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Automated Report

Technical Report for

Anderson, Mulholland & Associates

BMSMC, Building 5 Area, PR

2Q16 Ground Water Sampling

SGS Accutest Job Number: JC21709

Sampling Dates: 06/03/16 - 06/07/16

Report to:

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Total number of pages in report: **826**

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

Nancy Cole
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Sample Summary

Anderson, Mulholland & Associates

Job No: JC21709

BMSMC, Building 5 Area, PR
Project No: 2Q16 Ground Water Sampling

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC21709-1	06/03/16	12:34	NMR	06/08/16	AQ	Ground Water	MW-14
JC21709-2	06/03/16	12:50	NMR	06/08/16	AQ	Ground Water	MW-14D
JC21709-3	06/03/16	17:00	NMR	06/08/16	AQ	Ground Water	MW-15
JC21709-4	06/06/16	12:49	NMR	06/08/16	AQ	Ground Water	UP-2
JC21709-5	06/06/16	15:42	NMR	06/08/16	AQ	Ground Water	UP-1
JC21709-6	06/06/16	17:20	NMR	06/08/16	AQ	Ground Water	A-1R4
JC21709-7	06/06/16	18:47	NMR	06/08/16	AQ	Ground Water	A-2R2
JC21709-8	06/07/16	12:40	NMR	06/08/16	AQ	Ground Water	S-30
JC21709-9	06/07/16	14:12	NMR	06/08/16	AQ	Ground Water	S-31R2
JC21709-10	06/07/16	10:19	NMR	06/08/16	AQ	Equipment Blank	EB-060716
JC21709-12	06/07/16	15:51	NMR	06/08/16	AQ	Ground Water	S-29R

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Anderson, Mulholland & Associates	**Job No**	JC21709
Site:	BMSMC, Building 5 Area, PR	**Report Date**	6/22/2016 5:38:36 PM

On 06/08/2016, 10 Sample(s), 0 Trip Blank(s) and 1Equipment Blank(s) were received at SGS Accutest at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC21709 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.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP94650

- All samples were extracted within the recommended method holding time.
- Sample(s) JC21709-5MS, JC21709-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 2,4-Dinitrophenol are outside control limits. Outside control limits due to matrix interference.
- JC21709-8 for Nitrobenzene-d5: Outside control limits due to dilution.
- JC21709-8 for 2-Fluorobiphenyl: Outside control limits due to dilution.
- JC21709-8 for 2,4,6-Tribromophenol: Outside control limits due to dilution.
- JC21709-8 for Phenol-d5: Outside control limits due to dilution.
- JC21709-8 for Terphenyl-d14: Outside control limits due to dilution.
- JC21709-8 for 2-Fluorophenol: Outside control limits due to dilution.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP94650A

- All samples were extracted within the recommended method holding time.
- Sample(s) JC21709-6MS, JC21709-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike/ Matrix Spike Duplicate Recovery(s) for 1,4-Dioxane are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Volatiles by GC By Method SW846-8015C (DAI)

Matrix: AQ **Batch ID:** GGH5321

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC21709-1MS, JC21709-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** GGH5322

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC21911-6MS, JC21911-6MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8081B

Matrix: AQ	**Batch ID:** OP94652

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC21709-7MS, JC21709-7MSD, OP94652-MSMSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Endosulfan-II are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Endosulfan-II are outside control limits. Outside control limits due to matrix interference.
- OP94652-BS1 for gamma-Chlordane: Reported from 2nd signal. %D of check calibration on 1st signal exceed method criteria (20%) so using for confirmation only.
- JC21709-7 for Tetrachloro-m-xylene: Outside control limits due to matrix interference.
- OP94652-MS for Tetrachloro-m-xylene: Outside control limits due to matrix interference.
- OP94652-MSD for Tetrachloro-m-xylene: Outside control limits due to matrix interference.

SGS Accutest 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 Accutest 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 Accutest indicated via signature on the report cover

Summary of Hits

Job Number: JC21709
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 06/03/16 thru 06/07/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC21709-1	**MW-14**					
1,4-Dioxane		3.07	0.10	0.051	ug/l	SW846 8270D BY SIM
JC21709-2	**MW-14D**					
1,4-Dioxane		3.54	0.11	0.054	ug/l	SW846 8270D BY SIM
JC21709-3	**MW-15**					
1,4-Dioxane		1.57	0.11	0.054	ug/l	SW846 8270D BY SIM
JC21709-4	**UP-2**					
1,4-Dioxane		514	11	7.0	ug/l	SW846 8270D
JC21709-5	**UP-1**					
Anthracene		1.9	1.0	0.22	ug/l	SW846 8270D
1,4-Dioxane		1.83	0.10	0.050	ug/l	SW846 8270D BY SIM
JC21709-6	**A-1R4**					
Anthracene		26.6	1.1	0.22	ug/l	SW846 8270D
Benzaldehyde		21.3	5.3	0.30	ug/l	SW846 8270D
1,4-Dioxane		64.4	1.1	0.69	ug/l	SW846 8270D
2-Methylnaphthalene		0.53 J	1.1	0.22	ug/l	SW846 8270D
Naphthalene		0.519	0.11	0.031	ug/l	SW846 8270D BY SIM
JC21709-7	**A-2R2**					
1,4-Dioxane		0.289	0.10	0.051	ug/l	SW846 8270D BY SIM
JC21709-8	**S-30**					
1,4-Dioxane		1370	52	34	ug/l	SW846 8270D
JC21709-9	**S-31R2**					
Acetophenone		5.8	2.2	0.23	ug/l	SW846 8270D
Anthracene		2.8	1.1	0.23	ug/l	SW846 8270D
Benzaldehyde		2.3 J	5.6	0.32	ug/l	SW846 8270D
1,4-Dioxane		40.1	1.1	0.73	ug/l	SW846 8270D

Summary of Hits

Job Number: JC21709
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 06/03/16 thru 06/07/16

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC21709-10	**EB-060716**					
No hits reported in this sample.						
JC21709-12	**S-29R**					
Anthracene		13.4	1.0	0.21	ug/l	SW846 8270D
1,4-Dioxane		11.7	1.0	0.66	ug/l	SW846 8270D

Sample Results

Report of Analysis

SGS Accutest

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC21709-1	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84534.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.85	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	2.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	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	ND	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	5.2	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	0.96	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	0.35	ug/l	
86-74-8	Carbazole	ND	1.0	0.24	ug/l	

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

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC21709-1	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

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	bis(2-Chloroisopropyl)ether	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	0.34	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	ND	2.1	0.24	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	0.51	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	
90-12-0	1-Methylnaphthalene	ND	1.0	0.27	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	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.46	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	42%		14-88%
4165-62-2	Phenol-d5	30%		10-110%

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

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

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC21709-1	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	81%		39-149%
4165-60-0	Nitrobenzene-d5	73%		32-128%
321-60-8	2-Fluorobiphenyl	69%		35-119%
1718-51-0	Terphenyl-d14	37%		10-126%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC21709-1	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65935.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.031	ug/l	
123-91-1	1,4-Dioxane	3.07	0.10	0.051	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		24-125%
321-60-8	2-Fluorobiphenyl	69%		19-127%
1718-51-0	Terphenyl-d14	44%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC21709-1	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105464.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	100%		56-145%
111-27-3	Hexanol	103%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-14D		
Lab Sample ID:	JC21709-2	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84535.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.5	0.90	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.5	0.98	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.5	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.5	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.98	ug/l	
	3&4-Methylphenol	ND	2.2	0.97	ug/l	
88-75-5	2-Nitrophenol	ND	5.5	1.1	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	5.5	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.43	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.5	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.5	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.5	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	5.5	0.32	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	0.23	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	0.23	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	5.5	0.37	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	ug/l	

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

Report of Analysis

Client Sample ID:	MW-14D		
Lab Sample ID:	JC21709-2	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	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	0.31	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.27	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	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	0.61	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.52	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.36	ug/l	
132-64-9	Dibenzofuran	ND	5.5	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	0.54	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	0.36	ug/l	
78-59-1	Isophorone	ND	2.2	0.30	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	5.5	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	5.5	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	5.5	0.48	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	ND	5.5	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	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-88%
4165-62-2	Phenol-d5	32%		10-110%

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

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

Report of Analysis

Client Sample ID:	MW-14D		
Lab Sample ID:	JC21709-2	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	87%		39-149%
4165-60-0	Nitrobenzene-d5	76%		32-128%
321-60-8	2-Fluorobiphenyl	74%		35-119%
1718-51-0	Terphenyl-d14	46%		10-126%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-14D		
Lab Sample ID:	JC21709-2	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65936.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.11	0.032	ug/l	
123-91-1	1,4-Dioxane	3.54	0.11	0.054	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		24-125%
321-60-8	2-Fluorobiphenyl	68%		19-127%
1718-51-0	Terphenyl-d14	49%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-14D		
Lab Sample ID:	JC21709-2	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105467.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	95%		56-145%
111-27-3	Hexanol	101%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC21709-3	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84536.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN TCL Special List

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	11	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	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	5.6	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 J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC21709-3	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	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	bis(2-Chloroisopropyl)ether	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	
90-12-0	1-Methylnaphthalene	ND	1.1	0.29	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	
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	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	45%		14-88%
4165-62-2	Phenol-d5	31%		10-110%

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

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

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC21709-3	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	81%		39-149%
4165-60-0	Nitrobenzene-d5	70%		32-128%
321-60-8	2-Fluorobiphenyl	67%		35-119%
1718-51-0	Terphenyl-d14	49%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC21709-3	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65937.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.11	0.033	ug/l	
123-91-1	1,4-Dioxane	1.57	0.11	0.054	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		24-125%
321-60-8	2-Fluorobiphenyl	72%		19-127%
1718-51-0	Terphenyl-d14	57%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC21709-3	**Date Sampled:**	06/03/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105468.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	101%		56-145%
111-27-3	Hexanol	106%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	UP-2		
Lab Sample ID:	JC21709-4	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84537.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2	2M84596.D	10	06/13/16	AN	06/10/16	OP94650	E2M3729

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2	940 ml	1.0 ml

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.87	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	0.95	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.94	ug/l	
	3&4-Methylphenol	ND	2.1	0.94	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	5.3	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.42	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.3	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	0.98	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.20	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.14	ug/l	
98-86-2	Acetophenone	ND	2.1	0.22	ug/l	
120-12-7	Anthracene	ND	1.1	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.48	ug/l	
100-52-7	Benzaldehyde	ND	5.3	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	0.36	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.43	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.49	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.23	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.25	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.36	ug/l	
86-74-8	Carbazole	ND	1.1	0.24	ug/l	

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

Report of Analysis

Client Sample ID:	UP-2		
Lab Sample ID:	JC21709-4	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.69	ug/l	
218-01-9	Chrysene	ND	1.1	0.19	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.30	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.26	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.39	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.59	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.51	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.54	ug/l	
123-91-1	1,4-Dioxane	514 [a]	11	7.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.35	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.23	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.53	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.23	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.18	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.35	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.52	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.0	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.41	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.35	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.1	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	5.3	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.47	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.68	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.51	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.24	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	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	40%	42%	14-88%

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:	UP-2		
Lab Sample ID:	JC21709-4	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	29%	32%	10-110%
118-79-6	2,4,6-Tribromophenol	81%	90%	39-149%
4165-60-0	Nitrobenzene-d5	66%	84%	32-128%
321-60-8	2-Fluorobiphenyl	66%	83%	35-119%
1718-51-0	Terphenyl-d14	48%	61%	10-126%

(a) Result is from Run# 2

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	UP-2		
Lab Sample ID:	JC21709-4	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M66255.D	1	06/22/16	LK	06/10/16	OP94650A	E4M2977
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.11	0.031	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	54%		24-125%
321-60-8	2-Fluorobiphenyl	49%		19-127%
1718-51-0	Terphenyl-d14	60%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	UP-2		
Lab Sample ID:	JC21709-4	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105469.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	99%		56-145%
111-27-3	Hexanol	102%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	UP-2		
Lab Sample ID:	JC21709-4	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G36249.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0060	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0060	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0057	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0046	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0046	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0036	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0062	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0050	ug/l	
72-20-8	Endrin	ND	0.010	0.0050	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0051	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0051	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0050	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0043	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0065	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0057	ug/l	
8001-35-2	Toxaphene	ND	0.25	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		26-132%
877-09-8	Tetrachloro-m-xylene	94%		26-132%
2051-24-3	Decachlorobiphenyl	94%		10-118%
2051-24-3	Decachlorobiphenyl	101%		10-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
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E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC21709-5	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84538.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.85	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	0.92	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	2.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.2	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.92	ug/l	
	3&4-Methylphenol	ND	2.1	0.91	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	0.99	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	5.2	1.4	ug/l	
108-95-2	Phenol	ND	2.1	0.40	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	0.95	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	0.21	ug/l	
120-12-7	Anthracene	1.9	1.0	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.46	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	0.35	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	0.47	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.22	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	0.35	ug/l	
86-74-8	Carbazole	ND	1.0	0.24	ug/l	

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

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC21709-5	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.67	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	bis(2-Chloroisopropyl)ether	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	0.57	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.52	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.34	ug/l	
132-64-9	Dibenzofuran	ND	5.2	0.23	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.51	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.24	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.22	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	0.51	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.9	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.40	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.34	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.27	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	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.45	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.66	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	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	41%		14-88%
4165-62-2	Phenol-d5	29%		10-110%

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

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

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC21709-5	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	81%		39-149%
4165-60-0	Nitrobenzene-d5	68%		32-128%
321-60-8	2-Fluorobiphenyl	67%		35-119%
1718-51-0	Terphenyl-d14	56%		10-126%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC21709-5	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65938.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.030	ug/l	
123-91-1	1,4-Dioxane	1.83	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		24-125%
321-60-8	2-Fluorobiphenyl	70%		19-127%
1718-51-0	Terphenyl-d14	63%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC21709-5	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105470.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	105%		56-145%
111-27-3	Hexanol	105%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC21709-5	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G36250.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0060	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0060	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0057	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0046	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0046	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0036	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0062	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0050	ug/l	
72-20-8	Endrin	ND	0.010	0.0050	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0051	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0051	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0050	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0043	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0065	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0057	ug/l	
8001-35-2	Toxaphene	ND	0.25	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		26-132%
877-09-8	Tetrachloro-m-xylene	93%		26-132%
2051-24-3	Decachlorobiphenyl	69%		10-118%
2051-24-3	Decachlorobiphenyl	69%		10-118%

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

SGS Accutest

Report of Analysis

Client Sample ID:	A-1R4		
Lab Sample ID:	JC21709-6	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84539.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.86	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	0.94	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.93	ug/l	
	3&4-Methylphenol	ND	2.1	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	5.3	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.41	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.3	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	0.97	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.20	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.14	ug/l	
98-86-2	Acetophenone	ND	2.1	0.22	ug/l	
120-12-7	Anthracene	26.6	1.1	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.47	ug/l	
100-52-7	Benzaldehyde	21.3	5.3	0.30	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.22	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	0.36	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.43	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.48	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.22	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.25	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.36	ug/l	
86-74-8	Carbazole	ND	1.1	0.24	ug/l	

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

Report of Analysis

Client Sample ID:	A-1R4		
Lab Sample ID:	JC21709-6	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.68	ug/l	
218-01-9	Chrysene	ND	1.1	0.19	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	bis(2-Chloroisopropyl)ether	ND	2.1	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.39	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.58	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.53	ug/l	
123-91-1	1,4-Dioxane	64.4	1.1	0.69	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.35	ug/l	
132-64-9	Dibenzofuran	ND	5.3	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	ND	2.1	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.28	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	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.18	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.34	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.52	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	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	1.1	0.35	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.1	0.28	ug/l	
91-57-6	2-Methylnaphthalene	0.53	1.1	0.22	ug/l	J
88-74-4	2-Nitroaniline	ND	5.3	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.46	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.68	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.51	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.23	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.18	ug/l	
129-00-0	Pyrene	ND	1.1	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	42%		14-88%

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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:	A-1R4		
Lab Sample ID:	JC21709-6	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	28%		10-110%
118-79-6	2,4,6-Tribromophenol	92%		39-149%
4165-60-0	Nitrobenzene-d5	86%		32-128%
321-60-8	2-Fluorobiphenyl	88%		35-119%
1718-51-0	Terphenyl-d14	75%		10-126%

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N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	A-1R4		
Lab Sample ID:	JC21709-6	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65939.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	0.519	0.11	0.031	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		24-125%
321-60-8	2-Fluorobiphenyl	76%		19-127%
1718-51-0	Terphenyl-d14	80%		10-119%

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SGS Accutest

Report of Analysis

Client Sample ID:	A-1R4		
Lab Sample ID:	JC21709-6	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105505.D	1	06/15/16	XPL	n/a	n/a	GGH5322
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	109%		56-145%
111-27-3	Hexanol	112%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	A-1R4		
Lab Sample ID:	JC21709-6	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G36251.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0060	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0060	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0057	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0046	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0046	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0036	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0062	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0050	ug/l	
72-20-8	Endrin	ND	0.010	0.0050	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0051	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0051	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0050	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0043	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0065	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0057	ug/l	
8001-35-2	Toxaphene	ND	0.25	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		26-132%
877-09-8	Tetrachloro-m-xylene	71%		26-132%
2051-24-3	Decachlorobiphenyl	29%		10-118%
2051-24-3	Decachlorobiphenyl	27%		10-118%

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E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	A-2R2		
Lab Sample ID:	JC21709-7	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84540.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.85	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	2.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	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	ND	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	5.2	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	0.96	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	0.35	ug/l	
86-74-8	Carbazole	ND	1.0	0.24	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
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E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	A-2R2		
Lab Sample ID:	JC21709-7	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

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	bis(2-Chloroisopropyl)ether	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	0.34	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	ND	2.1	0.24	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	0.51	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	
90-12-0	1-Methylnaphthalene	ND	1.0	0.27	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	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.46	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	36%		14-88%
4165-62-2	Phenol-d5	22%		10-110%

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

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

Report of Analysis

Client Sample ID:	A-2R2		
Lab Sample ID:	JC21709-7	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	89%		39-149%
4165-60-0	Nitrobenzene-d5	73%		32-128%
321-60-8	2-Fluorobiphenyl	72%		35-119%
1718-51-0	Terphenyl-d14	77%		10-126%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	A-2R2		
Lab Sample ID:	JC21709-7	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65940.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.031	ug/l	
123-91-1	1,4-Dioxane	0.289	0.10	0.051	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		24-125%
321-60-8	2-Fluorobiphenyl	74%		19-127%
1718-51-0	Terphenyl-d14	82%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	A-2R2		
Lab Sample ID:	JC21709-7	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105484.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	102%		56-145%
111-27-3	Hexanol	107%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	A-2R2		
Lab Sample ID:	JC21709-7	**Date Sampled:**	06/06/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G36252.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0061	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0061	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0057	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0047	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0046	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0036	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0062	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0050	ug/l	
72-20-8	Endrin	ND	0.010	0.0051	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0052	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0051	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0050	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0043	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0066	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0057	ug/l	
8001-35-2	Toxaphene	ND	0.25	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		26-132%
877-09-8	Tetrachloro-m-xylene	828% [a]		26-132%
2051-24-3	Decachlorobiphenyl	68%		10-118%
2051-24-3	Decachlorobiphenyl	68%		10-118%

(a) Outside control limits due to matrix interference.

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC21709-8	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84541.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2	2M84595.D	50	06/13/16	AN	06/10/16	OP94650	E2M3729

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2	960 ml	1.0 ml

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.85	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	2.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	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	ND	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	5.2	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	0.96	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	0.35	ug/l	
86-74-8	Carbazole	ND	1.0	0.24	ug/l	

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

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC21709-8	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

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	bis(2-Chloroisopropyl)ether	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	
123-91-1	1,4-Dioxane	1370 [a]	52	34	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.34	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	ND	2.1	0.24	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	0.51	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	
90-12-0	1-Methylnaphthalene	ND	1.0	0.27	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	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.46	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	31%	0% [b]	14-88%

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:	S-30		
Lab Sample ID:	JC21709-8	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	20%	0% [b]	10-110%
118-79-6	2,4,6-Tribromophenol	79%	0% [b]	39-149%
4165-60-0	Nitrobenzene-d5	62%	0% [b]	32-128%
321-60-8	2-Fluorobiphenyl	61%	0% [b]	35-119%
1718-51-0	Terphenyl-d14	67%	0% [b]	10-126%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC21709-8	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65941.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.031	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	58%		24-125%
321-60-8	2-Fluorobiphenyl	68%		19-127%
1718-51-0	Terphenyl-d14	71%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC21709-8	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105506.D	1	06/15/16	XPL	n/a	n/a	GGH5322
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	100%		56-145%
111-27-3	Hexanol	103%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC21709-8	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G36255.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0062	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0061	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0058	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0047	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0047	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0047	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0037	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0039	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0063	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0051	ug/l	
72-20-8	Endrin	ND	0.010	0.0051	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0054	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0052	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0052	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0051	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0044	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0039	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0067	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0058	ug/l	
8001-35-2	Toxaphene	ND	0.26	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		26-132%
877-09-8	Tetrachloro-m-xylene	103%		26-132%
2051-24-3	Decachlorobiphenyl	70%		10-118%
2051-24-3	Decachlorobiphenyl	70%		10-118%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-31R2		
Lab Sample ID:	JC21709-9	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84542.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN TCL Special List

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	11	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	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	5.6	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	5.8	2.2	0.23	ug/l	
120-12-7	Anthracene	2.8	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.50	ug/l	
100-52-7	Benzaldehyde	2.3	5.6	0.32	ug/l	J
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 J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	S-31R2		
Lab Sample ID:	JC21709-9	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	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	bis(2-Chloroisopropyl)ether	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	
123-91-1	1,4-Dioxane	40.1	1.1	0.73	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	
90-12-0	1-Methylnaphthalene	ND	1.1	0.29	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	
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	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	42%		14-88%

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:	S-31R2		
Lab Sample ID:	JC21709-9	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	28%		10-110%
118-79-6	2,4,6-Tribromophenol	94%		39-149%
4165-60-0	Nitrobenzene-d5	80%		32-128%
321-60-8	2-Fluorobiphenyl	79%		35-119%
1718-51-0	Terphenyl-d14	77%		10-126%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-31R2		
Lab Sample ID:	JC21709-9	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65942.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.11	0.033	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		24-125%
321-60-8	2-Fluorobiphenyl	79%		19-127%
1718-51-0	Terphenyl-d14	82%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-31R2		
Lab Sample ID:	JC21709-9	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105474.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	96%		56-145%
111-27-3	Hexanol	104%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-31R2		
Lab Sample ID:	JC21709-9	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G36256.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.011	0.0065	ug/l	
319-84-6	alpha-BHC	ND	0.011	0.0065	ug/l	
319-85-7	beta-BHC	ND	0.011	0.0061	ug/l	
319-86-8	delta-BHC	ND	0.011	0.0049	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.011	0.0030	ug/l	
5103-71-9	alpha-Chlordane	ND	0.011	0.0050	ug/l	
5103-74-2	gamma-Chlordane	ND	0.011	0.0049	ug/l	
60-57-1	Dieldrin	ND	0.011	0.0039	ug/l	
72-54-8	4,4'-DDD	ND	0.011	0.0041	ug/l	
72-55-9	4,4'-DDE	ND	0.011	0.0066	ug/l	
50-29-3	4,4'-DDT	ND	0.011	0.0053	ug/l	
72-20-8	Endrin	ND	0.011	0.0054	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.011	0.0056	ug/l	
7421-93-4	Endrin aldehyde	ND	0.011	0.0055	ug/l	
53494-70-5	Endrin ketone	ND	0.011	0.0055	ug/l	
959-98-8	Endosulfan-I	ND	0.011	0.0053	ug/l	
33213-65-9	Endosulfan-II	ND	0.011	0.0046	ug/l	
76-44-8	Heptachlor	ND	0.011	0.0041	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.011	0.0070	ug/l	
72-43-5	Methoxychlor	ND	0.022	0.0061	ug/l	
8001-35-2	Toxaphene	ND	0.27	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		26-132%
877-09-8	Tetrachloro-m-xylene	75%		26-132%
2051-24-3	Decachlorobiphenyl	64%		10-118%
2051-24-3	Decachlorobiphenyl	67%		10-118%

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

SGS Accutest

Report of Analysis

Client Sample ID:	EB-060716		
Lab Sample ID:	JC21709-10	**Date Sampled:**	06/07/16
Matrix:	AQ - Equipment Blank	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84543.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN TCL Special List

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	11	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	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	5.6	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 J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-060716		
Lab Sample ID:	JC21709-10	**Date Sampled:**	06/07/16
Matrix:	AQ - Equipment Blank	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	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	bis(2-Chloroisopropyl)ether	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	
90-12-0	1-Methylnaphthalene	ND	1.1	0.29	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	
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	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	35%		14-88%
4165-62-2	Phenol-d5	22%		10-110%

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

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

Report of Analysis

Client Sample ID:	EB-060716		
Lab Sample ID:	JC21709-10	**Date Sampled:**	06/07/16
Matrix:	AQ - Equipment Blank	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	77%		39-149%
4165-60-0	Nitrobenzene-d5	64%		32-128%
321-60-8	2-Fluorobiphenyl	66%		35-119%
1718-51-0	Terphenyl-d14	73%		10-126%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	EB-060716		
Lab Sample ID:	JC21709-10	**Date Sampled:**	06/07/16
Matrix:	AQ - Equipment Blank	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65943.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.11	0.033	ug/l	
123-91-1	1,4-Dioxane	ND	0.11	0.054	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		24-125%
321-60-8	2-Fluorobiphenyl	68%		19-127%
1718-51-0	Terphenyl-d14	80%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	EB-060716		
Lab Sample ID:	JC21709-10	**Date Sampled:**	06/07/16
Matrix:	AQ - Equipment Blank	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105475.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	103%		56-145%
111-27-3	Hexanol	107%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	EB-060716		
Lab Sample ID:	JC21709-10	**Date Sampled:**	06/07/16
Matrix:	AQ - Equipment Blank	**Date Received:**	06/08/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G36257.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0062	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0061	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0058	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0047	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0047	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0047	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0037	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0039	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0063	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0051	ug/l	
72-20-8	Endrin	ND	0.010	0.0051	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0054	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0052	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0052	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0051	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0044	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0039	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0067	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0058	ug/l	
8001-35-2	Toxaphene	ND	0.26	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		26-132%
877-09-8	Tetrachloro-m-xylene	97%		26-132%
2051-24-3	Decachlorobiphenyl	55%		10-118%
2051-24-3	Decachlorobiphenyl	57%		10-118%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-29R		
Lab Sample ID:	JC21709-12	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M84544.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
Run #2							

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

ABN TCL Special List

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	10	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	5.0	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	13.4	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 J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	S-29R		
Lab Sample ID:	JC21709-12	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	11.7	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	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	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	31%		14-88%

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:	S-29R		
Lab Sample ID:	JC21709-12	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	20%		10-110%
118-79-6	2,4,6-Tribromophenol	74%		39-149%
4165-60-0	Nitrobenzene-d5	61%		32-128%
321-60-8	2-Fluorobiphenyl	62%		35-119%
1718-51-0	Terphenyl-d14	62%		10-126%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-29R		
Lab Sample ID:	JC21709-12	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M65944.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.029	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		24-125%
321-60-8	2-Fluorobiphenyl	68%		19-127%
1718-51-0	Terphenyl-d14	71%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-29R		
Lab Sample ID:	JC21709-12	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH105473.D	1	06/14/16	XPL	n/a	n/a	GGH5321
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	98%		56-145%
111-27-3	Hexanol	107%		56-145%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-29R		
Lab Sample ID:	JC21709-12	**Date Sampled:**	06/07/16
Matrix:	AQ - Ground Water	**Date Received:**	06/08/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G36258.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0060	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0060	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0057	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0046	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0046	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0036	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0062	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0050	ug/l	
72-20-8	Endrin	ND	0.010	0.0050	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0051	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0051	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0050	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0043	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0065	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0057	ug/l	
8001-35-2	Toxaphene	ND	0.25	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		26-132%
877-09-8	Tetrachloro-m-xylene	72%		26-132%
2051-24-3	Decachlorobiphenyl	70%		10-118%
2051-24-3	Decachlorobiphenyl	71%		10-118%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

Page 1 of 2

Accutest Job #: JC21709
Accutest Quote #:

Client Information
Name: Anderson Mulholland & Associates
Address: 2700 Westchester Avenue
City: Purchase State: NY Zip: 10577
Send Report to: Terry Taylor
Phone #: 914-251-0400

Facility Information
Project Name: Anderson Mulholland
Location:
Project/PO #: 2Q16 Ground Water Sampling
FAX #: 914-251-1286

Analytical Information

	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	VOCs, 8260C	SVOC, 8270D	LMA, 8015B	Pesticides, 8081B	VMAVPH	BMAEPHR	1,4 Dioxane and naphthalene, Method 8270D SIM			
1	MW-14	6/3/16	1234	NMR	GW	13	X				X	X	X	X		X	X	X			
2	MW-14D	6/3/16	1250		GW	13	X				X	X	X	X		X	X	X			
3	MW-15	6/3/16	1700		GW	13	X				X	X	X	X		X	X	X			E57
4	UP-2	6/6/16	1249		GW	14	X				X	X	X	X	X	X	X	X			E60
5	UP-1	6/6/16	1542		GW	14	X				X	X	X	X	X	X	X	X			V313
6	A-1R4	6/6/16	1720		GW	14	X				X	X	X	X	X	X	X	X			V314
7	A-2R2 •	6/6/16	1847		GW	15	X				X	X	X	X	X	X	X	X			V315
8	S-30	6/7/16	1240		GW	14	X				X	X	X	X	X	X	X	X			
9	S-31R2 •	6/7/16	1412		GW	14	X				X	X	X	X	X	X	X	X			
10	EB-060716	6/7/16	1019		EB	4	X				X	X	X	X	X	X	X	X	INITIAL ASESSMENT	JMD	
11	TB-060716	4/11/16	0600		TB	2	X					X							LABEL VERIFICATION		

Turnaround Information
- [X] 21 Day Standard
- [ ] 14 Day
- [ ] 7 Days *EMERGENCY*
- [ ] Other _____ (Days)

Approved By:

RUSH TAT is for FAX data unless previously approved.

Data Deliverable Information
- [ ] NJ Reduced
- [X] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

Federal Express ID # 8098 6288 2950
Lab Trip Blank Date 4/11/16 Time 0600
For VOCs (8260C) add to report: Tetrahydrofuran, p-isopropyl toluene, 1-2-4 Trimethyl benzene, Benzyl choride and Tert amylchloride. For SVOCs (8270D) add to report: 1-methyl naphthalene

• VOA QC VMAL 6-8-16

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 Vesta M. Rivera	06/07/16 1900	1 Fed EX	2 FX	6-8-16 950	2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal # 352,354,356,358,360,357	Preserved where applicat	On Ice: 2.1, 2.6, 3.1, 1.7, 2.3, 2.0

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

Accutest Job #: JC21709
Accutest Quote #:

Client Information

Name: Anderson Mulholland & Associates
Address: 2700 Westchester Avenue
City: Purchase State: NY Zip: 10577
Send Report to: Terry Taylor
Phone #: 914-251-0400

Facility Information

Project Name: Anderson Mulholland
Location:
Project/PO #: 2Q16 Ground Water Sampling
FAX #: 914-251-1286

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	VOCs, 8260C	SVOC, 8270D	LMA, 8015B	Pesticides, 8081B	VMAVPH	BMAEPHR	1,4 Dioxane and naphthalene, Method 8270D SIM				
12 S - 29R	6/7/16	1551	NMR	GW	14	X				X	X	X	X	X	X	X	X				
-				GW		X				X	X	X	X		X	X	X				
-				GW		X				X	X	X	X		X	X	X				
-				GW		X				X	X	X	X		X	X	X				
-				GW		X				X	X	X	X		X	X	X				
-				GW		X				X	X	X	X		X	X	X				
-				GW		X				X	X	X	X		X	X	X				
-				GW		X				X	X	X	X		X	X	X				
-				GW		X				X	X	X	X		X	X	X				
-																					
-																					

Turnaround Information

- [X] 21 Day Standard — Approved By:
- [ ] 14 Day
- [ ] 7 Days *EMERGENCY*
- [ ] Other _____ (Days)

RUSH TAT is for FAX data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [X] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

Federal Express ID # 8098 6288 2950
Lab Trip Blank Date 4/11/16 Time 0600
For VOCs (8260C) add to report: Tetrahydrofuran, p-isopropyl toluene, 1-2-4 Trimethyl benzene, Benzyl choride and Tert amylchloride. For SVOCs (8270D) add to report: 1-methyl naphthalene

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

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	06/07/16 1900	1 Fed Ex	2 FX	6-8-16 950	2 [signature]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal #	Preserved where applicat	On Ice:

SGS Accutest Sample Receipt Summary

Job Number: JC21709 **Client:** ANDERSON MULHOLLAND & ASSOCIAT **Project:** 2Q16 GROUND WATER SAMPLING

Date / Time Received: 6/8/2016 9:50:00 AM **Delivery Method:** FedEx **Airbill #'s:** 809862882950

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1); Cooler 2: (2.6); Cooler 3: (3.1); Cooler 4: (1.7); Cooler 5: (2.3); Cooler 6: (2.0); Cooler 7: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.0); Cooler 2: (3.5); Cooler 3: (4.0); Cooler 4: (2.6); Cooler 5: (3.2); Cooler 6: (2.9); Cooler 7: (2.5);

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

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	7	

Quality Control Preservation	Y	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	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

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

Sample Integrity - Instructions	Y	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:	☐	☐	☑

Comments 1.) -4 to -10, -12 Only rec'd 1x950ml for PEST, Limited vol.

2.) -8 1 of 2 950ml for SVOC rec'd broken. Limited vol.

SGS Accutest Sample - Problem Resolution

Accutest Job Number: JC21709

CSR: Tammy McCloskey **Response Date** 6/8/2016

Response: 1) proceed as noted, comment limited volume
2) proceed as noted, comment limited volume

JC21709: Chain of Custody
Page 4 of 4

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC21709

BMSMC, Building 5 Area, PR
Project No: 2Q16 Ground Water Sampling

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC21709-1 MW-14	Collected: 03-JUN-16 12:34 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-1	SW846 8270D	10-JUN-16 14:55	AN	10-JUN-16	NG	AB8270SL
JC21709-1	SW846 8270D BY SIM	11-JUN-16 02:24	JJ	10-JUN-16	NG	B8270SIM14DIOX,BSIM+NAP
JC21709-1	SW846-8015C (DAI)	14-JUN-16 09:13	XPL			D8015LMA
JC21709-2 MW-14D	Collected: 03-JUN-16 12:50 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-2	SW846 8270D	10-JUN-16 15:21	AN	10-JUN-16	NG	AB8270SL
JC21709-2	SW846 8270D BY SIM	11-JUN-16 02:53	JJ	10-JUN-16	NG	B8270SIM14DIOX,BSIM+NAP
JC21709-2	SW846-8015C (DAI)	14-JUN-16 10:02	XPL			D8015LMA
JC21709-3 MW-15	Collected: 03-JUN-16 17:00 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-3	SW846 8270D	10-JUN-16 15:47	AN	10-JUN-16	NG	AB8270SL
JC21709-3	SW846 8270D BY SIM	11-JUN-16 03:23	JJ	10-JUN-16	NG	B8270SIM14DIOX,BSIM+NAP
JC21709-3	SW846-8015C (DAI)	14-JUN-16 10:18	XPL			D8015LMA
JC21709-4 UP-2	Collected: 06-JUN-16 12:49 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-4	SW846 8270D	10-JUN-16 16:13	AN	10-JUN-16	NG	AB8270SL
JC21709-4	SW846 8270D	13-JUN-16 11:47	AN	10-JUN-16	NG	AB8270SL
JC21709-4	SW846-8015C (DAI)	14-JUN-16 10:35	XPL			D8015LMA
JC21709-4	SW846 8081B	16-JUN-16 11:05	DS	10-JUN-16	NG	P8081PESTTCL
JC21709-4	SW846 8270D BY SIM	22-JUN-16 12:51	LK	10-JUN-16	NG	BSIM+NAP
JC21709-5 UP-1	Collected: 06-JUN-16 15:42 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-5	SW846 8270D	10-JUN-16 16:40	AN	10-JUN-16	NG	AB8270SL
JC21709-5	SW846 8270D BY SIM	11-JUN-16 03:52	JJ	10-JUN-16	NG	B8270SIM14DIOX,BSIM+NAP
JC21709-5	SW846-8015C (DAI)	14-JUN-16 10:51	XPL			D8015LMA
JC21709-5	SW846 8081B	16-JUN-16 11:21	DS	10-JUN-16	NG	P8081PESTTCL

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC21709

BMSMC, Building 5 Area, PR
Project No: 2Q16 Ground Water Sampling

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC21709-6 A-1R4	Collected: 06-JUN-16 17:20 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-6	SW846 8270D	10-JUN-16 17:07	AN	10-JUN-16	NG	AB8270SL
JC21709-6	SW846 8270D BY SIM	11-JUN-16 04:22	JJ	10-JUN-16	NG	BSIM+NAP
JC21709-6	SW846-8015C (DAI)	15-JUN-16 12:38	XPL			D8015LMA
JC21709-6	SW846 8081B	16-JUN-16 11:38	DS	10-JUN-16	NG	P8081PESTTCL
JC21709-7 A-2R2	Collected: 06-JUN-16 18:47 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-7	SW846 8270D	10-JUN-16 17:33	AN	10-JUN-16	NG	AB8270SL
JC21709-7	SW846 8270D BY SIM	11-JUN-16 04:51	JJ	10-JUN-16	NG	B8270SIM14DIOX,BSIM+NAP
JC21709-7	SW846-8015C (DAI)	14-JUN-16 15:15	XPL			D8015LMA
JC21709-7	SW846 8081B	16-JUN-16 11:54	DS	10-JUN-16	NG	P8081PESTTCL
JC21709-8 S-30	Collected: 07-JUN-16 12:40 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-8	SW846 8270D	10-JUN-16 17:59	AN	10-JUN-16	NG	AB8270SL
JC21709-8	SW846 8270D BY SIM	11-JUN-16 05:21	JJ	10-JUN-16	NG	BSIM+NAP
JC21709-8	SW846 8270D	13-JUN-16 11:20	AN	10-JUN-16	NG	AB8270SL
JC21709-8	SW846-8015C (DAI)	15-JUN-16 12:55	XPL			D8015LMA
JC21709-8	SW846 8081B	16-JUN-16 12:43	DS	10-JUN-16	NG	P8081PESTTCL
JC21709-9 S-31R2	Collected: 07-JUN-16 14:12 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-9	SW846 8270D	10-JUN-16 18:25	AN	10-JUN-16	NG	AB8270SL
JC21709-9	SW846 8270D BY SIM	11-JUN-16 05:50	JJ	10-JUN-16	NG	BSIM+NAP
JC21709-9	SW846-8015C (DAI)	14-JUN-16 12:14	XPL			D8015LMA
JC21709-9	SW846 8081B	16-JUN-16 13:00	DS	10-JUN-16	NG	P8081PESTTCL
JC21709-10 EB-060716	Collected: 07-JUN-16 10:19 By: NMR		Received: 08-JUN-16 By: AM			
JC21709-10	SW846 8270D	10-JUN-16 18:52	AN	10-JUN-16	NG	AB8270SL
JC21709-10	SW846 8270D BY SIM	11-JUN-16 06:19	JJ	10-JUN-16	NG	B8270SIM14DIOX,BSIM+NAP
JC21709-10	SW846-8015C (DAI)	14-JUN-16 12:30	XPL			D8015LMA

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC21709

BMSMC, Building 5 Area, PR
Project No: 2Q16 Ground Water Sampling

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC21709-10	SW846 8081B	16-JUN-16 13:16	DS	10-JUN-16	NG	P8081PESTTCL
JC21709-12	Collected: 07-JUN-16 15:51 By: NMR		Received: 08-JUN-16 By: AM			
S-29R						
JC21709-12	SW846 8270D	10-JUN-16 19:18	AN	10-JUN-16	NG	AB8270SL
JC21709-12	SW846 8270D BY SIM	11-JUN-16 06:49	JJ	10-JUN-16	NG	BSIM+NAP
JC21709-12	SW846-8015C (DAI)	14-JUN-16 11:57	XPL			D8015LMA
JC21709-12	SW846 8081B	16-JUN-16 13:33	DS	10-JUN-16	NG	P8081PESTTCL

SGS Accutest Internal Chain of Custody

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 06/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-1.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-1.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-1.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-1.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-1.4	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-1.4	Brian Johnson		06/10/16 15:16	Depleted
JC21709-1.4.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-1.4
JC21709-1.4.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-1.4
JC21709-1.4.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-1.4.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-1.4.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-1.4.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-1.4.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-1.4.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-1.4.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-1.5	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-1.5	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-1.6	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-1.6	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-1.7	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-1.7	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-1.9	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-1.9	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-1.10	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-1.10	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-1.11	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-1.11	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-1.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-1.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-2.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-2.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-2.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage

SGS Accutest Internal Chain of Custody

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 06/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-2.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-2.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-2.3	Brian Johnson		06/10/16 15:16	Depleted
JC21709-2.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-2.3
JC21709-2.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-2.3
JC21709-2.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-2.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-2.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-2.3.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-2.3.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-2.3.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-2.3.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-2.6	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-2.6	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-2.7	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-2.7	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-2.8	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-2.8	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-2.9	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-2.9	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-2.10	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-2.10	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-2.11	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-2.11	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-2.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-2.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-3.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-3.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-3.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-3.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-3.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-3.3	Brian Johnson		06/10/16 15:16	Depleted

SGS Accutest Internal Chain of Custody

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 06/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-3.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-3.3
JC21709-3.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-3.3
JC21709-3.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-3.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-3.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-3.3.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-3.3.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-3.3.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-3.3.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-3.5	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-3.5	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-3.6	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-3.6	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-3.7	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-3.7	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-3.8	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-3.8	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-3.9	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-3.9	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-3.11	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-3.11	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-3.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-3.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-4.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-4.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-4.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-4.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-4.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-4.3	Brian Johnson		06/10/16 15:16	Depleted
JC21709-4.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-4.3
JC21709-4.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-4.3
JC21709-4.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage

SGS Accutest Internal Chain of Custody

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 06/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-4.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-4.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-4.3.1	GCMS2M	Ashley Noble	06/13/16 15:32	Unload from Instrument
JC21709-4.3.1	Ashley Noble	Extract Freezer	06/13/16 15:33	Return to Storage
JC21709-4.4	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-4.4	Brian Johnson		06/10/16 15:16	Depleted
JC21709-4.4.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-4.4
JC21709-4.4.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-4.4
JC21709-4.4.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-4.4.1	Extract Storage	Joseph Ravino	06/16/16 11:05	Retrieve from Storage
JC21709-4.4.1	Joseph Ravino	GC6G	06/16/16 11:05	Load on Instrument
JC21709-4.6	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-4.6	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-4.7	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-4.7	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-4.8	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-4.8	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-4.9	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-4.9	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-4.11	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-4.11	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-4.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-4.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-4.13	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-4.13	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-5.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-5.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-5.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-5.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-5.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-5.3	Brian Johnson		06/10/16 15:16	Depleted

SGS Accutest Internal Chain of Custody

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 06/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-5.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-5.3
JC21709-5.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-5.3
JC21709-5.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-5.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-5.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-5.3.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-5.3.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-5.3.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-5.3.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-5.4	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-5.4	Brian Johnson		06/10/16 15:16	Depleted
JC21709-5.4.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-5.4
JC21709-5.4.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-5.4
JC21709-5.4.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-5.4.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-5.4.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-5.4.1	GCMS2M	Ashley Noble	06/13/16 15:32	Unload from Instrument
JC21709-5.4.1	Ashley Noble	Extract Freezer	06/13/16 15:33	Return to Storage
JC21709-5.5	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-5.5	Brian Johnson		06/10/16 15:16	Depleted
JC21709-5.5.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-5.5
JC21709-5.5.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-5.5
JC21709-5.5.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-5.5.1	Extract Storage	Joseph Ravino	06/16/16 11:05	Retrieve from Storage
JC21709-5.5.1	Joseph Ravino	GC6G	06/16/16 11:05	Load on Instrument
JC21709-5.6	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-5.6	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-5.7	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-5.7	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-5.8	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-5.8	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-5.9	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-5.9	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-5.11	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-5.11	Robert Lofrano		06/09/16 13:42	Subcontract

SGS Accutest Internal Chain of Custody

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 06/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-5.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-5.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-5.13	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-5.13	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-6.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-6.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-6.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-6.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-6.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-6.3	Brian Johnson		06/10/16 15:16	Depleted
JC21709-6.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-6.3
JC21709-6.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-6.3
JC21709-6.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-6.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-6.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-6.3.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-6.3.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-6.3.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-6.3.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-6.4	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-6.4	Brian Johnson		06/10/16 15:16	Depleted
JC21709-6.4.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-6.4
JC21709-6.4.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-6.4
JC21709-6.4.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-6.4.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-6.4.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-6.4.1	GCMS2M	Ashley Noble	06/13/16 15:32	Unload from Instrument
JC21709-6.4.1	Ashley Noble	Extract Freezer	06/13/16 15:33	Return to Storage
JC21709-6.5	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-6.5	Brian Johnson		06/10/16 15:16	Depleted
JC21709-6.5.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-6.5
JC21709-6.5.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-6.5
JC21709-6.5.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-6.5.1	Extract Storage	Joseph Ravino	06/16/16 11:05	Retrieve from Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-6.5.1	Joseph Ravino	GC6G	06/16/16 11:05	Load on Instrument
JC21709-6.6	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-6.6	Xu Liu	Secured Storage	06/15/16 06:57	Return to Storage
JC21709-6.6	Secured Storage	Xu Liu	06/15/16 06:57	Retrieve from Storage
JC21709-6.6	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-6.8	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-6.8	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-6.9	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-6.9	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-6.10	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-6.10	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-6.11	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-6.11	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-6.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-6.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-6.13	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-6.13	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-7.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-7.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-7.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-7.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-7.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-7.3	Brian Johnson		06/10/16 15:16	Depleted
JC21709-7.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-7.3
JC21709-7.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-7.3
JC21709-7.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-7.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-7.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-7.3.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-7.3.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-7.3.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-7.3.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-7.4	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-7.4	Brian Johnson		06/10/16 15:16	Depleted
JC21709-7.4.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-7.4
JC21709-7.4.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-7.4
JC21709-7.4.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-7.4.1	Extract Storage	Joseph Ravino	06/16/16 11:05	Retrieve from Storage
JC21709-7.4.1	Joseph Ravino	GC6G	06/16/16 11:05	Load on Instrument
JC21709-7.5	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-7.5	Brian Johnson		06/10/16 15:16	Depleted
JC21709-7.5.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-7.5
JC21709-7.5.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-7.5
JC21709-7.5.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-7.5.1	Extract Storage	Joseph Ravino	06/16/16 11:05	Retrieve from Storage
JC21709-7.5.1	Joseph Ravino	GC6G	06/16/16 11:05	Load on Instrument
JC21709-7.6	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-7.6	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-7.7	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-7.7	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-7.8	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-7.8	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-7.9	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-7.9	Xu Liu	Secured Storage	06/15/16 06:57	Return to Storage
JC21709-7.9	Secured Storage	Xu Liu	06/15/16 06:57	Retrieve from Storage
JC21709-7.9	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-7.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-7.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-7.13	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-7.13	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-7.14	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-7.14	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-8.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-8.1	Robert Lofrano		06/09/16 09:28	Subcontract

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-8.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-8.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-8.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-8.3	Brian Johnson		06/10/16 15:16	Depleted
JC21709-8.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-8.3
JC21709-8.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-8.3
JC21709-8.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-8.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-8.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-8.3.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-8.3.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-8.3.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-8.3.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-8.4	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-8.4	Brian Johnson		06/10/16 15:16	Depleted
JC21709-8.4.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-8.4
JC21709-8.4.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-8.4
JC21709-8.4.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-8.4.1	Extract Storage	Joseph Ravino	06/16/16 12:24	Retrieve from Storage
JC21709-8.4.1	Joseph Ravino	GC6G	06/16/16 12:24	Load on Instrument
JC21709-8.6	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-8.6	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-8.7	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-8.7	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-8.8	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-8.8	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-8.9	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-8.9	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-8.10	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-8.10	Xu Liu	Secured Storage	06/15/16 06:57	Return to Storage
JC21709-8.10	Secured Storage	Xu Liu	06/15/16 06:57	Retrieve from Storage
JC21709-8.10	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-8.11	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-8.11	Robert Lofrano		06/09/16 13:42	Subcontract

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Job Number: JC21709
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Received: 06/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-8.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-8.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-9.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-9.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-9.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-9.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-9.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-9.3	Brian Johnson		06/10/16 15:16	Depleted
JC21709-9.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-9.3
JC21709-9.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-9.3
JC21709-9.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-9.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-9.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-9.3.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-9.3.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-9.3.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-9.3.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-9.5	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-9.5	Brian Johnson		06/10/16 15:16	Depleted
JC21709-9.5.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-9.5
JC21709-9.5.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-9.5
JC21709-9.5.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-9.5.1	Extract Storage	Joseph Ravino	06/16/16 12:24	Retrieve from Storage
JC21709-9.5.1	Joseph Ravino	GC6G	06/16/16 12:24	Load on Instrument
JC21709-9.6	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-9.6	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-9.9	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-9.9	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-9.10	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-9.10	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-9.11	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-9.11	Robert Lofrano		06/09/16 09:28	Subcontract

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-9.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-9.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-9.13	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-9.13	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-9.14	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-9.14	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-10.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-10.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-10.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-10.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-10.3	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-10.3	Brian Johnson		06/10/16 15:16	Depleted
JC21709-10.3.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-10.3
JC21709-10.3.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-10.3
JC21709-10.3.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-10.3.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-10.3.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-10.3.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-10.3.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-10.3.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-10.3.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-10.4	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-10.4	Brian Johnson		06/10/16 15:16	Depleted
JC21709-10.4.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-10.4
JC21709-10.4.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-10.4
JC21709-10.4.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-10.4.1	Extract Storage	Joseph Ravino	06/16/16 12:24	Retrieve from Storage
JC21709-10.4.1	Joseph Ravino	GC6G	06/16/16 12:24	Load on Instrument
JC21709-10.6	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-10.6	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-10.7	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-10.7	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-10.9	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-10.9	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-10.10	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-10.10	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-10.11	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-10.11	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-10.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-10.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-10.13	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-10.13	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-12.1	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-12.1	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-12.2	Secured Storage	Robert Lofrano	06/09/16 09:24	Retrieve from Storage
JC21709-12.2	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-12.4	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-12.4	Brian Johnson		06/10/16 15:16	Depleted
JC21709-12.4.1	Brian Johnson	Organics Prep	06/10/16 04:08	Extract from JC21709-12.4
JC21709-12.4.1	Organics Prep	Ashley Noble	06/10/16 13:09	Extract from JC21709-12.4
JC21709-12.4.1	Ashley Noble	Extract Storage	06/10/16 13:09	Return to Storage
JC21709-12.4.1	Extract Storage	Ashley Noble	06/10/16 13:09	Retrieve from Storage
JC21709-12.4.1	Ashley Noble	GCMS2M	06/10/16 13:09	Load on Instrument
JC21709-12.4.1	GCMS2M	Julius Johnson	06/11/16 00:26	Unload from Instrument
JC21709-12.4.1	Julius Johnson	GCMS4M	06/11/16 00:26	Load on Instrument
JC21709-12.4.1	GCMS4M	Linsey Kirschmann	06/13/16 15:40	Unload from Instrument
JC21709-12.4.1	Linsey Kirschmann	Extract Freezer	06/13/16 15:40	Return to Storage
JC21709-12.5	Secured Storage	Brian Johnson	06/10/16 03:57	Retrieve from Storage
JC21709-12.5	Brian Johnson		06/10/16 15:16	Depleted
JC21709-12.5.1	Brian Johnson	Organics Prep	06/10/16 04:14	Extract from JC21709-12.5
JC21709-12.5.1	Organics Prep	Nicholas Goydish	06/10/16 14:22	Extract from JC21709-12.5
JC21709-12.5.1	Nicholas Goydish	Extract Storage	06/10/16 14:22	Return to Storage
JC21709-12.5.1	Extract Storage	Joseph Ravino	06/16/16 12:24	Retrieve from Storage
JC21709-12.5.1	Joseph Ravino	GC6G	06/16/16 12:24	Load on Instrument
JC21709-12.6	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-12.6	Robert Lofrano		06/09/16 09:28	Subcontract

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC21709-12.7	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-12.7	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-12.8	Secured Storage	Robert Lofrano	06/09/16 09:28	Retrieve from Storage
JC21709-12.8	Robert Lofrano		06/09/16 09:28	Subcontract
JC21709-12.9	Secured Storage	Xu Liu	06/14/16 06:53	Retrieve from Storage
JC21709-12.9	Xu Liu	Secured Storage	06/15/16 15:19	Return to Storage
JC21709-12.10	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-12.10	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-12.12	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-12.12	Robert Lofrano		06/09/16 13:42	Subcontract
JC21709-12.13	Secured Storage	Robert Lofrano	06/09/16 13:42	Retrieve from Storage
JC21709-12.13	Robert Lofrano		06/09/16 13:42	Subcontract

GC/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: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-MB1	2M84531.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

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	10	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	5.0	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: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-MB1	2M84531.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	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	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

Method Blank Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-MB1	2M84531.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	48%	14-88%
4165-62-2	Phenol-d5	33%	10-110%
118-79-6	2,4,6-Tribromophenol	97%	39-149%
4165-60-0	Nitrobenzene-d5	79%	32-128%
321-60-8	2-Fluorobiphenyl	72%	35-119%
1718-51-0	Terphenyl-d14	65%	10-126%

Method Blank Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650A-MB1	4M65931.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.029	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.049	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	46%	14-81%
4165-62-2	Phenol-d5	32%	11-54%
118-79-6	2,4,6-Tribromophenol	108%	35-145%
4165-60-0	Nitrobenzene-d5	75%	24-125%
321-60-8	2-Fluorobiphenyl	68%	19-127%
1718-51-0	Terphenyl-d14	70%	10-119%

Blank Spike Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-BS1	2M84530.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	38.3	77	48-106
59-50-7	4-Chloro-3-methyl phenol	50	35.9	72	49-113
120-83-2	2,4-Dichlorophenol	50	34.9	70	49-111
105-67-9	2,4-Dimethylphenol	50	35.0	70	42-117
51-28-5	2,4-Dinitrophenol	100	54.5	55	37-132
534-52-1	4,6-Dinitro-o-cresol	50	43.1	86	49-119
95-48-7	2-Methylphenol	50	35.9	72	42-103
	3&4-Methylphenol	50	33.3	67	39-110
88-75-5	2-Nitrophenol	50	34.8	70	49-114
100-02-7	4-Nitrophenol	50	31.0	62	16-95
87-86-5	Pentachlorophenol	50	45.9	92	30-136
108-95-2	Phenol	50	21.5	43	10-110
58-90-2	2,3,4,6-Tetrachlorophenol	50	42.7	85	47-118
95-95-4	2,4,5-Trichlorophenol	50	38.8	78	55-116
88-06-2	2,4,6-Trichlorophenol	50	40.5	81	56-115
83-32-9	Acenaphthene	50	35.3	71	54-112
208-96-8	Acenaphthylene	50	34.5	69	49-99
98-86-2	Acetophenone	50	39.2	78	52-111
120-12-7	Anthracene	50	38.6	77	58-112
1912-24-9	Atrazine	50	47.6	95	62-134
100-52-7	Benzaldehyde	50	41.3	83	40-129
56-55-3	Benzo(a)anthracene	50	39.1	78	44-120
50-32-8	Benzo(a)pyrene	50	40.4	81	41-127
205-99-2	Benzo(b)fluoranthene	50	39.0	78	41-129
191-24-2	Benzo(g,h,i)perylene	50	37.7	75	34-128
207-08-9	Benzo(k)fluoranthene	50	42.8	86	42-122
101-55-3	4-Bromophenyl phenyl ether	50	38.0	76	54-121
85-68-7	Butyl benzyl phthalate	50	36.8	74	20-143
92-52-4	1,1'-Biphenyl	50	36.8	74	51-106
91-58-7	2-Chloronaphthalene	50	32.5	65	48-104
106-47-8	4-Chloroaniline	50	30.5	61	10-110
86-74-8	Carbazole	50	40.3	81	56-110
105-60-2	Caprolactam	50	9.3	19	10-110
218-01-9	Chrysene	50	38.8	78	45-125
111-91-1	bis(2-Chloroethoxy)methane	50	34.1	68	47-117
111-44-4	bis(2-Chloroethyl)ether	50	38.6	77	48-115

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-BS1	2M84530.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-60-1	bis(2-Chloroisopropyl)ether	50	32.2	64	44-112
7005-72-3	4-Chlorophenyl phenyl ether	50	35.9	72	50-117
121-14-2	2,4-Dinitrotoluene	50	38.8	78	57-122
606-20-2	2,6-Dinitrotoluene	50	40.4	81	58-122
91-94-1	3,3'-Dichlorobenzidine	100	68.4	68	10-110
123-91-1	1,4-Dioxane	50	24.7	49	10-110
53-70-3	Dibenzo(a,h)anthracene	50	38.9	78	36-130
132-64-9	Dibenzofuran	50	38.9	78	55-108
84-74-2	Di-n-butyl phthalate	50	40.4	81	45-123
117-84-0	Di-n-octyl phthalate	50	36.2	72	37-144
84-66-2	Diethyl phthalate	50	39.5	79	23-130
131-11-3	Dimethyl phthalate	50	39.3	79	10-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	38.7	77	36-138
206-44-0	Fluoranthene	50	40.7	81	58-116
86-73-7	Fluorene	50	37.1	74	57-113
118-74-1	Hexachlorobenzene	50	40.0	80	49-122
87-68-3	Hexachlorobutadiene	50	24.7	49	24-112
77-47-4	Hexachlorocyclopentadiene	100	47.0	47	14-119
67-72-1	Hexachloroethane	50	28.6	57	31-107
193-39-5	Indeno(1,2,3-cd)pyrene	50	40.1	80	34-128
78-59-1	Isophorone	50	37.2	74	52-119
90-12-0	1-Methylnaphthalene	50	32.0	64	46-103
91-57-6	2-Methylnaphthalene	50	32.6	65	45-107
88-74-4	2-Nitroaniline	50	40.2	80	51-127
99-09-2	3-Nitroaniline	50	35.8	72	10-110
100-01-6	4-Nitroaniline	50	39.8	80	50-112
98-95-3	Nitrobenzene	50	34.8	70	44-116
621-64-7	N-Nitroso-di-n-propylamine	50	37.3	75	49-117
86-30-6	N-Nitrosodiphenylamine	50	41.9	84	51-113
85-01-8	Phenanthrene	50	39.0	78	56-111
129-00-0	Pyrene	50	38.5	77	47-120
95-94-3	1,2,4,5-Tetrachlorobenzene	50	37.1	74	36-114

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-BS1	2M84530.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	60%	14-88%
4165-62-2	Phenol-d5	41%	10-110%
118-79-6	2,4,6-Tribromophenol	93%	39-149%
4165-60-0	Nitrobenzene-d5	72%	32-128%
321-60-8	2-Fluorobiphenyl	80%	35-119%
1718-51-0	Terphenyl-d14	82%	10-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650A-BS12	4M65932.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-20-3	Naphthalene	1	0.645	65	40-119
123-91-1	1,4-Dioxane	1	0.364	36	20-160

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	46%	14-81%
4165-62-2	Phenol-d5	31%	11-54%
118-79-6	2,4,6-Tribromophenol	102%	35-145%
4165-60-0	Nitrobenzene-d5	68%	24-125%
321-60-8	2-Fluorobiphenyl	65%	19-127%
1718-51-0	Terphenyl-d14	78%	10-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-MS	2M84532.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
OP94650-MSD	2M84533.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
JC21709-5	2M84538.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	JC21709-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		110	65.4	60	110	76.8	70	16	49-110/20
59-50-7	4-Chloro-3-methyl phenol	ND		110	68.2	62	110	78.3	71	14	44-121/18
120-83-2	2,4-Dichlorophenol	ND		110	66.1	60	110	73.7	67	11	42-120/19
105-67-9	2,4-Dimethylphenol	ND		110	70.0	64	110	76.6	70	9	33-132/23
51-28-5	2,4-Dinitrophenol	ND		220	ND	0* [a]	220	ND	0* [a]	nc	21-145/26
534-52-1	4,6-Dinitro-o-cresol	ND		110	25.7	23* [a]	110	30.4	28	17	25-134/27
95-48-7	2-Methylphenol	ND		110	70.1	64	110	78.0	71	11	47-112/18
	3&4-Methylphenol	ND		110	69.4	63	110	76.6	70	10	44-113/19
88-75-5	2-Nitrophenol	ND		110	64.2	58	110	72.8	66	13	45-118/20
100-02-7	4-Nitrophenol	ND		110	31.6	29	110	39.0	35	21	23-144/28
87-86-5	Pentachlorophenol	ND		110	84.2	77	110	103	94	20	25-151/25
108-95-2	Phenol	ND		110	56.1	51	110	62.5	57	11	22-100/22
58-90-2	2,3,4,6-Tetrachlorophenol	ND		110	78.8	72	110	96.7	88	20	44-122/21
95-95-4	2,4,5-Trichlorophenol	ND		110	69.6	63	110	82.5	75	17	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND		110	72.8	66	110	83.8	76	14	53-120/21
83-32-9	Acenaphthene	ND		110	70.9	65	110	80.5	73	13	52-120/23
208-96-8	Acenaphthylene	ND		110	68.3	62	110	77.4	70	12	50-101/22
98-86-2	Acetophenone	ND		110	69.9	64	110	80.0	73	13	31-141/23
120-12-7	Anthracene	1.9		110	74.8	68	110	86.4	79	14	54-117/22
1912-24-9	Atrazine	ND		110	83.8	76	110	98.6	90	16	42-152/23
100-52-7	Benzaldehyde	ND		110	68.9	63	110	80.5	73	16	10-164/30
56-55-3	Benzo(a)anthracene	ND		110	71.2	65	110	85.0	77	18	40-123/24
50-32-8	Benzo(a)pyrene	ND		110	71.8	65	110	86.9	79	19	41-127/25
205-99-2	Benzo(b)fluoranthene	ND		110	68.9	63	110	82.0	75	17	39-127/27
191-24-2	Benzo(g,h,i)perylene	ND		110	63.9	58	110	77.2	70	19	34-128/28
207-08-9	Benzo(k)fluoranthene	ND		110	72.8	66	110	89.7	82	21	39-122/26
101-55-3	4-Bromophenyl phenyl ether	ND		110	76.3	69	110	89.3	81	16	51-124/23
85-68-7	Butyl benzyl phthalate	ND		110	65.8	60	110	79.7	73	19	21-146/28
92-52-4	1,1'-Biphenyl	ND		110	71.8	65	110	79.7	73	10	27-142/23
91-58-7	2-Chloronaphthalene	ND		110	65.6	60	110	73.4	67	11	51-109/23
106-47-8	4-Chloroaniline	ND		110	66.1	60	110	72.0	66	9	10-110/55
86-74-8	Carbazole	ND		110	74.4	68	110	87.7	80	16	52-116/22
105-60-2	Caprolactam	ND		110	32.5	30	110	38.6	35	17	10-106/34
218-01-9	Chrysene	ND		110	69.5	63	110	83.3	76	18	41-128/24
111-91-1	bis(2-Chloroethoxy)methane	ND		110	63.2	58	110	70.5	64	11	46-120/24
111-44-4	bis(2-Chloroethyl)ether	ND		110	68.0	62	110	78.3	71	14	42-123/28

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-MS	2M84532.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
OP94650-MSD	2M84533.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
JC21709-5	2M84538.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	JC21709-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-60-1	bis(2-Chloroisopropyl)ether	ND		110	56.9	52	110	65.9	60	15	41-117/25
7005-72-3	4-Chlorophenyl phenyl ether	ND		110	74.3	68	110	87.2	79	16	48-121/21
121-14-2	2,4-Dinitrotoluene	ND		110	71.2	65	110	83.7	76	16	54-123/27
606-20-2	2,6-Dinitrotoluene	ND		110	74.3	68	110	88.5	81	17	55-125/26
91-94-1	3,3'-Dichlorobenzidine	ND		220	137	62	220	170	77	21	10-107/47
123-91-1	1,4-Dioxane	1.6		110	56.4	50	110	63.2	56	11	10-119/31
53-70-3	Dibenzo(a,h)anthracene	ND		110	65.9	60	110	81.0	74	21	35-130/27
132-64-9	Dibenzofuran	ND		110	75.6	69	110	85.7	78	13	53-112/22
84-74-2	Di-n-butyl phthalate	ND		110	72.2	66	110	87.6	80	19	38-129/23
117-84-0	Di-n-octyl phthalate	ND		110	60.6	55	110	74.2	68	20	35-145/26
84-66-2	Diethyl phthalate	ND		110	72.4	66	110	85.8	78	17	16-136/30
131-11-3	Dimethyl phthalate	ND		110	74.4	68	110	85.7	78	14	10-143/39
117-81-7	bis(2-Ethylhexyl)phthalate	ND		110	64.6	59	110	79.1	72	20	34-141/28
206-44-0	Fluoranthene	ND		110	75.2	68	110	90.5	82	18	47-123/24
86-73-7	Fluorene	ND		110	73.6	67	110	85.4	78	15	56-117/22
118-74-1	Hexachlorobenzene	ND		110	75.3	69	110	87.3	79	15	46-125/24
87-68-3	Hexachlorobutadiene	ND		110	40.6	37	110	49.3	45	19	26-121/24
77-47-4	Hexachlorocyclopentadiene	ND		220	85.4	39	220	98.7	45	14	10-133/31
67-72-1	Hexachloroethane	ND		110	45.9	42	110	54.0	49	16	35-111/26
193-39-5	Indeno(1,2,3-cd)pyrene	ND		110	68.2	62	110	83.3	76	20	32-130/30
78-59-1	Isophorone	ND		110	68.5	62	110	77.0	70	12	47-126/23
90-12-0	1-Methylnaphthalene	ND		110	62.6	57	110	69.2	63	10	34-124/25
91-57-6	2-Methylnaphthalene	ND		110	62.1	57	110	68.7	63	10	34-123/24
88-74-4	2-Nitroaniline	ND		110	76.1	69	110	90.5	82	17	46-137/23
99-09-2	3-Nitroaniline	ND		110	69.8	64	110	85.0	77	20	10-110/50
100-01-6	4-Nitroaniline	ND		110	72.9	66	110	86.1	78	17	38-118/25
98-95-3	Nitrobenzene	ND		110	63.4	58	110	72.9	66	14	35-130/25
621-64-7	N-Nitroso-di-n-propylamine	ND		110	69.1	63	110	75.7	69	9	45-123/22
86-30-6	N-Nitrosodiphenylamine	ND		110	77.2	70	110	90.6	82	16	46-123/24
85-01-8	Phenanthrene	ND		110	73.3	65	110	85.7	76	16	48-121/23
129-00-0	Pyrene	ND		110	71.6	65	110	82.9	75	15	43-124/26
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		110	73.1	67	110	82.5	75	12	25-142/24

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650-MS	2M84532.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
OP94650-MSD	2M84533.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726
JC21709-5	2M84538.D	1	06/10/16	AN	06/10/16	OP94650	E2M3726

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Surrogate Recoveries	MS	MSD	JC21709-5	Limits
367-12-4	2-Fluorophenol	54%	64%	41%	14-88%
4165-62-2	Phenol-d5	51%	58%	29%	10-110%
118-79-6	2,4,6-Tribromophenol	75%	91%	81%	39-149%
4165-60-0	Nitrobenzene-d5	57%	67%	68%	32-128%
321-60-8	2-Fluorobiphenyl	69%	77%	67%	35-119%
1718-51-0	Terphenyl-d14	59%	74%	56%	10-126%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94650A-MS	4M65933.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
OP94650A-MSD	4M65934.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960
JC21709-6	4M65939.D	1	06/11/16	JJ	06/10/16	OP94650A	E4M2960

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

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	JC21709-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
91-20-3	Naphthalene	0.519		2.15	2.16	76	2.15	1.85	62	15	23-140/36
123-91-1	1,4-Dioxane	75.4	E	2.15	124	2260* [a]	2.15	107	1469* [a]	15	20-160/30

CAS No.	Surrogate Recoveries	MS	MSD	JC21709-6	Limits
367-12-4	2-Fluorophenol	58%	60%		14-81%
4165-62-2	Phenol-d5	52%	53%		11-54%
118-79-6	2,4,6-Tribromophenol	121%	119%		35-145%
4165-60-0	Nitrobenzene-d5	70%	63%	71%	24-125%
321-60-8	2-Fluorobiphenyl	73%	73%	76%	19-127%
1718-51-0	Terphenyl-d14	58%	61%	80%	10-119%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E2M3714-DFTPP
Lab File ID: 2M84346.D
Instrument ID: GCMS2M
Injection Date: 06/02/16
Injection Time: 15:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	51982	52.9		Pass
68	Less than 2.0% of mass 69	780	0.79	(1.35) [a]	Pass
69	Mass 69 relative abundance	57615	58.6		Pass
70	Less than 2.0% of mass 69	214	0.22	(0.37) [a]	Pass
127	40.0 - 60.0% of mass 198	56370	57.3		Pass
197	Less than 1.0% of mass 198	560	0.57		Pass
198	Base peak, 100% relative abundance	98330	100.0		Pass
199	5.0 - 9.0% of mass 198	6263	6.37		Pass
275	10.0 - 30.0% of mass 198	24221	24.6		Pass
365	1.0 - 100.0% of mass 198	3991	4.06		Pass
441	Present, but less than mass 443	9041	9.19	(82.1) [b]	Pass
442	40.0 - 100.0% of mass 198	63908	65.0		Pass
443	17.0 - 23.0% of mass 442	11010	11.2	(17.2) [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
E2M3714-IC3714	2M84347.D	06/02/16	16:08	00:14	Initial cal 100
E2M3714-ICC3714	2M84348.D	06/02/16	16:35	00:41	Initial cal 50
E2M3714-IC3714	2M84349.D	06/02/16	17:01	01:07	Initial cal 2
E2M3714-IC3714	2M84350.D	06/02/16	17:27	01:33	Initial cal 1
E2M3714-IC3714	2M84351.D	06/02/16	17:53	01:59	Initial cal 80
E2M3714-IC3714	2M84352.D	06/02/16	18:20	02:26	Initial cal 5
E2M3714-IC3714	2M84353.D	06/02/16	18:46	02:52	Initial cal 25
E2M3714-IC3714	2M84354.D	06/02/16	19:12	03:18	Initial cal 10
E2M3714-ICV3714	2M84355.D	06/02/16	19:38	03:44	Initial cal verification 50
E2M3714-ICV3714	2M84356.D	06/02/16	20:04	04:10	Initial cal verification 50
E2M3714-ICV3714	2M84358.D	06/02/16	20:57	05:03	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E2M3720-DFTPP
Lab File ID: 2M84432.D
Instrument ID: GCMS2M
Injection Date: 06/07/16
Injection Time: 09:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	28076	45.0		Pass
68	Less than 2.0% of mass 69	578	0.93	(1.95) [a]	Pass
69	Mass 69 relative abundance	29659	47.6		Pass
70	Less than 2.0% of mass 69	163	0.26	(0.55) [a]	Pass
127	40.0 - 60.0% of mass 198	34590	55.5		Pass
197	Less than 1.0% of mass 198	231	0.37		Pass
198	Base peak, 100% relative abundance	62365	100.0		Pass
199	5.0 - 9.0% of mass 198	4366	7.00		Pass
275	10.0 - 30.0% of mass 198	15903	25.5		Pass
365	1.0 - 100.0% of mass 198	3000	4.81		Pass
441	Present, but less than mass 443	5772	9.26	(77.1) [b]	Pass
442	40.0 - 100.0% of mass 198	38906	62.4		Pass
443	17.0 - 23.0% of mass 442	7487	12.0	(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
E2M3720-IC3720	2M84433.D	06/07/16	09:32	00:15	Initial cal 2
E2M3720-IC3720	2M84434.D	06/07/16	09:59	00:42	Initial cal 1
E2M3720-IC3720	2M84435.D	06/07/16	10:26	01:09	Initial cal 100
E2M3720-IC3720	2M84436.D	06/07/16	10:52	01:35	Initial cal 80
E2M3720-ICC3720	2M84437.D	06/07/16	11:18	02:01	Initial cal 50
E2M3720-IC3720	2M84438.D	06/07/16	11:45	02:28	Initial cal 25
E2M3720-IC3720	2M84439.D	06/07/16	12:11	02:54	Initial cal 10
E2M3720-IC3720	2M84440.D	06/07/16	12:37	03:20	Initial cal 5
E2M3720-ICV3720	2M84441.D	06/07/16	13:04	03:47	Initial cal verification 50
E2M3720-ICV3720	2M84442.D	06/07/16	13:30	04:13	Initial cal verification 50
E2M3720-ICV3720	2M84443.D	06/07/16	13:56	04:39	Initial cal verification 50
E2M3720-ICV3720	2M84444.D	06/07/16	14:23	05:06	Initial cal verification 50
E2M3720-ICV3720	2M84446.D	06/07/16	15:15	05:58	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E2M3726-DFTPP
Lab File ID: 2M84527.D
Instrument ID: GCMS2M
Injection Date: 06/10/16
Injection Time: 11:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	38425	51.8		Pass
68	Less than 2.0% of mass 69	567	0.76	(1.41) [a]	Pass
69	Mass 69 relative abundance	40147	54.1		Pass
70	Less than 2.0% of mass 69	205	0.28	(0.51) [a]	Pass
127	40.0 - 60.0% of mass 198	41922	56.5		Pass
197	Less than 1.0% of mass 198	614	0.83		Pass
198	Base peak, 100% relative abundance	74224	100.0		Pass
199	5.0 - 9.0% of mass 198	4981	6.71		Pass
275	10.0 - 30.0% of mass 198	20863	28.1		Pass
365	1.0 - 100.0% of mass 198	3924	5.29		Pass
441	Present, but less than mass 443	8087	10.9	(87.7) [b]	Pass
442	40.0 - 100.0% of mass 198	52226	70.4		Pass
443	17.0 - 23.0% of mass 442	9216	12.4	(17.6) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M3726-CC3720	2M84528.D	06/10/16	12:16	00:23	Continuing cal 25
E2M3726-CC3714	2M84529.D	06/10/16	12:44	00:51	Continuing cal 25
OP94650-BS1	2M84530.D	06/10/16	13:10	01:17	Blank Spike
OP94650-MB1	2M84531.D	06/10/16	13:36	01:43	Method Blank
OP94650-MS	2M84532.D	06/10/16	14:02	02:09	Matrix Spike
OP94650-MSD	2M84533.D	06/10/16	14:29	02:36	Matrix Spike Duplicate
JC21709-1	2M84534.D	06/10/16	14:55	03:02	MW-14
JC21709-2	2M84535.D	06/10/16	15:21	03:28	MW-14D
JC21709-3	2M84536.D	06/10/16	15:47	03:54	MW-15
JC21709-4	2M84537.D	06/10/16	16:13	04:20	UP-2
JC21709-5	2M84538.D	06/10/16	16:40	04:47	UP-1
JC21709-6	2M84539.D	06/10/16	17:07	05:14	A-1R4
JC21709-7	2M84540.D	06/10/16	17:33	05:40	A-2R2
JC21709-8	2M84541.D	06/10/16	17:59	06:06	S-30
JC21709-9	2M84542.D	06/10/16	18:25	06:32	S-31R2
JC21709-10	2M84543.D	06/10/16	18:52	06:59	EB-060716
JC21709-12	2M84544.D	06/10/16	19:18	07:25	S-29R
ZZZZZZ	2M84545.D	06/10/16	19:44	07:51	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E2M3729-DFTPP
Lab File ID: 2M84590.D
Instrument ID: GCMS2M
Injection Date: 06/13/16
Injection Time: 09:20

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	39155	52.9		Pass
68	Less than 2.0% of mass 69	699	0.94	(1.74) [a]	Pass
69	Mass 69 relative abundance	40193	54.3		Pass
70	Less than 2.0% of mass 69	259	0.35	(0.64) [a]	Pass
127	40.0 - 60.0% of mass 198	43280	58.4		Pass
197	Less than 1.0% of mass 198	368	0.50		Pass
198	Base peak, 100% relative abundance	74051	100.0		Pass
199	5.0 - 9.0% of mass 198	4791	6.47		Pass
275	10.0 - 30.0% of mass 198	19944	26.9		Pass
365	1.0 - 100.0% of mass 198	3033	4.10		Pass
441	Present, but less than mass 443	6424	8.68	(77.1) [b]	Pass
442	40.0 - 100.0% of mass 198	45335	61.2		Pass
443	17.0 - 23.0% of mass 442	8330	11.2	(18.4) [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
E2M3729-CC3720	2M84592.D	06/13/16	09:59	00:39	Continuing cal 50
JC20777-13	2M84593.D	06/13/16	10:28	01:08	(used for QC only; not part of job JC21709)
JC21709-8	2M84595.D	06/13/16	11:20	02:00	S-30
JC21709-4	2M84596.D	06/13/16	11:47	02:27	UP-2
ZZZZZZ	2M84597.D	06/13/16	12:13	02:53	(unrelated sample)
ZZZZZZ	2M84598.D	06/13/16	12:40	03:20	(unrelated sample)
E2M3729-ECC3720	2M84599.D	06/13/16	13:19	03:59	Ending cal 50

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E4M2959-DFTPP
Lab File ID: 4M65895A.D
Instrument ID: GCMS4M
Injection Date: 06/09/16
Injection Time: 14:10

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	65065	43.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	71810	48.2		Pass
70	Less than 2.0% of mass 69	215	0.14	(0.30) [a]	Pass
127	40.0 - 60.0% of mass 198	77080	51.7		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	149000	100.0		Pass
199	5.0 - 9.0% of mass 198	10025	6.73		Pass
275	10.0 - 30.0% of mass 198	31280	21.0		Pass
365	1.0 - 100.0% of mass 198	3385	2.27		Pass
441	Present, but less than mass 443	15555	10.4	(78.7) [b]	Pass
442	40.0 - 100.0% of mass 198	99904	67.0		Pass
443	17.0 - 23.0% of mass 442	19767	13.3	(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
E4M2958-IC2958	4M65896.D	06/09/16	14:21	00:11	Initial cal .5
E4M2959-IC2959	4M65896A.D	06/09/16	14:21	00:11	Initial cal .5
E4M2958-ICC2958	4M65897.D	06/09/16	14:54	00:44	Initial cal 1
E4M2959-ICC2959	4M65897A.D	06/09/16	14:54	00:44	Initial cal 1
E4M2958-IC2958	4M65898.D	06/09/16	15:24	01:14	Initial cal .2
E4M2959-IC2959	4M65898A.D	06/09/16	15:24	01:14	Initial cal .2
E4M2958-IC2958	4M65899.D	06/09/16	15:54	01:44	Initial cal .1
E4M2959-IC2959	4M65899A.D	06/09/16	15:54	01:44	Initial cal .1
E4M2958-IC2958	4M65900.D	06/09/16	16:25	02:15	Initial cal .05
E4M2959-IC2959	4M65900A.D	06/09/16	16:25	02:15	Initial cal .05
E4M2958-IC2958	4M65901.D	06/09/16	16:55	02:45	Initial cal .02
E4M2959-IC2959	4M65901A.D	06/09/16	16:55	02:45	Initial cal .02
E4M2958-IC2958	4M65902.D	06/09/16	17:25	03:15	Initial cal .01
E4M2959-IC2959	4M65902A.D	06/09/16	17:25	03:15	Initial cal .01
E4M2958-IC2958	4M65903.D	06/09/16	17:54	03:44	Initial cal 5
E4M2959-IC2959	4M65903A.D	06/09/16	17:54	03:44	Initial cal 5
E4M2958-IC2958	4M65904.D	06/09/16	18:24	04:14	Initial cal 2.5
E4M2959-IC2959	4M65904A.D	06/09/16	18:24	04:14	Initial cal 2.5
E4M2958-ICV2958	4M65905.D	06/09/16	18:54	04:44	Initial cal verification 1

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E4M2959-DFTPP
Lab File ID: 4M65895A.D
Instrument ID: GCMS4M
Injection Date: 06/09/16
Injection Time: 14:10

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4M2959-ICV2959	4M65905A.D	06/09/16	18:54	04:44	Initial cal verification 1
E4M2958-ICV2958	4M65906.D	06/09/16	19:24	05:14	Initial cal verification 1
E4M2959-ICV2959	4M65906A.D	06/09/16	19:24	05:14	Initial cal verification 1

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E4M2960-DFTPP
Lab File ID: 4M65929.D
Instrument ID: GCMS4M
Injection Date: 06/10/16
Injection Time: 22:51

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	50424	40.6		Pass
68	Less than 2.0% of mass 69	269	0.22	(0.47) [a]	Pass
69	Mass 69 relative abundance	57506	46.3		Pass
70	Less than 2.0% of mass 69	262	0.21	(0.46) [a]	Pass
127	40.0 - 60.0% of mass 198	63512	51.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	124245	100.0		Pass
199	5.0 - 9.0% of mass 198	8713	7.01		Pass
275	10.0 - 30.0% of mass 198	25453	20.5		Pass
365	1.0 - 100.0% of mass 198	3098	2.49		Pass
441	Present, but less than mass 443	13288	10.7	(78.3) [b]	Pass
442	40.0 - 100.0% of mass 198	89400	72.0		Pass
443	17.0 - 23.0% of mass 442	16977	13.7	(19.0) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4M2960-CC2958	4M65930.D	06/10/16	23:04	00:13	Continuing cal 0.5
OP94650A-MB1	4M65931.D	06/11/16	00:25	01:34	Method Blank
OP94650A-BS12	4M65932.D	06/11/16	00:55	02:04	Blank Spike
OP94650A-MS	4M65933.D	06/11/16	01:25	02:34	Matrix Spike
OP94650A-MSD	4M65934.D	06/11/16	01:54	03:03	Matrix Spike Duplicate
JC21709-1	4M65935.D	06/11/16	02:24	03:33	MW-14
JC21709-2	4M65936.D	06/11/16	02:53	04:02	MW-14D
JC21709-3	4M65937.D	06/11/16	03:23	04:32	MW-15
JC21709-5	4M65938.D	06/11/16	03:52	05:01	UP-1
JC21709-6	4M65939.D	06/11/16	04:22	05:31	A-1R4
JC21709-7	4M65940.D	06/11/16	04:51	06:00	A-2R2
JC21709-8	4M65941.D	06/11/16	05:21	06:30	S-30
JC21709-9	4M65942.D	06/11/16	05:50	06:59	S-31R2
JC21709-10	4M65943.D	06/11/16	06:19	07:28	EB-060716
JC21709-12	4M65944.D	06/11/16	06:49	07:58	S-29R
ZZZZZZ	4M65945.D	06/11/16	07:18	08:27	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E4M2974-DFTPP
Lab File ID: 4M66179.D
Instrument ID: GCMS4M
Injection Date: 06/20/16
Injection Time: 22:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	58020	41.7		Pass
68	Less than 2.0% of mass 69	561	0.40	(0.91) [a]	Pass
69	Mass 69 relative abundance	61706	44.3		Pass
70	Less than 2.0% of mass 69	274	0.20	(0.44) [a]	Pass
127	40.0 - 60.0% of mass 198	69656	50.0		Pass
197	Less than 1.0% of mass 198	387	0.28		Pass
198	Base peak, 100% relative abundance	139197	100.0		Pass
199	5.0 - 9.0% of mass 198	9146	6.57		Pass
275	10.0 - 30.0% of mass 198	28704	20.6		Pass
365	1.0 - 100.0% of mass 198	3401	2.44		Pass
441	Present, but less than mass 443	15333	11.0	(76.6) [b]	Pass
442	40.0 - 100.0% of mass 198	101275	72.8		Pass
443	17.0 - 23.0% of mass 442	20015	14.4	(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
E4M2974-IC2974	4M66181.D	06/20/16	23:01	00:55	Initial cal 0.1
E4M2974-IC2974	4M66182.D	06/20/16	23:31	01:25	Initial cal 0.2
E4M2974-IC2974	4M66183.D	06/21/16	00:01	01:55	Initial cal 0.5
E4M2974-ICC2974	4M66184.D	06/21/16	00:31	02:25	Initial cal 1.0
E4M2974-IC2974	4M66185.D	06/21/16	01:01	02:55	Initial cal 0.05
E4M2974-IC2974	4M66186.D	06/21/16	01:31	03:25	Initial cal 0.02
E4M2974-IC2974	4M66187.D	06/21/16	02:01	03:55	Initial cal 0.01
E4M2974-IC2974	4M66188.D	06/21/16	02:31	04:25	Initial cal 5.0
E4M2974-IC2974	4M66189.D	06/21/16	03:01	04:55	Initial cal 2.5
E4M2974-ICV2974	4M66190.D	06/21/16	03:30	05:24	Initial cal verification 1.0
E4M2974-ICV2974	4M66191.D	06/21/16	04:00	05:54	Initial cal verification 1.0

Instrument Performance Check (DFTPP)

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E4M2977-DFTPP
Lab File ID: 4M66248.D
Instrument ID: GCMS4M
Injection Date: 06/22/16
Injection Time: 09:29

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	65421	41.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	73768	46.7		Pass
70	Less than 2.0% of mass 69	280	0.18	(0.38) [a]	Pass
127	40.0 - 60.0% of mass 198	79389	50.2		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	158085	100.0		Pass
199	5.0 - 9.0% of mass 198	10431	6.60		Pass
275	10.0 - 30.0% of mass 198	33587	21.2		Pass
365	1.0 - 100.0% of mass 198	4118	2.60		Pass
441	Present, but less than mass 443	18883	11.9	(79.9) [b]	Pass
442	40.0 - 100.0% of mass 198	123899	78.4		Pass
443	17.0 - 23.0% of mass 442	23648	15.0	(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
E4M2977-CC2974	4M66249.D	06/22/16	09:41	00:12	Continuing cal 1
OP94970A-MB1	4M66250.D	06/22/16	10:14	00:45	Method Blank
OP94970A-BS12	4M66251.D	06/22/16	10:45	01:16	Blank Spike
JC22585-1	4M66252.D	06/22/16	11:17	01:48	(used for QC only; not part of job JC21709)
OP94970A-MS	4M66253.D	06/22/16	11:49	02:20	Matrix Spike
OP94970A-MSD	4M66254.D	06/22/16	12:19	02:50	Matrix Spike Duplicate
JC21709-4	4M66255.D	06/22/16	12:51	03:22	UP-2
ZZZZZZ	4M66256.D	06/22/16	13:22	03:53	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E2M3726-CC3720	**Injection Date:**	06/10/16
Lab File ID:	2M84528.D	**Injection Time:**	12:16
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	184865	4.90	736684	6.03	425553	8.16	721219	10.37	701538	14.59	622246	16.73
Upper Limit [a]	369730	5.40	1473368	6.53	851106	8.66	1442438	10.87	1403076	15.09	1244492	17.23
Lower Limit [b]	92433	4.40	368342	5.53	212777	7.66	360610	9.87	350769	14.09	311123	16.23

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
OP94650-BS1	198957	4.90	874090	6.03	443044	8.16	742851	10.37	714472	14.59	618738	16.73
OP94650-MB1	198866	4.90	784346	6.03	456114	8.16	783992	10.37	741955	14.59	727939	16.73
OP94650-MS	202130	4.90	874776	6.04	452188	8.16	753730	10.37	721925	14.59	635104	16.73
OP94650-MSD	196970	4.90	859622	6.03	439909	8.16	740431	10.37	715208	14.59	626858	16.73
JC21709-1	191901	4.90	743343	6.03	437565	8.16	752577	10.37	710169	14.58	689773	16.73
JC21709-2	192001	4.90	747368	6.03	428870	8.16	734798	10.37	699671	14.59	681394	16.72
JC21709-3	189115	4.90	750372	6.03	439403	8.16	749180	10.37	703610	14.59	687527	16.73
JC21709-4	191259	4.90	763870	6.03	441509	8.16	766892	10.37	730739	14.59	711391	16.73
JC21709-5	195109	4.90	785342	6.03	452483	8.16	778960	10.37	741094	14.59	716938	16.73
JC21709-6	190817	4.90	746320	6.03	431579	8.16	732915	10.37	688089	14.59	650549	16.73
JC21709-7	195826	4.90	770337	6.03	455063	8.16	775230	10.37	724336	14.59	703218	16.72
JC21709-8	191031	4.90	756359	6.03	446643	8.16	770624	10.37	705709	14.59	666218	16.72
JC21709-9	182898	4.90	721625	6.03	418708	8.16	728645	10.37	669246	14.58	658393	16.73
JC21709-10	194761	4.90	776929	6.03	450217	8.16	782711	10.37	735770	14.59	709375	16.72
JC21709-12	191018	4.90	757870	6.03	442765	8.16	757853	10.37	708478	14.58	687298	16.73
ZZZZZZ	193299	4.90	750153	6.03	441029	8.16	754608	10.37	699735	14.59	682828	16.72

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

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

Semivolatile Internal Standard Area Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E2M3729-CC3720	**Injection Date:**	06/13/16
Lab File ID:	2M84592.D	**Injection Time:**	09:59
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	188360	4.89	719221	6.03	406584	8.15	691965	10.36	681921	14.57	577548	16.71
Upper Limit [a]	376720	5.39	1438442	6.53	813168	8.65	1383930	10.86	1363842	15.07	1155096	17.21
Lower Limit [b]	94180	4.39	359611	5.53	203292	7.65	345983	9.86	340961	14.07	288774	16.21

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
JC20777-13	129270	4.89	515799	6.02	295222	8.15	502006	10.36	472340	14.57	436286	16.70
JC21709-8	165572	4.89	655776	6.02	378931	8.15	655999	10.36	616072	14.57	617312	16.70
JC21709-4	146066	4.89	586228	6.02	339222	8.15	585193	10.36	552454	14.57	542054	16.70
ZZZZZZ	141350	4.89	555461	6.02	319664	8.15	542379	10.36	486537	14.57	486422	16.70
ZZZZZZ	126369	4.89	500751	6.02	268876	8.15	458410	10.36	401303	14.57	379354	16.70
E2M3729-ECC3720	71389	4.89	657358	6.02	373671	8.15	633696	10.36	629952	14.58	544673	16.71

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.

Semivolatile Internal Standard Area Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E4M2960-CC2958	**Injection Date:**	06/10/16
Lab File ID:	4M65930.D	**Injection Time:**	23:04
Instrument ID:	GCMS4M	**Method:**	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	83000	9.68	138993	12.66	258398	16.83	194231	21.43
Upper Limit [a]	166000	10.18	277986	13.16	516796	17.33	388462	21.93
Lower Limit [b]	41500	9.18	69497	12.16	129199	16.33	97116	20.93

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
OP94650A-MB1	64152	9.68	113836	12.63	203554	16.83	152306	21.43
OP94650A-BS12	63326	9.68	109766	12.66	202745	16.83	148901	21.43
OP94650A-MS	64267	9.68	112842	12.63	197215	16.83	154562	21.43
OP94650A-MSD	63724	9.68	108548	12.63	197969	16.83	148793	21.43
JC21709-1	63448	9.68	111665	12.63	198872	16.83	147030	21.43
JC21709-2	66531	9.68	117057	12.63	217021	16.83	158624	21.43
JC21709-3	62038	9.68	112485	12.63	200970	16.83	148958	21.43
JC21709-5	62315	9.68	118584	12.63	211909	16.83	154217	21.43
JC21709-6	64744	9.68	107521	12.63	193943	16.83	150175	21.43
JC21709-7	62292	9.65	124359	12.63	206031	16.83	159550	21.42
JC21709-8	62137	9.65	130748	12.63	211823	16.83	153729	21.42
JC21709-9	62008	9.65	118842	12.63	198953	16.83	147532	21.42
JC21709-10	66371	9.65	133203	12.63	210714	16.83	156676	21.42
JC21709-12	63091	9.65	131824	12.63	204673	16.83	154647	21.42
ZZZZZZ	63409	9.65	129609	12.63	207903	16.83	153111	21.42

IS 1 = 1-Methylnaphthalene-d10
IS 2 = Fluorene-d10
IS 3 = Fluoranthene-d10
IS 4 = Benzo(a)pyrene-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.

Semivolatile Internal Standard Area Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E4M2977-CC2974	**Injection Date:**	06/22/16
Lab File ID:	4M66249.D	**Injection Time:**	09:41
Instrument ID:	GCMS4M	**Method:**	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	66973	9.76	101711	12.74	155986	16.92	128803	21.52
Upper Limit [a]	133946	10.26	203422	13.24	311972	17.42	257606	22.02
Lower Limit [b]	33487	9.26	50856	12.24	77993	16.42	64402	21.02

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
OP94970A-MB1	56674	9.76	84748	12.74	127832	16.92	105309	21.52
OP94970A-BS12	66589	9.76	96392	12.74	143982	16.92	119453	21.52
JC22585-1	52484	9.76	85407	12.76	74099*	17.03	107768	21.53
OP94970A-MS	43527	9.76	94561	12.76	63740*	17.03	87948	21.53
OP94970A-MSD	52381	9.76	86404	12.76	73771*	17.03	105905	21.53
JC21709-4	56969	9.76	89777	12.74	133314	16.92	110652	21.52
ZZZZZZ	71043	9.76	110722	12.74	174841	16.92	141355	21.52

IS 1 = 1-Methylnaphthalene-d10
IS 2 = Fluorene-d10
IS 3 = Fluoranthene-d10
IS 4 = Benzo(a)pyrene-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.

Semivolatile Surrogate Recovery Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

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
JC21709-1	2M84534.D	42	30	81	73	69	37
JC21709-2	2M84535.D	42	32	87	76	74	46
JC21709-3	2M84536.D	45	31	81	70	67	49
JC21709-4	2M84596.D	42	32	90	84	83	61
JC21709-4	2M84537.D	40	29	81	66	66	48
JC21709-5	2M84538.D	41	29	81	68	67	56
JC21709-6	2M84539.D	42	28	92	86	88	75
JC21709-7	2M84540.D	36	22	89	73	72	77
JC21709-8	2M84541.D	31	20	79	62	61	67
JC21709-8	2M84595.D	0* [a]	0* [a]	0* [a]	0* [a]	0* [a]	0* [a]
JC21709-9	2M84542.D	42	28	94	80	79	77
JC21709-10	2M84543.D	35	22	77	64	66	73
JC21709-12	2M84544.D	31	20	74	61	62	62
OP94650-BS1	2M84530.D	60	41	93	72	80	82
OP94650-MB1	2M84531.D	48	33	97	79	72	65
OP94650-MS	2M84532.D	54	51	75	57	69	59
OP94650-MSD	2M84533.D	64	58	91	67	77	74

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-88%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	39-149%
S4 = Nitrobenzene-d5	32-128%
S5 = 2-Fluorobiphenyl	35-119%
S6 = Terphenyl-d14	10-126%

(a) Outside control limits due to dilution.

Semivolatile Surrogate Recovery Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

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

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC21709-1	4M65935.D	63	69	44
JC21709-2	4M65936.D	63	68	49
JC21709-3	4M65937.D	65	72	57
JC21709-4	4M66255.D	54	49	60
JC21709-5	4M65938.D	65	70	63
JC21709-6	4M65939.D	71	76	80
JC21709-7	4M65940.D	64	74	82
JC21709-8	4M65941.D	58	68	71
JC21709-9	4M65942.D	70	79	82
JC21709-10	4M65943.D	60	68	80
JC21709-12	4M65944.D	57	68	71
OP94650A-BS12	4M65932.D	68	65	78
OP94650A-MB1	4M65931.D	75	68	70
OP94650A-MS	4M65933.D	70	73	58
OP94650A-MSD	4M65934.D	63	73	61

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	24-125%
S2 = 2-Fluorobiphenyl	19-127%
S3 = Terphenyl-d14	10-119%

Initial Calibration Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E2M3714-ICC3714
Lab FileID: 2M84348.D

```
                          Response Factor Report  MS

  Method       : C:\MSDCHEM\1\METHODS\M2M3714.M (RTE Integrator)
  Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
  Last Update  : Fri Jun 03 08:46:05 2016
  Response via : Initial Calibration

  Calibration Files
  2   =2m84349.D  5   =2m84352.D  25  =2m84353.D  80  =2m84351.D
  100 =2m84347.D  50  =2m84348.D  1   =2m84350.D  10  =2m84354.D

   Compound          2     5     25    80    100   50    1     10    Avg %RSD
  -------------------------------------------------------------------------
101)     1,4-Dichlorobenzene-d ----------------ISTD---------------------
102) Benzaldehyde 1.306 1.340 1.231 1.067       1.236 1.263 1.165 1.230   7.42

103)     Acenaphthene-d10a     ----------------ISTD---------------------
104) 1,2,4,5-Tetr 0.490 0.473 0.441 0.472 0.480 0.463 0.503 0.425 0.468   5.43

105)     Chrysene-d12a         ----------------ISTD---------------------
106) Benzidine    0.200 0.209 0.342 0.347       0.414       0.248 0.293  29.65
          ----- Quadratic regression -----                Coefficient =  0.9920
               Response Ratio = -0.03767 + 0.49108 *A + -0.05979 *A^2

107) 1-chloroocta 0.567 0.614 0.564 0.590 0.586 0.589 0.576 0.530 0.577   4.30

108)     Phenanthrene-d10a     ----------------ISTD---------------------
109) Atrazine     0.103 0.109 0.096 0.106 0.106 0.103 0.107 0.093 0.103   5.60
110) o-terphenyl  0.505 0.543 0.511 0.570 0.567 0.540 0.531 0.480 0.531   5.83

111)     Naphthalene-d8a       ----------------ISTD---------------------
112) Hydroquinone 0.389 0.387 0.392 0.433 0.428 0.422 0.343 0.361 0.394   8.14


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

           M2M3713.M         Fri Jun 03 08:55:45 2016
```

Initial Calibration Verification

Job Number: JC21709 **Sample:** E2M3714-ICV3714
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84355.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3714\2m84355.D          Vial: 10
Acq On    :  2 Jun 2016   7:38 pm                     Operator: ashleyn
Sample    : icv3714-50                                Inst    : MS
Misc      : op94122,e2m3714                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3713.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Fri Jun 03 11:49:13 2016
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	111	0.00	8.22
104	1,2,4,5-Tetrachlorobenzen	0.468	0.495	-5.8	119	0.00	7.07
105	Chrysene-d12a	1.000	1.000	0.0	107	0.00	14.65
		True	Calc.	% Drift			
106	Benzidine	100.000	82.566	17.4	149	0.00	12.61

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84348a.D M2M3713.M Fri Jun 03 13:58:08 2016

Initial Calibration Verification

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E2M3714-ICV3714
Lab FileID: 2M84356.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3714\2m84356.D          Vial: 11
Acq On    :  2 Jun 2016   8:04 pm                     Operator: ashleyn
Sample    : icv3714-50                                Inst    : MS
Misc      : op94122,e2m3714                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3713.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Fri Jun 03 08:46:05 2016
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	120	0.00	4.94
102	Benzaldehyde	1.230	1.373	-11.6	134	0.00	4.61
108	Phenanthrene-d10a	1.000	1.000	0.0	106	0.00	10.43
109	Atrazine	0.103	0.102	1.0	106	0.00	10.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84348a.D M2M3713.M Fri Jun 03 09:02:27 2016

Initial Calibration Verification

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E2M3714-ICV3714
Lab FileID: 2M84358.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3714\2m84358.D          Vial: 13
Acq On    :  2 Jun 2016   8:57 pm                    Operator: ashleyn
Sample    : icv3714-50                               Inst    : MS
Misc      : op94122,e2m3714                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3713.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Fri Jun 03 08:46:05 2016
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111	Naphthalene-d8a	1.000	1.000	0.0	97	0.00	6.08
112	Hydroquinone	0.394	0.381	3.3	88	-0.01	6.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84348a.D M2M3713.M Fri Jun 03 09:03:19 2016

Initial Calibration Summary

Job Number: JC21709 **Sample:** E2M3720-ICC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84437.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report MS

Method : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Calibration Files
2 =2m84433.D 5 =2m84440.D 25 =2m84438.D 80 =2m84436.D
100 =2m84435.D 50 =2m84437.D 1 =2m84434.D 10 =2m84439.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d					ISTD					
2) 1,4-Dioxane	0.662	0.544	0.500	0.505	0.501	0.500	0.529	0.479	0.527	10.96
3) Pyridine									0.000#	-1.00
4) N-Nitrosodim									0.000#	-1.00
5) 2-Fluorophen	1.397	1.461	1.394	1.422	1.415	1.420	1.390	1.429	1.416	1.64
6) Indene	2.923	2.872	2.514	2.386	2.299	2.511	3.007	2.741	2.656	9.96
7) Cumene	4.222	4.104	3.760	3.640	3.585	3.731	4.200	3.936	3.897	6.52
8) Phenol-d5	1.955	1.925	1.740	1.641	1.613	1.735	1.902	1.827	1.792	7.25
9) Phenol	2.329	2.402	2.165	2.062	2.022	2.141	2.296	2.277	2.212	6.10
10) Aniline	2.395	2.397	2.152	1.962	1.909	2.079	2.335	2.336	2.196	8.97
11) bis(2-Chloro	1.568	1.631	1.452	1.454	1.416	1.482	1.806	1.561	1.546	8.25
12) 2-Chlorophen	1.625	1.610	1.398	1.283	1.238	1.384	1.706	1.497	1.468	11.55
13) Decane	1.818	1.762	1.520	1.215		1.388		1.684	1.564	14.92
14) 1,3-Dichloro	1.785	1.747	1.575	1.540	1.535	1.580	1.819	1.656	1.655	6.92
15) 1,4-Dichloro	1.803	1.740	1.605	1.556	1.552	1.596	1.686	1.672	1.651	5.45
16) Benzyl alcoh	1.037	1.040	0.996	0.924	0.877	0.978	1.021	1.050	0.990	6.22
17) 1,2-Dichloro	1.685	1.635	1.492	1.421	1.407	1.505	1.723	1.569	1.555	7.61
18) Acetophenone	2.336	2.354	2.098	1.972	1.908	2.088	2.328	2.267	2.169	8.09
19) 2-Methylphen	1.552	1.558	1.397	1.373	1.364	1.385	1.443	1.477	1.443	5.43
20) 2,2'-oxybis(	2.213	2.187	1.898	1.647	1.579	1.819	2.229	2.109	1.960	13.32
21) 3&4-Methylph	1.662	1.597	1.501	1.489	1.468	1.514	1.634	1.583	1.556	4.67
22) n-Nitroso-di	1.348	1.282	1.144	1.064	1.029	1.131	1.336	1.282	1.202	10.39
23) Hexachloroet	0.550	0.564	0.499	0.508	0.507	0.513	0.528	0.523	0.524	4.35
24) I Naphthalene-d8					ISTD					
25) Nitrobenzene	0.435	0.455	0.426	0.411	0.407	0.428	0.519	0.450	0.441	8.03
26) Nitrobenzene	0.475	0.466	0.452	0.434	0.418	0.440	0.476	0.466	0.453	4.68
27) Quinoline	0.778	0.746	0.713	0.708	0.697	0.714		0.738	0.728	3.84
28) Isophorone	0.820	0.824	0.760	0.732	0.710	0.746	0.822	0.796	0.776	5.82
29) 2-Nitropheno	0.219	0.216	0.204	0.189	0.182	0.201	0.204	0.209	0.203	6.17
30) 2,4-Dimethyl	0.390	0.407	0.380	0.378	0.371	0.384	0.433	0.401	0.393	5.16
31) Benzoic acid		0.144	0.223	0.256	0.258	0.247		0.195	0.220	20.18
----- Quadratic regression -----								Coefficient =		0.9999
Response Ratio = -0.01519 + 0.25083 *A + 0.00575 *A^2										
32) bis(2-Chloro	0.466	0.457	0.437	0.412	0.400	0.418	0.481	0.452	0.440	6.46
33) 2,4-Dichloro	0.303	0.307	0.292	0.286	0.279	0.293	0.325	0.306	0.299	4.84
34) 2,6-Dichloro	0.305	0.303	0.284	0.279	0.269	0.286	0.318	0.302	0.293	5.53
35) 1,3,5-Trichl	0.365	0.363	0.333	0.318	0.307	0.331	0.376	0.348	0.343	7.11
36) 1,2,4-Trichl	0.348	0.328	0.325	0.312	0.306	0.318	0.368	0.336	0.330	6.19
37) 1,2,3-Trichl	0.331	0.330	0.312	0.304	0.301	0.310	0.356	0.326	0.321	5.62
38) Naphthalene	1.180	1.150	1.069	1.024	0.990	1.054	1.239	1.135	1.105	7.67
39) 4-Chloroanil	0.459	0.454	0.425	0.398	0.379	0.414	0.441	0.450	0.427	6.74
40) 2,3-Dichloro	0.411	0.385	0.354	0.344	0.338	0.355		0.371	0.365	6.97
41) Caprolactam	0.177	0.186	0.176	0.175	0.172	0.174		0.187	0.178	3.22
42) Hexachlorobu	0.188	0.187	0.172	0.170	0.169	0.171	0.215	0.180	0.181	8.50
43) 4-Chloro-3-m	0.371	0.364	0.344	0.342	0.334	0.347	0.362	0.363	0.353	3.76

```
44) 2-Methylnaph 0.674 0.633 0.598 0.574 0.556 0.586 0.682 0.617 0.615   7.44
45) 1-Methylnaph 0.708 0.660 0.631 0.599 0.580 0.610 0.696 0.669 0.644   7.19
46) Dimethylnaph 0.722 0.669 0.647 0.624 0.606 0.637       0.679 0.655   5.92

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy       0.036 0.132 0.215 0.215 0.182       0.073 0.142  52.92
         ----- Quadratic regression -----                Coefficient =  0.9978
              Response Ratio = -0.05448 + 0.18280 *A + 0.00932 *A^2

49) 2,4,6-Trichl 0.386 0.368 0.362 0.354 0.354 0.357 0.405 0.363 0.369   4.90
50) 2,4,5-Trichl 0.390 0.370 0.371 0.369 0.365 0.369 0.414 0.383 0.379   4.37
51) 2-Fluorobiph 1.367 1.350 1.258 1.211 1.199 1.220 1.413 1.297 1.289   6.24
52) 2-Chloronaph 1.209 1.197 1.132 1.102 1.076 1.106 1.292 1.170 1.161   6.12
53) Biphenyl     1.643 1.608 1.513 1.469 1.439 1.477 1.719 1.562 1.554   6.26
54) 2-Nitroanili 0.470 0.474 0.462 0.441 0.434 0.443 0.518 0.463 0.463   5.71
55) Dimethylphth 1.391 1.359 1.293 1.250 1.241 1.254 1.414 1.329 1.316   5.09
56) Acenaphthyle 2.072 1.978 1.901 1.856 1.813 1.863 2.106 1.934 1.940   5.41
57) 2,6-Dinitrot 0.290 0.302 0.298 0.297 0.297 0.293 0.316 0.302 0.300   2.62
58) 3-Nitroanili 0.326 0.348 0.345 0.349 0.343 0.351 0.348 0.361 0.346   2.80
59) Acenaphthene 1.240 1.252 1.147 1.131 1.102 1.128 1.335 1.186 1.190   6.68
60) 2,4-Dinitrop 0.036 0.034 0.098 0.146 0.151 0.128       0.069 0.094  52.25
         ----- Quadratic regression -----                Coefficient =  0.9990
              Response Ratio = -0.01925 + 0.11290 *A + 0.00864 *A^2

61) 4-Nitropheno 0.133 0.118 0.161 0.180 0.181 0.173 0.140 0.152 0.155  14.93
62) Dibenzofuran 1.776 1.657 1.598 1.554 1.513 1.568 1.838 1.632 1.642   6.84
63) 2,4-Dinitrot 0.432 0.419 0.406 0.410 0.402 0.414 0.433 0.411 0.416   2.73
64) 2,3,4,6-Tetr 0.237 0.217 0.231 0.240 0.243 0.234 0.238 0.217 0.232   4.30
65) Diethylphtha 1.426 1.400 1.333 1.309 1.283 1.316 1.555 1.387 1.376   6.37
66) Fluorene     1.384 1.374 1.310 1.246 1.206 1.283 1.450 1.362 1.327   6.07
67) 4-Chlorophen 0.640 0.629 0.605 0.587 0.569 0.603 0.662 0.640 0.617   5.01
68) 4-Nitroanili 0.365 0.363 0.351 0.356 0.349 0.353 0.343 0.365 0.356   2.31

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.088 0.115 0.136 0.137 0.127       0.099 0.117  17.04
         ----- Quadratic regression -----                Coefficient =  0.9997
              Response Ratio = -0.00645 + 0.12488 *A + 0.00621 *A^2

71) n-Nitrosodip 0.555 0.534 0.508 0.507 0.501 0.512 0.569 0.525 0.526   4.71
72) 1,2-Diphenyl 0.931 0.960 0.925 0.900 0.883 0.909 0.933 0.956 0.924   2.87
73) 2,4,6-Tribro 0.115 0.109 0.108 0.113 0.115 0.110 0.106 0.111 0.111   2.81
74) 4-Bromopheny 0.221 0.217 0.209 0.213 0.210 0.210 0.235 0.216 0.217   3.97
75) Hexachlorobe 0.253 0.262 0.243 0.250 0.246 0.246 0.266 0.254 0.252   3.18
76) Pentachlorop 0.043 0.033 0.061 0.087 0.091 0.075       0.045 0.062  36.48
         ----- Quadratic regression -----                Coefficient =  0.9993
              Response Ratio = -0.00774 + 0.06404 *A + 0.00580 *A^2

77) Phenanthrene 1.230 1.183 1.115 1.108 1.087 1.117 1.293 1.152 1.161   6.11
78) Anthracene   1.247 1.205 1.128 1.128 1.104 1.121 1.260 1.174 1.171   5.14
79) Carbazole    1.113 1.097 1.021 1.028 1.022 1.030 1.187 1.048 1.068   5.57
80) Di-n-butylph 1.477 1.363 1.335 1.336 1.315 1.338 1.457 1.357 1.372   4.40
81) Fluoranthene 1.255 1.170 1.141 1.158 1.139 1.158 1.243 1.164 1.179   3.82
82) Octadecane   0.614 0.603 0.554 0.516 0.497 0.538 0.609 0.587 0.565   7.97

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.458 1.339 1.286 1.343 1.370 1.307 1.475 1.347 1.366   4.93
85) Terphenyl-d1 0.964 0.882 0.857 0.914 0.918 0.887 1.015 0.887 0.915   5.61
86) Butylbenzylp 0.747 0.666 0.636 0.664 0.667 0.650 0.723 0.660 0.677   5.60
87) Benzo[a]anth 1.349 1.260 1.185 1.203 1.190 1.181 1.493 1.238 1.262   8.62
88) 3,3'-Dichlor 0.451 0.491 0.473 0.485 0.481 0.476 0.506 0.483 0.481   3.30
```

Initial Calibration Summary

Job Number: JC21709 **Sample:** E2M3720-ICC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84437.D
Project: BMSMC, Building 5 Area, PR

```
 89) Chrysene     1.245 1.192 1.122 1.116 1.111 1.116 1.330 1.183 1.177   6.64
 90) bis(2-Ethylh 0.997 0.912 0.842 0.779 0.760 0.823 1.038 0.920 0.884  11.32

 91) I   Perylene-d12          ----------------ISTD---------------------
 92) Di-n-octylph 1.706 2.168 1.737 1.657 1.655 1.649 1.881 2.105 1.820  11.54
 93) Benzo[b]fluo 1.367 1.419 1.206 1.316 1.337 1.272 1.455 1.333 1.338   5.88
 94) Benzo[k]fluo 1.232 1.277 1.139 1.226 1.175 1.139 1.281 1.257 1.216   4.78
 95) Benzo[a]pyre 1.139 1.071 1.025 1.106 1.101 1.071 1.228 1.088 1.104   5.43
 96) Indeno[1,2,3 1.378 1.219 1.245 1.353 1.354 1.283 1.403 1.253 1.311   5.29
 97) Dibenz(a,h)a 1.046 0.949 0.915 1.008 1.005 0.966 1.032 0.922 0.980   5.05
 98) Dibenz[a,h]a 1.152 1.071 1.072 1.190 1.198 1.113 1.195 1.047 1.130   5.49
 99) 7,12-Dimethy 0.568 0.628 0.549 0.600 0.601 0.568 0.561 0.619 0.587   4.97
100) Benzo[g,h,i] 1.173 1.060 1.064 1.140 1.134 1.092 1.197 1.100 1.120   4.44
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2M3720.M         Wed Jun 08 14:38:55 2016
```

6.7.5

6

Initial Calibration Verification

Job Number: JC21709 **Sample:** E2M3720-ICV3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84441.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3720\2m84441.D          Vial: 10
Acq On    :  7 Jun 2016   1:04 pm                    Operator: ashleyn
Sample    : icv3720-50                               Inst    : MS
Misc      : op94122,e2m3720                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Wed Jun 08 14:38:41 2016
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	119	0.00	4.91
9	t	Phenol	2.212	1.777	19.7	99	0.00	4.67
12	t	2-Chlorophenol	1.468	1.321	10.0	114	0.00	4.76
19	t	2-Methylphenol	1.443	1.302	9.8	112	-0.01	5.13
21	t	3&4-Methylphenol	1.556	1.358	12.7	107	0.00	5.26
24	I	Naphthalene-d8	1.000	1.000	0.0	113	0.00	6.05
29	t	2-Nitrophenol	0.203	0.197	3.0	110	0.00	5.68
30	t	2,4-Dimethylphenol	0.393	0.383	2.5	112	0.00	5.72
		----------	True	Calc.	% Drift	----------		
31	t	Benzoic acid	50.000	48.184	3.6	108	0.00	5.86
		----------	AvgRF	CCRF	% Dev	----------		
33	t	2,4-Dichlorophenol	0.299	0.273	8.7	105	0.00	5.93
34	t	2,6-Dichlorophenol	0.293	0.270	7.8	106	0.00	6.14
43	t	4-Chloro-3-methylphenol	0.353	0.311	11.9	101	-0.02	6.68
47	I	Acenaphthene-d10	1.000	1.000	0.0	107	0.00	8.18
49	t	2,4,6-Trichlorophenol	0.369	0.349	5.4	104	-0.01	7.19
50	t	2,4,5-Trichlorophenol	0.379	0.342	9.8	99	-0.01	7.25
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	50.014	0.0	90	0.00	8.33
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.155	0.158	-1.9	97	-0.01	8.48
64		2,3,4,6-Tetrachlorophenol	0.232	0.237	-2.2	108	0.00	8.68
69	I	Phenanthrene-d10	1.000	1.000	0.0	102	0.00	10.40
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	47.353	5.3	96	0.00	9.10
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	51.395	-2.8	92	0.00	10.14

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

Initial Calibration Verification

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E2M3720-ICV3720
Lab FileID: 2M84441.D

2m84348a.D M2M3720.M Wed Jun 08 14:44:08 2016

Initial Calibration Verification

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E2M3720-ICV3720
Lab FileID: 2M84442.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\e2m3720\2m84442.D Vial: 11
Acq On : 7 Jun 2016 1:30 pm Operator: ashleyn
Sample : icv3720-50 Inst : MS
Misc : op94122,e2m3720 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Tue Jun 07 15:05:19 2016
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	108	0.00	4.91
10		Aniline	2.196	2.301	-4.8	119	0.00	4.66
16	t	Benzyl alcohol	0.990	0.996	-0.6	110	0.00	5.03
24	I	Naphthalene-d8	1.000	1.000	0.0	109	0.00	6.05
39	t	4-Chloroaniline	0.427	0.401	6.1	105	0.00	6.14
44	t	2-Methylnaphthalene	0.615	0.566	8.0	105	0.00	6.83
47	I	Acenaphthene-d10	1.000	1.000	0.0	105	0.00	8.18
54	t	2-Nitroaniline	0.463	0.407	12.1	96	0.00	7.59
58	t	3-Nitroaniline	0.346	0.316	8.7	95	0.00	8.16
62	t	Dibenzofuran	1.642	1.559	5.1	105	0.00	8.47
68	t	4-Nitroaniline	0.356	0.315	11.5	94	-0.01	9.05
69	I	Phenanthrene-d10	1.000	1.000	0.0	102	0.00	10.40
79	t	Carbazole	1.068	0.986	7.7	98	0.00	10.80

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84437.D M2M3720.M Tue Jun 07 15:29:15 2016

Initial Calibration Verification

Job Number: JC21709 **Sample:** E2M3720-ICV3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84443.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3720\2m84443.D          Vial: 12
Acq On    :  7 Jun 2016   1:56 pm                    Operator: ashleyn
Sample    : icv3720-50                               Inst    : MS
Misc      : op94122,e2m3720                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Tue Jun 07 15:05:19 2016
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	102	0.00	4.91
5	S	2-Fluorophenol	1.416	1.468	-3.7	105	0.00	3.94
8	S	Phenol-d5	1.792	1.860	-3.8	109	0.00	4.66
24	I	Naphthalene-d8	1.000	1.000	0.0	102	0.00	6.05
25	S	Nitrobenzene-d5	0.441	0.426	3.4	102	0.00	5.38
47	I	Acenaphthene-d10	1.000	1.000	0.0	98	0.00	8.18
51	S	2-Fluorobiphenyl	1.289	1.319	-2.3	106	0.00	7.28
69	I	Phenanthrene-d10	1.000	1.000	0.0	96	0.00	10.40
73	S	2,4,6-Tribromophenol	0.111	0.123	-10.8	108	0.00	9.34
83	I	Chrysene-d12	1.000	1.000	0.0	91	-0.01	14.61
85	S	Terphenyl-d14	0.915	0.954	-4.3	97	0.00	12.96

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 2m84437.D  M2M3720.M        Tue Jun 07 15:29:16 2016
```

Initial Calibration Verification

Job Number: JC21709 **Sample:** E2M3720-ICV3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84444.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\e2m3720\2m84444.D Vial: 13
Acq On : 7 Jun 2016 2:23 pm Operator: ashleyn
Sample : icv3720-50 Inst : MS
Misc : op94122,e2m3720 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Tue Jun 07 15:05:19 2016
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	129	0.00	4.91
11	t	bis(2-Chloroethyl)ether	1.546	1.449	6.3	127	0.00	4.70
14	t	1,3-Dichlorobenzene	1.655	1.513	8.6	124	0.00	4.87
15	t	1,4-Dichlorobenzene	1.651	1.530	7.3	124	0.00	4.93
17	t	1,2-Dichlorobenzene	1.555	1.423	8.5	122	0.00	5.05
20	t	2,2'-oxybis(1-Chloropropa	1.960	1.643	16.2	117	0.00	5.12
22	t	n-Nitroso-di-n-propylamin	1.202	1.079	10.2	123	0.00	5.24
23	t	Hexachloroethane	0.524	0.512	2.3	129	0.00	5.33
24	I	Naphthalene-d8	1.000	1.000	0.0	124	0.00	6.05
26	t	Nitrobenzene	0.453	0.420	7.3	118	0.00	5.40
28	t	Isophorone	0.776	0.736	5.2	122	0.00	5.60
32	t	bis(2-Chloroethoxy)methan	0.440	0.403	8.4	119	0.00	5.80
36	t	1,2,4-Trichlorobenzene	0.330	0.312	5.5	122	0.00	5.99
38	t	Naphthalene	1.105	1.048	5.2	123	0.00	6.08
42	t	Hexachlorobutadiene	0.181	0.175	3.3	127	0.00	6.18
47	I	Acenaphthene-d10	1.000	1.000	0.0	120	0.00	8.18
52	t	2-Chloronaphthalene	1.161	1.077	7.2	116	0.00	7.44
55	t	Dimethylphthalate	1.316	1.188	9.7	113	0.00	7.83
56	t	Acenaphthylene	1.940	1.690	12.9	108	0.00	7.99
57	t	2,6-Dinitrotoluene	0.300	0.276	8.0	113	0.00	7.92
59	t	Acenaphthene	1.190	1.103	7.3	117	0.00	8.23
63	t	2,4-Dinitrotoluene	0.416	0.356	14.4	103	0.00	8.50
65	t	Diethylphthalate	1.376	1.201	12.7	109	0.00	8.84
66	t	Fluorene	1.327	1.198	9.7	112	0.00	8.98
67	t	4-Chlorophenyl-phenylethe	0.617	0.572	7.3	113	0.00	8.98
69	I	Phenanthrene-d10	1.000	1.000	0.0	115	0.00	10.40
71	t	n-Nitrosodiphenylamine	0.526	0.485	7.8	109	0.00	9.17
72	t	1,2-Diphenylhydrazine	0.924	0.856	7.4	108	0.00	9.22
74	t	4-Bromophenyl-phenylether	0.217	0.203	6.5	111	0.00	9.72
75	t	Hexachlorobenzene	0.252	0.234	7.1	109	0.00	9.80
77	t	Phenanthrene	1.161	1.071	7.8	110	0.00	10.44
78	t	Anthracene	1.171	1.035	11.6	106	0.00	10.52
80	t	Di-n-butylphthalate	1.372	1.255	8.5	108	0.00	11.38
81	t	Fluoranthene	1.179	1.085	8.0	108	0.00	12.32
83	I	Chrysene-d12	1.000	1.000	0.0	110	0.00	14.62
84	t	Pyrene	1.366	1.294	5.3	109	0.00	12.67
86	t	Butylbenzylphthalate	0.677	0.604	10.8	102	0.00	13.78

Initial Calibration Verification

Job Number: JC21709 **Sample:** E2M3720-ICV3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84444.D
Project: BMSMC, Building 5 Area, PR

87	t	Benzo[a]anthracene	1.262	1.133	10.2	106	0.00	14.60
89	t	Chrysene	1.177	1.032	12.3	102	0.00	14.66
90	t	bis(2-Ethylhexyl)phthalat	0.884	0.799	9.6	107	0.00	14.73
91	I	Perylene-d12	1.000	1.000	0.0	98	0.00	16.76
92	t	Di-n-octylphthalate	1.820	1.858	-2.1	111	0.00	15.72
93	t	Benzo[b]fluoranthene	1.338	1.266	5.4	98	-0.01	16.23
94	t	Benzo[k]fluoranthene	1.216	1.262	-3.8	109	-0.01	16.27
95	t	Benzo[a]pyrene	1.104	1.045	5.3	96	0.00	16.68
96	t	Indeno[1,2,3-cd]pyrene	1.311	1.261	3.8	97	0.00	18.52
98	t	Dibenz[a,h]anthracene	1.130	1.084	4.1	96	-0.01	18.55
100	t	Benzo[g,h,i]perylene	1.120	1.067	4.7	96	-0.01	19.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84437.D M2M3720.M Tue Jun 07 15:29:17 2016

6.7.9

6

Initial Calibration Verification

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E2M3720-ICV3720
Lab FileID: 2M84446.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3720\2m84446.D          Vial: 15
Acq On    :  7 Jun 2016   3:15 pm                    Operator: ashleyn
Sample    : icv3720-50                               Inst    : MS
Misc      : op94122,e2m3720                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Tue Jun 07 15:05:19 2016
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	108	-0.01	14.61
88 t	3,3'-Dichlorobenzidine	0.481	0.444	7.7	101	0.00	14.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84437.D M2M3720.M Tue Jun 07 15:51:59 2016

Initial Calibration Verification

Job Number: JC21709 **Sample:** E2M3721-ICV3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84450.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3721\2m84450.D          Vial: 2
Acq On    :  7 Jun 2016   5:25 pm                    Operator: ashleyn
Sample    : icv3720-50                               Inst    : MS
Misc      : op94122,e2m3721                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Tue Jun 07 16:18:16 2016
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	112	0.00	4.91
2	t	1,4-Dioxane	0.527	0.534	-1.3	120	0.00	2.49
6	t	Indene	2.656	2.529	4.8	113	0.00	5.11
7	t	Cumene	3.897	3.486	10.5	105	0.00	4.29
13	t	Decane	1.564	1.400	10.5	113	0.00	4.76
18	t	Acetophenone	2.169	1.949	10.1	104	-0.01	5.24
24	I	Naphthalene-d8	1.000	1.000	0.0	123	-0.01	6.04
27	t	Quinoline	0.728	0.573	21.3	99	-0.02	6.42
40	t	2,3-Dichloroaniline	0.365	0.265	27.4	92	-0.01	7.18
41	t	Caprolactam	0.178	0.136	23.6	96	-0.04	6.49
45	t	1-Methylnaphthalene	0.644	0.497	22.8	100	0.00	6.95
46	t	Dimethylnaphthalene	0.655	0.503	23.2	97	0.00	7.61
47	I	Acenaphthene-d10	1.000	1.000	0.0	102	-0.01	8.17
		----------	True	Calc.	% Drift		----------	
48	t	Hexachlorocyclopentadiene	50.000	48.154	3.7	80	0.00	7.00
		----------	AvgRF	CCRF	% Dev		----------	
53	t	Biphenyl	1.554	1.426	8.2	98	-0.01	7.40
69	I	Phenanthrene-d10	1.000	1.000	0.0	100	-0.02	10.39
82	t	Octadecane	0.565	0.506	10.4	94	0.00	10.29
91	I	Perylene-d12	1.000	1.000	0.0	85	-0.02	16.75
99	t	7,12-Dimethylbenz(a)anthr	0.587	0.496	15.5	74	-0.02	16.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84348a.D M2M3720.M Wed Jun 08 09:04:50 2016

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3726-CC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84528.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\e2m3726\2m84528.D Vial: 2
Acq On : 10 Jun 2016 12:16 pm Operator: ashleyn
Sample : cc3720-25 Inst : MS
Misc : op94122,e2m3726 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Wed Jun 08 14:38:41 2016
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	-0.01	4.90
2	t	1,4-Dioxane	0.527	0.630	-19.5	116	-0.01	2.48
5	S	2-Fluorophenol	1.416	1.427	-0.8	94	-0.02	3.93
6	t	Indene	2.656	2.651	0.2	97	-0.01	5.11
7	t	Cumene	3.897	3.881	0.4	95	-0.02	4.28
8	S	Phenol-d5	1.792	1.836	-2.5	97	-0.02	4.65
9	t	Phenol	2.212	2.293	-3.7	97	-0.02	4.66
10		Aniline	2.196	2.166	1.4	93	-0.01	4.65
11	t	bis(2-Chloroethyl)ether	1.546	1.522	1.6	96	-0.01	4.69
12	t	2-Chlorophenol	1.468	1.478	-0.7	97	-0.02	4.75
13	t	Decane	1.564	1.655	-5.8	100	-0.01	4.75
14	t	1,3-Dichlorobenzene	1.655	1.618	2.2	94	-0.02	4.85
15	t	1,4-Dichlorobenzene	1.651	1.666	-0.9	95	-0.01	4.92
16	t	Benzyl alcohol	0.990	0.999	-0.9	92	-0.02	5.02
17	t	1,2-Dichlorobenzene	1.555	1.533	1.4	95	-0.02	5.03
18	t	Acetophenone	2.169	2.237	-3.1	98	-0.02	5.23
19	t	2-Methylphenol	1.443	1.454	-0.8	96	-0.02	5.12
20	t	2,2'-oxybis(1-Chloropropa	1.960	2.010	-2.6	97	-0.02	5.11
21	t	3&4-Methylphenol	1.556	1.536	1.3	94	-0.02	5.25
22	t	n-Nitroso-di-n-propylamin	1.202	1.214	-1.0	98	-0.02	5.23
23	t	Hexachloroethane	0.524	0.518	1.1	96	-0.02	5.31
24	I	Naphthalene-d8	1.000	1.000	0.0	94	-0.02	6.03
25	S	Nitrobenzene-d5	0.441	0.456	-3.4	101	-0.02	5.37
26	t	Nitrobenzene	0.453	0.465	-2.6	97	-0.02	5.38
27	t	Quinoline	0.728	0.720	1.1	95	-0.03	6.41
28	t	Isophorone	0.776	0.789	-1.7	98	-0.02	5.59
29	t	2-Nitrophenol	0.203	0.208	-2.5	96	-0.02	5.67
30	t	2,4-Dimethylphenol	0.393	0.390	0.8	97	-0.02	5.71
		----------	True	Calc.	% Drift	----------		
31	t	Benzoic acid	25.000	29.491	-18.0	117	-0.04	5.83
		----------	AvgRF	CCRF	% Dev	----------		
32	t	bis(2-Chloroethoxy)methan	0.440	0.436	0.9	94	-0.02	5.78
33	t	2,4-Dichlorophenol	0.299	0.291	2.7	94	-0.02	5.92
34	t	2,6-Dichlorophenol	0.293	0.288	1.7	96	-0.02	6.13
35		1,3,5-Trichlorobenzene	0.343	0.347	-1.2	98	-0.02	5.67
36	t	1,2,4-Trichlorobenzene	0.330	0.332	-0.6	96	-0.02	5.98
37		1,2,3-Trichlorobenzene	0.321	0.322	-0.3	97	-0.02	6.21
38	t	Naphthalene	1.105	1.088	1.5	96	-0.02	6.06
39	t	4-Chloroaniline	0.427	0.430	-0.7	95	-0.02	6.12

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3726-CC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84528.D
Project: BMSMC, Building 5 Area, PR

40	t	2,3-Dichloroaniline	0.365	0.361	1.1	96	-0.02	7.17
41	t	Caprolactam	0.178	0.183	-2.8	98	-0.03	6.50
42	t	Hexachlorobutadiene	0.181	0.180	0.6	98	-0.02	6.17
43	t	4-Chloro-3-methylphenol	0.353	0.356	-0.8	98	-0.03	6.67
44	t	2-Methylnaphthalene	0.615	0.606	1.5	95	-0.02	6.81
45	t	1-Methylnaphthalene	0.644	0.632	1.9	94	-0.02	6.93
46	t	Dimethylnaphthalene	0.655	0.659	-0.6	96	-0.03	7.60
47	I	Acenaphthene-d10	1.000	1.000	0.0	95	-0.02	8.16
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	50.000	49.858	0.3	108	-0.02	6.99
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.369	0.366	0.8	96	-0.02	7.18
50	t	2,4,5-Trichlorophenol	0.379	0.375	1.1	96	-0.02	7.24
51	S	2-Fluorobiphenyl	1.289	1.277	0.9	96	-0.02	7.26
52	t	2-Chloronaphthalene	1.161	1.157	0.3	97	-0.02	7.42
53	t	Biphenyl	1.554	1.509	2.9	94	-0.02	7.39
54	t	2-Nitroaniline	0.463	0.472	-1.9	97	-0.02	7.57
55	t	Dimethylphthalate	1.316	1.313	0.2	96	-0.02	7.80
56	t	Acenaphthylene	1.940	1.903	1.9	95	-0.02	7.97
57	t	2,6-Dinitrotoluene	0.300	0.305	-1.7	97	-0.02	7.90
58	t	3-Nitroaniline	0.346	0.341	1.4	94	-0.02	8.14
59	t	Acenaphthene	1.190	1.170	1.7	97	-0.03	8.21
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	53.937	-7.9	115	-0.02	8.31
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.155	0.183	-18.1	107	-0.01	8.48
62	t	Dibenzofuran	1.642	1.613	1.8	96	-0.03	8.45
63	t	2,4-Dinitrotoluene	0.416	0.421	-1.2	98	-0.03	8.48
64		2,3,4,6-Tetrachlorophenol	0.232	0.258	-11.2	106	-0.03	8.65
65	t	Diethylphthalate	1.376	1.371	0.4	97	-0.03	8.81
66	t	Fluorene	1.327	1.322	0.4	96	-0.03	8.95
67	t	4-Chlorophenyl-phenylethe	0.617	0.633	-2.6	99	-0.03	8.96
68	t	4-Nitroaniline	0.356	0.350	1.7	94	-0.03	9.03
69	I	Phenanthrene-d10	1.000	1.000	0.0	94	-0.03	10.37
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	26.603	-6.4	104	-0.03	9.08
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.526	0.527	-0.2	98	-0.03	9.15
72	t	1,2-Diphenylhydrazine	0.924	0.994	-7.6	101	-0.03	9.20
73	S	2,4,6-Tribromophenol	0.111	0.119	-7.2	104	-0.03	9.32
74	t	4-Bromophenyl-phenylether	0.217	0.221	-1.8	100	-0.03	9.70
75	t	Hexachlorobenzene	0.252	0.261	-3.6	101	-0.03	9.77
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	65.973	-31.9#	140	-0.03	10.11
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.161	1.143	1.6	96	-0.03	10.41
78	t	Anthracene	1.171	1.153	1.5	96	-0.03	10.49
79	t	Carbazole	1.068	1.047	2.0	96	-0.03	10.77
80	t	Di-n-butylphthalate	1.372	1.379	-0.5	97	-0.03	11.36
81	t	Fluoranthene	1.179	1.173	0.5	97	-0.03	12.29

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3726-CC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84528.D
Project: BMSMC, Building 5 Area, PR

82	t	Octadecane	0.565	0.583	-3.2	99	-0.03	10.26
83	I	Chrysene-d12	1.000	1.000	0.0	98	-0.04	14.59
84	t	Pyrene	1.366	1.273	6.8	97	-0.03	12.64
85	S	Terphenyl-d14	0.915	0.867	5.2	99	-0.03	12.93
86	t	Butylbenzylphthalate	0.677	0.628	7.2	97	-0.03	13.75
87	t	Benzo[a]anthracene	1.262	1.196	5.2	99	-0.04	14.57
88	t	3,3'-Dichlorobenzidine	0.481	0.467	2.9	97	-0.03	14.57
89	t	Chrysene	1.177	1.145	2.7	100	-0.04	14.63
90	t	bis(2-Ethylhexyl)phthalat	0.884	0.858	2.9	100	-0.03	14.70
91	I	Perylene-d12	1.000	1.000	0.0	123	-0.04	16.73
92	t	Di-n-octylphthalate	1.820	1.648	9.5	117	-0.03	15.69
93	t	Benzo[b]fluoranthene	1.338	1.318	1.5	135	-0.04	16.20
94	t	Benzo[k]fluoranthene	1.216	1.245	-2.4	135	-0.05	16.23
95	t	Benzo[a]pyrene	1.104	1.119	-1.4	135	-0.04	16.65
96	t	Indeno[1,2,3-cd]pyrene	1.311	1.198	8.6	119	-0.06	18.46
97	t	Dibenz(a,h)acridine	0.980	0.909	7.2	123	-0.05	18.06
98	t	Dibenz[a,h]anthracene	1.130	1.005	11.1	116	-0.06	18.50
99	t	7,12-Dimethylbenz(a)anthr	0.587	0.593	-1.0	133	-0.04	16.17
100	t	Benzo[g,h,i]perylene	1.120	0.993	11.3	115	-0.08	18.97

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84353a.D M2M3720.M Fri Jun 10 16:30:48 2016

6.7.12
6

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3726-CC3714
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84529.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3726\2m84529.D          Vial: 3
Acq On    : 10 Jun 2016  12:44 pm                     Operator: ashleyn
Sample    : cc3714-25                                 Inst    : MS
Misc      : op94122,e2m3726                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Wed Jun 08 14:38:41 2016
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	83	-0.04	4.90
102	Benzaldehyde	1.230	1.119	9.0	75	-0.04	4.57
103	Acenaphthene-d10a	1.000	1.000	0.0	81	-0.06	8.16
104	1,2,4,5-Tetrachlorobenzen	0.468	0.498	-6.4	92	-0.05	7.01
105	Chrysene-d12a	1.000	1.000	0.0	89	-0.06	14.59
	----------	True	Calc.	% Drift	----------		
106	Benzidine	25.000	25.114	-0.5	103	-0.05	12.55
	----------	AvgRF	CCRF	% Dev	----------		
107 S	1-chlorooctadecane	0.577	0.376	34.8#	59	-0.06	12.18
108	Phenanthrene-d10a	1.000	1.000	0.0	83	-0.06	10.37
109	Atrazine	0.103	0.109	-5.8	94	-0.06	9.99
110 S	o-terphenyl	0.531	0.560	-5.5	91	-0.06	10.99
111	Naphthalene-d8a	1.000	1.000	0.0	80	-0.05	6.03
112	Hydroquinone	0.394	0.347	11.9	71	-0.04	6.51

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84353a.D M2M3720.M Fri Jun 10 16:30:49 2016

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3727-ECC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84570.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3727\2m84570.D          Vial: 24
Acq On    : 11 Jun 2016   6:18 am                     Operator: ashleyd
Sample    : ecc3720-50                                Inst    : MS
Misc      : op94213,e2m3727,30.2                      Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Fri Jun 10 21:13:25 2016
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	80	-0.01	4.90
2	t	1,4-Dioxane	0.527	0.591	-12.1	95	0.00	2.48
5	S	2-Fluorophenol	1.416	1.422	-0.4	80	-0.02	3.93
6	t	Indene	2.656	2.577	3.0	82	-0.01	5.11
7	t	Cumene	3.897	3.852	1.2	83	-0.02	4.28
8	S	Phenol-d5	1.792	1.785	0.4	83	-0.02	4.65
9	t	Phenol	2.212	2.139	3.3	80	-0.02	4.66
10		Aniline	2.196	1.431	34.8	55	0.00	4.65
11	t	bis(2-Chloroethyl)ether	1.546	1.558	-0.8	84	-0.01	4.69
12	t	2-Chlorophenol	1.468	1.428	2.7	83	-0.02	4.75
13	t	Decane	1.564	1.623	-3.8	94	-0.01	4.75
14	t	1,3-Dichlorobenzene	1.655	1.602	3.2	81	-0.02	4.85
15	t	1,4-Dichlorobenzene	1.651	1.624	1.6	82	-0.02	4.91
16	t	Benzyl alcohol	0.990	0.932	5.9	76	-0.01	5.02
17	t	1,2-Dichlorobenzene	1.555	1.523	2.1	81	-0.02	5.03
18	t	Acetophenone	2.169	2.111	2.7	81	-0.02	5.23
19	t	2-Methylphenol	1.443	1.363	5.5	79	-0.02	5.12
20	t	2,2'-oxybis(1-Chloropropa	1.960	1.994	-1.7	88	-0.01	5.11
21	t	3&4-Methylphenol	1.556	1.407	9.6	75	-0.01	5.25
22	t	n-Nitroso-di-n-propylamin	1.202	1.217	-1.2	86	-0.02	5.23
23	t	Hexachloroethane	0.524	0.531	-1.3	83	-0.02	5.31
24	I	Naphthalene-d8	1.000	1.000	0.0	76	-0.02	6.03
25	S	Nitrobenzene-d5	0.441	0.456	-3.4	81	-0.02	5.37
26	t	Nitrobenzene	0.453	0.477	-5.3	83	-0.01	5.39
27	t	Quinoline	0.728	0.694	4.7	74	-0.02	6.42
28	t	Isophorone	0.776	0.755	2.7	77	-0.02	5.59
29	t	2-Nitrophenol	0.203	0.203	0.0	77	-0.02	5.67
30	t	2,4-Dimethylphenol	0.393	0.376	4.3	75	-0.02	5.71
		----------	True	Calc.	% Drift	----------		
31	t	Benzoic acid	50.000	55.663	-11.3	86	-0.02	5.85
		----------	AvgRF	CCRF	% Dev	----------		
32	t	bis(2-Chloroethoxy)methan	0.440	0.447	-1.6	82	-0.02	5.78
33	t	2,4-Dichlorophenol	0.299	0.278	7.0	73	-0.02	5.92
34	t	2,6-Dichlorophenol	0.293	0.283	3.4	76	-0.02	6.13
35		1,3,5-Trichlorobenzene	0.343	0.345	-0.6	80	-0.02	5.67
36	t	1,2,4-Trichlorobenzene	0.330	0.328	0.6	79	-0.02	5.98
37		1,2,3-Trichlorobenzene	0.321	0.319	0.6	79	-0.02	6.21
38	t	Naphthalene	1.105	1.082	2.1	79	-0.02	6.06
39	t	4-Chloroaniline	0.427	0.359	15.9	66	-0.02	6.12

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3727-ECC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84570.D
Project: BMSMC, Building 5 Area, PR

40	t	2,3-Dichloroaniline	0.365	0.352	3.6	76	-0.02	7.17
41	t	Caprolactam	0.178	0.179	-0.6	79	-0.02	6.52
42	t	Hexachlorobutadiene	0.181	0.186	-2.8	84	-0.02	6.17
43	t	4-Chloro-3-methylphenol	0.353	0.355	-0.6	78	-0.02	6.68
44	t	2-Methylnaphthalene	0.615	0.605	1.6	79	-0.02	6.81
45	t	1-Methylnaphthalene	0.644	0.621	3.6	78	-0.02	6.93
46	t	Dimethylnaphthalene	0.655	0.639	2.4	77	-0.03	7.60
47	I	Acenaphthene-d10	1.000	1.000	0.0	75	-0.03	8.16
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	100.000	83.648	16.4	61	-0.03	6.99
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.369	0.367	0.5	77	-0.02	7.18
50	t	2,4,5-Trichlorophenol	0.379	0.378	0.3	77	-0.02	7.24
51	S	2-Fluorobiphenyl	1.289	1.286	0.2	79	-0.02	7.26
52	t	2-Chloronaphthalene	1.161	1.134	2.3	77	-0.02	7.42
53	t	Biphenyl	1.554	1.517	2.4	77	-0.02	7.39
54	t	2-Nitroaniline	0.463	0.487	-5.2	83	-0.02	7.57
55	t	Dimethylphthalate	1.316	1.340	-1.8	80	-0.02	7.80
56	t	Acenaphthylene	1.940	1.885	2.8	76	-0.03	7.96
57	t	2,6-Dinitrotoluene	0.300	0.304	-1.3	78	-0.02	7.90
58	t	3-Nitroaniline	0.346	0.327	5.5	70	-0.02	8.14
59	t	Acenaphthene	1.190	1.170	1.7	78	-0.03	8.21
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	104.981	-5.0	79	-0.02	8.31
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.155	0.161	-3.9	70	-0.02	8.47
62	t	Dibenzofuran	1.642	1.601	2.5	77	-0.03	8.45
63	t	2,4-Dinitrotoluene	0.416	0.418	-0.5	76	-0.03	8.48
64		2,3,4,6-Tetrachlorophenol	0.232	0.266	-14.7	85	-0.03	8.65
65	t	Diethylphthalate	1.376	1.431	-4.0	82	-0.03	8.82
66	t	Fluorene	1.327	1.362	-2.6	80	-0.03	8.95
67	t	4-Chlorophenyl-phenylethe	0.617	0.668	-8.3	83	-0.03	8.96
68	t	4-Nitroaniline	0.356	0.325	8.7	69	-0.02	9.03
69	I	Phenanthrene-d10	1.000	1.000	0.0	75	-0.03	10.37
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	51.230	-2.5	78	-0.03	9.08
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.526	0.555	-5.5	82	-0.03	9.15
72	t	1,2-Diphenylhydrazine	0.924	1.028	-11.3	85	-0.03	9.19
73	S	2,4,6-Tribromophenol	0.111	0.130	-17.1	89	-0.03	9.32
74	t	4-Bromophenyl-phenylether	0.217	0.231	-6.5	83	-0.03	9.69
75	t	Hexachlorobenzene	0.252	0.265	-5.2	81	-0.03	9.77
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	100.000	131.886	-31.9	106	-0.03	10.11
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.161	1.137	2.1	77	-0.03	10.41
78	t	Anthracene	1.171	1.127	3.8	76	-0.03	10.49
79	t	Carbazole	1.068	1.032	3.4	75	-0.03	10.78
80	t	Di-n-butylphthalate	1.372	1.441	-5.0	81	-0.03	11.36
81	t	Fluoranthene	1.179	1.204	-2.1	78	-0.03	12.29

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3727-ECC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84570.D
Project: BMSMC, Building 5 Area, PR

82	t	Octadecane	0.565	0.578	-2.3	81	-0.03	10.26
83	I	Chrysene-d12	1.000	1.000	0.0	79	-0.04	14.59
84	t	Pyrene	1.366	1.277	6.5	78	-0.04	12.64
85	S	Terphenyl-d14	0.915	0.900	1.6	81	-0.04	12.93
86	t	Butylbenzylphthalate	0.677	0.668	1.3	82	-0.03	13.75
87	t	Benzo[a]anthracene	1.262	1.203	4.7	81	-0.04	14.57
88	t	3,3'-Dichlorobenzidine	0.481	0.422	12.3	71	-0.03	14.57
89	t	Chrysene	1.177	1.118	5.0	80	-0.04	14.63
90	t	bis(2-Ethylhexyl)phthalat	0.884	0.872	1.4	84	-0.04	14.69
91	I	Perylene-d12	1.000	1.000	0.0	88	-0.04	16.73
92	t	Di-n-octylphthalate	1.820	1.889	-3.8	101	-0.04	15.69
93	t	Benzo[b]fluoranthene	1.338	1.370	-2.4	95	-0.04	16.20
94	t	Benzo[k]fluoranthene	1.216	1.335	-9.8	103	-0.04	16.23
95	t	Benzo[a]pyrene	1.104	1.133	-2.6	93	-0.04	16.65
96	t	Indeno[1,2,3-cd]pyrene	1.311	1.309	0.2	90	-0.06	18.47
97	t	Dibenz(a,h)acridine	0.980	0.971	0.9	88	-0.05	18.06
98	t	Dibenz[a,h]anthracene	1.130	1.112	1.6	88	-0.06	18.50
99	t	7,12-Dimethylbenz(a)anthr	0.587	0.571	2.7	88	-0.04	16.17
100	t	Benzo[g,h,i]perylene	1.120	1.087	2.9	88	-0.07	18.97

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84348a.D M2M3720.M Sun Jun 12 13:20:54 2016

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3727-ECC3714
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84571.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e2m3727\2m84571.D          Vial: 25
Acq On    : 11 Jun 2016   6:44 am                    Operator: ashleyd
Sample    : ecc3714-50                               Inst    : MS
Misc      : op94213,e2m3727,30.2                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Fri Jun 10 21:13:25 2016
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	69	-0.04	4.90
102	Benzaldehyde	1.230	1.034	15.9	58	-0.04	4.57
103	Acenaphthene-d10a	1.000	1.000	0.0	69	-0.06	8.16
104	1,2,4,5-Tetrachlorobenzen	0.468	0.492	-5.1	73	-0.05	7.01
105	Chrysene-d12a	1.000	1.000	0.0	75	-0.06	14.59
	----------	True	Calc.	% Drift	----------		
106	Benzidine	50.000	45.380	9.2	64	-0.05	12.55
108	Phenanthrene-d10a	1.000	1.000	0.0	70	-0.06	10.37
109	Atrazine	0.103	0.112	-8.7	76	-0.06	10.00
111	Naphthalene-d8a	1.000	1.000	0.0	66	-0.05	6.03
112	Hydroquinone	0.394	0.336	14.7	52	-0.03	6.52

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84348a.D M2M3720.M Sun Jun 12 13:20:55 2016

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3729-CC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84592.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E2M3729\2m84592.D          Vial: 2
Acq On    : 13 Jun 2016   9:59 am                    Operator: ashleyn
Sample    : cc3720-50                                Inst    : MS
Misc      : op94122,e2m3729                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Fri Jun 10 21:13:25 2016
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	94	-0.02	4.89
2	t	1,4-Dioxane	0.527	0.623	-18.2	118	-0.02	2.47
5	S	2-Fluorophenol	1.416	1.422	-0.4	95	-0.02	3.93
6	t	Indene	2.656	2.506	5.6	94	-0.02	5.10
7	t	Cumene	3.897	3.846	1.3	97	-0.02	4.27
8	S	Phenol-d5	1.792	1.777	0.8	97	-0.03	4.64
9	t	Phenol	2.212	2.116	4.3	93	-0.03	4.65
10		Aniline	2.196	1.449	34.0#	66	-0.02	4.64
11	t	bis(2-Chloroethyl)ether	1.546	1.471	4.9	94	-0.02	4.69
12	t	2-Chlorophenol	1.468	1.413	3.7	96	-0.02	4.74
13	t	Decane	1.564	1.481	5.3	101	-0.02	4.74
14	t	1,3-Dichlorobenzene	1.655	1.594	3.7	95	-0.02	4.85
15	t	1,4-Dichlorobenzene	1.651	1.614	2.2	95	-0.02	4.91
16	t	Benzyl alcohol	0.990	0.948	4.2	92	-0.02	5.02
17	t	1,2-Dichlorobenzene	1.555	1.504	3.3	94	-0.02	5.03
18	t	Acetophenone	2.169	2.049	5.5	93	-0.02	5.23
19	t	2-Methylphenol	1.443	1.326	8.1	90	-0.02	5.12
20	t	2,2'-oxybis(1-Chloropropa	1.960	1.880	4.1	98	-0.02	5.10
21	t	3&4-Methylphenol	1.556	1.404	9.8	88	-0.02	5.24
22	t	n-Nitroso-di-n-propylamin	1.202	1.161	3.4	97	-0.02	5.22
23	t	Hexachloroethane	0.524	0.523	0.2	96	-0.02	5.31
24	I	Naphthalene-d8	1.000	1.000	0.0	90	-0.03	6.03
25	S	Nitrobenzene-d5	0.441	0.444	-0.7	93	-0.02	5.36
26	t	Nitrobenzene	0.453	0.472	-4.2	96	-0.02	5.38
27	t	Quinoline	0.728	0.688	5.5	87	-0.03	6.41
28	t	Isophorone	0.776	0.731	5.8	88	-0.02	5.58
29	t	2-Nitrophenol	0.203	0.205	-1.0	92	-0.02	5.66
30	t	2,4-Dimethylphenol	0.393	0.372	5.3	87	-0.03	5.70
		----------	True	Calc.	% Drift	----------		
31	t	Benzoic acid	50.000	54.927	-9.9	99	-0.02	5.85
		----------	AvgRF	CCRF	% Dev	----------		
32	t	bis(2-Chloroethoxy)methan	0.440	0.433	1.6	93	-0.02	5.78
33	t	2,4-Dichlorophenol	0.299	0.288	3.7	88	-0.02	5.91
34	t	2,6-Dichlorophenol	0.293	0.282	3.8	89	-0.03	6.12
35		1,3,5-Trichlorobenzene	0.343	0.343	0.0	93	-0.02	5.66
36	t	1,2,4-Trichlorobenzene	0.330	0.327	0.9	93	-0.02	5.97
37		1,2,3-Trichlorobenzene	0.321	0.313	2.5	91	-0.03	6.19
38	t	Naphthalene	1.105	1.066	3.5	91	-0.03	6.05
39	t	4-Chloroaniline	0.427	0.366	14.3	79	-0.03	6.11

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3729-CC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84592.D
Project: BMSMC, Building 5 Area, PR

40	t	2,3-Dichloroaniline	0.365	0.343	6.0	87	-0.03	7.16
41	t	Caprolactam	0.178	0.175	1.7	90	-0.02	6.51
42	t	Hexachlorobutadiene	0.181	0.183	-1.1	96	-0.03	6.16
43	t	4-Chloro-3-methylphenol	0.353	0.344	2.5	89	-0.03	6.67
44	t	2-Methylnaphthalene	0.615	0.586	4.7	90	-0.03	6.80
45	t	1-Methylnaphthalene	0.644	0.611	5.1	90	-0.03	6.92
46	t	Dimethylnaphthalene	0.655	0.630	3.8	89	-0.04	7.59
47	I	Acenaphthene-d10	1.000	1.000	0.0	87	-0.04	8.15
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	100.000	105.988	-6.0	95	-0.03	6.98
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.369	0.360	2.4	88	-0.03	7.17
50	t	2,4,5-Trichlorophenol	0.379	0.369	2.6	87	-0.03	7.24
51	S	2-Fluorobiphenyl	1.289	1.279	0.8	92	-0.03	7.25
52	t	2-Chloronaphthalene	1.161	1.156	0.4	91	-0.03	7.41
53	t	Biphenyl	1.554	1.544	0.6	91	-0.03	7.38
54	t	2-Nitroaniline	0.463	0.477	-3.0	94	-0.03	7.56
55	t	Dimethylphthalate	1.316	1.348	-2.4	94	-0.03	7.79
56	t	Acenaphthylene	1.940	1.889	2.6	89	-0.03	7.96
57	t	2,6-Dinitrotoluene	0.300	0.298	0.7	89	-0.03	7.89
58	t	3-Nitroaniline	0.346	0.341	1.4	85	-0.03	8.13
59	t	Acenaphthene	1.190	1.161	2.4	90	-0.04	8.19
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	121.598	-21.6#	110	-0.03	8.30
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.155	0.161	-3.9	81	-0.02	8.47
62	t	Dibenzofuran	1.642	1.619	1.4	90	-0.04	8.44
63	t	2,4-Dinitrotoluene	0.416	0.424	-1.9	90	-0.04	8.47
64		2,3,4,6-Tetrachlorophenol	0.232	0.256	-10.3	95	-0.04	8.64
65	t	Diethylphthalate	1.376	1.433	-4.1	95	-0.04	8.80
66	t	Fluorene	1.327	1.340	-1.0	91	-0.04	8.94
67	t	4-Chlorophenyl-phenylethe	0.617	0.649	-5.2	94	-0.04	8.95
68	t	4-Nitroaniline	0.356	0.349	2.0	86	-0.03	9.02
69	I	Phenanthrene-d10	1.000	1.000	0.0	88	-0.04	10.36
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	56.063	-12.1	100	-0.04	9.07
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.526	0.551	-4.8	94	-0.04	9.14
72	t	1,2-Diphenylhydrazine	0.924	0.980	-6.1	95	-0.04	9.18
73	S	2,4,6-Tribromophenol	0.111	0.127	-14.4	101	-0.04	9.31
74	t	4-Bromophenyl-phenylether	0.217	0.230	-6.0	96	-0.04	9.68
75	t	Hexachlorobenzene	0.252	0.267	-6.0	95	-0.04	9.76
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	100.000	126.315	-26.3#	117	-0.04	10.10
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.161	1.120	3.5	88	-0.04	10.40
78	t	Anthracene	1.171	1.131	3.4	88	-0.04	10.48
79	t	Carbazole	1.068	1.035	3.1	88	-0.04	10.76
80	t	Di-n-butylphthalate	1.372	1.429	-4.2	94	-0.04	11.35
81	t	Fluoranthene	1.179	1.187	-0.7	90	-0.05	12.27

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3729-CC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84592.D
Project: BMSMC, Building 5 Area, PR

82	t	Octadecane	0.565	0.560	0.9	91	-0.04	10.25
83	I	Chrysene-d12	1.000	1.000	0.0	94	-0.05	14.57
84	t	Pyrene	1.366	1.263	7.5	91	-0.05	12.63
85	S	Terphenyl-d14	0.915	0.873	4.6	93	-0.05	12.92
86	t	Butylbenzylphthalate	0.677	0.652	3.7	94	-0.05	13.74
87	t	Benzo[a]anthracene	1.262	1.196	5.2	95	-0.05	14.56
88	t	3,3'-Dichlorobenzidine	0.481	0.475	1.2	94	-0.05	14.55
89	t	Chrysene	1.177	1.119	4.9	94	-0.05	14.61
90	t	bis(2-Ethylhexyl)phthalat	0.884	0.869	1.7	99	-0.05	14.68
91	I	Perylene-d12	1.000	1.000	0.0	111	-0.06	16.71
92	t	Di-n-octylphthalate	1.820	1.791	1.6	121	-0.05	15.68
93	t	Benzo[b]fluoranthene	1.338	1.380	-3.1	121	-0.06	16.18
94	t	Benzo[k]fluoranthene	1.216	1.247	-2.5	122	-0.06	16.22
95	t	Benzo[a]pyrene	1.104	1.135	-2.8	118	-0.06	16.63
96	t	Indeno[1,2,3-cd]pyrene	1.311	1.371	-4.6	119	-0.09	18.44
97	t	Dibenz(a,h)acridine	0.980	0.956	2.4	110	-0.08	18.03
98	t	Dibenz[a,h]anthracene	1.130	1.152	-1.9	115	-0.09	18.47
99	t	7,12-Dimethylbenz(a)anthr	0.587	0.557	5.1	109	-0.06	16.16
100	t	Benzo[g,h,i]perylene	1.120	1.125	-0.4	115	-0.10	18.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84348a.D M2M3720.M Mon Jun 13 12:39:00 2016

6.7.16

6

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3729-ECC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84599.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E2M3729\2m84599.D          Vial: 5
Acq On    : 13 Jun 2016   1:19 pm                    Operator: ashleyn
Sample    : ecc3720-50                               Inst    : MS
Misc      : op94213,e2m3729,                         Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2M3720.M (RTE Integrator)
Title        : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update  : Fri Jun 10 21:13:25 2016
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	86	-0.02	4.89
2	t	1,4-Dioxane	0.527	0.638	-21.1	110	-0.03	2.46
5	S	2-Fluorophenol	1.416	1.431	-1.1	87	-0.03	3.92
6	t	Indene	2.656	2.558	3.7	88	-0.02	5.10
7	t	Cumene	3.897	3.917	-0.5	90	-0.02	4.27
8	S	Phenol-d5	1.792	1.829	-2.1	91	-0.03	4.64
9	t	Phenol	2.212	2.140	3.3	86	-0.03	4.65
10		Aniline	2.196	1.462	33.4	60	-0.02	4.64
11	t	bis(2-Chloroethyl)ether	1.546	1.532	0.9	89	-0.02	4.68
12	t	2-Chlorophenol	1.468	1.445	1.6	90	-0.03	4.74
13	t	Decane	1.564	1.577	-0.8	98	-0.02	4.74
14	t	1,3-Dichlorobenzene	1.655	1.601	3.3	87	-0.02	4.85
15	t	1,4-Dichlorobenzene	1.651	1.665	-0.8	90	-0.02	4.91
16	t	Benzyl alcohol	0.990	0.964	2.6	85	-0.02	5.01
17	t	1,2-Dichlorobenzene	1.555	1.534	1.4	88	-0.02	5.03
18	t	Acetophenone	2.169	2.102	3.1	86	-0.03	5.22
19	t	2-Methylphenol	1.443	1.366	5.3	85	-0.03	5.11
20	t	2,2'-oxybis(1-Chloropropa	1.960	1.928	1.6	91	-0.02	5.10
21	t	3&4-Methylphenol	1.556	1.460	6.2	83	-0.02	5.24
22	t	n-Nitroso-di-n-propylamin	1.202	1.205	-0.2	92	-0.02	5.22
23	t	Hexachloroethane	0.524	0.544	-3.8	91	-0.03	5.30
24	I	Naphthalene-d8	1.000	1.000	0.0	82	-0.03	6.02
25	S	Nitrobenzene-d5	0.441	0.457	-3.6	88	-0.02	5.36
26	t	Nitrobenzene	0.453	0.477	-5.3	89	-0.02	5.38
27	t	Quinoline	0.728	0.689	5.4	79	-0.03	6.41
28	t	Isophorone	0.776	0.753	3.0	83	-0.03	5.58
29	t	2-Nitrophenol	0.203	0.207	-2.0	84	-0.03	5.66
30	t	2,4-Dimethylphenol	0.393	0.373	5.1	80	-0.03	5.70
		----------	True	Calc.	% Drift	----------		
31	t	Benzoic acid	50.000	57.224	-14.4	95	-0.02	5.84
		----------	AvgRF	CCRF	% Dev	----------		
32	t	bis(2-Chloroethoxy)methan	0.440	0.438	0.5	86	-0.03	5.77
33	t	2,4-Dichlorophenol	0.299	0.288	3.7	81	-0.03	5.91
34	t	2,6-Dichlorophenol	0.293	0.289	1.4	83	-0.03	6.12
35		1,3,5-Trichlorobenzene	0.343	0.344	-0.3	85	-0.03	5.66
36	t	1,2,4-Trichlorobenzene	0.330	0.330	0.0	86	-0.03	5.96
37		1,2,3-Trichlorobenzene	0.321	0.317	1.2	84	-0.03	6.19
38	t	Naphthalene	1.105	1.094	1.0	85	-0.03	6.05
39	t	4-Chloroaniline	0.427	0.372	12.9	74	-0.03	6.11

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3729-ECC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84599.D
Project: BMSMC, Building 5 Area, PR

40	t	2,3-Dichloroaniline	0.365	0.355	2.7	82	-0.03	7.16
41	t	Caprolactam	0.178	0.177	0.6	83	-0.03	6.50
42	t	Hexachlorobutadiene	0.181	0.186	-2.8	90	-0.03	6.16
43	t	4-Chloro-3-methylphenol	0.353	0.350	0.8	83	-0.03	6.67
44	t	2-Methylnaphthalene	0.615	0.593	3.6	83	-0.03	6.80
45	t	1-Methylnaphthalene	0.644	0.619	3.9	83	-0.03	6.92
46	t	Dimethylnaphthalene	0.655	0.631	3.7	81	-0.04	7.59
47	I	Acenaphthene-d10	1.000	1.000	0.0	80	-0.04	8.15
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	100.000	107.789	-7.8	89	-0.04	6.98
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.369	0.364	1.4	82	-0.04	7.16
50	t	2,4,5-Trichlorophenol	0.379	0.364	4.0	79	-0.03	7.23
51	S	2-Fluorobiphenyl	1.289	1.304	-1.2	86	-0.03	7.25
52	t	2-Chloronaphthalene	1.161	1.151	0.9	83	-0.03	7.41
53	t	Biphenyl	1.554	1.528	1.7	83	-0.04	7.38
54	t	2-Nitroaniline	0.463	0.485	-4.8	88	-0.03	7.56
55	t	Dimethylphthalate	1.316	1.348	-2.4	86	-0.03	7.79
56	t	Acenaphthylene	1.940	1.890	2.6	81	-0.04	7.95
57	t	2,6-Dinitrotoluene	0.300	0.306	-2.0	84	-0.03	7.89
58	t	3-Nitroaniline	0.346	0.343	0.9	78	-0.03	8.13
59	t	Acenaphthene	1.190	1.174	1.3	84	-0.04	8.19
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	120.335	-20.3	100	-0.04	8.30
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.155	0.166	-7.1	77	-0.02	8.47
62	t	Dibenzofuran	1.642	1.611	1.9	82	-0.04	8.44
63	t	2,4-Dinitrotoluene	0.416	0.426	-2.4	83	-0.04	8.47
64		2,3,4,6-Tetrachlorophenol	0.232	0.266	-14.7	91	-0.04	8.64
65	t	Diethylphthalate	1.376	1.450	-5.4	88	-0.04	8.80
66	t	Fluorene	1.327	1.350	-1.7	84	-0.04	8.94
67	t	4-Chlorophenyl-phenylethe	0.617	0.663	-7.5	88	-0.04	8.95
68	t	4-Nitroaniline	0.356	0.346	2.8	79	-0.03	9.02
69	I	Phenanthrene-d10	1.000	1.000	0.0	80	-0.05	10.36
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	56.551	-13.1	92	-0.04	9.07
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.526	0.549	-4.4	86	-0.04	9.14
72	t	1,2-Diphenylhydrazine	0.924	1.013	-9.6	90	-0.04	9.18
73	S	2,4,6-Tribromophenol	0.111	0.129	-16.2	94	-0.04	9.31
74	t	4-Bromophenyl-phenylether	0.217	0.232	-6.9	89	-0.04	9.68
75	t	Hexachlorobenzene	0.252	0.267	-6.0	87	-0.04	9.76
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	100.000	128.212	-28.2	110	-0.04	10.10
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.161	1.149	1.0	83	-0.05	10.39
78	t	Anthracene	1.171	1.136	3.0	81	-0.04	10.48
79	t	Carbazole	1.068	1.027	3.8	80	-0.04	10.76
80	t	Di-n-butylphthalate	1.372	1.447	-5.5	87	-0.04	11.35
81	t	Fluoranthene	1.179	1.205	-2.2	84	-0.05	12.27

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E2M3729-ECC3720
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 2M84599.D
Project: BMSMC, Building 5 Area, PR

82	t	Octadecane	0.565	0.571	-1.1	85	-0.04	10.25
83	I	Chrysene-d12	1.000	1.000	0.0	87	-0.05	14.58
84	t	Pyrene	1.366	1.268	7.2	84	-0.05	12.63
85	S	Terphenyl-d14	0.915	0.887	3.1	87	-0.05	12.92
86	t	Butylbenzylphthalate	0.677	0.647	4.4	87	-0.04	13.74
87	t	Benzo[a]anthracene	1.262	1.204	4.6	89	-0.05	14.56
88	t	3,3'-Dichlorobenzidine	0.481	0.484	-0.6	88	-0.05	14.55
89	t	Chrysene	1.177	1.126	4.3	88	-0.05	14.61
90	t	bis(2-Ethylhexyl)phthalat	0.884	0.866	2.0	91	-0.05	14.68
91	I	Perylene-d12	1.000	1.000	0.0	105	-0.06	16.71
92	t	Di-n-octylphthalate	1.820	1.744	4.2	111	-0.05	15.68
93	t	Benzo[b]fluoranthene	1.338	1.326	0.9	110	-0.06	16.18
94	t	Benzo[k]fluoranthene	1.216	1.300	-6.9	120	-0.06	16.22
95	t	Benzo[a]pyrene	1.104	1.144	-3.6	112	-0.06	16.63
96	t	Indeno[1,2,3-cd]pyrene	1.311	1.336	-1.9	109	-0.09	18.44
97	t	Dibenz(a,h)acridine	0.980	0.991	-1.1	108	-0.07	18.04
98	t	Dibenz[a,h]anthracene	1.130	1.143	-1.2	108	-0.09	18.47
99	t	7,12-Dimethylbenz(a)anthr	0.587	0.559	4.8	103	-0.06	16.16
100	t	Benzo[g,h,i]perylene	1.120	1.102	1.6	106	-0.10	18.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m84348a.D M2M3720.M Mon Jun 13 14:32:05 2016

6.7.17

6

Initial Calibration Summary

Job Number: JC21709 **Sample:** E4M2958-ICC2958
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M65897.D
Project: BMSMC, Building 5 Area, PR

```
                    Response Factor Report  GCMS4M

Method       : C:\MSDCHEM\1\METHODS\M4M2958SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Fri Jun 10 10:37:35 2016
Response via : Initial Calibration

Calibration Files
0.05=4m65900.D   .2  =4m65898.D   2.5 =4m65904.D   .02 =4m65901.D
.1  =4m65899.D   1   =4m65897.D   .01 =4m65902.D   .5  =4m65896.D
5   =4m65903.D       =                =                =

Compound
            0.05  .2    2.5   .02   .1    1     .01   .5    5            Avg    %RSD
-----------------------------------------------------------------------------

1) I   1-Methylnaphthalene-d ----------------ISTD---------------------
2)  2-Fluorophenol
          0.840 0.919 0.800 0.742 0.832 0.800       0.884 0.788        0.826    6.79
3)  Phenol-d5
          1.344 1.487 1.279 1.185 1.343 1.298       1.436 1.222        1.324    7.67
4)  Phenol
          1.438 1.690 1.422 1.351 1.553 1.386       1.535 1.426        1.475    7.50
5)  bis(2-Chloroethyl)ether
          0.891 1.155 1.095 0.769 1.112 1.045 1.025 1.129 1.137        1.040   12.49
6)  Nitrobenzene-d5
          1.061 1.155 1.059 0.950 1.020 1.017       1.104 0.973        1.042    6.44
7)  Naphthalene
          3.873 4.006 3.725 3.682 3.651 3.544 3.772 3.869 3.784        3.767    3.65
8)  Hexachlorobutadiene
          0.601 0.612 0.558 0.584 0.550 0.541       0.586 0.562        0.574    4.41
9)  2-Methylnaphthalene
          1.945 1.713 1.441       1.413 1.425       1.552 1.421        1.559   12.95
10)  Hexachlorocyclopentadiene
                0.078 0.224       0.035 0.185       0.158 0.256        0.156   54.69
            ---- Quadratic regression ----  Coefficient =  0.9999
              Response Ratio = -0.01161 + 0.20226 *A + 0.02355 *A^2

11)  2-Fluorobiphenyl
          1.921 1.916 1.752 1.721 1.747 1.737       1.865 1.316        1.747   11.03

12) I   Fluorene-d10          ----------------ISTD---------------------
13)  Acenaphthylene
          0.976 0.996 0.990 0.857 0.874 1.001 0.921 1.028 1.046        0.966    6.89
14)  Acenaphthene
          0.623 0.629 0.585 0.536 0.550 0.612 0.632 0.654 0.591        0.601    6.52
15)  Dibenzofuran
                1.363 1.041       1.009 1.077       1.130 1.034        1.109   11.87
16)  Fluorene
          1.027 1.108 0.976 1.011 0.972 1.068 1.082 1.122 0.949        1.035    6.08
17)  2,4,6-Tribromophenol
                0.171 0.139       0.130 0.172       0.187 0.141        0.157   14.46
18)  Hexachlorobenzene
          0.394 0.404 0.361 0.364 0.367 0.377 0.377 0.404 0.345        0.377    5.40
19)  Pentachlorophenol
          0.119 0.147 0.167       0.097 0.181       0.180 0.183        0.153   22.09
            ---- Quadratic regression ----  Coefficient =  0.9993
              Response Ratio = 0.00095 + 0.16071 *A + 0.00344 *A^2

20)  Phenanthrene
```

Initial Calibration Summary

Job Number: JC21709 **Sample:** E4M2958-ICC2958
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M65897.D
Project: BMSMC, Building 5 Area, PR

```
          1.542 1.665 1.574 1.389 1.442 1.638 1.588 1.737 1.533        1.568    6.88
21)  Anthracene
          1.453 1.610 1.550 1.281 1.363 1.569 1.264 1.677 1.587        1.484   10.12

22) I   Fluoranthene-d10      ----------------ISTD---------------------
23)  Fluoranthene
          1.063 1.081 0.988       0.958 1.059       1.136 0.986        1.039    6.12
24)  Pyrene
          0.939 1.099 1.117       0.965 1.152       1.259 1.053        1.084   10.16
25)  Terphenyl-d14
          0.507 0.541 0.415 0.475 0.482 0.509       0.569 0.314        0.477   16.81
26)  Benzo[a]anthracene
          0.663 0.796 0.848       0.669 0.931       0.997 0.825        0.818   15.18
27)  Chrysene
          0.784 0.922 0.858       0.785 0.937       0.997 0.835        0.874    9.25

28) I   Benzo(a)pyrene-d12    ----------------ISTD---------------------
29)  Benzo[b]fluoranthene
                1.431 1.400       1.261 1.579       1.651              1.464   10.49
30)  Benzo[k]fluoranthene
          1.175 1.217 1.175       1.124 1.186       1.347 1.172        1.199    5.89
31)  Benzo[a]pyrene
          1.009 1.302 1.199       1.246 1.228       1.390 1.152        1.218    9.83
32)  Indeno[1,2,3-cd]pyrene
          1.340 1.445 1.365       1.324 1.470       1.600 1.350        1.413    6.99
33)  Dibenz[a,h]anthracene
          1.078 1.144 1.099       1.026 1.183       1.296 1.089        1.131    7.82
34)  Benzo[g,h,i]perylene
          1.216 1.320 1.203       1.222 1.298       1.419 1.191        1.267    6.57

35) I   1-Methylnaphthalene-d ----------------ISTD---------------------
36)  1,4-Dioxane
                0.335 0.364       0.426 0.333       0.331 0.342        0.355   10.39
37)  1-Methylnaphthalene
          1.853 2.005 1.824 1.824 1.883 1.814 2.093 1.945 1.810        1.894    5.27

38) I   Fluorene-d10a         ----------------ISTD---------------------
39)  4,6-dinitro-2-methylphenol
          0.065 0.084 0.147       0.057 0.142       0.117 0.149        0.109   36.66
           ---- Quadratic regression ----  Coefficient =  0.9998
             Response Ratio = -0.01239 + 0.14925 *A + 0.00035 *A^2

40)  1,2-Diphenylhydrazine
                0.825 1.004       0.745 0.894       0.855 1.115        0.906   14.65
41)  n-nitrosodiphenylamine
                0.725 0.768       0.628 0.716       0.739 0.850        0.738    9.83
-------------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

         M4M2958SIM.M        Fri Jun 10 12:05:27 2016   MANAGER
```

6.7.18

6

Initial Calibration Verification

Job Number: JC21709 **Sample:** E4M2958-ICV2958
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M65905.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2958\4m65905.D          Vial: 11
Acq On    :  9 Jun 2016   6:54 pm                    Operator: linseyk
Sample    : icv2958-1                                Inst    : GCMS4M
Misc      : op94385a,e4m2958                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2958SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Fri Jun 10 10:37:35 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	92	0.00	9.68
4	t	Phenol	1.475	1.352	8.3	89	0.00	5.42
12	I	Fluorene-d10	1.000	1.000	0.0	88	0.00	12.65
		----------	True	Calc.	% Drift	----------		
19	t	Pentachlorophenol	5.000	4.083	18.3	66	0.00	14.25
38	I	Fluorene-d10a	1.000	1.000	0.0	88	0.00	12.65
		----------	True	Calc.	% Drift	----------		
39	t	4,6-dinitro-2-methylpheno	5.000	4.123	17.5	70	0.00	12.89

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4m65897.D M4M2958SIM.M Fri Jun 10 12:04:59 2016 MANAGER

Initial Calibration Verification

Job Number: JC21709 **Sample:** E4M2958-ICV2958
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M65906.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2958\4m65906.D          Vial: 12
Acq On    :  9 Jun 2016   7:24 pm                    Operator: linseyk
Sample    : icv2958-1                                Inst    : GCMS4M
Misc      : op94385a,e4m2958                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2958SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Fri Jun 10 10:37:35 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	101	0.00	9.68
5	t	bis(2-Chloroethyl)ether	1.040	1.152	-10.8	112	0.00	5.53
7	t	Naphthalene	3.767	3.886	-3.2	111	0.00	8.23
8	t	Hexachlorobutadiene	0.574	0.578	-0.7	108	0.00	8.49
9	t	2-Methylnaphthalene	1.559	1.552	0.4	110	0.00	9.56
12	I	Fluorene-d10	1.000	1.000	0.0	100	0.00	12.66
13	t	Acenaphthylene	0.966	1.033	-6.9	103	0.00	11.33
14	t	Acenaphthene	0.601	0.693	-15.3	113	0.00	11.69
15	t	Dibenzofuran	1.109	1.198	-8.0	111	0.00	12.04
16	t	Fluorene	1.035	1.106	-6.9	103	0.00	12.70
18	t	Hexachlorobenzene	0.377	0.373	1.1	98	0.00	13.80
		----------	AvgRF	CCRF	% Dev	----------		
20	t	Phenanthrene	1.568	1.686	-7.5	103	0.02	14.63
21	t	Anthracene	1.484	1.609	-8.4	102	0.00	14.72
22	I	Fluoranthene-d10	1.000	1.000	0.0	93	0.00	16.85
23	t	Fluoranthene	1.039	1.145	-10.2	100	0.02	16.89
24	t	Pyrene	1.084	1.248	-15.1	100	0.00	17.26
26	t	Benzo[a]anthracene	0.818	1.036	-26.7	103	0.02	19.37
27	t	Chrysene	0.874	0.998	-14.2	99	0.02	19.43
28	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	87	0.00	21.44
29	t	Benzo[b]fluoranthene	1.464	1.411	3.6	77	0.00	21.02
30	t	Benzo[k]fluoranthene	1.199	1.418	-18.3	103	0.00	21.06
31	t	Benzo[a]pyrene	1.218	1.256	-3.1	89	0.00	21.47
32	t	Indeno[1,2,3-cd]pyrene	1.413	1.509	-6.8	89	0.00	23.00
33	t	Dibenz[a,h]anthracene	1.131	1.168	-3.3	85	0.00	23.04
34	t	Benzo[g,h,i]perylene	1.267	1.329	-4.9	89	0.00	23.38
35	I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	101	0.00	9.68
36	t	1,4-Dioxane	0.355	0.332	6.5	101	0.00	2.23
38	I	Fluorene-d10a	1.000	1.000	0.0	100	0.00	12.66
		----------	AvgRF	CCRF	% Dev	----------		
40	t	1,2-Diphenylhydrazine	0.906	0.877	3.2	98	0.00	13.09
41	t	n-nitrosodiphenylamine	0.738	0.732	0.8	102	0.00	13.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4m65897.D M4M2958SIM.M Fri Jun 10 12:07:59 2016 MANAGER

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E4M2960-CC2958
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M65930.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2960\4m65930.D          Vial: 2
Acq On    : 10 Jun 2016  11:04 pm                    Operator: juliusj
Sample    : cc2958-0.5                               Inst    : GCMS4M
Misc      : op94385a,e4m2960                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2958SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Fri Jun 10 10:37:35 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	121	0.00	9.68
2	S	2-Fluorophenol	0.826	0.794	3.9	109	0.00	4.01
3	S	Phenol-d5	1.324	1.287	2.8	109	0.00	5.40
4	t	Phenol	1.475	1.350	8.5	107	0.00	5.42
5	t	bis(2-Chloroethyl)ether	1.040	1.020	1.9	109	-0.01	5.51
6	S	Nitrobenzene-d5	1.042	1.008	3.3	111	-0.02	6.87
7	t	Naphthalene	3.767	3.501	7.1	110	-0.02	8.21
8	t	Hexachlorobutadiene	0.574	0.547	4.7	113	-0.02	8.48
9	t	2-Methylnaphthalene	1.559	1.312	15.8	102	0.00	9.56
		----------	True	Calc.	% Drift	----------		
10	t	Hexachlorocyclopentadiene	1.000	1.083	-8.3	137	0.00	9.89
		----------	AvgRF	CCRF	% Dev	----------		
11	S	2-Fluorobiphenyl	1.747	1.963	-12.4	127	-0.02	10.32
12	I	Fluorene-d10	1.000	1.000	0.0	93	0.00	12.66
13	t	Acenaphthylene	0.966	1.437	-48.8#	130	-0.02	11.31
14	t	Acenaphthene	0.601	0.816	-35.8#	116	-0.02	11.66
15	t	Dibenzofuran	1.109	1.425	-28.5#	117	-0.02	12.02
16	t	Fluorene	1.035	1.256	-21.4#	104	0.00	12.70
17	S	2,4,6-Tribromophenol	0.157	0.202	-28.7#	100	0.00	13.20
18	t	Hexachlorobenzene	0.377	0.484	-28.4#	111	-0.02	13.78
		----------	True	Calc.	% Drift	----------		
19	t	Pentachlorophenol	2.500	3.245	-29.8#	110	-0.02	14.23
		----------	AvgRF	CCRF	% Dev	----------		
20	t	Phenanthrene	1.568	2.050	-30.7#	110	-0.02	14.59
21	t	Anthracene	1.484	2.020	-36.1#	112	-0.02	14.70
22	I	Fluoranthene-d10	1.000	1.000	0.0	113	-0.02	16.83
23	t	Fluoranthene	1.039	1.149	-10.6	114	0.00	16.87
24	t	Pyrene	1.084	1.227	-13.2	110	-0.02	17.24
25	S	Terphenyl-d14	0.477	0.588	-23.3#	117	-0.02	17.64
26	t	Benzo[a]anthracene	0.818	1.028	-25.7#	117	0.00	19.35
27	t	Chrysene	0.874	1.046	-19.7	119	0.00	19.41
28	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	116	-0.01	21.43
29	t	Benzo[b]fluoranthene	1.464	1.732	-18.3	122	-0.01	21.00
30	t	Benzo[k]fluoranthene	1.199	1.213	-1.2	105	-0.01	21.04
31	t	Benzo[a]pyrene	1.218	1.356	-11.3	113	-0.01	21.46

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E4M2960-CC2958
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M65930.D
Project: BMSMC, Building 5 Area, PR

32	t	Indeno[1,2,3-cd]pyrene	1.413	1.660	-17.5	121	-0.03	22.97
33	t	Dibenz[a,h]anthracene	1.131	1.346	-19.0	121	-0.03	23.01
34	t	Benzo[g,h,i]perylene	1.267	1.439	-13.6	118	-0.03	23.36
35	I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	121	0.00	9.68
36	t	1,4-Dioxane	0.355	0.394	-11.0	144	-0.01	2.22
37	t	1-Methylnaphthalene	1.894	1.514	20.1#	94	-0.02	9.72
38	I	Fluorene-d10a	1.000	1.000	0.0	93	0.00	12.66
		----------	True	Calc.	% Drift	----------		
39	t	4,6-dinitro-2-methylpheno	2.500	2.646	-5.8	110	0.00	12.89
		----------	AvgRF	CCRF	% Dev	----------		
40	t	1,2-Diphenylhydrazine	0.906	1.349	-48.9#	147	-0.02	13.06
41	t	n-nitrosodiphenylamine	0.738	1.155	-56.5#	145	-0.02	13.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4m65896.D M4M2958SIM.M Mon Jun 13 09:41:17 2016 MANAGER

Initial Calibration Summary

Job Number: JC21709 **Sample:** E4M2974-ICC2974
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M66184.D
Project: BMSMC, Building 5 Area, PR

```
                    Response Factor Report  GCMS4M

Method       : C:\MSDCHEM\1\METHODS\M4M2974SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration

Calibration Files
0.05=4m66185.D   .2  =4m66182.D   2.5 =4m66189.D   .02 =4m66186.D
.1  =4m66181.D   1   =4m66184.D   .01 =4m66187.D   .5  =4m66183.D
5   =4m66188.D       =                =                =

Compound
            0.05  .2    2.5   .02   .1    1     .01   .5    5            Avg    %RSD
-----------------------------------------------------------------------------

1) I   1-Methylnaphthalene-d ----------------ISTD---------------------
2)  2-Fluorophenol
          0.655 0.695 0.646 0.586 0.607 0.642       0.670 0.598        0.637    5.91
3)  Phenol-d5
          1.018 1.114 0.989 0.929 0.956 1.031       1.068 0.937        1.005    6.50
4)  Phenol
          1.140 1.198 1.089 0.994 1.027 1.093       1.127 1.034        1.088    6.19
5)  bis(2-Chloroethyl)ether
          0.684 0.859 0.826 0.599 0.773 0.805       0.817 0.778        0.768   11.11
6)  Nitrobenzene-d5
          0.918 0.983 0.873 0.856 0.836 0.895       0.923 0.868        0.894    5.23
7)  Naphthalene
          2.780 3.002 2.831 2.771 2.541 2.828 2.788 2.883 2.701        2.792    4.51
8)  Hexachlorobutadiene
          0.495 0.514 0.471 0.488 0.435 0.471       0.484 0.451        0.476    5.27
9)  2-Methylnaphthalene
                1.591 1.232       1.385 1.222       1.319 1.189        1.323   11.31
10)  Hexachlorocyclopentadiene
                0.026 0.151       0.011 0.083       0.049 0.198        0.086   85.53
            ---- Quadratic regression ----  Coefficient =  0.9988
              Response Ratio = -0.01112 + 0.10494 *A + 0.03937 *A^2

11)  2-Fluorobiphenyl
          1.656 1.805 1.430 1.586 1.462 1.618       1.713              1.610    8.24

12) I   Fluorene-d10          ----------------ISTD---------------------
13)  Acenaphthylene
          1.001 1.108 1.086 1.038 0.966 1.182 0.988 1.196 0.979        1.060    8.22
14)  Acenaphthene
          0.641 0.697 0.677 0.634 0.584 0.748 0.612 0.745 0.583        0.658    9.56
15)  Dibenzofuran
                1.321 0.969       0.963 1.106       1.163 0.898        1.070   14.72
16)  Fluorene
          1.172 1.240 1.185 1.114 1.050 1.335 1.083 1.359 1.104        1.183    9.28
17)  2,4,6-Tribromophenol
          0.165 0.192 0.180       0.162 0.208       0.211              0.186   11.30
18)  Hexachlorobenzene
          0.381 0.407 0.362 0.493 0.349 0.417 0.380 0.435 0.331        0.395   12.50
19)  Pentachlorophenol
          0.125 0.141 0.163       0.117 0.167       0.147 0.159        0.146   13.33
20)  Phenanthrene
          1.533 1.691 1.598 1.528 1.445 1.792 1.546 1.832 1.419        1.598    9.08
21)  Anthracene
          1.461 1.485 1.490 1.395 1.357 1.619 1.442 1.633 1.365        1.472    6.78
```

Initial Calibration Summary

Job Number: JC21709 **Sample:** E4M2974-ICC2974
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M66184.D
Project: BMSMC, Building 5 Area, PR

```
22) I   Fluoranthene-d10      ----------------ISTD---------------------
23)  Fluoranthene
           1.141 1.180 1.088       1.122 1.273       1.306 1.072        1.169    7.71
24)  Pyrene
           1.021 1.132 1.094       1.103 1.242       1.276 1.104        1.139    7.86
25)  Terphenyl-d14
           0.536 0.607 0.547 0.531 0.575 0.635       0.656 0.432        0.565   12.51
26)  Benzo[a]anthracene
           0.890 1.003 0.879       1.050 1.051       1.102 0.941        0.988    8.74
27)  Chrysene
           1.003 1.032 0.911       1.127 1.065       1.122 0.931        1.027    8.31

28) I   Benzo(a)pyrene-d12    ----------------ISTD---------------------
29)  Benzo[b]fluoranthene
                 1.344 1.310       1.310 1.485       1.483              1.386    6.49
30)  Benzo[k]fluoranthene
           1.346 1.356 1.245       1.385 1.428       1.484 1.160        1.343    8.16
31)  Benzo[a]pyrene
           1.201 1.292 1.173       1.355 1.362       1.295 1.108        1.255    7.68
32)  Indeno[1,2,3-cd]pyrene
           1.382 1.507 1.406       1.385 1.605       1.620 1.361        1.467    7.50
33)  Dibenz[a,h]anthracene
           1.149 1.240 1.168       1.162 1.333       1.347 1.119        1.217    7.55
34)  Benzo[g,h,i]perylene
           1.225 1.301 1.232       1.217 1.386       1.402 1.181        1.278    6.81

35) I   1-Methylnaphthalene-d ----------------ISTD---------------------
36)  1,4-Dioxane
                 0.381 0.259       0.429 0.268       0.310 0.257        0.317   22.78
             ---- Quadratic regression ----  Coefficient =  0.9999
               Response Ratio = 0.00606 + 0.24609 *A + 0.00500 *A^2

37)  1-Methylnaphthalene
           1.212 1.203 1.203 1.258 1.101 1.126 1.405 1.167 1.109        1.198    7.83

38) I   Fluorene-d10a         ----------------ISTD---------------------
39)  4,6-dinitro-2-methylphenol
           0.082 0.107 0.196       0.066 0.171       0.125 0.159        0.129   36.99
            ---- Quadratic regression ----  Coefficient =  0.9967
              Response Ratio = -0.03186 + 0.23063 *A + -0.01051 *A^2

40)  1,2-Diphenylhydrazine
                 1.121 1.182       0.863 1.265       1.239 0.962        1.105   14.50
41)  n-nitrosodiphenylamine
                 0.774 0.860       0.640 0.901       0.858 0.674        0.785   13.70
-------------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M4M2974SIM.M        Tue Jun 21 08:26:11 2016   MANAGER
```

Initial Calibration Verification

Job Number: JC21709 **Sample:** E4M2974-ICV2974
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M66190.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2974\4m66190.D          Vial: 11
Acq On    : 21 Jun 2016   3:30 am                    Operator: ashleyd
Sample    : icv2974-1.0                              Inst    : GCMS4M
Misc      : op94799a,e4m2974                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2974SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Jun 21 08:02:51 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	124	0.00	9.79
5	t	bis(2-Chloroethyl)ether	0.768	0.741	3.5	114	0.00	5.61
7	t	Naphthalene	2.792	2.651	5.1	116	0.00	8.31
8	t	Hexachlorobutadiene	0.476	0.453	4.8	119	-0.02	8.58
9	t	2-Methylnaphthalene	1.323	1.060	19.9	108	0.00	9.67
		----------	True	Calc.	% Drift	----------		
10	t	Hexachlorocyclopentadiene	2.000	1.812	9.4	88	0.00	10.00
		----------	AvgRF	CCRF	% Dev	----------		
12	I	Fluorene-d10	1.000	1.000	0.0	132	0.00	12.76
13	t	Acenaphthylene	1.060	0.997	5.9	111	0.00	11.41
14	t	Acenaphthene	0.658	0.645	2.0	114	0.00	11.76
15	t	Dibenzofuran	1.070	0.934	12.7	112	0.00	12.14
16	t	Fluorene	1.183	1.079	8.8	107	0.00	12.81
18	t	Hexachlorobenzene	0.395	0.345	12.7	109	0.00	13.91
20	t	Phenanthrene	1.598	1.479	7.4	109	0.00	14.72
21	t	Anthracene	1.472	1.264	14.1	103	-0.02	14.81
22	I	Fluoranthene-d10	1.000	1.000	0.0	131	0.00	16.94
23	t	Fluoranthene	1.169	0.997	14.7	103	0.00	16.98
24	t	Pyrene	1.139	0.991	13.0	105	0.00	17.37
26	t	Benzo[a]anthracene	0.988	0.800	19.0	100	0.00	19.46
27	t	Chrysene	1.027	0.815	20.6	101	0.00	19.52
28	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	115	0.00	21.53
29	t	Benzo[b]fluoranthene	1.386	1.185	14.5	91	0.00	21.12
30	t	Benzo[k]fluoranthene	1.343	1.205	10.3	97	0.00	21.16
31	t	Benzo[a]pyrene	1.255	1.149	8.4	97	0.00	21.57
32	t	Indeno[1,2,3-cd]pyrene	1.467	1.354	7.7	97	0.00	23.12
33	t	Dibenz[a,h]anthracene	1.217	1.098	9.8	94	0.00	23.16
34	t	Benzo[g,h,i]perylene	1.278	1.155	9.6	95	0.00	23.52
35	I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	124	0.00	9.79
		----------	True	Calc.	% Drift	----------		
36	t	1,4-Dioxane	1.000	0.821	17.9	105	0.00	2.30
38	I	Fluorene-d10a	1.000	1.000	0.0	132	0.00	12.76
		----------	AvgRF	CCRF	% Dev	----------		
40	t	1,2-Diphenylhydrazine	1.105	0.966	12.6	101	0.00	13.17

Initial Calibration Verification

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E4M2974-ICV2974
Lab FileID: 4M66190.D

```
41 t   n-nitrosodiphenylamine      0.785   0.691     12.0  101   0.00   13.12
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    4m66184.D  M4M2974SIM.M       Tue Jun 21 14:09:39 2016   MANAGER
```

Initial Calibration Verification

Job Number: JC21709 **Sample:** E4M2974-ICV2974
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M66191.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2974\4m66191.D          Vial: 12
Acq On    : 21 Jun 2016   4:00 am                    Operator: ashleyd
Sample    : icv2974-1.0                              Inst    : GCMS4M
Misc      : op94799a,e4m2974                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2974SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Jun 21 08:02:51 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	93	0.00	9.79
4	t	Phenol	1.088	1.118	-2.8	95	0.00	5.51
12	I	Fluorene-d10	1.000	1.000	0.0	89	0.00	12.76
19	t	Pentachlorophenol	0.146	0.165	-13.0	87	0.00	14.34
38	I	Fluorene-d10a	1.000	1.000	0.0	89	0.00	12.76
		----------	True	Calc.	% Drift		----------	
39	t	4,6-dinitro-2-methylpheno	5.000	4.844	3.1	96	0.00	13.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4m66184.D M4M2974SIM.M Tue Jun 21 08:27:37 2016 MANAGER

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E4M2977-CC2974
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M66249.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2977\4m66249.D          Vial: 2
Acq On    : 22 Jun 2016   9:41 am                    Operator: linseyk
Sample    : cc2974-1                                 Inst    : GCMS4M
Misc      : op94644a,e4m2977                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2974SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Jun 21 08:02:51 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	124	-0.02	9.76
2	S	2-Fluorophenol	0.637	0.574	9.9	111	-0.01	4.08
3	S	Phenol-d5	1.005	0.910	9.5	110	0.00	5.48
4	t	Phenol	1.088	0.972	10.7	111	-0.01	5.50
5	t	bis(2-Chloroethyl)ether	0.768	0.716	6.8	111	-0.01	5.59
6	S	Nitrobenzene-d5	0.894	0.829	7.3	115	-0.02	6.95
7	t	Naphthalene	2.792	2.556	8.5	112	-0.02	8.30
8	t	Hexachlorobutadiene	0.476	0.425	10.7	112	-0.03	8.56
9	t	2-Methylnaphthalene	1.323	1.298	1.9	132	-0.02	9.64
		----------	True	Calc.	% Drift	----------		
10	t	Hexachlorocyclopentadiene	2.000	2.382	-19.1	196	-0.02	9.98
		----------	AvgRF	CCRF	% Dev	----------		
11	S	2-Fluorobiphenyl	1.610	1.249	22.4#	96	-0.02	10.41
12	I	Fluorene-d10	1.000	1.000	0.0	115	-0.02	12.74
13	t	Acenaphthylene	1.060	0.877	17.3	85	0.00	11.41
14	t	Acenaphthene	0.658	0.701	-6.5	107	-0.02	11.74
15	t	Dibenzofuran	1.070	1.124	-5.0	117	-0.02	12.12
16	t	Fluorene	1.183	1.295	-9.5	111	-0.02	12.79
17	S	2,4,6-Tribromophenol	0.186	0.195	-4.8	107	-0.02	13.29
18	t	Hexachlorobenzene	0.395	0.399	-1.0	110	-0.02	13.89
19	t	Pentachlorophenol	0.146	0.175	-19.9	120	-0.02	14.32
20	t	Phenanthrene	1.598	1.751	-9.6	112	-0.02	14.70
21	t	Anthracene	1.472	1.625	-10.4	115	-0.04	14.79
22	I	Fluoranthene-d10	1.000	1.000	0.0	114	-0.02	16.92
23	t	Fluoranthene	1.169	1.213	-3.8	109	-0.02	16.96
24	t	Pyrene	1.139	1.218	-6.9	112	-0.02	17.35
25	S	Terphenyl-d14	0.565	0.622	-10.1	112	-0.02	17.73
26	t	Benzo[a]anthracene	0.988	1.050	-6.3	114	-0.02	19.44
27	t	Chrysene	1.027	1.047	-1.9	112	-0.02	19.50
28	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	115	0.07	21.52
29	t	Benzo[b]fluoranthene	1.386	1.544	-11.4	120	-0.01	21.09
30	t	Benzo[k]fluoranthene	1.343	1.300	3.2	105	-0.04	21.13
31	t	Benzo[a]pyrene	1.255	1.302	-3.7	110	-0.04	21.55
32	t	Indeno[1,2,3-cd]pyrene	1.467	1.590	-8.4	114	-0.04	23.10
33	t	Dibenz[a,h]anthracene	1.217	1.333	-9.5	115	-0.04	23.13
34	t	Benzo[g,h,i]perylene	1.278	1.397	-9.3	116	-0.04	23.50

Continuing Calibration Summary

Job Number: JC21709 **Sample:** E4M2977-CC2974
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M66249.D
Project: BMSMC, Building 5 Area, PR

35	I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	124	-0.02	9.76
		----------	True	Calc.	% Drift	----------		
36	t	1,4-Dioxane	1.000	0.882	11.8	113	0.00	2.28
		----------	AvgRF	CCRF	% Dev	----------		
37	t	1-Methylnaphthalene	1.198	1.057	11.8	117	0.00	9.83
38	I	Fluorene-d10a	1.000	1.000	0.0	115	-0.02	12.74
		----------	True	Calc.	% Drift	----------		
39	t	4,6-dinitro-2-methylpheno	5.000	3.748	25.0#	94	0.00	13.00
		----------	AvgRF	CCRF	% Dev	----------		
40	t	1,2-Diphenylhydrazine	1.105	1.086	1.7	98	-0.02	13.15
41	t	n-nitrosodiphenylamine	0.785	0.731	6.9	93	-0.02	13.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4m66184.D M4M2974SIM.M Wed Jun 22 12:07:05 2016 MANAGER

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84534.D
Acq On : 10 Jun 2016 2:55 pm
Operator : ashleyn
Sample : jc21709-1
Misc : op94650,e2m3726,960
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 10 16:36:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

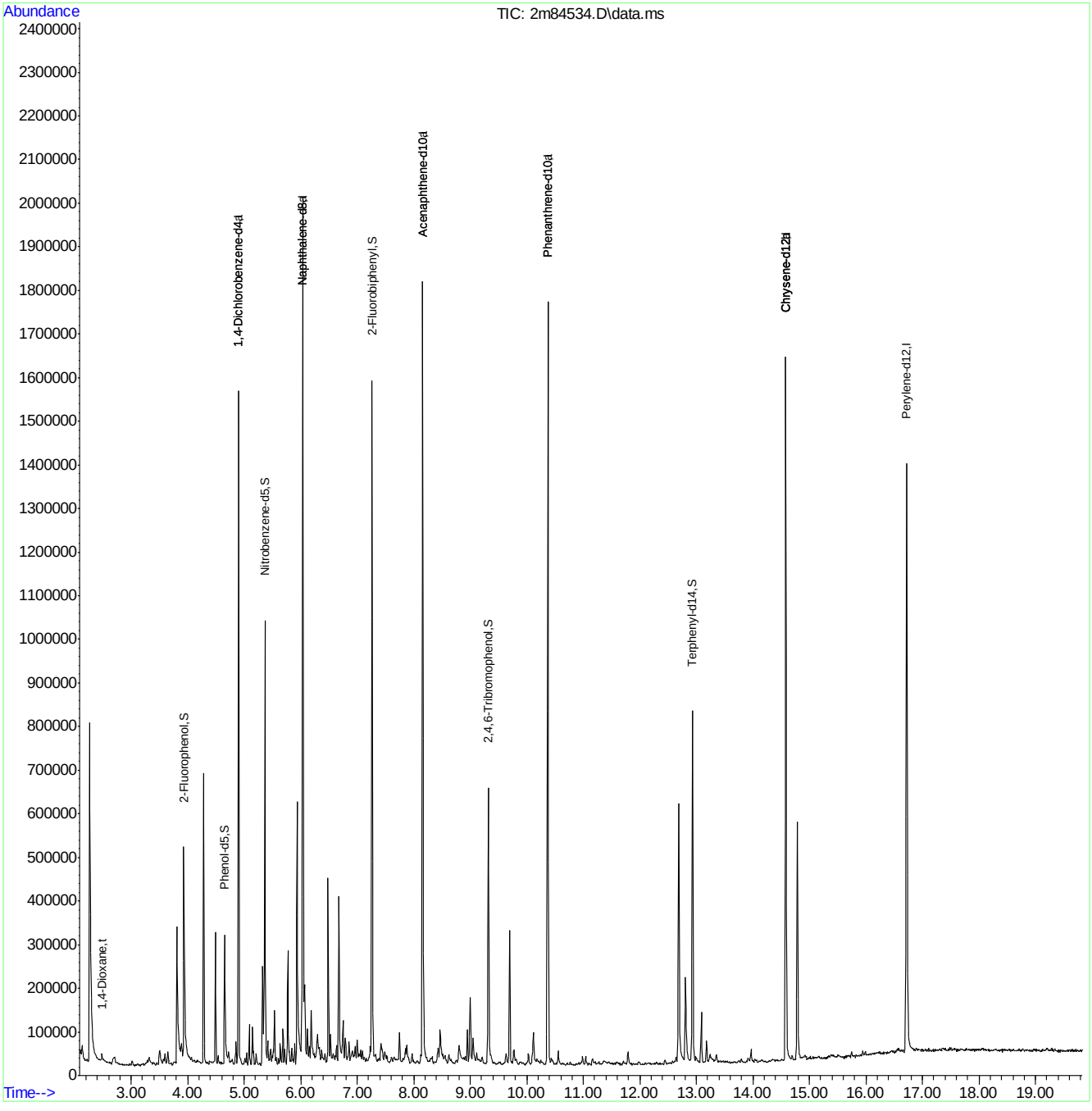
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	191901	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	743343	40.00 ppm	-0.02
47) Acenaphthene-d10	8.158	164	437565	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	752577	40.00 ppm	-0.03
83) Chrysene-d12	14.581	240	710169	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	689773	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	191901	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.158	164	437565	40.00 ppm	-0.06
105) Chrysene-d12a	14.581	240	710169	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	752577	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	743343	40.00 ppm	-0.05
113) Chrysene-d12b	14.581	240	710169	40.00 ppm	-0.06
System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	140969	20.75 ppm	-0.02
Spiked Amount 50.000			Recovery = 41.50%		
8) Phenol-d5	4.649	99	130088	15.13 ppm	-0.02
Spiked Amount 50.000			Recovery = 30.26%		
25) Nitrobenzene-d5	5.366	82	299293	36.50 ppm	-0.02
Spiked Amount 50.000			Recovery = 73.00%		
51) 2-Fluorobiphenyl	7.259	172	487039	34.53 ppm	-0.02
Spiked Amount 50.000			Recovery = 69.06%		
73) 2,4,6-Tribromophenol	9.318	330	84462	40.49 ppm	-0.03
Spiked Amount 50.000			Recovery = 80.98%		
85) Terphenyl-d14	12.929	244	302561	18.62 ppm	-0.04
Spiked Amount 50.000			Recovery = 37.24%		
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	
Spiked Amount 50.000			Recovery = 0.00%		
Target Compounds					Qvalue
2) 1,4-Dioxane	2.483	88	9281	3.67 ppm	93

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

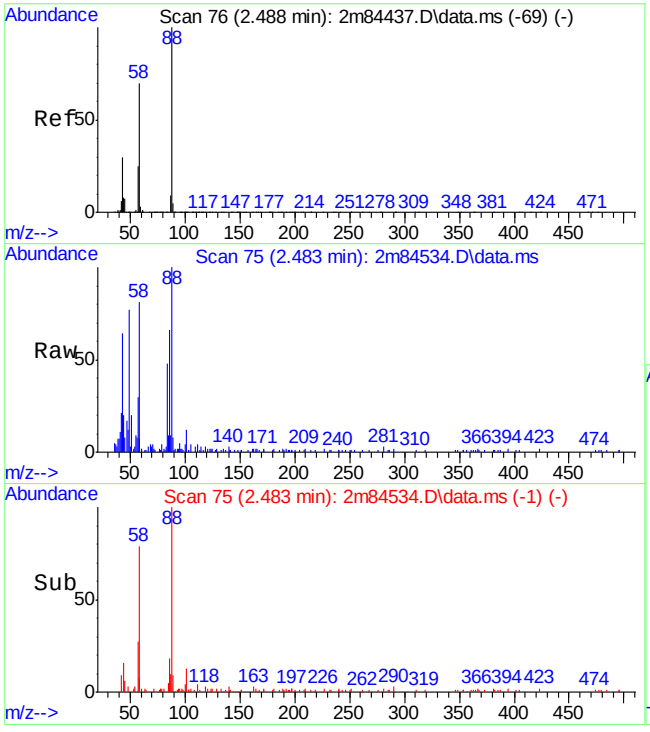
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84534.D
Acq On : 10 Jun 2016 2:55 pm
Operator : ashleyn
Sample : jc21709-1
Misc : op94650,e2m3726,960
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 10 16:36:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



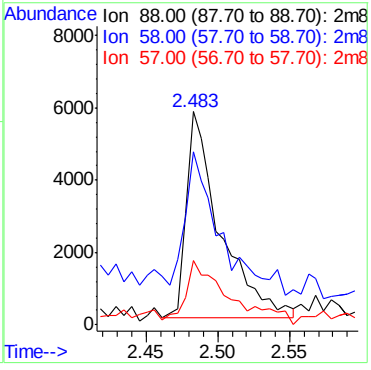
M2M3720.M Fri Jun 10 16:37:02 2016 Page: 2



#2
1,4-Dioxane
Concen: 3.67 ppm
RT: 2.483 min Scan# 75
Delta R.T. -0.005 min
Lab File: 2m84534.D
Acq: 10 Jun 2016 2:55 pm

Tgt Ion: 88 Resp: 9281

Ion	Ratio	Lower	Upper
88	100		
58	65.3	39.9	99.9
57	30.9	0.0	54.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84535.D
Acq On : 10 Jun 2016 3:21 pm
Operator : ashleyn
Sample : jc21709-2
Misc : op94650,e2m3726,910
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 16:37:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	192001	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	747368	40.00 ppm	-0.02
47) Acenaphthene-d10	8.157	164	428870	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	734798	40.00 ppm	-0.03
83) Chrysene-d12	14.586	240	699671	40.00 ppm	-0.04
91) Perylene-d12	16.721	264	681394	40.00 ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.900	152	192001	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.157	164	428870	40.00 ppm	-0.06
105) Chrysene-d12a	14.586	240	699671	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	734798	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	747368	40.00 ppm	-0.05
113) Chrysene-d12b	14.586	240	699665	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	144339	21.24 ppm	-0.02
Spiked Amount 50.000			Recovery = 42.48%		
8) Phenol-d5	4.654	99	137828	16.02 ppm	-0.01
Spiked Amount 50.000			Recovery = 32.04%		
25) Nitrobenzene-d5	5.365	82	312392	37.89 ppm	-0.02
Spiked Amount 50.000			Recovery = 75.78%		
51) 2-Fluorobiphenyl	7.259	172	513238	37.12 ppm	-0.02
Spiked Amount 50.000			Recovery = 74.24%		
73) 2,4,6-Tribromophenol	9.318	330	88652	43.52 ppm	-0.03
Spiked Amount 50.000			Recovery = 87.04%		
85) Terphenyl-d14	12.928	244	367898	22.98 ppm	-0.04
Spiked Amount 50.000			Recovery = 45.96%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
2) 1,4-Dioxane	2.483	88	10533	4.16 ppm	93

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

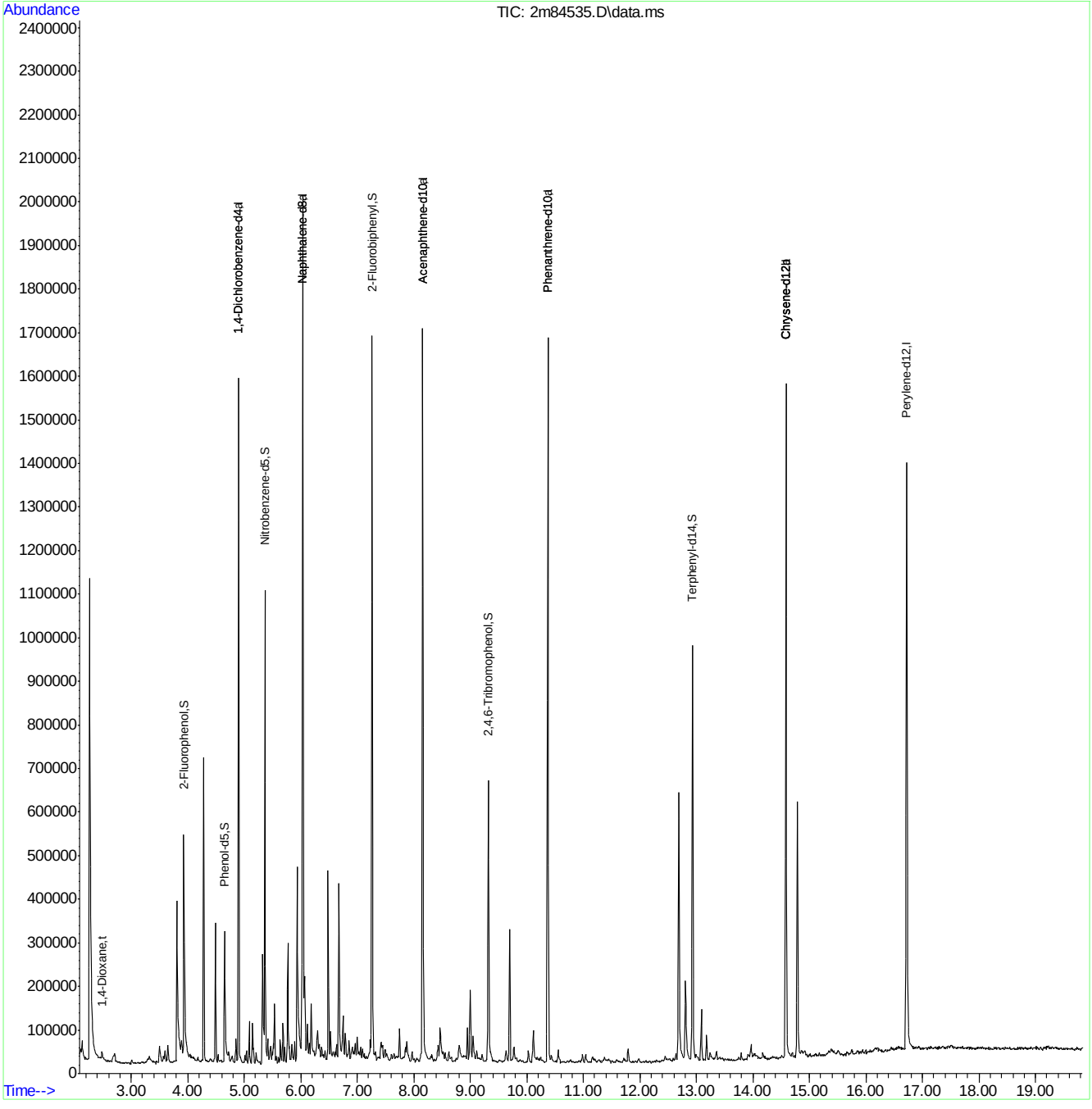
7.1.2

7

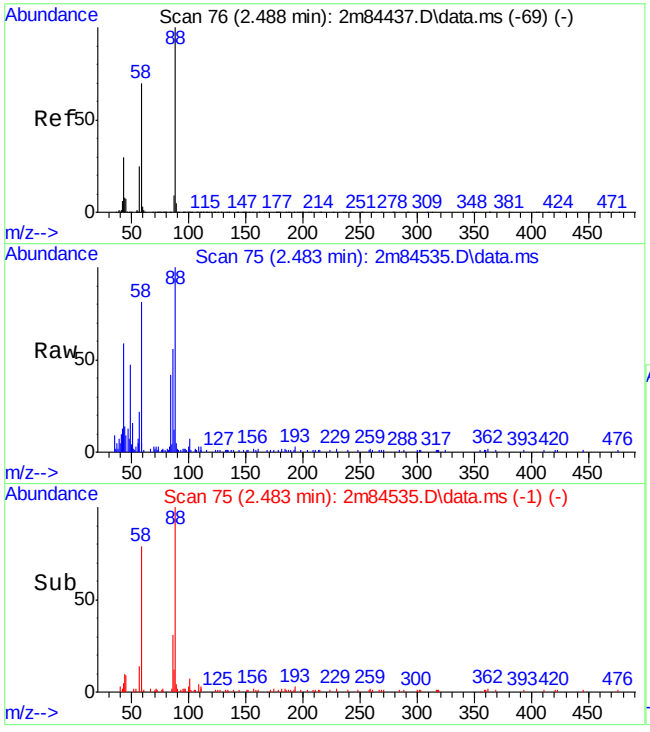
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84535.D
Acq On : 10 Jun 2016 3:21 pm
Operator : ashleyn
Sample : jc21709-2
Misc : op94650,e2m3726,910
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 16:37:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



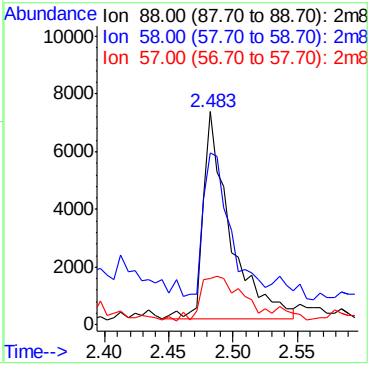
M2M3720.M Fri Jun 10 16:38:02 2016 Page: 2



#2
1,4-Dioxane
Concen: 4.16 ppm
RT: 2.483 min Scan# 75
Delta R.T. -0.005 min
Lab File: 2m84535.D
Acq: 10 Jun 2016 3:21 pm

Tgt Ion: 88 Resp: 10533

Ion	Ratio	Lower	Upper
88	100		
58	65.8	39.9	99.9
57	18.8	0.0	54.5



7.1.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84536.D
Acq On : 10 Jun 2016 3:47 pm
Operator : ashleyn
Sample : jc21709-3
Misc : op94650,e2m3726,900
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 16:38:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	189115	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	750372	40.00 ppm	-0.02
47) Acenaphthene-d10	8.163	164	439403	40.00 ppm	-0.02
69) Phenanthrene-d10	10.372	188	749180	40.00 ppm	-0.03
83) Chrysene-d12	14.586	240	703610	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	687527	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	189115	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.163	164	439403	40.00 ppm	-0.05
105) Chrysene-d12a	14.586	240	703610	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	749180	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	750372	40.00 ppm	-0.05
113) Chrysene-d12b	14.586	240	703610	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	150591	22.50 ppm	-0.02
Spiked Amount 50.000			Recovery = 45.00%		
8) Phenol-d5	4.654	99	129280	15.26 ppm	-0.01
Spiked Amount 50.000			Recovery = 30.52%		
25) Nitrobenzene-d5	5.365	82	288121	34.81 ppm	-0.02
Spiked Amount 50.000			Recovery = 69.62%		
51) 2-Fluorobiphenyl	7.259	172	474455	33.50 ppm	-0.02
Spiked Amount 50.000			Recovery = 67.00%		
73) 2,4,6-Tribromophenol	9.318	330	84245	40.57 ppm	-0.03
Spiked Amount 50.000			Recovery = 81.14%		
85) Terphenyl-d14	12.928	244	397680	24.70 ppm	-0.04
Spiked Amount 50.000			Recovery = 49.40%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

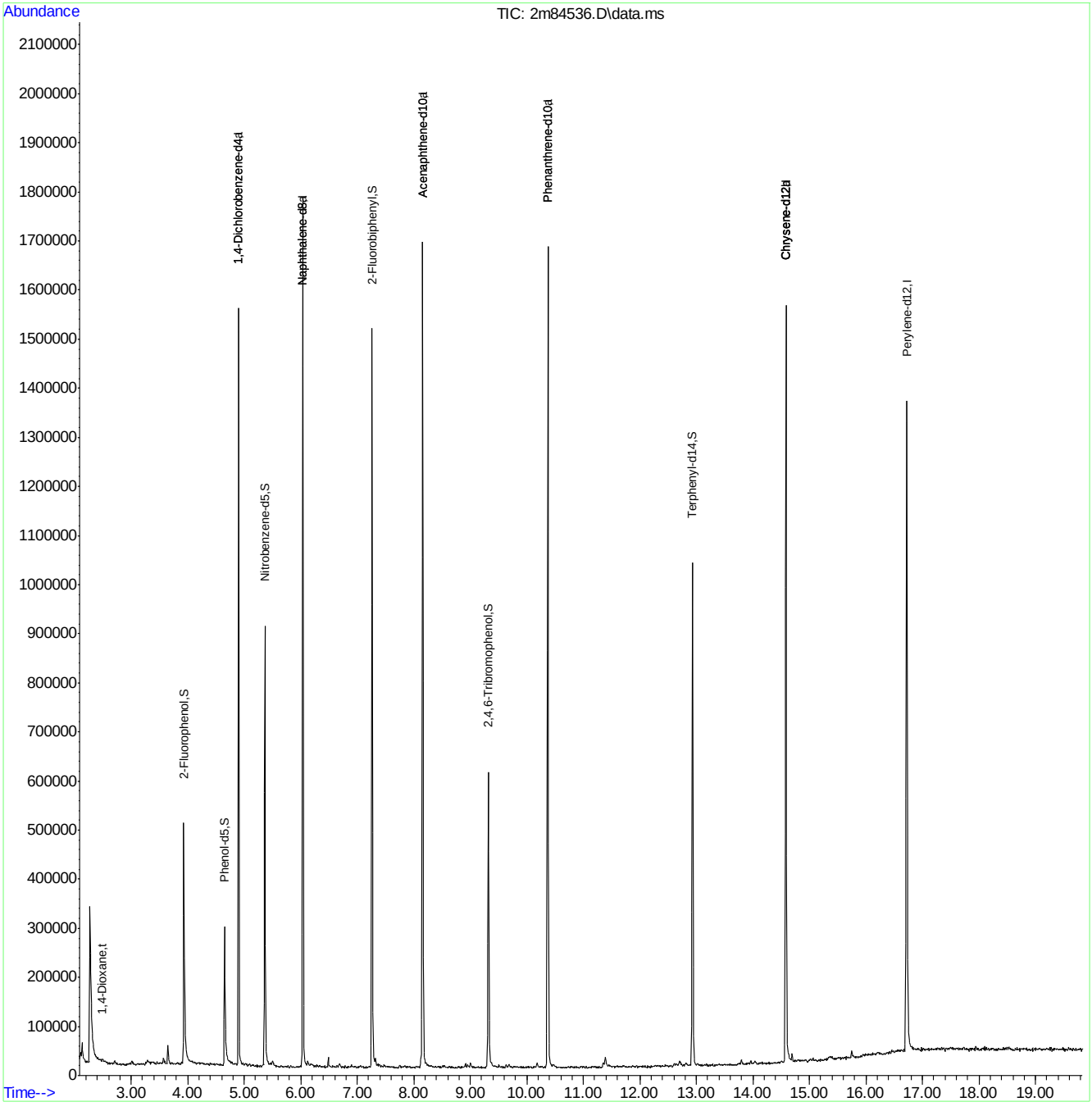
Target Compounds					Qvalue
2) 1,4-Dioxane	2.493	88	3524	1.41 ppm	72

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

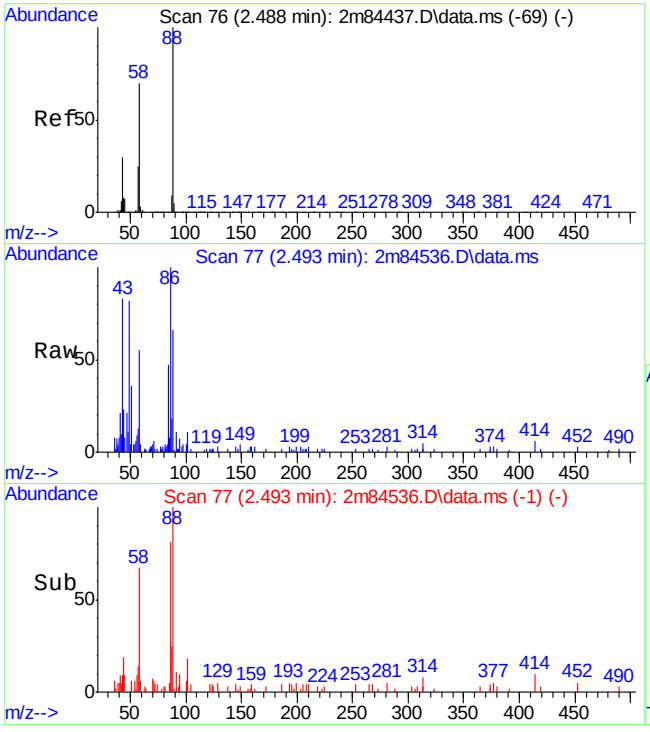
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84536.D
Acq On : 10 Jun 2016 3:47 pm
Operator : ashleyn
Sample : jc21709-3
Misc : op94650,e2m3726,900
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 16:38:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



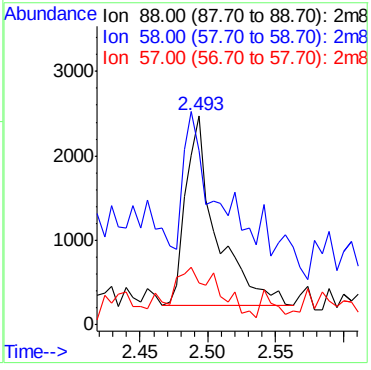
M2M3720.M Fri Jun 10 16:38:46 2016 Page: 2



#2
1,4-Dioxane
Concen: 1.41 ppm
RT: 2.493 min Scan# 77
Delta R.T. 0.005 min
Lab File: 2m84536.D
Acq: 10 Jun 2016 3:47 pm

Tgt Ion: 88 Resp: 3524

Ion	Ratio	Lower	Upper
88	100		
58	45.5	39.9	99.9
57	12.4	0.0	54.5



7.1.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84537.D
Acq On : 10 Jun 2016 4:13 pm
Operator : ashleyn
Sample : jc21709-4
Misc : op94650,e2m3726,940
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 10 16:40:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	191259	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	763870	40.00 ppm	-0.02
47) Acenaphthene-d10	8.158	164	441509	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	766892	40.00 ppm	-0.03
83) Chrysene-d12	14.587	240	730739	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	711391	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	191259	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.158	164	441509	40.00 ppm	-0.06
105) Chrysene-d12a	14.587	240	730739	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	766892	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	763870	40.00 ppm	-0.05
113) Chrysene-d12b	14.587	240	730739	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.937	112	136780	20.20 ppm	-0.01
Spiked Amount 50.000			Recovery = 40.40%		
8) Phenol-d5	4.654	99	122199	14.26 ppm	-0.01
Spiked Amount 50.000			Recovery = 28.52%		
25) Nitrobenzene-d5	5.366	82	280155	33.25 ppm	-0.02
Spiked Amount 50.000			Recovery = 66.50%		
51) 2-Fluorobiphenyl	7.259	172	466526	32.78 ppm	-0.02
Spiked Amount 50.000			Recovery = 65.56%		
73) 2,4,6-Tribromophenol	9.318	330	86123	40.51 ppm	-0.03
Spiked Amount 50.000			Recovery = 81.02%		
85) Terphenyl-d14	12.929	244	403358	24.12 ppm	-0.04
Spiked Amount 50.000			Recovery = 48.24%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
2) 1,4-Dioxane	2.477	88	927808	368.01 ppm	96

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

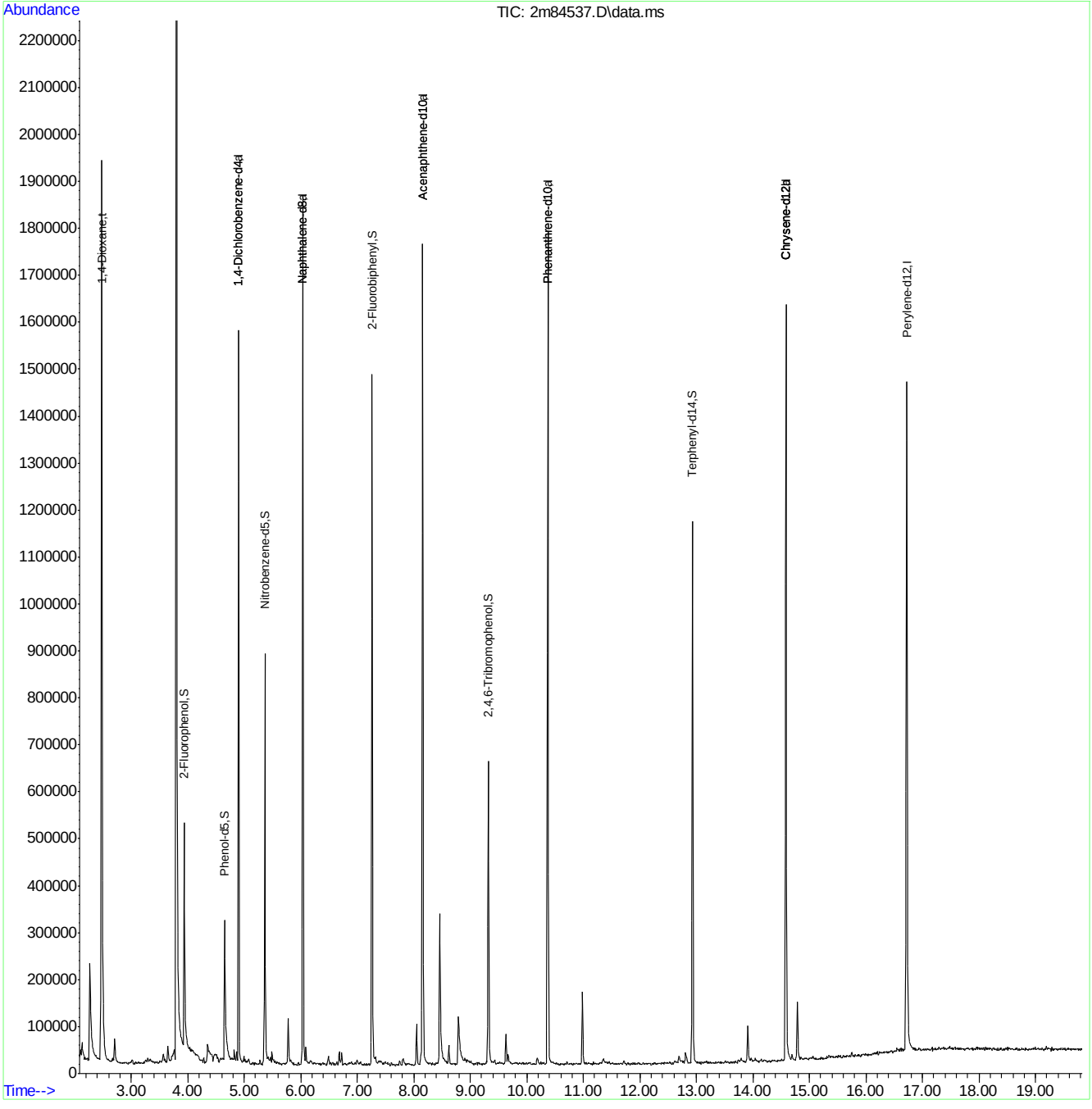
7.1.4

7

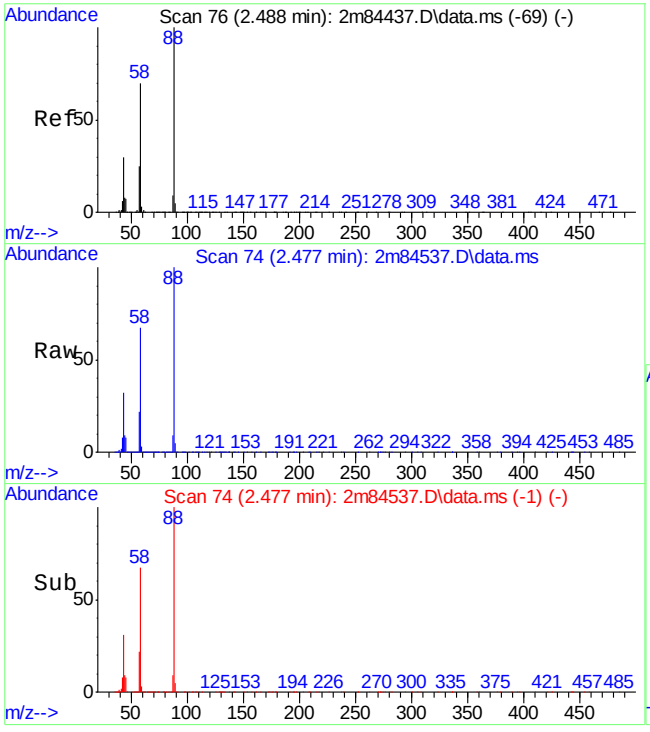
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84537.D
Acq On : 10 Jun 2016 4:13 pm
Operator : ashleyn
Sample : jc21709-4
Misc : op94650,e2m3726,940
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 10 16:40:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



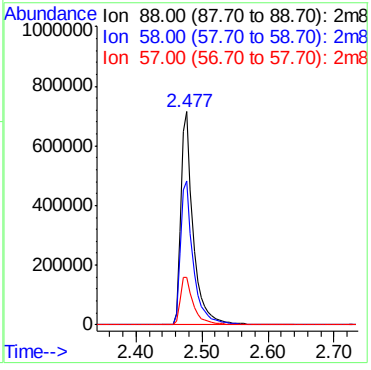
M2M3720.M Wed Jun 22 10:47:36 2016 Page: 2



#2
1,4-Dioxane
Concen: 368.01 ppm
RT: 2.477 min Scan# 74
Delta R.T. -0.011 min
Lab File: 2m84537.D
Acq: 10 Jun 2016 4:13 pm

Tgt Ion: 88 Resp: 927808

Ion	Ratio	Lower	Upper
88	100		
58	67.2	39.9	99.9
57	22.4	0.0	54.5



7.1.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84596.D
Acq On : 13 Jun 2016 11:47 am
Operator : ashleyn
Sample : jc21709-4
Misc : op94650,e2m3729,940,,,1,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 13 12:41:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.890	152	146066	40.00 ppm	-0.02
24) Naphthalene-d8	6.023	136	586228	40.00 ppm	-0.03
47) Acenaphthene-d10	8.147	164	339222	40.00 ppm	-0.04
69) Phenanthrene-d10	10.356	188	585193	40.00 ppm	-0.05
83) Chrysene-d12	14.571	240	552454	40.00 ppm	-0.05
91) Perylene-d12	16.705	264	542054	40.00 ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.890	152	146066	40.00 ppm	-0.05
103) Acenaphthene-d10a	8.147	164	339222	40.00 ppm	-0.07
105) Chrysene-d12a	14.571	240	552454	40.00 ppm	-0.07
108) Phenanthrene-d10a	10.356	188	585193	40.00 ppm	-0.07
111) Naphthalene-d8a	6.023	136	586228	40.00 ppm	-0.06
113) Chrysene-d12b	14.571	240	552454	40.00 ppm	-0.07

System Monitoring Compounds					
5) 2-Fluorophenol	3.959	112	10864	2.10 ppm	0.01
Spiked Amount 50.000			Recovery	= 4.20%	
8) Phenol-d5	4.692	99	10602	1.62 ppm	0.03
Spiked Amount 50.000			Recovery	= 3.24%	
25) Nitrobenzene-d5	5.371	82	27136	4.20 ppm	-0.01
Spiked Amount 50.000			Recovery	= 8.40%	
51) 2-Fluorobiphenyl	7.254	172	45625	4.17 ppm	-0.03
Spiked Amount 50.000			Recovery	= 8.34%	
73) 2,4,6-Tribromophenol	9.318	330	7331	4.52 ppm	-0.03
Spiked Amount 50.000			Recovery	= 9.04%	
85) Terphenyl-d14	12.918	244	38667	3.06 ppm	-0.05
Spiked Amount 50.000			Recovery	= 6.12%	
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	
Spiked Amount 50.000			Recovery	= 0.00%	

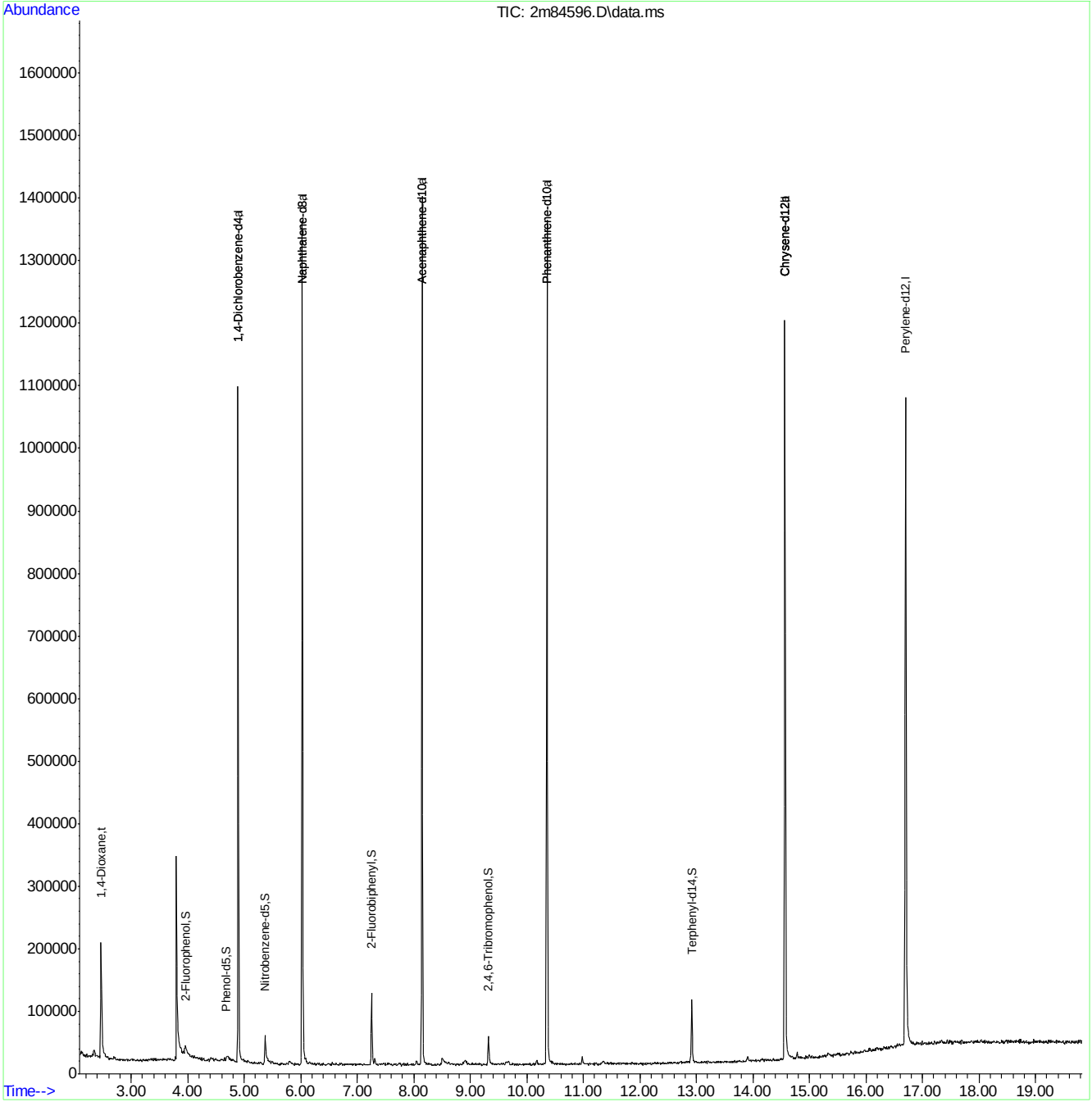
Target Compounds					Qvalue
2) 1,4-Dioxane	2.467	88	93066	48.34 ppm	94

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

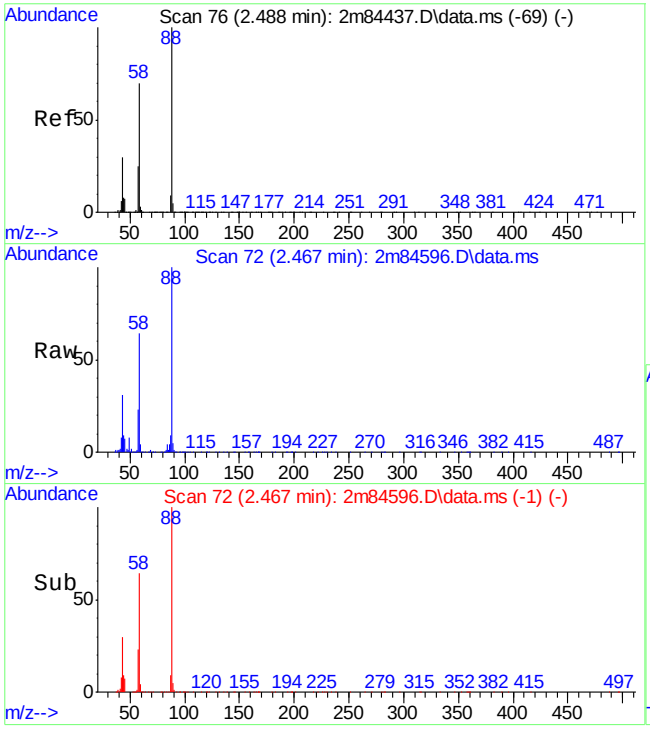
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84596.D
Acq On : 13 Jun 2016 11:47 am
Operator : ashleyn
Sample : jc21709-4
Misc : op94650,e2m3729,940,,,1,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 13 12:41:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration



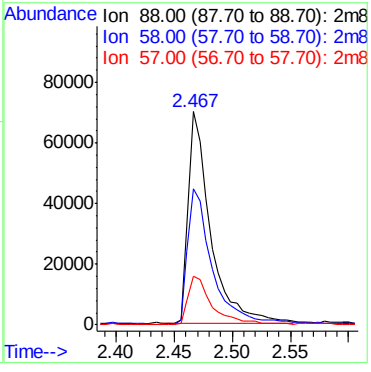
M2M3720.M Mon Jun 13 12:41:37 2016 Page: 2



#2
1,4-Dioxane
Concen: 48.34 ppm
RT: 2.467 min Scan# 72
Delta R.T. -0.020 min
Lab File: 2m84596.D
Acq: 13 Jun 2016 11:47 am

Tgt Ion: 88 Resp: 93066

Ion	Ratio	Lower	Upper
88	100		
58	64.0	39.9	99.9
57	22.8	0.0	54.5



7.1.5

7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84538.D
Acq On : 10 Jun 2016 4:40 pm
Operator : ashleyn
Sample : jc21709-5
Misc : op94650,e2m3726,970
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 22 10:49:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Jun 16 17:00:48 2016
Response via : Initial Calibration

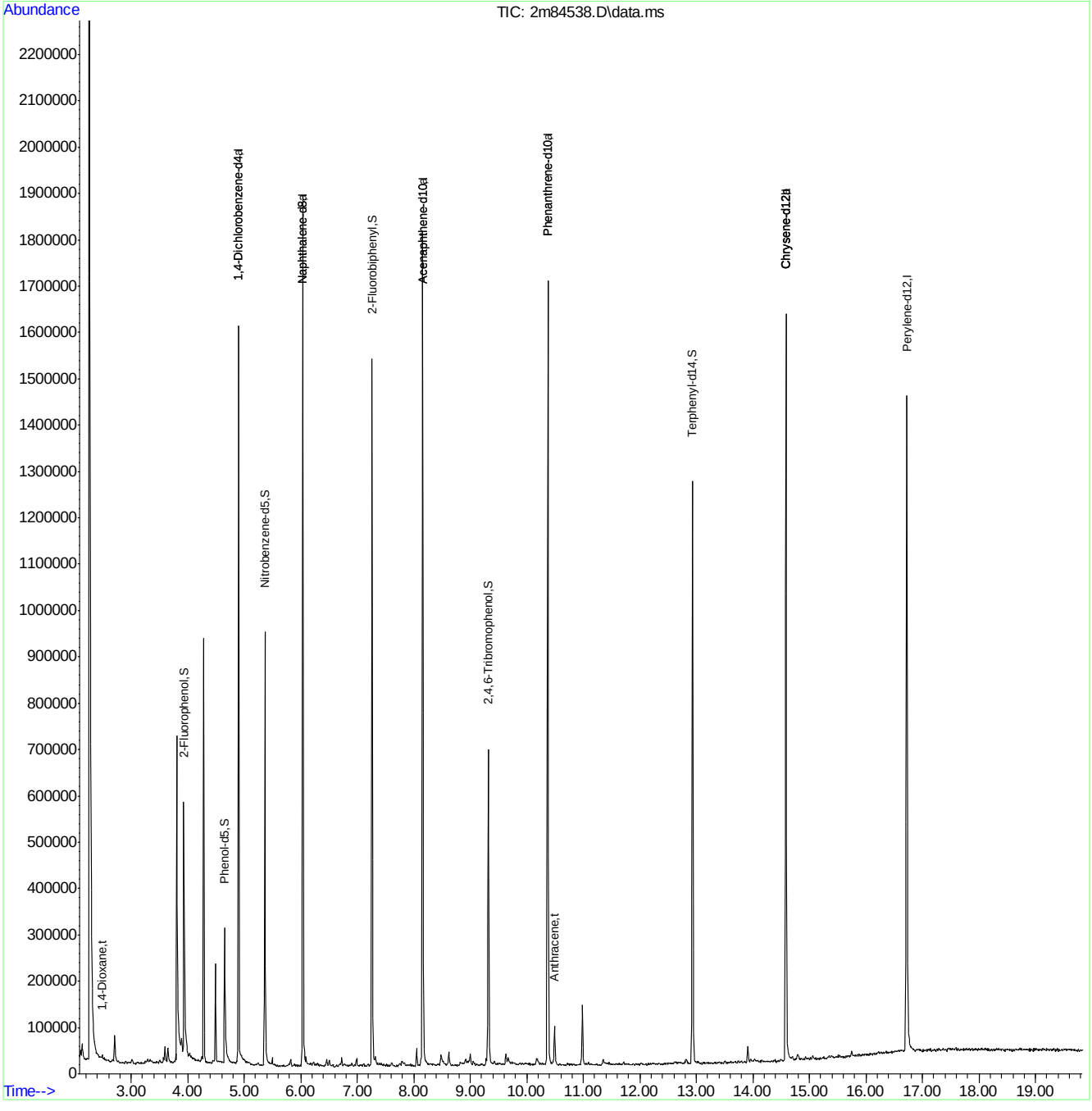
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	195109	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	785342	40.00 ppm	-0.02
47) Acenaphthene-d10	8.157	164	452483	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	778960	40.00 ppm	-0.03
83) Chrysene-d12	14.587	240	741094	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	716938	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	195109	40.00 ppm	-0.01
103) Acenaphthene-d10a	8.157	164	452483	40.00 ppm	-0.03
105) Chrysene-d12a	14.587	240	741094	40.00 ppm	-0.04
108) Phenanthrene-d10a	10.372	188	778960	40.00 ppm	-0.03
111) Naphthalene-d8a	6.034	136	785342	40.00 ppm	-0.02
113) Chrysene-d12b	14.587	240	741118	40.00 ppm	-0.04
System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	142467	20.63 ppm	-0.02
Spiked Amount 50.000			Recovery	= 41.26%	
8) Phenol-d5	4.654	99	128282	14.68 ppm	-0.01
Spiked Amount 50.000			Recovery	= 29.36%	
25) Nitrobenzene-d5	5.365	82	293155	33.84 ppm	-0.02
Spiked Amount 50.000			Recovery	= 67.68%	
51) 2-Fluorobiphenyl	7.259	172	489010	33.53 ppm	-0.02
Spiked Amount 50.000			Recovery	= 67.06%	
73) 2,4,6-Tribromophenol	9.318	330	87177	40.37 ppm	-0.03
Spiked Amount 50.000			Recovery	= 80.74%	
85) Terphenyl-d14	12.928	244	475175	28.02 ppm	-0.04
Spiked Amount 50.000			Recovery	= 56.04%	
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	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
2) 1,4-Dioxane	2.483	88	3920	1.52 ppm	96
78) Anthracene	10.489	178	41415	1.82 ppm	98

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

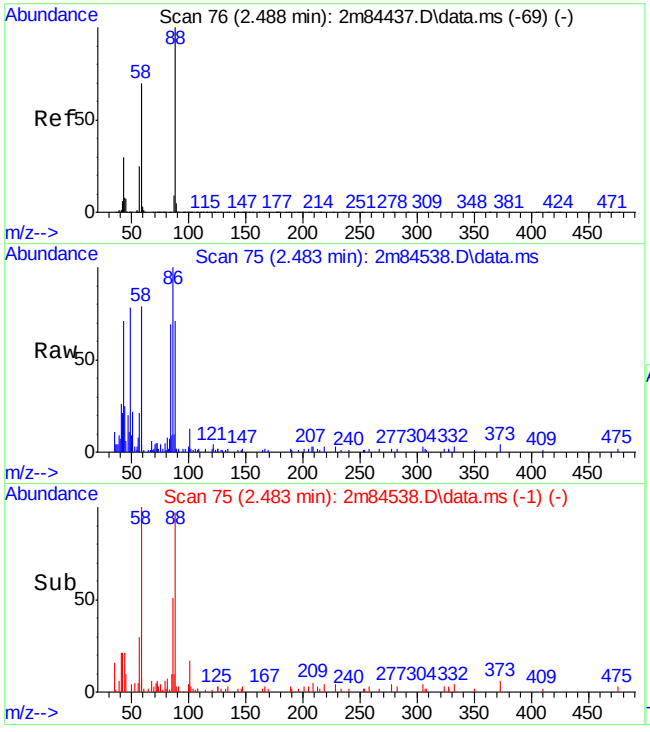
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84538.D
Acq On : 10 Jun 2016 4:40 pm
Operator : ashleyn
Sample : jc21709-5
Misc : op94650,e2m3726,970
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 22 10:49:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Jun 16 17:00:48 2016
Response via : Initial Calibration



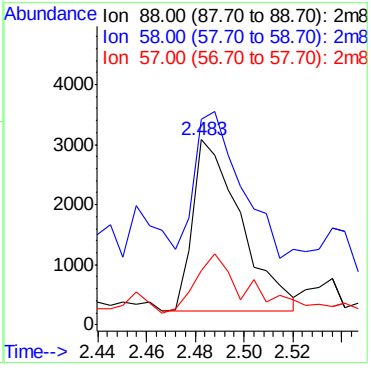
M2M3720.M Wed Jun 22 10:49:32 2016 Page: 2

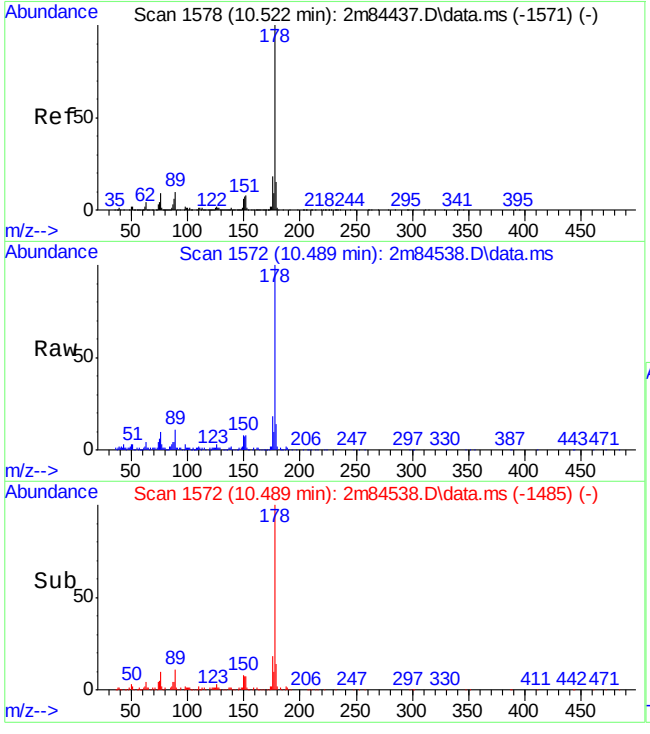


#2
1,4-Dioxane
Concen: 1.52 ppm
RT: 2.483 min Scan# 75
Delta R.T. -0.005 min
Lab File: 2m84538.D
Acq: 10 Jun 2016 4:40 pm

Tgt Ion: 88 Resp: 3920

Ion	Ratio	Lower	Upper
88	100		
58	73.0	39.9	99.9
57	21.6	0.0	54.5

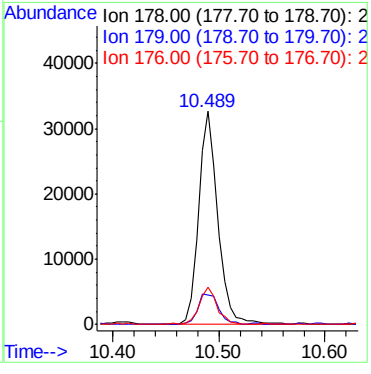




#78
Anthracene
Concen: 1.82 ppm
RT: 10.489 min Scan# 1572
Delta R.T. -0.032 min
Lab File: 2m84538.D
Acq: 10 Jun 2016 4:40 pm

Tgt Ion:178 Resp: 41415

Ion	Ratio	Lower	Upper
178	100		
179	13.8	0.0	45.0
176	17.5	0.0	47.8



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 06/22/16 11:05

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84539.D
Acq On : 10 Jun 2016 5:07 pm
Operator : ashleyn
Sample : jc21709-6
Misc : op94650,e2m3726,950
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 22 10:58:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Jun 16 17:00:48 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	190817	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	746320	40.00 ppm	-0.02
47) Acenaphthene-d10	8.157	164	431579	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	732915	40.00 ppm	-0.03
83) Chrysene-d12	14.586	240	688089	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	650549	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	190817	40.00 ppm	-0.01
103) Acenaphthene-d10a	8.157	164	431579	40.00 ppm	-0.03
105) Chrysene-d12a	14.586	240	688089	40.00 ppm	-0.04
108) Phenanthrene-d10a	10.372	188	732915	40.00 ppm	-0.03
111) Naphthalene-d8a	6.034	136	746320	40.00 ppm	-0.02
113) Chrysene-d12b	14.586	240	688089	40.00 ppm	-0.04

System Monitoring Compounds					
5) 2-Fluorophenol	3.948	112	141023	20.88 ppm	0.00
Spiked Amount 50.000			Recovery = 41.76%		
8) Phenol-d5	4.659	99	120686	14.12 ppm	0.00
Spiked Amount 50.000			Recovery = 28.24%		
25) Nitrobenzene-d5	5.365	82	353371	42.92 ppm	-0.02
Spiked Amount 50.000			Recovery = 85.84%		
51) 2-Fluorobiphenyl	7.259	172	609200	43.79 ppm	-0.02
Spiked Amount 50.000			Recovery = 87.58%		
73) 2,4,6-Tribromophenol	9.323	330	93494	46.02 ppm	-0.03
Spiked Amount 50.000			Recovery = 92.04%		
85) Terphenyl-d14	12.934	244	593683	37.71 ppm	-0.03
Spiked Amount 50.000			Recovery = 75.42%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
2) 1,4-Dioxane	2.498	88	153811	61.15 ppm	99
38) Naphthalene	6.055	128	14104	0.68 ppm	92
44) 2-Methylnaphthalene	6.815	141	5754m	0.50 ppm	
78) Anthracene	10.489	178	541166	25.23 ppm	99
102) Benzaldehyde	4.568	105	118818	20.25 ppm	92

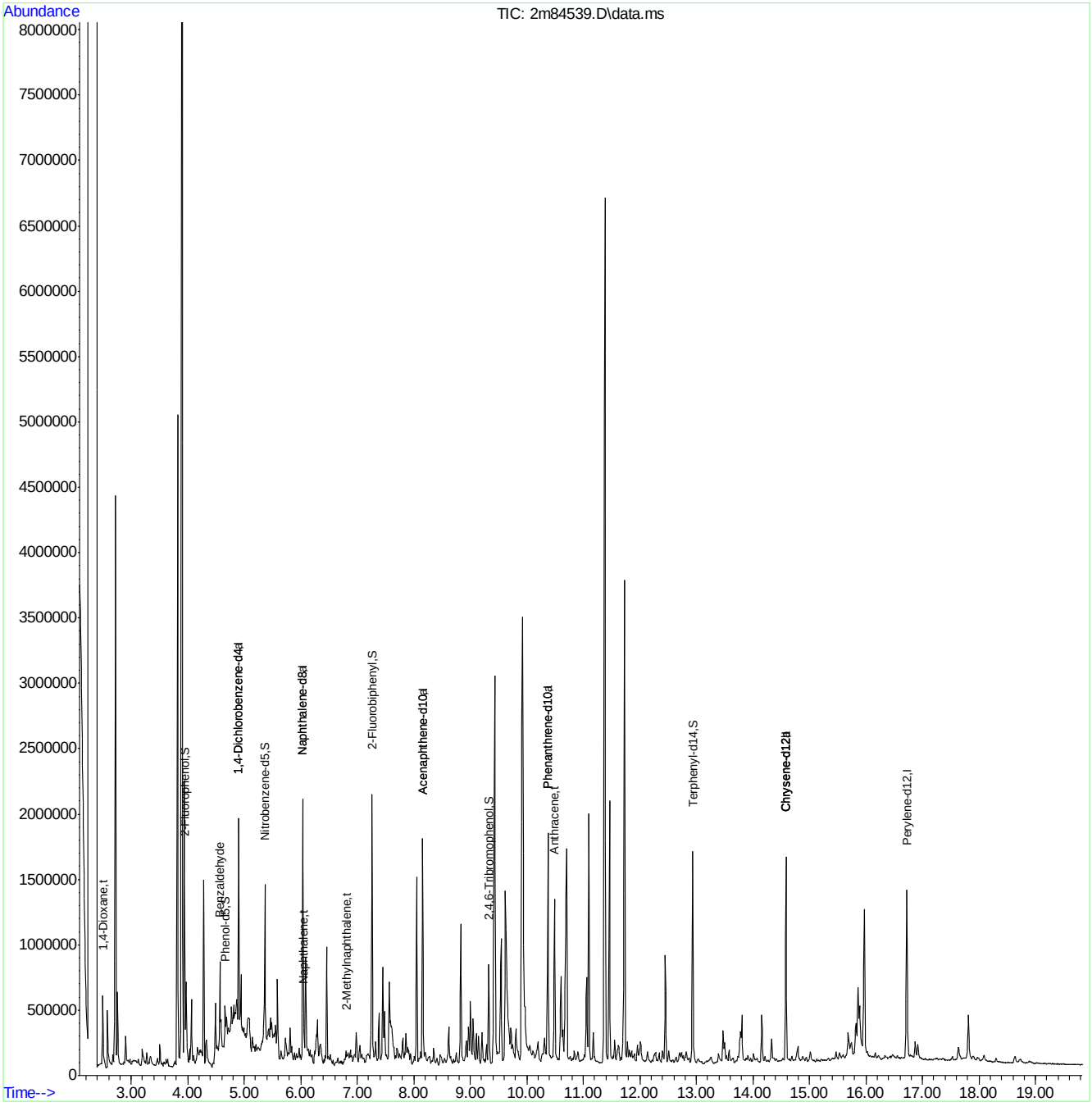
(#) = qualifier out of range (m) = manual integration (+) = signals summed

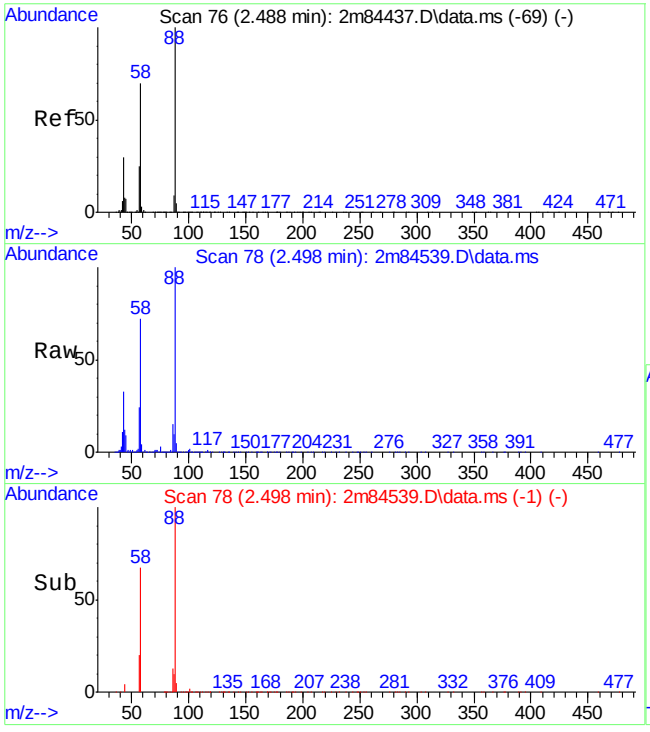
7.1.7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84539.D
Acq On : 10 Jun 2016 5:07 pm
Operator : ashleyn
Sample : jc21709-6
Misc : op94650,e2m3726,950
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 22 10:58:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Jun 16 17:00:48 2016
Response via : Initial Calibration

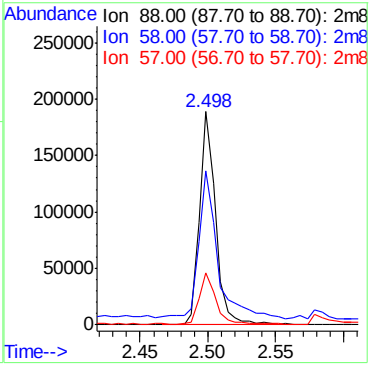


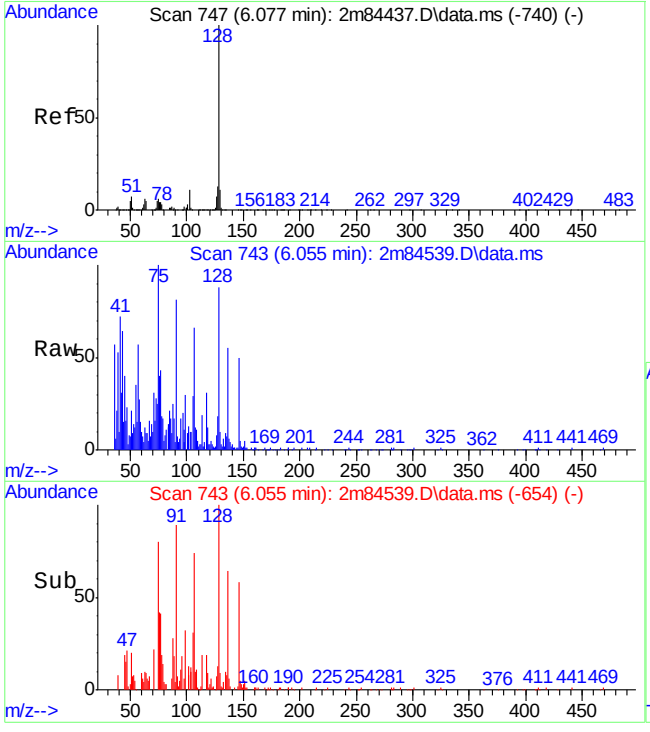


#2
1,4-Dioxane
Concen: 61.15 ppm
RT: 2.498 min Scan# 78
Delta R.T. 0.011 min
Lab File: 2m84539.D
Acq: 10 Jun 2016 5:07 pm

Tgt Ion: 88 Resp: 153811

Ion	Ratio	Lower	Upper
88	100		
58	69.0	39.9	99.9
57	23.8	0.0	54.5

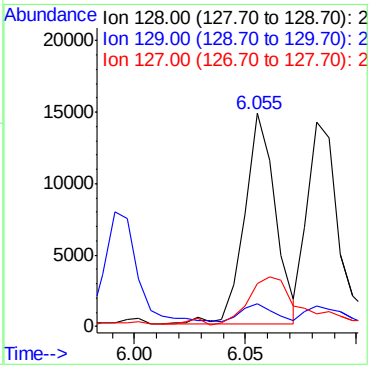


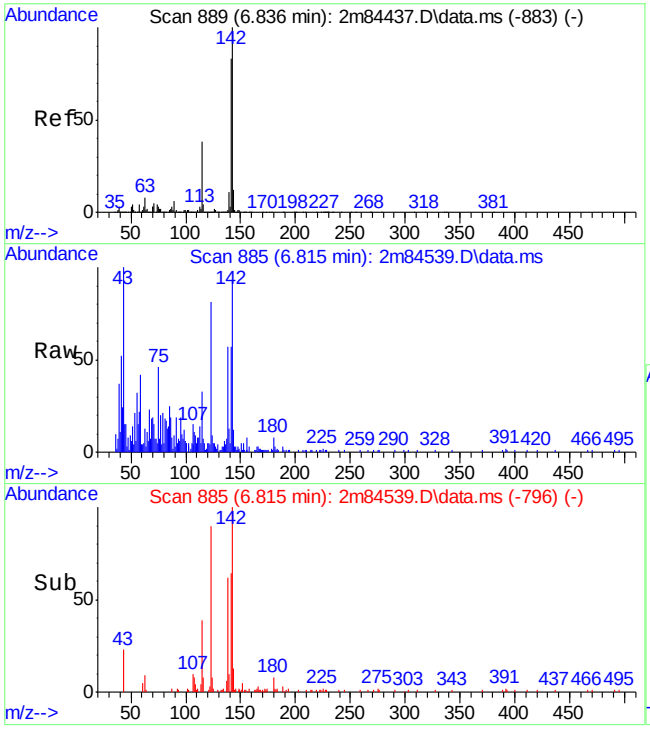


#38
Naphthalene
Concen: 0.68 ppm
RT: 6.055 min Scan# 743
Delta R.T. -0.022 min
Lab File: 2m84539.D
Acq: 10 Jun 2016 5:07 pm

Tgt Ion:128 Resp: 14104

Ion	Ratio	Lower	Upper
128	100		
129	7.5	0.0	40.6
127	15.8	0.0	42.5

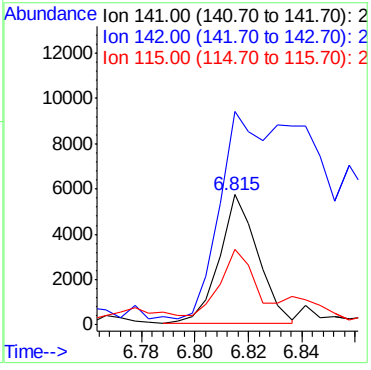


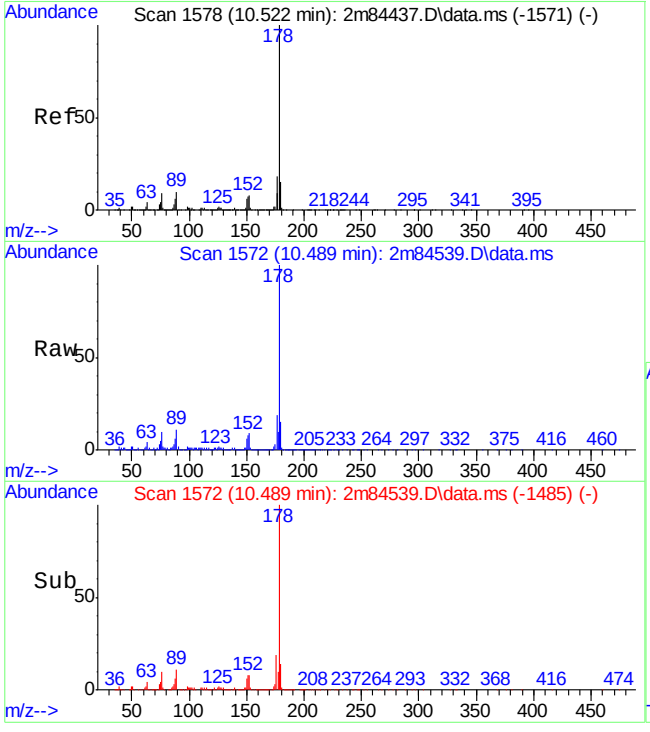


#44
2-Methylnaphthalene
Concen: 0.50 ppm m
RT: 6.815 min Scan# 885
Delta R.T. -0.022 min
Lab File: 2m84539.D
Acq: 10 Jun 2016 5:07 pm

Tgt Ion:141 Resp: 5754

Ion	Ratio	Lower	Upper
141	100		
142	163.8	89.8	149.8#
115	58.2	15.6	75.6

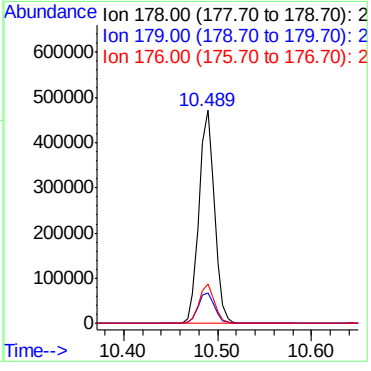


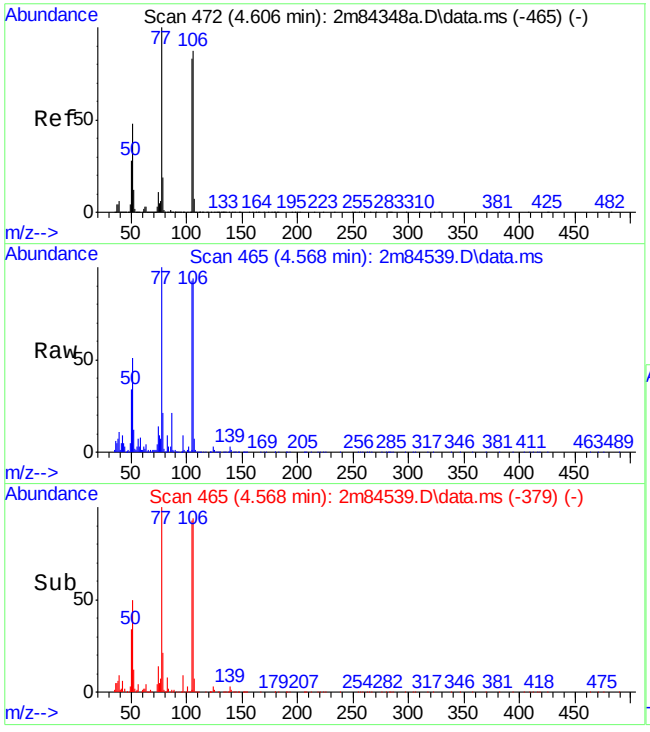


#78
Anthracene
Concen: 25.23 ppm
RT: 10.489 min Scan# 1572
Delta R.T. -0.032 min
Lab File: 2m84539.D
Acq: 10 Jun 2016 5:07 pm

Tgt Ion:178 Resp: 541166

Ion	Ratio	Lower	Upper
178	100		
179	14.5	0.0	45.0
176	18.5	0.0	47.8

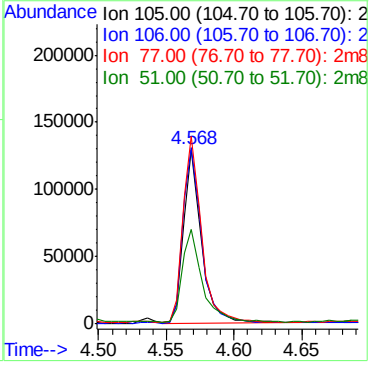




#102
Benzaldehyde
Concen: 20.25 ppm
RT: 4.568 min Scan# 465
Delta R.T. -0.038 min
Lab File: 2m84539.D
Acq: 10 Jun 2016 5:07 pm

Tgt Ion:105 Resp: 118818

Ion	Ratio	Lower	Upper
105	100		
106	101.0	75.0	135.0
77	107.2	90.8	150.8
51	53.6	27.7	87.7



Manual Integration Approval Summary

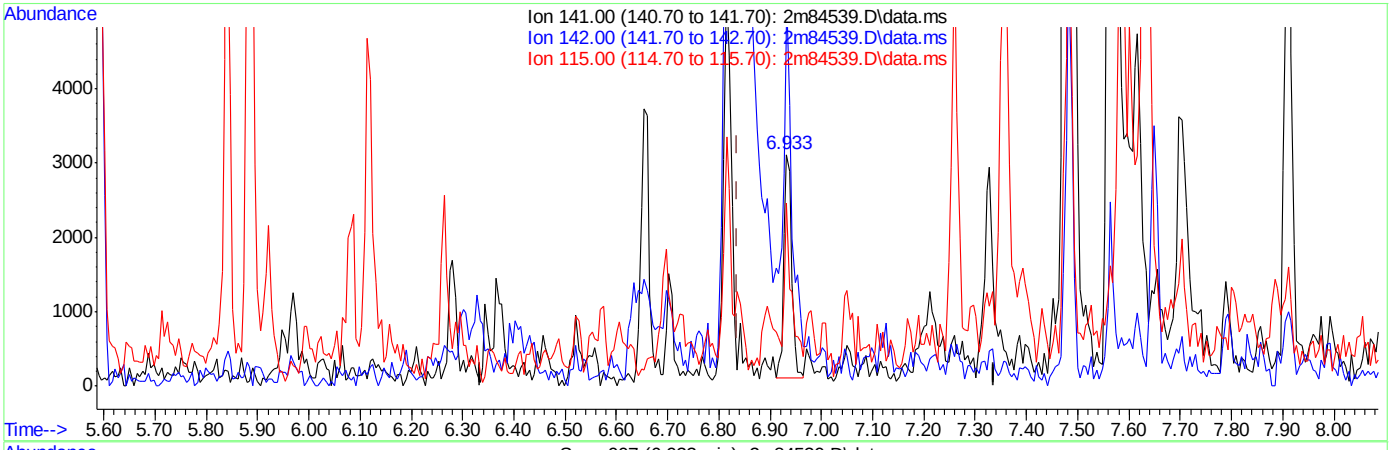
Sample Number:	JC21709-6	**Method:**	SW846 8270D
Lab FileID:	2M84539.D	**Analyst approved:**	06/22/16 10:59 Kristi Schollenberger
Injection Time:	06/10/16 17:07	**Supervisor approved:**	06/22/16 11:05 Kristi Schollenberger

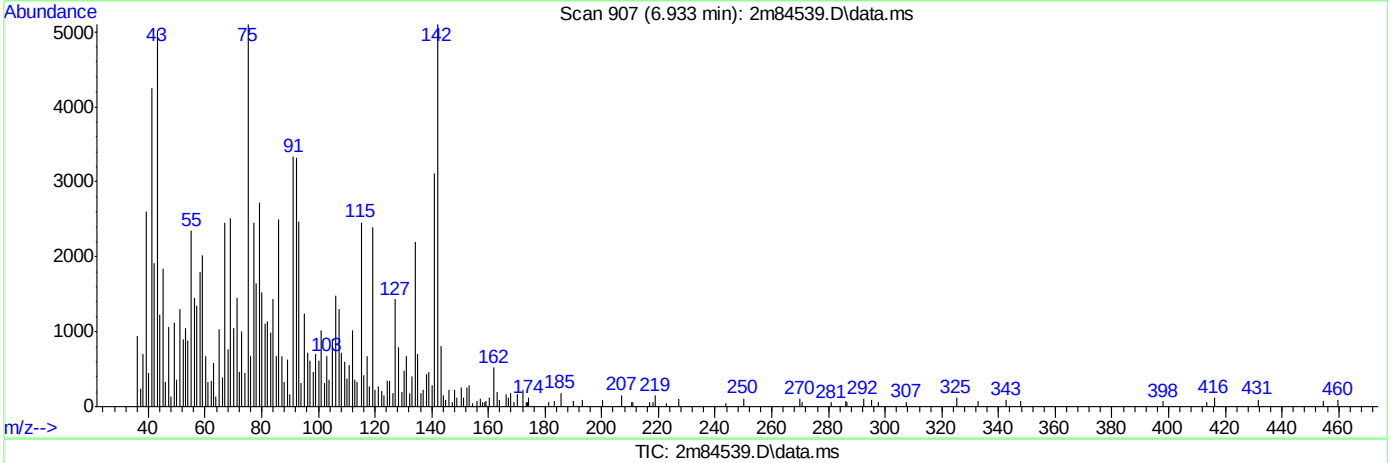
Parameter	CAS	Sig#	R.T. (min.)	Reason
2-Methylnaphthalene	91-57-6		6.81	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84539.D
Acq On : 10 Jun 2016 5:07 pm
Operator : ashleyn
Sample : jc21709-6
Misc : op94650,e2m3726,950
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 10 17:27:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration





TIC: 2m84539.D\data.ms

(44) 2-Methylnaphthalene (t)

6.933min (+0.096) 0.28ppm

response 3235

Ion	Exp%	Act%
141.00	100	100
142.00	119.80	135.20
115.00	45.60	63.61
0.00	0.00	0.00

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84540.D
Acq On : 10 Jun 2016 5:33 pm
Operator : ashleyn
Sample : jc21709-7
Misc : op94650,e2m3726,960
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 12:30:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	195826	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	770337	40.00 ppm	-0.02
47) Acenaphthene-d10	8.157	164	455063	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	775230	40.00 ppm	-0.03
83) Chrysene-d12	14.586	240	724336	40.00 ppm	-0.04
91) Perylene-d12	16.721	264	703218	40.00 ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.900	152	195826	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.157	164	455063	40.00 ppm	-0.06
105) Chrysene-d12a	14.586	240	724336	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	775230	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	770337	40.00 ppm	-0.05
113) Chrysene-d12b	14.586	240	724336	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.937	112	123989	17.89 ppm	-0.01
Spiked Amount 50.000			Recovery	= 35.78%	
8) Phenol-d5	4.654	99	98622	11.24 ppm	-0.01
Spiked Amount 50.000			Recovery	= 22.48%	
25) Nitrobenzene-d5	5.365	82	309543	36.42 ppm	-0.02
Spiked Amount 50.000			Recovery	= 72.84%	
51) 2-Fluorobiphenyl	7.259	172	528994	36.06 ppm	-0.02
Spiked Amount 50.000			Recovery	= 72.12%	
73) 2,4,6-Tribromophenol	9.318	330	96120	44.73 ppm	-0.03
Spiked Amount 50.000			Recovery	= 89.46%	
85) Terphenyl-d14	12.928	244	640274	38.63 ppm	-0.04
Spiked Amount 50.000			Recovery	= 77.26%	
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	
Spiked Amount 50.000			Recovery	= 0.00%	

Target Compounds	Qvalue

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

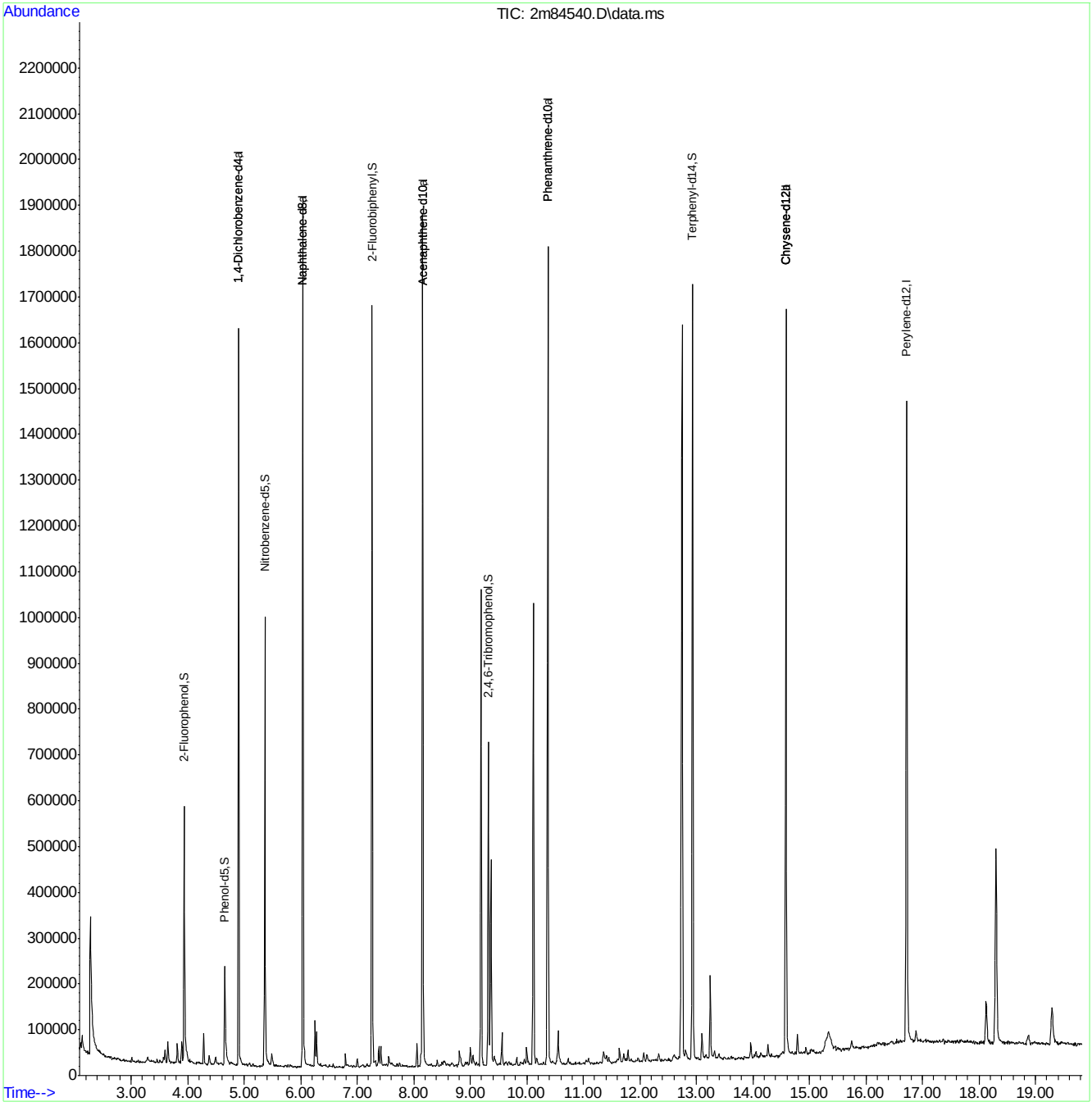
7.1.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84540.D
Acq On : 10 Jun 2016 5:33 pm
Operator : ashleyn
Sample : jc21709-7
Misc : op94650,e2m3726,960
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 12:30:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



M2M3720.M Mon Jun 13 12:30:35 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84541.D
Acq On : 10 Jun 2016 5:59 pm
Operator : ashleyn
Sample : jc21709-8
Misc : op94650,e2m3726,960
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 13 12:51:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	191031	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	756359	40.00 ppm	-0.02
47) Acenaphthene-d10	8.158	164	446643	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	770624	40.00 ppm	-0.03
83) Chrysene-d12	14.587	240	705709	40.00 ppm	-0.04
91) Perylene-d12	16.721	264	666218	40.00 ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.900	152	191031	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.158	164	446643	40.00 ppm	-0.06
105) Chrysene-d12a	14.587	240	705709	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	770624	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	756359	40.00 ppm	-0.05
113) Chrysene-d12b	14.587	240	706208	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.937	112	106426	15.74 ppm	-0.01
Spiked Amount 50.000			Recovery = 31.48%		
8) Phenol-d5	4.660	99	87517	10.23 ppm	0.00
Spiked Amount 50.000			Recovery = 20.46%		
25) Nitrobenzene-d5	5.366	82	259749	31.13 ppm	-0.02
Spiked Amount 50.000			Recovery = 62.26%		
51) 2-Fluorobiphenyl	7.259	172	440094	30.57 ppm	-0.02
Spiked Amount 50.000			Recovery = 61.14%		
73) 2,4,6-Tribromophenol	9.318	330	83982	39.31 ppm	-0.03
Spiked Amount 50.000			Recovery = 78.62%		
85) Terphenyl-d14	12.929	244	543399	33.65 ppm	-0.04
Spiked Amount 50.000			Recovery = 67.30%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

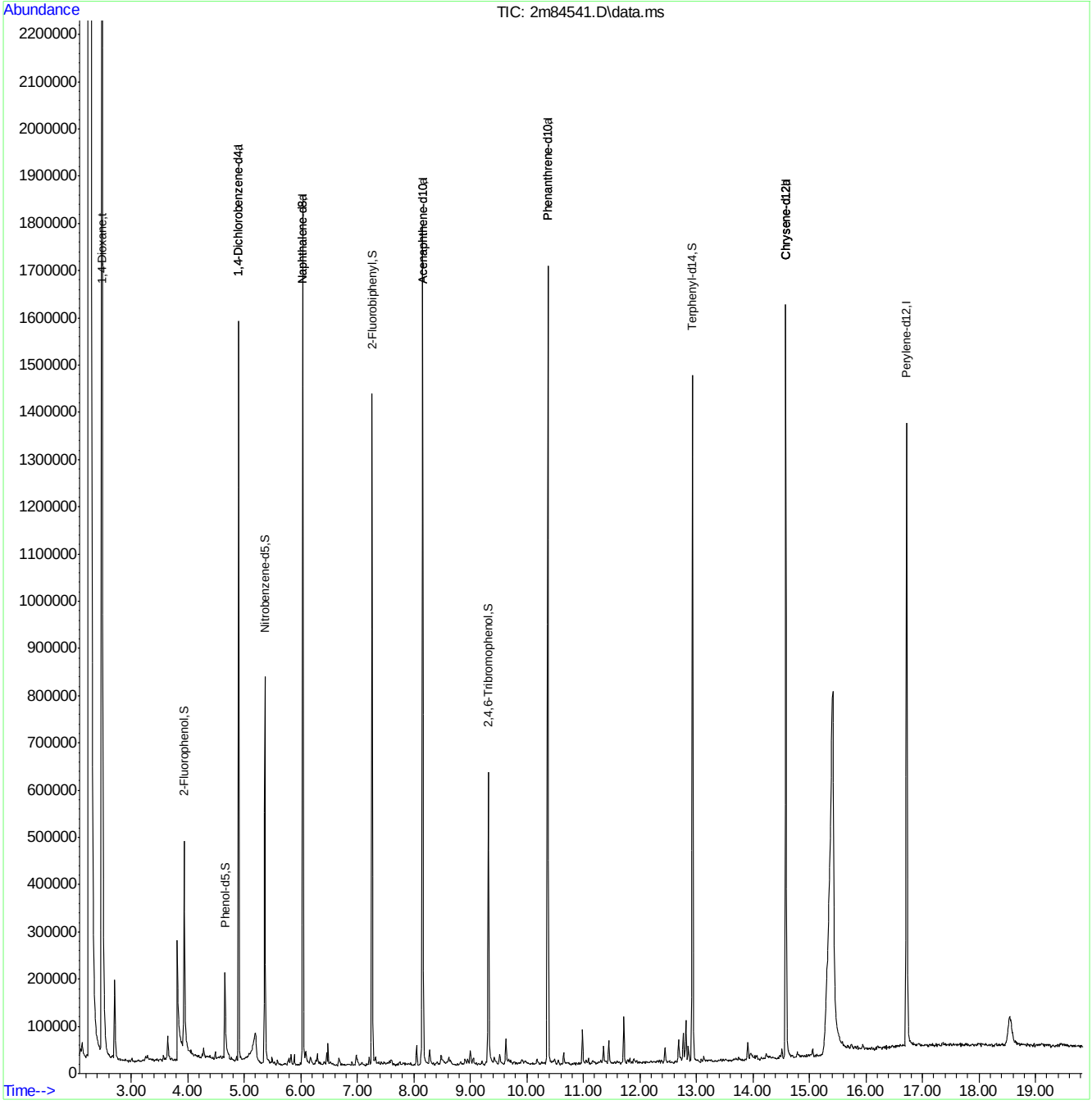
Target Compounds					Qvalue
2) 1,4-Dioxane	2.483	88	2824707	1121.75 ppm	97

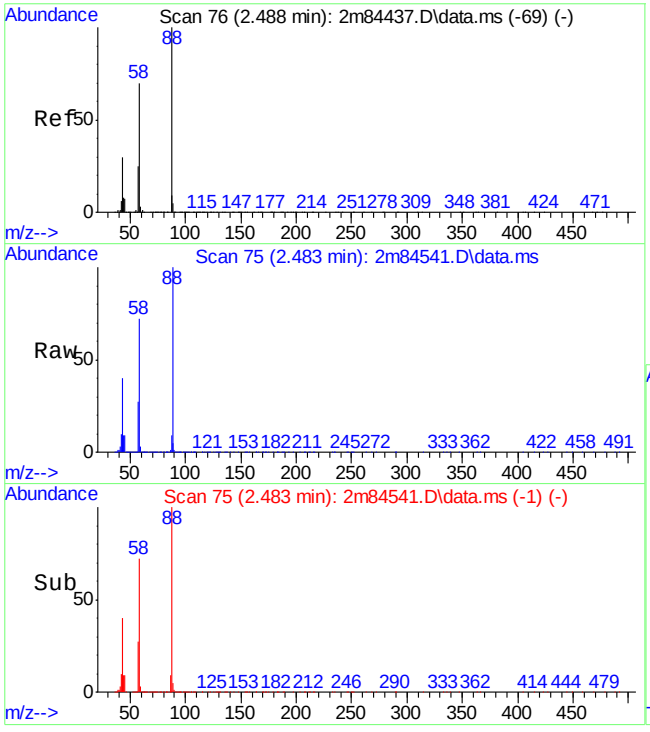
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84541.D
Acq On : 10 Jun 2016 5:59 pm
Operator : ashleyn
Sample : jc21709-8
Misc : op94650,e2m3726,960
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 13 12:51:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

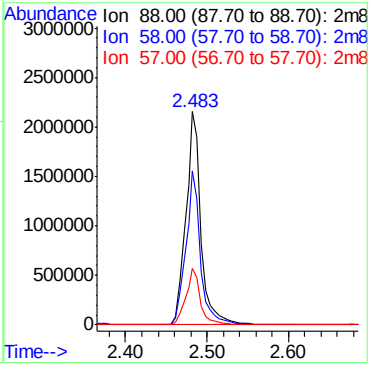




#2
1,4-Dioxane
Concen: 1121.75 ppm
RT: 2.483 min Scan# 75
Delta R.T. -0.005 min
Lab File: 2m84541.D
Acq: 10 Jun 2016 5:59 pm

Tgt Ion: 88 Resp: 2824707

Ion	Ratio	Lower	Upper
88	100		
58	71.9	39.9	99.9
57	26.6	0.0	54.5



7.1.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84595.D
Acq On : 13 Jun 2016 11:20 am
Operator : ashleyn
Sample : jc21709-8
Misc : op94650,e2m3729,960,,,1,50
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 12:39:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.889	152	165572	40.00 ppm	-0.02
24) Naphthalene-d8	6.023	136	655776	40.00 ppm	-0.03
47) Acenaphthene-d10	8.147	164	378931	40.00 ppm	-0.04
69) Phenanthrene-d10	10.356	188	655999	40.00 ppm	-0.05
83) Chrysene-d12	14.570	240	616072	40.00 ppm	-0.05
91) Perylene-d12	16.705	264	617312	40.00 ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.889	152	165572	40.00 ppm	-0.05
103) Acenaphthene-d10a	8.147	164	378931	40.00 ppm	-0.07
105) Chrysene-d12a	14.570	240	616072	40.00 ppm	-0.07
108) Phenanthrene-d10a	10.356	188	655999	40.00 ppm	-0.07
111) Naphthalene-d8a	6.023	136	655776	40.00 ppm	-0.06
113) Chrysene-d12b	14.570	240	616072	40.00 ppm	-0.07

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
25) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
51) 2-Fluorobiphenyl	0.000	172	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	
Spiked Amount 50.000			Recovery	=	0.00%

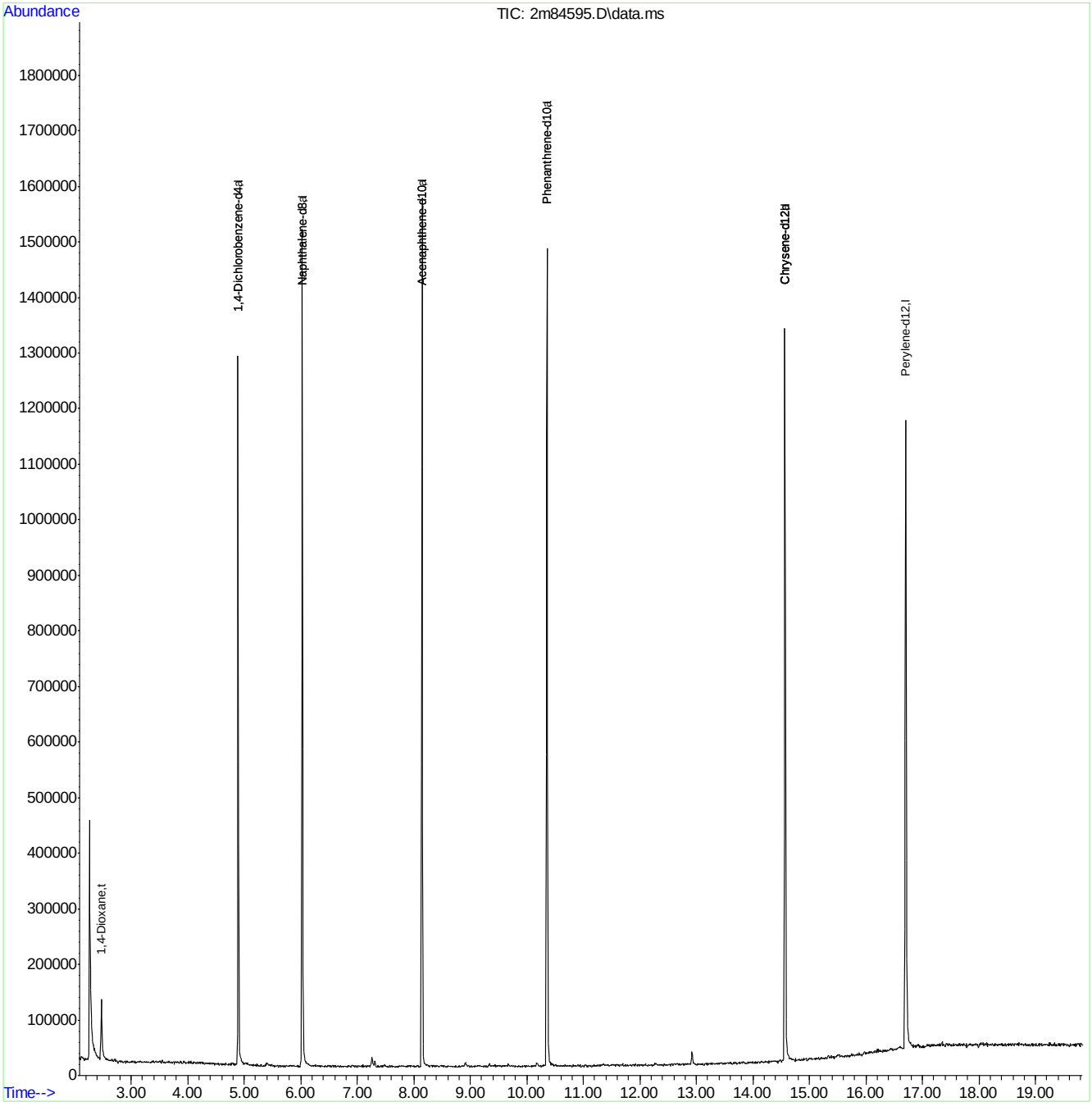
Target Compounds					Qvalue
2) 1,4-Dioxane	2.472	88	57596	26.39 ppm	97

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

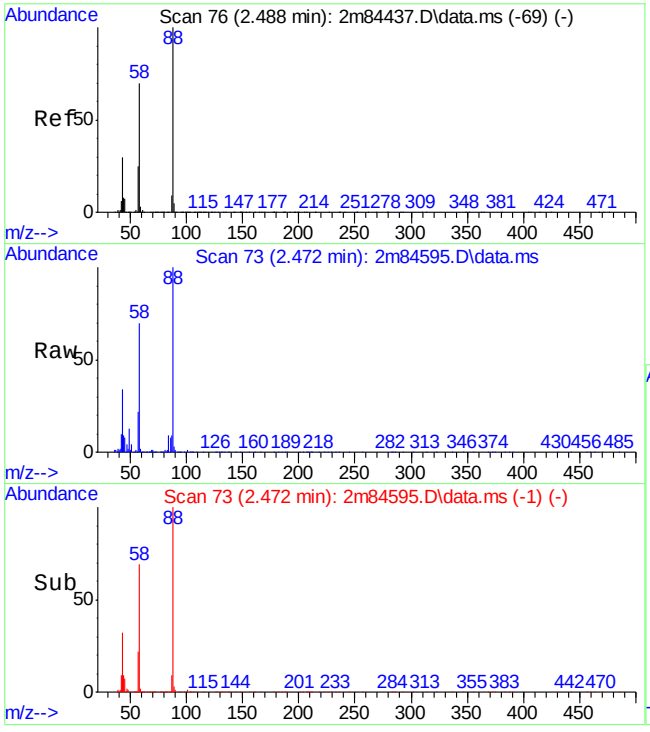
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84595.D
Acq On : 13 Jun 2016 11:20 am
Operator : ashleyn
Sample : jc21709-8
Misc : op94650,e2m3729,960,,,1,50
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 12:39:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration



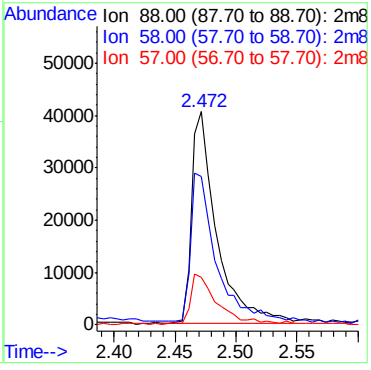
M2M3720.M Mon Jun 13 12:39:58 2016 Page: 2



#2
1,4-Dioxane
Concen: 26.39 ppm
RT: 2.472 min Scan# 73
Delta R.T. -0.015 min
Lab File: 2m84595.D
Acq: 13 Jun 2016 11:20 am

Tgt Ion: 88 Resp: 57596

Ion	Ratio	Lower	Upper
88	100		
58	67.6	39.9	99.9
57	22.1	0.0	54.5



7.1.10

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84542.D
Acq On : 10 Jun 2016 6:25 pm
Operator : ashleyn
Sample : jc21709-9
Misc : op94650,e2m3726,900
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 22 10:55:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Jun 16 17:00:48 2016
Response via : Initial Calibration

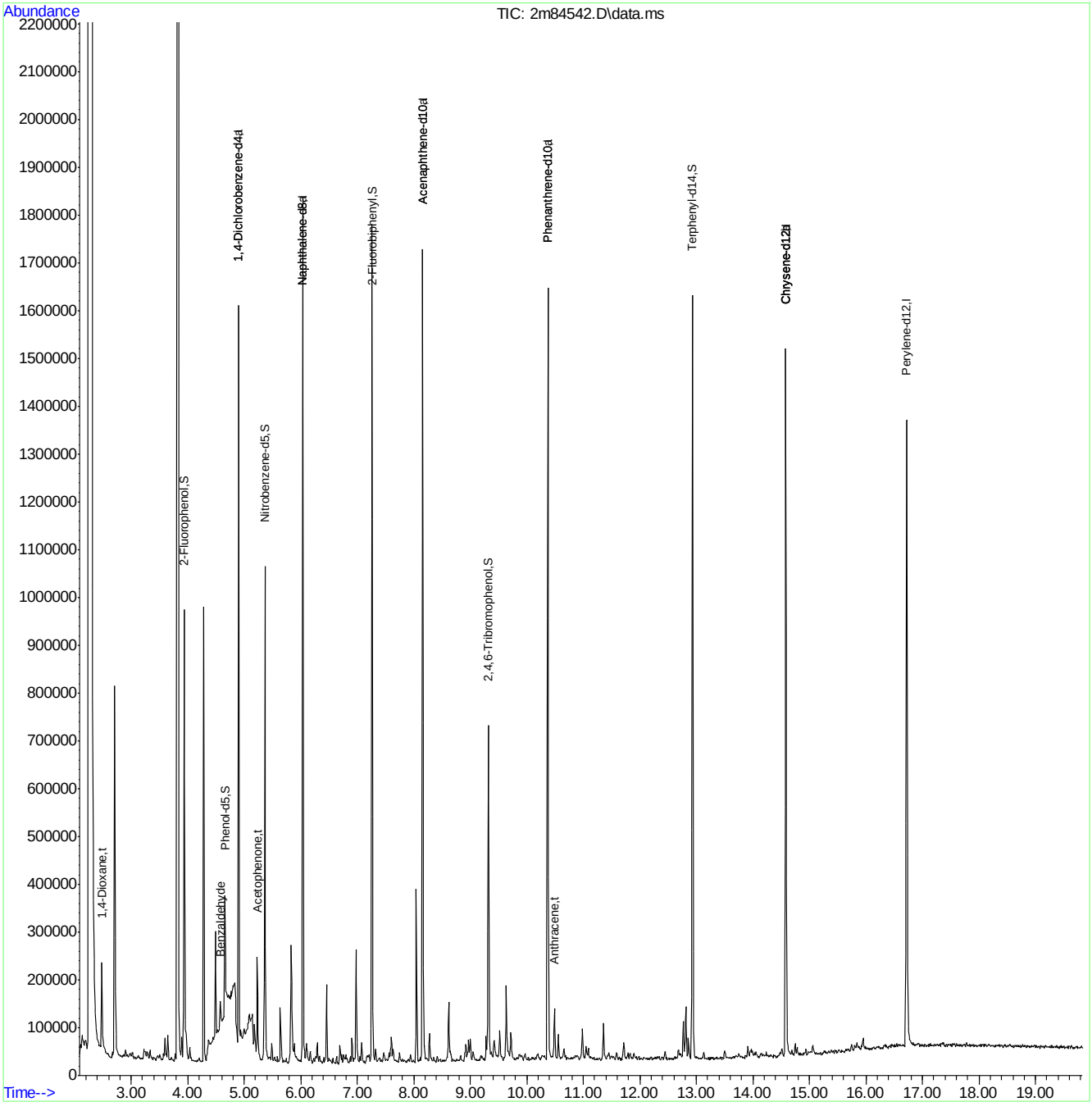
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	182898	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	721625	40.00 ppm	-0.02
47) Acenaphthene-d10	8.157	164	418708	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	728645	40.00 ppm	-0.03
83) Chrysene-d12	14.581	240	669246	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	658393	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	182898	40.00 ppm	-0.01
103) Acenaphthene-d10a	8.157	164	418708	40.00 ppm	-0.03
105) Chrysene-d12a	14.581	240	669246	40.00 ppm	-0.04
108) Phenanthrene-d10a	10.372	188	728645	40.00 ppm	-0.03
111) Naphthalene-d8a	6.034	136	721625	40.00 ppm	-0.02
113) Chrysene-d12b	14.581	240	669246	40.00 ppm	-0.04
System Monitoring Compounds					
5) 2-Fluorophenol	3.937	112	137350	21.21 ppm	-0.01
Spiked Amount 50.000			Recovery	= 42.42%	
8) Phenol-d5	4.659	99	113589	13.86 ppm	0.00
Spiked Amount 50.000			Recovery	= 27.72%	
25) Nitrobenzene-d5	5.365	82	317498	39.88 ppm	-0.02
Spiked Amount 50.000			Recovery	= 79.76%	
51) 2-Fluorobiphenyl	7.259	172	536509	39.75 ppm	-0.02
Spiked Amount 50.000			Recovery	= 79.50%	
73) 2,4,6-Tribromophenol	9.318	330	94610	46.84 ppm	-0.03
Spiked Amount 50.000			Recovery	= 93.68%	
85) Terphenyl-d14	12.928	244	590239	38.54 ppm	-0.04
Spiked Amount 50.000			Recovery	= 77.08%	
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	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
2) 1,4-Dioxane	2.477	88	87102	36.13 ppm	93
18) Acetophenone	5.232	105	52149	5.26 ppm	97
78) Anthracene	10.489	178	53407	2.50 ppm	97
102) Benzaldehyde	4.579	105	11523	2.05 ppm	86

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

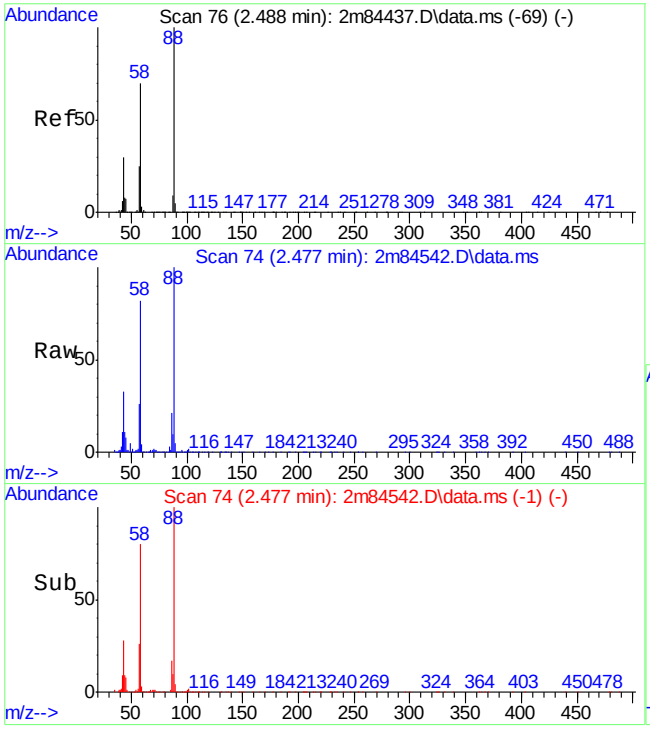
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84542.D
Acq On : 10 Jun 2016 6:25 pm
Operator : ashleyn
Sample : jc21709-9
Misc : op94650,e2m3726,900
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 22 10:55:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Jun 16 17:00:48 2016
Response via : Initial Calibration



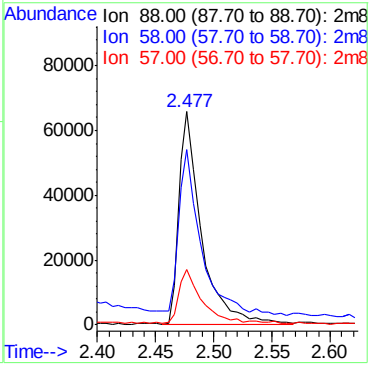
M2M3720.M Wed Jun 22 10:55:11 2016 Page: 2

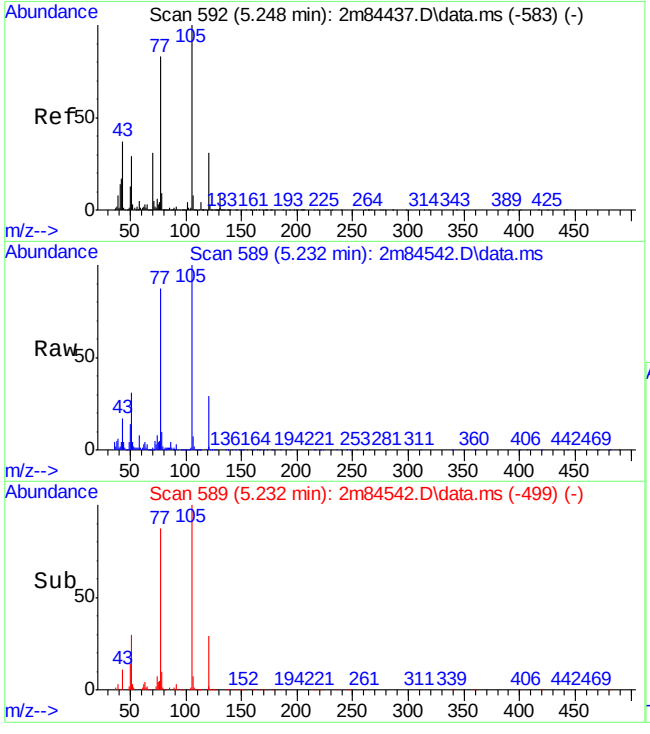


#2
1,4-Dioxane
Concen: 36.13 ppm
RT: 2.477 min Scan# 74
Delta R.T. -0.011 min
Lab File: 2m84542.D
Acq: 10 Jun 2016 6:25 pm

Tgt Ion: 88 Resp: 87102

Ion	Ratio	Lower	Upper
88	100		
58	76.7	39.9	99.9
57	25.2	0.0	54.5

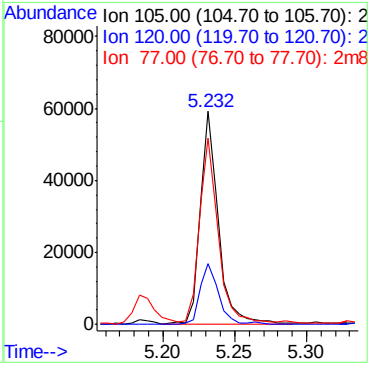


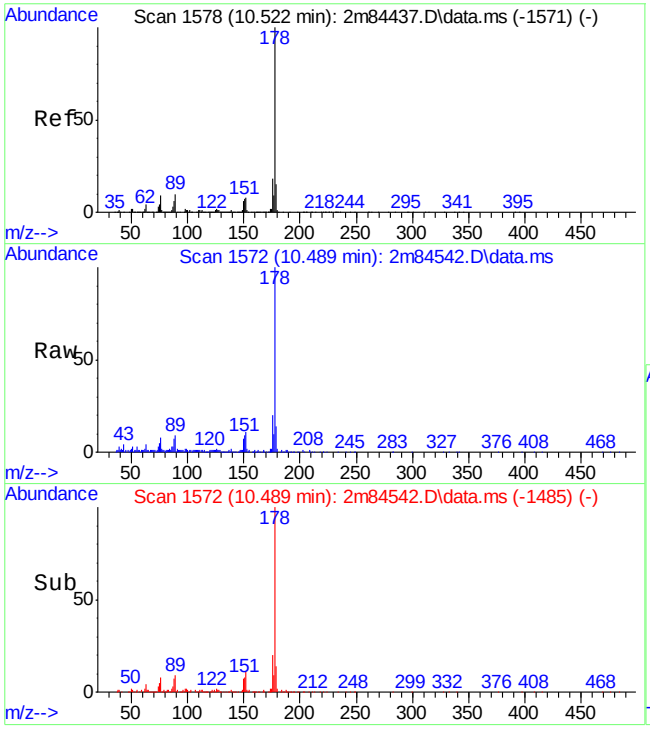


#18
Acetophenone
Concen: 5.26 ppm
RT: 5.232 min Scan# 589
Delta R.T. -0.016 min
Lab File: 2m84542.D
Acq: 10 Jun 2016 6:25 pm

Tgt Ion:105 Resp: 52149

Ion	Ratio	Lower	Upper
105	100		
120	28.8	0.8	60.8
77	85.6	53.3	113.3

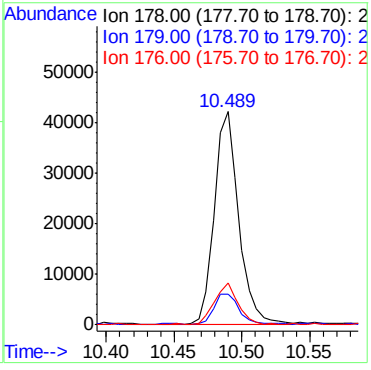


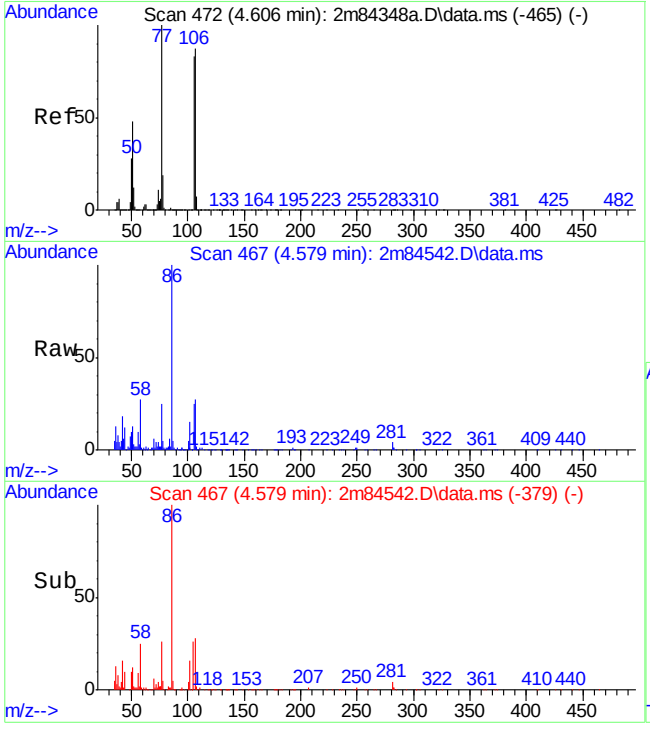


#78
Anthracene
Concen: 2.50 ppm
RT: 10.489 min Scan# 1572
Delta R.T. -0.032 min
Lab File: 2m84542.D
Acq: 10 Jun 2016 6:25 pm

Tgt Ion:178 Resp: 53407

Ion	Ratio	Lower	Upper
178	100		
179	13.8	0.0	45.0
176	19.5	0.0	47.8

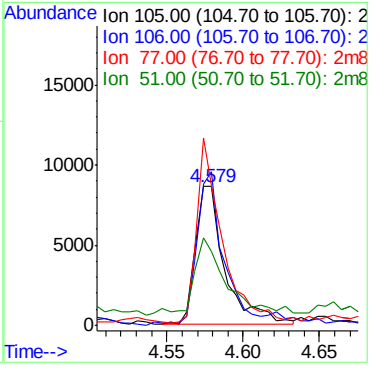




#102
Benzaldehyde
Concen: 2.05 ppm
RT: 4.579 min Scan# 467
Delta R.T. -0.027 min
Lab File: 2m84542.D
Acq: 10 Jun 2016 6:25 pm

Tgt Ion:105 Resp: 11523

Ion	Ratio	Lower	Upper
105	100		
106	109.3	75.0	135.0
77	98.9	90.8	150.8
51	43.7	27.7	87.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84543.D
Acq On : 10 Jun 2016 6:52 pm
Operator : ashleyn
Sample : jc21709-10
Misc : op94650,e2m3726,900
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 13 13:23:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	194761	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	776929	40.00 ppm	-0.02
47) Acenaphthene-d10	8.158	164	450217	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	782711	40.00 ppm	-0.03
83) Chrysene-d12	14.587	240	735770	40.00 ppm	-0.04
91) Perylene-d12	16.721	264	709375	40.00 ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.900	152	194761	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.158	164	450217	40.00 ppm	-0.06
105) Chrysene-d12a	14.587	240	735770	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	782711	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	776929	40.00 ppm	-0.05
113) Chrysene-d12b	14.587	240	735898	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	121040	17.56 ppm	-0.02
Spiked Amount 50.000			Recovery = 35.12%		
8) Phenol-d5	4.654	99	94826	10.87 ppm	-0.01
Spiked Amount 50.000			Recovery = 21.74%		
25) Nitrobenzene-d5	5.366	82	276268	32.23 ppm	-0.02
Spiked Amount 50.000			Recovery = 64.46%		
51) 2-Fluorobiphenyl	7.259	172	476872	32.86 ppm	-0.02
Spiked Amount 50.000			Recovery = 65.72%		
73) 2,4,6-Tribromophenol	9.318	330	84015	38.72 ppm	-0.03
Spiked Amount 50.000			Recovery = 77.44%		
85) Terphenyl-d14	12.929	244	616021	36.59 ppm	-0.04
Spiked Amount 50.000			Recovery = 73.18%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds Qvalue

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

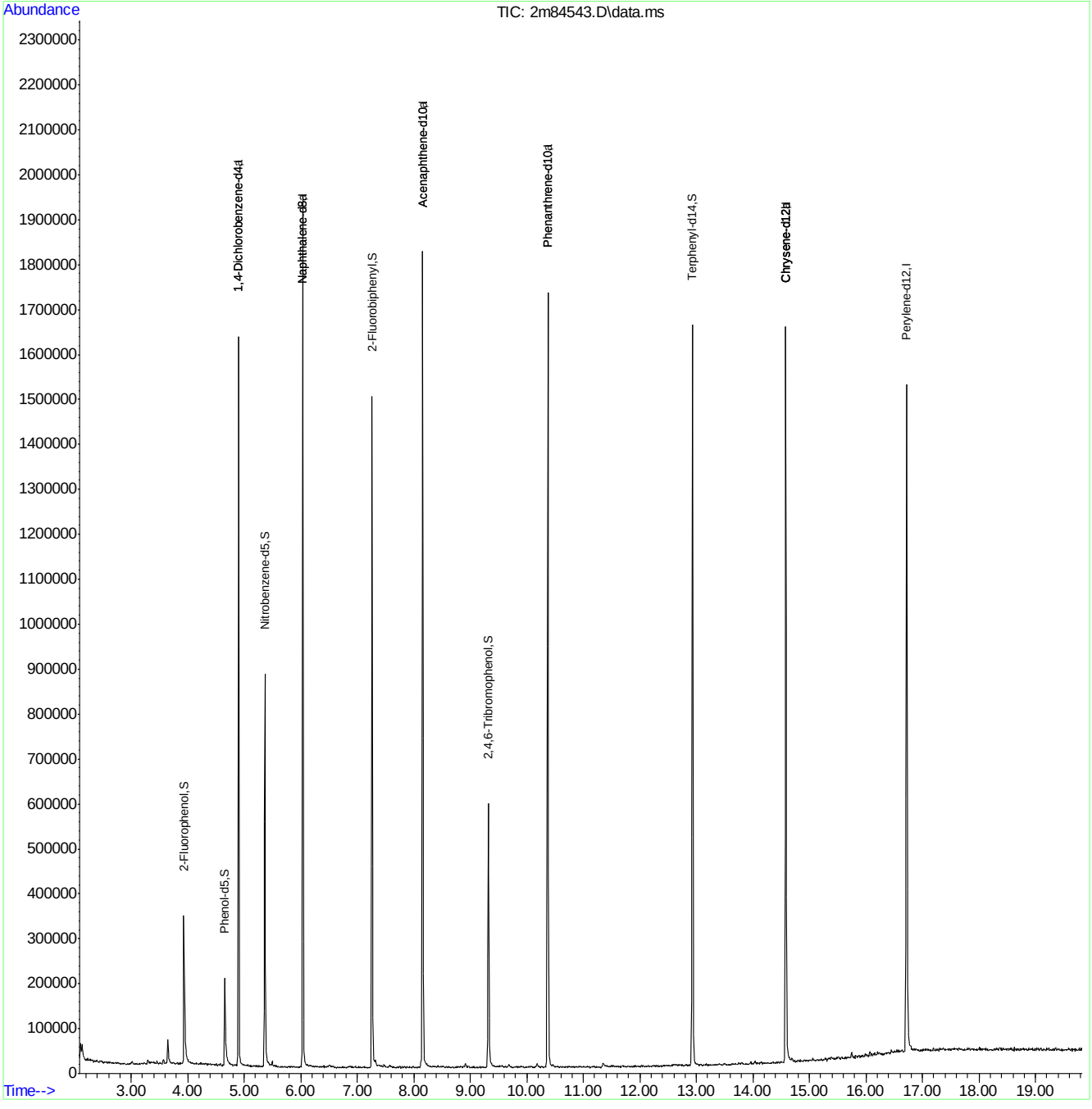
7.1.12

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84543.D
Acq On : 10 Jun 2016 6:52 pm
Operator : ashleyn
Sample : jc21709-10
Misc : op94650,e2m3726,900
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 13 13:23:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



M2M3720.M Mon Jun 13 13:23:38 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84544.D
Acq On : 10 Jun 2016 7:18 pm
Operator : ashleyn
Sample : jc21709-12
Misc : op94650,e2m3726,1000
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 22 10:56:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Jun 16 17:00:48 2016
Response via : Initial Calibration

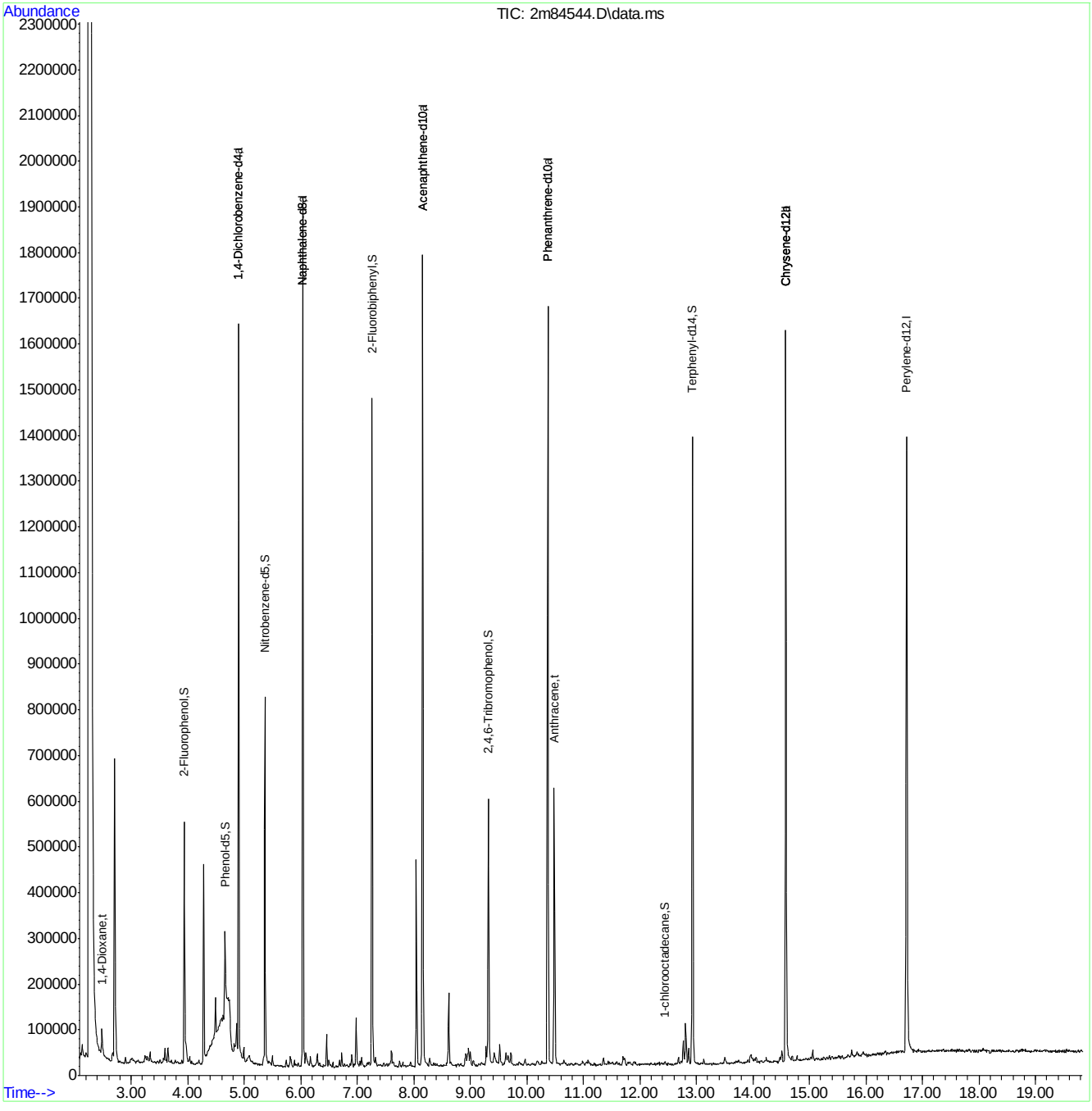
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	191018	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	757870	40.00 ppm	-0.02
47) Acenaphthene-d10	8.157	164	442765	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	757853	40.00 ppm	-0.03
83) Chrysene-d12	14.581	240	708478	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	687298	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	191018	40.00 ppm	-0.01
103) Acenaphthene-d10a	8.157	164	442765	40.00 ppm	-0.03
105) Chrysene-d12a	14.581	240	708478	40.00 ppm	-0.04
108) Phenanthrene-d10a	10.372	188	757853	40.00 ppm	-0.03
111) Naphthalene-d8a	6.034	136	757870	40.00 ppm	-0.02
113) Chrysene-d12b	14.581	240	708460	40.00 ppm	-0.04
System Monitoring Compounds					
5) 2-Fluorophenol	3.937	112	106026	15.68 ppm	-0.01
Spiked Amount 50.000			Recovery	= 31.36%	
8) Phenol-d5	4.659	99	84295	9.85 ppm	0.00
Spiked Amount 50.000			Recovery	= 19.70%	
25) Nitrobenzene-d5	5.365	82	254658	30.46 ppm	-0.02
Spiked Amount 50.000			Recovery	= 60.92%	
51) 2-Fluorobiphenyl	7.259	172	439196	30.77 ppm	-0.02
Spiked Amount 50.000			Recovery	= 61.54%	
73) 2,4,6-Tribromophenol	9.318	330	78180	37.21 ppm	-0.03
Spiked Amount 50.000			Recovery	= 74.42%	
85) Terphenyl-d14	12.928	244	504290	31.11 ppm	-0.04
Spiked Amount 50.000			Recovery	= 62.22%	
107) 1-chlorooctadecane	12.436	57	1543	0.15 ppm	0.19
Spiked Amount 50.000			Recovery	= 0.30%	
110) o-terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
2) 1,4-Dioxane	2.482	88	29344	11.65 ppm	95
78) Anthracene	10.484	178	297858	13.43 ppm	99

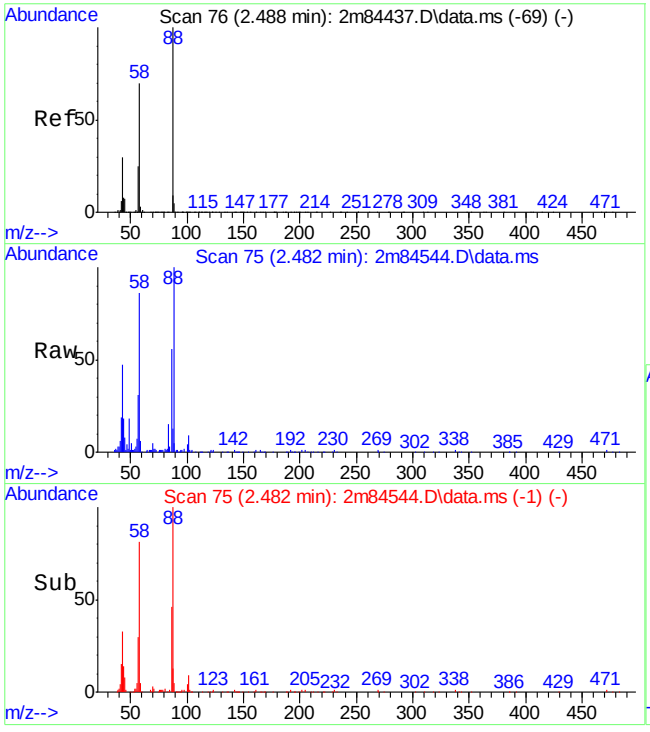
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84544.D
Acq On : 10 Jun 2016 7:18 pm
Operator : ashleyn
Sample : jc21709-12
Misc : op94650,e2m3726,1000
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 22 10:56:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Thu Jun 16 17:00:48 2016
Response via : Initial Calibration

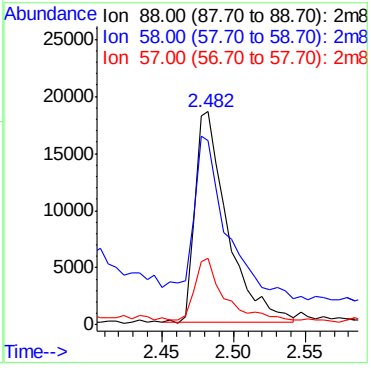


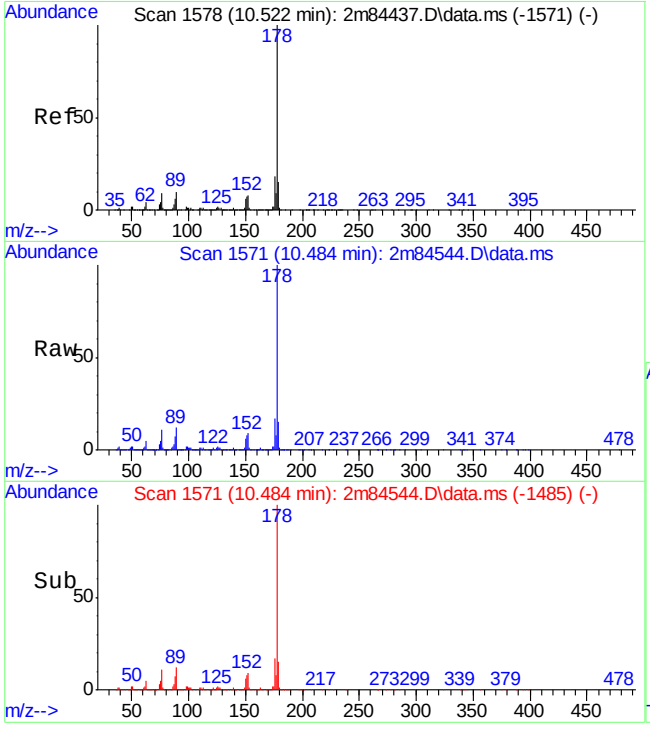


#2
1,4-Dioxane
Concen: 11.65 ppm
RT: 2.482 min Scan# 75
Delta R.T. -0.006 min
Lab File: 2m84544.D
Acq: 10 Jun 2016 7:18 pm

Tgt Ion: 88 Resp: 29344

Ion	Ratio	Lower	Upper
88	100		
58	73.3	39.9	99.9
57	28.9	0.0	54.5

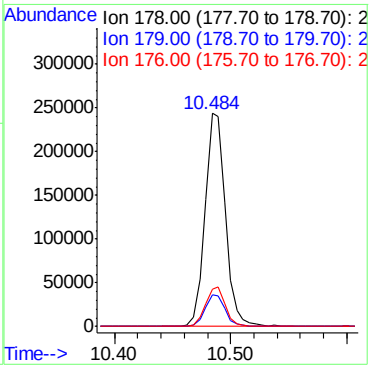




#78
Anthracene
Concen: 13.43 ppm
RT: 10.484 min Scan# 1571
Delta R.T. -0.038 min
Lab File: 2m84544.D
Acq: 10 Jun 2016 7:18 pm

Tgt Ion:178 Resp: 297858

Ion	Ratio	Lower	Upper
178	100		
179	15.1	0.0	45.0
176	17.3	0.0	47.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65935.D
Acq On : 11 Jun 2016 2:24 am
Operator : juliusj
Sample : jc21709-1
Misc : op94650a,e4m2960,960
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 13 09:47:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	63448	4.00	ppm	# 0.00
12) Fluorene-d10	12.631	176	111665	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	198872	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.429	264	147030	4.00	ppm	-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	63448	4.00	ppm	# 0.00
38) Fluorene-d10a	12.631	176	111665	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.017	112	240065	18.33	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 36.66%			
3) Phenol-d5	5.416	99	299171	14.24	ppm	0.01
Spiked Amount 50.000			Recovery = 28.48%			
6) Nitrobenzene-d5	6.868	82	521220	31.52	ppm	-0.02
Spiked Amount 50.000			Recovery = 63.04%			
11) 2-Fluorobiphenyl	10.322	172	962055	34.72	ppm	-0.02
Spiked Amount 50.000			Recovery = 69.44%			
17) 2,4,6-Tribromophenol	13.204	330	187746	42.92	ppm	0.00
Spiked Amount 50.000			Recovery = 85.84%			
25) Terphenyl-d14	17.640	244	522539	22.05	ppm	-0.02
Spiked Amount 50.000			Recovery = 44.10%			
Target Compounds						Qvalue
14) Acenaphthene	11.664	153	2146	0.13	ppm	95
16) Fluorene	12.679	166	7916	0.27	ppm	92
36) 1,4-Dioxane	2.205	88	16587	2.94	ppm #	36

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

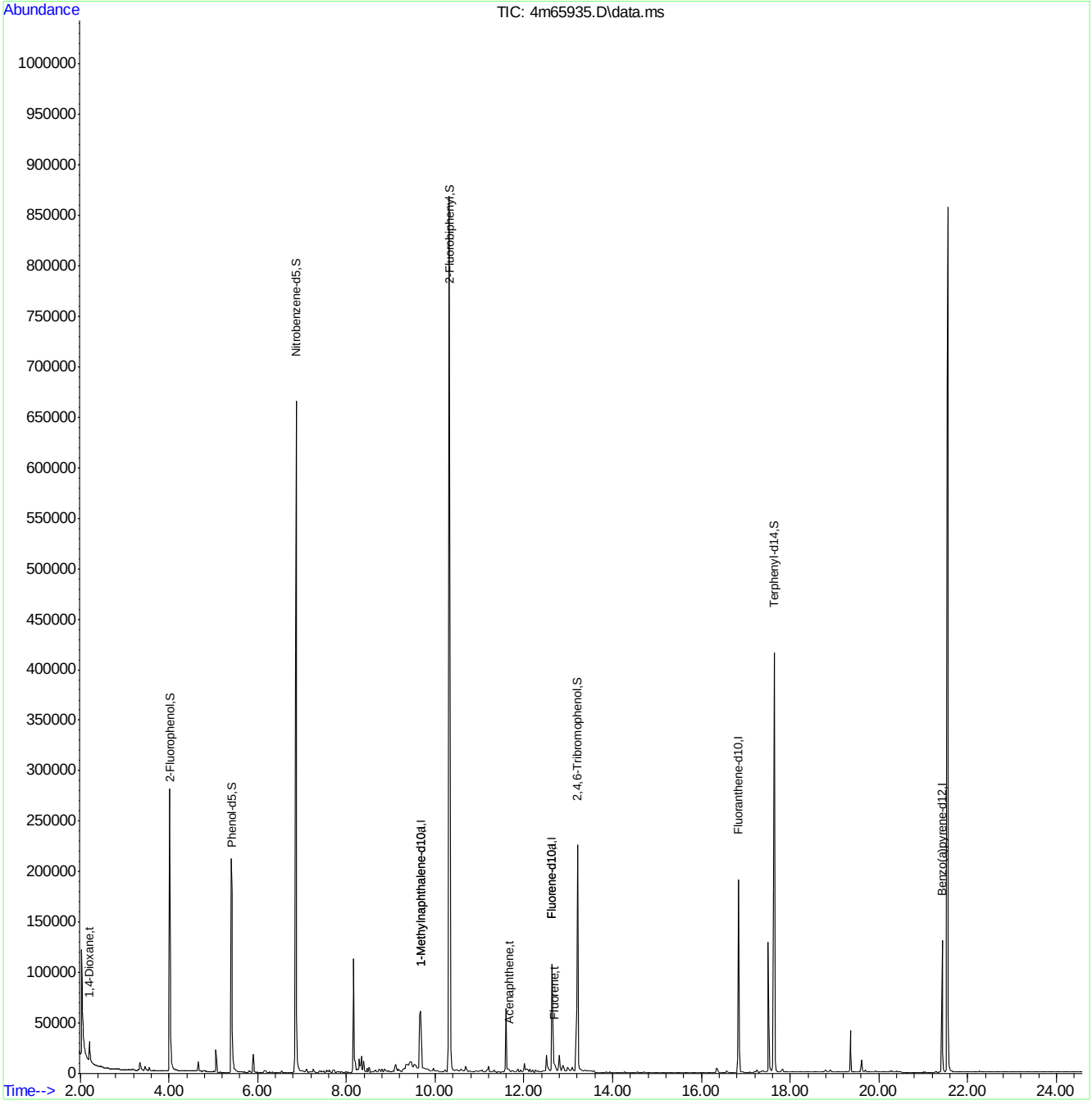
7.1.14

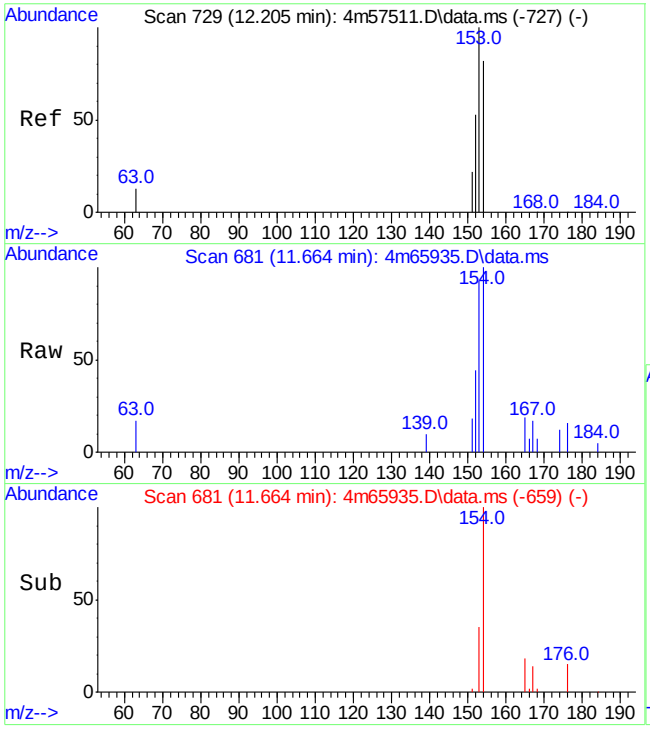
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65935.D
Acq On : 11 Jun 2016 2:24 am
Operator : juliusj
Sample : jc21709-1
Misc : op94650a,e4m2960,960
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 13 09:47:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

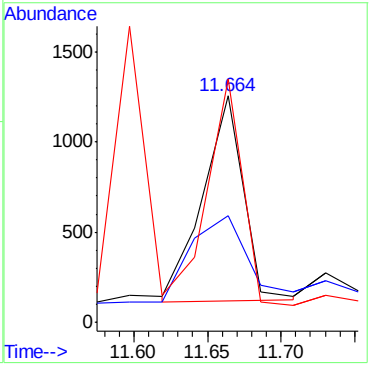


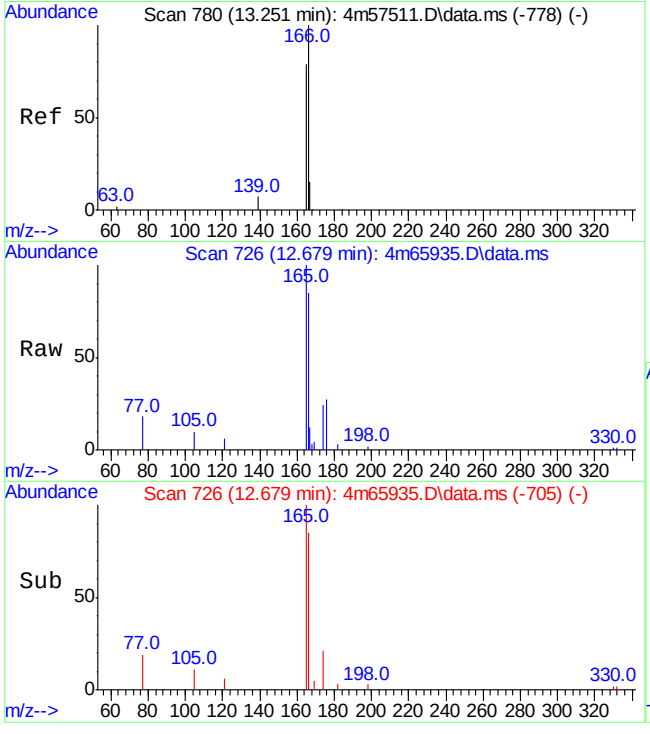


#14
Acenaphthene
Concen: 0.13 ppm
RT: 11.664 min Scan# 681
Delta R.T. -0.022 min
Lab File: 4m65935.D
Acq: 11 Jun 2016 2:24 am

Tgt Ion:153 Resp: 2146

Ion	Ratio	Lower	Upper
153	100		
152	41.0	7.9	67.9
154	110.5	85.8	145.8

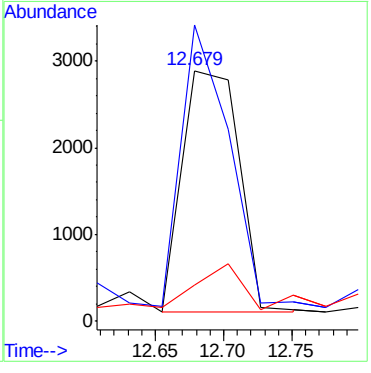


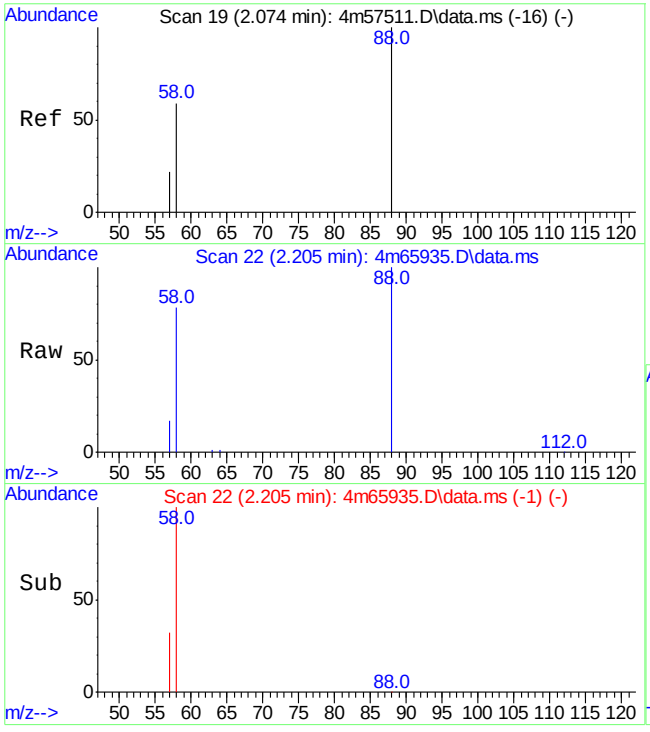


#16
Fluorene
Concen: 0.27 ppm
RT: 12.679 min Scan# 726
Delta R.T. -0.024 min
Lab File: 4m65935.D
Acq: 11 Jun 2016 2:24 am

Tgt Ion:166 Resp: 7916

Ion	Ratio	Lower	Upper
166	100		
165	116.2	78.0	138.0
167	6.5	0.0	41.3

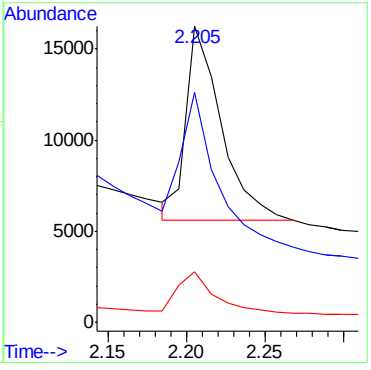




#36
1,4-Dioxane
Concen: 2.94 ppm
RT: 2.205 min Scan# 22
Delta R.T. -0.021 min
Lab File: 4m65935.D
Acq: 11 Jun 2016 2:24 am

Tgt Ion: 88 Resp: 16587

Ion	Ratio	Lower	Upper
88	100		
58	73.9	14.6	54.6#
57	22.0	0.0	27.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65936.D
Acq On : 11 Jun 2016 2:53 am
Operator : juliusj
Sample : jc21709-2
Misc : op94650a,e4m2960,910
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 13 09:48:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

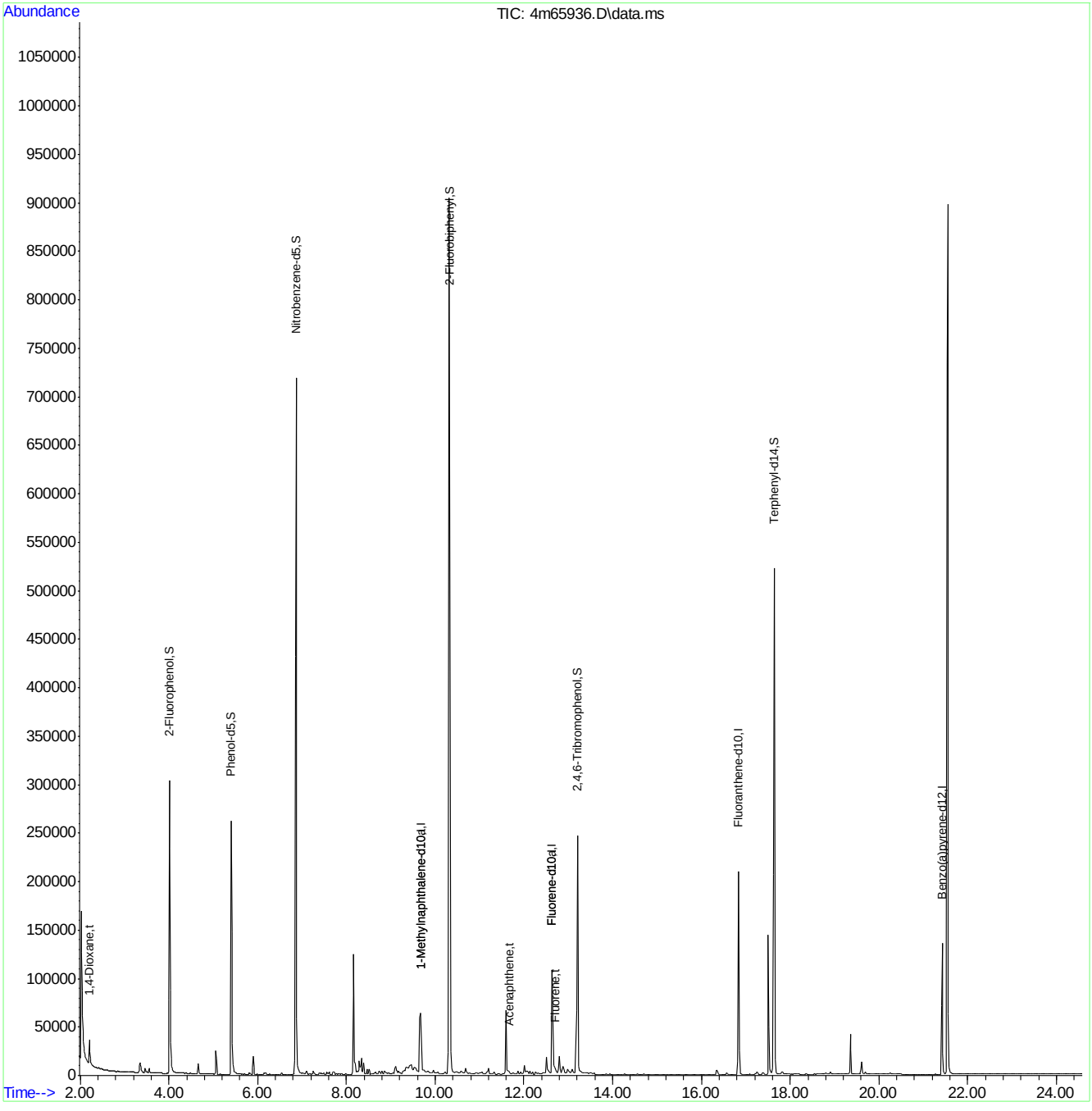
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	66531	4.00	ppm	# 0.00
12) Fluorene-d10	12.631	176	117057	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	217021	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.429	264	158624	4.00	ppm	-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	66531	4.00	ppm	# 0.00
38) Fluorene-d10a	12.631	176	117057	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.006	112	242915	17.69	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 35.38%			
3) Phenol-d5	5.402	99	312347	14.18	ppm	0.00
Spiked Amount 50.000			Recovery = 28.36%			
6) Nitrobenzene-d5	6.867	82	548725	31.65	ppm	-0.02
Spiked Amount 50.000			Recovery = 63.30%			
11) 2-Fluorobiphenyl	10.321	172	994222	34.22	ppm	-0.02
Spiked Amount 50.000			Recovery = 68.44%			
17) 2,4,6-Tribromophenol	13.204	330	204625	44.63	ppm	0.00
Spiked Amount 50.000			Recovery = 89.26%			
25) Terphenyl-d14	17.640	244	638130	24.67	ppm	-0.02
Spiked Amount 50.000			Recovery = 49.34%			
Target Compounds						Qvalue
14) Acenaphthene	11.663	153	2093	0.12	ppm	94
16) Fluorene	12.703	166	7912	0.26	ppm #	69
36) 1,4-Dioxane	2.205	88	19059	3.23	ppm #	39

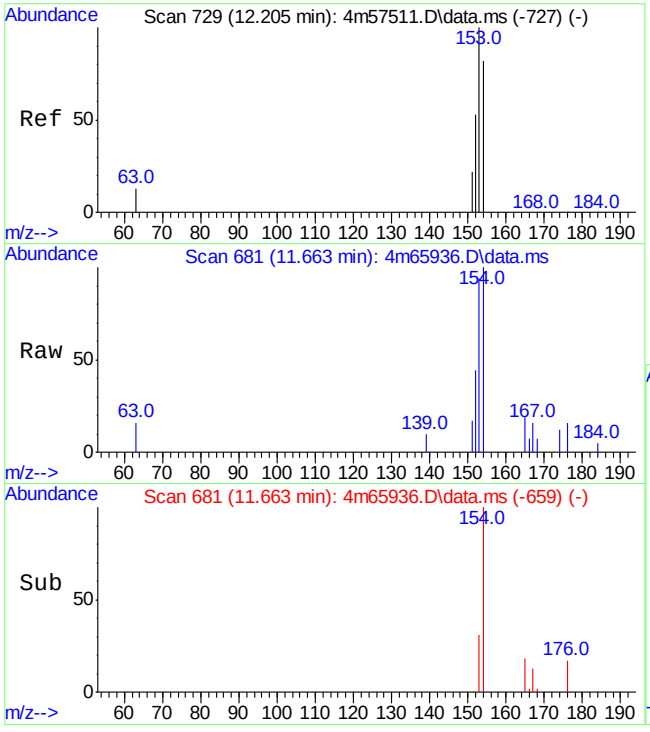
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65936.D
Acq On : 11 Jun 2016 2:53 am
Operator : juliusj
Sample : jc21709-2
Misc : op94650a,e4m2960,910
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 13 09:48:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

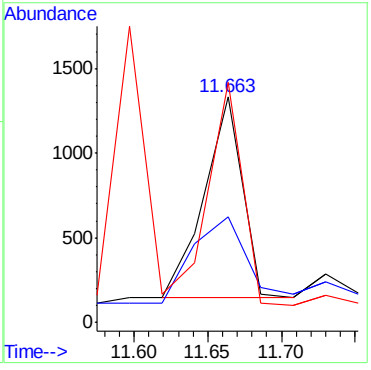


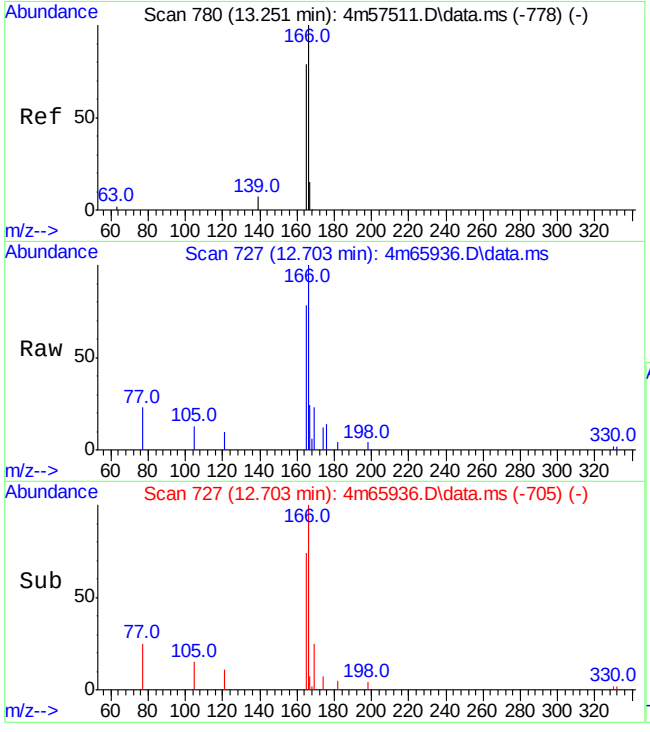


#14
Acenaphthene
Concen: 0.12 ppm
RT: 11.663 min Scan# 681
Delta R.T. -0.022 min
Lab File: 4m65936.D
Acq: 11 Jun 2016 2:53 am

Tgt Ion:153 Resp: 2093

Ion	Ratio	Lower	Upper
153	100		
152	41.0	7.9	67.9
154	109.1	85.8	145.8

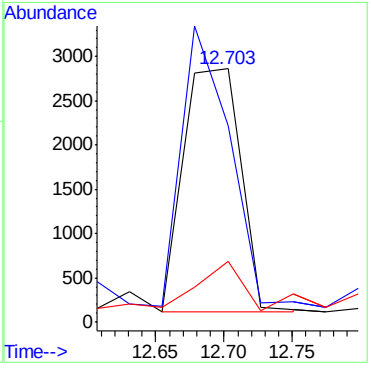




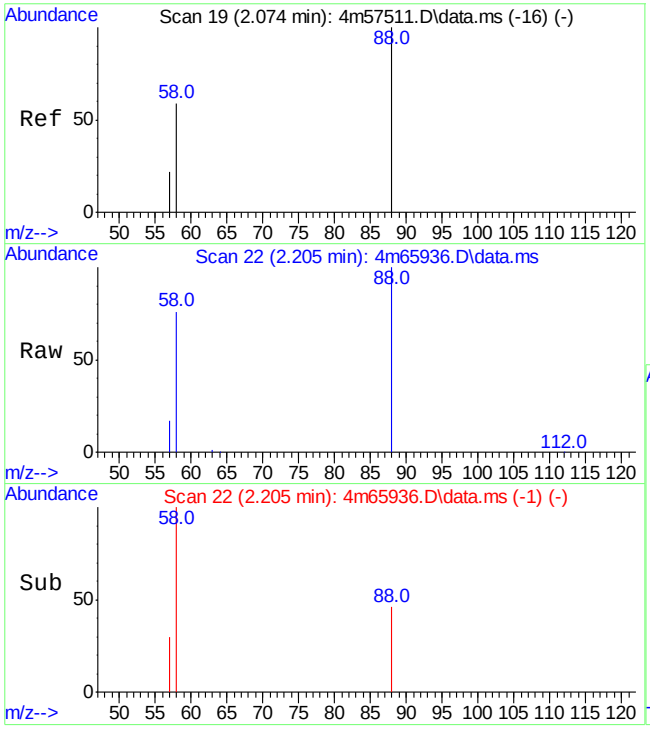
#16
Fluorene
Concen: 0.26 ppm
RT: 12.703 min Scan# 727
Delta R.T. -0.000 min
Lab File: 4m65936.D
Acq: 11 Jun 2016 2:53 am

Tgt Ion:166 Resp: 7912

Ion	Ratio	Lower	Upper
166	100		
165	73.9	78.0	138.0#
167	16.5	0.0	41.3



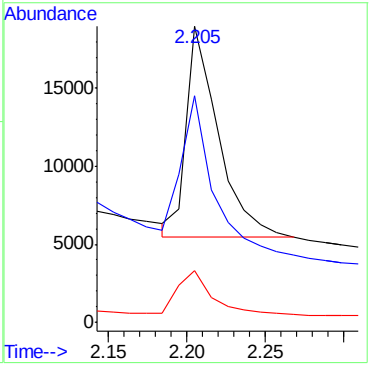
SGS ACCUTEST JC21709



#36
1,4-Dioxane
Concen: 3.23 ppm
RT: 2.205 min Scan# 22
Delta R.T. -0.021 min
Lab File: 4m65936.D
Acq: 11 Jun 2016 2:53 am

Tgt Ion: 88 Resp: 19059

Ion	Ratio	Lower	Upper
88	100		
58	72.0	14.6	54.6#
57	21.0	0.0	27.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65937.D
Acq On : 11 Jun 2016 3:23 am
Operator : juliusj
Sample : jc21709-3
Misc : op94650a,e4m2960,900
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 13 09:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

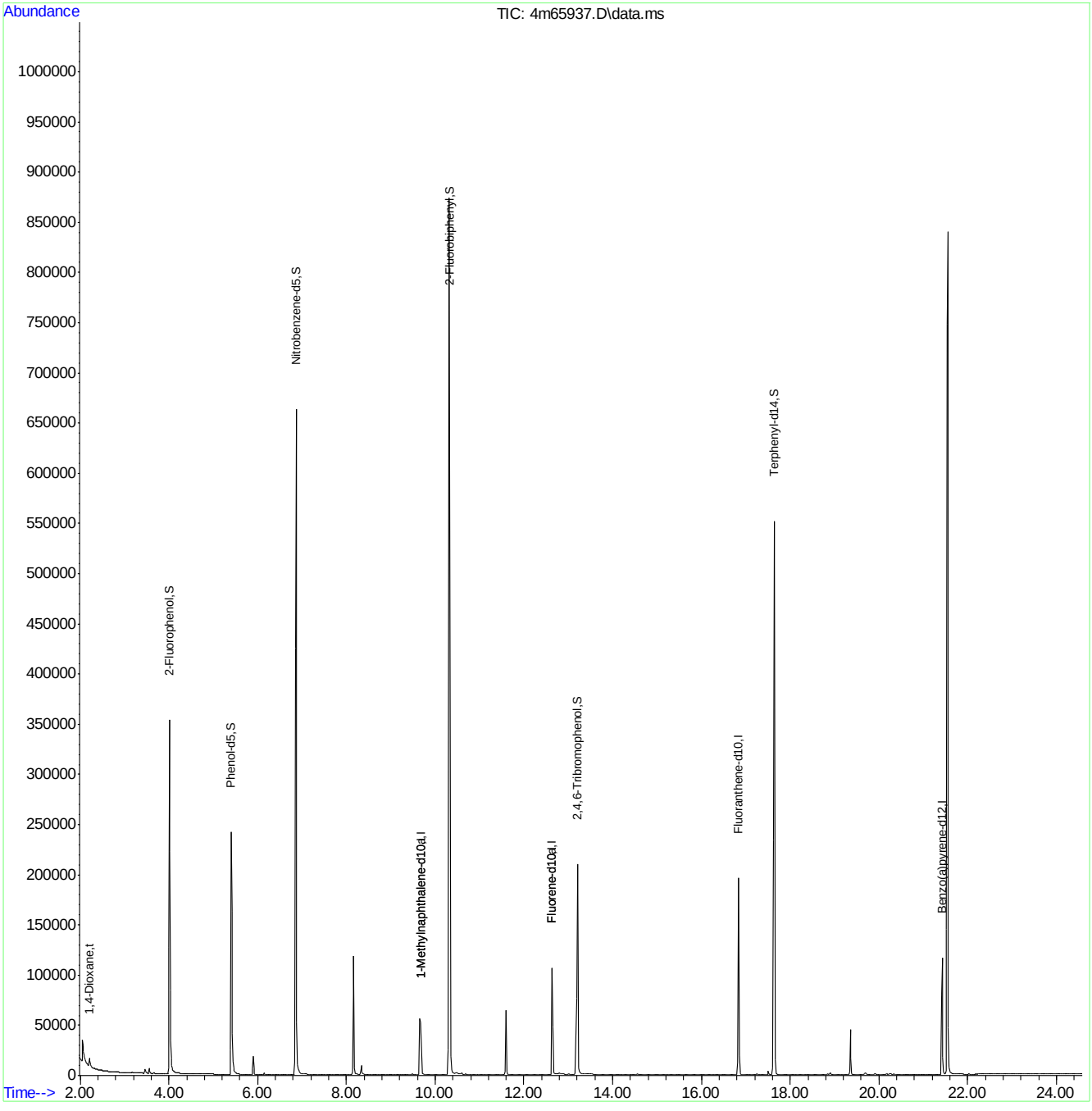
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	62038	4.00	ppm	# 0.00
12) Fluorene-d10	12.631	176	112485	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	200970	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.429	264	148958	4.00	ppm	-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	62038	4.00	ppm	# 0.00
38) Fluorene-d10a	12.631	176	112485	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.006	112	276516	21.59	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 43.18%			
3) Phenol-d5	5.402	99	315606	15.37	ppm	0.00
Spiked Amount 50.000			Recovery = 30.74%			
6) Nitrobenzene-d5	6.868	82	524137	32.42	ppm	-0.02
Spiked Amount 50.000			Recovery = 64.84%			
11) 2-Fluorobiphenyl	10.321	172	968963	35.76	ppm	-0.02
Spiked Amount 50.000			Recovery = 71.52%			
17) 2,4,6-Tribromophenol	13.204	330	188626	42.81	ppm	0.00
Spiked Amount 50.000			Recovery = 85.62%			
25) Terphenyl-d14	17.640	244	687645	28.71	ppm	-0.02
Spiked Amount 50.000			Recovery = 57.42%			
Target Compounds						Qvalue
36) 1,4-Dioxane	2.205	88	7777	1.41	ppm	# 20

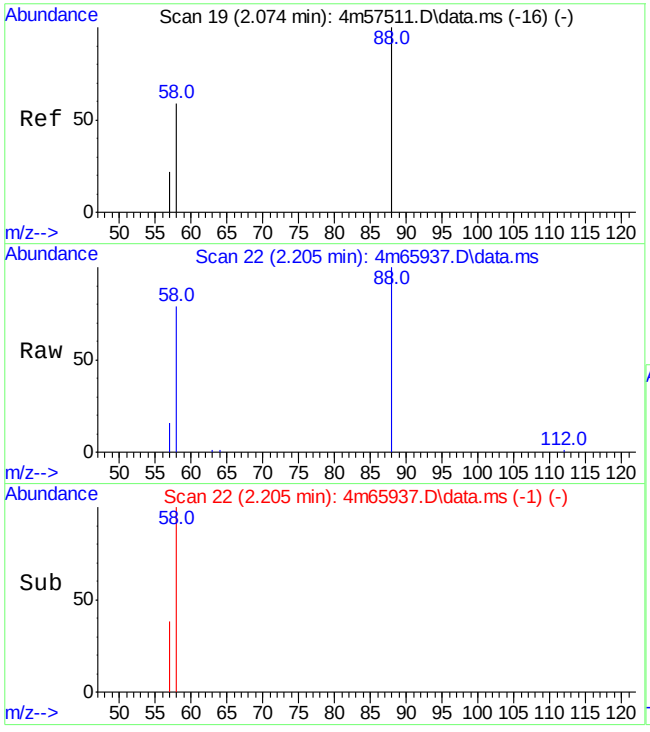
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65937.D
Acq On : 11 Jun 2016 3:23 am
Operator : juliusj
Sample : jc21709-3
Misc : op94650a,e4m2960,900
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 13 09:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

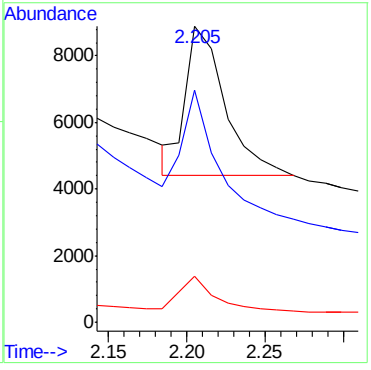




#36
1,4-Dioxane
Concen: 1.41 ppm
RT: 2.205 min Scan# 22
Delta R.T. -0.021 min
Lab File: 4m65937.D
Acq: 11 Jun 2016 3:23 am

Tgt Ion: 88 Resp: 7777

Ion	Ratio	Lower	Upper
88	100		
58	84.4	14.6	54.6#
57	24.9	0.0	27.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2977\
Data File : 4m66255.D
Acq On : 22 Jun 2016 12:51 pm
Operator : linseyk
Sample : jc21709-4
Misc : op94650a,e4m2977,940
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 22 14:27:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Wed Jun 22 10:04:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.762	152	56969	4.00	ppm	-0.02
12) Fluorene-d10	12.740	176	89777	4.00	ppm	-0.02
22) Fluoranthene-d10	16.920	212	133314	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.520	264	110652	4.00	ppm	0.07
35) 1-Methylnaphthalene-d10a	9.762	152	56969	4.00	ppm	-0.02
38) Fluorene-d10a	12.740	176	89777	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.100	112	121841	13.42	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 26.84%			
3) Phenol-d5	5.483	99	181555	12.68	ppm	0.00
Spiked Amount 50.000			Recovery = 25.36%			
6) Nitrobenzene-d5	6.953	82	345408	27.13	ppm	-0.02
Spiked Amount 50.000			Recovery = 54.26%			
11) 2-Fluorobiphenyl	10.407	172	562843	24.55	ppm	-0.02
Spiked Amount 50.000			Recovery = 49.10%			
17) 2,4,6-Tribromophenol	13.290	330	136989	32.74	ppm	-0.02
Spiked Amount 50.000			Recovery = 65.48%			
25) Terphenyl-d14	17.730	244	567131	30.12	ppm	-0.02
Spiked Amount 50.000			Recovery = 60.24%			
Target Compounds						Qvalue
36) 1,4-Dioxane	2.268	88	763353	130.77	ppm	81

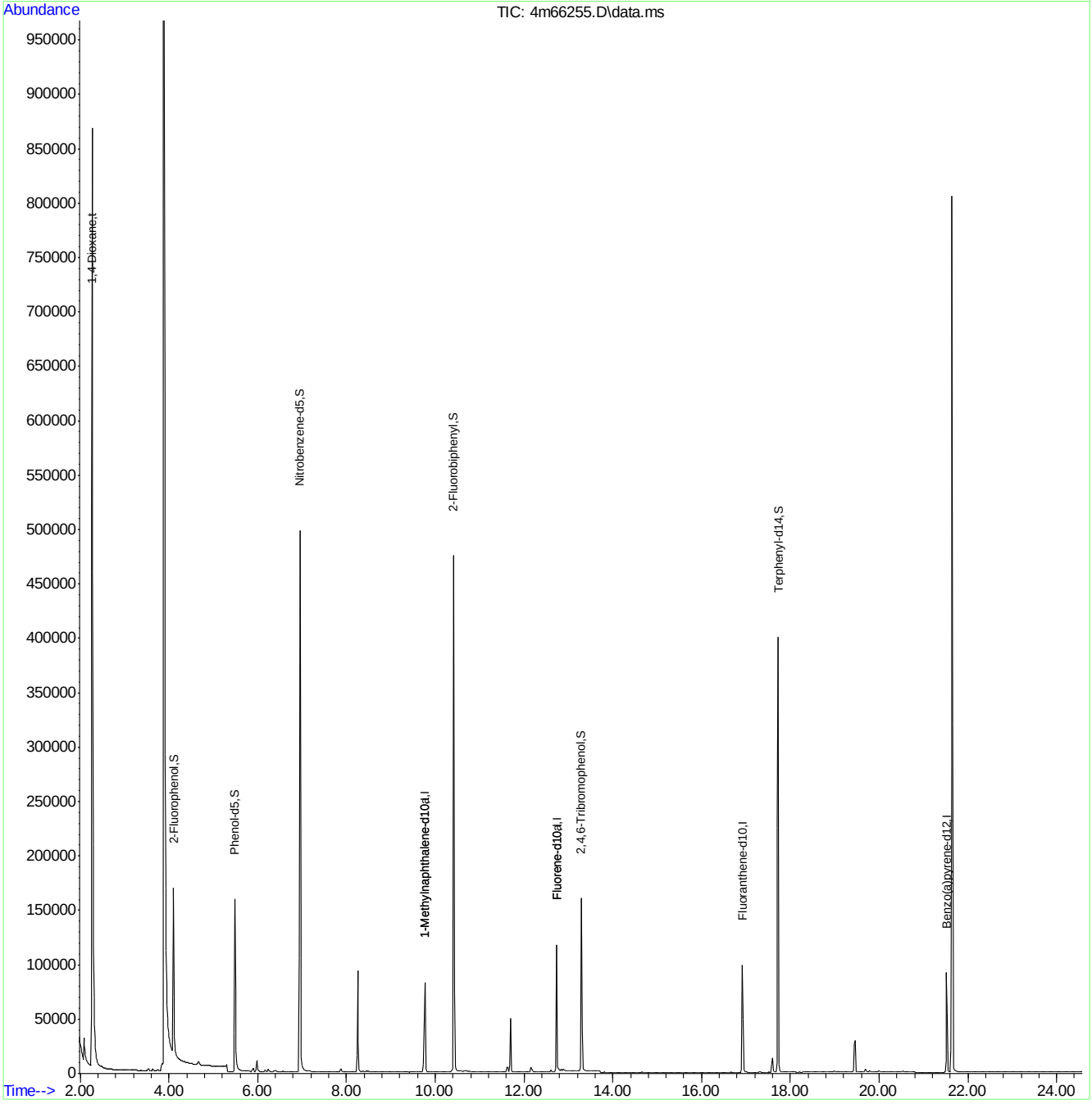
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC21709

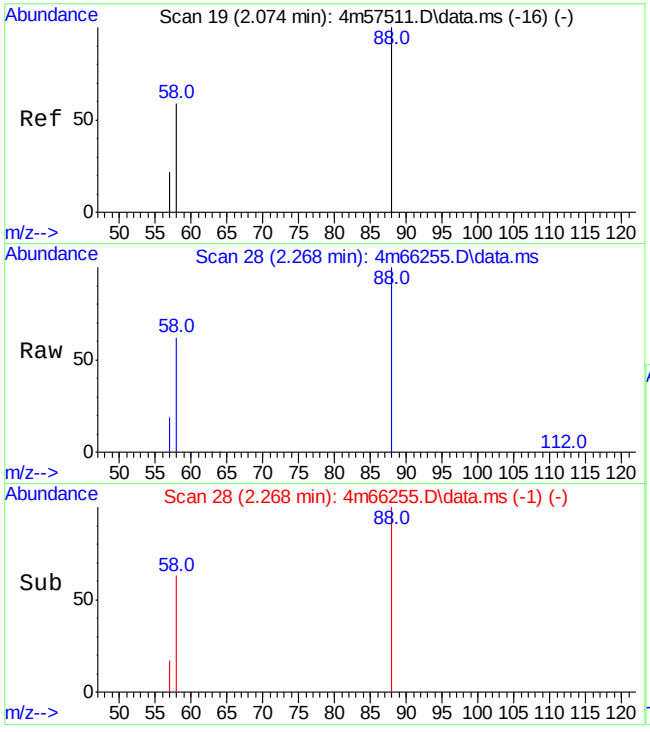
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2977\
Data File : 4m66255.D
Acq On : 22 Jun 2016 12:51 pm
Operator : linseyk
Sample : jc21709-4
Misc : op94650a,e4m2977,940
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 22 14:27:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Wed Jun 22 10:04:53 2016
Response via : Initial Calibration



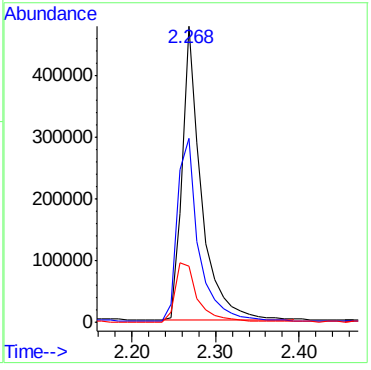
SGS ACCUTEST JC21709



#36
1,4-Dioxane
Concen: 130.77 ppm
RT: 2.268 min Scan# 28
Delta R.T. -0.020 min
Lab File: 4m66255.D
Acq: 22 Jun 2016 12:51 pm

Tgt Ion: 88 Resp: 763353

Ion	Ratio	Lower	Upper
88	100		
58	62.1	61.9	101.9
57	19.1	3.3	43.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65938.D
Acq On : 11 Jun 2016 3:52 am
Operator : juliusj
Sample : jc21709-5
Misc : op94650a,e4m2960,970
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 13 09:49:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	62315	4.00	ppm	# 0.00
12) Fluorene-d10	12.631	176	118584	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	211909	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.429	264	154217	4.00	ppm	-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	62315	4.00	ppm	# 0.00
38) Fluorene-d10a	12.631	176	118584	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.017	112	243012	18.89	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 37.78%			
3) Phenol-d5	5.402	99	308443	14.95	ppm	0.00
Spiked Amount 50.000			Recovery = 29.90%			
6) Nitrobenzene-d5	6.868	82	530049	32.64	ppm	-0.02
Spiked Amount 50.000			Recovery = 65.28%			
11) 2-Fluorobiphenyl	10.321	172	959015	35.24	ppm	-0.02
Spiked Amount 50.000			Recovery = 70.48%			
17) 2,4,6-Tribromophenol	13.204	330	198657	42.77	ppm	0.00
Spiked Amount 50.000			Recovery = 85.54%			
25) Terphenyl-d14	17.640	244	796184	31.53	ppm	-0.02
Spiked Amount 50.000			Recovery = 63.06%			
Target Compounds						Qvalue
21) Anthracene	14.702	178	102129	2.32	ppm	97
36) 1,4-Dioxane	2.205	88	9816	1.77	ppm #	18

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

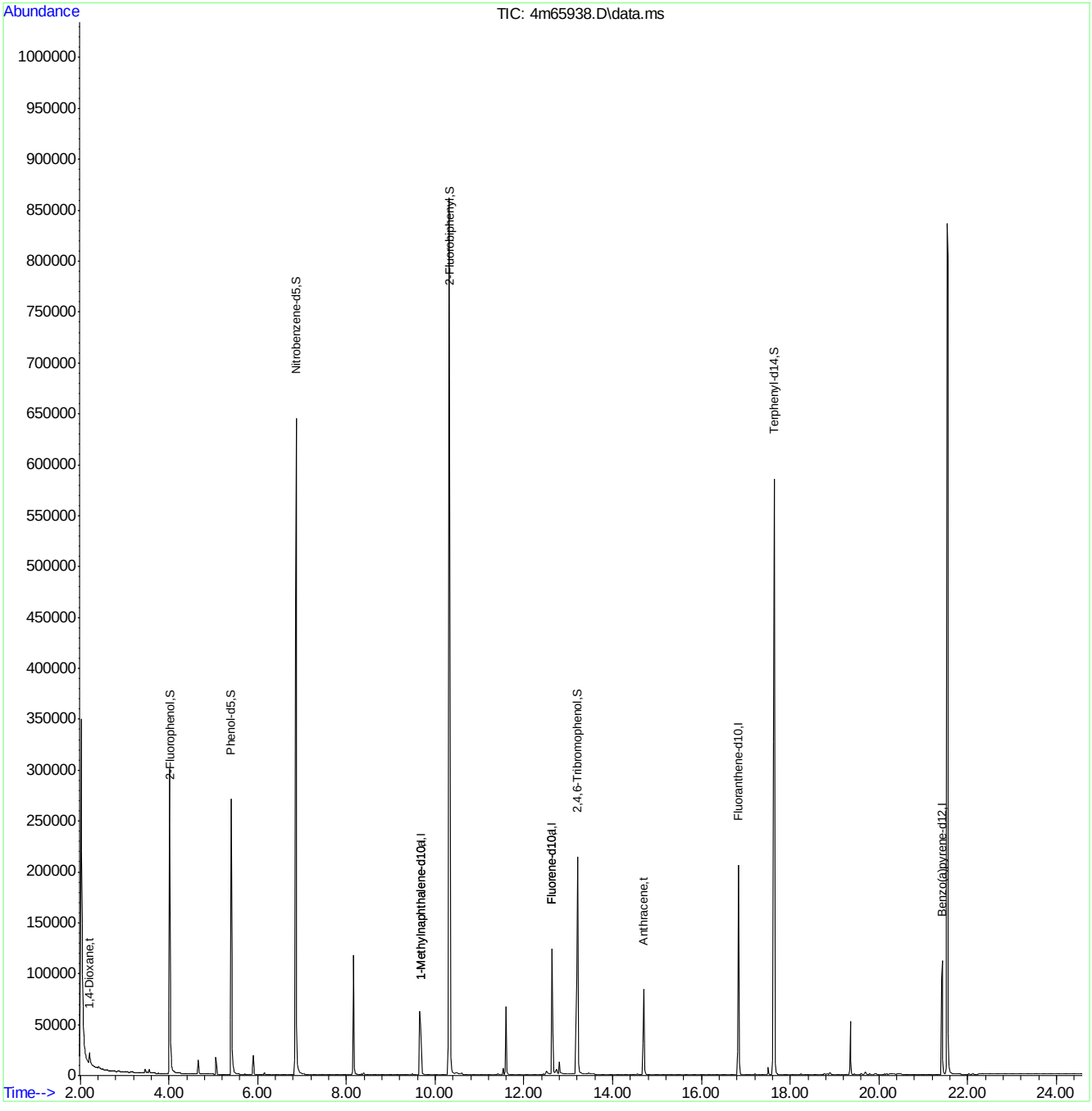
7.1.18

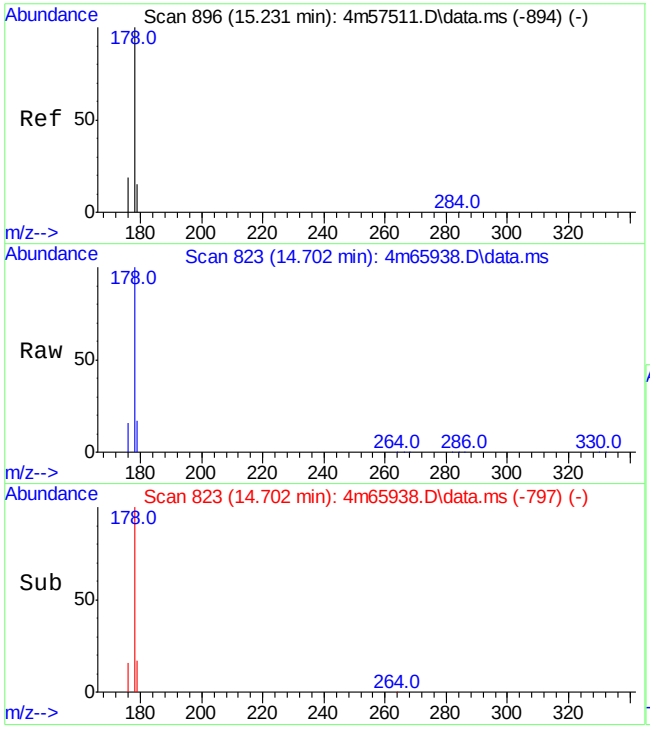
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65938.D
Acq On : 11 Jun 2016 3:52 am
Operator : juliusj
Sample : jc21709-5
Misc : op94650a,e4m2960,970
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 13 09:49:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

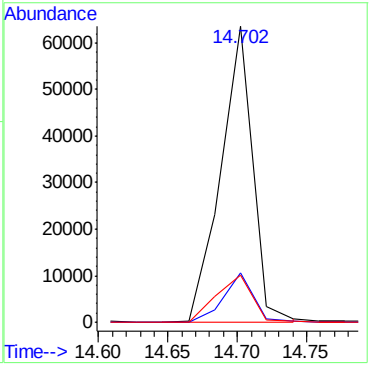


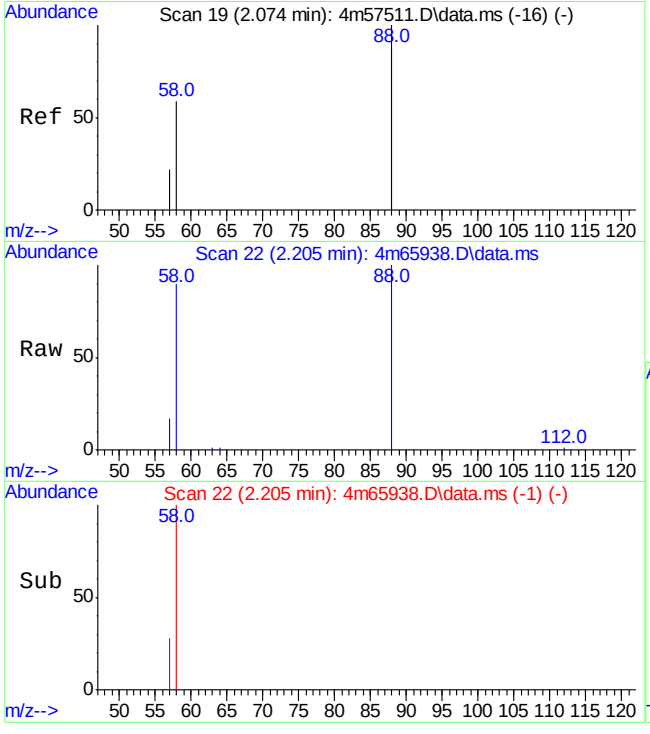


#21
Anthracene
Concen: 2.32 ppm
RT: 14.702 min Scan# 823
Delta R.T. -0.019 min
Lab File: 4m65938.D
Acq: 11 Jun 2016 3:52 am

Tgt Ion:178 Resp: 102129

Ion	Ratio	Lower	Upper
178	100		
179	16.5	0.0	45.2
176	15.8	0.0	47.3

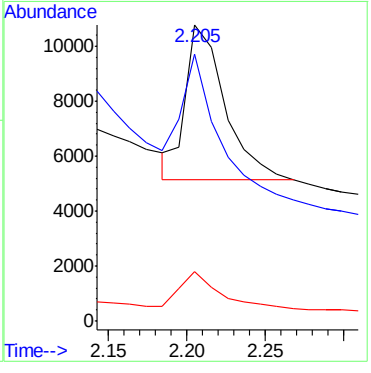




#36
1,4-Dioxane
Concen: 1.77 ppm
RT: 2.205 min Scan# 22
Delta R.T. -0.021 min
Lab File: 4m65938.D
Acq: 11 Jun 2016 3:52 am

Tgt Ion: 88 Resp: 9816

Ion	Ratio	Lower	Upper
88	100		
58	85.3	14.6	54.6#
57	25.1	0.0	27.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65939.D
Acq On : 11 Jun 2016 4:22 am
Operator : juliusj
Sample : jc21709-6
Misc : op94650a,e4m2960,950
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 09:49:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	64744	4.00	ppm	# 0.00
12) Fluorene-d10	12.631	176	107521	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	193943	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.429	264	150175	4.00	ppm	-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	64251	4.00	ppm	# 0.00
38) Fluorene-d10a	12.631	176	107521	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.048	112	234002	17.51	ppm	0.04
Spiked Amount 50.000	Range 11 - 58		Recovery = 35.02%			
3) Phenol-d5	5.457	99	257731	12.02	ppm	0.06
Spiked Amount 50.000			Recovery = 24.04%			
6) Nitrobenzene-d5	6.868	82	602972	35.74	ppm	-0.02
Spiked Amount 50.000			Recovery = 71.48%			
11) 2-Fluorobiphenyl	10.322	172	1076595	38.08	ppm	-0.02
Spiked Amount 50.000			Recovery = 76.16%			
17) 2,4,6-Tribromophenol	13.204	330	165747	39.35	ppm	0.00
Spiked Amount 50.000			Recovery = 78.70%			
25) Terphenyl-d14	17.640	244	923638	39.96	ppm	-0.02
Spiked Amount 50.000			Recovery = 79.92%			
Target Compounds						Qvalue
7) Naphthalene	8.198	128	30073	0.49	ppm	98
21) Anthracene	14.703	178	1178254	29.54	ppm	98
36) 1,4-Dioxane	2.237	88	408661	71.61	ppm	72

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

7.1.19

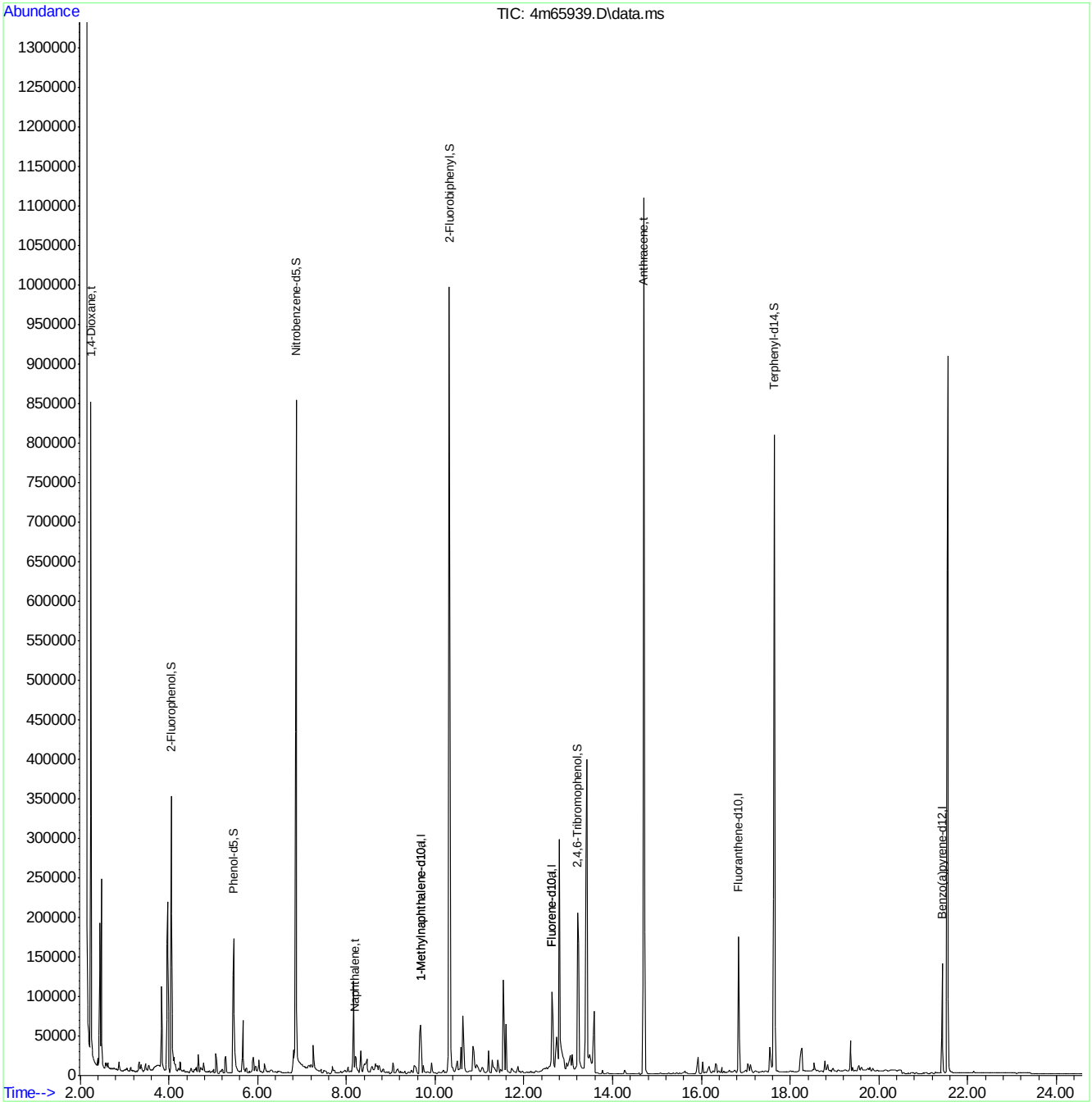
7

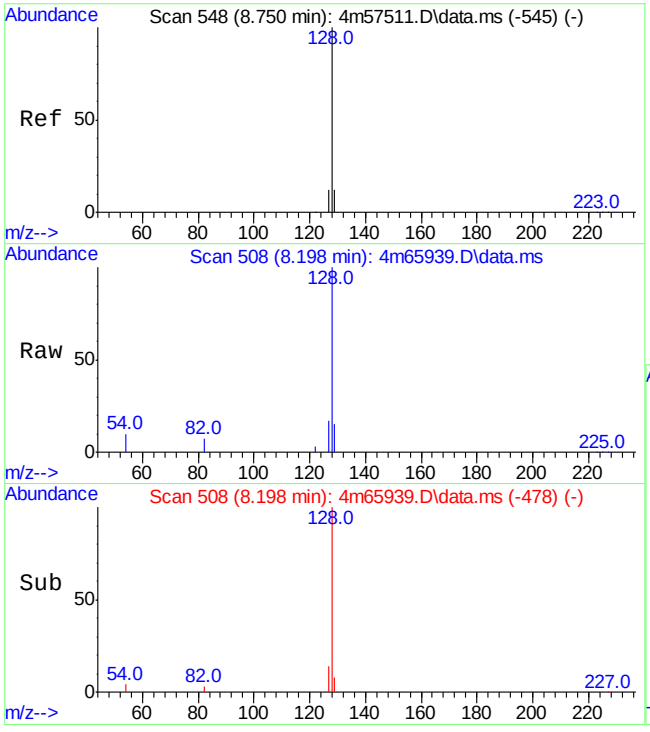
SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65939.D
Acq On : 11 Jun 2016 4:22 am
Operator : juliusj
Sample : jc21709-6
Misc : op94650a,e4m2960,950
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 09:49:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

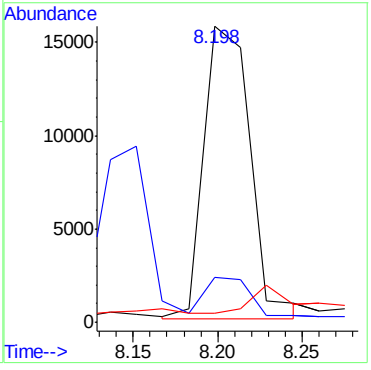


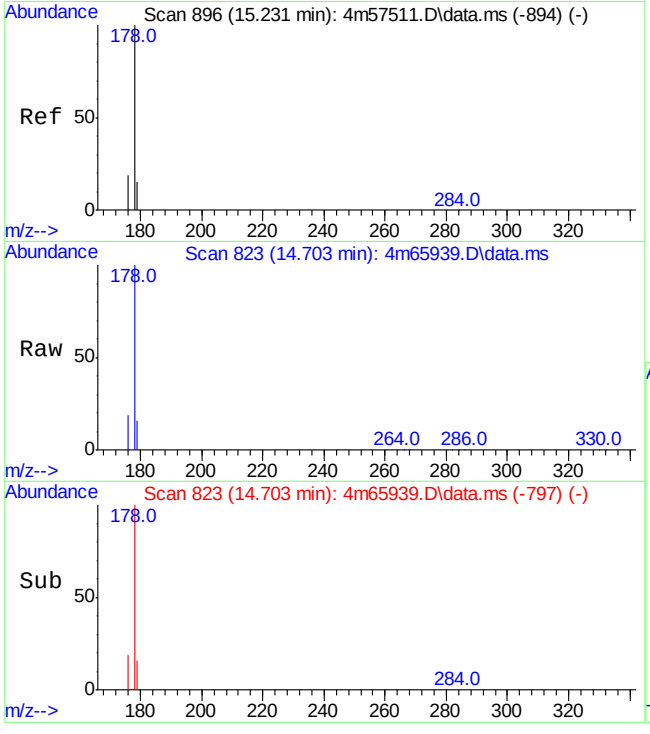


#7
Naphthalene
Concen: 0.49 ppm
RT: 8.198 min Scan# 508
Delta R.T. -0.031 min
Lab File: 4m65939.D
Acq: 11 Jun 2016 4:22 am

Tgt Ion:128 Resp: 30073

Ion	Ratio	Lower	Upper
128	100		
129	10.9	0.0	41.7
122	0.0	0.0	30.2

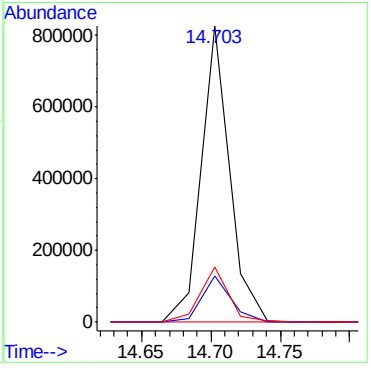


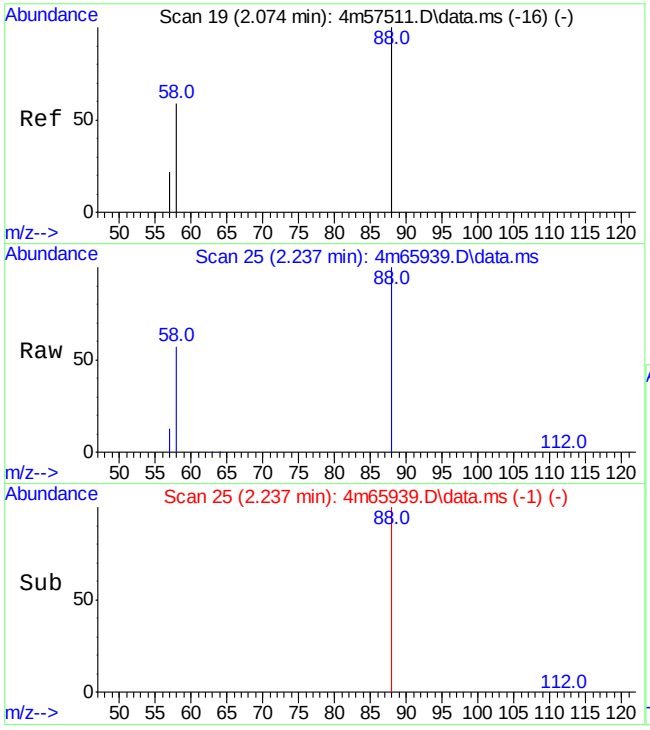


#21
Anthracene
Concen: 29.54 ppm
RT: 14.703 min Scan# 823
Delta R.T. -0.019 min
Lab File: 4m65939.D
Acq: 11 Jun 2016 4:22 am

Tgt Ion:178 Resp: 1178254

Ion	Ratio	Lower	Upper
178	100		
179	15.6	0.0	45.2
176	18.7	0.0	47.3

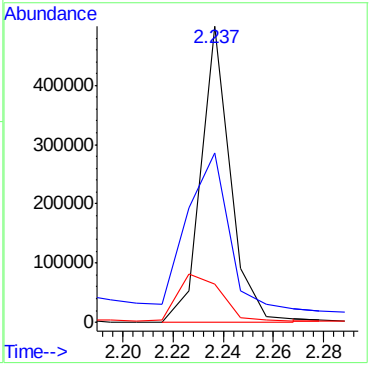




#36
1,4-Dioxane
Concen: 71.61 ppm
RT: 2.237 min Scan# 25
Delta R.T. 0.010 min
Lab File: 4m65939.D
Acq: 11 Jun 2016 4:22 am

Tgt Ion: 88 Resp: 408661

Ion	Ratio	Lower	Upper
88	100		
58	52.5	14.6	54.6
57	12.4	0.0	27.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65940.D
Acq On : 11 Jun 2016 4:51 am
Operator : juliusj
Sample : jc21709-7
Misc : op94650a,e4m2960,960
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 13 09:50:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.653	152	62292	4.00	ppm	-0.02
12) Fluorene-d10	12.631	176	124359	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	206031	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.415	264	159550	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.653	152	62292	4.00	ppm	-0.02
38) Fluorene-d10a	12.631	176	124359	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.017	112	219304	17.06	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 34.12%			
3) Phenol-d5	5.416	99	225083	10.91	ppm	0.01
Spiked Amount 50.000			Recovery = 21.82%			
6) Nitrobenzene-d5	6.868	82	519432	32.00	ppm	-0.02
Spiked Amount 50.000			Recovery = 64.00%			
11) 2-Fluorobiphenyl	10.321	172	1009183	37.10	ppm	-0.02
Spiked Amount 50.000			Recovery = 74.20%			
17) 2,4,6-Tribromophenol	13.204	330	197880	40.62	ppm	0.00
Spiked Amount 50.000			Recovery = 81.24%			
25) Terphenyl-d14	17.640	244	1011678	41.20	ppm	-0.02
Spiked Amount 50.000			Recovery = 82.40%			
Target Compounds						Qvalue
36) 1,4-Dioxane	2.205	88	1537	0.28	ppm	# 1

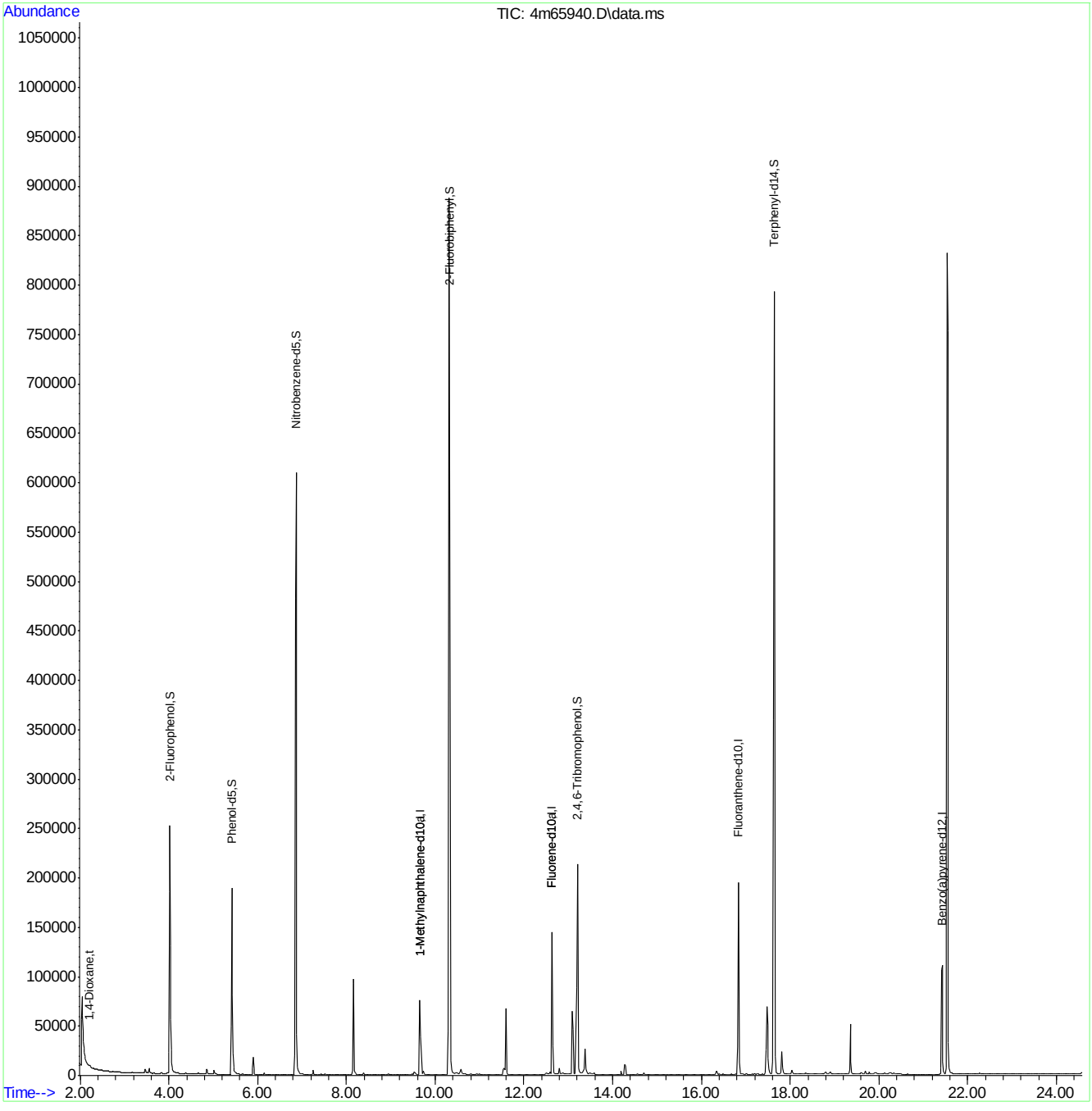
(#) = qualifier out of range (m) = manual integration (+) = signals summed

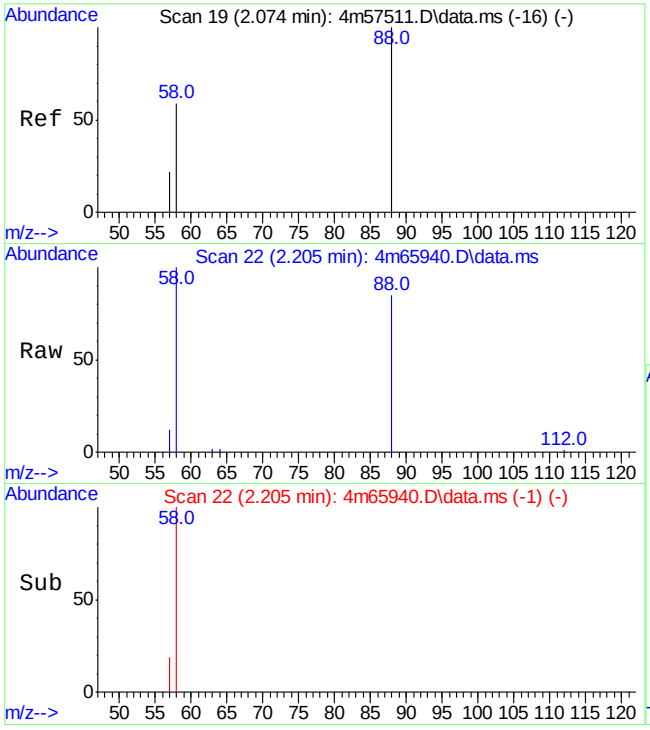
SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65940.D
Acq On : 11 Jun 2016 4:51 am
Operator : juliusj
Sample : jc21709-7
Misc : op94650a,e4m2960,960
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 13 09:50:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

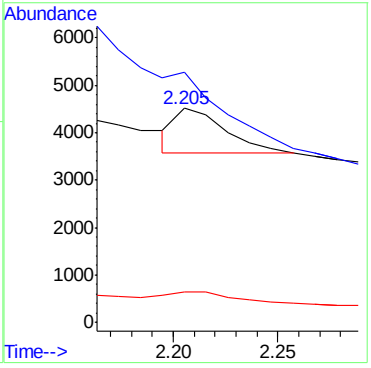




#36
1,4-Dioxane
Concen: 0.28 ppm
RT: 2.205 min Scan# 22
Delta R.T. -0.021 min
Lab File: 4m65940.D
Acq: 11 Jun 2016 4:51 am

Tgt Ion: 88 Resp: 1537

Ion	Ratio	Lower	Upper
88	100		
58	123.7	14.6	54.6#
57	23.1	0.0	27.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65941.D
Acq On : 11 Jun 2016 5:21 am
Operator : juliusj
Sample : jc21709-8
Misc : op94650a,e4m2960,960
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 13 09:51:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

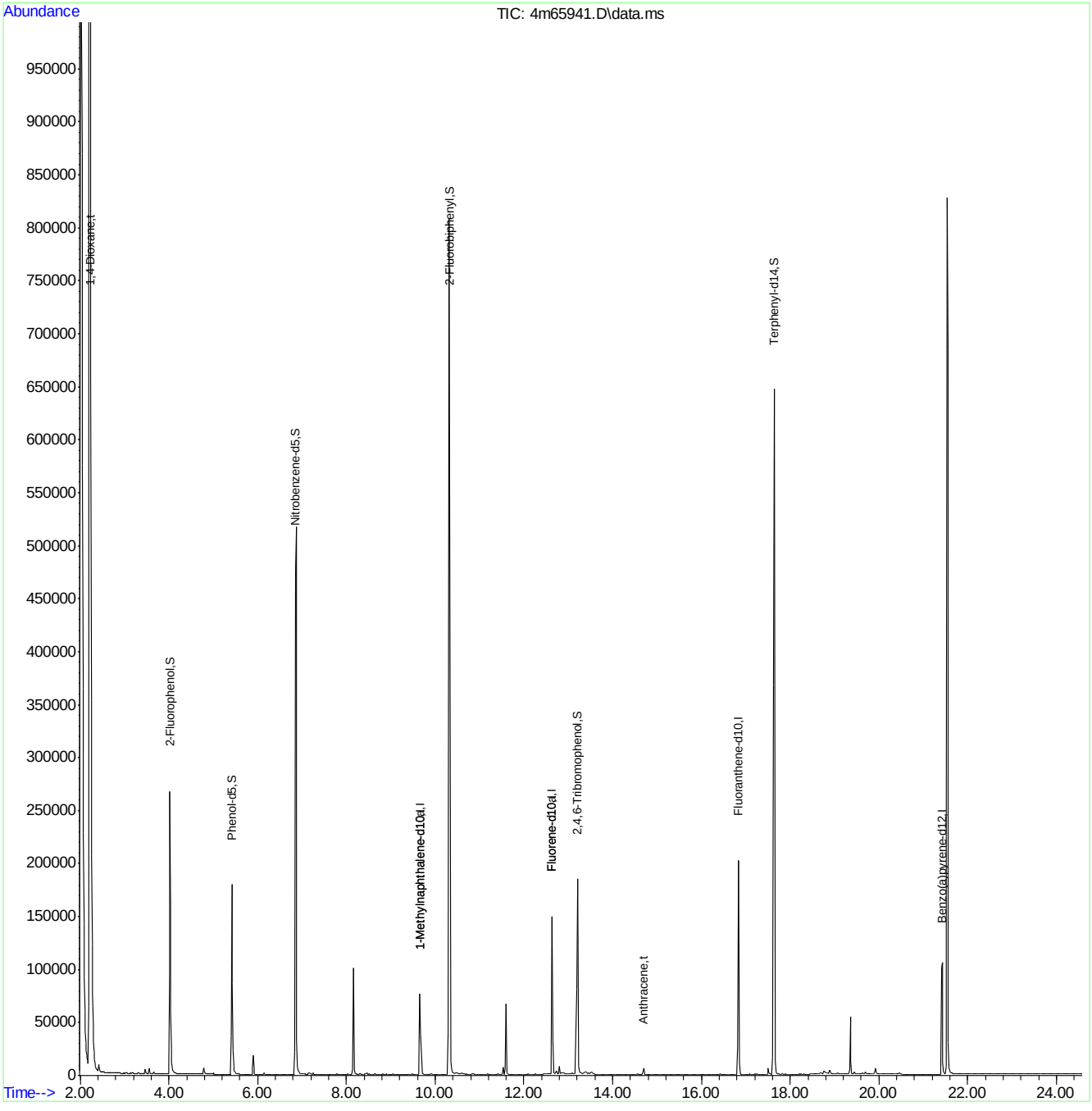
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.653	152	62137	4.00	ppm	-0.02
12) Fluorene-d10	12.631	176	130748	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	211823	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.415	264	153729	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.653	152	62137	4.00	ppm	-0.02
38) Fluorene-d10a	12.631	176	130748	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.017	112	201919	15.74	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 31.48%			
3) Phenol-d5	5.415	99	215290	10.46	ppm	0.01
Spiked Amount 50.000			Recovery = 20.92%			
6) Nitrobenzene-d5	6.852	82	471566	29.12	ppm	-0.03
Spiked Amount 50.000			Recovery = 58.24%			
11) 2-Fluorobiphenyl	10.321	172	925094	34.09	ppm	-0.02
Spiked Amount 50.000			Recovery = 68.18%			
17) 2,4,6-Tribromophenol	13.204	330	172453	33.67	ppm	0.00
Spiked Amount 50.000			Recovery = 67.34%			
25) Terphenyl-d14	17.640	244	890430	35.27	ppm	-0.02
Spiked Amount 50.000			Recovery = 70.54%			
Target Compounds						Qvalue
21) Anthracene	14.702	178	8119	0.17	ppm	96
36) 1,4-Dioxane	2.216	88	3161530	572.85	ppm #	29

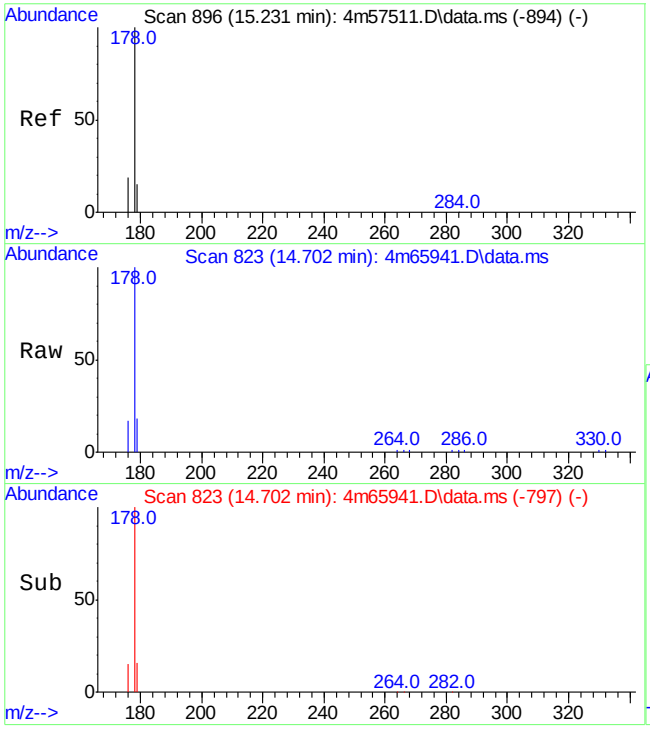
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65941.D
Acq On : 11 Jun 2016 5:21 am
Operator : juliusj
Sample : jc21709-8
Misc : op94650a,e4m2960,960
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 13 09:51:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

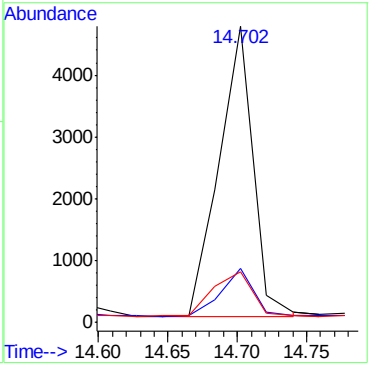


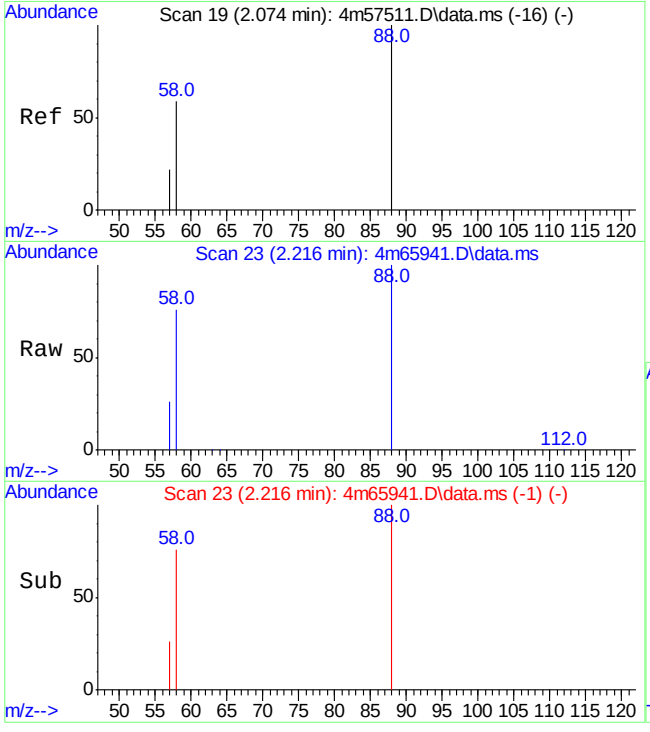


#21
Anthracene
Concen: 0.17 ppm
RT: 14.702 min Scan# 823
Delta R.T. -0.019 min
Lab File: 4m65941.D
Acq: 11 Jun 2016 5:21 am

Tgt Ion:178 Resp: 8119

Ion	Ratio	Lower	Upper
178	100		
179	16.4	0.0	45.2
176	15.2	0.0	47.3

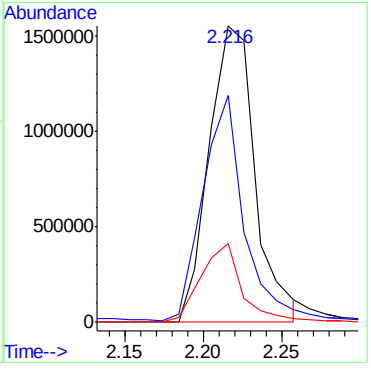




#36
1,4-Dioxane
Concen: 572.85 ppm
RT: 2.216 min Scan# 23
Delta R.T. -0.011 min
Lab File: 4m65941.D
Acq: 11 Jun 2016 5:21 am

Tgt Ion: 88 Resp: 3161530

Ion	Ratio	Lower	Upper
88	100		
58	76.9	14.6	54.6#
57	26.8	0.0	27.0



7.1.21

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65942.D
Acq On : 11 Jun 2016 5:50 am
Operator : juliusj
Sample : jc21709-9
Misc : op94650a,e4m2960,900
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 09:51:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

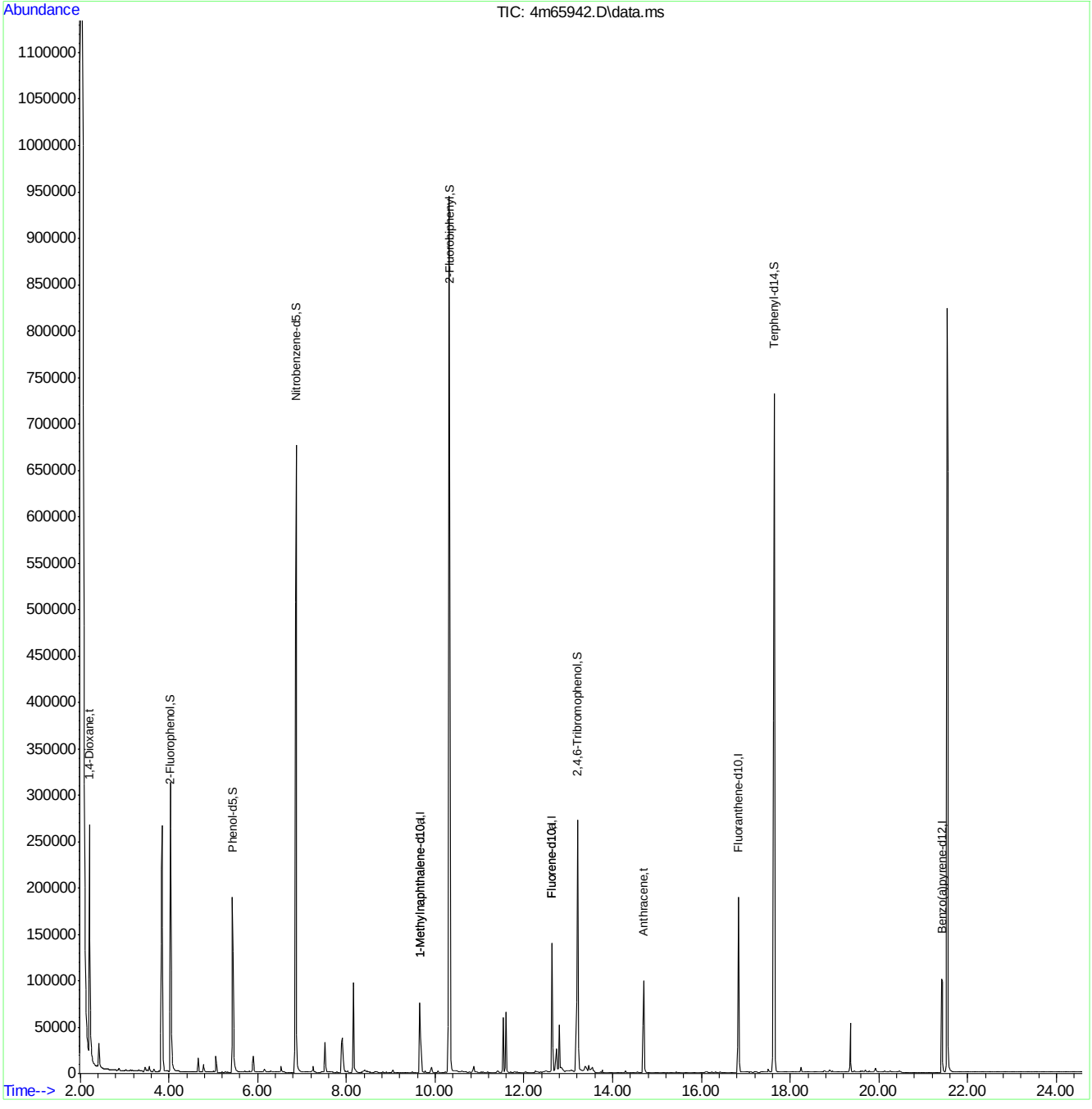
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.653	152	62008	4.00	ppm	-0.02
12) Fluorene-d10	12.631	176	118842	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	198953	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.415	264	147532	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.653	152	62008	4.00	ppm	-0.02
38) Fluorene-d10a	12.631	176	118842	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.038	112	257937	20.15	ppm	0.03
Spiked Amount 50.000	Range 11 - 58		Recovery = 40.30%			
3) Phenol-d5	5.430	99	265054	12.91	ppm	0.03
Spiked Amount 50.000			Recovery = 25.82%			
6) Nitrobenzene-d5	6.868	82	563205	34.85	ppm	-0.02
Spiked Amount 50.000			Recovery = 69.70%			
11) 2-Fluorobiphenyl	10.322	172	1072371	39.60	ppm	-0.02
Spiked Amount 50.000			Recovery = 79.20%			
17) 2,4,6-Tribromophenol	13.204	330	215255	46.24	ppm	0.00
Spiked Amount 50.000			Recovery = 92.48%			
25) Terphenyl-d14	17.640	244	977285	41.22	ppm	-0.02
Spiked Amount 50.000			Recovery = 82.44%			
Target Compounds						Qvalue
21) Anthracene	14.703	178	131483	2.98	ppm	96
36) 1,4-Dioxane	2.205	88	183308	33.28	ppm #	50

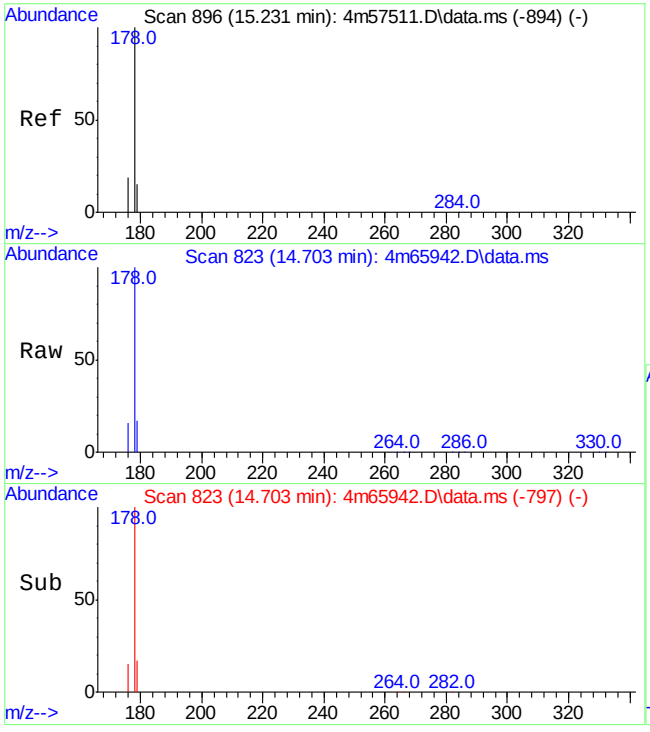
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65942.D
Acq On : 11 Jun 2016 5:50 am
Operator : juliusj
Sample : jc21709-9
Misc : op94650a,e4m2960,900
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 09:51:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

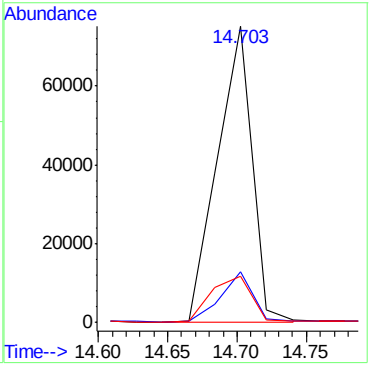


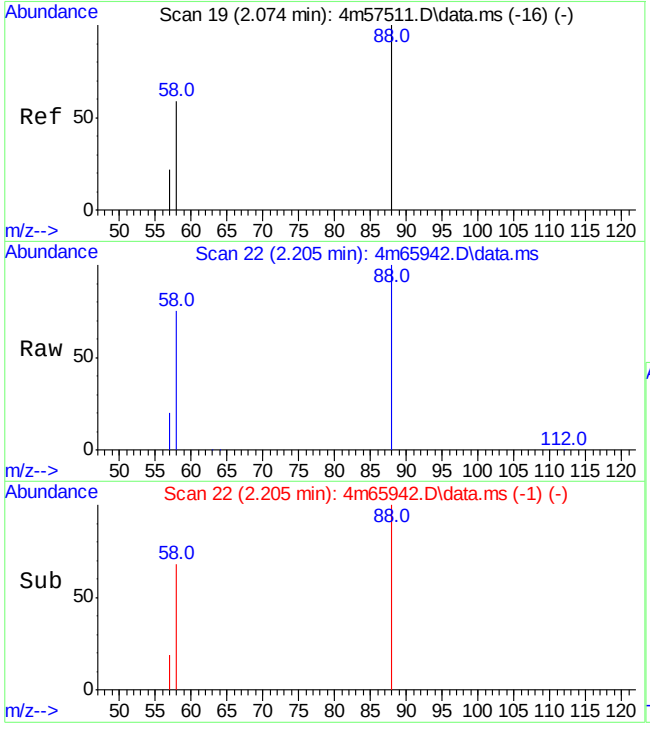


#21
Anthracene
Concen: 2.98 ppm
RT: 14.703 min Scan# 823
Delta R.T. -0.019 min
Lab File: 4m65942.D
Acq: 11 Jun 2016 5:50 am

Tgt Ion:178 Resp: 131483

Ion	Ratio	Lower	Upper
178	100		
179	17.0	0.0	45.2
176	15.3	0.0	47.3

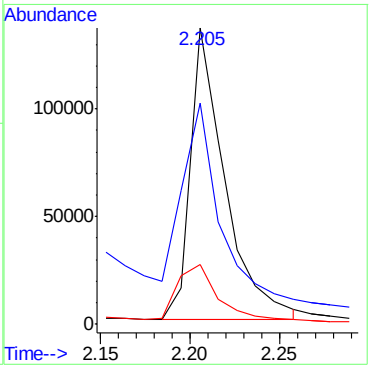




#36
1,4-Dioxane
Concen: 33.28 ppm
RT: 2.205 min Scan# 22
Delta R.T. -0.021 min
Lab File: 4m65942.D
Acq: 11 Jun 2016 5:50 am

Tgt Ion: 88 Resp: 183308

Ion	Ratio	Lower	Upper
88	100		
58	65.5	14.6	54.6#
57	19.2	0.0	27.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65943.D
Acq On : 11 Jun 2016 6:19 am
Operator : juliusj
Sample : jc21709-10
Misc : op94650a,e4m2960,900
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 13 09:52:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.653	152	66371	4.00	ppm	-0.02
12) Fluorene-d10	12.631	176	133203	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	210714	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.415	264	156676	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.653	152	66371	4.00	ppm	-0.02
38) Fluorene-d10a	12.631	176	133203	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.006	112	227195	16.58	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 33.16%			
3) Phenol-d5	5.402	99	234565	10.67	ppm	0.00
Spiked Amount 50.000			Recovery = 21.34%			
6) Nitrobenzene-d5	6.852	82	516538	29.86	ppm	-0.03
Spiked Amount 50.000			Recovery = 59.72%			
11) 2-Fluorobiphenyl	10.321	172	985910	34.01	ppm	-0.02
Spiked Amount 50.000			Recovery = 68.02%			
17) 2,4,6-Tribromophenol	13.204	330	175583	33.65	ppm	0.00
Spiked Amount 50.000			Recovery = 67.30%			
25) Terphenyl-d14	17.640	244	1009571	40.20	ppm	-0.02
Spiked Amount 50.000			Recovery = 80.40%			

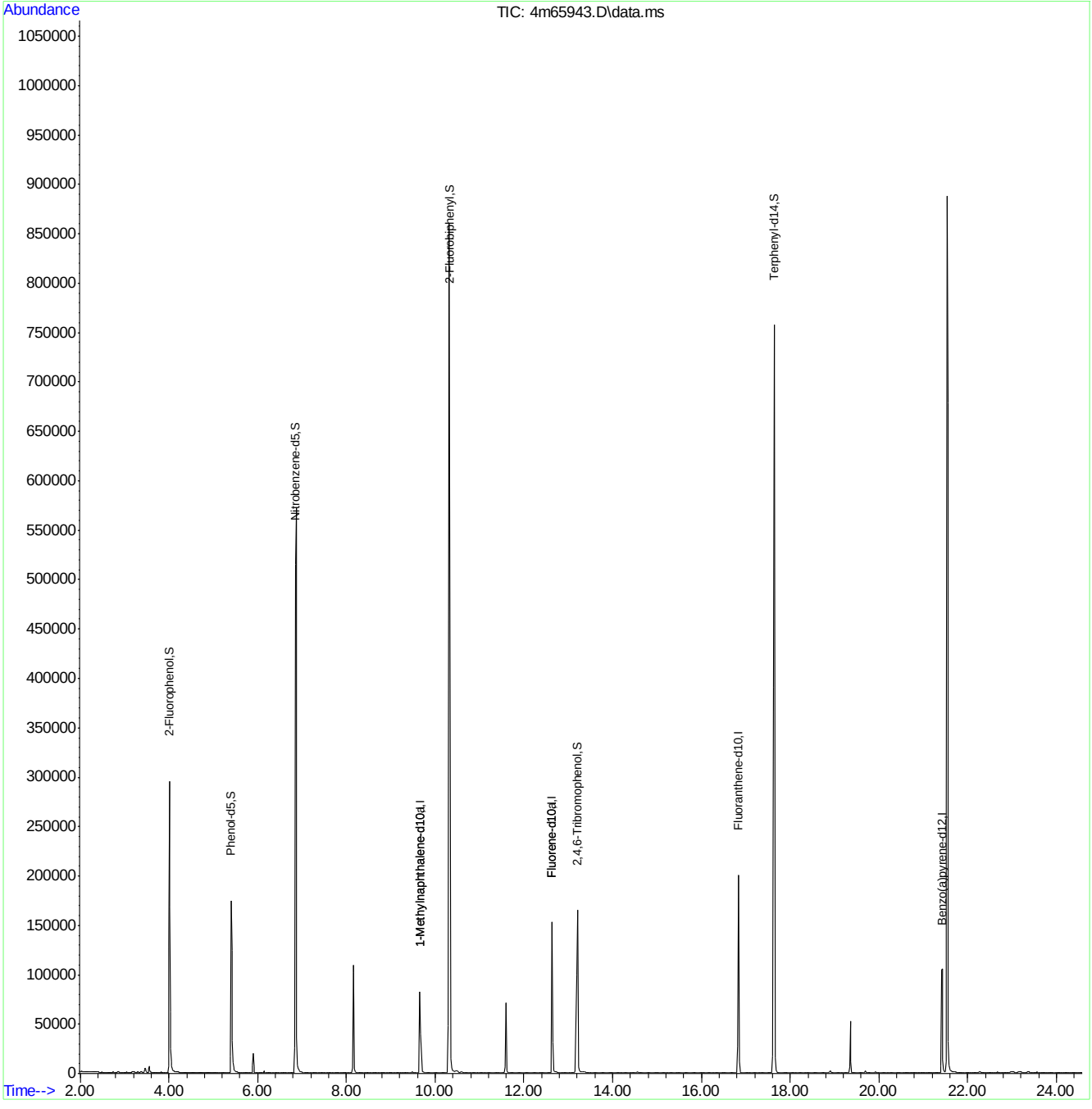
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65943.D
Acq On : 11 Jun 2016 6:19 am
Operator : juliusj
Sample : jc21709-10
Misc : op94650a,e4m2960,900
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 13 09:52:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65944.D
Acq On : 11 Jun 2016 6:49 am
Operator : juliusj
Sample : jc21709-12
Misc : op94650a,e4m2960,1000
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 13 09:52:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

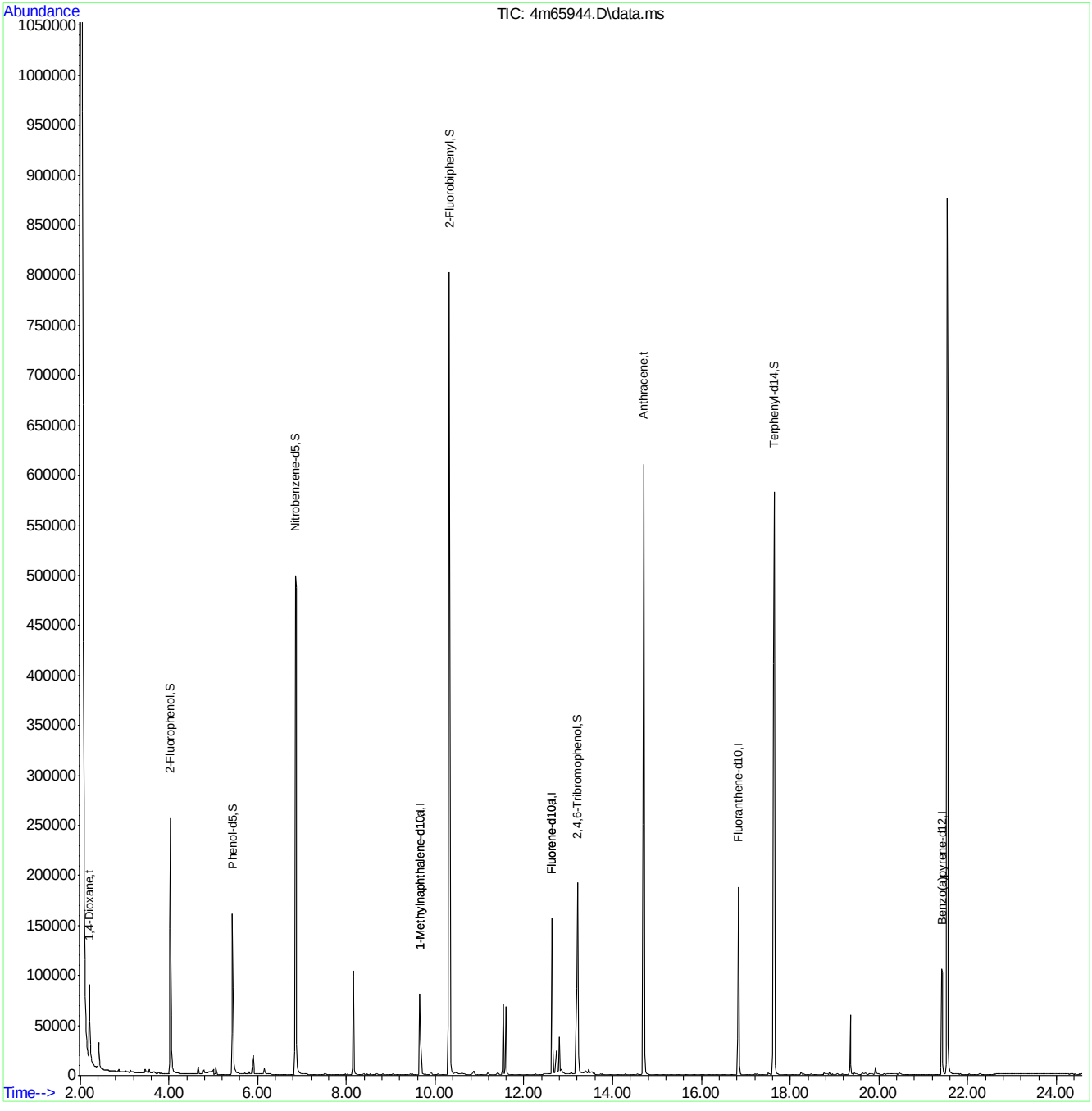
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.653	152	63091	4.00	ppm	-0.02
12) Fluorene-d10	12.631	176	131824	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	204673	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.415	264	154647	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.653	152	63091	4.00	ppm	-0.02
38) Fluorene-d10a	12.631	176	131824	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.027	112	209889	16.12	ppm	0.02
Spiked Amount 50.000	Range 11 - 58		Recovery = 32.24%			
3) Phenol-d5	5.429	99	216549	10.37	ppm	0.03
Spiked Amount 50.000			Recovery = 20.74%			
6) Nitrobenzene-d5	6.852	82	468431	28.49	ppm	-0.03
Spiked Amount 50.000			Recovery = 56.98%			
11) 2-Fluorobiphenyl	10.321	172	930093	33.76	ppm	-0.02
Spiked Amount 50.000			Recovery = 67.52%			
17) 2,4,6-Tribromophenol	13.204	330	170036	32.93	ppm	0.00
Spiked Amount 50.000			Recovery = 65.86%			
25) Terphenyl-d14	17.640	244	868564	35.61	ppm	-0.02
Spiked Amount 50.000			Recovery = 71.22%			
Target Compounds						Qvalue
21) Anthracene	14.702	178	748779	15.31	ppm	96
36) 1,4-Dioxane	2.205	88	54699	9.76	ppm #	48

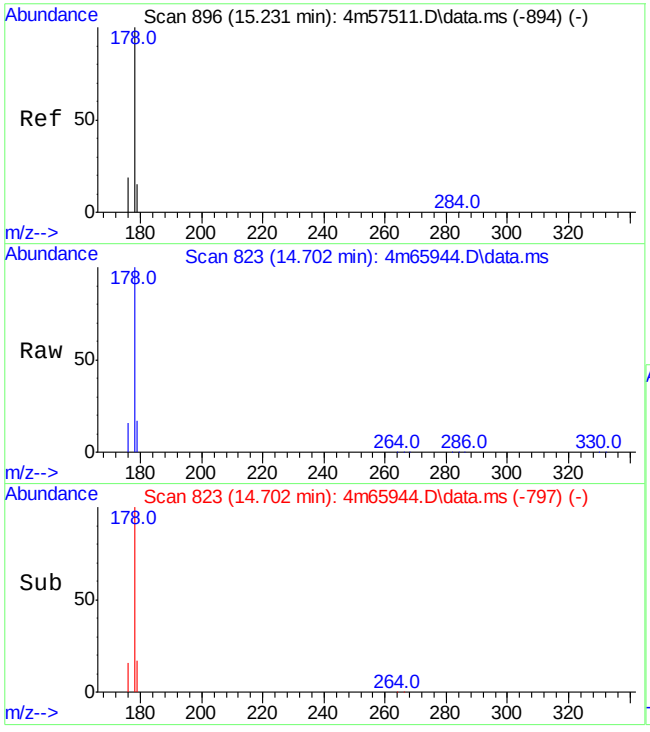
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65944.D
Acq On : 11 Jun 2016 6:49 am
Operator : juliusj
Sample : jc21709-12
Misc : op94650a,e4m2960,1000
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 13 09:52:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

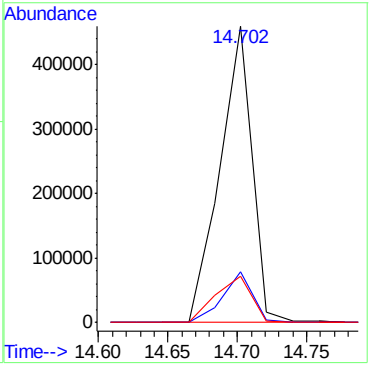


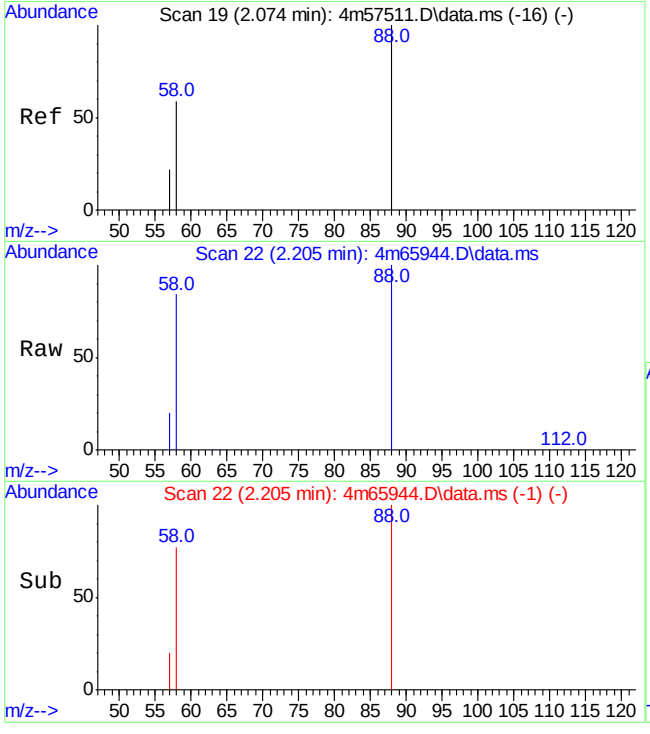


#21
Anthracene
Concen: 15.31 ppm
RT: 14.702 min Scan# 823
Delta R.T. -0.019 min
Lab File: 4m65944.D
Acq: 11 Jun 2016 6:49 am

Tgt Ion:178 Resp: 748779

Ion	Ratio	Lower	Upper
178	100		
179	17.1	0.0	45.2
176	15.7	0.0	47.3

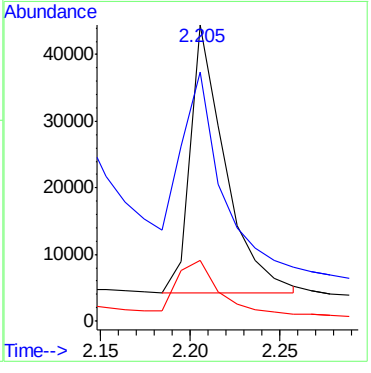




#36
1,4-Dioxane
Concen: 9.76 ppm
RT: 2.205 min Scan# 22
Delta R.T. -0.021 min
Lab File: 4m65944.D
Acq: 11 Jun 2016 6:49 am

Tgt Ion: 88 Resp: 54699

Ion	Ratio	Lower	Upper
88	100		
58	66.8	14.6	54.6#
57	19.5	0.0	27.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84531.D
Acq On : 10 Jun 2016 1:36 pm
Operator : ashleyn
Sample : op94650-mb1
Misc : op94650,e2m3726,1000
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 10 16:32:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	198866	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	784346	40.00 ppm	-0.02
47) Acenaphthene-d10	8.158	164	456114	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	783992	40.00 ppm	-0.03
83) Chrysene-d12	14.587	240	741955	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	727939	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	198866	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.158	164	456114	40.00 ppm	-0.06
105) Chrysene-d12a	14.587	240	741955	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	783992	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	784346	40.00 ppm	-0.05
113) Chrysene-d12b	14.587	240	741955	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	167612	23.81 ppm	-0.02
Spiked Amount 50.000			Recovery = 47.62%		
8) Phenol-d5	4.649	99	148131	16.63 ppm	-0.02
Spiked Amount 50.000			Recovery = 33.26%		
25) Nitrobenzene-d5	5.366	82	342305	39.56 ppm	-0.02
Spiked Amount 50.000			Recovery = 79.12%		
51) 2-Fluorobiphenyl	7.259	172	531837	36.17 ppm	-0.02
Spiked Amount 50.000			Recovery = 72.34%		
73) 2,4,6-Tribromophenol	9.318	330	105600	48.59 ppm	-0.03
Spiked Amount 50.000			Recovery = 97.18%		
85) Terphenyl-d14	12.934	244	552977	32.57 ppm	-0.03
Spiked Amount 50.000			Recovery = 65.14%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds	Qvalue

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

7.2.1

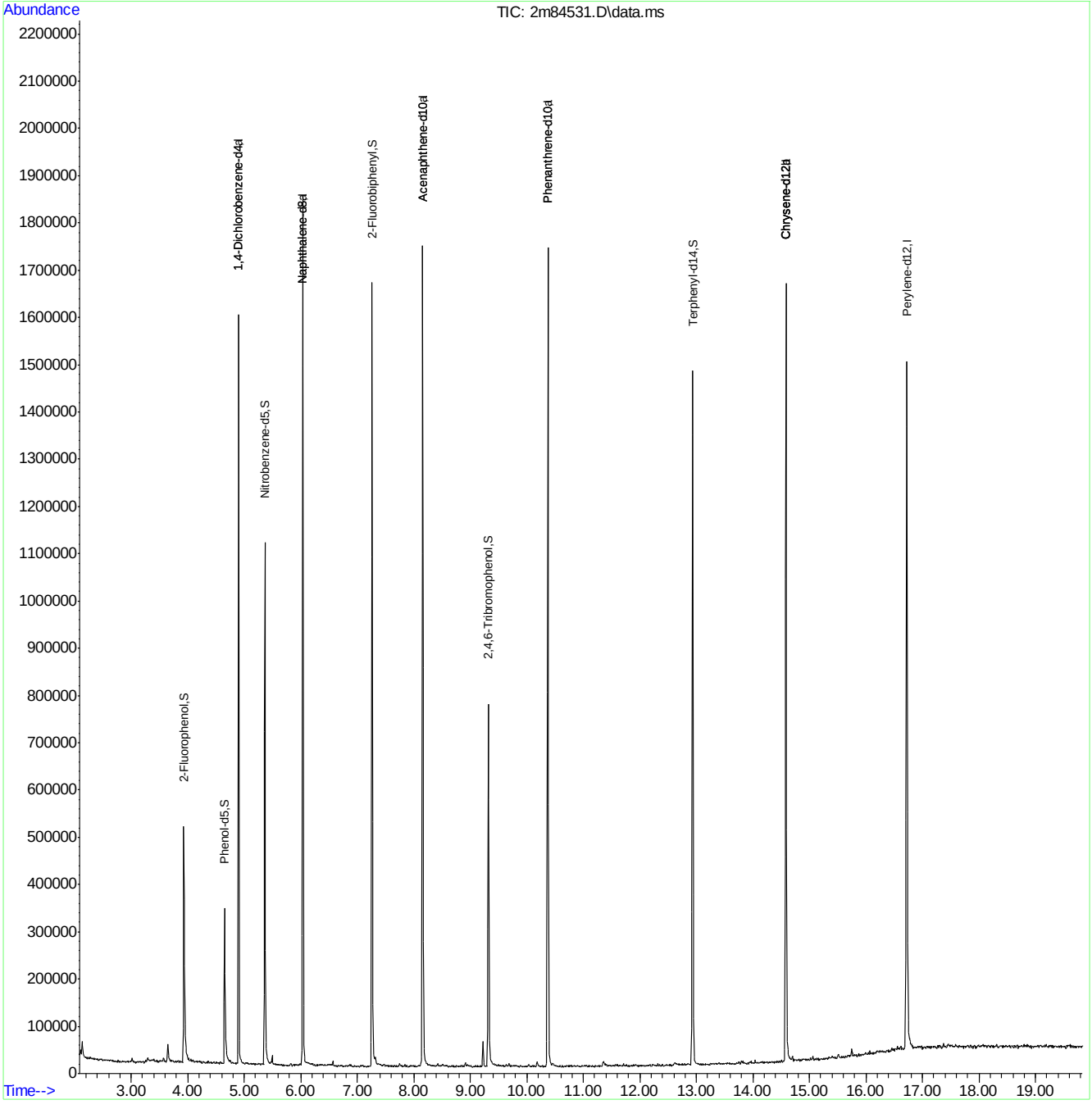
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84531.D
Acq On : 10 Jun 2016 1:36 pm
Operator : ashleyn
Sample : op94650-mb1
Misc : op94650,e2m3726,1000
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 10 16:32:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



M2M3720.M Fri Jun 10 16:32:21 2016 Page: 2

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65931.D
Acq On : 11 Jun 2016 12:25 am
Operator : juliusj
Sample : op94650a-mb1
Misc : op94650a,e4m2960,1000
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 13 09:44:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	64152	4.00	ppm	# 0.00
12) Fluorene-d10	12.631	176	113836	4.00	ppm	-0.02
22) Fluoranthene-d10	16.830	212	203554	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.429	264	152306	4.00	ppm	-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	64152	4.00	ppm	# 0.00
38) Fluorene-d10a	12.631	176	113836	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.006	112	302538	22.85	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 45.70%			
3) Phenol-d5	5.402	99	343867	16.19	ppm	0.00
Spiked Amount 50.000			Recovery = 32.38%			
6) Nitrobenzene-d5	6.867	82	623784	37.31	ppm	-0.02
Spiked Amount 50.000			Recovery = 74.62%			
11) 2-Fluorobiphenyl	10.321	172	951037	33.95	ppm	-0.02
Spiked Amount 50.000			Recovery = 67.90%			
17) 2,4,6-Tribromophenol	13.204	330	240260	53.88	ppm	0.00
Spiked Amount 50.000			Recovery = 107.76%			
25) Terphenyl-d14	17.640	244	847943	34.96	ppm	-0.02
Spiked Amount 50.000			Recovery = 69.92%			
Target Compounds						Qvalue

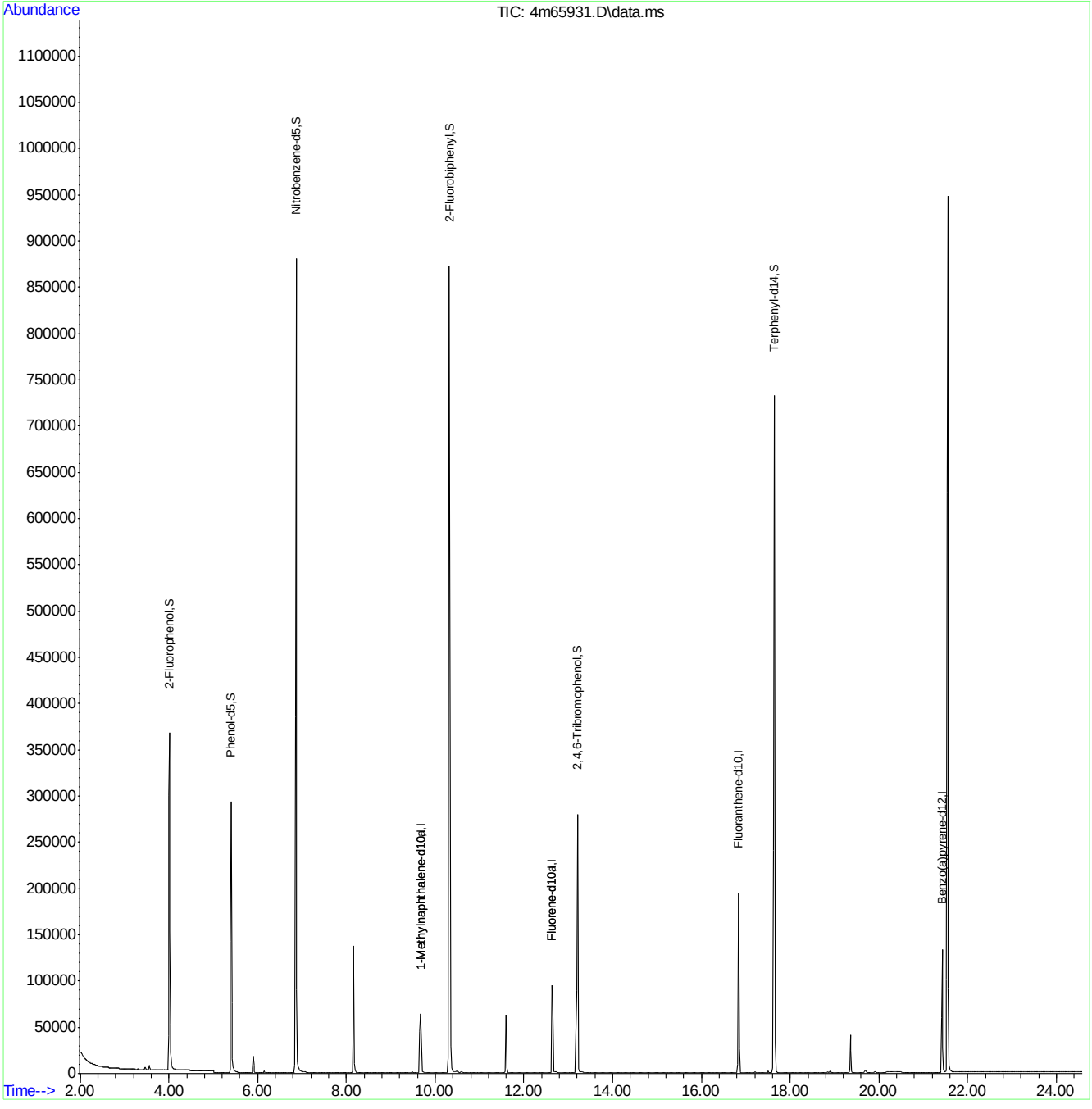
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65931.D
Acq On : 11 Jun 2016 12:25 am
Operator : juliusj
Sample : op94650a-mb1
Misc : op94650a,e4m2960,1000
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 13 09:44:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84530.D
Acq On : 10 Jun 2016 1:10 pm
Operator : ashleyn
Sample : op94650-bs1
Misc : op94650,e2m3726,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 10 16:31:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	198957	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	874090	40.00 ppm	-0.02
47) Acenaphthene-d10	8.163	164	443044	40.00 ppm	-0.02
69) Phenanthrene-d10	10.372	188	742851	40.00 ppm	-0.03
83) Chrysene-d12	14.592	240	714472	40.00 ppm	-0.03
91) Perylene-d12	16.726	264	618738	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	198957	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.163	164	443044	40.00 ppm	-0.05
105) Chrysene-d12a	14.592	240	714472	40.00 ppm	-0.05
108) Phenanthrene-d10a	10.372	188	742851	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	874090	40.00 ppm	-0.05
113) Chrysene-d12b	14.592	240	714507	40.00 ppm	-0.05

System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	210528	29.89 ppm	-0.02
Spiked Amount 50.000			Recovery = 59.78%		
8) Phenol-d5	4.649	99	181355	20.35 ppm	-0.02
Spiked Amount 50.000			Recovery = 40.70%		
25) Nitrobenzene-d5	5.365	82	348002	36.09 ppm	-0.02
Spiked Amount 50.000			Recovery = 72.18%		
51) 2-Fluorobiphenyl	7.259	172	567884	39.76 ppm	-0.02
Spiked Amount 50.000			Recovery = 79.52%		
73) 2,4,6-Tribromophenol	9.318	330	96265	46.75 ppm	-0.03
Spiked Amount 50.000			Recovery = 93.50%		
85) Terphenyl-d14	12.934	244	667438	40.83 ppm	-0.03
Spiked Amount 50.000			Recovery = 81.66%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
2) 1,4-Dioxane	2.482	88	64836	24.72 ppm	98
6) Indene	5.109	116	504215	38.16 ppm	98
7) Cumene	4.285	105	625113	32.25 ppm	100
9) Phenol	4.659	94	235998	21.45 ppm	72
10) Aniline	4.649	93	391471	35.85 ppm	90
11) bis(2-Chloroethyl)ether	4.691	93	296743	38.59 ppm	96
12) 2-Chlorophenol	4.750	128	279292	38.26 ppm	98
13) Decane	4.750	43	204691	26.30 ppm	96
14) 1,3-Dichlorobenzene	4.852	146	235728	28.64 ppm	100
15) 1,4-Dichlorobenzene	4.916	146	246315	29.99 ppm	99
16) Benzyl alcohol	5.018	108	171312	34.78 ppm	94
17) 1,2-Dichlorobenzene	5.034	146	229411	29.67 ppm	99
18) Acetophenone	5.232	105	422550	39.17 ppm	97
19) 2-Methylphenol	5.125	108	257566	35.87 ppm	94
20) 2,2'-oxybis(1-Chloropr...	5.114	45	313489	32.15 ppm	88
21) 3&4-Methylphenol	5.248	108	257812	33.31 ppm	97
22) n-Nitroso-di-n-propyla...	5.226	70	223189	37.33 ppm	97
23) Hexachloroethane	5.312	201	74592	28.62 ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84530.D
Acq On : 10 Jun 2016 1:10 pm
Operator : ashleyn
Sample : op94650-bs1
Misc : op94650,e2m3726,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 10 16:31:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.387	77	344337	34.75	ppm		99
27) Quinoline	6.414	129	558053	35.09	ppm		100
28) Isophorone	5.590	82	630294	37.16	ppm		98
29) 2-Nitrophenol	5.670	139	154563	34.85	ppm	#	67
30) 2,4-Dimethylphenol	5.713	107	300233	34.96	ppm		99
31) Benzoic acid	5.847	105	2646	2.90	ppm	#	37
32) bis(2-Chloroethoxy)met...	5.783	93	328016	34.09	ppm		100
33) 2,4-Dichlorophenol	5.916	162	227963	34.90	ppm		98
34) 2,6-Dichlorophenol	6.130	162	222697	34.76	ppm		96
36) 1,2,4-Trichlorobenzene	5.975	180	187108	25.94	ppm		98
38) Naphthalene	6.061	128	699526	28.97	ppm		99
39) 4-Chloroaniline	6.120	127	285136	30.53	ppm		97
40) 2,3-Dichloroaniline	7.168	161	274280	34.36	ppm		97
41) Caprolactam	6.494	55	36191	9.29	ppm		95
42) Hexachlorobutadiene	6.168	225	98039	24.72	ppm		98
43) 4-Chloro-3-methylphenol	6.665	107	277145	35.89	ppm		94
44) 2-Methylnaphthalene	6.815	141	438011	32.59	ppm		97
45) 1-Methylnaphthalene	6.933	141	450622	32.02	ppm		97
46) Dimethylnaphthalene	7.596	156	442677	30.94	ppm		98
48) Hexachlorocyclopentadiene	6.991	237	76746	47.01	ppm		100
49) 2,4,6-Trichlorophenol	7.173	196	165313	40.50	ppm		96
50) 2,4,5-Trichlorophenol	7.237	196	162904	38.80	ppm		96
52) 2-Chloronaphthalene	7.419	162	417202	32.45	ppm		97
53) Biphenyl	7.393	154	632779	36.77	ppm		98
54) 2-Nitroaniline	7.574	65	206251	40.21	ppm		99
55) Dimethylphthalate	7.804	163	572508	39.26	ppm		99
56) Acenaphthylene	7.970	152	741931	34.52	ppm		100
57) 2,6-Dinitrotoluene	7.901	165	134004	40.39	ppm		97
58) 3-Nitroaniline	8.141	138	137233	35.76	ppm		98
59) Acenaphthene	8.206	153	465154	35.30	ppm		95
60) 2,4-Dinitrophenol	8.313	184	66705	54.49	ppm		97
61) 4-Nitrophenol	8.478	109	53230	31.04	ppm	#	22
62) Dibenzofuran	8.452	168	706617	38.85	ppm		99
63) 2,4-Dinitrotoluene	8.478	165	178420	38.75	ppm		96
64) 2,3,4,6-Tetrachlorophenol	8.655	232	109923	42.74	ppm		97
65) Diethylphthalate	8.815	149	601484	39.47	ppm		99
66) Fluorene	8.949	166	545359	37.11	ppm		100
67) 4-Chlorophenyl-phenyle...	8.960	204	245610	35.94	ppm		98
68) 4-Nitroaniline	9.029	138	156592	39.75	ppm		94
70) 4,6-Dinitro-2-methylph...	9.083	198	100414	43.06	ppm		92
71) n-Nitrosodiphenylamine	9.147	169	409483	41.90	ppm		99
72) 1,2-Diphenylhydrazine	9.200	77	707449	41.21	ppm		99
74) 4-Bromophenyl-phenylether	9.692	248	152732	37.99	ppm		91
75) Hexachlorobenzene	9.778	284	187716	40.03	ppm		91
76) Pentachlorophenol	10.115	266	54443	45.85	ppm		96
77) Phenanthrene	10.409	178	840188	38.98	ppm		99
78) Anthracene	10.489	178	840024	38.63	ppm		100
79) Carbazole	10.778	167	798823	40.27	ppm		100
80) Di-n-butylphthalate	11.361	149	1030071	40.42	ppm		100
81) Fluoranthene	12.287	202	891681	40.74	ppm		99

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84530.D
Acq On : 10 Jun 2016 1:10 pm
Operator : ashleyn
Sample : op94650-bs1
Misc : op94650,e2m3726,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 10 16:31:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
82) Octadecane	10.265	57	340739	32.50 ppm		97
84) Pyrene	12.645	202	938642	38.48 ppm		99
86) Butylbenzylphthalate	13.752	149	444347	36.76 ppm		95
87) Benzo[a]anthracene	14.576	228	881388	39.09 ppm		98
88) 3,3'-Dichlorobenzidine	14.570	252	587223	68.39 ppm		98
89) Chrysene	14.629	228	815117	38.78 ppm		98
90) bis(2-Ethylhexyl)phtha...	14.699	149	610483	38.67 ppm		99
92) Di-n-octylphthalate	15.694	149	1020069	36.24 ppm		100
93) Benzo[b]fluoranthene	16.196	252	807405	39.01 ppm		97
94) Benzo[k]fluoranthene	16.234	252	805480	42.83 ppm		99
95) Benzo[a]pyrene	16.646	252	689033	40.36 ppm		99
96) Indeno[1,2,3-cd]pyrene	18.470	276	812408	40.06 ppm		96
98) Dibenz[a,h]anthracene	18.496	278	679112	38.86 ppm		99
99) 7,12-Dimethylbenz(a)an...	16.180	256	350548	38.62 ppm		98
100) Benzo[g,h,i]perylene	18.972	276	653375	37.72 ppm		98
102) Benzaldehyde	4.568	105	252912	41.34 ppm		93
104) 1,2,4,5-Tetrachloroben...	7.018	216	192271	37.06 ppm		100
106) Benzidine	12.554	184	589891	101.97 ppm		100
109) Atrazine	9.997	215	90844	47.55 ppm	#	68

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

7.3.1

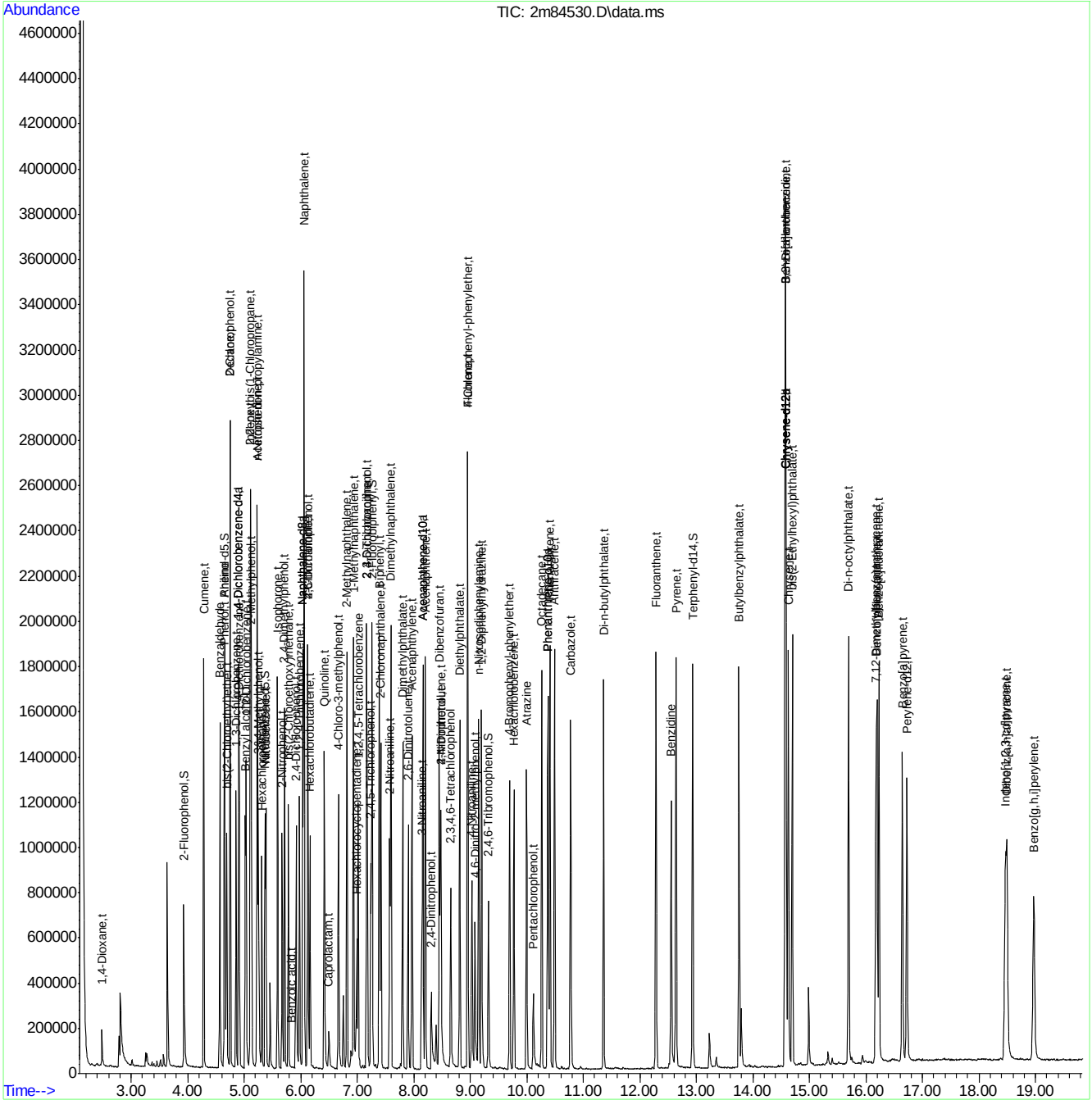
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84530.D
Acq On : 10 Jun 2016 1:10 pm
Operator : ashleyn
Sample : op94650-bs1
Misc : op94650,e2m3726,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 10 16:31:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65932.D
Acq On : 11 Jun 2016 12:55 am
Operator : juliusj
Sample : op94650a-bs12
Misc : op94650a,e4m2960,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 09:45:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:37:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.677	152	63326	4.00	ppm	#	0.00
12) Fluorene-d10	12.655	176	109766	4.00	ppm	#	0.00
22) Fluoranthene-d10	16.830	212	202745	4.00	ppm		-0.02
28) Benzo(a)pyrene-d12	21.429	264	148901	4.00	ppm		-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	63326	4.00	ppm	#	0.00
38) Fluorene-d10a	12.655	176	109766	4.00	ppm	#	0.00
System Monitoring Compounds							
2) 2-Fluorophenol	4.007	112	301148	23.04	ppm		0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 46.08%				
3) Phenol-d5	5.402	99	328441	15.67	ppm		0.00
Spiked Amount 50.000			Recovery = 31.34%				
6) Nitrobenzene-d5	6.868	82	564745	34.22	ppm		-0.02
Spiked Amount 50.000			Recovery = 68.44%				
11) 2-Fluorobiphenyl	10.322	172	894718	32.35	ppm		-0.02
Spiked Amount 50.000			Recovery = 64.70%				
17) 2,4,6-Tribromophenol	13.204	330	218692	50.86	ppm		0.00
Spiked Amount 50.000			Recovery = 101.72%				
25) Terphenyl-d14	17.640	244	939999	38.91	ppm		-0.02
Spiked Amount 50.000			Recovery = 77.82%				
Target Compounds							Qvalue
4) Phenol	5.416	94	44792	1.92	ppm		85
5) bis(2-Chloroethyl)ether	5.498	93	12422	0.75	ppm	#	76
7) Naphthalene	8.198	128	38498	0.65	ppm		94
8) Hexachlorobutadiene	8.477	225	4470	0.49	ppm		90
9) 2-Methylnaphthalene	9.558	142	13906	0.56	ppm	#	66
10) Hexachlorocyclopentadiene	9.892	237	609	0.41	ppm	#	59
13) Acenaphthylene	11.309	152	25795	0.97	ppm		98
14) Acenaphthene	11.664	153	15917	0.96	ppm		96
15) Dibenzofuran	12.019	168	28609	0.94	ppm		91
16) Fluorene	12.703	166	25750	0.91	ppm	#	68
18) Hexachlorobenzene	13.780	284	8603	0.83	ppm		99
19) Pentachlorophenol	14.232	266	23727	5.21	ppm		99
20) Phenanthrene	14.590	178	43589	1.01	ppm		99
21) Anthracene	14.703	178	38618	0.95	ppm		98
23) Fluoranthene	16.868	202	46464	0.88	ppm		82
24) Pyrene	17.244	202	48911	0.89	ppm		97
26) Benzo[a]anthracene	19.353	228	37939	0.91	ppm	#	80
27) Chrysene	19.410	228	39025	0.88	ppm		81
29) Benzo[b]fluoranthene	21.002	252	44327	0.81	ppm		96
30) Benzo[k]fluoranthene	21.044	252	32140	0.72	ppm		96
31) Benzo[a]pyrene	21.457	252	34505	0.76	ppm		97
32) Indeno[1,2,3-cd]pyrene	22.971	276	38681	0.74	ppm		98
33) Dibenz[a,h]anthracene	23.013	278	30489	0.72	ppm		96
34) Benzo[g,h,i]perylene	23.357	276	33100	0.70	ppm		100
36) 1,4-Dioxane	2.205	88	2049	0.36	ppm	#	28
39) 4,6-dinitro-2-methylph...	12.894	198	17028	4.48	ppm	#	30
40) 1,2-Diphenylhydrazine	13.061	77	28257	1.14	ppm		94

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65932.D
Acq On : 11 Jun 2016 12:55 am
Operator : juliusj
Sample : op94650a-bs12
Misc : op94650a,e4m2960,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 09:45:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:37:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.013	169	24493	1.21	ppm	87

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

7.3.2

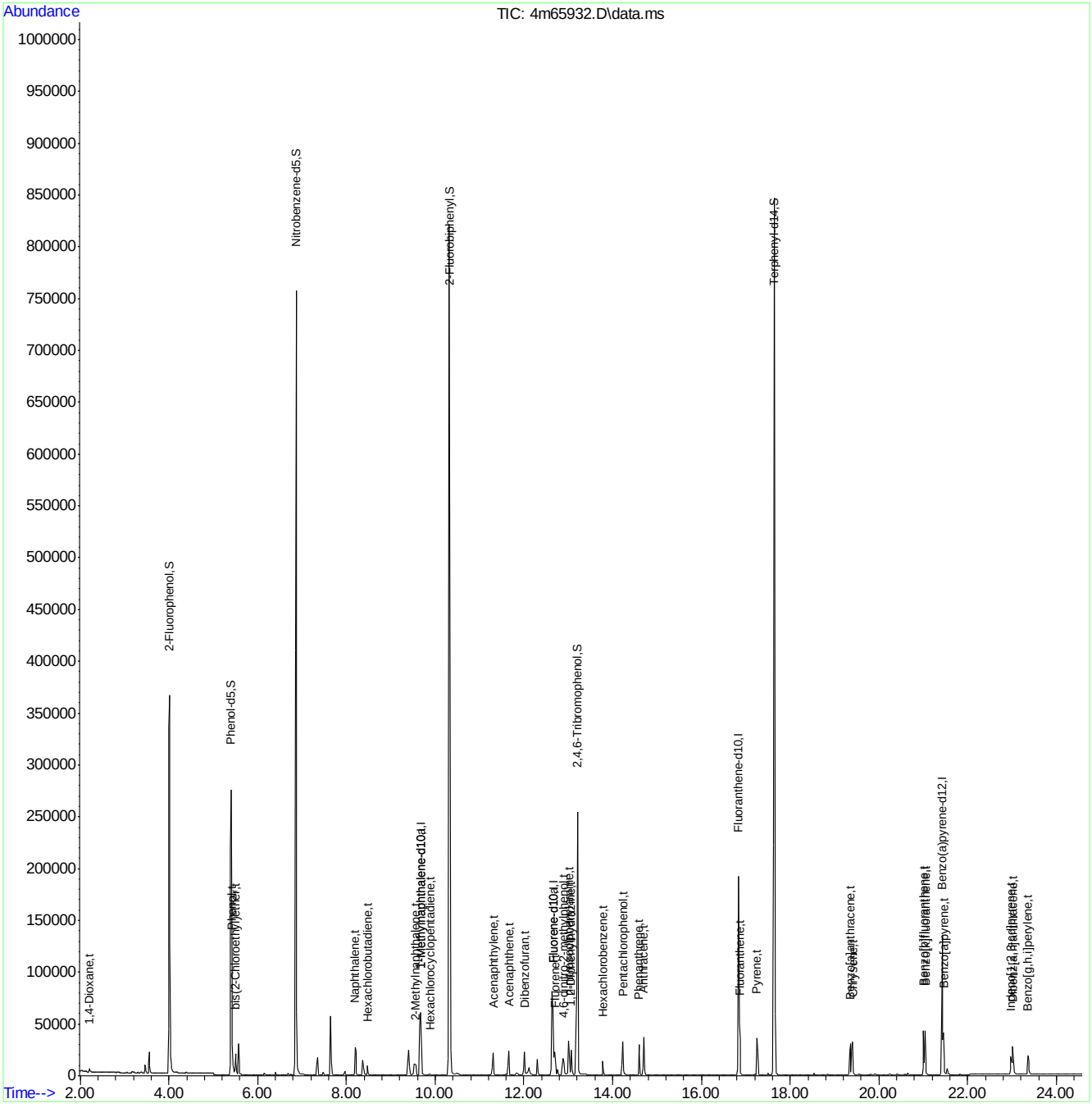
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65932.D
Acq On : 11 Jun 2016 12:55 am
Operator : juliusj
Sample : op94650a-bs12
Misc : op94650a,e4m2960,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 09:45:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:37:35 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84532.D
Acq On : 10 Jun 2016 2:02 pm
Operator : ashleyn
Sample : op94650-ms
Misc : op94650,e2m3726,455
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 10 16:32:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	202130	40.00	ppm	-0.01
24) Naphthalene-d8	6.039	136	874776	40.00	ppm	-0.02
47) Acenaphthene-d10	8.163	164	452188	40.00	ppm	-0.02
69) Phenanthrene-d10	10.372	188	753730	40.00	ppm	-0.03
83) Chrysene-d12	14.586	240	721925	40.00	ppm	-0.04
91) Perylene-d12	16.726	264	635104	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	202130	40.00	ppm	-0.04
103) Acenaphthene-d10a	8.163	164	452188	40.00	ppm	-0.05
105) Chrysene-d12a	14.586	240	721925	40.00	ppm	-0.06
108) Phenanthrene-d10a	10.372	188	753730	40.00	ppm	-0.06
111) Naphthalene-d8a	6.039	136	874776	40.00	ppm	-0.04
113) Chrysene-d12b	14.586	240	721925	40.00	ppm	-0.06

System Monitoring Compounds						
5) 2-Fluorophenol	3.932	112	193400	27.03	ppm	-0.02
Spiked Amount 50.000			Recovery = 54.06%			
8) Phenol-d5	4.649	99	228703	25.25	ppm	-0.02
Spiked Amount 50.000			Recovery = 50.50%			
25) Nitrobenzene-d5	5.365	82	274824	28.48	ppm	-0.02
Spiked Amount 50.000			Recovery = 56.96%			
51) 2-Fluorobiphenyl	7.259	172	499315	34.25	ppm	-0.02
Spiked Amount 50.000			Recovery = 68.50%			
73) 2,4,6-Tribromophenol	9.318	330	78520	37.58	ppm	-0.03
Spiked Amount 50.000			Recovery = 75.16%			
85) Terphenyl-d14	12.934	244	490282	29.68	ppm	-0.03
Spiked Amount 50.000			Recovery = 59.36%			
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	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.482	88	68407	25.67	ppm	98
6) Indene	5.103	116	405139	30.18	ppm	98
7) Cumene	4.285	105	627732	31.87	ppm	98
9) Phenol	4.659	94	285498	25.54	ppm	80
10) Aniline	4.649	93	364652	32.87	ppm	82
11) bis(2-Chloroethyl)ether	4.691	93	241686	30.93	ppm	99
12) 2-Chlorophenol	4.750	128	220766	29.77	ppm	99
13) Decane	4.750	43	168755	21.35	ppm	95
14) 1,3-Dichlorobenzene	4.852	146	187485	22.42	ppm	99
15) 1,4-Dichlorobenzene	4.916	146	195038	23.37	ppm	99
16) Benzyl alcohol	5.018	108	161081	32.19	ppm	91
17) 1,2-Dichlorobenzene	5.034	146	184355	23.47	ppm	97
18) Acetophenone	5.232	105	348674	31.81	ppm	98
19) 2-Methylphenol	5.125	108	232663	31.90	ppm	97
20) 2,2'-oxybis(1-Chloropr...	5.109	45	256568	25.90	ppm	95
21) 3&4-Methylphenol	5.248	108	248260	31.57	ppm	95
22) n-Nitroso-di-n-propyla...	5.226	70	190879	31.42	ppm	98
23) Hexachloroethane	5.312	201	55276	20.87	ppm	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84532.D
Acq On : 10 Jun 2016 2:02 pm
Operator : ashleyn
Sample : op94650-ms
Misc : op94650,e2m3726,455
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 10 16:32:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.381	77	285838	28.83	ppm		97
27) Quinoline	6.414	129	492413	30.94	ppm		99
28) Isophorone	5.590	82	528842	31.16	ppm		97
29) 2-Nitrophenol	5.670	139	129581	29.19	ppm	#	69
30) 2,4-Dimethylphenol	5.713	107	273568	31.83	ppm		100
32) bis(2-Chloroethoxy)met...	5.783	93	276853	28.75	ppm		99
33) 2,4-Dichlorophenol	5.916	162	196504	30.06	ppm		98
34) 2,6-Dichlorophenol	6.130	162	191348	29.84	ppm		99
36) 1,2,4-Trichlorobenzene	5.975	180	156537	21.69	ppm		98
38) Naphthalene	6.061	128	601651	24.90	ppm		98
39) 4-Chloroaniline	6.120	127	281211	30.08	ppm		95
40) 2,3-Dichloroaniline	7.168	161	239509	29.98	ppm		94
41) Caprolactam	6.489	55	57680	14.80	ppm		98
42) Hexachlorobutadiene	6.168	225	73282	18.47	ppm		95
43) 4-Chloro-3-methylphenol	6.670	107	239650	31.01	ppm		97
44) 2-Methylnaphthalene	6.815	141	380059	28.26	ppm		96
45) 1-Methylnaphthalene	6.933	141	401502	28.50	ppm		97
46) Dimethylnaphthalene	7.596	156	421488	29.44	ppm		99
48) Hexachlorocyclopentadiene	6.991	237	59642	38.86	ppm		97
49) 2,4,6-Trichlorophenol	7.173	196	137945	33.11	ppm		98
50) 2,4,5-Trichlorophenol	7.243	196	135733	31.68	ppm		99
52) 2-Chloronaphthalene	7.419	162	391920	29.87	ppm		99
53) Biphenyl	7.393	154	573736	32.67	ppm		97
54) 2-Nitroaniline	7.574	65	181384	34.65	ppm		95
55) Dimethylphthalate	7.804	163	503748	33.85	ppm		99
56) Acenaphthylene	7.970	152	681614	31.07	ppm		100
57) 2,6-Dinitrotoluene	7.901	165	114419	33.79	ppm		97
58) 3-Nitroaniline	8.141	138	124332	31.74	ppm		99
59) Acenaphthene	8.205	153	433939	32.26	ppm		99
61) 4-Nitrophenol	8.489	109	25129	14.36	ppm	#	1
62) Dibenzofuran	8.457	168	638330	34.39	ppm		98
63) 2,4-Dinitrotoluene	8.478	165	152187	32.39	ppm		93
64) 2,3,4,6-Tetrachlorophenol	8.655	232	94071	35.84	ppm		95
65) Diethylphthalate	8.815	149	512074	32.92	ppm		98
66) Fluorene	8.954	166	502158	33.48	ppm		98
67) 4-Chlorophenyl-phenyle...	8.960	204	235693	33.79	ppm		98
68) 4-Nitroaniline	9.029	138	133366	33.17	ppm		93
70) 4,6-Dinitro-2-methylph...	9.088	198	23088	11.71	ppm		93
71) n-Nitrosodiphenylamine	9.147	169	348419	35.14	ppm		99
72) 1,2-Diphenylhydrazine	9.195	77	635542	36.48	ppm		95
74) 4-Bromophenyl-phenylether	9.698	248	141676	34.73	ppm		99
75) Hexachlorobenzene	9.773	284	163021	34.26	ppm		97
76) Pentachlorophenol	10.115	266	44398	38.31	ppm		97
77) Phenanthrene	10.409	178	729522	33.36	ppm		99
78) Anthracene	10.489	178	750883	34.03	ppm		99
79) Carbazole	10.773	167	681137	33.84	ppm		100
80) Di-n-butylphthalate	11.361	149	848990	32.83	ppm		99
81) Fluoranthene	12.287	202	759389	34.20	ppm		99
82) Octadecane	10.265	57	238465	22.41	ppm		98
84) Pyrene	12.645	202	803411	32.60	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84532.D
Acq On : 10 Jun 2016 2:02 pm
Operator : ashleyn
Sample : op94650-ms
Misc : op94650,e2m3726,455
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 10 16:32:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
86) Butylbenzylphthalate	13.752	149	365584	29.93 ppm		96
87) Benzo[a]anthracene	14.570	228	737685	32.38 ppm		99
88) 3,3'-Dichlorobenzidine	14.570	252	542644	62.55 ppm		99
89) Chrysene	14.629	228	671449	31.61 ppm		100
90) bis(2-Ethylhexyl)phtha...	14.699	149	469066	29.40 ppm		99
92) Di-n-octylphthalate	15.688	149	796137	27.55 ppm		98
93) Benzo[b]fluoranthene	16.196	252	665775	31.33 ppm		99
94) Benzo[k]fluoranthene	16.228	252	639713	33.14 ppm		97
95) Benzo[a]pyrene	16.646	252	572532	32.67 ppm		99
96) Indeno[1,2,3-cd]pyrene	18.464	276	645767	31.02 ppm		97
98) Dibenz[a,h]anthracene	18.491	278	537659	29.97 ppm		99
99) 7,12-Dimethylbenz(a)an...	16.175	256	236455	25.38 ppm		97
100) Benzo[g,h,i]perylene	18.967	276	517263	29.09 ppm		97
102) Benzaldehyde	4.568	105	194768	31.34 ppm		95
104) 1,2,4,5-Tetrachloroben...	7.018	216	176167	33.27 ppm		98
106) Benzidine	12.554	184	635767	115.19 ppm		99
109) Atrazine	9.997	215	73879	38.11 ppm	#	74

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

7.4.1

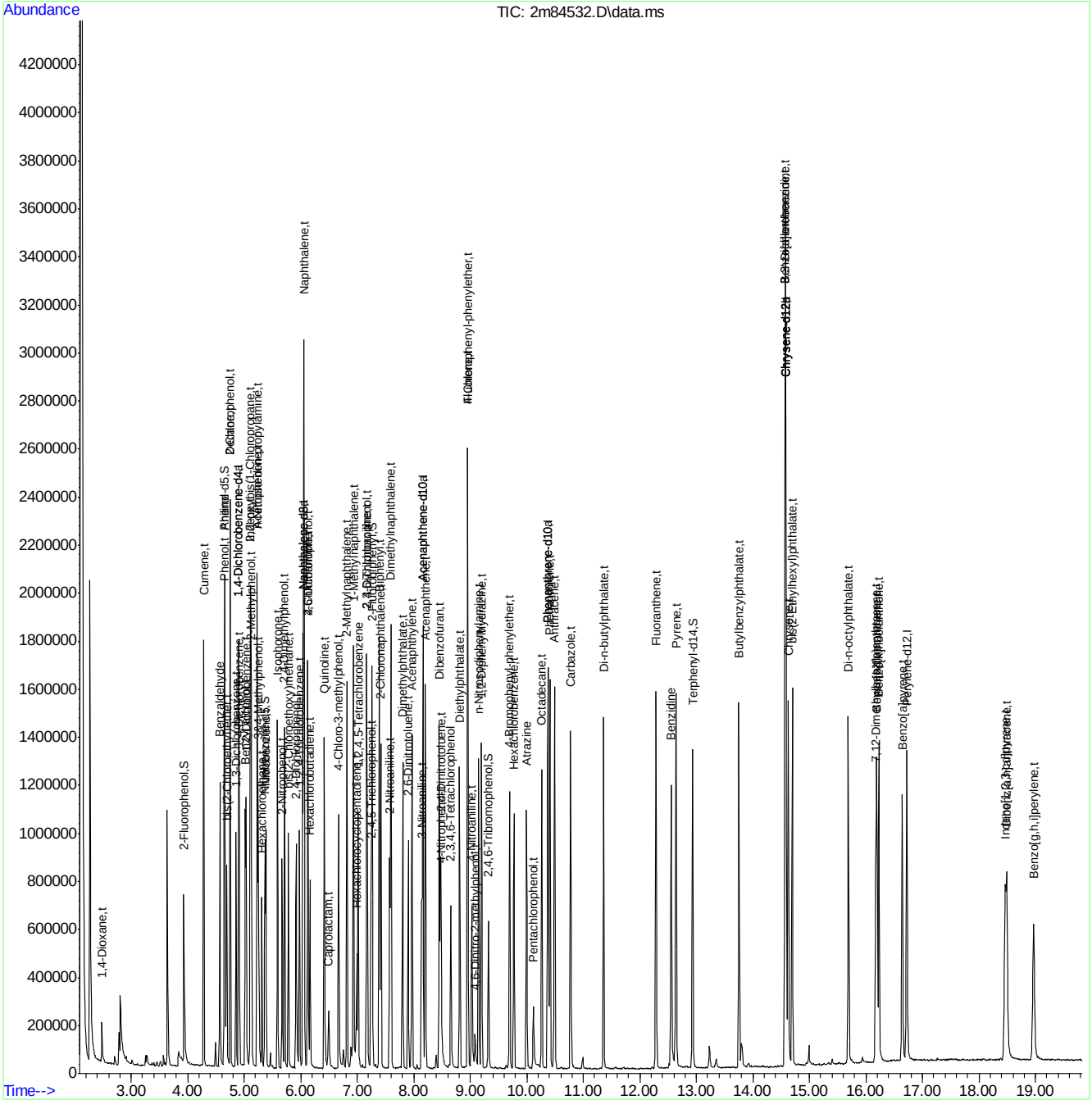
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84532.D
Acq On : 10 Jun 2016 2:02 pm
Operator : ashleyn
Sample : op94650-ms
Misc : op94650,e2m3726,455
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 10 16:32:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84533.D
Acq On : 10 Jun 2016 2:29 pm
Operator : ashleyn
Sample : op94650-msd
Misc : op94650,e2m3726,455
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 10 16:35:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	196970	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	859622	40.00 ppm	-0.02
47) Acenaphthene-d10	8.163	164	439909	40.00 ppm	-0.02
69) Phenanthrene-d10	10.372	188	740431	40.00 ppm	-0.03
83) Chrysene-d12	14.587	240	715208	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	626858	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	196970	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.163	164	439909	40.00 ppm	-0.05
105) Chrysene-d12a	14.587	240	715208	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	740431	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	859622	40.00 ppm	-0.05
113) Chrysene-d12b	14.587	240	715208	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	221740	31.80 ppm	-0.02
Spiked Amount 50.000			Recovery = 63.60%		
8) Phenol-d5	4.649	99	257417	29.17 ppm	-0.02
Spiked Amount 50.000			Recovery = 58.34%		
25) Nitrobenzene-d5	5.366	82	316112	33.33 ppm	-0.02
Spiked Amount 50.000			Recovery = 66.66%		
51) 2-Fluorobiphenyl	7.259	172	545866	38.49 ppm	-0.02
Spiked Amount 50.000			Recovery = 76.98%		
73) 2,4,6-Tribromophenol	9.318	330	93731	45.67 ppm	-0.03
Spiked Amount 50.000			Recovery = 91.34%		
85) Terphenyl-d14	12.934	244	602876	36.84 ppm	-0.03
Spiked Amount 50.000			Recovery = 73.68%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds						Qvalue
2) 1,4-Dioxane	2.483	88	74628	28.74 ppm		97
6) Indene	5.104	116	448566	34.29 ppm		95
7) Cumene	4.280	105	714656	37.24 ppm		98
9) Phenol	4.654	94	309679	28.43 ppm	#	43
10) Aniline	4.649	93	402372	37.22 ppm		79
11) bis(2-Chloroethyl)ether	4.692	93	271174	35.62 ppm		99
12) 2-Chlorophenol	4.751	128	252674	34.96 ppm		98
13) Decane	4.751	43	193218	25.08 ppm		99
14) 1,3-Dichlorobenzene	4.852	146	209213	25.68 ppm		100
15) 1,4-Dichlorobenzene	4.911	146	218234	26.84 ppm		98
16) Benzyl alcohol	5.018	108	178131	36.52 ppm		95
17) 1,2-Dichlorobenzene	5.034	146	211671	27.65 ppm		97
18) Acetophenone	5.232	105	388964	36.42 ppm		96
19) 2-Methylphenol	5.125	108	252262	35.49 ppm		97
20) 2,2'-oxybis(1-Chloropr...	5.109	45	289486	29.99 ppm		95
21) 3&4-Methylphenol	5.248	108	266960	34.84 ppm		99
22) n-Nitroso-di-n-propyla...	5.227	70	203865	34.44 ppm		98
23) Hexachloroethane	5.312	201	63395	24.57 ppm		92

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84533.D
Acq On : 10 Jun 2016 2:29 pm
Operator : ashleyn
Sample : op94650-msd
Misc : op94650,e2m3726,455
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 10 16:35:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.382	77	323219	33.17	ppm		97
27) Quinoline	6.414	129	534783	34.19	ppm		99
28) Isophorone	5.590	82	584397	35.04	ppm		98
29) 2-Nitrophenol	5.670	139	144415	33.11	ppm	#	69
30) 2,4-Dimethylphenol	5.713	107	294218	34.84	ppm		98
32) bis(2-Chloroethoxy)met...	5.783	93	303603	32.08	ppm		99
33) 2,4-Dichlorophenol	5.917	162	215340	33.52	ppm		100
34) 2,6-Dichlorophenol	6.130	162	206803	32.82	ppm		99
36) 1,2,4-Trichlorobenzene	5.975	180	179760	25.34	ppm		98
38) Naphthalene	6.056	128	679661	28.62	ppm		99
39) 4-Chloroaniline	6.120	127	300832	32.75	ppm		95
40) 2,3-Dichloroaniline	7.168	161	261213	33.27	ppm		97
41) Caprolactam	6.494	55	67275	17.56	ppm		98
42) Hexachlorobutadiene	6.168	225	87458	22.43	ppm		96
43) 4-Chloro-3-methylphenol	6.671	107	270649	35.64	ppm		99
44) 2-Methylnaphthalene	6.815	141	413265	31.27	ppm		97
45) 1-Methylnaphthalene	6.933	141	435728	31.48	ppm		96
46) Dimethylnaphthalene	7.596	156	447780	31.83	ppm		98
48) Hexachlorocyclopentadiene	6.992	237	71476	44.90	ppm		95
49) 2,4,6-Trichlorophenol	7.173	196	154568	38.14	ppm		99
50) 2,4,5-Trichlorophenol	7.243	196	156515	37.55	ppm		98
52) 2-Chloronaphthalene	7.419	162	426082	33.38	ppm		98
53) Biphenyl	7.393	154	619743	36.27	ppm		99
54) 2-Nitroaniline	7.575	65	209811	41.20	ppm		93
55) Dimethylphthalate	7.805	163	564602	39.00	ppm		99
56) Acenaphthylene	7.970	152	751981	35.24	ppm		100
57) 2,6-Dinitrotoluene	7.901	165	132620	40.26	ppm		98
58) 3-Nitroaniline	8.142	138	147375	38.68	ppm		100
59) Acenaphthene	8.206	153	479350	36.63	ppm		98
61) 4-Nitrophenol	8.484	109	30203	17.74	ppm	#	1
62) Dibenzofuran	8.452	168	704417	39.01	ppm		99
63) 2,4-Dinitrotoluene	8.479	165	174150	38.09	ppm		90
64) 2,3,4,6-Tetrachlorophenol	8.655	232	112326	43.99	ppm		98
65) Diethylphthalate	8.810	149	591014	39.05	ppm		98
66) Fluorene	8.949	166	567213	38.87	ppm		99
67) 4-Chlorophenyl-phenyle...	8.960	204	269349	39.70	ppm		97
68) 4-Nitroaniline	9.029	138	153236	39.18	ppm		91
70) 4,6-Dinitro-2-methylph...	9.083	198	27758	13.84	ppm		88
71) n-Nitrosodiphenylamine	9.147	169	401506	41.22	ppm		98
72) 1,2-Diphenylhydrazine	9.195	77	723905	42.30	ppm		97
74) 4-Bromophenyl-phenylether	9.693	248	162914	40.65	ppm		93
75) Hexachlorobenzene	9.773	284	185752	39.74	ppm		99
76) Pentachlorophenol	10.115	266	55396	46.64	ppm		94
77) Phenanthrene	10.409	178	837985	39.00	ppm		99
78) Anthracene	10.490	178	852445	39.33	ppm		99
79) Carbazole	10.778	167	788622	39.88	ppm		99
80) Di-n-butylphthalate	11.361	149	1012525	39.86	ppm		99
81) Fluoranthene	12.287	202	897920	41.16	ppm		99
82) Octadecane	10.265	57	271519	25.98	ppm		98
84) Pyrene	12.645	202	921522	37.74	ppm		99

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84533.D
Acq On : 10 Jun 2016 2:29 pm
Operator : ashleyn
Sample : op94650-msd
Misc : op94650,e2m3726,455
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 10 16:35:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
86) Butylbenzylphthalate	13.752	149	438981	36.28 ppm		98
87) Benzo[a]anthracene	14.576	228	873124	38.68 ppm		98
88) 3,3'-Dichlorobenzidine	14.571	252	664745	77.34 ppm		100
89) Chrysene	14.629	228	797350	37.89 ppm		99
90) bis(2-Ethylhexyl)phtha...	14.699	149	569090	36.01 ppm		98
92) Di-n-octylphthalate	15.694	149	962701	33.76 ppm		100
93) Benzo[b]fluoranthene	16.197	252	782234	37.30 ppm		98
94) Benzo[k]fluoranthene	16.234	252	777536	40.81 ppm		100
95) Benzo[a]pyrene	16.646	252	683718	39.53 ppm		99
96) Indeno[1,2,3-cd]pyrene	18.464	276	778437	37.88 ppm		98
98) Dibenz[a,h]anthracene	18.497	278	652697	36.86 ppm		99
99) 7,12-Dimethylbenz(a)an...	16.175	256	280776	30.53 ppm		97
100) Benzo[g,h,i]perylene	18.967	276	616497	35.13 ppm		98
102) Benzaldehyde	4.569	105	221907	36.64 ppm		93
104) 1,2,4,5-Tetrachloroben...	7.018	216	193263	37.52 ppm		99
106) Benzidine	12.554	184	740646	Below Cal		98
109) Atrazine	9.998	215	85398	44.85 ppm	#	71

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

7.4.2

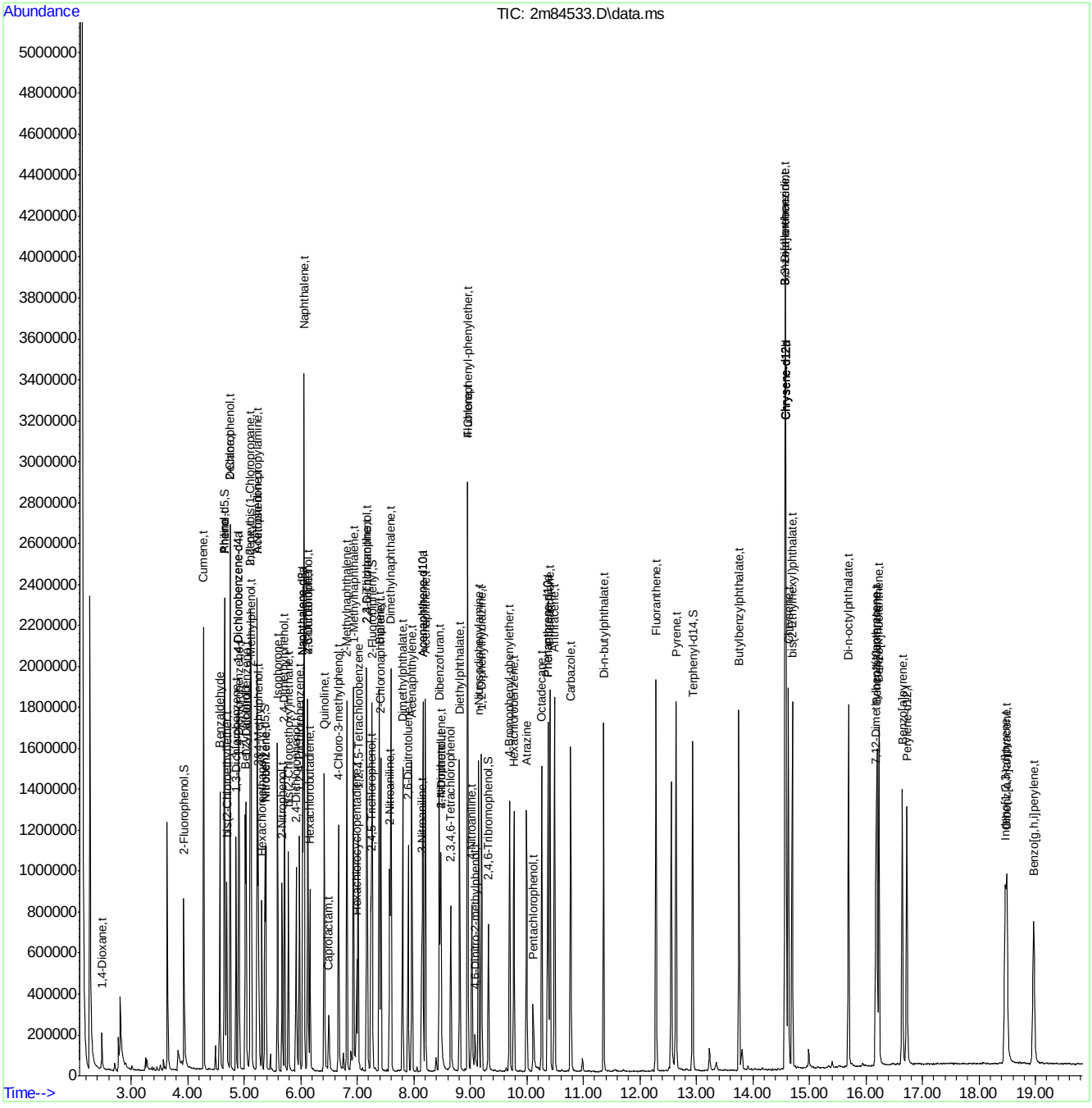
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84533.D
Acq On : 10 Jun 2016 2:29 pm
Operator : ashleyn
Sample : op94650-msd
Misc : op94650,e2m3726,455
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 10 16:35:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65933.D
Acq On : 11 Jun 2016 1:25 am
Operator : juliusj
Sample : op94650a-ms
Misc : op94650a,e4m2960,465
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 09:46:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.677	152	64267	4.00	ppm	#	0.00
12) Fluorene-d10	12.631	176	112842	4.00	ppm		-0.02
22) Fluoranthene-d10	16.830	212	197215	4.00	ppm		-0.02
28) Benzo(a)pyrene-d12	21.429	264	154562	4.00	ppm		-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	63874	4.00	ppm	#	0.00
38) Fluorene-d10a	12.631	176	112842	4.00	ppm		-0.02
System Monitoring Compounds							
2) 2-Fluorophenol	4.038	112	382598	28.84	ppm		0.03
Spiked Amount 50.000	Range 11 - 58		Recovery	=	57.68%		
3) Phenol-d5	5.429	99	549646	25.83	ppm		0.03
Spiked Amount 50.000			Recovery	=	51.66%		
6) Nitrobenzene-d5	6.868	82	584323	34.89	ppm		-0.02
Spiked Amount 50.000			Recovery	=	69.78%		
11) 2-Fluorobiphenyl	10.321	172	1023383	36.46	ppm		-0.02
Spiked Amount 50.000			Recovery	=	72.92%		
17) 2,4,6-Tribromophenol	13.204	330	267392	60.49	ppm		0.00
Spiked Amount 50.000			Recovery	=	120.98%		
25) Terphenyl-d14	17.640	244	685771	29.18	ppm		-0.02
Spiked Amount 50.000			Recovery	=	58.36%		
Target Compounds							Qvalue
4) Phenol	5.443	94	80857	3.41	ppm		86
5) bis(2-Chloroethyl)ether	5.498	93	13231	0.79	ppm	#	67
7) Naphthalene	8.198	128	60928	1.01	ppm		97
8) Hexachlorobutadiene	8.477	225	6317	0.68	ppm		88
9) 2-Methylnaphthalene	9.558	142	21619	0.86	ppm	#	62
10) Hexachlorocyclopentadiene	10.083	237	387	0.35	ppm	#	41
13) Acenaphthylene	11.309	152	32361	1.19	ppm		98
14) Acenaphthene	11.664	153	19897	1.17	ppm		96
15) Dibenzofuran	12.019	168	35208	1.13	ppm		95
16) Fluorene	12.703	166	43627	1.49	ppm	#	66
18) Hexachlorobenzene	13.780	284	10387	0.98	ppm		99
19) Pentachlorophenol	14.251	266	16325	3.51	ppm		91
20) Phenanthrene	14.590	178	50509	1.14	ppm		100
21) Anthracene	14.703	178	725373	17.33	ppm		99
23) Fluoranthene	16.868	202	52845	1.03	ppm		81
24) Pyrene	17.244	202	55138	1.03	ppm		98
26) Benzo[a]anthracene	19.353	228	39919	0.99	ppm	#	79
27) Chrysene	19.409	228	38235	0.89	ppm		82
29) Benzo[b]fluoranthene	21.002	252	36184	0.64	ppm		97
30) Benzo[k]fluoranthene	21.043	252	25922	0.56	ppm		96
31) Benzo[a]pyrene	21.457	252	28183	0.60	ppm		98
32) Indeno[1,2,3-cd]pyrene	22.971	276	21921	0.40	ppm		97
33) Dibenz[a,h]anthracene	23.012	278	17017	0.39	ppm		96
34) Benzo[g,h,i]perylene	23.357	276	20053	0.41	ppm		100
36) 1,4-Dioxane	2.216	88	327485	57.72	ppm		75
39) 4,6-dinitro-2-methylph...	12.894	198	8317	2.30	ppm	#	32
40) 1,2-Diphenylhydrazine	13.061	77	36995	1.45	ppm		90

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65933.D
Acq On : 11 Jun 2016 1:25 am
Operator : juliusj
Sample : op94650a-ms
Misc : op94650a,e4m2960,465
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 09:46:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.013	169	27837	1.34	ppm	88

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

7.4.3

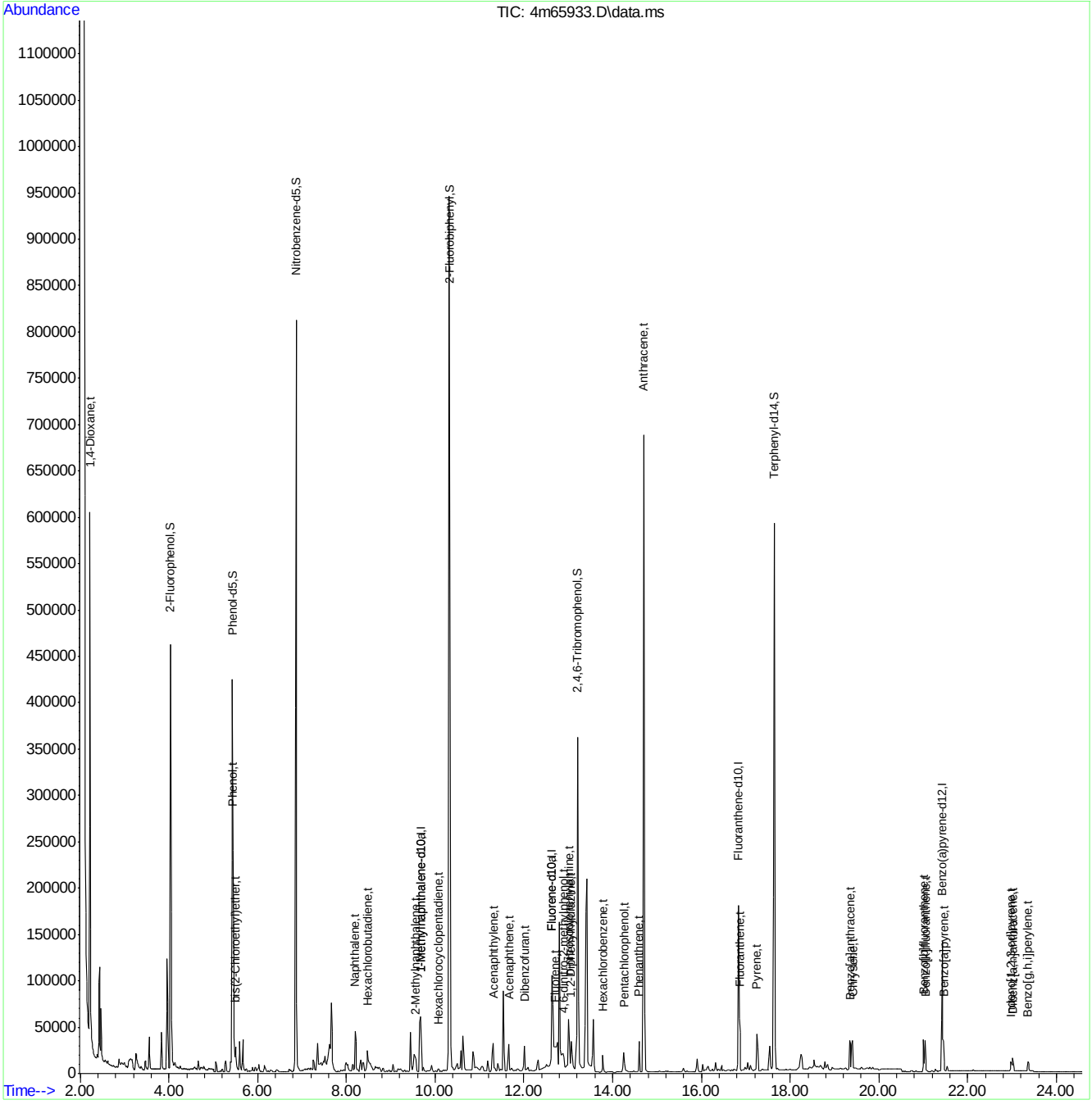
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65933.D
Acq On : 11 Jun 2016 1:25 am
Operator : juliusj
Sample : op94650a-ms
Misc : op94650a,e4m2960,465
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 09:46:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration



M4M2958SIM.M Mon Jun 13 10:04:23 2016 MANAGER Page: 3

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
06/22/16 17:05

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65934.D
Acq On : 11 Jun 2016 1:54 am
Operator : juliusj
Sample : op94650a-msd
Misc : op94650a,e4m2960,465
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 13 09:46:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.677	152	63724	4.00	ppm	#	0.00
12) Fluorene-d10	12.631	176	108548	4.00	ppm		-0.02
22) Fluoranthene-d10	16.830	212	197969	4.00	ppm		-0.02
28) Benzo(a)pyrene-d12	21.429	264	148793	4.00	ppm		-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	63372	4.00	ppm	#	0.00
38) Fluorene-d10a	12.631	176	108548	4.00	ppm		-0.02
System Monitoring Compounds							
2) 2-Fluorophenol	4.038	112	395440	30.06	ppm		0.03
Spiked Amount 50.000	Range 11 - 58		Recovery	=	60.12%#		
3) Phenol-d5	5.429	99	554301	26.27	ppm		0.03
Spiked Amount 50.000			Recovery	=	52.54%		
6) Nitrobenzene-d5	6.868	82	525119	31.62	ppm		-0.02
Spiked Amount 50.000			Recovery	=	63.24%		
11) 2-Fluorobiphenyl	10.321	172	1012118	36.37	ppm		-0.02
Spiked Amount 50.000			Recovery	=	72.74%		
17) 2,4,6-Tribromophenol	13.204	330	252299	59.34	ppm		0.00
Spiked Amount 50.000			Recovery	=	118.68%		
25) Terphenyl-d14	17.640	244	717003	30.39	ppm		-0.02
Spiked Amount 50.000			Recovery	=	60.78%		
Target Compounds							Qvalue
4) Phenol	5.443	94	80840	3.44	ppm		84
5) bis(2-Chloroethyl)ether	5.498	93	12096	0.73	ppm	#	67
7) Naphthalene	8.198	128	51582m	0.86	ppm		
8) Hexachlorobutadiene	8.477	225	5516	0.60	ppm		87
9) 2-Methylnaphthalene	9.534	142	21095	0.85	ppm		84
10) Hexachlorocyclopentadiene	10.083	237	387	0.35	ppm	#	48
13) Acenaphthylene	11.309	152	31872	1.22	ppm		98
14) Acenaphthene	11.664	153	19319	1.18	ppm		97
15) Dibenzofuran	12.019	168	34626	1.15	ppm		100
16) Fluorene	12.679	166	39221	1.40	ppm		81
18) Hexachlorobenzene	13.780	284	10255	1.00	ppm		97
19) Pentachlorophenol	14.251	266	13764	3.08	ppm		94
20) Phenanthrene	14.590	178	47848	1.12	ppm		99
21) Anthracene	14.703	178	630767	15.67	ppm		99
23) Fluoranthene	16.868	202	48175	0.94	ppm		80
24) Pyrene	17.244	202	53224	0.99	ppm		97
26) Benzo[a]anthracene	19.334	228	38665	0.95	ppm		99
27) Chrysene	19.409	228	36343	0.84	ppm		80
29) Benzo[b]fluoranthene	21.002	252	35172	0.65	ppm		95
30) Benzo[k]fluoranthene	21.043	252	23783	0.53	ppm		94
31) Benzo[a]pyrene	21.457	252	25814	0.57	ppm		96
32) Indeno[1,2,3-cd]pyrene	22.971	276	20808	0.40	ppm		98
33) Dibenz[a,h]anthracene	23.012	278	16279	0.39	ppm		97
34) Benzo[g,h,i]perylene	23.357	276	18911	0.40	ppm		100
36) 1,4-Dioxane	2.216	88	280936	49.91	ppm		92
39) 4,6-dinitro-2-methylph...	12.894	198	7874	2.27	ppm	#	30
40) 1,2-Diphenylhydrazine	13.061	77	32804	1.33	ppm		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65934.D
Acq On : 11 Jun 2016 1:54 am
Operator : juliusj
Sample : op94650a-msd
Misc : op94650a,e4m2960,465
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 13 09:46:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.013	169	26820	1.34	ppm	88

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

7.4.4

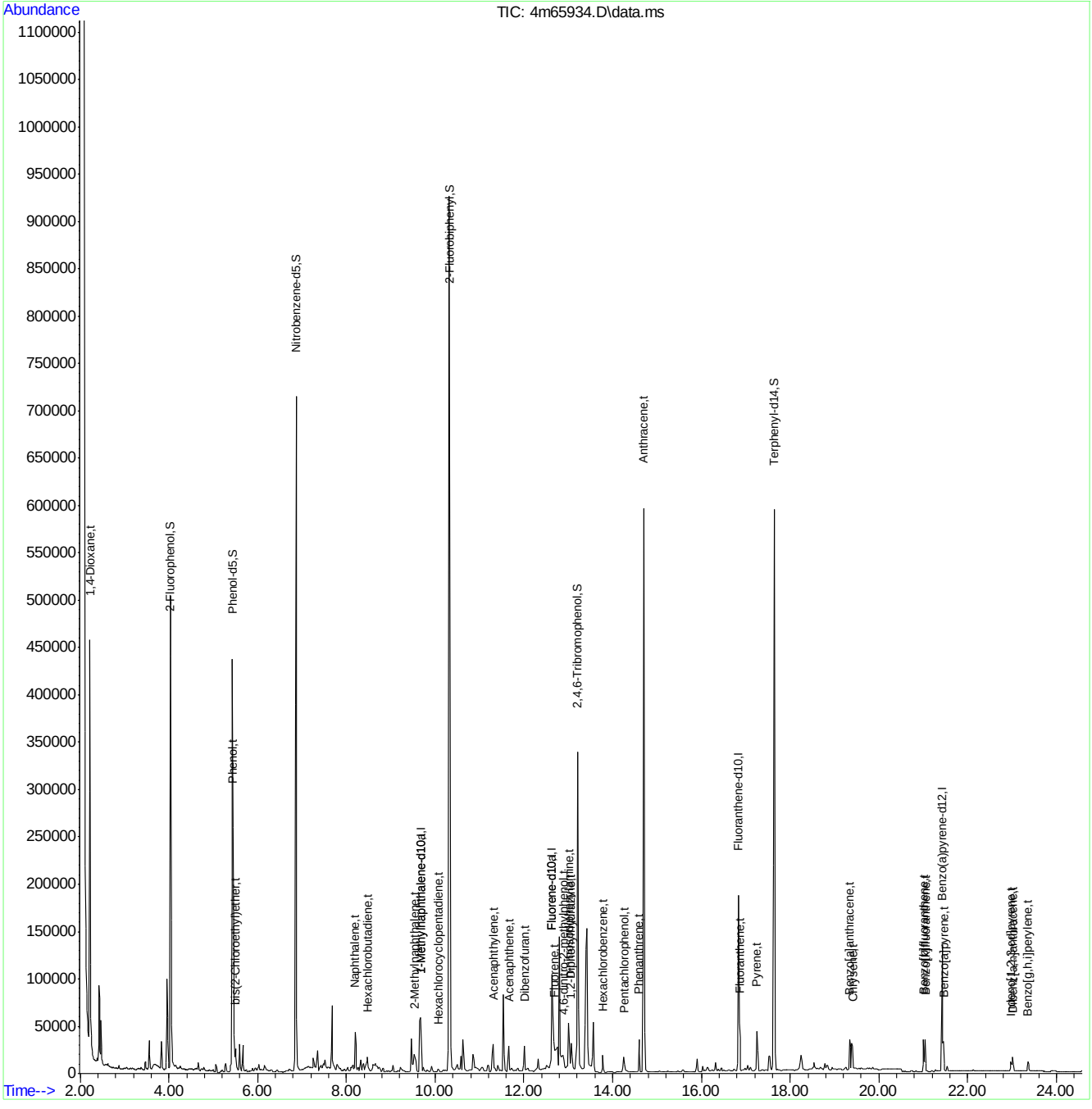
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65934.D
Acq On : 11 Jun 2016 1:54 am
Operator : juliusj
Sample : op94650a-msd
Misc : op94650a,e4m2960,465
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 13 09:46:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Manual Integration Approval Summary

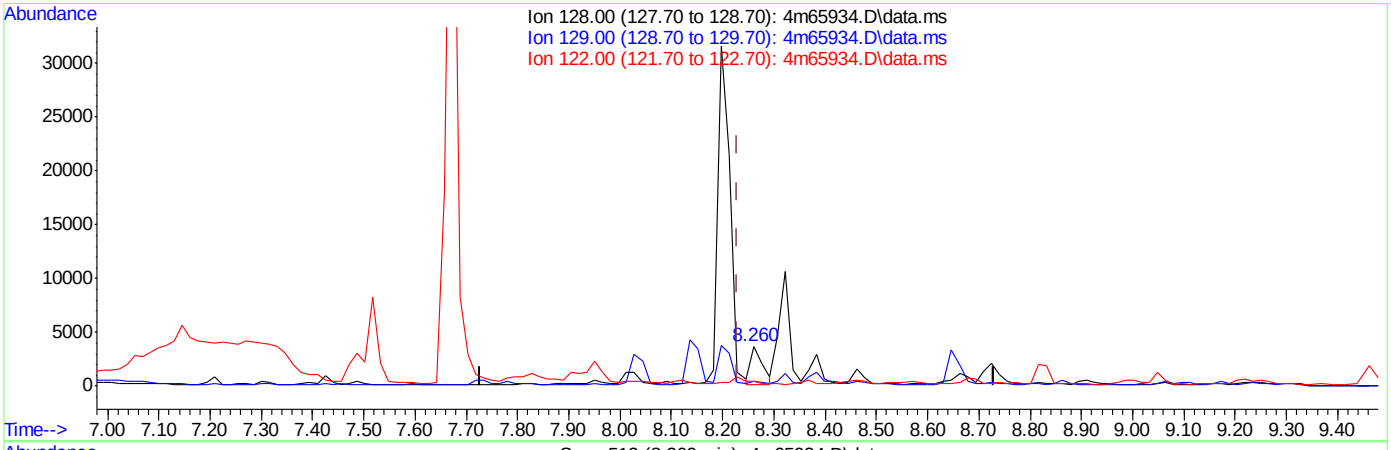
Sample Number:	OP94650A-MSD	**Method:**	SW846 8270D BY SIM
Lab FileID:	4M65934.D	**Analyst approved:**	06/13/16 10:18 Linsey Kirschmann
Injection Time:	06/11/16 01:54	**Supervisor approved:**	06/22/16 17:05 Nina Pandya

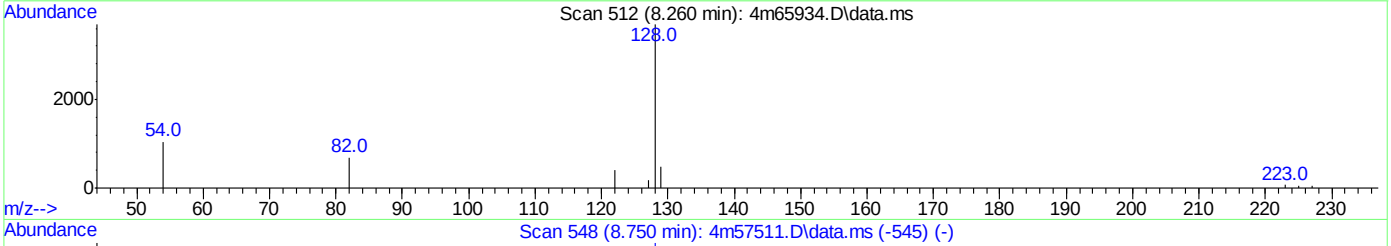
Parameter	CAS	Sig#	R.T. (min.)	Reason
Naphthalene	91-20-3		8.20	Poor instrument integration

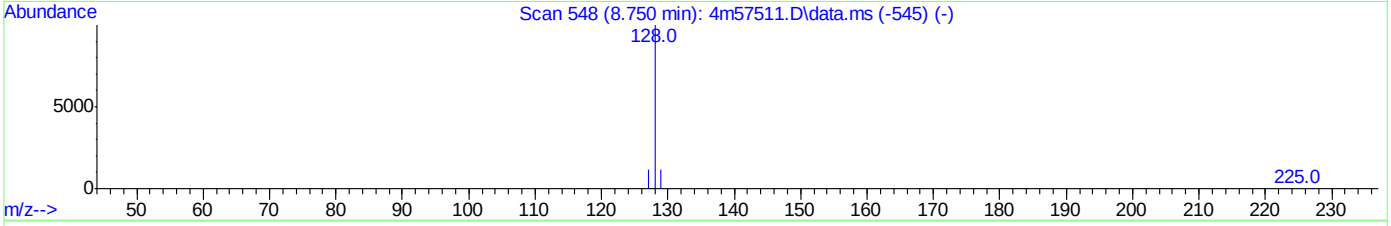
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65934.D
Acq On : 11 Jun 2016 1:54 am
Operator : juliusj
Sample : op94650a-msd
Misc : op94385a,e4m2960,465
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 11 02:19:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration







TIC: 4m65934.D\data.ms

(7) Naphthalene (t)

8.260min (+0.031) 0.09ppm

response 5654

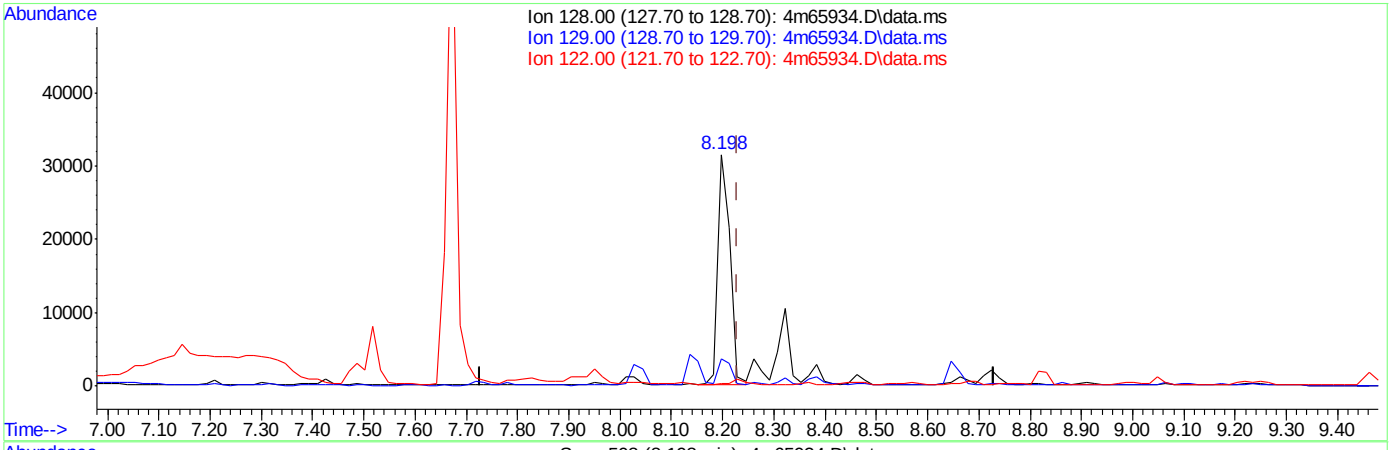
Ion	Exp%	Act%
128.00	100	100
129.00	11.70	8.76
122.00	0.20	0.94
0.00	0.00	0.00

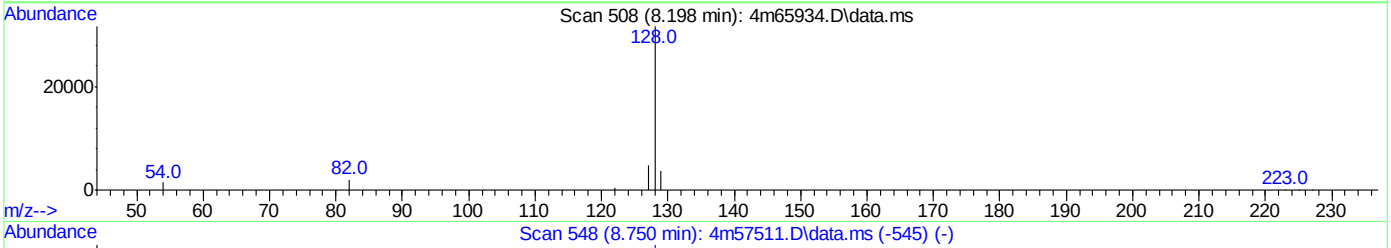
SGS ACCUTEST JC21709

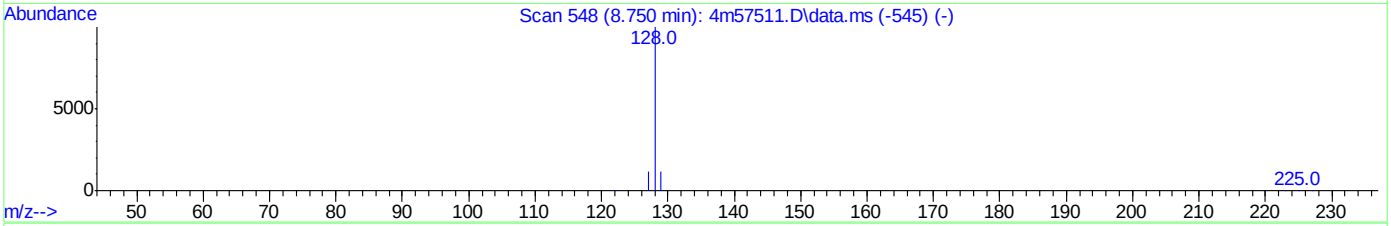
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65934.D
Acq On : 11 Jun 2016 1:54 am
Operator : juliusj
Sample : op94650a-msd
Misc : op94385a,e4m2960,465
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 11 02:19:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration







TIC: 4m65934.D\data.ms

(7) Naphthalene (t)

8.198min (-0.031) 0.86ppm m

response 51582

Ion	Exp%	Act%
128.00	100	100
129.00	11.70	11.88
122.00	0.20	1.09
0.00	0.00	0.00

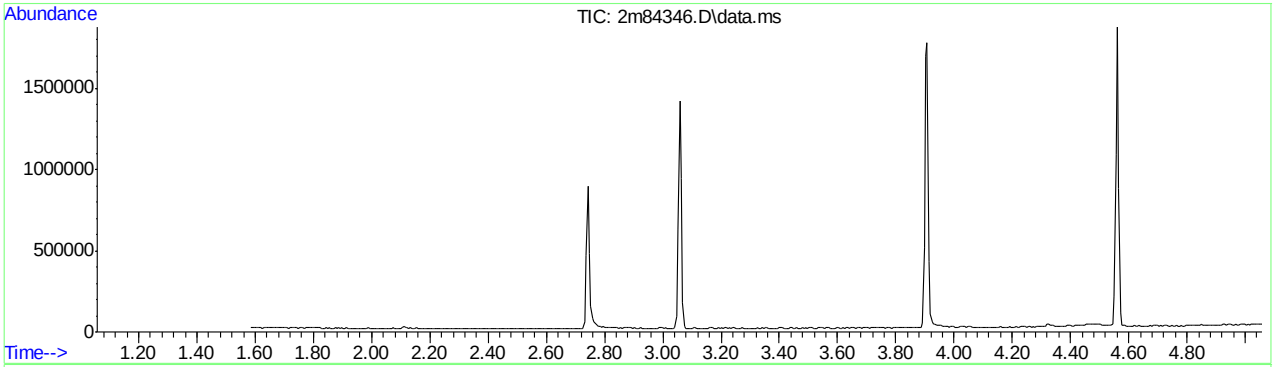
SGS ACCUTEST JC21709

DFTPP

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84346.D
Acq On : 2 Jun 2016 3:54 pm
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3714
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\dftpp2m.M
Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Mar 24 11:54:32 2016
Last Update : Thu Mar 24 11:54:32 2016



AutoFind: Scans 275, 276, 277; Background Corrected with Scan 271

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	52.9	51982	PASS
68	69	0.00	2	1.4	780	PASS
69	198	0.00	100	58.6	57615	PASS
70	69	0.00	2	0.4	214	PASS
127	198	40	60	57.3	56370	PASS
197	198	0.00	1	0.6	560	PASS
198	198	100	100	100.0	98330	PASS
199	198	5	9	6.4	6263	PASS
275	198	10	30	24.6	24221	PASS
365	198	1	100	4.1	3991	PASS
441	443	0.10	100	82.1	9041	PASS
442	198	40	100	65.0	63908	PASS
443	442	17	23	17.2	11010	PASS

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	72	50.05	13118	62.10	796	71.05	67
36.05	22	51.05	51982	63.05	1833	73.10	157
37.00	240	52.10	2769	63.90	180	74.00	5784
38.05	558	53.00	124	64.10	168	75.05	8861
39.10	3499	55.05	377	65.00	1126	76.10	3134
39.95	236	56.00	1530	65.90	42	77.05	68913
42.30	37	57.00	3817	66.10	54	78.05	4493
43.95	37	57.90	102	67.00	109	79.05	4175
45.90	20	58.40	19	68.00	780	80.00	3242
47.95	40	58.95	47	69.00	57615	81.00	4200
49.00	573	60.95	481	69.95	214	82.05	1153

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.05	1103	95.00	409	105.90	325	114.10	21
83.90	88	96.00	227	106.10	189	115.05	80
85.00	846	97.00	7	107.05	19642	116.05	1033
85.90	996	98.00	5571	108.00	3333	116.95	15085
87.00	426	99.00	4214	109.10	347	118.00	1170
87.95	368	100.05	404	110.00	31652	118.95	235
89.00	55	101.00	2425	111.05	4674	120.05	290
91.00	883	101.90	228	111.90	164	120.95	72
92.05	1106	102.95	617	112.05	519	122.00	946
93.00	7251	104.05	1428	113.00	88	123.00	1948
94.00	563	105.05	1473	113.20	121	123.95	648

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
125.00	675	134.00	503	144.00	157	154.00	729
126.05	85	135.00	1701	145.00	229	155.05	1392
127.05	56370	136.05	630	146.00	476	156.05	2519
128.00	4343	137.00	1051	147.00	1460	157.05	422
129.00	22915	138.05	196	148.00	3325	158.00	428
129.95	1822	138.60	41	149.00	707	159.00	356
131.00	290	140.00	324	149.90	85	160.05	929
131.80	66	141.05	3035	151.10	293	161.00	1341
132.05	328	142.00	947	151.70	81	161.90	331
132.80	34	142.80	32	152.00	199	163.00	27
133.00	113	143.10	525	153.00	719	163.95	206

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
165.00	1044	174.05	1022	183.85	53	194.05	469
166.05	810	175.10	2114	184.10	105	194.90	49
167.05	5244	176.05	564	185.05	1733	195.05	118
168.00	2793	177.00	889	186.10	14718	196.00	2235
169.05	531	178.05	532	187.10	4332	197.00	560
169.95	110	179.00	4072	188.05	452	198.00	98330
170.20	218	180.05	2616	189.00	921	198.95	6263
170.60	20	181.05	1081	189.95	198	200.00	281
171.05	127	182.05	273	191.00	242	200.20	224
172.05	575	183.00	100	192.05	1374	201.10	60
173.05	615	183.20	47	193.10	1617	201.30	144

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
201.70	221	210.50	114	219.75	53	227.90	98
202.10	30	211.05	1062	220.15	49	228.10	815
203.00	786	211.90	45	221.05	3633	229.00	1382
204.10	4162	212.05	66	221.60	159	230.00	281

dftpp2m.M Fri Jun 03 08:22:50 2016 Page: 2

205.10	6561	213.15	121	221.90	173	231.00	503
206.05	25190	214.20	30	222.10	687	231.85	109
207.10	3430	215.05	318	223.05	1651	232.30	27
208.05	1075	216.05	504	224.10	14550	233.05	94
209.00	235	217.05	6907	225.10	3621	234.05	498
210.00	196	218.00	819	226.05	184	235.05	464
210.20	48	218.90	50	227.10	7085	235.70	31

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
236.05	375	246.05	2637	255.10	56757	264.05	80
237.00	282	247.00	429	256.10	7987	265.05	1578
237.20	196	247.95	81	257.00	528	265.90	147
238.10	53	249.05	359	258.00	3554	268.40	20
239.05	289	249.90	115	259.00	368	271.05	133
239.95	240	250.10	22	260.10	143	271.60	59
240.95	330	251.00	127	261.00	117	272.00	175
242.00	851	251.90	63	262.10	22	273.05	1813
243.10	665	252.10	201	263.05	88	274.10	4355
244.10	10892	253.05	184	263.60	32	275.05	24221
245.05	1439	253.95	345	263.80	62	276.05	3203

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
277.10	2415	286.15	50	295.00	212	304.90	16
278.00	335	286.85	52	296.05	7760	305.10	36
279.05	64	288.25	62	297.05	1304	305.40	17
280.00	19	289.00	73	298.10	97	306.40	25
280.80	25	290.05	128	299.20	18	307.90	120
281.60	17	290.95	58	300.20	27	308.10	95
282.10	42	292.10	238	300.75	63	309.05	133
282.95	162	292.80	51	301.20	65	309.95	105
284.00	241	292.95	391	301.95	163	310.90	34
285.05	346	293.70	32	303.10	914	311.20	19
285.90	22	294.10	162	304.10	285	312.90	98

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
314.05	358	325.85	90	336.80	30	349.10	23
315.00	871	326.95	528	339.00	75	349.90	25
316.05	426	327.80	23	340.00	18	350.70	21
317.10	123	328.05	267	340.70	19	351.20	48
320.70	85	328.95	65	341.10	313	352.00	769
321.10	209	330.00	40	341.80	42	353.05	485
321.80	18	331.95	194	342.10	46	353.80	34
322.05	232	333.05	230	343.30	17	354.05	955
323.10	2414	334.05	1848	344.40	19	355.00	166
324.10	456	335.00	331	345.95	520	356.20	18
325.00	35	336.10	22	346.90	85	357.05	78

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
358.90	27	373.05	304	385.00	61	404.05	283
359.20	36	374.10	54	386.20	17	405.00	69
362.85	48	374.60	18	390.00	227	405.80	19
363.30	19	375.70	21	390.70	50	407.80	18
365.00	3991	377.40	31	391.00	149	408.80	17
365.95	549	378.20	18	391.90	42	410.20	25
367.10	60	378.70	21	392.10	28	414.80	19
367.90	18	381.20	20	393.00	22	416.90	30
369.90	70	382.80	195	401.05	106	419.00	20
371.00	255	383.10	262	401.95	568	421.00	667
372.05	1184	384.10	122	403.05	730	422.00	722

Average of 3.052 to 3.063 min.: 2m84346.D\data.ms

dftpp2m.M Fri Jun 03 08:22:50 2016 Page: 3

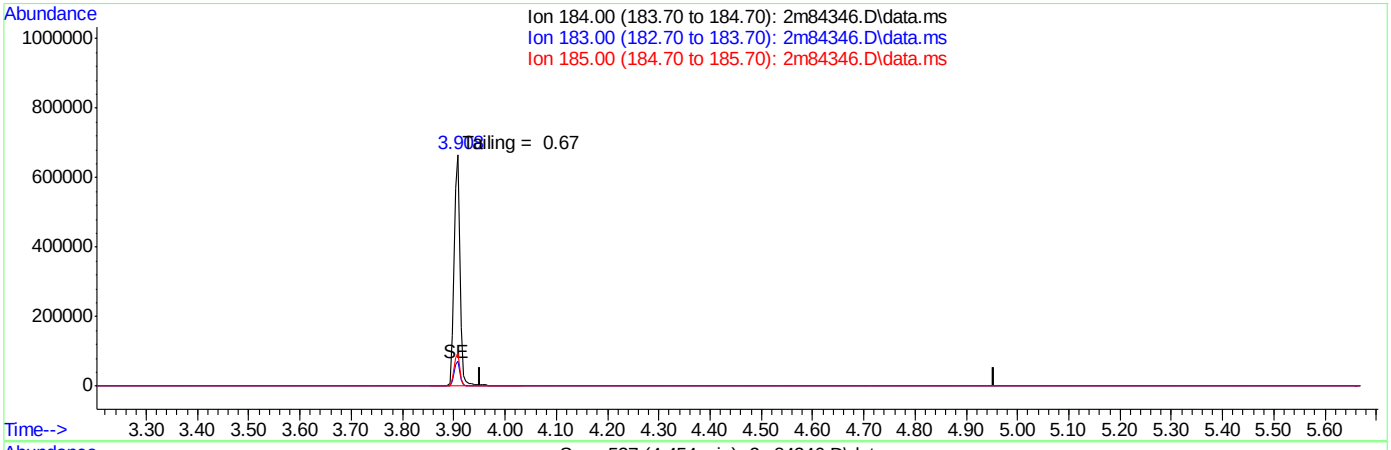
dftpp
Modified:subtracted

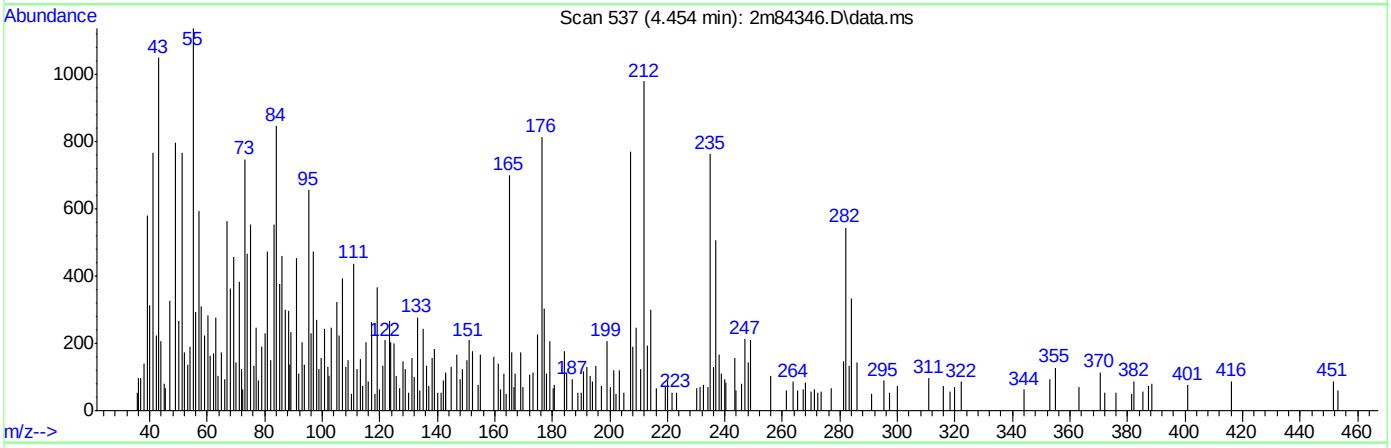
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
422.90	288	442.10	63908				
423.10	4065	443.10	11010				
424.05	769	444.00	1117				
424.90	92	445.10	76				
425.30	17	452.10	36				
425.60	33	467.50	31				
428.20	18	493.50	18				
432.90	51						
435.30	19						
440.20	57						
441.10	9041						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84346.D
Acq On : 2 Jun 2016 3:54 pm
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3714
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 02 16:03:40 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Mar 24 11:54:32 2016
QLast Update : Thu Mar 24 11:54:32 2016
Response via : Initial Calibration





TIC: 2m84346.D\data.ms

(1) Benzidine

4.454min 0.00 d

response 0

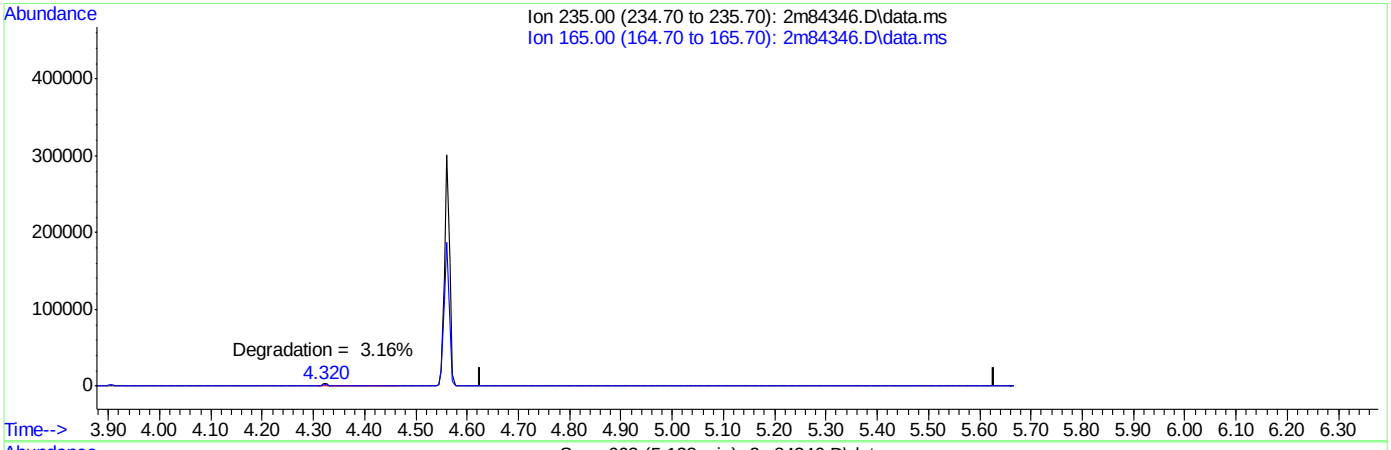
Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

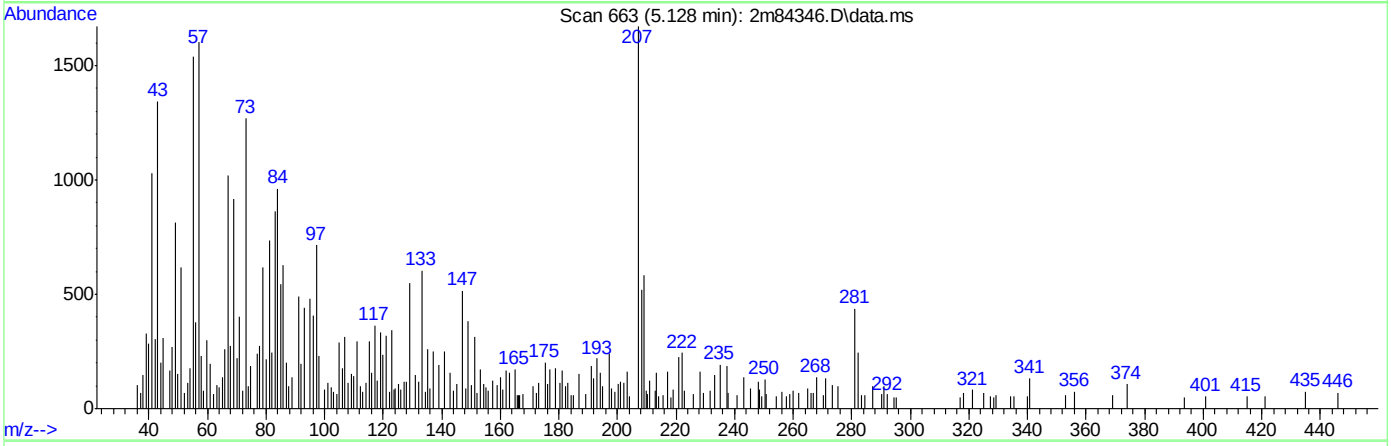
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84346.D
Acq On : 2 Jun 2016 3:54 pm
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3714
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 02 16:03:40 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Mar 24 11:54:32 2016
QLast Update : Thu Mar 24 11:54:32 2016
Response via : Initial Calibration





TIC: 2m84346.D\data.ms

(2) ddt

5.128min (-5.128) 0.00

response 0

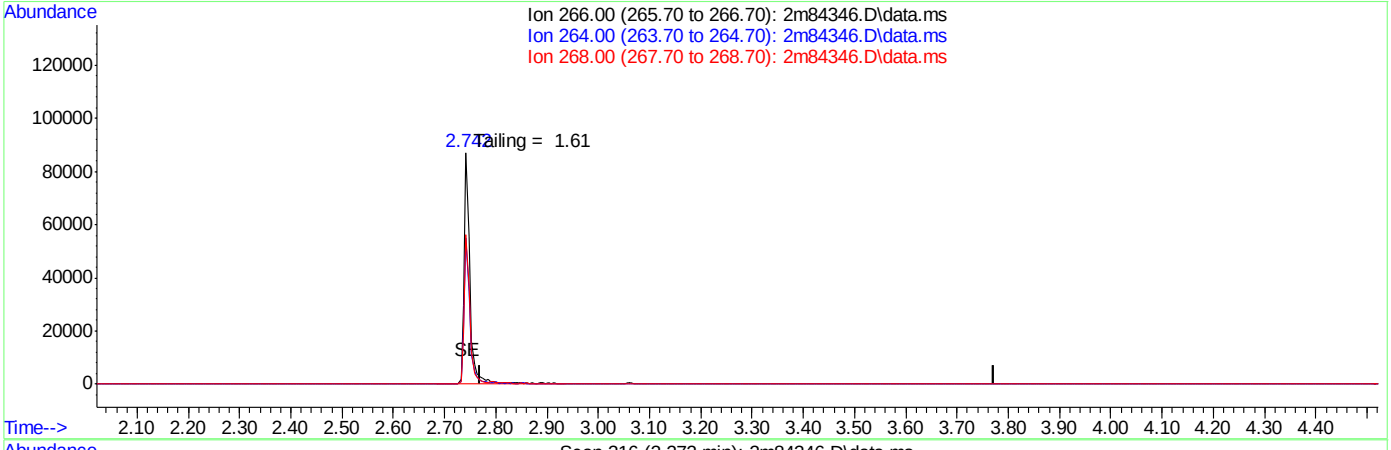
Ion	Exp%	Act%
235.00	100	0.00
165.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

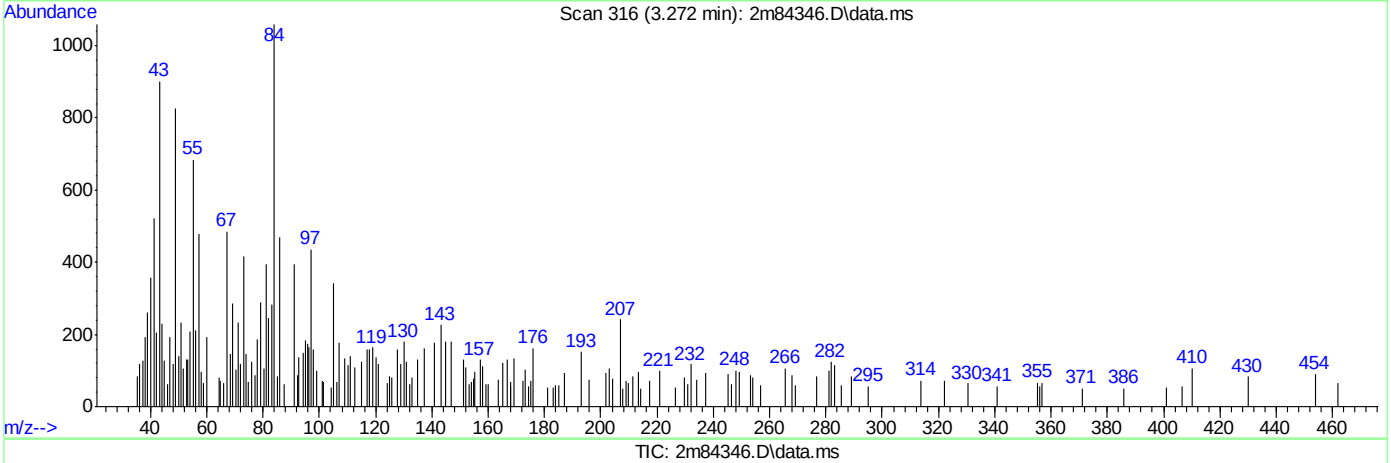
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84346.D
Acq On : 2 Jun 2016 3:54 pm
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3714
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 02 16:03:40 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Mar 24 11:54:32 2016
QLast Update : Thu Mar 24 11:54:32 2016
Response via : Initial Calibration





TIC: 2m84346.D\data.ms

(3) Pentachlorophenol

3.272min (-3.272) 0.00

response 0

Ion	Exp%	Act%
266.00	100	0.00
264.00	0.00	0.00
268.00	0.00	0.00
0.00	0.00	0.00

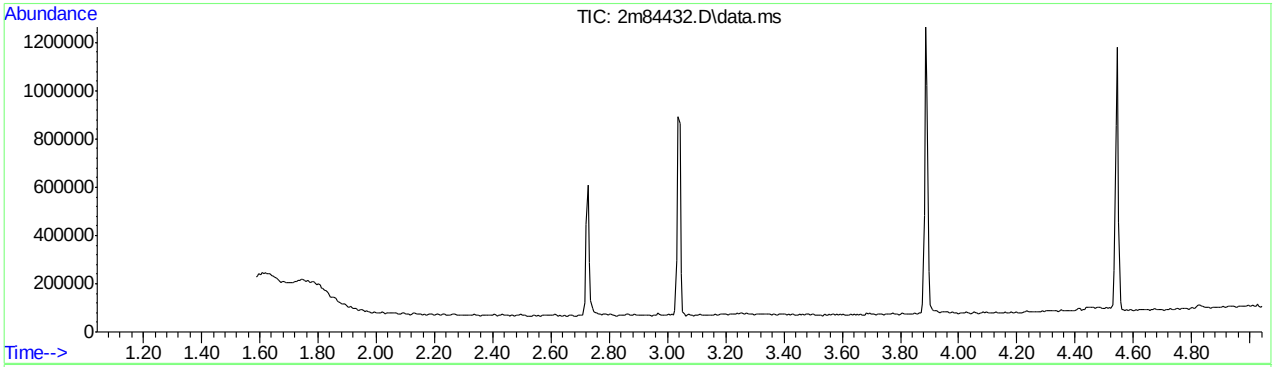
SGS ACCUTEST JC21709

DFTPP

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84432.D
Acq On : 7 Jun 2016 9:17 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3720
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\dftpp2m.M
Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Mar 24 11:54:32 2016
Last Update : Thu Mar 24 11:54:32 2016



AutoFind: Scans 272, 273, 274; 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	45.0	28076	PASS
68	69	0.00	2	1.9	578	PASS
69	198	0.00	100	47.6	29659	PASS
70	69	0.00	2	0.5	163	PASS
127	198	40	60	55.5	34590	PASS
197	198	0.00	1	0.4	231	PASS
198	198	100	100	100.0	62365	PASS
199	198	5	9	7.0	4366	PASS
275	198	10	30	25.5	15903	PASS
365	198	1	100	4.8	3000	PASS
441	443	0.10	100	77.1	5772	PASS
442	198	40	100	62.4	38906	PASS
443	442	17	23	19.2	7487	PASS

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	1666	52.00	1632	64.00	80	77.05	34428
37.00	71	52.80	30	65.05	520	78.05	2185
38.00	325	54.10	33	66.95	152	79.05	2847
39.10	2144	56.00	827	68.05	578	80.00	1899
42.05	64	57.00	2153	69.00	29659	81.10	2316
43.10	175	57.95	94	70.00	163	81.95	547
45.05	70	59.20	23	72.10	18	83.05	389
46.20	34	59.95	156	73.15	391	85.05	748
49.05	101	61.05	173	74.00	3481	86.00	967
50.05	7543	62.00	271	75.05	4970	86.95	338
51.05	28076	63.00	1171	76.00	1729	87.95	89

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.95	146	100.00	297	109.95	17462	120.00	167
90.00	75	100.95	1492	111.05	2391	120.20	40
91.00	550	101.90	27	112.00	274	120.90	118
91.95	549	102.20	38	113.00	57	122.05	603
93.05	4542	102.95	470	113.80	32	123.10	1086
93.90	301	104.00	770	115.10	149	123.95	448
94.90	342	105.00	765	115.70	34	125.05	461
96.05	381	106.05	366	116.15	548	125.90	43
98.00	2898	107.05	11181	117.10	9523	126.20	72
99.00	2308	108.05	1859	118.00	724	127.10	34590
99.70	23	108.95	93	118.90	21	128.05	2532

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
129.00	13253	138.15	102	147.05	973	156.90	244
130.00	1067	139.10	32	148.05	2324	158.05	299
131.05	418	140.10	7	149.00	252	159.00	229
132.10	204	141.05	1699	149.90	91	159.20	53
133.95	433	142.00	658	151.10	236	160.00	673
134.20	72	143.00	350	151.30	25	161.00	685
135.05	1087	144.00	217	152.05	73	161.20	77
136.00	432	144.50	40	153.05	652	162.05	264
137.00	571	144.80	49	154.00	408	162.60	30
137.20	232	145.05	103	155.05	925	163.15	126
137.90	79	145.95	376	156.05	1590	163.70	23

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
164.05	119	173.05	252	182.80	69	193.10	1073
165.05	719	174.00	508	183.10	36	193.90	136
166.00	490	175.10	1659	184.00	286	194.10	203
167.10	3224	176.00	419	185.05	1335	194.50	32
168.00	1506	177.00	729	186.10	9248	194.90	34
168.20	140	178.00	170	187.05	2560	195.20	153
169.00	185	179.00	3040	188.05	325	196.10	1263
169.80	83	180.05	1847	189.05	759	196.70	231
170.30	59	181.10	869	189.70	16	197.05	175
171.00	179	181.60	41	191.00	274	198.00	62365
172.00	421	182.10	209	192.00	647	199.00	4366

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
199.90	272	210.05	288	220.10	91	229.05	948
201.05	156	211.10	595	221.00	1966	229.80	123
201.55	121	212.00	133	221.80	78	230.00	51
202.05	27	212.60	21	222.10	469	231.00	270

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203.05	509	213.05	95	223.05	1255	231.20	75
204.00	2295	214.25	61	224.10	9932	231.95	83
205.10	4501	215.00	84	225.10	2602	232.95	15
206.10	16868	216.05	431	225.95	161	233.20	41
207.10	2226	217.05	4538	226.30	151	233.90	109
208.00	467	218.10	727	227.10	4486	234.10	221
208.95	124	219.15	56	228.05	720	235.10	540

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
236.00	224	243.05	421	251.90	65	261.10	105
237.00	446	244.10	7234	252.25	108	262.05	63
238.10	27	245.05	846	253.10	81	262.50	36
238.30	23	246.05	1589	253.60	26	263.00	20
238.60	38	247.05	311	254.00	276	263.85	7
239.00	15	248.10	73	255.10	38585	264.20	68
239.20	45	249.05	348	256.10	5741	265.05	1190
240.05	222	249.50	31	257.05	430	265.70	36
240.85	222	249.95	72	258.05	2485	265.90	36
241.10	48	250.60	27	259.00	464	266.70	23
242.10	495	251.10	103	260.10	77	267.85	54

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
269.60	20	278.10	149	286.80	26	296.10	6247
270.05	111	278.70	23	288.10	35	297.10	861
270.90	57	279.00	23	288.80	34	297.70	26
271.30	129	279.20	33	289.00	31	298.00	69
272.00	158	279.90	53	290.80	24	300.30	43
272.95	1088	280.60	42	291.15	127	301.00	120
274.10	3205	282.90	31	292.05	116	301.70	31
275.10	15903	283.20	92	293.10	384	301.95	49
276.05	2086	283.95	85	293.90	43	302.90	262
277.05	1669	285.05	374	294.25	57	303.10	321
277.90	98	286.15	86	295.00	123	303.90	122

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
304.10	46	313.05	71	324.05	298	335.10	358
304.70	39	313.90	42	325.05	42	335.90	47
306.00	19	314.15	311	325.90	41	337.10	26
306.80	31	315.00	651	327.05	401	338.90	21
307.60	20	316.10	312	328.05	173	339.80	28
308.05	71	316.85	59	329.00	65	340.20	18
308.30	33	317.30	29	331.10	18	341.00	41
309.20	65	319.10	22	332.05	164	341.15	103
310.15	123	321.10	183	333.00	44	343.20	17
310.70	17	322.10	59	333.15	129	344.00	39
311.20	19	323.10	2018	334.05	1201	345.10	17

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
346.05	516	359.00	37	371.10	131	384.70	28
346.95	33	360.00	43	371.30	61	387.40	20
347.90	21	362.10	18	372.10	917	388.10	24
351.10	41	363.70	20	372.95	266	389.20	47
351.90	156	364.10	44	373.80	20	390.10	122
352.10	409	365.00	3000	374.20	34	391.10	107
353.00	119	366.05	419	378.00	17	391.95	53
353.20	278	366.90	16	379.10	38	400.80	57
354.10	528	367.10	68	379.50	22	402.05	342
356.00	36	369.00	22	383.05	319	403.00	442
356.90	16	370.10	54	384.00	63	404.05	377

Average of 3.036 to 3.047 min.: 2m84432.D\data.ms

dftpp2m.M Tue Jun 07 12:21:52 2016 Page: 3

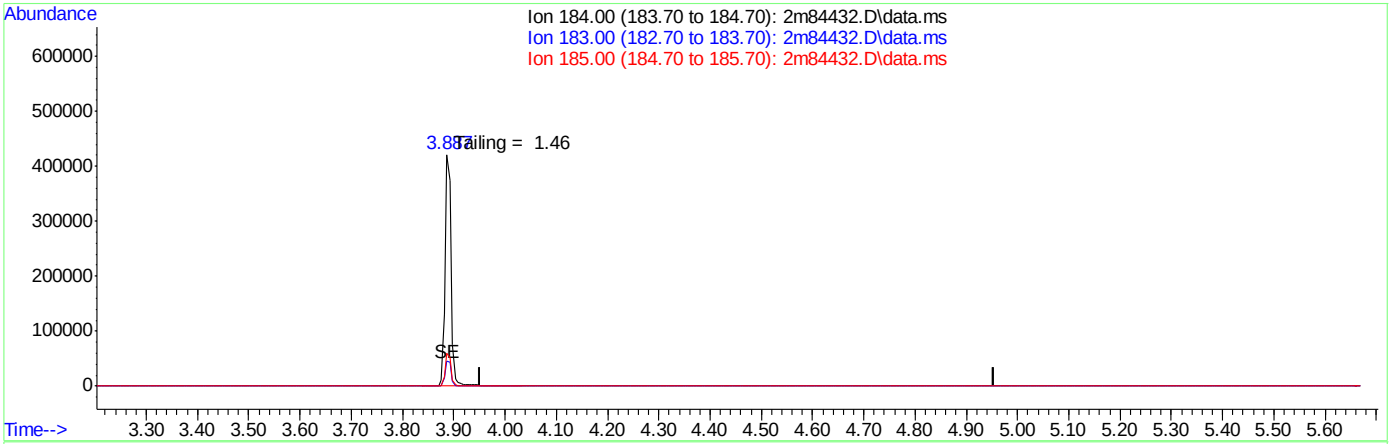
dftpp
Modified:subtracted

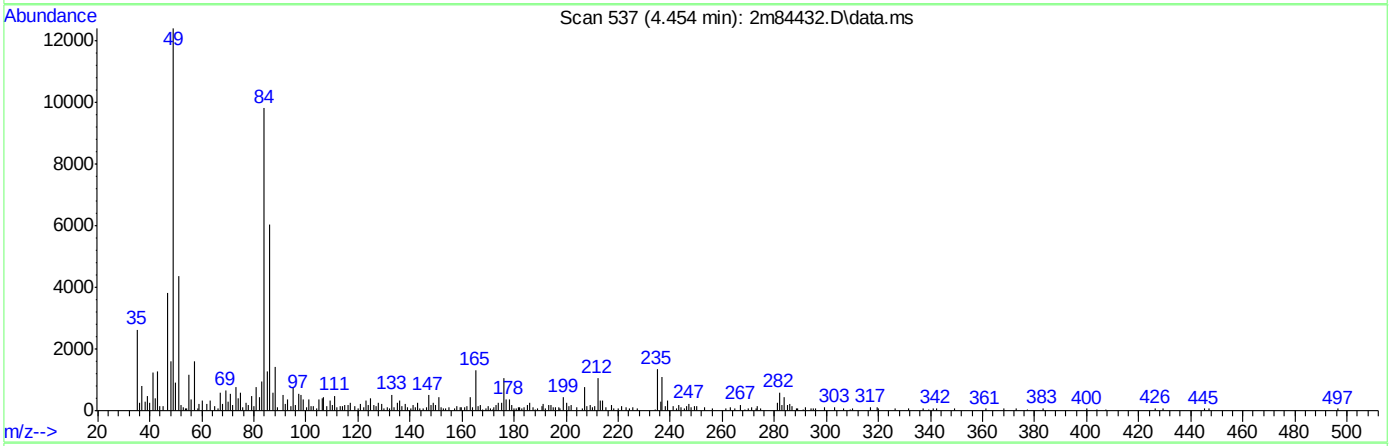
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
404.80	18	421.00	464	428.90	54	443.10	7487
409.30	30	422.05	374	429.80	42	444.05	742
413.00	18	423.10	2772	431.00	36	445.10	20
413.80	17	424.05	346	432.30	103	446.70	23
414.00	17	424.70	18	432.50	17	454.70	29
415.10	40	425.10	38	433.30	121	456.20	27
415.90	24	425.90	17	434.90	19	473.20	18
417.10	51	426.50	20	435.10	49	485.70	17
417.80	19	427.70	68	439.20	17	487.00	53
419.10	29	428.10	33	441.05	5772	495.60	23
420.00	32	428.40	18	442.10	38906		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84432.D
Acq On : 7 Jun 2016 9:17 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3720
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 09:24:36 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Mar 24 11:54:32 2016
QLast Update : Thu Mar 24 11:54:32 2016
Response via : Initial Calibration





(1) Benzidine

4.454min 0.00 d

response 0

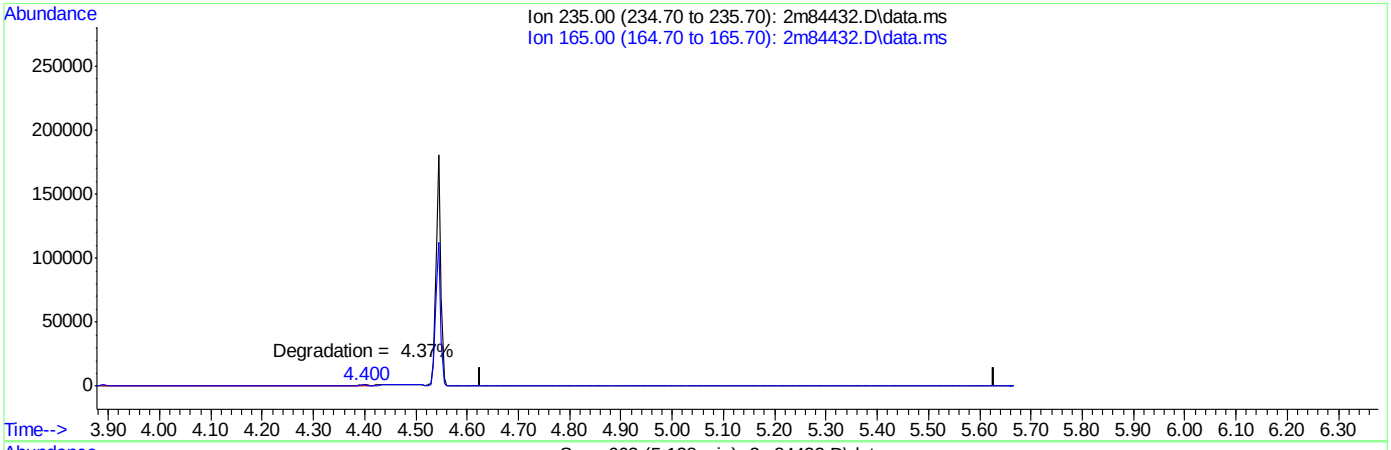
Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

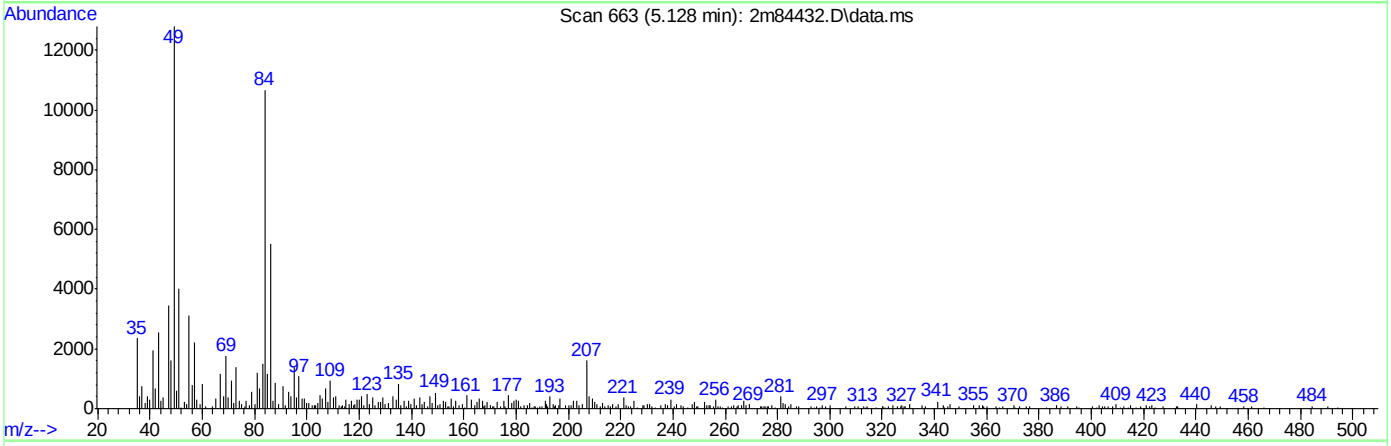
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84432.D
Acq On    :  7 Jun 2016   9:17 am
Operator  : ashleyn
Sample    : dftpp
Misc      : op94122,e2m3720
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jun 07 09:24:36 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title  : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Mar 24 11:54:32 2016
QLast Update : Thu Mar 24 11:54:32 2016
Response via : Initial Calibration
```





TIC: 2m84432.D\data.ms

(2) ddt

5.128min (-5.128) 0.00

response 0

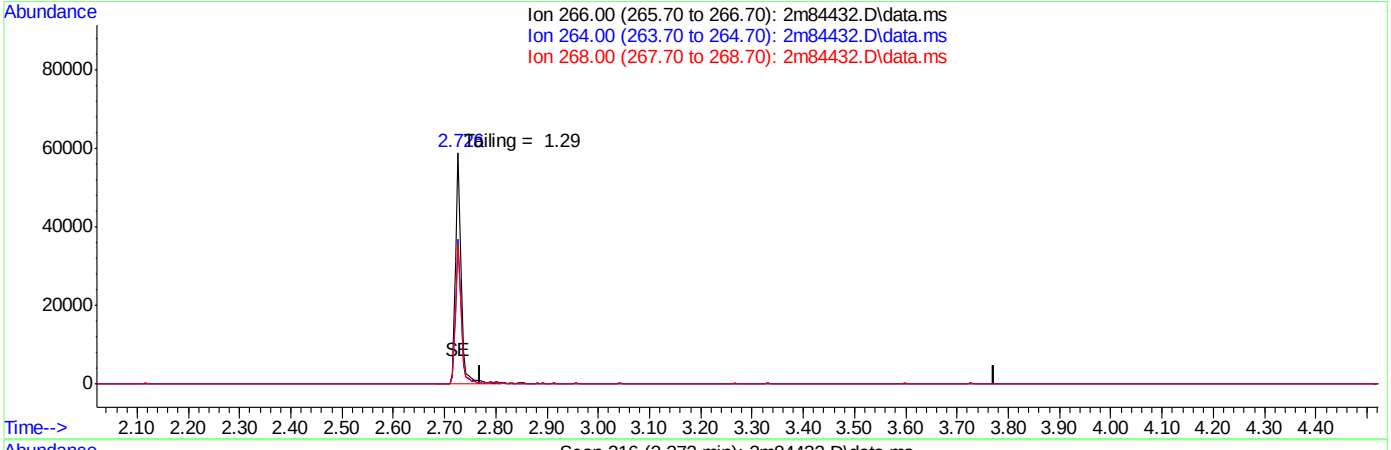
Ion	Exp%	Act%
235.00	100	0.00
165.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

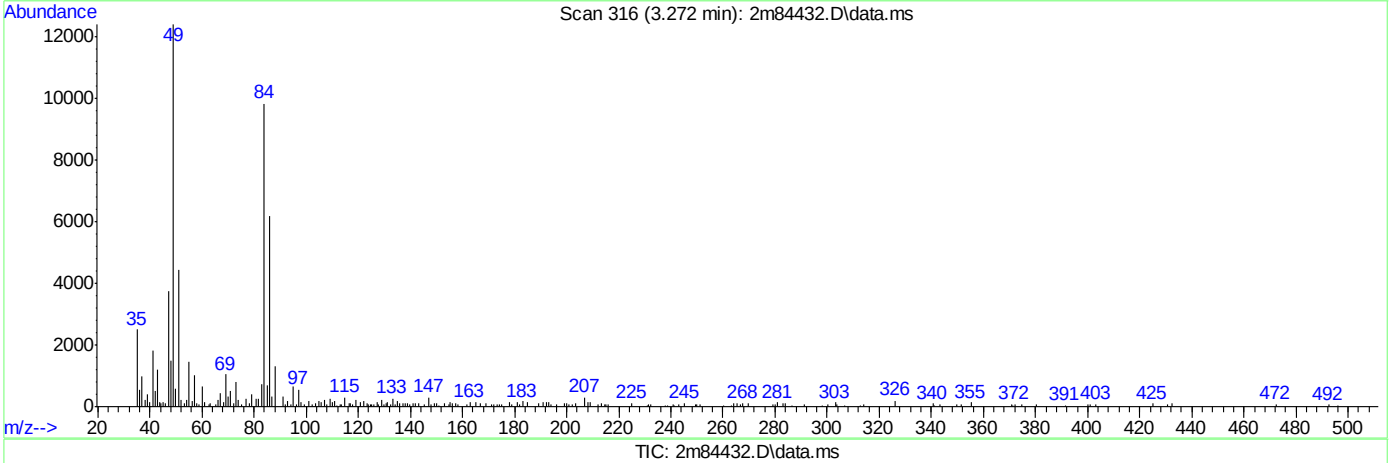
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84432.D
Acq On : 7 Jun 2016 9:17 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3720
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 09:24:36 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Mar 24 11:54:32 2016
QLast Update : Thu Mar 24 11:54:32 2016
Response via : Initial Calibration





TIC: 2m84432.D\data.ms

(3) Pentachlorophenol

3.272min (-3.272) 0.00

response 0

Ion	Exp%	Act%
266.00	100	0.00
264.00	0.00	0.00
268.00	0.00	0.00
0.00	0.00	0.00

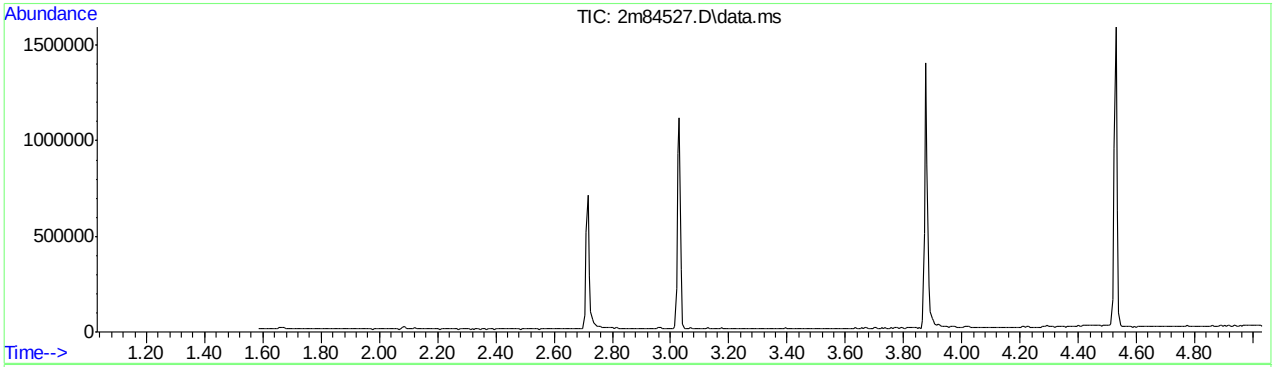
SGS ACCUTEST JC21709

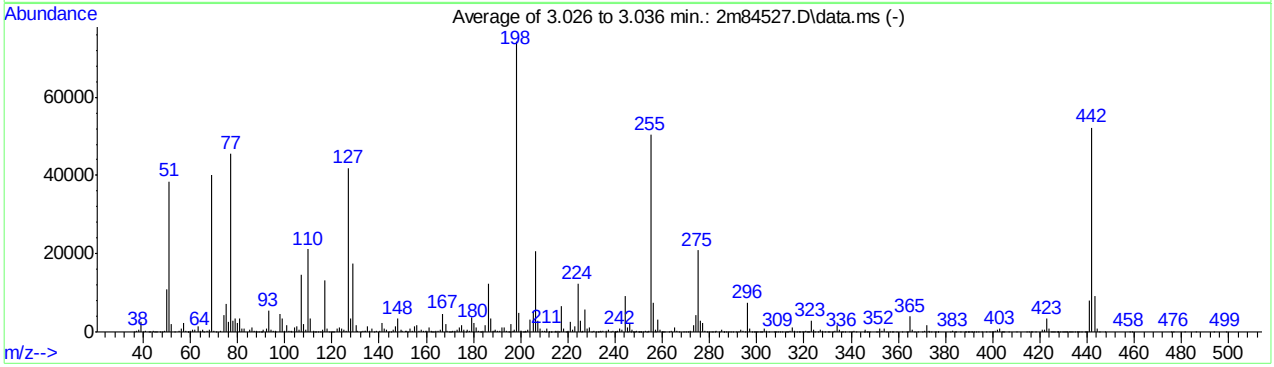
DFTPP

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84527.D
Acq On : 10 Jun 2016 11:53 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3726
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\dftpp2m.M
Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Jun 09 16:42:34 2016
Last Update : Thu Jun 09 16:42:34 2016





AutoFind: Scans 270, 271, 272; Background Corrected with Scan 265

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	51.8	38425	PASS
68	69	0.00	2	1.4	567	PASS
69	198	0.00	100	54.1	40147	PASS
70	69	0.00	2	0.5	205	PASS
127	198	40	60	56.5	41922	PASS
197	198	0.00	1	0.8	614	PASS
198	198	100	100	100.0	74224	PASS
199	198	5	9	6.7	4981	PASS
275	198	10	30	28.1	20863	PASS
365	198	1	100	5.3	3924	PASS
441	443	0.10	100	87.7	8087	PASS
442	198	40	100	70.4	52226	PASS
443	442	17	23	17.6	9216	PASS

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	41	45.70	25	58.00	270	67.10	178
37.00	224	47.00	9	58.80	37	68.00	567
38.00	441	47.95	54	59.05	82	69.00	40147
39.10	2721	49.05	434	59.95	241	70.00	205
40.05	139	50.05	10821	61.00	503	71.00	60
41.05	207	51.05	38425	62.05	638	73.00	333
42.60	41	52.10	2044	63.10	1502	74.10	4214
43.05	27	53.15	136	64.05	335	75.05	7219
44.25	202	55.00	242	65.00	584	76.10	2617
44.90	120	55.95	906	65.20	283	77.10	45475
45.20	15	57.10	2162	65.85	84	78.05	2972

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
79.05	3374	90.00	32	100.00	318	110.00	21103
80.00	2262	90.30	22	101.00	1750	111.00	3570
80.95	3385	91.05	560	102.00	187	112.05	346
82.00	926	92.10	794	102.70	35	112.85	72
83.00	772	93.05	5408	102.95	436	113.20	45
85.00	575	93.95	561	104.00	1126	114.30	38
86.00	1292	94.95	174	105.05	1333	115.10	71
87.05	393	95.90	98	106.05	460	116.00	657
87.80	91	96.20	171	107.10	14691	117.00	13183
88.10	176	98.05	4687	108.05	2113	118.10	879
88.90	13	99.00	3382	108.95	548	118.90	63

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
119.90	63	130.10	1588	140.05	308	151.05	229
120.10	46	130.95	239	141.00	2162	151.80	166
120.90	85	132.05	92	142.10	729	152.00	45
122.05	946	132.95	170	143.05	606	153.10	783
123.05	1190	134.00	304	144.10	97	153.90	400
123.95	760	134.20	282	145.05	135	155.10	1315
125.00	548	135.05	1446	146.00	505	156.00	1691
126.20	408	136.00	437	147.05	1437	157.05	293
127.10	41922	137.05	800	148.05	3382	158.00	513
128.00	3416	138.00	53	149.10	667	159.00	265
129.05	17478	139.05	215	149.95	194	159.90	335

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.10	370	168.90	370	177.15	685	187.10	3369
161.05	1013	169.90	64	178.10	384	188.00	333
161.95	201	170.20	84	179.05	3692	188.90	364
162.20	45	170.80	73	180.10	2320	189.10	546
162.80	32	171.05	218	181.00	1035	189.95	168
163.05	41	172.05	424	182.00	255	190.95	397
164.05	199	173.05	528	182.90	56	192.05	1092
165.00	401	174.05	1240	183.10	33	193.00	1209
166.00	696	175.10	1864	184.00	310	194.00	226
167.05	4631	176.05	567	185.05	1632	194.90	18
168.05	2028	176.80	61	186.10	12269	195.15	154

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
196.05	1901	202.95	630	212.00	37	219.50	39
196.60	252	204.05	3185	212.80	16	220.15	171
197.10	614	205.10	5278	213.15	73	221.05	2592
198.00	74224	206.10	20692	214.20	48	222.00	579

dftpp2m.M Fri Jun 10 16:27:43 2016 Page: 2

199.00	4981	207.10	2750	214.60	30	223.05	1466
199.90	277	208.10	784	215.05	360	224.10	12249
200.10	402	209.00	297	215.95	310	225.10	2778
200.90	28	210.10	267	216.20	47	225.80	33
201.55	89	210.40	118	217.05	6687	226.10	236
201.80	216	211.10	1006	218.05	964	227.10	5880
202.20	102	211.75	95	219.00	31	228.00	864

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.05	1086	238.05	121	246.05	2283	251.05	45
229.90	105	239.05	346	246.70	108	252.10	139
231.00	389	239.90	23	247.05	508	253.00	165
232.10	47	240.10	105	247.80	44	253.20	30
232.80	26	240.30	65	248.10	94	253.65	18
233.00	41	241.05	362	248.60	39	254.10	262
233.60	102	242.10	816	249.00	417	255.10	50426
234.00	420	243.05	723	249.90	55	256.10	7497
235.00	395	244.10	9065	250.10	128	257.00	618
236.05	265	245.05	1046	250.30	19	257.30	87
237.10	504	245.30	101	250.75	137	258.05	3178

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
259.10	516	269.85	125	280.80	16	289.95	71
259.80	75	270.90	145	281.10	36	291.15	73
260.05	139	272.00	185	282.10	48	292.15	128
260.60	27	273.05	1646	282.90	244	293.05	575
260.90	36	274.10	4253	284.15	20	293.95	232
262.60	29	275.10	20863	285.05	452	295.05	123
263.85	199	276.00	2780	286.00	21	296.10	7405
265.05	1276	277.10	2287	286.20	33	297.10	990
265.90	188	278.05	372	287.10	24	298.15	65
267.00	61	278.95	68	287.80	41	299.10	40
269.00	30	280.00	36	289.05	107	299.30	43

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
299.90	30	309.00	106	318.30	66	327.05	486
300.10	21	310.00	72	319.10	19	328.05	296
301.20	31	311.00	23	320.00	34	328.95	107
301.90	44	312.00	50	320.85	181	330.20	33
302.10	139	312.90	87	321.10	120	330.50	48
303.10	924	313.10	40	321.80	82	332.00	124
304.05	329	314.10	387	322.10	73	333.00	304
305.20	22	315.05	1021	323.10	2804	334.10	1640
307.50	21	316.00	404	324.05	440	335.05	467
307.90	40	316.90	37	324.60	19	336.10	101
308.10	100	317.80	24	326.10	3	336.40	19

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
337.50	17	350.80	36	363.30	19	374.05	44
339.25	42	351.00	28	364.05	35	375.40	22
340.05	71	352.05	783	365.05	3924	375.70	18
341.10	256	353.05	437	366.00	597	376.80	54
342.20	35	354.05	789	366.90	59	377.00	27
345.50	85	355.05	148	368.30	70	382.10	29
345.70	86	356.30	22	370.10	146	382.85	224
346.10	574	357.15	66	370.95	261	383.10	284
346.80	84	357.70	31	372.05	1600	384.10	89
347.10	40	359.10	31	373.00	244	384.30	20
347.60	28	361.70	36	373.20	123	386.10	38

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms

dftpp2m.M Fri Jun 10 16:27:43 2016 Page: 3

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
388.10	39	397.00	56	409.90	57	425.20	25
388.80	17	398.70	28	414.30	28	425.60	31
389.50	33	399.40	72	415.20	24	426.00	44
389.80	56	399.90	28	416.20	28	427.05	68
390.15	127	401.05	170	416.90	32	427.50	38
390.95	81	401.95	484	418.30	24	427.70	23
391.20	18	403.05	798	420.95	546	428.35	34
392.00	99	403.90	31	422.05	546	429.30	23
393.10	41	404.15	135	423.10	3320	429.90	97
394.10	26	404.80	24	424.00	736	430.70	45
395.20	82	406.80	17	424.90	76	431.00	71

Average of 3.026 to 3.036 min.: 2m84527.D\data.ms
dftpp
Modified:subtracted

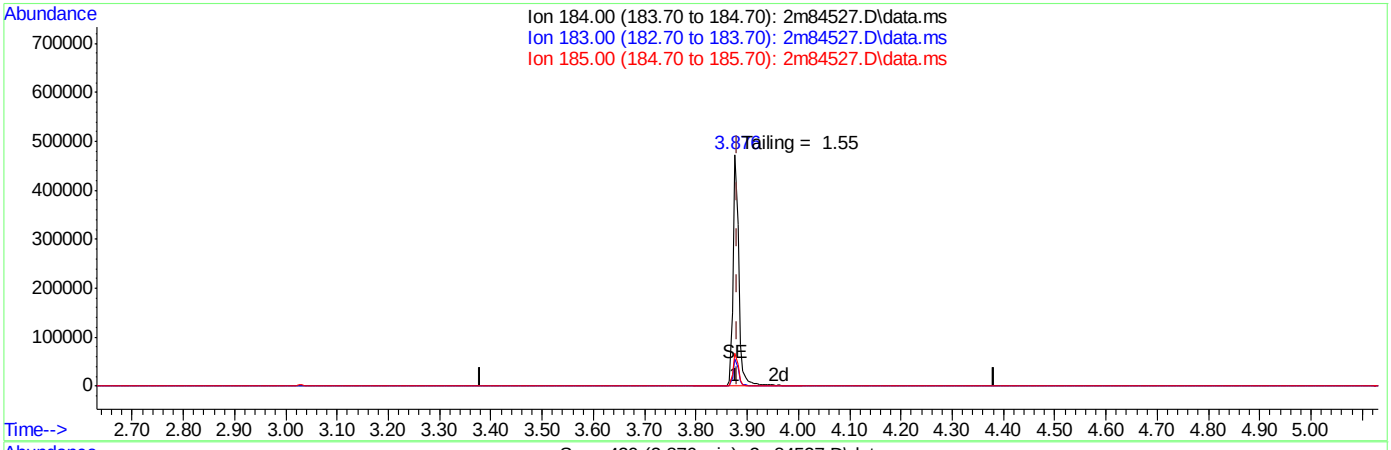
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
431.30	23	439.40	17	476.60	35		
432.25	83	439.90	17	481.30	25		
433.00	36	441.10	8087	485.90	17		
433.20	19	442.10	52226	493.50	19		
433.85	67	443.10	9216	498.70	25		
434.70	19	444.15	938				
435.55	55	445.00	36				
436.00	26	447.70	25				
436.50	23	457.80	48				
437.50	49	459.10	18				
439.10	44	475.70	21				

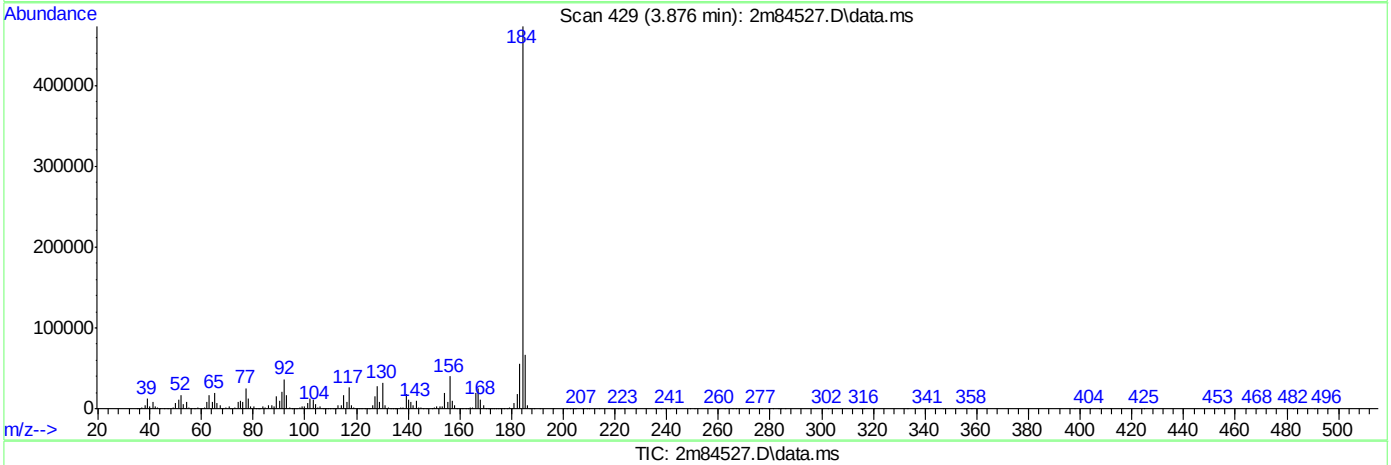
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84527.D
Acq On : 10 Jun 2016 11:53 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3726
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 10 12:11:35 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Jun 09 16:42:34 2016
QLast Update : Thu Jun 09 16:42:34 2016
Response via : Initial Calibration





TIC: 2m84527.D\data.ms

(1) Benzidine

3.876min (-0.005) 3.00

response 366714

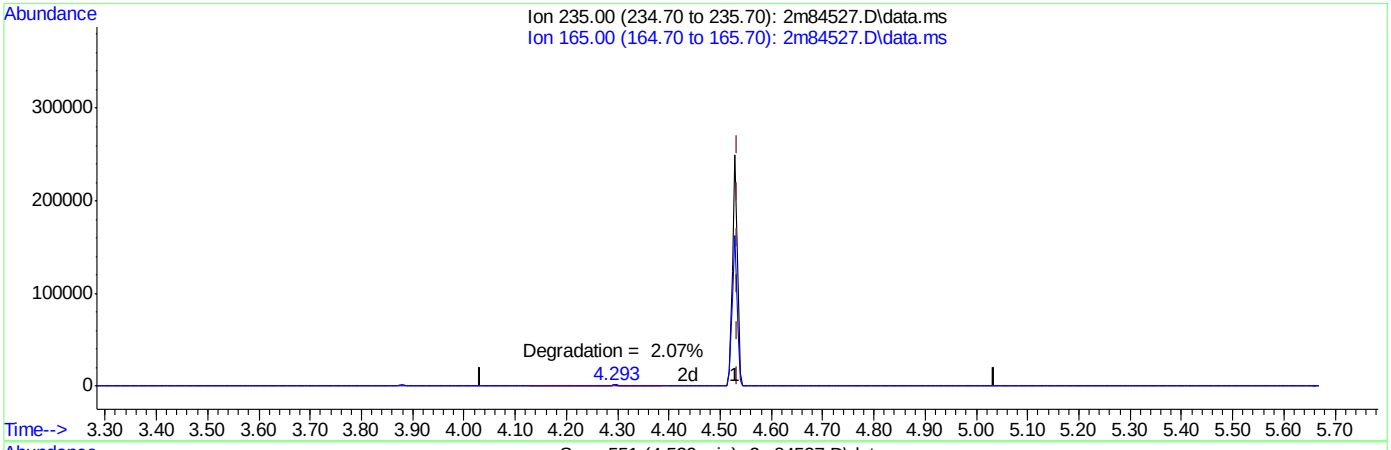
Ion	Exp%	Act%
184.00	100	100
183.00	11.70	11.28
185.00	13.90	14.05
0.00	0.00	0.00

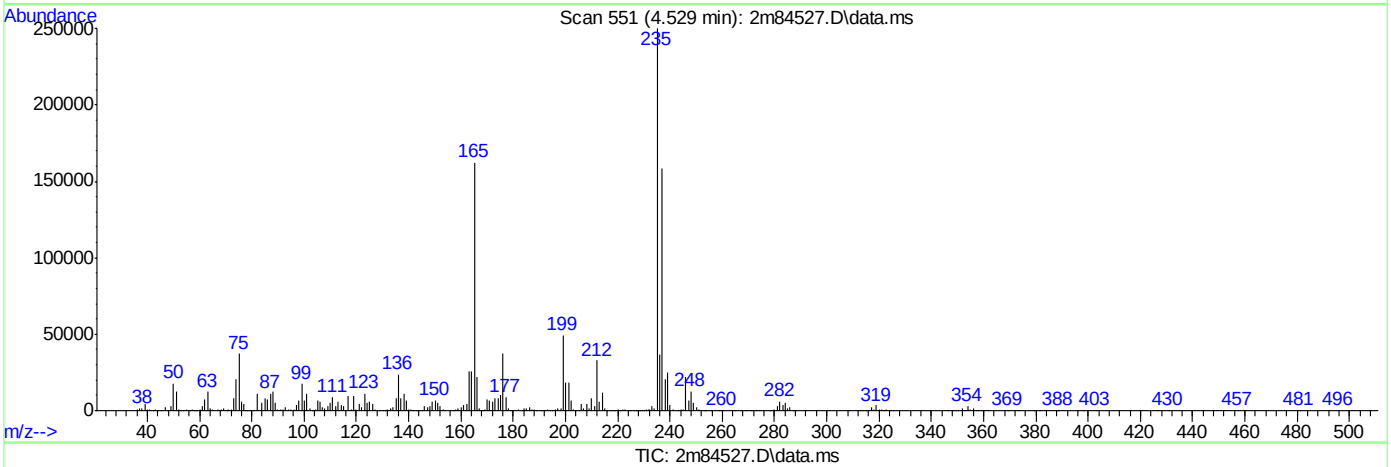
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84527.D
Acq On : 10 Jun 2016 11:53 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3726
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 10 12:11:35 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Jun 09 16:42:34 2016
QLast Update : Thu Jun 09 16:42:34 2016
Response via : Initial Calibration





(2) ddt

4.529min (-0.005) 0.00

response 165461

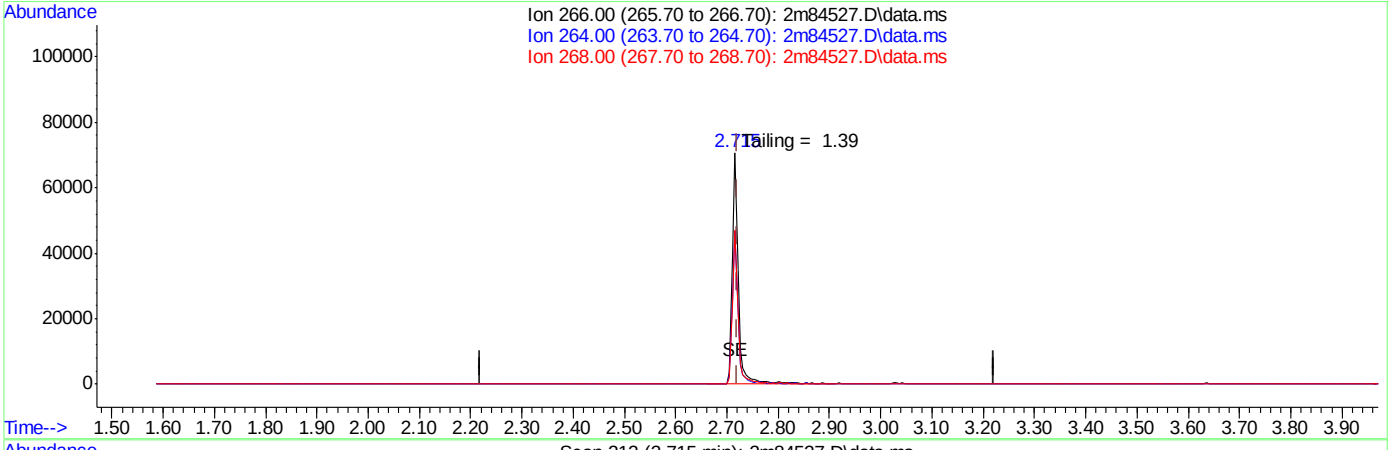
Ion	Exp%	Act%
235.00	100	100
165.00	67.20	65.87
0.00	0.00	0.00
0.00	0.00	0.00

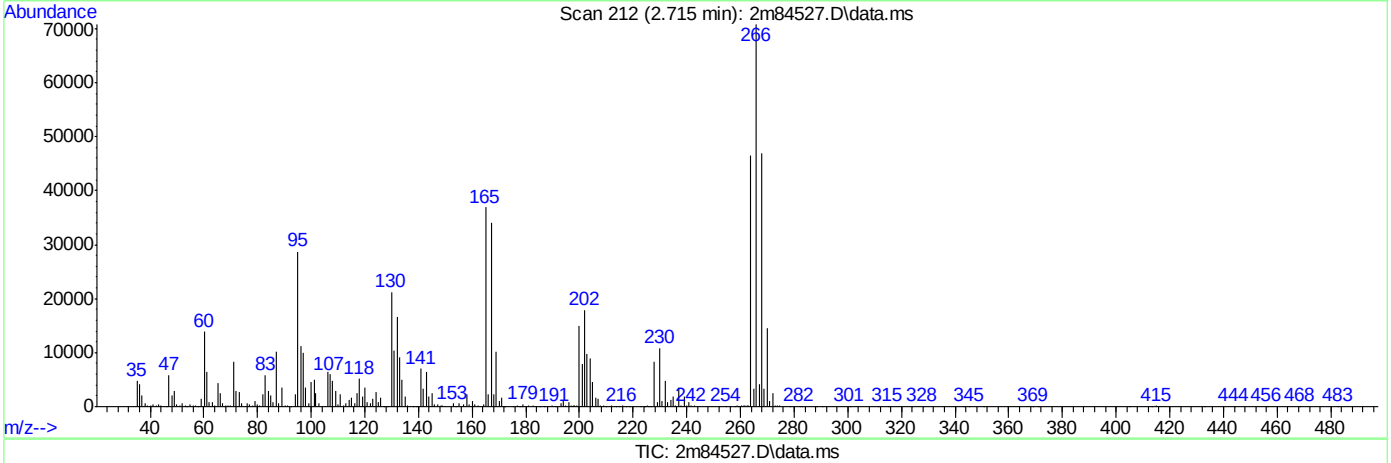
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84527.D
Acq On : 10 Jun 2016 11:53 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3726
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 10 12:11:35 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Jun 09 16:42:34 2016
QLast Update : Thu Jun 09 16:42:34 2016
Response via : Initial Calibration





TIC: 2m84527.D\data.ms

(3) Pentachlorophenol

2.715min (-0.005) 2.72

response 57228

Ion	Exp%	Act%
266.00	100	100
264.00	62.40	62.41
268.00	62.70	63.39
0.00	0.00	0.00

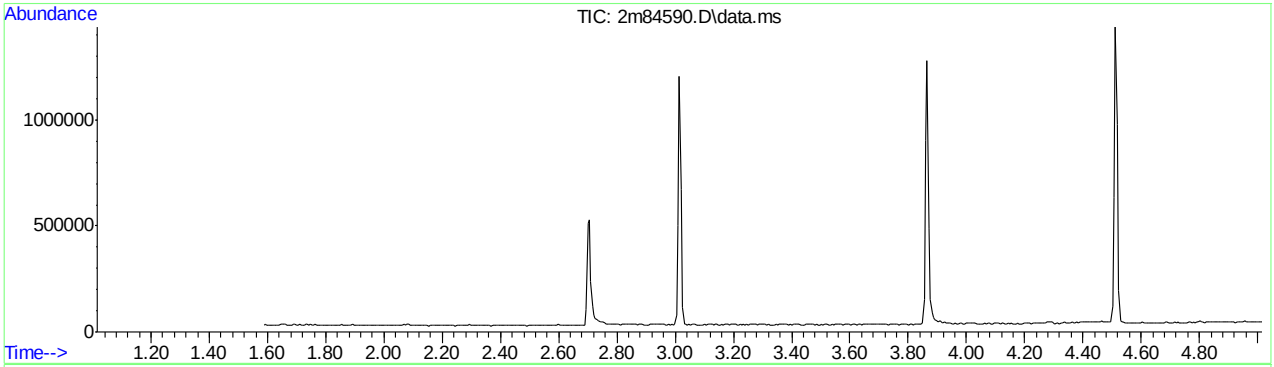
SGS ACCUTEST JC21709

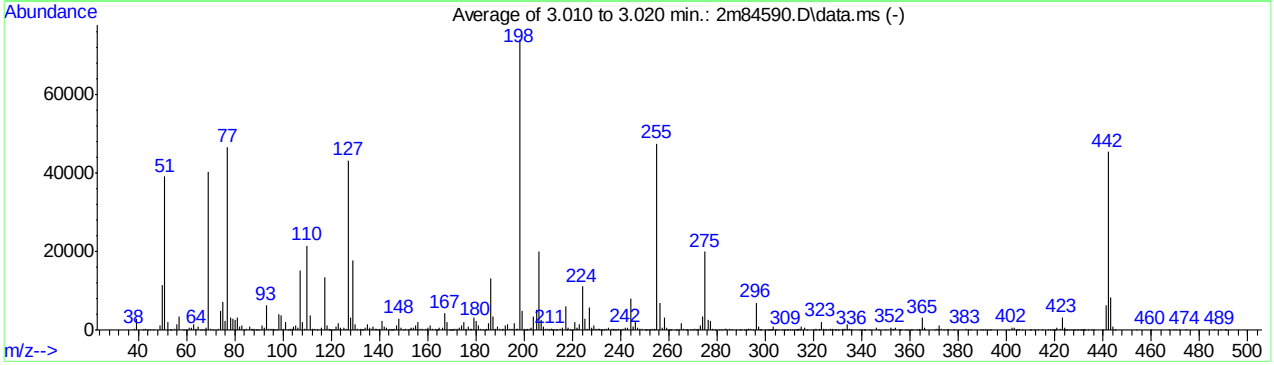
DFTPP

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84590.D
Acq On : 13 Jun 2016 9:20 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3729
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\dftpp2m.M
Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Jun 09 16:42:34 2016
Last Update : Thu Jun 09 16:42:34 2016





AutoFind: Scans 267, 268, 269; 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	52.9	39155	PASS
68	69	0.00	2	1.7	699	PASS
69	198	0.00	100	54.3	40193	PASS
70	69	0.00	2	0.6	259	PASS
127	198	40	60	58.4	43280	PASS
197	198	0.00	1	0.5	368	PASS
198	198	100	100	100.0	74051	PASS
199	198	5	9	6.5	4791	PASS
275	198	10	30	26.9	19944	PASS
365	198	1	100	4.1	3033	PASS
441	443	0.10	100	77.1	6424	PASS
442	198	40	100	61.2	45335	PASS
443	442	17	23	18.4	8330	PASS

SGS ACCUTEST JC21709

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.05	319	53.10	32	65.00	738	76.10	2345
39.05	2959	53.80	20	65.80	36	77.05	46745
42.00	28	55.05	212	66.10	94	78.05	3283
43.05	173	56.05	1364	67.00	127	79.00	2891
44.00	45	57.05	3310	68.05	699	79.95	2497
44.95	79	58.70	18	68.95	40193	81.05	3093
46.10	60	59.80	47	70.05	259	81.95	796
49.05	1085	61.00	522	70.85	98	83.00	1113
50.05	11536	62.05	572	73.05	251	84.00	46
51.05	39155	63.05	1312	74.00	4899	84.95	309
52.05	2150	64.00	401	75.05	7160	86.00	784

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	227	95.85	177	103.90	251	114.05	112
87.20	69	96.00	97	104.10	950	115.85	164
87.90	198	96.20	106	105.00	1110	116.05	523
88.80	45	97.15	102	106.00	589	117.10	13511
89.10	82	98.05	4085	107.05	15170	118.05	1117
89.95	67	99.05	3592	108.10	2103	119.00	208
91.05	1095	100.10	289	108.90	419	119.20	48
92.05	690	101.00	1950	110.05	21470	119.80	74
93.05	6311	102.10	75	111.05	3816	120.05	137
93.95	331	102.90	132	112.00	372	121.00	130
94.90	197	103.00	409	113.00	179	122.00	895

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
123.00	1632	133.10	79	142.00	810	150.95	331
124.00	596	134.00	460	143.00	644	151.85	120
125.05	672	135.05	1567	144.15	202	152.70	169
126.00	303	136.00	610	144.90	99	153.00	665
127.10	43280	136.90	250	145.20	43	154.05	644
128.00	3129	137.10	849	145.80	91	154.90	248
129.00	17754	138.15	219	146.05	319	155.10	1188
129.95	1526	138.70	172	147.00	1270	155.95	1914
130.95	269	139.30	54	148.05	2986	157.00	257
132.00	245	140.00	177	149.05	575	157.95	319
132.80	106	141.00	2397	150.05	26	159.00	282

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
159.80	21	169.00	146	176.95	857	186.10	13057
160.10	656	169.20	102	177.90	182	187.10	3347
161.00	1048	169.85	79	178.10	159	187.95	433
161.95	355	170.10	23	179.00	3285	189.00	867
163.10	197	170.40	38	180.05	2321	189.95	239
163.80	23	171.00	287	181.05	1017	190.80	40
164.20	44	172.05	286	182.05	322	191.00	370
164.95	657	173.00	586	182.90	72	192.00	1057
166.05	492	174.00	1052	184.10	250	193.15	1315
167.10	4411	175.10	2065	184.30	94	194.10	281
168.00	2041	176.00	262	185.05	1853	195.15	170

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
196.05	1789	204.00	3342	211.90	58	219.85	124
196.80	368	205.10	5293	212.20	22	221.00	2107
197.15	347	206.10	20038	213.00	61	221.80	360
198.00	74051	207.00	2651	213.30	29	222.05	606

199.05	4791	208.00	936	214.95	390	223.05	1408
200.05	257	208.95	260	215.95	486	224.10	11085
200.50	38	209.95	314	217.10	5984	225.05	2965
200.95	104	210.50	113	217.90	134	226.10	338
201.45	437	211.00	406	218.05	476	227.10	5606
202.15	160	211.25	372	218.90	28	227.90	112
203.05	655	211.70	107	219.30	142	228.10	668

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.00	1288	236.80	105	246.05	1904	254.10	224
230.00	239	237.05	245	247.10	510	255.10	47538
230.90	420	237.90	33	248.00	158	256.10	6757
231.10	169	238.10	40	248.95	313	257.00	683
231.70	64	238.95	171	250.10	21	258.10	3209
232.00	63	239.95	110	250.40	46	259.05	493
232.20	34	241.05	437	250.90	50	259.85	127
232.95	144	242.00	707	251.80	86	260.40	56
234.05	429	243.05	621	252.20	79	261.10	71
235.05	558	244.10	8149	253.10	266	262.90	79
236.10	258	245.05	967	253.80	36	263.20	27

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.10	123	274.10	3460	286.10	58	296.10	6994
265.05	1622	275.10	19944	288.00	22	297.05	818
265.95	375	276.10	2539	289.10	88	297.90	47
267.00	46	277.10	2292	289.80	19	298.20	20
267.60	22	278.00	170	291.10	28	299.80	21
268.75	81	279.20	24	292.00	62	301.00	42
269.80	17	281.15	79	292.30	33	301.20	63
270.90	190	282.00	122	292.95	247	301.90	56
271.30	41	283.05	187	293.20	204	302.15	75
272.00	155	283.95	196	293.85	291	302.90	78
273.05	1168	284.95	344	295.00	45	303.10	851

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
304.10	141	312.80	38	322.10	96	329.10	57
304.30	77	313.00	30	322.30	25	330.10	18
305.20	34	313.70	90	323.10	2034	330.40	25
307.20	22	314.00	219	324.15	360	332.05	161
307.70	25	314.20	49	324.80	35	332.70	21
308.05	77	315.05	880	325.10	22	333.00	272
308.75	59	316.10	618	326.10	68	333.80	119
309.30	40	317.05	104	326.90	45	334.15	1338
310.30	30	320.05	74	327.15	387	335.00	269
311.10	19	320.80	30	328.10	227	335.20	120
312.00	20	321.10	300	328.90	19	335.95	110

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
339.00	24	354.10	609	364.90	253	375.80	21
340.20	37	355.10	65	365.10	3033	377.90	20
340.95	91	356.00	47	365.90	32	383.05	308
341.20	126	356.40	21	366.05	555	383.95	75
343.00	26	358.30	24	370.05	52	385.10	98
346.00	578	359.00	57	371.00	189	389.10	20
346.95	66	360.50	21	371.50	30	390.05	144
349.90	43	361.10	55	372.05	1196	391.15	62
352.05	668	362.70	57	373.15	249	392.10	44
352.80	138	363.60	30	373.95	116	393.10	29
353.15	260	363.80	59	375.10	21	393.40	18

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms

dftpp2m.M Mon Jun 13 12:36:35 2016 Page: 3

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
401.00	63	413.10	47	423.90	20	430.90	32
402.05	578	414.80	33	424.10	571	431.70	35
403.05	503	417.10	22	424.80	52	431.90	52
404.00	77	418.00	26	425.10	23	432.20	31
404.20	143	419.00	25	425.80	45	432.60	93
405.00	26	419.40	34	427.05	108	433.65	79
405.20	41	419.90	24	428.00	36	435.10	25
406.60	19	420.30	33	428.50	26	436.40	50
409.90	22	421.05	661	429.10	24	440.10	17
410.20	47	422.05	417	429.90	41	441.10	6424
411.60	25	423.10	3181	430.50	36	442.10	45335

Average of 3.010 to 3.020 min.: 2m84590.D\data.ms
dftpp
Modified:subtracted

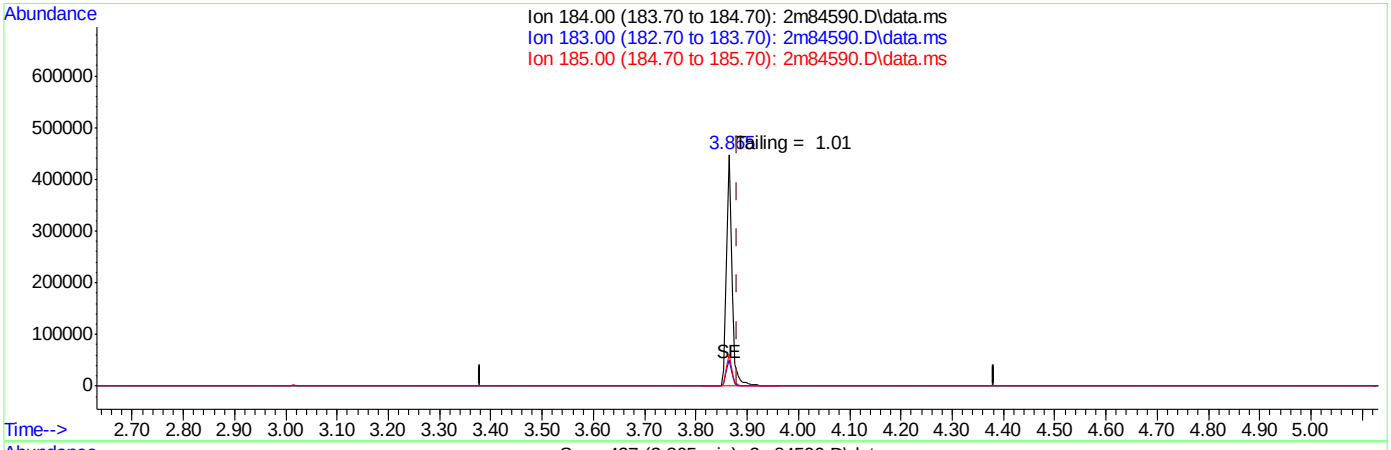
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.10	8330	486.10	21				
444.05	734	488.70	34				
444.90	24	490.40	29				
445.10	27	490.90	27				
453.70	24						
459.90	18						
467.50	17						
469.40	17						
470.00	20						
471.70	19						
474.15	56						

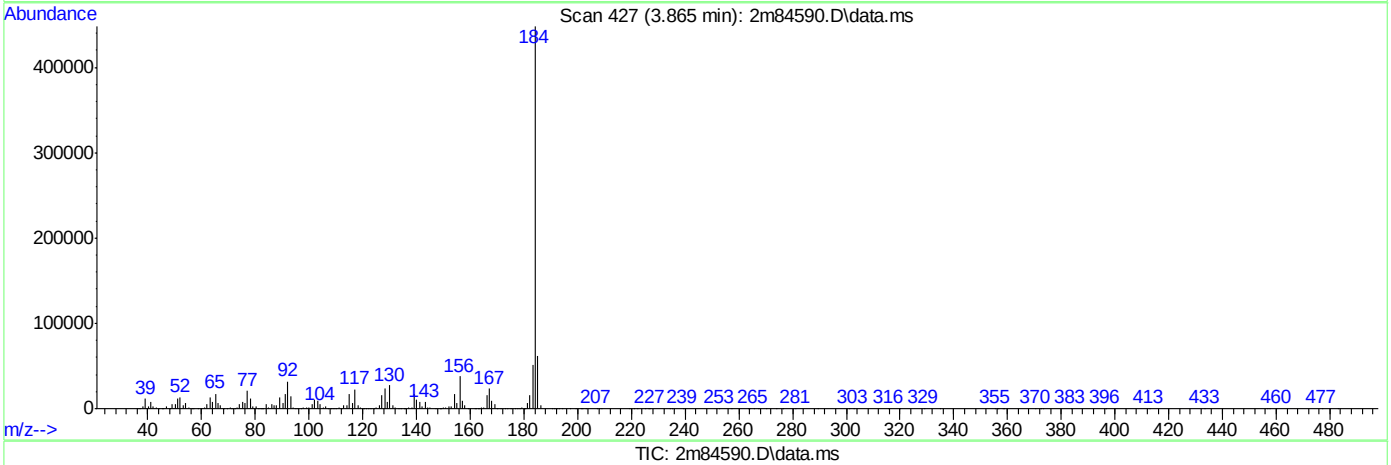
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84590.D
Acq On : 13 Jun 2016 9:20 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3729
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 13 09:28:16 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Jun 09 16:42:34 2016
QLast Update : Thu Jun 09 16:42:34 2016
Response via : Initial Calibration





TIC: 2m84590.D\data.ms

(1) Benzidine

3.865min (-0.016) 2.74

response 335128

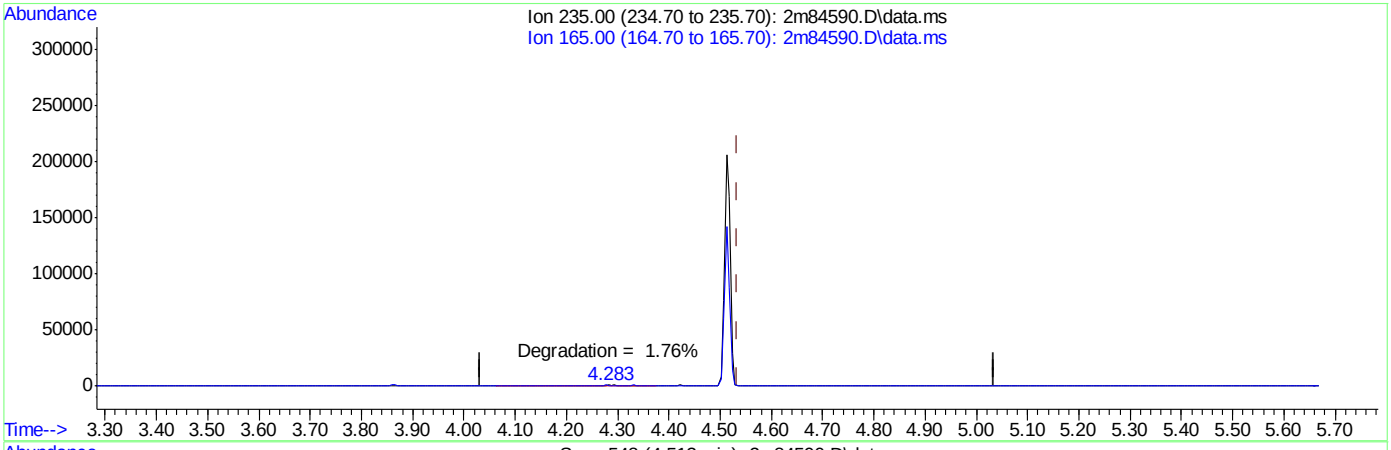
Ion	Exp%	Act%
184.00	100	100
183.00	11.70	11.58
185.00	13.90	14.15
0.00	0.00	0.00

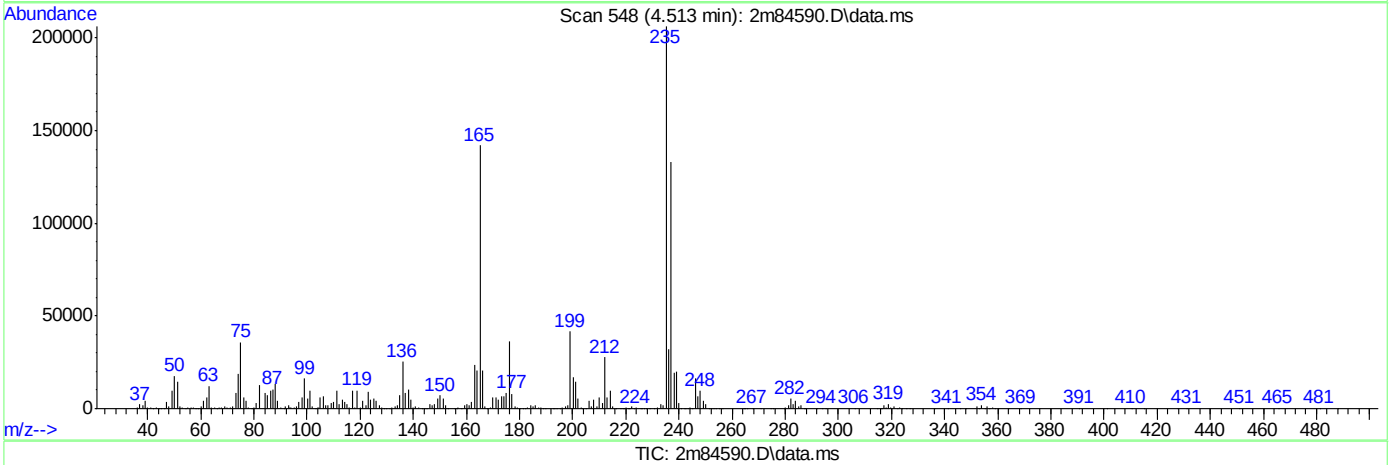
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84590.D
Acq On : 13 Jun 2016 9:20 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3729
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 13 09:28:16 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Jun 09 16:42:34 2016
QLast Update : Thu Jun 09 16:42:34 2016
Response via : Initial Calibration





TIC: 2m84590.D\data.ms

(2) ddt

4.513min (-0.021) 0.00

response 158487

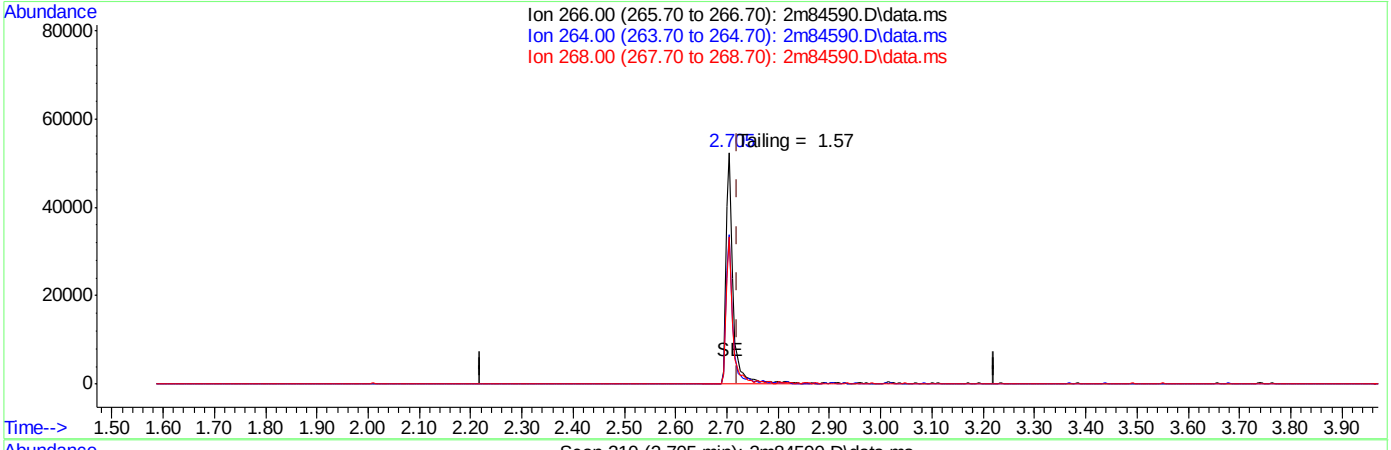
Ion	Exp%	Act%
235.00	100	100
165.00	67.20	63.29
0.00	0.00	0.00
0.00	0.00	0.00

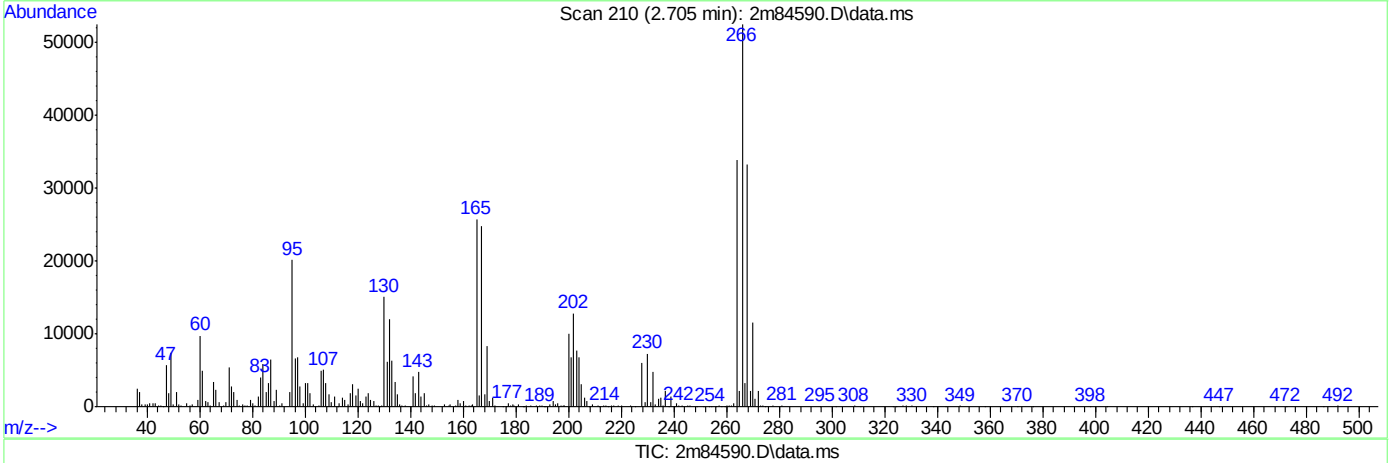
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84590.D
Acq On : 13 Jun 2016 9:20 am
Operator : ashleyn
Sample : dftpp
Misc : op94122,e2m3729
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 13 09:28:16 2016
Quant Method : C:\msdchem\1\METHODS\dftpp2m.M
Quant Title : Semi Volatile GC/MS,zb-5msi30mx .25mmx .25umMon TuThu Jun 09 16:42:34 2016
QLast Update : Thu Jun 09 16:42:34 2016
Response via : Initial Calibration





(3) Pentachlorophenol

2.705min (-0.016) 2.28

response 47831

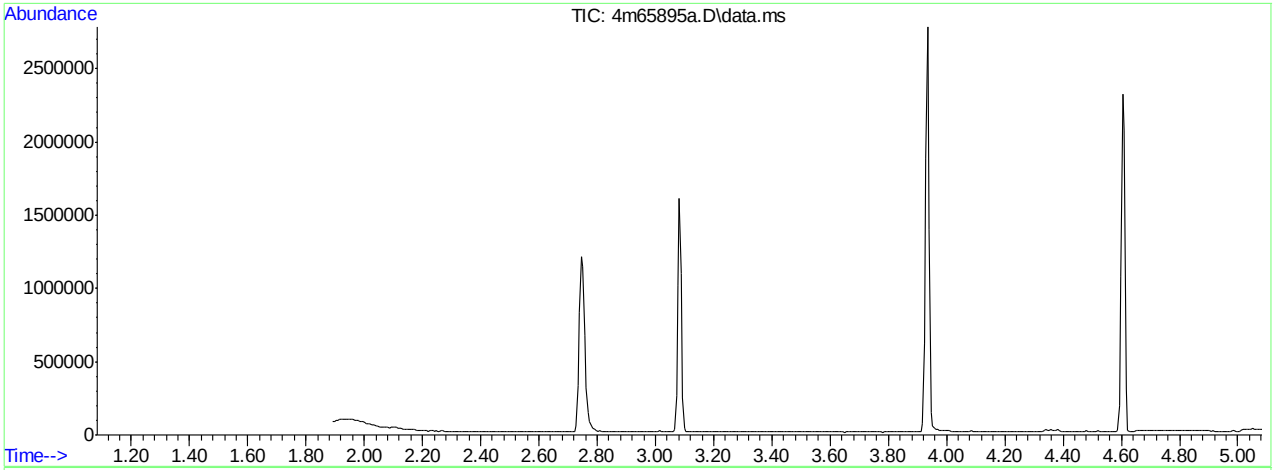
Ion	Exp%	Act%
266.00	100	100
264.00	62.40	62.40
268.00	62.70	59.86
0.00	0.00	0.00

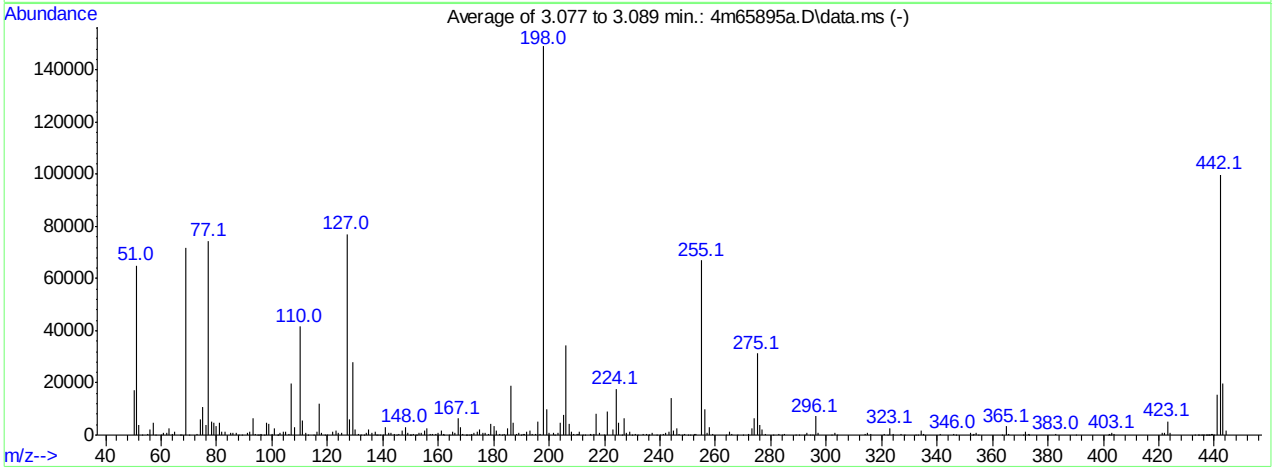
SGS ACCUTEST JC21709

DFTPP

Data File : C:\msdchem\1\DATA\E4M2958a\4m65895a.D Vial: 1
Acq On : 9 Jun 2016 2:10 pm Operator: linseyk
Sample : dftpp Inst : GCMS4M
Misc : op94385a,e4m2958 Multiplr: 1.00
MS Integration Params: events3.e

Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M (ChemStation Integrator)
Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um





AutoFind: Scans 208, 209, 210; Background Corrected with Scan 203

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.7	65065	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.2	71810	PASS
70	69	0.00	2	0.3	215	PASS
127	198	40	60	51.7	77080	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	149000	PASS
199	198	5	9	6.7	10025	PASS
275	198	10	30	21.0	31280	PASS
365	198	1	100	2.3	3385	PASS
441	443	0.01	100	78.7	15555	PASS
442	198	40	100	67.0	99904	PASS
443	442	17	23	19.8	19767	PASS

4m65895a.D DFTPP4M.M Mon Jun 20 17:42:49 2016 MANAGER

Average of 3.077 to 3.089 min.: 4m65895a.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	17011	63.00	2447	77.10	74384	89.00	98
51.05	65065	64.00	327	78.05	5125	91.00	1006
52.00	3684	65.00	1285	79.00	4577	92.05	1137
53.05	201	66.85	191	80.00	3393	93.00	6473
55.00	385	67.10	71	81.00	4767	93.95	553
56.00	2051	69.00	71810	81.95	1291	94.90	82
57.05	4550	70.00	215	83.00	1162	95.10	67
58.00	77	73.05	450	84.95	968	95.90	171
59.90	7	74.00	6029	85.95	961	96.10	339
61.00	897	75.00	10588	87.00	679	97.10	209
62.00	926	76.10	3797	87.90	70	98.00	4830

Average of 3.077 to 3.089 min.: 4m65895a.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
99.00	4351	110.00	41683	123.00	1877	135.00	2271
100.05	406	111.00	5641	123.95	846	136.00	836
101.00	2722	112.00	725	125.05	935	137.10	1197
101.90	87	113.10	97	127.00	77080	137.80	101
102.10	81	115.05	152	128.05	6246	138.00	110
102.95	979	116.05	1397	129.00	28013	138.80	101
104.00	1482	117.00	12030	130.00	2346	140.10	225
105.00	1510	118.00	942	131.00	535	141.00	2964
106.00	576	119.00	72	132.05	229	142.00	1063
107.00	19876	119.95	206	133.10	76	143.00	692
108.00	3225	122.00	1294	133.95	818	144.00	233

Average of 3.077 to 3.089 min.: 4m65895a.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.00	190	153.95	779	165.00	1135	175.05	2354
145.95	642	155.05	1768	166.05	987	176.05	1049
147.00	1724	156.05	2625	167.05	6327	176.95	1046
148.00	3124	157.10	641	168.05	3057	178.00	452
148.95	692	157.85	584	169.00	550	179.00	4468
150.00	182	158.95	462	170.00	190	180.05	3268
150.20	99	160.00	974	170.60	179	181.00	1608
150.95	384	161.00	1720	171.05	184	182.05	357
151.65	222	161.80	129	171.95	557	182.95	199
152.10	179	161.95	402	173.00	791	183.95	339
153.00	1041	164.10	158	174.05	1424	185.05	2480

Average of 3.077 to 3.089 min.: 4m65895a.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
186.05	18878	196.05	5239	207.05	4450	217.00	7971
187.05	4952	196.60	551	207.95	1106	218.00	996
188.10	440	198.00	149000	209.00	435	219.70	68
188.95	1003	199.00	10025	210.05	366	221.10	8873
190.00	192	200.00	853	210.60	510	223.05	2171
190.85	306	201.50	885	211.05	1300	224.10	17683
191.10	247	202.10	86	212.00	92	225.05	4611
191.95	1413	203.00	885	213.10	85	226.10	139
193.00	1657	204.05	4855	214.80	109	227.00	6544
194.05	392	205.05	7954	215.10	322	227.95	974
195.05	494	206.10	34331	216.05	468	229.05	1405

Average of 3.077 to 3.089 min.: 4m65895a.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.95	204	242.05	929	252.70	232	270.00	81
231.00	565	243.15	1455	253.15	500	271.85	294
232.10	73	244.10	14102	255.05	67003	273.05	2477
234.00	431	245.05	1812	256.10	9859	274.10	6320

DFTPP4M.M Mon Jun 20 17:42:44 2016 MANAGER Page: 0

235.00	468	246.00	2425	257.05	954	275.10	31280
235.80	153	246.95	610	258.00	3138	276.00	4034
236.00	100	247.90	78	258.95	554	277.00	2225
237.05	681	248.95	463	263.90	103	278.00	431
238.85	185	250.05	146	265.05	1315	280.90	73
239.95	192	250.90	78	265.95	253	283.05	325
241.05	500	251.95	193	267.80	70	284.05	222

Average of 3.077 to 3.089 min.: 4m65895a.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
285.05	510	304.05	174	333.05	192	354.95	193
288.90	86	314.05	397	334.10	1607	363.50	67
290.00	72	314.95	804	334.90	83	365.05	3385
292.20	75	316.05	424	335.10	311	365.95	477
292.95	677	321.00	322	340.95	348	371.05	203
294.15	165	322.00	87	346.00	589	372.00	1424
294.90	88	323.10	2589	347.00	69	372.90	98
296.05	7115	324.05	565	352.05	763	373.15	305
297.00	1057	327.00	444	353.00	88	383.00	314
302.00	74	328.00	121	353.15	404	390.00	174
303.05	944	332.05	193	353.95	930	401.90	104

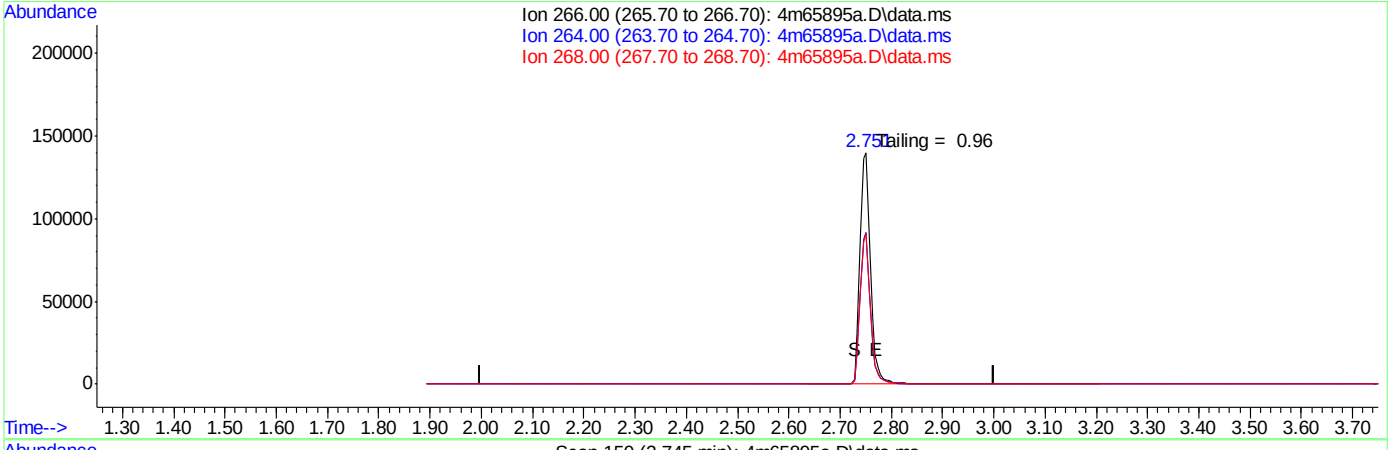
Average of 3.077 to 3.089 min.: 4m65895a.D\data.ms
dftpp
Modified:subtracted

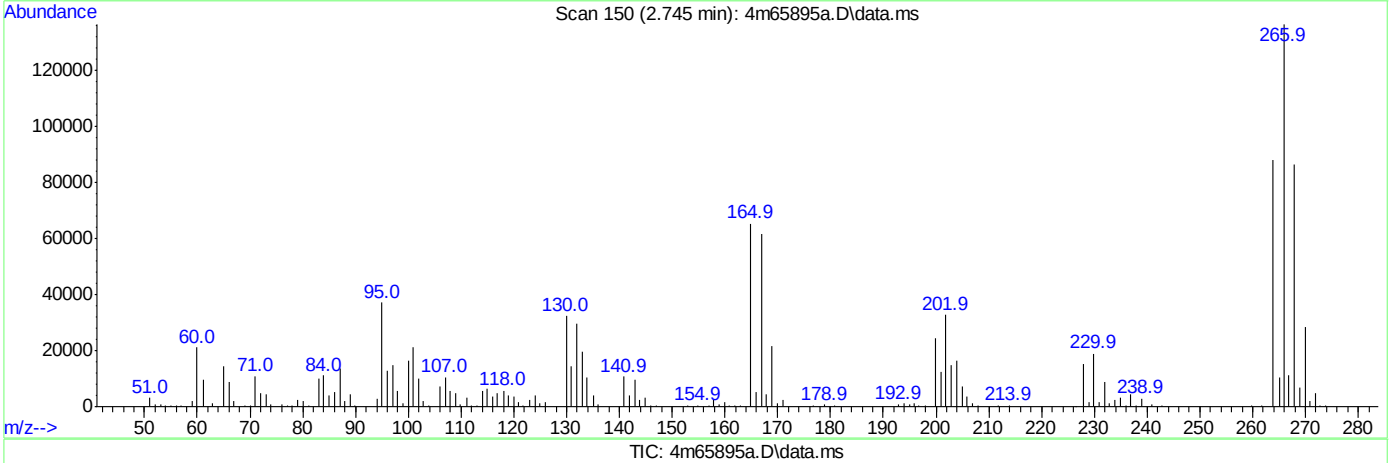
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
402.10	540	435.30	124	441.10	15555		
402.70	69	435.60	94	442.10	99904		
403.05	774	436.20	182	443.10	19767		
403.95	240	436.90	126	444.10	1836		
421.05	696	437.30	125				
422.05	715	437.70	95				
423.10	5296	438.10	134				
424.10	1049	438.40	155				
433.10	156	438.90	307				
434.00	70	439.30	278				
434.70	69	439.90	162				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65895a.D\data.ms

(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

response 0

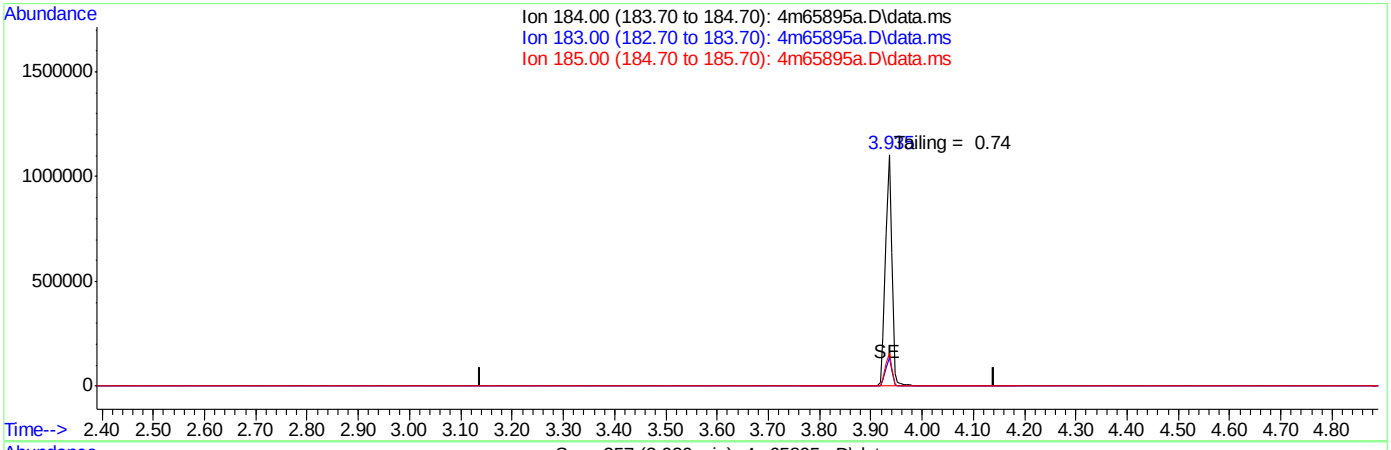
Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

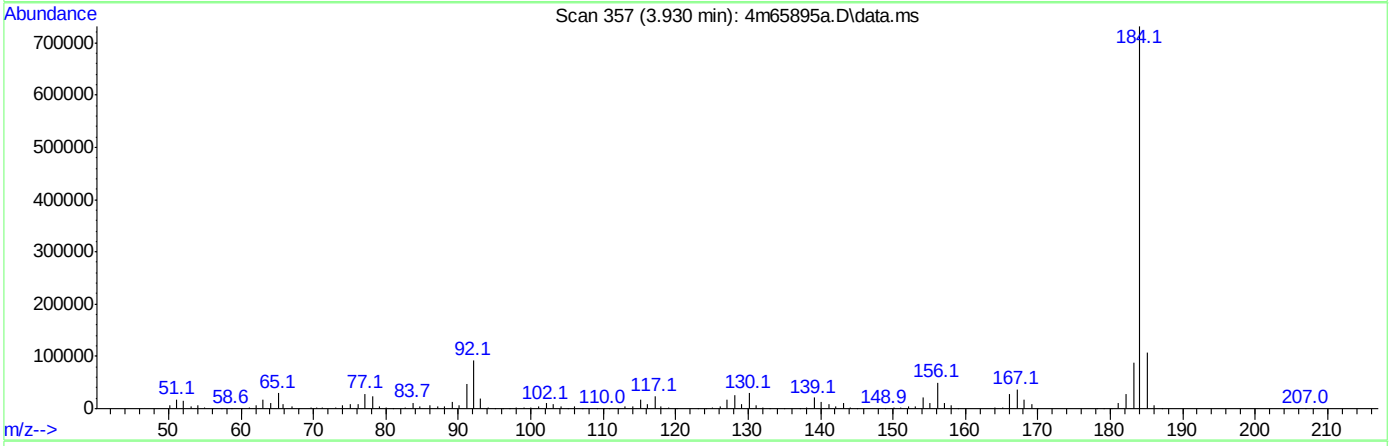
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65895a.D\data.ms

(2) benzidine (t)

3.640min (-3.640) 0.00ppb

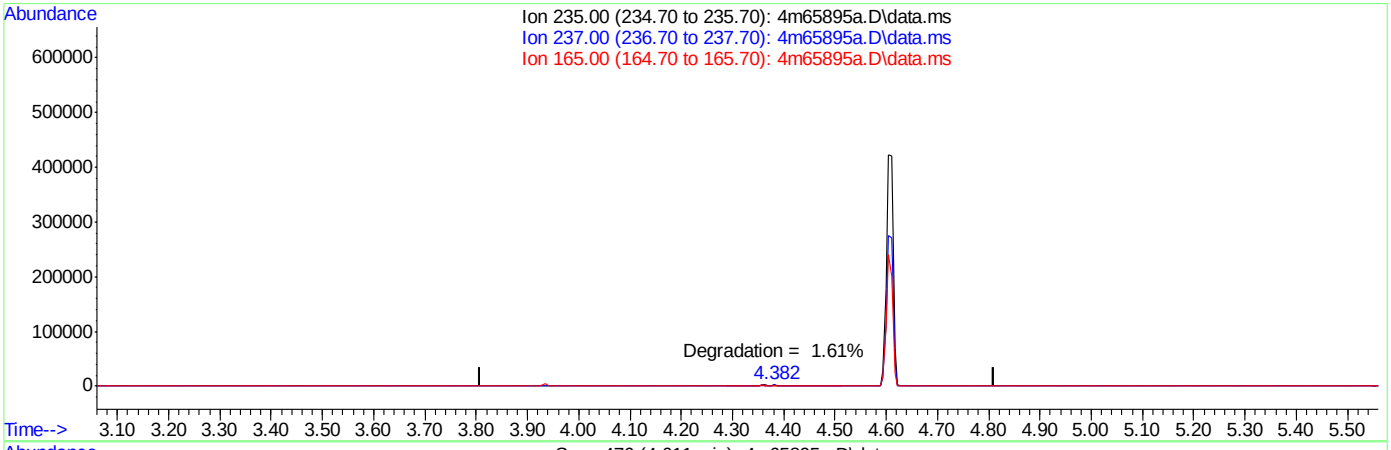
response 0

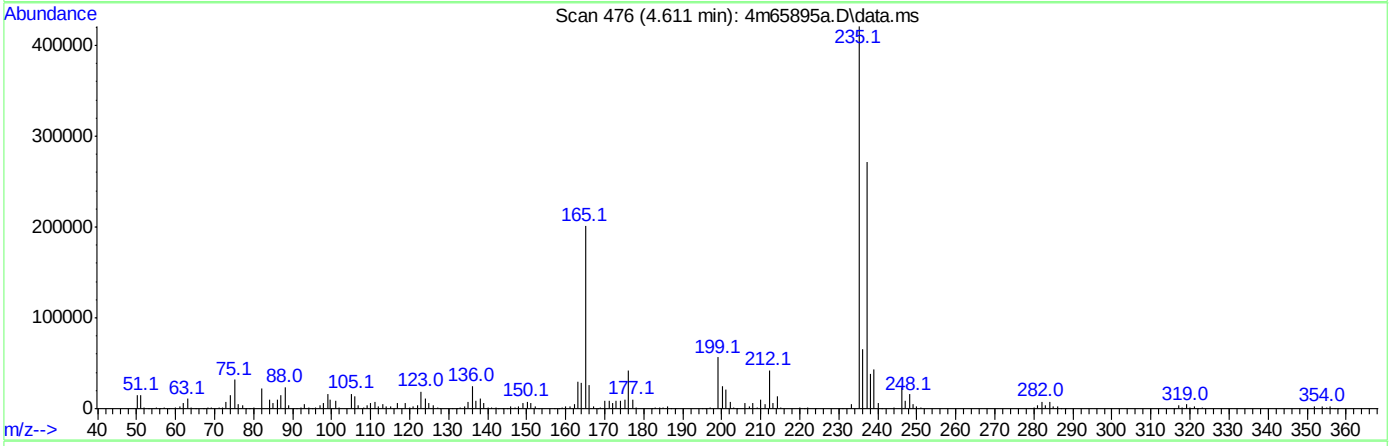
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00#
185.00	13.40	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65895a.D\data.ms

(3) ddt (t)

4.310min (-4.310) 0.00ppb

response 0

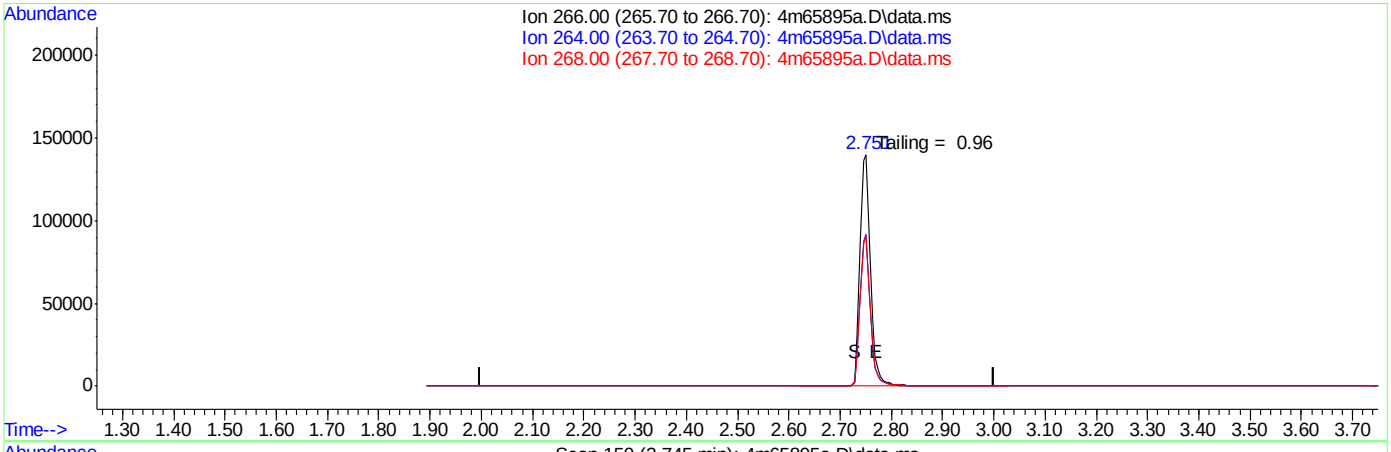
Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	48.70	0.00#
0.00	0.00	0.00

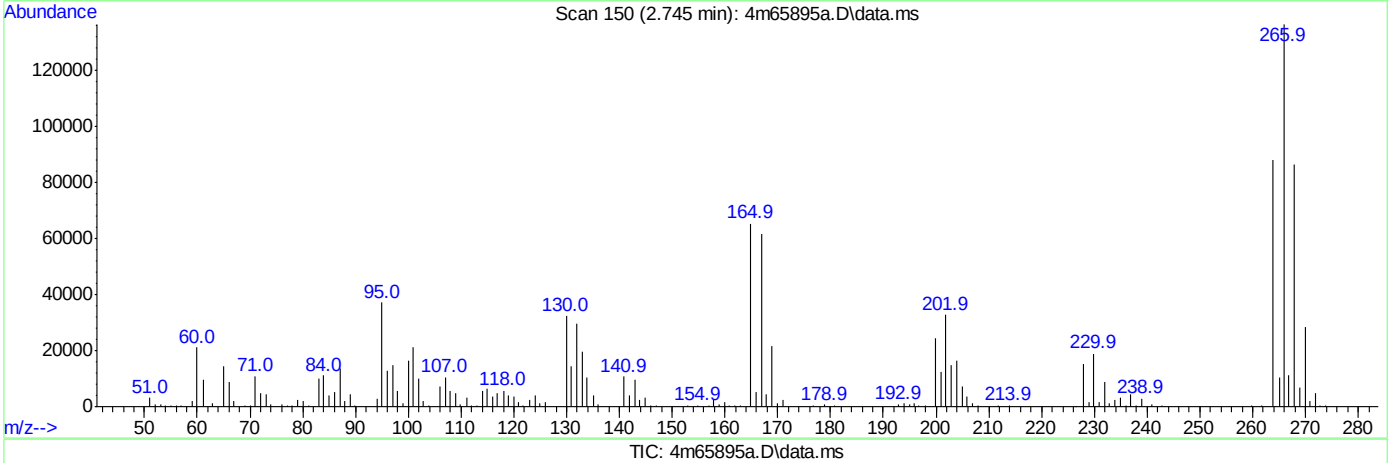
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65895a.D\data.ms

(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

response 0

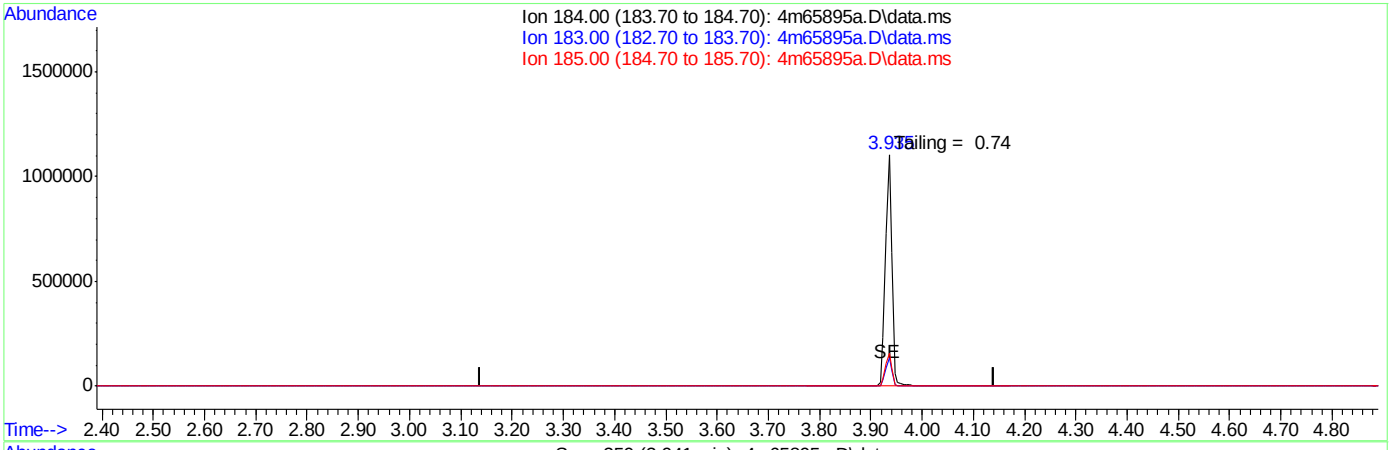
Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

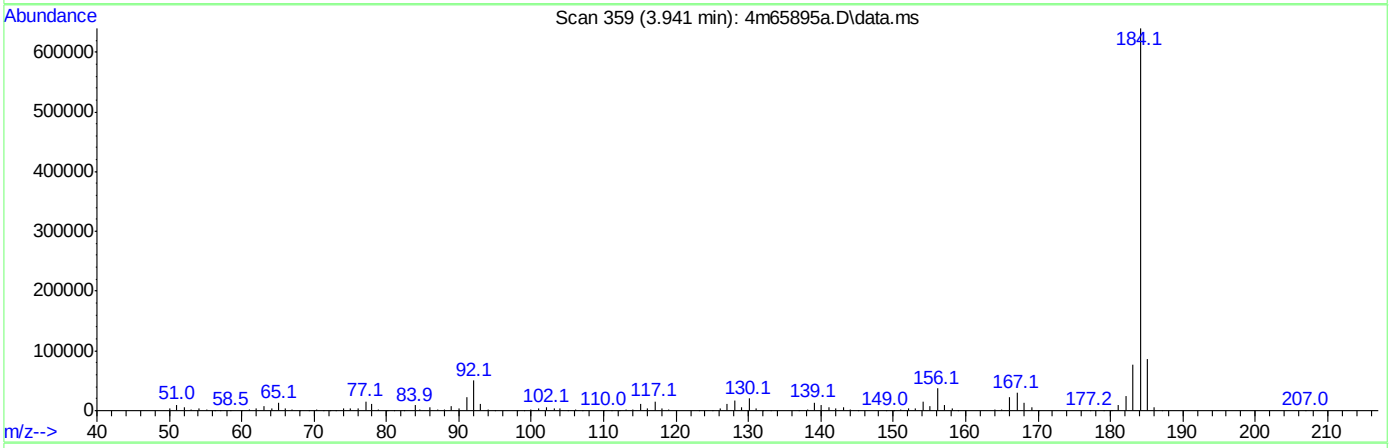
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65895a.D\data.ms

(2) benzidine (t)

3.640min (-3.640) 0.00ppb

response 0

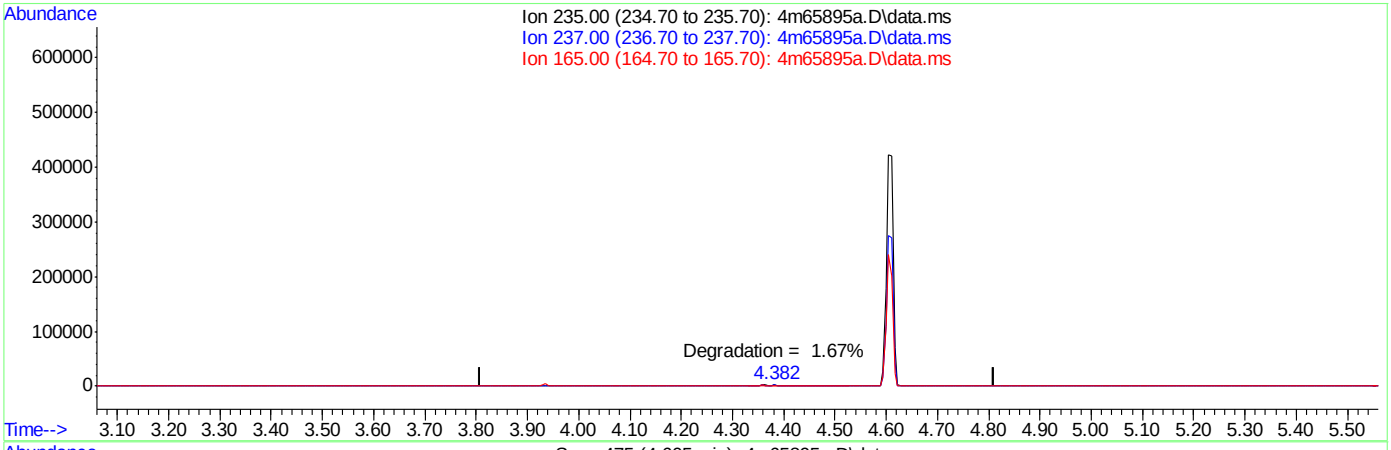
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00#
185.00	13.40	0.00#
0.00	0.00	0.00

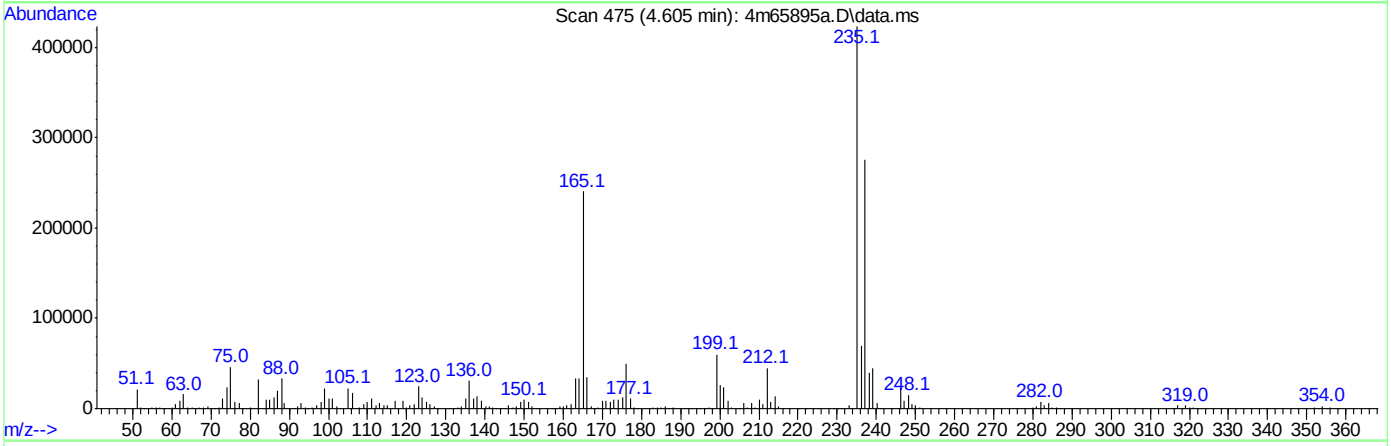
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





(3) ddt (t)

4.310min (-4.310) 0.00ppb

response 0

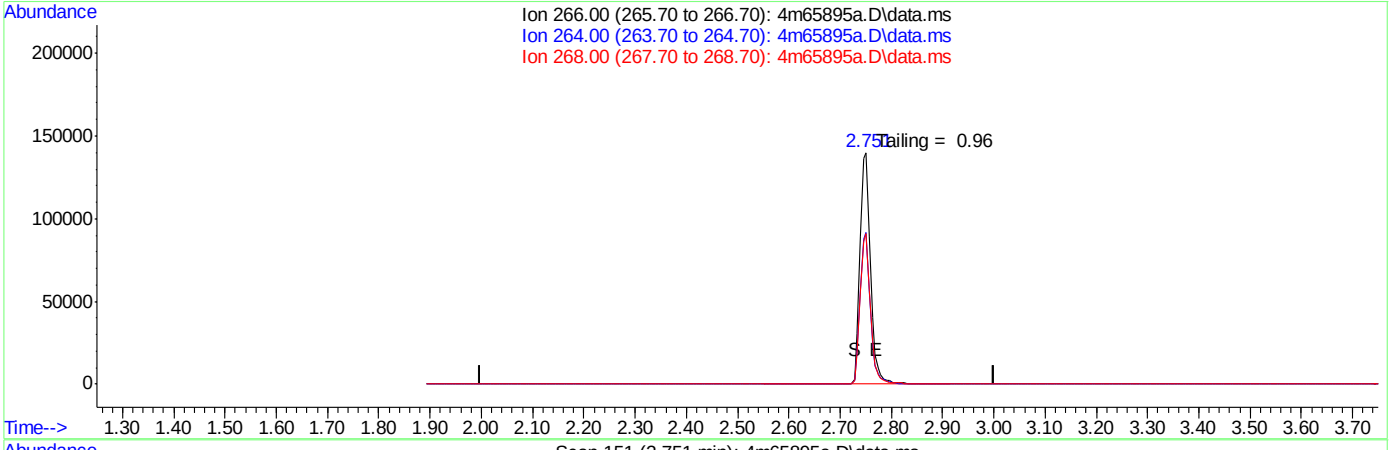
Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	48.70	0.00#
0.00	0.00	0.00

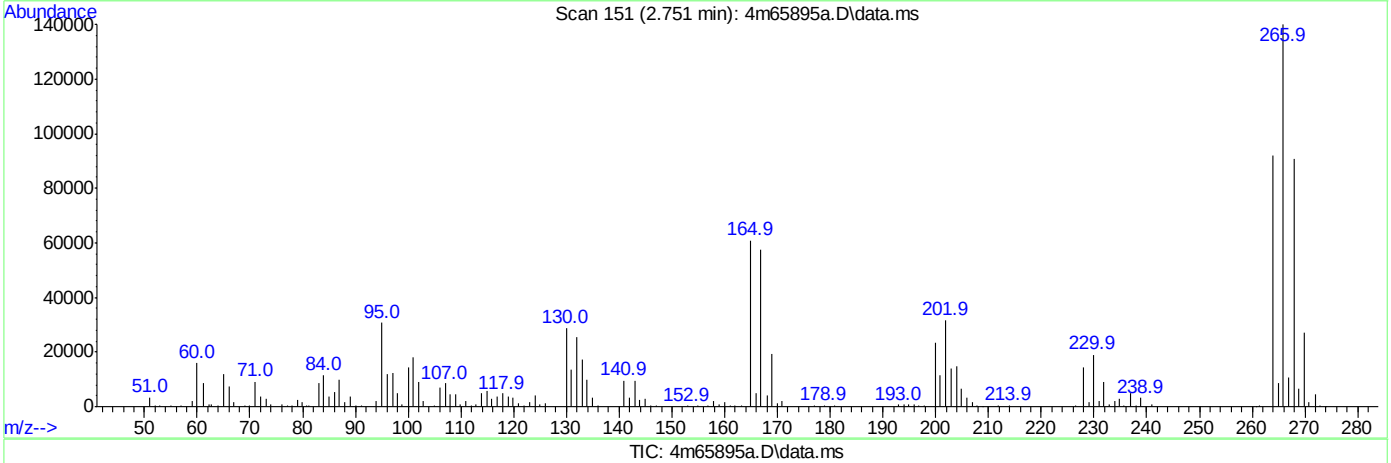
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65895a.D\data.ms

(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

response 0

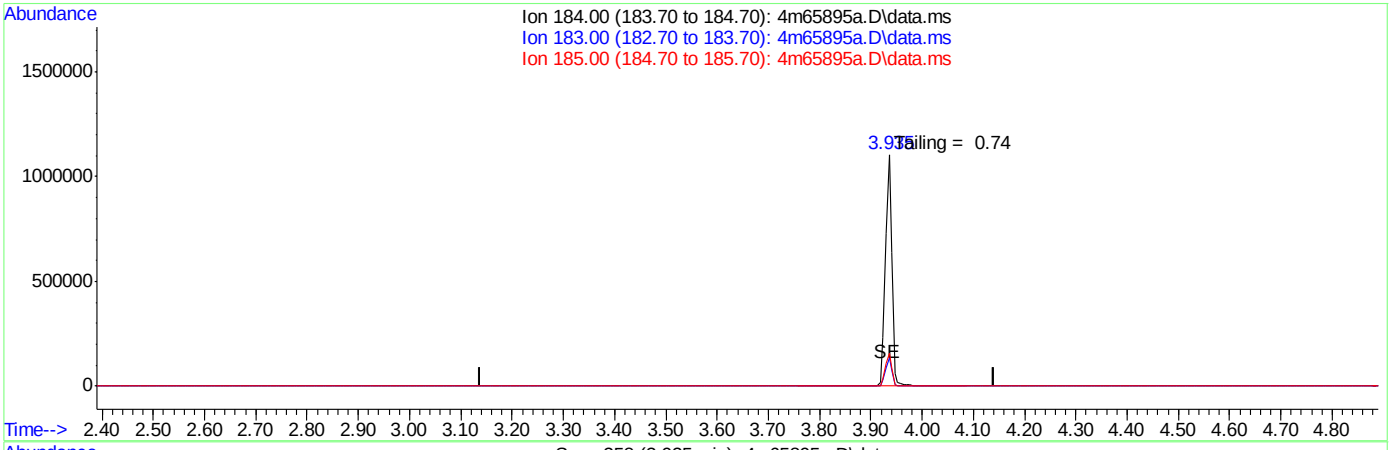
Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

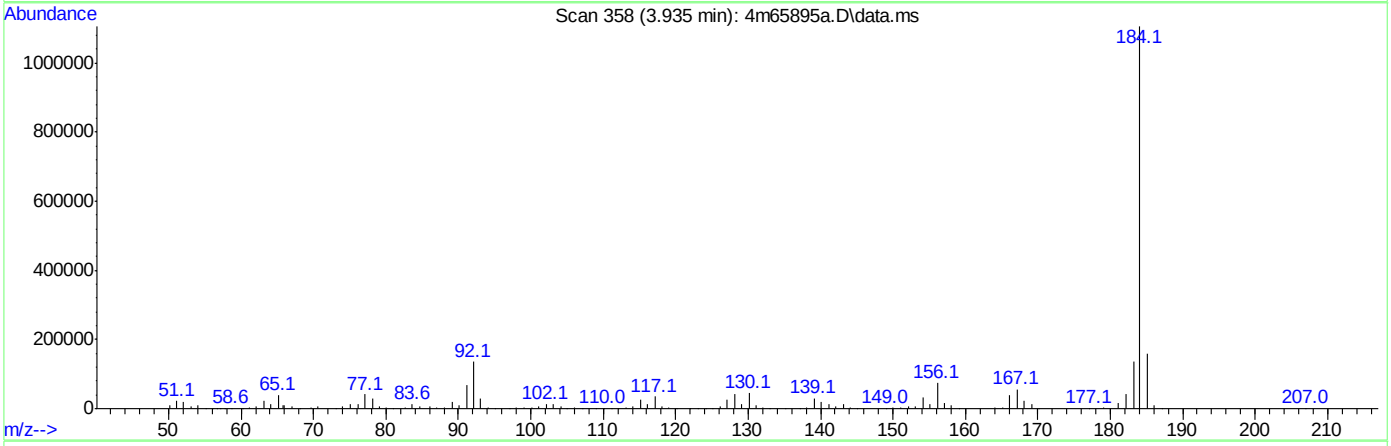
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65895a.D\data.ms

(2) benzidine (t)

3.640min (-3.640) 0.00ppb

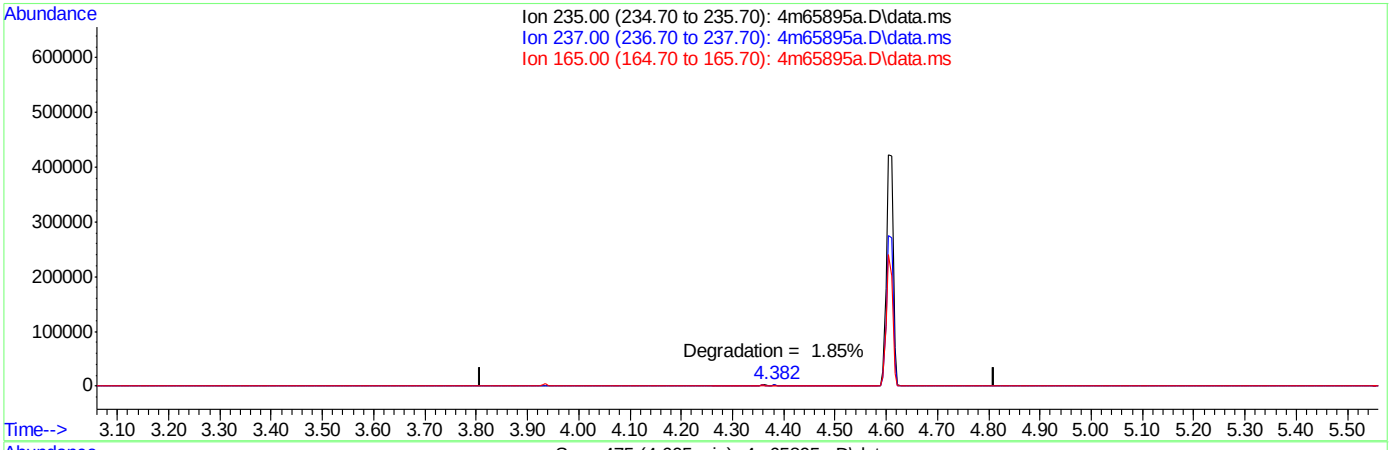
response 0

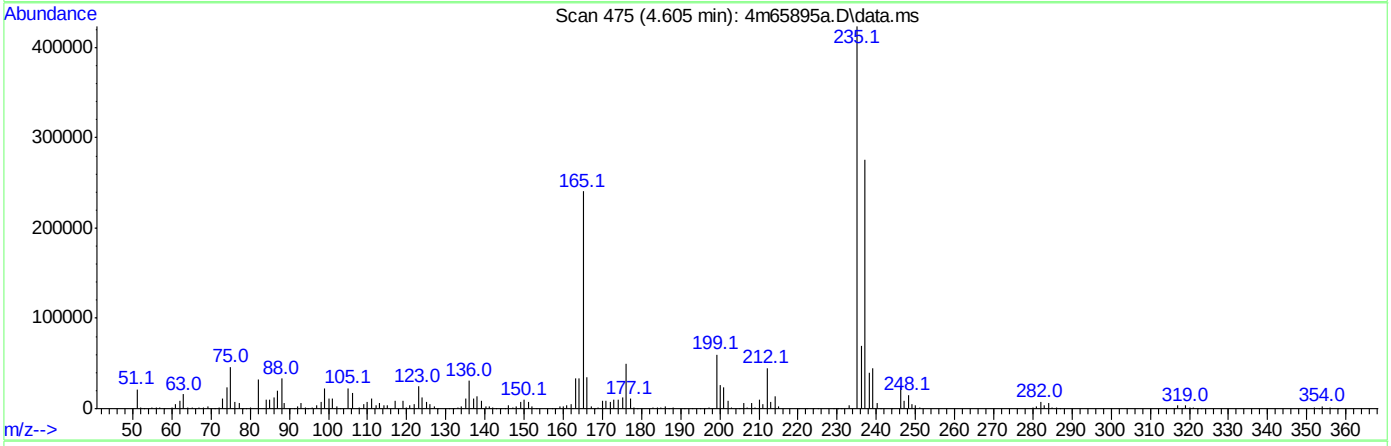
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00#
185.00	13.40	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





(3) ddt (t)

4.310min (-4.310) 0.00ppb

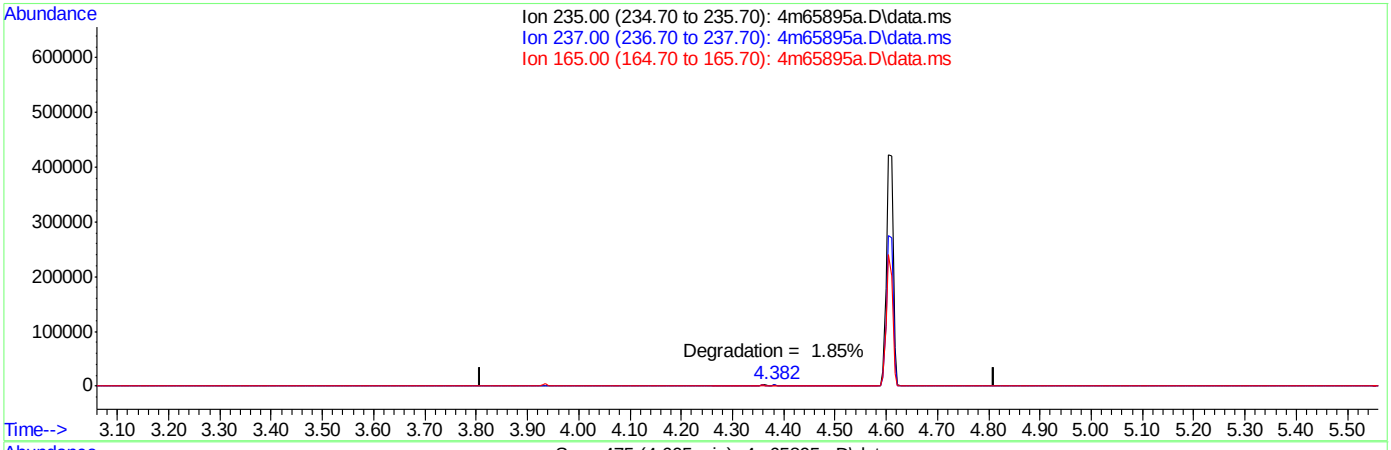
response 0

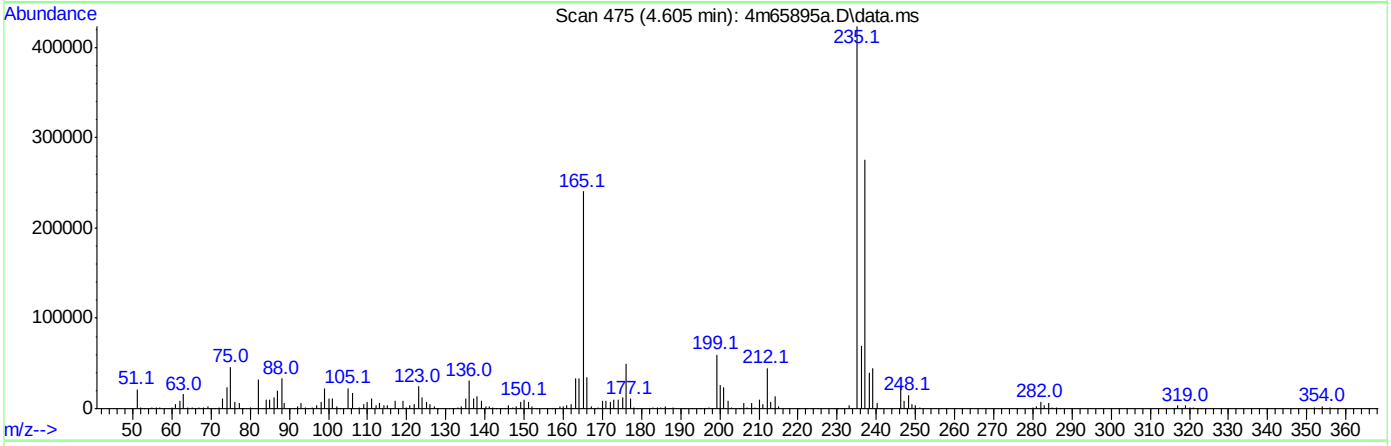
Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	48.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958a\
Data File : 4m65895a.D
Acq On : 9 Jun 2016 2:10 pm
Operator : linseyk
Sample : dftpp
Misc : op94385a,e4m2958
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 09 14:16:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





(3) ddt (t)

4.310min (-4.310) 0.00ppb

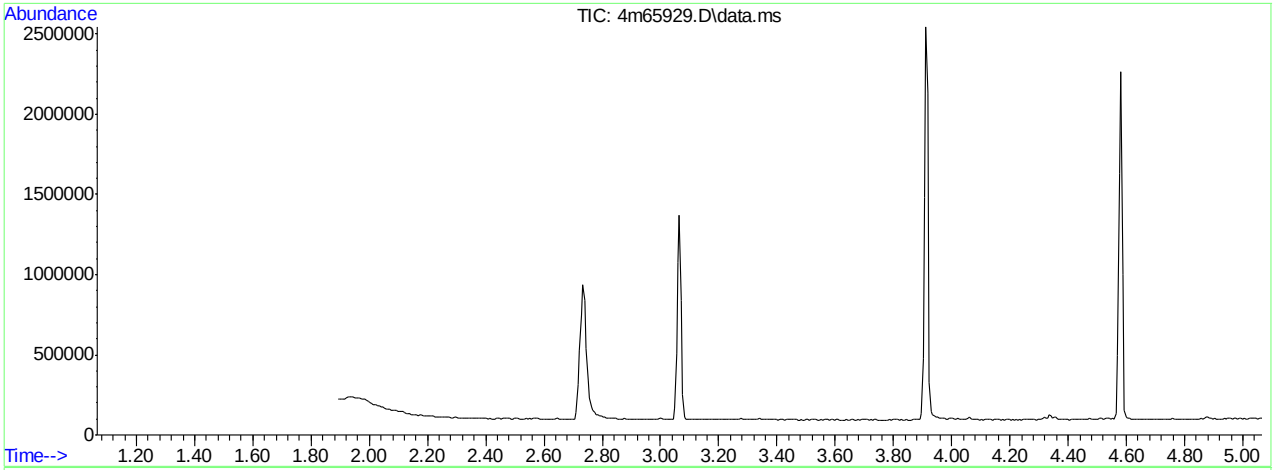
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	48.70	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E4M2960\4m65929.D Vial: 1
Acq On : 10 Jun 2016 10:51 pm Operator: juliusj
Sample : dftpp Inst : GCMS4M
Misc : op94385a,e4m2960 Multiplr: 1.00
MS Integration Params: events3.e

Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M (ChemStation Integrator)
Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um



AutoFind: Scans 205, 206, 207; Background Corrected with Scan 200

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.6	50424	PASS
68	69	0.00	2	0.5	269	PASS
69	198	0.00	100	46.3	57506	PASS
70	69	0.00	2	0.5	262	PASS
127	198	40	60	51.1	63512	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	124245	PASS
199	198	5	9	7.0	8713	PASS
275	198	10	30	20.5	25453	PASS
365	198	1	100	2.5	3098	PASS
441	443	0.01	100	78.3	13288	PASS
442	198	40	100	72.0	89400	PASS
443	442	17	23	19.0	16977	PASS

4m65929.D DFTPP4M.M Mon Jun 13 09:40:11 2016 MANAGER

Average of 3.060 to 3.071 min.: 4m65929.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	6405	62.00	753	75.00	7921	89.00	96
51.05	50424	63.00	2119	76.10	3136	90.95	877
52.00	2641	64.00	330	77.05	59203	91.95	1130
53.00	119	65.00	1192	78.00	4168	93.00	5741
53.95	165	66.10	67	79.00	3434	94.00	519
55.00	104	68.00	269	80.00	2653	94.90	22
56.00	1491	69.00	57506	81.00	4336	95.90	449
57.00	3489	69.90	262	82.00	948	97.00	143
58.00	326	71.05	28	83.00	1186	98.00	4150
60.00	87	73.05	422	85.00	363	99.00	3495
61.00	718	74.05	5237	86.90	373	100.15	273

Average of 3.060 to 3.071 min.: 4m65929.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
101.00	1993	112.00	577	120.00	107	133.95	628
102.00	81	112.80	133	122.00	938	135.00	1806
102.95	733	113.10	118	123.00	1543	136.00	694
104.00	1376	115.00	97	124.00	735	137.00	917
105.00	1248	115.20	82	125.00	978	138.00	239
106.05	343	115.90	302	127.00	63512	139.00	89
107.00	16178	116.05	691	128.00	5027	140.05	312
108.00	2614	117.00	9790	129.00	23044	141.00	2806
109.00	169	117.95	766	130.00	1992	142.00	1011
110.00	34027	119.10	105	131.05	438	143.00	677
111.00	4825	119.80	115	131.90	114	144.20	68

Average of 3.060 to 3.071 min.: 4m65929.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.90	67	155.05	1514	167.00	5273	176.95	933
145.05	204	156.00	2391	168.00	2477	177.90	217
146.00	543	157.10	678	168.95	437	178.10	163
147.00	1391	157.90	575	169.90	134	179.00	3887
148.00	2634	159.05	431	170.10	86	180.05	2980
149.05	602	160.00	811	171.10	89	181.00	1327
150.10	266	161.05	1196	171.90	480	182.00	205
151.05	290	162.05	427	173.10	665	182.95	145
151.60	247	164.00	123	174.00	1220	184.00	133
153.00	897	164.95	864	175.05	1977	184.20	155
154.05	633	166.05	808	176.05	803	185.05	2038

Average of 3.060 to 3.071 min.: 4m65929.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
186.05	14784	198.00	124245	209.80	172	222.00	219
187.05	4171	199.00	8713	210.10	165	223.05	1855
188.05	430	200.00	567	211.10	1078	224.05	14170
189.00	861	201.50	739	212.10	106	225.00	3634
190.10	68	203.00	818	215.10	316	226.00	288
190.95	521	204.05	4071	216.00	770	227.00	5217
192.05	1123	205.10	6948	217.00	6508	228.00	788
193.00	1283	206.10	27883	218.05	1008	229.00	1114
194.00	412	207.00	3520	219.10	90	229.70	78
195.10	244	208.00	833	219.90	71	230.00	189
196.00	3896	209.00	332	221.05	7035	231.00	566

Average of 3.060 to 3.071 min.: 4m65929.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
233.00	172	245.95	1859	257.10	705	277.05	1840
233.95	295	247.05	400	258.00	2886	277.95	411
235.00	511	248.95	457	258.95	525	283.05	280
235.90	206	250.00	78	263.80	79	284.00	88

M4M2958SIM.M Mon Jun 13 09:17:39 2016 MANAGER Page: 0

237.05	455	251.10	80	265.00	1153	285.00	400
240.00	82	252.10	73	265.95	266	292.95	534
240.95	213	252.50	141	271.00	77	294.10	203
242.00	764	253.00	161	273.05	2158	296.10	5887
243.15	1078	253.20	372	274.10	5128	297.05	989
244.10	12272	255.05	57379	275.10	25453	303.05	732
245.10	1708	256.00	8870	276.05	3544	304.05	183

Average of 3.060 to 3.071 min.: 4m65929.D\data.ms
dftpp
Modified:subtracted

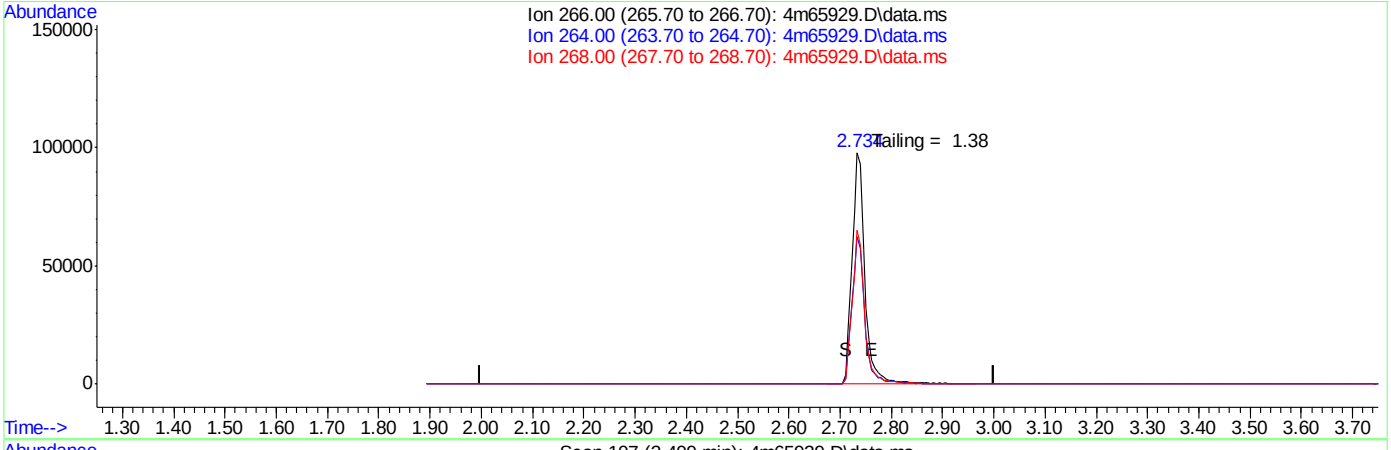
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
314.05	344	335.05	337	383.00	373	437.40	69
314.95	707	346.05	503	391.10	71	437.80	101
315.95	370	347.10	81	402.00	528	438.10	71
321.05	276	352.05	664	403.05	738	438.50	250
323.10	2455	353.05	524	403.95	267	438.90	229
324.05	450	354.10	674	421.05	844	439.30	76
326.90	401	365.00	3098	422.05	674	439.50	110
328.05	225	365.95	355	423.10	4553	441.10	13288
332.00	98	371.00	81	424.05	975	442.10	89400
333.20	86	372.10	1319	433.30	73	443.10	16977
334.05	1319	373.05	363	437.15	195	444.10	1832

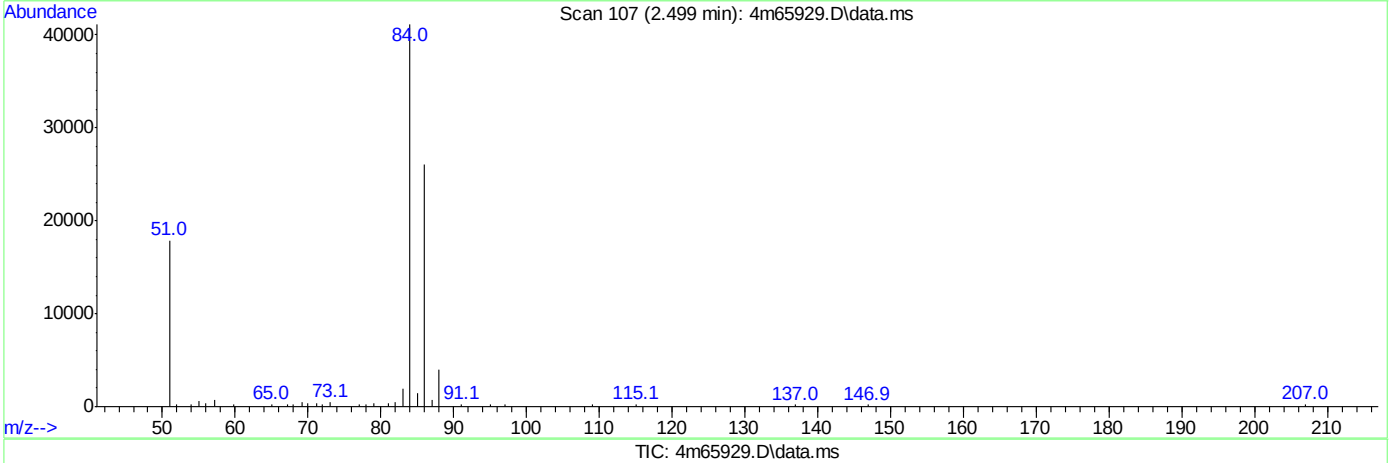
M4M2958SIM.M Mon Jun 13 09:17:39 2016 MANAGER Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65929.D
Acq On : 10 Jun 2016 10:51 pm
Operator : juliusj
Sample : dftpp
Misc : op94385a,e4m2960
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 10 22:57:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65929.D\data.ms

(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

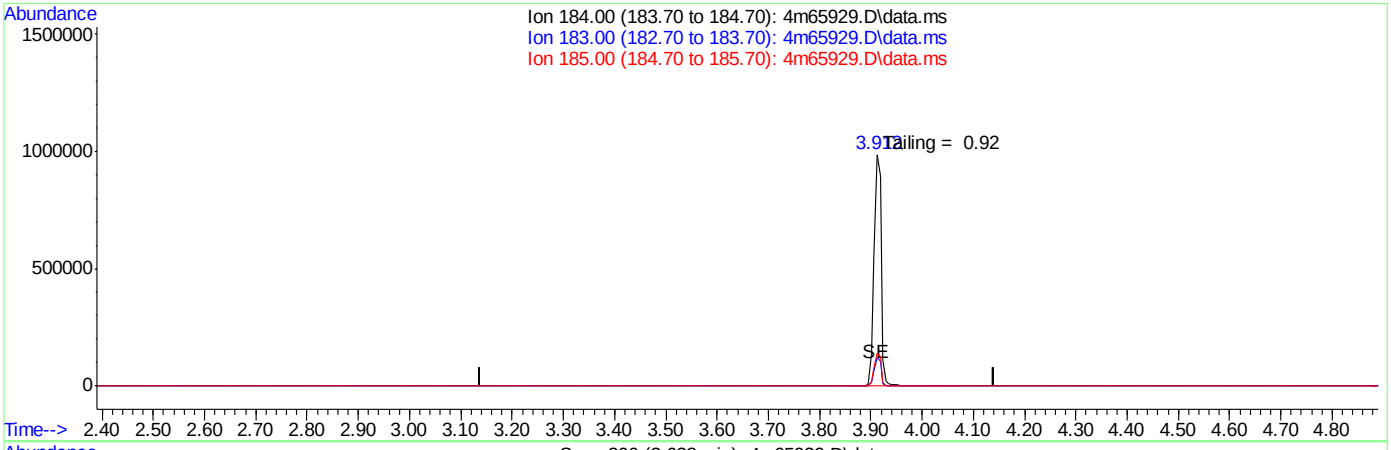
response 0

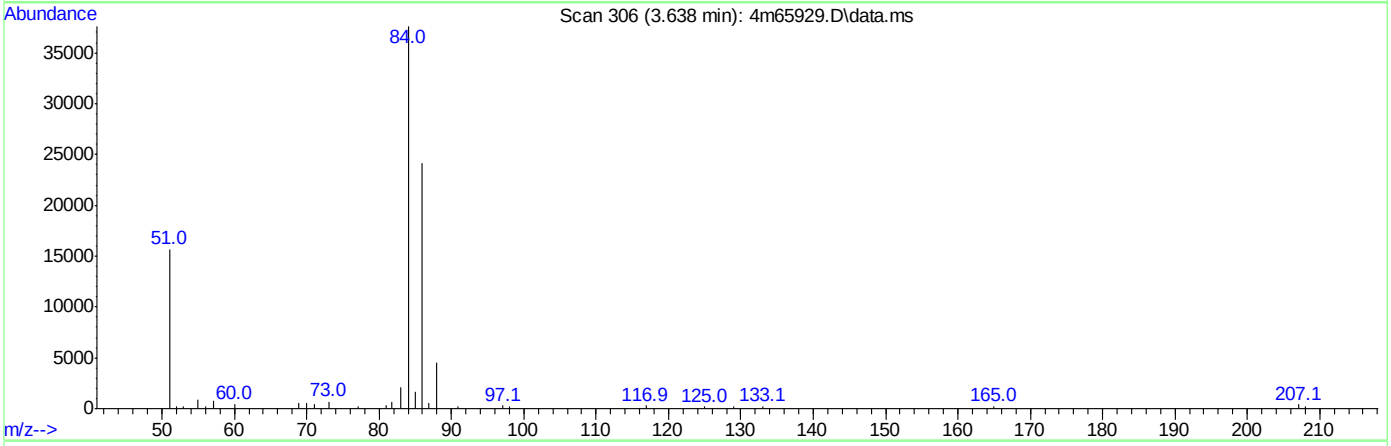
Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65929.D
Acq On : 10 Jun 2016 10:51 pm
Operator : juliusj
Sample : dftpp
Misc : op94385a,e4m2960
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 10 22:57:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65929.D\data.ms

(2) benzidine (t)

3.640min (-3.640) 0.00ppb

response 0

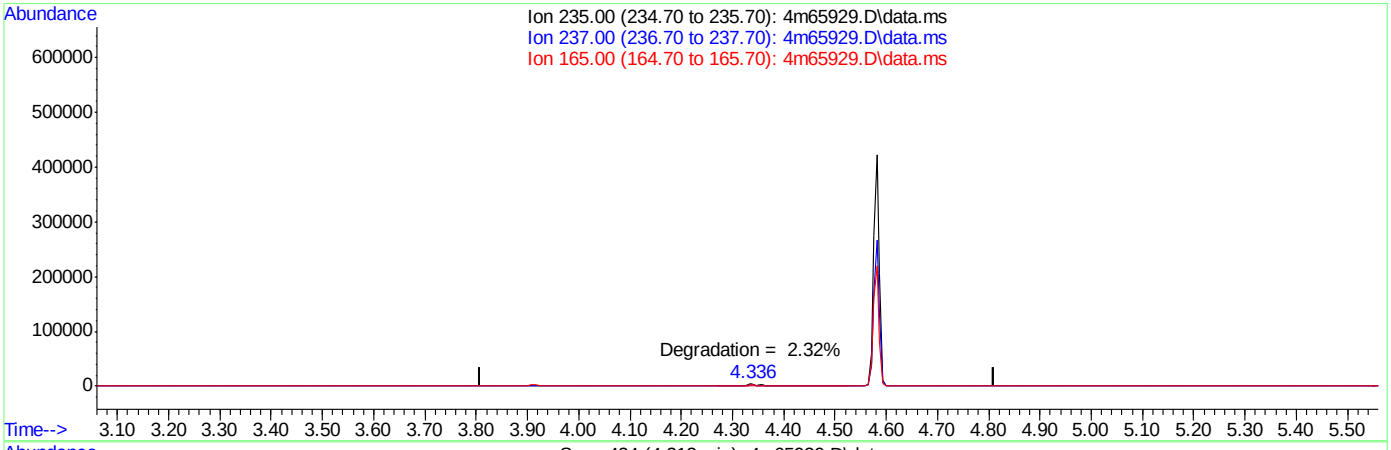
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00#
185.00	13.40	0.00#
0.00	0.00	0.00

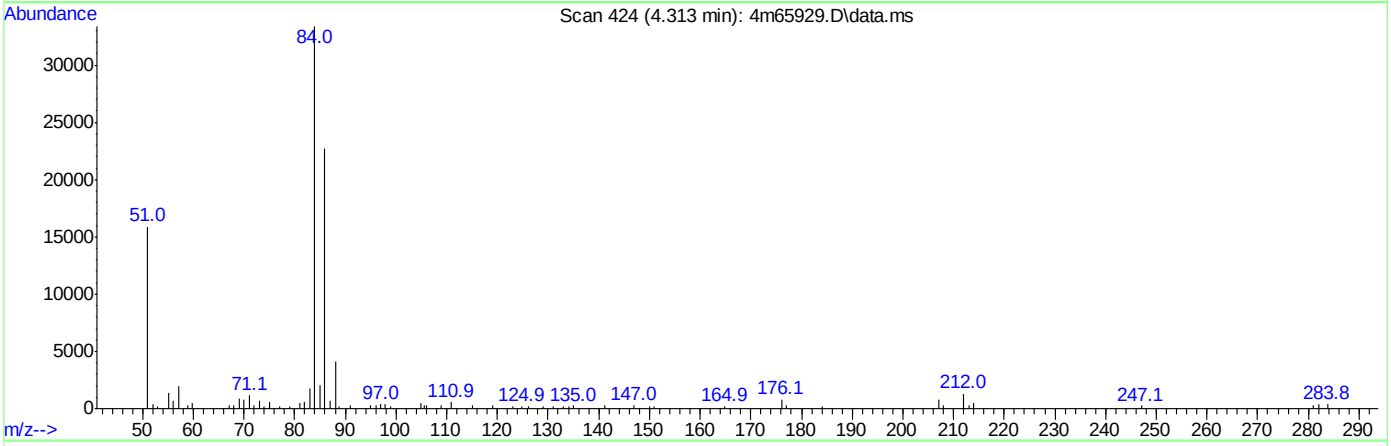
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65929.D
Acq On : 10 Jun 2016 10:51 pm
Operator : juliusj
Sample : dftpp
Misc : op94385a,e4m2960
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 10 22:57:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m65929.D\data.ms

(3) ddt (t)

4.310min (-4.310) 0.00ppb

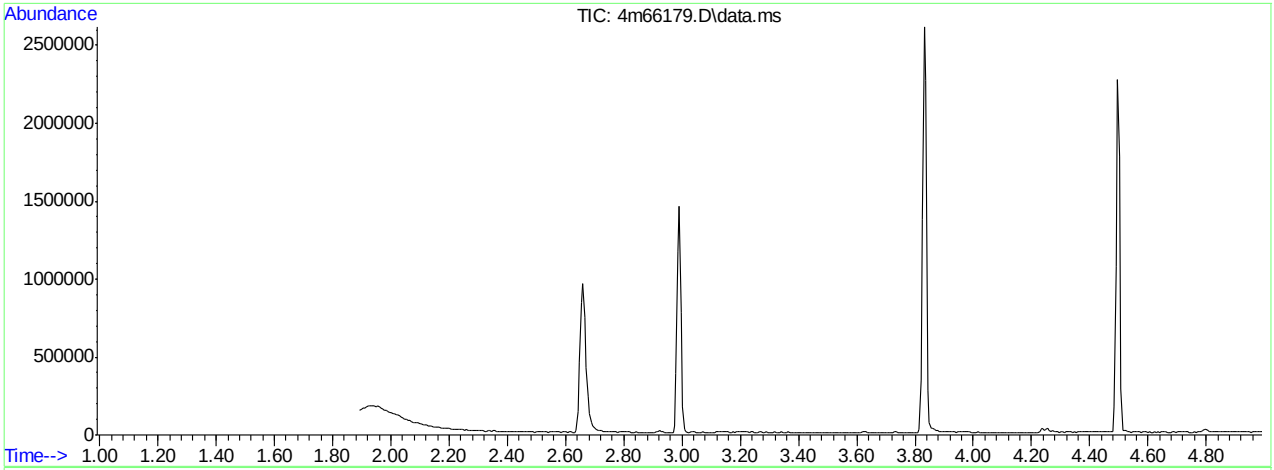
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	48.70	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E4M2974\4m66179.D Vial: 1
Acq On : 20 Jun 2016 10:06 pm Operator: ashleyd
Sample : dftpp Inst : GCMS4M
Misc : op94799a,e4m2974 Multiplr: 1.00
MS Integration Params: events3.e

Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M (ChemStation Integrator)
Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um



AutoFind: Scans 192, 193, 194; Background Corrected with Scan 187

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.7	58020	PASS
68	69	0.00	2	0.9	561	PASS
69	198	0.00	100	44.3	61706	PASS
70	69	0.00	2	0.4	274	PASS
127	198	40	60	50.0	69656	PASS
197	198	0.00	1	0.3	387	PASS
198	198	100	100	100.0	139197	PASS
199	198	5	9	6.6	9146	PASS
275	198	10	30	20.6	28704	PASS
365	198	1	100	2.4	3401	PASS
441	443	0.01	100	76.6	15333	PASS
442	198	40	100	72.8	101275	PASS
443	442	17	23	19.8	20015	PASS

4m66179.D DFTPP4M.M Tue Jun 21 07:51:45 2016 MANAGER

Average of 2.986 to 2.997 min.: 4m66179.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	15050	62.05	815	74.05	5262	85.00	663
51.05	58020	63.05	2325	75.00	8692	86.00	482
52.00	3099	64.10	428	76.10	3223	87.05	590
52.95	188	65.00	1155	77.05	63527	87.90	16
54.10	85	66.90	213	78.10	4774	89.00	69
55.10	356	67.20	127	79.00	3877	91.00	970
56.00	1758	68.00	561	80.00	2995	92.00	1263
57.00	3953	68.95	61706	81.00	4713	93.00	6468
57.90	312	70.00	274	82.00	899	93.95	419
60.05	246	71.05	13	82.95	969	94.95	346
61.00	760	72.95	342	84.00	339	96.05	393

Average of 2.986 to 2.997 min.: 4m66179.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	13	108.00	3005	119.95	217	132.95	167
98.00	4455	110.00	36653	122.00	1075	134.00	734
99.00	3735	111.00	5105	123.00	1822	135.00	1922
100.00	412	111.95	656	124.00	723	136.00	808
101.00	2476	112.90	67	125.00	952	137.00	972
101.80	88	113.10	85	127.00	69656	137.70	118
103.00	876	115.00	194	128.00	5317	140.00	316
104.00	1542	116.05	1067	129.00	25164	141.00	2818
105.00	1487	117.00	10735	130.00	1825	142.05	1018
106.10	434	117.95	891	131.00	461	143.00	729
107.00	17644	118.90	187	132.05	308	144.00	230

Average of 2.986 to 2.997 min.: 4m66179.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.05	166	153.00	580	162.95	161	174.00	1182
145.90	166	154.00	654	163.90	267	175.05	2222
146.05	350	155.05	1787	164.95	1144	176.00	814
147.00	1398	156.00	2581	166.00	843	176.95	1132
148.00	2948	157.00	637	167.00	5850	178.00	467
148.95	690	157.90	555	168.05	2419	179.00	4345
149.90	95	158.90	319	168.95	516	180.00	2995
151.00	491	159.10	105	170.00	190	181.00	1534
151.60	133	160.00	826	171.00	357	182.00	304
152.00	180	160.95	1212	171.90	560	182.90	168
152.80	309	162.00	489	173.00	732	184.00	357

Average of 2.986 to 2.997 min.: 4m66179.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
185.00	2069	194.80	100	203.05	525	212.20	69
186.05	16713	195.10	143	204.05	4544	213.10	69
187.00	4736	196.00	4173	205.05	6989	215.05	235
187.95	447	196.70	387	206.10	31419	216.00	513
188.95	924	198.00	139197	207.10	4195	217.00	7273
190.00	74	199.00	9146	207.90	338	218.05	997
190.95	443	200.00	690	208.10	801	219.80	68
191.20	154	201.20	161	209.00	381	221.10	7656
192.00	1122	201.55	850	210.00	146	223.00	1988
192.95	1559	202.15	298	210.95	1200	224.10	16877
194.05	411	202.90	233	212.00	93	225.10	3938

Average of 2.986 to 2.997 min.: 4m66179.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.00	573	240.00	104	250.80	75	259.90	68
227.00	6296	240.95	287	252.00	100	264.00	72
228.00	1005	242.00	980	252.30	89	265.05	1111
229.00	1373	243.00	345	252.50	130	265.85	278

M4M2973SIM.M Mon Jun 20 21:06:02 2016 MANAGER Page: 0

229.95	233	243.15	806	253.05	222	270.05	144
231.10	691	244.10	13582	253.30	320	272.00	93
234.00	443	245.05	1807	255.00	64309	273.00	2154
234.85	439	246.00	2074	256.00	9152	274.05	5590
235.95	216	246.90	138	257.05	809	275.00	28704
236.95	529	247.05	387	258.05	3317	276.05	4067
239.10	117	249.00	506	259.00	500	277.05	1922

Average of 2.986 to 2.997 min.: 4m66179.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
278.00	290	303.05	860	326.95	433	355.20	68
283.05	200	304.00	109	327.90	241	365.00	3401
284.10	82	308.10	76	332.10	77	366.00	467
285.10	388	309.90	69	333.10	314	371.05	308
291.90	83	314.00	406	334.00	1393	372.05	1423
293.00	680	315.00	824	335.05	470	373.00	368
294.70	69	315.95	478	341.00	450	382.95	300
295.05	330	321.05	335	346.00	599	383.90	70
296.05	6825	322.05	192	352.10	813	390.00	98
297.05	1078	323.05	2675	353.10	566	402.05	546
301.00	67	324.00	445	354.10	844	403.05	855

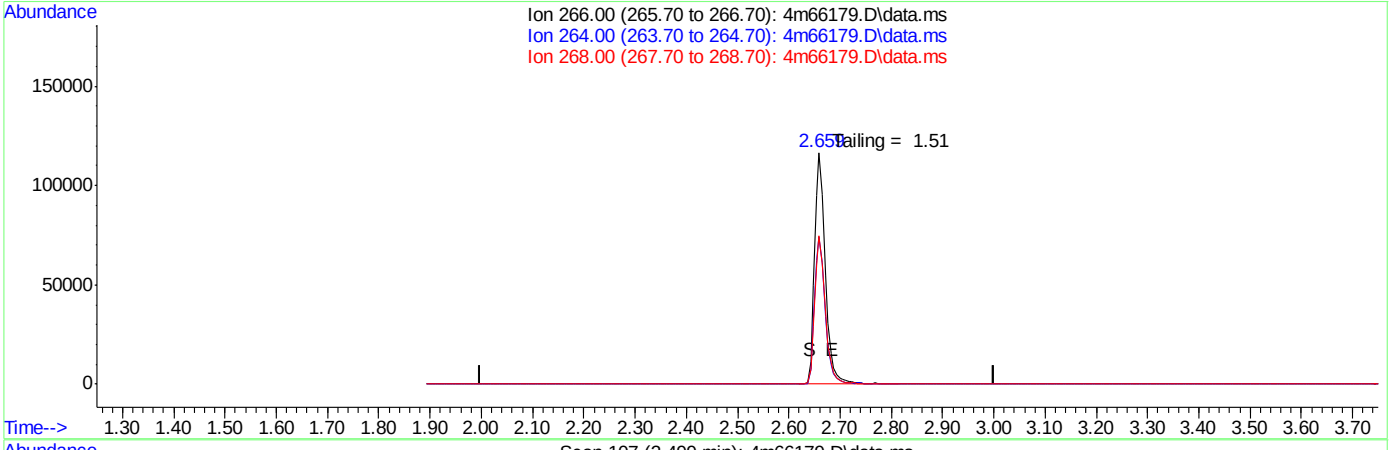
Average of 2.986 to 2.997 min.: 4m66179.D\data.ms
dftpp
Modified:subtracted

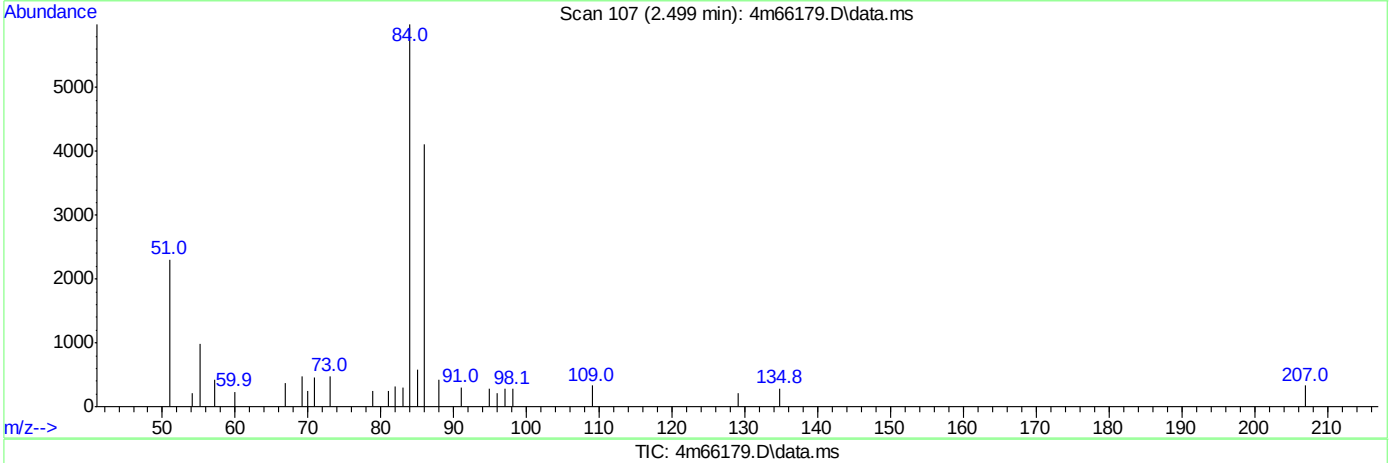
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
403.95	329	441.10	15333				
421.05	716	442.10	101275				
422.05	759	443.10	20015				
423.10	5222	444.10	1759				
424.05	1108						
433.80	68						
434.20	68						
437.70	114						
438.20	121						
438.55	354						
439.15	193						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66179.D
Acq On : 20 Jun 2016 10:06 pm
Operator : ashleyd
Sample : dftpp
Misc : op94799a,e4m2974
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 20 22:11:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m66179.D\data.ms

(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

response 0

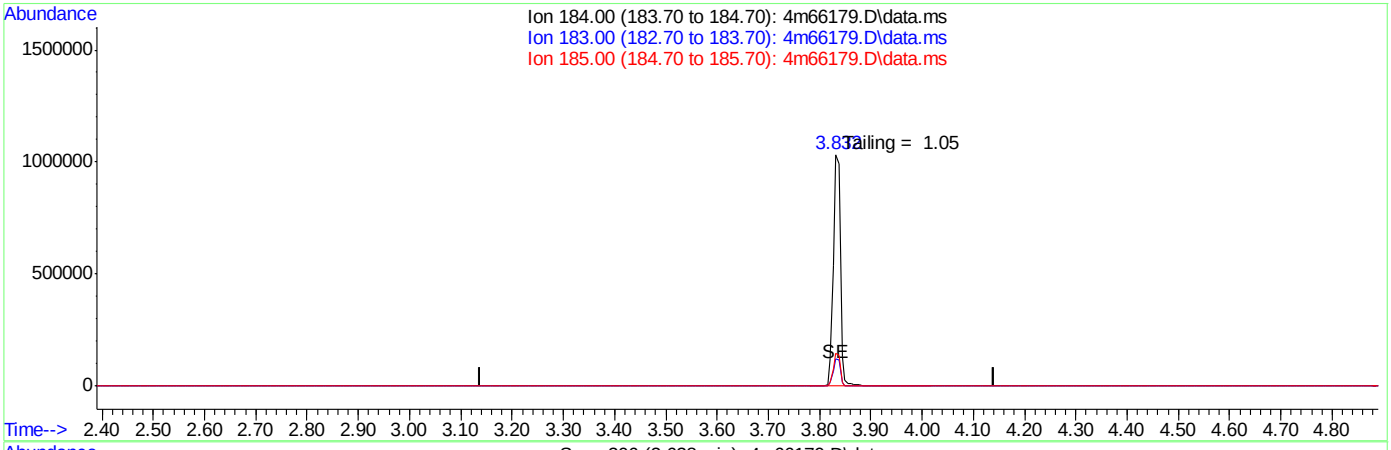
Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

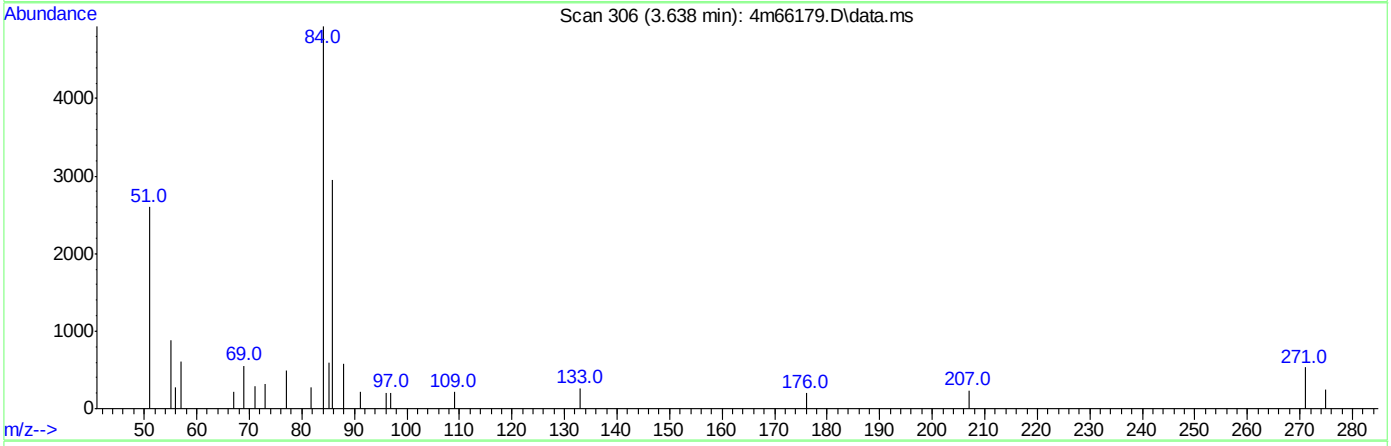
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66179.D
Acq On : 20 Jun 2016 10:06 pm
Operator : ashleyd
Sample : dftpp
Misc : op94799a,e4m2974
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 20 22:11:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m66179.D\data.ms

(2) benzidine (t)

3.640min (-3.640) 0.00ppb

response 0

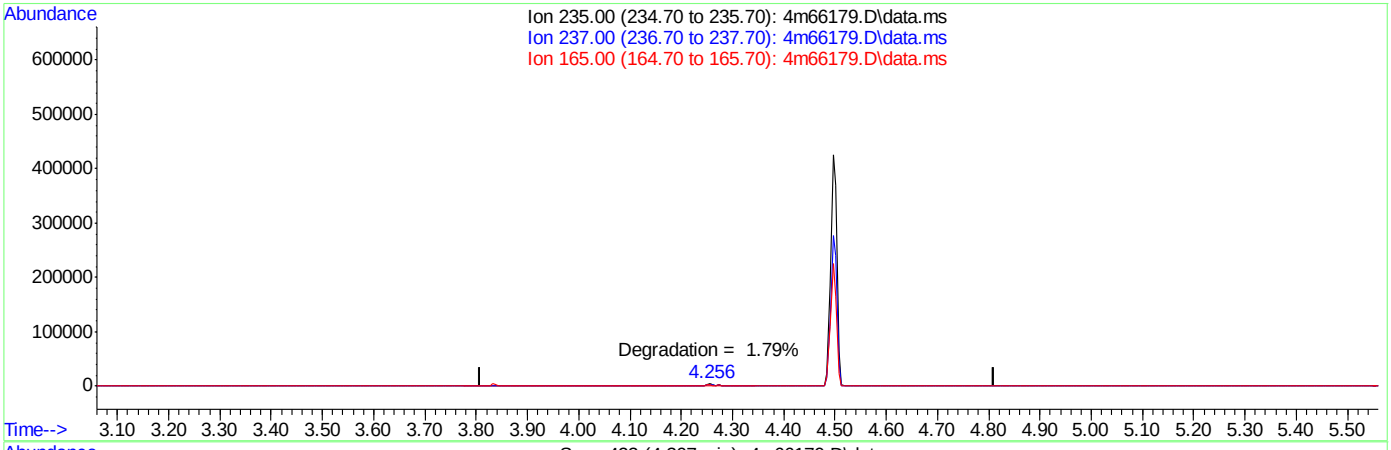
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00#
185.00	13.40	0.00#
0.00	0.00	0.00

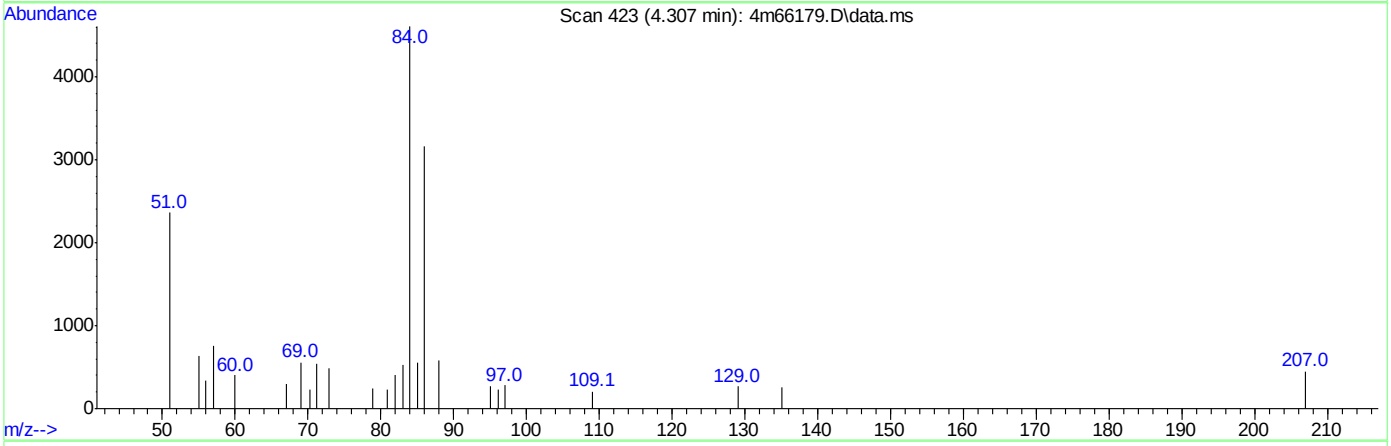
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66179.D
Acq On : 20 Jun 2016 10:06 pm
Operator : ashleyd
Sample : dftpp
Misc : op94799a,e4m2974
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 20 22:11:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m66179.D\data.ms

(3) ddt (t)

4.310min (-4.310) 0.00ppb

response 0

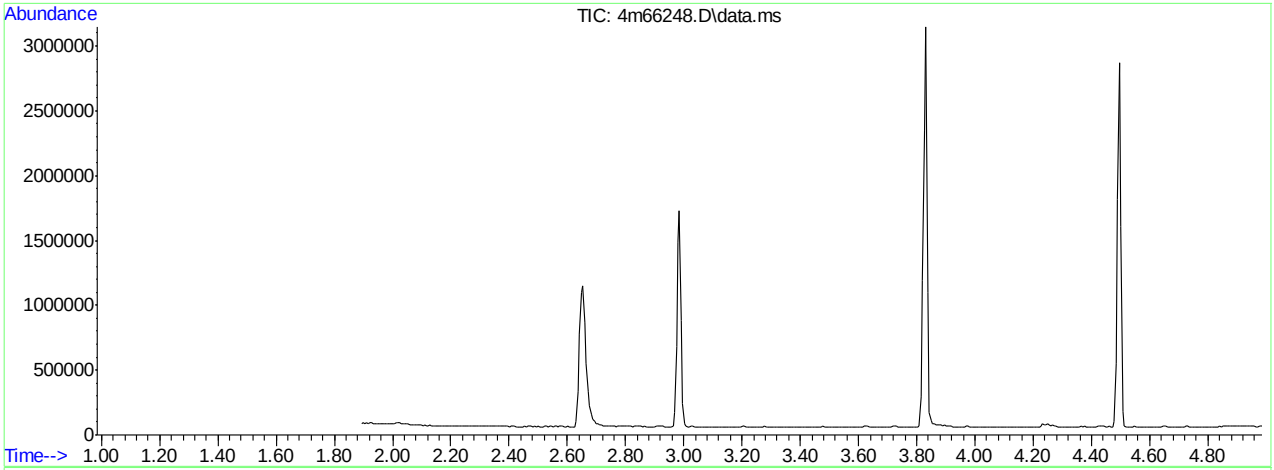
Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	48.70	0.00#
0.00	0.00	0.00

SGS ACCUTEST JC21709

DFTPP

Data File : C:\msdchem\1\DATA\E4M2977\4m66248.D Vial: 1
Acq On : 22 Jun 2016 9:29 am Operator: linseyk
Sample : dftpp Inst : GCMS4M
Misc : op94644a,e4m2977 Multiplr: 1.00
MS Integration Params: events3.e

Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M (ChemStation Integrator)
Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um



AutoFind: Scans 191, 192, 193; Background Corrected with Scan 186

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.4	65421	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.7	73768	PASS
70	69	0.00	2	0.4	280	PASS
127	198	40	60	50.2	79389	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	158085	PASS
199	198	5	9	6.6	10431	PASS
275	198	10	30	21.2	33587	PASS
365	198	1	100	2.6	4118	PASS
441	443	0.01	100	79.9	18883	PASS
442	198	40	100	78.4	123899	PASS
443	442	17	23	19.1	23648	PASS

4m66248.D DFTPP4M.M Wed Jun 22 12:05:56 2016 MANAGER

Average of 2.980 to 2.991 min.: 4m66248.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	18746	63.00	2578	77.10	75280	91.00	1283
51.05	65421	64.05	346	78.05	5187	92.00	1243
52.00	3348	65.00	1352	79.00	4660	93.00	7159
52.90	91	66.15	141	80.00	3434	93.95	592
54.95	164	67.10	327	81.00	5103	95.05	158
56.00	1991	69.00	73768	81.90	1271	96.00	475
57.00	4721	69.90	280	83.05	1089	96.95	186
57.95	307	73.05	543	84.95	511	98.00	4816
58.95	170	74.00	6284	86.00	381	99.00	4068
60.95	955	75.00	10036	86.95	434	99.80	147
62.00	922	76.15	3866	87.90	153	100.00	325

Average of 2.980 to 2.991 min.: 4m66248.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
101.00	2573	112.10	323	124.00	1045	136.00	742
102.00	105	113.05	233	125.05	941	137.05	1099
103.00	1030	115.00	76	127.00	79389	137.95	160
104.00	1617	116.10	1191	128.10	6313	139.00	215
105.00	1471	117.00	11844	129.00	27734	140.00	491
106.05	461	118.00	1127	130.00	2438	141.00	3220
107.00	20251	119.00	145	131.00	460	141.95	1000
108.00	3526	119.90	73	132.05	420	142.90	817
110.00	41627	121.30	106	133.00	86	143.70	88
111.00	5992	122.00	1168	134.00	776	144.00	123
111.90	440	123.00	1939	135.00	1754	144.90	209

Average of 2.980 to 2.991 min.: 4m66248.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
146.00	591	156.00	2660	166.00	1108	177.00	1208
147.00	1522	157.05	774	167.05	6562	177.95	428
148.00	3287	157.90	591	168.00	2679	179.00	4594
149.00	817	159.05	515	169.00	512	180.05	3261
150.00	76	160.00	1115	170.00	251	181.00	1563
151.00	341	161.00	1473	170.85	290	182.10	336
151.20	190	161.80	244	172.00	683	182.95	229
151.95	285	162.00	158	173.00	791	183.90	398
153.00	1048	162.90	85	174.05	1463	185.10	2544
154.00	730	163.95	175	175.05	2598	186.10	19744
155.05	1923	165.00	1103	176.00	880	187.00	5112

Average of 2.980 to 2.991 min.: 4m66248.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
188.05	641	201.35	492	210.60	366	221.70	349
189.00	1029	201.60	387	211.00	967	223.05	2211
190.05	197	201.90	134	211.70	232	224.10	18410
191.05	622	203.00	972	213.10	73	225.10	4906
192.00	1665	204.05	4691	215.00	414	226.05	575
193.00	1588	205.05	8769	216.10	641	227.05	6691
193.95	337	206.10	35829	217.00	8385	228.00	887
196.00	5319	207.05	4905	217.95	1112	228.95	1637
198.00	158085	208.00	1168	219.00	168	229.95	280
199.00	10431	209.05	247	219.80	80	231.00	815
200.05	886	210.00	243	221.05	9589	232.00	70

Average of 2.980 to 2.991 min.: 4m66248.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
233.95	373	244.10	15225	256.05	11822	274.05	6898
234.95	498	245.05	2292	257.05	928	275.10	33587
235.90	280	246.00	2681	258.00	3881	276.10	4675
236.20	112	246.95	581	259.00	583	277.05	2772

M4M2958SIM.M Wed Jun 22 11:52:31 2016 MANAGER Page: 0

236.95	652	248.05	166	263.80	88	278.05	440
238.90	107	249.05	525	264.00	96	283.00	339
239.10	80	250.90	155	265.00	1399	284.05	225
240.00	117	251.50	72	265.85	168	285.05	483
241.05	337	252.15	269	270.95	182	291.00	70
242.00	1095	253.15	364	272.20	278	292.20	101
243.15	1079	255.10	75368	273.00	2662	293.00	776

Average of 2.980 to 2.991 min.: 4m66248.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
293.95	277	322.00	72	341.00	392	372.10	1576
296.05	8040	322.20	85	345.90	180	373.05	412
297.05	1077	323.10	3378	346.10	590	382.95	441
301.95	207	324.05	621	352.05	954	384.05	204
303.10	1185	327.00	555	353.05	669	390.00	214
304.00	264	327.95	341	354.10	994	391.10	82
308.00	83	331.80	71	355.00	97	401.10	68
314.10	465	332.00	163	364.10	110	402.05	735
314.95	969	333.15	337	365.05	4118	403.05	1033
316.05	594	334.05	1865	366.00	514	404.05	323
321.05	340	335.05	563	371.10	255	421.00	791

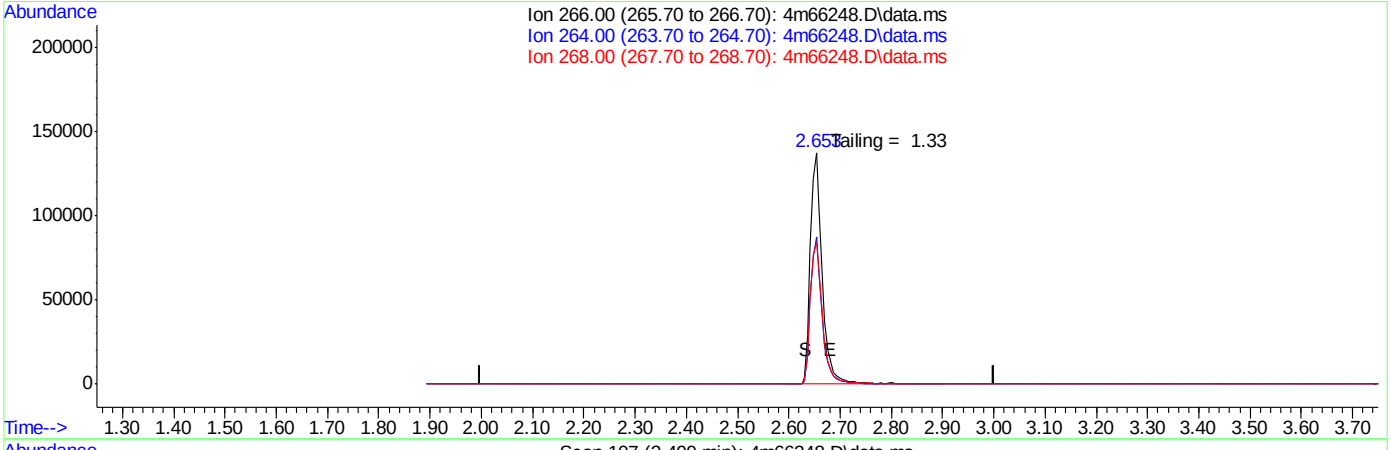
Average of 2.980 to 2.991 min.: 4m66248.D\data.ms
dftpp
Modified:subtracted

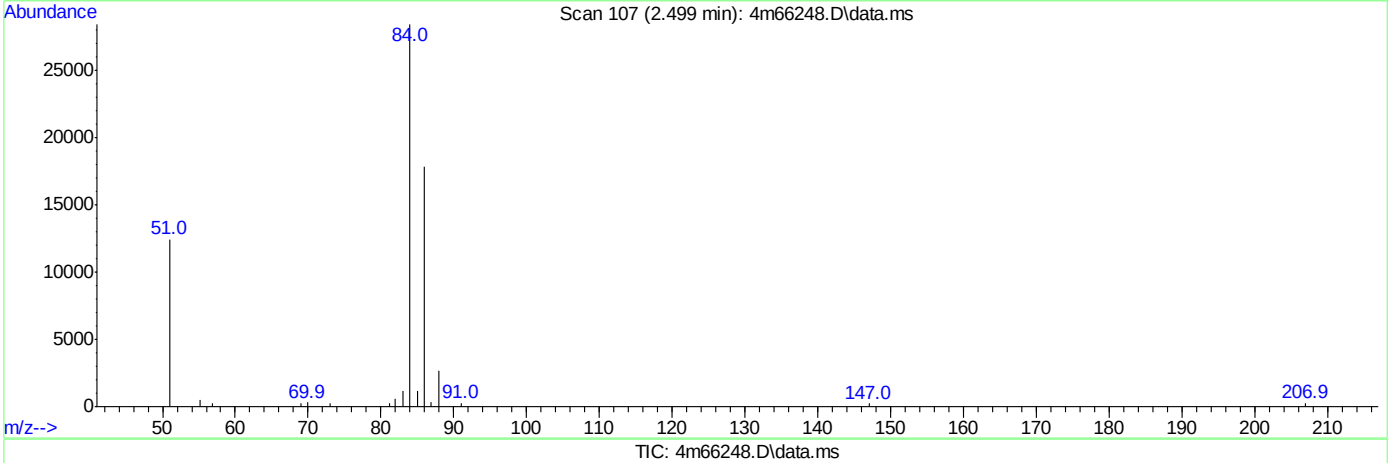
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
422.05	943	439.60	88				
423.10	6148	441.10	18883				
424.05	1157	442.10	123899				
434.30	95	443.10	23648				
436.40	100	444.10	2285				
436.80	75	445.05	149				
437.60	79						
437.90	152						
438.25	271						
438.70	168						
439.15	487						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2977\
Data File : 4m66248.D
Acq On : 22 Jun 2016 9:29 am
Operator : linseyk
Sample : dftpp
Misc : op94644a,e4m2977
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 22 09:34:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m66248.D\data.ms

(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

response 0

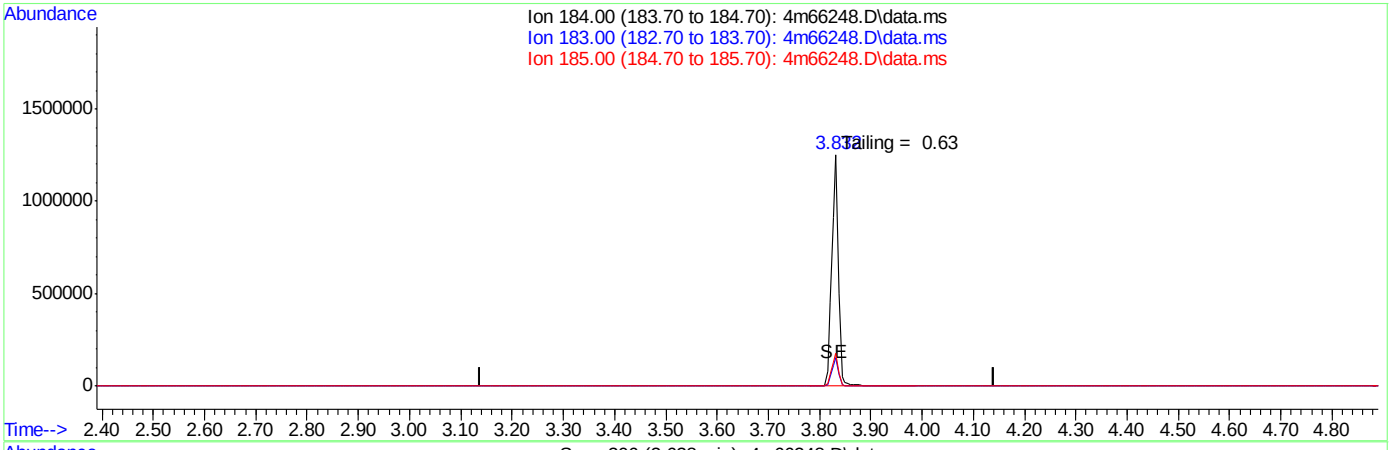
Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

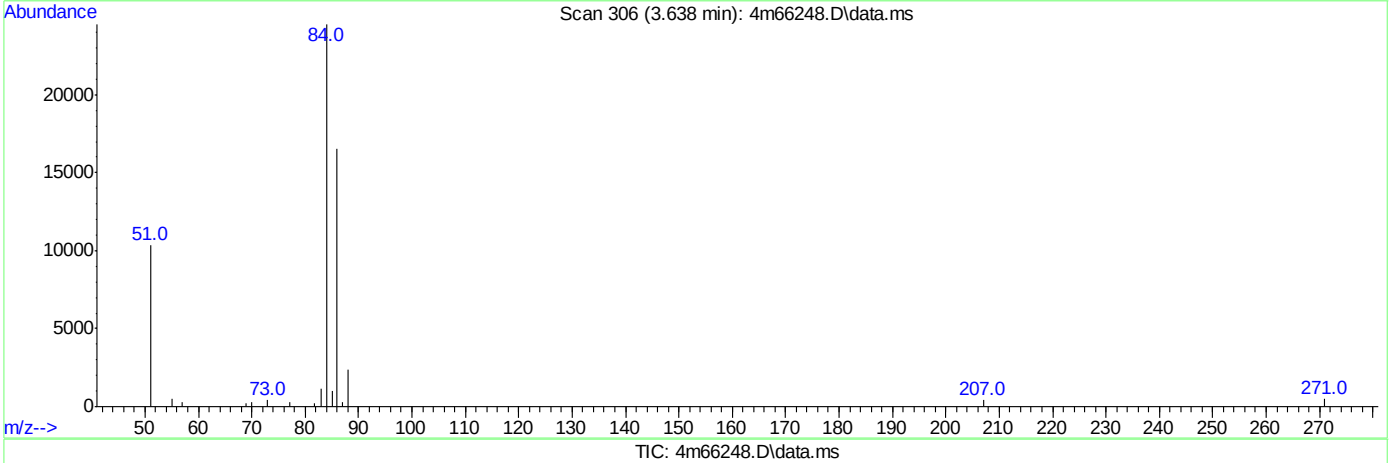
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2977\
Data File : 4m66248.D
Acq On : 22 Jun 2016 9:29 am
Operator : linseyk
Sample : dftpp
Misc : op94644a,e4m2977
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 22 09:34:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





(2) benzidine (t)

3.640min (-3.640) 0.00ppb

response 0

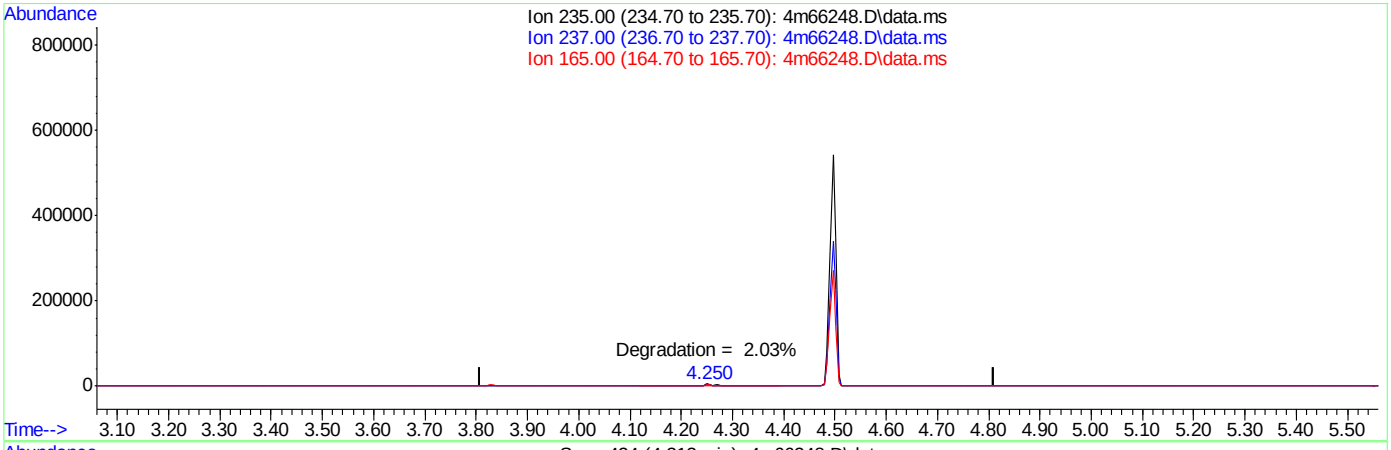
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00#
185.00	13.40	0.00#
0.00	0.00	0.00

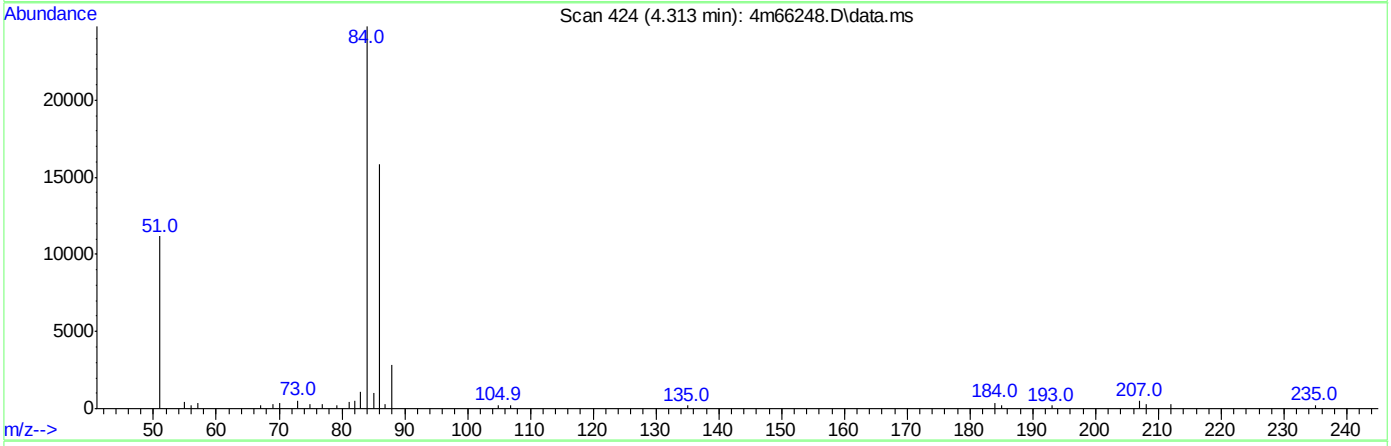
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2977\
Data File : 4m66248.D
Acq On : 22 Jun 2016 9:29 am
Operator : linseyk
Sample : dftpp
Misc : op94644a,e4m2977
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 22 09:34:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m66248.D\data.ms

(3) ddt (t)

4.310min (-4.310) 0.00ppb

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	48.70	0.00#
0.00	0.00	0.00

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84347.D
Acq On : 2 Jun 2016 4:08 pm
Operator : ashleyn
Sample : ic3714-100
Misc : op94122,e2m3714
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 03 08:30:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.943	152	242054	40.00 ppm	0.00
24) Naphthalene-d8	6.082	136	1012465	40.00 ppm	0.00
47) Acenaphthene-d10	8.222	164	557742	40.00 ppm	0.00
69) Phenanthrene-d10	10.436	188	951921	40.00 ppm	0.00
83) Chrysene-d12	14.645	240	855406	40.00 ppm	0.00
91) Perylene-d12	16.785	264	704332	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.943	152	242054	40.00 ppm	0.00
103) Acenaphthene-d10a	8.222	164	557742	40.00 ppm	0.00
105) Chrysene-d12a	14.645	240	855406	40.00 ppm	0.00
108) Phenanthrene-d10a	10.436	188	951921	40.00 ppm	0.00
111) Naphthalene-d8a	6.082	136	1012465	40.00 ppm	0.00
113) Chrysene-d12b	14.645	240	855406	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	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	12.249	57	1253556	100.00 ppm	0.06
Spiked Amount 50.000			Recovery	= 200.00%	
110) o-terphenyl	11.062	230	1349299	100.00 ppm	0.00
Spiked Amount 50.000			Recovery	= 200.00%	

Target Compounds					Qvalue
102) Benzaldehyde	4.606	105	431874	100.00 ppm	92
104) 1,2,4,5-Tetrachloroben...	7.072	216	669357	100.00 ppm	99
106) Benzidine	12.613	184	920473	100.00 ppm	99
109) Atrazine	10.067	215	252821	100.00 ppm	96
112) Hydroquinone	6.564	110	1083070	100.00 ppm	88

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

7.6.1

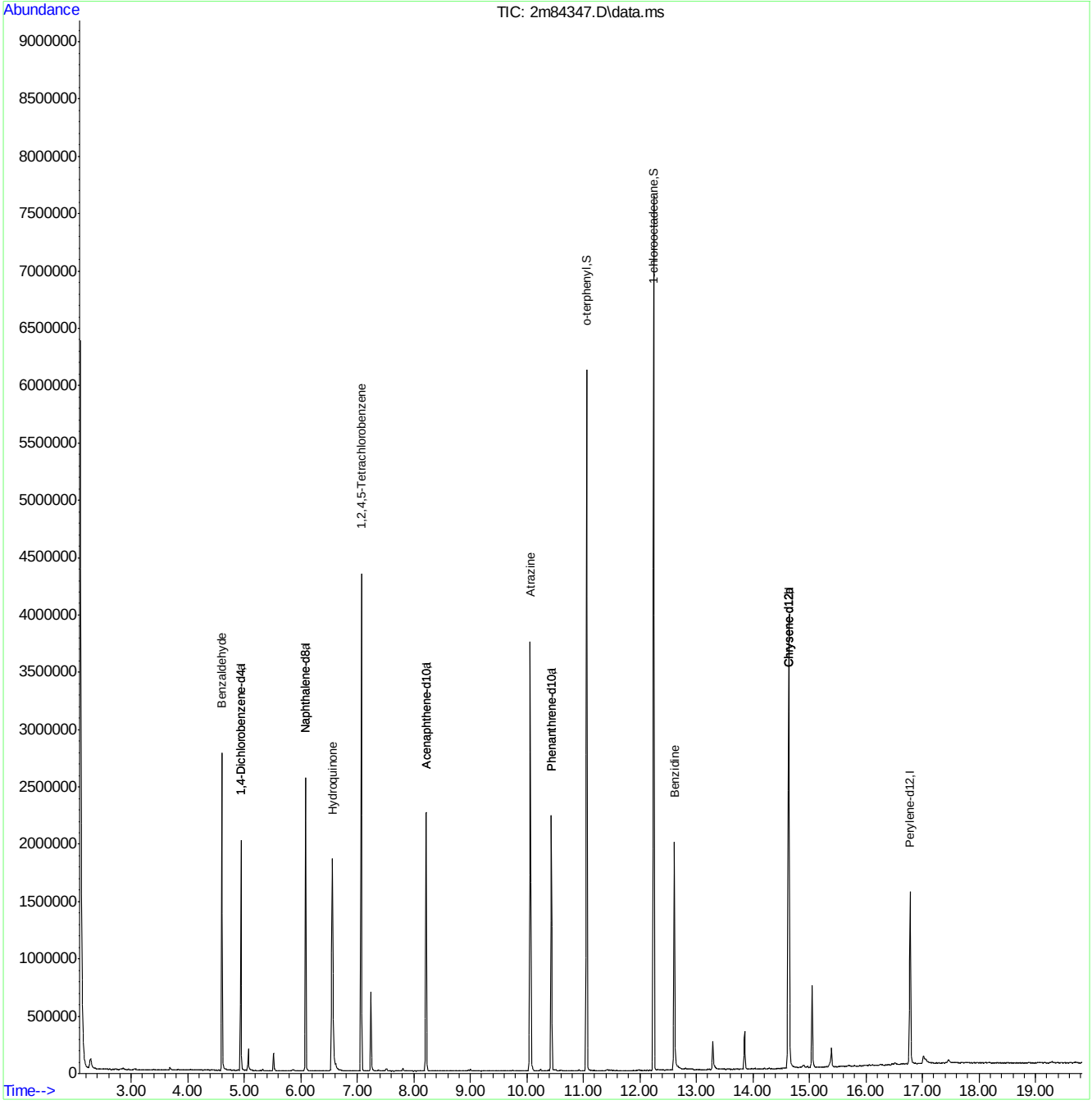
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84347.D
Acq On : 2 Jun 2016 4:08 pm
Operator : ashleyn
Sample : ic3714-100
Misc : op94122,e2m3714
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 03 08:30:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration



M2M3713.M Fri Jun 03 08:30:13 2016 Page: 2

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84348.D
Acq On : 2 Jun 2016 4:35 pm
Operator : ashleyn
Sample : icc3714-50
Misc : op94122,e2m3714
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 03 08:30:38 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.938	152	256526	40.00	ppm	0.00
24) Naphthalene-d8	6.082	136	1040047	40.00	ppm	0.00
47) Acenaphthene-d10	8.216	164	580771	40.00	ppm	0.00
69) Phenanthrene-d10	10.431	188	985820	40.00	ppm	0.00
83) Chrysene-d12	14.645	240	873496	40.00	ppm	0.00
91) Perylene-d12	16.785	264	741054	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.938	152	256526	40.00	ppm	0.00
103) Acenaphthene-d10a	8.216	164	580771	40.00	ppm	0.00
105) Chrysene-d12a	14.645	240	873496	40.00	ppm	0.00
108) Phenanthrene-d10a	10.431	188	985820	40.00	ppm	0.00
111) Naphthalene-d8a	6.082	136	1040047	40.00	ppm	0.00
113) Chrysene-d12b	14.645	240	873496	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	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	12.244	57	642874	50.22	ppm	0.06
Spiked Amount 50.000			Recovery	=	100.44%	
110) o-terphenyl	11.056	230	665675	47.64	ppm	0.00
Spiked Amount 50.000			Recovery	=	95.28%	

Target Compounds							Qvalue
102) Benzaldehyde	4.606	105	396477	86.62	ppm		92
104) 1,2,4,5-Tetrachloroben...	7.066	216	336200	48.24	ppm		99
106) Benzidine	12.608	184	452462	48.14	ppm		99
109) Atrazine	10.056	215	126315	48.24	ppm	#	84
112) Hydroquinone	6.553	110	548369	49.29	ppm		89

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

7.6.2

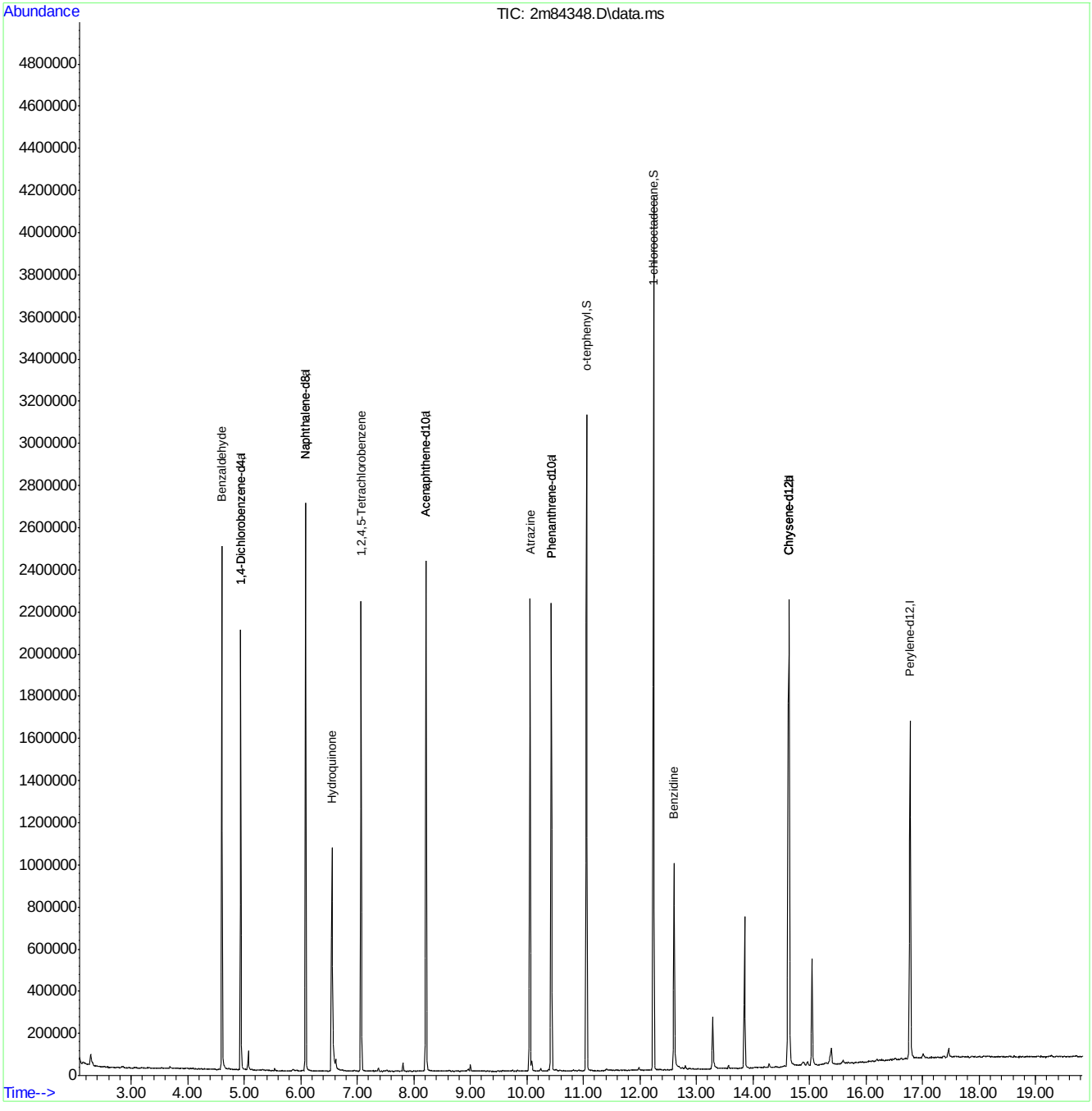
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84348.D
Acq On : 2 Jun 2016 4:35 pm
Operator : ashleyn
Sample : icc3714-50
Misc : op94122,e2m3714
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 03 08:30:38 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84349.D
Acq On : 2 Jun 2016 5:01 pm
Operator : ashleyn
Sample : ic3714-2
Misc : op94122,e2m3714
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 03 08:31:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.943	152	251594	40.00	ppm	0.00
24) Naphthalene-d8	6.082	136	1041793	40.00	ppm	0.00
47) Acenaphthene-d10	8.216	164	589051	40.00	ppm	0.00
69) Phenanthrene-d10	10.431	188	1000271	40.00	ppm	0.00
83) Chrysene-d12	14.640	240	897895	40.00	ppm	-0.01
91) Perylene-d12	16.785	264	815944	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.943	152	251594	40.00	ppm	0.00
103) Acenaphthene-d10a	8.216	164	589051	40.00	ppm	0.00
105) Chrysene-d12a	14.640	240	897895	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.431	188	1000271	40.00	ppm	0.00
111) Naphthalene-d8a	6.082	136	1041793	40.00	ppm	0.00
113) Chrysene-d12b	14.640	240	897895	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	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	12.238	57	25435	1.93	ppm	0.05
Spiked Amount 50.000			Recovery	=	3.86%	
110) o-terphenyl	11.056	230	25256	1.78	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.56%	

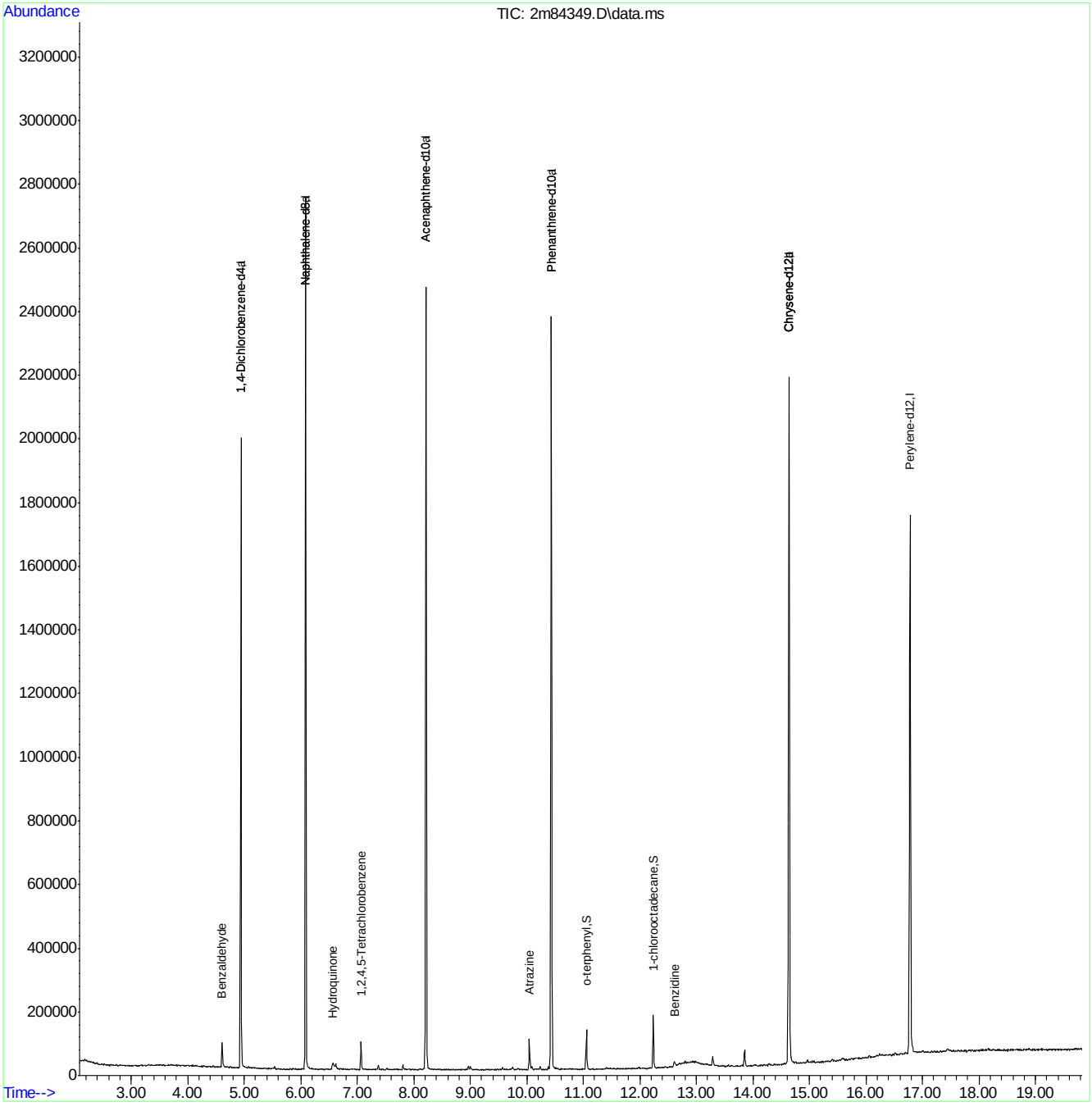
Target Compounds							Qvalue
102) Benzaldehyde	4.606	105	16434	3.66	ppm		90
104) 1,2,4,5-Tetrachloroben...	7.066	216	14440	2.04	ppm		90
106) Benzidine	12.613	184	8965	0.93	ppm		99
109) Atrazine	10.045	215	5154	1.94	ppm	#	83
112) Hydroquinone	6.563	110	20265	1.82	ppm		80

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84349.D
Acq On : 2 Jun 2016 5:01 pm
Operator : ashleyn
Sample : ic3714-2
Misc : op94122,e2m3714
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 03 08:31:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84350.D
Acq On : 2 Jun 2016 5:27 pm
Operator : ashleyn
Sample : ic3714-1
Misc : op94122,e2m3714
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 03 08:32:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.943	152	250830	40.00	ppm	0.00
24) Naphthalene-d8	6.082	136	1023295	40.00	ppm	0.00
47) Acenaphthene-d10	8.216	164	575428	40.00	ppm	0.00
69) Phenanthrene-d10	10.431	188	982250	40.00	ppm	0.00
83) Chrysene-d12	14.640	240	870049	40.00	ppm	-0.01
91) Perylene-d12	16.779	264	779229	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.943	152	250830	40.00	ppm	0.00
103) Acenaphthene-d10a	8.216	164	575428	40.00	ppm	0.00
105) Chrysene-d12a	14.640	240	870049	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.431	188	982250	40.00	ppm	0.00
111) Naphthalene-d8a	6.082	136	1023295	40.00	ppm	0.00
113) Chrysene-d12b	14.640	240	870049	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	12.238	57	12533	0.98	ppm	0.05
Spiked Amount 50.000			Recovery	=	1.96%	
110) o-terphenyl	11.056	230	13037	0.94	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.88%	

Target Compounds							Qvalue
102) Benzaldehyde	4.611	105	7923	1.77	ppm		89
104) 1,2,4,5-Tetrachloroben...	7.072	216	7235	1.05	ppm		91
106) Benzidine	12.613	184	3777	0.40	ppm		88
109) Atrazine	10.046	215	2633	1.01	ppm	#	81
112) Hydroquinone	6.590	110	8767	0.80	ppm		90

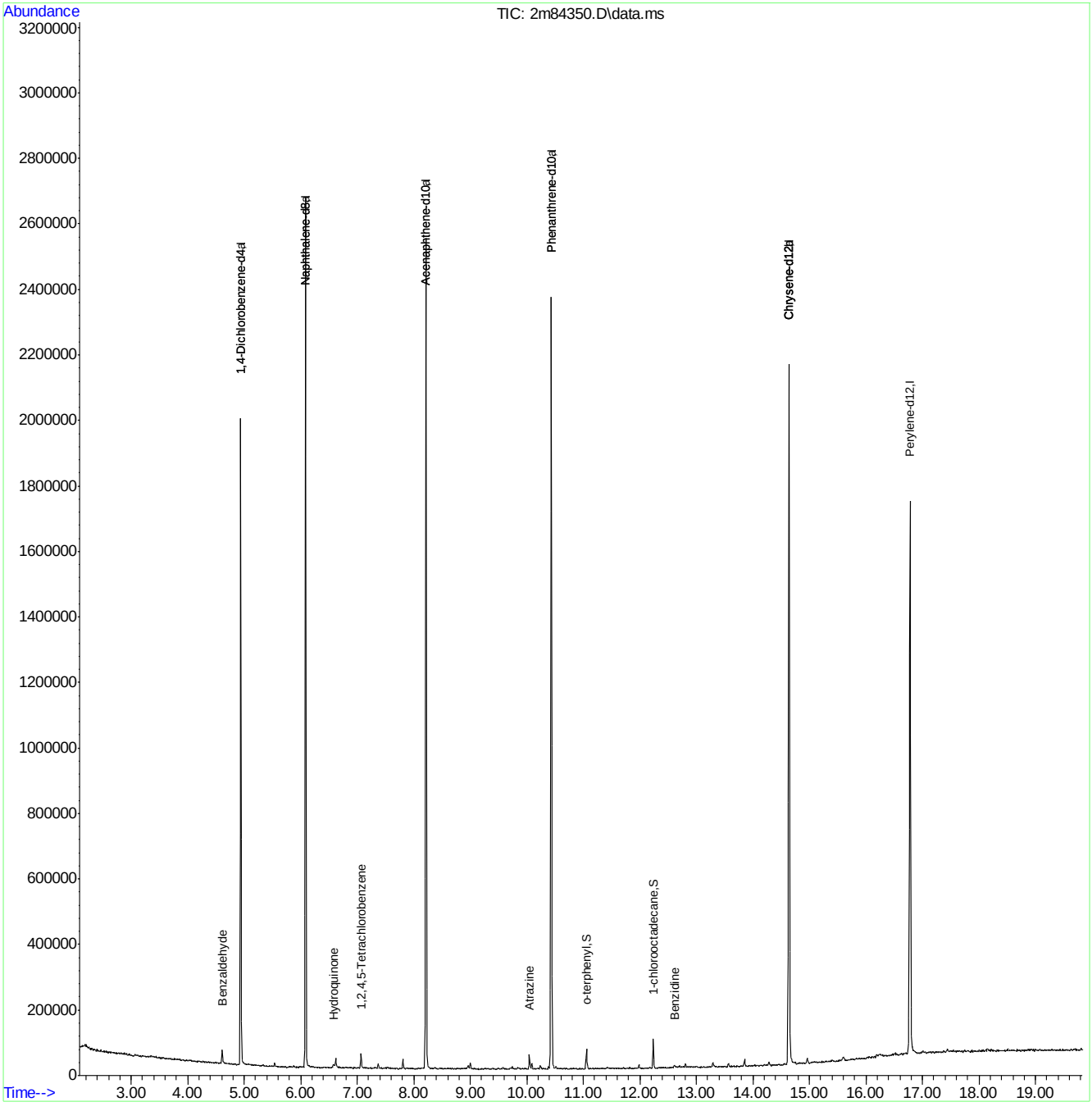
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84350.D
Acq On : 2 Jun 2016 5:27 pm
Operator : ashleyn
Sample : ic3714-1
Misc : op94122,e2m3714
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 03 08:32:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration



M2M3713.M Fri Jun 03 08:32:25 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84351.D
Acq On : 2 Jun 2016 5:53 pm
Operator : ashleyn
Sample : ic3714-80
Misc : op94122,e2m3714
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 03 08:33:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.938	152	234736	40.00	ppm	0.00
24) Naphthalene-d8	6.082	136	969469	40.00	ppm	0.00
47) Acenaphthene-d10	8.216	164	549682	40.00	ppm	0.00
69) Phenanthrene-d10	10.431	188	930867	40.00	ppm	0.00
83) Chrysene-d12	14.640	240	845275	40.00	ppm	-0.01
91) Perylene-d12	16.785	264	727884	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.938	152	234736	40.00	ppm	0.00
103) Acenaphthene-d10a	8.216	164	549682	40.00	ppm	0.00
105) Chrysene-d12a	14.640	240	845275	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.431	188	930867	40.00	ppm	0.00
111) Naphthalene-d8a	6.082	136	969469	40.00	ppm	0.00
113) Chrysene-d12b	14.640	240	845275	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	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	12.244	57	997857	80.56	ppm	0.06
Spiked Amount 50.000			Recovery	=	161.12%	
110) o-terphenyl	11.057	230	1060558	80.38	ppm	0.00
Spiked Amount 50.000			Recovery	=	160.76%	

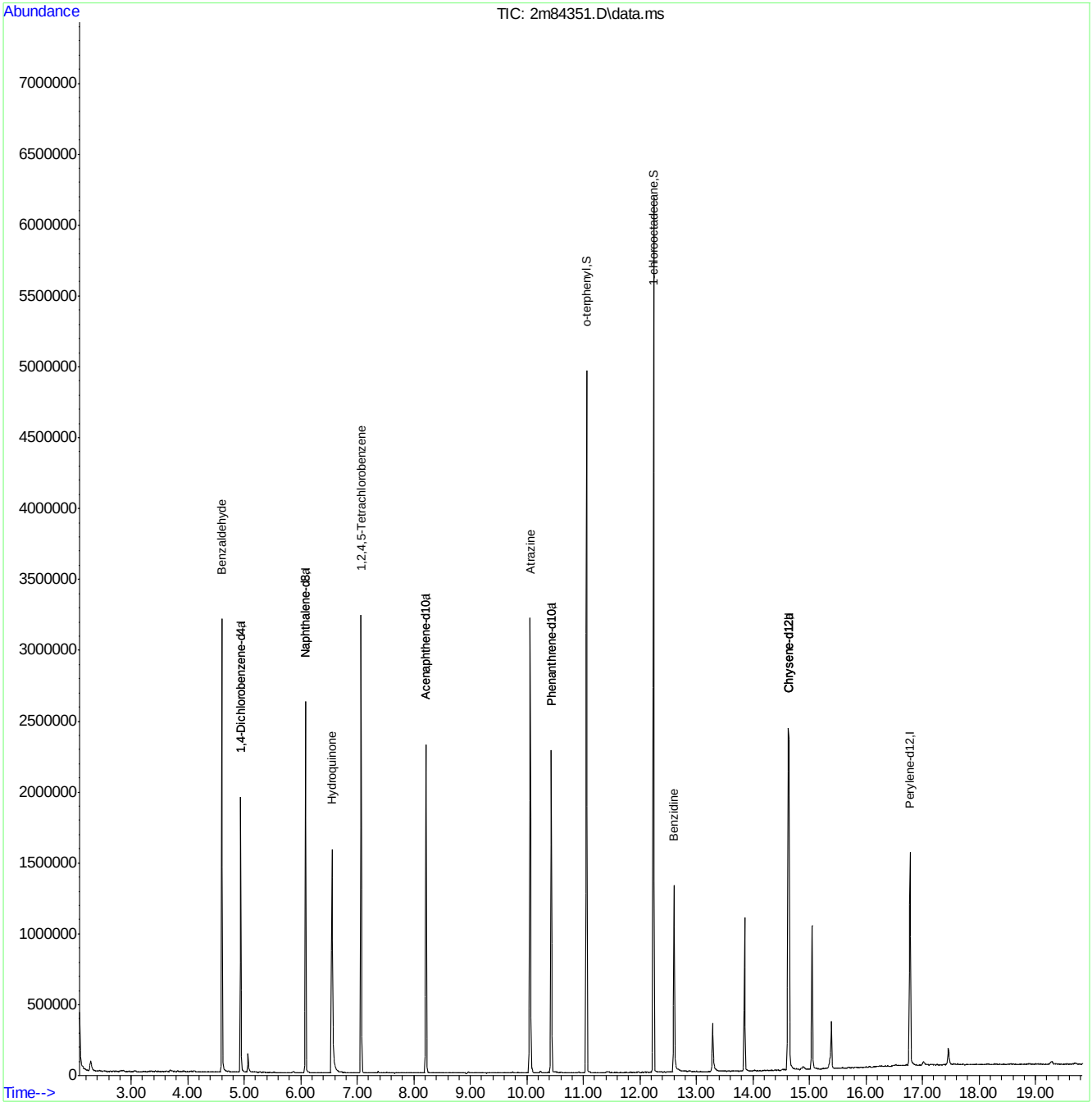
Target Compounds						Qvalue
102) Benzaldehyde	4.606	105	500839	119.58	ppm	92
104) 1,2,4,5-Tetrachloroben...	7.072	216	518634	78.62	ppm	99
106) Benzidine	12.608	184	587440	64.58	ppm	99
109) Atrazine	10.062	215	197391	79.84	ppm	91
112) Hydroquinone	6.553	110	839474	80.95	ppm	88

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84351.D
Acq On : 2 Jun 2016 5:53 pm
Operator : ashleyn
Sample : ic3714-80
Misc : op94122,e2m3714
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 03 08:33:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration



M2M3713.M Fri Jun 03 08:33:14 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84352.D
Acq On : 2 Jun 2016 6:20 pm
Operator : ashleyn
Sample : ic3714-5
Misc : op94122,e2m3714
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 03 08:33:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.943	152	262756	40.00 ppm	0.00
24) Naphthalene-d8	6.082	136	1089750	40.00 ppm	0.00
47) Acenaphthene-d10	8.216	164	612649	40.00 ppm	0.00
69) Phenanthrene-d10	10.431	188	1047409	40.00 ppm	0.00
83) Chrysene-d12	14.640	240	913649	40.00 ppm	-0.01
91) Perylene-d12	16.785	264	836593	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.943	152	262756	40.00 ppm	0.00
103) Acenaphthene-d10a	8.216	164	612649	40.00 ppm	0.00
105) Chrysene-d12a	14.640	240	913649	40.00 ppm	-0.01
108) Phenanthrene-d10a	10.431	188	1047409	40.00 ppm	0.00
111) Naphthalene-d8a	6.082	136	1089750	40.00 ppm	0.00
113) Chrysene-d12b	14.640	240	913649	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	12.238	57	70142	5.24 ppm	0.05
Spiked Amount 50.000			Recovery	= 10.48%	
110) o-terphenyl	11.056	230	71097	4.79 ppm	0.00
Spiked Amount 50.000			Recovery	= 9.58%	

Target Compounds						Qvalue
102) Benzaldehyde	4.606	105	44007	9.39 ppm		86
104) 1,2,4,5-Tetrachloroben...	7.066	216	36215	4.93 ppm		97
106) Benzidine	12.608	184	23903	2.43 ppm		95
109) Atrazine	10.046	215	14312	5.14 ppm	#	81
112) Hydroquinone	6.558	110	52737	4.52 ppm		85

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

7.6.6

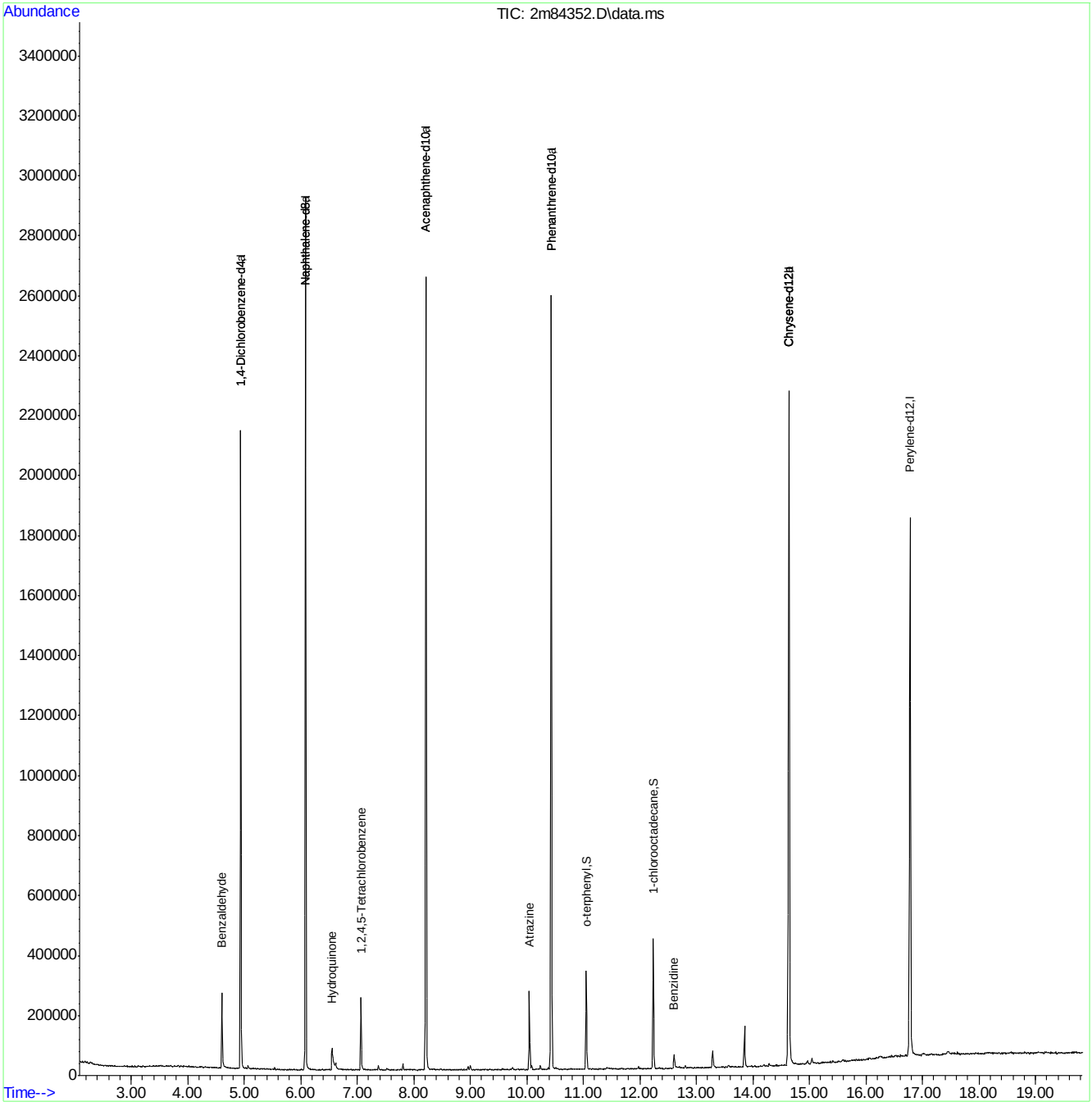
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84352.D
Acq On : 2 Jun 2016 6:20 pm
Operator : ashleyn
Sample : ic3714-5
Misc : op94122,e2m3714
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 03 08:33:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84353.D
Acq On : 2 Jun 2016 6:46 pm
Operator : ashleyn
Sample : ic3714-25
Misc : op94122,e2m3714
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 03 08:34:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.938	152	240462	40.00 ppm	0.00
24) Naphthalene-d8	6.082	136	989596	40.00 ppm	0.00
47) Acenaphthene-d10	8.216	164	561247	40.00 ppm	0.00
69) Phenanthrene-d10	10.431	188	955576	40.00 ppm	0.00
83) Chrysene-d12	14.640	240	854491	40.00 ppm	-0.01
91) Perylene-d12	16.785	264	777314	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.938	152	240462	40.00 ppm	0.00
103) Acenaphthene-d10a	8.216	164	561247	40.00 ppm	0.00
105) Chrysene-d12a	14.640	240	854491	40.00 ppm	-0.01
108) Phenanthrene-d10a	10.431	188	955576	40.00 ppm	0.00
111) Naphthalene-d8a	6.082	136	989596	40.00 ppm	0.00
113) Chrysene-d12b	14.640	240	854454	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	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	12.238	57	300962	24.03 ppm	0.05
Spiked Amount 50.000			Recovery	= 48.06%	
110) o-terphenyl	11.056	230	304890	22.51 ppm	0.00
Spiked Amount 50.000			Recovery	= 45.02%	

Target Compounds						Qvalue
102) Benzaldehyde	4.606	105	185044	43.13 ppm		90
104) 1,2,4,5-Tetrachloroben...	7.066	216	154762	22.98 ppm		99
106) Benzidine	12.607	184	182660	19.87 ppm		98
109) Atrazine	10.051	215	57139	22.51 ppm	#	87
112) Hydroquinone	6.547	110	242264	22.89 ppm		88

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

7.6.7

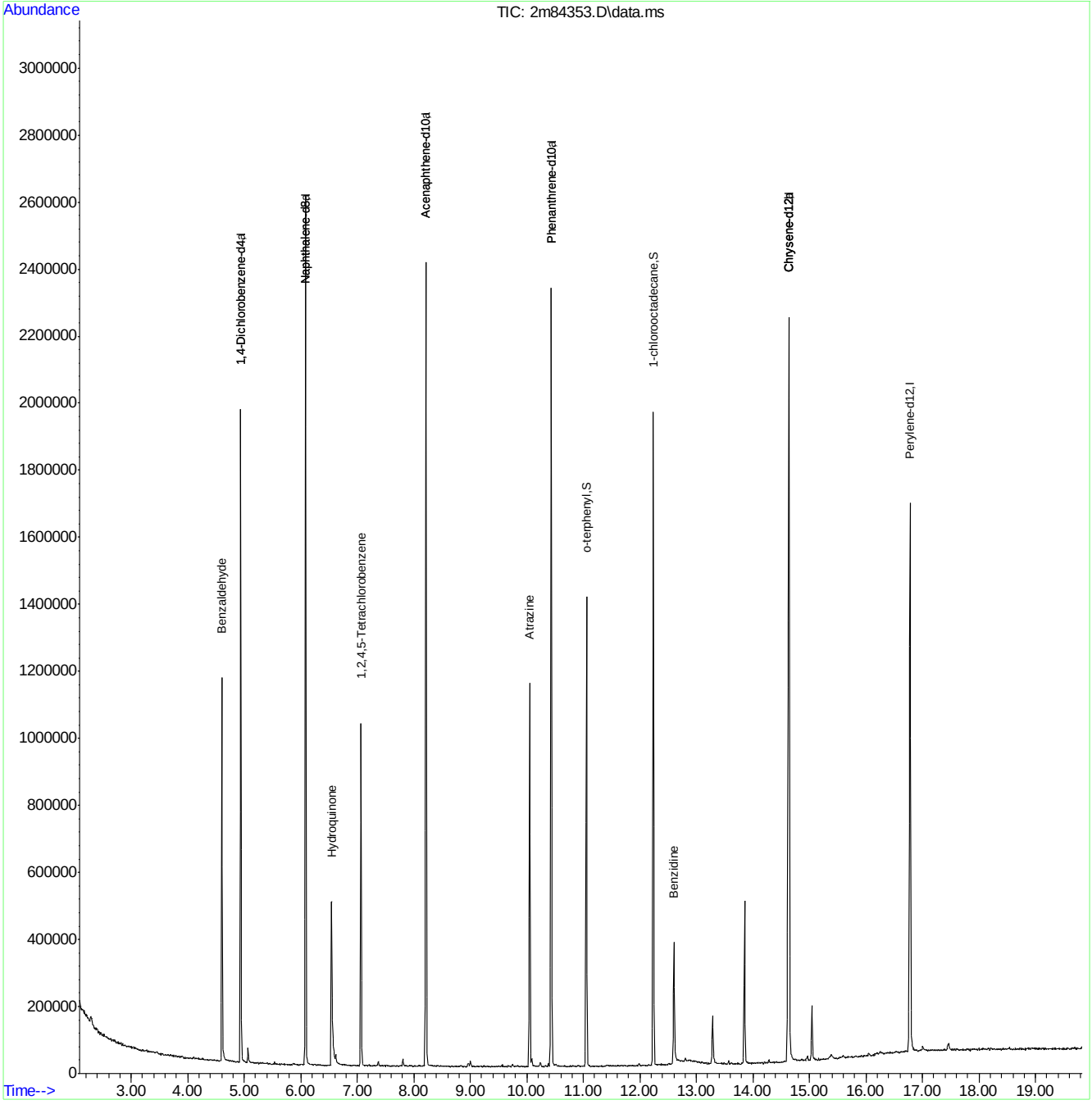
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84353.D
Acq On : 2 Jun 2016 6:46 pm
Operator : ashleyn
Sample : ic3714-25
Misc : op94122,e2m3714
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 03 08:34:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration



M2M3713.M Fri Jun 03 08:34:46 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84354.D
Acq On : 2 Jun 2016 7:12 pm
Operator : ashleyn
Sample : ic3714-10
Misc : op94122,e2m3714
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 03 08:35:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.938	152	259082	40.00 ppm	0.00
24) Naphthalene-d8	6.082	136	1076113	40.00 ppm	0.00
47) Acenaphthene-d10	8.216	164	613165	40.00 ppm	0.00
69) Phenanthrene-d10	10.431	188	1034050	40.00 ppm	0.00
83) Chrysene-d12	14.640	240	926985	40.00 ppm	-0.01
91) Perylene-d12	16.785	264	852523	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.938	152	259082	40.00 ppm	0.00
103) Acenaphthene-d10a	8.216	164	613165	40.00 ppm	0.00
105) Chrysene-d12a	14.640	240	926985	40.00 ppm	-0.01
108) Phenanthrene-d10a	10.431	188	1034050	40.00 ppm	0.00
111) Naphthalene-d8a	6.082	136	1076113	40.00 ppm	0.00
113) Chrysene-d12b	14.640	240	926985	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	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	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	12.238	57	122742	9.04 ppm	0.05
Spiked Amount 50.000			Recovery	= 18.08%	
110) o-terphenyl	11.056	230	124143	8.47 ppm	0.00
Spiked Amount 50.000			Recovery	= 16.94%	

Target Compounds						Qvalue
102) Benzaldehyde	4.606	105	75453	16.32 ppm		89
104) 1,2,4,5-Tetrachloroben...	7.066	216	65090	8.85 ppm		98
106) Benzidine	12.607	184	57443	5.76 ppm		99
109) Atrazine	10.045	215	24024	8.75 ppm	#	72
112) Hydroquinone	6.547	110	97218	8.45 ppm		84

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

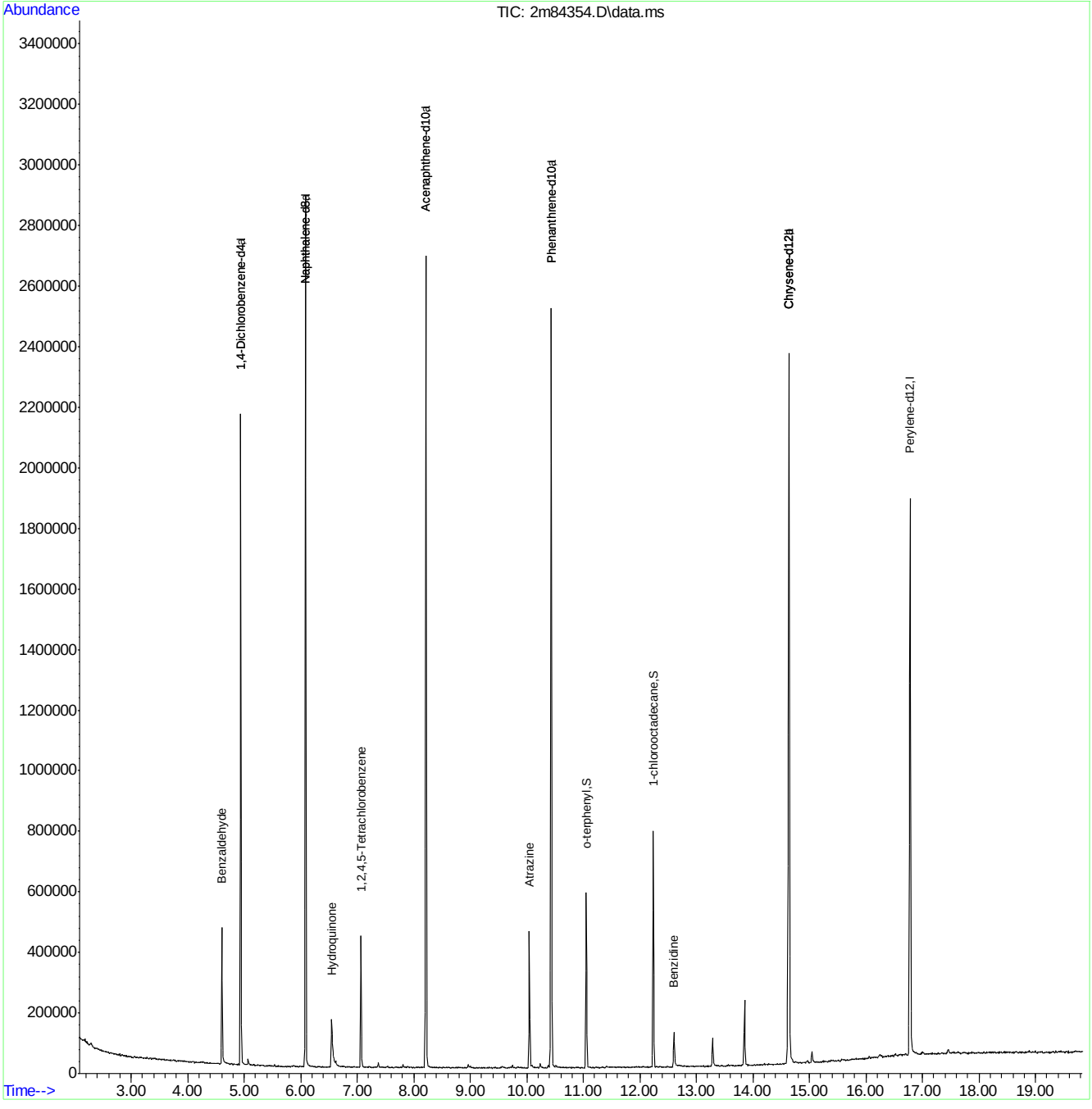
7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84354.D
Acq On : 2 Jun 2016 7:12 pm
Operator : ashleyn
Sample : ic3714-10
Misc : op94122,e2m3714
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 03 08:35:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:29:28 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84355.D
Acq On : 2 Jun 2016 7:38 pm
Operator : ashleyn
Sample : icv3714-50
Misc : op94122,e2m3714
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 03 09:00:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:46:05 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.943	152	308135	40.00 ppm	0.00
24) Naphthalene-d8	6.082	136	1197719	40.00 ppm	0.00
47) Acenaphthene-d10	8.222	164	646878	40.00 ppm	0.00
69) Phenanthrene-d10	10.431	188	1069202	40.00 ppm	0.00
83) Chrysene-d12	14.645	240	936640	40.00 ppm	0.00
91) Perylene-d12	16.785	264	750404	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.943	152	308135	40.00 ppm	0.00
103) Acenaphthene-d10a	8.222	164	646878	40.00 ppm	0.00
105) Chrysene-d12a	14.645	240	936640	40.00 ppm	0.00
108) Phenanthrene-d10a	10.431	188	1069202	40.00 ppm	0.00
111) Naphthalene-d8a	6.082	136	1197719	40.00 ppm	0.00
113) Chrysene-d12b	14.645	240	936640	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	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	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
104) 1,2,4,5-Tetrachloroben...	7.066	216	400261	52.85 ppm	99
106) Benzidine	12.607	184	675540	82.57 ppm	99

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

7.6.9

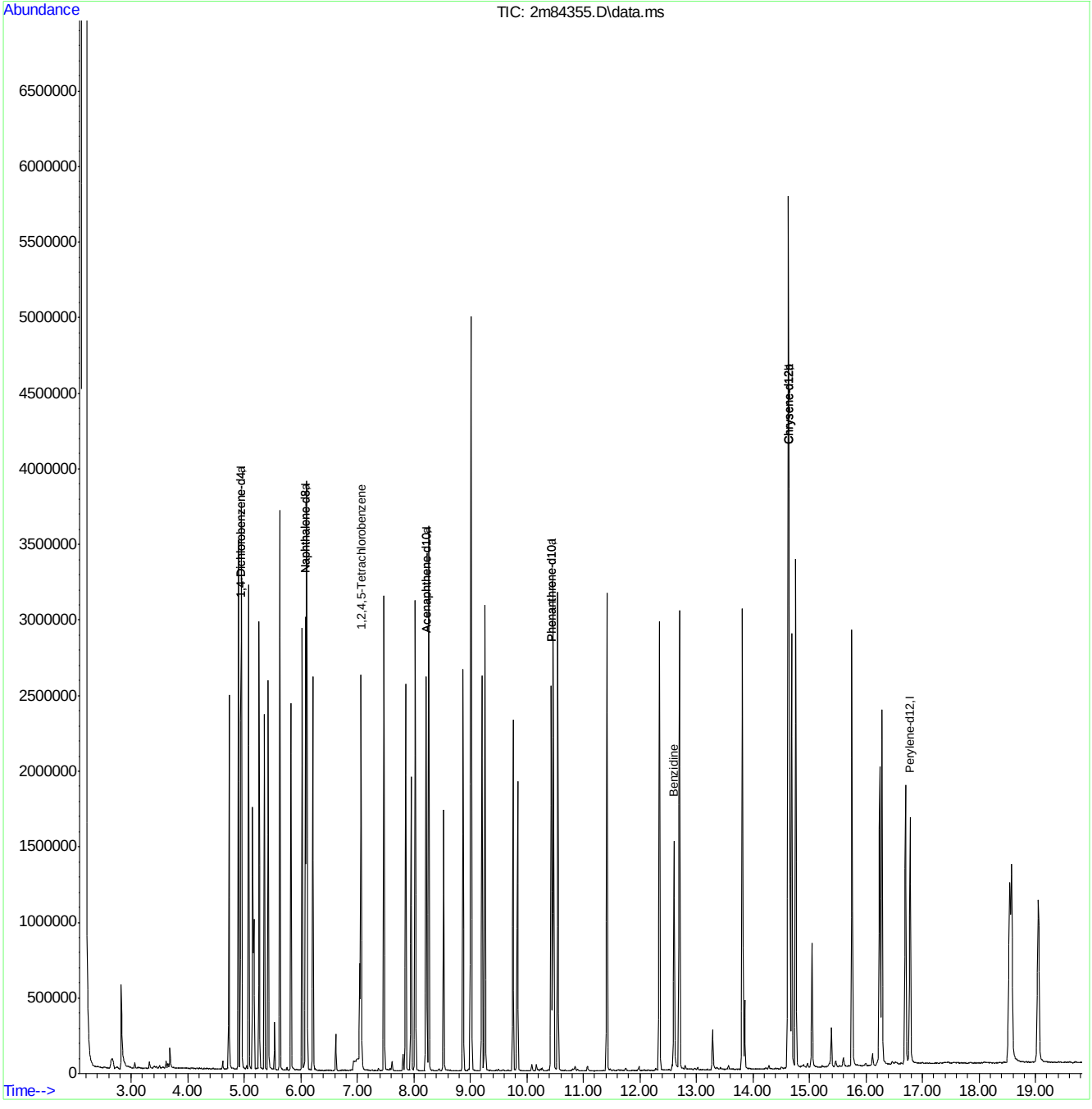
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84355.D
Acq On : 2 Jun 2016 7:38 pm
Operator : ashleyn
Sample : icv3714-50
Misc : op94122,e2m3714
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 03 09:00:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:46:05 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84356.D
Acq On : 2 Jun 2016 8:04 pm
Operator : ashleyn
Sample : icv3714-50
Misc : op94122,e2m3714
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 03 09:01:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:46:05 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.938	152	308794	40.00 ppm	0.00
24) Naphthalene-d8	6.082	136	1405400	40.00 ppm	0.00
47) Acenaphthene-d10	8.216	164	642361	40.00 ppm	0.00
69) Phenanthrene-d10	10.431	188	1047968	40.00 ppm	0.00
83) Chrysene-d12	14.640	240	874454	40.00 ppm	-0.01
91) Perylene-d12	16.779	264	742618	40.00 ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.938	152	308794	40.00 ppm	0.00
103) Acenaphthene-d10a	8.216	164	642361	40.00 ppm	0.00
105) Chrysene-d12a	14.640	240	874454	40.00 ppm	0.00
108) Phenanthrene-d10a	10.431	188	1047968	40.00 ppm	0.00
111) Naphthalene-d8a	6.082	136	1405400	40.00 ppm	0.00
113) Chrysene-d12b	14.640	240	874507	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
25) Nitrobenzene-d5	0.000	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
51) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
85) Terphenyl-d14	0.000	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
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	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
102) Benzaldehyde	4.606	105	529963	55.82 ppm	99
109) Atrazine	10.056	215	133804	49.65 ppm	92

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

7.6.10

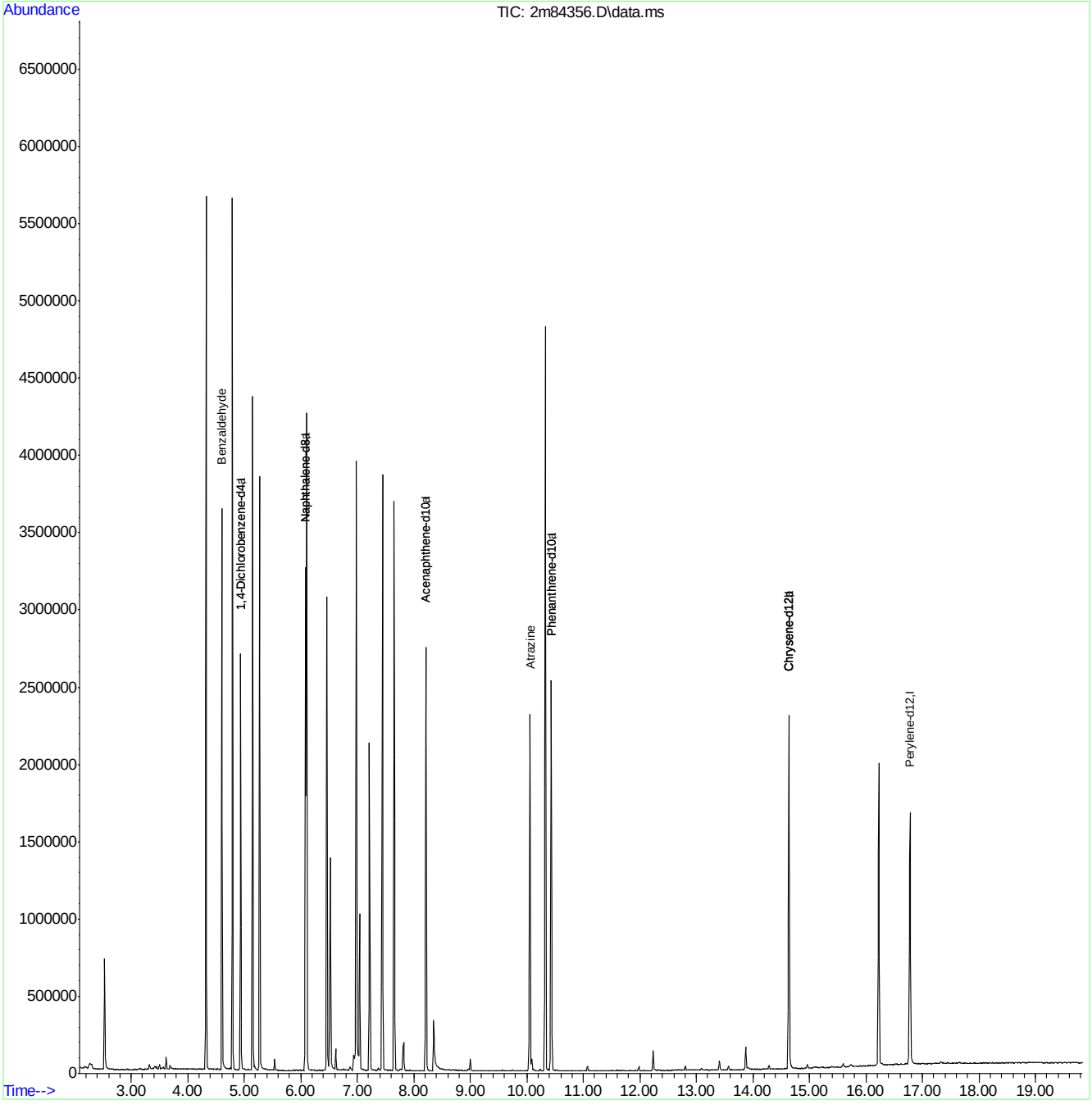
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84356.D
Acq On : 2 Jun 2016 8:04 pm
Operator : ashleyn
Sample : icv3714-50
Misc : op94122,e2m3714
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 03 09:01:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:46:05 2016
Response via : Initial Calibration



M2M3713.M Fri Jun 03 09:01:37 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84358.D
Acq On : 2 Jun 2016 8:57 pm
Operator : ashleyn
Sample : icv3714-50
Misc : op94122,e2m3714
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 03 09:03:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:46:05 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.938	152	246707	40.00 ppm	0.00
24) Naphthalene-d8	6.082	136	1008105	40.00 ppm	0.00
47) Acenaphthene-d10	8.216	164	570205	40.00 ppm	0.00
69) Phenanthrene-d10	10.431	188	961812	40.00 ppm	0.00
83) Chrysene-d12	14.640	240	896696	40.00 ppm	-0.01
91) Perylene-d12	16.779	264	843706	40.00 ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.938	152	246707	40.00 ppm	0.00
103) Acenaphthene-d10a	8.216	164	570205	40.00 ppm	0.00
105) Chrysene-d12a	14.640	240	896696	40.00 ppm	0.00
108) Phenanthrene-d10a	10.431	188	961812	40.00 ppm	0.00
111) Naphthalene-d8a	6.082	136	1008105	40.00 ppm	0.00
113) Chrysene-d12b	14.640	240	896686	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	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	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
112) Hydroquinone	6.542	110	480335	48.33 ppm	97

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

7.6.11

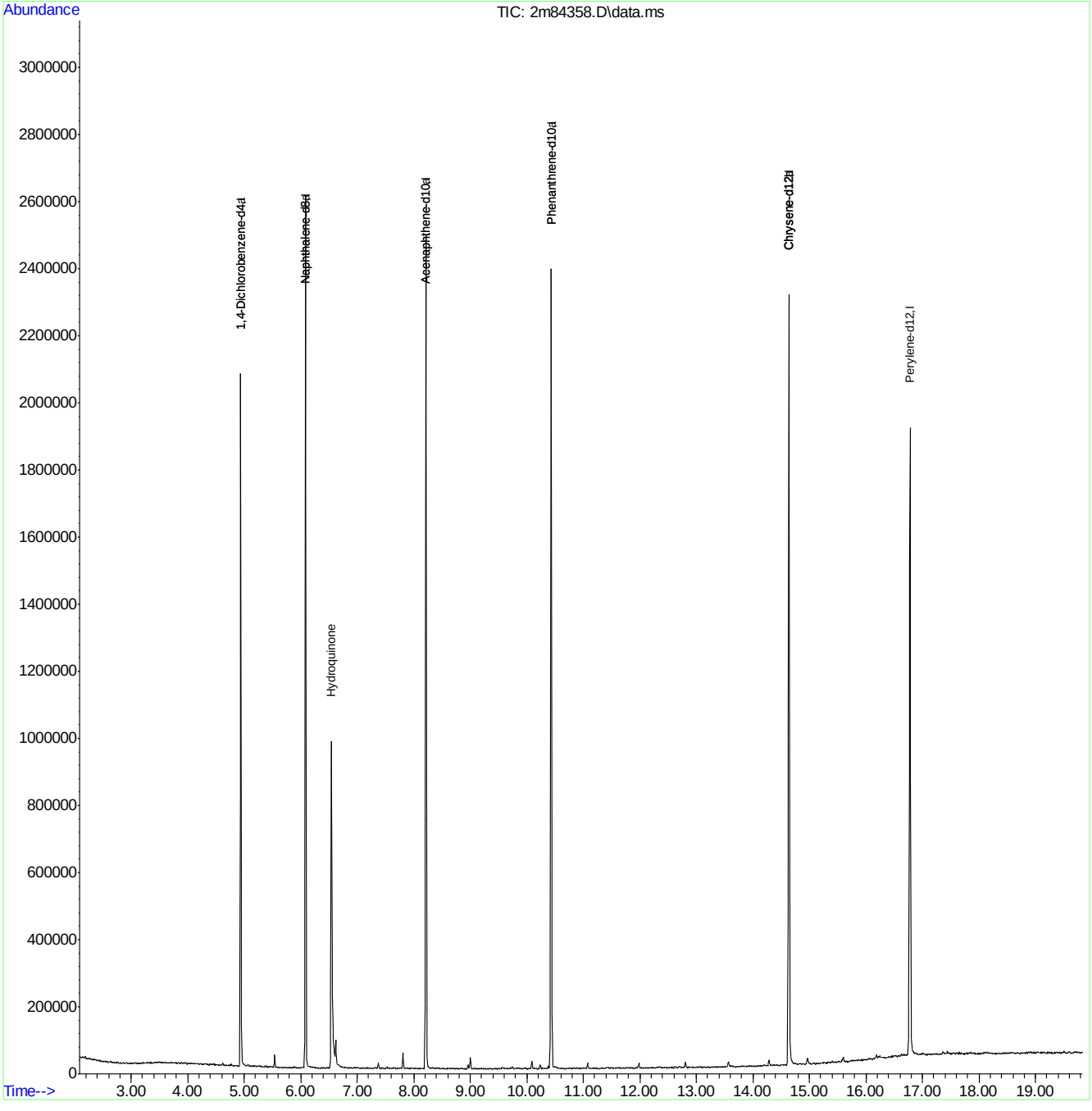
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3714\
Data File : 2m84358.D
Acq On : 2 Jun 2016 8:57 pm
Operator : ashleyn
Sample : icv3714-50
Misc : op94122,e2m3714
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 03 09:03:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3713.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 03 08:46:05 2016
Response via : Initial Calibration



M2M3713.M Fri Jun 03 09:03:13 2016 Page: 2

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 06/09/16 08:50

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84433.D
Acq On : 7 Jun 2016 9:32 am
Operator : ashleyn
Sample : ic3720-2
Misc : op94122,e2m3720
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 12:16:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.916	152	211897	40.00	ppm	-0.03
24) Naphthalene-d8	6.056	136	840853	40.00	ppm	-0.03
47) Acenaphthene-d10	8.184	164	489816	40.00	ppm	-0.04
69) Phenanthrene-d10	10.404	188	827082	40.00	ppm	-0.03
83) Chrysene-d12	14.624	240	724531	40.00	ppm	-0.03
91) Perylene-d12	16.769	264	556967	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.916	152	211897	40.00	ppm	-0.02
103) Acenaphthene-d10a	8.184	164	489816	40.00	ppm	-0.03
105) Chrysene-d12a	14.624	240	724531	40.00	ppm	-0.02
108) Phenanthrene-d10a	10.404	188	827082	40.00	ppm	-0.03
111) Naphthalene-d8a	6.056	136	840853	40.00	ppm	-0.03
113) Chrysene-d12b	14.624	240	724531	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	3.954	112	14797	1.97	ppm	-0.02
Spiked Amount 50.000			Recovery	=	3.94%	
8) Phenol-d5	4.670	99	20713	2.42	ppm	-0.02
Spiked Amount 50.000			Recovery	=	4.84%	
25) Nitrobenzene-d5	5.382	82	18285	2.14	ppm	-0.03
Spiked Amount 50.000			Recovery	=	4.28%	
51) 2-Fluorobiphenyl	7.280	172	33481	2.28	ppm	-0.04
Spiked Amount 50.000			Recovery	=	4.56%	
73) 2,4,6-Tribromophenol	9.350	330	4744	2.00	ppm	-0.03
Spiked Amount 50.000			Recovery	=	4.00%	
85) Terphenyl-d14	12.966	244	34932	2.10	ppm	-0.03
Spiked Amount 50.000			Recovery	=	4.20%	
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	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds							Qvalue
2) 1,4-Dioxane	2.499	88	7009	2.64	ppm		78
6) Indene	5.120	116	30965	2.54	ppm		95
7) Cumene	4.296	105	44735	2.36	ppm		96
9) Phenol	4.681	94	24678	2.30	ppm		95
10) Aniline	4.665	93	25379	2.51	ppm	#	55
11) bis(2-Chloroethyl)ether	4.702	93	16608	2.21	ppm		95
12) 2-Chlorophenol	4.767	128	17217	2.62	ppm		82
13) Decane	4.761	43	19260	3.15	ppm		99
14) 1,3-Dichlorobenzene	4.868	146	18916	2.33	ppm		98
15) 1,4-Dichlorobenzene	4.927	146	19104	2.32	ppm		97
16) Benzyl alcohol	5.034	108	10986	2.36	ppm		87
17) 1,2-Dichlorobenzene	5.050	146	17856	2.40	ppm		96
18) Acetophenone	5.243	105	24753	2.45	ppm		94
19) 2-Methylphenol	5.141	108	16441	2.28	ppm		95
20) 2,2'-oxybis(1-Chloropr...	5.125	45	23450	2.80	ppm		86
21) 3&4-Methylphenol	5.269	108	17610	2.26	ppm		96
22) n-Nitroso-di-n-propyla...	5.232	70	14280	2.62	ppm		98
23) Hexachloroethane	5.328	201	5824	2.17	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84433.D
Acq On : 7 Jun 2016 9:32 am
Operator : ashleyn
Sample : ic3720-2
Misc : op94122,e2m3720
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 12:16:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.398	77	19991	2.28	ppm		84
27) Quinoline	6.435	129	32701	2.23	ppm		97
28) Isophorone	5.601	82	34457	2.31	ppm		96
29) 2-Nitrophenol	5.686	139	9201	2.40	ppm		89
30) 2,4-Dimethylphenol	5.729	107	16413	2.11	ppm		91
31) Benzoic acid	5.831	105	8367	1.54	ppm		79
32) bis(2-Chloroethoxy)met...	5.799	93	19602	2.33	ppm		95
33) 2,4-Dichlorophenol	5.938	162	12754	2.17	ppm		94
34) 2,6-Dichlorophenol	6.146	162	12827	2.27	ppm		88
35) 1,3,5-Trichlorobenzene	5.686	180	15357	2.38	ppm		96
36) 1,2,4-Trichlorobenzene	5.997	180	14628	2.28	ppm		92
37) 1,2,3-Trichlorobenzene	6.221	180	13900	2.20	ppm		98
38) Naphthalene	6.077	128	49603	2.38	ppm		99
39) 4-Chloroaniline	6.141	127	19304	2.43	ppm		91
40) 2,3-Dichloroaniline	7.189	161	17261	2.43	ppm		90
41) Caprolactam	6.489	55	7459	2.06	ppm		92
42) Hexachlorobutadiene	6.184	225	7922	2.23	ppm		98
43) 4-Chloro-3-methylphenol	6.692	107	15580	2.22	ppm		91
44) 2-Methylnaphthalene	6.836	141	28327	2.43	ppm		93
45) 1-Methylnaphthalene	6.954	141	29751	2.44	ppm		96
46) Dimethylnaphthalene	7.617	156	30341	2.38	ppm		92
48) Hexachlorocyclopentadiene	7.013	237	326m	0.12	ppm		
49) 2,4,6-Trichlorophenol	7.200	196	9460	2.18	ppm		93
50) 2,4,5-Trichlorophenol	7.270	196	9548	2.13	ppm		94
52) 2-Chloronaphthalene	7.441	162	29620	2.25	ppm		94
53) Biphenyl	7.414	154	40238	2.28	ppm		99
54) 2-Nitroaniline	7.596	65	11519	2.17	ppm		84
55) Dimethylphthalate	7.821	163	34057	2.24	ppm		96
56) Acenaphthylene	7.992	152	50755	2.29	ppm		100
57) 2,6-Dinitrotoluene	7.917	165	7111	1.96	ppm		91
58) 3-Nitroaniline	8.163	138	7987	1.90	ppm		94
59) Acenaphthene	8.232	153	30361	2.25	ppm		98
60) 2,4-Dinitrophenol	8.361	184	1773	0.96	ppm	#	70
61) 4-Nitrophenol	8.516	109	3247	1.46	ppm	#	1
62) Dibenzofuran	8.478	168	43488	2.35	ppm		81
63) 2,4-Dinitrotoluene	8.505	165	10574	2.15	ppm		80
64) 2,3,4,6-Tetrachlorophenol	8.687	232	5816	1.96	ppm		85
65) Diethylphthalate	8.831	149	34916	2.22	ppm		97
66) Fluorene	8.976	166	33884	2.30	ppm		93
67) 4-Chlorophenyl-phenyle...	8.987	204	15675	2.25	ppm		92
68) 4-Nitroaniline	9.051	138	8945	2.09	ppm		87
70) 4,6-Dinitro-2-methylph...	9.120	198	2197	0.78	ppm		75
71) n-Nitrosodiphenylamine	9.174	169	22960	2.22	ppm		96
72) 1,2-Diphenylhydrazine	9.222	77	38500	2.11	ppm		94
74) 4-Bromophenyl-phenylether	9.719	248	9153	2.10	ppm		96
75) Hexachlorobenzene	9.805	284	10443	2.06	ppm		93
76) Pentachlorophenol	10.147	266	3593	1.92	ppm		99
77) Phenanthrene	10.436	178	50862	2.26	ppm		97
78) Anthracene	10.516	178	51549	2.26	ppm		97
79) Carbazole	10.805	167	46042	2.18	ppm		96

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84433.D
Acq On : 7 Jun 2016 9:32 am
Operator : ashleyn
Sample : ic3720-2
Misc : op94122,e2m3720
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 12:16:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.388	149	61063	2.24 ppm	99
81) Fluoranthene	12.319	202	51912	2.20 ppm	95
82) Octadecane	10.292	57	25377	2.47 ppm	96
84) Pyrene	12.677	202	52832	2.13 ppm	98
86) Butylbenzylphthalate	13.784	149	27045	2.24 ppm	85
87) Benzo[a]anthracene	14.603	228	48887	2.27 ppm	94
88) 3,3'-Dichlorobenzidine	14.603	252	16324	1.87 ppm	97
89) Chrysene	14.661	228	45084	2.24 ppm	100
90) bis(2-Ethylhexyl)phtha...	14.731	149	36113	2.62 ppm	97
92) Di-n-octylphthalate	15.726	149	47514	2.06 ppm	91
93) Benzo[b]fluoranthene	16.229	252	38069	2.04 ppm	95
94) Benzo[k]fluoranthene	16.261	252	34310	2.10 ppm	98
95) Benzo[a]pyrene	16.683	252	31733	2.07 ppm	93
96) Indeno[1,2,3-cd]pyrene	18.518	276	38363	2.03 ppm	94
97) Dibenz(a,h)acridine	18.106	279	29141	2.08 ppm	99
98) Dibenz[a,h]anthracene	18.550	278	32091	1.92 ppm	98
99) 7,12-Dimethylbenz(a)an...	16.207	256	15826	1.89 ppm	97
100) Benzo[g,h,i]perylene	19.026	276	32670	2.07 ppm	98

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

7.6.12

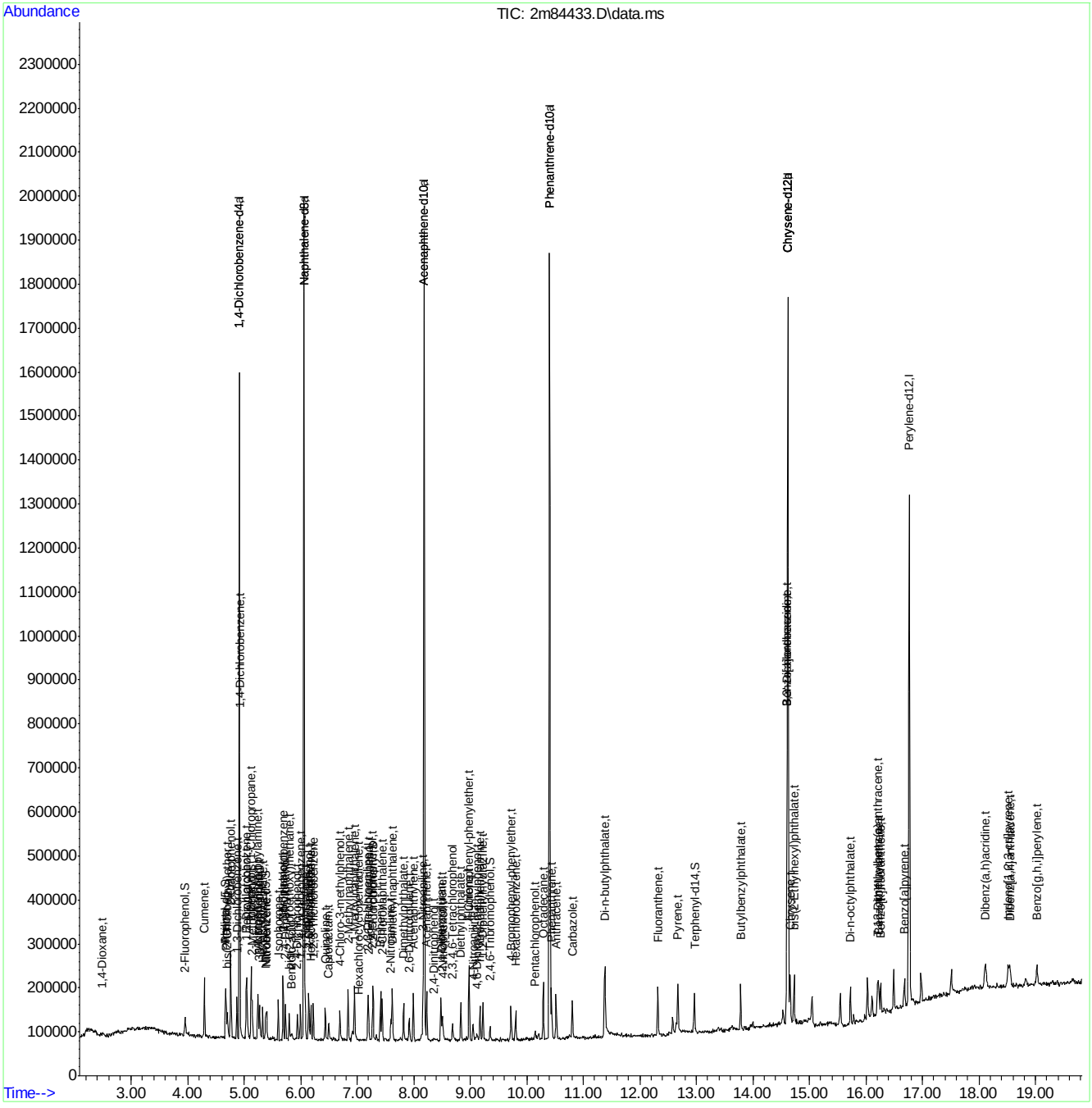
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84433.D
Acq On : 7 Jun 2016 9:32 am
Operator : ashleyn
Sample : ic3720-2
Misc : op94122,e2m3720
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 12:16:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Manual Integration Approval Summary

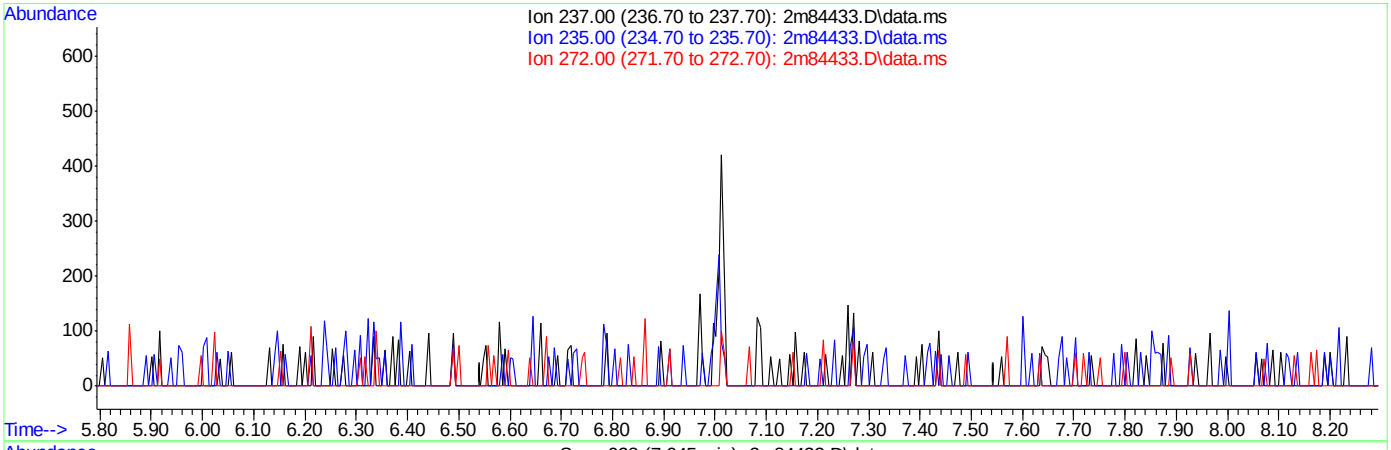
Sample Number:	E2M3720-IC3720	**Method:**	SW846 8270D
Lab FileID:	2M84433.D	**Analyst approved:**	06/07/16 15:49 Ashley Noble
Injection Time:	06/07/16 09:32	**Supervisor approved:**	06/09/16 08:50 Kristi Schollenberger

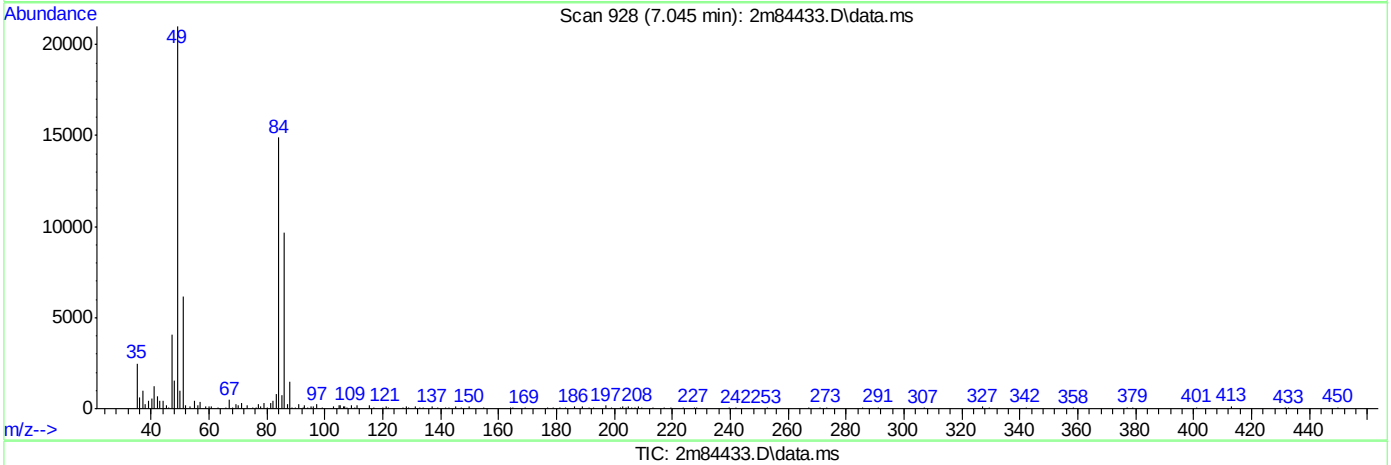
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hexachlorocyclopentadiene	77-47-4		7.01	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84433.D
Acq On : 7 Jun 2016 9:32 am
Operator : ashleyn
Sample : ic3720-2
Misc : op94122,e2m3720
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 12:15:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration





TIC: 2m84433.D\data.ms

(48) Hexachlorocyclopentadiene (t)

7.044min (-7.044) 0.00ppm

response 0

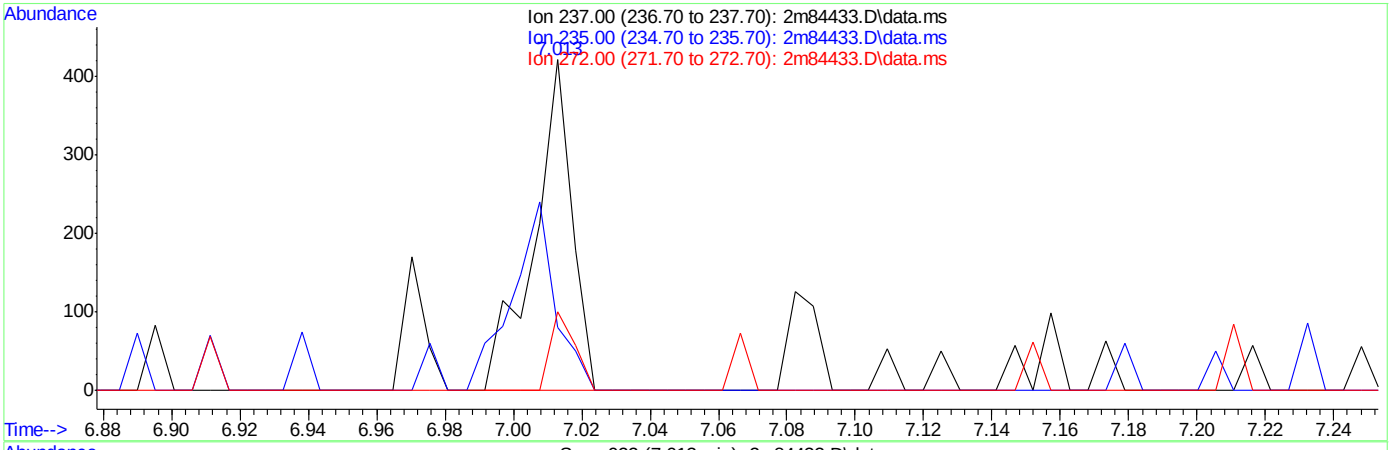
Ion	Exp%	Act%
237.00	100	0.00
235.00	64.30	0.00#
272.00	13.20	0.00
0.00	0.00	0.00

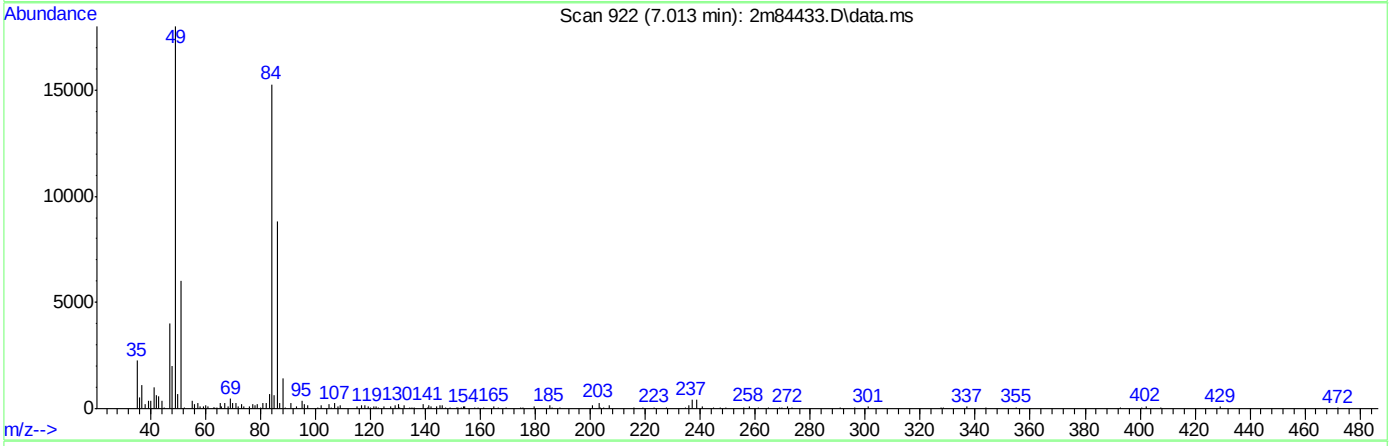
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84433.D
Acq On : 7 Jun 2016 9:32 am
Operator : ashleyn
Sample : ic3720-2
Misc : op94122,e2m3720
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 12:15:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration





TIC: 2m84433.D\data.ms

(48) Hexachlorocyclopentadiene (t)

7.013min (-0.031) 0.12ppm m

response 326

Ion	Exp%	Act%
237.00	100	100
235.00	64.30	19.00#
272.00	13.20	23.75
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 06/09/16 08:50

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84434.D
Acq On : 7 Jun 2016 9:59 am
Operator : ashleyn
Sample : ic3720-1
Misc : op94122,e2m3720
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 07 12:19:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:17:59 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	209238	40.00	ppm	-0.03
24) Naphthalene-d8	6.055	136	837459	40.00	ppm	-0.03
47) Acenaphthene-d10	8.184	164	485439	40.00	ppm	-0.04
69) Phenanthrene-d10	10.399	188	830898	40.00	ppm	-0.04
83) Chrysene-d12	14.624	240	766719	40.00	ppm	-0.03
91) Perylene-d12	16.769	264	562472	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.911	152	209238	40.00	ppm	-0.03
103) Acenaphthene-d10a	8.184	164	485439	40.00	ppm	-0.03
105) Chrysene-d12a	14.624	240	766719	40.00	ppm	-0.02
108) Phenanthrene-d10a	10.399	188	830898	40.00	ppm	-0.03
111) Naphthalene-d8a	6.055	136	837459	40.00	ppm	-0.03
113) Chrysene-d12b	14.624	240	767099	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	3.953	112	7269	0.99	ppm	-0.02
Spiked Amount 50.000			Recovery = 1.98%			
8) Phenol-d5	4.670	99	9948	1.07	ppm	-0.02
Spiked Amount 50.000			Recovery = 2.14%			
25) Nitrobenzene-d5	5.382	82	10864	1.23	ppm	-0.03
Spiked Amount 50.000			Recovery = 2.46%			
51) 2-Fluorobiphenyl	7.280	172	17154	1.10	ppm	-0.04
Spiked Amount 50.000			Recovery = 2.20%			
73) 2,4,6-Tribromophenol	9.350	330	2212	0.93	ppm	-0.03
Spiked Amount 50.000			Recovery = 1.86%			
85) Terphenyl-d14	12.961	244	19450	1.08	ppm	-0.04
Spiked Amount 50.000			Recovery = 2.16%			
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	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.499	88	2769	0.91	ppm		70
6) Indene	5.119	116	15729	1.15	ppm		95
7) Cumene	4.296	105	21970	1.08	ppm		91
9) Phenol	4.681	94	12011	1.06	ppm		92
10) Aniline	4.665	93	12212	1.08	ppm	#	42
11) bis(2-Chloroethyl)ether	4.702	93	9447	1.21	ppm		89
12) 2-Chlorophenol	4.766	128	8923	1.19	ppm		78
13) Decane	4.761	43	10829	1.39	ppm		94
14) 1,3-Dichlorobenzene	4.868	146	9513	1.10	ppm		98
15) 1,4-Dichlorobenzene	4.927	146	8821	1.01	ppm		91
16) Benzyl alcohol	5.039	108	5342	1.07	ppm		95
17) 1,2-Dichlorobenzene	5.050	146	9012	1.11	ppm		93
18) Acetophenone	5.248	105	12180	1.10	ppm		96
19) 2-Methylphenol	5.141	108	7547	0.99	ppm		92
20) 2,2'-oxybis(1-Chloropr...	5.125	45	11662	1.18	ppm		88
21) 3&4-Methylphenol	5.269	108	8548	1.04	ppm		88
22) n-Nitroso-di-n-propyla...	5.232	70	6990	1.12	ppm		99
23) Hexachloroethane	5.328	201	2762	1.00	ppm		83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84434.D
Acq On : 7 Jun 2016 9:59 am
Operator : ashleyn
Sample : ic3720-1
Misc : op94122,e2m3720
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 07 12:19:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:17:59 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.398	77	9972	1.07	ppm		89
27) Quinoline	6.435	129	16759	1.09	ppm		94
28) Isophorone	5.601	82	17213	1.08	ppm		96
29) 2-Nitrophenol	5.686	139	4273	1.02	ppm		94
30) 2,4-Dimethylphenol	5.729	107	9072	1.14	ppm		97
31) Benzoic acid	5.836	105	3447	0.72	ppm		83
32) bis(2-Chloroethoxy)met...	5.799	93	10060	1.11	ppm		98
33) 2,4-Dichlorophenol	5.938	162	6805	1.12	ppm		85
34) 2,6-Dichlorophenol	6.146	162	6657	1.11	ppm		92
35) 1,3,5-Trichlorobenzene	5.686	180	7871	1.12	ppm		82
36) 1,2,4-Trichlorobenzene	5.991	180	7714	1.13	ppm		96
37) 1,2,3-Trichlorobenzene	6.221	180	7443	1.13	ppm		96
38) Naphthalene	6.077	128	25944	1.14	ppm		95
39) 4-Chloroaniline	6.141	127	9224	1.05	ppm		88
40) 2,3-Dichloroaniline	7.189	161	8513	1.09	ppm		92
41) Caprolactam	6.494	55	5033	1.37	ppm	#	77
42) Hexachlorobutadiene	6.184	225	4493	1.20	ppm		91
43) 4-Chloro-3-methylphenol	6.692	107	7588	1.03	ppm		93
44) 2-Methylnaphthalene	6.836	141	14283	1.11	ppm		96
45) 1-Methylnaphthalene	6.954	141	14562	1.08	ppm		97
46) Dimethylnaphthalene	7.617	156	14894	1.07	ppm		92
49) 2,4,6-Trichlorophenol	7.200	196	4914	1.09	ppm		82
50) 2,4,5-Trichlorophenol	7.270	196	5030	1.10	ppm		98
52) 2-Chloronaphthalene	7.441	162	15680	1.13	ppm		96
53) Biphenyl	7.409	154	20861	1.12	ppm		97
54) 2-Nitroaniline	7.591	65	6285	1.15	ppm	#	73
55) Dimethylphthalate	7.821	163	17156	1.07	ppm		96
56) Acenaphthylene	7.992	152	25557	1.08	ppm		96
57) 2,6-Dinitrotoluene	7.922	165	3838	1.08	ppm		81
58) 3-Nitroaniline	8.163	138	4224	1.04	ppm	#	68
59) Acenaphthene	8.227	153	16196	1.14	ppm		93
61) 4-Nitrophenol	8.521	109	1704	0.90	ppm	#	1
62) Dibenzofuran	8.478	168	22311	1.12	ppm		91
63) 2,4-Dinitrotoluene	8.505	165	5250	1.04	ppm		88
64) 2,3,4,6-Tetrachlorophenol	8.687	232	2884	0.99	ppm		91
65) Diethylphthalate	8.831	149	18871	1.15	ppm		96
66) Fluorene	8.976	166	17602	1.12	ppm		93
67) 4-Chlorophenyl-phenyle...	8.987	204	8032	1.09	ppm		95
68) 4-Nitroaniline	9.051	138	4161	0.96	ppm		86
70) 4,6-Dinitro-2-methylph...	9.120	198	855m	0.43	ppm		
71) n-Nitrosodiphenylamine	9.168	169	11816	1.08	ppm		89
72) 1,2-Diphenylhydrazine	9.222	77	19374	1.03	ppm		94
74) 4-Bromophenyl-phenylether	9.719	248	4885	1.09	ppm		93
75) Hexachlorobenzene	9.805	284	5527	1.07	ppm		94
76) Pentachlorophenol	10.153	266	1374	0.99	ppm	#	68
77) Phenanthrene	10.436	178	26867	1.12	ppm		96
78) Anthracene	10.516	178	26167	1.07	ppm		98
79) Carbazole	10.805	167	24654	1.11	ppm		98
80) Di-n-butylphthalate	11.383	149	30267	1.04	ppm		98
81) Fluoranthene	12.319	202	25825	1.04	ppm		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84434.D
Acq On : 7 Jun 2016 9:59 am
Operator : ashleyn
Sample : ic3720-1
Misc : op94122,e2m3720
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 07 12:19:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:17:59 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
82) Octadecane	10.292	57	12654	1.10 ppm	95
84) Pyrene	12.672	202	28266	1.04 ppm	97
86) Butylbenzylphthalate	13.784	149	13866	1.02 ppm	87
87) Benzo[a]anthracene	14.608	228	28621	1.18 ppm	98
88) 3,3'-Dichlorobenzidine	14.597	252	9701	1.09 ppm	92
89) Chrysene	14.661	228	25486	1.13 ppm	97
90) bis(2-Ethylhexyl)phtha...	14.726	149	19890	1.18 ppm	90
92) Di-n-octylphthalate	15.720	149	26452	1.12 ppm	95
93) Benzo[b]fluoranthene	16.223	252	20455	1.08 ppm	92
94) Benzo[k]fluoranthene	16.261	252	18018	1.06 ppm	95
95) Benzo[a]pyrene	16.683	252	17265	1.10 ppm	93
96) Indeno[1,2,3-cd]pyrene	18.512	276	19733	1.03 ppm	94
97) Dibenz(a,h)acridine	18.101	279	14511	1.01 ppm	100
98) Dibenz[a,h]anthracene	18.550	278	16802	1.02 ppm	96
99) 7,12-Dimethylbenz(a)an...	16.207	256	7886	0.96 ppm	96
100) Benzo[g,h,i]perylene	19.026	276	16832	1.04 ppm	95

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

7.6.13

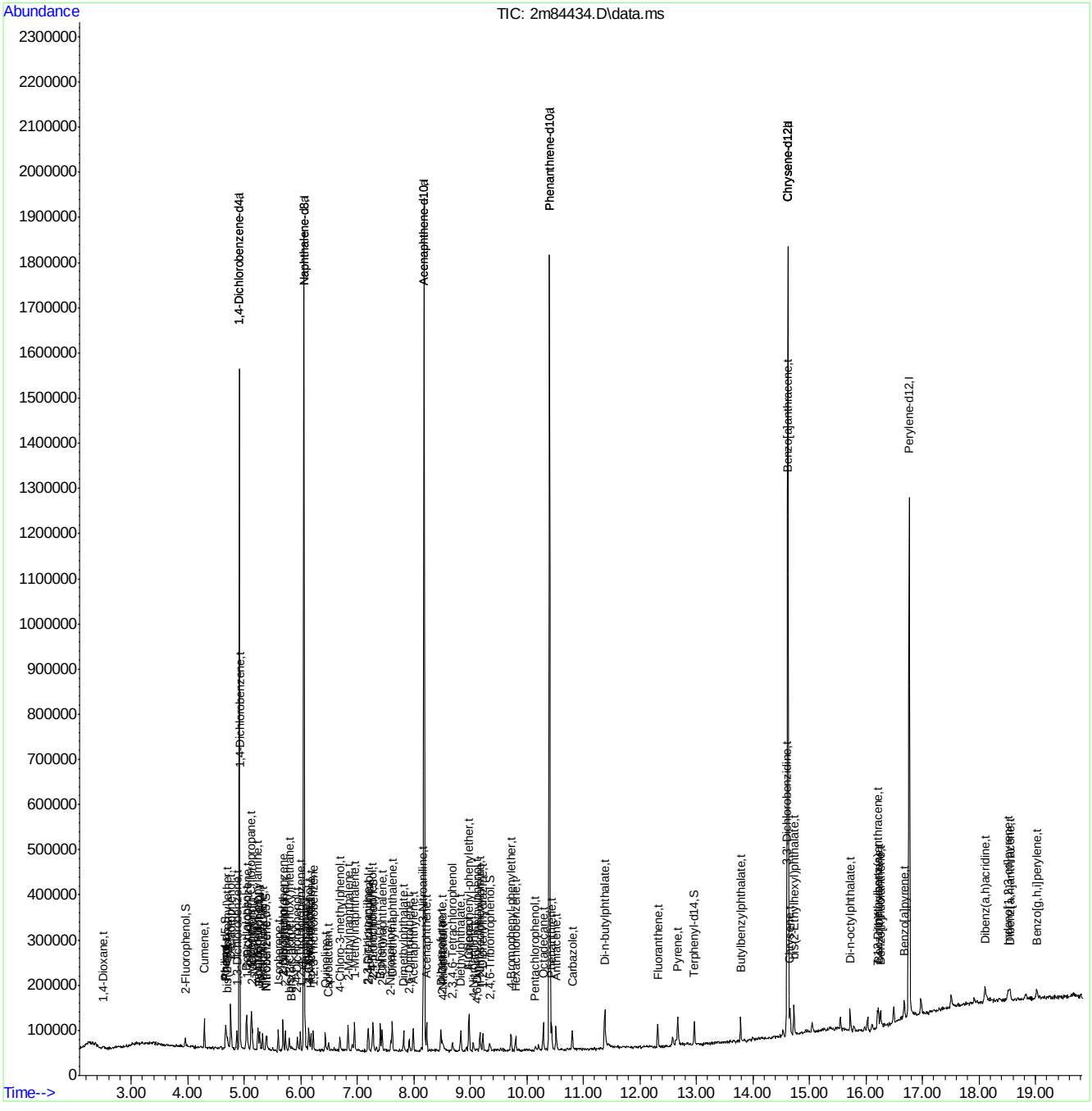
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84434.D
Acq On : 7 Jun 2016 9:59 am
Operator : ashleyn
Sample : ic3720-1
Misc : op94122,e2m3720
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 07 12:19:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:17:59 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Manual Integration Approval Summary

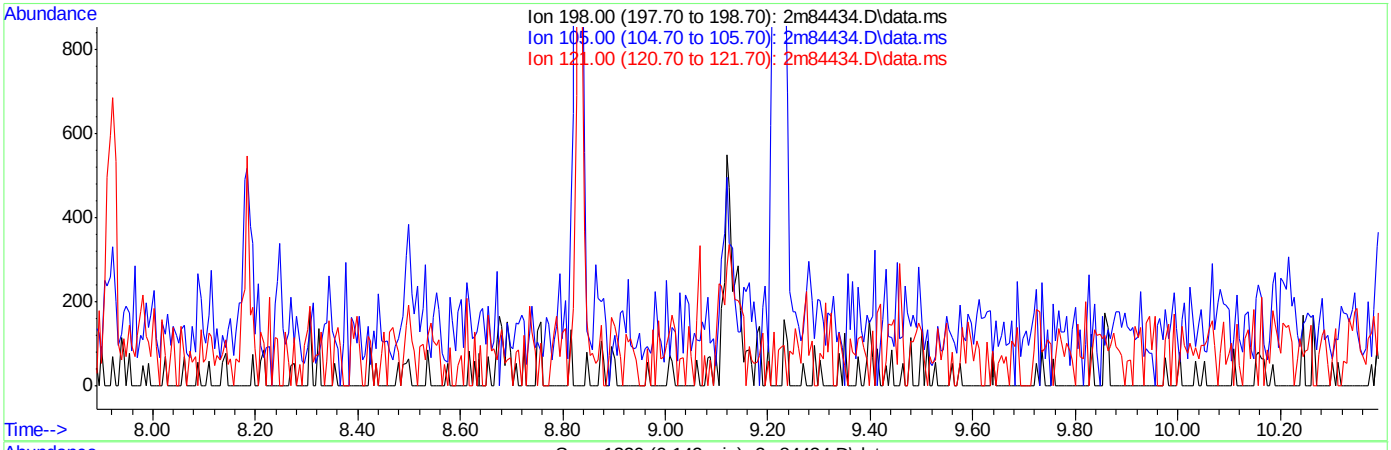
Sample Number:	E2M3720-IC3720	**Method:**	SW846 8270D
Lab FileID:	2M84434.D	**Analyst approved:**	06/07/16 15:49 Ashley Noble
Injection Time:	06/07/16 09:59	**Supervisor approved:**	06/09/16 08:50 Kristi Schollenberger

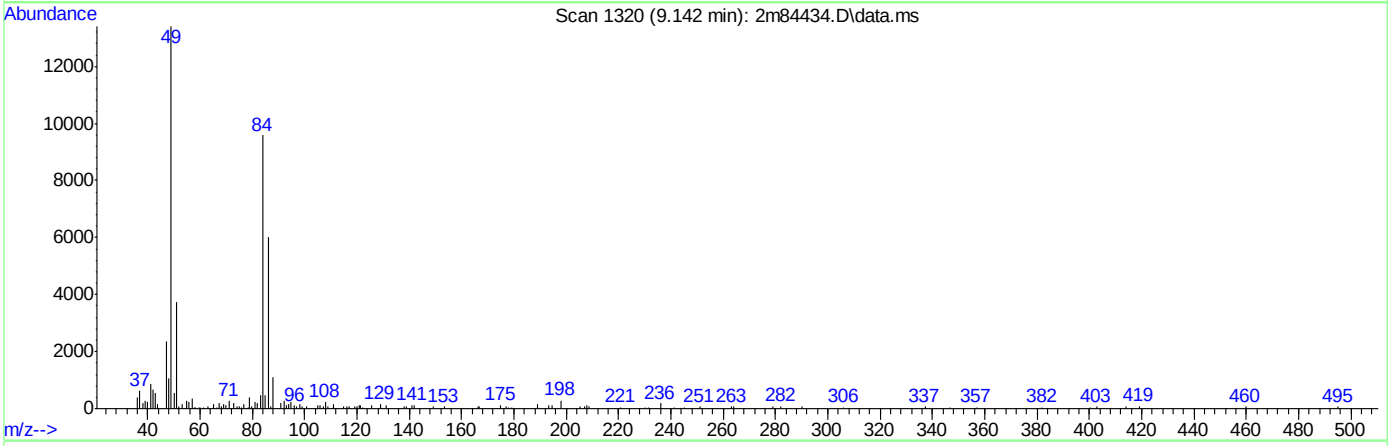
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,6-Dinitro-o-cresol	534-52-1		9.12	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84434.D
Acq On : 7 Jun 2016 9:59 am
Operator : ashleyn
Sample : ic3720-1
Misc : op94122,e2m3720
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 07 12:18:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:17:59 2016
Response via : Initial Calibration





TIC: 2m84434.D\data.ms

(70) 4,6-Dinitro-2-methylphenol (t)

9.141min (-9.141) 0.00ppm

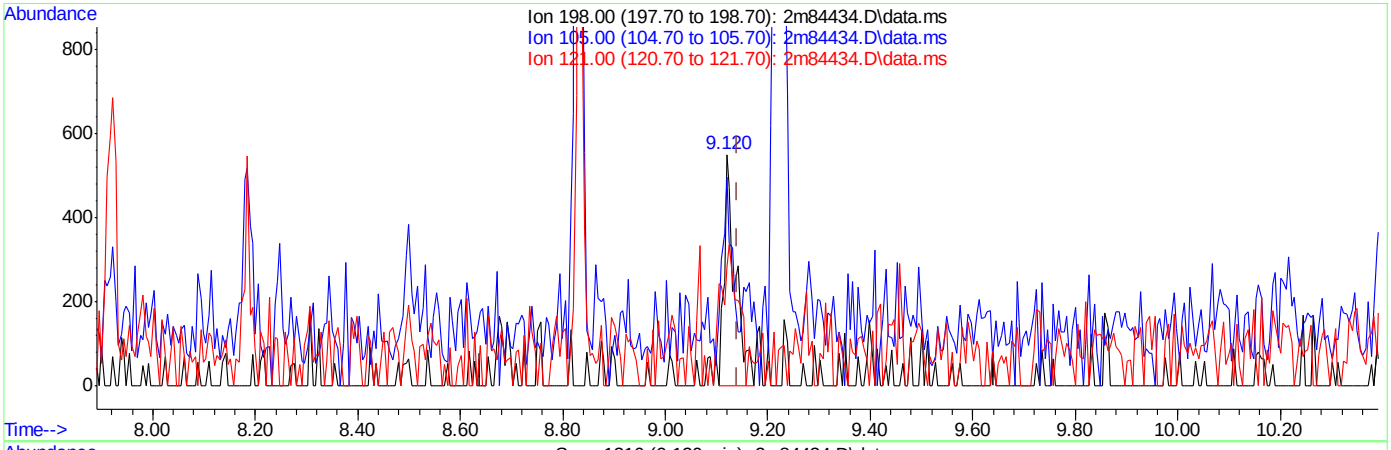
response 0

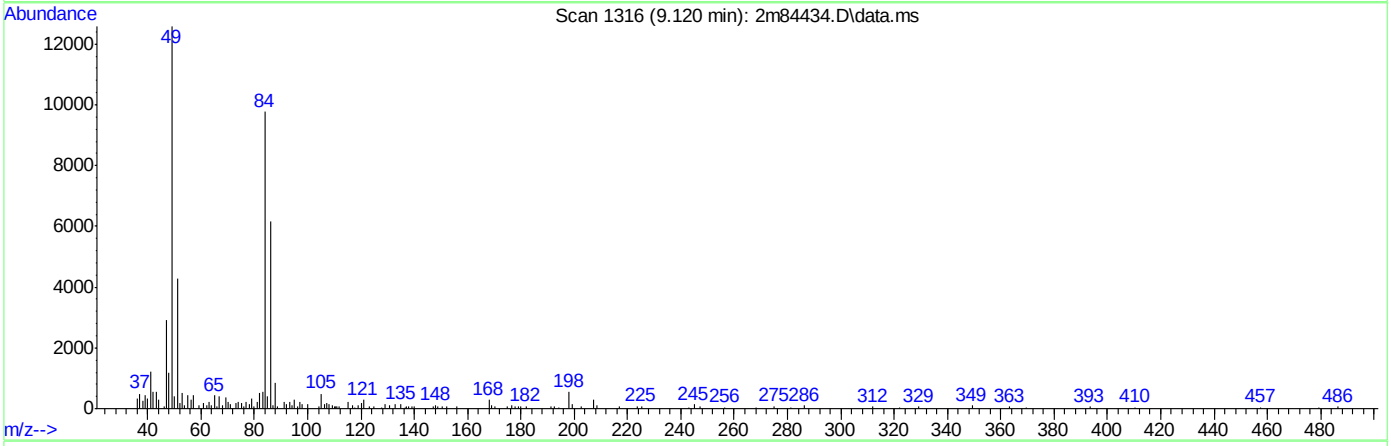
Ion	Exp%	Act%
198.00	100	0.00
105.00	56.40	0.00#
121.00	48.90	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84434.D
Acq On : 7 Jun 2016 9:59 am
Operator : ashleyn
Sample : ic3720-1
Misc : op94122,e2m3720
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 07 12:18:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:17:59 2016
Response via : Initial Calibration





TIC: 2m84434.D\data.ms

(70) 4,6-Dinitro-2-methylphenol (t)

9.120min (-0.021) 0.43ppm m

response 855

Ion	Exp%	Act%
198.00	100	100
105.00	56.40	90.00#
121.00	48.90	51.45
0.00	0.00	0.00

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84435.D
Acq On : 7 Jun 2016 10:26 am
Operator : ashleyn
Sample : ic3720-100
Misc : op94122,e2m3720
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 07 12:14:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.916	152	187400	40.00	ppm	-0.03
24) Naphthalene-d8	6.056	136	761743	40.00	ppm	-0.03
47) Acenaphthene-d10	8.190	164	438011	40.00	ppm	-0.03
69) Phenanthrene-d10	10.409	188	737628	40.00	ppm	-0.03
83) Chrysene-d12	14.635	240	637918	40.00	ppm	-0.02
91) Perylene-d12	16.774	264	485474	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.916	152	187400	40.00	ppm	-0.02
103) Acenaphthene-d10a	8.190	164	438011	40.00	ppm	-0.03
105) Chrysene-d12a	14.635	240	637918	40.00	ppm	-0.01
108) Phenanthrene-d10a	10.409	188	737628	40.00	ppm	-0.02
111) Naphthalene-d8a	6.056	136	761743	40.00	ppm	-0.03
113) Chrysene-d12b	14.635	240	638050	40.00	ppm	-0.01

System Monitoring Compounds						
5) 2-Fluorophenol	3.948	112	663064	100.00	ppm	-0.03
Spiked Amount 50.000			Recovery	=	200.00%	
8) Phenol-d5	4.670	99	755598	100.00	ppm	-0.02
Spiked Amount 50.000			Recovery	=	200.00%	
25) Nitrobenzene-d5	5.387	82	775708	100.00	ppm	-0.03
Spiked Amount 50.000			Recovery	=	200.00%	
51) 2-Fluorobiphenyl	7.286	172	1313244	100.00	ppm	-0.03
Spiked Amount 50.000			Recovery	=	200.00%	
73) 2,4,6-Tribromophenol	9.356	330	211760	100.00	ppm	-0.03
Spiked Amount 50.000			Recovery	=	200.00%	
85) Terphenyl-d14	12.971	244	1463502	100.00	ppm	-0.03
Spiked Amount 50.000			Recovery	=	200.00%	
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	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds							Qvalue
2) 1,4-Dioxane	2.483	88	234710	100.00	ppm		92
6) Indene	5.125	116	1077025	100.00	ppm		100
7) Cumene	4.296	105	1679549	100.00	ppm		98
9) Phenol	4.681	94	947178	100.00	ppm		96
10) Aniline	4.665	93	894326	100.00	ppm	#	53
11) bis(2-Chloroethyl)ether	4.708	93	663232	100.00	ppm		95
12) 2-Chlorophenol	4.767	128	580098	100.00	ppm		87
13) Decane	4.767	43	540114	100.00	ppm		93
14) 1,3-Dichlorobenzene	4.868	146	719352	100.00	ppm		99
15) 1,4-Dichlorobenzene	4.927	146	726949	100.00	ppm		99
16) Benzyl alcohol	5.039	108	410995	100.00	ppm		93
17) 1,2-Dichlorobenzene	5.050	146	659300	100.00	ppm		99
18) Acetophenone	5.248	105	894056	100.00	ppm		93
19) 2-Methylphenol	5.146	108	638854	100.00	ppm		99
20) 2,2'-oxybis(1-Chloropr...	5.130	45	739818	100.00	ppm		84
21) 3&4-Methylphenol	5.269	108	687628	100.00	ppm		99
22) n-Nitroso-di-n-propyla...	5.248	70	482277	100.00	ppm		91
23) Hexachloroethane	5.328	201	237315	100.00	ppm		90

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84435.D
Acq On : 7 Jun 2016 10:26 am
Operator : ashleyn
Sample : ic3720-100
Misc : op94122,e2m3720
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 07 12:14:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.403	77	795833	100.00	ppm		93
27) Quinoline	6.457	129	1327136	100.00	ppm		97
28) Isophorone	5.612	82	1351436	100.00	ppm		94
29) 2-Nitrophenol	5.687	139	346605	100.00	ppm		99
30) 2,4-Dimethylphenol	5.735	107	705705	100.00	ppm		97
31) Benzoic acid	5.895	105	492053	100.00	ppm		91
32) bis(2-Chloroethoxy)met...	5.804	93	761320	100.00	ppm		98
33) 2,4-Dichlorophenol	5.938	162	531447	100.00	ppm		94
34) 2,6-Dichlorophenol	6.152	162	512948	100.00	ppm		96
35) 1,3,5-Trichlorobenzene	5.692	180	584333	100.00	ppm		99
36) 1,2,4-Trichlorobenzene	5.997	180	582111	100.00	ppm		98
37) 1,2,3-Trichlorobenzene	6.227	180	572483	100.00	ppm		98
38) Naphthalene	6.082	128	1885185	100.00	ppm		99
39) 4-Chloroaniline	6.141	127	721044	100.00	ppm		95
40) 2,3-Dichloroaniline	7.189	161	643651	100.00	ppm		94
41) Caprolactam	6.553	55	328340	100.00	ppm		90
42) Hexachlorobutadiene	6.184	225	321808	100.00	ppm		99
43) 4-Chloro-3-methylphenol	6.703	107	636377	100.00	ppm		94
44) 2-Methylnaphthalene	6.842	141	1058083	100.00	ppm		99
45) 1-Methylnaphthalene	6.959	141	1105077	100.00	ppm		99
46) Dimethylnaphthalene	7.628	156	1153306	100.00	ppm		97
48) Hexachlorocyclopentadiene	7.013	237	470704	200.00	ppm		98
49) 2,4,6-Trichlorophenol	7.206	196	387546	100.00	ppm		98
50) 2,4,5-Trichlorophenol	7.270	196	399975	100.00	ppm		99
52) 2-Chloronaphthalene	7.446	162	1178710	100.00	ppm		99
53) Biphenyl	7.419	154	1575350	100.00	ppm		100
54) 2-Nitroaniline	7.601	65	475090	100.00	ppm		87
55) Dimethylphthalate	7.831	163	1359047	100.00	ppm		100
56) Acenaphthylene	7.997	152	1985425	100.00	ppm		100
57) 2,6-Dinitrotoluene	7.933	165	324818	100.00	ppm		90
58) 3-Nitroaniline	8.174	138	375992	100.00	ppm		83
59) Acenaphthene	8.238	153	1206449	100.00	ppm		99
60) 2,4-Dinitrophenol	8.339	184	329862	200.00	ppm		91
61) 4-Nitrophenol	8.495	109	198312	100.00	ppm	#	29
62) Dibenzofuran	8.484	168	1657258	100.00	ppm		92
63) 2,4-Dinitrotoluene	8.511	165	439998	100.00	ppm		94
64) 2,3,4,6-Tetrachlorophenol	8.687	232	265857	100.00	ppm		98
65) Diethylphthalate	8.848	149	1405422	100.00	ppm		99
66) Fluorene	8.987	166	1320233	100.00	ppm		98
67) 4-Chlorophenyl-phenyle...	8.992	204	623331	100.00	ppm		100
68) 4-Nitroaniline	9.072	138	382202	100.00	ppm		96
70) 4,6-Dinitro-2-methylph...	9.126	198	252805	100.00	ppm	#	57
71) n-Nitrosodiphenylamine	9.185	169	923024	100.00	ppm		99
72) 1,2-Diphenylhydrazine	9.233	77	1628154	100.00	ppm		90
74) 4-Bromophenyl-phenylether	9.730	248	387868	100.00	ppm		97
75) Hexachlorobenzene	9.816	284	453129	100.00	ppm		95
76) Pentachlorophenol	10.147	266	334430	200.00	ppm		98
77) Phenanthrene	10.447	178	2004078	100.00	ppm		99
78) Anthracene	10.527	178	2036423	100.00	ppm		100
79) Carbazole	10.810	167	1883897	100.00	ppm		100

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84435.D
Acq On : 7 Jun 2016 10:26 am
Operator : ashleyn
Sample : ic3720-100
Misc : op94122,e2m3720
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 07 12:14:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.394	149	2425786	100.00 ppm	100
81) Fluoranthene	12.330	202	2100618	100.00 ppm	93
82) Octadecane	10.297	57	916063	100.00 ppm	93
84) Pyrene	12.683	202	2184526	100.00 ppm	99
86) Butylbenzylphthalate	13.790	149	1064244	100.00 ppm	87
87) Benzo[a]anthracene	14.619	228	1897872	100.00 ppm	99
88) 3,3'-Dichlorobenzidine	14.608	252	766840	100.00 ppm	99
89) Chrysene	14.678	228	1772403	100.00 ppm	99
90) bis(2-Ethylhexyl)phtha...	14.731	149	1212703	100.00 ppm	98
92) Di-n-octylphthalate	15.731	149	2009072	100.00 ppm	93
93) Benzo[b]fluoranthene	16.250	252	1623093	100.00 ppm	96
94) Benzo[k]fluoranthene	16.288	252	1425857	100.00 ppm	97
95) Benzo[a]pyrene	16.699	252	1336705	100.00 ppm	95
96) Indeno[1,2,3-cd]pyrene	18.550	276	1643935	100.00 ppm	91
97) Dibenz(a,h)acridine	18.127	279	1219459	100.00 ppm	99
98) Dibenz[a,h]anthracene	18.577	278	1453509	100.00 ppm	97
99) 7,12-Dimethylbenz(a)an...	16.229	256	729697	100.00 ppm	97
100) Benzo[g,h,i]perylene	19.063	276	1376824	100.00 ppm	95

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

7.6.14

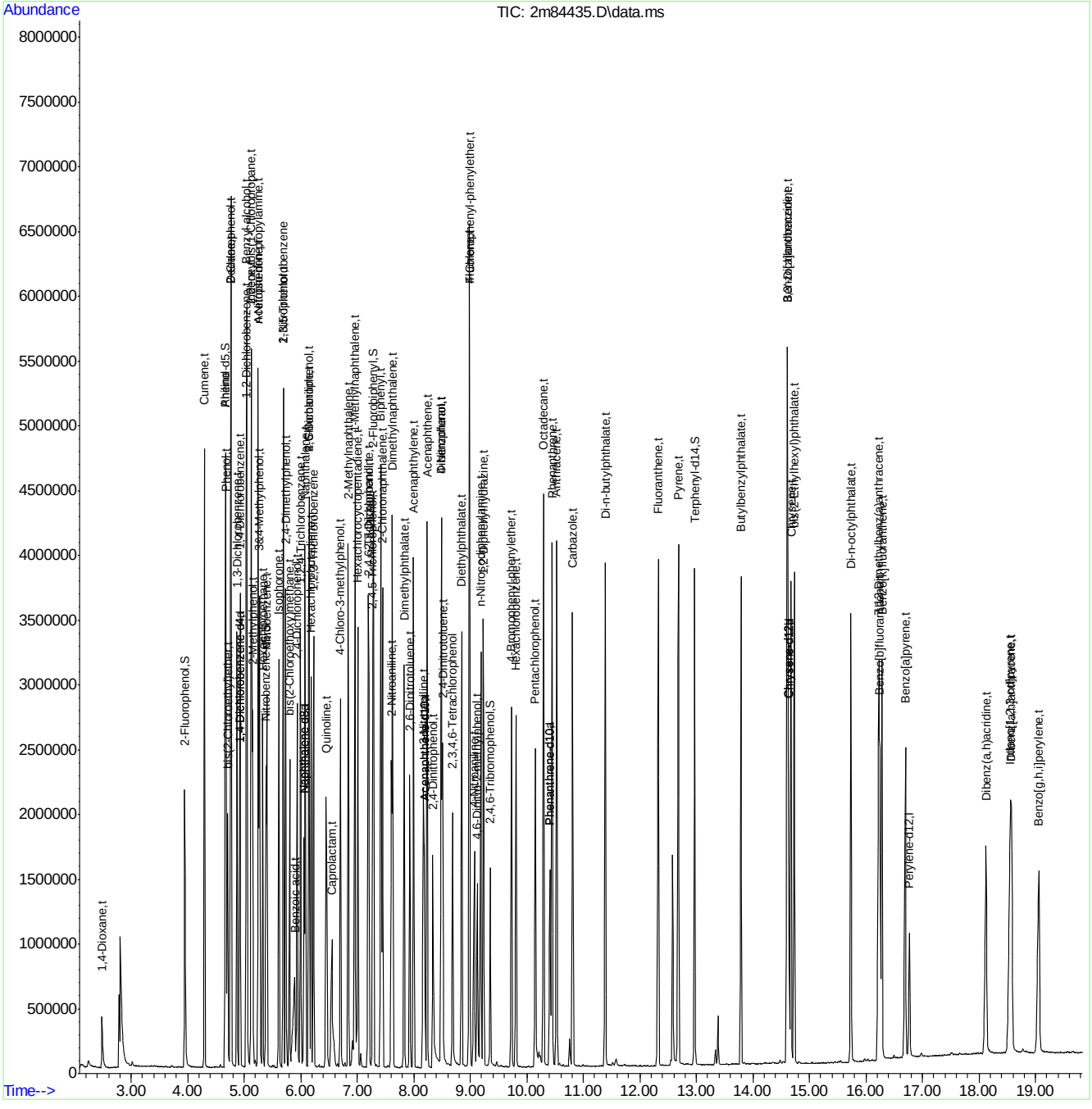
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84435.D
Acq On : 7 Jun 2016 10:26 am
Operator : ashleyn
Sample : ic3720-100
Misc : op94122,e2m3720
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 07 12:14:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:13:52 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84436.D
Acq On : 7 Jun 2016 10:52 am
Operator : ashleyn
Sample : ic3720-80
Misc : op94122,e2m3720
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 12:23:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:20:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.916	152	198404	40.00	ppm	-0.03
24) Naphthalene-d8	6.055	136	794410	40.00	ppm	-0.03
47) Acenaphthene-d10	8.189	164	458355	40.00	ppm	-0.03
69) Phenanthrene-d10	10.404	188	774117	40.00	ppm	-0.03
83) Chrysene-d12	14.629	240	687353	40.00	ppm	-0.02
91) Perylene-d12	16.769	264	504606	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.916	152	198404	40.00	ppm	-0.02
103) Acenaphthene-d10a	8.189	164	458355	40.00	ppm	-0.03
105) Chrysene-d12a	14.629	240	687353	40.00	ppm	-0.02
108) Phenanthrene-d10a	10.404	188	774117	40.00	ppm	-0.03
111) Naphthalene-d8a	6.055	136	794410	40.00	ppm	-0.03
113) Chrysene-d12b	14.629	240	687353	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	3.948	112	564429	81.25	ppm	-0.03
Spiked Amount 50.000			Recovery	=	162.50%	
8) Phenol-d5	4.665	99	651252	72.02	ppm	-0.03
Spiked Amount 50.000			Recovery	=	144.04%	
25) Nitrobenzene-d5	5.387	82	652883	72.45	ppm	-0.03
Spiked Amount 50.000			Recovery	=	144.90%	
51) 2-Fluorobiphenyl	7.286	172	1110188	73.03	ppm	-0.03
Spiked Amount 50.000			Recovery	=	146.06%	
73) 2,4,6-Tribromophenol	9.350	330	174847	80.66	ppm	-0.03
Spiked Amount 50.000			Recovery	=	161.32%	
85) Terphenyl-d14	12.966	244	1255851	75.69	ppm	-0.03
Spiked Amount 50.000			Recovery	=	151.38%	
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	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds							Qvalue
2) 1,4-Dioxane	2.482	88	200379	71.63	ppm		91
6) Indene	5.125	116	946605	69.58	ppm		99
7) Cumene	4.296	105	1444495	72.76	ppm		97
9) Phenol	4.675	94	818147	74.44	ppm		97
10) Aniline	4.665	93	778524	70.93	ppm	#	58
11) bis(2-Chloroethyl)ether	4.708	93	577030	72.87	ppm		94
12) 2-Chlorophenol	4.766	128	508993	67.38	ppm		86
13) Decane	4.766	43	482301	57.87	ppm		95
14) 1,3-Dichlorobenzene	4.868	146	610938	71.90	ppm		99
15) 1,4-Dichlorobenzene	4.927	146	617533	74.09	ppm		99
16) Benzyl alcohol	5.039	108	366542	75.52	ppm		98
17) 1,2-Dichlorobenzene	5.050	146	563723	70.80	ppm		99
18) Acetophenone	5.248	105	782650	72.02	ppm		92
19) 2-Methylphenol	5.146	108	544690	75.59	ppm		98
20) 2,2'-oxybis(1-Chloropr...	5.130	45	653671	65.65	ppm		82
21) 3&4-Methylphenol	5.269	108	591013	75.03	ppm		99
22) n-Nitroso-di-n-propyla...	5.248	70	422369	68.79	ppm		94
23) Hexachloroethane	5.328	201	201729	77.01	ppm		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84436.D
Acq On : 7 Jun 2016 10:52 am
Operator : ashleyn
Sample : ic3720-80
Misc : op94122,e2m3720
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 12:23:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:20:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.403	77	688824	75.97	ppm		92
27) Quinoline	6.451	129	1125096	74.70	ppm		98
28) Isophorone	5.611	82	1162944	74.71	ppm		95
29) 2-Nitrophenol	5.686	139	299911	74.89	ppm		99
30) 2,4-Dimethylphenol	5.734	107	600005	75.89	ppm		95
31) Benzoic acid	5.884	105	407084	98.86	ppm		94
32) bis(2-Chloroethoxy)met...	5.804	93	654469	73.42	ppm		98
33) 2,4-Dichlorophenol	5.938	162	453686	75.52	ppm		93
34) 2,6-Dichlorophenol	6.152	162	443111	75.00	ppm		95
35) 1,3,5-Trichlorobenzene	5.692	180	505486	72.86	ppm		98
36) 1,2,4-Trichlorobenzene	5.997	180	496050	73.31	ppm		98
37) 1,2,3-Trichlorobenzene	6.227	180	483203	73.97	ppm		99
38) Naphthalene	6.077	128	1626985	72.09	ppm		99
39) 4-Chloroaniline	6.141	127	632409	74.73	ppm		95
40) 2,3-Dichloroaniline	7.189	161	546518	71.47	ppm		95
41) Caprolactam	6.547	55	277537	71.03	ppm		89
42) Hexachlorobutadiene	6.184	225	269499	71.17	ppm		98
43) 4-Chloro-3-methylphenol	6.703	107	543268	76.90	ppm		93
44) 2-Methylnaphthalene	6.836	141	911556	72.03	ppm		99
45) 1-Methylnaphthalene	6.959	141	950974	72.42	ppm		99
46) Dimethylnaphthalene	7.623	156	991511	73.47	ppm		98
48) Hexachlorocyclopentadiene	7.013	237	393304	309.80	ppm		98
49) 2,4,6-Trichlorophenol	7.205	196	324451	74.18	ppm		96
50) 2,4,5-Trichlorophenol	7.270	196	337952	75.65	ppm		99
52) 2-Chloronaphthalene	7.446	162	1010658	73.95	ppm		99
53) Biphenyl	7.419	154	1346264	73.42	ppm		100
54) 2-Nitroaniline	7.601	65	404546	74.48	ppm		84
55) Dimethylphthalate	7.831	163	1145858	74.16	ppm		99
56) Acenaphthylene	7.997	152	1701144	74.33	ppm		99
57) 2,6-Dinitrotoluene	7.927	165	272609	79.02	ppm		96
58) 3-Nitroaniline	8.168	138	320295	82.41	ppm		80
59) Acenaphthene	8.238	153	1036454	73.82	ppm		99
60) 2,4-Dinitrophenol	8.339	184	267496	249.92	ppm		87
61) 4-Nitrophenol	8.494	109	164925	95.09	ppm	#	23
62) Dibenzofuran	8.484	168	1424852	72.75	ppm		91
63) 2,4-Dinitrotoluene	8.510	165	376135	77.77	ppm		88
64) 2,3,4,6-Tetrachlorophenol	8.687	232	220357	80.36	ppm		98
65) Diethylphthalate	8.847	149	1199821	73.67	ppm		98
66) Fluorene	8.981	166	1142130	74.02	ppm		99
67) 4-Chlorophenyl-phenyle...	8.986	204	538251	75.31	ppm		98
68) 4-Nitroaniline	9.067	138	326719	80.91	ppm		96
70) 4,6-Dinitro-2-methylph...	9.120	198	210099	140.76	ppm	#	56
71) n-Nitrosodiphenylamine	9.184	169	784542	74.86	ppm		99
72) 1,2-Diphenylhydrazine	9.232	77	1392923	78.62	ppm		90
74) 4-Bromophenyl-phenylether	9.725	248	329924	76.70	ppm		99
75) Hexachlorobenzene	9.810	284	387760	78.64	ppm		99
76) Pentachlorophenol	10.147	266	269652	250.01	ppm		98
77) Phenanthrene	10.447	178	1715919	73.68	ppm		99
78) Anthracene	10.527	178	1746299	74.98	ppm		99
79) Carbazole	10.810	167	1591589	74.27	ppm		100

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84436.D
Acq On : 7 Jun 2016 10:52 am
Operator : ashleyn
Sample : ic3720-80
Misc : op94122,e2m3720
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 12:23:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:20:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.393	149	2069074	75.48 ppm	99
81) Fluoranthene	12.324	202	1792212	76.37 ppm	93
82) Octadecane	10.297	57	798689	72.00 ppm	95
84) Pyrene	12.682	202	1845881	74.90 ppm	99
86) Butylbenzylphthalate	13.790	149	913243	74.60 ppm	85
87) Benzo[a]anthracene	14.613	228	1654123	71.61 ppm	100
88) 3,3'-Dichlorobenzidine	14.608	252	666257	80.91 ppm	98
89) Chrysene	14.672	228	1534658	72.70 ppm	98
90) bis(2-Ethylhexyl)phtha...	14.731	149	1071269	66.92 ppm	98
92) Di-n-octylphthalate	15.731	149	1671853	75.84 ppm	94
93) Benzo[b]fluoranthene	16.245	252	1328307	75.95 ppm	96
94) Benzo[k]fluoranthene	16.282	252	1236849	79.75 ppm	97
95) Benzo[a]pyrene	16.694	252	1115909	76.51 ppm	96
96) Indeno[1,2,3-cd]pyrene	18.544	276	1365966	78.55 ppm	92
97) Dibenz(a,h)acridine	18.122	279	1016875	78.43 ppm	98
98) Dibenz[a,h]anthracene	18.571	278	1201037	80.57 ppm	96
99) 7,12-Dimethylbenz(a)an...	16.223	256	605197	83.18 ppm	98
100) Benzo[g,h,i]perylene	19.058	276	1150183	78.05 ppm	95

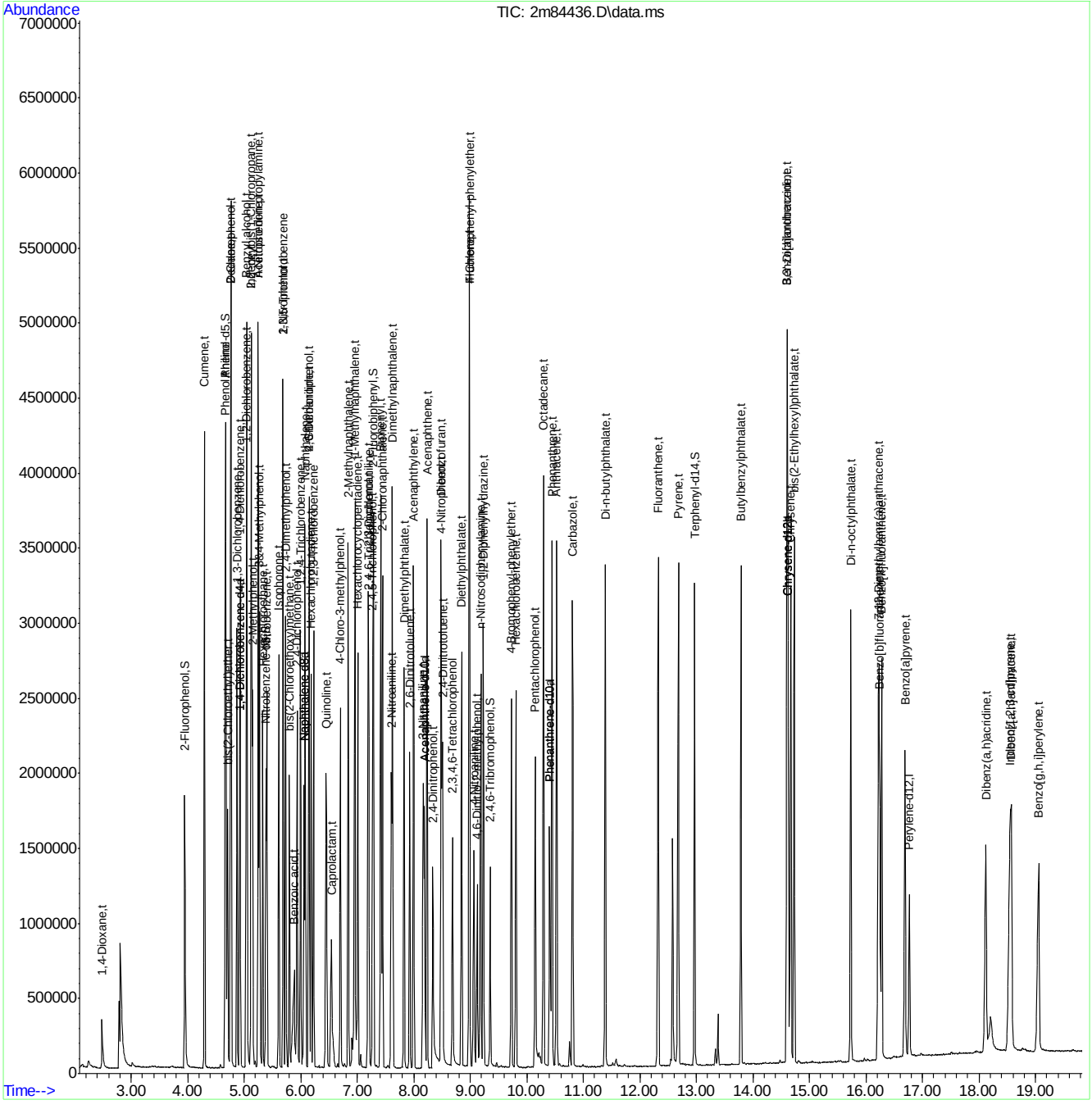
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84436.D
Acq On : 7 Jun 2016 10:52 am
Operator : ashleyn
Sample : ic3720-80
Misc : op94122,e2m3720
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 12:23:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:20:10 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84437.D
Acq On : 7 Jun 2016 11:18 am
Operator : ashleyn
Sample : icc3720-50
Misc : op94122,e2m3720
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 12:24:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:23:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	199484	40.00	ppm	-0.03
24) Naphthalene-d8	6.056	136	799622	40.00	ppm	-0.03
47) Acenaphthene-d10	8.184	164	465905	40.00	ppm	-0.04
69) Phenanthrene-d10	10.404	188	788910	40.00	ppm	-0.03
83) Chrysene-d12	14.624	240	724302	40.00	ppm	-0.03
91) Perylene-d12	16.769	264	518225	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.911	152	199484	40.00	ppm	-0.03
103) Acenaphthene-d10a	8.184	164	465905	40.00	ppm	-0.03
105) Chrysene-d12a	14.624	240	724302	40.00	ppm	-0.02
108) Phenanthrene-d10a	10.404	188	788910	40.00	ppm	-0.03
111) Naphthalene-d8a	6.056	136	799622	40.00	ppm	-0.03
113) Chrysene-d12b	14.624	240	724302	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	3.948	112	354083	50.50	ppm	-0.03
Spiked Amount 50.000			Recovery = 101.00%			
8) Phenol-d5	4.665	99	432579	48.79	ppm	-0.03
Spiked Amount 50.000			Recovery = 97.58%			
25) Nitrobenzene-d5	5.382	82	428039	48.33	ppm	-0.03
Spiked Amount 50.000			Recovery = 96.66%			
51) 2-Fluorobiphenyl	7.280	172	710492	47.00	ppm	-0.04
Spiked Amount 50.000			Recovery = 94.00%			
73) 2,4,6-Tribromophenol	9.350	330	108421	48.98	ppm	-0.03
Spiked Amount 50.000			Recovery = 97.96%			
85) Terphenyl-d14	12.966	244	803088	46.56	ppm	-0.03
Spiked Amount 50.000			Recovery = 93.12%			
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	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.488	88	124555	45.47	ppm		91
6) Indene	5.119	116	626054	47.31	ppm		100
7) Cumene	4.296	105	930232	47.68	ppm		97
9) Phenol	4.676	94	533928	49.17	ppm		98
10) Aniline	4.660	93	518480	48.35	ppm	#	56
11) bis(2-Chloroethyl)ether	4.702	93	369571	47.48	ppm		96
12) 2-Chlorophenol	4.766	128	345228	47.32	ppm		85
13) Decane	4.761	43	346083	44.37	ppm		98
14) 1,3-Dichlorobenzene	4.868	146	394064	47.32	ppm		99
15) 1,4-Dichlorobenzene	4.927	146	398032	48.39	ppm		100
16) Benzyl alcohol	5.034	108	243841	50.68	ppm		97
17) 1,2-Dichlorobenzene	5.050	146	375286	48.27	ppm		99
18) Acetophenone	5.248	105	520611	48.86	ppm		90
19) 2-Methylphenol	5.141	108	345278	48.32	ppm		99
20) 2,2'-oxybis(1-Chloropr...	5.125	45	453692	47.45	ppm		89
21) 3&4-Methylphenol	5.264	108	377403	48.41	ppm		99
22) n-Nitroso-di-n-propyla...	5.242	70	281942	47.33	ppm		93
23) Hexachloroethane	5.328	201	127887	49.02	ppm		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84437.D
Acq On : 7 Jun 2016 11:18 am
Operator : ashleyn
Sample : icc3720-50
Misc : op94122,e2m3720
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 12:24:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:23:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.398	77	440144	48.84	ppm		93
27) Quinoline	6.441	129	713828	47.88	ppm		98
28) Isophorone	5.606	82	745239	48.36	ppm		95
29) 2-Nitrophenol	5.686	139	200921	50.65	ppm		95
30) 2,4-Dimethylphenol	5.729	107	383780	48.85	ppm		97
31) Benzoic acid	5.863	105	246470	56.15	ppm		89
32) bis(2-Chloroethoxy)met...	5.799	93	417891	47.55	ppm		98
33) 2,4-Dichlorophenol	5.932	162	292971	49.14	ppm		95
34) 2,6-Dichlorophenol	6.146	162	285519	48.78	ppm		96
35) 1,3,5-Trichlorobenzene	5.686	180	331187	48.51	ppm		99
36) 1,2,4-Trichlorobenzene	5.991	180	317547	47.62	ppm		96
37) 1,2,3-Trichlorobenzene	6.227	180	310197	48.08	ppm		98
38) Naphthalene	6.077	128	1053153	47.54	ppm		99
39) 4-Chloroaniline	6.141	127	414236	49.44	ppm		92
40) 2,3-Dichloroaniline	7.189	161	355039	47.39	ppm		92
41) Caprolactam	6.532	55	174363	45.61	ppm		89
42) Hexachlorobutadiene	6.184	225	170639	46.04	ppm		100
43) 4-Chloro-3-methylphenol	6.697	107	346404	49.19	ppm		91
44) 2-Methylnaphthalene	6.836	141	585868	47.17	ppm		99
45) 1-Methylnaphthalene	6.954	141	609979	47.27	ppm		100
46) Dimethylnaphthalene	7.623	156	636232	47.81	ppm		97
48) Hexachlorocyclopentadiene	7.013	237	212268	125.37	ppm		98
49) 2,4,6-Trichlorophenol	7.200	196	207635	47.57	ppm		100
50) 2,4,5-Trichlorophenol	7.264	196	214891	47.97	ppm		98
52) 2-Chloronaphthalene	7.441	162	644365	47.28	ppm		99
53) Biphenyl	7.414	154	860423	47.13	ppm		99
54) 2-Nitroaniline	7.596	65	258023	47.55	ppm		85
55) Dimethylphthalate	7.826	163	730489	47.37	ppm		99
56) Acenaphthylene	7.992	152	1084888	47.48	ppm		99
57) 2,6-Dinitrotoluene	7.922	165	170769	48.85	ppm		93
58) 3-Nitroaniline	8.163	138	204281	51.32	ppm		82
59) Acenaphthene	8.232	153	656775	46.92	ppm		98
60) 2,4-Dinitrophenol	8.334	184	148746	115.15	ppm		89
61) 4-Nitrophenol	8.489	109	100837	54.62	ppm	#	41
62) Dibenzofuran	8.478	168	913264	46.94	ppm		88
63) 2,4-Dinitrotoluene	8.505	165	240819	49.33	ppm		88
64) 2,3,4,6-Tetrachlorophenol	8.682	232	136269	48.83	ppm		97
65) Diethylphthalate	8.842	149	766188	47.21	ppm		97
66) Fluorene	8.981	166	747063	48.54	ppm		99
67) 4-Chlorophenyl-phenyle...	8.987	204	351400	49.09	ppm		98
68) 4-Nitroaniline	9.056	138	205316	49.88	ppm		97
70) 4,6-Dinitro-2-methylph...	9.115	198	125306	69.23	ppm		88
71) n-Nitrosodiphenylamine	9.179	169	504817	48.04	ppm		99
72) 1,2-Diphenylhydrazine	9.227	77	896183	49.85	ppm		92
74) 4-Bromophenyl-phenylether	9.725	248	207475	47.82	ppm		96
75) Hexachlorobenzene	9.805	284	242717	48.51	ppm		98
76) Pentachlorophenol	10.142	266	148718	118.62	ppm		95
77) Phenanthrene	10.441	178	1101861	47.36	ppm		100
78) Anthracene	10.522	178	1105833	47.33	ppm		99
79) Carbazole	10.805	167	1015719	47.36	ppm		99

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84437.D
Acq On : 7 Jun 2016 11:18 am
Operator : ashleyn
Sample : icc3720-50
Misc : op94122,e2m3720
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 12:24:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:23:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.388	149	1318979	47.89 ppm	100
81) Fluoranthene	12.319	202	1142372	48.32 ppm	95
82) Octadecane	10.292	57	530288	48.11 ppm	95
84) Pyrene	12.677	202	1183754	46.32 ppm	100
86) Butylbenzylphthalate	13.784	149	588467	46.40 ppm	87
87) Benzo[a]anthracene	14.608	228	1069161	45.11 ppm	99
88) 3,3'-Dichlorobenzidine	14.603	252	430896	49.52 ppm	98
89) Chrysene	14.667	228	1010604	46.49 ppm	98
90) bis(2-Ethylhexyl)phtha...	14.731	149	745481	46.07 ppm	98
92) Di-n-octylphthalate	15.726	149	1068481	47.82 ppm	94
93) Benzo[b]fluoranthene	16.239	252	824172	46.48 ppm	94
94) Benzo[k]fluoranthene	16.277	252	737529	46.34 ppm	98
95) Benzo[a]pyrene	16.689	252	694022	46.84 ppm	96
96) Indeno[1,2,3-cd]pyrene	18.529	276	831366	46.76 ppm	93
97) Dibenz(a,h)acridine	18.111	279	625905	47.24 ppm	98
98) Dibenz[a,h]anthracene	18.561	278	721097	47.02 ppm	96
99) 7,12-Dimethylbenz(a)an...	16.218	256	368192	48.79 ppm	96
100) Benzo[g,h,i]perylene	19.042	276	707275	47.02 ppm	93

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

7.6.16

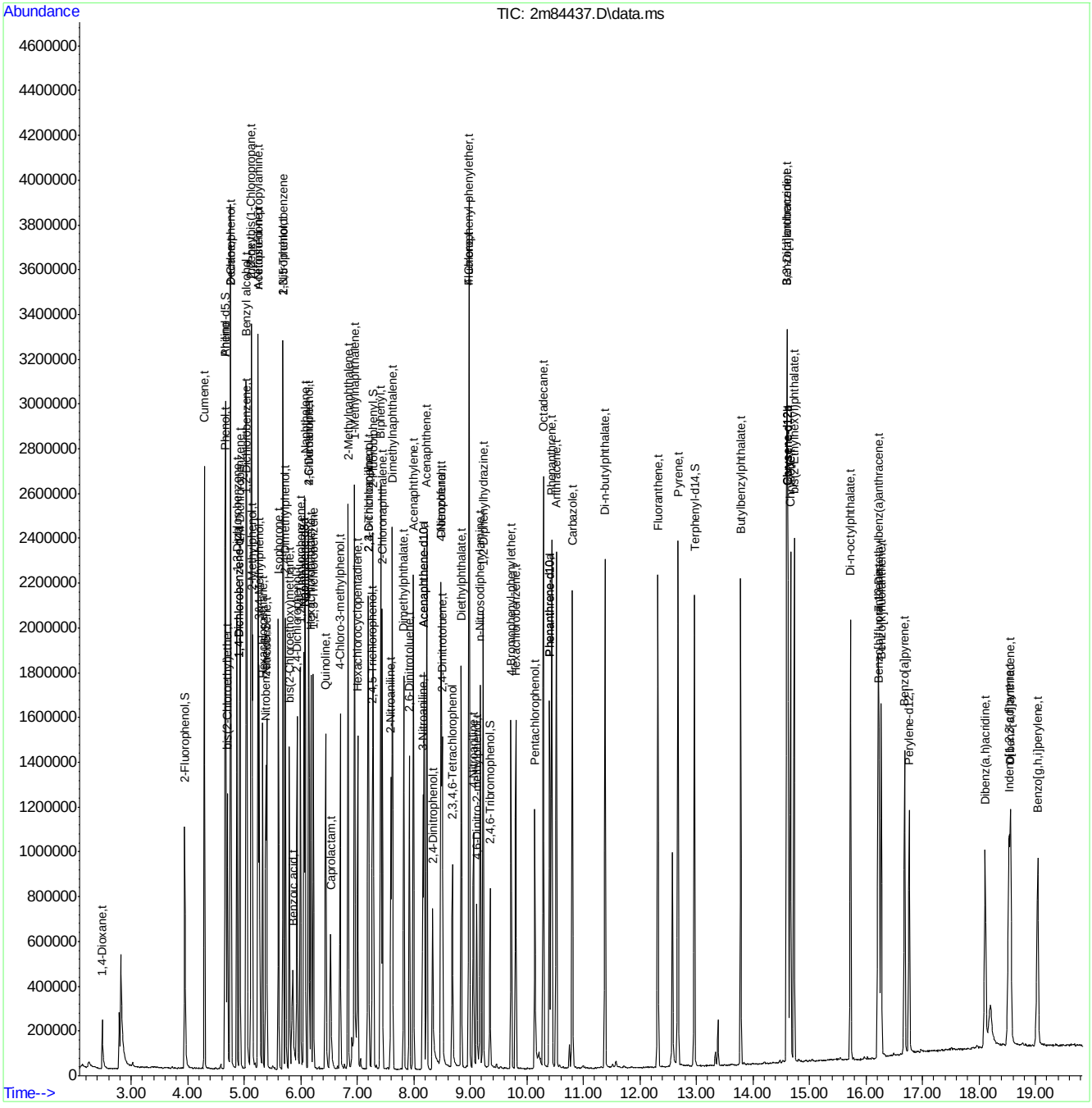
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84437.D
Acq On : 7 Jun 2016 11:18 am
Operator : ashleyn
Sample : icc3720-50
Misc : op94122,e2m3720
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 12:24:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:23:29 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84438.D
Acq On : 7 Jun 2016 11:45 am
Operator : ashleyn
Sample : ic3720-25
Misc : op94122,e2m3720
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 12:25:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:25:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	200990	40.00 ppm	0.00
24) Naphthalene-d8	6.055	136	782001	40.00 ppm	0.00
47) Acenaphthene-d10	8.184	164	449406	40.00 ppm	0.00
69) Phenanthrene-d10	10.399	188	766969	40.00 ppm	0.00
83) Chrysene-d12	14.624	240	713887	40.00 ppm	0.00
91) Perylene-d12	16.763	264	504043	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.911	152	200990	40.00 ppm	0.00
103) Acenaphthene-d10a	8.184	164	449406	40.00 ppm	0.00
105) Chrysene-d12a	14.624	240	713887	40.00 ppm	0.00
108) Phenanthrene-d10a	10.399	188	766969	40.00 ppm	0.00
111) Naphthalene-d8a	6.055	136	782001	40.00 ppm	0.00
113) Chrysene-d12b	14.624	240	713882	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	3.948	112	175095	24.74 ppm	0.00
Spiked Amount 50.000			Recovery	= 49.48%	
8) Phenol-d5	4.665	99	218538	24.58 ppm	0.00
Spiked Amount 50.000			Recovery	= 49.16%	
25) Nitrobenzene-d5	5.382	82	208103	24.19 ppm	0.00
Spiked Amount 50.000			Recovery	= 48.38%	
51) 2-Fluorobiphenyl	7.280	172	353246	24.52 ppm	0.00
Spiked Amount 50.000			Recovery	= 49.04%	
73) 2,4,6-Tribromophenol	9.345	330	51652	24.10 ppm	0.00
Spiked Amount 50.000			Recovery	= 48.20%	
85) Terphenyl-d14	12.961	244	382217	22.80 ppm	0.00
Spiked Amount 50.000			Recovery	= 45.60%	
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	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
2) 1,4-Dioxane	2.488	88	62760	23.16 ppm	96
6) Indene	5.119	116	315801	23.94 ppm	98
7) Cumene	4.296	105	472321	24.25 ppm	99
9) Phenol	4.676	94	271946	24.94 ppm	97
10) Aniline	4.659	93	270281	25.18 ppm	99
11) bis(2-Chloroethyl)ether	4.702	93	182343	23.49 ppm	99
12) 2-Chlorophenol	4.766	128	175634	24.15 ppm	98
13) Decane	4.761	43	190972	24.86 ppm	97
14) 1,3-Dichlorobenzene	4.868	146	197874	23.84 ppm	100
15) 1,4-Dichlorobenzene	4.927	146	201645	24.49 ppm	100
16) Benzyl alcohol	5.034	108	125177	25.75 ppm	94
17) 1,2-Dichlorobenzene	5.050	146	187440	24.09 ppm	100
18) Acetophenone	5.242	105	263503	24.66 ppm	98
19) 2-Methylphenol	5.136	108	175486	24.54 ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.125	45	238409	25.00 ppm	97
21) 3&4-Methylphenol	5.264	108	188496	24.15 ppm	100
22) n-Nitroso-di-n-propyla...	5.237	70	143759	24.21 ppm	99
23) Hexachloroethane	5.328	201	62643	23.92 ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84438.D
Acq On : 7 Jun 2016 11:45 am
Operator : ashleyn
Sample : ic3720-25
Misc : op94122,e2m3720
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 12:25:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:25:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.398	77	220844	25.17	ppm		96
27) Quinoline	6.430	129	348437	24.10	ppm		98
28) Isophorone	5.601	82	371300	24.80	ppm		99
29) 2-Nitrophenol	5.681	139	99841	25.67	ppm		89
30) 2,4-Dimethylphenol	5.729	107	185711	24.28	ppm		96
31) Benzoic acid	5.842	105	108913	24.76	ppm		99
32) bis(2-Chloroethoxy)met...	5.799	93	213638	25.10	ppm		100
33) 2,4-Dichlorophenol	5.932	162	142893	24.59	ppm		96
34) 2,6-Dichlorophenol	6.146	162	138765	24.36	ppm		99
35) 1,3,5-Trichlorobenzene	5.686	180	162987	24.56	ppm		98
36) 1,2,4-Trichlorobenzene	5.991	180	158623	24.56	ppm		99
37) 1,2,3-Trichlorobenzene	6.221	180	152352	24.33	ppm		96
38) Naphthalene	6.077	128	522279	24.35	ppm		99
39) 4-Chloroaniline	6.136	127	207706	25.41	ppm		99
40) 2,3-Dichloroaniline	7.184	161	172889	23.85	ppm		98
41) Caprolactam	6.510	55	86094	23.44	ppm		98
42) Hexachlorobutadiene	6.184	225	84309	23.63	ppm		97
43) 4-Chloro-3-methylphenol	6.692	107	168009	24.47	ppm		100
44) 2-Methylnaphthalene	6.836	141	292296	24.34	ppm		99
45) 1-Methylnaphthalene	6.954	141	308519	24.72	ppm		98
46) Dimethylnaphthalene	7.617	156	316327	24.52	ppm		99
48) Hexachlorocyclopentadiene	7.008	237	74115	42.67	ppm		96
49) 2,4,6-Trichlorophenol	7.195	196	101613	24.37	ppm		100
50) 2,4,5-Trichlorophenol	7.264	196	104331	24.34	ppm		98
52) 2-Chloronaphthalene	7.441	162	317818	24.44	ppm		98
53) Biphenyl	7.409	154	425052	24.42	ppm		100
54) 2-Nitroaniline	7.591	65	129774	25.04	ppm		96
55) Dimethylphthalate	7.821	163	363246	24.68	ppm		99
56) Acenaphthylene	7.992	152	533977	24.47	ppm		100
57) 2,6-Dinitrotoluene	7.917	165	83810	24.97	ppm		97
58) 3-Nitroaniline	8.157	138	96960	25.12	ppm		99
59) Acenaphthene	8.227	153	322186	24.16	ppm		98
60) 2,4-Dinitrophenol	8.329	184	55128	42.63	ppm		92
61) 4-Nitrophenol	8.489	109	45322	24.99	ppm	#	71
62) Dibenzofuran	8.478	168	448913	24.22	ppm		98
63) 2,4-Dinitrotoluene	8.500	165	113954	24.26	ppm		97
64) 2,3,4,6-Tetrachlorophenol	8.682	232	64901	24.23	ppm		95
65) Diethylphthalate	8.837	149	374494	24.19	ppm		98
66) Fluorene	8.976	166	367908	24.93	ppm		99
67) 4-Chlorophenyl-phenyle...	8.981	204	170023	24.71	ppm		98
68) 4-Nitroaniline	9.045	138	98658	24.86	ppm		99
70) 4,6-Dinitro-2-methylph...	9.110	198	54933	28.99	ppm		94
71) n-Nitrosodiphenylamine	9.174	169	243506	24.02	ppm		98
72) 1,2-Diphenylhydrazine	9.222	77	443413	25.38	ppm		99
74) 4-Bromophenyl-phenylether	9.719	248	100139	23.95	ppm		97
75) Hexachlorobenzene	9.805	284	116571	24.11	ppm		96
76) Pentachlorophenol	10.142	266	58722	46.45	ppm		97
77) Phenanthrene	10.436	178	534395	23.88	ppm		99
78) Anthracene	10.516	178	540761	24.06	ppm		99
79) Carbazole	10.800	167	489435	23.72	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84438.D
Acq On : 7 Jun 2016 11:45 am
Operator : ashleyn
Sample : ic3720-25
Misc : op94122,e2m3720
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 12:25:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:25:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.383	149	639834	24.10 ppm	99
81) Fluoranthene	12.319	202	546979	23.96 ppm	99
82) Octadecane	10.292	57	265430	24.96 ppm	99
84) Pyrene	12.672	202	574009	23.13 ppm	100
86) Butylbenzylphthalate	13.784	149	283846	23.04 ppm	100
87) Benzo[a]anthracene	14.603	228	528513	23.07 ppm	98
88) 3,3'-Dichlorobenzidine	14.597	252	211209	24.67 ppm	99
89) Chrysene	14.661	228	500629	23.70 ppm	98
90) bis(2-Ethylhexyl)phtha...	14.726	149	375663	23.93 ppm	99
92) Di-n-octylphthalate	15.720	149	547136	25.40 ppm	99
93) Benzo[b]fluoranthene	16.229	252	379817	22.34 ppm	98
94) Benzo[k]fluoranthene	16.266	252	358815	23.52 ppm	99
95) Benzo[a]pyrene	16.683	252	323014	22.70 ppm	100
96) Indeno[1,2,3-cd]pyrene	18.518	276	392365	22.99 ppm	98
97) Dibenz(a,h)acridine	18.101	279	288272	22.62 ppm	98
98) Dibenz[a,h]anthracene	18.545	278	337554	22.90 ppm	97
99) 7,12-Dimethylbenz(a)an...	16.213	256	172848	23.66 ppm	96
100) Benzo[g,h,i]perylene	19.026	276	335037	23.18 ppm	97

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

7.6.17

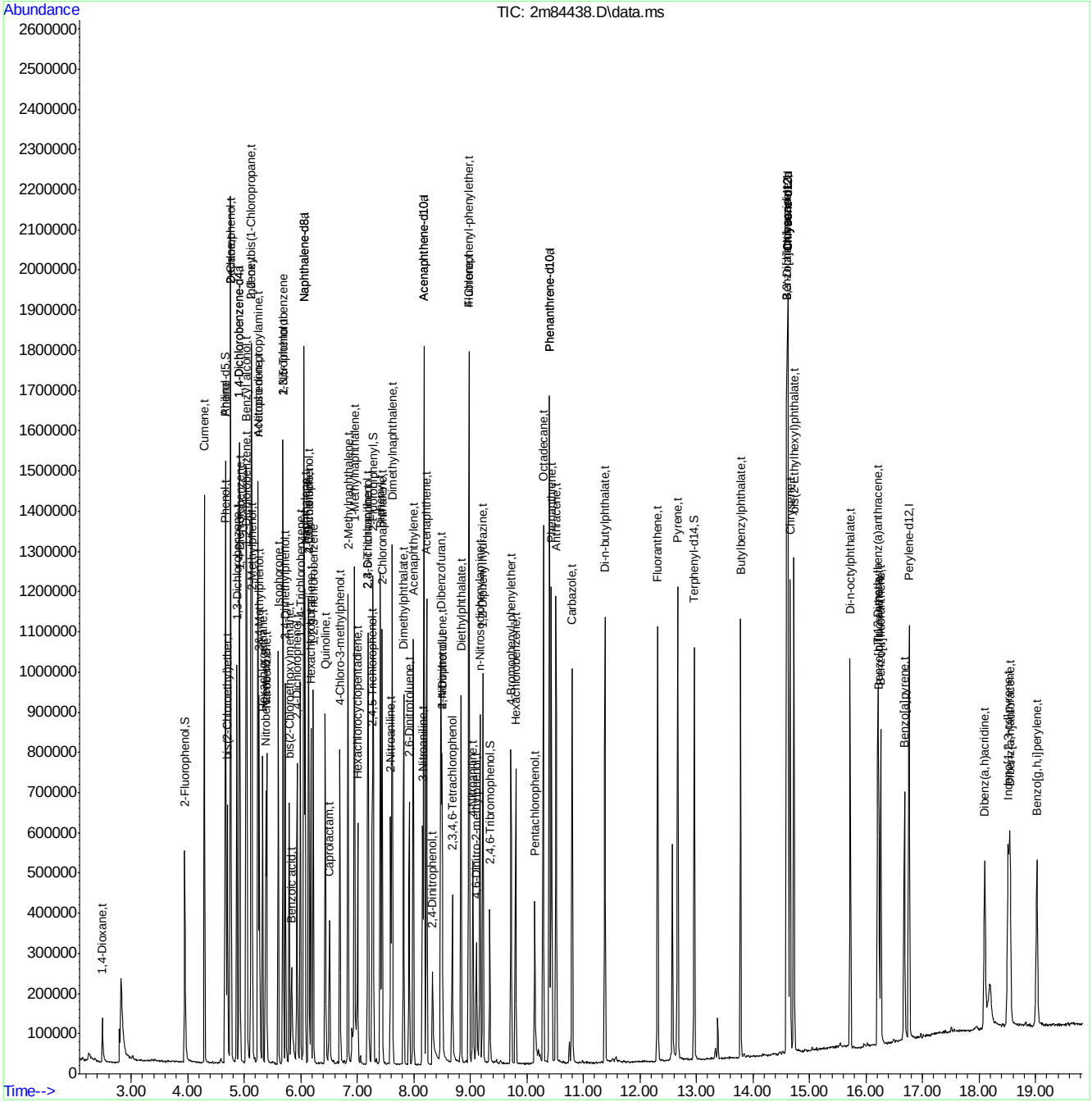
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84438.D
Acq On : 7 Jun 2016 11:45 am
Operator : ashleyn
Sample : ic3720-25
Misc : op94122,e2m3720
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 12:25:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:25:11 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84439.D
Acq On : 7 Jun 2016 12:11 pm
Operator : ashleyn
Sample : ic3720-10
Misc : op94122,e2m3720
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 12:38:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:26:23 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	194804	40.00	ppm	0.00
24) Naphthalene-d8	6.050	136	772128	40.00	ppm	0.00
47) Acenaphthene-d10	8.184	164	451145	40.00	ppm	0.00
69) Phenanthrene-d10	10.398	188	766272	40.00	ppm	0.00
83) Chrysene-d12	14.619	240	702566	40.00	ppm	0.00
91) Perylene-d12	16.763	264	485419	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.911	152	194804	40.00	ppm	0.00
103) Acenaphthene-d10a	8.184	164	451145	40.00	ppm	0.00
105) Chrysene-d12a	14.619	240	702566	40.00	ppm	0.00
108) Phenanthrene-d10a	10.398	188	766272	40.00	ppm	0.00
111) Naphthalene-d8a	6.050	136	772128	40.00	ppm	0.00
113) Chrysene-d12b	14.619	240	702566	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.948	112	69583	10.16	ppm	0.00
Spiked Amount 50.000			Recovery = 20.32%			
8) Phenol-d5	4.665	99	88959	10.35	ppm	0.00
Spiked Amount 50.000			Recovery = 20.70%			
25) Nitrobenzene-d5	5.376	82	86772	10.27	ppm	0.00
Spiked Amount 50.000			Recovery = 20.54%			
51) 2-Fluorobiphenyl	7.280	172	146257	10.15	ppm	0.00
Spiked Amount 50.000			Recovery = 20.30%			
73) 2,4,6-Tribromophenol	9.345	330	21325	10.02	ppm	0.00
Spiked Amount 50.000			Recovery = 20.04%			
85) Terphenyl-d14	12.960	244	155759	9.58	ppm	0.00
Spiked Amount 50.000			Recovery = 19.16%			
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	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.493	88	23312	8.99	ppm	95
6) Indene	5.119	116	133470	10.51	ppm	100
7) Cumene	4.296	105	191684	10.21	ppm	99
9) Phenol	4.675	94	110868	10.49	ppm	90
10) Aniline	4.659	93	113776	10.92	ppm	98
11) bis(2-Chloroethyl)ether	4.702	93	76008	10.20	ppm	99
12) 2-Chlorophenol	4.766	128	72907	10.40	ppm	99
13) Decane	4.761	43	81997	11.02	ppm	98
14) 1,3-Dichlorobenzene	4.868	146	80666	10.11	ppm	96
15) 1,4-Dichlorobenzene	4.927	146	81423	10.24	ppm	99
16) Benzyl alcohol	5.034	108	51122	10.80	ppm	90
17) 1,2-Dichlorobenzene	5.050	146	76420	10.20	ppm	96
18) Acetophenone	5.242	105	110387	10.68	ppm	99
19) 2-Methylphenol	5.135	108	71944	10.41	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.125	45	102729	11.12	ppm	96
21) 3&4-Methylphenol	5.264	108	77101	10.25	ppm	99
22) n-Nitroso-di-n-propyla...	5.232	70	62426	10.90	ppm	95
23) Hexachloroethane	5.328	201	25491	10.12	ppm	96

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84439.D
Acq On : 7 Jun 2016 12:11 pm
Operator : ashleyn
Sample : ic3720-10
Misc : op94122,e2m3720
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 12:38:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:26:23 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.398	77	89859	10.36	ppm		94
27) Quinoline	6.430	129	142519	10.04	ppm		97
28) Isophorone	5.601	82	153713	10.41	ppm		98
29) 2-Nitrophenol	5.681	139	40395	10.47	ppm		93
30) 2,4-Dimethylphenol	5.724	107	77476	10.31	ppm		97
31) Benzoic acid	5.825	105	37560	8.66	ppm		95
32) bis(2-Chloroethoxy)met...	5.793	93	87235	10.37	ppm		99
33) 2,4-Dichlorophenol	5.932	162	59125	10.33	ppm		98
34) 2,6-Dichlorophenol	6.146	162	58368	10.42	ppm		97
35) 1,3,5-Trichlorobenzene	5.686	180	67162	10.28	ppm		98
36) 1,2,4-Trichlorobenzene	5.991	180	64786	10.19	ppm		99
37) 1,2,3-Trichlorobenzene	6.221	180	62862	10.21	ppm		100
38) Naphthalene	6.071	128	219178	10.39	ppm		99
39) 4-Chloroaniline	6.136	127	86863	10.73	ppm		97
40) 2,3-Dichloroaniline	7.184	161	71604	10.08	ppm		94
41) Caprolactam	6.494	55	36113	10.06	ppm		98
42) Hexachlorobutadiene	6.184	225	34804	9.97	ppm		95
43) 4-Chloro-3-methylphenol	6.692	107	70131	10.38	ppm		99
44) 2-Methylnaphthalene	6.831	141	119170	10.09	ppm		99
45) 1-Methylnaphthalene	6.949	141	129081	10.49	ppm		97
46) Dimethylnaphthalene	7.617	156	131121	10.33	ppm		98
48) Hexachlorocyclopentadiene	7.007	237	16467	9.73	ppm		95
49) 2,4,6-Trichlorophenol	7.195	196	40967	9.83	ppm		98
50) 2,4,5-Trichlorophenol	7.264	196	43195	10.08	ppm		96
52) 2-Chloronaphthalene	7.441	162	131985	10.15	ppm		96
53) Biphenyl	7.409	154	176124	10.12	ppm		99
54) 2-Nitroaniline	7.590	65	52187	10.03	ppm		91
55) Dimethylphthalate	7.820	163	149934	10.17	ppm		100
56) Acenaphthylene	7.986	152	218111	9.99	ppm		99
57) 2,6-Dinitrotoluene	7.917	165	34094	10.12	ppm		95
58) 3-Nitroaniline	8.157	138	40666	10.49	ppm		99
59) Acenaphthene	8.227	153	133746	10.05	ppm		98
60) 2,4-Dinitrophenol	8.339	184	15472	12.28	ppm		83
61) 4-Nitrophenol	8.500	109	17118	9.40	ppm	#	29
62) Dibenzofuran	8.473	168	184058	9.94	ppm		99
63) 2,4-Dinitrotoluene	8.500	165	46353	9.88	ppm		93
64) 2,3,4,6-Tetrachlorophenol	8.682	232	24442	9.14	ppm		95
65) Diethylphthalate	8.831	149	156390	10.12	ppm		98
66) Fluorene	8.976	166	153565	10.37	ppm		99
67) 4-Chlorophenyl-phenyle...	8.981	204	72136	10.47	ppm		95
68) 4-Nitroaniline	9.045	138	41179	10.35	ppm		95
70) 4,6-Dinitro-2-methylph...	9.109	198	19011	9.78	ppm		98
71) n-Nitrosodiphenylamine	9.168	169	100539	9.99	ppm		99
72) 1,2-Diphenylhydrazine	9.222	77	183198	10.47	ppm		99
74) 4-Bromophenyl-phenylether	9.719	248	41432	9.99	ppm		94
75) Hexachlorobenzene	9.799	284	48662	10.13	ppm		98
76) Pentachlorophenol	10.142	266	17210	13.79	ppm		92
77) Phenanthrene	10.436	178	220670	9.94	ppm		96
78) Anthracene	10.516	178	224889	10.08	ppm		99
79) Carbazole	10.800	167	200842	9.83	ppm		98

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84439.D
Acq On : 7 Jun 2016 12:11 pm
Operator : ashleyn
Sample : ic3720-10
Misc : op94122,e2m3720
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 12:38:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:26:23 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.383	149	260022	9.86 ppm	100
81) Fluoranthene	12.313	202	222926	9.84 ppm	95
82) Octadecane	10.292	57	112438	10.59 ppm	99
84) Pyrene	12.672	202	236523	9.81 ppm	99
86) Butylbenzylphthalate	13.779	149	115950	9.69 ppm	99
87) Benzo[a]anthracene	14.603	228	217401	9.77 ppm	98
88) 3,3'-Dichlorobenzidine	14.597	252	84833	10.09 ppm	96
89) Chrysene	14.656	228	207744	10.08 ppm	98
90) bis(2-Ethylhexyl)phtha...	14.726	149	161516	10.53 ppm	97
92) Di-n-octylphthalate	15.720	149	255439	12.28 ppm	99
93) Benzo[b]fluoranthene	16.223	252	161819	10.06 ppm	98
94) Benzo[k]fluoranthene	16.261	252	152561	10.49 ppm	98
95) Benzo[a]pyrene	16.678	252	132034	9.79 ppm	99
96) Indeno[1,2,3-cd]pyrene	18.512	276	152016	9.37 ppm	99
97) Dibenz(a,h)acridine	18.101	279	111947	9.27 ppm	94
98) Dibenz[a,h]anthracene	18.539	278	127066	9.08 ppm	95
99) 7,12-Dimethylbenz(a)an...	16.202	256	75173	10.78 ppm	97
100) Benzo[g,h,i]perylene	19.020	276	133449	9.70 ppm	98

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

7.6.18

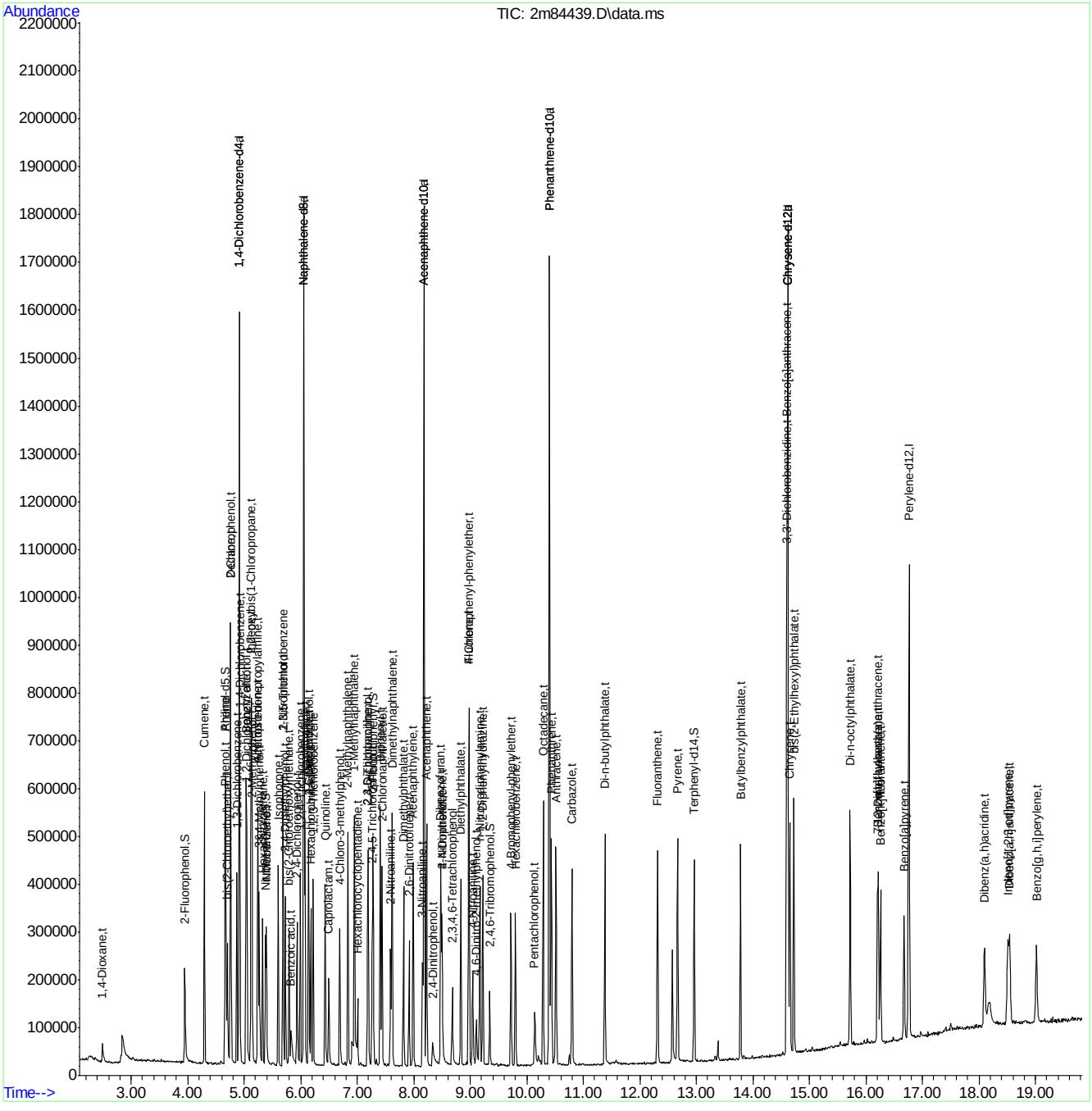
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84439.D
Acq On : 7 Jun 2016 12:11 pm
Operator : ashleyn
Sample : ic3720-10
Misc : op94122,e2m3720
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 12:38:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:26:23 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84440.D
Acq On : 7 Jun 2016 12:37 pm
Operator : ashleyn
Sample : ic3720-5
Misc : op94122,e2m3720
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 07 14:53:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:39:07 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	204019	40.00 ppm	0.00
24) Naphthalene-d8	6.050	136	822304	40.00 ppm	0.00
47) Acenaphthene-d10	8.184	164	474264	40.00 ppm	0.00
69) Phenanthrene-d10	10.399	188	796033	40.00 ppm	0.00
83) Chrysene-d12	14.619	240	733486	40.00 ppm	0.00
91) Perylene-d12	16.763	264	516361	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.911	152	204019	40.00 ppm	0.00
103) Acenaphthene-d10a	8.184	164	474264	40.00 ppm	0.00
105) Chrysene-d12a	14.619	240	733486	40.00 ppm	0.00
108) Phenanthrene-d10a	10.399	188	796033	40.00 ppm	0.00
111) Naphthalene-d8a	6.050	136	822304	40.00 ppm	0.00
113) Chrysene-d12b	14.619	240	733486	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.948	112	37255	5.18 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.36%	
8) Phenol-d5	4.665	99	49088	5.43 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.86%	
25) Nitrobenzene-d5	5.376	82	46725	5.17 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.34%	
51) 2-Fluorobiphenyl	7.280	172	80048	5.27 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.54%	
73) 2,4,6-Tribromophenol	9.345	330	10853	4.91 ppm	0.00
Spiked Amount 50.000			Recovery	= 9.82%	
85) Terphenyl-d14	12.961	244	80834	4.79 ppm	0.00
Spiked Amount 50.000			Recovery	= 9.58%	
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	
Spiked Amount 50.000			Recovery	= 0.00%	

Target Compounds					Qvalue
2) 1,4-Dioxane	2.493	88	13861	5.18 ppm	99
6) Indene	5.119	116	73249	5.47 ppm	99
7) Cumene	4.296	105	104674	5.31 ppm	98
9) Phenol	4.675	94	61266	5.50 ppm	94
10) Aniline	4.665	93	61122	5.53 ppm	98
11) bis(2-Chloroethyl)ether	4.702	93	41594	5.32 ppm	96
12) 2-Chlorophenol	4.766	128	41067	5.56 ppm	94
13) Decane	4.761	43	44931	5.68 ppm	99
14) 1,3-Dichlorobenzene	4.868	146	44549	5.32 ppm	97
15) 1,4-Dichlorobenzene	4.927	146	44385	5.31 ppm	100
16) Benzyl alcohol	5.034	108	26525	5.29 ppm	93
17) 1,2-Dichlorobenzene	5.050	146	41699	5.30 ppm	98
18) Acetophenone	5.242	105	60045	5.49 ppm	98
19) 2-Methylphenol	5.135	108	39731	5.46 ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.125	45	55776	5.67 ppm	96
21) 3&4-Methylphenol	5.264	108	40733	5.15 ppm	96
22) n-Nitroso-di-n-propyla...	5.232	70	32703	5.38 ppm	97
23) Hexachloroethane	5.328	201	14396	5.45 ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84440.D
Acq On : 7 Jun 2016 12:37 pm
Operator : ashleyn
Sample : ic3720-5
Misc : op94122,e2m3720
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 07 14:53:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:39:07 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.392	77	47927	5.16	ppm		97
27) Quinoline	6.430	129	76680	5.07	ppm		99
28) Isophorone	5.601	82	84728	5.36	ppm		97
29) 2-Nitrophenol	5.681	139	22158	5.36	ppm		94
30) 2,4-Dimethylphenol	5.729	107	41803	5.20	ppm		99
31) Benzoic acid	5.836	105	14821	3.27	ppm		94
32) bis(2-Chloroethoxy)met...	5.793	93	47013	5.22	ppm		98
33) 2,4-Dichlorophenol	5.932	162	31520	5.15	ppm		97
34) 2,6-Dichlorophenol	6.141	162	31094	5.18	ppm		98
35) 1,3,5-Trichlorobenzene	5.686	180	37319	5.34	ppm		98
36) 1,2,4-Trichlorobenzene	5.991	180	33765	4.97	ppm		98
37) 1,2,3-Trichlorobenzene	6.221	180	33901	5.16	ppm		96
38) Naphthalene	6.071	128	118189	5.23	ppm		98
39) 4-Chloroaniline	6.136	127	46643	5.36	ppm		95
40) 2,3-Dichloroaniline	7.184	161	39529	5.22	ppm		97
41) Caprolactam	6.489	55	19070	4.99	ppm		97
42) Hexachlorobutadiene	6.184	225	19181	5.16	ppm		94
43) 4-Chloro-3-methylphenol	6.687	107	37459	5.18	ppm		99
44) 2-Methylnaphthalene	6.831	141	65048	5.17	ppm		94
45) 1-Methylnaphthalene	6.949	141	67875	5.14	ppm		96
46) Dimethylnaphthalene	7.617	156	68720	5.06	ppm		96
48) Hexachlorocyclopentadiene	7.007	237	4278	2.63	ppm		95
49) 2,4,6-Trichlorophenol	7.195	196	21800	4.99	ppm		96
50) 2,4,5-Trichlorophenol	7.264	196	21962	4.87	ppm		96
52) 2-Chloronaphthalene	7.435	162	70951	5.18	ppm		98
53) Biphenyl	7.409	154	95300	5.20	ppm		99
54) 2-Nitroaniline	7.590	65	28080	5.13	ppm		95
55) Dimethylphthalate	7.815	163	80567	5.19	ppm		96
56) Acenaphthylene	7.986	152	117250	5.11	ppm		99
57) 2,6-Dinitrotoluene	7.917	165	17878	5.04	ppm		94
58) 3-Nitroaniline	8.157	138	20647	5.03	ppm		100
59) Acenaphthene	8.227	153	74194	5.30	ppm		99
60) 2,4-Dinitrophenol	8.345	184	4048	3.27	ppm		78
61) 4-Nitrophenol	8.505	109	7016	3.70	ppm	#	1
62) Dibenzofuran	8.473	168	98216	5.05	ppm		95
63) 2,4-Dinitrotoluene	8.500	165	24832	5.04	ppm		97
64) 2,3,4,6-Tetrachlorophenol	8.682	232	12890	4.64	ppm		94
65) Diethylphthalate	8.831	149	82975	5.10	ppm		96
66) Fluorene	8.970	166	81457	5.20	ppm		99
67) 4-Chlorophenyl-phenyle...	8.981	204	37302	5.11	ppm		100
68) 4-Nitroaniline	9.040	138	21514	5.12	ppm		91
70) 4,6-Dinitro-2-methylph...	9.110	198	8804	4.37	ppm		85
71) n-Nitrosodiphenylamine	9.168	169	53117	5.08	ppm		96
72) 1,2-Diphenylhydrazine	9.216	77	95476	5.22	ppm		96
74) 4-Bromophenyl-phenylether	9.719	248	21543	5.00	ppm		95
75) Hexachlorobenzene	9.799	284	26055	5.21	ppm		96
76) Pentachlorophenol	10.142	266	6605	5.33	ppm		85
77) Phenanthrene	10.431	178	117666	5.11	ppm		97
78) Anthracene	10.511	178	119876	5.17	ppm		98
79) Carbazole	10.800	167	109127	5.15	ppm		99

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84440.D
Acq On : 7 Jun 2016 12:37 pm
Operator : ashleyn
Sample : ic3720-5
Misc : op94122,e2m3720
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 07 14:53:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:39:07 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.383	149	135646	4.96 ppm	99
81) Fluoranthene	12.313	202	116411	4.96 ppm	97
82) Octadecane	10.286	57	59988	5.39 ppm	98
84) Pyrene	12.666	202	122773	4.89 ppm	99
86) Butylbenzylphthalate	13.779	149	61031	4.91 ppm	96
87) Benzo[a]anthracene	14.603	228	115508	4.99 ppm	98
88) 3,3'-Dichlorobenzidine	14.597	252	45039	5.13 ppm	96
89) Chrysene	14.656	228	109252	5.07 ppm	100
90) bis(2-Ethylhexyl)phtha...	14.726	149	83659	5.19 ppm	94
92) Di-n-octylphthalate	15.720	149	139914	6.12 ppm	99
93) Benzo[b]fluoranthene	16.218	252	91594	5.35 ppm	93
94) Benzo[k]fluoranthene	16.261	252	82420	5.29 ppm	99
95) Benzo[a]pyrene	16.678	252	69149	4.83 ppm	99
96) Indeno[1,2,3-cd]pyrene	18.507	276	78661	4.60 ppm	97
97) Dibenz(a,h)acridine	18.095	279	61231	4.82 ppm	97
98) Dibenz[a,h]anthracene	18.539	278	69159	4.71 ppm	91
99) 7,12-Dimethylbenz(a)an...	16.202	256	40542	5.41 ppm	99
100) Benzo[g,h,i]perylene	19.015	276	68418	4.70 ppm	98

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

7.6.19

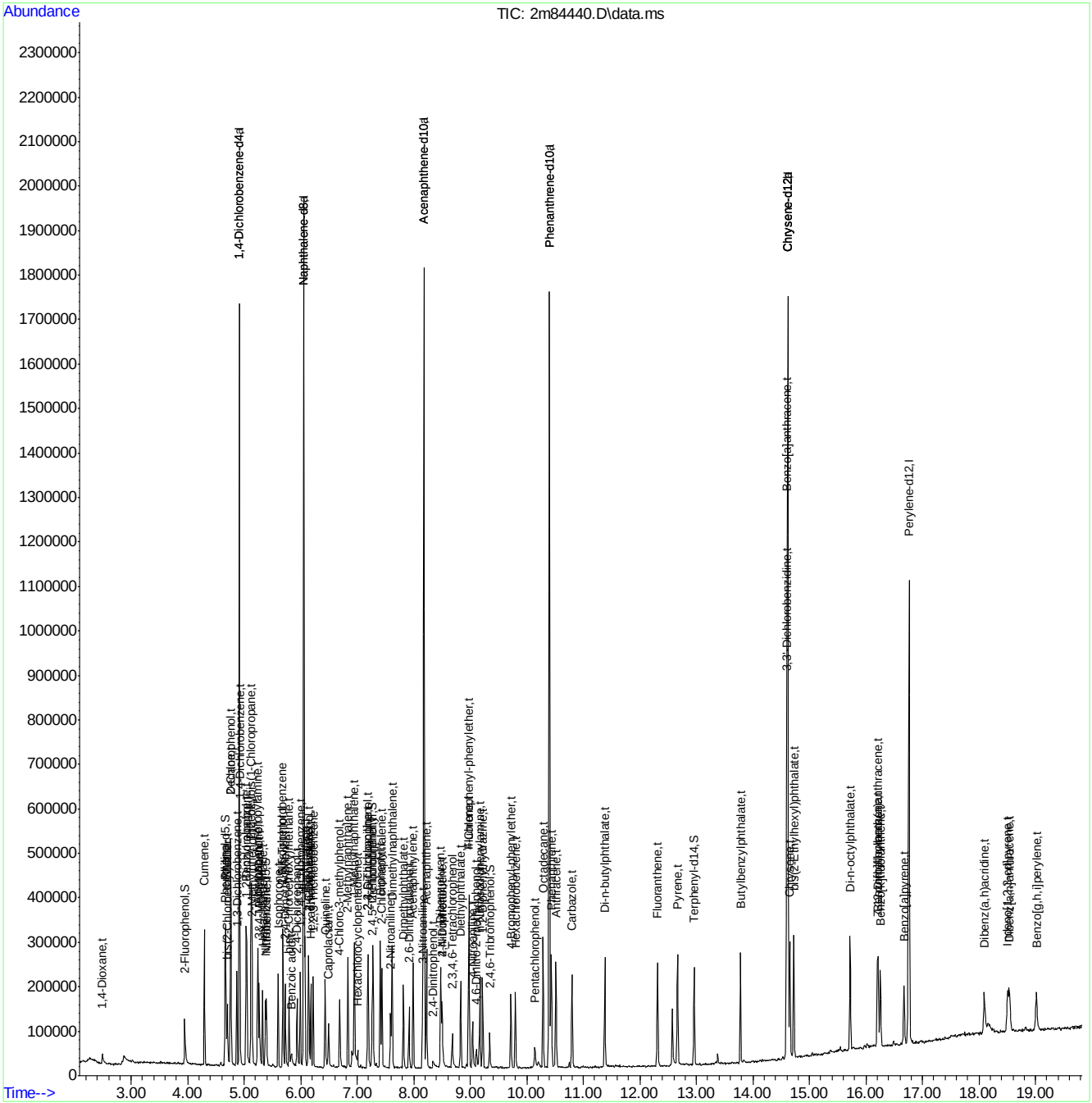
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84440.D
Acq On : 7 Jun 2016 12:37 pm
Operator : ashleyn
Sample : ic3720-5
Misc : op94122,e2m3720
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 07 14:53:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:39:07 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84441.D
Acq On : 7 Jun 2016 1:04 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 14:43:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	238189	40.00 ppm	0.00
24) Naphthalene-d8	6.050	136	900242	40.00 ppm	0.00
47) Acenaphthene-d10	8.184	164	496396	40.00 ppm	0.00
69) Phenanthrene-d10	10.399	188	804726	40.00 ppm	0.00
83) Chrysene-d12	14.613	240	692722	40.00 ppm	-0.01
91) Perylene-d12	16.758	264	475077	40.00 ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.911	152	238189	40.00 ppm	-0.03
103) Acenaphthene-d10a	8.184	164	496396	40.00 ppm	-0.03
105) Chrysene-d12a	14.613	240	692722	40.00 ppm	-0.03
108) Phenanthrene-d10a	10.399	188	804726	40.00 ppm	-0.03
111) Naphthalene-d8a	6.050	136	900242	40.00 ppm	-0.03
113) Chrysene-d12b	14.613	240	692722	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%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds						Qvalue
9) Phenol	4.670	94	529086	40.17 ppm		93
12) 2-Chlorophenol	4.761	128	393290	45.00 ppm		98
19) 2-Methylphenol	5.130	108	387504	45.08 ppm		99
21) 3&4-Methylphenol	5.264	108	404370	43.64 ppm		98
29) 2-Nitrophenol	5.681	139	221997	48.60 ppm	#	66
30) 2,4-Dimethylphenol	5.724	107	430621	48.69 ppm		99
31) Benzoic acid	5.863	105	265843	48.18 ppm		97
33) 2,4-Dichlorophenol	5.927	162	307717	45.74 ppm		98
34) 2,6-Dichlorophenol	6.141	162	303767	46.03 ppm		98
43) 4-Chloro-3-methylphenol	6.681	107	350246	44.04 ppm		98
49) 2,4,6-Trichlorophenol	7.189	196	216550	47.35 ppm		100
50) 2,4,5-Trichlorophenol	7.254	196	212222	45.12 ppm		99
60) 2,4-Dinitrophenol	8.329	184	67221	50.01 ppm		96
61) 4-Nitrophenol	8.478	109	98084	51.05 ppm	#	32
64) 2,3,4,6-Tetrachlorophenol	8.676	232	146916	50.99 ppm		97
70) 4,6-Dinitro-2-methylph...	9.104	198	120774	47.35 ppm		98
76) Pentachlorophenol	10.137	266	67693	51.39 ppm		96

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84441.D
Acq On : 7 Jun 2016 1:04 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 14:43:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

7.6.20

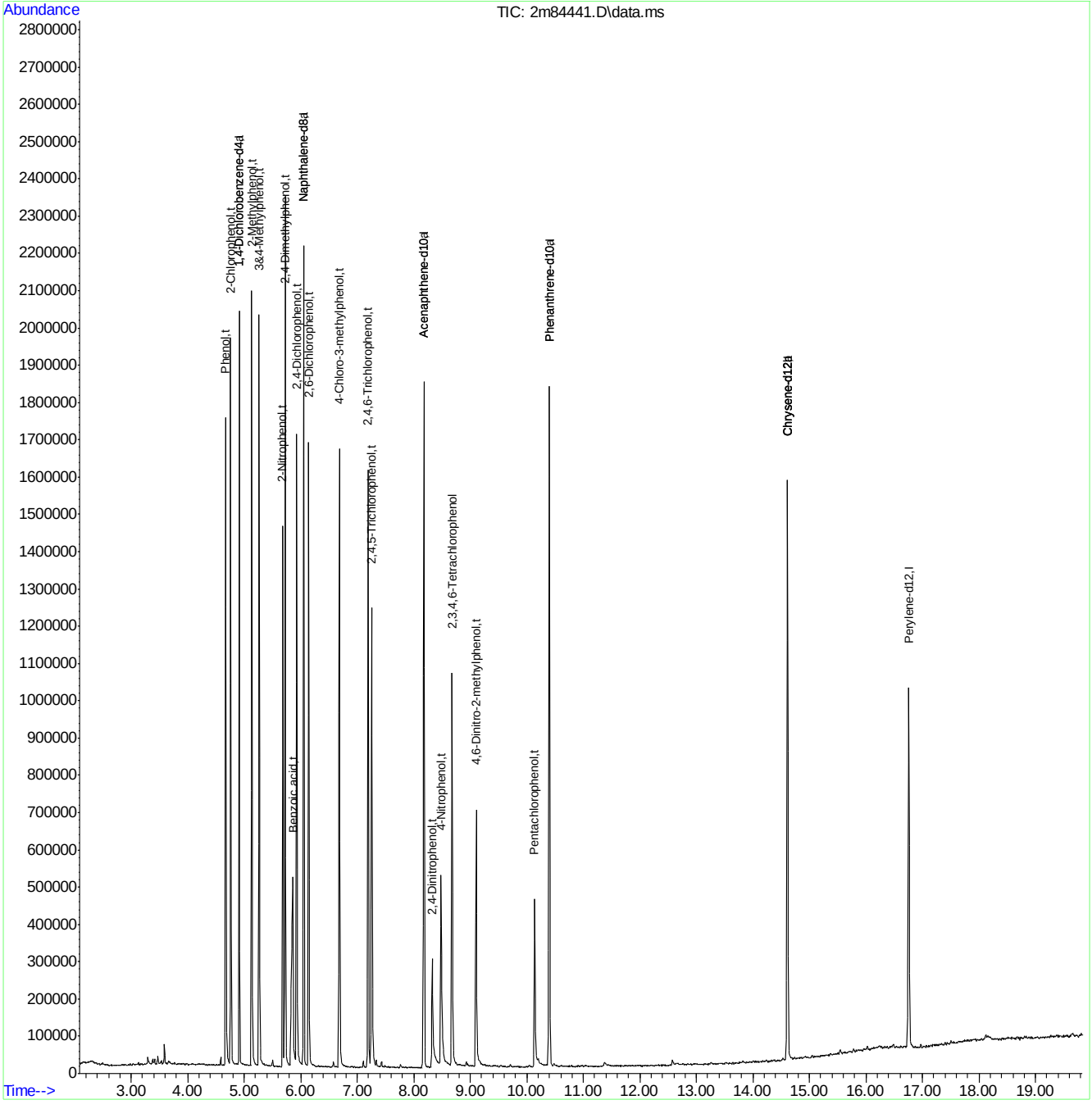
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84441.D
Acq On : 7 Jun 2016 1:04 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 14:43:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



M2M3720.M Wed Jun 08 14:43:58 2016 Page: 3

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84442.D
Acq On : 7 Jun 2016 1:30 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 15:19:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 15:05:19 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	214646	40.00 ppm	0.00
24) Naphthalene-d8	6.050	136	870680	40.00 ppm	0.00
47) Acenaphthene-d10	8.179	164	489823	40.00 ppm	0.00
69) Phenanthrene-d10	10.399	188	806644	40.00 ppm	0.00
83) Chrysene-d12	14.613	240	663586	40.00 ppm	-0.01
91) Perylene-d12	16.758	264	333548	40.00 ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.911	152	214646	40.00 ppm	0.00
103) Acenaphthene-d10a	8.179	164	489823	40.00 ppm	0.00
105) Chrysene-d12a	14.613	240	663586	40.00 ppm	-0.01
108) Phenanthrene-d10a	10.399	188	806644	40.00 ppm	0.00
111) Naphthalene-d8a	6.050	136	870680	40.00 ppm	0.00
113) Chrysene-d12b	14.613	240	663586	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	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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
10) Aniline	4.665	93	617459	52.41 ppm	97
16) Benzyl alcohol	5.034	108	267291	50.29 ppm	98
39) 4-Chloroaniline	6.136	127	436417	46.91 ppm	98
44) 2-Methylnaphthalene	6.831	141	616041	46.02 ppm	99
54) 2-Nitroaniline	7.590	65	248911	43.89 ppm	98
58) 3-Nitroaniline	8.157	138	193533	45.62 ppm	97
62) Dibenzofuran	8.473	168	954829	47.48 ppm	98
68) 4-Nitroaniline	9.045	138	192837	44.28 ppm	98
79) Carbazole	10.800	167	994194	46.15 ppm	99

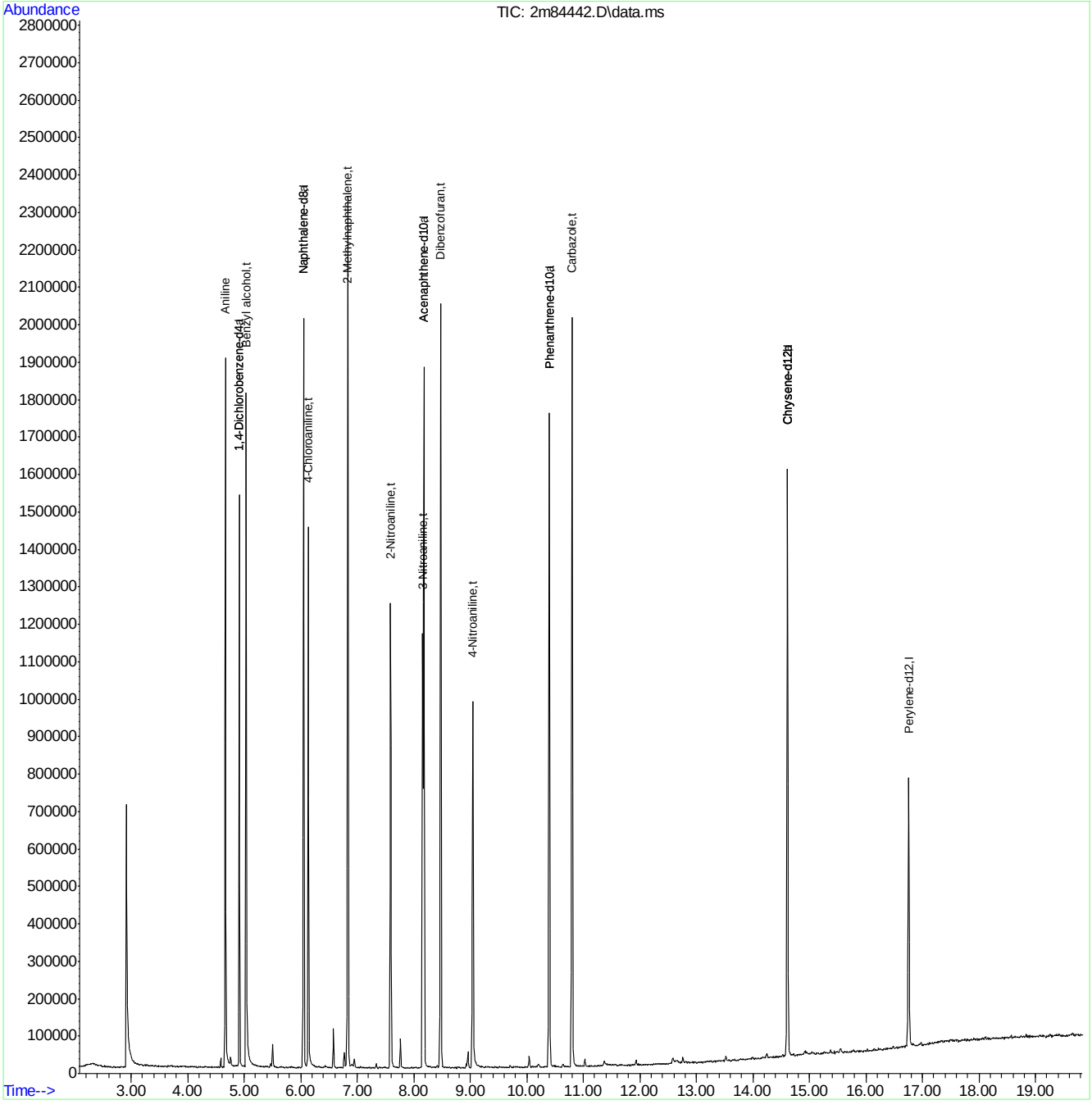
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84442.D
Acq On : 7 Jun 2016 1:30 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 15:19:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 15:05:19 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84443.D
Acq On : 7 Jun 2016 1:56 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:20:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:39:07 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	203128	40.00 ppm	0.00
24) Naphthalene-d8	6.050	136	815817	40.00 ppm	0.00
47) Acenaphthene-d10	8.179	164	458611	40.00 ppm	0.00
69) Phenanthrene-d10	10.398	188	759453	40.00 ppm	0.00
83) Chrysene-d12	14.613	240	656510	40.00 ppm	-0.01
91) Perylene-d12	16.758	264	439867	40.00 ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.911	152	203128	40.00 ppm	0.00
103) Acenaphthene-d10a	8.179	164	458611	40.00 ppm	0.00
105) Chrysene-d12a	14.613	240	656510	40.00 ppm	-0.01
108) Phenanthrene-d10a	10.398	188	759453	40.00 ppm	0.00
111) Naphthalene-d8a	6.050	136	815817	40.00 ppm	0.00
113) Chrysene-d12b	14.613	240	656541	40.00 ppm	-0.01

System Monitoring Compounds					
5) 2-Fluorophenol	3.943	112	372639	52.06 ppm	0.00
Spiked Amount 50.000			Recovery	= 104.12%	
8) Phenol-d5	4.659	99	472220	52.44 ppm	0.00
Spiked Amount 50.000			Recovery	= 104.88%	
25) Nitrobenzene-d5	5.376	82	434727	48.51 ppm	0.00
Spiked Amount 50.000			Recovery	= 97.02%	
51) 2-Fluorobiphenyl	7.280	172	756034	51.49 ppm	0.00
Spiked Amount 50.000			Recovery	= 102.98%	
73) 2,4,6-Tribromophenol	9.345	330	116649	55.28 ppm	0.00
Spiked Amount 50.000			Recovery	= 110.56%	
85) Terphenyl-d14	12.960	244	782758	51.83 ppm	0.00
Spiked Amount 50.000			Recovery	= 103.66%	
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	
Spiked Amount 50.000			Recovery	= 0.00%	

Target Compounds	Qvalue

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

7.6.22

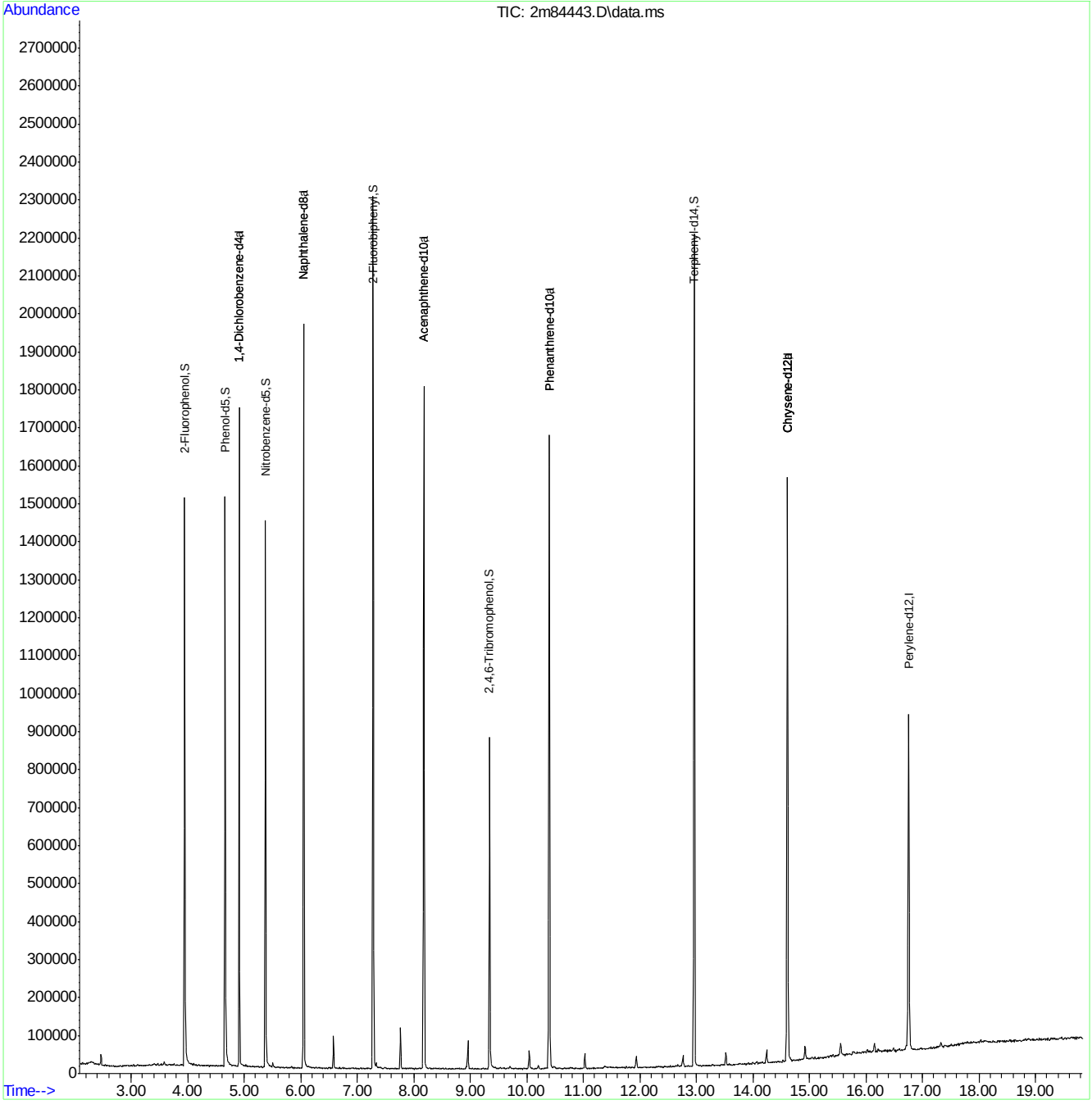
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84443.D
Acq On : 7 Jun 2016 1:56 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:20:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 12:39:07 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84444.D
Acq On : 7 Jun 2016 2:23 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 07 15:22:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 15:05:19 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	258071	40.00 ppm	0.00
24) Naphthalene-d8	6.050	136	989299	40.00 ppm	0.00
47) Acenaphthene-d10	8.184	164	557189	40.00 ppm	0.00
69) Phenanthrene-d10	10.398	188	905635	40.00 ppm	0.00
83) Chrysene-d12	14.624	240	796909	40.00 ppm	0.00
91) Perylene-d12	16.763	264	510425	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.911	152	258071	40.00 ppm	0.00
103) Acenaphthene-d10a	8.184	164	557189	40.00 ppm	0.00
105) Chrysene-d12a	14.624	240	796909	40.00 ppm	0.00
108) Phenanthrene-d10a	10.398	188	905635	40.00 ppm	0.00
111) Naphthalene-d8a	6.050	136	989299	40.00 ppm	0.00
113) Chrysene-d12b	14.624	240	796875	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	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	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
11) bis(2-Chloroethyl)ether	4.702	93	467511	46.87 ppm	99
14) 1,3-Dichlorobenzene	4.868	146	488077	45.72 ppm	99
15) 1,4-Dichlorobenzene	4.927	146	493647	46.33 ppm	100
17) 1,2-Dichlorobenzene	5.050	146	458895	45.75 ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.125	45	529878	41.89 ppm	98
22) n-Nitroso-di-n-propyla...	5.237	70	348085	44.88 ppm	95
23) Hexachloroethane	5.328	201	165228	48.87 ppm	96
26) Nitrobenzene	5.397	77	518928	46.28 ppm	97
28) Isophorone	5.601	82	909578	47.38 ppm	99
32) bis(2-Chloroethoxy)met...	5.799	93	498405	45.76 ppm	98
36) 1,2,4-Trichlorobenzene	5.991	180	386301	47.32 ppm	98
38) Naphthalene	6.077	128	1296450	47.44 ppm	100
42) Hexachlorobutadiene	6.178	225	216930	48.33 ppm	99
52) 2-Chloronaphthalene	7.441	162	749838	46.38 ppm	98
55) Dimethylphthalate	7.826	163	827680	45.14 ppm	100
56) Acenaphthylene	7.992	152	1177027	43.55 ppm	99
57) 2,6-Dinitrotoluene	7.922	165	192568	46.16 ppm	99
59) Acenaphthene	8.232	153	768086	46.34 ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84444.D
Acq On : 7 Jun 2016 2:23 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 07 15:22:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 15:05:19 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
63) 2,4-Dinitrotoluene	8.500	165	248221	42.87 ppm	97
65) Diethylphthalate	8.837	149	836211	43.63 ppm	100
66) Fluorene	8.976	166	834463	45.15 ppm	98
67) 4-Chlorophenyl-phenyle...	8.981	204	398245	46.34 ppm	98
71) n-Nitrosodiphenylamine	9.174	169	549441	46.12 ppm	99
72) 1,2-Diphenylhydrazine	9.222	77	968779	46.28 ppm	99
74) 4-Bromophenyl-phenylether	9.719	248	229867	46.89 ppm	94
75) Hexachlorobenzene	9.805	284	264657	46.30 ppm	97
77) Phenanthrene	10.436	178	1212945	46.16 ppm	99
78) Anthracene	10.516	178	1172025	44.21 ppm	99
80) Di-n-butylphthalate	11.383	149	1421172	45.74 ppm	100
81) Fluoranthene	12.319	202	1228150	46.03 ppm	99
84) Pyrene	12.672	202	1288525	47.36 ppm	99
86) Butylbenzylphthalate	13.784	149	601209	44.59 ppm	99
87) Benzo[a]anthracene	14.602	228	1128245	44.86 ppm	99
89) Chrysene	14.661	228	1027550	43.83 ppm	100
90) bis(2-Ethylhexyl)phtha...	14.725	149	795909	45.19 ppm	97
92) Di-n-octylphthalate	15.720	149	1185267	51.04 ppm	99
93) Benzo[b]fluoranthene	16.228	252	807523	47.29 ppm	99
94) Benzo[k]fluoranthene	16.266	252	804956	51.89 ppm	100
95) Benzo[a]pyrene	16.683	252	666954	47.35 ppm	97
96) Indeno[1,2,3-cd]pyrene	18.523	276	804799	48.10 ppm	99
98) Dibenz[a,h]anthracene	18.550	278	691456	47.96 ppm	99
100) Benzo[g,h,i]perylene	19.031	276	680616	47.63 ppm	98

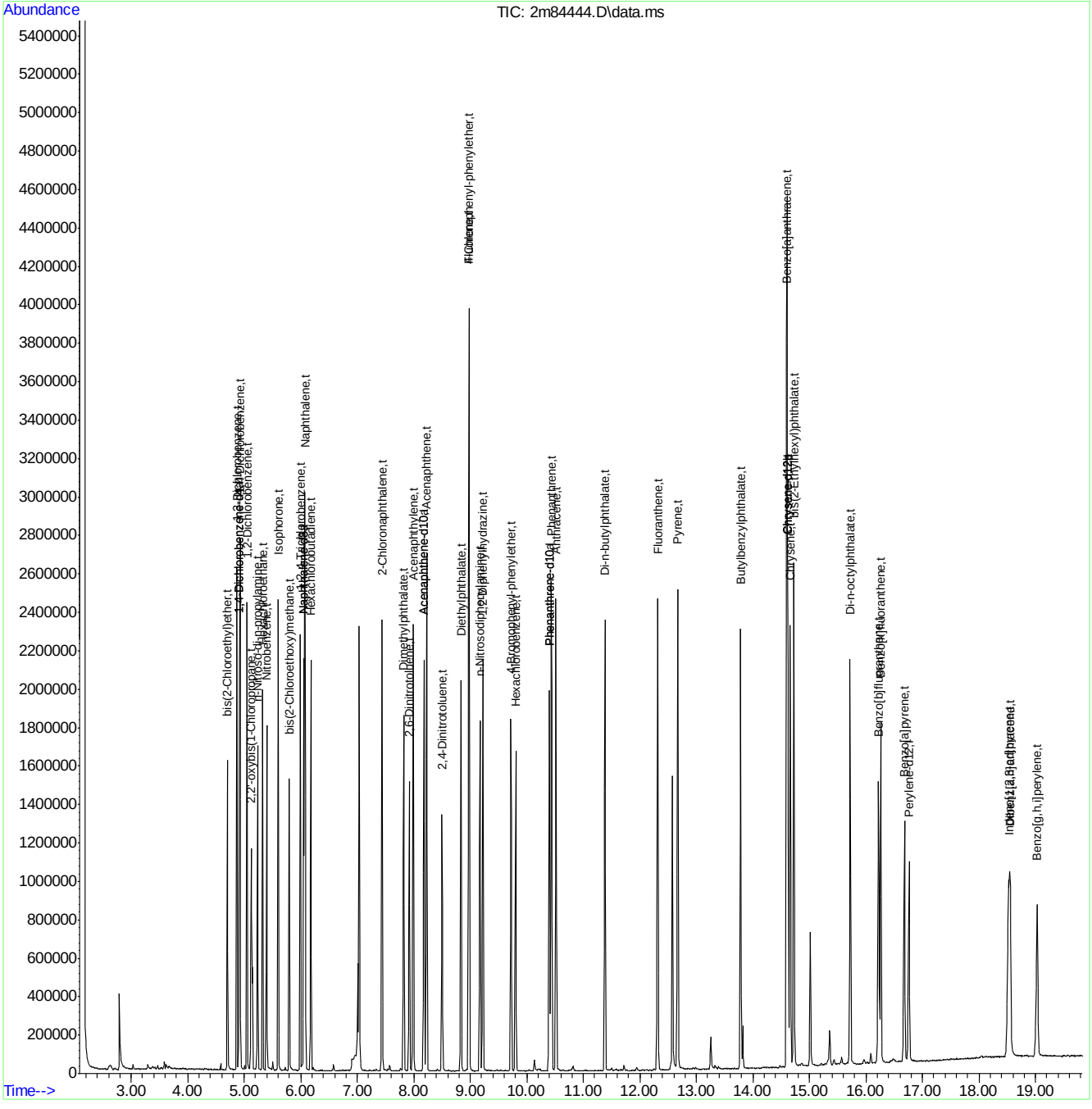
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84444.D
Acq On : 7 Jun 2016 2:23 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 07 15:22:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 15:05:19 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84446.D
Acq On : 7 Jun 2016 3:15 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 07 15:50:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 15:05:19 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.911	152	212363	40.00 ppm	0.00
24) Naphthalene-d8	6.050	136	830116	40.00 ppm	0.00
47) Acenaphthene-d10	8.179	164	485874	40.00 ppm	0.00
69) Phenanthrene-d10	10.393	188	829077	40.00 ppm	-0.01
83) Chrysene-d12	14.613	240	780950	40.00 ppm	-0.01
91) Perylene-d12	16.758	264	607926	40.00 ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.911	152	212363	40.00 ppm	0.00
103) Acenaphthene-d10a	8.179	164	485874	40.00 ppm	0.00
105) Chrysene-d12a	14.613	240	780950	40.00 ppm	-0.01
108) Phenanthrene-d10a	10.393	188	829077	40.00 ppm	-0.01
111) Naphthalene-d8a	6.050	136	830116	40.00 ppm	0.00
113) Chrysene-d12b	14.613	240	780950	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	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	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
88) 3,3'-Dichlorobenzidine	14.597	252	433670	46.21 ppm	100

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

7.6.24

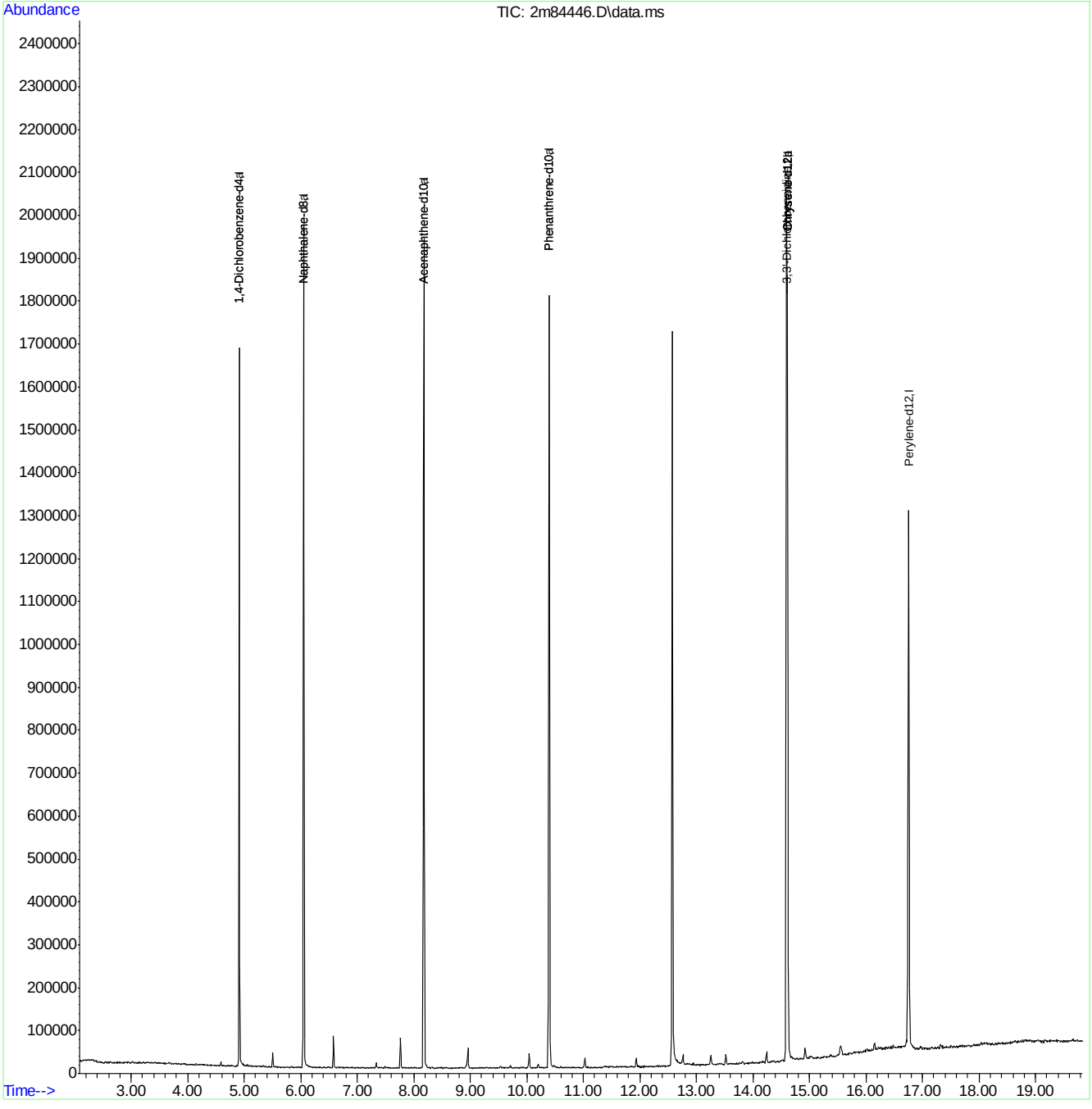
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3720\
Data File : 2m84446.D
Acq On : 7 Jun 2016 3:15 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3720
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 07 15:50:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 15:05:19 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3721\
Data File : 2m84450.D
Acq On : 7 Jun 2016 5:25 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3721
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 09:04:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 16:18:16 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.906	152	223237	40.00 ppm	0.00
24) Naphthalene-d8	6.045	136	983171	40.00 ppm	-0.01
47) Acenaphthene-d10	8.174	164	475317	40.00 ppm	-0.01
69) Phenanthrene-d10	10.388	188	785394	40.00 ppm	-0.02
83) Chrysene-d12	14.608	240	657258	40.00 ppm	-0.02
91) Perylene-d12	16.747	264	439945	40.00 ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.906	152	223237	40.00 ppm	-0.03
103) Acenaphthene-d10a	8.174	164	475317	40.00 ppm	-0.04
105) Chrysene-d12a	14.608	240	657258	40.00 ppm	-0.04
108) Phenanthrene-d10a	10.388	188	785394	40.00 ppm	-0.04
111) Naphthalene-d8a	6.045	136	983171	40.00 ppm	-0.04
113) Chrysene-d12b	14.608	240	657258	40.00 ppm	-0.04

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
25) Nitrobenzene-d5	0.000	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
51) 2-Fluorobiphenyl	0.000	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
85) Terphenyl-d14	0.000	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
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	
Spiked Amount 50.000			Recovery	=	0.00%

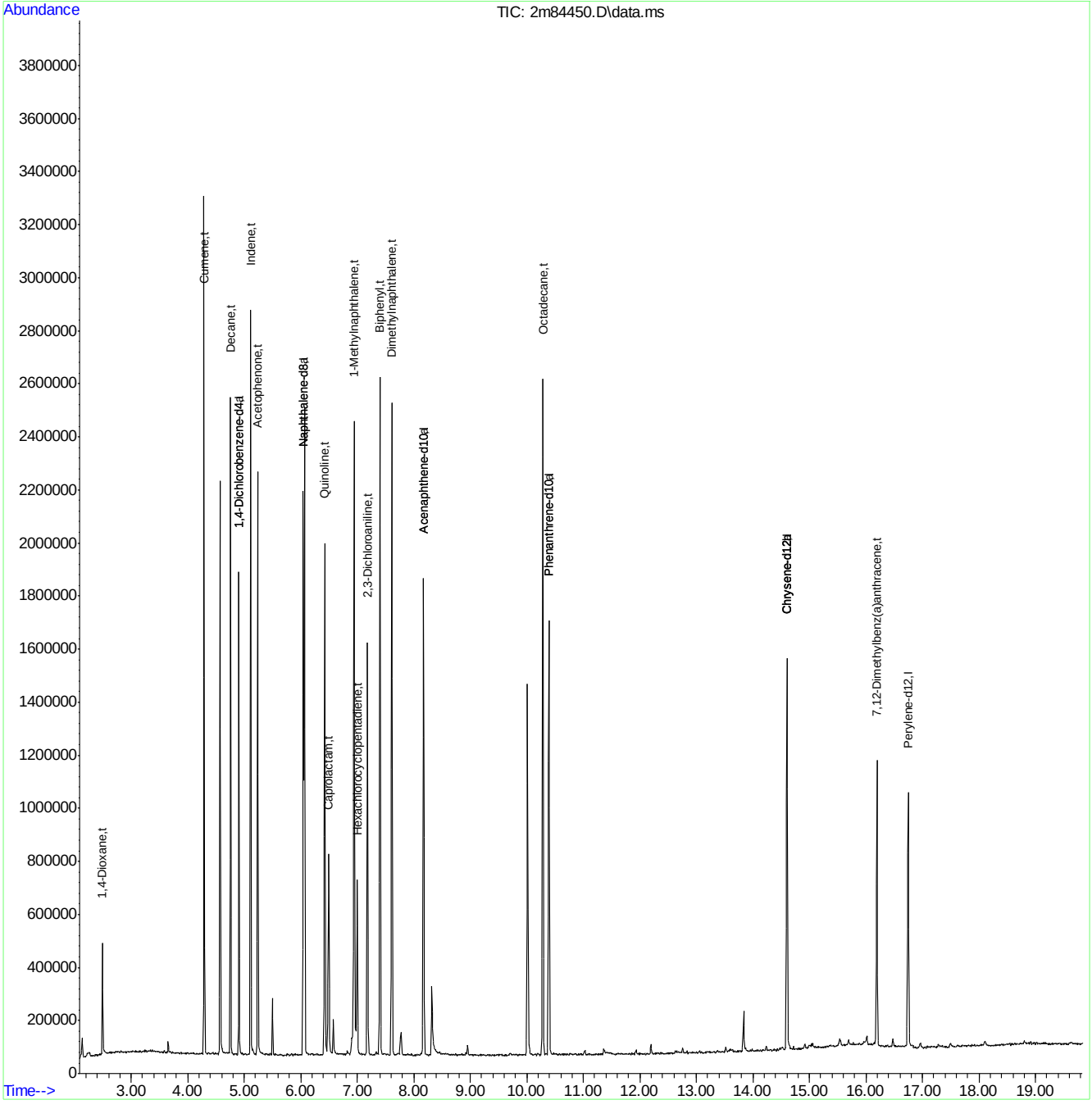
Target Compounds					Qvalue
2) 1,4-Dioxane	2.493	88	148929	50.61 ppm	97
6) Indene	5.114	116	705808	47.61 ppm	100
7) Cumene	4.291	105	972642	44.72 ppm	99
13) Decane	4.756	43	390765	44.75 ppm	98
18) Acetophenone	5.237	105	543916	44.93 ppm	98
27) Quinoline	6.425	129	704502	39.39 ppm	99
40) 2,3-Dichloroaniline	7.179	161	325242	36.22 ppm	98
41) Caprolactam	6.494	55	167315	38.19 ppm	98
45) 1-Methylnaphthalene	6.949	141	610658	38.57 ppm	97
46) Dimethylnaphthalene	7.612	156	618670	38.45 ppm	96
48) Hexachlorocyclopentadiene	7.002	237	85124	48.15 ppm	99
53) Biphenyl	7.403	154	847502	45.91 ppm	98
82) Octadecane	10.286	57	496489	44.79 ppm	99
99) 7,12-Dimethylbenz(a)an...	16.197	256	272497	42.22 ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3721\
Data File : 2m84450.D
Acq On : 7 Jun 2016 5:25 pm
Operator : ashleyn
Sample : icv3720-50
Misc : op94122,e2m3721
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 09:04:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Tue Jun 07 16:18:16 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84528.D
Acq On : 10 Jun 2016 12:16 pm
Operator : ashleyn
Sample : cc3720-25
Misc : op94122,e2m3726
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 16:29:59 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	184865	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	736684	40.00 ppm	-0.02
47) Acenaphthene-d10	8.163	164	425553	40.00 ppm	-0.02
69) Phenanthrene-d10	10.372	188	721219	40.00 ppm	-0.03
83) Chrysene-d12	14.586	240	701538	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	622246	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	184865	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.163	164	425553	40.00 ppm	-0.05
105) Chrysene-d12a	14.586	240	701538	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	721219	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	736684	40.00 ppm	-0.05
113) Chrysene-d12b	14.586	240	701538	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.932	112	164918	25.20 ppm	-0.02
Spiked Amount 50.000			Recovery = 50.40%		
8) Phenol-d5	4.649	99	212164	25.62 ppm	-0.02
Spiked Amount 50.000			Recovery = 51.24%		
25) Nitrobenzene-d5	5.365	82	209861	25.82 ppm	-0.02
Spiked Amount 50.000			Recovery = 51.64%		
51) 2-Fluorobiphenyl	7.259	172	339641	24.76 ppm	-0.02
Spiked Amount 50.000			Recovery = 49.52%		
73) 2,4,6-Tribromophenol	9.323	330	53534	26.78 ppm	-0.03
Spiked Amount 50.000			Recovery = 53.56%		
85) Terphenyl-d14	12.934	244	379940	23.67 ppm	-0.03
Spiked Amount 50.000			Recovery = 47.34%		
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	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
2) 1,4-Dioxane	2.477	88	72803	29.88 ppm	98
6) Indene	5.109	116	306330	24.95 ppm	99
7) Cumene	4.280	105	448376	24.89 ppm	97
9) Phenol	4.659	94	264979	25.92 ppm	83
10) Aniline	4.649	93	250229	24.66 ppm	73
11) bis(2-Chloroethyl)ether	4.691	93	175823	24.61 ppm	99
12) 2-Chlorophenol	4.750	128	170757	25.17 ppm	95
13) Decane	4.750	43	191245	26.45 ppm	98
14) 1,3-Dichlorobenzene	4.852	146	186982	24.45 ppm	99
15) 1,4-Dichlorobenzene	4.916	146	192506	25.22 ppm	98
16) Benzyl alcohol	5.018	108	115448	25.22 ppm	90
17) 1,2-Dichlorobenzene	5.034	146	177175	24.66 ppm	98
18) Acetophenone	5.232	105	258443	25.78 ppm	98
19) 2-Methylphenol	5.125	108	168000	25.18 ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.109	45	232260	25.64 ppm	98
21) 3&4-Methylphenol	5.248	108	177439	24.67 ppm	99
22) n-Nitroso-di-n-propyla...	5.226	70	140248	25.24 ppm	99
23) Hexachloroethane	5.312	201	59902	24.73 ppm	90

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84528.D
Acq On : 10 Jun 2016 12:16 pm
Operator : ashleyn
Sample : cc3720-25
Misc : op94122,e2m3726
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 16:29:59 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
26) Nitrobenzene	5.381	77	213964	25.62 ppm		100
27) Quinoline	6.414	129	331571	24.74 ppm		99
28) Isophorone	5.590	82	363267	25.41 ppm		99
29) 2-Nitrophenol	5.670	139	95976	25.67 ppm		93
30) 2,4-Dimethylphenol	5.713	107	179456	24.79 ppm		97
31) Benzoic acid	5.825	105	127350	29.49 ppm		96
32) bis(2-Chloroethoxy)met...	5.783	93	200669	24.74 ppm		99
33) 2,4-Dichlorophenol	5.916	162	133786	24.30 ppm		95
34) 2,6-Dichlorophenol	6.130	162	132710	24.57 ppm		98
35) 1,3,5-Trichlorobenzene	5.670	180	159915	25.33 ppm		97
36) 1,2,4-Trichlorobenzene	5.975	180	153059	25.18 ppm		100
37) 1,2,3-Trichlorobenzene	6.205	180	148350	25.09 ppm		97
38) Naphthalene	6.061	128	501146	24.62 ppm		99
39) 4-Chloroaniline	6.120	127	198203	25.18 ppm		96
40) 2,3-Dichloroaniline	7.168	161	166155	24.70 ppm		97
41) Caprolactam	6.499	55	84199	25.65 ppm		96
42) Hexachlorobutadiene	6.168	225	82786	24.77 ppm		98
43) 4-Chloro-3-methylphenol	6.670	107	164058	25.21 ppm		95
44) 2-Methylnaphthalene	6.815	141	279040	24.64 ppm		96
45) 1-Methylnaphthalene	6.933	141	290887	24.52 ppm		98
46) Dimethylnaphthalene	7.596	156	303278	25.15 ppm		98
48) Hexachlorocyclopentadiene	6.991	237	79941	49.86 ppm		98
49) 2,4,6-Trichlorophenol	7.179	196	97295	24.82 ppm		99
50) 2,4,5-Trichlorophenol	7.243	196	99795	24.75 ppm		99
52) 2-Chloronaphthalene	7.419	162	307661	24.92 ppm		98
53) Biphenyl	7.392	154	401407	24.29 ppm		97
54) 2-Nitroaniline	7.574	65	125609	25.49 ppm		96
55) Dimethylphthalate	7.804	163	349113	24.93 ppm		100
56) Acenaphthylene	7.970	152	506259	24.52 ppm		99
57) 2,6-Dinitrotoluene	7.901	165	81183	25.48 ppm		98
58) 3-Nitroaniline	8.141	138	90709	24.61 ppm		96
59) Acenaphthene	8.205	153	311166	24.58 ppm		95
60) 2,4-Dinitrophenol	8.312	184	63276	53.94 ppm		97
61) 4-Nitrophenol	8.478	109	48647	29.53 ppm	#	24
62) Dibenzofuran	8.452	168	428994	24.56 ppm		97
63) 2,4-Dinitrotoluene	8.478	165	112029	25.33 ppm		87
64) 2,3,4,6-Tetrachlorophenol	8.655	232	68554	27.75 ppm		97
65) Diethylphthalate	8.810	149	364696	24.91 ppm		98
66) Fluorene	8.954	166	351745	24.92 ppm		99
67) 4-Chlorophenyl-phenyle...	8.960	204	168454	25.66 ppm		98
68) 4-Nitroaniline	9.029	138	93141	24.62 ppm		95
70) 4,6-Dinitro-2-methylph...	9.083	198	57227	26.60 ppm		96
71) n-Nitrosodiphenylamine	9.147	169	237620	25.04 ppm		98
72) 1,2-Diphenylhydrazine	9.200	77	448236	26.89 ppm		99
74) 4-Bromophenyl-phenylether	9.698	248	99827	25.57 ppm		97
75) Hexachlorobenzene	9.773	284	117590	25.83 ppm		98
76) Pentachlorophenol	10.115	266	81977	65.97 ppm		97
77) Phenanthrene	10.409	178	515061	24.61 ppm		99
78) Anthracene	10.489	178	519871	24.63 ppm		99
79) Carbazole	10.773	167	471781	24.49 ppm		99

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84528.D
Acq On : 10 Jun 2016 12:16 pm
Operator : ashleyn
Sample : cc3720-25
Misc : op94122,e2m3726
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 16:29:59 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.361	149	621597	25.12 ppm	99
81) Fluoranthene	12.286	202	528557	24.87 ppm	98
82) Octadecane	10.265	57	262842	25.82 ppm	97
84) Pyrene	12.645	202	557972	23.30 ppm	99
86) Butylbenzylphthalate	13.752	149	275437	23.21 ppm	97
87) Benzo[a]anthracene	14.570	228	524344	23.68 ppm	97
88) 3,3'-Dichlorobenzidine	14.570	252	204742	24.28 ppm	98
89) Chrysene	14.629	228	502173	24.33 ppm	98
90) bis(2-Ethylhexyl)phtha...	14.699	149	376056	24.26 ppm	99
92) Di-n-octylphthalate	15.694	149	640927	22.64 ppm	99
93) Benzo[b]fluoranthene	16.196	252	512694	24.63 ppm	97
94) Benzo[k]fluoranthene	16.228	252	484198	25.60 ppm	98
95) Benzo[a]pyrene	16.646	252	435143	25.34 ppm	99
96) Indeno[1,2,3-cd]pyrene	18.464	276	465939	22.84 ppm	99
97) Dibenz(a,h)acridine	18.058	279	353654	23.19 ppm	100
98) Dibenz[a,h]anthracene	18.496	278	391024	22.25 ppm	99
99) 7,12-Dimethylbenz(a)an...	16.175	256	230431	25.24 ppm	98
100) Benzo[g,h,i]perylene	18.967	276	386218	22.17 ppm	97

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

7.6.26

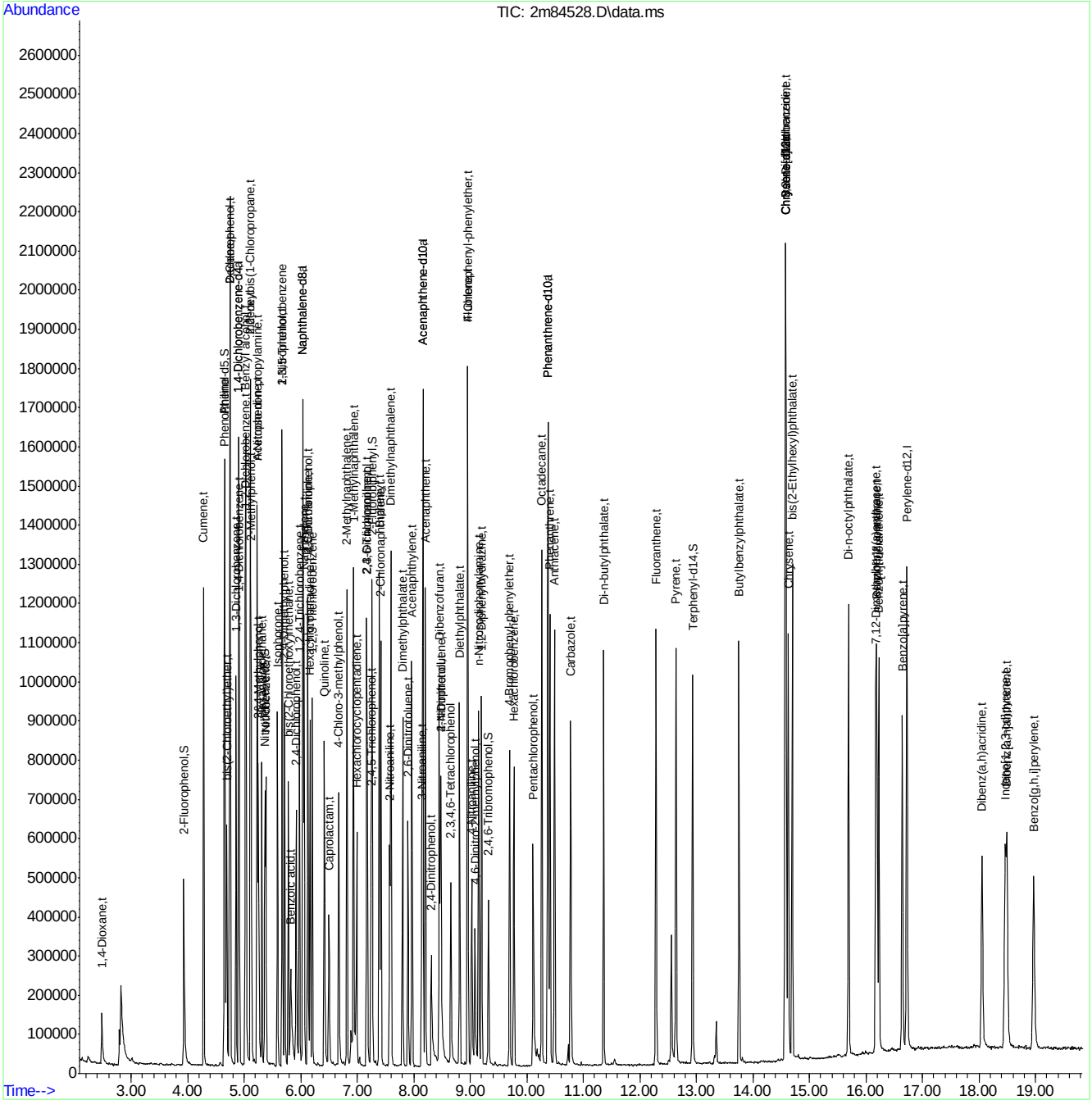
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84528.D
Acq On : 10 Jun 2016 12:16 pm
Operator : ashleyn
Sample : cc3720-25
Misc : op94122,e2m3726
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 16:29:59 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84529.D
Acq On : 10 Jun 2016 12:44 pm
Operator : ashleyn
Sample : cc3714-25
Misc : op94122,e2m3726
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 16:30:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	198555	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	792639	40.00 ppm	-0.02
47) Acenaphthene-d10	8.158	164	457206	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	790053	40.00 ppm	-0.03
83) Chrysene-d12	14.587	240	760540	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	728269	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	198555	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.158	164	457206	40.00 ppm	-0.06
105) Chrysene-d12a	14.587	240	760540	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	790053	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	792639	40.00 ppm	-0.05
113) Chrysene-d12b	14.587	240	760470	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.000	82	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	12.180	57	178959	16.31 ppm	-0.06
Spiked Amount 50.000			Recovery = 32.62%		
110) o-terphenyl	10.992	230	276564	26.38 ppm	-0.06
Spiked Amount 50.000			Recovery = 52.76%		

Target Compounds						Qvalue
102) Benzaldehyde	4.569	105	138840	22.74 ppm		96
104) 1,2,4,5-Tetrachloroben...	7.013	216	142281	26.58 ppm		99
106) Benzidine	12.554	184	187913	25.11 ppm		100
109) Atrazine	9.992	215	53693	26.43 ppm	#	66
112) Hydroquinone	6.510	110	171928	22.00 ppm		96

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

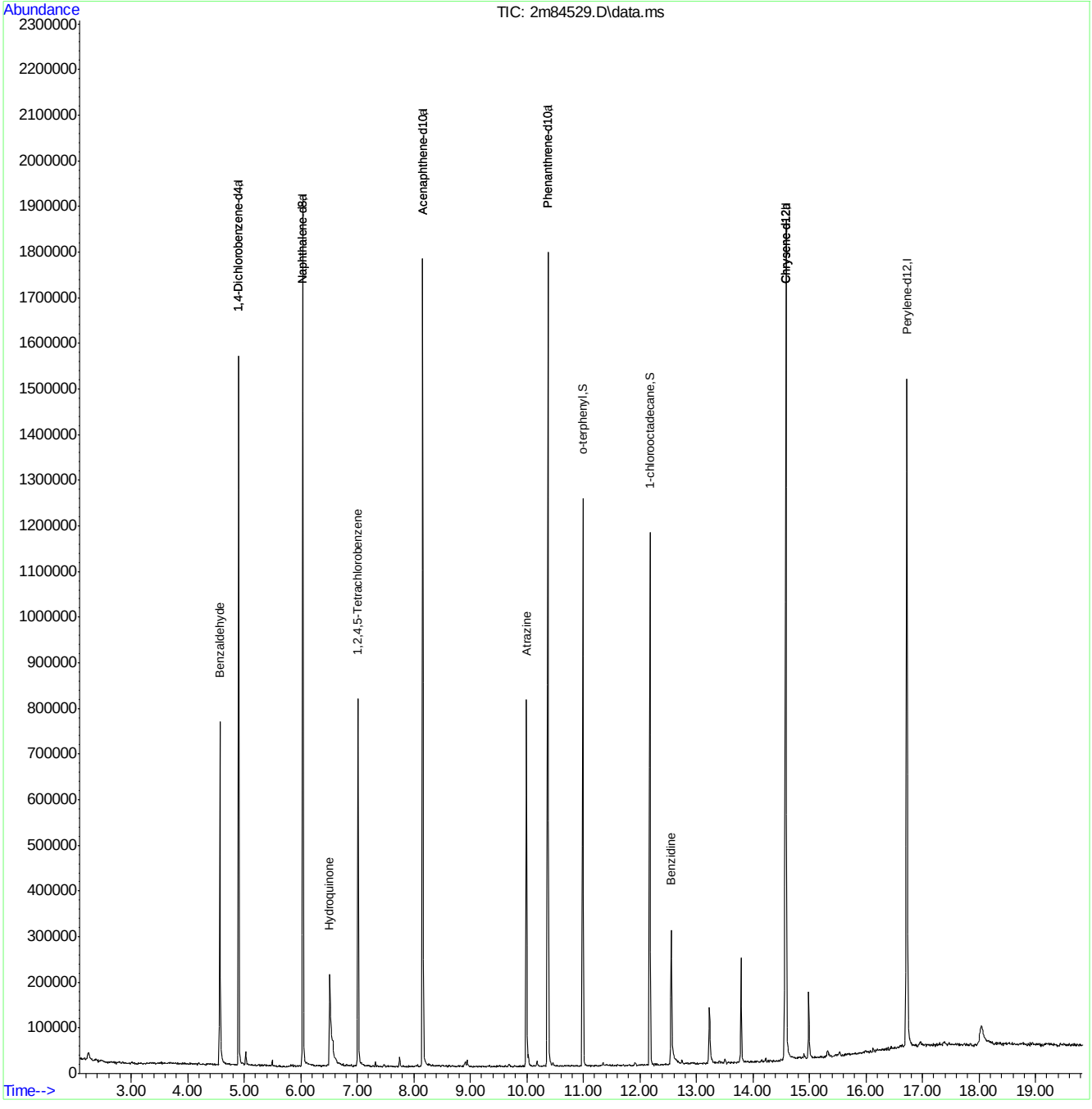
7.6.27

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3726\
Data File : 2m84529.D
Acq On : 10 Jun 2016 12:44 pm
Operator : ashleyn
Sample : cc3714-25
Misc : op94122,e2m3726
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 16:30:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Wed Jun 08 14:38:41 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3727\
Data File : 2m84570.D
Acq On : 11 Jun 2016 6:18 am
Operator : ashleyd
Sample : ecc3720-50
Misc : op94213,e2m3727,30.2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 12 13:24:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	160054	40.00	ppm	-0.01
24) Naphthalene-d8	6.034	136	611650	40.00	ppm	-0.02
47) Acenaphthene-d10	8.157	164	349794	40.00	ppm	-0.03
69) Phenanthrene-d10	10.372	188	594111	40.00	ppm	-0.03
83) Chrysene-d12	14.586	240	575638	40.00	ppm	-0.04
91) Perylene-d12	16.726	264	455358	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	160054	40.00	ppm	-0.04
103) Acenaphthene-d10a	8.157	164	349794	40.00	ppm	-0.06
105) Chrysene-d12a	14.586	240	575638	40.00	ppm	-0.06
108) Phenanthrene-d10a	10.372	188	594111	40.00	ppm	-0.06
111) Naphthalene-d8a	6.034	136	611650	40.00	ppm	-0.05
113) Chrysene-d12b	14.586	240	575638	40.00	ppm	-0.06

System Monitoring Compounds						
5) 2-Fluorophenol	3.932	112	284405	50.20	ppm	-0.02
Spiked Amount 50.000			Recovery = 100.40%			
8) Phenol-d5	4.649	99	357184	49.81	ppm	-0.02
Spiked Amount 50.000			Recovery = 99.62%			
25) Nitrobenzene-d5	5.365	82	348313	51.62	ppm	-0.02
Spiked Amount 50.000			Recovery = 103.24%			
51) 2-Fluorobiphenyl	7.259	172	562359	49.87	ppm	-0.02
Spiked Amount 50.000			Recovery = 99.74%			
73) 2,4,6-Tribromophenol	9.318	330	96554	58.63	ppm	-0.03
Spiked Amount 50.000			Recovery = 117.26%			
85) Terphenyl-d14	12.928	244	647338	49.15	ppm	-0.04
Spiked Amount 50.000			Recovery = 98.30%			
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	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.477	88	118160	56.01	ppm		100
6) Indene	5.109	116	515494	48.50	ppm		98
7) Cumene	4.280	105	770721	49.42	ppm		97
9) Phenol	4.659	94	428013	48.36	ppm		80
10) Aniline	4.654	93	286218	32.58	ppm	#	14
11) bis(2-Chloroethyl)ether	4.691	93	311739	50.39	ppm		99
12) 2-Chlorophenol	4.750	128	285694	48.65	ppm		97
13) Decane	4.750	43	324723	51.87	ppm		97
14) 1,3-Dichlorobenzene	4.852	146	320603	48.42	ppm		99
15) 1,4-Dichlorobenzene	4.911	146	324881	49.17	ppm		100
16) Benzyl alcohol	5.023	108	186423	47.04	ppm		93
17) 1,2-Dichlorobenzene	5.034	146	304760	48.99	ppm		99
18) Acetophenone	5.232	105	422306	48.66	ppm		96
19) 2-Methylphenol	5.125	108	272676	47.21	ppm		97
20) 2,2'-oxybis(1-Chloropr...	5.114	45	398952	50.86	ppm		93
21) 3&4-Methylphenol	5.253	108	281464	45.21	ppm		99
22) n-Nitroso-di-n-propyla...	5.226	70	243402	50.60	ppm		93
23) Hexachloroethane	5.312	201	106283	50.69	ppm		95

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3727\
Data File : 2m84570.D
Acq On : 11 Jun 2016 6:18 am
Operator : ashleyd
Sample : ecc3720-50
Misc : op94213,e2m3727,30.2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 12 13:24:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
26) Nitrobenzene	5.387	77	364367	52.55 ppm		100
27) Quinoline	6.419	129	530716	47.69 ppm		98
28) Isophorone	5.590	82	577205	48.63 ppm		96
29) 2-Nitrophenol	5.670	139	155467	50.09 ppm		85
30) 2,4-Dimethylphenol	5.713	107	287494	47.84 ppm		99
31) Benzoic acid	5.847	105	211015	55.66 ppm		93
32) bis(2-Chloroethoxy)met...	5.783	93	341719	50.75 ppm		98
33) 2,4-Dichlorophenol	5.916	162	212438	46.48 ppm		93
34) 2,6-Dichlorophenol	6.130	162	216615	48.31 ppm		98
35) 1,3,5-Trichlorobenzene	5.670	180	263868	50.35 ppm		99
36) 1,2,4-Trichlorobenzene	5.975	180	250588	49.65 ppm		96
37) 1,2,3-Trichlorobenzene	6.205	180	244112	49.72 ppm		96
38) Naphthalene	6.055	128	827523	48.97 ppm		99
39) 4-Chloroaniline	6.125	127	274850	42.05 ppm		96
40) 2,3-Dichloroaniline	7.168	161	268878	48.14 ppm		97
41) Caprolactam	6.515	55	137215	50.34 ppm		97
42) Hexachlorobutadiene	6.168	225	142502	51.35 ppm		99
43) 4-Chloro-3-methylphenol	6.676	107	271376	50.22 ppm		95
44) 2-Methylnaphthalene	6.815	141	462917	49.23 ppm		97
45) 1-Methylnaphthalene	6.933	141	474688	48.20 ppm		98
46) Dimethylnaphthalene	7.596	156	488466	48.79 ppm		97
48) Hexachlorocyclopentadiene	6.986	237	128916	83.65 ppm		99
49) 2,4,6-Trichlorophenol	7.179	196	160632	49.84 ppm		97
50) 2,4,5-Trichlorophenol	7.243	196	165435	49.91 ppm		96
52) 2-Chloronaphthalene	7.419	162	495952	48.86 ppm		99
53) Biphenyl	7.392	154	663219	48.82 ppm		98
54) 2-Nitroaniline	7.574	65	213139	52.63 ppm		94
55) Dimethylphthalate	7.804	163	585916	50.90 ppm		99
56) Acenaphthylene	7.965	152	824361	48.58 ppm		99
57) 2,6-Dinitrotoluene	7.901	165	132881	50.73 ppm		93
58) 3-Nitroaniline	8.141	138	143045	47.21 ppm		98
59) Acenaphthene	8.205	153	511560	49.16 ppm		95
60) 2,4-Dinitrophenol	8.312	184	117724	104.98 ppm		96
61) 4-Nitrophenol	8.473	109	70403	52.00 ppm	#	26
62) Dibenzofuran	8.452	168	700110	48.75 ppm		99
63) 2,4-Dinitrotoluene	8.478	165	182779	50.28 ppm		81
64) 2,3,4,6-Tetrachlorophenol	8.655	232	116399	57.33 ppm		98
65) Diethylphthalate	8.815	149	625507	51.98 ppm		99
66) Fluorene	8.949	166	595518	51.33 ppm		99
67) 4-Chlorophenyl-phenyle...	8.960	204	292162	54.15 ppm		99
68) 4-Nitroaniline	9.035	138	142286	45.75 ppm		88
70) 4,6-Dinitro-2-methylph...	9.083	198	97238	51.23 ppm		96
71) n-Nitrosodiphenylamine	9.147	169	411985	52.71 ppm		97
72) 1,2-Diphenylhydrazine	9.195	77	763198	55.58 ppm		95
74) 4-Bromophenyl-phenylether	9.692	248	171891	53.45 ppm		96
75) Hexachlorobenzene	9.773	284	196476	52.39 ppm		96
76) Pentachlorophenol	10.110	266	158327	131.89 ppm		96
77) Phenanthrene	10.409	178	844373	48.98 ppm		99
78) Anthracene	10.489	178	837096	48.14 ppm		98
79) Carbazole	10.778	167	766529	48.31 ppm		100

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3727\
Data File : 2m84570.D
Acq On : 11 Jun 2016 6:18 am
Operator : ashleyd
Sample : ecc3720-50
Misc : op94213,e2m3727,30.2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 12 13:24:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.356	149	1070015	52.50 ppm	98
81) Fluoranthene	12.286	202	894141	51.08 ppm	99
82) Octadecane	10.265	57	429492	51.22 ppm	96
84) Pyrene	12.640	202	918966	46.76 ppm	98
86) Butylbenzylphthalate	13.752	149	480358	49.33 ppm	97
87) Benzo[a]anthracene	14.570	228	865745	47.66 ppm	99
88) 3,3'-Dichlorobenzidine	14.570	252	303938	43.93 ppm	100
89) Chrysene	14.629	228	804669	47.51 ppm	99
90) bis(2-Ethylhexyl)phtha...	14.693	149	627582	49.33 ppm	99
92) Di-n-octylphthalate	15.688	149	1075246	51.90 ppm	97
93) Benzo[b]fluoranthene	16.196	252	780081	51.21 ppm	98
94) Benzo[k]fluoranthene	16.234	252	759789	54.90 ppm	99
95) Benzo[a]pyrene	16.646	252	644798	51.31 ppm	99
96) Indeno[1,2,3-cd]pyrene	18.470	276	745032	49.92 ppm	96
97) Dibenz(a,h)acridine	18.058	279	552942	49.54 ppm	98
98) Dibenz[a,h]anthracene	18.496	278	633040	49.22 ppm	98
99) 7,12-Dimethylbenz(a)an...	16.175	256	324858	48.63 ppm	94
100) Benzo[g,h,i]perylene	18.972	276	618944	48.55 ppm	96

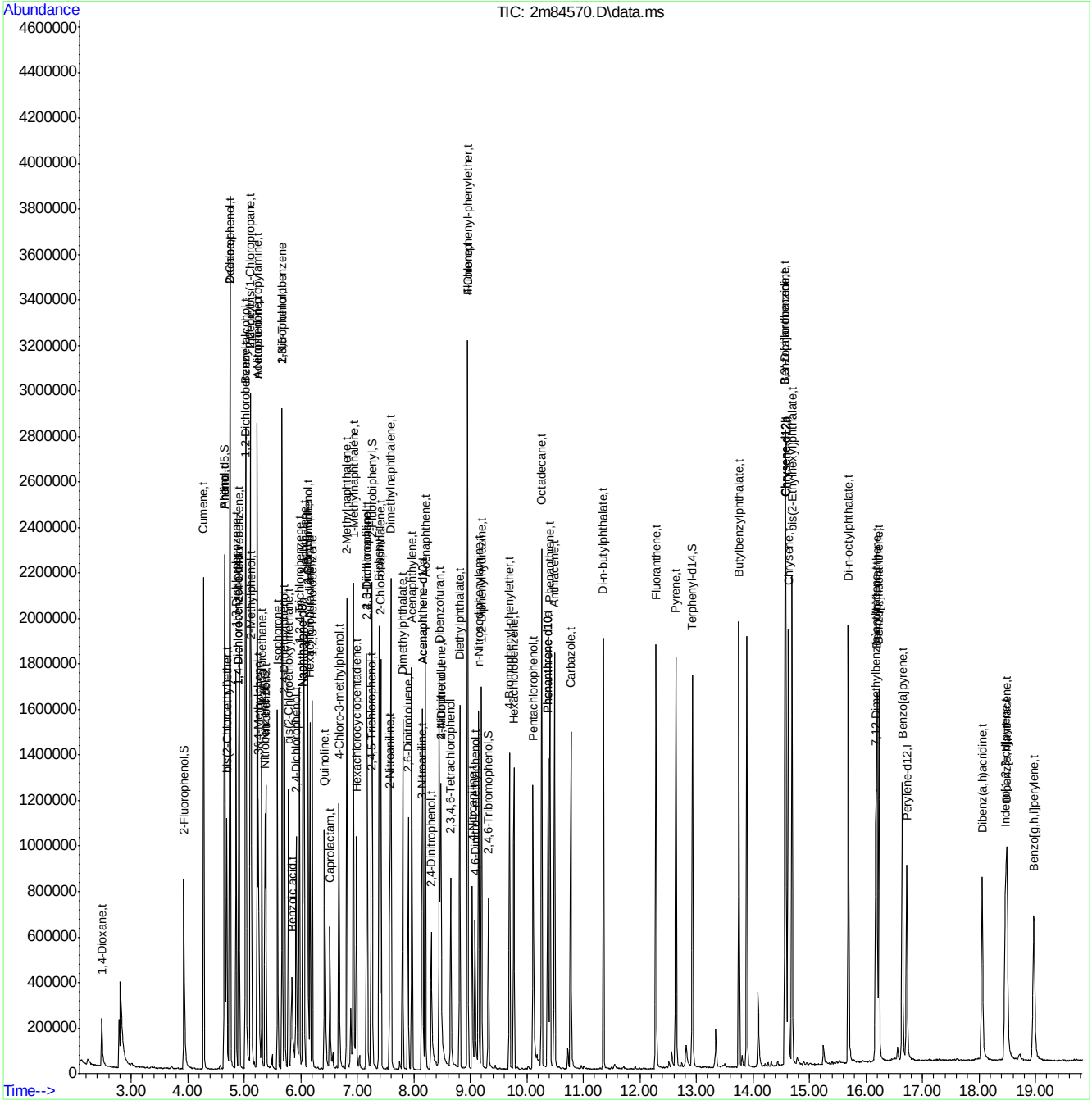
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3727\
Data File : 2m84570.D
Acq On : 11 Jun 2016 6:18 am
Operator : ashleyd
Sample : ecc3720-50
Misc : op94213,e2m3727,30.2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 12 13:24:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3727\
Data File : 2m84571.D
Acq On : 11 Jun 2016 6:44 am
Operator : ashleyd
Sample : ecc3714-50
Misc : op94213,e2m3727,30.2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 12 13:23:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.900	152	177852	40.00 ppm	-0.01
24) Naphthalene-d8	6.034	136	685074	40.00 ppm	-0.02
47) Acenaphthene-d10	8.157	164	398628	40.00 ppm	-0.03
69) Phenanthrene-d10	10.372	188	686947	40.00 ppm	-0.03
83) Chrysene-d12	14.586	240	655034	40.00 ppm	-0.04
91) Perylene-d12	16.726	264	601408	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.900	152	177852	40.00 ppm	-0.04
103) Acenaphthene-d10a	8.157	164	398628	40.00 ppm	-0.06
105) Chrysene-d12a	14.586	240	655034	40.00 ppm	-0.06
108) Phenanthrene-d10a	10.372	188	686947	40.00 ppm	-0.06
111) Naphthalene-d8a	6.034	136	685074	40.00 ppm	-0.05
113) Chrysene-d12b	14.586	240	655034	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	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	12.174	57	322303	34.12 ppm	-0.07
Spiked Amount 50.000			Recovery	= 68.24%	
110) o-terphenyl	10.992	230	490860	53.85 ppm	-0.06
Spiked Amount 50.000			Recovery	= 107.70%	

Target Compounds						Qvalue
102) Benzaldehyde	4.568	105	229977	42.06 ppm		96
104) 1,2,4,5-Tetrachloroben...	7.013	216	245386	52.57 ppm		97
106) Benzidine	12.554	184	289851	45.38 ppm		99
109) Atrazine	9.997	215	95891	54.28 ppm	#	71
112) Hydroquinone	6.521	110	287717	42.60 ppm		96

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

7.6.29

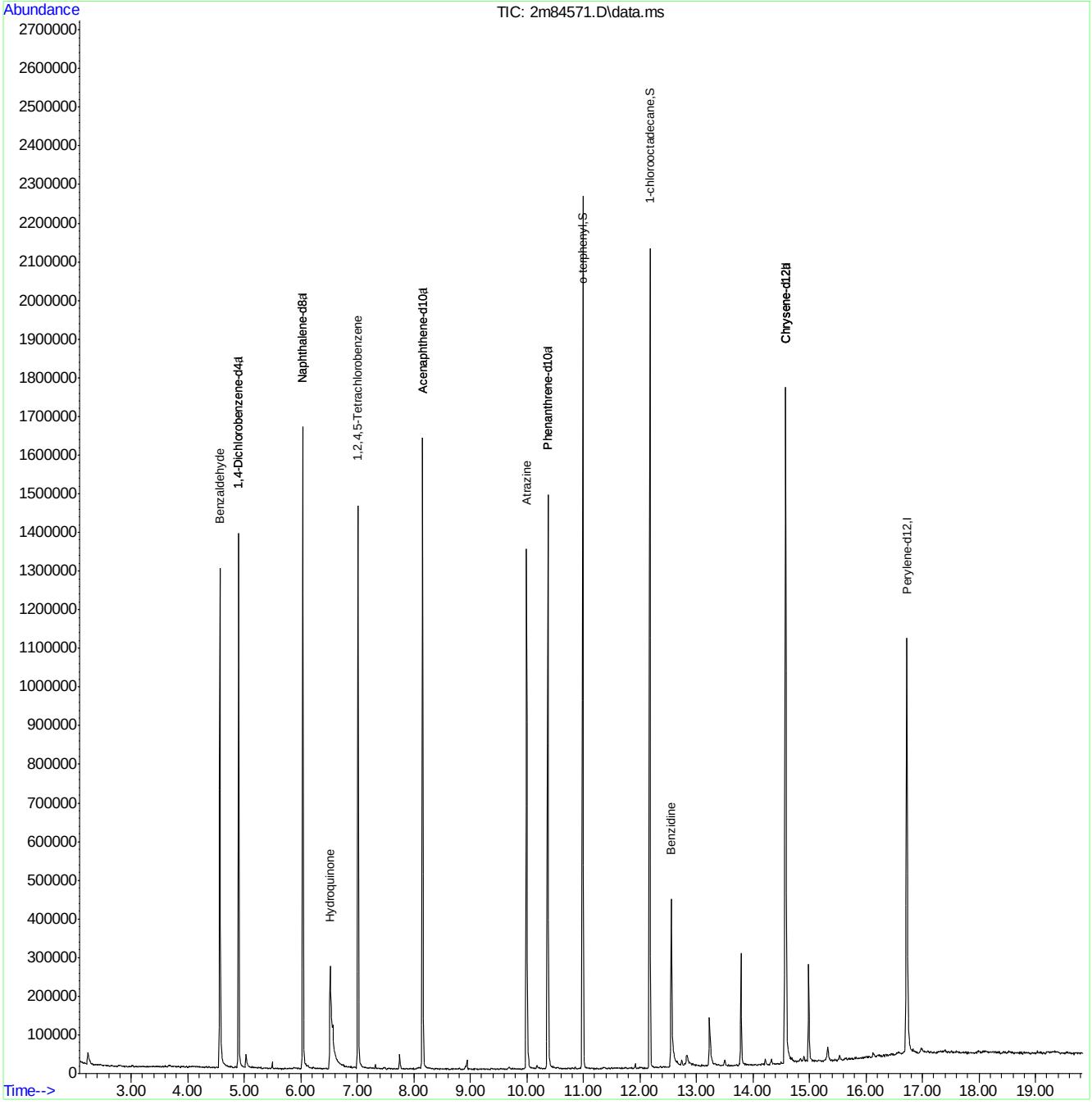
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e2m3727\
Data File : 2m84571.D
Acq On : 11 Jun 2016 6:44 am
Operator : ashleyd
Sample : ecc3714-50
Misc : op94213,e2m3727,30.2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 12 13:23:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration



M2M3720.M Sun Jun 12 13:23:45 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84592.D
Acq On : 13 Jun 2016 9:59 am
Operator : ashleyn
Sample : cc3720-50
Misc : op94122,e2m3729
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 13 12:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.895	152	188360	40.00	ppm	-0.02
24) Naphthalene-d8	6.029	136	719221	40.00	ppm	-0.03
47) Acenaphthene-d10	8.147	164	406584	40.00	ppm	-0.04
69) Phenanthrene-d10	10.361	188	691965	40.00	ppm	-0.04
83) Chrysene-d12	14.570	240	681921	40.00	ppm	-0.05
91) Perylene-d12	16.710	264	577548	40.00	ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.895	152	188360	40.00	ppm	-0.04
103) Acenaphthene-d10a	8.147	164	406584	40.00	ppm	-0.07
105) Chrysene-d12a	14.570	240	681921	40.00	ppm	-0.08
108) Phenanthrene-d10a	10.361	188	691965	40.00	ppm	-0.07
111) Naphthalene-d8a	6.029	136	719221	40.00	ppm	-0.05
113) Chrysene-d12b	14.570	240	681927	40.00	ppm	-0.08

System Monitoring Compounds						
5) 2-Fluorophenol	3.927	112	334842	50.22	ppm	-0.02
Spiked Amount 50.000			Recovery = 100.44%			
8) Phenol-d5	4.638	99	418447	49.59	ppm	-0.03
Spiked Amount 50.000			Recovery = 99.18%			
25) Nitrobenzene-d5	5.360	82	399176	50.31	ppm	-0.02
Spiked Amount 50.000			Recovery = 100.62%			
51) 2-Fluorobiphenyl	7.253	172	650165	49.61	ppm	-0.03
Spiked Amount 50.000			Recovery = 99.22%			
73) 2,4,6-Tribromophenol	9.307	330	110027	57.36	ppm	-0.04
Spiked Amount 50.000			Recovery = 114.72%			
85) Terphenyl-d14	12.918	244	743731	47.66	ppm	-0.05
Spiked Amount 50.000			Recovery = 95.32%			
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	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.466	88	146756	59.11	ppm		97
6) Indene	5.098	116	590090	47.17	ppm		98
7) Cumene	4.274	105	905482	49.34	ppm		98
9) Phenol	4.649	94	498104	47.83	ppm		68
10) Aniline	4.643	93	341271	33.01	ppm	#	45
11) bis(2-Chloroethyl)ether	4.686	93	346394	47.58	ppm		98
12) 2-Chlorophenol	4.745	128	332674	48.13	ppm		100
13) Decane	4.745	43	348792	47.34	ppm		98
14) 1,3-Dichlorobenzene	4.847	146	375288	48.16	ppm		99
15) 1,4-Dichlorobenzene	4.905	146	379911	48.85	ppm		99
16) Benzyl alcohol	5.018	108	223276	47.87	ppm		98
17) 1,2-Dichlorobenzene	5.028	146	354194	48.38	ppm		99
18) Acetophenone	5.226	105	482375	47.23	ppm		98
19) 2-Methylphenol	5.119	108	312121	45.92	ppm		99
20) 2,2'-oxybis(1-Chloropr...	5.103	45	442581	47.94	ppm		98
21) 3&4-Methylphenol	5.242	108	330598	45.12	ppm		96
22) n-Nitroso-di-n-propyla...	5.221	70	273315	48.28	ppm		98
23) Hexachloroethane	5.307	201	123107	49.89	ppm		97

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84592.D
Acq On : 13 Jun 2016 9:59 am
Operator : ashleyn
Sample : cc3720-50
Misc : op94122,e2m3729
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 13 12:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.376	77	423958	52.00	ppm		98
27) Quinoline	6.414	129	618791	47.29	ppm		99
28) Isophorone	5.585	82	656921	47.07	ppm		97
29) 2-Nitrophenol	5.665	139	183893	50.39	ppm		97
30) 2,4-Dimethylphenol	5.702	107	334350	47.32	ppm		98
31) Benzoic acid	5.847	105	244597	54.93	ppm		93
32) bis(2-Chloroethoxy)met...	5.777	93	389178	49.15	ppm		100
33) 2,4-Dichlorophenol	5.911	162	258957	48.18	ppm		99
34) 2,6-Dichlorophenol	6.120	162	253510	48.08	ppm		94
35) 1,3,5-Trichlorobenzene	5.665	180	308730	50.09	ppm		98
36) 1,2,4-Trichlorobenzene	5.970	180	293751	49.49	ppm		98
37) 1,2,3-Trichlorobenzene	6.194	180	281381	48.74	ppm		97
38) Naphthalene	6.050	128	958474	48.24	ppm		99
39) 4-Chloroaniline	6.114	127	328778	42.78	ppm		97
40) 2,3-Dichloroaniline	7.157	161	308686	47.00	ppm		97
41) Caprolactam	6.510	55	157615	49.18	ppm		98
42) Hexachlorobutadiene	6.157	225	164412	50.39	ppm		98
43) 4-Chloro-3-methylphenol	6.665	107	308816	48.60	ppm		97
44) 2-Methylnaphthalene	6.804	141	527271	47.69	ppm		99
45) 1-Methylnaphthalene	6.922	141	549658	47.46	ppm		98
46) Dimethylnaphthalene	7.585	156	566115	48.09	ppm		98
48) Hexachlorocyclopentadiene	6.981	237	201390	105.99	ppm		98
49) 2,4,6-Trichlorophenol	7.168	196	182915	48.83	ppm		95
50) 2,4,5-Trichlorophenol	7.237	196	187367	48.63	ppm		98
52) 2-Chloronaphthalene	7.409	162	587500	49.80	ppm		99
53) Biphenyl	7.382	154	784510	49.68	ppm		99
54) 2-Nitroaniline	7.564	65	242257	51.46	ppm		93
55) Dimethylphthalate	7.794	163	685182	51.21	ppm		99
56) Acenaphthylene	7.959	152	960261	48.69	ppm		100
57) 2,6-Dinitrotoluene	7.890	165	151317	49.70	ppm		90
58) 3-Nitroaniline	8.131	138	173066	49.14	ppm		94
59) Acenaphthene	8.195	153	590195	48.80	ppm		97
60) 2,4-Dinitrophenol	8.302	184	164171	121.60	ppm		95
61) 4-Nitrophenol	8.468	109	81697	51.91	ppm	#	23
62) Dibenzofuran	8.441	168	822748	49.29	ppm		99
63) 2,4-Dinitrotoluene	8.468	165	215650	51.04	ppm		81
64) 2,3,4,6-Tetrachlorophenol	8.644	232	129879	55.03	ppm		97
65) Diethylphthalate	8.805	149	728085	52.06	ppm		98
66) Fluorene	8.938	166	681234	50.52	ppm		98
67) 4-Chlorophenyl-phenyle...	8.949	204	329704	52.57	ppm		99
68) 4-Nitroaniline	9.024	138	177470	49.09	ppm		89
70) 4,6-Dinitro-2-methylph...	9.072	198	125086	56.06	ppm	#	59
71) n-Nitrosodiphenylamine	9.136	169	476451	52.34	ppm		99
72) 1,2-Diphenylhydrazine	9.184	77	847745	53.01	ppm		98
74) 4-Bromophenyl-phenylether	9.682	248	198736	53.06	ppm		97
75) Hexachlorobenzene	9.762	284	230624	52.80	ppm		96
76) Pentachlorophenol	10.099	266	174622	126.31	ppm		96
77) Phenanthrene	10.398	178	968829	48.25	ppm		99
78) Anthracene	10.479	178	978657	48.32	ppm		99
79) Carbazole	10.762	167	895390	48.45	ppm		100

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84592.D
Acq On : 13 Jun 2016 9:59 am
Operator : ashleyn
Sample : cc3720-50
Misc : op94122,e2m3729
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 13 12:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.345	149	1235894	52.06 ppm	99
81) Fluoranthene	12.270	202	1027090	50.38 ppm	99
82) Octadecane	10.254	57	484001	49.56 ppm	99
84) Pyrene	12.629	202	1077008	46.26 ppm	99
86) Butylbenzylphthalate	13.736	149	555820	48.18 ppm	98
87) Benzo[a]anthracene	14.560	228	1019212	47.36 ppm	99
88) 3,3'-Dichlorobenzidine	14.554	252	404595	49.37 ppm	99
89) Chrysene	14.613	228	954136	47.56 ppm	99
90) bis(2-Ethylhexyl)phtha...	14.683	149	740519	49.14 ppm	100
92) Di-n-octylphthalate	15.678	149	1292707	49.20 ppm	99
93) Benzo[b]fluoranthene	16.180	252	996621	51.58 ppm	97
94) Benzo[k]fluoranthene	16.218	252	899939	51.27 ppm	99
95) Benzo[a]pyrene	16.630	252	819551	51.42 ppm	99
96) Indeno[1,2,3-cd]pyrene	18.443	276	989494	52.27 ppm	95
97) Dibenz(a,h)acridine	18.031	279	690134	48.75 ppm	99
98) Dibenz[a,h]anthracene	18.470	278	831866	51.00 ppm	99
99) 7,12-Dimethylbenz(a)an...	16.159	256	402156	47.46 ppm	95
100) Benzo[g,h,i]perylene	18.946	276	811824	50.21 ppm	98

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

7.6.30

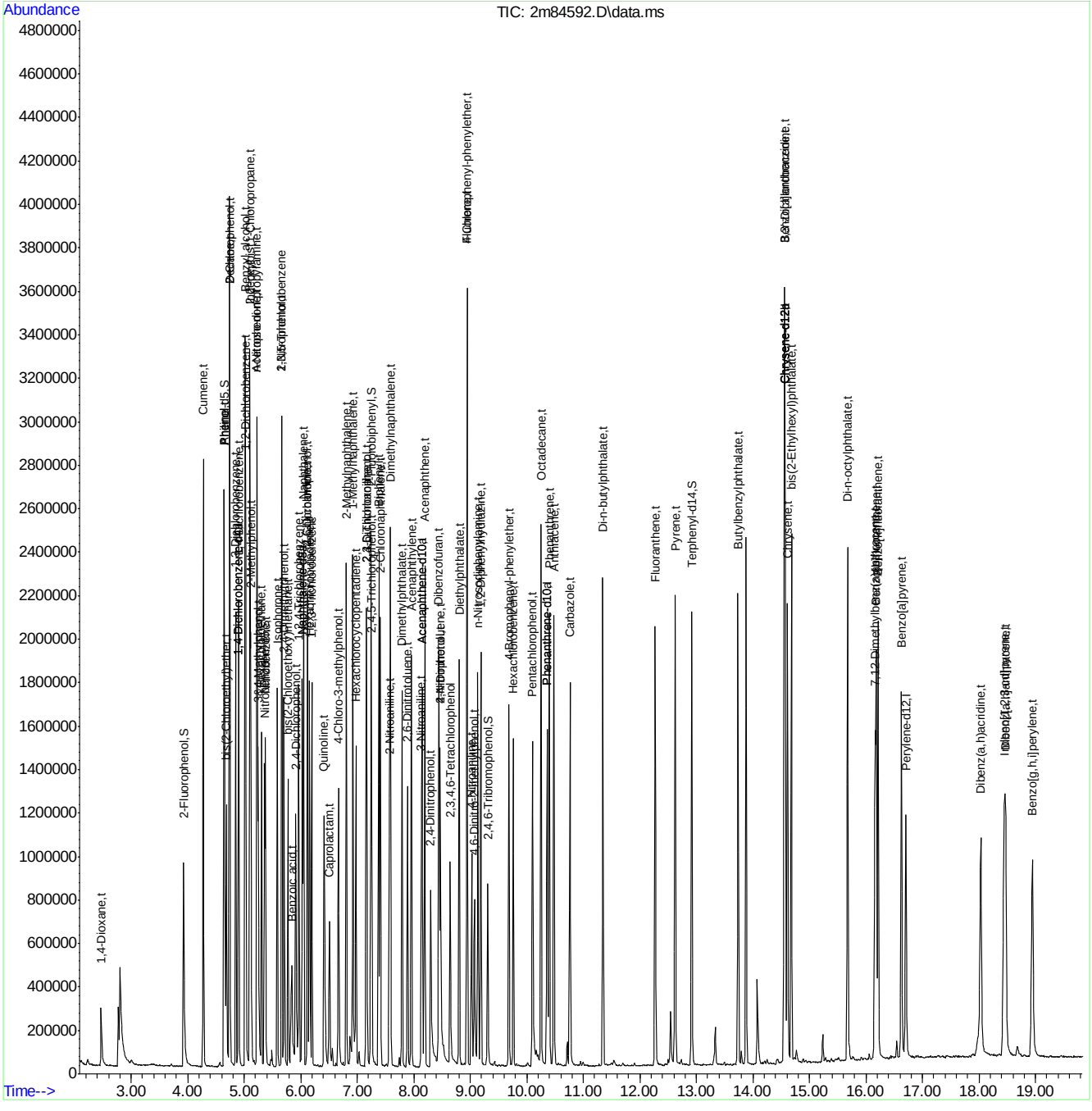
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84592.D
Acq On : 13 Jun 2016 9:59 am
Operator : ashleyn
Sample : cc3720-50
Misc : op94122,e2m3729
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 13 12:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84599.D
Acq On : 13 Jun 2016 1:19 pm
Operator : ashleyn
Sample : ecc3720-50
Misc : op94213,e2m3729,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 14:27:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.890	152	171389	40.00	ppm	-0.02
24) Naphthalene-d8	6.023	136	657358	40.00	ppm	-0.03
47) Acenaphthene-d10	8.147	164	373671	40.00	ppm	-0.04
69) Phenanthrene-d10	10.356	188	633696	40.00	ppm	-0.05
83) Chrysene-d12	14.576	240	629952	40.00	ppm	-0.05
91) Perylene-d12	16.710	264	544673	40.00	ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.890	152	171389	40.00	ppm	-0.05
103) Acenaphthene-d10a	8.147	164	373671	40.00	ppm	-0.07
105) Chrysene-d12a	14.576	240	629952	40.00	ppm	-0.07
108) Phenanthrene-d10a	10.356	188	633696	40.00	ppm	-0.07
111) Naphthalene-d8a	6.023	136	657358	40.00	ppm	-0.06
113) Chrysene-d12b	14.576	240	629952	40.00	ppm	-0.07

System Monitoring Compounds						
5) 2-Fluorophenol	3.921	112	306566	50.53	ppm	-0.03
Spiked Amount 50.000			Recovery = 101.06%			
8) Phenol-d5	4.638	99	391790	51.02	ppm	-0.03
Spiked Amount 50.000			Recovery = 102.04%			
25) Nitrobenzene-d5	5.360	82	375860	51.83	ppm	-0.02
Spiked Amount 50.000			Recovery = 103.66%			
51) 2-Fluorobiphenyl	7.248	172	609096	50.57	ppm	-0.03
Spiked Amount 50.000			Recovery = 101.14%			
73) 2,4,6-Tribromophenol	9.307	330	101988	58.06	ppm	-0.04
Spiked Amount 50.000			Recovery = 116.12%			
85) Terphenyl-d14	12.918	244	698329	48.45	ppm	-0.05
Spiked Amount 50.000			Recovery = 96.90%			
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	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.461	88	136712	60.51	ppm		96
6) Indene	5.098	116	548009	48.15	ppm		98
7) Cumene	4.274	105	839096	50.25	ppm		99
9) Phenol	4.649	94	458409	48.37	ppm		96
10) Aniline	4.643	93	313251	33.30	ppm	#	27
11) bis(2-Chloroethyl)ether	4.681	93	328266	49.55	ppm		96
12) 2-Chlorophenol	4.740	128	309654	49.24	ppm		95
13) Decane	4.740	43	337829	50.40	ppm		98
14) 1,3-Dichlorobenzene	4.847	146	343094	48.39	ppm		98
15) 1,4-Dichlorobenzene	4.906	146	356643	50.40	ppm		100
16) Benzyl alcohol	5.013	108	206562	48.68	ppm		93
17) 1,2-Dichlorobenzene	5.029	146	328592	49.33	ppm		99
18) Acetophenone	5.221	105	450298	48.45	ppm		95
19) 2-Methylphenol	5.114	108	292658	47.32	ppm		99
20) 2,2'-oxybis(1-Chloropr...	5.103	45	413150	49.19	ppm		97
21) 3&4-Methylphenol	5.243	108	312880	46.93	ppm		98
22) n-Nitroso-di-n-propyla...	5.221	70	258163	50.12	ppm		97
23) Hexachloroethane	5.301	201	116589	51.93	ppm		94

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84599.D
Acq On : 13 Jun 2016 1:19 pm
Operator : ashleyn
Sample : ecc3720-50
Misc : op94213,e2m3729,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 14:27:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Nitrobenzene	5.376	77	391592	52.55	ppm		99
27) Quinoline	6.409	129	565797	47.31	ppm		98
28) Isophorone	5.580	82	618717	48.51	ppm		95
29) 2-Nitrophenol	5.660	139	169758	50.89	ppm		85
30) 2,4-Dimethylphenol	5.703	107	306564	47.47	ppm		99
31) Benzoic acid	5.842	105	233636	57.22	ppm		95
32) bis(2-Chloroethoxy)met...	5.772	93	360294	49.79	ppm		99
33) 2,4-Dichlorophenol	5.906	162	236646	48.17	ppm		96
34) 2,6-Dichlorophenol	6.120	162	237209	49.23	ppm		100
35) 1,3,5-Trichlorobenzene	5.660	180	283054	50.25	ppm		100
36) 1,2,4-Trichlorobenzene	5.965	180	271536	50.06	ppm		99
37) 1,2,3-Trichlorobenzene	6.195	180	260160	49.31	ppm		98
38) Naphthalene	6.050	128	899045	49.51	ppm		99
39) 4-Chloroaniline	6.114	127	305605	43.50	ppm		96
40) 2,3-Dichloroaniline	7.157	161	291866	48.62	ppm		98
41) Caprolactam	6.505	55	145517	49.68	ppm		96
42) Hexachlorobutadiene	6.157	225	153152	51.35	ppm		99
43) 4-Chloro-3-methylphenol	6.665	107	287796	49.55	ppm		95
44) 2-Methylnaphthalene	6.804	141	487663	48.25	ppm		97
45) 1-Methylnaphthalene	6.922	141	508531	48.04	ppm		97
46) Dimethylnaphthalene	7.585	156	518294	48.17	ppm		97
48) Hexachlorocyclopentadiene	6.975	237	189000	107.79	ppm		96
49) 2,4,6-Trichlorophenol	7.163	196	170048	49.39	ppm		98
50) 2,4,5-Trichlorophenol	7.232	196	170074	48.03	ppm		98
52) 2-Chloronaphthalene	7.409	162	537547	49.58	ppm		98
53) Biphenyl	7.377	154	713700	49.17	ppm		99
54) 2-Nitroaniline	7.564	65	226306	52.31	ppm		93
55) Dimethylphthalate	7.794	163	629598	51.20	ppm		100
56) Acenaphthylene	7.954	152	882676	48.70	ppm		100
57) 2,6-Dinitrotoluene	7.890	165	142719	51.01	ppm		95
58) 3-Nitroaniline	8.131	138	160008	49.44	ppm		98
59) Acenaphthene	8.195	153	548584	49.35	ppm		97
60) 2,4-Dinitrophenol	8.297	184	148932	120.33	ppm		92
61) 4-Nitrophenol	8.468	109	77563	53.63	ppm	#	21
62) Dibenzofuran	8.441	168	752358	49.04	ppm		99
63) 2,4-Dinitrotoluene	8.468	165	199011	51.25	ppm		82
64) 2,3,4,6-Tetrachlorophenol	8.644	232	124344	57.33	ppm		97
65) Diethylphthalate	8.805	149	677340	52.69	ppm		99
66) Fluorene	8.938	166	630541	50.88	ppm		99
67) 4-Chlorophenyl-phenyle...	8.949	204	309459	53.69	ppm		98
68) 4-Nitroaniline	9.024	138	161717	48.67	ppm		88
70) 4,6-Dinitro-2-methylph...	9.072	198	115652	56.55	ppm		91
71) n-Nitrosodiphenylamine	9.136	169	435046	52.18	ppm		97
72) 1,2-Diphenylhydrazine	9.184	77	802216	54.77	ppm		95
74) 4-Bromophenyl-phenylether	9.682	248	183672	53.55	ppm		95
75) Hexachlorobenzene	9.762	284	211406	52.85	ppm		98
76) Pentachlorophenol	10.099	266	162952	128.21	ppm		93
77) Phenanthrene	10.393	178	910263	49.51	ppm		100
78) Anthracene	10.479	178	899923	48.52	ppm		99
79) Carbazole	10.762	167	813653	48.08	ppm		99

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84599.D
Acq On : 13 Jun 2016 1:19 pm
Operator : ashleyn
Sample : ecc3720-50
Misc : op94213,e2m3729,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 14:27:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) Di-n-butylphthalate	11.345	149	1145898	52.71 ppm	99
81) Fluoranthene	12.271	202	954346	51.11 ppm	98
82) Octadecane	10.254	57	452548	50.60 ppm	96
84) Pyrene	12.629	202	998110	46.41 ppm	99
86) Butylbenzylphthalate	13.742	149	509672	47.82 ppm	98
87) Benzo[a]anthracene	14.560	228	948033	47.69 ppm	98
88) 3,3'-Dichlorobenzidine	14.555	252	380954	50.32 ppm	99
89) Chrysene	14.613	228	886543	47.84 ppm	98
90) bis(2-Ethylhexyl)phtha...	14.683	149	681825	48.98 ppm	98
92) Di-n-octylphthalate	15.678	149	1187714	47.93 ppm	99
93) Benzo[b]fluoranthene	16.180	252	902948	49.55 ppm	98
94) Benzo[k]fluoranthene	16.218	252	885139	53.47 ppm	99
95) Benzo[a]pyrene	16.630	252	779192	51.84 ppm	99
96) Indeno[1,2,3-cd]pyrene	18.443	276	909654	50.95 ppm	96
97) Dibenz(a,h)acridine	18.036	279	674745	50.54 ppm	99
98) Dibenz[a,h]anthracene	18.470	278	778328	50.59 ppm	99
99) 7,12-Dimethylbenz(a)an...	16.159	256	380904	47.67 ppm	99
100) Benzo[g,h,i]perylene	18.946	276	750345	49.20 ppm	99

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

7.6.31

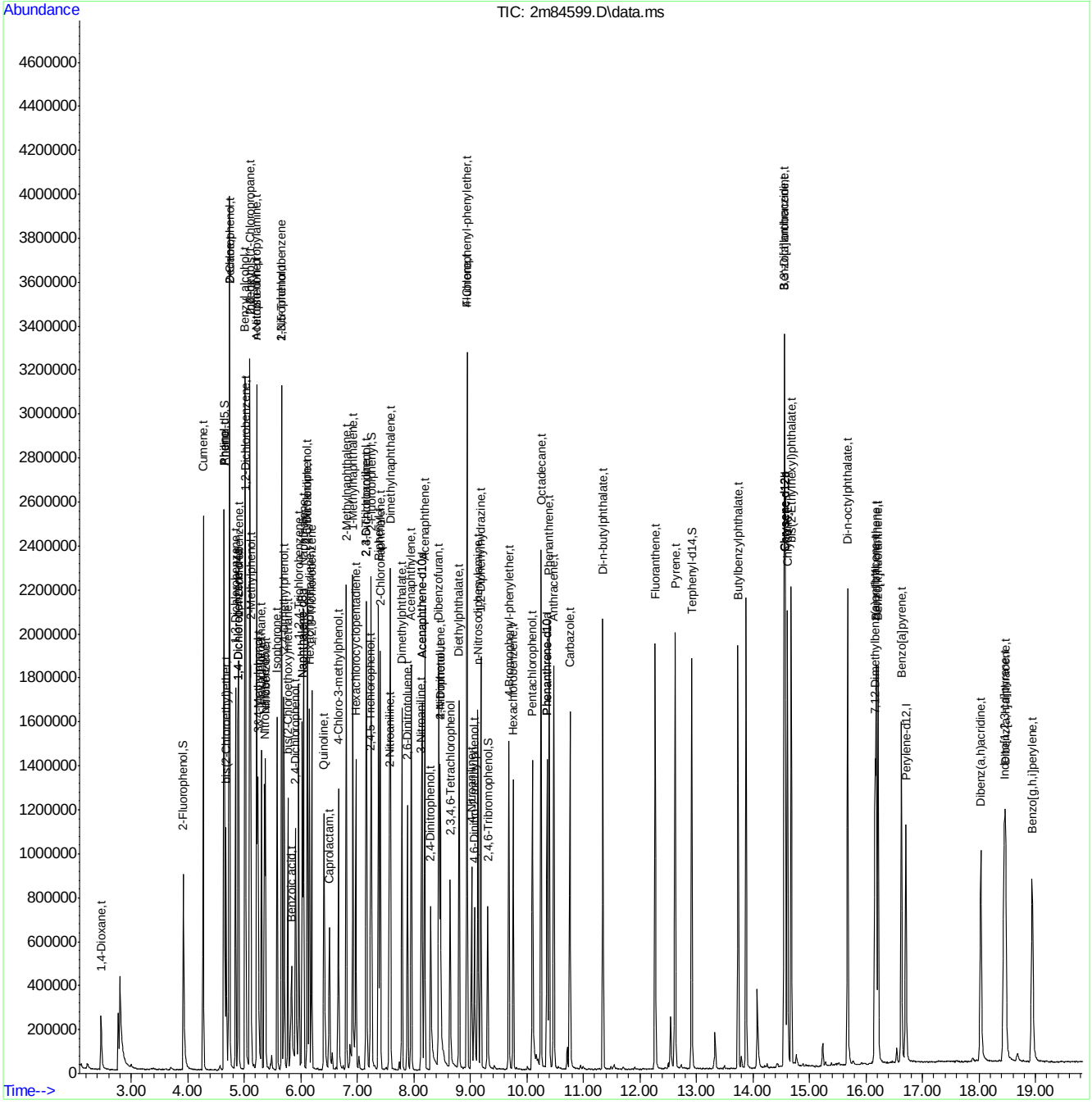
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M3729\
Data File : 2m84599.D
Acq On : 13 Jun 2016 1:19 pm
Operator : ashleyn
Sample : ecc3720-50
Misc : op94213,e2m3729,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 14:27:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2M3720.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri Jun 10 21:13:25 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65896.D
Acq On : 9 Jun 2016 2:21 pm
Operator : linseyk
Sample : ic2958-.5
Misc : op94385a,e4m2958
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 10:28:22 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	68533	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	149544	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	228391	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	167179	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	68533	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	149544	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.006	112	151408	11.04	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 22.08%			
3) Phenol-d5	5.402	99	245970	11.06	ppm	0.00
Spiked Amount 50.000			Recovery = 22.12%			
6) Nitrobenzene-d5	6.883	82	189122	10.86	ppm	0.00
Spiked Amount 50.000			Recovery = 21.72%			
11) 2-Fluorobiphenyl	10.345	172	319532	10.73	ppm	0.00
Spiked Amount 50.000			Recovery = 21.46%			
17) 2,4,6-Tribromophenol	13.204	330	69732	10.87	ppm	0.00
Spiked Amount 50.000			Recovery = 21.74%			
25) Terphenyl-d14	17.658	244	325111	11.19	ppm	0.00
Spiked Amount 50.000			Recovery = 22.38%			
Target Compounds						Qvalue
4) Phenol	5.415	94	65742	2.77	ppm	95
5) bis(2-Chloroethyl)ether	5.526	93	9674	0.51	ppm #	72
7) Naphthalene	8.229	128	33146	0.55	ppm	99
8) Hexachlorobutadiene	8.492	225	5018	0.54	ppm	100
9) 2-Methylnaphthalene	9.558	142	13292	0.54	ppm	99
10) Hexachlorocyclopentadiene	9.892	237	2712	0.86	ppm	98
13) Acenaphthylene	11.331	152	19219	0.51	ppm	100
14) Acenaphthene	11.686	153	12219	0.53	ppm	100
15) Dibenzofuran	12.041	168	21128	0.52	ppm	100
16) Fluorene	12.703	166	20978	0.53	ppm	100
18) Hexachlorobenzene	13.799	284	7559	0.54	ppm	99
19) Pentachlorophenol	14.250	266	16818	2.50	ppm	68
20) Phenanthrene	14.608	178	32478	0.53	ppm	99
21) Anthracene	14.721	178	31349	0.53	ppm	100
23) Fluoranthene	16.868	202	32439	0.54	ppm	99
24) Pyrene	17.263	202	35957	0.55	ppm	99
26) Benzo[a]anthracene	19.353	228	28467	0.54	ppm	100
27) Chrysene	19.409	228	28458	0.53	ppm	98
29) Benzo[b]fluoranthene	21.016	252	34497	0.52	ppm	98
30) Benzo[k]fluoranthene	21.057	252	28147	0.57	ppm	99
31) Benzo[a]pyrene	21.470	252	29057	0.57	ppm	99
32) Indeno[1,2,3-cd]pyrene	22.998	276	33426	0.54	ppm	99
33) Dibenz[a,h]anthracene	23.040	278	27093	0.55	ppm	99
34) Benzo[g,h,i]perylene	23.384	276	29662	0.55	ppm	100
36) 1,4-Dioxane	2.216	88	2835	0.46	ppm	88
37) 1-Methylnaphthalene	9.748	142	16664	0.54	ppm	100
39) 4,6-dinitro-2-methylph...	12.894	198	10939	2.06	ppm	94

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65896.D
Acq On : 9 Jun 2016 2:21 pm
Operator : linseyk
Sample : ic2958-.5
Misc : op94385a,e4m2958
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 10:28:22 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.085	77	15984	0.48 ppm	99
41) n-nitrosodiphenylamine	13.037	169	13810	0.52 ppm	99

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

7.6.32

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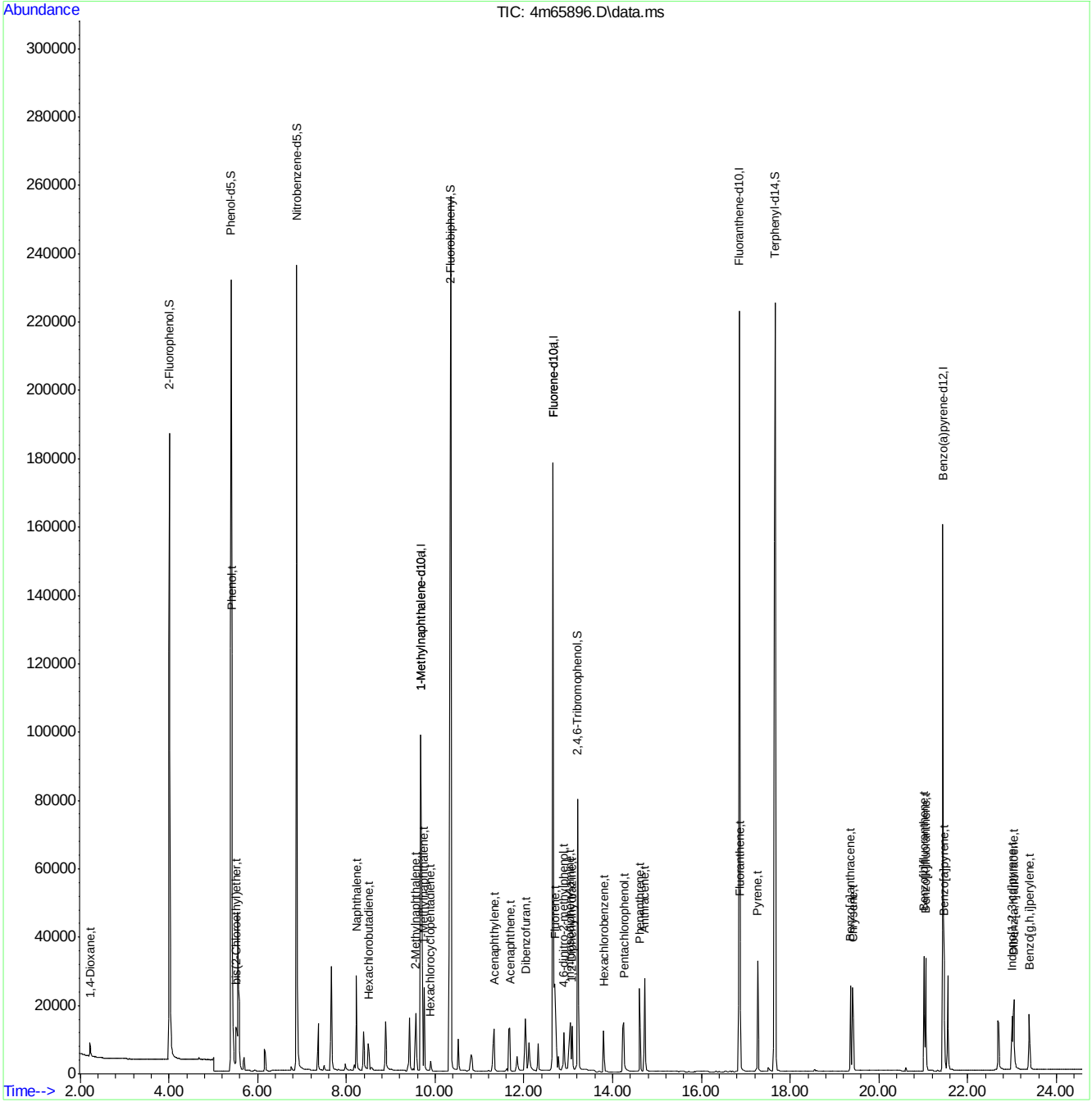
SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65896.D
Acq On : 9 Jun 2016 2:21 pm
Operator : linseyk
Sample : ic2958-.5
Misc : op94385a,e4m2958
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 10:28:22 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65897.D
Acq On : 9 Jun 2016 2:54 pm
Operator : linseyk
Sample : icc2958-1
Misc : op94385a,e4m2958
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 10:28:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	69269	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	146953	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	230909	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	166565	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	69269	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	146953	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.007	112	277240	19.99	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 39.98%			
3) Phenol-d5	5.402	99	449654	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
6) Nitrobenzene-d5	6.883	82	352116	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
11) 2-Fluorobiphenyl	10.345	172	601724	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
17) 2,4,6-Tribromophenol	13.204	330	126060	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
25) Terphenyl-d14	17.659	244	587595	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
Target Compounds						Qvalue
4) Phenol	5.416	94	120044	5.00	ppm	100
5) bis(2-Chloroethyl)ether	5.526	93	18096	0.95	ppm #	72
7) Naphthalene	8.229	128	61378	1.00	ppm	100
8) Hexachlorobutadiene	8.492	225	9371	1.00	ppm	100
9) 2-Methylnaphthalene	9.558	142	24685	1.00	ppm	100
10) Hexachlorocyclopentadiene	9.892	237	6404	2.00	ppm	100
13) Acenaphthylene	11.331	152	36793	1.00	ppm	100
14) Acenaphthene	11.686	153	22481	1.00	ppm	100
15) Dibenzofuran	12.041	168	39555	1.00	ppm	100
16) Fluorene	12.703	166	39233	1.00	ppm	100
18) Hexachlorobenzene	13.799	284	13868	1.00	ppm	100
19) Pentachlorophenol	14.232	266	33197	5.01	ppm	100
20) Phenanthrene	14.608	178	60173	1.00	ppm	100
21) Anthracene	14.721	178	57636	1.00	ppm	100
23) Fluoranthene	16.868	202	61159	1.00	ppm	100
24) Pyrene	17.263	202	66475	1.00	ppm	100
26) Benzo[a]anthracene	19.353	228	53767	1.00	ppm	100
27) Chrysene	19.410	228	54093	1.00	ppm	100
29) Benzo[b]fluoranthene	21.016	252	65755	1.00	ppm	100
30) Benzo[k]fluoranthene	21.057	252	49383	1.00	ppm	100
31) Benzo[a]pyrene	21.470	252	51142	1.00	ppm	100
32) Indeno[1,2,3-cd]pyrene	22.999	276	61192	1.00	ppm	100
33) Dibenz[a,h]anthracene	23.040	278	49249	1.00	ppm	100
34) Benzo[g,h,i]perylene	23.384	276	54059	1.00	ppm	100
36) 1,4-Dioxane	2.216	88	5769	0.92	ppm	99
37) 1-Methylnaphthalene	9.749	142	31409	1.00	ppm	100
39) 4,6-dinitro-2-methylph...	12.894	198	26111	5.00	ppm	100

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65897.D
Acq On : 9 Jun 2016 2:54 pm
Operator : linseyk
Sample : icc2958-1
Misc : op94385a,e4m2958
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 10:28:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.085	77	32856	1.00	ppm	100
41) n-nitrosodiphenylamine	13.037	169	26314	1.00	ppm	100

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

7.6.33

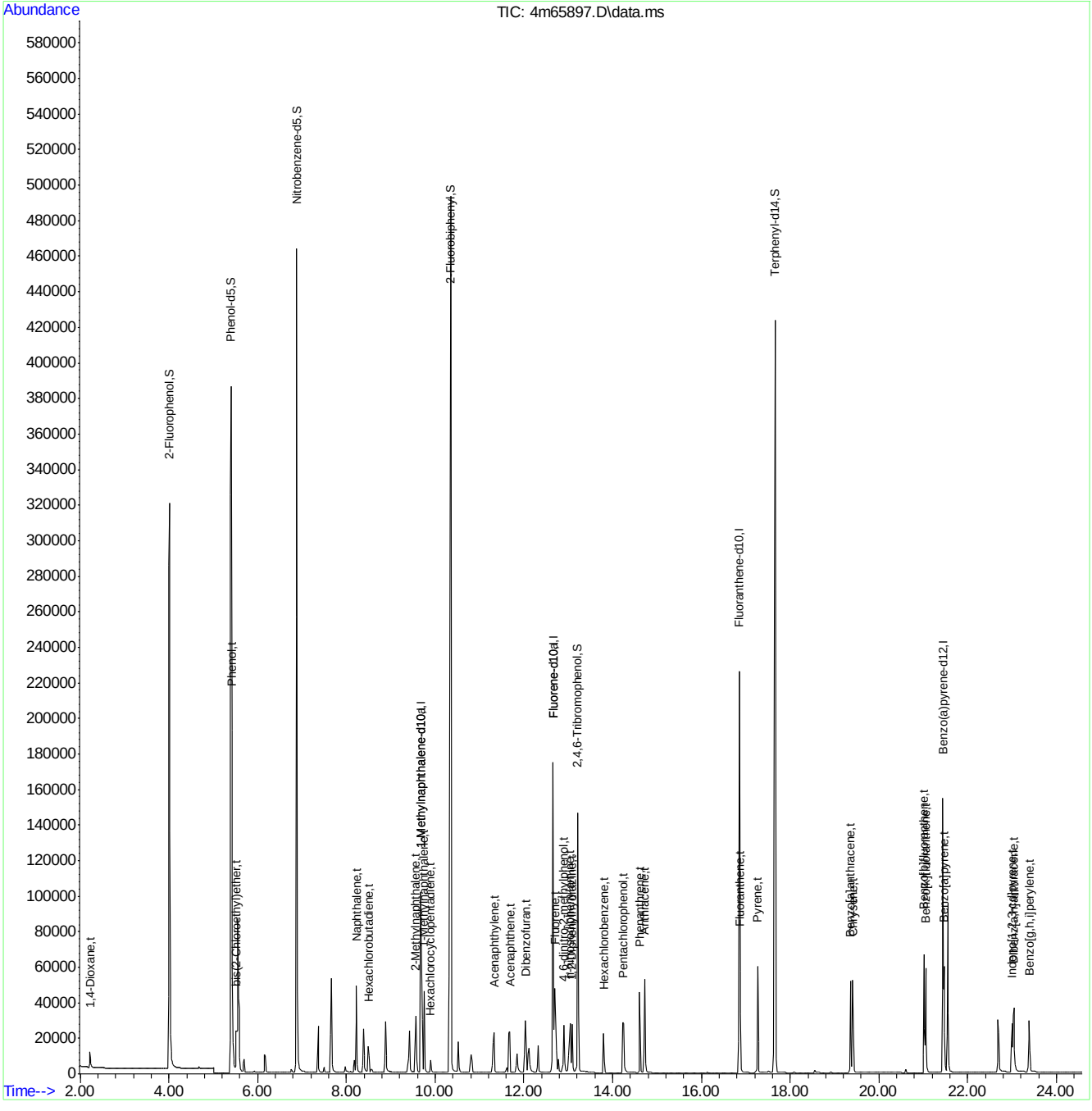
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65897.D
Acq On : 9 Jun 2016 2:54 pm
Operator : linseyk
Sample : icc2958-1
Misc : op94385a,e4m2958
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 10:28:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65898.D
Acq On : 9 Jun 2016 3:24 pm
Operator : linseyk
Sample : ic2958-.2
Misc : op94385a,e4m2958
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 10 10:28:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	59275	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	133726	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	209791	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	157751	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	59275	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	133726	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.007	112	54465	4.59	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 9.18%#			
3) Phenol-d5	5.402	99	88157	4.58	ppm	0.00
Spiked Amount 50.000			Recovery = 9.16%			
6) Nitrobenzene-d5	6.883	82	68467	4.54	ppm	0.00
Spiked Amount 50.000			Recovery = 9.08%			
11) 2-Fluorobiphenyl	10.345	172	113566	4.41	ppm	0.00
Spiked Amount 50.000			Recovery = 8.82%			
17) 2,4,6-Tribromophenol	13.204	330	22905	3.99	ppm	0.00
Spiked Amount 50.000			Recovery = 7.98%			
25) Terphenyl-d14	17.659	244	113447	4.25	ppm	0.00
Spiked Amount 50.000			Recovery = 8.50%			
Target Compounds						Qvalue
4) Phenol	5.416	94	25041	1.22	ppm	78
5) bis(2-Chloroethyl)ether	5.526	93	3424	0.21	ppm #	70
7) Naphthalene	8.229	128	11874	0.23	ppm	100
8) Hexachlorobutadiene	8.492	225	1814	0.23	ppm	100
9) 2-Methylnaphthalene	9.558	142	5076	0.24	ppm	100
10) Hexachlorocyclopentadiene	9.892	237	461	0.17	ppm	97
13) Acenaphthylene	11.331	152	6662	0.20	ppm	99
14) Acenaphthene	11.686	153	4209	0.21	ppm	97
15) Dibenzofuran	12.041	168	9116	0.25	ppm	100
16) Fluorene	12.703	166	7406	0.21	ppm	100
18) Hexachlorobenzene	13.799	284	2700	0.21	ppm	100
19) Pentachlorophenol	14.251	266	4910	0.81	ppm	72
20) Phenanthrene	14.608	178	11133	0.20	ppm	99
21) Anthracene	14.721	178	10765	0.21	ppm	98
23) Fluoranthene	16.868	202	11338	0.20	ppm	99
24) Pyrene	17.263	202	11532	0.19	ppm	98
26) Benzo[a]anthracene	19.353	228	8353	0.17	ppm	97
27) Chrysene	19.410	228	9676	0.20	ppm	98
29) Benzo[b]fluoranthene	21.016	252	11286	0.18	ppm	97
30) Benzo[k]fluoranthene	21.057	252	9601	0.21	ppm	97
31) Benzo[a]pyrene	21.470	252	10268	0.21	ppm	99
32) Indeno[1,2,3-cd]pyrene	22.999	276	11399	0.20	ppm	99
33) Dibenz[a,h]anthracene	23.040	278	9025	0.19	ppm	98
34) Benzo[g,h,i]perylene	23.384	276	10415	0.20	ppm	100
36) 1,4-Dioxane	2.226	88	992	0.19	ppm #	56
37) 1-Methylnaphthalene	9.749	142	5943	0.22	ppm	100
39) 4,6-dinitro-2-methylph...	12.894	198	2818	0.59	ppm #	48

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65898.D
Acq On : 9 Jun 2016 3:24 pm
Operator : linseyk
Sample : ic2958-.2
Misc : op94385a,e4m2958
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 10 10:28:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.085	77	5519	0.18 ppm	99
41) n-nitrosodiphenylamine	13.037	169	4848	0.20 ppm	97

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

7.6.34

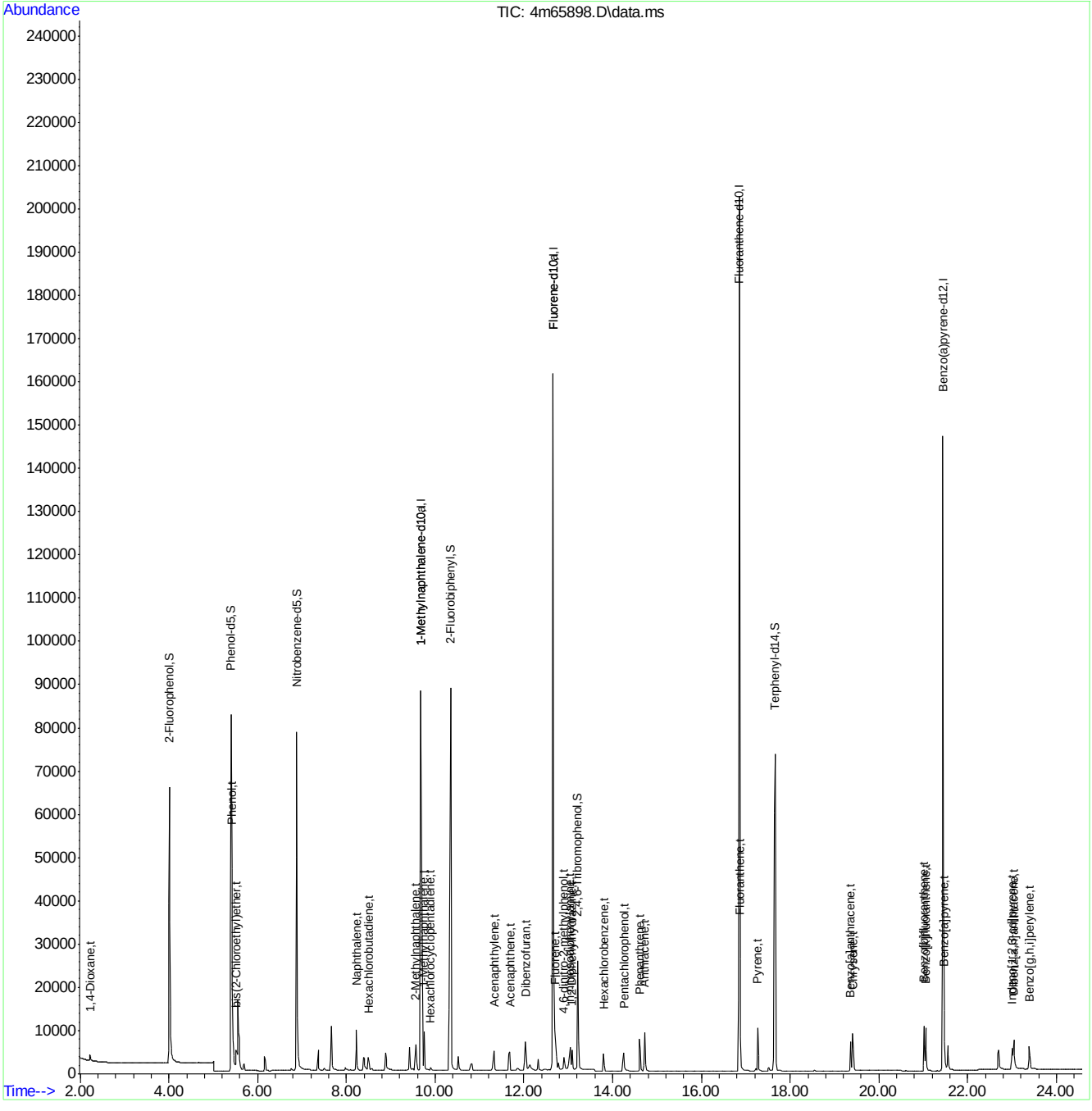
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65898.D
Acq On : 9 Jun 2016 3:24 pm
Operator : linseyk
Sample : ic2958-.2
Misc : op94385a,e4m2958
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 10 10:28:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



M4M2958SIM.M Fri Jun 10 10:30:49 2016 MANAGER Page: 3

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
06/10/16 12:56

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65899.D
Acq On : 9 Jun 2016 3:54 pm
Operator : linseyk
Sample : ic2958-.1
Misc : op94385a,e4m2958
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 10 10:31:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	59463	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	135805	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	216073	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	155035	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	59463	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	135805	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.006	112	24724	2.08	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	4.16%#	
3) Phenol-d5	5.402	99	39940	2.07	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.14%	
6) Nitrobenzene-d5	6.883	82	30315	2.01	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.02%	
11) 2-Fluorobiphenyl	10.345	172	51931	2.01	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.02%	
17) 2,4,6-Tribromophenol	13.204	330	8836	1.52	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.04%	
25) Terphenyl-d14	17.659	244	52101	1.90	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.80%	
Target Compounds						Qvalue
4) Phenol	5.416	94	11543	0.56	ppm	69
5) bis(2-Chloroethyl)ether	5.526	93	1653	0.10	ppm	94
7) Naphthalene	8.229	128	5427	0.10	ppm	99
8) Hexachlorobutadiene	8.492	225	817	0.10	ppm	99
9) 2-Methylnaphthalene	9.558	142	2101	0.10	ppm	95
10) Hexachlorocyclopentadiene	9.892	237	103m	0.04	ppm	
13) Acenaphthylene	11.331	152	2967	0.09	ppm	99
14) Acenaphthene	11.686	153	1867	0.09	ppm	98
15) Dibenzofuran	12.041	168	3424	0.09	ppm	100
16) Fluorene	12.703	166	3301	0.09	ppm	99
18) Hexachlorobenzene	13.799	284	1245	0.10	ppm	100
19) Pentachlorophenol	14.251	266	1653	0.27	ppm	76
20) Phenanthrene	14.608	178	4897	0.09	ppm	99
21) Anthracene	14.721	178	4626	0.09	ppm	98
23) Fluoranthene	16.868	202	5174	0.09	ppm	96
24) Pyrene	17.263	202	5213	0.08	ppm	98
26) Benzo[a]anthracene	19.353	228	3616	0.07	ppm	97
27) Chrysene	19.410	228	4240	0.08	ppm	96
29) Benzo[b]fluoranthene	21.016	252	4889	0.08	ppm	96
30) Benzo[k]fluoranthene	21.057	252	4355	0.09	ppm	96
31) Benzo[a]pyrene	21.470	252	4831	0.10	ppm	98
32) Indeno[1,2,3-cd]pyrene	22.999	276	5131	0.09	ppm	99
33) Dibenz[a,h]anthracene	23.040	278	3976	0.09	ppm	95
34) Benzo[g,h,i]perylene	23.384	276	4737	0.09	ppm	100
36) 1,4-Dioxane	2.226	88	634	0.12	ppm #	61
37) 1-Methylnaphthalene	9.749	142	2799	0.10	ppm	99
39) 4,6-dinitro-2-methylph...	12.918	198	963	0.20	ppm	71

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65899.D
Acq On : 9 Jun 2016 3:54 pm
Operator : linseyk
Sample : ic2958-.1
Misc : op94385a,e4m2958
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 10 10:31:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.085	77	2531	0.08 ppm	100
41) n-nitrosodiphenylamine	13.037	169	2131	0.09 ppm	95

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

7.6.35

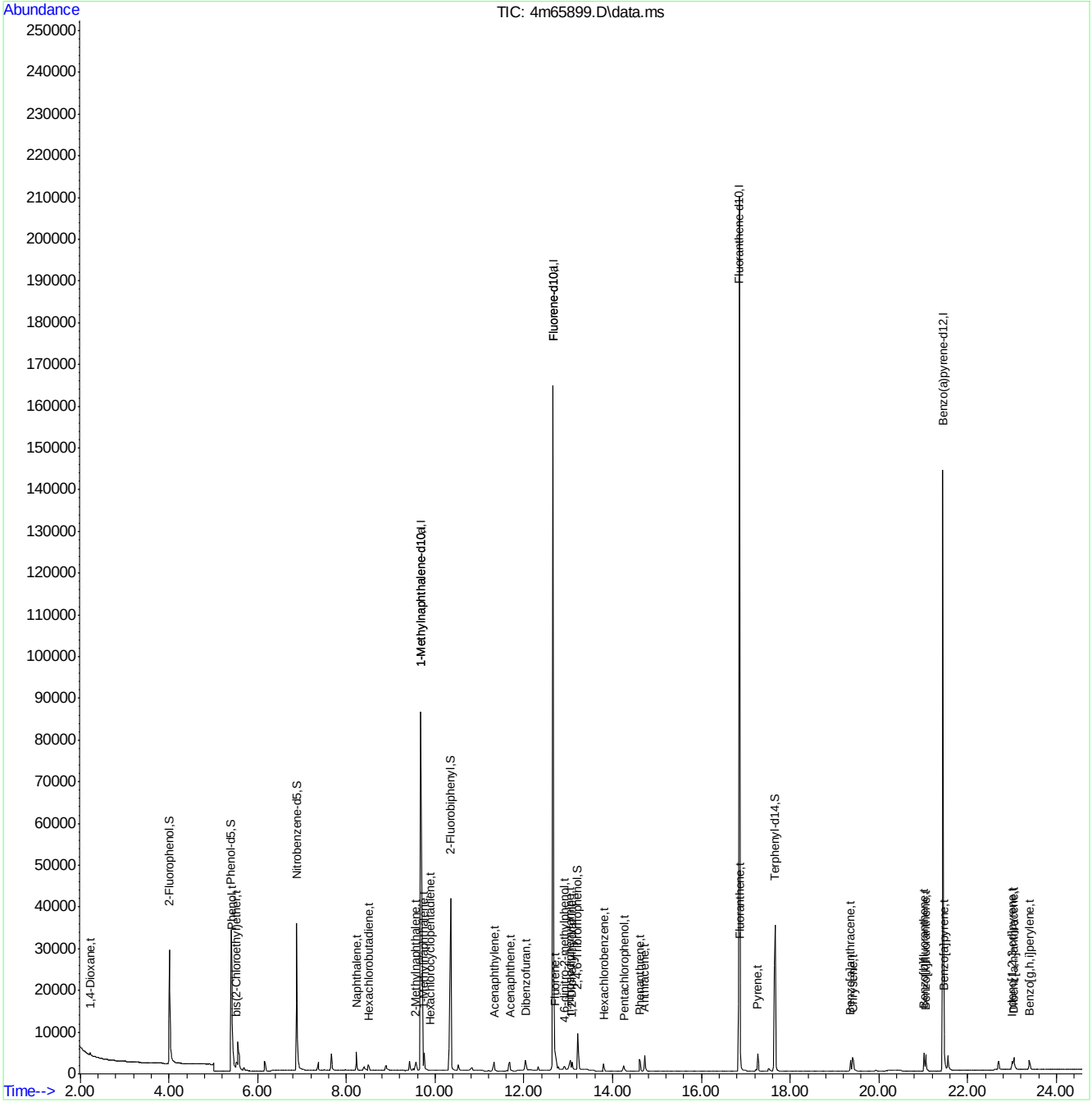
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65899.D
Acq On : 9 Jun 2016 3:54 pm
Operator : linseyk
Sample : ic2958-.1
Misc : op94385a,e4m2958
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 10 10:31:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Manual Integration Approval Summary

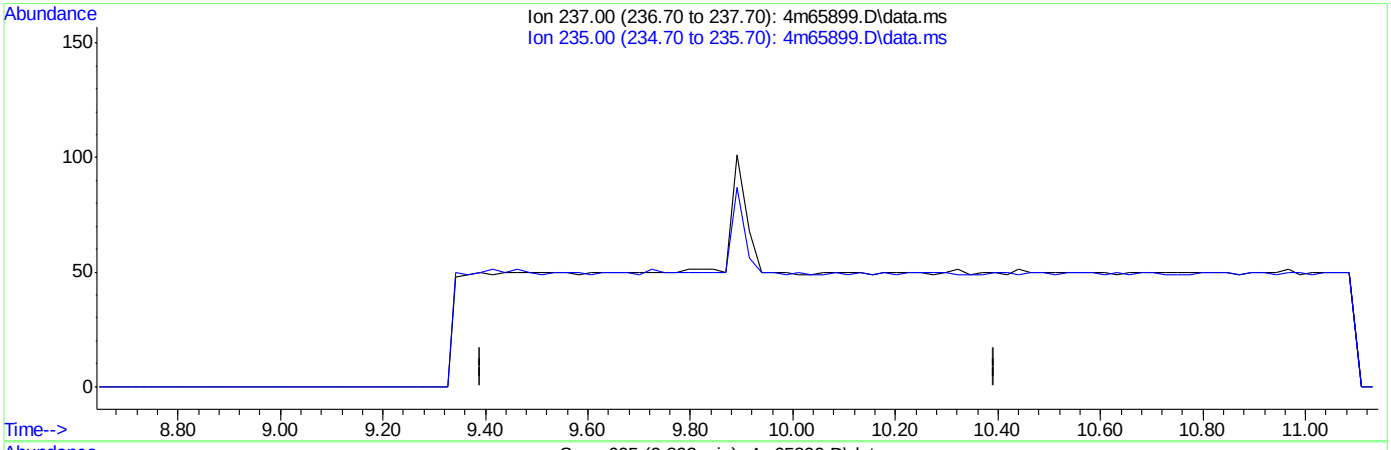
Sample Number:	E4M2958-IC2958	**Method:**	SW846 8270D BY SIM
Lab FileID:	4M65899.D	**Analyst approved:**	06/10/16 12:22 Linsey Kirschmann
Injection Time:	06/09/16 15:54	**Supervisor approved:**	06/10/16 12:56 Nina Pandya

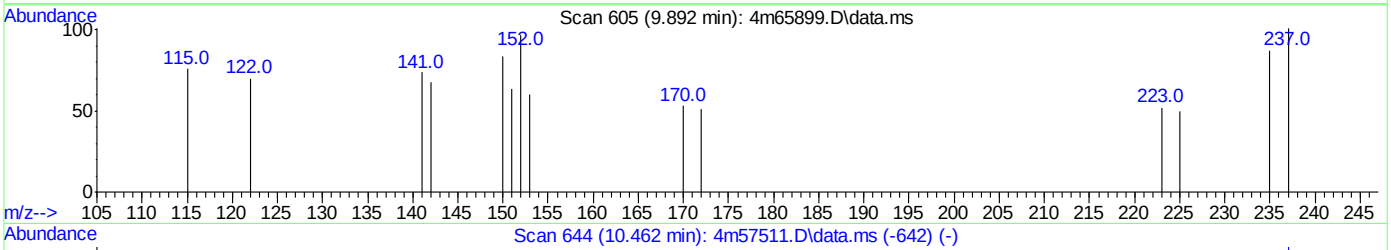
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hexachlorocyclopentadiene	77-47-4		9.89	Poor instrument integration

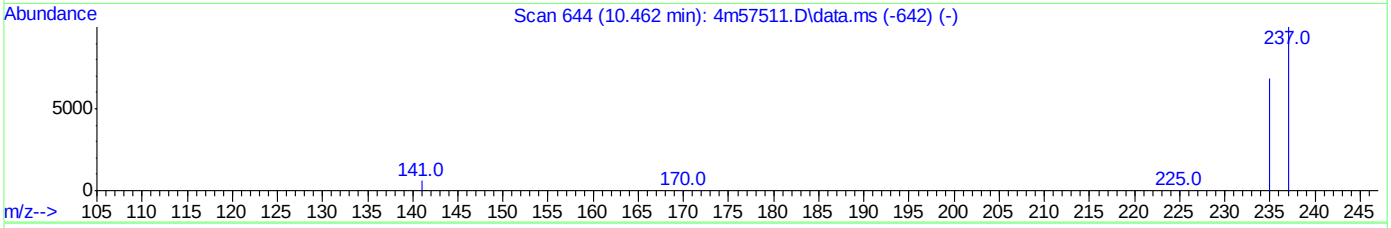
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65899.D
Acq On : 9 Jun 2016 3:54 pm
Operator : linseyk
Sample : ic2958-.1
Misc : op94385a,e4m2958
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 10 10:28:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration







TIC: 4m65899.D\data.ms

(10) Hexachlorocyclopentadiene (t)

9.892min (-9.892) 0.00ppm

response 0

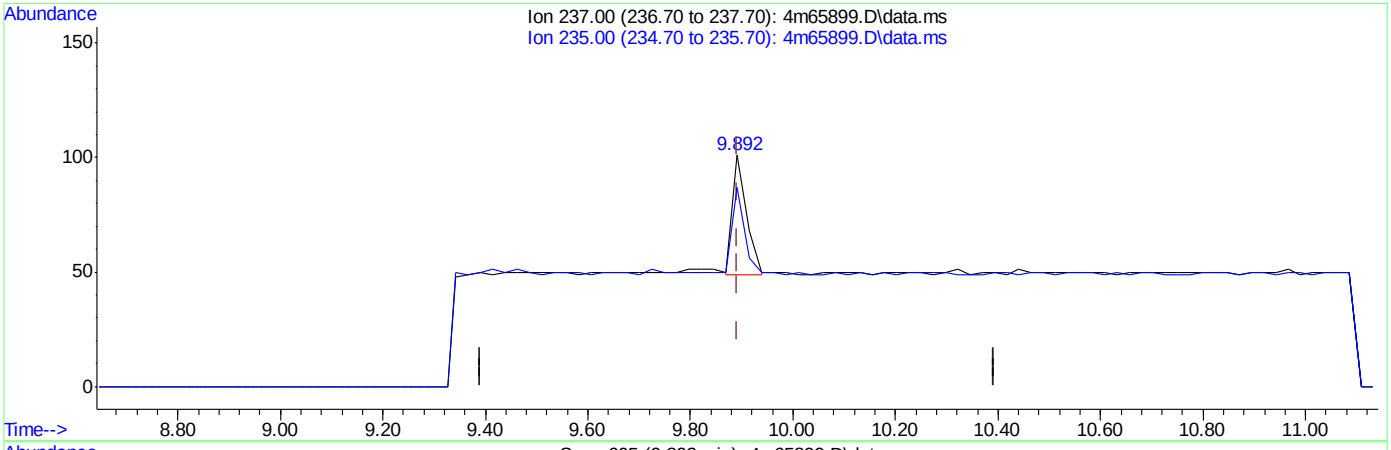
Ion	Exp%	Act%
237.00	100	0.00
235.00	77.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

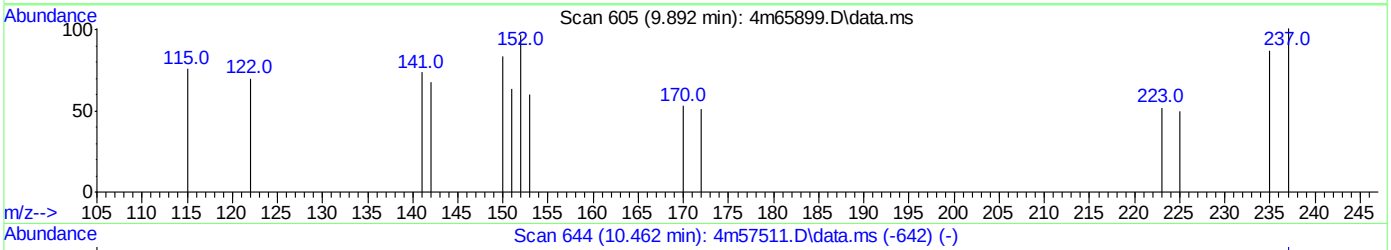
SGS ACCUTEST JC21709

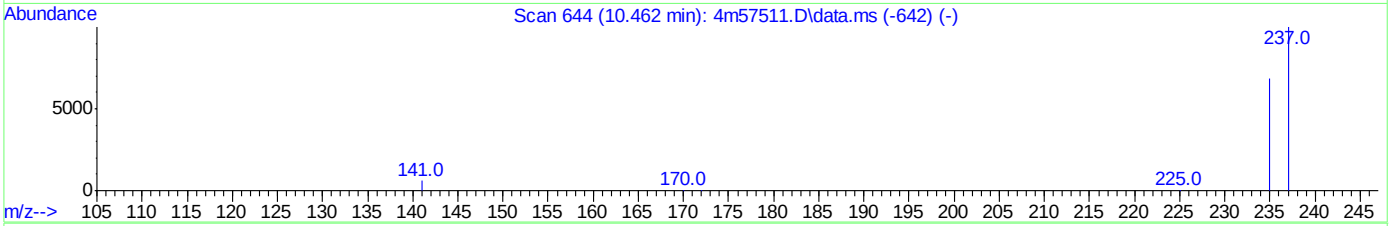
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65899.D
Acq On : 9 Jun 2016 3:54 pm
Operator : linseyk
Sample : ic2958-.1
Misc : op94385a,e4m2958
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 10 10:28:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration







TIC: 4m65899.D\data.ms

(10) Hexachlorocyclopentadiene (t)

9.892min (-0.000) 0.04ppm m

response 103

Ion	Exp%	Act%
237.00	100	100
235.00	77.80	86.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65900.D
Acq On : 9 Jun 2016 4:25 pm
Operator : linseyk
Sample : ic2958-.05
Misc : op94385a,e4m2958
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 10 10:32:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	57550	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	125277	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	212378	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	153725	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	57550	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	125277	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.006	112	12092	0.98	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	1.96%#	
3) Phenol-d5	5.402	99	19332	0.97	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.94%	
6) Nitrobenzene-d5	6.883	82	15268	0.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.98%	
11) 2-Fluorobiphenyl	10.345	172	27639	1.06	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.12%	
17) 2,4,6-Tribromophenol	13.204	330	3998	0.77	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.54%	
25) Terphenyl-d14	17.659	244	26930	0.97	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.94%	
Target Compounds						Qvalue
4) Phenol	5.429	94	5172	0.23	ppm #	54
5) bis(2-Chloroethyl)ether	5.526	93	641	0.04	ppm	91
7) Naphthalene	8.229	128	2786	0.05	ppm	99
8) Hexachlorobutadiene	8.508	225	432	0.05	ppm	69
9) 2-Methylnaphthalene	9.582	142	1399	0.06	ppm #	67
13) Acenaphthylene	11.331	152	1529	0.05	ppm	97
14) Acenaphthene	11.686	153	976	0.05	ppm	96
15) Dibenzofuran	12.041	168	2562	0.07	ppm	83
16) Fluorene	12.703	166	1608	0.05	ppm	96
18) Hexachlorobenzene	13.799	284	617	0.05	ppm	96
19) Pentachlorophenol	14.251	266	930	0.20	ppm	92
20) Phenanthrene	14.627	178	2415	0.05	ppm	89
21) Anthracene	14.721	178	2275	0.05	ppm	98
23) Fluoranthene	16.887	202	2822	0.05	ppm	82
24) Pyrene	17.263	202	2494	0.04	ppm	95
26) Benzo[a]anthracene	19.372	228	1759	0.04	ppm #	81
27) Chrysene	19.428	228	2081	0.04	ppm	82
29) Benzo[b]fluoranthene	21.016	252	2378	0.04	ppm	97
30) Benzo[k]fluoranthene	21.057	252	2257	0.05	ppm	98
31) Benzo[a]pyrene	21.470	252	1939	0.04	ppm	98
32) Indeno[1,2,3-cd]pyrene	22.999	276	2574	0.05	ppm	98
33) Dibenz[a,h]anthracene	23.040	278	2071	0.05	ppm #	98
34) Benzo[g,h,i]perylene	23.384	276	2337	0.05	ppm	100
36) 1,4-Dioxane	2.226	88	450	0.09	ppm	79
37) 1-Methylnaphthalene	9.749	142	1333	0.05	ppm	94
39) 4,6-dinitro-2-methylph...	12.918	198	506	0.16	ppm #	38
40) 1,2-Diphenylhydrazine	13.085	77	1201	0.05	ppm	99

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65900.D
Acq On : 9 Jun 2016 4:25 pm
Operator : linseyk
Sample : ic2958-.05
Misc : op94385a,e4m2958
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 10 10:32:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.037	169	1122	0.05	ppm	92

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

7.6.36

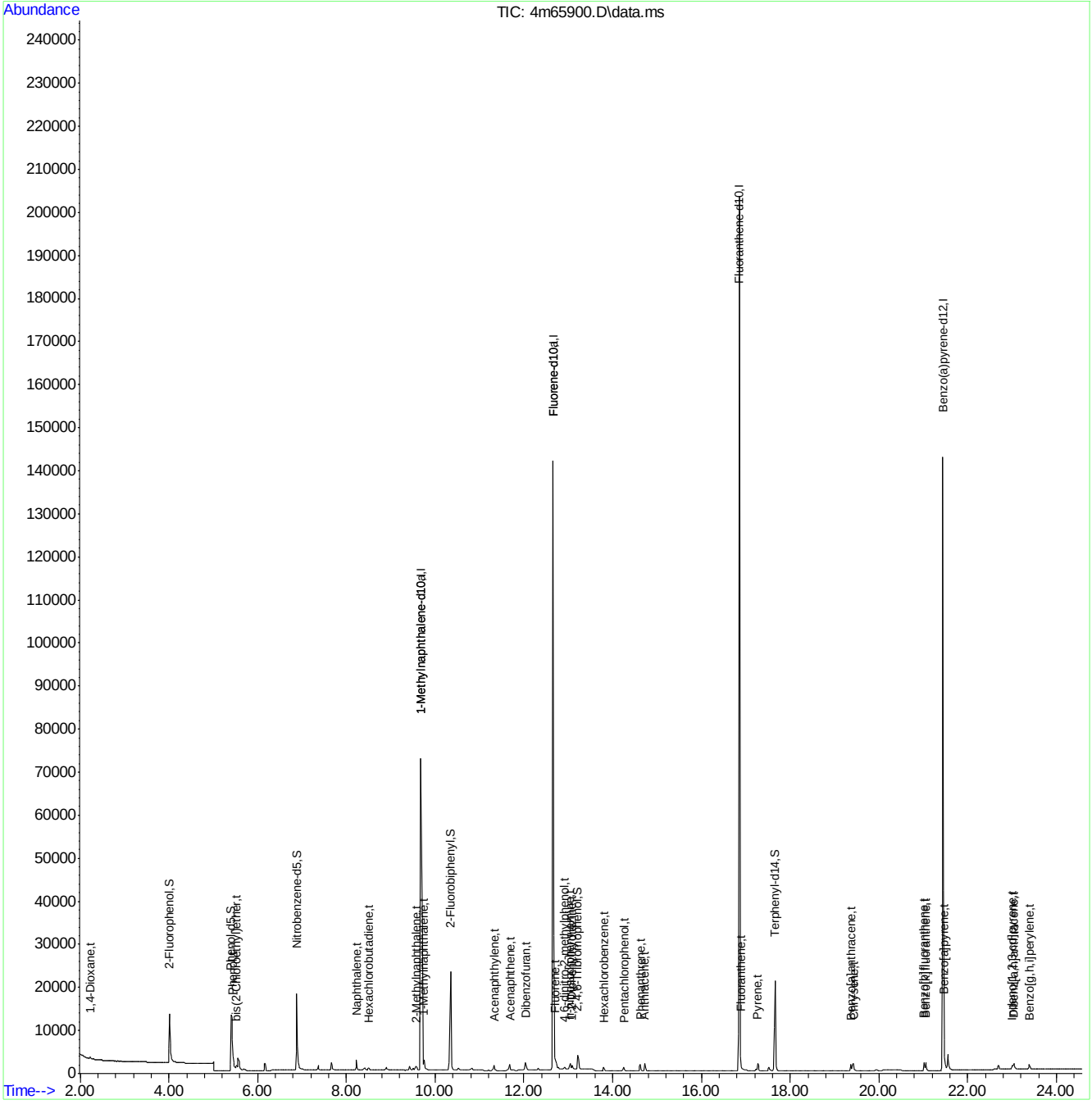
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65900.D
Acq On : 9 Jun 2016 4:25 pm
Operator : linseyk
Sample : ic2958-.05
Misc : op94385a,e4m2958
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 10 10:32:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65901.D
Acq On : 9 Jun 2016 4:55 pm
Operator : linseyk
Sample : ic2958-.02
Misc : op94385a,e4m2958
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 10 10:33:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	58552	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	135324	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	208187	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	147933	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	58552	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	135324	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.017	112	4345	0.35	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 0.70%#			
3) Phenol-d5	5.416	99	6938	0.34	ppm	0.01
Spiked Amount 50.000			Recovery = 0.68%			
6) Nitrobenzene-d5	6.883	82	5565	0.35	ppm	0.00
Spiked Amount 50.000			Recovery = 0.70%			
11) 2-Fluorobiphenyl	10.345	172	10076	0.37	ppm	0.00
Spiked Amount 50.000			Recovery = 0.74%			
17) 2,4,6-Tribromophenol	13.204	330	1465	0.26	ppm	0.00
Spiked Amount 50.000			Recovery = 0.52%			
25) Terphenyl-d14	17.659	244	9899	0.36	ppm	0.00
Spiked Amount 50.000			Recovery = 0.72%			
Target Compounds						Qvalue
4) Phenol	5.430	94	1977	0.09	ppm	97
5) bis(2-Chloroethyl)ether	5.526	93	225	0.01	ppm #	83
7) Naphthalene	8.229	128	1078	0.02	ppm	100
8) Hexachlorobutadiene	8.492	225	171	0.02	ppm	98
9) 2-Methylnaphthalene	9.558	142	928	0.04	ppm	94
13) Acenaphthylene	11.331	152	580	0.02	ppm	99
14) Acenaphthene	11.686	153	363	0.02	ppm	97
15) Dibenzofuran	12.041	168	1926	0.05	ppm	90
16) Fluorene	12.703	166	684	0.02	ppm	100
18) Hexachlorobenzene	13.799	284	246	0.02	ppm	96
19) Pentachlorophenol	14.251	266	534	0.11	ppm	93
20) Phenanthrene	14.608	178	940	0.02	ppm	98
21) Anthracene	14.721	178	867	0.02	ppm	98
23) Fluoranthene	16.868	202	1243	0.02	ppm	98
24) Pyrene	17.263	202	1014	0.02	ppm	100
26) Benzo[a]anthracene	19.353	228	692	0.02	ppm	99
27) Chrysene	19.410	228	821	0.02	ppm	99
29) Benzo[b]fluoranthene	21.016	252	937	0.02	ppm	98
30) Benzo[k]fluoranthene	21.057	252	865	0.02	ppm	99
31) Benzo[a]pyrene	21.470	252	713	0.02	ppm	99
32) Indeno[1,2,3-cd]pyrene	22.999	276	1064	0.02	ppm	98
33) Dibenz[a,h]anthracene	23.040	278	792	0.02	ppm #	96
34) Benzo[g,h,i]perylene	23.384	276	986	0.02	ppm	98
37) 1-Methylnaphthalene	9.749	142	534	0.02	ppm	95
39) 4,6-dinitro-2-methylph...	12.918	198	279	0.09	ppm #	37
40) 1,2-Diphenylhydrazine	13.085	77	419	0.01	ppm	97
41) n-nitrosodiphenylamine	13.037	169	423	0.02	ppm	96

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65901.D
Acq On : 9 Jun 2016 4:55 pm
Operator : linseyk
Sample : ic2958-.02
Misc : op94385a,e4m2958
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 10 10:33:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

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

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

7.6.37

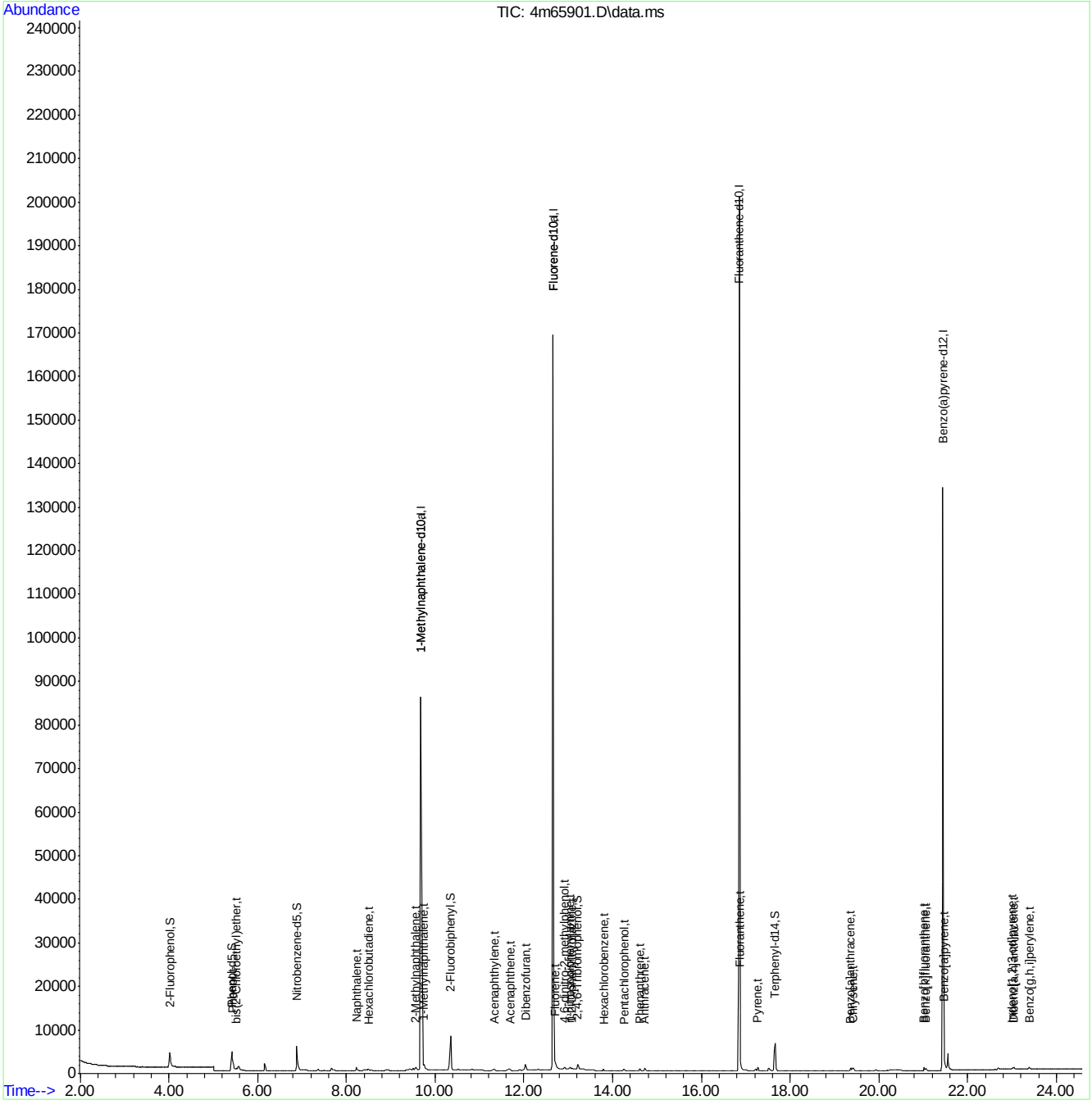
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65901.D
Acq On : 9 Jun 2016 4:55 pm
Operator : linseyk
Sample : ic2958-.02
Misc : op94385a,e4m2958
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 10 10:33:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65902.D
Acq On : 9 Jun 2016 5:25 pm
Operator : linseyk
Sample : ic2958-.01
Misc : op94385a,e4m2958
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 10 10:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	56952	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	127192	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	205869	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	150477	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	56952	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	127192	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.017	112	2053	0.17	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 0.34%#			
3) Phenol-d5	5.416	99	3225	0.17	ppm	0.01
Spiked Amount 50.000			Recovery = 0.34%			
6) Nitrobenzene-d5	6.883	82	2667	0.18	ppm	0.00
Spiked Amount 50.000			Recovery = 0.36%			
11) 2-Fluorobiphenyl	10.345	172	5453	0.21	ppm	0.00
Spiked Amount 50.000			Recovery = 0.42%			
17) 2,4,6-Tribromophenol	13.228	330	699	0.13	ppm	0.02
Spiked Amount 50.000			Recovery = 0.26%			
25) Terphenyl-d14	17.659	244	5351	0.20	ppm	0.00
Spiked Amount 50.000			Recovery = 0.40%			
Target Compounds						Qvalue
4) Phenol	5.443	94	978	0.05	ppm	87
5) bis(2-Chloroethyl)ether	5.526	93	146	0.01	ppm #	74
7) Naphthalene	8.229	128	537	0.01	ppm	97
9) 2-Methylnaphthalene	9.582	142	733	0.03	ppm #	69
13) Acenaphthylene	11.331	152	293	0.01	ppm	97
14) Acenaphthene	11.686	153	201	0.01	ppm	89
15) Dibenzofuran	12.041	168	1770	0.05	ppm	77
16) Fluorene	12.655	166	344	0.01	ppm #	3
18) Hexachlorobenzene	13.799	284	120	0.01	ppm	95
19) Pentachlorophenol	14.251	266	433	0.09	ppm	89
20) Phenanthrene	14.627	178	505	0.01	ppm	90
21) Anthracene	14.721	178	402	0.01	ppm	97
23) Fluoranthene	16.887	202	691	0.01	ppm	82
24) Pyrene	17.282	202	483	0.01	ppm	84
26) Benzo[a]anthracene	19.372	228	332	0.01	ppm #	83
27) Chrysene	19.428	228	413	0.01	ppm	84
29) Benzo[b]fluoranthene	21.030	252	432	0.01	ppm	90
30) Benzo[k]fluoranthene	21.071	252	434	0.01	ppm	91
31) Benzo[a]pyrene	21.470	252	386	0.01	ppm	95
32) Indeno[1,2,3-cd]pyrene	22.999	276	539	0.01	ppm	91
33) Dibenz[a,h]anthracene	23.040	278	418	0.01	ppm #	90
34) Benzo[g,h,i]perylene	23.398	276	538	0.01	ppm	99
37) 1-Methylnaphthalene	9.749	142	298	0.01	ppm	94
39) 4,6-dinitro-2-methylph...	12.918	198	208	0.07	ppm #	46
40) 1,2-Diphenylhydrazine	13.085	77	206	0.01	ppm	90
41) n-nitrosodiphenylamine	13.037	169	241	0.01	ppm	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65902.D
Acq On : 9 Jun 2016 5:25 pm
Operator : linseyk
Sample : ic2958-.01
Misc : op94385a,e4m2958
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 10 10:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

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

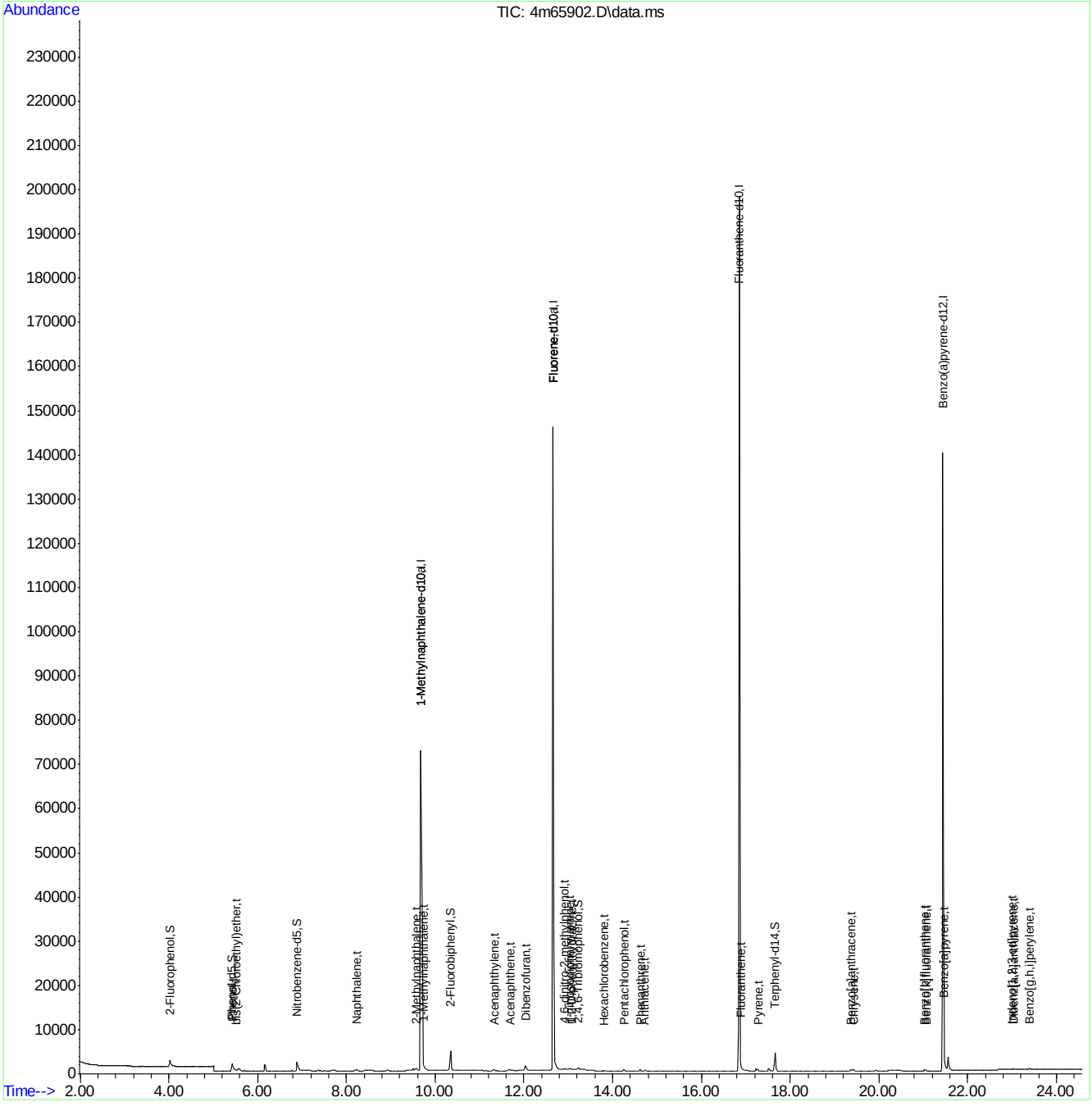
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65902.D
Acq On : 9 Jun 2016 5:25 pm
Operator : linseyk
Sample : ic2958-.01
Misc : op94385a,e4m2958
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 10 10:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



M4M2958SIM.M Fri Jun 10 10:33:58 2016 MANAGER Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65903.D
Acq On : 9 Jun 2016 5:54 pm
Operator : linseyk
Sample : ic2958-5
Misc : op94385a,e4m2958
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 10:28:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.677	152	56310	4.00	ppm		0.00
12) Fluorene-d10	12.655	176	134103	4.00	ppm		0.00
22) Fluoranthene-d10	16.849	212	213720	4.00	ppm		0.00
28) Benzo(a)pyrene-d12	21.443	264	153225	4.00	ppm		0.00
35) 1-Methylnaphthalene-d10a	9.677	152	56310	4.00	ppm	#	0.00
38) Fluorene-d10a	12.655	176	134103	4.00	ppm		0.00
System Monitoring Compounds							
2) 2-Fluorophenol	3.996	112	1109644	98.43	ppm		-0.01
Spiked Amount 50.000	Range 11 - 58		Recovery	=	196.86%#		
3) Phenol-d5	5.402	99	1720609	94.14	ppm		0.00
Spiked Amount 50.000			Recovery	=	188.28%		
6) Nitrobenzene-d5	6.883	82	1369778	95.71	ppm		0.00
Spiked Amount 50.000			Recovery	=	191.42%		
11) 2-Fluorobiphenyl	10.345	172	1852022	75.72	ppm		0.00
Spiked Amount 50.000			Recovery	=	151.44%		
17) 2,4,6-Tribromophenol	13.228	330	473856	82.38	ppm		0.02
Spiked Amount 50.000			Recovery	=	164.76%		
25) Terphenyl-d14	17.658	244	1677923	61.70	ppm		0.00
Spiked Amount 50.000			Recovery	=	123.40%		
Target Compounds							Qvalue
4) Phenol	5.416	94	501736	25.71	ppm		97
5) bis(2-Chloroethyl)ether	5.526	93	80000	5.18	ppm		83
7) Naphthalene	8.229	128	266345	5.34	ppm		99
8) Hexachlorobutadiene	8.507	225	39539	5.19	ppm		69
9) 2-Methylnaphthalene	9.558	142	100035	4.99	ppm		97
10) Hexachlorocyclopentadiene	9.892	237	36086	13.86	ppm		94
13) Acenaphthylene	11.331	152	175286	5.22	ppm		99
14) Acenaphthene	11.686	153	99118	4.83	ppm		96
15) Dibenzofuran	12.041	168	173377	4.80	ppm		100
16) Fluorene	12.703	166	159060	4.44	ppm		96
18) Hexachlorobenzene	13.799	284	57860	4.57	ppm		95
19) Pentachlorophenol	14.251	266	153209	25.35	ppm		66
20) Phenanthrene	14.608	178	256912	4.68	ppm		98
21) Anthracene	14.721	178	265947	5.06	ppm		99
23) Fluoranthene	16.887	202	263311	4.65	ppm		80
24) Pyrene	17.263	202	281190	4.57	ppm		97
26) Benzo[a]anthracene	19.353	228	220317	4.43	ppm		96
27) Chrysene	19.428	228	223053	4.46	ppm		82
29) Benzo[b]fluoranthene	21.016	252	259971	4.30	ppm		96
30) Benzo[k]fluoranthene	21.057	252	224482	4.94	ppm		96
31) Benzo[a]pyrene	21.470	252	220703	4.69	ppm		97
32) Indeno[1,2,3-cd]pyrene	22.999	276	258644	4.60	ppm		100
33) Dibenz[a,h]anthracene	23.040	278	208573	4.61	ppm		100
34) Benzo[g,h,i]perylene	23.384	276	228115	4.59	ppm		100
36) 1,4-Dioxane	2.216	88	24099	4.74	ppm		82
37) 1-Methylnaphthalene	9.749	142	127378	4.99	ppm		96
39) 4,6-dinitro-2-methylph...	12.918	198	125216	26.28	ppm	#	52

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65903.D
Acq On : 9 Jun 2016 5:54 pm
Operator : linseyk
Sample : ic2958-5
Misc : op94385a,e4m2958
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 10:28:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.085	77	186908	6.23	ppm	95
41) n-nitrosodiphenylamine	13.037	169	142510	5.93	ppm	95

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

7.6.39

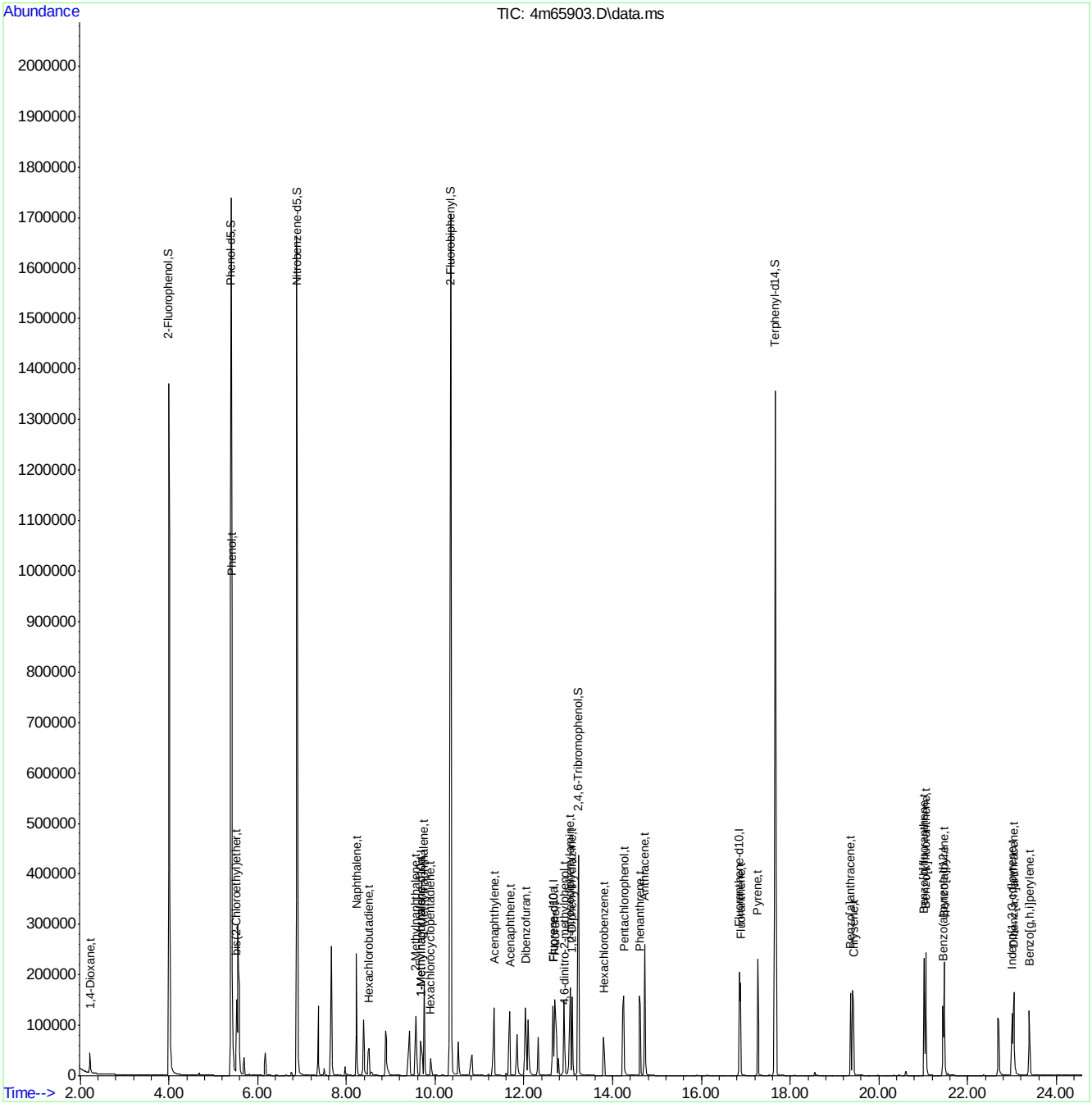
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65903.D
Acq On : 9 Jun 2016 5:54 pm
Operator : linseyk
Sample : ic2958-5
Misc : op94385a,e4m2958
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 10:28:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65904.D
Acq On : 9 Jun 2016 6:24 pm
Operator : linseyk
Sample : ic2958-2.5
Misc : op94385a,e4m2958
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 10:28:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	58322	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	135820	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	211625	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	153169	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	58322	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	135820	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.996	112	583283	49.96	ppm	-0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 99.92%#			
3) Phenol-d5	5.388	99	932636	49.27	ppm	-0.01
Spiked Amount 50.000			Recovery = 98.54%			
6) Nitrobenzene-d5	6.883	82	772122	52.09	ppm	0.00
Spiked Amount 50.000			Recovery = 104.18%			
11) 2-Fluorobiphenyl	10.345	172	1277539	50.43	ppm	0.00
Spiked Amount 50.000			Recovery = 100.86%			
17) 2,4,6-Tribromophenol	13.204	330	236489	40.60	ppm	0.00
Spiked Amount 50.000			Recovery = 81.20%			
25) Terphenyl-d14	17.658	244	1098659	40.80	ppm	0.00
Spiked Amount 50.000			Recovery = 81.60%			
Target Compounds						Qvalue
4) Phenol	5.416	94	259225	12.82	ppm	91
5) bis(2-Chloroethyl)ether	5.526	93	39927	2.50	ppm #	70
7) Naphthalene	8.229	128	135783	2.63	ppm	100
8) Hexachlorobutadiene	8.492	225	20325	2.58	ppm	98
9) 2-Methylnaphthalene	9.558	142	52535	2.53	ppm	97
10) Hexachlorocyclopentadiene	9.892	237	16338	6.06	ppm	97
13) Acenaphthylene	11.331	152	84043	2.47	ppm	100
14) Acenaphthene	11.686	153	49618	2.39	ppm	99
15) Dibenzofuran	12.041	168	88336	2.42	ppm	100
16) Fluorene	12.703	166	82855	2.28	ppm	98
18) Hexachlorobenzene	13.799	284	30625	2.39	ppm	100
19) Pentachlorophenol	14.232	266	71018	11.60	ppm	99
20) Phenanthrene	14.608	178	133602	2.40	ppm	100
21) Anthracene	14.721	178	131607	2.47	ppm	100
23) Fluoranthene	16.887	202	130694	2.33	ppm	79
24) Pyrene	17.263	202	147752	2.43	ppm	100
26) Benzo[a]anthracene	19.353	228	112113	2.28	ppm	99
27) Chrysene	19.409	228	113442	2.29	ppm	98
29) Benzo[b]fluoranthene	21.016	252	133978	2.22	ppm	97
30) Benzo[k]fluoranthene	21.057	252	112483	2.48	ppm	98
31) Benzo[a]pyrene	21.470	252	114747	2.44	ppm	99
32) Indeno[1,2,3-cd]pyrene	22.999	276	130700	2.32	ppm	100
33) Dibenz[a,h]anthracene	23.040	278	105253	2.33	ppm	100
34) Benzo[g,h,i]perylene	23.384	276	115136	2.32	ppm	100
36) 1,4-Dioxane	2.216	88	13269	2.52	ppm	90
37) 1-Methylnaphthalene	9.749	142	66471	2.51	ppm	98
39) 4,6-dinitro-2-methylph...	12.894	198	62288	12.91	ppm	76

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65904.D
Acq On : 9 Jun 2016 6:24 pm
Operator : linseyk
Sample : ic2958-2.5
Misc : op94385a,e4m2958
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 10:28:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.085	77	85198	2.81 ppm	99
41) n-nitrosodiphenylamine	13.037	169	65163	2.68 ppm	98

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

7.6.40

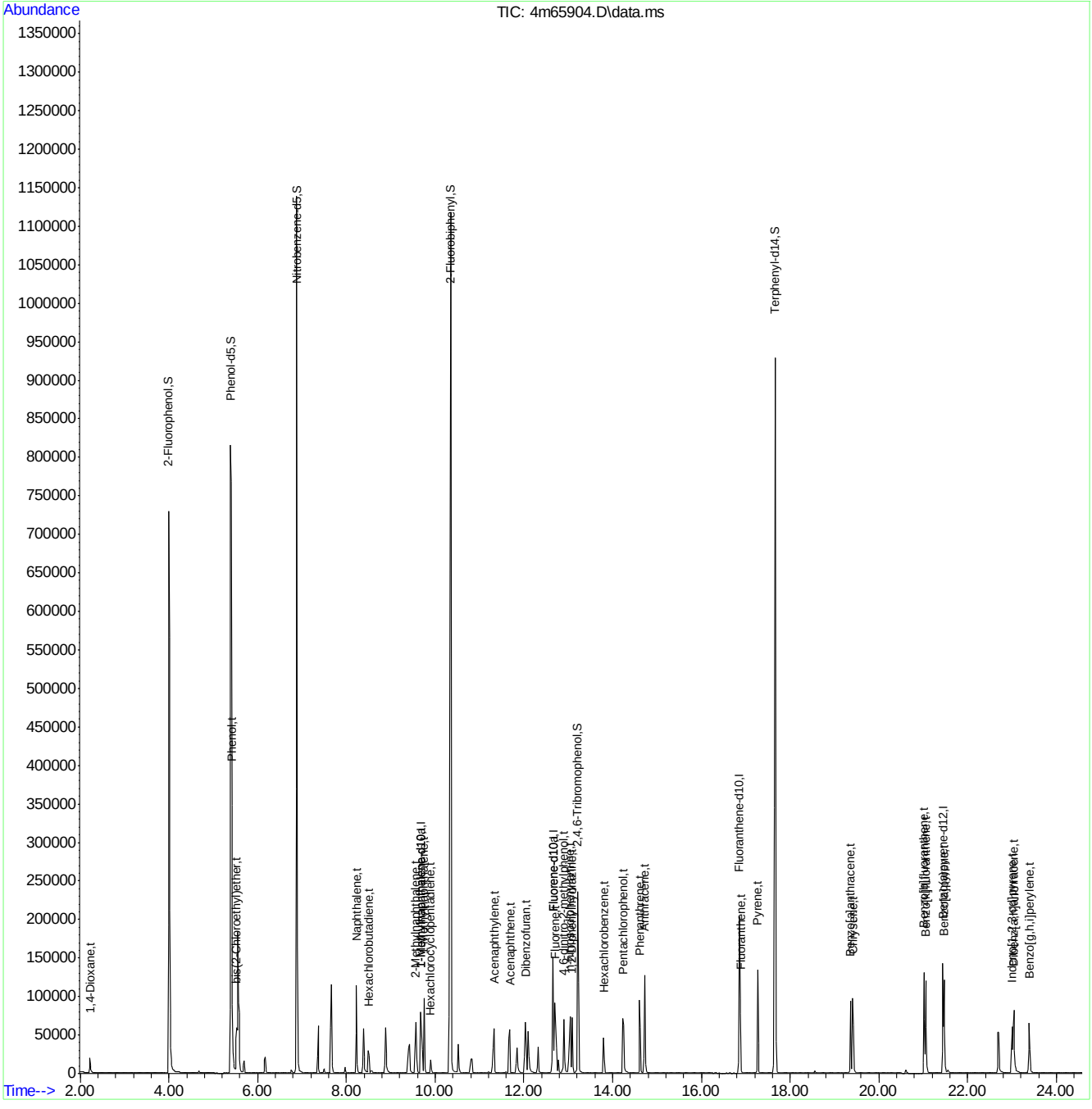
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65904.D
Acq On : 9 Jun 2016 6:24 pm
Operator : linseyk
Sample : ic2958-2.5
Misc : op94385a,e4m2958
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 10:28:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:27:22 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65905.D
Acq On : 9 Jun 2016 6:54 pm
Operator : linseyk
Sample : icv2958-1
Misc : op94385a,e4m2958
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 10 10:39:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:37:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	63574	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	129549	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	198408	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	137479	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	63574	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	129549	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery	=	0.00%#	
3) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
4) Phenol	5.415	94	107431	4.58	ppm	82
19) Pentachlorophenol	14.251	266	21841	4.08	ppm	95
39) 4,6-dinitro-2-methylph...	12.894	198	18372	4.12	ppm #	68

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

7.6.41

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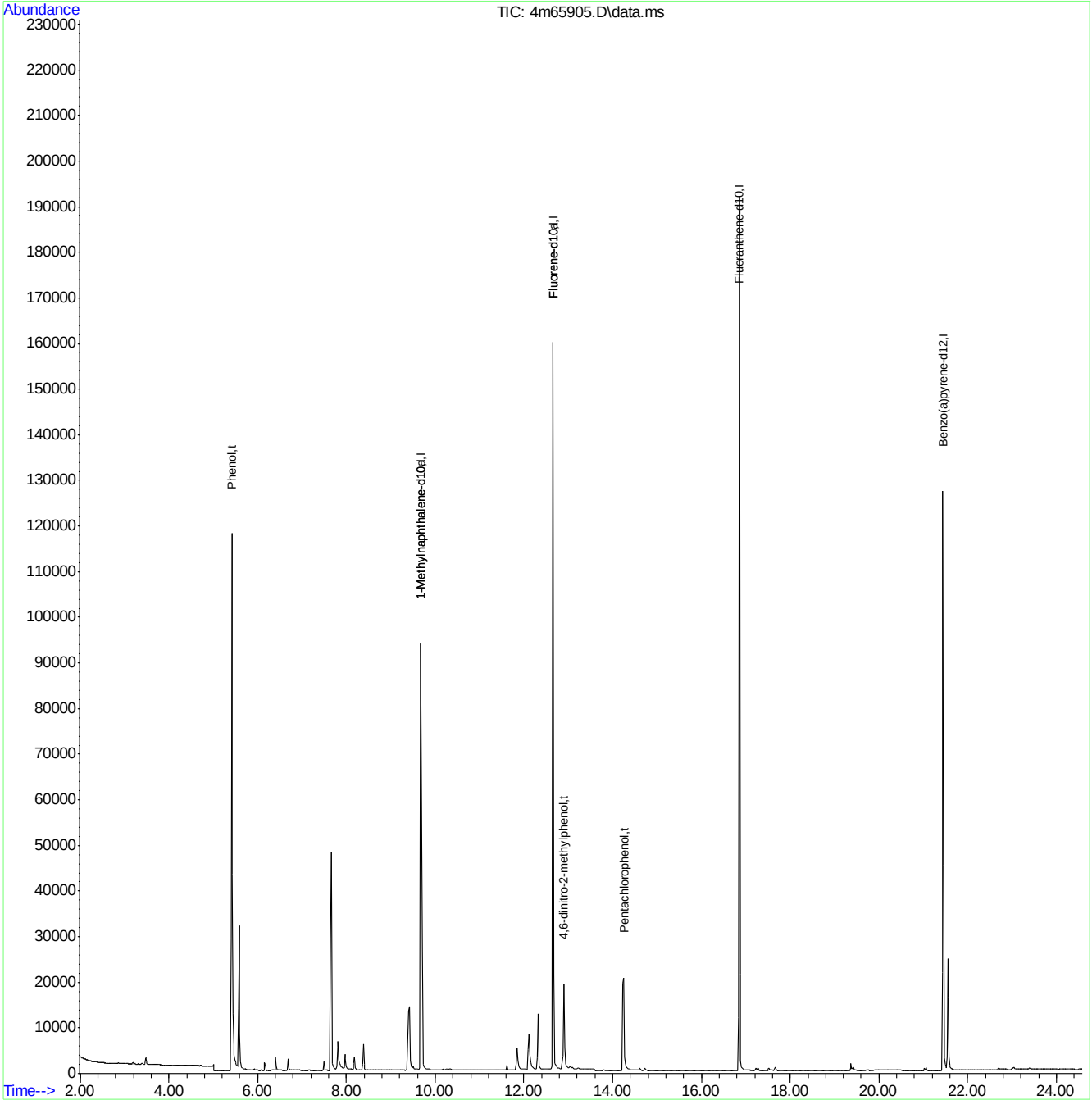
SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65905.D
Acq On : 9 Jun 2016 6:54 pm
Operator : linseyk
Sample : icv2958-1
Misc : op94385a,e4m2958
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 10 10:39:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:37:35 2016
Response via : Initial Calibration



M4M2958SIM.M Fri Jun 10 10:39:46 2016 MANAGER Page: 2

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65906.D
Acq On : 9 Jun 2016 7:24 pm
Operator : linseyk
Sample : icv2958-1
Misc : op94385a,e4m2958
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 10 12:07:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:37:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.677	152	70189	4.00	ppm	0.00
12) Fluorene-d10	12.655	176	146404	4.00	ppm	0.00
22) Fluoranthene-d10	16.849	212	213963	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.443	264	144137	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.677	152	70189	4.00	ppm	0.00
38) Fluorene-d10a	12.655	176	146404	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery	=	0.00%#	
3) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
5) bis(2-Chloroethyl)ether	5.526	93	20215	1.11	ppm	# 89
7) Naphthalene	8.229	128	68184	1.03	ppm	100
8) Hexachlorobutadiene	8.492	225	10142	1.01	ppm	100
9) 2-Methylnaphthalene	9.558	142	27225	1.00	ppm	100
13) Acenaphthylene	11.331	152	37796	1.07	ppm	99
14) Acenaphthene	11.686	153	25370	1.15	ppm	100
15) Dibenzofuran	12.041	168	43843	1.08	ppm	99
16) Fluorene	12.703	166	40465	1.07	ppm	100
18) Hexachlorobenzene	13.799	284	13646	0.99	ppm	95
20) Phenanthrene	14.627	178	61693	1.08	ppm	89
21) Anthracene	14.721	178	58908	1.08	ppm	100
23) Fluoranthene	16.887	202	61270	1.10	ppm	81
24) Pyrene	17.263	202	66760	1.15	ppm	98
26) Benzo[a]anthracene	19.372	228	55440	1.27	ppm	# 88
27) Chrysene	19.428	228	53404	1.14	ppm	85
29) Benzo[b]fluoranthene	21.016	252	50841	0.96	ppm	96
30) Benzo[k]fluoranthene	21.057	252	51089	1.18	ppm	97
31) Benzo[a]pyrene	21.470	252	45276	1.03	ppm	95
32) Indeno[1,2,3-cd]pyrene	22.999	276	54387	1.07	ppm	99
33) Dibenz[a,h]anthracene	23.040	278	42095	1.03	ppm	98
34) Benzo[g,h,i]perylene	23.384	276	47886	1.05	ppm	100
36) 1,4-Dioxane	2.226	88	5834	0.94	ppm	# 20
40) 1,2-Diphenylhydrazine	13.085	77	32108	0.97	ppm	99
41) n-nitrosodiphenylamine	13.037	169	26790	0.99	ppm	99

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

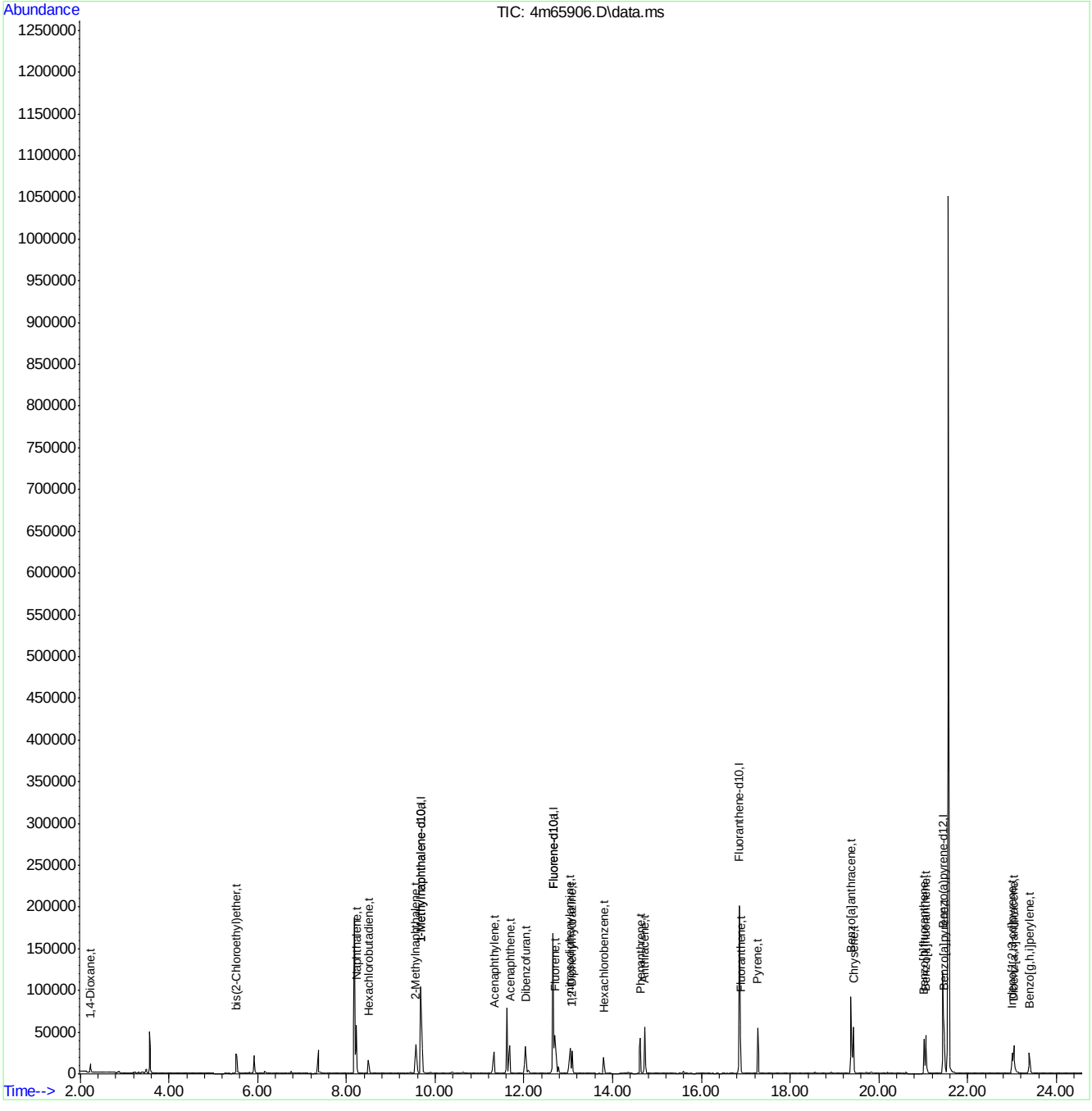
M4M2958SIM.M Fri Jun 10 12:07:53 2016 MANAGER

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2958\
Data File : 4m65906.D
Acq On : 9 Jun 2016 7:24 pm
Operator : linseyk
Sample : icv2958-1
Misc : op94385a,e4m2958
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 10 12:07:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:37:35 2016
Response via : Initial Calibration



M4M2958SIM.M Fri Jun 10 12:07:53 2016 MANAGER Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65930.D
Acq On : 10 Jun 2016 11:04 pm
Operator : juliusj
Sample : cc2958-0.5
Misc : op94385a,e4m2960
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 23:28:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.677	152	83000	4.00	ppm	#	0.00
12) Fluorene-d10	12.655	176	138993	4.00	ppm	#	0.00
22) Fluoranthene-d10	16.830	212	258398	4.00	ppm		-0.02
28) Benzo(a)pyrene-d12	21.429	264	194231	4.00	ppm		-0.01
35) 1-Methylnaphthalene-d10a	9.677	152	83000	4.00	ppm	#	0.00
38) Fluorene-d10a	12.655	176	138993	4.00	ppm	#	0.00
System Monitoring Compounds							
2) 2-Fluorophenol	4.007	112	164737	9.62	ppm		0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 19.24%				
3) Phenol-d5	5.402	99	266957	9.71	ppm		0.00
Spiked Amount 50.000			Recovery = 19.42%				
6) Nitrobenzene-d5	6.868	82	209214	9.67	ppm		-0.02
Spiked Amount 50.000			Recovery = 19.34%				
11) 2-Fluorobiphenyl	10.321	172	407230	11.23	ppm		-0.02
Spiked Amount 50.000			Recovery = 22.46%				
17) 2,4,6-Tribromophenol	13.204	330	70035	12.86	ppm		0.00
Spiked Amount 50.000			Recovery = 25.72%				
25) Terphenyl-d14	17.640	244	379706	12.33	ppm		-0.02
Spiked Amount 50.000			Recovery = 24.66%				
Target Compounds							Qvalue
4) Phenol	5.416	94	70016	2.29	ppm		90
5) bis(2-Chloroethyl)ether	5.512	93	10584	0.49	ppm		86
7) Naphthalene	8.214	128	36320	0.46	ppm		98
8) Hexachlorobutadiene	8.477	225	5671	0.48	ppm		92
9) 2-Methylnaphthalene	9.558	142	13617	0.42	ppm	#	65
10) Hexachlorocyclopentadiene	9.892	237	3727	1.08	ppm	#	58
13) Acenaphthylene	11.309	152	24973	0.74	ppm		98
14) Acenaphthene	11.664	153	14179	0.68	ppm		96
15) Dibenzofuran	12.019	168	24757	0.64	ppm		89
16) Fluorene	12.703	166	21819	0.61	ppm	#	69
18) Hexachlorobenzene	13.780	284	8405	0.64	ppm		99
19) Pentachlorophenol	14.232	266	18571	3.25	ppm		99
20) Phenanthrene	14.590	178	35622	0.65	ppm		99
21) Anthracene	14.703	178	35104	0.68	ppm		99
23) Fluoranthene	16.868	202	37105	0.55	ppm		81
24) Pyrene	17.244	202	39632	0.57	ppm		97
26) Benzo[a]anthracene	19.353	228	33204	0.63	ppm	#	81
27) Chrysene	19.410	228	33770	0.60	ppm		82
29) Benzo[b]fluoranthene	21.002	252	42052	0.59	ppm		96
30) Benzo[k]fluoranthene	21.044	252	29440	0.51	ppm		96
31) Benzo[a]pyrene	21.457	252	32933	0.56	ppm		98
32) Indeno[1,2,3-cd]pyrene	22.971	276	40313	0.59	ppm		99
33) Dibenz[a,h]anthracene	23.012	278	32685	0.60	ppm		96
34) Benzo[g,h,i]perylene	23.357	276	34943	0.57	ppm		100
36) 1,4-Dioxane	2.216	88	4083	0.55	ppm		76
37) 1-Methylnaphthalene	9.725	142	15706	0.40	ppm		86
39) 4,6-dinitro-2-methylph...	12.894	198	12021	2.65	ppm	#	29

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65930.D
Acq On : 10 Jun 2016 11:04 pm
Operator : juliusj
Sample : cc2958-0.5
Misc : op94385a,e4m2960
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 23:28:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.061	77	23431	0.74	ppm	96
41) n-nitrosodiphenylamine	13.013	169	20067	0.78	ppm	87

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

7.6.43

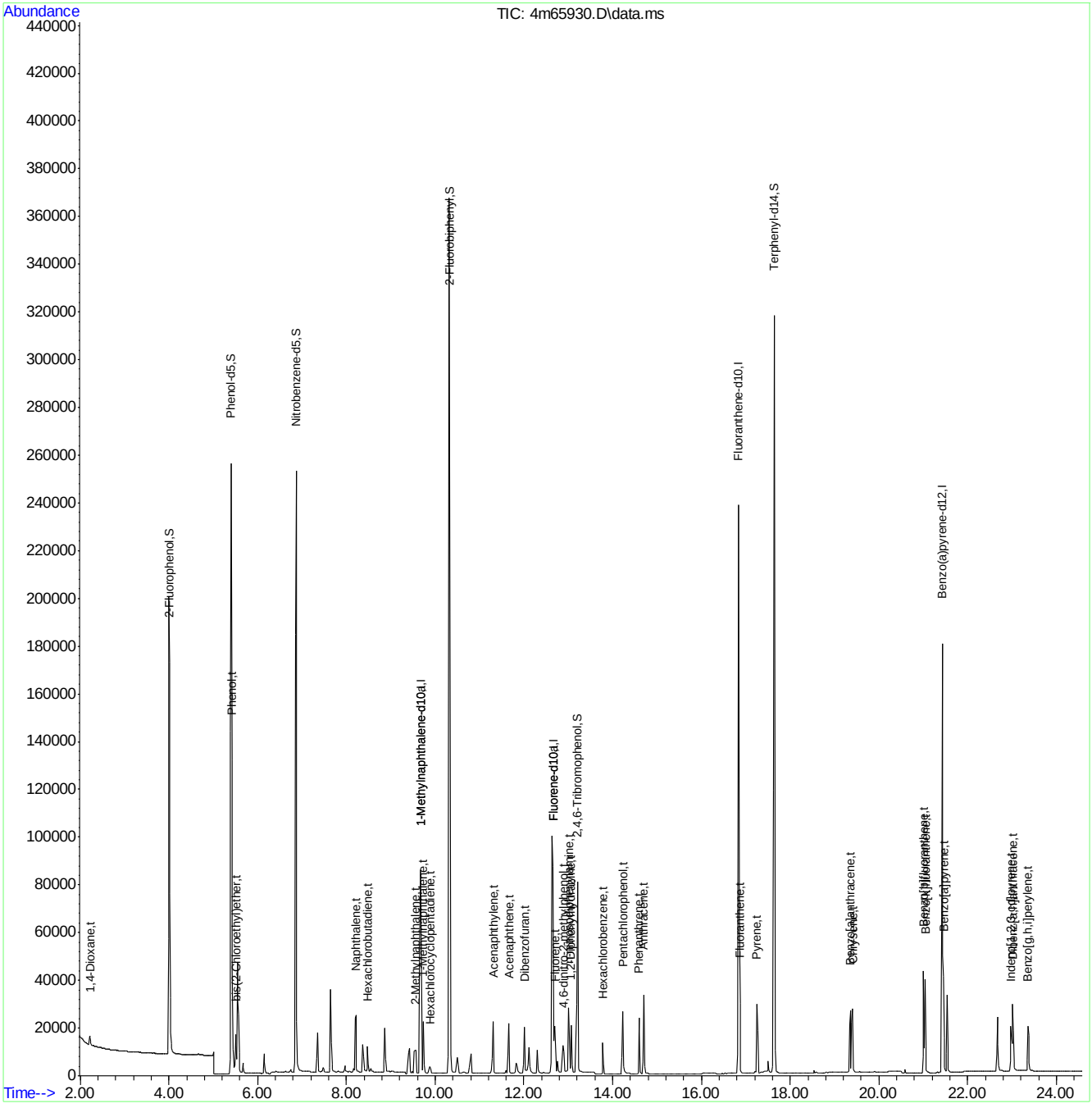
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2960\
Data File : 4m65930.D
Acq On : 10 Jun 2016 11:04 pm
Operator : juliusj
Sample : cc2958-0.5
Misc : op94385a,e4m2960
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 10 23:28:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2958SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Fri Jun 10 10:35:01 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
06/21/16 13:33

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66181.D
Acq On : 20 Jun 2016 11:01 pm
Operator : ashleyd
Sample : ic2974-0.1
Misc : op94799a,e4m2974
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 21 07:55:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	64579	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	115877	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	170187	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.547	264	145082	4.00	ppm	0.01
35) 1-Methylnaphthalene-d10a	9.786	152	64579	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	115877	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.100	112	19610	1.89	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 3.78%#			
3) Phenol-d5	5.497	99	30862	1.85	ppm	0.01
Spiked Amount 50.000			Recovery = 3.70%			
6) Nitrobenzene-d5	6.968	82	26982	1.87	ppm	0.00
Spiked Amount 50.000			Recovery = 3.74%			
11) 2-Fluorobiphenyl	10.430	172	47220	1.81	ppm	0.00
Spiked Amount 50.000			Recovery = 3.62%			
17) 2,4,6-Tribromophenol	13.313	330	9392	1.56	ppm	0.00
Spiked Amount 50.000			Recovery = 3.12%			
25) Terphenyl-d14	17.749	244	48941	1.81	ppm	0.00
Spiked Amount 50.000			Recovery = 3.62%			
Target Compounds						Qvalue
4) Phenol	5.511	94	8289	0.47	ppm	72
5) bis(2-Chloroethyl)ether	5.607	93	1248	0.09	ppm #	54
7) Naphthalene	8.314	128	4103	0.09	ppm	99
8) Hexachlorobutadiene	8.593	225	702	0.09	ppm	97
9) 2-Methylnaphthalene	9.667	142	2236	0.11	ppm	92
10) Hexachlorocyclopentadiene	10.001	237	37m	0.03	ppm	
13) Acenaphthylene	11.431	152	2799	0.08	ppm	87
14) Acenaphthene	11.764	153	1693	0.08	ppm	94
15) Dibenzofuran	12.141	168	2790	0.09	ppm	100
16) Fluorene	12.812	166	3041	0.08	ppm	94
18) Hexachlorobenzene	13.907	284	1011	0.08	ppm	96
19) Pentachlorophenol	14.359	266	1692	0.35	ppm	83
20) Phenanthrene	14.717	178	4186	0.08	ppm	98
21) Anthracene	14.830	178	3932	0.08	ppm	97
23) Fluoranthene	16.977	202	4774	0.09	ppm	99
24) Pyrene	17.372	202	4693	0.09	ppm	97
26) Benzo[a]anthracene	19.462	228	4467	0.10	ppm	95
27) Chrysene	19.518	228	4796	0.11	ppm	96
29) Benzo[b]fluoranthene	21.120	252	4753	0.09	ppm	95
30) Benzo[k]fluoranthene	21.162	252	5024	0.10	ppm	97
31) Benzo[a]pyrene	21.575	252	4913	0.10	ppm	99
32) Indeno[1,2,3-cd]pyrene	23.130	276	5025	0.09	ppm	95
33) Dibenz[a,h]anthracene	23.158	278	4213	0.09	ppm	92
34) Benzo[g,h,i]perylene	23.530	276	4414	0.09	ppm	99
36) 1,4-Dioxane	2.288	88	693	0.15	ppm #	62
37) 1-Methylnaphthalene	9.858	142	1777	0.10	ppm #	66
39) 4,6-dinitro-2-methylph...	13.027	198	963	0.19	ppm	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66181.D
Acq On : 20 Jun 2016 11:01 pm
Operator : ashleyd
Sample : ic2974-0.1
Misc : op94799a,e4m2974
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 21 07:55:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.170	77	2501	0.07	ppm	96
41) n-nitrosodiphenylamine	13.122	169	1855	0.07	ppm	94

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

7.6.44

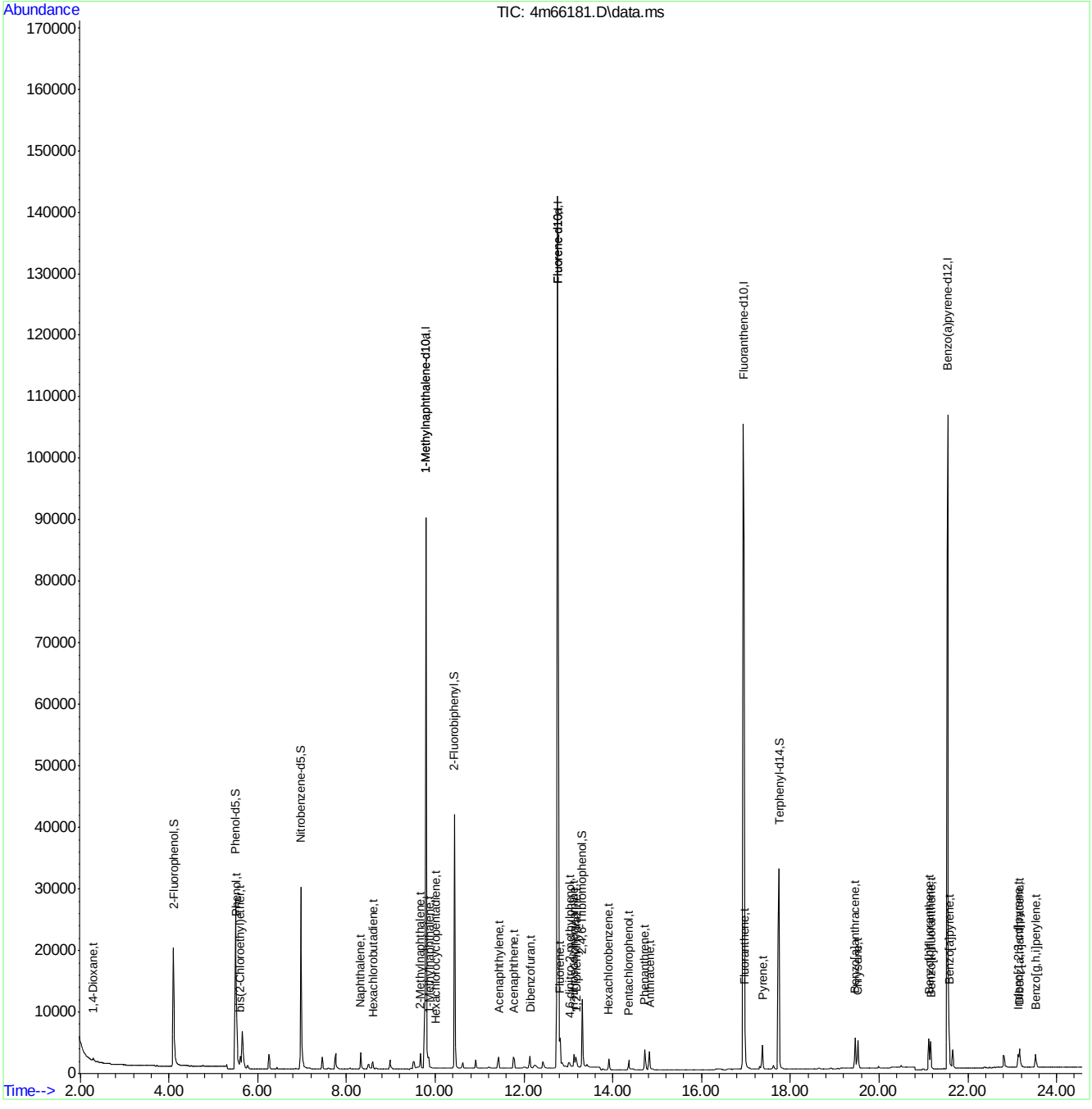
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66181.D
Acq On : 20 Jun 2016 11:01 pm
Operator : ashleyd
Sample : ic2974-0.1
Misc : op94799a,e4m2974
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 21 07:55:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration



M4M2974SIM.M Tue Jun 21 07:55:26 2016 MANAGER Page: 3

SGS ACCUTEST JC21709

Manual Integration Approval Summary

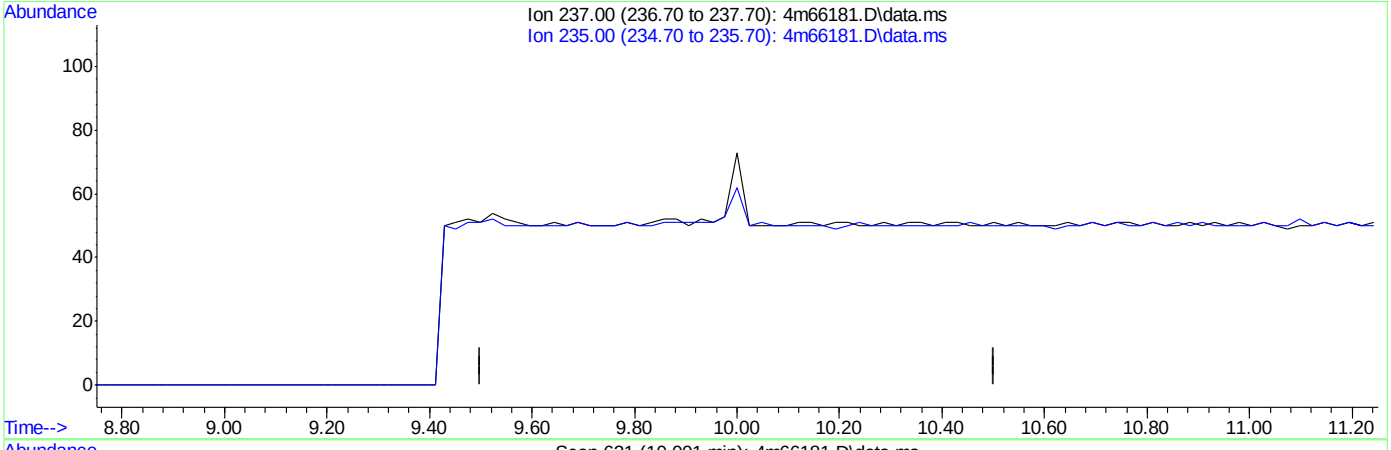
Sample Number:	E4M2974-IC2974	**Method:**	EPA 625 BY SIM
Lab FileID:	4M66181.D	**Analyst approved:**	06/21/16 08:32 Linsey Kirschmann
Injection Time:	06/20/16 23:01	**Supervisor approved:**	06/21/16 13:33 Nina Pandya

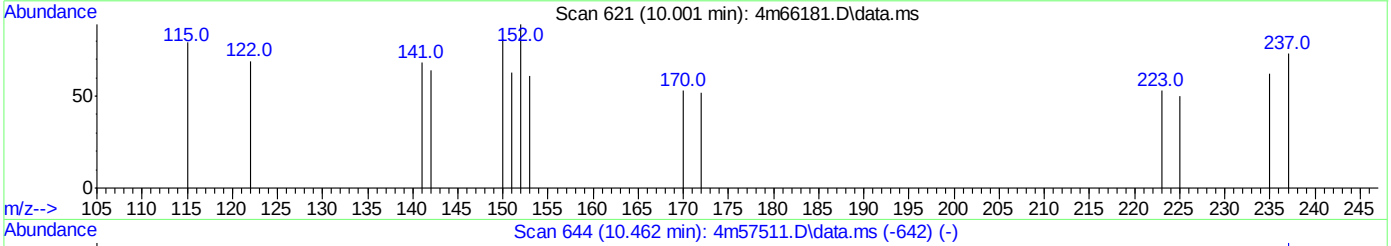
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hexachlorocyclopentadiene	77-47-4		10.00	Poor instrument integration

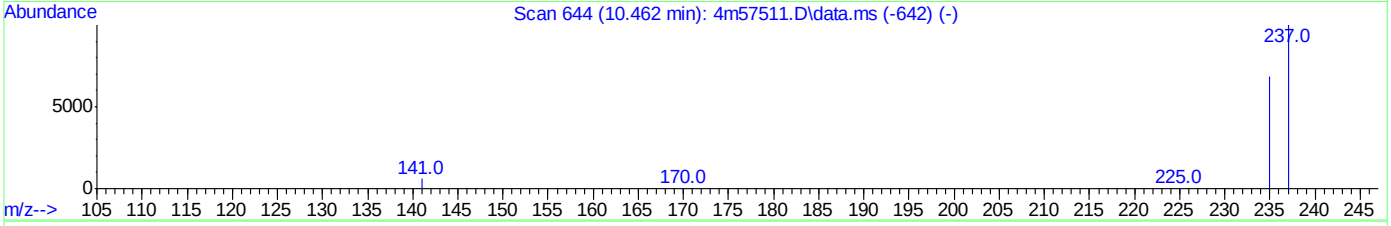
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66181.D
Acq On : 20 Jun 2016 11:01 pm
Operator : ashleyd
Sample : ic2974-0.1
Misc : op94799a,e4m2974
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 21 07:53:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration







TIC: 4m66181.D\data.ms

(10) Hexachlorocyclopentadiene (t)

10.001min (-10.001) 0.00ppm

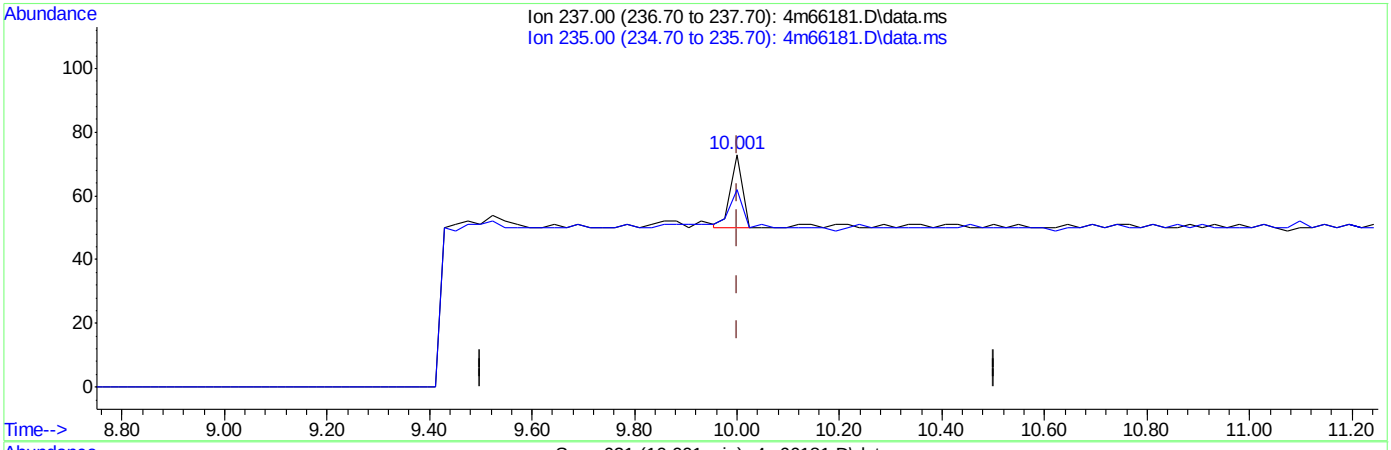
response 0

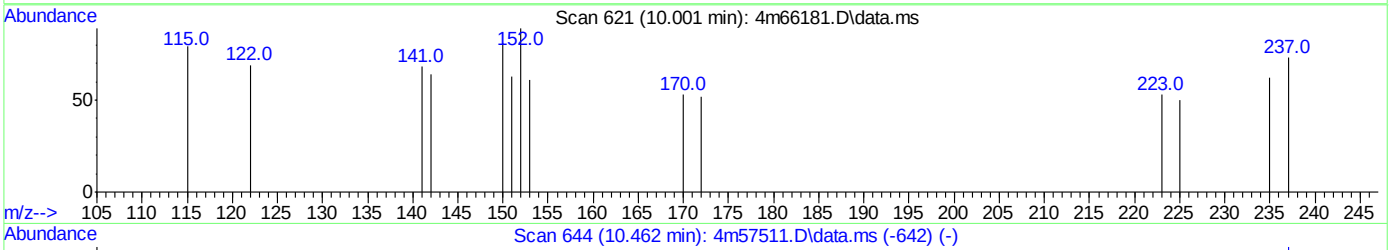
Ion	Exp%	Act%
237.00	100	0.00
235.00	45.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

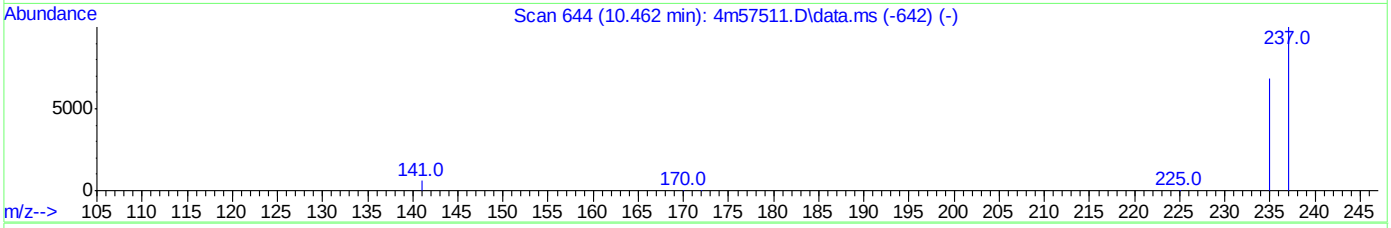
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66181.D
Acq On : 20 Jun 2016 11:01 pm
Operator : ashleyd
Sample : ic2974-0.1
Misc : op94799a,e4m2974
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 21 07:53:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration







TIC: 4m66181.D\data.ms

(10) Hexachlorocyclopentadiene (t)

10.001min (-0.000) 0.03ppm m

response 37

Ion	Exp%	Act%
237.00	100	100
235.00	45.30	84.93#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66182.D
Acq On : 20 Jun 2016 11:31 pm
Operator : ashleyd
Sample : ic2974-0.2
Misc : op94799a,e4m2974
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 07:53:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	61294	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	113007	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	178558	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.547	264	149298	4.00	ppm	0.01
35) 1-Methylnaphthalene-d10a	9.786	152	61294	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	113007	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.090	112	42611	4.34	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	8.68%#	
3) Phenol-d5	5.497	99	68267	4.32	ppm	0.01
Spiked Amount 50.000			Recovery	=	8.64%	
6) Nitrobenzene-d5	6.968	82	60266	4.39	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.78%	
11) 2-Fluorobiphenyl	10.431	172	110649	4.46	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.92%	
17) 2,4,6-Tribromophenol	13.313	330	21661	3.68	ppm	0.00
Spiked Amount 50.000			Recovery	=	7.36%	
25) Terphenyl-d14	17.749	244	108442	3.83	ppm	0.00
Spiked Amount 50.000			Recovery	=	7.66%	
Target Compounds						Qvalue
4) Phenol	5.511	94	18355	1.10	ppm	69
5) bis(2-Chloroethyl)ether	5.607	93	2632	0.20	ppm	81
7) Naphthalene	8.314	128	9200	0.21	ppm	99
8) Hexachlorobutadiene	8.593	225	1576	0.22	ppm	99
9) 2-Methylnaphthalene	9.667	142	4875	0.26	ppm	96
10) Hexachlorocyclopentadiene	10.001	237	160	0.13	ppm	95
13) Acenaphthylene	11.431	152	6261	0.19	ppm	85
14) Acenaphthene	11.764	153	3936	0.19	ppm	97
15) Dibenzofuran	12.141	168	7463	0.24	ppm	100
16) Fluorene	12.812	166	7007	0.19	ppm	98
18) Hexachlorobenzene	13.908	284	2301	0.20	ppm	98
19) Pentachlorophenol	14.360	266	3979	0.84	ppm	81
20) Phenanthrene	14.717	178	9557	0.19	ppm	99
21) Anthracene	14.830	178	8392	0.18	ppm	99
23) Fluoranthene	16.977	202	10535	0.19	ppm	99
24) Pyrene	17.372	202	10107	0.18	ppm	98
26) Benzo[a]anthracene	19.462	228	8951	0.19	ppm	98
27) Chrysene	19.518	228	9210	0.19	ppm	97
29) Benzo[b]fluoranthene	21.120	252	10031	0.18	ppm	98
30) Benzo[k]fluoranthene	21.162	252	10126	0.19	ppm	99
31) Benzo[a]pyrene	21.575	252	9644	0.19	ppm	100
32) Indeno[1,2,3-cd]pyrene	23.131	276	11253	0.19	ppm	91
33) Dibenz[a,h]anthracene	23.158	278	9253	0.19	ppm	94
34) Benzo[g,h,i]perylene	23.516	276	9715	0.19	ppm	100
36) 1,4-Dioxane	2.289	88	1167	0.26	ppm #	76
37) 1-Methylnaphthalene	9.858	142	3686	0.21	ppm #	62
39) 4,6-dinitro-2-methylph...	13.027	198	3021	0.63	ppm	79

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66182.D
Acq On : 20 Jun 2016 11:31 pm
Operator : ashleyd
Sample : ic2974-0.2
Misc : op94799a,e4m2974
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 07:53:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.170	77	6335	0.18 ppm	99
41) n-nitrosodiphenylamine	13.122	169	4376	0.17 ppm	97

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

7.6.45

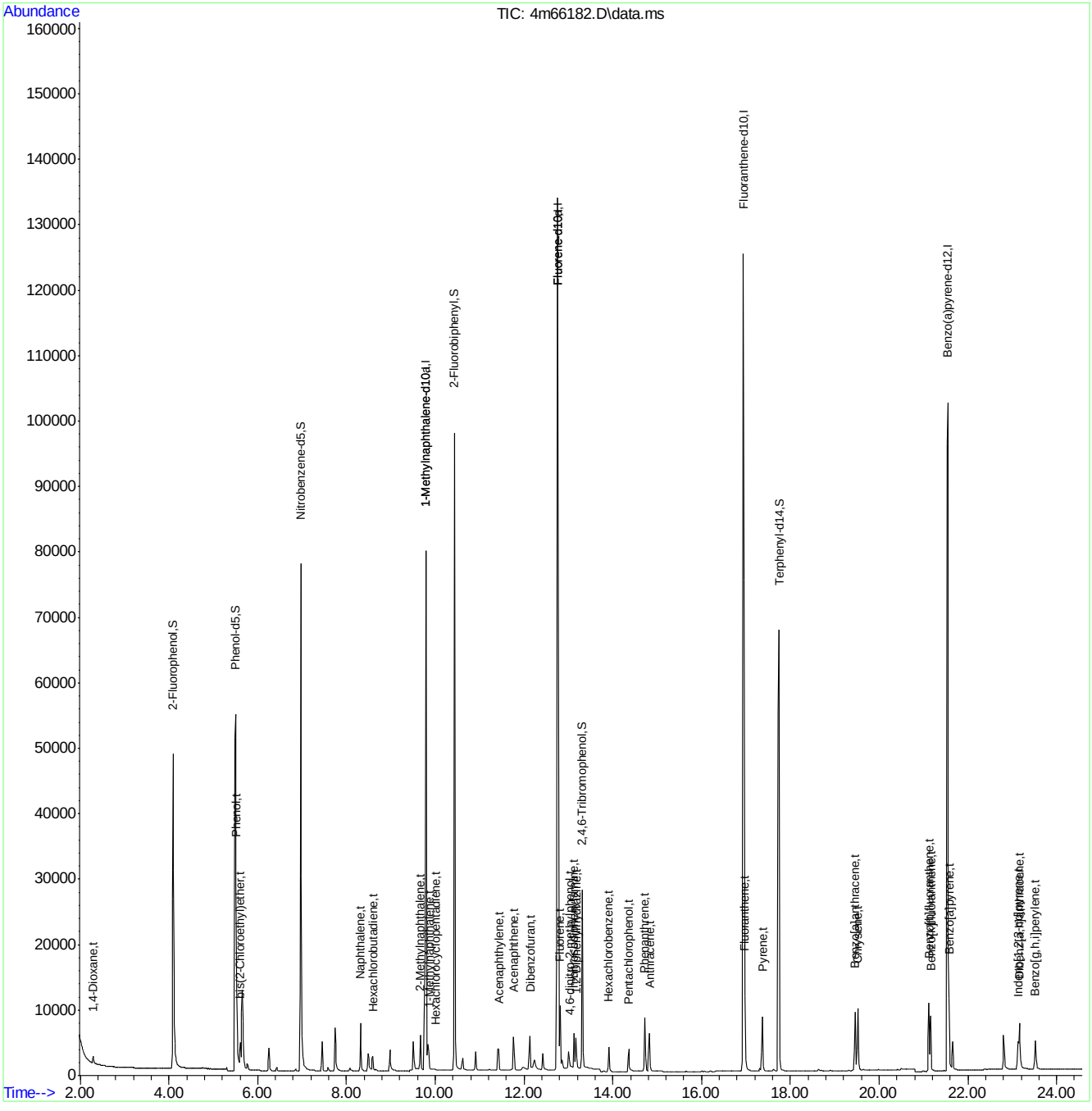
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66182.D
Acq On : 20 Jun 2016 11:31 pm
Operator : ashleyd
Sample : ic2974-0.2
Misc : op94799a,e4m2974
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 07:53:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66183.D
Acq On : 21 Jun 2016 12:01 am
Operator : ashleyd
Sample : ic2974-0.5
Misc : op94799a,e4m2974
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 21 07:53:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	48821	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	79987	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	121543	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.547	264	101873	4.00	ppm	0.01
35) 1-Methylnaphthalene-d10a	9.786	152	48821	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	79987	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.090	112	81796	10.45	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 20.90%			
3) Phenol-d5	5.483	99	130374	10.36	ppm	0.00
Spiked Amount 50.000			Recovery = 20.72%			
6) Nitrobenzene-d5	6.968	82	112634	10.31	ppm	0.00
Spiked Amount 50.000			Recovery = 20.62%			
11) 2-Fluorobiphenyl	10.431	172	209046	10.59	ppm	0.00
Spiked Amount 50.000			Recovery = 21.18%			
17) 2,4,6-Tribromophenol	13.313	330	42279	10.15	ppm	0.00
Spiked Amount 50.000			Recovery = 20.30%			
25) Terphenyl-d14	17.749	244	199233	10.33	ppm	0.00
Spiked Amount 50.000			Recovery = 20.66%			
Target Compounds						Qvalue
4) Phenol	5.511	94	34378	2.58	ppm	88
5) bis(2-Chloroethyl)ether	5.607	93	4985	0.47	ppm	78
7) Naphthalene	8.314	128	17593	0.51	ppm	100
8) Hexachlorobutadiene	8.593	225	2951	0.51	ppm	99
9) 2-Methylnaphthalene	9.667	142	8048	0.54	ppm	97
10) Hexachlorocyclopentadiene	10.001	237	599	0.59	ppm	97
13) Acenaphthylene	11.431	152	11956	0.51	ppm	85
14) Acenaphthene	11.764	153	7448	0.50	ppm	97
15) Dibenzofuran	12.141	168	11632	0.53	ppm	100
16) Fluorene	12.812	166	13592	0.51	ppm	99
18) Hexachlorobenzene	13.908	284	4345	0.52	ppm	99
19) Pentachlorophenol	14.360	266	7373	2.21	ppm	78
20) Phenanthrene	14.717	178	18316	0.51	ppm	99
21) Anthracene	14.830	178	16332	0.50	ppm	99
23) Fluoranthene	16.977	202	19846	0.51	ppm	99
24) Pyrene	17.372	202	19391	0.51	ppm	99
26) Benzo[a]anthracene	19.462	228	16744	0.52	ppm	99
27) Chrysene	19.518	228	17050	0.53	ppm	99
29) Benzo[b]fluoranthene	21.120	252	18885	0.50	ppm	98
30) Benzo[k]fluoranthene	21.162	252	18893	0.53	ppm	99
31) Benzo[a]pyrene	21.575	252	16497	0.48	ppm	99
32) Indeno[1,2,3-cd]pyrene	23.117	276	20627	0.51	ppm	99
33) Dibenz[a,h]anthracene	23.158	278	17147	0.51	ppm	97
34) Benzo[g,h,i]perylene	23.516	276	17848	0.52	ppm	100
36) 1,4-Dioxane	2.288	88	1889	0.53	ppm	77
37) 1-Methylnaphthalene	9.858	142	7124	0.52	ppm #	63
39) 4,6-dinitro-2-methylph...	13.003	198	6273	1.84	ppm	64

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66183.D
Acq On : 21 Jun 2016 12:01 am
Operator : ashleyd
Sample : ic2974-0.5
Misc : op94799a,e4m2974
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 21 07:53:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.170	77	12389	0.49	ppm	99
41) n-nitrosodiphenylamine	13.122	169	8582	0.48	ppm	97

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

7.6.46

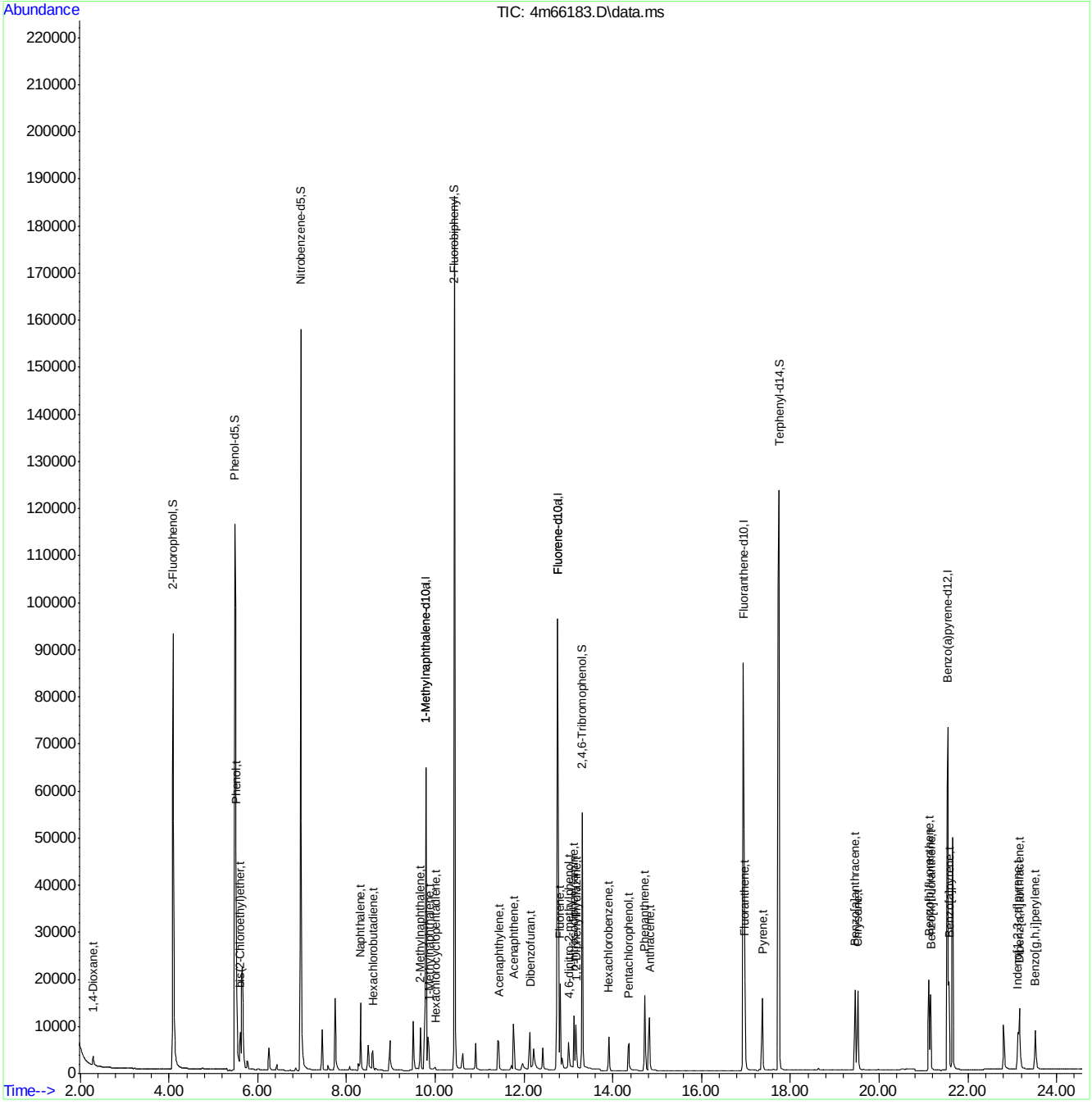
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66183.D
Acq On : 21 Jun 2016 12:01 am
Operator : ashleyd
Sample : ic2974-0.5
Misc : op94799a,e4m2974
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 21 07:53:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66184.D
Acq On : 21 Jun 2016 12:31 am
Operator : ashleyd
Sample : icc2974-1.0
Misc : op94799a,e4m2974
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 21 07:53:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	53805	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	88678	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	136758	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.534	264	111755	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.786	152	53805	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	88678	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.090	112	172656	20.02	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 40.04%			
3) Phenol-d5	5.484	99	277285	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
6) Nitrobenzene-d5	6.968	82	240778	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
11) 2-Fluorobiphenyl	10.431	172	435307	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
17) 2,4,6-Tribromophenol	13.313	330	92390	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
25) Terphenyl-d14	17.749	244	434082	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
Target Compounds						Qvalue
4) Phenol	5.511	94	73488	5.00	ppm	100
5) bis(2-Chloroethyl)ether	5.607	93	10826	0.92	ppm	75
7) Naphthalene	8.314	128	38045	1.00	ppm	100
8) Hexachlorobutadiene	8.593	225	6342	1.00	ppm	100
9) 2-Methylnaphthalene	9.667	142	16441	1.00	ppm	100
10) Hexachlorocyclopentadiene	10.001	237	2232	2.00	ppm	100
13) Acenaphthylene	11.409	152	26195	1.00	ppm	100
14) Acenaphthene	11.764	153	16587	1.00	ppm	100
15) Dibenzofuran	12.141	168	24521	1.00	ppm	100
16) Fluorene	12.812	166	29604	1.00	ppm	100
18) Hexachlorobenzene	13.908	284	9238	1.00	ppm	100
19) Pentachlorophenol	14.341	266	18521	5.00	ppm	100
20) Phenanthrene	14.717	178	39729	1.00	ppm	100
21) Anthracene	14.830	178	35891	1.00	ppm	100
23) Fluoranthene	16.977	202	43518	1.00	ppm	100
24) Pyrene	17.372	202	42479	1.00	ppm	100
26) Benzo[a]anthracene	19.462	228	35948	1.00	ppm	99
27) Chrysene	19.519	228	36398	1.00	ppm	100
29) Benzo[b]fluoranthene	21.121	252	41480	1.01	ppm	99
30) Benzo[k]fluoranthene	21.162	252	39891	1.02	ppm	100
31) Benzo[a]pyrene	21.575	252	38047	1.02	ppm	100
32) Indeno[1,2,3-cd]pyrene	23.117	276	44837	1.02	ppm	100
33) Dibenz[a,h]anthracene	23.158	278	37256	1.02	ppm	100
34) Benzo[g,h,i]perylene	23.516	276	38720	1.02	ppm	100
36) 1,4-Dioxane	2.289	88	3599	0.92	ppm	82
37) 1-Methylnaphthalene	9.834	142	15146	1.00	ppm	100
39) 4,6-dinitro-2-methylph...	13.003	198	18936	5.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66184.D
Acq On : 21 Jun 2016 12:31 am
Operator : ashleyd
Sample : icc2974-1.0
Misc : op94799a,e4m2974
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 21 07:53:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.170	77	28043	1.00	ppm	100
41) n-nitrosodiphenylamine	13.122	169	19967	1.00	ppm	100

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

7.6.47

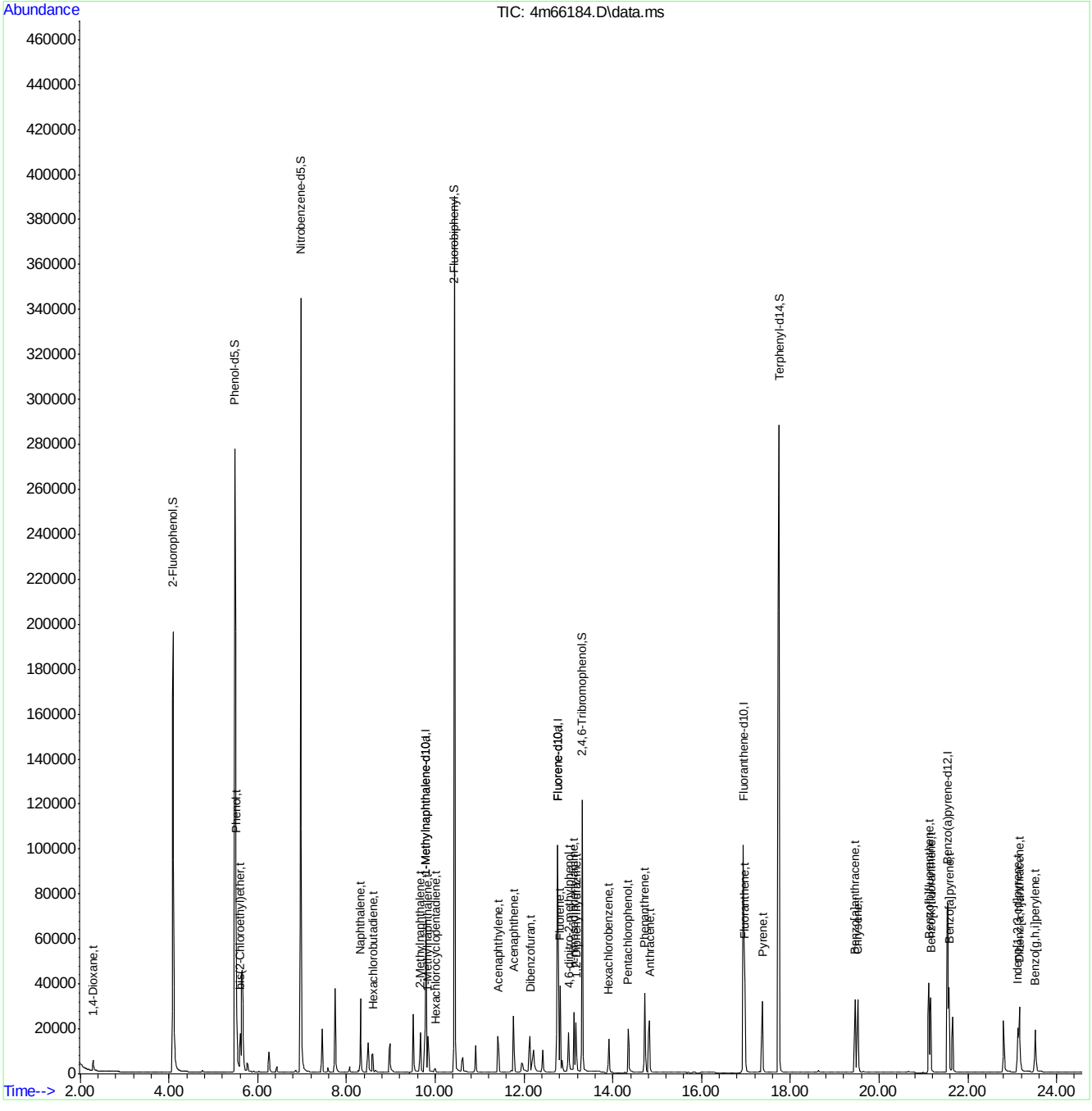
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66184.D
Acq On : 21 Jun 2016 12:31 am
Operator : ashleyd
Sample : icc2974-1.0
Misc : op94799a,e4m2974
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 21 07:53:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66185.D
Acq On : 21 Jun 2016 1:01 am
Operator : ashleyd
Sample : ic2974-0.05
Misc : op94799a,e4m2974
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 07:57:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	65123	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	120426	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	194489	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.534	264	160931	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.786	152	65123	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	120426	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.100	112	10664	1.02	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery	=	2.04%#	
3) Phenol-d5	5.497	99	16574	0.99	ppm	0.01
Spiked Amount 50.000			Recovery	=	1.98%	
6) Nitrobenzene-d5	6.968	82	14948	1.03	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.06%	
11) 2-Fluorobiphenyl	10.431	172	26966	1.02	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.04%	
17) 2,4,6-Tribromophenol	13.313	330	4974	0.79	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.58%	
25) Terphenyl-d14	17.749	244	26084	0.85	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.70%	
Target Compounds						Qvalue
4) Phenol	5.511	94	4641	0.26	ppm	48
5) bis(2-Chloroethyl)ether	5.607	93	557	0.04	ppm #	53
7) Naphthalene	8.314	128	2263	0.05	ppm	99
8) Hexachlorobutadiene	8.593	225	403	0.05	ppm	98
9) 2-Methylnaphthalene	9.667	142	1475	0.07	ppm	95
13) Acenaphthylene	11.431	152	1507	0.04	ppm	87
14) Acenaphthene	11.764	153	965	0.04	ppm	98
15) Dibenzofuran	12.141	168	2323	0.07	ppm	100
16) Fluorene	12.812	166	1764	0.04	ppm	92
18) Hexachlorobenzene	13.908	284	573	0.05	ppm	98
19) Pentachlorophenol	14.360	266	938	0.19	ppm	86
20) Phenanthrene	14.717	178	2308	0.04	ppm	98
21) Anthracene	14.830	178	2199	0.05	ppm	97
23) Fluoranthene	16.977	202	2773	0.04	ppm	99
24) Pyrene	17.372	202	2482	0.04	ppm	98
26) Benzo[a]anthracene	19.462	228	2163	0.04	ppm	97
27) Chrysene	19.519	228	2438	0.05	ppm	96
29) Benzo[b]fluoranthene	21.121	252	2558	0.04	ppm	97
30) Benzo[k]fluoranthene	21.162	252	2707	0.05	ppm	98
31) Benzo[a]pyrene	21.575	252	2415m	0.04	ppm	
32) Indeno[1,2,3-cd]pyrene	23.131	276	2781	0.04	ppm	96
33) Dibenz[a,h]anthracene	23.158	278	2312	0.04	ppm	84
34) Benzo[g,h,i]perylene	23.530	276	2464	0.05	ppm	100
37) 1-Methylnaphthalene	9.858	142	987	0.05	ppm #	62
39) 4,6-dinitro-2-methylph...	13.027	198	615	0.12	ppm	93
40) 1,2-Diphenylhydrazine	13.170	77	1490	0.04	ppm	100
41) n-nitrosodiphenylamine	13.122	169	1042	0.04	ppm	94

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66185.D
Acq On : 21 Jun 2016 1:01 am
Operator : ashleyd
Sample : ic2974-0.05
Misc : op94799a,e4m2974
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 07:57:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

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

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

7.6.48

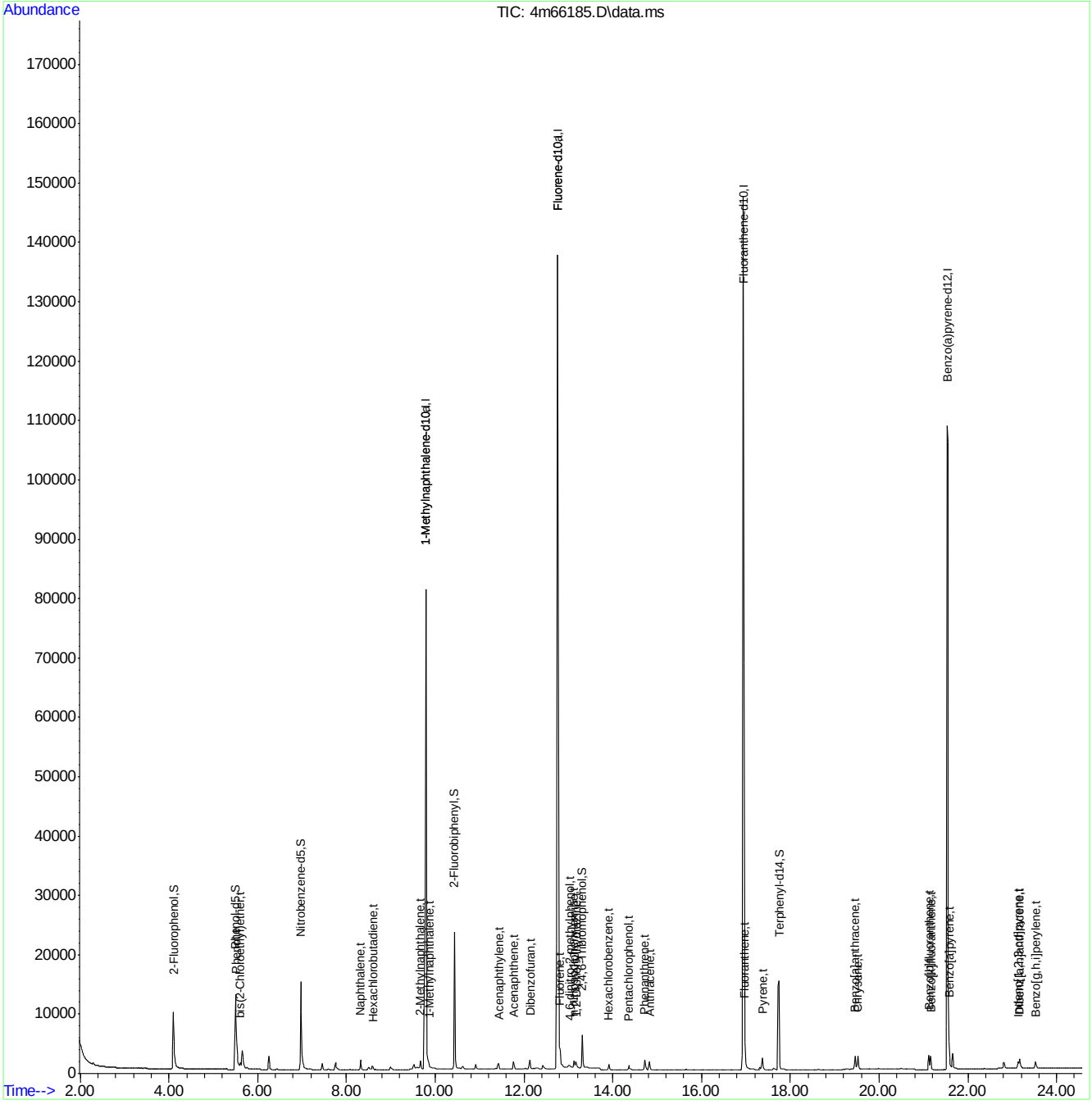
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66185.D
Acq On : 21 Jun 2016 1:01 am
Operator : ashleyd
Sample : ic2974-0.05
Misc : op94799a,e4m2974
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 07:57:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

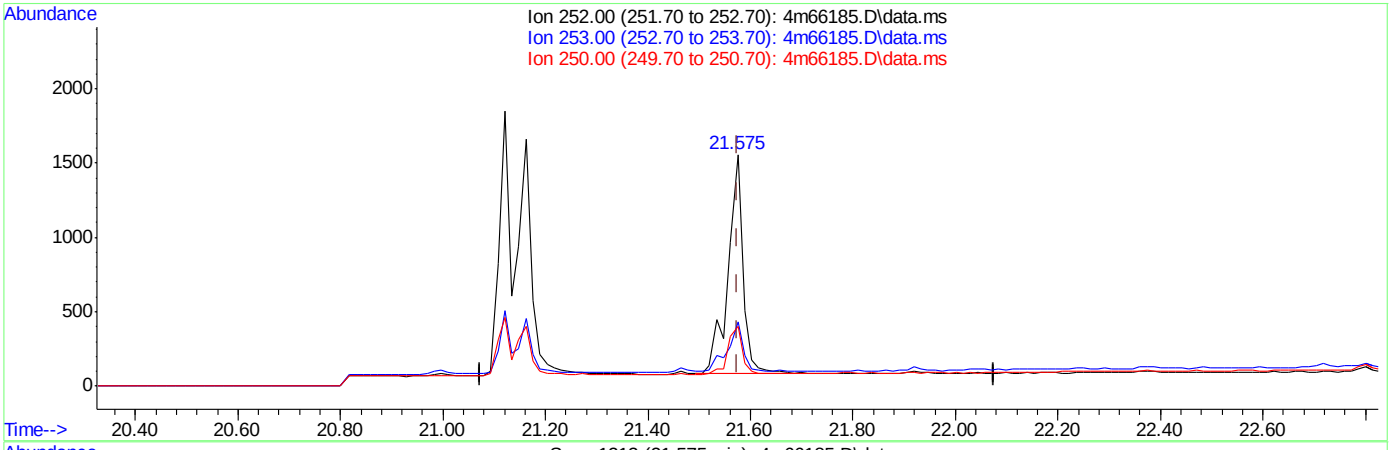


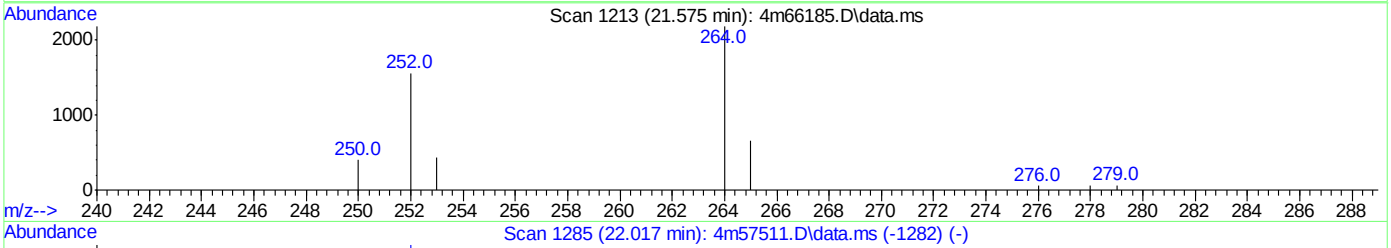
SGS ACCUTEST JC21709

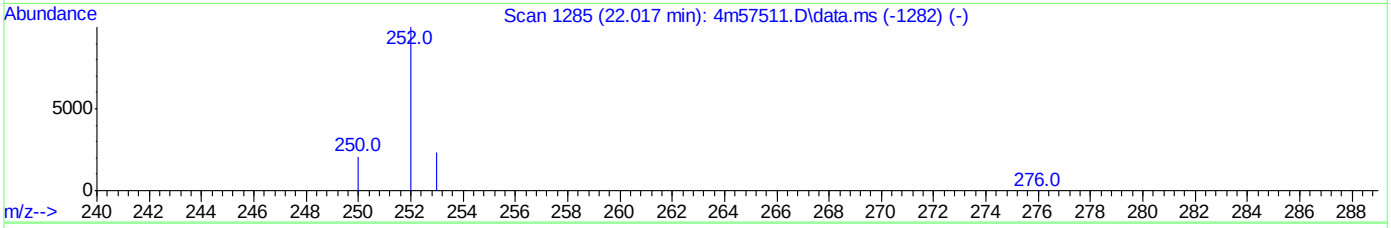
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66185.D
Acq On : 21 Jun 2016 1:01 am
Operator : ashleyd
Sample : ic2974-0.05
Misc : op94799a,e4m2974
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 07:53:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration







TIC: 4m66185.D\data.ms

(31) Benzo[a]pyrene (t)

21.575min (0.000) 0.06ppm

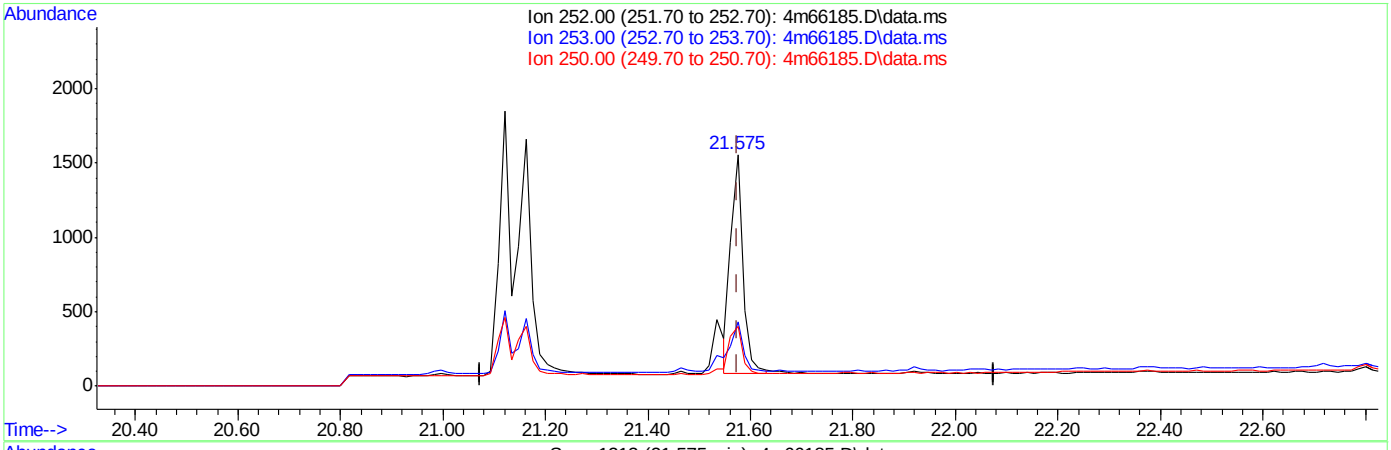
response 2993

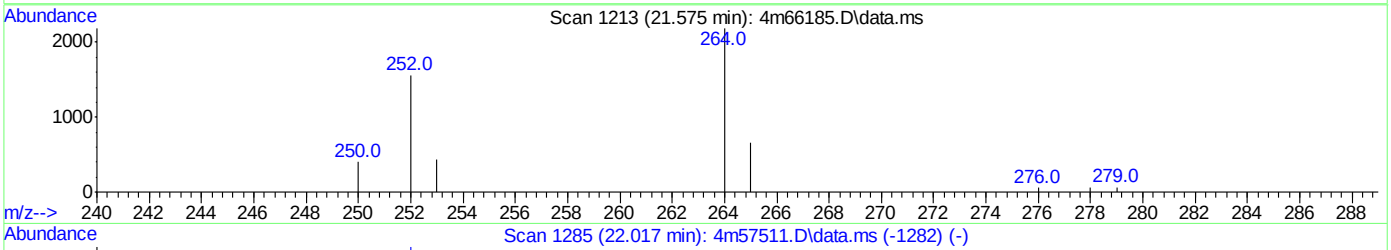
Ion	Exp%	Act%
252.00	100	100
253.00	22.40	22.56
250.00	21.30	21.68
0.00	0.00	0.00

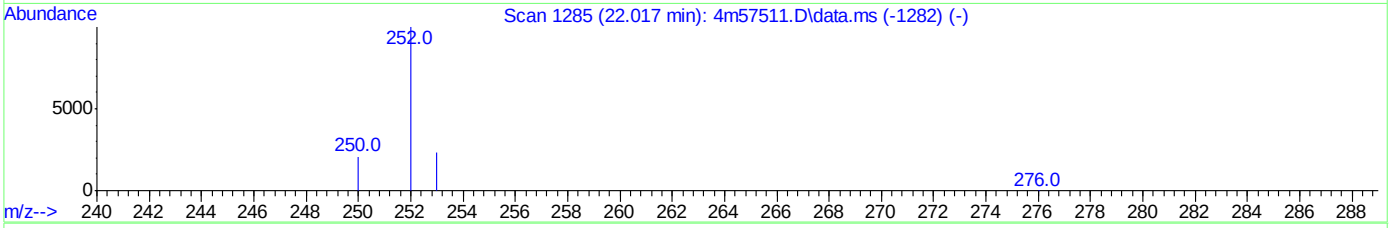
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66185.D
Acq On : 21 Jun 2016 1:01 am
Operator : ashleyd
Sample : ic2974-0.05
Misc : op94799a,e4m2974
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 07:53:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration







TIC: 4m66185.D\data.ms

(31) Benzo[a]pyrene (t)

21.575min (0.000) 0.04ppm m

response 2415

Ion	Exp%	Act%
252.00	100	100
253.00	22.40	27.73
250.00	21.30	25.74
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66186.D
Acq On : 21 Jun 2016 1:31 am
Operator : ashleyd
Sample : ic2974-0.02
Misc : op94799a,e4m2974
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 21 07:58:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	61071	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	110365	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	174894	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.534	264	142482	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.786	152	61071	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	110365	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.100	112	3577	0.37	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 0.74%#			
3) Phenol-d5	5.497	99	5671	0.36	ppm	0.01
Spiked Amount 50.000			Recovery = 0.72%			
6) Nitrobenzene-d5	6.984	82	5230	0.38	ppm	0.02
Spiked Amount 50.000			Recovery = 0.76%			
11) 2-Fluorobiphenyl	10.431	172	9683	0.39	ppm	0.00
Spiked Amount 50.000			Recovery = 0.78%			
17) 2,4,6-Tribromophenol	13.313	330	1645	0.29	ppm	0.00
Spiked Amount 50.000			Recovery = 0.58%			
25) Terphenyl-d14	17.749	244	9281	0.33	ppm	0.00
Spiked Amount 50.000			Recovery = 0.66%			
Target Compounds						Qvalue
4) Phenol	5.525	94	1518	0.09	ppm	87
5) bis(2-Chloroethyl)ether	5.607	93	183	0.01	ppm #	63
7) Naphthalene	8.314	128	846	0.02	ppm	97
8) Hexachlorobutadiene	8.593	225	149	0.02	ppm	97
9) 2-Methylnaphthalene	9.667	142	894	0.05	ppm	93
13) Acenaphthylene	11.431	152	573	0.02	ppm	88
14) Acenaphthene	11.764	153	350	0.02	ppm	94
15) Dibenzofuran	12.141	168	1686	0.06	ppm	100
16) Fluorene	12.812	166	615	0.02	ppm	100
18) Hexachlorobenzene	13.908	284	272	0.02	ppm	95
19) Pentachlorophenol	14.360	266	500	0.11	ppm	91
20) Phenanthrene	14.717	178	843	0.02	ppm	97
21) Anthracene	14.830	178	770	0.02	ppm	95
23) Fluoranthene	16.977	202	1130	0.02	ppm	97
24) Pyrene	17.372	202	909	0.02	ppm	96
26) Benzo[a]anthracene	19.462	228	826	0.02	ppm #	94
27) Chrysene	19.518	228	990	0.02	ppm	96
29) Benzo[b]fluoranthene	21.120	252	993	0.02	ppm	95
30) Benzo[k]fluoranthene	21.162	252	1119	0.02	ppm	95
31) Benzo[a]pyrene	21.575	252	1019	0.02	ppm	94
32) Indeno[1,2,3-cd]pyrene	23.131	276	1096	0.02	ppm	99
33) Dibenz[a,h]anthracene	23.158	278	845	0.02	ppm	75
34) Benzo[g,h,i]perylene	23.530	276	924	0.02	ppm	99
37) 1-Methylnaphthalene	9.858	142	384	0.02	ppm #	63
39) 4,6-dinitro-2-methylph...	13.027	198	338	0.07	ppm	84
40) 1,2-Diphenylhydrazine	13.170	77	484	0.01	ppm	96
41) n-nitrosodiphenylamine	13.122	169	347	0.01	ppm	85

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66186.D
Acq On : 21 Jun 2016 1:31 am
Operator : ashleyd
Sample : ic2974-0.02
Misc : op94799a,e4m2974
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 21 07:58:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

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

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

7.6.49

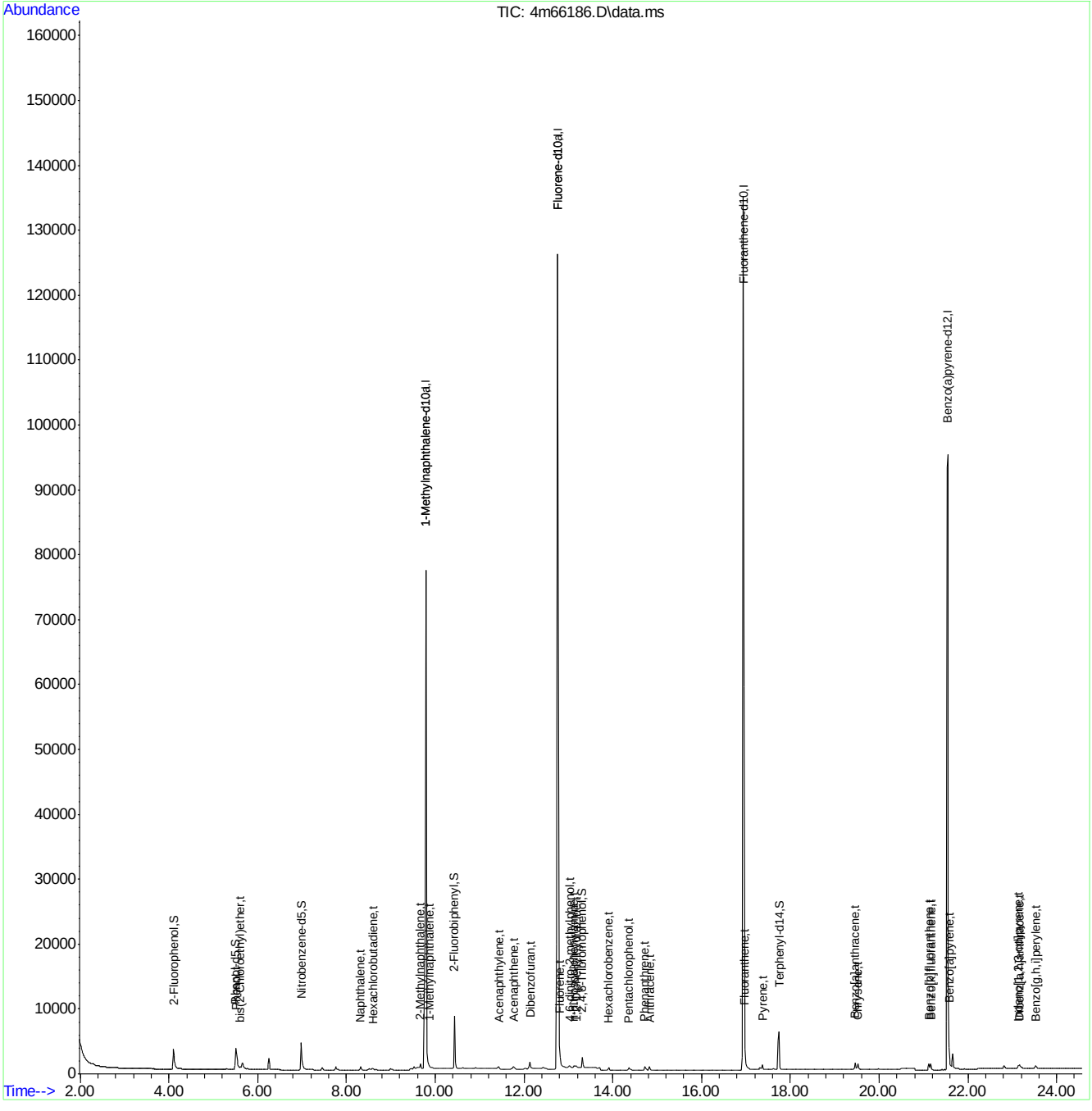
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66186.D
Acq On : 21 Jun 2016 1:31 am
Operator : ashleyd
Sample : ic2974-0.02
Misc : op94799a,e4m2974
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 21 07:58:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration



4M66187.D

Manual Integrations APPROVED (compounds with "m" flag)

Nina Pandya
06/21/16 13:33

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66187.D
Acq On : 21 Jun 2016 2:01 am
Operator : ashleyd
Sample : ic2974-0.01
Misc : op94799a,e4m2974
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 21 07:58:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.786	152	52088	4.00	ppm		0.00
12) Fluorene-d10	12.764	176	96797	4.00	ppm		0.00
22) Fluoranthene-d10	16.939	212	149300	4.00	ppm		0.00
28) Benzo(a)pyrene-d12	21.533	264	120485	4.00	ppm		0.00
35) 1-Methylnaphthalene-d10a	9.786	152	52088	4.00	ppm		0.00
38) Fluorene-d10a	12.764	176	96797	4.00	ppm		0.00
System Monitoring Compounds							
2) 2-Fluorophenol	4.110	112	1452	0.17	ppm		0.02
Spiked Amount 50.000	Range 11 - 58		Recovery = 0.34%#				
3) Phenol-d5	5.511	99	2293	0.17	ppm		0.03
Spiked Amount 50.000			Recovery = 0.34%				
6) Nitrobenzene-d5	6.984	82	2159	0.19	ppm		0.02
Spiked Amount 50.000			Recovery = 0.38%				
11) 2-Fluorobiphenyl	10.430	172	4224	0.20	ppm		0.00
Spiked Amount 50.000			Recovery = 0.40%				
17) 2,4,6-Tribromophenol	13.313	330	681	0.14	ppm		0.00
Spiked Amount 50.000			Recovery = 0.28%				
25) Terphenyl-d14	17.749	244	3995	0.17	ppm		0.00
Spiked Amount 50.000			Recovery = 0.34%				
Target Compounds							Qvalue
4) Phenol	5.525	94	640	0.04	ppm		62
7) Naphthalene	8.314	128	363	0.01	ppm		98
9) 2-Methylnaphthalene	9.667	142	639	0.04	ppm		90
13) Acenaphthylene	11.431	152	239	0.01	ppm		93
14) Acenaphthene	11.764	153	148	0.01	ppm		99
15) Dibenzofuran	12.141	168	1318	0.05	ppm		100
16) Fluorene	12.812	166	262	0.01	ppm		97
18) Hexachlorobenzene	13.908	284	92m	0.01	ppm		
19) Pentachlorophenol	14.360	266	329	0.08	ppm		91
20) Phenanthrene	14.717	178	374	0.01	ppm		97
21) Anthracene	14.830	178	349	0.01	ppm		93
23) Fluoranthene	16.977	202	554	0.01	ppm		98
24) Pyrene	17.372	202	401	0.01	ppm		97
26) Benzo[a]anthracene	19.462	228	365	0.01	ppm	#	92
27) Chrysene	19.518	228	436	0.01	ppm		94
29) Benzo[b]fluoranthene	21.120	252	521	0.01	ppm		94
30) Benzo[k]fluoranthene	21.162	252	610	0.01	ppm		95
31) Benzo[a]pyrene	21.575	252	529	0.01	ppm		88
32) Indeno[1,2,3-cd]pyrene	23.131	276	477	0.01	ppm		92
33) Dibenz[a,h]anthracene	23.172	278	406	0.01	ppm		88
34) Benzo[g,h,i]perylene	23.530	276	455	0.01	ppm		99
37) 1-Methylnaphthalene	9.858	142	183	0.01	ppm	#	69
39) 4,6-dinitro-2-methylph...	13.051	198	165	0.04	ppm		75
40) 1,2-Diphenylhydrazine	13.170	77	192	0.01	ppm		96
41) n-nitrosodiphenylamine	13.146	169	162	0.01	ppm		82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66187.D
Acq On : 21 Jun 2016 2:01 am
Operator : ashleyd
Sample : ic2974-0.01
Misc : op94799a,e4m2974
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 21 07:58:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

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

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

7.6.50

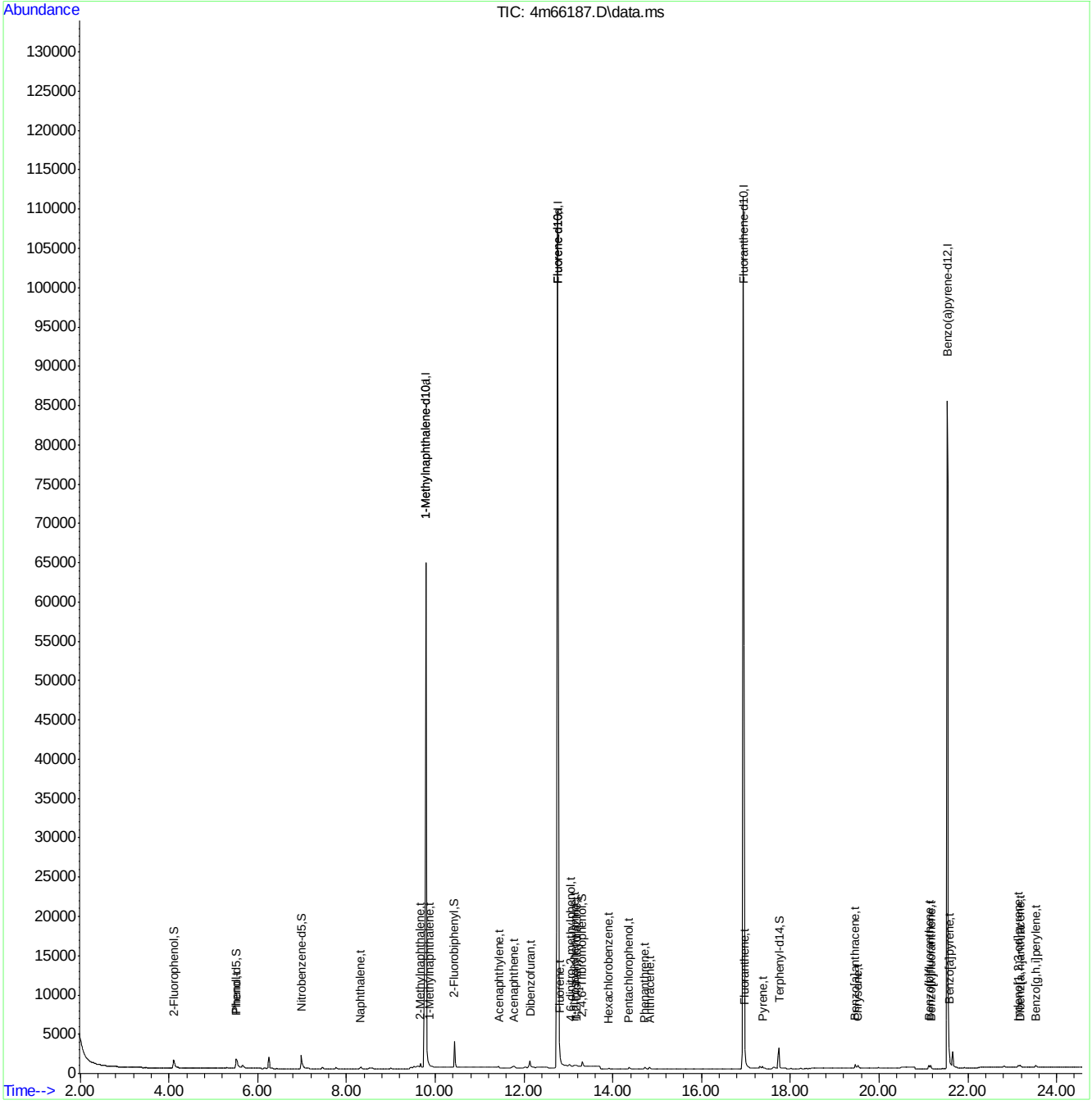
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66187.D
Acq On : 21 Jun 2016 2:01 am
Operator : ashleyd
Sample : ic2974-0.01
Misc : op94799a,e4m2974
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 21 07:58:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration



M4M2974SIM.M Tue Jun 21 07:59:03 2016 MANAGER Page: 3

Manual Integration Approval Summary

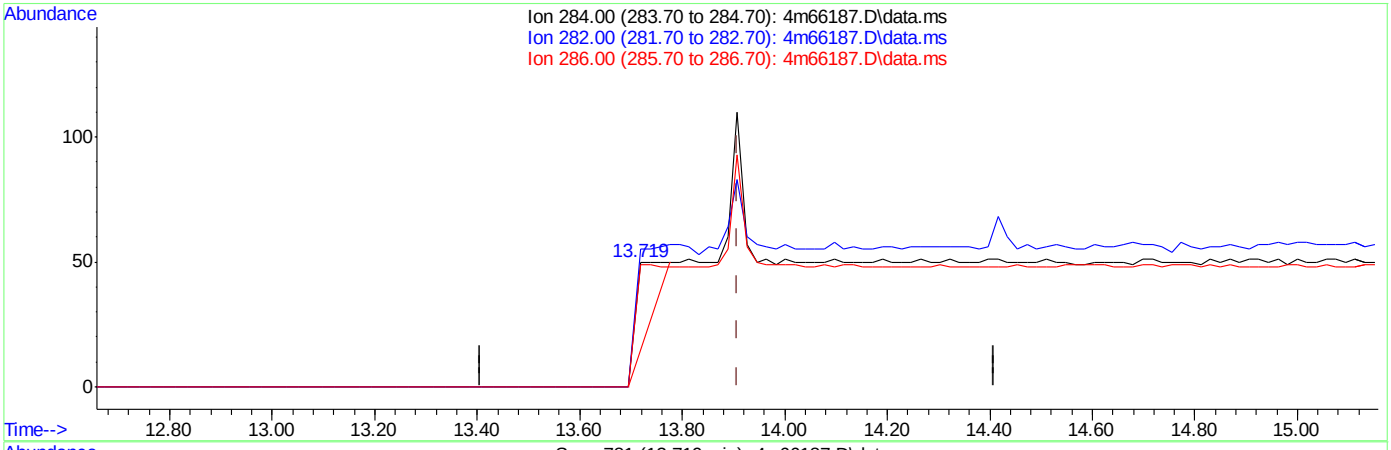
Sample Number:	E4M2974-IC2974	**Method:**	EPA 625 BY SIM
Lab FileID:	4M66187.D	**Analyst approved:**	06/21/16 08:32 Linsey Kirschmann
Injection Time:	06/21/16 02:01	**Supervisor approved:**	06/21/16 13:33 Nina Pandya

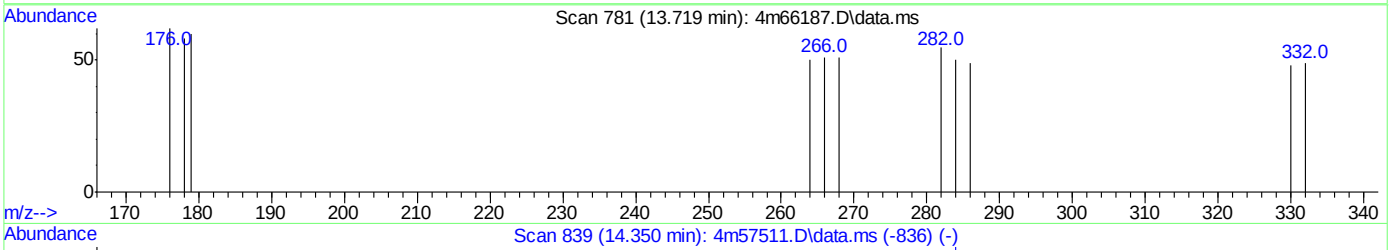
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hexachlorobenzene	118-74-1		13.91	Poor instrument integration

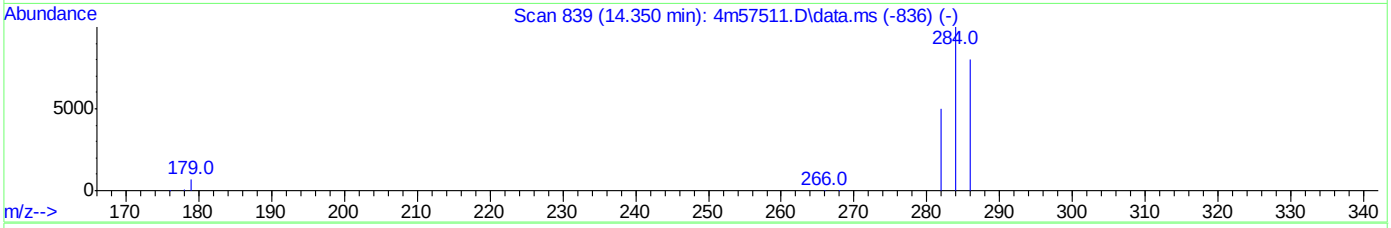
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66187.D
Acq On : 21 Jun 2016 2:01 am
Operator : ashleyd
Sample : ic2974-0.01
Misc : op94799a,e4m2974
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 21 07:53:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration







TIC: 4m66187.D\data.ms

(18) Hexachlorobenzene (t)

13.719min (-0.188) 0.01ppm

response 121

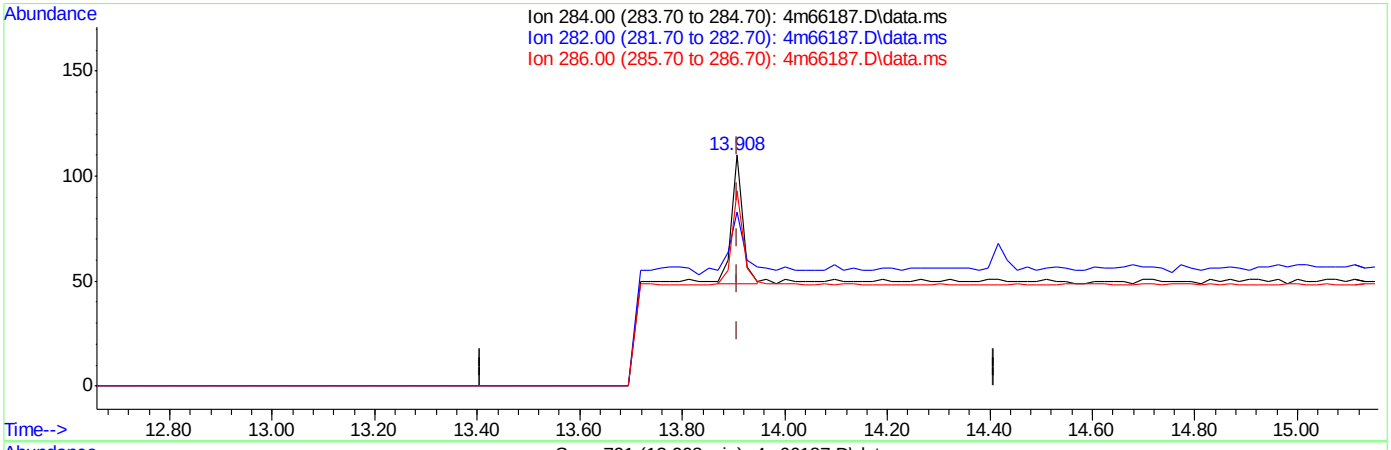
Ion	Exp%	Act%
284.00	100	100
282.00	49.10	106.00#
286.00	81.90	100.00
0.00	0.00	0.00

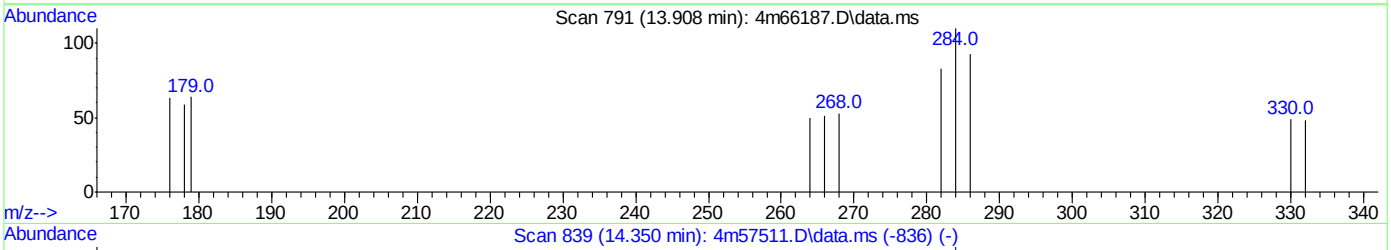
SGS ACCUTEST JC21709

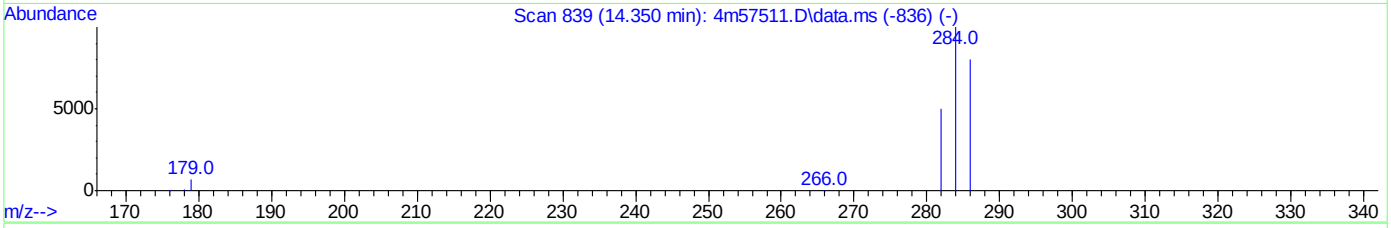
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66187.D
Acq On : 21 Jun 2016 2:01 am
Operator : ashleyd
Sample : ic2974-0.01
Misc : op94799a,e4m2974
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 21 07:53:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration







TIC: 4m66187.D\data.ms

(18) Hexachlorobenzene (t)

13.908min (-0.000) 0.01ppm m

response 92

Ion	Exp%	Act%
284.00	100	100
282.00	49.10	75.45
286.00	81.90	84.55
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66188.D
Acq On : 21 Jun 2016 2:31 am
Operator : ashleyd
Sample : ic2974-5.0
Misc : op94799a,e4m2974
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 07:53:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.786	152	59276	4.00	ppm		0.00
12) Fluorene-d10	12.764	176	118283	4.00	ppm		0.00
22) Fluoranthene-d10	16.939	212	166736	4.00	ppm		0.00
28) Benzo(a)pyrene-d12	21.547	264	138747	4.00	ppm		0.01
35) 1-Methylnaphthalene-d10a	9.786	152	59276	4.00	ppm		0.00
38) Fluorene-d10a	12.764	176	118283	4.00	ppm		0.00
System Monitoring Compounds							
2) 2-Fluorophenol	4.090	112	886370	93.31	ppm		0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 186.62%#				
3) Phenol-d5	5.497	99	1388174	90.88	ppm		0.01
Spiked Amount 50.000			Recovery = 181.76%				
6) Nitrobenzene-d5	6.984	82	1286964	97.03	ppm		0.02
Spiked Amount 50.000			Recovery = 194.06%				
11) 2-Fluorobiphenyl	10.430	172	1589587	66.29	ppm		0.00
Spiked Amount 50.000			Recovery = 132.58%				
17) 2,4,6-Tribromophenol	13.313	330	390490	63.37	ppm		0.00
Spiked Amount 50.000			Recovery = 126.74%				
25) Terphenyl-d14	17.749	244	1801284	68.07	ppm		0.00
Spiked Amount 50.000			Recovery = 136.14%				
Target Compounds							Qvalue
4) Phenol	5.511	94	382997	23.65	ppm		84
5) bis(2-Chloroethyl)ether	5.607	93	57615	4.45	ppm	#	55
7) Naphthalene	8.314	128	200110	4.77	ppm		100
8) Hexachlorobutadiene	8.593	225	33384	4.78	ppm		99
9) 2-Methylnaphthalene	9.667	142	88068	4.86	ppm		99
10) Hexachlorocyclopentadiene	10.001	237	29396	23.91	ppm		98
13) Acenaphthylene	11.409	152	144680	4.14	ppm		100
14) Acenaphthene	11.764	153	86149	3.89	ppm		99
15) Dibenzofuran	12.141	168	132775	4.06	ppm		100
16) Fluorene	12.812	166	163295	4.14	ppm		99
18) Hexachlorobenzene	13.908	284	48933	3.97	ppm		100
19) Pentachlorophenol	14.341	266	117769	23.84	ppm		96
20) Phenanthrene	14.717	178	209846	3.96	ppm		100
21) Anthracene	14.811	178	201847	4.22	ppm		88
23) Fluoranthene	16.977	202	223507	4.21	ppm		99
24) Pyrene	17.372	202	230182	4.44	ppm		98
26) Benzo[a]anthracene	19.462	228	196135	4.47	ppm		99
27) Chrysene	19.518	228	194015	4.37	ppm		99
29) Benzo[b]fluoranthene	21.120	252	219460	4.30	ppm		99
30) Benzo[k]fluoranthene	21.162	252	201152	4.12	ppm		99
31) Benzo[a]pyrene	21.575	252	192124	4.13	ppm		98
32) Indeno[1,2,3-cd]pyrene	23.117	276	236117	4.31	ppm		100
33) Dibenz[a,h]anthracene	23.158	278	193986	4.26	ppm		96
34) Benzo[g,h,i]perylene	23.516	276	204909	4.34	ppm		100
36) 1,4-Dioxane	2.288	88	19058	4.44	ppm		86
37) 1-Methylnaphthalene	9.834	142	82152	4.92	ppm		100
39) 4,6-dinitro-2-methylph...	13.003	198	117585	23.28	ppm	#	59

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66188.D
Acq On : 21 Jun 2016 2:31 am
Operator : ashleyd
Sample : ic2974-5.0
Misc : op94799a,e4m2974
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 07:53:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.170	77	142303	3.80 ppm	97
41) n-nitrosodiphenylamine	13.122	169	99654	3.74 ppm	97

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

7.6.51

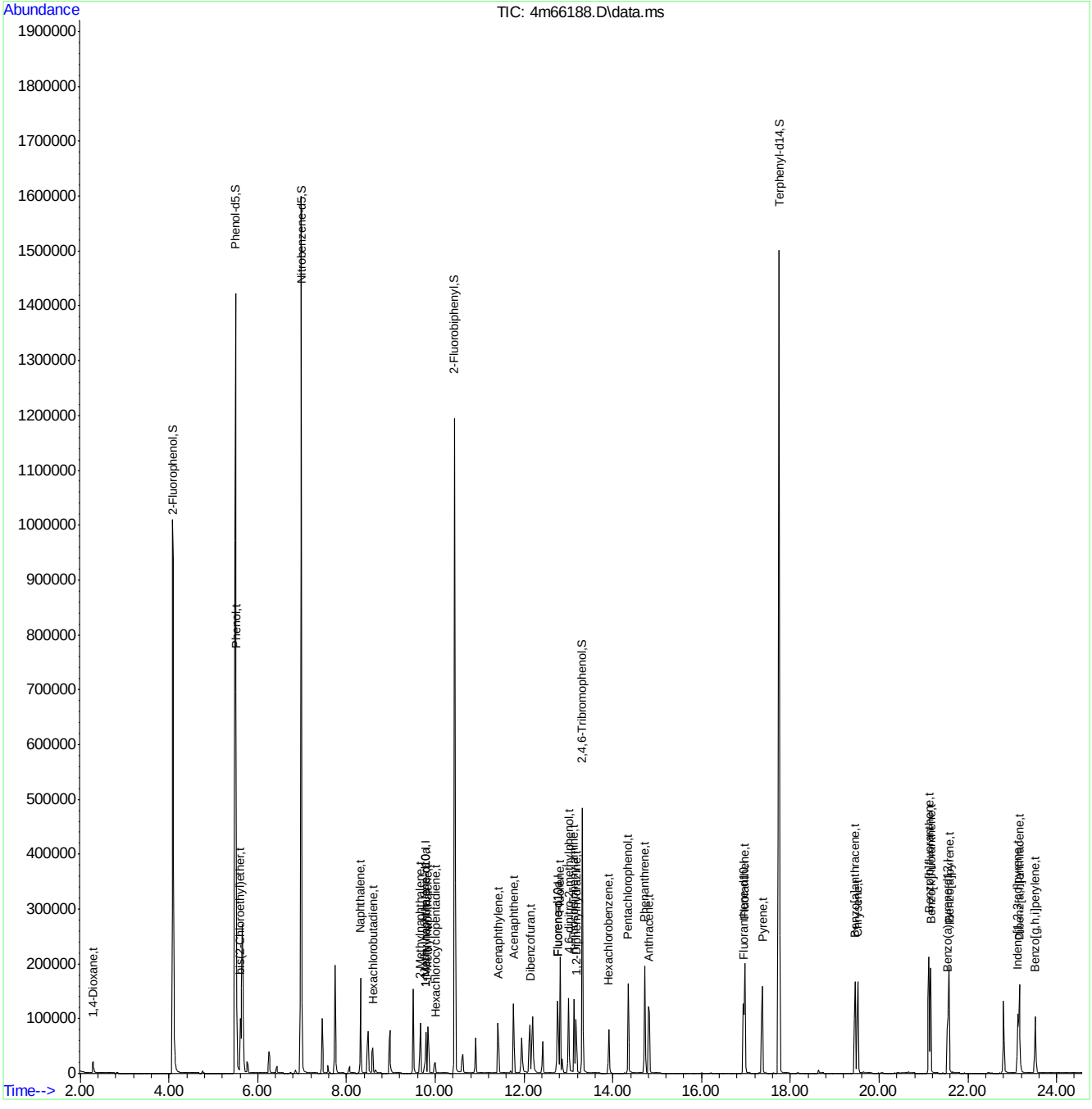
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66188.D
Acq On : 21 Jun 2016 2:31 am
Operator : ashleyd
Sample : ic2974-5.0
Misc : op94799a,e4m2974
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 07:53:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66189.D
Acq On : 21 Jun 2016 3:01 am
Operator : ashleyd
Sample : ic2974-2.5
Misc : op94799a,e4m2974
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 21 07:53:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	54074	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	100500	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	157255	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.533	264	125988	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.786	152	54074	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	100500	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.089	112	436515	50.37	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 100.74%#			
3) Phenol-d5	5.483	99	668228	47.96	ppm	0.00
Spiked Amount 50.000			Recovery = 95.92%			
6) Nitrobenzene-d5	6.968	82	590009	48.76	ppm	0.00
Spiked Amount 50.000			Recovery = 97.52%			
11) 2-Fluorobiphenyl	10.430	172	966520	44.19	ppm	0.00
Spiked Amount 50.000			Recovery = 88.38%			
17) 2,4,6-Tribromophenol	13.313	330	225826	43.13	ppm	0.00
Spiked Amount 50.000			Recovery = 86.26%			
25) Terphenyl-d14	17.749	244	1074721	43.06	ppm	0.00
Spiked Amount 50.000			Recovery = 86.12%			
Target Compounds						Qvalue
4) Phenol	5.511	94	184009	12.46	ppm	92
5) bis(2-Chloroethyl)ether	5.607	93	27900	2.36	ppm	82
7) Naphthalene	8.314	128	95674	2.50	ppm	99
8) Hexachlorobutadiene	8.593	225	15922	2.50	ppm	98
9) 2-Methylnaphthalene	9.667	142	41641	2.52	ppm	100
10) Hexachlorocyclopentadiene	10.001	237	10207	9.10	ppm	99
13) Acenaphthylene	11.409	152	68190	2.30	ppm	99
14) Acenaphthene	11.764	153	42532	2.26	ppm	100
15) Dibenzofuran	12.141	168	60896	2.19	ppm	100
16) Fluorene	12.812	166	74454	2.22	ppm	97
18) Hexachlorobenzene	13.908	284	22746	2.17	ppm	97
19) Pentachlorophenol	14.341	266	51313	12.22	ppm	94
20) Phenanthrene	14.717	178	100400	2.23	ppm	99
21) Anthracene	14.811	178	93614	2.30	ppm	88
23) Fluoranthene	16.977	202	106922	2.14	ppm	99
24) Pyrene	17.372	202	107550	2.20	ppm	99
26) Benzo[a]anthracene	19.462	228	86425	2.09	ppm	99
27) Chrysene	19.518	228	89562	2.14	ppm	98
29) Benzo[b]fluoranthene	21.120	252	103181	2.22	ppm	99
30) Benzo[k]fluoranthene	21.148	252	98042	2.21	ppm	88
31) Benzo[a]pyrene	21.575	252	92339	2.19	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.117	276	110721	2.22	ppm	100
33) Dibenz[a,h]anthracene	23.158	278	91992	2.22	ppm	97
34) Benzo[g,h,i]perylene	23.516	276	97040	2.26	ppm	100
36) 1,4-Dioxane	2.288	88	8751	2.24	ppm	78
37) 1-Methylnaphthalene	9.834	142	40647	2.67	ppm	97
39) 4,6-dinitro-2-methylph...	13.003	198	61494	14.33	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66189.D
Acq On : 21 Jun 2016 3:01 am
Operator : ashleyd
Sample : ic2974-2.5
Misc : op94799a,e4m2974
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 21 07:53:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.170	77	74229	2.34 ppm	99
41) n-nitrosodiphenylamine	13.122	169	54024	2.39 ppm	97

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

7.6.52

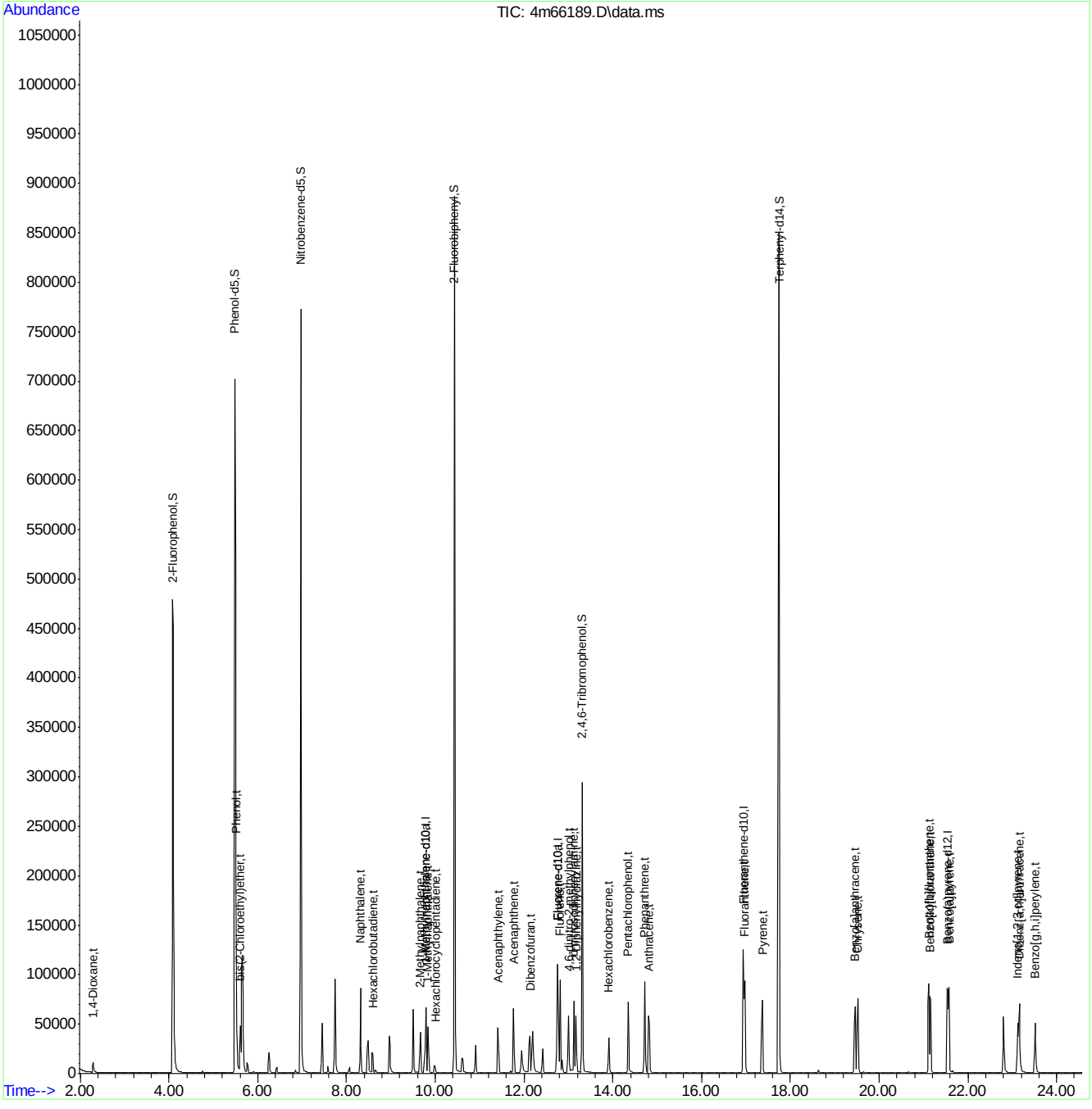
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66189.D
Acq On : 21 Jun 2016 3:01 am
Operator : ashleyd
Sample : ic2974-2.5
Misc : op94799a,e4m2974
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 21 07:53:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 07:53:27 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66190.D
Acq On : 21 Jun 2016 3:30 am
Operator : ashleyd
Sample : icv2974-1.0
Misc : op94799a,e4m2974
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 21 08:27:22 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	66763	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	117196	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	179820	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.534	264	128092	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.786	152	66763	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	117196	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery	=	0.00%#	
3) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
5) bis(2-Chloroethyl)ether	5.607	93	12366	0.97	ppm	96
7) Naphthalene	8.314	128	44242	0.95	ppm	99
8) Hexachlorobutadiene	8.577	225	7565	0.95	ppm	72
9) 2-Methylnaphthalene	9.667	142	17698	0.80	ppm	98
10) Hexachlorocyclopentadiene	10.001	237	979	0.91	ppm	97
13) Acenaphthylene	11.409	152	29207	0.94	ppm	99
14) Acenaphthene	11.764	153	18887	0.98	ppm	99
15) Dibenzofuran	12.141	168	27377	0.87	ppm	100
16) Fluorene	12.812	166	31615	0.91	ppm	98
18) Hexachlorobenzene	13.908	284	10114	0.87	ppm	97
20) Phenanthrene	14.717	178	43334	0.93	ppm	99
21) Anthracene	14.812	178	37045	0.86	ppm	88
23) Fluoranthene	16.977	202	44839	0.85	ppm	98
24) Pyrene	17.372	202	44548	0.87	ppm	99
26) Benzo[a]anthracene	19.462	228	35984	0.81	ppm	99
27) Chrysene	19.519	228	36630	0.79	ppm	98
29) Benzo[b]fluoranthene	21.121	252	37951	0.85	ppm	98
30) Benzo[k]fluoranthene	21.162	252	38594	0.90	ppm	97
31) Benzo[a]pyrene	21.575	252	36802	0.92	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.117	276	43358	0.92	ppm	99
33) Dibenz[a,h]anthracene	23.158	278	35154	0.90	ppm	99
34) Benzo[g,h,i]perylene	23.516	276	36971	0.90	ppm	100
36) 1,4-Dioxane	2.299	88	3790	0.82	ppm	87
40) 1,2-Diphenylhydrazine	13.170	77	28295	0.87	ppm	100
41) n-nitrosodiphenylamine	13.122	169	20254	0.88	ppm	98

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66190.D
Acq On : 21 Jun 2016 3:30 am
Operator : ashleyd
Sample : icv2974-1.0
Misc : op94799a,e4m2974
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 21 08:27:22 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration

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

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

7.6.53

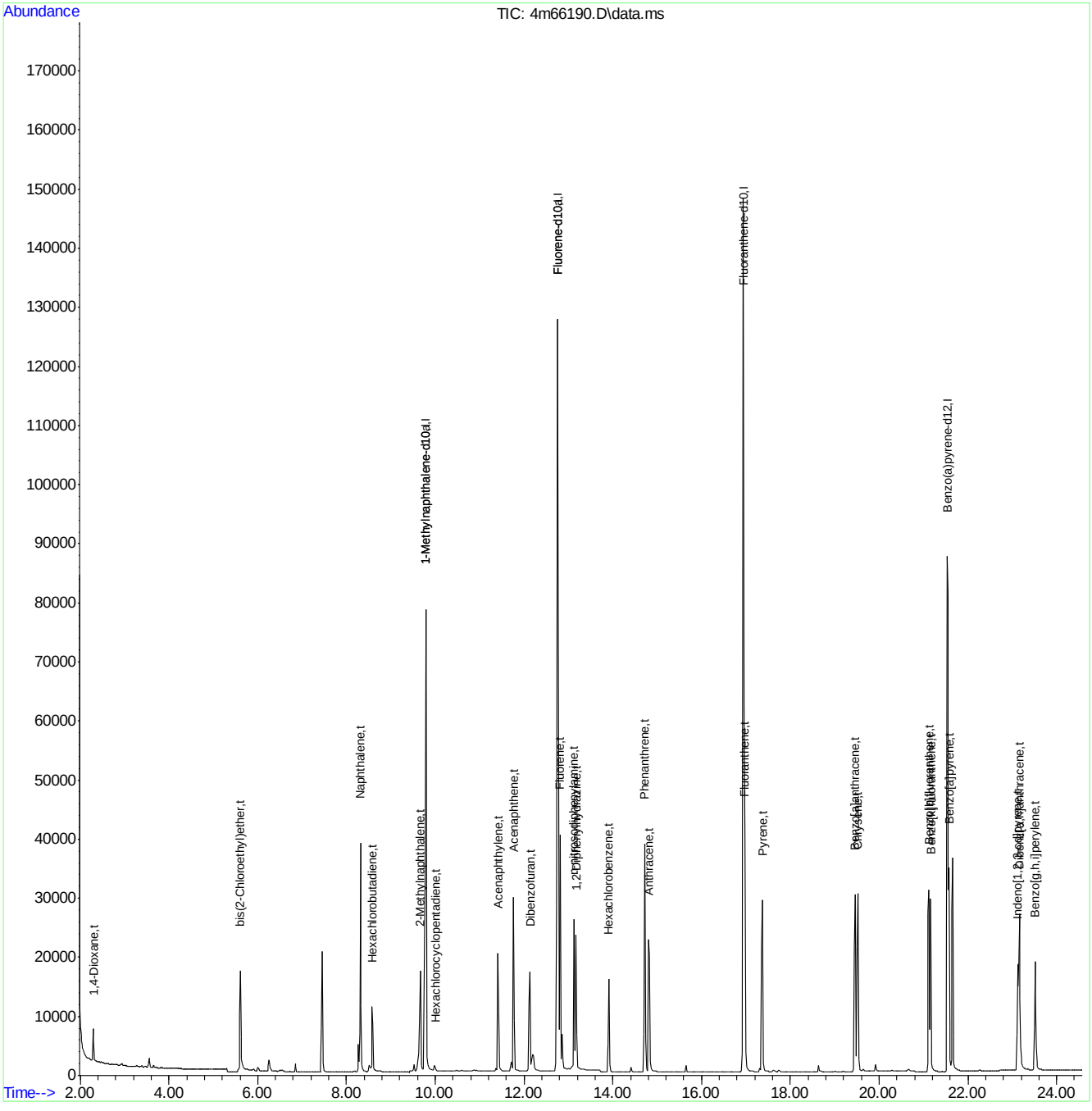
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66190.D
Acq On : 21 Jun 2016 3:30 am
Operator : ashleyd
Sample : icv2974-1.0
Misc : op94799a,e4m2974
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 21 08:27:22 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66191.D
Acq On : 21 Jun 2016 4:00 am
Operator : ashleyd
Sample : icv2974-1.0
Misc : op94799a,e4m2974
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 21 08:06:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.786	152	50054	4.00	ppm	0.00
12) Fluorene-d10	12.764	176	78597	4.00	ppm	0.00
22) Fluoranthene-d10	16.939	212	127549	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.533	264	101417	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.786	152	50054	4.00	ppm	0.00
38) Fluorene-d10a	12.764	176	78597	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery	=	0.00%#	
3) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
17) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
4) Phenol	5.511	94	69922	5.14	ppm	85
19) Pentachlorophenol	14.341	266	16205	5.66	ppm	99
39) 4,6-dinitro-2-methylph...	13.003	198	18235	4.84	ppm	97

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

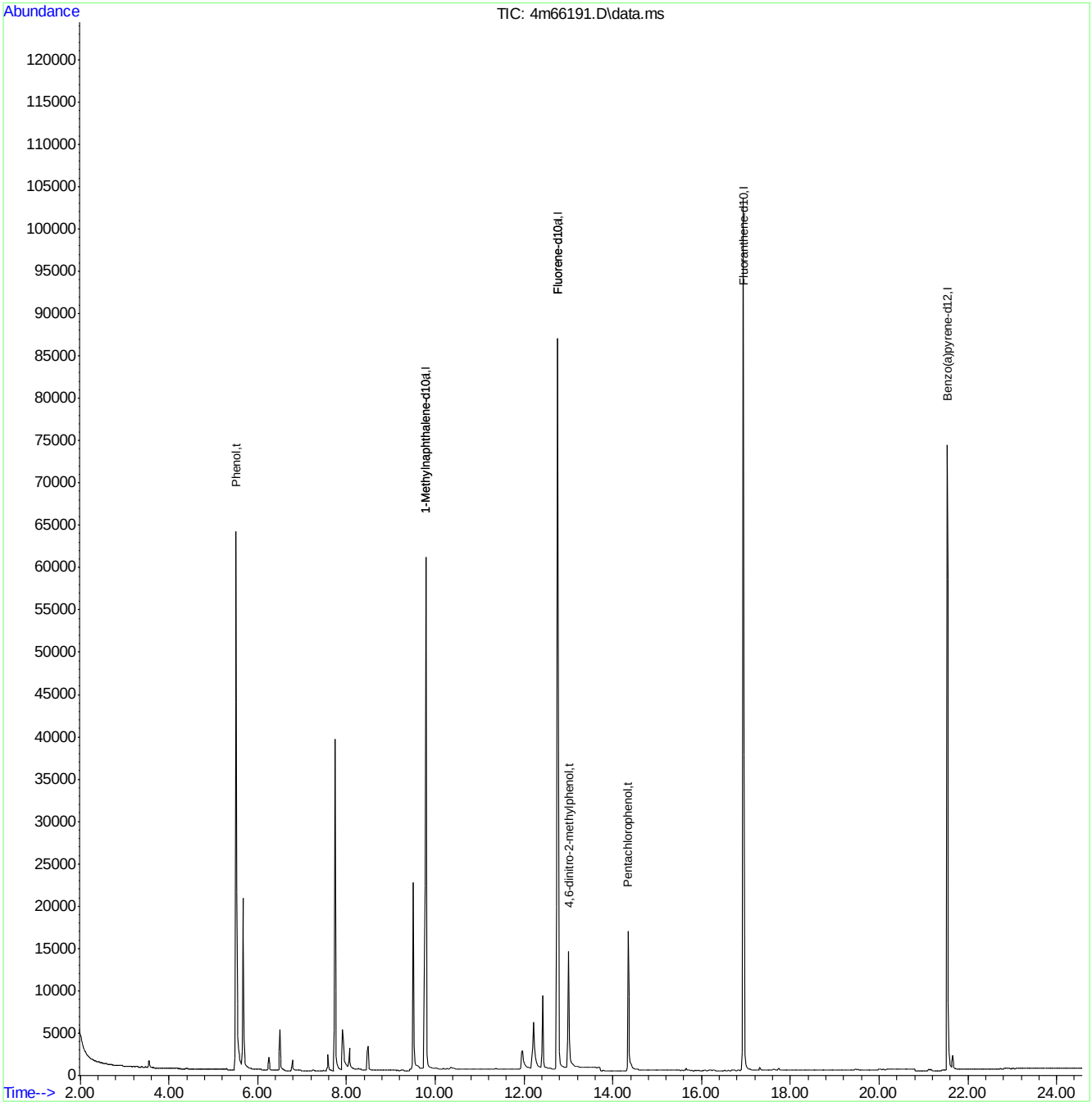
7.6.54

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2974\
Data File : 4m66191.D
Acq On : 21 Jun 2016 4:00 am
Operator : ashleyd
Sample : icv2974-1.0
Misc : op94799a,e4m2974
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 21 08:06:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2977\
Data File : 4m66249.D
Acq On : 22 Jun 2016 9:41 am
Operator : linseyk
Sample : cc2974-1
Misc : op94644a,e4m2977
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 22 10:07:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.762	152	66973	4.00	ppm	-0.02
12) Fluorene-d10	12.740	176	101711	4.00	ppm	-0.02
22) Fluoranthene-d10	16.920	212	155986	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.520	264	128803	4.00	ppm	0.07
35) 1-Methylnaphthalene-d10a	9.762	152	66973	4.00	ppm	-0.02
38) Fluorene-d10a	12.740	176	101711	4.00	ppm	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.079	112	192103	18.00	ppm	-0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 36.00%			
3) Phenol-d5	5.484	99	304614	18.10	ppm	0.00
Spiked Amount 50.000			Recovery = 36.20%			
6) Nitrobenzene-d5	6.953	82	277446	18.53	ppm	-0.02
Spiked Amount 50.000			Recovery = 37.06%			
11) 2-Fluorobiphenyl	10.407	172	418336	15.52	ppm	-0.02
Spiked Amount 50.000			Recovery = 31.04%			
17) 2,4,6-Tribromophenol	13.290	330	99259	20.94	ppm	-0.02
Spiked Amount 50.000			Recovery = 41.88%			
25) Terphenyl-d14	17.730	244	485296	22.03	ppm	-0.02
Spiked Amount 50.000			Recovery = 44.06%			
Target Compounds						Qvalue
4) Phenol	5.497	94	81331	4.47	ppm	55
5) bis(2-Chloroethyl)ether	5.594	93	11984	0.93	ppm	77
7) Naphthalene	8.299	128	42793	0.92	ppm	98
8) Hexachlorobutadiene	8.562	225	7112	0.89	ppm	77
9) 2-Methylnaphthalene	9.643	142	21741	0.98	ppm	93
10) Hexachlorocyclopentadiene	9.977	237	4376	2.38	ppm	96
13) Acenaphthylene	11.409	152	22299	0.83	ppm	85
14) Acenaphthene	11.742	153	17814	1.06	ppm	96
15) Dibenzofuran	12.119	168	28575	1.05	ppm	100
16) Fluorene	12.788	166	32927	1.09	ppm	93
18) Hexachlorobenzene	13.889	284	10146	1.01	ppm	94
19) Pentachlorophenol	14.322	266	22269	6.01	ppm	98
20) Phenanthrene	14.699	178	44516	1.10	ppm	98
21) Anthracene	14.793	178	41309	1.10	ppm	90
23) Fluoranthene	16.958	202	47293	1.04	ppm	98
24) Pyrene	17.354	202	47494	1.07	ppm	98
26) Benzo[a]anthracene	19.443	228	40948	1.06	ppm	99
27) Chrysene	19.500	228	40827	1.02	ppm	99
29) Benzo[b]fluoranthene	21.093	252	49710	1.11	ppm	92
30) Benzo[k]fluoranthene	21.134	252	41855	0.97	ppm	82
31) Benzo[a]pyrene	21.547	252	41939	1.04	ppm	91
32) Indeno[1,2,3-cd]pyrene	23.103	276	51213	1.08	ppm	78
33) Dibenz[a,h]anthracene	23.131	278	42926	1.10	ppm #	60
34) Benzo[g,h,i]perylene	23.503	276	44995	1.09	ppm	83
36) 1,4-Dioxane	2.278	88	4056	0.88	ppm	84
37) 1-Methylnaphthalene	9.834	142	17702	0.88	ppm #	64
39) 4,6-dinitro-2-methylph...	13.003	198	17800	3.75	ppm #	56

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2977\
Data File : 4m66249.D
Acq On : 22 Jun 2016 9:41 am
Operator : linseyk
Sample : cc2974-1
Misc : op94644a,e4m2977
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 22 10:07:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.146	77	27603	0.98	ppm	98
41) n-nitrosodiphenylamine	13.099	169	18576	0.93	ppm	94

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

7.6.55

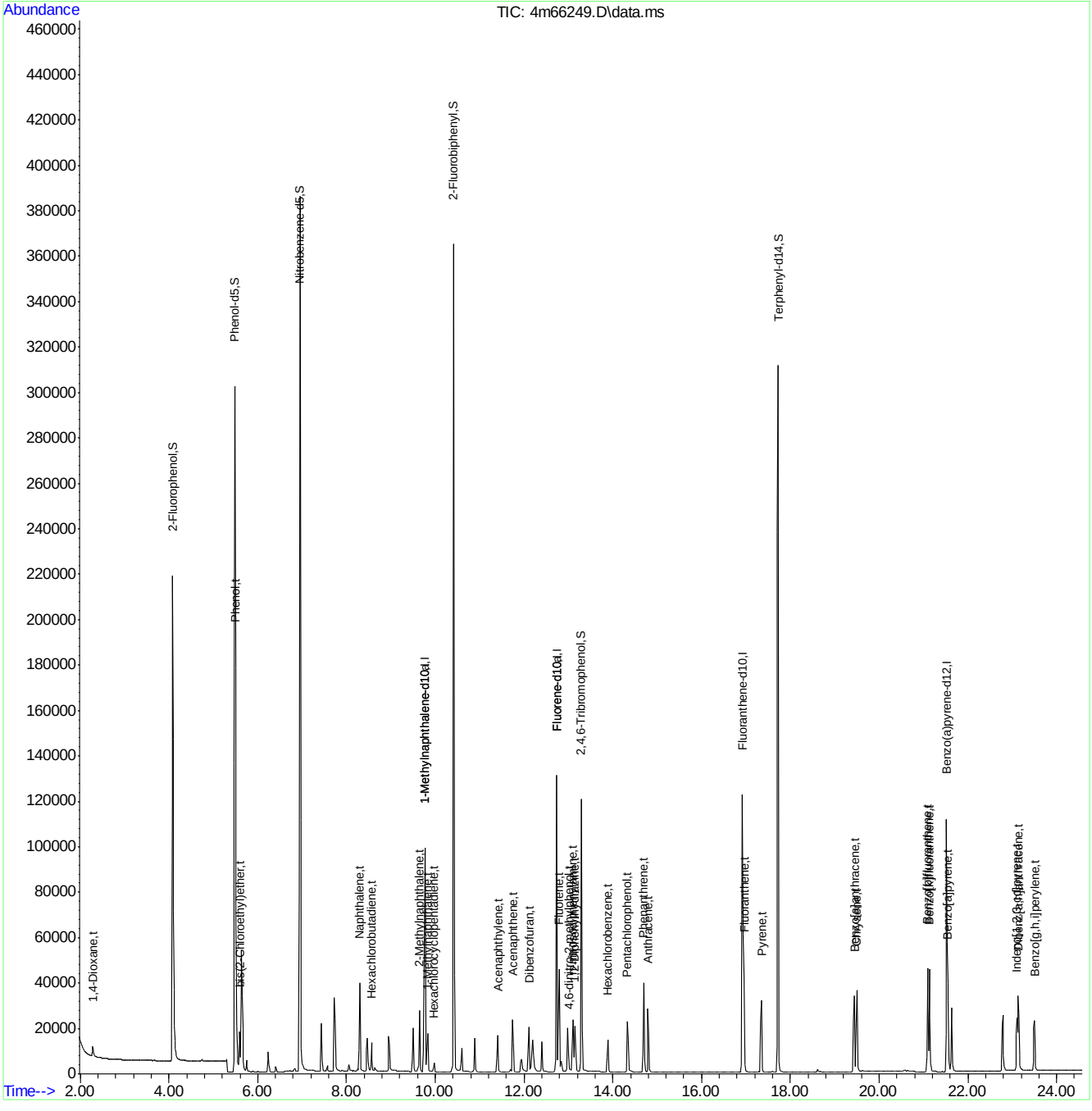
7

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2977\
Data File : 4m66249.D
Acq On : 22 Jun 2016 9:41 am
Operator : linseyk
Sample : cc2974-1
Misc : op94644a,e4m2977
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 22 10:07:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2974SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Jun 21 08:02:51 2016
Response via : Initial Calibration



SGS ACCUTEST JC21709

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: M2M3714

Print Analyst Name: Ashley N.

Analyst Signature: [signature]

Date: 6-2-16

Columns: 2BS-MS 30m x 25mm x 25µM

Method: 8270D 1625

Initial Cal. Method: M2M3713

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151877-91	DFTPP	50ppm
CMS732	Internal Std	4000ppm
1602000	DCM (Fisher)	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/3/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	2M84346	DFTPP			W	1					OK	3:54pm
	84347	CC3714-100		TCL42		2					OK	SV161935-31A
	84348	ICC3714-50				3					OK	-31C
	84349	ICC3714-2				4					OK	-31H
	84350	-1				5					OK	-31I
	84351	-80				6					OK	-31B
	84352	-5				7					OK	-31G
	84353	-25				8					OK	-31D
	84354	-10				9					OK	-31E
	84355	ICV3714-50		BN1		10					OK	SV161935-1
	84356	-50		BN2		11					OK	-10
	84357	-50		BED3rd		12					not need	BED in BN1 passed. -14B
	84358	-50		HO		13					OK	SV151877-98A
												8:57pm

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: OR015-07
Rev. Date: 1/19/16

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7.7.1

7

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E2M3720

Print Analyst Name: Ashley N.

Analyst Signature: AN

Date: 6-7-2016

Columns: ZB5ms 30mx25mmx25μm

Method 8270D/625

Initial Cal. Method M2M3713 20 ANVS

Injection Volume: 1μl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151827-91	dftpp	50ppm
CM5732	Internal Std	4000ppm
162800	dcm (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to compl with the criteria of Accutest SOP EQA044.

Supervisor Signature: AMB

Date: 6/8/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	2M84431	dftpp			W	1					Not Used	raised baseline reinstall
	84432	dftpp				1					OK	9:17AM
	84433	IC 3770-2		BMA		2					OK	SV161935-63H
	84434	IC3770-1				3					OK	-63I
	84435	IC3770-100				4					OK	-63A
	84436	IC3770-80				5					OK	-63B
	84437	ICC 3770-50				6					OK	-63C
	84438	IC 3770-25				7					OK	-63D
	84439	IC3770-10				8					OK	-63E
	84440	IC3770-5				9					OK	-63G
	84441	ICV 3770-50		Acids		10					OK	SV161935-21
	84442	ICV 3770-50		Anilines		11					OK	-20
	84443	ICV3770-50		ABN SVOC		12					OK	OP167121-136
	84444	ICV 3770-50		BN1		13					OK	NO 3:30CB SV161935-17
	84445	ICV3770-50		BN2		14					RR	run diff. 10+ # -69
	84446	ICV 3770-50		BN2D 3rd		15					OK	use for 3:30CB -14B
	84447	ICV3770-50		BN2		16					RR	SV151829-116 3:42

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: OR015-07
Rev. Date: 1/19/16

SGS ACCUTEST JC21709

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E2M3721

Print Analyst Name: Ashley N.

Analyst Signature: AM

Date: 6-7-16

Columns: 70m @ 30m x 3mm x .25µM

Method 8270D 1625

Initial Cal. Method M2M3720.D

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV161271-91	dftpp	50ppm
CM5732	Internal Std	4000ppm
162800	DCM (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: AMO Date: 6/8/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	2M84448	dftpp			W	1					NG	PCP↑ reinject
	84449	dftpp				1					OK	6:05pm
	84450	ICV3720-50		BN2		2					OK	SV161935-116

AM

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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7.7.3

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E2M3726

Print Analyst Name: Ashley N.

Analyst Signature: AM

Date: 6-10-16

Columns: ZB5MS 30m x 25mm x 25µ

Method 8270D/625

Initial Cal. Method M2M3720

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 1518279	DFTPP	50ppm
161935-1	BNA	25ppm
-3	TCL42	25ppm
CM5732	Internal Std	4000ppm
1630316	DCM (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: AMO

Date: 6/13/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2M84527	DFTPP			W	1					OK	11:53 AM.
	84528	CC3720-25		BNA		2					OK	RCP↑
	84529	CC3714-25		TCL42		3					OK	
	84530	OP94650-BS1	94650-1	ABS270	W	4					OK	
	84531	-MB1				5		+			OK	
	84532	OP94650-MS				6					OK	
	84533	-MSD				7					OK	
	84534	JC21709-1		ABSL+ 2MNAPHTHALENE		8					OK	
	84535	-2				9					OK	
	84536	-3				10					OK	
	84537	-4				11					OK	RR 1:10 for 14DIB
	84538	-5				12					OK	
	84539	-6				13					OK	
	84540	-7				14					OK	
	84541	-8				15					OK	RR1:50 (14DIBX)
	84542	-9				16					OK	
	84543	-10				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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Form: OR015-07
Rev. Date: 1/19/16

7.7.4

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E2M3726

Print Analyst Name: Ashley N.

Analyst Signature: AN

Date: 6-10-16

Columns: ZB5ms (30m x 25mm x 25µm)

Method 8270D/625

Initial Cal. Method M2M3720

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 139	

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: AMO

Date: 6/13/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2M 84544	JC21709-12	946501	ABSL+2MMMP +MMMP	N	18					OK	
	84545	JC21790-3		ABNJTC70		19					OK	7:44pm

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

AMO

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: OR015-07
Rev. Date: 1/19/16

7.7.4

7

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E2M3727

Print Analyst Name: Ashley MD/R

Analyst Signature: AMR

Date: 6/10/16

Columns: ZB5MS (30m x 25mm x 0.25µm)

Method 8270D/625

Initial Cal. Method M2M3770

Injection Volume: 1µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
S115B2791	DFTPP	50 ppm
SMB193561A	BNA	50 ppm
S116P8531C	TCL42	50 ppm
CM5732	Internal Std	4000 ppm
163036	DCM (Extract)	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: dm

Date: 6-13-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	2M84546	DFTPP				1					OK	809PM
	84547	CC3770-50		BNA	W	2					nothing	Indifferent lot #.
	84548	CC3770-50		BNA	W	2					OK	Analyzed
	84549	CC3714-50		TCL42	W	3					OK	
	84550	op94250-mb1	942501	ABS720+	W	4					OK	Act for Acetophenone.
	84551	-bs1				5					OK	
	84552	-ms				6					OK	
	84553	-msd				7					OK	
	84554	JC20724-1		ABNTCL42+		8					OK	
	84555	-2				9					OK	
	84556	-3				10					OK	
	84557	-8				11					OK	
	84558	-9				12					OK	
	84559	-10				13					OK	
	84560	-11				14					OK	
	84561	-12				15					OK	
R	84562	JC20777-13	942131	ABTCL42+	S	16					OK	AN 6/13/16 RR1:(63780) SA 5x / CF:

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: OR015-07
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SGS ACCUTEST JC21709

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E2M3727

Print Analyst Name: Ashley Moye

Date: 6/10/16

Analyst Signature: AMO

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See page 143	

Columns: ZB5MS 30m x 0.25mm x 25u

Method 8270D/625

Initial Cal. Method M2M3720

Injection Volume: 1µL

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: AM

Date: 6-13-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
R	2M84563	JC20777-14	942131	ABTCN01	S	17		X	6U	/	OK	CF1 RR1:10 (03+80) ~~RR15~~
R	84564	-17				18		X	6U	/	OK	CF1
R	84565	-21				19			9U		NCRR	1:2 AN 6/13/16 ~~1:5~~ for internals + surr.
	84566	-23				20		X	/	/	OK	
	84567	-24				21		X	/	/	OK	
	84568	-25				22		X	/	/	OK	
R	84569	op94213mb2		AB8270		23			8U	/	OK	CF1
	84570	ecc3720-50		BNA	W	24			/		OK	
	84571	ecc3714-50		TCL42	W	25			/		OK	6/14 AM

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: OR015-07
Rev. Date: 1/19/16

SGS ACCUTEST JC21709

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E2M3729

Print Analyst Name: Ashley N.

Analyst Signature: [signature]

Date: 6-13-16

Columns: ZB5ms(P) 30mx25mmx25µm

Method 8270D/625

Initial Cal. Method M2M3720

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 151827-91	dftpp	50ppm
161435-64C	BNA	↓
NOTBAN	TCL42	↓
CM5732	Internal std	4000ppm
163036	dcm (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: AMO

Date: 6/13/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2M84589	dftpp			W	1					NG	68% reinject
	84590	dftpp				1					OK	9:20 AM
	84591	CC3720-SD		BNA		2					not using	not using: run diff. lot #. PCPT
	84591	CC3720-SD		↓		2					OK	SV151827-61I 1QL/60776I
R	84593	JC20777-13	94213-1	ABTCL20-PAH(P)	S	3	10		/	\	OK	
↓	84594	-14				4	10		All ↓		not using	RRF for LS
	84595	JC21709-8	94650-1	ABS2 +2MNAP +MNAP	W	5	50		/	X	OK	
	84596	-4		↓		6	10		/	\	OK	
↓	84597	JC21788-4	94644-1	BNSTCL20(P)	W	7	5		/	\	OK	
R	84598	JC20777-14	94213-1	ABTCL20-PAH(P)	S	4	10		/	\	OK	
	84599	CC3720-SD		BNA		85	AN 6/13/16				OK	* sequencing error by analyst corrected vial AN 6/13/16 1:19 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: OR015-07
Rev. Date: 1/19/16

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E4M2958

Print Analyst Name: Linsey K

Analyst Signature: JK

Date: 6/9/16

Columns: ZB-5ms 30m x .25mm x .25um

Method 8270D/625

Initial Cal. Method M4M2958 8 JK 6/9/16

Injection Volume: 1ul

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV158271	DFTPP	50ppm
SV160935-71	SIM IS/SD	40ppm
168316	Dim-ethylether	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6-10-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	4M105889	DFTPP			W	1					ok	9:38AM
	105890	CC2950-0.5		Bnasim	W	2						~~Bad Alkan~~ JK 6/9/16 no bottle Alkan
	105891	DFTPP			W	1					ok	11:10AM
	105892	CC2950-0.5		Bnasim	W	2					ok	Heb outside window.
	105893	DFTPP			W	1					ok	12:04pm
	105894	CC2950-0.5		Bnasim	W	2						bad ↑ reinstream
	105895	DFTPP JK 6/9/16			W	1					ok	2:10pm
	105896	CC2950-0.5 JK 6/9/16		Bnasim	W	2					ok	SV160935-57B
	105897	IC2958-1.0				3					ok	-57A
	105898	IC2958-0.2 JK 6/9/16				4					ok	SV160935-60C
	105899	-0.1				5					ok	-60D
	105900	-0.05				6					ok	-60E
	105901	-0.02				7					ok	-60F
	105902	-0.01				8					ok	-60G
	105903	-5.0				9					ok	-60A
	105904	-2.5				10					ok	-60B
	105905	IC2958-1.0		Acids 2nd		11					ok	SV160935-60C

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: OR015-07
Rev. Date: 1/19/16

SGS ACCUTEST JC21709

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E4M2958

Print Analyst Name: Linsey K

Analyst Signature: LK

Date: 6/9/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Sel 19 17	

Columns: 2B-5MS 30m x .25mm x .25um

Method 8270D 1625

Initial Cal. Method M4M2958sim

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: [illegible]

Date: 6-10-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	4M1058.D	ICV2958-10		B8m2nd	W	12					OK	OP 16172-28 7:24pm

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: OR015-07
Rev. Date: 1/19/16

7.2.7

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E4M2958

Print Analyst Name: Linsey K

Analyst Signature: JK

Date: 6/9/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV1082791	DFTPP	50ppm
SV1069935-71	SIM IOD	40ppm
1069336	Dim-ethsten	—

Columns: ZB-5ms 30m x .25mm x .25um

Method 8270D/625

Initial Cal. Method MX1M2945 SIM / LAM 2959 8 JK 6/9/16

Injection Volume: 2ul

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: AM

Date: 6-10-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4M65889	DFTPP			W	1					ok	9:38AM
	65890	CC2950-0.5		Bnasim	W	2					↓	JK 6/9/16 ~~Bad Area~~ integrate manual
	65891	DFTPP			W	1					ok	11:10AM
	65892	CC2950-0.5		Bnasim	W	2					ok	Heb outside window.
	65893	DFTPP			W	1					ok	12:04pm
	65894	CC2950-0.5		Bnasim	W	2					↓	bad ↑ reinstem
	65895A	DFTPP JK 6/9/16			W	1					ok	2:10pm
	65896A	CC2950-0.5 JK 6/9/16	IC2959-5	Bnasim	W	2					ok	SV1069935-57B
	65897A	IC2958-1.0	IC2959-1.0			3					ok	-57A
	65898A	IC2958-0.2 JK 6/9/16	IC2959-0.2			4					ok	SV1069935-60C DOP initial in as "A" files
	65899A	-0.1	-0.1			5					ok	-60D
	65900A	-0.05	-0.05			6					ok	-60E
	65901A	-0.02	-0.02			7					ok	-60F
	65902A	-0.01	-0.01			8					ok	-60G
	65903A	-5.0	-5			9					ok	-60A
	65904A	-2.5	-2.5			10					ok	-60B
	65905A	IC2958-1.0	IC2959-1.0 Acids 2nd AMO 6/20/16			11					ok	SV1069935-60

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: 1/19/16

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7.2.7

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SGS ACCUTEST JC21709

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E4M2958

Print Analyst Name: Linsey K

Analyst Signature: LK

Date: 6/9/16

Columns: 2B-5MS 30m x .25mm x .25um

Method 8270D/1625

Initial Cal. Method M4M2958sim

Injection Volume: 1uL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See Pg 117	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6-10-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4M1659[illegible]	CV2958-10	ICV2958-10	B8im 2nd	W	12					OK	OP 1617 12-28 7:24pm
			AM06201164									

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: OR015-07
Rev. Date: 1/19/16

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E4M2960

Print Analyst Name: Julius M. Johnson

Analyst Signature: JMJ

Date: 6/10/16

Columns: ZB-5ms 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method M4M2958SIM

Injection Volume: 1µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV1582791	DFTPP	50ppm
SV1619355716	SIM STD	0.5ppm
-71	SIM IS	400ppm
163036	DCM (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6-13-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4M65929	DFTPP				1					ok	10:51pm
	65930	CC2958-0.5				2					ok	18,19,20↑
	65931	OP94656a-MB1	94650			3			/	/	ok	
	65932	-BS12				4			/	/	ok	
	65933	-MS				5			/	/	ok	
	65934	-MSD				6			/	/	ok	
	65935	JC21709-1		BSIM 14DIOX+NAP		7			/	/	ok	
	65936	-2				8			/	/	ok	
	65937	-3				9			/	/	ok	
	65938	-5				10			/	/	ok	
	65939	-6				11			/	/	ok	
	65940	-7				12			/	/	ok	
	65941	-8				13			/	/	ok	
	65942	-9				14			/	/	ok	
	65943	-10				15			/	/	ok	
	65944	-12				16			/	/	ok	
	65945	JC21790-3		ABSIM NJ 14DIOX		17			/	/	ok	7:18AM

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: OR015-07
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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E4M2974

Print Analyst Name: Ashley Mdyp

Date: 6/20/2016

Analyst Signature: AMO

Columns: ZB5ms 30m x 5mm x 5 µ

Method 8270D/625

Initial Cal. Method M4M2973 4 5ppm

Injection Volume: 1µL AMO 6/20/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV1582791	DFTPP	50ppm
SV1609350	Sim std. JSTD 6/20/16	400ppm
K0324	DCM-(Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6-21-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4M6179	DFTPP				1					OK	1006PU
	66182	ICV974-1		BLASIM	W	2					na	using fix windows Rerun
	66181	-.2	.1			32					OK	SV1609350-60D
	66182	-.5	.2			43					OK	-60C JK 6/21/16
	66183	-1.0	.5			54					OK	~~-60~~ -84B
	66184	-.05	1.0			65					OK	-84A
	66185	-.02	.05			76					OK	-60E
	66186	-.01	.02			87					OK	-60F
	66187	-.5	.01			98					OK	-60G
	66188	-2.5	5			109	AMO 6/20/16				OK	-60A
	66189	AMO 6/20/16 -2.5				10					OK	-60B
	66190	ICV974-1.0		BSim2nd	W	11					OK	OP1617U6
	66191	-1.0		Acid2nd	W	12					OK	SV1609357 6 400AM

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: 1/19/16

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: E4M2977

Print Analyst Name: Linsey K

ate: 6/22/16

Analyst Signature: [signature]

Columns: 7B-5ms 30m x 25mm x .25um

Method: 8270 D/625

Initial Cal. Method: M4M2974SIM

Injection Volume: 1uL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV1582791	DFTPP	50ppm
SV160935-84	SIM Std	1.0ppm
-80	SIM ISTD	400ppm
1630291	DCM (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/22/16

Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
4M160248	DFTPP			W	1					OK	9:29 AM
060249	CC297410		BNA SIM	W	2					OK	
160250	OP94970-MB1	94970-1	BS270	W	3			/	/	OK	VF=10mL
160251	4012				4			/	/	OK	↓
160252	JC22585-1		PCB		5			3 ↓	/	OK	↓ DF 1:5
160253	OP94970-MS		BS270		6			3 ↓	/	OK	↓
160254	-MSD				7			3 ↓	/	OK	↓
160255	JC21701-4	94050-1	PCB 1:10 dilution		8			/	/	OK	
160256	JC21788-7	94044-1	BS MS 1:10 dilution		9			/	/	OK	
160257	JC22585-1	94930-1	PCB	O	10	5		/		OK (MOHSing)	VF=10mL DF 1:10

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: OR015-07
Rev. Date: 1/19/16

SGS ACCUTEST JC21709

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LOGBOOK ID: 6-1747

ABN Aqueous Extraction Logbook

Date Started: 6/10/16 Time Started: 0700
Date Finished: 6/10/16 Time Finished: 1140

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other_____ 3510C SIM_____
Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # MS 94650 RACK# D-6

Extracted by: BOJ UP
Concentrated by: MP NL
Vialed by: NL
Relinquished by:
Accepted by:
Supervisor Review: 6/10/16

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

	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		
	BS1			DI H2O	1000	1	4	Yellow	1		
	JC21709-5 MS		3	lt yellow	455	1	4	Yellow	1		
	MSD		3	lt yellow	455	1	4	Yellow	1		
	BS	12SIM		DI H2O	1000	1	4	lt yellow	1		
	JC21709-6 MS		4	orange	465	1	4	Yellow	1		
	MSD		4	orange	465	1	4	Yellow	1		
1	JC21709-1	ABN	4	LT yellow	960	1	4	Clear	1		
2	-2		3	LT yellow	910	1	4	Clear	1		
3	-3		3	LT yellow	900	1	4	Yellow	1		
4	JC21709-4		3	LT yellow	940	1	4	Clear	1		
5	-5		5	LT yellow	970	1	4	lt yellow	1		
6	-6		5	orange	950	1	4	Yellow	1		
7	-7		3	LT yellow	966	1	4	lt yellow	1		
8	-8		3	LT yellow	960	1	4	Clear	1		
9	-9		3	LT yellow	900	1	4	lt yellow	1		
10	-10		3	clear	900	1	4	Clear	1		
11	-12		4	LT yellow	1000	1	4	Clear	1		
Bot 4 12	JC21790-3		4	LT yellow	1000	1	4	Clear	1		
13	~~-10~~		4	~~Clear~~	~~910~~						
14											
15											
16											
17											
18											
19											
20											

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

Comments: okay to split msl msd ~~for~~ sim ms/msd not enough bottles.

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	6,7	76, 75.1	0.5, 0.1	76 75	NA
Waterbath Chiller (GPM)	F2	4+3	-		~~NA~~
NEVAP (32-38°C; LPM)					2

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	161712128	50	1

WITNESS SIGN: BOJ SPIKE SIGN: NL

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid			Acid: 1
Acid (for SIM)	16193559	50	A(SIM): 1
Base #1	16193568	50	1
Base #2	16193569	50	1
Anilines	16193558	50	1
BSIM	161712126	1	1

WITNESS SIGN: BOJ SPIKE SIGN: NL

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	163036	Fisher	6160

REAGENT	LOT #	BRAND
NaOH	157411	Fisher
H2SO4	4003899	Ricca
Sodium Sulfate	157117	Fisher
Glass Wool	02912-2	lab
Filter Paper		
pH strips		

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LOGBOOK ID: 6-1747

ABN Aqueous Extraction Logbook

Date Started: 6/10/16 Time Started: 0700
Date Finished: 6/10/16 Time Finished: 1140

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other_____ 3510C SIM_____
Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # MS 94650 RACK# D-6

Extracted by: BOJ UP
Concentrated by: MP NG
Vialed by: NG
Relinquished by:
Accepted by:
Supervisor Review: 6/10/16

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

	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		
	BS1			DI H2O	1000	1	4	Yellow	1		
	JC21709-5 MS		3	lt yellow	455	1	4	Yellow	1		
	MSD		3	lt yellow	455	1	4	Yellow	1		
	BS	12SIM		DI H2O	1000	1	4	lt yellow	1		
	JC21709-6 MS		4	orange	465	1	4	Yellow	1		
	MSD		4	orange	465	1	4	Yellow	1		
1	JC21709-1	ABN	4	LT yellow	960	1	4	Clear	1		
2	-2		3	LT yellow	910	1	4	Clear	1		
3	-3		3	LT yellow	900	1	4	Yellow	1		
4	JC21709-4		3	LT yellow	940	1	4	Clear	1		
5	-5		5	LT yellow	970	1	4	lt yellow	1		
6	-6		5	orange	950	1	4	Yellow	1		
7	-7		3	LT yellow	960	1	4	lt yellow	1		
8	-8		3	LT yellow	960	1	4	Clear	1		
9	-9		3	LT yellow	900	1	4	lt yellow	1		
10	-10		3	clear	900	1	4	Clear	1		
11	-12		4	LT yellow	1000	1	4	Clear	1		
12	JC21790-3		4	LT yellow	1000	1	4	Clear	1		
13	~~-10~~		4	~~Clear~~	~~910~~						
14											
15											
16											
17											
18											
19											
20											

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

Comments: okay to split msl msd ~~for~~ sim ms/msd not enough bottles.

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	6,7	76, 75.1	0.5, 0.1	76 75	NA
Waterbath Chiller (GPM)	F2	4+3	-		~~NA~~
NEVAP (32-38°C; LPM)					2

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	161712128	50	1

WITNESS SIGN: BOJ SPIKE SIGN: NG

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid			Acid: 1
Acid (for SIM)	16193559	50	A(SIM): 1
Base #1	16193568	50	1
Base #2	16193569	50	1
Anilines	16193558	50	1
BSIM	161712126	1	1

WITNESS SIGN: BOJ SPIKE SIGN: NG

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	163036	Fisher	6160

REAGENT	LOT #	BRAND
NaOH	157411	Fisher
H2SO4	4003899	Ricca
Sodium Sulfate	157117	Fisher
Glass Wool	02912-2	lab
Filter Paper		
pH strips		

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GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5321-MB1	GH105462.D	1	06/14/16	XPL	n/a	n/a	GGH5321

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	90%	56-145%
111-27-3	Hexanol	88%	56-145%

Method Blank Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5321-MB2	GH105472.D	1	06/14/16	XPL	n/a	n/a	GGH5321

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	90%	56-145%
111-27-3	Hexanol	92%	56-145%

Method Blank Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5321-MB3	GH105482.D	1	06/14/16	XPL	n/a	n/a	GGH5321

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC21709-7

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	87%	56-145%
111-27-3	Hexanol	91%	56-145%

Method Blank Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5322-MB2	GH105499.D	1	06/15/16	XPL	n/a	n/a	GGH5322

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC21709-6, JC21709-8

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	89%	56-145%
111-27-3	Hexanol	90%	56-145%

Method Blank Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5322-MB1	GH105488.D	1	06/15/16	XPL	n/a	n/a	GGH5322

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

GGH5322-BS

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	87%	56-145%
111-27-3	Hexanol	86%	56-145%

Blank Spike Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5321-BS	GH105463.D	1	06/14/16	XPL	n/a	n/a	GGH5321

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-7, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
64-17-5	Ethanol	5000	4960	99	74-123
78-83-1	Isobutyl Alcohol	5000	4470	89	70-124
67-63-0	Isopropyl Alcohol	5000	4890	98	76-121
71-23-8	n-Propyl Alcohol	5000	4770	95	73-122
71-36-3	n-Butyl Alcohol	5000	4190	84	67-116
78-92-2	sec-Butyl Alcohol	5000	4890	98	74-118
67-56-1	Methanol	5000	5010	100	67-121

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	99%	56-145%
111-27-3	Hexanol	104%	56-145%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5322-BS	GH105489.D	1	06/15/16	XPL	n/a	n/a	GGH5322

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC21709-6, JC21709-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
64-17-5	Ethanol	5000	4770	95	74-123
78-83-1	Isobutyl Alcohol	5000	4560	91	70-124
67-63-0	Isopropyl Alcohol	5000	4800	96	76-121
71-23-8	n-Propyl Alcohol	5000	4530	91	73-122
71-36-3	n-Butyl Alcohol	5000	4230	85	67-116
78-92-2	sec-Butyl Alcohol	5000	4830	97	74-118
67-56-1	Methanol	5000	4900	98	67-121

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	98%	56-145%
111-27-3	Hexanol	101%	56-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC21709-1MS	GH105465.D	1	06/14/16	XPL	n/a	n/a	GGH5321
JC21709-1MSD	GH105466.D	1	06/14/16	XPL	n/a	n/a	GGH5321
JC21709-1	GH105464.D	1	06/14/16	XPL	n/a	n/a	GGH5321

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC21709-1, JC21709-2, JC21709-3, JC21709-4, JC21709-5, JC21709-7, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	JC21709-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
64-17-5	Ethanol	ND		5000	5010	100	5000	5350	107	7	58-145/27
78-83-1	Isobutyl Alcohol	ND		5000	5240	105	5000	4650	93	12	69-131/25
67-63-0	Isopropyl Alcohol	ND		5000	4850	97	5000	4930	99	2	70-133/28
71-23-8	n-Propyl Alcohol	ND		5000	5030	101	5000	5530	111	9	66-137/29
71-36-3	n-Butyl Alcohol	ND		5000	4640	93	5000	4570	91	2	63-131/25
78-92-2	sec-Butyl Alcohol	ND		5000	5440	109	5000	5320	106	2	64-136/25
67-56-1	Methanol	ND		5000	4640	93	5000	4740	95	2	48-148/34

CAS No.	Surrogate Recoveries	MS	MSD	JC21709-1	Limits
111-27-3	Hexanol	97%	101%	100%	56-145%
111-27-3	Hexanol	102%	107%	103%	56-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC21911-6MS	GH105501.D	1	06/15/16	XPL	n/a	n/a	GGH5322
JC21911-6MSD	GH105502.D	1	06/15/16	XPL	n/a	n/a	GGH5322
JC21911-6	GH105500.D	1	06/15/16	XPL	n/a	n/a	GGH5322

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC21709-6, JC21709-8

CAS No.	Compound	JC21911-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
64-17-5	Ethanol	ND		5000	5300	106	5000	5480	110	3	58-145/27
78-83-1	Isobutyl Alcohol	ND		5000	5290	106	5000	5570	111	5	69-131/25
67-63-0	Isopropyl Alcohol	ND		5000	5260	105	5000	5480	110	4	70-133/28
71-23-8	n-Propyl Alcohol	ND		5000	5530	111	5000	5760	115	4	66-137/29
71-36-3	n-Butyl Alcohol	ND		5000	4700	94	5000	4940	99	5	63-131/25
78-92-2	sec-Butyl Alcohol	ND		5000	5390	108	5000	5630	113	4	64-136/25
67-56-1	Methanol	ND		5000	4760	95	5000	4940	99	4	48-148/34

CAS No.	Surrogate Recoveries	MS	MSD	JC21911-6	Limits
111-27-3	Hexanol	81%	94%	100%	56-145%
111-27-3	Hexanol	84%	97%	103%	56-145%

* = Outside of Control Limits.

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5321-CC5288	**Injection Date:**	06/14/16
Lab File ID:	GH105461.D	**Injection Time:**	08:03
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH5321-BS	**Injection Date:**	06/14/16
Lab File ID:	GH105463.D	**Injection Time:**	08:35
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.46	1.46	5250		ug/l	5.7
Ethanol	2 [a]	1.13	1.13	4960		ug/l	
Isobutyl Alcohol	1	3.31	3.31	5200		ug/l	15.1
Isobutyl Alcohol	2 [a]	2.90	2.89	4470		ug/l	
Isopropyl Alcohol	1	1.76	1.75	5560		ug/l	12.8
Isopropyl Alcohol	2 [a]	1.38	1.38	4890		ug/l	
n-Propyl Alcohol	1	2.51	2.51	5500		ug/l	14.2
n-Propyl Alcohol	2 [a]	1.96	1.96	4770		ug/l	
n-Butyl Alcohol	1	3.76	3.76	5060		ug/l	18.8
n-Butyl Alcohol	2 [a]	3.38	3.37	4190		ug/l	
sec-Butyl Alcohol	1	2.94	2.94	5220		ug/l	6.5
sec-Butyl Alcohol	2 [a]	2.53	2.52	4890		ug/l	
Methanol	1	1.13	1.13	5390		ug/l	7.3
Methanol	2 [a]	0.88	0.88	5010		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5322-CC5288	**Injection Date:**	06/15/16
Lab File ID:	GH105487.D	**Injection Time:**	07:13
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH5322-BS	**Injection Date:**	06/15/16
Lab File ID:	GH105489.D	**Injection Time:**	07:46
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.46	1.45	5210		ug/l	8.8
Ethanol	2 [a]	1.12	1.13	4770		ug/l	
Isobutyl Alcohol	1	3.31	3.30	4890		ug/l	7.0
Isobutyl Alcohol	2 [a]	2.90	2.90	4560		ug/l	
Isopropyl Alcohol	1	1.76	1.75	5130		ug/l	6.6
Isopropyl Alcohol	2 [a]	1.38	1.38	4800		ug/l	
n-Propyl Alcohol	1 [a]	2.52	2.51	4530		ug/l	7.2
n-Propyl Alcohol	2	1.96	1.96	4870		ug/l	
n-Butyl Alcohol	1	3.76	3.75	4820		ug/l	13.0
n-Butyl Alcohol	2 [a]	3.38	3.38	4230		ug/l	
sec-Butyl Alcohol	1	2.95	2.94	5220		ug/l	7.8
sec-Butyl Alcohol	2 [a]	2.52	2.52	4830		ug/l	
Methanol	1	1.12	1.12	5040		ug/l	2.8
Methanol	2 [a]	0.87	0.88	4900		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5321-CC5288	**Injection Date:**	06/14/16
Lab File ID:	GH105461.D	**Injection Time:**	08:03
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC21709-1MS	**Injection Date:**	06/14/16
Lab File ID:	GH105465.D	**Injection Time:**	09:30
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.46	1.46	4960		ug/l	1.0
Ethanol	2 [a]	1.13	1.13	5010		ug/l	
Isobutyl Alcohol	1	3.31	3.31	5770		ug/l	9.6
Isobutyl Alcohol	2 [a]	2.90	2.89	5240		ug/l	
Isopropyl Alcohol	1	1.76	1.75	4440		ug/l	8.8
Isopropyl Alcohol	2 [a]	1.38	1.38	4850		ug/l	
n-Propyl Alcohol	1	2.52	2.51	6180		ug/l	20.5
n-Propyl Alcohol	2 [a]	1.96	1.96	5030		ug/l	
n-Butyl Alcohol	1	3.76	3.76	5340		ug/l	14.0
n-Butyl Alcohol	2 [a]	3.38	3.37	4640		ug/l	
sec-Butyl Alcohol	1	2.94	2.94	5500		ug/l	1.1
sec-Butyl Alcohol	2 [a]	2.53	2.52	5440		ug/l	
Methanol	1	1.12	1.13	4710		ug/l	1.5
Methanol	2 [a]	0.88	0.88	4640		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5322-CC5288	**Injection Date:**	06/15/16
Lab File ID:	GH105498.D	**Injection Time:**	10:45
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC21911-6MS	**Injection Date:**	06/15/16
Lab File ID:	GH105501.D	**Injection Time:**	11:34
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.46	1.46	3880		ug/l	30.9
Ethanol	2 [a]	1.13	1.13	5300		ug/l	
Isobutyl Alcohol	1	3.32	3.32	5530		ug/l	4.4
Isobutyl Alcohol	2 [a]	2.90	2.91	5290		ug/l	
Isopropyl Alcohol	1	1.76	1.76	4830		ug/l	8.5
Isopropyl Alcohol	2 [a]	1.38	1.38	5260		ug/l	
n-Propyl Alcohol	1	2.52	2.52	4840		ug/l	13.3
n-Propyl Alcohol	2 [a]	1.96	1.96	5530		ug/l	
n-Butyl Alcohol	1	3.76	3.76	5210		ug/l	10.3
n-Butyl Alcohol	2 [a]	3.38	3.38	4700		ug/l	
sec-Butyl Alcohol	1	2.95	2.95	4800		ug/l	11.6
sec-Butyl Alcohol	2 [a]	2.53	2.53	5390		ug/l	
Methanol	1	1.13	1.13	2930		ug/l	47.6
Methanol	2 [a]	0.88	0.88	4760		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5321-CC5288	**Injection Date:**	06/14/16
Lab File ID:	GH105461.D	**Injection Time:**	08:03
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC21709-1MSD	**Injection Date:**	06/14/16
Lab File ID:	GH105466.D	**Injection Time:**	09:46
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.46	1.46	5440		ug/l	1.7
Ethanol	2 [a]	1.13	1.13	5350		ug/l	
Isobutyl Alcohol	1	3.32	3.31	5670		ug/l	19.8
Isobutyl Alcohol	2 [a]	2.90	2.89	4650		ug/l	
Isopropyl Alcohol	1	1.76	1.75	5370		ug/l	8.5
Isopropyl Alcohol	2 [a]	1.38	1.38	4930		ug/l	
n-Propyl Alcohol	1	2.52	2.51	5880		ug/l	6.1
n-Propyl Alcohol	2 [a]	1.96	1.96	5530		ug/l	
n-Butyl Alcohol	1	3.76	3.76	5330		ug/l	15.4
n-Butyl Alcohol	2 [a]	3.38	3.37	4570		ug/l	
sec-Butyl Alcohol	1	2.95	2.94	5400		ug/l	1.5
sec-Butyl Alcohol	2 [a]	2.53	2.52	5320		ug/l	
Methanol	1	1.13	1.13	4520		ug/l	4.8
Methanol	2 [a]	0.88	0.88	4740		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5322-CC5288	**Injection Date:**	06/15/16
Lab File ID:	GH105498.D	**Injection Time:**	10:45
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC21911-6MSD	**Injection Date:**	06/15/16
Lab File ID:	GH105502.D	**Injection Time:**	11:50
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.46	1.46	5500		ug/l	0.4
Ethanol	2 [a]	1.13	1.13	5480		ug/l	
Isobutyl Alcohol	1	3.32	3.32	5860		ug/l	5.1
Isobutyl Alcohol	2 [a]	2.90	2.91	5570		ug/l	
Isopropyl Alcohol	1	1.76	1.76	5650		ug/l	3.1
Isopropyl Alcohol	2 [a]	1.38	1.38	5480		ug/l	
n-Propyl Alcohol	1	2.52	2.52	5750		ug/l	0.2
n-Propyl Alcohol	2 [a]	1.96	1.96	5760		ug/l	
n-Butyl Alcohol	1	3.76	3.76	5680		ug/l	13.9
n-Butyl Alcohol	2 [a]	3.38	3.38	4940		ug/l	
sec-Butyl Alcohol	1	2.95	2.95	5960		ug/l	5.7
sec-Butyl Alcohol	2 [a]	2.53	2.53	5630		ug/l	
Methanol	1	1.13	1.13	4720		ug/l	4.6
Methanol	2 [a]	0.88	0.88	4940		ug/l	

(a) QC results reported from this column.

Volatile Surrogate Recovery Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Method: SW846-8015C (DAI) **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
JC21709-1	GH105464.D	100	103
JC21709-2	GH105467.D	95	101
JC21709-3	GH105468.D	101	106
JC21709-4	GH105469.D	99	102
JC21709-5	GH105470.D	105	105
JC21709-6	GH105505.D	109	112
JC21709-7	GH105484.D	102	107
JC21709-8	GH105506.D	100	103
JC21709-9	GH105474.D	96	104
JC21709-10	GH105475.D	103	107
JC21709-12	GH105473.D	98	107
GGH5321-BS	GH105463.D	99	104
GGH5321-MB1	GH105462.D	90	88
GGH5321-MB2	GH105472.D	90	92
GGH5321-MB3	GH105482.D	87	91
GGH5322-BS	GH105489.D	98	101
GGH5322-MB2	GH105499.D	89	90
JC21709-1MS	GH105465.D	97	102
JC21709-1MSD	GH105466.D	101	107
JC21911-6MS	GH105501.D	81	84
JC21911-6MSD	GH105502.D	94	97
GGH5322-MB1	GH105488.D	87	86

Surrogate Compounds	Recovery Limits
S1 = Hexanol	56-145%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.5.1

8

GC Surrogate Retention Time Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5321-CC5288	**Injection Date:**	06/14/16
Lab File ID:	GH105461.D	**Injection Time:**	08:03
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.43	5.57

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5321-MB1	GH105462.D	06/14/16	08:19	5.43	5.57
GGH5321-BS	GH105463.D	06/14/16	08:35	5.43	5.57
JC21709-1	GH105464.D	06/14/16	09:13	5.43	5.57
JC21709-1MS	GH105465.D	06/14/16	09:30	5.43	5.57
JC21709-1MSD	GH105466.D	06/14/16	09:46	5.43	5.57
JC21709-2	GH105467.D	06/14/16	10:02	5.43	5.57
JC21709-3	GH105468.D	06/14/16	10:18	5.43	5.57
JC21709-4	GH105469.D	06/14/16	10:35	5.43	5.57
JC21709-5	GH105470.D	06/14/16	10:51	5.43	5.57

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5321-CC5288	**Injection Date:**	06/14/16
Lab File ID:	GH105471.D	**Injection Time:**	11:08
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.43	5.57

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5321-MB2	GH105472.D	06/14/16	11:41	5.43	5.57
JC21709-12	GH105473.D	06/14/16	11:57	5.43	5.57
JC21709-9	GH105474.D	06/14/16	12:14	5.43	5.57
JC21709-10	GH105475.D	06/14/16	12:30	5.43	5.56
ZZZZZZ	GH105476.D	06/14/16	12:47	5.43	5.56
ZZZZZZ	GH105477.D	06/14/16	13:03	5.43	5.57
ZZZZZZ	GH105478.D	06/14/16	13:19	5.43	5.56
ZZZZZZ	GH105479.D	06/14/16	13:36	5.43	5.56
ZZZZZZ	GH105480.D	06/14/16	13:52	5.45	5.56

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5321-CC5288	**Injection Date:**	06/14/16
Lab File ID:	GH105481.D	**Injection Time:**	14:09
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.43	5.56

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5321-MB3	GH105482.D	06/14/16	14:42	5.43	5.56
JC21709-7	GH105484.D	06/14/16	15:15	5.43	5.56

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5322-CC5288	**Injection Date:**	06/15/16
Lab File ID:	GH105487.D	**Injection Time:**	07:13
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.43	5.56

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5322-MB1	GH105488.D	06/15/16	07:30	5.43	5.57
GGH5322-BS	GH105489.D	06/15/16	07:46	5.43	5.57
ZZZZZZ	GH105490.D	06/15/16	08:19	5.43	5.58
ZZZZZZ	GH105493.D	06/15/16	09:07	5.43	5.58
ZZZZZZ	GH105494.D	06/15/16	09:23	5.43	5.58
ZZZZZZ	GH105495.D	06/15/16	09:39	5.43	5.58
ZZZZZZ	GH105496.D	06/15/16	09:56	5.43	5.58

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5322-CC5288	**Injection Date:**	06/15/16
Lab File ID:	GH105498.D	**Injection Time:**	10:45
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.43	5.58

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5322-MB2	GH105499.D	06/15/16	11:01	5.43	5.58
JC21911-6	GH105500.D	06/15/16	11:17	5.43	5.58
JC21911-6MS	GH105501.D	06/15/16	11:34	5.43	5.58
JC21911-6MSD	GH105502.D	06/15/16	11:50	5.43	5.57
ZZZZZZ	GH105503.D	06/15/16	12:06	5.43	5.57
ZZZZZZ	GH105504.D	06/15/16	12:22	5.43	5.57
JC21709-6	GH105505.D	06/15/16	12:38	5.43	5.57
JC21709-8	GH105506.D	06/15/16	12:55	5.43	5.57
ZZZZZZ	GH105507.D	06/15/16	13:11	5.43	5.57

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

Initial Calibration Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: GGH5288-ICC5288
Lab FileID: GH105020.D

Response Factor Report GCGH

Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Wed May 18 08:55:49 2016
Response via : Initial Calibration

Calibration Files
0.5 =GH105018.D 1 =GH105019.D 5 =GH105020.D 10 =GH105021.D
50 =GH105022.D 100 =GH105023.D 0.1 =GH105017.D =

Compound	0.5	1	5	10	50	100	0.1	Avg	%RSD
1) Methanol	1.474	1.617	1.549	1.574	1.441	1.381	1.784	1.546 E1	8.59
2) Ethanol	1.481	1.886	1.989	2.027	1.870	1.914	2.099	1.895 E1	10.57
3) Tert-Butyl A	2.644	2.895	2.860	2.948	2.724	2.958	2.806	2.833 E1	4.12
4) 1-Propanol	2.265	2.525	2.568	2.579	2.395	2.511	2.187	2.433 E1	6.38
5) 2-Propanol	1.765	2.050	2.101	2.139	1.981	2.028	1.888	1.993 E1	6.50
6) Isobutanol	2.804	2.950	2.948	2.988	2.739	2.927	2.784	2.877 E1	3.42
7) 1-Butanol	2.898	2.941	2.862	2.890	2.632	2.755	3.014	2.856 E1	4.42
8) 2-Butanol	2.368	2.558	2.588	2.626	2.424	2.540	2.840	2.563 E1	5.95
9) Hexanol	6.661	6.854	6.904	7.104	6.883		6.152	6.760 E1	4.87

Signal #2

1) Methanol	3.395	2.969	3.474	3.464	3.153	3.141	2.982	3.225 E1	6.76
2) Ethanol	4.063	3.635	4.347	4.327	3.993	4.176	3.361	3.986 E1	9.18
3) Tert-Butyl A	6.528	6.375	6.640	6.640	6.134	6.562	5.629	6.358 E1	5.79
4) 1-Propanol	5.216	5.281	5.494	5.499	5.155	5.488	3.458	5.084 E1	14.38
5) 2-Propanol	4.929	4.342	4.733	4.727	4.363	4.597	4.004	4.528 E1	6.88
6) Isobutanol	6.364	5.960	6.233	6.327	5.766	6.160	6.044	6.122 E1	3.48
7) 1-Butanol	7.458	7.365	6.389	6.043	5.678	5.940	7.445	6.617 E1	11.83
8) 2-Butanol	5.511	5.860	5.620	5.660	5.265	5.573	4.510	5.428 E1	8.15
9) Hexanol	1.546	1.555	1.589	1.628	1.578		1.424	1.553 E2	4.50

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

MGH5288.M Wed May 18 09:03:27 2016 GCGH

Initial Calibration Verification

Job Number: JC21709 **Sample:** GGH5288-ICV5288
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH105024.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH105024.D\FID1A.CH        Vial: 9
Acq On    : 17 May 2016   6:02 pm                   Operator: XULIU
Sample    : ICV5288-5000                            Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105024.D\FID2B.CH        Vial: 9
Acq On    : 17 May 2016   6:24 pm                   Operator: XULIU
Sample    : ICV5288-5000                            Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 08:55:49 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.459	13.025	15.7	84	0.00	1.09- 1.15
2	Ethanol	18.950	20.029	-5.7	101	0.00	1.41- 1.50
3	Tert-Butyl Alcohol	28.335	29.971	-5.8	105	0.00	1.96- 2.08
4	1-Propanol	24.326	25.536	-5.0	99	0.00	2.46- 2.58
5	2-Propanol	19.931	21.074	-5.7	100	0.00	1.71- 1.80
6	Isobutanol	28.771	30.222	-5.0	103	0.00	3.27- 3.36
7	1-Butanol	28.561	29.118	-2.0	102	0.00	3.73- 3.79
8	2-Butanol	25.634	26.603	-3.8	103	0.00	2.89- 3.01
9 S	Hexanol	67.597	69.942	-3.5	101	0.00	5.54- 5.60
*****	Signal #2 *****						
1	Methanol	32.254	34.546	-7.1	99	0.00	0.87- 0.93
2	Ethanol	39.861	45.328	-13.7	104	0.00	1.13- 1.19
3	Tert-Butyl Alcohol	63.583	66.584	-4.7	100	0.00	1.63- 1.69
4	1-Propanol	50.842	57.021	-12.2	104	0.01	1.99- 2.06
5	2-Propanol	45.279	47.646	-5.2	101	0.00	1.38- 1.44
6	Isobutanol	61.221	66.607	-8.8	107	0.00	2.91- 2.97
7	1-Butanol	66.170	65.238	1.4	102	0.01	3.39- 3.45
8	2-Butanol	54.284	60.860	-12.1	108	0.00	2.54- 2.60
9 S	Hexanol	155.348	158.160	-1.8	100	0.00	5.47- 5.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH105020.D MGH5288.M Wed May 18 09:09:59 2016 GCGH

Continuing Calibration Summary

Job Number: JC21709 **Sample:** GGH5321-CC5288
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH105461.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH105461.D\FID1A.CH        Vial: 92
Acq On    : 14 Jun 2016   8:03 am                   Operator: XULIU
Sample    : CC5288-5000                             Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105461.D\FID2B.CH        Vial: 92
Acq On    : 14 Jun 2016   8:19 am                   Operator: XULIU
Sample    : CC5288-5000                             Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon May 23 10:02:11 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.459	15.661	-1.3	101	0.00	1.10- 1.16
2	Ethanol	18.950	19.790	-4.4	100	0.00	1.41- 1.51
3	Tert-Butyl Alcohol	28.335	31.186	-10.1	109	0.00	1.96- 2.08
4	1-Propanol	24.326	24.950	-2.6	97	0.00	2.45- 2.57
5	2-Propanol	19.931	21.363	-7.2	102	0.00	1.71- 1.80
6	Isobutanol	28.771	29.229	-1.6	99	0.00	3.26- 3.36
7	1-Butanol	28.561	28.140	1.5	98	0.00	3.73- 3.79
8	2-Butanol	25.634	26.040	-1.6	101	0.00	2.88- 3.00
9 S	Hexanol	67.597	65.288	3.4	95	0.00	5.54- 5.60
*****	Signal #2 *****						
1	Methanol	32.254	31.354	2.8	90	0.00	0.85- 0.91
2	Ethanol	39.861	37.852	5.0	87	0.00	1.10- 1.16
3	Tert-Butyl Alcohol	63.583	65.773	-3.4	99	0.00	1.58- 1.64
4	1-Propanol	50.842	50.786	0.1	92	0.00	1.92- 1.99
5	2-Propanol	45.279	44.778	1.1	95	0.00	1.35- 1.41
6	Isobutanol	61.221	57.073	6.8	92	0.00	2.86- 2.92
7	1-Butanol	66.170	56.777	14.2	89	0.00	3.34- 3.40
8	2-Butanol	54.284	54.129	0.3	96	0.00	2.49- 2.55
9 S	Hexanol	155.348	145.045	6.6	91	0.00	5.40- 5.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH105020.D MGH5288.M Tue Jun 14 09:17:52 2016 GCGH

8.7.3

8

Continuing Calibration Summary

Job Number: JC21709 **Sample:** GGH5321-CC5288
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH105471.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH105471.D\FID1A.CH        Vial: 95
Acq On    : 14 Jun 2016  11:08 am                   Operator: XULIU
Sample    : CC5288-10000                            Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105471.D\FID2B.CH        Vial: 95
Acq On    : 14 Jun 2016  11:24 am                   Operator: XULIU
Sample    : CC5288-10000                            Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon May 23 10:02:11 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.459	16.396	-6.1	104	0.00	1.09- 1.15
2	Ethanol	18.950	20.673	-9.1	102	0.00	1.41- 1.50
3	Tert-Butyl Alcohol	28.335	30.836	-8.8	105	0.00	1.96- 2.08
4	1-Propanol	24.326	28.477	-17.1	110	0.00	2.45- 2.57
5	2-Propanol	19.931	21.571	-8.2	101	0.00	1.71- 1.80
6	Isobutanol	28.771	31.003	-7.8	104	0.00	3.26- 3.36
7	1-Butanol	28.561	31.899	-11.7	110	0.00	3.73- 3.79
8	2-Butanol	25.634	27.727	-8.2	106	0.00	2.88- 3.00
9 S	Hexanol	67.597	59.642	11.8	84	0.00	5.54- 5.60
*****	Signal #2 *****						
1	Methanol	32.254	34.478	-6.9	100	0.00	0.85- 0.91
2	Ethanol	39.861	40.940	-2.7	95	0.00	1.10- 1.16
3	Tert-Butyl Alcohol	63.583	69.981	-10.1	105	0.00	1.59- 1.65
4	1-Propanol	50.842	54.685	-7.6	99	0.00	1.92- 1.99
5	2-Propanol	45.279	47.801	-5.6	101	0.00	1.35- 1.41
6	Isobutanol	61.221	61.283	-0.1	97	0.00	2.87- 2.93
7	1-Butanol	66.170	60.266	8.9	100	0.00	3.35- 3.41
8	2-Butanol	54.284	57.111	-5.2	101	0.00	2.50- 2.56
9 S	Hexanol	155.348	134.356	13.5	83	0.00	5.40- 5.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH105021.D MGH5288.M Tue Jun 14 14:20:34 2016 GCGH

Continuing Calibration Summary

Job Number: JC21709 **Sample:** GGH5321-CC5288
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH105481.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH105481.D\FID1A.CH        Vial: 95
Acq On    : 14 Jun 2016   2:09 pm                   Operator: XULIU
Sample    : CC5288-5000                             Inst    : GCGH
Misc      : GC48601,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105481.D\FID2B.CH        Vial: 95
Acq On    : 14 Jun 2016   2:25 pm                   Operator: XULIU
Sample    : CC5288-5000                             Inst    : GCGH
Misc      : GC48601,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon May 23 10:02:11 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.459	13.513	12.6	87	0.00	1.09- 1.15
2	Ethanol	18.950	19.398	-2.4	98	0.00	1.41- 1.50
3	Tert-Butyl Alcohol	28.335	28.407	-0.3	99	0.00	1.95- 2.07
4	1-Propanol	24.326	26.147	-7.5	102	0.00	2.45- 2.57
5	2-Propanol	19.931	20.147	-1.1	96	0.00	1.70- 1.80
6	Isobutanol	28.771	26.974	6.2	92	0.00	3.26- 3.35
7	1-Butanol	28.561	27.659	3.2	97	0.00	3.72- 3.78
8	2-Butanol	25.634	26.228	-2.3	101	0.00	2.88- 3.00
9 S	Hexanol	67.597	65.168	3.6	94	0.00	5.53- 5.59
*****	Signal #2 *****						
1	Methanol	32.254	31.448	2.5	91	0.00	0.84- 0.90
2	Ethanol	39.861	39.205	1.6	90	0.00	1.10- 1.16
3	Tert-Butyl Alcohol	63.583	66.157	-4.0	100	0.00	1.58- 1.64
4	1-Propanol	50.842	51.536	-1.4	94	0.00	1.92- 1.99
5	2-Propanol	45.279	45.259	0.0	96	0.00	1.35- 1.41
6	Isobutanol	61.221	56.853	7.1	91	0.00	2.87- 2.93
7	1-Butanol	66.170	55.623	15.9	87	0.00	3.35- 3.41
8	2-Butanol	54.284	52.335	3.6	93	0.00	2.49- 2.55
9 S	Hexanol	155.348	142.892	8.0	90	0.00	5.40- 5.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH105020.D MGH5288.M Tue Jun 14 15:18:57 2016 GCGH

8.7.5

8

Continuing Calibration Summary

Job Number: JC21709 **Sample:** GGH5321-CC5288
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH105485.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH105485.D\FID1A.CH        Vial: 95
Acq On    : 14 Jun 2016   3:32 pm                   Operator: XULIU
Sample    : CC5288-10000                            Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105485.D\FID2B.CH        Vial: 95
Acq On    : 14 Jun 2016   3:48 pm                   Operator: XULIU
Sample    : CC5288-10000                            Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon May 23 10:02:11 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.459	16.869	-9.1	107	0.00	1.09- 1.15
2	Ethanol	18.950	21.170	-11.7	104	0.00	1.40- 1.50
3	Tert-Butyl Alcohol	28.335	29.972	-5.8	102	0.00	1.95- 2.07
4	1-Propanol	24.326	28.133	-15.6	109	0.00	2.44- 2.56
5	2-Propanol	19.931	23.081	-15.8	108	0.00	1.70- 1.79
6	Isobutanol	28.771	31.958	-11.1	107	0.00	3.26- 3.35
7	1-Butanol	28.561	30.273	-6.0	105	0.00	3.72- 3.78
8	2-Butanol	25.634	28.319	-10.5	108	0.00	2.87- 2.99
9 S	Hexanol	67.597	70.747	-4.7	100	0.00	5.53- 5.59
*****	Signal #2 *****						
1	Methanol	32.254	33.751	-4.6	97	0.00	0.85- 0.91
2	Ethanol	39.861	40.287	-1.1	93	0.00	1.10- 1.16
3	Tert-Butyl Alcohol	63.583	69.965	-10.0	105	0.00	1.59- 1.65
4	1-Propanol	50.842	54.102	-6.4	98	0.00	1.92- 1.99
5	2-Propanol	45.279	45.595	-0.7	96	0.00	1.35- 1.41
6	Isobutanol	61.221	60.067	1.9	95	0.00	2.87- 2.93
7	1-Butanol	66.170	59.440	10.2	98	0.00	3.35- 3.41
8	2-Butanol	54.284	57.048	-5.1	101	0.00	2.50- 2.56
9 S	Hexanol	155.348	155.139	0.1	95	0.00	5.40- 5.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH105021.D MGH5288.M Wed Jun 15 08:33:06 2016 GCGH

8.7.6

8

Continuing Calibration Summary

Job Number: JC21709 **Sample:** GGH5322-CC5288
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH105487.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH105487.D\FID1A.CH         Vial: 92
Acq On    : 15 Jun 2016   7:13 am                    Operator: XULIU
Sample    : CC5288-10000                             Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                 Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105487.D\FID2B.CH         Vial: 92
Acq On    : 15 Jun 2016   7:30 am                    Operator: XULIU
Sample    : CC5288-10000                             Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon May 23 10:02:11 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.459	15.676	-1.4	100	0.00	1.09- 1.15
2	Ethanol	18.950	20.386	-7.6	101	0.00	1.40- 1.50
3	Tert-Butyl Alcohol	28.335	28.586	-0.9	97	0.00	1.95- 2.07
4	1-Propanol	24.326	26.165	-7.6	101	0.00	2.45- 2.57
5	2-Propanol	19.931	20.880	-4.8	98	0.00	1.70- 1.79
6	Isobutanol	28.771	27.918	3.0	93	0.00	3.26- 3.35
7	1-Butanol	28.561	29.530	-3.4	102	0.00	3.72- 3.78
8	2-Butanol	25.634	26.611	-3.8	101	0.00	2.88- 3.00
9 S	Hexanol	67.597	60.351	10.7	85	0.00	5.53- 5.59

***** Signal #2 *****

1	Methanol	32.254	34.004	-5.4	98	0.00	0.85- 0.91
2	Ethanol	39.861	41.593	-4.3	96	0.00	1.10- 1.16
3	Tert-Butyl Alcohol	63.583	69.480	-9.3	105	0.00	1.58- 1.64
4	1-Propanol	50.842	54.074	-6.4	98	0.00	1.92- 1.99
5	2-Propanol	45.279	47.464	-4.8	100	0.00	1.35- 1.41
6	Isobutanol	61.221	60.732	0.8	96	0.00	2.87- 2.93
7	1-Butanol	66.170	58.966	10.9	98	0.00	3.35- 3.41
8	2-Butanol	54.284	56.107	-3.4	99	0.00	2.49- 2.55
9 S	Hexanol	155.348	141.587	8.9	87	0.00	5.40- 5.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH105021.D MGH5288.M Wed Jun 15 08:48:33 2016 GCGH

Continuing Calibration Summary

Job Number: JC21709 **Sample:** GGH5322-CC5288
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH105498.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH105498.D\FID1A.CH        Vial: 95
Acq On    : 15 Jun 2016  10:45 am                   Operator: XULIU
Sample    : CC5288-5000                             Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105498.D\FID2B.CH        Vial: 95
Acq On    : 15 Jun 2016  11:01 am                   Operator: XULIU
Sample    : CC5288-5000                             Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon May 23 10:02:11 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.459	16.321	-5.6	105	0.00	1.10- 1.16
2	Ethanol	18.950	20.258	-6.9	102	0.00	1.42- 1.51
3	Tert-Butyl Alcohol	28.335	29.497	-4.1	103	0.00	1.97- 2.09
4	1-Propanol	24.326	27.297	-12.2	106	0.00	2.46- 2.58
5	2-Propanol	19.931	21.342	-7.1	102	0.00	1.72- 1.81
6	Isobutanol	28.771	29.902	-3.9	101	0.00	3.28- 3.37
7	1-Butanol	28.561	28.771	-0.7	101	0.00	3.73- 3.79
8	2-Butanol	25.634	26.945	-5.1	104	0.00	2.89- 3.01
9 S	Hexanol	67.597	59.643	11.8	86	0.00	5.55- 5.61
*****	Signal #2 *****						
1	Methanol	32.254	30.282	6.1	87	0.00	0.85- 0.91
2	Ethanol	39.861	40.497	-1.6	93	0.00	1.10- 1.16
3	Tert-Butyl Alcohol	63.583	64.909	-2.1	98	0.00	1.59- 1.65
4	1-Propanol	50.842	53.979	-6.2	98	0.00	1.93- 2.00
5	2-Propanol	45.279	45.910	-1.4	97	0.00	1.35- 1.41
6	Isobutanol	61.221	59.291	3.2	95	0.00	2.88- 2.94
7	1-Butanol	66.170	58.079	12.2	91	0.00	3.35- 3.41
8	2-Butanol	54.284	55.110	-1.5	98	0.00	2.50- 2.56
9 S	Hexanol	155.348	142.528	8.3	90	0.00	5.40- 5.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH105020.D MGH5288.M Wed Jun 15 11:31:55 2016 GCGH

Continuing Calibration Summary

Job Number: JC21709 **Sample:** GGH5322-CC5288
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH105508.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH105508.D\FID1A.CH         Vial: 95
Acq On    : 15 Jun 2016   1:27 pm                    Operator: XULIU
Sample    : CC5288-10000                             Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                 Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105508.D\FID2B.CH         Vial: 95
Acq On    : 15 Jun 2016   1:44 pm                    Operator: XULIU
Sample    : CC5288-10000                             Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon May 23 10:02:11 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.459	16.602	-7.4	105	0.00	1.09- 1.15
2	Ethanol	18.950	21.482	-13.4	106	0.00	1.41- 1.50
3	Tert-Butyl Alcohol	28.335	31.423	-10.9	107	0.00	1.96- 2.08
4	1-Propanol	24.326	27.716	-13.9	107	0.00	2.45- 2.57
5	2-Propanol	19.931	22.986	-15.3	107	0.00	1.71- 1.80
6	Isobutanol	28.771	30.473	-5.9	102	0.00	3.26- 3.36
7	1-Butanol	28.561	29.253	-2.4	101	0.00	3.74- 3.80
8	2-Butanol	25.634	27.627	-7.8	105	0.00	2.88- 3.00
9 S	Hexanol	67.597	66.856	1.1	94	0.00	5.54- 5.60

***** Signal #2 *****

1	Methanol	32.254	34.894	-8.2	101	0.00	0.85- 0.91
2	Ethanol	39.861	42.375	-6.3	98	0.00	1.10- 1.16
3	Tert-Butyl Alcohol	63.583	69.896	-9.9	105	0.00	1.59- 1.65
4	1-Propanol	50.842	55.011	-8.2	100	0.00	1.93- 2.00
5	2-Propanol	45.279	48.035	-6.1	102	0.00	1.35- 1.41
6	Isobutanol	61.221	61.008	0.3	96	0.00	2.87- 2.93
7	1-Butanol	66.170	60.226	9.0	100	0.00	3.35- 3.41
8	2-Butanol	54.284	61.924	-14.1	109	0.00	2.50- 2.56
9 S	Hexanol	155.348	156.991	-1.1	96	0.00	5.39- 5.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH105021.D MGH5288.M Wed Jun 15 14:18:21 2016 GCGH

GC Volatiles

Raw Data

Manual Integrations
APPROVED
(compounds with "m" flag)
Dana Tryon
06/15/16 14:51

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105464.D\FID1A.CH          Vial: 20
Acq On    : 14 Jun 2016   9:13 am                     Operator: XULIU
Sample    : JC21709-1                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105464.D\FID2B.CH          Vial: 20
Acq On    : 14 Jun 2016   9:30 am                     Operator: XULIU
Sample    : JC21709-1                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:13 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.57	5.43	347412	773810	5139.486	4981.151
Spiked Amount 5000.000			Recovery	=	102.79%	99.62%
Target Compounds						
3) Tert-Butyl Alcoh	2.02	1.62	21245	31550	749.772m	496.200

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

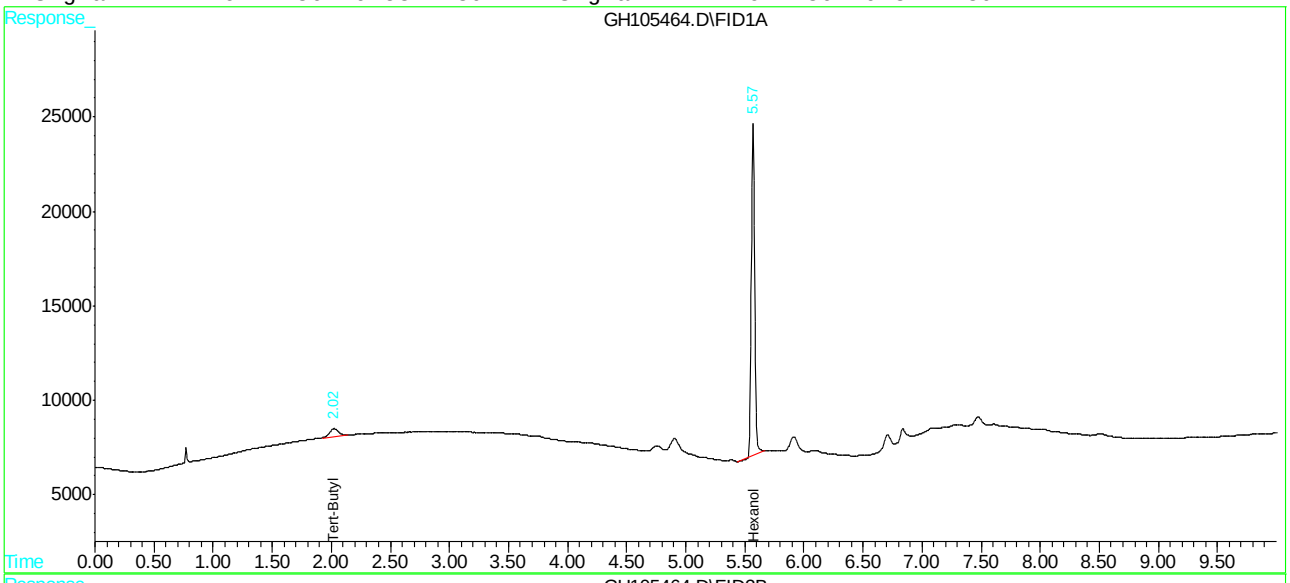
Quantitation Report (QT Reviewed)

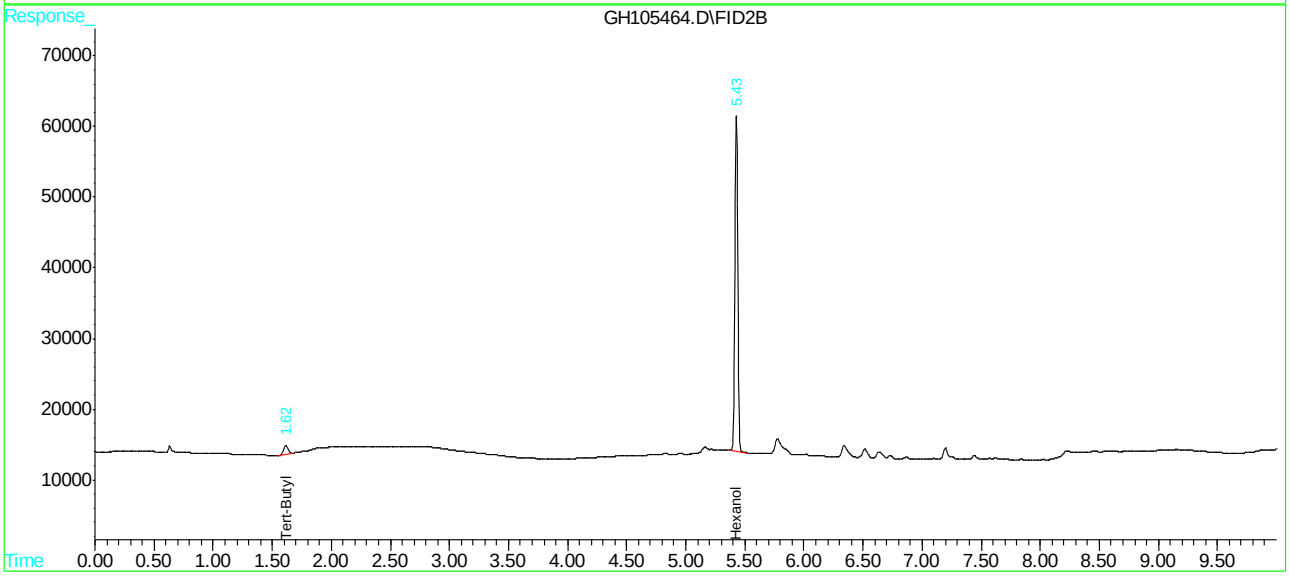
Data File : C:\HPCHEM\1\DATA\GH105464.D\FID1A.CH Vial: 20
Acq On : 14 Jun 2016 9:13 am Operator: XULIU
Sample : JC21709-1 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105464.D\FID2B.CH Vial: 20
Acq On : 14 Jun 2016 9:30 am Operator: XULIU
Sample : JC21709-1 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 14 14:13 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Jun 14 09:13:40 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Manual Integration Approval Summary

Sample Number:	JC21709-1	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH105464.D	**Analyst approved:**	06/14/16 14:27 Xu Liu
Injection Time:	06/14/16 09:13	**Supervisor approved:**	06/15/16 14:51 Dana Tryon

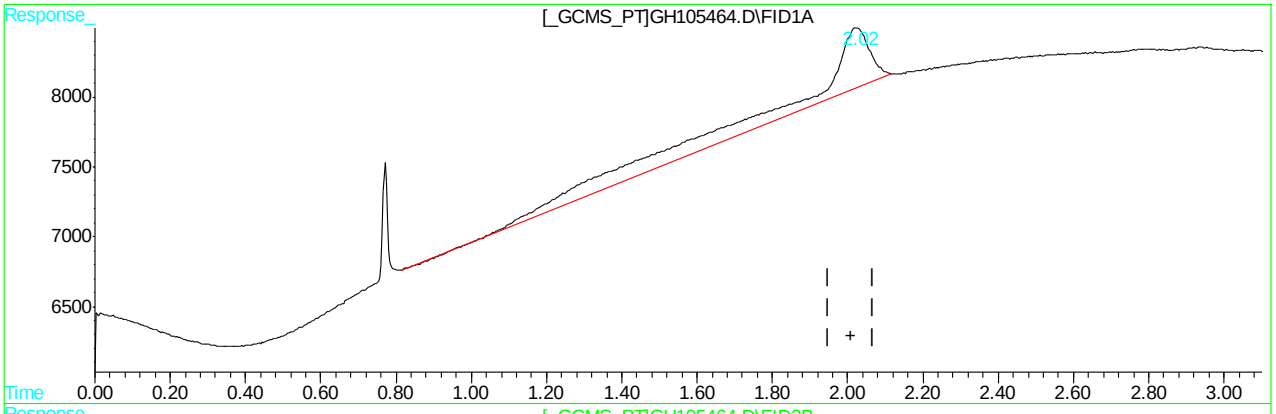
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tertiary Butyl Alcohol	75-65-0	1	2.02	Poor instrument integration

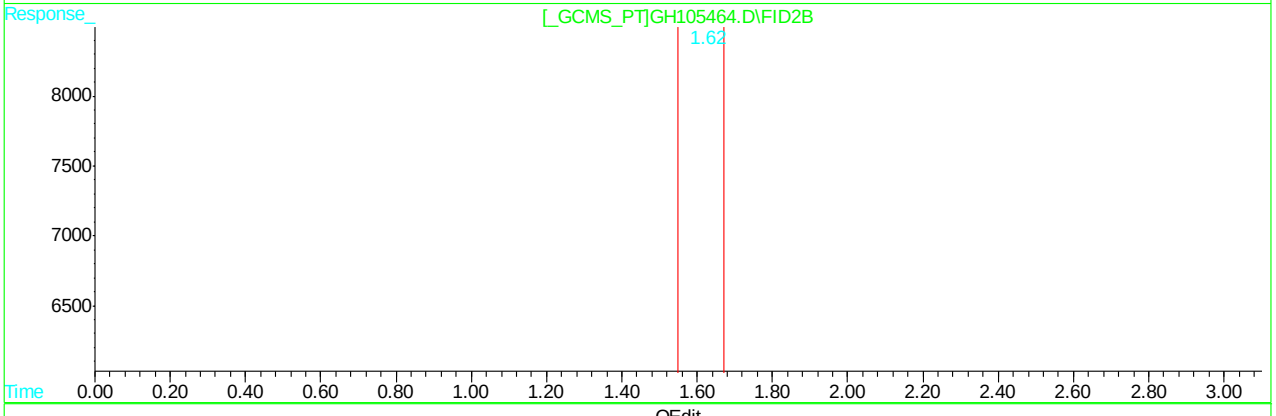
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105464.D\FID1A.CH          Vial: 20
Acq On    : 14 Jun 2016   9:13 am                     Operator: XULIU
Sample    : JC21709-1                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105464.D\FID2B.CH          Vial: 20
Acq On    : 14 Jun 2016   9:30 am                     Operator: XULIU
Sample    : JC21709-1                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 11:08 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

2.02min 2293.121PPB

response 64975

(3) Tert-Butyl Alcohol #2

1.62min 496.200PPB

response 31550

(+) = Expected Retention Time

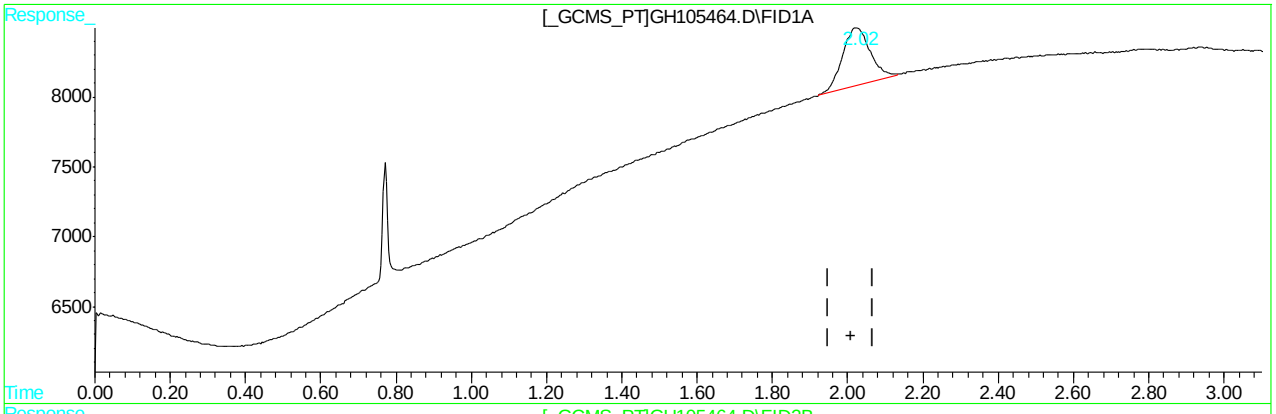
GH105464.D MGH5288.M Tue Jun 14 14:12:14 2016 GCGH

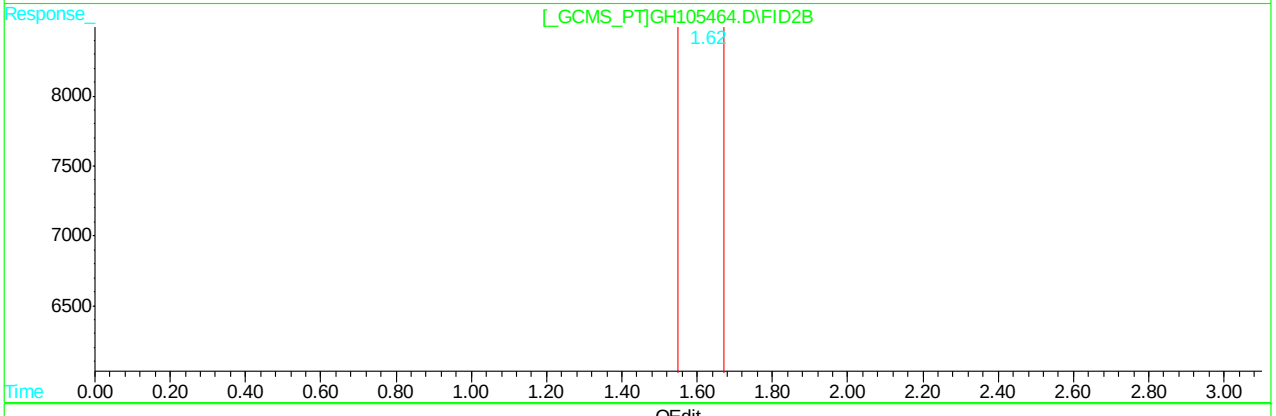
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105464.D\FID1A.CH          Vial: 20
Acq On    : 14 Jun 2016   9:13 am                     Operator: XULIU
Sample    : JC21709-1                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105464.D\FID2B.CH          Vial: 20
Acq On    : 14 Jun 2016   9:30 am                     Operator: XULIU
Sample    : JC21709-1                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 11:08 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

2.02min 749.772PPB m

response 21245

(3) Tert-Butyl Alcohol #2

1.62min 496.200PPB

response 31550

(+) = Expected Retention Time

GH105464.D MGH5288.M Tue Jun 14 14:13:25 2016 GCGH

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105467.D\FID1A.CH          Vial: 23
Acq On    : 14 Jun 2016  10:02 am                     Operator: XULIU
Sample    : JC21709-2                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105467.D\FID2B.CH          Vial: 23
Acq On    : 14 Jun 2016  10:18 am                     Operator: XULIU
Sample    : JC21709-2                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:17 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
9) S   Hexanol           5.57   5.43    341762   736124 5055.903  4738.561
 Spiked Amount   5000.000                  Recovery     =  101.12%    94.77%

Target Compounds
```

9.1.2

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH105467.D  MGH5288.M      Tue Jun 14 14:17:22 2016      GCGH
```


SGS ACCUTEST JC21709

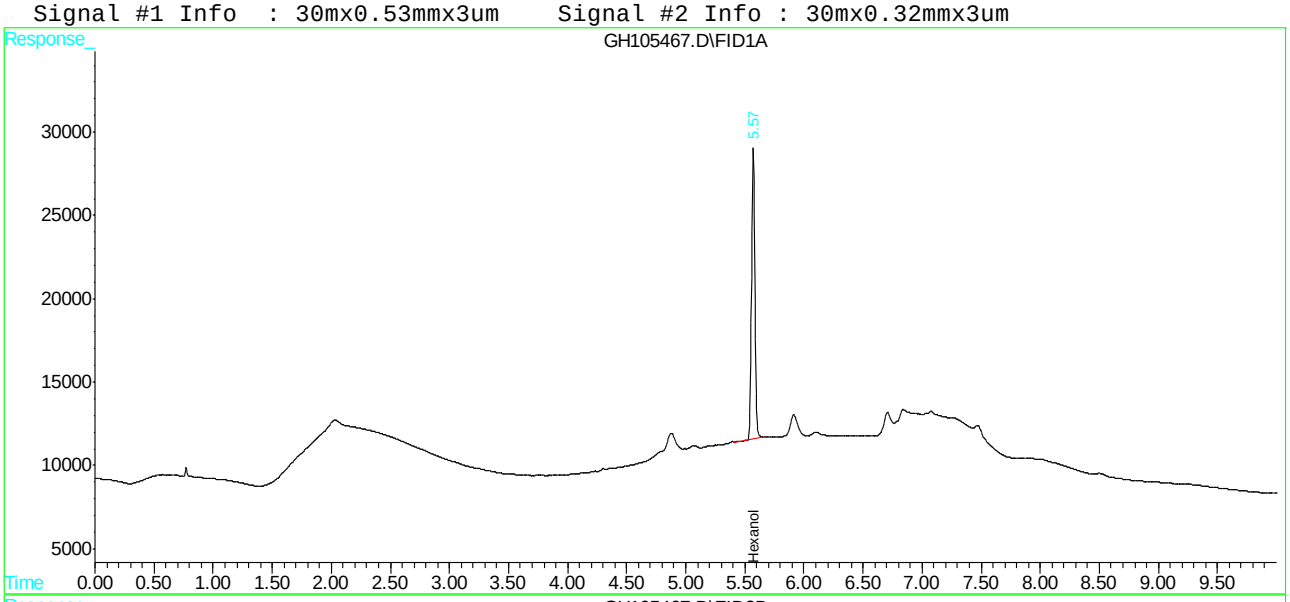
Quantitation Report (QT Reviewed)

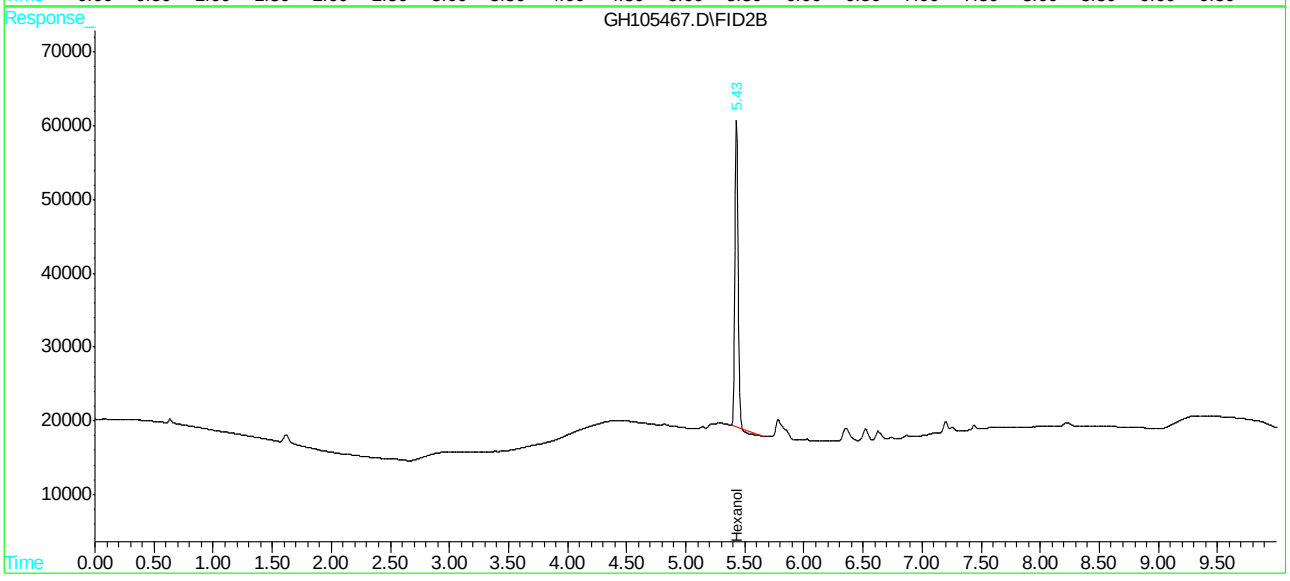
```
Data File : C:\HPCHEM\1\DATA\GH105467.D\FID1A.CH          Vial: 23
Acq On    : 14 Jun 2016  10:02 am                     Operator: XULIU
Sample    : JC21709-2                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105467.D\FID2B.CH          Vial: 23
Acq On    : 14 Jun 2016  10:18 am                     Operator: XULIU
Sample    : JC21709-2                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:17 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105468.D\FID1A.CH          Vial: 24
Acq On    : 14 Jun 2016  10:18 am                     Operator: XULIU
Sample    : JC21709-3                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105468.D\FID2B.CH          Vial: 24
Acq On    : 14 Jun 2016  10:35 am                     Operator: XULIU
Sample    : JC21709-3                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:17 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.57	5.43	358642	781403	5305.621	5030.031
Spiked Amount 5000.000			Recovery	=	106.11%	100.60%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

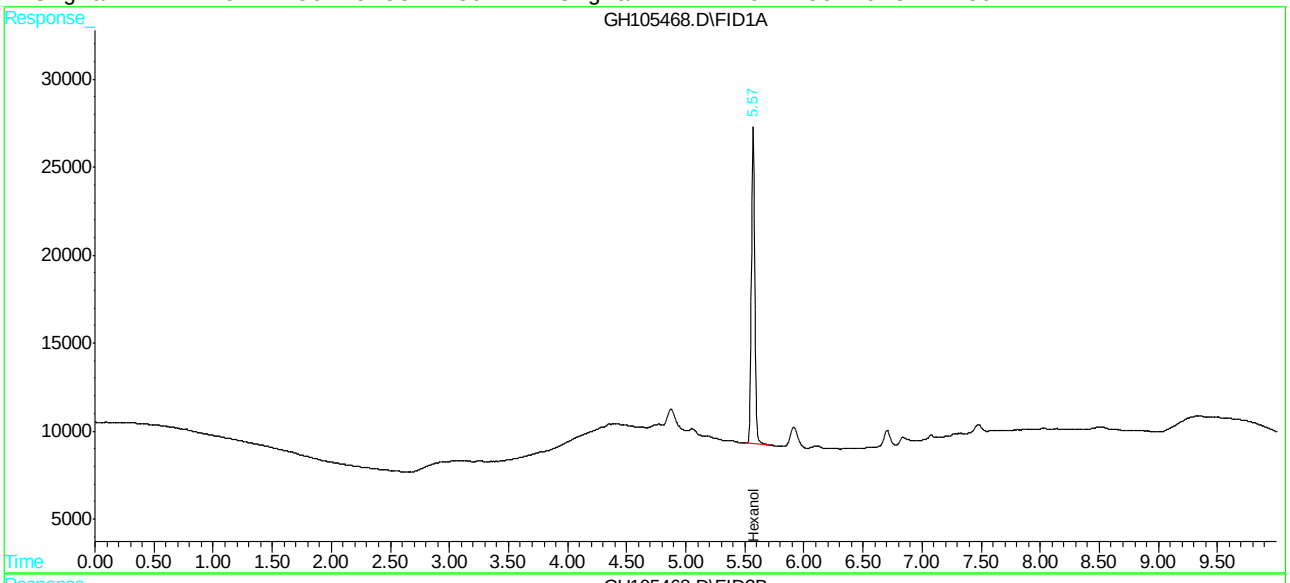
Quantitation Report (QT Reviewed)

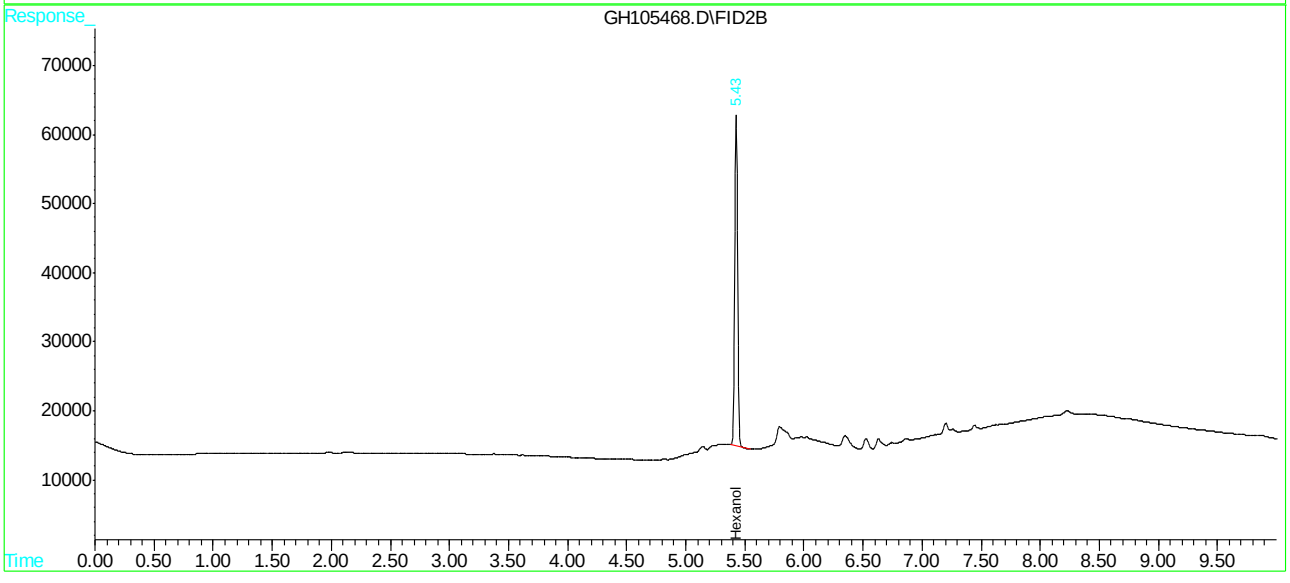
```
Data File : C:\HPCHEM\1\DATA\GH105468.D\FID1A.CH          Vial: 24
Acq On    : 14 Jun 2016  10:18 am                     Operator: XULIU
Sample    : JC21709-3                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105468.D\FID2B.CH          Vial: 24
Acq On    : 14 Jun 2016  10:35 am                     Operator: XULIU
Sample    : JC21709-3                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:17 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105469.D\FID1A.CH          Vial: 25
Acq On    : 14 Jun 2016  10:35 am                     Operator: XULIU
Sample    : JC21709-4                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105469.D\FID2B.CH          Vial: 25
Acq On    : 14 Jun 2016  10:51 am                     Operator: XULIU
Sample    : JC21709-4                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:18 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.57	5.43	343697	770731	5084.522	4961.332
Spiked Amount 5000.000			Recovery	=	101.69%	99.23%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

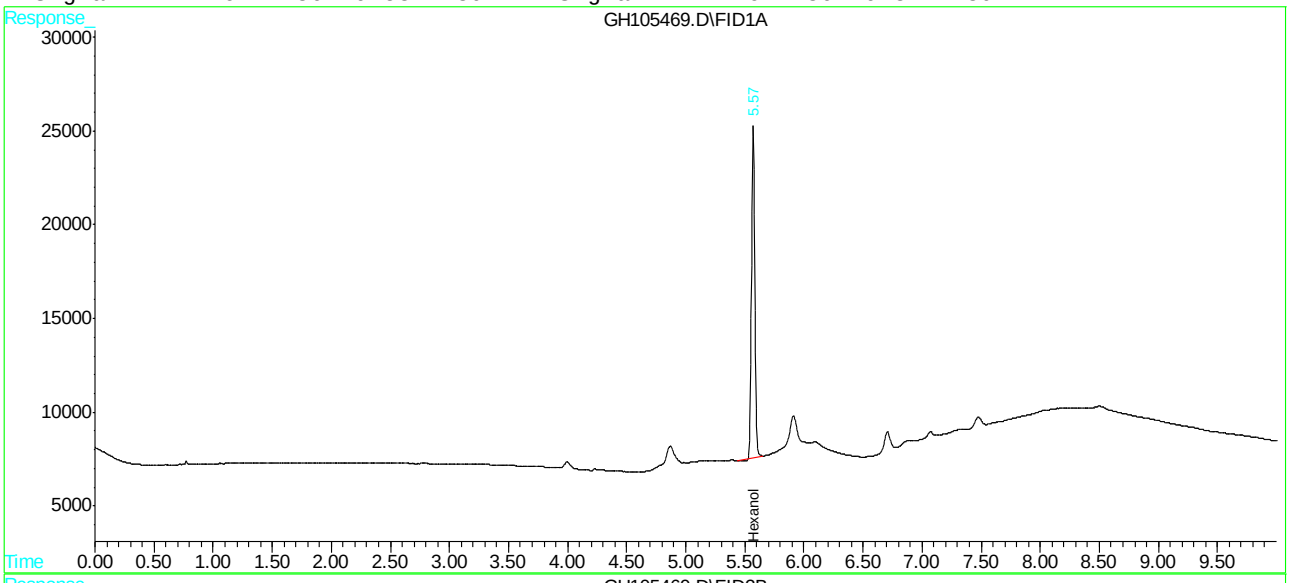
Quantitation Report (QT Reviewed)

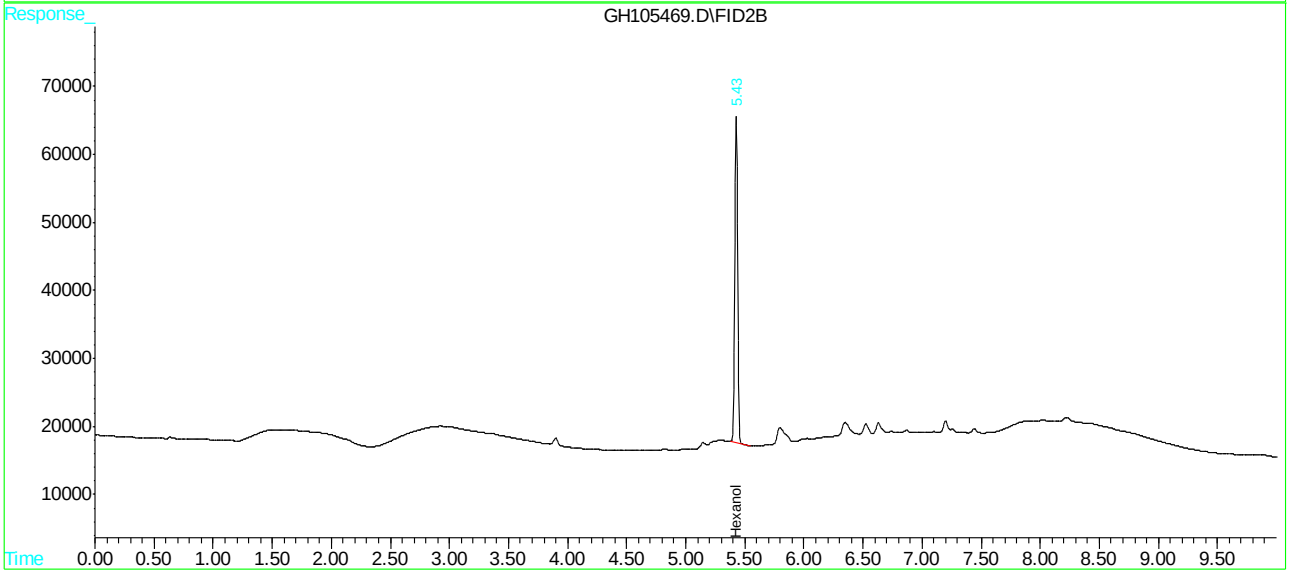
Data File : C:\HPCHEM\1\DATA\GH105469.D\FID1A.CH Vial: 25
Acq On : 14 Jun 2016 10:35 am Operator: XULIU
Sample : JC21709-4 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105469.D\FID2B.CH Vial: 25
Acq On : 14 Jun 2016 10:51 am Operator: XULIU
Sample : JC21709-4 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 14 14:18 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Jun 14 09:13:40 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105470.D\FID1A.CH          Vial: 26
Acq On    : 14 Jun 2016  10:51 am                     Operator: XULIU
Sample    : JC21709-5                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105470.D\FID2B.CH          Vial: 26
Acq On    : 14 Jun 2016  11:08 am                     Operator: XULIU
Sample    : JC21709-5                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:18 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.57	5.43	353549	814670	5230.269	5244.176
Spiked Amount 5000.000			Recovery	=	104.61%	104.88%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

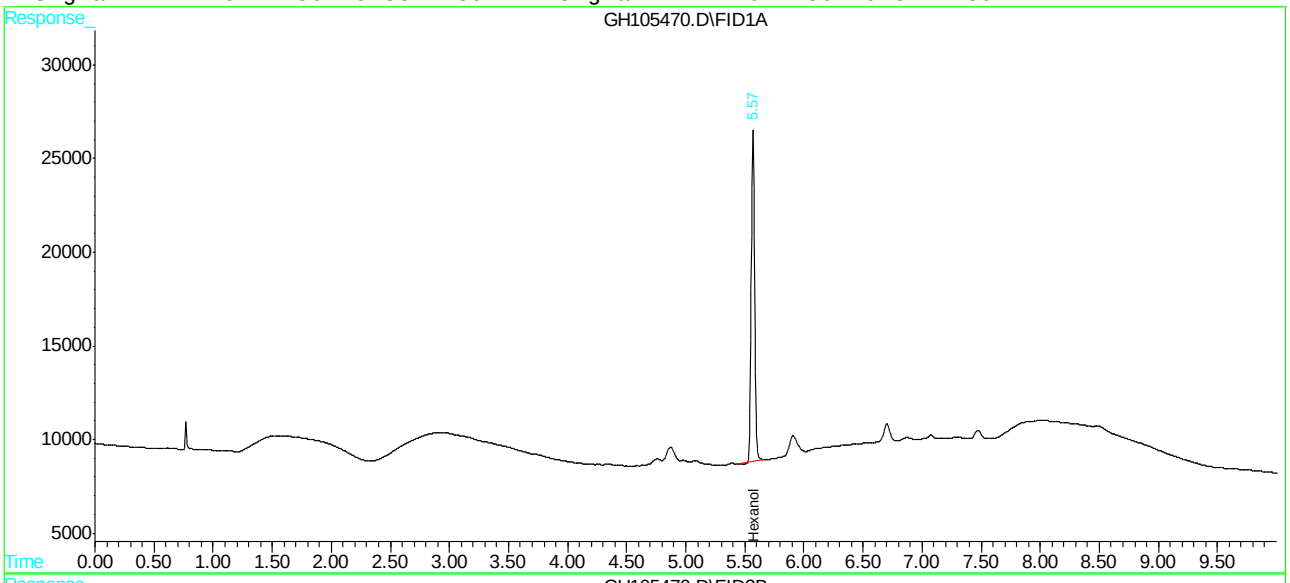
Quantitation Report (QT Reviewed)

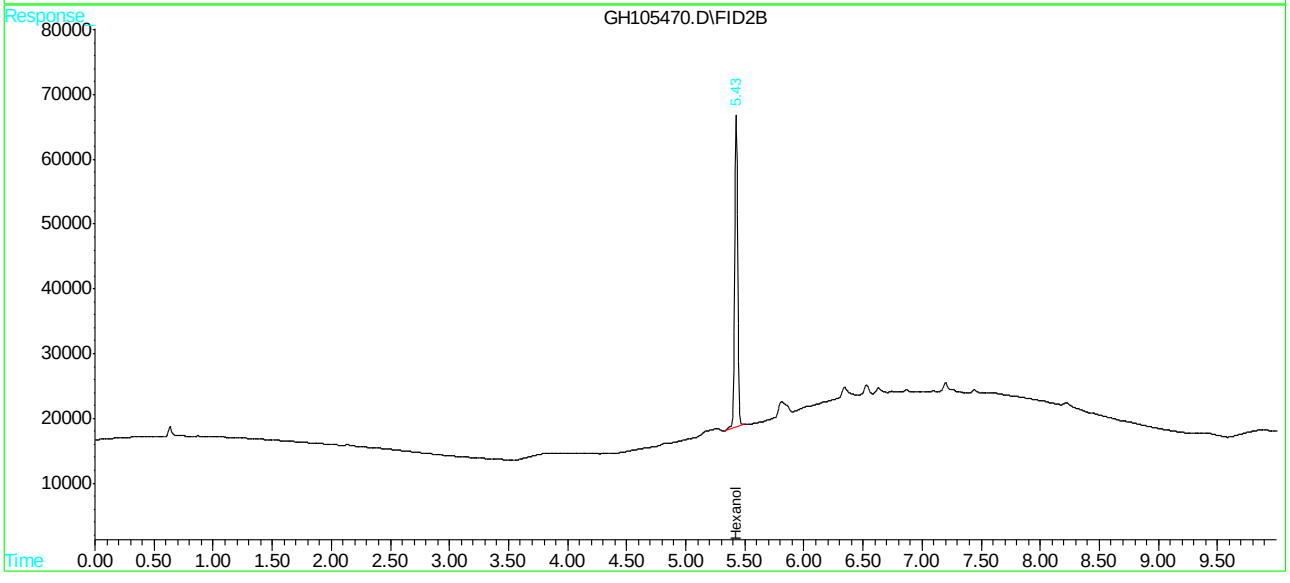
Data File : C:\HPCHEM\1\DATA\GH105470.D\FID1A.CH Vial: 26
Acq On : 14 Jun 2016 10:51 am Operator: XULIU
Sample : JC21709-5 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105470.D\FID2B.CH Vial: 26
Acq On : 14 Jun 2016 11:08 am Operator: XULIU
Sample : JC21709-5 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 14 14:18 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Jun 14 09:13:40 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105505.D\FID1A.CH        Vial: 35
Acq On    : 15 Jun 2016  12:38 pm                   Operator: XULIU
Sample    : JC21709-6                               Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105505.D\FID2B.CH        Vial: 35
Acq On    : 15 Jun 2016  12:55 pm                   Operator: XULIU
Sample    : JC21709-6                               Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 14:13 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:01:18 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.57	5.43	378258	846167	5595.810	5446.927
Spiked Amount 5000.000			Recovery	=	111.92%	108.94%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

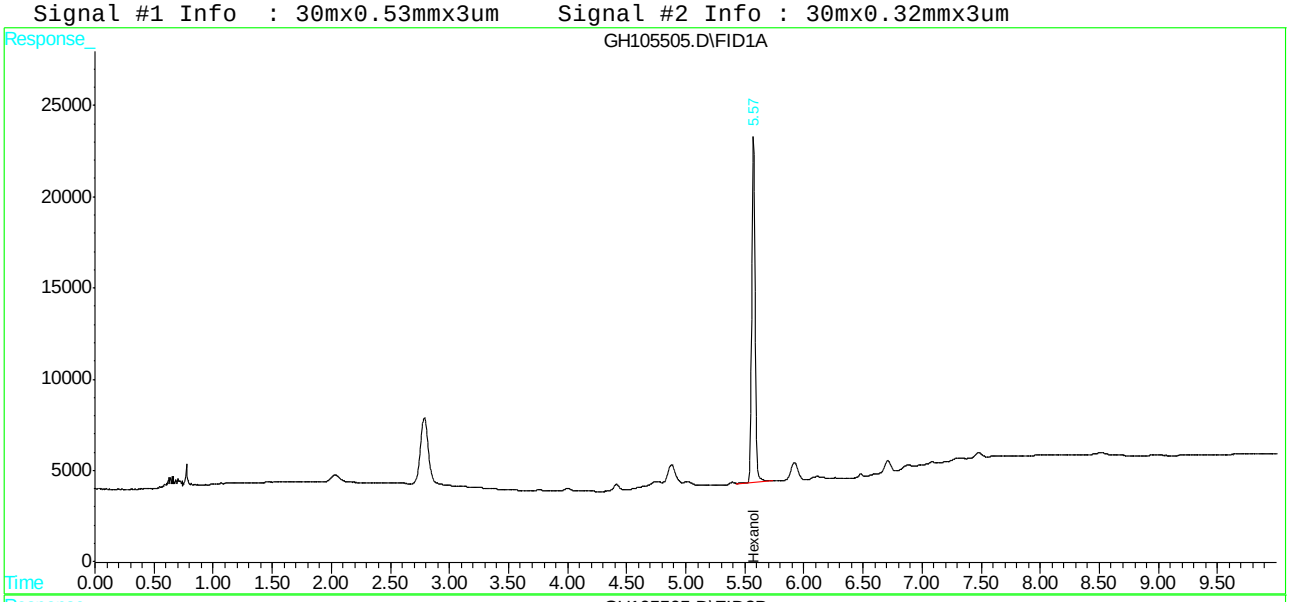
Quantitation Report (QT Reviewed)

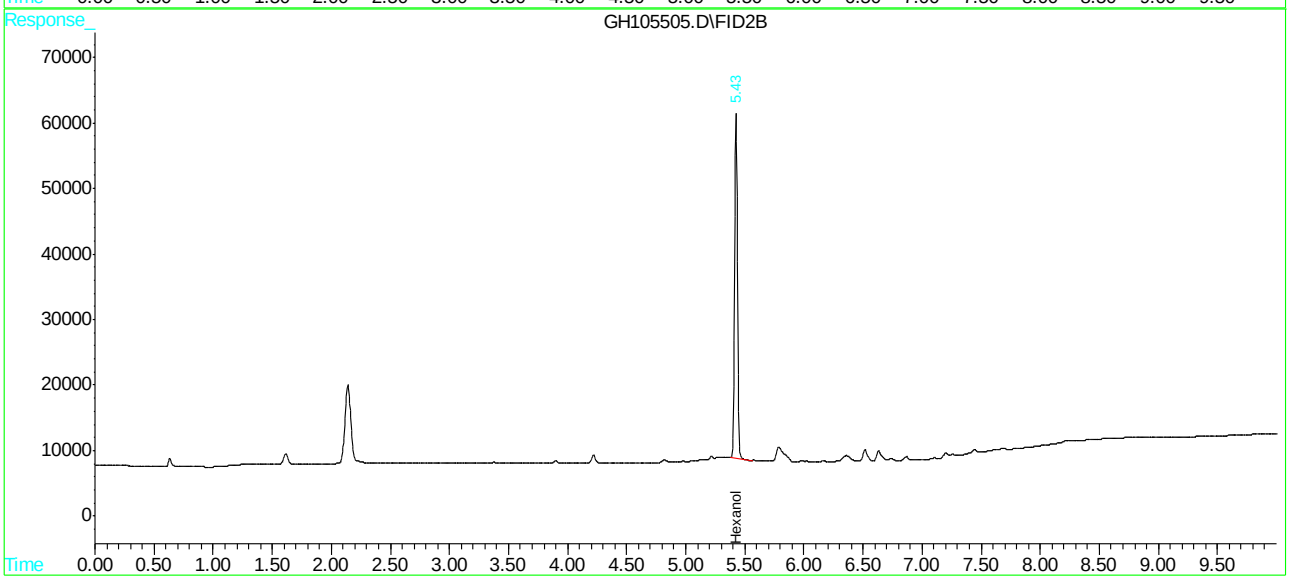
```
Data File : C:\HPCHEM\1\DATA\GH105505.D\FID1A.CH          Vial: 35
Acq On    : 15 Jun 2016  12:38 pm                     Operator: XULIU
Sample    : JC21709-6                                 Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105505.D\FID2B.CH          Vial: 35
Acq On    : 15 Jun 2016  12:55 pm                     Operator: XULIU
Sample    : JC21709-6                                 Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 14:13 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:01:18 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105484.D\FID1A.CH          Vial: 16
Acq On    : 14 Jun 2016   3:15 pm                     Operator: XULIU
Sample    : JC21709-7                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105484.D\FID2B.CH          Vial: 16
Acq On    : 14 Jun 2016   3:32 pm                     Operator: XULIU
Sample    : JC21709-7                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:31 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:47:42 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
9) S   Hexanol           5.56   5.43    360593   793488 5334.484  5107.824
 Spiked Amount   5000.000                  Recovery     =  106.69%   102.16%

Target Compounds
```

9.1.7

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH105484.D  MGH5288.M      Wed Jun 15 08:31:47 2016      GCGH
```

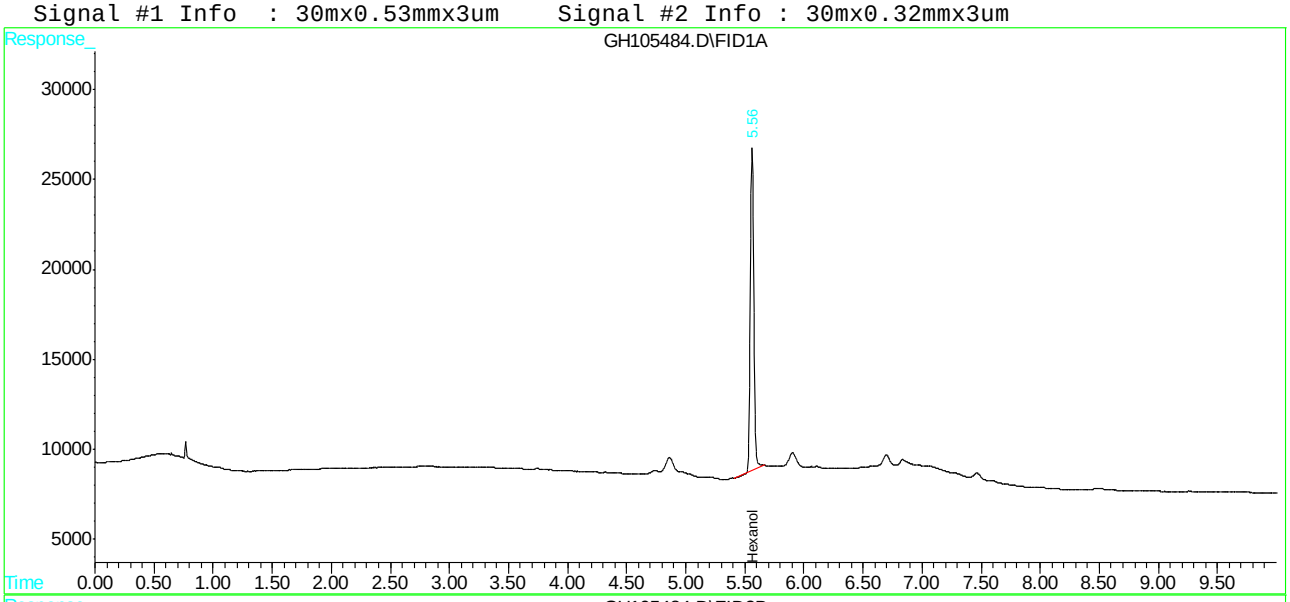
Quantitation Report (QT Reviewed)

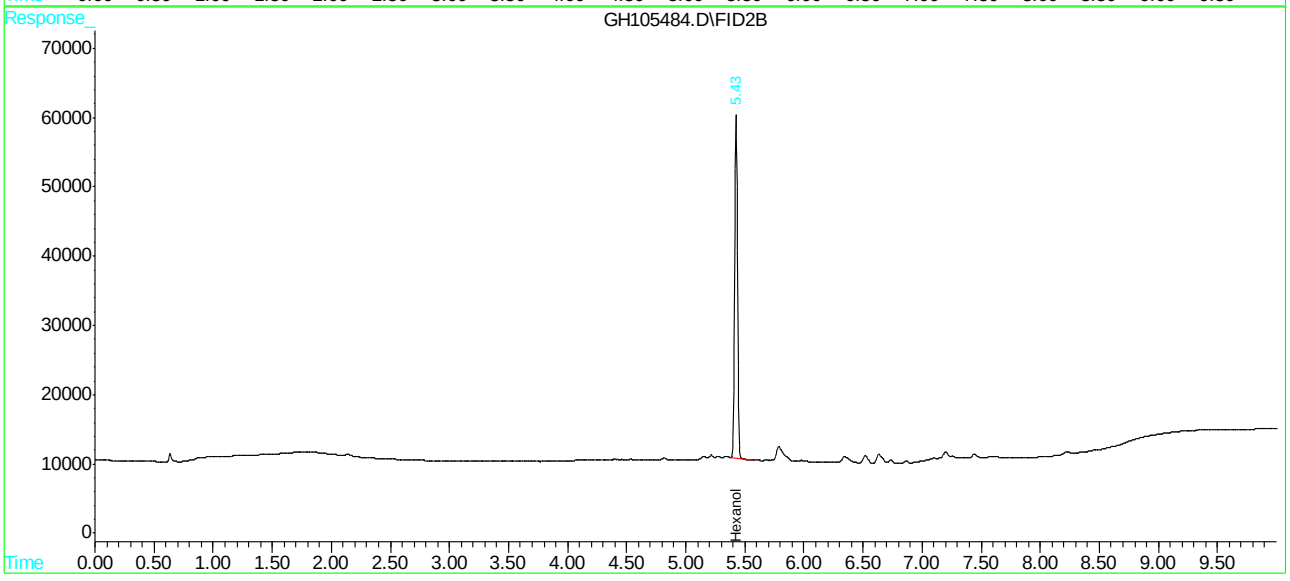
Data File : C:\HPCHEM\1\DATA\GH105484.D\FID1A.CH Vial: 16
Acq On : 14 Jun 2016 3:15 pm Operator: XULIU
Sample : JC21709-7 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105484.D\FID2B.CH Vial: 16
Acq On : 14 Jun 2016 3:32 pm Operator: XULIU
Sample : JC21709-7 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 15 8:31 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Jun 14 14:47:42 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105506.D\FID1A.CH          Vial: 36
Acq On    : 15 Jun 2016  12:55 pm                     Operator: XULIU
Sample    : JC21709-8                                 Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105506.D\FID2B.CH          Vial: 36
Acq On    : 15 Jun 2016   1:11 pm                     Operator: XULIU
Sample    : JC21709-8                                 Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 14:14 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:01:18 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
9) S   Hexanol           5.57   5.43    349444   777881 5169.539  5007.359
 Spiked Amount   5000.000                  Recovery     =  103.39%   100.15%

Target Compounds
```

9.1.8

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH105506.D  MGH5288.M      Wed Jun 15 14:14:48 2016      GCGH
```

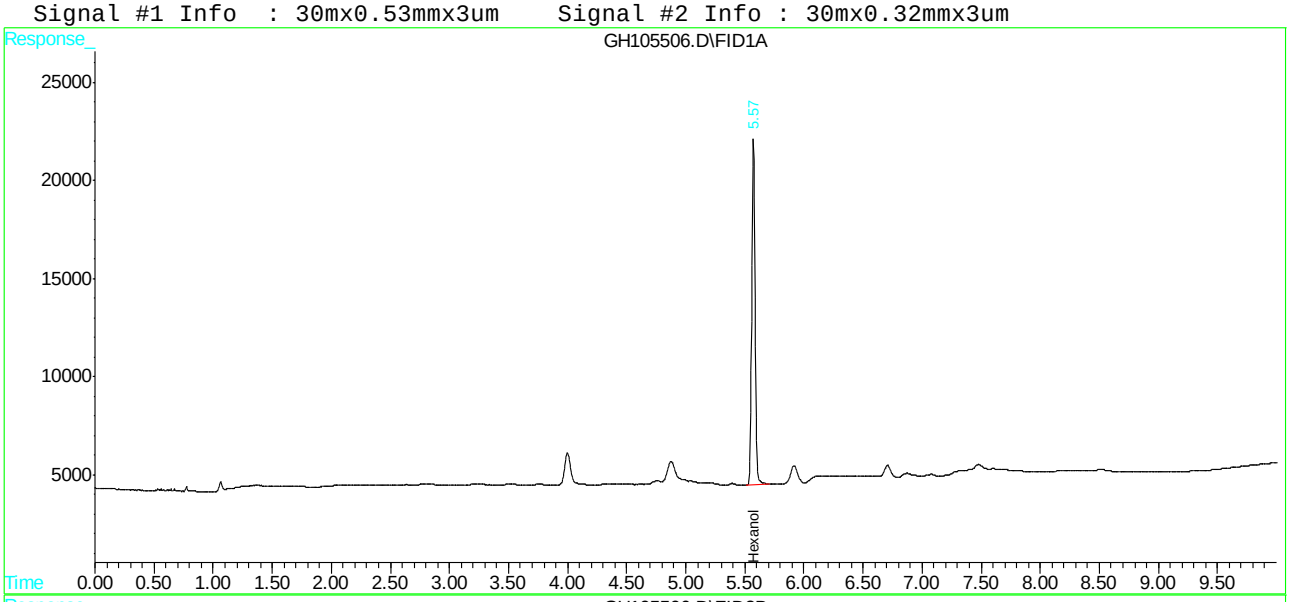
Quantitation Report (QT Reviewed)

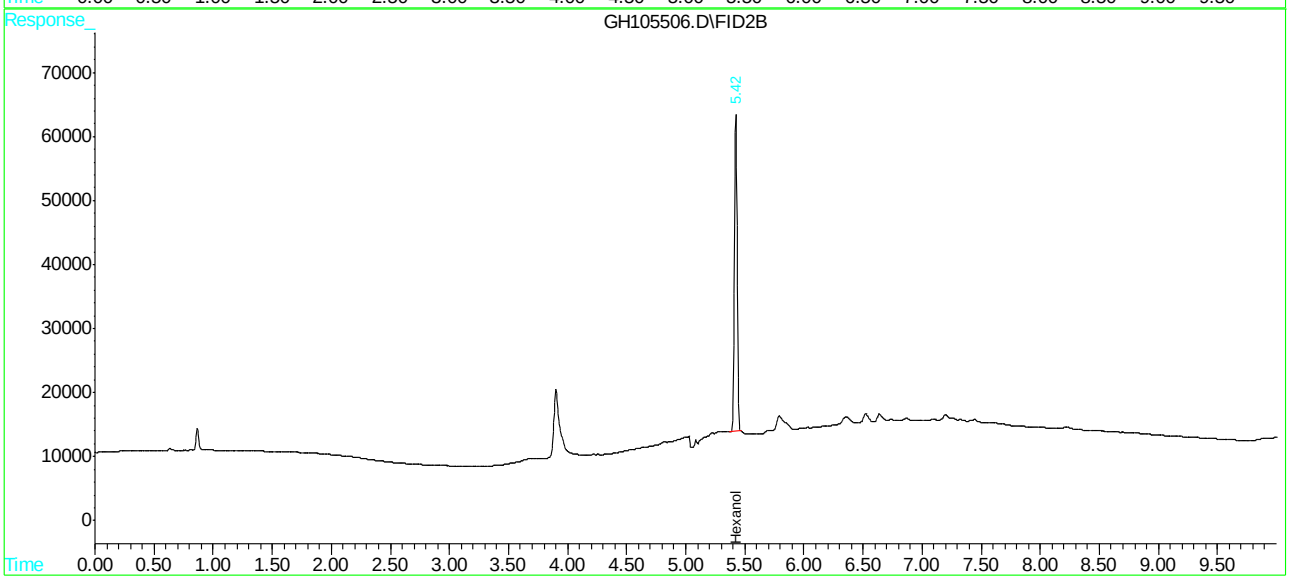
```
Data File : C:\HPCHEM\1\DATA\GH105506.D\FID1A.CH          Vial: 36
Acq On    : 15 Jun 2016  12:55 pm                     Operator: XULIU
Sample    : JC21709-8                                 Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105506.D\FID2B.CH          Vial: 36
Acq On    : 15 Jun 2016   1:11 pm                     Operator: XULIU
Sample    : JC21709-8                                 Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 14:14 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:01:18 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105474.D\FID1A.CH        Vial: 31
Acq On    : 14 Jun 2016  12:14 pm                   Operator: XULIU
Sample    : JC21709-9                               Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105474.D\FID2B.CH        Vial: 31
Acq On    : 14 Jun 2016  12:30 pm                   Operator: XULIU
Sample    : JC21709-9                               Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 15:13 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.57	5.43	350635	742957	5187.168	4782.551
Spiked Amount 5000.000			Recovery	=	103.74%	95.65%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

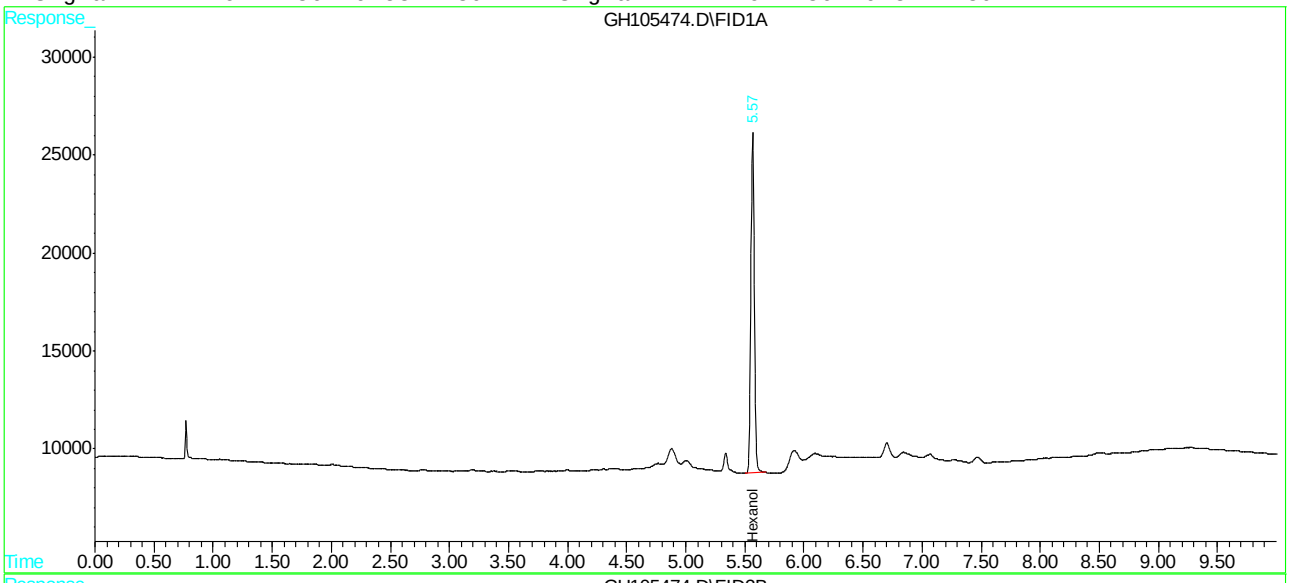
Quantitation Report (QT Reviewed)

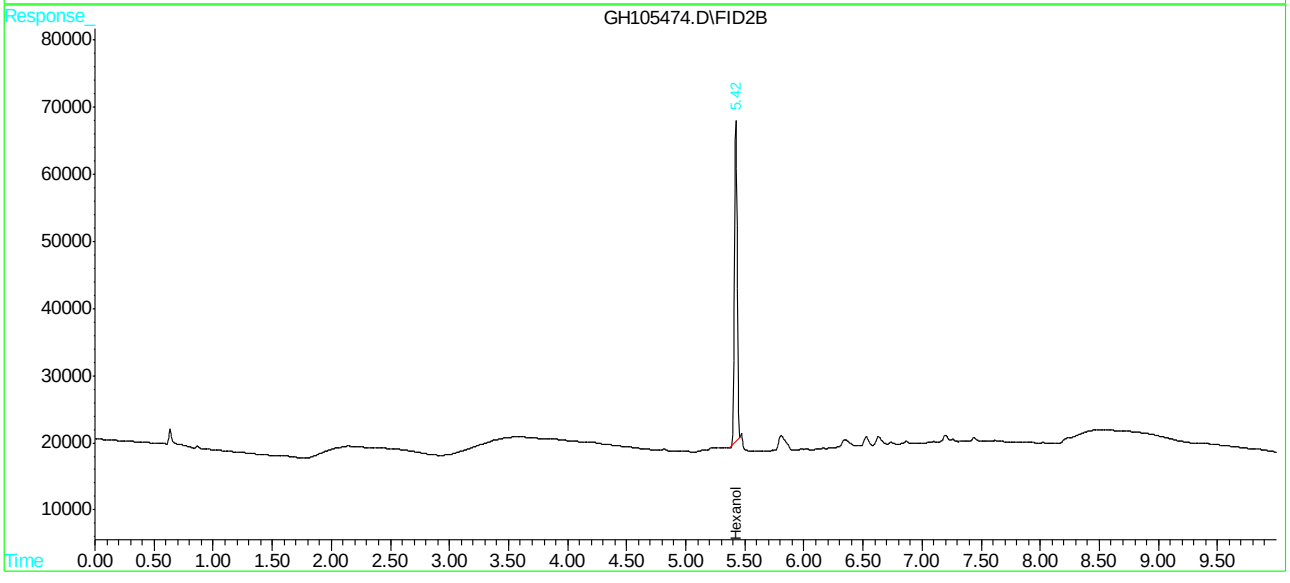
```
Data File : C:\HPCHEM\1\DATA\GH105474.D\FID1A.CH          Vial: 31
Acq On    : 14 Jun 2016  12:14 pm                     Operator: XULIU
Sample    : JC21709-9                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105474.D\FID2B.CH          Vial: 31
Acq On    : 14 Jun 2016  12:30 pm                     Operator: XULIU
Sample    : JC21709-9                                 Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 15:13 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105475.D\FID1A.CH        Vial: 32
Acq On    : 14 Jun 2016  12:30 pm                   Operator: XULIU
Sample    : JC21709-10                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105475.D\FID2B.CH        Vial: 32
Acq On    : 14 Jun 2016  12:47 pm                   Operator: XULIU
Sample    : JC21709-10                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 15:13 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
9) S   Hexanol          5.56   5.43    361429   802291 5346.850  5164.488
 Spiked Amount   5000.000                 Recovery     =  106.94%   103.29%

Target Compounds
```

9.1.10

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH105475.D  MGH5288.M      Tue Jun 14 15:13:47 2016      GCGH
```

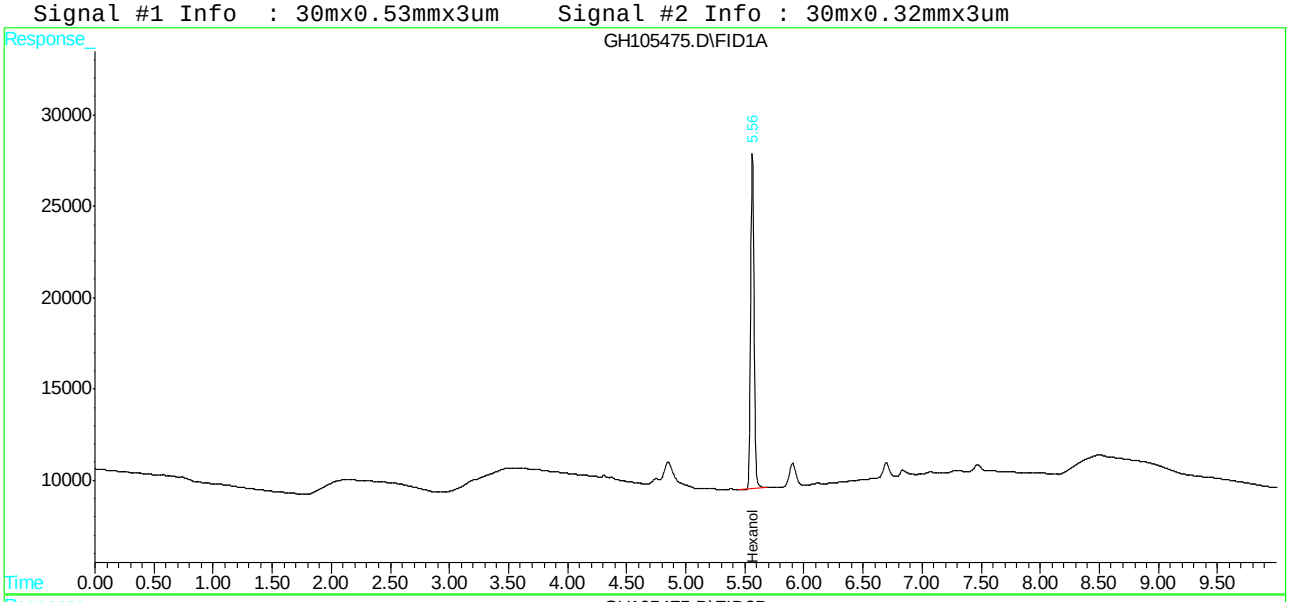
Quantitation Report (QT Reviewed)

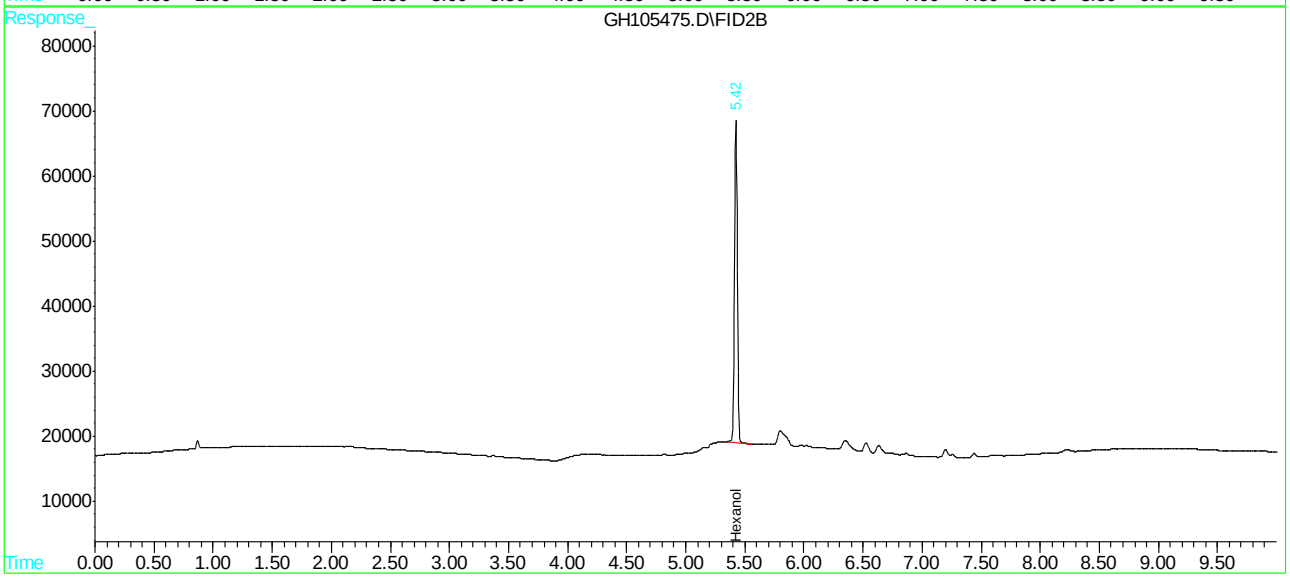
```
Data File : C:\HPCHEM\1\DATA\GH105475.D\FID1A.CH          Vial: 32
Acq On    : 14 Jun 2016  12:30 pm                     Operator: XULIU
Sample    : JC21709-10                                Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105475.D\FID2B.CH          Vial: 32
Acq On    : 14 Jun 2016  12:47 pm                     Operator: XULIU
Sample    : JC21709-10                                Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 15:13 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105473.D\FID1A.CH          Vial: 30
Acq On    : 14 Jun 2016  11:57 am                     Operator: XULIU
Sample    : JC21709-12                                Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105473.D\FID2B.CH          Vial: 30
Acq On    : 14 Jun 2016  12:14 pm                     Operator: XULIU
Sample    : JC21709-12                                Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 15:12 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
9) S   Hexanol           5.57   5.43    362672   757602 5365.226  4876.820
 Spiked Amount   5000.000                  Recovery     =  107.30%    97.54%

Target Compounds
```

9.1.11

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH105473.D  MGH5288.M      Tue Jun 14 15:13:01 2016      GCGH
```


SGS ACCUTEST JC21709

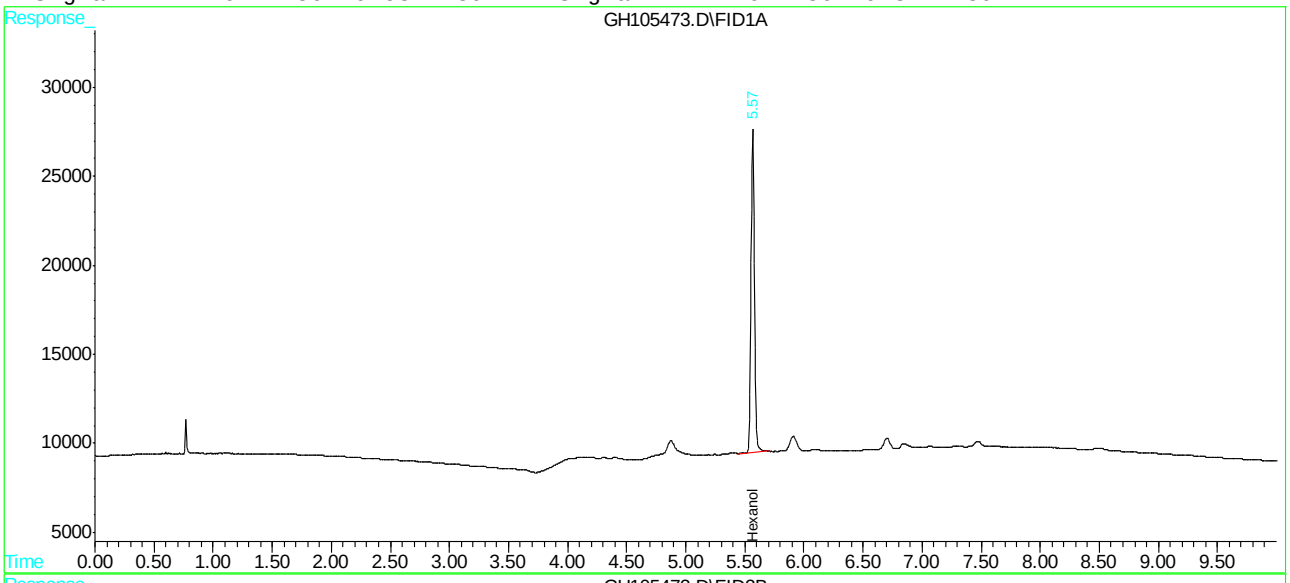
Quantitation Report (QT Reviewed)

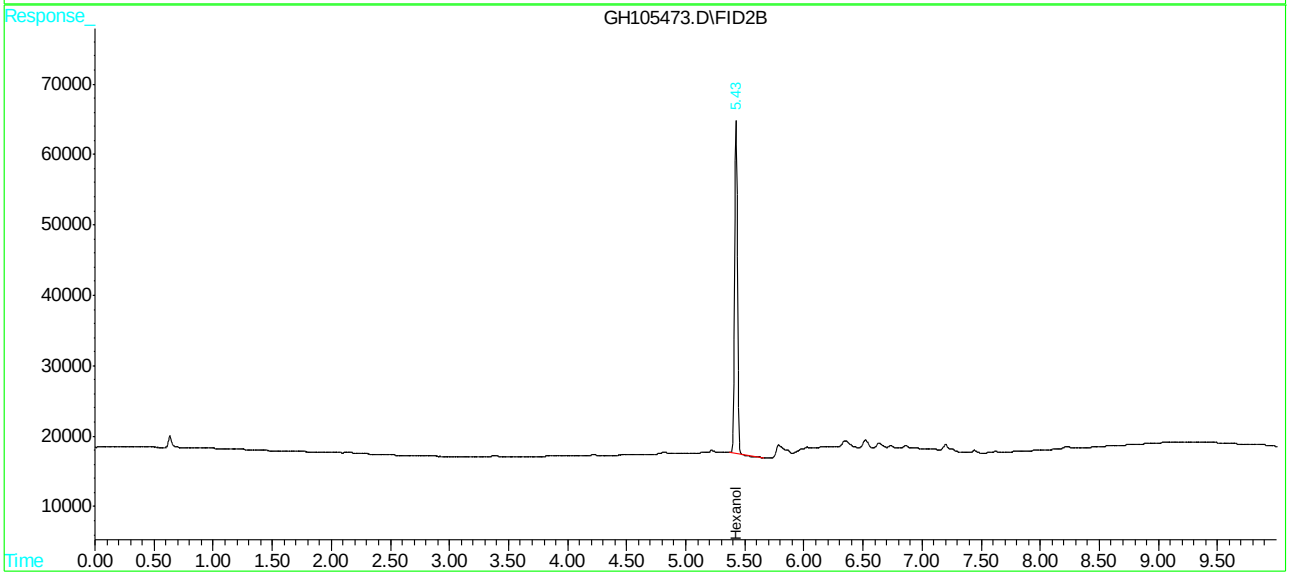
```
Data File : C:\HPCHEM\1\DATA\GH105473.D\FID1A.CH          Vial: 30
Acq On    : 14 Jun 2016  11:57 am                     Operator: XULIU
Sample    : JC21709-12                                Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105473.D\FID2B.CH          Vial: 30
Acq On    : 14 Jun 2016  12:14 pm                     Operator: XULIU
Sample    : JC21709-12                                Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 15:12 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105462.D\FID1A.CH          Vial: 93
Acq On    : 14 Jun 2016   8:19 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105462.D\FID2B.CH          Vial: 93
Acq On    : 14 Jun 2016   8:35 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14  9:02 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 08:56:29 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.57	5.43	295852	698297	4376.723	4495.062
Spiked Amount 5000.000			Recovery	=	87.53%	89.90%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH105462.D MGH5288.M Tue Jun 14 09:16:50 2016 GCGH

SGS ACCUTEST JC21709

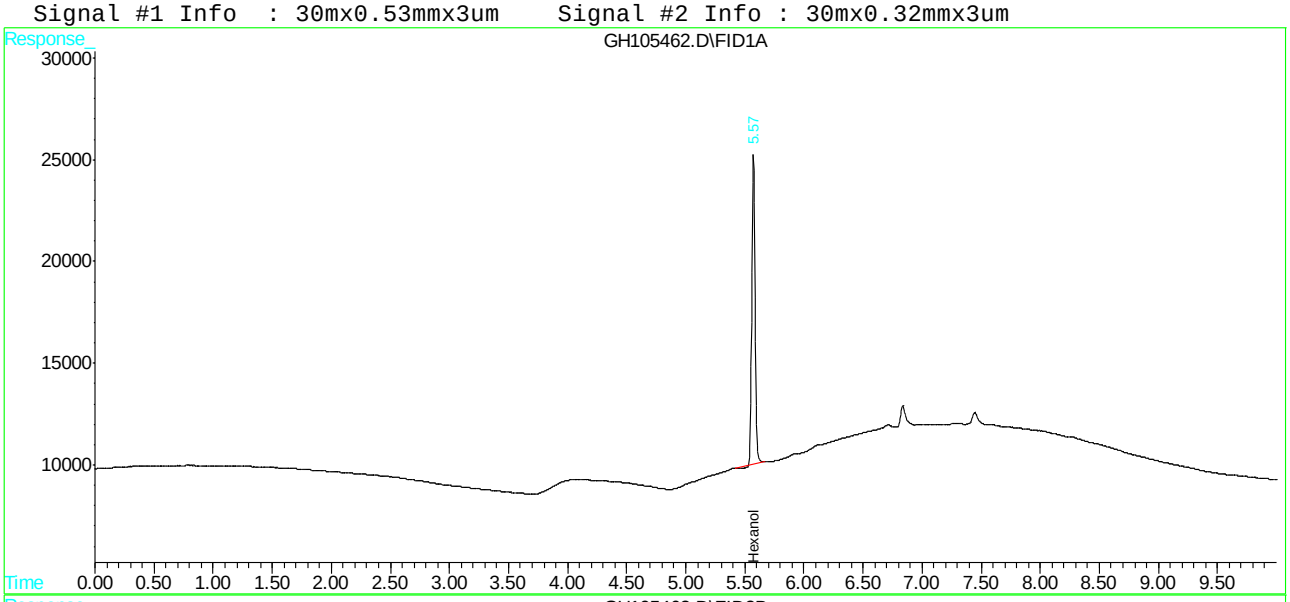
Quantitation Report (QT Reviewed)

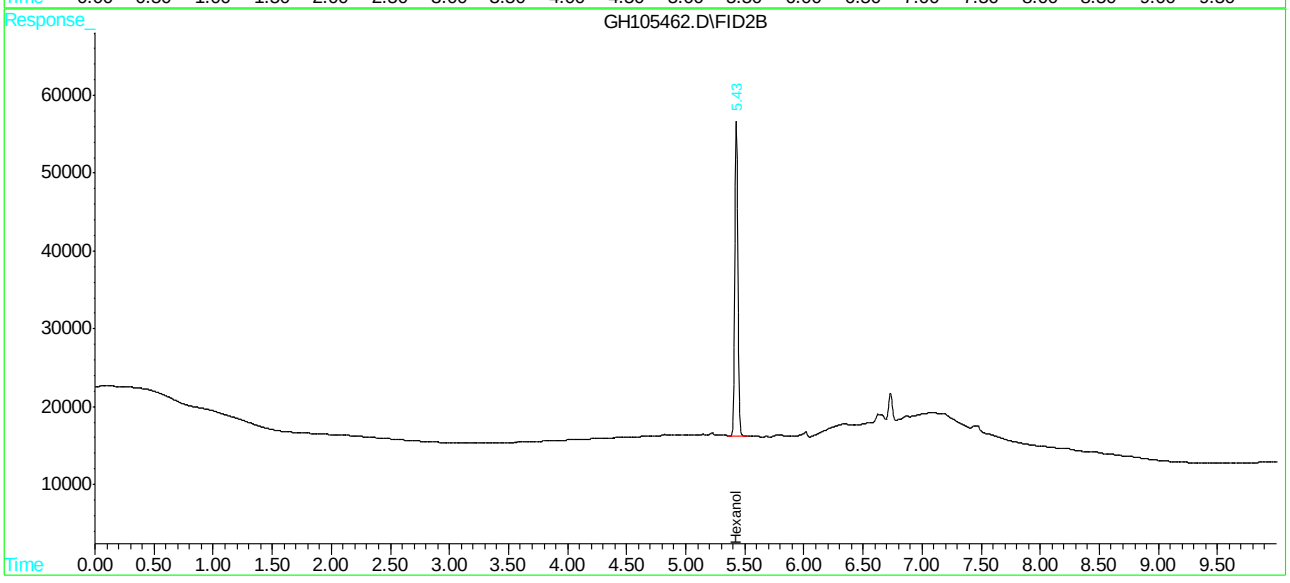
```
Data File : C:\HPCHEM\1\DATA\GH105462.D\FID1A.CH          Vial: 93
Acq On    : 14 Jun 2016   8:19 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105462.D\FID2B.CH          Vial: 93
Acq On    : 14 Jun 2016   8:35 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14  9:02 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 08:56:29 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105472.D\FID1A.CH          Vial: 91
Acq On    : 14 Jun 2016  11:41 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105472.D\FID2B.CH          Vial: 91
Acq On    : 14 Jun 2016  11:57 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:30 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
9) S   Hexanol           5.57   5.43    309441   700456 4577.752  4508.963
 Spiked Amount   5000.000                  Recovery     =   91.56%    90.18%

Target Compounds
```

9.2.2

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH105472.D  MGH5288.M      Tue Jun 14 15:12:40 2016      GCGH
```

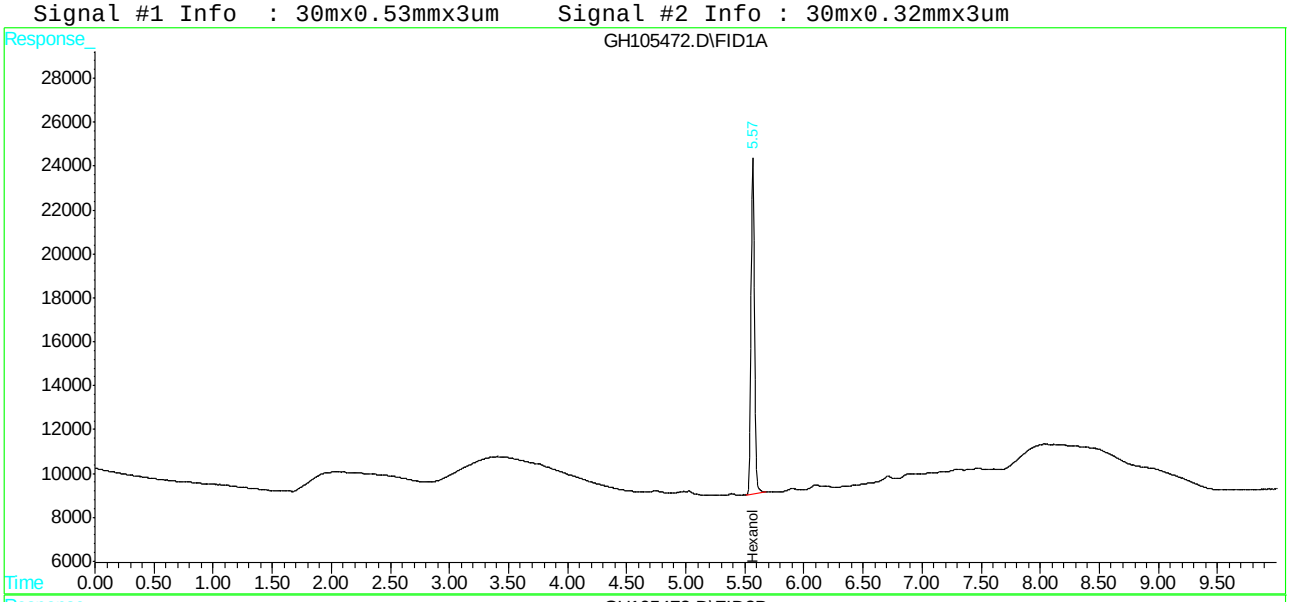
Quantitation Report (QT Reviewed)

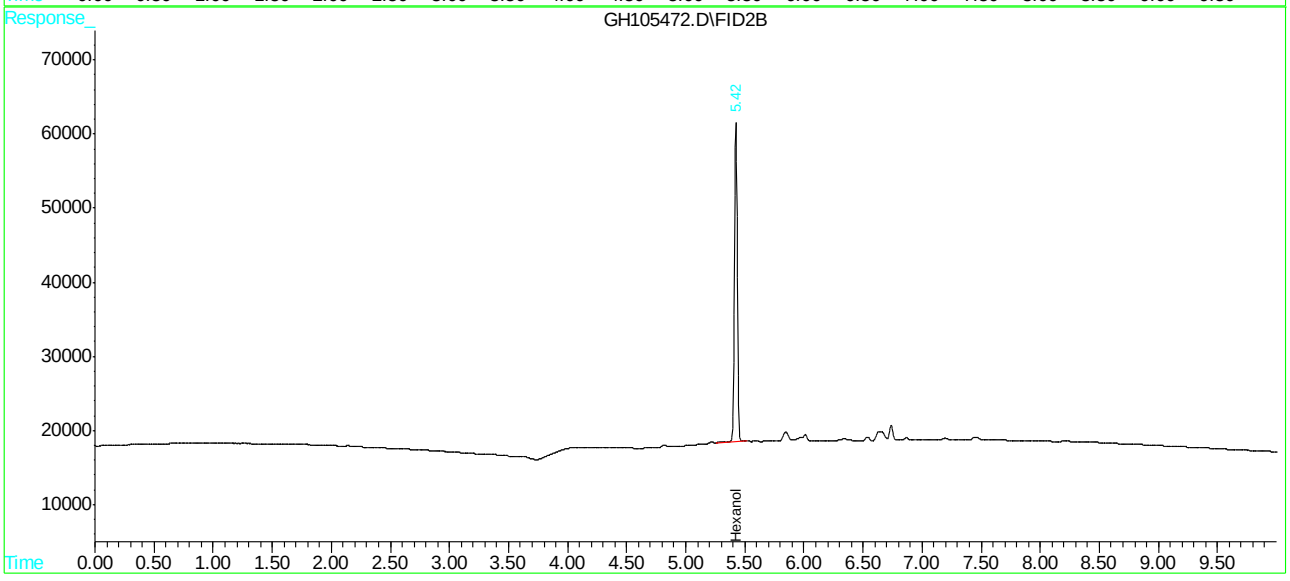
```
Data File : C:\HPCHEM\1\DATA\GH105472.D\FID1A.CH          Vial: 91
Acq On    : 14 Jun 2016  11:41 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105472.D\FID2B.CH          Vial: 91
Acq On    : 14 Jun 2016  11:57 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:30 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105482.D\FID1A.CH          Vial: 91
Acq On    : 14 Jun 2016   2:42 pm                     Operator: XULIU
Sample    : MB3                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105482.D\FID2B.CH          Vial: 91
Acq On    : 14 Jun 2016   2:59 pm                     Operator: XULIU
Sample    : MB3                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 15:37 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:47:42 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.56	5.43	308830	679156	4568.714	4371.847
Spiked Amount 5000.000			Recovery	=	91.37%	87.44%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH105482.D MGH5288.M Wed Jun 15 08:30:52 2016 GCGH

SGS ACCUTEST JC21709

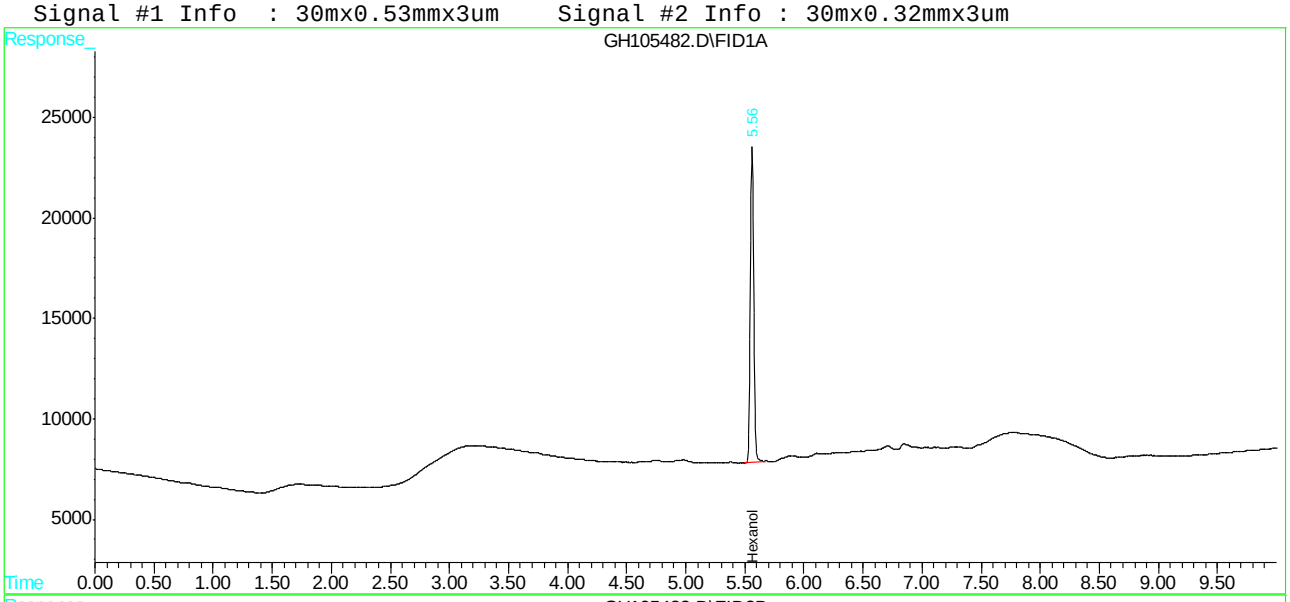
Quantitation Report (QT Reviewed)

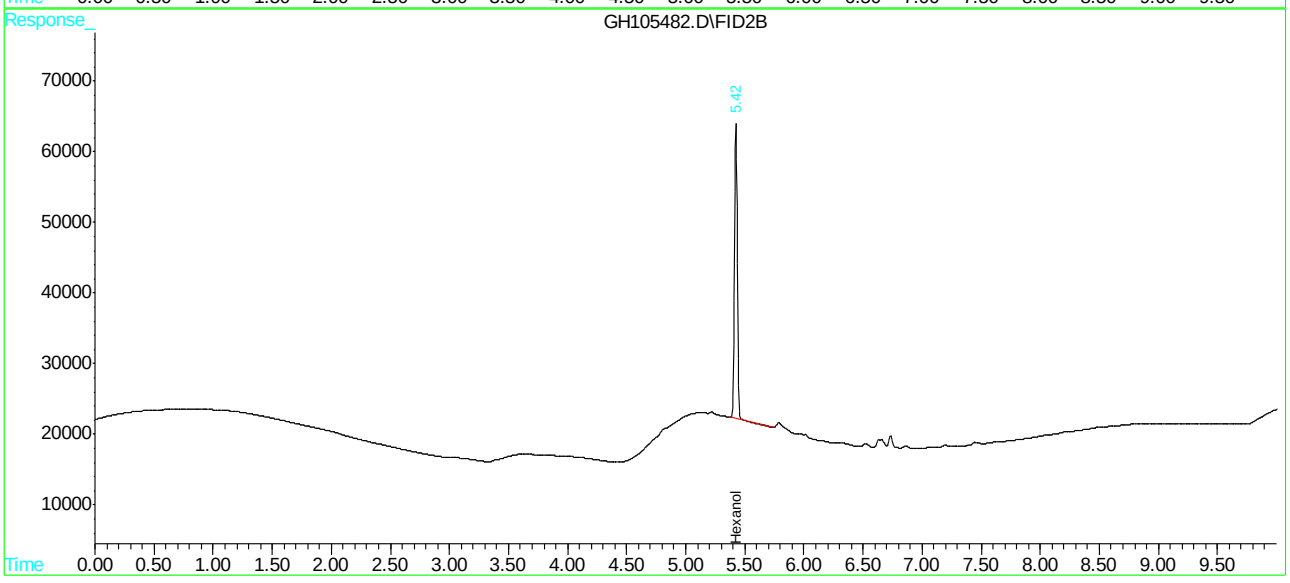
```
Data File : C:\HPCHEM\1\DATA\GH105482.D\FID1A.CH          Vial: 91
Acq On    : 14 Jun 2016   2:42 pm                     Operator: XULIU
Sample    : MB3                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105482.D\FID2B.CH          Vial: 91
Acq On    : 14 Jun 2016   2:59 pm                     Operator: XULIU
Sample    : MB3                                       Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 15:37 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:47:42 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105499.D\FID1A.CH          Vial: 91
Acq On    : 15 Jun 2016  11:01 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105499.D\FID2B.CH          Vial: 91
Acq On    : 15 Jun 2016  11:17 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 12:58 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 10:40:38 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
9) S   Hexanol           5.58   5.43    302614   689062 4476.758  4435.616
 Spiked Amount   5000.000                  Recovery     =   89.54%    88.71%

Target Compounds
```

9.2.4

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH105499.D  MGH5288.M      Wed Jun 15 14:07:35 2016      GCGH
```


SGS ACCUTEST JC21709

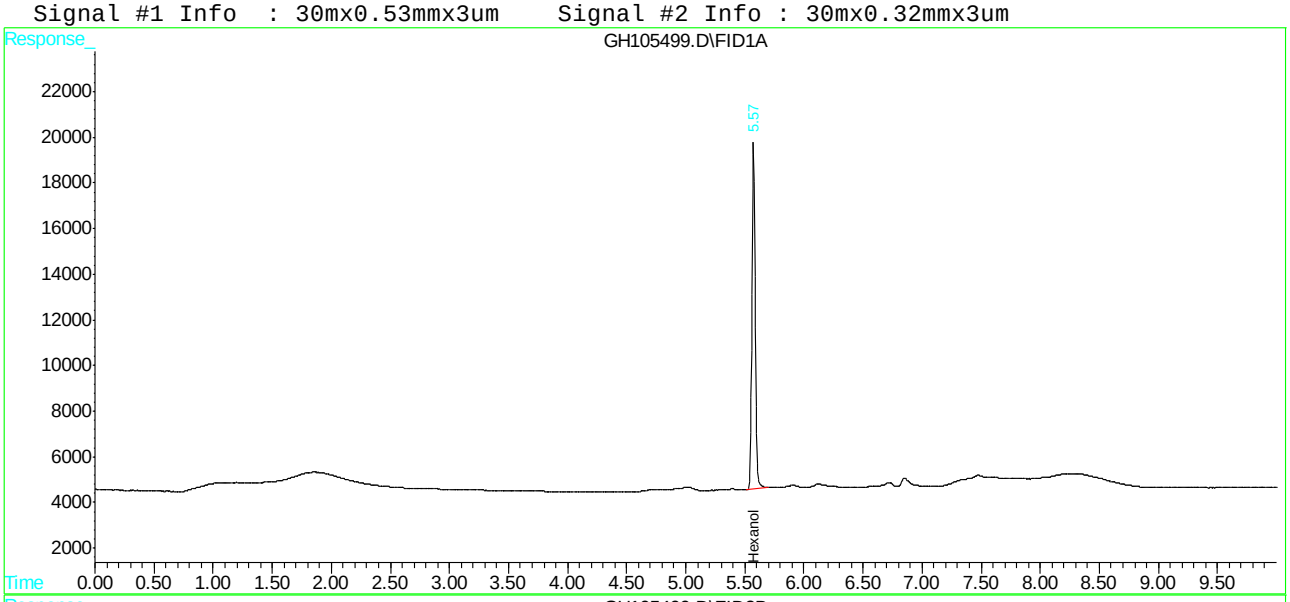
Quantitation Report (QT Reviewed)

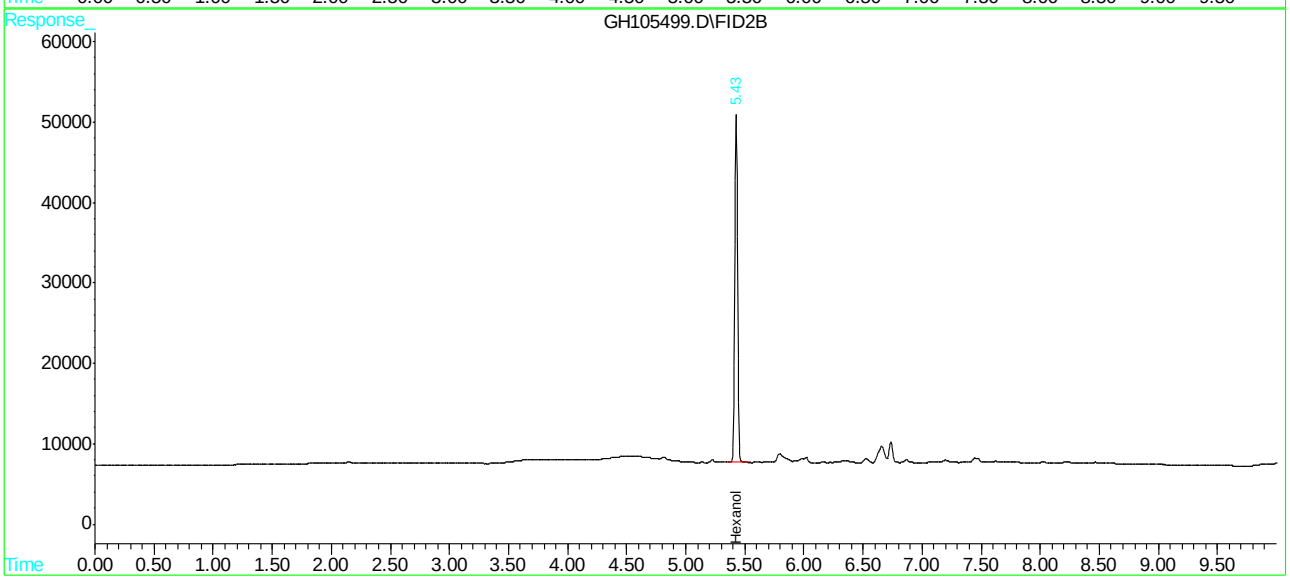
```
Data File : C:\HPCHEM\1\DATA\GH105499.D\FID1A.CH          Vial: 91
Acq On    : 15 Jun 2016  11:01 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105499.D\FID2B.CH          Vial: 91
Acq On    : 15 Jun 2016  11:17 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 12:58 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 10:40:38 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105488.D\FID1A.CH          Vial: 93
Acq On    : 15 Jun 2016   7:30 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105488.D\FID2B.CH          Vial: 93
Acq On    : 15 Jun 2016   7:46 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:40 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 08:40:26 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
9) S   Hexanol           5.57   5.43    291657   675107 4314.665  4345.788
 Spiked Amount   5000.000                 Recovery     =   86.29%    86.92%

Target Compounds
```

9.2.5

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH105488.D  MGH5288.M      Wed Jun 15 08:47:26 2016      GCGH
```


SGS ACCUTEST JC21709

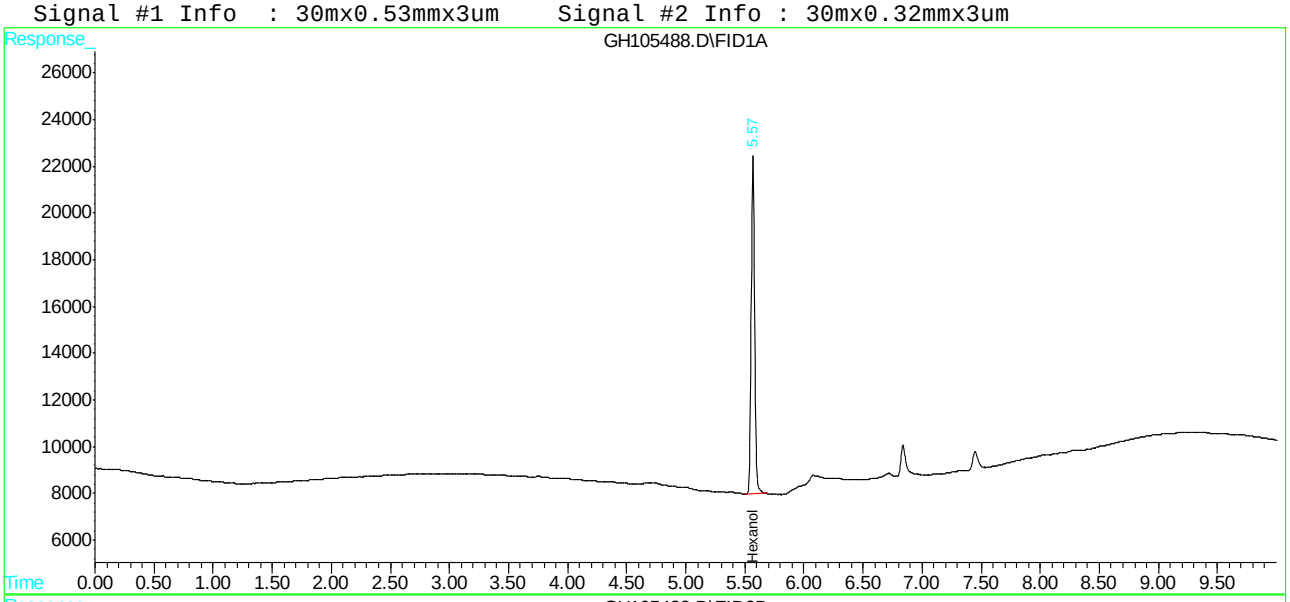
Quantitation Report (QT Reviewed)

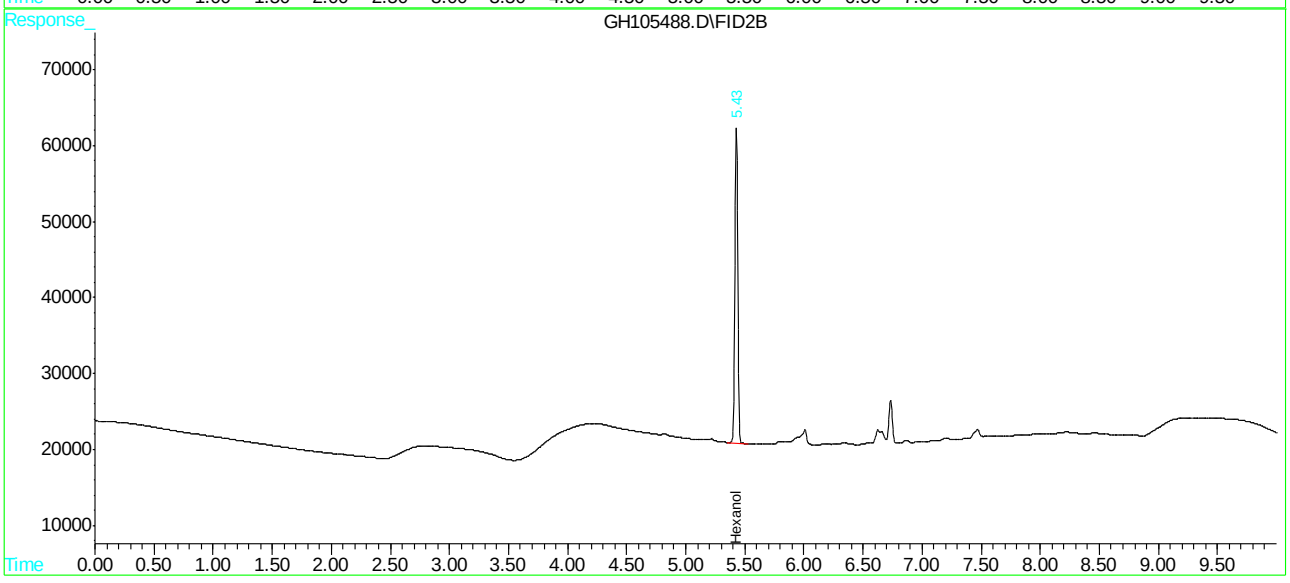
```
Data File : C:\HPCHEM\1\DATA\GH105488.D\FID1A.CH          Vial: 93
Acq On    : 15 Jun 2016   7:30 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105488.D\FID2B.CH          Vial: 93
Acq On    : 15 Jun 2016   7:46 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:40 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 08:40:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105463.D\FID1A.CH          Vial: 94
Acq On    : 14 Jun 2016   8:35 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105463.D\FID2B.CH          Vial: 94
Acq On    : 14 Jun 2016   8:52 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14  9:09 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:07:00 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.43	352824	770981	5219.538	4962.945
	Spiked Amount 5000.000			Recovery	=	104.39%	99.26%
	Target Compounds						
1)	Methanol	1.13	0.88	83297	161608	5388.332	5010.456
2)	Ethanol	1.46	1.13	99567	197563	5254.164	4956.302
3)	Tert-Butyl Alcoh	2.02	1.62	152602	327214	5385.662	5146.264
4)	1-Propanol	2.51	1.96	133894	242341	5504.125	4766.509
5)	2-Propanol	1.76	1.38	110848	221614	5561.595	4894.397
6)	Isobutanol	3.31	2.90	149617	273456	5200.266	4466.692
7)	1-Butanol	3.76	3.38	144579	277147	5062.167	4188.413
8)	2-Butanol	2.94	2.53	133823	265269	5220.425	4886.643

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

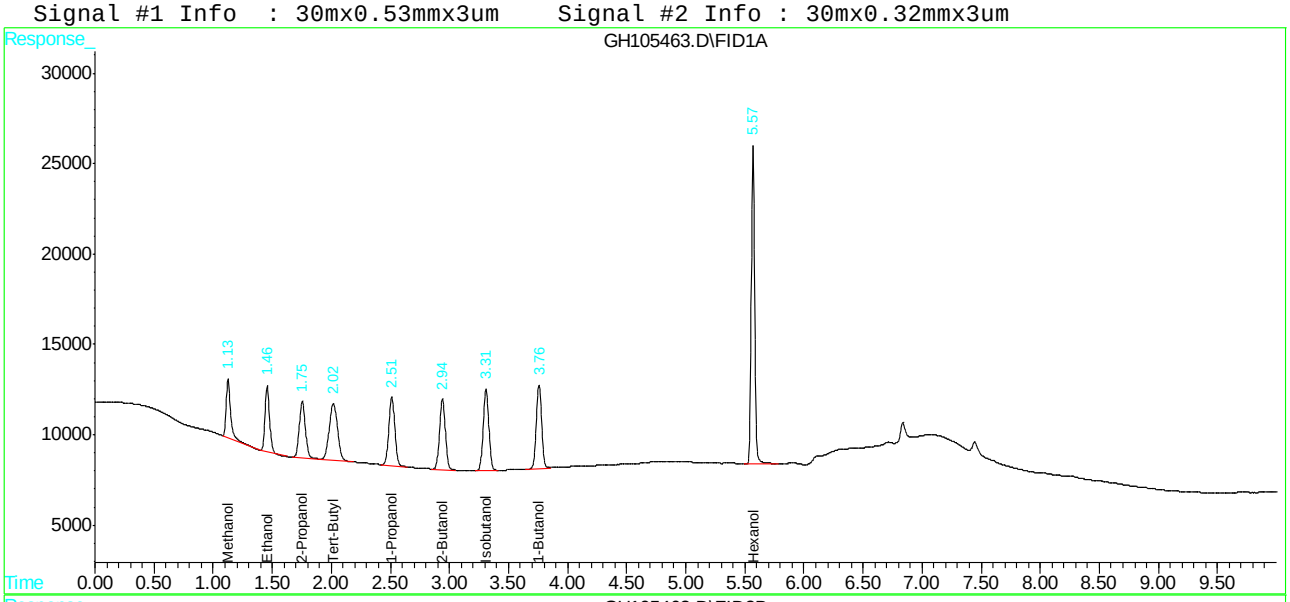
Quantitation Report (QT Reviewed)

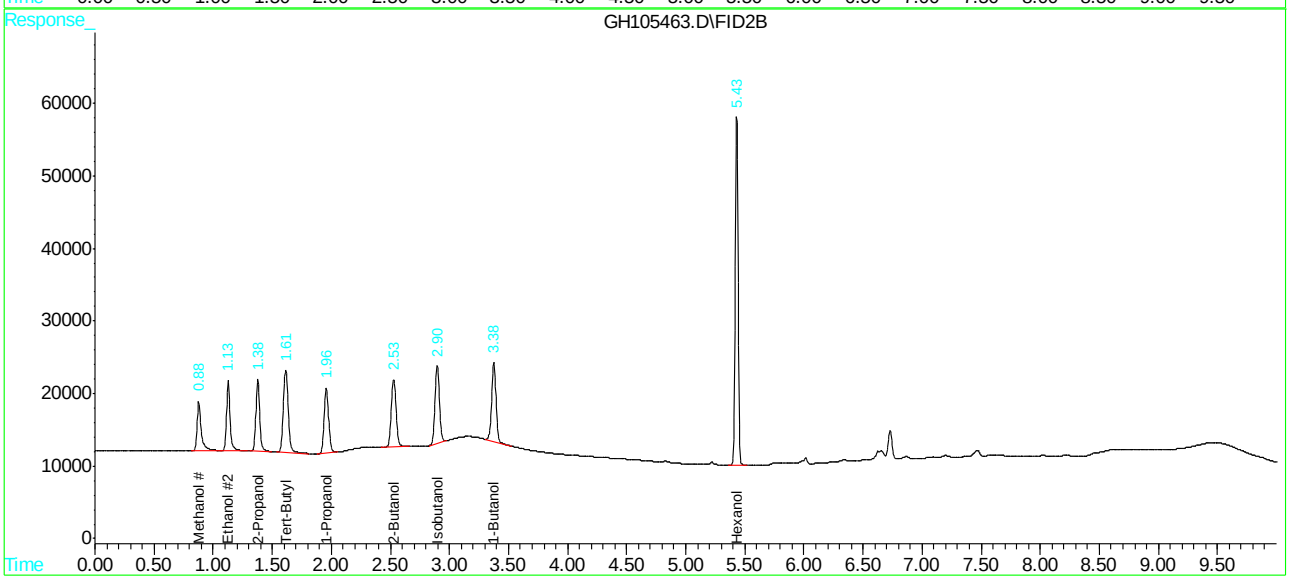
```
Data File : C:\HPCHEM\1\DATA\GH105463.D\FID1A.CH          Vial: 94
Acq On    : 14 Jun 2016   8:35 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105463.D\FID2B.CH          Vial: 94
Acq On    : 14 Jun 2016   8:52 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14  9:09 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:07:00 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105489.D\FID1A.CH          Vial: 94
Acq On    : 15 Jun 2016   7:46 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105489.D\FID2B.CH          Vial: 94
Acq On    : 15 Jun 2016   8:02 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:44 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 08:40:26 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.43	340340	762175	5034.865	4906.255
	Spiked Amount 5000.000			Recovery	=	100.70%	98.13%
	Target Compounds						
1)	Methanol	1.12	0.87	77940	157928	5041.799	4896.359
2)	Ethanol	1.46	1.12	98783	190009	5212.772	4766.790
3)	Tert-Butyl Alcoh	2.02	1.61	145112	317843	5121.338	4998.868
4)	1-Propanol	2.52	1.96	110293	247419	4533.913	4866.381
5)	2-Propanol	1.76	1.38	102257	217365	5130.566	4800.559
6)	Isobutanol	3.31	2.90	140665	279459	4889.119	4564.749
7)	1-Butanol	3.76	3.38	137585	279630	4817.278	4225.935
8)	2-Butanol	2.95	2.52	133878	262325	5222.594	4832.424

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

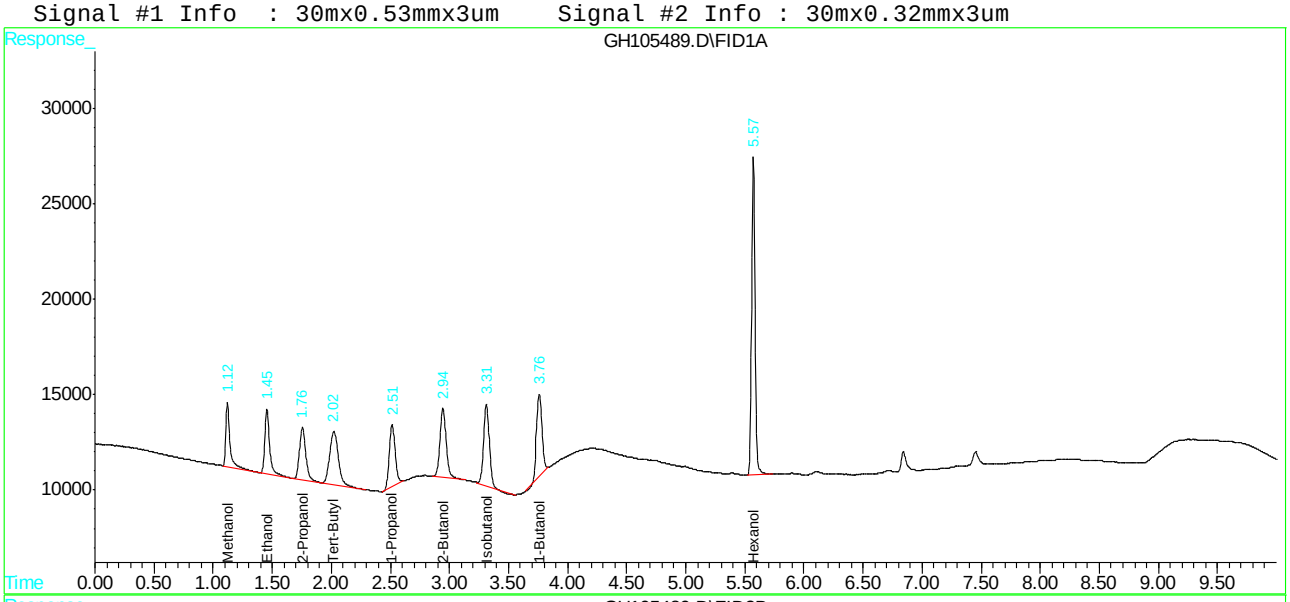
Quantitation Report (QT Reviewed)

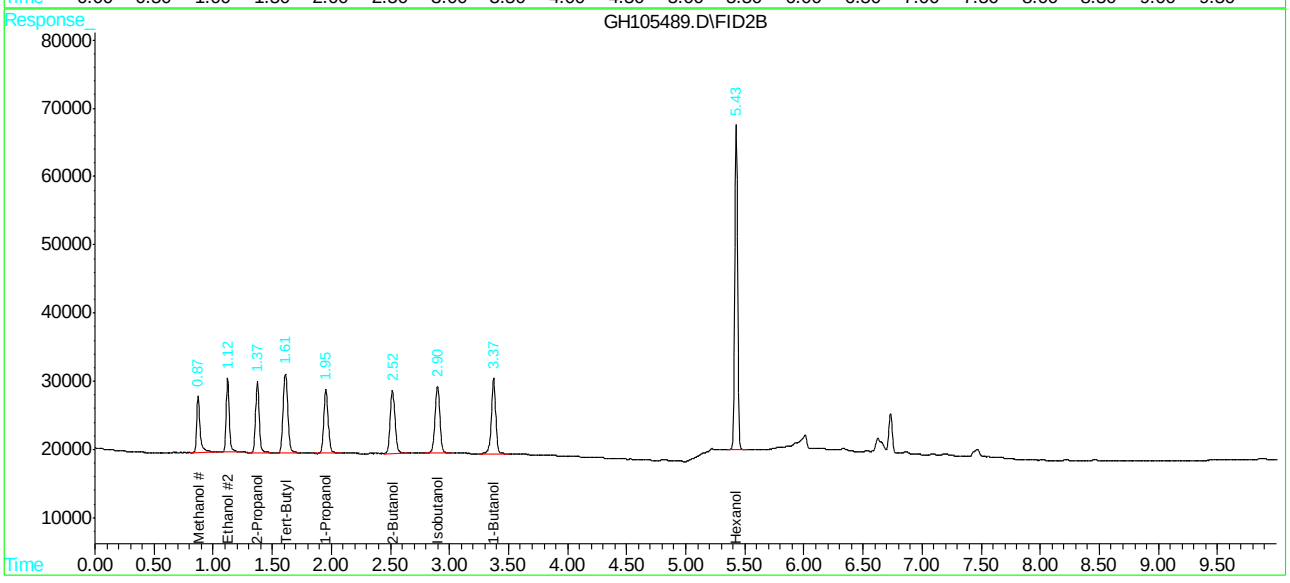
```
Data File : C:\HPCHEM\1\DATA\GH105489.D\FID1A.CH          Vial: 94
Acq On    : 15 Jun 2016   7:46 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105489.D\FID2B.CH          Vial: 94
Acq On    : 15 Jun 2016   8:02 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:44 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 08:40:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105465.D\FID1A.CH          Vial: 21
Acq On    : 14 Jun 2016   9:30 am                     Operator: XULIU
Sample    : JC21709-1MS                               Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105465.D\FID2B.CH          Vial: 21
Acq On    : 14 Jun 2016   9:46 am                     Operator: XULIU
Sample    : JC21709-1MS                               Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:08 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.43	343413	750826	5080.321	4833.200
Spiked Amount	5000.000			Recovery	=	101.61%	96.66%
	Target Compounds						
1)	Methanol	1.12	0.88	72761	149523	4706.799	4635.765
2)	Ethanol	1.46	1.13	94030	199677	4961.974	5009.352
3)	Tert-Butyl Alcoh	2.02	1.62	180174	383488	6358.762	6031.310
4)	1-Propanol	2.52	1.96	150235	255892	6175.850	5033.039
5)	2-Propanol	1.76	1.38	88514	219382	4440.990	4845.097
6)	Isobutanol	3.31	2.90	166103	320761	5773.287	5239.378
7)	1-Butanol	3.76	3.38	152511	307059	5339.889	4640.457
8)	2-Butanol	2.94	2.53	141017	295067	5501.080	5435.584

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

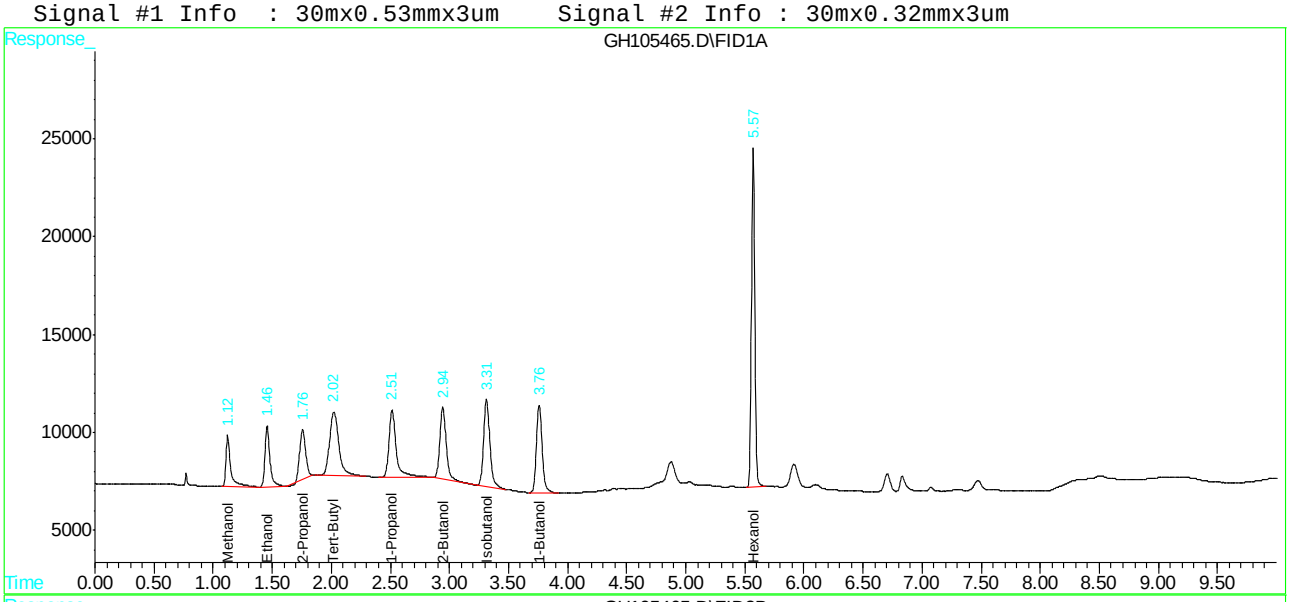
Quantitation Report (QT Reviewed)

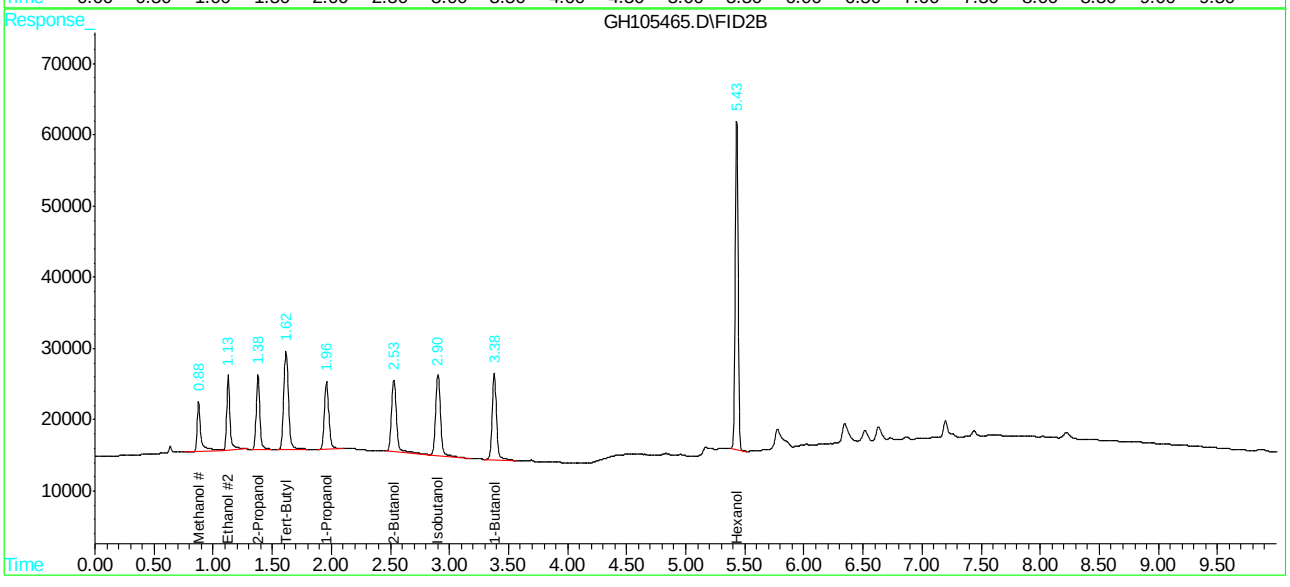
```
Data File : C:\HPCHEM\1\DATA\GH105465.D\FID1A.CH          Vial: 21
Acq On    : 14 Jun 2016   9:30 am                     Operator: XULIU
Sample    : JC21709-1MS                               Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105465.D\FID2B.CH          Vial: 21
Acq On    : 14 Jun 2016   9:46 am                     Operator: XULIU
Sample    : JC21709-1MS                               Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:08 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105466.D\FID1A.CH          Vial: 22
Acq On    : 14 Jun 2016   9:46 am                     Operator: XULIU
Sample    : JC21709-1MSD                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105466.D\FID2B.CH          Vial: 22
Acq On    : 14 Jun 2016  10:02 am                     Operator: XULIU
Sample    : JC21709-1MSD                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:10 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
9) S Hexanol	5.57	5.43	360065	786818	5326.665	5064.892
Spiked Amount 5000.000			Recovery	=	106.53%	101.30%
Target Compounds						
1) Methanol	1.13	0.88	69904	152883	4521.967	4739.930
2) Ethanol	1.46	1.13	103172	213251	5444.390	5349.867
3) Tert-Butyl Alcoh	2.02	1.62	171600	324560	6056.161	5104.521
4) 1-Propanol	2.52	1.96	142930	281055	5875.553	5527.950
5) 2-Propanol	1.76	1.38	106980	223354	5367.501	4932.815
6) Isobutanol	3.32	2.90	163130	284457	5669.950	4646.382
7) 1-Butanol	3.76	3.38	152274	302490	5331.594	4571.408
8) 2-Butanol	2.95	2.53	138391	288685	5398.627	5318.016

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

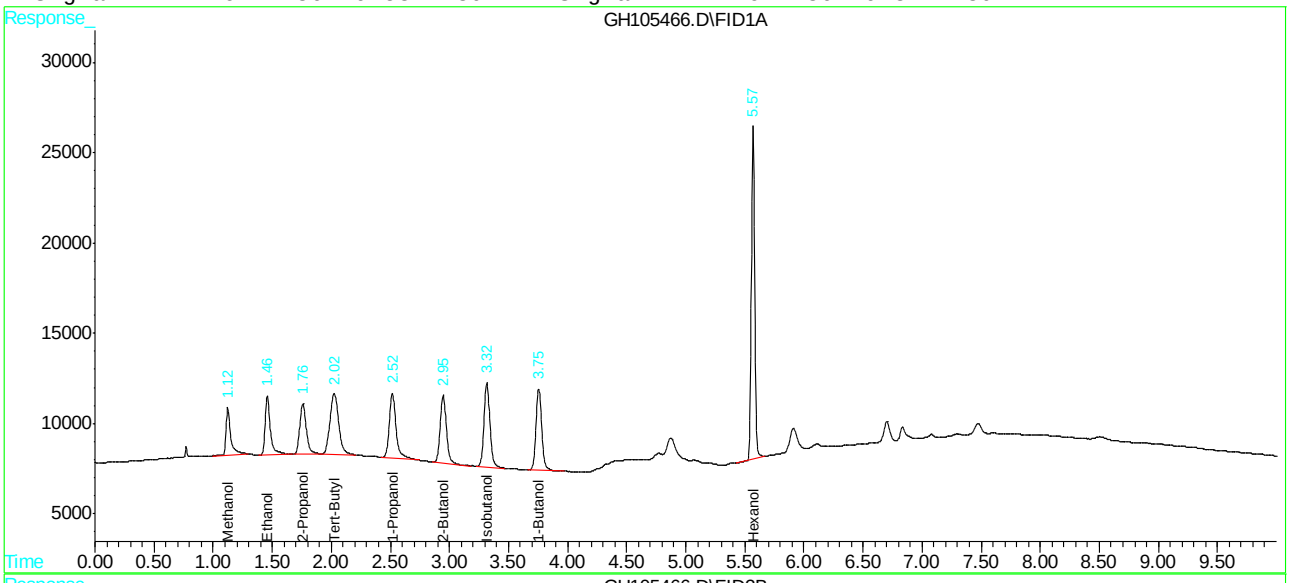
Quantitation Report (QT Reviewed)

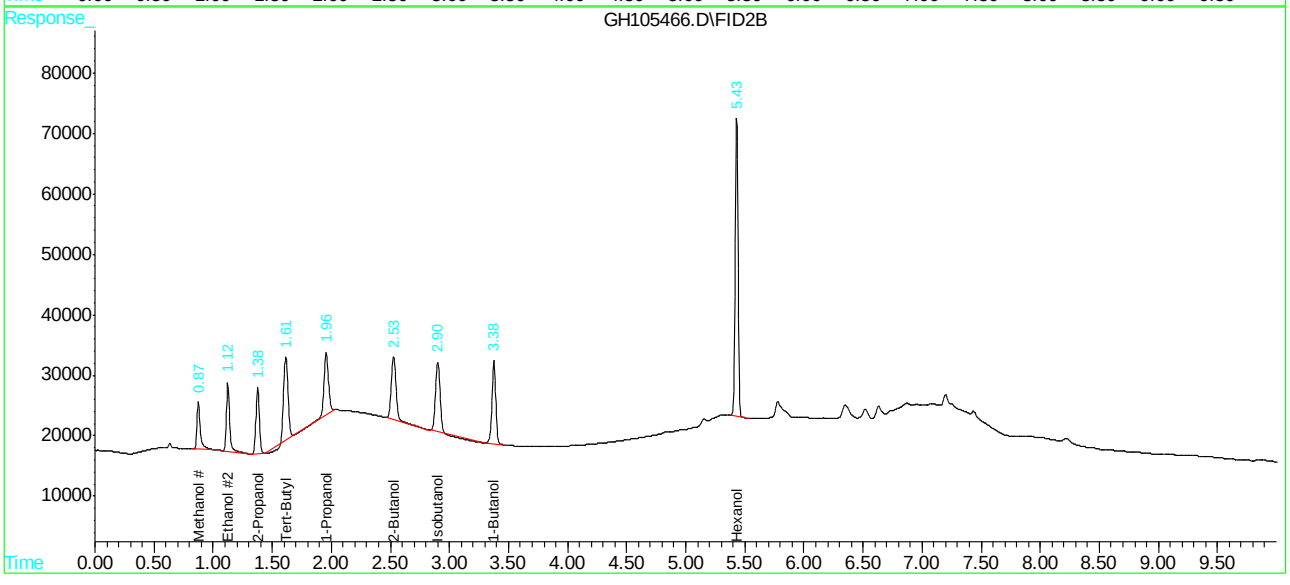
```
Data File : C:\HPCHEM\1\DATA\GH105466.D\FID1A.CH          Vial: 22
Acq On    : 14 Jun 2016   9:46 am                     Operator: XULIU
Sample    : JC21709-1MSD                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105466.D\FID2B.CH          Vial: 22
Acq On    : 14 Jun 2016  10:02 am                     Operator: XULIU
Sample    : JC21709-1MSD                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:10 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:09:44 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 06/15/16 17:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105501.D\FID1A.CH          Vial: 31
Acq On    : 15 Jun 2016  11:34 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105501.D\FID2B.CH          Vial: 31
Acq On    : 15 Jun 2016  11:50 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 14:10 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:01:18 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.58	5.43	284124	629627	4203.226	4053.020
	Spiked Amount 5000.000			Recovery	=	84.06%	81.06%
	Target Compounds						
1)	Methanol	1.13	0.88	45251	153476	2927.190m	4758.321 #
2)	Ethanol	1.46	1.13	73495	211208	3878.304m	5298.635
3)	Tert-Butyl Alcoh	2.03	1.62	138203	354113	4877.481	5569.317
4)	1-Propanol	2.52	1.96	117696	281022	4838.261	5527.307
5)	2-Propanol	1.76	1.38	96214	238009	4827.363	5256.485
6)	Isobutanol	3.32	2.90	159014	323897	5526.877	5290.604
7)	1-Butanol	3.76	3.38	148894	311081	5213.269	4701.242
8)	2-Butanol	2.95	2.53	123152	292428	4804.163	5386.961

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

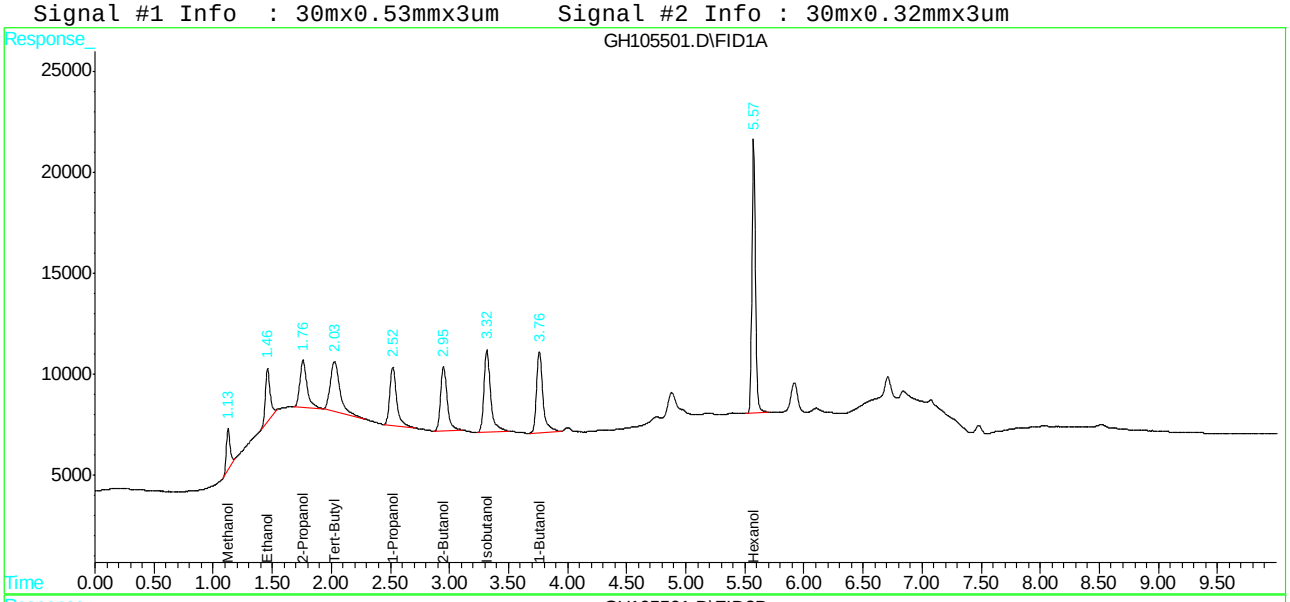
Quantitation Report (QT Reviewed)

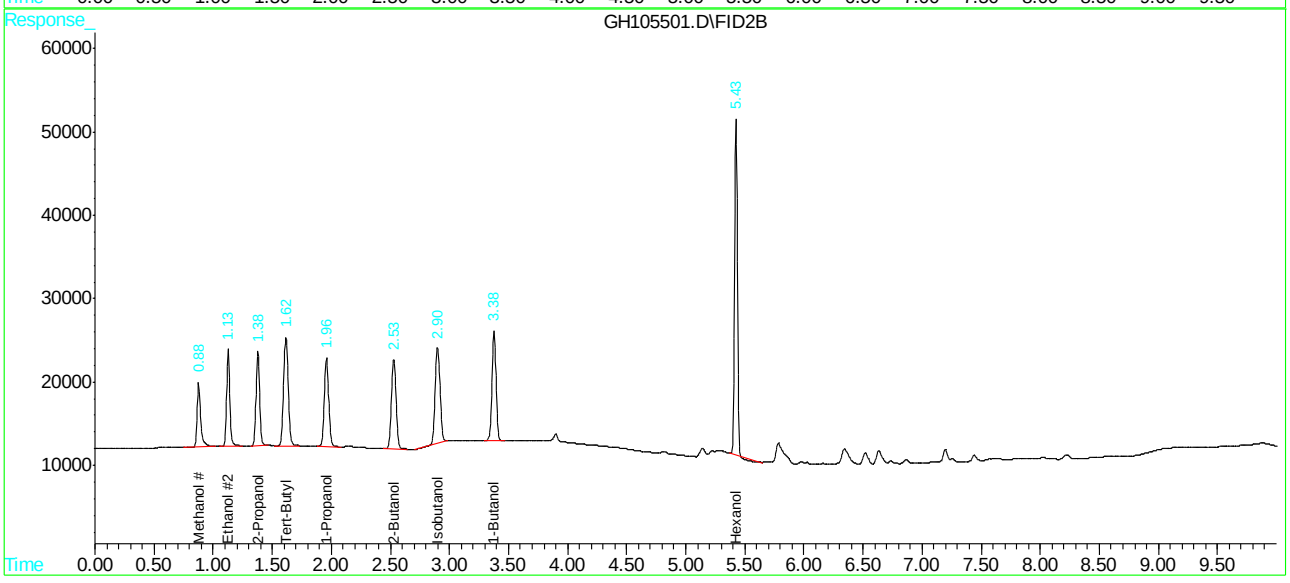
```
Data File : C:\HPCHEM\1\DATA\GH105501.D\FID1A.CH          Vial: 31
Acq On    : 15 Jun 2016  11:34 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105501.D\FID2B.CH          Vial: 31
Acq On    : 15 Jun 2016  11:50 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 14:10 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:01:18 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Manual Integration Approval Summary

Sample Number:	JC21911-6MS	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH105501.D	**Analyst approved:**	06/15/16 14:34 Xu Liu
Injection Time:	06/15/16 11:34	**Supervisor approved:**	06/15/16 17:34 Kanya Veerawat

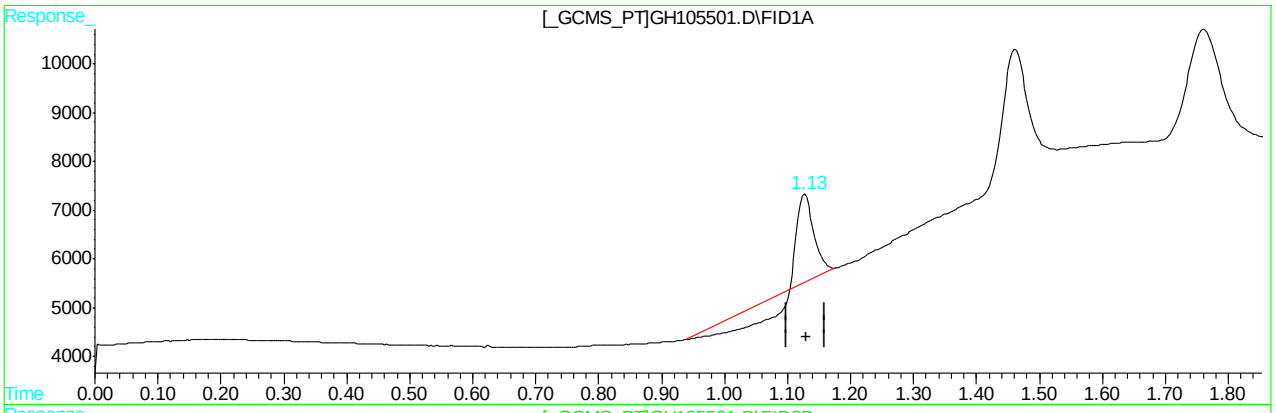
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	1	1.13	Poor instrument integration
Ethanol	64-17-5	1	1.46	Poor instrument integration

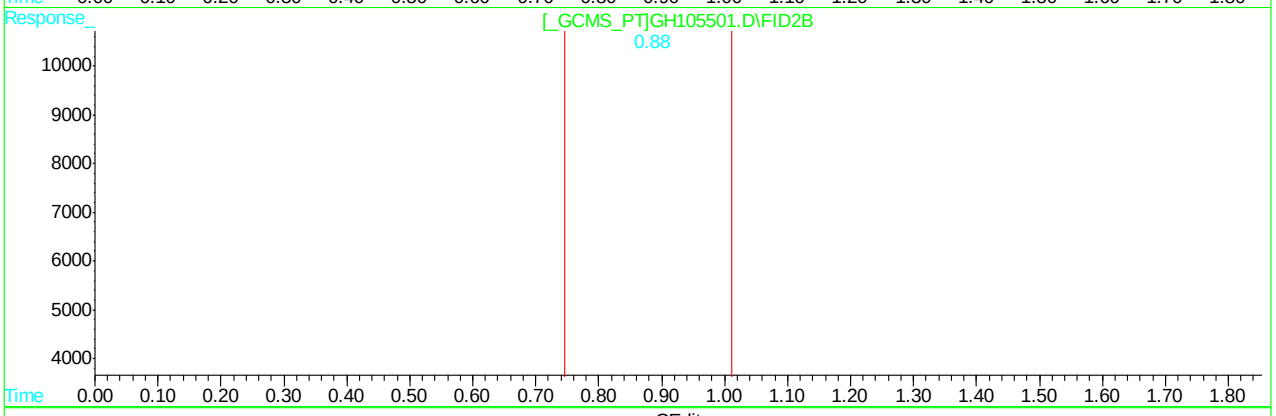
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105501.D\FID1A.CH          Vial: 31
Acq On    : 15 Jun 2016  11:34 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105501.D\FID2B.CH          Vial: 31
Acq On    : 15 Jun 2016  11:50 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 13:02 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:54:59 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.13min 523.707PPB

response 8096

(1) Methanol #2

0.88min 4758.321PPB

response 153476

(+) = Expected Retention Time

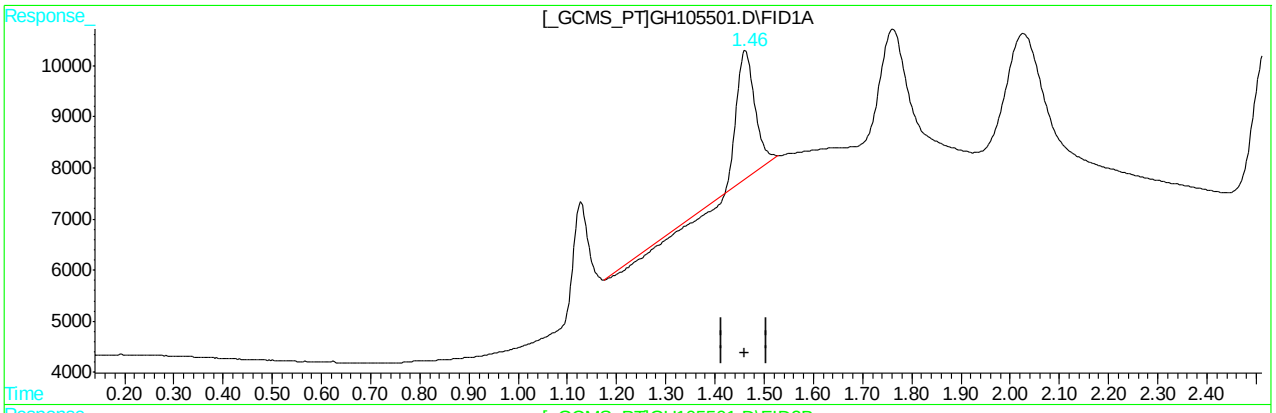
GH105501.D MGH5288.M Wed Jun 15 14:08:24 2016 GCGH

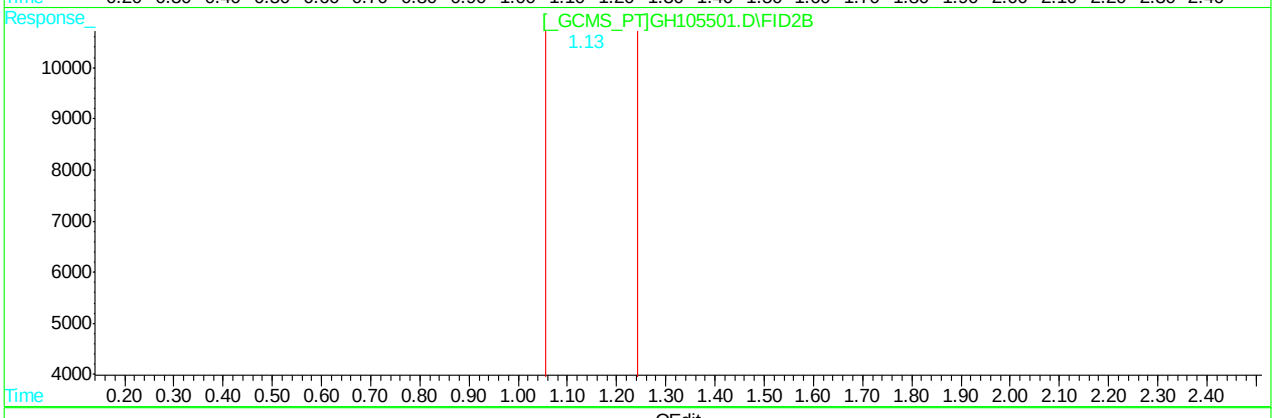
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105501.D\FID1A.CH          Vial: 31
Acq On    : 15 Jun 2016  11:34 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105501.D\FID2B.CH          Vial: 31
Acq On    : 15 Jun 2016  11:50 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 13:02 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:54:59 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.46min 2732.893PPB

response 51789

(2) Ethanol #2

1.13min 5298.635PPB

response 211208

(+) = Expected Retention Time

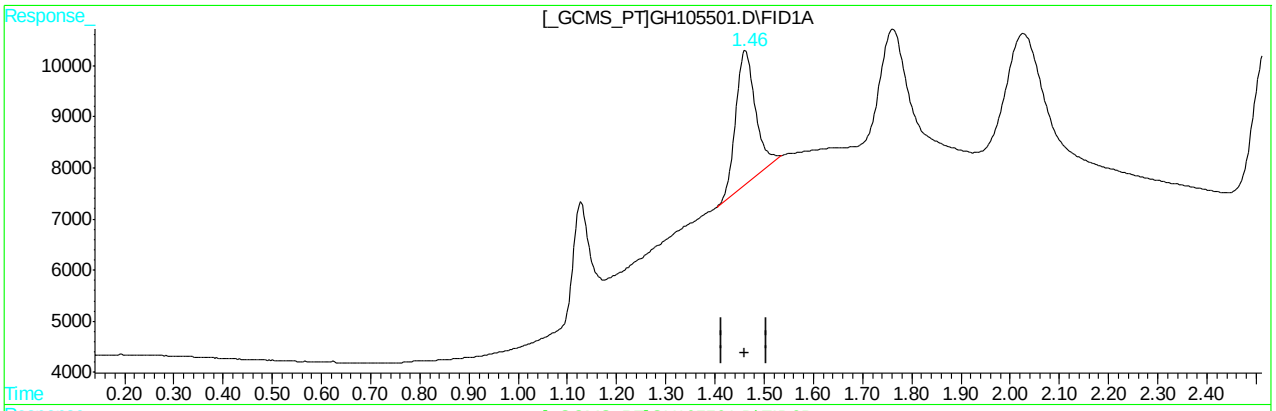
GH105501.D MGH5288.M Wed Jun 15 14:08:32 2016 GCGH

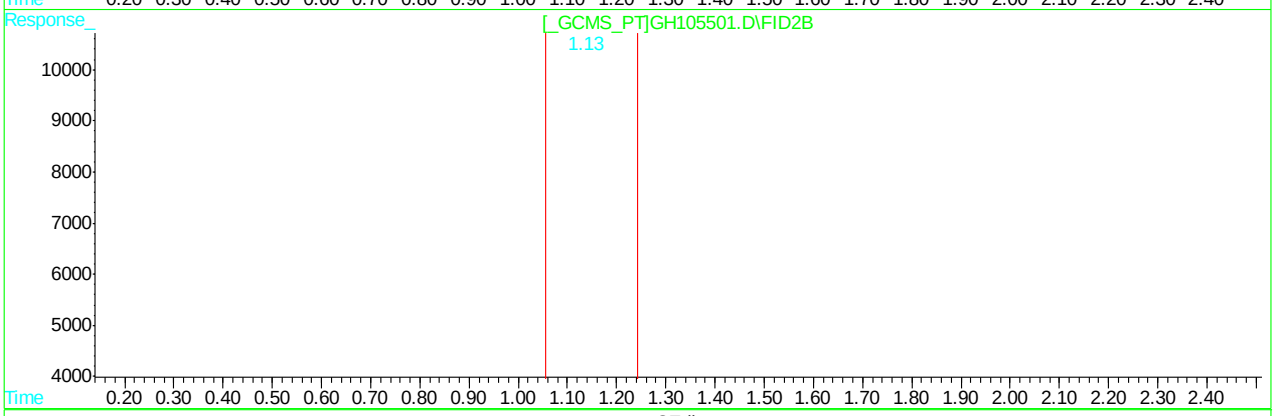
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105501.D\FID1A.CH          Vial: 31
Acq On    : 15 Jun 2016  11:34 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105501.D\FID2B.CH          Vial: 31
Acq On    : 15 Jun 2016  11:50 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 13:02 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:54:59 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.46min 3878.304PPB m

response 73495

(2) Ethanol #2

1.13min 5298.635PPB

response 211208

(+) = Expected Retention Time

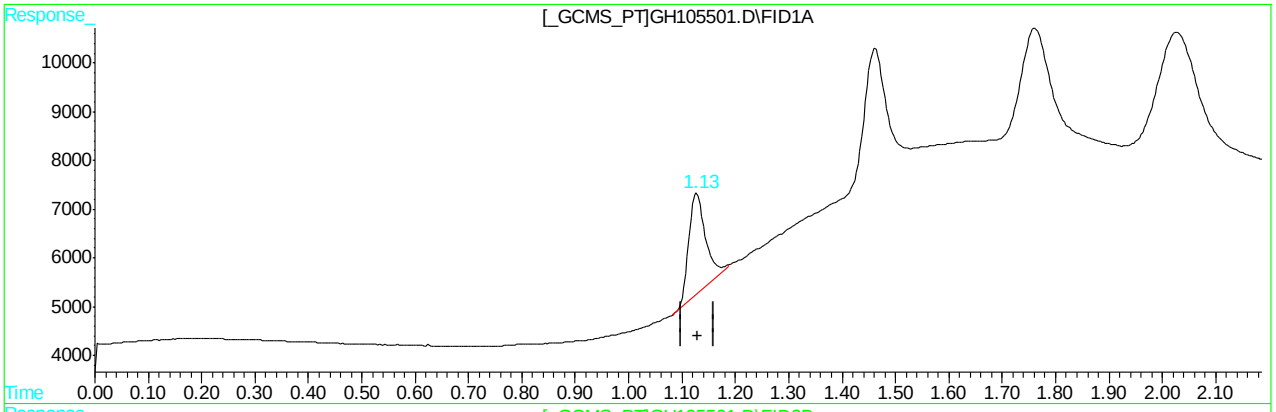
GH105501.D MGH5288.M Wed Jun 15 14:10:31 2016 GCGH

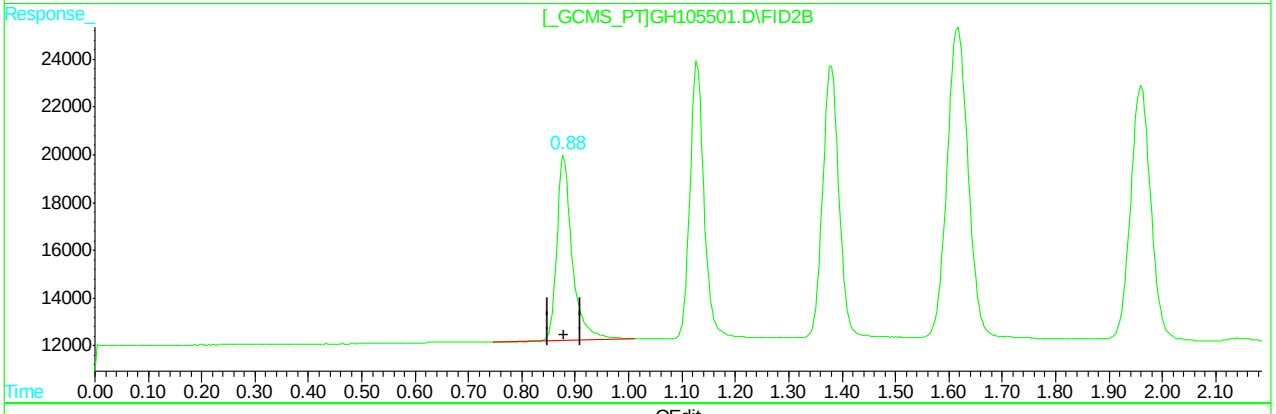
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105501.D\FID1A.CH          Vial: 31
Acq On    : 15 Jun 2016  11:34 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105501.D\FID2B.CH          Vial: 31
Acq On    : 15 Jun 2016  11:50 am                     Operator: XULIU
Sample    : JC21911-6MS                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 13:02 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:54:59 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.13min 2927.190PPB m

response 45251

(1) Methanol #2

0.88min 4758.321PPB

response 153476

(+) = Expected Retention Time

GH105501.D MGH5288.M Wed Jun 15 14:11:01 2016 GCGH

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105502.D\FID1A.CH          Vial: 32
Acq On    : 15 Jun 2016  11:50 am                     Operator: XULIU
Sample    : JC21911-6MSD                              Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105502.D\FID2B.CH          Vial: 32
Acq On    : 15 Jun 2016  12:06 pm                     Operator: XULIU
Sample    : JC21911-6MSD                              Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 13:03 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:01:18 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.43	326166	728174	4825.172	4687.387
Spiked Amount	5000.000			Recovery	=	96.50%	93.75%
	Target Compounds						
1)	Methanol	1.13	0.88	72969	159392	4720.225	4941.728
2)	Ethanol	1.46	1.13	104264	218578	5502.004	5483.522
3)	Tert-Butyl Alcoh	2.03	1.62	155901	369993	5502.094	5819.055
4)	1-Propanol	2.52	1.96	139978	292682	5754.208	5756.650
5)	2-Propanol	1.76	1.38	112544	247955	5646.673	5476.145
6)	Isobutanol	3.32	2.90	168553	340845	5858.425	5567.445
7)	1-Butanol	3.76	3.38	162190	326986	5678.797	4941.604
8)	2-Butanol	2.95	2.53	152899	305466	5964.615	5627.140

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

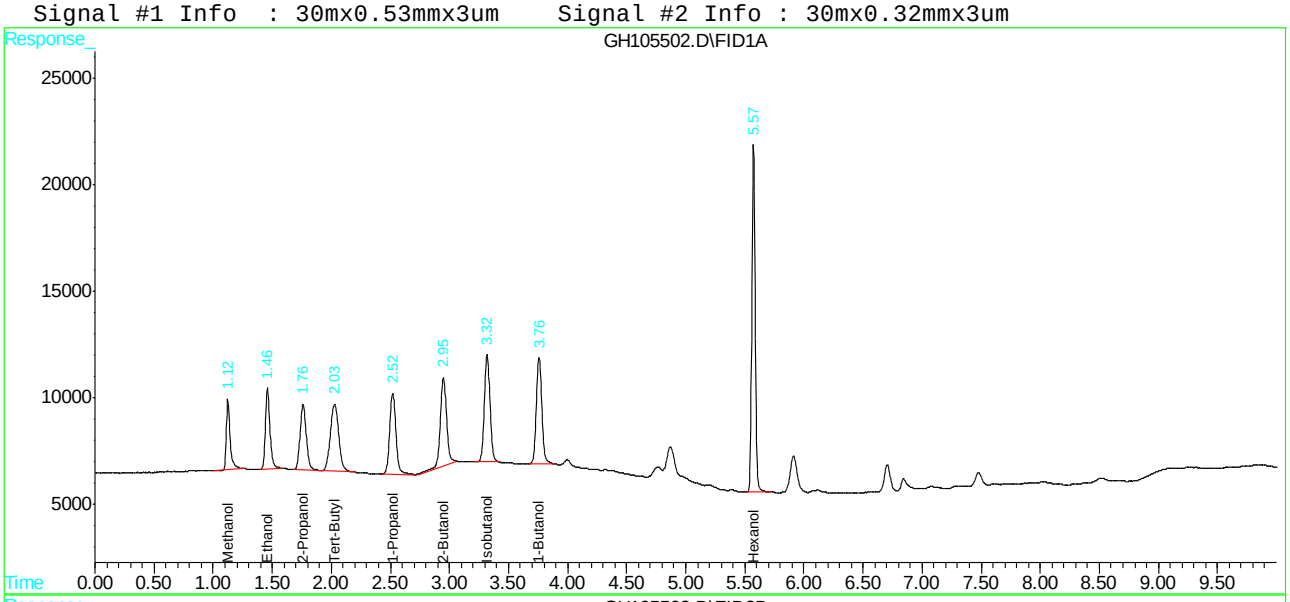
Quantitation Report (QT Reviewed)

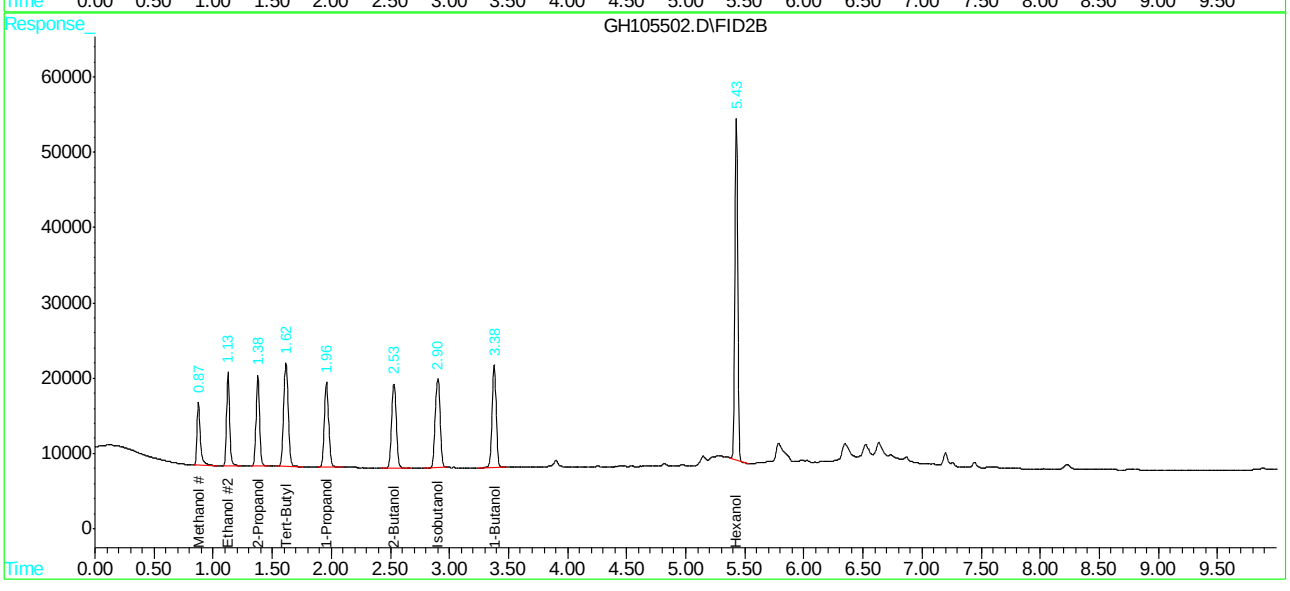
```
Data File : C:\HPCHEM\1\DATA\GH105502.D\FID1A.CH          Vial: 32
Acq On    : 15 Jun 2016  11:50 am                     Operator: XULIU
Sample    : JC21911-6MSD                              Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105502.D\FID2B.CH          Vial: 32
Acq On    : 15 Jun 2016  12:06 pm                     Operator: XULIU
Sample    : JC21911-6MSD                              Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 13:03 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:01:18 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Manual Integrations APPROVED (compounds with "m" flag)
Owen McKenna
05/18/16 09:16

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  8:50 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.50	49213	113892	786.392	792.225
Spiked Amount	5000.000			Recovery	=	15.73%	15.84%
	Target Compounds						
1)	Methanol	1.12	0.89f	1784	2982	115.427	93.713m
2)	Ethanol	1.45	1.15	2099	3361	110.763	84.901m
3)	Tert-Butyl Alcoh	2.01	1.66	2806	5629	99.020	88.524
4)	1-Propanol	2.52	2.03	2187	3458	89.885	69.117m
5)	2-Propanol	1.75	1.41	1888	4004	94.702	88.437
6)	Isobutanol	3.32	2.95f	2784	6044	96.777	98.728
7)	1-Butanol	3.76	3.42	3014	7445	105.546	113.606m
8)	2-Butanol	2.95	2.57	2840	4510	121.739m	83.638m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

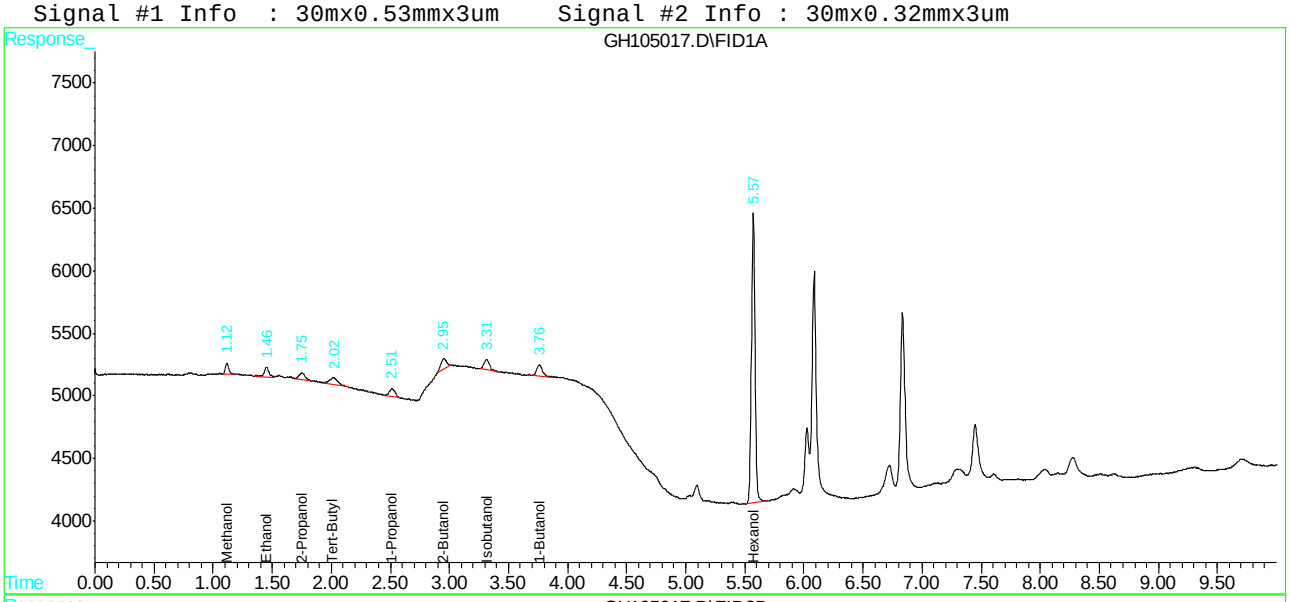
Quantitation Report (QT Reviewed)

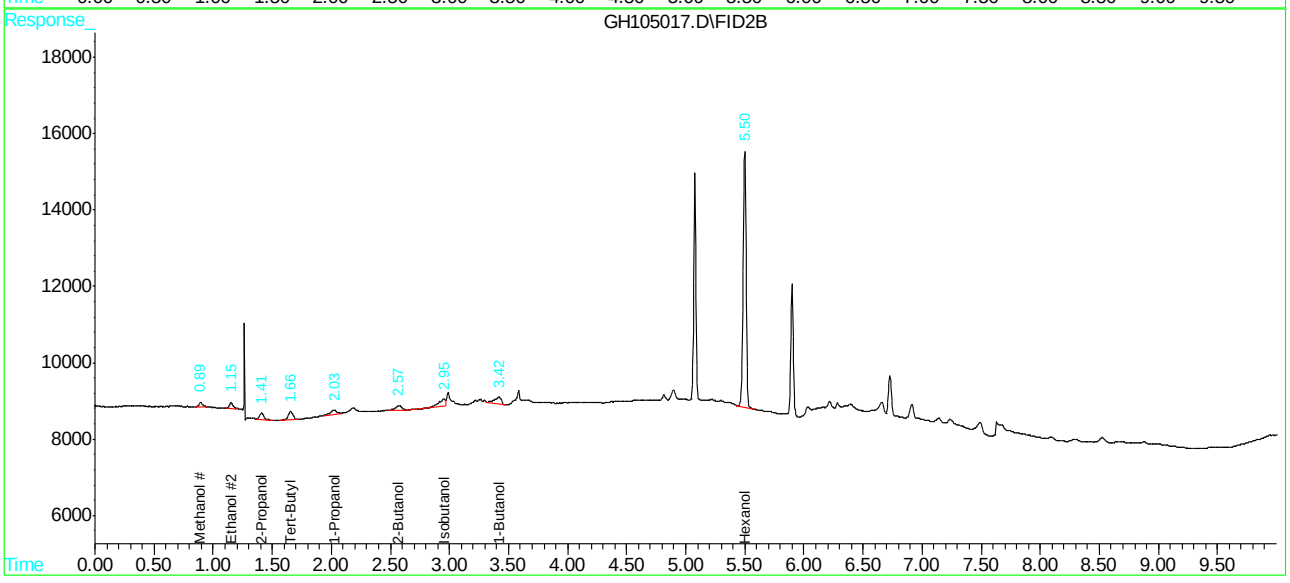
```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  8:50 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Manual Integration Approval Summary

Sample Number:	GGH5288-IC5288	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH105017.D	**Analyst approved:**	05/18/16 09:10 Xu Liu
Injection Time:	05/17/16 16:14	**Supervisor approved:**	05/18/16 09:16 Owen McKenna

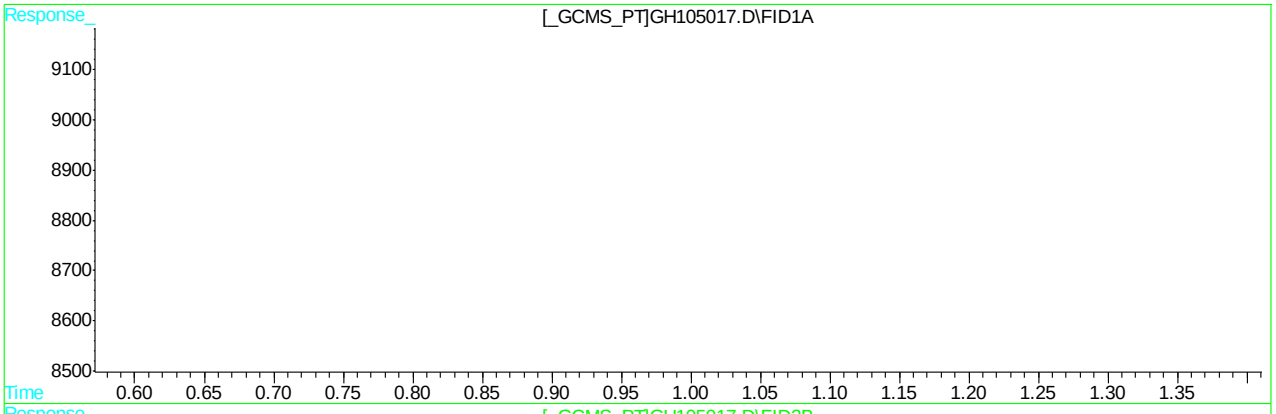
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	0.89	Poor instrument integration
Ethanol	64-17-5	2	1.15	Poor instrument integration
n-Propyl Alcohol	71-23-8	2	2.03	Poor instrument integration
sec-Butyl Alcohol	78-92-2	2	2.57	Poor instrument integration
sec-Butyl Alcohol	78-92-2	1	2.95	Poor instrument integration
n-Butyl Alcohol	71-36-3	2	3.42	Poor instrument integration

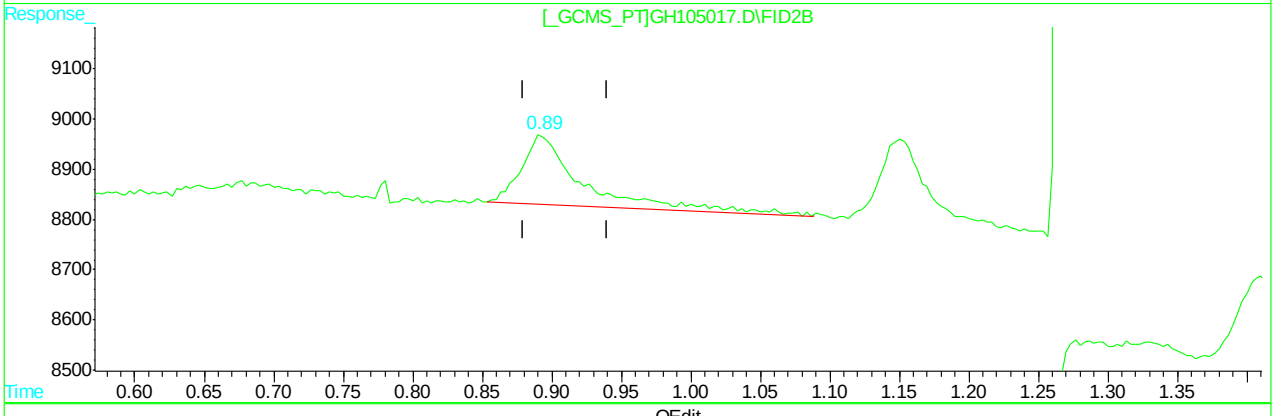
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.12min 115.427PPB

response 1784

(1) Methanol #2

0.89min 132.645PPB

response 4221

(+) = Expected Retention Time

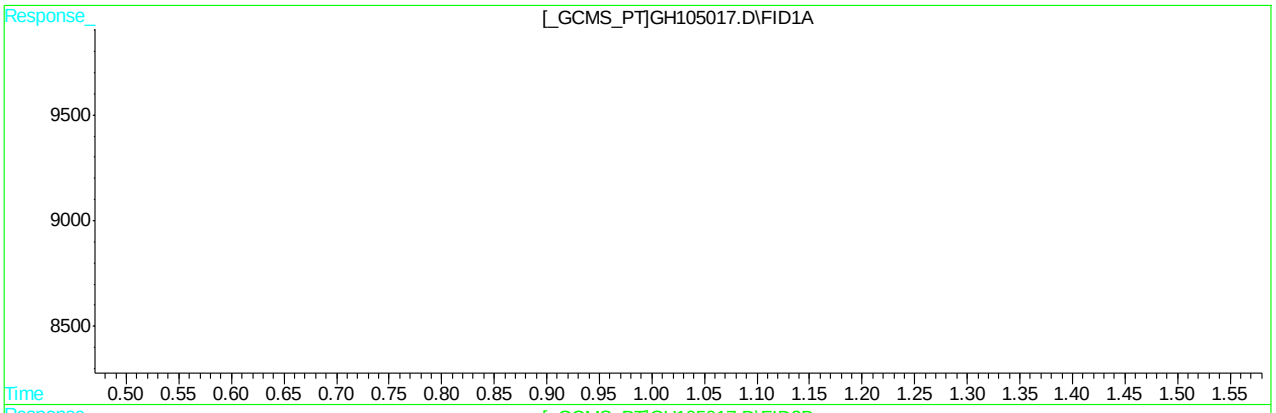
GH105017.D MGH5288.M Wed May 18 08:43:56 2016 GCGH

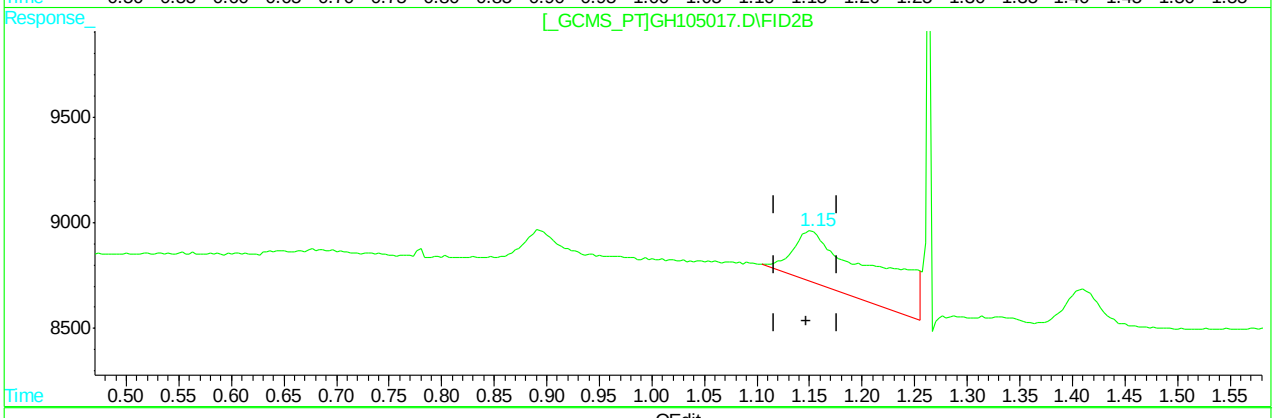
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.45min 110.763PPB

response 2099

(2) Ethanol #2

1.15min 367.751PPB

response 14557

(+) = Expected Retention Time

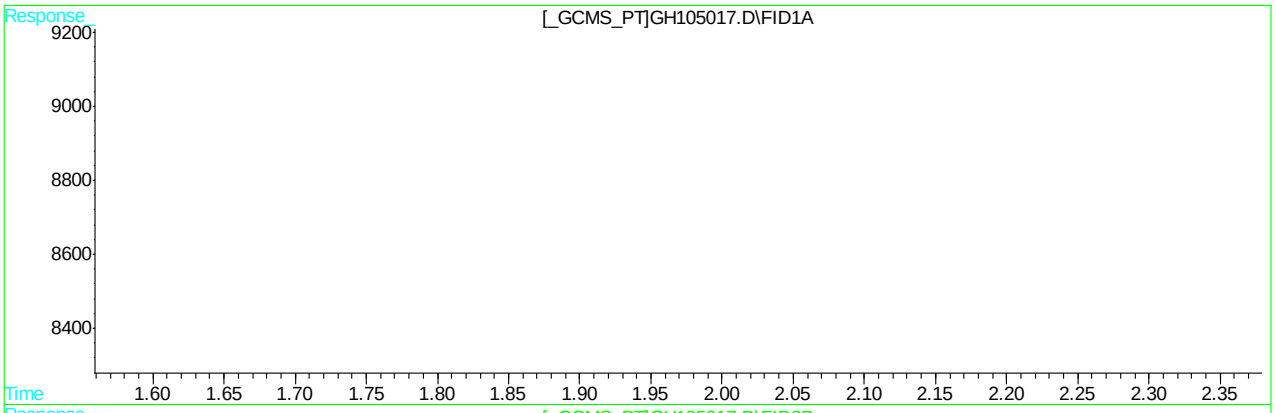
GH105017.D MGH5288.M Wed May 18 08:44:26 2016 GCGH

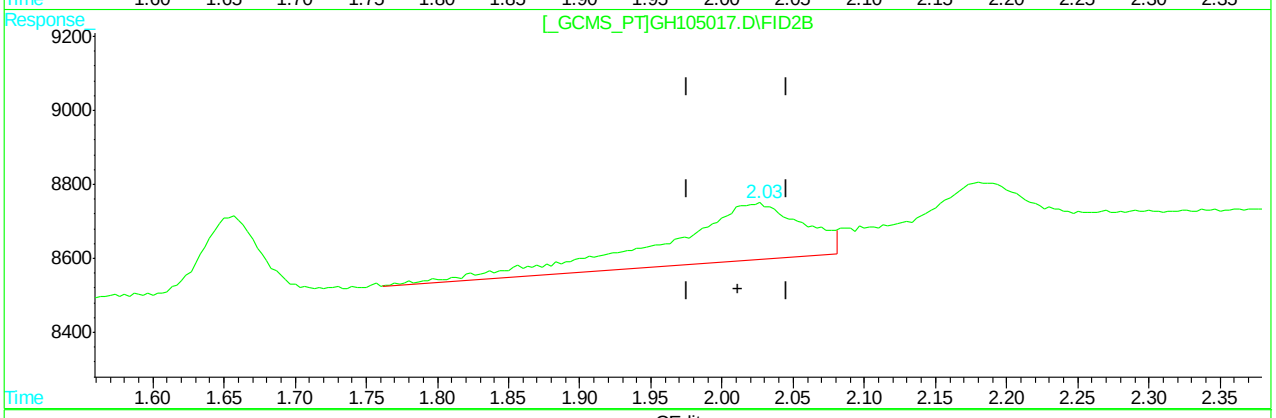
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

2.52min 89.885PPB

response 2187

(4) 1-Propanol #2

2.03min 209.050PPB

response 10460

(+) = Expected Retention Time

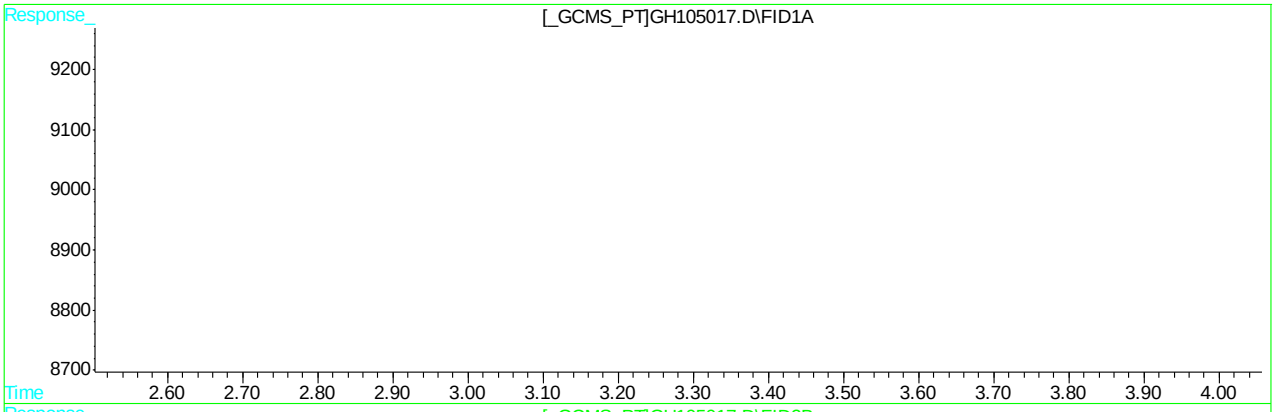
GH105017.D MGH5288.M Wed May 18 08:44:42 2016 GCGH

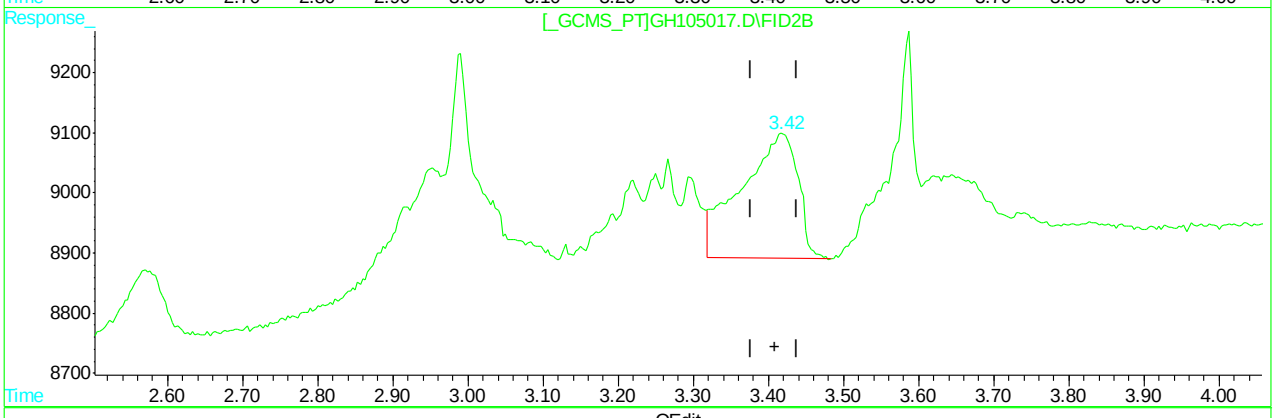
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

3.76min 105.546PPB

response 3014

(7) 1-Butanol #2

3.42min 167.388PPB

response 10970

(+) = Expected Retention Time

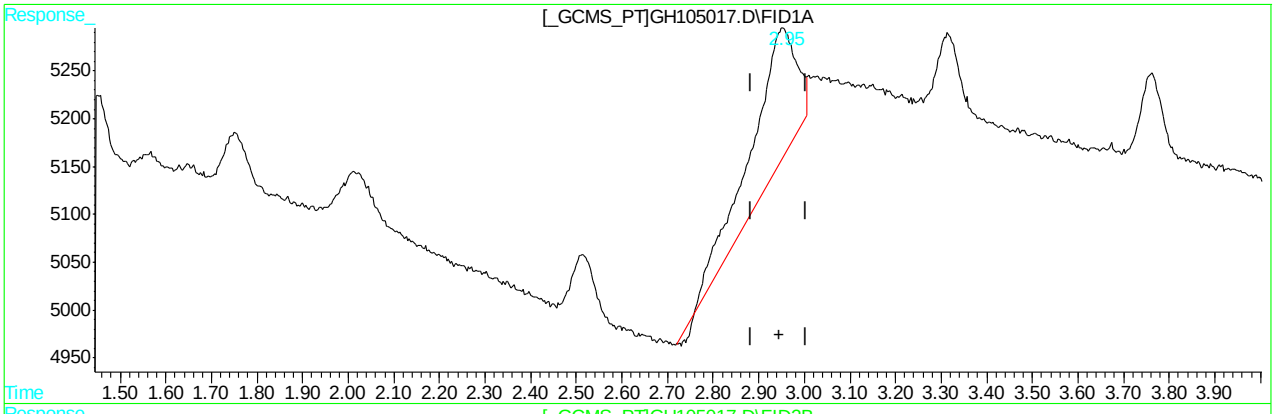
GH105017.D MGH5288.M Wed May 18 08:45:02 2016 GCGH

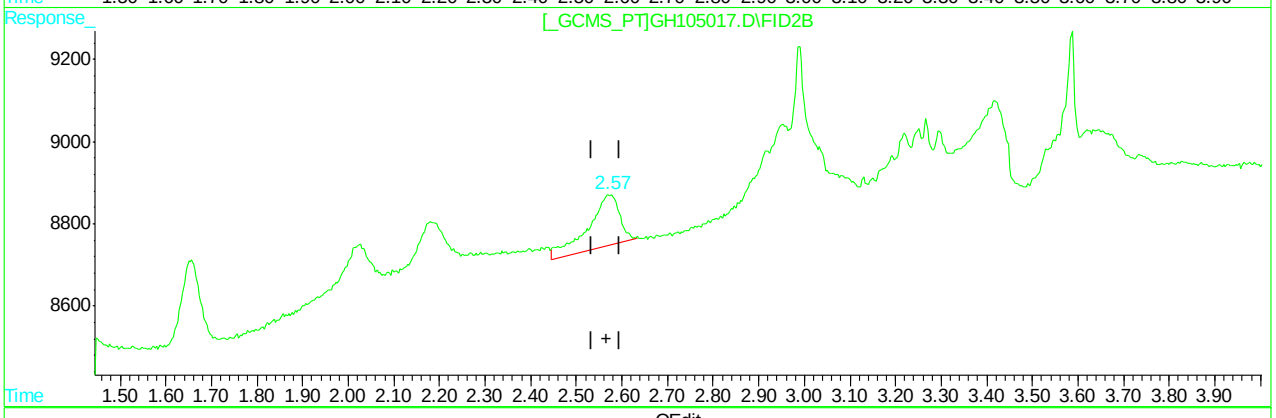
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 2-Butanol

2.95min 395.696PPB

response 9232

(8) 2-Butanol #2

2.57min 109.800PPB

response 5921

(+) = Expected Retention Time

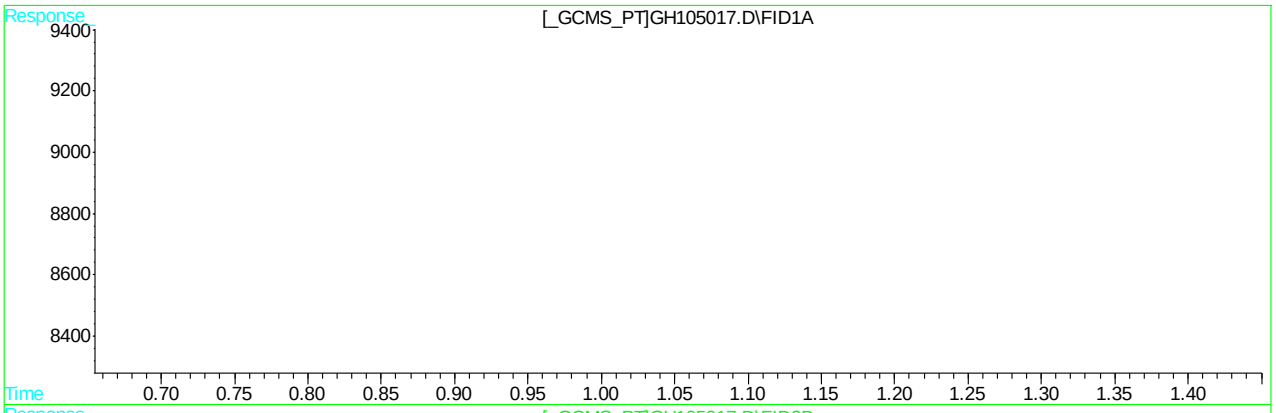
GH105017.D MGH5288.M Wed May 18 08:45:09 2016 GCGH

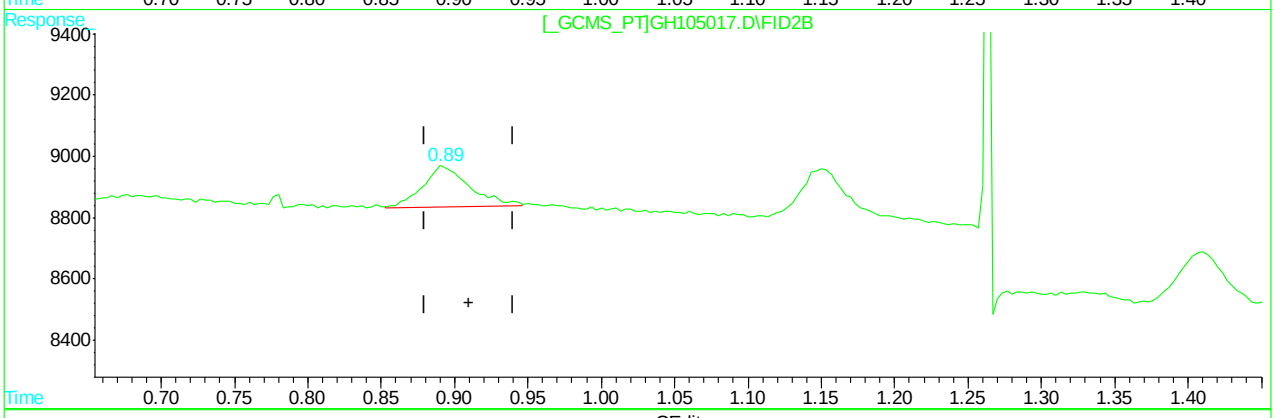
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.12min 115.427PPB

response 1784

(1) Methanol #2

0.89min 93.713PPB m

response 2982

(+) = Expected Retention Time

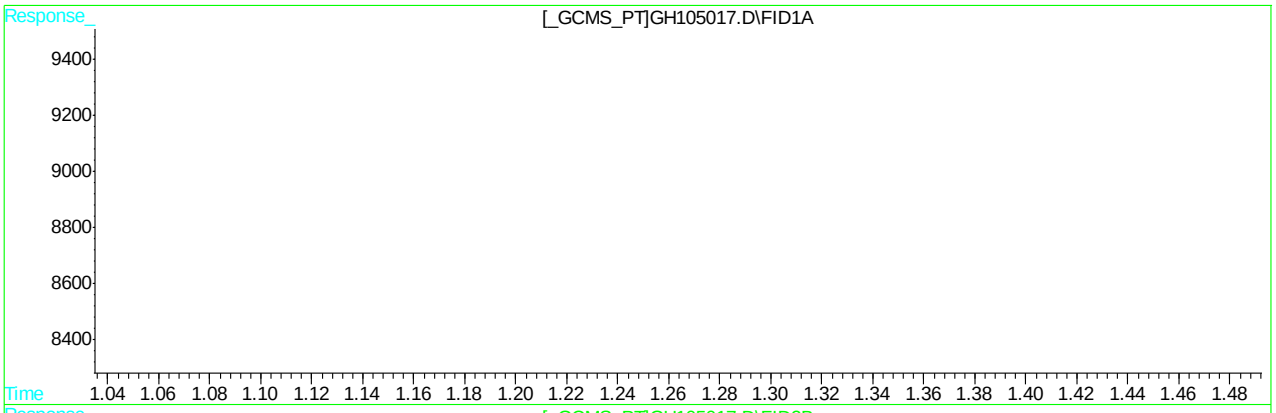
GH105017.D MGH5288.M Wed May 18 08:46:19 2016 GCGH

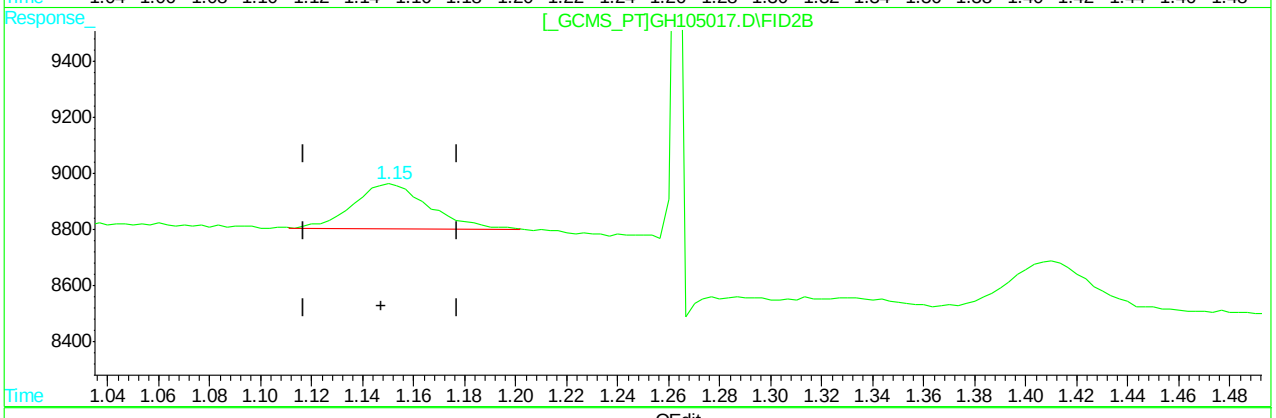
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.45min 110.763PPB

response 2099

(2) Ethanol #2

1.15min 84.901PPB m

response 3361

(+) = Expected Retention Time

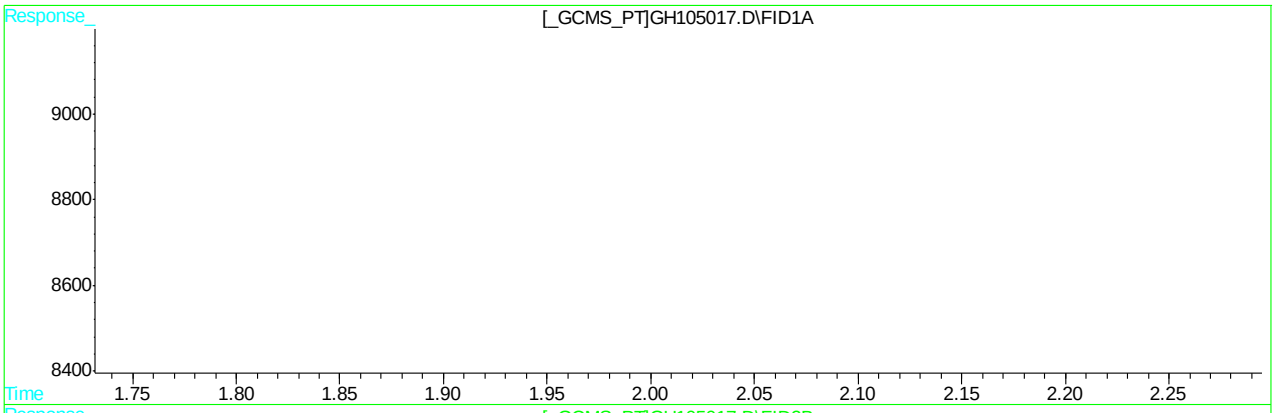
GH105017.D MGH5288.M Wed May 18 08:46:55 2016 GCGH

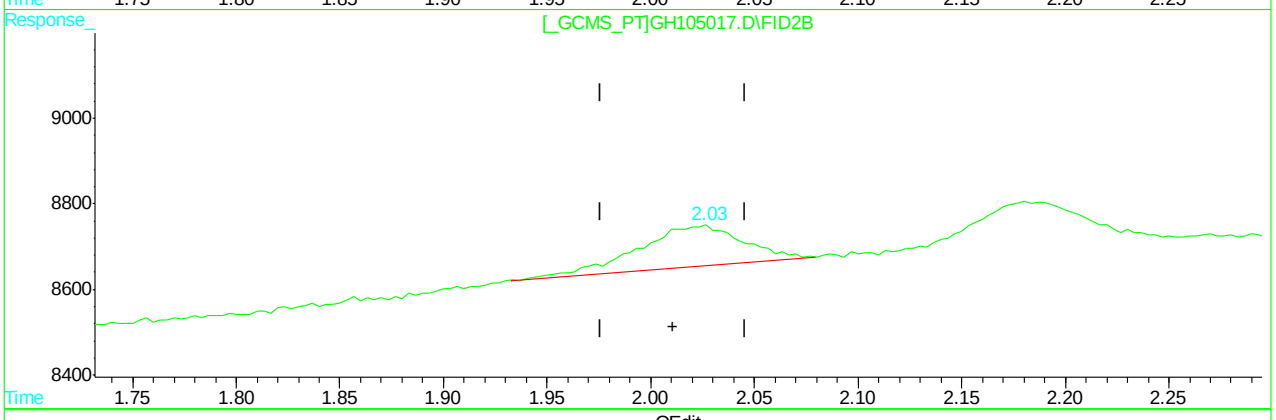
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

2.52min 89.885PPB

response 2187

(4) 1-Propanol #2

2.03min 69.117PPB m

response 3458

(+) = Expected Retention Time

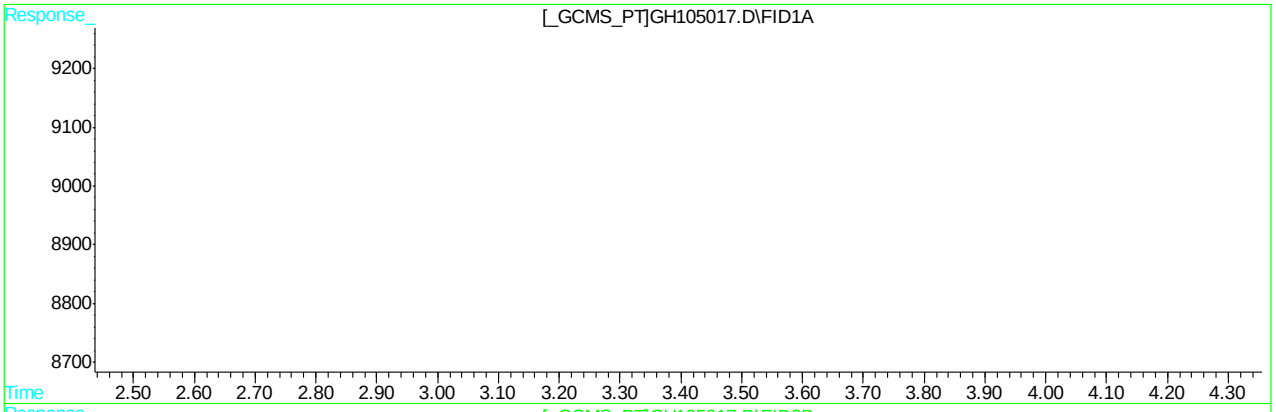
GH105017.D MGH5288.M Wed May 18 08:48:45 2016 GCGH

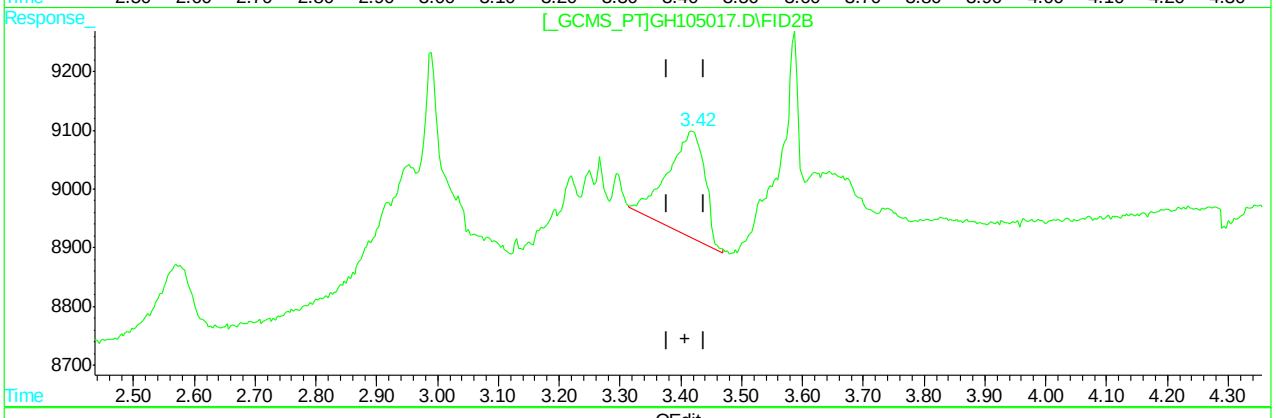
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

3.76min 105.546PPB

response 3014

(7) 1-Butanol #2

3.42min 113.606PPB m

response 7445

(+) = Expected Retention Time

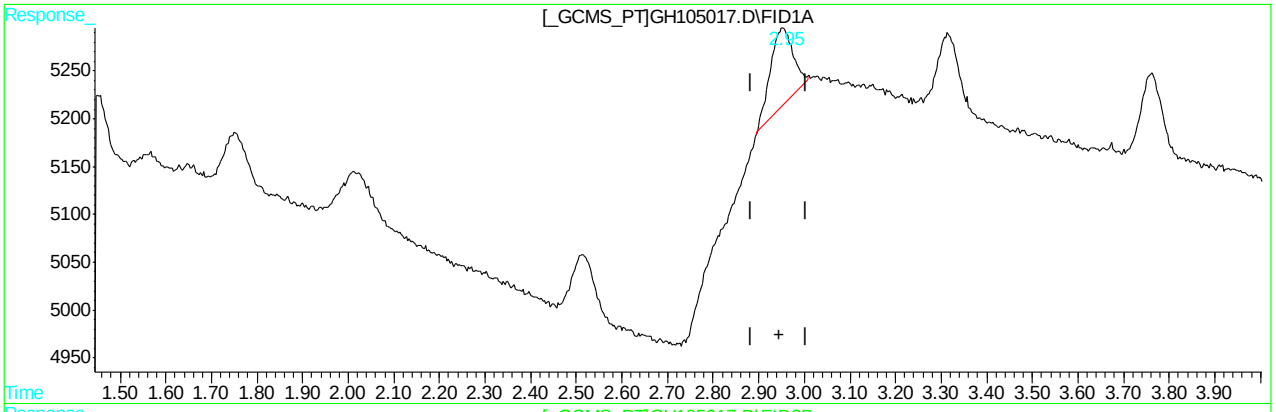
GH105017.D MGH5288.M Wed May 18 08:49:10 2016 GCGH

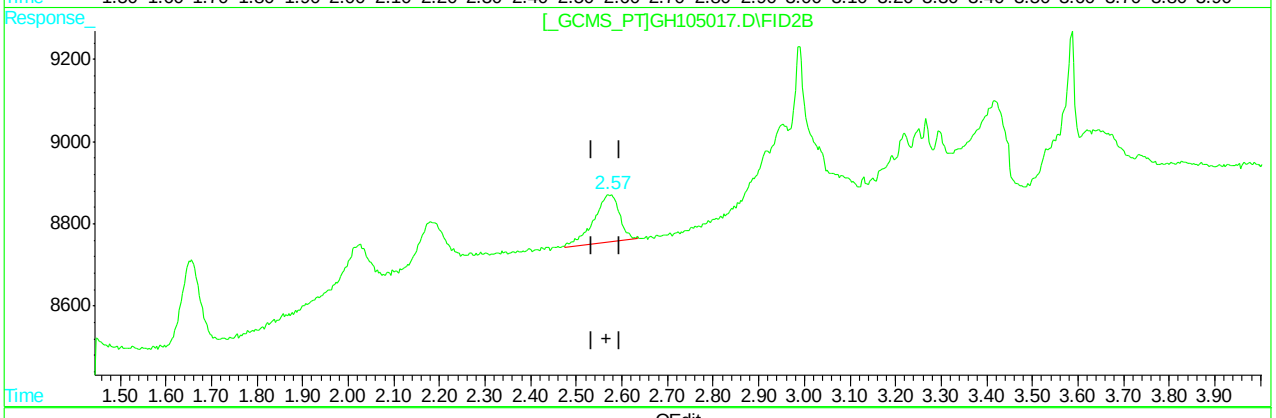
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH105017.D\FID1A.CH          Vial: 2
Acq On    : 17 May 2016   4:14 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105017.D\FID2B.CH          Vial: 2
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-100                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:37 2016  Quant Results File: MGH5288.RES


Method       : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:34:35 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 2-Butanol

2.95min 121.739PPB m

response 2840

(8) 2-Butanol #2

2.57min 83.638PPB m

response 4510

(+) = Expected Retention Time

GH105017.D MGH5288.M Wed May 18 08:50:46 2016 GCGH

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105018.D\FID1A.CH          Vial: 3
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-500                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105018.D\FID2B.CH          Vial: 3
Acq On    : 17 May 2016   4:43 pm                     Operator: XULIU
Sample    : IC5288-500                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:23 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:22:56 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.50	133226	309222	2149.239	2179.587
	Spiked Amount 5000.000			Recovery	=	42.98%	43.59%
	Target Compounds						
1)	Methanol	1.12	0.90	7371	16974	487.375	523.867
2)	Ethanol	1.45	1.15	7403	20315	382.175	495.986
3)	Tert-Butyl Alcoh	2.02	1.65	13219	32642	459.462	504.499
4)	1-Propanol	2.52	2.01	11323	26078	450.160	484.442
5)	2-Propanol	1.75	1.41	8826	24643	428.510	541.309
6)	Isobutanol	3.32	2.95f	14018	31821	481.673	522.579
7)	1-Butanol	3.76	3.41	14489	37291	514.513	593.512
8)	2-Butanol	2.95	2.57	11839	27554	464.803	492.431

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

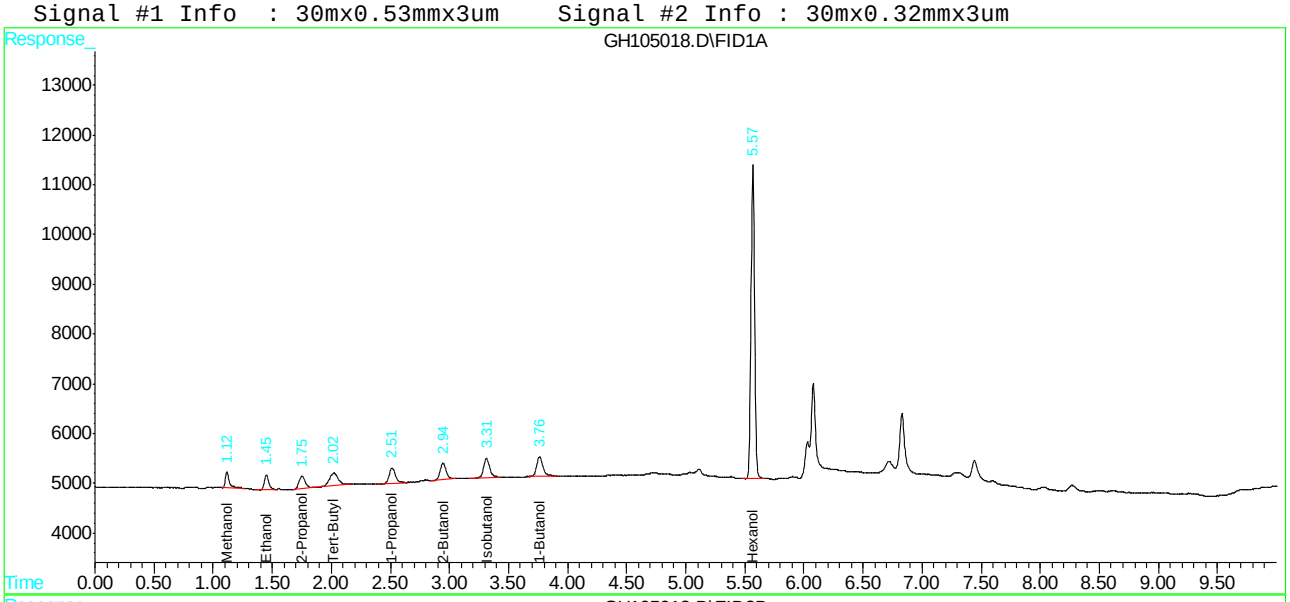
Quantitation Report (QT Reviewed)

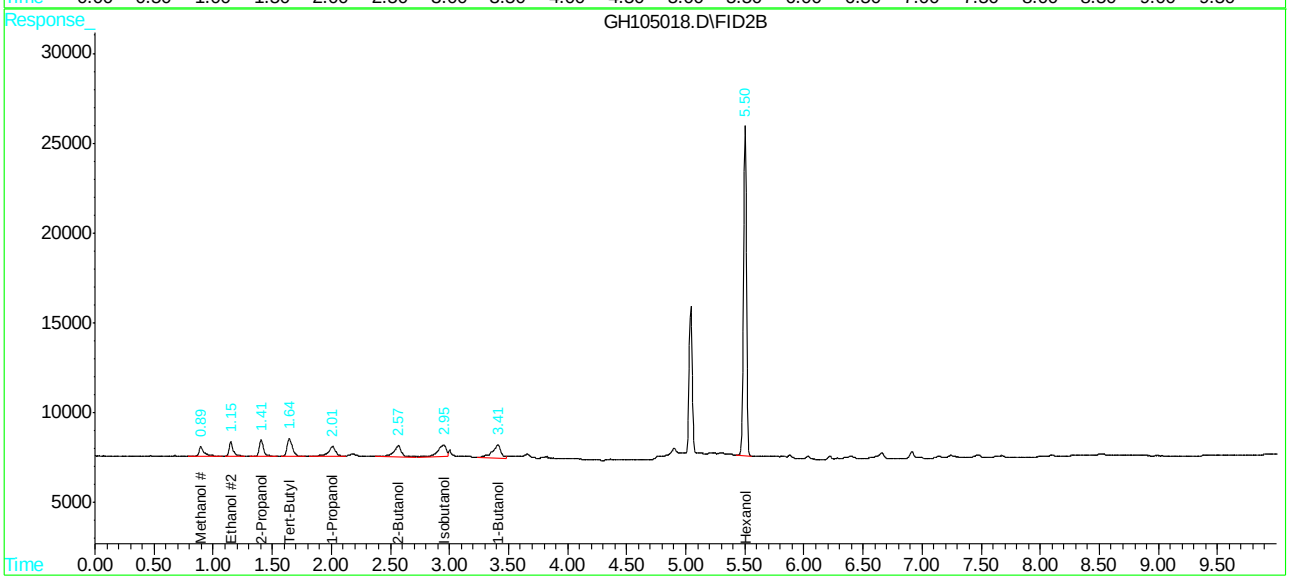
```
Data File : C:\HPCHEM\1\DATA\GH105018.D\FID1A.CH          Vial: 3
Acq On    : 17 May 2016   4:28 pm                     Operator: XULIU
Sample    : IC5288-500                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105018.D\FID2B.CH          Vial: 3
Acq On    : 17 May 2016   4:43 pm                     Operator: XULIU
Sample    : IC5288-500                                Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:23 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:22:56 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105019.D\FID1A.CH          Vial: 4
Acq On    : 17 May 2016   4:43 pm                     Operator: XULIU
Sample    : IC5288-1000                               Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105019.D\FID2B.CH          Vial: 4
Acq On    : 17 May 2016   4:57 pm                     Operator: XULIU
Sample    : IC5288-1000                               Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:22 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:22:21 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.51	274171	622051	4543.104	4492.586
Spiked Amount	5000.000			Recovery	=	90.86%	89.85%
	Target Compounds						
1)	Methanol	1.12	0.92	16166	29685	1087.516	897.349
2)	Ethanol	1.45	1.17f	18855	36354	966.928	863.337
3)	Tert-Butyl Alcoh	2.01	1.66	28949	63750	1007.774	981.673
4)	1-Propanol	2.51	2.02	25248	52807	1004.669	976.309
5)	2-Propanol	1.75	1.42	20497	43421	993.892	942.889
6)	Isobutanol	3.31	2.94	29498	59602	1017.007	973.641
7)	1-Butanol	3.76	3.42	29408	73648	1055.991	1224.889
8)	2-Butanol	2.94	2.57	25576	58599	1005.126	1059.749

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

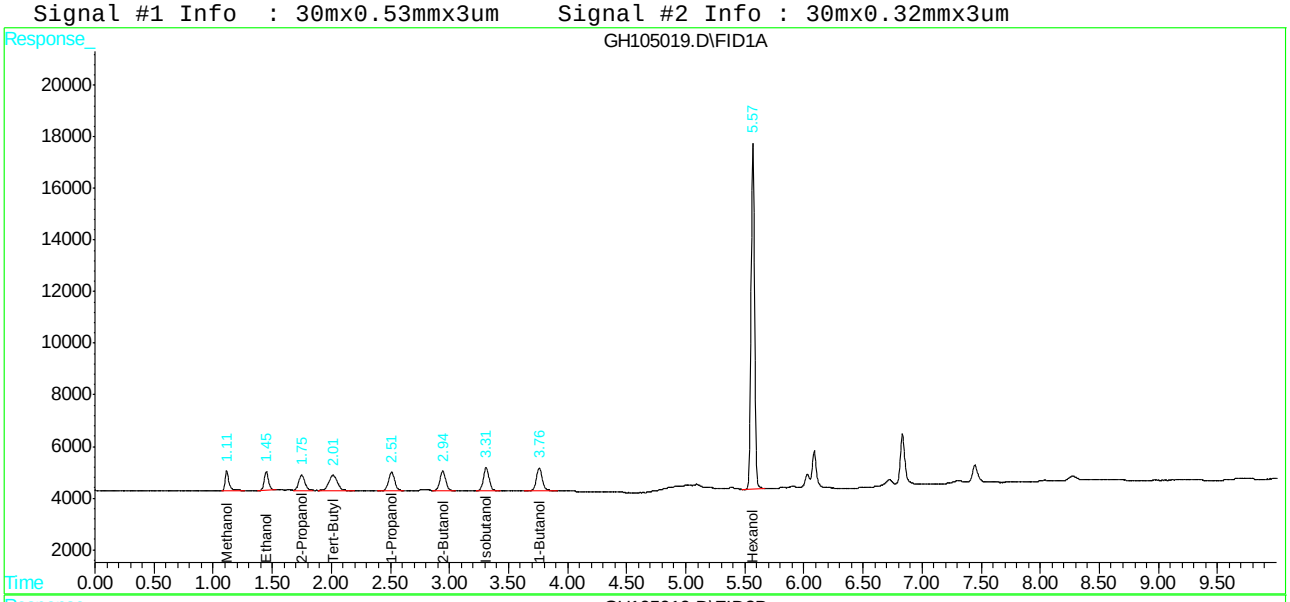
Quantitation Report (QT Reviewed)

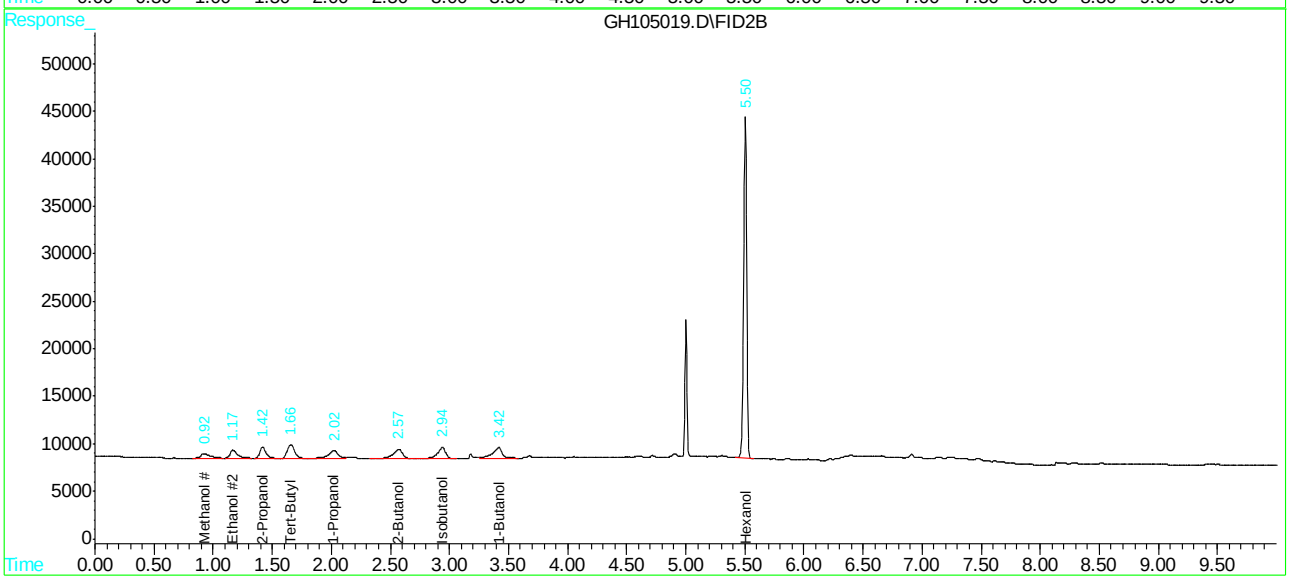
```
Data File : C:\HPCHEM\1\DATA\GH105019.D\FID1A.CH          Vial: 4
Acq On    : 17 May 2016   4:43 pm                     Operator: XULIU
Sample    : IC5288-1000                               Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105019.D\FID2B.CH          Vial: 4
Acq On    : 17 May 2016   4:57 pm                     Operator: XULIU
Sample    : IC5288-1000                               Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:22 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 07:22:21 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105020.D\FID1A.CH          Vial: 5
Acq On    : 17 May 2016   4:57 pm                     Operator: XULIU
Sample    : ICC5288-5000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105020.D\FID2B.CH          Vial: 5
Acq On    : 17 May 2016   5:19 pm                     Operator: XULIU
Sample    : ICC5288-5000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:09 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 15:45:13 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.50	345209	794669	4511.712	4828.644
Spiked Amount	5000.000			Recovery	=	90.23%	96.57%
	Target Compounds						
1)	Methanol	1.12	0.89	77443	173699	5243.603	8544.414 #
2)	Ethanol	1.45	1.15	99445	217347	5314.412	6840.346
3)	Tert-Butyl Alcoh	2.01	1.65	142996	332018	5237.321	5085.028
4)	1-Propanol	2.51	2.01	128385	274702	5760.408	5575.380
5)	2-Propanol	1.75	1.41	105046	236654	5062.425	5660.735
6)	Isobutanol	3.31	2.94	147383	311633	5362.003	5023.429
7)	1-Butanol	3.76	3.42	143097	319465	5843.923	6171.241
8)	2-Butanol	2.94	2.57	129413	280976	5135.753	5686.138

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

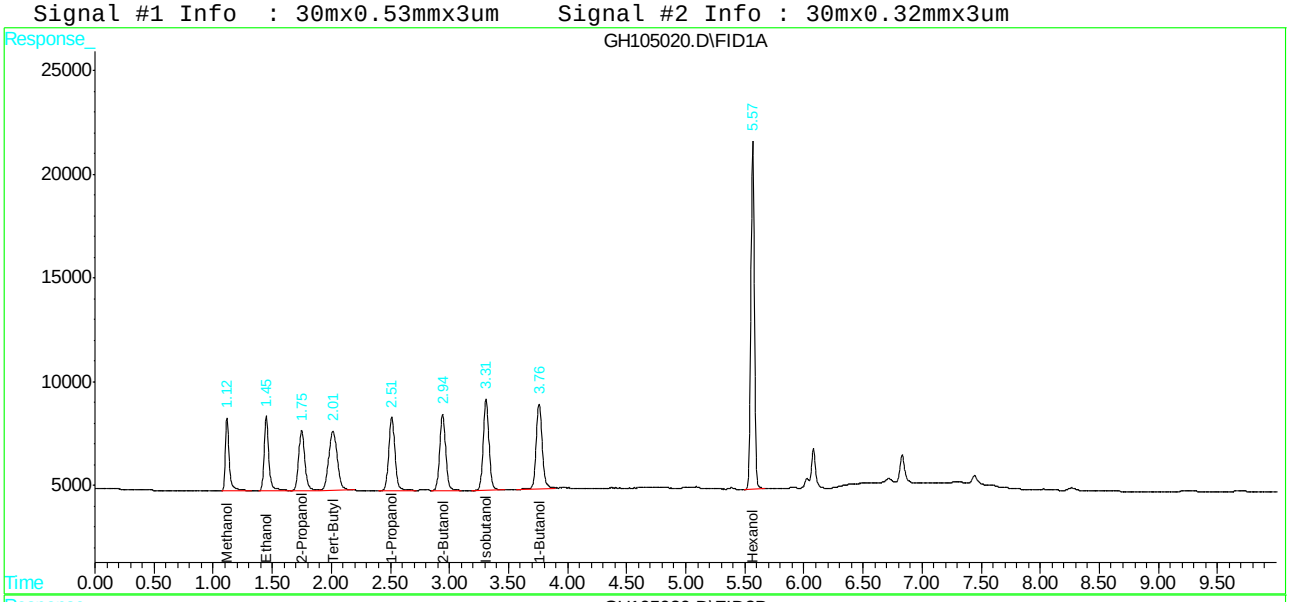
Quantitation Report (QT Reviewed)

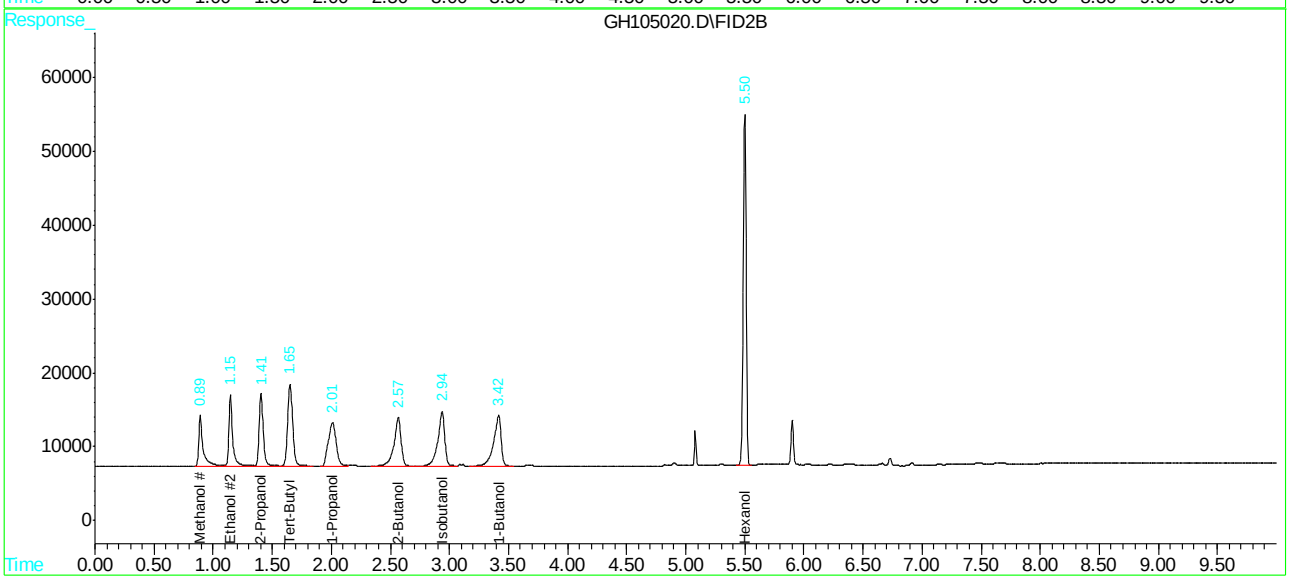
```
Data File : C:\HPCHEM\1\DATA\GH105020.D\FID1A.CH          Vial: 5
Acq On    : 17 May 2016   4:57 pm                     Operator: XULIU
Sample    : ICC5288-5000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105020.D\FID2B.CH          Vial: 5
Acq On    : 17 May 2016   5:19 pm                     Operator: XULIU
Sample    : ICC5288-5000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:09 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 15:45:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH105021.D\FID1A.CH Vial: 6
Acq On : 17 May 2016 5:19 pm Operator: XULIU
Sample : IC5288-10000 Inst : GCGH
Misc : GC48422,GGH5288,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105021.D\FID2B.CH Vial: 6
Acq On : 17 May 2016 5:33 pm Operator: XULIU
Sample : IC5288-10000 Inst : GCGH
Misc : GC48422,GGH5288,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 18 7:09 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue May 17 15:45:13 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.50	355196	814101	4642.238	4946.724
Spiked Amount	5000.000			Recovery	=	92.84%	98.93%
	Target Compounds						
1)	Methanol	1.12	0.89	157448	346407	10660.697	17040.107 #
2)	Ethanol	1.45	1.15	202728	432745	10833.939	13619.358
3)	Tert-Butyl Alcoh	2.02	1.65	294805	663970	10797.389	10169.042
4)	1-Propanol	2.51	2.02	257894	549862	11571.266	11160.064
5)	2-Propanol	1.75	1.41	213932	472748	10309.866	11308.075
6)	Isobutanol	3.31	2.95	298782	632695	10870.134	10198.859
7)	1-Butanol	3.76	3.41	289038	604299	11803.967	11673.499
8)	2-Butanol	2.94	2.57	262599	566046	10421.277	11455.123

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH105021.D MGH5288.M Wed May 18 08:52:42 2016 GCGH

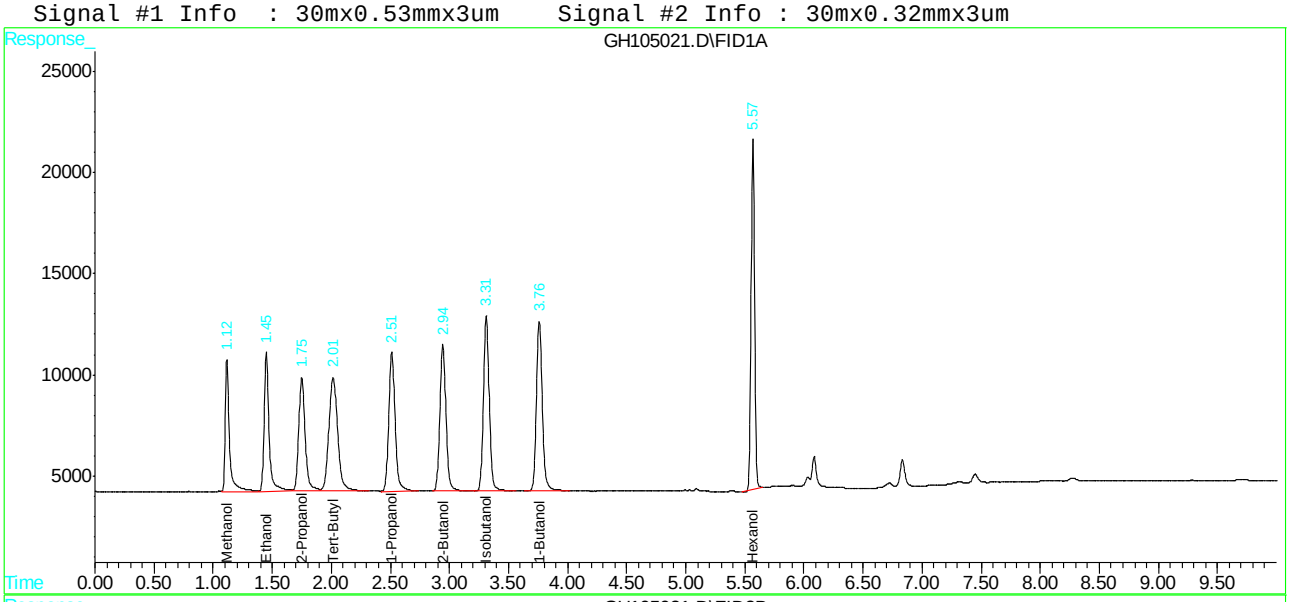
Quantitation Report (QT Reviewed)

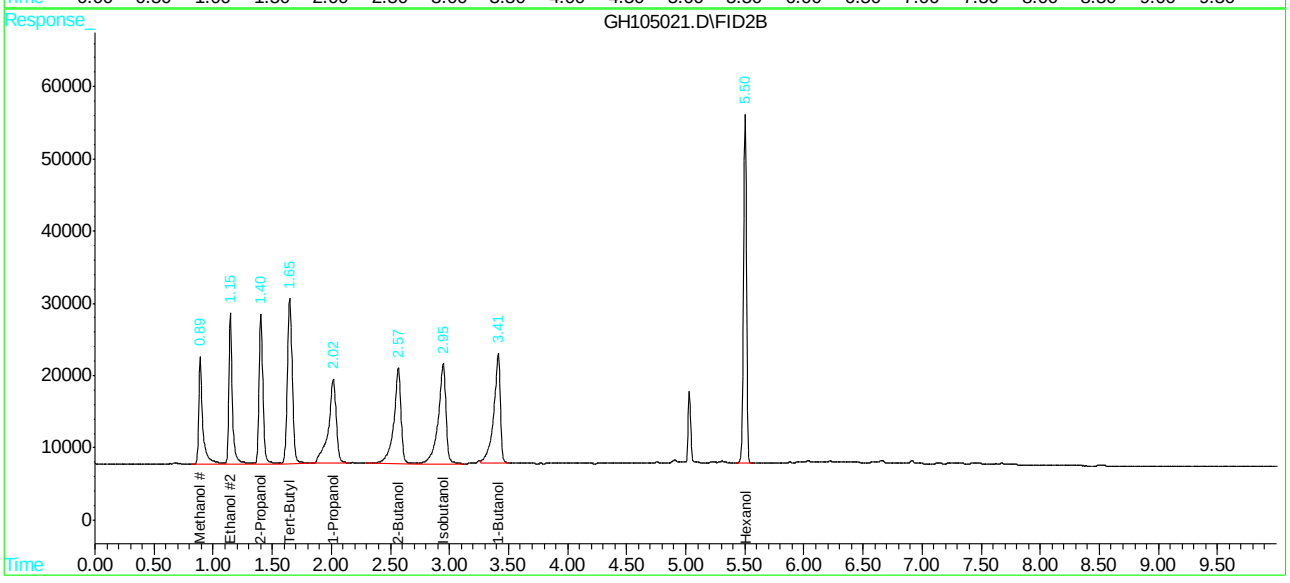
```
Data File : C:\HPCHEM\1\DATA\GH105021.D\FID1A.CH          Vial: 6
Acq On    : 17 May 2016   5:19 pm                     Operator: XULIU
Sample    : IC5288-10000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105021.D\FID2B.CH          Vial: 6
Acq On    : 17 May 2016   5:33 pm                     Operator: XULIU
Sample    : IC5288-10000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:09 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 15:45:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH105022.D\FID1A.CH Vial: 7
Acq On : 17 May 2016 5:33 pm Operator: XULIU
Sample : IC5288-50000 Inst : GCGH
Misc : GC48422,GGH5288,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105022.D\FID2B.CH Vial: 7
Acq On : 17 May 2016 5:48 pm Operator: XULIU
Sample : IC5288-50000 Inst : GCGH
Misc : GC48422,GGH5288,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 18 7:10 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue May 17 15:45:13 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.50	412961	947054	5397.192	5754.582
Spiked Amount	5000.000			Recovery	=	107.94%	115.09%
	Target Compounds						
1)	Methanol	1.12	0.89	720543	1576706	48787.500	77559.774 #
2)	Ethanol	1.45	1.15	934936	1996365	49963.655	62829.557
3)	Tert-Butyl Alcoh	2.02	1.65	1362114	3066977	49888.133	46972.339
4)	1-Propanol	2.51	2.02	1197382	2577415	53724.608	52311.489
5)	2-Propanol	1.75	1.41	990575	2181490	47738.100	52180.934
6)	Isobutanol	3.31	2.94	1369639	2883211	49829.464	46476.511
7)	1-Butanol	3.76	3.42	1316221	2839006	53752.804	54842.255
8)	2-Butanol	2.94	2.57	1212229	2632402	48107.436	53272.148

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH105022.D MGH5288.M Wed May 18 08:53:10 2016 GCGH

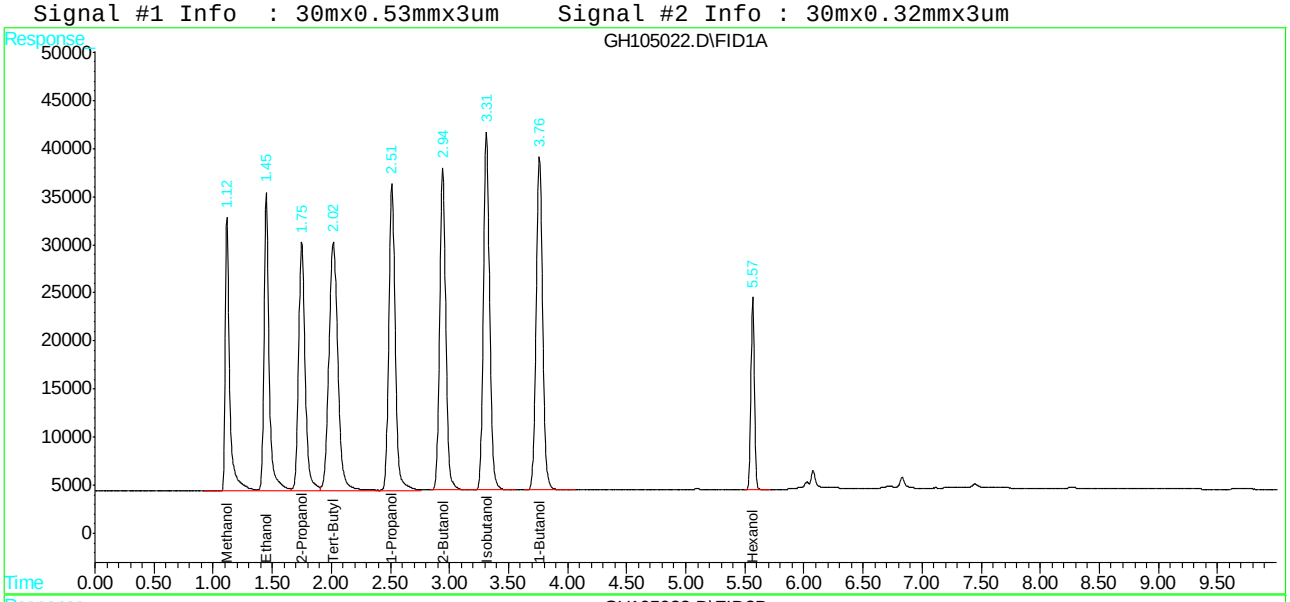
Quantitation Report (QT Reviewed)

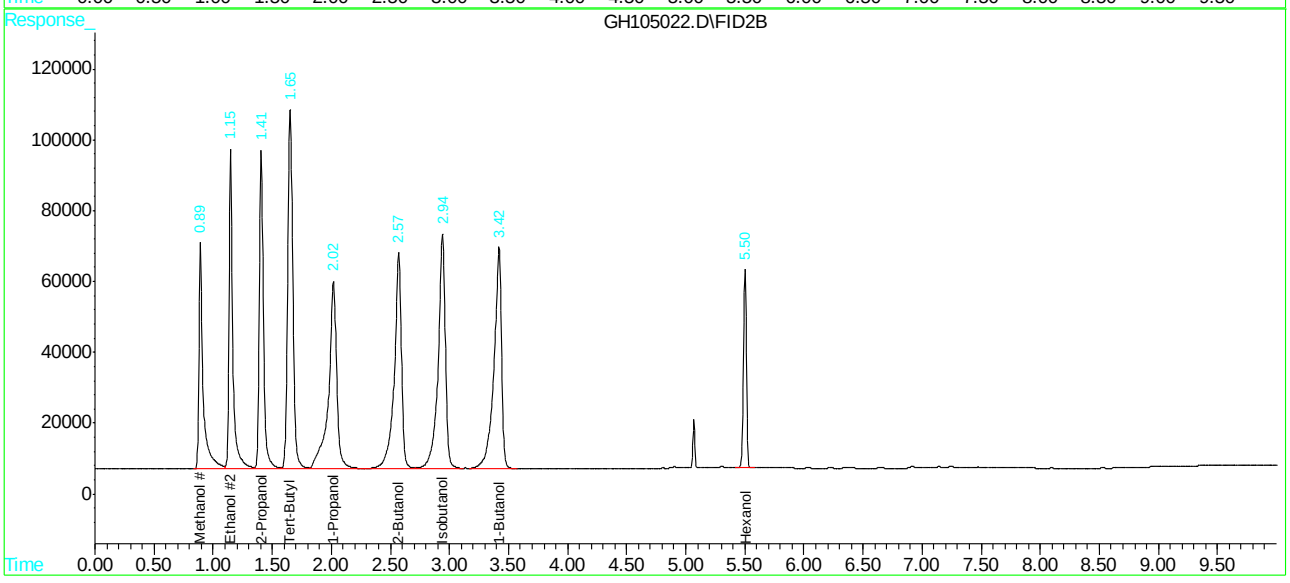
```
Data File : C:\HPCHEM\1\DATA\GH105022.D\FID1A.CH          Vial: 7
Acq On    : 17 May 2016   5:33 pm                     Operator: XULIU
Sample    : IC5288-50000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105022.D\FID2B.CH          Vial: 7
Acq On    : 17 May 2016   5:48 pm                     Operator: XULIU
Sample    : IC5288-50000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:10 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 15:45:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105023.D\FID1A.CH          Vial: 8
Acq On    : 17 May 2016   5:48 pm                     Operator: XULIU
Sample    : IC5288-100000                             Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105023.D\FID2B.CH          Vial: 8
Acq On    : 17 May 2016   6:02 pm                     Operator: XULIU
Sample    : IC5288-100000                             Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:10 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 15:45:13 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.50	259897	594005	3396.729	3609.352
Spiked Amount	5000.000			Recovery	=	67.93%	72.19%
	Target Compounds						
1)	Methanol	1.12	0.89	1381464	3140971	93538.113	154507.580 #
2)	Ethanol	1.45	1.15	1913963	4176473	102283.537	131441.900
3)	Tert-Butyl Alcoh	2.02	1.66	2957875	6562015	108333.721	100500.651
4)	1-Propanol	2.51	2.03	2510870	5487726	112658.677	111379.470
5)	2-Propanol	1.76	1.41	2027830	4596795	97725.857	109954.692
6)	Isobutanol	3.32	2.96f	2927116	6160124	106492.774	99299.394
7)	1-Butanol	3.76	3.42	2754661	5940276	112496.937	114750.761
8)	2-Butanol	2.95	2.57	2539551	5573181	100782.352	112784.937

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

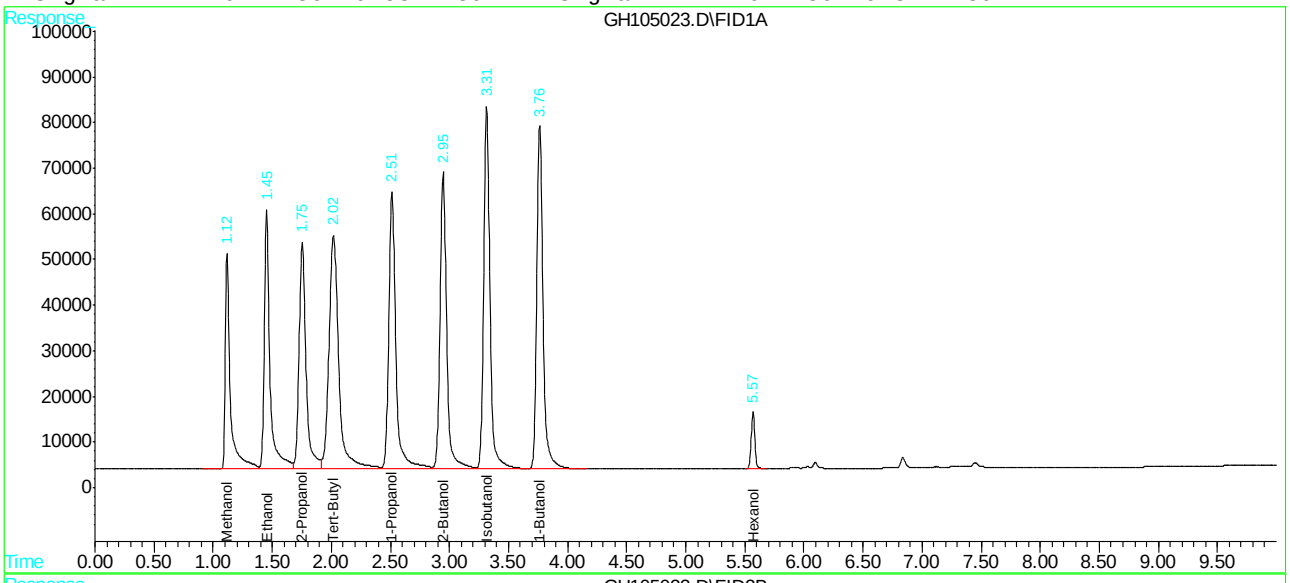
Quantitation Report (QT Reviewed)

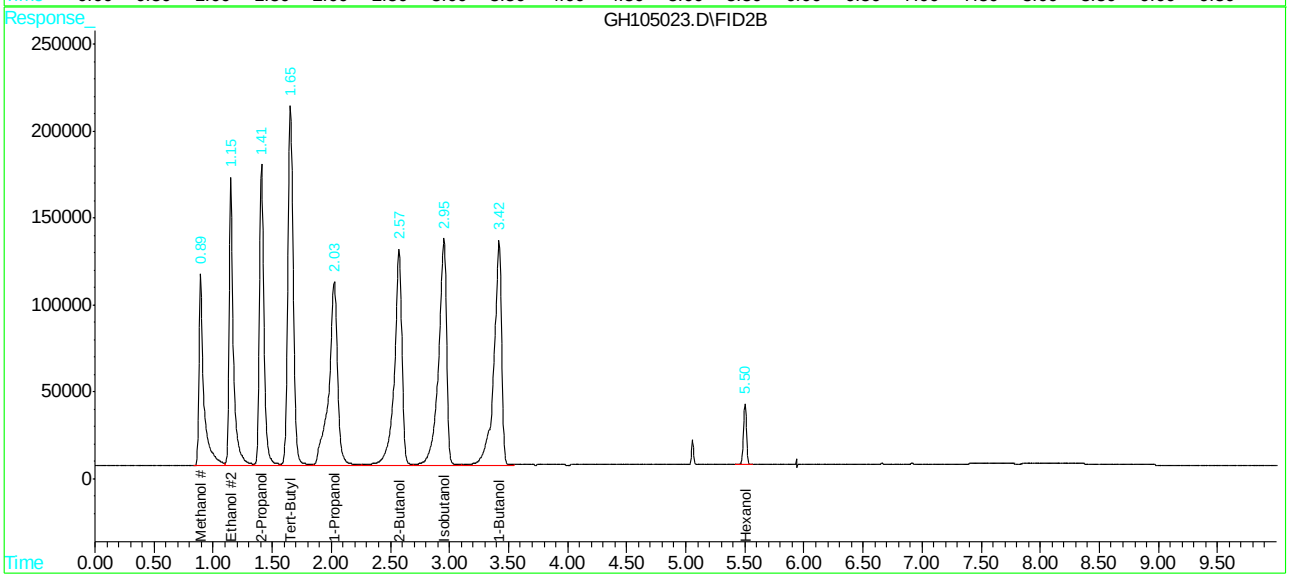
```
Data File : C:\HPCHEM\1\DATA\GH105023.D\FID1A.CH          Vial: 8
Acq On    : 17 May 2016   5:48 pm                     Operator: XULIU
Sample    : IC5288-100000                             Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105023.D\FID2B.CH          Vial: 8
Acq On    : 17 May 2016   6:02 pm                     Operator: XULIU
Sample    : IC5288-100000                             Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  7:10 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 15:45:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105024.D\FID1A.CH          Vial: 9
Acq On    : 17 May 2016   6:02 pm                     Operator: XULIU
Sample    : ICV5288-5000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105024.D\FID2B.CH          Vial: 9
Acq On    : 17 May 2016   6:24 pm                     Operator: XULIU
Sample    : ICV5288-5000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  9:07 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 08:55:49 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.50	349710	790800	5173.481	5090.525
Spiked Amount	5000.000			Recovery	=	103.47%	101.81%
	Target Compounds						
1)	Methanol	1.12	0.90	65127	172731	4212.940	5355.287
2)	Ethanol	1.45	1.16	100143	226641	5284.554	5685.787
3)	Tert-Butyl Alcoh	2.02	1.66	149854	332921	5288.674	5236.015
4)	1-Propanol	2.52	2.02	127682	285106	5248.735	5607.628
5)	2-Propanol	1.75	1.41	105368	238229	5286.625	5261.345
6)	Isobutanol	3.31	2.94	151110	333033	5252.180	5439.828
7)	1-Butanol	3.76	3.42	145592	326188	5097.649	4929.542
8)	2-Butanol	2.95	2.57	133016	304299	5188.956	5605.638

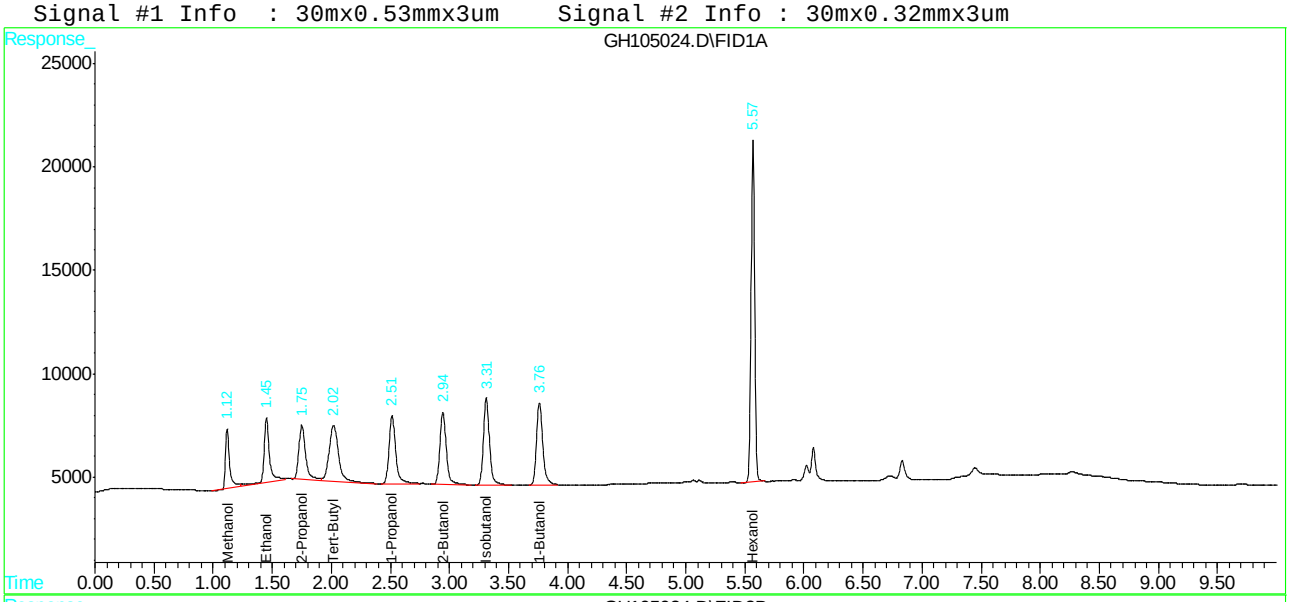
Quantitation Report (QT Reviewed)

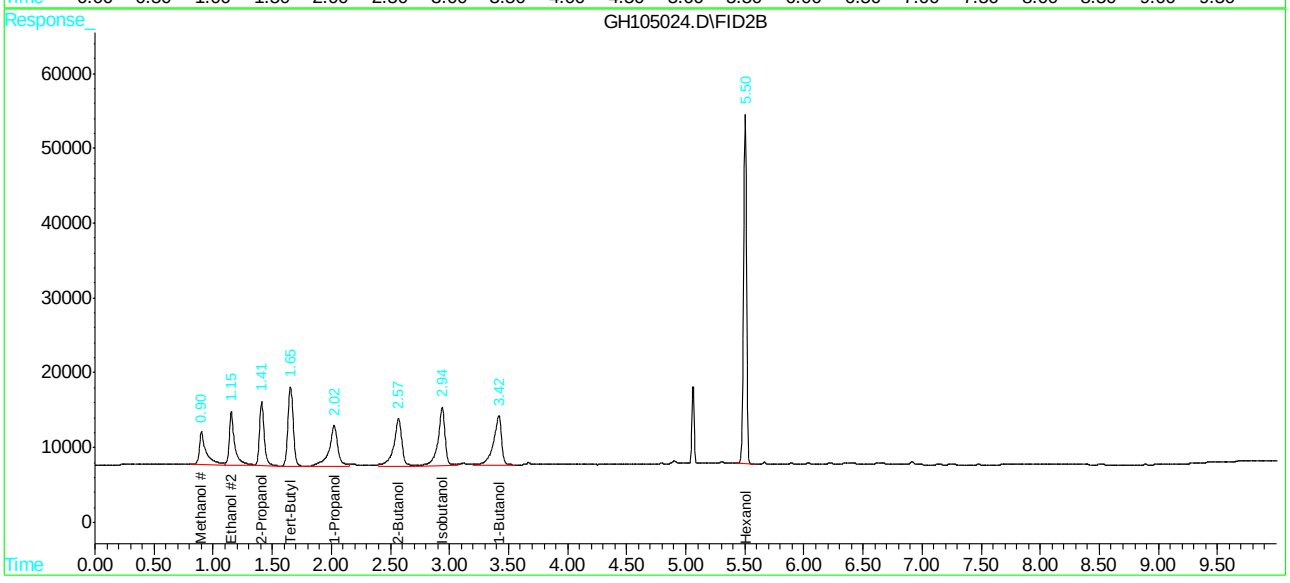
```
Data File : C:\HPCHEM\1\DATA\GH105024.D\FID1A.CH          Vial: 9
Acq On    : 17 May 2016   6:02 pm                     Operator: XULIU
Sample    : ICV5288-5000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105024.D\FID2B.CH          Vial: 9
Acq On    : 17 May 2016   6:24 pm                     Operator: XULIU
Sample    : ICV5288-5000                              Inst    : GCGH
Misc      : GC48422,GGH5288,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 18  9:07 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed May 18 08:55:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH105461.D\FID1A.CH Vial: 92
Acq On : 14 Jun 2016 8:03 am Operator: XULIU
Sample : CC5288-5000 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105461.D\FID2B.CH Vial: 92
Acq On : 14 Jun 2016 8:19 am Operator: XULIU
Sample : CC5288-5000 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 14 9:14 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Jun 14 09:13:40 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.43	326442	725227	4829.264	4668.419
Spiked Amount	5000.000			Recovery	=	96.59%	93.37%
	Target Compounds						
1)	Methanol	1.13	0.88	78303	156770	5065.296	4860.458
2)	Ethanol	1.46	1.13	98952	189259	5221.686	4747.977
3)	Tert-Butyl Alcoh	2.02	1.61	155928	328867	5503.046	5172.250
4)	1-Propanol	2.51	1.96	124750	253928	5128.245	4994.397
5)	2-Propanol	1.75	1.38	106814	223890	5359.202	4944.656
6)	Isobutanol	3.31	2.89	146145	285363	5079.599	4661.185
7)	1-Butanol	3.76	3.37	140700	283885	4926.350	4290.230
8)	2-Butanol	2.94	2.52	130199	270645	5079.054	4985.689

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH105461.D MGH5288.M Tue Jun 14 09:16:38 2016 GCGH

SGS ACCUTEST JC21709

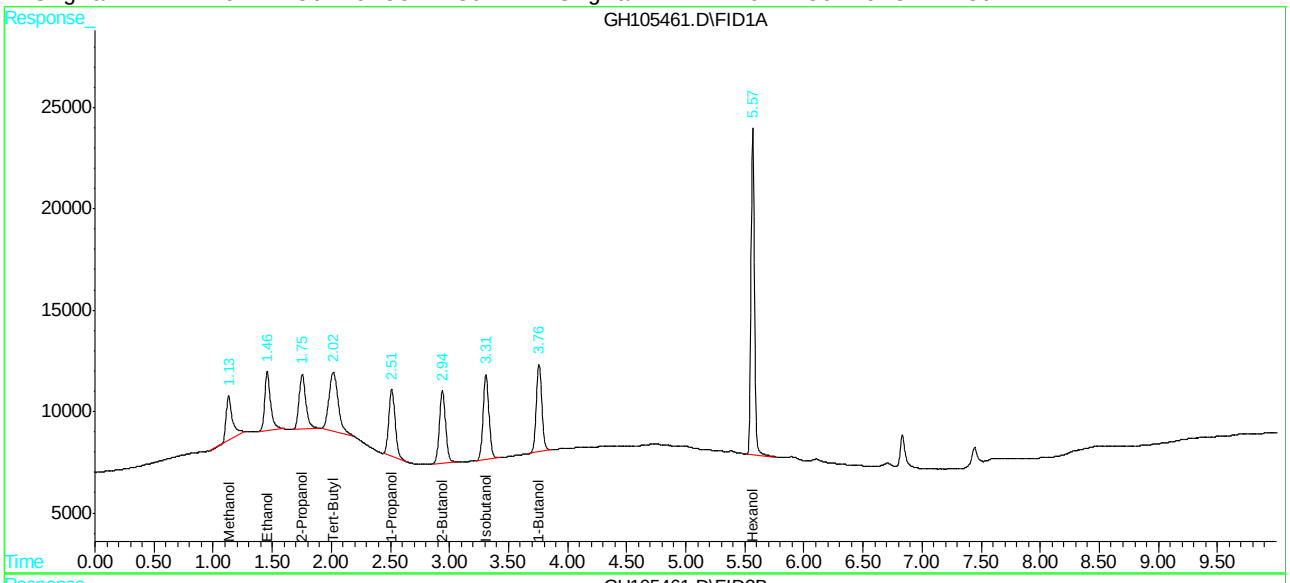
Quantitation Report (QT Reviewed)

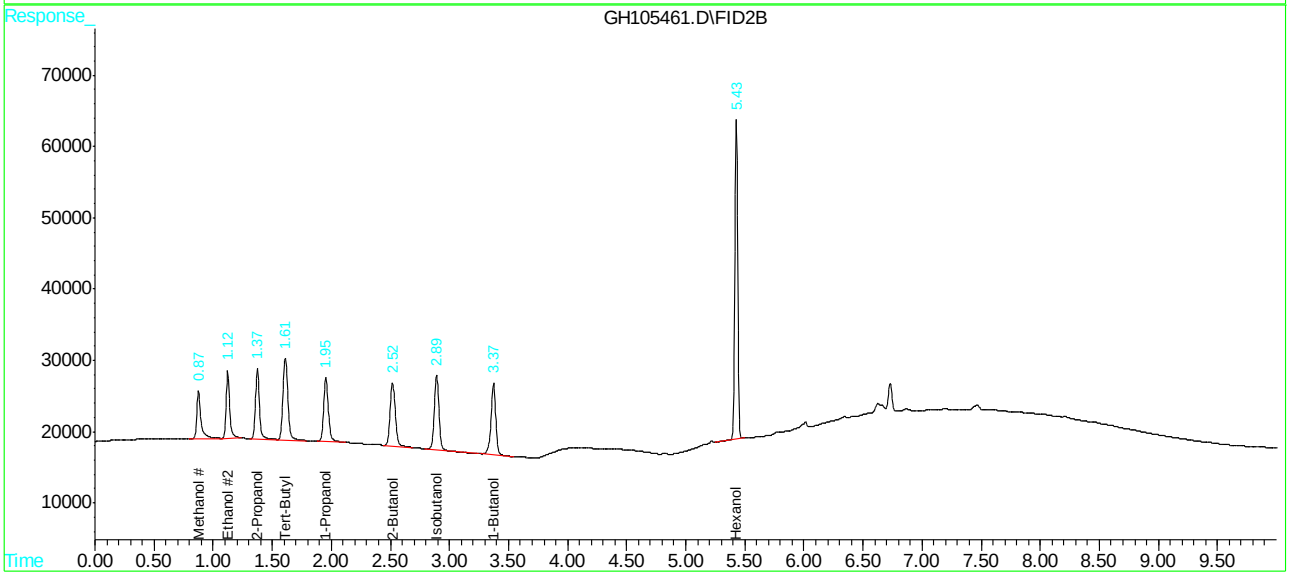
```
Data File : C:\HPCHEM\1\DATA\GH105461.D\FID1A.CH          Vial: 92
Acq On    : 14 Jun 2016   8:03 am                     Operator: XULIU
Sample    : CC5288-5000                               Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105461.D\FID2B.CH          Vial: 92
Acq On    : 14 Jun 2016   8:19 am                     Operator: XULIU
Sample    : CC5288-5000                               Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14  9:14 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH105471.D\FID1A.CH Vial: 95
Acq On : 14 Jun 2016 11:08 am Operator: XULIU
Sample : CC5288-10000 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105471.D\FID2B.CH Vial: 95
Acq On : 14 Jun 2016 11:24 am Operator: XULIU
Sample : CC5288-10000 Inst : GCGH
Misc : GC48585,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 14 14:07 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Jun 14 09:13:40 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.43	298209	671778	4411.586	4324.358
Spiked Amount	5000.000			Recovery	=	88.23%	86.49%
	Target Compounds						
1)	Methanol	1.12	0.88	163963	344780	10606.540	10689.451
2)	Ethanol	1.46	1.13	206732	409396	10909.220	10270.602
3)	Tert-Butyl Alcoh	2.02	1.62	308363	699813	10882.817	11006.309
4)	1-Propanol	2.51	1.96	284771	546849	11706.365	10755.744
5)	2-Propanol	1.75	1.38	215709	478011	10822.764	10556.973
6)	Isobutanol	3.31	2.90	310032	612834	10775.846	10010.161
7)	1-Butanol	3.76	3.38	318994	602659	11169.002	9107.742
8)	2-Butanol	2.94	2.53	277273	571114	10816.448	10520.782

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH105471.D MGH5288.M Tue Jun 14 14:18:51 2016 GCGH

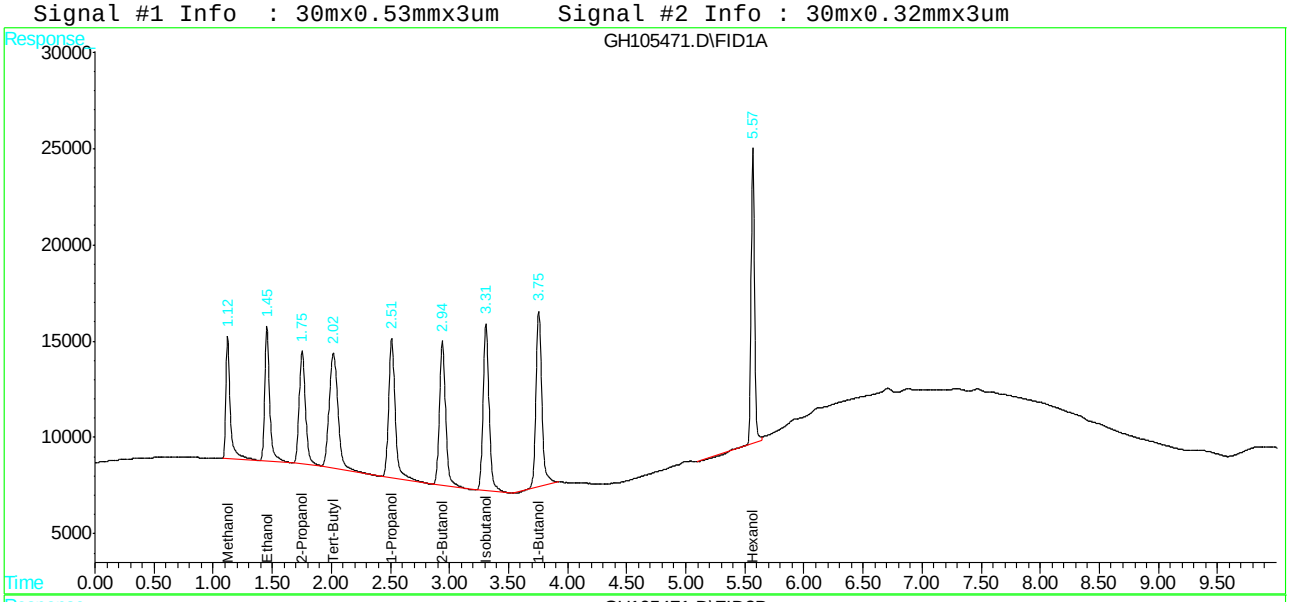
Quantitation Report (QT Reviewed)

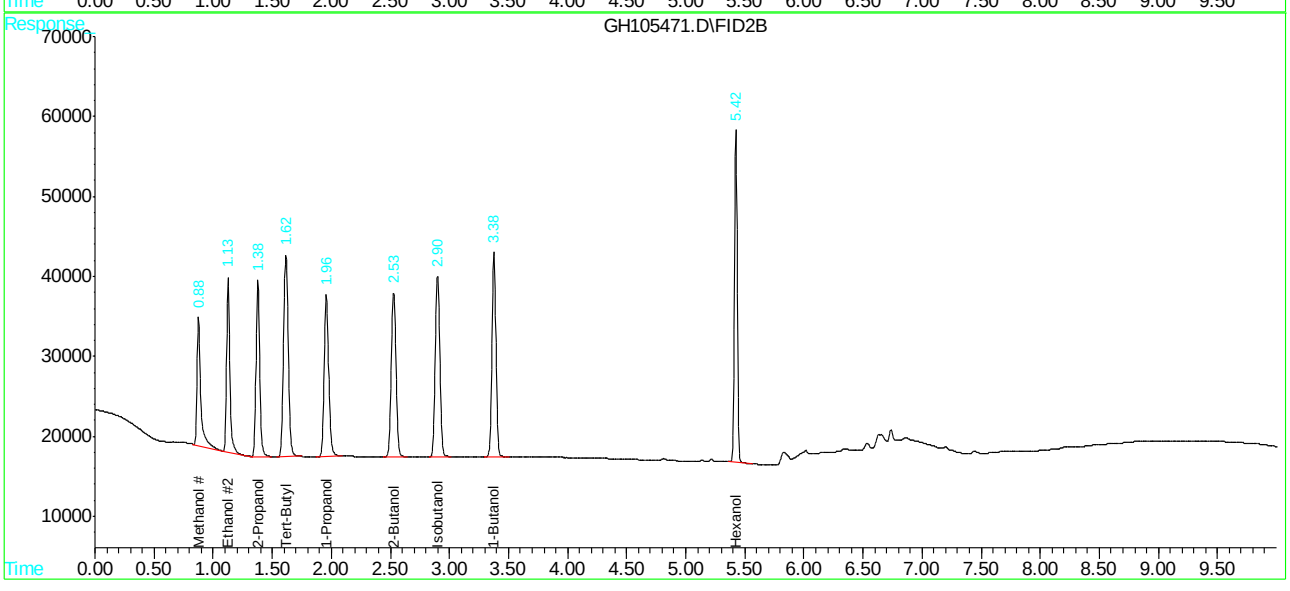
```
Data File : C:\HPCHEM\1\DATA\GH105471.D\FID1A.CH          Vial: 95
Acq On    : 14 Jun 2016  11:08 am                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105471.D\FID2B.CH          Vial: 95
Acq On    : 14 Jun 2016  11:24 am                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:07 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 09:13:40 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH105481.D\FID1A.CH Vial: 95
Acq On : 14 Jun 2016 2:09 pm Operator: XULIU
Sample : CC5288-5000 Inst : GCGH
Misc : GC48601,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105481.D\FID2B.CH Vial: 95
Acq On : 14 Jun 2016 2:25 pm Operator: XULIU
Sample : CC5288-5000 Inst : GCGH
Misc : GC48601,GGH5321,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 14 14:51 2016 Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Jun 14 14:47:42 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.56	5.43	325842	714460	4820.381	4599.106
Spiked Amount	5000.000			Recovery	=	96.41%	91.98%
	Target Compounds						
1)	Methanol	1.12	0.87	67564	157242	4370.580	4875.088
2)	Ethanol	1.45	1.13	96990	196024	5118.143	4917.703
3)	Tert-Butyl Alcoh	2.01	1.61	142034	330786	5012.718	5202.433
4)	1-Propanol	2.51	1.96	130735	257678	5374.276	5068.164
5)	2-Propanol	1.75	1.38	100734	226296	5054.147	4997.805
6)	Isobutanol	3.30	2.90	134869	284267	4687.685	4643.287
7)	1-Butanol	3.75	3.38	138296	278115	4842.172	4203.034
8)	2-Butanol	2.94	2.52	131138	261675	5115.699	4820.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH105481.D MGH5288.M Tue Jun 14 15:17:48 2016 GCGH

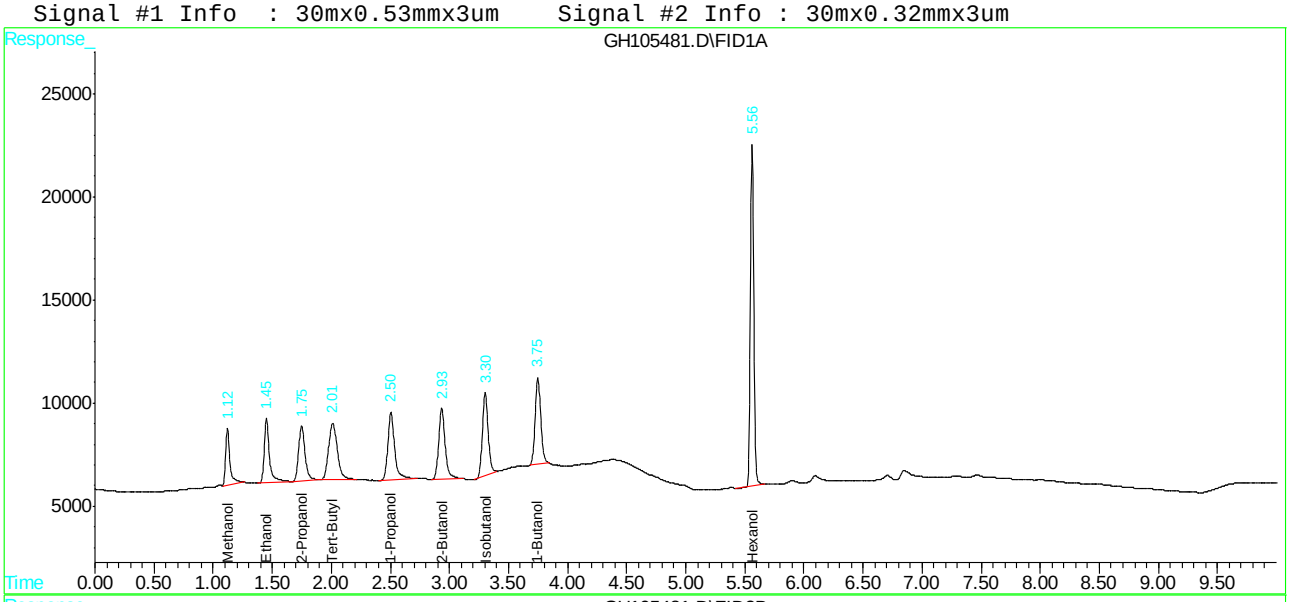
Quantitation Report (QT Reviewed)

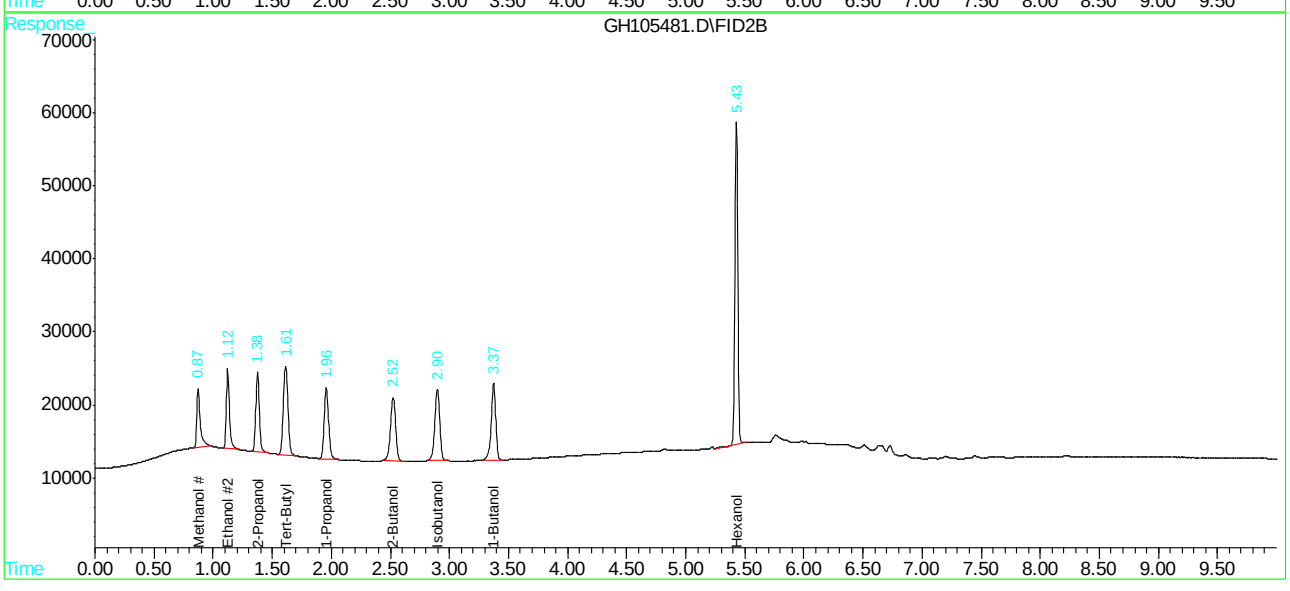
```
Data File : C:\HPCHEM\1\DATA\GH105481.D\FID1A.CH          Vial: 95
Acq On    : 14 Jun 2016   2:09 pm                     Operator: XULIU
Sample    : CC5288-5000                               Inst    : GCGH
Misc      : GC48601,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105481.D\FID2B.CH          Vial: 95
Acq On    : 14 Jun 2016   2:25 pm                     Operator: XULIU
Sample    : CC5288-5000                               Inst    : GCGH
Misc      : GC48601,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 14 14:51 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:47:42 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105485.D\FID1A.CH          Vial: 95
Acq On    : 14 Jun 2016   3:32 pm                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105485.D\FID2B.CH          Vial: 95
Acq On    : 14 Jun 2016   3:48 pm                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:29 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:47:42 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.56	5.43	353737	775695	5233.056	4993.286
	Spiked Amount 5000.000			Recovery	=	104.66%	99.87%
	Target Compounds						
1)	Methanol	1.12	0.88	168687	337512	10912.082	10464.109
2)	Ethanol	1.45	1.13	211704	402865	11171.620	10106.769
3)	Tert-Butyl Alcoh	2.01	1.62	299721	699648	10577.822	11003.704
4)	1-Propanol	2.50	1.96	281335	541023	11565.120	10641.149
5)	2-Propanol	1.75	1.38	230815	455948	11580.668	10069.722
6)	Isobutanol	3.30	2.90	319580	600669	11107.723	9811.462
7)	1-Butanol	3.75	3.38	302726	594400	10599.409	8982.927
8)	2-Butanol	2.93	2.53	283191	570483	11047.301	10509.151

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

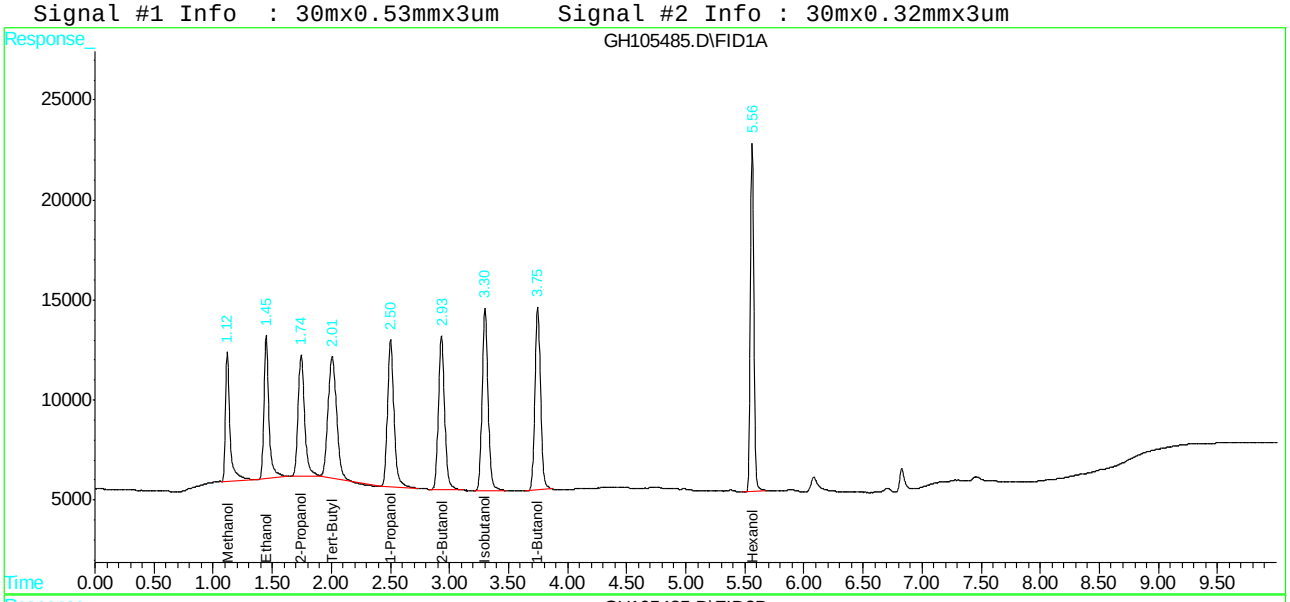
Quantitation Report (QT Reviewed)

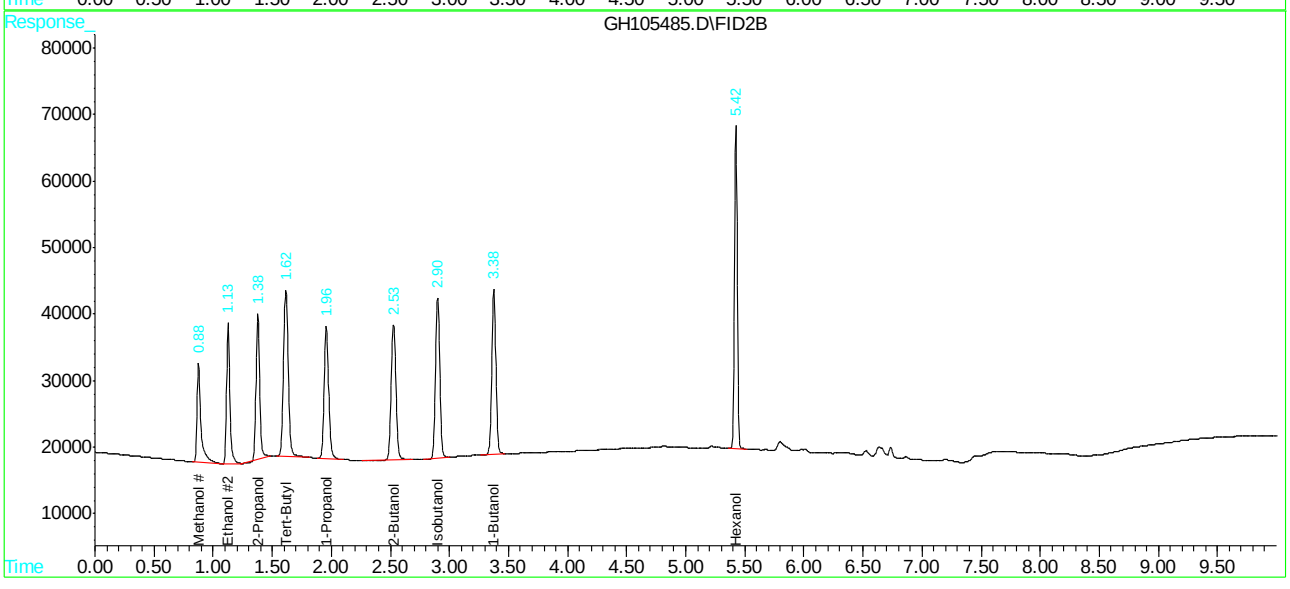
```
Data File : C:\HPCHEM\1\DATA\GH105485.D\FID1A.CH          Vial: 95
Acq On    : 14 Jun 2016   3:32 pm                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105485.D\FID2B.CH          Vial: 95
Acq On    : 14 Jun 2016   3:48 pm                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5321,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:29 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Jun 14 14:47:42 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105487.D\FID1A.CH          Vial: 92
Acq On    : 15 Jun 2016   7:13 am                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105487.D\FID2B.CH          Vial: 92
Acq On    : 15 Jun 2016   7:30 am                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:41 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 08:40:26 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.56	5.43	301757	707935	4464.083	4557.108
Spiked Amount	5000.000			Recovery	=	89.28%	91.14%
	Target Compounds						
1)	Methanol	1.12	0.88	156762	340041	10140.714	10542.515
2)	Ethanol	1.45	1.13	203862	415927	10757.795	10434.456
3)	Tert-Butyl Alcoh	2.01	1.61	285856	694802	10088.494	10927.496
4)	1-Propanol	2.51	1.96	261654	540736	10756.065	10635.515
5)	2-Propanol	1.75	1.38	208796	474637	10475.925	10482.457
6)	Isobutanol	3.30	2.90	279182	607320	9703.608	9920.107
7)	1-Butanol	3.75	3.38	295304	589658	10339.535	8911.262
8)	2-Butanol	2.94	2.52	266108	561074	10380.866	10335.830

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

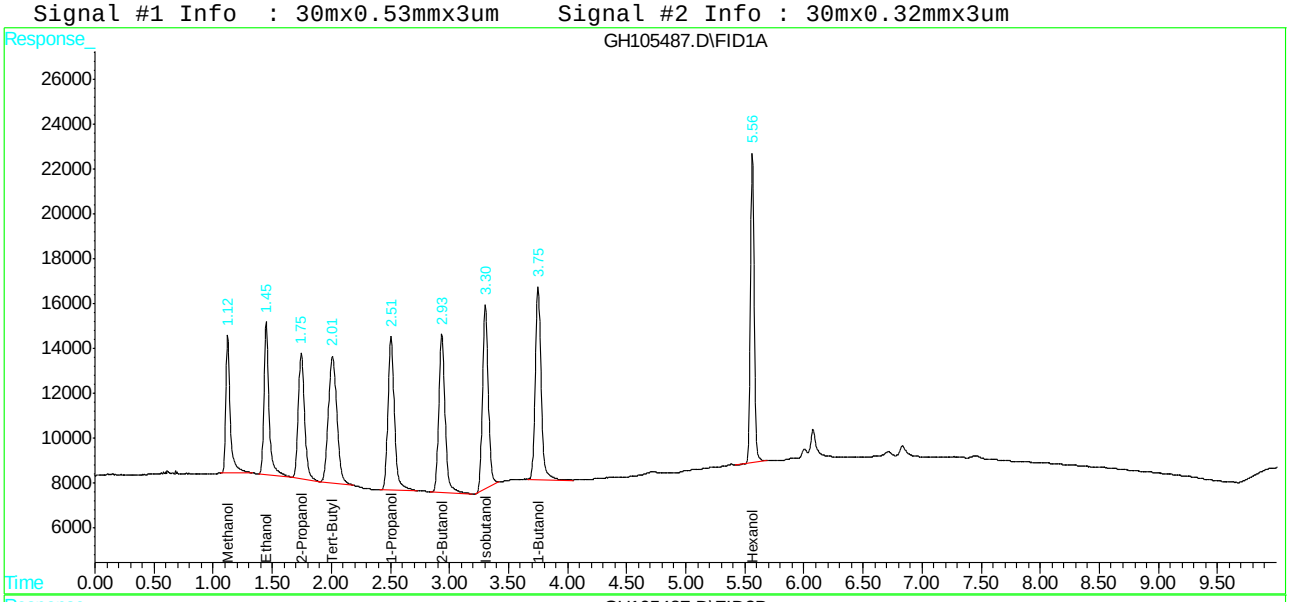
Quantitation Report (QT Reviewed)

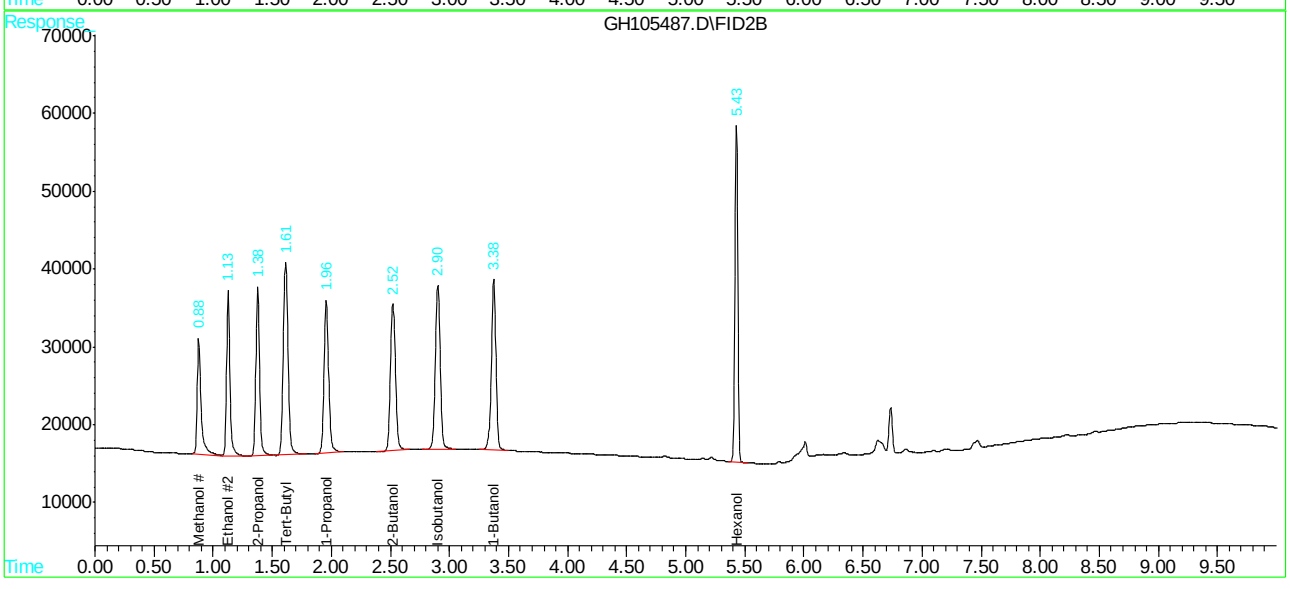
```
Data File : C:\HPCHEM\1\DATA\GH105487.D\FID1A.CH          Vial: 92
Acq On    : 15 Jun 2016   7:13 am                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105487.D\FID2B.CH          Vial: 92
Acq On    : 15 Jun 2016   7:30 am                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15  8:41 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 08:40:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105498.D\FID1A.CH          Vial: 95
Acq On    : 15 Jun 2016  10:45 am                     Operator: XULIU
Sample    : CC5288-5000                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105498.D\FID2B.CH          Vial: 95
Acq On    : 15 Jun 2016  11:01 am                     Operator: XULIU
Sample    : CC5288-5000                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 11:27 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 10:40:38 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.58	5.43	298215	712642	4411.676	4587.405
Spiked Amount	5000.000			Recovery	=	88.23%	91.75%
	Target Compounds						
1)	Methanol	1.13	0.88	81605	151409	5278.908	4694.229
2)	Ethanol	1.46	1.13	101291	202483	5345.091	5079.728
3)	Tert-Butyl Alcoh	2.03	1.62	147487	324544	5205.141	5104.260
4)	1-Propanol	2.52	1.96	136486	269896	5610.677	5308.473
5)	2-Propanol	1.76	1.38	106708	229549	5353.858	5069.645
6)	Isobutanol	3.32	2.91	149508	296455	5196.471	4842.361
7)	1-Butanol	3.76	3.38	143856	290397	5036.869	4388.649
8)	2-Butanol	2.95	2.53	134724	275549	5255.605	5076.023

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

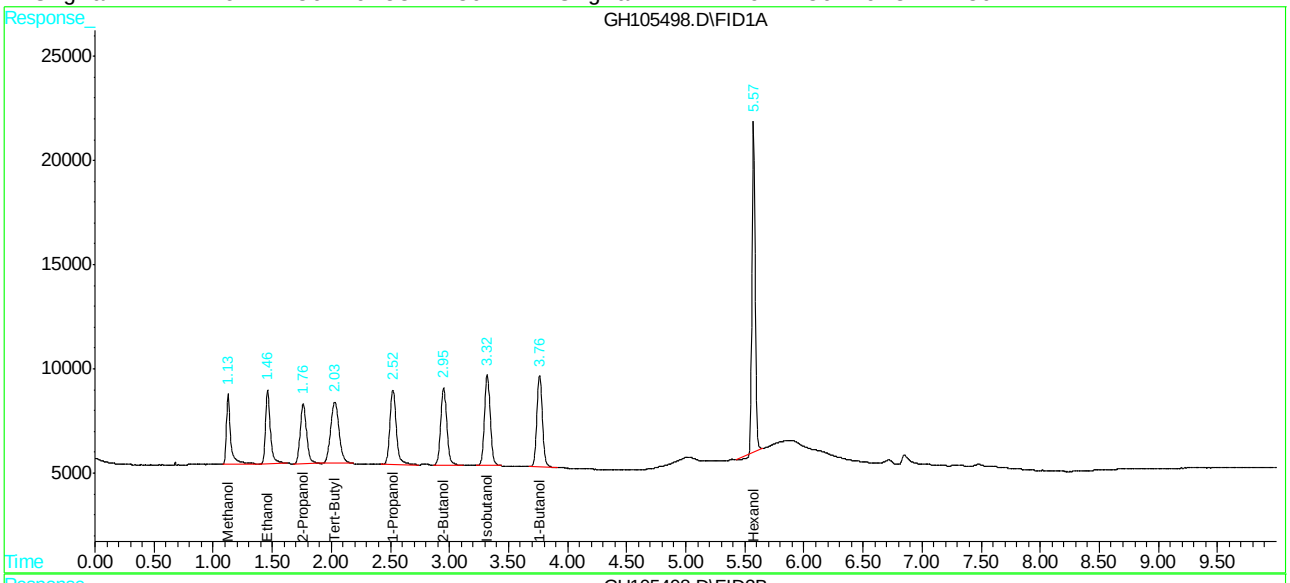
Quantitation Report (QT Reviewed)

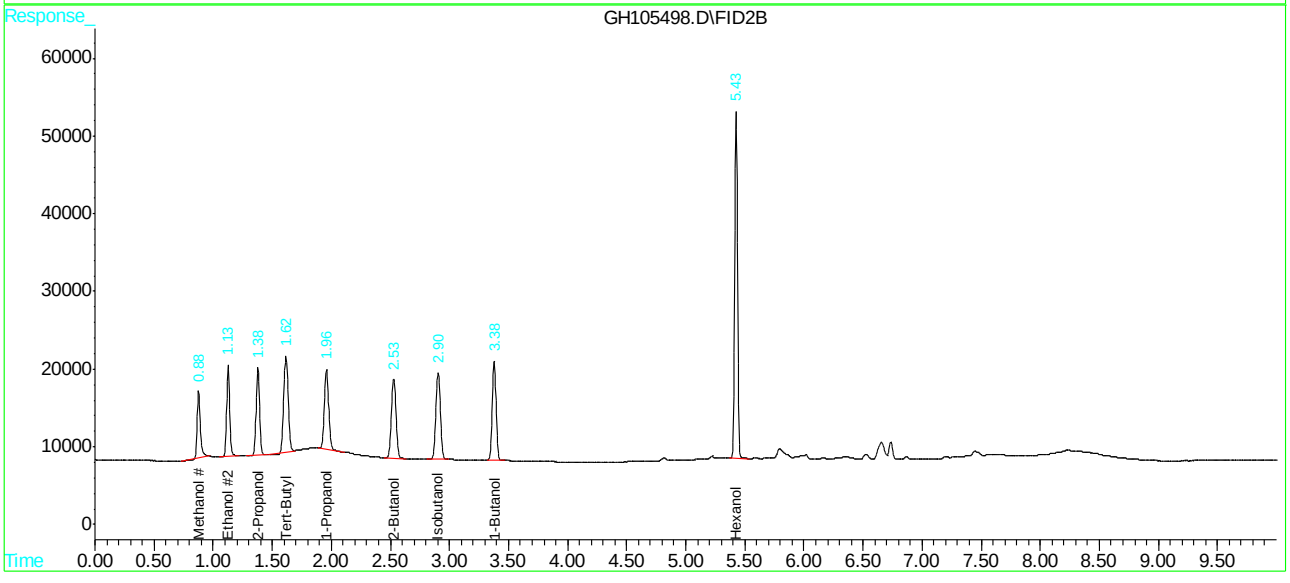
```
Data File : C:\HPCHEM\1\DATA\GH105498.D\FID1A.CH          Vial: 95
Acq On    : 15 Jun 2016  10:45 am                     Operator: XULIU
Sample    : CC5288-5000                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105498.D\FID2B.CH          Vial: 95
Acq On    : 15 Jun 2016  11:01 am                     Operator: XULIU
Sample    : CC5288-5000                               Inst    : GCGH
Misc      : GC48592,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 11:27 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 10:40:38 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH105508.D\FID1A.CH          Vial: 95
Acq On    : 15 Jun 2016   1:27 pm                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105508.D\FID2B.CH          Vial: 95
Acq On    : 15 Jun 2016   1:44 pm                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 14:04 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:54:59 2016
Response via : Initial Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
9) S	Hexanol	5.57	5.42	334280	784956	4945.210	5052.900
	Spiked Amount 5000.000			Recovery	=	98.90%	101.06%
	Target Compounds						
1)	Methanol	1.12	0.88	166016	348942	10739.339	10818.499
2)	Ethanol	1.46	1.13	214824	423755	11336.244	10630.837
3)	Tert-Butyl Alcoh	2.02	1.62	314225	698961	11089.714	10992.913
4)	1-Propanol	2.51	1.96	277158	550106	11393.413	10819.808
5)	2-Propanol	1.76	1.38	229860	480347	11532.756	10608.576
6)	Isobutanol	3.31	2.90	304726	610081	10591.442	9965.207
7)	1-Butanol	3.77	3.38	292534	602263	10242.566	9101.755
8)	2-Butanol	2.94	2.53	276266	619235	10777.148	11407.238

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC21709

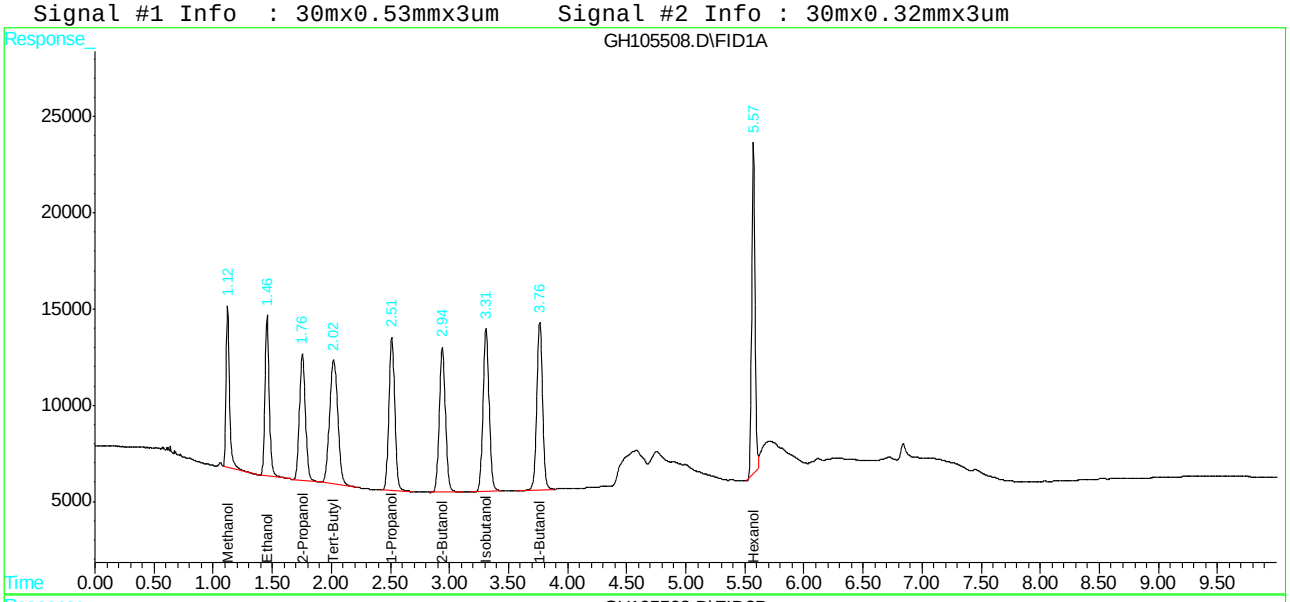
Quantitation Report (QT Reviewed)

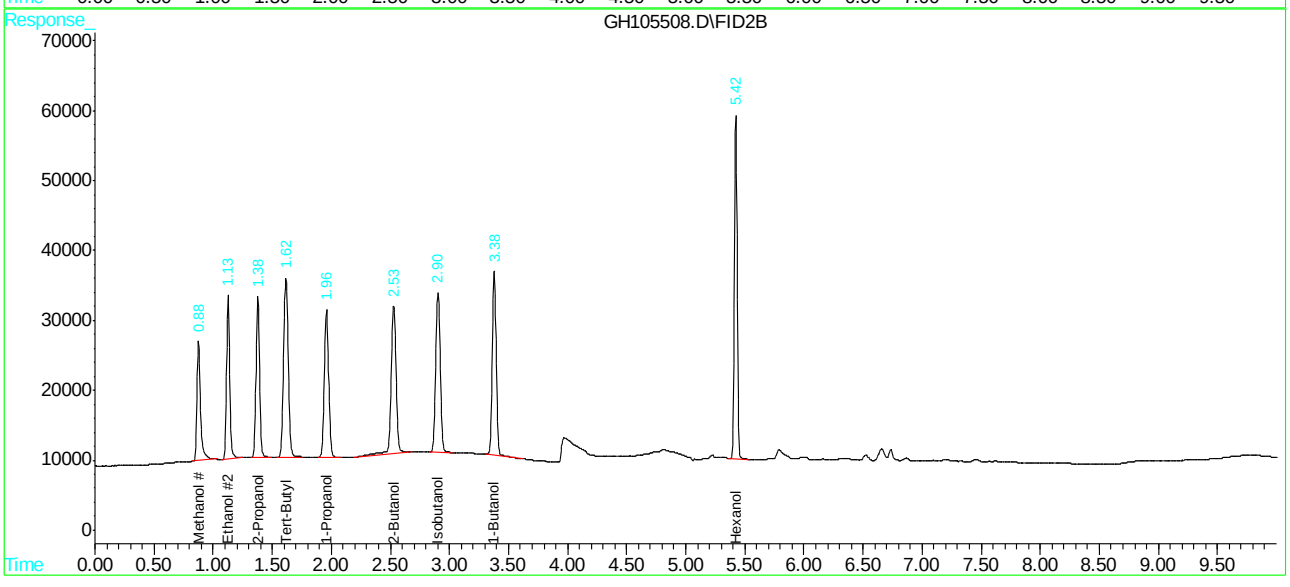
```
Data File : C:\HPCHEM\1\DATA\GH105508.D\FID1A.CH          Vial: 95
Acq On    : 15 Jun 2016   1:27 pm                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH105508.D\FID2B.CH          Vial: 95
Acq On    : 15 Jun 2016   1:44 pm                     Operator: XULIU
Sample    : CC5288-10000                              Inst    : GCGH
Misc      : GC48585,GGH5322,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 15 14:04 2016  Quant Results File: MGH5288.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5288.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Wed Jun 15 13:54:59 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5288.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5288

Print Analyst Name: Xu Gu

Analyst Signature:

Date: 5/17/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015M4108	All Sur (5/15)	2000 ppm
015M4510	All STD (5/15)	100 ppm
015M4130	All SD012 (5/15)	100 ppm

Columns: ZB624 / RTX-1 (30m x0.53mm x3μm) (30m x0.32mm x3μm)

Method 8015C All

Initial Cal. Method Cal 5288

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:** 5/19/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	Cal 105015	ZB					1					✓	not well		
	105016	ZB					1					✓	ok		
	105017	2C5288-100					1					✓	ok	10μl STD, 4μl SW / 10 ml H2O	
	105018	2C5288-500					1					✓	ok	5μl STD, 1μl SW / 10 ml H2O	
	105019	2C5288-1000					1					✓	ok	10μl STD, 2.5μl SW / ml H2O	
	105020	2C5288-5000					1					✓	ok	50μl STD, 2.5μl SW / ml H2O	
	105021	2C5288-10,000					1					✓	ok	100μl STD, 2.5μl SW / ml H2O	
	105022	2C5288-50,000					1					✓	ok	500μl STD, 3μl SW / ml H2O	
	105023	2C5288-100,000					1					✓	ok	1000μl STD, 4μl SW / ml H2O	
	105024	2C5288-5000					1					✓	ok	2.5μl SW 50μl STD (1:10) / ml H2O	

5/17

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5321

Date: 6/14/16

Print Analyst Name: Xu Liu

Analyst Signature:

Columns: ZB624X / RTX-1 (30m x0.53mm x3um) (30m x0.32mm x3um)

Method 8015C ALL

Initial Cal. Method MGH5288

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015UVX157	ALL SUR (6/15)	2000ppm
015UVX138	ALL STD (6/15)	100ppm
015UVX139	ALL MIX2 (6/15)	100ppm

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:** 6/16/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	GGH1054.D	ZB					1					✓	ok		
	105461	CC5288-5000					1					✓	ok	5ml/50ml/mL/L	
	105462	MB1					1					✓	ok		
	105463	BS					1					✓	ok	5ml/50ml/mL/L	
	105464	JC21709-1	48585 CMA	G W	10		1					✓	ok		✓
	105465	JC21709-1MS	✓	G W	10		1					✓	ok	5ml/50ml/mL/sample	✓
	105466	JC21709-1MSD	✓	G W	10		1					✓	ok	5ml/50ml/mL/sample	✓
	105467	JC21709-2	✓	G W	6		1					✓	ok		✓
	105468	JC21709-3	✓	G W	9		1					✓	ok		✓
	105469	JC21709-4	✓	G W	9		1					✓	ok		✓
	105470	JC21709-5	✓	G W	9		1					✓	ok		✓
	105471	CC5288-10,000					1					✓	ok	10ml/50ml/mL/L	
	105472	MB2					1					✓	ok		
	105473	JC21709-12	✓	G W	9		1					✓	ok		✓
	105474	JC21709-9	✓	G W	6		1					✓	ok		✓
	105475	JC21709-10	✓	W G S	6		1					✓	ok		✓
	105476	JC21062-1	48601 CMA-TBA	W W	15		1					✓	ok		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST JC21709

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5321

Date: 6/14/16

Print Analyst Name: Xulin

Analyst Signature:

Columns: 2BGUX / RTX-1 (30m x 0.53mm x 3μm) (30m x 0.32mm x 3μm)

Method 8015C AIC

Initial Cal. Method MGH5288

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.

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: 6/16/16

R	Data File	Sample ID 6/14	Test	MTX	Vial # 6/14	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	GGH1054 77	JC22062-2	48601 LMA TBA	W	15		1					✓	OK		✓
	1054 78	JC22062-3	✓	W	17		1					✓	OK		✓
	1054 79	JC22062-4	✓	W	15		1					✓	OK		✓
	1054 80	JC22062-5	✓	W	1		1					✓	OK		✓
	1054 81	CC5288-5000					1					✓	OK	500ul STD/mL H2O	
	1054 82	MB3					1					✓	OK		
	1054 83	JC21709-6	48585 LMA	G	6		10ml/mL H2O		X100			✓	RR	too dil. foaming	✓
	1054 84	JC21709-7	✓	G	9		1					✓	OK		✓
	1054 85	CC5288-10,000					1					✓	OK	100ul STD/mL H2O	
	1054 86														
	1054 87														

6/14

TX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
ample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.
l strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer
scalculation; 4 = analyst's correction error

SGS

rm: OR001-10
v. Date: 1/19/16

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9.6.2

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SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5322

Print Analyst Name: Xulia

Date: 6/15/16

Analyst Signature:

Columns: 2B624 (30m x 0.53mm x 3um) / RTX-1 (30m x 0.53mm x 3um)

Method 8015C ALL

Initial Cal. Method MGH5288

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015MXF157	ALL SUR (6/15)	2000ppm
015MXF138	ALL STD (6/15)	100ppm
015MXF139	ALL STD(2) (6/15)	100ppm

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: 6/16/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	GGH105486	ZB					1					✓	OK		
	105487	CC5288-10,000	6/15				1					✓	OK	100 ug 6/15 5ml STD/ml H2O	
	105488	MB1					1					✓	OK		
	105489	BS					1					✓	OK	5ml STD(2)/ml H2O	
	105490	JC21911-1	48592 CMS	W			1					✓	OK		✓
	105491	JC21911-1MS	✓	W			1					✓	not need	WEB 5ml STD(2)/ml sample	✓
	105492	JC21911-1MSD	✓	W			1					✓	not need	WEB 5ml STD(2)/ml sample	✓
	105493	JC21911-2	✓	W			1					✓	OK		✓
	105494	JC21911-3	✓	W			1					✓	OK		✓
	105495	JC21911-4	✓	W			1					✓	OK		✓
	105496	JC21911-5	✓	W			1					✓	OK		✓
	105497	CC5288-5000					1					✓	RR	1st meth ↓ 5ml STD/ml H2O	
	105498	CC5288-5000					1					✓	OK	5ml STD/ml H2O	
	105499	MB2					1					✓	OK		
	105500	JC21911-6	✓	W	5		1					✓	OK		✓
	105501	JC21911-6MS	✓	W	5		1					✓	OK	5ml STD(2)/ml sample	✓
	105502	JC21911-6MSD	✓	W	5		1					✓	OK	5ml STD(2)/ml sample	✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5322

Print Analyst Name: Yulia

Analyst Signature:

Date: 6/15/16

Columns: ZB624 (30m x 0.53mm x 3µm) / RTX-1 (30m x 0.32mm x 3µ)

Method 8015CALL

Initial Cal. Method MGH5288

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	Pg 253	

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: 6/16/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	GH105503	JC21911-7	48592 UMA	GW	5		1					✓	ok		✓
	105504	JC21911-8	✓	GW	5		1					✓	ok		✓
	105505	JC21709-6	48585 UMA	GW	6		1					✓	ok		✓
	105506	JC21709-8	✓	GW	10		1					✓	ok		✓
	105507	JC21753-1 (x) 6hs	48603 meth	WW	6	6/15	50ml/mL/ 10ml/mL	X2000				✓	ok	Turbidity+resin	6 N/1
	105508	CC5288-10,000					1					✓	ok	100ul 520/mL H2O	
	105509	MB3					1					✓	ok		
	105510	JC21754-1	48603 meth	WW	6		50ml/mL/ 10ml/mL	X2000				✓	ok	Turbidity+resin	6 N/1
	105511	JC21751-1	48605 meth	WW	6		50ml/mL/ 10ml/mL	X2000				✓	ok	Turbidity+resin	9 N/1
	105512	JC22032-1	48600 UMA	SW	6		1					✓	ok		✓
	105513	JC22032-2	✓	SW	9		1					✓	ok		✓
	105514	JC22032-3	✓	SW	5		1					✓	ok		✓
	105515	CC5288-5000					1					✓	ok	50ul 520/mL H2O	
														6/15	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-10
Rev. Date: 1/19/16

GC 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: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94652-MB11	6G36246.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0010	0.00060	ug/l	
319-84-6	alpha-BHC	ND	0.0010	0.00060	ug/l	
319-85-7	beta-BHC	ND	0.0010	0.00057	ug/l	
319-86-8	delta-BHC	ND	0.0010	0.00046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0010	0.00028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0010	0.00046	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0010	0.00046	ug/l	
60-57-1	Dieldrin	ND	0.0010	0.00036	ug/l	
72-54-8	4,4'-DDD	ND	0.0010	0.00038	ug/l	
72-55-9	4,4'-DDE	ND	0.0010	0.00062	ug/l	
50-29-3	4,4'-DDT	ND	0.0010	0.00050	ug/l	
72-20-8	Endrin	ND	0.0010	0.00050	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0010	0.00053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0010	0.00051	ug/l	
53494-70-5	Endrin ketone	ND	0.0010	0.00051	ug/l	
959-98-8	Endosulfan-I	ND	0.0010	0.00050	ug/l	
33213-65-9	Endosulfan-II	ND	0.0010	0.00043	ug/l	
76-44-8	Heptachlor	ND	0.0010	0.00038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0010	0.00065	ug/l	
72-43-5	Methoxychlor	ND	0.0020	0.00057	ug/l	
8001-35-2	Toxaphene	ND	0.025	0.018	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	75%	26-132%
877-09-8	Tetrachloro-m-xylene	79%	26-132%
2051-24-3	Decachlorobiphenyl	59%	10-118%
2051-24-3	Decachlorobiphenyl	63%	10-118%

Method Blank Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94652-MB1	6G36247.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0060	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0060	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0057	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0046	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0046	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0036	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0062	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0050	ug/l	
72-20-8	Endrin	ND	0.010	0.0050	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0051	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0051	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0050	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0043	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0065	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0057	ug/l	
8001-35-2	Toxaphene	ND	0.25	0.18	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	90%	26-132%
877-09-8	Tetrachloro-m-xylene	91%	26-132%
2051-24-3	Decachlorobiphenyl	79%	10-118%
2051-24-3	Decachlorobiphenyl	83%	10-118%

Blank Spike Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94652-BS1	6G36248.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.25	0.22	88	38-138
319-84-6	alpha-BHC	0.25	0.24	96	51-144
319-85-7	beta-BHC	0.25	0.24	96	55-137
319-86-8	delta-BHC	0.25	0.23	92	33-148
58-89-9	gamma-BHC (Lindane)	0.25	0.24	96	53-142
5103-71-9	alpha-Chlordane	0.25	0.22	88	52-137
5103-74-2	gamma-Chlordane	0.25	0.26	104 [a]	52-140
60-57-1	Dieldrin	0.25	0.24	96	54-144
72-54-8	4,4'-DDD	0.25	0.23	92	46-151
72-55-9	4,4'-DDE	0.25	0.25	100	51-142
50-29-3	4,4'-DDT	0.25	0.25	100	53-158
72-20-8	Endrin	0.25	0.26	104	53-149
1031-07-8	Endosulfan sulfate	0.25	0.26	104	49-148
7421-93-4	Endrin aldehyde	0.25	0.25	100	45-137
53494-70-5	Endrin ketone	0.25	0.27	108	48-142
959-98-8	Endosulfan-I	0.25	0.22	88	54-139
33213-65-9	Endosulfan-II	0.25	0.24	96	54-142
76-44-8	Heptachlor	0.25	0.23	92	45-137
1024-57-3	Heptachlor epoxide	0.25	0.23	92	54-140
72-43-5	Methoxychlor	0.25	0.26	104	51-157

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	89%	26-132%
877-09-8	Tetrachloro-m-xylene	88%	26-132%
2051-24-3	Decachlorobiphenyl	77%	10-118%
2051-24-3	Decachlorobiphenyl	80%	10-118%

(a) Reported from 2nd signal. %D of check calibration on 1st signal exceed method criteria (20%) so using for confirmation only.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP94652-MS	6G36253.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
OP94652-MSD	6G36254.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039
JC21709-7	6G36252.D	1	06/16/16	DS	06/10/16	OP94652	G6G1039

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC21709-4, JC21709-5, JC21709-6, JC21709-7, JC21709-8, JC21709-9, JC21709-10, JC21709-12

CAS No.	Compound	JC21709-7 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		0.505	0.59	117	0.505	0.57	113	3	37-159/40
319-84-6	alpha-BHC	ND		0.505	0.46	91	0.505	0.55	109	18	37-164/37
319-85-7	beta-BHC	ND		0.505	0.43	85	0.505	0.49	97	13	46-151/36
319-86-8	delta-BHC	ND		0.505	0.49	97	0.505	0.59	117	19	32-168/36
58-89-9	gamma-BHC (Lindane)	ND		0.505	0.50	99	0.505	0.58	115	15	44-160/37
5103-71-9	alpha-Chlordane	ND		0.505	0.43	85	0.505	0.50	99	15	38-160/35
5103-74-2	gamma-Chlordane	ND		0.505	0.43	85	0.505	0.50	99	15	39-157/37
60-57-1	Dieldrin	ND		0.505	0.41	81	0.505	0.53	105	26	42-161/36
72-54-8	4,4'-DDD	ND		0.505	0.50	99	0.505	0.57	113	13	40-161/36
72-55-9	4,4'-DDE	ND		0.505	0.52	103	0.505	0.61	121	16	34-158/36
50-29-3	4,4'-DDT	ND		0.505	0.61	121	0.505	0.73	145	18	41-173/33
72-20-8	Endrin	ND		0.505	0.49	97	0.505	0.60	119	20	44-166/35
1031-07-8	Endosulfan sulfate	ND		0.505	0.49	97	0.505	0.56	111	13	46-161/36
7421-93-4	Endrin aldehyde	ND		0.505	0.47	93	0.505	0.50	99	6	34-149/36
53494-70-5	Endrin ketone	ND		0.505	0.55	109	0.505	0.65	129	17	44-157/36
959-98-8	Endosulfan-I	ND		0.505	0.40	79	0.505	0.47	93	16	43-154/35
33213-65-9	Endosulfan-II	ND		0.505	1.1	218* [a]	0.505	1.3	257* [a]	17	40-162/35
76-44-8	Heptachlor	ND		0.505	0.42	83	0.505	0.49	97	15	33-153/37
1024-57-3	Heptachlor epoxide	ND		0.505	0.48	95	0.505	0.56	111	15	45-154/37
72-43-5	Methoxychlor	ND		0.505	0.63	125	0.505	0.72	143	13	48-169/32
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC21709-7	Limits
877-09-8	Tetrachloro-m-xylene	86%	97%	87%	26-132%
877-09-8	Tetrachloro-m-xylene	503%* [a]	544%* [a]	828%* [a]	26-132%
2051-24-3	Decachlorobiphenyl	86%	96%	68%	10-118%
2051-24-3	Decachlorobiphenyl	85%	97%	68%	10-118%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G6G1039-CC1034	**Injection Date:**	06/16/16
Lab File ID:	6G36243.D	**Injection Time:**	09:08
Instrument ID:	GC6G	**Method:**	SW846 8081B

	IS 1 AREA	RT	IS 2 AREA	RT
Check Std	57985740	1.34	134365984	1.00
Upper Limit [a]	115971480	1.84	268731968	1.50
Lower Limit [b]	28992870	0.84	67182992	0.50

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
ZZZZZZ	54570000	1.34	124299834	1.01
OP94652-MB11	60809094	1.35	144354813	1.01
OP94652-MB1	67708578	1.34	160169668	1.00
OP94652-BS1	61787100	1.35	145527688	1.01
JC21709-4	60779660	1.35	146378736	1.01
JC21709-5	69972155	1.34	161513155	1.00
JC21709-6	62824153	1.34	123258095	1.00
JC21709-7	63157079	1.34	149466065	1.00
OP94652-MS	62256972	1.35	149859037	1.01
OP94652-MSD	62777868	1.34	149376623	1.00
JC21709-8	63217758	1.35	147607688	1.01
JC21709-9	65788180	1.34	153706445	1.00
JC21709-10	63388641	1.35	151827860	1.01
JC21709-12	64774741	1.34	150547596	1.00
ZZZZZZ	62105440	1.34	149710905	1.00
ZZZZZZ	52915258	1.34	130428656	1.01

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: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: G6G1034-DDT
Lab File ID: 6G36058.D
Instrument ID: GC6G
Injection Date: 06/10/16
Injection Time: 16:21

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	2612432	1434360
4,4'-DDE	1219518	542492
4,4'-DDT	216094680	102690829
DDT Breakdown [a]	1.7 %	1.9 %
Endrin aldehyde	1352257	618541
Endrin ketone	5068920	2227285
Endrin	116946783	52876025
Endrin Breakdown [b]	5.2 %	5.1 %

(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
G6G1034-IC1034	6G36060.D	06/10/16	16:54	00:33	Initial cal 1
G6G1034-IC1034	6G36061.D	06/10/16	17:10	00:49	Initial cal 2
G6G1034-IC1034	6G36062.D	06/10/16	17:27	01:06	Initial cal 5
G6G1034-IC1034	6G36063.D	06/10/16	17:43	01:22	Initial cal 10
G6G1034-ICC1034	6G36064.D	06/10/16	17:59	01:38	Initial cal 25
G6G1034-IC1034	6G36065.D	06/10/16	18:16	01:55	Initial cal 50
G6G1034-IC1034	6G36066.D	06/10/16	18:32	02:11	Initial cal 75
G6G1034-IC1034	6G36067.D	06/10/16	18:49	02:28	Initial cal 100
G6G1034-IC1034	6G36068.D	06/10/16	19:05	02:44	Initial cal 500
G6G1034-IC1034	6G36069.D	06/10/16	19:22	03:01	Initial cal 500
G6G1034-ICV1034	6G36070.D	06/10/16	19:38	03:17	Initial cal verification 25
G6G1034-ICV1034	6G36071.D	06/10/16	19:54	03:33	Initial cal verification 25
G6G1034-ICV1034	6G36072.D	06/10/16	20:11	03:50	Initial cal verification 500
G6G1034-ICV1034	6G36073.D	06/10/16	20:27	04:06	Initial cal verification 500
G6G1035-CC1034	6G36074.D	06/10/16	20:44	04:23	Continuing cal 25
OP94480-MB1	6G36076.D	06/10/16	21:17	04:56	Method Blank
OP94480-BS1	6G36077.D	06/10/16	21:33	05:12	Blank Spike
ZZZZZZ	6G36079.D	06/10/16	22:06	05:45	(unrelated sample)
ZZZZZZ	6G36080.D	06/10/16	22:22	06:01	(unrelated sample)
JC21339-4A	6G36081.D	06/10/16	22:39	06:18	(used for QC only; not part of job JC21709)
OP94480-MS	6G36082.D	06/10/16	22:55	06:34	Matrix Spike
OP94480-MSD	6G36083.D	06/10/16	23:12	06:51	Matrix Spike Duplicate
ZZZZZZ	6G36084.D	06/10/16	23:28	07:07	(unrelated sample)
ZZZZZZ	6G36085.D	06/10/16	23:44	07:23	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample:	G6G1034-DDT	**Injection Date:**	06/10/16
Lab File ID:	6G36058.D	**Injection Time:**	16:21
Instrument ID:	GC6G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	6G36086.D	06/11/16	00:01	07:40	(unrelated sample)
ZZZZZZ	6G36087.D	06/11/16	00:17	07:56	(unrelated sample)
ZZZZZZ	6G36088.D	06/11/16	00:34	08:13	(unrelated sample)
ZZZZZZ	6G36089.D	06/11/16	00:50	08:29	(unrelated sample)
ZZZZZZ	6G36090.D	06/11/16	01:07	08:46	(unrelated sample)
ZZZZZZ	6G36091.D	06/11/16	01:23	09:02	(unrelated sample)
ZZZZZZ	6G36092.D	06/11/16	01:40	09:19	(unrelated sample)
ZZZZZZ	6G36093.D	06/11/16	01:56	09:35	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample:	G6G1039-DDT	**Injection Date:**	06/16/16
Lab File ID:	6G36242.D	**Injection Time:**	08:52
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	2212931	1110300
4,4'-DDE	666867	317488
4,4'-DDT	231956620	122162342
DDT Breakdown [a]	1.2 %	1.2 %
Endrin aldehyde	1538412	771064
Endrin ketone	5818680	2678404
Endrin	122293510	62368606
Endrin Breakdown [b]	5.7 %	5.2 %

(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
G6G1039-CC1034	6G36243.D	06/16/16	09:08	00:16	Continuing cal 25
ZZZZZZ	6G36245.D	06/16/16	09:41	00:49	(unrelated sample)
OP94652-MB11	6G36246.D	06/16/16	10:14	01:22	Method Blank
OP94652-MB1	6G36247.D	06/16/16	10:30	01:38	Method Blank
OP94652-BS1	6G36248.D	06/16/16	10:46	01:54	Blank Spike
JC21709-4	6G36249.D	06/16/16	11:05	02:13	UP-2
JC21709-5	6G36250.D	06/16/16	11:21	02:29	UP-1
JC21709-6	6G36251.D	06/16/16	11:38	02:46	A-1R4
JC21709-7	6G36252.D	06/16/16	11:54	03:02	A-2R2
OP94652-MS	6G36253.D	06/16/16	12:11	03:19	Matrix Spike
OP94652-MSD	6G36254.D	06/16/16	12:27	03:35	Matrix Spike Duplicate
JC21709-8	6G36255.D	06/16/16	12:43	03:51	S-30
JC21709-9	6G36256.D	06/16/16	13:00	04:08	S-31R2
JC21709-10	6G36257.D	06/16/16	13:16	04:24	EB-060716
JC21709-12	6G36258.D	06/16/16	13:33	04:41	S-29R
ZZZZZZ	6G36259.D	06/16/16	13:49	04:57	(unrelated sample)
ZZZZZZ	6G36260.D	06/16/16	14:29	05:37	(unrelated sample)

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G6G1039-CC1034	**Injection Date:**	06/16/16
Lab File ID:	6G36243.D	**Injection Time:**	09:08
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP94652-BS1	**Injection Date:**	06/16/16
Lab File ID:	6G36248.D	**Injection Time:**	10:46
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.43	3.43	0.22		ug/l	4.4
Aldrin	2	4.51	4.51	0.23		ug/l	
alpha-BHC	1	2.25	2.25	0.24		ug/l	0.0
alpha-BHC	2 [a]	3.00	3.00	0.24		ug/l	
beta-BHC	1	2.65	2.65	0.25		ug/l	4.1
beta-BHC	2 [a]	3.54	3.54	0.24		ug/l	
delta-BHC	1 [a]	2.84	2.84	0.23		ug/l	0.0
delta-BHC	2	3.95	3.95	0.23		ug/l	
gamma-BHC (Lindane)	1	2.57	2.56	0.25		ug/l	4.1
gamma-BHC (Lindane)	2 [a]	3.45	3.45	0.24		ug/l	
alpha-Chlordane	1 [a]	4.52	4.51	0.22		ug/l	4.4
alpha-Chlordane	2	5.93	5.93	0.23		ug/l	
gamma-Chlordane	1	4.34	4.34	0.21		ug/l	21.3
gamma-Chlordane [b]	2 [a]	5.69	5.69	0.26		ug/l	
Dieldrin	1 [a]	5.03	5.03	0.24		ug/l	0.0
Dieldrin	2	6.49	6.49	0.24		ug/l	
4,4'-DDD	1	5.52	5.52	0.25		ug/l	8.3
4,4'-DDD	2 [a]	7.26	7.26	0.23		ug/l	
4,4'-DDE	1	4.65	4.65	0.25		ug/l	0.0
4,4'-DDE	2 [a]	6.23	6.23	0.25		ug/l	
4,4'-DDT	1	5.97	5.96	0.26		ug/l	3.9
4,4'-DDT	2 [a]	7.83	7.83	0.25		ug/l	
Endrin	1	5.36	5.36	0.26		ug/l	0.0
Endrin	2 [a]	7.03	7.03	0.26		ug/l	
Endosulfan sulfate	1	7.08	7.08	0.26		ug/l	0.0
Endosulfan sulfate	2 [a]	8.55	8.55	0.26		ug/l	
Endrin aldehyde	1 [a]	6.36	6.36	0.25		ug/l	3.9
Endrin aldehyde	2	8.04	8.04	0.26		ug/l	
Endrin ketone	1 [a]	7.55	7.55	0.27		ug/l	0.0
Endrin ketone	2	9.59	9.59	0.27		ug/l	
Endosulfan-I	1 [a]	4.69	4.69	0.22		ug/l	4.4
Endosulfan-I	2	6.03	6.03	0.23		ug/l	
Endosulfan-II	1 [a]	5.70	5.70	0.24		ug/l	0.0
Endosulfan-II	2	7.41	7.41	0.24		ug/l	
Heptachlor	1 [a]	3.09	3.08	0.23		ug/l	4.3
Heptachlor	2	4.05	4.04	0.24		ug/l	
Heptachlor epoxide	1 [a]	4.16	4.16	0.23		ug/l	4.3
Heptachlor epoxide	2	5.39	5.38	0.24		ug/l	
Methoxychlor	1	6.83	6.83	0.27		ug/l	3.8
Methoxychlor	2 [a]	9.21	9.21	0.26		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G6G1039-CC1034	**Injection Date:**	06/16/16
Lab File ID:	6G36243.D	**Injection Time:**	09:08
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP94652-BS1	**Injection Date:**	06/16/16
Lab File ID:	6G36248.D	**Injection Time:**	10:46
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc

(b) Reported from 2nd signal. %D of check calibration on 1st signal exceed method criteria (20%) so using for confirmation only.

10.6.1

10

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G6G1039-CC1034	**Injection Date:**	06/16/16
Lab File ID:	6G36243.D	**Injection Time:**	09:08
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP94652-MS	**Injection Date:**	06/16/16
Lab File ID:	6G36253.D	**Injection Time:**	12:11
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.43	3.43	0.59		ug/l	22.6
Aldrin	2	4.51	4.51	0.47		ug/l	
alpha-BHC	1 [a]	2.25	2.25	0.46		ug/l	2.2
alpha-BHC	2	3.00	3.00	0.47		ug/l	
beta-BHC	1 [a]	2.65	2.65	0.43		ug/l	0.0
beta-BHC	2	3.55	3.54	0.43		ug/l	
delta-BHC	1 [a]	2.84	2.84	0.49		ug/l	2.1
delta-BHC	2	3.95	3.95	0.48		ug/l	
gamma-BHC (Lindane)	1 [a]	2.57	2.56	0.50		ug/l	13.1
gamma-BHC (Lindane)	2	3.45	3.45	0.57		ug/l	
alpha-Chlordane	1 [a]	4.52	4.51	0.43		ug/l	11.0
alpha-Chlordane	2	5.93	5.93	0.48		ug/l	
gamma-Chlordane	1 [a]	4.34	4.34	0.43		ug/l	29.3
gamma-Chlordane	2	5.69	5.69	0.32		ug/l	
Dieldrin	1 [a]	5.03	5.03	0.41		ug/l	21.7
Dieldrin	2	6.49	6.49	0.51		ug/l	
4,4'-DDD	1 [a]	5.52	5.52	0.50		ug/l	14.8
4,4'-DDD	2	7.26	7.26	0.58		ug/l	
4,4'-DDE	1 [a]	4.65	4.65	0.52		ug/l	3.9
4,4'-DDE	2	6.23	6.23	0.50		ug/l	
4,4'-DDT	1 [a]	5.96	5.96	0.61		ug/l	14.0
4,4'-DDT	2	7.83	7.83	0.53		ug/l	
Endrin	1 [a]	5.36	5.36	0.49		ug/l	56.9
Endrin	2	7.02	7.03	0.88		ug/l	
Endosulfan sulfate	1 [a]	7.08	7.08	0.49		ug/l	7.8
Endosulfan sulfate	2	8.55	8.55	0.53		ug/l	
Endrin aldehyde	1 [a]	6.36	6.36	0.47		ug/l	10.1
Endrin aldehyde	2	8.04	8.04	0.52		ug/l	
Endrin ketone	1 [a]	7.55	7.55	0.55		ug/l	3.6
Endrin ketone	2	9.59	9.59	0.57		ug/l	
Endosulfan-I	1 [a]	4.69	4.69	0.40		ug/l	26.1
Endosulfan-I	2	6.03	6.03	0.52		ug/l	
Endosulfan-II	1 [a]	5.69	5.70	1.1		ug/l	76.7
Endosulfan-II	2	7.41	7.41	0.49		ug/l	
Heptachlor	1 [a]	3.09	3.08	0.42		ug/l	15.4
Heptachlor	2	4.05	4.04	0.49		ug/l	
Heptachlor epoxide	1 [a]	4.16	4.16	0.48		ug/l	2.1
Heptachlor epoxide	2	5.39	5.38	0.49		ug/l	
Methoxychlor	1 [a]	6.82	6.83	0.63		ug/l	11.8
Methoxychlor	2	9.21	9.21	0.56		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G6G1039-CC1034	**Injection Date:**	06/16/16
Lab File ID:	6G36243.D	**Injection Time:**	09:08
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP94652-MSD	**Injection Date:**	06/16/16
Lab File ID:	6G36254.D	**Injection Time:**	12:27
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.43	3.43	0.57		ug/l	5.4
Aldrin	2	4.51	4.51	0.54		ug/l	
alpha-BHC	1 [a]	2.25	2.25	0.55		ug/l	0.0
alpha-BHC	2	3.00	3.00	0.55		ug/l	
beta-BHC	1 [a]	2.65	2.65	0.49		ug/l	13.0
beta-BHC	2	3.54	3.54	0.43		ug/l	
delta-BHC	1 [a]	2.84	2.84	0.59		ug/l	5.2
delta-BHC	2	3.95	3.95	0.56		ug/l	
gamma-BHC (Lindane)	1 [a]	2.56	2.56	0.58		ug/l	3.4
gamma-BHC (Lindane)	2	3.45	3.45	0.60		ug/l	
alpha-Chlordane	1 [a]	4.51	4.51	0.50		ug/l	9.5
alpha-Chlordane	2	5.93	5.93	0.55		ug/l	
gamma-Chlordane	1 [a]	4.34	4.34	0.50		ug/l	27.3
gamma-Chlordane	2	5.69	5.69	0.38		ug/l	
Dieldrin	1 [a]	5.03	5.03	0.53		ug/l	9.0
Dieldrin	2	6.49	6.49	0.58		ug/l	
4,4'-DDD	1 [a]	5.52	5.52	0.57		ug/l	1.7
4,4'-DDD	2	7.25	7.26	0.58		ug/l	
4,4'-DDE	1 [a]	4.65	4.65	0.61		ug/l	5.0
4,4'-DDE	2	6.23	6.23	0.58		ug/l	
4,4'-DDT	1 [a]	5.96	5.96	0.73		ug/l	17.9
4,4'-DDT	2	7.83	7.83	0.61		ug/l	
Endrin	1 [a]	5.36	5.36	0.60		ug/l	58.8
Endrin	2	7.02	7.03	1.1		ug/l	
Endosulfan sulfate	1 [a]	7.08	7.08	0.56		ug/l	6.9
Endosulfan sulfate	2	8.55	8.55	0.60		ug/l	
Endrin aldehyde	1 [a]	6.36	6.36	0.50		ug/l	13.1
Endrin aldehyde	2	8.04	8.04	0.57		ug/l	
Endrin ketone	1 [a]	7.55	7.55	0.65		ug/l	1.6
Endrin ketone	2	9.59	9.59	0.64		ug/l	
Endosulfan-I	1 [a]	4.69	4.69	0.47		ug/l	30.6
Endosulfan-I	2	6.03	6.03	0.64		ug/l	
Endosulfan-II	1 [a]	5.69	5.70	1.3		ug/l	76.6
Endosulfan-II	2	7.41	7.41	0.58		ug/l	
Heptachlor	1 [a]	3.09	3.08	0.49		ug/l	18.5
Heptachlor	2	4.04	4.04	0.59		ug/l	
Heptachlor epoxide	1 [a]	4.16	4.16	0.56		ug/l	0.0
Heptachlor epoxide	2	5.38	5.38	0.56		ug/l	
Methoxychlor	1 [a]	6.82	6.83	0.72		ug/l	10.2
Methoxychlor	2	9.21	9.21	0.65		ug/l	

(a) QC results reported from this column.

Semivolatile Surrogate Recovery Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

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]
JC21709-4	6G36249.D	94	94	94	101
JC21709-5	6G36250.D	96	93	69	69
JC21709-6	6G36251.D	84	71	29	27
JC21709-7	6G36252.D	87	828* [c]	68	68
JC21709-8	6G36255.D	108	103	70	70
JC21709-9	6G36256.D	86	75	64	67
JC21709-10	6G36257.D	96	97	55	57
JC21709-12	6G36258.D	86	72	70	71
OP94652-BS1	6G36248.D	89	88	77	80
OP94652-MB1	6G36247.D	90	91	79	83
OP94652-MB11	6G36246.D	75	79	59	63
OP94652-MS	6G36253.D	86	503* [c]	86	85
OP94652-MSD	6G36254.D	97	544* [c]	96	97

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	26-132%
S2 = Decachlorobiphenyl	10-118%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2
(c) Outside control limits due to matrix interference.

GC Surrogate Retention Time Summary

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G6G1039-CC1034	**Injection Date:**	06/16/16
Lab File ID:	6G36243.D	**Injection Time:**	09:08
Instrument ID:	GC6G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	1.72	2.29	9.58	11.60

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
ZZZZZZ	6G36245.D	06/16/16	09:41	1.73	2.29	9.58	11.60
OP94652-MB11	6G36246.D	06/16/16	10:14	1.73	2.29	9.59	11.61
OP94652-MB1	6G36247.D	06/16/16	10:30	1.72	2.29	9.58	11.60
OP94652-BS1	6G36248.D	06/16/16	10:46	1.73	2.29	9.58	11.60
JC21709-4	6G36249.D	06/16/16	11:05	1.73	2.29	9.58	11.60
JC21709-5	6G36250.D	06/16/16	11:21	1.72	2.29	9.58	11.60
JC21709-6	6G36251.D	06/16/16	11:38	1.72	2.29	9.58	11.60
JC21709-7	6G36252.D	06/16/16	11:54	1.72	2.30	9.58	11.60
OP94652-MS	6G36253.D	06/16/16	12:11	1.73	2.30	9.58	11.60
OP94652-MSD	6G36254.D	06/16/16	12:27	1.72	2.30	9.58	11.60
JC21709-8	6G36255.D	06/16/16	12:43	1.73	2.29	9.58	11.60
JC21709-9	6G36256.D	06/16/16	13:00	1.72	2.28	9.58	11.60
JC21709-10	6G36257.D	06/16/16	13:16	1.73	2.29	9.58	11.60
JC21709-12	6G36258.D	06/16/16	13:33	1.72	2.29	9.58	11.60
ZZZZZZ	6G36259.D	06/16/16	13:49	1.72	2.29	9.58	11.60
ZZZZZZ	6G36260.D	06/16/16	14:29	1.73	2.29	9.59	11.61

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: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G6G1034-ICC1034
Lab FileID: 6G36064.D

Response Factor Report HP G1530A

Method : C:\MSDCHEM\1\METHODS\6PST1034.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration

Calibration Files
2 =6g36061.D 5 =6g36062.D 10 =6g36063.D 25 =6g36064.D
50 =6g36065.D 100 =6g36067.D 1 =6g36060.D 75 =6g36066.D

Compound	2	5	10	25	50	100	1	75	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.946	0.923	0.914	0.897	0.939	0.978	1.051	0.938	0.948	5.03
3) alpha-BHC	1.109	1.111	1.130	1.205	1.335	1.470	1.256	1.367	1.248	10.71
4) gamma-BHC	1.033	1.065	1.074	1.130	1.226	1.329	1.180	1.249	1.161	8.91
5) Heptachlor	1.117	1.091	1.072	1.095	1.163	1.245	1.239	1.176	1.150	5.84
6) beta-BHC	0.583	0.574	0.563	0.543	0.552	0.565	0.700	0.545	0.578	8.83
7) delta-BHC	1.137	1.034	1.006	1.078	1.201	1.313	1.218	1.216	1.150	9.14
8) Aldrin	1.022	1.006	1.004	1.044	1.126	1.213	1.125	1.140	1.085	7.04
9) Heptachlor E	1.012	1.001	0.981	0.992	1.040	1.097	1.208	1.042	1.047	7.15
10) gamma-Chlord	1.053	1.093	1.008	1.004	1.054	1.126	1.370	1.063	1.096	10.74
11) alpha-Chlord	1.044	1.010	0.995	0.993	1.041	1.102	1.236	1.045	1.058	7.57
12) Endosulfan I	1.117	1.099	1.065	1.061	1.109	1.154	1.323	1.088	1.127	7.52
13) 4,4'-DDE	0.677	0.681	0.683	0.740	0.816	0.927	0.846	0.865	0.779	12.43
14) Dieldrin	0.947	0.945	0.936	0.968	1.038	1.119	1.107	1.057	1.015	7.41
15) Endrin	0.902	0.893	0.877	0.888	0.946	1.009	0.950	0.955	0.928	4.86
16) 4,4'-DDD	0.656	0.660	0.696	0.708	0.752	0.804	0.864	0.764	0.738	9.79
17) Endosulfan I	0.909	0.891	0.905	0.907	0.941	0.993	1.092	0.954	0.949	7.04
18) 4,4'-DDT	0.647	0.648	0.653	0.679	0.739	0.834	0.755	0.775	0.716	9.74
19) Endrin Aldeh	0.739	0.742	0.713	0.727	0.743	0.768	0.803	0.739	0.747	3.68
20) Endosulfan S	0.774	0.767	0.753	0.763	0.795	0.838	0.952	0.803	0.806	8.10
21) Methoxychlor	0.403	0.413	0.402	0.394	0.413	0.429	0.518	0.415	0.423	9.35
22) Mirex	0.921	0.906	0.866	0.827	0.806	0.810	1.111	0.792	0.880	11.89
23) Endrin Keton	0.886	0.891	0.873	0.895	0.929	0.980	0.902	0.943	0.912	3.91
24) Decachlorobi	0.994	0.982	0.912	0.874	0.854	0.853	1.136	0.841	0.931	10.95
25) I 1-bromo-2-nitrobenzen	ISTD									
26) Toxaphene{A}					0.015				0.015	0.00
27) Toxaphene{B}					0.040				0.040	0.00
28) Toxaphene{C}					0.045				0.045	0.00
29) Toxaphene{D}					0.041				0.041	0.00
30) Toxaphene{E}					0.029				0.029	0.00
31) I 1-bromo-2-nitrobenzen	ISTD									
32) Chlordane {A					0.035				0.035	0.00
33) Chlordane {B					0.050				0.050	0.00
34) Chlordane {C					0.155				0.155	0.00
35) Chlordane {D					0.227				0.227	0.00
36) Chlordane {E					0.037				0.037	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.947	1.002	0.948	0.969	1.003	1.051	1.177	1.000	1.012	7.41
3) alpha-BHC	1.060	1.025	1.040	1.162	1.335	1.521	1.241	1.394	1.222	14.95
4) gamma-BHC	0.959	0.978	1.012	1.110	1.250	1.398	1.159	1.293	1.145	13.94

Initial Calibration Summary

Job Number: JC21709 **Sample:** G6G1034-ICC1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36064.D
Project: BMSMC, Building 5 Area, PR

5)	Heptachlor	1.111	1.101	1.102	1.167	1.273	1.403	1.156	1.301	1.202	9.27
6)	beta-BHC	0.562	0.559	0.556	0.573	0.598	0.626	0.741	0.595	0.601	10.20
7)	delta-BHC	0.961	0.979	0.935	1.049	1.189	1.340	1.106	1.235	1.099	13.22
8)	Aldrin	1.005	0.999	1.042	1.103	1.210	1.347	1.255	1.244	1.150	11.38
9)	Heptachlor E	1.111	1.020	1.022	1.082	1.152	1.251	1.358	1.171	1.146	10.08
10)	gamma-Chlord	1.170	1.035	1.041	1.096	1.179	1.286	1.267	1.199	1.159	8.19
11)	alpha-Chlord	1.129	1.049	1.057	1.111	1.186	1.281	1.372	1.198	1.173	9.49
12)	Endosulfan I	1.029	1.001	0.978	1.033	1.091	1.176	1.261	1.105	1.084	8.84
13)	4,4'-DDE	1.004	0.906	0.905	0.969	1.051	1.164	0.864	1.085	0.994	10.31
14)	Dieldrin	1.017	0.948	0.969	1.034	1.126	1.248	1.046	1.161	1.069	9.54
15)	Endrin	0.946	0.933	0.881	0.968	1.025	1.120	0.903	1.047	0.978	8.22
16)	4,4'-DDD	0.780	0.747	0.719	0.766	0.808	0.914	1.024	0.854	0.826	12.22
17)	Endosulfan I	0.919	0.921	0.947	0.971	1.011	1.100	1.032	1.047	0.994	6.55
18)	4,4'-DDT	0.649	0.670	0.660	0.726	0.812	0.946	0.766	0.871	0.763	14.11
19)	Endrin Aldeh	0.786	0.773	0.775	0.831	0.854	0.890	0.844	0.853	0.826	5.20
20)	Endosulfan S	0.887	0.865	0.829	0.869	0.907	0.963	0.939	0.921	0.898	4.87
21)	Methoxychlor	0.444	0.429	0.442	0.470	0.483	0.516	0.579	0.494	0.482	10.13
22)	Mirex	1.072	1.014	0.997	1.023	0.982	1.012	1.214	0.992	1.038	7.33
23)	Endrin Keton	0.886	0.909	0.902	0.987	1.039	1.116	0.973	1.066	0.985	8.51
24)	Decachlorobi	1.265	1.231	1.186	1.159	1.143	1.139	1.479	1.131	1.217	9.54

25) I 1-bromo-2-nitrobenzen ----------ISTD----------

26)	Toxaphene{A}	0.023	0.023	0.00
27)	Toxaphene{B}	0.030	0.030	0.00
28)	Toxaphene{C}	0.049	0.049	0.00
29)	Toxaphene{D}	0.030	0.030	0.00
30)	Toxaphene{E}	0.026	0.026	0.00

31) I 1-bromo-2-nitrobenzen ----------ISTD----------

32)	Chlordane {A	0.036	0.036	0.00
33)	Chlordane {B	0.049	0.049	0.00
34)	Chlordane {C	0.160	0.160	0.00
35)	Chlordane {D	0.264	0.264	0.00
36)	Chlordane {E	0.037	0.037	0.00

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

6PST1034.M Mon Jun 13 14:06:25 2016

Initial Calibration Verification

Job Number: JC21709 **Sample:** G6G1034-ICV1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36070.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\1034\6g36070.D\ECD1A.CH    Vial: 13
Signal #2 : C:\msdchem\1\DATA\1034\6g36070.D\ECD2B.CH
Acq On    : 10 Jun 2016   7:38 pm                    Operator: dharas
Sample    : icv1034-25                               Inst    : HP G1530A
Misc      : op94394,g6g1034,300,,,2,1                Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\6PST1034.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon Jun 13 12:02:56 2016
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	101	0.00	0.97- 1.03
2	SAB	Tetrachloro-m-xylene	0.948	0.854	9.9	96	0.00	1.69- 1.75
3	A	alpha-BHC	1.248	1.102	11.7	92	0.00	2.22- 2.28
4	MA	gamma-BHC	1.161	1.029	11.4	92	0.00	2.53- 2.59
5	MA	Heptachlor	1.150	1.012	12.0	93	0.00	3.06- 3.12
6	B	beta-BHC	0.578	0.507	12.3	94	0.00	2.62- 2.68
7	B	delta-BHC	1.150	1.050	8.7	98	0.00	2.81- 2.87
8	MB	Aldrin	1.085	0.945	12.9	91	0.00	3.40- 3.47
9	B	Heptachlor Epoxide	1.047	0.893	14.7	91	0.00	4.14- 4.20
10	B	gamma-Chlordane	1.096	0.944	13.9	95	0.00	4.31- 4.37
11	B	alpha-Chlordane	1.058	0.913	13.7	93	0.00	4.49- 4.55
12	A	Endosulfan I	1.127	0.961	14.7	91	0.00	4.66- 4.72
13	B	4,4'-DDE	0.779	0.652	16.3	89	0.00	4.63- 4.69
14	MA	Dieldrin	1.015	0.892	12.1	93	0.00	5.00- 5.06
15	MA	Endrin	0.928	0.835	10.0	95	0.00	5.33- 5.39
16	A	4,4'-DDD	0.738	0.636	13.8	91	0.00	5.50- 5.56
17	B	Endosulfan II	0.949	0.839	11.6	93	0.00	5.67- 5.73
18	MA	4,4'-DDT	0.716	0.642	10.3	95	0.00	5.94- 6.00
19	B	Endrin Aldehyde	0.747	0.648	13.3	90	0.00	6.33- 6.39
20	B	Endosulfan Sulfate	0.806	0.721	10.5	95	0.00	7.06- 7.12
21	A	Methoxychlor	0.423	0.395	6.6	101	0.00	6.81- 6.87
23	B	Endrin Ketone	0.912	0.806	11.6	91	0.00	7.53- 7.59
24	SAB	Decachlorobiphenyl	0.931	0.844	9.3	97	0.00	9.56- 9.62

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.31- 1.37
2	SAB	Tetrachloro-m-xylene	1.012	0.909	10.2	95	0.00	2.26- 2.32
3	A	alpha-BHC	1.222	1.027	16.0	90	0.00	2.97- 3.03
4	MA	gamma-BHC	1.145	0.996	13.0	91	0.00	3.42- 3.48
5	MA	Heptachlor	1.202	1.058	12.0	92	0.00	4.02- 4.08
6	B	beta-BHC	0.601	0.510	15.1	90	0.00	3.52- 3.58
7	B	delta-BHC	1.099	0.974	11.4	94	0.00	3.93- 3.99
8	MB	Aldrin	1.150	0.975	15.2	90	0.00	4.49- 4.55
9	B	Heptachlor Epoxide	1.146	0.983	14.2	92	0.00	5.36- 5.42
10	B	gamma-Chlordane	1.159	1.010	12.9	94	0.00	5.67- 5.73
11	B	alpha-Chlordane	1.173	1.008	14.1	92	0.00	5.91- 5.97
12	A	Endosulfan I	1.084	0.907	16.3	89	0.00	6.00- 6.06

Initial Calibration Verification

Job Number: JC21709 **Sample:** G6G1034-ICV1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36070.D
Project: BMSMC, Building 5 Area, PR

13	B	4,4'-DDE	0.994	0.882	11.3	92	0.00	6.21- 6.27
14	MA	Dieldrin	1.069	0.937	12.3	92	0.00	6.47- 6.53
15	MA	Endrin	0.978	0.893	8.7	94	0.00	7.01- 7.07
16	A	4,4'-DDD	0.826	0.686	16.9	91	0.00	7.24- 7.30
17	B	Endosulfan II	0.994	0.873	12.2	91	0.00	7.39- 7.45
18	MA	4,4'-DDT	0.763	0.693	9.2	97	0.00	7.81- 7.87
19	B	Endrin Aldehyde	0.826	0.728	11.9	89	0.00	8.02- 8.08
20	B	Endosulfan Sulfate	0.898	0.785	12.6	92	0.00	8.53- 8.59
21	A	Methoxychlor	0.482	0.434	10.0	94	0.00	9.19- 9.25
23	B	Endrin Ketone	0.985	0.867	12.0	89	0.00	9.57- 9.63
24	SAB	Decachlorobiphenyl	1.217	1.116	8.3	98	0.00	11.57-11.63

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g36064.D 6PST1034.M Mon Jun 13 13:44:04 2016

10.9.2 10

Initial Calibration Verification

Job Number: JC21709
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G6G1034-ICV1034
Lab FileID: 6G36071.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\1034\6g36071.D\ECD1A.CH    Vial: 14
Signal #2 : C:\msdchem\1\DATA\1034\6g36071.D\ECD2B.CH
Acq On    : 10 Jun 2016   7:54 pm                    Operator: dharas
Sample    : icv1034-25                               Inst    : HP G1530A
Misc      : op94394,g6g1034,300,,,2,1                Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\6PST1034.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon Jun 13 12:02:56 2016
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	98	0.00	0.98- 1.04
22	Mirex	0.880	0.986	-12.0	117	0.00	6.91- 6.97

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.32- 1.38
22	Mirex	1.038	1.221	-17.6	121	0.00	9.48- 9.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g36064.D 6PST1034.M Mon Jun 13 13:44:06 2016

10.9.3 10

Initial Calibration Verification

Job Number: JC21709 **Sample:** G6G1034-ICV1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36072.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\1034\6g36072.D\ECD1A.CH    Vial: 15
Signal #2 : C:\msdchem\1\DATA\1034\6g36072.D\ECD2B.CH
Acq On    : 10 Jun 2016   8:11 pm                    Operator: dharas
Sample    : icv1034-500                              Inst    : HP G1530A
Misc      : op94394,g6g1034,300,,,2,1                Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\6PST1034.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon Jun 13 12:02:56 2016
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	97	0.00	0.98- 1.04
2	SAB	Tetrachloro-m-xylene	0.948	0.866	8.6	89	0.00	1.70- 1.76
24	SAB	Decachlorobiphenyl	0.931	0.846	9.1	96	0.00	9.56- 9.62
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	0.98- 1.04
32		Chlordane {A}	0.035	0.037	-5.7	110	0.00	2.89- 3.09
33		Chlordane {B}	0.050	0.046	8.0	96	0.00	3.48- 3.68
34		Chlordane {C}	0.155	0.136	12.3	91	0.00	4.24- 4.44
35		Chlordane {D}	0.227	0.204	10.1	93	0.00	4.41- 4.61
36		Chlordane {E}	0.037	0.034	8.1	95	0.00	5.51- 5.71

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.32- 1.38
2	SAB	Tetrachloro-m-xylene	1.012	0.888	12.3	90	0.00	2.26- 2.32
24	SAB	Decachlorobiphenyl	1.217	1.085	10.8	96	0.00	11.57-11.63
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.00	1.25- 1.45
32		Chlordane {A}	0.036	0.038	-5.6	112	0.00	3.74- 3.94
33		Chlordane {B}	0.049	0.045	8.2	99	0.00	4.63- 4.83
34		Chlordane {C}	0.160	0.138	13.7	92	0.00	5.60- 5.80
35		Chlordane {D}	0.264	0.230	12.9	93	0.00	5.84- 6.04
36		Chlordane {E}	0.037	0.034	8.1	99	0.00	7.40- 7.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g36065.D 6PST1034.M Mon Jun 13 13:44:25 2016

Initial Calibration Verification

Job Number: JC21709 **Sample:** G6G1034-ICV1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36073.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\1034\6g36073.D\ECD1A.CH    Vial: 16
Signal #2 : C:\msdchem\1\DATA\1034\6g36073.D\ECD2B.CH
Acq On    : 10 Jun 2016   8:27 pm                    Operator: dharas
Sample    : icv1034-500                              Inst    : HP G1530A
Misc      : op94394,g6g1034,300,,,2,1                Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\6PST1034.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon Jun 13 12:02:56 2016
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	101	0.00	0.98- 1.04
2 SAB	Tetrachloro-m-xylene	0.948	0.840	11.4	90	0.00	1.70- 1.76
24 SAB	Decachlorobiphenyl	0.931	0.821	11.8	97	0.00	9.56- 9.62
25 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	0.98- 1.04
26 L8	Toxaphene{A}	0.015	0.016	-6.7	117	0.00	4.94- 5.14
27 L8	Toxaphene{B}	0.040	0.043	-7.5	116	0.00	5.32- 5.52
28 L8	Toxaphene{C}	0.045	0.046	-2.2	109	0.00	5.59- 5.79
29 L8	Toxaphene{D}	0.041	0.040	2.4	107	0.00	6.15- 6.35
30 L8	Toxaphene{E}	0.029	0.028	3.4	104	0.00	6.83- 7.03

***** Signal #2 *****

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.32- 1.38
2 SAB	Tetrachloro-m-xylene	1.012	0.904	10.7	91	0.00	2.26- 2.32
24 SAB	Decachlorobiphenyl	1.217	1.101	9.5	97	0.00	11.57-11.63
25 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	1.32- 1.38
26 L8	Toxaphene{A}	0.023	0.023	0.0	104	0.00	6.37- 6.57
27 L8	Toxaphene{B}	0.030	0.029	3.3	104	0.00	7.29- 7.49
28 L8	Toxaphene{C}	0.049	0.046	6.1	102	0.00	7.47- 7.67
29 L8	Toxaphene{D}	0.030	0.030	0.0	105	0.00	7.95- 8.15
30 L8	Toxaphene{E}	0.026	0.024	7.7	100	0.00	8.93- 9.13

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g36065.D 6PST1034.M Mon Jun 13 13:44:27 2016

Continuing Calibration Summary

Job Number: JC21709 **Sample:** G6G1039-CC1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36243.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\1039\6g36243.D\ECD1A.CH    Vial: 2
Signal #2 : C:\msdchem\1\DATA\1039\6g36243.D\ECD2B.CH
Acq On    : 16 Jun 2016   9:08 am                    Operator: dharas
Sample    : cc1034-25                                Inst    : HP G1530A
Misc      : op94774,g6g1039,1000,,,5,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\6PST1034.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon Jun 13 12:02:56 2016
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	99	0.00	0.97- 1.03
2	SAB	Tetrachloro-m-xylene	0.948	0.930	1.9	103	0.00	1.69- 1.75
3	A	alpha-BHC	1.248	1.211	3.0	100	0.00	2.22- 2.28
4	MA	gamma-BHC	1.161	1.103	5.0	97	0.00	2.53- 2.59
5	MA	Heptachlor	1.150	1.026	10.8	93	0.00	3.05- 3.11
6	B	beta-BHC	0.578	0.513	11.2	94	0.00	2.62- 2.68
7	B	delta-BHC	1.150	1.004	12.7	93	0.00	2.81- 2.87
8	MB	Aldrin	1.085	0.966	11.0	92	0.00	3.39- 3.46
9	B	Heptachlor Epoxide	1.047	0.838	20.0	84	0.00	4.13- 4.19
10	B	gamma-Chlordane	1.096	0.844	23.0#	83	0.00	4.31- 4.37
11	B	alpha-Chlordane	1.058	0.875	17.3	88	0.00	4.48- 4.54
12	A	Endosulfan I	1.127	0.921	18.3	86	0.00	4.66- 4.72
13	B	4,4'-DDE	0.779	0.756	3.0	102	0.00	4.62- 4.68
14	MA	Dieldrin	1.015	0.900	11.3	92	0.00	5.00- 5.06
15	MA	Endrin	0.928	0.846	8.8	95	0.00	5.33- 5.39
16	A	4,4'-DDD	0.738	0.697	5.6	98	0.00	5.49- 5.55
17	B	Endosulfan II	0.949	0.852	10.2	93	0.00	5.67- 5.73
18	MA	4,4'-DDT	0.716	0.703	1.8	103	0.00	5.93- 5.99
19	B	Endrin Aldehyde	0.747	0.722	3.3	99	0.00	6.33- 6.39
20	B	Endosulfan Sulfate	0.806	0.804	0.2	105	0.00	7.05- 7.11
21	A	Methoxychlor	0.423	0.439	-3.8	111	0.00	6.80- 6.86
22		Mirex	0.880	0.775	11.9	93	0.00	6.90- 6.96
23	B	Endrin Ketone	0.912	0.956	-4.8	106	0.00	7.52- 7.58
24	SAB	Decachlorobiphenyl	0.931	0.867	6.9	99	0.00	9.55- 9.61

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.31- 1.37
2	SAB	Tetrachloro-m-xylene	1.012	0.963	4.8	104	0.00	2.26- 2.32
3	A	alpha-BHC	1.222	1.176	3.8	106	0.00	2.97- 3.03
4	MA	gamma-BHC	1.145	1.085	5.2	103	0.00	3.42- 3.48
5	MA	Heptachlor	1.202	1.178	2.0	106	0.00	4.01- 4.07
6	B	beta-BHC	0.601	0.555	7.7	102	0.00	3.51- 3.57
7	B	delta-BHC	1.099	1.031	6.2	103	0.00	3.92- 3.98
8	MB	Aldrin	1.150	1.105	3.9	105	0.00	4.48- 4.54
9	B	Heptachlor Epoxide	1.146	1.057	7.8	103	0.00	5.35- 5.41
10	B	gamma-Chlordane	1.159	1.053	9.1	101	0.00	5.66- 5.72
11	B	alpha-Chlordane	1.173	1.071	8.7	101	0.00	5.90- 5.96
12	A	Endosulfan I	1.084	0.998	7.9	101	0.00	6.00- 6.06
13	B	4,4'-DDE	0.994	1.009	-1.5	109	0.00	6.20- 6.26

Continuing Calibration Summary

Job Number: JC21709 **Sample:** G6G1039-CC1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36243.D
Project: BMSMC, Building 5 Area, PR

14	MA	Dieldrin	1.069	1.004	6.1	102	0.00	6.46-	6.52
15	MA	Endrin	0.978	0.957	2.1	104	0.00	7.00-	7.06
16	A	4,4'-DDD	0.826	0.781	5.4	107	0.00	7.23-	7.29
17	B	Endosulfan II	0.994	0.970	2.4	105	0.00	7.38-	7.44
18	MA	4,4'-DDT	0.763	0.798	-4.6	115	0.00	7.80-	7.86
19	B	Endrin Aldehyde	0.826	0.827	-0.1	104	0.00	8.01-	8.07
20	B	Endosulfan Sulfate	0.898	0.906	-0.9	109	0.00	8.52-	8.58
21	A	Methoxychlor	0.482	0.532	-10.4	119	-0.01	9.18-	9.24
22		Mirex	1.038	0.978	5.8	100	0.00	9.47-	9.53
23	B	Endrin Ketone	0.985	1.059	-7.5	113	-0.01	9.56-	9.62
24	SAB	Decachlorobiphenyl	1.217	1.178	3.2	107	0.00	11.57-	11.63

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g36064.D 6PST1034.M Thu Jun 16 14:54:08 2016

10.9.6

10

Continuing Calibration Summary

Job Number: JC21709 **Sample:** G6G1039-CC1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36262.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\1039\6g36262.D\ECD1A.CH    Vial: 4
Signal #2 : C:\msdchem\1\DATA\1039\6g36262.D\ECD2B.CH
Acq On    : 16 Jun 2016   4:03 pm                    Operator: dharas
Sample    : cc1034-50                                Inst    : HP G1530A
Misc      : op94731,g6g1039,15.4,,,10,10             Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\6PST1034.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon Jun 13 12:02:56 2016
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	102	0.00	0.97- 1.03
2	SAB	Tetrachloro-m-xylene	0.948	0.928	2.1	101	0.00	1.69- 1.75
3	A	alpha-BHC	1.248	1.296	-3.8	99	0.00	2.22- 2.28
4	MA	gamma-BHC	1.161	1.175	-1.2	98	0.00	2.53- 2.59
5	MA	Heptachlor	1.150	1.089	5.3	95	0.00	3.05- 3.11
6	B	beta-BHC	0.578	0.521	9.9	96	0.00	2.62- 2.68
7	B	delta-BHC	1.150	1.077	6.3	91	0.00	2.81- 2.87
8	MB	Aldrin	1.085	1.032	4.9	93	0.00	3.39- 3.46
9	B	Heptachlor Epoxide	1.047	0.885	15.5	87	0.00	4.13- 4.19
10	B	gamma-Chlordane	1.096	0.881	19.6	85	0.00	4.31- 4.37
11	B	alpha-Chlordane	1.058	0.902	14.7	88	0.00	4.48- 4.54
12	A	Endosulfan I	1.127	0.948	15.9	87	0.00	4.66- 4.72
13	B	4,4'-DDE	0.779	0.843	-8.2	105	0.00	4.62- 4.68
14	MA	Dieldrin	1.015	0.965	4.9	95	0.00	5.00- 5.06
15	MA	Endrin	0.928	0.917	1.2	99	0.00	5.33- 5.39
16	A	4,4'-DDD	0.738	0.741	-0.4	100	0.00	5.49- 5.55
17	B	Endosulfan II	0.949	0.934	1.6	101	0.00	5.67- 5.73
18	MA	4,4'-DDT	0.716	0.758	-5.9	104	0.00	5.93- 5.99
19	B	Endrin Aldehyde	0.747	0.716	4.1	98	0.00	6.33- 6.39
20	B	Endosulfan Sulfate	0.806	0.790	2.0	101	0.00	7.05- 7.11
21	A	Methoxychlor	0.423	0.440	-4.0	109	-0.01	6.79- 6.85
22		Mirex	0.880	0.733	16.7	93	0.00	6.90- 6.96
23	B	Endrin Ketone	0.912	0.935	-2.5	103	0.00	7.52- 7.58
24	SAB	Decachlorobiphenyl	0.931	0.816	12.4	97	0.00	9.55- 9.61

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	1.31- 1.37
2	SAB	Tetrachloro-m-xylene	1.012	0.984	2.8	104	0.00	2.26- 2.32
3	A	alpha-BHC	1.222	1.305	-6.8	104	0.00	2.97- 3.03
4	MA	gamma-BHC	1.145	1.187	-3.7	101	0.00	3.42- 3.48
5	MA	Heptachlor	1.202	1.271	-5.7	106	0.00	4.01- 4.07
6	B	beta-BHC	0.601	0.570	5.2	101	0.00	3.51- 3.57
7	B	delta-BHC	1.099	1.131	-2.9	101	0.00	3.92- 3.98
8	MB	Aldrin	1.150	1.182	-2.8	104	0.00	4.48- 4.54
9	B	Heptachlor Epoxide	1.146	1.118	2.4	103	0.00	5.35- 5.41
10	B	gamma-Chlordane	1.159	1.135	2.1	102	0.00	5.66- 5.72
11	B	alpha-Chlordane	1.173	1.133	3.4	101	0.00	5.90- 5.96
12	A	Endosulfan I	1.084	1.067	1.6	104	0.00	5.99- 6.05
13	B	4,4'-DDE	0.994	1.081	-8.8	109	0.00	6.20- 6.26

Continuing Calibration Summary

Job Number: JC21709 **Sample:** G6G1039-CC1034
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6G36262.D
Project: BMSMC, Building 5 Area, PR

14	MA	Dieldrin	1.069	1.099	-2.8	104	0.00	6.46- 6.52
15	MA	Endrin	0.978	1.044	-6.7	108	0.00	7.00- 7.06
16	A	4,4'-DDD	0.826	0.844	-2.2	111	0.00	7.23- 7.29
17	B	Endosulfan II	0.994	1.010	-1.6	106	0.00	7.38- 7.44
18	MA	4,4'-DDT	0.763	0.881	-15.5	115	0.00	7.80- 7.86
19	B	Endrin Aldehyde	0.826	0.836	-1.2	104	0.00	8.01- 8.07
20	B	Endosulfan Sulfate	0.898	0.925	-3.0	108	0.00	8.52- 8.58
21	A	Methoxychlor	0.482	0.548	-13.7	120	-0.01	9.18- 9.24
22		Mirex	1.038	0.966	6.9	104	-0.01	9.47- 9.53
23	B	Endrin Ketone	0.985	1.074	-9.0	110	0.00	9.56- 9.62
24	SAB	Decachlorobiphenyl	1.217	1.132	7.0	105	0.00	11.57-11.63

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g36065.D 6PST1034.M Fri Jun 17 10:29:21 2016

10.9.7

10

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36249.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:05 am
Operator : josephr
Sample : jc21709-4
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:53:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.010	1.345	146.4E6	60779660	50.000	50.000
25) I	1-bromo-2...	1.010	1.345	146.4E6	60779660	50.000	50.000
31) I	1-bromo-2...	1.010	1.345	146.4E6	60779660	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.729	2.287	104.7E6	46369166	37.724	37.693
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 94.31%	94.23%
24) SAB	Decachlor...	9.582	11.604	102.8E6	59680440	37.738	40.348
	Spiked Amount	40.000			Recovery	= 94.34%	100.87%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

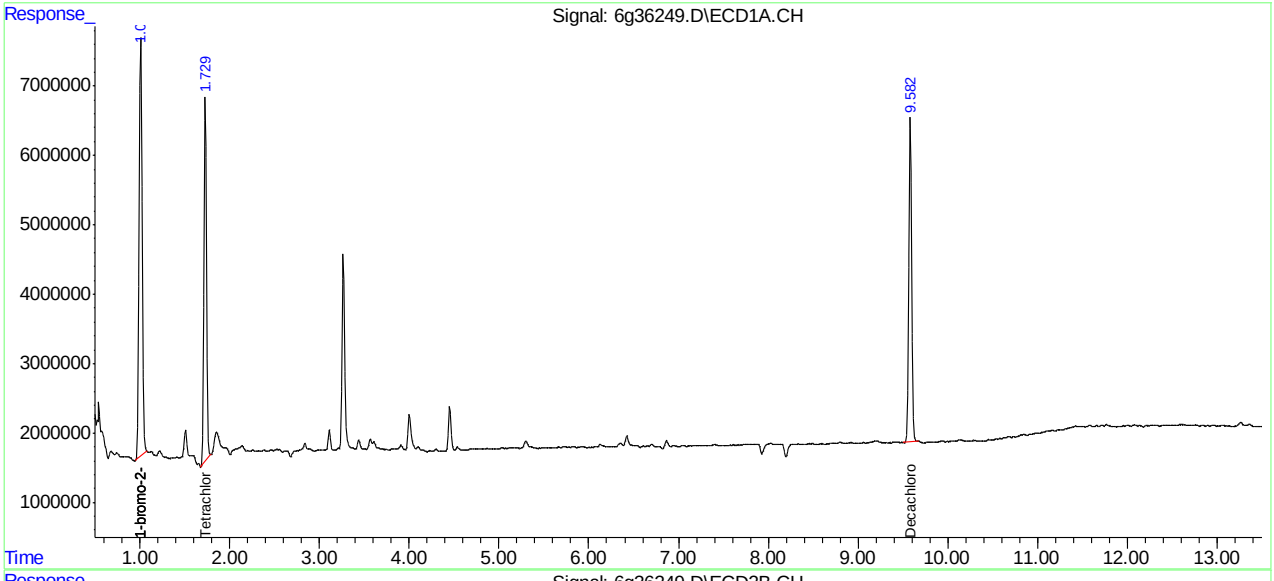
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

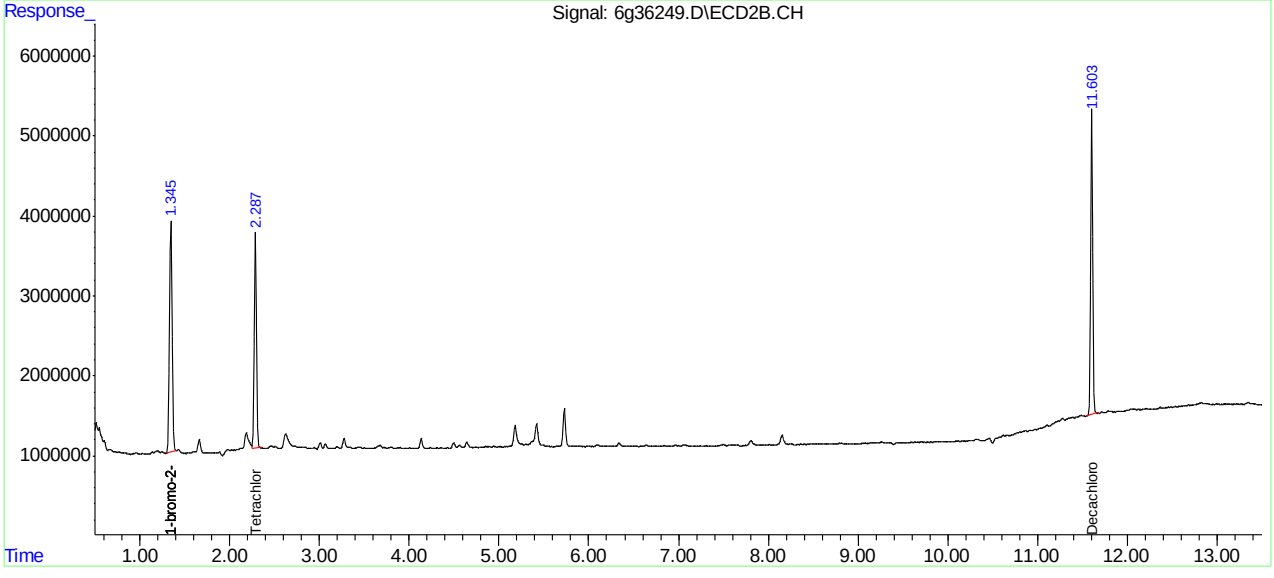
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36249.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:05 am
Operator : josephr
Sample : jc21709-4
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:53:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36250.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:21 am
Operator : josephr
Sample : jc21709-5
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:01:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	161.5E6	69972155	50.000	50.000
25) I	1-bromo-2...	1.004	1.344	161.5E6	69972155	50.000	50.000
31) I	1-bromo-2...	1.004	1.344	161.5E6	69972155	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.725	2.287	118.2E6	52696101	38.584	37.208
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 96.46%	93.02%
24) SAB	Decachlor...	9.580	11.603	82639095	47235329	27.491	27.739
	Spiked Amount	40.000			Recovery	= 68.73%	69.35%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

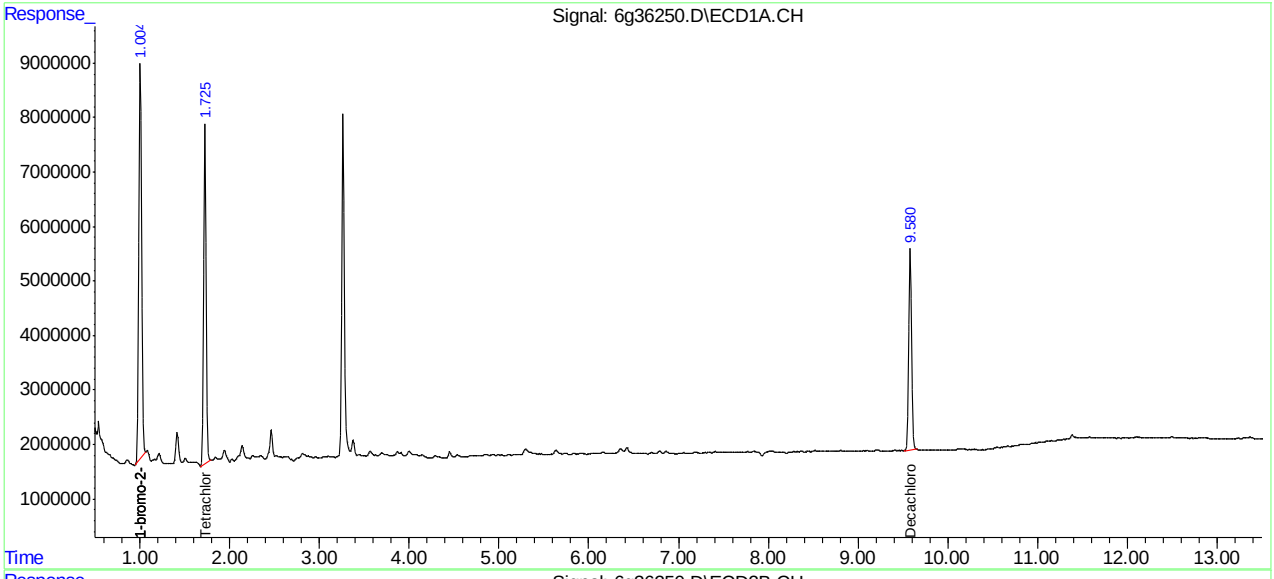
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

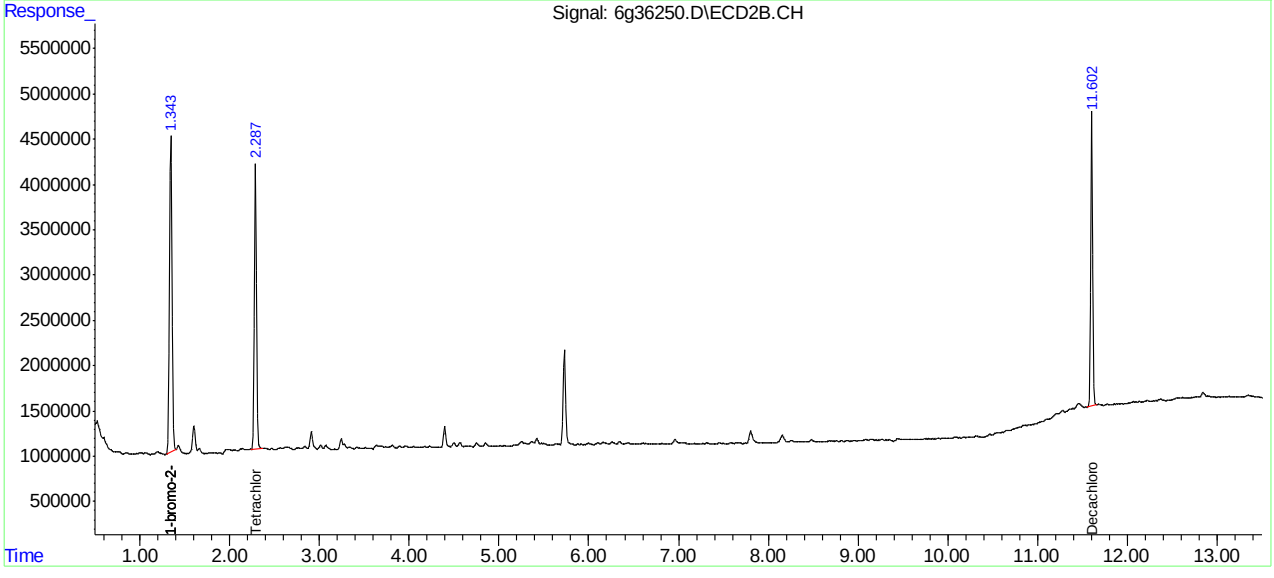
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36250.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:21 am
Operator : josephr
Sample : jc21709-5
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:01:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 06/20/16 11:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36251.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:38 am
Operator : josephr
Sample : jc21709-6
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:02:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.003	1.343	123.3E6	62824153	50.000	50.000
25) I	1-bromo-2...	1.003	1.343	123.3E6	62824153	50.000	50.000
31) I	1-bromo-2...	1.003	1.343	123.3E6	62824153	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.724	2.288	78533527	36084518	33.593	28.378
Spiked Amount		40.000	Range	30 - 150	Recovery	= 83.98%	70.95%
24) SAB	Decachlor...	9.580	11.604	27013511	16803510	11.775	10.991m
Spiked Amount		40.000			Recovery	= 29.44%	27.48%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

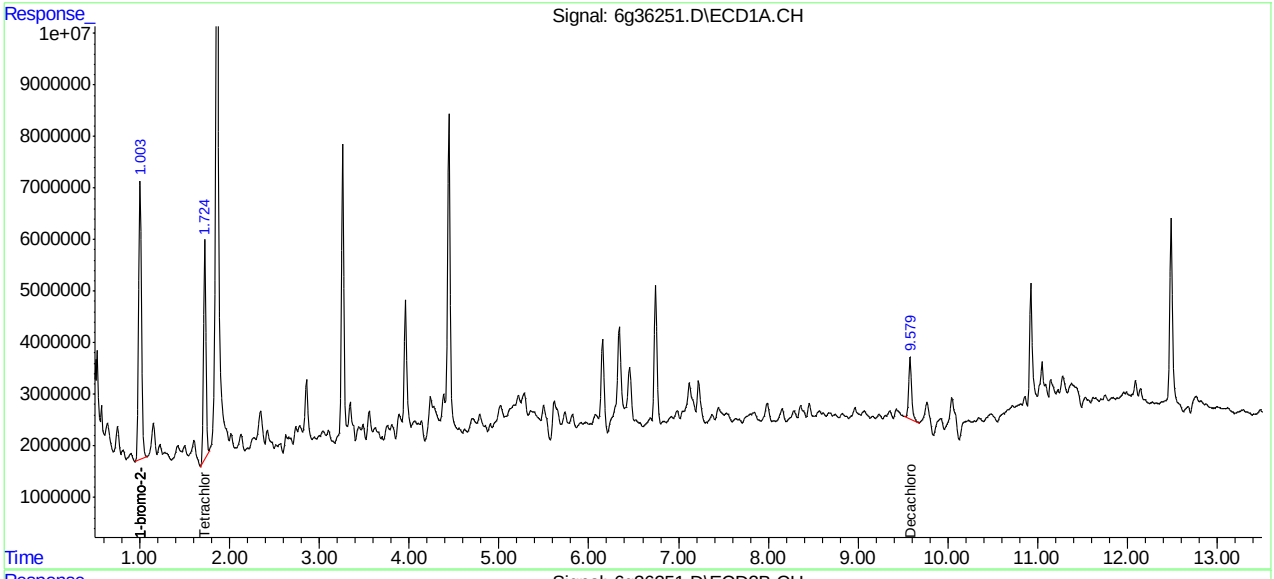
11.1.3 11

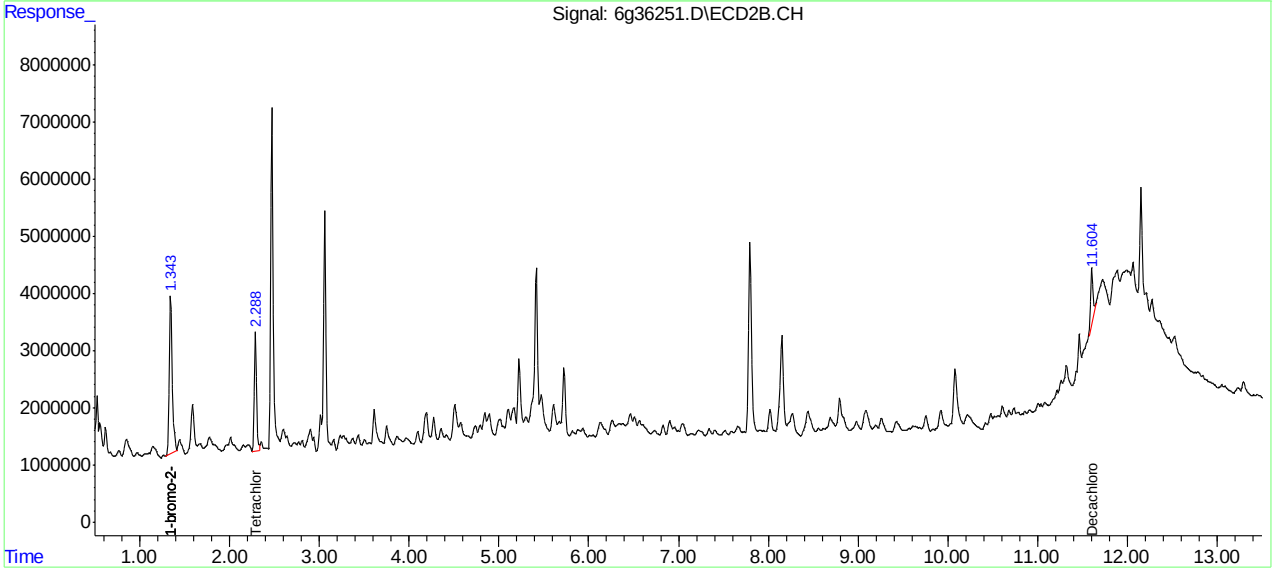
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36251.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:38 am
Operator : josephr
Sample : jc21709-6
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:02:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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:	JC21709-6	**Method:**	SW846 8081B
Lab FileID:	6G36251.D	**Analyst approved:**	06/17/16 10:11 Joseph Ravino
Injection Time:	06/16/16 11:38	**Supervisor approved:**	06/20/16 11:53 Gwendolyn Burns

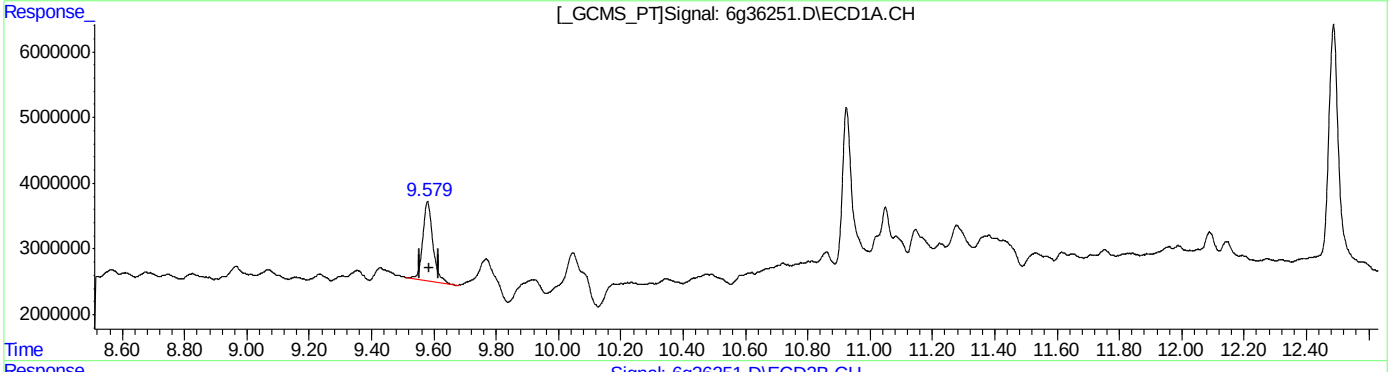
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	2	11.60	Poorly defined baseline

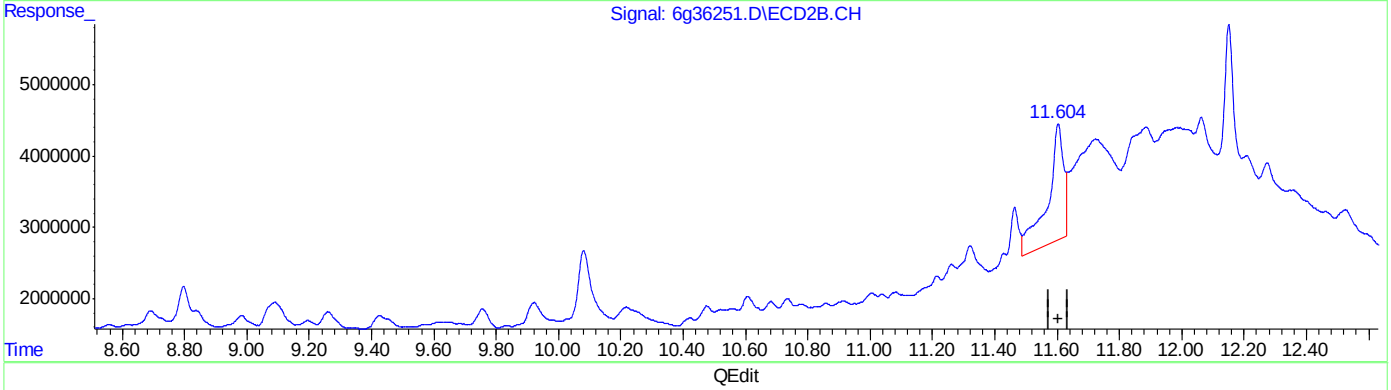
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36251.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:38 am
Operator : josephr
Sample : jc21709-6
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:01:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(24) Decachlorobiphenyl (SAB)
9.580min 11.775PPB
response 27013511

(24) Decachlorobiphenyl #2 (SAB)
11.603min 38.923PPB
response 59508936

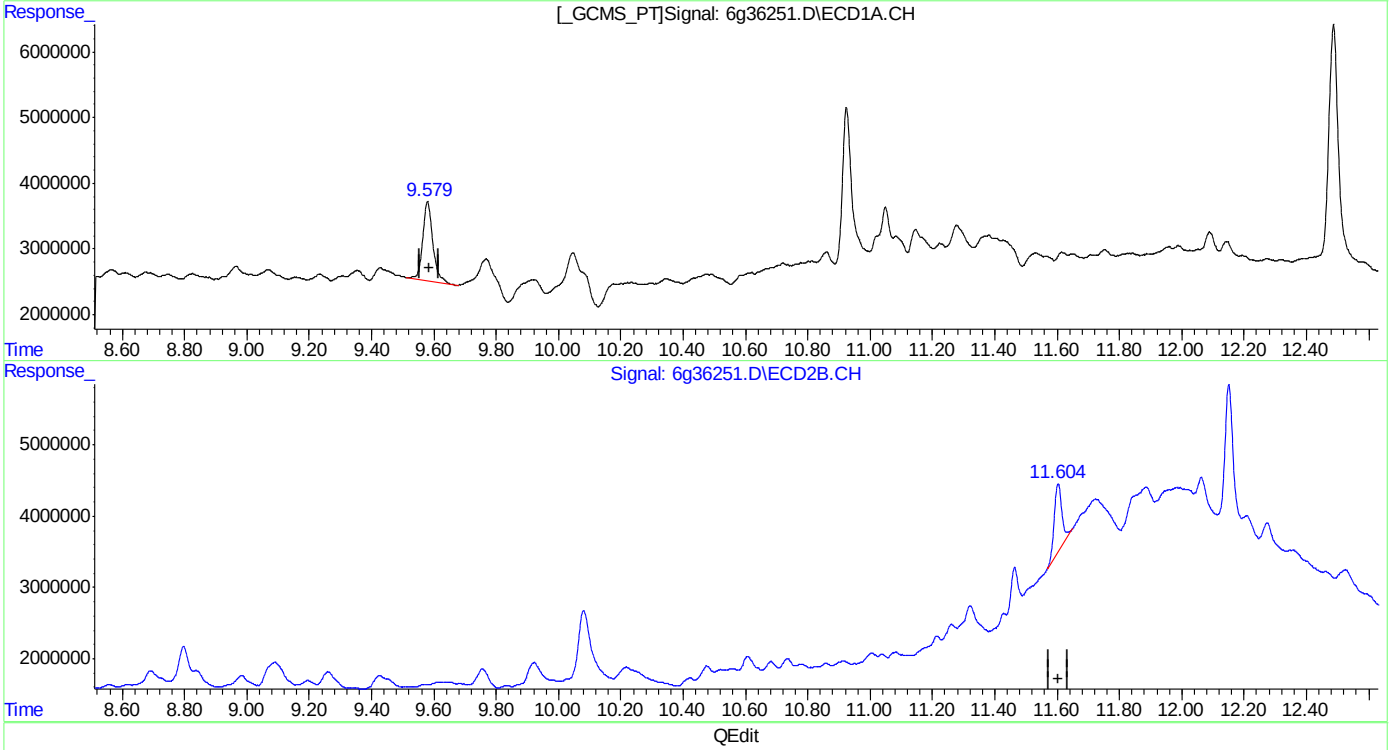
(+) = Expected Retention Time
6PST1034.M Fri Jun 17 10:01:56 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36251.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:38 am
Operator : josephr
Sample : jc21709-6
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:01:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(24) Decachlorobiphenyl (SAB)
9.580min 11.775PPB
response 27013511

(24) Decachlorobiphenyl #2 (SAB)
11.604min 10.991PPB m
response 16803510

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 10:02:04 2016

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 06/20/16 11:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36252.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:54 am
Operator : josephr
Sample : jc21709-7
Misc : op94652,g6g1039,990,,,10,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:55:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	149.5E6	63157079	50.000	50.000
25) I 1-bromo-2...	1.004	1.344	149.5E6	63157079	50.000	50.000
31) I 1-bromo-2...	1.004	1.344	149.5E6	63157079	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	1.724	2.297	98612219	423.5E6	34.785	331.264 #
Spiked Amount	40.000	Range	30 - 150	Recovery	= 86.96%	828.16%#
24) SAB Decachlor...	9.579	11.601	75673798	41636664	27.203	27.089m
Spiked Amount	40.000			Recovery	= 68.01%	67.72%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

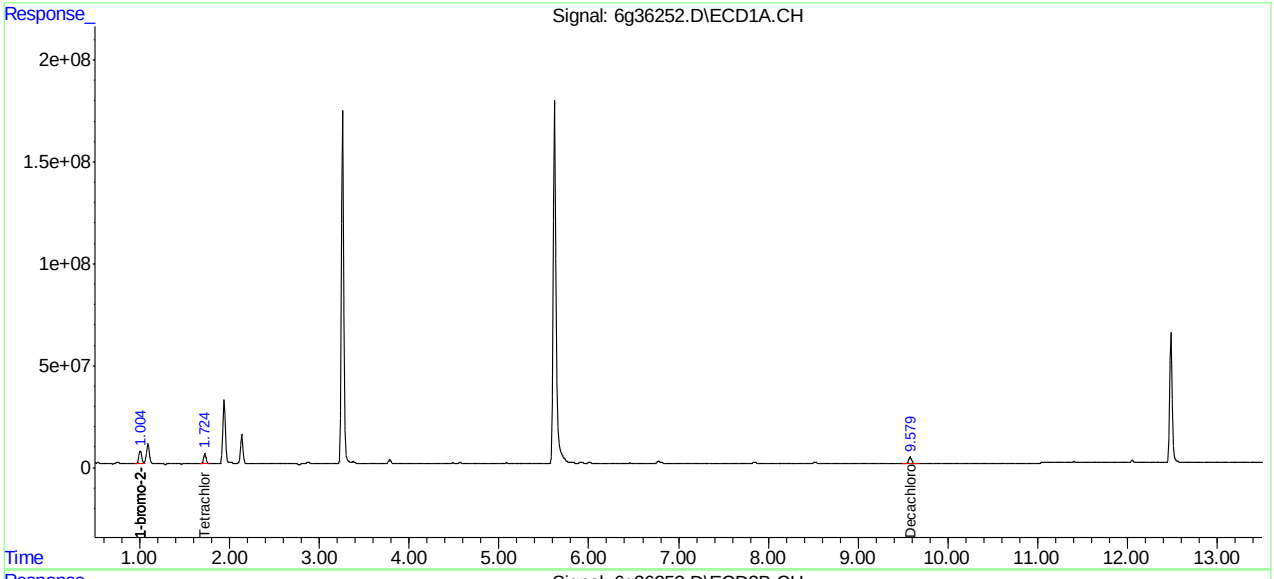
11.1.4 11

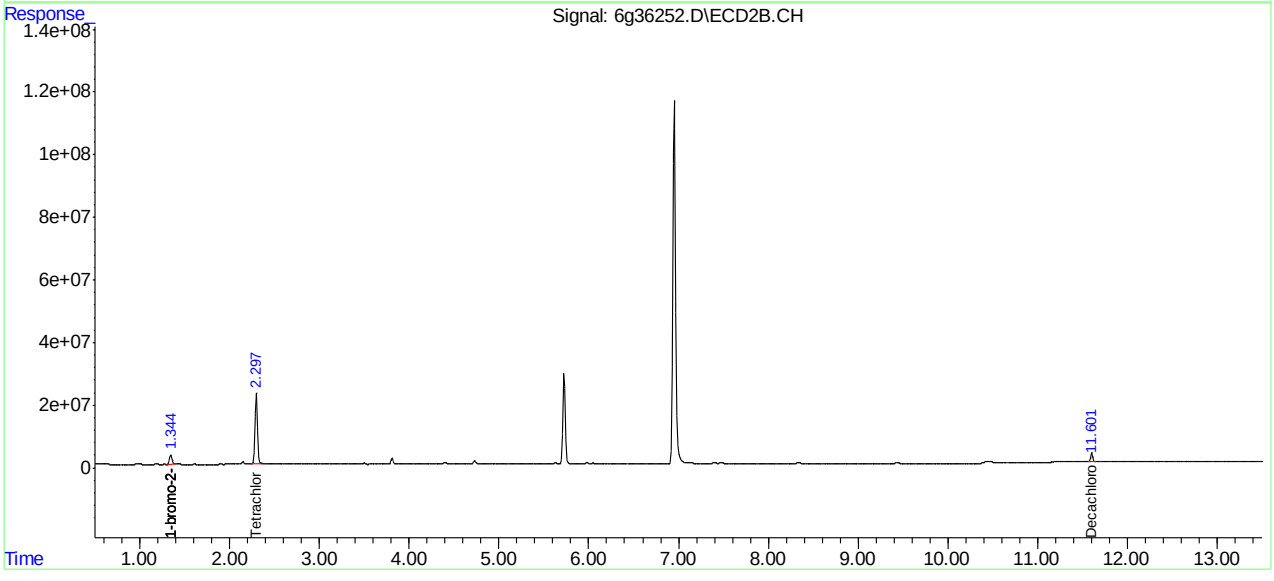
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36252.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:54 am
Operator : josephr
Sample : jc21709-7
Misc : op94652,g6g1039,990,,,10,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:55:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integration Approval Summary

Sample Number:	JC21709-7	**Method:**	SW846 8081B
Lab FileID:	6G36252.D	**Analyst approved:**	06/17/16 10:11 Joseph Ravino
Injection Time:	06/16/16 11:54	**Supervisor approved:**	06/20/16 11:53 Gwendolyn Burns

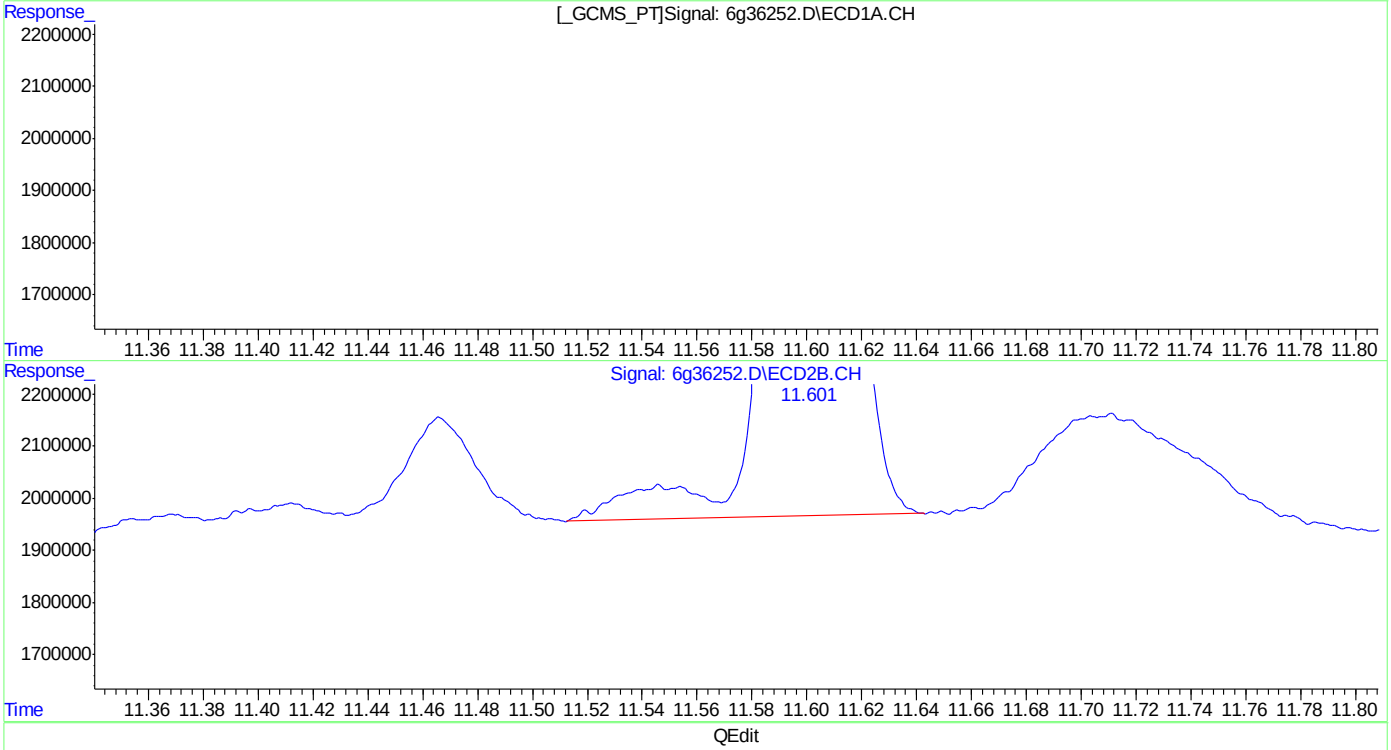
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	2	11.60	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36252.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:54 am
Operator : josephr
Sample : jc21709-7
Misc : op94652,g6g1039,990,,,10,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:55:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(24) Decachlorobiphenyl (SAB)
9.579min 27.203PPB
response 75673798

(24) Decachlorobiphenyl #2 (SAB)
11.601min 28.407PPB
response 43661640

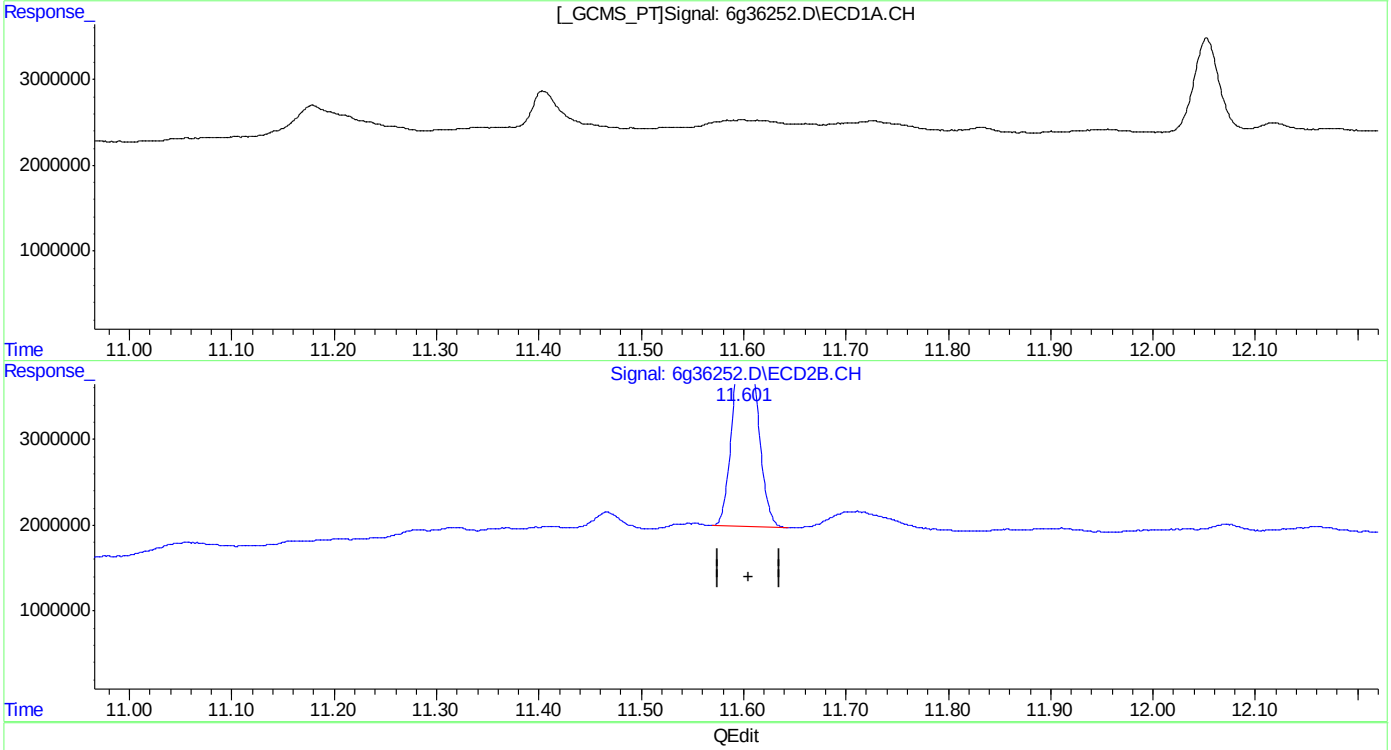
(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:55:18 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36252.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 11:54 am
Operator : josephr
Sample : jc21709-7
Misc : op94652,g6g1039,990,,,10,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:55:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(24) Decachlorobiphenyl (SAB)
9.579min 27.203PPB
response 75673798

(24) Decachlorobiphenyl #2 (SAB)
11.601min 27.089PPB m
response 41636664

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:55:24 2016

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36255.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:43 pm
Operator : josephr
Sample : jc21709-8
Misc : op94652,g6g1039,980,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:03:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.007	1.347	147.6E6	63217758	50.000	50.000
25) I	1-bromo-2...	1.007	1.347	147.6E6	63217758	50.000	50.000
31) I	1-bromo-2...	1.007	1.347	147.6E6	63217758	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.726	2.289	120.5E6	52511795	43.034	41.040
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 107.58%	102.60%
24) SAB	Decachlor...	9.580	11.604	76440347	43051046	27.824	27.983
	Spiked Amount	40.000			Recovery	= 69.56%	69.96%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

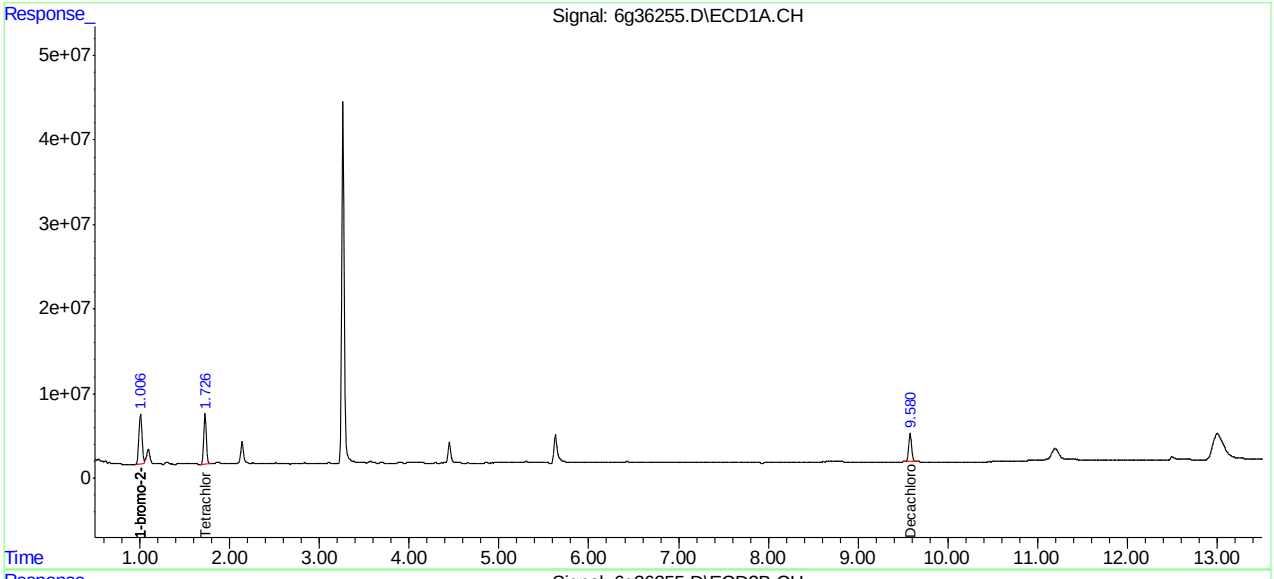
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

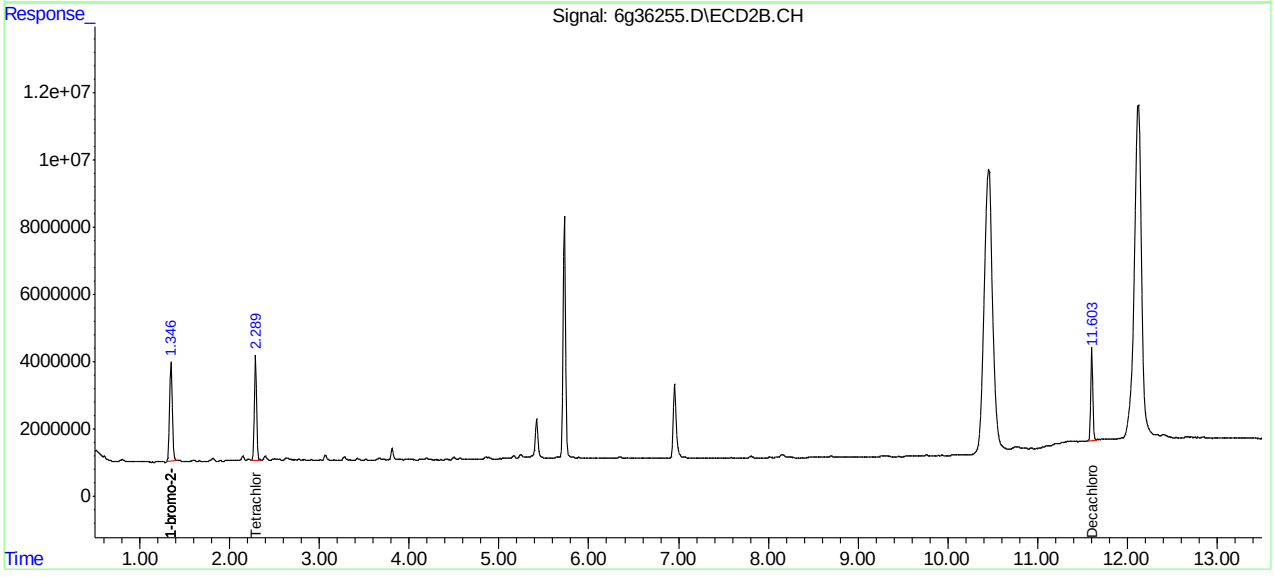
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36255.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:43 pm
Operator : josephr
Sample : jc21709-8
Misc : op94652,g6g1039,980,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:03:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 06/20/16 11:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36256.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:00 pm
Operator : josephr
Sample : jc21709-9
Misc : op94652,g6g1039,930,,,10,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:04:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.001	1.343	153.7E6	65788180	50.000	50.000
25) I	1-bromo-2...	1.001	1.343	153.7E6	65788180	50.000	50.000
31) I	1-bromo-2...	1.001	1.343	153.7E6	65788180	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.722	2.285	100.5E6	39744018	34.481m	29.848m
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 86.20%	74.62%
24) SAB	Decachlor...	9.577	11.603	73520391	42587863	25.700	26.600
	Spiked Amount	40.000			Recovery	= 64.25%	66.50%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

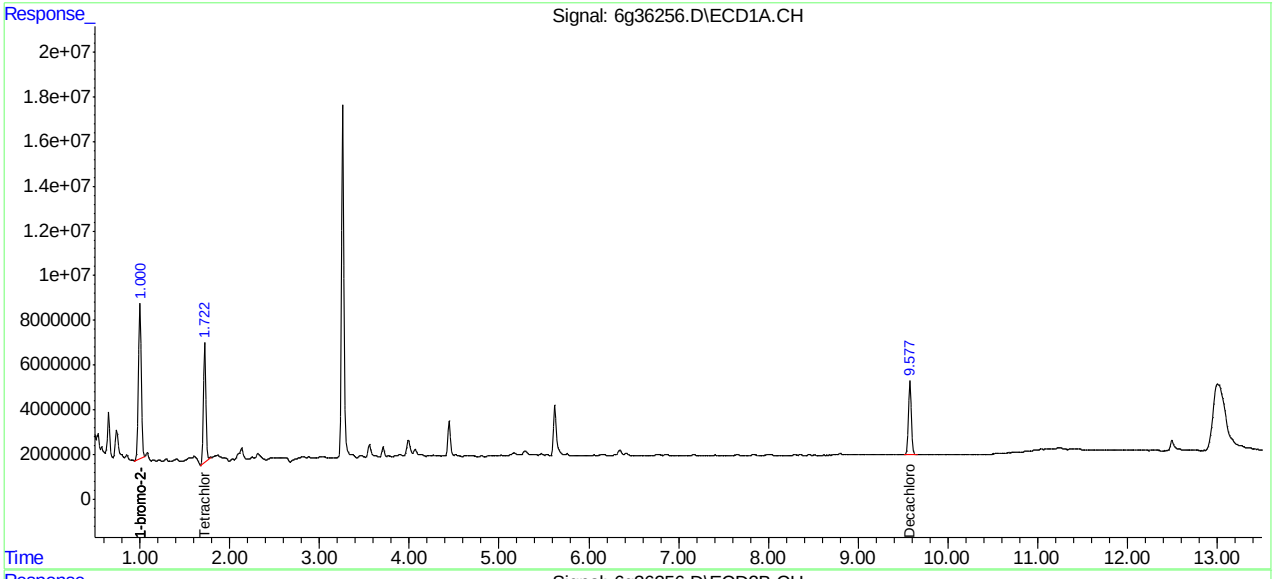
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

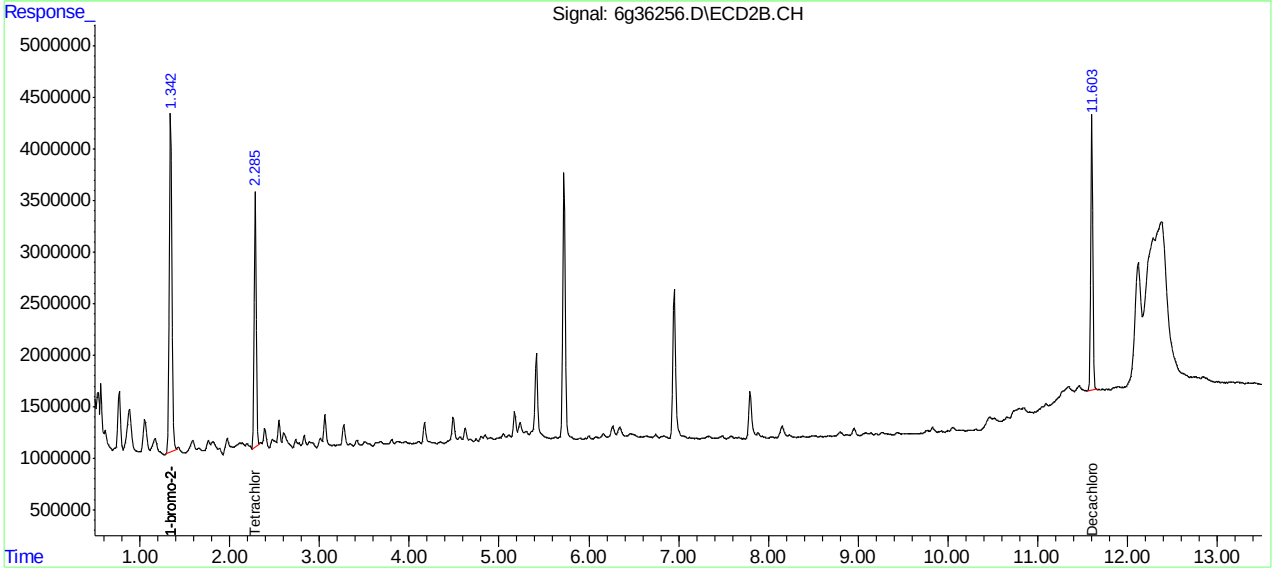
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36256.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:00 pm
Operator : josephr
Sample : jc21709-9
Misc : op94652,g6g1039,930,,,10,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:04:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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:	JC21709-9	**Method:**	SW846 8081B
Lab FileID:	6G36256.D	**Analyst approved:**	06/17/16 10:11 Joseph Ravino
Injection Time:	06/16/16 13:00	**Supervisor approved:**	06/20/16 11:53 Gwendolyn Burns

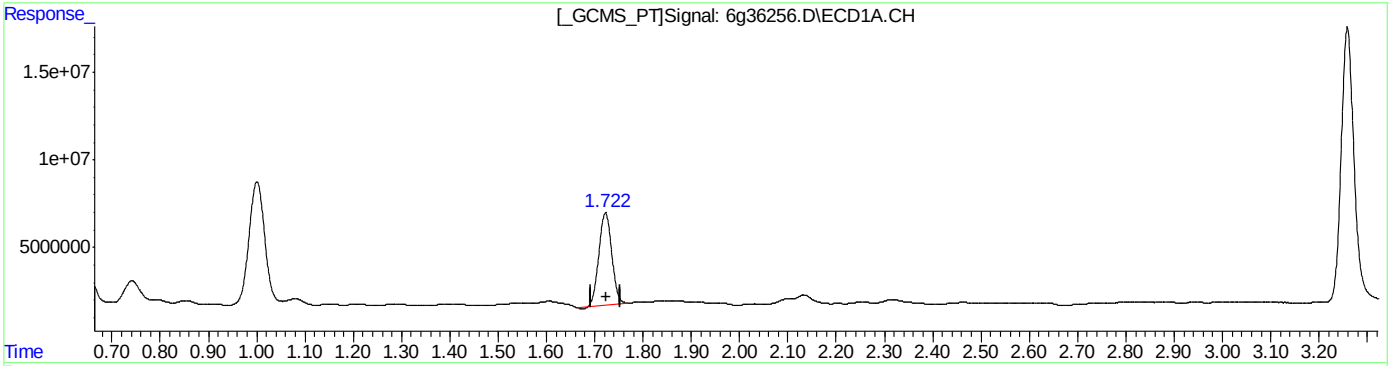
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	1.72	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	2.28	Poorly defined baseline

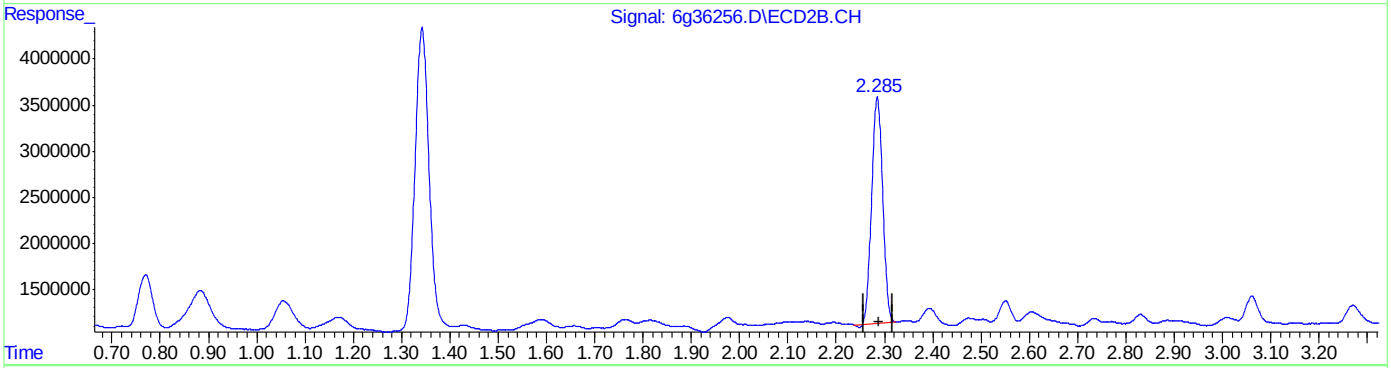
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36256.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:00 pm
Operator : josephr
Sample : jc21709-9
Misc : op94652,g6g1039,930,,,10,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:03:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(2) Tetrachloro-m-xylene (SAB)
1.722min 33.383PPB
response 97322888

(2) Tetrachloro-m-xylene #2 (SAB)
2.285min 29.295PPB
response 39007826

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 10:04:10 2016

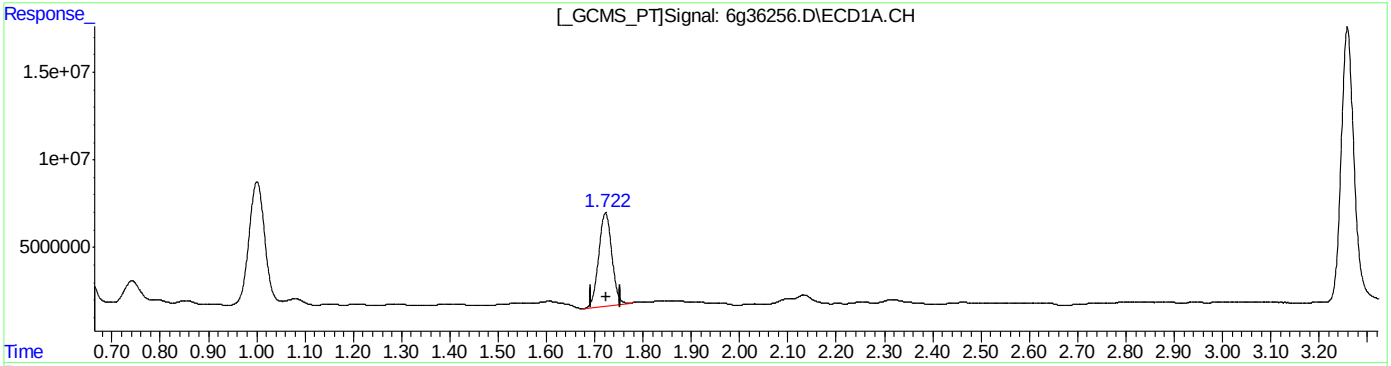
SGS ACCUTEST JC21709

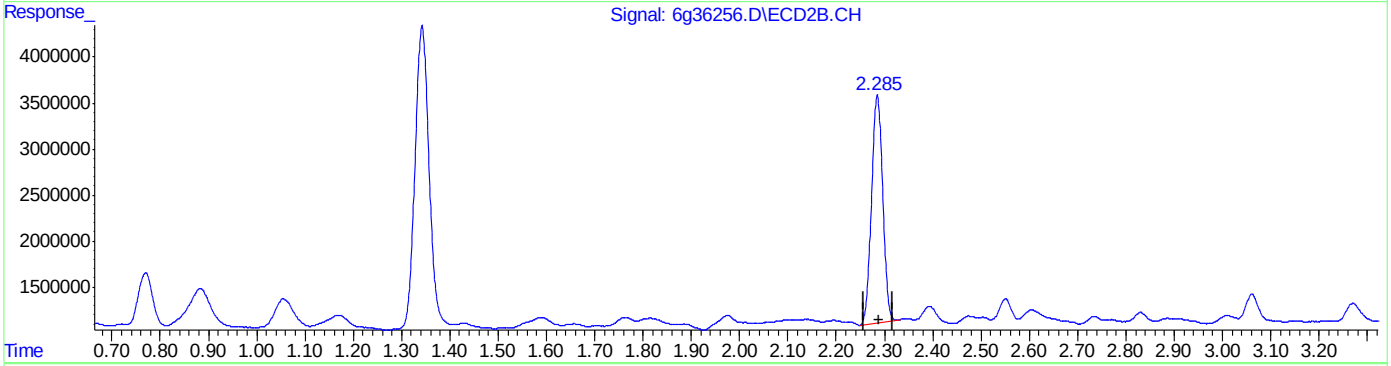
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36256.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:00 pm
Operator : josephr
Sample : jc21709-9
Misc : op94652,g6g1039,930,,,10,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:03:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(2) Tetrachloro-m-xylene (SAB)
1.722min 34.481PPB m
response 100524791

(2) Tetrachloro-m-xylene #2 (SAB)
2.285min 29.848PPB m
response 39744018

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 10:04:19 2016

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36257.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:16 pm
Operator : josephr
Sample : jc21709-10
Misc : op94652,g6g1039,980,,,10,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:05:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.007	1.346	151.8E6	63388641	50.000	50.000
25) I 1-bromo-2...	1.007	1.346	151.8E6	63388641	50.000	50.000
31) I 1-bromo-2...	1.007	1.346	151.8E6	63388641	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	1.725	2.288	111.1E6	49558695	38.573	38.627
Spiked Amount	40.000	Range	30 - 150	Recovery	= 96.43%	96.57%
24) SAB Decachlor...	9.580	11.603	62275963	35365786	22.038	22.925
Spiked Amount	40.000			Recovery	= 55.10%	57.31%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

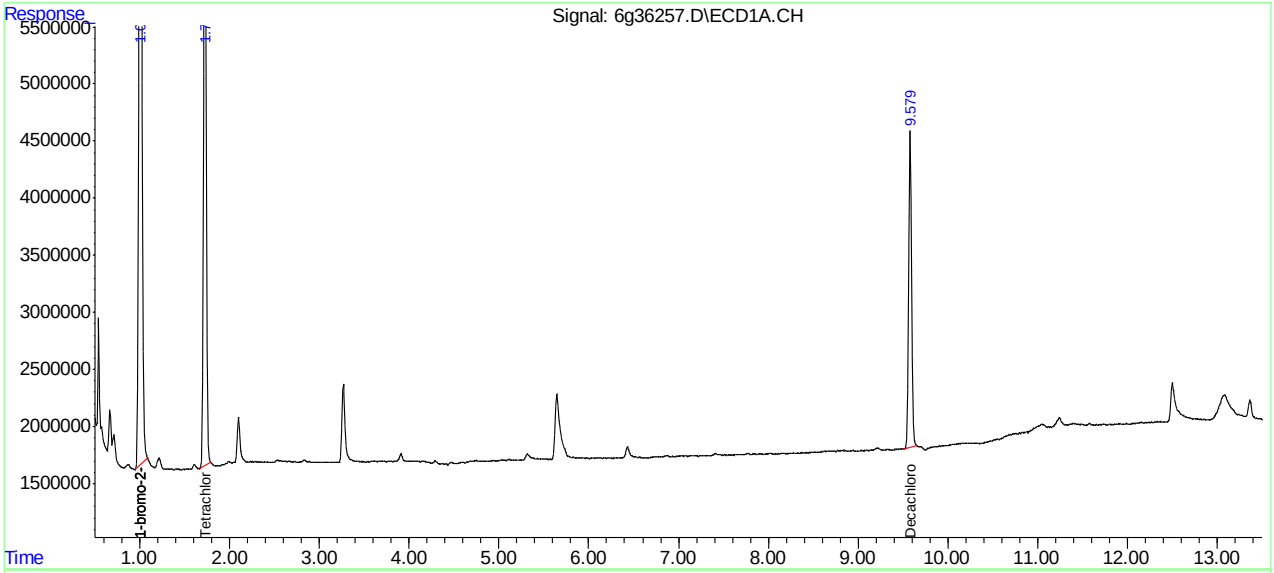
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

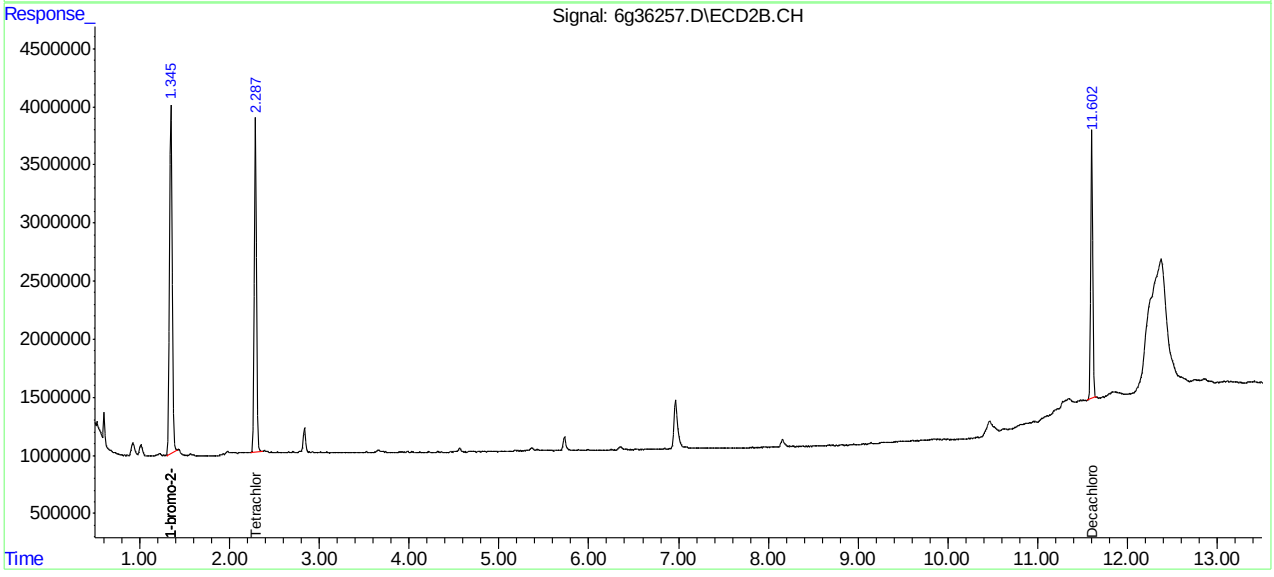
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36257.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:16 pm
Operator : josephr
Sample : jc21709-10
Misc : op94652,g6g1039,980,,,10,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:05:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 06/20/16 11:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36258.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:33 pm
Operator : josephr
Sample : jc21709-12
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:06:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	150.5E6	64774741	50.000	50.000
25) I 1-bromo-2...	1.004	1.344	150.5E6	64774741	50.000	50.000
31) I 1-bromo-2...	1.004	1.344	150.5E6	64774741	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	1.725	2.287	98368548	37857498	34.450	28.876m
Spiked Amount 40.000	Range	30 - 150	Recovery	=	86.13%	72.19%
24) SAB Decachlor...	9.576	11.602	78364605	45013135	27.968	28.555
Spiked Amount 40.000			Recovery	=	69.92%	71.39%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

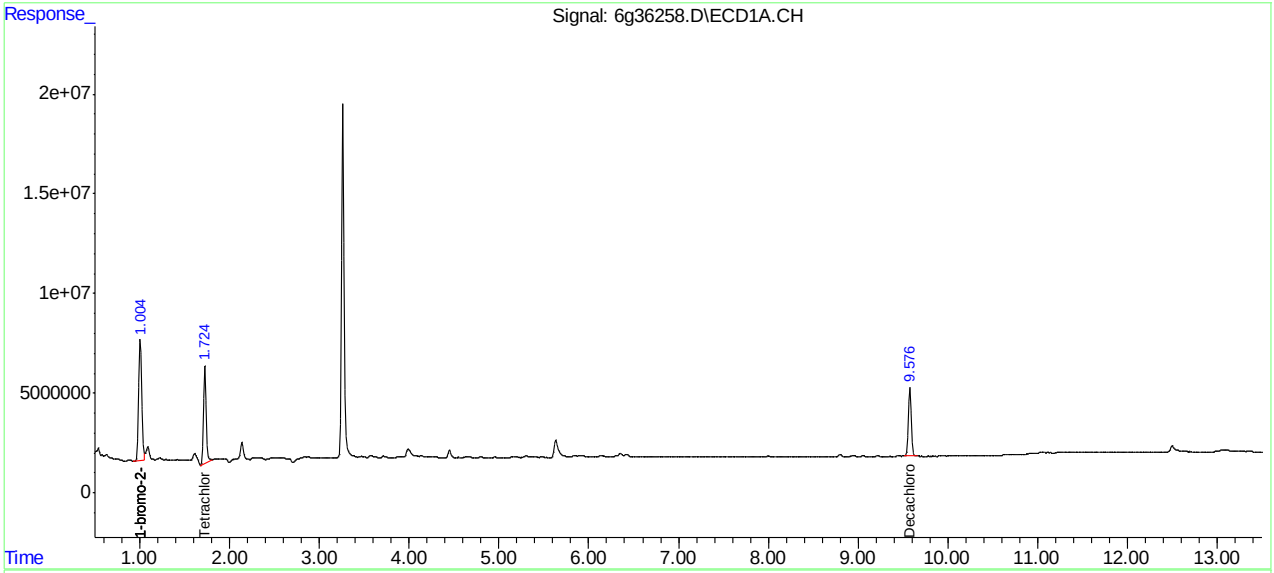
11.1.8 11

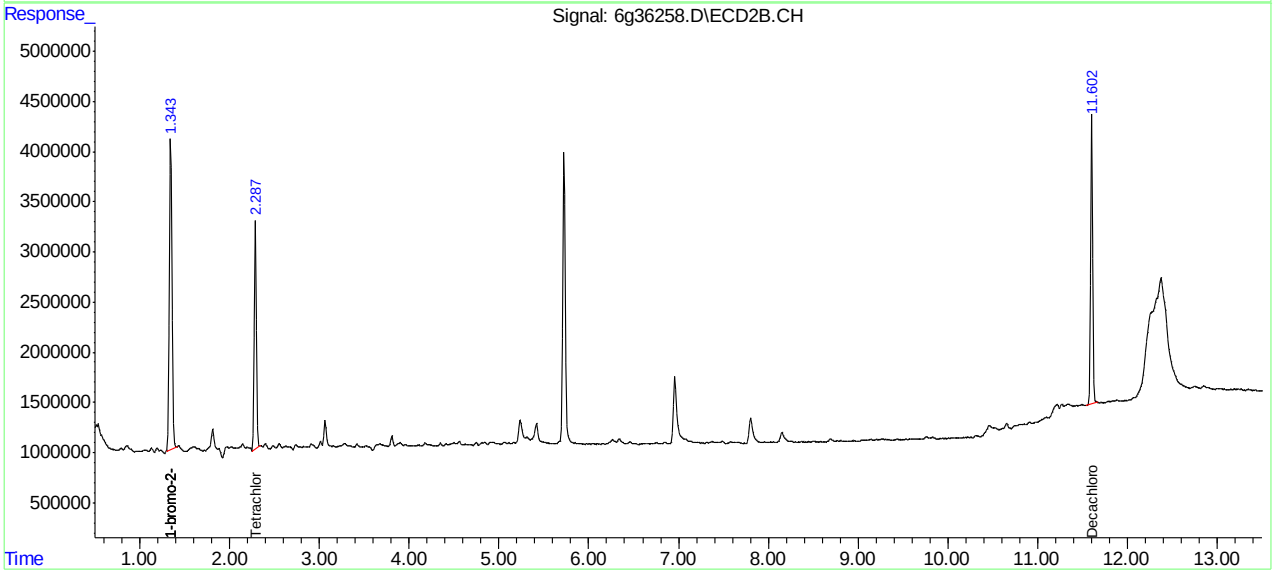
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36258.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:33 pm
Operator : josephr
Sample : jc21709-12
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:06:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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:	JC21709-12	**Method:**	SW846 8081B
Lab FileID:	6G36258.D	**Analyst approved:**	06/17/16 10:11 Joseph Ravino
Injection Time:	06/16/16 13:33	**Supervisor approved:**	06/20/16 11:53 Gwendolyn Burns

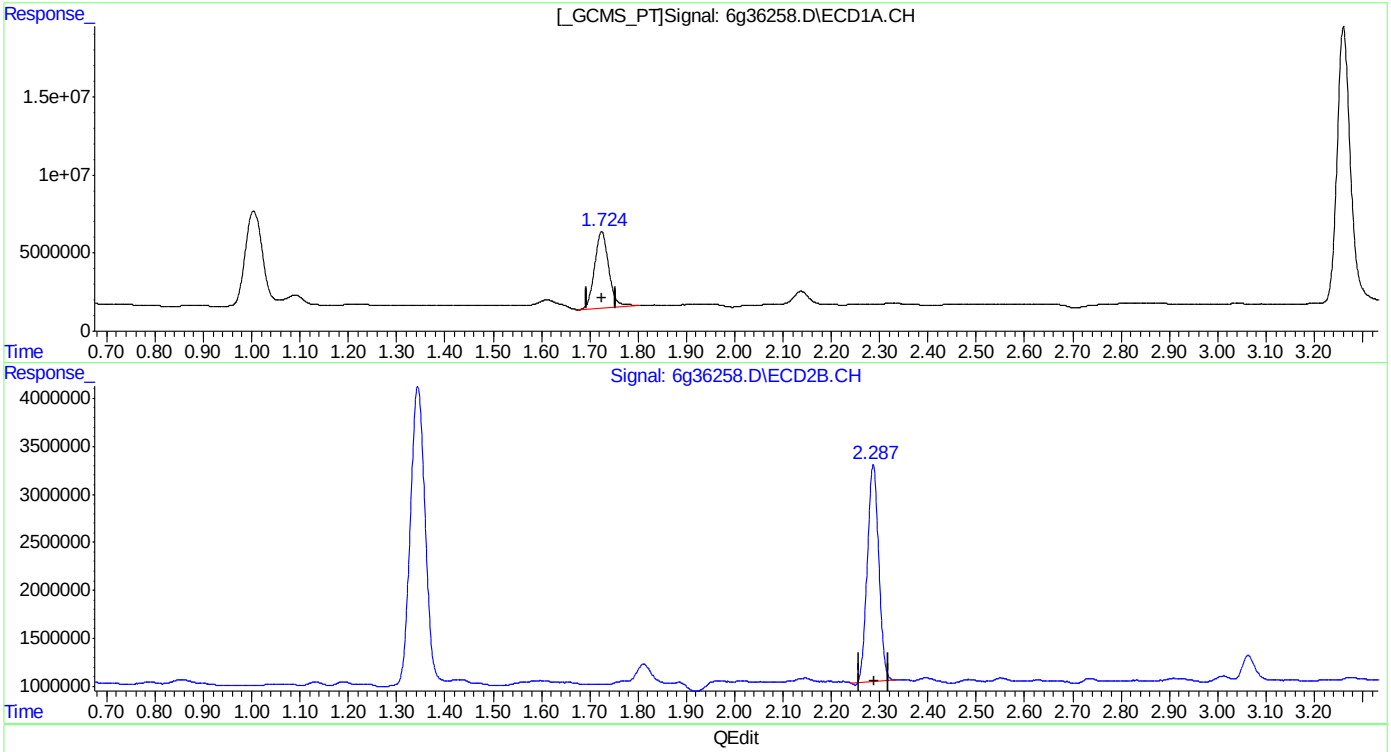
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	2.29	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36258.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:33 pm
Operator : josephr
Sample : jc21709-12
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:05:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(2) Tetrachloro-m-xylene (SAB)
1.725min 34.450PPB
response 98368548

(2) Tetrachloro-m-xylene #2 (SAB)
2.287min 28.379PPB
response 37206967

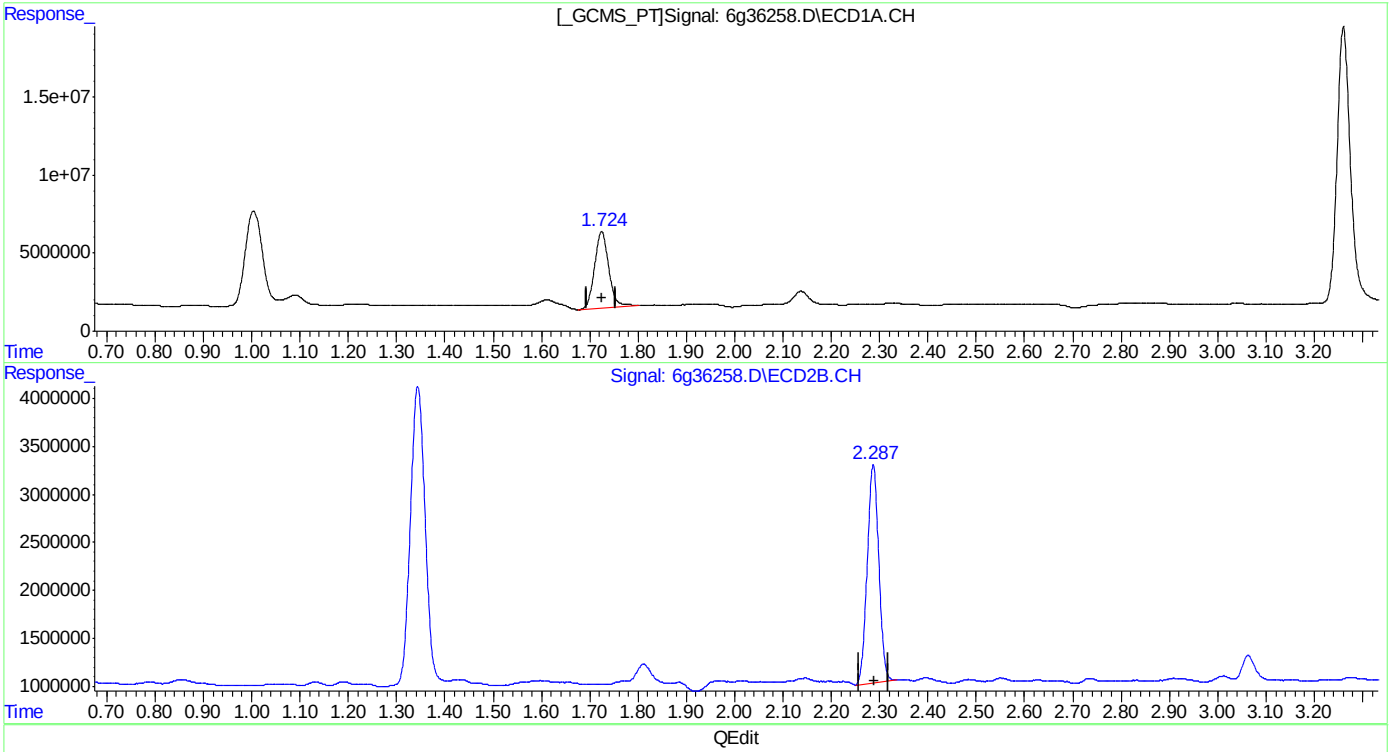
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36258.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 1:33 pm
Operator : josephr
Sample : jc21709-12
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:05:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(2) Tetrachloro-m-xylene (SAB)
1.725min 34.450PPB
response 98368548

(2) Tetrachloro-m-xylene #2 (SAB)
2.287min 28.876PPB m
response 37857498

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36246.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 10:14 am
Operator : dharas
Sample : op94652-mb11
Misc : op94652,g6g1039,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:50:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.011	1.345	144.4E6	60809094	50.000	50.000
25) I	1-bromo-2...	1.011	1.345	144.4E6	60809094	50.000	50.000
31) I	1-bromo-2...	1.011	1.345	144.4E6	60809094	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.734	2.290	825.8E6	386.7E6	301.629	314.168
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 754.07%#	785.42%#
24) SAB	Decachlor...	9.592	11.609	630.6E6	371.4E6	234.699	250.986
	Spiked Amount	40.000			Recovery	= 586.75%	627.46%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

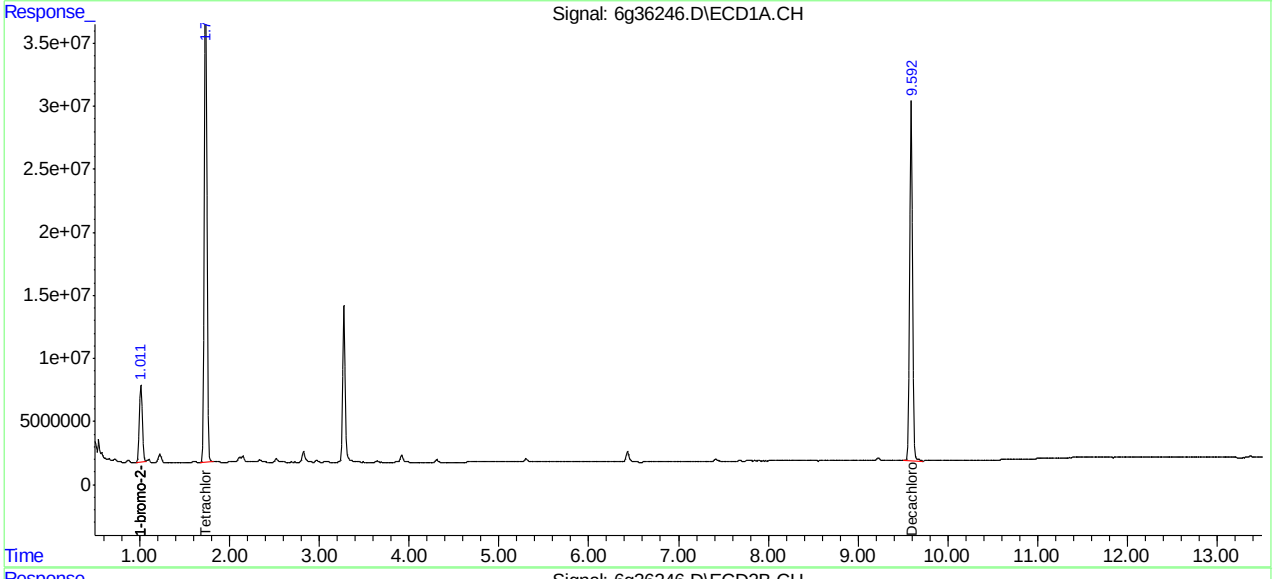
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

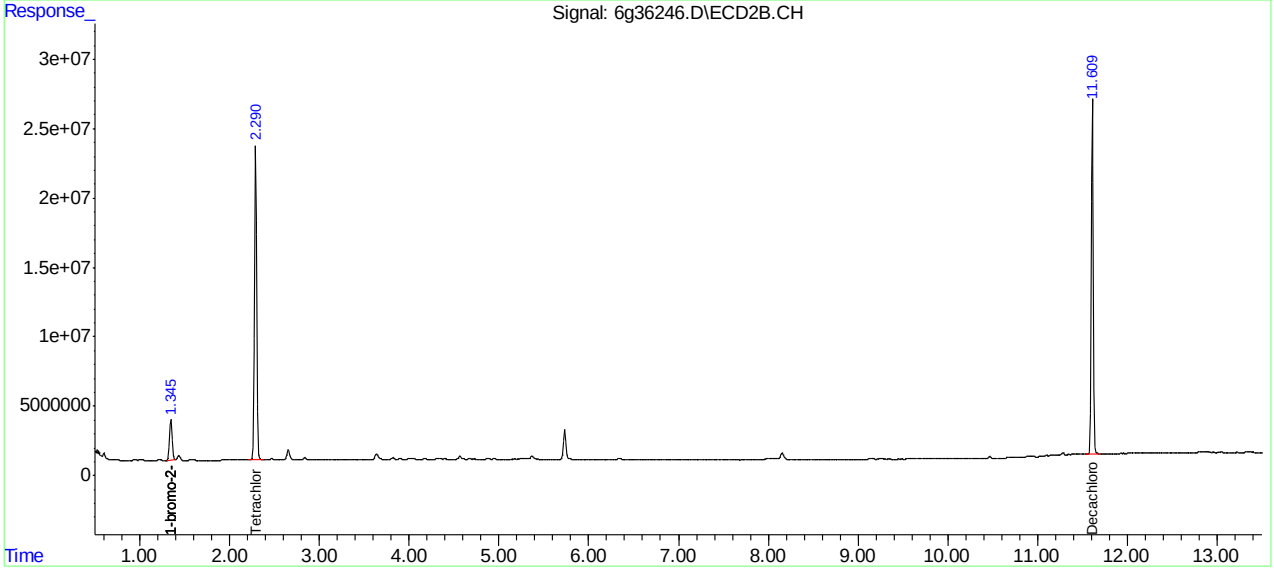
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36246.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 10:14 am
Operator : dharas
Sample : op94652-mb11
Misc : op94652,g6g1039,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:50:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36247.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 10:30 am
Operator : dharas
Sample : op94652-mb1
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:51:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	160.2E6	67708578	50.000	50.000
25) I 1-bromo-2...	1.004	1.344	160.2E6	67708578	50.000	50.000
31) I 1-bromo-2...	1.004	1.344	160.2E6	67708578	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	1.725	2.287	109.6E6	49697817	36.084	36.264
Spiked Amount	40.000	Range	30 - 150	Recovery	= 90.21%	90.66%
24) SAB Decachlor...	9.582	11.605	94247106	54591484	31.615	33.130
Spiked Amount	40.000			Recovery	= 79.04%	82.83%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

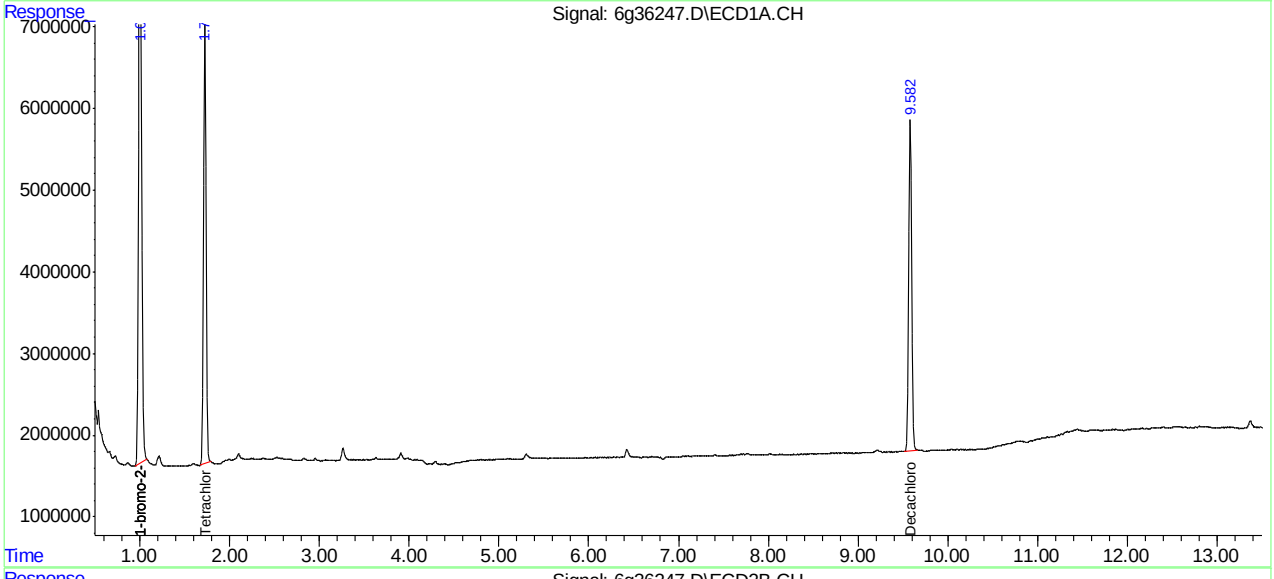
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

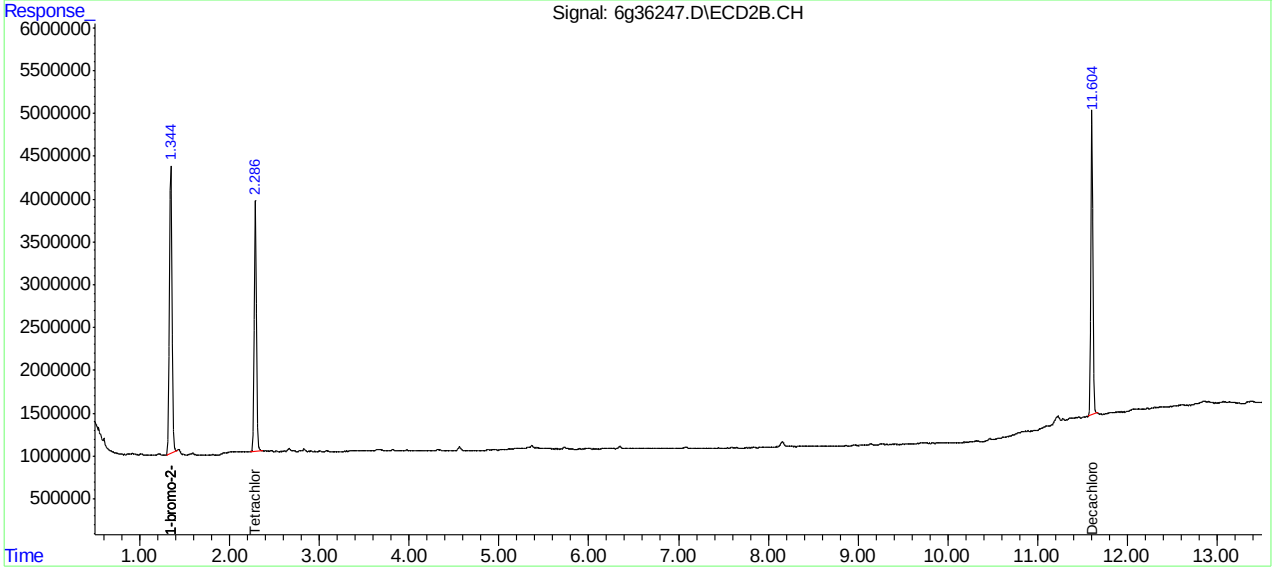
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36247.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 10:30 am
Operator : dharas
Sample : op94652-mb1
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:51:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36248.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 10:46 am
Operator : dharas
Sample : op94652-bs1
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:52:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.008	1.346	145.5E6	61787100	50.000	50.000
25) I	1-bromo-2...	1.008	1.346	145.5E6	61787100	50.000	50.000
31) I	1-bromo-2...	1.008	1.346	145.5E6	61787100	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.726	2.288	98789292	44234391	35.791	35.371
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	89.48%	88.43%
24)	SAB Decachlor...	9.580	11.602	83877217	48197696	30.968	32.053
	Spiked Amount 40.000			Recovery	=	77.42%	80.13%
	Target Compounds						
3) A	alpha-BHC	2.250	2.998	88119424	35827631	24.262	23.720
4) MA	gamma-BHC	2.567	3.448	83675421	34386975	24.765	24.306
5) MA	Heptachlor	3.087	4.045	75863878	35756661	22.675	24.076
6) B	beta-BHC	2.652	3.545	41467902	17881092	24.638	24.069
7) B	delta-BHC	2.843	3.955	76176494	31716825	22.750	23.350
8) MB	Aldrin	3.432	4.515	69873639	32320242	22.127	22.733
9) B	Heptachlo...	4.164	5.386	70243668	34374516	23.056	24.275
10) B	gamma-Chl...	4.338	5.690	68308660	37282484	21.404	26.031
11) B	alpha-Chl...	4.515	5.931	68953085	33968237	22.386	23.438
12) A	Endosulfan I	4.690	6.027	71639417	31382245	21.840	23.425
13) B	4,4'-DDE	4.650	6.231	57379130	30662790	25.295	24.972
14) MA	Dieldrin	5.029	6.493	70035888	32188142	23.717	24.376
15) MA	Endrin	5.363	7.031	70132864	31070753	25.978	25.714
16) A	4,4'-DDD	5.523	7.257	54293852	23978460	25.278	23.478
17) B	Endosulfa...	5.699	7.413	65742934	30058170	23.800	24.482
18) MA	4,4'-DDT	5.966	7.832	53320165	23924444	25.579	25.387
19) B	Endrin Al...	6.360	8.039	54955439	26600879	25.289	26.067
20) B	Endosulfa...	7.084	8.552	60683398	28531574	25.880	25.724
21) A	Methoxychlor	6.827	9.210	33086906	15467439	26.852	25.968
23) B	Endrin Ke...	7.551	9.591	71575610	33244590	26.957	27.316

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

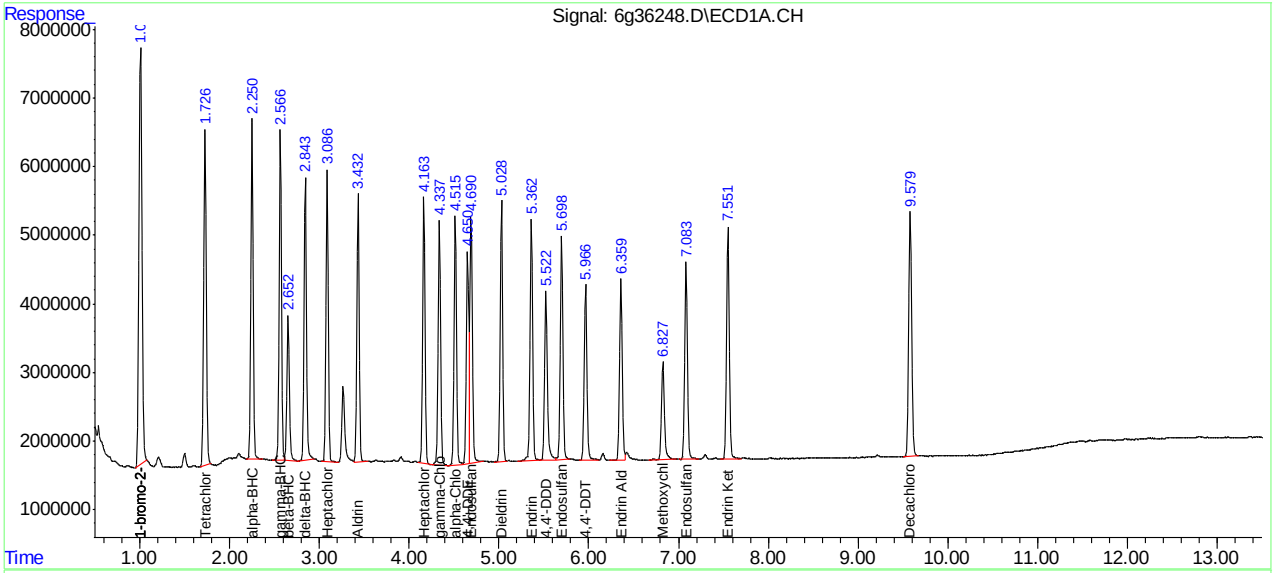
SGS ACCUTEST JC21709

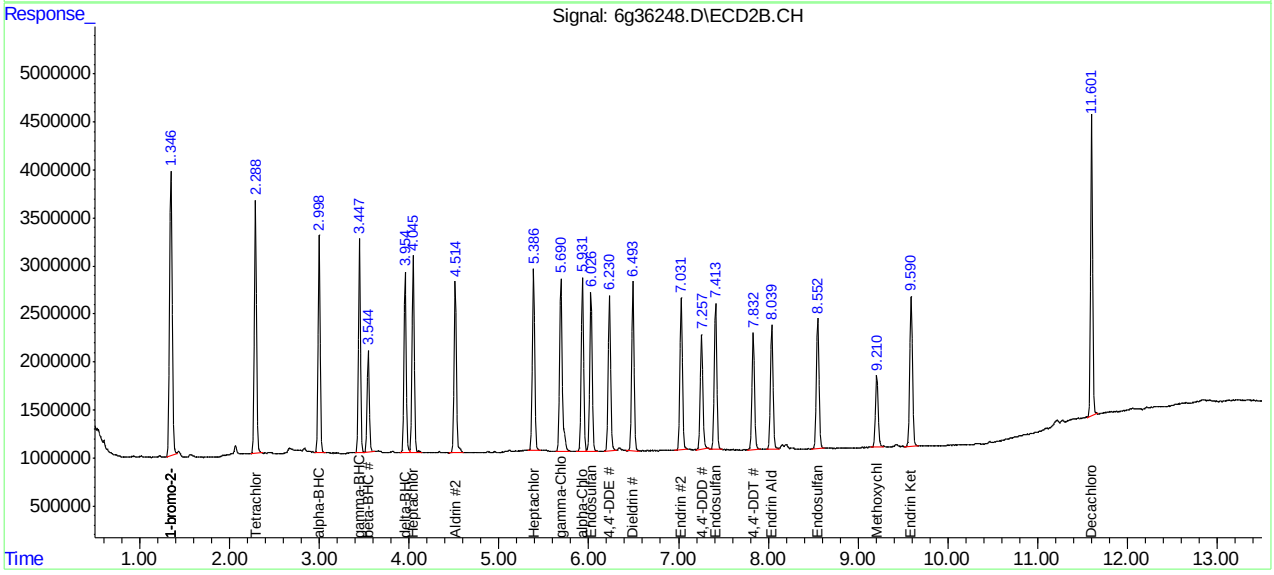
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36248.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 10:46 am
Operator : dharas
Sample : op94652-bs1
Misc : op94652,g6g1039,1000,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:52:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 06/20/16 11:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:58:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.007	1.346	149.9E6	62256972	50.000	50.000
25) I	1-bromo-2...	1.007	1.346	149.9E6	62256972	50.000	50.000
31) I	1-bromo-2...	1.007	1.346	149.9E6	62256972	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.726	2.297	98318488	253.6E6	34.590	201.239 #
Spiked Amount		40.000 Range	30 - 150	Recovery	=	86.48%	503.10%#
24) SAB	Decachlor...	9.581	11.604	95792295	51767999	34.345	34.168
Spiked Amount		40.000		Recovery	=	85.86%	85.42%
	Target Compounds						
3) A	alpha-BHC	2.250	2.998	84921832	35520641	22.705	23.339
4) MA	gamma-BHC	2.566	3.448	85455597	40132545	24.561	28.153
5) MA	Heptachlor	3.088	4.046	70926352	36643954	20.587	24.488
6) B	beta-BHC	2.652	3.547	37132408	15869735	21.425	21.201
7) B	delta-BHC	2.843	3.955	83727495	32455004	24.282	23.713
8) MB	Aldrin	3.432	4.515	95088664	33600472	29.241	23.456
9) B	Heptachlo...	4.165	5.386	74929619	34799403	23.884	24.389
10) B	gamma-Chl...	4.337	5.695	69887470	22533914	21.266	15.615m#
11) B	alpha-Chl...	4.515	5.931	66777421	34885136	21.053	23.889
12) A	Endosulfan I	4.691	6.028	67365653	34842978	19.943	25.812 #
13) B	4,4'-DDE	4.650	6.230	59917523	30415737	25.650	24.584
14) MA	Dieldrin	5.029	6.493	61398437	33518079	20.191	25.191
15) MA	Endrin	5.362	7.016f	67832904	53137906	24.400	43.645m#
16) A	4,4'-DDD	5.520	7.257	54589779	29353236	24.682	28.523
17) B	Endosulfa...	5.694	7.413	148.1E6	29831563	52.061m	24.114 #
18) MA	4,4'-DDT	5.964	7.832	65254688	24817302	30.399	26.135
19) B	Endrin Al...	6.357	8.039	51648062	26432472	23.080	25.707
20) B	Endosulfa...	7.083	8.552	58688249	29462815	24.306	26.363
21) A	Methoxychlor	6.824	9.209	39848080	16695510	31.404m	27.819
23) B	Endrin Ke...	7.551	9.593	73881747	34522575	27.021	28.152

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

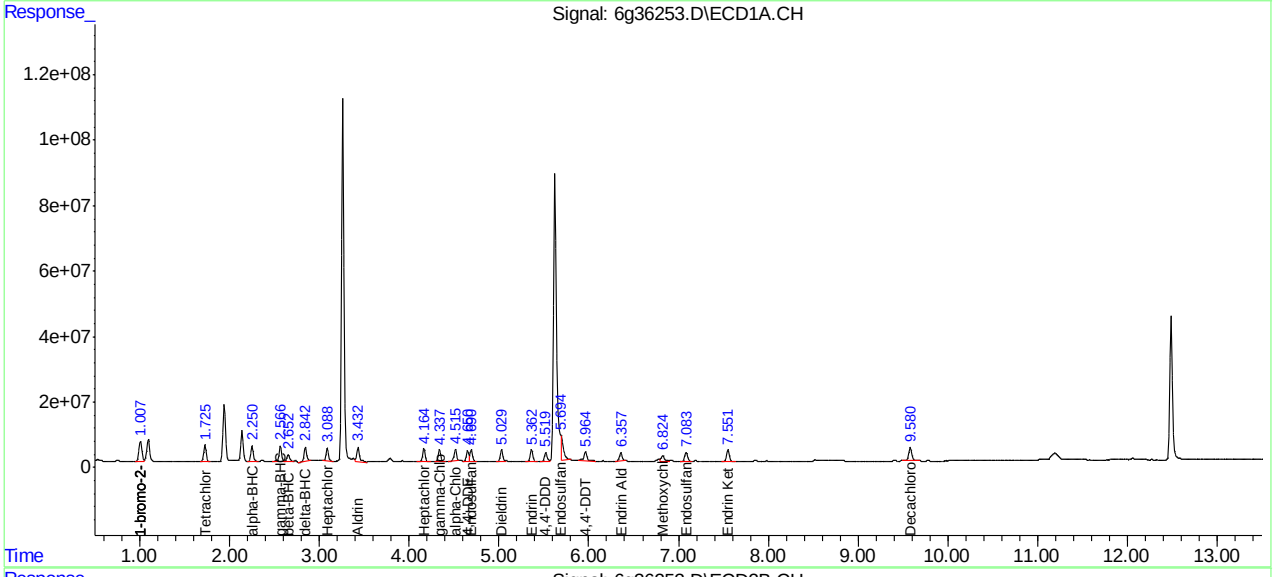
SGS ACCUTEST JC21709

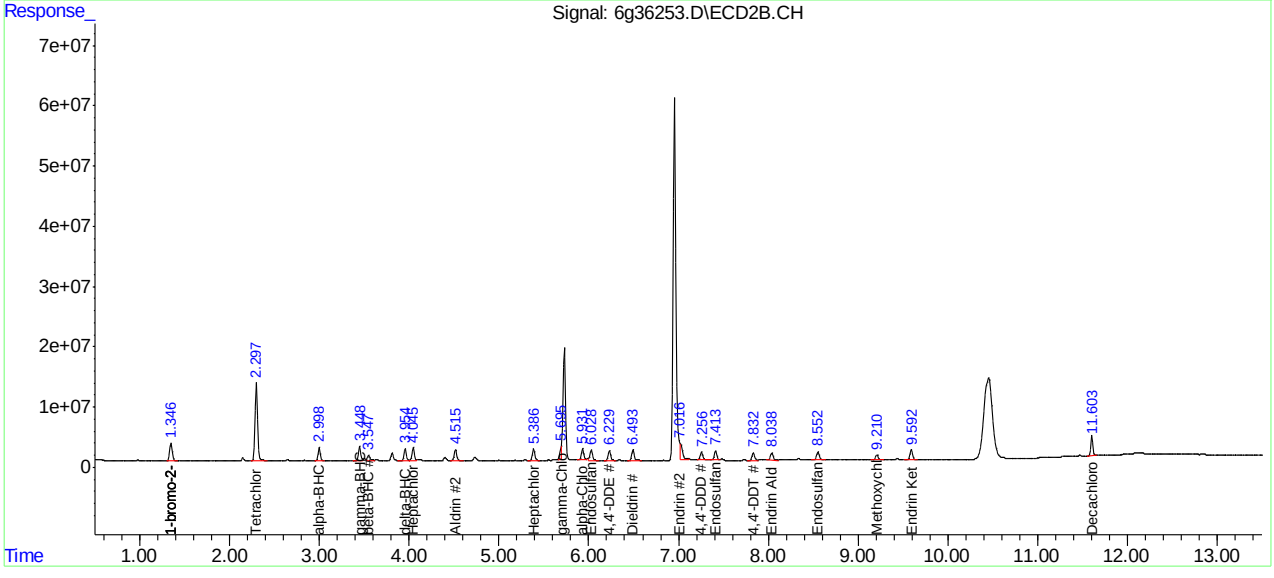
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:58:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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:	OP94652-MS	**Method:**	SW846 8081B
Lab FileID:	6G36253.D	**Analyst approved:**	06/17/16 10:11 Joseph Ravino
Injection Time:	06/16/16 12:11	**Supervisor approved:**	06/20/16 11:53 Gwendolyn Burns

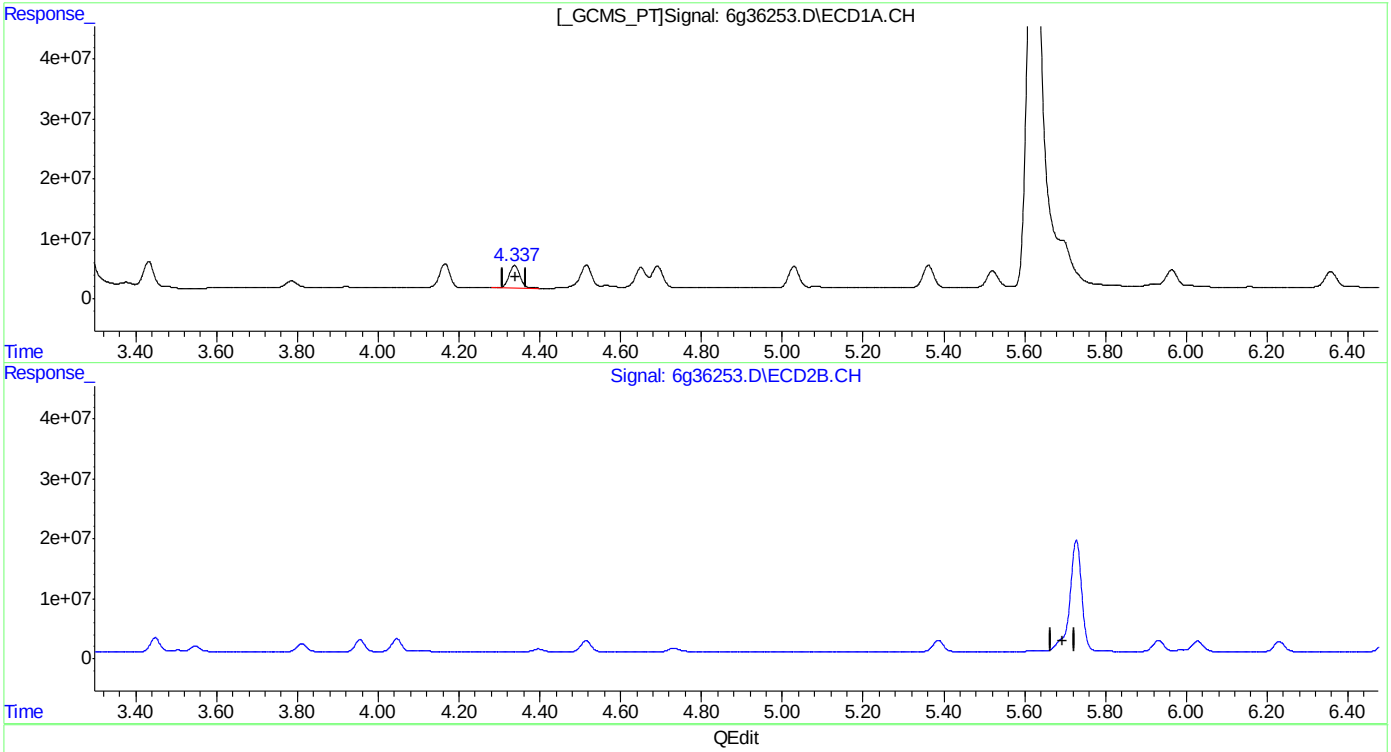
Parameter	CAS	Sig#	R.T. (min.)	Reason
Endosulfan-II	33213-65-9	1	5.69	Poorly defined baseline
gamma-Chlordane	5103-74-2	2	5.69	Poorly defined baseline
Methoxychlor	72-43-5	1	6.82	Poorly defined baseline
Endrin	72-20-8	2	7.02	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:56:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(10) gamma-Chlordane (B)
4.337min 21.266PPB
response 69887470

(10) gamma-Chlordane #2 (B)
0.000min 0.000PPB
response 0

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:57:18 2016

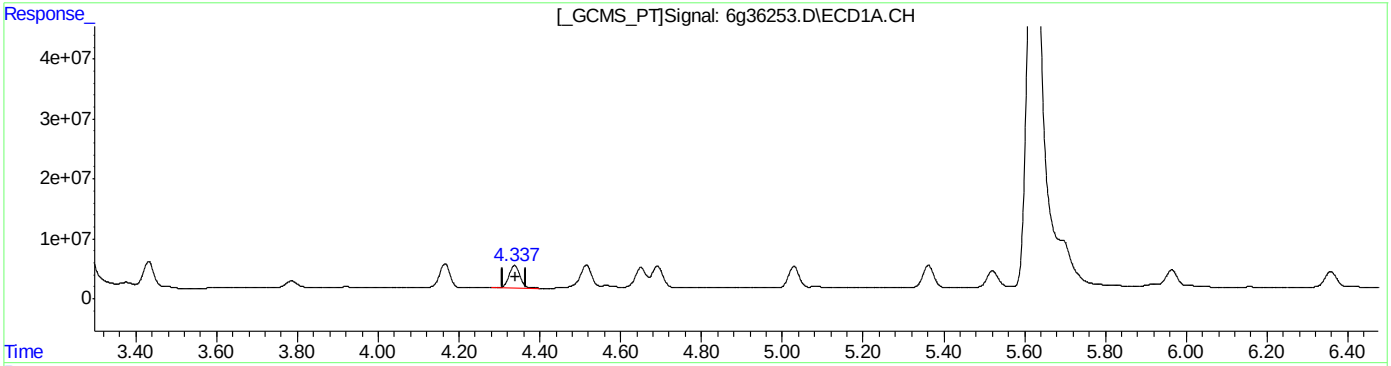
SGS ACCUTEST JC21709

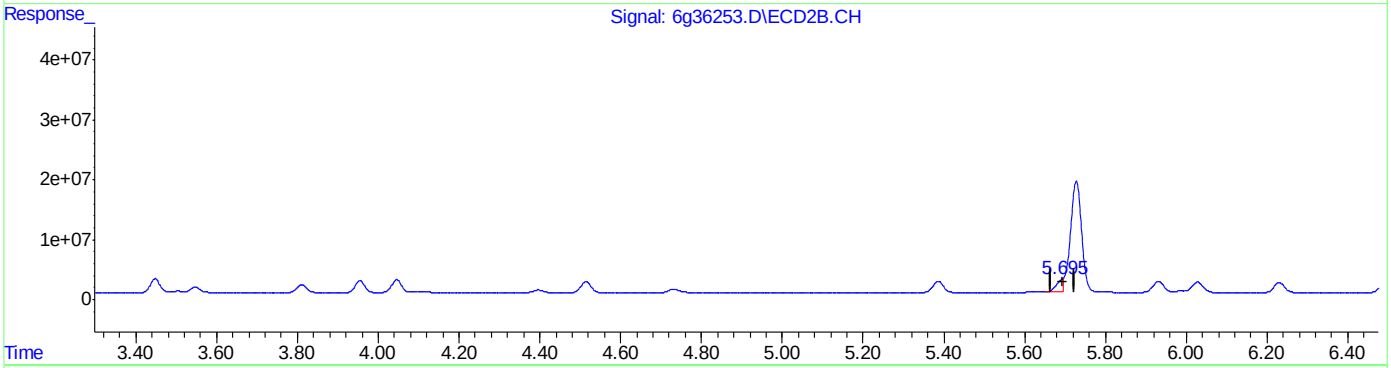
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:56:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(10) gamma-Chlordane (B)
4.337min 21.266PPB
response 69887470

(10) gamma-Chlordane #2 (B)
5.695min 15.615PPB m
response 22533914

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:57:27 2016

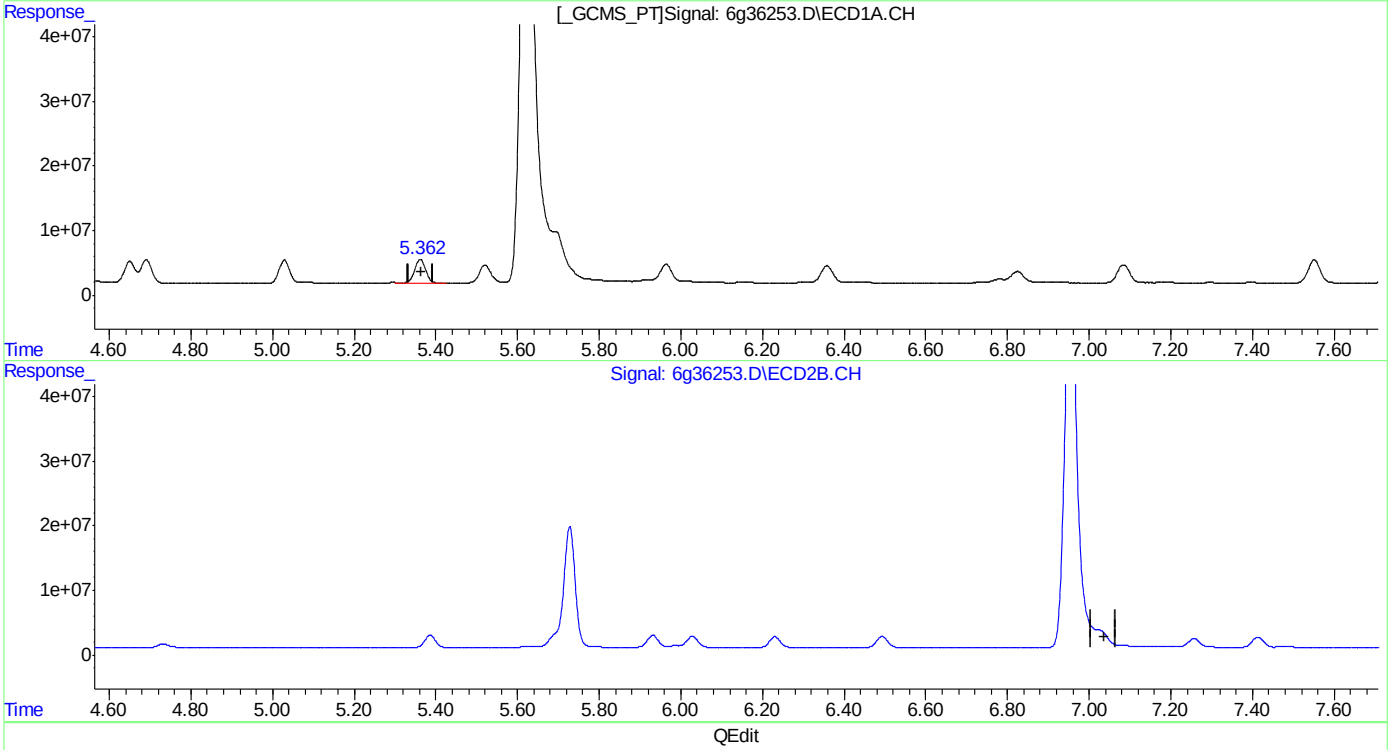
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:56:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(15) Endrin (MA)
5.362min 24.400PPB
response 67832904

(15) Endrin #2 (MA)
0.000min 0.000PPB
response 0

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:57:36 2016

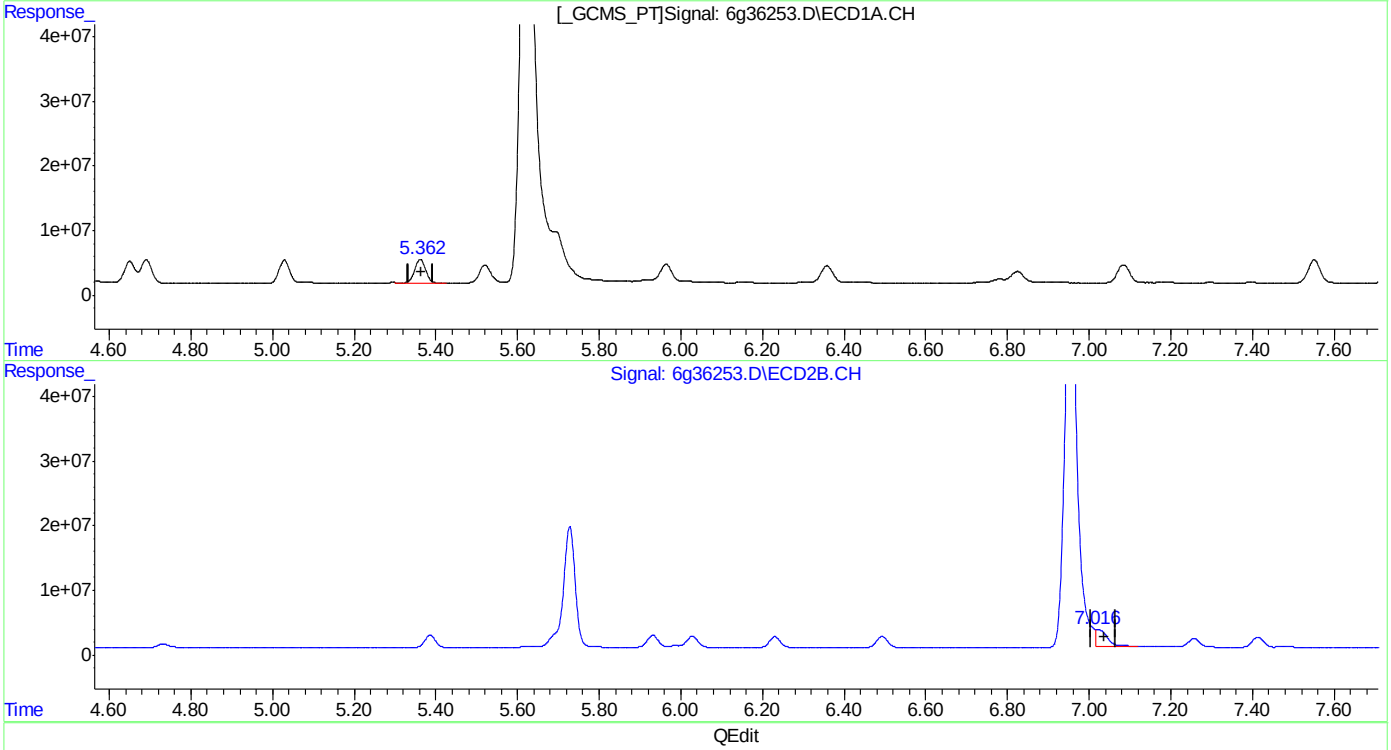
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:56:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(15) Endrin (MA)
5.362min 24.400PPB
response 67832904

(15) Endrin #2 (MA)
7.016min 43.645PPB m
response 53137906

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:57:50 2016

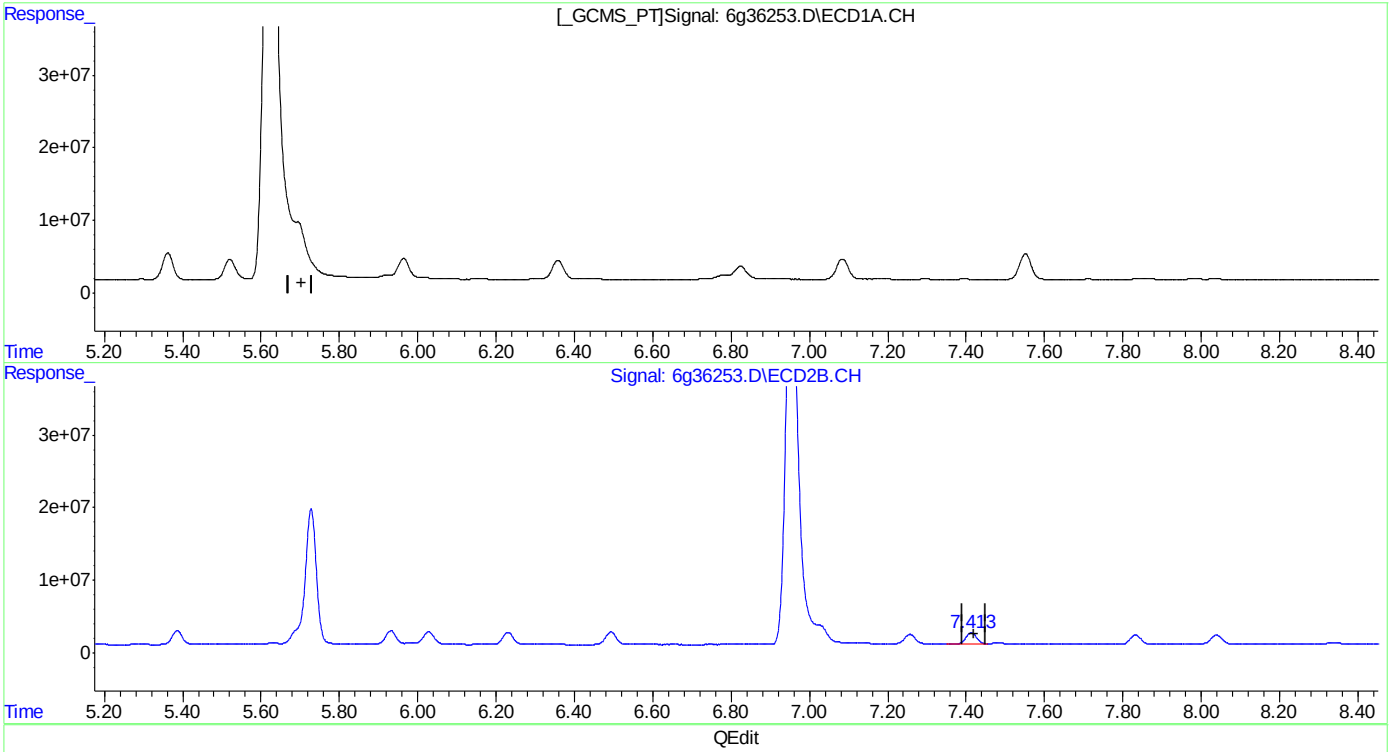
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:56:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(17) Endosulfan II (B)
0.000min 0.000PPB
response 0

(17) Endosulfan II #2 (B)
7.413min 24.114PPB
response 29831563

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:57:57 2016

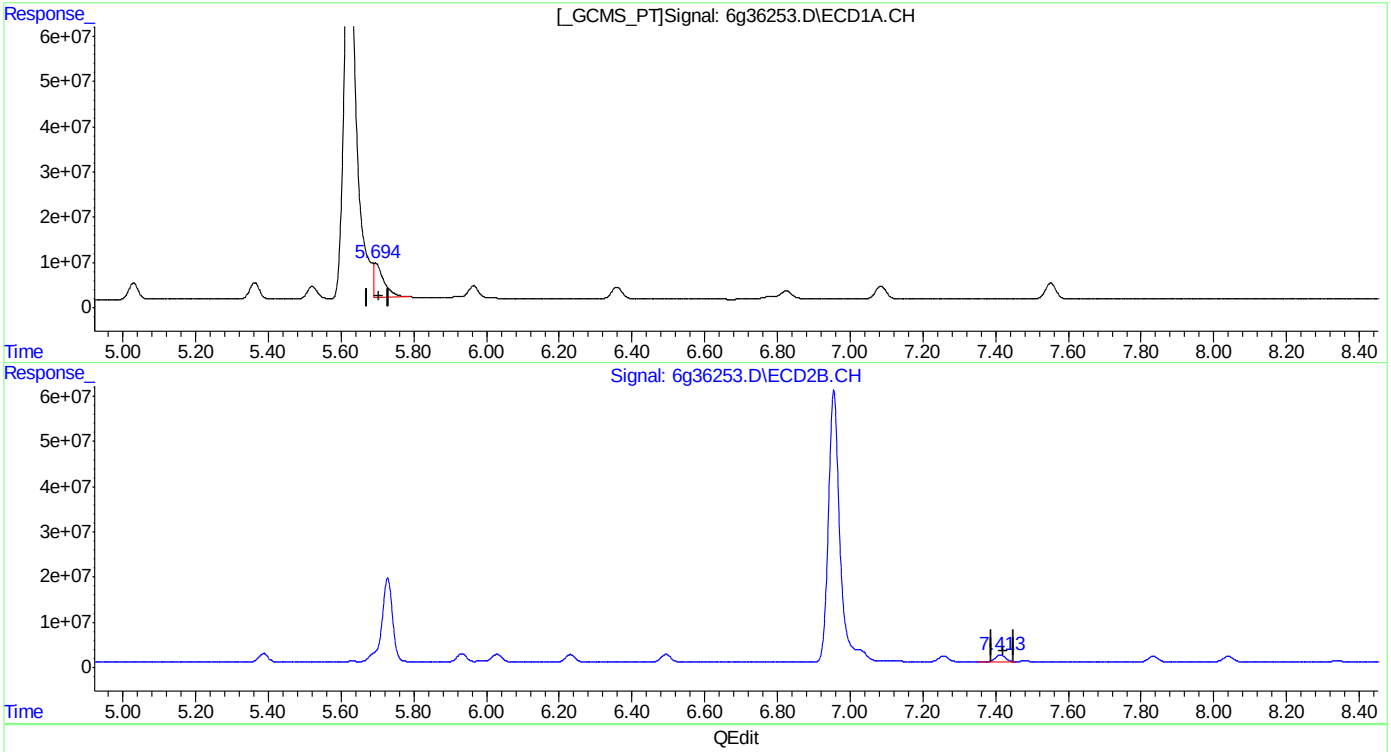
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:56:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(17) Endosulfan II (B)
5.694min 52.061PPB m
response 148089850

(17) Endosulfan II #2 (B)
7.413min 24.114PPB
response 29831563

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:58:08 2016

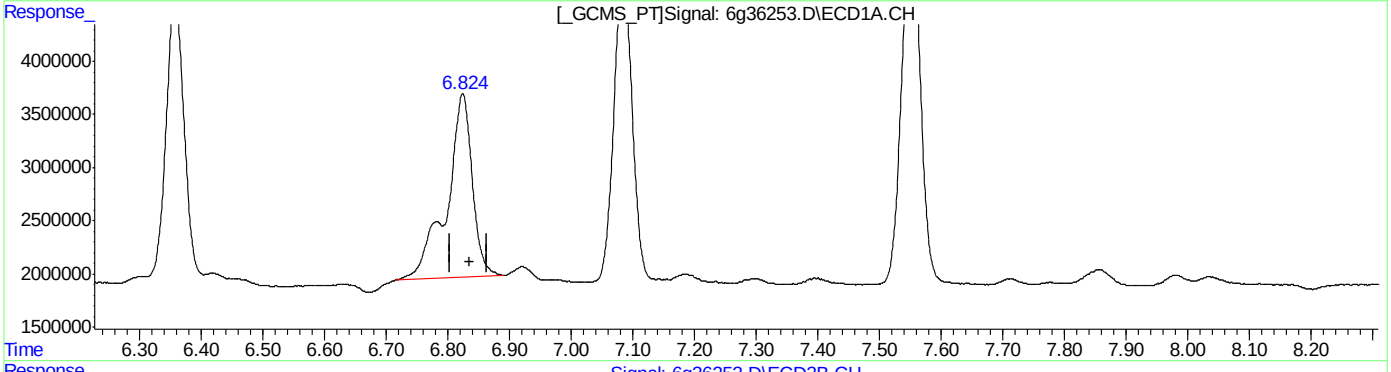
SGS ACCUTEST JC21709

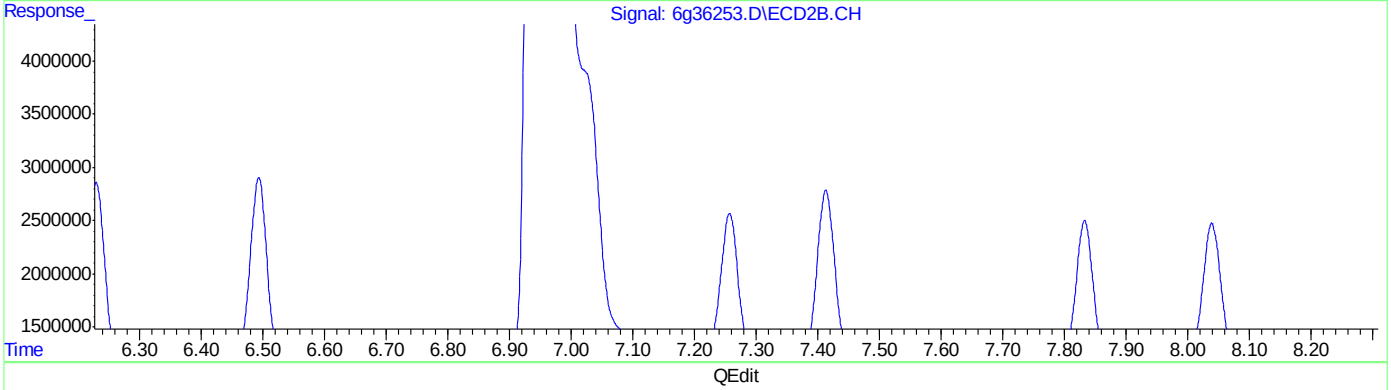
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:56:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(21) Methoxychlor (A)
6.824min 39.216PPB
response 49760288

(21) Methoxychlor #2 (A)
9.209min 27.819PPB
response 16695510

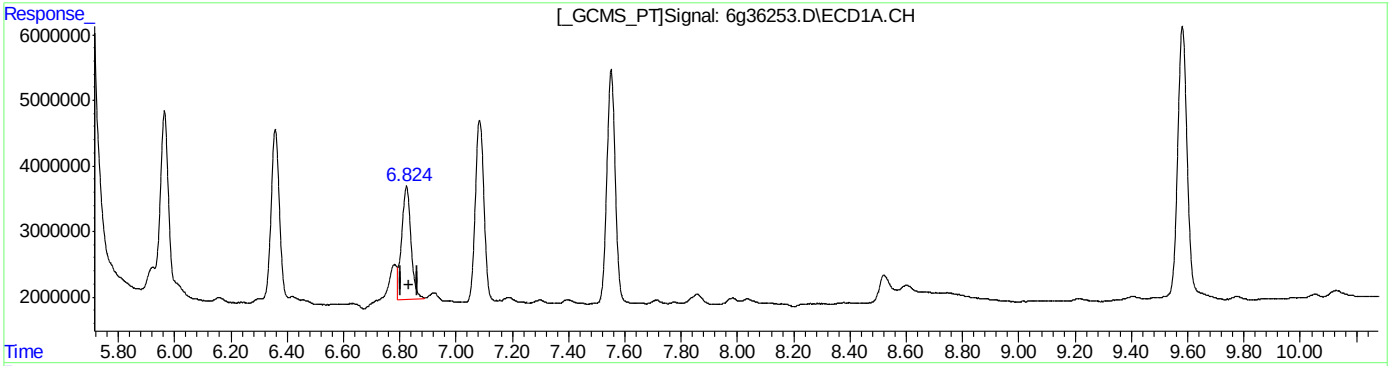
(+) = Expected Retention Time

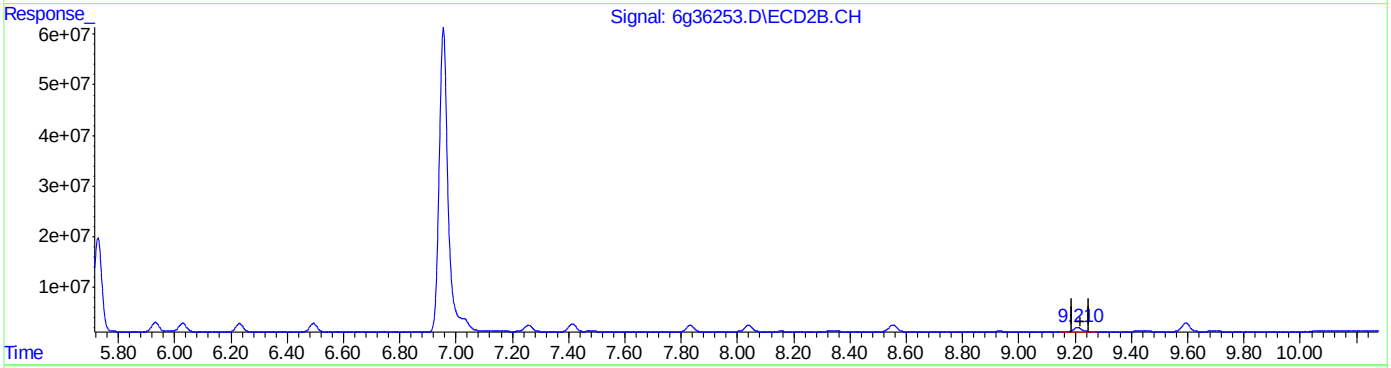
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36253.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:11 pm
Operator : josephr
Sample : op94652-ms
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:56:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(21) Methoxychlor (A)
6.824min 31.404PPB m
response 39848080

(21) Methoxychlor #2 (A)
9.209min 27.819PPB
response 16695510

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:58:29 2016

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 06/20/16 11:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36254.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:27 pm
Operator : josephr
Sample : op94652-msd
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:00:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	149.4E6	62777868	50.000	50.000
25) I	1-bromo-2...	1.004	1.344	149.4E6	62777868	50.000	50.000
31) I	1-bromo-2...	1.004	1.344	149.4E6	62777868	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.723	2.296	109.9E6	276.7E6	38.799	217.755 #
Spiked Amount		40.000 Range	30 - 150	Recovery	=	97.00%	544.39%#
24) SAB	Decachlor...	9.579	11.604	106.8E6	59502800	38.410	38.947
Spiked Amount		40.000		Recovery	=	96.02%	97.37%
	Target Compounds						
3) A	alpha-BHC	2.248	2.997	102.3E6	41707265	27.441	27.177
4) MA	gamma-BHC	2.564	3.446	98852532	42501936	28.503	29.568m
5) MA	Heptachlor	3.086	4.045	82526429	44248768	24.031	29.324
6) B	beta-BHC	2.651	3.545	42007008	16187135	24.315	21.445
7) B	delta-BHC	2.841	3.954	100.2E6	37951397	29.163	27.499
8) MB	Aldrin	3.430	4.514	90714587	38565228	27.986	26.698
9) B	Heptachlo...	4.163	5.385	86687845	40211910	27.721	27.949
10) B	gamma-Chl...	4.336	5.694	81122538	27079898	24.764	18.609m
11) B	alpha-Chl...	4.515	5.930	77913926	40171552	24.643	27.281
12) A	Endosulfan I	4.690	6.026	78821036	43168771	23.410	31.715 #
13) B	4,4'-DDE	4.649	6.230	70134660	36007736	30.121	28.862
14) MA	Dieldrin	5.028	6.491	79021224	38439262	26.070	28.650
15) MA	Endrin	5.361	7.023	82272849	69347853	29.690	56.486 #
16) A	4,4'-DDD	5.519	7.255	61730143	29815652	28.000	28.732
17) B	Endosulfa...	5.693	7.412	188.6E6	35921558	66.513	28.796 #
18) MA	4,4'-DDT	5.963	7.832	77123360	28909100	36.044	30.192
19) B	Endrin Al...	6.357	8.038	55239741	29142572	24.764	28.107
20) B	Endosulfa...	7.082	8.551	67307253	33575019	27.965	29.794
21) A	Methoxychlor	6.821	9.207	44944680	19538203	35.535m	32.285
23) B	Endrin Ke...	7.548	9.591	87020251	39197099	31.929	31.698

SemiQuant Compounds - Not Calibrated on this Instrument

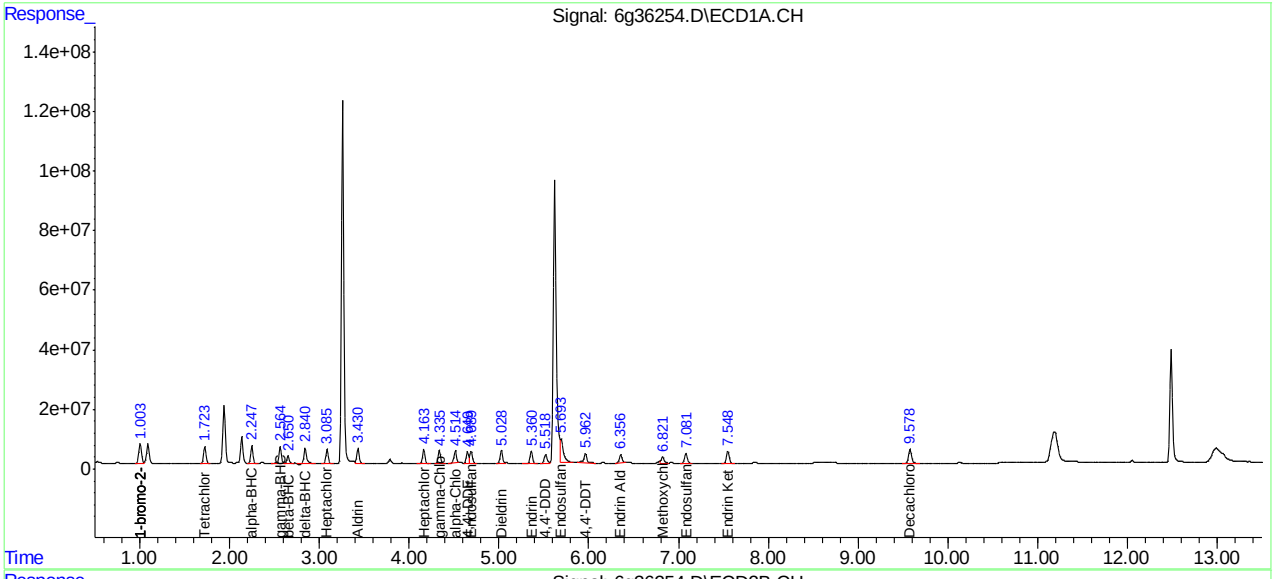
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

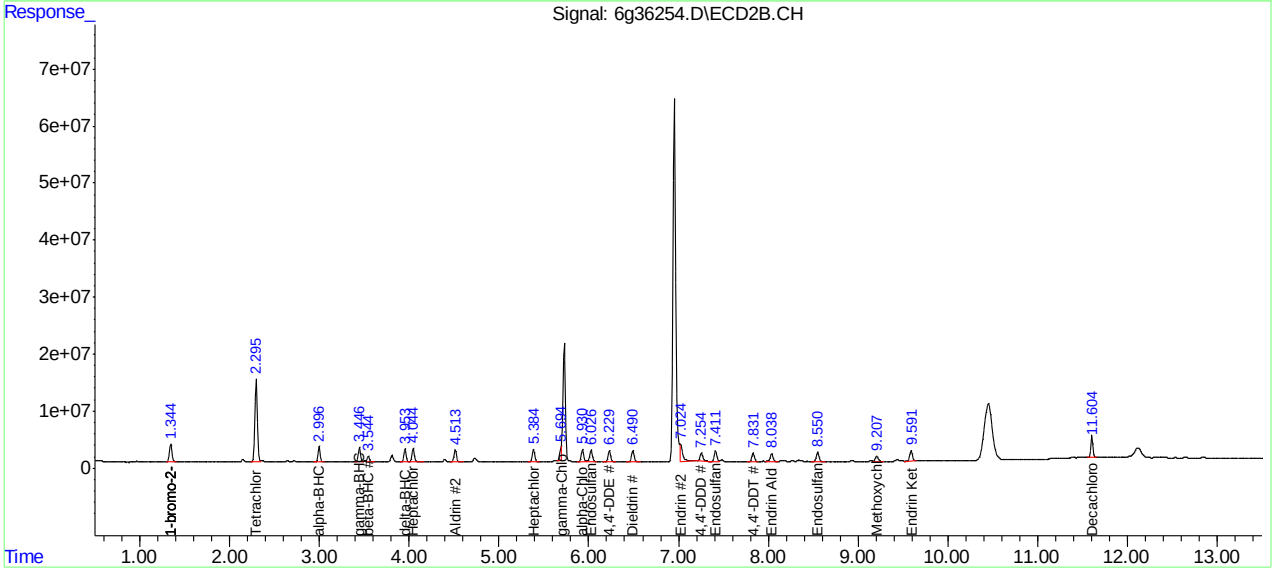
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36254.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:27 pm
Operator : josephr
Sample : op94652-msd
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 10:00:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integration Approval Summary

Sample Number:	OP94652-MSD	**Method:**	SW846 8081B
Lab FileID:	6G36254.D	**Analyst approved:**	06/17/16 10:11 Joseph Ravino
Injection Time:	06/16/16 12:27	**Supervisor approved:**	06/20/16 11:53 Gwendolyn Burns

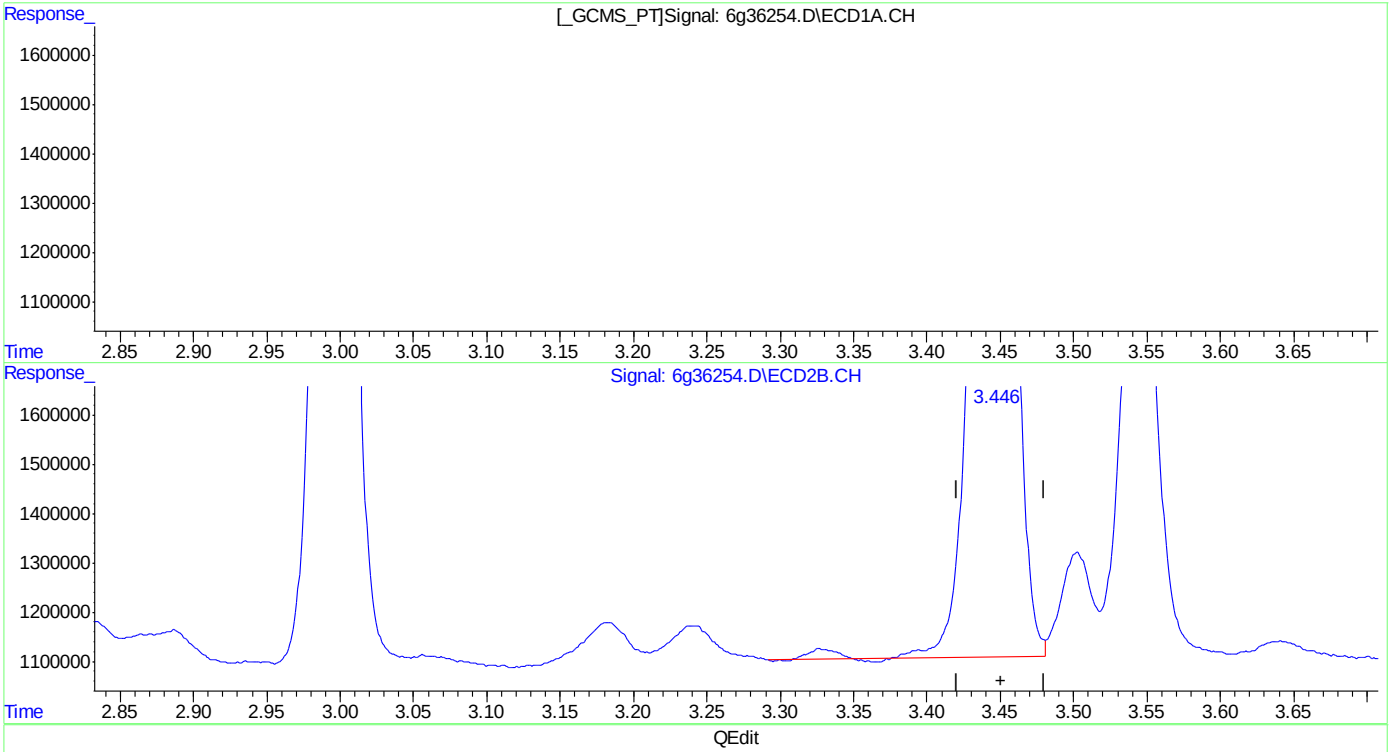
Parameter	CAS	Sig#	R.T. (min.)	Reason
gamma-BHC (Lindane)	58-89-9	2	3.45	Poorly defined baseline
gamma-Chlordane	5103-74-2	2	5.69	Poorly defined baseline
Methoxychlor	72-43-5	1	6.82	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36254.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:27 pm
Operator : josephr
Sample : op94652-msd
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:58:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(4) gamma-BHC (MA)
2.564min 28.503PPB
response 98852532

(4) gamma-BHC #2 (MA)
3.447min 29.772PPB
response 42794452

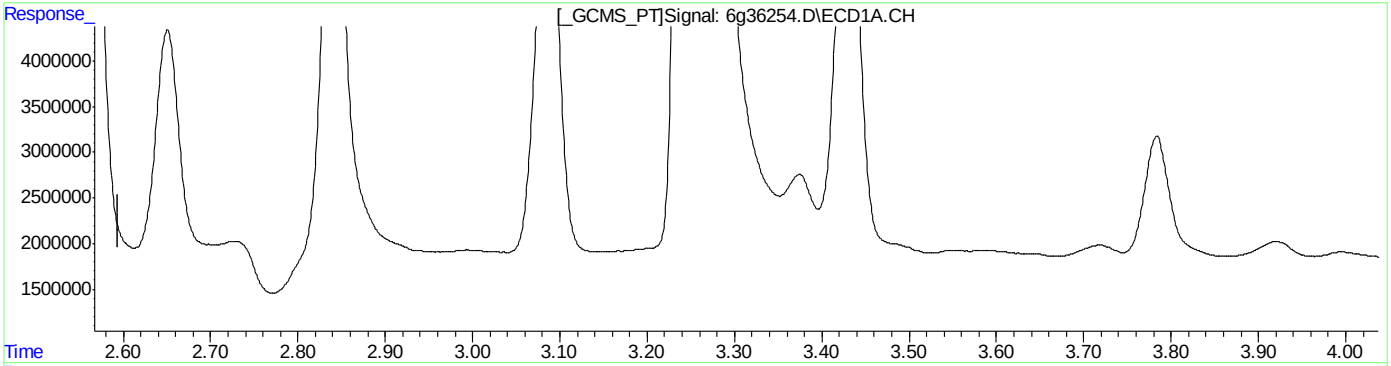
(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:59:09 2016

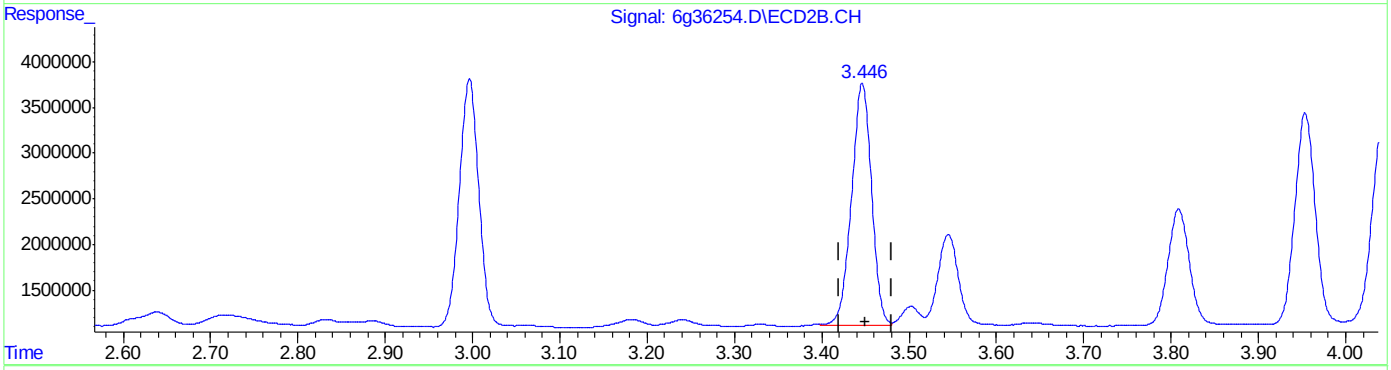
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36254.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:27 pm
Operator : josephr
Sample : op94652-msd
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:58:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(4) gamma-BHC (MA)
2.564min 28.503PPB
response 98852532

(4) gamma-BHC #2 (MA)
3.446min 29.568PPB m
response 42501936

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:59:16 2016

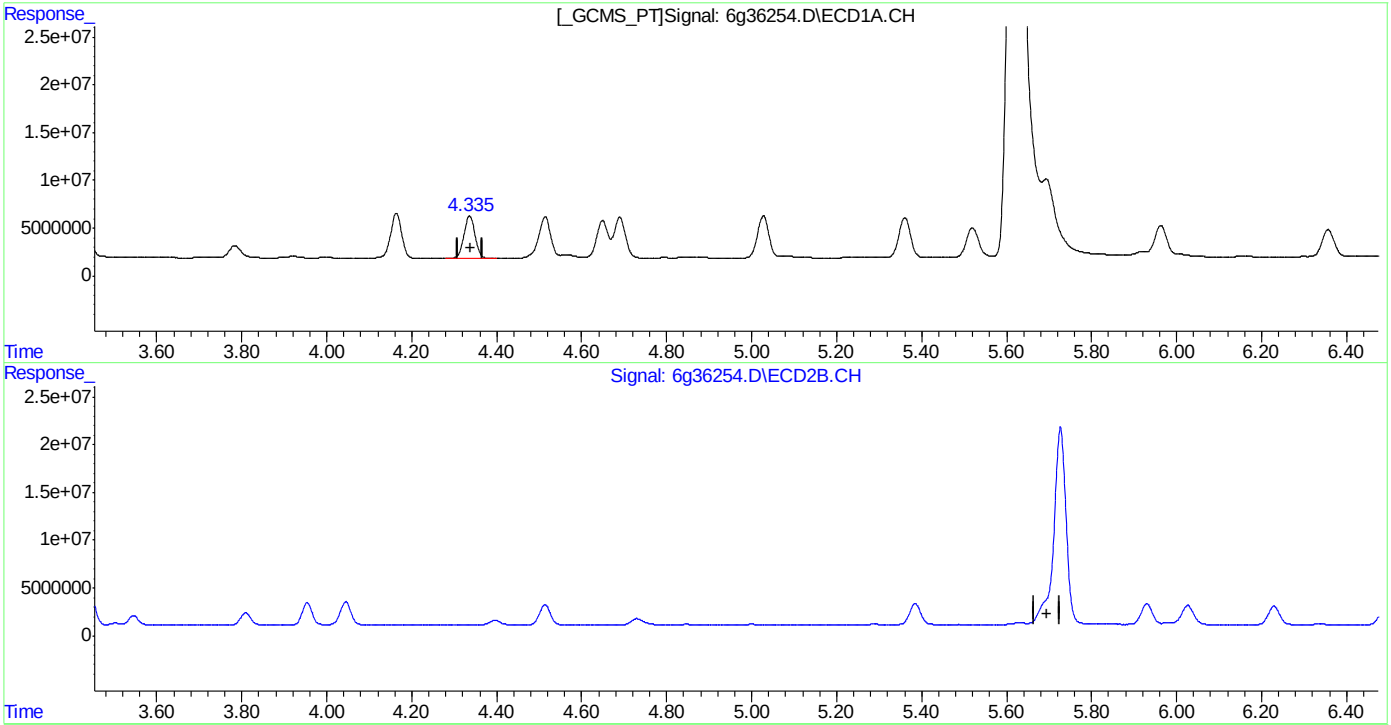
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36254.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:27 pm
Operator : josephr
Sample : op94652-msd
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:58:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(10) gamma-Chlordane (B)
4.336min 24.764PPB
response 81122538

(10) gamma-Chlordane #2 (B)
0.000min 0.000PPB
response 0

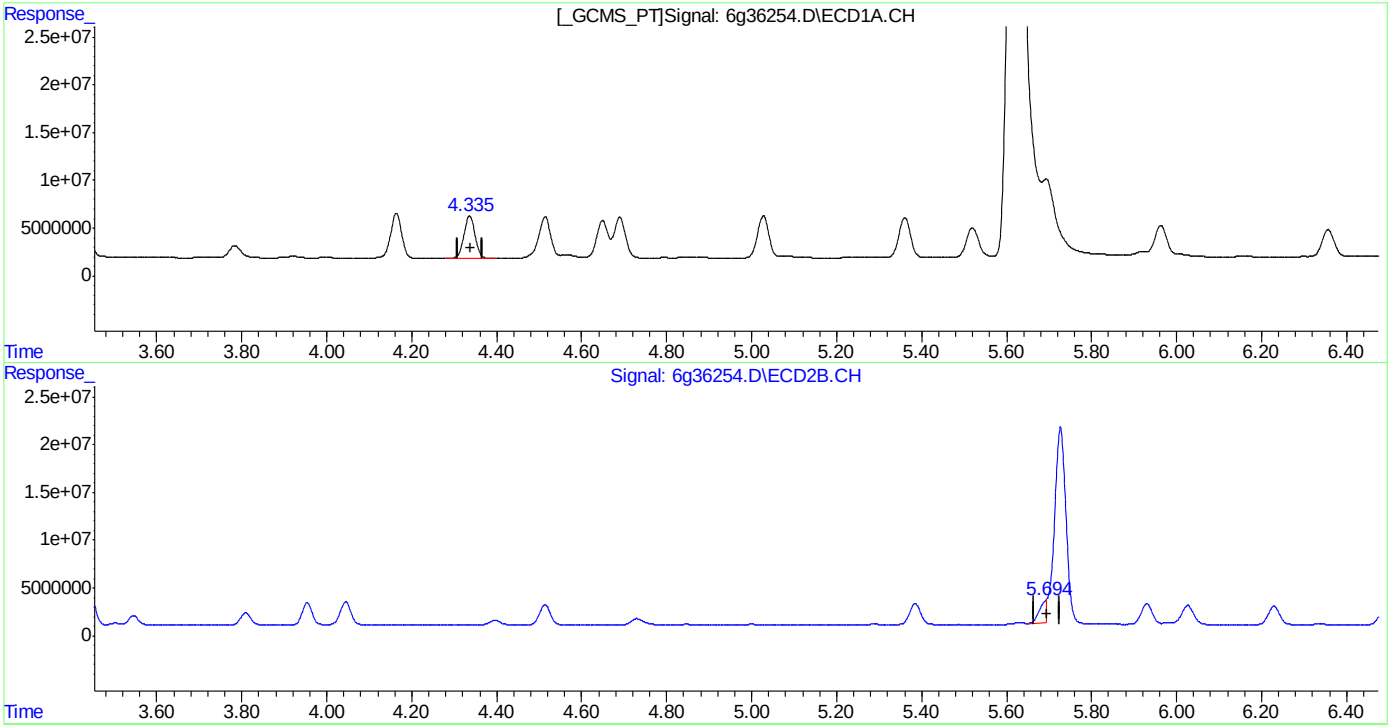
(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:59:28 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36254.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:27 pm
Operator : josephr
Sample : op94652-msd
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:58:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(10) gamma-Chlordane (B)
4.336min 24.764PPB
response 81122538

(10) gamma-Chlordane #2 (B)
5.694min 18.609PPB m
response 27079898

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 09:59:37 2016

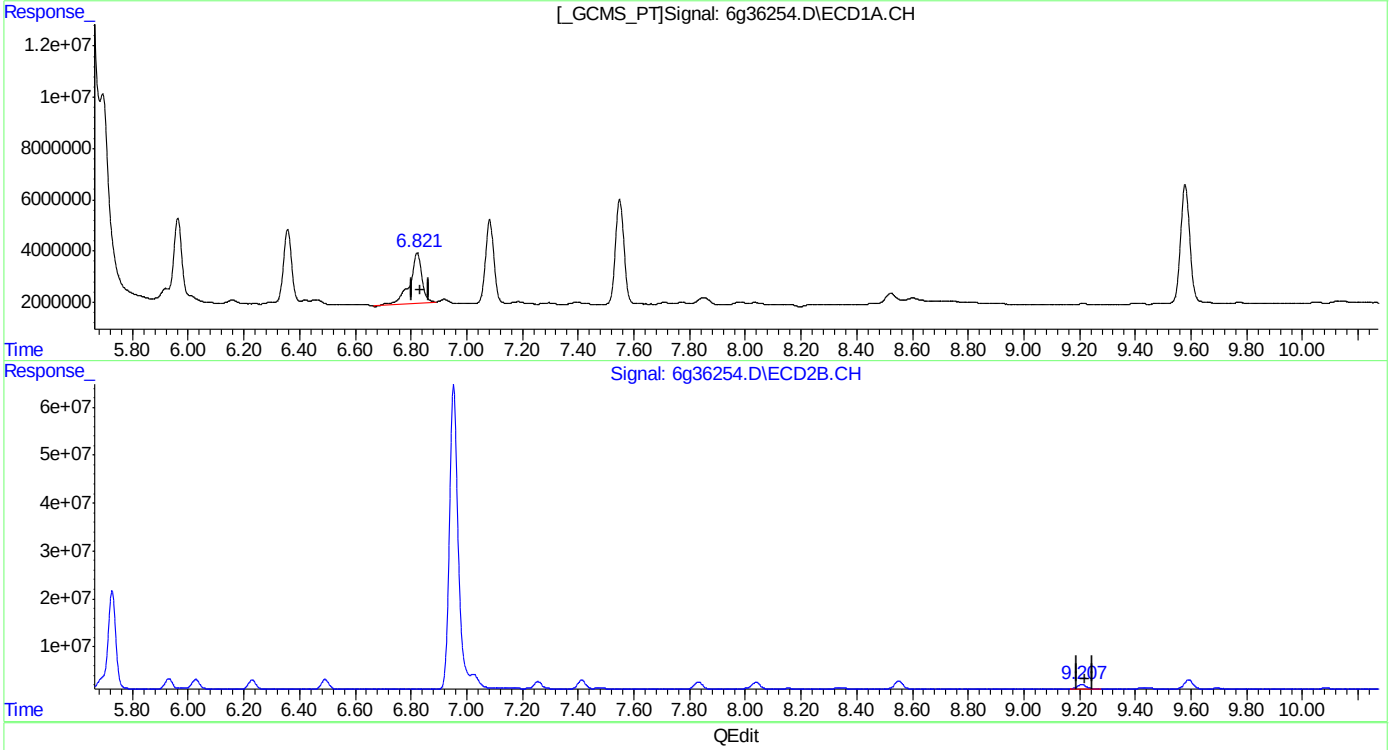
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36254.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:27 pm
Operator : josephr
Sample : op94652-msd
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:58:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(21) Methoxychlor (A)
6.822min 47.353PPB
response 59891155

(21) Methoxychlor #2 (A)
9.207min 32.285PPB
response 19538203

(+) = Expected Retention Time

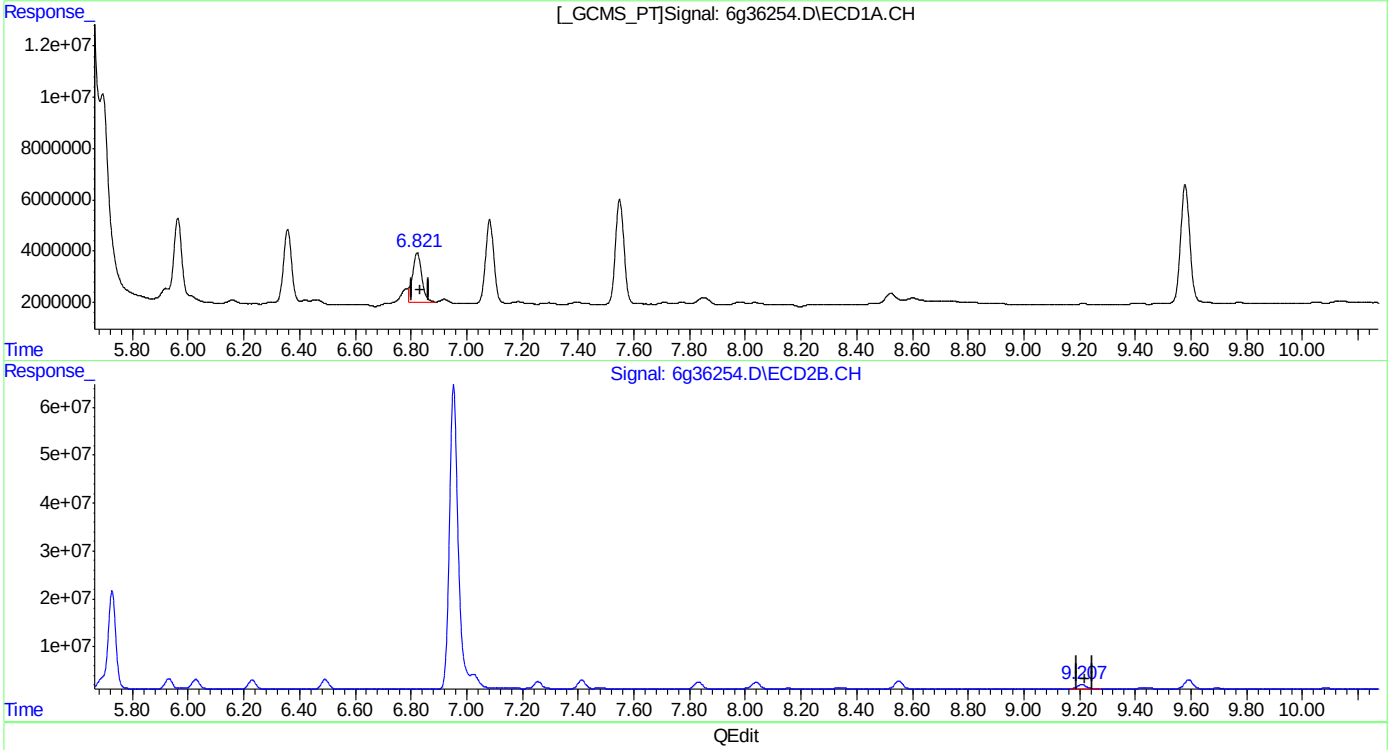
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36254.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 12:27 pm
Operator : josephr
Sample : op94652-msd
Misc : op94652,g6g1039,495,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 09:58:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(21) Methoxychlor (A)
6.821min 35.535PPB m
response 44944680

(21) Methoxychlor #2 (A)
9.207min 32.285PPB
response 19538203

(+) = Expected Retention Time
6PST1034.M Fri Jun 17 10:00:20 2016

SGS ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
06/14/16 15:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36058.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:21 pm
Operator : dharas
Sample : ddt
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 14:07:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.010	1.344	133.6E6	53211503	50.000	50.000
25) I	1-bromo-2...	1.010	1.344	133.6E6	53211503	50.000	50.000
31) I	1-bromo-2...	1.010	1.344	133.6E6	53211503	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.732	2.289	47792175	20545613	18.858	19.076
Spiked Amount		40.000	Range	30 - 150	Recovery	= 47.15%	47.69%
24) SAB	Decachlor...	9.595	11.619	44393052	24765752	17.851	19.125
Spiked Amount		40.000			Recovery	= 44.63%	47.81%
	Target Compounds						
13) B	4,4'-DDE	4.666	6.242	1219518	542492	0.586	0.513m
15) MA	Endrin	5.377	7.042	116.9E6	52876025	47.181	50.812
16) A	4,4'-DDD	5.535	7.269	2612432	1434360	1.325	1.631
18) MA	4,4'-DDT	5.979	7.844	216.1E6	102.7E6	112.907	126.528
19) B	Endrin Al...	6.374	8.050	1352257	618541	0.678	0.704
23) B	Endrin Ke...	7.565	9.603	5068920	2227285	2.079	2.125

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

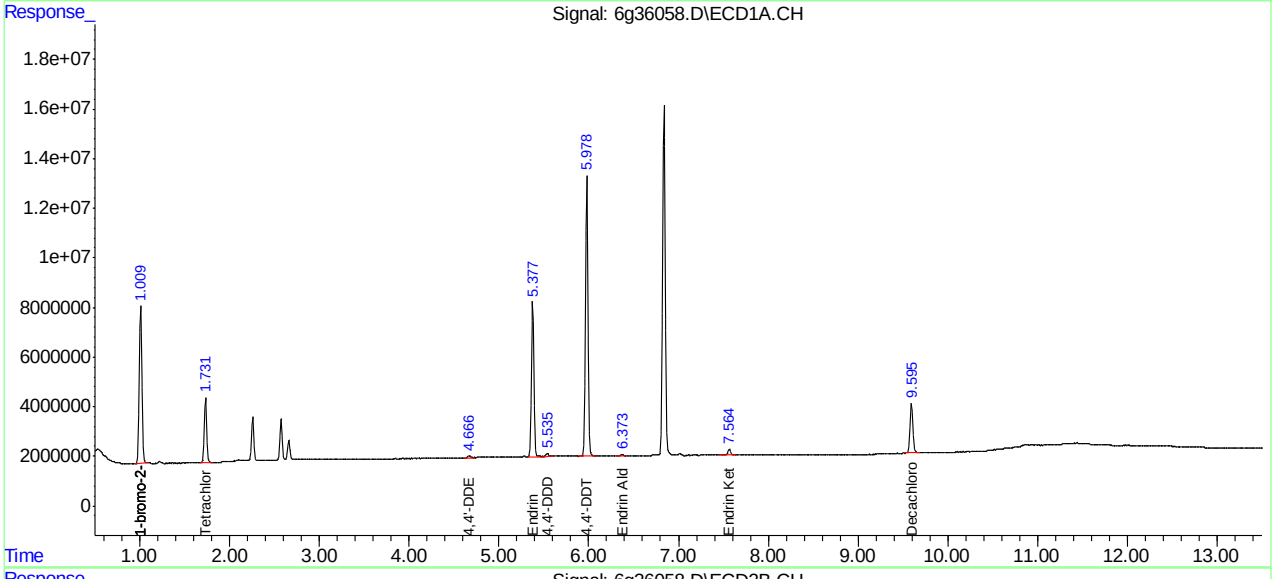
SGS ACCUTEST JC21709

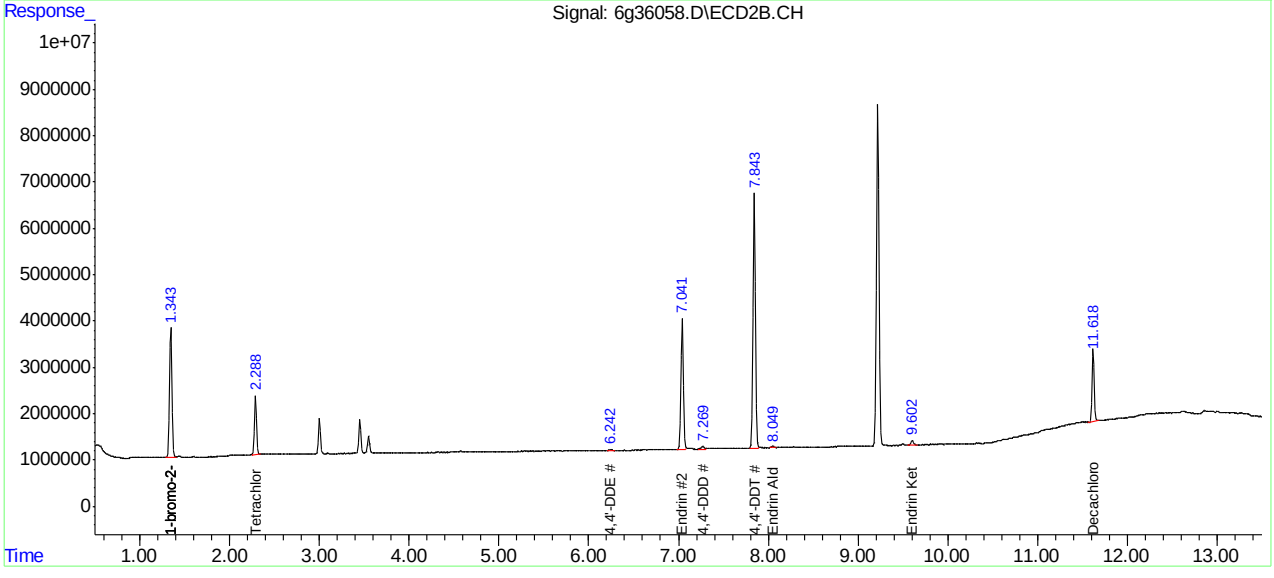
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36058.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:21 pm
Operator : dharas
Sample : ddt
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 14:07:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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:	G6G1034-DDT	**Method:**	SW846 8081B
Lab FileID:	6G36058.D	**Analyst approved:**	06/13/16 14:08 Rebecca Krug
Injection Time:	06/10/16 16:21	**Supervisor approved:**	06/14/16 15:27 Gwendolyn Burns

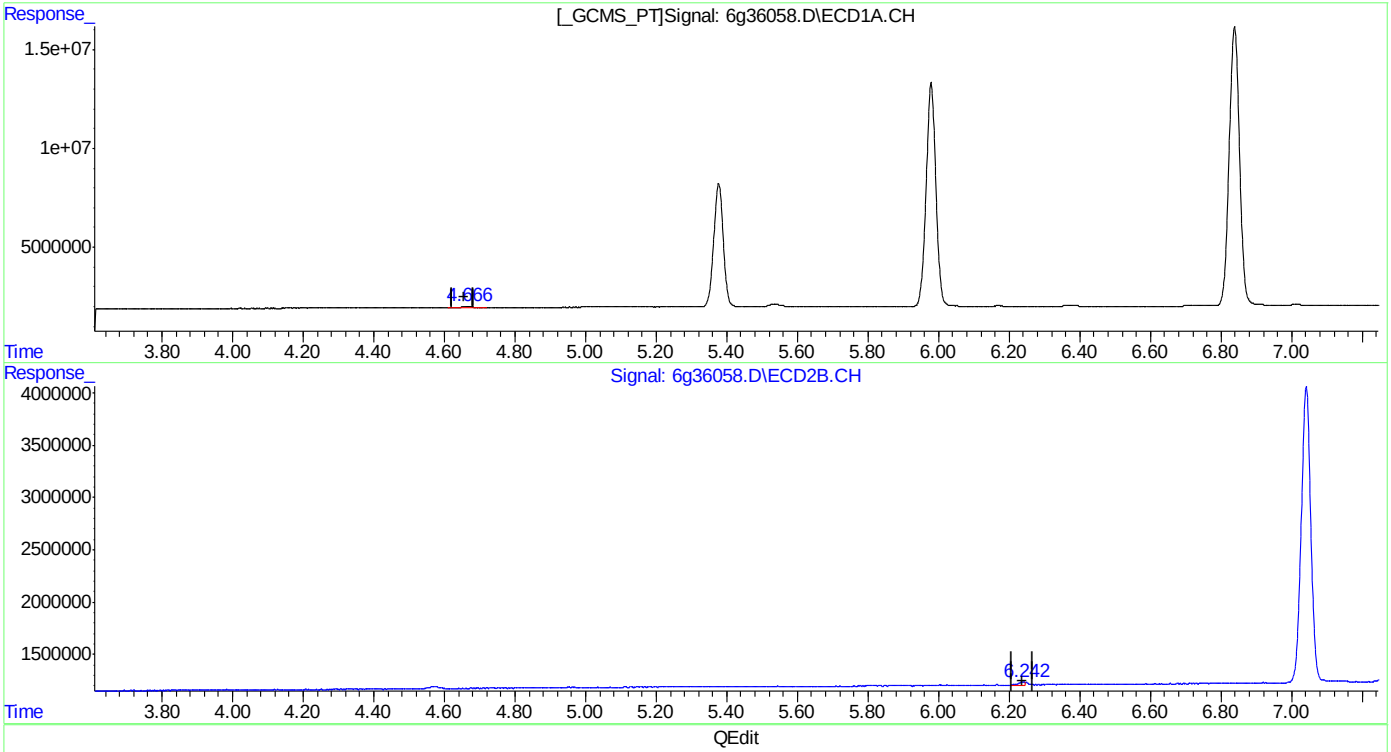
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	2	6.24	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36058.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:21 pm
Operator : dharas
Sample : ddt
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 14:06:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(13) 4,4'-DDE (B)
4.666min 0.586PPB
response 1219518

(13) 4,4'-DDE #2 (B)
6.242min 0.359PPB
response 379695

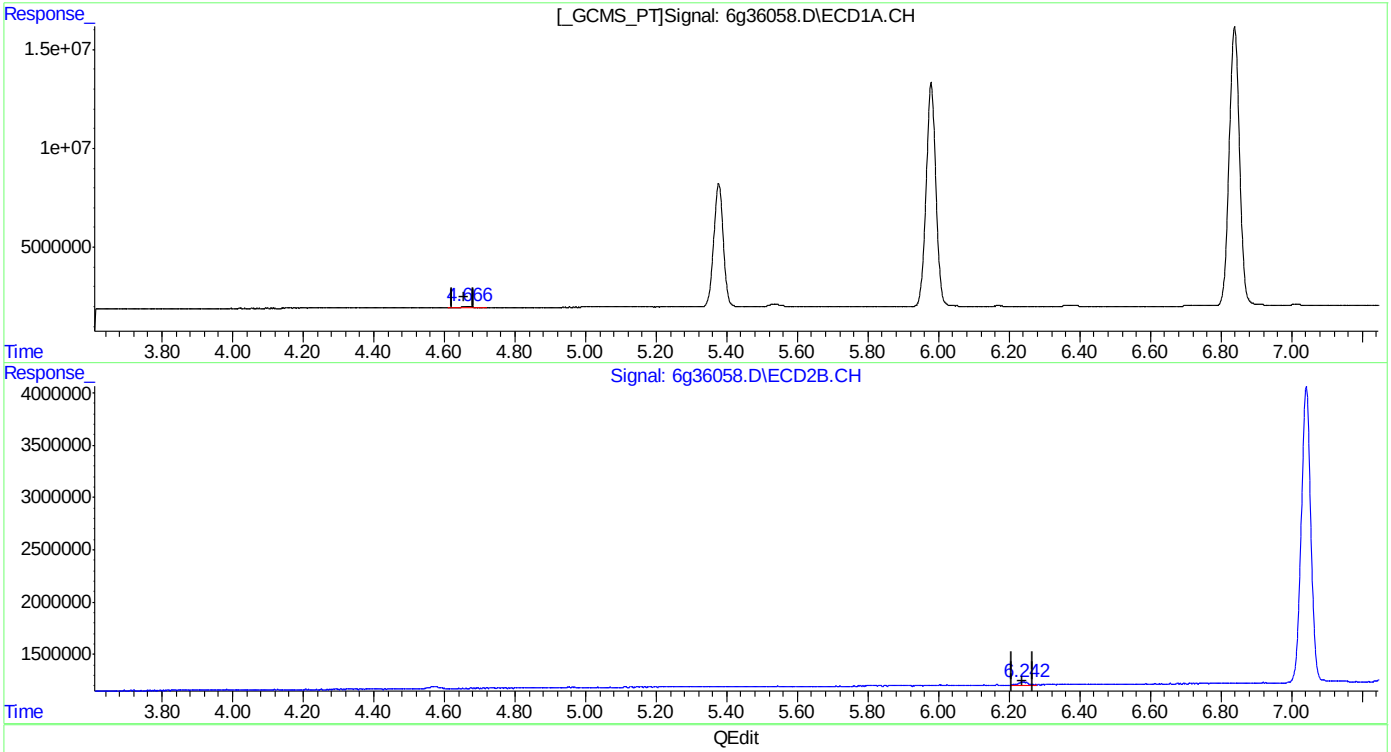
(+) = Expected Retention Time
6PST1034.M Mon Jun 13 14:07:06 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36058.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:21 pm
Operator : dharas
Sample : ddt
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 14:06:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(13) 4,4'-DDE (B)
4.666min 0.586PPB
response 1219518

(13) 4,4'-DDE #2 (B)
6.242min 0.513PPB m
response 542492

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 14:07:13 2016

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
06/17/16 09:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36242.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 8:52 am
Operator : dharas
Sample : ddt
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:44:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	149.2E6	67175212	50.000	50.000
25) I	1-bromo-2...	1.004	1.344	149.2E6	67175212	50.000	50.000
31) I	1-bromo-2...	1.004	1.344	149.2E6	67175212	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.723	2.286	52913732	25251637	18.693	18.572
Spiked Amount		40.000	Range	30 - 150	Recovery	= 46.73%	46.43%
24) SAB	Decachlor...	9.577	11.596	50087892	30286690	18.032	18.526
Spiked Amount		40.000			Recovery	= 45.08%	46.31%
	Target Compounds						
13) B	4,4'-DDE	4.651	6.225	666867	317488	0.287m	0.238m
15) MA	Endrin	5.357	7.028	122.3E6	62368606	44.171	47.476
16) A	4,4'-DDD	5.521	7.257	2212931	1110300	1.005	1.000m
18) MA	4,4'-DDT	5.959	7.831	232.0E6	122.2E6	108.502	119.231
19) B	Endrin Al...	6.355	8.034	1538412	771064	0.690m	0.695m
23) B	Endrin Ke...	7.545	9.589	5818680	2678404	2.137	2.024

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.5.2 11

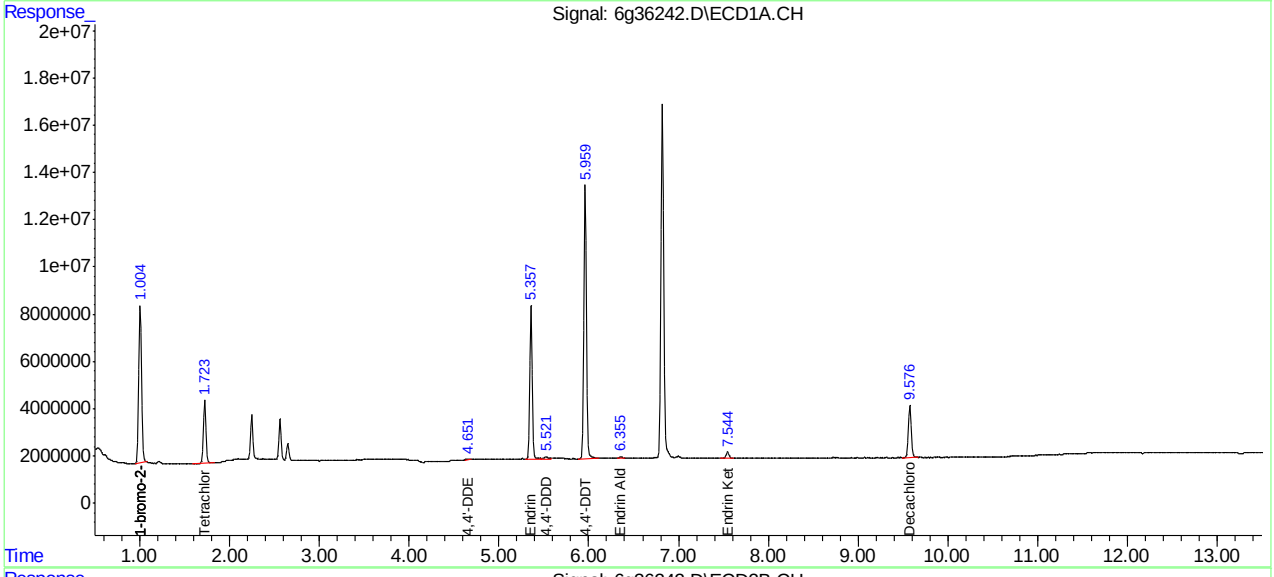
SGS ACCUTEST JC21709

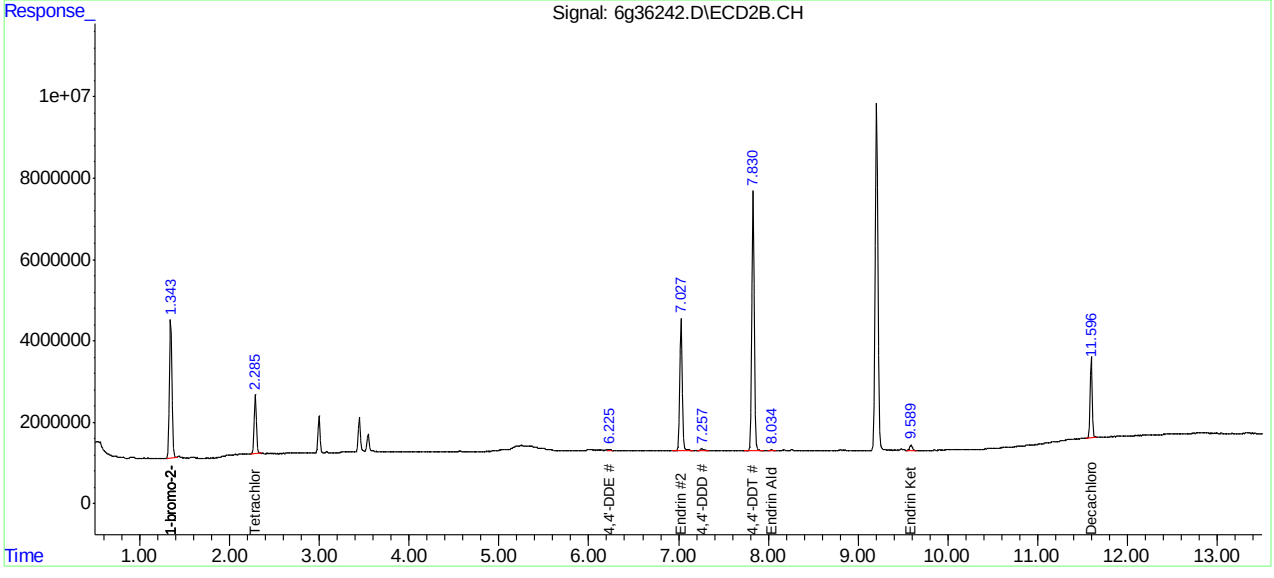
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36242.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 8:52 am
Operator : dharas
Sample : ddt
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:44:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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:	G6G1039-DDT	**Method:**	SW846 8081B
Lab FileID:	6G36242.D	**Analyst approved:**	06/16/16 14:55 Joseph Ravino
Injection Time:	06/16/16 08:52	**Supervisor approved:**	06/17/16 09:43 Gwendolyn Burns

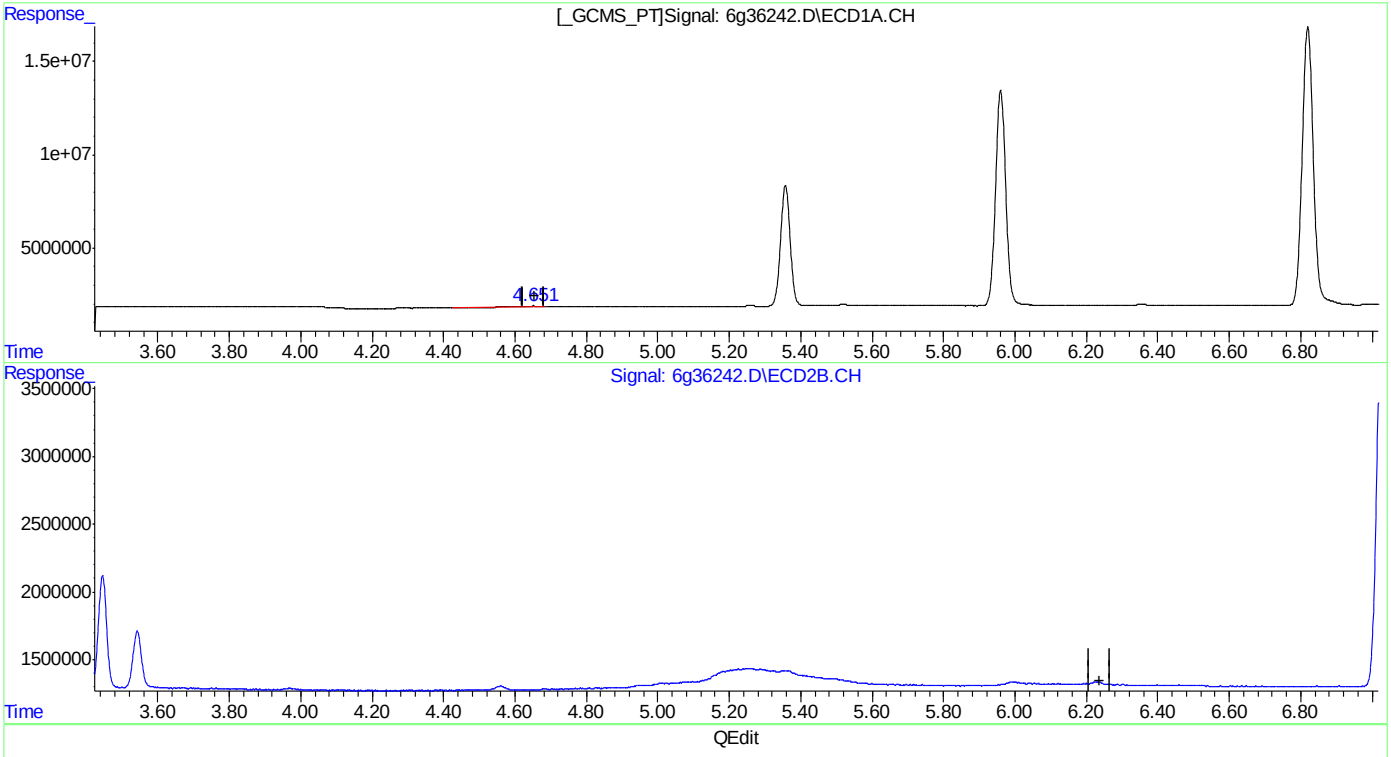
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	4.65	Poorly defined baseline
4,4'-DDE	72-55-9	2	6.23	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.35	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.26	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.03	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36242.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 8:52 am
Operator : dharas
Sample : ddt
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:43:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(13) 4,4'-DDE (B)
4.651min 0.779PPB
response 1812828

(13) 4,4'-DDE #2 (B)
0.000min 0.000PPB
response 0

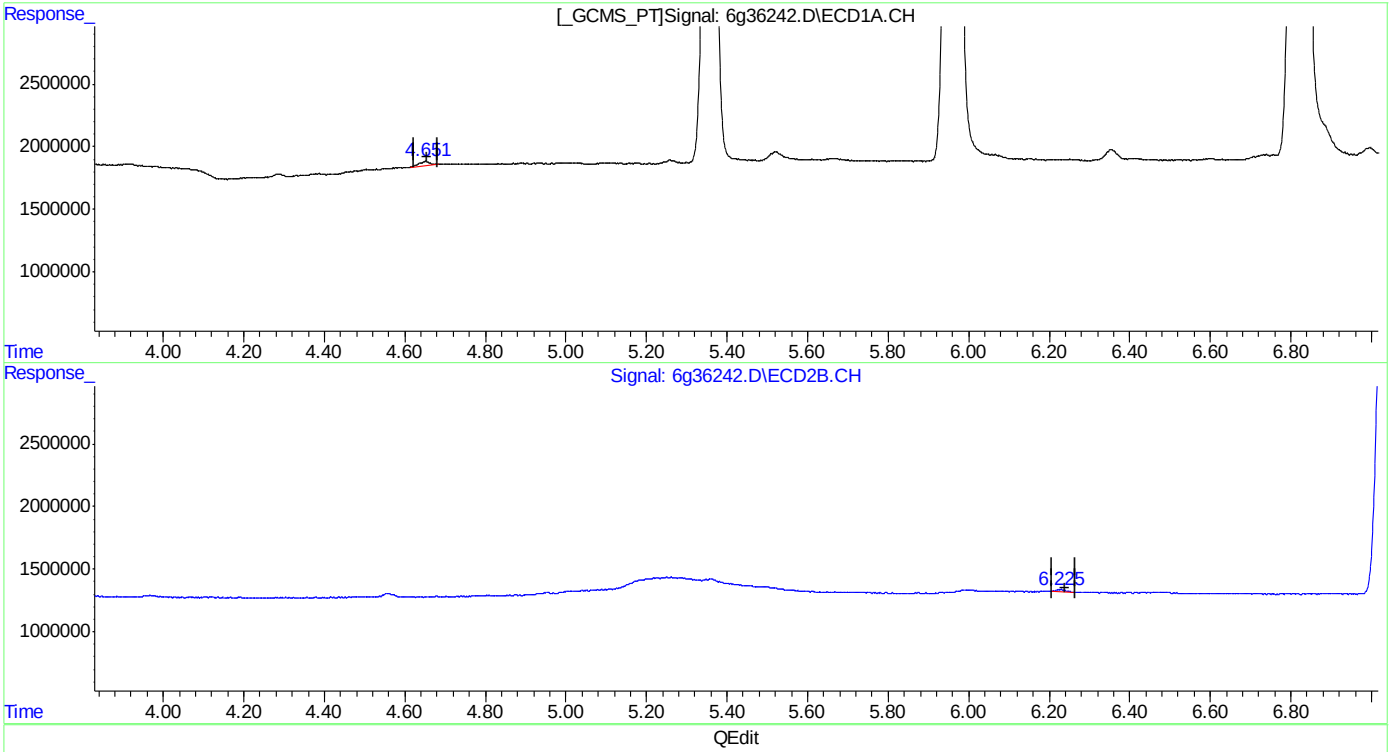
(+) = Expected Retention Time
6PST1034.M Thu Jun 16 14:43:36 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36242.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 8:52 am
Operator : dharas
Sample : ddt
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:43:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(13) 4,4'-DDE (B)
4.651min 0.287PPB m
response 666867

(13) 4,4'-DDE #2 (B)
6.225min 0.238PPB m
response 317488

(+) = Expected Retention Time
6PST1034.M Thu Jun 16 14:43:57 2016

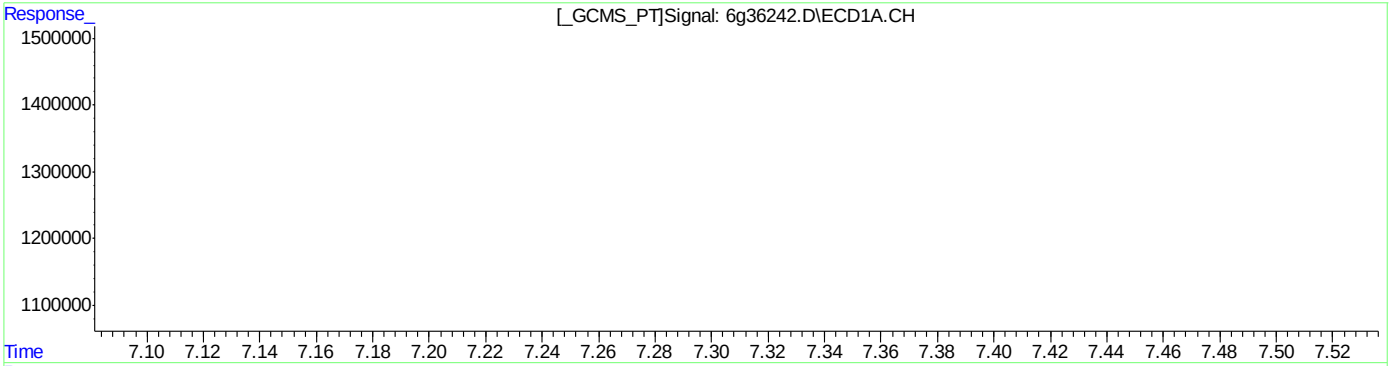
SGS ACCUTEST JC21709

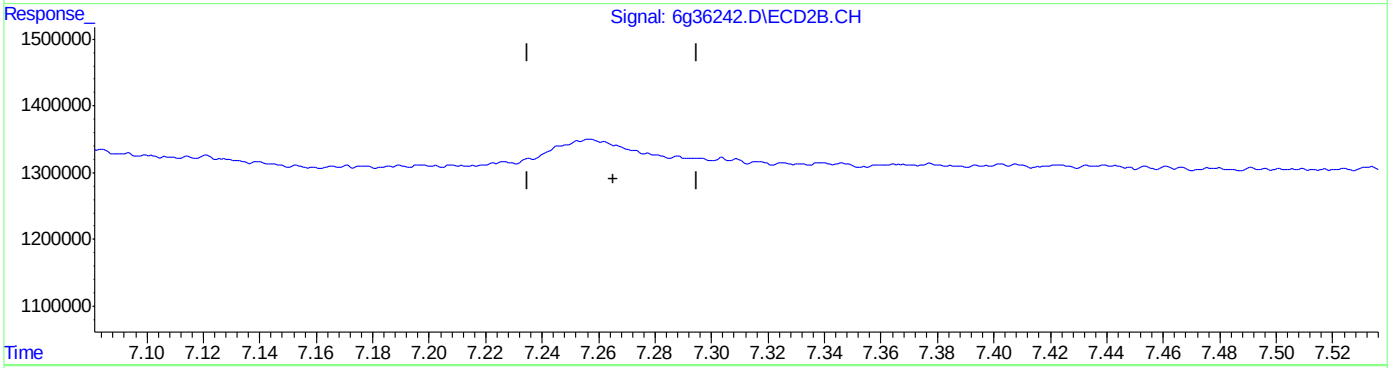
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36242.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 8:52 am
Operator : dharas
Sample : ddt
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:43:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(16) 4,4'-DDD (A)
5.521min 1.005PPB
response 2212931

(16) 4,4'-DDD #2 (A)
0.000min 0.000PPB
response 0

(+) = Expected Retention Time
6PST1034.M Thu Jun 16 14:44:07 2016

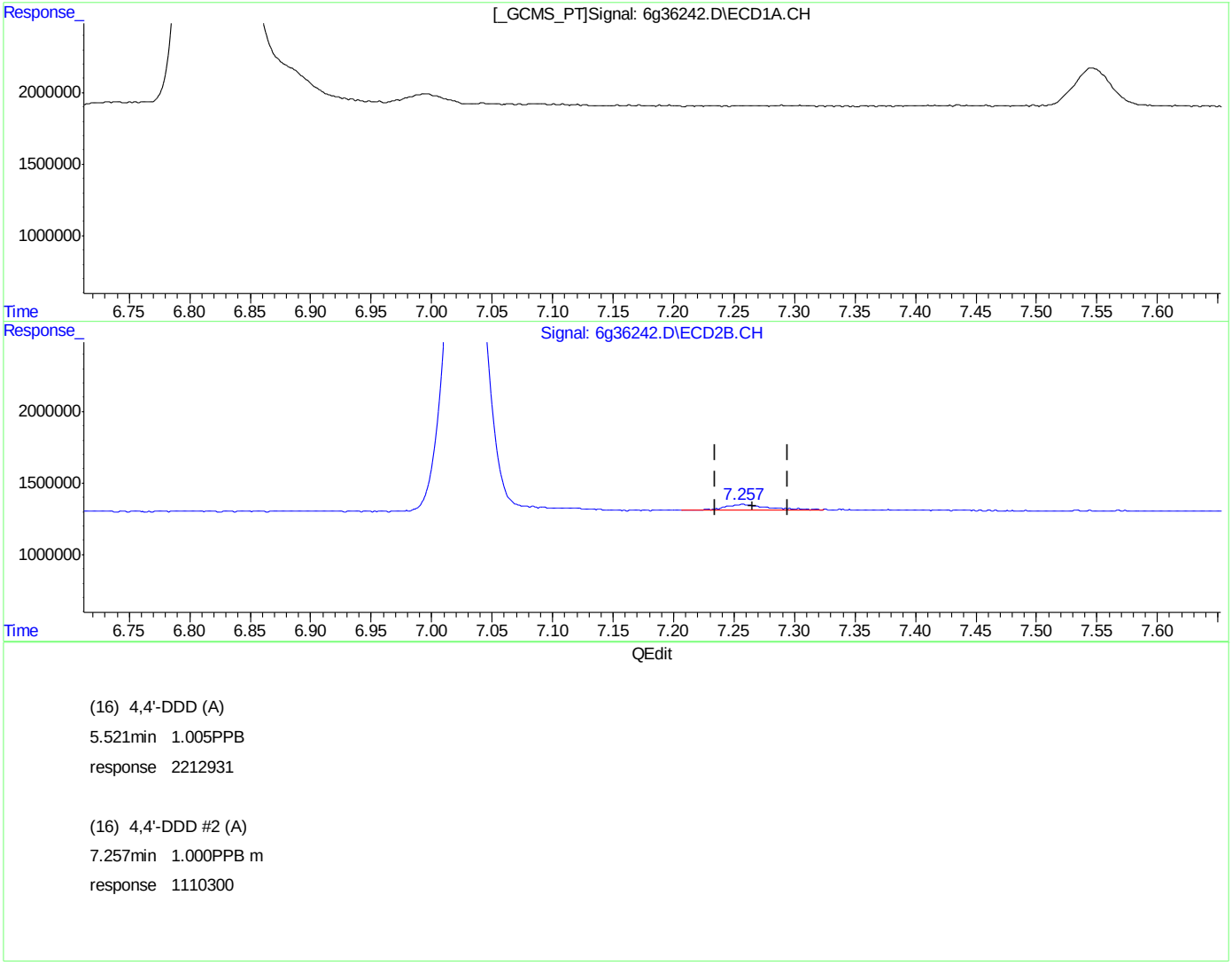
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36242.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 8:52 am
Operator : dharas
Sample : ddt
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:43:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(16) 4,4'-DDD (A)
5.521min 1.005PPB
response 2212931

(16) 4,4'-DDD #2 (A)
7.257min 1.000PPB m
response 1110300

(+) = Expected Retention Time
6PST1034.M Thu Jun 16 14:44:14 2016

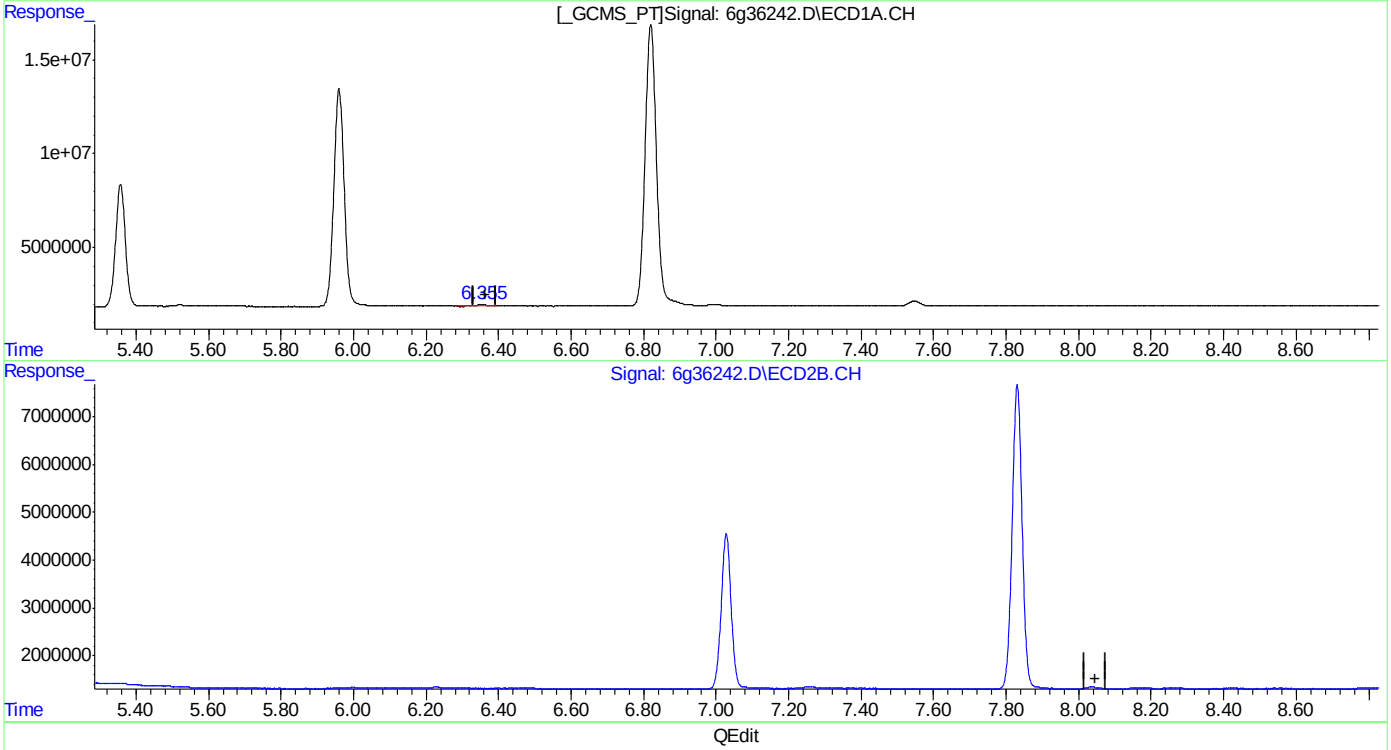
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36242.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 8:52 am
Operator : dharas
Sample : ddt
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:43:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(19) Endrin Aldehyde (B)
6.355min 0.666PPB
response 1485289

(19) Endrin Aldehyde #2 (B)
0.000min 0.000PPB
response 0

(+) = Expected Retention Time
6PST1034.M Thu Jun 16 14:44:20 2016

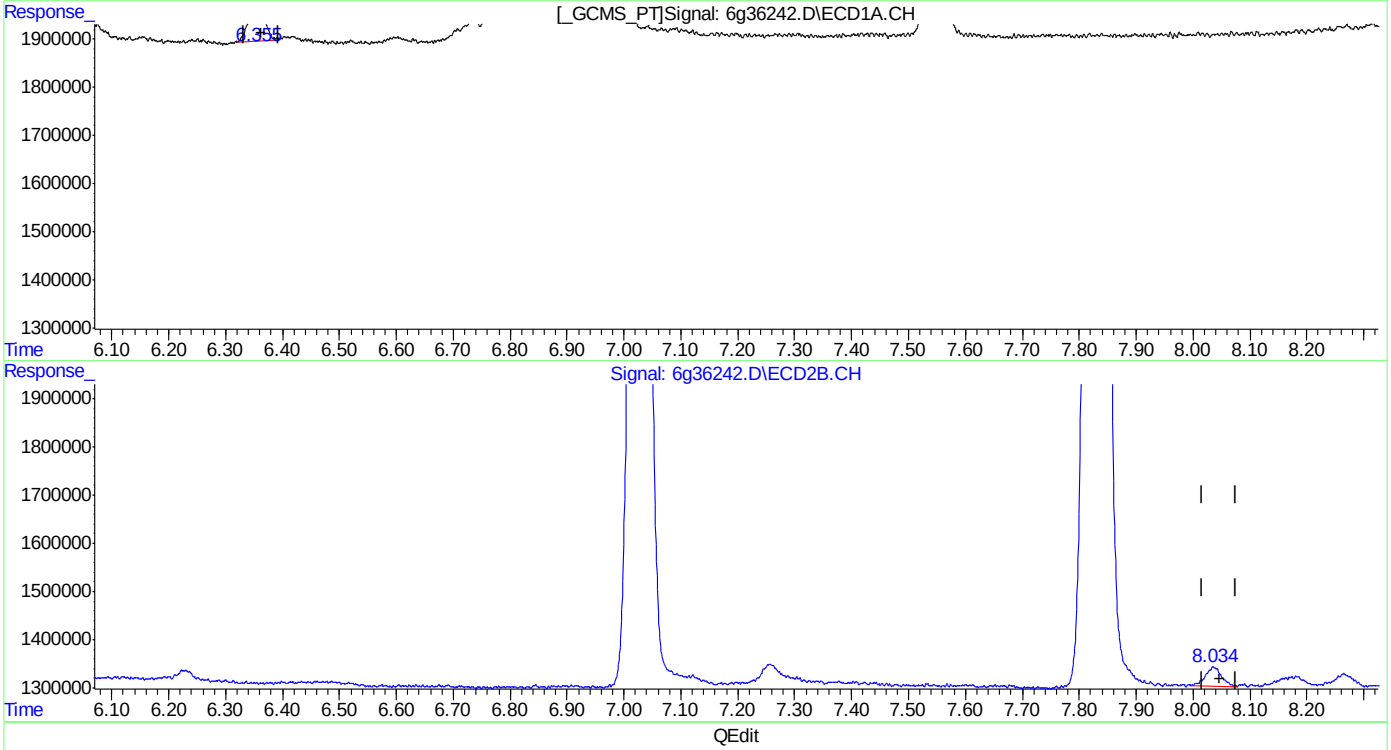
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36242.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 8:52 am
Operator : dharas
Sample : ddt
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:43:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(19) Endrin Aldehyde (B)
6.355min 0.690PPB m
response 1538412

(19) Endrin Aldehyde #2 (B)
8.034min 0.695PPB m
response 771064

(+) = Expected Retention Time
6PST1034.M Thu Jun 16 14:44:35 2016

SGS ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 06/14/16 15:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:56:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.006	1.345	120.5E6	50663797	50.000	50.000
25) I	1-bromo-2...	1.006	1.345	120.5E6	50663797	50.000	50.000
31) I	1-bromo-2...	1.006	1.345	120.5E6	50663797	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.727	2.285	2531003	1192957	1.219m	1.353m
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	3.05%#	3.38%#
24)	SAB Decachlor...	9.588	11.609	2737749	1498849	1.380	1.726m#
	Spiked Amount 40.000			Recovery	=	3.45%	4.32%
	Target Compounds						
3) A	alpha-BHC	2.249	2.999	3027104	1257528	1.089m	1.142
4) MA	gamma-BHC	2.564	3.449	2843395	1174758	1.063	1.128
5) MA	Heptachlor	3.085	4.048	2984410	1171425	1.199	1.160
6) B	beta-BHC	2.650	3.547	1686151	750459	1.288	1.446
7) B	delta-BHC	2.842	3.956	2934300	1120775	1.225	1.120
8) MB	Aldrin	3.431	4.518	2709740	1271527	1.191	1.346
9) B	Heptachlo...	4.166	5.388	2910336	1376324	1.376	1.483
10) B	gamma-Chl...	4.338	5.697	3301698	1283545	1.573	1.453
11) B	alpha-Chl...	4.516	5.933	2978696	1390038	1.376	1.560
12) A	Endosulfan I	4.692	6.031	3188460	1277728	1.461	1.500
13) B	4,4'-DDE	4.655	6.237	2037469	875907	1.131	1.073
14) MA	Dieldrin	5.030	6.496	2666481	1059609	1.247	1.218m
15) MA	Endrin	5.364	7.035	2288320	914763	1.128	1.113
16) A	4,4'-DDD	5.533	7.264	2081039	1037227	1.293	1.568
17) B	Endosulfa...	5.704	7.420	2631764	1045706	1.319	1.304
18) MA	4,4'-DDT	5.970	7.841	1818284	776214	1.048	1.123
19) B	Endrin Al...	6.362	8.046	1933536	855354	1.162	1.245
20) B	Endosulfa...	7.089	8.560	2294095	951143	1.244	1.281
21) A	Methoxychlor	6.839	9.219	1247825	586516	1.246	1.405
22)	Mirex	6.938	9.508	2675729	1229980	1.474	1.669
23) B	Endrin Ke...	7.557	9.598	2172956	986288	1.004	1.107

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

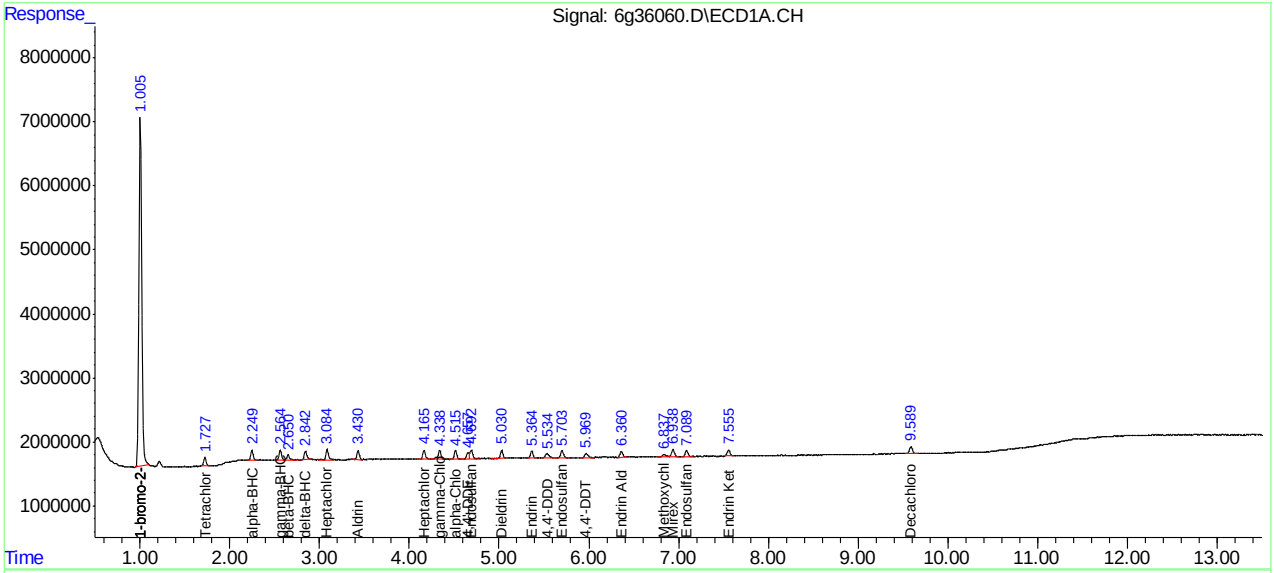
SGS ACCUTEST JC21709

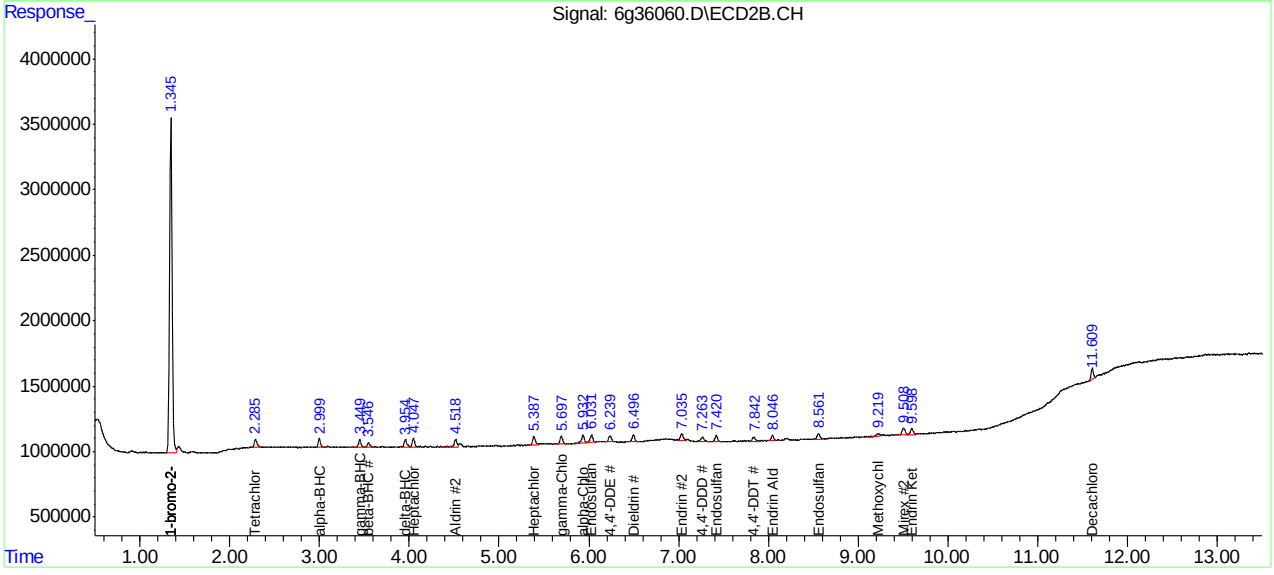
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:56:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integration Approval Summary

Sample Number:	G6G1034-IC1034	**Method:**	SW846 8081B
Lab FileID:	6G36060.D	**Analyst approved:**	06/13/16 13:38 Rebecca Krug
Injection Time:	06/10/16 16:54	**Supervisor approved:**	06/14/16 15:27 Gwendolyn Burns

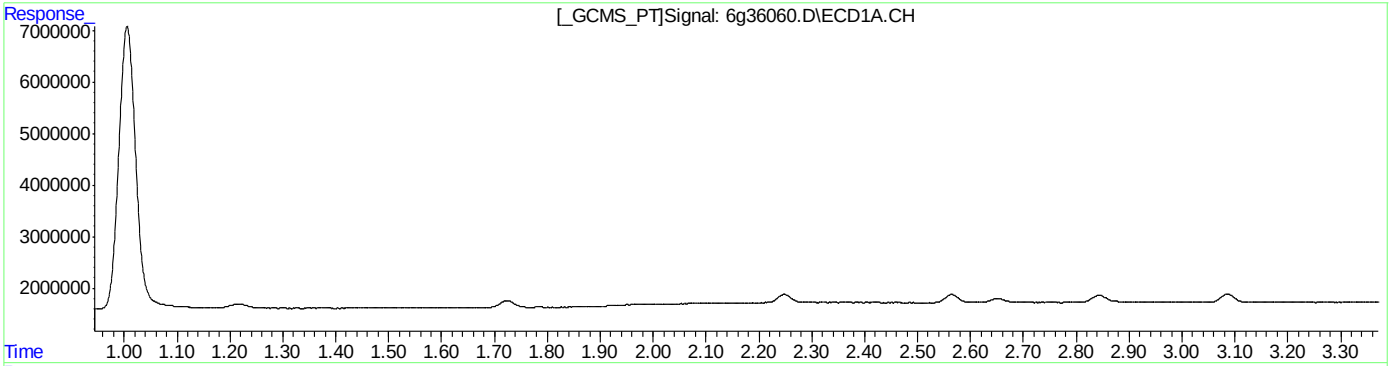
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	1.73	Poorly defined baseline
alpha-BHC	319-84-6	1	2.25	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	2.29	Poorly defined baseline
Dieldrin	60-57-1	2	6.50	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	11.61	Poorly defined baseline

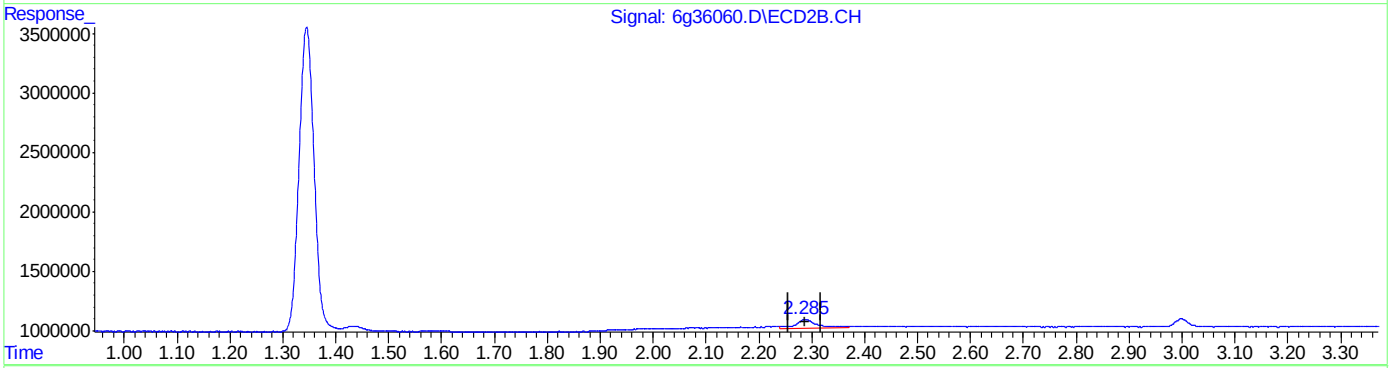
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(2) Tetrachloro-m-xylene (SAB)
0.000min 0.000PPB
response 0

(2) Tetrachloro-m-xylene #2 (SAB)
2.287min 2.317PPB
response 2043350

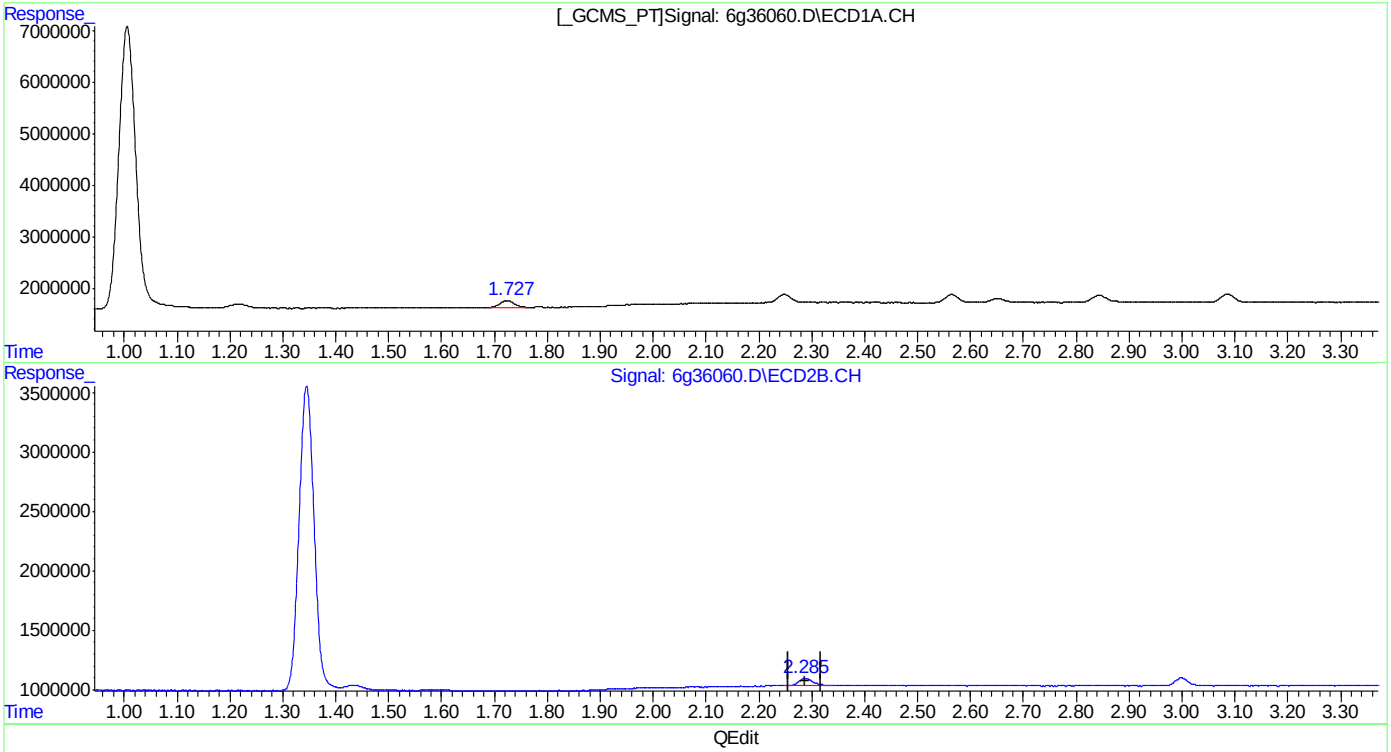
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(2) Tetrachloro-m-xylene (SAB)
1.727min 1.219PPB m
response 2531003

(2) Tetrachloro-m-xylene #2 (SAB)
2.285min 1.353PPB m
response 1192957

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:55:11 2016

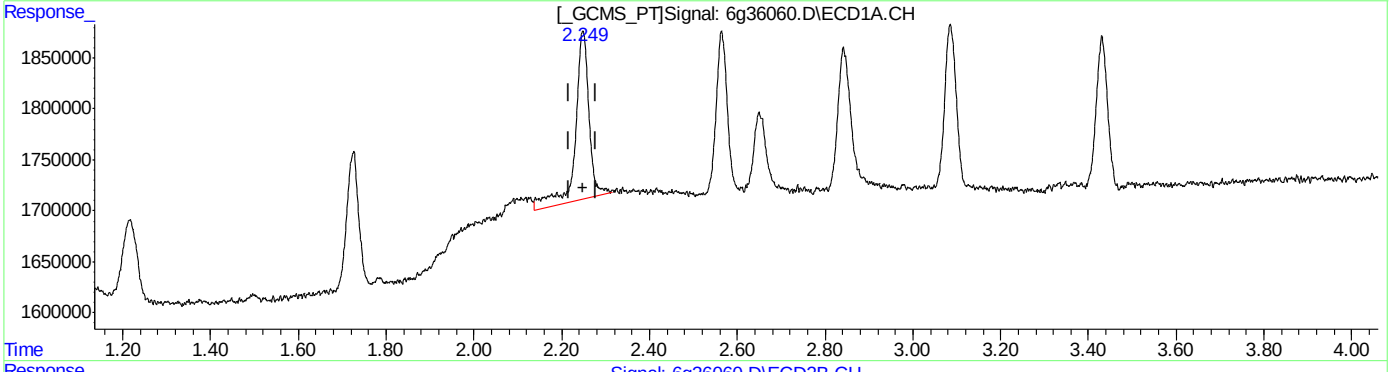
SGS ACCUTEST JC21709

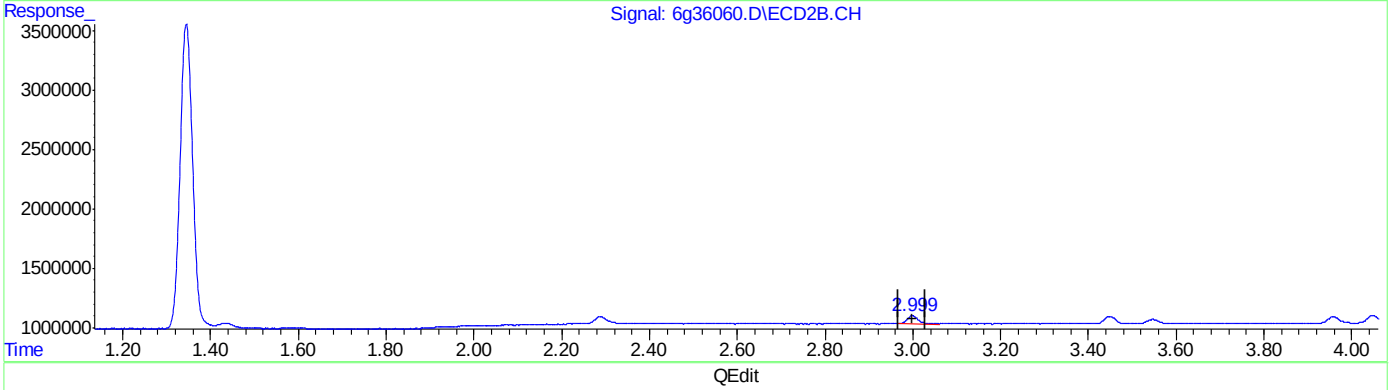
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(3) alpha-BHC (A)
2.249min 1.299PPB
response 3611065

(3) alpha-BHC #2 (A)
2.999min 1.142PPB
response 1257528

(+) = Expected Retention Time

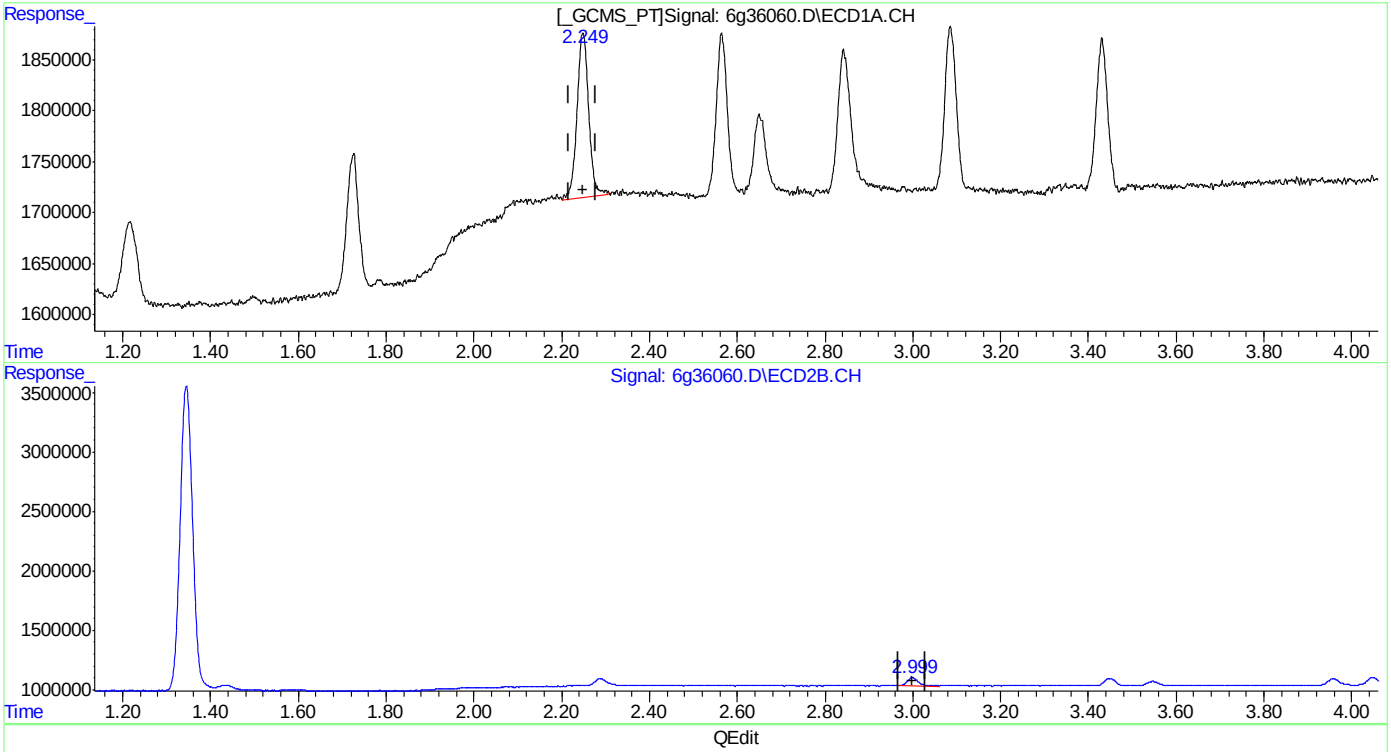
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(3) alpha-BHC (A)
2.249min 1.089PPB m
response 3027104

(3) alpha-BHC #2 (A)
2.999min 1.142PPB
response 1257528

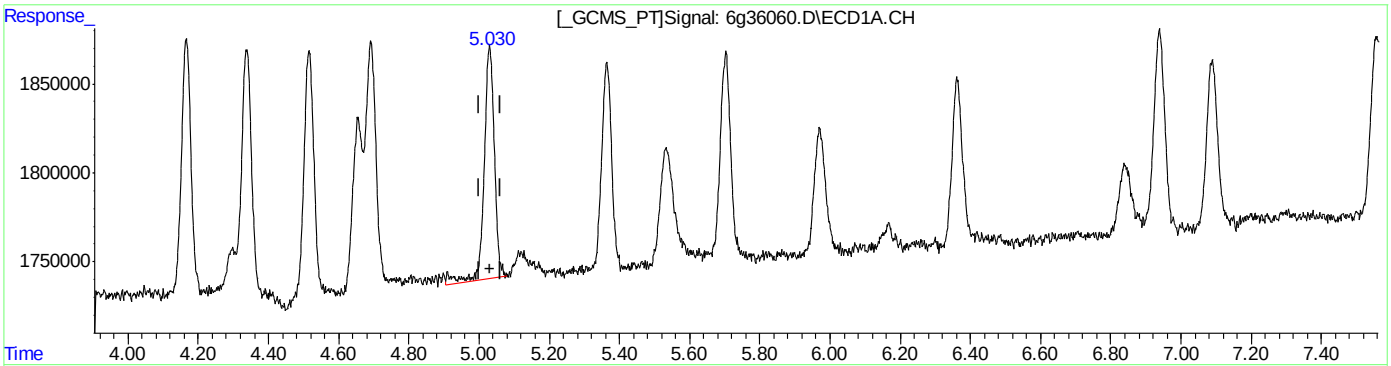
(+) = Expected Retention Time

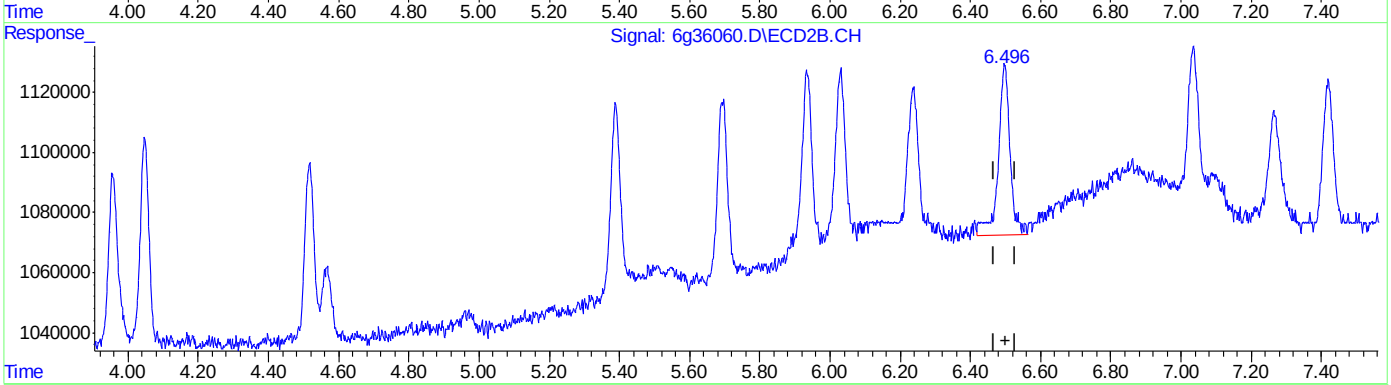
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(14) Dieldrin (MA)
5.030min 1.247PPB
response 2666481

(14) Dieldrin #2 (MA)
6.497min 1.529PPB
response 1331057

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:55:36 2016

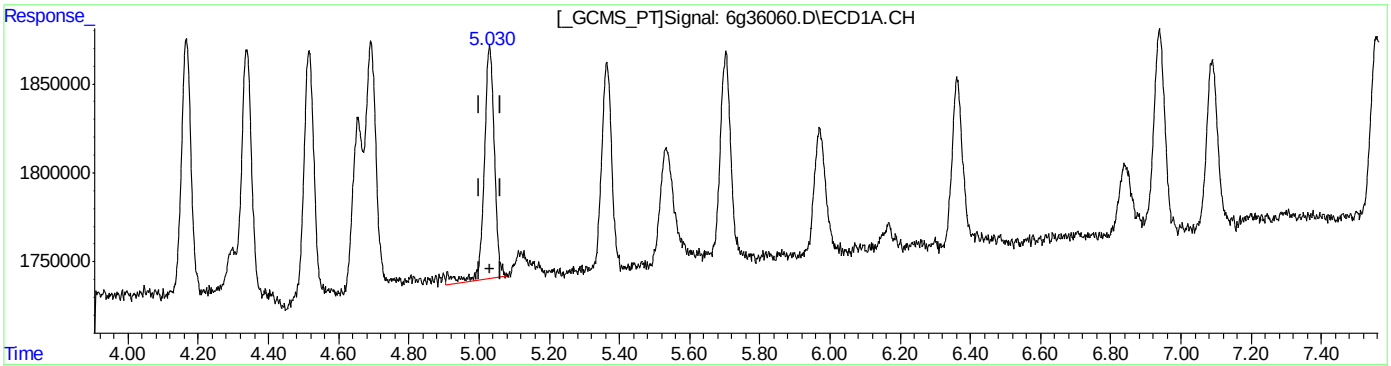
SGS ACCUTEST JC21709

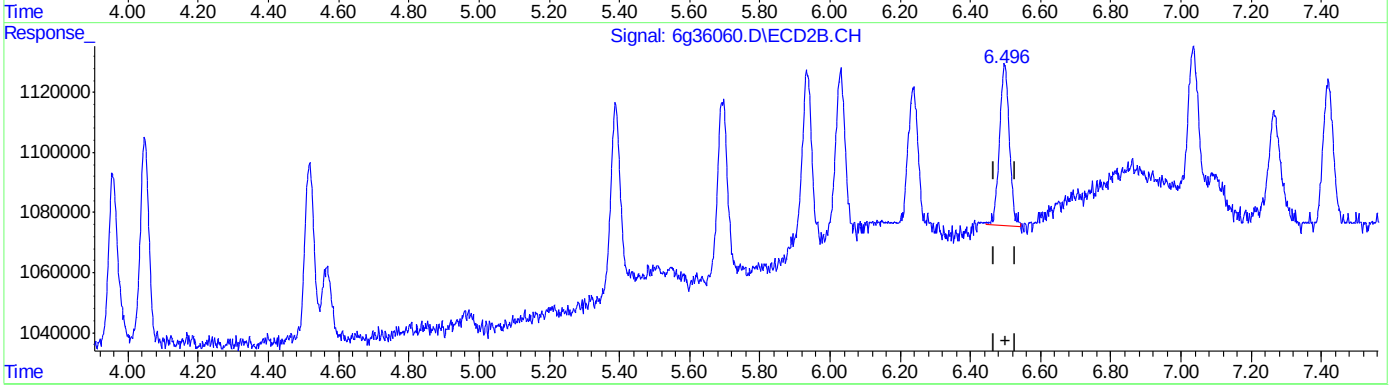
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(14) Dieldrin (MA)
5.030min 1.247PPB
response 2666481

(14) Dieldrin #2 (MA)
6.496min 1.218PPB m
response 1059609

(+) = Expected Retention Time

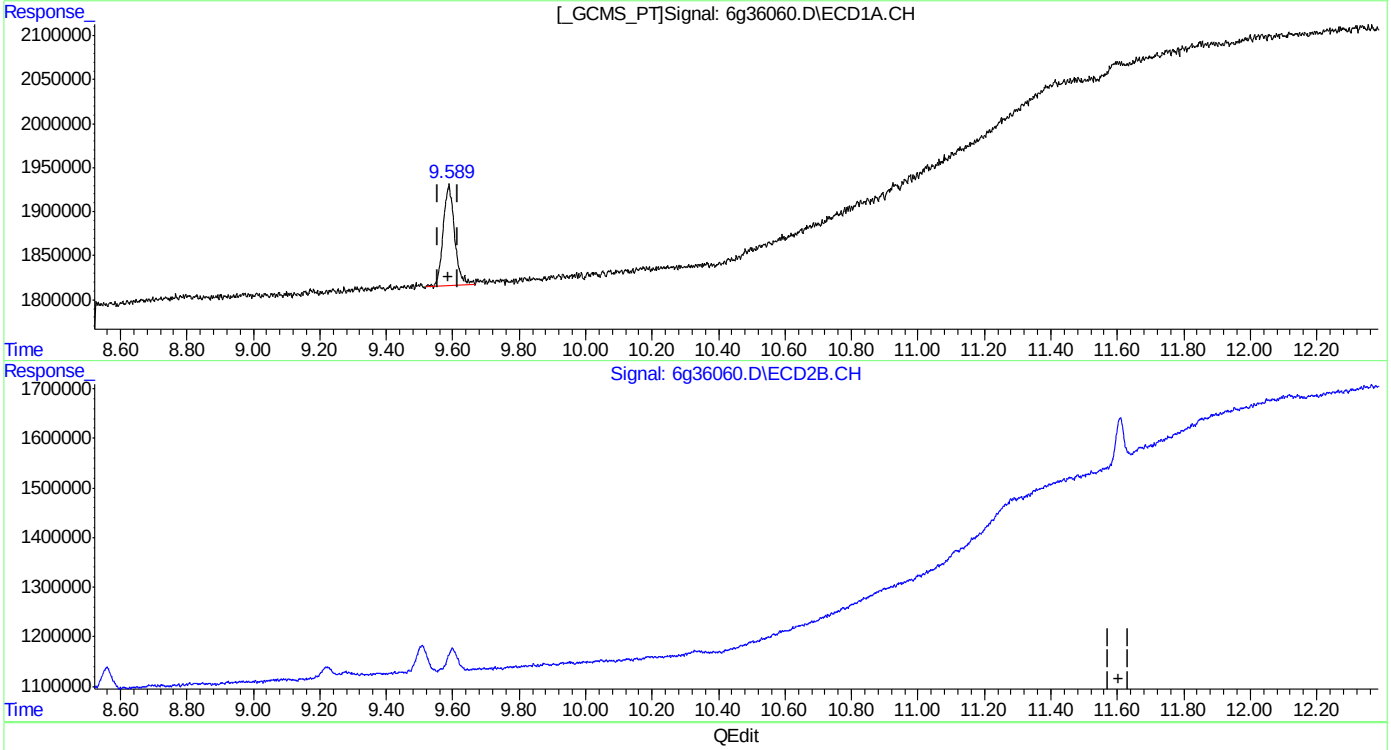
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(24) Decachlorobiphenyl (SAB)
9.588min 1.380PPB
response 2737749

(24) Decachlorobiphenyl #2 (SAB)
0.000min 0.000PPB
response 0

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:56:01 2016

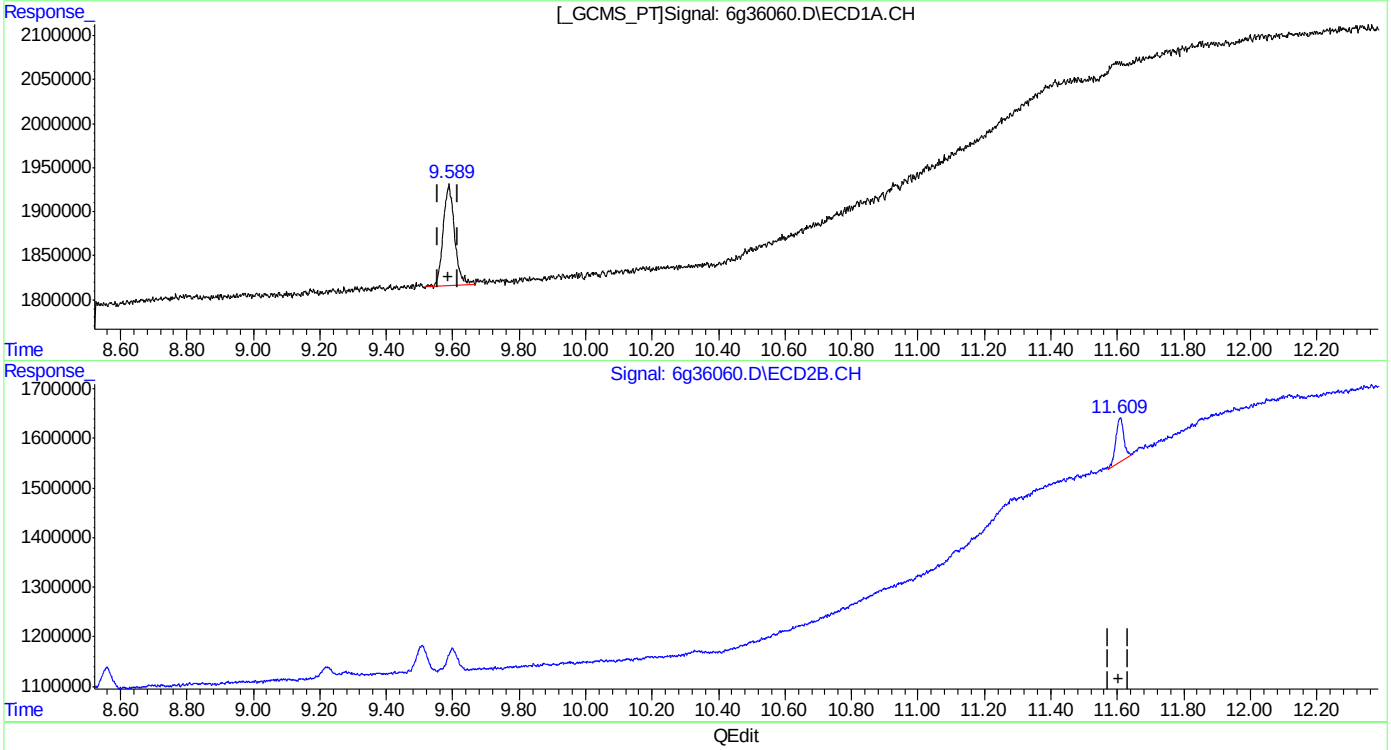
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 4:54 pm
Operator : dharas
Sample : ic1034-1
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(24) Decachlorobiphenyl (SAB)
9.588min 1.380PPB
response 2737749

(24) Decachlorobiphenyl #2 (SAB)
11.609min 1.726PPB m
response 1498849

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:56:07 2016

SGS ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 06/14/16 15:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.005	1.345	134.1E6	56036073	50.000	50.000
25) I	1-bromo-2...	1.005	1.345	134.1E6	56036073	50.000	50.000
31) I	1-bromo-2...	1.005	1.345	134.1E6	56036073	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.724	2.290	5073858	2123247	2.195	2.177m
Spiked Amount		40.000	Range	30 - 150	Recovery	= 5.49%#	5.44%#
24) SAB	Decachlor...	9.590	11.608	5331280	2835503	2.413	2.952m
Spiked Amount		40.000			Recovery	= 6.03%	7.38%
	Target Compounds						
3) A	alpha-BHC	2.248	3.000	5949207	2375657	1.922m	1.950
4) MA	gamma-BHC	2.566	3.450	5542893	2149544	1.861	1.866
5) MA	Heptachlor	3.087	4.048	5991372	2491017	2.161	2.230
6) B	beta-BHC	2.653	3.547	3130654	1260040	2.147	2.195
7) B	delta-BHC	2.845	3.958	6101267	2155043	2.288	1.946
8) MB	Aldrin	3.433	4.519	5483646	2252395	2.164	2.156
9) B	Heptachlo...	4.167	5.393	5430991	2490748	2.306	2.426
10) B	gamma-Chl...	4.340	5.697	5650913	2621663	2.417	2.684
11) B	alpha-Chl...	4.517	5.938	5603648	2530577	2.324m	2.567
12) A	Endosulfan I	4.693	6.032	5994721	2305523	2.466	2.447
13) B	4,4'-DDE	4.655	6.237	3631823	2251409	1.810	2.494 #
14) MA	Dieldrin	5.032	6.499	5083797	2280365	2.135	2.369
15) MA	Endrin	5.365	7.038	4841571	2121386	2.143	2.334
16) A	4,4'-DDD	5.534	7.268	3522280	1748776	1.966	2.390m
17) B	Endosulfa...	5.704	7.421	4878884	2060771	2.196	2.324
18) MA	4,4'-DDT	5.972	7.839	3470893	1455600	1.797	1.903
19) B	Endrin Al...	6.362	8.047	3964540	1761184	2.140	2.317
20) B	Endosulfa...	7.090	8.559	4152035	1988544	2.022	2.421
21) A	Methoxychlor	6.838	9.222	2164085	994714	1.940	2.155m
22)	Mirex	6.940	9.512	4942814	2403734	2.445	2.948
23) B	Endrin Ke...	7.558	9.601	4752674	1986056	1.973	2.015

SemiQuant Compounds - Not Calibrated on this Instrument

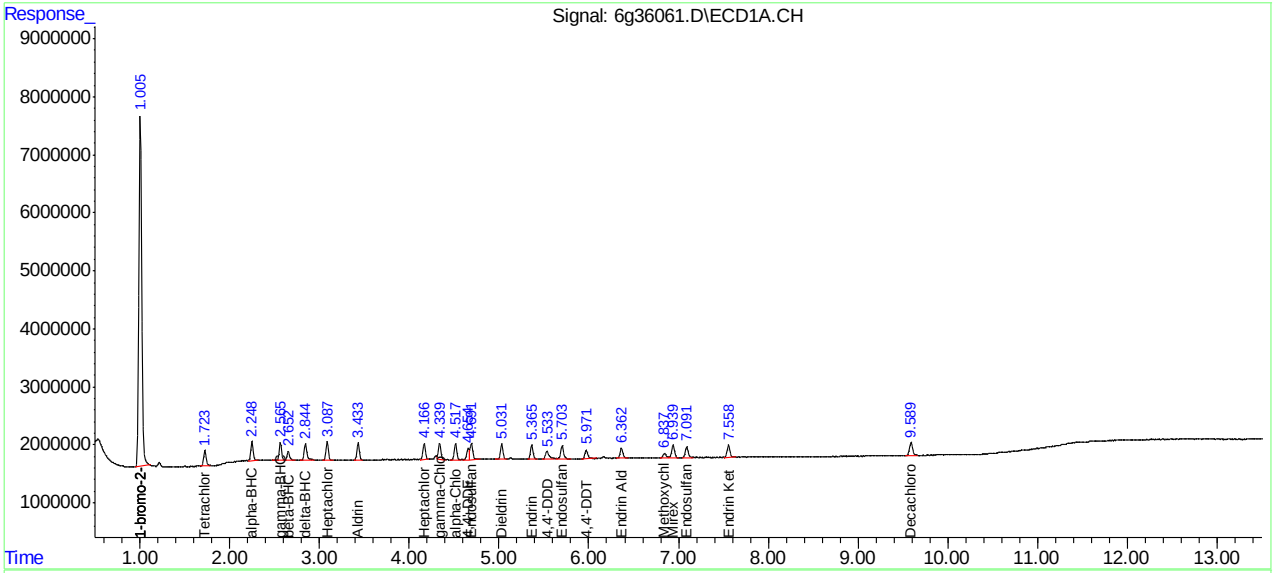
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

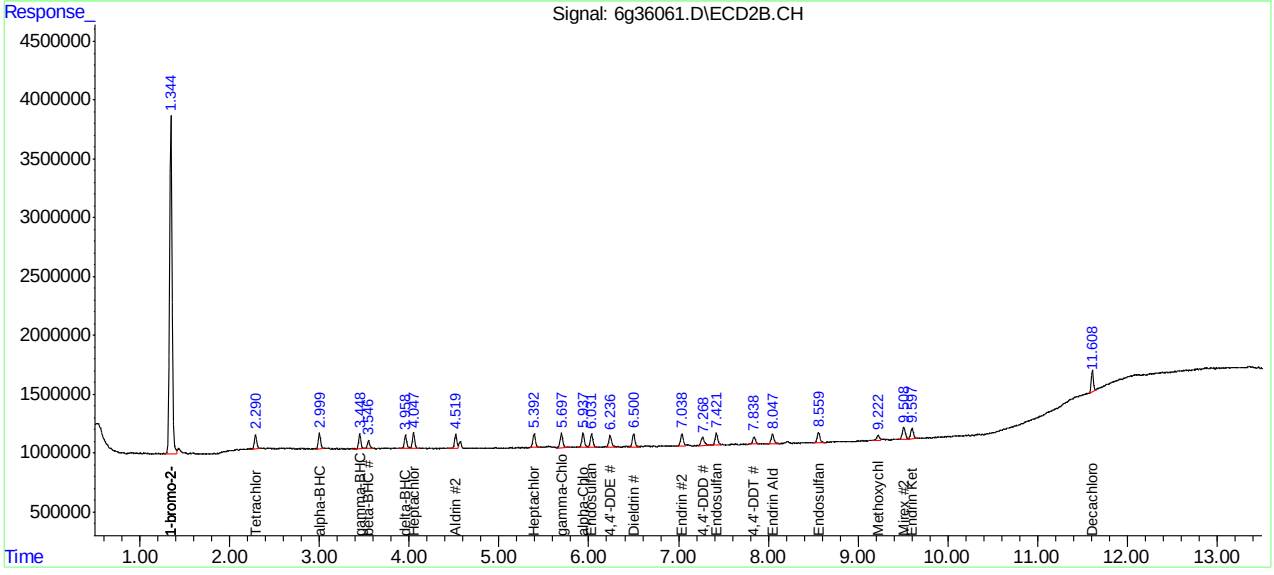
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:54:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integration Approval Summary

Sample Number:	G6G1034-IC1034	**Method:**	SW846 8081B
Lab FileID:	6G36061.D	**Analyst approved:**	06/13/16 13:38 Rebecca Krug
Injection Time:	06/10/16 17:10	**Supervisor approved:**	06/14/16 15:27 Gwendolyn Burns

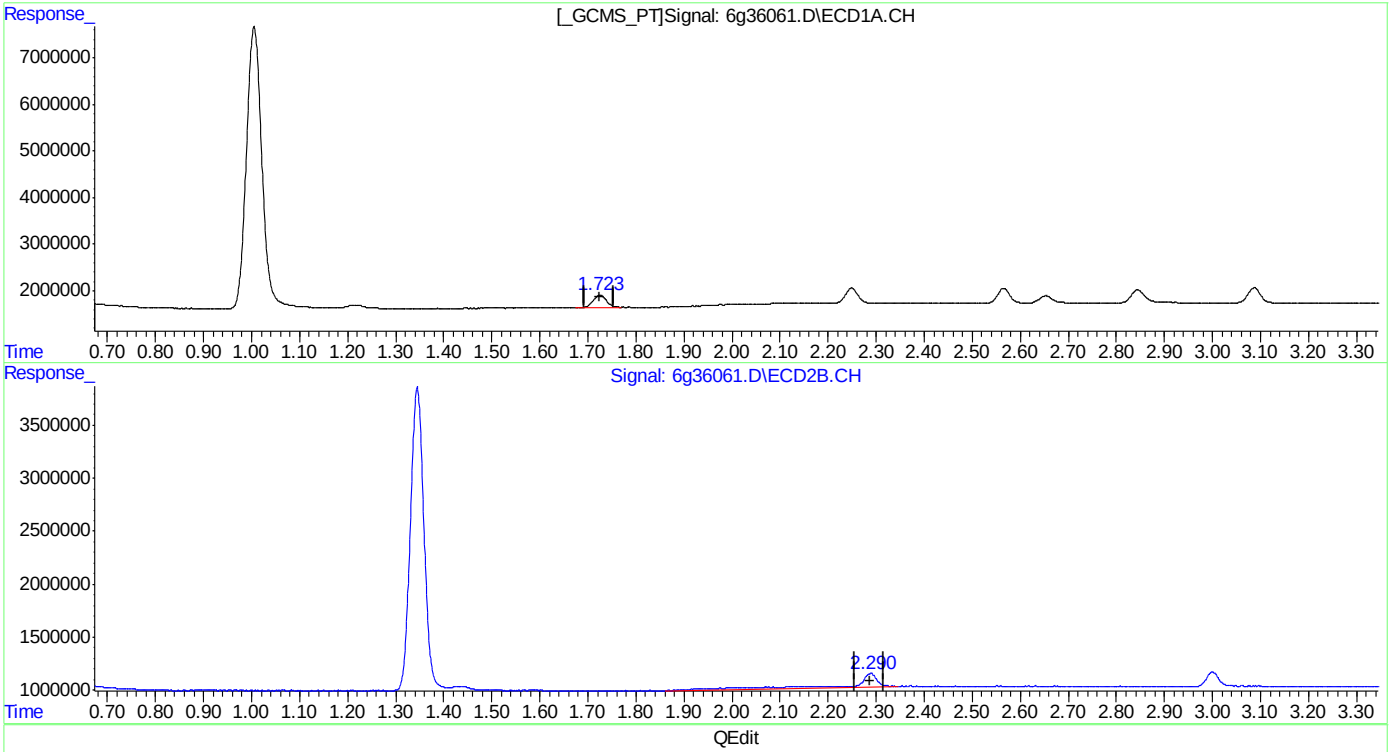
Parameter	CAS	Sig#	R.T. (min.)	Reason
alpha-BHC	319-84-6	1	2.25	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	2.29	Poorly defined baseline
alpha-Chlordane	5103-71-9	1	4.52	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.27	Poorly defined baseline
Methoxychlor	72-43-5	2	9.22	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	11.61	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(2) Tetrachloro-m-xylene (SAB)
1.724min 2.195PPB
response 5073858

(2) Tetrachloro-m-xylene #2 (SAB)
2.289min 5.604PPB
response 5466555

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:52:54 2016

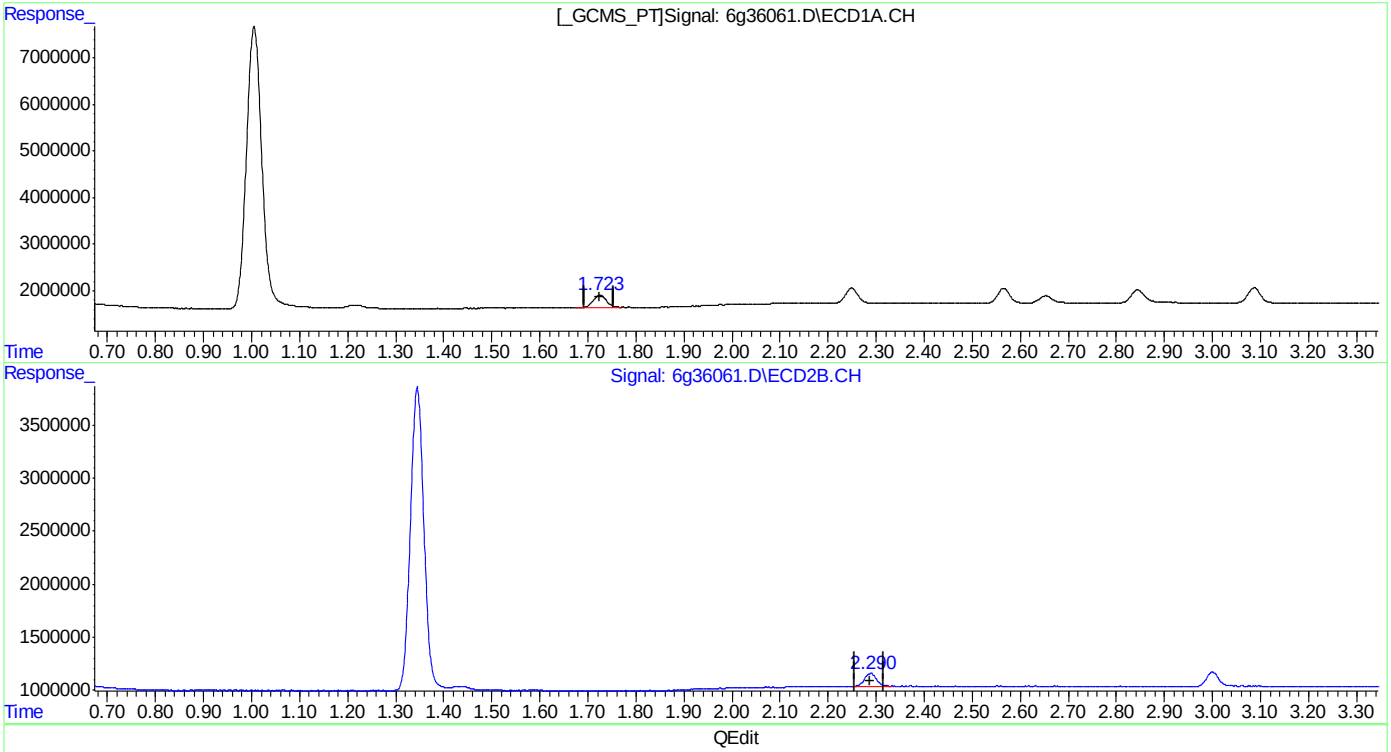
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(2) Tetrachloro-m-xylene (SAB)
1.724min 2.195PPB
response 5073858

(2) Tetrachloro-m-xylene #2 (SAB)
2.290min 2.177PPB m
response 2123247

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:53:04 2016

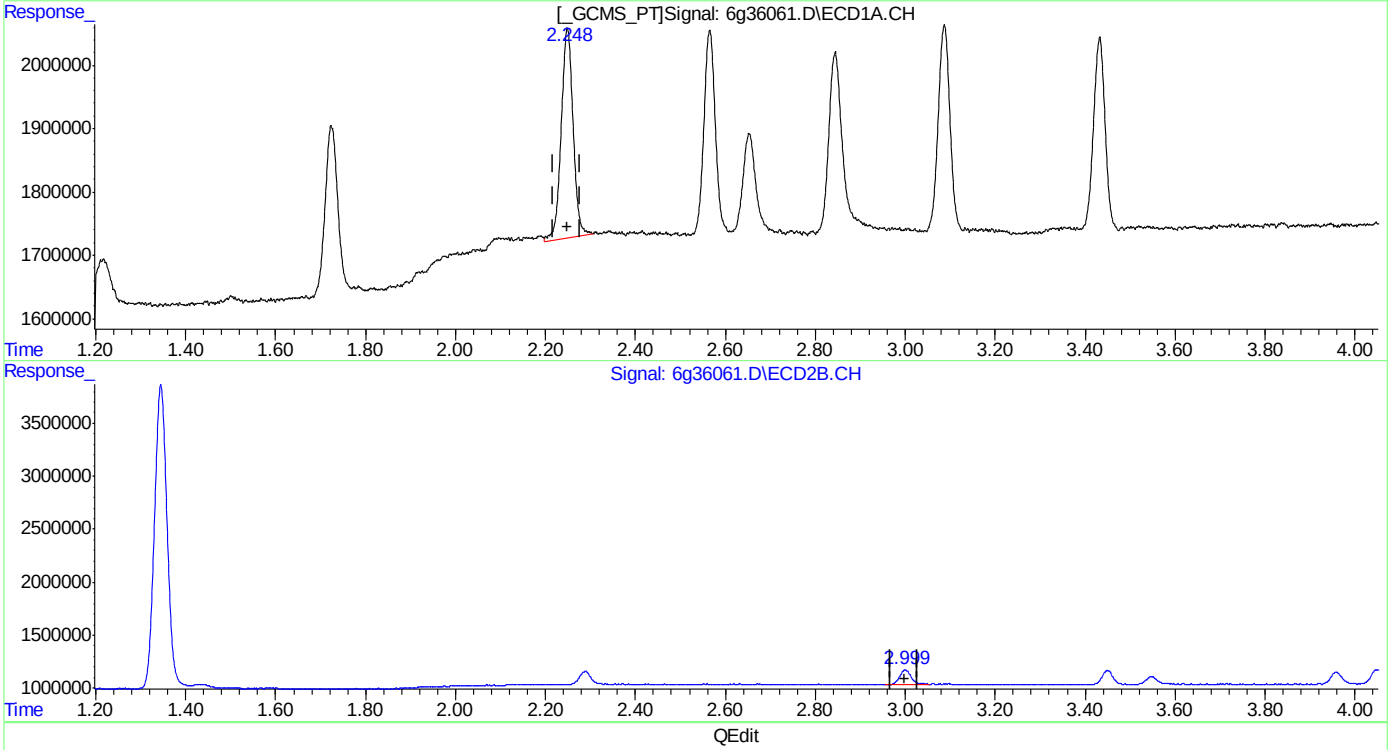
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(3) alpha-BHC (A)
2.249min 1.969PPB
response 6092567

(3) alpha-BHC #2 (A)
3.000min 1.950PPB
response 2375657

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:53:07 2016

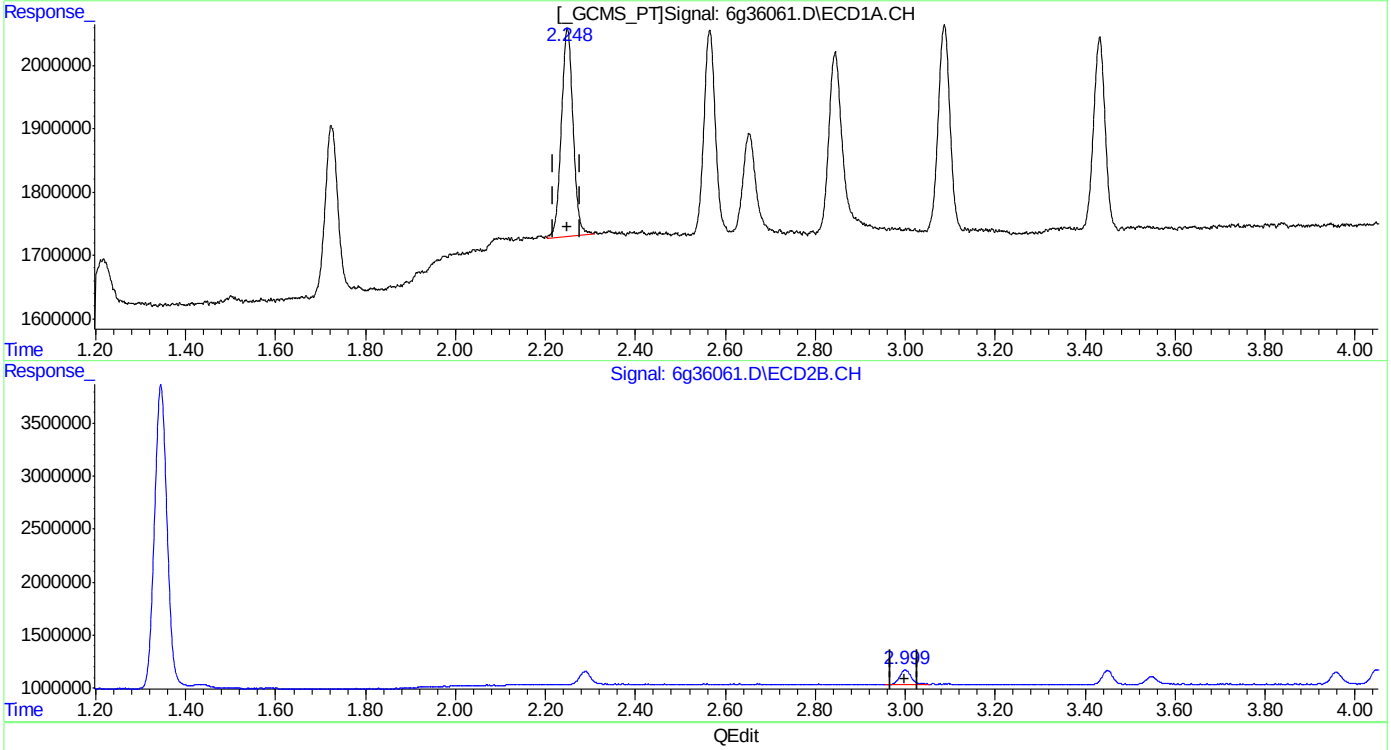
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(3) alpha-BHC (A)
2.248min 1.922PPB m
response 5949207

(3) alpha-BHC #2 (A)
3.000min 1.950PPB
response 2375657

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:53:13 2016

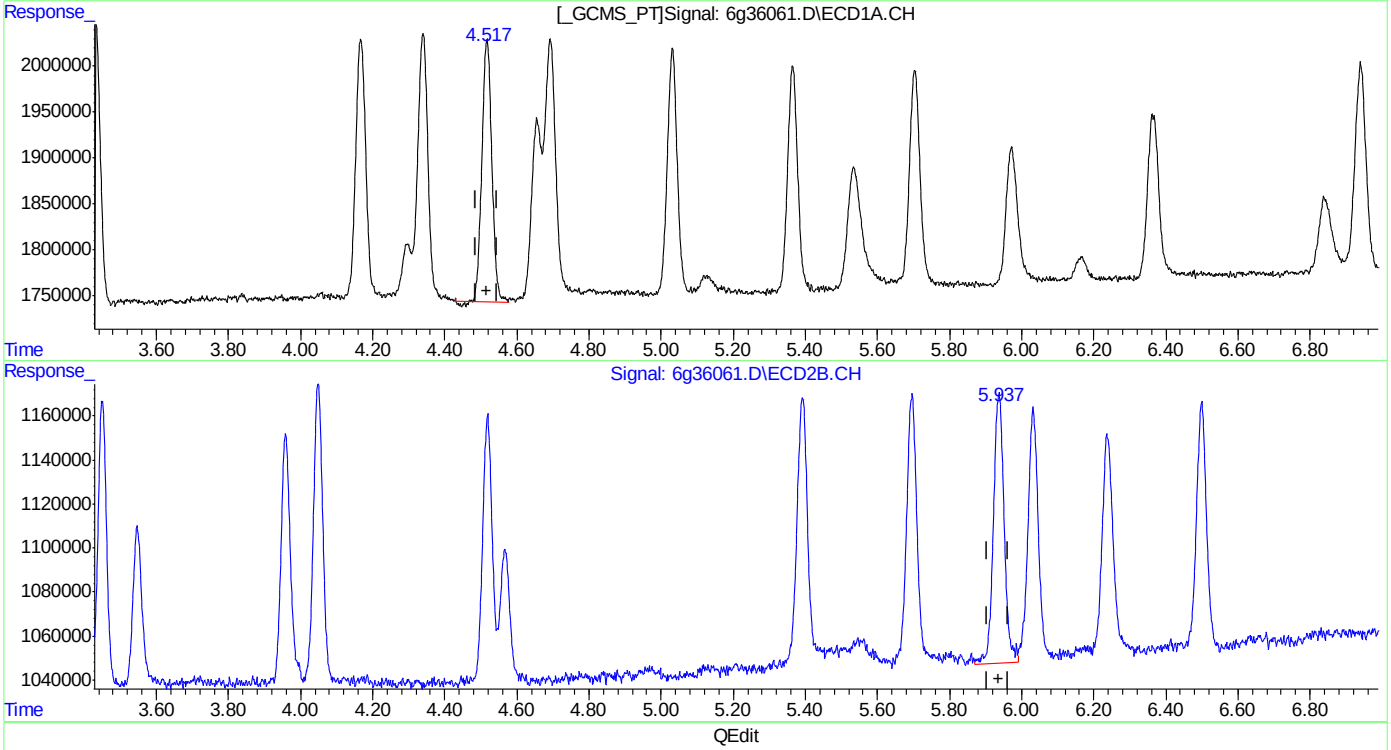
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(11) alpha-Chlordane (B)
4.517min 2.249PPB
response 5422417

(11) alpha-Chlordane #2 (B)
5.938min 2.567PPB
response 2530577

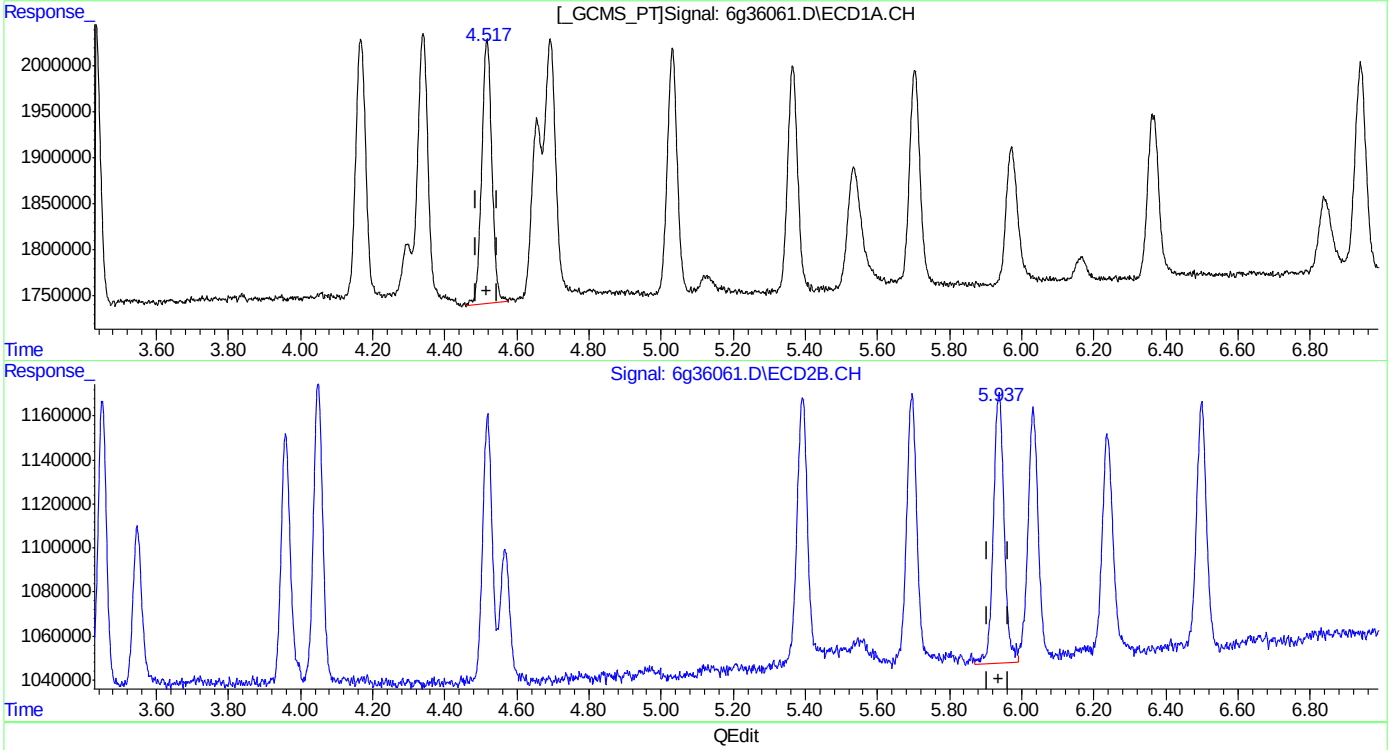
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(11) alpha-Chlordane (B)
4.517min 2.324PPB m
response 5603648

(11) alpha-Chlordane #2 (B)
5.938min 2.567PPB
response 2530577

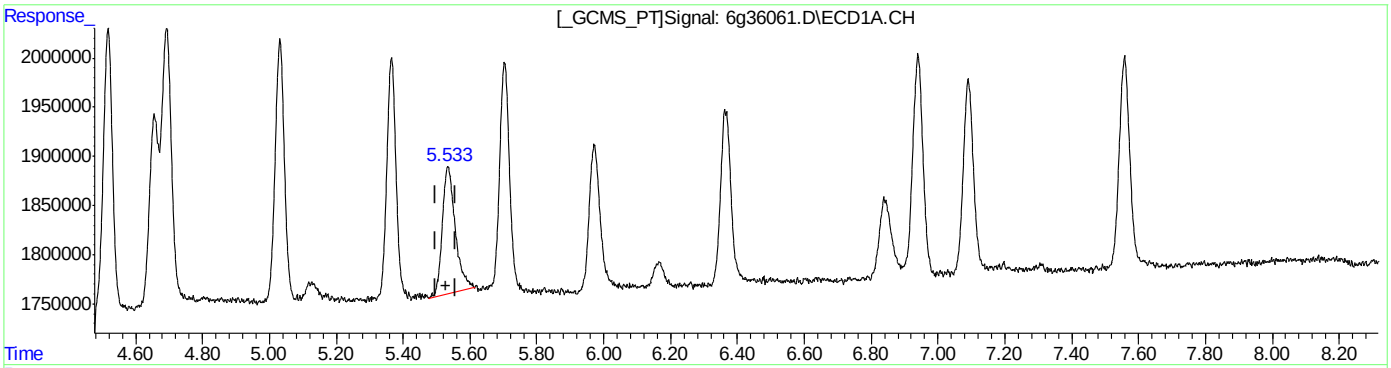
(+) = Expected Retention Time

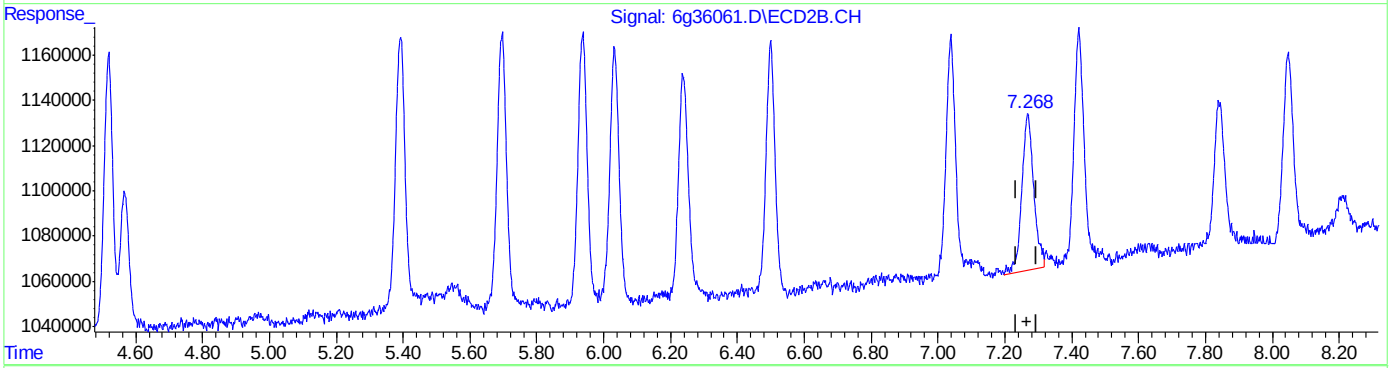
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(16) 4,4'-DDD (A)
5.534min 1.966PPB
response 3522280

(16) 4,4'-DDD #2 (A)
7.269min 2.325PPB
response 1701498

(+) = Expected Retention Time

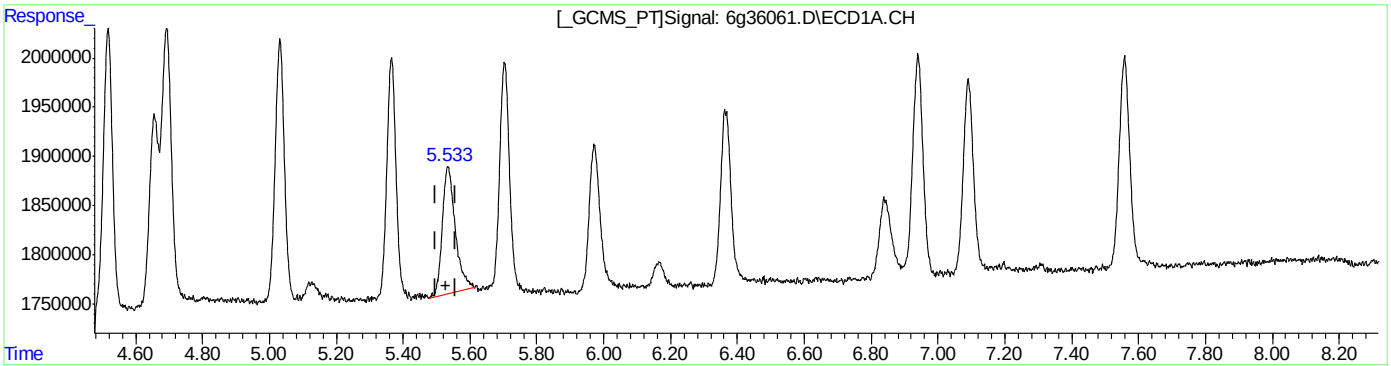
SGS ACCUTEST JC21709

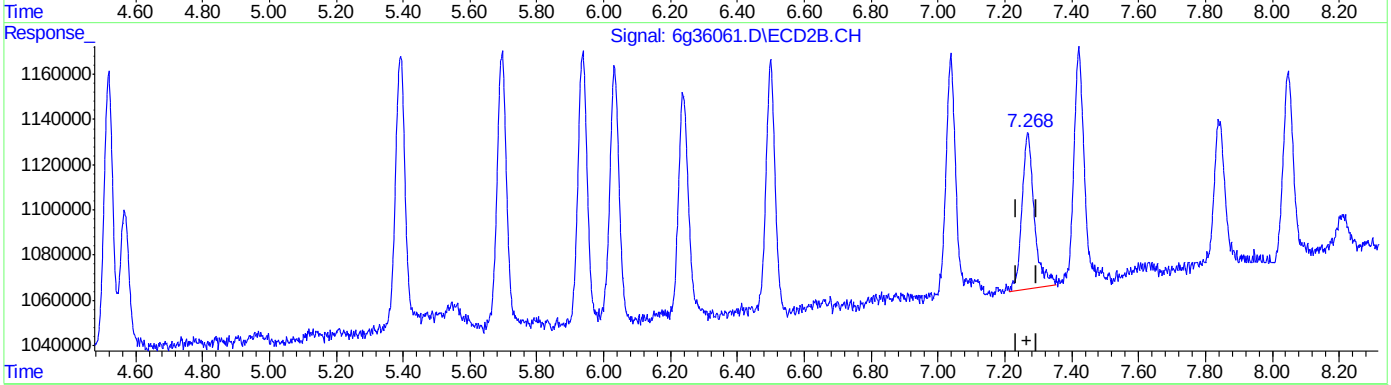
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(16) 4,4'-DDD (A)
5.534min 1.966PPB
response 3522280

(16) 4,4'-DDD #2 (A)
7.268min 2.390PPB m
response 1748776

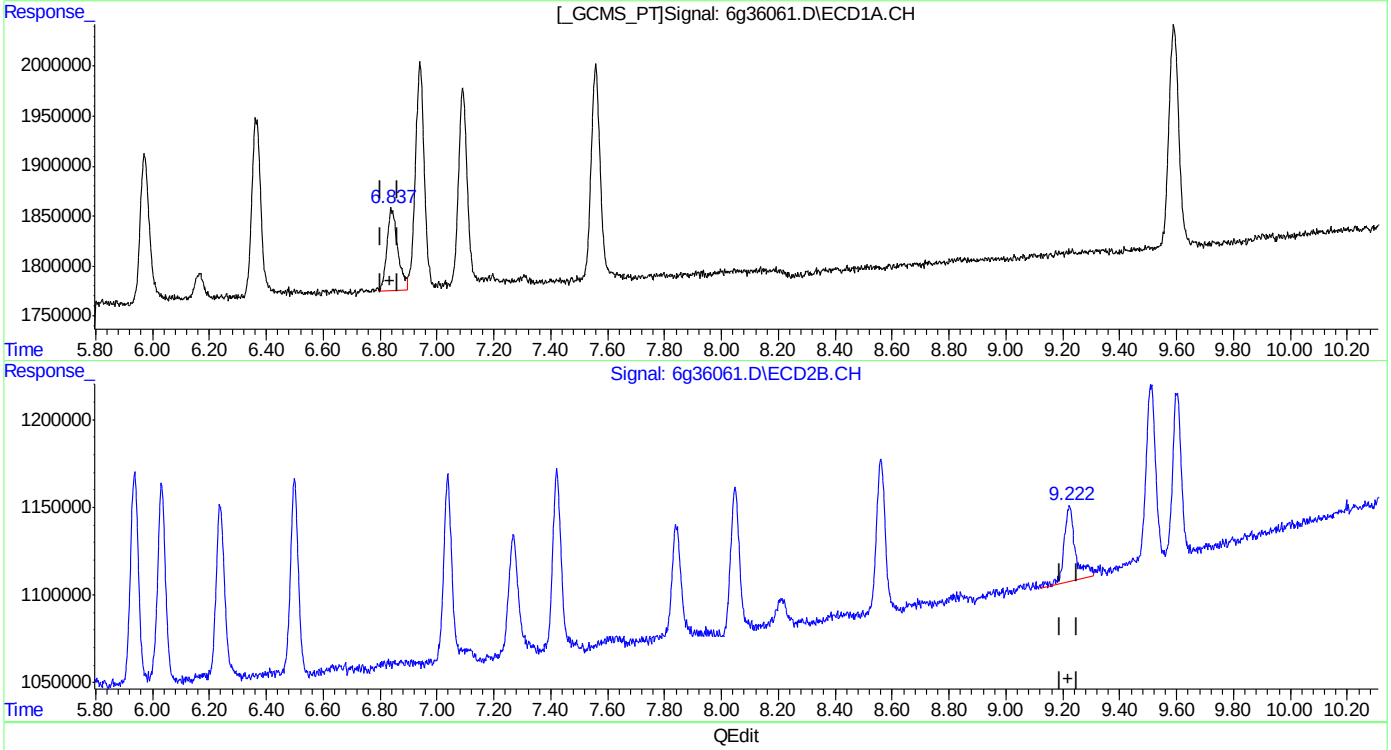
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(21) Methoxychlor (A)
6.838min 1.940PPB
response 2164085

(21) Methoxychlor #2 (A)
9.223min 2.588PPB
response 1195020

(+) = Expected Retention Time

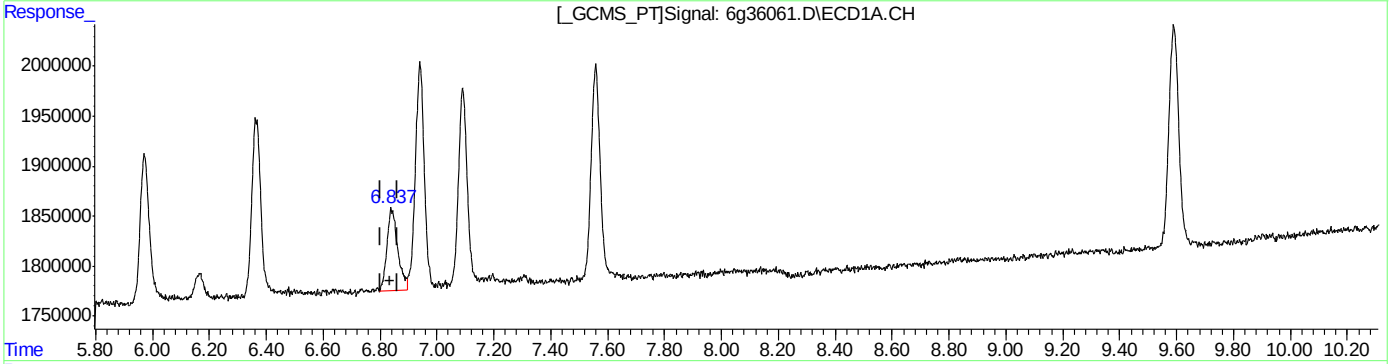
SGS ACCUTEST JC21709

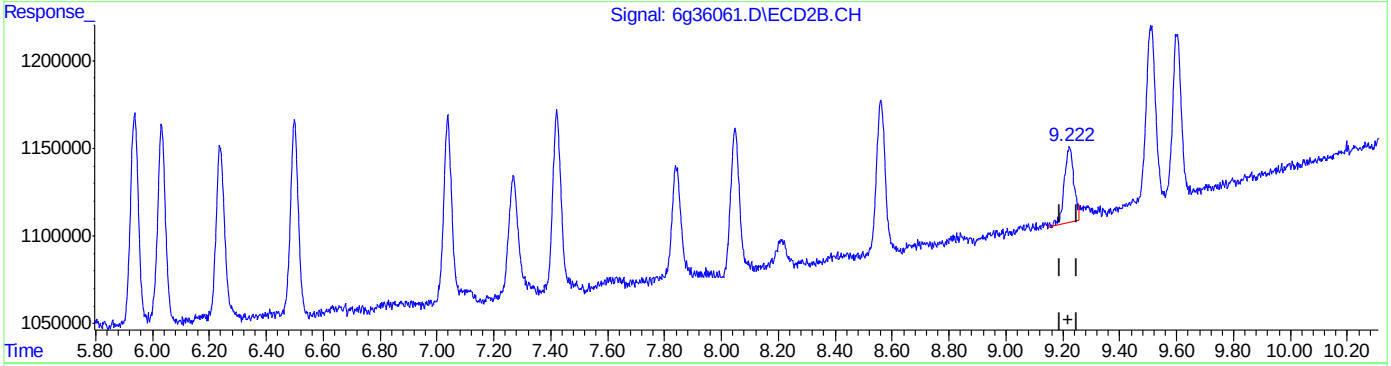
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(21) Methoxychlor (A)
6.838min 1.940PPB
response 2164085

(21) Methoxychlor #2 (A)
9.222min 2.155PPB m
response 994714

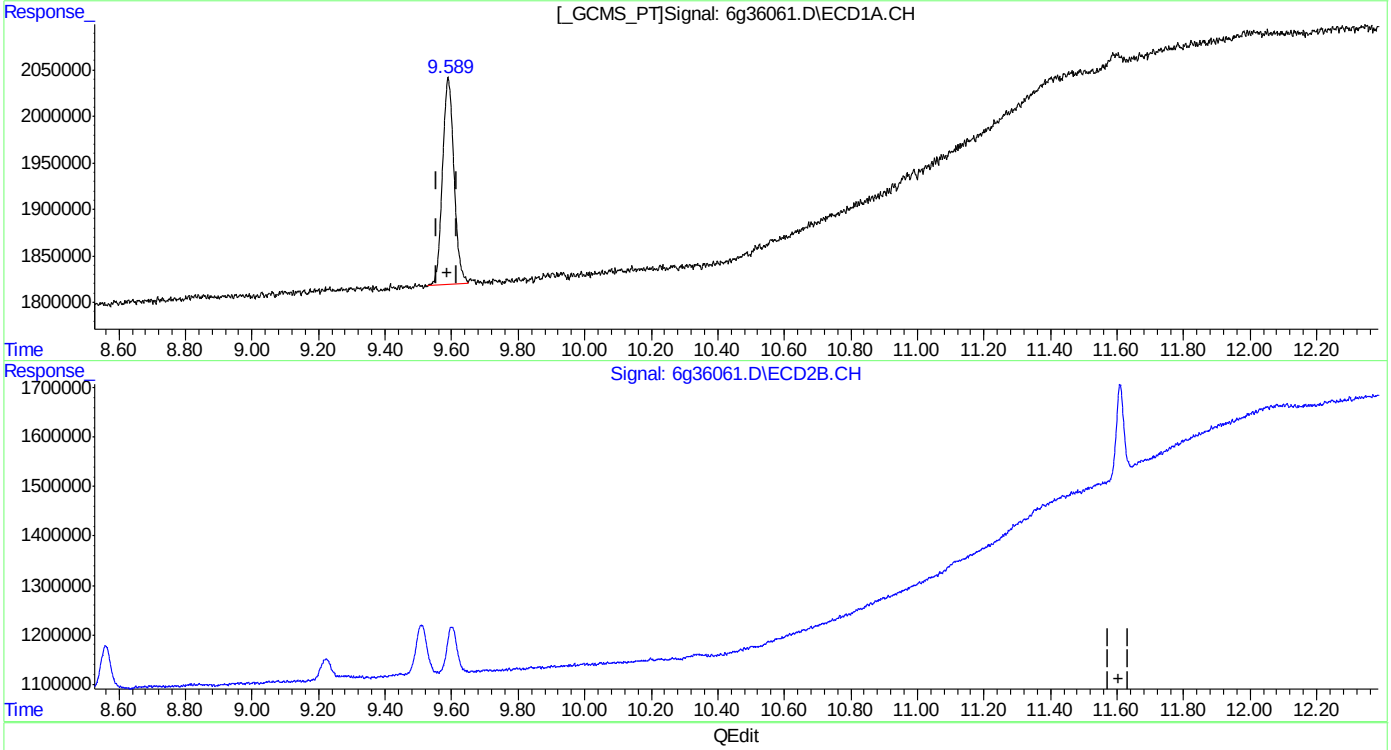
(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:54:00 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(24) Decachlorobiphenyl (SAB)
9.590min 2.413PPB
response 5331280

(24) Decachlorobiphenyl #2 (SAB)
0.000min 0.000PPB
response 0

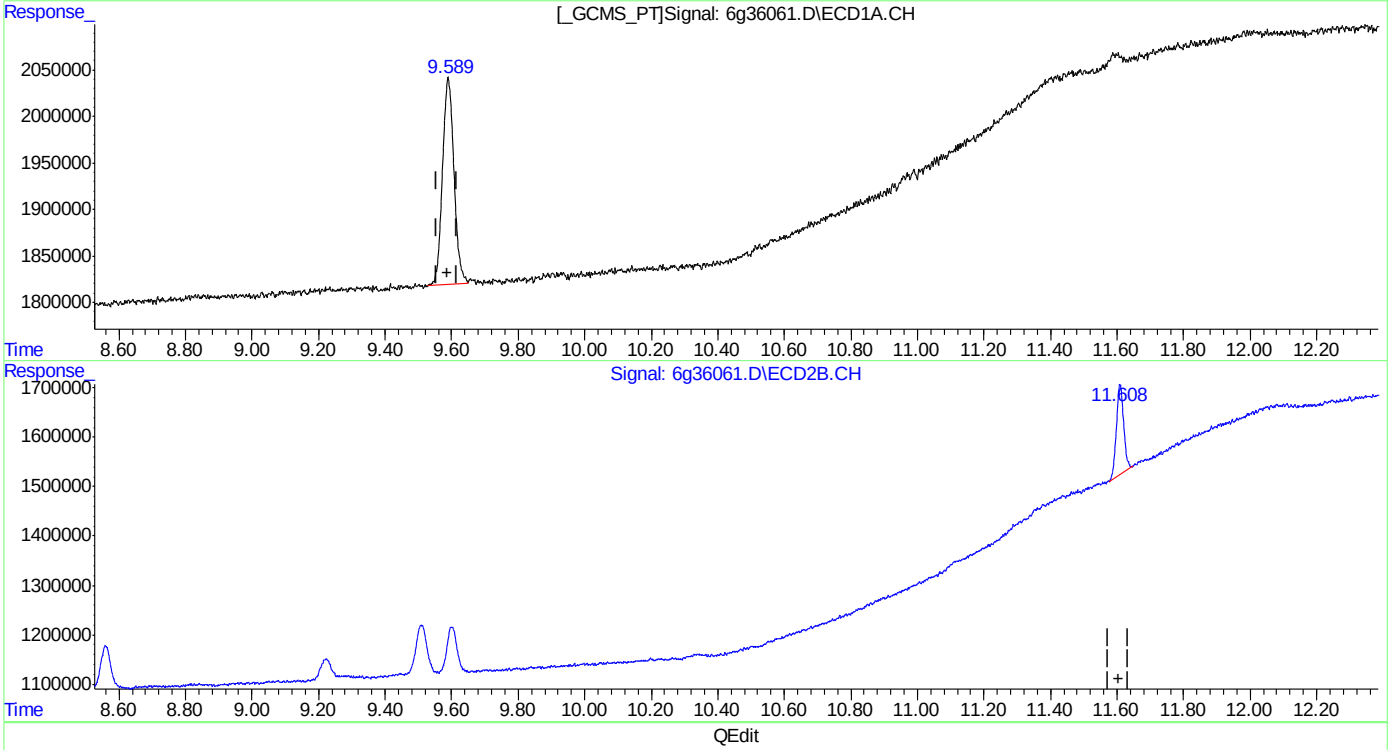
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:10 pm
Operator : dharas
Sample : ic1034-2
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(24) Decachlorobiphenyl (SAB)
9.590min 2.413PPB
response 5331280

(24) Decachlorobiphenyl #2 (SAB)
11.608min 2.952PPB m
response 2835503

(+) = Expected Retention Time

SGS ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 06/14/16 15:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36062.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:27 pm
Operator : dharas
Sample : ic1034-5
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.006	1.345	132.0E6	54993814	50.000	50.000
25) I	1-bromo-2...	1.006	1.345	132.0E6	54993814	50.000	50.000
31) I	1-bromo-2...	1.006	1.345	132.0E6	54993814	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.724	2.287	12188337	5509519	5.358	5.756
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 13.39%#	14.39%#
24)	SAB Decachlor...	9.586	11.607	12967859	6771441	5.964m	7.182
	Spiked Amount	40.000			Recovery	= 14.91%	17.96%
	Target Compounds						
3) A	alpha-BHC	2.248	2.998	14672229	5636282	4.817	4.714
4) MA	gamma-BHC	2.565	3.449	14060303	5379054	4.797	4.757
5) MA	Heptachlor	3.086	4.047	14398985	6056548	5.277	5.524
6) B	beta-BHC	2.652	3.546	7584265	3072331	5.286	5.453
7) B	delta-BHC	2.843	3.957	13656937	5383072	5.203	4.954
8) MB	Aldrin	3.431	4.516	13286452	5491443	5.327	5.355
9) B	Heptachlo...	4.165	5.390	13221440	5608843	5.705	5.567
10) B	gamma-Chl...	4.337	5.693	14428961	5690310	6.271	5.935
11) B	alpha-Chl...	4.516	5.935	13330266	5768691	5.618	5.963
12) A	Endosulfan I	4.691	6.031	14513314	5503487	6.067	5.953
13) B	4,4'-DDE	4.654	6.235	8993694	4984696	4.555	5.627m
14) MA	Dieldrin	5.029	6.497	12477284	5214757	5.323	5.520
15) MA	Endrin	5.363	7.035	11793804	5132316	5.305	5.754
16) A	4,4'-DDD	5.532	7.267	8709008	4106560	4.939	5.718
17) B	Endosulfa...	5.702	7.418	11766144	5062696	5.381	5.817
18) MA	4,4'-DDT	5.970	7.839	8557543	3685446	4.503	4.910
19) B	Endrin Al...	6.362	8.044	9795426	4253041	5.374	5.701
20) B	Endosulfa...	7.088	8.557	10120819	4756886	5.009	5.902
21) A	Methoxychlor	6.838	9.219	5456182	2358927	4.970	5.206
22)	Mirex	6.938	9.507	11963947	5578850	6.014	6.973
23) B	Endrin Ke...	7.554	9.598	11766317	5000620	4.963	5.169

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

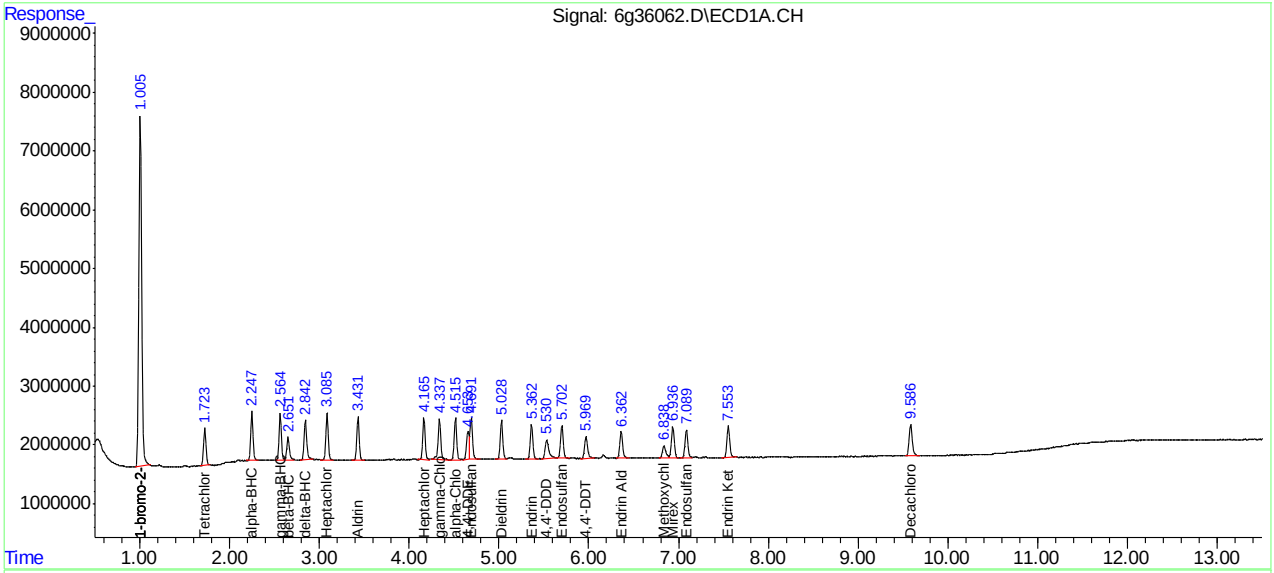
SGS ACCUTEST JC21709

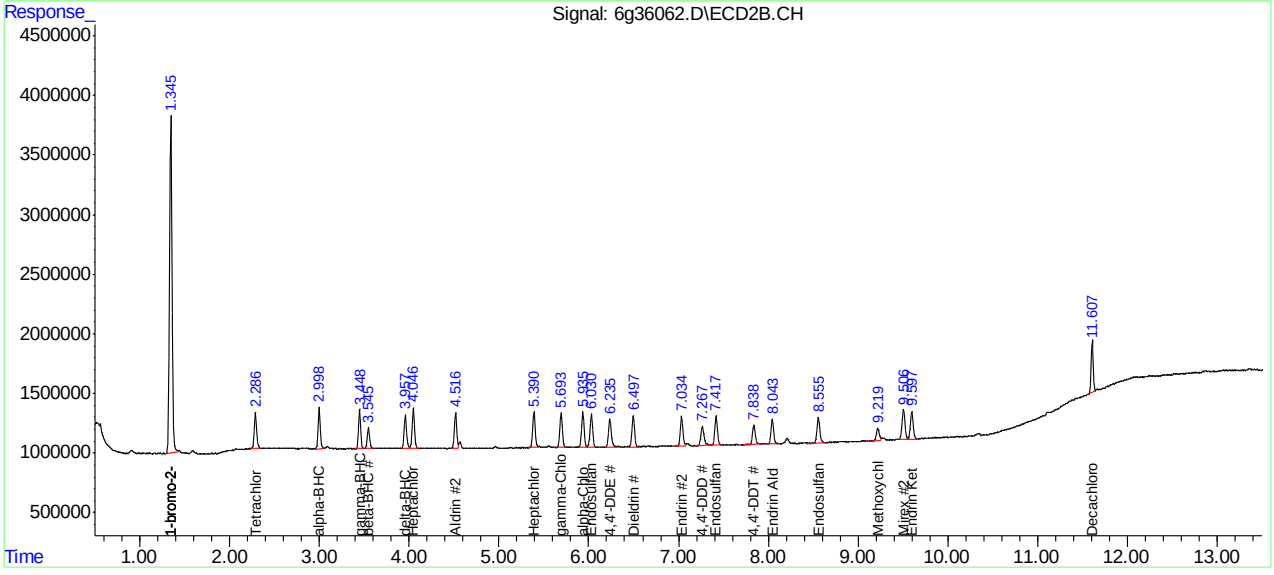
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36062.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:27 pm
Operator : dharas
Sample : ic1034-5
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:52:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integration Approval Summary

Sample Number:	G6G1034-IC1034	**Method:**	SW846 8081B
Lab FileID:	6G36062.D	**Analyst approved:**	06/13/16 13:38 Rebecca Krug
Injection Time:	06/10/16 17:27	**Supervisor approved:**	06/14/16 15:27 Gwendolyn Burns

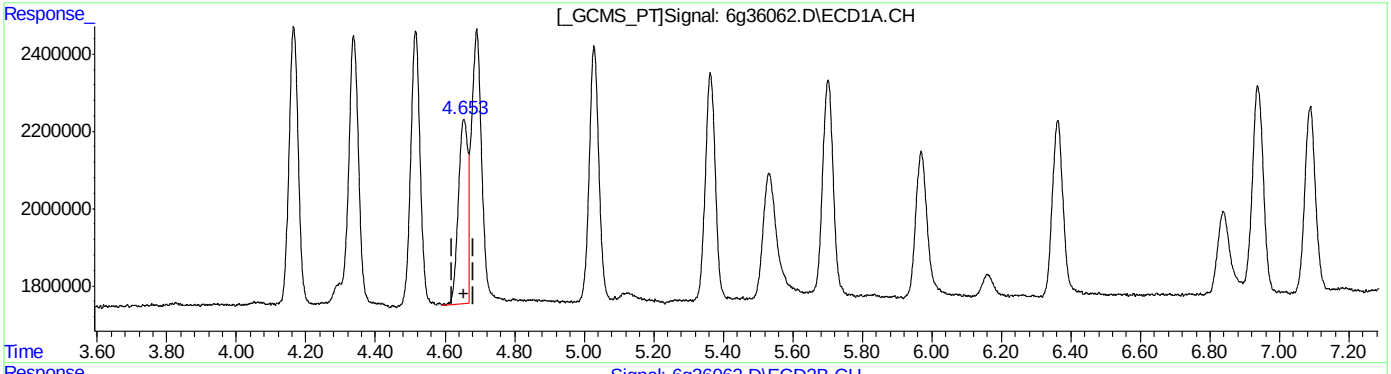
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	2	6.24	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.59	Poorly defined baseline

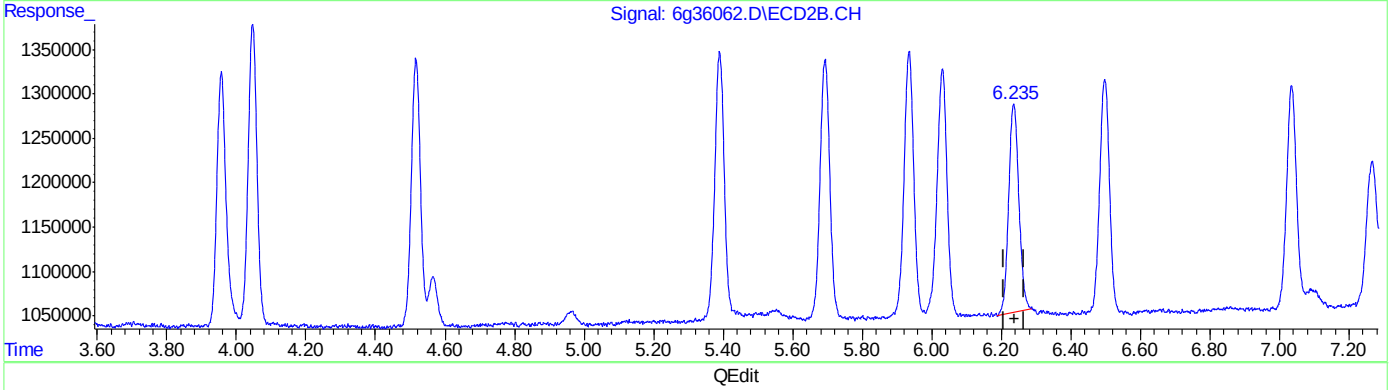
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36062.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:27 pm
Operator : dharas
Sample : ic1034-5
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:51:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(13) 4,4'-DDE (B)
4.654min 4.555PPB
response 8993694

(13) 4,4'-DDE #2 (B)
6.236min 5.397PPB
response 4780606

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:51:37 2016

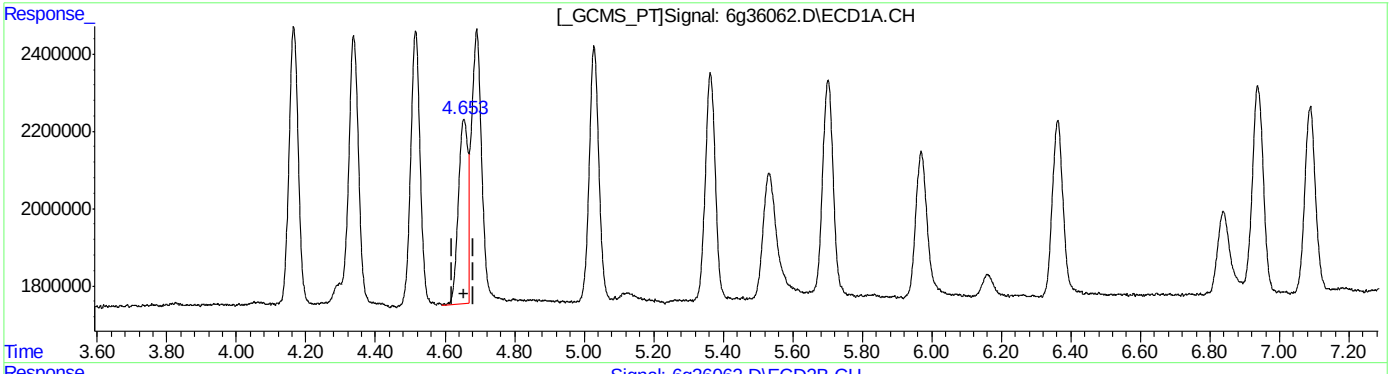
SGS ACCUTEST JC21709

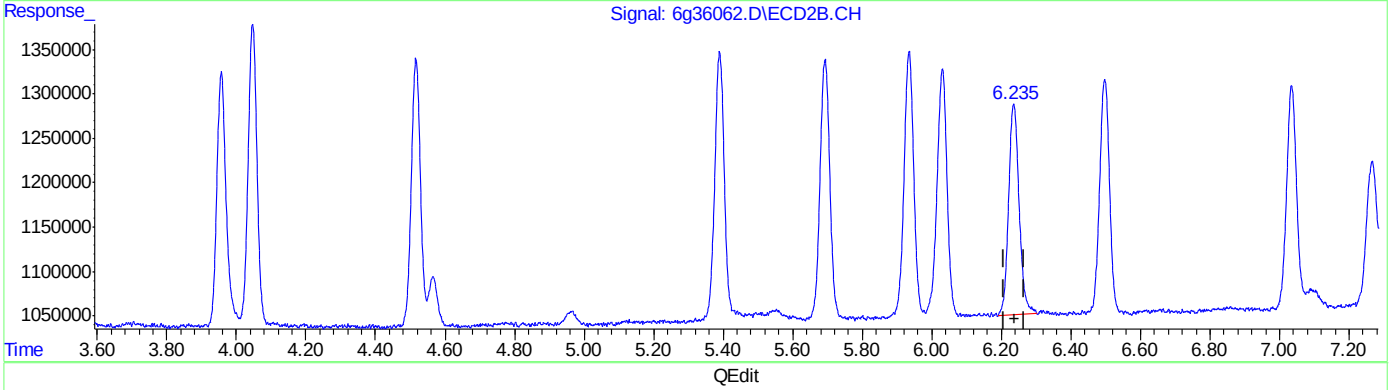
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36062.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:27 pm
Operator : dharas
Sample : ic1034-5
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:51:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(13) 4,4'-DDE (B)
4.654min 4.555PPB
response 8993694

(13) 4,4'-DDE #2 (B)
6.235min 5.627PPB m
response 4984696

(+) = Expected Retention Time

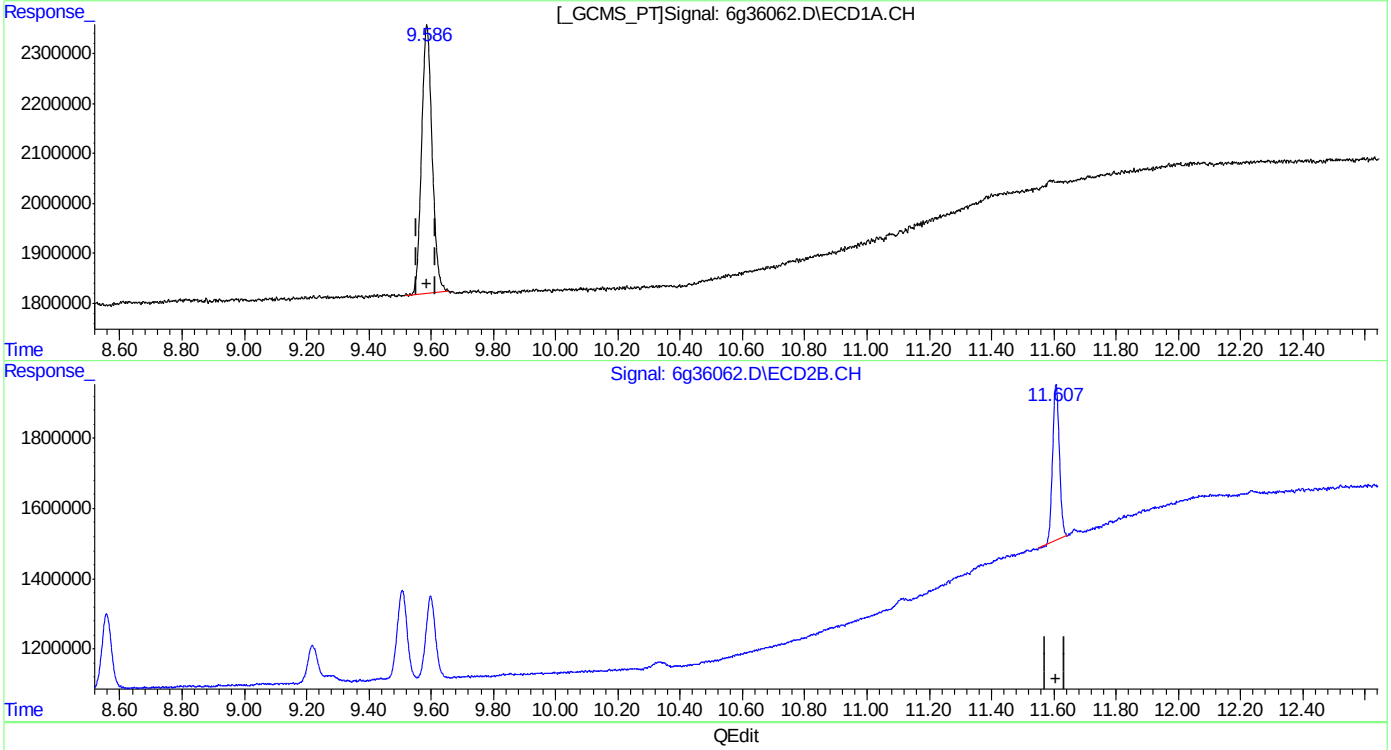
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36062.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:27 pm
Operator : dharas
Sample : ic1034-5
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:51:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(24) Decachlorobiphenyl (SAB)
9.586min 5.770PPB
response 12545555

(24) Decachlorobiphenyl #2 (SAB)
11.607min 7.182PPB
response 6771441

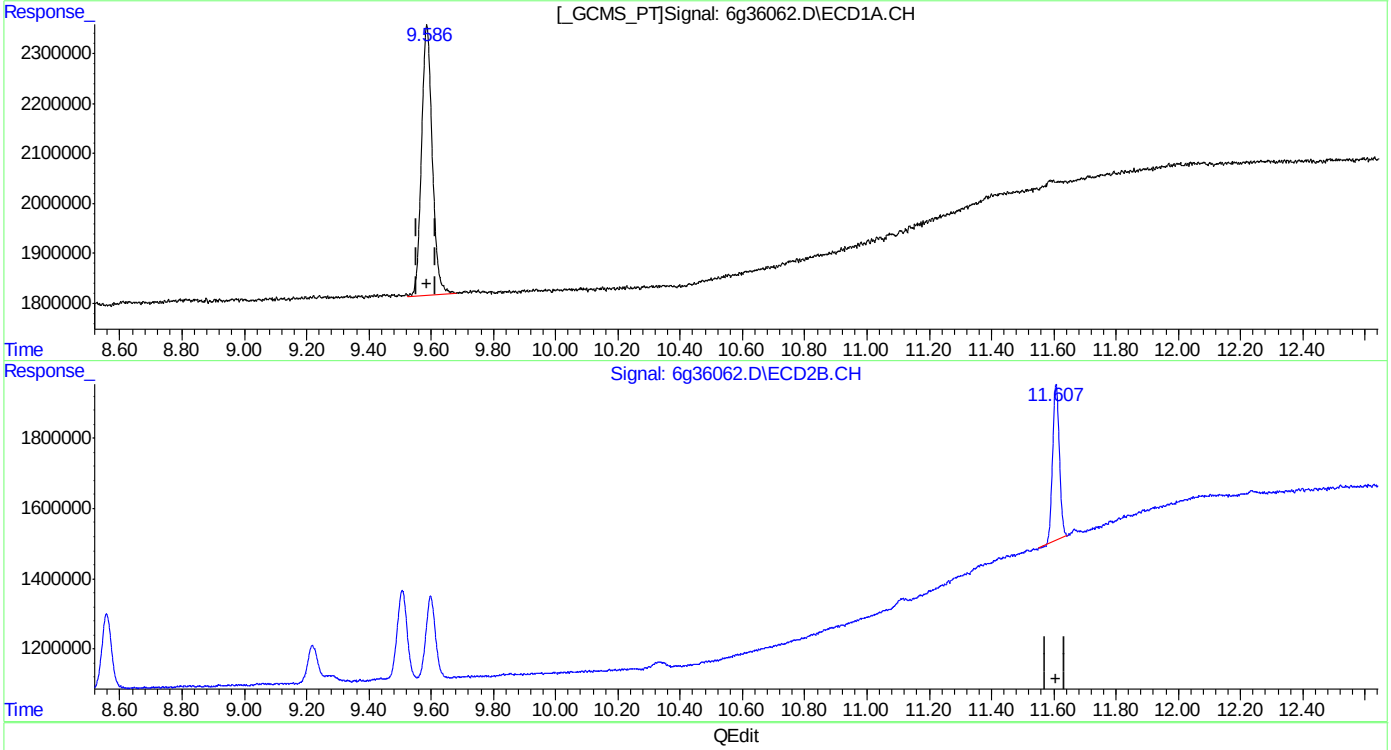
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36062.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:27 pm
Operator : dharas
Sample : ic1034-5
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:51:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(24) Decachlorobiphenyl (SAB)
9.586min 5.964PPB m
response 12967859

(24) Decachlorobiphenyl #2 (SAB)
11.607min 7.182PPB
response 6771441

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36063.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:43 pm
Operator : dharas
Sample : ic1034-10
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:50:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.007	1.346	131.5E6	54714865	50.000	50.000
25) I	1-bromo-2...	1.007	1.346	131.5E6	54714865	50.000	50.000
31) I	1-bromo-2...	1.007	1.346	131.5E6	54714865	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.726	2.289	24054563	10369008	10.614	10.887
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	26.54%#	27.22%#
24)	SAB Decachlor...	9.587	11.608	23980222	12978439	11.070	13.836
	Spiked Amount 40.000			Recovery	=	27.68%	34.59%
	Target Compounds						
3) A	alpha-BHC	2.250	3.000	29712224	11383570	9.792	9.569
4) MA	gamma-BHC	2.566	3.450	28256563	11076832	9.678	9.846
5) MA	Heptachlor	3.087	4.049	28197359	12062801	10.373	11.057
6) B	beta-BHC	2.652	3.547	14796971	6083728	10.351	10.854
7) B	delta-BHC	2.845	3.959	26467881	10227213	10.122	9.459
8) MB	Aldrin	3.432	4.518	26417440	11403348	10.631	11.178
9) B	Heptachlo...	4.168	5.392	25809556	11180899	11.178	11.154
10) B	gamma-Chl...	4.340	5.695	26507174	11394051	11.564	11.945
11) B	alpha-Chl...	4.518	5.938	26177408	11562857	11.073	12.014
12) A	Endosulfan I	4.693	6.033	28027254	10696840	11.761	11.630
13) B	4,4'-DDE	4.656	6.238	17976878	9901664	9.139	11.234
14) MA	Dieldrin	5.032	6.499	24615296	10598612	10.541	11.277
15) MA	Endrin	5.365	7.037	23057464	9640564	10.410	10.863
16) A	4,4'-DDD	5.534	7.267	18310997	7867309	10.423	11.010
17) B	Endosulfa...	5.703	7.421	23806761	10359506	10.929	11.964
18) MA	4,4'-DDT	5.972	7.843	17185927	7224976	9.077	9.675
19) B	Endrin Al...	6.363	8.047	18742582	8485376	10.321	11.432
20) B	Endosulfa...	7.090	8.560	19811368	9070062	9.842	11.311
21) A	Methoxychlor	6.841	9.222	10579095	4834755	9.672	10.725
22)	Mirex	6.940	9.509	22786425	10905916	11.498	13.700
23) B	Endrin Ke...	7.556	9.600	22956073	9874139	9.719	10.258

SemiQuant Compounds - Not Calibrated on this Instrument

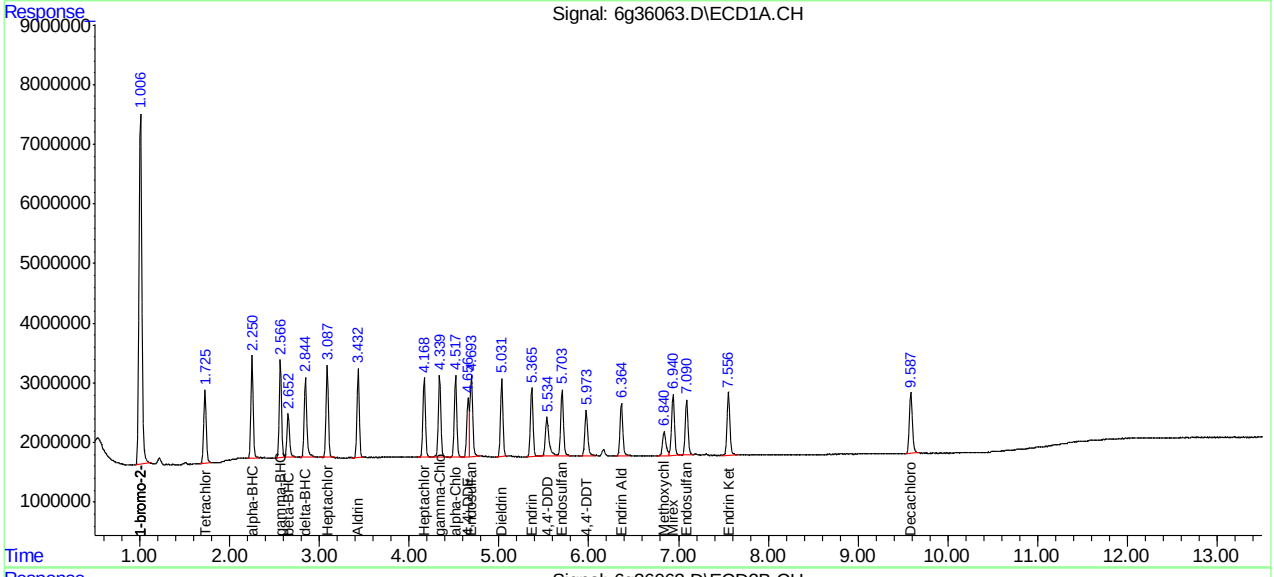
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

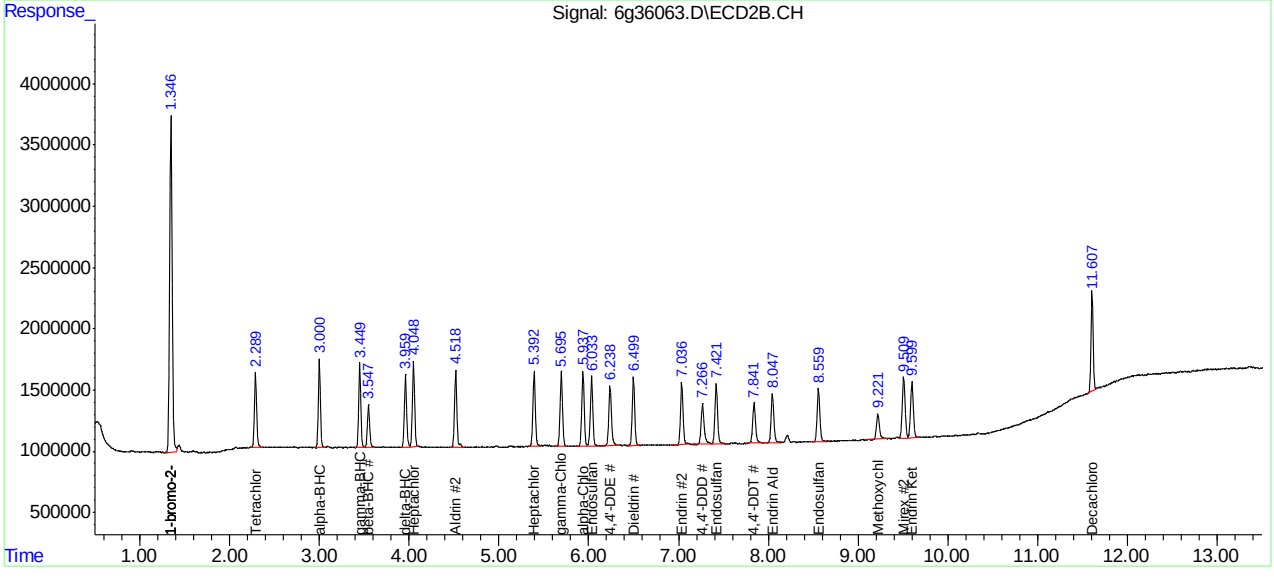
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36063.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:43 pm
Operator : dharas
Sample : ic1034-10
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:50:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36064.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:59 pm
Operator : dharas
Sample : icc1034-25
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:46:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.006	1.346	135.2E6	55250352	50.000	50.000	
25) I	1-bromo-2...	1.006	1.346	135.2E6	55250352	50.000	50.000	
31) I	1-bromo-2...	1.006	1.346	135.2E6	55250352	50.000	50.000	
	System Monitoring Compounds							
2)	SAB Tetrachlo...	1.725	2.288	60648721	26773159	26.038	27.839	
	Spiked Amount	40.000	Range	30 - 150	Recovery	=	65.09%	69.60%
24)	SAB Decachlor...	9.586	11.606	59072012	32015962	26.533	33.800	#
	Spiked Amount	40.000			Recovery	=	66.33%	84.50%
	Target Compounds							
3) A	alpha-BHC	2.249	2.999	81441069	32106941	26.113	26.728	
4) MA	gamma-BHC	2.566	3.450	76364743	30661751	25.447	26.991	
5) MA	Heptachlor	3.087	4.048	73983200	32228682	26.479	29.256	
6) B	beta-BHC	2.652	3.547	36707842	15820080	24.985	27.950	
7) B	delta-BHC	2.843	3.958	72861802	28967676	27.111	26.533	
8) MB	Aldrin	3.433	4.519	70574960	30478150	27.633	29.585	
9) B	Heptachlo...	4.167	5.391	67048068	29883028	28.254	29.523	
10) B	gamma-Chl...	4.339	5.695	67891075	30283358	28.818	31.441	
11) B	alpha-Chl...	4.517	5.937	67113880	30692395	27.622	31.581	
12) A	Endosulfan I	4.693	6.032	71691069	28528866	29.270	30.716	
13) B	4,4'-DDE	4.656	6.237	49999759	26775803	24.731	30.085	
14) MA	Dieldrin	5.031	6.499	65401338	28563625	27.251	30.097	
15) MA	Endrin	5.364	7.037	60014692	26730916	26.364	29.830	
16) A	4,4'-DDD	5.531	7.265	47824007	21156248	26.487	29.320	
17) B	Endosulfa...	5.702	7.420	61311504	26815521	27.386	30.670	
18) MA	4,4'-DDT	5.971	7.841	45864776	20049409	23.568	26.587	
19) B	Endrin Al...	6.363	8.047	49134949	22948059	26.325	30.618	
20) B	Endosulfa...	7.089	8.559	51564754	24000900	24.923	29.641	
21) A	Methoxychlor	6.837	9.221	26643861	12982952	23.701	28.521	
22)	Mirex	6.939	9.508	55880843	28256910	27.435	35.153	#
23) B	Endrin Ke...	7.556	9.600	60477688	27255364	24.912	28.040	

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

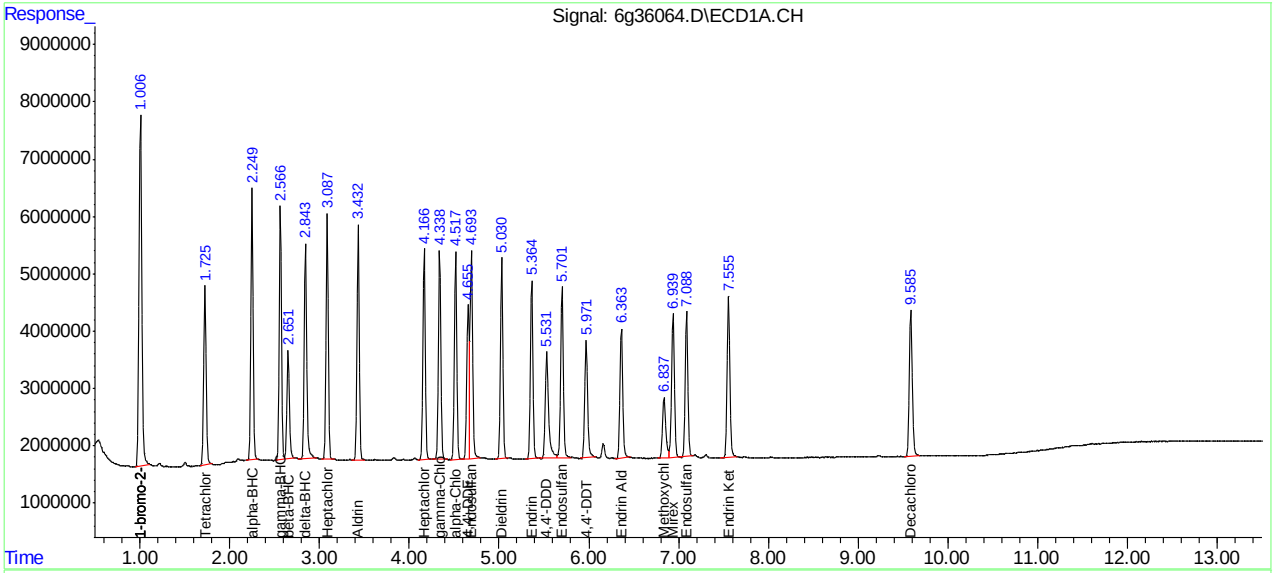
SGS ACCUTEST JC21709

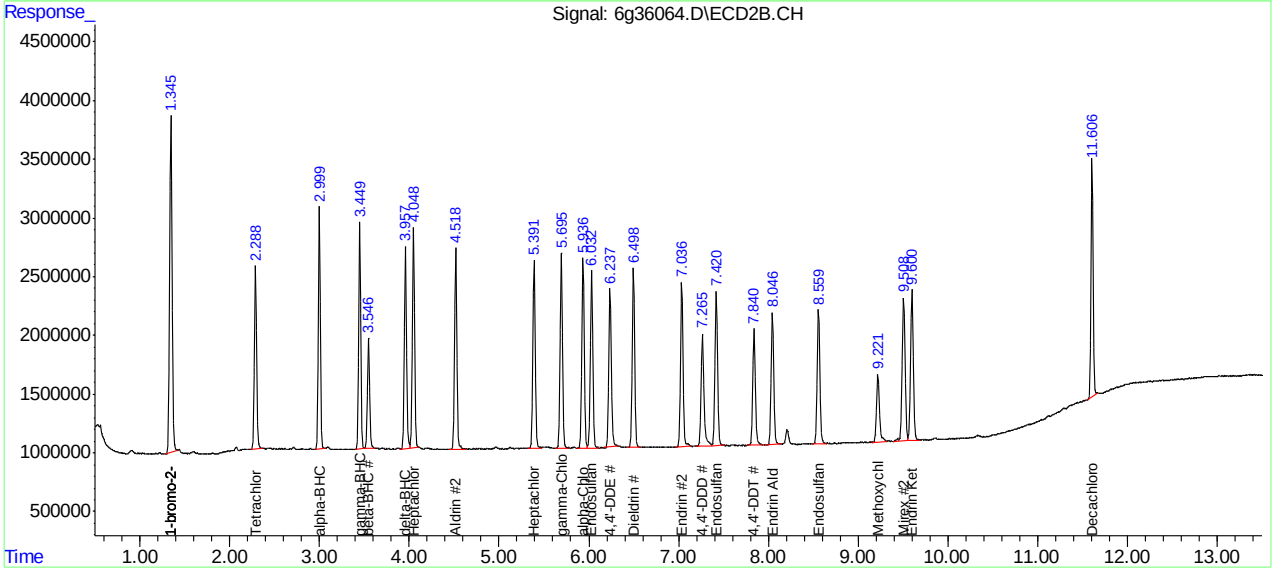
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36064.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 5:59 pm
Operator : dharas
Sample : icc1034-25
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:46:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36065.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 6:16 pm
Operator : dharas
Sample : ic1034-50
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:44:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.007	1.345	135.4E6	55346645	50.000	50.000	
25) I	1-bromo-2...	1.007	1.345	135.4E6	55346645	50.000	50.000	
31) I	1-bromo-2...	1.007	1.345	135.4E6	55346645	50.000	50.000	
	System Monitoring Compounds							
2)	SAB Tetrachlo...	1.726	2.289	127.1E6	55486784	54.476	57.595	
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 136.19%	143.99%	
24)	SAB Decachlor...	9.588	11.606	115.6E6	63280118	51.838	66.689	#
	Spiked Amount	40.000			Recovery	= 129.60%	166.72%	
	Target Compounds							
3) A	alpha-BHC	2.250	3.001	180.7E6	73910192	57.865	61.421	
4) MA	gamma-BHC	2.566	3.451	165.9E6	69166180	55.211	60.780	
5) MA	Heptachlor	3.087	4.049	157.4E6	70446066	56.249	63.837	
6) B	beta-BHC	2.652	3.547	74758170	33109649	50.809	58.395	
7) B	delta-BHC	2.844	3.959	162.6E6	65790492	60.422	60.156	
8) MB	Aldrin	3.433	4.519	152.4E6	66947696	59.573	64.873	
9) B	Heptachlo...	4.167	5.391	140.8E6	63775590	59.248	62.898	
10) B	gamma-Chl...	4.340	5.696	142.6E6	65238188	60.449	67.614	
11) B	alpha-Chl...	4.518	5.938	140.9E6	65650052	57.890	67.434	
12) A	Endosulfan I	4.694	6.034	150.1E6	60378549	61.181	64.894	
13) B	4,4'-DDE	4.655	6.238	110.5E6	58144337	54.587	65.217	
14) MA	Dieldrin	5.032	6.501	140.5E6	62342277	58.458	65.574	
15) MA	Endrin	5.364	7.038	128.1E6	56711864	56.199	63.176	
16) A	4,4'-DDD	5.531	7.267	101.8E6	44721606	56.317	61.871	
17) B	Endosulfa...	5.704	7.421	127.3E6	55962201	56.791	63.894	
18) MA	4,4'-DDT	5.970	7.841	100.1E6	44959589	51.366	59.517	
19) B	Endrin Al...	6.363	8.047	100.6E6	47265570	53.817	62.953	
20) B	Endosulfa...	7.089	8.560	107.6E6	50216321	51.924	61.908	
21) A	Methoxychlor	6.837	9.220	55847557	26730758	49.606	58.619	
22)	Mirex	6.940	9.509	109.1E6	54352622	53.484	67.499	#
23) B	Endrin Ke...	7.556	9.601	125.7E6	57530390	51.710	59.084	

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

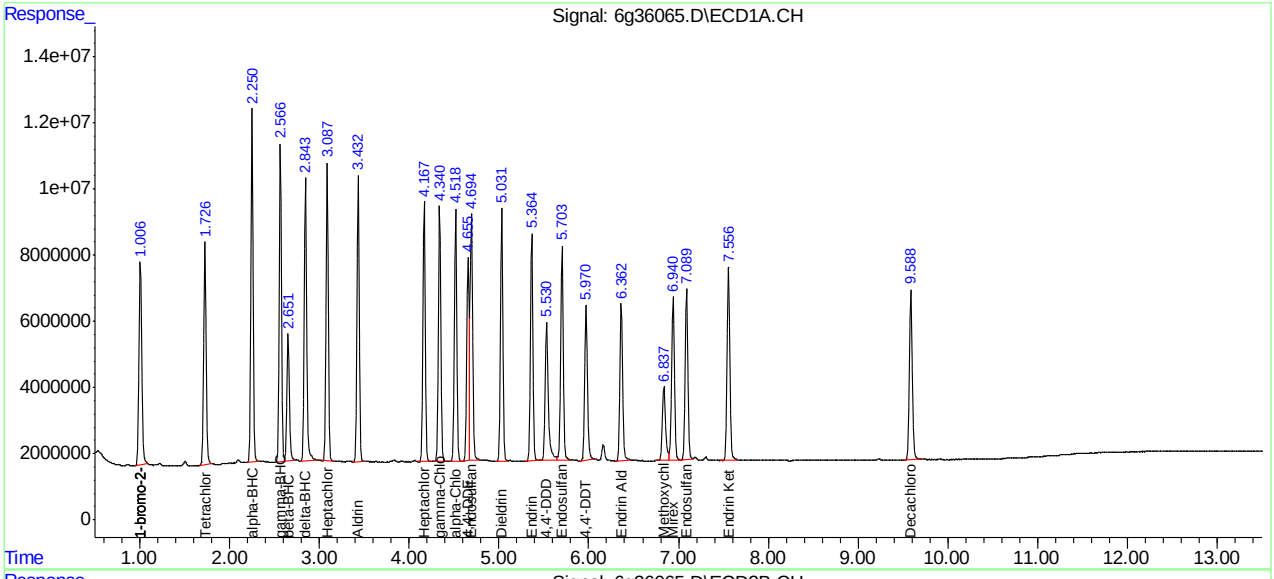
SGS ACCUTEST JC21709

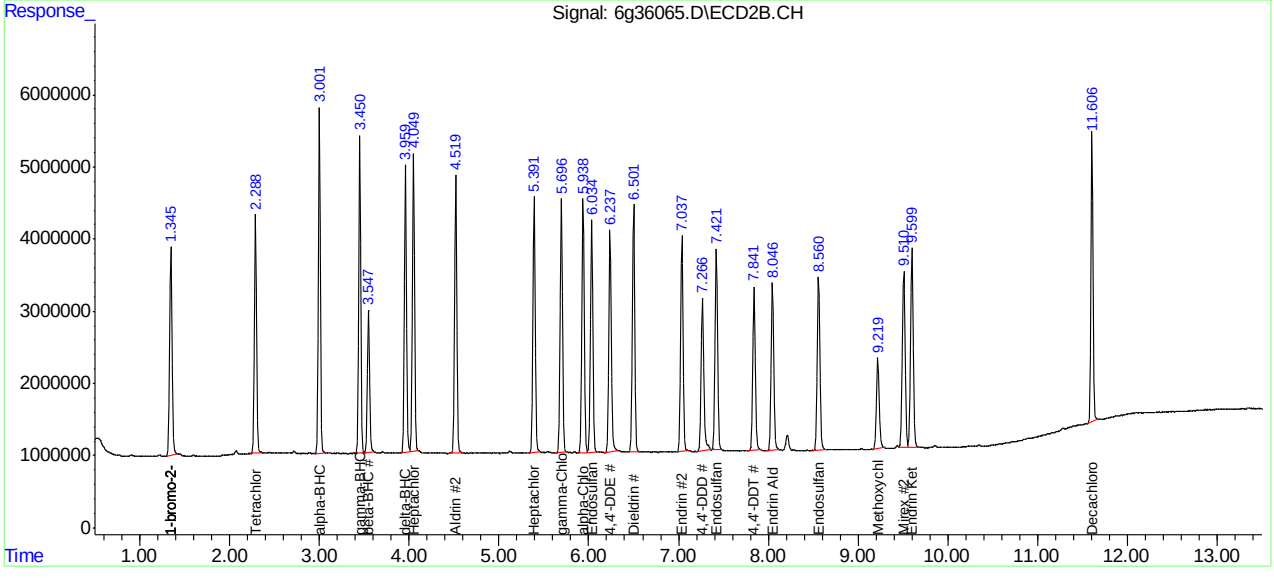
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36065.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 6:16 pm
Operator : dharas
Sample : ic1034-50
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:44:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36066.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 6:32 pm
Operator : dharas
Sample : ic1034-75
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:43:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	133.4E6	54197675	50.000	50.000	
25) I	1-bromo-2...	1.004	1.344	133.4E6	54197675	50.000	50.000	
31) I	1-bromo-2...	1.004	1.344	133.4E6	54197675	50.000	50.000	
	System Monitoring Compounds							
2)	SAB Tetrachlo...	1.724	2.288	187.8E6	81257992	81.686	86.134	
	Spiked Amount 40.000 Range 30 - 150 Recovery = 204.22%# 215.34%#							
24)	SAB Decachlor...	9.586	11.605	168.2E6	91961938	76.559	98.971	#
	Spiked Amount 40.000 Recovery = 191.40% 247.43%							
	Target Compounds							
3) A	alpha-BHC	2.249	2.999	273.6E6	113.3E6	88.859	96.180	
4) MA	gamma-BHC	2.565	3.450	250.1E6	105.1E6	84.423	94.318	
5) MA	Heptachlor	3.087	4.049	235.3E6	105.8E6	85.334	97.867	
6) B	beta-BHC	2.651	3.546	109.1E6	48382579	75.250	87.141	
7) B	delta-BHC	2.843	3.958	243.3E6	100.4E6	91.715	93.740	
8) MB	Aldrin	3.432	4.519	228.1E6	101.1E6	90.494	100.039	
9) B	Heptachlo...	4.166	5.391	208.5E6	95221720	88.996	95.902	
10) B	gamma-Chl...	4.339	5.695	212.8E6	97441255	91.517	103.131	
11) B	alpha-Chl...	4.516	5.936	209.1E6	97359540	87.191	102.126	
12) A	Endosulfan I	4.693	6.032	217.7E6	89834796	90.034	98.600	
13) B	4,4'-DDE	4.654	6.237	173.1E6	88234720	86.731	101.066	
14) MA	Dieldrin	5.032	6.499	211.5E6	94362957	89.271	101.359	
15) MA	Endrin	5.365	7.036	191.1E6	85098349	85.051	96.808	
16) A	4,4'-DDD	5.528	7.265	152.8E6	69443245	85.756	98.110	
17) B	Endosulfa...	5.703	7.421	190.9E6	85146018	86.372	99.275	
18) MA	4,4'-DDT	5.968	7.840	155.0E6	70839163	80.704	95.764	
19) B	Endrin Al...	6.362	8.046	148.0E6	69348487	80.323	94.324	
20) B	Endosulfa...	7.089	8.559	160.7E6	74908697	78.708	94.308	
21) A	Methoxychlor	6.834	9.220	82979351	40158686	74.779	89.933	
22)	Mirex	6.939	9.508	158.6E6	80662196	78.869	102.295	#
23) B	Endrin Ke...	7.555	9.600	188.7E6	86668294	78.760	90.896	

SemiQuant Compounds - Not Calibrated on this Instrument

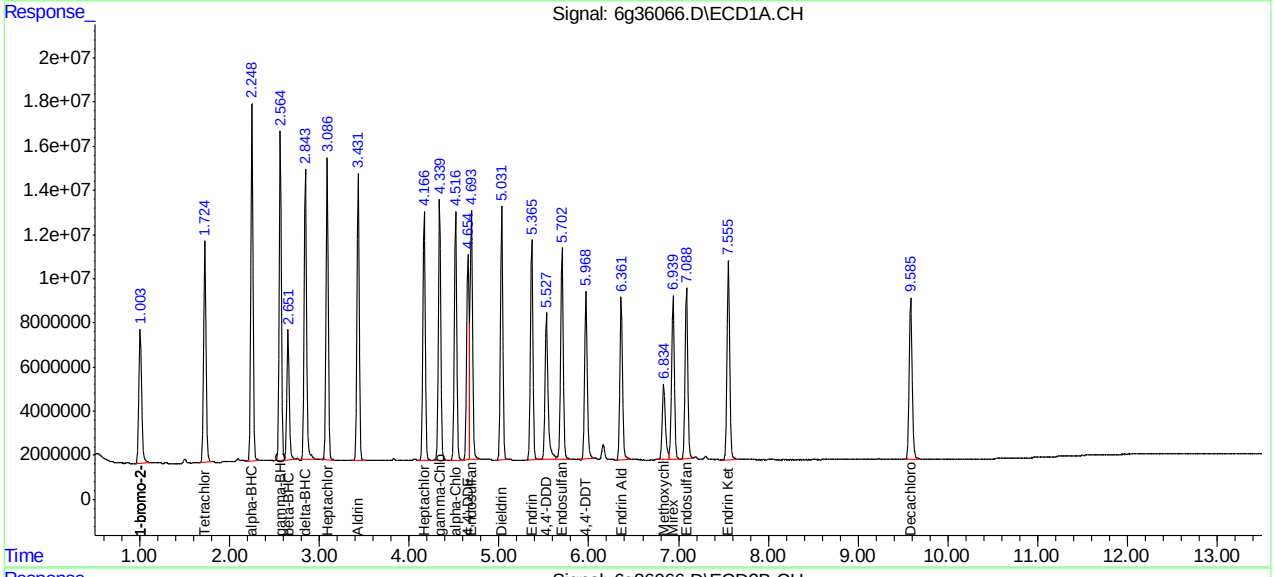
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

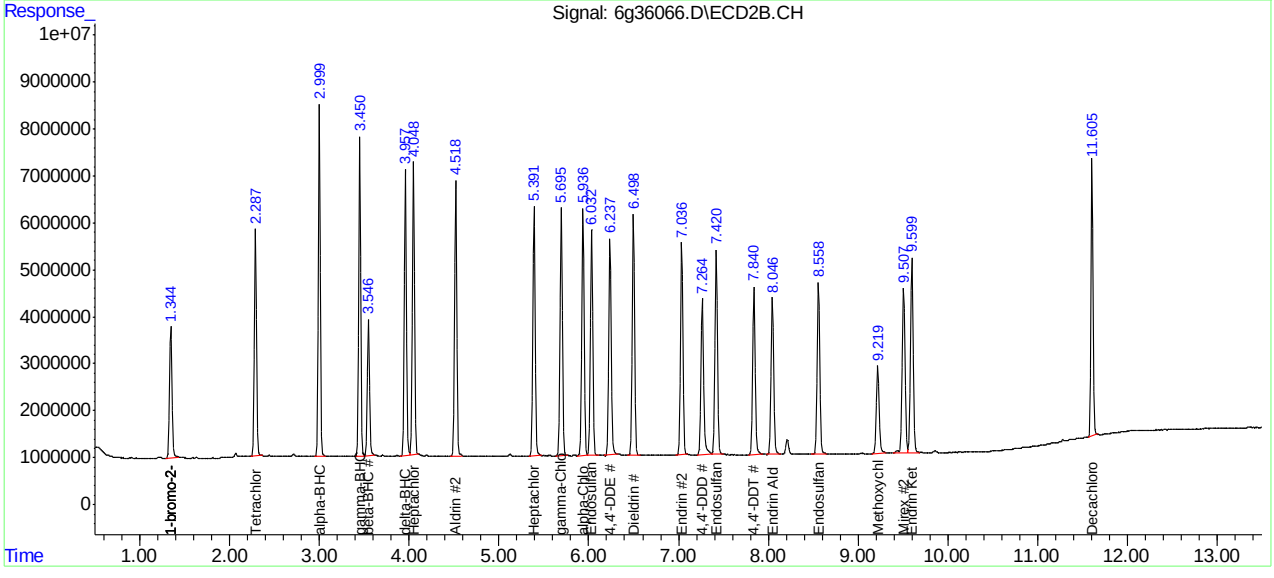
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36066.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 6:32 pm
Operator : dharas
Sample : ic1034-75
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:43:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36067.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 6:49 pm
Operator : dharas
Sample : ic1034-100
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:44:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.006	1.345	130.6E6	53293530	50.000	50.000	
25) I	1-bromo-2...	1.006	1.345	130.6E6	53293530	50.000	50.000	
31) I	1-bromo-2...	1.006	1.345	130.6E6	53293530	50.000	50.000	
	System Monitoring Compounds							
2)	SAB Tetrachlo...	1.725	2.289	255.6E6	112.0E6	113.571	120.747	
	Spiked Amount 40.000 Range 30 - 150 Recovery = 283.93%# 301.87%#							
24)	SAB Decachlor...	9.586	11.605	222.7E6	121.5E6	103.523	132.929	#
	Spiked Amount 40.000 Recovery = 258.81% 332.32%							
	Target Compounds							
3) A	alpha-BHC	2.249	3.000	384.1E6	162.1E6	127.452	139.879	
4) MA	gamma-BHC	2.565	3.451	347.3E6	149.0E6	119.769	135.953	
5) MA	Heptachlor	3.087	4.050	325.2E6	149.6E6	120.465	140.742	
6) B	beta-BHC	2.651	3.547	147.7E6	66724089	104.007	122.215	
7) B	delta-BHC	2.843	3.958	343.0E6	142.9E6	132.062	135.664	
8) MB	Aldrin	3.432	4.519	316.8E6	143.6E6	128.371	144.495	
9) B	Heptachlo...	4.167	5.391	286.7E6	133.3E6	125.032	136.553	
10) B	gamma-Chl...	4.339	5.695	294.2E6	137.1E6	129.254	147.568	
11) B	alpha-Chl...	4.518	5.937	288.0E6	136.5E6	122.656	145.655	
12) A	Endosulfan I	4.693	6.033	301.4E6	125.4E6	127.351	139.947	
13) B	4,4'-DDE	4.654	6.238	242.1E6	124.0E6	123.946	144.497	
14) MA	Dieldrin	5.031	6.500	292.4E6	133.0E6	126.100	145.274	
15) MA	Endrin	5.365	7.037	263.6E6	119.4E6	119.849	138.106	
16) A	4,4'-DDD	5.529	7.265	210.1E6	97459731	120.395	140.028	
17) B	Endosulfa...	5.702	7.420	259.5E6	117.3E6	119.950	139.069	
18) MA	4,4'-DDT	5.970	7.841	217.8E6	100.8E6	115.845	138.576	
19) B	Endrin Al...	6.363	8.047	200.6E6	94859842	111.210	131.212	
20) B	Endosulfa...	7.089	8.559	219.0E6	102.7E6	109.554	131.436	
21) A	Methoxychlor	6.835	9.220	112.0E6	54968854	103.121	125.188	
22)	Mirex	6.939	9.509	211.7E6	107.9E6	107.541	139.155	#
23) B	Endrin Ke...	7.556	9.601	256.0E6	118.9E6	109.145	126.850	

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.8 11

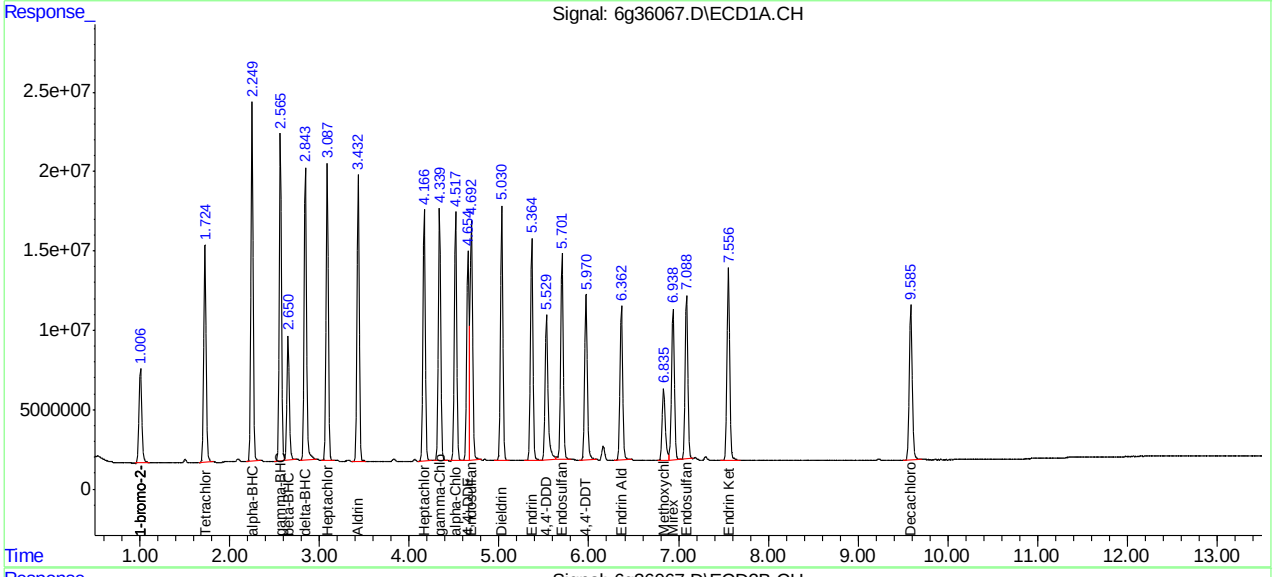
SGS ACCUTEST JC21709

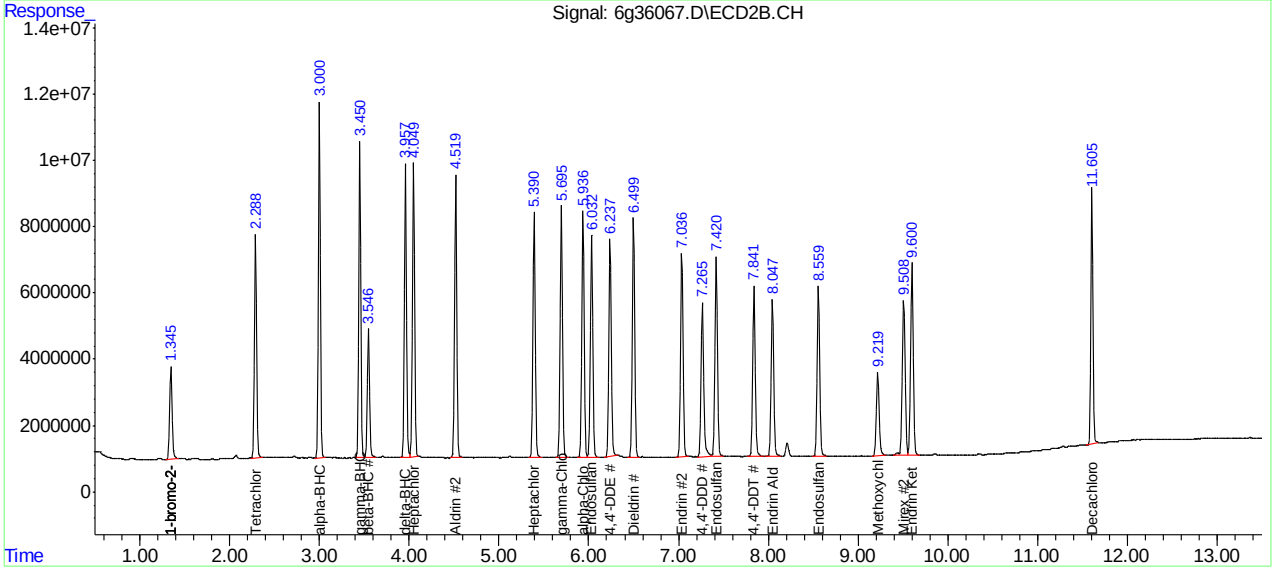
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36067.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 6:49 pm
Operator : dharas
Sample : ic1034-100
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:44:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:43:41 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 06/14/16 15:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36068.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:05 pm
Operator : dharas
Sample : ic1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:58:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:57:31 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.005	1.345	126.2E6	52373229	50.000	50.000
25) I	1-bromo-2...	1.005	1.345	126.2E6	52373229	50.000	50.000
31) I	1-bromo-2...	1.005	1.345	126.2E6	52373229	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.725	2.288	132.9E6	57723645	61.092	63.319
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 152.73%#	158.30%#
24)	SAB Decachlor...	9.586	11.604	119.6E6	65181261	57.516	72.593 #
	Spiked Amount	40.000			Recovery	= 143.79%	181.48%
	Target Compounds						
32)	Chlordane...	2.992	3.843	44264757	19096864	580.135	621.330
33)	Chlordane...	3.583	4.732	62590289	25516613	591.521	665.738
34)	Chlordane...	4.339	5.694	195.6E6	83891320	557.120	676.471
35)	Chlordane...	4.509	5.935	286.6E6	138.4E6	515.065	678.220m#
36)	Chlordane...	5.609	7.503	47079391	19251577	547.998	593.776

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

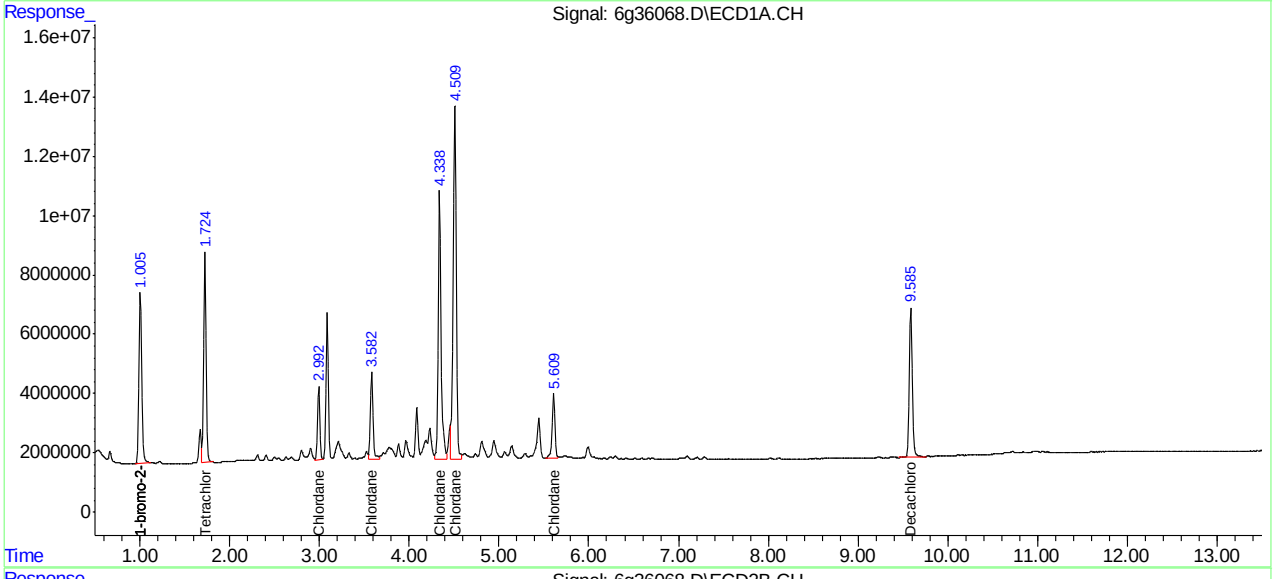
11.6.9 11

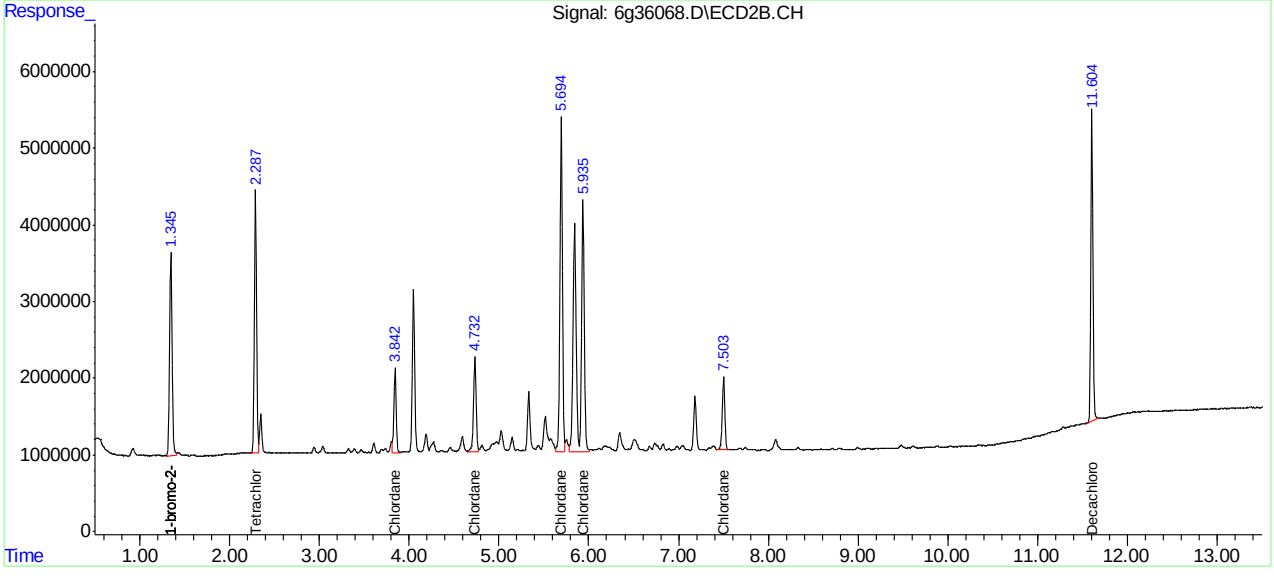
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36068.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:05 pm
Operator : dharas
Sample : ic1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:58:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:57:31 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integration Approval Summary

Sample Number:	G6G1034-IC1034	**Method:**	SW846 8081B
Lab FileID:	6G36068.D	**Analyst approved:**	06/13/16 13:38 Rebecca Krug
Injection Time:	06/10/16 19:05	**Supervisor approved:**	06/14/16 15:27 Gwendolyn Burns

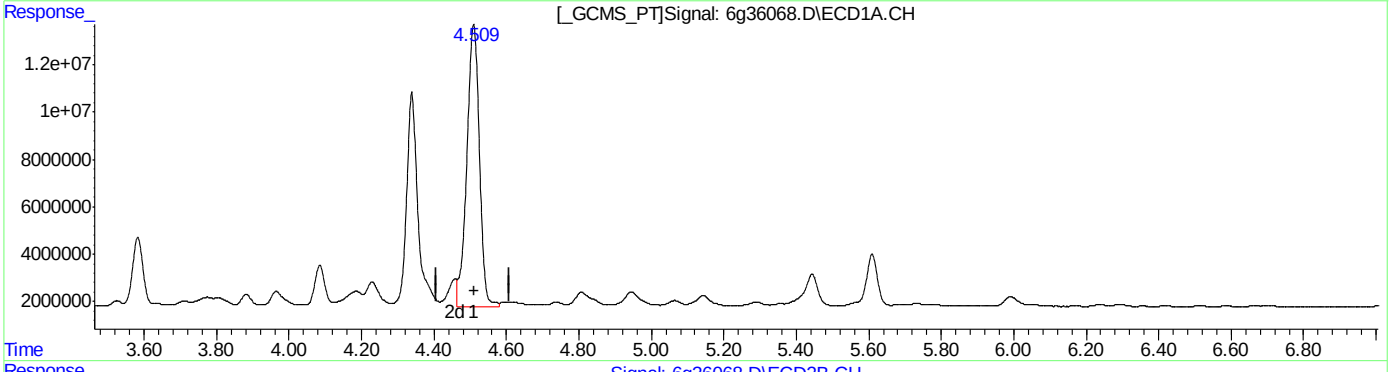
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	5.93	Split peak

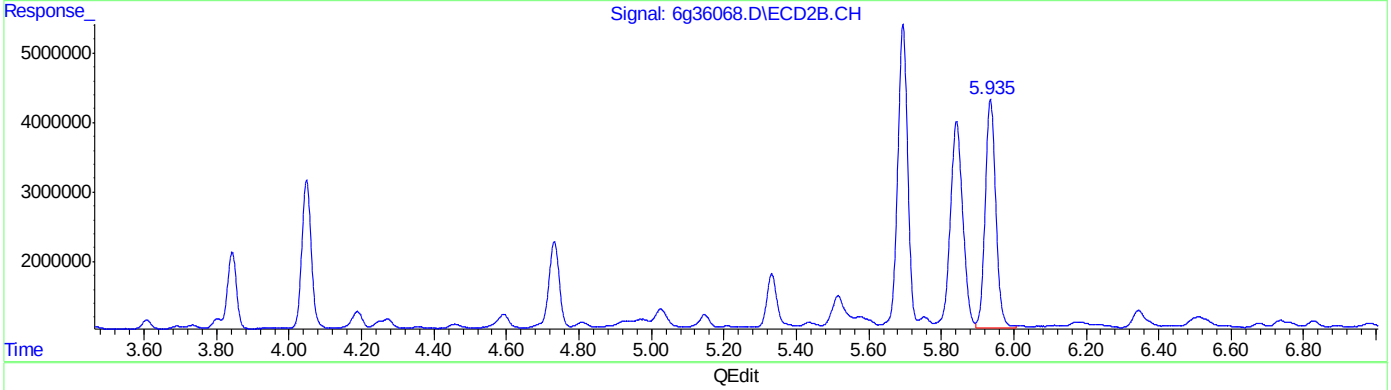
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36068.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:05 pm
Operator : dharas
Sample : ic1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:57:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:57:31 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(35) Chlordane {D}
4.509min 515.065PPB
response 286600387

(35) Chlordane {D} #2
5.935min 327.592PPB
response 66852112

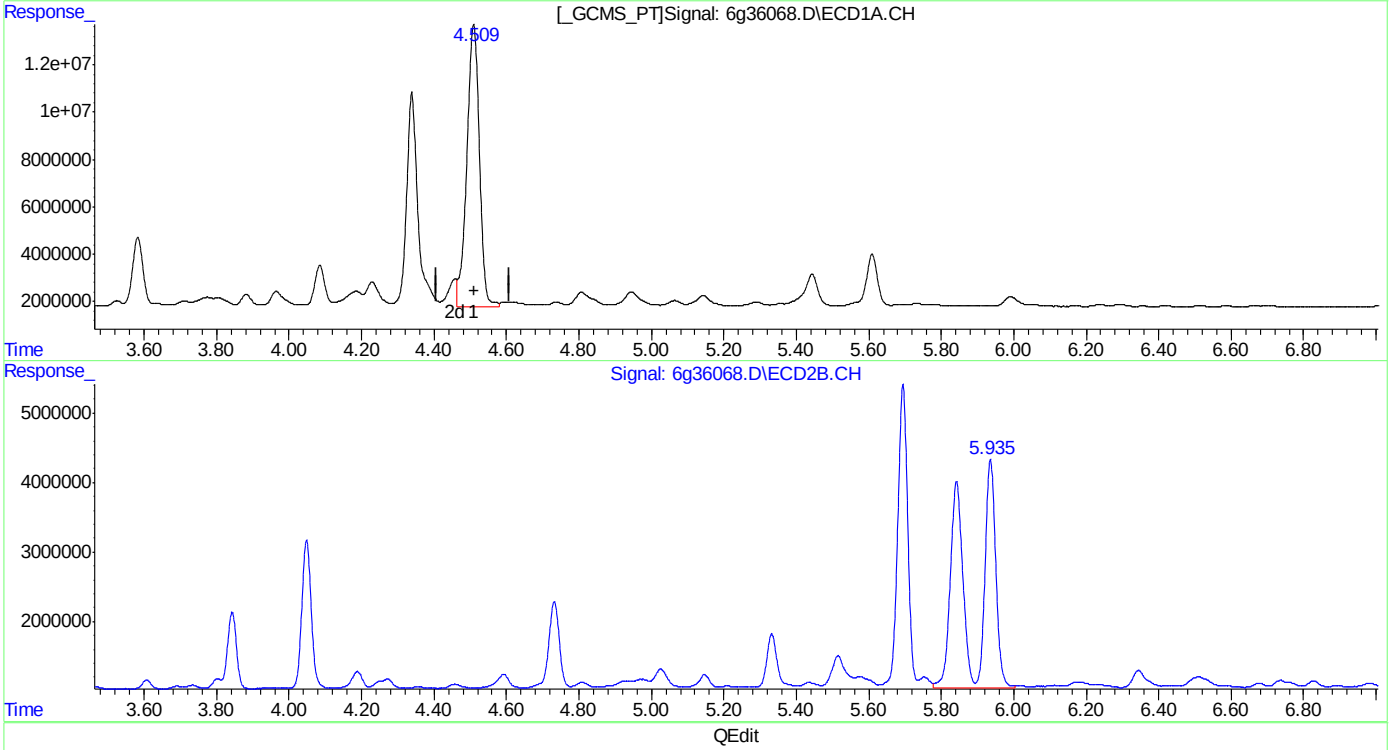
(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:57:52 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36068.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:05 pm
Operator : dharas
Sample : ic1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:57:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:57:31 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(35) Chlordane {D}
4.509min 515.065PPB
response 286600387

(35) Chlordane {D} #2
5.935min 678.220PPB m
response 138405206

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 11:58:04 2016

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36069.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:22 pm
Operator : dharas
Sample : ic1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:59:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:59:40 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.006	1.345	126.2E6	51635762	50.000	50.000	
25) I	1-bromo-2...	1.006	1.345	126.2E6	51635762	50.000	50.000	
31) I	1-bromo-2...	1.006	1.345	126.2E6	51635762	50.000	50.000	
	System Monitoring Compounds							
2) SAB	Tetrachlo...	1.724	2.288	127.4E6	55885643	58.588	62.178	
Spiked Amount		40.000 Range	30 - 150	Recovery	=	146.47%	155.44%#	
24) SAB	Decachlor...	9.586	11.604	117.8E6	63306681	56.681	71.512	#
Spiked Amount		40.000		Recovery	=	141.70%	178.78%	
	Target Compounds							
26) L8	Toxaphene{A}	5.040	6.463	18478393	12101451	503.536	587.559	
27) L8	Toxaphene{B}	5.424	7.388	50282105	15656441	709.842	579.900	
28) L8	Toxaphene{C}	5.690	7.567	57174492	25105923	515.156	629.542	
29) L8	Toxaphene{D}	6.246	8.048	51202700	15629135	851.108	500.339	#
30) L8	Toxaphene{E}	6.927	9.024	36943922	13170894	550.151	593.403	
	SemiQuant Compounds - Not Calibrated on this Instrument							

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.10 11

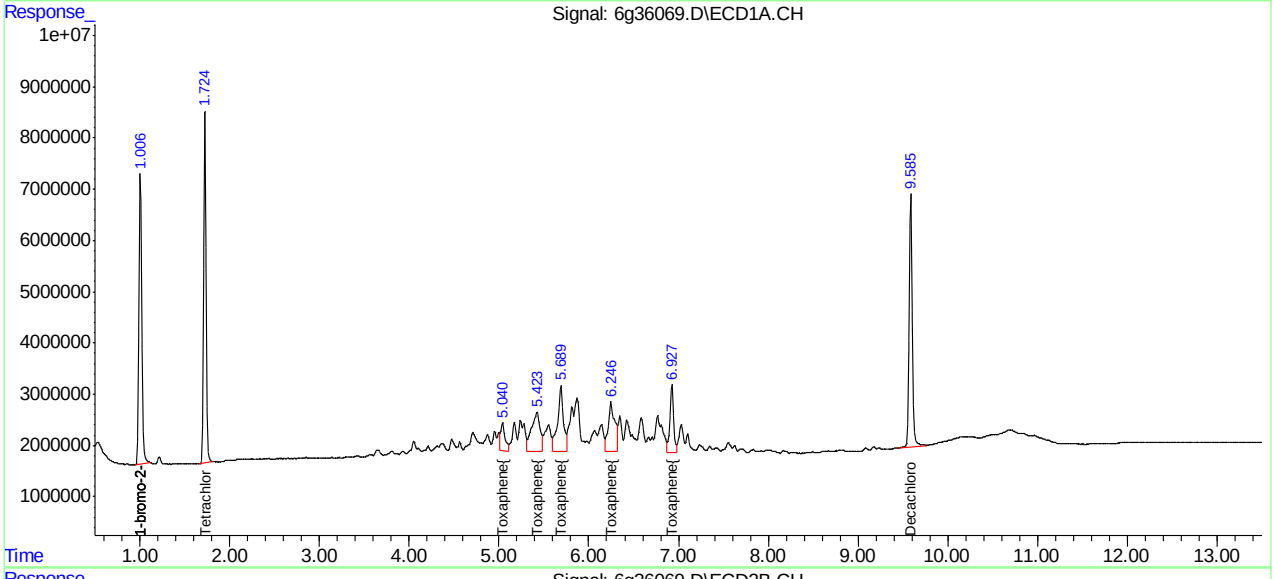
SGS ACCUTEST JC21709

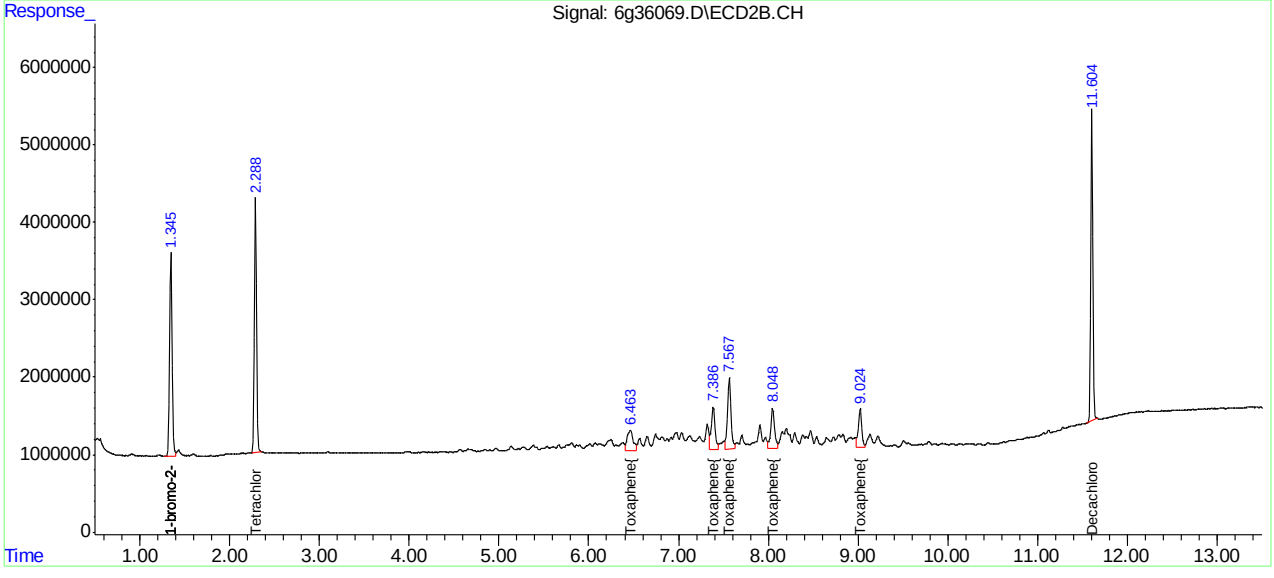
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36069.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:22 pm
Operator : dharas
Sample : ic1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 11:59:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 11:59:40 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36070.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:38 pm
Operator : dharas
Sample : icv1034-25
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:39:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	136.2E6	56098689	50.000	50.000
25) I	1-bromo-2...	1.004	1.344	136.2E6	56098689	50.000	50.000
31) I	1-bromo-2...	1.004	1.344	136.2E6	56098689	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.724	2.287	58163612	25510328	22.514	22.467
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	56.28%	56.17%
24)	SAB Decachlor...	9.590	11.604	57510206	31303018	22.686	22.929
	Spiked Amount 40.000			Recovery	=	56.72%	57.32%
	Target Compounds						
3) A	alpha-BHC	2.248	2.999	75035923	28814099	22.073	21.011
4) MA	gamma-BHC	2.565	3.450	70083133	27942504	22.162	21.754
5) MA	Heptachlor	3.087	4.048	68925899	29671731	22.011	22.005
6) B	beta-BHC	2.652	3.547	34537004	14296756	21.924	21.196
7) B	delta-BHC	2.844	3.959	71529033	27322841	22.824	22.155
8) MB	Aldrin	3.432	4.519	64368656	27339991	21.778	21.180
9) B	Heptachlo...	4.166	5.392	60799832	27580122	21.322	21.452
10) B	gamma-Chl...	4.339	5.695	64302089	28319475	21.528	21.778
11) B	alpha-Chl...	4.517	5.936	62157192	28285381	21.561	21.496
12) A	Endosulfan I	4.692	6.032	65477493	25454079	21.327	20.927
13) B	4,4'-DDE	4.656	6.237	44434691	24752812	20.929	22.203
14) MA	Dieldrin	5.030	6.500	60717410	26290684	21.968	21.929
15) MA	Endrin	5.364	7.037	56899848	25041504	22.519	22.826
16) A	4,4'-DDD	5.533	7.267	43318298	19246174	21.549	20.755
17) B	Endosulfa...	5.702	7.420	57110174	24474625	22.089	21.956
18) MA	4,4'-DDT	5.970	7.841	43709030	19435062	22.403	22.714
19) B	Endrin Al...	6.361	8.046	44117346	20410858	21.691	22.030
20) B	Endosulfa...	7.089	8.559	49086200	22021262	22.367	21.868
21) A	Methoxychlor	6.839	9.221	26924253	12163884	23.346	22.493
23) B	Endrin Ke...	7.557	9.600	54870441	24332220	22.080	22.020

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.11

11

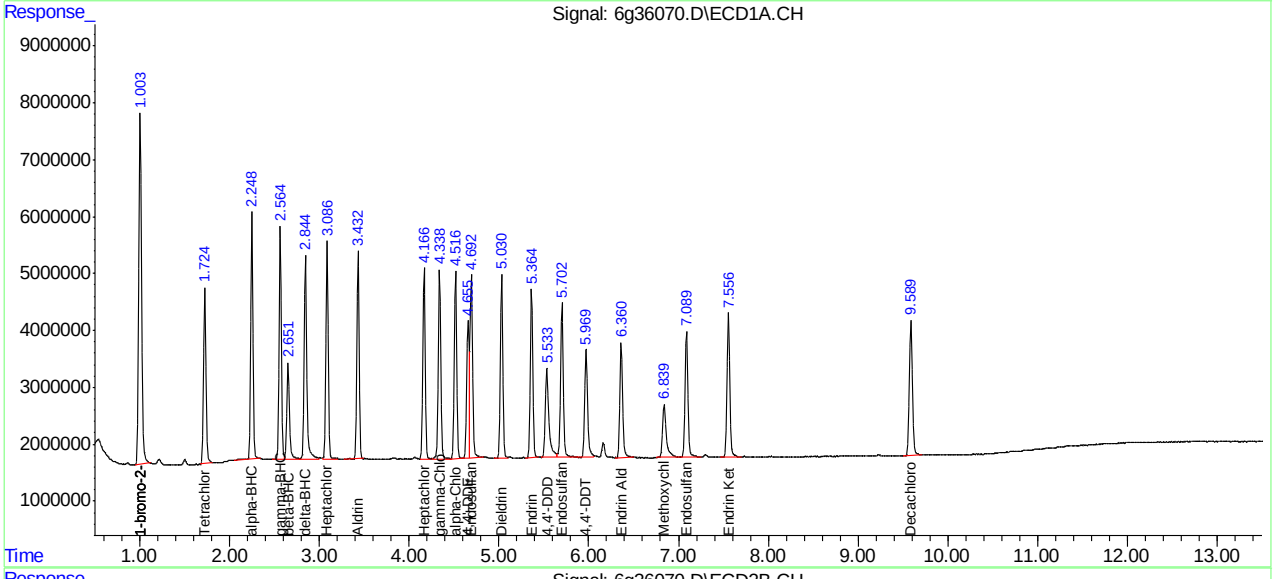
SGS ACCUTEST JC21709

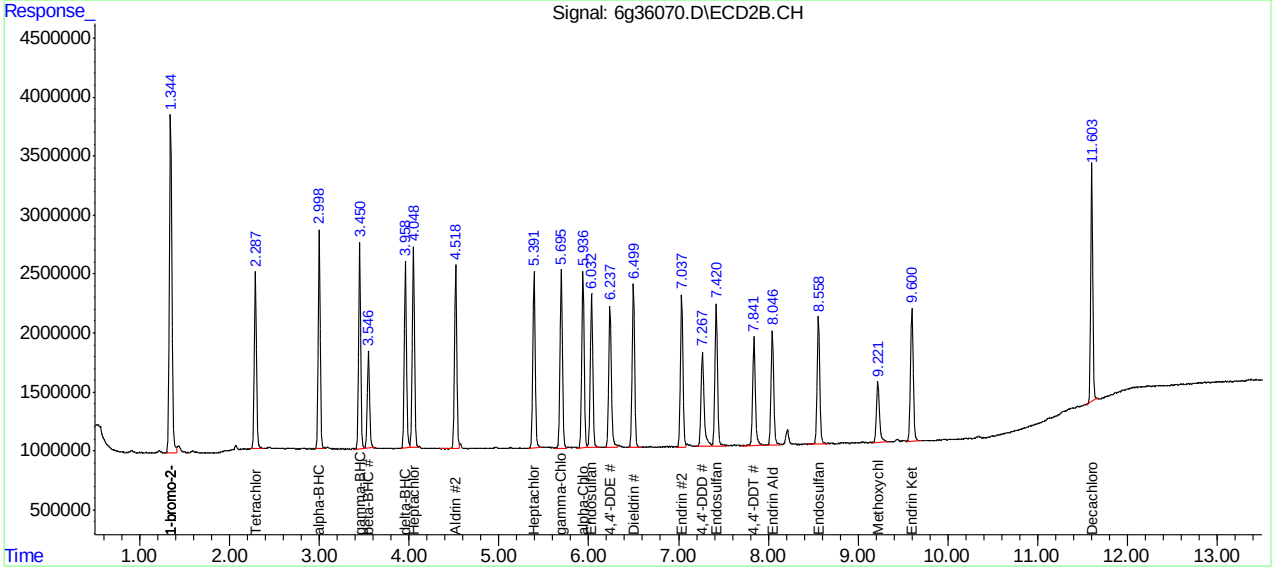
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36070.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:38 pm
Operator : dharas
Sample : icv1034-25
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:39:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36071.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:54 pm
Operator : dharas
Sample : icv1034-25
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:40:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.006	1.346	132.8E6	56189626	50.000	50.000
25) I	1-bromo-2...	1.006	1.346	132.8E6	56189626	50.000	50.000
31) I	1-bromo-2...	1.006	1.346	132.8E6	56189626	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
22)	Mirex	6.939	9.509	65481386	34301722	28.011	29.396
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

11.6.12

11

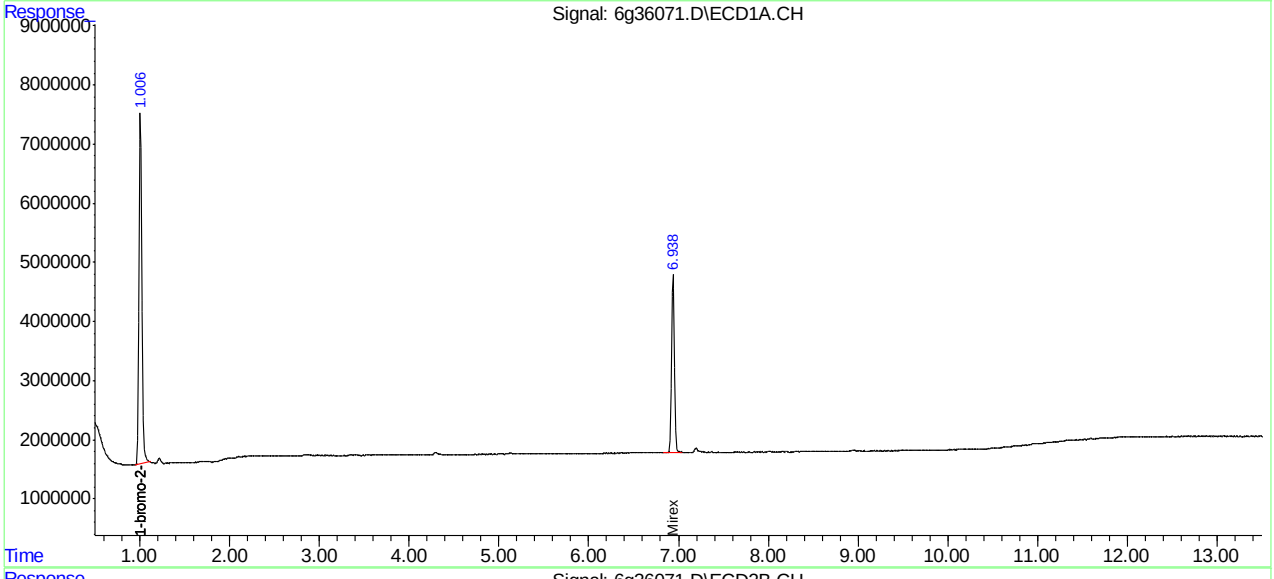
SGS ACCUTEST JC21709

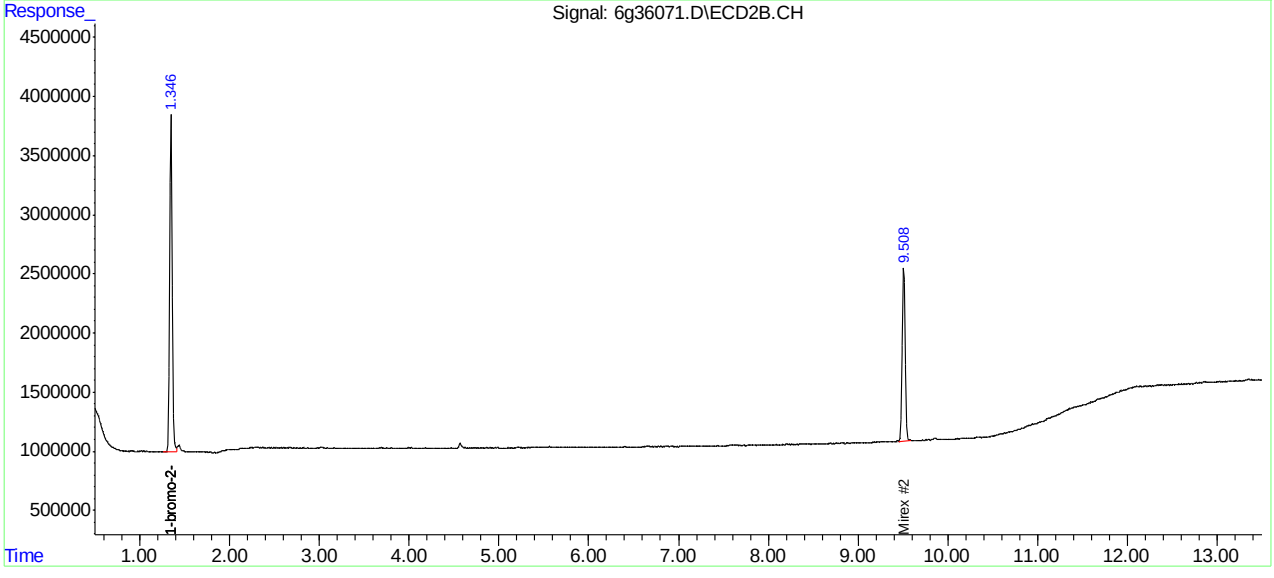
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36071.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 7:54 pm
Operator : dharas
Sample : icv1034-25
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:40:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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
06/14/16 15:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36072.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 8:11 pm
Operator : dharas
Sample : icv1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:41:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.007	1.346	131.0E6	56157791	50.000	50.000
25) I	1-bromo-2...	1.007	1.346	131.0E6	56157791	50.000	50.000
31) I	1-bromo-2...	1.007	1.346	131.0E6	56157791	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.726	2.289	113.4E6	49876940	45.636	43.881
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 114.09%	109.70%
24)	SAB Decachlor...	9.588	11.604	110.9E6	60930757	45.479	44.583
	Spiked Amount	40.000			Recovery	= 113.70%	111.46%
	Target Compounds						
32)	Chlordane...	2.993	3.843	48605106	21444742	528.939	523.634
33)	Chlordane...	3.584	4.732	59883020	25190876	460.870	460.352
34)	Chlordane...	4.340	5.695	178.5E6	77326694	439.564	429.815
35)	Chlordane...	4.511	5.937	267.5E6	129.0E6	449.676	434.499m
36)	Chlordane...	5.610	7.504	44630643	18964205	456.650	459.344

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

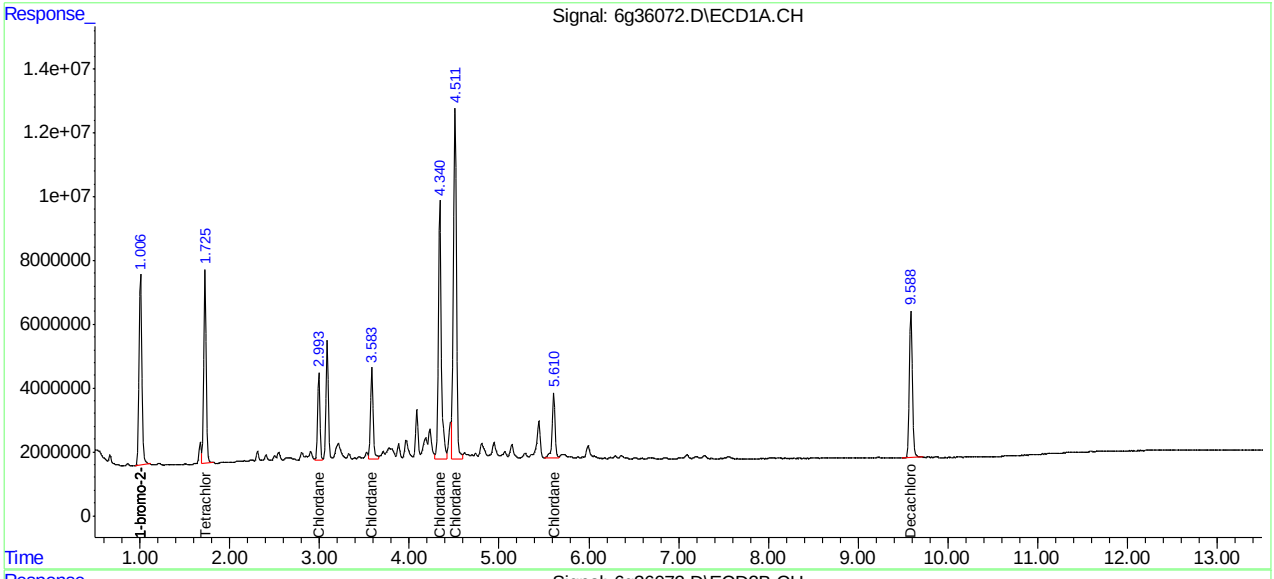
11.6.13 11

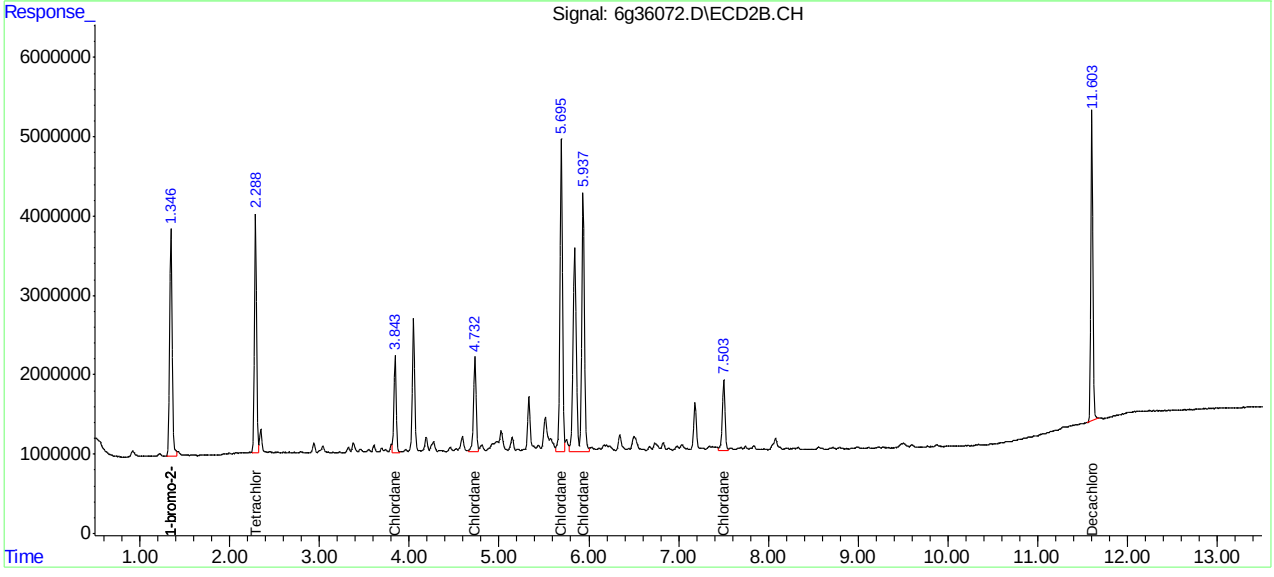
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36072.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 8:11 pm
Operator : dharas
Sample : icv1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:41:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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:	G6G1034-ICV1034	**Method:**	SW846 8081B
Lab FileID:	6G36072.D	**Analyst approved:**	06/13/16 14:06 Rebecca Krug
Injection Time:	06/10/16 20:11	**Supervisor approved:**	06/14/16 15:27 Gwendolyn Burns

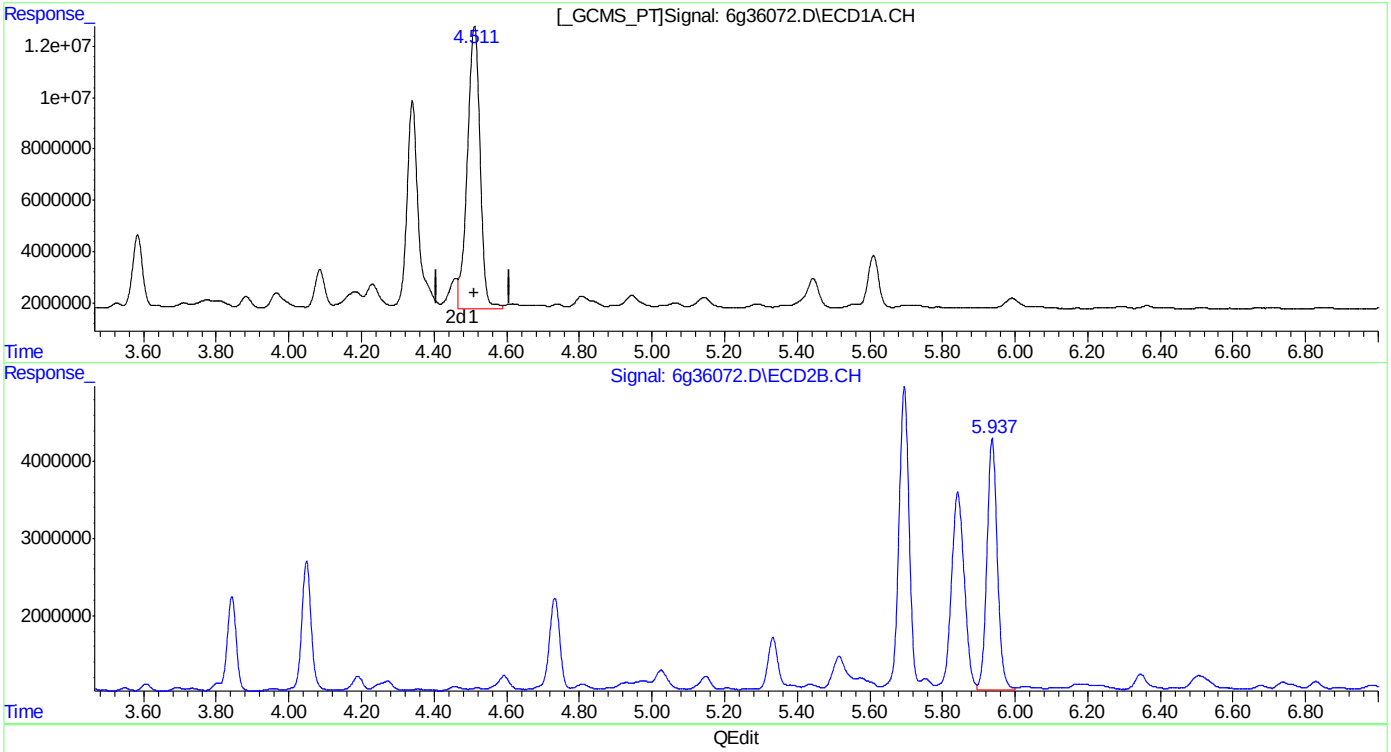
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	5.94	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36072.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 8:11 pm
Operator : dharas
Sample : icv1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:40:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(35) Chlordane {D}
4.511min 449.676PPB
response 267544045

(35) Chlordane {D} #2
5.937min 219.422PPB
response 65127399

(+) = Expected Retention Time
6PST1034.M Mon Jun 13 13:41:07 2016

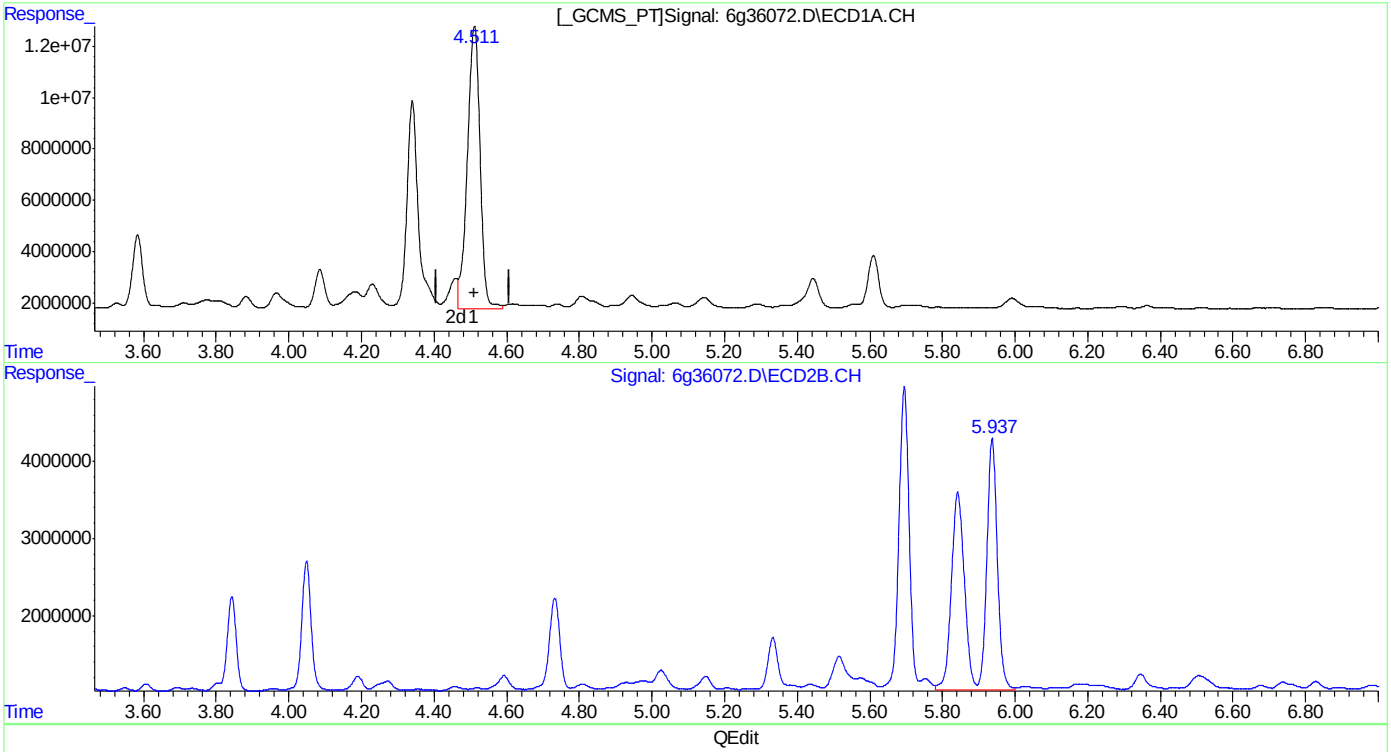
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36072.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 8:11 pm
Operator : dharas
Sample : icv1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:40:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



(35) Chlordane {D}
4.511min 449.676PPB
response 267544045

(35) Chlordane {D} #2
5.937min 434.499PPB m
response 128964868

(+) = Expected Retention Time

SGS ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
06/14/16 15:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36073.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 8:27 pm
Operator : dharas
Sample : icv1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:43:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.007	1.346	136.2E6	55718255	50.000	50.000
25) I	1-bromo-2...	1.007	1.346	136.2E6	55718255	50.000	50.000
31) I	1-bromo-2...	1.007	1.346	136.2E6	55718255	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.725	2.289	114.4E6	50362111	44.290	44.657
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 110.73%	111.64%
24) SAB	Decachlor...	9.586	11.602	111.8E6	61351917	44.092	45.246
	Spiked Amount	40.000			Recovery	= 110.23%	113.12%
	Target Compounds						
26) L8	Toxaphene{A}	5.040	6.468	21692047	12551746	543.789m	480.607
27) L8	Toxaphene{B}	5.424	7.388	58403878	16273401	538.050	481.624
28) L8	Toxaphene{C}	5.692	7.566	62517703	25522532	506.518	471.054
29) L8	Toxaphene{D}	6.246	8.048	54996909	16440202	497.554	487.411
30) L8	Toxaphene{E}	6.928	9.025	38542739	13158440	483.275	462.927
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

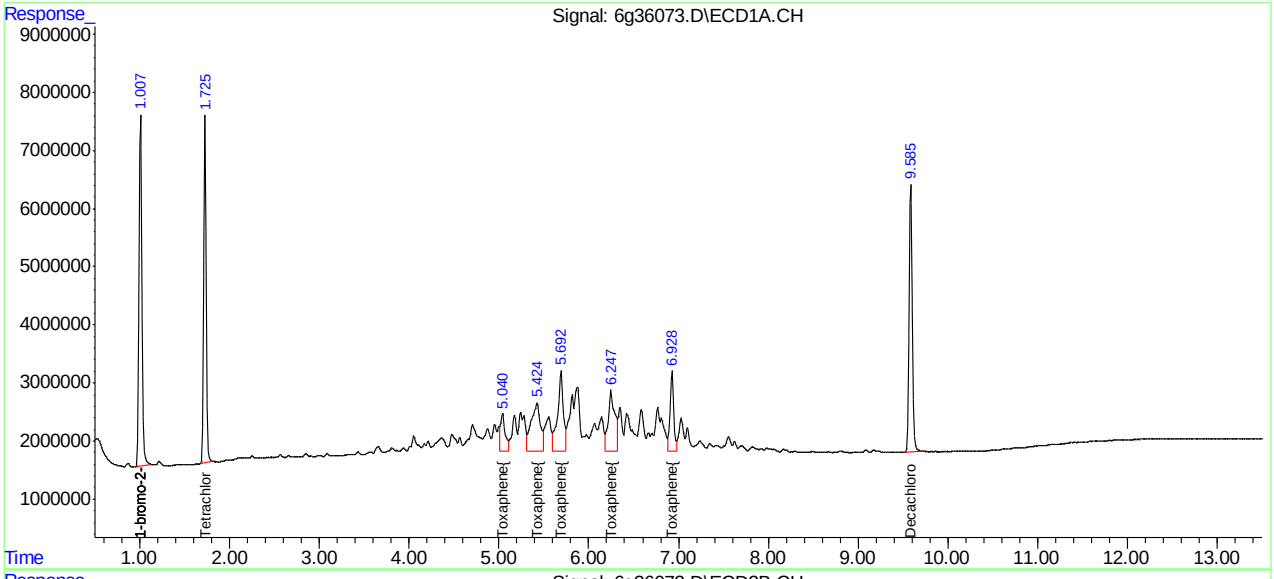
11.6.14 11

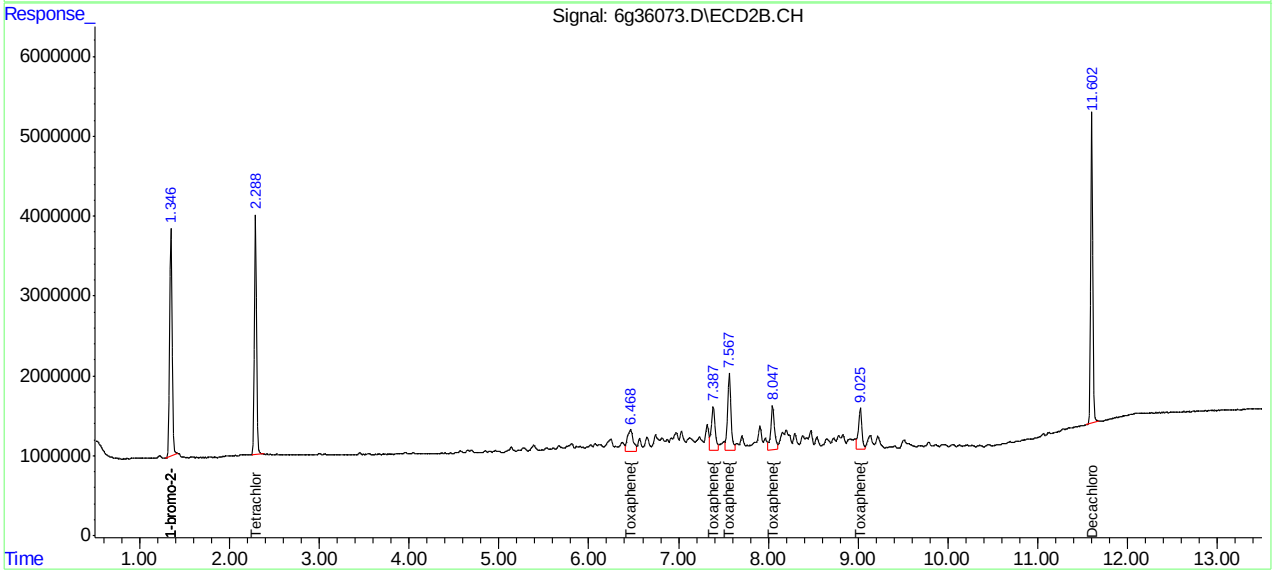
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36073.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 8:27 pm
Operator : dharas
Sample : icv1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:43:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integration Approval Summary

Sample Number:	G6G1034-ICV1034	**Method:**	SW846 8081B
Lab FileID:	6G36073.D	**Analyst approved:**	06/13/16 14:06 Rebecca Krug
Injection Time:	06/10/16 20:27	**Supervisor approved:**	06/14/16 15:27 Gwendolyn Burns

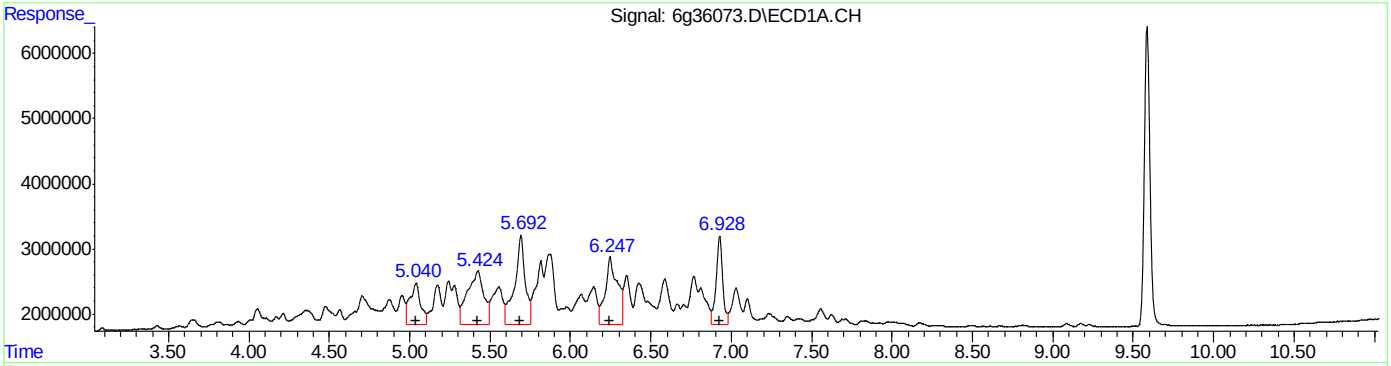
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.04	Poorly defined baseline

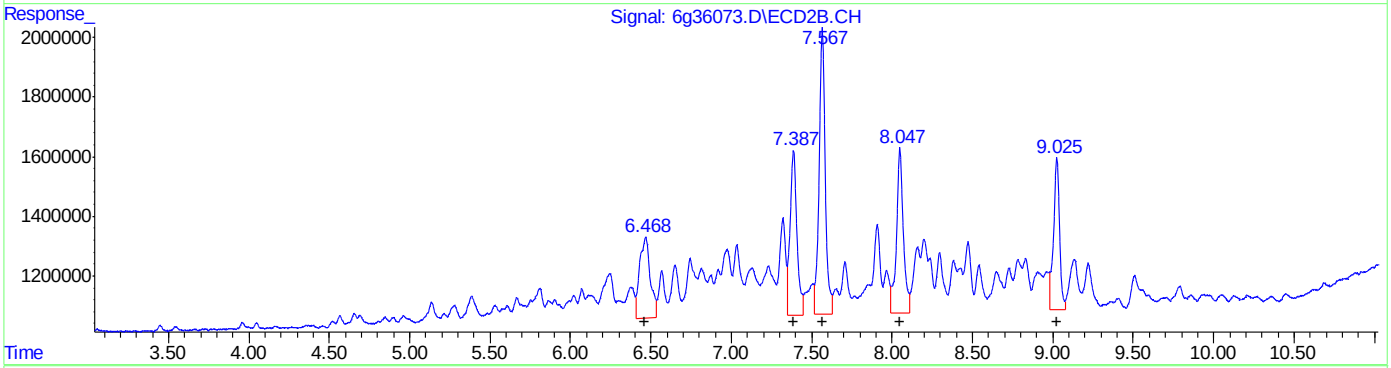
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36073.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 8:27 pm
Operator : dharas
Sample : icv1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:42:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(26) Toxaphene{A} (L8)

R.T.	Response	Conc
5.04	30241672	758.12
5.42	58403878	538.05
5.69	62517703	506.52
6.25	54996909	497.55
6.93	38542739	483.27

(26) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.47	12551746	480.61
7.39	16273401	481.62
7.57	25522532	471.05
8.05	16440202	487.41
9.03	13158440	462.93

(+) = Expected Retention Time

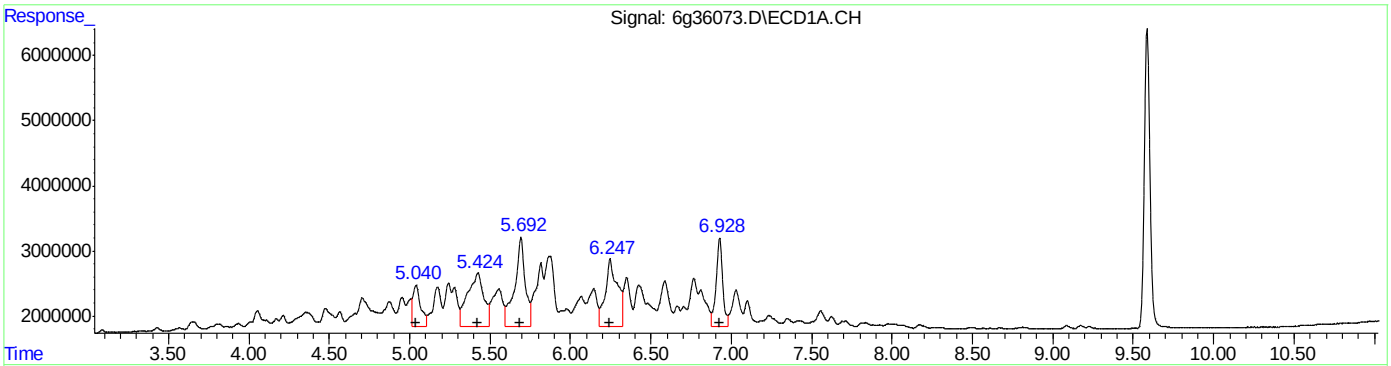
SGS ACCUTEST JC21709

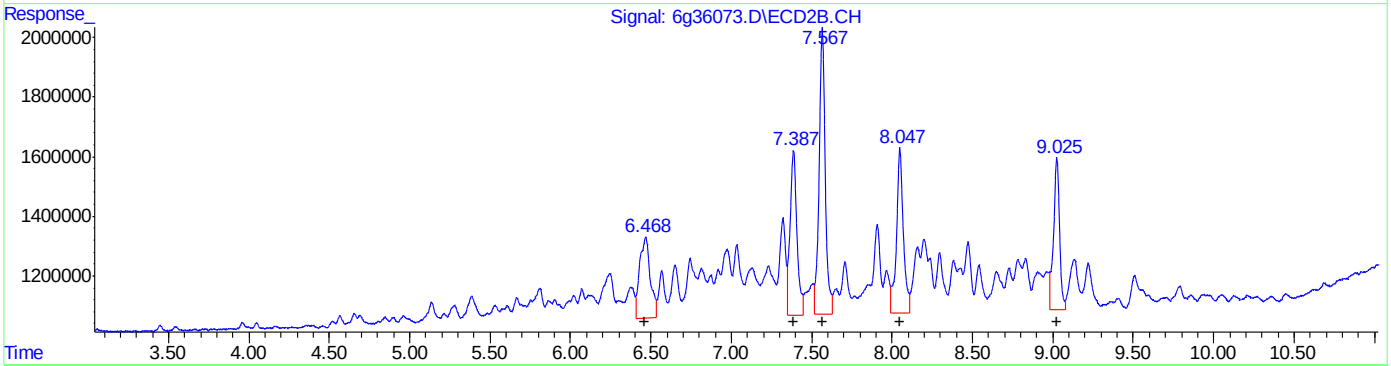
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1034\
Data File : 6g36073.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2016 8:27 pm
Operator : dharas
Sample : icv1034-500
Misc : op94394,g6g1034,300,,,2,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 13 13:42:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(26) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
5.04	21692047	543.79
5.42	58403878	538.05
5.69	62517703	506.52
6.25	54996909	497.55
6.93	38542739	483.27

(26) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.47	12551746	480.61
7.39	16273401	481.62
7.57	25522532	471.05
8.05	16440202	487.41
9.03	13158440	462.93

(+) = Expected Retention Time

SGS ACCUTEST JC21709

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 06/17/16 09:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36243.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 9:08 am
Operator : dharas
Sample : cc1034-25
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:48:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.004	1.344	134.4E6	57985740	50.000	50.000
25) I	1-bromo-2...	1.004	1.344	134.4E6	57985740	50.000	50.000
31) I	1-bromo-2...	1.004	1.344	134.4E6	57985740	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.723	2.286	62457520	27915479	24.508	23.785
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	61.27%	59.46%
24)	SAB Decachlor...	9.580	11.602	58218506	34167219	23.280	24.212
	Spiked Amount 40.000			Recovery	=	58.20%	60.53%
	Target Compounds						
3) A	alpha-BHC	2.247	2.997	81351330	34086856	24.259m	24.047
4) MA	gamma-BHC	2.563	3.446	74078783	31445288	23.746	23.684
5) MA	Heptachlor	3.085	4.044	68953265	34147519	22.322	24.500
6) B	beta-BHC	2.649	3.543	34438335	16095804	22.161	23.086
7) B	delta-BHC	2.840	3.953	67453922	29900467	21.818	23.456
8) MB	Aldrin	3.429	4.514	64904647	32048876	22.261	24.020
9) B	Heptachlo...	4.163	5.385	56276941	30650045	20.006	23.064m
10) B	gamma-Chl...	4.335	5.688	56681494	30538196	19.236	22.720
11) B	alpha-Chl...	4.514	5.930	58816164	31047779	20.681	22.828
12) A	Endosulfan I	4.689	6.025	61845711	28940751	20.420	23.019
13) B	4,4'-DDE	4.649	6.229	50806256	29246480	24.258	25.380
14) MA	Dieldrin	5.026	6.492	60491239	29107819	22.186	23.488
15) MA	Endrin	5.360	7.029	56833377	27757071	22.801	24.478
16) A	4,4'-DDD	5.522	7.256	46826530	22643536	23.613	23.624
17) B	Endosulfa...	5.697	7.413	57235515	28136375	22.441	24.420
18) MA	4,4'-DDT	5.964	7.833	47201905	23150354	24.525	26.176
19) B	Endrin Al...	6.357	8.039	48521468	23970314	24.183	25.029
20) B	Endosulfa...	7.083	8.551	54036965	26271848	24.960	25.240
21) A	Methoxychlor	6.827	9.208	29491655	15438138	25.922	27.618
22)	Mirex	6.934	9.501	52071851	28367257	22.021	23.557
23) B	Endrin Ke...	7.550	9.591	64223646	30712446	26.197	26.889
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

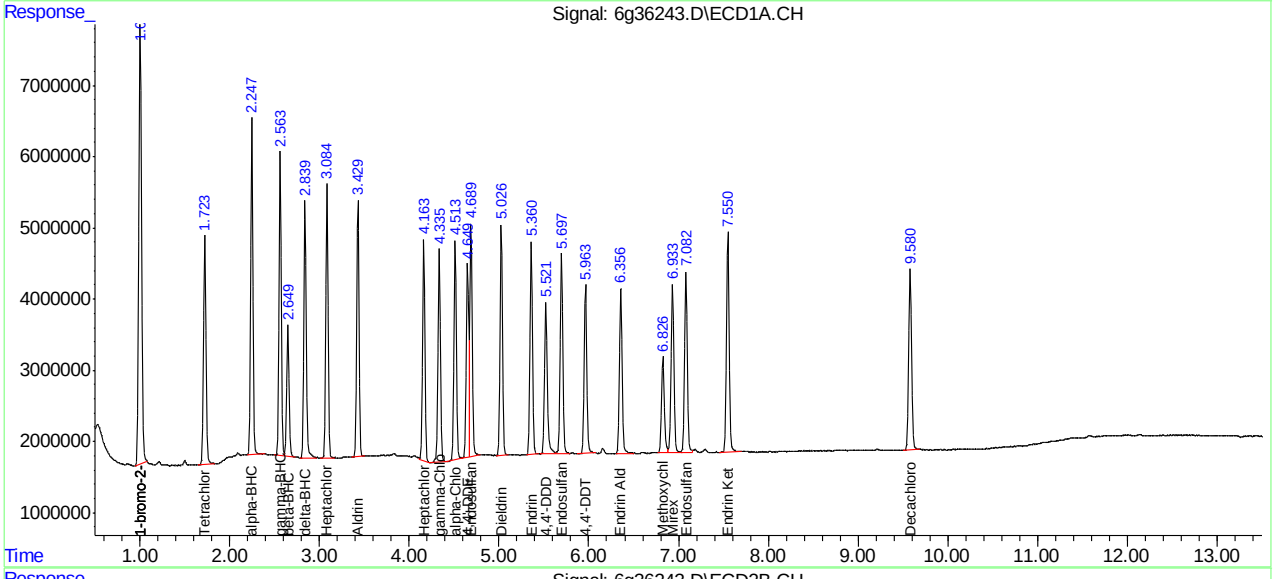
11.6.15 11

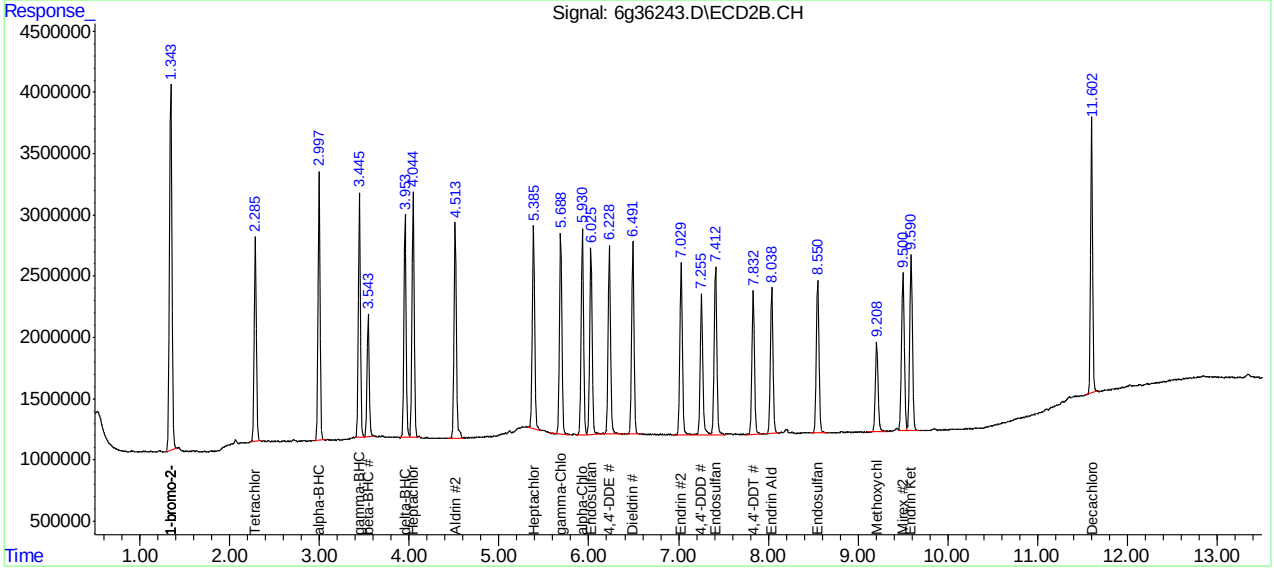
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36243.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 9:08 am
Operator : dharas
Sample : cc1034-25
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:48:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

Manual Integration Approval Summary

Sample Number:	G6G1039-CC1034	**Method:**	SW846 8081B
Lab FileID:	6G36243.D	**Analyst approved:**	06/16/16 14:55 Joseph Ravino
Injection Time:	06/16/16 09:08	**Supervisor approved:**	06/17/16 09:43 Gwendolyn Burns

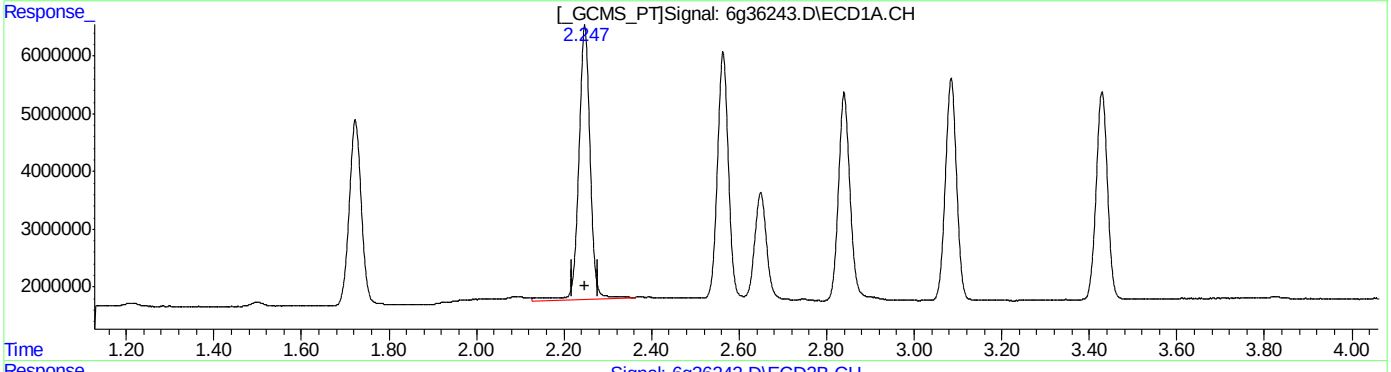
Parameter	CAS	Sig#	R.T. (min.)	Reason
alpha-BHC	319-84-6	1	2.25	Poorly defined baseline
Heptachlor epoxide	1024-57-3	2	5.38	Poorly defined baseline

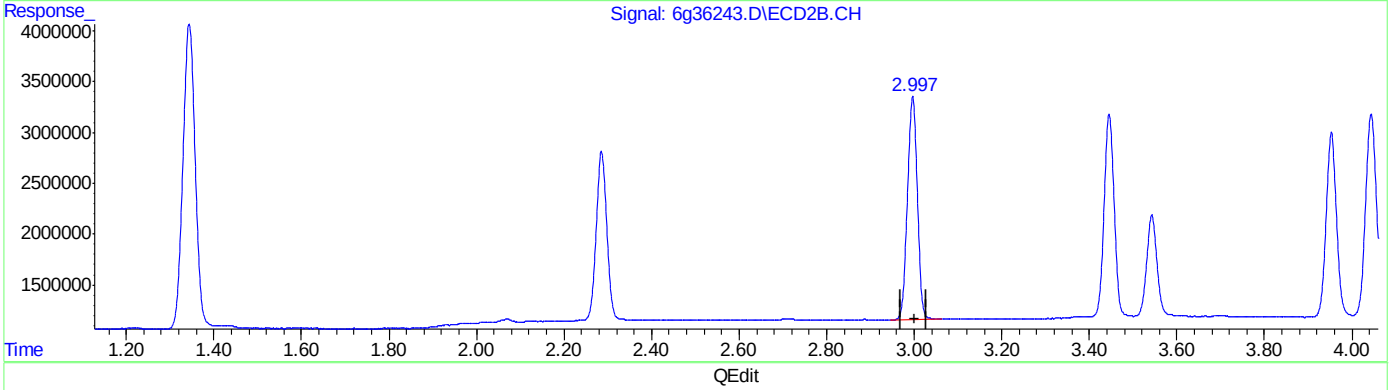
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36243.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 9:08 am
Operator : dharas
Sample : cc1034-25
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:45:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(3) alpha-BHC (A)
2.247min 25.340PPB
response 84978853

(3) alpha-BHC #2 (A)
2.997min 24.047PPB
response 34086856

(+) = Expected Retention Time

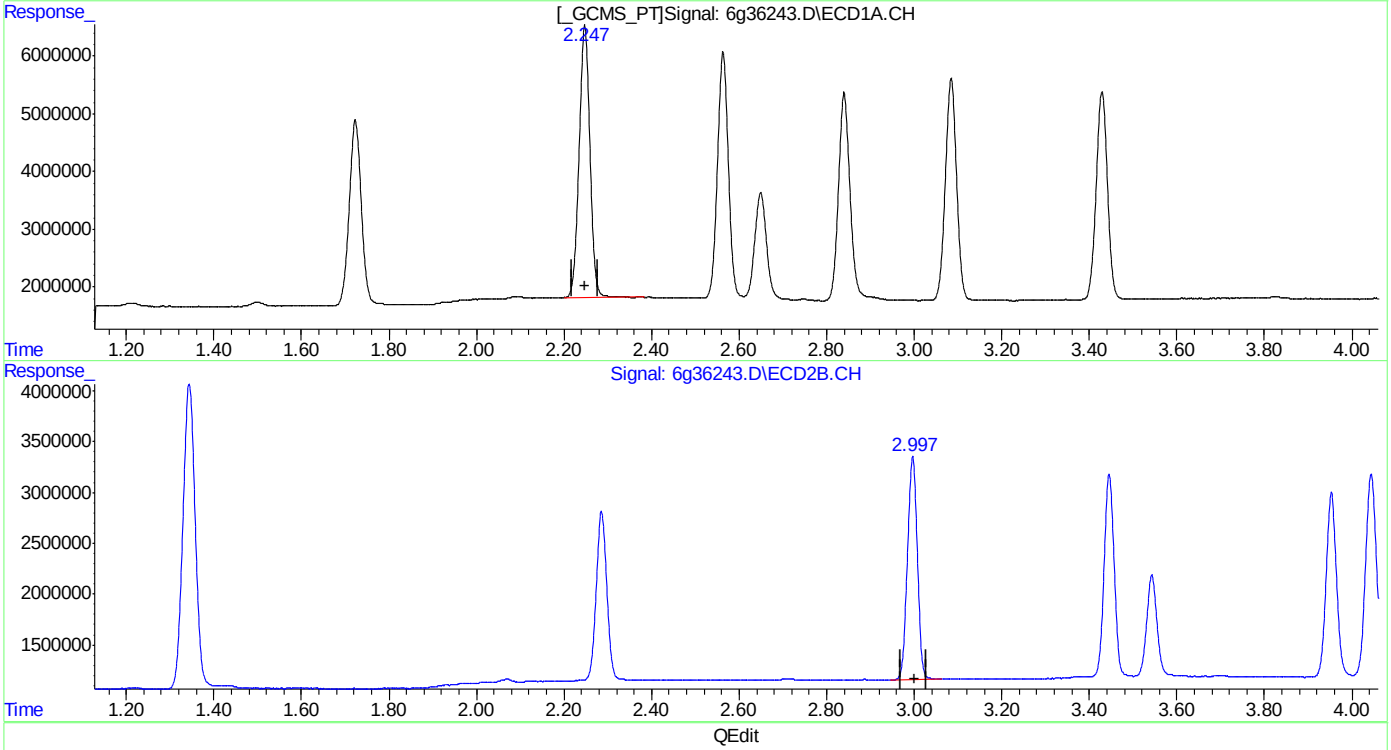
SGS ACCUTEST JC21709

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36243.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 9:08 am
Operator : dharas
Sample : cc1034-25
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:45:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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



QEdit

(3) alpha-BHC (A)
2.247min 24.259PPB m
response 81351330

(3) alpha-BHC #2 (A)
2.997min 24.047PPB
response 34086856

(+) = Expected Retention Time
6PST1034.M Thu Jun 16 14:48:36 2016

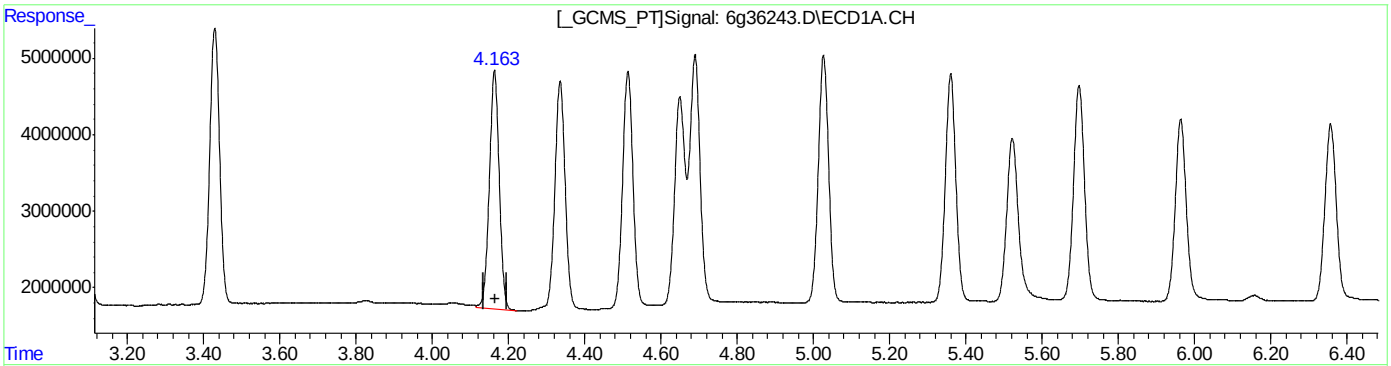
SGS ACCUTEST JC21709

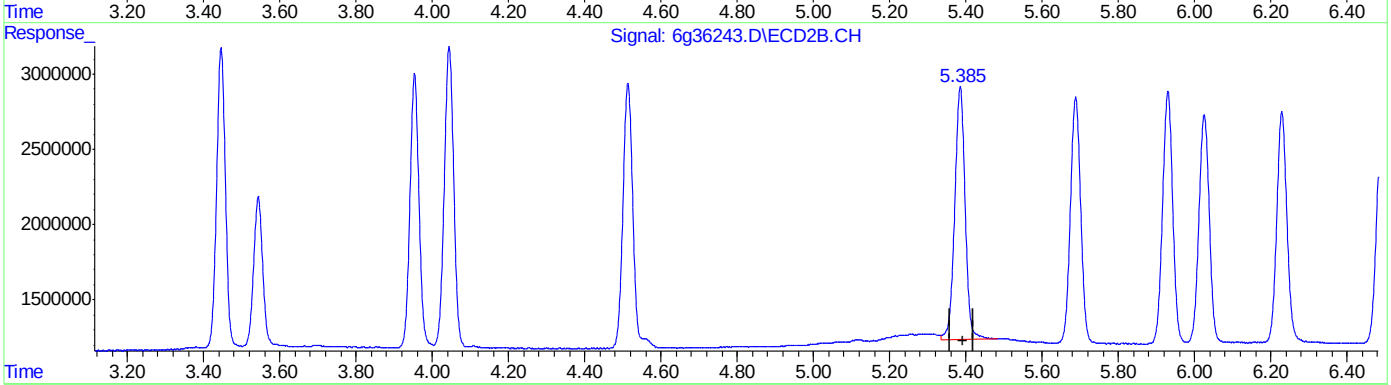
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36243.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 9:08 am
Operator : dharas
Sample : cc1034-25
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:45:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(9) Heptachlor Epoxide (B)
4.163min 20.006PPB
response 56276941

(9) Heptachlor Epoxide #2 (B)
5.385min 24.027PPB
response 31929924

(+) = Expected Retention Time

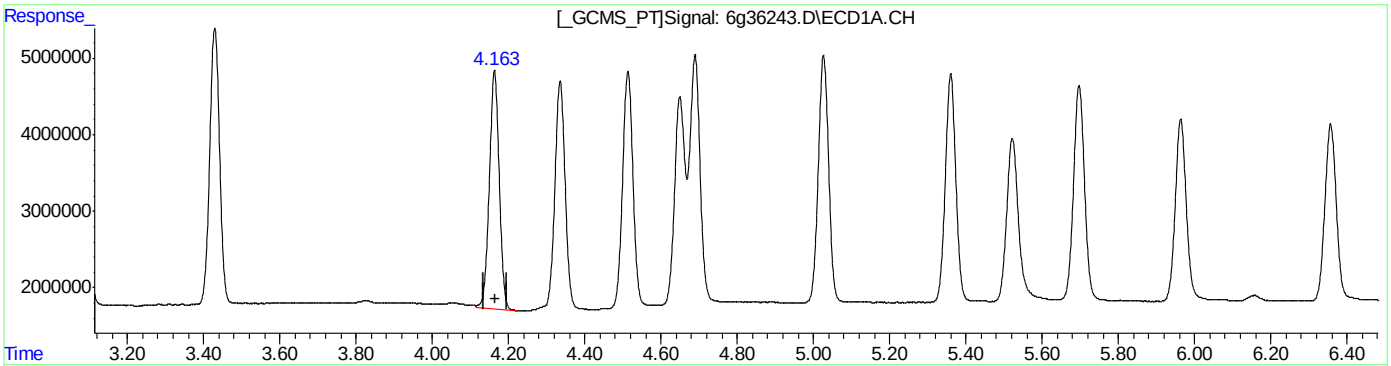
SGS ACCUTEST JC21709

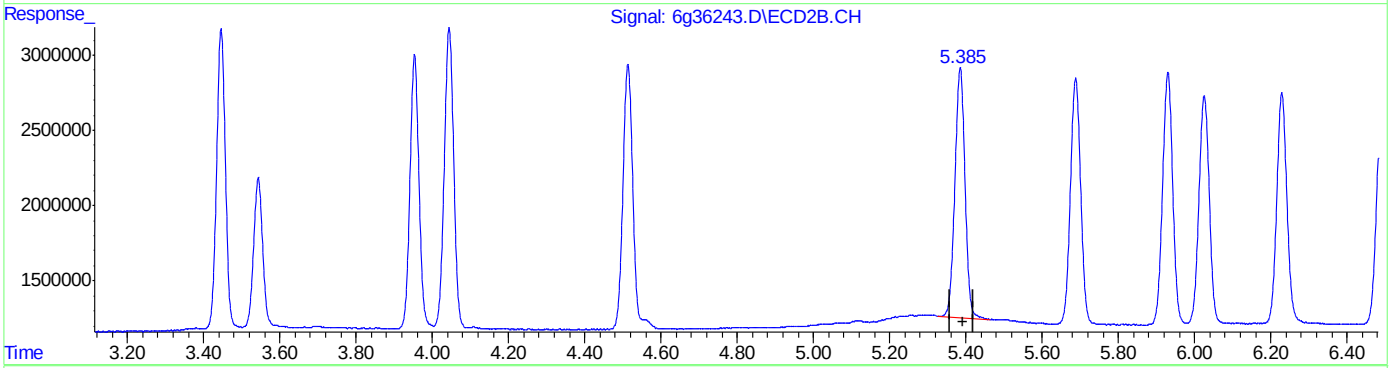
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36243.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 9:08 am
Operator : dharas
Sample : cc1034-25
Misc : op94774,g6g1039,1000,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 14:45:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





QEdit

(9) Heptachlor Epoxide (B)
4.163min 20.006PPB
response 56276941

(9) Heptachlor Epoxide #2 (B)
5.385min 23.064PPB m
response 30650045

(+) = Expected Retention Time
6PST1034.M Thu Jun 16 14:48:49 2016

SGS ACCUTEST JC21709

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36262.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 4:03 pm
Operator : dharas
Sample : cc1034-50
Misc : op94731,g6g1039,15.4,,,10,10
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 16:19:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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...	1.002	1.343	137.9E6	58736211	50.000	50.000
25) I	1-bromo-2...	1.002	1.343	137.9E6	58736211	50.000	50.000
31) I	1-bromo-2...	1.002	1.343	137.9E6	58736211	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.722	2.285	128.1E6	57798562	48.953	48.618
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	122.38%	121.55%
24)	SAB Decachlor...	9.580	11.600	112.6E6	66518617	43.856	46.535
	Spiked Amount 40.000			Recovery	=	109.64%	116.34%
	Target Compounds						
3) A	alpha-BHC	2.247	2.996	178.8E6	76629840	51.932	53.368
4) MA	gamma-BHC	2.563	3.445	162.1E6	69741035	50.622	51.856
5) MA	Heptachlor	3.084	4.044	150.2E6	74627260	47.377	52.860
6) B	beta-BHC	2.648	3.543	71868607	33486909	45.053	47.417
7) B	delta-BHC	2.840	3.953	148.6E6	66446480	46.812	51.459
8) MB	Aldrin	3.429	4.513	142.4E6	69429431	47.562	51.372
9) B	Heptachlo...	4.161	5.385	122.1E6	65668980	42.297	48.783
10) B	gamma-Chl...	4.335	5.688	121.6E6	66643792	40.186	48.948
11) B	alpha-Chl...	4.512	5.929	124.4E6	66533415	42.620	48.293
12) A	Endosulfan I	4.689	6.025	130.7E6	62648821	42.056	49.194
13) B	4,4'-DDE	4.649	6.229	116.3E6	63509302	54.072	54.409
14) MA	Dieldrin	5.025	6.492	133.1E6	64524650	47.539	51.402
15) MA	Endrin	5.359	7.030	126.5E6	61301611	49.441	53.368
16) A	4,4'-DDD	5.520	7.256	102.2E6	49572065	50.190	51.058
17) B	Endosulfa...	5.697	7.412	128.8E6	59344360	49.201	50.847
18) MA	4,4'-DDT	5.962	7.832	104.6E6	51744928	52.939	57.759
19) B	Endrin Al...	6.356	8.038	98712808	49132408	47.927	50.648
20) B	Endosulfa...	7.083	8.551	109.0E6	54317626	49.041	51.517
21) A	Methoxychlor	6.824	9.208	60672945	32162756	51.952	56.803
22)	Mirex	6.934	9.499	101.1E6	56744503	41.666	46.521
23) B	Endrin Ke...	7.550	9.591	129.0E6	63062981	51.242	54.507

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

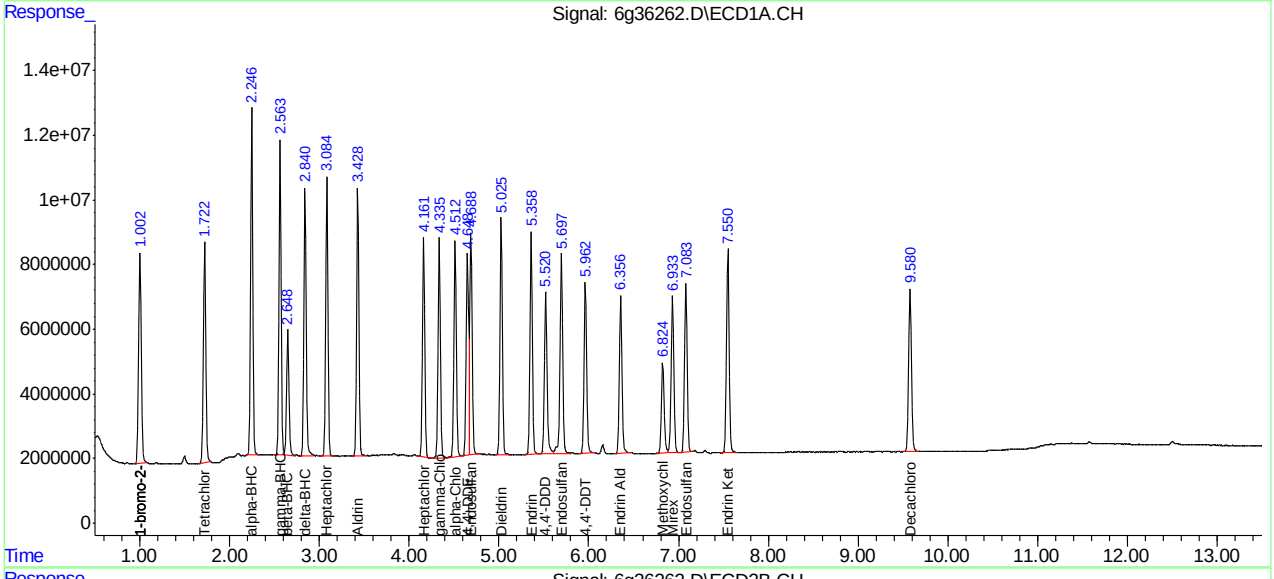
SGS ACCUTEST JC21709

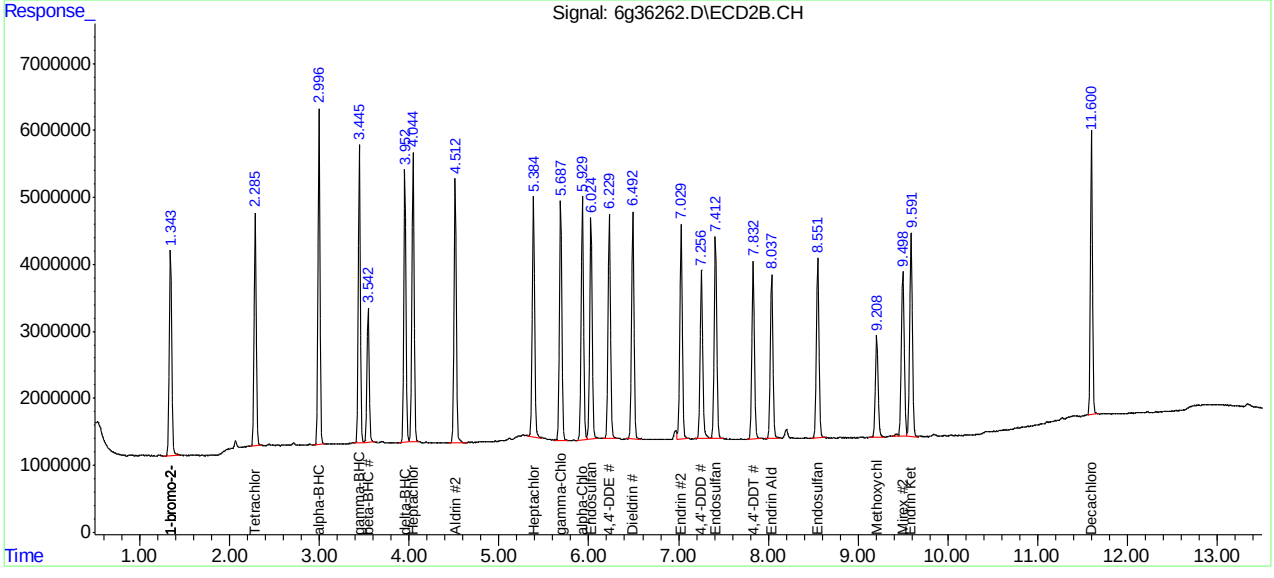
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\1039\
Data File : 6g36262.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2016 4:03 pm
Operator : dharas
Sample : cc1034-50
Misc : op94731,g6g1039,15.4,,,10,10
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 16 16:19:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\6PST1034.M
Quant Title : PEST/PCB
QLast Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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 ACCUTEST JC21709

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G-GC 1034

Print Analyst Name: Dharm Saparia

Analyst Signature:

Date: 6/10/16

Columns: ZB CLP I / ZB CLP II

Method 8081 / 608

Initial Cal. Method GPST 1034

Injection Volume: 1.0 uL

Date Archived:

Standard Data

	Lot #	Description	Conc.
SV	161933-47A	pest mix	25 ppb
	-47A		50
SV	161874-47C		1
	-47D		2
	-47E		5
	-47F		10
	-47G		75
	-47H		100
CC	161299	mirex 2nd source	250 ppb

Standard Data

	Lot #	Description	Conc.
SV	161933-35	pest BSTD	5 ppm
	-51	PCB	10-250 ppb
	-09	IB	20 ppb
SV	161874-20	chlordane 1st	10 ppm
	-21	Toxaphene 1st	10 ppm
	-96	Chlordane 2nd	500 ppb
	-97	Toxaphene 2nd	500 ppb
	160453	Hexane (filler)	—
SV	161874-95	pest mix 2nd	250 ppb

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:** 6/15/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6296058	ddt				1			/	OK	
	059	IB				2			/	OK	
	060	IC1034-1	1st source	pest mix		3			/	OK	
	061	-2				4			/	OK	
	062	-5				5			/	OK	
	063	-10				6			/	OK	
	064	IC1034-25				7			/	OK	
	065	IC1034-50				8			/	OK	
	066	-75				9			/	OK	
	067	-100				10			/	OK	
	068	-500		CHL		11	20		/	OK	
	069	-500		Tox		12	20		/	OK	
	070	IC1034-25	2nd source	pest		13	10		/	OK	
	071	-25		mirex		14	10		/	OK	
	072	-500		CHL		15			/	OK	
	073	-500		Tox		16			/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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Form: OR016-08
Rev. Date: 1/19/16

11.7.1 11

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC6G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	6G36064.D	06/10/16 17:59	G6G1034-ICC1034	DHARAS
Std#2	6G36074.D	06/10/16 20:44	G6G1035-CC1034	DHARAS
Std#3	6G36096.D	06/13/16 09:27	G6G1036-CC1034	DHARAS

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
1-Bromo-2-nitrobenzene	1	ISTD	1.01	1.01	1.00	1.01	0.006	+/- 0.030 [a]
1-Bromo-2-nitrobenzene	2	ISTD	1.35	1.35	1.34	1.35	0.006	+/- 0.030 [a]
Tetrachloro-m-xylene	1	SURR	1.73	1.73	1.72	1.73	0.006	+/- 0.030 [a]
Decachlorobiphenyl	1	SURR	9.59	9.59	9.58	9.59	0.006	+/- 0.030 [a]
Tetrachloro-m-xylene	2	SURR	2.29	2.29	2.29	2.29	0.000	+/- 0.030 [a]
Decachlorobiphenyl	2	SURR	11.61	11.60	11.61	11.61	0.006	+/- 0.030 [a]
alpha-BHC	1	REG	2.25	2.25	2.25	2.25	0.000	+/- 0.030 [a]
gamma-BHC (Lindane)	1	REG	2.57	2.57	2.56	2.57	0.006	+/- 0.030 [a]
beta-BHC	1	REG	2.65	2.65	2.65	2.65	0.000	+/- 0.030 [a]
delta-BHC	1	REG	2.84	2.84	2.84	2.84	0.000	+/- 0.030 [a]
Heptachlor	1	REG	3.09	3.09	3.08	3.09	0.006	+/- 0.030 [a]
Aldrin	1	REG	3.43	3.43	3.43	3.43	0.000	+/- 0.030 [a]
Heptachlor epoxide	1	REG	4.17	4.17	4.16	4.17	0.006	+/- 0.030 [a]
gamma-Chlordane	1	REG	4.34	4.34	4.34	4.34	0.000	+/- 0.030 [a]
alpha-Chlordane	1	REG	4.52	4.52	4.51	4.52	0.006	+/- 0.030 [a]
4,4'-DDE	1	REG	4.66	4.66	4.65	4.66	0.006	+/- 0.030 [a]
Endosulfan-I	1	REG	4.69	4.69	4.69	4.69	0.000	+/- 0.030 [a]
Dieldrin	1	REG	5.03	5.03	5.03	5.03	0.000	+/- 0.030 [a]
Endrin	1	REG	5.36	5.36	5.36	5.36	0.000	+/- 0.030 [a]
4,4'-DDD	1	REG	5.53	5.53	5.52	5.53	0.006	+/- 0.030 [a]
Endosulfan-II	1	REG	5.70	5.70	5.70	5.70	0.000	+/- 0.030 [a]
4,4'-DDT	1	REG	5.97	5.97	5.96	5.97	0.006	+/- 0.030 [a]
Endrin aldehyde	1	REG	6.36	6.36	6.36	6.36	0.000	+/- 0.030 [a]
Methoxychlor	1	REG	6.84	6.84	6.83	6.84	0.006	+/- 0.030 [a]
Mirex	1	REG	6.94	6.94	6.94	6.94	0.000	+/- 0.030 [a]
Endosulfan sulfate	1	REG	7.09	7.09	7.08	7.09	0.006	+/- 0.030 [a]
Endrin ketone	1	REG	7.56	7.56	7.55	7.56	0.006	+/- 0.030 [a]
alpha-BHC	2	REG	3.00	3.00	3.00	3.00	0.000	+/- 0.030 [a]
gamma-BHC (Lindane)	2	REG	3.45	3.45	3.45	3.45	0.000	+/- 0.030 [a]
beta-BHC	2	REG	3.55	3.55	3.54	3.55	0.006	+/- 0.030 [a]
delta-BHC	2	REG	3.96	3.96	3.95	3.96	0.006	+/- 0.030 [a]
Heptachlor	2	REG	4.05	4.05	4.05	4.05	0.000	+/- 0.030 [a]
Aldrin	2	REG	4.52	4.52	4.52	4.52	0.000	+/- 0.030 [a]
Heptachlor epoxide	2	REG	5.39	5.39	5.39	5.39	0.000	+/- 0.030 [a]
gamma-Chlordane	2	REG	5.70	5.69	5.69	5.69	0.006	+/- 0.030 [a]
alpha-Chlordane	2	REG	5.94	5.94	5.93	5.94	0.006	+/- 0.030 [a]
Endosulfan-I	2	REG	6.03	6.03	6.03	6.03	0.000	+/- 0.030 [a]
4,4'-DDE	2	REG	6.24	6.24	6.23	6.24	0.006	+/- 0.030 [a]
Dieldrin	2	REG	6.50	6.50	6.50	6.50	0.000	+/- 0.030 [a]
Endrin	2	REG	7.04	7.04	7.03	7.04	0.006	+/- 0.030 [a]

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC6G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	6G36064.D	06/10/16 17:59	G6G1034-ICC1034	DHARAS
Std#2	6G36074.D	06/10/16 20:44	G6G1035-CC1034	DHARAS
Std#3	6G36096.D	06/13/16 09:27	G6G1036-CC1034	DHARAS

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
4,4'-DDD	2	REG	7.27	7.27	7.26	7.27	0.006	+/- 0.030 [a]
Endosulfan-II	2	REG	7.42	7.42	7.42	7.42	0.000	+/- 0.030 [a]
4,4'-DDT	2	REG	7.84	7.84	7.84	7.84	0.000	+/- 0.030 [a]
Endrin aldehyde	2	REG	8.05	8.05	8.04	8.05	0.006	+/- 0.030 [a]
Endosulfan sulfate	2	REG	8.56	8.56	8.56	8.56	0.000	+/- 0.030 [a]
Methoxychlor	2	REG	9.22	9.22	9.21	9.22	0.006	+/- 0.030 [a]
Mirex	2	REG	9.51	9.51	9.51	9.51	0.000	+/- 0.030 [a]
Endrin ketone	2	REG	9.60	9.60	9.60	9.60	0.000	+/- 0.030 [a]

(a) Default minimum StdDev of .01 minutes employed.

Initial Calibration Summary

Laboratory DRAFT - Not for Release

Sample: G6G1034-ICC1034
Lab FileID: 6G36064.D

Response Factor Report HP G1530A

Method : C:\MSDCHEM\1\METHODS\6PST1034.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon Jun 13 12:02:56 2016
Response via : Initial Calibration

Calibration Files
2 =6g36061.D 5 =6g36062.D 10 =6g36063.D 25 =6g36064.D
50 =6g36065.D 100 =6g36067.D 1 =6g36060.D 75 =6g36066.D

Compound	2	5	10	25	50	100	1	75	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	----------ISTD----------									
2) Tetrachloro-	0.946	0.923	0.914	0.897	0.939	0.978	1.051	0.938	0.948	5.03
3) alpha-BHC	1.109	1.111	1.130	1.205	1.335	1.470	1.256	1.367	1.248	10.71
4) gamma-BHC	1.033	1.065	1.074	1.130	1.226	1.329	1.180	1.249	1.161	8.91
5) Heptachlor	1.117	1.091	1.072	1.095	1.163	1.245	1.239	1.176	1.150	5.84
6) beta-BHC	0.583	0.574	0.563	0.543	0.552	0.565	0.700	0.545	0.578	8.83
7) delta-BHC	1.137	1.034	1.006	1.078	1.201	1.313	1.218	1.216	1.150	9.14
8) Aldrin	1.022	1.006	1.004	1.044	1.126	1.213	1.125	1.140	1.085	7.04
9) Heptachlor E	1.012	1.001	0.981	0.992	1.040	1.097	1.208	1.042	1.047	7.15
10) gamma-Chlord	1.053	1.093	1.008	1.004	1.054	1.126	1.370	1.063	1.096	10.74
11) alpha-Chlord	1.044	1.010	0.995	0.993	1.041	1.102	1.236	1.045	1.058	7.57
12) Endosulfan I	1.117	1.099	1.065	1.061	1.109	1.154	1.323	1.088	1.127	7.52
13) 4,4'-DDE	0.677	0.681	0.683	0.740	0.816	0.927	0.846	0.865	0.779	12.43
14) Dieldrin	0.947	0.945	0.936	0.968	1.038	1.119	1.107	1.057	1.015	7.41
15) Endrin	0.902	0.893	0.877	0.888	0.946	1.009	0.950	0.955	0.928	4.86
16) 4,4'-DDD	0.656	0.660	0.696	0.708	0.752	0.804	0.864	0.764	0.738	9.79
17) Endosulfan I	0.909	0.891	0.905	0.907	0.941	0.993	1.092	0.954	0.949	7.04
18) 4,4'-DDT	0.647	0.648	0.653	0.679	0.739	0.834	0.755	0.775	0.716	9.74
19) Endrin Aldeh	0.739	0.742	0.713	0.727	0.743	0.768	0.803	0.739	0.747	3.68
20) Endosulfan S	0.774	0.767	0.753	0.763	0.795	0.838	0.952	0.803	0.806	8.10
21) Methoxychlor	0.403	0.413	0.402	0.394	0.413	0.429	0.518	0.415	0.423	9.35
22) Mirex	0.921	0.906	0.866	0.827	0.806	0.810	1.111	0.792	0.880	11.89
23) Endrin Keton	0.886	0.891	0.873	0.895	0.929	0.980	0.902	0.943	0.912	3.91
24) Decachlorobi	0.994	0.982	0.912	0.874	0.854	0.853	1.136	0.841	0.931	10.95
25) I 1-bromo-2-nitrobenzen	----------ISTD----------									
26) Toxaphene{A}					0.015				0.015	0.00
27) Toxaphene{B}					0.040				0.040	0.00
28) Toxaphene{C}					0.045				0.045	0.00
29) Toxaphene{D}					0.041				0.041	0.00
30) Toxaphene{E}					0.029				0.029	0.00
31) I 1-bromo-2-nitrobenzen	----------ISTD----------									
32) Chlordane {A					0.035				0.035	0.00
33) Chlordane {B					0.050				0.050	0.00
34) Chlordane {C					0.155				0.155	0.00
35) Chlordane {D					0.227				0.227	0.00
36) Chlordane {E					0.037				0.037	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen	----------ISTD----------									
2) Tetrachloro-	0.947	1.002	0.948	0.969	1.003	1.051	1.177	1.000	1.012	7.41
3) alpha-BHC	1.060	1.025	1.040	1.162	1.335	1.521	1.241	1.394	1.222	14.95
4) gamma-BHC	0.959	0.978	1.012	1.110	1.250	1.398	1.159	1.293	1.145	13.94

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Initial Calibration Summary

Laboratory DRAFT - Not for Release

Sample: G6G1034-ICC1034
Lab FileID: 6G36064.D

5)	Heptachlor	1.111	1.101	1.102	1.167	1.273	1.403	1.156	1.301	1.202	9.27
6)	beta-BHC	0.562	0.559	0.556	0.573	0.598	0.626	0.741	0.595	0.601	10.20
7)	delta-BHC	0.961	0.979	0.935	1.049	1.189	1.340	1.106	1.235	1.099	13.22
8)	Aldrin	1.005	0.999	1.042	1.103	1.210	1.347	1.255	1.244	1.150	11.38
9)	Heptachlor E	1.111	1.020	1.022	1.082	1.152	1.251	1.358	1.171	1.146	10.08
10)	gamma-Chlord	1.170	1.035	1.041	1.096	1.179	1.286	1.267	1.199	1.159	8.19
11)	alpha-Chlord	1.129	1.049	1.057	1.111	1.186	1.281	1.372	1.198	1.173	9.49
12)	Endosulfan I	1.029	1.001	0.978	1.033	1.091	1.176	1.261	1.105	1.084	8.84
13)	4,4'-DDE	1.004	0.906	0.905	0.969	1.051	1.164	0.864	1.085	0.994	10.31
14)	Dieldrin	1.017	0.948	0.969	1.034	1.126	1.248	1.046	1.161	1.069	9.54
15)	Endrin	0.946	0.933	0.881	0.968	1.025	1.120	0.903	1.047	0.978	8.22
16)	4,4'-DDD	0.780	0.747	0.719	0.766	0.808	0.914	1.024	0.854	0.826	12.22
17)	Endosulfan I	0.919	0.921	0.947	0.971	1.011	1.100	1.032	1.047	0.994	6.55
18)	4,4'-DDT	0.649	0.670	0.660	0.726	0.812	0.946	0.766	0.871	0.763	14.11
19)	Endrin Aldeh	0.786	0.773	0.775	0.831	0.854	0.890	0.844	0.853	0.826	5.20
20)	Endosulfan S	0.887	0.865	0.829	0.869	0.907	0.963	0.939	0.921	0.898	4.87
21)	Methoxychlor	0.444	0.429	0.442	0.470	0.483	0.516	0.579	0.494	0.482	10.13
22)	Mirex	1.072	1.014	0.997	1.023	0.982	1.012	1.214	0.992	1.038	7.33
23)	Endrin Keton	0.886	0.909	0.902	0.987	1.039	1.116	0.973	1.066	0.985	8.51
24)	Decachlorobi	1.265	1.231	1.186	1.159	1.143	1.139	1.479	1.131	1.217	9.54

25) I 1-bromo-2-nitrobenzen ----------ISTD----------

26)	Toxaphene{A}	0.023	0.023	0.00
27)	Toxaphene{B}	0.030	0.030	0.00
28)	Toxaphene{C}	0.049	0.049	0.00
29)	Toxaphene{D}	0.030	0.030	0.00
30)	Toxaphene{E}	0.026	0.026	0.00

31) I 1-bromo-2-nitrobenzen ----------ISTD----------

32)	Chlordane {A	0.036	0.036	0.00
33)	Chlordane {B	0.049	0.049	0.00
34)	Chlordane {C	0.160	0.160	0.00
35)	Chlordane {D	0.264	0.264	0.00
36)	Chlordane {E	0.037	0.037	0.00

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

6PST1034.M Mon Jun 13 14:06:25 2016

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SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G 1039

Print Analyst Name: Dhara Suparia

Date: 6/16/16

Analyst Signature:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 1619330-04	IB	20 ppb
-35	Pest DSTD	5 ppm
-51	PCM	10-25 ppb
-47A	Pest mix	25 ppb
-47B	Pest mix	50 ppb
1608163	Methanol (Prime)	—

Columns: 2BCLPD | 2BCLPII

Method 8081

Initial Cal. Method 6PST1034

Injection Volume: 1.0 uL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/17/16 RK 6/17/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6231242	dilut				1			/	ok	
	243	CC1034-25				2			/	ok	GCHL ↓ 1st
	244	IB				3		/	/	ok	
	245	JC21888-4	94692	8081	S	6	10	/	/	ok	
	246	OP94652-MB1	~~96~~ 94652	8081	W	7		/	/	ok	
	247	-MB1				8		/	/	ok	
	248	-BS1				9		/	/	ok	
	249	JC21709-4				10		/	/	ok	
	250	-5				11		/	/	ok	
	251	-6				12		/	/	ok	
	252	-7				13		/	/	ok	
	253	OP94652-~~MS~~ 8	JR 6/16/16			14		/	/	ok	
	254	-MSD				15		/	/	ok	
	255	JC21709-8				16		/	/	ok	
	256	-9				17		/	/	ok	
	257	-10				18		/	/	ok	
	258	-12				19		/	/	ok	
	259	JC21790-3				20		/	/	ok	
	260	JC21960-3	94731-1	8081	S	21	10	/	/	ok	

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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Form: OR016-08
Rev. Date: 1/19/16

11.7.2 11

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G 1039

Print Analyst Name: Joseph Ruvino

Analyst Signature: JR

Date: 6/16/16

Columns: ZB UPI / ZB UPII

Method 8081

Initial Cal. Method GPST 1034

Injection Volume: 1.0 mL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 161933-09	IB	20 ppb
-35	Pest IBTD	5 ppm
-51	PEM	10-250 ppb
-MA	Pest mix	25 ppb
-MM	Pest mix	50 ppb
160563	Hexane (Fisher)	-

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/17/16 RK 6/17/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6236261	blk				1			/	ok	
	262	CC1034-50				4			/	ok	
	263	IB				3		/	/	ok	
	264	OP94817-MS	94817	Sort TCL	W	5		/	/	ok	
	265	-BS1				6		/	/	ok	
	266	JC22139-1				7		/	/	ok	
	267	OP94817-MS				8		/	/	ok	
	268	-MSD				9		/	/	ok	
	269	JC22139-2				10		/	/	ok	
	270	-3				11		/	/	ok	
	271	-4				12		/	/	ok	
	272	JC22113-3		SL		13		/	/	ok	
	273	-4				14		/	/	ok	
	274	JC22205-1				15		/	/	ok	
	275	-2				16		/	/	ok	
	276	-3				17				Not Ass'd	Need TBA
	277	-4				18			/	ok	RR 1:5
	278	-5				19			/	ok	RR 1:5
	279	-6				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

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Form: OR016-08
Rev. Date: 1/19/16

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SGS ACCUTEST JC21709

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1039

Print Analyst Name: Dhara Sabaria

Date: 6/16/16

Analyst Signature:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
1619227-09	IB	20 ppb
-25	Pest Std	5 ppm
-51	PCM	10-250 ppb
-47A	Pest mix	25 ppb
-47A	Pest mix	50 ppb
160563	Hexane (Fish)	-

Columns: 2ACLPI | 2ACLPII

Method 8081

Initial Cal. Method G PST 1034

Injection Volume: 1.0 µL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/17/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6236280	JC22205-7	94517	8081 SL	W	21		/	/	ok	
	281	-8				22		/	/	ok	RR 1:5
	282	-9				23		/	/	ok	
	283	CC 1034-25				2			/	ok	
	284	IB				3		/	/	ok	
	285	JC22205-10	94517	8081 SL	W	24		/	/	ok	

JR 6/17/16

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: OR016-08
Rev. Date: 1/19/16

11.7.2 11

LOGBOOK ID: 6-1763

Pest/PCB Extraction Log - Aqueous

Date Started: 6/10/16 Time Started: 9:45
Date Finished: 6/10/16 Time Finished: 1220

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓
Continuous Liquid Liquid: SW846 3520C/CLP/other

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	Extract Cleanup GPC	Copper	H2SO4	Florisil	Comments
MB1	Pest			DRH2O	1000		10	X	✓			
BS1				DRH2O	1000		10	X	✓			
JC21709-7 MS		5		Cyellow	495		10	X	✓			
MSD		5		Cyellow	495		10	X	✓			
BS												
MS												
mb11 ~~MSD~~	-LL-			DRH2O	1000		1	X	✓			
1 JC21709-4	Pest	4		Cyellow	1000		10	X	✓			
2 -5		4		Cyellow	1000		10	X	✓			
3 -6		3		yellow	1000		10	X	✓			
4 -7		4		Cyellow	990		10		✓			
5 -8		4		Cyellow	980		10		✓			
6 -9		5		Cyellow	930		10		✓			
7 -10		4		Clear	980		10		✓			
8 -12		5		Cyellow	1000		10		✓			
9 JC21790-3	-LL-	8		Cyellow	1000		1		✓			
10 ~~-10~~	~~-LL-~~	ML										
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

Requested

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

Comments: Okay to split ms/msd not enough bottles.

BATCH #	GC 94652
RACK#	Pest -20
Extracted by:	VP RBS
Concentrated by:	MP VP
Vialed by:	VP
Relinquished by:	
Accepted by:	
Supervisor Review:	6/10/16

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	3	65	—	—	OK
Buchi Chiller	B3	10.9	—	—	OK
Waterbath (70-80°C)	6	75	-0.5	75	N/A
Waterbath Chiller (GPM)	F2	-4	—	—	OK
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	6171217-1	400ppb	1

WITNESS SIGN: VP SPIKE SIGN: BBS

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST	6171213T	250ppb	1
PCB			

WITNESS SIGN: VP SPIKE SIGN: BBS

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	163036	Fisher	3/60
HEXANE	162790	Fisher	1/50

REAGENT	LOT #	BRAND
Sodium Sulfate	158459	Fisher
Glass Wool	02912-2	196
Filter Paper		
Copper	1617106	Aldrich
Florisil		
1:1 Sulfuric Acid		
Chlorine Strips		

SGS ACCUTEST INC.
Form: OP021A-06
Rev Date: 1/13/16