.034**	**2.028**	**2.019**	**1.973**	**2.032**	**2.024**	**2.002**
Stddev	.004	.006	.004	.003	.007	.002	.003
%RSD	.1734	.2936	.2118	.1288	.3480	.0859	.1672
#1	2.036	2.032	2.022	1.975	2.038	2.025	2.005
#2	2.031	2.024	2.016	1.972	2.027	2.023	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	**104120.**	**14733.**	**3842.4**	**8282.1**
Stddev	186.	2.	11.6	13.3
%RSD	.17832	.01667	.30085	.16032
#1	103990.	14735.	3834.2	8272.7
#2	104250.	14732.	3850.6	8291.5

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 4/4/2018 9:44:50 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0006**	**-.0002**	**.0003**	**-.0000**	**.0003**	**-.0001**
Stddev	.0002	.0000	.0002	.0001	.0003	.0003	.0000	.0002	.0002
%RSD	332.2	33.83	127.2	19.75	170.1	92.03	229.6	83.72	225.2
#1	-.0002	-.0001	-.0002	.0005	-.0004	.0005	-.0000	.0001	.0001
#2	.0001	-.0001	-.0000	.0007	.0000	.0001	.0000	.0004	-.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**	**-.0000**	**.0007**	**-.0003**	**.0004**	**-.0002**	**.0017**	**-.0015**	**-.0034**
Stddev	.0005	.0000	.0005	.0001	.0012	.0019	.0000	.0043	.0032
%RSD	496.0	181.9	75.20	43.69	263.9	815.5	2.252	294.1	92.73
#1	.0005	.0000	.0003	-.0002	-.0004	.0011	.0017	-.0045	-.0057
#2	-.0003	-.0000	.0011	-.0004	.0013	-.0016	.0017	.0016	-.0012
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**	**.0096**	**.0070**	**.0172**	**.0020**	**.0011**	**.0012**	**.0005**	**.0000**
Stddev	.0061	.0083	.0025	.0025	.0005	.0003	.0004	.0004	.0000
%RSD	201.4	86.54	36.39	14.70	26.72	25.92	30.59	67.74	26.07
#1	-.0013	.0155	.0088	.0190	.0016	.0013	.0015	.0008	.0000
#2	.0074	.0037	.0052	.0154	.0023	.0009	.0009	.0003	.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: ccbconf Acquired: 4/4/2018 9:44:50 Type: QC
Method: Accutest 2(v145) 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**	**.0003**	**.0002**	**-.0011**	**-.0016**	**.0020**	**-.0005**
Stddev	.0005	.0002	.0002	.0000	.0011	.0004	.0004
%RSD	1718.	58.84	136.2	2.574	71.87	18.81	81.21
#1	-.0004	.0002	.0004	-.0011	-.0008	.0022	-.0002
#2	.0004	.0005	.0000	-.0011	-.0024	.0017	-.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	**109080.**	**14890.**	**3952.1**	**9137.2**
Stddev	118.	46.	37.6	67.4
%RSD	.10825	.31144	.95110	.73768
#1	109170.	14858.	3925.5	9089.6
#2	109000.	14923.	3978.6	9184.9

Zoom In Zoom Out

Sample Name: icv Acquired: 4/4/2018 9:52:43 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.008**	**2.021**	**2.021**	**1.989**	**2.030**	**1.961**	**2.039**	**2.020**	**.2499**
Stddev	.001	.001	.005	.000	.003	.004	.004	.002	.0004
%RSD	.0611	.0584	.2455	.0224	.1612	.2076	.1803	.0775	.1622
#1	2.008	2.021	2.023	1.989	2.032	1.965	2.043	2.021	.2498
#2	2.007	2.022	2.025	1.988	2.032	1.959	2.038	2.022	.2504
#3	2.010	2.020	2.015	1.989	2.026	1.957	2.035	2.019	.2496
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**	**1.993**	**2.034**	**2.028**	**1.992**	**2.008**	**39.27**	**39.86**
Stddev	.005	.002	.006	.005	.002	.008	.004	.05	.03
%RSD	.2622	.1033	.3184	.2336	.1045	.3984	.2236	.1309	.0627
#1	2.010	2.051	1.998	2.036	2.028	2.000	2.013	39.33	39.88
#2	2.009	2.052	1.995	2.039	2.030	1.992	2.009	39.24	39.86
#3	2.001	2.048	1.986	2.029	2.026	1.984	2.004	39.24	39.83
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	**40.04**	**39.36**	**39.24**	**39.36**	**2.002**	**2.029**	**4.772**	**2.055**	**2.019**
Stddev	.01	.03	.04	.05	.002	.002	.006	.006	.002
%RSD	.0220	.0777	.1133	.1377	.0839	.0894	.1271	.2920	.0895
#1	40.05	39.35	39.29	39.42	2.003	2.030	4.778	2.055	2.021
#2	40.05	39.39	39.20	39.32	2.002	2.029	4.771	2.060	2.018
#3	40.03	39.33	39.24	39.33	2.000	2.027	4.766	2.048	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: icv Acquired: 4/4/2018 9:52:43 Type: QC
Method: Accutest 2(v145) 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**	**2.010**	**1.995**	**1.983**	**2.028**	**1.961**	**1.998**
Stddev	.003	.002	.004	.008	.003	.002	.007
%RSD	.1536	.0984	.1988	.3997	.1384	.0791	.3669
#1	2.014	2.010	1.999	1.988	2.029	1.962	2.003
#2	2.011	2.011	1.996	1.986	2.030	1.959	2.002
#3	2.008	2.008	1.991	1.974	2.025	1.962	1.990
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	**104760.**	**14930.**	**3858.3**	**8342.0**
Stddev	168.	45.	5.6	3.9
%RSD	.15994	.29851	.14417	.04654
#1	104850.	14966.	3853.5	8339.7
#2	104570.	14945.	3857.1	8339.7
#3	104870.	14880.	3864.4	8346.5

Zoom In Zoom Out

Sample Name: icb Acquired: 4/4/2018 10:02:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**-.0001**	**.0004**	**.0001**	**.0001**	**.0000**	**.0003**	**-.0000**
Stddev	.0002	.0000	.0001	.0001	.0002	.0004	.0000	.0003	.0001
%RSD	137.3	190.8	75.81	18.29	136.6	478.1	48.62	102.4	304.5
#1	-.0000	.0000	-.0002	.0004	.0000	.0004	.0000	.0005	.0000
#2	-.0003	-.0000	-.0001	.0005	.0003	-.0002	.0001	.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	**.0003**	**.0000**	**.0000**	**.0008**	**-.0003**	**.0006**	**.0007**	**-.0046**	**-.0029**
Stddev	.0001	.0001	.0008	.0002	.0002	.0010	.0010	.0092	.0002
%RSD	22.69	808.7	2987.	26.56	49.16	160.4	138.0	202.0	6.837
#1	.0004	.0000	-.0005	.0009	-.0002	.0013	.0014	.0020	-.0027
#2	.0003	-.0000	.0006	.0006	-.0004	-.0001	.0000	-.0111	-.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	**.0017**	**-.0082**	**.0142**	**-.0131**	**.0009**	**.0002**	**.0011**	**-.0003**	**.0001**
Stddev	.0010	.0033	.0115	.0007	.0005	.0000	.0010	.0007	.0000
%RSD	58.50	39.98	80.95	5.475	59.26	15.70	94.42	236.5	36.01
#1	.0024	-.0059	.0223	-.0136	.0005	.0003	.0004	-.0008	.0001
#2	.0010	-.0105	.0061	-.0126	.0013	.0002	.0018	.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: icb Acquired: 4/4/2018 10:02:58 Type: QC
Method: Accutest 2(v145) 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**	**.0000**	**.0002**	**-.0002**	**-.0015**	**.0006**	**-.0005**
Stddev	.0002	.0001	.0001	.0036	.0011	.0010	.0017
%RSD	70.96	294.3	34.30	1464.	75.05	176.8	311.3
#1	-.0005	-.0000	.0001	.0023	-.0007	-.0001	.0007
#2	-.0002	.0001	.0002	-.0028	-.0022	.0013	-.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	**108780.**	**14913.**	**3963.3**	**9166.4**
Stddev	103.	58.	.9	2.7
%RSD	.09498	.38714	.02273	.02933
#1	108850.	14873.	3964.0	9164.5
#2	108710.	14954.	3962.7	9168.3

Zoom In Zoom Out

Sample Name: icv Acquired: 4/4/2018 10:08:19 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.009**	**2.022**	**2.006**	**1.978**	**2.019**	**1.961**	**2.029**	**2.006**	**.2490**
Stddev	.002	.001	.002	.002	.003	.005	.002	.002	.0010
%RSD	.1056	.0496	.0878	.1165	.1574	.2796	.1119	.1020	.3827
#1	2.011	2.021	2.007	1.979	2.016	1.967	2.027	2.004	.2490
#2	2.009	2.023	2.004	1.975	2.021	1.959	2.030	2.005	.2499
#3	2.007	2.022	2.007	1.980	2.021	1.956	2.031	2.008	.2480
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	**1.995**	**2.026**	**1.992**	**2.030**	**2.016**	**1.981**	**2.011**	**39.53**	**40.04**
Stddev	.004	.005	.003	.007	.002	.003	.005	.02	.05
%RSD	.1903	.2432	.1558	.3330	.1000	.1303	.2421	.0469	.1144
#1	1.993	2.026	1.995	2.032	2.016	1.978	2.005	39.56	40.07
#2	2.000	2.021	1.989	2.036	2.014	1.981	2.012	39.52	40.07
#3	1.993	2.031	1.992	2.023	2.018	1.983	2.015	39.53	39.99
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	**40.48**	**39.77**	**39.60**	**39.80**	**2.001**	**2.037**	**4.822**	**2.054**	**2.017**
Stddev	.03	.05	.06	.03	.003	.003	.007	.001	.003
%RSD	.0633	.1356	.1534	.0718	.1250	.1326	.1516	.0266	.1369
#1	40.50	39.71	39.66	39.83	2.001	2.038	4.813	2.054	2.021
#2	40.48	39.79	39.55	39.80	1.999	2.035	4.826	2.053	2.016
#3	40.45	39.81	39.58	39.77	2.004	2.040	4.826	2.054	2.016
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: 4/4/2018 10:08:19 Type: QC
Method: Accutest 2(v145) 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**	**2.019**	**2.005**	**1.972**	**2.030**	**2.010**	**1.982**
Stddev	.002	.004	.001	.001	.002	.003	.005
%RSD	.0871	.1994	.0706	.0614	.0766	.1285	.2678
#1	2.015	2.016	2.007	1.971	2.028	2.011	1.985
#2	2.019	2.018	2.004	1.971	2.031	2.012	1.986
#3	2.018	2.024	2.004	1.973	2.030	2.007	1.976
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	**104420.**	**14837.**	**3835.5**	**8285.2**
Stddev	35.	21.	2.1	1.3
%RSD	.03363	.13999	.05375	.01533
#1	104460.	14843.	3837.7	8285.6
#2	104390.	14854.	3835.3	8283.7
#3	104420.	14814.	3833.6	8286.2

Zoom In Zoom Out

Sample Name: icb Acquired: 4/4/2018 10:21:18 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0000**	**.0005**	**-.0000**	**.0003**	**.0001**	**.0002**	**.0002**
Stddev	.0001	.0001	.0002	.0001	.0002	.0001	.0000	.0005	.0002
%RSD	296.0	84.50	469.2	13.09	609.9	25.16	21.02	271.4	82.78
#1	-.0002	.0001	.0001	.0005	-.0001	.0002	.0000	.0005	.0001
#2	.0001	.0002	-.0001	.0004	.0001	.0003	.0001	-.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	**.0003**	**-.0000**	**.0008**	**.0000**	**-.0003**	**-.0003**	**.0007**	**.0006**	**-.0007**
Stddev	.0001	.0001	.0005	.0008	.0008	.0007	.0006	.0027	.0024
%RSD	26.76	306.3	59.81	3098.	291.6	225.1	85.54	428.4	341.6
#1	.0004	.0000	.0004	.0006	.0003	-.0009	.0003	-.0013	.0010
#2	.0002	-.0001	.0011	-.0005	-.0008	.0002	.0010	.0025	-.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073**	**.0045**	**.0299**	**.0006**	**.0011**	**.0003**	**.0007**	**.0001**	**.0003**
Stddev	.0035	.0110	.0399	.0089	.0004	.0000	.0004	.0002	.0000
%RSD	47.82	246.7	133.3	1510.	32.86	3.045	53.01	354.7	8.755
#1	.0048	.0122	.0581	-.0057	.0014	.0003	.0010	.0002	.0003
#2	.0098	-.0033	.0017	.0069	.0009	.0003	.0004	-.0001	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb Acquired: 4/4/2018 10:21:18 Type: QC
Method: Accutest 2(v145) 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**	**.0001**	**-.0018**	**-.0019**	**.0016**	**-.0009**
Stddev	.0001	.0006	.0000	.0005	.0006	.0002	.0005
%RSD	60.92	96.01	22.87	26.81	29.74	12.47	58.82
#1	-.0001	.0011	.0001	-.0022	-.0023	.0017	-.0013
#2	-.0002	.0002	.0001	-.0015	-.0015	.0015	-.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	**109420.**	**14907.**	**3976.5**	**9206.3**
Stddev	78.	112.	.7	13.9
%RSD	.07160	.75306	.01692	.15050
#1	109480.	14828.	3976.0	9216.1
#2	109360.	14987.	3977.0	9196.5

Zoom In Zoom Out

Sample Name: iccv Acquired: 4/4/2018 10:24:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.005**	**2.011**	**1.993**	**1.968**	**2.005**	**1.941**	**2.012**	**1.992**	**.2476**
Stddev	.028	.029	.008	.006	.003	.002	.003	.006	.0001
%RSD	1.396	1.427	.4156	.3227	.1422	.0825	.1588	.2974	.0436
#1	2.047	2.054	1.998	1.971	2.002	1.943	2.010	1.996	.2476
#2	1.994	1.995	1.996	1.971	2.003	1.939	2.010	1.998	.2476
#3	1.990	1.998	1.999	1.971	2.009	1.940	2.014	1.992	.2475
#4	1.988	1.997	1.981	1.958	2.006	1.941	2.016	1.984	.2478
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	**1.983**	**2.013**	**1.980**	**2.025**	**2.003**	**1.977**	**2.001**	**39.53**	**40.05**
Stddev	.002	.007	.008	.008	.006	.008	.006	.60	.63
%RSD	.1189	.3726	.4188	.3792	.2951	.4010	.2898	1.530	1.576
#1	1.979	2.022	1.981	2.032	2.007	1.977	2.001	40.44	40.99
#2	1.983	2.014	1.986	2.020	2.008	1.986	2.005	39.19	39.67
#3	1.984	2.014	1.985	2.031	2.004	1.980	2.003	39.26	39.76
#4	1.985	2.004	1.968	2.017	1.995	1.967	1.992	39.24	39.77
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: 4/4/2018 10:24:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.29**	**39.67**	**39.54**	**39.75**	**1.988**	**2.026**	**4.798**	**2.041**	**2.010**
Stddev	.58	.65	.55	.58	.006	.009	.020	.006	.029
%RSD	1.449	1.651	1.403	1.461	.2903	.4198	.4091	.3114	1.447
#1	41.17	40.62	40.37	40.62	1.991	2.033	4.807	2.046	2.053
#2	39.97	39.14	39.26	39.52	1.993	2.028	4.808	2.044	1.995
#3	40.07	39.42	39.27	39.45	1.990	2.030	4.811	2.043	1.996
#4	39.97	39.48	39.25	39.41	1.980	2.014	4.769	2.032	1.994
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	**2.001**	**2.003**	**1.989**	**1.958**	**2.017**	**2.008**	**1.976**
Stddev	.003	.011	.003	.006	.009	.029	.005
%RSD	.1257	.5265	.1354	.3195	.4350	1.448	.2616
#1	1.999	2.010	1.989	1.959	2.021	2.052	1.979
#2	2.000	2.007	1.986	1.960	2.019	1.998	1.980
#3	2.001	2.007	1.987	1.963	2.024	1.993	1.978
#4	2.005	1.987	1.992	1.949	2.004	1.990	1.969
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: 4/4/2018 10:24:59 Type: QC
Method: Accutest 2(v145) 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	**105050.**	**14828.**	**3852.4**	**8317.2**
Stddev	160.	181.	15.3	26.4
%RSD	.15255	1.2179	.39636	.31722
#1	105290.	14576.	3843.2	8306.1
#2	104960.	15003.	3849.2	8311.9
#3	104950.	14853.	3842.2	8295.3
#4	105000.	14880.	3874.8	8355.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 10:32:30 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0001**	**.0003**	**.0001**	**.0003**	**.0004**
Stddev	.0004	.0001	.0001	.0002	.0001	.0003	.0000	.0002	.0002
%RSD	712.3	79.58	79.20	52.95	178.6	96.94	24.75	50.90	63.00
#1	.0002	.0000	-.0000	.0006	-.0000	.0001	.0001	.0002	.0002
#2	-.0004	.0001	-.0001	.0003	.0002	.0004	.0001	.0004	.0005
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**	**.0002**	**-.0003**	**.0007**	**-.0006**	**-.0001**	**.0013**	**-.0013**
Stddev	.0001	.0001	.0013	.0005	.0007	.0010	.0023	.0021	.0025
%RSD	85.86	70.53	642.4	155.9	103.1	160.4	1505.	161.8	197.5
#1	.0001	-.0002	-.0007	-.0007	.0012	.0001	-.0017	-.0002	.0005
#2	.0002	-.0001	.0011	.0000	.0002	-.0013	.0014	.0028	-.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	**.0049**	**-.0178**	**.0352**	**.0058**	**.0009**	**.0006**	**.0007**	**.0003**	**.0002**
Stddev	.0005	.0130	.0267	.0004	.0000	.0001	.0002	.0001	.0001
%RSD	10.08	72.85	75.85	6.802	4.366	11.93	27.86	20.26	32.03
#1	.0046	-.0086	.0163	.0056	.0008	.0007	.0008	.0004	.0003
#2	.0052	-.0270	.0541	.0061	.0009	.0006	.0006	.0003	.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: 4/4/2018 10:32:30 Type: QC
Method: Accutest 2(v145) 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**	**.0011**	**.0004**	**.0008**	**-.0021**	**.0023**	**.0005**
Stddev	.0002	.0002	.0002	.0011	.0002	.0008	.0008
%RSD	201.4	19.71	52.18	138.2	7.349	34.18	151.0
#1	-.0000	.0009	.0005	.0000	-.0022	.0017	.0010
#2	.0002	.0012	.0002	.0016	-.0020	.0029	-.0000
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	**108750.**	**15006.**	**3949.5**	**9147.5**
Stddev	48.	65.	8.3	17.8
%RSD	.04455	.43337	.21114	.19417
#1	108720.	15052.	3943.6	9134.9
#2	108780.	14960.	3955.4	9160.0

Zoom In Zoom Out

Sample Name: cri Acquired: 4/4/2018 10:36:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2051**	**.0021**	**.0028**	**.0499**	**.0104**	**.0103**	**.0163**	**.0103**	**.0040**
Stddev	.0001	.0001	.0001	.0001	.0001	.0007	.0001	.0001	.0001
%RSD	.0330	4.532	5.146	.2921	1.110	6.403	.4131	.6467	1.558
#1	.2050	.0020	.0027	.0498	.0104	.0099	.0163	.0103	.0040
#2	.2051	.0021	.0029	.0500	.0105	.0108	.0162	.0104	.0041
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	**.0513**	**.0207**	**.0080**	**.0110**	**.0031**	**.0110**	**.0062**	**.2063**	**5.220**
Stddev	.0003	.0000	.0001	.0002	.0010	.0002	.0000	.0047	.005
%RSD	.5648	.1454	.7008	1.786	31.53	1.897	.6049	2.267	.0902
#1	.0511	.0207	.0081	.0109	.0024	.0109	.0062	.2096	5.217
#2	.0516	.0207	.0080	.0112	.0038	.0112	.0061	.2030	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	**.1087**	**5.141**	**5.089**	**5.068**	**.1027**	**.0215**	**.1660**	**.0113**	**.0102**
Stddev	.0037	.002	.039	.006	.0007	.0002	.0016	.0002	.0000
%RSD	3.435	.0346	.7633	.1124	.6768	.8856	.9683	1.620	.0001
#1	.1060	5.142	5.062	5.072	.1022	.0216	.1649	.0115	.0102
#2	.1113	5.140	5.117	5.064	.1032	.0214	.1672	.0112	.0102
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: 4/4/2018 10:36:58 Type: QC
Method: Accutest 2(v145) 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**	**.0519**	F **.0171**	**.0501**	**.0216**	**.0518**	**.0509**
Stddev	.0002	.0009	.0006	.0019	.0008	.0001	.0001
%RSD	1.774	1.716	3.331	3.886	3.523	.1827	.2611
#1	.0098	.0512	.0175	.0515	.0221	.0517	.0510
#2	.0101	.0525	.0167	.0487	.0210	.0518	.0508
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	**107940.**	**15019.**	**3924.0**	**8980.4**
Stddev	38.	8.	4.3	1.5
%RSD	.03565	.05445	.10903	.01633
#1	107920.	15025.	3921.0	8979.4
#2	107970.	15014.	3927.0	8981.4

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 10:41:19 Type: QC
Method: Accutest 2(v145) 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	**.0045**	**.0010**	**.0010**	**.0032**	**.0023**	F **-.0000**	**.0035**	**.0044**
Stddev	.0001	.0001	.0002	.0000	.0001	.0000	.0001	.0001
%RSD	1.610	7.879	19.40	.2669	4.434	90.35	2.341	1.445
#1	.0046	.0010	.0009	.0032	.0023	-.0001	.0035	.0044
#2	.0044	.0011	.0011	.0032	.0022	-.0000	.0034	.0043
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**	**.0020**	**.0116**	**.0031**	**.0021**	F **.0006**	**.0041**	F **-.0000**
Stddev	.0000	.0002	.0002	.0011	.0008	.0010	.0024	.0009
%RSD	27.83	11.41	1.320	36.49	39.22	154.5	58.88	2386.
#1	-.0001	.0021	.0117	.0039	.0015	-.0001	.0058	-.0007
#2	-.0001	.0018	.0114	.0023	.0027	.0013	.0024	.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	**.1048**	**1.113**	**.0055**	**.1125**	**2.189**	**1.101**	F **.0008**	**.0002**
Stddev	.0057	.002	.0005	.0453	.000	.000	.0005	.0003
%RSD	5.470	.1484	9.888	40.32	.0014	.0328	59.36	122.4
#1	.1089	1.114	.0051	.0804	2.189	1.101	.0005	.0000
#2	.1008	1.112	.0059	.1445	2.189	1.100	.0011	.0004
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: 4/4/2018 10:41:19 Type: QC
Method: Accutest 2(v145) 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	**.0023**	**.0004**	**.0000**	**-.0001**	F **-.0005**	F **.0002**	F **-.0021**	F **-.0023**
Stddev	.0006	.0002	.0000	.0003	.0016	.0002	.0007	.0008
%RSD	26.15	40.41	20.50	323.5	309.9	104.3	33.70	34.66
#1	.0019	.0005	.0000	.0001	-.0017	.0001	-.0016	-.0028
#2	.0027	.0003	.0001	-.0003	.0006	.0004	-.0026	-.0017
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 **.0013**
Stddev	.0016	.0003
%RSD	96.84	20.69
#1	.0028	.0011
#2	.0005	.0014
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	**108400.**	**14947.**	**3933.2**	**9079.6**
Stddev	16.	5.	1.2	.6
%RSD	.01445	.03418	.03054	.00620
#1	108410.	14951.	3932.4	9080.0
#2	108390.	14943.	3934.1	9079.2

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/4/2018 10:45:40 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0001**	**-.0011**	**-.0030**	**.0053**	**-.0048**	**-.0032**	**-.0004**
Stddev	.0001	.0001	.0000	.0003	.0005	.0001	.0001	.0005	.0009
%RSD	41.25	45.25	11.12	25.86	16.11	2.194	1.949	14.27	222.7
#1	-.0001	.0002	.0001	-.0013	-.0027	.0052	-.0047	-.0035	-.0010
#2	-.0002	.0001	.0001	-.0009	-.0033	.0054	-.0049	-.0029	.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	**-.0002**	**.0042**	**.0020**	**-.0009**	**.0010**	**.0036**	**-.0063**	**518.4**	**393.1**
Stddev	.0006	.0004	.0014	.0018	.0017	.0045	.0004	3.0	1.5
%RSD	301.7	9.798	68.09	204.6	169.7	123.8	5.846	.5820	.3912
#1	-.0006	.0039	.0030	.0004	.0022	.0067	-.0065	520.6	394.2
#2	.0002	.0045	.0010	-.0021	-.0002	.0004	-.0060	516.3	392.0
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	**195.1**	**513.5**	**-.4240**	**.0325**	**-.0024**	**-.0011**	**-.0154**	**-.0020**	**.0049**
Stddev	.4	1.1	.0228	.0070	.0005	.0006	.0016	.0003	.0000
%RSD	.2130	.2220	5.388	21.45	19.98	52.69	10.43	14.86	.4586
#1	195.3	514.3	-.4078	.0275	-.0027	-.0015	-.0143	-.0022	.0049
#2	194.8	512.7	-.4401	.0374	-.0021	-.0007	-.0165	-.0018	.0049
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: 4/4/2018 10:45:40 Type: QC
Method: Accutest 2(v145) 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	**-.0007**	**.0090**	**.0012**	**.0537**	**-.0082**	**-.0088**	**-.0057**
Stddev	.0003	.0027	.0000	.0012	.0005	.0020	.0010
%RSD	41.67	29.98	2.419	2.158	6.637	22.50	17.54
#1	-.0005	.0109	.0013	.0529	-.0078	-.0102	-.0064
#2	-.0009	.0071	.0012	.0545	-.0086	-.0074	-.0050
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	**94539.**	**14332.**	**3510.3**	**7177.1**
Stddev	44.	95.	1.0	1.7
%RSD	.04670	.66422	.02730	.02371
#1	94508.	14264.	3511.0	7175.9
#2	94571.	14399.	3509.6	7178.3

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/4/2018 10:50:08 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5306**	**.5134**	**1.071**	**.5093**	**.5021**	**.5340**	**.5138**	**1.016**	**1.074**
Stddev	.0011	.0004	.001	.0018	.0010	.0002	.0001	.004	.001
%RSD	.2121	.0776	.1005	.3468	.1908	.0424	.0267	.3410	.0612
#1	.5298	.5137	1.072	.5081	.5014	.5342	.5139	1.014	1.073
#2	.5314	.5131	1.070	.5106	.5028	.5338	.5137	1.019	1.074
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	**.5090**	**.9981**	**1.080**	**1.107**	**1.013**	**1.033**	**1.089**	**523.7**	**397.7**
Stddev	.0002	.0037	.003	.002	.004	.004	.004	5.5	2.1
%RSD	.0480	.3740	.2454	.2064	.3630	.3967	.4175	1.049	.5286
#1	.5091	.9955	1.078	1.109	1.011	1.031	1.086	527.6	399.2
#2	.5088	1.001	1.082	1.105	1.016	1.036	1.093	519.8	396.2
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	**191.7**	**518.4**	**-.4459**	**.0343**	**.5147**	**.5097**	**.4916**	**.4864**	**.5505**
Stddev	.3	1.6	.0181	.0080	.0013	.0002	.0017	.0001	.0003
%RSD	.1711	.3022	4.054	23.27	.2464	.0411	.3446	.0164	.0456
#1	191.9	519.5	-.4331	.0287	.5156	.5096	.4904	.4865	.5504
#2	191.4	517.2	-.4586	.0400	.5138	.5099	.4928	.4863	.5507
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: 4/4/2018 10:50:08 Type: QC
Method: Accutest 2(v145) 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	**.5290**	**.5072**	**.5289**	**.5742**	**.5439**	**.5351**	**.5310**
Stddev	.0014	.0010	.0019	.0035	.0024	.0013	.0016
%RSD	.2575	.2052	.3585	.6072	.4363	.2464	.3038
#1	.5281	.5080	.5276	.5767	.5422	.5341	.5322
#2	.5300	.5065	.5302	.5717	.5455	.5360	.5299
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	**94632.**	**14358.**	**3512.9**	**7184.3**
Stddev	281.	105.	2.3	1.7
%RSD	.29742	.72914	.06578	.02300
#1	94433.	14284.	3511.3	7183.1
#2	94831.	14432.	3514.5	7185.4

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 4/4/2018 10:54:23 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.152**	**5.181**	**5.042**	**5.032**	**5.249**	**5.171**	**5.238**	**5.033**	**.6319**
Stddev	.003	.008	.023	.022	.004	.006	.000	.024	.0014
%RSD	.0647	.1605	.4560	.4401	.0693	.1138	.0080	.4747	.2206
#1	5.154	5.176	5.026	5.017	5.246	5.176	5.238	5.016	.6329
#2	5.150	5.187	5.058	5.048	5.251	5.167	5.237	5.050	.6309
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	**5.178**	**5.252**	**4.991**	**5.222**	**5.080**	**5.039**	**5.105**	**.0516**	**-.0962**
Stddev	.008	.016	.031	.023	.017	.024	.026	.0095	.0004
%RSD	.1526	.2983	.6150	.4336	.3287	.4732	.5162	18.44	.4012
#1	5.172	5.241	4.970	5.206	5.068	5.023	5.087	.0583	-.0959
#2	5.183	5.263	5.013	5.238	5.091	5.056	5.124	.0448	-.0964
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	**.0270**	**-.0538**	**.1469**	**.0194**	**5.086**	**5.187**	**23.79**	**5.318**	**5.141**
Stddev	.0069	.0306	.0153	.0054	.026	.022	.13	.020	.007
%RSD	25.52	56.82	10.44	27.97	.5166	.4261	.5284	.3671	.1324
#1	.0318	-.0754	.1361	.0155	5.067	5.172	23.70	5.304	5.146
#2	.0221	-.0322	.1578	.0232	5.104	5.203	23.88	5.332	5.136
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: 4/4/2018 10:54:23 Type: QC
Method: Accutest 2(v145) 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	**5.165**	**5.208**	**5.054**	**50.43**	**5.205**	**5.089**	**4.959**
Stddev	.004	.022	.005	.25	.035	.005	.022
%RSD	.0746	.4311	.0988	.4957	.6755	.1002	.4421
#1	5.168	5.192	5.058	50.25	5.180	5.085	4.944
#2	5.163	5.224	5.051	50.60	5.230	5.093	4.975
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	**106930.**	**15025.**	**3887.9**	**8869.1**
Stddev	84.	79.	12.1	32.0
%RSD	.07884	.52610	.31135	.36090
#1	106870.	15081.	3896.4	8891.8
#2	106990.	14969.	3879.3	8846.5

Zoom In Zoom Out

Sample Name: hstd Acquired: 4/4/2018 10:58:32 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**-.0001**	**-.0006**	**-.0015**	**.0055**	**-.0038**	**-.0019**	**.0004**
Stddev	.0001	.0000	.0001	.0000	.0004	.0000	.0001	.0005	.0003
%RSD	76.67	.0784	171.8	2.504	29.89	.0857	3.920	25.21	85.69
#1	-.0003	.0002	.0000	-.0006	-.0018	.0055	-.0036	-.0023	.0001
#2	-.0001	.0002	-.0001	-.0006	-.0012	.0055	-.0039	-.0016	.0006
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	**-.0005**	**.0030**	**.0008**	**-.0084**	**.0032**	**.0028**	**-.0041**	**319.0**	**148.1**
Stddev	.0000	.0000	.0006	.0000	.0016	.0000	.0017	.2	.2
%RSD	10.45	.6898	78.93	.3227	50.54	.4720	41.46	.0571	.1303
#1	-.0004	.0030	.0013	-.0084	.0044	.0028	-.0029	319.1	148.3
#2	-.0005	.0030	.0004	-.0085	.0021	.0028	-.0053	318.8	148.0
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	**155.1**	**318.6**	**161.5**	**153.1**	**-.0002**	**.0016**	**-.0070**	**-.0014**	**.0015**
Stddev	.2	.1	.0	.1	.0012	.0001	.0003	.0002	.0000
%RSD	.1199	.0268	.0001	.0841	617.9	7.900	4.157	12.75	1.336
#1	155.2	318.7	161.5	153.1	.0007	.0017	-.0072	-.0015	.0015
#2	155.0	318.6	161.5	153.0	-.0011	.0016	-.0068	-.0013	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd Acquired: 4/4/2018 10:58:32 Type: QC
Method: Accutest 2(v145) 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**	**.0066**	**.0012**	**.0315**	**-.0071**	**-.0029**	**.0020**
Stddev	.0000	.0008	.0003	.0001	.0004	.0005	.0001
%RSD	5.032	12.16	24.80	.3623	6.073	16.63	5.268
#1	-.0007	.0060	.0010	.0315	-.0068	-.0033	.0019
#2	-.0006	.0071	.0014	.0314	-.0074	-.0026	.0020
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	**96550.**	**14457.**	**3567.9**	**7304.9**
Stddev	345.	22.	1.7	1.1
%RSD	.35755	.15108	.04652	.01514
#1	96306.	14472.	3569.1	7305.7
#2	96794.	14441.	3566.7	7304.2

Zoom In Zoom Out

Sample Name: feconf Acquired: 4/4/2018 11:02:50 Type: Unk
Method: Accutest 2(v145) 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**	**.0004**	**-.0004**	**-.0013**	W **-.0024**	**.0052**	W **-.0030**	W **-.0020**
Stddev	.0000	.0000	.0001	.0002	.0005	.0002	.0000	.0003
%RSD	6.847	12.60	19.25	11.31	20.81	3.163	.1560	15.56
#1	-.0002	.0003	-.0003	-.0012	-.0027	.0051	-.0030	-.0018
#2	-.0001	.0004	-.0004	-.0014	-.0020	.0053	-.0030	-.0022

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0016**	**.0007**	**-.0004**	**-.0016**	**.0006**	**.0006**	**.0078**	**-.0059**
Stddev	.0000	.0001	.0001	.0011	.0001	.0004	.0010	.0013
%RSD	2.883	10.89	19.91	67.54	15.88	70.67	13.19	21.79
#1	-.0017	.0007	-.0005	-.0008	.0006	.0008	.0086	-.0050
#2	-.0016	.0006	-.0004	-.0023	.0005	.0003	.0071	-.0068

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0046**	**-.0316**	**206.5**	**-.0250**	**.1427**	**.0209**	**-.0012**	**.0010**
Stddev	.0056	.0002	.4	.0344	.0091	.0138	.0002	.0003
%RSD	121.7	.6860	.1953	137.5	6.346	66.08	17.49	28.54
#1	-.0085	-.0317	206.8	-.0493	.1491	.0307	-.0010	.0012
#2	-.0006	-.0314	206.2	-.0007	.1363	.0111	-.0013	.0008

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0009**	**.0017**	**-.0003**	**.0002**	**.0015**	**.0018**	**-.0027**	W **-.0094**
Stddev	.0009	.0001	.0000	.0003	.0001	.0000	.0009	.0002
%RSD	105.1	6.834	9.929	135.1	7.887	.6228	33.11	2.029
#1	-.0015	.0016	-.0004	.0000	.0015	.0018	-.0034	-.0093
#2	-.0002	.0018	-.0003	.0004	.0016	.0018	-.0021	-.0096

Elem	Li6707	P_1774
Avg	**.0022**	**.0025**
Stddev	.0006	.0003
%RSD	25.27	13.28
#1	.0026	.0028
#2	.0018	.0023

Zoom In Zoom Out

Sample Name: feconf Acquired: 4/4/2018 11:02:50 Type: Unk
Method: Accutest 2(v145) 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	**105560.**	**14885.**	**3829.7**	**8898.5**
Stddev	204.	28.	5.9	17.6
%RSD	.19352	.18937	.15432	.19763
#1	105700.	14865.	3825.5	8886.1
#2	105410.	14905.	3833.9	8911.0

Zoom In Zoom Out

Sample Name: crconf Acquired: 4/4/2018 11:07:12 Type: Unk
Method: Accutest 2(v145) 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	**-.0000**	**.0001**	**.0002**	**.0021**	W **9.711**	**.0002**	**-.0000**	**-.0007**
Stddev	.0002	.0001	.0000	.0002	.006	.0004	.0001	.0001
%RSD	800.7	44.68	14.02	8.323	.0670	236.7	1347.	21.48
#1	-.0001	.0001	.0001	.0020	9.706	.0004	.0001	-.0008
#2	.0001	.0002	.0002	.0023	9.715	-.0001	-.0001	-.0006

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0005**	**.0073**	**-.0011**	**-.0003**	**-.0008**	**.0004**	**.0024**	**.0054**
Stddev	.0002	.0003	.0002	.0012	.0003	.0007	.0010	.0035
%RSD	37.14	3.858	14.23	417.8	37.76	189.2	41.43	64.08
#1	.0004	.0071	-.0012	.0005	-.0006	-.0001	.0017	.0079
#2	.0006	.0075	-.0010	-.0011	-.0011	.0009	.0030	.0030

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0017**	**-.0056**	**.0101**	**-.0072**	**.0187**	**-.0057**	**.0005**	**.0008**
Stddev	.0001	.0006	.0007	.0146	.0025	.0010	.0006	.0003
%RSD	6.662	10.53	6.623	201.6	13.42	16.97	116.1	32.64
#1	-.0016	-.0052	.0105	.0031	.0205	-.0051	.0009	.0006
#2	-.0018	-.0060	.0096	-.0175	.0170	-.0064	.0001	.0009

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0032**	**-.0001**	**.0001**	**.0003**	**.0055**	**.0076**	**.0033**	**.0010**
Stddev	.0019	.0001	.0001	.0001	.0001	.0002	.0019	.0013
%RSD	59.53	50.22	36.88	26.98	1.427	2.874	58.18	129.3
#1	.0018	-.0002	.0001	.0003	.0056	.0074	.0020	.0019
#2	.0045	-.0001	.0002	.0004	.0055	.0078	.0047	.0001

Elem	Li6707	P_1774
Avg	**.0017**	**.0004**
Stddev	.0005	.0002
%RSD	31.78	53.22
#1	.0013	.0006
#2	.0021	.0003

Zoom In Zoom Out

Sample Name: crconf Acquired: 4/4/2018 11:07:12 Type: Unk
Method: Accutest 2(v145) 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	**107910.**	**15024.**	**3842.2**	**9041.3**
Stddev	413.	27.	3.4	7.5
%RSD	.38298	.17753	.08978	.08300
#1	108200.	15043.	3839.8	9036.0
#2	107610.	15005.	3844.6	9046.6

Zoom In Zoom Out

Sample Name: asconf Acquired: 4/4/2018 11:11:34 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**.0003**	**.0005**	**.0001**	**.0002**	**-.0001**	**.0002**	**-.0001**
Stddev	.0001	.0000	.0003	.0003	.0002	.0006	.0000	.0002	.0005
%RSD	50.36	11.15	96.53	57.85	175.3	344.3	64.07	93.96	545.1
#1	-.0001	-.0001	.0001	.0003	.0003	-.0002	-.0000	.0004	-.0004
#2	-.0002	-.0001	.0005	.0007	-.0000	.0006	-.0001	.0001	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0000**	**.0001**	**5.357**	**.0007**	**.0001**	**-.0018**	**.0008**	**.0023**	**-.0000**
Stddev	.0001	.0001	.008	.0007	.0008	.0001	.0002	.0007	.0007
%RSD	17570.	127.2	.1497	94.22	755.9	7.984	23.76	28.91	2144.
#1	-.0001	.0001	5.363	.0012	.0007	-.0017	.0006	.0018	-.0005
#2	.0001	.0000	5.352	.0002	-.0005	-.0019	.0009	.0027	.0005

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0026**	**-.0058**	**-.0066**	**-.0008**	**.0007**	**-.0000**	**.0043**	**-.0001**	**.0000**
Stddev	.0003	.0086	.0138	.0015	.0010	.0001	.0006	.0002	.0000
%RSD	10.63	147.4	207.9	177.8	132.2	640.9	14.05	289.8	119.8
#1	.0024	.0002	.0031	.0002	.0014	.0000	.0038	.0001	.0000
#2	.0028	-.0119	-.0164	-.0019	.0000	-.0000	.0047	-.0002	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0000**	**.0005**	**.0000**	**.0014**	**-.0025**	**.0019**	**.0002**
Stddev	.0001	.0004	.0003	.0015	.0010	.0013	.0004
%RSD	232.8	76.04	719.6	109.1	40.28	70.40	201.8
#1	.0001	.0008	-.0002	.0024	-.0018	.0010	.0005
#2	-.0000	.0002	.0003	.0003	-.0032	.0028	-.0001

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107860.**	**14979.**	**3885.9**	**9026.6**
Stddev	18.	94.	2.2	5.6
%RSD	.01660	.62833	.05688	.06175
#1	107870.	14913.	3884.4	9030.6
#2	107850.	15046.	3887.5	9022.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 11:15:56 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**2.040**	**2.058**	**2.010**	**2.056**	**1.998**	**2.059**	**2.050**	**.2558**
Stddev	.003	.003	.001	.003	.001	.001	.001	.003	.0008
%RSD	.1533	.1338	.0529	.1571	.0232	.0713	.0289	.1589	.3252
#1	2.067	2.042	2.058	2.012	2.056	1.999	2.058	2.052	.2564
#2	2.062	2.038	2.059	2.008	2.056	1.997	2.059	2.048	.2552
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	**2.042**	**2.061**	**2.045**	**2.068**	**2.049**	**2.044**	**2.069**	**40.19**	**40.72**
Stddev	.003	.003	.000	.009	.001	.000	.003	.01	.05
%RSD	.1319	.1667	.0181	.4260	.0418	.0014	.1250	.0331	.1276
#1	2.044	2.058	2.045	2.074	2.049	2.044	2.071	40.18	40.75
#2	2.040	2.063	2.045	2.062	2.048	2.044	2.067	40.19	40.68
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	**40.82**	**39.94**	**40.26**	**40.68**	**2.056**	**2.080**	**4.962**	**2.095**	**2.048**
Stddev	.05	.03	.03	.03	.004	.001	.005	.005	.002
%RSD	.1156	.0801	.0832	.0630	.2210	.0502	.1104	.2575	.0915
#1	40.85	39.96	40.23	40.69	2.059	2.080	4.965	2.099	2.049
#2	40.79	39.91	40.28	40.66	2.053	2.079	4.958	2.091	2.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 11:15:56 Type: QC
Method: Accutest 2(v145) 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**	**2.059**	**2.038**	**2.039**	**2.090**	**2.053**	**2.047**
Stddev	.000	.001	.000	.011	.003	.002	.001
%RSD	.0104	.0231	.0113	.5424	.1511	.0888	.0452
#1	2.051	2.059	2.038	2.047	2.092	2.054	2.047
#2	2.051	2.060	2.038	2.031	2.087	2.051	2.046
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	**102900.**	**14777.**	**3740.8**	**8115.2**
Stddev	18.	3.	2.5	5.1
%RSD	.01746	.02082	.06635	.06256
#1	102890.	14775.	3742.6	8111.6
#2	102920.	14779.	3739.0	8118.7

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 11:19:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0006**	**.0002**	**-.0001**	**.0001**	**.0006**	**.0001**
Stddev	.0000	.0001	.0000	.0000	.0003	.0003	.0000	.0002	.0006
%RSD	43.93	85.30	8.169	6.866	109.0	345.0	34.57	25.85	408.7
#1	.0000	-.0001	.0003	.0006	.0001	.0001	.0002	.0005	-.0003
#2	.0000	-.0000	.0003	.0007	.0004	-.0003	.0001	.0008	.0005
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**	**.0007**	**.0005**	**.0004**	**.0012**	**.0016**	**.0047**	**-.0004**
Stddev	.0005	.0002	.0015	.0001	.0005	.0025	.0003	.0025	.0012
%RSD	194.0	307.8	212.6	24.85	131.5	203.8	16.89	52.56	274.5
#1	.0001	.0003	.0018	.0004	.0008	.0030	.0017	.0030	-.0013
#2	-.0006	-.0001	-.0004	.0006	.0000	-.0005	.0014	.0065	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078**	**-.0077**	**.0159**	**-.0150**	**.0020**	**.0010**	**.0048**	**-.0000**	**.0001**
Stddev	.0010	.0113	.0062	.0013	.0008	.0004	.0002	.0001	.0001
%RSD	13.28	147.3	38.91	8.954	39.02	45.43	3.853	1665.	140.7
#1	.0071	.0003	.0203	-.0141	.0026	.0013	.0047	.0001	.0000
#2	.0085	-.0157	.0116	-.0160	.0015	.0007	.0049	-.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: 4/4/2018 11:19:59 Type: QC
Method: Accutest 2(v145) 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**	**.0000**	**.0002**	**-.0015**	**-.0006**	**.0023**	**.0001**
Stddev	.0002	.0001	.0000	.0017	.0014	.0003	.0003
%RSD	309.4	505.5	11.01	112.1	233.7	12.62	362.0
#1	-.0001	-.0000	.0002	-.0026	-.0016	.0025	.0003
#2	.0002	.0000	.0002	-.0003	.0004	.0021	-.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	**107210.**	**14867.**	**3878.6**	**9010.9**
Stddev	291.	95.	1.3	7.8
%RSD	.27159	.63840	.03263	.08664
#1	107010.	14799.	3877.7	9005.4
#2	107420.	14934.	3879.5	9016.5

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 11:24:23 Type: QC
Method: Accutest 2(v145) 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**	**.0031**	**.0023**	F **-.0004**	**.0033**	**.0044**
Stddev	.0000	.0000	.0002	.0001	.0004	.0002	.0000	.0002
%RSD	.2042	.2229	20.58	2.758	15.92	49.05	.7320	5.093
#1	.0042	.0011	.0011	.0032	.0020	-.0005	.0033	.0046
#2	.0042	.0011	.0008	.0031	.0026	-.0003	.0034	.0042
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**	**.0023**	**.0113**	**.0036**	**.0022**	F **.0001**	**.0065**	F **.0000**
Stddev	.0004	.0001	.0001	.0007	.0004	.0005	.0015	.0021
%RSD	347.6	4.164	.8316	20.84	17.93	595.3	22.71	9438.
#1	.0002	.0022	.0114	.0031	.0025	-.0003	.0054	.0015
#2	-.0004	.0023	.0112	.0041	.0019	.0004	.0075	-.0015
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	**.0988**	**1.079**	**.0066**	**.1030**	**2.147**	**1.050**	F **.0010**	**-.0000**
Stddev	.0006	.006	.0038	.0011	.007	.008	.0011	.0001
%RSD	.6458	.5642	57.56	1.023	.3312	.7589	107.2	8741.
#1	.0984	1.083	.0092	.1037	2.142	1.055	.0002	-.0000
#2	.0993	1.074	.0039	.1022	2.152	1.044	.0018	.0000
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: 4/4/2018 11:24:23 Type: QC
Method: Accutest 2(v145) 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	**.0019**	**.0009**	**-.0000**	**-.0003**	F **-.0006**	F **.0002**	F **-.0008**	F **-.0017**
Stddev	.0002	.0002	.0000	.0001	.0004	.0000	.0011	.0021
%RSD	9.301	25.65	65.58	26.88	66.94	7.625	131.7	121.9
#1	.0018	.0007	-.0000	-.0002	-.0003	.0002	-.0001	-.0002
#2	.0020	.0010	-.0000	-.0003	-.0009	.0002	-.0016	-.0032
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	.0006	.0007
%RSD	48.26	64.88
#1	.0008	.0015
#2	.0016	.0005
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	**106480.**	**14868.**	**3881.9**	**8990.0**
Stddev	43.	57.	4.6	21.0
%RSD	.04028	.38379	.11877	.23357
#1	106510.	14828.	3878.7	8975.1
#2	106450.	14909.	3885.2	9004.8

Zoom In Zoom Out

Sample Name: mp6397-mb1conf Acquired: 4/4/2018 11:28:43 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0001**	**.0000**	**.0005**	**-.0002**	**.0005**	**.0000**	**.0004**	**-.0003**
Stddev	.0001	.0001	.0002	.0002	.0001	.0000	.0000	.0001	.0000
%RSD	1178.	120.9	1397.	35.69	36.78	.7668	36.96	26.69	4.039
#1	-.0001	-.0000	-.0001	.0004	-.0002	.0005	.0000	.0003	-.0003
#2	.0001	-.0001	.0001	.0007	-.0001	.0005	.0000	.0005	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**-.0003**	**.0006**	**.0001**	**-.0002**	**.0008**	**-.0000**	**-.0104**	**-.0008**
Stddev	.0002	.0000	.0016	.0008	.0003	.0011	.0021	.0004	.0002
%RSD	64.09	.8168	264.3	796.2	179.0	142.2	4539.	3.755	24.11
#1	.0005	-.0003	-.0005	-.0005	.0001	-.0000	-.0016	-.0101	-.0009
#2	.0002	-.0003	.0018	.0007	-.0004	.0015	.0015	-.0107	-.0007

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0040**	**.0317**	**.0216**	**-.0242**	**.0010**	**.0001**	**.0041**	**-.0003**	**.0000**
Stddev	.0046	.0021	.0154	.0006	.0002	.0000	.0001	.0002	.0001
%RSD	114.1	6.713	71.63	2.362	19.71	50.27	3.510	62.32	187.4
#1	.0072	.0332	.0325	-.0238	.0009	.0001	.0040	-.0005	.0001
#2	.0008	.0302	.0106	-.0246	.0012	.0001	.0042	-.0002	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**-.0001**	**.0001**	**-.0008**	**-.0024**	**.0001**	**.0020**
Stddev	.0001	.0004	.0002	.0025	.0002	.0004	.0018
%RSD	609.9	435.0	195.2	324.4	7.945	341.2	93.28
#1	.0000	-.0004	.0003	.0010	-.0023	.0004	.0007
#2	-.0000	.0002	-.0000	-.0026	-.0025	-.0002	.0032

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107720.**	**14912.**	**3889.3**	**9023.5**
Stddev	2.	10.	.4	4.1
%RSD	.00211	.06544	.00967	.04518
#1	107720.	14905.	3889.0	9026.4
#2	107720.	14918.	3889.5	9020.6

Zoom In Zoom Out

Sample Name: jc62939-1 1 Acquired: 4/4/2018 11:33:03 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0764**	**-.0002**	**-.0001**	**.0011**	**.0020**	**.0048**	**.0063**	**.0064**	**-.0006**
Stddev	.0000	.0001	.0005	.0006	.0007	.0001	.0000	.0008	.0025
%RSD	.0487	46.98	355.2	53.88	32.44	2.912	.0824	12.26	404.6
#1	.0764	-.0001	-.0005	.0015	.0016	.0049	.0063	.0069	-.0024
#2	.0764	-.0002	.0002	.0007	.0025	.0047	.0063	.0058	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0124**	**.0025**	**.0534**	**-.0024**	**-.0007**	**-.0027**	**.0024**	**.5480**	**120.6**
Stddev	.0009	.0008	.0012	.0005	.0020	.0020	.0020	.0264	.3
%RSD	6.870	30.58	2.329	19.06	271.8	75.00	85.55	4.815	.2411
#1	.0118	.0019	.0525	-.0028	.0007	-.0042	.0009	.5666	120.8
#2	.0130	.0030	.0543	-.0021	-.0021	-.0013	.0038	.5293	120.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0587**	**1.943**	**61.19**	**561.7**	**.2575**	**.0135**	**11.57**	**-.0039**	**1.592**
Stddev	.0064	.039	.12	6.9	.0025	.0004	.01	.0016	.005
%RSD	10.82	2.000	.1880	1.236	.9653	2.919	.1190	42.31	.2928
#1	.0632	1.970	61.27	566.6	.2557	.0138	11.58	-.0027	1.595
#2	.0542	1.915	61.11	556.8	.2592	.0132	11.56	-.0050	1.589

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0015**	**.0154**	**-.0006**	**205.8**	**-.0033**	**.0107**	**.0410**
Stddev	.0004	.0028	.0000	.3	.0013	.0020	.0025
%RSD	26.74	17.96	4.131	.1477	40.27	18.91	6.029
#1	-.0012	.0135	-.0006	206.0	-.0024	.0121	.0428
#2	-.0018	.0174	-.0007	205.6	-.0042	.0092	.0393

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101460.**	**14823.**	**3739.0**	**8100.4**
Stddev	51.	48.	1.3	2.8
%RSD	.04997	.32408	.03379	.03488
#1	101430.	14789.	3738.1	8102.4
#2	101500.	14857.	3739.9	8098.4

Zoom In Zoom Out

Sample Name: mp6387-mb1conf Acquired: 4/4/2018 11:37:26 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0000**	**.0001**	**.0002**	**.0003**	**.0000**	**.0000**	**-.0008**
Stddev	.0002	.0001	.0004	.0001	.0004	.0002	.0000	.0001	.0001
%RSD	297.4	99.86	33180.	148.6	192.3	53.68	72.82	176.1	15.06
#1	.0001	-.0001	.0003	-.0000	.0005	.0004	.0001	.0001	-.0007
#2	-.0002	-.0000	-.0003	.0002	-.0001	.0002	.0000	-.0000	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**-.0001**	**.0006**	**-.0001**	**-.0004**	**.0000**	**-.0002**	**-.0041**	**-.0051**
Stddev	.0002	.0000	.0009	.0004	.0003	.0009	.0015	.0028	.0027
%RSD	112.3	15.37	138.7	611.9	66.54	4537.	663.9	67.25	52.61
#1	-.0004	-.0001	.0000	-.0003	-.0002	.0007	.0008	-.0022	-.0032
#2	-.0000	-.0001	.0012	.0002	-.0006	-.0006	-.0012	-.0061	-.0070

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0039**	**.0338**	**.0091**	**.0054**	**.0014**	**-.0002**	**-.0001**	**.0004**	**-.0000**
Stddev	.0052	.0077	.0070	.0094	.0010	.0001	.0005	.0001	.0000
%RSD	135.1	22.75	77.00	175.4	71.42	51.13	458.5	32.45	417.4
#1	.0002	.0393	.0140	.0120	.0021	-.0002	-.0004	.0005	.0000
#2	.0076	.0284	.0041	-.0013	.0007	-.0001	.0002	.0003	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0008**	**.0002**	**.0041**	**-.0034**	**-.0007**	**.0047**
Stddev	.0000	.0006	.0000	.0000	.0010	.0003	.0013
%RSD	25.86	68.32	.8146	.2426	28.60	40.59	27.67
#1	.0001	.0004	.0002	.0041	-.0027	-.0010	.0038
#2	.0002	.0012	.0002	.0041	-.0041	-.0005	.0056

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108110.**	**15052.**	**3895.3**	**9048.5**
Stddev	347.	99.	1.4	13.9
%RSD	.32125	.65522	.03476	.15392
#1	107860.	15122.	3896.2	9058.4
#2	108350.	14983.	3894.3	9038.7

Zoom In Zoom Out

Sample Name: mp6387-b1conf Acquired: 4/4/2018 11:41:45 Type: Unk
Method: Accutest 2(v145) 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	**2.021**	**2.064**	**2.029**	**2.016**	**2.051**	**2.029**	**2.071**	**2.016**
Stddev	.002	.002	.003	.003	.002	.003	.001	.002
%RSD	.1198	.0945	.1487	.1391	.0841	.1671	.0587	.0847
#1	2.020	2.062	2.031	2.018	2.052	2.027	2.072	2.017
#2	2.023	2.065	2.027	2.014	2.049	2.032	2.070	2.015

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2429**	**2.021**	**2.045**	**1.974**	**2.136**	**2.044**	**2.007**	**2.027**
Stddev	.0013	.001	.004	.001	.009	.001	.004	.004
%RSD	.5491	.0712	.1858	.0507	.4139	.0683	.2247	.1704
#1	.2420	2.022	2.047	1.974	2.142	2.043	2.010	2.025
#2	.2439	2.020	2.042	1.973	2.129	2.045	2.003	2.030

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**24.89**	**24.93**	**25.57**	**24.57**	**24.88**	**25.11**	**2.042**	**2.079**
Stddev	.04	.01	.04	.07	.00	.00	.001	.002
%RSD	.1609	.0391	.1417	.2674	.0115	.0030	.0449	.0965
#1	24.87	24.93	25.54	24.53	24.88	25.11	2.043	2.081
#2	24.92	24.94	25.60	24.62	24.88	25.11	2.042	2.078

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	W **-.0254**	**2.095**	**2.031**	**2.043**	**2.019**	**2.034**	F **-.0796**	**-.0027**
Stddev	.0008	.005	.004	.001	.005	.001	.0000	.0002
%RSD	3.166	.2546	.1733	.0596	.2629	.0454	.0170	5.679
#1	-.0260	2.099	2.028	2.042	2.022	2.034	-.0796	-.0026
#2	-.0249	2.091	2.033	2.043	2.015	2.033	-.0796	-.0028

Elem	Li6707	P_1774
Avg	**-.0001**	**1.980**
Stddev	.0021	.002
%RSD	2007.	.1077
#1	.0014	1.981
#2	-.0016	1.978

Zoom In Zoom Out

Sample Name: mp6387-b1conf Acquired: 4/4/2018 11:41:45 Type: Unk
Method: Accutest 2(v145) 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	**104790.**	**14983.**	**3813.2**	**8352.3**
Stddev	225.	70.	6.9	13.8
%RSD	.21459	.46426	.18096	.16506
#1	104630.	15032.	3808.3	8342.6
#2	104950.	14934.	3818.0	8362.1

Zoom In Zoom Out

Sample Name: mp6387-s1 2 Acquired: 4/4/2018 11:45:48 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.223**	**2.065**	**2.053**	**2.031**	**2.077**	**1.994**	**16.21**	**2.031**	**.2452**
Stddev	.000	.007	.024	.027	.007	.002	.09	.029	.0024
%RSD	.0198	.3512	1.170	1.328	.3446	.0790	.5533	1.421	.9597
#1	2.223	2.060	2.070	2.051	2.082	1.993	16.27	2.051	.2469
#2	2.224	2.070	2.036	2.012	2.072	1.996	16.14	2.010	.2436

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.047**	**2.069**	**2.008**	**2.183**	**2.071**	**2.020**	**2.048**	**25.03**	**82.99**
Stddev	.009	.028	.018	.032	.023	.027	.024	.09	.13
%RSD	.4532	1.353	.8710	1.473	1.091	1.340	1.185	.3567	.1552
#1	2.053	2.089	2.021	2.206	2.087	2.040	2.065	24.97	82.90
#2	2.040	2.049	1.996	2.160	2.055	2.001	2.031	25.09	83.08

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**30.48**	**45.14**	**31.86**	**35.48**	**2.164**	**2.120**	**7.439**	**2.133**	**2.215**
Stddev	.06	.01	.10	.00	.026	.026	.104	.032	.006
%RSD	.1944	.0302	.3278	.0134	1.196	1.215	1.403	1.508	.2655
#1	30.44	45.13	31.79	35.48	2.182	2.139	7.513	2.156	2.211
#2	30.52	45.15	31.94	35.47	2.146	2.102	7.366	2.110	2.219

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.063**	**2.093**	**2.036**	**.0769**	**-.0055**	**-.0004**	**3.363**
Stddev	.001	.030	.001	.0092	.0045	.0029	.047
%RSD	.0319	1.412	.0370	12.01	81.04	729.8	1.404
#1	2.064	2.114	2.036	.0834	-.0087	-.0025	3.396
#2	2.063	2.072	2.035	.0704	-.0023	.0017	3.329

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104480.**	**14850.**	**3802.9**	**8347.4**
Stddev	484.	16.	33.7	75.7
%RSD	.46286	.10783	.88578	.90639
#1	104140.	14862.	3779.0	8293.9
#2	104830.	14839.	3826.7	8400.9

Zoom In Zoom Out

Sample Name: mp6387-s2 Acquired: 4/4/2018 11:49:56 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.278**	**2.114**	**2.036**	**2.019**	**2.081**	**2.006**	**17.27**	**2.015**	**.2442**
Stddev	.008	.006	.002	.005	.001	.008	.06	.005	.0004
%RSD	.3584	.2914	.1046	.2338	.0441	.4149	.3525	.2724	.1547
#1	2.284	2.118	2.038	2.022	2.081	2.012	17.22	2.019	.2440
#2	2.272	2.109	2.035	2.015	2.082	2.000	17.31	2.011	.2445

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.042**	**2.053**	**1.997**	**2.176**	**2.057**	**2.009**	**2.031**	**25.33**	**87.57**
Stddev	.000	.008	.005	.011	.012	.007	.007	.02	.21
%RSD	.0198	.3851	.2411	.5155	.5680	.3637	.3385	.0869	.2441
#1	2.041	2.059	2.000	2.184	2.065	2.004	2.036	25.35	87.72
#2	2.042	2.048	1.993	2.168	2.048	2.014	2.027	25.31	87.41

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**31.22**	**46.93**	**32.75**	**36.71**	**2.158**	**2.114**	**7.840**	**2.118**	**2.272**
Stddev	.16	.30	.02	.07	.002	.006	.007	.004	.007
%RSD	.5255	.6391	.0722	.1893	.0902	.2834	.0855	.2011	.3009
#1	31.34	47.15	32.77	36.76	2.159	2.118	7.845	2.121	2.277
#2	31.10	46.72	32.74	36.66	2.156	2.110	7.835	2.115	2.267

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.076**	**2.082**	**2.050**	**.0935**	**-.0042**	**.0018**	**3.424**
Stddev	.004	.007	.004	.0060	.0027	.0005	.006
%RSD	.1691	.3411	.2059	6.466	64.20	24.88	.1903
#1	2.078	2.087	2.053	.0978	-.0023	.0015	3.428
#2	2.073	2.077	2.047	.0892	-.0061	.0022	3.419

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104540.**	**14894.**	**3818.0**	**8375.3**
Stddev	281.	80.	.8	1.9
%RSD	.26889	.53961	.02054	.02275
#1	104740.	14951.	3818.6	8376.7
#2	104340.	14837.	3817.5	8374.0

Zoom In Zoom Out

Sample Name: jc62857-4 Acquired: 4/4/2018 11:54:04 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2222**	**.0001**	**.0029**	**.0016**	**.0054**	**.0031**	**15.03**	**.0018**	**-.0006**
Stddev	.0002	.0001	.0000	.0003	.0009	.0001	.14	.0002	.0003
%RSD	.0707	105.2	.9897	16.52	17.37	1.884	.9363	12.90	51.29
#1	.2221	.0002	.0028	.0014	.0047	.0031	15.13	.0020	-.0004
#2	.2223	.0000	.0029	.0018	.0060	.0031	14.93	.0016	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0169**	**.0023**	**.0175**	**.0034**	**-.0015**	**.0013**	**.0014**	**.0664**	**60.65**
Stddev	.0000	.0002	.0027	.0013	.0033	.0016	.0012	.0054	.01
%RSD	.1767	7.081	15.66	39.51	223.3	124.4	85.05	8.154	.0175
#1	.0169	.0022	.0195	.0043	-.0038	.0025	.0005	.0702	60.66
#2	.0169	.0024	.0156	.0024	.0009	.0002	.0022	.0625	60.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**5.105**	**21.73**	**7.386**	**10.84**	**.1030**	**.0062**	**7.638**	**-.0038**	**.2167**
Stddev	.006	.13	.029	.01	.0028	.0003	.022	.0007	.0007
%RSD	.1160	.6023	.3988	.0651	2.709	4.377	.2824	17.95	.3264
#1	5.109	21.82	7.365	10.85	.1010	.0064	7.653	-.0043	.2172
#2	5.101	21.64	7.407	10.84	.1050	.0060	7.623	-.0033	.2162

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0008**	**.0099**	**.0020**	**.1716**	**-.0033**	**.0035**	**1.407**
Stddev	.0008	.0023	.0006	.0058	.0008	.0010	.003
%RSD	95.64	23.30	32.18	3.353	25.14	29.20	.2118
#1	.0014	.0083	.0025	.1756	-.0039	.0028	1.409
#2	.0003	.0116	.0015	.1675	-.0027	.0043	1.405

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105650.**	**14788.**	**3847.6**	**8658.4**
Stddev	253.	15.	2.1	3.2
%RSD	.23928	.10110	.05481	.03726
#1	105480.	14798.	3846.1	8656.1
#2	105830.	14777.	3849.0	8660.7

Zoom In Zoom Out

Sample Name: mp6387-sd1 Acquired: 4/4/2018 11:58:27 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2358**	**-.0002**	**.0035**	**.0050**	**.0048**	**.0026**	**16.18**	**.0033**	**-.0077**
Stddev	.0007	.0004	.0021	.0029	.0007	.0014	.34	.0028	.0011
%RSD	.2897	178.0	59.20	57.18	14.52	54.21	2.116	84.84	14.72
#1	.2353	.0001	.0050	.0030	.0053	.0036	16.42	.0013	-.0069
#2	.2363	-.0005	.0020	.0071	.0043	.0016	15.93	.0053	-.0085

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0185**	**.0082**	**.0240**	**.0078**	**.0069**	**-.0043**	**-.0031**	**.0085**	**65.72**
Stddev	.0013	.0000	.0086	.0035	.0126	.0088	.0132	.0161	.49
%RSD	6.984	.4866	35.84	45.35	181.5	201.8	422.2	189.0	.7430
#1	.0194	.0083	.0179	.0103	-.0020	-.0105	.0062	-.0029	66.07
#2	.0176	.0082	.0301	.0053	.0158	.0019	-.0124	.0199	65.38

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**5.532**	**23.16**	**8.020**	**11.37**	**.1136**	**.0055**	**7.389**	**-.0048**	**.2314**
Stddev	.092	.10	.343	.05	.0036	.0007	.109	.0078	.0017
%RSD	1.669	.4134	4.271	.4379	3.205	13.57	1.475	161.5	.7195
#1	5.597	23.23	8.262	11.41	.1110	.0060	7.466	-.0104	.2325
#2	5.467	23.09	7.778	11.34	.1162	.0049	7.311	.0007	.2302

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0038**	**.0157**	**.0036**	**.1645**	**-.0308**	**-.0066**	**1.427**
Stddev	.0015	.0007	.0003	.0314	.0143	.0260	.021
%RSD	38.65	4.225	9.659	19.08	46.34	390.9	1.437
#1	-.0048	.0152	.0038	.1866	-.0207	-.0250	1.442
#2	-.0027	.0162	.0033	.1423	-.0409	.0117	1.413

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106710.**	**14957.**	**3908.5**	**8952.6**
Stddev	178.	47.	3.3	14.8
%RSD	.16660	.31480	.08569	.16527
#1	106840.	14924.	3910.9	8963.1
#2	106590.	14991.	3906.2	8942.2

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 12:02:48 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**2.035**	**1.991**	**2.033**	**2.053**	**1.996**	**2.065**	**2.011**	**.2487**
Stddev	.001	.003	.002	.001	.000	.002	.002	.000	.0009
%RSD	.0580	.1616	.0961	.0247	.0108	.0755	.1168	.0128	.3428
#1	1.977	2.038	1.990	2.034	2.053	1.997	2.067	2.011	.2493
#2	1.975	2.033	1.992	2.033	2.053	1.995	2.064	2.011	.2481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**2.041**	**1.953**	**2.153**	**2.053**	**1.992**	**1.985**	**39.00**	**38.93**
Stddev	.001	.001	.000	.002	.002	.002	.006	.05	.13
%RSD	.0395	.0247	.0158	.1017	.0779	.0894	.2798	.1235	.3432
#1	2.000	2.041	1.953	2.152	2.054	1.994	1.981	39.04	39.03
#2	2.001	2.040	1.953	2.155	2.052	1.991	1.988	38.97	38.84
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	**40.11**	**38.99**	**38.82**	**39.60**	**2.032**	**2.055**	**4.884**	**2.073**	**1.981**
Stddev	.03	.14	.01	.04	.001	.002	.003	.001	.000
%RSD	.0630	.3469	.0317	.1104	.0634	.0977	.0649	.0573	.0086
#1	40.13	39.08	38.83	39.63	2.031	2.053	4.882	2.074	1.981
#2	40.10	38.89	38.81	39.57	2.033	2.056	4.886	2.072	1.981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 12:02:48 Type: QC
Method: Accutest 2(v145) 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	**2.031**	**2.020**	**2.040**	**1.976**	**1.996**	**2.000**	**1.963**
Stddev	.001	.002	.000	.003	.000	.000	.002
%RSD	.0281	.0948	.0088	.1692	.0133	.0196	.1021
#1	2.032	2.019	2.040	1.979	1.996	2.000	1.965
#2	2.031	2.022	2.040	1.974	1.996	2.000	1.962
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	**103400.**	**14823.**	**3819.1**	**8166.1**
Stddev	79.	62.	2.6	5.0
%RSD	.07665	.42084	.06777	.06171
#1	103350.	14779.	3820.9	8169.7
#2	103460.	14867.	3817.3	8162.5

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 12:06:52 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	F **.0004**	**.0003**	**.0004**	**.0001**	**.0001**	**.0004**	**.0006**	**-.0012**
Stddev	.0002	.0001	.0000	.0001	.0003	.0006	.0001	.0000	.0002
%RSD	32.81	31.34	10.75	29.56	250.9	593.3	28.84	5.721	21.07
#1	.0005	.0003	.0003	.0003	.0003	-.0003	.0005	.0006	-.0014
#2	.0008	.0005	.0003	.0004	-.0001	.0005	.0003	.0006	-.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**	**.0000**	**-.0005**	**.0005**	**-.0001**	**.0002**	**.0013**	**.0033**	**-.0017**
Stddev	.0001	.0001	.0005	.0008	.0008	.0003	.0002	.0125	.0007
%RSD	30.63	264.8	105.8	171.8	1498.	159.5	12.04	374.1	40.27
#1	.0003	.0001	-.0001	.0010	.0005	-.0000	.0014	.0122	-.0012
#2	.0002	-.0000	-.0009	-.0001	-.0006	.0004	.0012	-.0055	-.0022
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	F **.0119**	**.0126**	**.0406**	**-.0093**	**.0015**	**.0007**	**.0052**	**.0003**	**.0006**
Stddev	.0028	.0031	.0092	.0085	.0013	.0003	.0001	.0003	.0001
%RSD	23.72	24.89	22.65	91.26	83.71	35.25	2.413	105.7	9.218
#1	.0099	.0148	.0341	-.0153	.0025	.0009	.0053	.0005	.0006
#2	.0139	.0104	.0471	-.0033	.0006	.0006	.0051	.0001	.0006
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 12:06:52 Type: QC
Method: Accutest 2(v145) 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**	**.0005**	**.0009**	**-.0019**	**.0009**	**.0105**
Stddev	.0000	.0003	.0000	.0008	.0002	.0008	.0014
%RSD	5.780	512.8	8.971	89.93	8.951	99.47	13.73
#1	.0004	-.0002	.0005	.0015	-.0021	.0015	.0115
#2	.0003	.0001	.0005	.0003	-.0018	.0003	.0094
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	**108120.**	**15043.**	**3954.5**	**9070.7**
Stddev	261.	85.	5.0	9.4
%RSD	.24097	.56587	.12695	.10310
#1	108300.	14983.	3958.0	9077.4
#2	107940.	15103.	3950.9	9064.1

Zoom In Zoom Out

Sample Name: jc62857-6 Acquired: 4/4/2018 12:11:14 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2730**	**.0001**	**.0037**	**.0011**	**.0059**	**.0046**	**15.11**	**.0025**	**-.0014**
Stddev	.0006	.0001	.0006	.0001	.0006	.0002	.02	.0005	.0011
%RSD	.2302	50.27	15.08	9.674	10.73	3.372	.1527	22.16	75.09
#1	.2726	.0002	.0041	.0010	.0064	.0047	15.10	.0029	-.0022
#2	.2735	.0001	.0033	.0011	.0055	.0045	15.13	.0021	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0187**	**.0033**	**.0171**	**.0028**	**.0027**	**.0030**	**.0026**	**.7478**	**85.06**
Stddev	.0001	.0001	.0003	.0031	.0020	.0063	.0022	.0126	.27
%RSD	.7915	3.201	1.620	107.8	73.22	207.6	86.34	1.685	.3137
#1	.0186	.0033	.0169	.0007	.0041	.0075	.0010	.7389	84.87
#2	.0188	.0032	.0173	.0050	.0013	-.0014	.0041	.7568	85.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**4.497**	**23.43**	**.7120**	**15.25**	**.0448**	**.0049**	**12.79**	**-.0028**	**.1992**
Stddev	.027	.10	.0060	.01	.0005	.0005	.00	.0016	.0009
%RSD	.5965	.4402	.8457	.0979	1.148	9.528	.0345	58.06	.4684
#1	4.478	23.36	.7077	15.24	.0444	.0052	12.79	-.0017	.1985
#2	4.516	23.50	.7162	15.26	.0451	.0046	12.80	-.0040	.1998

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0156**	**.0160**	**.0008**	**.2050**	**-.0037**	**.0056**	**2.086**
Stddev	.0005	.0021	.0002	.0055	.0010	.0008	.005
%RSD	3.054	13.13	23.52	2.706	28.06	14.39	.2325
#1	.0153	.0175	.0009	.2010	-.0044	.0051	2.090
#2	.0159	.0145	.0006	.2089	-.0029	.0062	2.083

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105370.**	**14934.**	**3860.0**	**8596.8**
Stddev	59.	108.	3.7	2.1
%RSD	.05644	.72194	.09581	.02460
#1	105410.	15010.	3857.4	8598.3
#2	105330.	14858.	3862.6	8595.3

Zoom In Zoom Out

Sample Name: mp6399-mb1conf Acquired: 4/4/2018 12:15:37 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0002**	**-.0001**	**.0003**	**-.0001**	**.0024**	**.0001**	**.0003**	**-.0015**
Stddev	.0001	.0000	.0001	.0001	.0003	.0003	.0000	.0002	.0001
%RSD	353.6	4.853	67.87	38.05	327.7	12.70	63.52	59.62	6.982
#1	-.0001	-.0002	-.0001	.0004	.0001	.0026	.0001	.0002	-.0016
#2	.0001	-.0002	-.0002	.0003	-.0003	.0022	.0000	.0004	-.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0019**	**-.0009**	**.0001**	**.0000**	**.0008**	**.0006**	**.0037**	**-.0073**
Stddev	.0000	.0001	.0012	.0004	.0002	.0019	.0001	.0002	.0013
%RSD	28.78	4.407	132.7	340.9	1306.	225.1	13.70	4.946	18.06
#1	-.0001	.0020	-.0001	.0004	.0002	.0022	.0005	.0038	-.0063
#2	-.0000	.0019	-.0018	-.0002	-.0001	-.0005	.0007	.0036	-.0082

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0033**	**-.0079**	**.0143**	**-.0203**	**.0008**	**.0000**	**-.0016**	**.0002**	**.0001**
Stddev	.0000	.0109	.0344	.0061	.0008	.0000	.0007	.0005	.0001
%RSD	.0803	138.5	241.1	30.22	96.28	39.07	44.83	198.9	112.2
#1	.0033	-.0156	.0386	-.0246	.0013	.0000	-.0011	-.0001	.0000
#2	.0033	-.0002	-.0101	-.0159	.0003	.0001	-.0021	.0006	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0009**	**.0003**	**.0029**	**-.0003**	**.0001**	**.0097**
Stddev	.0001	.0001	.0001	.0027	.0006	.0005	.0003
%RSD	89.41	11.52	32.57	94.05	160.8	593.2	2.685
#1	.0000	.0008	.0002	.0010	.0000	.0004	.0099
#2	.0002	.0009	.0004	.0048	-.0007	-.0003	.0095

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108200.**	**15035.**	**3935.7**	**9041.7**
Stddev	129.	43.	5.7	22.8
%RSD	.11951	.28475	.14495	.25173
#1	108110.	15005.	3939.8	9057.7
#2	108290.	15065.	3931.7	9025.6

Zoom In Zoom Out

Sample Name: jc62881-4 Acquired: 4/4/2018 12:19:59 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0744**	**.0001**	**-.0001**	**.0275**	**.0028**	**.0286**	**1.446**	**.0685**	**-.0022**
Stddev	.0003	.0000	.0000	.0004	.0003	.0003	.004	.0004	.0002
%RSD	.4250	41.45	3.983	1.618	12.14	.9442	.2558	.6451	7.348
#1	.0742	.0001	-.0001	.0279	.0031	.0288	1.444	.0689	-.0021
#2	.0746	.0001	-.0001	.0272	.0026	.0284	1.449	.0682	-.0023

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0032**	**.2607**	**.0123**	**-.0002**	**.0023**	**.0021**	**.0009**	**.2462**	**205.3**
Stddev	.0002	.0008	.0003	.0011	.0002	.0017	.0003	.0071	.0
%RSD	5.068	.2878	2.785	458.3	9.929	81.80	30.42	2.884	.0064
#1	.0033	.2612	.0121	.0005	.0022	.0033	.0011	.2512	205.2
#2	.0031	.2602	.0126	-.0010	.0025	.0009	.0007	.2412	205.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**43.10**	**95.21**	**14.20**	**19.33**	**.2730**	**.0021**	**19.03**	**-.0029**	**1.061**
Stddev	.01	.03	.04	.02	.0018	.0001	.02	.0002	.000
%RSD	.0153	.0295	.2648	.0900	.6766	2.422	.1227	7.239	.0208
#1	43.10	95.23	14.22	19.32	.2717	.0021	19.05	-.0027	1.061
#2	43.10	95.19	14.17	19.34	.2743	.0020	19.02	-.0030	1.061

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**.0195**	**.0002**	**146.5**	**-.0056**	**.0286**	**.1234**
Stddev	.0004	.0002	.0001	.2	.0046	.0029	.0008
%RSD	138.7	1.176	33.02	.1251	81.80	10.23	.6375
#1	.0000	.0196	.0002	146.6	-.0088	.0307	.1240
#2	.0006	.0193	.0001	146.4	-.0024	.0266	.1229

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102320.**	**14904.**	**3736.2**	**8250.4**
Stddev	100.	7.	1.2	3.9
%RSD	.09757	.04831	.03202	.04692
#1	102390.	14909.	3735.3	8253.1
#2	102250.	14899.	3737.0	8247.7

Zoom In Zoom Out

Sample Name: jc62881-5 Acquired: 4/4/2018 12:24:16 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0488**	**-.0003**	**.0015**	**.0060**	**.0035**	**.0034**	**4.956**	**.0028**	**-.0019**
Stddev	.0001	.0001	.0002	.0001	.0009	.0005	.007	.0004	.0011
%RSD	.2822	25.64	11.25	1.980	26.31	13.49	.1324	14.01	58.18
#1	.0489	-.0003	.0013	.0061	.0028	.0037	4.961	.0031	-.0011
#2	.0487	-.0002	.0016	.0060	.0041	.0031	4.952	.0025	-.0027

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0062**	**.0046**	**.0063**	**-.0038**	**.0015**	**.0001**	**.0030**	**.0505**	**222.5**
Stddev	.0004	.0002	.0041	.0045	.0032	.0029	.0026	.0061	.1
%RSD	7.161	3.930	65.15	116.8	215.3	4188.	87.31	12.03	.0532
#1	.0059	.0045	.0092	-.0007	.0037	-.0019	.0048	.0462	222.6
#2	.0065	.0048	.0034	-.0070	-.0008	.0021	.0011	.0547	222.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.248**	**77.66**	**97.63**	**50.56**	**2.495**	**.0081**	**2.865**	**-.0019**	**3.253**
Stddev	.020	.04	.00	.03	.000	.0003	.004	.0011	.002
%RSD	.6148	.0511	.0031	.0607	.0147	4.098	.1444	58.03	.0452
#1	3.234	77.68	97.64	50.58	2.495	.0078	2.862	-.0011	3.252
#2	3.262	77.63	97.63	50.54	2.496	.0083	2.867	-.0027	3.254

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0012**	**.0107**	**.0006**	**124.2**	**-.0041**	**-.0024**	**.0978**
Stddev	.0006	.0001	.0004	.2	.0006	.0017	.0004
%RSD	49.06	1.233	68.61	.1801	14.39	70.37	.4143
#1	-.0017	.0108	.0009	124.4	-.0046	-.0012	.0975
#2	-.0008	.0106	.0003	124.0	-.0037	-.0036	.0981

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101340.**	**14761.**	**3714.7**	**8102.9**
Stddev	268.	16.	.4	3.1
%RSD	.26407	.10795	.01162	.03832
#1	101150.	14749.	3714.4	8100.7
#2	101530.	14772.	3715.0	8105.1

Zoom In Zoom Out

Sample Name: jc63383-1q Acquired: 4/4/2018 12:28:31 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0003**	**.0003**	**.0000**	**-.0000**	**-.0000**	**.0003**	**-.0014**
Stddev	.0002	.0001	.0001	.0000	.0002	.0002	.0000	.0001	.0002
%RSD	205.4	50.27	20.01	11.81	495.6	794.7	80.05	19.93	17.01
#1	.0000	-.0001	-.0003	.0003	.0002	-.0002	-.0000	.0003	-.0016
#2	-.0002	-.0002	-.0003	.0002	-.0001	.0001	-.0000	.0003	-.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**-.0003**	**-.0003**	**.0007**	**.0001**	**-.0005**	**-.0013**	**-.0062**	**.0004**
Stddev	.0001	.0000	.0000	.0006	.0002	.0009	.0002	.0044	.0029
%RSD	68.24	1.494	1.811	78.47	430.2	170.7	15.32	70.75	799.7
#1	.0001	-.0003	-.0003	.0012	-.0001	-.0011	-.0014	-.0031	.0024
#2	.0002	-.0003	-.0003	.0003	.0002	.0001	-.0012	-.0093	-.0017

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0009**	**.0091**	**.0208**	**.3835**	**.0013**	**.0005**	**.0077**	**.0245**	**.0000**
Stddev	.0004	.0091	.0121	.0056	.0005	.0001	.0002	.0006	.0000
%RSD	40.56	99.71	58.11	1.450	38.47	15.48	1.966	2.512	118.2
#1	.0012	.0027	.0294	.3875	.0016	.0004	.0076	.0241	.0000
#2	.0007	.0155	.0123	.3796	.0009	.0006	.0078	.0250	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**-.0013**	**-.0001**	**.0194**	**-.0004**	**.0001**	**.0109**
Stddev	.0002	.0009	.0000	.0002	.0017	.0002	.0015
%RSD	62.07	72.50	62.15	1.271	480.2	406.0	13.92
#1	.0002	-.0006	-.0000	.0196	-.0016	.0002	.0098
#2	.0004	-.0019	-.0001	.0192	.0009	-.0001	.0120

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**110030.**	**15300.**	**4045.5**	**9264.1**
Stddev	147.	75.	5.9	6.5
%RSD	.13356	.48871	.14688	.07044
#1	110130.	15247.	4041.3	9259.5
#2	109920.	15353.	4049.7	9268.8

Zoom In Zoom Out

Sample Name: jc63390-1q Acquired: 4/4/2018 12:32:49 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0001**	**-.0002**	**.0001**	**.0004**	**-.0003**	**.0000**	**.0005**	**-.0015**
Stddev	.0001	.0000	.0001	.0001	.0004	.0001	.0000	.0005	.0002
%RSD	473.3	32.68	29.95	84.56	116.3	24.86	32.01	93.49	15.06
#1	-.0000	-.0001	-.0001	.0002	.0001	-.0004	.0000	.0002	-.0014
#2	.0000	-.0002	-.0002	.0001	.0007	-.0003	.0001	.0009	-.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**-.0002**	**-.0005**	**.0004**	**.0009**	**.0006**	**-.0001**	**-.0062**	**.0271**
Stddev	.0005	.0000	.0007	.0003	.0004	.0016	.0002	.0062	.0020
%RSD	134.1	25.32	130.0	88.50	47.29	278.1	286.2	98.90	7.452
#1	.0007	-.0002	-.0000	.0001	.0013	.0017	-.0002	-.0019	.0285
#2	.0000	-.0001	-.0010	.0006	.0006	-.0006	.0001	-.0106	.0257

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0009**	**-.0031**	**.0479**	**.2025**	**.0004**	**.0000**	**.0184**	**.0005**	**.0002**
Stddev	.0032	.0119	.0025	.0092	.0006	.0001	.0005	.0000	.0000
%RSD	335.5	377.7	5.227	4.534	138.6	364.8	2.620	7.293	18.19
#1	.0032	-.0116	.0497	.1960	.0000	.0001	.0188	.0005	.0002
#2	-.0013	.0053	.0461	.2090	.0008	-.0000	.0181	.0005	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0002**	**.0002**	**.0052**	**.0005**	**-.0007**	**.0112**
Stddev	.0003	.0020	.0001	.0009	.0007	.0018	.0018
%RSD	71.64	975.6	82.77	16.87	127.0	251.5	15.86
#1	.0002	-.0012	.0003	.0059	.0010	.0006	.0125
#2	.0007	.0016	.0001	.0046	.0001	-.0020	.0100

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**109470.**	**15298.**	**4051.1**	**9270.8**
Stddev	278.	31.	1.4	4.2
%RSD	.25371	.20108	.03444	.04564
#1	109670.	15320.	4050.1	9267.8
#2	109270.	15276.	4052.1	9273.8

Zoom In Zoom Out

Sample Name: jc63391-1q Acquired: 4/4/2018 12:37:08 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0003**	**.0003**	**.0005**	**.0001**	**.0001**	**.0000**	**-.0010**
Stddev	.0004	.0001	.0000	.0000	.0002	.0002	.0000	.0001	.0005
%RSD	293.8	116.3	8.766	.1193	41.95	147.0	60.05	1481.	51.63
#1	.0004	-.0000	-.0003	.0003	.0006	-.0000	.0000	.0001	-.0014
#2	-.0001	-.0001	-.0003	.0003	.0003	.0003	.0001	-.0001	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**-.0004**	**-.0008**	**.0004**	**.0003**	**.0093**	**-.0007**	**-.0077**	**.0161**
Stddev	.0003	.0001	.0008	.0009	.0004	.0004	.0013	.0072	.0014
%RSD	202.2	18.75	93.55	235.3	117.4	3.950	169.1	92.98	8.427
#1	.0003	-.0004	-.0014	.0010	.0006	.0096	.0001	-.0027	.0170
#2	-.0001	-.0005	-.0003	-.0002	.0001	.0090	-.0016	-.0128	.0151

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0068**	**-.0045**	**.0233**	**.1932**	**.0032**	**-.0002**	**.0047**	**.0030**	**.0002**
Stddev	.0055	.0245	.0037	.0084	.0004	.0004	.0008	.0004	.0000
%RSD	80.87	544.0	15.79	4.362	11.90	272.0	16.86	14.02	12.94
#1	.0029	-.0218	.0260	.1872	.0034	-.0005	.0042	.0033	.0002
#2	.0106	.0128	.0207	.1991	.0029	.0001	.0053	.0027	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**-.0011**	**.0002**	**.0071**	**-.0002**	**-.0006**	**.0117**
Stddev	.0001	.0001	.0000	.0027	.0001	.0003	.0002
%RSD	54.43	8.279	18.11	38.53	75.15	49.10	1.875
#1	.0002	-.0011	.0002	.0052	-.0001	-.0004	.0116
#2	.0001	-.0010	.0002	.0091	-.0003	-.0009	.0119

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107120.**	**15029.**	**3986.4**	**9093.5**
Stddev	499.	11.	10.3	28.1
%RSD	.46554	.07207	.25818	.30907
#1	107480.	15022.	3979.1	9073.6
#2	106770.	15037.	3993.7	9113.3

Zoom In Zoom Out

Sample Name: hclconf Acquired: 4/4/2018 12:41:28 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0003**	**.0006**	**.0002**	**-.0001**	**.0003**	**.0020**	**-.0014**
Stddev	.0001	.0000	.0000	.0003	.0002	.0004	.0001	.0003	.0000
%RSD	130.8	13.46	14.93	42.42	83.33	328.7	42.65	15.69	1.975
#1	.0001	-.0001	-.0004	.0004	.0003	.0002	.0003	.0023	-.0013
#2	.0000	-.0001	-.0003	.0008	.0001	-.0005	.0002	.0018	-.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0043**	**.0008**	**.0014**	**.0006**	**-.0002**	**-.0005**	**-.0031**	**.3248**
Stddev	.0000	.0005	.0016	.0009	.0006	.0001	.0008	.0049	.0202
%RSD	4.839	11.86	195.8	66.52	108.2	50.30	144.9	159.8	6.227
#1	.0003	.0046	.0020	.0020	.0001	-.0003	.0000	.0004	.3391
#2	.0003	.0039	-.0003	.0007	.0010	-.0001	-.0011	-.0065	.3105

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0733**	**.0039**	**.0134**	**.0724**	**-.0000**	**-.0002**	**.0012**	**.0523**	**.0003**
Stddev	.0024	.0198	.0186	.0112	.0002	.0000	.0006	.0056	.0000
%RSD	3.281	510.6	138.7	15.51	958.2	15.09	50.76	10.67	11.26
#1	.0750	-.0101	.0003	.0804	.0001	-.0002	.0016	.0563	.0002
#2	.0716	.0179	.0265	.0645	-.0002	-.0002	.0008	.0484	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**-.0012**	**.0001**	**.0047**	**-.0001**	**-.0009**	**.0164**
Stddev	.0002	.0001	.0001	.0030	.0006	.0009	.0003
%RSD	110.9	9.391	100.9	63.73	1105.	93.72	2.064
#1	-.0000	-.0013	.0000	.0068	.0004	-.0003	.0166
#2	-.0004	-.0011	.0002	.0026	-.0005	-.0015	.0162

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**109530.**	**15415.**	**4058.5**	**9296.4**
Stddev	105.	12.	21.4	55.3
%RSD	.09546	.08056	.52824	.59467
#1	109600.	15406.	4043.4	9257.3
#2	109450.	15424.	4073.7	9335.4

Zoom In Zoom Out

Sample Name: mp6414-mb1conf Acquired: 4/4/2018 12:45:48 Type: Unk
Method: Accutest 2(v145) Mode: 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	**.0005**	**.0004**	**.0005**	**.0006**	**.0003**	**.0002**	**.0006**	**.0004**	**-.0015**
Stddev	.0001	.0001	.0001	.0003	.0004	.0006	.0001	.0000	.0005
%RSD	25.39	28.97	18.41	49.02	125.6	344.7	8.665	.9822	31.94
#1	.0006	.0005	.0005	.0004	.0006	-.0002	.0007	.0004	-.0018
#2	.0004	.0004	.0006	.0008	.0000	.0006	.0006	.0004	-.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0006**	**.0008**	**.0005**	**.0002**	**.0009**	**.0013**	**.0002**	**.0000**	**-.0056**
Stddev	.0003	.0001	.0013	.0001	.0016	.0001	.0005	.0023	.0012
%RSD	56.73	17.73	238.0	51.35	186.5	10.67	207.1	39580.	21.56
#1	.0008	.0007	-.0004	.0001	.0020	.0012	-.0001	.0016	-.0047
#2	.0003	.0009	.0014	.0003	-.0003	.0014	.0006	-.0016	-.0064

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0117**	**.0287**	**.0007**	**-.0116**	**.0014**	**.0006**	**-.0016**	**.0007**	**.0006**
Stddev	.0039	.0110	.0360	.0080	.0007	.0001	.0006	.0001	.0001
%RSD	33.05	38.33	5067.	68.66	47.34	8.644	35.58	11.44	11.72
#1	.0089	.0209	.0262	-.0060	.0019	.0006	-.0021	.0008	.0007
#2	.0144	.0365	-.0247	-.0173	.0009	.0005	-.0012	.0007	.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0008**	**.0002**	**.0006**	**-.0015**	**-.0036**	**-.0020**	**.0128**
Stddev	.0003	.0007	.0002	.0022	.0005	.0004	.0004
%RSD	37.09	368.3	27.93	145.6	14.60	19.72	3.197
#1	.0006	-.0003	.0008	.0000	-.0032	-.0017	.0131
#2	.0010	.0007	.0005	-.0030	-.0039	-.0023	.0125

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108340.**	**15212.**	**3963.0**	**9077.8**
Stddev	29.	114.	.4	3.6
%RSD	.02646	.74804	.01117	.03991
#1	108360.	15293.	3962.7	9075.2
#2	108320.	15132.	3963.3	9080.4

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 12:50:09 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.963**	**2.029**	**1.975**	**2.049**	**2.076**	**1.996**	**2.076**	**2.017**	**.2498**
Stddev	.001	.001	.005	.001	.005	.000	.004	.002	.0007
%RSD	.0455	.0278	.2359	.0619	.2531	.0170	.1805	.1093	.2694
#1	1.963	2.030	1.972	2.050	2.072	1.996	2.073	2.018	.2503
#2	1.964	2.029	1.979	2.048	2.080	1.996	2.079	2.015	.2494
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**	**2.051**	**1.944**	**2.178**	**2.069**	**1.995**	**1.969**	**38.81**	**38.68**
Stddev	.002	.004	.002	.000	.002	.003	.005	.00	.06
%RSD	.0800	.1788	.1018	.0049	.1085	.1333	.2590	.0058	.1594
#1	2.019	2.054	1.946	2.178	2.071	1.993	1.965	38.80	38.72
#2	2.021	2.049	1.943	2.178	2.067	1.997	1.973	38.81	38.63
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**	**38.62**	**38.55**	**39.50**	**2.035**	**2.047**	**4.874**	**2.077**	**1.965**
Stddev	.02	.11	.02	.00	.005	.002	.002	.001	.002
%RSD	.0530	.2839	.0560	.0018	.2407	.0996	.0493	.0674	.1057
#1	39.90	38.69	38.53	39.50	2.032	2.046	4.873	2.078	1.967
#2	39.93	38.54	38.56	39.50	2.039	2.049	4.876	2.076	1.964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 12:50:09 Type: QC
Method: Accutest 2(v145) 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	**2.034**	**2.020**	**2.044**	**1.972**	**1.980**	**2.000**	**1.957**
Stddev	.001	.003	.003	.002	.005	.001	.002
%RSD	.0600	.1315	.1271	.0944	.2681	.0423	.1071
#1	2.033	2.018	2.043	1.974	1.976	2.000	1.956
#2	2.035	2.022	2.046	1.971	1.983	1.999	1.958
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	**103130.**	**14886.**	**3852.4**	**8203.8**
Stddev	40.	6.	5.0	6.2
%RSD	.03870	.03906	.12984	.07551
#1	103100.	14882.	3855.9	8208.1
#2	103160.	14890.	3848.9	8199.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 12:54:13 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	F **.0002**	**.0002**	**.0003**	**.0006**	**-.0001**	**.0005**	**.0001**	**-.0014**
Stddev	.0000	.0000	.0000	.0002	.0002	.0003	.0000	.0000	.0002
%RSD	7.802	10.62	8.664	64.48	37.02	477.6	6.349	18.58	14.23
#1	.0004	.0002	.0002	.0004	.0007	-.0003	.0005	.0001	-.0016
#2	.0003	.0002	.0003	.0002	.0004	.0001	.0004	.0001	-.0013
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0001**	**-.0009**	**-.0000**	**.0008**	**.0003**	**.0001**	**-.0034**	**-.0058**
Stddev	.0004	.0002	.0005	.0016	.0004	.0016	.0004	.0076	.0032
%RSD	72.45	222.2	54.52	4155.	55.51	543.3	278.0	223.7	54.50
#1	.0007	.0002	-.0006	-.0012	.0005	.0014	-.0001	-.0087	-.0081
#2	.0002	-.0000	-.0013	.0011	.0011	-.0009	.0004	.0020	-.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	F **.0102**	**.0190**	**.0306**	**-.0169**	**.0014**	**.0009**	**.0050**	**.0004**	**.0003**
Stddev	.0008	.0154	.0084	.0077	.0003	.0001	.0006	.0003	.0002
%RSD	8.061	81.31	27.42	45.48	19.78	16.17	12.07	72.45	54.13
#1	.0108	.0081	.0365	-.0223	.0016	.0010	.0046	.0002	.0002
#2	.0097	.0299	.0246	-.0115	.0012	.0008	.0054	.0006	.0005
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 12:54:13 Type: QC
Method: Accutest 2(v145) 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**	**.0012**	**.0006**	**-.0003**	**-.0011**	**-.0007**	**.0115**
Stddev	.0003	.0004	.0001	.0031	.0008	.0007	.0012
%RSD	63.33	33.23	12.58	1017.	73.47	108.9	10.60
#1	.0003	.0015	.0006	-.0025	-.0005	-.0012	.0123
#2	.0007	.0009	.0005	.0019	-.0017	-.0002	.0106
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	**107530.**	**15033.**	**3972.0**	**9088.5**
Stddev	74.	7.	2.6	1.0
%RSD	.06920	.04445	.06666	.01150
#1	107480.	15028.	3970.1	9089.2
#2	107580.	15037.	3973.9	9087.7

Zoom In Zoom Out

Sample Name: mp6414-b1conf Acquired: 4/4/2018 12:58:35 Type: Unk
Method: Accutest 2(v145) 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	**1.986**	**2.054**	**1.994**	**2.057**	**2.101**	**2.027**	**2.100**	**2.023**
Stddev	.002	.005	.001	.003	.003	.002	.001	.001
%RSD	.0780	.2506	.0617	.1384	.1271	.0951	.0444	.0690
#1	1.985	2.051	1.993	2.059	2.099	2.026	2.100	2.024
#2	1.988	2.058	1.995	2.055	2.103	2.028	2.101	2.022

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2471**	**2.049**	**2.074**	**1.961**	**2.215**	**2.081**	**2.005**	**2.009**
Stddev	.0003	.002	.004	.003	.000	.004	.000	.001
%RSD	.1216	.1166	.2082	.1606	.0025	.2077	.0031	.0355
#1	.2474	2.050	2.077	1.959	2.215	2.084	2.005	2.008
#2	.2469	2.047	2.071	1.964	2.215	2.078	2.005	2.009

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**24.06**	**24.07**	**24.87**	**23.81**	**23.90**	**24.46**	**2.053**	**2.097**
Stddev	.01	.04	.08	.02	.08	.03	.004	.001
%RSD	.0367	.1785	.3147	.0685	.3512	.1024	.1930	.0511
#1	24.06	24.04	24.82	23.82	23.84	24.45	2.050	2.096
#2	24.05	24.10	24.93	23.80	23.96	24.48	2.055	2.097

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0113**	**2.131**	**1.985**	**2.069**	**2.015**	**2.069**	F **-.0751**	**-.0033**
Stddev	.0008	.003	.006	.001	.002	.003	.0015	.0036
%RSD	6.881	.1159	.2926	.0337	.0860	.1433	2.001	111.6
#1	-.0108	2.133	1.981	2.069	2.014	2.067	-.0740	-.0058
#2	-.0119	2.129	1.989	2.070	2.016	2.071	-.0762	-.0007

Elem	Li6707	P_1774
Avg	**-.0009**	**1.969**
Stddev	.0004	.002
%RSD	47.92	.1095
#1	-.0006	1.970
#2	-.0012	1.967

Zoom In Zoom Out

Sample Name: mp6414-b1conf Acquired: 4/4/2018 12:58:35 Type: Unk
Method: Accutest 2(v145) 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	**104270.**	**15083.**	**3867.2**	**8387.9**
Stddev	62.	97.	5.0	10.9
%RSD	.05938	.64274	.12834	.12974
#1	104230.	15151.	3870.7	8395.6
#2	104320.	15014.	3863.7	8380.2

Zoom In Zoom Out

Sample Name: mp6414-s1conf Acquired: 4/4/2018 13:02:38 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.854**	**2.090**	**2.157**	**2.153**	**2.101**	**2.138**	**9.904**	**2.142**	**.2675**
Stddev	.008	.005	.000	.001	.008	.004	.031	.001	.0007
%RSD	.2940	.2352	.0084	.0273	.3605	.1710	.3152	.0575	.2754
#1	2.860	2.087	2.157	2.153	2.095	2.135	9.882	2.142	.2670
#2	2.848	2.094	2.157	2.152	2.106	2.141	9.926	2.143	.2680

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.073**	**2.202**	**2.122**	**2.153**	**2.153**	**2.076**	**2.104**	**24.70**	**165.7**
Stddev	.007	.001	.002	.006	.002	.003	.002	.03	.3
%RSD	.3593	.0592	.1047	.2821	.0745	.1364	.1093	.1183	.1925
#1	2.068	2.201	2.120	2.157	2.154	2.078	2.102	24.67	165.4
#2	2.079	2.203	2.123	2.148	2.152	2.074	2.105	24.72	165.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**38.21**	**38.46**	**36.13**	F **1838.**	**2.162**	**2.090**	**7.349**	**2.069**	**2.806**
Stddev	.10	.03	.01	1.	.005	.001	.005	.003	.002
%RSD	.2605	.0816	.0206	.0693	.2172	.0298	.0710	.1563	.0657
#1	38.14	38.44	36.12	1839.	2.159	2.090	7.345	2.067	2.807
#2	38.28	38.48	36.13	1837.	2.166	2.090	7.352	2.071	2.805

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.102**	**2.081**	**2.095**	**6.120**	**-.0072**	**.0304**	**3.897**
Stddev	.006	.009	.001	.019	.0023	.0020	.002
%RSD	.2838	.4103	.0638	.3082	31.88	6.604	.0598
#1	2.098	2.075	2.094	6.106	-.0088	.0318	3.899
#2	2.106	2.087	2.096	6.133	-.0056	.0290	3.896

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**93566.**	**14691.**	**3531.6**	**7067.1**
Stddev	68.	130.	2.6	4.6
%RSD	.07214	.88530	.07239	.06523
#1	93613.	14783.	3533.4	7063.8
#2	93518.	14599.	3529.8	7070.4

Zoom In Zoom Out

Sample Name: mp6414-s2conf Acquired: 4/4/2018 13:06:44 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.876**	**2.116**	**2.178**	**2.178**	**2.118**	**2.149**	**9.879**	**2.167**	**.2709**
Stddev	.007	.006	.002	.000	.014	.011	.069	.002	.0015
%RSD	.2293	.2984	.0980	.0131	.6388	.4885	.6946	.0690	.5474
#1	2.872	2.111	2.180	2.178	2.108	2.142	9.830	2.168	.2699
#2	2.881	2.120	2.177	2.178	2.127	2.157	9.928	2.166	.2720

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.094**	**2.224**	**2.146**	**2.172**	**2.180**	**2.106**	**2.126**	**25.03**	**166.3**
Stddev	.013	.001	.001	.001	.001	.004	.001	.03	.3
%RSD	.5948	.0280	.0547	.0556	.0309	.1681	.0453	.1075	.2089
#1	2.085	2.223	2.146	2.171	2.181	2.104	2.125	25.01	166.1
#2	2.102	2.224	2.145	2.172	2.180	2.109	2.127	25.05	166.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**38.50**	**38.65**	**36.50**	F **1803.**	**2.180**	**2.109**	**7.308**	**2.079**	**2.835**
Stddev	.07	.03	.08	7.	.005	.000	.017	.004	.006
%RSD	.1847	.0813	.2149	.3630	.2338	.0040	.2359	.1761	.1984
#1	38.45	38.67	36.44	1798.	2.183	2.109	7.320	2.076	2.831
#2	38.55	38.63	36.55	1807.	2.176	2.109	7.296	2.081	2.839

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.112**	**2.094**	**2.109**	**6.113**	**-.0021**	**.0314**	**3.909**
Stddev	.017	.000	.017	.005	.0005	.0036	.004
%RSD	.8115	.0130	.8148	.0750	24.56	11.39	.1046
#1	2.100	2.094	2.097	6.109	-.0025	.0339	3.912
#2	2.124	2.093	2.121	6.116	-.0017	.0288	3.906

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**94133.**	**14609.**	**3544.7**	**7096.9**
Stddev	684.	23.	5.1	12.0
%RSD	.72641	.15906	.14291	.16885
#1	94616.	14626.	3548.3	7105.3
#2	93649.	14593.	3541.1	7088.4

Zoom In Zoom Out

Sample Name: jc63032-3conf Acquired: 4/4/2018 13:10:52 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.8396**	**-.0000**	**.0227**	**.0014**	**.0044**	**.0898**	**7.788**	**.0155**	**-.0024**
Stddev	.0004	.0002	.0006	.0001	.0012	.0009	.026	.0004	.0005
%RSD	.0522	2362.	2.515	6.906	27.90	.9555	.3321	2.870	21.28
#1	.8393	.0001	.0231	.0015	.0035	.0904	7.806	.0152	-.0028
#2	.8399	-.0002	.0223	.0013	.0052	.0892	7.770	.0159	-.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0137**	**.0774**	**.0026**	**-.0011**	**.0018**	**.0050**	**-.0016**	**.0782**	**139.4**
Stddev	.0003	.0010	.0009	.0002	.0004	.0022	.0023	.0223	.1
%RSD	2.161	1.258	33.47	15.22	20.52	43.47	144.8	28.53	.0938
#1	.0139	.0767	.0032	-.0012	.0015	.0035	-.0032	.0940	139.5
#2	.0134	.0781	.0020	-.0010	.0021	.0065	.0000	.0625	139.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.99**	**14.69**	**11.05**	F **1744.**	**.0937**	**.0019**	**7.115**	**-.0025**	**.7933**
Stddev	.02	.01	.06	6.	.0008	.0002	.025	.0002	.0029
%RSD	.1376	.0631	.5180	.3190	.8627	10.57	.3494	6.512	.3634
#1	13.00	14.68	11.09	1748.	.0942	.0020	7.097	-.0026	.7953
#2	12.98	14.69	11.01	1740.	.0931	.0018	7.132	-.0024	.7912

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0052**	**.0153**	**.0028**	**6.169**	**-.0023**	**.0332**	**1.774**
Stddev	.0002	.0002	.0006	.032	.0005	.0010	.005
%RSD	4.666	1.105	21.03	.5203	21.17	2.934	.3127
#1	.0054	.0155	.0024	6.147	-.0020	.0339	1.770
#2	.0050	.0152	.0032	6.192	-.0027	.0325	1.778

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**93458.**	**14667.**	**3526.7**	**7169.3**
Stddev	353.	45.	14.8	20.9
%RSD	.37750	.30368	.41880	.29116
#1	93208.	14635.	3537.1	7184.1
#2	93707.	14698.	3516.3	7154.6

Zoom In Zoom Out

Sample Name: mp6414-sd1conf Acquired: 4/4/2018 13:15:14 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.9129**	**-.0004**	**.0223**	**.0030**	**.0069**	**.1010**	**8.372**	**.0206**	**-.0104**
Stddev	.0031	.0007	.0001	.0008	.0025	.0012	.135	.0049	.0010
%RSD	.3402	175.2	.5406	25.25	35.88	1.193	1.615	23.82	9.888
#1	.9151	-.0009	.0222	.0025	.0051	.1019	8.467	.0171	-.0111
#2	.9107	.0001	.0224	.0036	.0086	.1002	8.276	.0240	-.0096

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0143**	**.0838**	**.0047**	**-.0057**	**-.0040**	**-.0022**	**-.0084**	**.0824**	**152.9**
Stddev	.0047	.0008	.0038	.0108	.0183	.0063	.0015	.0715	.2
%RSD	32.60	.9192	80.54	187.1	461.5	279.1	17.91	86.76	.1369
#1	.0110	.0843	.0020	.0019	-.0169	-.0067	-.0094	.0318	153.0
#2	.0176	.0832	.0073	-.0134	.0090	.0022	-.0073	.1329	152.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**14.29**	**16.25**	**11.90**	**2148.**	**.1061**	**.0024**	**6.966**	**-.0023**	**.8659**
Stddev	.04	.28	.17	20.	.0029	.0021	.061	.0047	.0005
%RSD	.2790	1.696	1.470	.9224	2.701	87.42	.8799	209.9	.0601
#1	14.26	16.05	11.78	2134.	.1041	.0039	7.010	.0011	.8663
#2	14.31	16.44	12.03	2162.	.1081	.0009	6.923	-.0056	.8656

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0264**	**.0062**	**5.754**	**-.0165**	**.0299**	**1.762**
Stddev	.0021	.0048	.0008	.068	.0001	.0042	.010
%RSD	1260.	18.35	13.11	1.173	.4781	14.17	.5442
#1	.0016	.0298	.0067	5.802	-.0165	.0269	1.769
#2	-.0013	.0230	.0056	5.707	-.0164	.0329	1.755

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101050.**	**14965.**	**3791.8**	**8125.8**
Stddev	95.	40.	9.1	11.2
%RSD	.09393	.26990	.24076	.13839
#1	101120.	14993.	3798.2	8133.7
#2	100980.	14936.	3785.3	8117.8

Zoom In Zoom Out

Sample Name: jc62923-5 Acquired: 4/4/2018 13:19:39 Type: Unk
Method: Accutest 2(v145) 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	**.2184**	**.0003**	**.0071**	**.0019**	**.0127**	**.0046**	**33.81**	**.0044**	**-.0037**
Stddev	.0013	.0007	.0005	.0011	.0002	.0009	.16	.0006	.0014
%RSD	.5793	187.3	6.559	57.67	1.283	19.57	.4649	14.23	36.66
#1	.2193	-.0001	.0068	.0011	.0128	.0039	33.69	.0048	-.0028
#2	.2175	.0008	.0074	.0026	.0126	.0052	33.92	.0039	-.0047

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0383**	**.0043**	**-.0001**	**.0060**	**.0012**	**-.0053**	**.0046**	**.0182**	**170.4**
Stddev	.0007	.0003	.0075	.0070	.0028	.0179	.0028	.0233	.2
%RSD	1.747	7.036	9025.	115.5	232.3	335.5	59.92	128.2	.0890
#1	.0378	.0041	-.0054	.0109	.0032	-.0180	.0065	.0017	170.5
#2	.0388	.0045	.0052	.0011	-.0008	.0073	.0026	.0347	170.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.28**	**93.83**	**2.820**	**179.2**	**.0627**	**-.0013**	**5.281**	**-.0070**	**.7207**
Stddev	.04	.46	.096	.0	.0016	.0006	.016	.0023	.0004
%RSD	.3653	.4866	3.386	.0174	2.547	42.51	.3022	33.68	.0555
#1	12.31	94.15	2.887	179.1	.0639	-.0009	5.270	-.0053	.7210
#2	12.25	93.51	2.752	179.2	.0616	-.0017	5.292	-.0086	.7204

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0010**	**.0143**	**.0004**	**23.36**	**-.0019**	**.0001**	**.2557**
Stddev	.0022	.0012	.0001	.02	.0035	.0070	.0025
%RSD	230.5	8.612	30.69	.0834	186.3	4972.	.9740
#1	-.0026	.0152	.0005	23.34	.0006	.0051	.2539
#2	.0006	.0134	.0003	23.37	-.0043	-.0048	.2574

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103910.**	**14916.**	**3851.1**	**8523.0**
Stddev	323.	3.	.5	14.0
%RSD	.31059	.02133	.01420	.16368
#1	104140.	14914.	3850.7	8513.1
#2	103680.	14919.	3851.5	8532.9

Zoom In Zoom Out

Sample Name: mp6377-mb1conf Acquired: 4/4/2018 13:24:03 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0001**	**.0000**	**.0002**	**.0008**	**.0005**	**.0004**	**.0006**	**-.0007**
Stddev	.0000	.0000	.0002	.0000	.0003	.0003	.0001	.0006	.0001
%RSD	7.508	67.36	2872.	.2919	32.03	58.25	17.45	104.8	19.42
#1	.0004	-.0001	-.0001	.0002	.0006	.0003	.0005	.0010	-.0008
#2	.0004	-.0000	.0002	.0002	.0010	.0007	.0004	.0001	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0067**	**.0001**	**.0004**	**-.0004**	**.0007**	**.0010**	**.0065**	**.1199**
Stddev	.0004	.0000	.0006	.0003	.0001	.0013	.0009	.0020	.0017
%RSD	153.9	.2469	492.1	71.92	31.83	180.9	88.35	30.82	1.387
#1	.0006	.0068	-.0003	.0002	-.0003	-.0002	.0004	.0051	.1187
#2	-.0000	.0067	.0005	.0006	-.0005	.0017	.0017	.0079	.1211

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0229**	**.0211**	**.0484**	**.1364**	**.0014**	**.0004**	**.0270**	**.0299**	**.0006**
Stddev	.0007	.0016	.0248	.0027	.0007	.0000	.0013	.0003	.0001
%RSD	3.026	7.460	51.35	2.013	52.11	2.687	4.710	1.012	17.61
#1	.0234	.0200	.0308	.1345	.0019	.0004	.0279	.0301	.0007
#2	.0225	.0222	.0659	.1384	.0009	.0004	.0261	.0297	.0005

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0010**	**.0012**	**.0007**	**.0113**	**-.0034**	**.0012**	**.0349**
Stddev	.0004	.0000	.0003	.0030	.0005	.0002	.0016
%RSD	42.42	.5526	48.61	26.24	14.60	17.10	4.485
#1	.0013	.0012	.0005	.0134	-.0031	.0011	.0360
#2	.0007	.0012	.0009	.0092	-.0038	.0014	.0338

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108260.**	**14901.**	**3971.0**	**9109.0**
Stddev	51.	32.	.3	1.0
%RSD	.04746	.21338	.00659	.01051
#1	108290.	14923.	3970.8	9108.4
#2	108220.	14878.	3971.2	9109.7

Zoom In Zoom Out

Sample Name: jc62930-5 Acquired: 4/4/2018 13:28:23 Type: Unk
Method: Accutest 2(v145) 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	**1.282**	**.0043**	**.0013**	**.0394**	**.1166**	**1.699**	**.8746**	**.1191**
Stddev	.002	.0000	.0001	.0003	.0007	.000	.0008	.0002
%RSD	.1510	.8854	8.082	.7647	.5835	.0224	.0889	.1591
#1	1.283	.0043	.0013	.0396	.1171	1.699	.8751	.1190
#2	1.280	.0043	.0014	.0392	.1161	1.698	.8740	.1192

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	W **-.0050**	**.1489**	**.7902**	**.2116**	**.0026**	**3.872**	**.0290**	**.0182**
Stddev	.0001	.0010	.0006	.0013	.0004	.003	.0006	.0019
%RSD	1.859	.6933	.0738	.5980	13.79	.0832	2.057	10.34
#1	-.0049	.1497	.7898	.2107	.0024	3.874	.0285	.0169
#2	-.0051	.1482	.7906	.2125	.0029	3.869	.0294	.0196

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**22.76**	**16.56**	**242.7**	**2.957**	**2.505**	**1.592**	**.0357**	**.0232**
Stddev	.03	.05	.0	.004	.017	.006	.0015	.0004
%RSD	.1179	.3278	.0122	.1524	.6859	.4099	4.189	1.602
#1	22.74	16.52	242.7	2.960	2.493	1.596	.0367	.0229
#2	22.77	16.60	242.7	2.953	2.517	1.587	.0346	.0235

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.538**	**.1392**	**.3939**	**1.977**	**.0161**	**.0434**	**11.22**	W **-.0141**
Stddev	.003	.0006	.0002	.004	.0003	.0004	.01	.0006
%RSD	.0968	.4506	.0416	.2056	1.926	.8208	.0451	4.546
#1	3.540	.1396	.3940	1.980	.0163	.0436	11.22	-.0136
#2	3.535	.1387	.3938	1.974	.0159	.0431	11.22	-.0145

Elem	Li6707	P_1774
Avg	**.0314**	**2.139**
Stddev	.0000	.000
%RSD	.0193	.0072
#1	.0314	2.139
#2	.0314	2.140

Zoom In Zoom Out

Sample Name: jc62930-5 Acquired: 4/4/2018 13:28:23 Type: Unk
Method: Accutest 2(v145) 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	**107720.**	**15145.**	**3962.3**	**8788.3**
Stddev	203.	66.	.7	7.8
%RSD	.18850	.43847	.01712	.08919
#1	107580.	15192.	3961.8	8782.7
#2	107870.	15098.	3962.8	8793.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 13:32:35 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**2.039**	**2.001**	**2.044**	**2.069**	**1.990**	**2.073**	**2.031**	**.2505**
Stddev	.004	.001	.000	.003	.003	.004	.001	.001	.0004
%RSD	.1768	.0252	.0160	.1456	.1555	.1919	.0221	.0260	.1564
#1	2.005	2.039	2.001	2.041	2.067	1.987	2.073	2.031	.2502
#2	2.010	2.038	2.002	2.046	2.072	1.992	2.073	2.032	.2508
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**	**2.061**	**1.979**	**2.144**	**2.070**	**2.012**	**1.998**	**39.27**	**39.43**
Stddev	.002	.002	.001	.005	.002	.008	.001	.01	.09
%RSD	.1053	.0956	.0719	.2159	.1077	.3866	.0357	.0372	.2254
#1	2.017	2.060	1.980	2.148	2.071	2.007	1.998	39.28	39.49
#2	2.020	2.063	1.978	2.141	2.068	2.018	1.999	39.26	39.37
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**	**39.32**	**39.34**	**39.88**	**2.037**	**2.060**	**4.899**	**2.083**	**2.002**
Stddev	.03	.13	.02	.02	.001	.002	.000	.001	.001
%RSD	.0784	.3356	.0474	.0455	.0694	.1021	.0059	.0260	.0617
#1	40.34	39.23	39.33	39.86	2.036	2.059	4.899	2.082	2.001
#2	40.30	39.42	39.35	39.89	2.038	2.062	4.899	2.083	2.003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 13:32:35 Type: QC
Method: Accutest 2(v145) 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	**2.038**	**2.039**	**2.039**	**1.995**	**2.016**	**2.025**	**1.994**
Stddev	.001	.000	.001	.006	.003	.003	.000
%RSD	.0637	.0089	.0363	.2830	.1323	.1265	.0174
#1	2.039	2.039	2.040	1.991	2.014	2.023	1.995
#2	2.037	2.039	2.039	1.999	2.018	2.026	1.994
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	**103720.**	**14770.**	**3850.9**	**8233.3**
Stddev	5.	26.	2.3	3.3
%RSD	.00518	.17482	.05958	.03978
#1	103730.	14789.	3852.5	8235.6
#2	103720.	14752.	3849.2	8230.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 13:36:38 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	F **.0002**	**.0002**	**.0006**	**.0002**	**.0000**	**.0004**	**.0006**	**-.0004**
Stddev	.0002	.0001	.0001	.0003	.0003	.0002	.0001	.0002	.0001
%RSD	49.25	53.00	23.49	43.23	170.5	410.0	23.32	34.11	12.52
#1	.0005	.0001	.0002	.0004	-.0000	-.0001	.0004	.0004	-.0005
#2	.0002	.0002	.0003	.0008	.0004	.0002	.0003	.0007	-.0004
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	**.0007**	**.0002**	**.0003**	**.0006**	**-.0000**	**-.0004**	**.0011**	**-.0002**	**.0002**
Stddev	.0002	.0000	.0003	.0005	.0005	.0012	.0010	.0001	.0001
%RSD	28.66	8.392	80.89	75.34	1492.	304.7	88.21	60.73	37.29
#1	.0008	.0002	.0005	.0009	.0003	.0004	.0004	-.0003	.0003
#2	.0005	.0002	.0001	.0003	-.0004	-.0012	.0018	-.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	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0129**	**.0195**	**.0190**	**.0251**	**.0015**	**.0009**	**.0051**	**.0004**	**.0005**
Stddev	.0001	.0057	.0244	.0065	.0001	.0003	.0007	.0004	.0000
%RSD	.9297	29.21	128.9	25.91	7.069	31.93	14.38	106.4	5.766
#1	.0129	.0155	.0363	.0205	.0015	.0011	.0046	.0006	.0005
#2	.0128	.0236	.0017	.0296	.0014	.0007	.0056	.0001	.0004
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 13:36:38 Type: QC
Method: Accutest 2(v145) 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**	**.0000**	**.0005**	**.0001**	**-.0014**	**.0012**	**.0068**
Stddev	.0003	.0010	.0001	.0018	.0015	.0010	.0009
%RSD	76.79	25830.	10.17	2056.	108.1	88.81	12.93
#1	.0002	-.0007	.0005	.0014	-.0003	.0004	.0074
#2	.0007	.0007	.0005	-.0012	-.0025	.0019	.0061
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	**107910.**	**14918.**	**3960.3**	**9094.3**
Stddev	292.	24.	1.4	1.5
%RSD	.27056	.15956	.03602	.01686
#1	108120.	14901.	3959.3	9093.2
#2	107700.	14935.	3961.3	9095.3

Zoom In Zoom Out

Sample Name: mp6466-mb1 3 Acquired: 4/4/2018 13:41:00 Type: Unk
Method: Accutest 2(v145) 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	**.0343**	**.0001**	**.0008**	**.0026**	**.0109**	**.0713**	**.0426**	**.0396**
Stddev	.0012	.0003	.0021	.0012	.0022	.0011	.0001	.0003
%RSD	3.498	305.3	251.9	46.88	19.91	1.514	.2953	.6768
#1	.0351	.0003	.0023	.0017	.0124	.0720	.0426	.0398
#2	.0334	-.0001	-.0007	.0034	.0093	.0705	.0425	.0394

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0054**	**.0023**	**.1585**	**-.0130**	F **-.0638**	**.0188**	**.0665**	**.0169**
Stddev	.0004	.0010	.0004	.0089	.0071	.0015	.0131	.0009
%RSD	7.859	42.61	.2683	68.54	11.05	8.130	19.64	5.604
#1	-.0057	.0016	.1588	-.0193	-.0688	.0177	.0757	.0163
#2	-.0051	.0030	.1582	-.0067	-.0588	.0199	.0573	.0176

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.3763**	**1.793**	**1.645**	**.1628**	**8.291**	F **7150.**	**.0396**	**.0017**
Stddev	.0175	.020	.012	.0163	.082	134.	.0047	.0005
%RSD	4.656	1.095	.7425	10.02	.9849	1.879	11.83	28.84
#1	.3639	1.807	1.636	.1513	8.233	7245.	.0363	.0021
#2	.3887	1.780	1.654	.1743	8.349	7055.	.0429	.0014

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**1.911**	**.0407**	**.0112**	**.0418**	**-.0029**	**.0091**	**.4179**	**-.0027**
Stddev	.012	.0038	.0002	.0015	.0018	.0006	.0086	.0048
%RSD	.6300	9.347	1.480	3.641	60.99	7.148	2.049	175.3
#1	1.903	.0434	.0114	.0407	-.0041	.0095	.4239	.0007
#2	1.920	.0380	.0111	.0428	-.0016	.0086	.4118	-.0061

Elem	Li6707	P_1774
Avg	**.0135**	**.9282**
Stddev	.0056	.0178
%RSD	41.38	1.922
#1	.0175	.9408
#2	.0096	.9156

Zoom In Zoom Out

Sample Name: mp6466-mb1 3 Acquired: 4/4/2018 13:41:00 Type: Unk
Method: Accutest 2(v145) 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	**87449.**	**14013.**	**3347.3**	**6959.4**
Stddev	228.	80.	12.1	26.8
%RSD	.26060	.56948	.36194	.38450
#1	87288.	13956.	3338.7	6940.5
#2	87610.	14069.	3355.9	6978.4

Zoom In Zoom Out

Sample Name: mp6466-b1 Acquired: 4/4/2018 13:45:24 Type: Unk
Method: Accutest 2(v145) 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	**2.025**	**2.016**	**2.077**	**2.004**	**2.118**	**1.943**	**2.075**	**2.048**	**.2578**
Stddev	.021	.018	.021	.019	.015	.015	.020	.022	.0032
%RSD	1.058	.8725	.9950	.9654	.7246	.7872	.9746	1.100	1.260
#1	2.040	2.029	2.092	2.017	2.107	1.932	2.061	2.064	.2555
#2	2.009	2.004	2.063	1.990	2.129	1.954	2.090	2.032	.2601

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.070**	**2.142**	**2.092**	**1.890**	**1.983**	**2.350**	**1.978**	**24.48**	**24.81**
Stddev	.020	.027	.018	.023	.018	.025	.016	.23	.22
%RSD	.9837	1.273	.8840	1.219	.8952	1.065	.8199	.9273	.9039
#1	2.055	2.161	2.105	1.906	1.995	2.367	1.990	24.64	24.97
#2	2.084	2.123	2.079	1.873	1.970	2.332	1.967	24.32	24.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.34**	**23.95**	**25.49**	F **6837.**	**1.945**	**1.985**	**.3216**	**1.940**	**1.980**
Stddev	.23	.17	.32	88.	.017	.025	.0054	.021	.018
%RSD	.8897	.6974	1.265	1.288	.8488	1.232	1.676	1.059	.9116
#1	25.50	24.07	25.72	6899.	1.956	2.002	.3178	1.954	1.993
#2	25.18	23.84	25.26	6774.	1.933	1.967	.3254	1.925	1.968

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.982**	**1.956**	**1.946**	**.0934**	**-.0063**	**.0180**	**2.209**
Stddev	.016	.021	.020	.0095	.0035	.0044	.013
%RSD	.8147	1.096	1.032	10.12	55.80	24.64	.5869
#1	1.970	1.971	1.932	.1001	-.0038	.0211	2.219
#2	1.993	1.941	1.960	.0868	-.0088	.0148	2.200

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**88551.**	**14049.**	**3362.5**	**6929.4**
Stddev	1092.	54.	.4	1.1
%RSD	1.2327	.38154	.01206	.01643
#1	89322.	14087.	3362.2	6928.6
#2	87779.	14011.	3362.8	6930.2

Zoom In Zoom Out

Sample Name: mp6466-s1 Acquired: 4/4/2018 13:49:39 Type: Unk
Method: Accutest 2(v145) 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	**3.292**	**2.075**	**1.996**	**2.032**	**2.448**	**1.951**	**4.782**	**2.512**	**.2470**
Stddev	.024	.005	.030	.031	.016	.012	.045	.034	.0007
%RSD	.7220	.2521	1.481	1.533	.6519	.6371	.9443	1.366	.2850
#1	3.309	2.079	2.017	2.055	2.459	1.960	4.814	2.536	.2475
#2	3.275	2.071	1.976	2.010	2.436	1.943	4.750	2.487	.2465

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.206**	**13.39**	**2.018**	**1.973**	**2.780**	**2.031**	**1.977**	**34.31**	**476.5**
Stddev	.024	.17	.028	.029	.038	.025	.010	.14	3.7
%RSD	1.078	1.273	1.396	1.460	1.373	1.254	.5088	.3972	.7680
#1	2.223	13.51	2.038	1.993	2.807	2.049	1.985	34.41	479.1
#2	2.189	13.27	1.998	1.952	2.753	2.013	1.970	34.21	473.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**347.1**	**41.90**	**28.86**	F **1729.**	**1.965**	**2.016**	**14.59**	**2.088**	**2.671**
Stddev	2.2	.12	.09	4.	.023	.022	.18	.029	.013
%RSD	.6361	.2982	.3063	.2378	1.168	1.083	1.232	1.367	.4900
#1	348.6	41.99	28.92	1732.	1.981	2.032	14.72	2.108	2.681
#2	345.5	41.82	28.80	1726.	1.949	2.001	14.46	2.068	2.662

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.377**	**1.989**	**1.848**	**30.04**	**-.0256**	**.0060**	**33.84**
Stddev	.020	.032	.011	.34	.0112	.0022	.43
%RSD	.8567	1.593	.5908	1.125	43.91	37.01	1.283
#1	2.392	2.011	1.855	30.27	-.0335	.0045	34.15
#2	2.363	1.967	1.840	29.80	-.0176	.0076	33.53

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**98149.**	**14649.**	**3674.5**	**7733.8**
Stddev	244.	80.	1.2	4.0
%RSD	.24897	.54490	.03201	.05201
#1	98321.	14592.	3673.7	7731.0
#2	97976.	14705.	3675.3	7736.7

Zoom In Zoom Out

Sample Name: mp6466-s2 Acquired: 4/4/2018 13:53:49 Type: Unk
Method: Accutest 2(v145) 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	**3.252**	**2.034**	**2.078**	**2.102**	**2.458**	**1.956**	**4.817**	**2.610**	**.2272**
Stddev	.001	.001	.003	.002	.014	.001	.010	.001	.0011
%RSD	.0419	.0453	.1451	.1058	.5498	.0689	.2063	.0426	.4818
#1	3.253	2.034	2.076	2.104	2.448	1.957	4.810	2.609	.2279
#2	3.251	2.033	2.080	2.101	2.467	1.955	4.824	2.611	.2264

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.209**	**13.99**	**2.152**	**2.012**	**2.867**	**2.101**	**2.062**	**33.61**	**474.6**
Stddev	.005	.01	.002	.000	.015	.021	.001	.01	.5
%RSD	.2116	.0858	.1075	.0207	.5048	1.009	.0484	.0223	.1102
#1	2.206	13.98	2.153	2.011	2.857	2.116	2.063	33.61	474.9
#2	2.213	13.99	2.150	2.012	2.877	2.086	2.061	33.62	474.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**344.4**	**41.22**	**28.10**	F **1752.**	**2.028**	**2.091**	**15.39**	**2.166**	**2.625**
Stddev	.1	.20	.01	16.	.004	.001	.01	.003	.000
%RSD	.0155	.4805	.0513	.8897	.2066	.0442	.0774	.1366	.0101
#1	344.4	41.08	28.09	1763.	2.025	2.090	15.39	2.164	2.624
#2	344.5	41.36	28.11	1741.	2.031	2.092	15.38	2.168	2.625

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.380**	**2.064**	**1.850**	**31.62**	**-.0275**	**.0007**	**35.64**
Stddev	.005	.001	.001	.15	.0113	.0029	.12
%RSD	.1990	.0532	.0307	.4687	41.02	395.5	.3372
#1	2.376	2.065	1.850	31.52	-.0195	-.0013	35.56
#2	2.383	2.063	1.851	31.73	-.0355	.0028	35.73

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**98394.**	**14662.**	**3655.6**	**7700.0**
Stddev	268.	70.	1.7	9.5
%RSD	.27281	.47932	.04674	.12322
#1	98584.	14613.	3654.4	7693.3
#2	98204.	14712.	3656.8	7706.7

Zoom In Zoom Out

Sample Name: fa52915-1 Acquired: 4/4/2018 13:58:00 Type: Unk
Method: Accutest 2(v145) 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	**1.305**	**.0017**	**-.0008**	**.0587**	**.3770**	**.0222**	**2.872**	**.5318**	**-.0045**
Stddev	.012	.0003	.0003	.0014	.0010	.0009	.017	.0056	.0020
%RSD	.9180	17.04	41.01	2.357	.2725	3.949	.5737	1.062	44.57
#1	1.313	.0015	-.0011	.0577	.3777	.0216	2.884	.5358	-.0060
#2	1.296	.0019	-.0006	.0596	.3762	.0229	2.860	.5278	-.0031

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1393**	**12.21**	**.0498**	**-.0063**	**.8080**	**.0365**	**.0264**	**9.403**	**473.1**
Stddev	.0023	.17	.0073	.0025	.0095	.0198	.0021	.016	4.8
%RSD	1.680	1.367	14.62	39.17	1.181	54.11	7.852	.1651	1.021
#1	.1409	12.33	.0549	-.0045	.8148	.0505	.0279	9.414	476.5
#2	.1376	12.10	.0446	-.0080	.8013	.0225	.0250	9.392	469.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**336.6**	**18.39**	**3.716**	F **1852.**	**.0409**	**.0339**	**15.54**	**.1708**	**.6894**
Stddev	4.0	.16	.027	25.	.0006	.0003	.17	.0000	.0079
%RSD	1.198	.8446	.7180	1.348	1.419	.9176	1.118	.0190	1.141
#1	339.4	18.50	3.735	1869.	.0405	.0337	15.67	.1708	.6950
#2	333.7	18.28	3.697	1834.	.0413	.0342	15.42	.1708	.6839

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.3786**	**.0189**	**.0411**	**31.97**	**-.0195**	**.0016**	**34.19**
Stddev	.0020	.0017	.0017	.44	.0047	.0020	.41
%RSD	.5172	8.895	4.216	1.363	24.18	120.3	1.188
#1	.3800	.0201	.0423	32.27	-.0162	.0030	34.48
#2	.3772	.0177	.0399	31.66	-.0229	.0002	33.90

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**96104.**	**14368.**	**3560.8**	**7671.0**
Stddev	164.	58.	5.5	4.2
%RSD	.17028	.40035	.15478	.05472
#1	95989.	14409.	3556.9	7668.0
#2	96220.	14328.	3564.7	7673.9

Zoom In Zoom Out

Sample Name: mp6466-sd1 Acquired: 4/4/2018 14:02:19 Type: Unk
Method: Accutest 2(v145) 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	**1.582**	**.0003**	**-.0047**	**.0621**	**.4282**	**.0322**	**3.138**	**.5085**	**.0122**
Stddev	.054	.0028	.0070	.0010	.0304	.0045	.193	.0062	.0021
%RSD	3.416	799.2	148.0	1.621	7.107	14.08	6.158	1.218	17.61
#1	1.620	.0023	.0002	.0614	.4497	.0290	3.274	.5129	.0107
#2	1.543	-.0016	-.0096	.0628	.4067	.0355	3.001	.5041	.0137

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1476**	**11.88**	**.0600**	**-.0130**	**.7844**	**-.0109**	**.0191**	**11.40**	**576.0**
Stddev	.0057	.31	.0248	.0137	.0171	.0501	.0317	.34	20.2
%RSD	3.878	2.612	41.31	105.2	2.180	459.7	165.8	2.969	3.512
#1	.1516	12.10	.0424	-.0033	.7965	-.0464	-.0033	11.64	590.3
#2	.1435	11.66	.0775	-.0227	.7723	.0246	.0415	11.16	561.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**419.5**	**22.71**	**4.562**	**2334.**	**.0378**	**.0272**	**14.70**	**.1564**	**.8460**
Stddev	15.1	1.09	.248	82.	.0055	.0013	.33	.0142	.0315
%RSD	3.601	4.799	5.433	3.533	14.62	4.793	2.274	9.101	3.728
#1	430.1	23.48	4.737	2392.	.0339	.0263	14.94	.1665	.8683
#2	408.8	21.94	4.387	2275.	.0417	.0281	14.47	.1463	.8237

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.3978**	**.0217**	**.0474**	**29.56**	**-.0578**	**.0341**	**32.19**
Stddev	.0267	.0198	.0056	.73	.0440	.0387	.69
%RSD	6.718	91.54	11.77	2.484	76.10	113.5	2.133
#1	.4167	.0357	.0513	30.08	-.0267	.0615	32.68
#2	.3789	.0076	.0434	29.04	-.0889	.0067	31.71

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102920.**	**14703.**	**3800.7**	**8450.2**
Stddev	411.	46.	4.2	7.2
%RSD	.39963	.31601	.11051	.08518
#1	102630.	14670.	3803.6	8445.1
#2	103210.	14735.	3797.7	8455.3

Zoom In Zoom Out

Sample Name: mp6400-mb1conf Acquired: 4/4/2018 14:06:34 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0000**	**.0001**	**.0003**	**.0000**	**.0001**	**.0000**	**.0006**	**.0001**
Stddev	.0001	.0000	.0001	.0002	.0003	.0002	.0000	.0001	.0000
%RSD	163.6	94.64	79.70	60.57	730.0	137.7	57.85	13.47	41.36
#1	.0000	-.0001	.0000	.0002	.0003	.0000	.0000	.0007	.0001
#2	-.0002	-.0000	.0001	.0005	-.0002	.0002	.0000	.0005	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0002**	**.0002**	**-.0006**	**-.0000**	**.0011**	**.0002**	**.0057**	**-.0010**
Stddev	.0004	.0002	.0004	.0009	.0009	.0001	.0010	.0118	.0016
%RSD	498.6	28.92	186.4	154.3	3812.	8.993	499.4	209.0	157.0
#1	-.0002	.0007	.0006	-.0012	.0006	.0010	-.0005	.0140	-.0022
#2	.0004	.0004	-.0001	.0001	-.0007	.0012	.0009	-.0027	.0001

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0080**	**-.0010**	**-.0087**	**.1126**	**.0010**	**.0001**	**-.0016**	**.0010**	**.0001**
Stddev	.0017	.0028	.0087	.0017	.0004	.0002	.0009	.0005	.0000
%RSD	21.45	271.6	100.6	1.491	42.30	184.5	55.68	49.64	34.87
#1	.0092	-.0030	-.0149	.1138	.0007	-.0000	-.0023	.0007	.0000
#2	.0068	.0010	-.0025	.1114	.0013	.0002	-.0010	.0014	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0016**	**.0001**	**.0017**	**-.0016**	**.0005**	**.0005**
Stddev	.0001	.0003	.0002	.0020	.0010	.0009	.0001
%RSD	2106.	17.16	195.2	115.7	61.09	167.6	10.12
#1	.0001	.0014	.0003	.0031	-.0024	.0011	.0005
#2	-.0001	.0018	-.0000	.0003	-.0009	-.0001	.0006

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108280.**	**15020.**	**3909.1**	**9082.8**
Stddev	205.	37.	3.3	1.0
%RSD	.18901	.24428	.08412	.01075
#1	108140.	15046.	3906.8	9083.5
#2	108430.	14995.	3911.5	9082.1

Zoom In Zoom Out

Sample Name: jc62779-5 2 Acquired: 4/4/2018 14:10:55 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.835**	**.0008**	**.0112**	**.0842**	**.0136**	**.0251**	**48.66**	**.0440**	**.0005**
Stddev	.020	.0004	.0015	.0013	.0056	.0006	.43	.0030	.0012
%RSD	1.076	49.40	13.76	1.595	41.19	2.385	.8893	6.835	235.2
#1	1.849	.0010	.0123	.0833	.0096	.0255	48.96	.0419	-.0003
#2	1.821	.0005	.0101	.0852	.0175	.0247	48.35	.0462	.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0570**	**.0436**	**.0470**	**-.0013**	**-.0024**	**-.0015**	**-.0061**	**.2950**	**155.3**
Stddev	.0006	.0016	.0107	.0011	.0045	.0125	.0084	.0791	1.5
%RSD	1.070	3.710	22.79	87.52	185.7	850.1	136.3	26.83	.9662
#1	.0566	.0448	.0395	-.0005	-.0056	-.0103	-.0121	.2390	156.4
#2	.0574	.0425	.0546	-.0021	.0008	.0074	-.0002	.3509	154.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**109.6**	**78.33**	**2.710**	**544.1**	**.0216**	**-.0013**	**12.49**	**-.0026**	**.9601**
Stddev	1.3	.15	.281	5.4	.0020	.0008	.08	.0002	.0063
%RSD	1.176	.1889	10.37	.9915	9.231	58.99	.6798	8.019	.6578
#1	110.5	78.44	2.511	547.9	.0230	-.0019	12.55	-.0028	.9646
#2	108.7	78.23	2.908	540.3	.0202	-.0008	12.43	-.0025	.9556

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0195**	**.0029**	**1.704**	**-.0307**	**.0295**	**1.841**
Stddev	.0034	.0042	.0011	.005	.0051	.0015	.010
%RSD	3253.	21.53	37.69	.3176	16.58	5.083	.5589
#1	-.0023	.0165	.0021	1.708	-.0271	.0306	1.848
#2	.0025	.0225	.0036	1.700	-.0343	.0285	1.833

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104350.**	**14781.**	**3817.6**	**8521.9**
Stddev	57.	17.	1.9	10.4
%RSD	.05473	.11751	.05016	.12256
#1	104390.	14793.	3818.9	8529.3
#2	104310.	14769.	3816.2	8514.5

Zoom In Zoom Out

Sample Name: jc62779-5f Acquired: 4/4/2018 14:15:14 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.860**	**.0003**	**.0115**	**.0903**	**.0103**	**.0136**	**51.01**	**.0468**	**.0000**
Stddev	.003	.0003	.0008	.0021	.0023	.0028	.01	.0010	.0011
%RSD	.1840	79.35	6.637	2.324	21.80	20.27	.0214	2.091	8624.
#1	1.862	.0001	.0121	.0918	.0087	.0156	51.02	.0475	.0008
#2	1.857	.0005	.0110	.0888	.0119	.0117	51.00	.0461	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0578**	**.0380**	**.0619**	**.0047**	**-.0040**	**.0050**	**-.0154**	**.0018**	**158.1**
Stddev	.0006	.0009	.0059	.0103	.0088	.0093	.0003	.0016	.7
%RSD	1.093	2.289	9.564	220.1	218.7	186.1	2.054	88.93	.4217
#1	.0583	.0387	.0661	.0119	-.0103	.0116	-.0152	.0029	158.5
#2	.0574	.0374	.0577	-.0026	.0022	-.0016	-.0156	.0007	157.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**109.7**	**79.32**	**2.717**	**551.6**	**.0365**	**.0029**	**13.05**	**-.0139**	**.9704**
Stddev	.2	.00	.365	.8	.0038	.0001	.02	.0080	.0035
%RSD	.2186	.0022	13.43	.1471	10.37	3.961	.1411	57.25	.3580
#1	109.9	79.32	2.459	552.1	.0392	.0028	13.06	-.0083	.9679
#2	109.6	79.32	2.975	551.0	.0338	.0029	13.03	-.0196	.9729

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0047**	**.0179**	**.0003**	**1.840**	**-.0235**	**.0200**	**1.955**
Stddev	.0003	.0132	.0002	.013	.0010	.0012	.004
%RSD	6.277	73.84	88.22	.6813	4.471	5.849	.2029
#1	-.0045	.0086	.0004	1.849	-.0227	.0209	1.958
#2	-.0049	.0273	.0001	1.831	-.0242	.0192	1.953

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104310.**	**14789.**	**3800.3**	**8492.3**
Stddev	33.	43.	1.0	7.7
%RSD	.03198	.28808	.02708	.09019
#1	104290.	14758.	3799.6	8486.9
#2	104340.	14819.	3801.1	8497.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 14:19:33 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.049**	**2.002**	**2.050**	**2.004**	**2.073**	**1.987**	**2.058**	**2.048**	**.2575**
Stddev	.006	.000	.002	.001	.005	.001	.002	.000	.0007
%RSD	.2914	.0018	.0984	.0396	.2450	.0310	.1136	.0119	.2541
#1	2.054	2.002	2.052	2.005	2.069	1.988	2.057	2.048	.2571
#2	2.045	2.002	2.049	2.004	2.077	1.987	2.060	2.047	.2580
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	**2.063**	**2.059**	**2.037**	**2.051**	**2.040**	**2.027**	**2.053**	**40.15**	**40.73**
Stddev	.003	.001	.003	.001	.006	.002	.005	.06	.13
%RSD	.1478	.0299	.1427	.0670	.2976	.1022	.2425	.1464	.3209
#1	2.061	2.059	2.040	2.052	2.044	2.025	2.057	40.11	40.63
#2	2.065	2.059	2.035	2.050	2.036	2.028	2.050	40.19	40.82
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	**40.06**	**39.41**	**39.87**	**40.29**	**2.044**	**2.065**	**4.915**	**2.084**	**2.012**
Stddev	.01	.01	.12	.08	.001	.005	.007	.001	.007
%RSD	.0220	.0203	.2912	.2093	.0611	.2253	.1426	.0348	.3489
#1	40.07	39.40	39.95	40.35	2.045	2.069	4.920	2.084	2.017
#2	40.05	39.41	39.79	40.23	2.043	2.062	4.910	2.083	2.007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 14:19:33 Type: QC
Method: Accutest 2(v145) 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**	**2.052**	**2.032**	**2.022**	**2.086**	**2.040**	**2.034**
Stddev	.002	.002	.001	.007	.007	.007	.001
%RSD	.1161	.1098	.0293	.3240	.3220	.3623	.0503
#1	2.049	2.053	2.033	2.027	2.091	2.045	2.033
#2	2.052	2.050	2.032	2.018	2.081	2.035	2.034
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	**102590.**	**14722.**	**3777.7**	**8192.1**
Stddev	172.	29.	6.3	14.1
%RSD	.16767	.19577	.16716	.17233
#1	102470.	14743.	3773.3	8182.1
#2	102710.	14702.	3782.2	8202.1

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 14:23:37 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0001**	**.0005**	**.0006**	**.0005**	**.0003**	**.0007**	**.0001**
Stddev	.0001	.0000	.0001	.0007	.0006	.0001	.0001	.0002	.0007
%RSD	56.97	41.20	97.44	122.3	88.75	22.59	21.93	26.75	672.5
#1	.0001	.0000	.0000	.0010	.0002	.0004	.0002	.0008	-.0004
#2	.0002	.0001	.0001	.0001	.0010	.0005	.0003	.0006	.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	**.0001**	**.0001**	**.0001**	**.0008**	**.0004**	**.0011**	**.0001**	**-.0059**	**.0026**
Stddev	.0001	.0000	.0001	.0004	.0000	.0008	.0006	.0065	.0012
%RSD	47.43	53.89	209.8	43.72	11.12	75.82	546.7	111.3	43.72
#1	.0001	.0001	.0002	.0011	.0004	.0016	.0005	-.0013	.0035
#2	.0001	.0001	-.0000	.0006	.0003	.0005	-.0003	-.0105	.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	**.0081**	**-.0078**	**-.0138**	**.0596**	**.0008**	**.0009**	**.0063**	**.0000**	**.0002**
Stddev	.0048	.0229	.0031	.0006	.0005	.0002	.0005	.0002	.0001
%RSD	59.46	292.1	22.38	.9240	59.15	16.79	8.247	852.7	28.30
#1	.0047	.0083	-.0160	.0600	.0005	.0010	.0067	-.0001	.0002
#2	.0115	-.0240	-.0116	.0592	.0012	.0008	.0060	.0001	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 14:23:37 Type: QC
Method: Accutest 2(v145) 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**	**.0006**	**.0003**	**.0016**	**-.0012**	**.0024**	**-.0009**
Stddev	.0006	.0001	.0001	.0004	.0011	.0005	.0004
%RSD	106.7	15.98	23.25	24.97	90.79	20.71	49.77
#1	.0001	.0005	.0004	.0019	-.0019	.0021	-.0012
#2	.0010	.0007	.0003	.0013	-.0004	.0028	-.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	**108110.**	**14945.**	**3906.1**	**9086.9**
Stddev	300.	39.	3.2	.6
%RSD	.27730	.25902	.08149	.00620
#1	108320.	14973.	3903.8	9087.3
#2	107900.	14918.	3908.3	9086.5

Zoom In Zoom Out

Sample Name: mp6402-mb1conf Acquired: 4/4/2018 14:28:00 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0002**	**.0003**	**.0002**	**.0001**	**.0001**	**.0002**	**.0000**
Stddev	.0000	.0001	.0002	.0002	.0005	.0001	.0000	.0001	.0001
%RSD	39.86	99.61	79.75	68.20	277.5	53.07	82.41	55.43	264.8
#1	.0000	-.0001	-.0004	.0001	.0005	.0002	.0000	.0001	.0001
#2	.0001	-.0000	-.0001	.0004	-.0002	.0001	.0001	.0003	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0014**	**.0001**	**-.0007**	**.0002**	**-.0002**	**-.0014**	**-.0037**	**.0073**
Stddev	.0000	.0000	.0014	.0012	.0008	.0005	.0006	.0007	.0012
%RSD	19.77	2.582	931.2	166.4	359.4	274.4	45.23	19.12	16.14
#1	-.0003	.0014	-.0008	.0001	-.0003	.0002	-.0009	-.0032	.0064
#2	-.0002	.0014	.0011	-.0016	.0008	-.0005	-.0018	-.0042	.0081

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0056**	**.0202**	**-.0323**	**.0411**	**.0009**	**.0002**	**-.0000**	**.0002**	**.0001**
Stddev	.0046	.0150	.0129	.0012	.0004	.0001	.0011	.0009	.0001
%RSD	81.93	74.28	39.93	3.023	47.11	46.73	3485.	432.8	102.4
#1	.0023	.0096	-.0414	.0420	.0006	.0003	.0008	-.0004	.0001
#2	.0088	.0308	-.0232	.0403	.0012	.0001	-.0008	.0009	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0002**	**.0004**	**.0033**	**-.0024**	**.0016**	**.0003**
Stddev	.0004	.0007	.0001	.0038	.0002	.0007	.0009
%RSD	280.1	365.3	22.51	114.3	9.317	45.94	268.1
#1	.0004	-.0003	.0005	.0061	-.0025	.0011	.0010
#2	-.0001	.0007	.0004	.0006	-.0022	.0021	-.0003

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108260.**	**14916.**	**3877.2**	**9046.5**
Stddev	55.	69.	6.2	1.9
%RSD	.05094	.46019	.15884	.02081
#1	108300.	14867.	3872.9	9045.2
#2	108230.	14964.	3881.6	9047.8

Zoom In Zoom Out

Sample Name: jc62879-3 Acquired: 4/4/2018 14:32:21 Type: Unk
Method: Accutest 2(v145) Mode: 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	**.0711**	**-.0001**	**.0005**	**.0098**	**.0034**	**.0253**	**.5247**	**.0210**	**.0004**
Stddev	.0001	.0001	.0000	.0003	.0001	.0001	.0000	.0002	.0005
%RSD	.1430	95.07	3.088	2.962	2.381	.4917	.0059	1.112	119.5
#1	.0711	-.0002	.0005	.0096	.0035	.0252	.5247	.0208	.0007
#2	.0710	-.0000	.0005	.0100	.0034	.0254	.5247	.0211	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0023**	**.0872**	**.0205**	**.0012**	**.0212**	**.0148**	**.0051**	**.2574**	**191.8**
Stddev	.0002	.0003	.0007	.0014	.0002	.0008	.0003	.0017	.2
%RSD	9.662	.3283	3.351	117.2	.8318	5.502	6.366	.6473	.0809
#1	.0024	.0870	.0200	.0002	.0213	.0143	.0049	.2585	191.7
#2	.0021	.0874	.0210	.0023	.0211	.0154	.0054	.2562	191.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.974**	**103.6**	**14.10**	**22.44**	**.2948**	**.0186**	**14.81**	**-.0011**	**1.063**
Stddev	.019	.3	.01	.00	.0006	.0000	.00	.0008	.001
%RSD	.2715	.3179	.0475	.0112	.2042	.1632	.0294	69.06	.0452
#1	6.960	103.4	14.11	22.44	.2944	.0186	14.81	-.0017	1.063
#2	6.987	103.9	14.10	22.43	.2953	.0187	14.81	-.0006	1.064

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0092**	**.0167**	**.0005**	**65.33**	**-.0008**	**.0241**	**.2170**
Stddev	.0000	.0003	.0002	.04	.0006	.0004	.0003
%RSD	.1910	1.758	46.82	.0633	74.63	1.743	.1170
#1	.0092	.0165	.0007	65.36	-.0012	.0238	.2168
#2	.0093	.0169	.0003	65.31	-.0004	.0244	.2172

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**99150.**	**14413.**	**3552.2**	**7844.7**
Stddev	1.	20.	2.4	6.5
%RSD	.00089	.13731	.06745	.08274
#1	99151.	14427.	3550.5	7840.1
#2	99150.	14399.	3553.9	7849.3

Zoom In Zoom Out

Sample Name: jc62879-6 Acquired: 4/4/2018 14:36:36 Type: Unk
Method: Accutest 2(v145) 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	**.1334**	**-.0002**	**.0015**	**.0079**	**.0127**	**.0108**	**5.610**	**.0111**	**.0037**
Stddev	.0001	.0002	.0000	.0001	.0013	.0008	.049	.0007	.0034
%RSD	.0592	101.0	1.780	1.803	9.923	7.432	.8671	6.273	90.12
#1	.1334	-.0000	.0015	.0080	.0136	.0102	5.644	.0106	.0061
#2	.1335	-.0003	.0015	.0078	.0118	.0114	5.575	.0116	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0080**	**.0285**	**.0087**	**.0031**	**.0097**	**-.0042**	**-.0010**	**.2740**	**229.4**
Stddev	.0014	.0002	.0020	.0052	.0012	.0149	.0024	.0672	1.7
%RSD	17.40	.7702	22.54	165.0	12.21	355.5	227.8	24.52	.7619
#1	.0070	.0284	.0073	-.0005	.0105	.0064	-.0027	.2265	230.7
#2	.0089	.0287	.0100	.0068	.0088	-.0148	.0006	.3215	228.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**11.28**	**145.9**	**5.706**	**94.71**	**.0887**	**.0022**	**11.97**	**-.0030**	**1.022**
Stddev	.13	1.1	.153	.55	.0009	.0004	.09	.0036	.007
%RSD	1.193	.7744	2.689	.5843	1.050	18.15	.7361	121.5	.6628
#1	11.37	146.7	5.815	95.10	.0880	.0025	12.04	-.0004	1.027
#2	11.18	145.1	5.598	94.31	.0893	.0019	11.91	-.0055	1.017

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0117**	**.0108**	**.0005**	**285.7**	**-.0112**	**.0163**	**.2727**
Stddev	.0007	.0002	.0002	1.7	.0102	.0062	.0015
%RSD	5.664	2.185	37.17	.5827	91.60	38.13	.5498
#1	.0112	.0110	.0003	286.9	-.0039	.0119	.2717
#2	.0121	.0107	.0006	284.6	-.0184	.0207	.2738

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103920.**	**14568.**	**3759.3**	**8525.5**
Stddev	79.	68.	12.0	10.9
%RSD	.07572	.46336	.31933	.12802
#1	103870.	14520.	3750.8	8517.8
#2	103980.	14616.	3767.8	8533.3

Zoom In Zoom Out

Sample Name: jc62879-10 Acquired: 4/4/2018 14:40:51 Type: Unk
Method: Accutest 2(v145) 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	**.0293**	**.0004**	**.0036**	**.0333**	**.0088**	**.0332**	**2.226**	**.0966**	**-.0015**
Stddev	.0003	.0001	.0005	.0003	.0030	.0015	.003	.0022	.0021
%RSD	1.040	35.22	13.30	.8266	34.50	4.590	.1309	2.237	136.3
#1	.0291	.0003	.0039	.0331	.0066	.0343	2.228	.0981	-.0030
#2	.0295	.0005	.0033	.0335	.0109	.0321	2.224	.0951	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0038**	**1.203**	**.0041**	**-.0005**	**.0145**	**.0105**	**.0019**	**1.044**	**200.3**
Stddev	.0003	.002	.0027	.0071	.0022	.0044	.0061	.033	.1
%RSD	7.948	.1281	66.49	1357.	15.47	42.10	320.2	3.164	.0277
#1	.0040	1.202	.0022	-.0055	.0161	.0137	-.0024	1.067	200.3
#2	.0036	1.205	.0060	.0045	.0129	.0074	.0062	1.021	200.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.79**	**36.58**	**5.624**	**11.57**	**.0919**	**-.0008**	**17.94**	**-.0038**	**.7478**
Stddev	.03	.03	.084	.09	.0021	.0018	.00	.0001	.0016
%RSD	.1252	.0839	1.496	.7568	2.295	233.3	.0176	2.877	.2174
#1	23.77	36.60	5.564	11.64	.0934	-.0020	17.94	-.0038	.7489
#2	23.81	36.56	5.683	11.51	.0904	.0005	17.95	-.0039	.7466

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0104**	**.0188**	**.0002**	**213.8**	**-.0170**	**.0161**	**.0748**
Stddev	.0005	.0006	.0005	.1	.0013	.0058	.0008
%RSD	4.840	3.016	197.7	.0507	7.651	36.09	1.081
#1	.0100	.0192	.0005	213.9	-.0179	.0202	.0743
#2	.0107	.0184	-.0001	213.7	-.0161	.0120	.0754

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105880.**	**14766.**	**3823.7**	**8767.9**
Stddev	26.	107.	1.7	3.3
%RSD	.02482	.72281	.04542	.03734
#1	105860.	14691.	3824.9	8770.2
#2	105900.	14842.	3822.4	8765.5

Zoom In Zoom Out

Sample Name: jc62879-17 Acquired: 4/4/2018 14:45:05 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0663**	**-.0005**	**.0000**	**.0024**	**.0038**	**.0172**	**.1283**	**.0045**	**.0016**
Stddev	.0003	.0003	.0005	.0004	.0008	.0002	.0001	.0001	.0023
%RSD	.4256	59.44	2140.	17.96	20.16	1.193	.1027	2.273	139.9
#1	.0661	-.0003	.0004	.0021	.0044	.0173	.1284	.0045	.0000
#2	.0665	-.0007	-.0004	.0027	.0033	.0170	.1282	.0044	.0032

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0014**	**.0968**	**.0071**	**.0009**	**-.0000**	**-.0000**	**.0045**	**.7085**	**298.9**
Stddev	.0002	.0001	.0012	.0038	.0041	.0024	.0028	.0060	2.1
%RSD	16.69	.1385	17.19	418.6	14260.	5292.	62.09	.8402	.6966
#1	.0015	.0969	.0080	.0036	-.0029	.0017	.0065	.7127	300.3
#2	.0012	.0967	.0062	-.0018	.0028	-.0017	.0025	.7043	297.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.5150**	**173.0**	**21.24**	**15.01**	**.3897**	**.0157**	**9.336**	**-.0017**	**1.845**
Stddev	.0004	1.3	.08	.07	.0004	.0007	.046	.0017	.009
%RSD	.0719	.7297	.3579	.4712	.1112	4.308	.4944	100.2	.5067
#1	.5153	173.9	21.29	15.06	.3900	.0162	9.369	-.0005	1.852
#2	.5147	172.1	21.18	14.96	.3894	.0152	9.304	-.0029	1.838

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0052**	**.0135**	**.0008**	**238.9**	**-.0043**	**.0079**	**.1700**
Stddev	.0014	.0019	.0003	1.2	.0011	.0005	.0016
%RSD	25.88	13.95	35.69	.4936	25.62	6.242	.9405
#1	.0062	.0148	.0006	239.7	-.0051	.0076	.1688
#2	.0043	.0121	.0009	238.0	-.0035	.0083	.1711

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102330.**	**14509.**	**3682.4**	**8273.5**
Stddev	303.	44.	.6	9.8
%RSD	.29606	.30051	.01528	.11817
#1	102110.	14478.	3682.0	8280.4
#2	102540.	14540.	3682.8	8266.6

Zoom In Zoom Out

Sample Name: mp6401-mb1conf Acquired: 4/4/2018 14:49:21 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0001**	**.0001**	**.0001**	**.0000**	**.0008**	**.0001**	**.0006**	**-.0000**
Stddev	.0000	.0002	.0001	.0003	.0003	.0000	.0000	.0004	.0000
%RSD	108.6	232.4	116.6	181.5	759.4	1.652	24.16	74.44	31.13
#1	-.0000	-.0002	.0002	-.0000	-.0002	.0008	.0001	.0003	-.0000
#2	-.0000	.0000	.0000	.0003	.0003	.0007	.0001	.0009	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0002**	**.0022**	**.0002**	**-.0004**	**-.0006**	**-.0011**	**.0005**	**-.0013**	**.0114**
Stddev	.0003	.0003	.0005	.0002	.0005	.0016	.0003	.0105	.0031
%RSD	184.4	11.50	226.1	55.13	92.65	145.1	51.11	789.9	27.25
#1	-.0001	.0020	-.0001	-.0003	-.0002	-.0022	.0007	-.0087	.0092
#2	.0004	.0024	.0006	-.0006	-.0010	.0000	.0003	.0061	.0136

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0039**	**.0162**	**-.0430**	**.0317**	**.0009**	**.0003**	**-.0017**	**-.0002**	**-.0000**
Stddev	.0021	.0257	.0015	.0037	.0002	.0004	.0007	.0000	.0001
%RSD	53.32	159.0	3.395	11.75	20.55	120.5	42.95	6.301	636.5
#1	.0024	.0344	-.0420	.0344	.0010	.0000	-.0012	-.0002	-.0001
#2	.0053	-.0020	-.0440	.0291	.0007	.0006	-.0022	-.0002	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0007**	**.0000**	**.0061**	**-.0024**	**.0010**	**-.0024**
Stddev	.0001	.0011	.0000	.0005	.0011	.0001	.0003
%RSD	51.95	160.5	101.4	8.283	45.27	13.04	11.05
#1	-.0001	.0001	.0000	.0065	-.0031	.0011	-.0022
#2	-.0001	-.0015	.0001	.0057	-.0016	.0009	-.0026

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108030.**	**14904.**	**3867.5**	**9048.9**
Stddev	211.	32.	9.2	14.7
%RSD	.19496	.21740	.23796	.16192
#1	107880.	14881.	3861.0	9038.5
#2	108180.	14926.	3874.0	9059.3

Zoom In Zoom Out

Sample Name: mp6401-b1conf Acquired: 4/4/2018 14:53:41 Type: Unk
Method: Accutest 2(v145) 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	**2.138**	**2.097**	**2.124**	**2.043**	**2.107**	**2.063**	**2.115**	**2.093**
Stddev	.000	.006	.001	.003	.012	.000	.006	.000
%RSD	.0068	.2923	.0570	.1386	.5734	.0023	.2995	.0021
#1	2.138	2.101	2.125	2.041	2.115	2.063	2.119	2.093
#2	2.137	2.092	2.123	2.045	2.098	2.063	2.110	2.093

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2551**	**2.102**	**2.122**	**2.110**	**2.090**	**2.092**	**2.085**	**2.148**
Stddev	.0003	.005	.001	.000	.003	.004	.004	.004
%RSD	.1343	.2175	.0218	.0121	.1435	.1773	.1680	.1965
#1	.2553	2.105	2.122	2.109	2.092	2.094	2.087	2.151
#2	.2548	2.099	2.122	2.110	2.087	2.089	2.082	2.145

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.67**	**26.17**	**26.18**	**25.46**	**25.84**	**26.07**	**2.087**	**2.155**
Stddev	.01	.02	.05	.04	.07	.06	.004	.000
%RSD	.0491	.0592	.1883	.1589	.2765	.2181	.1933	.0022
#1	25.66	26.16	26.22	25.43	25.89	26.11	2.090	2.155
#2	25.68	26.18	26.15	25.49	25.79	26.03	2.084	2.155

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0077**	**2.177**	**2.111**	**2.116**	**2.004**	**2.085**	F **-.0743**	**-.0043**
Stddev	.0008	.001	.002	.003	.002	.004	.0014	.0005
%RSD	10.01	.0562	.1087	.1595	.0919	.1688	1.915	12.58
#1	.0072	2.176	2.113	2.118	2.005	2.088	-.0753	-.0047
#2	.0083	2.177	2.110	2.113	2.003	2.083	-.0732	-.0039

Elem	Li6707	P_1774
Avg	**.0013**	**2.084**
Stddev	.0007	.007
%RSD	54.17	.3544
#1	.0008	2.079
#2	.0018	2.089

Zoom In Zoom Out

Sample Name: mp6401-b1conf Acquired: 4/4/2018 14:53:41 Type: Unk
Method: Accutest 2(v145) 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	**104730.**	**14775.**	**3777.7**	**8358.4**
Stddev	126.	15.	4.0	3.8
%RSD	.12009	.10132	.10650	.04574
#1	104640.	14765.	3774.8	8355.7
#2	104820.	14786.	3780.5	8361.1

Zoom In Zoom Out

Sample Name: mp6401-s1 Acquired: 4/4/2018 14:57:44 Type: Unk
Method: Accutest 2(v145) 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	**2.534**	**2.386**	**2.281**	**2.163**	**2.336**	**2.180**	**2.327**	**2.231**	**.2815**
Stddev	.072	.072	.021	.022	.029	.035	.025	.025	.0064
%RSD	2.825	3.034	.9054	1.038	1.237	1.586	1.083	1.115	2.257
#1	2.483	2.334	2.296	2.179	2.357	2.204	2.345	2.248	.2860
#2	2.585	2.437	2.267	2.147	2.316	2.156	2.310	2.213	.2770

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.310**	**2.313**	**2.255**	**2.196**	**2.222**	**2.233**	**2.285**	**29.45**	**200.4**
Stddev	.013	.024	.021	.033	.015	.008	.027	.90	6.9
%RSD	.5530	1.054	.9163	1.478	.6732	.3507	1.164	3.064	3.441
#1	2.319	2.330	2.270	2.219	2.233	2.238	2.304	28.81	195.5
#2	2.301	2.296	2.240	2.173	2.212	2.227	2.266	30.09	205.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**29.99**	**57.88**	**31.79**	**346.5**	**2.292**	**2.326**	**4.136**	**2.313**	**3.124**
Stddev	.94	2.17	.86	10.4	.021	.023	.033	.021	.087
%RSD	3.142	3.747	2.691	2.993	.9237	.9921	.7884	.9000	2.779
#1	29.32	56.35	31.19	339.2	2.307	2.342	4.159	2.328	3.063
#2	30.65	59.42	32.40	353.8	2.277	2.310	4.113	2.299	3.186

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.327**	**2.316**	**2.245**	**5.083**	**-.0180**	**.0039**	**2.229**
Stddev	.025	.017	.028	.056	.0084	.0002	.009
%RSD	1.077	.7531	1.242	1.104	46.37	3.847	.3932
#1	2.345	2.328	2.264	5.123	-.0121	.0040	2.235
#2	2.309	2.304	2.225	5.043	-.0239	.0038	2.222

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103190.**	**14363.**	**3740.5**	**8321.1**
Stddev	375.	465.	.5	8.5
%RSD	.36349	3.2354	.01376	.10162
#1	102930.	14692.	3740.8	8315.2
#2	103460.	14035.	3740.1	8327.1

Zoom In Zoom Out

Sample Name: mp6401-s2 Acquired: 4/4/2018 15:01:50 Type: Unk
Method: Accutest 2(v145) 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	**2.318**	**2.173**	**2.202**	**2.082**	**2.194**	**2.052**	**2.190**	**2.155**	**.2632**
Stddev	.007	.010	.009	.009	.006	.004	.002	.002	.0023
%RSD	.3154	.4482	.4269	.4396	.2725	.1927	.0927	.1136	.8680
#1	2.323	2.180	2.209	2.088	2.198	2.055	2.191	2.157	.2648
#2	2.313	2.166	2.195	2.075	2.190	2.049	2.188	2.153	.2616

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.175**	**2.232**	**2.171**	**2.123**	**2.150**	**2.147**	**2.205**	**26.61**	**185.6**
Stddev	.010	.006	.009	.016	.010	.000	.006	.11	.6
%RSD	.4715	.2663	.4137	.7343	.4516	.0034	.2568	.4162	.3392
#1	2.182	2.236	2.164	2.134	2.157	2.147	2.209	26.69	186.1
#2	2.168	2.228	2.177	2.112	2.143	2.147	2.201	26.53	185.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**27.27**	**53.27**	**28.93**	**321.8**	**2.219**	**2.235**	**4.075**	**2.241**	**2.875**
Stddev	.00	.20	.06	1.2	.002	.002	.003	.007	.008
%RSD	.0061	.3665	.2154	.3722	.1065	.0918	.0695	.3123	.2925
#1	27.27	53.41	28.98	322.6	2.221	2.236	4.073	2.246	2.880
#2	27.27	53.13	28.89	320.9	2.217	2.234	4.077	2.236	2.869

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.198**	**2.158**	**2.119**	**5.020**	**-.0207**	**.0071**	**2.149**
Stddev	.005	.008	.008	.020	.0017	.0041	.003
%RSD	.2120	.3746	.3729	.3892	7.985	57.15	.1168
#1	2.201	2.152	2.125	5.034	-.0195	.0042	2.147
#2	2.194	2.164	2.114	5.006	-.0218	.0100	2.151

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103740.**	**14608.**	**3745.5**	**8342.1**
Stddev	46.	17.	7.1	14.5
%RSD	.04467	.11639	.19085	.17346
#1	103770.	14596.	3750.5	8352.3
#2	103710.	14620.	3740.4	8331.9

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 15:05:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**2.026**	**2.061**	**1.978**	**2.038**	**1.987**	**2.044**	**2.032**	**.2555**
Stddev	.001	.001	.005	.001	.005	.003	.005	.000	.0006
%RSD	.0691	.0484	.2569	.0383	.2494	.1461	.2317	.0045	.2447
#1	2.076	2.025	2.065	1.979	2.041	1.985	2.048	2.032	.2560
#2	2.074	2.026	2.057	1.978	2.034	1.989	2.041	2.032	.2551
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**2.048**	**2.043**	**1.995**	**2.024**	**2.013**	**2.068**	**40.37**	**41.14**
Stddev	.005	.004	.005	.003	.002	.004	.007	.04	.08
%RSD	.2408	.2073	.2513	.1668	.0719	.1917	.3384	.1107	.1874
#1	2.040	2.045	2.046	1.997	2.025	2.016	2.073	40.40	41.19
#2	2.033	2.051	2.039	1.992	2.023	2.010	2.063	40.34	41.08
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	**40.77**	**40.32**	**40.70**	**40.81**	**2.030**	**2.067**	**4.899**	**2.075**	**2.056**
Stddev	.03	.08	.00	.05	.001	.003	.012	.003	.002
%RSD	.0727	.1915	.0096	.1109	.0626	.1518	.2425	.1269	.1168
#1	40.75	40.27	40.70	40.84	2.031	2.069	4.908	2.073	2.054
#2	40.79	40.37	40.70	40.78	2.029	2.065	4.891	2.077	2.058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 15:05:59 Type: QC
Method: Accutest 2(v145) 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**	**2.055**	**2.027**	**2.002**	**2.098**	**2.052**	**2.018**
Stddev	.004	.001	.001	.009	.002	.004	.003
%RSD	.1719	.0464	.0568	.4273	.1084	.2178	.1488
#1	2.048	2.054	2.028	2.008	2.100	2.055	2.020
#2	2.043	2.055	2.026	1.996	2.096	2.048	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	**103140.**	**14490.**	**3752.3**	**8177.5**
Stddev	149.	60.	9.6	13.9
%RSD	.14481	.41333	.25612	.16971
#1	103040.	14447.	3745.5	8167.7
#2	103250.	14532.	3759.1	8187.3

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 15:10:03 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0003**	**.0006**	**.0001**	**.0007**	**.0007**
Stddev	.0001	.0001	.0001	.0001	.0007	.0001	.0001	.0001	.0001
%RSD	61.73	82.98	86.91	27.57	294.3	15.33	47.59	12.32	17.80
#1	.0001	.0002	.0000	.0004	.0008	.0007	.0001	.0008	.0006
#2	.0000	.0000	.0001	.0005	-.0003	.0005	.0002	.0007	.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	**-.0001**	**-.0001**	**.0002**	**.0007**	**-.0005**	**-.0015**	**.0009**	**-.0033**	**.0036**
Stddev	.0003	.0000	.0008	.0001	.0008	.0021	.0002	.0129	.0007
%RSD	314.6	38.33	414.5	7.520	178.3	134.9	16.76	397.2	20.12
#1	-.0003	-.0001	.0007	.0007	.0001	-.0030	.0008	.0059	.0031
#2	.0001	-.0001	-.0004	.0007	-.0010	-.0001	.0011	-.0124	.0041
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**	**.0020**	**-.0341**	**.0263**	**.0020**	**.0007**	**.0051**	**.0001**	**.0002**
Stddev	.0008	.0079	.0019	.0005	.0002	.0002	.0001	.0006	.0001
%RSD	16.80	386.3	5.621	2.018	9.764	26.86	1.925	513.8	30.60
#1	.0039	.0076	-.0355	.0267	.0021	.0009	.0052	.0005	.0002
#2	.0050	-.0035	-.0328	.0260	.0018	.0006	.0050	-.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: 4/4/2018 15:10:03 Type: QC
Method: Accutest 2(v145) 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**	**.0014**	**.0001**	**-.0030**	**-.0018**	**.0026**	**-.0047**
Stddev	.0001	.0001	.0003	.0007	.0009	.0004	.0007
%RSD	21.99	7.755	250.7	22.87	48.64	15.39	14.40
#1	.0003	.0013	-.0001	-.0025	-.0012	.0029	-.0042
#2	.0002	.0015	.0003	-.0035	-.0024	.0024	-.0052
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	**107830.**	**14784.**	**3896.2**	**9087.0**
Stddev	218.	78.	4.4	.6
%RSD	.20180	.52658	.11407	.00632
#1	107980.	14729.	3899.3	9086.6
#2	107670.	14839.	3893.1	9087.4

Zoom In Zoom Out

Sample Name: jc62909-1f Acquired: 4/4/2018 15:14:25 Type: Unk
Method: Accutest 2(v145) 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	**.1136**	**.0001**	**-.0003**	**.0015**	**.0021**	**.0057**	**.0006**	**.0013**	**-.0006**
Stddev	.0013	.0002	.0023	.0001	.0028	.0007	.0005	.0011	.0036
%RSD	1.116	144.6	660.7	6.022	130.0	13.07	76.39	85.40	591.3
#1	.1145	-.0000	-.0020	.0015	.0041	.0063	.0009	.0020	.0019
#2	.1127	.0003	.0013	.0016	.0002	.0052	.0003	.0005	-.0031

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0097**	**.0054**	**-.0009**	**.0015**	**.0035**	**.0081**	**-.0185**	**171.9**
Stddev	.0017	.0009	.0008	.0071	.0022	.0019	.0039	.0281	2.1
%RSD	1582.	9.071	15.39	794.8	151.5	52.67	48.55	151.4	1.245
#1	-.0013	.0091	.0060	-.0059	.0031	.0022	.0109	-.0384	173.4
#2	.0011	.0103	.0048	.0041	-.0001	.0048	.0053	.0013	170.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0262**	**29.25**	**2.357**	**320.5**	**.0573**	**.0008**	**4.142**	**-.0049**	**.7627**
Stddev	.0089	.58	.069	4.6	.0053	.0012	.073	.0017	.0120
%RSD	33.89	1.976	2.912	1.439	9.303	152.8	1.754	35.12	1.567
#1	.0325	29.65	2.406	323.8	.0535	.0016	4.193	-.0062	.7712
#2	.0199	28.84	2.309	317.3	.0611	-.0001	4.090	-.0037	.7543

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0021**	**.0185**	**.0015**	**5.129**	**-.0112**	**.0035**	**-.0114**
Stddev	.0003	.0001	.0004	.115	.0063	.0025	.0077
%RSD	16.76	.6002	26.29	2.237	56.29	69.25	67.72
#1	-.0023	.0184	.0012	5.211	-.0156	.0053	-.0168
#2	-.0018	.0186	.0018	5.048	-.0067	.0018	-.0059

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103260.**	**14559.**	**3743.9**	**8396.4**
Stddev	326.	13.	2.0	1.4
%RSD	.31604	.09237	.05462	.01648
#1	103030.	14550.	3745.4	8395.4
#2	103490.	14569.	3742.5	8397.4

Zoom In Zoom Out

Sample Name: mp6401-sd1 Acquired: 4/4/2018 15:18:45 Type: Unk
Method: Accutest 2(v145) 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	**.1022**	**.0011**	**-.0029**	**.0155**	**-.0034**	**.0117**	**.0045**	**.0004**	**.0012**
Stddev	.0001	.0028	.0014	.0063	.0053	.0045	.0003	.0019	.0059
%RSD	.1161	248.5	48.69	40.52	156.8	38.96	6.355	493.5	509.6
#1	.1021	-.0009	-.0019	.0200	.0004	.0085	.0043	-.0010	-.0030
#2	.1022	.0032	-.0039	.0111	-.0071	.0149	.0047	.0017	.0053

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0075**	**.0571**	**-.0052**	**.0118**	**-.0079**	**.0261**	**.0230**	**-.0155**	**153.2**
Stddev	.0055	.0015	.0170	.0088	.0018	.0391	.0061	.0750	.3
%RSD	72.56	2.555	327.6	74.38	23.21	150.2	26.39	482.7	.1824
#1	.0114	.0581	-.0172	.0180	-.0091	-.0016	.0187	-.0686	153.4
#2	.0037	.0560	.0068	.0056	-.0066	.0537	.0273	.0375	153.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2007**	**26.36**	**.5533**	**280.9**	**.0598**	**.0059**	**4.041**	**.0095**	**.6734**
Stddev	.0023	1.05	.5347	1.0	.0023	.0051	.012	.0016	.0023
%RSD	1.149	3.966	96.64	.3610	3.869	85.46	.3052	17.24	.3426
#1	.2023	27.10	.1752	281.6	.0614	.0023	4.032	.0106	.6750
#2	.1990	25.63	.9314	280.2	.0582	.0095	4.049	.0083	.6718

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0147**	**.0504**	**.0090**	**4.819**	**-.0614**	**.0504**	**-.0946**
Stddev	.0029	.0083	.0006	.026	.0276	.0094	.0166
%RSD	19.73	16.43	6.532	.5374	44.87	18.60	17.49
#1	-.0126	.0445	.0086	4.837	-.0809	.0438	-.0829
#2	-.0167	.0563	.0094	4.801	-.0419	.0570	-.1063

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106290.**	**14717.**	**3837.5**	**8844.4**
Stddev	408.	72.	6.0	13.5
%RSD	.38371	.48678	.15573	.15257
#1	106000.	14666.	3841.8	8853.9
#2	106580.	14767.	3833.3	8834.8

Zoom In Zoom Out

Sample Name: mp6334-ps1 Acquired: 4/4/2018 15:23:04 Type: Unk
Method: Accutest 2(v145) 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	**4.530**	**.1246**	**.1043**	**.6870**	**.4344**	**.4499**	F **22.54**	**.8356**
Stddev	.004	.0007	.0001	.0003	.0008	.0005	.09	.0015
%RSD	.0766	.5884	.0751	.0500	.1950	.1005	.4075	.1807
#1	4.533	.1251	.1043	.6873	.4350	.4502	22.48	.8346
#2	4.528	.1241	.1042	.6868	.4338	.4496	22.61	.8367

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0137**	**.7260**	**1.044**	**.1247**	**.0815**	**.1223**	**.4627**	**.4481**
Stddev	.0010	.0009	.001	.0004	.0005	.0039	.0023	.0001
%RSD	7.207	.1303	.0770	.3178	.5888	3.183	.5040	.0259
#1	.0144	.7266	1.044	.1250	.0818	.1251	.4643	.4480
#2	.0130	.7253	1.043	.1244	.0812	.1196	.4610	.4482

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**57.37**	**155.7**	F **925.3**	**162.7**	**95.33**	**210.7**	**4.937**	**.4364**
Stddev	.06	.1	4.9	.2	.24	.8	.000	.0011
%RSD	.1090	.0538	.5243	.1033	.2553	.3724	.0052	.2423
#1	57.41	155.7	928.7	162.8	95.51	210.1	4.937	.4356
#2	57.32	155.8	921.8	162.6	95.16	211.2	4.937	.4371

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**6.545**	**.4299**	**1.571**	**.4442**	**.0272**	**.0070**	F **785.8**	W **-.0163**
Stddev	.007	.0016	.003	.0006	.0014	.0007	.2	.0044
%RSD	.1051	.3698	.2088	.1376	5.192	10.45	.0241	26.88
#1	6.540	.4287	1.573	.4437	.0282	.0076	785.9	-.0194
#2	6.550	.4310	1.568	.4446	.0262	.0065	785.7	-.0132

Elem	Li6707	P_1774
Avg	**.0495**	**.0139**
Stddev	.0005	.0024
%RSD	1.077	17.21
#1	.0499	.0122
#2	.0492	.0156

Zoom In Zoom Out

Sample Name: mp6334-ps1 Acquired: 4/4/2018 15:23:04 Type: Unk
Method: Accutest 2(v145) 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	**113700.**	**17209.**	**4022.1**	**7760.5**
Stddev	41.	63.	4.9	9.6
%RSD	.03620	.36425	.12169	.12382
#1	113670.	17164.	4025.5	7767.2
#2	113730.	17253.	4018.6	7753.7

Zoom In Zoom Out

Sample Name: mp6334-b3 Acquired: 4/4/2018 15:27:25 Type: Unk
Method: Accutest 2(v145) 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	**2.125**	**2.078**	**2.081**	**2.002**	**2.079**	**2.031**	**2.096**	**2.057**
Stddev	.005	.009	.001	.001	.003	.004	.001	.000
%RSD	.2596	.4581	.0381	.0566	.1361	.1711	.0460	.0125
#1	2.129	2.085	2.081	2.003	2.077	2.033	2.097	2.058
#2	2.121	2.071	2.080	2.001	2.081	2.028	2.096	2.057

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2473**	**2.074**	**2.090**	**2.022**	**2.015**	**2.042**	**2.024**	**2.057**
Stddev	.0006	.006	.002	.003	.004	.003	.001	.000
%RSD	.2315	.3075	.0980	.1244	.1828	.1229	.0480	.0109
#1	.2469	2.070	2.089	2.024	2.017	2.040	2.025	2.057
#2	.2477	2.079	2.092	2.021	2.012	2.044	2.024	2.057

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.59**	**26.19**	**26.12**	**25.61**	**25.77**	**25.86**	**2.009**	**2.090**
Stddev	.08	.09	.13	.09	.07	.07	.004	.002
%RSD	.2959	.3490	.5045	.3391	.2660	.2711	.1930	.0998
#1	25.65	26.25	26.21	25.67	25.81	25.91	2.012	2.092
#2	25.54	26.12	26.03	25.54	25.72	25.81	2.006	2.089

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	W **-.0367**	**2.125**	**2.103**	**2.053**	**2.061**	**2.017**	**1.995**	**-.0037**
Stddev	.0009	.004	.010	.000	.003	.002	.010	.0031
%RSD	2.412	.2020	.4655	.0055	.1527	.1127	.4987	83.20
#1	-.0374	2.122	2.110	2.053	2.063	2.019	2.002	-.0015
#2	-.0361	2.128	2.096	2.053	2.059	2.016	1.988	-.0059

Elem	Li6707	P_1774
Avg	**.0023**	**2.056**
Stddev	.0003	.000
%RSD	12.06	.0075
#1	.0024	2.056
#2	.0021	2.055

Zoom In Zoom Out

Sample Name: mp6334-b3 Acquired: 4/4/2018 15:27:25 Type: Unk
Method: Accutest 2(v145) 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	**103730.**	**14446.**	**3746.6**	**8314.8**
Stddev	257.	12.	3.5	1.8
%RSD	.24797	.08450	.09350	.02206
#1	103910.	14437.	3749.1	8316.1
#2	103550.	14455.	3744.1	8313.5

Zoom In Zoom Out

Sample Name: mp6334-b4 Acquired: 4/4/2018 15:31:27 Type: Unk
Method: Accutest 2(v145) Mode: 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	**2.104**	**2.058**	**2.065**	**1.989**	**2.065**	**2.012**	**2.078**	**2.042**	**.2446**
Stddev	.004	.005	.003	.001	.003	.000	.001	.002	.0007
%RSD	.2065	.2390	.1432	.0392	.1239	.0111	.0620	.0906	.2718
#1	2.107	2.061	2.067	1.989	2.067	2.012	2.077	2.041	.2451
#2	2.101	2.054	2.063	1.988	2.063	2.012	2.078	2.044	.2441

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.058**	**2.072**	**2.057**	**2.011**	**2.026**	**2.013**	**2.097**	**25.57**	**26.10**
Stddev	.004	.000	.005	.007	.002	.003	.002	.09	.10
%RSD	.2024	.0214	.2414	.3666	.1110	.1417	.1006	.3616	.3656
#1	2.061	2.072	2.054	2.006	2.024	2.011	2.099	25.63	26.17
#2	2.055	2.072	2.061	2.016	2.027	2.015	2.096	25.50	26.04

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.07**	**25.49**	**25.70**	**25.89**	**1.997**	**2.131**	**.0210**	**2.172**	**2.080**
Stddev	.11	.17	.12	.09	.005	.001	.0004	.001	.008
%RSD	.4231	.6556	.4771	.3537	.2743	.0558	1.678	.0538	.3812
#1	26.15	25.60	25.78	25.95	2.001	2.132	.0213	2.171	2.085
#2	25.99	25.37	25.61	25.82	1.993	2.130	.0208	2.173	2.074

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.091**	**2.099**	**2.062**	**2.028**	**-.0043**	**.0006**	**2.044**
Stddev	.002	.002	.001	.001	.0005	.0002	.002
%RSD	.0957	.0850	.0222	.0491	11.77	30.13	.0732
#1	2.092	2.100	2.062	2.029	-.0047	.0007	2.045
#2	2.089	2.097	2.061	2.028	-.0039	.0004	2.043

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103890.**	**14520.**	**3743.1**	**8298.1**
Stddev	107.	85.	8.1	3.5
%RSD	.10253	.58201	.21763	.04193
#1	103820.	14460.	3737.4	8295.6
#2	103970.	14580.	3748.9	8300.5

Zoom In Zoom Out

Sample Name: mp6334-mb1conf Acquired: 4/4/2018 15:35:28 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0001**	**.0003**	**.0003**	**.0009**	**.0001**	**.0004**	**.0002**
Stddev	.0001	.0001	.0001	.0002	.0003	.0000	.0001	.0001	.0003
%RSD	345.2	4429.	177.7	80.92	79.97	.3679	49.35	15.83	149.4
#1	-.0001	.0000	.0000	.0001	.0001	.0009	.0002	.0004	.0005
#2	.0001	-.0000	-.0002	.0004	.0005	.0009	.0001	.0004	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0004**	**-.0009**	**-.0001**	**.0005**	**.0014**	**.0013**	**-.0117**	**.0129**
Stddev	.0003	.0001	.0004	.0003	.0004	.0026	.0014	.0022	.0052
%RSD	928.5	19.94	45.18	260.7	78.22	196.1	108.0	19.00	40.52
#1	.0002	.0005	-.0006	-.0003	.0007	-.0005	.0024	-.0133	.0092
#2	-.0002	.0004	-.0012	.0001	.0002	.0032	.0003	-.0101	.0165

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0074**	**.0046**	**.0123**	**.0294**	**.0034**	**.0008**	**.0084**	**.0407**	**.0001**
Stddev	.0030	.0149	.0204	.0121	.0007	.0000	.0000	.0006	.0000
%RSD	41.40	323.5	165.7	41.12	19.70	2.334	.5476	1.534	14.05
#1	.0052	-.0059	-.0021	.0380	.0039	.0008	.0084	.0402	.0001
#2	.0095	.0151	.0267	.0209	.0030	.0008	.0083	.0411	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0014**	**.0010**	**.0105**	**-.0036**	**.0023**	**.0346**
Stddev	.0000	.0006	.0001	.0023	.0001	.0020	.0006
%RSD	6.138	44.49	6.382	22.08	1.751	87.35	1.591
#1	.0005	.0010	.0010	.0121	-.0037	.0009	.0350
#2	.0006	.0019	.0009	.0088	-.0036	.0037	.0342

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108040.**	**14826.**	**3844.0**	**9014.8**
Stddev	72.	67.	7.5	3.8
%RSD	.06694	.45318	.19472	.04203
#1	107990.	14874.	3838.7	9012.1
#2	108090.	14779.	3849.3	9017.4

Zoom In Zoom Out

Sample Name: mp6334-mb3 2 Acquired: 4/4/2018 15:39:48 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0000**	**.0001**	**.0002**	**.0004**	**.0019**	**.0001**	**.0008**	**-.0004**
Stddev	.0002	.0001	.0000	.0000	.0006	.0004	.0001	.0000	.0003
%RSD	66.03	120.9	29.30	21.75	147.9	19.00	45.66	2.653	89.85
#1	.0005	-.0000	.0000	.0002	.0008	.0016	.0001	.0008	-.0001
#2	.0002	-.0001	.0001	.0002	-.0000	.0021	.0002	.0008	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0005**	**-.0012**	**-.0014**	**-.0011**	**.0020**	**.0014**	**-.0086**	**.0142**
Stddev	.0001	.0001	.0015	.0015	.0001	.0011	.0003	.0093	.0021
%RSD	24.82	20.30	119.9	101.9	9.641	56.16	22.20	107.3	14.93
#1	-.0003	.0006	-.0002	-.0004	-.0011	.0012	.0012	-.0152	.0157
#2	-.0002	.0004	-.0023	-.0025	-.0012	.0028	.0017	-.0021	.0127

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0063**	**.0127**	**-.0224**	**.0221**	**.0025**	**.0003**	**.0034**	**.0411**	**-.0000**
Stddev	.0045	.0048	.0070	.0073	.0008	.0001	.0000	.0002	.0000
%RSD	70.18	37.69	31.32	33.04	29.88	17.10	.7146	.5892	690.1
#1	.0032	.0093	-.0174	.0273	.0020	.0003	.0034	.0409	.0000
#2	.0095	.0161	-.0274	.0169	.0031	.0003	.0034	.0413	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0017**	**.0007**	**.0089**	**-.0027**	**.0026**	**.0322**
Stddev	.0002	.0006	.0000	.0001	.0009	.0009	.0010
%RSD	225.1	36.14	2.440	1.420	33.59	33.28	3.003
#1	-.0002	.0022	.0007	.0089	-.0033	.0032	.0329
#2	.0000	.0013	.0007	.0090	-.0021	.0020	.0316

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107840.**	**14881.**	**3835.4**	**9001.5**
Stddev	105.	54.	6.8	13.1
%RSD	.09699	.36422	.17805	.14542
#1	107910.	14919.	3840.2	9010.7
#2	107760.	14842.	3830.6	8992.2

Zoom In Zoom Out

Sample Name: mp6334-mb4 Acquired: 4/4/2018 15:44:09 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**.0002**	**.0004**	**.0005**	**.0000**	**.0002**	**.0004**
Stddev	.0001	.0001	.0001	.0000	.0001	.0004	.0000	.0004	.0001
%RSD	65.71	149.4	809.8	12.36	17.50	67.53	127.9	213.2	22.75
#1	-.0002	.0001	-.0000	.0002	.0004	.0003	.0001	.0004	.0003
#2	-.0001	-.0000	.0000	.0002	.0005	.0008	.0000	-.0001	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0003**	**.0007**	**-.0008**	**-.0001**	**-.0007**	**.0010**	**.0029**	**.0158**
Stddev	.0002	.0001	.0020	.0008	.0003	.0004	.0014	.0063	.0017
%RSD	138.1	19.60	298.6	98.91	307.4	52.99	143.7	220.6	10.86
#1	-.0003	.0004	-.0007	-.0002	-.0004	-.0004	.0019	.0073	.0170
#2	-.0000	.0003	.0021	-.0014	.0001	-.0009	-.0000	-.0016	.0146

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0046**	**.0106**	**-.0130**	**.0203**	**.0020**	**.0003**	**.0022**	**.0419**	**.0000**
Stddev	.0053	.0114	.0087	.0010	.0000	.0000	.0005	.0002	.0000
%RSD	115.5	107.7	67.06	5.050	1.361	16.75	22.69	.4873	480.4
#1	.0008	.0186	-.0068	.0210	.0020	.0002	.0026	.0421	.0000
#2	.0084	.0025	-.0192	.0196	.0020	.0003	.0019	.0418	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0025**	**.0008**	**.0067**	**-.0037**	**.0013**	**.0312**
Stddev	.0001	.0003	.0001	.0019	.0007	.0002	.0012
%RSD	18.91	13.66	7.839	27.65	19.36	14.61	3.777
#1	.0005	.0028	.0008	.0054	-.0032	.0015	.0320
#2	.0004	.0023	.0008	.0080	-.0042	.0012	.0304

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108270.**	**14896.**	**3847.7**	**9036.1**
Stddev	252.	17.	.6	1.6
%RSD	.23262	.11084	.01554	.01729
#1	108090.	14908.	3848.1	9035.0
#2	108450.	14885.	3847.2	9037.2

Zoom In Zoom Out

Sample Name: jc62872-8 Acquired: 4/4/2018 15:48:29 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**.0001**	**-.0001**	**.0002**	**.0008**	**.0007**	**.0003**	**.0005**	**.0000**
Stddev	.0003	.0001	.0002	.0001	.0007	.0003	.0000	.0001	.0002
%RSD	2457.	131.9	220.4	71.12	86.25	39.69	12.81	24.53	685.2
#1	-.0002	.0000	.0000	.0003	.0012	.0005	.0003	.0004	-.0001
#2	.0002	.0001	-.0002	.0001	.0003	.0009	.0003	.0006	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0003**	**-.0008**	**-.0001**	**-.0006**	**.0005**	**.0015**	**-.0071**	**.0140**
Stddev	.0001	.0000	.0020	.0003	.0011	.0010	.0003	.0026	.0012
%RSD	96.83	12.26	234.8	473.5	194.5	211.0	19.67	36.28	8.883
#1	-.0000	.0003	-.0022	-.0003	.0002	.0011	.0013	-.0090	.0131
#2	-.0002	.0003	.0006	.0002	-.0014	-.0002	.0017	-.0053	.0149

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0087**	**-.0045**	**-.0451**	**.0238**	**.0019**	**.0001**	**.0012**	**.0384**	**.0001**
Stddev	.0057	.0045	.0164	.0080	.0007	.0002	.0007	.0004	.0001
%RSD	65.88	100.3	36.29	33.70	39.26	193.4	57.22	.9505	99.97
#1	.0046	-.0076	-.0566	.0181	.0024	.0002	.0007	.0381	.0000
#2	.0127	-.0013	-.0335	.0295	.0014	-.0000	.0017	.0386	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0020**	**.0005**	**.0103**	**-.0034**	**.0006**	**.0328**
Stddev	.0004	.0004	.0001	.0002	.0015	.0000	.0001
%RSD	668.9	20.09	25.99	2.105	43.17	7.046	.2273
#1	.0004	.0017	.0004	.0105	-.0044	.0006	.0329
#2	-.0002	.0023	.0006	.0102	-.0024	.0007	.0328

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108050.**	**14938.**	**3842.7**	**9025.5**
Stddev	322.	31.	.8	.7
%RSD	.29832	.21046	.02144	.00798
#1	107820.	14960.	3842.1	9025.0
#2	108270.	14915.	3843.3	9026.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 15:52:51 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**2.010**	**2.072**	**1.981**	**2.044**	**1.984**	**2.054**	**2.048**	**.2556**
Stddev	.001	.001	.002	.001	.001	.001	.003	.001	.0001
%RSD	.0312	.0669	.0885	.0334	.0674	.0353	.1279	.0229	.0433
#1	2.070	2.011	2.074	1.981	2.045	1.984	2.056	2.048	.2556
#2	2.069	2.010	2.071	1.980	2.043	1.983	2.052	2.048	.2557
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.040**	**2.063**	**2.063**	**1.981**	**2.031**	**2.021**	**2.082**	**40.57**	**41.26**
Stddev	.004	.002	.001	.001	.001	.001	.001	.02	.15
%RSD	.2138	.0735	.0599	.0310	.0461	.0349	.0345	.0417	.3569
#1	2.037	2.064	2.064	1.981	2.030	2.020	2.082	40.58	41.37
#2	2.043	2.062	2.062	1.982	2.032	2.021	2.083	40.56	41.16
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	**40.65**	**40.35**	**40.54**	**40.83**	**2.030**	**2.072**	**4.906**	**2.083**	**2.047**
Stddev	.05	.17	.12	.02	.002	.001	.004	.001	.003
%RSD	.1321	.4153	.2965	.0605	.0982	.0545	.0720	.0607	.1337
#1	40.69	40.47	40.62	40.85	2.028	2.073	4.903	2.084	2.045
#2	40.62	40.23	40.45	40.82	2.031	2.071	4.908	2.082	2.049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 15:52:51 Type: QC
Method: Accutest 2(v145) 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**	**2.061**	**2.029**	**2.017**	**2.109**	**2.031**	**2.033**
Stddev	.001	.008	.000	.003	.003	.001	.006
%RSD	.0404	.3738	.0003	.1527	.1258	.0607	.3091
#1	2.053	2.066	2.029	2.015	2.107	2.032	2.028
#2	2.054	2.056	2.029	2.020	2.111	2.030	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	**103240.**	**14584.**	**3749.7**	**8171.0**
Stddev	92.	60.	1.1	1.4
%RSD	.08874	.41132	.02897	.01682
#1	103170.	14542.	3748.9	8170.0
#2	103300.	14626.	3750.5	8172.0

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 15:56:55 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0001**	**.0003**	**-.0000**	**.0002**	**.0002**	**.0002**	**.0005**
Stddev	.0003	.0000	.0001	.0003	.0003	.0002	.0000	.0001	.0000
%RSD	142.1	11.38	279.9	86.67	584.5	108.4	2.243	30.36	10.34
#1	-.0000	.0002	-.0001	.0005	.0001	.0003	.0002	.0003	.0005
#2	.0004	.0002	.0002	.0001	-.0002	.0000	.0002	.0002	.0004
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	**.0000**	**.0000**	**.0008**	**.0005**	**.0005**	**-.0006**	**-.0007**	**-.0053**	**.0070**
Stddev	.0001	.0001	.0004	.0002	.0002	.0013	.0001	.0081	.0002
%RSD	280.7	299.3	48.19	38.46	34.89	239.5	12.65	152.0	3.453
#1	-.0000	.0001	.0005	.0006	.0006	-.0015	-.0006	.0004	.0072
#2	.0001	-.0000	.0010	.0004	.0004	.0004	-.0007	-.0110	.0068
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	F **.0107**	**.0062**	**-.0508**	**.0245**	**.0024**	**.0005**	**.0073**	**.0003**	**.0003**
Stddev	.0041	.0060	.0066	.0032	.0007	.0002	.0003	.0013	.0000
%RSD	38.41	96.37	13.07	13.00	30.10	45.94	4.614	422.6	6.770
#1	.0078	.0104	-.0555	.0267	.0029	.0006	.0075	.0012	.0003
#2	.0137	.0020	-.0461	.0222	.0019	.0003	.0070	-.0006	.0003
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 15:56:55 Type: QC
Method: Accutest 2(v145) 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**	**-.0002**	**-.0012**	**.0014**	**-.0080**
Stddev	.0001	.0018	.0001	.0017	.0005	.0005	.0006
%RSD	159.8	236.2	27.80	793.9	37.97	33.63	7.926
#1	.0000	.0021	.0003	.0010	-.0016	.0017	-.0084
#2	-.0002	-.0005	.0002	-.0014	-.0009	.0011	-.0075
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	**108440.**	**14726.**	**3881.9**	**9083.3**
Stddev	42.	74.	2.4	2.6
%RSD	.03870	.50107	.06214	.02831
#1	108470.	14778.	3880.2	9081.5
#2	108410.	14674.	3883.6	9085.1

Zoom In Zoom Out

Sample Name: jc62872-9 Acquired: 4/4/2018 16:01:18 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**-.0000**	**.0004**	**.0004**	**.0015**	**.0012**	**.0007**	**.0004**	**.0004**
Stddev	.0001	.0001	.0000	.0004	.0002	.0006	.0001	.0001	.0004
%RSD	86.62	1398.	2.286	84.64	14.43	52.27	11.40	16.15	90.19
#1	.0000	.0000	.0004	.0007	.0017	.0007	.0007	.0003	.0007
#2	.0002	-.0001	.0004	.0002	.0013	.0016	.0006	.0004	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0000**	**.0007**	**-.0005**	**-.0012**	**-.0003**	**.0010**	**.0010**	**-.0007**	**.0440**
Stddev	.0001	.0000	.0005	.0000	.0001	.0012	.0001	.0071	.0024
%RSD	377.3	3.957	109.5	.2359	17.33	114.4	14.17	1003.	5.546
#1	-.0000	.0007	-.0008	-.0012	-.0003	.0018	.0009	.0043	.0457
#2	.0001	.0007	-.0001	-.0012	-.0004	.0002	.0011	-.0057	.0423

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0372**	**.0108**	**-.0200**	**.0334**	**.0012**	**.0006**	**.0059**	**.0397**	**.0007**
Stddev	.0078	.0474	.0002	.0066	.0003	.0002	.0005	.0005	.0000
%RSD	20.84	438.6	.8471	19.82	22.79	28.13	8.072	1.321	5.285
#1	.0427	.0443	-.0201	.0287	.0014	.0007	.0062	.0393	.0007
#2	.0317	-.0227	-.0198	.0381	.0010	.0004	.0055	.0401	.0007

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0004**	**.0005**	**.0156**	**-.0040**	**.0004**	**.0340**
Stddev	.0002	.0005	.0002	.0048	.0009	.0005	.0005
%RSD	50.09	142.6	37.03	30.65	22.32	116.9	1.525
#1	.0003	-.0000	.0006	.0189	-.0046	.0008	.0344
#2	.0005	.0007	.0003	.0122	-.0034	.0001	.0337

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108020.**	**14768.**	**3836.0**	**9018.0**
Stddev	216.	1.	3.8	.5
%RSD	.20008	.00709	.09909	.00511
#1	107870.	14769.	3838.7	9017.7
#2	108170.	14767.	3833.3	9018.3

Zoom In Zoom Out

Sample Name: mp6420-mb1conf Acquired: 4/4/2018 16:05:39 Type: Unk
Method: Accutest 2(v145) Mode: 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**	**.0000**	**-.0001**	**.0002**	**.0002**	**.0005**	**-.0000**	**-.0002**	**.0007**
Stddev	.0003	.0000	.0002	.0000	.0001	.0004	.0000	.0002	.0001
%RSD	119.7	513.3	394.7	8.352	47.96	74.59	544.8	113.8	16.41
#1	-.0000	.0000	-.0002	.0002	.0001	.0003	.0000	-.0000	.0006
#2	-.0004	-.0000	.0001	.0002	.0003	.0008	-.0000	-.0003	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0001**	**-.0002**	**-.0011**	**-.0006**	**-.0002**	**.0012**	**-.0057**	**.0067**
Stddev	.0001	.0000	.0008	.0014	.0005	.0014	.0017	.0030	.0033
%RSD	55.77	51.80	411.0	123.5	89.17	665.5	145.2	52.81	48.58
#1	.0001	.0000	.0004	-.0001	-.0002	-.0012	-.0000	-.0079	.0091
#2	.0002	.0001	-.0008	-.0021	-.0010	.0008	.0023	-.0036	.0044

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0061**	**-.0095**	**-.0496**	**.0094**	**.0010**	**.0001**	**.0006**	**-.0006**	**.0001**
Stddev	.0010	.0047	.0216	.0085	.0000	.0002	.0017	.0004	.0000
%RSD	16.27	49.78	43.47	90.12	4.337	150.9	274.1	65.48	72.01
#1	.0069	-.0128	-.0344	.0034	.0009	-.0000	-.0006	-.0003	.0000
#2	.0054	-.0061	-.0649	.0154	.0010	.0003	.0018	-.0009	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0001**	**.0005**	**.0028**	**-.0028**	**.0010**	**-.0061**
Stddev	.0001	.0007	.0002	.0003	.0009	.0000	.0023
%RSD	418.3	611.2	38.21	12.46	31.69	4.667	37.36
#1	.0001	.0006	.0004	.0030	-.0022	.0010	-.0077
#2	-.0001	-.0004	.0007	.0025	-.0034	.0010	-.0045

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108450.**	**14847.**	**3864.5**	**9049.3**
Stddev	252.	85.	9.7	1.9
%RSD	.23227	.56926	.25046	.02073
#1	108270.	14788.	3871.4	9048.0
#2	108630.	14907.	3857.7	9050.6

Zoom In Zoom Out

Sample Name: mp6420-b1conf Acquired: 4/4/2018 16:10:00 Type: Unk
Method: Accutest 2(v145) 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	**2.163**	**2.100**	**2.165**	**2.053**	**2.133**	**2.081**	**2.135**	**2.126**
Stddev	.005	.011	.002	.001	.001	.004	.002	.000
%RSD	.2439	.5070	.0877	.0391	.0299	.1697	.0811	.0086
#1	2.166	2.107	2.164	2.054	2.133	2.083	2.134	2.126
#2	2.159	2.092	2.166	2.052	2.134	2.078	2.137	2.126

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2591**	**2.135**	**2.150**	**2.113**	**2.080**	**2.108**	**2.114**	**2.146**
Stddev	.0001	.002	.003	.002	.005	.001	.002	.001
%RSD	.0396	.0891	.1193	.1103	.2413	.0619	.0811	.0666
#1	.2590	2.134	2.148	2.111	2.083	2.107	2.113	2.147
#2	.2591	2.137	2.152	2.115	2.076	2.109	2.115	2.144

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**26.64**	**27.08**	**26.68**	**25.99**	**26.59**	**26.90**	**2.105**	**2.136**
Stddev	.02	.10	.09	.13	.09	.08	.003	.002
%RSD	.0895	.3565	.3416	.4903	.3261	.3036	.1550	.1044
#1	26.66	27.15	26.75	26.08	26.66	26.96	2.108	2.134
#2	26.63	27.01	26.62	25.90	26.53	26.84	2.103	2.137

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	W **-.0365**	**2.160**	**2.135**	**2.098**	**2.037**	**2.067**	F **-.0787**	**-.0035**
Stddev	.0005	.004	.004	.002	.002	.001	.0018	.0009
%RSD	1.275	.1649	.1819	.1005	.0768	.0403	2.259	26.26
#1	-.0369	2.157	2.138	2.097	2.036	2.066	-.0800	-.0042
#2	-.0362	2.162	2.132	2.100	2.038	2.068	-.0775	-.0029

Elem	Li6707	P_1774
Avg	**.0011**	**2.130**
Stddev	.0015	.003
%RSD	140.0	.1391
#1	.0021	2.132
#2	.0000	2.127

Zoom In Zoom Out

Sample Name: mp6420-b1conf Acquired: 4/4/2018 16:10:00 Type: Unk
Method: Accutest 2(v145) 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	**104580.**	**14833.**	**3766.1**	**8357.0**
Stddev	222.	67.	8.2	16.5
%RSD	.21273	.44983	.21758	.19790
#1	104420.	14785.	3771.9	8368.7
#2	104730.	14880.	3760.3	8345.3

Zoom In Zoom Out

Sample Name: jc62918-1f 2 Acquired: 4/4/2018 16:14:04 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 50.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0787**	**.0085**	**.0035**	**.0312**	**.0119**	**.0711**	**9.799**	**.0316**	**.0087**
Stddev	.0092	.0014	.0111	.0059	.0367	.0131	.017	.0095	.0169
%RSD	11.71	16.96	318.6	18.79	309.4	18.39	.1699	30.23	193.6
#1	.0852	.0096	-.0044	.0353	-.0141	.0619	9.811	.0248	-.0032
#2	.0722	.0075	.0114	.0270	.0378	.0804	9.787	.0383	.0206

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0300**	**.0061**	**.0064**	**-.0042**	**-.0199**	**-.0267**	**-.0302**	**-.2436**	**266.8**
Stddev	.0230	.0047	.0155	.0254	.0503	.2045	.0073	.6765	.5
%RSD	76.47	77.30	242.5	609.6	252.7	765.4	24.30	277.7	.1857
#1	.0462	.0028	-.0046	.0138	.0157	-.1713	-.0354	.2347	266.4
#2	.0138	.0094	.0174	-.0221	-.0555	.1179	-.0250	-.7220	267.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**35.08**	**604.9**	**140.5**	**5367.**	**2.933**	**.0365**	**9.945**	**.0147**	**3.994**
Stddev	.02	1.1	2.8	5.	.027	.0131	.007	.0188	.013
%RSD	.0461	.1824	2.019	.0921	.9234	35.80	.0711	127.8	.3321
#1	35.09	605.7	142.5	5371.	2.914	.0457	9.950	.0280	3.985
#2	35.07	604.2	138.5	5364.	2.952	.0273	9.940	.0014	4.004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0016**	**.1423**	**.0324**	**361.2**	**-.1342**	**.0769**	**-.2466**
Stddev	.0209	.0350	.0020	.2	.0182	.0093	.0183
%RSD	1320.	24.62	6.197	.0430	13.58	12.10	7.409
#1	.0132	.1671	.0338	361.1	-.1213	.0703	-.2595
#2	-.0163	.1175	.0310	361.3	-.1470	.0834	-.2337

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102720.**	**14587.**	**3741.3**	**8349.2**
Stddev	65.	40.	10.6	15.9
%RSD	.06325	.27349	.28356	.19028
#1	102670.	14559.	3733.8	8337.9
#2	102760.	14615.	3748.8	8360.4

Zoom In Zoom Out

Sample Name: mp6460-mb1conf Acquired: 4/4/2018 16:18:23 Type: Unk
Method: Accutest 2(v145) Mode: 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	**.0011**	**-.0000**	**.0001**	**.0001**	**.0008**	**.0014**	**.0008**	**.0006**	**.0005**
Stddev	.0001	.0000	.0001	.0001	.0000	.0002	.0000	.0002	.0005
%RSD	7.771	116.6	119.7	75.91	2.687	12.42	1.101	25.90	88.87
#1	.0011	-.0000	.0001	.0001	.0008	.0015	.0008	.0005	.0008
#2	.0012	-.0000	.0000	.0002	.0008	.0013	.0008	.0007	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0034**	**.0002**	**-.0007**	**-.0002**	**.0004**	**.0008**	**.0032**	**.3909**
Stddev	.0002	.0002	.0001	.0006	.0006	.0026	.0001	.0037	.0005
%RSD	377.1	5.808	55.44	82.18	360.0	652.3	15.73	114.3	.1324
#1	-.0001	.0033	.0001	-.0003	.0002	.0023	.0007	.0058	.3912
#2	.0002	.0036	.0003	-.0012	-.0006	-.0015	.0008	.0006	.3905

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0585**	**.1215**	**-.0168**	**.1392**	**.0023**	**.0002**	**.0411**	**.0218**	**.0011**
Stddev	.0003	.0054	.0093	.0053	.0005	.0000	.0001	.0004	.0001
%RSD	.4460	4.442	55.47	3.822	21.46	20.06	.1874	1.820	7.389
#1	.0583	.1177	-.0234	.1354	.0027	.0002	.0411	.0221	.0012
#2	.0587	.1253	-.0102	.1429	.0020	.0001	.0412	.0215	.0011

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0009**	**.0016**	**.0015**	**.0116**	**-.0041**	**.0021**	**.0197**
Stddev	.0001	.0002	.0001	.0007	.0013	.0011	.0005
%RSD	6.486	11.70	5.550	5.671	31.02	52.35	2.523
#1	.0008	.0018	.0016	.0111	-.0050	.0029	.0200
#2	.0009	.0015	.0014	.0120	-.0032	.0013	.0193

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107610.**	**14857.**	**3849.5**	**9012.1**
Stddev	339.	39.	2.7	8.4
%RSD	.31526	.26578	.07045	.09366
#1	107850.	14885.	3847.6	9006.1
#2	107370.	14829.	3851.4	9018.0

Zoom In Zoom Out

Sample Name: mp6460-b1conf Acquired: 4/4/2018 16:22:43 Type: Unk
Method: Accutest 2(v145) 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	**2.164**	**2.110**	**2.129**	**2.041**	**2.118**	**2.061**	**2.133**	**2.114**
Stddev	.005	.001	.000	.003	.002	.001	.000	.002
%RSD	.2301	.0347	.0149	.1328	.1072	.0227	.0055	.0980
#1	2.167	2.111	2.129	2.039	2.119	2.061	2.134	2.112
#2	2.160	2.110	2.129	2.043	2.116	2.062	2.133	2.115

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2440**	**2.116**	**2.148**	**2.091**	**2.034**	**2.085**	**2.076**	**2.105**
Stddev	.0000	.004	.000	.001	.003	.003	.001	.002
%RSD	.0061	.2094	.0040	.0444	.1504	.1200	.0443	.0846
#1	.2440	2.119	2.148	2.092	2.036	2.083	2.077	2.107
#2	.2440	2.113	2.148	2.091	2.032	2.087	2.076	2.104

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**26.06**	**27.04**	**26.42**	**26.02**	**26.21**	**26.45**	**2.046**	**2.116**
Stddev	.00	.03	.04	.13	.01	.00	.001	.001
%RSD	.0140	.1190	.1394	.5083	.0344	.0110	.0459	.0610
#1	26.06	27.02	26.39	25.93	26.20	26.45	2.047	2.117
#2	26.06	27.06	26.44	26.11	26.22	26.44	2.046	2.116

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.1006**	**2.154**	**2.138**	**2.089**	**1.889**	**2.052**	F **-.0656**	**-.0030**
Stddev	.0010	.002	.003	.003	.003	.001	.0035	.0002
%RSD	1.021	.1028	.1283	.1356	.1320	.0617	5.260	6.769
#1	.1013	2.153	2.140	2.087	1.888	2.051	-.0681	-.0029
#2	.0999	2.156	2.136	2.091	1.891	2.053	-.0632	-.0032

Elem	Li6707	P_1774
Avg	**.0009**	**2.118**
Stddev	.0014	.002
%RSD	163.0	.0721
#1	-.0001	2.120
#2	.0019	2.117

Zoom In Zoom Out

Sample Name: mp6460-b1conf Acquired: 4/4/2018 16:22:43 Type: Unk
Method: Accutest 2(v145) 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	**103230.**	**14428.**	**3728.2**	**8279.2**
Stddev	167.	41.	11.6	15.4
%RSD	.16143	.28176	.31011	.18612
#1	103350.	14456.	3720.0	8268.3
#2	103120.	14399.	3736.3	8290.1

Zoom In Zoom Out

Sample Name: jc63322-16 2 Acquired: 4/4/2018 16:26:44 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.8436**	**.0058**	**.0043**	**.0503**	**.1492**	**.2052**	**10.71**	**.1034**	**.0047**
Stddev	.0008	.0000	.0003	.0001	.0002	.0011	.01	.0011	.0007
%RSD	.0907	.1901	7.332	.1259	.1038	.5168	.0721	1.074	15.77
#1	.8441	.0058	.0045	.0504	.1493	.2060	10.70	.1042	.0041
#2	.8430	.0058	.0041	.0503	.1491	.2045	10.71	.1027	.0052

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2368**	**.4875**	**.0465**	**.0002**	**.3984**	**.0085**	**-.0023**	**111.2**	**201.7**
Stddev	.0009	.0018	.0018	.0001	.0044	.0052	.0014	.0	.1
%RSD	.3859	.3769	3.943	78.64	1.095	61.29	58.65	.0276	.0317
#1	.2361	.4888	.0452	.0001	.4015	.0123	-.0014	111.3	201.6
#2	.2374	.4862	.0478	.0003	.3953	.0048	-.0033	111.2	201.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**155.3**	**77.78**	**9.775**	**1.938**	**.0829**	**.0036**	**3.945**	**.0389**	**.2760**
Stddev	.4	.23	.049	.004	.0003	.0000	.005	.0020	.0003
%RSD	.2816	.2961	.5013	.2304	.4108	1.202	.1383	5.115	.1150
#1	155.0	77.62	9.810	1.935	.0831	.0036	3.949	.0403	.2762
#2	155.6	77.94	9.741	1.942	.0827	.0036	3.941	.0375	.2758

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.615**	**.0129**	**.0627**	**2.283**	**-.0127**	**.0839**	**3.401**
Stddev	.002	.0039	.0005	.011	.0014	.0006	.003
%RSD	.0755	30.00	.8213	.4725	10.83	.6928	.0915
#1	2.614	.0102	.0623	2.275	-.0136	.0843	3.403
#2	2.617	.0156	.0631	2.290	-.0117	.0835	3.399

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105110.**	**14712.**	**3789.8**	**8255.9**
Stddev	208.	13.	6.5	7.9
%RSD	.19796	.08942	.17204	.09544
#1	105260.	14721.	3785.2	8250.3
#2	104960.	14702.	3794.4	8261.5

Zoom In Zoom Out

Sample Name: mp6464-mb1conf Acquired: 4/4/2018 16:30:56 Type: Unk
Method: Accutest 2(v145) Mode: 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	**.0009**	**.0000**	**-.0002**	**.0002**	**.0005**	**.0018**	**.0004**	**.0007**	**.0004**
Stddev	.0002	.0001	.0002	.0001	.0000	.0006	.0000	.0000	.0004
%RSD	22.55	457.5	115.8	40.01	6.058	31.09	6.750	6.573	98.35
#1	.0011	-.0000	-.0000	.0003	.0005	.0014	.0004	.0006	.0001
#2	.0008	.0001	-.0003	.0002	.0005	.0022	.0004	.0007	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0026**	**-.0002**	**-.0012**	**-.0003**	**.0006**	**.0004**	**-.0011**	**.2630**
Stddev	.0001	.0000	.0004	.0007	.0003	.0026	.0011	.0012	.0012
%RSD	59.11	1.497	163.7	55.51	80.01	457.0	258.9	108.5	.4659
#1	-.0002	.0026	.0000	-.0008	-.0001	-.0013	.0013	-.0019	.2621
#2	-.0001	.0025	-.0005	-.0017	-.0005	.0024	-.0004	-.0002	.2639

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0227**	**.0694**	**-.0270**	**.0827**	**.0020**	**.0003**	**.0342**	**.0269**	**.0010**
Stddev	.0004	.0035	.0164	.0056	.0007	.0001	.0006	.0005	.0001
%RSD	1.900	5.048	60.66	6.799	36.50	48.73	1.786	2.018	7.289
#1	.0224	.0719	-.0386	.0787	.0015	.0003	.0346	.0265	.0010
#2	.0230	.0669	-.0154	.0867	.0025	.0002	.0337	.0273	.0011

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0023**	**.0009**	**.0071**	**-.0022**	**.0018**	**.0187**
Stddev	.0000	.0006	.0000	.0016	.0017	.0009	.0006
%RSD	9.605	27.92	2.290	22.36	74.88	47.18	3.042
#1	.0003	.0018	.0009	.0060	-.0034	.0024	.0191
#2	.0004	.0027	.0009	.0082	-.0010	.0012	.0183

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107640.**	**14677.**	**3854.7**	**9034.3**
Stddev	183.	26.	3.3	11.3
%RSD	.17031	.17868	.08666	.12463
#1	107510.	14659.	3852.4	9026.4
#2	107770.	14696.	3857.1	9042.3

Zoom In Zoom Out

Sample Name: mp6464-b1conf Acquired: 4/4/2018 16:35:15 Type: Unk
Method: Accutest 2(v145) 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	**2.134**	**2.073**	**2.098**	**1.994**	**2.084**	**2.022**	**2.095**	**2.069**
Stddev	.004	.002	.005	.000	.008	.002	.006	.000
%RSD	.1796	.0701	.2314	.0210	.3632	.0851	.2895	.0197
#1	2.137	2.072	2.094	1.994	2.079	2.021	2.090	2.069
#2	2.131	2.074	2.101	1.993	2.090	2.023	2.099	2.070

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2417**	**2.089**	**2.112**	**2.051**	**1.985**	**2.043**	**2.031**	**2.066**
Stddev	.0003	.005	.003	.009	.000	.004	.004	.003
%RSD	.1189	.2304	.1199	.4459	.0046	.2216	.1732	.1416
#1	.2415	2.086	2.111	2.045	1.985	2.046	2.034	2.064
#2	.2419	2.093	2.114	2.058	1.985	2.039	2.029	2.068

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.85**	**26.90**	**26.20**	**25.73**	**25.97**	**26.18**	**2.006**	**2.087**
Stddev	.02	.02	.00	.26	.02	.01	.001	.003
%RSD	.0807	.0670	.0061	1.007	.0608	.0362	.0626	.1237
#1	25.83	26.88	26.20	25.55	25.98	26.17	2.006	2.085
#2	25.86	26.91	26.20	25.91	25.96	26.19	2.007	2.089

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0622**	**2.120**	**2.107**	**2.057**	**1.987**	**2.021**	F **-.0737**	**-.0037**
Stddev	.0020	.001	.002	.006	.002	.004	.0012	.0009
%RSD	3.169	.0616	.1034	.3135	.1162	.2200	1.571	23.25
#1	.0636	2.119	2.109	2.053	1.985	2.017	-.0729	-.0043
#2	.0608	2.121	2.106	2.062	1.988	2.024	-.0745	-.0031

Elem	Li6707	P_1774
Avg	**.0001**	**2.081**
Stddev	.0001	.007
%RSD	162.2	.3246
#1	.0002	2.076
#2	-.0000	2.085

Zoom In Zoom Out

Sample Name: mp6464-b1conf Acquired: 4/4/2018 16:35:15 Type: Unk
Method: Accutest 2(v145) 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	**103030.**	**14350.**	**3721.1**	**8278.1**
Stddev	10.	31.	1.0	9.7
%RSD	.00966	.21875	.02696	.11772
#1	103040.	14372.	3721.8	8271.2
#2	103030.	14328.	3720.4	8285.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 16:39:20 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.078**	**2.017**	**2.092**	**1.974**	**2.048**	**1.992**	**2.053**	**2.054**	**.2561**
Stddev	.001	.003	.000	.002	.003	.004	.001	.001	.0003
%RSD	.0656	.1452	.0076	.1156	.1337	.2255	.0593	.0484	.1350
#1	2.077	2.015	2.092	1.976	2.046	1.995	2.052	2.054	.2564
#2	2.079	2.019	2.092	1.973	2.050	1.989	2.054	2.055	.2559
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**	**2.069**	**2.087**	**1.966**	**2.027**	**2.034**	**2.107**	**40.87**	**41.52**
Stddev	.001	.002	.002	.005	.005	.003	.001	.03	.03
%RSD	.0359	.0921	.1158	.2561	.2438	.1429	.0242	.0768	.0797
#1	2.044	2.068	2.085	1.969	2.023	2.032	2.107	40.85	41.49
#2	2.046	2.070	2.088	1.962	2.030	2.036	2.106	40.90	41.54
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	**40.79**	**40.56**	**40.75**	**41.06**	**2.035**	**2.077**	**4.921**	**2.094**	**2.063**
Stddev	.03	.09	.09	.04	.001	.003	.005	.002	.004
%RSD	.0729	.2157	.2283	.0973	.0378	.1225	.1083	.1010	.1929
#1	40.77	40.49	40.69	41.03	2.036	2.075	4.918	2.095	2.060
#2	40.82	40.62	40.82	41.09	2.035	2.079	4.925	2.092	2.066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 16:39:20 Type: QC
Method: Accutest 2(v145) 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**	**2.067**	**2.033**	**2.028**	**2.133**	**2.034**	**2.058**
Stddev	.002	.002	.001	.001	.000	.000	.005
%RSD	.0845	.1024	.0484	.0668	.0146	.0008	.2265
#1	2.057	2.069	2.034	2.027	2.133	2.034	2.055
#2	2.059	2.066	2.032	2.029	2.133	2.034	2.062
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	**103160.**	**14572.**	**3742.3**	**8189.2**
Stddev	275.	36.	.6	2.3
%RSD	.26655	.24509	.01719	.02835
#1	103360.	14597.	3742.8	8187.5
#2	102970.	14546.	3741.9	8190.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 16:43:24 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0001**	**.0004**	**.0002**	**.0004**	**.0002**	**.0004**	**.0004**
Stddev	.0002	.0001	.0001	.0001	.0006	.0004	.0000	.0002	.0001
%RSD	117.8	46.18	76.43	25.11	268.0	88.83	4.417	47.75	31.37
#1	.0003	.0001	.0002	.0005	-.0002	.0007	.0002	.0005	.0005
#2	.0000	.0003	.0000	.0003	.0006	.0002	.0002	.0003	.0003
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	**.0002**	**.0000**	**.0025**	**.0008**	**-.0008**	**-.0014**	**.0000**	**.0031**	**.0100**
Stddev	.0001	.0000	.0004	.0005	.0005	.0018	.0001	.0063	.0007
%RSD	26.67	4985.	15.12	72.38	71.37	131.7	132.2	204.3	6.813
#1	.0002	.0000	.0028	.0004	-.0004	-.0026	.0000	.0076	.0095
#2	.0003	-.0000	.0023	.0011	-.0011	-.0001	.0001	-.0014	.0104
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	F **.0125**	**-.0036**	**-.0580**	**.0250**	**.0024**	**.0008**	**.0077**	**.0005**	**.0003**
Stddev	.0018	.0118	.0474	.0064	.0012	.0004	.0001	.0001	.0001
%RSD	14.54	324.7	81.84	25.45	49.71	45.87	1.263	27.98	25.86
#1	.0138	-.0120	-.0244	.0205	.0032	.0005	.0077	.0004	.0003
#2	.0112	.0047	-.0915	.0295	.0015	.0011	.0078	.0006	.0002
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 16:43:24 Type: QC
Method: Accutest 2(v145) 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**	**.0016**	**.0003**	**-.0000**	**-.0008**	**.0021**	**-.0072**
Stddev	.0003	.0012	.0001	.0030	.0002	.0005	.0009
%RSD	253.5	72.84	44.94	44510.	23.75	23.75	12.20
#1	.0004	.0024	.0002	-.0021	-.0009	.0024	-.0065
#2	-.0001	.0008	.0004	.0021	-.0007	.0017	-.0078
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	**108310.**	**14683.**	**3887.5**	**9073.9**
Stddev	134.	41.	7.4	7.2
%RSD	.12351	.27730	.19150	.07897
#1	108220.	14712.	3882.2	9068.9
#2	108410.	14654.	3892.7	9079.0

Zoom In Zoom Out

Sample Name: jc63322-150 2 Acquired: 4/4/2018 16:47:46 Type: Unk
Method: Accutest 2(v145) Mode: 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	**.8164**	**.0049**	**.0050**	**.0579**	**.2514**	**.3682**	**3.019**	**.1415**	**.0041**
Stddev	.0025	.0002	.0001	.0003	.0001	.0000	.001	.0002	.0006
%RSD	.3086	3.744	1.597	.4556	.0269	.0008	.0208	.1551	15.93
#1	.8181	.0050	.0051	.0581	.2513	.3682	3.019	.1414	.0045
#2	.8146	.0048	.0050	.0577	.2514	.3682	3.019	.1417	.0036

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2912**	**.8910**	**.0462**	**-.0003**	**1.377**	**.0092**	**.0009**	**112.7**	**30.77**
Stddev	.0016	.0007	.0002	.0001	.002	.0006	.0004	.3	.16
%RSD	.5351	.0813	.5132	49.82	.1411	6.392	48.16	.2371	.5114
#1	.2901	.8915	.0464	-.0002	1.376	.0097	.0012	112.9	30.89
#2	.2923	.8905	.0461	-.0004	1.379	.0088	.0006	112.5	30.66

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**144.7**	**24.36**	**7.098**	**1.457**	**.0802**	**.0064**	**2.865**	**.0523**	**.1510**
Stddev	.9	.16	.020	.022	.0002	.0001	.006	.0008	.0004
%RSD	.5958	.6494	.2800	1.507	.2246	1.202	.2088	1.501	.2517
#1	145.3	24.47	7.112	1.473	.0800	.0063	2.869	.0529	.1513
#2	144.1	24.25	7.084	1.442	.0803	.0064	2.861	.0518	.1507

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**3.478**	**.0077**	**.0278**	**1.745**	**-.0089**	**.1121**	**5.217**
Stddev	.004	.0003	.0001	.010	.0009	.0003	.006
%RSD	.1029	4.019	.2582	.5506	9.586	.2881	.1215
#1	3.480	.0080	.0278	1.739	-.0083	.1123	5.212
#2	3.475	.0075	.0277	1.752	-.0095	.1118	5.221

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107820.**	**15185.**	**3923.9**	**8384.6**
Stddev	4.	64.	1.9	12.0
%RSD	.00389	.41834	.04720	.14263
#1	107820.	15141.	3925.2	8393.0
#2	107820.	15230.	3922.6	8376.1

Zoom In Zoom Out

Sample Name: mp6465-mb1conf Acquired: 4/4/2018 16:51:57 Type: Unk
Method: Accutest 2(v145) Mode: 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	**.0011**	**.0000**	**-.0000**	**.0001**	**.0003**	**.0007**	**.0006**	**.0006**	**.0007**
Stddev	.0000	.0000	.0000	.0001	.0000	.0002	.0000	.0001	.0000
%RSD	.6848	205.2	108.8	112.9	12.39	22.28	2.253	16.90	3.526
#1	.0011	-.0000	-.0000	.0000	.0003	.0006	.0006	.0007	.0007
#2	.0011	.0000	-.0001	.0002	.0003	.0008	.0005	.0005	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0002**	**.0017**	**-.0005**	**-.0012**	**-.0003**	**.0006**	**.0003**	**.0006**	**.3043**
Stddev	.0001	.0000	.0002	.0002	.0004	.0006	.0010	.0013	.0014
%RSD	45.07	2.140	45.84	16.46	141.8	95.91	329.2	217.6	.4585
#1	.0002	.0017	-.0006	-.0013	.0000	.0011	.0010	.0015	.3053
#2	.0001	.0017	-.0003	-.0011	-.0005	.0002	-.0004	-.0003	.3033

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0258**	**.1002**	**.0093**	**.0845**	**.0021**	**.0003**	**.0310**	**.0262**	**.0009**
Stddev	.0011	.0222	.0088	.0069	.0001	.0001	.0006	.0005	.0001
%RSD	4.417	22.14	93.93	8.213	3.144	29.24	1.950	2.086	7.440
#1	.0266	.1159	.0031	.0894	.0020	.0004	.0306	.0258	.0010
#2	.0250	.0845	.0155	.0796	.0021	.0002	.0314	.0266	.0009

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0009**	**.0023**	**.0004**	**.0054**	**-.0023**	**.0010**	**.0202**
Stddev	.0006	.0006	.0000	.0003	.0003	.0000	.0001
%RSD	68.70	24.28	4.187	5.030	11.63	3.064	.3773
#1	.0014	.0019	.0004	.0052	-.0021	.0009	.0203
#2	.0005	.0027	.0003	.0056	-.0025	.0010	.0201

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107060.**	**14466.**	**3831.7**	**8991.1**
Stddev	251.	76.	1.7	.9
%RSD	.23451	.52871	.04408	.00998
#1	106880.	14412.	3830.5	8990.5
#2	107240.	14520.	3832.9	8991.7

Zoom In Zoom Out

Sample Name: mp6465-b1conf Acquired: 4/4/2018 16:56:18 Type: Unk
Method: Accutest 2(v145) 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	**2.188**	**2.125**	**2.150**	**2.048**	**2.141**	**2.075**	**2.155**	**2.121**
Stddev	.004	.000	.001	.003	.005	.001	.001	.002
%RSD	.1755	.0124	.0473	.1500	.2257	.0417	.0334	.0719
#1	2.185	2.125	2.151	2.051	2.144	2.074	2.155	2.122
#2	2.191	2.125	2.149	2.046	2.138	2.075	2.156	2.120

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2477**	**2.140**	**2.167**	**2.101**	**2.036**	**2.097**	**2.082**	**2.118**
Stddev	.0004	.004	.003	.001	.007	.004	.003	.002
%RSD	.1758	.1689	.1226	.0269	.3295	.1961	.1609	.0790
#1	.2474	2.143	2.169	2.101	2.040	2.100	2.080	2.119
#2	.2481	2.138	2.165	2.101	2.031	2.094	2.085	2.116

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**26.64**	**27.70**	**27.02**	**26.65**	**26.75**	**26.96**	**2.055**	**2.145**
Stddev	.06	.02	.03	.02	.03	.00	.003	.001
%RSD	.2254	.0608	.1182	.0750	.0962	.0109	.1341	.0431
#1	26.60	27.69	26.99	26.67	26.74	26.96	2.053	2.146
#2	26.68	27.71	27.04	26.64	26.77	26.96	2.057	2.145

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0569**	**2.182**	**2.161**	**2.118**	**2.058**	**2.073**	F **-.0712**	**-.0017**
Stddev	.0007	.002	.003	.003	.002	.000	.0006	.0000
%RSD	1.297	.1011	.1494	.1252	.0728	.0050	.8914	1.590
#1	.0574	2.184	2.158	2.120	2.057	2.073	-.0708	-.0017
#2	.0563	2.180	2.163	2.116	2.059	2.073	-.0717	-.0018

Elem	Li6707	P_1774
Avg	**.0000**	**2.135**
Stddev	.0010	.003
%RSD	41220.	.1560
#1	-.0007	2.132
#2	.0007	2.137

Zoom In Zoom Out

Sample Name: mp6465-b1conf Acquired: 4/4/2018 16:56:18 Type: Unk
Method: Accutest 2(v145) 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	**102650.**	**14192.**	**3714.5**	**8252.2**
Stddev	111.	17.	.1	7.3
%RSD	.10851	.11939	.00190	.08799
#1	102570.	14180.	3714.5	8247.0
#2	102730.	14204.	3714.6	8257.3

Zoom In Zoom Out

Sample Name: mp6465-s1 Acquired: 4/4/2018 17:00:22 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**3.013**	**1.942**	**2.012**	**1.929**	**2.120**	**2.324**	**10.23**	**2.067**	**.2370**
Stddev	.012	.003	.003	.004	.004	.006	.00	.001	.0010
%RSD	.3861	.1516	.1286	.2162	.1788	.2425	.0146	.0497	.4340
#1	3.021	1.944	2.011	1.932	2.123	2.320	10.23	2.068	.2377
#2	3.005	1.940	2.014	1.926	2.118	2.328	10.23	2.067	.2363

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.233**	**3.015**	**2.013**	**1.850**	**3.875**	**1.911**	**1.414**	**125.9**	**82.56**
Stddev	.003	.001	.000	.006	.006	.006	.001	.3	.38
%RSD	.1343	.0291	.0161	.3050	.1478	.3178	.0556	.2552	.4624
#1	2.235	3.015	2.013	1.854	3.871	1.907	1.413	126.2	82.83
#2	2.231	3.014	2.013	1.846	3.879	1.916	1.414	125.7	82.29

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**406.4**	**46.32**	**34.96**	**27.10**	**1.907**	**1.939**	**4.276**	**2.088**	**2.253**
Stddev	1.1	.00	.17	.09	.001	.003	.010	.003	.004
%RSD	.2652	.0039	.4748	.3209	.0616	.1778	.2267	.1605	.1717
#1	407.1	46.32	35.08	27.16	1.906	1.936	4.269	2.090	2.256
#2	405.6	46.32	34.84	27.04	1.908	1.941	4.282	2.085	2.251

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.430**	**1.374**	**1.902**	**11.12**	**-.0165**	**.1671**	**8.474**
Stddev	.002	.001	.000	.02	.0029	.0013	.015
%RSD	.0549	.0411	.0144	.2154	17.57	.7855	.1731
#1	4.431	1.374	1.902	11.14	-.0186	.1662	8.484
#2	4.428	1.375	1.902	11.11	-.0145	.1680	8.464

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104090.**	**14659.**	**3779.8**	**8359.3**
Stddev	266.	79.	6.1	1.9
%RSD	.25531	.54208	.16103	.02239
#1	104280.	14603.	3784.1	8360.7
#2	103900.	14715.	3775.5	8358.0

Zoom In Zoom Out

Sample Name: mp6465-s2 Acquired: 4/4/2018 17:04:23 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.928**	**1.919**	**1.985**	**1.925**	**2.126**	**2.421**	**5.180**	**2.074**	**.2323**
Stddev	.004	.005	.001	.001	.088	.104	.209	.004	.0053
%RSD	.1436	.2566	.0336	.0514	4.120	4.310	4.035	.2146	2.292
#1	2.931	1.922	1.985	1.926	2.188	2.495	5.328	2.077	.2361
#2	2.926	1.915	1.986	1.924	2.064	2.347	5.033	2.071	.2286

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.219**	**3.265**	**1.983**	**1.859**	**4.958**	**1.890**	**1.358**	**128.0**	**79.21**
Stddev	.093	.006	.001	.007	.000	.006	.002	.3	.08
%RSD	4.195	.1977	.0694	.3861	.0082	.3211	.1100	.2613	.0962
#1	2.285	3.270	1.982	1.854	4.957	1.894	1.359	128.2	79.26
#2	2.153	3.261	1.984	1.864	4.958	1.886	1.357	127.8	79.15

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**210.2**	**40.63**	**35.00**	**26.59**	**1.897**	**1.903**	**4.743**	**2.174**	**2.231**
Stddev	.7	.02	.06	.04	.004	.001	.002	.002	.006
%RSD	.3188	.0398	.1757	.1341	.2388	.0655	.0358	.0993	.2792
#1	210.7	40.64	35.04	26.62	1.901	1.903	4.744	2.176	2.236
#2	209.8	40.62	34.95	26.57	1.894	1.902	4.742	2.173	2.227

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.502**	**1.290**	**1.884**	**13.67**	**-.0110**	**.1615**	**8.699**
Stddev	.186	.003	.079	.01	.0005	.0014	.009
%RSD	4.128	.2432	4.203	.0423	4.462	.8493	.1062
#1	4.633	1.288	1.940	13.67	-.0114	.1624	8.692
#2	4.370	1.292	1.828	13.67	-.0107	.1605	8.705

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104500.**	**14744.**	**3806.5**	**8366.1**
Stddev	3436.	21.	2.6	7.8
%RSD	3.2875	.14409	.06734	.09278
#1	102070.	14729.	3804.7	8360.6
#2	106930.	14759.	3808.3	8371.6

Zoom In Zoom Out

Sample Name: jc63292-2 Acquired: 4/4/2018 17:08:26 Type: Unk
Method: Accutest 2(v145) 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	**.6488**	**.0043**	**.0016**	**.0553**	**.1828**	**.0905**	**2.645**	**.1156**
Stddev	.0004	.0000	.0004	.0002	.0001	.0001	.001	.0000
%RSD	.0682	.7354	22.61	.2832	.0804	.1369	.0467	.0109
#1	.6492	.0042	.0014	.0552	.1827	.0904	2.644	.1156
#2	.6485	.0043	.0019	.0554	.1829	.0905	2.646	.1156

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0023**	**.2970**	**.3762**	**.0566**	**-.0012**	**.1072**	**.0076**	**.0092**
Stddev	.0004	.0001	.0007	.0004	.0027	.0000	.0001	.0028
%RSD	17.37	.0196	.1808	.7021	228.5	.0419	.9431	30.92
#1	.0020	.2969	.3757	.0569	.0007	.1071	.0077	.0072
#2	.0026	.2970	.3767	.0563	-.0031	.1072	.0076	.0112

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**163.0**	**7.412**	**181.3**	**20.80**	**7.649**	**6.649**	**.0262**	**.0123**
Stddev	.1	.008	.2	.00	.005	.008	.0010	.0001
%RSD	.0425	.1131	.1041	.0045	.0648	.1203	3.763	.5884
#1	163.0	7.418	181.2	20.80	7.653	6.655	.0255	.0122
#2	162.9	7.406	181.5	20.81	7.646	6.643	.0269	.0123

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.536**	**.0344**	**.0717**	**3.142**	**.0138**	**.0860**	**.3338**	W **-.0151**
Stddev	.002	.0002	.0001	.003	.0002	.0003	.0011	.0022
%RSD	.0929	.6253	.1557	.0863	1.663	.3888	.3383	14.77
#1	2.537	.0342	.0718	3.140	.0136	.0863	.3346	-.0135
#2	2.534	.0345	.0716	3.143	.0139	.0858	.3330	-.0167

Elem	Li6707	P_1774
Avg	**.1160**	**2.585**
Stddev	.0009	.003
%RSD	.7926	.1024
#1	.1153	2.587
#2	.1166	2.583

Zoom In Zoom Out

Sample Name: jc63292-2 Acquired: 4/4/2018 17:08:26 Type: Unk
Method: Accutest 2(v145) 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	**105900.**	**14828.**	**3904.3**	**8369.7**
Stddev	200.	37.	2.0	3.5
%RSD	.18844	.24906	.05123	.04188
#1	105760.	14854.	3902.9	8367.3
#2	106040.	14802.	3905.7	8372.2

Zoom In Zoom Out

Sample Name: jc63292-3 Acquired: 4/4/2018 17:12:38 Type: Unk
Method: Accutest 2(v145) 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	**.6603**	**.0067**	**.0025**	**.0855**	**.2059**	**.1400**	W **9.143**	**.1592**
Stddev	.0014	.0000	.0004	.0000	.0006	.0006	.002	.0002
%RSD	.2076	.3985	14.65	.0068	.3006	.4392	.0190	.1297
#1	.6613	.0067	.0023	.0855	.2055	.1395	9.144	.1590
#2	.6594	.0067	.0028	.0855	.2063	.1404	9.142	.1593

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0035**	**.3759**	**.4824**	**.0361**	**-.0013**	**.0983**	**.0130**	**-.0045**
Stddev	.0003	.0007	.0008	.0009	.0004	.0011	.0007	.0000
%RSD	7.560	.1881	.1655	2.480	32.94	1.105	5.652	.0916
#1	.0036	.3764	.4818	.0355	-.0010	.0991	.0124	-.0044
#2	.0033	.3754	.4829	.0367	-.0016	.0976	.0135	-.0045

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**168.7**	**9.073**	**253.4**	**33.17**	**8.479**	**1.490**	**.0253**	**.0052**
Stddev	.0	.037	.3	.02	.007	.000	.0001	.0001
%RSD	.0255	.4134	.1121	.0546	.0805	.0235	.5550	2.451
#1	168.7	9.046	253.6	33.18	8.484	1.489	.0252	.0053
#2	168.7	9.099	253.2	33.15	8.474	1.490	.0254	.0051

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.712**	**.0323**	**.0686**	**3.321**	**.0074**	**.0622**	**.8591**	W **-.0175**
Stddev	.003	.0000	.0001	.004	.0006	.0001	.0012	.0005
%RSD	.1058	.0250	.1546	.1350	8.514	.2321	.1370	2.666
#1	2.714	.0323	.0687	3.318	.0078	.0623	.8583	-.0171
#2	2.710	.0323	.0686	3.324	.0069	.0621	.8599	-.0178

Elem	Li6707	P_1774
Avg	**.1984**	**2.785**
Stddev	.0017	.001
%RSD	.8395	.0280
#1	.1972	2.785
#2	.1995	2.784

Zoom In Zoom Out

Sample Name: jc63292-3 Acquired: 4/4/2018 17:12:38 Type: Unk
Method: Accutest 2(v145) 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	**106030.**	**14773.**	**3862.5**	**8363.2**
Stddev	45.	5.	5.2	7.7
%RSD	.04245	.03636	.13478	.09191
#1	106070.	14777.	3866.2	8368.7
#2	106000.	14769.	3858.8	8357.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 17:16:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.090**	**2.019**	**2.080**	**1.975**	**2.042**	**1.981**	**2.057**	**2.054**	**.2553**
Stddev	.000	.001	.002	.005	.004	.002	.002	.000	.0004
%RSD	.0192	.0324	.1029	.2757	.1740	.1073	.0909	.0018	.1559
#1	2.090	2.019	2.082	1.979	2.040	1.983	2.056	2.054	.2551
#2	2.089	2.020	2.079	1.971	2.045	1.980	2.059	2.054	.2556
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	**2.036**	**2.076**	**2.073**	**1.951**	**2.034**	**2.013**	**2.079**	**40.75**	**41.69**
Stddev	.001	.001	.002	.007	.002	.000	.002	.03	.05
%RSD	.0301	.0602	.0749	.3508	.1009	.0219	.0813	.0796	.1302
#1	2.035	2.076	2.072	1.955	2.035	2.013	2.080	40.77	41.73
#2	2.036	2.075	2.075	1.946	2.032	2.013	2.078	40.73	41.65
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**	**40.87**	**41.06**	**41.19**	**2.018**	**2.070**	**4.883**	**2.088**	**2.068**
Stddev	.01	.04	.00	.02	.000	.002	.008	.006	.000
%RSD	.0277	.0978	.0011	.0510	.0063	.1124	.1686	.2730	.0084
#1	40.94	40.84	41.06	41.20	2.018	2.071	4.889	2.092	2.068
#2	40.95	40.90	41.06	41.17	2.018	2.068	4.877	2.084	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: 4/4/2018 17:16:58 Type: QC
Method: Accutest 2(v145) 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**	**2.062**	**2.029**	**2.006**	**2.110**	**2.039**	**2.037**
Stddev	.000	.003	.001	.003	.001	.001	.005
%RSD	.0188	.1535	.0393	.1408	.0578	.0348	.2340
#1	2.057	2.064	2.028	2.004	2.109	2.040	2.040
#2	2.057	2.060	2.029	2.007	2.110	2.039	2.034
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	**103090.**	**14356.**	**3764.0**	**8208.5**
Stddev	248.	36.	1.2	.0
%RSD	.24049	.25019	.03273	.00034
#1	103270.	14330.	3764.9	8208.5
#2	102910.	14381.	3763.1	8208.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 17:21:02 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**-.0000**	**.0004**	**.0004**	**.0004**	**.0001**	**.0007**	**.0008**
Stddev	.0001	.0001	.0000	.0001	.0004	.0003	.0000	.0001	.0002
%RSD	77.53	29.61	87.57	36.31	119.4	76.03	21.40	20.42	19.98
#1	-.0000	.0002	-.0000	.0003	.0007	.0006	.0001	.0008	.0007
#2	-.0002	.0003	-.0000	.0005	.0001	.0002	.0001	.0006	.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	**.0000**	**-.0001**	**.0003**	**.0013**	**-.0004**	**.0013**	**-.0004**	**-.0032**	**.0122**
Stddev	.0002	.0000	.0010	.0009	.0001	.0018	.0008	.0030	.0021
%RSD	1351.	40.96	303.1	67.82	35.80	139.7	194.6	93.38	17.33
#1	.0002	-.0002	-.0004	.0020	-.0003	.0000	.0002	-.0053	.0107
#2	-.0001	-.0001	.0010	.0007	-.0005	.0025	-.0010	-.0011	.0137
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	**.0071**	**.0369**	**-.0398**	**.0116**	**.0021**	**.0005**	**.0067**	**-.0001**	**.0002**
Stddev	.0071	.0095	.0110	.0006	.0002	.0001	.0003	.0007	.0000
%RSD	100.4	25.67	27.52	5.283	7.515	16.58	3.871	1018.	10.52
#1	.0020	.0436	-.0476	.0120	.0022	.0006	.0065	-.0005	.0003
#2	.0121	.0302	-.0321	.0112	.0020	.0005	.0069	.0004	.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: 4/4/2018 17:21:02 Type: QC
Method: Accutest 2(v145) 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**	**.0010**	**.0002**	**-.0013**	**-.0016**	**.0027**	**-.0090**
Stddev	.0003	.0012	.0001	.0025	.0000	.0005	.0003
%RSD	63.52	119.3	45.40	188.6	2.481	16.98	2.800
#1	.0007	.0018	.0002	-.0030	-.0016	.0024	-.0089
#2	.0003	.0002	.0003	.0004	-.0016	.0030	-.0092
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	**108280.**	**14626.**	**3914.3**	**9146.3**
Stddev	78.	39.	5.4	3.6
%RSD	.07206	.26590	.13718	.03929
#1	108330.	14653.	3918.1	9143.7
#2	108220.	14598.	3910.5	9148.8

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 17:25:25 Type: QC
Method: Accutest 2(v145) 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**	**.0032**	**.0022**	F **.0004**	**.0034**	**.0048**
Stddev	.0000	.0000	.0001	.0003	.0003	.0003	.0000	.0003
%RSD	.8910	3.788	7.367	9.181	14.52	97.44	1.110	7.174
#1	.0044	.0011	.0010	.0034	.0024	.0001	.0034	.0050
#2	.0043	.0011	.0011	.0030	.0020	.0006	.0034	.0046
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 **.0005**	**.0019**	**.0120**	**.0038**	**.0026**	F **-.0005**	**.0054**	F **-.0005**
Stddev	.0005	.0003	.0000	.0018	.0000	.0001	.0008	.0002
%RSD	92.93	13.52	.3057	48.17	1.663	26.14	14.29	47.74
#1	.0008	.0018	.0121	.0025	.0026	-.0006	.0049	-.0003
#2	.0002	.0021	.0120	.0051	.0026	-.0004	.0060	-.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	**.1073**	**1.139**	**.0069**	**.1153**	**2.109**	**1.108**	F **.0013**	**.0001**
Stddev	.0050	.004	.0025	.0149	.026	.001	.0005	.0002
%RSD	4.671	.3727	35.65	12.95	1.232	.1265	34.99	337.2
#1	.1038	1.142	.0052	.1047	2.127	1.107	.0016	-.0001
#2	.1109	1.136	.0086	.1258	2.090	1.109	.0010	.0002
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: 4/4/2018 17:25:25 Type: QC
Method: Accutest 2(v145) 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	**-.0004**	**.0008**	**.0000**	**-.0002**	F **.0001**	F **.0001**	F **.0009**	F **-.0028**
Stddev	.0001	.0008	.0000	.0001	.0008	.0001	.0031	.0000
%RSD	18.61	92.99	85.57	48.37	1077.	39.57	330.2	.3194
#1	-.0003	.0014	.0000	-.0002	-.0005	.0001	.0031	-.0028
#2	-.0004	.0003	.0000	-.0001	.0006	.0002	-.0012	-.0028
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 **.0015**	F **-.0095**
Stddev	.0013	.0000
%RSD	87.43	.3723
#1	.0006	-.0095
#2	.0024	-.0095
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	**107660.**	**14433.**	**3874.0**	**9027.4**
Stddev	307.	76.	9.6	16.4
%RSD	.28483	.52326	.24667	.18135
#1	107880.	14380.	3867.3	9015.8
#2	107440.	14486.	3880.8	9038.9

Zoom In Zoom Out

Sample Name: cri Acquired: 4/4/2018 17:29:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2119**	**.0020**	**.0032**	**.0488**	**.0107**	**.0109**	**.0164**	**.0106**	**.0054**
Stddev	.0003	.0000	.0002	.0001	.0002	.0000	.0000	.0003	.0001
%RSD	.1184	1.637	4.722	.2936	1.477	.4150	.1754	2.921	1.531
#1	.2118	.0021	.0033	.0487	.0108	.0108	.0164	.0104	.0053
#2	.2121	.0020	.0031	.0489	.0106	.0109	.0164	.0109	.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	**.0514**	**.0211**	**.0088**	**.0106**	**.0027**	**.0122**	**.0059**	**.1993**	**5.398**
Stddev	.0001	.0001	.0003	.0001	.0004	.0010	.0002	.0002	.0010	.008
%RSD	.2641	.3005	3.582	1.007	15.17	8.243	3.175	.5252	.1466
#1	.0515	.0210	.0086	.0105	.0030	.0129	.0061	.1985	5.403
#2	.0513	.0211	.0091	.0107	.0024	.0115	.0058	.2000	5.392
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	**.1105**	**5.220**	**5.193**	**5.255**	**.1021**	**.0218**	**.1704**	**.0115**	**.0104**
Stddev	.0083	.068	.032	.009	.0010	.0002	.0001	.0002	.0002
%RSD	7.471	1.305	.6097	.1731	1.022	.6900	.0309	1.657	1.535
#1	.1163	5.172	5.171	5.249	.1014	.0217	.1703	.0114	.0105
#2	.1046	5.268	5.216	5.261	.1029	.0219	.1704	.0117	.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: 4/4/2018 17:29:47 Type: QC
Method: Accutest 2(v145) 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	**.0104**	**.0544**	F **.0175**	**.0491**	**.0218**	**.0532**	**.0428**
Stddev	.0002	.0006	.0006	.0009	.0006	.0014	.0021
%RSD	1.681	1.031	3.630	1.811	2.933	2.626	4.878
#1	.0105	.0548	.0180	.0497	.0214	.0541	.0413
#2	.0103	.0540	.0171	.0485	.0223	.0522	.0443
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	**106630.**	**14424.**	**3847.3**	**8889.3**
Stddev	125.	69.	1.4	1.8
%RSD	.11737	.47833	.03704	.02064
#1	106540.	14472.	3848.3	8890.6
#2	106710.	14375.	3846.3	8888.0

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/4/2018 17:34:06 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	**.0001**	**-.0006**	**-.0027**	**.0031**	**-.0033**	**-.0026**	**.0029**
Stddev	.0000	.0001	.0004	.0006	.0005	.0010	.0002	.0005	.0023
%RSD	17.03	30.63	258.2	94.91	18.47	34.18	6.046	18.37	79.13
#1	-.0003	.0002	-.0001	-.0002	-.0023	.0023	-.0035	-.0022	.0013
#2	-.0002	.0003	.0004	-.0010	-.0030	.0038	-.0032	-.0029	.0045
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	**-.0009**	**.0041**	**.0000**	**-.0007**	**.0011**	**-.0007**	**-.0040**	**517.8**	**398.3**
Stddev	.0003	.0003	.0005	.0016	.0038	.0043	.0018	16.0	.6
%RSD	29.60	6.465	1980.	224.2	345.9	657.4	43.87	3.082	.1381
#1	-.0010	.0043	-.0003	-.0019	-.0016	-.0037	-.0053	506.5	397.9
#2	-.0007	.0039	.0004	.0004	.0038	.0024	-.0028	529.1	398.7
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	**189.8**	**505.4**	**-.5102**	**.0229**	**-.0014**	**-.0014**	**-.0164**	**-.0014**	**.0044**
Stddev	6.1	16.4	.0333	.0113	.0014	.0003	.0017	.0002	.0004
%RSD	3.190	3.244	6.527	49.34	98.26	23.47	10.09	17.49	9.641
#1	185.5	493.8	-.4866	.0308	-.0004	-.0016	-.0152	-.0012	.0041
#2	194.1	517.0	-.5337	.0149	-.0024	-.0012	-.0176	-.0016	.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: 4/4/2018 17:34:06 Type: QC
Method: Accutest 2(v145) 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	**-.0009**	**.0085**	**.0022**	**.0549**	**-.0046**	**-.0095**	**-.0175**
Stddev	.0002	.0001	.0002	.0090	.0008	.0013	.0024
%RSD	21.53	1.091	9.708	16.35	17.97	13.75	13.50
#1	-.0008	.0085	.0020	.0485	-.0052	-.0104	-.0192
#2	-.0010	.0086	.0023	.0612	-.0040	-.0086	-.0158
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	**94082.**	**14198.**	**3462.1**	**7176.7**
Stddev	32.	425.	10.3	11.7
%RSD	.03414	2.9948	.29805	.16363
#1	94059.	14499.	3469.4	7185.0
#2	94104.	13898.	3454.8	7168.4

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/4/2018 17:38:32 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5328**	**.5004**	**1.087**	**.4920**	**.4957**	**.5234**	**.5085**	**1.011**	**1.069**
Stddev	.0007	.0004	.002	.0007	.0019	.0013	.0003	.000	.001
%RSD	.1377	.0796	.2133	.1403	.3930	.2469	.0654	.0311	.0774
#1	.5323	.5007	1.089	.4915	.4944	.5225	.5087	1.011	1.068
#2	.5333	.5001	1.085	.4925	.4971	.5243	.5082	1.012	1.069
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	**.5056**	**.9967**	**1.106**	**1.027**	**.9953**	**1.035**	**1.110**	**527.3**	**404.8**
Stddev	.0009	.0011	.001	.004	.0016	.004	.002	5.8	2.2
%RSD	.1747	.1121	.1144	.3965	.1566	.3612	.2190	1.101	.5429
#1	.5063	.9974	1.107	1.025	.9964	1.032	1.112	531.4	403.2
#2	.5050	.9959	1.105	1.030	.9942	1.038	1.108	523.2	406.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**190.6**	**521.8**	**-.4556**	**.0338**	**.5031**	**.5063**	**.4757**	**.4863**	**.5483**
Stddev	.0	.1	.0269	.0046	.0012	.0004	.0016	.0004	.0010
%RSD	.0023	.0234	5.894	13.61	.2460	.0812	.3428	.0828	.1851
#1	190.6	521.7	-.4366	.0305	.5040	.5061	.4768	.4860	.5476
#2	190.6	521.8	-.4746	.0370	.5022	.5066	.4745	.4865	.5490
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: 4/4/2018 17:38:32 Type: QC
Method: Accutest 2(v145) 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	**.5275**	**.5065**	**.5300**	**.5693**	**.5475**	**.5196**	**.5378**
Stddev	.0023	.0028	.0025	.0011	.0025	.0005	.0023
%RSD	.4450	.5603	.4632	.1908	.4592	.0943	.4312
#1	.5258	.5085	.5283	.5685	.5457	.5192	.5362
#2	.5291	.5045	.5318	.5701	.5492	.5199	.5395
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	**93782.**	**13835.**	**3448.2**	**7157.6**
Stddev	171.	31.	4.9	5.5
%RSD	.18255	.22404	.14197	.07675
#1	93903.	13813.	3444.8	7153.7
#2	93661.	13857.	3451.7	7161.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 17:42:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.083**	**2.023**	**2.088**	**1.973**	**2.033**	**1.981**	**2.051**	**2.054**	**.2538**
Stddev	.008	.000	.002	.004	.001	.004	.002	.002	.0005
%RSD	.3837	.0050	.0997	.1898	.0412	.2244	.0709	.1044	.1855
#1	2.077	2.023	2.086	1.970	2.034	1.978	2.050	2.052	.2535
#2	2.088	2.023	2.089	1.975	2.033	1.984	2.052	2.055	.2542
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	**2.030**	**2.076**	**2.083**	**1.953**	**2.035**	**2.022**	**2.095**	**40.80**	**41.62**
Stddev	.000	.006	.003	.002	.006	.003	.001	.07	.07
%RSD	.0149	.2967	.1351	.0756	.2788	.1452	.0636	.1806	.1609
#1	2.030	2.071	2.081	1.952	2.031	2.020	2.096	40.85	41.58
#2	2.029	2.080	2.085	1.954	2.039	2.025	2.094	40.75	41.67
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	**41.06**	**40.99**	**40.92**	**41.14**	**2.017**	**2.076**	**4.891**	**2.093**	**2.071**
Stddev	.06	.03	.12	.04	.002	.003	.005	.001	.002
%RSD	.1572	.0727	.2877	.0855	.1097	.1645	.1023	.0325	.0825
#1	41.01	40.97	40.84	41.12	2.015	2.074	4.887	2.092	2.069
#2	41.10	41.01	41.00	41.17	2.018	2.079	4.894	2.093	2.072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 17:42:47 Type: QC
Method: Accutest 2(v145) 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**	**2.063**	**2.024**	**2.010**	**2.120**	**2.027**	**2.056**
Stddev	.002	.001	.002	.001	.001	.008	.004
%RSD	.0997	.0611	.1037	.0330	.0428	.3836	.1884
#1	2.052	2.063	2.023	2.011	2.120	2.022	2.053
#2	2.054	2.062	2.026	2.010	2.119	2.033	2.058
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	**103330.**	**14267.**	**3759.5**	**8209.4**
Stddev	66.	16.	4.5	12.3
%RSD	.06350	.11024	.11997	.14930
#1	103280.	14256.	3762.7	8218.0
#2	103380.	14278.	3756.4	8200.7

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 17:46:51 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: 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**	F **.0002**	**-.0000**	**.0006**	**.0001**	**.0005**	**.0002**	**.0007**	**.0002**
Stddev	.0001	.0001	.0001	.0001	.0002	.0000	.0001	.0001	.0000
%RSD	516.5	39.29	504.9	11.86	266.9	8.553	35.17	8.496	18.49
#1	-.0001	.0001	.0001	.0006	-.0001	.0004	.0002	.0007	.0003
#2	.0001	.0003	-.0001	.0007	.0002	.0005	.0003	.0006	.0002
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	**.0004**	**.0001**	**.0013**	**.0016**	**.0000**	**-.0007**	**.0009**	**-.0014**	**.0159**
Stddev	.0003	.0000	.0007	.0003	.0006	.0018	.0008	.0035	.0026
%RSD	83.28	67.82	53.48	20.02	1246.	259.9	91.44	258.2	16.18
#1	.0006	.0001	.0018	.0013	-.0004	-.0020	.0014	-.0038	.0177
#2	.0002	.0000	.0008	.0018	.0005	.0006	.0003	.0011	.0141
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	**.0090**	**.0207**	**-.0410**	**.0053**	**.0018**	**.0007**	**.0055**	**-.0004**	**.0002**
Stddev	.0082	.0006	.0004	.0021	.0003	.0000	.0002	.0007	.0001
%RSD	91.03	2.934	.8569	40.06	18.07	3.554	2.946	162.3	69.81
#1	.0032	.0212	-.0408	.0038	.0020	.0007	.0054	-.0009	.0003
#2	.0147	.0203	-.0413	.0068	.0015	.0007	.0056	.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									

Inst QC: MA44142

Zoom In
Zoom Out

Sample Name: ccb Acquired: 4/4/2018 17:46:51 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0006**	**.0003**	**-.0025**	**.0004**	**.0022**	**-.0095**
Stddev	.0001	.0001	.0002	.0003	.0001	.0004	.0003
%RSD	110.2	10.99	54.80	11.83	27.36	19.98	3.634
#1	.0001	.0006	.0004	-.0028	.0003	.0025	-.0097
#2	.0000	.0007	.0002	-.0023	.0005	.0019	-.0092
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	**108280.**	**14524.**	**3908.2**	**9129.8**
Stddev	252.	25.	5.1	14.4
%RSD	.23234	.17478	.12989	.15752
#1	108100.	14506.	3911.8	9140.0
#2	108460.	14542.	3904.6	9119.7

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	-0.000006	0.000000	No
			Mo	-0.000030	0.000000	No
			Ti	-0.001300	0.000000	No
			Mn	-0.000018	0.000000	No
			Ni	0.000011	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	0.007093	0.000000	No
			Ni	-0.000320	0.000000	No
			Fe	0.000001	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000054	0.000000	No
			Co	-0.001354	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	-0.000226	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	-0.000049	0.000000	No
			Mo	-0.001930	0.000000	No
			Ni	0.000256	0.000000	No
			Ti	0.001776	0.000000	No
			W	0.000160	0.000000	No
			Cd	0.000012	0.000000	No
			Ca	-0.000003	0.000000	No
			As	-0.000047	0.000000	No
Cr 267.716 {126}	☒	11	Mn	0.000200	0.000000	No
			Mo	-0.000027	0.000000	No
			Fe	-0.000002	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	-0.000466	0.000000	No
			Mo	0.000812	0.000000	No
			Ti	0.000030	0.000000	No
			Fe	-0.000184	0.000000	No
			Al	0.000002	0.000000	No
			Sn	0.000403	0.000000	No
			Co	-0.001458	0.000000	No
			Zr	0.000030	0.000000	No
			Si	-0.000002	0.000000	No
			Mn	-0.000080	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	-0.010000	0.000000	No
Mn 257.610 {131}	☒	6	Fe	-0.000033	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	0.000035	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	0.000040	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	0.000119	0.000000	No
			Mo	-0.000054	0.000000	No
			Ti	-0.000381	0.000000	No
			Fe	-0.000251	0.000000	No
			V	-0.002173	0.000000	No
			Zn	0.000057	0.000000	No
			Ca	-0.000002	0.000000	No
			Al	-0.000002	0.000000	No
			Mg	-0.000004	0.000000	No
			Ba	0.000010	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.007400	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	-0.012800	0.000000	No
			Fe	0.000010	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.004218	0.000000	No
			Mn	-0.001560	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	0.020000	0.000000	No
			Ti	0.000580	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	As 189.042 {478}	☒	23	Al	0.000008	0.000000	No
				Fe	-0.000001	0.000000	No
				Ca	0.000000	0.000000	No
				Mn	-0.000156	0.000000	No
				Mo	0.001270	0.000000	No
				Cr	0.000639	0.000000	No
				V	0.000198	0.000000	No
				Co	-0.000191	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	-0.000048	0.000000	No
				Zn	0.000070	0.000000	No
				Sr	-0.000080	0.000000	No
				Zr	0.000074	0.000000	No
				Ti	0.000076	0.000000	No
				Cu	0.000100	0.000000	No
				K	0.000000	0.000000	No
				B	-0.000030	0.000000	No
				S	-0.000006	0.000000	No
	Tl 190.856 {477}	☒	24	Cr	0.000162	0.000000	No
				Mo	-0.000400	0.000000	No
				Al	-0.000000	0.000000	No
				Fe	-0.000037	0.000000	No
				V	-0.001590	0.000000	No
				Mn	0.000650	0.000000	No
				Si	-0.000075	0.000000	No
				Ca	-0.000002	0.000000	No
				Ti	-0.000550	0.000000	No
				Mg	-0.000003	0.000000	No
				Co	0.002821	0.000000	No
				Sr	-0.000050	0.000000	No
				B	-0.000268	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	-0.020000	0.000000	No
				Sn	0.000020	0.000000	No
				Se	0.000040	0.000000	No
				S	-0.000010	0.000000	No
				K	0.000060	0.000000	No
				P	0.000000	0.000000	No
	Pb 220.353 {453}	☒	23	Al	-0.000146	0.000000	No
				Fe	0.000032	0.000000	No
				Ca	0.000000	0.000000	No
				Mn	0.000106	0.000000	No
				Zn	-0.000036	0.000000	No
				Mo	-0.001200	0.000000	No
				Cu	0.000380	0.000000	No
				V	-0.000147	0.000000	No
				Co	-0.000892	0.000000	No
				Ti	-0.000380	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	0.000001	0.000000	No
			Cd	0.000476	0.000000	No
			Cr	-0.000214	0.000000	No
			Zr	-0.000300	0.000000	No
			Ni	0.000177	0.000000	No
			S	-0.000007	0.000000	No
			Se	0.000036	0.000000	No
			As	-0.000021	0.000000	No
Se 196.090 {472}	☒	22	Al	0.000008	0.000000	No
			Ca	-0.000002	0.000000	No
			Mn	0.000691	0.000000	No
			Mo	0.000277	0.000000	No
			Fe	-0.000164	0.000000	No
			Co	0.000065	0.000000	No
			V	0.000476	0.000000	No
			Sr	-0.000008	0.000000	No
			Cu	-0.000150	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000072	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	-0.000001	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000280	0.000000	No
			Ba	0.000180	0.000000	No
			Mg	0.000004	0.000000	No
			Cr	-0.000113	0.000000	No
			S	0.000010	0.000000	No
Sb 206.833 {463}	☒	14	Fe	0.000001	0.000000	No
			Al	0.000004	0.000000	No
			Ca	-0.000011	0.000000	No
			Ni	-0.000225	0.000000	No
			Cr	0.013146	0.000000	No
			V	-0.002950	0.000000	No
			Zn	-0.000200	0.000000	No
			Mo	0.000490	0.000000	No
			Ti	0.000365	0.000000	No
			Sn	-0.009200	0.000000	No
			Mg	0.000002	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	0.024500	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	0.024406	0.000000	No
			Ti	0.003216	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	-0.000784	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	0.040490	0.000000	No
Sn 189.989 {478}	☒	6	Ti	-0.003408	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	0.001269	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}	☒	8	Mo	0.000483	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	0.000700	0.000000	No
			W	0.000000	0.000000	No
S 182.034 {485}	☒	8	Ca	0.000051	0.000000	No
			Mo	-0.000884	0.000000	No
			Al	-0.000084	0.000000	No
			Fe	0.000007	0.000000	No
			Mn	0.003900	0.000000	No
			W	0.000000	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Zn	-0.001538	0.000000	No
				Cr	-0.000200	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	0.000090	0.000000	No
				Cr	0.001500	0.000000	No
				Ti	-0.001100	0.000000	No
	Li 670.784 { 50}	☒	1	Ca	0.000056	0.000000	No
	P 177.495 {490}	☒	2	Mn	-0.003328	0.000000	No
				Ca	0.000044	0.000000	No

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
	Ba 455.403 { 74}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.001905	1.946771	0.000000	1.000000
	Be 313.042 {108}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.000098	1.236782	0.000000	1.000000
	Cd 228.802 {448}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.000266	0.827303	0.000000	1.000000
	Co 228.616 {448}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	-0.000376	0.414741	0.000000	1.000000
	Cr 267.716 {126}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.000005	0.055859	0.000000	1.000000
	Cu 324.754 {104}2	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.002264	0.159656	0.000000	1.000000
	Mn 257.610 {131}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.000026	0.314655	0.000000	1.000000
	Ni 231.604 {446}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	-0.000159	0.318214	0.000000	1.000000
	Ag 328.068 {103}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000103	0.089516	0.000000	1.000000
	V 292.402 {115}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000024	0.092865	0.000000	1.000000
	Zn 206.200 {464}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000516	1.112551	0.000000	1.000000
	As 189.042 {478}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000166	0.120224	0.000000	1.000000
	Tl 190.856 {477}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000105	0.065087	0.000000	1.000000
	Pb 220.353 {453}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000243	0.145466	0.000000	1.000000
	Se 196.090 {472}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000323	0.091314	0.000000	1.000000
	Sb 206.833 {463}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000102	0.169509	0.000000	1.000000
	Al 396.152 { 85}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.001470	0.033580	0.000000	1.000000
	Ca 317.933 {106}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.003702	0.043409	0.000000	1.000000
	Fe 259.940 {130}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000025	0.016352	0.000000	1.000000
	Mg 279.079 {121}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000005	0.003093	0.000000	1.000000
	K 766.490 { 44}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.001497	0.033539	0.000000	1.000000
	Na 589.592 { 57}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000435	0.092928	0.000000	1.000000
	B 208.959 {462}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000092	0.191983	0.000000	1.000000
	Mo 202.030 {467}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000114	0.839641	0.000000	1.000000
	Si 212.412 {459}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.004049	0.219832	0.000000	1.000000
	Sn 189.989 {478}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000023	0.186314	0.000000	1.000000
	Sr 407.771 { 83}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000030	3.440258	0.000000	1.000000
	Ti 334.904 {101}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000009	0.109665	0.000000	1.000000
	Y 360.073 { 94}*	4/5/2018 8:50:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 371.030 { 91}*	4/5/2018 8:50:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 224.306 {451}*	4/5/2018 8:50:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	In 230.606 {446}*	4/5/2018 8:50:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	W 207.911 {462}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000950	0.406148	0.000000	1.000000
	Zr 339.198 { 99}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000228	0.271844	0.000000	1.000000
	S 182.034 {485}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000468	0.053499	0.000000	1.000000
	Bi 223.061 {451}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000152	0.198300	0.000000	1.000000
	Li 670.784 { 50}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.002555	0.641627	0.000000	1.000000
	P 177.495 {490}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.009231	0.118545	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	0.000243	0.000811	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000119	0.000395	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000268	0.000893	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000375	0.001250	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000552	0.001841	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000490	0.001634	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000085	0.000282	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000419	0.001396	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000586	0.001952	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000445	0.001485	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000188	0.000627	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001645	0.005482	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001377	0.004592	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001392	0.004641	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.002455	0.008182	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.001655	0.005518	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.012328	0.041095	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.004066	0.013552	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.004842	0.016141	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.033782	0.112607	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.030164	0.100548	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.009777	0.032591	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.000951	0.003172	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000292	0.000973	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001237	0.004122	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000866	0.002887	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000101	0.000337	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000452	0.001508	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	0.001198	0.003994	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000240	0.000799	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.003318	0.011059	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.001811	0.006037	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.001558	0.005195	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.001722	0.005740	OK.	1.000000	0.000000	1	0

ACCUTEST LABORATORIES

Mercury Hot Block Digestion Log

Product: HG / EHG / HGCLP
Matrix: Aq / Liq / DW

MA Batch #: MA44075
Analyst: MS
Date: 3/26/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M-72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**
Required corrected Temp. Range ~~is 90-95 C~~.
Hot Block # 7 Start Time: 10:35 End Time: 12:35 Tube # 1-51
Start Temp: 97°C Corrected Start Temp: 94°C Correction: -3 Thermometer ID: 41564488
End Temp: 97°C Corrected End Temp: 94°C Correction: -3 Thermometer ID: 41564488

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-18-134-269-HGB3, Ultra Scientific
2	ICB	N	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
3	CRI	N	30	30	2.0 ml	Y	0.003		HG-18-134-268-HGA4, Inorganic Venture
4	MP6348-MB1	N	30	30				MP6348	
5	MP6348-B1	N	30	30	2.0 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
6	MP6348-S1	Y	30	30	2.0 ml	Y	0.03		JC62798-2, HG-18-134-267-HGA3(IV)
7	MP6348-S2	Y	30	30	2.0 ml	Y	0.03		JC62798-2, HG-18-134-267-HGA3(IV)
8	JC62798-2	Y	30	30					
9	JC62798-4	Y	30	30					
10	JC62798-6	Y	30	30					
11	JC62798-9	Y	30	30					
12	JC62798-11	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
13	JC62798-13	Y	30	30					
14	JC62420-1	Y	30	30					
15	JC62420-1F	Y	30	30					
16	JC62420-2	Y	30	30					
17	JC62420-2F	Y	30	30					
18	JC62420-3	Y	30	30					
19	JC62420-3F	Y	30	30					
20	JC62420-4	Y	30	30					
21	JC62420-4F	Y	30	30					
22	JC62420-5	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
23	JC62420-5F	Y	30	30					
24	JC62420-6	Y	30	30					
25	JC62420-6F	Y	30	30					
26	JC62420-7	Y	30	30					
27	JC62420-7F	Y	30	30					
28	MP6349-MB1	N	30	30				MP6349	
29	MP6349-B1	N	30	30	2.0 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
30	MP6349-S1	Y	30	30	2.0 ml	Y	0.03		JC62558-5, HG-18-134-267-HGA3(IV)
31	MP6349-S2	Y	30	30	2.0 ml	Y	0.03		JC62558-5, HG-18-134-267-HGA3(IV)
32	JC62558-5	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
CCB	CCB	N	30	30					

ANALYST: MS
Spike witness: DP
QC: REVIEWER:

DATE: 3/26/18
DATE: 3/26/18
DATE:

Form HG022-03
Revision Date: 8/24/15

13.4.1
13

ACCUTEST LABORATORIES

Mercury Hot Block Digestion Log

Product: HG / EHG / HGCLP
Matrix: Aq / Liq / DW

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**

MA Batch #: MA44075
Analyst: MS
Date: 3/26/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M-72

Required corrected Temp. Range is 90-95 C.
Hot Block # 8 Start Time: 12:00 End Time: 14:00 Tube # S2-75
Start Temp: 96°C Corrected Start Temp: 94°C Correction: -2 Thermometer ID: 11517
End Temp: 96°C Corrected End Temp: 94°C 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
33	JC62558-1	Y	30	30					
34	JC62558-2	Y	30	30					
35	JC62558-3	Y	30	30					
36	JC62558-4	Y	30	30					
37	JC62558-6	Y	30	30					
38	JC62558-7	Y	30	30					
39	JC62558-10	Y	30	30					
40	JC62558-11	Y	30	30					
41	JC62558-12	Y	30	30					
42	JC62797-3	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
43	JC62797-5	Y	30	30					
44	JC62797-7	Y	30	30					
45	JC62797-9	Y	30	30					
46	JC62797-11	Y	30	30					
47	JC62797-13	Y	30	30					
48	JC62797-15	Y	30	30					
49	JC62468-2	Y	5.0	30					Brown, turbid
50	JC62623-1	Y	30	30					
51	JC62569-1	Y	30	30					
52	MP6360-MB1	N	30	30				MP6360	
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
53	MP6360-B1	N	30	30	2.0 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
54	MP6360-S1	Y	30	30	2.0 ml	Y	0.03		JC62734-7, HG-18-134-267-HGA3(IV)
55	MP6360-S2	Y	30	30	2.0 ml	Y	0.03		JC62734-7, HG-18-134-267-HGA3(IV)
56	JC62734-7	Y	30	30					
57	JC62734-1	Y	30	30					
58	JC62734-2	Y	30	30					
59	JC62734-3	Y	30	30					
60	JC62734-5	Y	30	30					
61	JC62734-6	Y	30	30					
62	JC62734-8	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-267-HGA3, Inorganic Venture
CCB	CCB	N	30	30					

ANALYST: MS
Spike witness: DP
QC: REVIEWER:

DATE: 3/26/18
DATE: 3/26/18
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**

MA Batch #:	MA44075
Analyst:	MS
Date:	3/26/2018
Balance ID:	B-24
Reagents:	See attached sheet
Auto pipet ID:	M-72

Required corrected Temp. Range is 90-95 C.
Hot Block # 8 Start Time: 12:00 End Time: 14:00 Tube # 76-90

Start Temp: 96°C Corrected Start Temp: 94°C Correction: -2 Thermometer ID: 11517
End Temp: 96°C Corrected End Temp: 94°C 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
63	JC62734-9	Y	30	30					
64	JC62734-14	Y	30	30					
65	JC62734-15	Y	30	30					
66	JC62734-16	Y	30	30					
67	JC62476-1	Y	30	30					
68	JC62476-2	Y	30	30					
69	JC62476-3	Y	30	30					
70	JC62476-4	Y	30	30					
71	JC62476-5	Y	30	30					
72	JC62476-6	Y	30	30					
CCV	**CCV**	N	30	30	**2.5 ml**	Y	**0.03**		HG-18-134-267-HGA3, Inorganic Venture
CCB	**CCB**	N	30	30					
73	JC62631-1	Y	**1.0**	30					White, cloudy
74	JC62668-8	Y	30	30					
75	JC62870-6	Y	30	30					
76	MP6361-MB1	N	30	30				MP6361	
77	MP6361-B1	N	30	30	**2.0 ml**	Y	**0.03**		HG-18-134-267-HGA3, Inorganic Venture
78	MP6361-S1	Y	**15.0**	30	**2.0 ml**	Y	**0.03**		JC62881-1, HG-18-134-267-HGA3(IV)
79	MP6361-S2	Y	**15.0**	30	**2.0 ml**	Y	**0.03**		JC62881-1, HG-18-134-267-HGA3(IV)
80	JC62881-1	Y	**15.0**	30					Strong odor
81	JC62881-2	Y	30	30					
82	JC62881-3	Y	30	30					
CCV	**CCV**	N	30	30	**2.5 ml**	Y	**0.03**		HG-18-134-267-HGA3, Inorganic Venture
CCB	**CCB**	N	30	30					
83	JC62881-4	Y	30	30					
84	JC62881-5	Y	30	30					
85	JC62881-6	Y	**10.0**	30					Red, turbid
86	JC62851-1F	Y	30	30					
87	JC62851-2F	Y	30	30					
88	JC62851-3F	Y	**20.0**	30					Yellow
89	JC62851-4F	Y	30	30					
90	JC62867-8	Y	30	30					
91									
92									
CCV	**CCV**	N	30	30	**2.5 ml**	Y	**0.03**		HG-18-134-267-HGA3, Inorganic Venture
CCB	**CCB**	N	30	30					

ANALYST: MS DATE: 3/26/18
Spike witness: _____ DATE: _____
QC: REVIEWER: _____ DATE: _____

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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.

MA Batch #: MA44075
Analyst: MS
Date: 3/26/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M-72

Hot Block # 6 Start Time: 10:15 End Time: 12:15 Tube # 1-6

Start Temp: 96°C Corrected Start Temp: 94°C Correction: -2 Thermometer ID: 11517

End Temp: 96°C Corrected End Temp: 94°C 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
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-18-134-268-HGA4, Inorganic Venture
S-3	0.5 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.003		HG-18-134-268-HGA4, Inorganic Venture
S-4	1.0 ug/l Standard	N	30 ml	30 ml	1.0 ml	Y	0.030		HG-18-134-267-HGA3, Inorganic Venture
S-5	2.5 ug/l Standard	N	30 ml	30 ml	2.5 ml	Y	0.030		HG-18-134-267-HGA3, Inorganic Venture
S-6	5.0 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.030		HG-18-134-267-HGA3, Inorganic Venture

Form HG022-03
Revision Date: 8/24/15

ANALYST: MS DATE: 3/26/18
QC: REVIEWER: _____ DATE: _____

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SGS

Reagent Information Log- Hg Waters

MA # MA44075

Reagents	Exp. Date	Reagent # or manufacturer lot #
Conc. Sulfuric Acid	3/8/2020	Fisher -177436
Conc. Nitric Acid	3/24/2020	Baker - 192717
Sodium Chloride-Hydroxylamine Hydrochloride	9/23/2018	HG-18-136- 27 -HGHCL
Potassium Permanganate 5%	9/23/2018	HG-18-136- 25 -HGKM1
Potassium Persulfate	9/23/2018	HG-18-136- 26 -HGKS
Stannous Chloride	3/27/2018	HG-18-134- 270 -HGS
STD Hg standard solution 1000 ppm	3/1/2019	Inorganic Ventures K2-HG653768
STD Hg standard solu tion 30 ppb	3/27/2018	HG-18-134- 267 -HGA3
STD Hg standard solu tion 3ppb	3/27/2018	HG-18-134- 268 -HGA4
ICV Hg standard solution 1000 ppm	6/30/2021	Ultra T00601
ICV Hg standard solution 30ppb	3/27/2018	HG-18-134- 269 -HGB3
Dilution Acid	9/17/2018	HG-18-134- 242 -HGD2
Digestion Tubes Lot	N/A	Envrionmental Express 1712272
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
MP6399	3/29/2018	16:45	3/29/2018	22:15	JC62879-9	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	3	158271	92	0	92
1	End	3	158271	94	0	94
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1712272	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP6399-MB1	N/A	N	50	50	AB		
MP6399-B1	N/A	N	50	50	AB	ABCD	
MP6399-S1	3	Y	10	50	AB	ABCD	LIGHT PINK
MP6399-S2	3	Y	10	50	AB	ABCD	LIGHT PINK
MP6399-SD1	3	Y	10	50	AB		LIGHT PINK
JC62789-1	3	Y	50	50	AB		
JC62789-2	3	Y	50	50	AB		
JC62789-3	3	Y	50	50	AB		
JC62789-4	3	Y	50	50	AB		
JC62879-9	3	Y	10	50	AB		LIGHT PINK
JC62881-1	1	Y	50	50	AB		
JC62881-2	1	Y	50	50	AB		
JC62881-3	1	Y	50	50	AB		
JC62881-4	1	Y	50	50	AB		
JC62881-5	1	Y	50	50	AB		
JC62881-6	1	Y	10	50	AB		CLOUDY/RED
JC63053-10F	4	Y	50	50	AB		
JC63053-7F	4	Y	50	50	AB		
JC63053-8F	4	Y	50	50	AB		
JC63053-9F	4	Y	50	50	AB		
MP6399-MB2	4	Y	50	50	AB		FILTERMET 3/28
MP6399-B2	N/A	Y	50	50	AB	ABCD	FILTERMET 3/28

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCLL	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		
F	AG 20PPM	0.625
G		
H		

Comments: _____

Analyst COLLEENH **Approved by** Wendyz **Approved on** 3/30/2018

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

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 60399 **Date:** 3/29/18

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST -13A Rev1)	8/16/2018	MP-015-1038
Spiking Solution - (ACCUTEST -14A Rev1)	8/16/2018	MP-015-1039
Spiking Solution - 5000 mg/l Minerals	2/6/2019	M2-MEB661372 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	2/8/2020	LOT: 020817 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	3/5/2019	K2-SI654310 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	12/1/2018	M2-B1658289 MFG: INO. VENT
Spiking Solution - Se 20ppm	5/9/2018	MA-17-311-244
Spiking Solution - Li 1000ppm	11/14/2018	M2-LI657553 MFG: INO. VENT
Spiking Solution- Ag 10 ppm	9/16/2018	MA-18-328-49
Spiking Solution - (ACCUTEST -13B Rev1)	9/28/2018	MP-015-1044
Spiking Solution - (ACCUTEST -14B Rev1)	9/28/2018	MP-015-1045
Spiking Solution - 400ppm Minerals	8/6/2018	MP-015-1037
Spiking Solution- P		
Nitric Acid	3/21/2018	LOT: 192717 MFG: J.T. BAKER
Nitric Acid (1:1)	9/21/2018	MP-013-20-981 1:1 HNO3
Hydrochloric Acid	3/20/2018	LOT: 187518 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	9/20/2018	MP-013-20-980 1:1 HCL
Hydrogen Peroxide	3/2/2020	LOT: 174426 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: 23047413 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

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: JC62881
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	GP12059/GN78110	0.010	0.0	mg/l	0.0833	0.0865	103.8	90-110%

Associated Samples:
Batch GP12059: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP12059/GN78110	JC62881-1	mg/l	0.0	0.0	0.0	0-32%

Associated Samples:
Batch GP12059: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC62881
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	GP12059/GN78110	JC62881-1	mg/l	0.0	0.0833	0.075	90.0	90-110%
Cyanide	GP12059/GN78110	JC62881-2	mg/l	0.0	0.0833	0.037	44.4N(a)	90-110%

Associated Samples:
Batch GP12059: JC62881-1, JC62881-2, JC62881-3, JC62881-4, JC62881-5, JC62881-6
(*) 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: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E033018W1.CN Date Analyzed: 03/30/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: TG Run ID: GN78110
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:22	GN78110-STD1	1		STDA
10:24	GN78110-STD2	1		STDB
10:25	GN78110-STD3	1		STDC
10:26	GN78110-STD4	1		STDD
10:28	GN78110-STD5	1		STDE
10:29	GN78110-STD6	1		STDF
10:30	GN78110-STD7	1		STDG
10:32	GN78110-ICV1	1		
10:33	GN78110-ICB1	1		
10:34	GN78110-CCV1	1		
10:36	GN78110-CCB1	1		
10:37	GP11870-MB2	1		
10:39	GP11870-B2	1		
10:40	ZZZZZZ	1		
10:41	GP12056-MB1	1		
10:43	GP12056-B1	1		
10:44	GP12056-D1	1		
10:45	JC62494-1	1		(sample used for QC only; not part of login JC62881)
10:47	ZZZZZZ	1		
10:48	ZZZZZZ	1		
10:49	ZZZZZZ	1		
10:51	GN78110-CCV2	1		
10:52	GN78110-CCB2	1		
10:54	ZZZZZZ	1		
10:55	ZZZZZZ	1		
10:56	ZZZZZZ	1		
10:58	ZZZZZZ	1		
10:59	ZZZZZZ	1		
11:00	ZZZZZZ	1		
11:02	ZZZZZZ	1		
11:03	ZZZZZZ	1		
11:04	ZZZZZZ	1		
11:06	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E033018W1.CN Date Analyzed: 03/30/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: TG Run ID: GN78110
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:07	GN78110-CCV3	1		
11:08	GN78110-CCB3	1		
11:10	GP12086-MB1	1		system error
11:11	GP12086-B1	1		system error
11:13	GP12086-D1	1		system error
11:14	JC63151-3	1		(sample used for QC only; not part of login JC62881)
11:15	ZZZZZZ	1		
11:20	GN78110-CCV4	1		
11:22	GN78110-CCB4	1		
11:23	GP12086-MB1	1		
11:24	GP12086-B1	1		
11:26	GP12086-D1	1		
11:27	JC63151-3	1		(sample used for QC only; not part of login JC62881)
11:28	ZZZZZZ	1		
11:30	ZZZZZZ	1		
11:31	GP12056-MB2	1		see rerun
11:33	GP12056-B2	1		
11:34	ZZZZZZ	1		
11:35	ZZZZZZ	1		
11:37	GN78110-CCV5	1		
11:38	GN78110-CCB5	1		
11:39	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:45	GP12060-MB1	1		
11:46	ZZZZZZ	1		
11:47	ZZZZZZ	1		
11:49	GP12059-MB1	1		
11:50	GP12059-B1	1		
11:52	GP12059-S1	1		
11:53	GN78110-CCV6	1		
11:54	GN78110-CCB6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E033018W1.CN Date Analyzed: 03/30/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: TG Run ID: GN78110
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:56	GP12059-S2	1		
11:57	GP12059-D1	1		
11:58	JC62881-1	1		
12:00	JC62881-2	1		
12:01	JC62881-3	1		
12:02	JC62881-4	1		
12:04	JC62881-5	1		
12:05	JC62881-6	1		
12:07	ZZZZZZ	1		
12:08	ZZZZZZ	1		
12:09	GN78110-CCV7	1		
12:11	GN78110-CCB7	1		
12:12	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:16	ZZZZZZ	1		
12:17	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:22	ZZZZZZ	1		
12:23	ZZZZZZ	1		
12:24	ZZZZZZ	1		
12:26	GN78110-CCV8	1		
12:27	GN78110-CCB8	1		
12:28	ZZZZZZ	1		
12:30	ZZZZZZ	1		
12:31	GP12056-B2	1		
12:32	GP12076-MB1	1		
12:34	GP12076-B1	1		
12:35	GP12076-S1	1		
12:36	GP12076-S2	1		
12:38	GP12076-D1	1		
12:39	JC63012-5	1		(sample used for QC only; not part of login JC62881)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E033018W1.CN Date Analyzed: 03/30/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: TG Run ID: GN78110
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:41	JC63012-10	1		(sample used for QC only; not part of login JC62881)
12:42	GN78110-CCV9	1		
12:43	GN78110-CCB9	1		
12:45	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:47	ZZZZZZ	1		
12:49	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:57	ZZZZZZ	1		
12:58	GN78110-CCV10	1		
13:00	GN78110-CCB10	1		
13:01	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:12	GP12075-MB1	1		
13:13	GP12075-B1	1		
13:15	GN78110-CCV11	1		
13:16	GN78110-CCB11	1		
13:17	GP12075-S1	1		
13:19	GP12075-S2	1		
13:20	GP12075-D1	1		
13:21	JC62900-1	1		(sample used for QC only; not part of login JC62881)
13:23	JC62900-2	1		(sample used for QC only; not part of login JC62881)
13:24	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E033018W1.CN Date Analyzed: 03/30/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: TG Run ID: GN78110
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:25	ZZZZZZ	1		
13:27	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:31	GN78110-CCV12	1		
13:32	GN78110-CCB12	1		
13:34	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:36	ZZZZZZ	1		
13:38	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:42	ZZZZZZ	1		
13:43	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:46	ZZZZZZ	1		
13:49	GN78110-CCV13	1		
13:50	GN78110-CCB13	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC62881
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E033018W1.CN Date Analyzed: 03/30/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Run ID: GN78110 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN78110-ICV1	Cyanide	0.29	0.010	0.0058	.3	96.7	90-110
GN78110-ICB1	Cyanide	-0.0073	0.010	0.0058			
GN78110-CCV1	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB1	Cyanide	-0.0062	0.010	0.0058			
GN78110-CCV2	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB2	Cyanide	-0.0074	0.010	0.0058			
GN78110-CCV3	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB3	Cyanide	-0.0059	0.010	0.0058			
GN78110-CCV4	Cyanide	0.44	0.010	0.0058	.4	110.0	90-110
GN78110-CCB4	Cyanide	-0.0063	0.010	0.0058			
GN78110-CCV5	Cyanide	0.41	0.010	0.0058	.4	102.5	90-110
GN78110-CCB5	Cyanide	-0.0075	0.010	0.0058			
GN78110-CCV6	Cyanide	0.43	0.010	0.0058	.4	107.5	90-110
GN78110-CCB6	Cyanide	-0.0088	0.010	0.0058			
GN78110-CCV7	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB7	Cyanide	0.0058 U	0.010	0.0058			
GN78110-CCV8	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB8	Cyanide	-0.0087	0.010	0.0058			
GN78110-CCV9	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB9	Cyanide	-0.0066	0.010	0.0058			
GN78110-CCV10	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB10	Cyanide	0.0058 U	0.010	0.0058			
GN78110-CCV11	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB11	Cyanide	-0.0060	0.010	0.0058			
GN78110-CCV12	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78110-CCB12	Cyanide	-0.0076	0.010	0.0058			
GN78110-CCV13	Cyanide	0.43	0.010	0.0058	.4	107.5	90-110
GN78110-CCB13	Cyanide	-0.0077	0.010	0.0058			

(!) Outside of QC limits

General Chemistry

Raw Data

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E033018W1.CN Date Analyzed: 03/30/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846
Analyst: TG Run ID: GN78110

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: TRG Date 3/30/18

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 3/30/18

Author: chemistry C0330/8w2.CN Date : 3/30/2018

Original Run Filename: OM_3-30-2018_10-21-44AM.OMN Created: 3/30/2018 10:21:44 AM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_3-30-2018_10-21-44AM.OMN Last Modified: 3/30/2018 11:18:47 AM
Current Run Author's Signature: [chemistry]
Description: Default new Run GN78110

Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF
STDA	1	1	0.800	3/30/2018@10:22:42 AM	
STDB	1	2	0.600	3/30/2018@10:24:05 AM	
STDC	1	3	0.400	3/30/2018@10:25:27 AM	
STDD	1	4	0.100	3/30/2018@10:26:49 AM	
STDE	1	5	0.0200	3/30/2018@10:28:11 AM	
STDF	1	6	0.0100	3/30/2018@10:29:33 AM	
STDG	1	7	0.00	3/30/2018@10:30:54 AM	
ICV	1	8	0.289	3/30/2018@10:32:16 AM	
	Known Conc:		0.300		
	Calibration:		Table/Fig. : 1		
ICB	1	9	-7.27e-3	3/30/2018@10:33:38 AM	
	Known Conc:		0.00		
CCV	1	S9	0.424	3/30/2018@10:34:59 AM	
	Known Conc:		0.400		
CCB	1	S10	-6.15e-3	3/30/2018@10:36:22 AM	
	Known Conc:		0.00		
GP11870-MB2	1	10	-5.47e-3	3/30/2018@10:37:43 AM	
GP11870-B2	1	11	0.205	3/30/2018@10:39:04 AM	
JC62494-5	1	12	-4.82e-3	3/30/2018@10:40:26 AM	
GP12056-MB1	1	13	-7.90e-3	3/30/2018@10:41:47 AM	
GP12056-B1	1	14	0.203	3/30/2018@10:43:08 AM	
GP12056-D1	1	15	-7.49e-3	3/30/2018@10:44:29 AM	
JC62494-1	1	16	-7.55e-3	3/30/2018@10:45:51 AM	
JC62901-1	1	18	-7.90e-3	3/30/2018@10:47:13 AM	
JC62968-1A	1	19	-7.12e-3	3/30/2018@10:48:35 AM	
JC62932-1AB	1	20	-8.52e-3	3/30/2018@10:49:57 AM	
CCV	1	S9	0.423	3/30/2018@10:51:19 AM	
	Known Conc:		0.400		
CCB	1	S10	-7.41e-3	3/30/2018@10:52:41 AM	
	Known Conc:		0.00		
JC62932-5AB	1	21	-8.10e-3	3/30/2018@10:54:03 AM	
JC62933-1	1	22	-4.24e-3	3/30/2018@10:55:24 AM	
JC62997-1A	1	23	-8.85e-3	3/30/2018@10:56:46 AM	
JC62997-2A	1	24	-7.88e-3	3/30/2018@10:58:07 AM	
JC62997-3A	1	25	-7.94e-3	3/30/2018@10:59:29 AM	
JC62997-4A	1	26	-7.25e-3	3/30/2018@11:00:50 AM	
JC62997-5A	1	27	-4.55e-3	3/30/2018@11:02:11 AM	
JC62997-6A	1	28	-7.96e-3	3/30/2018@11:03:32 AM	
JC62997-7A	1	29	1.69e-3	3/30/2018@11:04:53 AM	
JC63016-1A	1	30	-8.58e-3	3/30/2018@11:06:14 AM	
CCV	1	S9	0.424	3/30/2018@11:07:36 AM	
	Known Conc:		0.400		
CCB	1	S10	-5.88e-3	3/30/2018@11:08:58 AM	
	Known Conc:		0.00		
GP12086-MB1	1	31	-4.84e-3	3/30/2018@11:10:20 AM	
GP12086-B1 (2)	1	32	8.21e-3	3/30/2018@11:11:42 AM	
GP12086-D1	1	33	7.48e-4	3/30/2018@11:13:04 AM	
JC63151-3	1	34	-4.49e-3	3/30/2018@11:14:27 AM	
JC63074-1	1	35	0.0867	3/30/2018@11:15:48 AM	

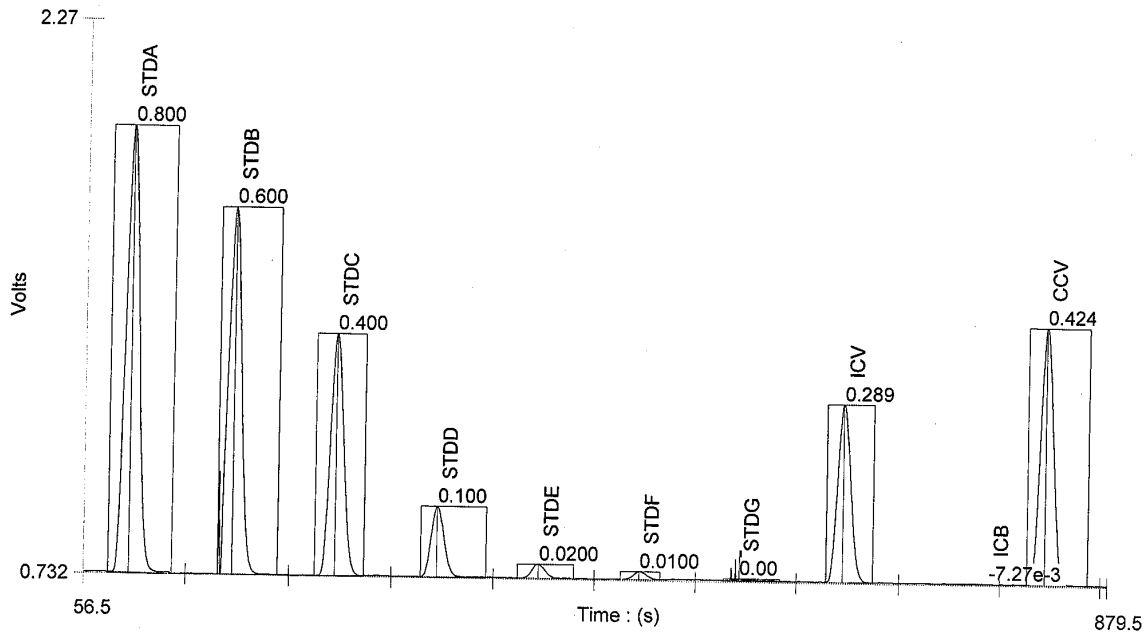
See summary

15.1 15

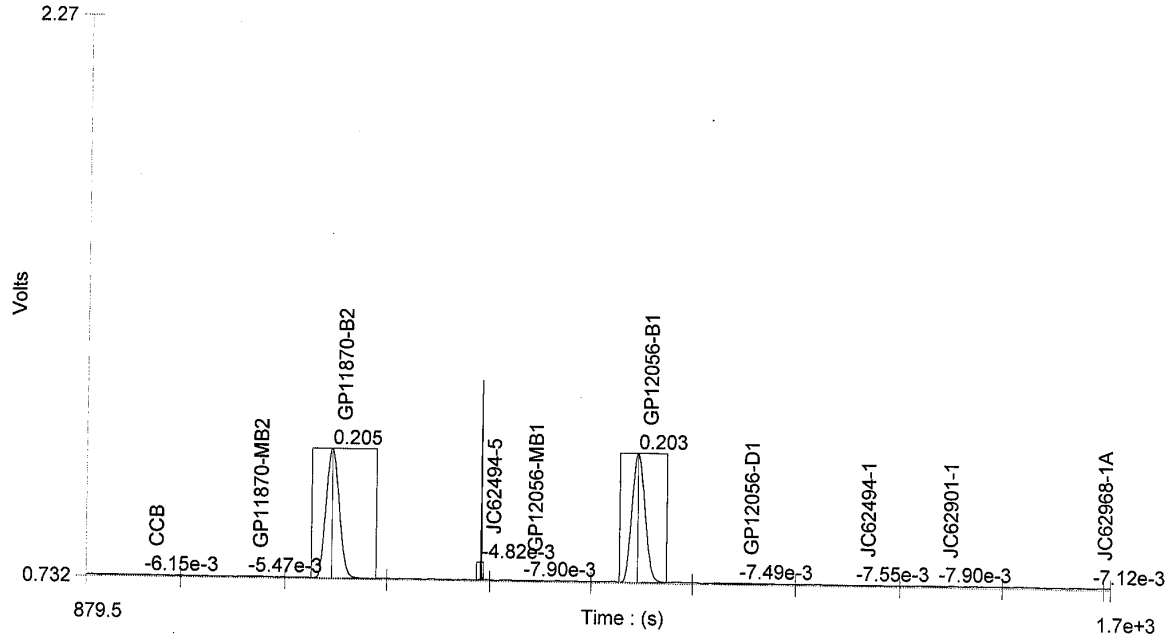
Author: chemistry

Date : 3/30/2018

Channel 1 - Set: 1 / 4



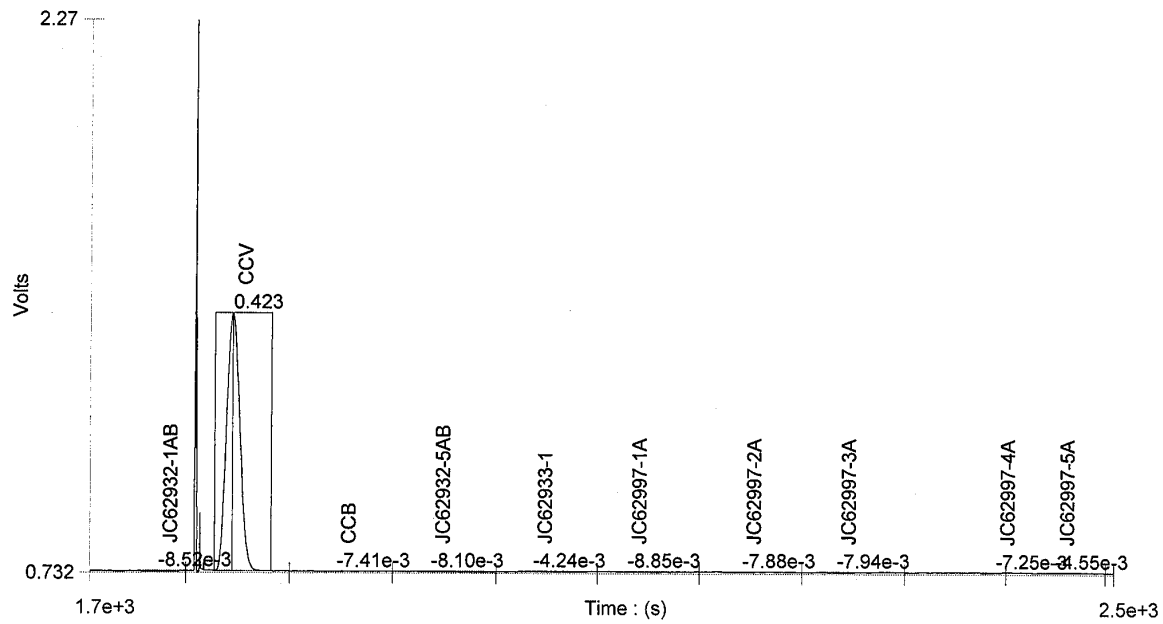
Channel 1 - Set: 2 / 4



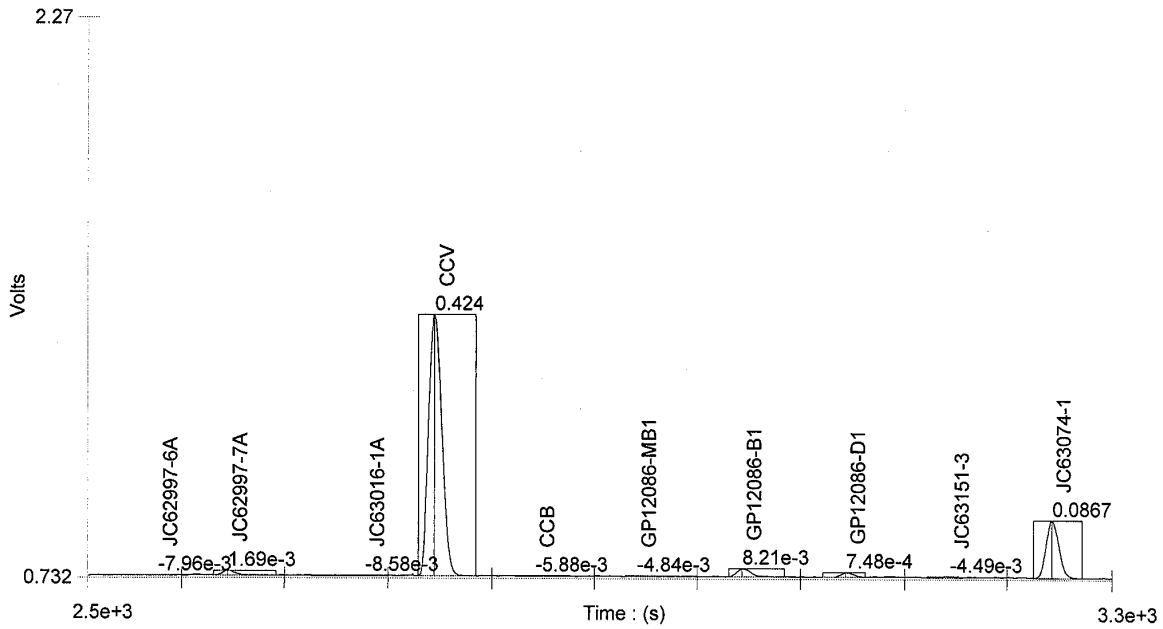
Author: chemistry

Date : 3/30/2018

Channel 1 - Set: 3 / 4



Channel 1 - Set: 4 / 4



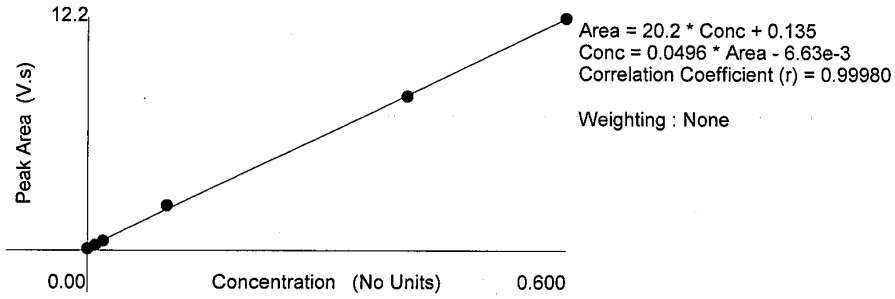
Author: chemistry

Date : 3/30/2018

Table : 1 (CN)

	Known Conc. ()	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc ()	Detection Date	Detection Time
1	(0.800)	(1)	(15.4)	(1.24)					
2	0.600	1	12.2	1.02	0.0	-0.1	0.600	3/30/2018	10:24:05 AM
3	0.400	1	8.14	0.673	0.0	0.7	0.397	3/30/2018	10:25:27 AM
4	0.100	1	2.35	0.195	0.0	-9.4	0.110	3/30/2018	10:26:49 AM
5	0.0200	1	0.494	0.0388	0.0	8.3	0.0178	3/30/2018	10:28:11 AM
6	0.0100	1	0.278	0.0218	0.0	17.6	7.13e-3	3/30/2018	10:29:33 AM
7	0.00	1	0.0886	5.89e-3			-2.24e-3	3/30/2018	10:30:54 AM

Figure : 1 (CN)



C033018w1.CN

Author: chemistry

Date : 3/30/2018

Original Run Filename: OM_3-30-2018_11-19-33AM.OMN Created: 3/30/2018 11:19:33 AM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_3-30-2018_11-19-33AM.OMN Last Modified: 3/30/2018 1:52:57 PM
Current Run Author's Signature: [chemistry]
Description: Default new Run

GN78110

Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF
CCV	1	S9	0.435	3/30/2018@11:20:42 AM	
	Known Conc:		0.400		
	Calibration:		Table/Fig. : 1		
CCB	1	S10	-6.31e-3	3/30/2018@11:22:08 AM	
	Known Conc:		0.00		
GP12086-MB1	1	106	-5.67e-3	3/30/2018@11:23:26 AM	
GP12086-B1	1	107	0.276	3/30/2018@11:24:53 AM	
GP12086-D1	1	108	-8.21e-3	3/30/2018@11:26:11 AM	
JC63151-3	1	109	-7.43e-3	3/30/2018@11:27:33 AM	
JC63074-1	1	110	0.0101	3/30/2018@11:28:55 AM	
JC63076-1	1	111	-8.58e-3	3/30/2018@11:30:16 AM	
GP12056-MB2	1	112	-9.58e-3	3/30/2018@11:31:38 AM	
GP12056-B2 (2)	1	113	-6.79e-3	3/30/2018@11:33:00 AM	Mispour see rerun
JC62687-35R	1	114	-6.64e-3	3/30/2018@11:34:22 AM	
JC62687-40R	1	115	-5.61e-3	3/30/2018@11:35:43 AM	
CCV	1	S9	0.409	3/30/2018@11:37:05 AM	
	Known Conc:		0.400		
CCB	1	S10	-7.50e-3	3/30/2018@11:38:27 AM	
	Known Conc:		0.00		
JC62687-45R	1	116	-5.88e-3	3/30/2018@11:39:48 AM	
~~JC62151-1A~~ JC63151-1A	1	117	-8.62e-3	3/30/2018@11:41:10 AM	
~~JC62151-2A~~ JC63151-2A	1	118	-8.70e-3	3/30/2018@11:42:31 AM	
JC63117-1A	1	119	-7.96e-3	3/30/2018@11:43:53 AM	
GP12060-MB1	1	31	-3.32e-3	3/30/2018@11:45:15 AM	
JC59120-1	1	32	7.19e-3	3/30/2018@11:46:37 AM	
JC59120-1A	1	33	2.20e-3	3/30/2018@11:47:59 AM	
GP12059-MB1	1	34	-5.47e-3	3/30/2018@11:49:22 AM	
GP12059-B1	1	35	0.0865	3/30/2018@11:50:44 AM	
GP12059-S1	1	36	0.0752	3/30/2018@11:52:05 AM	
CCV	1	S9	0.425	3/30/2018@11:53:27 AM	
	Known Conc:		0.400		
CCB	1	S10	-8.82e-3	3/30/2018@11:54:49 AM	
	Known Conc:		0.00		
GP12059-S2	1	37	0.0369	3/30/2018@11:56:11 AM	
GP12059-D1	1	38	-5.08e-3	3/30/2018@11:57:32 AM	
JC62881-1	1	39	-3.52e-3	3/30/2018@11:58:54 AM	
JC62881-2	1	40	-7.74e-3	3/30/2018@12:00:15 PM	
JC62881-3	1	41	-3.37e-3	3/30/2018@12:01:36 PM	
JC62881-4	1	42	7.32e-4	3/30/2018@12:02:58 PM	
JC62881-5	1	43	-4.28e-3	3/30/2018@12:04:19 PM	
JC62881-6	1	44	0.0119	3/30/2018@12:05:39 PM	
JC62918-1	1	45	-3.34e-3	3/30/2018@12:07:00 PM	
JC62918-2	1	46	-3.10e-3	3/30/2018@12:08:23 PM	
CCV	1	S9	0.424	3/30/2018@12:09:44 PM	
	Known Conc:		0.400		
CCB	1	S10	-5.56e-3	3/30/2018@12:11:06 PM	
	Known Conc:		0.00		
JC62918-3	1	47	-2.39e-4	3/30/2018@12:12:28 PM	
JC62918-4	1	48	-6.91e-3	3/30/2018@12:13:51 PM	
JC62956-2	1	49	2.67e-3	3/30/2018@12:15:13 PM	
JC62957-1	1	50	3.88e-3	3/30/2018@12:16:35 PM	
JC62977-1	1	51	-5.70e-3	3/30/2018@12:17:57 PM	
JC62977-2	1	52	-8.75e-3	3/30/2018@12:19:19 PM	
JC62982-3	1	53	-5.82e-3	3/30/2018@12:20:40 PM	
JC62983-2	1	54	-3.60e-3	3/30/2018@12:22:02 PM	
JC63010-1	1	55	-1.04e-3	3/30/2018@12:23:24 PM	
JC63010-2	1	56	-2.16e-3	3/30/2018@12:24:45 PM	
CCV	1	S9	0.422	3/30/2018@12:26:07 PM	
	Known Conc:		0.400		
CCB	1	S10	-8.67e-3	3/30/2018@12:27:29 PM	

JC63151-1A
JC63151-2A
JAG 3/30/18

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Date : 3/30/2018

	Known Conc:		0.00		
JC63010-3	1	57	-3.18e-3	3/30/2018@12:28:50 PM	
JC63010-4	1	58	-3.43e-3	3/30/2018@12:30:11 PM	
GP12056-B2	1	113	0.270	3/30/2018@12:31:33 PM	
GP12076-MB1	1	59	-5.27e-3	3/30/2018@12:32:54 PM	
GP12076-B1	1	60	0.0850	3/30/2018@12:34:15 PM	
GP12076-S1	1	61	0.0311	3/30/2018@12:35:37 PM	
GP12076-S2	1	62	0.0907	3/30/2018@12:36:59 PM	
GP12076-D1	1	63	-9.71e-3	3/30/2018@12:38:21 PM	
JC63012-5	1	64	-3.79e-3	3/30/2018@12:39:43 PM	
JC63012-10	1	65	0.0137	3/30/2018@12:41:04 PM	
CCV	1	S9	0.422	3/30/2018@12:42:26 PM	
	Known Conc:		0.400		
CCB	1	S10	-6.59e-3	3/30/2018@12:43:47 PM	
	Known Conc:		0.00		
JC63012-15	1	66	-2.65e-4	3/30/2018@12:45:09 PM	
JC63012-20	1	67	-7.42e-4	3/30/2018@12:46:31 PM	
JC63012-25	1	68	4.34e-3	3/30/2018@12:47:52 PM	
JC63012-30	1	69	9.80e-4	3/30/2018@12:49:14 PM	
JC63012-35	1	70	-2.47e-3	3/30/2018@12:50:35 PM	
JC63012-40	1	71	4.32e-3	3/30/2018@12:51:57 PM	
JC63012-45	1	72	6.43e-3	3/30/2018@12:53:18 PM	
JC63012-50	1	73	-1.09e-3	3/30/2018@12:54:39 PM	
JC63012-55	1	74	0.0284	3/30/2018@12:56:00 PM	
JC63012-60	1	75	5.07e-3	3/30/2018@12:57:22 PM	
CCV	1	S9	0.424	3/30/2018@12:58:43 PM	
	Known Conc:		0.400		
CCB	1	S10	-4.69e-3	3/30/2018@1:00:05 PM	
	Known Conc:		0.00		
JC63012-65	1	76	3.39e-3	3/30/2018@1:01:27 PM	
JC63012-70	1	77	1.10e-3	3/30/2018@1:02:50 PM	
JC63012-75	1	78	-1.68e-3	3/30/2018@1:04:12 PM	
JC63012-80	1	79	-1.40e-3	3/30/2018@1:05:34 PM	
JC63012-85	1	80	-3.40e-3	3/30/2018@1:06:56 PM	
JC62920-1	1	81	-2.42e-3	3/30/2018@1:08:18 PM	
JC62935-2	1	82	-1.22e-3	3/30/2018@1:09:40 PM	
JC63016-1	1	83	8.03e-3	3/30/2018@1:11:01 PM	
GP12075-MB1	1	84	-7.00e-3	3/30/2018@1:12:23 PM	
GP12075-B1	1	85	0.0899	3/30/2018@1:13:44 PM	
CCV	1	S9	0.424	3/30/2018@1:15:06 PM	
	Known Conc:		0.400		
CCB	1	S10	-5.97e-3	3/30/2018@1:16:28 PM	
	Known Conc:		0.00		
GP12075-S1	1	86	0.0720	3/30/2018@1:17:49 PM	
GP12075-S2	1	87	0.0983	3/30/2018@1:19:10 PM	
GP12075-D1	1	88	-3.71e-3	3/30/2018@1:20:32 PM	
JC62900-1	1	89	-2.01e-3	3/30/2018@1:21:53 PM	
JC62900-2	1	90	7.70e-3	3/30/2018@1:23:14 PM	
JC62900-3	1	91	0.0112	3/30/2018@1:24:36 PM	
JC62900-4	1	92	9.49e-3	3/30/2018@1:25:58 PM	
JC62997-1	1	93	-2.24e-3	3/30/2018@1:27:20 PM	
JC62997-2	1	94	-2.88e-3	3/30/2018@1:28:43 PM	
JC62997-3	1	95	-7.13e-3	3/30/2018@1:30:05 PM	
CCV	1	S9	0.424	3/30/2018@1:31:26 PM	
	Known Conc:		0.400		
CCB	1	S10	-7.56e-3	3/30/2018@1:32:48 PM	
	Known Conc:		0.00		
JC62997-4	1	96	-3.08e-3	3/30/2018@1:34:10 PM	
JC62997-5	1	97	-2.52e-3	3/30/2018@1:35:32 PM	
JC62997-6	1	98	-2.24e-3	3/30/2018@1:36:53 PM	
JC62997-7	1	99	-8.33e-4	3/30/2018@1:38:15 PM	
JC63041-1	1	100	-2.16e-3	3/30/2018@1:39:36 PM	
JC63041-2	1	101	-1.91e-3	3/30/2018@1:40:58 PM	
JC63042-1	1	102	7.75e-4	3/30/2018@1:42:19 PM	
JC63042-2	1	103	-4.22e-3	3/30/2018@1:43:41 PM	
JC63088-2	1	104	-3.73e-3	3/30/2018@1:45:02 PM	
~~JC62400-5~~	1	105	0.0110	3/30/2018@1:46:23 PM	
CCV	1	S9	0.425	3/30/2018@1:49:28 PM	

JC62900-5

TNB 3/30/18

Author: chemistry

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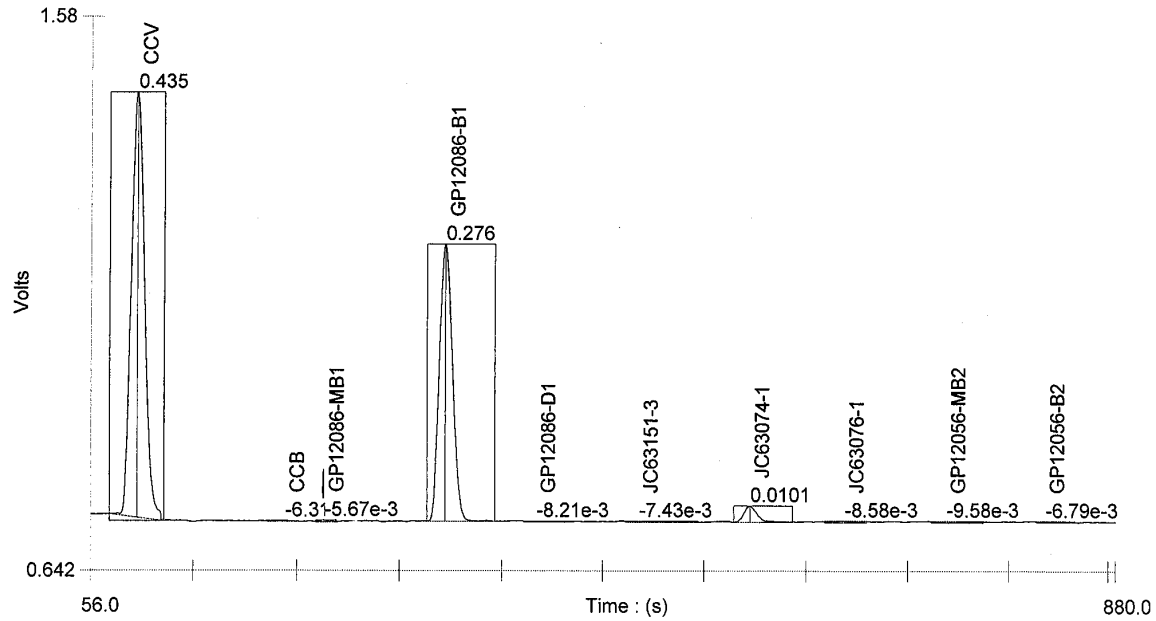
		Known Conc:	0.400		
CCB	1	S10	-7.73e-3	3/30/2018@1:50:50 PM	
		Known Conc:	0.00		

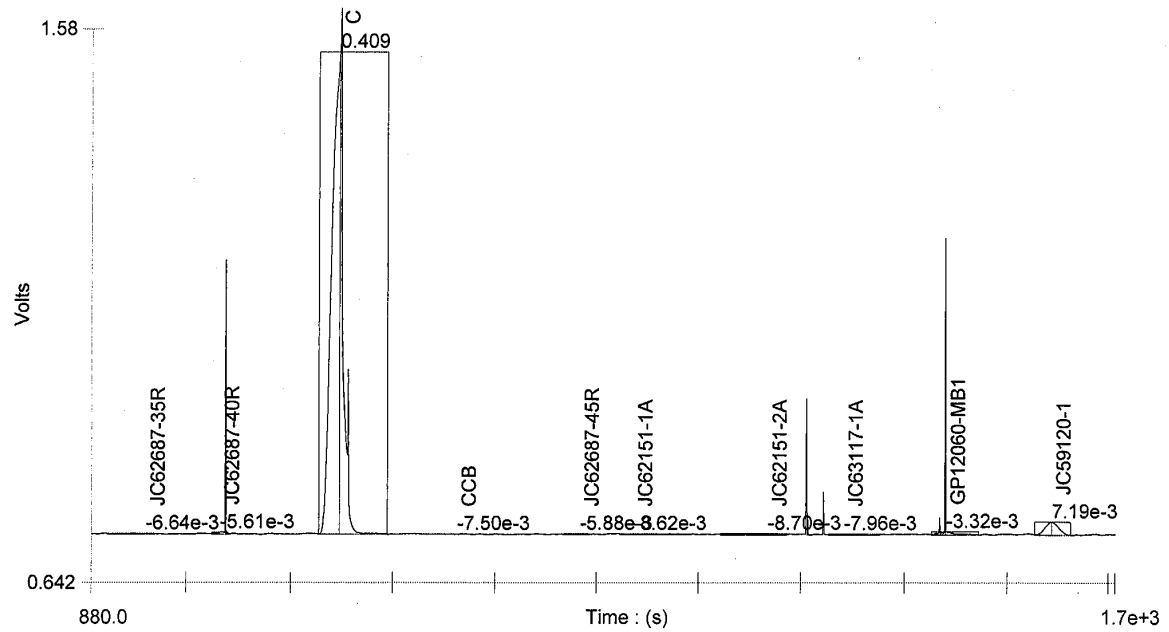
Channel 1 - Set: 1 / 11



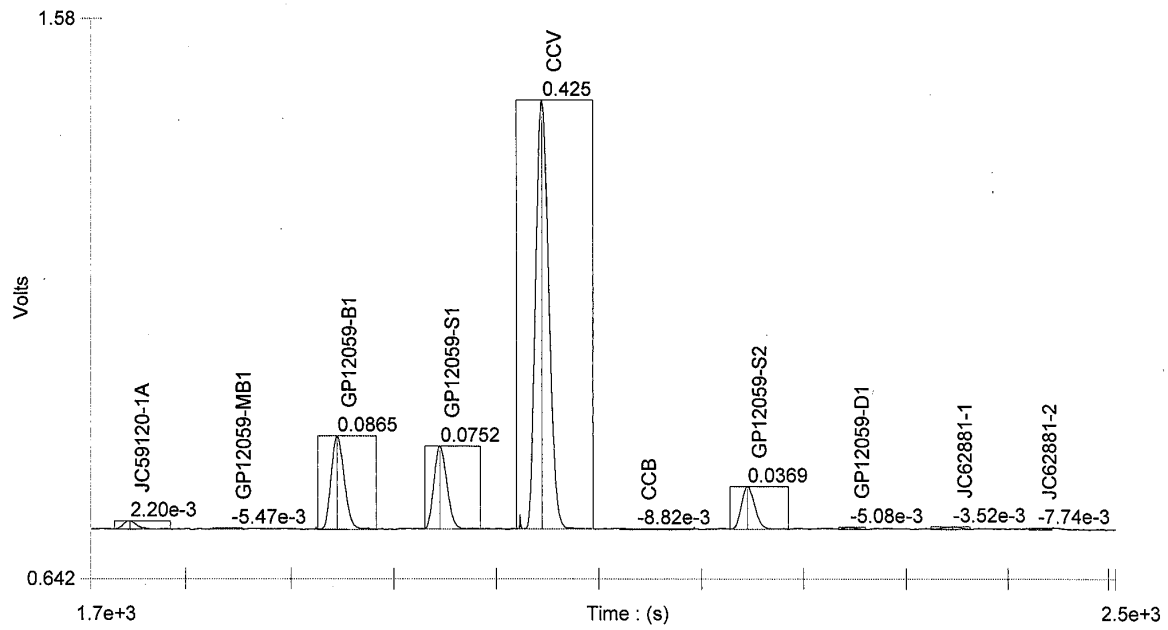
Author: chemistry

Date : 3/30/2018

Channel 1 - Set: 2 / 11



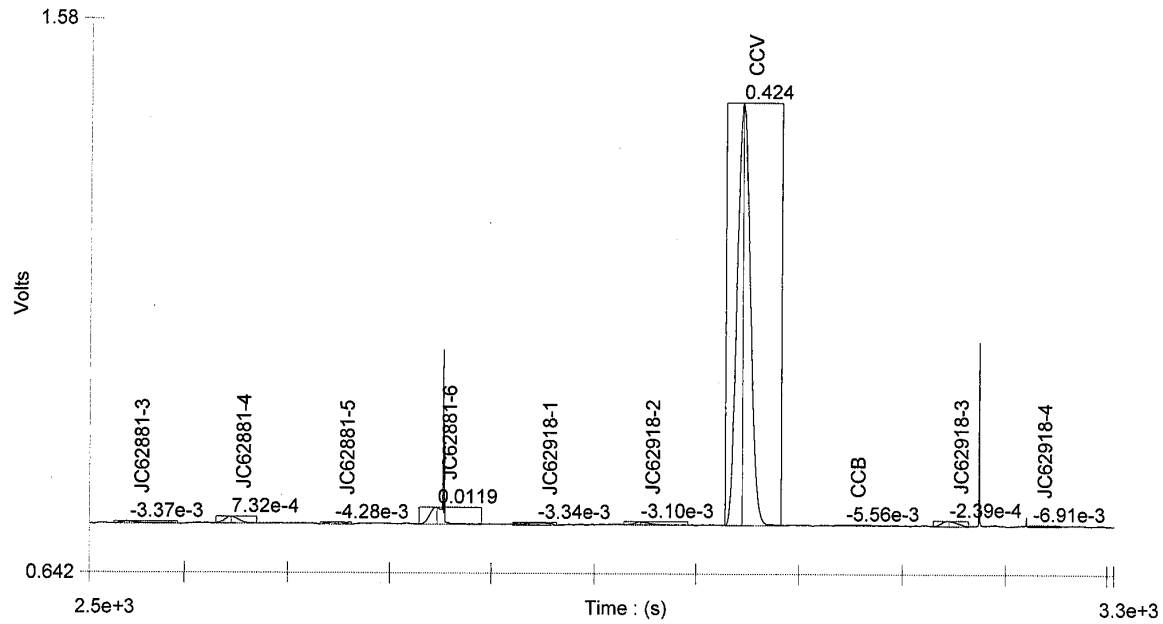
Channel 1 - Set: 3 / 11



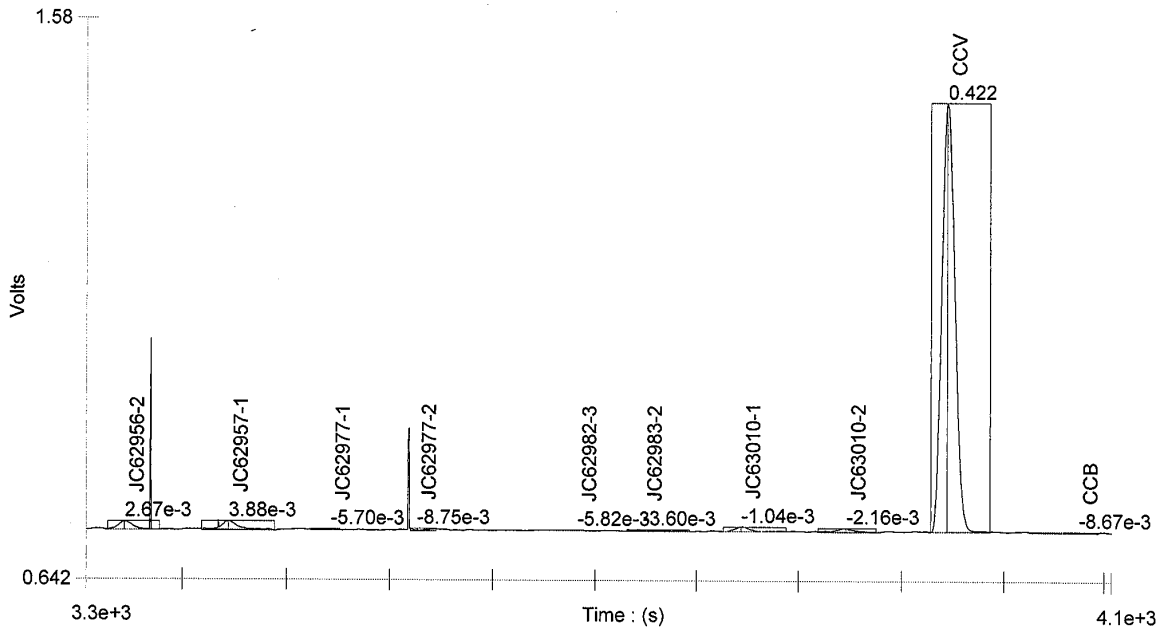
Author: chemistry

Date : 3/30/2018

Channel 1 - Set: 4 / 11



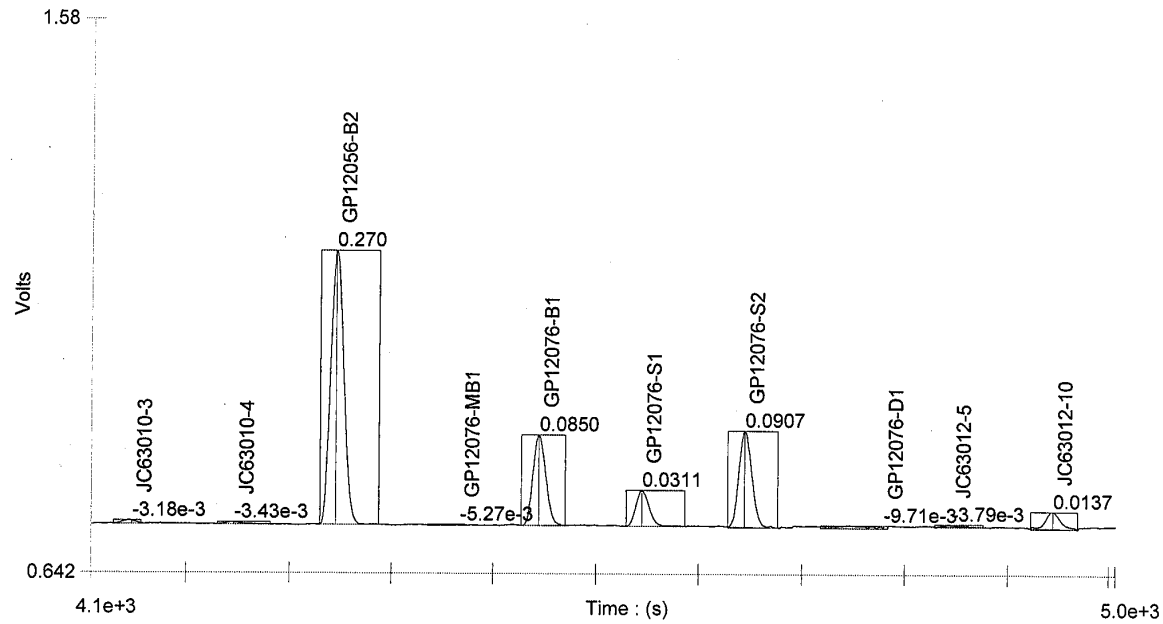
Channel 1 - Set: 5 / 11



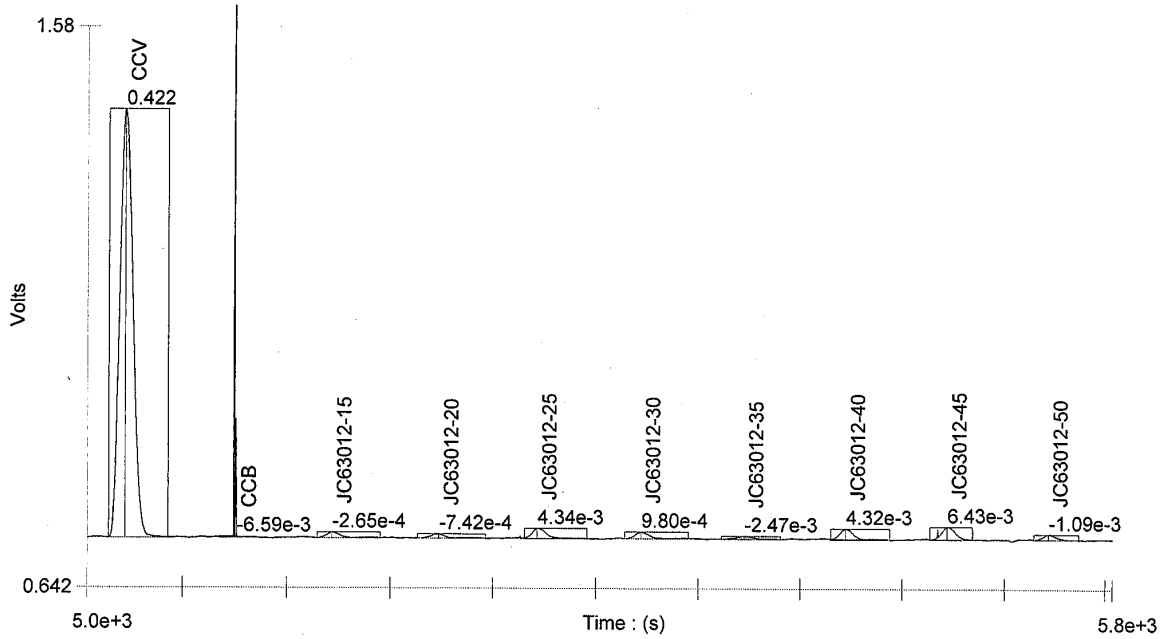
Author: chemistry

Date : 3/30/2018

Channel 1 - 'Set: 6 / 11



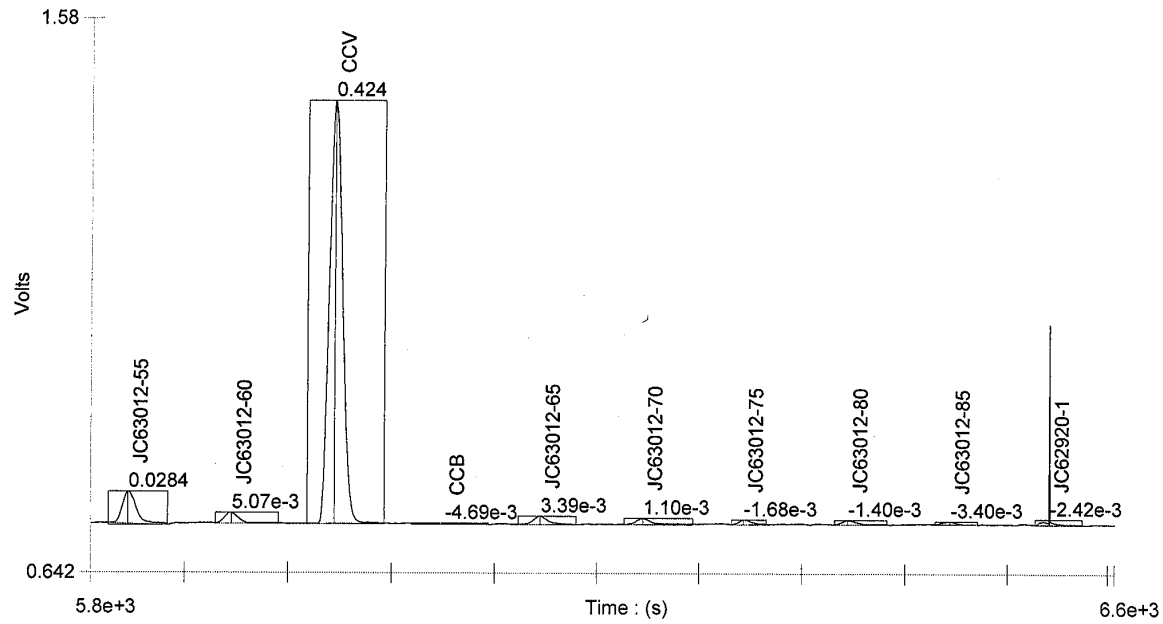
Channel 1 - Set: 7 / 11



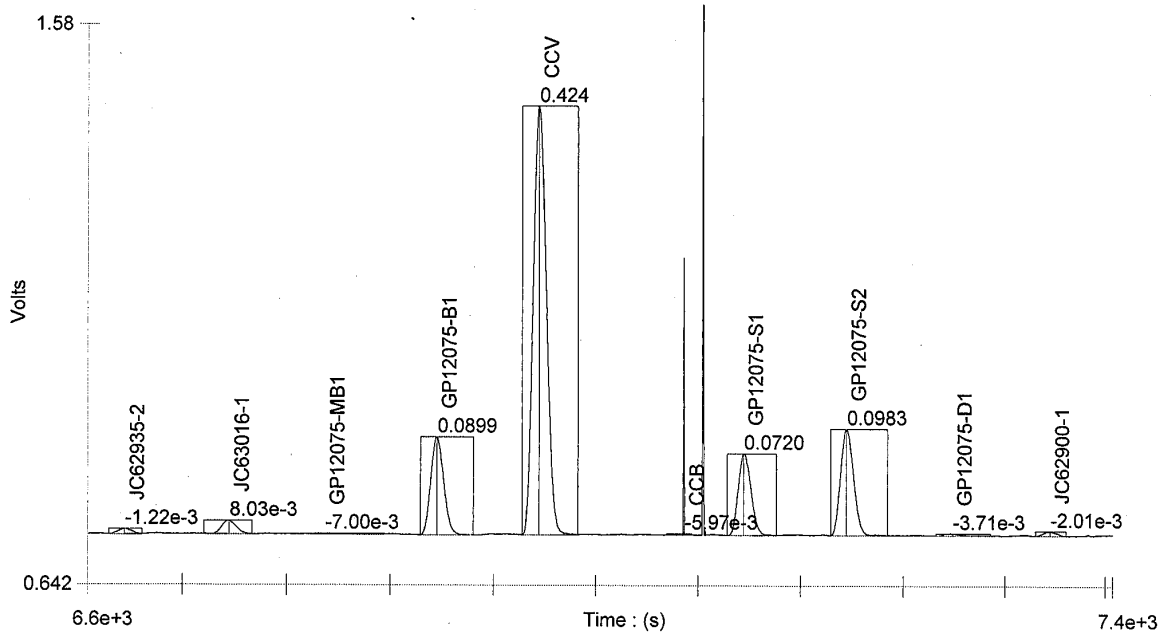
Author: chemistry

Date : 3/30/2018

Channel 1 - Set: 8 / 11



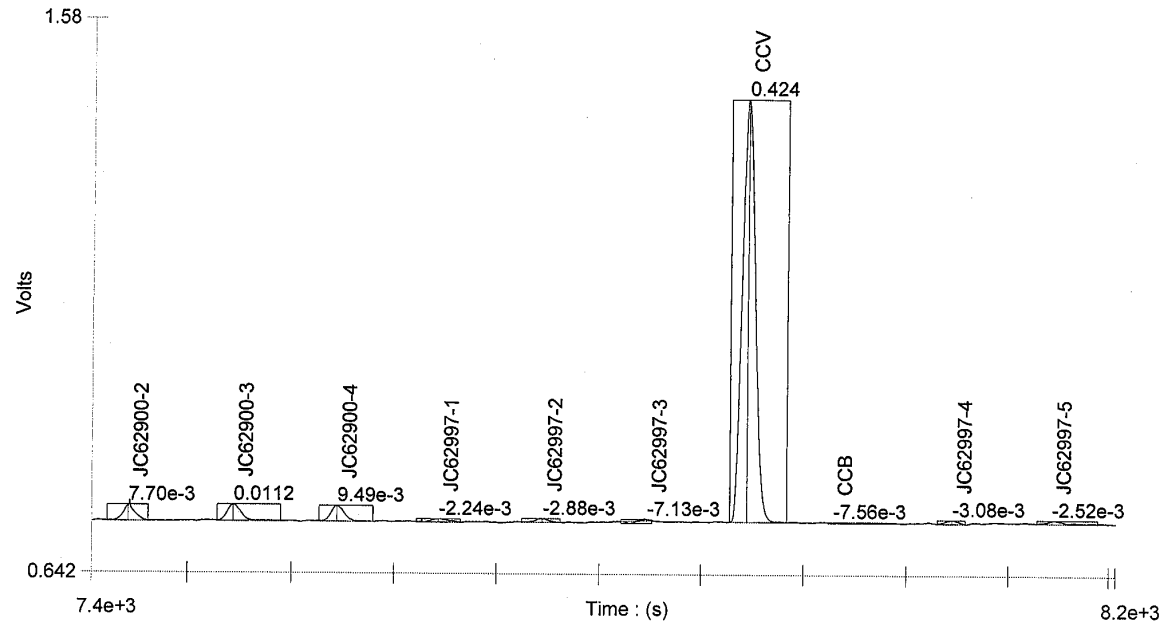
Channel 1 - Set: 9 / 11



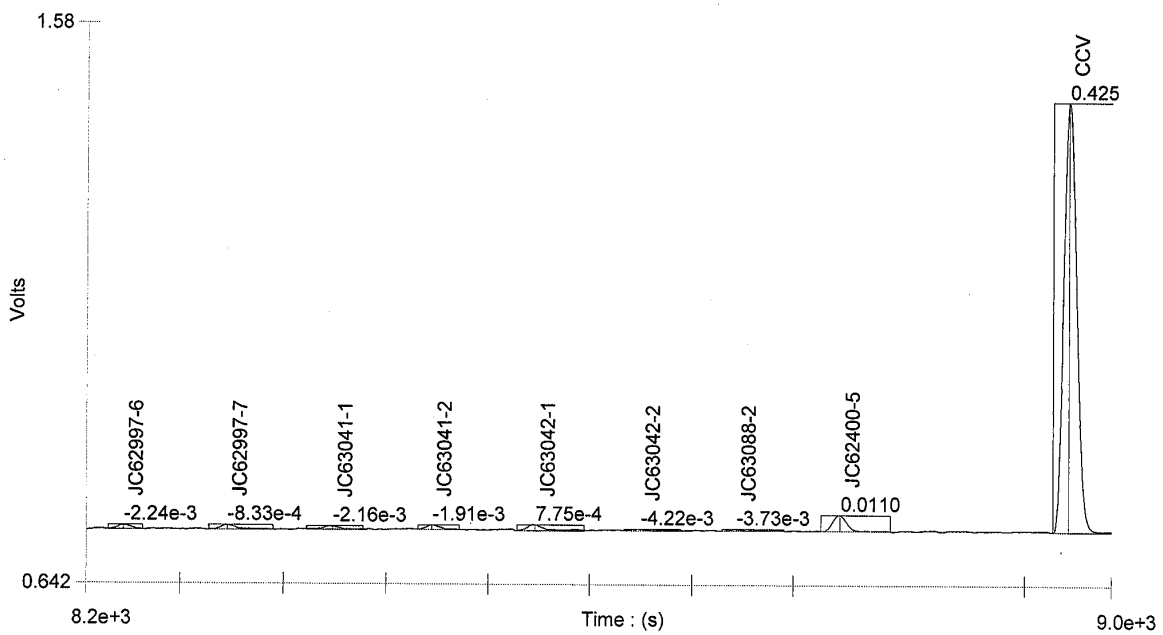
Author: chemistry

Date : 3/30/2018

Channel 1 - Set: 10 / 11



Channel 1 - Set: 11 / 11



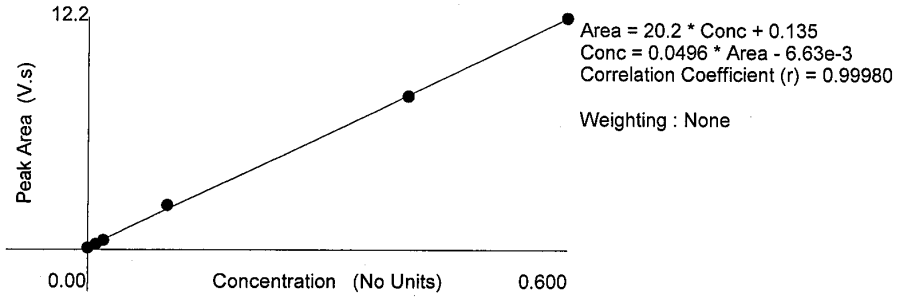
Author: chemistry

Date : 3/30/2018

Table : 1 (CN)

	Known Conc. ()	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc ()	Detection Date	Detection Time
1	(0.800)	(1)	(15.4)	(1.24)					
2	0.600	1	12.2	1.02	0.0	-0.1	0.600	3/30/2018	10:24:05 AM
3	0.400	1	8.14	0.673	0.0	0.7	0.397	3/30/2018	10:25:27 AM
4	0.100	1	2.35	0.195	0.0	-9.4	0.110	3/30/2018	10:26:49 AM
5	0.0200	1	0.494	0.0388	0.0	8.3	0.0178	3/30/2018	10:28:11 AM
6	0.0100	1	0.278	0.0218	0.0	17.6	7.13e-3	3/30/2018	10:29:33 AM
7	0.00	1	0.0886	5.89e-3			-2.24e-3	3/30/2018	10:30:54 AM

Figure : 1 (CN)



ACCUTEST

Reagent Information Log - CN Lachat Autoanalyzer

GN Number: GN78110

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Pyridine-Bartituric Acid Reagent	gne1-53487-cn	7/22/2018
Chloramine-T	gne3-54150-cn	3/30/2018
Phosphate Buffer Solution, 1.0 M	gne3-54000-cn gne2-53715-cn	9/9/2018 8/12/2018
0.25 N Sodium Hydroxide Carrier Solution	gne3-54001-cn GNE12-53078-CN	1/31/2023 6/11/2018

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1
15

Form: GN087A-27
Rev. Date: 7/19/06

ACCUTEST LABORATORIES

SReac | CReac

REACTIVITY DISTILLATION LOG (WATERS) GP12084 | GP12086

Batch ID: _____

Autopipette ID: NA

Balance ID: NA

Method: SW846 Chapter 7

Bottle #	Sample ID	Initial Volume (ml)	Final Volume (ml)	Start Time	End Time	Date	QC ID	Product (SREAC, CREAC, or both)	Check when spike added	Spike Amounts and Comments including Spike Lots	Analyst
	MB1	10	500	0905	0935	3/30/18	GP -MB1				TR6
	B1	↓	↓	↓	↓	↓	GP -B1	CREAC		10mL of 100ppm	↓
	B1						GP -B1	SREAC		10mL of 537ppm	
6	S1			↓	↓		GP -S1	SREAC		10mL of 537ppm	
6	D1			0945	1015		GP -D1				
6	JC63151-3										
3	JC63074-1										
18	JC63076-1	↓	↓	↓	↓	↓					↓

Comments: Creac Spike: 20 ml of 1000ppm cyanide stock diluted up to 200ml w/ 0.25N NaOH
Sreac Spike: 2.0g of Sodium Sulfide Nonahydrate diluted up to 500ml w/ DI H20

QC Reviewer: _____ Date: _____

Form: GN282-01a
Rev. Date: 02/28/13

ACCUTEST

Reagent Information Log - CREAC and SREAC Distillations

GP Numbers: GP120854 / GP120856

Reagent	Reagent # or Manufacturer/Lot	Expiration date	Standardization Date
Cyanide Spike Solution	GNE2-53655-CN	6/12/2018	3/26/2018
Sulfide Spike Solution	FISHER # 161566	1/11/2022	NA
Sulfuric Acid, 0.010 N	GNE3-53932-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA

Form: GN087A-64
Rev. Date: 3/12/04

ACCUTEST LABORATORIES

SReac | CReac

REACTIVITY DISTILLATION LOG (SOILS) GP12055 | GP12056

Batch ID:_____

Autopipette ID: NH

Balance ID: B-27

Method: SW846 Chapter 7

Bottle #	Sample ID	Initial Volume (ml)	Final Volume (ml)	Start Time	End Time	Date	QC ID	Product (SREAC, CREAC, or both)	Check when spike added	Spike Amounts and Comments including Spike Lots	Analyst
	MB2	16.00	500	0905	0935	3/30/18	GP -MB				TRG
	B2	10.00					GP -B	CREAC		10ml of 100ppm	
	B2	10.00					GP -B	SREAC		10ml of 537ppm	
							GP -S	SREAC		10ml of 537 ppm	
							GP -D				
1	JC62687-35R	10.18									
1	-40R	10.10									
1	JC63151-MW-45R	10.30									
1	~~JC62151-1A~~	10.10									
1	JC63151-2A	9.97									
1	JC63117-1A	16.23									

TRG 3/30/18

Comments: Creac Spike: 20 ml of 1000ppm cyanide stock diluted up to 200ml w/ 0.25N NaOH
Sreac Spike: 2.0g of Sodium Sulfide Nonahydrate diluted up to 500ml w/ DI H20

QC Reviewer: _____ Date: _____

Form: GN282-01b
Rev. Date: 02/28/13

ACCUTEST

Reagent Information Log - CREAC and SREAC Distillations

GP Numbers: GP12055 / GP12056

Reagent	Reagent # or Manufacturer/Lot	Expiration date	Standardization Date
Cyanide Spike Solution	GNE2-53655-CN	6/12/2018	3/26/2018
Sulfide Spike Solution	FISHER # 161566	1/11/2022	NA
Sulfuric Acid, 0.010 N	GNE3-53932-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA

Form: GN087A-64
Rev. Date: 3/12/04

15.1
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ACCUTEST LABORATORIES

SReac | CReac

~~GPH~~ GP12055 | GP12056

Batch ID:

Autopipette ID: NA

Balance ID: B-27

REACTIVITY DISTILLATION LOG (SOILS)

Method: SW846 Chapter 7

Bottle #	Sample ID	Initial Volume (ml)	Final Volume (ml)	Start Time	End Time	Date	QC ID	Product (SREAC, CREAC, or both)	Check when spike added	Spike Amounts and Comments including Spike Lots	Analyst
	MB1	10.00	500	0925	0955	3/29/18	GP -MB				TRG
	B1	10.00					GP -B	CREAC		10ml of 100ppm	
	B1	10.00					GP -B	SREAC		10ml of 537ppm	
2	S1	10.10					GP -S	SREAC		10ml of 537 ppm	
2	D1	10.01					GP -D				
2	JC62494-1(QC)	10.02									
	~~-5~~ 3/29/18										
2	JC62901-1	9.94									
2	JC62968-1A	9.95									
1	JC62932-1AB	10.12									
2	-5AB	10.16									
1	JC62933-1	9.99									
2	JC62997-1A	9.90		1015	1045						
2	-2A	10.23									
2	-3A	10.03									
1	-4A	9.94									
2	-5A	10.28									
	-6A	9.95									
1	-7A	9.93									
1	JC63016-1A	10.26									

Comments: Creac Spike: 20 ml of 1000ppm cyanide stock diluted up to 200ml w/ 0.25N NaOH

Sreac Spike: 2.0g of Sodium Sulfide Nonahydrate diluted up to 500ml w/ DI H20

QC Reviewer: Date:

Form: GN282-01b

Rev. Date: 02/28/13

ACCUTEST.

Reagent Information Log - CREAC and SREAC Distillations

GP Numbers: GP12055 / GP12056

Reagent	Reagent # or Manufacturer/Lot	Expiration date	Standardization Date
Cyanide Spike Solution	GNE2-53655-CN	6/12/2018	3/26/2018
Sulfide Spike Solution	FISHER # 161566	1/11/2022	NA
Sulfuric Acid, 0.010 N	GNE3-53932-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA

Form: GN087A-64
Rev. Date: 3/12/04

15.1
15

ACCUTEST LABORATORIES

SReac | CReac

REACTIVITY DISTILLATION LOG (WATERS) GP11869 | GP11870

Method: SW846 Chapter 7

Batch ID: _____

Autopipette ID: NA

Balance ID: NA

Bottle #	Sample ID	Initial Volume (ml)	Final Volume (ml)	Start Time	End Time	Date	QC ID	Product (SREAC, CREAC, or both)	Check when spike added	Spike Amounts and Comments including Spike Lots	Analyst
	MBL	10	500	1015	1025	5/24/18	GP -MB1				JAG
	BL	10	↓	↓			GP -B1	CREAC		10mL of 100ppm	↓
	BL	10			↓	↓	GP -B1	SREAC		10mL of 537ppm	
							GP -S1	SREAC		10mL of 537ppm	
							GP -D1				
	JC62829			↓							
	JC62829-5	10	↓		↓	↓					

Comments: Creac Spike: 20 ml of 1000ppm cyanide stock diluted up to 200ml w/ 0.25N NaOH
Sreac Spike: 2.0g of Sodium Sulfide Nonahydrate diluted up to 500ml w/ DI H20

QC Reviewer: _____ Date: _____

Form: GN282-01a
Rev. Date: 02/28/13

ACCUTEST.

Reagent Information Log - CREAC and SREAC Distillations

GP Numbers: ~~GP11886~~ / ~~GP11889~~ GP11869 / GP11870

Reagent	Reagent # or Manufacturer/Lot	Expiration date	Standardization Date
Cyanide Spike Solution	GNE2-53655-CN	6/12/2018	3/26/2018
Sulfide Spike Solution	FISHER # 161566	1/11/2022	NA
Sulfuric Acid, 0.010 N	GNE3-53932-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA

Form: GN087A-64
Rev. Date: 3/12/04

ACCUTEST LABORATORIES

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

GP12060

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
		M131	12	—	✓	6	6	120	10:35	11:05	03/29/18	GP -MB1			FO
		FO 03/29/18										GP -B1	0.10 ml of 5.0 mg/l (c)	FO 03/29/18	
												GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
		LOQ SC59120-1										GP -D1			
		LOD -1A													

(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 ACCUTEST

LOD and LOQ Scheduling

LOD Sample ID: JC59120-1A

Product:	CN	**Matrix:**	AQ
LOD Concentration:	0.005	**Units:**	mg/L
LOD Prep:	0.1mL 5ppm CN to 100mL 0.25N NaOH		
Manufacturer/Lot:		**Expiration Date:**	
GN ID:		**Analysis Date:**	
Result/Units:		**Recovery:**	
Within range of 50 to 150%? **			

LOQ (RL) Sample ID: JC59120-1

Product:	CN	**Matrix:**	AQ
LOQ Concentration:	0.01	**Units:**	mg/L
LOQ Prep:	0.2mL 5ppm CN to 100mL 0.25N NaOH		
Manufacturer/Lot:		**Expiration Date:**	
GN ID:		**Analysis Date:**	
Result/Units:		**Recovery:**	
Within range of 70 to 130%? **			

** if outside of range, notify supervisory team immediately to reschedule

Analyst: [signature] Date: 03/29/18

QC Review: Date:

Form: GN271-01
Rev. Date: 09/13/11

15.1 15

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP120160

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE2-53817-CN	8/22/2018
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	3/16/2018	NA
0.95 NaOH	GNE-54104-CN	9/19/2018
Cyanide Stock Solution A- Spiking/standards	GNE2-53655-CN	6/12/2018
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: GP12060

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	GNE2-53655-CN	3/26/18	1000	1.000	41	.25 N NaOH	200	5.00	6/12/18	TRG	3/12/18
Undistilled ICV Int.	GNE8-51786-CN	1/24/18	992	2.00	41	.25 N NaOH	100	20.00		bm	
Undistilled CCV Int.	GNE7-51646-CN	1/24/18	1004	2.00	41	.25 N NaOH	100	20.00		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	4/2/18	FO	3/26/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	4/2/18	FO	3/26/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	4/2/18	FO	3/26/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	4/2/18	FO	3/26/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	4/2/18	FO	3/26/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	4/2/18	FO	3/26/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30		BM	
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40		BM	

(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)

GP120558 GP120559

Batch ID: _____

Autopipette ID: A1

Balance ID: H/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
		MB1	12	—	✓	6	6	120	10:30	11:00	03/29/18	GP -MB1			10
		B1		1								GP -B1	0.10 ml of 5.0 mg/l (c)		
		S2										GP -S1	0.10 ml of 5.0 mg/l		
		D1										GP -S2	0.10 ml of 5.0 mg/l		
		SC62581-1										GP -D1			
		-2													
		-3													
		-4													
		-5													
		-6													
		SC62414-1													
		-2													
		-3													
		-4													
		SC62456-2													
		SC62457-1													
		SC62477-1													
		-2													
		SC62482-3													
		SC62483-2													
		SC63010-1													
		-2													
		-3													
		-4													

(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.

(25)

(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: GP12059

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE2-53817-CN	8/22/2018
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	3/16/2018	NA
0.95 NaOH	GNE-54104-CN	9/19/2018
Cyanide Stock Solution A- Spiking/standards	GNE2-53655-CN	6/12/2018
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: GP12059

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	GNE2-53655-CN	3/26/18	1000	1.000	41	.25 N NaOH	200	5.00	6/12/18	TRG	3/12/18
Undistilled ICV Int.	GNE8-51786-CN	1/24/18	992	2.00	41	.25 N NaOH	100	20.00		bm	
Undistilled CCV Int.	GNE7-51646-CN	1/24/18	1004	2.00	41	.25 N NaOH	100	20.00		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	4/2/18	FO	3/26/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	4/2/18	FO	3/26/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	4/2/18	FO	3/26/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	4/2/18	FO	3/26/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	4/2/18	FO	3/26/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	4/2/18	FO	3/26/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30		BM	
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40		BM	

(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: 1327

YANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

GP 12076

lethod: SW846 9012B M

ottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
	1	MB1	12	–	✓	0.25	6	120	3:18	3:48	03/29/18	GP -MB1			TD
		B1				0.25						GP -B1	0.10 ml of 5.0 mg/l (c)		
		S1				0.31						GP -S1	0.10 ml of 5.0 mg/l		
		S2				0.30						GP -S2	0.10 ml of 5.0 mg/l		
		D1				0.46						GP -D1			
		IC63012-5				0.48									
		-10				0.35									
		-15				0.28									
		-20				0.32									
		-25				0.40									
		-30				0.34									
		-35				0.30									
		-40				0.34									
		-45				0.35									
		-50				0.33									
		-55				0.35									
		-60				0.34									
		-65				0.43									
		-70				0.40									
		-75				0.29									
		-80				0.32									
	2	-85				0.36									
		IC62920-1				0.30									
		IC62935-2				0.30									
		IC63016-1				0.37									

Check if sulfamic acid was added.

Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

25

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.

mments:

Reviewer: _____ Date: _____

Form: GN0012-04A

Rev. Date: 03/09/13

3:36

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP 12076

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE2-53817-CN	8/22/2018
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	3/16/2018	NA
0.95 NaOH	GNE-54104-CN	9/19/2018
Cyanide Stock Solution A- Spiking/standards	GNE2-53655-CN	6/12/2018
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: GP12076

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	GNE2-53655-CN	3/26/18	1000	1.000	41	.25 N NaOH	200	5.00	6/12/18	TRG	3/12/18
Undistilled ICV Int.	GNE8-51786-CN	1/24/18	992	2.00	41	.25 N NaOH	100	20.00		bm	
Undistilled CCV Int.	GNE7-51646-CN	1/24/18	1004	2.00	41	.25 N NaOH	100	20.00		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	4/2/18	FO	3/26/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	4/2/18	FO	3/26/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	4/2/18	FO	3/26/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	4/2/18	FO	3/26/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	4/2/18	FO	3/26/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	4/2/18	FO	3/26/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30		BM	
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40		BM	

(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: GP12075

Autopipette ID: 41

Balance ID: B27

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW846 9012B M

bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
	1	MB1	12	—	✓	0.25	6	120	13:10	13:40	03/29/18	GP -MB1			FO
		B1				0.25						GP -B1	0.10 ml of 5.0 mg/l (c)		
1		Q S1				0.34						GP -S1	0.10 ml of 5.0 mg/l		
1		Q S2				0.42						GP -S2	0.10 ml of 5.0 mg/l		
1		Q D1				0.33						GP -D1			
1		Q JC62900-1				0.36									
1		Q -2				0.38									
1		-3				0.37									
1		↓ -4				0.43									
2		JC62897-1				0.32									
2		-2				0.34									
1		-3				0.38									
2		-4				0.32									
1		-5				0.36									
		-6				0.42									
2		↓ -7				0.45									
		JC63041-1				0.37									
1		↓ -2				0.46									
1		JC63042-1				0.44									
1		↓ -2				0.30									
1	↓	JC63068-2				0.38									
		~~Ft 03~~													
1	2	JC62900-5	↓	↓	↓	0.43	↓	↓	↓	↓	↓				↓

Check if sulfamic acid was added.

Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

~~20~~ 21 22

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: GN0012-04A

Rev. Date: 03/09/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP 12075

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE2-53817-CN	8/22/2018
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	3/16/2018	NA
0.95 NaOH	GNE-54104-CN	9/19/2018
Cyanide Stock Solution A- Spiking/standards	GNE2-53655-CN	6/12/2018
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

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ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP12075

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	GNE2-53655-CN	3/26/18	1000	1.000	41	.25 N NaOH	200	5.00	6/12/18	TRG	3/12/18
Undistilled ICV Int.	GNE8-51786-CN	1/24/18	992	2.00	41	.25 N NaOH	100	20.00		bm	
Undistilled CCV Int.	GNE7-51646-CN	1/24/18	1004	2.00	41	.25 N NaOH	100	20.00		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	4/2/18	FO	3/26/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	4/2/18	FO	3/26/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	4/2/18	FO	3/26/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	4/2/18	FO	3/26/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	4/2/18	FO	3/26/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	4/2/18	FO	3/26/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30		BM	
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40		BM	

(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