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Automated Report

Technical Report for

Anderson, Mulholland & Associates

BMSMC, Building 5 Area, PR

SM04.00.06

SGS Accutest Job Number: JC20184

Sampling Dates: 05/11/16 - 05/12/16

Report to:

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ATTN: Terry Taylor

Total number of pages in report: **628**

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

Nancy Cole
Laboratory Director

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SGS Accutest

Sample Summary

Anderson, Mulholland & Associates

Job No: JC20184

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC20184-1	05/11/16	15:40	TT	05/13/16	AQ	Ground Water	RA20-GWD
JC20184-2	05/11/16	15:47	NR	05/13/16	AQ	Ground Water	S-40D
JC20184-3	05/12/16	12:00	TT	05/13/16	AQ	Ground Water	S-39D
JC20184-3D	05/12/16	12:00	TT	05/13/16	AQ	Water Dup/MSD	S-39D-MSD
JC20184-3S	05/12/16	12:00	TT	05/13/16	AQ	Water Matrix Spike	S-39D-MS
JC20184-4	05/12/16	12:20	NR	05/13/16	AQ	Ground Water	MW-20S
JC20184-5	05/12/16	13:29	NR	05/13/16	AQ	Ground Water	MW-20D
JC20184-6	05/12/16	14:50	TT	05/13/16	AQ	Ground Water	S40S

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Anderson, Mulholland & Associates	**Job No**	JC20184
Site:	BMSMC, Building 5 Area, PR	**Report Date**	5/19/2016 2:27:39 PM

On 05/13/2016, 6 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a maximum corrected temperature of 3.8 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JC20184 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:** OP93902

- All samples were extracted within the recommended method holding time.
- Sample(s) JC20184-3MS, JC20184-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP93902A

- All samples were extracted within the recommended method holding time.
- Sample(s) JC20184-3MS, JC20184-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- 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.
- Matrix Spike 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:** GGH5286

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC20184-3MS, JC20184-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Isobutyl Alcohol, n-Butyl Alcohol, n-Propyl Alcohol are outside control limits. High percent recoveries and no associated positive found in the QC batch.
- GGH5286-MB1: Reported from 1st Signal. %RSD of initial calibration on 2nd signal excess method criteria (20%) so using for confirmation only.
- GGH5286-BS: Reported from 1st Signal. %RSD of initial calibration on 2nd signal excess method criteria (20%) so using for confirmation only.

Extractables by GC By Method SW846 8081B

Matrix: AQ **Batch ID:** OP93907

- All samples were extracted within the recommended method holding time.
- Sample(s) JC20184-3MS, JC20184-3MSD, OP93907-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's 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.

Accutest Laboratories 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 Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JC20184
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 05/11/16 thru 05/12/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC20184-1	**RA20-GWD**					
1,4-Dioxane		349	11	7.3	ug/l	SW846 8270D
JC20184-2	**S-40D**					
1,4-Dioxane		5.32	0.11	0.053	ug/l	SW846 8270D BY SIM
JC20184-3	**S-39D**					
1,4-Dioxane		27.2	1.1	0.74	ug/l	SW846 8270D
JC20184-4	**MW-20S**					
1,4-Dioxane		3.21	0.11	0.051	ug/l	SW846 8270D BY SIM
JC20184-5	**MW-20D**					
1,4-Dioxane		19.6	1.1	0.72	ug/l	SW846 8270D
JC20184-6	**S40S**					
3&4-Methylphenol		22.0	2.2	0.96	ug/l	SW846 8270D
1,4-Dioxane		1.22	0.11	0.053	ug/l	SW846 8270D BY SIM

Sample Results

Report of Analysis

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Report of Analysis

Client Sample ID:	RA20-GWD		
Lab Sample ID:	JC20184-1	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3E83229.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
Run #2	3E83278.D	10	05/16/16	AN	05/13/16	OP93902	E3E3650

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

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:	RA20-GWD		
Lab Sample ID:	JC20184-1	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	349 [a]	11	7.3	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	40%	53%	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:	RA20-GWD		
Lab Sample ID:	JC20184-1	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	27%	51%	10-110%
118-79-6	2,4,6-Tribromophenol	80%	82%	39-149%
4165-60-0	Nitrobenzene-d5	65%	80%	32-128%
321-60-8	2-Fluorobiphenyl	72%	88%	35-119%
1718-51-0	Terphenyl-d14	72%	95%	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:	RA20-GWD		
Lab Sample ID:	JC20184-1	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3M61322.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883
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	69%		24-125%
321-60-8	2-Fluorobiphenyl	62%		19-127%
1718-51-0	Terphenyl-d14	76%		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:	RA20-GWD		
Lab Sample ID:	JC20184-1	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	GH104996.D	1	05/17/16	XPL	n/a	n/a	GGH5286
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	97%		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:	RA20-GWD		
Lab Sample ID:	JC20184-1	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	1G123081.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.012	0.0070	ug/l	
319-84-6	alpha-BHC	ND	0.012	0.0070	ug/l	
319-85-7	beta-BHC	ND	0.012	0.0066	ug/l	
319-86-8	delta-BHC	ND	0.012	0.0053	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.012	0.0032	ug/l	
5103-71-9	alpha-Chlordane	ND	0.012	0.0054	ug/l	
5103-74-2	gamma-Chlordane	ND	0.012	0.0053	ug/l	
60-57-1	Dieldrin	ND	0.012	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.012	0.0044	ug/l	
72-55-9	4,4'-DDE	ND	0.012	0.0072	ug/l	
50-29-3	4,4'-DDT	ND	0.012	0.0058	ug/l	
72-20-8	Endrin	ND	0.012	0.0059	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.012	0.0061	ug/l	
7421-93-4	Endrin aldehyde	ND	0.012	0.0060	ug/l	
53494-70-5	Endrin ketone	ND	0.012	0.0059	ug/l	
959-98-8	Endosulfan-I	ND	0.012	0.0058	ug/l	
33213-65-9	Endosulfan-II	ND	0.012	0.0050	ug/l	
76-44-8	Heptachlor	ND	0.012	0.0044	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.012	0.0076	ug/l	
72-43-5	Methoxychlor	ND	0.023	0.0066	ug/l	
8001-35-2	Toxaphene	ND	0.29	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		26-132%
877-09-8	Tetrachloro-m-xylene	101%		26-132%
2051-24-3	Decachlorobiphenyl	48%		10-118%
2051-24-3	Decachlorobiphenyl	53%		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-40D		
Lab Sample ID:	JC20184-2	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3E83230.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.4	0.89	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.4	0.97	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.4	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.4	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.97	ug/l	
	3&4-Methylphenol	ND	2.2	0.96	ug/l	
88-75-5	2-Nitrophenol	ND	5.4	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	5.4	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.43	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.4	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.4	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.4	1.0	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.21	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.15	ug/l	
98-86-2	Acetophenone	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.49	ug/l	
100-52-7	Benzaldehyde	ND	5.4	0.31	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.37	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.44	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.50	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.23	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.26	ug/l	
106-47-8	4-Chloroaniline	ND	5.4	0.37	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	ug/l	

ND = Not detected MDL = Method Detection Limit 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-40D		
Lab Sample ID:	JC20184-2	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	0.30	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	0.60	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.52	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.55	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.36	ug/l	
132-64-9	Dibenzofuran	ND	5.4	0.24	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.54	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.35	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.0	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.42	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.36	ug/l	
78-59-1	Isophorone	ND	2.2	0.30	ug/l	
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	5.4	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	5.4	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	5.4	0.48	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.70	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.52	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.24	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.24	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	38%		14-88%
4165-62-2	Phenol-d5	25%		10-110%

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

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

Report of Analysis

Client Sample ID:	S-40D		
Lab Sample ID:	JC20184-2	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	75%		39-149%
4165-60-0	Nitrobenzene-d5	68%		32-128%
321-60-8	2-Fluorobiphenyl	73%		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-40D		
Lab Sample ID:	JC20184-2	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3M61323.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883
Run #2							

	Initial Volume	Final Volume
Run #1	920 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	5.32	0.11	0.053	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		24-125%
321-60-8	2-Fluorobiphenyl	67%		19-127%
1718-51-0	Terphenyl-d14	81%		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-40D		
Lab Sample ID:	JC20184-2	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	GH104997.D	1	05/17/16	XPL	n/a	n/a	GGH5286
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%

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-40D		
Lab Sample ID:	JC20184-2	**Date Sampled:**	05/11/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	1G123082.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.012	0.0071	ug/l	
319-84-6	alpha-BHC	ND	0.012	0.0071	ug/l	
319-85-7	beta-BHC	ND	0.012	0.0067	ug/l	
319-86-8	delta-BHC	ND	0.012	0.0054	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.012	0.0033	ug/l	
5103-71-9	alpha-Chlordane	ND	0.012	0.0054	ug/l	
5103-74-2	gamma-Chlordane	ND	0.012	0.0054	ug/l	
60-57-1	Dieldrin	ND	0.012	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.012	0.0045	ug/l	
72-55-9	4,4'-DDE	ND	0.012	0.0072	ug/l	
50-29-3	4,4'-DDT	ND	0.012	0.0058	ug/l	
72-20-8	Endrin	ND	0.012	0.0059	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.012	0.0062	ug/l	
7421-93-4	Endrin aldehyde	ND	0.012	0.0060	ug/l	
53494-70-5	Endrin ketone	ND	0.012	0.0060	ug/l	
959-98-8	Endosulfan-I	ND	0.012	0.0058	ug/l	
33213-65-9	Endosulfan-II	ND	0.012	0.0050	ug/l	
76-44-8	Heptachlor	ND	0.012	0.0045	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.012	0.0077	ug/l	
72-43-5	Methoxychlor	ND	0.024	0.0067	ug/l	
8001-35-2	Toxaphene	ND	0.29	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	127%		26-132%
877-09-8	Tetrachloro-m-xylene	119%		26-132%
2051-24-3	Decachlorobiphenyl	88%		10-118%
2051-24-3	Decachlorobiphenyl	91%		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:	S-39D		
Lab Sample ID:	JC20184-3	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3E83231.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
Run #2							

	Initial Volume	Final Volume
Run #1	890 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	0.92	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.6	1.0	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	1.5	ug/l	
95-48-7	2-Methylphenol	ND	2.2	1.0	ug/l	
	3&4-Methylphenol	ND	2.2	0.99	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	1.6	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	0.24	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	0.27	ug/l	
106-47-8	4-Chloroaniline	ND	5.6	0.38	ug/l	
86-74-8	Carbazole	ND	1.1	0.26	ug/l	

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

Report of Analysis

Client Sample ID:	S-39D		
Lab Sample ID:	JC20184-3	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	0.73	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	0.62	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.53	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.57	ug/l	
123-91-1	1,4-Dioxane	27.2	1.1	0.74	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.6	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.56	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	1.9	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	0.37	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	0.44	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	0.30	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.24	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	0.72	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.54	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.25	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.20	ug/l	
129-00-0	Pyrene	ND	1.1	0.25	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.42	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	33%		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-39D		
Lab Sample ID:	JC20184-3	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	22%		10-110%
118-79-6	2,4,6-Tribromophenol	70%		39-149%
4165-60-0	Nitrobenzene-d5	55%		32-128%
321-60-8	2-Fluorobiphenyl	63%		35-119%
1718-51-0	Terphenyl-d14	61%		10-126%

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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-39D		
Lab Sample ID:	JC20184-3	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3M61324.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883
Run #2							

	Initial Volume	Final Volume
Run #1	890 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	54%		24-125%
321-60-8	2-Fluorobiphenyl	66%		19-127%
1718-51-0	Terphenyl-d14	74%		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-39D		
Lab Sample ID:	JC20184-3	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	GH104990.D	1	05/17/16	XPL	n/a	n/a	GGH5286
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	77%		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-39D		
Lab Sample ID:	JC20184-3	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	1G123111.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.012	0.0071	ug/l	
319-84-6	alpha-BHC	ND	0.012	0.0071	ug/l	
319-85-7	beta-BHC	ND	0.012	0.0067	ug/l	
319-86-8	delta-BHC	ND	0.012	0.0054	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.012	0.0033	ug/l	
5103-71-9	alpha-Chlordane	ND	0.012	0.0054	ug/l	
5103-74-2	gamma-Chlordane	ND	0.012	0.0054	ug/l	
60-57-1	Dieldrin	ND	0.012	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.012	0.0045	ug/l	
72-55-9	4,4'-DDE	ND	0.012	0.0072	ug/l	
50-29-3	4,4'-DDT	ND	0.012	0.0058	ug/l	
72-20-8	Endrin	ND	0.012	0.0059	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.012	0.0062	ug/l	
7421-93-4	Endrin aldehyde	ND	0.012	0.0060	ug/l	
53494-70-5	Endrin ketone	ND	0.012	0.0060	ug/l	
959-98-8	Endosulfan-I	ND	0.012	0.0058	ug/l	
33213-65-9	Endosulfan-II	ND	0.012	0.0050	ug/l	
76-44-8	Heptachlor	ND	0.012	0.0045	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.012	0.0077	ug/l	
72-43-5	Methoxychlor	ND	0.024	0.0067	ug/l	
8001-35-2	Toxaphene	ND	0.29	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		26-132%
877-09-8	Tetrachloro-m-xylene	97%		26-132%
2051-24-3	Decachlorobiphenyl	81%		10-118%
2051-24-3	Decachlorobiphenyl	76%		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:	MW-20S		
Lab Sample ID:	JC20184-4	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3E83232.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
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	ND	1.1	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.47	ug/l	
100-52-7	Benzaldehyde	ND	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:	MW-20S		
Lab Sample ID:	JC20184-4	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	
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	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	0.46	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%
4165-62-2	Phenol-d5	25%		10-110%

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

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

Report of Analysis

Client Sample ID:	MW-20S		
Lab Sample ID:	JC20184-4	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	82%		39-149%
4165-60-0	Nitrobenzene-d5	70%		32-128%
321-60-8	2-Fluorobiphenyl	76%		35-119%
1718-51-0	Terphenyl-d14	85%		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-20S		
Lab Sample ID:	JC20184-4	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3M61325.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883
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	ND	0.11	0.031	ug/l	
123-91-1	1,4-Dioxane	3.21	0.11	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	72%		19-127%
1718-51-0	Terphenyl-d14	87%		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-20S		
Lab Sample ID:	JC20184-4	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	GH104993.D	1	05/17/16	XPL	n/a	n/a	GGH5286
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%

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-20S		
Lab Sample ID:	JC20184-4	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	1G123084.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989
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	85%		26-132%
2051-24-3	Decachlorobiphenyl	76%		10-118%
2051-24-3	Decachlorobiphenyl	82%		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:	MW-20D		
Lab Sample ID:	JC20184-5	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3E83233.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
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-20D		
Lab Sample ID:	JC20184-5	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	
123-91-1	1,4-Dioxane	19.6	1.1	0.72	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	36%		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:	MW-20D		
Lab Sample ID:	JC20184-5	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	25%		10-110%
118-79-6	2,4,6-Tribromophenol	77%		39-149%
4165-60-0	Nitrobenzene-d5	67%		32-128%
321-60-8	2-Fluorobiphenyl	73%		35-119%
1718-51-0	Terphenyl-d14	76%		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-20D		
Lab Sample ID:	JC20184-5	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3M61326.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883
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	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		24-125%
321-60-8	2-Fluorobiphenyl	66%		19-127%
1718-51-0	Terphenyl-d14	78%		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-20D		
Lab Sample ID:	JC20184-5	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	GH104994.D	1	05/17/16	XPL	n/a	n/a	GGH5286
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%

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-20D		
Lab Sample ID:	JC20184-5	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	1G123085.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.012	0.0071	ug/l	
319-84-6	alpha-BHC	ND	0.012	0.0071	ug/l	
319-85-7	beta-BHC	ND	0.012	0.0067	ug/l	
319-86-8	delta-BHC	ND	0.012	0.0054	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.012	0.0033	ug/l	
5103-71-9	alpha-Chlordane	ND	0.012	0.0054	ug/l	
5103-74-2	gamma-Chlordane	ND	0.012	0.0054	ug/l	
60-57-1	Dieldrin	ND	0.012	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.012	0.0045	ug/l	
72-55-9	4,4'-DDE	ND	0.012	0.0072	ug/l	
50-29-3	4,4'-DDT	ND	0.012	0.0058	ug/l	
72-20-8	Endrin	ND	0.012	0.0059	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.012	0.0062	ug/l	
7421-93-4	Endrin aldehyde	ND	0.012	0.0060	ug/l	
53494-70-5	Endrin ketone	ND	0.012	0.0060	ug/l	
959-98-8	Endosulfan-I	ND	0.012	0.0058	ug/l	
33213-65-9	Endosulfan-II	ND	0.012	0.0050	ug/l	
76-44-8	Heptachlor	ND	0.012	0.0045	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.012	0.0077	ug/l	
72-43-5	Methoxychlor	ND	0.024	0.0067	ug/l	
8001-35-2	Toxaphene	ND	0.29	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%		26-132%
877-09-8	Tetrachloro-m-xylene	102%		26-132%
2051-24-3	Decachlorobiphenyl	67%		10-118%
2051-24-3	Decachlorobiphenyl	76%		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:	S40S		
Lab Sample ID:	JC20184-6	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3E83234.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.4	0.89	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.4	0.97	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.4	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.4	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.97	ug/l	
	3&4-Methylphenol	22.0	2.2	0.96	ug/l	
88-75-5	2-Nitrophenol	ND	5.4	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	5.4	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.43	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.4	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.4	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.4	1.0	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.21	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.15	ug/l	
98-86-2	Acetophenone	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.49	ug/l	
100-52-7	Benzaldehyde	ND	5.4	0.31	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.37	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.44	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.50	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.23	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.26	ug/l	
106-47-8	4-Chloroaniline	ND	5.4	0.37	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	ug/l	

ND = Not detected MDL = Method Detection Limit 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:	S40S		
Lab Sample ID:	JC20184-6	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	0.30	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	0.60	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.52	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.55	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.36	ug/l	
132-64-9	Dibenzofuran	ND	5.4	0.24	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.54	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.35	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.0	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.42	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.36	ug/l	
78-59-1	Isophorone	ND	2.2	0.30	ug/l	
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	5.4	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	5.4	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	5.4	0.48	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.70	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.52	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.24	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.24	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		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:	S40S		
Lab Sample ID:	JC20184-6	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	72%		39-149%
4165-60-0	Nitrobenzene-d5	58%		32-128%
321-60-8	2-Fluorobiphenyl	64%		35-119%
1718-51-0	Terphenyl-d14	68%		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:	S40S		
Lab Sample ID:	JC20184-6	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	3M61327.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883
Run #2							

	Initial Volume	Final Volume
Run #1	920 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	1.22	0.11	0.053	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		24-125%
321-60-8	2-Fluorobiphenyl	63%		19-127%
1718-51-0	Terphenyl-d14	76%		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:	S40S		
Lab Sample ID:	JC20184-6	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	GH104995.D	1	05/17/16	XPL	n/a	n/a	GGH5286
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%

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:	S40S		
Lab Sample ID:	JC20184-6	**Date Sampled:**	05/12/16
Matrix:	AQ - Ground Water	**Date Received:**	05/13/16
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	1G123086.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.012	0.0071	ug/l	
319-84-6	alpha-BHC	ND	0.012	0.0071	ug/l	
319-85-7	beta-BHC	ND	0.012	0.0067	ug/l	
319-86-8	delta-BHC	ND	0.012	0.0054	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.012	0.0033	ug/l	
5103-71-9	alpha-Chlordane	ND	0.012	0.0054	ug/l	
5103-74-2	gamma-Chlordane	ND	0.012	0.0054	ug/l	
60-57-1	Dieldrin	ND	0.012	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.012	0.0045	ug/l	
72-55-9	4,4'-DDE	ND	0.012	0.0072	ug/l	
50-29-3	4,4'-DDT	ND	0.012	0.0058	ug/l	
72-20-8	Endrin	ND	0.012	0.0059	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.012	0.0062	ug/l	
7421-93-4	Endrin aldehyde	ND	0.012	0.0060	ug/l	
53494-70-5	Endrin ketone	ND	0.012	0.0060	ug/l	
959-98-8	Endosulfan-I	ND	0.012	0.0058	ug/l	
33213-65-9	Endosulfan-II	ND	0.012	0.0050	ug/l	
76-44-8	Heptachlor	ND	0.012	0.0045	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.012	0.0077	ug/l	
72-43-5	Methoxychlor	ND	0.024	0.0067	ug/l	
8001-35-2	Toxaphene	ND	0.29	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		26-132%
877-09-8	Tetrachloro-m-xylene	91%		26-132%
2051-24-3	Decachlorobiphenyl	74%		10-118%
2051-24-3	Decachlorobiphenyl	78%		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

SGS ACCUTEST -NJ

CHAIN OF CUSTODY

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

PAGE 1 OF 1

SGS Accutest Quote # 801219536095
Bottle Order Control #
SGS Accutest Job # JC20184

Client / Reporting Information

Company Name: Anderson Mulholland Assoc Inc.
Street Address: 2700 Westchester
City State Zip: Purchase NY
Project Contact: Terry Taylor
E-mail:
Phone #: 914-251-0400
Fax #:
Sampler(s) Name(s): N. Rivera, T. Taylor, D. Lindstrand
Phone #:

Project Information

Project Name: BMS Release Assessment
Street:
City State: Humacao PR
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

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

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	SVOC - Method 8270D	LMA - Method 8015B	Pesticides - Method 8081B	1,4-Dioxane + Naphthalene by Method 8270D SIM	LAB USE ONLY
-1	RA 20-GWD		05/11/16	1540	TT	GW	6	3				3				X	X	X	X	√03
-2	S-40D		05/11/16	1547	NR	GW	6	3				3				X	X	X	X	E 86
	S 39D		05/12/16	1200	TT	GW	6	3				3				X	X	X	X	
-3	S 39D-MS		05/12/16	1200	TT	GW	6	3				3				X	X	X	X	
	S 39D-MSD		05/12/16	1200	TT	GW	6	3				3				X	X	X	X	
-4	MW-20S		05/12/16	1220	NR	GW	6	3				3				X	X	X	X	
-5	MW-20D		05/12/16	1329	NR	GW	6	3				3				X	X	X	X	
-6	S40S		05/12/16	1450	TT	GW	6	3				3				X	X	X	X	

INITIAL ASESSMENT AM 1B
LABEL VERIFICATION AM

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

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

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

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

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

Comments / Special Instructions

Add to Report: 1-methyl naphthalene with SVOC Method 8270D

Sample inventory is verified upon receipt in the Laboratory

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

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	05/12/16 1500	1 Fed Ex	2 FX	5-13-16 940	2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 373/374/375 [ ] Intact [ ] Not intact	Preserved where applicable	On Ice [ ] Cooler Temp. 2.9, 3.4, 3.2 °C

JC20184: Chain of Custody
Page 1 of 3

SGS Accutest Sample Receipt Summary

Job Number: JC20184 **Client:** ANDERSON MULHOLLAND **Project:** BMS RELEASE ASSESSMENT

Date / Time Received: 5/13/2016 9:40:00 AM **Delivery Method:** FedEx **Airbill #'s:** 801219536095

Cooler Temps (Raw Measured) °C: Cooler 1: (2.9); Cooler 2: (3.4); Cooler 3: (3.2);

Cooler Temps (Corrected) °C: Cooler 1: (3.3); Cooler 2: (3.8); Cooler 3: (3.6);

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

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

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

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

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

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

Comments 1) -3 SAMPLE ID: S39D REC'D 1 HCL PRESERVED 950 ML AMBER FOR BMAEPH ANALYSIS. SAMPLE SHOULD HAVE BEEN DIRECT SUB TO NE. SAMPLE LOGGED AS SUBCONTRACT, SAMPLE IS ALSO MS/MSD.

SGS Accutest Sample - Problem Resolution

Accutest Job Number: JC20184

CSR: Tammy McCloskey **Response Date** 5/14/2016

Response: 1) -3, client sample S-39D - confirmed with SGS Accutest MA that they have received sufficient volume at their location to perform analysis required for this sample. Keep extra volume in NJ on hold shelf.

JC20184: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC20184

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC20184-1 RA20-GWD	Collected: 11-MAY-16 15:40 By: TT		Received: 13-MAY-16 By: RL			
JC20184-1	SW846 8270D BY SIM	14-MAY-16 01:48	JJ	13-MAY-16	KS	BSIM + NAP
JC20184-1	SW846 8270D	14-MAY-16 14:36	AN	13-MAY-16	KS	AB8270SL
JC20184-1	SW846 8270D	16-MAY-16 12:22	AN	13-MAY-16	KS	AB8270SL
JC20184-1	SW846 8081B	16-MAY-16 16:01	RK	13-MAY-16	SD	P8081PESTTCL
JC20184-1	SW846-8015C (DAI)	17-MAY-16 01:41	XPL			D8015LMA
JC20184-2 S-40D	Collected: 11-MAY-16 15:47 By: NR		Received: 13-MAY-16 By: RL			
JC20184-2	SW846 8270D BY SIM	14-MAY-16 02:20	JJ	13-MAY-16	KS	B8270SIM14DIOX,BSIM + NAP
JC20184-2	SW846 8270D	14-MAY-16 15:02	AN	13-MAY-16	KS	AB8270SL
JC20184-2	SW846 8081B	16-MAY-16 16:19	RK	13-MAY-16	SD	P8081PESTTCL
JC20184-2	SW846-8015C (DAI)	17-MAY-16 01:56	XPL			D8015LMA
JC20184-3 S-39D	Collected: 12-MAY-16 12:00 By: TT		Received: 13-MAY-16 By: RL			
JC20184-3	SW846 8270D BY SIM	14-MAY-16 02:53	JJ	13-MAY-16	KS	BSIM + NAP
JC20184-3	SW846 8270D	14-MAY-16 15:29	AN	13-MAY-16	KS	AB8270SL
JC20184-3	SW846 8081B	16-MAY-16 17:11	RK	13-MAY-16	SD	P8081PESTTCL
JC20184-3	SW846-8015C (DAI)	17-MAY-16 00:07	XPL			D8015LMA
JC20184-4 MW-20S	Collected: 12-MAY-16 12:20 By: NR		Received: 13-MAY-16 By: RL			
JC20184-4	SW846 8270D BY SIM	14-MAY-16 03:25	JJ	13-MAY-16	KS	B8270SIM14DIOX,BSIM + NAP
JC20184-4	SW846 8270D	14-MAY-16 15:55	AN	13-MAY-16	KS	AB8270SL
JC20184-4	SW846 8081B	16-MAY-16 16:54	RK	13-MAY-16	SD	P8081PESTTCL
JC20184-4	SW846-8015C (DAI)	17-MAY-16 00:51	XPL			D8015LMA
JC20184-5 MW-20D	Collected: 12-MAY-16 13:29 By: NR		Received: 13-MAY-16 By: RL			
JC20184-5	SW846 8270D BY SIM	14-MAY-16 03:57	JJ	13-MAY-16	KS	BSIM + NAP
JC20184-5	SW846 8270D	14-MAY-16 16:22	AN	13-MAY-16	KS	AB8270SL
JC20184-5	SW846 8081B	16-MAY-16 17:29	RK	13-MAY-16	SD	P8081PESTTCL
JC20184-5	SW846-8015C (DAI)	17-MAY-16 01:12	XPL			D8015LMA

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC20184

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC20184-6	Collected: 12-MAY-16 14:50 By: TT		Received: 13-MAY-16 By: RL			
S40S						
JC20184-6	SW846 8270D BY SIM	14-MAY-16 04:29	JJ	13-MAY-16	KS	B8270SIM14DIOX,BSIM + NAP
JC20184-6	SW846 8270D	14-MAY-16 16:49	AN	13-MAY-16	KS	AB8270SL
JC20184-6	SW846 8081B	16-MAY-16 17:46	RK	13-MAY-16	SD	P8081PESTTCL
JC20184-6	SW846-8015C (DAI)	17-MAY-16 01:27	XPL			D8015LMA

SGS Accutest Internal Chain of Custody

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 05/13/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC20184-1.1	Secured Storage	Luis Villanueva	05/13/16 14:18	Retrieve from Storage
JC20184-1.1	Luis Villanueva	Secured Staging Area	05/13/16 14:19	Return to Storage
JC20184-1.1	Secured Staging Area	Nicholas Goydish	05/13/16 14:38	Retrieve from Storage
JC20184-1.1	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-1.1	Greg Mayer		05/13/16 22:09	Depleted
JC20184-1.1.1	Nicholas Goydish	Organics Prep	05/13/16 14:45	Extract from JC20184-1.1
JC20184-1.1.1	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-1.1
JC20184-1.1.1	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-1.1.1	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-1.1.1	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-1.1.1	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-1.1.1	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage
JC20184-1.2	Secured Storage	Luis Villanueva	05/13/16 14:18	Retrieve from Storage
JC20184-1.2	Luis Villanueva	Secured Staging Area	05/13/16 14:19	Return to Storage
JC20184-1.2	Secured Staging Area	Nicholas Goydish	05/13/16 14:38	Retrieve from Storage
JC20184-1.2	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-1.2	Greg Mayer		05/13/16 22:09	Depleted
JC20184-1.2.1	Nicholas Goydish	Organics Prep	05/13/16 14:46	Extract from JC20184-1.2
JC20184-1.2.1	Organics Prep	Stephen Domke	05/13/16 21:23	Extract from JC20184-1.2
JC20184-1.2.1	Stephen Domke	Extract Storage	05/13/16 21:23	Return to Storage
JC20184-1.2.1	Extract Storage	Rebecca Krug	05/16/16 14:47	Retrieve from Storage
JC20184-1.2.1	Rebecca Krug	GC1G	05/16/16 14:47	Load on Instrument
JC20184-1.3	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-1.3	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-1.3	Greg Mayer	Secured Storage	05/13/16 22:07	Return to Storage
JC20184-1.6	Secured Storage	Xu Liu	05/16/16 13:38	Retrieve from Storage
JC20184-1.6	Xu Liu	Secured Storage	05/16/16 13:54	Return to Storage
JC20184-2.1	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-2.1	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-2.1	Greg Mayer		05/13/16 22:09	Depleted
JC20184-2.1.1	Nicholas Goydish	Organics Prep	05/13/16 14:45	Extract from JC20184-2.1
JC20184-2.1.1	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-2.1
JC20184-2.1.1	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-2.1.1	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-2.1.1	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-2.1.1	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-2.1.1	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage

SGS Accutest Internal Chain of Custody

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 05/13/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC20184-2.2	Secured Storage	Luis Villanueva	05/13/16 14:18	Retrieve from Storage
JC20184-2.2	Luis Villanueva	Secured Staging Area	05/13/16 14:19	Return to Storage
JC20184-2.2	Secured Staging Area	Nicholas Goydish	05/13/16 14:38	Retrieve from Storage
JC20184-2.2	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-2.2	Greg Mayer		05/13/16 22:09	Depleted
JC20184-2.2.1	Nicholas Goydish	Organics Prep	05/13/16 14:46	Extract from JC20184-2.2
JC20184-2.2.1	Organics Prep	Stephen Domke	05/13/16 21:23	Extract from JC20184-2.2
JC20184-2.2.1	Stephen Domke	Extract Storage	05/13/16 21:23	Return to Storage
JC20184-2.2.1	Extract Storage	Rebecca Krug	05/16/16 14:47	Retrieve from Storage
JC20184-2.2.1	Rebecca Krug	GC1G	05/16/16 14:47	Load on Instrument
JC20184-2.2.2	Nicholas Goydish	Organics Prep	05/13/16 14:48	Extract from JC20184-2.2
JC20184-2.2.2	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-2.2
JC20184-2.2.2	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-2.2.2	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-2.2.2	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-2.2.2	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-2.2.2	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage
JC20184-2.3	Secured Storage	Luis Villanueva	05/13/16 14:18	Retrieve from Storage
JC20184-2.3	Luis Villanueva	Secured Staging Area	05/13/16 14:19	Return to Storage
JC20184-2.3	Secured Staging Area	Nicholas Goydish	05/13/16 14:38	Retrieve from Storage
JC20184-2.3	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-2.3	Greg Mayer		05/13/16 22:09	Depleted
JC20184-2.6	Secured Storage	Xu Liu	05/16/16 13:38	Retrieve from Storage
JC20184-2.6	Xu Liu	Secured Storage	05/16/16 13:54	Return to Storage
JC20184-3.3	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-3.3	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-3.3	Greg Mayer		05/13/16 22:09	Depleted
JC20184-3.3.1	Nicholas Goydish	Organics Prep	05/13/16 14:45	Extract from JC20184-3.3
JC20184-3.3.1	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-3.3
JC20184-3.3.1	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-3.3.1	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-3.3.1	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-3.3.1	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-3.3.1	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage
JC20184-3.4	Secured Storage	Luis Villanueva	05/13/16 14:18	Retrieve from Storage
JC20184-3.4	Luis Villanueva	Secured Staging Area	05/13/16 14:19	Return to Storage

SGS Accutest Internal Chain of Custody

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 05/13/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC20184-3.4	Secured Staging Area	Nicholas Goydish	05/13/16 14:38	Retrieve from Storage
JC20184-3.4	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-3.4	Greg Mayer		05/13/16 22:09	Depleted
JC20184-3.4.1	Nicholas Goydish	Organics Prep	05/13/16 14:45	Extract from JC20184-3.4
JC20184-3.4.1	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-3.4
JC20184-3.4.1	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-3.4.1	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-3.4.1	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-3.4.1	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-3.4.1	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage
JC20184-3.5	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-3.5	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-3.5	Greg Mayer		05/13/16 22:09	Depleted
JC20184-3.5.1	Nicholas Goydish	Organics Prep	05/13/16 14:45	Extract from JC20184-3.5
JC20184-3.5.1	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-3.5
JC20184-3.5.1	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-3.5.1	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-3.5.1	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-3.5.1	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-3.5.1	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage
JC20184-3.6	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-3.6	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-3.6	Greg Mayer		05/13/16 22:09	Depleted
JC20184-3.6.1	Nicholas Goydish	Organics Prep	05/13/16 14:46	Extract from JC20184-3.6
JC20184-3.6.1	Organics Prep	Stephen Domke	05/13/16 21:23	Extract from JC20184-3.6
JC20184-3.6.1	Stephen Domke	Extract Storage	05/13/16 21:23	Return to Storage
JC20184-3.6.1	Extract Storage	Rebecca Krug	05/16/16 14:47	Retrieve from Storage
JC20184-3.6.1	Rebecca Krug	GC1G	05/16/16 14:47	Load on Instrument
JC20184-3.7	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-3.7	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-3.7	Greg Mayer		05/13/16 22:09	Depleted
JC20184-3.7.1	Nicholas Goydish	Organics Prep	05/13/16 14:46	Extract from JC20184-3.7
JC20184-3.7.1	Organics Prep	Stephen Domke	05/13/16 21:23	Extract from JC20184-3.7
JC20184-3.7.1	Stephen Domke	Extract Storage	05/13/16 21:23	Return to Storage
JC20184-3.7.1	Extract Storage	Rebecca Krug	05/16/16 14:47	Retrieve from Storage
JC20184-3.7.1	Rebecca Krug	GC1G	05/16/16 14:47	Load on Instrument

SGS Accutest Internal Chain of Custody

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 05/13/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC20184-3.9	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-3.9	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-3.9	Greg Mayer		05/13/16 22:09	Depleted
JC20184-3.9.1	Nicholas Goydish	Organics Prep	05/13/16 14:46	Extract from JC20184-3.9
JC20184-3.9.1	Organics Prep	Stephen Domke	05/13/16 21:23	Extract from JC20184-3.9
JC20184-3.9.1	Stephen Domke	Extract Storage	05/13/16 21:23	Return to Storage
JC20184-3.9.1	Extract Storage	Rebecca Krug	05/16/16 14:47	Retrieve from Storage
JC20184-3.9.1	Rebecca Krug	GC1G	05/16/16 14:47	Load on Instrument
JC20184-3.17	Secured Storage	Xu Liu	05/16/16 13:38	Retrieve from Storage
JC20184-3.17	Xu Liu	Secured Storage	05/16/16 13:54	Return to Storage
JC20184-4.1	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-4.1	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-4.1	Greg Mayer		05/13/16 22:09	Depleted
JC20184-4.1.1	Nicholas Goydish	Organics Prep	05/13/16 14:45	Extract from JC20184-4.1
JC20184-4.1.1	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-4.1
JC20184-4.1.1	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-4.1.1	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-4.1.1	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-4.1.1	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-4.1.1	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage
JC20184-4.3	Secured Storage	Luis Villanueva	05/13/16 14:18	Retrieve from Storage
JC20184-4.3	Luis Villanueva	Secured Staging Area	05/13/16 14:19	Return to Storage
JC20184-4.3	Secured Staging Area	Nicholas Goydish	05/13/16 14:38	Retrieve from Storage
JC20184-4.3	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-4.3	Greg Mayer		05/13/16 22:09	Depleted
JC20184-4.3.1	Nicholas Goydish	Organics Prep	05/13/16 14:46	Extract from JC20184-4.3
JC20184-4.3.1	Organics Prep	Stephen Domke	05/13/16 21:23	Extract from JC20184-4.3
JC20184-4.3.1	Stephen Domke	Extract Storage	05/13/16 21:23	Return to Storage
JC20184-4.3.1	Extract Storage	Rebecca Krug	05/16/16 14:47	Retrieve from Storage
JC20184-4.3.1	Rebecca Krug	GC1G	05/16/16 14:47	Load on Instrument
JC20184-4.4	Secured Storage	Xu Liu	05/16/16 13:38	Retrieve from Storage
JC20184-4.4	Xu Liu	Secured Storage	05/16/16 13:54	Return to Storage
JC20184-5.2	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-5.2	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-5.2	Greg Mayer		05/13/16 22:09	Depleted

SGS Accutest Internal Chain of Custody

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 05/13/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC20184-5.2.1	Nicholas Goydish	Organics Prep	05/13/16 14:45	Extract from JC20184-5.2
JC20184-5.2.1	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-5.2
JC20184-5.2.1	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-5.2.1	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-5.2.1	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-5.2.1	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-5.2.1	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage
JC20184-5.3	Secured Storage	Luis Villanueva	05/13/16 14:18	Retrieve from Storage
JC20184-5.3	Luis Villanueva	Secured Staging Area	05/13/16 14:19	Return to Storage
JC20184-5.3	Secured Staging Area	Nicholas Goydish	05/13/16 14:38	Retrieve from Storage
JC20184-5.3	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-5.3	Greg Mayer		05/13/16 22:09	Depleted
JC20184-5.3.1	Nicholas Goydish	Organics Prep	05/13/16 14:46	Extract from JC20184-5.3
JC20184-5.3.1	Organics Prep	Stephen Domke	05/13/16 21:23	Extract from JC20184-5.3
JC20184-5.3.1	Stephen Domke	Extract Storage	05/13/16 21:23	Return to Storage
JC20184-5.3.1	Extract Storage	Rebecca Krug	05/16/16 14:47	Retrieve from Storage
JC20184-5.3.1	Rebecca Krug	GC1G	05/16/16 14:47	Load on Instrument
JC20184-5.6	Secured Storage	Xu Liu	05/16/16 13:38	Retrieve from Storage
JC20184-5.6	Xu Liu	Secured Storage	05/16/16 13:54	Return to Storage
JC20184-6.1	Secured Storage	Nicholas Goydish	05/13/16 14:44	Retrieve from Storage
JC20184-6.1	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-6.1	Greg Mayer		05/13/16 22:09	Depleted
JC20184-6.1.1	Nicholas Goydish	Organics Prep	05/13/16 14:45	Extract from JC20184-6.1
JC20184-6.1.1	Organics Prep	Kyle Sanford	05/13/16 20:11	Extract from JC20184-6.1
JC20184-6.1.1	Kyle Sanford	Extract Storage	05/13/16 20:11	Return to Storage
JC20184-6.1.1	Extract Storage	Ashley Noble	05/14/16 11:51	Retrieve from Storage
JC20184-6.1.1	Ashley Noble	GCMS3E	05/14/16 11:51	Load on Instrument
JC20184-6.1.1	GCMS3E	Ashley Noble	05/16/16 14:16	Unload from Instrument
JC20184-6.1.1	Ashley Noble	Extract Freezer	05/16/16 14:16	Return to Storage
JC20184-6.2	Secured Storage	Luis Villanueva	05/13/16 14:18	Retrieve from Storage
JC20184-6.2	Luis Villanueva	Secured Staging Area	05/13/16 14:19	Return to Storage
JC20184-6.2	Secured Staging Area	Nicholas Goydish	05/13/16 14:38	Retrieve from Storage
JC20184-6.2	Nicholas Goydish	Greg Mayer	05/13/16 15:20	Custody Transfer
JC20184-6.2	Greg Mayer		05/13/16 22:09	Depleted
JC20184-6.2.1	Nicholas Goydish	Organics Prep	05/13/16 14:46	Extract from JC20184-6.2
JC20184-6.2.1	Organics Prep	Stephen Domke	05/13/16 21:23	Extract from JC20184-6.2
JC20184-6.2.1	Stephen Domke	Extract Storage	05/13/16 21:23	Return to Storage

SGS Accutest Internal Chain of Custody

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 05/13/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC20184-6.2.1	Extract Storage	Rebecca Krug	05/16/16 14:47	Retrieve from Storage
JC20184-6.2.1	Rebecca Krug	GC1G	05/16/16 14:47	Load on Instrument
JC20184-6.5	Secured Storage	Xu Liu	05/16/16 13:38	Retrieve from Storage
JC20184-6.5	Xu Liu	Secured Storage	05/16/16 13:54	Return to Storage

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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-MB1	3E83221.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-MB1	3E83221.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-MB1	3E83221.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	38%	14-88%
4165-62-2	Phenol-d5	22%	10-110%
118-79-6	2,4,6-Tribromophenol	74%	39-149%
4165-60-0	Nitrobenzene-d5	62%	32-128%
321-60-8	2-Fluorobiphenyl	66%	35-119%
1718-51-0	Terphenyl-d14	76%	10-126%

Method Blank Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902A-MB1	3M61318.D	1	05/13/16	JJ	05/13/16	OP93902A	E3M2883

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

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
4165-60-0	Nitrobenzene-d5	55%	24-125%
321-60-8	2-Fluorobiphenyl	64%	19-127%
1718-51-0	Terphenyl-d14	82%	10-119%

Blank Spike Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-BS1	3E83222.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	32.6	65	48-106
59-50-7	4-Chloro-3-methyl phenol	50	37.7	75	49-113
120-83-2	2,4-Dichlorophenol	50	45.6	91	49-111
105-67-9	2,4-Dimethylphenol	50	40.0	80	42-117
51-28-5	2,4-Dinitrophenol	100	79.4	79	37-132
534-52-1	4,6-Dinitro-o-cresol	50	39.6	79	49-119
95-48-7	2-Methylphenol	50	30.4	61	42-103
	3&4-Methylphenol	50	29.3	59	39-110
88-75-5	2-Nitrophenol	50	36.9	74	49-114
100-02-7	4-Nitrophenol	50	22.3	45	16-95
87-86-5	Pentachlorophenol	50	29.9	60	30-136
108-95-2	Phenol	50	16.2	32	10-110
58-90-2	2,3,4,6-Tetrachlorophenol	50	41.3	83	47-118
95-95-4	2,4,5-Trichlorophenol	50	40.3	81	55-116
88-06-2	2,4,6-Trichlorophenol	50	45.9	92	56-115
83-32-9	Acenaphthene	50	38.0	76	54-112
208-96-8	Acenaphthylene	50	35.3	71	49-99
98-86-2	Acetophenone	50	33.7	67	52-111
120-12-7	Anthracene	50	34.8	70	58-112
1912-24-9	Atrazine	50	50.5	101	62-134
100-52-7	Benzaldehyde	50	33.8	68	40-129
56-55-3	Benzo(a)anthracene	50	37.1	74	44-120
50-32-8	Benzo(a)pyrene	50	36.1	72	41-127
205-99-2	Benzo(b)fluoranthene	50	39.2	78	41-129
191-24-2	Benzo(g,h,i)perylene	50	39.6	79	34-128
207-08-9	Benzo(k)fluoranthene	50	41.5	83	42-122
101-55-3	4-Bromophenyl phenyl ether	50	45.6	91	54-121
85-68-7	Butyl benzyl phthalate	50	32.8	66	20-143
92-52-4	1,1'-Biphenyl	50	39.2	78	51-106
91-58-7	2-Chloronaphthalene	50	39.3	79	48-104
106-47-8	4-Chloroaniline	50	22.8	46	10-110
86-74-8	Carbazole	50	37.7	75	56-110
105-60-2	Caprolactam	50	10.6	21	10-110
218-01-9	Chrysene	50	37.8	76	45-125
111-91-1	bis(2-Chloroethoxy)methane	50	36.1	72	47-117
111-44-4	bis(2-Chloroethyl)ether	50	34.1	68	48-115

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-BS1	3E83222.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-60-1	bis(2-Chloroisopropyl)ether	50	31.4	63	44-112
7005-72-3	4-Chlorophenyl phenyl ether	50	45.4	91	50-117
121-14-2	2,4-Dinitrotoluene	50	40.8	82	57-122
606-20-2	2,6-Dinitrotoluene	50	41.0	82	58-122
91-94-1	3,3'-Dichlorobenzidine	100	42.6	43	10-110
123-91-1	1,4-Dioxane	50	21.4	43	10-110
53-70-3	Dibenzo(a,h)anthracene	50	41.1	82	36-130
132-64-9	Dibenzofuran	50	40.6	81	55-108
84-74-2	Di-n-butyl phthalate	50	37.3	75	45-123
117-84-0	Di-n-octyl phthalate	50	31.7	63	37-144
84-66-2	Diethyl phthalate	50	40.2	80	23-130
131-11-3	Dimethyl phthalate	50	40.7	81	10-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	31.9	64	36-138
206-44-0	Fluoranthene	50	41.5	83	58-116
86-73-7	Fluorene	50	39.6	79	57-113
118-74-1	Hexachlorobenzene	50	44.2	88	49-122
87-68-3	Hexachlorobutadiene	50	44.7	89	24-112
77-47-4	Hexachlorocyclopentadiene	100	43.7	44	14-119
67-72-1	Hexachloroethane	50	38.2	76	31-107
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.6	79	34-128
78-59-1	Isophorone	50	37.9	76	52-119
90-12-0	1-Methylnaphthalene	50	39.8	80	46-103
91-57-6	2-Methylnaphthalene	50	40.8	82	45-107
88-74-4	2-Nitroaniline	50	36.6	73	51-127
99-09-2	3-Nitroaniline	50	24.2	48	10-110
100-01-6	4-Nitroaniline	50	37.5	75	50-112
98-95-3	Nitrobenzene	50	38.1	76	44-116
621-64-7	N-Nitroso-di-n-propylamine	50	31.2	62	49-117
86-30-6	N-Nitrosodiphenylamine	50	35.8	72	51-113
85-01-8	Phenanthrene	50	37.2	74	56-111
129-00-0	Pyrene	50	38.8	78	47-120
95-94-3	1,2,4,5-Tetrachlorobenzene	50	51.9	104	36-114

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-BS1	3E83222.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	47%	14-88%
4165-62-2	Phenol-d5	32%	10-110%
118-79-6	2,4,6-Tribromophenol	90%	39-149%
4165-60-0	Nitrobenzene-d5	77%	32-128%
321-60-8	2-Fluorobiphenyl	83%	35-119%
1718-51-0	Terphenyl-d14	80%	10-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902A-BS12	3M61319.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-20-3	Naphthalene	1	0.610	61	40-119
123-91-1	1,4-Dioxane	1	0.349	35	20-160

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	63%	24-125%
321-60-8	2-Fluorobiphenyl	67%	19-127%
1718-51-0	Terphenyl-d14	79%	10-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-MS	3E83235.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
OP93902-MSD	3E83236.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
JC20184-3	3E83231.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	JC20184-3 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		55.6	32.4	58	55.6	34.2	62	5	49-110/20
59-50-7	4-Chloro-3-methyl phenol	ND		55.6	39.3	71	55.6	36.7	66	7	44-121/18
120-83-2	2,4-Dichlorophenol	ND		55.6	45.8	82	55.6	43.8	79	4	42-120/19
105-67-9	2,4-Dimethylphenol	ND		55.6	41.1	74	55.6	40.6	73	1	33-132/23
51-28-5	2,4-Dinitrophenol	ND		111	94.8	85	111	84.9	76	11	21-145/26
534-52-1	4,6-Dinitro-o-cresol	ND		55.6	41.1	74	55.6	38.5	69	7	25-134/27
95-48-7	2-Methylphenol	ND		55.6	30.7	55	55.6	31.4	57	2	47-112/18
	3&4-Methylphenol	ND		55.6	30.3	55	55.6	29.7	53	2	44-113/19
88-75-5	2-Nitrophenol	ND		55.6	34.4	62	55.6	35.7	64	4	45-118/20
100-02-7	4-Nitrophenol	ND		55.6	28.4	51	55.6	27.3	49	4	23-144/28
87-86-5	Pentachlorophenol	ND		55.6	39.5	71	55.6	33.5	60	16	25-151/25
108-95-2	Phenol	ND		55.6	17.4	31	55.6	17.1	31	2	22-100/22
58-90-2	2,3,4,6-Tetrachlorophenol	ND		55.6	46.7	84	55.6	41.5	75	12	44-122/21
95-95-4	2,4,5-Trichlorophenol	ND		55.6	41.6	75	55.6	38.9	70	7	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND		55.6	47.8	86	55.6	43.4	78	10	53-120/21
83-32-9	Acenaphthene	ND		55.6	38.3	69	55.6	38.5	69	1	52-120/23
208-96-8	Acenaphthylene	ND		55.6	35.2	63	55.6	35.3	64	0	50-101/22
98-86-2	Acetophenone	ND		55.6	32.5	59	55.6	34.5	62	6	31-141/23
120-12-7	Anthracene	ND		55.6	36.3	65	55.6	34.4	62	5	54-117/22
1912-24-9	Atrazine	ND		55.6	50.7	91	55.6	49.0	88	3	42-152/23
100-52-7	Benzaldehyde	ND		55.6	33.1	60	55.6	35.6	64	7	10-164/30
56-55-3	Benzo(a)anthracene	ND		55.6	39.1	70	55.6	34.7	62	12	40-123/24
50-32-8	Benzo(a)pyrene	ND		55.6	36.1	65	55.6	32.1	58	12	41-127/25
205-99-2	Benzo(b)fluoranthene	ND		55.6	40.2	72	55.6	36.0	65	11	39-127/27
191-24-2	Benzo(g,h,i)perylene	ND		55.6	39.5	71	55.6	35.1	63	12	34-128/28
207-08-9	Benzo(k)fluoranthene	ND		55.6	40.9	74	55.6	35.8	64	13	39-122/26
101-55-3	4-Bromophenyl phenyl ether	ND		55.6	46.4	84	55.6	44.4	80	4	51-124/23
85-68-7	Butyl benzyl phthalate	ND		55.6	33.2	60	55.6	31.0	56	7	21-146/28
92-52-4	1,1'-Biphenyl	ND		55.6	38.2	69	55.6	38.7	70	1	27-142/23
91-58-7	2-Chloronaphthalene	ND		55.6	38.1	69	55.6	39.1	70	3	51-109/23
106-47-8	4-Chloroaniline	ND		55.6	30.3	55	55.6	30.9	56	2	10-110/55
86-74-8	Carbazole	ND		55.6	39.9	72	55.6	37.2	67	7	52-116/22
105-60-2	Caprolactam	ND		55.6	12.1	22	55.6	11.9	21	2	10-106/34
218-01-9	Chrysene	ND		55.6	38.2	69	55.6	35.7	64	7	41-128/24
111-91-1	bis(2-Chloroethoxy)methane	ND		55.6	33.2	60	55.6	36.0	65	8	46-120/24
111-44-4	bis(2-Chloroethyl)ether	ND		55.6	31.6	57	55.6	36.7	66	15	42-123/28

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-MS	3E83235.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
OP93902-MSD	3E83236.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
JC20184-3	3E83231.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	JC20184-3 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		55.6	30.1	54	55.6	31.4	57	4	41-117/25
7005-72-3	4-Chlorophenyl phenyl ether	ND		55.6	46.7	84	55.6	44.1	79	6	48-121/21
121-14-2	2,4-Dinitrotoluene	ND		55.6	41.7	75	55.6	38.9	70	7	54-123/27
606-20-2	2,6-Dinitrotoluene	ND		55.6	41.7	75	55.6	39.5	71	5	55-125/26
91-94-1	3,3'-Dichlorobenzidine	ND		111	60.1	54	111	57.6	52	4	10-107/47
123-91-1	1,4-Dioxane	27.2		55.6	55.5	51	55.6	56.7	53	2	10-119/31
53-70-3	Dibenzo(a,h)anthracene	ND		55.6	41.1	74	55.6	36.3	65	12	35-130/27
132-64-9	Dibenzofuran	ND		55.6	40.7	73	55.6	39.8	72	2	53-112/22
84-74-2	Di-n-butyl phthalate	ND		55.6	39.7	71	55.6	36.1	65	9	38-129/23
117-84-0	Di-n-octyl phthalate	ND		55.6	31.8	57	55.6	28.9	52	10	35-145/26
84-66-2	Diethyl phthalate	ND		55.6	42.0	76	55.6	40.1	72	5	16-136/30
131-11-3	Dimethyl phthalate	ND		55.6	42.8	77	55.6	40.0	72	7	10-143/39
117-81-7	bis(2-Ethylhexyl)phthalate	ND		55.6	32.9	59	55.6	30.7	55	7	34-141/28
206-44-0	Fluoranthene	ND		55.6	44.1	79	55.6	40.8	73	8	47-123/24
86-73-7	Fluorene	ND		55.6	40.2	72	55.6	38.5	69	4	56-117/22
118-74-1	Hexachlorobenzene	ND		55.6	45.5	82	55.6	43.2	78	5	46-125/24
87-68-3	Hexachlorobutadiene	ND		55.6	41.9	75	55.6	45.8	82	9	26-121/24
77-47-4	Hexachlorocyclopentadiene	ND		111	41.7	38	111	46.3	42	10	10-133/31
67-72-1	Hexachloroethane	ND		55.6	38.0	68	55.6	40.7	73	7	35-111/26
193-39-5	Indeno(1,2,3-cd)pyrene	ND		55.6	39.5	71	55.6	33.5	60	16	32-130/30
78-59-1	Isophorone	ND		55.6	34.7	62	55.6	38.0	68	9	47-126/23
90-12-0	1-Methylnaphthalene	ND		55.6	37.7	68	55.6	40.8	73	8	34-124/25
91-57-6	2-Methylnaphthalene	ND		55.6	37.9	68	55.6	39.7	71	5	34-123/24
88-74-4	2-Nitroaniline	ND		55.6	38.6	69	55.6	36.7	66	5	46-137/23
99-09-2	3-Nitroaniline	ND		55.6	32.8	59	55.6	31.1	56	5	10-110/50
100-01-6	4-Nitroaniline	ND		55.6	40.0	72	55.6	35.1	63	13	38-118/25
98-95-3	Nitrobenzene	ND		55.6	34.4	62	55.6	38.1	69	10	35-130/25
621-64-7	N-Nitroso-di-n-propylamine	ND		55.6	29.4	53	55.6	30.1	54	2	45-123/22
86-30-6	N-Nitrosodiphenylamine	ND		55.6	36.9	66	55.6	34.7	62	6	46-123/24
85-01-8	Phenanthrene	ND		55.6	38.4	69	55.6	35.8	64	7	48-121/23
129-00-0	Pyrene	ND		55.6	40.4	73	55.6	37.0	67	9	43-124/26
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		55.6	50.1	90	55.6	50.9	92	2	25-142/24

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902-MS	3E83235.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
OP93902-MSD	3E83236.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649
JC20184-3	3E83231.D	1	05/14/16	AN	05/13/16	OP93902	E3E3649

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Surrogate Recoveries	MS	MSD	JC20184-3	Limits
367-12-4	2-Fluorophenol	43%	47%	33%	14-88%
4165-62-2	Phenol-d5	31%	32%	22%	10-110%
118-79-6	2,4,6-Tribromophenol	83%	76%	70%	39-149%
4165-60-0	Nitrobenzene-d5	64%	71%	55%	32-128%
321-60-8	2-Fluorobiphenyl	75%	75%	63%	35-119%
1718-51-0	Terphenyl-d14	74%	68%	61%	10-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93902A-MS	3M61320.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883
OP93902A-MSD	3M61321.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883
JC20184-3	3M61324.D	1	05/14/16	JJ	05/13/16	OP93902A	E3M2883

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

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	JC20184-3 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	ND		2.08	1.41	68	2.08	1.22	59	14	23-140/36
123-91-1	1,4-Dioxane	26.1	E	2.08	7.37	0* [a]	2.08	7.40	0* [a]	0	20-160/30

CAS No.	Surrogate Recoveries	MS	MSD	JC20184-3	Limits
4165-60-0	Nitrobenzene-d5	68%	59%	54%	24-125%
321-60-8	2-Fluorobiphenyl	71%	65%	66%	19-127%
1718-51-0	Terphenyl-d14	92%	86%	74%	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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3621-DFTPP
Lab File ID: 3E82668.D
Instrument ID: GCMS3E
Injection Date: 04/26/16
Injection Time: 13:15

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	36856	41.3		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	41596	46.6		Pass
70	Less than 2.0% of mass 69	473	0.53	(1.14) [a]	Pass
127	40.0 - 60.0% of mass 198	53290	59.7		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	89282	100.0		Pass
199	5.0 - 9.0% of mass 198	6277	7.03		Pass
275	10.0 - 30.0% of mass 198	24445	27.4		Pass
365	1.0 - 100.0% of mass 198	3823	4.28		Pass
441	Present, but less than mass 443	11945	13.4	(81.7) [b]	Pass
442	40.0 - 100.0% of mass 198	75784	84.9		Pass
443	17.0 - 23.0% of mass 442	14615	16.4	(19.3) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E3621-IC3621	3E82669.D	04/26/16	13:34	00:19	Initial cal 100
E3E3621-IC3621	3E82670.D	04/26/16	14:00	00:45	Initial cal 80
E3E3621-ICC3621	3E82671.D	04/26/16	14:26	01:11	Initial cal 50
E3E3621-IC3621	3E82672.D	04/26/16	14:52	01:37	Initial cal 25
E3E3621-IC3621	3E82673.D	04/26/16	15:19	02:04	Initial cal 10
E3E3621-IC3621	3E82674.D	04/26/16	15:45	02:30	Initial cal 5
E3E3621-IC3621	3E82675.D	04/26/16	16:11	02:56	Initial cal 2
E3E3621-IC3621	3E82676.D	04/26/16	16:37	03:22	Initial cal 1
E3E3621-ICV3620	3E82677.D	04/26/16	17:03	03:48	Initial cal verification 50
E3E3621-ICV3620	3E82678.D	04/26/16	17:30	04:15	Initial cal verification 50
E3E3621-ICV3620	3E82679.D	04/26/16	17:56	04:41	Initial cal verification 50
E3E3621-ICV3620	3E82680.D	04/26/16	18:22	05:07	Initial cal verification 50
E3E3621-ICV3621	3E82680A.D	04/26/16	18:22	05:07	Initial cal verification 50
E3E3621-ICV3621	3E82681A.D	04/26/16	18:48	05:33	Initial cal verification 50
E3E3621-ICV3620	3E82681.D	04/26/16	18:48	05:33	Initial cal verification 50
E3E3621-ICV3621	3E82683.D	04/26/16	19:40	06:25	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3622-DFTPP
Lab File ID: 3E82684.D
Instrument ID: GCMS3E
Injection Date: 04/27/16
Injection Time: 09:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	35061	37.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	40730	43.7		Pass
70	Less than 2.0% of mass 69	367	0.39	(0.90) [a]	Pass
127	40.0 - 60.0% of mass 198	55168	59.1		Pass
197	Less than 1.0% of mass 198	108	0.12		Pass
198	Base peak, 100% relative abundance	93304	100.0		Pass
199	5.0 - 9.0% of mass 198	6394	6.85		Pass
275	10.0 - 30.0% of mass 198	24591	26.4		Pass
365	1.0 - 100.0% of mass 198	3692	3.96		Pass
441	Present, but less than mass 443	8486	9.10	(76.4) [b]	Pass
442	40.0 - 100.0% of mass 198	56685	60.8		Pass
443	17.0 - 23.0% of mass 442	11103	11.9	(19.6) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E3622-ICV3621	3E82685A.D	04/27/16	11:46	02:07	Initial cal verification 50
E3E3622-ICV3620	3E82685.D	04/27/16	11:46	02:07	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3623-DFTPP
Lab File ID: 3E82694.D
Instrument ID: GCMS3E
Injection Date: 04/27/16
Injection Time: 15:21

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	53138	49.8		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	52572	49.3		Pass
70	Less than 2.0% of mass 69	250	0.23	(0.48) [a]	Pass
127	40.0 - 60.0% of mass 198	57610	54.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	106714	100.0		Pass
199	5.0 - 9.0% of mass 198	6685	6.26		Pass
275	10.0 - 30.0% of mass 198	29152	27.3		Pass
365	1.0 - 100.0% of mass 198	4414	4.14		Pass
441	Present, but less than mass 443	15379	14.4	(85.2) [b]	Pass
442	40.0 - 100.0% of mass 198	92170	86.4		Pass
443	17.0 - 23.0% of mass 442	18045	16.9	(19.6) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E3623-IC3623	3E82702.D	04/27/16	16:10	00:49	Initial cal 2
E3E3623-IC3623	3E82696.D	04/27/16	16:35	01:14	Initial cal 100
E3E3623-ICC3623	3E82697.D	04/27/16	17:01	01:40	Initial cal 50
E3E3623-IC3623	3E82698.D	04/27/16	17:27	02:06	Initial cal 80
E3E3623-IC3623	3E82699.D	04/27/16	17:53	02:32	Initial cal 25
E3E3623-IC3623	3E82700.D	04/27/16	18:18	02:57	Initial cal 10
E3E3623-IC3623	3E82701.D	04/27/16	18:44	03:23	Initial cal 5
E3E3623-IC3623	3E82703.D	04/27/16	19:10	03:49	Initial cal 1
E3E3623-ICV3623	3E82704.D	04/27/16	19:36	04:15	Initial cal verification 50
E3E3623-ICV3623	3E82705.D	04/27/16	20:01	04:40	Initial cal verification 50
E3E3623-ICV3623	3E82706.D	04/27/16	20:27	05:06	Initial cal verification 50
E3E3623-ICV3623	3E82707.D	04/27/16	20:53	05:32	Initial cal verification 50
E3E3623-ICV3623	3E82708.D	04/27/16	21:18	05:57	Initial cal verification 50
E3E3623-ICV3623	3E82709.D	04/27/16	21:44	06:23	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3649-DFTPP
Lab File ID: 3E83217.D
Instrument ID: GCMS3E
Injection Date: 05/14/16
Injection Time: 09:21

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	119840	51.3		Pass
68	Less than 2.0% of mass 69	632	0.27	(0.60) [a]	Pass
69	Mass 69 relative abundance	105901	45.3		Pass
70	Less than 2.0% of mass 69	555	0.24	(0.52) [a]	Pass
127	40.0 - 60.0% of mass 198	129218	55.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	233810	100.0		Pass
199	5.0 - 9.0% of mass 198	15366	6.57		Pass
275	10.0 - 30.0% of mass 198	66890	28.6		Pass
365	1.0 - 100.0% of mass 198	11625	4.97		Pass
441	Present, but less than mass 443	17557	7.51	(75.6) [b]	Pass
442	40.0 - 100.0% of mass 198	122320	52.3		Pass
443	17.0 - 23.0% of mass 442	23230	9.94	(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
E3E3649-CC3623	3E83218.D	05/14/16	09:38	00:17	Continuing cal 25
E3E3649-CC3621	3E83219.D	05/14/16	10:12	00:51	Continuing cal 25
OP93902-MB1	3E83221.D	05/14/16	11:04	01:43	Method Blank
OP93902-BS1	3E83222.D	05/14/16	11:31	02:10	Blank Spike
OP93878-MB1	3E83223.D	05/14/16	11:57	02:36	Method Blank
OP93878-BS1	3E83224.D	05/14/16	12:23	03:02	Blank Spike
ZZZZZZ	3E83225.D	05/14/16	12:50	03:29	(unrelated sample)
ZZZZZZ	3E83226.D	05/14/16	13:16	03:55	(unrelated sample)
ZZZZZZ	3E83227.D	05/14/16	13:43	04:22	(unrelated sample)
ZZZZZZ	3E83228.D	05/14/16	14:09	04:48	(unrelated sample)
JC20184-1	3E83229.D	05/14/16	14:36	05:15	RA20-GWD
JC20184-2	3E83230.D	05/14/16	15:02	05:41	S-40D
JC20184-3	3E83231.D	05/14/16	15:29	06:08	S-39D
JC20184-4	3E83232.D	05/14/16	15:55	06:34	MW-20S
JC20184-5	3E83233.D	05/14/16	16:22	07:01	MW-20D
JC20184-6	3E83234.D	05/14/16	16:49	07:28	S40S
OP93902-MS	3E83235.D	05/14/16	17:15	07:54	Matrix Spike
OP93902-MSD	3E83236.D	05/14/16	17:42	08:21	Matrix Spike Duplicate
JC19954-1	3E83237.D	05/14/16	18:08	08:47	(used for QC only; not part of job JC20184)

Instrument Performance Check (DFTPP)

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3649-DFTPP
Lab File ID: 3E83217.D
Instrument ID: GCMS3E
Injection Date: 05/14/16
Injection Time: 09:21

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3E83241.D	05/14/16	19:54	10:33	(unrelated sample)
OP93878-MS	3E83249.D	05/14/16	23:25	14:04	Matrix Spike
OP93878-MSD	3E83250.D	05/14/16	23:51	14:30	Matrix Spike Duplicate
JC20102-1	3E83252.D	05/15/16	00:43	15:22	(used for QC only; not part of job JC20184)
ZZZZZZ	3E83253.D	05/15/16	01:10	15:49	(unrelated sample)
ZZZZZZ	3E83254.D	05/15/16	01:36	16:15	(unrelated sample)
ZZZZZZ	3E83255.D	05/15/16	02:02	16:41	(unrelated sample)
ZZZZZZ	3E83256.D	05/15/16	02:28	17:07	(unrelated sample)
ZZZZZZ	3E83257.D	05/15/16	02:54	17:33	(unrelated sample)
ZZZZZZ	3E83258.D	05/15/16	03:20	17:59	(unrelated sample)
ZZZZZZ	3E83259.D	05/15/16	03:46	18:25	(unrelated sample)
ZZZZZZ	3E83260.D	05/15/16	04:12	18:51	(unrelated sample)
ZZZZZZ	3E83261.D	05/15/16	04:38	19:17	(unrelated sample)
ZZZZZZ	3E83262.D	05/15/16	05:03	19:42	(unrelated sample)
ZZZZZZ	3E83263.D	05/15/16	05:29	20:08	(unrelated sample)
ZZZZZZ	3E83264.D	05/15/16	05:55	20:34	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3650-DFTPP
Lab File ID: 3E83273.D
Instrument ID: GCMS3E
Injection Date: 05/16/16
Injection Time: 10:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	118369	44.1		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	121399	45.2		Pass
70	Less than 2.0% of mass 69	99	0.04	(0.08) [a]	Pass
127	40.0 - 60.0% of mass 198	144596	53.8		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	268565	100.0		Pass
199	5.0 - 9.0% of mass 198	18737	6.98		Pass
275	10.0 - 30.0% of mass 198	67370	25.1		Pass
365	1.0 - 100.0% of mass 198	9880	3.68		Pass
441	Present, but less than mass 443	24123	8.98	(75.9) [b]	Pass
442	40.0 - 100.0% of mass 198	171168	63.7		Pass
443	17.0 - 23.0% of mass 442	31789	11.8	(18.6) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E3650-CC3623	3E83274.D	05/16/16	11:02	00:14	Continuing cal 50
JC20184-1	3E83278.D	05/16/16	12:22	01:34	RA20-GWD
ZZZZZZ	3E83279.D	05/16/16	12:47	01:59	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3M2855-DFTPP
Lab File ID: 3M60762.D
Instrument ID: GCMS3M
Injection Date: 04/21/16
Injection Time: 13:31

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	238296	36.2		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	313116	47.6		Pass
70	Less than 2.0% of mass 69	3204	0.49	(1.02) [a]	Pass
127	40.0 - 60.0% of mass 198	329840	50.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	657712	100.0		Pass
199	5.0 - 9.0% of mass 198	45100	6.86		Pass
275	10.0 - 30.0% of mass 198	145467	22.1		Pass
365	1.0 - 100.0% of mass 198	14264	2.17		Pass
441	Present, but less than mass 443	68134	10.4	(81.8) [b]	Pass
442	40.0 - 100.0% of mass 198	425304	64.7		Pass
443	17.0 - 23.0% of mass 442	83298	12.7	(19.6) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3M2855-ICC2855	3M60763A.D	04/21/16	14:34	01:03	Initial cal 1
E3M2855-IC2855	3M60764A.D	04/21/16	15:07	01:36	Initial cal 0.5
E3M2855-IC2855	3M60765A.D	04/21/16	15:39	02:08	Initial cal 0.2
E3M2855-IC2855	3M60766.D	04/21/16	16:12	02:41	Initial cal 0.1
E3M2855-IC2855	3M60767.D	04/21/16	16:44	03:13	Initial cal 0.05
E3M2855-IC2855	3M60768.D	04/21/16	17:17	03:46	Initial cal 0.02
E3M2855-IC2855	3M60769.D	04/21/16	17:49	04:18	Initial cal 0.01
E3M2855-IC2855	3M60770.D	04/21/16	18:22	04:51	Initial cal 5.0
E3M2855-IC2855	3M60771.D	04/21/16	18:55	05:24	Initial cal 2.5
E3M2855-ICV2855	3M60772.D	04/21/16	19:27	05:56	Initial cal verification 1.0
E3M2855-ICV2855	3M60773.D	04/21/16	20:00	06:29	Initial cal verification 1.0
E3M2855-ICV2855	3M60774.D	04/21/16	20:35	07:04	Initial cal verification 1.0

Instrument Performance Check (DFTPP)

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3M2883-DFTPP
Lab File ID: 3M61316.D
Instrument ID: GCMS3M
Injection Date: 05/13/16
Injection Time: 22:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	375497	36.9		Pass
68	Less than 2.0% of mass 69	555	0.05	(0.11) [a]	Pass
69	Mass 69 relative abundance	491252	48.3		Pass
70	Less than 2.0% of mass 69	2350	0.23	(0.48) [a]	Pass
127	40.0 - 60.0% of mass 198	515029	50.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	1018027	100.0		Pass
199	5.0 - 9.0% of mass 198	68715	6.75		Pass
275	10.0 - 30.0% of mass 198	253099	24.9		Pass
365	1.0 - 100.0% of mass 198	30899	3.04		Pass
441	Present, but less than mass 443	150053	14.7	(87.3) [b]	Pass
442	40.0 - 100.0% of mass 198	880469	86.5		Pass
443	17.0 - 23.0% of mass 442	171899	16.9	(19.5) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3M2883-CC2855	3M61317.D	05/13/16	23:03	00:25	Continuing cal 0.5
OP93902A-MB1	3M61318.D	05/13/16	23:37	00:59	Method Blank
OP93902A-BS12	3M61319.D	05/14/16	00:10	01:32	Blank Spike
OP93902A-MS	3M61320.D	05/14/16	00:43	02:05	Matrix Spike
OP93902A-MSD	3M61321.D	05/14/16	01:15	02:37	Matrix Spike Duplicate
JC20184-1	3M61322.D	05/14/16	01:48	03:10	RA20-GWD
JC20184-2	3M61323.D	05/14/16	02:20	03:42	S-40D
JC20184-3	3M61324.D	05/14/16	02:53	04:15	S-39D
JC20184-4	3M61325.D	05/14/16	03:25	04:47	MW-20S
JC20184-5	3M61326.D	05/14/16	03:57	05:19	MW-20D
JC20184-6	3M61327.D	05/14/16	04:29	05:51	S40S

Semivolatile Internal Standard Area Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E3E3649-CC3623	**Injection Date:**	05/14/16
Lab File ID:	3E83218.D	**Injection Time:**	09:38
Instrument ID:	GCMS3E	**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	177828	4.37	634768	5.40	405128	7.38	718047	9.52	776322	13.69	624652	15.80
Upper Limit [a]	355656	4.87	1269536	5.90	810256	7.88	1436094	10.02	1552644	14.19	1249304	16.30
Lower Limit [b]	88914	3.87	317384	4.90	202564	6.88	359024	9.02	388161	13.19	312326	15.30

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
OP93902-MB1	161941	4.37	608534	5.40	411495	7.38	731064	9.52	823611	13.68	758293	15.80
OP93902-BS1	148830	4.37	530491	5.40	336399	7.38	595749	9.52	695563	13.69	544846	15.80
OP93878-MB1	151501	4.37	572134	5.40	377375	7.38	687716	9.52	760519	13.68	714077	15.80
OP93878-BS1	145605	4.37	514746	5.40	317625	7.38	560654	9.52	642675	13.69	498884	15.80
ZZZZZZ	133656	4.37	492766	5.40	327762	7.38	610048	9.52	678977	13.68	627432	15.79
ZZZZZZ	134726	4.37	496281	5.40	333775	7.38	615640	9.52	688770	13.68	645450	15.80
ZZZZZZ	140413	4.37	523127	5.40	337407	7.38	639595	9.52	704479	13.68	670480	15.80
ZZZZZZ	144274	4.37	530748	5.40	354115	7.38	631326	9.52	707788	13.68	673422	15.79
JC20184-1	146456	4.37	547189	5.40	360377	7.38	652278	9.52	749139	13.68	697777	15.79
JC20184-2	144250	4.37	539408	5.40	351168	7.38	642788	9.52	726372	13.68	680966	15.79
JC20184-3	155521	4.37	571934	5.40	377453	7.38	689459	9.52	790989	13.68	754462	15.80
JC20184-4	143529	4.37	519349	5.40	344543	7.38	627247	9.52	692331	13.68	652727	15.79
JC20184-5	143426	4.37	520418	5.40	339953	7.38	619794	9.52	688747	13.68	646507	15.79
JC20184-6	153469	4.37	579913	5.40	378702	7.38	681443	9.52	761674	13.68	685576	15.79
OP93902-MS	126586	4.37	457213	5.40	285848	7.38	515022	9.52	611492	13.68	494335	15.80
OP93902-MSD	128548	4.37	463809	5.40	289712	7.38	517313	9.52	614521	13.68	510733	15.79
JC19954-1	122591	4.37	447967	5.40	241731	7.38	355437*	9.53	249327*	13.71	230967*	15.83
ZZZZZZ	107369	4.37	417211	5.40	273486	7.38	499191	9.53	490817	13.69	371367	15.80
OP93878-MS	107091	4.38	343393	5.41	174611*	7.39	272876*	9.54	286436*	13.71	283944*	15.82
OP93878-MSD	111794	4.38	349256	5.41	177836*	7.39	272327*	9.54	272237*	13.71	254655*	15.82
JC20102-1	104952	4.37	337441	5.41	178800*	7.39	286997*	9.54	304328*	13.71	303558*	15.82
ZZZZZZ	96816	4.37	356393	5.40	234124	7.39	412640	9.54	330693*	13.71	318538	15.82
ZZZZZZ	92820	4.37	335603	5.40	230869	7.39	423523	9.54	381190*	13.71	322138	15.81
ZZZZZZ	109954	4.37	394933	5.40	265362	7.39	490672	9.53	439355	13.71	361596	15.81
ZZZZZZ	112401	4.37	389299	5.40	248981	7.39	468972	9.53	453757	13.70	366495	15.81
ZZZZZZ	105600	4.37	376315	5.40	248147	7.39	443162	9.53	395167	13.70	350915	15.81
ZZZZZZ	97695	4.37	349004	5.40	217471	7.39	383084	9.53	356969*	13.70	342485	15.81
ZZZZZZ	109699	4.37	389002	5.40	236367	7.39	405518	9.53	385497*	13.70	372987	15.81
ZZZZZZ	108051	4.37	379810	5.40	256786	7.39	465441	9.53	495851	13.70	373259	15.81
ZZZZZZ	109806	4.37	388424	5.40	267468	7.39	486797	9.53	523771	13.70	393930	15.81
ZZZZZZ	110840	4.37	403320	5.40	267464	7.39	505714	9.53	485809	13.70	359666	15.81
ZZZZZZ	118921	4.37	421044	5.40	280028	7.39	518407	9.53	546119	13.70	426987	15.81
ZZZZZZ	109251	4.37	396976	5.40	255053	7.39	424848	9.53	422339	13.70	376334	15.81

IS 1 = 1,4-Dichlorobenzene-d4

Semivolatile Internal Standard Area Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E3E3649-CC3623	**Injection Date:**	05/14/16
Lab File ID:	3E83218.D	**Injection Time:**	09:38
Instrument ID:	GCMS3E	**Method:**	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E3E3650-CC3623	**Injection Date:**	05/16/16
Lab File ID:	3E83274.D	**Injection Time:**	11:02
Instrument ID:	GCMS3E	**Method:**	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	208829	4.46	747076	5.51	462182	7.52	810292	9.68	731741	13.85	578243	15.97
Upper Limit [a]	417658	4.96	1494152	6.01	924364	8.02	1620584	10.18	1463482	14.35	1156486	16.47
Lower Limit [b]	104415	3.96	373538	5.01	231091	7.02	405146	9.18	365871	13.35	289122	15.47

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
JC20184-1	186684	4.46	730797	5.51	502139	7.51	921093	9.67	1036915	13.85	790931	15.96
ZZZZZZ	185974	4.46	662724	5.51	374703	7.51	656488	9.67	764592	13.84	605412	15.96

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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E3M2883-CC2855	**Injection Date:**	05/13/16
Lab File ID:	3M61317.D	**Injection Time:**	23:03
Instrument ID:	GCMS3M	**Method:**	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	496931	10.41	774794	13.41	1268988	17.62	1070216	22.23
Upper Limit [a]	993862	10.91	1549588	13.91	2537976	18.12	2140432	22.73
Lower Limit [b]	248466	9.91	387397	12.91	634494	17.12	535108	21.73

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
OP93902A-MB1	418183	10.41	563301	13.41	892450	17.62	727434	22.23
OP93902A-BS12	441183	10.41	624896	13.41	926622	17.62	748344	22.23
OP93902A-MS	420710	10.41	599937	13.41	891766	17.62	691880	22.23
OP93902A-MSD	405661	10.41	570881	13.41	830620	17.62	702123	22.23
JC20184-1	620689	10.41	873194	13.41	1318170	17.62	1066128	22.23
JC20184-2	522847	10.41	716989	13.41	1115312	17.62	874957	22.23
JC20184-3	422584	10.41	588397	13.41	916188	17.62	744477	22.23
JC20184-4	402056	10.41	544094	13.41	888559	17.62	697314	22.23
JC20184-5	585143	10.41	800415	13.41	1244738	17.62	990983	22.23
JC20184-6	419884	10.41	578625	13.41	908396	17.62	731818	22.23

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: JC20184
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
JC20184-1	3E83278.D	53	51	82	80	88	95
JC20184-1	3E83229.D	40	27	80	65	72	72
JC20184-2	3E83230.D	38	25	75	68	73	77
JC20184-3	3E83231.D	33	22	70	55	63	61
JC20184-4	3E83232.D	42	25	82	70	76	85
JC20184-5	3E83233.D	36	25	77	67	73	76
JC20184-6	3E83234.D	37	22	72	58	64	68
OP93902-BS1	3E83222.D	47	32	90	77	83	80
OP93902-MB1	3E83221.D	38	22	74	62	66	76
OP93902-MS	3E83235.D	43	31	83	64	75	74
OP93902-MSD	3E83236.D	47	32	76	71	75	68

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%

Semivolatile Surrogate Recovery Summary

Job Number: JC20184
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
JC20184-1	3M61322.D	69	62	76
JC20184-2	3M61323.D	66	67	81
JC20184-3	3M61324.D	54	66	74
JC20184-4	3M61325.D	64	72	87
JC20184-5	3M61326.D	66	66	78
JC20184-6	3M61327.D	57	63	76
OP93902A-BS12	3M61319.D	63	67	79
OP93902A-MB1	3M61318.D	55	64	82
OP93902A-MS	3M61320.D	68	71	92
OP93902A-MSD	3M61321.D	59	65	86

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

Initial Calibration Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3621-ICC3621
Lab FileID: 3E82671.D

```
                          Response Factor Report  MS3E

  Method       : C:\msdchem\1\METHODS\M3E3621.M (RTE Integrator)
  Title        : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:56:37 2016
  Last Update  : Thu Apr 28 10:56:37 2016
  Response via : Initial Calibration

  Calibration Files
  2   =3E82675.D  5   =3E82674.D  25  =3E82672.D  80  =3E82670.D
  100 =3E82669.D  50  =3E82671.D  1   =3E82676.D  10  =3E82673.D

   Compound         2     5     25    80    100   50    1     10    Avg %RSD
  ---------------------------------------------------------------------------
102)     1,4-Dichlorobenzene-d ----------------ISTD---------------------
103) Benzaldehyde 1.189 1.194 1.075 0.797       1.013 1.227 1.094 1.084  13.62

104)     Acenaphthene-d10a     ----------------ISTD---------------------
105) 1,2,4,5-Tetr 0.509 0.535 0.473 0.487 0.487 0.482 0.518 0.470 0.495   4.65

106)     Phenanthrene-d10a     ----------------ISTD---------------------
107) Atrazine     0.106 0.110 0.100 0.100 0.097 0.101 0.104 0.097 0.102   4.23
108) o-Terphenyl  0.554 0.543 0.493 0.499 0.485 0.493 0.561 0.494 0.515   6.12
109) 1-Chloroocta 0.335 0.349 0.323 0.321 0.313 0.327 0.352 0.315 0.329   4.49

110) I   Chrysene-d12a         ----------------ISTD---------------------
111) benzidine    0.554 0.648 0.499 0.340       0.432 0.427 0.547 0.492  20.64

112) I   Naphthalene-d8a       ----------------ISTD---------------------
113) Hydroquinone       0.220 0.294 0.296 0.281 0.304       0.255 0.275  11.61

114)     Chrysene-d12b         ----------------ISTD---------------------
115) 2,3,7,8-TCDD                                                 0.000# -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3E3623.M         Thu Apr 28 11:03:23 2016   MS3E
```

Initial Calibration Verification

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3621-ICV3621
Lab FileID: 3E82680A.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3E3621\3E82680a.D         Vial: 13
Acq On    : 26 Apr 2016   6:22 pm                    Operator: ashleyn
Sample    : icv3621-50                               Inst    : MS3E
Misc      : op93161,e3e3621                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\M3E3620.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 09:55:50 2016
Last Update  : Wed Apr 27 09:55:50 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.
104	Acenaphthene-d10a	1.000	1.000	0.0	109	0.00	7.64
105	1,2,4,5-Tetrachlorobenzen	0.495	0.494	0.2	112	0.00	6.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82671a.D M3E3620.M Wed Apr 27 10:32:25 2016 MS3E

Initial Calibration Verification

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3621-ICV3621
Lab FileID: 3E82681A.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3E3621\3E82681a.D         Vial: 14
Acq On    : 26 Apr 2016   6:48 pm                    Operator: ashleyn
Sample    : icv3621-50                               Inst    : MS3E
Misc      : op93161,e3e3621                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:56:37 2016
Last Update  : Thu Apr 28 10:56:37 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.
102	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	107	0.00	4.54
103	Benzaldehyde	1.084	1.140	-5.2	121	0.00	4.22
106	Phenanthrene-d10a	1.000	1.000	0.0	91	0.00	9.81
107	Atrazine	0.102	0.100	2.0	91	0.00	9.48

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82671a.D M3E3623.M Thu Apr 28 11:08:16 2016 MS3E

Initial Calibration Verification

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3621-ICV3621
Lab FileID: 3E82683.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3E3621\3E82683.D          Vial: 16
Acq On    : 26 Apr 2016   7:40 pm                    Operator: ashleyn
Sample    : icv3621-50                               Inst    : MS3E
Misc      : op93161,e3e3621                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\M3E3620.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 09:55:50 2016
Last Update  : Wed Apr 27 09:55:50 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.
112 I	Naphthalene-d8a	1.000	1.000	0.0	89	0.00	5.60
113 T	Hydroquinone	0.275	0.319	-16.0	93	0.00	6.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82671a.D M3E3620.M Wed Apr 27 10:09:13 2016 MS3E

Initial Calibration Verification

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3622-ICV3621
Lab FileID: 3E82685A.D

Evaluate Continuing Calibration Report

```
  Data File : C:\msdchem\1\DATA\E3E3622\3E82685a.D         Vial: 2
  Acq On    : 27 Apr 2016  11:46 am                    Operator: ashleyn
  Sample    : icv3621-50                               Inst    : MS3E
  Misc      : op93161,e3e3622                          Multiplr: 1.00
  MS Integration Params: lscint.p

  Method       : C:\msdchem\1\METHODS\M3E3620.M (RTE Integrator)
  Title        : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 12:17:28 2016
  Last Update  : Wed Apr 27 12:17:28 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.
  ---------------------------------------------------------------------------
110 I   Chrysene-d12a              1.000   1.000      0.0   99   0.00   13.99
111 T   benzidine                  0.492   0.825    -67.7# 189   0.00   11.98
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     3E82671a.D M3E3620.M        Wed Apr 27 12:23:24 2016   MS3E
```

Initial Calibration Summary

Job Number: JC20184 **Sample:** E3E3623-ICC3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E82697.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report MS3E

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:34:49 2016
Last Update : Thu Apr 28 10:34:49 2016
Response via : Initial Calibration

Calibration Files
2 =3E82702.D 5 =3E82701.D 25 =3E82699.D 80 =3E82698.D
100 =3E82696.D 50 =3E82697.D 1 =3E82703.D 10 =3E82700.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d					ISTD					
2) 1,4-Dioxane	0.390	0.393	0.342	0.336	0.336	0.324	0.465	0.329	0.365	13.37
3) Pyridine	0.864	1.163	1.050	1.084	1.081	1.039		0.977	1.037	9.12
4) N-Nitrosodim	0.562	0.564	0.621	0.629	0.615	0.604		0.535	0.590	6.11
5) 2-Fluorophen	1.209	1.270	1.239	1.289	1.285	1.236	1.183	1.100	1.226	5.14
6) Indene	2.427	2.587	2.338	2.427	2.376	2.334	2.414	2.187	2.386	4.74
7) Cumene	3.623	3.536	3.383	3.566	3.538	3.407	3.717	3.149	3.490	5.01
8) Phenol-d5	1.609	1.600	1.573	1.748	1.764	1.619	1.420	1.431	1.595	7.88
9) Phenol	1.774	1.752	1.725	1.883	1.867	1.798	1.620	1.572	1.749	6.24
10) Aniline	2.018	2.085	2.047	2.106	2.083	2.147	1.975	1.786	2.031	5.54
11) bis(2-Chloro	1.297	1.222	1.166	1.190	1.168	1.147	1.320	1.085	1.199	6.50
12) 2-Chlorophen	1.519	1.534	1.436	1.467	1.465	1.421	1.462	1.291	1.449	5.13
13) Decane	1.549	1.541	1.505	1.568	1.565	1.518	1.638	1.390	1.534	4.62
14) 1,3-Dichloro	1.584	1.665	1.552	1.598	1.575	1.529	1.726	1.450	1.585	5.27
15) 1,4-Dichloro	1.774	1.790	1.565	1.608	1.600	1.565	1.911	1.494	1.663	8.63
16) Benzyl alcoh	0.883	0.903	0.889	0.960	0.949	0.901	0.814	0.769	0.884	7.24
17) 1,2-Dichloro	1.556	1.604	1.470	1.504	1.490	1.443	1.553	1.364	1.498	5.03
18) Acetophenone	2.052	2.101	1.957	2.023	1.926	1.951	2.101	1.764	1.984	5.62
19) 2-Methylphen	1.309	1.318	1.201	1.220	1.202	1.198	1.248	1.110	1.226	5.46
20) 2,2'-oxybis(	0.513	0.537	0.491	0.488	0.484	0.477		0.450	0.491	5.57
21) 3&4-Methylph	1.295	1.387	1.281	1.311	1.298	1.269	1.315	1.149	1.288	5.17
22) n-Nitroso-di	1.050	1.058	1.059	1.090	1.054	1.059	1.074	0.960	1.051	3.71
23) Hexachloroet	0.568	0.576	0.514	0.497	0.493	0.495	0.622	0.490	0.532	9.40
24) I Naphthalene-d8					ISTD					
25) Nitrobenzene	0.373	0.427	0.401	0.408	0.406	0.403	0.414	0.368	0.400	4.99
26) Nitrobenzene	0.392	0.425	0.412	0.420	0.429	0.414	0.439	0.373	0.413	5.16
27) Quinoline	0.735	0.763	0.682	0.656	0.659	0.676	0.753	0.641	0.696	6.83
28) Isophorone	0.667	0.696	0.655	0.682	0.681	0.675	0.683	0.626	0.671	3.24
29) 2-Nitropheno	0.202	0.215	0.205	0.224	0.227	0.216	0.208	0.193	0.211	5.39
30) 2,4-Dimethyl	0.336	0.383	0.370	0.372	0.374	0.377	0.367	0.332	0.364	5.23
31) Benzoic acid		0.235	0.285	0.290	0.292	0.289		0.217	0.268	12.28
32) bis(2-Chloro	0.376	0.387	0.352	0.361	0.370	0.362	0.378	0.334	0.365	4.56
33) 2,4-Dichloro	0.283	0.307	0.288	0.289	0.292	0.287	0.250	0.275	0.284	5.68
34) 2,6-Dichloro	0.297	0.301	0.282	0.283	0.286	0.284	0.320	0.266	0.290	5.53
35) 1,3,5-Trichl	0.356	0.357	0.325	0.339	0.344	0.334	0.372	0.317	0.343	5.29
36) 1,2,4-Trichl	0.337	0.345	0.308	0.310	0.314	0.306	0.363	0.305	0.324	6.76
37) 1,2,3-Trichl	0.340	0.328	0.301	0.287	0.287	0.296	0.361	0.294	0.312	8.94
38) Naphthalene	1.145	1.182	1.053	1.085	1.095	1.072	1.214	1.001	1.106	6.35
39) 4-Chloroanil	0.463	0.468	0.447	0.457	0.463	0.455	0.445	0.406	0.451	4.33
40) 2,3-Dichloro	0.371	0.388	0.345	0.341	0.338	0.347	0.398	0.333	0.358	6.92
41) Caprolactam	0.152	0.152	0.158	0.148	0.144	0.149	0.173	0.136	0.151	7.11
42) Hexachlorobu	0.196	0.218	0.185	0.176	0.176	0.181	0.236	0.184	0.194	11.34
43) 4-Chloro-3-m	0.345	0.329	0.321	0.323	0.317	0.316	0.339	0.299	0.324	4.45
44) 2-Methylnaph	0.660	0.670	0.613	0.617	0.616	0.620	0.648	0.576	0.628	4.82
45) 1-Methylnaph	0.689	0.706	0.640	0.633	0.629	0.637	0.698	0.606	0.655	5.70

```
46) Dimethylnaph 0.641 0.694 0.623 0.609 0.597 0.618 0.691 0.597 0.634   6.15

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy       0.232 0.293 0.349 0.355 0.341       0.233 0.301  18.95
            ---- Quadratic regression ----  Coefficient =  0.9995
              Response Ratio = -0.04596 + 0.34209 *A + 0.00450 *A^2

49) 2,4,6-Trichl 0.384 0.374 0.361 0.368 0.370 0.373 0.335 0.338 0.363   4.77
50) 2,4,5-Trichl 0.418 0.419 0.373 0.396 0.396 0.399 0.461 0.368 0.404   7.32
51) 2-Fluorobiph 1.363 1.364 1.265 1.331 1.306 1.316 1.458 1.209 1.327   5.56
52) 2-Chloronaph 1.186 1.218 1.093 1.121 1.103 1.130 1.154 1.066 1.134   4.42
53) Biphenyl     1.566 1.579 1.438 1.567 1.539 1.528 1.510 1.369 1.512   4.82
54) 2-Nitroanili 0.386 0.417 0.415 0.455 0.433 0.424 0.443 0.389 0.420   5.77
55) Dimethylphth 1.382 1.412 1.294 1.302 1.298 1.319 1.395 1.226 1.328   4.74
56) Acenaphthyle 1.965 1.985 1.824 1.910 1.853 1.890 1.978 1.733 1.892   4.61
57) 2,6-Dinitrot 0.293 0.317 0.296 0.301 0.300 0.307 0.289 0.277 0.297   4.06
58) 3-Nitroanili 0.322 0.343 0.327 0.342 0.339 0.345 0.333 0.299 0.331   4.57
59) Acenaphthene 1.278 1.311 1.176 1.274 1.241 1.254 1.357 1.163 1.257   5.16
60) 2,4-Dinitrop 0.044 0.073 0.130 0.171 0.173 0.162       0.086 0.120  43.67
            ---- Quadratic regression ----  Coefficient =  0.9988
              Response Ratio = -0.02536 + 0.15841 *A + 0.00417 *A^2

61) 4-Nitropheno       0.190 0.215 0.241 0.228 0.230       0.179 0.214  11.48
62) Dibenzofuran 1.694 1.727 1.571 1.647 1.613 1.621 1.842 1.518 1.654   6.06
63) 2,4-Dinitrot 0.388 0.430 0.415 0.423 0.415 0.433 0.370 0.381 0.407   5.90
64) 2,3,4,6-Tetr 0.306 0.328 0.292 0.302 0.302 0.310 0.273 0.282 0.299   5.71
65) Diethylphtha 1.389 1.484 1.376 1.440 1.398 1.409 1.377 1.288 1.395   4.04
66) Fluorene     1.437 1.426 1.336 1.393 1.370 1.386 1.495 1.236 1.385   5.55
67) 4-Chlorophen 0.677 0.695 0.612 0.595 0.584 0.613 0.691 0.585 0.631   7.61
68) 4-Nitroanili 0.296 0.349 0.322 0.338 0.322 0.340 0.293 0.288 0.318   7.35

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.102 0.132 0.152 0.155 0.149       0.105 0.133  17.94
            ---- Quadratic regression ----  Coefficient =  0.9997
              Response Ratio = -0.00936 + 0.15055 *A + 0.00316 *A^2

71) n-Nitrosodip 0.554 0.597 0.535 0.567 0.575 0.568 0.531 0.516 0.556   4.80
72) 1,2-Diphenyl 0.809 0.829 0.817 0.889 0.884 0.870 0.755 0.769 0.828   6.10
73) 2,4,6-Tribro 0.140 0.151 0.141 0.137 0.140 0.141 0.140 0.139 0.141   2.85
74) 4-Bromopheny 0.247 0.248 0.222 0.228 0.228 0.233 0.269 0.227 0.238   6.64
75) Hexachlorobe 0.300 0.309 0.268 0.264 0.264 0.269 0.333 0.275 0.285   9.11
76) Pentachlorop 0.110 0.120 0.140 0.153 0.159 0.152       0.116 0.136  14.79
77) Phenanthrene 1.235 1.227 1.094 1.158 1.145 1.131 1.244 1.051 1.161   6.05
78) Anthracene   1.187 1.224 1.126 1.163 1.163 1.160 1.208 1.071 1.163   4.13
79) Carbazole    1.098 1.085 1.006 1.064 1.065 1.064 1.076 0.959 1.052   4.40
80) Di-n-butylph 1.261 1.349 1.355 1.476 1.478 1.442 1.281 1.226 1.359   7.26
81) Fluoranthene 1.258 1.300 1.209 1.295 1.301 1.283 1.276 1.147 1.259   4.30
82) Octadecane   0.431 0.464 0.458 0.528 0.530 0.505 0.442 0.421 0.473   9.13

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.221 1.252 1.172 1.198 1.195 1.210 1.229 1.103 1.197   3.78
85) Terphenyl-d1 0.866 0.860 0.831 0.821 0.824 0.842 0.895 0.779 0.840   4.14
86) Butylbenzylp 0.546 0.537 0.583 0.628 0.619 0.618 0.534 0.503 0.571   8.27
87) Butyl steara 0.278 0.275 0.304 0.344 0.352 0.333 0.255 0.257 0.300  13.04
88) Benzo[a]anth 1.246 1.225 1.125 1.138 1.126 1.148 1.278 1.067 1.169   6.18
89) 3,3'-Dichlor 0.441 0.464 0.446 0.440 0.432 0.445 0.400 0.410 0.435   4.74
90) Chrysene     1.169 1.179 1.073 1.031 0.995 1.062 1.211 1.009 1.091   7.65
91) bis(2-Ethylh 0.705 0.737 0.786 0.775 0.754 0.776 0.666 0.679 0.735   6.32

92) I   Perylene-d12          ----------------ISTD---------------------
```

Initial Calibration Summary

Job Number: JC20184 **Sample:** E3E3623-ICC3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E82697.D
Project: BMSMC, Building 5 Area, PR

```
 93) Di-n-octylph 1.236 1.324 1.509 1.771 1.824 1.635       1.237 1.505  16.40
             ---- Quadratic regression ----  Coefficient =  0.9998
               Response Ratio = -0.03560 + 1.48864 *A + 0.14260 *A^2

 94) Benzo[b]fluo 1.305 1.370 1.327 1.452 1.458 1.339 1.350 1.217 1.352   5.77
 95) Benzo[k]fluo 1.272 1.265 1.176 1.191 1.161 1.233 1.212 1.143 1.207   3.94
 96) Benzo[a]pyre 1.105 1.156 1.116 1.173 1.146 1.144 1.138 1.051 1.129   3.37
 97) Indeno[1,2,3 1.067 1.081 1.070 1.129 1.120 1.119 1.050 0.968 1.076   4.85
 98) Dibenz(a,h)a 0.990 1.018 1.003 1.096 1.073 1.061 0.951 0.908 1.012   6.29
 99) Dibenz[a,h]a 1.065 1.140 1.069 1.069 1.018 1.069 1.114 1.004 1.068   4.18
100) 7,12-Dimethy 0.565 0.587 0.612 0.669 0.678 0.644 0.546 0.521 0.603   9.57
101) Benzo[g,h,i] 1.065 1.102 1.031 1.026 0.977 1.013 1.079 0.995 1.036   4.16
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3E3623.M         Thu Apr 28 10:35:53 2016   MS3E
```

Initial Calibration Verification

Job Number: JC20184 **Sample:** E3E3623-ICV3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E82704.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3623\3E82704.D Vial: 10
Acq On : 27 Apr 2016 7:36 pm Operator: ashleyn
Sample : icv3623-50 Inst : MS3E
Misc : op93161,e3e3623 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
Last Update : Thu Apr 28 09:55:31 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	144	0.00	4.53
9	t	Phenol	1.749	1.422	18.7	114	0.00	4.30
12	t	2-Chlorophenol	1.449	1.345	7.2	136	0.00	4.38
19	t	2-Methylphenol	1.226	1.117	8.9	134	0.00	4.74
21	t	3&4-Methylphenol	1.288	1.175	8.8	133	0.00	4.87
24	I	Naphthalene-d8	1.000	1.000	0.0	142	0.00	5.60
29	t	2-Nitrophenol	0.211	0.194	8.1	127	0.00	5.26
30	t	2,4-Dimethylphenol	0.364	0.368	-1.1	138	0.00	5.30
31	t	Benzoic acid	0.268	0.252	6.0	124	0.00	5.44
33	t	2,4-Dichlorophenol	0.284	0.289	-1.8	143	0.00	5.48
34	t	2,6-Dichlorophenol	0.290	0.278	4.1	139	0.00	5.69
43	t	4-Chloro-3-methylphenol	0.324	0.296	8.6	133	-0.01	6.20
47	I	Acenaphthene-d10	1.000	1.000	0.0	152	0.00	7.63
49	t	2,4,6-Trichlorophenol	0.363	0.359	1.1	147	0.00	6.68
50	t	2,4,5-Trichlorophenol	0.404	0.358	11.4	137	-0.01	6.73
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	44.059	11.9	116	0.00	7.76
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.214	0.181	15.4	119	0.00	7.91
64		2,3,4,6-Tetrachlorophenol	0.299	0.301	-0.7	148	0.00	8.11
69	I	Phenanthrene-d10	1.000	1.000	0.0	152	0.00	9.80
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	44.412	11.2	132	-0.01	8.52
		----------	AvgRF	CCRF	% Dev	----------		
76	t	Pentachlorophenol	0.136	0.136	0.0	136	0.00	9.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82697.D M3E623.M Thu Apr 28 10:08:52 2016 MS3E

Initial Calibration Verification

Job Number: JC20184 **Sample:** E3E3623-ICV3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E82705.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3623\3E82705.D Vial: 11
Acq On : 27 Apr 2016 8:01 pm Operator: ashleyn
Sample : icv3623-50 Inst : MS3E
Misc : op93161,e3e3623 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
Last Update : Thu Apr 28 09:55:31 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	138	0.00	4.53
3	t	Pyridine	1.037	1.084	-4.5	144	0.00	2.50
10		Aniline	2.031	1.907	6.1	123	0.00	4.30
16	t	Benzyl alcohol	0.884	0.835	5.5	128	0.00	4.65
24	I	Naphthalene-d8	1.000	1.000	0.0	150	0.00	5.60
39	t	4-Chloroaniline	0.451	0.385	14.6	127	0.00	5.68
44	t	2-Methylnaphthalene	0.628	0.590	6.1	143	0.00	6.34
47	I	Acenaphthene-d10	1.000	1.000	0.0	163	0.00	7.63
54	t	2-Nitroaniline	0.420	0.345	17.9	133	0.00	7.06
58	t	3-Nitroaniline	0.331	0.289	12.7	137	0.00	7.61
62	t	Dibenzofuran	1.654	1.550	6.3	156	0.00	7.92
68	t	4-Nitroaniline	0.318	0.265	16.7	127	0.00	8.48
69	I	Phenanthrene-d10	1.000	1.000	0.0	167	0.00	9.80
79	t	Carbazole	1.052	0.943	10.4	148	0.00	10.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82697.D M3E3623.M Thu Apr 28 10:08:54 2016 MS3E

Initial Calibration Verification

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3623-ICV3623
Lab FileID: 3E82706.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3623\3E82706.D Vial: 12
Acq On : 27 Apr 2016 8:27 pm Operator: ashleyn
Sample : icv3623-50 Inst : MS3E
Misc : op93161,e3e3623 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
Last Update : Thu Apr 28 09:55:31 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	168	0.00	4.53
5	S	2-Fluorophenol	1.226	1.047	14.6	142	0.00	3.56
8	S	Phenol-d5	1.595	1.281	19.7	133	0.00	4.29
24	I	Naphthalene-d8	1.000	1.000	0.0	172	0.00	5.60
25	S	Nitrobenzene-d5	0.400	0.338	15.5	144	0.00	4.97
47	I	Acenaphthene-d10	1.000	1.000	0.0	179	0.00	7.63
51	S	2-Fluorobiphenyl	1.327	1.207	9.0	164	0.00	6.78
69	I	Phenanthrene-d10	1.000	1.000	0.0	178	0.00	9.80
73	S	2,4,6-Tribromophenol	0.141	0.122	13.5	154	0.00	8.76
83	I	Chrysene-d12	1.000	1.000	0.0	160	-0.01	13.97
85	S	Terphenyl-d14	0.840	0.776	7.6	147	0.00	12.36

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82697.D M3E3623.M Thu Apr 28 10:08:55 2016 MS3E

Initial Calibration Verification

Job Number: JC20184 **Sample:** E3E3623-ICV3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E82707.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3623\3E82707.D Vial: 13
Acq On : 27 Apr 2016 8:53 pm Operator: ashleyn
Sample : icv3623-50 Inst : MS3E
Misc : op93161,e3e3623 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:34:49 2016
Last Update : Thu Apr 28 10:34:49 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	139	0.00	4.53
4	t	N-Nitrosodimethylamine	0.590	0.583	1.2	134	0.02	2.36
11	t	bis(2-Chloroethyl)ether	1.199	1.111	7.3	135	0.00	4.34
14	t	1,3-Dichlorobenzene	1.585	1.503	5.2	137	0.00	4.49
15	t	1,4-Dichlorobenzene	1.663	1.536	7.6	137	0.00	4.54
17	t	1,2-Dichlorobenzene	1.498	1.394	6.9	135	0.00	4.66
20	t	2,2'-oxybis(1-Chloropropa	0.491	0.396	19.3	116	0.00	4.74
22	t	n-Nitroso-di-n-propylamin	1.051	0.902	14.2	119	0.00	4.85
23	t	Hexachloroethane	0.532	0.521	2.1	147	0.00	4.92
24	I	Naphthalene-d8	1.000	1.000	0.0	134	0.00	5.60
26	t	Nitrobenzene	0.413	0.377	8.7	122	0.00	4.98
28	t	Isophorone	0.671	0.666	0.7	132	0.00	5.19
32	t	bis(2-Chloroethoxy)methan	0.365	0.334	8.5	124	0.00	5.38
36	t	1,2,4-Trichlorobenzene	0.324	0.319	1.5	140	0.00	5.55
38	t	Naphthalene	1.106	1.056	4.5	132	0.00	5.62
42	t	Hexachlorobutadiene	0.194	0.194	0.0	144	0.00	5.73
47	I	Acenaphthene-d10	1.000	1.000	0.0	136	0.00	7.63
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	50.000	47.488	5.0	116	0.00	6.51
		----------	AvgRF	CCRF	% Dev	----------		
52	t	2-Chloronaphthalene	1.134	1.094	3.5	131	0.00	6.91
55	t	Dimethylphthalate	1.328	1.256	5.4	129	0.00	7.31
56	t	Acenaphthylene	1.892	1.732	8.5	124	0.00	7.44
57	t	2,6-Dinitrotoluene	0.297	0.280	5.7	124	0.00	7.39
59	t	Acenaphthene	1.257	1.174	6.6	127	0.00	7.68
63	t	2,4-Dinitrotoluene	0.407	0.349	14.3	109	0.00	7.94
65	t	Diethylphthalate	1.395	1.255	10.0	121	0.00	8.30
66	t	Fluorene	1.385	1.237	10.7	121	0.00	8.41
67	t	4-Chlorophenyl-phenylethe	0.631	0.580	8.1	128	0.00	8.43
69	I	Phenanthrene-d10	1.000	1.000	0.0	132	0.00	9.80
71	t	n-Nitrosodiphenylamine	0.556	0.502	9.7	117	0.00	8.61
72	t	1,2-Diphenylhydrazine	0.828	0.770	7.0	117	0.00	8.66
74	t	4-Bromophenyl-phenylether	0.238	0.230	3.4	130	0.00	9.15
75	t	Hexachlorobenzene	0.285	0.265	7.0	131	0.00	9.21
77	t	Phenanthrene	1.161	1.047	9.8	122	0.00	9.83
78	t	Anthracene	1.163	1.025	11.9	117	0.00	9.92
80	t	Di-n-butylphthalate	1.359	1.231	9.4	113	0.00	10.83

Initial Calibration Verification

Job Number: JC20184 **Sample:** E3E3623-ICV3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E82707.D
Project: BMSMC, Building 5 Area, PR

81	t	Fluoranthene	1.259	1.114	11.5	115	0.00	11.69
83	I	Chrysene-d12	1.000	1.000	0.0	120	0.00	13.98
84	t	Pyrene	1.197	1.157	3.3	115	0.00	12.04
86	t	Butylbenzylphthalate	0.571	0.525	8.1	102	0.00	13.20
88	t	Benzo[a]anthracene	1.169	1.049	10.3	110	0.00	13.96
90	t	Chrysene	1.091	0.945	13.4	107	0.00	14.02
91	t	bis(2-Ethylhexyl)phthalat	0.735	0.669	9.0	103	0.00	14.17
92	I	Perylene-d12	1.000	1.000	0.0	112	0.00	16.09
		----------	True	Calc.	% Drift	----------		
93	t	Di-n-octylphthalate	50.000	42.065	15.9	93	0.00	15.16
		----------	AvgRF	CCRF	% Dev	----------		
94	t	Benzo[b]fluoranthene	1.352	1.169	13.5	98	-0.01	15.57
95	t	Benzo[k]fluoranthene	1.207	1.131	6.3	103	-0.01	15.61
96	t	Benzo[a]pyrene	1.129	1.043	7.6	102	0.00	16.01
97	t	Indeno[1,2,3-cd]pyrene	1.076	1.039	3.4	104	0.00	17.56
99	t	Dibenz[a,h]anthracene	1.068	1.005	5.9	106	-0.01	17.60
101	t	Benzo[g,h,i]perylene	1.036	0.953	8.0	106	-0.01	17.96

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82697.D M3E3623.M Thu Apr 28 10:39:48 2016 MS3E

Initial Calibration Verification

Job Number: JC20184 **Sample:** E3E3623-ICV3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E82708.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3623\3E82708.D Vial: 14
Acq On : 27 Apr 2016 9:18 pm Operator: ashleyn
Sample : icv3623-50 Inst : MS3E
Misc : op93161,e3e3623 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
Last Update : Thu Apr 28 09:55:31 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	134	0.00	4.53
2	t	1,4-Dioxane	0.365	0.357	2.2	148	0.03	2.05
6	t	Indene	2.386	2.391	-0.2	137	0.00	4.73
7	t	Cumene	3.490	3.434	1.6	135	0.00	3.93
13	t	Decane	1.534	1.502	2.1	133	0.00	4.41
18	t	Acetophenone	1.984	1.785	10.0	123	0.00	4.84
24	I	Naphthalene-d8	1.000	1.000	0.0	137	0.00	5.60
27	t	Quinoline	0.696	0.669	3.9	135	0.00	5.96
40	t	2,3-Dichloroaniline	0.358	0.293	18.2	115	0.00	6.67
41	t	Caprolactam	0.151	0.125	17.2	115	-0.03	6.04
45	t	1-Methylnaphthalene	0.655	0.613	6.4	131	0.00	6.45
46	t	Dimethylnaphthalene	0.634	0.593	6.5	131	0.00	7.09
47	I	Acenaphthene-d10	1.000	1.000	0.0	139	0.00	7.63
53	t	Biphenyl	1.512	1.468	2.9	133	0.00	6.90
69	I	Phenanthrene-d10	1.000	1.000	0.0	140	0.00	9.80
82	t	Octadecane	0.473	0.451	4.7	125	0.00	9.76
92	I	Perylene-d12	1.000	1.000	0.0	126	0.00	16.09
100	t	7,12-Dimethylbenz(a)anthr	0.603	0.308	48.9#	60	-0.02	15.56

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82697.D M3E3623.M Thu Apr 28 10:08:57 2016 MS3E

Initial Calibration Verification

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3623-ICV3623
Lab FileID: 3E82709.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3E3623\3E82709.D          Vial: 15
Acq On    : 27 Apr 2016   9:44 pm                    Operator: ashleyn
Sample    : icv3623-50                               Inst    : MS3E
Misc      : op93161,e3e3623                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
Last Update  : Thu Apr 28 09:55:31 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	136	-0.01	13.97
89 t	3,3'-Dichlorobenzidine	0.435	0.423	2.8	129	0.00	13.98

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82697.D M3E3623.M Thu Apr 28 10:08:58 2016 MS3E

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3E3649-CC3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E83218.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3649\3E83218.D Vial: 2
Acq On : 14 May 2016 9:38 am Operator: ashleyn
Sample : cc3623-25 Inst : MS3E
Misc : op93596,e3e3649 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
Last Update : Mon May 16 09:20:14 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	105	-0.05	4.37
2	t	1,4-Dioxane	0.365	0.386	-5.8	119	-0.17	1.80
3	t	Pyridine	1.037	0.922	11.1	92	-0.07	2.16
4	t	N-Nitrosodimethylamine	0.590	0.499	15.4	84	-0.15	2.13
5	S	2-Fluorophenol	1.226	1.104	10.0	94	-0.05	3.40
6	t	Indene	2.386	2.146	10.1	96	-0.05	4.55
7	t	Cumene	3.490	3.071	12.0	95	-0.07	3.76
8	S	Phenol-d5	1.595	1.393	12.7	93	-0.02	4.15
9	t	Phenol	1.749	1.413	19.2	86	0.00	4.16
10		Aniline	2.031	1.482	27.0#	76	-0.05	4.13
11	t	bis(2-Chloroethyl)ether	1.200	1.030	14.2	93	-0.05	4.18
12	t	2-Chlorophenol	1.449	1.324	8.6	97	-0.04	4.23
13	t	Decane	1.534	1.294	15.6	90	-0.05	4.24
14	t	1,3-Dichlorobenzene	1.585	1.531	3.4	104	0.02	4.32
15	t	1,4-Dichlorobenzene	1.663	1.587	4.6	107	-0.05	4.38
16	t	Benzyl alcohol	0.884	0.798	9.7	94	0.02	4.49
17	t	1,2-Dichlorobenzene	1.498	1.455	2.9	104	-0.03	4.49
18	t	Acetophenone	1.984	1.674	15.6	90	0.03	4.68
19	t	2-Methylphenol	1.226	1.061	13.5	93	-0.08	4.60
20	t	2,2'-oxybis(1-Chloropropa	0.491	0.457	6.9	98	0.03	4.58
21	t	3&4-Methylphenol	1.288	1.108	14.0	91	-0.07	4.71
22	t	n-Nitroso-di-n-propylamin	1.051	0.851	19.0	84	-0.05	4.68
23	t	Hexachloroethane	0.532	0.614	-15.4	125	-0.06	4.74
24	I	Naphthalene-d8	1.000	1.000	0.0	97	-0.06	5.40
25	S	Nitrobenzene-d5	0.400	0.382	4.5	92	-0.05	4.79
26	t	Nitrobenzene	0.413	0.400	3.1	94	-0.05	4.81
27	t	Quinoline	0.696	0.676	2.9	96	-0.05	5.76
28	t	Isophorone	0.671	0.624	7.0	92	-0.06	5.00
29	t	2-Nitrophenol	0.211	0.208	1.4	98	-0.05	5.07
30	t	2,4-Dimethylphenol	0.364	0.350	3.8	91	-0.04	5.13
31	t	Benzoic acid	0.268	0.245	8.6	83	-0.04	5.25
32	t	bis(2-Chloroethoxy)methan	0.365	0.334	8.5	92	-0.05	5.20
33	t	2,4-Dichlorophenol	0.284	0.321	-13.0	108	-0.04	5.31
34	t	2,6-Dichlorophenol	0.290	0.323	-11.4	111	-0.05	5.50
35		1,3,5-Trichlorobenzene	0.343	0.402	-17.2	120	-0.05	5.07
36	t	1,2,4-Trichlorobenzene	0.324	0.382	-17.9	120	-0.06	5.35
37		1,2,3-Trichlorobenzene	0.312	0.370	-18.6	119	-0.06	5.55
38	t	Naphthalene	1.106	1.070	3.3	98	-0.06	5.42
39	t	4-Chloroaniline	0.451	0.404	10.4	87	-0.05	5.49
40	t	2,3-Dichloroaniline	0.358	0.395	-10.3	111	-0.05	6.45
41	t	Caprolactam	0.151	0.137	9.3	84	-0.06	5.85

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3E3649-CC3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E83218.D
Project: BMSMC, Building 5 Area, PR

42	t	Hexachlorobutadiene	0.194	0.253	-30.4#	132	-0.06	5.53
43	t	4-Chloro-3-methylphenol	0.324	0.319	1.5	96	-0.03	6.02
44	t	2-Methylnaphthalene	0.628	0.663	-5.6	105	-0.06	6.12
45	t	1-Methylnaphthalene	0.655	0.694	-6.0	105	-0.06	6.23
46	t	Dimethylnaphthalene	0.634	0.704	-11.0	109	-0.06	6.85
47	I	Acenaphthene-d10	1.000	1.000	0.0	107	-0.08	7.38
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	50.000	42.741	14.5	95	-0.08	6.28
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.363	0.402	-10.7	119	-0.06	6.47
50	t	2,4,5-Trichlorophenol	0.404	0.421	-4.2	121	-0.11	6.54
51	S	2-Fluorobiphenyl	1.327	1.403	-5.7	119	-0.08	6.54
52	t	2-Chloronaphthalene	1.134	1.134	0.0	111	-0.08	6.68
53	t	Biphenyl	1.512	1.481	2.1	110	-0.08	6.66
54	t	2-Nitroaniline	0.420	0.394	6.2	101	-0.06	6.84
55	t	Dimethylphthalate	1.328	1.356	-2.1	112	-0.07	7.07
56	t	Acenaphthylene	1.892	1.803	4.7	106	-0.08	7.20
57	t	2,6-Dinitrotoluene	0.297	0.296	0.3	107	-0.06	7.16
58	t	3-Nitroaniline	0.331	0.301	9.1	98	-0.06	7.38
59	t	Acenaphthene	1.257	1.215	3.3	111	-0.08	7.43
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	47.921	4.2	113	-0.02	7.55
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.214	0.212	0.9	105	-0.17	7.76
62	t	Dibenzofuran	1.654	1.672	-1.1	114	-0.08	7.66
63	t	2,4-Dinitrotoluene	0.407	0.405	0.5	105	-0.09	7.71
64		2,3,4,6-Tetrachlorophenol	0.299	0.331	-10.7	121	-0.06	7.87
65	t	Diethylphthalate	1.395	1.395	0.0	108	-0.06	8.05
66	t	Fluorene	1.385	1.390	-0.4	111	-0.07	8.14
67	t	4-Chlorophenyl-phenylethe	0.631	0.727	-15.2	127	-0.06	8.17
68	t	4-Nitroaniline	0.318	0.280	11.9	93	-0.14	8.24
69	I	Phenanthrene-d10	1.000	1.000	0.0	113	-0.09	9.52
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	23.988	4.0	112	-0.08	8.29
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.556	0.539	3.1	114	-0.09	8.36
72	t	1,2-Diphenylhydrazine	0.828	0.752	9.2	104	-0.09	8.40
73	S	2,4,6-Tribromophenol	0.141	0.153	-8.5	122	-0.09	8.51
74	t	4-Bromophenyl-phenylether	0.238	0.259	-8.8	131	-0.09	8.88
75	t	Hexachlorobenzene	0.285	0.307	-7.7	129	-0.09	8.94
76	t	Pentachlorophenol	0.136	0.121	11.0	98	-0.07	9.28
77	t	Phenanthrene	1.161	1.105	4.8	114	-0.09	9.56
78	t	Anthracene	1.163	1.099	5.5	110	-0.08	9.64
79	t	Carbazole	1.052	0.968	8.0	109	-0.07	9.93
80	t	Di-n-butylphthalate	1.359	1.243	8.5	103	-0.06	10.56
81	t	Fluoranthene	1.259	1.283	-1.9	120	-0.06	11.41
82	t	Octadecane	0.473	0.368	22.2#	90	-0.08	9.49
83	I	Chrysene-d12	1.000	1.000	0.0	113	-0.09	13.69
84	t	Pyrene	1.197	1.238	-3.4	120	0.00	11.75
85	S	Terphenyl-d14	0.840	0.884	-5.2	120	-0.11	12.08
86	t	Butylbenzylphthalate	0.571	0.506	11.4	98	-0.09	12.92

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3E3649-CC3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E83218.D
Project: BMSMC, Building 5 Area, PR

87		Butyl stearate	0.300	0.233	22.3#	87	-0.09	13.10
88	t	Benzo[a]anthracene	1.169	1.142	2.3	115	-0.09	13.67
89	t	3,3'-Dichlorobenzidine	0.435	0.413	5.1	105	-0.08	13.70
90	t	Chrysene	1.091	1.055	3.3	111	-0.09	13.73
91	t	bis(2-Ethylhexyl)phthalat	0.735	0.606	17.6	87	-0.07	13.89
92	I	Perylene-d12	1.000	1.000	0.0	101	0.00	15.80
		----------	True	Calc.	% Drift	----------		
93	t	Di-n-octylphthalate	25.000	20.970	16.1	84	-0.01	14.88
		----------	AvgRF	CCRF	% Dev	----------		
94	t	Benzo[b]fluoranthene	1.352	1.369	-1.3	104	-0.01	15.28
95	t	Benzo[k]fluoranthene	1.207	1.247	-3.3	107	-0.02	15.32
96	t	Benzo[a]pyrene	1.129	1.137	-0.7	103	0.00	15.72
97	t	Indeno[1,2,3-cd]pyrene	1.076	0.996	7.4	94	-0.02	17.19
98	t	Dibenz(a,h)acridine	1.012	0.946	6.5	95	0.00	16.89
99	t	Dibenz[a,h]anthracene	1.068	1.061	0.7	101	-0.02	17.22
100	t	7,12-Dimethylbenz(a)anthr	0.603	0.627	-4.0	104	-0.01	15.27
101	t	Benzo[g,h,i]perylene	1.036	1.016	1.9	100	-0.04	17.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82672a.D M3E3623.M Mon May 16 09:22:58 2016 MS3E

6.7.13
6

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3E3649-CC3621
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E83219.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3649\3E83219.D Vial: 3
Acq On : 14 May 2016 10:12 am Operator: ashleyn
Sample : cc3621-25 Inst : MS3E
Misc : op93596,e3e3649 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
Last Update : Mon May 16 09:20:14 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.
102		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	71	-0.05	4.37
103		Benzaldehyde	1.084	0.874	19.4	58	-0.06	4.05
104		Acenaphthene-d10a	1.000	1.000	0.0	93	-0.08	7.38
105		1,2,4,5-Tetrachlorobenzen	0.495	0.632	-27.7#	124	-0.08	6.30
106		Phenanthrene-d10a	1.000	1.000	0.0	99	-0.09	9.52
107		Atrazine	0.102	0.115	-12.7	114	-0.08	9.21
108	I	Chrysene-d12a	1.000	1.000	0.0	114	-0.10	13.68
109	T	benzidine	0.492	0.337	31.5#	77	-0.11	11.70
110	I	Naphthalene-d8a	1.000	1.000	0.0	65	-0.06	5.40
111	T	Hydroquinone	0.275	0.324	-17.8	72	-0.02	5.87

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82672a.D M3E3623.M Mon May 16 09:23:00 2016 MS3E

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3E3650-CC3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E83274.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3650\3E83274.D Vial: 2
Acq On : 16 May 2016 11:02 am Operator: ashleyn
Sample : cc3623-50 Inst : MS3E
Misc : op93878,e3e3650 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3623.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
Last Update : Mon May 16 13:09:11 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	119	0.04	4.46
2	t	1,4-Dioxane	0.365	0.363	0.5	133	-0.06	1.92
3	t	Pyridine	1.037	0.894	13.8	102	0.04	2.27
4	t	N-Nitrosodimethylamine	0.590	0.545	7.6	107	-0.03	2.24
5	S	2-Fluorophenol	1.226	1.141	6.9	110	0.20	3.66
6	t	Indene	2.386	2.088	12.5	106	0.04	4.64
7	t	Cumene	3.490	3.123	10.5	109	0.02	3.84
8	S	Phenol-d5	1.595	1.553	2.6	114	0.22	4.40
9	t	Phenol	1.749	1.446	17.3	96	0.25	4.41
10		Aniline	2.031	1.425	29.8#	79	0.05	4.23
11	t	bis(2-Chloroethyl)ether	1.200	1.116	7.0	116	0.04	4.27
12	t	2-Chlorophenol	1.449	1.321	8.8	110	0.13	4.40
13	t	Decane	1.534	1.306	14.9	102	0.03	4.33
14	t	1,3-Dichlorobenzene	1.585	1.518	4.2	118	0.11	4.41
15	t	1,4-Dichlorobenzene	1.663	1.559	6.3	118	0.04	4.47
16	t	Benzyl alcohol	0.884	0.699	20.9#	92	0.13	4.60
17	t	1,2-Dichlorobenzene	1.498	1.468	2.0	121	0.06	4.58
18	t	Acetophenone	1.984	1.729	12.9	105	0.12	4.77
19	t	2-Methylphenol	1.226	1.016	17.1	101	0.12	4.79
20	t	2,2'-oxybis(1-Chloropropa	0.491	0.438	10.8	109	0.12	4.67
21	t	3&4-Methylphenol	1.288	1.137	11.7	106	0.13	4.92
22	t	n-Nitroso-di-n-propylamin	1.051	0.888	15.5	100	0.05	4.78
23	t	Hexachloroethane	0.532	0.620	-16.5	149	0.04	4.84
24	I	Naphthalene-d8	1.000	1.000	0.0	115	0.05	5.51
25	S	Nitrobenzene-d5	0.400	0.406	-1.5	116	0.05	4.90
26	t	Nitrobenzene	0.413	0.562	-36.1#	155	0.05	4.91
27	t	Quinoline	0.696	0.686	1.4	116	0.07	5.87
28	t	Isophorone	0.671	0.633	5.7	107	0.05	5.11
29	t	2-Nitrophenol	0.211	0.207	1.9	110	0.06	5.18
30	t	2,4-Dimethylphenol	0.364	0.357	1.9	109	0.00	5.30
31	t	Benzoic acid	0.268	0.136	49.3#	54	0.16	5.46
32	t	bis(2-Chloroethoxy)methan	0.365	0.360	1.4	114	0.06	5.30
33	t	2,4-Dichlorophenol	0.284	0.322	-13.4	129	0.18	5.53
34	t	2,6-Dichlorophenol	0.290	0.312	-7.6	126	0.09	5.63
35		1,3,5-Trichlorobenzene	0.343	0.402	-17.2	138	0.05	5.17
36	t	1,2,4-Trichlorobenzene	0.324	0.384	-18.5	144	0.05	5.46
37		1,2,3-Trichlorobenzene	0.312	0.357	-14.4	138	0.06	5.67
38	t	Naphthalene	1.106	1.076	2.7	115	0.05	5.53
39	t	4-Chloroaniline	0.451	0.387	14.2	98	0.07	5.61
40	t	2,3-Dichloroaniline	0.358	0.387	-8.1	128	0.08	6.59
41	t	Caprolactam	0.151	0.143	5.3	110	0.07	5.98

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3E3650-CC3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E83274.D
Project: BMSMC, Building 5 Area, PR

42	t	Hexachlorobutadiene	0.194	0.262	-35.1#	166	0.04	5.63
43	t	4-Chloro-3-methylphenol	0.324	0.309	4.6	112	0.00	6.27
44	t	2-Methylnaphthalene	0.628	0.663	-5.6	122	0.06	6.24
45	t	1-Methylnaphthalene	0.655	0.683	-4.3	123	0.06	6.35
46	t	Dimethylnaphthalene	0.634	0.704	-11.0	131	0.07	6.98
47	I	Acenaphthene-d10	1.000	1.000	0.0	130	0.06	7.52
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	100.000	98.599	1.4	126	0.04	6.40
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.363	0.409	-12.7	143	0.11	6.64
50	t	2,4,5-Trichlorophenol	0.404	0.399	1.2	131	0.00	6.83
51	S	2-Fluorobiphenyl	1.327	1.397	-5.3	138	0.05	6.67
52	t	2-Chloronaphthalene	1.134	1.177	-3.8	136	0.05	6.81
53	t	Biphenyl	1.512	1.536	-1.6	131	0.05	6.79
54	t	2-Nitroaniline	0.420	0.414	1.4	127	0.09	6.99
55	t	Dimethylphthalate	1.328	1.395	-5.0	138	0.07	7.21
56	t	Acenaphthylene	1.892	1.876	0.8	130	0.06	7.33
57	t	2,6-Dinitrotoluene	0.297	0.308	-3.7	131	0.08	7.30
58	t	3-Nitroaniline	0.331	0.300	9.4	114	0.10	7.54
59	t	Acenaphthene	1.257	1.240	1.4	129	0.06	7.56
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	88.744	11.3	112	0.14	7.71
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.214	0.167	22.0#	95	0.00	8.29
62	t	Dibenzofuran	1.654	1.678	-1.5	135	0.06	7.80
63	t	2,4-Dinitrotoluene	0.407	0.439	-7.9	132	0.05	7.85
64		2,3,4,6-Tetrachlorophenol	0.299	0.246	17.7	103	0.15	8.07
65	t	Diethylphthalate	1.395	1.460	-4.7	135	0.07	8.19
66	t	Fluorene	1.385	1.442	-4.1	136	0.07	8.29
67	t	4-Chlorophenyl-phenylethe	0.631	0.747	-18.4	159	0.07	8.31
68	t	4-Nitroaniline	0.318	0.311	2.2	120	0.05	8.42
69	I	Phenanthrene-d10	1.000	1.000	0.0	138	0.07	9.68
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	49.056	1.9	134	0.08	8.45
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.556	0.573	-3.1	140	0.06	8.51
72	t	1,2-Diphenylhydrazine	0.828	0.817	1.3	130	0.04	8.54
73	S	2,4,6-Tribromophenol	0.141	0.140	0.7	138	0.08	8.68
74	t	4-Bromophenyl-phenylether	0.238	0.280	-17.6	167	0.05	9.03
75	t	Hexachlorobenzene	0.285	0.329	-15.4	170	0.06	9.09
76	t	Pentachlorophenol	0.136	0.041#	69.9#	37#	0.15	9.51
77	t	Phenanthrene	1.161	1.136	2.2	139	0.06	9.71
78	t	Anthracene	1.163	1.152	0.9	137	0.07	9.79
79	t	Carbazole	1.052	1.010	4.0	131	0.11	10.12
80	t	Di-n-butylphthalate	1.359	1.322	2.7	127	0.09	10.70
81	t	Fluoranthene	1.259	1.294	-2.8	140	0.10	11.57
82	t	Octadecane	0.473	0.416	12.1	114	0.06	9.62
83	I	Chrysene-d12	1.000	1.000	0.0	116	0.07	13.85
84	t	Pyrene	1.197	1.437	-20.1#	138	0.16	11.91
85	S	Terphenyl-d14	0.840	1.025	-22.0#	142	0.05	12.23
86	t	Butylbenzylphthalate	0.571	0.580	-1.6	109	0.06	13.07

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3E3650-CC3623
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E83274.D
Project: BMSMC, Building 5 Area, PR

87		Butyl stearate	0.300	0.291	3.0	102	0.05	13.24
88	t	Benzo[a]anthracene	1.169	1.190	-1.8	121	0.08	13.84
89	t	3,3'-Dichlorobenzidine	0.435	0.428	1.6	112	0.08	13.87
90	t	Chrysene	1.091	1.066	2.3	117	0.08	13.90
91	t	bis(2-Ethylhexyl)phthalat	0.735	0.671	8.7	100	0.07	14.03
92	I	Perylene-d12	1.000	1.000	0.0	107	0.17	15.97
		----------	True	Calc.	% Drift	----------		
93	t	Di-n-octylphthalate	50.000	42.796	14.4	90	0.14	15.03
		----------	AvgRF	CCRF	% Dev	----------		
94	t	Benzo[b]fluoranthene	1.352	1.395	-3.2	112	0.16	15.45
95	t	Benzo[k]fluoranthene	1.207	1.274	-5.6	111	0.16	15.49
96	t	Benzo[a]pyrene	1.129	1.176	-4.2	110	0.17	15.89
97	t	Indeno[1,2,3-cd]pyrene	1.076	1.250	-16.2	120	0.20	17.41
98	t	Dibenz(a,h)acridine	1.012	1.084	-7.1	110	0.19	17.09
99	t	Dibenz[a,h]anthracene	1.068	1.277	-19.6	128	0.20	17.44
100	t	7,12-Dimethylbenz(a)anthr	0.603	0.608	-0.8	101	0.16	15.44
101	t	Benzo[g,h,i]perylene	1.036	1.218	-17.6	129	0.21	17.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E82671a.D M3E3623.M Mon May 16 13:12:46 2016 MS3E

6.7.15
6

Initial Calibration Summary

Job Number: JC20184 **Sample:** E3M2855-ICC2855
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3M60763A.D
Project: BMSMC, Building 5 Area, PR


```
                        Response Factor Report  MS3M

Method       : C:\MSDCHEM\1\METHODS\M3M2855SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Fri Apr 22 08:34:22 2016
Response via : Initial Calibration

Calibration Files
2.5 =3m60771.D   1.0 =3m60763a.D  0.5 =3m60764a.D  0.2 =3m60765a.D
0.1 =3m60766.D   0.05=3m60767.D   0.02=3m60768.D   0.01=3m60769.D
5   =3m60770.D       =                =                =

Compound
            2.5   1.0   0.5   0.2   0.1   0.05  0.02  0.01  5            Avg    %RSD
-----------------------------------------------------------------------------

1) I   1-Methylnaphthalene-d ----------------ISTD---------------------
2)  1,4-dioxane
          0.203 0.208 0.213 0.203 0.229 0.249 0.142 0.206 0.207        0.207   13.87
3)  2-Fluorophenol
          0.491 0.509 0.520 0.520 0.508 0.504 0.493       0.460        0.500    3.90
4)  Phenol-d5
          0.804 0.853 0.878 0.881 0.846 0.829 0.817 0.745 0.800        0.828    5.16
5)  Phenol
          0.851 0.928 0.933 0.920 0.894 0.883 0.866       0.866        0.893    3.51
6)  bis(2-Chloroethyl)ether
          0.591 0.707 0.712 0.713 0.696 0.711 0.696 0.663 0.582        0.675    7.74
7)  Nitrobenzene-d5
          0.638 0.806 0.832 0.805 0.758 0.744             0.807        0.770    8.55
8)  Nitrobenzene
          0.854 0.860 0.836 0.825 0.799 0.811 0.814 0.833 0.887        0.836    3.30
9)  Naphthalene
          2.224 2.193 2.197 2.251 2.235 2.191 2.239 2.236 2.237        2.223    1.02
10)  Hexachlorobutadiene
          0.362 0.402 0.405 0.406 0.389 0.398 0.383 0.361 0.382        0.387    4.43
11)  2-Methylnaphthalene
          1.162 1.204 1.136 1.160 1.133 1.125 1.156 1.137 1.209        1.158    2.63
12)  1-Methylnaphthalene
          1.412 1.400 1.398 1.453 1.441 1.564 1.930 2.020 1.413        1.559   15.54
13)  Hexachlorocyclopentadiene
          0.328 0.354 0.325 0.283 0.244 0.242             0.377        0.308   17.08

14) I   Fluorene-d10          ----------------ISTD---------------------
15)  2-Fluorobiphenyl
          0.947 1.110 1.110 1.165 1.171 1.115 1.098 1.077              1.099    6.31
16)  Acenaphthylene
          1.412 1.536 1.478 1.441 1.385 1.283 1.281 1.283 1.368        1.385    6.61
17)  Acenaphthene
          0.909 0.985 0.947 0.967 0.951 0.914 0.906 0.875 0.867        0.925    4.39
18)  4,6-dinitro-2-methylphenol
          0.154 0.130 0.084 0.056 0.038                   0.176        0.106   52.07
           ---- Quadratic regression ----  Coefficient =  0.9996
             Response Ratio = -0.02319 + 0.14133 *A + 0.00610 *A^2

19)  Fluorene
          1.036 1.189 1.143 1.159 1.121 1.092 1.109 1.147 0.991        1.110    5.63
20)  2,4,6-Tribromophenol
          0.120 0.132 0.134 0.130 0.115                   0.120        0.125    6.09

21) I   Fluoranthene-d10      ----------------ISTD---------------------
```

Initial Calibration Summary

Job Number: JC20184 **Sample:** E3M2855-ICC2855
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3M60763A.D
Project: BMSMC, Building 5 Area, PR

```
22)  Hexachlorobenzene
           0.191 0.190 0.190 0.190 0.186 0.186 0.187 0.186 0.196        0.189    1.67
23)  Pentachlorophenol
           0.133 0.135 0.123 0.099 0.084 0.077             0.134        0.112   22.28
            ---- Quadratic regression ----  Coefficient =  0.9999
              Response Ratio = -0.00592 + 0.13565 *A + -0.00012 *A^2

24)  Phenanthrene
           0.997 0.998 0.996 0.962 0.938 0.921 0.981 1.013 1.014        0.980    3.36
25)  Anthracene
           0.976 0.941 0.912 0.863 0.787 0.773 0.758 0.766 1.007        0.865   11.30
26)  Fluoranthene
           1.111 1.150 1.092 1.112 1.098 1.149 1.440 1.808 1.123        1.231   19.61
27)  Pyrene
           1.134 1.180 1.158 1.109 1.065 1.078 1.108 1.287 1.178        1.144    5.89
28)  Terphenyl-d14
           0.578 0.563 0.590 0.618 0.600 0.611             0.501        0.580    6.83
29)  Benzo[a]anthracene
           1.009 1.068 1.029 0.987 0.960 1.043 1.216 1.538 1.019        1.097   16.49
30)  Chrysene
           1.077 1.074 1.014 1.032 1.014 1.069             1.077        1.051    2.84

31) I   Benzo(a)pyrene-d12    ----------------ISTD---------------------
32)  Benzo[b]fluoranthene
           1.285 1.344 1.281 1.288 1.257 1.317 1.607       1.269        1.331    8.62
33)  Benzo[k]fluoranthene
           1.212 1.238 1.139 1.169 1.261 1.246 1.449 1.113 1.259        1.232    7.92
34)  Benzo[a]pyrene
           1.170 1.217 1.162 1.160 1.081 1.465 1.220 1.504 1.177        1.240   11.69
35)  Indeno[1,2,3-cd]pyrene
           1.291 1.342 1.265 1.286 1.256 1.194 1.201 1.184 1.320        1.260    4.48
36)  Dibenz[a,h]anthracene
           1.076 1.073 0.976 1.048 1.030 0.956 0.902 1.177 1.111        1.039    8.10
37)  Benzo[g,h,i]perylene
           1.122 1.143 1.083 1.090 1.091 1.073 1.041 1.074 1.135        1.095    3.02
-----------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M3M2855SIM.M        Fri Apr 22 09:08:14 2016   RPT1
```

Initial Calibration Verification

Job Number: JC20184 **Sample:** E3M2855-ICV2855
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3M60772.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3M2855\3m60772.D          Vial: 11
Acq On    : 21 Apr 2016   7:27 pm                    Operator: linseyk
Sample    : icv2855-1.0                              Inst    : MS3M
Misc      : op93052a,e3m2855                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M3M2855SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Fri Apr 22 08:34:22 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	117	0.00	10.64
5		Phenol	0.893	0.813	9.0	102	0.01	6.13
14	I	Fluorene-d10	1.000	1.000	0.0	119	0.00	13.64
		----------	True	Calc.	% Drift	----------		
18	t	4,6-dinitro-2-methylpheno	5.000	3.836	23.3	86	0.00	13.85
21	I	Fluoranthene-d10	1.000	1.000	0.0	111	0.00	17.84
		----------	True	Calc.	% Drift	----------		
23	t	Pentachlorophenol	5.000	4.338	13.2	93	0.00	15.20

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 3m60763a.D M3M2855SIM.M       Fri Apr 22 09:06:50 2016   RPT1
```

Initial Calibration Verification

Job Number: JC20184 **Sample:** E3M2855-ICV2855
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3M60773.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3M2855\3m60773.D          Vial: 12
Acq On    : 21 Apr 2016   8:00 pm                    Operator: linseyk
Sample    : icv2855-1.0                              Inst    : MS3M
Misc      : op93052a,e3m2855                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M3M2855SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Fri Apr 22 08:34:22 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	95	0.00	10.64
2	t	1,4-dioxane	0.207	0.220	-6.3	101	0.02	2.32
6	t	bis(2-Chloroethyl)ether	0.675	0.672	0.4	91	0.00	6.29
8	t	Nitrobenzene	0.836	0.685	18.1	76	0.00	7.76
9	t	Naphthalene	2.223	2.523	-13.5	110	0.00	9.14
10	t	Hexachlorobutadiene	0.387	0.431	-11.4	102	0.00	9.42
11	t	2-Methylnaphthalene	1.158	1.207	-4.2	95	0.00	10.52
14	I	Fluorene-d10	1.000	1.000	0.0	91	0.00	13.64
16	t	Acenaphthylene	1.385	1.474	-6.4	87	0.00	12.29
17	t	Acenaphthene	0.925	1.076	-16.3	99	0.00	12.65
		----------	AvgRF	CCRF	% Dev	----------		
19	t	Fluorene	1.110	1.199	-8.0	92	0.00	13.68
21	I	Fluoranthene-d10	1.000	1.000	0.0	83	0.00	17.84
22	t	Hexachlorobenzene	0.189	0.213	-12.7	93	0.00	14.78
		----------	AvgRF	CCRF	% Dev	----------		
24	t	Phenanthrene	0.980	1.137	-16.0	94	0.00	15.60
25	t	Anthracene	0.865	0.996	-15.1	88	0.00	15.71
26	t	Fluoranthene	1.231	1.254	-1.9	90	0.00	17.87
27	t	Pyrene	1.144	1.234	-7.9	87	0.00	18.26
29	t	Benzo[a]anthracene	1.097	1.218	-11.0	94	0.01	20.36
30	t	Chrysene	1.051	1.074	-2.2	83	0.00	20.41
31	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	77	0.00	22.45
32	t	Benzo[b]fluoranthene	1.331	1.246	6.4	71	0.00	22.02
33	t	Benzo[k]fluoranthene	1.232	1.383	-12.3	85	0.00	22.06
34	t	Benzo[a]pyrene	1.240	1.197	3.5	75	0.00	22.46
35	t	Indeno[1,2,3-cd]pyrene	1.260	1.312	-4.1	75	0.00	23.96
36	t	Dibenz[a,h]anthracene	1.039	1.040	-0.1	74	0.00	24.02
37	t	Benzo[g,h,i]perylene	1.095	1.148	-4.8	77	0.00	24.36

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3m60763a.D M3M2855SIM.M Fri Apr 22 09:06:52 2016 RPT1

Initial Calibration Verification

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3M2855-ICV2855
Lab FileID: 3M60774.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3M2855\3m60774.D          Vial: 13
Acq On    : 21 Apr 2016   8:35 pm                    Operator: linseyk
Sample    : icv2855-1.0                              Inst    : MS3M
Misc      : op93052a,e3m2855                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M3M2855SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Fri Apr 22 08:34:22 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	108	0.00	10.64
12 t	1-Methylnaphthalene	1.559	1.488	4.6	115	0.00	10.70
13	Hexachlorocyclopentadiene	0.308	0.322	-4.6	98	0.00	10.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3m60763a.D M3M2855SIM.M Fri Apr 22 09:07:18 2016 RPT1

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3M2883-CC2855
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3M61317.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3M2883\3m61317.D          Vial: 2
Acq On    : 13 May 2016  11:03 pm                    Operator: JULIUSJ
Sample    : CC2855-0.5                               Inst    : MS3M
Misc      : op93756a,e3m2883                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M3M2855SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu May 12 12:34:26 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	139	0.04	10.41
2	t	1,4-dioxane	0.207	0.202	2.4	132	0.04	2.14
3	S	2-Fluorophenol	0.500	0.507	-1.4	135	0.04	4.35
4	S	Phenol-d5	0.828	0.796	3.9	126	0.05	5.98
5		Phenol	0.893	0.835	6.5	124	0.05	5.99
6	t	bis(2-Chloroethyl)ether	0.675	0.597	11.6	116	0.04	6.08
7	S	Nitrobenzene-d5	0.770	0.641	16.8	107	0.02	7.51
8	t	Nitrobenzene	0.836	0.721	13.8	120	0.04	7.55
9	t	Naphthalene	2.223	1.982	10.8	125	0.06	8.92
10	t	Hexachlorobutadiene	0.387	0.369	4.7	126	0.04	9.21
11	t	2-Methylnaphthalene	1.158	1.189	-2.7	145	0.04	10.28
12	t	1-Methylnaphthalene	1.559	1.166	25.2#	116	0.02	10.47
13		Hexachlorocyclopentadiene	0.308	0.244	20.8#	104	0.04	10.63
14	I	Fluorene-d10	1.000	1.000	0.0	135	0.04	13.41
15	S	2-Fluorobiphenyl	1.099	1.042	5.2	127	0.05	11.08
16	t	Acenaphthylene	1.385	1.318	4.8	121	0.04	12.06
17	t	Acenaphthene	0.925	0.869	6.1	124	0.04	12.41
		----------	True	Calc.	% Drift	----------		
18	t	4,6-dinitro-2-methylpheno	2.500	1.802	27.9#	108	0.04	13.64
		----------	AvgRF	CCRF	% Dev	----------		
19	t	Fluorene	1.110	1.011	8.9	120	0.06	13.47
20	S	2,4,6-Tribromophenol	0.125	0.116	7.2	117	0.04	13.96
21	I	Fluoranthene-d10	1.000	1.000	0.0	131	0.03	17.62
22	t	Hexachlorobenzene	0.189	0.177	6.3	122	0.04	14.55
		----------	True	Calc.	% Drift	----------		
23	t	Pentachlorophenol	2.500	1.850	26.0#	97	0.04	15.00
		----------	AvgRF	CCRF	% Dev	----------		
24	t	Phenanthrene	0.980	0.950	3.1	125	0.04	15.37
25	t	Anthracene	0.865	0.855	1.2	123	0.04	15.47
26	t	Fluoranthene	1.231	1.076	12.6	129	0.03	17.65
27	t	Pyrene	1.144	1.089	4.8	123	0.05	18.06
28	S	Terphenyl-d14	0.580	0.615	-6.0	136	0.03	18.44
29	t	Benzo[a]anthracene	1.097	0.996	9.2	126	0.05	20.14
30	t	Chrysene	1.051	0.994	5.4	128	0.05	20.20
31	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	133	0.03	22.23

Continuing Calibration Summary

Job Number: JC20184 **Sample:** E3M2883-CC2855
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3M61317.D
Project: BMSMC, Building 5 Area, PR

32	t	Benzo[b]fluoranthene	1.331	1.245	6.5	129	0.03	21.81
33	t	Benzo[k]fluoranthene	1.232	1.133	8.0	132	0.05	21.86
34	t	Benzo[a]pyrene	1.240	1.119	9.8	128	0.03	22.26
35	t	Indeno[1,2,3-cd]pyrene	1.260	1.303	-3.4	137	0.04	23.73
36	t	Dibenz[a,h]anthracene	1.039	1.073	-3.3	147	0.04	23.77
37	t	Benzo[g,h,i]perylene	1.095	1.132	-3.4	139	0.04	24.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3m60764a.D M3M2855SIM.M Mon May 16 13:29:09 2016 RPT1

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83229.D
Acq On : 14 May 2016 2:36 pm
Operator : ashleyn
Sample : jc20184-1
Misc : op93902,e3e3649,900
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 16 09:34:44 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	146456	40.00 ppm	-0.05
24) Naphthalene-d8	5.399	136	547189	40.00 ppm	-0.06
47) Acenaphthene-d10	7.378	164	360377	40.00 ppm	-0.08
69) Phenanthrene-d10	9.522	188	652278	40.00 ppm	-0.09
83) Chrysene-d12	13.684	240	749139	40.00 ppm	-0.10
92) Perylene-d12	15.791	264	697777	40.00 ppm	-0.01
102) 1,4-Dichlorobenzene-d4a	4.366	152	146456	40.00 ppm	-0.05
104) Acenaphthene-d10a	7.378	164	360377	40.00 ppm	-0.08
106) Phenanthrene-d10a	9.522	188	652278	40.00 ppm	-0.09
108) Chrysene-d12a	13.684	240	749139	40.00 ppm	-0.10
110) Naphthalene-d8a	5.399	136	547189	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.404	112	89159	19.86 ppm	-0.05
Spiked Amount 50.000			Recovery	= 39.72%	
8) Phenol-d5	4.152	99	80272	13.74 ppm	-0.02
Spiked Amount 50.000			Recovery	= 27.48%	
25) Nitrobenzene-d5	4.794	82	178067	32.54 ppm	-0.05
Spiked Amount 50.000			Recovery	= 65.08%	
51) 2-Fluorobiphenyl	6.543	172	427924	35.80 ppm	-0.08
Spiked Amount 50.000			Recovery	= 71.60%	
73) 2,4,6-Tribromophenol	8.501	330	91791	39.90 ppm	-0.09
Spiked Amount 50.000			Recovery	= 79.80%	
85) Terphenyl-d14	12.074	244	567168	36.06 ppm	-0.11
Spiked Amount 50.000			Recovery	= 72.12%	

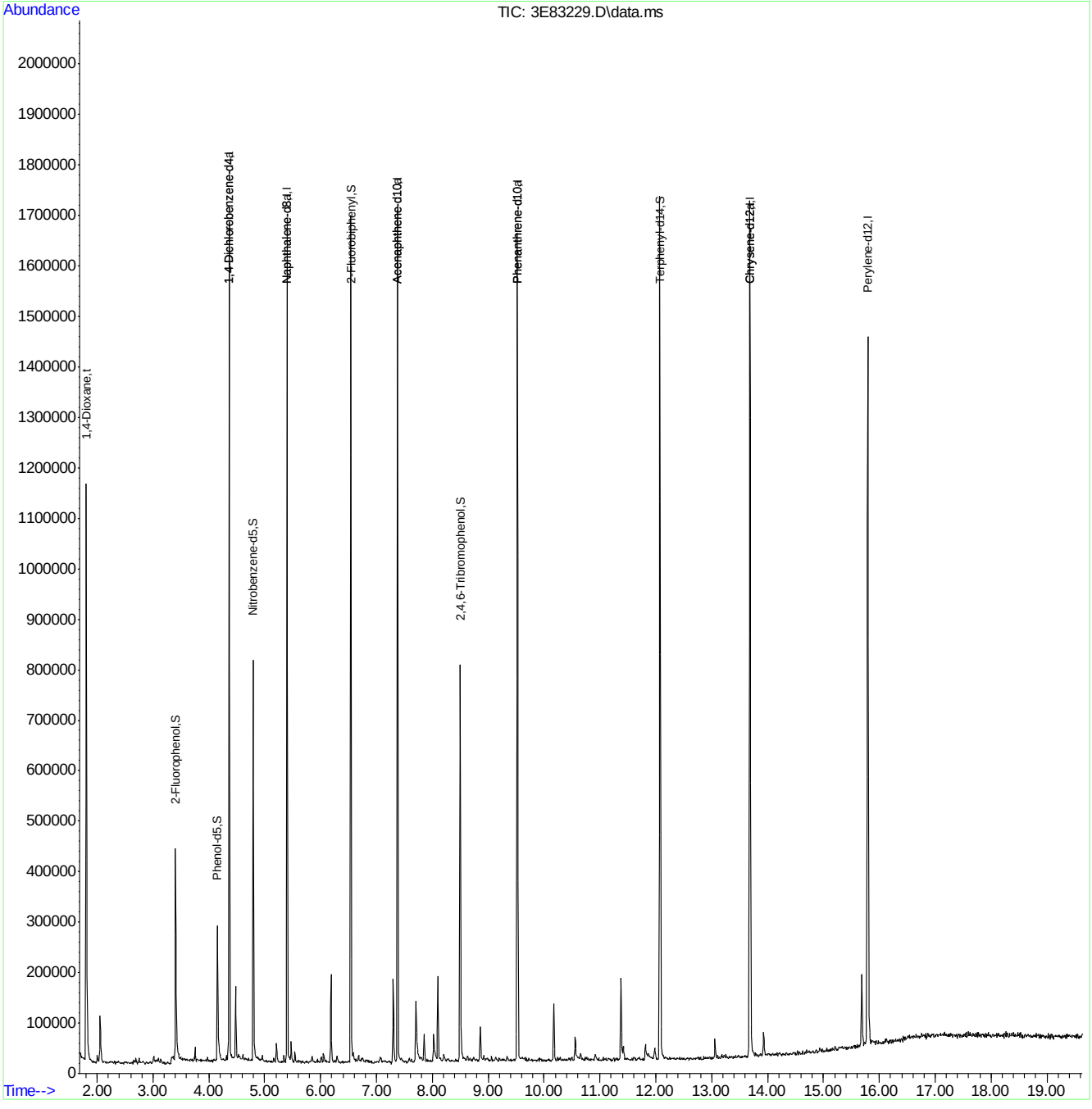
Target Compounds					Qvalue
2) 1,4-Dioxane	1.804	88	362161	271.21 ppm	97

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

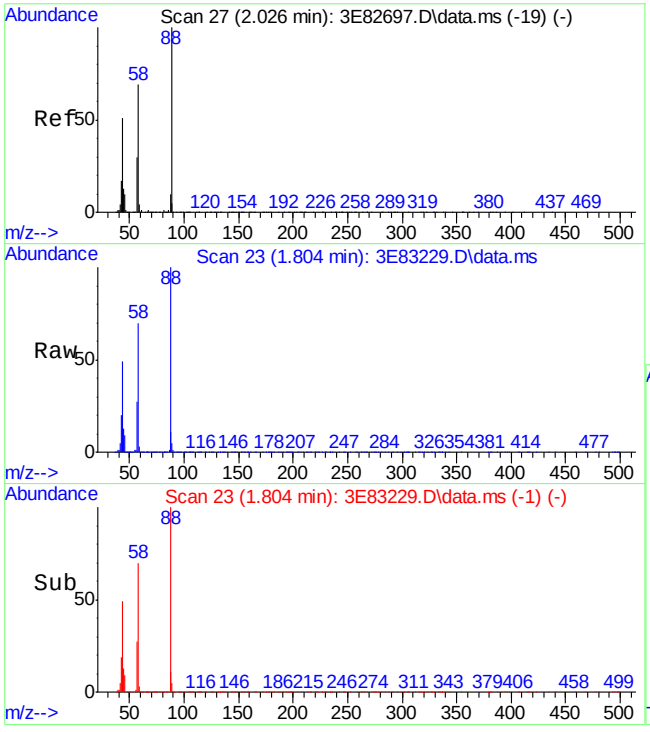
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83229.D
Acq On : 14 May 2016 2:36 pm
Operator : ashleyn
Sample : jc20184-1
Misc : op93902,e3e3649,900
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 16 09:34:44 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



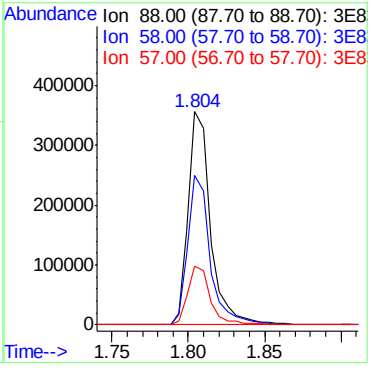
M3E3623.M Mon May 16 09:34:54 2016 MS3E Page: 2



#2
1,4-Dioxane
Concen: 271.21 ppm
RT: 1.804 min Scan# 23
Delta R.T. -0.169 min
Lab File: 3E83229.D
Acq: 14 May 2016 2:36 pm

Tgt Ion: 88 Resp: 362161

Ion	Ratio	Lower	Upper
88	100		
58	70.1	39.2	99.2
57	27.1	0.5	60.5



7.1.1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83278.D
Acq On : 16 May 2016 12:22 pm
Operator : ashleyn
Sample : jc20184-1
Misc : op93902,e3e3650,900,,,1,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 13:13:22 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.457	152	186684	40.00 ppm	0.04
24) Naphthalene-d8	5.506	136	730797	40.00 ppm	0.05
47) Acenaphthene-d10	7.511	164	502139	40.00 ppm	0.05
69) Phenanthrene-d10	9.672	188	921093	40.00 ppm	0.06
83) Chrysene-d12	13.850	240	1036915	40.00 ppm	0.07
92) Perylene-d12	15.962	264	790931	40.00 ppm	0.16
102) 1,4-Dichlorobenzene-d4a	4.457	152	186684	40.00 ppm	0.04
104) Acenaphthene-d10a	7.511	164	502139	40.00 ppm	0.05
106) Phenanthrene-d10a	9.672	188	921093	40.00 ppm	0.06
108) Chrysene-d12a	13.850	240	1036915	40.00 ppm	0.07
110) Naphthalene-d8a	5.506	136	730797	40.00 ppm	0.05

System Monitoring Compounds					
5) 2-Fluorophenol	3.676	112	15169	2.65 ppm	0.22
Spiked Amount 50.000			Recovery	= 5.30%	
8) Phenol-d5	4.457	99	19109	2.57 ppm	0.28
Spiked Amount 50.000			Recovery	= 5.14%	
25) Nitrobenzene-d5	4.896	82	29186	3.99 ppm	0.05
Spiked Amount 50.000			Recovery	= 7.98%	
51) 2-Fluorobiphenyl	6.666	172	73184	4.39 ppm	0.05
Spiked Amount 50.000			Recovery	= 8.78%	
73) 2,4,6-Tribromophenol	8.677	330	13280	4.09 ppm	0.08
Spiked Amount 50.000			Recovery	= 8.18%	
85) Terphenyl-d14	12.229	244	103742	4.77 ppm	0.04
Spiked Amount 50.000			Recovery	= 9.54%	

Target Compounds					Qvalue
2) 1,4-Dioxane	1.922	88	53407	31.38 ppm	93

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

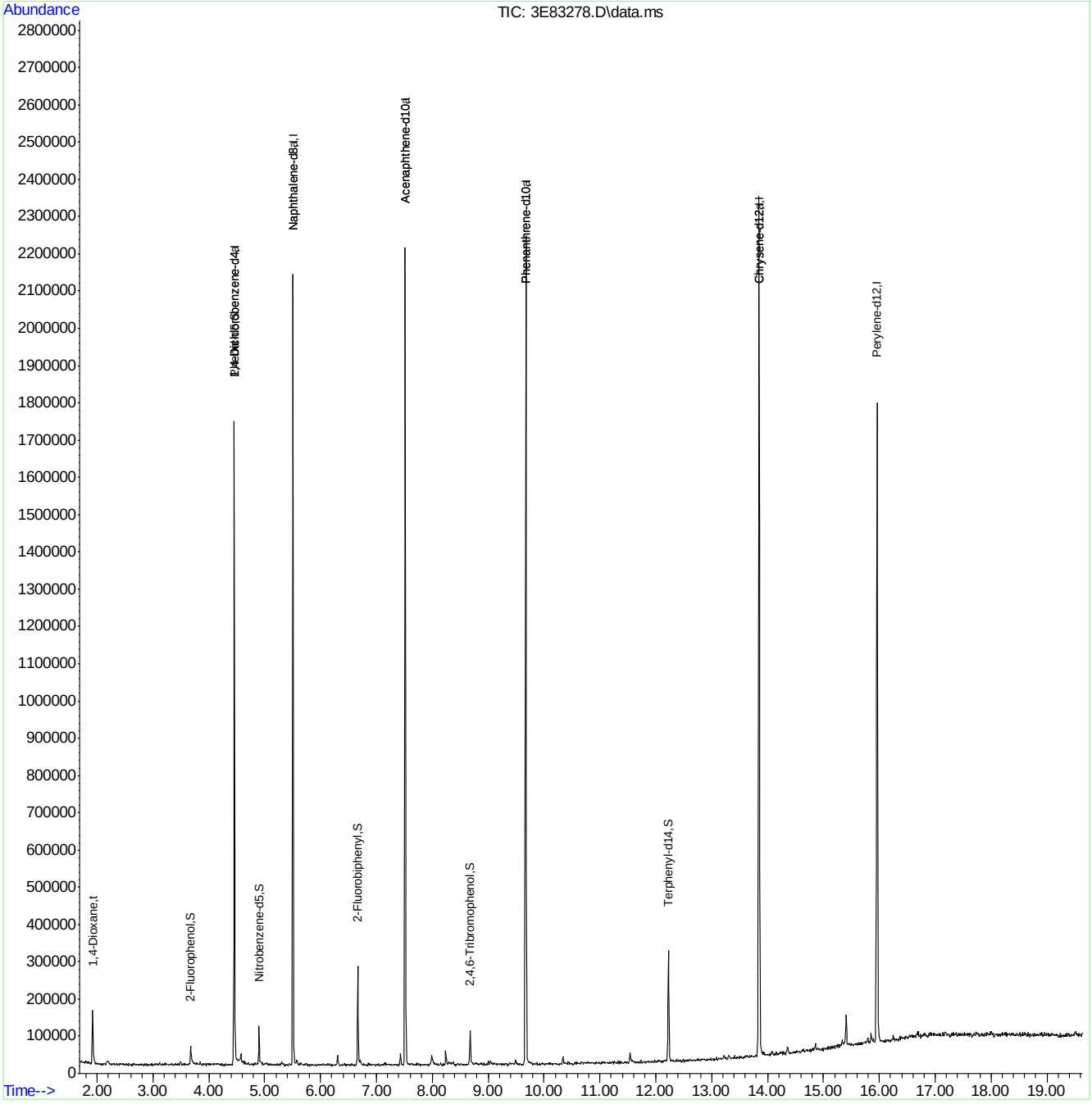
7.1.2

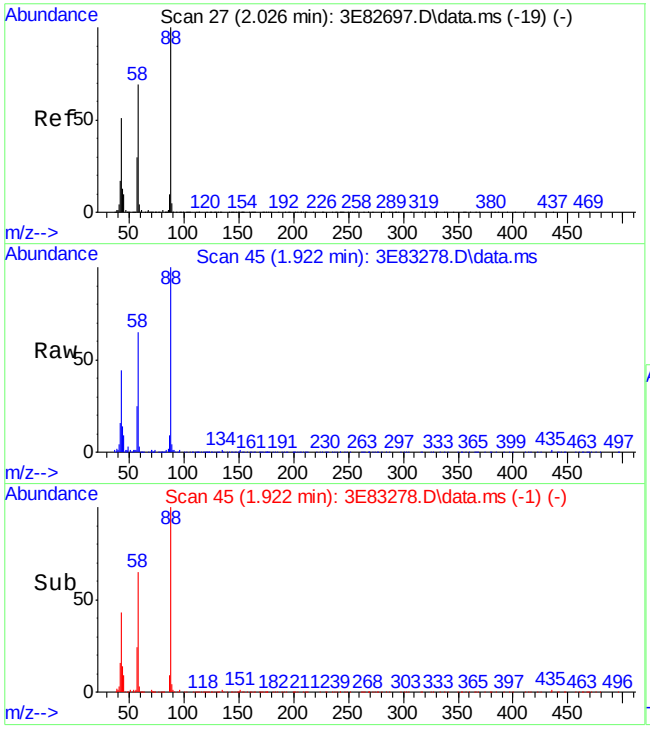
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83278.D
Acq On : 16 May 2016 12:22 pm
Operator : ashleyn
Sample : jc20184-1
Misc : op93902,e3e3650,900,,,1,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 13:13:22 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration

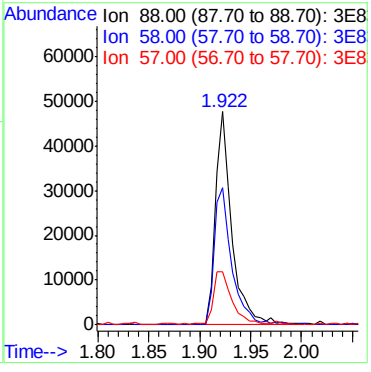




#2
1,4-Dioxane
Concen: 31.38 ppm
RT: 1.922 min Scan# 45
Delta R.T. -0.051 min
Lab File: 3E83278.D
Acq: 16 May 2016 12:22 pm

Tgt Ion: 88 Resp: 53407

Ion	Ratio	Lower	Upper
88	100		
58	64.6	39.2	99.2
57	24.2	0.5	60.5



7.1.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83230.D
Acq On : 14 May 2016 3:02 pm
Operator : ashleyn
Sample : jc20184-2
Misc : op93902,e3e3649,920
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 16 09:35:20 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	144250	40.00 ppm	-0.05
24) Naphthalene-d8	5.399	136	539408	40.00 ppm	-0.06
47) Acenaphthene-d10	7.378	164	351168	40.00 ppm	-0.08
69) Phenanthrene-d10	9.522	188	642788	40.00 ppm	-0.09
83) Chrysene-d12	13.684	240	726372	40.00 ppm	-0.10
92) Perylene-d12	15.791	264	680966	40.00 ppm	-0.01
102) 1,4-Dichlorobenzene-d4a	4.366	152	144250	40.00 ppm	-0.05
104) Acenaphthene-d10a	7.378	164	351168	40.00 ppm	-0.08
106) Phenanthrene-d10a	9.522	188	642788	40.00 ppm	-0.09
108) Chrysene-d12a	13.684	240	726372	40.00 ppm	-0.10
110) Naphthalene-d8a	5.399	136	539408	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.398	112	84811	19.18 ppm	-0.06
Spiked Amount 50.000			Recovery	= 38.36%	
8) Phenol-d5	4.152	99	70985	12.34 ppm	-0.02
Spiked Amount 50.000			Recovery	= 24.68%	
25) Nitrobenzene-d5	4.794	82	184393	34.18 ppm	-0.05
Spiked Amount 50.000			Recovery	= 68.36%	
51) 2-Fluorobiphenyl	6.543	172	422372	36.27 ppm	-0.08
Spiked Amount 50.000			Recovery	= 72.54%	
73) 2,4,6-Tribromophenol	8.501	330	85469	37.70 ppm	-0.09
Spiked Amount 50.000			Recovery	= 75.40%	
85) Terphenyl-d14	12.074	244	590721	38.74 ppm	-0.11
Spiked Amount 50.000			Recovery	= 77.48%	

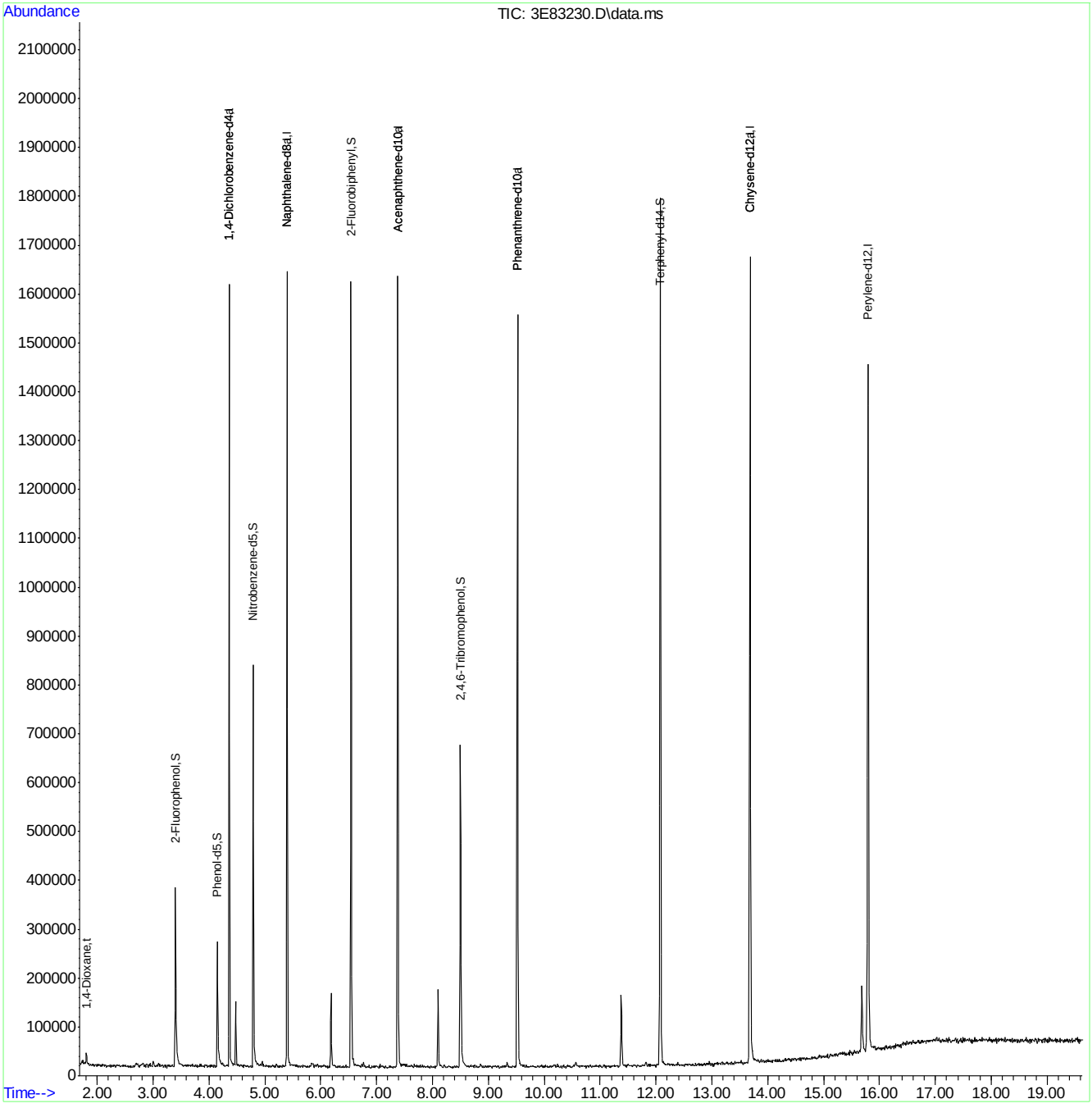
Target Compounds					Qvalue
2) 1,4-Dioxane	1.810	88	7951	6.05 ppm	94

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

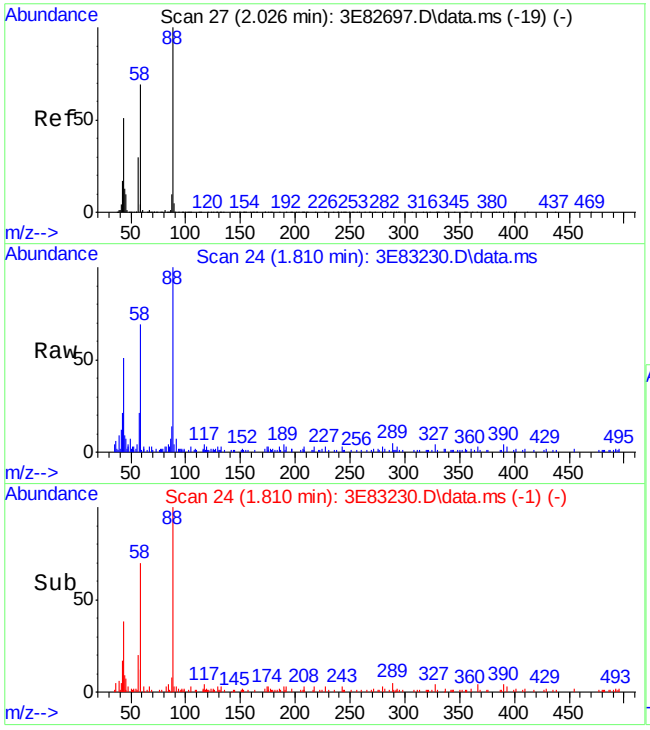
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83230.D
Acq On : 14 May 2016 3:02 pm
Operator : ashleyn
Sample : jc20184-2
Misc : op93902,e3e3649,920
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 16 09:35:20 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



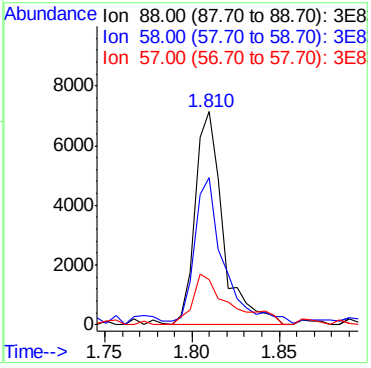
SGS ACCUTEST JC20184



#2
1,4-Dioxane
Concen: 6.05 ppm
RT: 1.810 min Scan# 24
Delta R.T. -0.164 min
Lab File: 3E83230.D
Acq: 14 May 2016 3:02 pm

Tgt Ion: 88 Resp: 7951

Ion	Ratio	Lower	Upper
88	100		
58	67.8	39.2	99.2
57	21.3	0.5	60.5



7.1.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83231.D
Acq On : 14 May 2016 3:29 pm
Operator : ashleyn
Sample : jc20184-3
Misc : op93902,e3e3649,890
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 16 09:36:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.367	152	155521	40.00 ppm	-0.05
24) Naphthalene-d8	5.399	136	571934	40.00 ppm	-0.06
47) Acenaphthene-d10	7.378	164	377453	40.00 ppm	-0.08
69) Phenanthrene-d10	9.523	188	689459	40.00 ppm	-0.09
83) Chrysene-d12	13.684	240	790989	40.00 ppm	-0.10
92) Perylene-d12	15.797	264	754462	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.367	152	155521	40.00 ppm	-0.05
104) Acenaphthene-d10a	7.378	164	377453	40.00 ppm	-0.08
106) Phenanthrene-d10a	9.523	188	689459	40.00 ppm	-0.09
108) Chrysene-d12a	13.684	240	790989	40.00 ppm	-0.10
110) Naphthalene-d8a	5.399	136	571934	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.404	112	78897	16.55 ppm	-0.05
Spiked Amount 50.000			Recovery	= 33.10%	
8) Phenol-d5	4.153	99	68144	10.99 ppm	-0.02
Spiked Amount 50.000			Recovery	= 21.98%	
25) Nitrobenzene-d5	4.794	82	156724	27.40 ppm	-0.05
Spiked Amount 50.000			Recovery	= 54.80%	
51) 2-Fluorobiphenyl	6.543	172	391259	31.26 ppm	-0.08
Spiked Amount 50.000			Recovery	= 62.52%	
73) 2,4,6-Tribromophenol	8.501	330	84914	34.92 ppm	-0.09
Spiked Amount 50.000			Recovery	= 69.84%	
85) Terphenyl-d14	12.074	244	510396	30.74 ppm	-0.11
Spiked Amount 50.000			Recovery	= 61.48%	

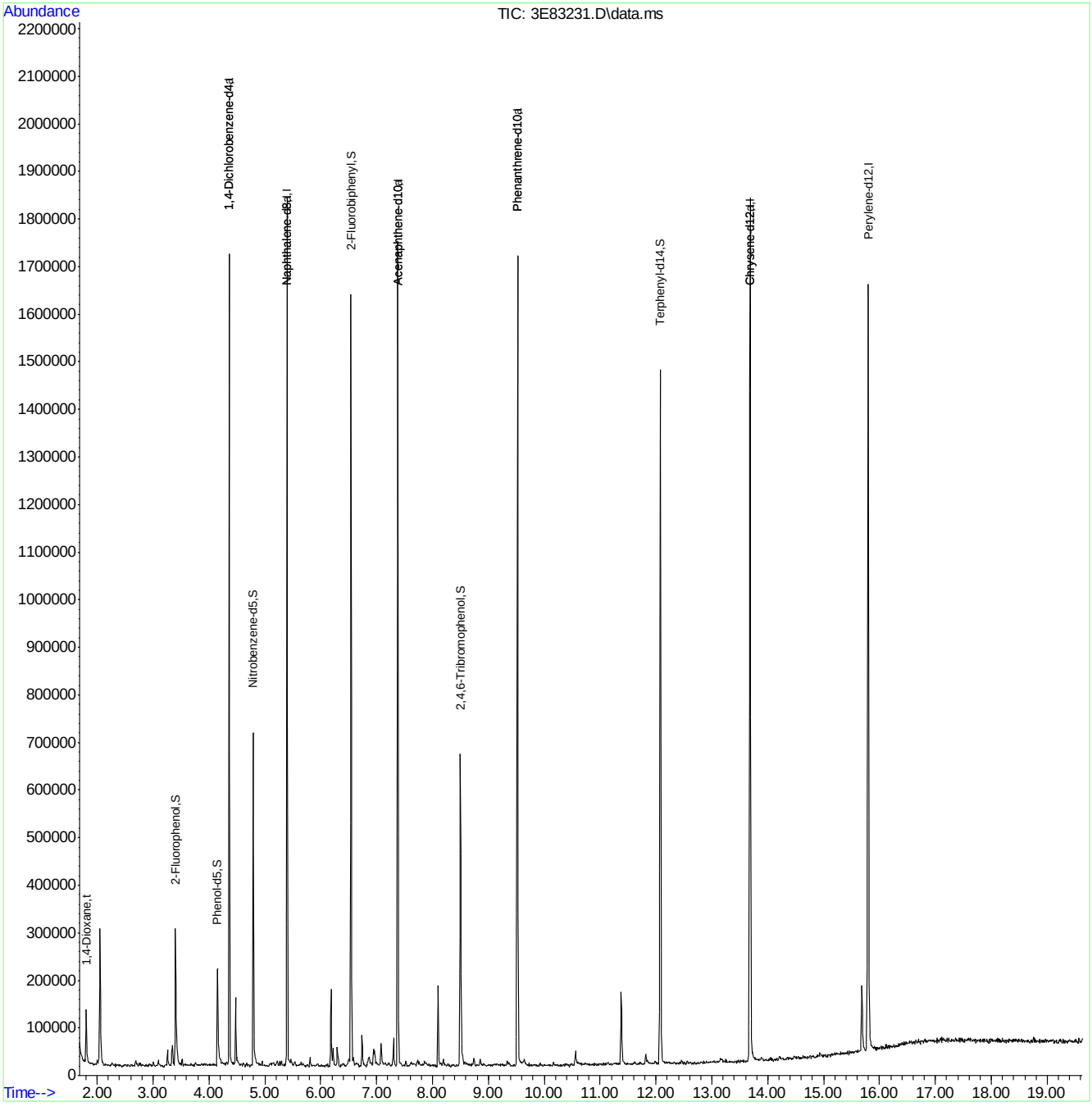
Target Compounds					Qvalue
2) 1,4-Dioxane	1.805	88	34321	24.20 ppm	95

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

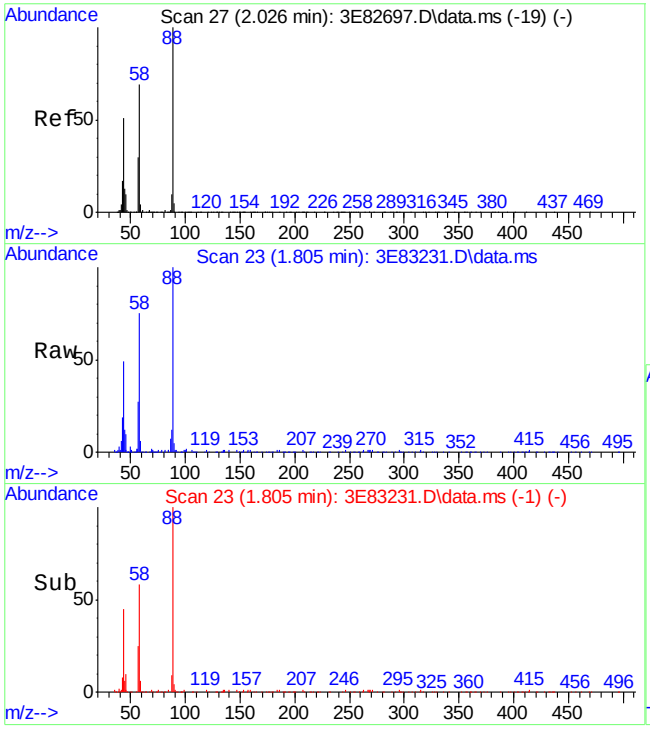
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83231.D
Acq On : 14 May 2016 3:29 pm
Operator : ashleyn
Sample : jc20184-3
Misc : op93902,e3e3649,890
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 16 09:36:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



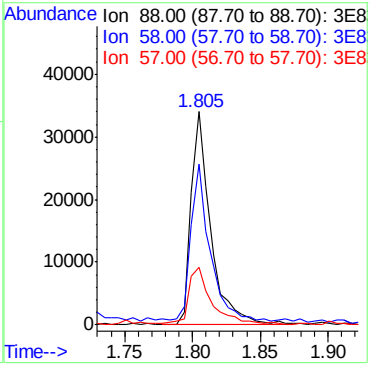
M3E3623.M Mon May 16 09:36:12 2016 MS3E Page: 2



#2
1,4-Dioxane
Concen: 24.20 ppm
RT: 1.805 min Scan# 23
Delta R.T. -0.169 min
Lab File: 3E83231.D
Acq: 14 May 2016 3:29 pm

Tgt Ion: 88 Resp: 34321

Ion	Ratio	Lower	Upper
88	100		
58	73.2	39.2	99.2
57	26.8	0.5	60.5



7.1.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83232.D
Acq On : 14 May 2016 3:55 pm
Operator : ashleyn
Sample : jc20184-4
Misc : op93902,e3e3649,950
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 16 09:36:56 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

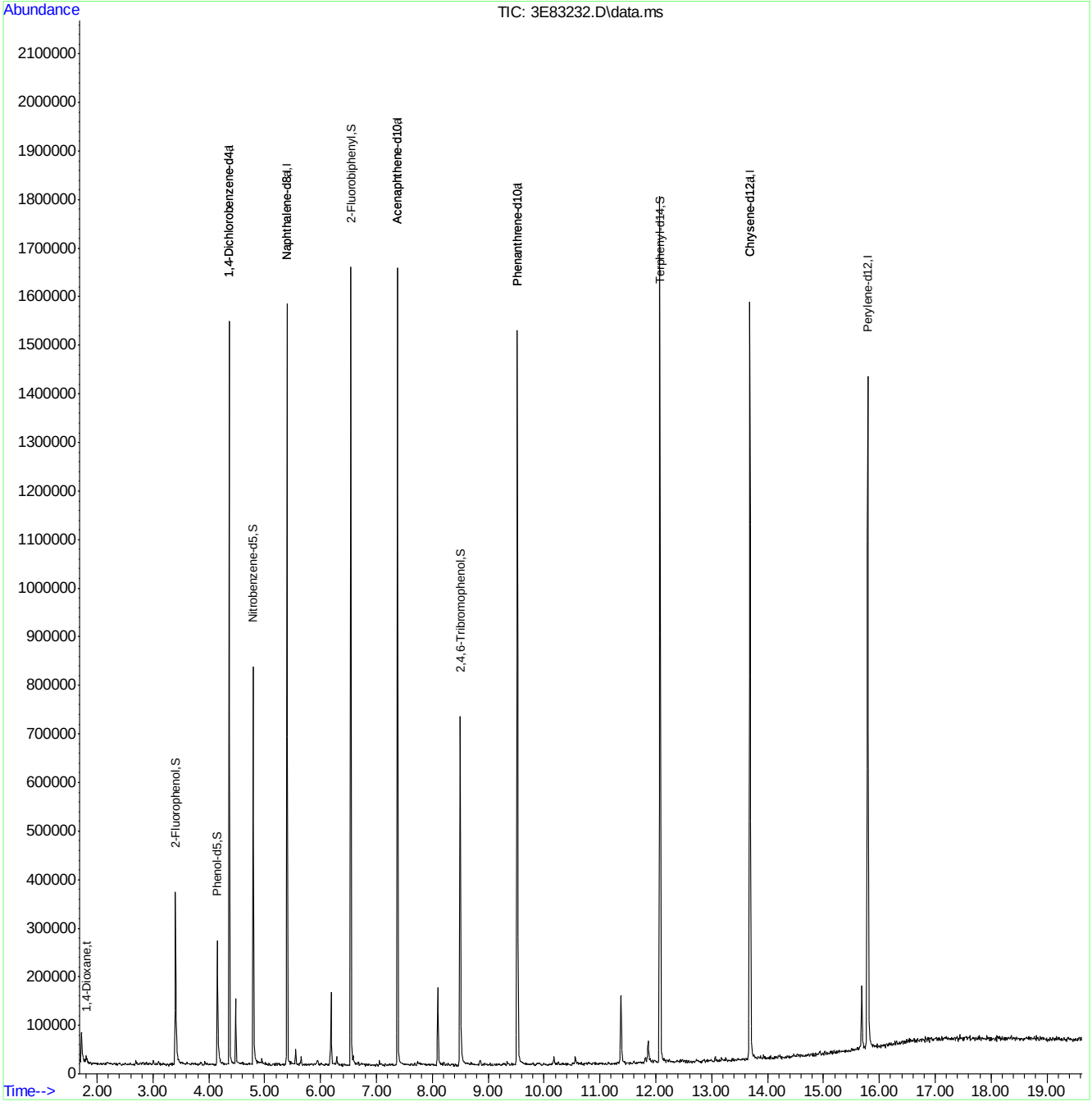
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	143529	40.00	ppm	-0.05
24) Naphthalene-d8	5.399	136	519349	40.00	ppm	-0.06
47) Acenaphthene-d10	7.378	164	344543	40.00	ppm	-0.08
69) Phenanthrene-d10	9.523	188	627247	40.00	ppm	-0.09
83) Chrysene-d12	13.684	240	692331	40.00	ppm	-0.10
92) Perylene-d12	15.791	264	652727	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4a	4.366	152	143529	40.00	ppm	-0.05
104) Acenaphthene-d10a	7.378	164	344543	40.00	ppm	-0.08
106) Phenanthrene-d10a	9.523	188	627247	40.00	ppm	-0.09
108) Chrysene-d12a	13.684	240	692331	40.00	ppm	-0.10
110) Naphthalene-d8a	5.399	136	519349	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.398	112	91838	20.87	ppm	-0.06
Spiked Amount 50.000			Recovery = 41.74%			
8) Phenol-d5	4.152	99	71255	12.45	ppm	-0.02
Spiked Amount 50.000			Recovery = 24.90%			
25) Nitrobenzene-d5	4.794	82	180661	34.78	ppm	-0.05
Spiked Amount 50.000			Recovery = 69.56%			
51) 2-Fluorobiphenyl	6.543	172	433754	37.96	ppm	-0.08
Spiked Amount 50.000			Recovery = 75.92%			
73) 2,4,6-Tribromophenol	8.501	330	90665	40.98	ppm	-0.09
Spiked Amount 50.000			Recovery = 81.96%			
85) Terphenyl-d14	12.074	244	615341	42.34	ppm	-0.11
Spiked Amount 50.000			Recovery = 84.68%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.810	88	4861	3.71	ppm	86

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

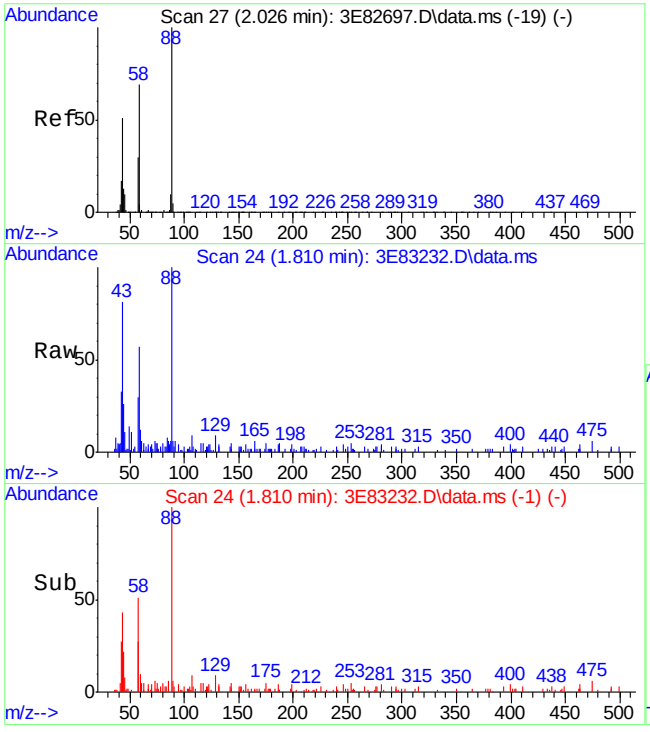
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83232.D
Acq On : 14 May 2016 3:55 pm
Operator : ashleyn
Sample : jc20184-4
Misc : op93902,e3e3649,950
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 16 09:36:56 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



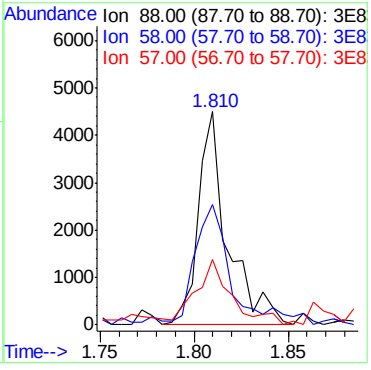
M3E3623.M Mon May 16 09:37:09 2016 MS3E Page: 2



#2
1,4-Dioxane
Concen: 3.71 ppm
RT: 1.810 min Scan# 24
Delta R.T. -0.163 min
Lab File: 3E83232.D
Acq: 14 May 2016 3:55 pm

Tgt Ion: 88 Resp: 4861

Ion	Ratio	Lower	Upper
88	100		
58	53.9	39.2	99.2
57	28.1	0.5	60.5



7.1.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83233.D
Acq On : 14 May 2016 4:22 pm
Operator : ashleyn
Sample : jc20184-5
Misc : op93902,e3e3649,910
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 16 09:38:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.367	152	143426	40.00	ppm	-0.05
24) Naphthalene-d8	5.399	136	520418	40.00	ppm	-0.06
47) Acenaphthene-d10	7.378	164	339953	40.00	ppm	-0.08
69) Phenanthrene-d10	9.523	188	619794	40.00	ppm	-0.09
83) Chrysene-d12	13.684	240	688747	40.00	ppm	-0.10
92) Perylene-d12	15.791	264	646507	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4a	4.367	152	143426	40.00	ppm	-0.05
104) Acenaphthene-d10a	7.378	164	339953	40.00	ppm	-0.08
106) Phenanthrene-d10a	9.523	188	619794	40.00	ppm	-0.09
108) Chrysene-d12a	13.684	240	688747	40.00	ppm	-0.10
110) Naphthalene-d8a	5.399	136	520418	40.00	ppm	-0.06

System Monitoring Compounds						
5) 2-Fluorophenol	3.404	112	80140	18.23	ppm	-0.05
Spiked Amount 50.000			Recovery = 36.46%			
8) Phenol-d5	4.153	99	70130	12.26	ppm	-0.02
Spiked Amount 50.000			Recovery = 24.52%			
25) Nitrobenzene-d5	4.794	82	173550	33.35	ppm	-0.05
Spiked Amount 50.000			Recovery = 66.70%			
51) 2-Fluorobiphenyl	6.543	172	411806	36.53	ppm	-0.08
Spiked Amount 50.000			Recovery = 73.06%			
73) 2,4,6-Tribromophenol	8.501	330	84682	38.74	ppm	-0.09
Spiked Amount 50.000			Recovery = 77.48%			
85) Terphenyl-d14	12.074	244	546573	37.80	ppm	-0.11
Spiked Amount 50.000			Recovery = 75.60%			

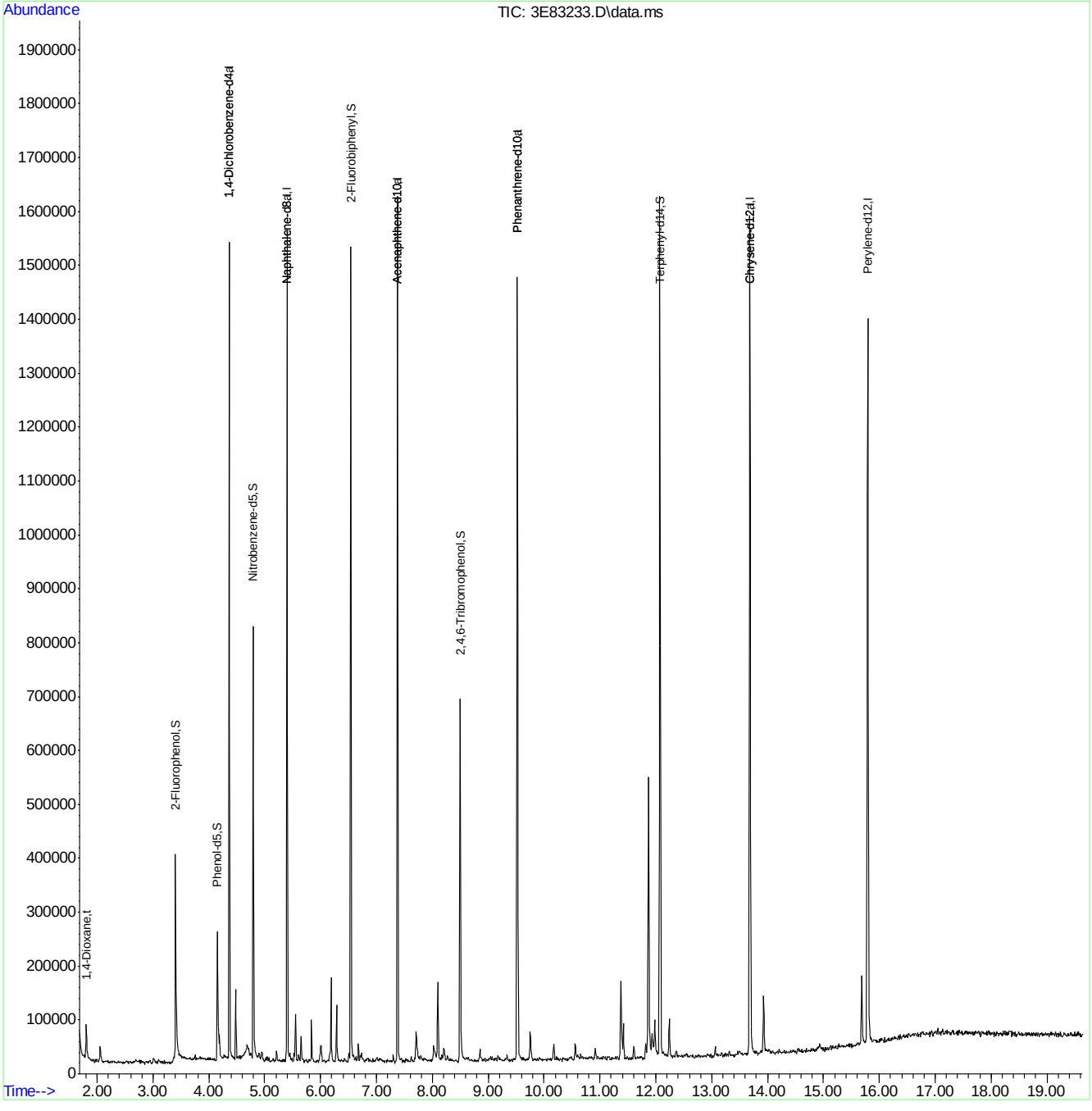
Target Compounds						Qvalue
2) 1,4-Dioxane	1.805	88	23269	17.79	ppm	95

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

Quantitation Report (QT Reviewed)

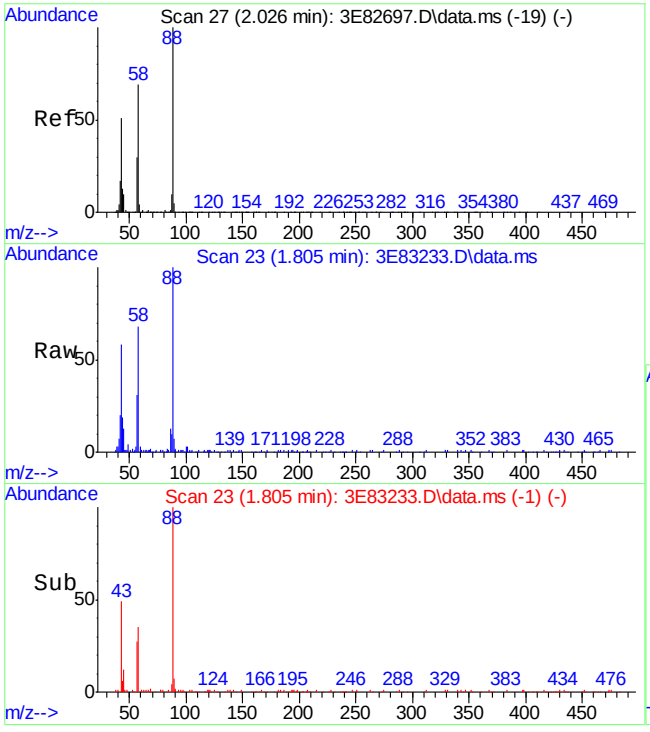
Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83233.D
Acq On : 14 May 2016 4:22 pm
Operator : ashleyn
Sample : jc20184-5
Misc : op93902,e3e3649,910
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 16 09:38:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



M3E3623.M Mon May 16 09:38:20 2016 MS3E

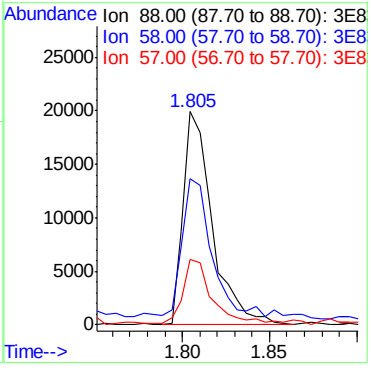
SGS ACCUTEST JC20184



#2
1,4-Dioxane
Concen: 17.79 ppm
RT: 1.805 min Scan# 23
Delta R.T. -0.169 min
Lab File: 3E83233.D
Acq: 14 May 2016 4:22 pm

Tgt Ion: 88 Resp: 23269

Ion	Ratio	Lower	Upper
88	100		
58	63.9	39.2	99.2
57	29.4	0.5	60.5



7.1.6

7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83234.D
Acq On : 14 May 2016 4:49 pm
Operator : ashleyn
Sample : jc20184-6
Misc : op93902,e3e3649,920
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 16 09:39:54 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	153469	40.00 ppm	-0.05
24) Naphthalene-d8	5.399	136	579913	40.00 ppm	-0.06
47) Acenaphthene-d10	7.378	164	378702	40.00 ppm	-0.08
69) Phenanthrene-d10	9.522	188	681443	40.00 ppm	-0.09
83) Chrysene-d12	13.684	240	761674	40.00 ppm	-0.10
92) Perylene-d12	15.791	264	685576	40.00 ppm	-0.01
102) 1,4-Dichlorobenzene-d4a	4.366	152	153469	40.00 ppm	-0.05
104) Acenaphthene-d10a	7.378	164	378702	40.00 ppm	-0.08
106) Phenanthrene-d10a	9.522	188	681443	40.00 ppm	-0.09
108) Chrysene-d12a	13.684	240	761674	40.00 ppm	-0.10
110) Naphthalene-d8a	5.399	136	579913	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.404	112	88201	18.75 ppm	-0.05
Spiked Amount 50.000			Recovery	= 37.50%	
8) Phenol-d5	4.152	99	67892	11.09 ppm	-0.02
Spiked Amount 50.000			Recovery	= 22.18%	
25) Nitrobenzene-d5	4.794	82	169249	29.18 ppm	-0.05
Spiked Amount 50.000			Recovery	= 58.36%	
51) 2-Fluorobiphenyl	6.543	172	400036	31.85 ppm	-0.08
Spiked Amount 50.000			Recovery	= 63.70%	
73) 2,4,6-Tribromophenol	8.501	330	86138	35.84 ppm	-0.09
Spiked Amount 50.000			Recovery	= 71.68%	
85) Terphenyl-d14	12.074	244	540813	33.82 ppm	-0.11
Spiked Amount 50.000			Recovery	= 67.64%	

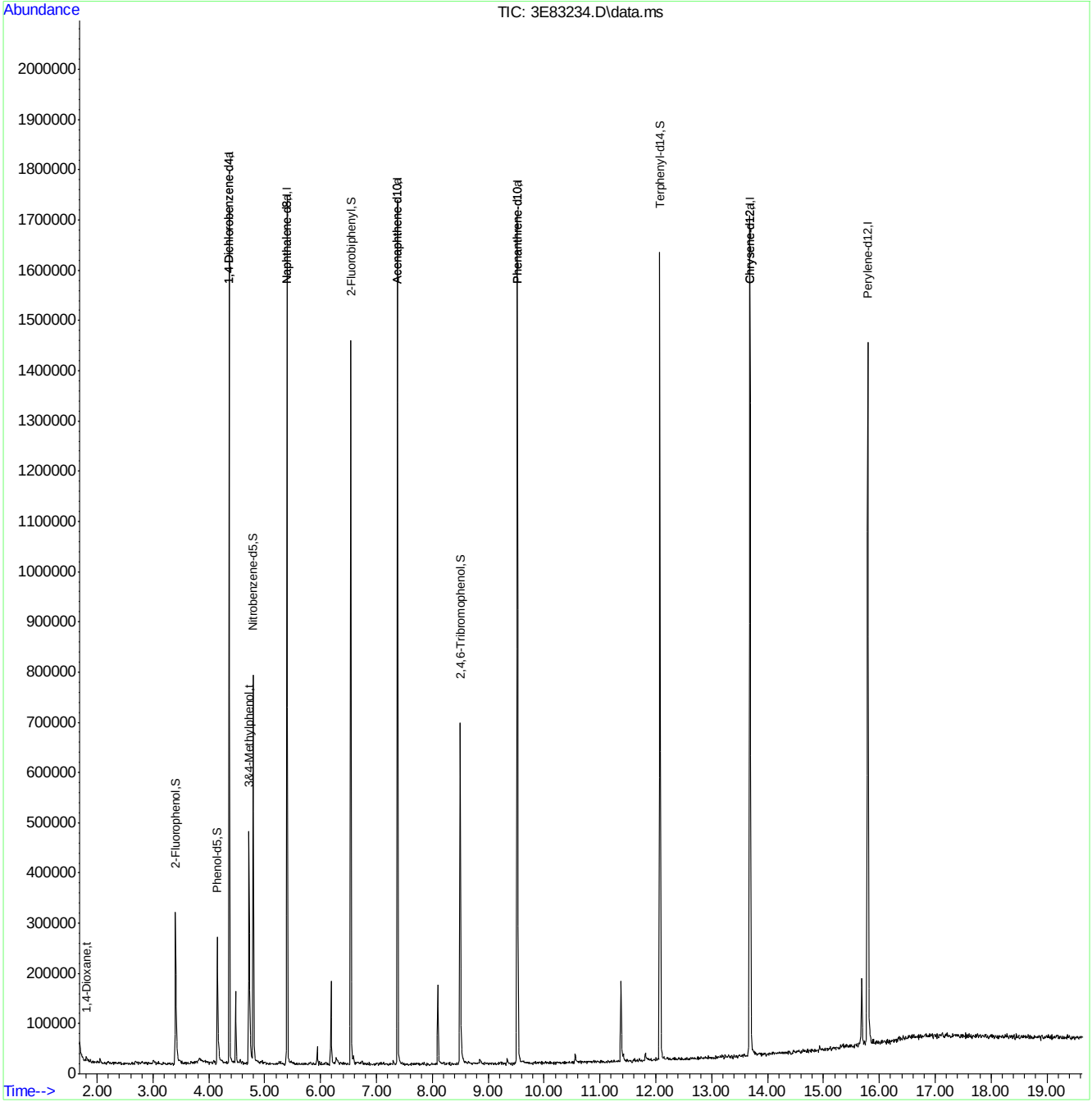
Target Compounds					Qvalue
2) 1,4-Dioxane	1.815	88	2315	1.65 ppm	# 57
21) 3&4-Methylphenol	4.719	108	99815	20.20 ppm	85

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

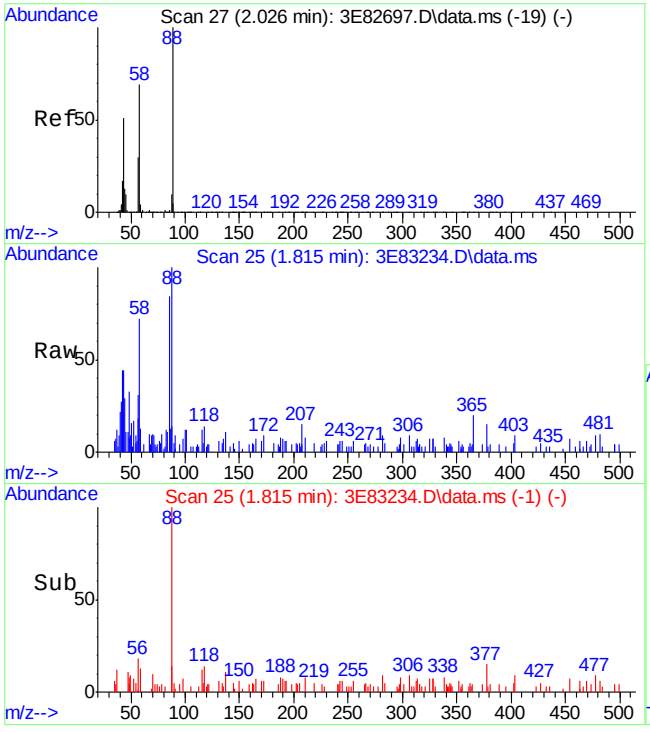
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83234.D
Acq On : 14 May 2016 4:49 pm
Operator : ashleyn
Sample : jc20184-6
Misc : op93902,e3e3649,920
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 16 09:39:54 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



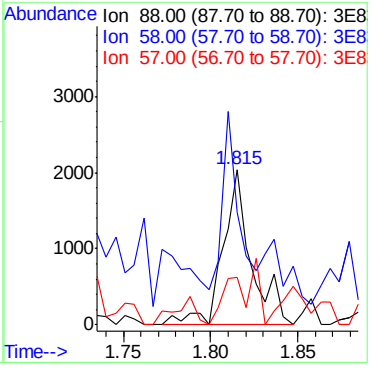
M3E3623.M Mon May 16 09:40:05 2016 MS3E

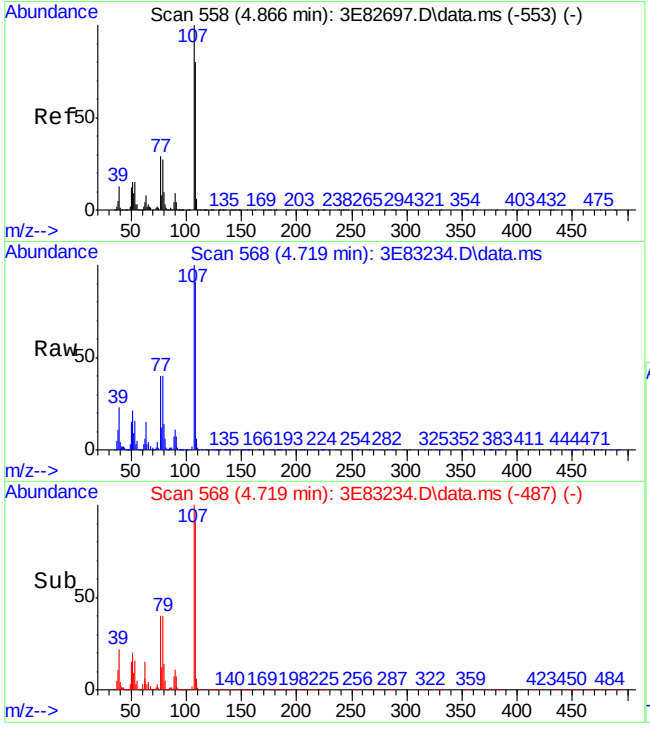


#2
1,4-Dioxane
Concen: 1.65 ppm
RT: 1.815 min Scan# 25
Delta R.T. -0.158 min
Lab File: 3E83234.D
Acq: 14 May 2016 4:49 pm

Tgt Ion: 88 Resp: 2315

Ion	Ratio	Lower	Upper
88	100		
58	29.3	39.2	99.2#
57	14.0	0.5	60.5

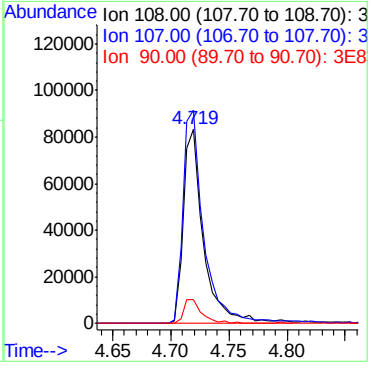




#21
3&4-Methylphenol
Concen: 20.20 ppm
RT: 4.719 min Scan# 568
Delta R.T. -0.064 min
Lab File: 3E83234.D
Acq: 14 May 2016 4:49 pm

Tgt Ion:108 Resp: 99815

Ion	Ratio	Lower	Upper
108	100		
107	109.5	98.2	158.2
90	12.2	0.0	40.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61322.D
Acq On : 14 May 2016 1:48 am
Operator : JULIUSJ
Sample : jc20184-1
Misc : op93902a,e3m2883,900
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 16 13:25:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

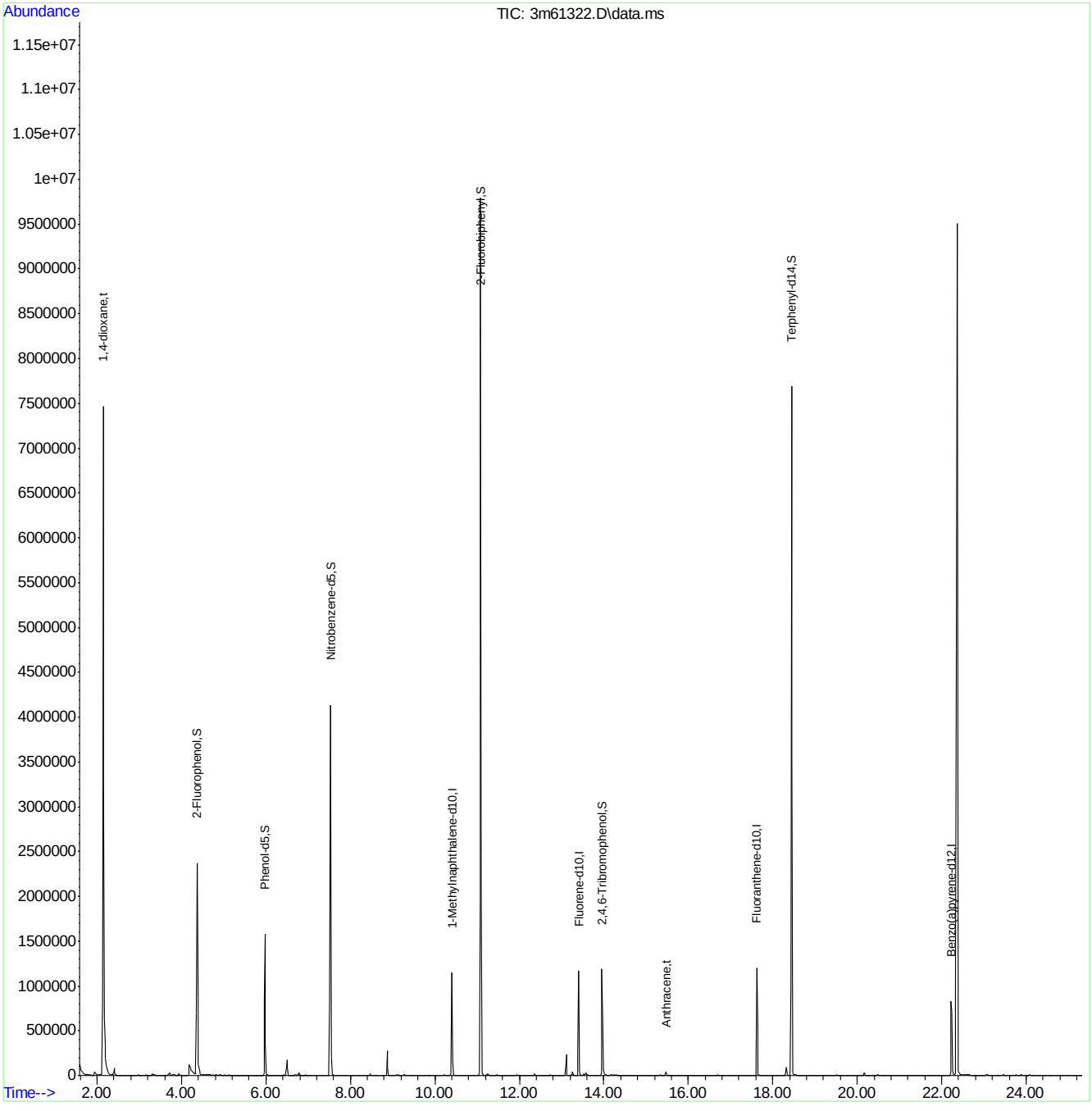
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.406	150	620689	4.00	ppm	0.04
14) Fluorene-d10	13.411	176	873194	4.00	ppm	0.04
21) Fluoranthene-d10	17.623	212	1318170	4.00	ppm	0.03
31) Benzo(a)pyrene-d12	22.227	264	1066128	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	4.368	112	1791127	23.07	ppm	0.05
Spiked Amount 50.000			Recovery = 46.14%			
4) Phenol-d5	5.976	99	1986207	15.46	ppm	0.05
Spiked Amount 50.000			Recovery = 30.92%			
7) Nitrobenzene-d5	7.531	82	4092417	34.25	ppm	0.04
Spiked Amount 50.000			Recovery = 68.50%			
15) 2-Fluorobiphenyl	11.083	172	7492314	31.23	ppm	0.05
Spiked Amount 50.000			Recovery = 62.46%			
20) 2,4,6-Tribromophenol	13.957	330	891725	32.63	ppm	0.04
Spiked Amount 50.000			Recovery = 65.26%			
28) Terphenyl-d14	18.442	244	7257629	37.96	ppm	0.03
Spiked Amount 50.000			Recovery = 75.92%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.143	88	5977977	186.41	ppm #	1
25) Anthracene	15.475	178	37883	0.13	ppm	95

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

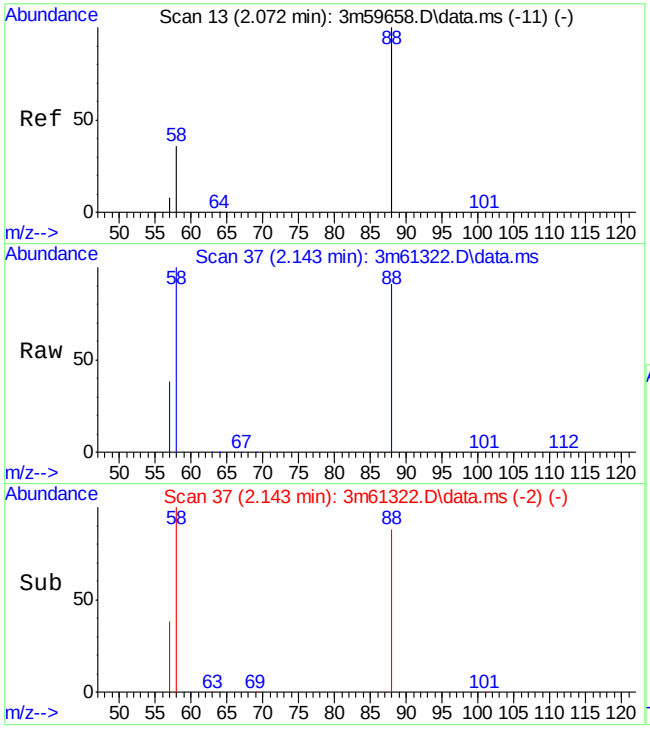
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61322.D
Acq On : 14 May 2016 1:48 am
Operator : JULIUSJ
Sample : jc20184-1
Misc : op93902a,e3m2883,900
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 16 13:25:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration



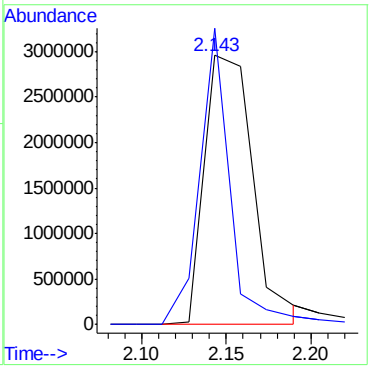
M3M2855SIM.M Mon May 16 13:25:53 2016 RPT1 Page: 2

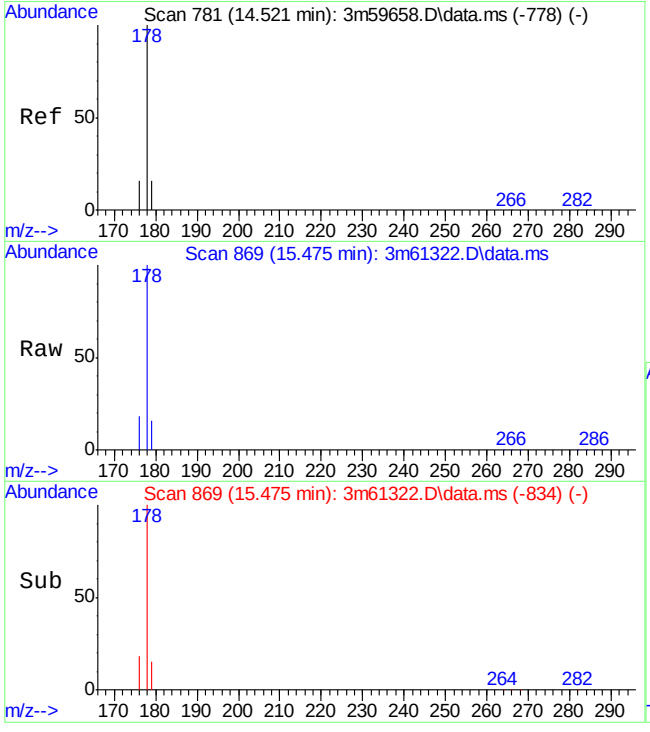


#2
1,4-dioxane
Concen: 186.41 ppm
RT: 2.143 min Scan# 37
Delta R.T. 0.042 min
Lab File: 3m61322.D
Acq: 14 May 2016 1:48 am

Tgt Ion: 88 Resp: 5977977

Ion	Ratio	Lower	Upper
88	100		
58	112.7	16.7	56.7#

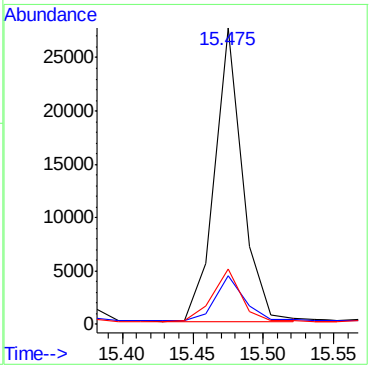




#25
Anthracene
Concen: 0.13 ppm
RT: 15.475 min Scan# 869
Delta R.T. 0.035 min
Lab File: 3m61322.D
Acq: 14 May 2016 1:48 am

Tgt Ion:178 Resp: 37883

Ion	Ratio	Lower	Upper
178	100		
179	15.2	0.0	46.8
176	17.7	0.0	45.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61323.D
Acq On : 14 May 2016 2:20 am
Operator : JULIUSJ
Sample : jc20184-2
Misc : op93902a,e3m2883,920
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 16 13:26:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.406	150	522847	4.00	ppm	0.04
14) Fluorene-d10	13.411	176	716989	4.00	ppm	0.04
21) Fluoranthene-d10	17.623	212	1115312	4.00	ppm	0.03
31) Benzo(a)pyrene-d12	22.228	264	874957	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	4.368	112	1418635	21.69	ppm	0.05
Spiked Amount 50.000			Recovery = 43.38%			
4) Phenol-d5	5.976	99	1496411	13.83	ppm	0.05
Spiked Amount 50.000			Recovery = 27.66%			
7) Nitrobenzene-d5	7.531	82	3346011	33.25	ppm	0.04
Spiked Amount 50.000			Recovery = 66.50%			
15) 2-Fluorobiphenyl	11.083	172	6609974	33.55	ppm	0.05
Spiked Amount 50.000			Recovery = 67.10%			
20) 2,4,6-Tribromophenol	13.957	330	782965	34.89	ppm	0.04
Spiked Amount 50.000			Recovery = 69.78%			
28) Terphenyl-d14	18.442	244	6546228	40.46	ppm	0.03
Spiked Amount 50.000			Recovery = 80.92%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.143	88	132322	4.90	ppm	74

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

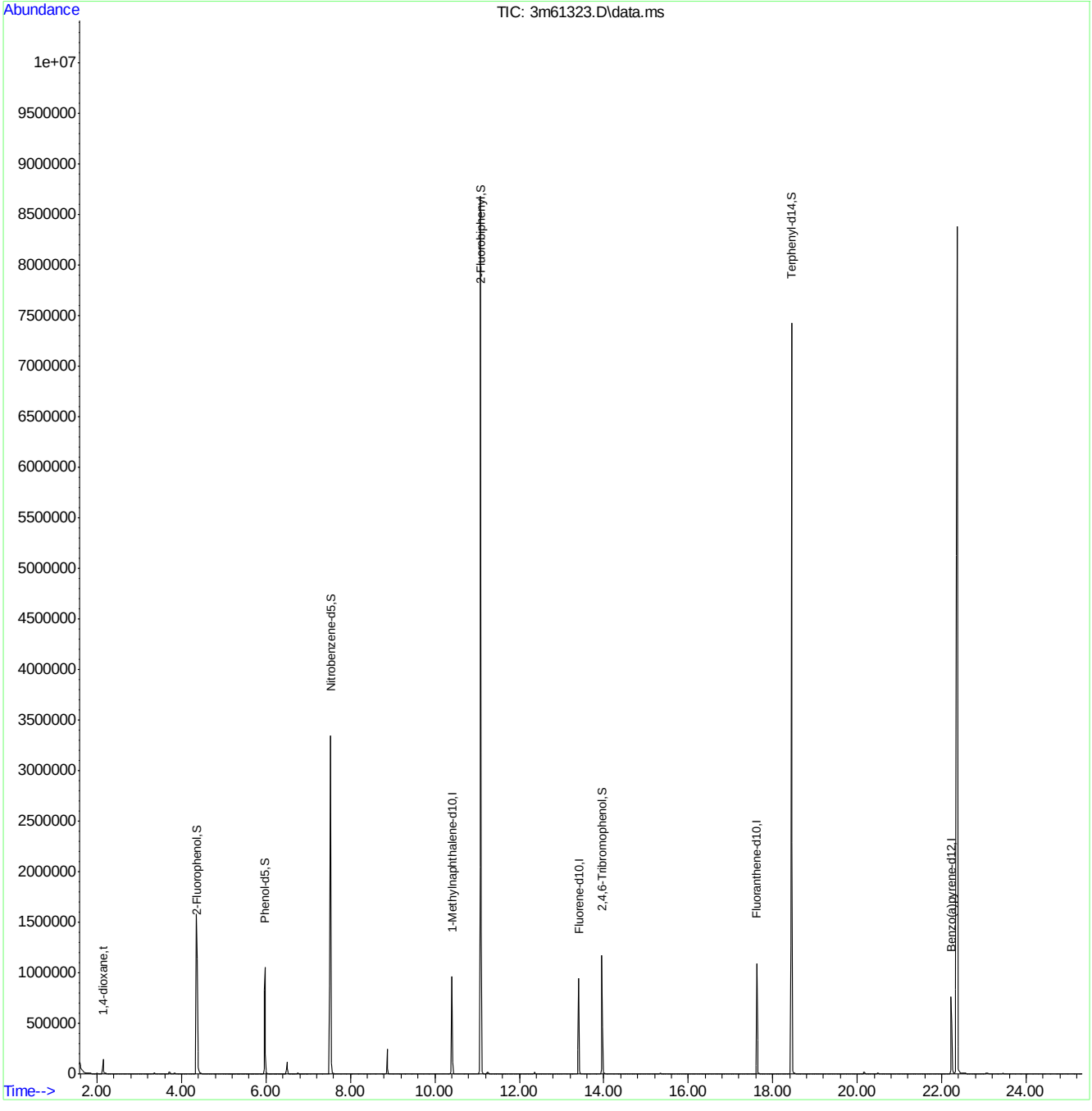
7.1.9

7

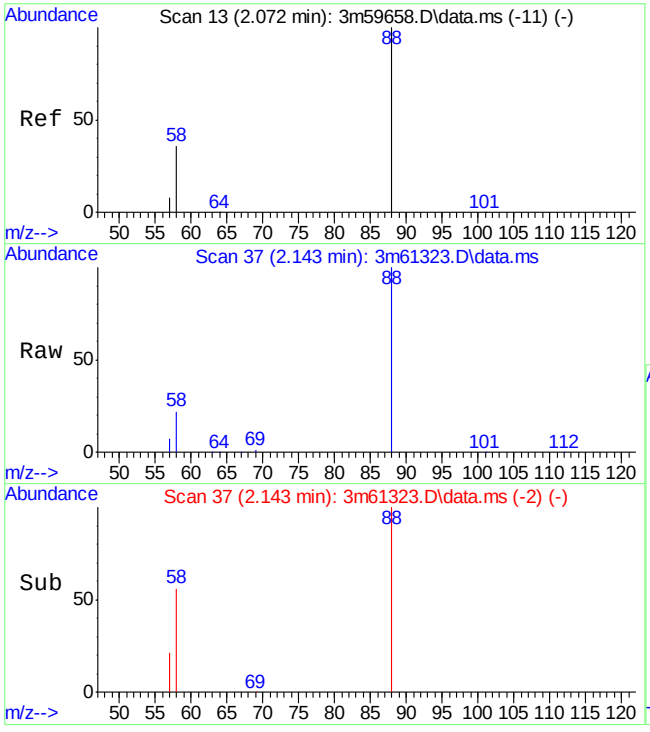
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61323.D
Acq On : 14 May 2016 2:20 am
Operator : JULIUSJ
Sample : jc20184-2
Misc : op93902a,e3m2883,920
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 16 13:26:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration



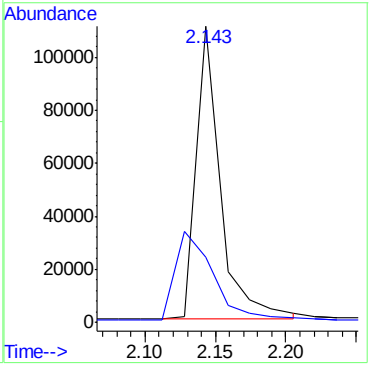
M3M2855SIM.M Mon May 16 13:26:19 2016 RPT1 Page: 2



#2
1,4-dioxane
Concen: 4.90 ppm
RT: 2.143 min Scan# 37
Delta R.T. 0.042 min
Lab File: 3m61323.D
Acq: 14 May 2016 2:20 am

Tgt Ion: 88 Resp: 132322

Ion	Ratio	Lower	Upper
88	100		
58	21.6	16.7	56.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61324.D
Acq On : 14 May 2016 2:53 am
Operator : JULIUSJ
Sample : jc20184-3
Misc : op93902a,e3m2883,890
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 16 13:26:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

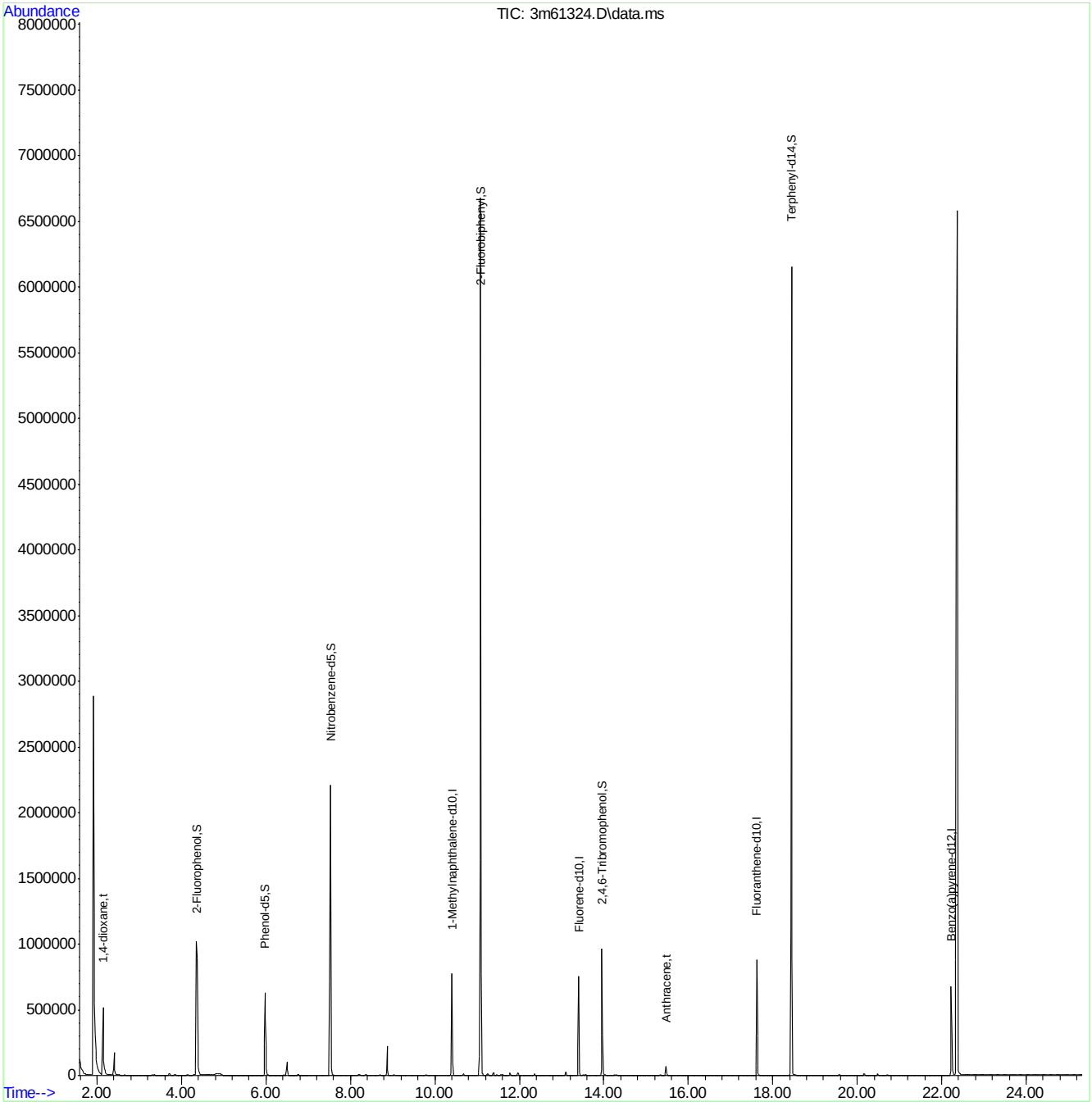
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.406	150	422584	4.00	ppm	0.04
14) Fluorene-d10	13.411	176	588397	4.00	ppm	0.04
21) Fluoranthene-d10	17.623	212	916188	4.00	ppm	0.03
31) Benzo(a)pyrene-d12	22.228	264	744477	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	4.368	112	1029694	19.48	ppm	0.05
Spiked Amount 50.000			Recovery = 38.96%			
4) Phenol-d5	5.976	99	1134230	12.97	ppm	0.05
Spiked Amount 50.000			Recovery = 25.94%			
7) Nitrobenzene-d5	7.531	82	2202254	27.07	ppm	0.04
Spiked Amount 50.000			Recovery = 54.14%			
15) 2-Fluorobiphenyl	11.083	172	5326055	32.94	ppm	0.05
Spiked Amount 50.000			Recovery = 65.88%			
20) 2,4,6-Tribromophenol	13.957	330	610893	33.17	ppm	0.04
Spiked Amount 50.000			Recovery = 66.34%			
28) Terphenyl-d14	18.442	244	4894903	36.83	ppm	0.03
Spiked Amount 50.000			Recovery = 73.66%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.143	88	507026	23.22	ppm	71
25) Anthracene	15.475	178	68469	0.35	ppm	95

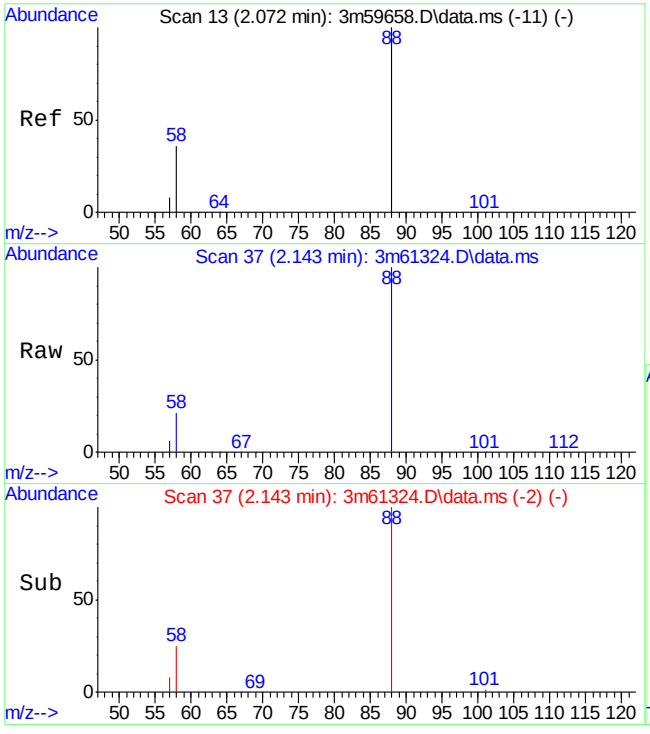
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61324.D
Acq On : 14 May 2016 2:53 am
Operator : JULIUSJ
Sample : jc20184-3
Misc : op93902a,e3m2883,890
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 16 13:26:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

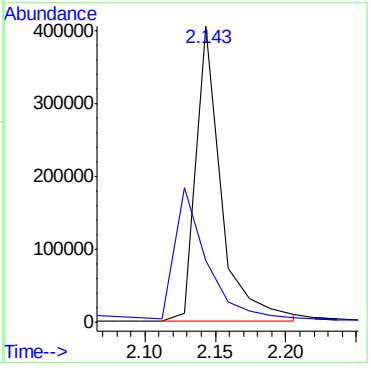


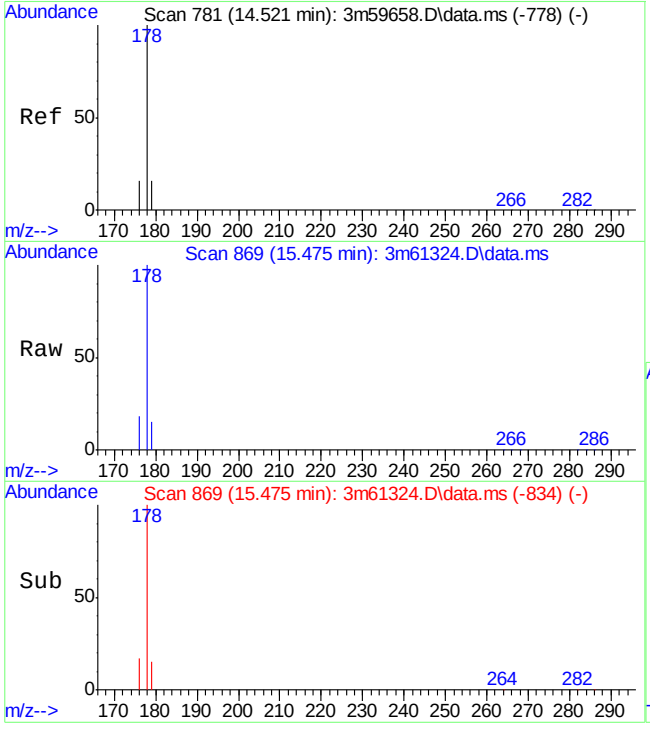


#2
1,4-dioxane
Concen: 23.22 ppm
RT: 2.143 min Scan# 37
Delta R.T. 0.042 min
Lab File: 3m61324.D
Acq: 14 May 2016 2:53 am

Tgt Ion: 88 Resp: 507026

Ion	Ratio	Lower	Upper
88	100		
58	19.8	16.7	56.7

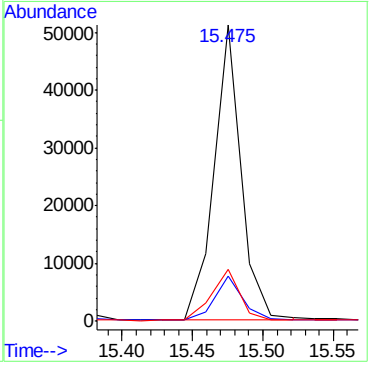




#25
Anthracene
Concen: 0.35 ppm
RT: 15.475 min Scan# 869
Delta R.T. 0.035 min
Lab File: 3m61324.D
Acq: 14 May 2016 2:53 am

Tgt Ion:178 Resp: 68469

Ion	Ratio	Lower	Upper
178	100		
179	15.0	0.0	46.8
176	17.4	0.0	45.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61325.D
Acq On : 14 May 2016 3:25 am
Operator : JULIUSJ
Sample : jc20184-4
Misc : op93902a,e3m2883,950
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 16 13:27:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

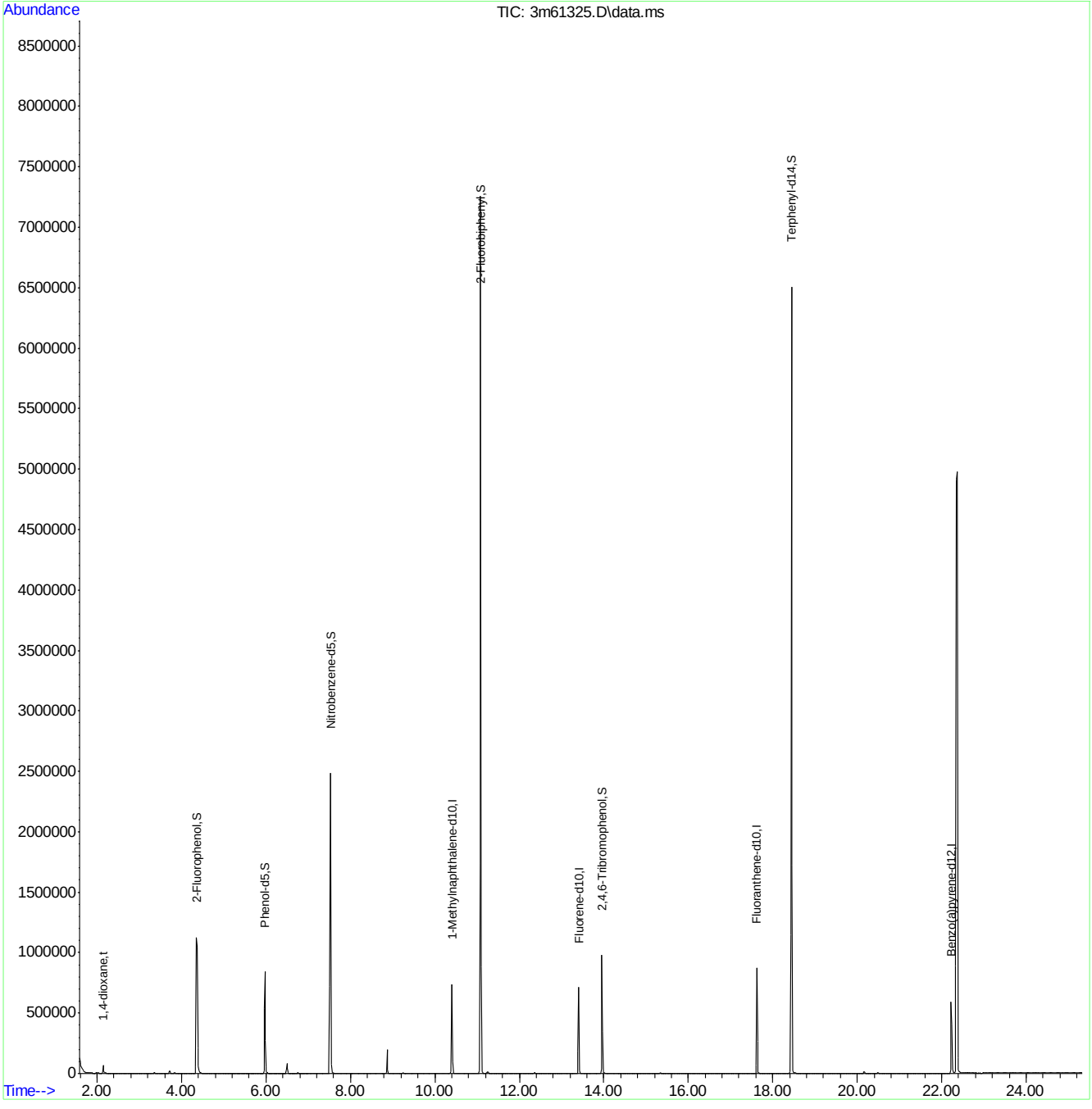
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.406	150	402056	4.00	ppm	0.04
14) Fluorene-d10	13.411	176	544094	4.00	ppm	0.04
21) Fluoranthene-d10	17.623	212	888559	4.00	ppm	0.03
31) Benzo(a)pyrene-d12	22.227	264	697314	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	4.368	112	1142532	22.71	ppm	0.05
Spiked Amount 50.000			Recovery = 45.42%			
4) Phenol-d5	5.976	99	1203555	14.46	ppm	0.05
Spiked Amount 50.000			Recovery = 28.92%			
7) Nitrobenzene-d5	7.531	82	2462238	31.82	ppm	0.04
Spiked Amount 50.000			Recovery = 63.64%			
15) 2-Fluorobiphenyl	11.083	172	5398233	36.11	ppm	0.05
Spiked Amount 50.000			Recovery = 72.22%			
20) 2,4,6-Tribromophenol	13.957	330	633310	37.19	ppm	0.04
Spiked Amount 50.000			Recovery = 74.38%			
28) Terphenyl-d14	18.442	244	5597428	43.43	ppm	0.03
Spiked Amount 50.000			Recovery = 86.86%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.143	88	63329	3.05	ppm	88

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

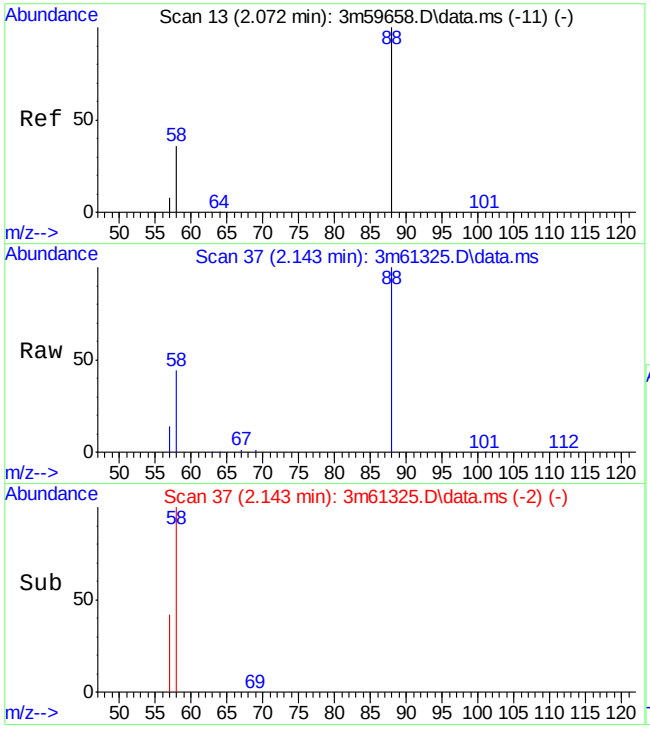
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61325.D
Acq On : 14 May 2016 3:25 am
Operator : JULIUSJ
Sample : jc20184-4
Misc : op93902a,e3m2883,950
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 16 13:27:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration



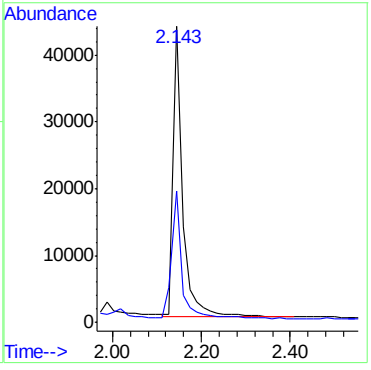
SGS ACCUTEST JC20184



#2
1,4-dioxane
Concen: 3.05 ppm
RT: 2.143 min Scan# 37
Delta R.T. 0.042 min
Lab File: 3m61325.D
Acq: 14 May 2016 3:25 am

Tgt Ion: 88 Resp: 63329

Ion	Ratio	Lower	Upper
88	100		
58	43.8	16.7	56.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61326.D
Acq On : 14 May 2016 3:57 am
Operator : JULIUSJ
Sample : jc20184-5
Misc : op93902a,e3m2883,910
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 16 13:27:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	10.406	150	585143	4.00 ppm	0.04
14) Fluorene-d10	13.411	176	800415	4.00 ppm	0.04
21) Fluoranthene-d10	17.623	212	1244738	4.00 ppm	0.03
31) Benzo(a)pyrene-d12	22.228	264	990983	4.00 ppm	0.03
System Monitoring Compounds					
3) 2-Fluorophenol	4.384	112	1560628	21.32 ppm	0.07
Spiked Amount 50.000				Recovery = 42.64%	
4) Phenol-d5	5.976	99	1745419	14.41 ppm	0.05
Spiked Amount 50.000				Recovery = 28.82%	
7) Nitrobenzene-d5	7.531	82	3711830	32.96 ppm	0.04
Spiked Amount 50.000				Recovery = 65.92%	
15) 2-Fluorobiphenyl	11.083	172	7311210	33.24 ppm	0.05
Spiked Amount 50.000				Recovery = 66.48%	
20) 2,4,6-Tribromophenol	13.957	330	856003	34.17 ppm	0.04
Spiked Amount 50.000				Recovery = 68.34%	
28) Terphenyl-d14	18.442	244	6999011	38.76 ppm	0.03
Spiked Amount 50.000				Recovery = 77.52%	
Target Compounds					Qvalue
2) 1,4-dioxane	2.143	88	478485	15.83 ppm	72

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

7.1.12

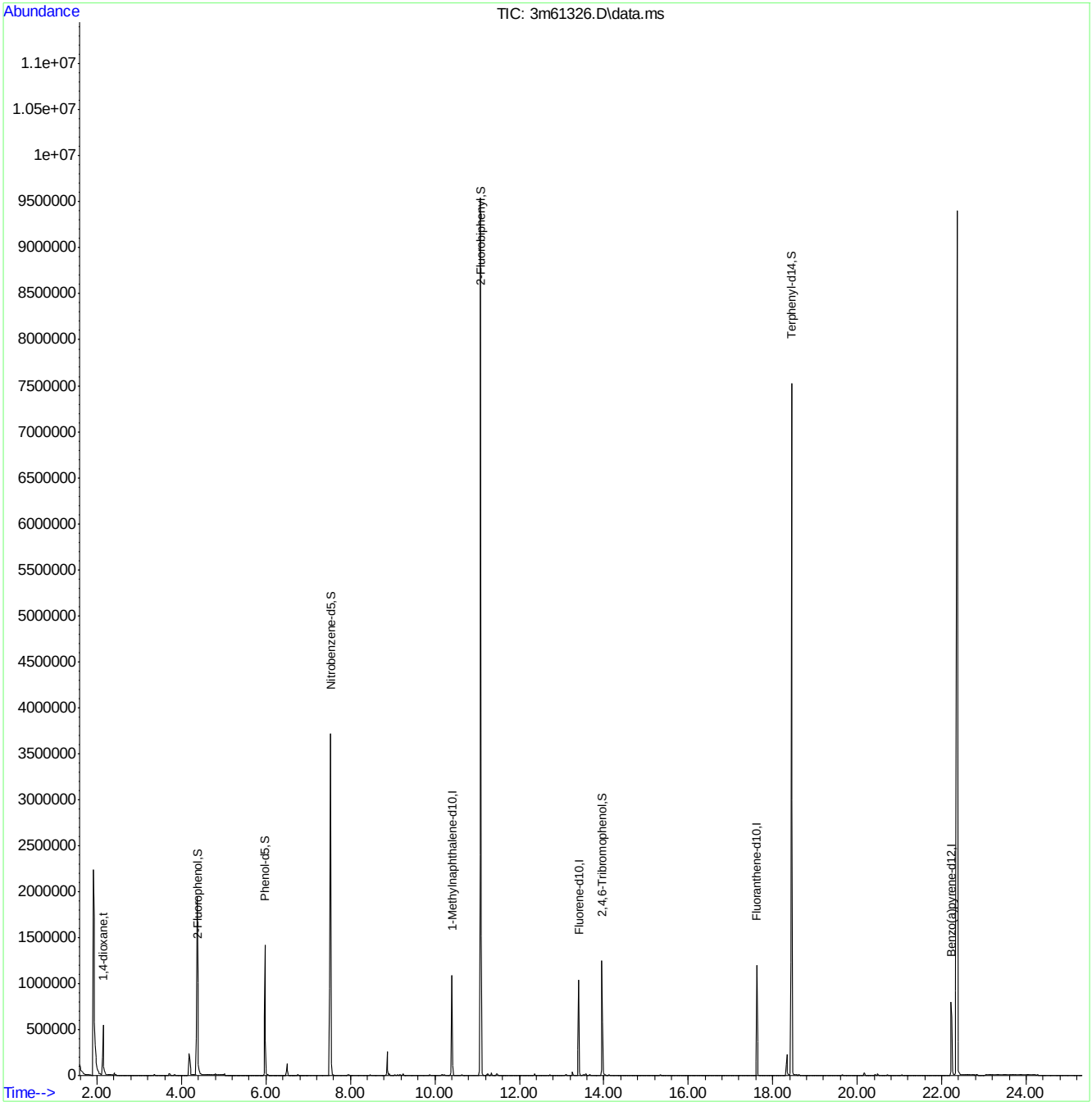
7

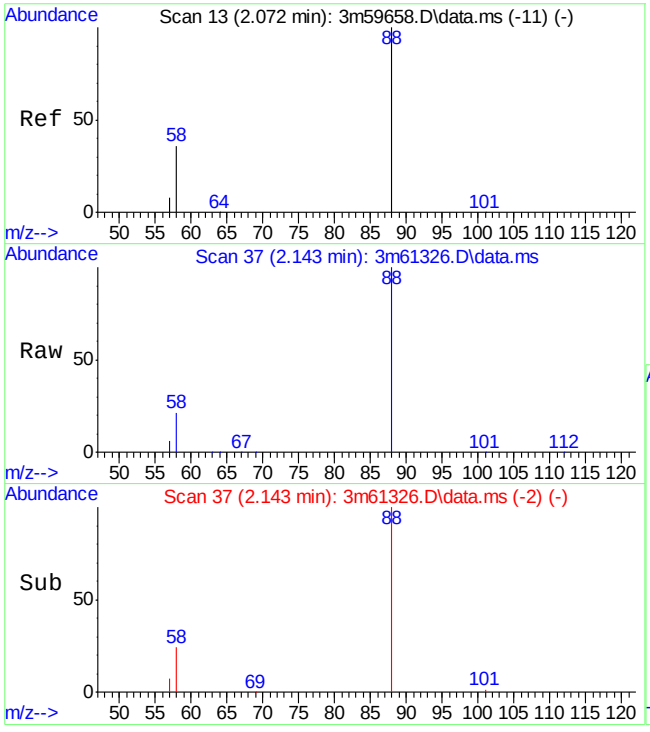
SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61326.D
Acq On : 14 May 2016 3:57 am
Operator : JULIUSJ
Sample : jc20184-5
Misc : op93902a,e3m2883,910
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 16 13:27:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

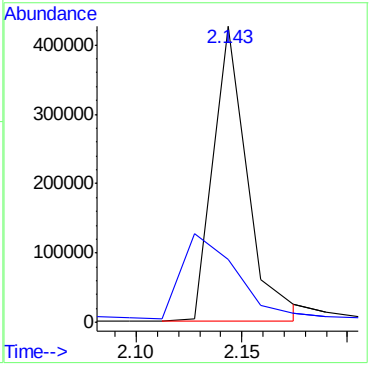




#2
1,4-dioxane
Concen: 15.83 ppm
RT: 2.143 min Scan# 37
Delta R.T. 0.042 min
Lab File: 3m61326.D
Acq: 14 May 2016 3:57 am

Tgt Ion: 88 Resp: 478485

Ion	Ratio	Lower	Upper
88	100		
58	19.8	16.7	56.7



7.1.12

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61327.D
Acq On : 14 May 2016 4:29 am
Operator : JULIUSJ
Sample : jc20184-6
Misc : op93902a,e3m2883,920
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 16 13:28:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

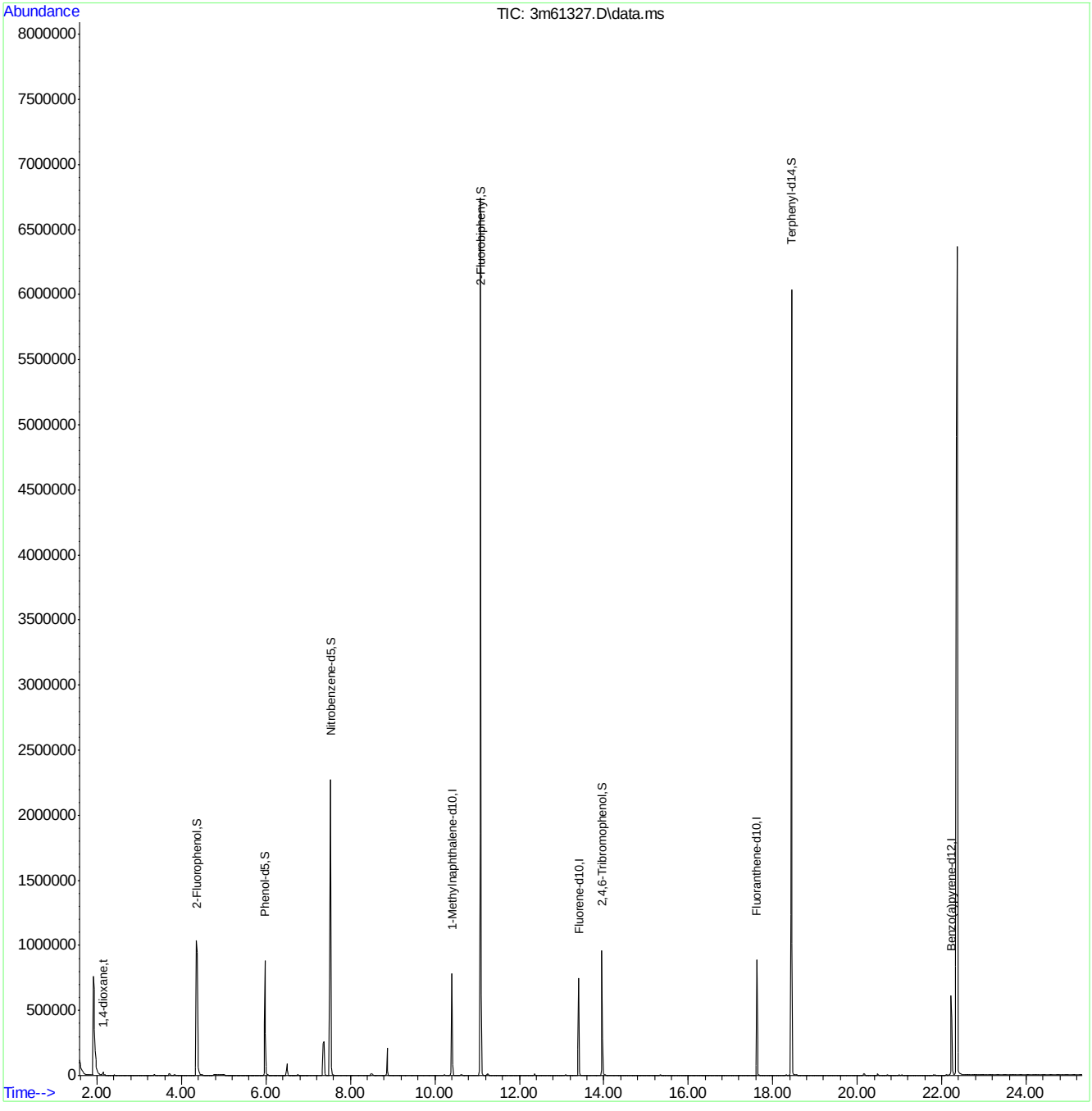
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	10.406	150	419884	4.00 ppm	0.04
14) Fluorene-d10	13.411	176	578625	4.00 ppm	0.04
21) Fluoranthene-d10	17.623	212	908396	4.00 ppm	0.03
31) Benzo(a)pyrene-d12	22.227	264	731818	4.00 ppm	0.03
System Monitoring Compounds					
3) 2-Fluorophenol	4.368	112	1073716	20.44 ppm	0.05
Spiked Amount 50.000				Recovery = 40.88%	
4) Phenol-d5	5.976	99	1175602	13.53 ppm	0.05
Spiked Amount 50.000				Recovery = 27.06%	
7) Nitrobenzene-d5	7.531	82	2294657	28.39 ppm	0.04
Spiked Amount 50.000				Recovery = 56.78%	
15) 2-Fluorobiphenyl	11.083	172	5025900	31.61 ppm	0.05
Spiked Amount 50.000				Recovery = 63.22%	
20) 2,4,6-Tribromophenol	13.957	330	599237	33.09 ppm	0.04
Spiked Amount 50.000				Recovery = 66.18%	
28) Terphenyl-d14	18.442	244	4978085	37.78 ppm	0.03
Spiked Amount 50.000				Recovery = 75.56%	
Target Compounds					Qvalue
2) 1,4-dioxane	2.143	88	24253	1.12 ppm	81

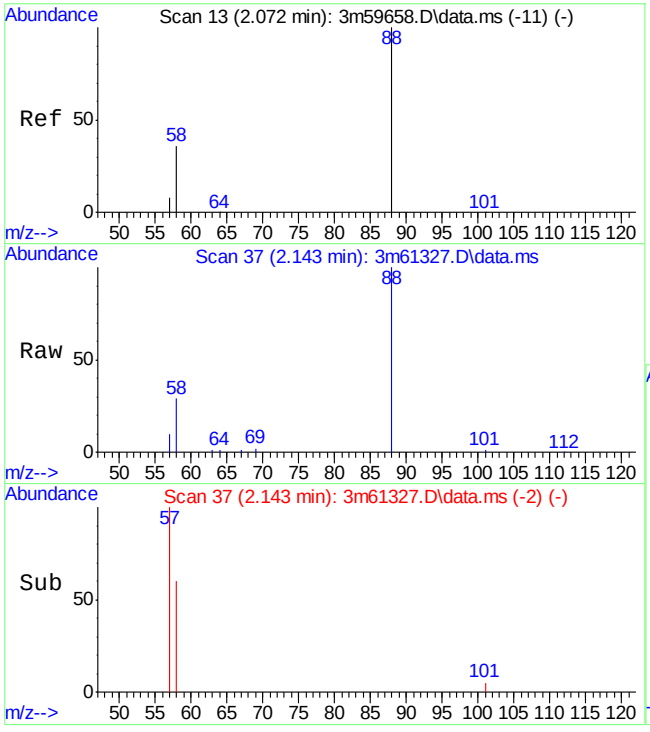
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61327.D
Acq On : 14 May 2016 4:29 am
Operator : JULIUSJ
Sample : jc20184-6
Misc : op93902a,e3m2883,920
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 16 13:28:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

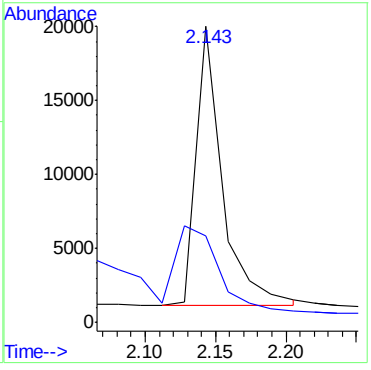




#2
1,4-dioxane
Concen: 1.12 ppm
RT: 2.143 min Scan# 37
Delta R.T. 0.042 min
Lab File: 3m61327.D
Acq: 14 May 2016 4:29 am

Tgt Ion: 88 Resp: 24253

Ion	Ratio	Lower	Upper
88	100		
58	25.5	16.7	56.7



7.1.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83221.D
Acq On : 14 May 2016 11:04 am
Operator : ashleyn
Sample : op93902-mb1
Misc : op93902,e3e3649,1000
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 16 09:24:49 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	161941	40.00 ppm	-0.05
24) Naphthalene-d8	5.399	136	608534	40.00 ppm	-0.06
47) Acenaphthene-d10	7.378	164	411495	40.00 ppm	-0.08
69) Phenanthrene-d10	9.523	188	731064	40.00 ppm	-0.09
83) Chrysene-d12	13.684	240	823611	40.00 ppm	-0.10
92) Perylene-d12	15.797	264	758293	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.366	152	161941	40.00 ppm	-0.05
104) Acenaphthene-d10a	7.378	164	411495	40.00 ppm	-0.08
106) Phenanthrene-d10a	9.523	188	731064	40.00 ppm	-0.09
108) Chrysene-d12a	13.684	240	823611	40.00 ppm	-0.10
110) Naphthalene-d8a	5.399	136	608534	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.404	112	93881	18.91 ppm	-0.05
Spiked Amount 50.000			Recovery	= 37.82%	
8) Phenol-d5	4.158	99	71674	11.10 ppm	-0.02
Spiked Amount 50.000			Recovery	= 22.20%	
25) Nitrobenzene-d5	4.794	82	188291	30.94 ppm	-0.05
Spiked Amount 50.000			Recovery	= 61.88%	
51) 2-Fluorobiphenyl	6.543	172	447402	32.78 ppm	-0.08
Spiked Amount 50.000			Recovery	= 65.56%	
73) 2,4,6-Tribromophenol	8.501	330	95795	37.15 ppm	-0.09
Spiked Amount 50.000			Recovery	= 74.30%	
85) Terphenyl-d14	12.079	244	654346	37.84 ppm	-0.11
Spiked Amount 50.000			Recovery	= 75.68%	

Target Compounds	Qvalue

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

7.2.1

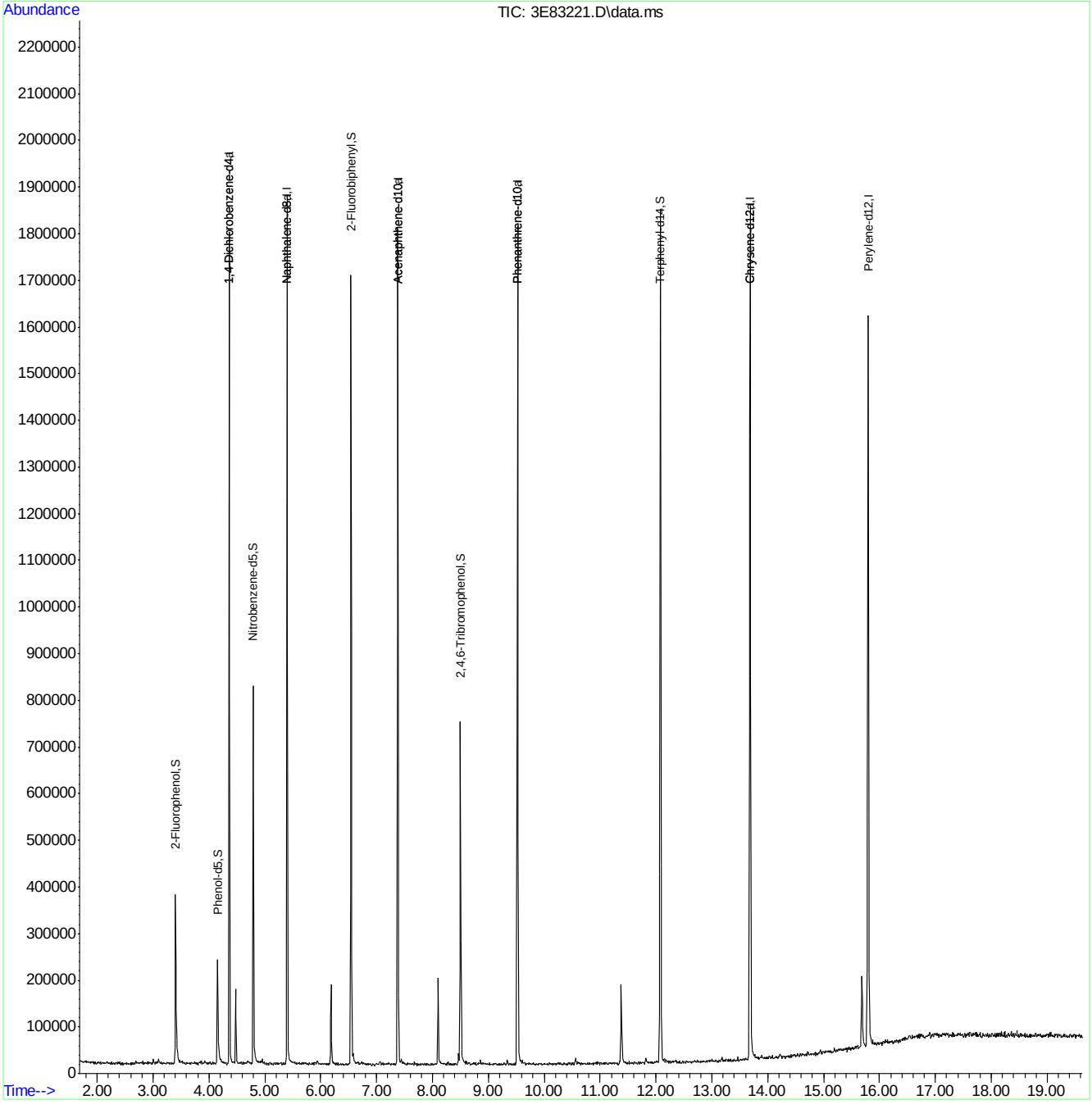
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83221.D
Acq On : 14 May 2016 11:04 am
Operator : ashleyn
Sample : op93902-mb1
Misc : op93902,e3e3649,1000
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 16 09:24:49 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



M3E3623.M Mon May 16 09:24:59 2016 MS3E Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61318.D
Acq On : 13 May 2016 11:37 pm
Operator : JULIUSJ
Sample : OP93902a-mb1
Misc : op93902a,e3m2883,1000
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 16 13:23:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.406	150	418183	4.00	ppm	0.04
14) Fluorene-d10	13.411	176	563301	4.00	ppm	0.04
21) Fluoranthene-d10	17.623	212	892450	4.00	ppm	0.03
31) Benzo(a)pyrene-d12	22.228	264	727434	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	4.369	112	1034554	19.77	ppm	0.05
Spiked Amount 50.000			Recovery = 39.54%			
4) Phenol-d5	5.976	99	1080865	12.49	ppm	0.05
Spiked Amount 50.000			Recovery = 24.98%			
7) Nitrobenzene-d5	7.531	82	2226712	27.66	ppm	0.04
Spiked Amount 50.000			Recovery = 55.32%			
15) 2-Fluorobiphenyl	11.083	172	4982229	32.19	ppm	0.05
Spiked Amount 50.000			Recovery = 64.38%			
20) 2,4,6-Tribromophenol	13.957	330	570309	32.35	ppm	0.04
Spiked Amount 50.000			Recovery = 64.70%			
28) Terphenyl-d14	18.442	244	5279997	40.78	ppm	0.03
Spiked Amount 50.000			Recovery = 81.56%			
Target Compounds						Qvalue

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

7.2.2

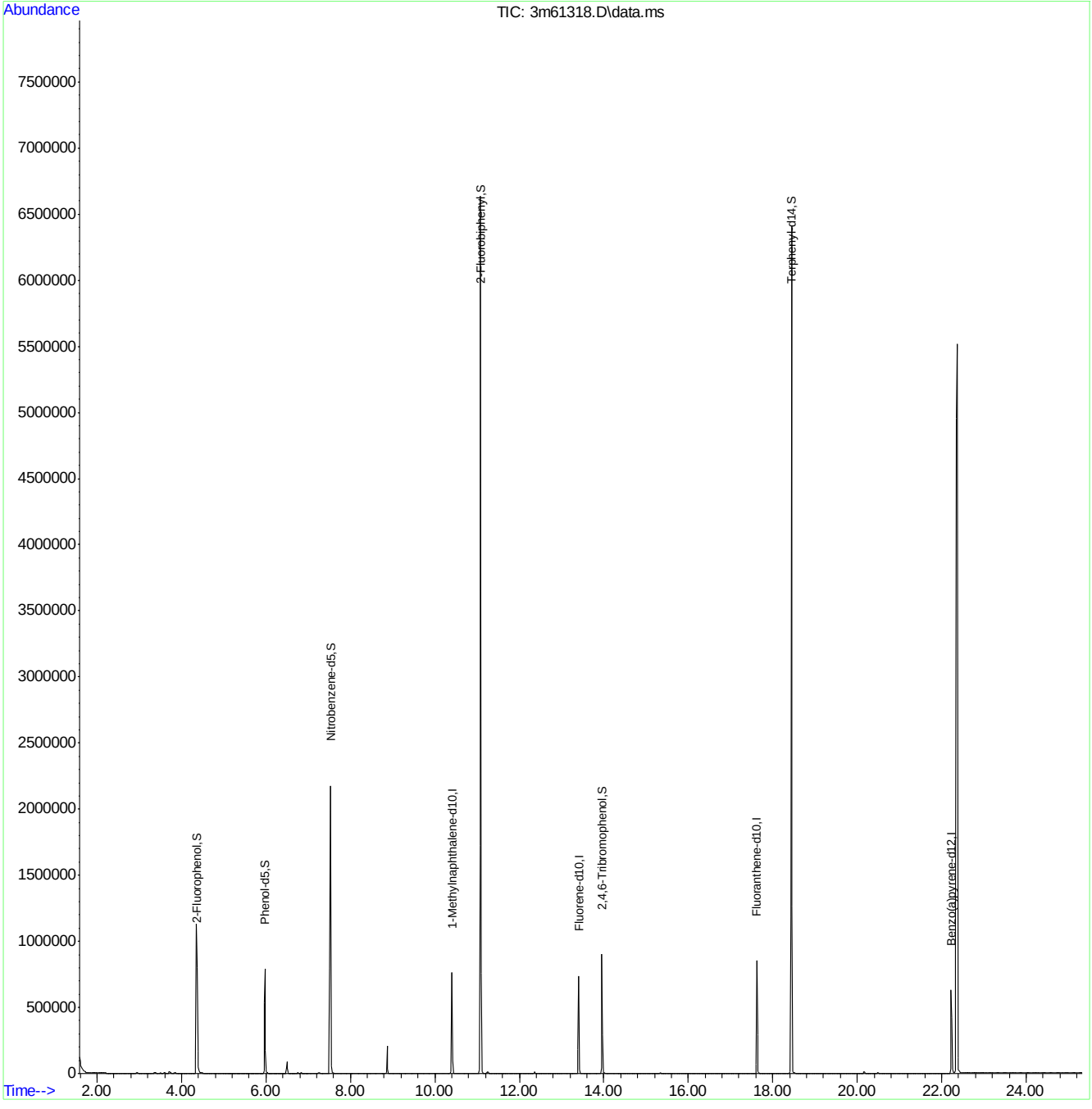
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61318.D
Acq On : 13 May 2016 11:37 pm
Operator : JULIUSJ
Sample : OP93902a-mb1
Misc : op93902a,e3m2883,1000
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 16 13:23:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration



M3M2855SIM.M Mon May 16 13:24:00 2016 RPT1 Page: 2

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/16/16 12:31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83222.D
Acq On : 14 May 2016 11:31 am
Operator : ashleyn
Sample : op93902-bs1
Misc : op93902,e3e3649,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 12:00:04 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	148830	40.00	ppm	-0.05
24) Naphthalene-d8	5.399	136	530491	40.00	ppm	-0.06
47) Acenaphthene-d10	7.383	164	336399	40.00	ppm	-0.08
69) Phenanthrene-d10	9.522	188	595749	40.00	ppm	-0.09
83) Chrysene-d12	13.689	240	695563	40.00	ppm	-0.09
92) Perylene-d12	15.796	264	544846	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.366	152	148830	40.00	ppm	-0.05
104) Acenaphthene-d10a	7.383	164	336399	40.00	ppm	-0.08
106) Phenanthrene-d10a	9.522	188	595749	40.00	ppm	-0.09
108) Chrysene-d12a	13.689	240	695563	40.00	ppm	-0.09
110) Naphthalene-d8a	5.399	136	530491	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.404	112	106547	23.35	ppm	-0.05
Spiked Amount 50.000			Recovery	=	46.70%	
8) Phenol-d5	4.152	99	93549	15.76	ppm	-0.02
Spiked Amount 50.000			Recovery	=	31.52%	
25) Nitrobenzene-d5	4.800	82	203122	38.29	ppm	-0.05
Spiked Amount 50.000			Recovery	=	76.58%	
51) 2-Fluorobiphenyl	6.543	172	465700	41.74	ppm	-0.08
Spiked Amount 50.000			Recovery	=	83.48%	
73) 2,4,6-Tribromophenol	8.501	330	94643	45.04	ppm	-0.09
Spiked Amount 50.000			Recovery	=	90.08%	
85) Terphenyl-d14	12.079	244	586130	40.14	ppm	-0.11
Spiked Amount 50.000			Recovery	=	80.28%	

Target Compounds						Qvalue
2) 1,4-Dioxane	1.810	88	29015	21.38	ppm	95
3) Pyridine	2.163	79	66662	17.28	ppm	97
4) N-Nitrosodimethylamine	2.125	74	50792	23.14	ppm	90
6) Indene	4.554	116	306717	34.55	ppm	98
7) Cumene	3.757	105	367766	28.32	ppm	97
9) Phenol	4.163	94	105376	16.19	ppm	96
10) Aniline	4.131	93	150356	19.90	ppm	64
11) bis(2-Chloroethyl)ether	4.184	93	152222	34.11	ppm	92
12) 2-Chlorophenol	4.227	128	176084	32.65	ppm	97
13) Decane	4.243	43	134283	23.52	ppm	97
14) 1,3-Dichlorobenzene	4.324	146	186629	31.65	ppm	95
15) 1,4-Dichlorobenzene	4.382	146	195737	31.63	ppm	96
16) Benzyl alcohol	4.489	108	103575	31.51	ppm	85
17) 1,2-Dichlorobenzene	4.489	146	186886	33.53	ppm	99
18) Acetophenone	4.677	105	248948	33.72	ppm	96
19) 2-Methylphenol	4.596	108	138601	30.39	ppm	94
20) 2,2'-oxybis(1-Chloropr...	4.575	121	57465	31.42	ppm	90
21) 3&4-Methylphenol	4.714	108	140622	29.34	ppm	93
22) n-Nitroso-di-n-propyla...	4.682	70	121880	31.18	ppm	85
23) Hexachloroethane	4.741	201	75686	38.25	ppm	90
26) Nitrobenzene	4.810	77	208572	38.07	ppm	97
27) Quinoline	5.752	129	364766	39.54	ppm	99
28) Isophorone	5.008	82	337042	37.90	ppm	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83222.D
Acq On : 14 May 2016 11:31 am
Operator : ashleyn
Sample : op93902-bs1
Misc : op93902,e3e3649,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 12:00:04 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
29) 2-Nitrophenol	5.072	139	103448	36.89 ppm	89
30) 2,4-Dimethylphenol	5.131	107	193181	40.03 ppm	98
31) Benzoic acid	5.254	105	60108	16.91 ppm	91
32) bis(2-Chloroethoxy)met...	5.195	93	174566	36.06 ppm	98
33) 2,4-Dichlorophenol	5.302	162	171502	45.57 ppm	97
34) 2,6-Dichlorophenol	5.495	162	166909	43.42 ppm	95
36) 1,2,4-Trichlorobenzene	5.350	180	178173	41.50 ppm	97
38) Naphthalene	5.420	128	534964	36.47 ppm	98
39) 4-Chloroaniline	5.490	127	136396	22.83 ppm	95
40) 2,3-Dichloroaniline	6.447	161	189973	40.05 ppm	98
41) Caprolactam	5.848	55	21381	10.64 ppm	92
42) Hexachlorobutadiene	5.527	225	114939	44.67 ppm	97
43) 4-Chloro-3-methylphenol	6.014	107	161961	37.72 ppm	96
44) 2-Methylnaphthalene	6.115	141	339829	40.82 ppm	95
45) 1-Methylnaphthalene	6.222	141	345284	39.76 ppm	94
46) Dimethylnaphthalene	6.853	156	360386	42.88 ppm	99
48) Hexachlorocyclopentadiene	6.281	237	112143	43.72 ppm	97
49) 2,4,6-Trichlorophenol	6.463	196	140143	45.94 ppm	97
50) 2,4,5-Trichlorophenol	6.533	196	136748	40.26 ppm	92
52) 2-Chloronaphthalene	6.682	162	374657	39.29 ppm	94
53) Biphenyl	6.661	154	498287	39.19 ppm	98
54) 2-Nitroaniline	6.837	65	129294	36.59 ppm	97
55) Dimethylphthalate	7.073	163	455106	40.74 ppm	98
56) Acenaphthylene	7.196	152	561885	35.31 ppm	98
57) 2,6-Dinitrotoluene	7.158	165	102497	40.99 ppm	95
58) 3-Nitroaniline	7.378	138	67384	24.19 ppm	88
59) Acenaphthene	7.426	153	401512	37.99 ppm	97
60) 2,4-Dinitrophenol	7.543	184	102798	79.42 ppm	91
61) 4-Nitrophenol	7.752	109	40083	22.29 ppm	89
62) Dibenzofuran	7.666	168	564660	40.59 ppm	85
63) 2,4-Dinitrotoluene	7.709	165	139707	40.84 ppm	82
64) 2,3,4,6-Tetrachlorophenol	7.870	232	104087	41.33 ppm	88
65) Diethylphthalate	8.052	149	471341	40.17 ppm	99
66) Fluorene	8.142	166	461146	39.59 ppm	98
67) 4-Chlorophenyl-phenyle...	8.169	204	241251	45.43 ppm	88
68) 4-Nitroaniline	8.239	138	100317	37.47 ppm	94
70) 4,6-Dinitro-2-methylph...	8.292	198	85075	39.61 ppm	95
71) n-Nitrosodiphenylamine	8.356	169	296598	35.84 ppm	96
72) 1,2-Diphenylhydrazine	8.399	77	471129	38.22 ppm	95
74) 4-Bromophenyl-phenylether	8.881	248	161365	45.56 ppm	91
75) Hexachlorobenzene	8.939	284	187799	44.21 ppm	99
76) Pentachlorophenol	9.287	266	60412	29.88 ppm	94
77) Phenanthrene	9.560	178	643309	37.22 ppm	98
78) Anthracene	9.640	178	602905	34.82 ppm	99
79) Carbazole	9.934	167	590641	37.70 ppm	100
80) Di-n-butylphthalate	10.560	149	754891	37.31 ppm	97
81) Fluoranthene	11.405	202	778632	41.53 ppm	96
82) Octadecane	9.490	57	216128	30.71 ppm	91
84) Pyrene	11.753	202	807382	38.78 ppm	96
86) Butylbenzylphthalate	12.924	149	325469	32.78 ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83222.D
Acq On : 14 May 2016 11:31 am
Operator : ashleyn
Sample : op93902-bs1
Misc : op93902,e3e3649,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 12:00:04 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration

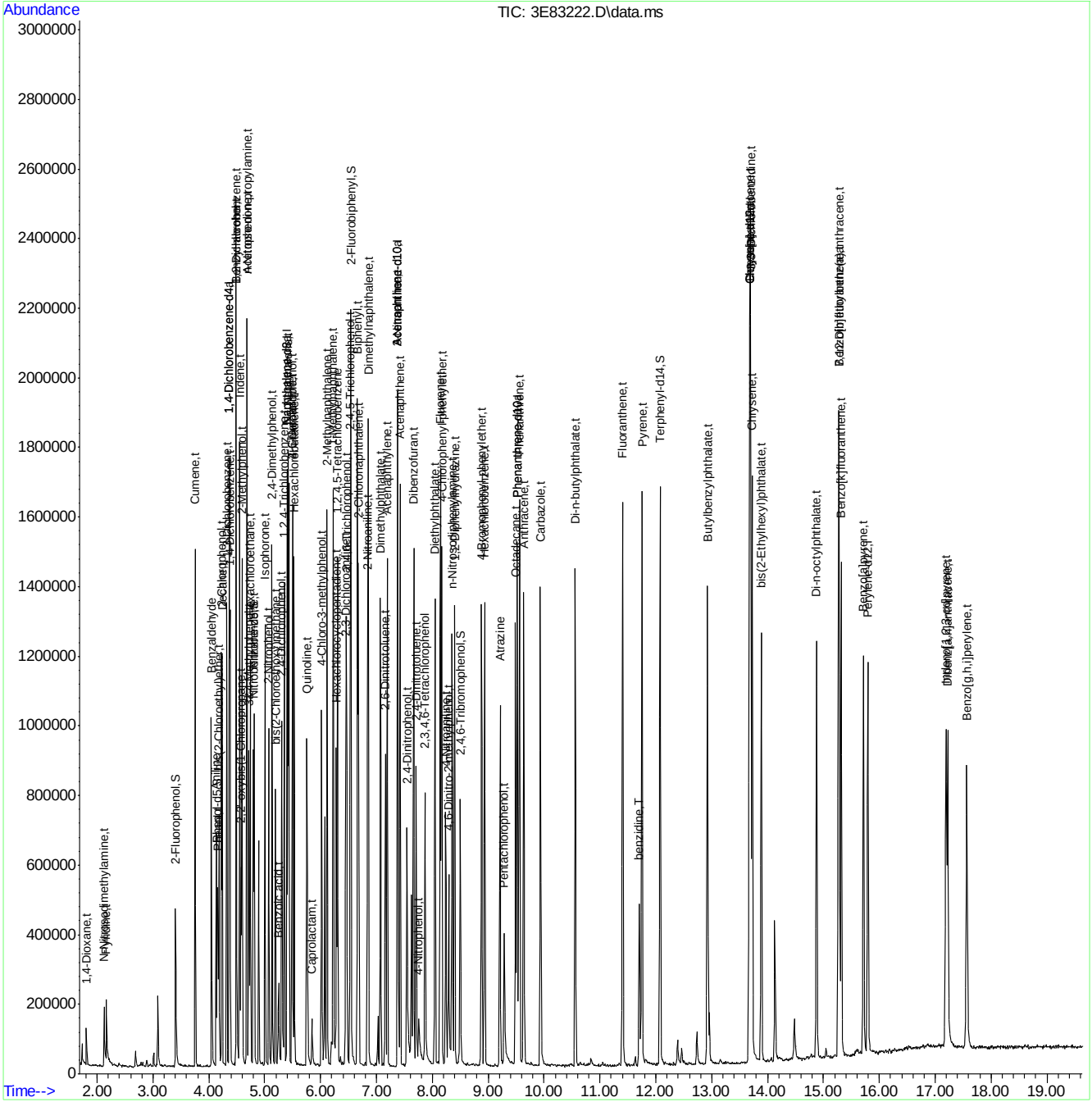
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
88) Benzo[a]anthracene	13.673	228	754386	37.11 ppm		98
89) 3,3'-Dichlorobenzidine	13.700	252	322187	42.62 ppm		97
90) Chrysene	13.726	228	717252	37.81 ppm		99
91) bis(2-Ethylhexyl)phtha...	13.887	149	407290	31.87 ppm		98
93) Di-n-octylphthalate	14.876	149	671944	31.69 ppm		98
94) Benzo[b]fluoranthene	15.283	252	722710	39.24 ppm		98
95) Benzo[k]fluoranthene	15.320	252	682626	41.53 ppm		98
96) Benzo[a]pyrene	15.716	252	554637	36.07 ppm		99
97) Indeno[1,2,3-cd]pyrene	17.192	276	580396m	39.62 ppm		
99) Dibenz[a,h]anthracene	17.224	278	598531	41.13 ppm		98
100) 7,12-Dimethylbenz(a)an...	15.272	256	270583	32.96 ppm		96
101) Benzo[g,h,i]perylene	17.567	276	558987	39.61 ppm		95
103) Benzaldehyde	4.045	105	136308	33.79 ppm	#	80
105) 1,2,4,5-Tetrachloroben...	6.308	216	216018	51.86 ppm		98
107) Atrazine	9.212	215	76588	50.51 ppm	#	89
109) benzidine	11.699	184	202967	23.71 ppm		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83222.D
Acq On : 14 May 2016 11:31 am
Operator : ashleyn
Sample : op93902-bs1
Misc : op93902,e3e3649,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 12:00:04 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration



M3E3623.M Mon May 16 12:00:16 2016 MS3E Page: 4

SGS ACCUTEST JC20184

Manual Integration Approval Summary

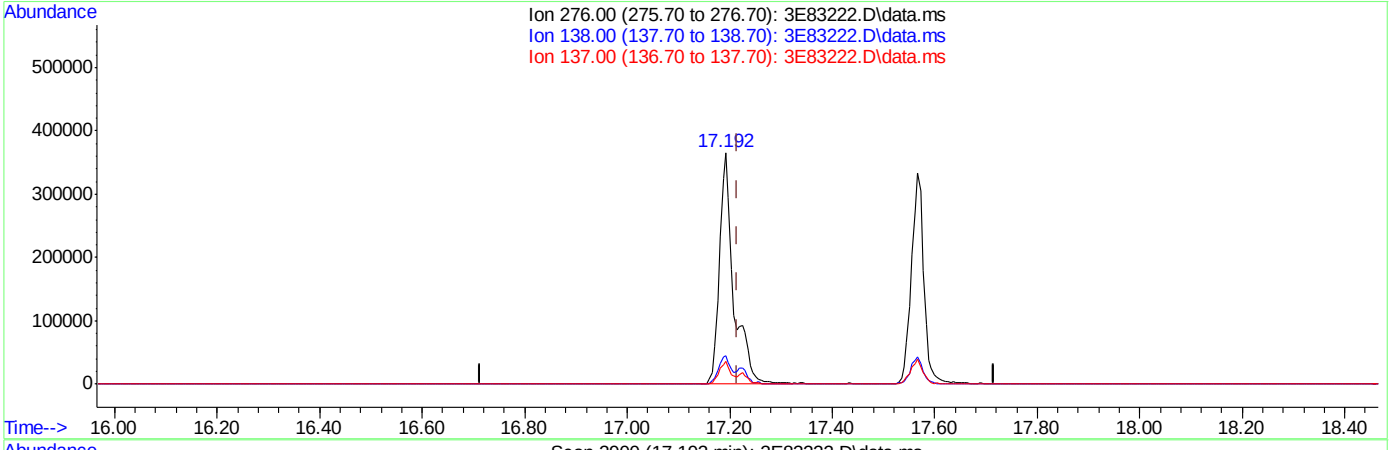
Sample Number:	OP93902-BS1	**Method:**	SW846 8270D	
Lab FileID:	3E83222.D	**Analyst approved:**	05/16/16 12:00	Ashley Noble
Injection Time:	05/14/16 11:31	**Supervisor approved:**	05/16/16 12:31	Nina Pandya

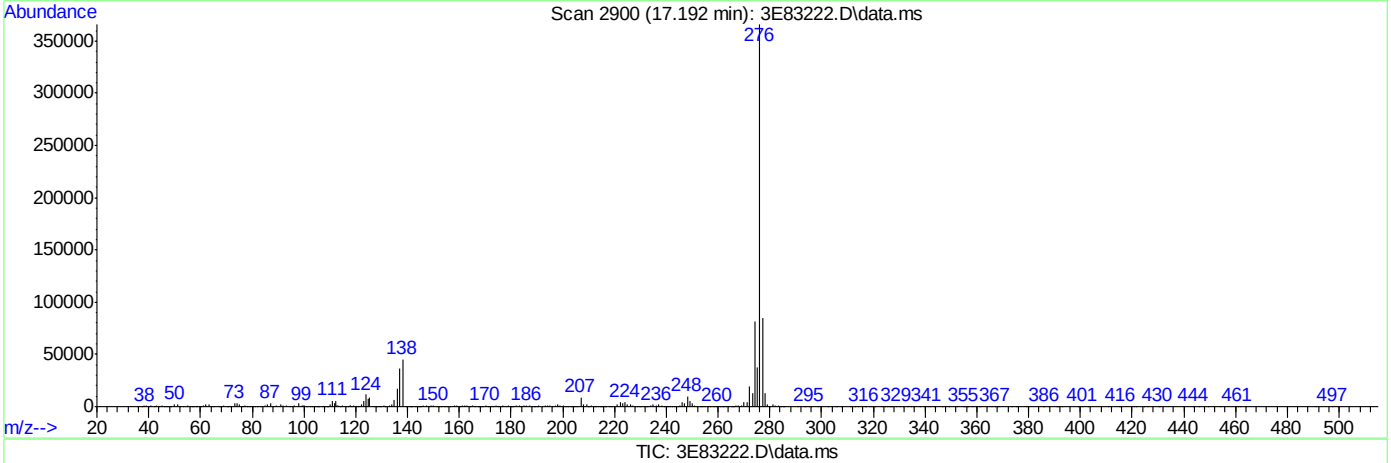
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.19	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83222.D
Acq On : 14 May 2016 11:31 am
Operator : ashleyn
Sample : op93902-bs1
Misc : op93902,e3e3649,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 11:59:28 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration





TIC: 3E83222.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.192min (-0.023) 48.91ppm

response 716448

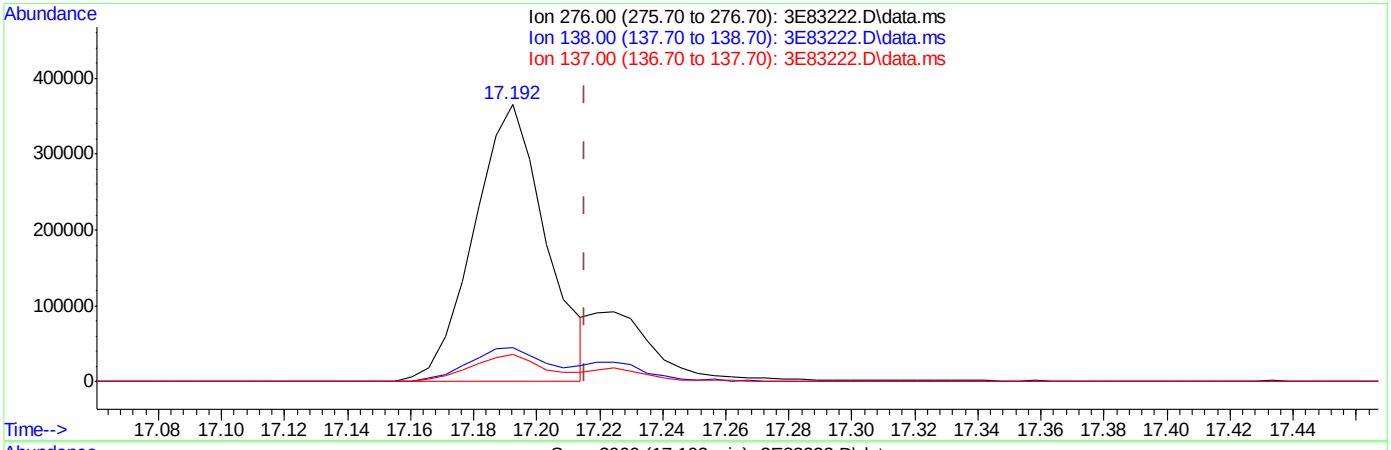
Ion	Exp%	Act%
276.00	100	100
138.00	14.30	12.38
137.00	9.10	9.82
0.00	0.00	0.00

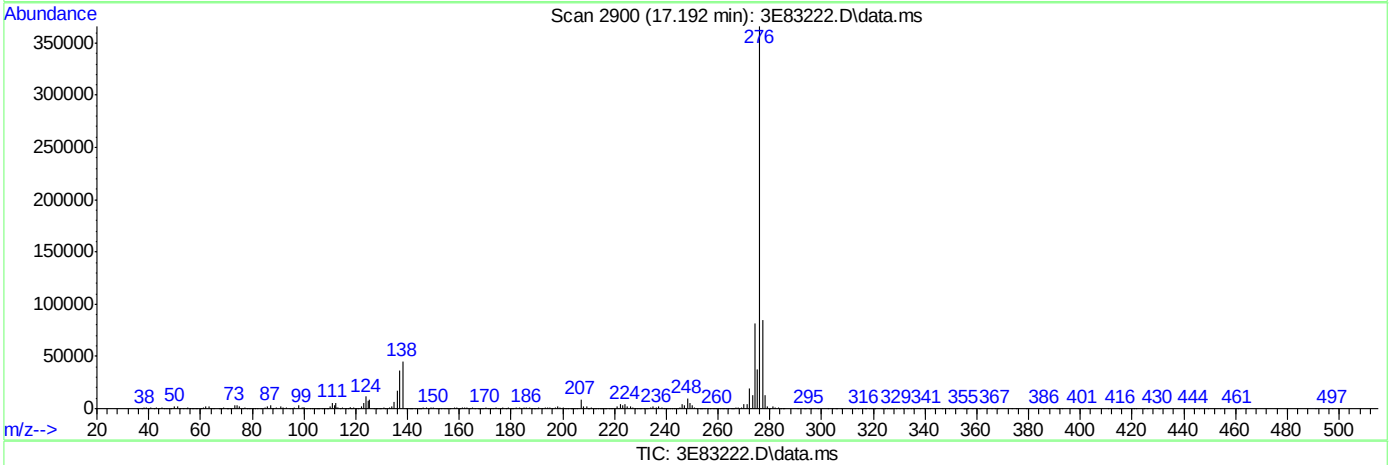
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83222.D
Acq On : 14 May 2016 11:31 am
Operator : ashleyn
Sample : op93902-bs1
Misc : op93902,e3e3649,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 11:59:28 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration





TIC: 3E83222.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.192min (-0.023) 39.62ppm m

response 580396

Ion	Exp%	Act%
276.00	100	100
138.00	14.30	12.42
137.00	9.10	9.90
0.00	0.00	0.00

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61319.D
Acq On : 14 May 2016 12:10 am
Operator : JULIUSJ
Sample : OP93902a-bs12
Misc : op93902a,e3m2883,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 16 13:24:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.406	150	441183	4.00	ppm	0.04
14) Fluorene-d10	13.411	176	624896	4.00	ppm	0.04
21) Fluoranthene-d10	17.623	212	926622	4.00	ppm	0.03
31) Benzo(a)pyrene-d12	22.228	264	748344	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	4.369	112	1210936	21.94	ppm	0.05
Spiked Amount 50.000			Recovery = 43.88%			
4) Phenol-d5	5.976	99	1288270	14.11	ppm	0.05
Spiked Amount 50.000			Recovery = 28.22%			
7) Nitrobenzene-d5	7.531	82	2674425	31.49	ppm	0.04
Spiked Amount 50.000			Recovery = 62.98%			
15) 2-Fluorobiphenyl	11.083	172	5744580	33.46	ppm	0.05
Spiked Amount 50.000			Recovery = 66.92%			
20) 2,4,6-Tribromophenol	13.957	330	619016	31.65	ppm	0.04
Spiked Amount 50.000			Recovery = 63.30%			
28) Terphenyl-d14	18.442	244	5305738	39.47	ppm	0.03
Spiked Amount 50.000			Recovery = 78.94%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.143	88	7954	0.35	ppm #	16
5) Phenol	5.988	94	178266	1.81	ppm	92
6) bis(2-Chloroethyl)ether	6.085	93	45855	0.62	ppm #	67
8) Nitrobenzene	7.550	77	64355	0.70	ppm	99
9) Naphthalene	8.924	128	149582	0.61	ppm	86
10) Hexachlorobutadiene	9.207	225	24649	0.58	ppm	93
11) 2-Methylnaphthalene	10.283	141	91008	0.71	ppm	88
13) Hexachlorocyclopentadiene	10.632	237	10924	0.32	ppm	89
16) Acenaphthylene	12.057	152	146551	0.68	ppm	100
17) Acenaphthene	12.428	153	107357	0.74	ppm #	68
18) 4,6-dinitro-2-methylph...	13.637	198	68573	3.62	ppm #	26
19) Fluorene	13.468	166	118733	0.68	ppm #	73
22) Hexachlorobenzene	14.547	284	32020	0.73	ppm	96
23) Pentachlorophenol	14.996	266	103738	3.48	ppm	88
24) Phenanthrene	15.367	178	176868	0.78	ppm	91
25) Anthracene	15.475	178	158909	0.79	ppm	96
26) Fluoranthene	17.654	202	208259	0.73	ppm	100
27) Pyrene	18.041	202	194775	0.73	ppm	99
29) Benzo[a]anthracene	20.142	228	195816	0.77	ppm	95
30) Chrysene	20.204	228	182782	0.75	ppm	97
32) Benzo[b]fluoranthene	21.811	252	168069	0.67	ppm	96
33) Benzo[k]fluoranthene	21.842	252	163446	0.71	ppm	94
34) Benzo[a]pyrene	22.259	252	161388	0.70	ppm	99
35) Indeno[1,2,3-cd]pyrene	23.731	276	181550	0.77	ppm	98
36) Dibenz[a,h]anthracene	23.768	278	144154	0.74	ppm	100
37) Benzo[g,h,i]perylene	24.088	276	152095	0.74	ppm	99

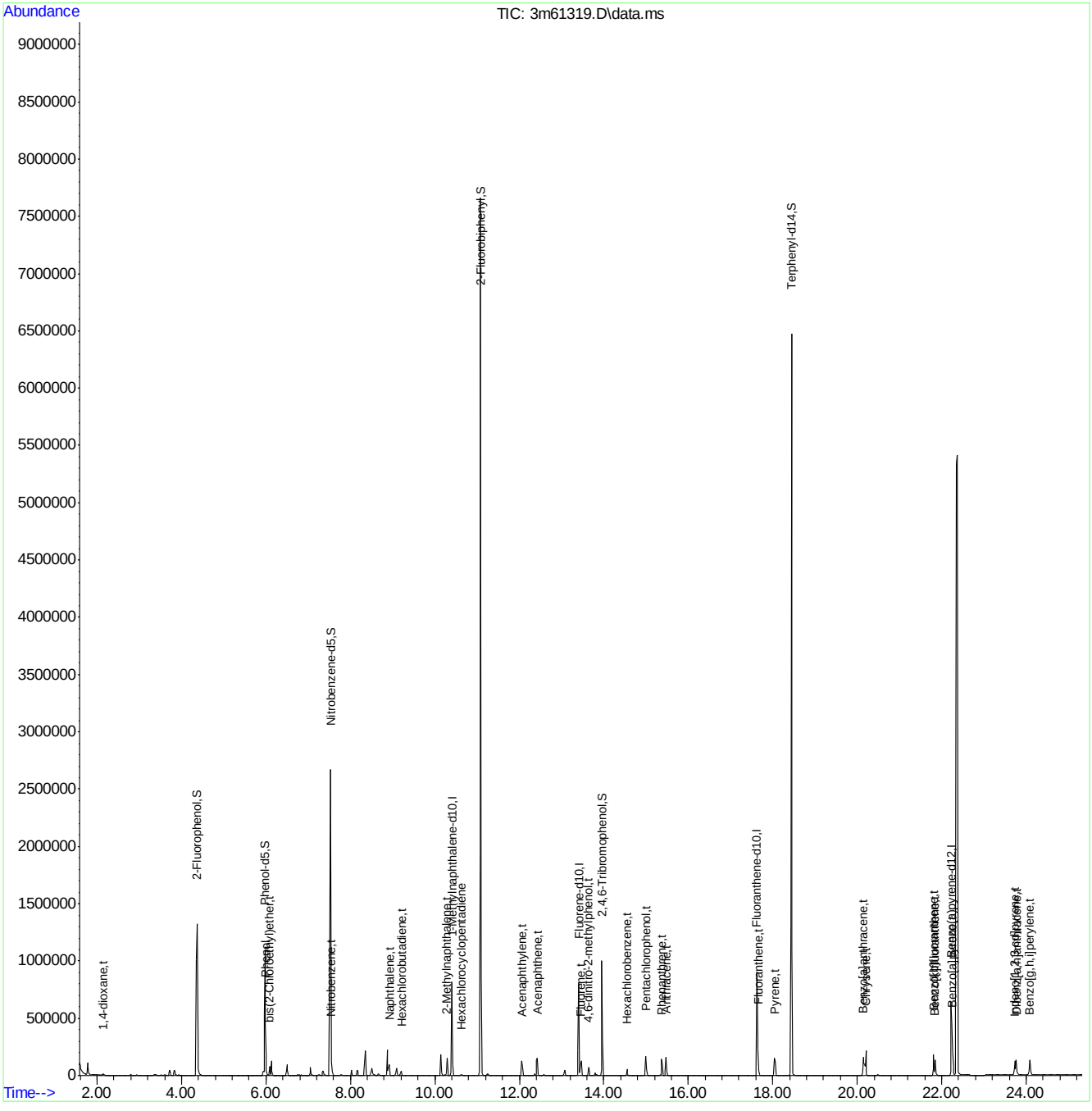
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61319.D
Acq On : 14 May 2016 12:10 am
Operator : JULIUSJ
Sample : OP93902a-bs12
Misc : op93902a,e3m2883,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 16 13:24:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration



M3M2855SIM.M Mon May 16 13:24:19 2016 RPT1 Page: 2

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/16/16 14:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83235.D
Acq On : 14 May 2016 5:15 pm
Operator : ashleyn
Sample : op93902-ms
Misc : op93902,e3e3649,900
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 16 09:40:43 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	126586	40.00 ppm	-0.05
24) Naphthalene-d8	5.399	136	457213	40.00 ppm	-0.06
47) Acenaphthene-d10	7.378	164	285848	40.00 ppm	-0.08
69) Phenanthrene-d10	9.523	188	515022	40.00 ppm	-0.09
83) Chrysene-d12	13.684	240	611492	40.00 ppm	-0.10
92) Perylene-d12	15.796	264	494335	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.366	152	126586	40.00 ppm	-0.05
104) Acenaphthene-d10a	7.378	164	285848	40.00 ppm	-0.08
106) Phenanthrene-d10a	9.523	188	515022	40.00 ppm	-0.09
108) Chrysene-d12a	13.684	240	611492	40.00 ppm	-0.10
110) Naphthalene-d8a	5.399	136	457213	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	3.404	112	83931	21.63 ppm	-0.05
Spiked Amount 50.000			Recovery = 43.26%		
8) Phenol-d5	4.152	99	78240	15.50 ppm	-0.02
Spiked Amount 50.000			Recovery = 31.00%		
25) Nitrobenzene-d5	4.794	82	145732	31.87 ppm	-0.05
Spiked Amount 50.000			Recovery = 63.74%		
51) 2-Fluorobiphenyl	6.543	172	356904	37.65 ppm	-0.08
Spiked Amount 50.000			Recovery = 75.30%		
73) 2,4,6-Tribromophenol	8.501	330	75021	41.30 ppm	-0.09
Spiked Amount 50.000			Recovery = 82.60%		
85) Terphenyl-d14	12.074	244	474261	36.94 ppm	-0.11
Spiked Amount 50.000			Recovery = 73.88%		

Target Compounds					Qvalue
2) 1,4-Dioxane	1.810	88	57640	49.94 ppm	95
3) Pyridine	2.163	79	55139	16.81 ppm	98
4) N-Nitrosodimethylamine	2.125	74	41013	21.97 ppm	97
6) Indene	4.554	116	219719	29.10 ppm	99
7) Cumene	3.757	105	285137	25.82 ppm	97
9) Phenol	4.163	94	86538	15.64 ppm	89
10) Aniline	4.131	93	145704	22.67 ppm	63
11) bis(2-Chloroethyl)ether	4.179	93	108119	28.48 ppm	98
12) 2-Chlorophenol	4.227	128	133796	29.17 ppm	96
13) Decane	4.243	43	106940	22.03 ppm	93
14) 1,3-Dichlorobenzene	4.324	146	143487	28.61 ppm	99
15) 1,4-Dichlorobenzene	4.377	146	148563	28.22 ppm	98
16) Benzyl alcohol	4.489	108	80737	28.88 ppm	88
17) 1,2-Dichlorobenzene	4.489	146	141720	29.89 ppm	96
18) Acetophenone	4.677	105	183494	29.22 ppm	97
19) 2-Methylphenol	4.591	108	107147	27.62 ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.575	121	42160	27.11 ppm	95
21) 3&4-Methylphenol	4.714	108	111307	27.30 ppm	95
22) n-Nitroso-di-n-propyla...	4.682	70	87947	26.45 ppm	87
23) Hexachloroethane	4.741	201	57500	34.16 ppm	87
26) Nitrobenzene	4.810	77	146168	30.95 ppm	98
27) Quinoline	5.752	129	283078	35.60 ppm	97
28) Isophorone	5.003	82	239518	31.25 ppm	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83235.D
Acq On : 14 May 2016 5:15 pm
Operator : ashleyn
Sample : op93902-ms
Misc : op93902,e3e3649,900
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 16 09:40:43 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
29) 2-Nitrophenol	5.072	139	74740	30.93 ppm	77
30) 2,4-Dimethylphenol	5.131	107	153943	37.01 ppm	98
31) Benzoic acid	5.254	105	55312	18.05 ppm	95
32) bis(2-Chloroethoxy)met...	5.190	93	124509	29.84 ppm	99
33) 2,4-Dichlorophenol	5.302	162	133735	41.23 ppm	96
34) 2,6-Dichlorophenol	5.495	162	128684	38.84 ppm	94
36) 1,2,4-Trichlorobenzene	5.351	180	128532	34.73 ppm	94
38) Naphthalene	5.420	128	399855	31.63 ppm	98
39) 4-Chloroaniline	5.490	127	140235	27.23 ppm	95
40) 2,3-Dichloroaniline	6.447	161	160136	39.17 ppm	96
41) Caprolactam	5.848	55	18922	10.93 ppm	94
42) Hexachlorobutadiene	5.527	225	83706	37.74 ppm	99
43) 4-Chloro-3-methylphenol	6.014	107	130942	35.39 ppm	95
44) 2-Methylnaphthalene	6.115	141	244575	34.09 ppm	93
45) 1-Methylnaphthalene	6.222	141	253695	33.89 ppm	96
46) Dimethylnaphthalene	6.854	156	269504	37.20 ppm	100
48) Hexachlorocyclopentadiene	6.281	237	79711	37.52 ppm	98
49) 2,4,6-Trichlorophenol	6.463	196	111551	43.04 ppm	97
50) 2,4,5-Trichlorophenol	6.533	196	107948	37.40 ppm	98
52) 2-Chloronaphthalene	6.677	162	277559	34.26 ppm	98
53) Biphenyl	6.661	154	371696	34.40 ppm	100
54) 2-Nitroaniline	6.838	65	104364	34.76 ppm	94
55) Dimethylphthalate	7.073	163	365861	38.55 ppm	99
56) Acenaphthylene	7.196	152	428305	31.67 ppm	98
57) 2,6-Dinitrotoluene	7.158	165	79735	37.52 ppm	98
58) 3-Nitroaniline	7.378	138	69862	29.52 ppm	88
59) Acenaphthene	7.421	153	309842	34.50 ppm	96
60) 2,4-Dinitrophenol	7.544	184	94768	85.33 ppm	81
61) 4-Nitrophenol	7.752	109	39028	25.54 ppm	94
62) Dibenzofuran	7.661	168	433159	36.64 ppm	89
63) 2,4-Dinitrotoluene	7.709	165	109221	37.57 ppm	76
64) 2,3,4,6-Tetrachlorophenol	7.870	232	89873	42.00 ppm	90
65) Diethylphthalate	8.046	149	376610	37.78 ppm	99
66) Fluorene	8.143	166	357788	36.15 ppm	99
67) 4-Chlorophenyl-phenyle...	8.169	204	189669	42.03 ppm	90
68) 4-Nitroaniline	8.239	138	81903	36.00 ppm	90
70) 4,6-Dinitro-2-methylph...	8.292	198	68256	36.98 ppm	90
71) n-Nitrosodiphenylamine	8.357	169	237437	33.19 ppm	98
72) 1,2-Diphenylhydrazine	8.394	77	386458	36.27 ppm	97
74) 4-Bromophenyl-phenylether	8.881	248	127937	41.78 ppm	94
75) Hexachlorobenzene	8.940	284	150388	40.96 ppm	96
76) Pentachlorophenol	9.282	266	62131	35.55 ppm	99
77) Phenanthrene	9.555	178	516217	34.55 ppm	99
78) Anthracene	9.635	178	488910	32.66 ppm	99
79) Carbazole	9.934	167	486206	35.90 ppm	99
80) Di-n-butylphthalate	10.560	149	624561	35.70 ppm	97
81) Fluoranthene	11.405	202	642538	39.65 ppm	95
82) Octadecane	9.490	57	152250	25.02 ppm	89
84) Pyrene	11.748	202	665423	36.35 ppm	99
86) Butylbenzylphthalate	12.924	149	260952	29.89 ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83235.D
Acq On : 14 May 2016 5:15 pm
Operator : ashleyn
Sample : op93902-ms
Misc : op93902,e3e3649,900
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 16 09:40:43 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
88) Benzo[a]anthracene	13.673	228	629702	35.23	ppm		97
89) 3,3'-Dichlorobenzidine	13.700	252	359374	54.07	ppm		98
90) Chrysene	13.727	228	573030	34.36	ppm		98
91) bis(2-Ethylhexyl)phtha...	13.887	149	332481	29.60	ppm		96
93) Di-n-octylphthalate	14.877	149	545787	28.66	ppm		98
94) Benzo[b]fluoranthene	15.278	252	604371	36.16	ppm		100
95) Benzo[k]fluoranthene	15.315	252	549635	36.85	ppm		99
96) Benzo[a]pyrene	15.716	252	453221	32.49	ppm		99
97) Indeno[1,2,3-cd]pyrene	17.192	276	473095m	35.59	ppm		
99) Dibenz[a,h]anthracene	17.225	278	488757	37.02	ppm		98
100) 7,12-Dimethylbenz(a)an...	15.267	256	227114	30.49	ppm		92
101) Benzo[g,h,i]perylene	17.567	276	455742	35.59	ppm		95
103) Benzaldehyde	4.046	105	102195	29.78	ppm	#	82
105) 1,2,4,5-Tetrachloroben...	6.303	216	159539	45.08	ppm		98
107) Atrazine	9.212	215	59841	45.65	ppm	#	87
109) benzidine	11.705	184	107191	14.24	ppm		96

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

7.4.1

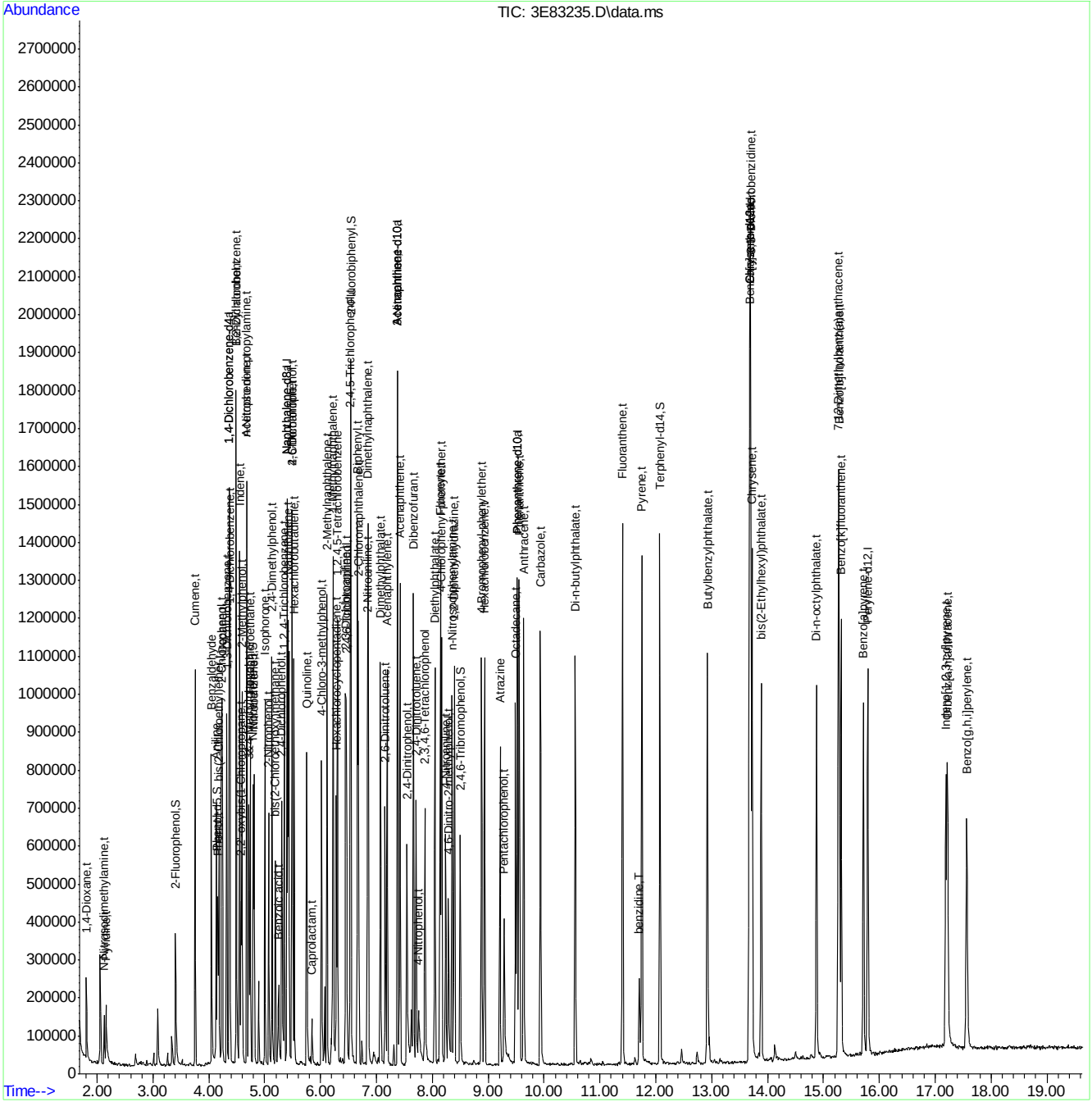
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83235.D
Acq On : 14 May 2016 5:15 pm
Operator : ashleyn
Sample : op93902-ms
Misc : op93902,e3e3649,900
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 16 09:40:43 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



M3E3623.M Mon May 16 09:40:57 2016 MS3E Page: 4

SGS ACCUTEST JC20184

Manual Integration Approval Summary

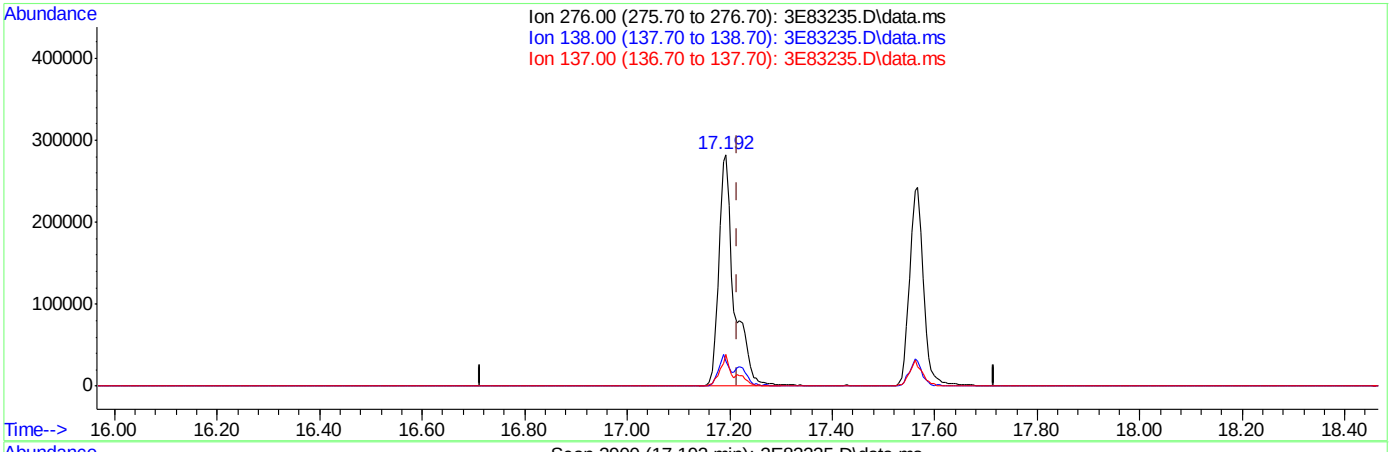
Sample Number:	OP93902-MS	**Method:**	SW846 8270D
Lab FileID:	3E83235.D	**Analyst approved:**	05/16/16 09:42 Ashley Noble
Injection Time:	05/14/16 17:15	**Supervisor approved:**	05/16/16 14:04 Nina Pandya

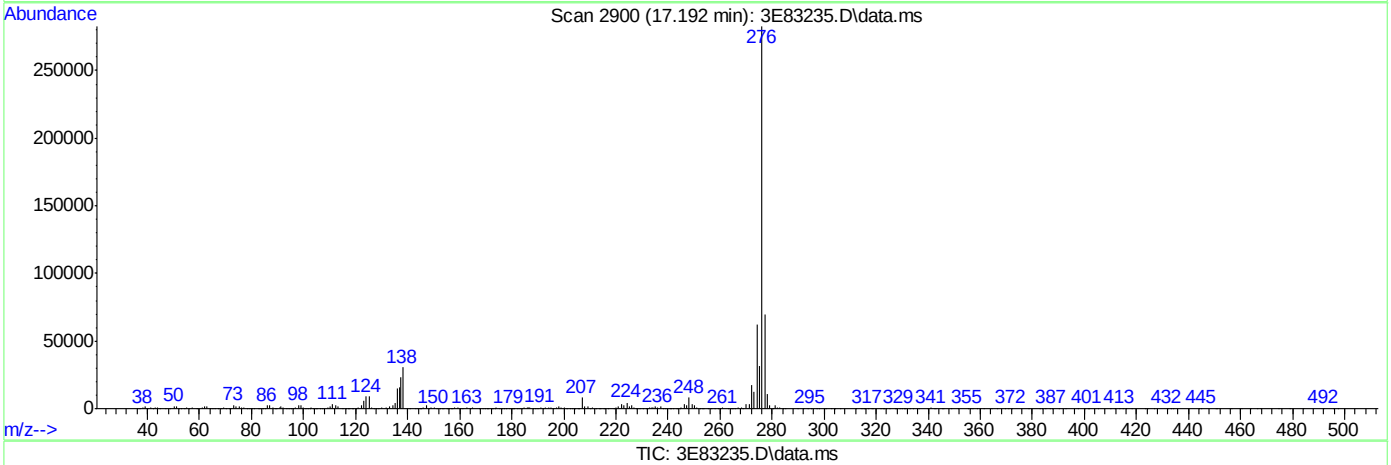
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.19	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83235.D
Acq On : 14 May 2016 5:15 pm
Operator : ashleyn
Sample : op93902-ms
Misc : op93902,e3e3649,900
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 16 08:26:03 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration





TIC: 3E83235.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.192min (-0.023) 43.72ppm

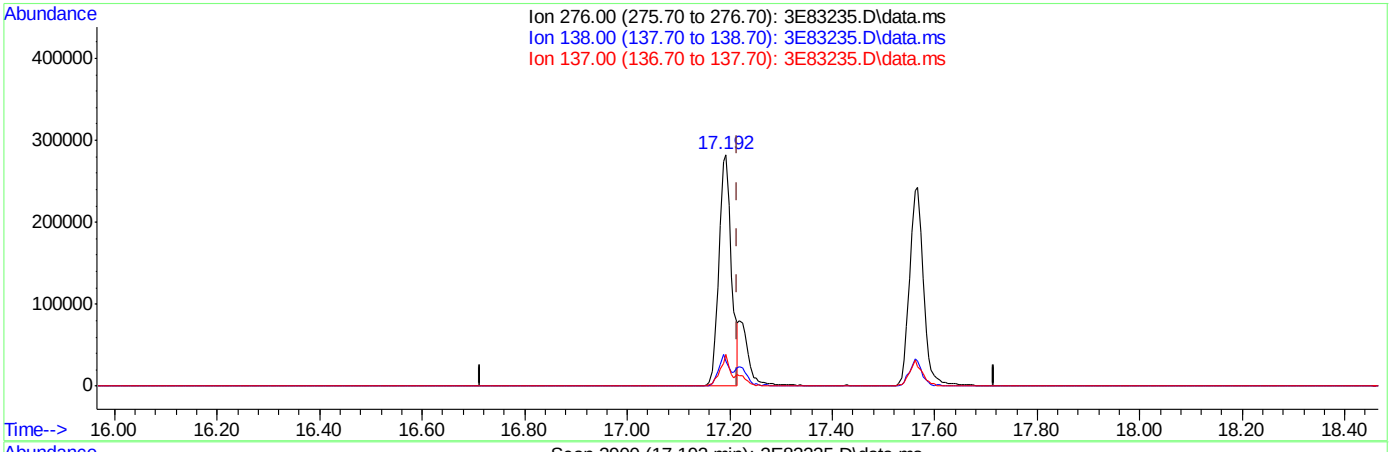
response 581101

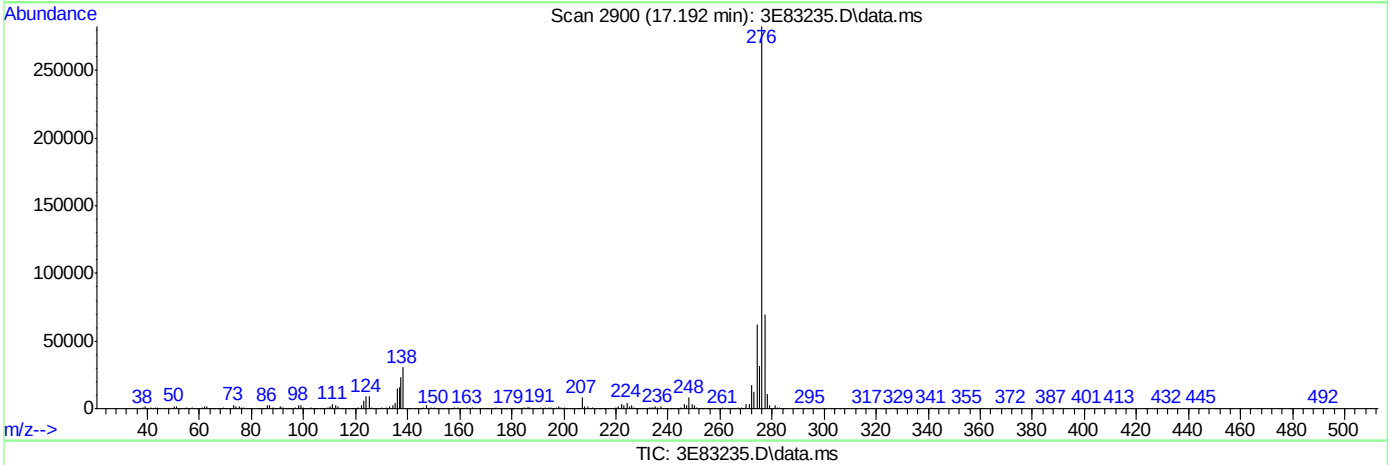
Ion	Exp%	Act%
276.00	100	100
138.00	14.30	10.61
137.00	9.10	13.62
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83235.D
Acq On : 14 May 2016 5:15 pm
Operator : ashleyn
Sample : op93902-ms
Misc : op93902,e3e3649,900
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 16 08:26:03 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration





TIC: 3E83235.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.192min (-0.023) 35.59ppm m

response 473095

Ion	Exp%	Act%
276.00	100	100
138.00	14.30	10.80
137.00	9.10	8.23
0.00	0.00	0.00

SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/16/16 14:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83236.D
Acq On : 14 May 2016 5:42 pm
Operator : ashleyn
Sample : op93902-msd
Misc : op93902,e3e3649,900
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 16 09:41:45 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	128548	40.00	ppm	-0.05
24) Naphthalene-d8	5.399	136	463809	40.00	ppm	-0.06
47) Acenaphthene-d10	7.378	164	289712	40.00	ppm	-0.08
69) Phenanthrene-d10	9.523	188	517313	40.00	ppm	-0.09
83) Chrysene-d12	13.684	240	614521	40.00	ppm	-0.10
92) Perylene-d12	15.791	264	510733	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4a	4.366	152	128548	40.00	ppm	-0.05
104) Acenaphthene-d10a	7.378	164	289712	40.00	ppm	-0.08
106) Phenanthrene-d10a	9.523	188	517313	40.00	ppm	-0.09
108) Chrysene-d12a	13.684	240	614521	40.00	ppm	-0.10
110) Naphthalene-d8a	5.399	136	463809	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.404	112	91877	23.31	ppm	-0.05
Spiked Amount 50.000			Recovery	=	46.62%	
8) Phenol-d5	4.152	99	80892	15.78	ppm	-0.02
Spiked Amount 50.000			Recovery	=	31.56%	
25) Nitrobenzene-d5	4.794	82	165597	35.70	ppm	-0.05
Spiked Amount 50.000			Recovery	=	71.40%	
51) 2-Fluorobiphenyl	6.543	172	360232	37.49	ppm	-0.08
Spiked Amount 50.000			Recovery	=	74.98%	
73) 2,4,6-Tribromophenol	8.501	330	69069	37.86	ppm	-0.09
Spiked Amount 50.000			Recovery	=	75.72%	
85) Terphenyl-d14	12.074	244	436674	33.85	ppm	-0.11
Spiked Amount 50.000			Recovery	=	67.70%	

Target Compounds							Qvalue
2) 1,4-Dioxane	1.810	88	59840	51.06	ppm		92
3) Pyridine	2.163	79	70282	21.10	ppm		96
4) N-Nitrosodimethylamine	2.125	74	45412	23.95	ppm		82
6) Indene	4.554	116	247620	32.29	ppm		98
7) Cumene	3.757	105	312889	27.90	ppm		96
9) Phenol	4.163	94	86248m	15.35	ppm		
10) Aniline	4.131	93	156153	23.92	ppm	#	62
11) bis(2-Chloroethyl)ether	4.179	93	127203	33.00	ppm		93
12) 2-Chlorophenol	4.227	128	143262	30.75	ppm		94
13) Decane	4.243	43	117222	23.77	ppm		93
14) 1,3-Dichlorobenzene	4.324	146	157993	31.02	ppm		94
15) 1,4-Dichlorobenzene	4.377	146	162411	30.38	ppm		99
16) Benzyl alcohol	4.489	108	82223	28.96	ppm		94
17) 1,2-Dichlorobenzene	4.489	146	151038	31.37	ppm		99
18) Acetophenone	4.677	105	197873	31.03	ppm		98
19) 2-Methylphenol	4.596	108	111434	28.29	ppm		92
20) 2,2'-oxybis(1-Chloropr...	4.575	121	44637	28.26	ppm	#	81
21) 3&4-Methylphenol	4.714	108	110683	26.74	ppm		97
22) n-Nitroso-di-n-propyla...	4.682	70	91610	27.13	ppm		83
23) Hexachloroethane	4.741	201	62615	36.63	ppm		87
26) Nitrobenzene	4.810	77	164422	34.32	ppm		97
27) Quinoline	5.752	129	282628	35.04	ppm		98
28) Isophorone	5.003	82	265801	34.19	ppm		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83236.D
Acq On : 14 May 2016 5:42 pm
Operator : ashleyn
Sample : op93902-msd
Misc : op93902,e3e3649,900
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 16 09:41:45 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
29) 2-Nitrophenol	5.072	139	78702	32.10 ppm	92
30) 2,4-Dimethylphenol	5.131	107	154066	36.51 ppm	98
31) Benzoic acid	5.254	105	54132	17.41 ppm	96
32) bis(2-Chloroethoxy)met...	5.196	93	137097	32.39 ppm	99
33) 2,4-Dichlorophenol	5.302	162	129595	39.39 ppm	95
34) 2,6-Dichlorophenol	5.495	162	130461	38.82 ppm	95
36) 1,2,4-Trichlorobenzene	5.351	180	143119	38.12 ppm	96
38) Naphthalene	5.420	128	419189	32.69 ppm	97
39) 4-Chloroaniline	5.490	127	145138	27.78 ppm	95
40) 2,3-Dichloroaniline	6.447	161	156620	37.77 ppm	98
41) Caprolactam	5.848	55	18778	10.69 ppm	93
42) Hexachlorobutadiene	5.527	225	92829	41.26 ppm	94
43) 4-Chloro-3-methylphenol	6.014	107	124061	33.05 ppm	90
44) 2-Methylnaphthalene	6.115	141	259776	35.69 ppm	93
45) 1-Methylnaphthalene	6.222	141	279006	36.74 ppm	93
46) Dimethylnaphthalene	6.854	156	279069	37.98 ppm	98
48) Hexachlorocyclopentadiene	6.281	237	91326	41.66 ppm	99
49) 2,4,6-Trichlorophenol	6.463	196	102524	39.03 ppm	95
50) 2,4,5-Trichlorophenol	6.533	196	102480	35.03 ppm	97
52) 2-Chloronaphthalene	6.677	162	288977	35.19 ppm	100
53) Biphenyl	6.661	154	381394	34.83 ppm	98
54) 2-Nitroaniline	6.838	65	100565	33.05 ppm	95
55) Dimethylphthalate	7.073	163	345917	35.96 ppm	99
56) Acenaphthylene	7.196	152	435252	31.76 ppm	97
57) 2,6-Dinitrotoluene	7.153	165	76645	35.59 ppm	91
58) 3-Nitroaniline	7.378	138	67167	28.00 ppm	94
59) Acenaphthene	7.421	153	315694	34.69 ppm	97
60) 2,4-Dinitrophenol	7.544	184	84763	76.44 ppm	93
61) 4-Nitrophenol	7.752	109	37999	24.53 ppm	90
62) Dibenzofuran	7.661	168	428818	35.79 ppm	87
63) 2,4-Dinitrotoluene	7.709	165	103057	34.98 ppm	79
64) 2,3,4,6-Tetrachlorophenol	7.870	232	80908	37.31 ppm	93
65) Diethylphthalate	8.046	149	364373	36.06 ppm	98
66) Fluorene	8.143	166	347549	34.65 ppm	97
67) 4-Chlorophenyl-phenyle...	8.169	204	181435	39.67 ppm	92
68) 4-Nitroaniline	8.239	138	72863	31.60 ppm	97
70) 4,6-Dinitro-2-methylph...	8.292	198	63767	34.61 ppm	85
71) n-Nitrosodiphenylamine	8.357	169	224658	31.27 ppm	98
72) 1,2-Diphenylhydrazine	8.394	77	372557	34.81 ppm	97
74) 4-Bromophenyl-phenylether	8.881	248	122765	39.92 ppm	93
75) Hexachlorobenzene	8.940	284	143259	38.84 ppm	98
76) Pentachlorophenol	9.282	266	52914	30.14 ppm	94
77) Phenanthrene	9.555	178	483430	32.21 ppm	97
78) Anthracene	9.635	178	466041	30.99 ppm	98
79) Carbazole	9.934	167	455980	33.52 ppm	100
80) Di-n-butylphthalate	10.560	149	571557	32.53 ppm	98
81) Fluoranthene	11.405	202	597159	36.68 ppm	94
82) Octadecane	9.490	57	151412	24.78 ppm	93
84) Pyrene	11.748	202	612522	33.30 ppm	99
86) Butylbenzylphthalate	12.924	149	244868	27.91 ppm	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83236.D
Acq On : 14 May 2016 5:42 pm
Operator : ashleyn
Sample : op93902-msd
Misc : op93902,e3e3649,900
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 16 09:41:45 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
88) Benzo[a]anthracene	13.673	228	561533	31.26	ppm		99
89) 3,3'-Dichlorobenzidine	13.700	252	346335	51.85	ppm		97
90) Chrysene	13.727	228	538956	32.16	ppm		99
91) bis(2-Ethylhexyl)phtha...	13.887	149	311904	27.63	ppm		97
93) Di-n-octylphthalate	14.877	149	506461	25.99	ppm		97
94) Benzo[b]fluoranthene	15.278	252	559117	32.38	ppm		99
95) Benzo[k]fluoranthene	15.315	252	496417	32.22	ppm		99
96) Benzo[a]pyrene	15.716	252	417028	28.93	ppm		98
97) Indeno[1,2,3-cd]pyrene	17.192	276	414607m	30.19	ppm		
99) Dibenz[a,h]anthracene	17.219	278	446290	32.71	ppm		99
100) 7,12-Dimethylbenz(a)an...	15.267	256	196203	25.49	ppm		98
101) Benzo[g,h,i]perylene	17.562	276	418104	31.60	ppm		98
103) Benzaldehyde	4.046	105	111628	32.04	ppm	#	79
105) 1,2,4,5-Tetrachloroben...	6.303	216	164238	45.79	ppm		99
107) Atrazine	9.212	215	58097	44.13	ppm	#	86
109) benzidine	11.699	184	140097	18.52	ppm		95

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

7.4.2

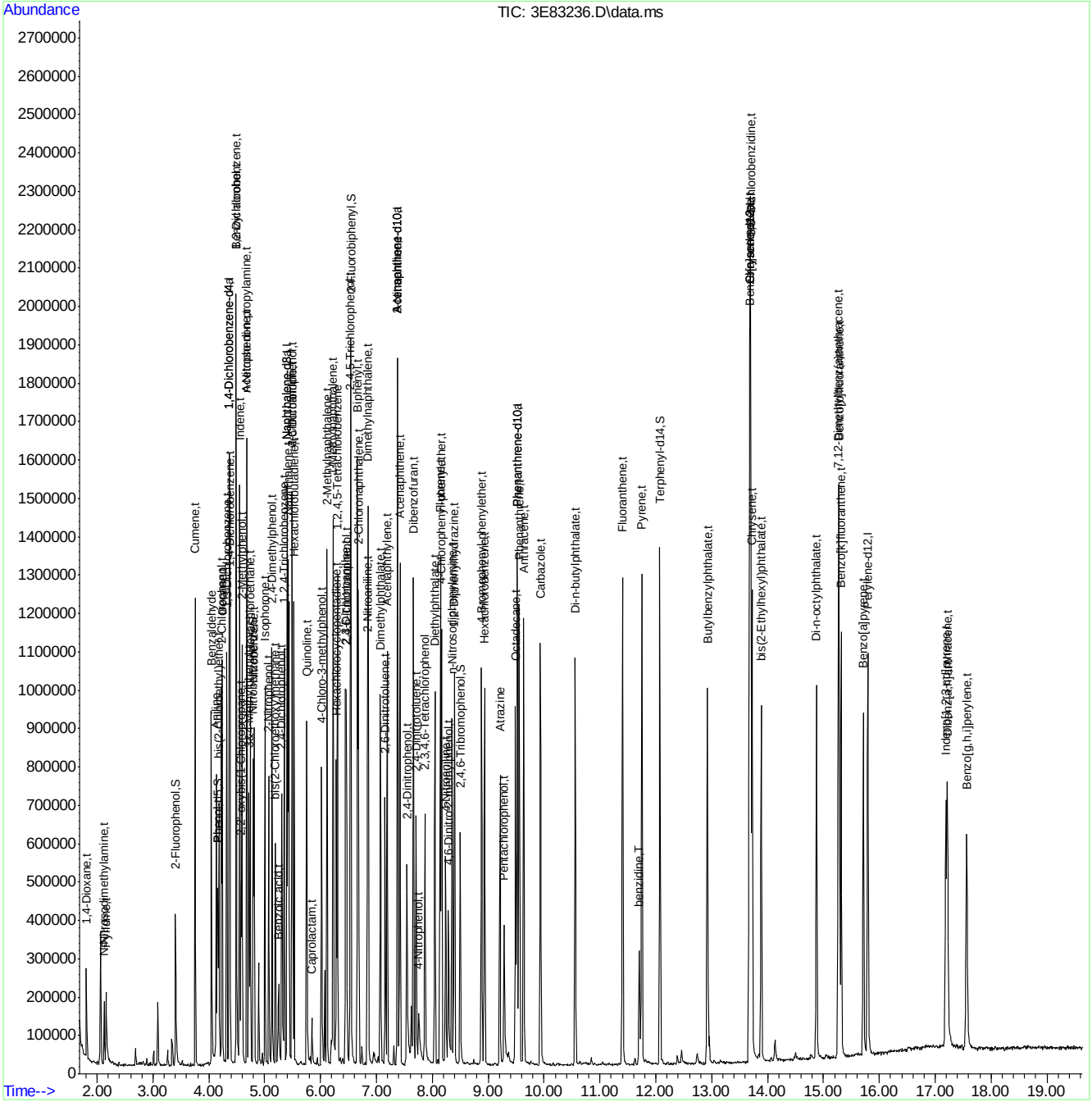
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83236.D
Acq On : 14 May 2016 5:42 pm
Operator : ashleyn
Sample : op93902-msd
Misc : op93902,e3e3649,900
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 16 09:41:45 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Manual Integration Approval Summary

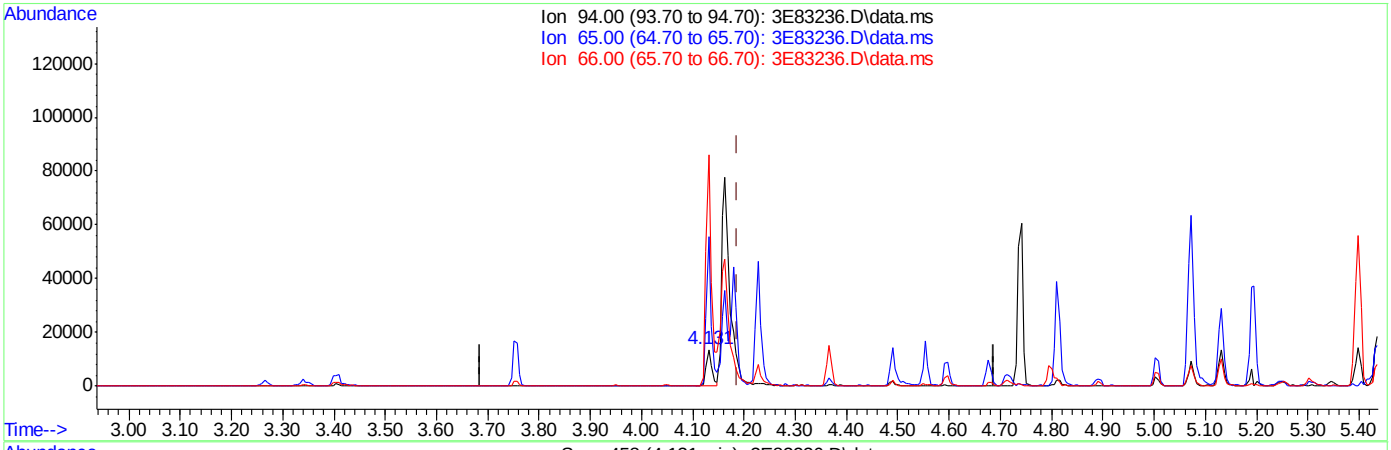
Sample Number:	OP93902-MSD	**Method:**	SW846 8270D
Lab FileID:	3E83236.D	**Analyst approved:**	05/16/16 09:42 Ashley Noble
Injection Time:	05/14/16 17:42	**Supervisor approved:**	05/16/16 14:04 Nina Pandya

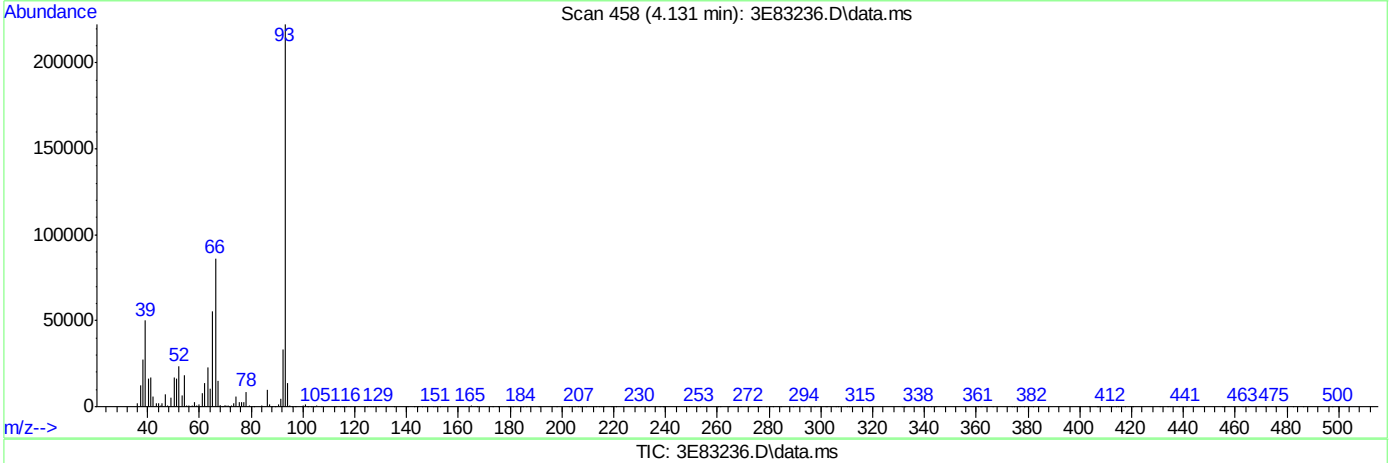
Parameter	CAS	Sig#	R.T. (min.)	Reason
Phenol	108-95-2		4.16	Poor instrument integration
Indeno(1,2,3-cd)pyrene	193-39-5		17.19	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83236.D
Acq On : 14 May 2016 5:42 pm
Operator : ashleyn
Sample : op93902-msd
Misc : op93902,e3e3649,900
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 16 08:26:06 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration





TIC: 3E83236.D\data.ms

(9) Phenol (t)

4.131min (-0.056) 1.83ppm

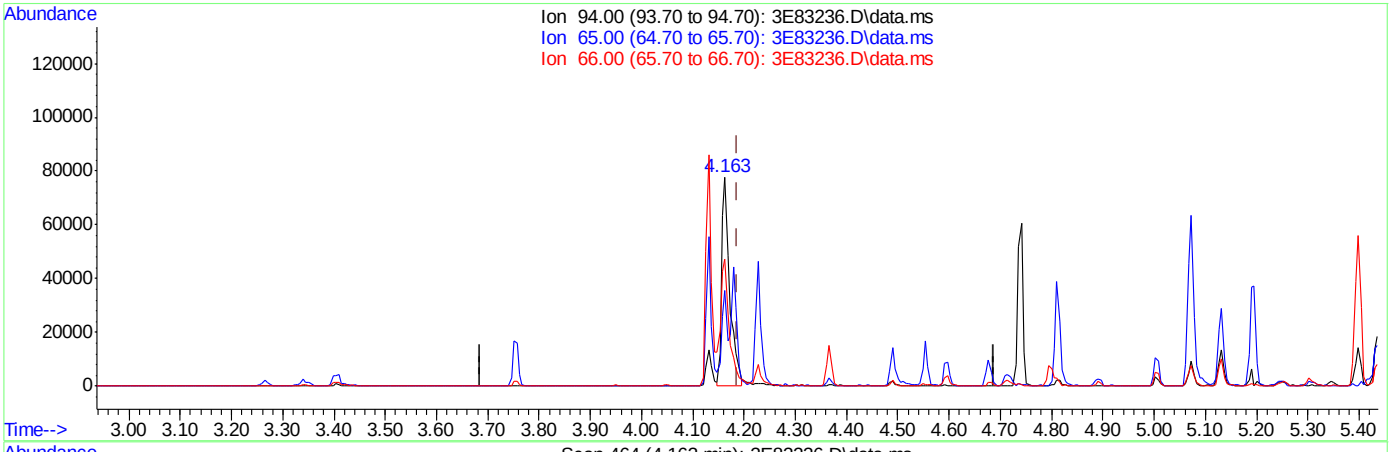
response 10259

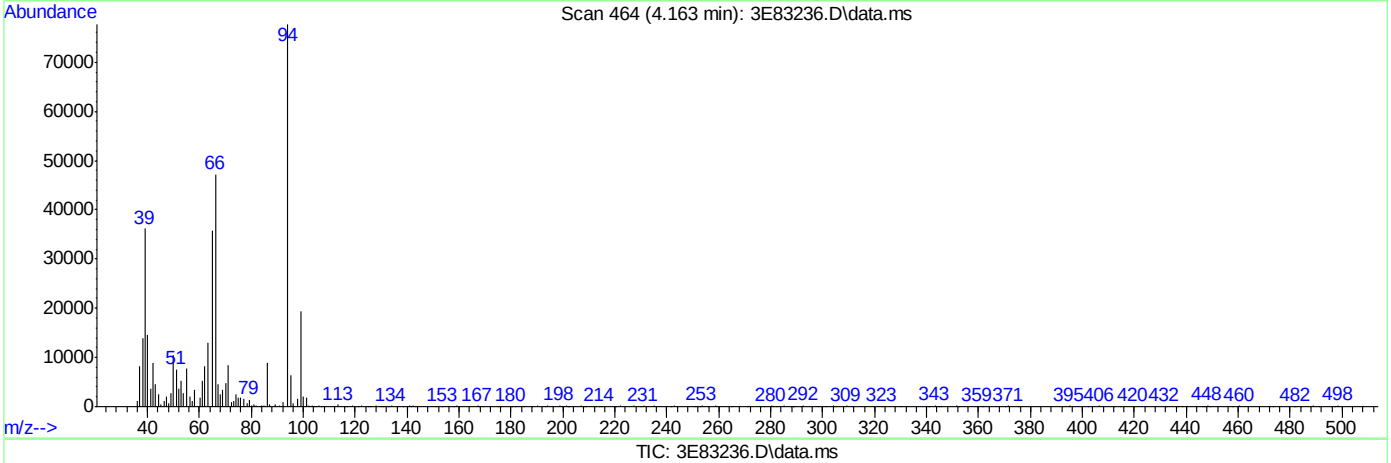
Ion	Exp%	Act%
94.00	100	100
65.00	42.80	404.03#
66.00	61.40	610.30#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83236.D
Acq On : 14 May 2016 5:42 pm
Operator : ashleyn
Sample : op93902-msd
Misc : op93902,e3e3649,900
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 16 08:26:06 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration





TIC: 3E83236.D\data.ms

(9) Phenol (t)

4.163min (-0.024) 15.35ppm m

response 86248

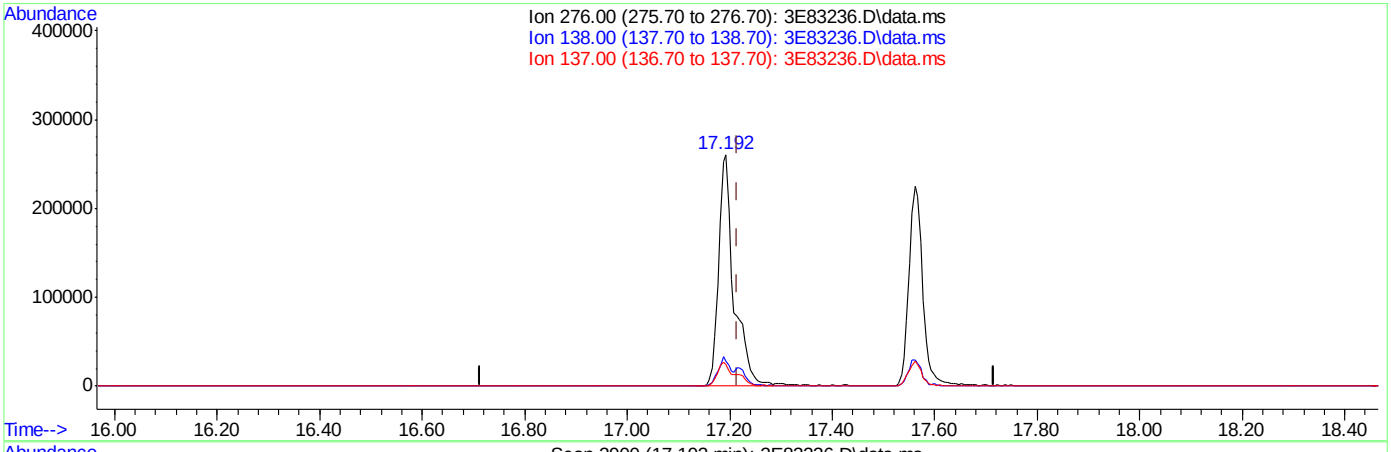
Ion	Exp%	Act%
94.00	100	100
65.00	42.80	46.00
66.00	61.40	60.83
0.00	0.00	0.00

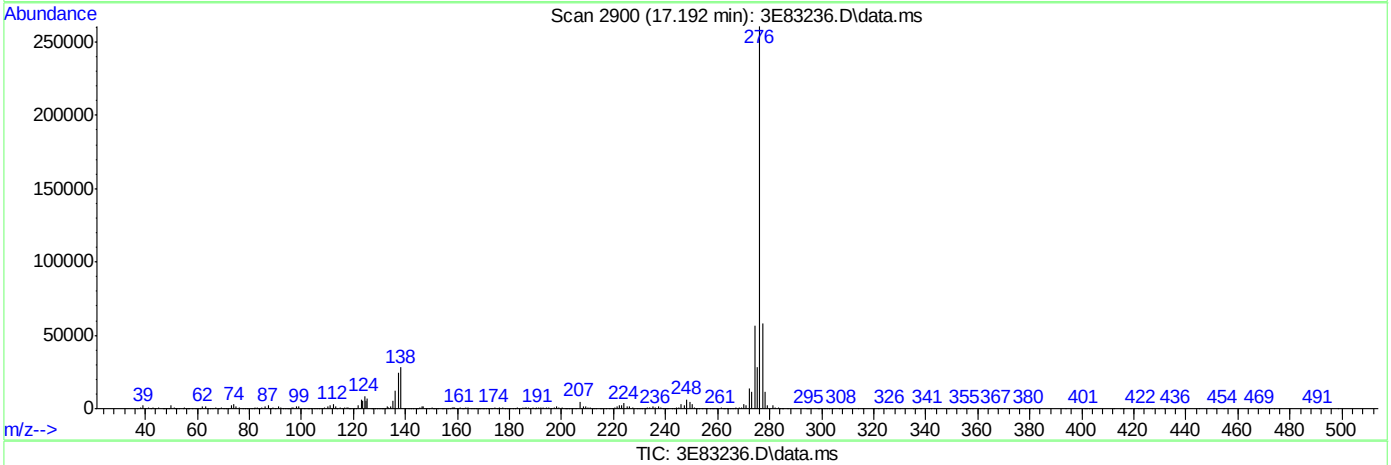
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83236.D
Acq On : 14 May 2016 5:42 pm
Operator : ashleyn
Sample : op93902-msd
Misc : op93902,e3e3649,900
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 16 08:26:06 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration





TIC: 3E83236.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.192min (-0.023) 38.76ppm

response 532335

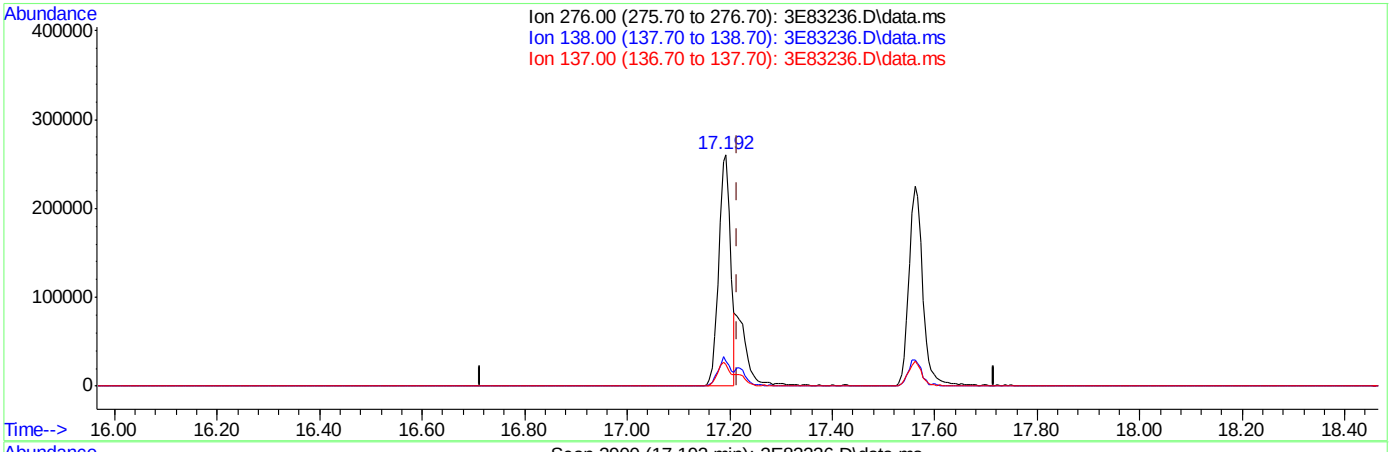
Ion	Exp%	Act%
276.00	100	100
138.00	14.30	10.73
137.00	9.10	9.14
0.00	0.00	0.00

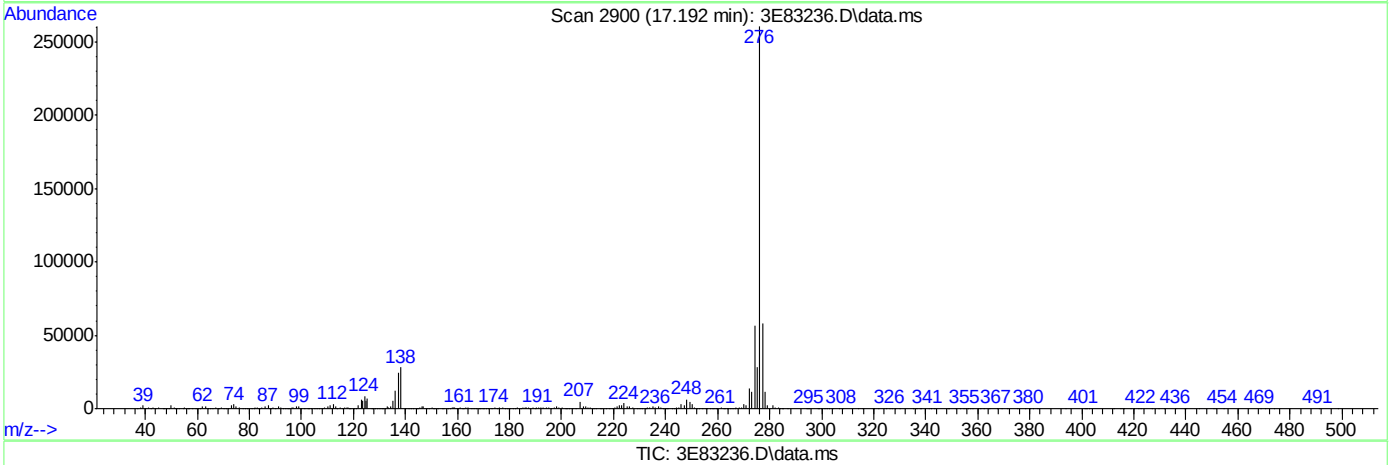
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83236.D
Acq On : 14 May 2016 5:42 pm
Operator : ashleyn
Sample : op93902-msd
Misc : op93902,e3e3649,900
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 16 08:26:06 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MSat May 14 10:49:37 2016
QLast Update : Sat May 14 10:49:37 2016
Response via : Initial Calibration





TIC: 3E83236.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.192min (-0.023) 30.19ppm m

response 414607

Ion	Exp%	Act%
276.00	100	100
138.00	14.30	10.78
137.00	9.10	9.33
0.00	0.00	0.00

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61320.D
Acq On : 14 May 2016 12:43 am
Operator : JULIUSJ
Sample : OP93902a-ms
Misc : op93902a,e3m2883,480
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 16 13:24:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	10.406	150	420710	4.00	ppm		0.04
14) Fluorene-d10	13.411	176	599937	4.00	ppm		0.04
21) Fluoranthene-d10	17.623	212	891766	4.00	ppm		0.03
31) Benzo(a)pyrene-d12	22.228	264	691880	4.00	ppm		0.03
System Monitoring Compounds							
3) 2-Fluorophenol	4.368	112	1671954	31.76	ppm		0.05
Spiked Amount 50.000			Recovery = 63.52%				
4) Phenol-d5	5.976	99	2121569	24.36	ppm		0.05
Spiked Amount 50.000			Recovery = 48.72%				
7) Nitrobenzene-d5	7.531	82	2760440	34.09	ppm		0.04
Spiked Amount 50.000			Recovery = 68.18%				
15) 2-Fluorobiphenyl	11.083	172	5832515	35.38	ppm		0.05
Spiked Amount 50.000			Recovery = 70.76%				
20) 2,4,6-Tribromophenol	13.957	330	676338	36.02	ppm		0.04
Spiked Amount 50.000			Recovery = 72.04%				
28) Terphenyl-d14	18.442	244	5951614	46.01	ppm		0.03
Spiked Amount 50.000			Recovery = 92.02%				
Target Compounds							Qvalue
2) 1,4-dioxane	2.143	88	76931	3.54	ppm	#	64
5) Phenol	5.988	94	298029	3.17	ppm		94
6) bis(2-Chloroethyl)ether	6.085	93	46915	0.66	ppm	#	67
8) Nitrobenzene	7.549	77	78765	0.90	ppm		99
9) Naphthalene	8.924	128	158127	0.68	ppm		86
10) Hexachlorobutadiene	9.207	225	26037	0.64	ppm		94
11) 2-Methylnaphthalene	10.283	141	94020	0.77	ppm		87
13) Hexachlorocyclopentadiene	10.631	237	13385	0.41	ppm		91
16) Acenaphthylene	12.057	152	151371	0.73	ppm		100
17) Acenaphthene	12.428	153	112451	0.81	ppm	#	68
18) 4,6-dinitro-2-methylph...	13.637	198	85100	4.46	ppm	#	1
19) Fluorene	13.467	166	130997	0.79	ppm		74
22) Hexachlorobenzene	14.547	284	35818	0.85	ppm		93
23) Pentachlorophenol	14.996	266	92868	3.25	ppm		85
24) Phenanthrene	15.367	178	201899	0.92	ppm		92
25) Anthracene	15.475	178	173723	0.90	ppm		96
26) Fluoranthene	17.654	202	231741	0.84	ppm		99
27) Pyrene	18.040	202	227168	0.89	ppm		99
29) Benzo[a]anthracene	20.142	228	208261	0.85	ppm		95
30) Chrysene	20.204	228	180905	0.77	ppm		97
32) Benzo[b]fluoranthene	21.810	252	170127	0.74	ppm		95
33) Benzo[k]fluoranthene	21.841	252	169241	0.79	ppm		93
34) Benzo[a]pyrene	22.258	252	144275	0.67	ppm		99
35) Indeno[1,2,3-cd]pyrene	23.730	276	155659	0.71	ppm		99
36) Dibenz[a,h]anthracene	23.768	278	131665	0.73	ppm		100
37) Benzo[g,h,i]perylene	24.088	276	109909	0.58	ppm		99

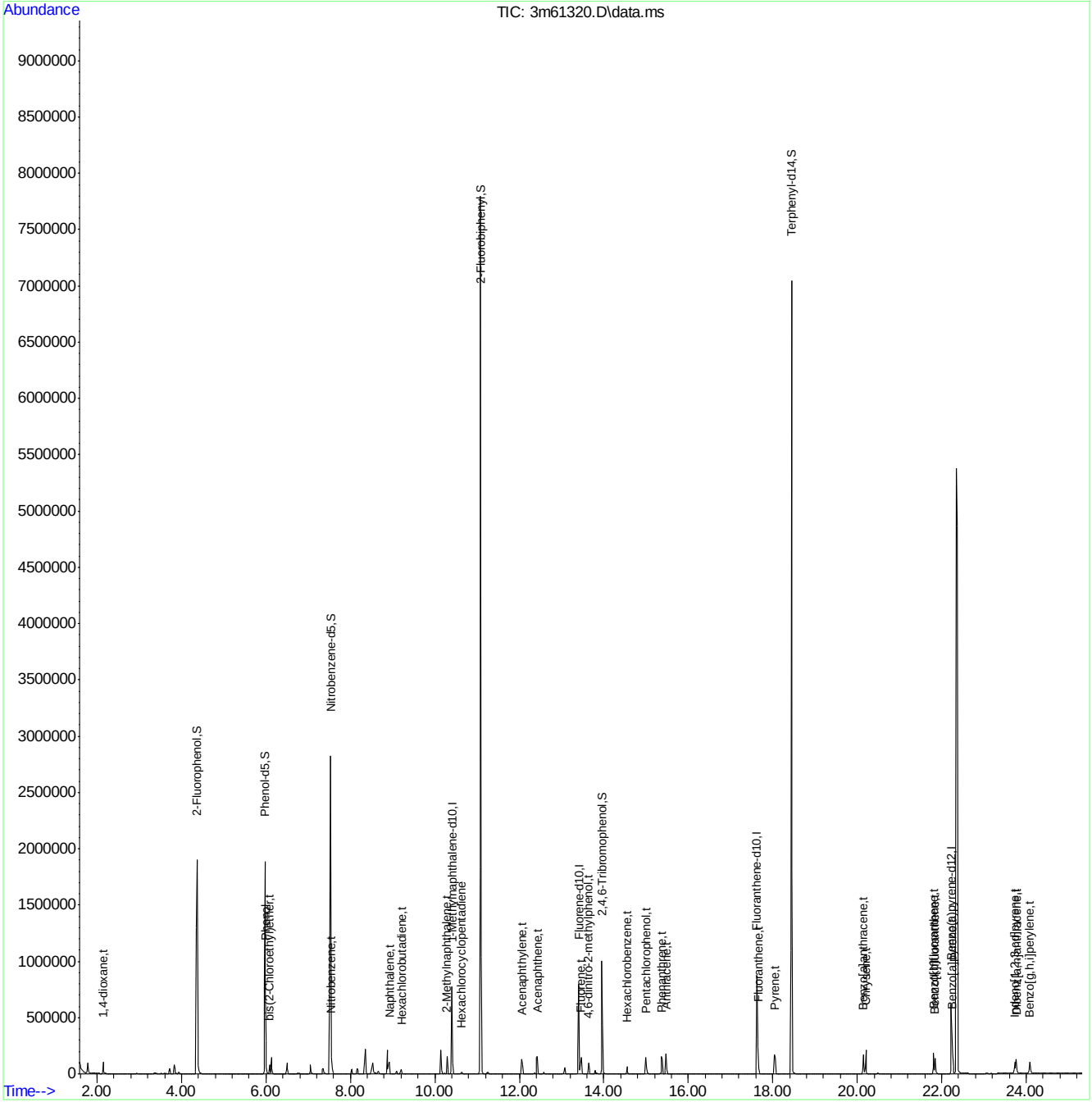
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61320.D
Acq On : 14 May 2016 12:43 am
Operator : JULIUSJ
Sample : OP93902a-ms
Misc : op93902a,e3m2883,480
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 16 13:24:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration



M3M2855SIM.M Mon May 16 13:24:38 2016 RPT1 Page: 2

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61321.D
Acq On : 14 May 2016 1:15 am
Operator : JULIUSJ
Sample : OP93902a-msd
Misc : op93902a,e3m2883,480
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 13:24:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

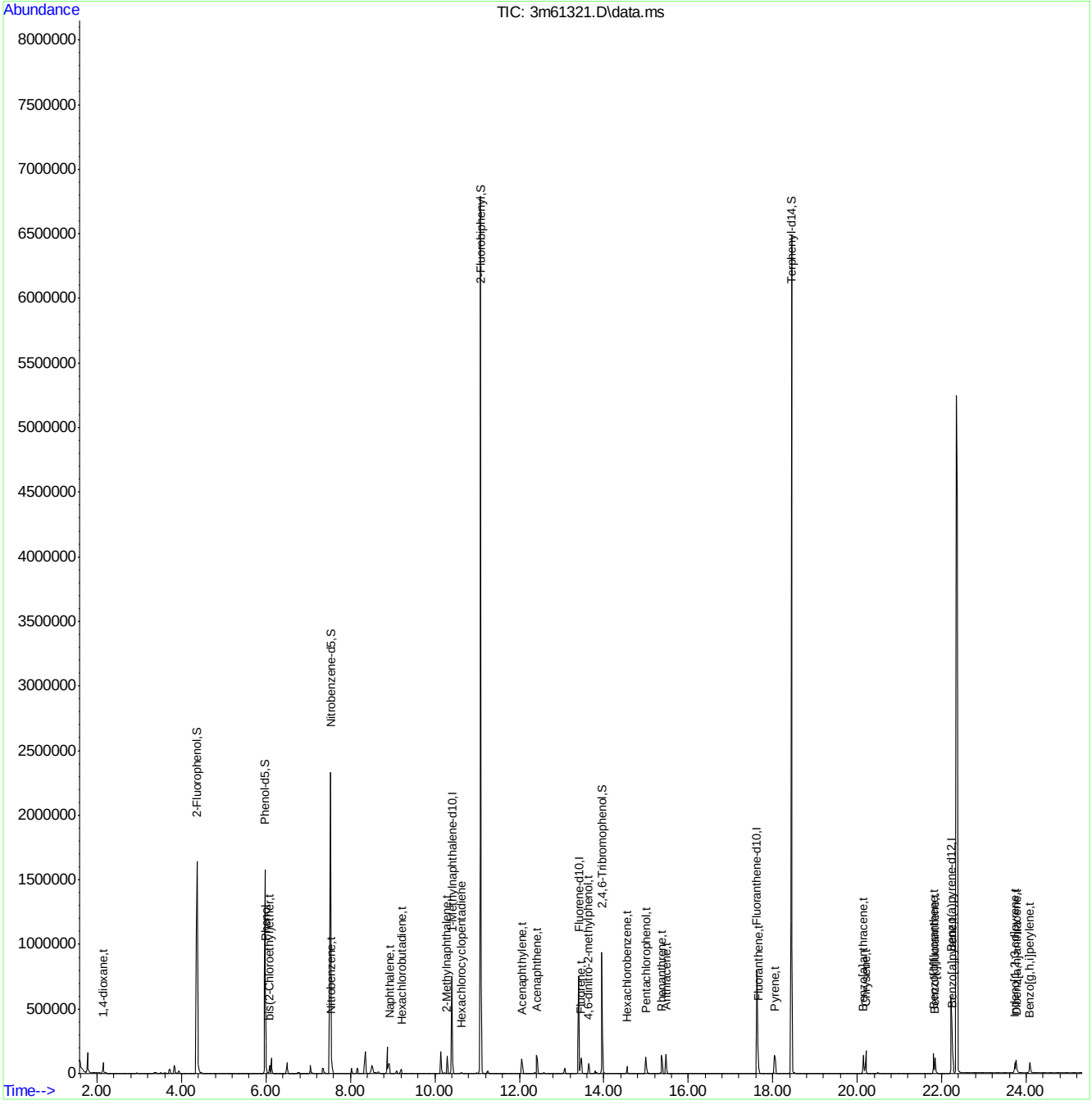
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	10.406	150	405661	4.00	ppm		0.04
14) Fluorene-d10	13.411	176	570881	4.00	ppm		0.04
21) Fluoranthene-d10	17.623	212	830620	4.00	ppm		0.03
31) Benzo(a)pyrene-d12	22.227	264	702123	4.00	ppm		0.03
System Monitoring Compounds							
3) 2-Fluorophenol	4.368	112	1456634	28.70	ppm		0.05
Spiked Amount 50.000			Recovery = 57.40%				
4) Phenol-d5	5.976	99	1846011	21.98	ppm		0.05
Spiked Amount 50.000			Recovery = 43.96%				
7) Nitrobenzene-d5	7.531	82	2316479	29.67	ppm		0.04
Spiked Amount 50.000			Recovery = 59.34%				
15) 2-Fluorobiphenyl	11.083	172	5094591	32.48	ppm		0.05
Spiked Amount 50.000			Recovery = 64.96%				
20) 2,4,6-Tribromophenol	13.957	330	589952	33.02	ppm		0.04
Spiked Amount 50.000			Recovery = 66.04%				
28) Terphenyl-d14	18.442	244	5168721	42.90	ppm		0.03
Spiked Amount 50.000			Recovery = 85.80%				
Target Compounds							Qvalue
2) 1,4-dioxane	2.143	88	74429	3.55	ppm		88
5) Phenol	5.988	94	252792	2.79	ppm		94
6) bis(2-Chloroethyl)ether	6.085	93	40973	0.60	ppm	#	65
8) Nitrobenzene	7.549	77	71277	0.84	ppm		97
9) Naphthalene	8.924	128	131552	0.58	ppm		86
10) Hexachlorobutadiene	9.206	225	22437	0.57	ppm		94
11) 2-Methylnaphthalene	10.283	141	80874	0.69	ppm		87
13) Hexachlorocyclopentadiene	10.631	237	10212	0.33	ppm		89
16) Acenaphthylene	12.057	152	130052	0.66	ppm		100
17) Acenaphthene	12.412	153	96229	0.73	ppm		97
18) 4,6-dinitro-2-methylph...	13.637	198	67777	3.86	ppm	#	11
19) Fluorene	13.467	166	108806	0.69	ppm	#	72
22) Hexachlorobenzene	14.547	284	30303	0.77	ppm		93
23) Pentachlorophenol	14.995	266	85394	3.21	ppm		88
24) Phenanthrene	15.367	178	169727	0.83	ppm		92
25) Anthracene	15.475	178	143839	0.80	ppm		96
26) Fluoranthene	17.654	202	196503	0.77	ppm		99
27) Pyrene	18.040	202	189372	0.80	ppm		100
29) Benzo[a]anthracene	20.142	228	175856	0.77	ppm		97
30) Chrysene	20.203	228	154365	0.71	ppm		98
32) Benzo[b]fluoranthene	21.810	252	141127	0.60	ppm		95
33) Benzo[k]fluoranthene	21.841	252	137905	0.64	ppm		94
34) Benzo[a]pyrene	22.258	252	117265	0.54	ppm		99
35) Indeno[1,2,3-cd]pyrene	23.730	276	127269	0.58	ppm		99
36) Dibenz[a,h]anthracene	23.768	278	106232	0.58	ppm		100
37) Benzo[g,h,i]perylene	24.088	276	90515	0.47	ppm		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61321.D
Acq On : 14 May 2016 1:15 am
Operator : JULIUSJ
Sample : OP93902a-msd
Misc : op93902a,e3m2883,480
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 16 13:24:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration



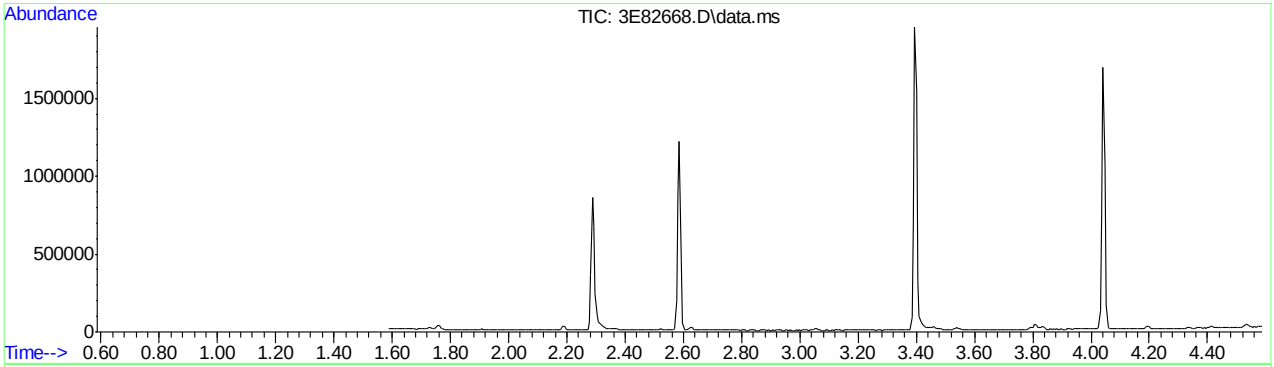
M3M2855SIM.M Mon May 16 13:24:58 2016 RPT1 Page: 2

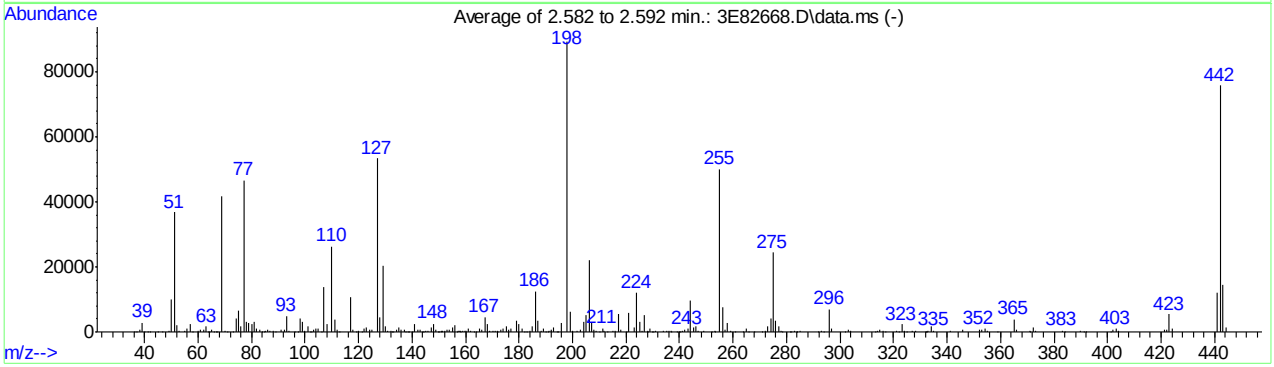
DFTPP

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82668.D
Acq On : 26 Apr 2016 1:15 pm
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3621
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
Last Update : Sat Aug 08 13:07:52 2015





AutoFind: Scans 187, 188, 189; Background Corrected with Scan 182

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.3	36856	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.6	41596	PASS
70	69	0.00	2	1.1	473	PASS
127	198	40	60	59.7	53290	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	89282	PASS
199	198	5	9	7.0	6277	PASS
275	198	10	30	27.4	24445	PASS
365	198	1	100	4.3	3823	PASS
441	443	0.10	100	81.7	11945	PASS
442	198	40	100	84.9	75784	PASS
443	442	17	23	19.3	14615	PASS

SGS ACCUTEST JC20184

Average of 2.582 to 2.592 min.: 3E82668.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	178	51.05	36856	63.90	95	75.00	6415
37.00	132	52.10	2026	64.10	103	76.10	1581
38.05	617	53.00	239	65.05	861	77.10	46564
39.10	2883	55.00	194	66.00	68	78.05	3075
39.95	132	56.00	1123	66.90	94	79.00	2747
41.00	92	57.10	2357	67.10	118	80.00	2453
41.95	28	57.95	149	69.00	41596	81.00	3116
44.80	79	60.05	228	70.00	473	82.00	926
46.80	97	61.05	553	70.95	12	83.05	852
49.05	258	62.05	643	72.95	46	84.00	14
50.10	10040	63.10	1707	74.10	4084	84.80	126

Average of 2.582 to 2.592 min.: 3E82668.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.05	500	98.05	4042	108.00	2319	123.00	1496
85.95	849	99.05	3181	110.05	26216	123.95	633
87.00	437	99.95	331	111.00	3957	125.00	618
88.00	281	101.00	1840	111.95	529	127.05	53290
88.80	64	102.00	104	112.95	180	128.10	4613
91.00	776	102.20	51	117.05	10703	129.00	20430
92.10	832	103.00	777	118.05	804	130.00	1785
92.95	4905	104.00	1188	118.95	149	131.00	300
94.00	436	105.00	1024	120.05	310	131.95	292
96.00	147	106.00	81	121.10	51	132.60	96
97.10	147	107.00	13899	122.00	1171	132.90	84

Average of 2.582 to 2.592 min.: 3E82668.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
134.00	692	143.80	59	151.55	241	158.95	388
135.00	1479	144.20	125	152.05	267	159.90	230
136.05	561	145.05	200	153.00	809	160.10	501
137.10	853	146.00	443	154.05	648	161.00	1044
137.70	73	147.05	1346	155.00	1325	162.00	387
138.25	168	148.00	2595	156.10	1957	163.05	167
138.90	146	149.05	683	156.90	85	164.00	57
140.10	122	149.80	53	157.15	470	165.00	1119
141.00	2557	150.00	130	157.70	185	166.05	775
142.00	855	150.80	63	157.90	302	167.10	4615
143.00	624	151.10	345	158.10	92	168.00	2256

Average of 2.582 to 2.592 min.: 3E82668.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.00	511	180.00	2385	190.80	87	201.50	439
170.10	192	181.00	1004	191.05	322	203.05	740
171.05	196	181.95	158	191.90	809	204.10	3111
171.90	346	182.95	134	192.20	199	205.05	5276
172.10	68	183.90	249	193.00	1233	206.10	22056
173.00	538	185.05	1798	193.95	182	207.00	2697
174.00	893	186.00	12561	194.70	79	208.00	743
175.10	1737	187.00	3562	196.00	2936	208.95	314
176.05	598	188.05	497	198.00	89282	209.90	153
177.05	1080	189.00	915	199.00	6277	211.10	1100
179.00	3512	190.00	74	199.95	517	211.80	191

Average of 2.582 to 2.592 min.: 3E82668.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
213.00	67	227.00	5176	237.00	228	249.00	376
215.00	213	227.95	514	239.10	83	251.90	91
215.95	352	228.20	103	239.70	54	253.05	340
217.00	5504	229.00	1175	240.10	51	253.30	78

217.95	826	229.80	87	240.95	360	255.00	50144
220.20	119	230.10	51	242.00	812	256.05	7597
221.00	5713	231.00	410	243.10	927	257.10	646
223.10	1444	233.95	320	244.10	9833	258.00	2780
224.05	12024	235.00	426	245.10	1367	259.05	424
225.05	2985	236.00	198	246.00	1793	260.90	67
226.00	196	236.80	175	246.95	412	263.75	181

Average of 2.582 to 2.592 min.: 3E82668.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
265.00	1168	278.20	77	297.00	920	323.10	2337
265.80	23	281.10	61	302.00	90	324.05	375
267.85	136	281.90	50	303.10	803	324.90	58
270.80	50	282.95	235	304.00	193	327.00	425
272.05	262	283.80	65	313.10	52	328.05	247
273.05	1654	284.00	91	314.05	384	331.80	54
274.10	4139	285.10	377	315.00	697	332.10	93
275.00	24445	291.90	105	316.05	481	332.40	73
276.05	3307	293.10	476	317.10	50	333.00	219
277.00	1785	293.95	154	321.10	214	334.10	1669
277.90	283	296.00	7027	322.00	82	335.05	409

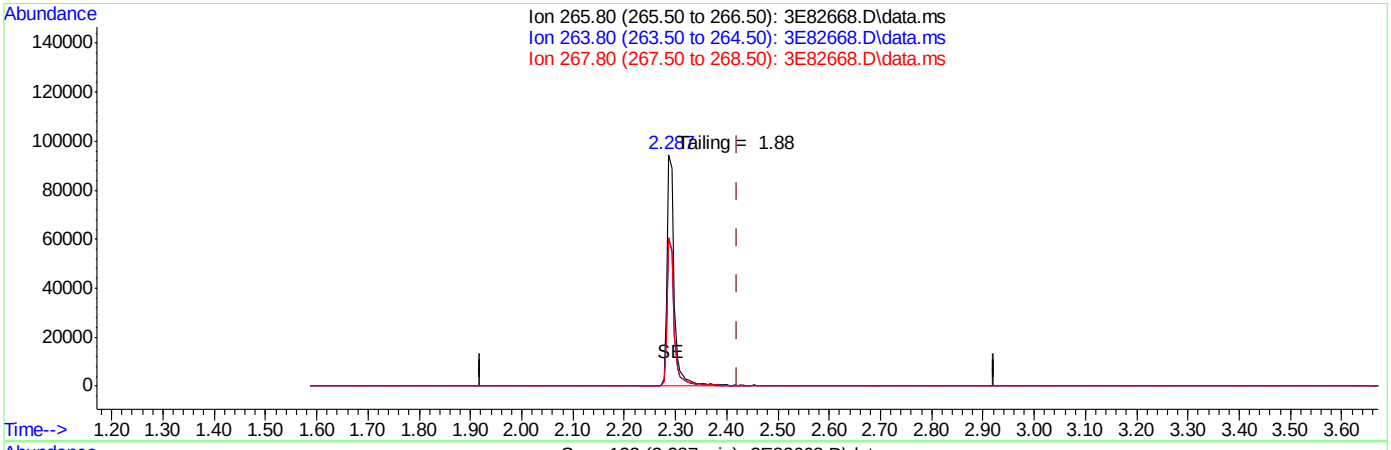
Average of 2.582 to 2.592 min.: 3E82668.D\data.ms
dftpp
Modified:subtracted

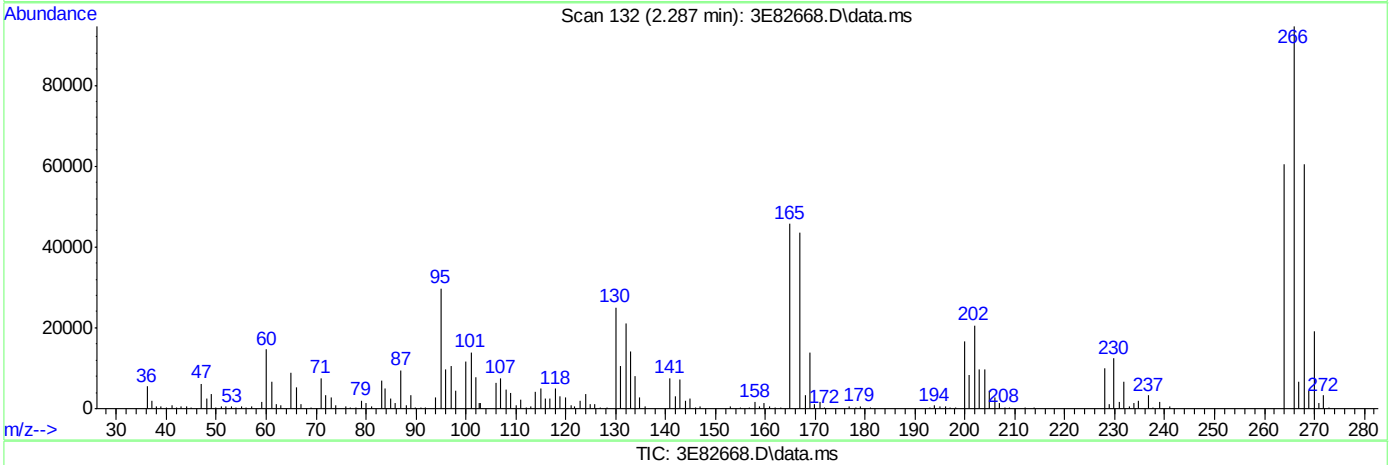
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
341.05	307	372.05	1521	421.10	837		
346.00	551	373.10	351	422.05	810		
352.10	859	382.95	364	423.10	5503		
353.05	597	384.10	115	424.05	1177		
354.05	947	390.05	232	441.15	11945		
355.10	201	391.10	53	442.10	75784		
359.00	52	392.00	56	443.10	14615		
365.05	3823	401.10	69	444.15	1316		
366.05	627	402.05	650				
370.90	61	403.05	937				
371.15	251	404.05	315				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82668.D
Acq On : 26 Apr 2016 1:15 pm
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3621
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 26 13:29:05 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





(1) Pentachlorophenol (t)

2.287min (-0.134) 59.91ppb

response 93631

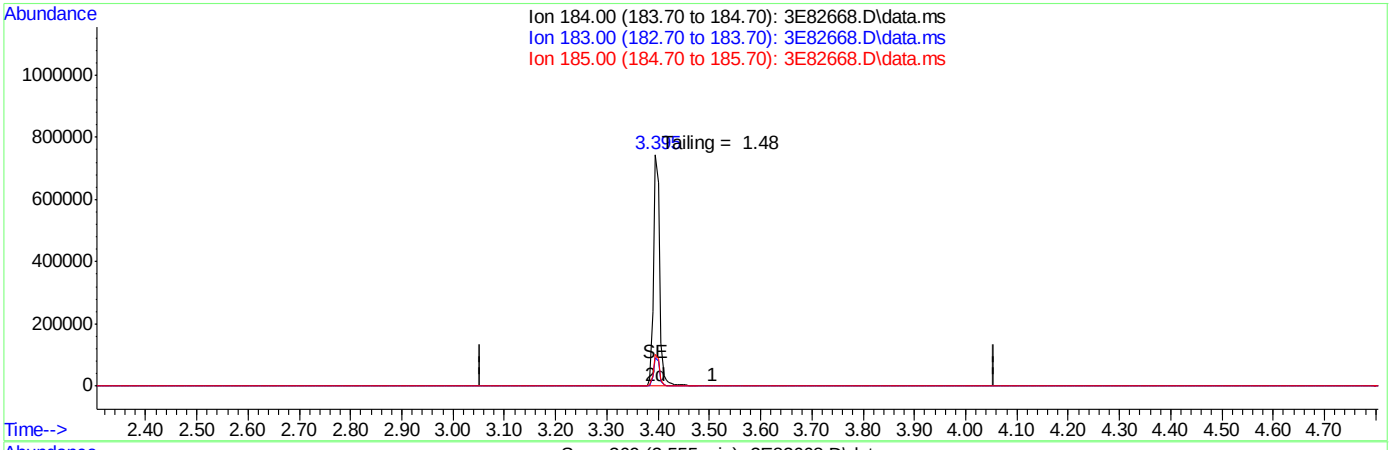
Ion	Exp%	Act%
265.80	100	100
263.80	62.20	63.87
267.80	64.70	63.95
0.00	0.00	0.00

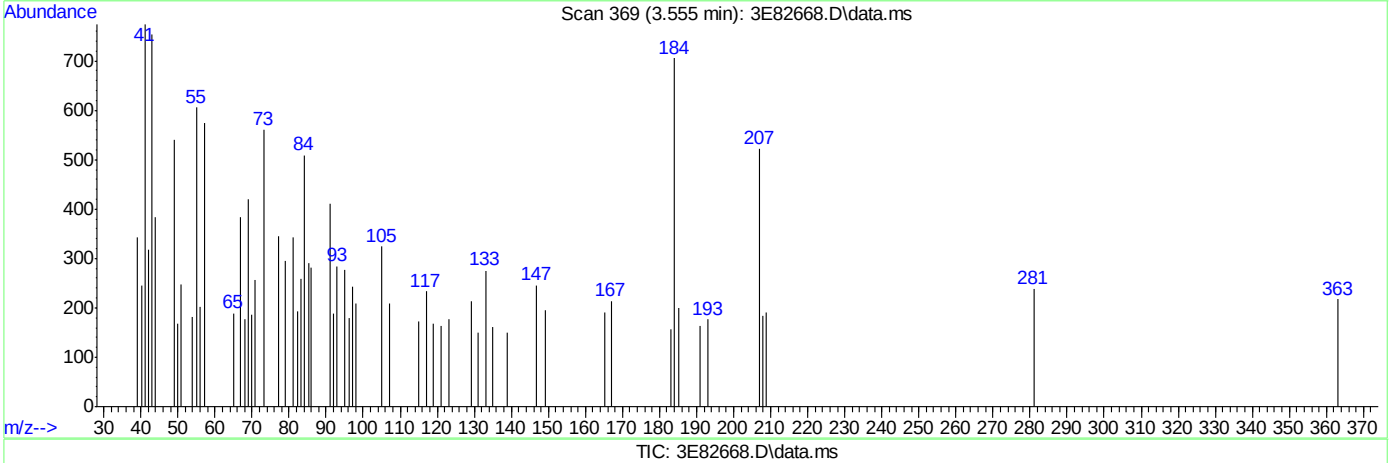
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82668.D
Acq On : 26 Apr 2016 1:15 pm
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3621
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 26 13:29:05 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E82668.D\data.ms

(2) Benzidine (t)

3.555min 0.00ppb d

response 0

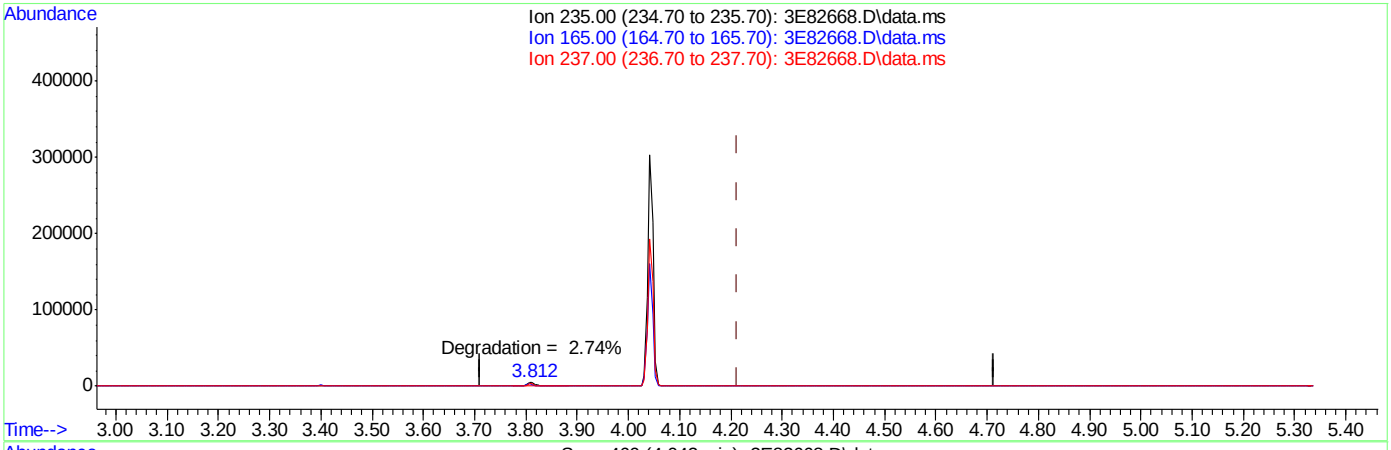
Ion	Exp%	Act%
184.00	100	0.00
183.00	13.20	0.00
185.00	15.40	0.00
0.00	0.00	0.00

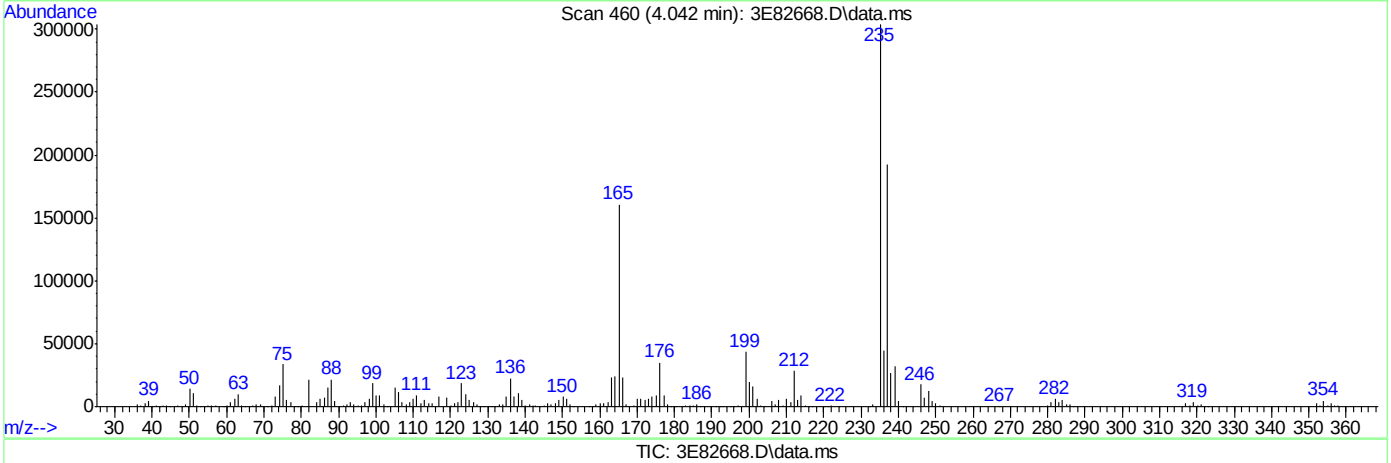
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82668.D
Acq On : 26 Apr 2016 1:15 pm
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3621
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 26 13:29:05 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E82668.D\data.ms

(3) PP-DDT (t)

4.042min (-0.171) 53.13ppb

response 220559

Ion	Exp%	Act%
235.00	100	100
165.00	0.10	51.65#
237.00	0.10	63.60#
0.00	0.00	0.00

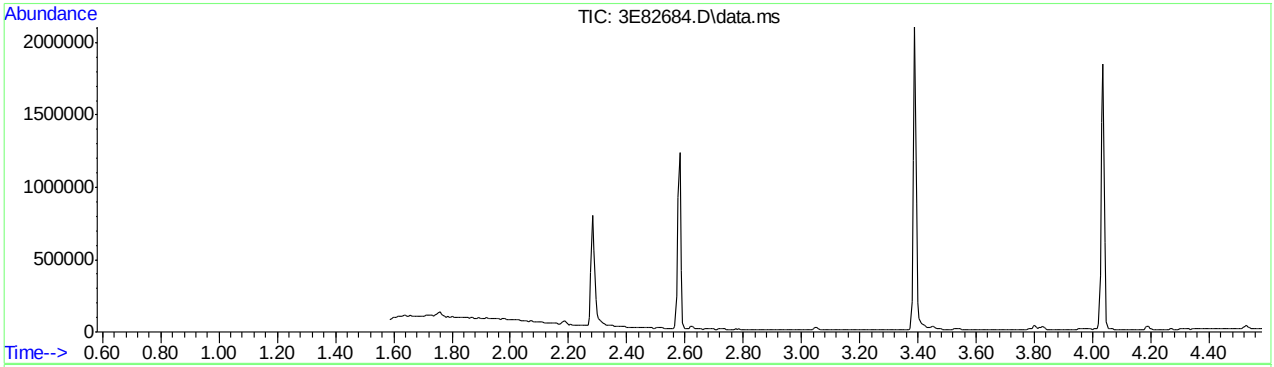
SGS ACCUTEST JC20184

DFTPP

Data Path : C:\msdchem\1\DATA\E3E3622\
Data File : 3E82684.D
Acq On : 27 Apr 2016 9:39 am
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3622
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
Last Update : Sat Aug 08 13:07:52 2015



AutoFind: Scans 186, 187, 188; Background Corrected with Scan 181

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.6	35061	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.7	40730	PASS
70	69	0.00	2	0.9	367	PASS
127	198	40	60	59.1	55168	PASS
197	198	0.00	1	0.1	108	PASS
198	198	100	100	100.0	93304	PASS
199	198	5	9	6.9	6394	PASS
275	198	10	30	26.4	24591	PASS
365	198	1	100	4.0	3692	PASS
441	443	0.10	100	76.4	8486	PASS
442	198	40	100	60.8	56685	PASS
443	442	17	23	19.6	11103	PASS

SGS ACCUTEST JC20184

Average of 2.576 to 2.587 min.: 3E82684.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.05	194	54.05	108	66.00	126	80.00	2405
38.05	552	55.00	73	67.05	56	81.00	3429
39.05	2396	56.00	1130	69.00	40730	82.00	748
40.00	114	57.00	2481	70.05	367	83.00	816
44.95	180	58.05	146	73.00	365	83.95	95
46.95	217	59.70	53	74.00	4356	85.00	401
49.00	186	61.00	393	75.00	6519	85.95	905
50.10	9622	61.95	619	76.05	2326	87.05	374
51.05	35061	63.00	1573	77.10	45956	87.90	181
52.05	2023	64.00	240	78.10	2876	88.90	68
52.95	85	65.00	678	79.00	2997	91.00	714

Average of 2.576 to 2.587 min.: 3E82684.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	1036	103.00	721	117.00	11840	129.00	21407
93.00	5048	104.00	1359	118.00	734	130.00	1996
93.95	155	105.00	1178	118.95	128	131.00	270
95.05	75	107.00	14170	119.95	77	131.80	95
95.95	44	108.00	2587	121.05	101	133.00	172
96.15	248	110.00	27420	122.00	1115	134.00	779
98.00	4270	111.00	3975	123.00	1360	135.05	1451
99.00	3229	112.00	682	123.95	560	136.00	788
99.90	265	112.90	5	125.00	637	137.05	957
101.00	1910	115.00	170	127.00	55168	138.15	322
102.00	76	116.05	1073	128.00	3895	139.00	264

Average of 2.576 to 2.587 min.: 3E82684.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.05	2708	151.00	441	161.00	1094	171.10	264
141.95	783	152.05	424	161.85	374	171.95	548
143.00	674	152.90	777	163.05	156	173.00	736
144.95	77	154.05	739	163.90	61	174.05	1204
146.00	466	155.00	1816	164.10	90	175.10	2095
146.20	87	156.00	2533	164.95	945	176.05	691
147.00	1447	156.80	86	166.00	780	177.00	905
148.05	2858	157.10	588	167.00	5321	178.10	187
148.95	512	158.05	482	168.00	2509	179.00	4034
149.80	92	159.00	468	168.95	484	180.00	2534
150.05	180	160.00	857	170.00	283	181.00	1169

Average of 2.576 to 2.587 min.: 3E82684.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.90	107	192.00	968	203.00	820	214.95	323
182.20	68	193.05	1222	204.10	3706	216.00	186
182.95	186	193.90	273	205.10	6107	216.20	133
183.95	396	194.90	79	206.10	23752	217.00	6300
185.05	1712	195.10	190	207.05	2983	218.05	849
186.10	13405	196.00	2946	208.00	750	219.00	66
187.10	3970	196.70	108	209.10	121	220.10	94
188.10	576	198.00	93304	210.10	444	221.10	4309
189.00	1018	199.00	6394	211.05	900	222.10	160
189.85	153	200.00	514	211.90	63	223.00	1450
190.95	307	201.50	589	214.20	60	224.10	13314

Average of 2.576 to 2.587 min.: 3E82684.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.10	3219	235.90	62	247.00	411	256.05	7429
226.00	336	236.10	187	248.10	59	257.05	616
227.00	5680	236.95	461	248.75	125	258.00	3237
228.05	717	238.95	271	249.05	257	259.00	517

dftpp3e.M Wed Apr 27 12:11:56 2016 MS3E Page: 2

229.00	1232	240.00	186	249.90	66	263.95	232
229.95	216	240.95	238	250.90	62	265.00	1440
231.00	543	241.95	736	251.10	60	265.85	134
232.00	178	243.05	543	252.10	106	267.30	59
232.80	63	244.10	9828	252.90	97	270.90	81
234.10	345	245.05	1311	253.05	239	272.00	129
235.00	501	246.05	2095	255.10	51680	273.05	1654

Average of 2.576 to 2.587 min.: 3E82684.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
274.05	4481	289.80	50	309.00	57	327.85	253
275.10	24591	292.00	60	310.00	53	332.10	119
276.10	3070	293.05	577	314.10	412	333.10	290
277.00	2350	294.20	67	315.00	880	334.10	1605
278.05	404	296.10	7560	316.05	509	335.05	411
281.05	123	297.00	1087	317.05	110	341.10	327
282.10	138	301.10	59	321.05	263	342.20	157
282.95	263	302.20	95	322.05	179	345.95	628
284.05	269	303.10	973	323.10	2478	346.90	50
285.00	435	304.05	271	324.05	357	352.00	245
289.00	51	307.95	148	327.00	515	352.15	536

Average of 2.576 to 2.587 min.: 3E82684.D\data.ms
dftpp
Modified:subtracted

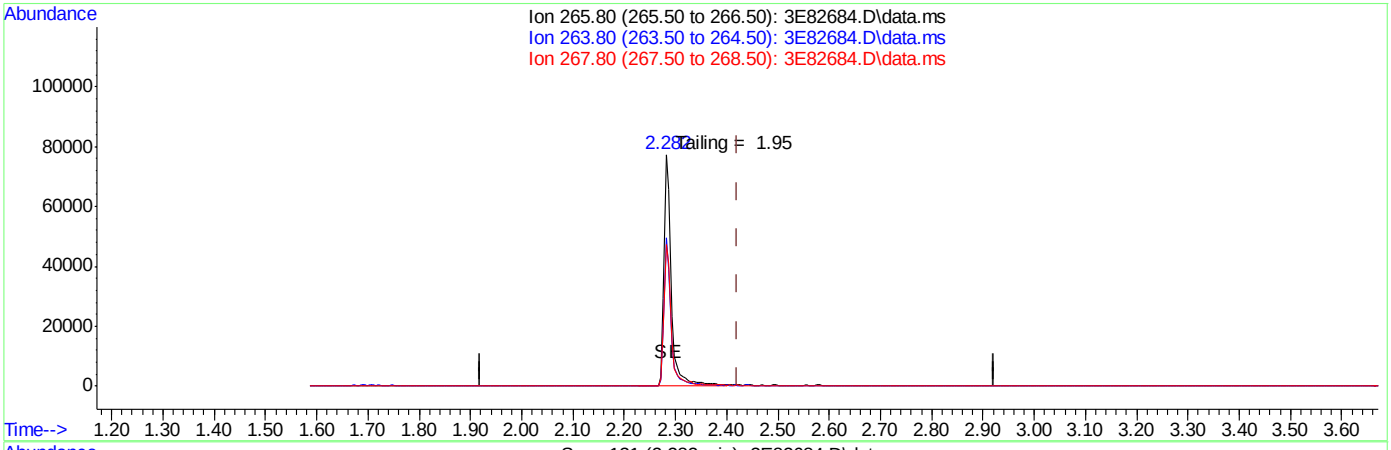
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.15	576	391.00	72	441.10	8486		
354.05	873	392.10	51	442.10	56685		
355.15	196	401.20	56	443.10	11103		
365.05	3692	402.05	525	444.15	990		
366.05	638	402.95	637				
371.05	159	404.05	218				
372.10	1557	421.10	538				
373.10	374	422.05	745				
383.05	342	423.10	4236				
384.10	64	424.05	756				
389.95	111	438.30	57				

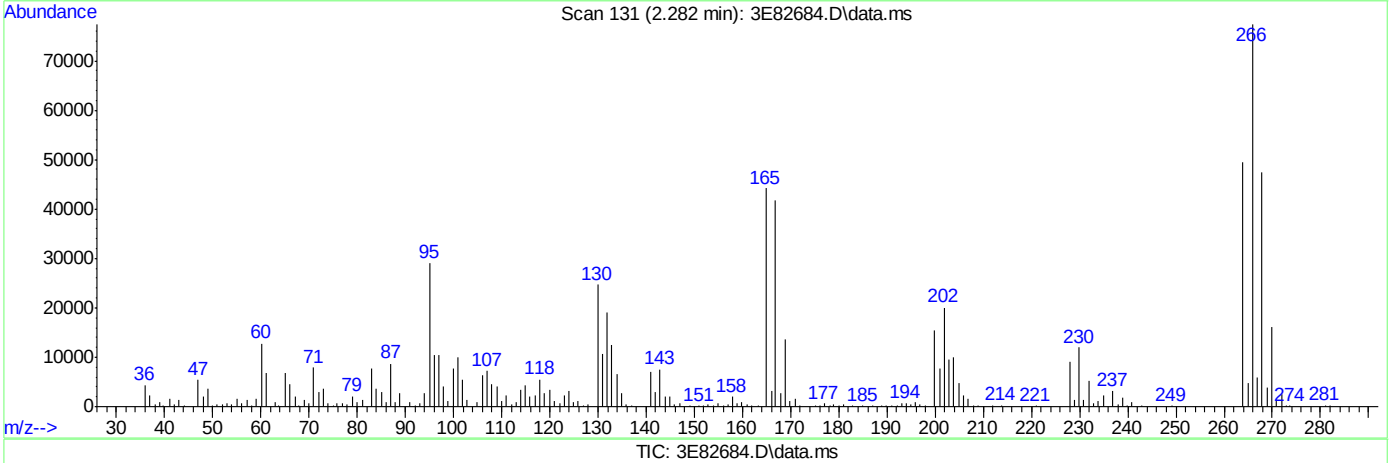
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3622\
Data File : 3E82684.D
Acq On : 27 Apr 2016 9:39 am
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3622
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 27 09:58:13 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





(1) Pentachlorophenol (t)

2.282min (-0.139) 48.87ppb

response 76381

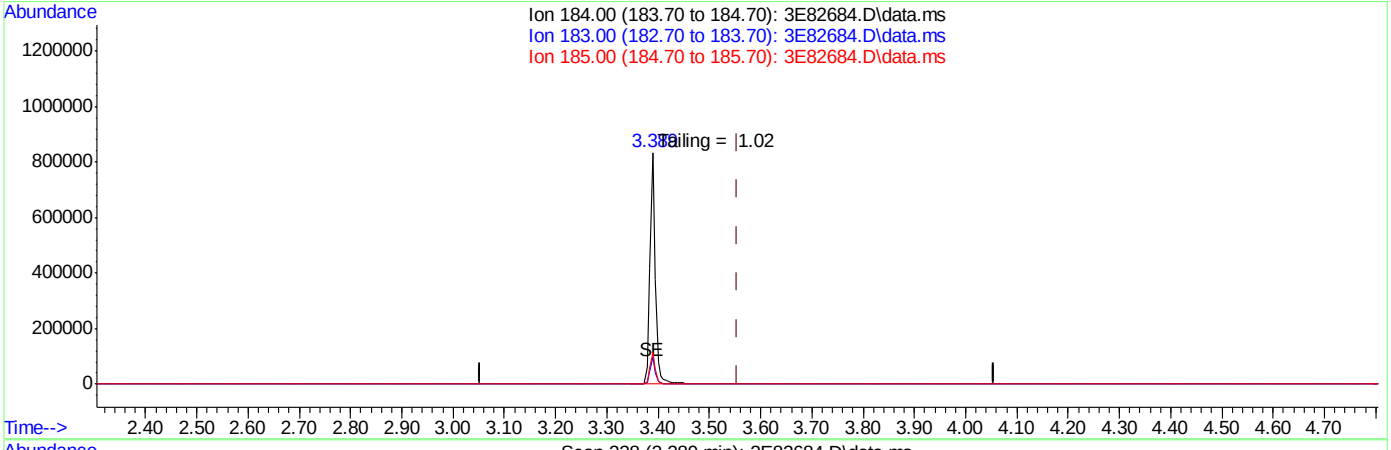
Ion	Exp%	Act%
265.80	100	100
263.80	62.20	63.83
267.80	64.70	60.95
0.00	0.00	0.00

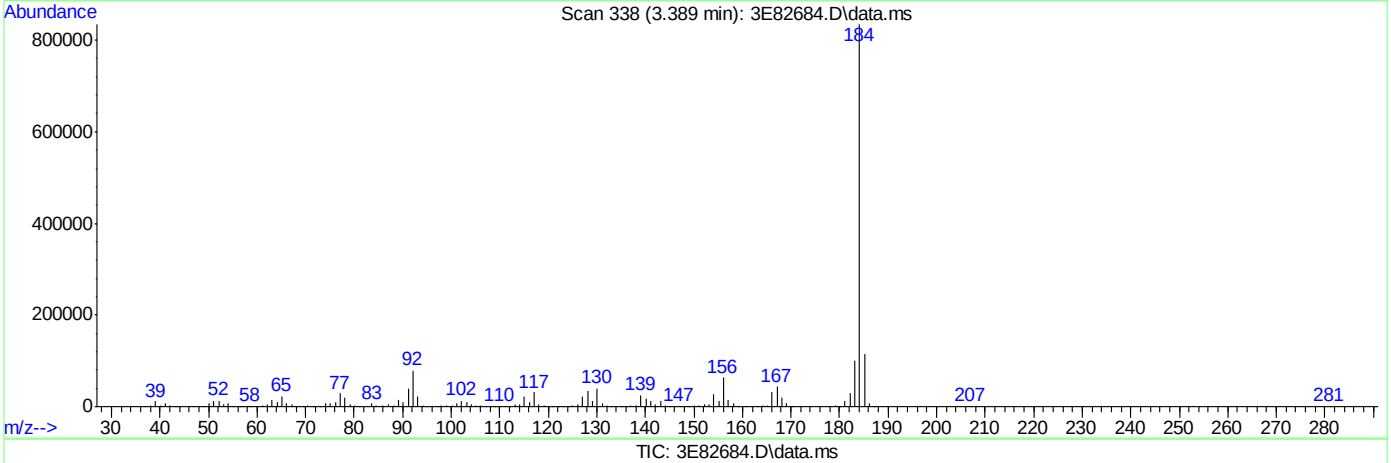
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3622\
Data File : 3E82684.D
Acq On : 27 Apr 2016 9:39 am
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3622
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 27 09:58:13 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E82684.D\data.ms

(2) Benzidine (t)

3.389min (-0.166) 58.24ppb

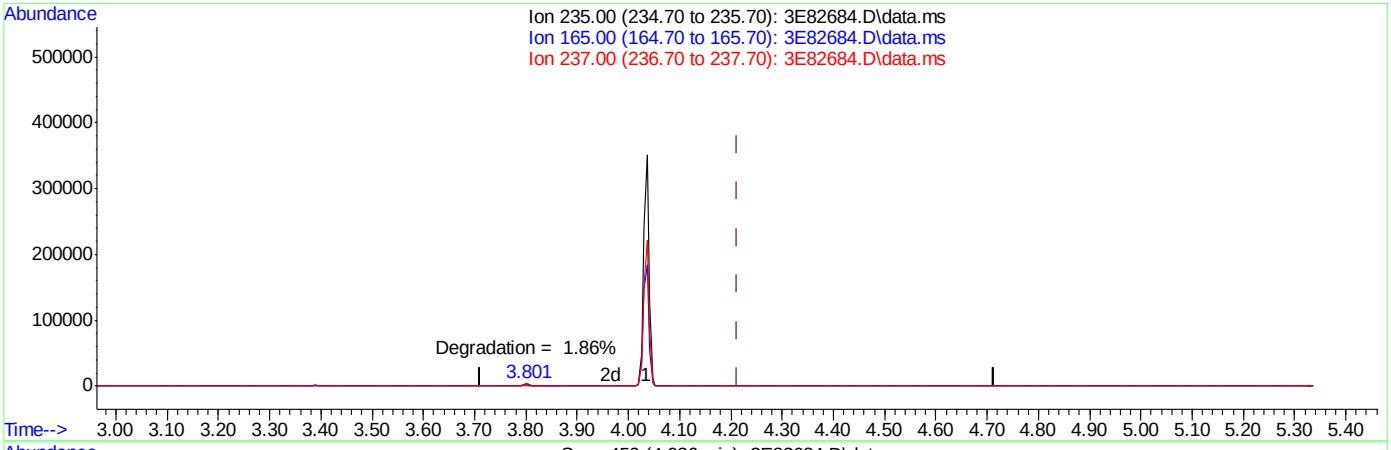
response 611530

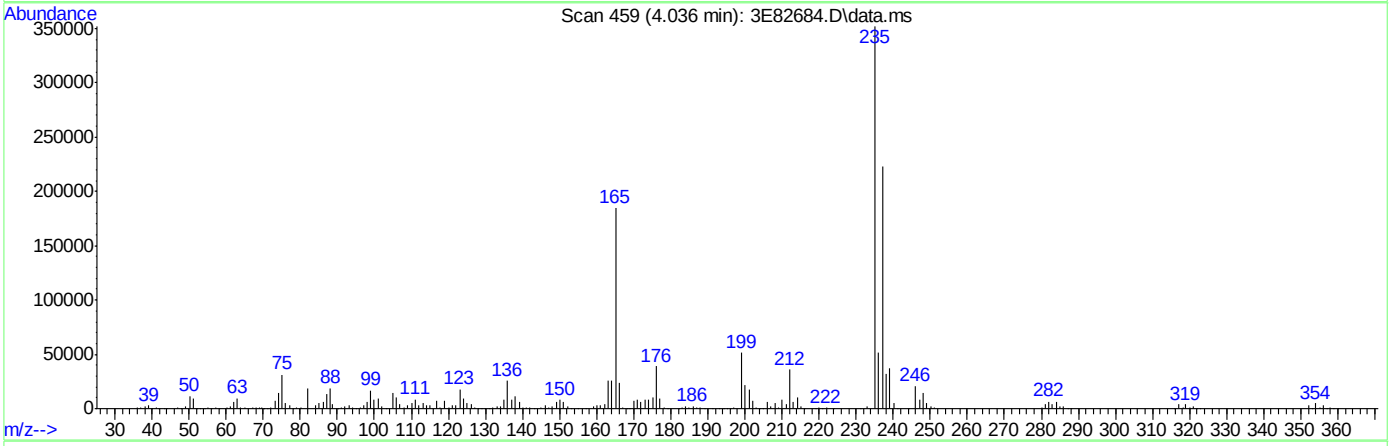
Ion	Exp%	Act%
184.00	100	100
183.00	13.20	11.94
185.00	15.40	13.92
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3622\
Data File : 3E82684.D
Acq On : 27 Apr 2016 9:39 am
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3622
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 27 09:58:13 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E82684.D\data.ms

(3) PP-DDT (t)

4.036min (-0.177) 61.08ppb

response 253588

Ion	Exp%	Act%
235.00	100	100
165.00	0.10	55.01#
237.00	0.10	63.63#
0.00	0.00	0.00

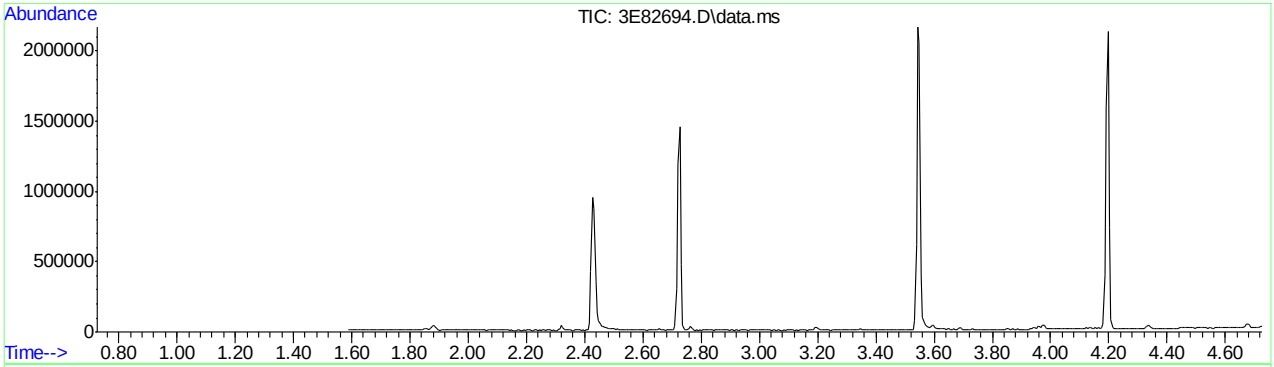
SGS ACCUTEST JC20184

DFTPP

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82694.D
Acq On : 27 Apr 2016 3:21 pm
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3623
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
Last Update : Sat Aug 08 13:07:52 2015



AutoFind: Scans 213, 214, 215; Background Corrected with Scan 208

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.8	53138	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.3	52572	PASS
70	69	0.00	2	0.5	250	PASS
127	198	40	60	54.0	57610	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	106714	PASS
199	198	5	9	6.3	6685	PASS
275	198	10	30	27.3	29152	PASS
365	198	1	100	4.1	4414	PASS
441	443	0.10	100	85.2	15379	PASS
442	198	40	100	86.4	92170	PASS
443	442	17	23	19.6	18045	PASS

SGS ACCUTEST JC20184

Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	117	46.10	50	56.95	3304	65.80	88
36.95	280	47.05	251	57.80	58	66.00	78
38.05	878	47.70	59	58.00	85	69.00	52572
39.10	4913	48.00	151	60.80	89	70.15	250
40.00	321	50.10	15901	61.10	803	73.05	298
40.95	143	51.05	53138	62.05	920	74.10	5681
41.90	286	52.10	2848	62.80	191	75.05	8433
43.00	133	52.80	67	63.05	1886	76.10	493
44.00	106	54.05	131	64.00	169	77.10	57460
44.90	92	55.00	192	64.20	189	78.05	3589
45.20	99	56.05	1405	65.05	783	79.10	4057

Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.00	3038	91.00	824	100.00	473	112.80	56
81.10	3695	91.80	138	101.00	2056	113.10	275
81.95	1253	92.05	1168	102.10	100	114.00	63
83.00	1208	92.95	6550	103.00	768	114.70	103
83.90	247	93.80	185	104.05	1271	114.90	67
85.00	338	94.10	255	105.05	1617	115.80	456
85.20	546	95.05	216	107.10	16366	117.05	14303
85.90	1449	96.00	197	108.05	3154	118.00	1050
87.05	581	97.05	274	110.05	28291	119.10	79
88.05	170	98.00	5123	111.00	4560	119.95	320
89.00	70	99.05	4145	111.95	391	120.80	51

Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
121.00	82	131.10	590	139.30	79	147.15	1802
121.90	473	132.05	364	139.60	134	148.10	3179
122.10	851	132.65	195	140.10	573	148.95	782
122.70	128	134.00	718	141.05	2769	150.05	230
123.05	1883	135.00	1883	142.10	1066	150.90	264
124.05	777	136.00	781	142.90	533	151.25	220
125.10	1001	136.90	447	143.20	90	151.80	138
127.10	57610	137.10	504	143.75	162	152.10	134
128.00	2878	137.70	143	144.10	96	152.80	120
129.05	22318	138.10	83	144.85	139	153.05	898
130.00	2060	138.65	129	146.15	739	153.95	714

Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
155.10	1901	163.05	180	171.80	104	181.05	1228
156.05	2215	163.65	113	172.10	446	181.75	216
156.90	275	165.00	1293	173.10	870	182.50	96
157.10	247	165.70	171	174.05	1069	183.00	63
157.50	269	166.20	719	175.05	1969	183.95	306
158.00	566	167.10	5728	175.70	62	184.20	251
158.75	193	168.05	2936	176.15	722	184.80	686
159.15	418	169.10	493	177.00	1304	185.20	457
160.00	1018	170.10	187	178.90	1605	186.10	14426
161.10	1565	170.90	158	179.10	2417	187.10	4550
161.95	397	171.10	114	180.00	2510	188.05	514

Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
189.05	1005	199.05	6685	208.90	101	217.90	1053
190.10	318	199.85	678	209.20	206	218.70	67
190.70	55	201.00	91	209.80	469	219.10	66
191.00	293	201.50	696	210.20	186	219.30	113

dftpp3e.M Thu Apr 28 09:08:35 2016 MS3E Page: 2

191.20	262	202.30	94	211.05	1396	219.90	141
191.95	1296	202.90	1083	212.00	176	221.00	1984
193.00	1622	204.10	4013	214.80	133	221.20	3620
194.20	442	205.05	7232	215.00	292	221.85	920
194.95	302	206.10	26209	215.70	263	222.20	138
195.95	3739	207.05	3312	216.10	536	222.95	947
198.00	106714	208.00	1053	217.05	6659	224.10	14263

Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.05	3703	234.30	106	242.05	878	250.00	61
226.00	252	234.80	195	243.20	332	251.10	86
227.00	6127	234.95	347	244.10	11875	251.40	101
228.00	760	235.50	53	245.10	1626	251.90	354
228.20	127	235.95	401	246.10	2179	252.40	216
229.00	1198	236.90	233	247.00	443	253.20	801
230.30	190	237.05	356	247.75	196	255.05	57749
230.85	570	238.85	533	248.20	95	256.00	9429
232.00	162	240.00	159	248.90	360	257.05	310
233.80	118	240.80	63	249.10	236	257.30	387
234.05	469	241.05	392	249.50	63	258.05	3710

Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
258.95	686	274.05	5508	284.00	132	301.70	102
260.70	61	275.05	29152	284.95	423	303.05	1024
262.70	52	276.05	4092	289.10	121	304.00	364
264.10	328	277.05	2356	290.20	52	308.00	278
264.95	1594	277.70	82	293.00	453	310.20	140
265.90	159	278.05	296	293.80	158	312.95	117
270.70	79	278.80	50	294.10	55	313.30	152
271.10	280	280.80	127	296.05	8533	313.95	559
271.90	114	281.70	75	297.00	1040	314.60	150
272.30	86	282.00	60	298.10	65	314.95	926
273.05	2314	282.95	276	300.90	64	316.15	571

Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
317.10	114	332.30	77	345.20	80	355.30	66
321.05	425	332.80	52	346.05	808	361.70	90
323.00	2908	333.05	337	347.00	131	362.80	126
324.15	737	334.05	1803	351.40	84	365.05	4414
325.70	61	335.05	783	351.90	231	365.95	803
326.10	55	337.10	52	352.05	757	370.20	75
326.80	155	340.10	55	353.00	248	371.10	183
327.00	470	340.60	58	353.20	598	372.05	1639
327.95	291	341.00	115	353.60	94	373.00	629
329.10	56	341.30	70	354.15	889	382.80	146
332.05	289	341.90	56	355.10	81	383.05	330

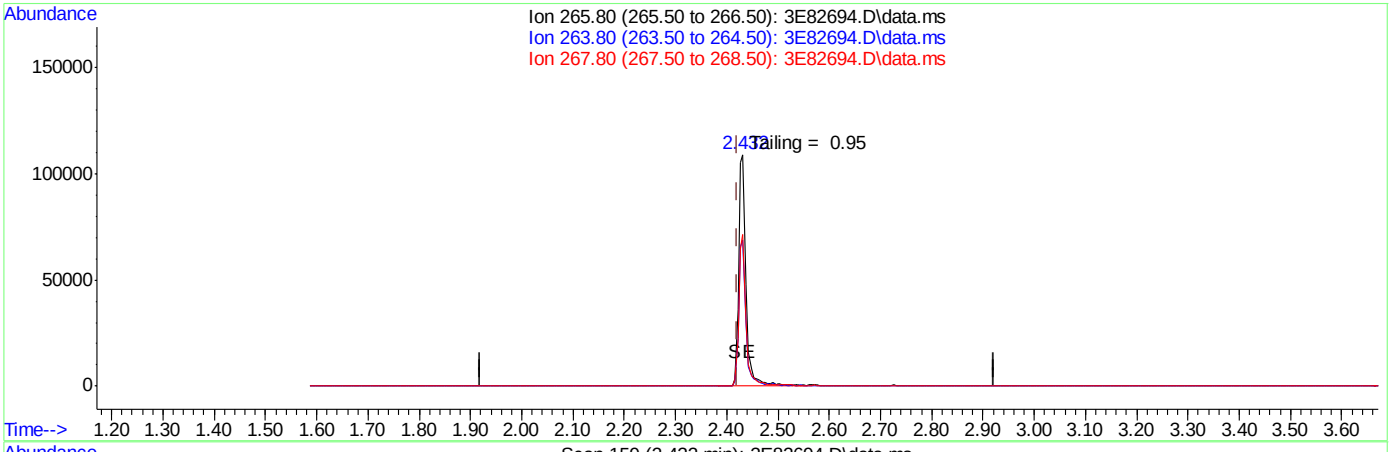
Average of 2.721 to 2.731 min.: 3E82694.D\data.ms
dftpp
Modified:subtracted

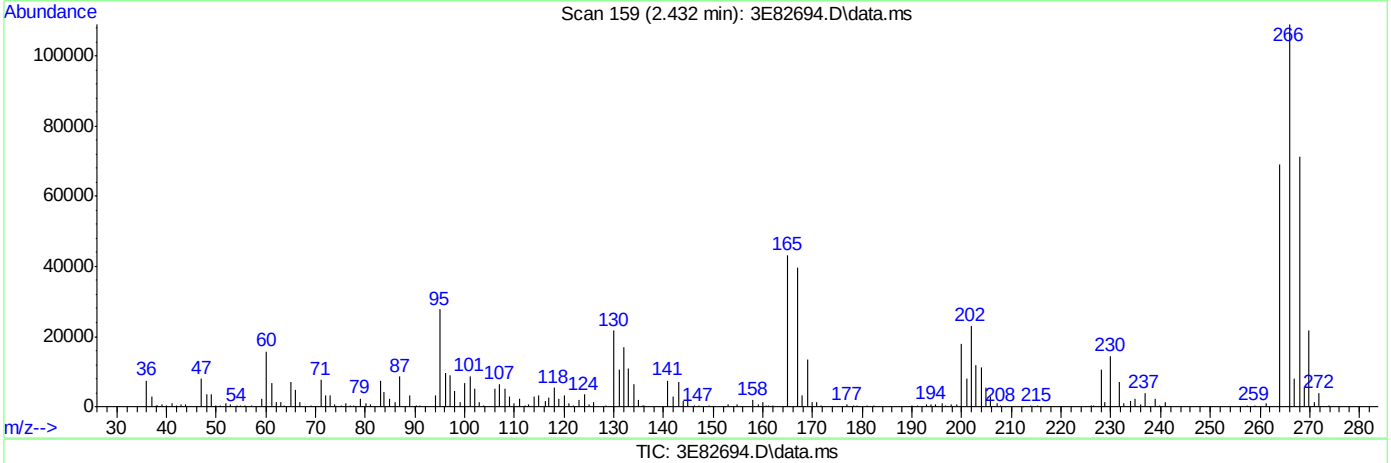
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
385.00	63	421.05	918	435.55	241	442.10	92170
389.80	51	422.10	542	436.25	211	443.10	18045
390.05	175	423.10	5770	436.90	128	444.10	1790
390.90	114	424.05	1230	437.10	99	445.00	64
392.00	164	425.10	111	437.75	275		
394.10	56	430.20	91	438.15	362		
401.05	176	431.70	74	438.90	245		
402.05	787	433.40	95	439.40	151		
403.00	1121	434.15	152	439.70	110		
404.05	322	434.50	61	439.90	149		
420.10	80	434.90	62	441.20	15379		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82694.D
Acq On : 27 Apr 2016 3:21 pm
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3623
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 27 15:28:41 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





(1) Pentachlorophenol (t)

2.432min (+0.011) 71.67ppb

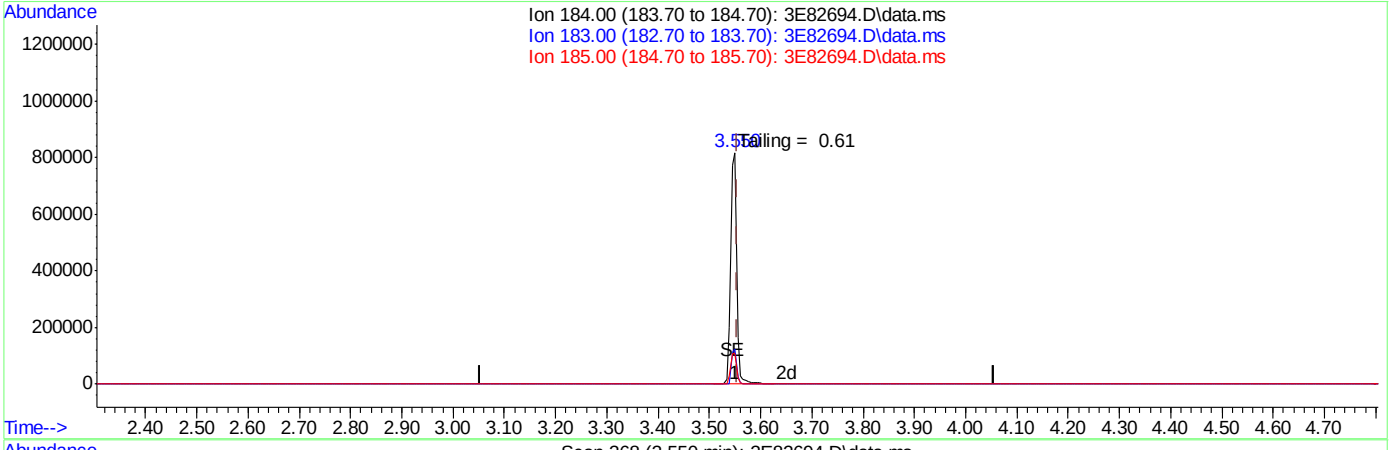
response 112005

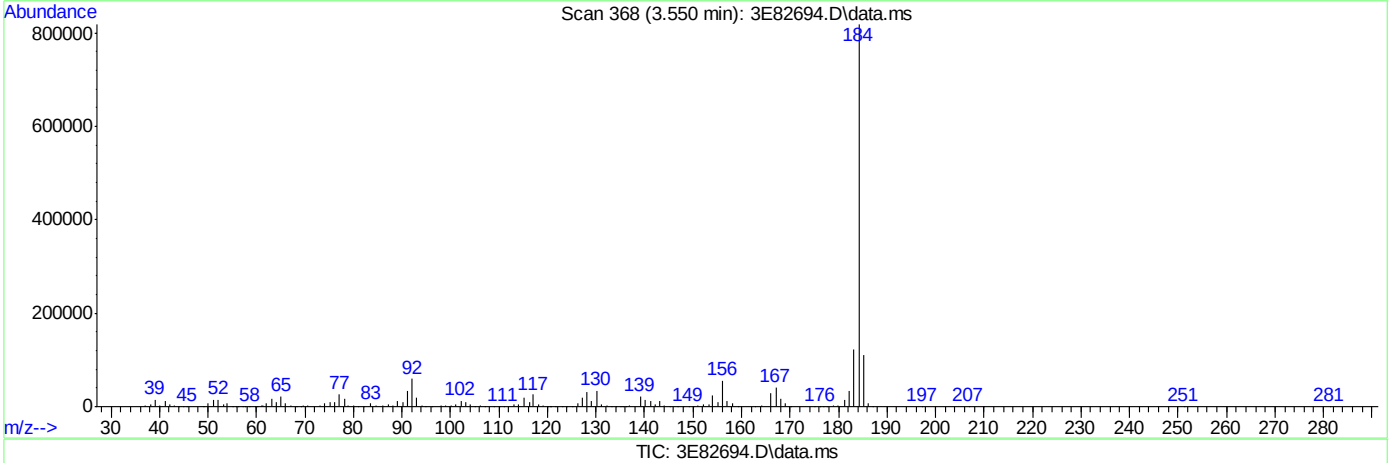
Ion	Exp%	Act%
265.80	100	100
263.80	62.20	63.18
267.80	64.70	65.25
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82694.D
Acq On : 27 Apr 2016 3:21 pm
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3623
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 27 15:28:41 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E82694.D\data.ms

(2) Benzidine (t)

3.550min (-0.005) 63.38ppb

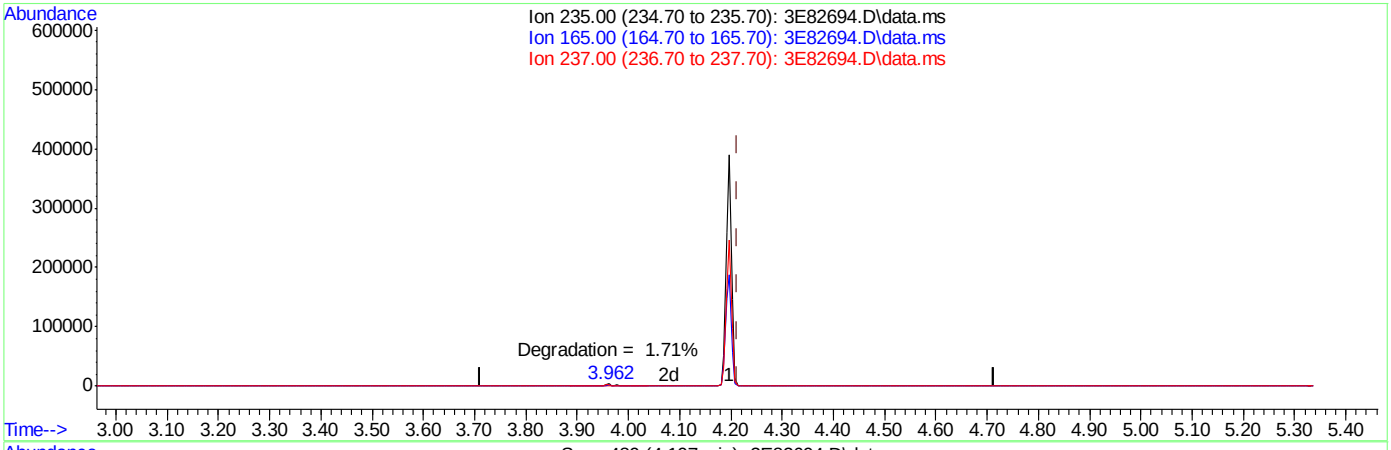
response 665561

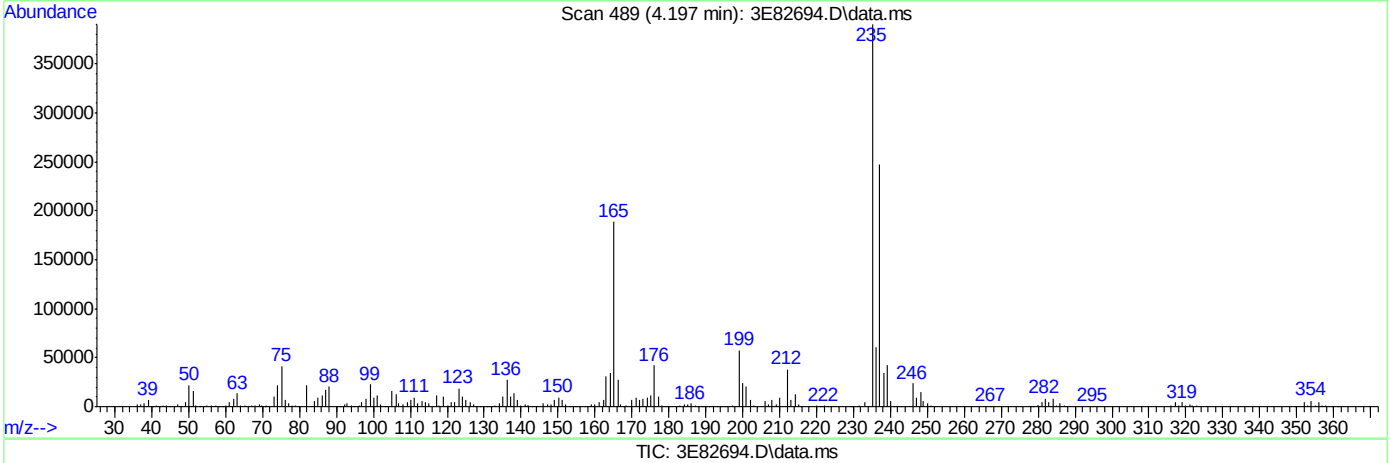
Ion	Exp%	Act%
184.00	100	100
183.00	13.20	14.96
185.00	15.40	13.44
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82694.D
Acq On : 27 Apr 2016 3:21 pm
Operator : ashleyn
Sample : dftpp
Misc : op93161,e3e3623
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 27 15:28:41 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E82694.D\data.ms

(3) PP-DDT (t)

4.197min (-0.016) 67.09ppb

response 278535

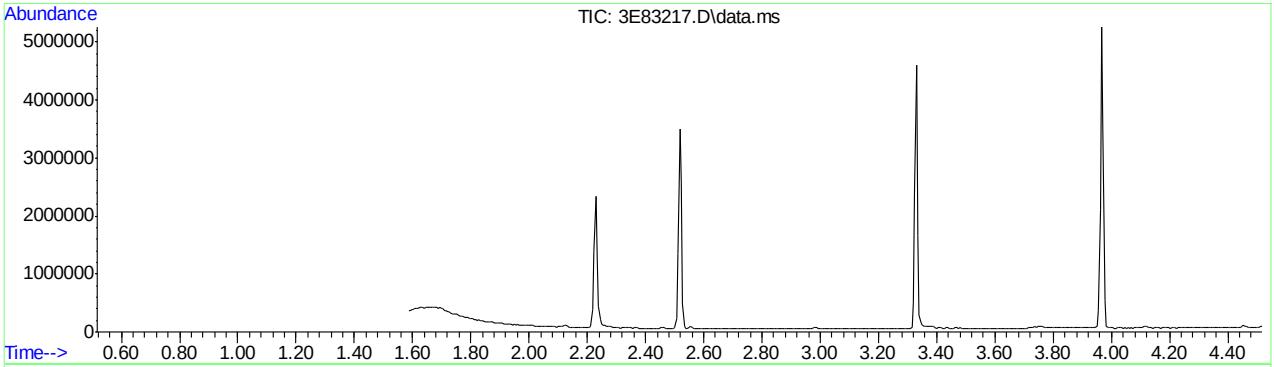
Ion	Exp%	Act%
235.00	100	100
165.00	0.10	50.49#
237.00	0.10	63.46#
0.00	0.00	0.00

DFTPP

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83217.D
Acq On : 14 May 2016 9:21 am
Operator : ashleyn
Sample : dftpp
Misc : op93596,e3e3649
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
Last Update : Sat Aug 08 13:07:52 2015



AutoFind: Scans 174, 175, 176; Background Corrected with Scan 168

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	51.3	119840	PASS
68	69	0.00	2	0.6	632	PASS
69	198	0.00	100	45.3	105901	PASS
70	69	0.00	2	0.5	555	PASS
127	198	40	60	55.3	129218	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	233810	PASS
199	198	5	9	6.6	15366	PASS
275	198	10	30	28.6	66890	PASS
365	198	1	100	5.0	11625	PASS
441	443	0.10	100	75.6	17557	PASS
442	198	40	100	52.3	122320	PASS
443	442	17	23	19.0	23230	PASS

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	250	48.00	196	58.05	549	70.00	555
36.95	655	49.05	1759	60.00	574	71.00	190
38.10	2256	50.05	38262	61.05	1448	71.30	149
39.10	10306	51.05	119840	62.05	2157	71.95	374
40.05	869	52.10	5520	63.05	4902	73.10	1636
41.85	118	52.80	129	64.05	689	74.10	14375
42.15	390	53.05	262	64.95	2006	75.05	18571
43.05	452	53.85	152	66.25	278	76.10	2236
45.00	294	55.00	1012	67.00	184	77.05	116594
46.20	100	56.00	3354	67.90	632	78.10	8528
46.95	811	57.00	6760	68.95	105901	79.00	9682

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.00	6251	89.00	243	96.15	837	103.15	1343
81.00	9982	89.40	108	96.80	159	104.00	3235
82.05	2771	90.00	68	98.00	16787	104.95	3086
83.10	1542	91.05	1623	99.00	10654	107.05	42820
84.00	543	91.70	365	99.95	1119	108.10	5998
85.00	2114	92.05	2129	100.30	305	110.00	60608
86.00	3498	93.05	22360	100.95	4986	111.00	10786
87.05	1660	94.00	1124	101.80	144	111.90	1332
87.70	188	94.20	419	102.30	371	112.70	206
88.05	728	95.00	212	102.90	265	113.00	522
88.90	61	95.90	171	103.00	588	113.30	72

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
114.05	200	123.80	276	133.85	968	139.85	683
114.95	366	124.05	2065	134.10	1249	141.05	8259
116.95	56036	125.05	2614	135.05	5025	142.00	2106
118.05	4040	127.05	129218	135.70	571	143.00	1590
119.15	396	128.10	11333	136.05	2279	144.00	787
119.80	108	129.00	58634	137.05	2904	144.90	309
120.00	575	130.05	5410	137.90	90	145.10	145
120.80	83	131.10	1435	138.20	459	145.90	978
121.20	340	131.85	365	138.85	369	146.10	576
122.05	3809	132.80	168	139.30	212	147.05	4462
123.05	4786	133.05	170	139.60	107	148.00	11516

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
148.95	1871	158.00	1729	166.20	567	173.20	1188
150.05	753	158.90	662	167.00	16262	173.90	542
150.95	944	159.20	446	168.05	9190	174.10	2766
151.80	659	159.40	291	168.90	402	175.05	6083
152.10	188	160.05	3092	169.05	1247	176.10	1151
152.80	689	161.00	3893	169.70	113	176.80	388
153.05	2515	161.90	236	169.95	463	177.10	2376
154.05	1898	162.05	986	170.20	165	178.05	1233
155.05	4845	162.90	415	170.95	991	179.00	13097
156.05	6329	164.05	702	172.05	1895	180.05	6687
157.05	1147	165.05	3399	172.95	1260	181.05	4001

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.95	1062	190.90	880	200.75	320	209.95	661
182.80	221	191.15	382	201.25	708	210.30	674
183.05	361	192.05	4503	201.70	491	211.05	3529
183.95	1018	193.05	4005	202.10	159	211.95	326

dftpp3e.M Mon May 16 09:19:30 2016 MS3E Page: 2

184.20	625	193.95	1292	203.05	3411	212.20	229
185.05	6415	194.60	133	204.05	12042	212.70	55
186.10	40514	194.90	713	205.10	20441	213.05	393
187.10	12132	196.10	7034	206.10	71466	214.10	262
188.15	1444	198.00	233810	207.05	9436	214.80	208
189.00	3102	199.00	15366	208.05	2989	214.95	1177
190.00	808	200.05	1797	209.00	917	216.00	965

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.20	818	225.10	10983	234.85	829	240.50	233
217.05	24224	227.05	22121	235.20	760	241.05	1453
218.05	3210	228.10	2864	236.00	1391	241.90	1203
219.25	71	228.95	4452	236.90	311	242.15	1318
219.80	129	230.05	743	237.10	1382	243.15	2816
220.20	558	231.00	1749	238.00	171	244.10	29205
221.10	8222	231.70	51	238.20	75	245.05	3856
221.90	572	232.05	455	238.85	1000	246.05	7629
222.05	2322	232.90	57	239.20	374	247.05	1220
223.05	5816	233.30	116	239.80	88	247.90	531
224.10	40989	234.00	1136	240.05	1027	248.70	88

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
249.15	1097	255.10	161797	265.95	632	274.05	14305
250.00	166	256.10	23220	267.00	72	275.10	66890
250.80	68	257.05	2142	267.15	101	276.10	8486
251.05	370	258.10	12246	267.80	188	277.05	8141
251.30	232	258.95	1467	268.75	215	278.05	1326
251.75	436	260.00	479	269.30	77	279.00	540
252.10	336	260.95	168	270.15	511	280.20	154
252.30	332	263.10	133	270.80	325	281.15	257
252.90	190	263.80	392	271.05	345	281.75	111
253.10	977	264.05	615	272.10	1215	282.05	86
254.00	559	265.10	4755	273.05	6050	283.00	985

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
283.95	695	291.90	459	300.20	67	310.20	162
284.20	187	292.50	75	301.05	320	310.90	92
285.05	1202	293.10	1706	302.00	242	312.25	212
286.00	347	294.10	441	302.30	214	313.00	150
287.20	67	294.90	794	303.10	2702	313.30	72
287.80	242	296.10	26271	304.05	1151	314.00	1224
289.05	564	297.05	3820	305.30	129	315.05	3118
290.10	220	297.85	186	306.90	97	316.10	1269
290.40	85	298.20	238	307.95	289	316.80	81
290.70	53	298.50	66	309.05	283	317.10	60
291.00	63	299.10	99	309.90	195	317.30	70

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
317.70	55	325.10	264	333.05	770	344.00	86
318.60	78	325.50	108	334.10	4504	344.30	65
318.80	123	326.20	77	335.10	1021	345.20	52
319.60	137	327.00	1638	336.00	225	346.10	1809
321.05	819	328.00	721	339.05	151	346.90	268
321.80	52	328.80	74	340.05	237	350.20	237
322.10	712	329.10	147	340.90	374	351.05	187
323.10	6597	330.00	84	341.20	672	352.10	2023
324.15	1547	331.35	135	342.05	390	353.00	878
324.50	119	332.10	459	342.80	64	353.20	637
324.90	130	332.30	225	343.10	142	354.20	2164

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms

dftpp3e.M Mon May 16 09:19:30 2016 MS3E Page: 3

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
355.00	379	363.50	52	372.10	3534	388.80	54
355.80	98	365.10	11625	373.10	885	390.10	594
358.00	140	366.10	1894	374.20	67	390.95	378
358.40	114	366.95	194	375.00	56	392.35	222
359.05	53	368.40	83	375.20	63	396.10	69
360.00	136	368.80	51	378.20	76	397.00	170
360.50	54	369.90	111	382.70	196	401.10	79
361.10	68	370.50	60	382.95	741	402.05	1565
361.60	102	370.70	134	383.90	197	403.00	160
361.90	62	371.15	441	384.20	173	403.15	1785
363.00	286	371.90	242	385.95	222	404.15	711

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
406.50	53	421.10	1365	428.95	228	434.65	346
408.10	114	421.60	61	429.50	218	435.60	177
409.40	51	422.15	1068	430.70	122	436.05	326
410.15	117	423.10	8795	431.00	208	437.10	352
413.00	93	424.10	1810	431.30	189	437.70	53
413.65	145	424.90	238	431.50	104	437.90	203
414.95	136	425.10	107	431.80	298	439.15	162
415.30	59	426.20	231	432.55	245	439.50	72
416.20	61	426.65	247	432.90	297	441.10	17557
418.60	208	427.55	125	433.80	51	442.10	122320
420.20	125	428.30	67	434.00	234	443.10	23230

Average of 2.512 to 2.522 min.: 3E83217.D\data.ms
dftpp
Modified:subtracted

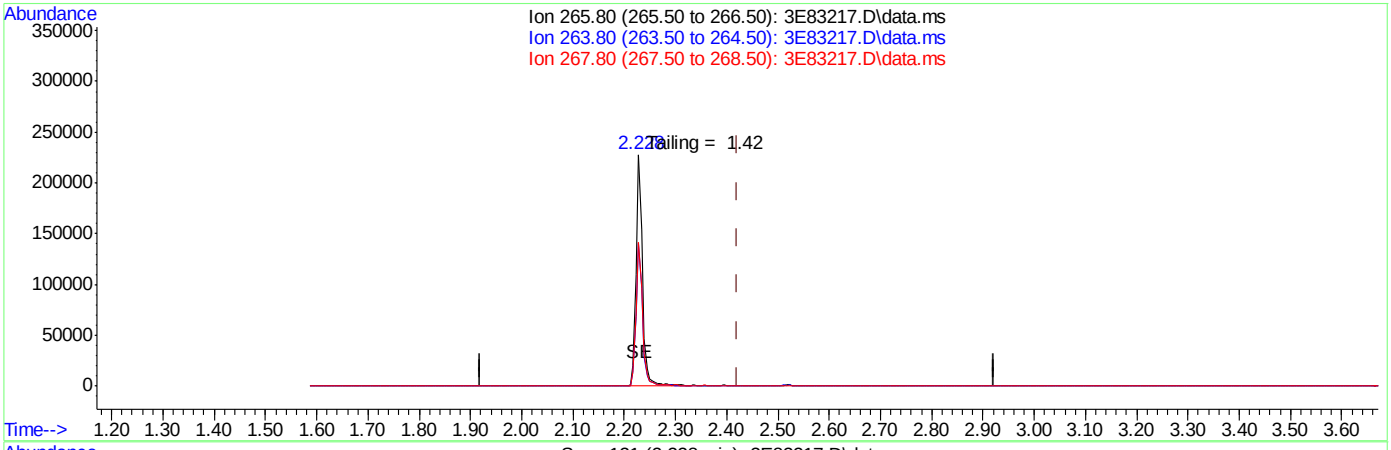
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
444.05	1890	493.90	64				
445.05	307						
448.10	84						
452.80	59						
457.10	54						
461.30	56						
471.60	67						
472.30	50						
476.10	63						
483.70	50						
484.90	59						

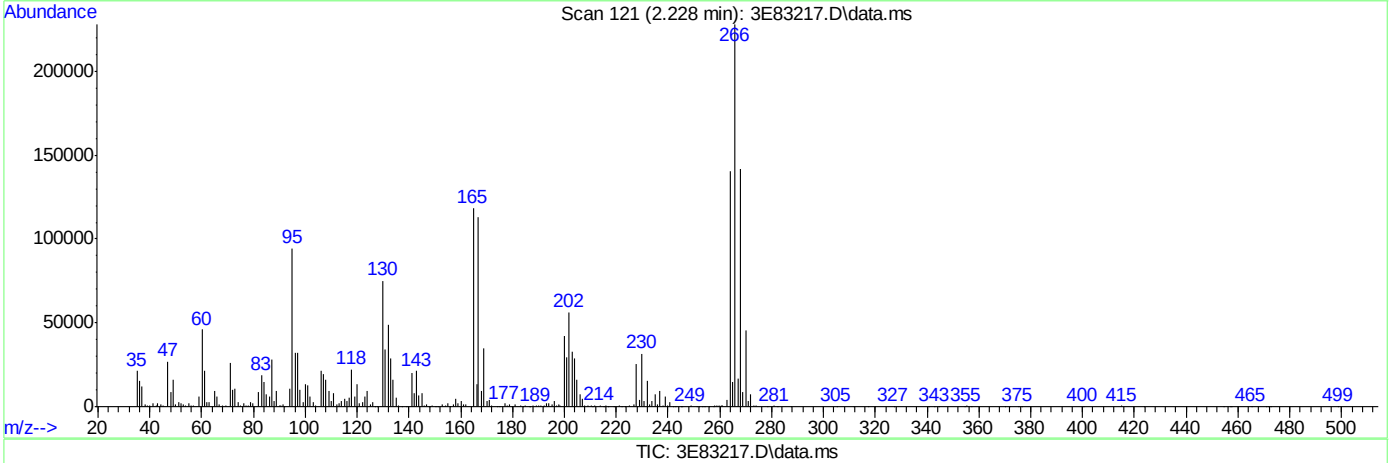
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83217.D
Acq On : 14 May 2016 9:21 am
Operator : ashleyn
Sample : dftpp
Misc : op93596,e3e3649
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 14 09:32:26 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





(1) Pentachlorophenol (t)

2.228min (-0.193) 125.70ppb

response 196450

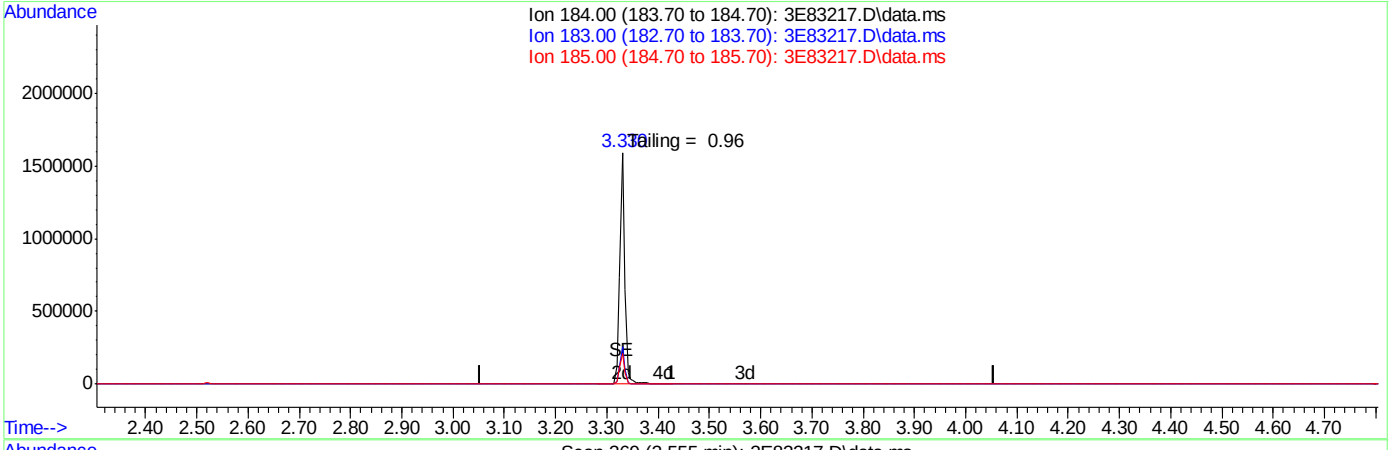
Ion	Exp%	Act%
265.80	100	100
263.80	62.20	61.57
267.80	64.70	62.16
0.00	0.00	0.00

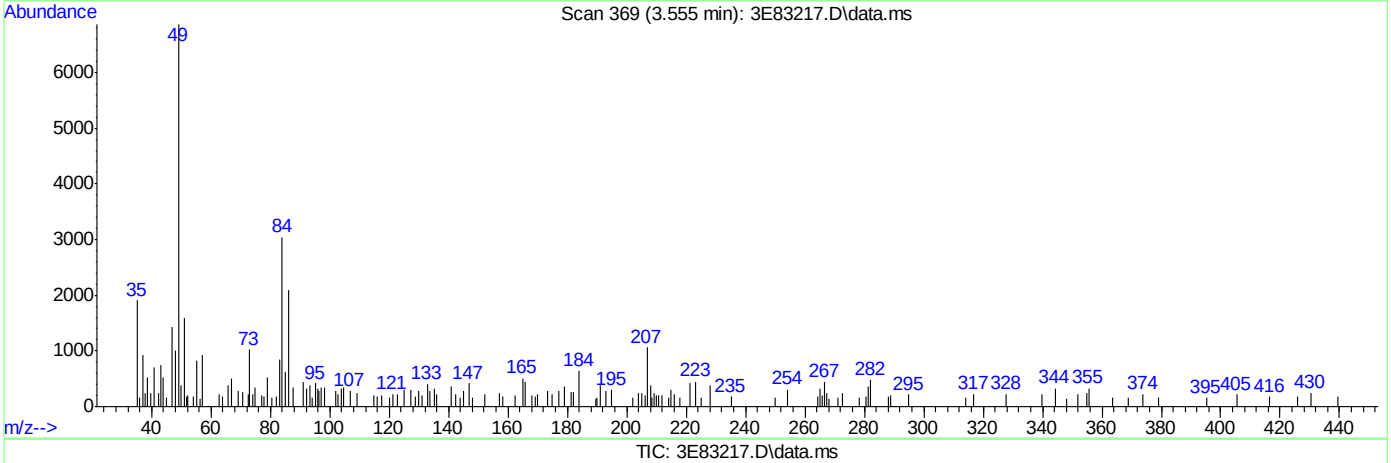
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83217.D
Acq On : 14 May 2016 9:21 am
Operator : ashleyn
Sample : dftpp
Misc : op93596,e3e3649
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 14 09:32:26 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E83217.D\data.ms

(2) Benzidine (t)

3.555min 0.00ppb d

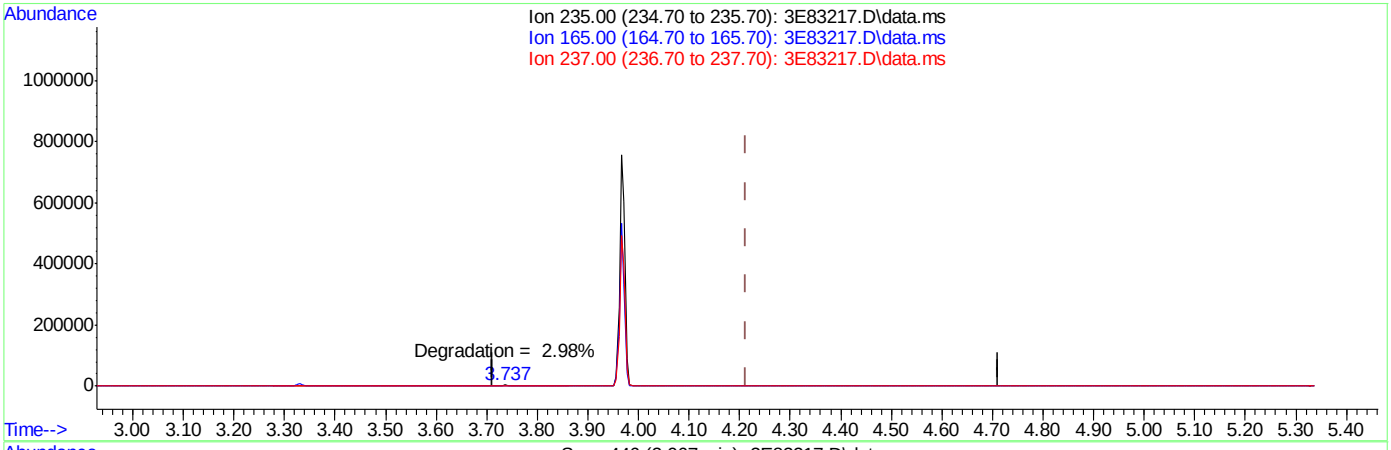
response 0

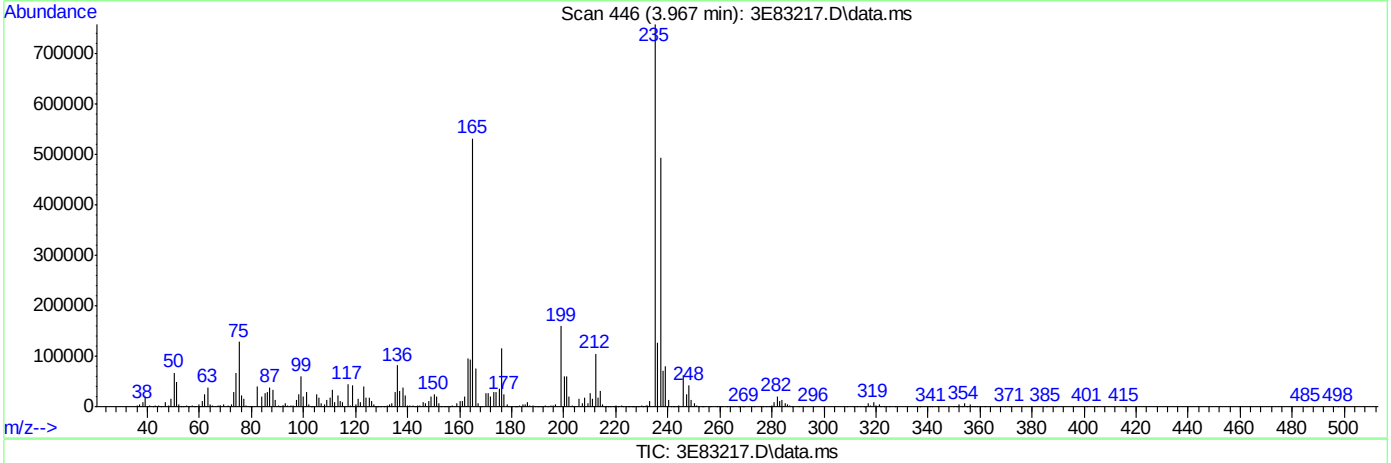
Ion	Exp%	Act%
184.00	100	0.00
183.00	13.20	0.00
185.00	15.40	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83217.D
Acq On : 14 May 2016 9:21 am
Operator : ashleyn
Sample : dftpp
Misc : op93596,e3e3649
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 14 09:32:26 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E83217.D\data.ms

(3) PP-DDT (t)

3.967min (-0.246) 134.68ppb

response 559132

Ion	Exp%	Act%
235.00	100	100
165.00	0.10	65.20#
237.00	0.10	64.98#
0.00	0.00	0.00

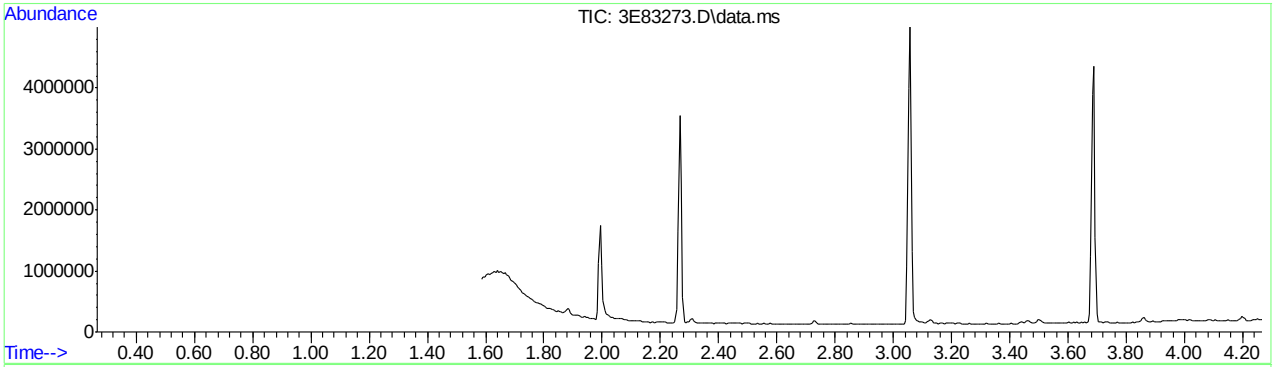
SGS ACCUTEST JC20184

DFTPP

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83273.D
Acq On : 16 May 2016 10:48 am
Operator : ashleyn
Sample : dftpp
Misc : op93878,e3e3650
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
Last Update : Sat Aug 08 13:07:52 2015



AutoFind: Scans 127, 128, 129; Background Corrected with Scan 122

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.1	118369	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.2	121399	PASS
70	69	0.00	2	0.1	99	PASS
127	198	40	60	53.8	144596	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	268565	PASS
199	198	5	9	7.0	18737	PASS
275	198	10	30	25.1	67370	PASS
365	198	1	100	3.7	9880	PASS
441	443	0.10	100	75.9	24123	PASS
442	198	40	100	63.7	171168	PASS
443	442	17	23	18.6	31789	PASS

SGS ACCUTEST JC20184

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	169	43.10	423	54.40	443	66.00	476
35.80	143	44.05	325	55.10	1403	67.10	708
36.00	94	44.95	261	56.10	3407	69.00	121399
36.40	120	46.00	125	57.00	6828	70.00	99
37.00	238	46.30	98	58.95	355	72.30	184
37.30	257	47.90	320	60.00	272	73.00	1227
38.05	1950	49.05	1405	61.05	1914	73.10	596
39.05	10410	50.05	34380	62.05	1366	74.10	12073
39.95	630	51.05	118369	63.00	4054	75.05	18925
41.05	1035	52.00	5988	64.05	783	77.05	131652
42.10	444	53.10	715	65.05	1743	78.10	9639

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
79.05	8424	91.10	1772	101.95	470	115.05	671
80.10	6737	92.00	1916	103.00	1579	116.95	32996
81.00	8602	93.00	16444	104.05	3270	118.00	2944
82.05	2720	94.15	718	105.00	2898	118.90	692
83.05	1505	95.00	205	107.05	39170	119.50	259
84.00	791	96.00	899	108.05	6737	119.70	291
85.05	1895	97.10	1005	110.05	71157	120.20	263
86.00	2262	98.00	13477	111.05	10711	121.00	377
87.05	977	99.00	8286	111.95	1623	121.30	163
87.95	623	99.95	687	113.10	275	121.85	872
89.10	151	101.05	4412	113.80	355	122.15	1859

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
123.05	4267	133.90	398	142.05	2689	151.15	1458
123.85	858	134.15	1475	143.00	1632	151.95	618
124.20	334	135.00	4605	143.20	469	153.05	2348
125.05	2012	136.05	1647	143.70	99	154.05	1595
127.10	144596	137.15	2810	145.00	409	155.05	4091
128.05	10904	138.15	359	146.00	1144	156.05	6166
129.05	55028	139.05	491	147.05	2880	157.00	494
130.05	4170	139.30	72	148.05	7741	157.20	1080
131.05	866	139.90	237	149.05	1859	157.50	258
132.05	1145	140.20	464	149.95	360	157.95	852
133.20	891	141.05	6515	150.20	158	159.00	972

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
159.90	431	168.00	6685	176.30	298	185.15	5789
160.05	2113	169.00	1237	177.05	2349	186.10	37957
161.00	2952	169.85	446	177.95	559	187.10	10029
162.00	1124	170.40	179	179.05	10256	188.10	1288
163.25	394	171.05	794	180.05	6157	188.95	2492
163.90	220	171.65	499	181.05	3234	190.05	812
164.25	357	172.10	1026	182.05	231	191.00	1585
164.95	2140	173.10	1794	183.05	413	192.00	4054
166.10	674	173.90	2473	183.80	9	193.10	4024
166.30	1057	175.10	5093	184.00	344	194.05	848
167.05	14311	176.00	1716	184.30	400	194.70	347

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
194.95	164	205.10	18456	214.15	155	224.10	38328
196.10	8649	206.10	67986	214.70	320	225.10	9509
196.60	1027	207.05	9587	215.00	701	227.05	16073
198.00	268565	208.00	2622	215.50	168	228.10	1935

dftpp3e.M Mon May 16 13:05:01 2016 MS3E Page: 2

199.00	18737	209.15	506	217.00	19132	229.05	3285
200.05	1615	209.80	327	218.05	2505	229.75	114
201.45	1494	210.00	1123	218.95	540	230.25	186
202.30	281	210.95	3111	219.70	183	231.00	1414
202.75	609	212.20	723	221.00	14980	231.95	199
203.15	1497	212.95	728	222.20	1197	232.20	148
204.05	11029	213.70	185	223.05	2923	232.50	108

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
232.80	67	239.15	777	247.05	1614	256.10	22661
233.00	187	240.00	794	248.00	439	257.05	2149
233.80	376	240.75	279	248.90	1127	258.10	8178
234.10	700	241.10	368	250.15	281	259.05	1533
235.05	1434	241.90	400	250.90	1	259.90	292
235.80	99	242.10	2128	251.20	272	260.70	178
236.00	635	242.40	465	251.55	225	261.25	365
237.05	1306	243.15	3774	252.15	587	262.45	193
237.30	401	244.10	30226	253.40	1856	262.80	103
238.00	81	245.15	3904	253.90	658	263.70	286
238.30	199	246.10	5739	255.10	144116	265.00	3657

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
266.10	921	274.05	13080	283.30	280	291.00	203
267.05	382	275.10	67370	284.05	473	291.50	57
268.00	301	276.05	8792	284.80	222	291.70	179
269.15	87	277.10	6133	285.05	1044	292.10	83
269.85	351	278.05	1205	285.40	78	292.30	41
270.10	152	279.05	249	286.00	229	293.15	1520
270.90	346	279.40	107	287.00	25	294.10	652
271.10	164	279.80	111	288.60	130	294.60	202
272.00	186	281.95	201	289.10	305	296.10	20212
272.35	346	282.60	53	289.95	293	297.05	3103
273.10	5720	283.00	101	290.40	60	298.10	199

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
299.00	105	306.80	71	314.15	673	320.20	60
299.30	56	307.10	67	315.05	2518	320.80	271
300.20	52	307.50	54	316.05	1186	321.25	780
301.05	418	308.00	107	317.05	475	323.10	5782
301.75	471	308.90	207	317.60	57	324.05	1181
302.20	471	309.20	116	317.90	56	324.80	210
302.70	255	310.10	474	318.70	72	325.10	55
303.15	2149	311.00	194	319.00	133	325.30	135
304.05	680	313.00	153	319.20	50	325.90	164
305.10	51	313.20	149	319.70	60	326.30	216
305.65	135	313.70	257	320.00	65	326.95	1488

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
328.00	319	335.80	70	346.10	1279	354.90	50
328.90	117	336.00	131	347.05	386	355.15	190
329.20	107	337.00	97	348.00	68	357.30	50
330.05	165	338.50	76	348.40	99	357.95	135
331.30	110	339.80	61	350.10	79	359.80	116
332.05	829	341.10	937	350.60	57	360.10	114
332.70	83	341.70	167	351.25	211	361.05	271
333.00	338	342.20	331	352.00	269	361.50	89
333.25	531	343.80	81	352.15	2178	362.40	262
334.15	3715	344.70	54	353.20	1251	363.70	208
335.05	763	345.40	119	354.15	2247	365.10	9880

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms

dftpp3e.M Mon May 16 13:05:01 2016 MS3E Page: 3

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
366.05	1687	375.30	110	387.40	139	402.05	1513
367.00	66	376.10	69	389.10	57	403.05	1755
367.95	118	376.70	76	390.15	756	403.90	133
369.80	188	376.95	174	390.80	114	404.15	613
370.10	57	381.00	59	391.15	489	405.05	266
370.90	147	381.85	207	395.60	57	406.70	51
371.15	350	382.80	208	396.10	70	407.10	79
372.10	3981	383.20	359	397.70	62	409.90	67
373.05	874	383.90	186	398.30	150	410.30	57
374.10	58	385.25	156	401.05	127	412.30	51
374.40	79	387.10	67	401.90	175	413.20	61

Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
414.60	99	420.80	97	428.40	100	432.50	80
415.10	173	421.10	1435	428.80	61	433.00	180
415.40	82	422.10	1372	429.00	57	433.30	143
416.50	55	423.10	10514	429.25	234	433.70	313
417.25	184	424.00	303	429.65	214	434.30	126
417.40	71	424.20	1911	430.20	154	434.80	452
417.60	109	425.15	345	430.70	70	435.60	427
418.00	53	425.80	203	431.15	212	436.00	129
419.10	66	426.30	51	431.40	69	436.30	139
419.30	76	426.70	110	431.90	78	436.65	277
420.10	77	427.40	98	432.25	175	437.15	356

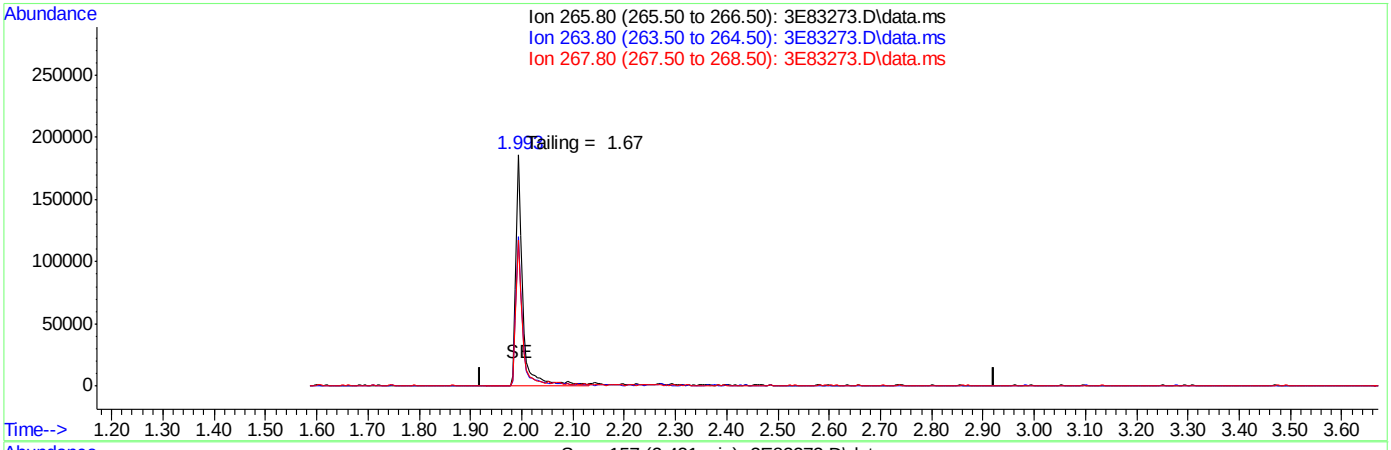
Average of 2.261 to 2.271 min.: 3E83273.D\data.ms
dftpp
Modified:subtracted

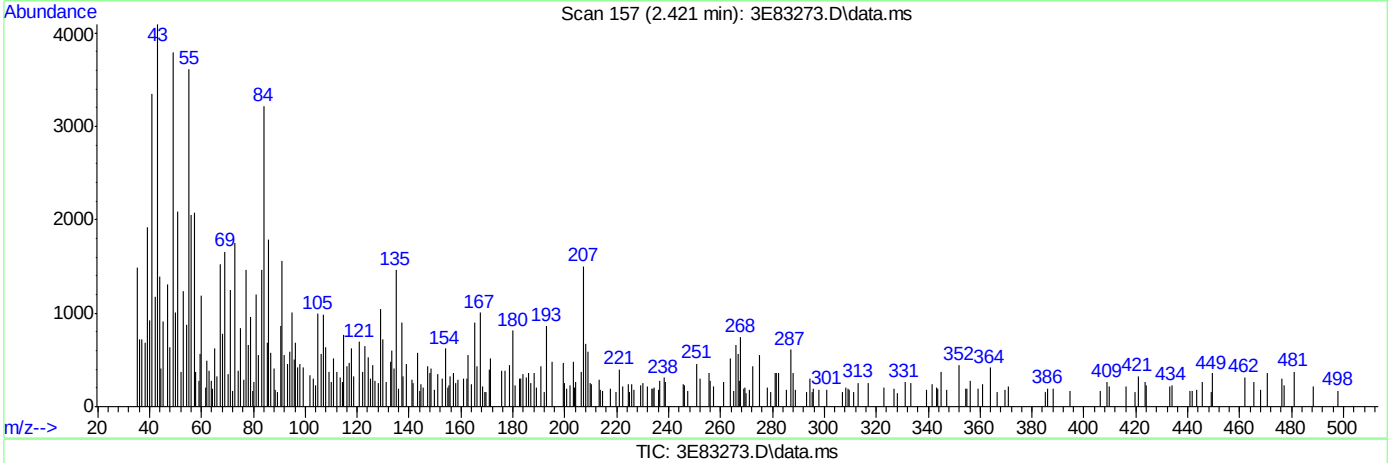
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
437.50	151	449.30	53	468.30	67	487.90	76
437.95	226	450.40	58	469.00	66	489.00	91
438.35	340	453.20	73	470.30	64	496.90	65
438.90	304	453.90	58	472.30	66	497.40	53
439.40	213	456.30	138	472.90	66	498.90	56
441.10	24123	456.80	66	475.20	70		
442.10	171168	457.10	60	475.80	110		
443.10	31789	458.30	88	477.40	97		
444.15	3493	459.20	79	481.50	54		
445.00	189	461.50	60	482.80	54		
446.10	66	462.10	133	486.00	51		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83273.D
Acq On : 16 May 2016 10:48 am
Operator : ashleyn
Sample : dftpp
Misc : op93878,e3e3650
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 16 10:56:53 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E83273.D\data.ms

(1) Pentachlorophenol (t)

2.421min 0.00ppb d

response 0

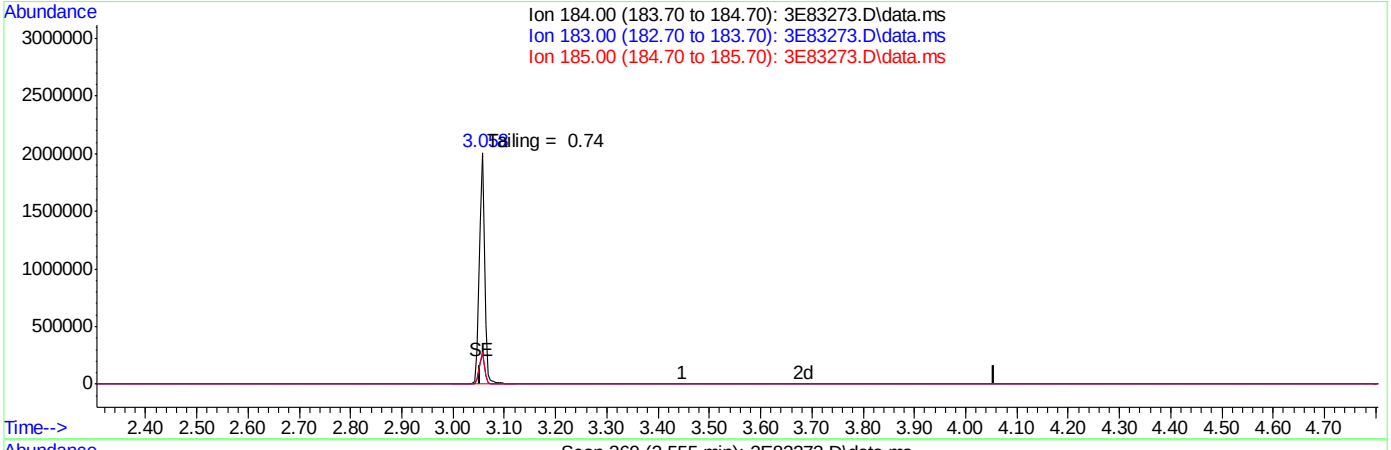
Ion	Exp%	Act%
265.80	100	0.00
263.80	62.20	0.00
267.80	64.70	0.00
0.00	0.00	0.00

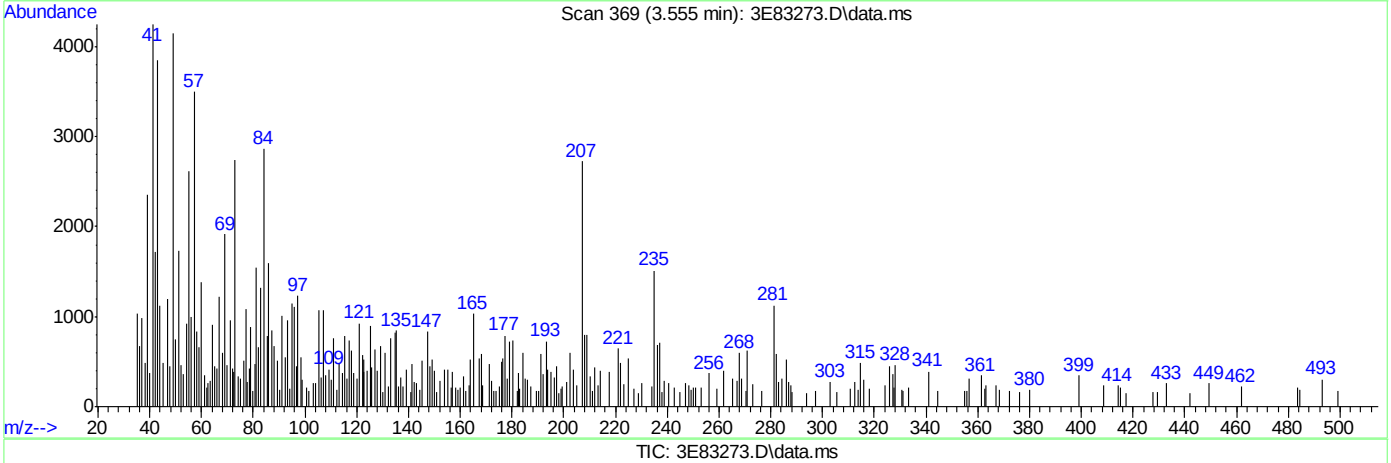
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83273.D
Acq On : 16 May 2016 10:48 am
Operator : ashleyn
Sample : dftpp
Misc : op93878,e3e3650
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 16 10:56:53 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E83273.D\data.ms

(2) Benzidine (t)

3.555min 0.00ppb d

response 0

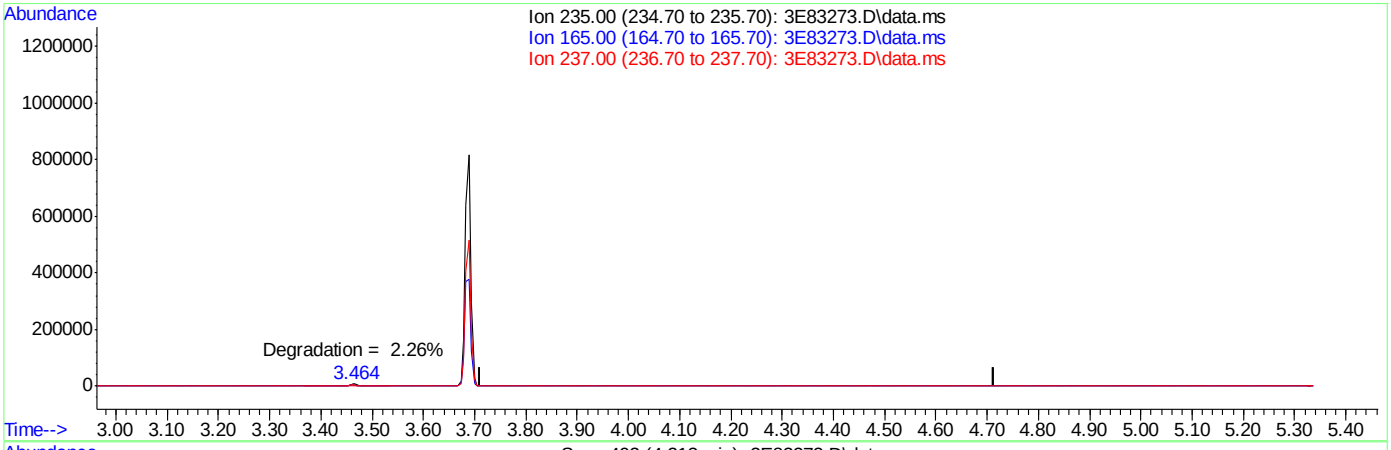
Ion	Exp%	Act%
184.00	100	0.00
183.00	13.20	0.00
185.00	15.40	0.00
0.00	0.00	0.00

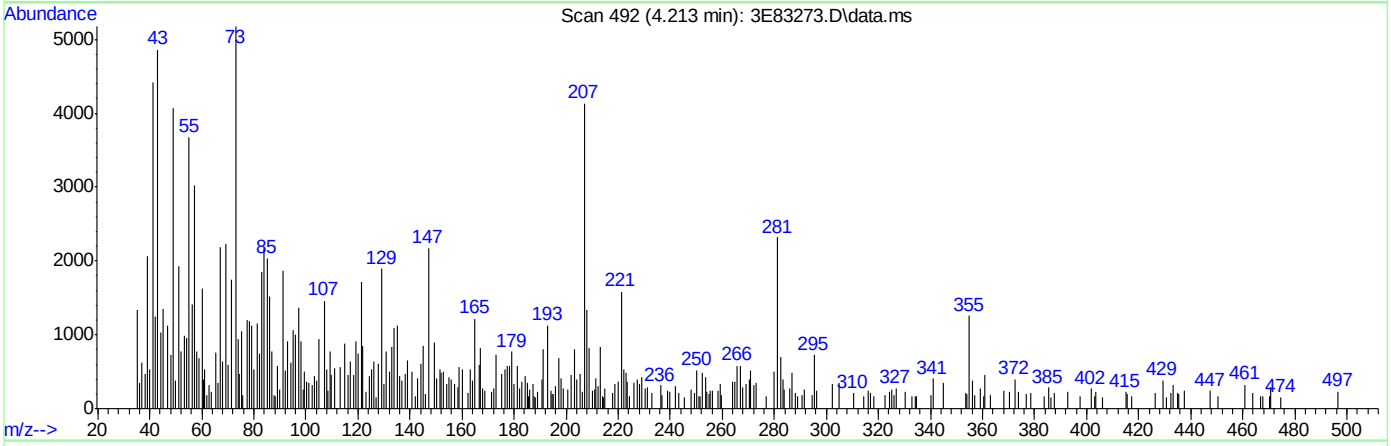
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83273.D
Acq On : 16 May 2016 10:48 am
Operator : ashleyn
Sample : dftpp
Misc : op93878,e3e3650
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 16 10:56:53 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sat Aug 08 13:07:52 2015
QLast Update : Sat Aug 08 13:07:52 2015
Response via : Initial Calibration





TIC: 3E83273.D\data.ms

(3) PP-DDT (t)

4.213min (-4.213) 0.00ppb

response 0

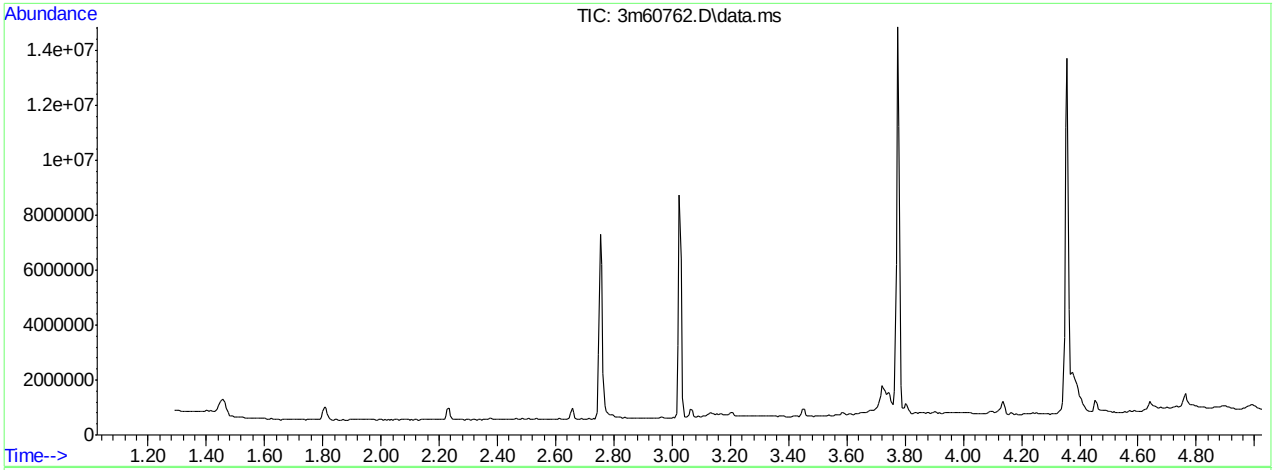
Ion	Exp%	Act%
235.00	100	0.00
165.00	0.10	0.00#
237.00	0.10	0.00#
0.00	0.00	0.00

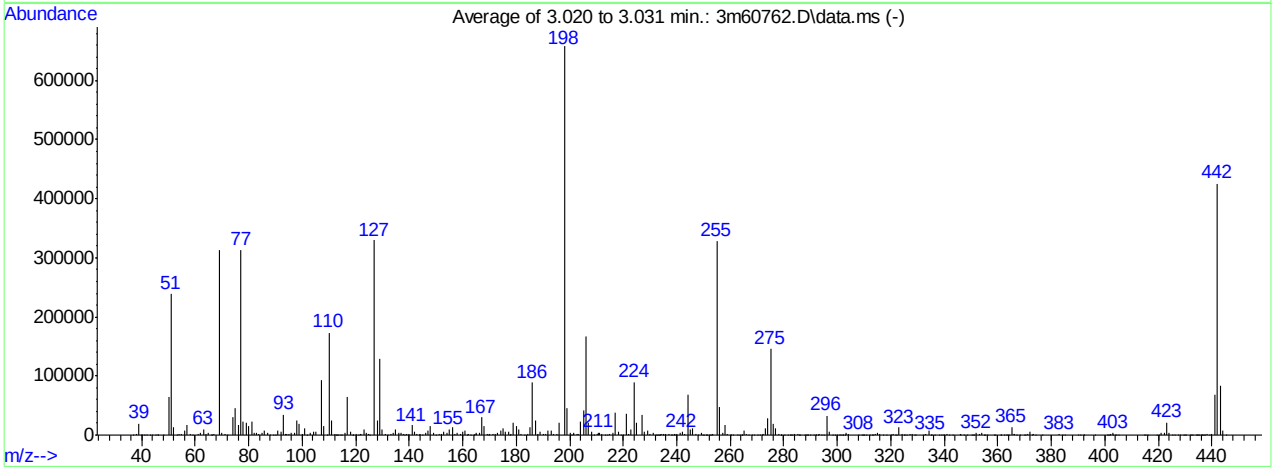
SGS ACCUTEST JC20184

DFTPP

Data File : C:\msdchem\1\DATA\E3M2855\3m60762.D Vial: 1
Acq On : 21 Apr 2016 1:31 pm Operator: linseyk
Sample : dftpp Inst : MS3M
Misc : op93052a,e3m2855 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP3M.M (RTE Integrator)
Title : DFTPP, RXI-5MS 30m x .25mm x .25um





AutoFind: Scans 324, 325, 326; Background Corrected with Scan 320

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.2	238296	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.6	313116	PASS
70	69	0.00	2	1.0	3204	PASS
127	198	40	60	50.1	329840	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	657712	PASS
199	198	5	9	6.9	45100	PASS
275	198	10	30	22.1	145467	PASS
365	198	1	100	2.2	14264	PASS
441	443	0.10	100	81.8	68134	PASS
442	198	40	100	64.7	425304	PASS
443	442	17	23	19.6	83298	PASS

3m60762.D DFTPP3M.M Fri Apr 22 08:16:22 2016 RPT1

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	661	46.20	436	58.95	251	71.05	1475
38.05	2794	48.00	244	61.00	2709	72.05	358
39.00	19760	50.00	65143	62.10	4250	74.05	29550
39.90	449	51.00	238296	63.00	10102	75.00	46243
40.00	755	52.00	12545	64.10	1997	76.10	17126
41.00	329	53.00	307	65.00	4739	77.05	313473
42.00	277	54.15	1115	65.95	419	78.00	22267
43.05	106	55.00	1105	66.20	319	79.00	21188
44.00	839	56.00	7453	66.95	1508	79.95	15917
45.10	137	57.00	17977	69.00	313116	81.00	21946
45.90	229	58.00	1593	70.05	3204	81.95	3804

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.95	3997	93.95	1295	104.05	6580	114.10	398
83.90	2325	94.20	1080	105.00	6653	114.80	426
85.10	3907	95.00	1155	107.00	92226	116.00	4552
85.95	7333	95.95	2921	108.00	15158	117.00	65517
87.05	3225	97.15	3059	109.10	399	117.95	5021
87.95	160	98.00	25203	110.00	173137	118.85	1004
89.00	451	99.00	19270	111.00	25260	119.10	235
90.05	395	100.00	1366	112.05	2622	120.05	1481
90.95	6840	100.95	10715	112.70	729	120.85	926
92.00	6037	101.90	978	113.00	737	121.85	2893
93.00	35134	102.95	4167	113.60	216	122.05	1962

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
123.00	8863	134.05	4029	143.80	49	154.05	4207
124.00	3789	134.95	9126	144.15	1336	154.95	9598
124.90	2681	136.00	4526	144.90	554	156.05	12971
125.20	659	137.05	4746	146.00	3191	157.05	2135
127.00	329840	137.80	1581	147.00	6974	158.00	2979
127.95	25688	138.05	8	147.95	15969	159.05	1815
129.00	128464	139.15	1213	149.00	3586	160.00	5213
129.95	10423	140.05	2181	149.90	649	160.90	6930
131.00	2043	141.00	16241	151.05	2905	161.80	620
131.90	739	142.05	4918	151.90	1498	162.10	1571
133.10	1078	142.95	2672	152.95	5232	162.90	286

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
164.00	491	171.95	2596	181.95	1754	193.00	6861
164.10	623	173.05	4093	182.90	780	194.05	2190
164.80	1232	174.05	6735	184.10	2113	195.05	1948
165.00	4676	175.05	10999	185.00	13065	196.00	21652
166.05	4746	176.05	4833	186.00	88408	198.00	657712
166.95	29813	176.95	6189	187.05	24010	199.00	45100
167.95	14663	177.70	742	188.10	2813	200.00	3024
169.05	2335	178.00	1490	188.90	5044	200.70	236
169.70	466	179.00	21463	190.05	1319	201.35	3553
170.15	1305	180.00	14698	191.00	2618	201.65	2514
171.10	1248	181.00	9205	191.95	7793	202.80	1702

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
203.00	2781	213.05	528	224.10	89368	233.80	461
204.10	23086	214.00	433	225.05	21868	234.10	1557
205.10	41149	215.05	1578	227.05	34358	234.80	391
206.05	167835	216.05	4006	228.00	4859	235.05	2665

207.00	21445	217.00	38342	229.00	6933	235.95	2072
208.00	6458	218.05	5162	229.85	1303	237.05	2533
209.00	896	219.20	990	231.00	3173	237.90	238
210.15	1189	220.00	429	231.90	223	238.15	279
210.75	4358	221.05	36080	232.30	136	238.95	1672
211.10	3392	221.80	1095	232.90	149	239.30	482
211.85	2397	223.00	9572	233.10	789	240.10	1273

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
241.05	3311	250.80	152	259.90	493	269.00	206
242.05	4890	251.15	707	260.20	97	270.05	831
243.10	2235	251.95	870	261.00	468	271.05	922
244.10	68677	252.40	139	262.60	86	271.70	207
245.05	9760	252.90	981	263.25	515	272.10	1838
246.00	12142	253.40	1728	264.10	501	273.05	11001
247.00	2344	255.05	329205	264.30	560	274.05	29108
248.00	837	256.00	47298	265.00	7222	275.10	145467
249.05	3015	257.15	4289	265.90	1481	276.05	18900
249.80	449	258.00	17582	266.75	355	277.00	11300
250.25	600	259.00	2516	268.20	147	278.00	1854

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
278.80	205	287.70	119	294.70	95	303.10	3964
279.15	477	288.15	310	296.05	32985	304.05	1309
280.10	279	288.60	87	297.00	5136	307.90	846
281.60	120	289.15	281	298.10	167	309.00	398
282.10	626	289.95	519	298.90	166	309.70	112
282.90	419	291.10	296	300.00	85	310.15	371
283.10	836	291.80	318	300.90	148	310.95	354
284.15	1540	292.10	662	301.15	590	312.00	87
285.15	2843	292.80	196	301.80	536	312.80	156
285.80	310	293.05	2426	302.10	353	313.10	231
286.10	133	294.10	917	302.80	384	313.95	1898

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
315.00	3718	325.20	137	336.25	305	348.30	141
316.00	2484	325.95	441	338.10	80	350.05	338
317.05	541	327.05	2247	339.00	94	350.60	76
318.20	109	328.00	1248	339.70	149	351.10	136
320.15	285	328.80	179	339.90	100	352.05	3729
321.00	1507	329.20	147	341.00	1301	353.10	2441
321.70	413	332.05	947	341.95	432	354.00	4692
322.00	251	332.95	1265	343.20	134	354.95	265
323.10	12425	334.10	8059	345.90	234	355.20	159
324.15	2124	334.90	772	346.05	2044	356.15	415
324.90	281	335.10	980	347.05	266	358.40	195

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
359.10	253	368.00	93	385.05	288	403.05	3094
360.90	94	369.90	367	390.05	558	403.80	336
361.25	176	370.40	117	391.00	594	404.05	985
362.50	298	371.05	1415	391.90	84	405.05	371
363.10	278	372.10	6694	392.20	500	414.80	78
363.40	159	372.90	577	396.30	97	415.10	95
364.00	309	373.10	1038	400.75	279	416.00	104
365.05	14264	374.00	194	401.20	249	419.25	304
365.90	1395	376.70	189	401.90	271	420.30	329
366.10	1077	382.95	1487	402.05	2235	421.05	4050
366.90	270	384.00	498	402.80	202	422.15	3505

Average of 3.020 to 3.031 min.: 3m60762.D\data.ms

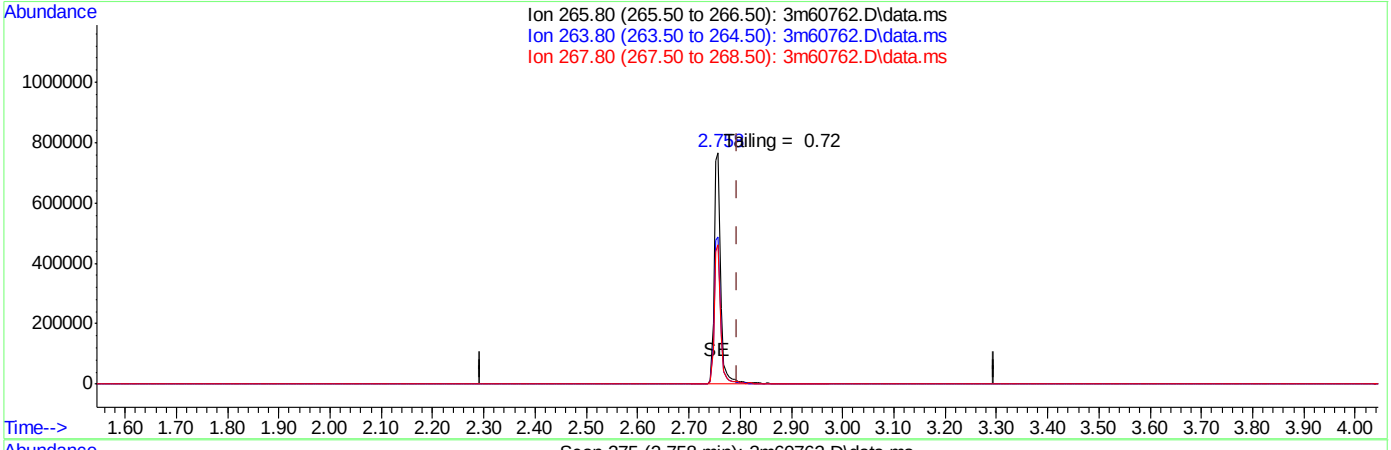
dftpp
Modified:subtracted

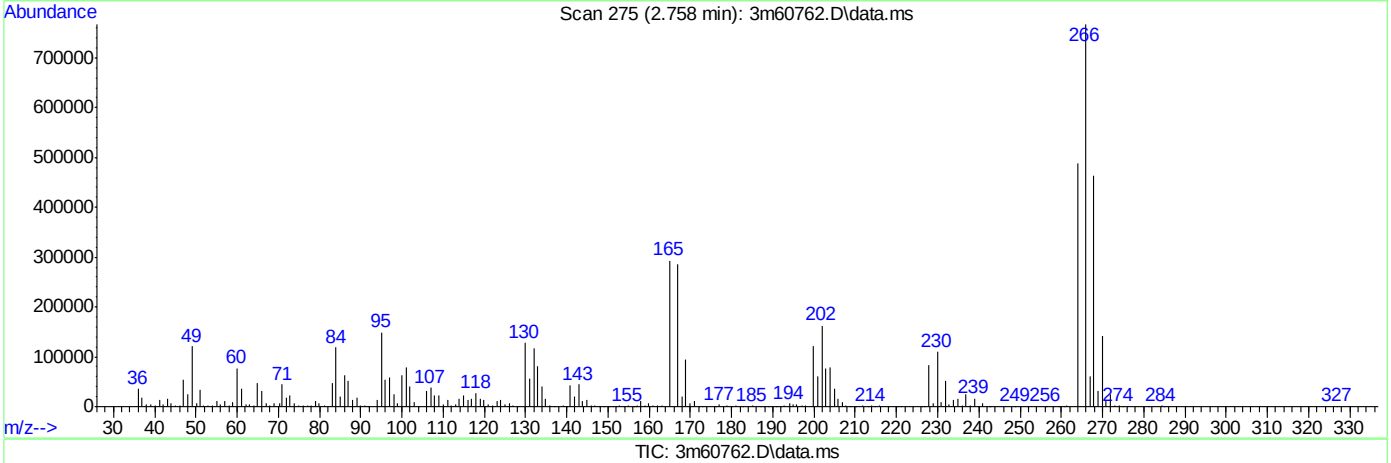
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
423.10	21736	432.90	494	438.80	912		
424.10	4461	433.85	400	439.90	2031		
425.00	512	434.50	189	441.10	68134		
426.10	183	434.80	226	442.10	425304		
427.20	203	435.40	731	443.10	83298		
428.30	259	435.90	455	444.10	7637		
429.50	82	436.25	476	445.10	306		
429.70	297	436.60	319				
430.25	389	436.95	928				
431.75	392	437.50	435				
432.50	347	438.30	1141				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60762.D
Acq On : 21 Apr 2016 1:31 pm
Operator : linseyk
Sample : dftpp
Misc : op93052a,e3m2855
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 21 13:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3M.M
Quant Title : DFTPP, RXI-5MS 30m x .25mm x .25um
QLast Update : Wed Dec 09 10:32:40 2015
Response via : Initial Calibration





TIC: 3m60762.D\data.ms

(1) Pentachlorophenol (t)

2.758min (-0.037) 190.28ppb

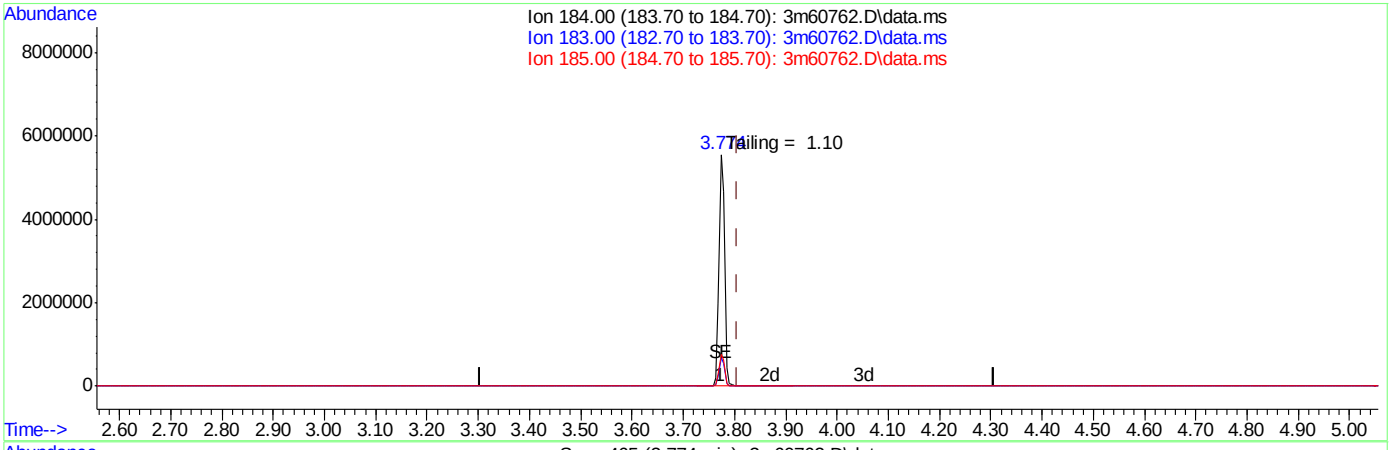
response 701808

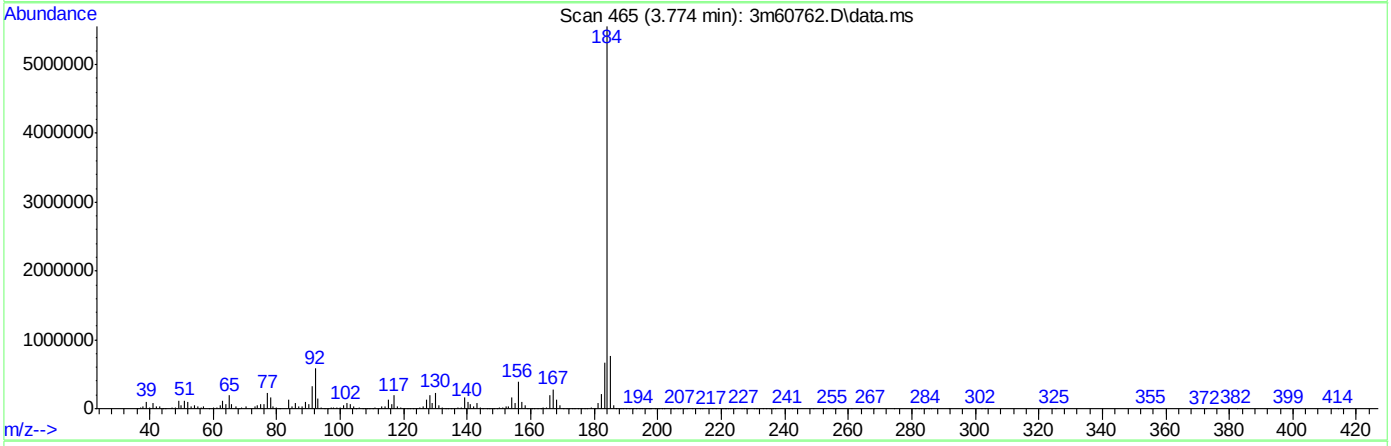
Ion	Exp%	Act%
265.80	100	100
263.80	62.80	63.64
267.80	64.10	60.34
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60762.D
Acq On : 21 Apr 2016 1:31 pm
Operator : linseyk
Sample : dftpp
Misc : op93052a,e3m2855
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 21 13:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3M.M
Quant Title : DFTPP, RXI-5MS 30m x .25mm x .25um
QLast Update : Wed Dec 09 10:32:40 2015
Response via : Initial Calibration





TIC: 3m60762.D\data.ms

(2) Benzidine (t)

3.774min (-0.032) 229.17ppb

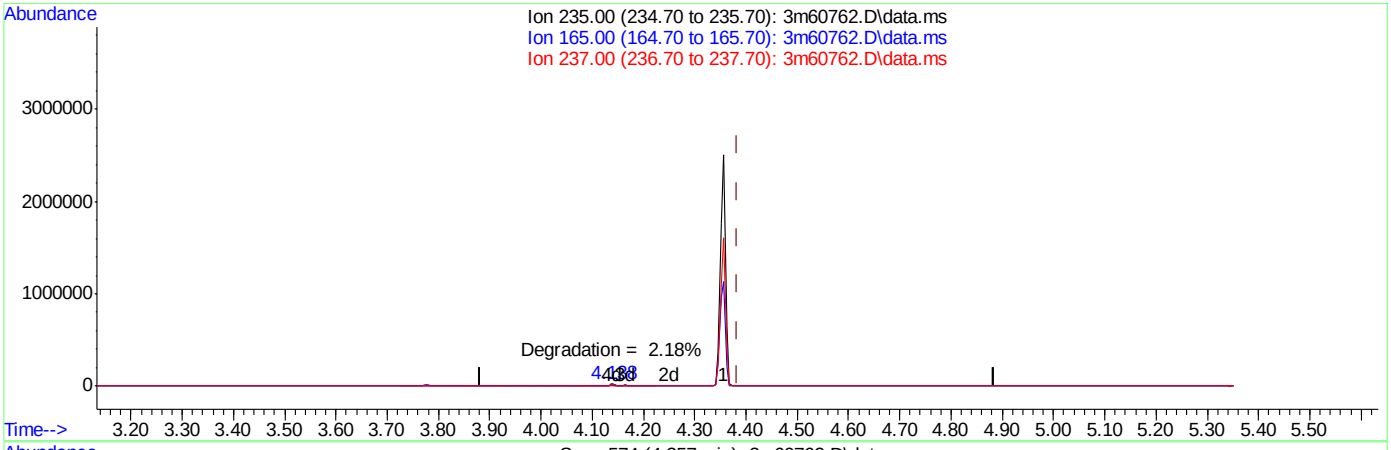
response 4170192

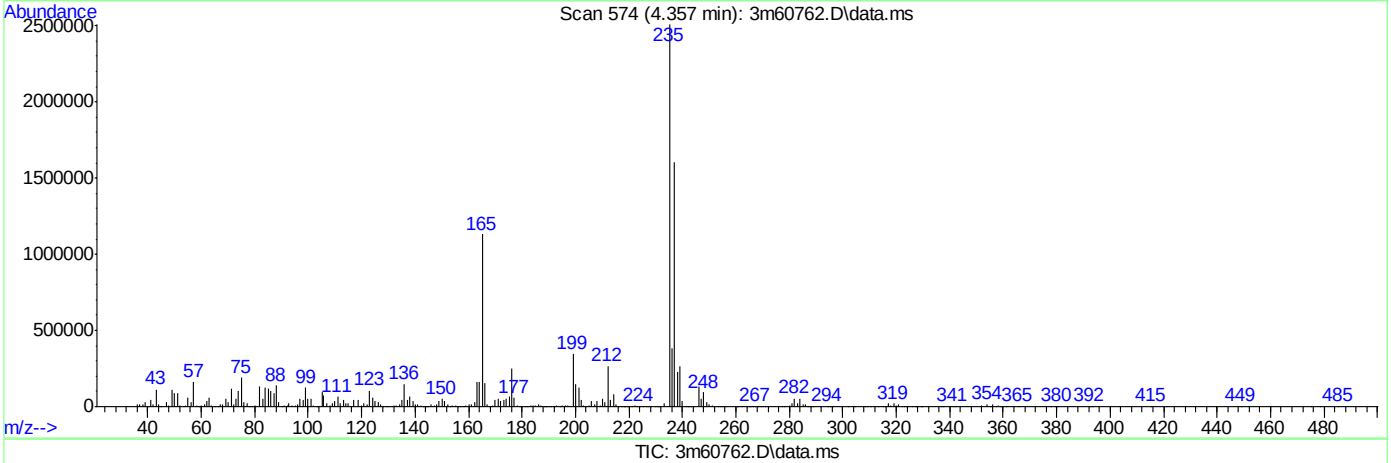
Ion	Exp%	Act%
184.00	100	100
183.00	11.50	12.07
185.00	14.40	13.67
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60762.D
Acq On : 21 Apr 2016 1:31 pm
Operator : linseyk
Sample : dftpp
Misc : op93052a,e3m2855
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 21 13:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3M.M
Quant Title : DFTPP, RXI-5MS 30m x .25mm x .25um
QLast Update : Wed Dec 09 10:32:40 2015
Response via : Initial Calibration





TIC: 3m60762.D\data.ms

(3) PP-DDT (t)

4.357min (-0.027) 229.70ppb

response 1710972

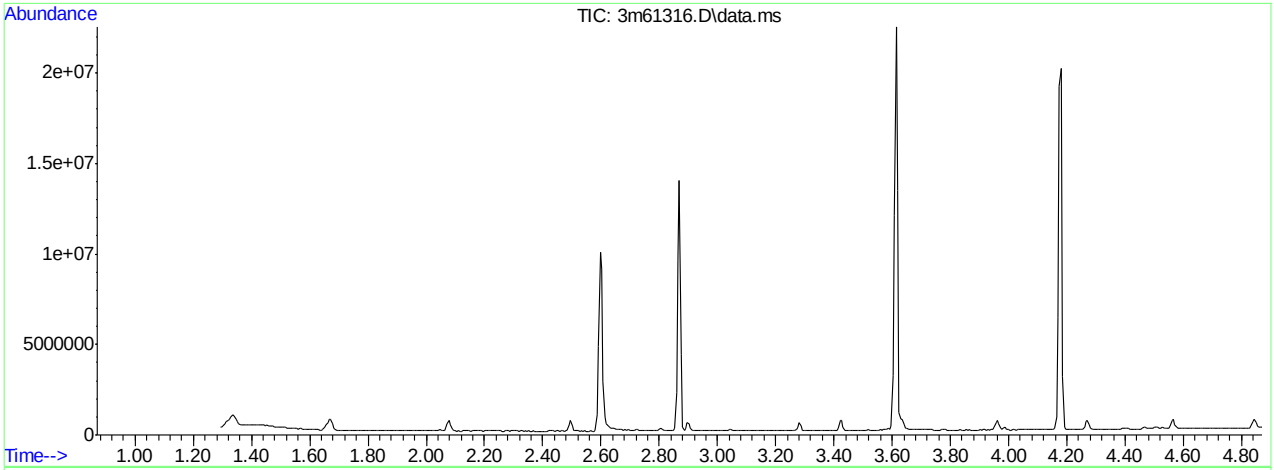
Ion	Exp%	Act%
235.00	100	100
165.00	0.00	48.45#
237.00	0.00	63.48#
0.00	0.00	0.00

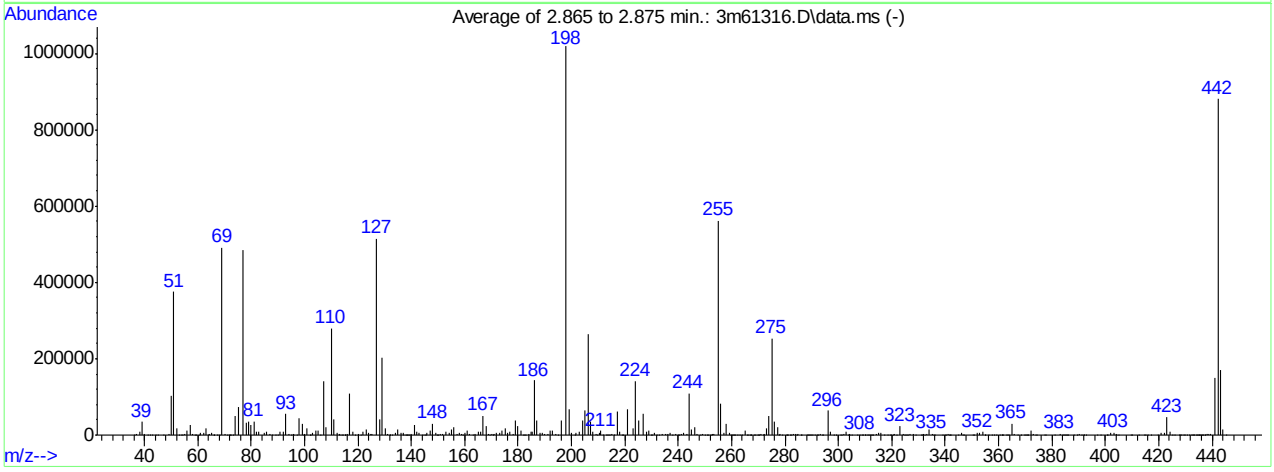
SGS ACCUTEST JC20184

DFTPP

Data File : C:\msdchem\1\DATA\E3M2883\3m61316.D Vial: 1
Acq On : 13 May 2016 10:38 pm Operator: JULIUSJ
Sample : dftpp Inst : MS3M
Misc : op93756a,e3m2883 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP3M.M (RTE Integrator)
Title : DFTPP, RXI-5MS 30m x .25mm x .25um





AutoFind: Scans 295, 296, 297; Background Corrected with Scan 290

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.9	375497	PASS
68	69	0.00	2	0.1	555	PASS
69	198	0.00	100	48.3	491252	PASS
70	69	0.00	2	0.5	2350	PASS
127	198	40	60	50.6	515029	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1018027	PASS
199	198	5	9	6.7	68715	PASS
275	198	10	30	24.9	253099	PASS
365	198	1	100	3.0	30899	PASS
441	443	0.10	100	87.3	150053	PASS
442	198	40	100	86.5	880469	PASS
443	442	17	23	19.5	171899	PASS

3m61316.D DFTPP3M.M Mon May 16 13:16:48 2016 RPT1

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	35	49.00	1605	58.85	202	67.05	621
37.05	2070	50.00	104178	59.15	590	67.90	555
38.10	7647	51.00	375497	60.40	234	68.95	491252
39.00	34497	51.95	19183	61.05	5739	70.05	2350
40.05	1654	52.90	584	62.05	6558	71.05	74
41.00	1374	53.80	110	63.05	16795	71.70	94
42.00	80	54.20	83	63.70	250	71.95	468
42.95	414	55.00	1701	64.10	2769	72.20	579
44.00	108	55.95	12912	65.10	7377	73.05	1326
44.90	800	57.00	27813	65.80	461	74.00	50874
46.95	1530	58.00	1743	66.15	650	75.00	73762

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
77.00	483685	88.95	1529	99.00	30954	108.00	21476
78.00	32319	89.90	200	99.70	237	110.00	280136
78.95	34694	90.90	7806	100.10	2598	111.00	40012
80.00	27979	91.95	9379	101.00	16603	112.05	5189
81.00	36020	93.00	54661	102.05	1013	112.90	1876
82.00	9106	94.00	3592	102.30	113	113.10	310
82.95	8399	94.85	295	103.00	7326	113.70	92
84.95	5337	95.60	303	104.00	12242	114.30	290
85.90	7811	95.95	2100	105.00	10587	115.00	574
86.90	4463	97.00	823	106.00	820	115.20	424
87.95	1210	98.00	44331	107.00	141011	116.05	4400

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
117.00	108507	128.00	40306	137.05	6858	144.85	1083
118.05	8168	129.00	202442	137.70	1182	145.20	1539
119.05	1138	130.05	17108	138.10	952	145.95	5252
120.10	1778	130.95	3138	138.30	308	146.95	12825
121.00	110	131.80	1173	138.80	755	147.95	29418
122.00	10245	132.10	673	139.15	1321	148.95	5785
123.00	15119	132.90	1126	140.05	4184	149.70	184
124.00	6250	134.00	6658	140.95	25700	149.95	1264
124.90	2614	135.00	14677	141.95	7730	150.95	3538
125.10	3847	135.95	6621	142.95	5963	151.80	2631
127.00	515029	136.80	460	144.00	1593	153.00	8384

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
154.00	5538	163.95	1886	173.05	6387	182.90	1511
155.05	13370	164.90	9042	174.05	10522	184.10	3072
156.00	19360	166.10	9424	175.05	18995	185.00	9469
157.05	4260	166.95	51077	176.00	6705	185.20	9787
158.00	5183	168.00	22353	177.05	9553	186.00	143411
158.90	3942	169.00	4194	178.00	1743	187.05	39682
159.40	298	169.50	127	179.00	37100	188.05	4584
160.00	7179	170.00	1851	180.00	22301	188.95	7335
161.00	10998	170.60	937	181.00	12101	190.00	1992
161.85	3699	171.15	2333	181.95	1375	191.00	4170
163.00	1061	172.00	5319	182.20	1293	192.00	11074

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
193.00	12691	205.00	63505	213.80	145	225.05	38544
194.00	2804	206.05	263728	214.20	302	227.00	56579
194.80	452	207.05	35834	215.05	3171	228.05	8360
196.10	37172	208.00	8258	216.10	1105	229.00	11043

198.00	1.01803e+006	209.05	3375	217.00	62184	229.75	242
199.00	68715	209.70	405	218.00	8992	230.00	986
199.95	5626	210.30	6183	219.00	742	231.05	5114
201.20	804	211.00	10640	219.30	239	232.00	454
201.50	4973	211.70	558	221.05	66203	232.90	1450
203.00	8255	212.95	939	223.10	18533	234.00	4011
203.95	38437	213.40	118	224.10	142320	235.05	4311

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
236.00	2591	246.05	21692	255.00	562005	263.10	232
237.00	5300	246.90	4209	256.00	81784	263.90	885
237.90	1097	248.05	1362	256.95	6735	265.05	11964
239.05	2264	249.05	4257	258.00	29157	265.85	1293
239.70	262	249.80	466	259.05	5513	266.10	690
240.10	1547	250.60	503	259.70	325	266.80	125
240.95	3488	251.00	1279	260.15	917	267.00	204
242.00	7161	252.10	1272	260.60	120	267.30	199
243.10	3190	252.40	673	260.90	686	268.30	392
244.05	109928	252.95	2215	261.15	863	268.95	366
245.05	15477	253.20	2081	262.00	113	269.50	262

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
269.90	309	278.05	3564	285.95	703	293.05	4209
270.05	476	278.90	1155	286.20	246	293.90	358
271.00	1625	280.50	149	288.00	326	294.15	1316
271.70	355	280.70	168	288.75	462	296.00	63325
272.15	2242	280.90	426	289.00	409	297.00	9016
273.10	18695	281.70	238	289.30	166	298.15	633
274.05	50795	282.20	368	289.70	298	299.00	190
275.00	253099	283.00	2638	290.15	690	300.80	236
276.05	34147	284.00	1757	291.05	576	301.05	794
277.05	20697	284.40	366	291.85	590	302.05	1705
277.80	737	285.00	3652	292.30	363	303.05	7748

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
303.90	456	311.10	133	319.70	144	328.05	2505
304.00	332	311.70	214	320.50	355	329.00	704
304.15	1664	312.00	142	321.05	2561	330.85	439
304.90	306	312.70	101	321.85	722	331.40	128
307.10	169	313.05	698	323.05	23776	331.95	1803
308.05	1030	314.15	3749	324.10	4222	332.30	759
308.90	312	314.95	7385	324.90	363	333.00	2473
309.15	582	316.05	5072	325.30	346	334.05	13569
309.80	644	317.00	706	325.70	158	335.05	4135
310.20	198	318.30	86	326.00	247	335.80	75
310.70	181	319.40	127	326.95	4352	336.05	368

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
338.85	538	350.15	321	360.40	183	369.80	439
339.75	289	350.80	275	361.10	111	370.15	545
340.20	85	352.10	6432	361.35	350	370.60	383
341.05	2433	353.05	5209	361.70	163	370.90	414
341.50	306	354.05	7851	362.75	345	371.10	655
341.80	515	354.90	641	363.20	158	372.05	12418
342.00	237	355.10	1084	363.85	1081	373.05	3313
344.70	282	356.10	111	365.00	30899	373.90	592
345.95	5277	357.30	122	366.05	4213	374.30	163
346.70	208	358.25	262	367.05	356	377.00	482
347.05	906	359.10	464	368.30	207	377.80	78

Average of 2.865 to 2.875 min.: 3m61316.D\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
380.90	100	391.15	867	404.20	563	422.10	6622
383.05	2976	391.70	257	404.90	416	423.10	47045
384.00	793	392.05	635	409.40	102	424.10	8994
384.20	283	392.95	266	410.10	117	425.05	1182
384.95	311	396.95	317	412.60	74	426.10	113
385.20	138	398.00	121	414.65	322	427.60	159
385.70	77	400.70	157	415.15	632	427.90	90
386.10	130	400.90	871	416.00	82	428.55	238
388.10	81	402.00	5236	417.20	78	429.20	306
389.30	180	403.05	7354	419.70	254	429.90	307
390.05	1612	404.00	1948	421.05	6302	430.60	308

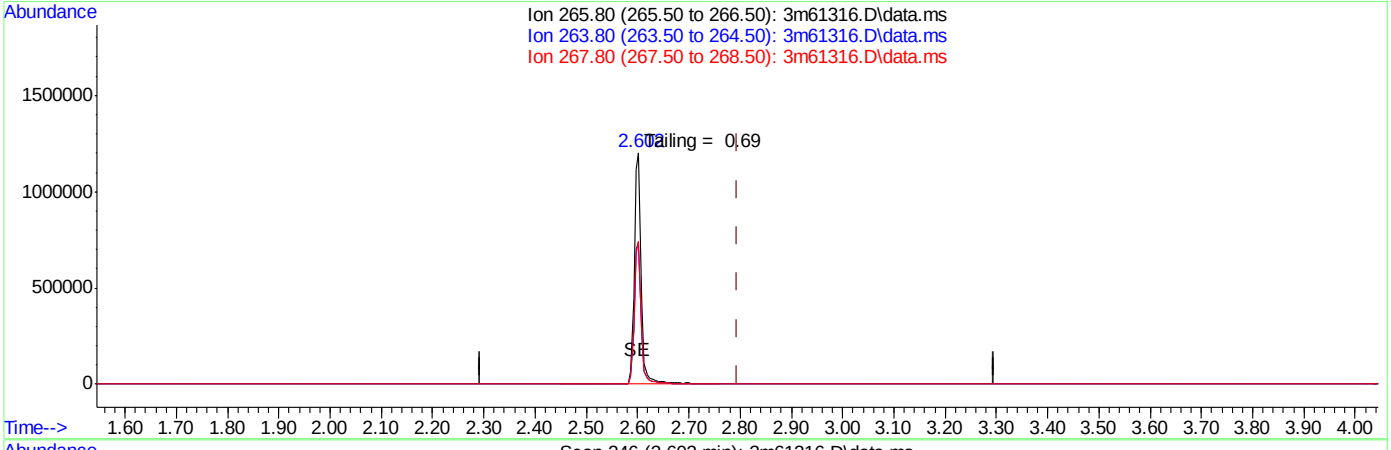
Average of 2.865 to 2.875 min.: 3m61316.D\data.ms
dftpp
Modified:subtracted

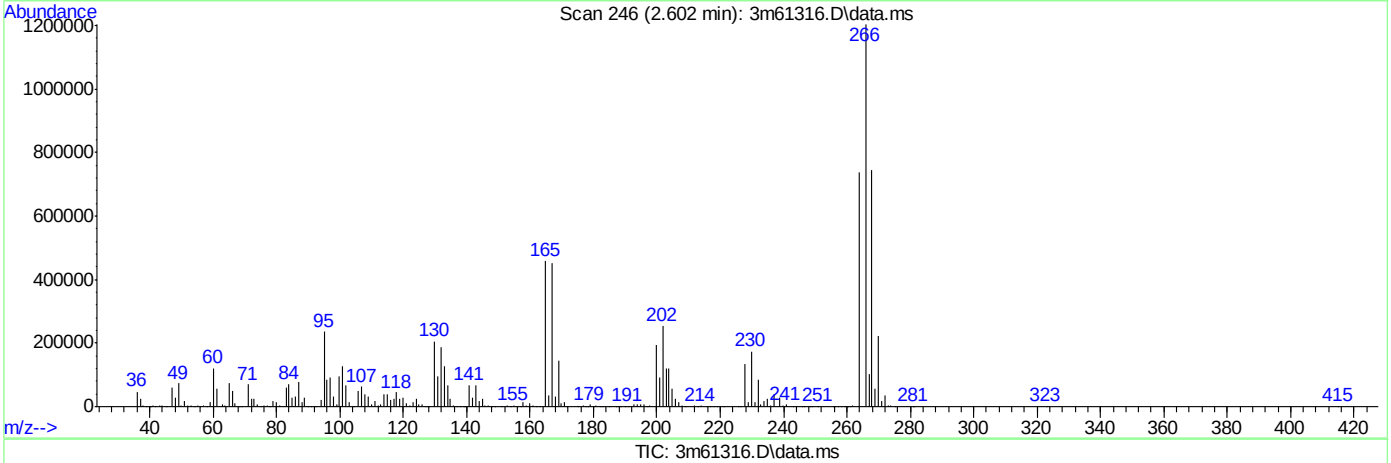
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
431.40	448	436.00	281	443.10	171899		
432.10	75	436.35	1049	444.05	15286		
432.50	523	436.60	324	445.05	1104		
433.00	289	437.20	867				
433.20	428	437.40	989				
433.80	302	437.90	2435				
434.15	737	438.70	2928				
434.80	315	439.20	2689				
435.00	595	439.50	1655				
435.20	253	441.10	150053				
435.60	386	442.10	880469				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61316.D
Acq On : 13 May 2016 10:38 pm
Operator : JULIUSJ
Sample : dftpp
Misc : op93756a,e3m2883
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 13 22:43:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3M.M
Quant Title : DFTPP, RXI-5MS 30m x .25mm x .25um
QLast Update : Wed Dec 09 10:32:40 2015
Response via : Initial Calibration





(1) Pentachlorophenol (t)

2.602min (-0.193) 310.95ppb

response 1146883

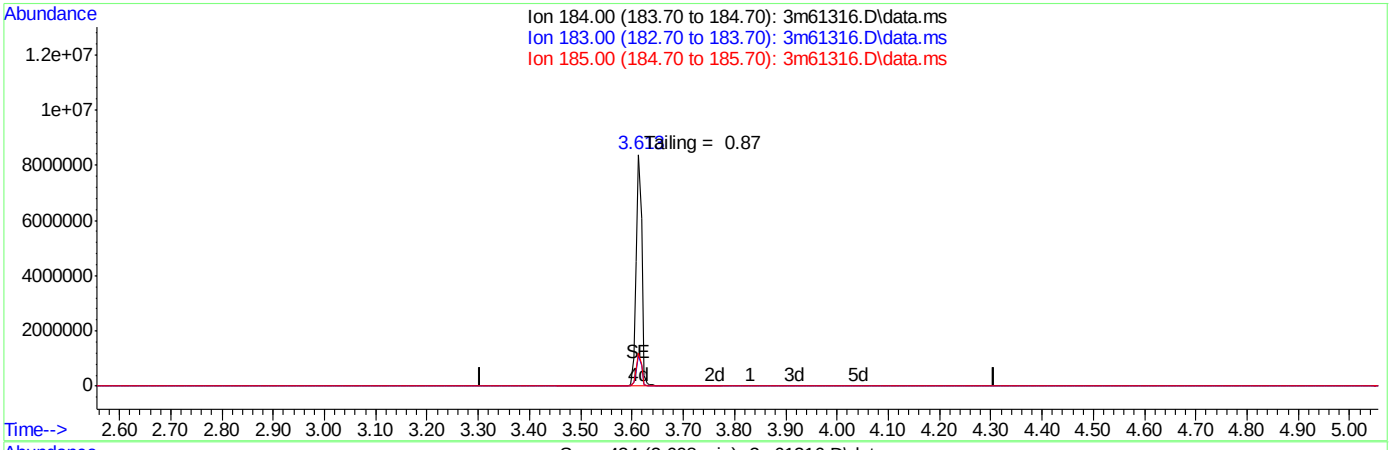
Ion	Exp%	Act%
265.80	100	100
263.80	62.80	61.12
267.80	64.10	61.74
0.00	0.00	0.00

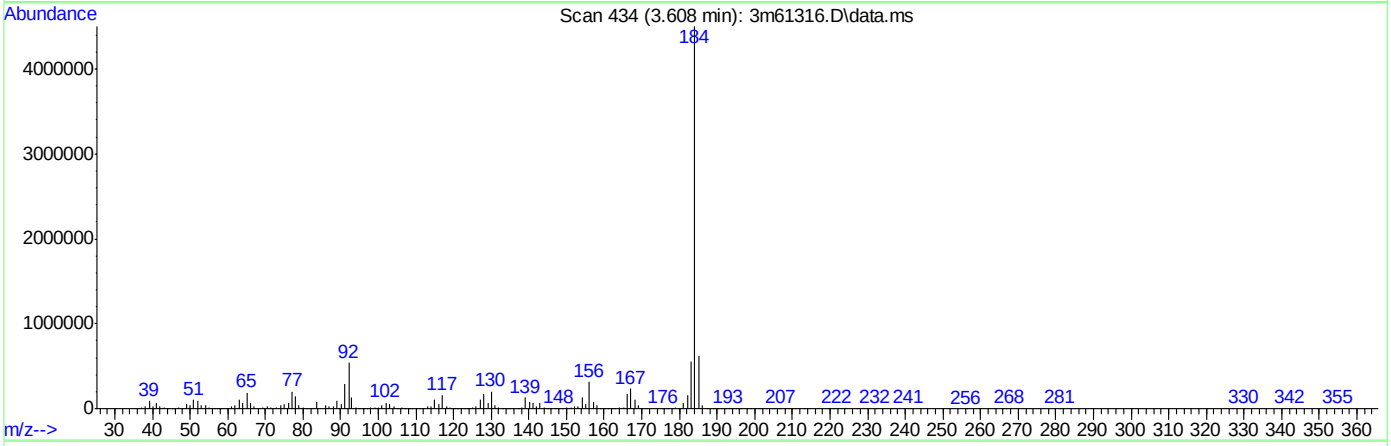
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61316.D
Acq On : 13 May 2016 10:38 pm
Operator : JULIUSJ
Sample : dftpp
Misc : op93756a,e3m2883
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 13 22:43:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3M.M
Quant Title : DFTPP, RXI-5MS 30m x .25mm x .25um
QLast Update : Wed Dec 09 10:32:40 2015
Response via : Initial Calibration





TIC: 3m61316.D\data.ms

(2) Benzidine (t)

3.806min 0.00ppb d

response 0

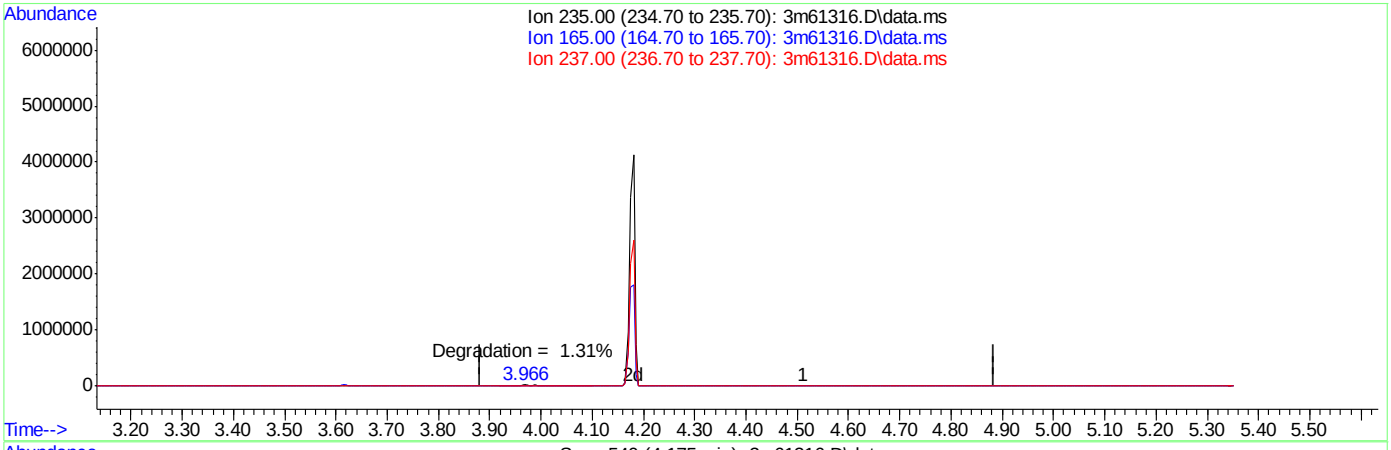
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.50	0.00
185.00	14.40	0.00
0.00	0.00	0.00

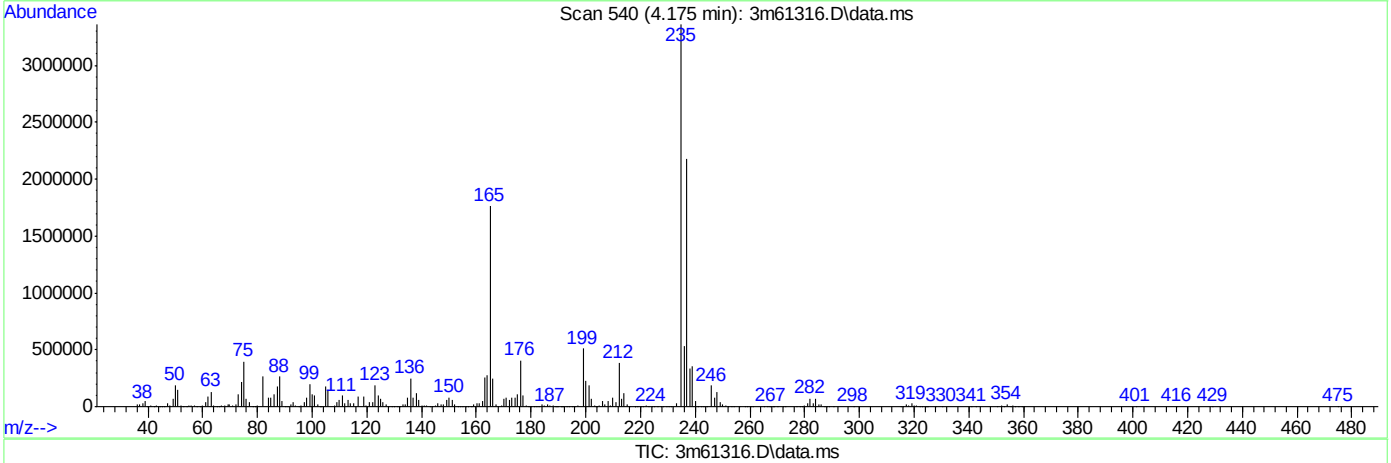
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61316.D
Acq On : 13 May 2016 10:38 pm
Operator : JULIUSJ
Sample : dftpp
Misc : op93756a,e3m2883
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 13 22:43:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3M.M
Quant Title : DFTPP, RXI-5MS 30m x .25mm x .25um
QLast Update : Wed Dec 09 10:32:40 2015
Response via : Initial Calibration





TIC: 3m61316.D\data.ms

(3) PP-DDT (t)

4.384min 0.00ppb d

response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	0.00	0.00
237.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82669.D
Acq On : 26 Apr 2016 1:34 pm
Operator : ashleyn
Sample : ic3621-100
Misc : op93161,e3e3621
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 27 08:57:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MTue Apr 26 13:56:22 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	289593	40.00	ppm	0.00
24) Naphthalene-d8	5.610	136	1157319	40.00	ppm	0.00
47) Acenaphthene-d10	7.642	164	511334	40.00	ppm	0.00
69) Phenanthrene-d10	9.814	188	859541	40.00	ppm	0.00
83) Chrysene-d12	13.991	240	778490	40.00	ppm	0.00
92) Perylene-d12	16.109	264	696836	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	289593	40.00	ppm	0.00
104) Acenaphthene-d10a	7.642	164	511334	40.00	ppm	0.00
106) Phenanthrene-d10a	9.814	188	859541	40.00	ppm	0.00
110) Chrysene-d12a	13.991	240	778490	40.00	ppm	0.00
112) Naphthalene-d8a	5.610	136	1157319	40.00	ppm	0.00
114) Chrysene-d12b	13.991	240	778490	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) o-Terphenyl	10.455	230	1043182	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
109) 1-Chlorooctadecane	11.670	57	672048	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	

Target Compounds						Qvalue
103) Benzaldehyde	4.219	105	478506	100.00	ppm	91
105) 1,2,4,5-Tetrachloroben...	6.546	216	621919	100.00	ppm	99
107) Atrazine	9.487	215	208636	100.00	ppm	83
111) benzidine	11.990	184	683580	100.00	ppm	99
113) Hydroquinone	6.069	110	812292	100.00	ppm	94

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

7.6.1

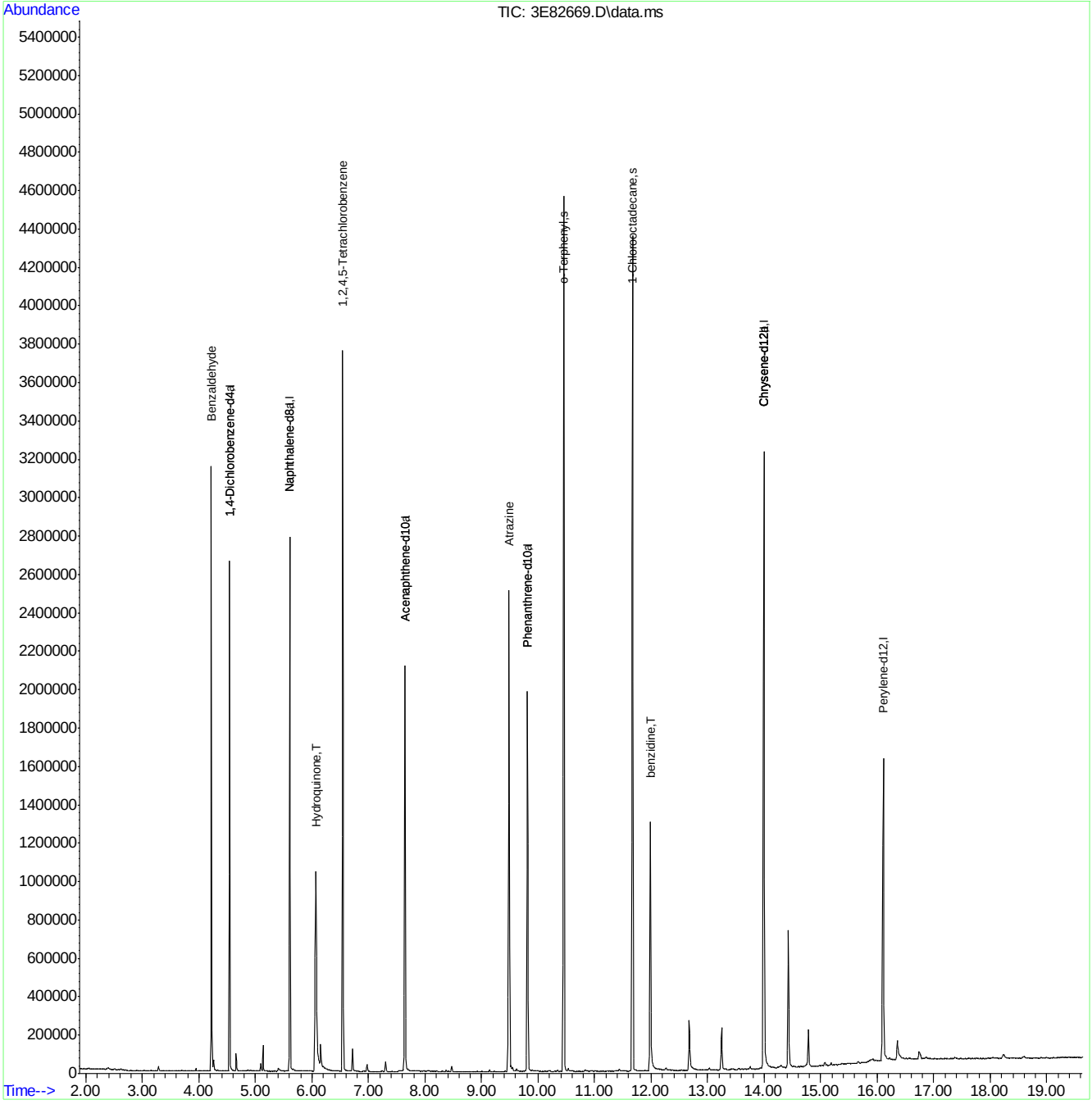
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82669.D
Acq On : 26 Apr 2016 1:34 pm
Operator : ashleyn
Sample : ic3621-100
Misc : op93161,e3e3621
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 27 08:57:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MTue Apr 26 13:56:22 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration



M3E3620.M Wed Apr 27 08:57:48 2016 MS3E Page: 2

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82670.D
Acq On : 26 Apr 2016 2:00 pm
Operator : ashleyn
Sample : ic3621-80
Misc : op93161,e3e3621
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 27 08:58:09 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	276746	40.00	ppm	0.00
24) Naphthalene-d8	5.609	136	1122369	40.00	ppm	0.00
47) Acenaphthene-d10	7.642	164	498619	40.00	ppm	0.00
69) Phenanthrene-d10	9.813	188	838282	40.00	ppm	0.00
83) Chrysene-d12	13.991	240	789250	40.00	ppm	0.00
92) Perylene-d12	16.103	264	723819	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	276746	40.00	ppm	0.00
104) Acenaphthene-d10a	7.642	164	498619	40.00	ppm	0.00
106) Phenanthrene-d10a	9.813	188	838282	40.00	ppm	0.00
110) Chrysene-d12a	13.991	240	789250	40.00	ppm	0.00
112) Naphthalene-d8a	5.609	136	1122369	40.00	ppm	0.00
114) Chrysene-d12b	13.991	240	789250	40.00	ppm	0.00

System Monitoring Compounds

5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) o-Terphenyl	10.455	230	837120	82.28	ppm	0.00
Spiked Amount 50.000			Recovery = 164.56%			
109) 1-Chlorooctadecane	11.669	57	538274	82.13	ppm	0.00
Spiked Amount 50.000			Recovery = 164.26%			

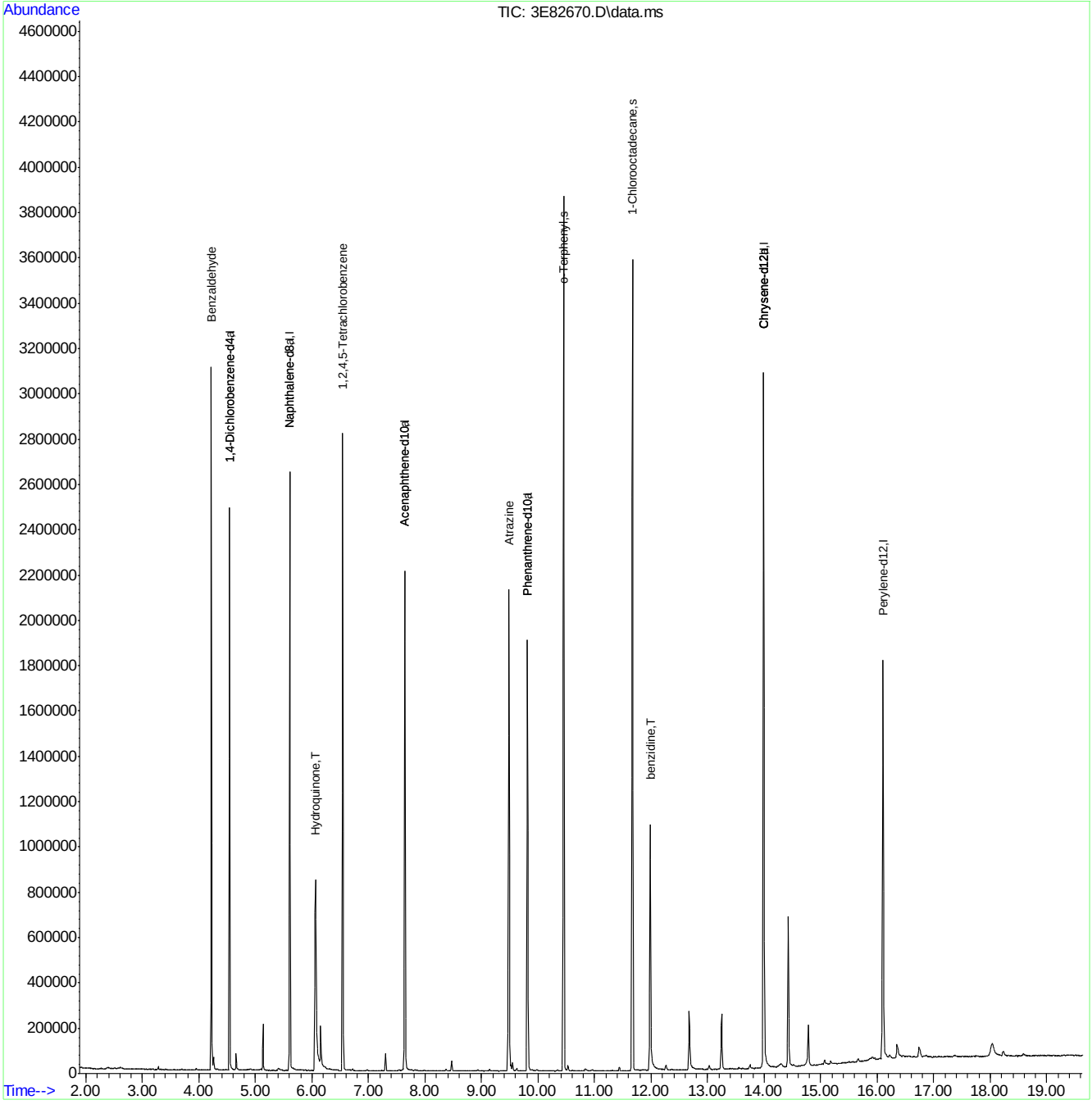
Target Compounds						Qvalue
103) Benzaldehyde	4.219	105	441377	96.52	ppm	93
105) 1,2,4,5-Tetrachloroben...	6.545	216	485916	80.12	ppm	99
107) Atrazine	9.487	215	168112	82.62	ppm	89
111) benzidine	11.985	184	537199	77.51	ppm	99
113) Hydroquinone	6.059	110	665047	84.42	ppm	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82670.D
Acq On : 26 Apr 2016 2:00 pm
Operator : ashleyn
Sample : ic3621-80
Misc : op93161,e3e3621
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 27 08:58:09 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82671.D
Acq On : 26 Apr 2016 2:26 pm
Operator : ashleyn
Sample : icc3621-50
Misc : op93161,e3e3621
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 27 08:58:47 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	279549	40.00 ppm	0.00
24) Naphthalene-d8	5.610	136	1138547	40.00 ppm	0.00
47) Acenaphthene-d10	7.642	164	515041	40.00 ppm	0.00
69) Phenanthrene-d10	9.808	188	889382	40.00 ppm	0.00
83) Chrysene-d12	13.991	240	844557	40.00 ppm	0.00
92) Perylene-d12	16.104	264	792881	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	279549	40.00 ppm	0.00
104) Acenaphthene-d10a	7.642	164	515041	40.00 ppm	0.00
106) Phenanthrene-d10a	9.808	188	889382	40.00 ppm	0.00
110) Chrysene-d12a	13.991	240	844557	40.00 ppm	0.00
112) Naphthalene-d8a	5.610	136	1138547	40.00 ppm	0.00
114) Chrysene-d12b	13.991	240	844557	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) o-Terphenyl	10.455	230	548454	50.81 ppm	0.00
Spiked Amount 50.000			Recovery	= 101.62%	
109) 1-Chlorooctadecane	11.670	57	363504	52.27 ppm	0.00
Spiked Amount 50.000			Recovery	= 104.54%	

Target Compounds					Qvalue
103) Benzaldehyde	4.219	105	353989	76.64 ppm	95
105) 1,2,4,5-Tetrachloroben...	6.540	216	310522	49.57 ppm	99
107) Atrazine	9.482	215	112114	51.93 ppm	90
111) benzidine	11.985	184	456367	61.54 ppm	99
113) Hydroquinone	6.059	110	432342	54.10 ppm	95

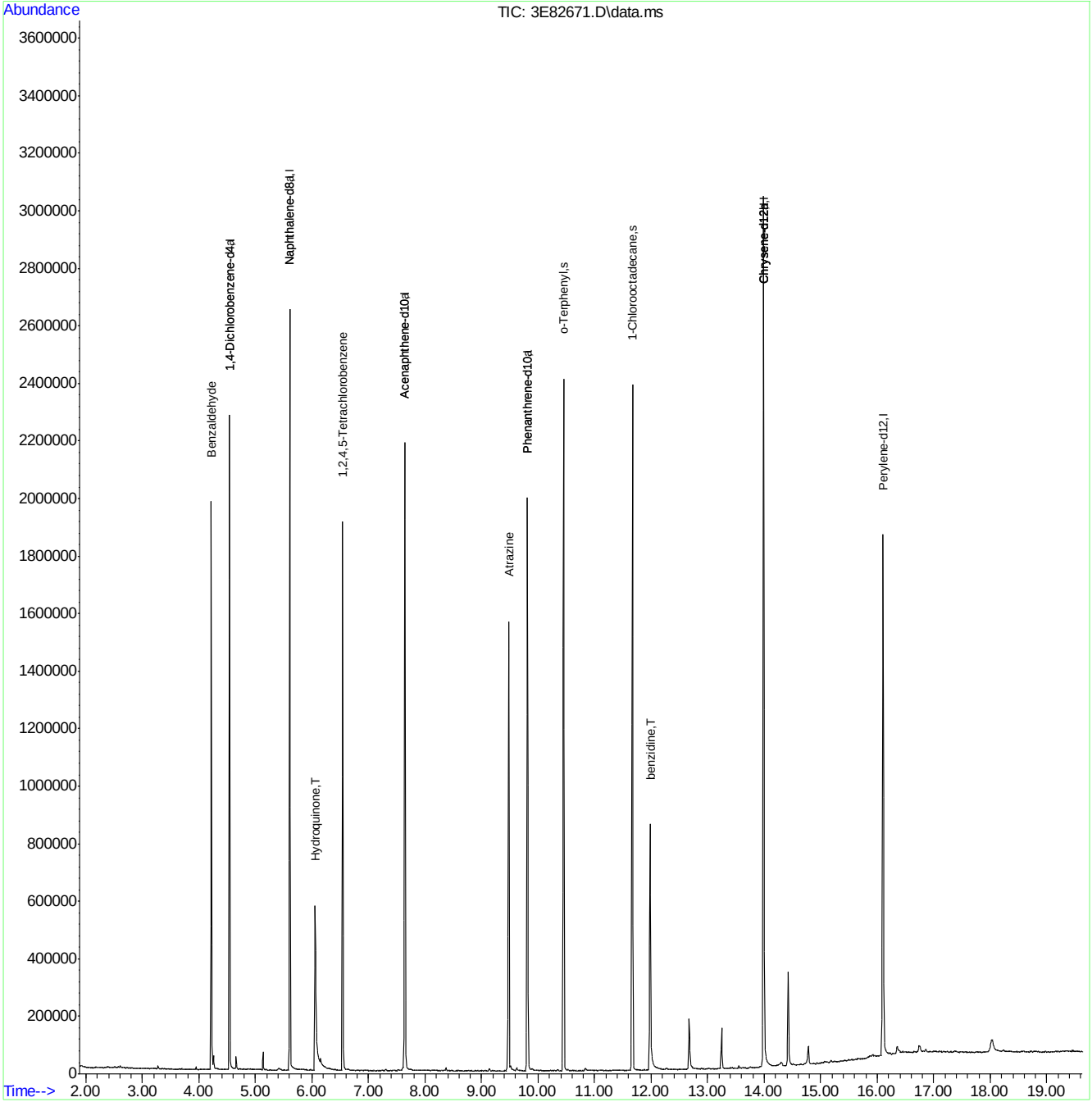
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82671.D
Acq On : 26 Apr 2016 2:26 pm
Operator : ashleyn
Sample : icc3621-50
Misc : op93161,e3e3621
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 27 08:58:47 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration



M3E3620.M Wed Apr 27 08:59:02 2016 MS3E Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82672.D
Acq On : 26 Apr 2016 2:52 pm
Operator : ashleyn
Sample : ic3621-25
Misc : op93161,e3e3621
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 27 08:59:26 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	289158	40.00 ppm	0.00
24) Naphthalene-d8	5.609	136	1182384	40.00 ppm	0.00
47) Acenaphthene-d10	7.642	164	550622	40.00 ppm	0.00
69) Phenanthrene-d10	9.813	188	955625	40.00 ppm	0.00
83) Chrysene-d12	13.991	240	905392	40.00 ppm	0.00
92) Perylene-d12	16.103	264	861303	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	289158	40.00 ppm	0.00
104) Acenaphthene-d10a	7.642	164	550622	40.00 ppm	0.00
106) Phenanthrene-d10a	9.813	188	955625	40.00 ppm	0.00
110) Chrysene-d12a	13.991	240	905392	40.00 ppm	0.00
112) Naphthalene-d8a	5.609	136	1182384	40.00 ppm	0.00
114) Chrysene-d12b	13.991	240	905392	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) o-Terphenyl	10.450	230	294432	25.39 ppm	-0.01
Spiked Amount 50.000			Recovery	= 50.78%	
109) 1-Chlorooctadecane	11.664	57	193082	25.84 ppm	0.00
Spiked Amount 50.000			Recovery	= 51.68%	

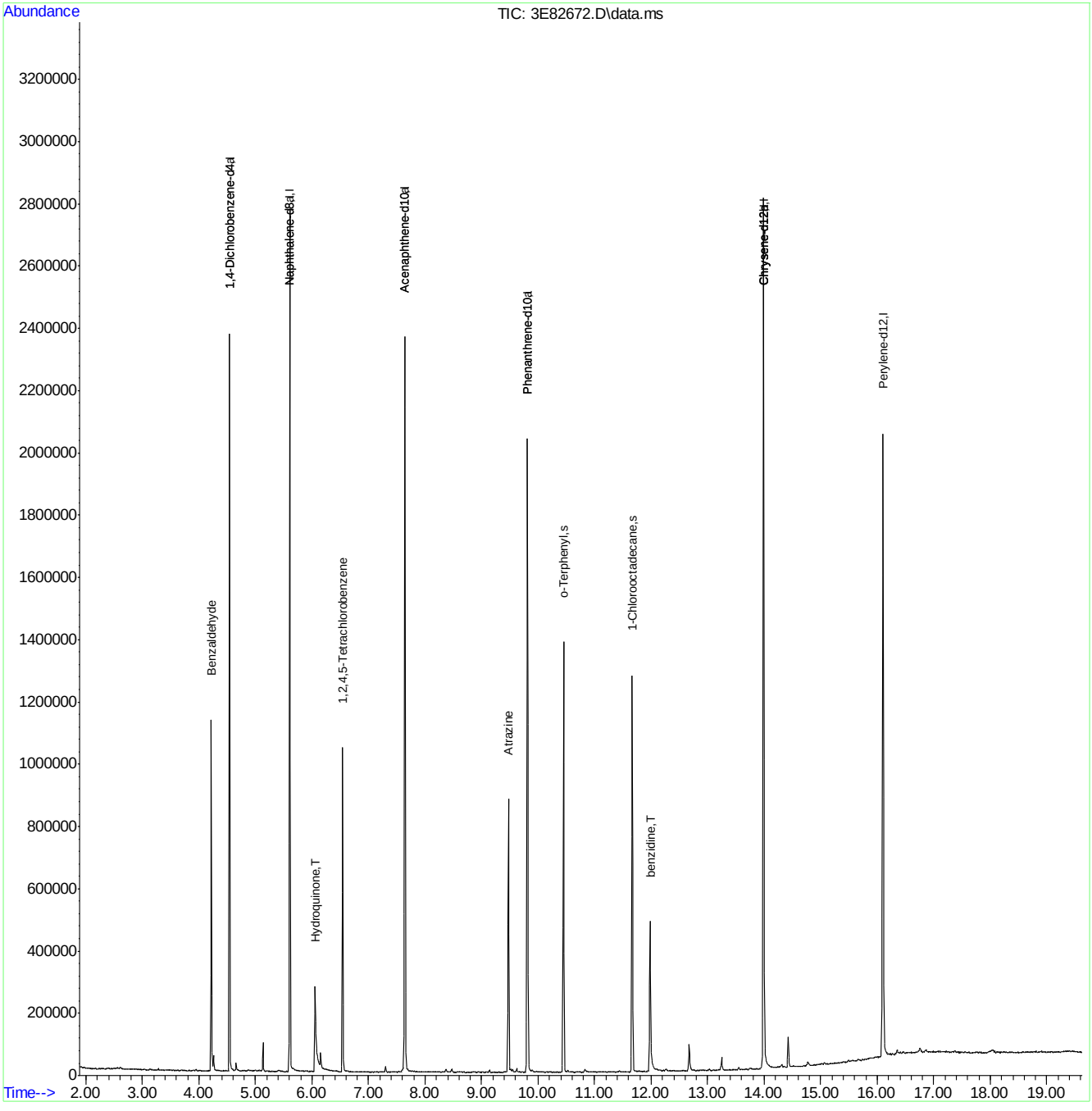
Target Compounds					Qvalue
103) Benzaldehyde	4.213	105	194301	40.67 ppm	89
105) 1,2,4,5-Tetrachloroben...	6.540	216	162939	24.33 ppm	99
107) Atrazine	9.476	215	59482	25.64 ppm	89
111) benzidine	11.985	184	282179	35.49 ppm	99
113) Hydroquinone	6.053	110	217445	26.20 ppm	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82672.D
Acq On : 26 Apr 2016 2:52 pm
Operator : ashleyn
Sample : ic3621-25
Misc : op93161,e3e3621
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 27 08:59:26 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration



M3E3620.M Wed Apr 27 08:59:44 2016 MS3E Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82673.D
Acq On : 26 Apr 2016 3:19 pm
Operator : ashleyn
Sample : ic3621-10
Misc : op93161,e3e3621
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 27 09:02:19 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	300576	40.00 ppm	0.00
24) Naphthalene-d8	5.609	136	1222647	40.00 ppm	0.00
47) Acenaphthene-d10	7.642	164	571099	40.00 ppm	0.00
69) Phenanthrene-d10	9.808	188	991077	40.00 ppm	0.00
83) Chrysene-d12	13.991	240	931960	40.00 ppm	0.00
92) Perylene-d12	16.103	264	892438	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	300576	40.00 ppm	0.00
104) Acenaphthene-d10a	7.642	164	571099	40.00 ppm	0.00
106) Phenanthrene-d10a	9.808	188	991077	40.00 ppm	0.00
110) Chrysene-d12a	13.991	240	931960	40.00 ppm	0.00
112) Naphthalene-d8a	5.609	136	1222647	40.00 ppm	0.00
114) Chrysene-d12b	13.991	240	931960	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) o-Terphenyl	10.450	230	122328	10.17 ppm	-0.01
Spiked Amount 50.000			Recovery	= 20.34%	
109) 1-Chlorooctadecane	11.664	57	78105	10.08 ppm	0.00
Spiked Amount 50.000			Recovery	= 20.16%	

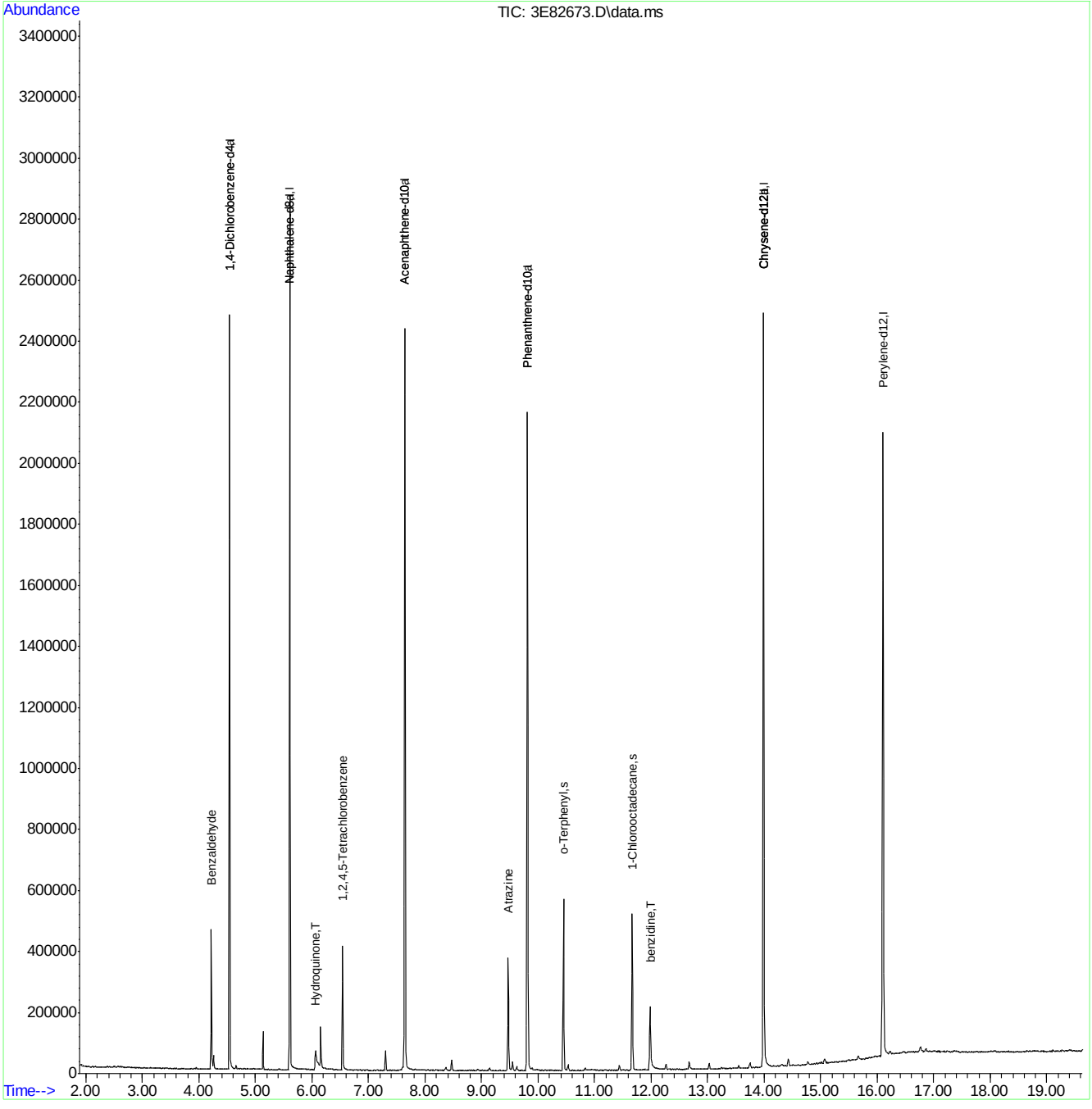
Target Compounds					Qvalue
103) Benzaldehyde	4.213	105	82240	16.56 ppm	89
105) 1,2,4,5-Tetrachloroben...	6.540	216	67129	9.66 ppm	99
107) Atrazine	9.471	215	24114	10.02 ppm	87
111) benzidine	11.985	184	127420	15.57 ppm	98
113) Hydroquinone	6.064	110	77949	9.08 ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82673.D
Acq On : 26 Apr 2016 3:19 pm
Operator : ashleyn
Sample : ic3621-10
Misc : op93161,e3e3621
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 27 09:02:19 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82674.D
Acq On : 26 Apr 2016 3:45 pm
Operator : ashleyn
Sample : ic3621-5
Misc : op93161,e3e3621
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 27 09:03:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	301145	40.00 ppm	0.00
24) Naphthalene-d8	5.609	136	1224906	40.00 ppm	0.00
47) Acenaphthene-d10	7.642	164	555436	40.00 ppm	0.00
69) Phenanthrene-d10	9.808	188	963977	40.00 ppm	0.00
83) Chrysene-d12	13.991	240	904104	40.00 ppm	0.00
92) Perylene-d12	16.104	264	874004	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	301145	40.00 ppm	0.00
104) Acenaphthene-d10a	7.642	164	555436	40.00 ppm	0.00
106) Phenanthrene-d10a	9.808	188	963977	40.00 ppm	0.00
110) Chrysene-d12a	13.991	240	904104	40.00 ppm	0.00
112) Naphthalene-d8a	5.609	136	1224906	40.00 ppm	0.00
114) Chrysene-d12b	13.991	240	904104	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) o-Terphenyl	10.450	230	65450	5.59 ppm	-0.01
Spiked Amount 50.000			Recovery	= 11.18%	
109) 1-Chlorooctadecane	11.664	57	42102	5.59 ppm	0.00
Spiked Amount 50.000			Recovery	= 11.18%	

Target Compounds					Qvalue
103) Benzaldehyde	4.213	105	44956	9.03 ppm	90
105) 1,2,4,5-Tetrachloroben...	6.540	216	37172	5.50 ppm	97
107) Atrazine	9.471	215	13195	5.64 ppm	92
111) benzidine	11.985	184	73196	9.22 ppm	99
113) Hydroquinone	6.075	110	33695	3.92 ppm	89

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

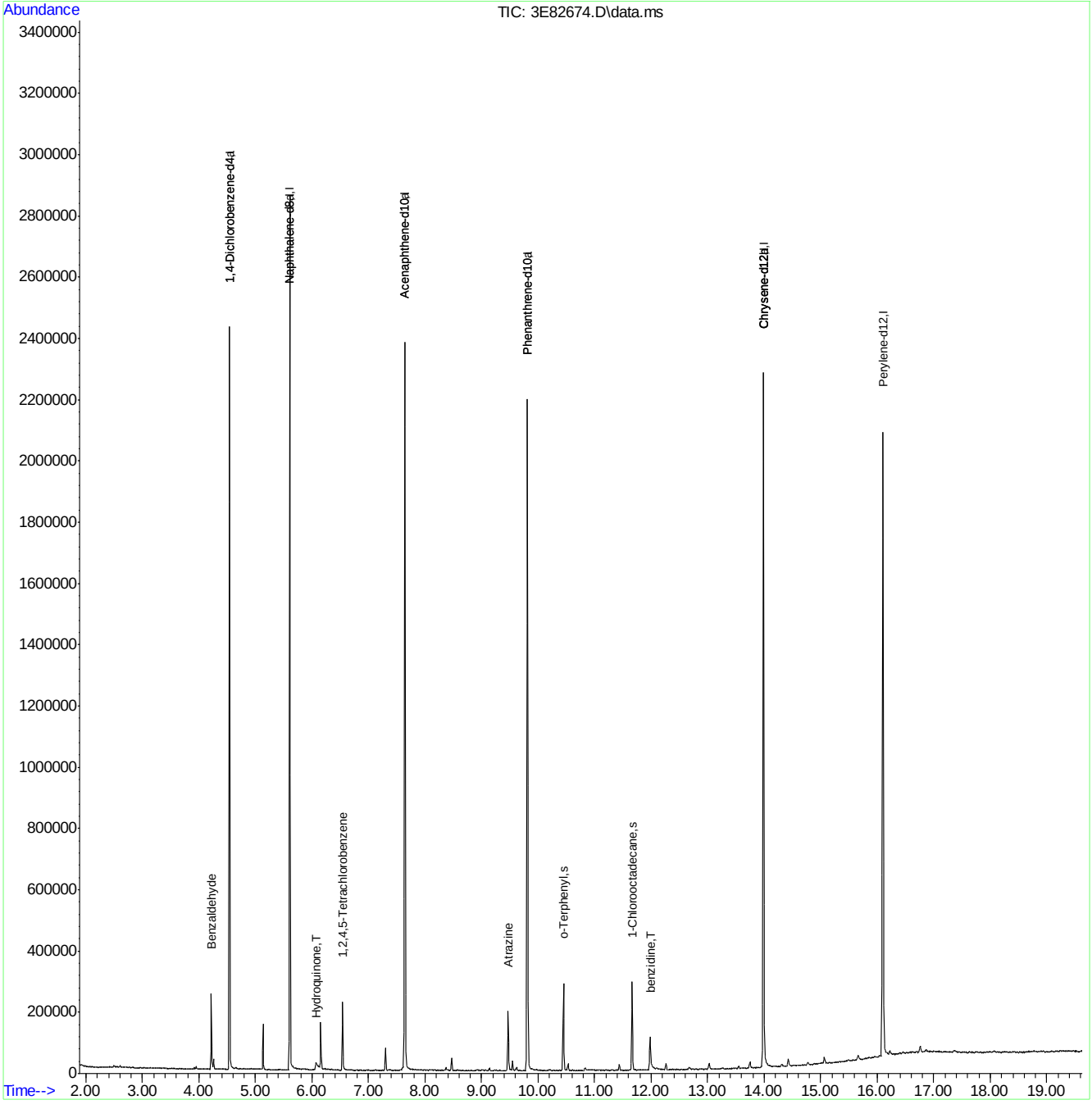
7.6.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82674.D
Acq On : 26 Apr 2016 3:45 pm
Operator : ashleyn
Sample : ic3621-5
Misc : op93161,e3e3621
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 27 09:03:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration



M3E3620.M Wed Apr 27 09:03:29 2016 MS3E Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82675.D
Acq On : 26 Apr 2016 4:11 pm
Operator : ashleyn
Sample : ic3621-2
Misc : op93161,e3e3621
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 27 09:03:56 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	331626	40.00	ppm	0.00
24) Naphthalene-d8	5.609	136	1335111	40.00	ppm	0.00
47) Acenaphthene-d10	7.642	164	615642	40.00	ppm	0.00
69) Phenanthrene-d10	9.808	188	1052251	40.00	ppm	0.00
83) Chrysene-d12	13.991	240	996379	40.00	ppm	0.00
92) Perylene-d12	16.104	264	959913	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	331626	40.00	ppm	0.00
104) Acenaphthene-d10a	7.642	164	615642	40.00	ppm	0.00
106) Phenanthrene-d10a	9.808	188	1052251	40.00	ppm	0.00
110) Chrysene-d12a	13.991	240	996379	40.00	ppm	0.00
112) Naphthalene-d8a	5.609	136	1335111	40.00	ppm	0.00
114) Chrysene-d12b	13.991	240	996379	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) o-Terphenyl	10.450	230	29133	2.28	ppm	-0.01
Spiked Amount 50.000			Recovery	=	4.56%	
109) 1-Chlorooctadecane	11.664	57	17607	2.14	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.28%	

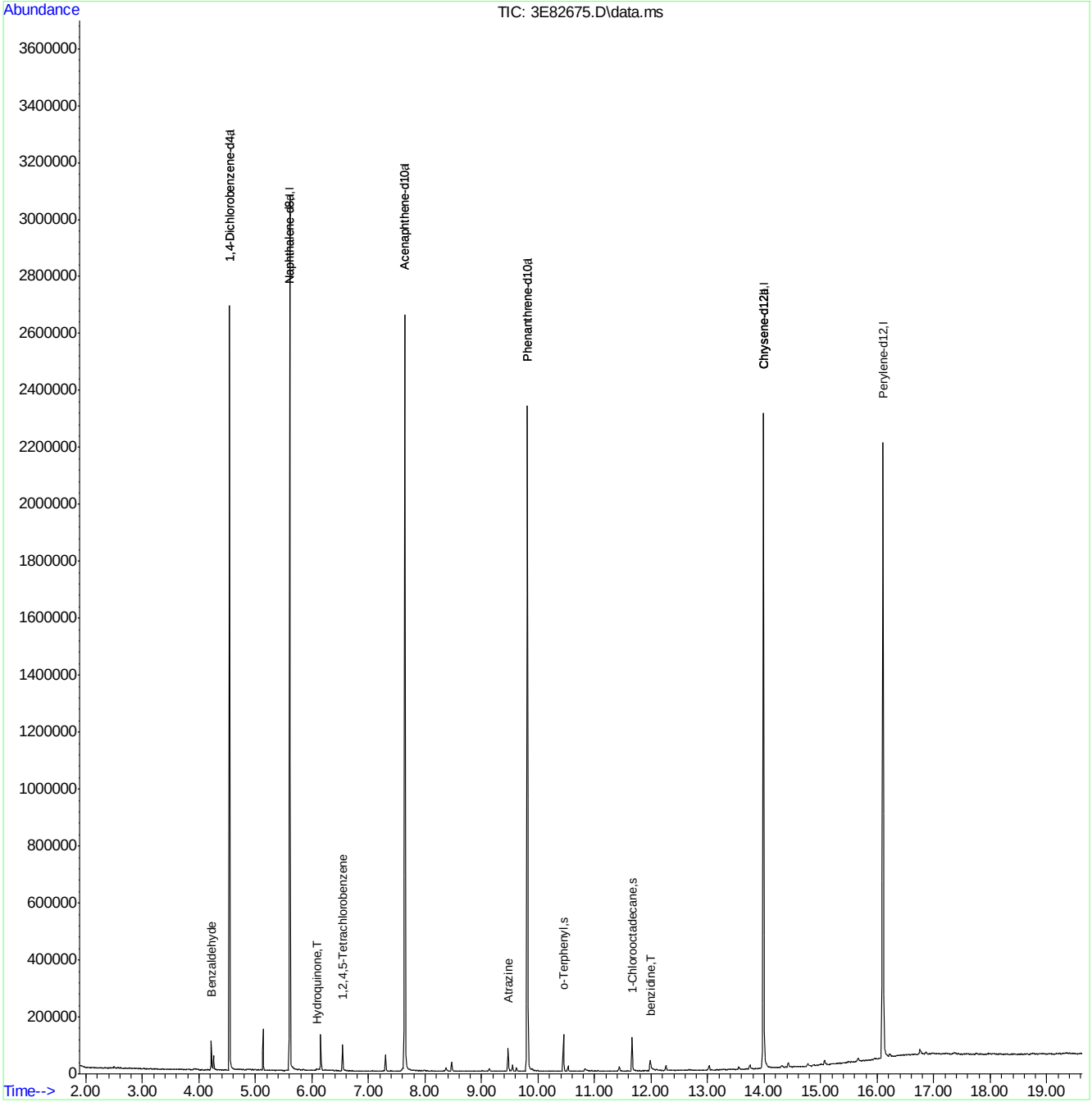
Target Compounds							Qvalue
103) Benzaldehyde	4.219	105	19710	3.60	ppm		98
105) 1,2,4,5-Tetrachloroben...	6.540	216	15678	2.09	ppm		94
107) Atrazine	9.466	215	5556	2.18	ppm	#	74
111) benzidine	11.985	184	27592	3.15	ppm		97
113) Hydroquinone	6.096	110	10721	1.14	ppm		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82675.D
Acq On : 26 Apr 2016 4:11 pm
Operator : ashleyn
Sample : ic3621-2
Misc : op93161,e3e3621
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 27 09:03:56 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82676.D
Acq On : 26 Apr 2016 4:37 pm
Operator : ashleyn
Sample : ic3621-1
Misc : op93161,e3e3621
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 27 09:05:00 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	312469	40.00	ppm	0.00
24) Naphthalene-d8	5.610	136	1296183	40.00	ppm	0.00
47) Acenaphthene-d10	7.642	164	591540	40.00	ppm	0.00
69) Phenanthrene-d10	9.808	188	1016668	40.00	ppm	0.00
83) Chrysene-d12	13.991	240	954506	40.00	ppm	0.00
92) Perylene-d12	16.104	264	923822	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	312469	40.00	ppm	0.00
104) Acenaphthene-d10a	7.642	164	591540	40.00	ppm	0.00
106) Phenanthrene-d10a	9.808	188	1016668	40.00	ppm	0.00
110) Chrysene-d12a	13.991	240	954506	40.00	ppm	0.00
112) Naphthalene-d8a	5.610	136	1296183	40.00	ppm	0.00
114) Chrysene-d12b	13.991	240	954506	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) o-Terphenyl	10.450	230	14269	1.16	ppm	-0.01
Spiked Amount 50.000			Recovery	=	2.32%	
109) 1-Chlorooctadecane	11.664	57	8949	1.13	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.26%	

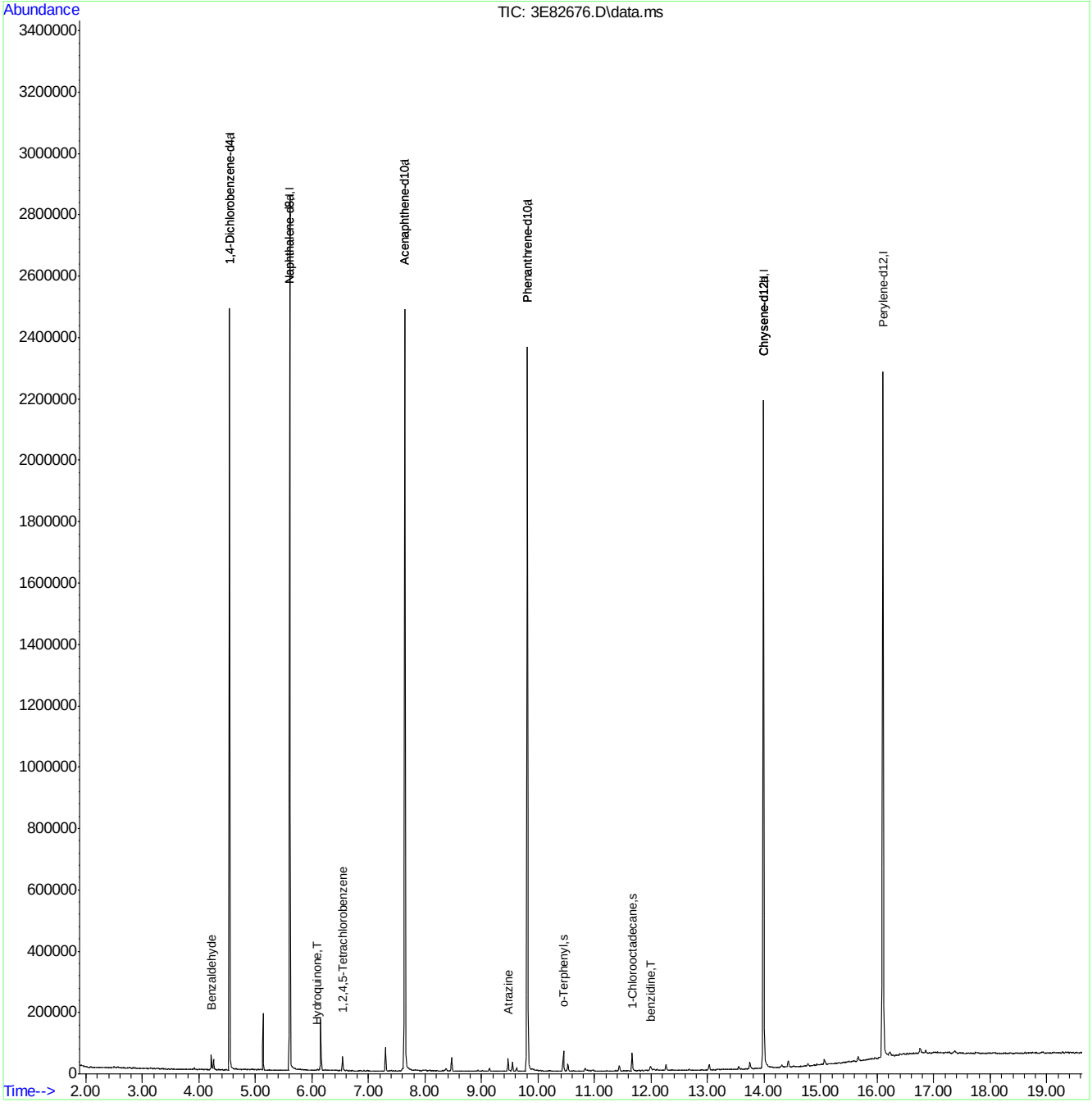
Target Compounds						Qvalue
103) Benzaldehyde	4.219	105	9583	1.86	ppm	94
105) 1,2,4,5-Tetrachloroben...	6.540	216	7654	1.06	ppm	96
107) Atrazine	9.471	215	2648	1.07	ppm	94
111) benzidine	11.990	184	10184	1.22	ppm	92
113) Hydroquinone	6.096	110	3163	0.35	ppm	90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82676.D
Acq On : 26 Apr 2016 4:37 pm
Operator : ashleyn
Sample : ic3621-1
Misc : op93161,e3e3621
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 27 09:05:00 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 08:57:10 2016
QLast Update : Wed Apr 27 08:57:10 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82680a.D
Acq On : 26 Apr 2016 6:22 pm
Operator : ashleyn
Sample : icv3621-50
Misc : op93161,e3e3621
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 27 12:20:52 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 09:55:50 2016
QLast Update : Wed Apr 27 09:55:50 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	304548	40.00 ppm	0.00
24) Naphthalene-d8	5.609	136	1158365	40.00 ppm	0.00
47) Acenaphthene-d10	7.642	164	563604	40.00 ppm	0.00
69) Phenanthrene-d10	9.808	188	793159	40.00 ppm	-0.01
83) Chrysene-d12	13.991	240	660980	40.00 ppm	-0.02
92) Perylene-d12	16.103	264	462613	40.00 ppm	-0.01
102) 1,4-Dichlorobenzene-d4a	4.540	152	304548	40.00 ppm	0.00
104) Acenaphthene-d10a	7.642	164	563604	40.00 ppm	0.00
106) Phenanthrene-d10a	9.808	188	793159	40.00 ppm	0.00
110) Chrysene-d12a	13.991	240	660980	40.00 ppm	0.00
112) Naphthalene-d8a	5.609	136	1158365	40.00 ppm	0.00
114) Chrysene-d12b	13.991	240	660980	40.00 ppm	0.00

System Monitoring Compounds

5) 2-Fluorophenol	0.000	112	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
25) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
51) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
108) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
109) 1-Chlorooctadecane	0.000	57	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
105) 1,2,4,5-Tetrachloroben...	6.540	216	348310	49.91 ppm	99

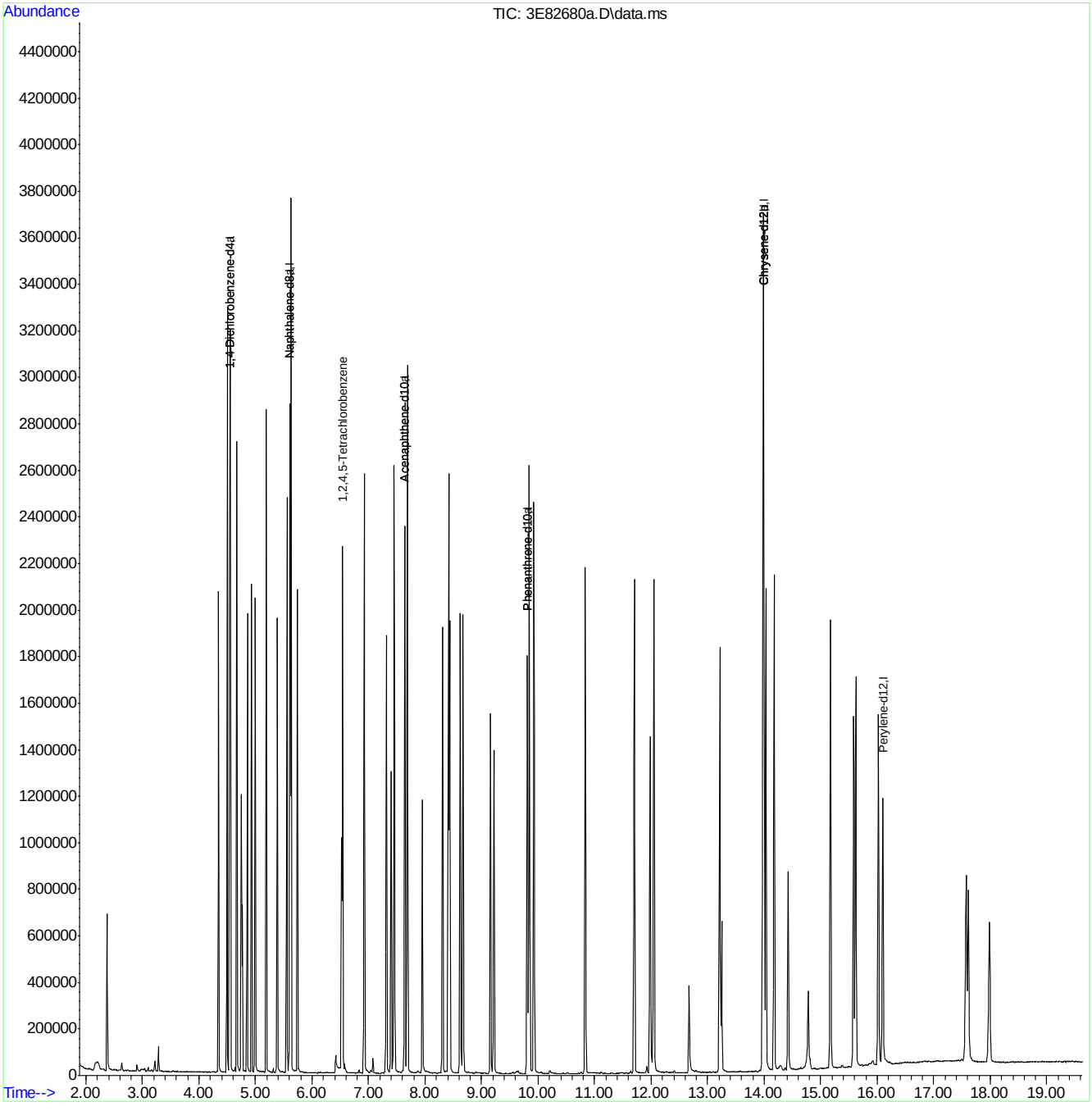
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82680a.D
Acq On : 26 Apr 2016 6:22 pm
Operator : ashleyn
Sample : icv3621-50
Misc : op93161,e3e3621
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 27 12:20:52 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 09:55:50 2016
QLast Update : Wed Apr 27 09:55:50 2016
Response via : Initial Calibration



M3E3620.M Wed Apr 27 12:20:56 2016 MS3E Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82681a.D
Acq On : 26 Apr 2016 6:48 pm
Operator : ashleyn
Sample : icv3621-50
Misc : op93161,e3e3621
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 28 11:07:37 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:56:37 2016
QLast Update : Thu Apr 28 10:56:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	299771	40.00 ppm	0.00
24) Naphthalene-d8	5.604	136	1144167	40.00 ppm	0.00
47) Acenaphthene-d10	7.642	164	561548	40.00 ppm	0.00
69) Phenanthrene-d10	9.808	188	813751	40.00 ppm	0.00
83) Chrysene-d12	13.985	240	661947	40.00 ppm	0.00
92) Perylene-d12	16.098	264	508019	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.540	152	299771	40.00 ppm	0.00
104) Acenaphthene-d10a	7.642	164	561548	40.00 ppm	0.00
106) Phenanthrene-d10a	9.808	188	813751	40.00 ppm	0.00
110) Chrysene-d12a	13.985	240	661947	40.00 ppm	0.00
112) Naphthalene-d8a	5.604	136	1144167	40.00 ppm	0.00
114) Chrysene-d12b	13.985	240	661947	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	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
108) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
109) 1-Chlorooctadecane	0.000	57	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
103) Benzaldehyde	4.219	105	427003	52.55 ppm	96
107) Atrazine	9.476	215	102078	49.29 ppm	93

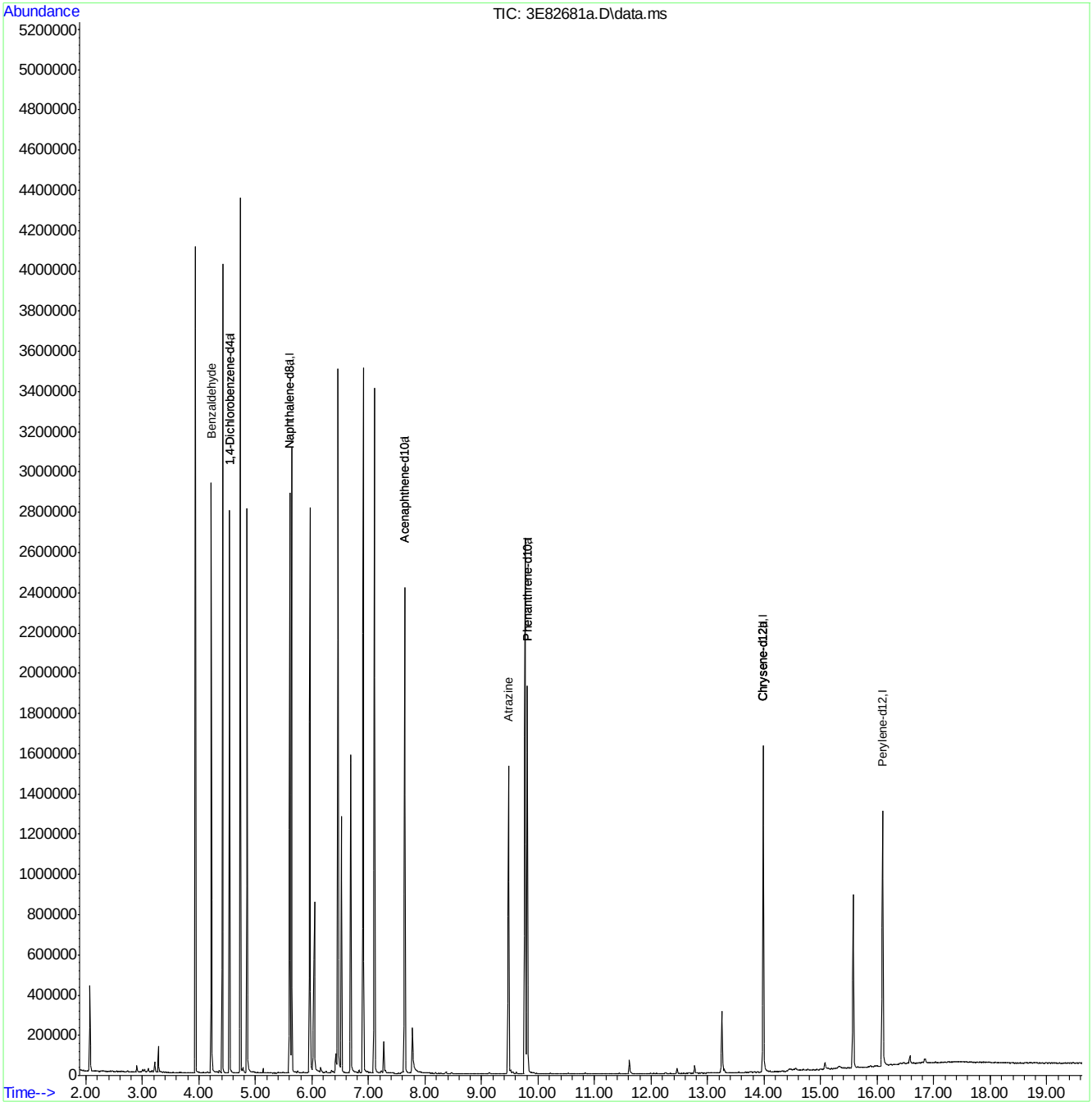
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82681a.D
Acq On : 26 Apr 2016 6:48 pm
Operator : ashleyn
Sample : icv3621-50
Misc : op93161,e3e3621
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 28 11:07:37 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:56:37 2016
QLast Update : Thu Apr 28 10:56:37 2016
Response via : Initial Calibration



M3E3623.M Thu Apr 28 11:11:41 2016 MS3E

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82683.D
Acq On : 26 Apr 2016 7:40 pm
Operator : ashleyn
Sample : icv3621-50
Misc : op93161,e3e3621
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 27 10:28:03 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 09:55:50 2016
QLast Update : Wed Apr 27 09:55:50 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.540	152	253204	40.00	ppm	0.00
24) Naphthalene-d8	5.604	136	1011973	40.00	ppm	-0.01
47) Acenaphthene-d10	7.642	164	522155	40.00	ppm	0.00
69) Phenanthrene-d10	9.808	188	796180	40.00	ppm	-0.01
83) Chrysene-d12	13.986	240	700682	40.00	ppm	-0.02
92) Perylene-d12	16.098	264	645641	40.00	ppm	-0.02
102) 1,4-Dichlorobenzene-d4a	4.540	152	253204	40.00	ppm	0.00
104) Acenaphthene-d10a	7.642	164	522155	40.00	ppm	0.00
106) Phenanthrene-d10a	9.808	188	796180	40.00	ppm	0.00
110) Chrysene-d12a	13.986	240	700682	40.00	ppm	0.00
112) Naphthalene-d8a	5.604	136	1011973	40.00	ppm	0.00
114) Chrysene-d12b	13.986	240	700682	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	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

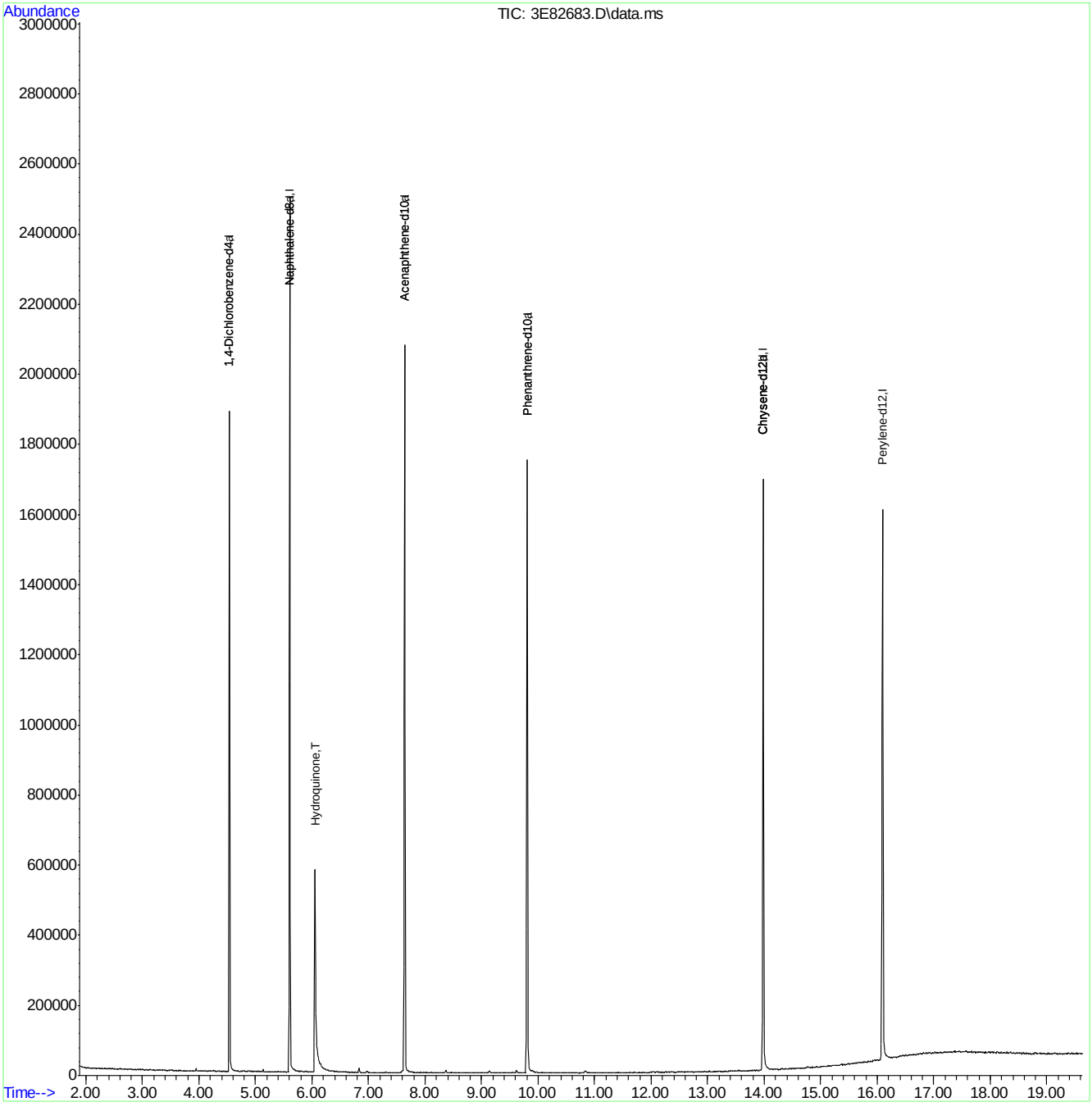
Target Compounds						Qvalue
113) Hydroquinone	6.053	110	402910	57.91	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3621\
Data File : 3E82683.D
Acq On : 26 Apr 2016 7:40 pm
Operator : ashleyn
Sample : icv3621-50
Misc : op93161,e3e3621
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 27 10:28:03 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 09:55:50 2016
QLast Update : Wed Apr 27 09:55:50 2016
Response via : Initial Calibration



M3E3620.M Wed Apr 27 10:28:07 2016 MS3E

Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3622\
Data File : 3E82685a.D
Acq On : 27 Apr 2016 11:46 am
Operator : ashleyn
Sample : icv3621-50
Misc : op93161,e3e3622
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 27 12:23:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 12:17:28 2016
QLast Update : Wed Apr 27 12:17:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	256439	40.00 ppm	0.00
24) Naphthalene-d8	5.604	136	1011433	40.00 ppm	-0.01
47) Acenaphthene-d10	7.637	164	544154	40.00 ppm	-0.01
69) Phenanthrene-d10	9.803	188	870586	40.00 ppm	-0.02
83) Chrysene-d12	13.985	240	834701	40.00 ppm	-0.02
92) Perylene-d12	16.098	264	794617	40.00 ppm	-0.02
102) 1,4-Dichlorobenzene-d4a	4.534	152	256439	40.00 ppm	0.00
104) Acenaphthene-d10a	7.637	164	544154	40.00 ppm	0.00
106) Phenanthrene-d10a	9.803	188	870586	40.00 ppm	0.00
110) Chrysene-d12a	13.985	240	834701	40.00 ppm	0.00
112) Naphthalene-d8a	5.604	136	1011433	40.00 ppm	0.00
114) Chrysene-d12b	13.985	240	834701	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%
108) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
109) 1-Chlorooctadecane	0.000	57	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
111) benzidine	11.980	184	860560	83.76 ppm	99

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

7.6.12

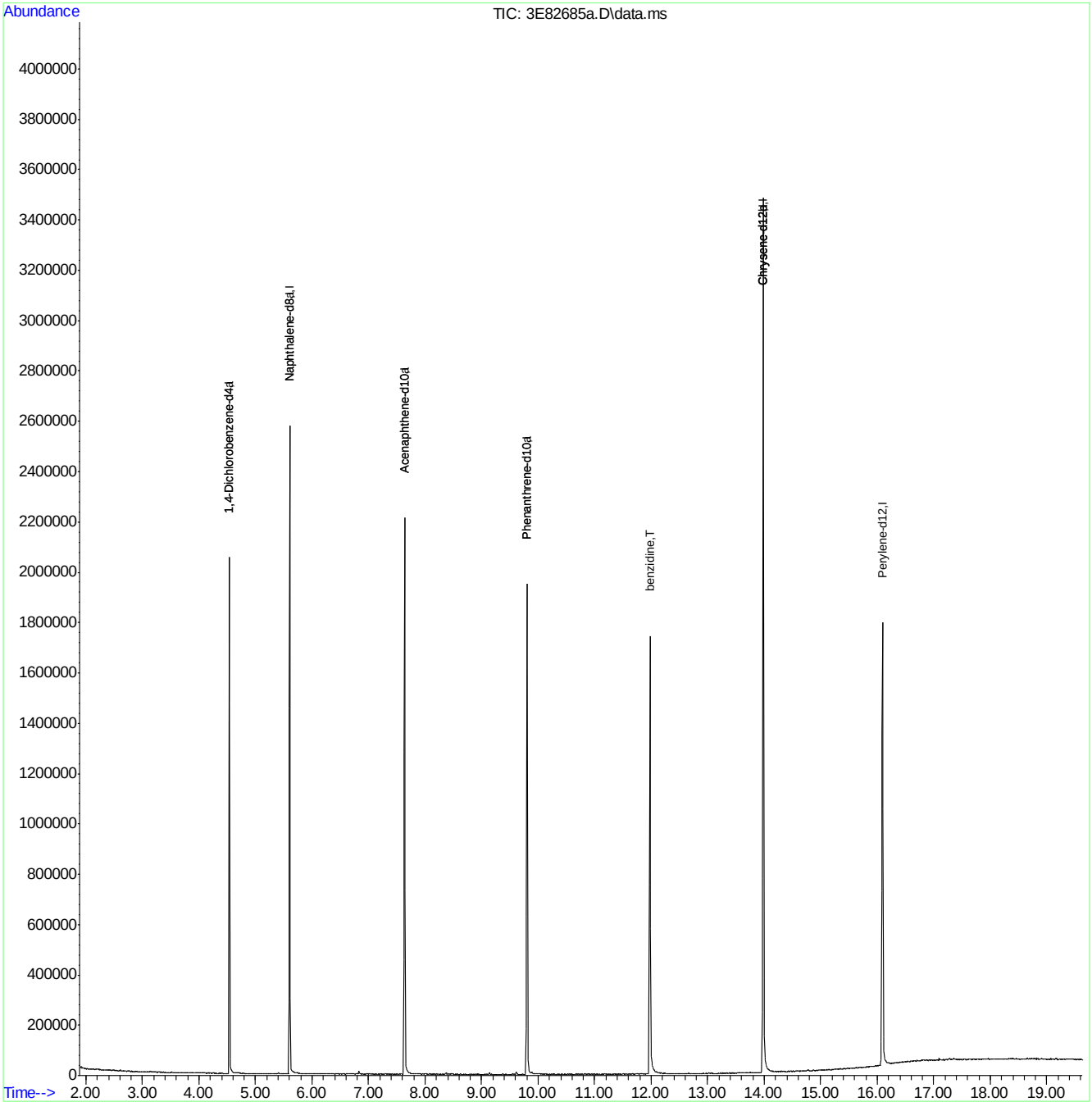
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3622\
Data File : 3E82685a.D
Acq On : 27 Apr 2016 11:46 am
Operator : ashleyn
Sample : icv3621-50
Misc : op93161,e3e3622
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 27 12:23:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3620.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Apr 27 12:17:28 2016
QLast Update : Wed Apr 27 12:17:28 2016
Response via : Initial Calibration



M3E3620.M Wed Apr 27 12:23:19 2016 MS3E Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82702.D
Acq On : 27 Apr 2016 4:10 pm
Operator : ashleyn
Sample : ic3623-2
Misc : op93161,e3e3623
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 28 09:27:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:26:28 2016
QLast Update : Thu Apr 28 09:26:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	206049	40.00	ppm	0.00
24) Naphthalene-d8	5.599	136	821359	40.00	ppm	0.00
47) Acenaphthene-d10	7.631	164	482237	40.00	ppm	0.00
69) Phenanthrene-d10	9.797	188	822977	40.00	ppm	0.00
83) Chrysene-d12	13.980	240	884956	40.00	ppm	0.00
92) Perylene-d12	16.093	264	857499	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	206049	40.00	ppm	0.00
104) Acenaphthene-d10a	7.631	164	482237	40.00	ppm	0.00
106) Phenanthrene-d10a	9.797	188	822977	40.00	ppm	0.00
110) Chrysene-d12a	13.980	240	884956	40.00	ppm	0.00
112) Naphthalene-d8a	5.599	136	821359	40.00	ppm	0.00
114) Chrysene-d12b	13.980	240	884956	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.555	112	12451	1.95	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.90%	
8) Phenol-d5	4.288	99	16577	1.98	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.96%	
25) Nitrobenzene-d5	4.968	82	15328	1.86	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.72%	
51) 2-Fluorobiphenyl	6.775	172	32857	2.10	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.20%	
73) 2,4,6-Tribromophenol	8.765	330	5759	1.98	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.96%	
85) Terphenyl-d14	12.359	244	38311	2.10	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.20%	
108) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds							Qvalue
2) 1,4-Dioxane	2.036	88	4018	2.27	ppm		84
3) Pyridine	2.395	79	8899	1.62	ppm		76
4) N-Nitrosodimethylamine	2.347	74	5793	1.89	ppm		98
6) Indene	4.727	116	25007	2.04	ppm		97
7) Cumene	3.925	105	37323	2.11	ppm		98
9) Phenol	4.299	94	18280	2.01	ppm		88
10) Aniline	4.294	93	20793	1.98	ppm		95
11) bis(2-Chloroethyl)ether	4.342	93	13366	2.23	ppm		90
12) 2-Chlorophenol	4.385	128	15653	2.12	ppm		92
13) Decane	4.406	43	15954	2.05	ppm		95
14) 1,3-Dichlorobenzene	4.486	146	16317	2.03	ppm		95
15) 1,4-Dichlorobenzene	4.545	146	18272	2.21	ppm		99
16) Benzyl alcohol	4.647	108	9099	1.97	ppm		92
17) 1,2-Dichlorobenzene	4.657	146	16032	2.10	ppm		100
18) Acetophenone	4.845	105	21144	2.10	ppm		93
19) 2-Methylphenol	4.743	108	13485	2.17	ppm		94
20) 2,2'-oxybis(1-Chloropr...	4.743	121	5290	2.11	ppm	#	89
21) 3&4-Methylphenol	4.866	108	13346	2.02	ppm		94

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82702.D
Acq On : 27 Apr 2016 4:10 pm
Operator : ashleyn
Sample : ic3623-2
Misc : op93161,e3e3623
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 28 09:27:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:26:28 2016
QLast Update : Thu Apr 28 09:26:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.845	70	10818	2.01	ppm		87
23) Hexachloroethane	4.925	201	5855	2.23	ppm		89
26) Nitrobenzene	4.984	77	16095	1.90	ppm		99
27) Quinoline	5.957	129	30197	2.16	ppm		96
28) Isophorone	5.181	82	27382	1.99	ppm		94
29) 2-Nitrophenol	5.256	139	8299	1.89	ppm		89
30) 2,4-Dimethylphenol	5.305	107	13806	1.83	ppm		96
31) Benzoic acid	5.395	105	7449	1.35	ppm		92
32) bis(2-Chloroethoxy)met...	5.379	93	15422	2.08	ppm		96
33) 2,4-Dichlorophenol	5.492	162	11616	1.95	ppm		95
34) 2,6-Dichlorophenol	5.690	162	12183	2.09	ppm		87
35) 1,3,5-Trichlorobenzene	5.262	180	14632	2.12	ppm		96
36) 1,2,4-Trichlorobenzene	5.545	180	13844	2.14	ppm		99
37) 1,2,3-Trichlorobenzene	5.759	180	13970	2.28	ppm		99
38) Naphthalene	5.620	128	47035	2.12	ppm		77
39) 4-Chloroaniline	5.684	127	19005	2.06	ppm		88
40) 2,3-Dichloroaniline	6.674	161	15237	2.13	ppm		95
41) Caprolactam	6.021	55	6224	2.05	ppm		92
42) Hexachlorobutadiene	5.732	225	8048	2.10	ppm		98
43) 4-Chloro-3-methylphenol	6.203	107	14172	2.17	ppm		95
44) 2-Methylnaphthalene	6.342	141	27103	2.13	ppm		98
45) 1-Methylnaphthalene	6.449	141	28290	2.15	ppm		98
46) Dimethylnaphthalene	7.091	156	26305	2.06	ppm		88
48) Hexachlorocyclopentadiene	6.513	237	8861	2.45	ppm		88
49) 2,4,6-Trichlorophenol	6.684	196	9249	2.11	ppm		99
50) 2,4,5-Trichlorophenol	6.743	196	10081	2.13	ppm		90
52) 2-Chloronaphthalene	6.914	162	28585	2.11	ppm		98
53) Biphenyl	6.893	154	37750	2.08	ppm		96
54) 2-Nitroaniline	7.059	65	9298	1.83	ppm		83
55) Dimethylphthalate	7.305	163	33317	2.11	ppm		99
56) Acenaphthylene	7.444	152	47371	2.11	ppm		95
57) 2,6-Dinitrotoluene	7.385	165	7057	1.95	ppm		94
58) 3-Nitroaniline	7.604	138	7759	1.94	ppm		99
59) Acenaphthene	7.674	153	30805	2.07	ppm		96
60) 2,4-Dinitrophenol	7.797	184	2116	1.32	ppm	#	22
61) 4-Nitrophenol	7.941	109	3636	1.41	ppm	#	15
62) Dibenzofuran	7.920	168	40844	2.10	ppm		85
63) 2,4-Dinitrotoluene	7.941	165	9346	1.86	ppm		70
64) 2,3,4,6-Tetrachlorophenol	8.113	232	7374	2.02	ppm		85
65) Diethylphthalate	8.294	149	33497	1.99	ppm		98
66) Fluorene	8.401	166	34647	2.12	ppm		97
67) 4-Chlorophenyl-phenyle...	8.428	204	16332	2.21	ppm		88
68) 4-Nitroaniline	8.466	138	7134	1.81	ppm		87
70) 4,6-Dinitro-2-methylph...	8.530	198	2737	1.00	ppm		89
71) n-Nitrosodiphenylamine	8.610	169	22797	1.98	ppm		98
72) 1,2-Diphenylhydrazine	8.658	77	33297	1.92	ppm		93
74) 4-Bromophenyl-phenylether	9.150	248	10156	2.14	ppm		91
75) Hexachlorobenzene	9.204	284	12344	2.18	ppm		96
76) Pentachlorophenol	9.541	266	9074	3.15	ppm		94
77) Phenanthrene	9.829	178	50812	2.18	ppm		97

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82702.D
Acq On : 27 Apr 2016 4:10 pm
Operator : ashleyn
Sample : ic3623-2
Misc : op93161,e3e3623
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 28 09:27:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:26:28 2016
QLast Update : Thu Apr 28 09:26:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.910	178	48842	2.06 ppm	96
79) Carbazole	10.198	167	45178	2.11 ppm	98
80) Di-n-butylphthalate	10.824	149	51909	1.82 ppm	97
81) Fluoranthene	11.691	202	51763	2.00 ppm	96
82) Octadecane	9.760	57	17739	1.78 ppm	98
84) Pyrene	12.038	202	54010	2.05 ppm	99
86) Butylbenzylphthalate	13.204	149	24160	1.88 ppm	92
87) Butyl stearate	13.381	56	12317	1.79 ppm	85
88) Benzo[a]anthracene	13.964	228	55117	2.19 ppm	96
89) 3,3'-Dichlorobenzidine	13.980	252	19517	2.01 ppm	91
90) Chrysene	14.012	228	51714	2.21 ppm	97
91) bis(2-Ethylhexyl)phtha...	14.167	149	31202	1.88 ppm	92
93) Di-n-octylphthalate	15.162	149	53008	1.60 ppm	93
94) Benzo[b]fluoranthene	15.563	252	55973	1.92 ppm	97
95) Benzo[k]fluoranthene	15.606	252	54554	2.13 ppm	95
96) Benzo[a]pyrene	16.007	252	47383	1.95 ppm	97
97) Indeno[1,2,3-cd]pyrene	17.548	276	45763	1.99 ppm	97
98) Dibenz(a,h)acridine	17.227	279	42463	1.93 ppm	91
99) Dibenz[a,h]anthracene	17.590	278	45682	2.01 ppm	99
100) 7,12-Dimethylbenz(a)an...	15.563	256	24221	1.83 ppm	98
101) Benzo[g,h,i]perylene	17.954	276	45671	2.08 ppm	98

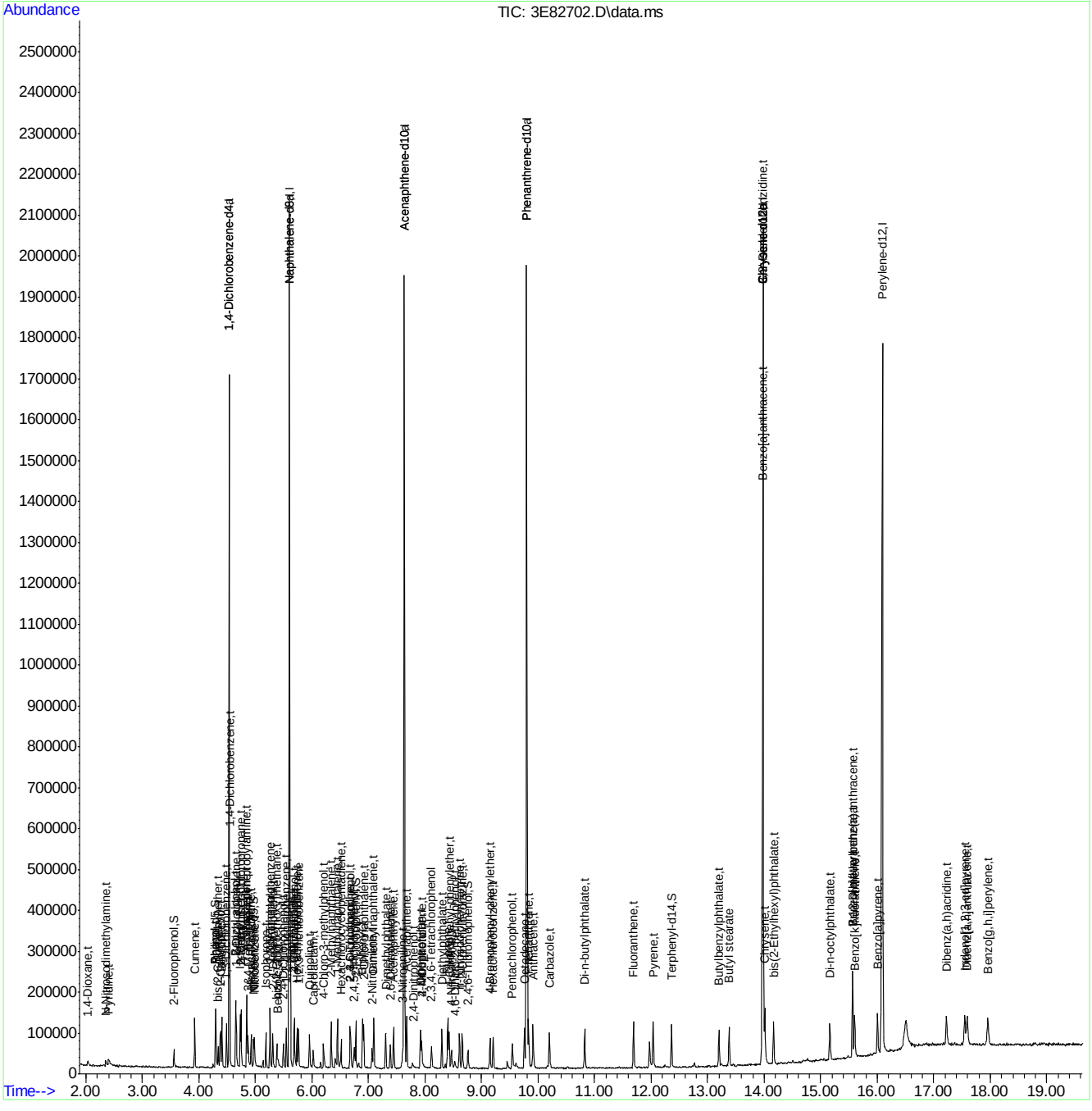
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82702.D
Acq On : 27 Apr 2016 4:10 pm
Operator : ashleyn
Sample : ic3623-2
Misc : op93161,e3e3623
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 28 09:27:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:26:28 2016
QLast Update : Thu Apr 28 09:26:28 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82696.D
Acq On : 27 Apr 2016 4:35 pm
Operator : ashleyn
Sample : ic3623-100
Misc : op93161,e3e3623
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 28 14:46:17 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:56:37 2016
QLast Update : Thu Apr 28 10:56:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	183913	40.00	ppm	0.00
24) Naphthalene-d8	5.604	136	652396	40.00	ppm	0.00
47) Acenaphthene-d10	7.636	164	346483	40.00	ppm	0.00
69) Phenanthrene-d10	9.803	188	549968	40.00	ppm	0.00
83) Chrysene-d12	13.991	240	600610	40.00	ppm	0.00
92) Perylene-d12	16.093	264	466917	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	183913	40.00	ppm	0.00
104) Acenaphthene-d10a	7.636	164	346483	40.00	ppm	0.00
106) Phenanthrene-d10a	9.803	188	549968	40.00	ppm	0.00
110) Chrysene-d12a	13.991	240	600610	40.00	ppm	0.00
112) Naphthalene-d8a	5.604	136	652396	40.00	ppm	0.00
114) Chrysene-d12b	13.991	240	600610	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.550	112	590959	104.81	ppm	0.00
Spiked Amount 50.000			Recovery	=	209.62%	
8) Phenol-d5	4.294	99	810998	110.55	ppm	0.00
Spiked Amount 50.000			Recovery	=	221.10%	
25) Nitrobenzene-d5	4.978	82	662984	101.62	ppm	0.00
Spiked Amount 50.000			Recovery	=	203.24%	
51) 2-Fluorobiphenyl	6.781	172	1131616	98.48	ppm	0.00
Spiked Amount 50.000			Recovery	=	196.96%	
73) 2,4,6-Tribromophenol	8.770	330	193052	99.53	ppm	0.00
Spiked Amount 50.000			Recovery	=	199.06%	
85) Terphenyl-d14	12.370	244	1237037	98.11	ppm	0.00
Spiked Amount 50.000			Recovery	=	196.22%	
108) o-Terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds						Qvalue
2) 1,4-Dioxane	2.026	88	154905	92.40	ppm	98
3) Pyridine	2.363	79	496873	104.24	ppm	98
4) N-Nitrosodimethylamine	2.336	74	282917	104.30	ppm	100
6) Indene	4.727	116	1092355	99.57	ppm	98
7) Cumene	3.930	105	1626883	101.39	ppm	96
9) Phenol	4.304	94	858452	106.76	ppm	86
10) Aniline	4.294	93	957929	102.58	ppm	84
11) bis(2-Chloroethyl)ether	4.347	93	537362	97.44	ppm	99
12) 2-Chlorophenol	4.390	128	674183	101.17	ppm	94
13) Decane	4.411	43	719354	101.98	ppm	98
14) 1,3-Dichlorobenzene	4.491	146	723953	99.35	ppm	100
15) 1,4-Dichlorobenzene	4.545	146	735548	96.18	ppm	99
16) Benzyl alcohol	4.652	108	436366	107.42	ppm	97
17) 1,2-Dichlorobenzene	4.663	146	685027	99.46	ppm	97
18) Acetophenone	4.855	105	885618	97.07	ppm	99
19) 2-Methylphenol	4.748	108	552605	98.05	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.748	121	222375	98.41	ppm	90
21) 3&4-Methylphenol	4.871	108	596732	100.75	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82696.D
Acq On : 27 Apr 2016 4:35 pm
Operator : ashleyn
Sample : ic3623-100
Misc : op93161,e3e3623
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 28 14:46:17 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:56:37 2016
QLast Update : Thu Apr 28 10:56:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.860	70	484634	100.34	ppm		99
23) Hexachloroethane	4.925	201	226660	92.69	ppm		96
26) Nitrobenzene	4.994	77	700416	103.95	ppm		99
27) Quinoline	5.973	129	1075054	94.75	ppm		98
28) Isophorone	5.197	82	1111342	101.62	ppm		99
29) 2-Nitrophenol	5.262	139	370113	107.33	ppm		93
30) 2,4-Dimethylphenol	5.310	107	609653	102.72	ppm		96
31) Benzoic acid	5.470	105	476169	108.90	ppm		99
32) bis(2-Chloroethoxy)met...	5.385	93	603217	101.32	ppm		99
33) 2,4-Dichlorophenol	5.486	162	476446	102.94	ppm		97
34) 2,6-Dichlorophenol	5.695	162	465847	98.54	ppm		99
35) 1,3,5-Trichlorobenzene	5.267	180	561344	100.34	ppm		99
36) 1,2,4-Trichlorobenzene	5.550	180	512632	97.08	ppm		98
37) 1,2,3-Trichlorobenzene	5.764	180	467504	91.94	ppm		96
38) Naphthalene	5.625	128	1786578	99.05	ppm		99
39) 4-Chloroaniline	5.690	127	755025	102.75	ppm		98
40) 2,3-Dichloroaniline	6.679	161	551383	94.52	ppm		98
41) Caprolactam	6.096	55	234713	95.02	ppm		97
42) Hexachlorobutadiene	5.738	225	286614	90.57	ppm		99
43) 4-Chloro-3-methylphenol	6.219	107	517656	98.07	ppm		98
44) 2-Methylnaphthalene	6.347	141	1005481	98.21	ppm		97
45) 1-Methylnaphthalene	6.460	141	1026593	96.12	ppm		97
46) Dimethylnaphthalene	7.102	156	973425	94.18	ppm		98
48) Hexachlorocyclopentadiene	6.519	237	614451	199.63	ppm		98
49) 2,4,6-Trichlorophenol	6.690	196	320394	101.98	ppm		98
50) 2,4,5-Trichlorophenol	6.743	196	343084	98.06	ppm		99
52) 2-Chloronaphthalene	6.925	162	955515	97.29	ppm		97
53) Biphenyl	6.904	154	1333394	101.81	ppm		99
54) 2-Nitroaniline	7.075	65	375106	103.07	ppm		99
55) Dimethylphthalate	7.316	163	1124129	97.71	ppm		100
56) Acenaphthylene	7.449	152	1605256	97.93	ppm		98
57) 2,6-Dinitrotoluene	7.401	165	260216	101.03	ppm		93
58) 3-Nitroaniline	7.626	138	293504	102.32	ppm		99
59) Acenaphthene	7.685	153	1075250	98.78	ppm		95
60) 2,4-Dinitrophenol	7.781	184	299079	198.46	ppm		97
61) 4-Nitrophenol	7.925	109	197174	106.43	ppm	#	12
62) Dibenzofuran	7.925	168	1397480	97.53	ppm		98
63) 2,4-Dinitrotoluene	7.957	165	359514	102.04	ppm		78
64) 2,3,4,6-Tetrachlorophenol	8.118	232	261916	100.98	ppm		99
65) Diethylphthalate	8.310	149	1210584	100.18	ppm		99
66) Fluorene	8.412	166	1186949	98.95	ppm		99
67) 4-Chlorophenyl-phenyle...	8.433	204	506217	92.55	ppm		100
68) 4-Nitroaniline	8.503	138	278854	101.13	ppm		96
70) 4,6-Dinitro-2-methylph...	8.546	198	212566	99.94	ppm		95
71) n-Nitrosodiphenylamine	8.626	169	791021	103.55	ppm		98
72) 1,2-Diphenylhydrazine	8.669	77	1214768	106.75	ppm		97
74) 4-Bromophenyl-phenylether	9.155	248	313818	95.98	ppm		97
75) Hexachlorobenzene	9.220	284	363140	92.61	ppm		98
76) Pentachlorophenol	9.551	266	437943	234.63	ppm		98
77) Phenanthrene	9.845	178	1574416	98.67	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82696.D
Acq On : 27 Apr 2016 4:35 pm
Operator : ashleyn
Sample : ic3623-100
Misc : op93161,e3e3623
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 28 14:46:17 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:56:37 2016
QLast Update : Thu Apr 28 10:56:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.926	178	1599404	100.06 ppm	99
79) Carbazole	10.209	167	1463939	101.21 ppm	100
80) Di-n-butylphthalate	10.835	149	2032734	108.82 ppm	99
81) Fluoranthene	11.701	202	1788366	103.34 ppm	98
82) Octadecane	9.765	57	728326	112.10 ppm	98
84) Pyrene	12.049	202	1794331	99.81 ppm	99
86) Butylbenzylphthalate	13.210	149	928919	108.34 ppm	98
87) Butyl stearate	13.386	56	528263	117.34 ppm	97
88) Benzo[a]anthracene	13.975	228	1690194	96.29 ppm	100
89) 3,3'-Dichlorobenzidine	13.991	252	648962	99.41 ppm	99
90) Chrysene	14.033	228	1494698	91.24 ppm	99
91) bis(2-Ethylhexyl)phtha...	14.172	149	1132578	102.64 ppm	99
93) Di-n-octylphthalate	15.173	149	2129246	99.69 ppm	98
94) Benzo[b]fluoranthene	15.595	252	1701440	107.79 ppm	99
95) Benzo[k]fluoranthene	15.633	252	1355421	96.22 ppm	97
96) Benzo[a]pyrene	16.028	252	1337890	101.53 ppm	99
97) Indeno[1,2,3-cd]pyrene	17.580	276	1307742	104.17 ppm	98
98) Dibenz(a,h)acridine	17.248	279	1252829	106.01 ppm	99
99) Dibenz[a,h]anthracene	17.622	278	1188142	95.27 ppm	98
100) 7,12-Dimethylbenz(a)an...	15.590	256	791082	112.43 ppm	100
101) Benzo[g,h,i]perylene	17.997	276	1140006	94.26 ppm	98

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

7.6.14

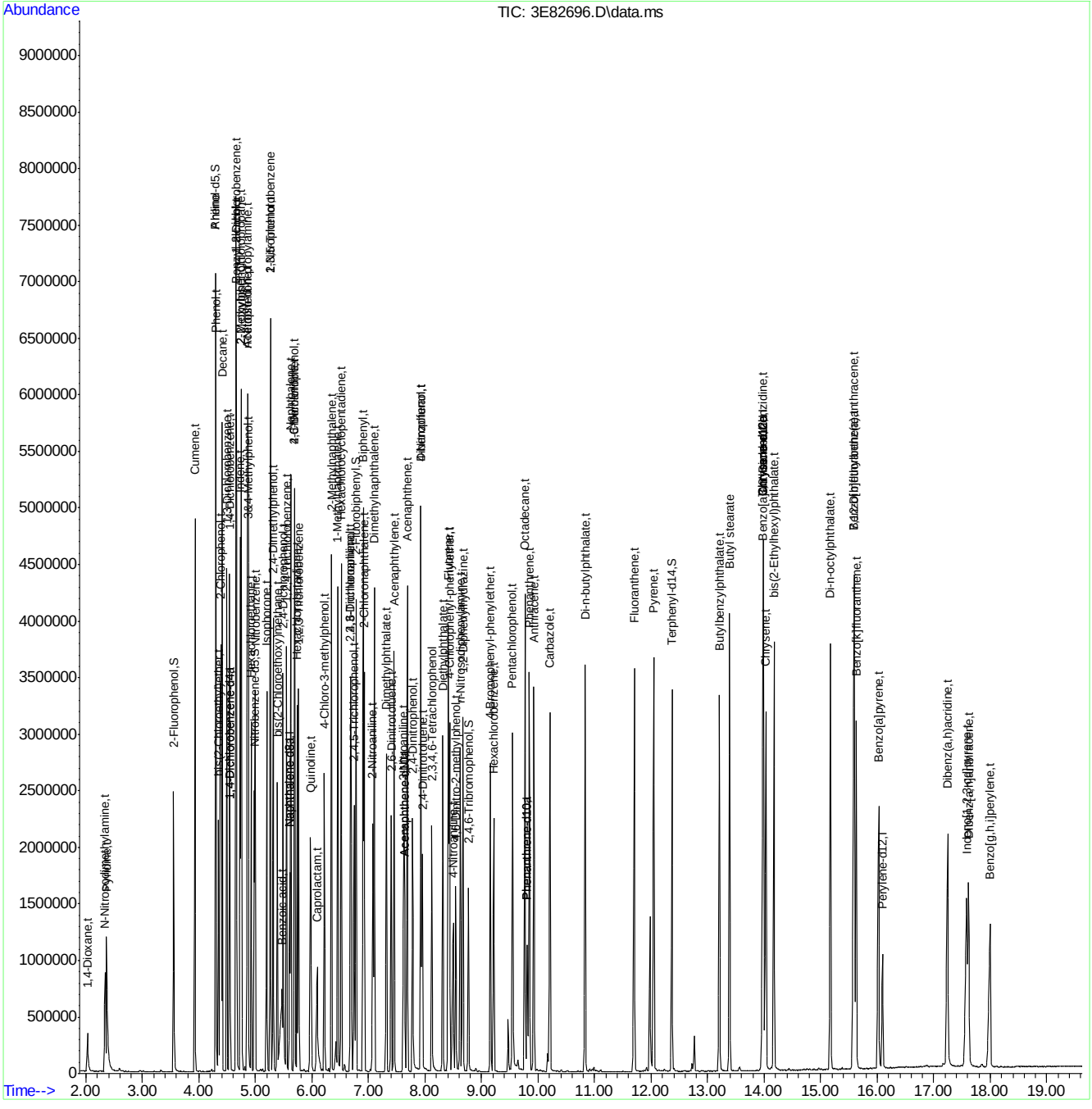
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82696.D
Acq On : 27 Apr 2016 4:35 pm
Operator : ashleyn
Sample : ic3623-100
Misc : op93161,e3e3623
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 28 14:46:17 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:56:37 2016
QLast Update : Thu Apr 28 10:56:37 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82697.D
Acq On : 27 Apr 2016 5:01 pm
Operator : ashleyn
Sample : icc3623-50
Misc : op93161,e3e3623
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 28 14:48:42 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 14:47:35 2016
QLast Update : Thu Apr 28 14:47:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	175863	40.00	ppm	0.00
24) Naphthalene-d8	5.604	136	651751	40.00	ppm	0.00
47) Acenaphthene-d10	7.636	164	354196	40.00	ppm	0.00
69) Phenanthrene-d10	9.803	188	585144	40.00	ppm	0.00
83) Chrysene-d12	13.985	240	629413	40.00	ppm	0.00
92) Perylene-d12	16.093	264	539056	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	175863	40.00	ppm	0.00
104) Acenaphthene-d10a	7.636	164	354196	40.00	ppm	0.00
106) Phenanthrene-d10a	9.803	188	585144	40.00	ppm	0.00
110) Chrysene-d12a	13.985	240	629413	40.00	ppm	0.00
112) Naphthalene-d8a	5.604	136	651751	40.00	ppm	0.00
114) Chrysene-d12b	13.985	240	629413	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.550	112	271715	50.40	ppm	0.00
Spiked Amount 50.000			Recovery = 100.80%			
8) Phenol-d5	4.288	99	355938	50.74	ppm	0.00
Spiked Amount 50.000			Recovery = 101.48%			
25) Nitrobenzene-d5	4.973	82	328197	50.35	ppm	0.00
Spiked Amount 50.000			Recovery = 100.70%			
51) 2-Fluorobiphenyl	6.775	172	582712	49.61	ppm	0.00
Spiked Amount 50.000			Recovery = 99.22%			
73) 2,4,6-Tribromophenol	8.765	330	102949	49.89	ppm	0.00
Spiked Amount 50.000			Recovery = 99.78%			
85) Terphenyl-d14	12.365	244	662699	50.15	ppm	0.00
Spiked Amount 50.000			Recovery = 100.30%			
108) o-Terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.026	88	71262	44.44	ppm	100
3) Pyridine	2.368	79	228432	50.12	ppm	100
4) N-Nitrosodimethylamine	2.336	74	132836	51.21	ppm	100
6) Indene	4.727	116	513014	48.90	ppm	100
7) Cumene	3.925	105	748849	48.81	ppm	100
9) Phenol	4.299	94	395160	51.39	ppm	100
10) Aniline	4.294	93	472043	52.86	ppm	100
11) bis(2-Chloroethyl)ether	4.342	93	252189	47.82	ppm	100
12) 2-Chlorophenol	4.385	128	312358	49.01	ppm	100
13) Decane	4.411	43	333609	49.46	ppm	100
14) 1,3-Dichlorobenzene	4.491	146	336184	48.25	ppm	100
15) 1,4-Dichlorobenzene	4.545	146	344095	47.05	ppm	100
16) Benzyl alcohol	4.652	108	197970	50.97	ppm	100
17) 1,2-Dichlorobenzene	4.657	146	317206	48.16	ppm	100
18) Acetophenone	4.850	105	428904	49.16	ppm	100
19) 2-Methylphenol	4.748	108	263461	48.89	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.748	121	104922	48.56	ppm	100
21) 3&4-Methylphenol	4.866	108	278945	49.25	ppm	100

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82697.D
Acq On : 27 Apr 2016 5:01 pm
Operator : ashleyn
Sample : icc3623-50
Misc : op93161,e3e3623
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 28 14:48:42 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 14:47:35 2016
QLast Update : Thu Apr 28 14:47:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.855	70	232868	50.42	ppm		100
23) Hexachloroethane	4.925	201	108811	46.53	ppm		100
26) Nitrobenzene	4.989	77	337648	50.16	ppm		100
27) Quinoline	5.962	129	550729	48.59	ppm		100
28) Isophorone	5.192	82	550045	50.34	ppm		100
29) 2-Nitrophenol	5.256	139	176091	51.12	ppm		100
30) 2,4-Dimethylphenol	5.304	107	307094	51.79	ppm		100
31) Benzoic acid	5.438	105	235499	53.91	ppm		100
32) bis(2-Chloroethoxy)met...	5.379	93	294923	49.59	ppm		100
33) 2,4-Dichlorophenol	5.486	162	233574	50.52	ppm		100
34) 2,6-Dichlorophenol	5.690	162	231717	49.06	ppm		100
35) 1,3,5-Trichlorobenzene	5.262	180	272299	48.72	ppm		100
36) 1,2,4-Trichlorobenzene	5.551	180	249599	47.32	ppm		100
37) 1,2,3-Trichlorobenzene	5.764	180	241237	47.49	ppm		100
38) Naphthalene	5.625	128	873194	48.46	ppm		100
39) 4-Chloroaniline	5.684	127	370841	50.52	ppm		100
40) 2,3-Dichloroaniline	6.674	161	282797	48.53	ppm		100
41) Caprolactam	6.069	55	121563	49.26	ppm		100
42) Hexachlorobutadiene	5.738	225	147453	46.64	ppm		100
43) 4-Chloro-3-methylphenol	6.208	107	257995	48.93	ppm		100
44) 2-Methylnaphthalene	6.342	141	505513	49.42	ppm		100
45) 1-Methylnaphthalene	6.454	141	519288	48.67	ppm		100
46) Dimethylnaphthalene	7.096	156	503354	48.75	ppm		100
48) Hexachlorocyclopentadiene	6.513	237	302161	101.72	ppm		100
49) 2,4,6-Trichlorophenol	6.684	196	165070	51.40	ppm		100
50) 2,4,5-Trichlorophenol	6.738	196	176664	49.39	ppm		100
52) 2-Chloronaphthalene	6.920	162	500412	49.84	ppm		100
53) Biphenyl	6.898	154	676468	50.53	ppm		100
54) 2-Nitroaniline	7.064	65	187560	50.41	ppm		100
55) Dimethylphthalate	7.310	163	583804	49.64	ppm		100
56) Acenaphthylene	7.444	152	836669	49.93	ppm		100
57) 2,6-Dinitrotoluene	7.390	165	135884	51.61	ppm		100
58) 3-Nitroaniline	7.615	138	152537	52.02	ppm		100
59) Acenaphthene	7.679	153	555020	49.88	ppm		100
60) 2,4-Dinitrophenol	7.770	184	143594	101.94	ppm		100
61) 4-Nitrophenol	7.915	109	101952	53.83	ppm	#	57
62) Dibenzofuran	7.920	168	717646	49.00	ppm		100
63) 2,4-Dinitrotoluene	7.947	165	191570	53.19	ppm		100
64) 2,3,4,6-Tetrachlorophenol	8.113	232	137302	51.78	ppm		100
65) Diethylphthalate	8.305	149	623816	50.50	ppm		100
66) Fluorene	8.407	166	613791	50.05	ppm		100
67) 4-Chlorophenyl-phenyle...	8.428	204	271353	48.53	ppm		100
68) 4-Nitroaniline	8.482	138	150334	53.33	ppm		100
70) 4,6-Dinitro-2-methylph...	8.535	198	109209	50.73	ppm		100
71) n-Nitrosodiphenylamine	8.615	169	415449	51.12	ppm		100
72) 1,2-Diphenylhydrazine	8.663	77	636291	52.56	ppm		100
74) 4-Bromophenyl-phenylether	9.150	248	170590	49.04	ppm		100
75) Hexachlorobenzene	9.214	284	196405	47.08	ppm		100
76) Pentachlorophenol	9.541	266	222234	111.91	ppm		100
77) Phenanthrene	9.840	178	826947	48.71	ppm		100

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82697.D
Acq On : 27 Apr 2016 5:01 pm
Operator : ashleyn
Sample : icc3623-50
Misc : op93161,e3e3623
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 28 14:48:42 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 14:47:35 2016
QLast Update : Thu Apr 28 14:47:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.915	178	848568	49.89 ppm	100
79) Carbazole	10.204	167	778462	50.59 ppm	100
80) Di-n-butylphthalate	10.830	149	1054410	53.05 ppm	100
81) Fluoranthene	11.696	202	938229	50.96 ppm	100
82) Octadecane	9.760	57	369633	53.47 ppm	100
84) Pyrene	12.044	202	951671	50.51 ppm	100
86) Butylbenzylphthalate	13.204	149	485883	54.07 ppm	100
87) Butyl stearate	13.381	56	262225	55.58 ppm	100
88) Benzo[a]anthracene	13.964	228	902867	49.08 ppm	100
89) 3,3'-Dichlorobenzidine	13.985	252	350305	51.20 ppm	100
90) Chrysene	14.023	228	835228	48.65 ppm	100
91) bis(2-Ethylhexyl)phtha...	14.167	149	610894	52.83 ppm	100
93) Di-n-octylphthalate	15.162	149	1101372	49.89 ppm	100
94) Benzo[b]fluoranthene	15.579	252	901952	49.49 ppm	100
95) Benzo[k]fluoranthene	15.622	252	830899	51.09 ppm	100
96) Benzo[a]pyrene	16.018	252	771104	50.69 ppm	100
97) Indeno[1,2,3-cd]pyrene	17.564	276	753798	52.01 ppm	100
98) Dibenz(a,h)acridine	17.237	279	714697	52.38 ppm	100
99) Dibenz[a,h]anthracene	17.606	278	720059	50.01 ppm	100
100) 7,12-Dimethylbenz(a)an...	15.579	256	434160	53.45 ppm	100
101) Benzo[g,h,i]perylene	17.975	276	683275	48.94 ppm	100

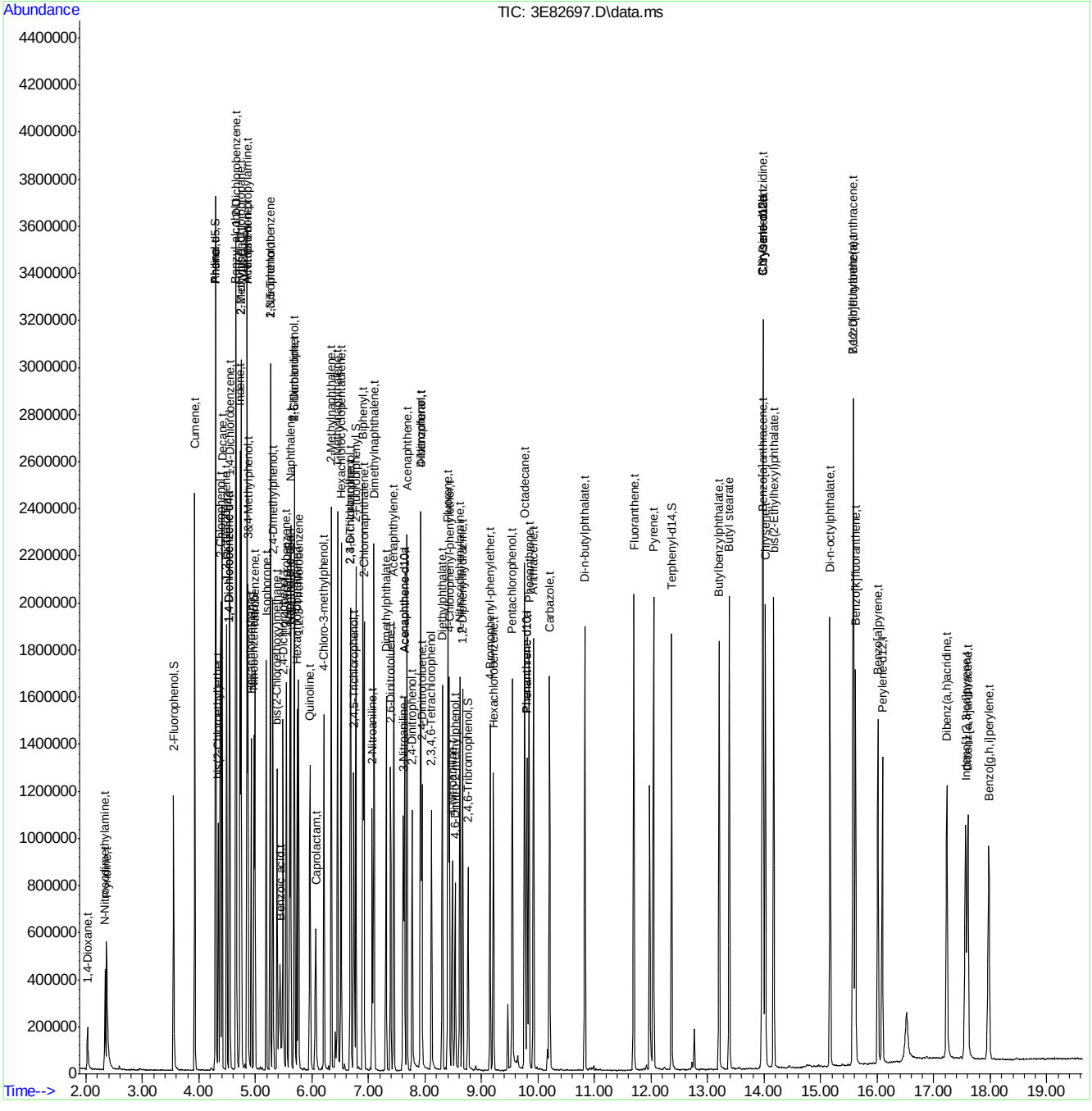
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82697.D
Acq On : 27 Apr 2016 5:01 pm
Operator : ashleyn
Sample : icc3623-50
Misc : op93161,e3e3623
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 28 14:48:42 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 14:47:35 2016
QLast Update : Thu Apr 28 14:47:35 2016
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/28/16 16:14

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82698.D
Acq On : 27 Apr 2016 5:27 pm
Operator : ashleyn
Sample : ic3623-80
Misc : op93161,e3e3623
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 28 09:17:30 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	166604	40.00	ppm	0.00
24) Naphthalene-d8	5.604	136	615922	40.00	ppm	0.00
47) Acenaphthene-d10	7.637	164	327640	40.00	ppm	0.00
69) Phenanthrene-d10	9.803	188	533610	40.00	ppm	0.00
83) Chrysene-d12	13.985	240	582640	40.00	ppm	0.00
92) Perylene-d12	16.093	264	467933	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	166604	40.00	ppm	0.00
104) Acenaphthene-d10a	7.637	164	327640	40.00	ppm	0.00
106) Phenanthrene-d10a	9.803	188	533610	40.00	ppm	0.00
110) Chrysene-d12a	13.985	240	582640	40.00	ppm	0.00
112) Naphthalene-d8a	5.604	136	615922	40.00	ppm	0.00
114) Chrysene-d12b	13.985	240	582640	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.550	112	429481	81.79	ppm	0.00
Spiked Amount 50.000			Recovery = 163.58%			
8) Phenol-d5	4.294	99	582356	82.66	ppm	0.00
Spiked Amount 50.000			Recovery = 165.32%			
25) Nitrobenzene-d5	4.978	82	502856	80.70	ppm	0.00
Spiked Amount 50.000			Recovery = 161.40%			
51) 2-Fluorobiphenyl	6.781	172	872213	81.21	ppm	0.00
Spiked Amount 50.000			Recovery = 162.42%			
73) 2,4,6-Tribromophenol	8.771	330	146349	78.04	ppm	0.00
Spiked Amount 50.000			Recovery = 156.08%			
85) Terphenyl-d14	12.365	244	956752	78.84	ppm	0.00
Spiked Amount 50.000			Recovery = 157.68%			
108) o-Terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.026	88	112013	81.46	ppm	95
3) Pyridine	2.363	79	361178	81.81	ppm	99
4) N-Nitrosodimethylamine	2.336	74	209521	82.49	ppm	90
6) Indene	4.727	116	808714	82.46	ppm	98
7) Cumene	3.930	105	1188166	82.15	ppm	97
9) Phenol	4.299	94	627314	82.20	ppm	89
10) Aniline	4.294	93	701878	79.66	ppm	90
11) bis(2-Chloroethyl)ether	4.347	93	396539	82.23	ppm	96
12) 2-Chlorophenol	4.385	128	488806	81.32	ppm	99
13) Decane	4.411	43	522527	81.41	ppm	97
14) 1,3-Dichlorobenzene	4.492	146	532344	82.36	ppm	100
15) 1,4-Dichlorobenzene	4.545	146	535889	81.30	ppm	100
16) Benzyl alcohol	4.652	108	319746	83.01	ppm	97
17) 1,2-Dichlorobenzene	4.663	146	501173	82.05	ppm	96
18) Acetophenone	4.855	105	673960	83.47	ppm	97
19) 2-Methylphenol	4.748	108	406383	81.31	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.748	121	162626	81.26	ppm	94
21) 3&4-Methylphenol	4.871	108	436872	81.73	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82698.D
Acq On : 27 Apr 2016 5:27 pm
Operator : ashleyn
Sample : ic3623-80
Misc : op93161,e3e3623
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 28 09:17:30 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.855	70	363245	82.53	ppm		91
23) Hexachloroethane	4.925	201	165532	80.45	ppm		93
26) Nitrobenzene	4.994	77	517320	79.62	ppm		98
27) Quinoline	5.973	129	807539	78.56	ppm		99
28) Isophorone	5.192	82	839752	80.40	ppm		96
29) 2-Nitrophenol	5.262	139	276419	81.03	ppm		90
30) 2,4-Dimethylphenol	5.310	107	458133	79.26	ppm		98
31) Benzoic acid	5.460	105	356638m	79.73	ppm		
32) bis(2-Chloroethoxy)met...	5.385	93	445278	79.03	ppm		97
33) 2,4-Dichlorophenol	5.487	162	355549	79.78	ppm		99
34) 2,6-Dichlorophenol	5.695	162	349105	79.54	ppm		99
35) 1,3,5-Trichlorobenzene	5.262	180	417293	79.89	ppm		99
36) 1,2,4-Trichlorobenzene	5.551	180	382177	79.98	ppm		99
37) 1,2,3-Trichlorobenzene	5.765	180	353372	78.76	ppm		99
38) Naphthalene	5.626	128	1336508	80.10	ppm		99
39) 4-Chloroaniline	5.690	127	563279	79.69	ppm		97
40) 2,3-Dichloroaniline	6.679	161	419813	79.58	ppm		98
41) Caprolactam	6.086	55	182366	80.81	ppm		97
42) Hexachlorobutadiene	5.738	225	217056	79.03	ppm		99
43) 4-Chloro-3-methylphenol	6.214	107	398458	81.73	ppm		98
44) 2-Methylnaphthalene	6.342	141	760638	79.87	ppm		99
45) 1-Methylnaphthalene	6.455	141	780010	79.97	ppm		99
46) Dimethylnaphthalene	7.096	156	750781	80.28	ppm		100
48) Hexachlorocyclopentadiene	6.519	237	457438	160.50	ppm		99
49) 2,4,6-Trichlorophenol	6.690	196	240985	79.22	ppm		97
50) 2,4,5-Trichlorophenol	6.743	196	259792	79.78	ppm		97
52) 2-Chloronaphthalene	6.920	162	734460	80.30	ppm		99
53) Biphenyl	6.904	154	1026561	81.72	ppm		99
54) 2-Nitroaniline	7.070	65	298111	84.98	ppm		97
55) Dimethylphthalate	7.316	163	852876	79.59	ppm		100
56) Acenaphthylene	7.449	152	1251883	81.67	ppm		97
57) 2,6-Dinitrotoluene	7.396	165	197333	79.34	ppm		99
58) 3-Nitroaniline	7.621	138	224002	80.04	ppm		100
59) Acenaphthene	7.685	153	834916	81.71	ppm		96
60) 2,4-Dinitrophenol	7.776	184	224563	163.77	ppm		97
61) 4-Nitrophenol	7.920	109	158128	84.31	ppm	#	81
62) Dibenzofuran	7.925	168	1079177	81.47	ppm		95
63) 2,4-Dinitrotoluene	7.952	165	277127	79.82	ppm		71
64) 2,3,4,6-Tetrachlorophenol	8.118	232	198203	79.01	ppm		96
65) Diethylphthalate	8.311	149	943822	82.11	ppm		99
66) Fluorene	8.412	166	912648	80.84	ppm		99
67) 4-Chlorophenyl-phenyle...	8.434	204	389674	79.47	ppm		98
68) 4-Nitroaniline	8.492	138	221451	81.74	ppm		95
70) 4,6-Dinitro-2-methylph...	8.541	198	162194	80.01	ppm		94
71) n-Nitrosodiphenylamine	8.621	169	605333	79.38	ppm		99
72) 1,2-Diphenylhydrazine	8.664	77	948330	81.08	ppm		97
74) 4-Bromophenyl-phenylether	9.156	248	243603	79.14	ppm		98
75) Hexachlorobenzene	9.214	284	281638	79.27	ppm		95
76) Pentachlorophenol	9.546	266	326404	157.26	ppm		99
77) Phenanthrene	9.840	178	1235999	81.43	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82698.D
Acq On : 27 Apr 2016 5:27 pm
Operator : ashleyn
Sample : ic3623-80
Misc : op93161,e3e3623
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 28 09:17:30 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.921	178	1240688	80.07 ppm	100
79) Carbazole	10.204	167	1135331	79.95 ppm	100
80) Di-n-butylphthalate	10.830	149	1575664	80.90 ppm	98
81) Fluoranthene	11.696	202	1381686	80.18 ppm	99
82) Octadecane	9.765	57	563809	81.66 ppm	97
84) Pyrene	12.049	202	1396000	79.71 ppm	99
86) Butylbenzylphthalate	13.210	149	732279	81.33 ppm	98
87) Butyl stearate	13.386	56	400613	80.29 ppm	97
88) Benzo[a]anthracene	13.969	228	1326612	80.13 ppm	99
89) 3,3'-Dichlorobenzidine	13.991	252	512512	80.20 ppm	99
90) Chrysene	14.028	228	1200866	80.16 ppm	99
91) bis(2-Ethylhexyl)phtha...	14.173	149	903366	81.03 ppm	100
93) Di-n-octylphthalate	15.168	149	1657300	81.92 ppm	99
94) Benzo[b]fluoranthene	15.590	252	1358924	83.09 ppm	98
95) Benzo[k]fluoranthene	15.628	252	1114766	79.60 ppm	98
96) Benzo[a]pyrene	16.023	252	1098021	81.96 ppm	99
97) Indeno[1,2,3-cd]pyrene	17.574	276	1056684	80.74 ppm	97
98) Dibenz(a,h)acridine	17.243	279	1025865	82.19 ppm	99
99) Dibenz[a,h]anthracene	17.617	278	1000269	81.96 ppm	98
100) 7,12-Dimethylbenz(a)an...	15.585	256	625859	80.94 ppm	100
101) Benzo[g,h,i]perylene	17.986	276	959762	82.47 ppm	99

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

7.6.16

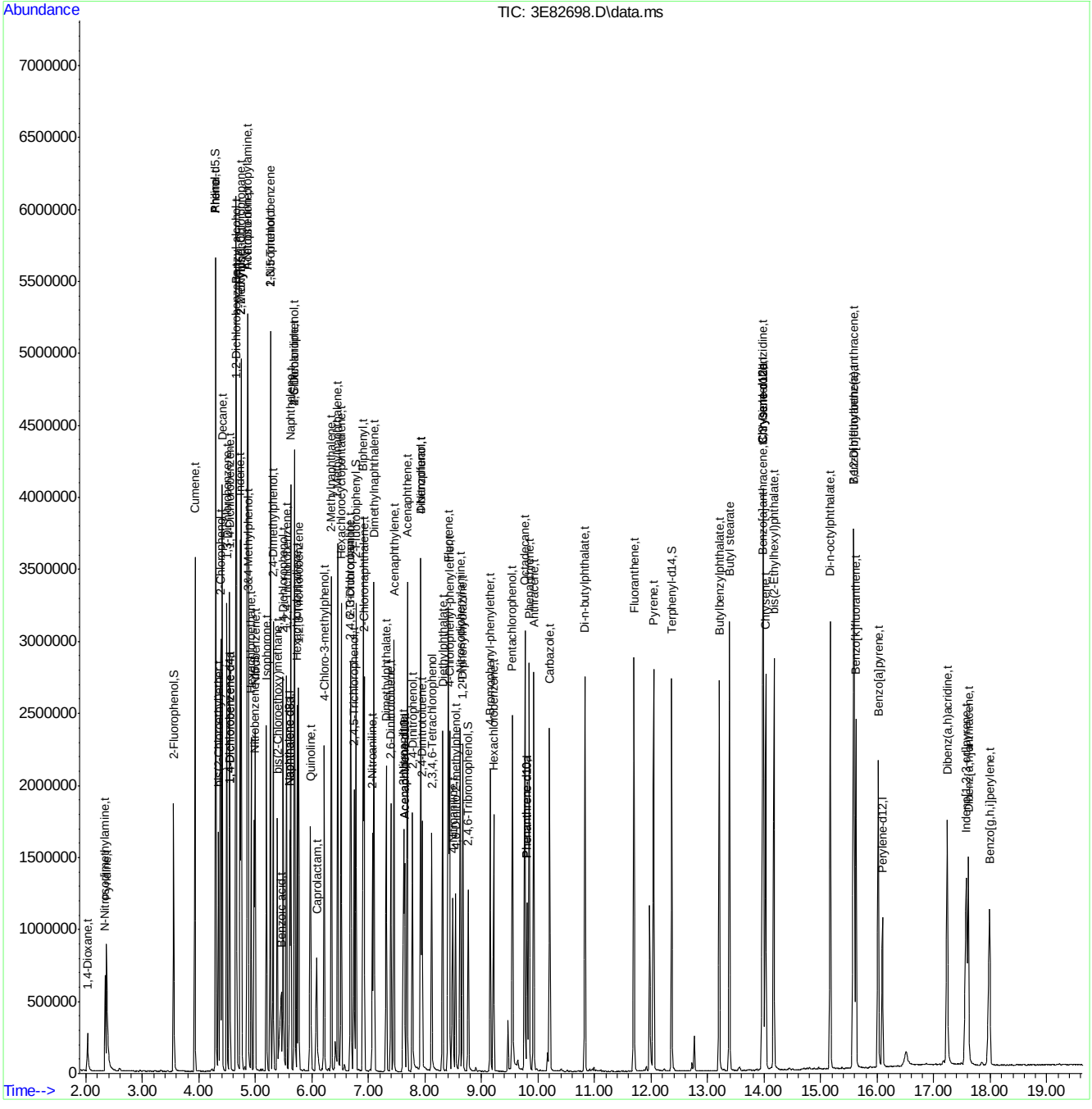
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82698.D
Acq On : 27 Apr 2016 5:27 pm
Operator : ashleyn
Sample : ic3623-80
Misc : op93161,e3e3623
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 28 09:17:30 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Manual Integration Approval Summary

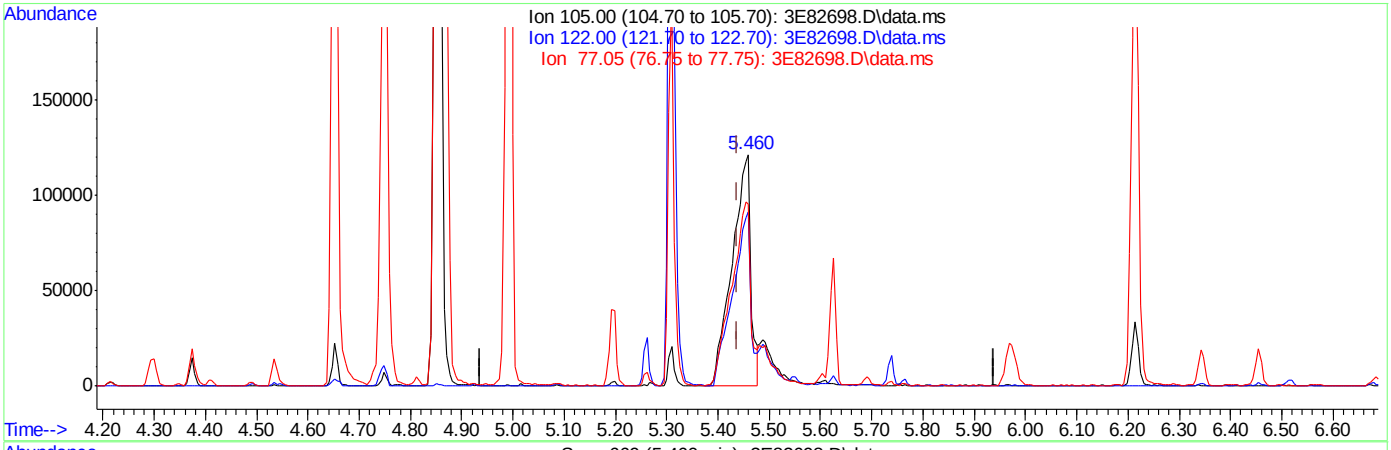
Sample Number:	E3E3623-IC3623	**Method:**	SW846 8270D
Lab FileID:	3E82698.D	**Analyst approved:**	04/28/16 10:43 Ashley Noble
Injection Time:	04/27/16 17:27	**Supervisor approved:**	04/28/16 16:14 Kristi Schollenberger

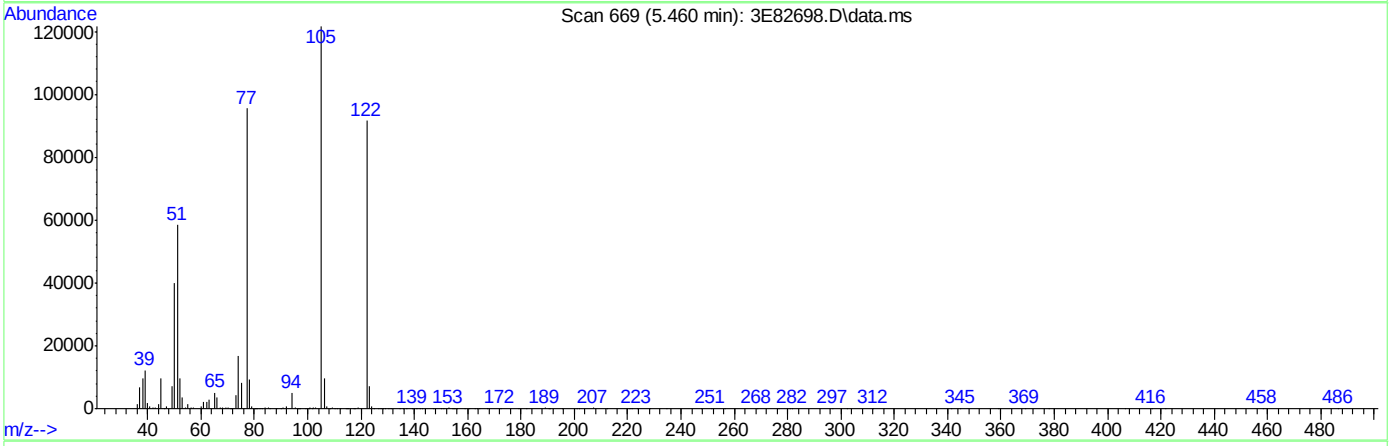
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.46	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82698.D
Acq On : 27 Apr 2016 5:27 pm
Operator : ashleyn
Sample : ic3623-80
Misc : op93161,e3e3623
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 28 09:09:04 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration





TIC: 3E82698.D\data.ms

(31) Benzoic acid (t)

5.460min (+0.022) 68.67ppm

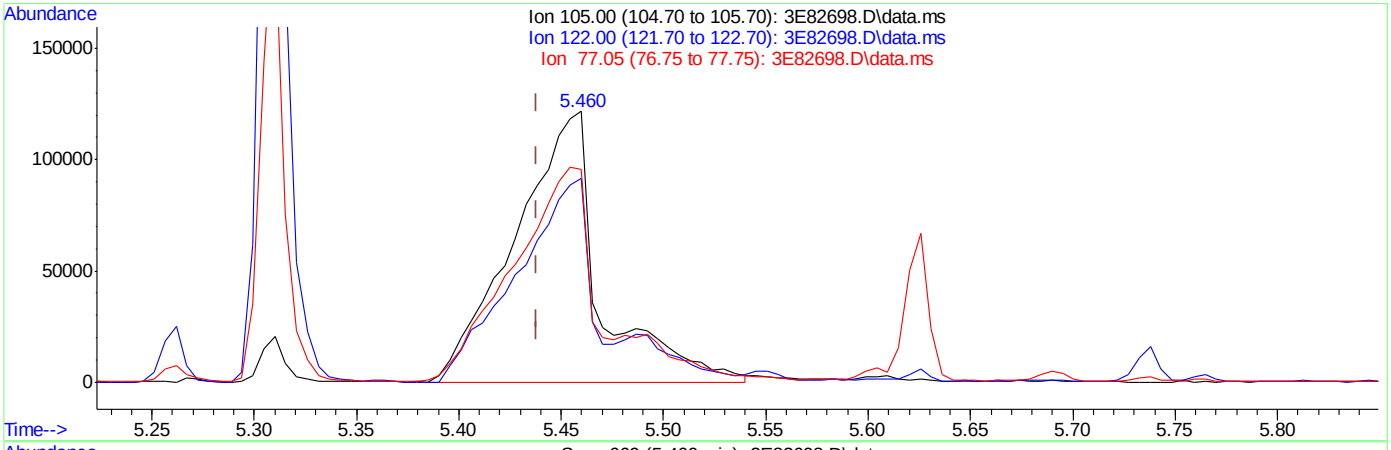
response 307168

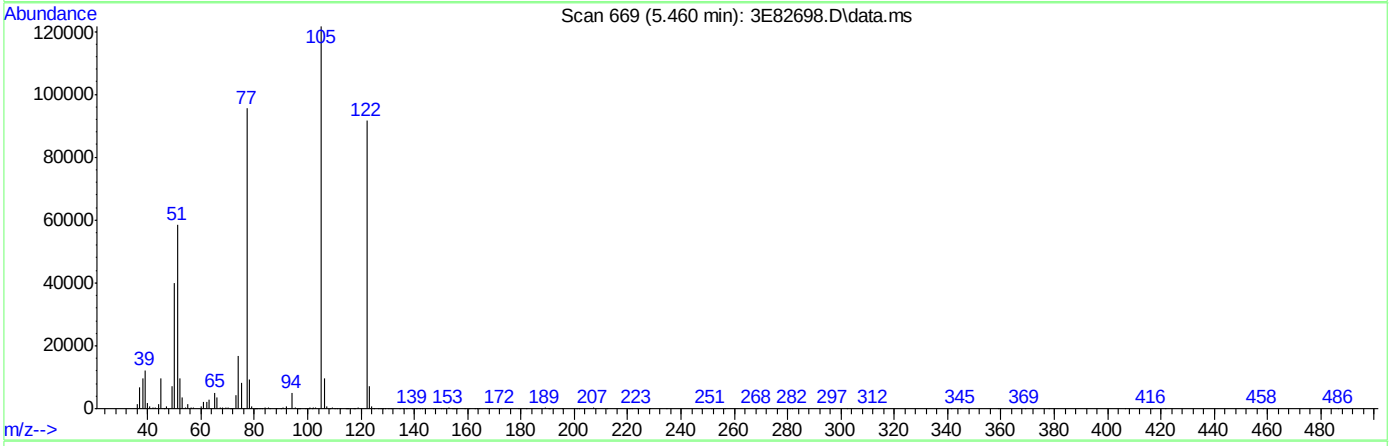
Ion	Exp%	Act%
105.00	100	100
122.00	74.00	74.72
77.05	79.10	77.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82698.D
Acq On : 27 Apr 2016 5:27 pm
Operator : ashleyn
Sample : ic3623-80
Misc : op93161,e3e3623
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 28 09:09:04 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration





TIC: 3E82698.D\data.ms

(31) Benzoic acid (t)

5.460min (+0.022) 79.73ppm m

response 356638

Ion	Exp%	Act%
105.00	100	100
122.00	74.00	75.23
77.05	79.10	78.55
0.00	0.00	0.00

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82699.D
Acq On : 27 Apr 2016 5:53 pm
Operator : ashleyn
Sample : ic3623-25
Misc : op93161,e3e3623
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 28 09:19:51 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	169242	40.00 ppm	0.00
24) Naphthalene-d8	5.599	136	656613	40.00 ppm	0.00
47) Acenaphthene-d10	7.631	164	378829	40.00 ppm	0.00
69) Phenanthrene-d10	9.797	188	636547	40.00 ppm	0.00
83) Chrysene-d12	13.980	240	686362	40.00 ppm	0.00
92) Perylene-d12	16.087	264	617001	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	169242	40.00 ppm	0.00
104) Acenaphthene-d10a	7.631	164	378829	40.00 ppm	0.00
106) Phenanthrene-d10a	9.797	188	636547	40.00 ppm	0.00
110) Chrysene-d12a	13.980	240	686362	40.00 ppm	0.00
112) Naphthalene-d8a	5.599	136	656613	40.00 ppm	0.00
114) Chrysene-d12b	13.980	240	686362	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.550	112	131074	24.57 ppm	0.00
Spiked Amount 50.000			Recovery = 49.14%		
8) Phenol-d5	4.288	99	166363	23.25 ppm	0.00
Spiked Amount 50.000			Recovery = 46.50%		
25) Nitrobenzene-d5	4.968	82	164713	24.80 ppm	0.00
Spiked Amount 50.000			Recovery = 49.60%		
51) 2-Fluorobiphenyl	6.775	172	299507	24.12 ppm	0.00
Spiked Amount 50.000			Recovery = 48.24%		
73) 2,4,6-Tribromophenol	8.760	330	56025	25.04 ppm	0.00
Spiked Amount 50.000			Recovery = 50.08%		
85) Terphenyl-d14	12.359	244	356296	24.92 ppm	0.00
Spiked Amount 50.000			Recovery = 49.84%		
108) o-Terphenyl	0.000	230	0d	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
109) 1-Chlorooctadecane	0.000	57	0d	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
2) 1,4-Dioxane	2.031	88	36197	25.91 ppm	95
3) Pyridine	2.368	79	111031	24.76 ppm	95
4) N-Nitrosodimethylamine	2.336	74	65643	25.44 ppm	92
6) Indene	4.727	116	247264	24.82 ppm	99
7) Cumene	3.925	105	357855	24.36 ppm	97
9) Phenol	4.299	94	182439	23.53 ppm	99
10) Aniline	4.294	93	216509	24.19 ppm	81
11) bis(2-Chloroethyl)ether	4.342	93	123309	25.17 ppm	97
12) 2-Chlorophenol	4.385	128	151900	24.88 ppm	98
13) Decane	4.406	43	159234	24.42 ppm	94
14) 1,3-Dichlorobenzene	4.486	146	164182	25.00 ppm	98
15) 1,4-Dichlorobenzene	4.545	146	165561	24.73 ppm	99
16) Benzyl alcohol	4.647	108	94030	24.03 ppm	90
17) 1,2-Dichlorobenzene	4.657	146	155490	25.06 ppm	98
18) Acetophenone	4.850	105	206978	25.23 ppm	97
19) 2-Methylphenol	4.743	108	127078	25.03 ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.743	121	51944	25.55 ppm	98
21) 3&4-Methylphenol	4.866	108	135489	24.95 ppm	99

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82699.D
Acq On : 27 Apr 2016 5:53 pm
Operator : ashleyn
Sample : ic3623-25
Misc : op93161,e3e3623
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 28 09:19:51 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.850	70	111991	25.05 ppm		97
23) Hexachloroethane	4.925	201	54373	26.02 ppm		94
26) Nitrobenzene	4.984	77	169128	24.42 ppm		93
27) Quinoline	5.957	129	280037	25.55 ppm		99
28) Isophorone	5.187	82	268652	24.13 ppm		98
29) 2-Nitrophenol	5.256	139	84093	23.12 ppm		90
30) 2,4-Dimethylphenol	5.305	107	151751	24.63 ppm		99
31) Benzoic acid	5.412	105	117132	24.56 ppm		97
32) bis(2-Chloroethoxy)met...	5.379	93	144542	24.06 ppm		98
33) 2,4-Dichlorophenol	5.481	162	118015	24.84 ppm		95
34) 2,6-Dichlorophenol	5.690	162	115788	24.75 ppm		98
35) 1,3,5-Trichlorobenzene	5.262	180	133190	23.92 ppm		99
36) 1,2,4-Trichlorobenzene	5.545	180	126440	24.82 ppm		98
37) 1,2,3-Trichlorobenzene	5.759	180	123475	25.82 ppm		97
38) Naphthalene	5.620	128	432255	24.30 ppm		99
39) 4-Chloroaniline	5.684	127	183543	24.36 ppm		98
40) 2,3-Dichloroaniline	6.674	161	141491	25.16 ppm		99
41) Caprolactam	6.048	55	64698	26.89 ppm		95
42) Hexachlorobutadiene	5.732	225	76038	25.97 ppm		100
43) 4-Chloro-3-methylphenol	6.203	107	131704	25.34 ppm		96
44) 2-Methylnaphthalene	6.342	141	251436	24.77 ppm		98
45) 1-Methylnaphthalene	6.449	141	262533	25.25 ppm		99
46) Dimethylnaphthalene	7.091	156	255808	25.66 ppm		97
48) Hexachlorocyclopentadiene	6.513	237	138745	42.10 ppm		97
49) 2,4,6-Trichlorophenol	6.684	196	85386	24.28 ppm		98
50) 2,4,5-Trichlorophenol	6.738	196	88416	23.48 ppm		95
52) 2-Chloronaphthalene	6.914	162	258786	24.47 ppm		98
53) Biphenyl	6.893	154	340582	23.45 ppm		99
54) 2-Nitroaniline	7.059	65	98288	24.23 ppm		97
55) Dimethylphthalate	7.305	163	306266	24.72 ppm		98
56) Acenaphthylene	7.444	152	431883	24.37 ppm		97
57) 2,6-Dinitrotoluene	7.385	165	70026	24.35 ppm		98
58) 3-Nitroaniline	7.610	138	77457	23.94 ppm		95
59) Acenaphthene	7.674	153	278321	23.56 ppm		98
60) 2,4-Dinitrophenol	7.765	184	61361	38.70 ppm		96
61) 4-Nitrophenol	7.915	109	50961	23.50 ppm	#	44
62) Dibenzofuran	7.920	168	372073	24.29 ppm		94
63) 2,4-Dinitrotoluene	7.941	165	98175	24.46 ppm		80
64) 2,3,4,6-Tetrachlorophenol	8.113	232	69198	23.86 ppm		94
65) Diethylphthalate	8.300	149	325833	24.52 ppm		99
66) Fluorene	8.401	166	316275	24.23 ppm		99
67) 4-Chlorophenyl-phenyle...	8.428	204	144871	25.55 ppm		96
68) 4-Nitroaniline	8.471	138	76150	24.31 ppm		96
70) 4,6-Dinitro-2-methylph...	8.524	198	52679	21.78 ppm		91
71) n-Nitrosodiphenylamine	8.610	169	212802	23.39 ppm		98
72) 1,2-Diphenylhydrazine	8.658	77	325061	23.30 ppm		100
74) 4-Bromophenyl-phenylether	9.150	248	88446	24.09 ppm		98
75) Hexachlorobenzene	9.209	284	106499	25.13 ppm		98
76) Pentachlorophenol	9.541	266	111325	44.96 ppm		96
77) Phenanthrene	9.835	178	435298	24.04 ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82699.D
Acq On : 27 Apr 2016 5:53 pm
Operator : ashleyn
Sample : ic3623-25
Misc : op93161,e3e3623
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 28 09:19:51 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.910	178	447800	24.22 ppm	99
79) Carbazole	10.199	167	400167	23.62 ppm	98
80) Di-n-butylphthalate	10.824	149	538964	23.20 ppm	99
81) Fluoranthene	11.691	202	481158	23.41 ppm	99
82) Octadecane	9.760	57	182285	22.13 ppm	96
84) Pyrene	12.038	202	502576	24.36 ppm	98
86) Butylbenzylphthalate	13.204	149	250247	23.59 ppm	97
87) Butyl stearate	13.381	56	130595	22.22 ppm	92
88) Benzo[a]anthracene	13.964	228	482758	24.75 ppm	98
89) 3,3'-Dichlorobenzidine	13.980	252	191333	25.42 ppm	98
90) Chrysene	14.017	228	460084	26.07 ppm	99
91) bis(2-Ethylhexyl)phtha...	14.167	149	337045	25.66 ppm	100
93) Di-n-octylphthalate	15.162	149	582074	21.82 ppm	97
94) Benzo[b]fluoranthene	15.569	252	511710	23.73 ppm	99
95) Benzo[k]fluoranthene	15.611	252	453609	24.56 ppm	99
96) Benzo[a]pyrene	16.007	252	430506	24.37 ppm	99
97) Indeno[1,2,3-cd]pyrene	17.553	276	412456	23.90 ppm	99
98) Dibenz(a,h)acridine	17.227	279	386805	23.50 ppm	99
99) Dibenz[a,h]anthracene	17.590	278	412067	25.61 ppm	99
100) 7,12-Dimethylbenz(a)an...	15.569	256	235923	23.14 ppm	99
101) Benzo[g,h,i]perylene	17.959	276	397616	25.91 ppm	98

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

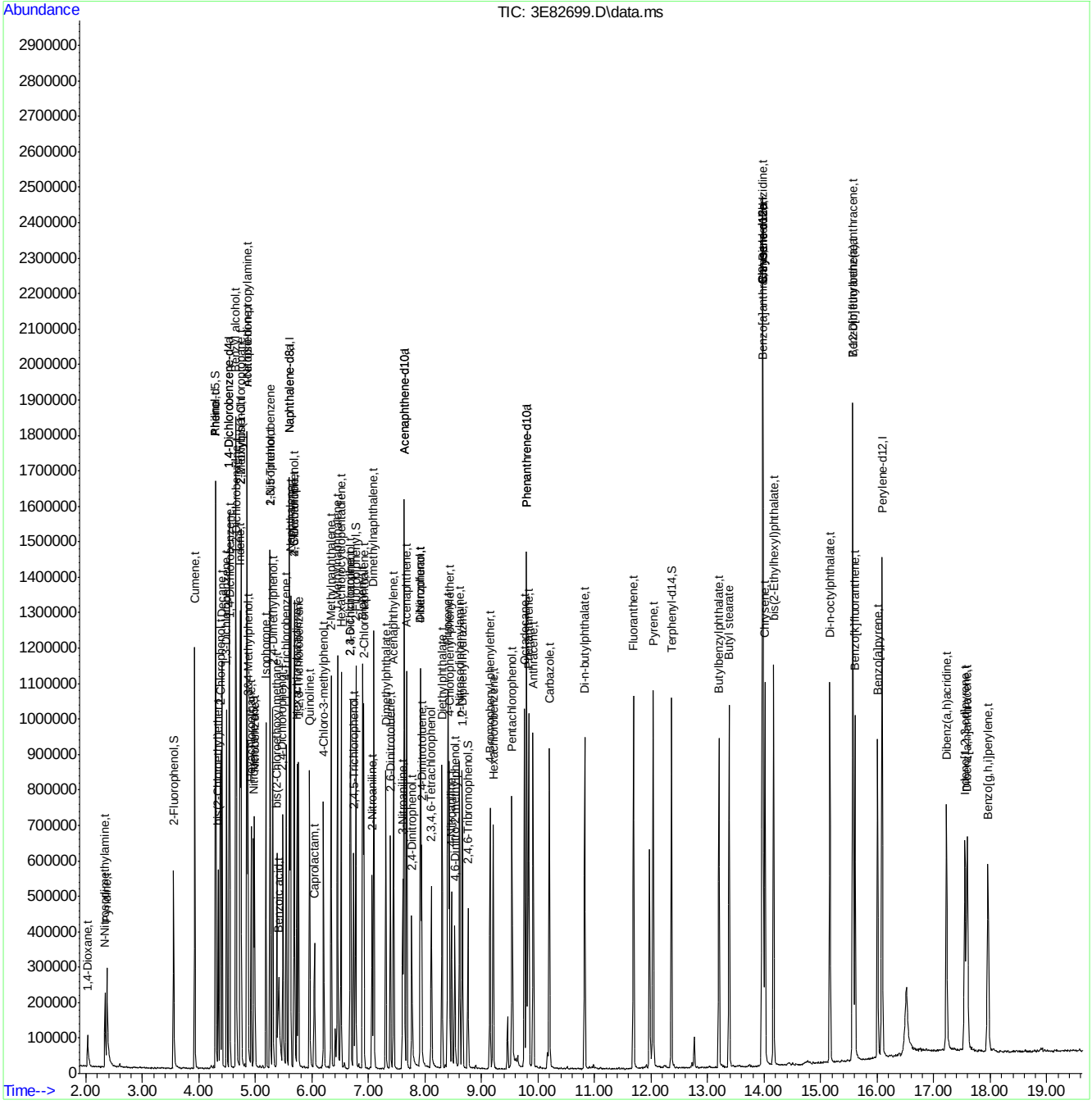
7.6.17

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82699.D
Acq On : 27 Apr 2016 5:53 pm
Operator : ashleyn
Sample : ic3623-25
Misc : op93161,e3e3623
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 28 09:19:51 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:07:42 2016
QLast Update : Thu Apr 28 09:07:42 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/28/16 16:14

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82700.D
Acq On : 27 Apr 2016 6:18 pm
Operator : ashleyn
Sample : ic3623-10
Misc : op93161,e3e3623
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 28 09:22:21 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:20:59 2016
QLast Update : Thu Apr 28 09:20:59 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	193225	40.00	ppm	0.00
24) Naphthalene-d8	5.599	136	738599	40.00	ppm	0.00
47) Acenaphthene-d10	7.631	164	429652	40.00	ppm	0.00
69) Phenanthrene-d10	9.797	188	719640	40.00	ppm	0.00
83) Chrysene-d12	13.975	240	781748	40.00	ppm	-0.01
92) Perylene-d12	16.087	264	723976	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	193225	40.00	ppm	0.00
104) Acenaphthene-d10a	7.631	164	429652	40.00	ppm	0.00
106) Phenanthrene-d10a	9.797	188	719640	40.00	ppm	0.00
110) Chrysene-d12a	13.975	240	781748	40.00	ppm	-0.01
112) Naphthalene-d8a	5.599	136	738599	40.00	ppm	0.00
114) Chrysene-d12b	13.975	240	781748	40.00	ppm	-0.01

System Monitoring Compounds						
5) 2-Fluorophenol	3.550	112	53117	8.71	ppm	0.00
Spiked Amount 50.000			Recovery	=	17.42%	
8) Phenol-d5	4.288	99	69134	8.54	ppm	0.00
Spiked Amount 50.000			Recovery	=	17.08%	
25) Nitrobenzene-d5	4.968	82	67872	9.08	ppm	0.00
Spiked Amount 50.000			Recovery	=	18.16%	
51) 2-Fluorobiphenyl	6.775	172	129909	9.27	ppm	0.00
Spiked Amount 50.000			Recovery	=	18.54%	
73) 2,4,6-Tribromophenol	8.760	330	24949	9.92	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.84%	
85) Terphenyl-d14	12.359	244	152282	9.39	ppm	0.00
Spiked Amount 50.000			Recovery	=	18.78%	
108) o-Terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds						Qvalue
2) 1,4-Dioxane	2.031	88	15912	9.84	ppm	97
3) Pyridine	2.374	79	47198	9.19	ppm	97
4) N-Nitrosodimethylamine	2.341	74	25840	8.67	ppm	95
6) Indene	4.727	116	105622	9.23	ppm	96
7) Cumene	3.925	105	152118	9.07	ppm	98
9) Phenol	4.299	94	75924	8.65	ppm	98
10) Aniline	4.288	93	86266	8.52	ppm	89
11) bis(2-Chloroethyl)ether	4.342	93	52436	9.29	ppm	92
12) 2-Chlorophenol	4.385	128	62370	8.92	ppm	93
13) Decane	4.406	43	67138	9.03	ppm	92
14) 1,3-Dichlorobenzene	4.486	146	70060	9.28	ppm	98
15) 1,4-Dichlorobenzene	4.545	146	72182	9.43	ppm	99
16) Benzyl alcohol	4.647	108	37152	8.32	ppm	89
17) 1,2-Dichlorobenzene	4.657	146	65875	9.23	ppm	97
18) Acetophenone	4.845	105	85212	8.98	ppm	96
19) 2-Methylphenol	4.743	108	53609	9.21	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.743	121	21749	9.28	ppm	93
21) 3&4-Methylphenol	4.866	108	55495	8.91	ppm	100

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82700.D
Acq On : 27 Apr 2016 6:18 pm
Operator : ashleyn
Sample : ic3623-10
Misc : op93161,e3e3623
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 28 09:22:21 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:20:59 2016
QLast Update : Thu Apr 28 09:20:59 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	4.845	70	46351	9.00 ppm	94
23) Hexachloroethane	4.919	201	23678	9.81 ppm	84
26) Nitrobenzene	4.984	77	68889	8.90 ppm	99
27) Quinoline	5.957	129	118437	9.60 ppm	99
28) Isophorone	5.182	82	115612	9.30 ppm	97
29) 2-Nitrophenol	5.256	139	35717	8.87 ppm	86
30) 2,4-Dimethylphenol	5.305	107	61328	8.90 ppm	97
31) Benzoic acid	5.412	105	40145m	7.52 ppm	
32) bis(2-Chloroethoxy)met...	5.374	93	61673	9.24 ppm	98
33) 2,4-Dichlorophenol	5.486	162	50833	9.53 ppm	94
34) 2,6-Dichlorophenol	5.690	162	49077	9.36 ppm	98
35) 1,3,5-Trichlorobenzene	5.262	180	58573	9.46 ppm	99
36) 1,2,4-Trichlorobenzene	5.545	180	56407	9.86 ppm	98
37) 1,2,3-Trichlorobenzene	5.759	180	54366	10.06 ppm	96
38) Naphthalene	5.620	128	184786	9.30 ppm	97
39) 4-Chloroaniline	5.679	127	75000	8.91 ppm	98
40) 2,3-Dichloroaniline	6.674	161	61515	9.72 ppm	93
41) Caprolactam	6.032	55	25118	9.09 ppm	97
42) Hexachlorobutadiene	5.732	225	33884	10.22 ppm	97
43) 4-Chloro-3-methylphenol	6.203	107	55143	9.35 ppm	97
44) 2-Methylnaphthalene	6.342	141	106443	9.35 ppm	96
45) 1-Methylnaphthalene	6.449	141	111820	9.54 ppm	98
46) Dimethylnaphthalene	7.091	156	110199	9.75 ppm	98
48) Hexachlorocyclopentadiene	6.513	237	50110	13.95 ppm	95
49) 2,4,6-Trichlorophenol	6.679	196	36324	9.20 ppm	97
50) 2,4,5-Trichlorophenol	6.738	196	39506	9.40 ppm	99
52) 2-Chloronaphthalene	6.915	162	114506	9.59 ppm	100
53) Biphenyl	6.893	154	147040	9.02 ppm	100
54) 2-Nitroaniline	7.059	65	41767	9.01 ppm	90
55) Dimethylphthalate	7.305	163	131665	9.41 ppm	98
56) Acenaphthylene	7.439	152	186145	9.27 ppm	97
57) 2,6-Dinitrotoluene	7.385	165	29704	9.19 ppm	89
58) 3-Nitroaniline	7.604	138	32160	8.86 ppm	97
59) Acenaphthene	7.674	153	124890	9.41 ppm	98
60) 2,4-Dinitrophenol	7.770	184	18473	10.82 ppm	91
61) 4-Nitrophenol	7.925	109	19208	7.82 ppm	92
62) Dibenzofuran	7.915	168	163040	9.41 ppm	91
63) 2,4-Dinitrotoluene	7.941	165	40940	9.05 ppm	80
64) 2,3,4,6-Tetrachlorophenol	8.113	232	30289	9.34 ppm	91
65) Diethylphthalate	8.294	149	138373	9.16 ppm	99
66) Fluorene	8.401	166	132760	9.01 ppm	98
67) 4-Chlorophenyl-phenyle...	8.428	204	62789	9.73 ppm	94
68) 4-Nitroaniline	8.466	138	30946	8.72 ppm	98
70) 4,6-Dinitro-2-methylph...	8.524	198	18838	7.12 ppm	97
71) n-Nitrosodiphenylamine	8.610	169	92910	9.20 ppm	96
72) 1,2-Diphenylhydrazine	8.658	77	138351	8.89 ppm	95
74) 4-Bromophenyl-phenylether	9.145	248	40759	9.94 ppm	98
75) Hexachlorobenzene	9.204	284	49410	10.32 ppm	98
76) Pentachlorophenol	9.535	266	41590	15.31 ppm	92
77) Phenanthrene	9.830	178	189020	9.28 ppm	100

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82700.D
Acq On : 27 Apr 2016 6:18 pm
Operator : ashleyn
Sample : ic3623-10
Misc : op93161,e3e3623
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 28 09:22:21 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:20:59 2016
QLast Update : Thu Apr 28 09:20:59 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.910	178	192668	9.29 ppm	100
79) Carbazole	10.199	167	172487	9.13 ppm	99
80) Di-n-butylphthalate	10.824	149	220647	8.53 ppm	99
81) Fluoranthene	11.685	202	206442	9.02 ppm	99
82) Octadecane	9.755	57	75715	8.33 ppm	96
84) Pyrene	12.033	202	215472	9.24 ppm	99
86) Butylbenzylphthalate	13.199	149	98394	8.23 ppm	97
87) Butyl stearate	13.376	56	50263	7.72 ppm	93
88) Benzo[a]anthracene	13.959	228	208508	9.41 ppm	99
89) 3,3'-Dichlorobenzidine	13.980	252	80162	9.30 ppm	99
90) Chrysene	14.012	228	197286	9.71 ppm	98
91) bis(2-Ethylhexyl)phtha...	14.167	149	132606	8.78 ppm	99
93) Di-n-octylphthalate	15.157	149	223924	7.34 ppm	97
94) Benzo[b]fluoranthene	15.563	252	220297	8.73 ppm	98
95) Benzo[k]fluoranthene	15.606	252	206870	9.60 ppm	98
96) Benzo[a]pyrene	16.007	252	190201	9.18 ppm	99
97) Indeno[1,2,3-cd]pyrene	17.542	276	175214	8.75 ppm	99
98) Dibenz(a,h)acridine	17.227	279	164264	8.58 ppm	100
99) Dibenz[a,h]anthracene	17.585	278	181661	9.50 ppm	99
100) 7,12-Dimethylbenz(a)an...	15.563	256	94359	8.01 ppm	97
101) Benzo[g,h,i]perylene	17.954	276	180122	9.84 ppm	97

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

7.6.18

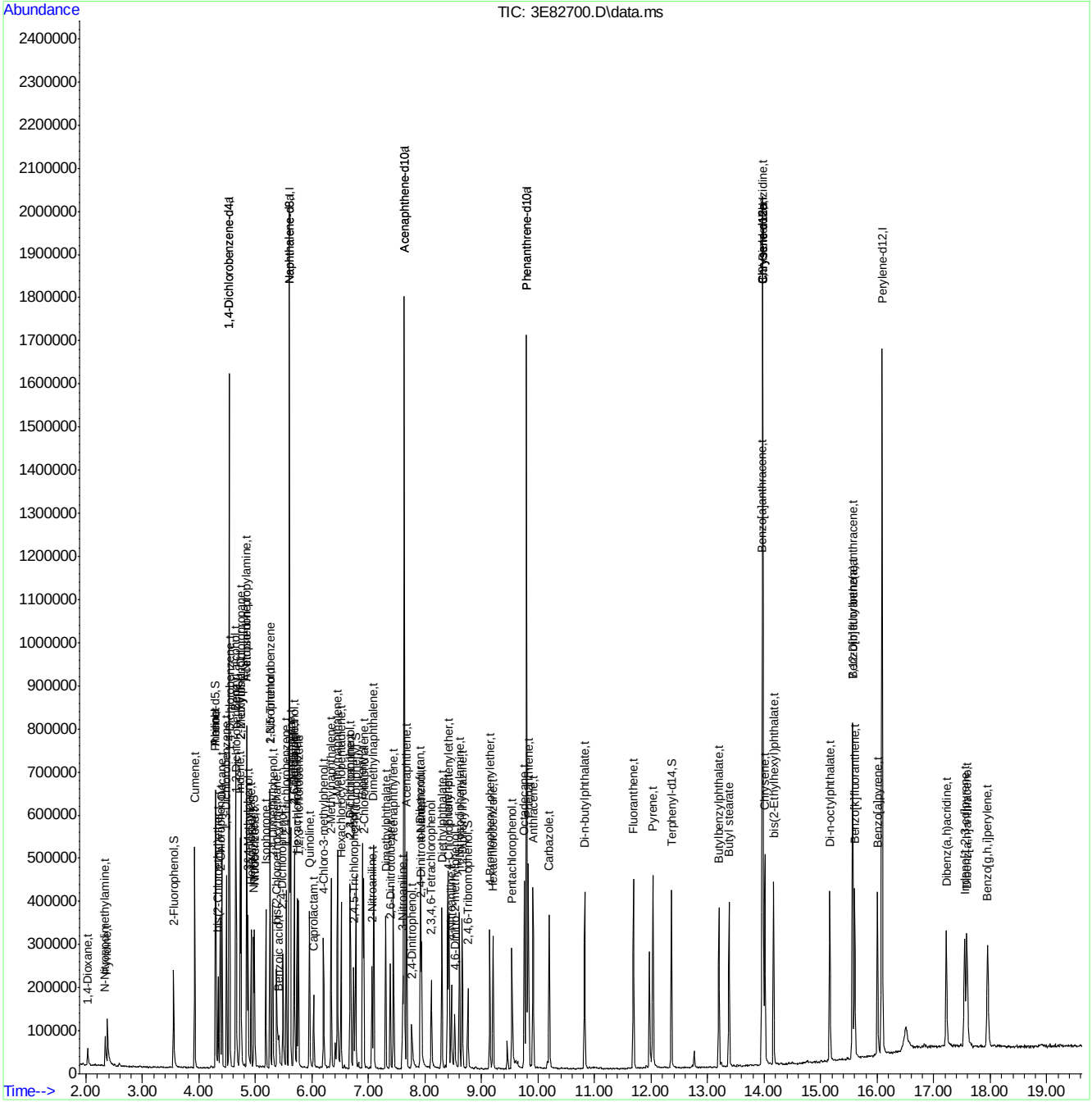
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82700.D
Acq On : 27 Apr 2016 6:18 pm
Operator : ashleyn
Sample : ic3623-10
Misc : op93161,e3e3623
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 28 09:22:21 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:20:59 2016
QLast Update : Thu Apr 28 09:20:59 2016
Response via : Initial Calibration



M3E3623.M Thu Apr 28 09:22:36 2016 MS3E Page: 4

Manual Integration Approval Summary

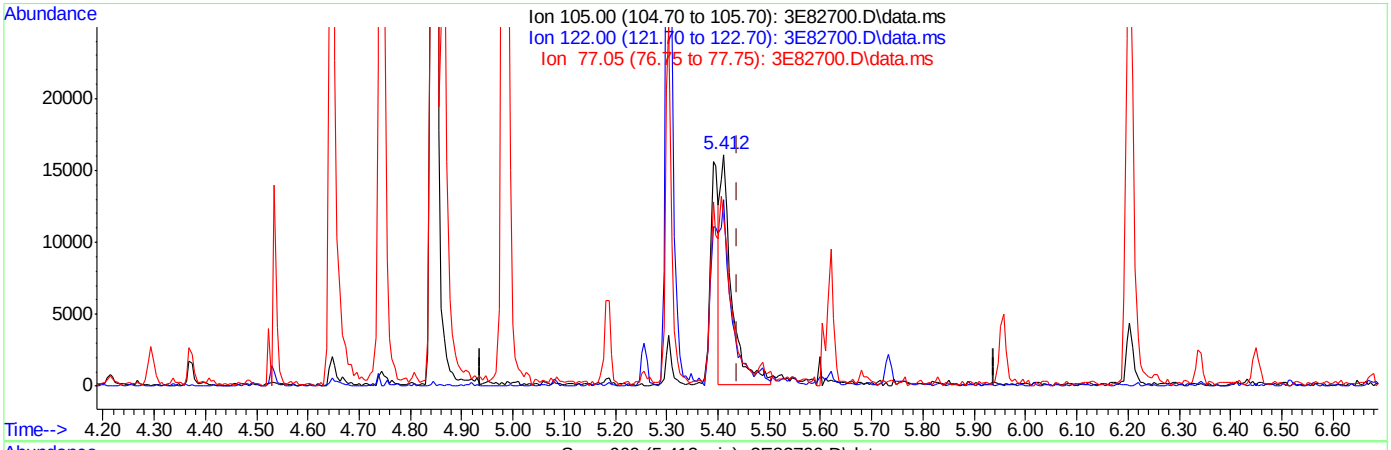
Sample Number:	E3E3623-IC3623	**Method:**	SW846 8270D
Lab FileID:	3E82700.D	**Analyst approved:**	04/28/16 10:43 Ashley Noble
Injection Time:	04/27/16 18:18	**Supervisor approved:**	04/28/16 16:14 Kristi Schollenberger

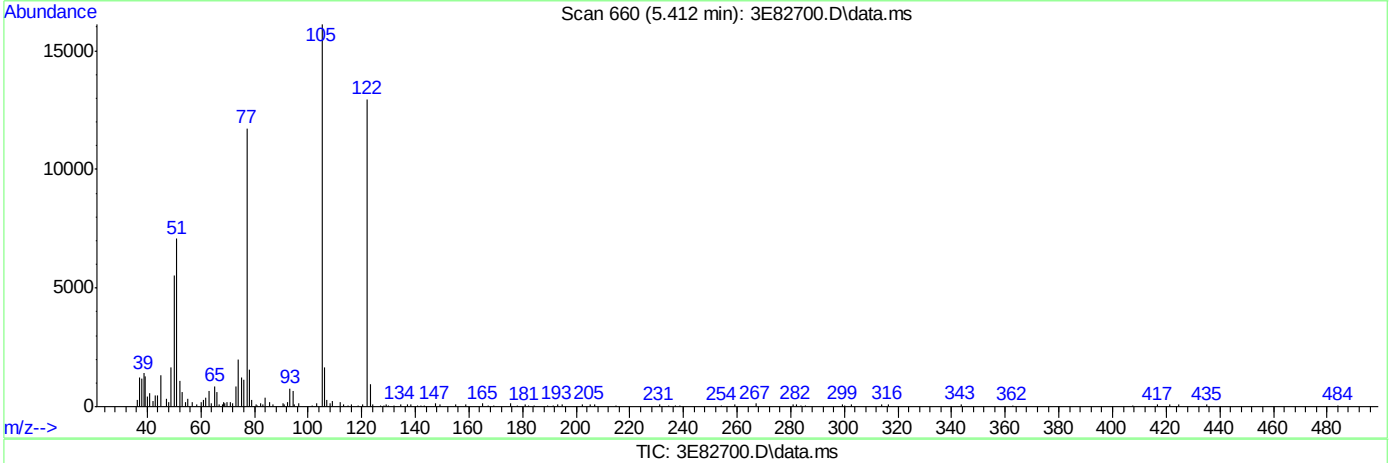
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.41	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82700.D
Acq On : 27 Apr 2016 6:18 pm
Operator : ashleyn
Sample : ic3623-10
Misc : op93161,e3e3623
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 28 09:21:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:20:59 2016
QLast Update : Thu Apr 28 09:20:59 2016
Response via : Initial Calibration





TIC: 3E82700.D\data.ms

(31) Benzoic acid (t)

5.412min (-0.027) 4.51ppm

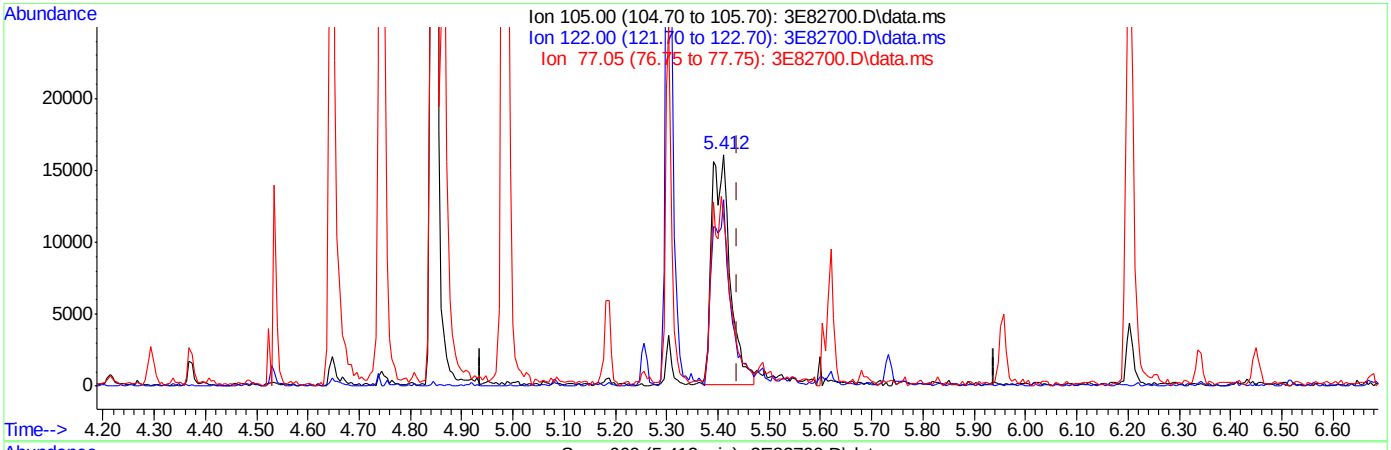
response 24058

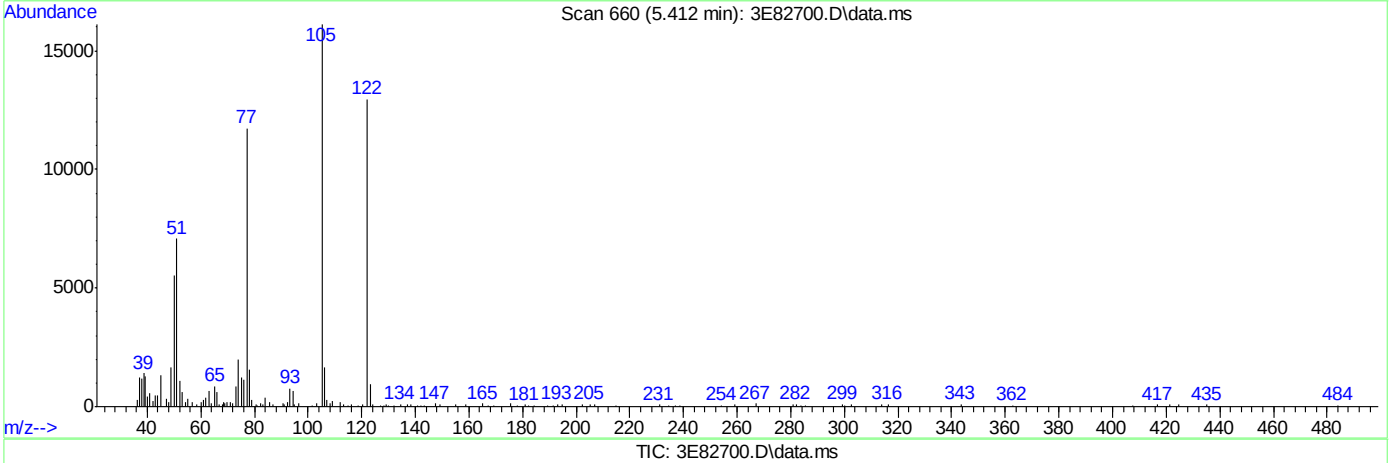
Ion	Exp%	Act%
105.00	100	100
122.00	74.00	78.66
77.05	79.10	64.40
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82700.D
Acq On : 27 Apr 2016 6:18 pm
Operator : ashleyn
Sample : ic3623-10
Misc : op93161,e3e3623
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 28 09:21:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:20:59 2016
QLast Update : Thu Apr 28 09:20:59 2016
Response via : Initial Calibration





TIC: 3E82700.D\data.ms

(31) Benzoic acid (t)

5.412min (-0.027) 7.52ppm m

response 40145

Ion	Exp%	Act%
105.00	100	100
122.00	74.00	80.43
77.05	79.10	72.77
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82701.D
Acq On : 27 Apr 2016 6:44 pm
Operator : ashleyn
Sample : ic3623-5
Misc : op93161,e3e3623
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 28 09:23:59 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:22:44 2016
QLast Update : Thu Apr 28 09:22:44 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	191497	40.00 ppm	0.00
24) Naphthalene-d8	5.599	136	747633	40.00 ppm	0.00
47) Acenaphthene-d10	7.631	164	443822	40.00 ppm	0.00
69) Phenanthrene-d10	9.797	188	754904	40.00 ppm	0.00
83) Chrysene-d12	13.975	240	830501	40.00 ppm	-0.01
92) Perylene-d12	16.087	264	779438	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	191497	40.00 ppm	0.00
104) Acenaphthene-d10a	7.631	164	443822	40.00 ppm	0.00
106) Phenanthrene-d10a	9.797	188	754904	40.00 ppm	0.00
110) Chrysene-d12a	13.975	240	830501	40.00 ppm	-0.01
112) Naphthalene-d8a	5.599	136	747633	40.00 ppm	0.00
114) Chrysene-d12b	13.975	240	830501	40.00 ppm	-0.01

System Monitoring Compounds					
5) 2-Fluorophenol	3.550	112	30398	5.16 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.32%	
8) Phenol-d5	4.288	99	38311	4.92 ppm	0.00
Spiked Amount 50.000			Recovery	= 9.84%	
25) Nitrobenzene-d5	4.968	82	39872	5.37 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.74%	
51) 2-Fluorobiphenyl	6.775	172	75663	5.30 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.60%	
73) 2,4,6-Tribromophenol	8.760	330	14205	5.39 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.78%	
85) Terphenyl-d14	12.359	244	89330	5.25 ppm	0.00
Spiked Amount 50.000			Recovery	= 10.50%	
108) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
109) 1-Chlorooctadecane	0.000	57	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	

Target Compounds					Qvalue
2) 1,4-Dioxane	2.031	88	9415	5.89 ppm	90
3) Pyridine	2.384	79	27830	5.56 ppm	98
4) N-Nitrosodimethylamine	2.341	74	13490	4.69 ppm	96
6) Indene	4.727	116	61925	5.55 ppm	98
7) Cumene	3.925	105	84643	5.19 ppm	99
9) Phenol	4.299	94	41937	4.95 ppm	98
10) Aniline	4.288	93	49912	5.13 ppm	87
11) bis(2-Chloroethyl)ether	4.342	93	29241	5.30 ppm	95
12) 2-Chlorophenol	4.385	128	36710	5.41 ppm	99
13) Decane	4.406	43	36893	5.11 ppm	95
14) 1,3-Dichlorobenzene	4.486	146	39855	5.40 ppm	96
15) 1,4-Dichlorobenzene	4.545	146	42843	5.71 ppm	98
16) Benzyl alcohol	4.647	108	21621	5.05 ppm	93
17) 1,2-Dichlorobenzene	4.657	146	38399	5.52 ppm	97
18) Acetophenone	4.845	105	50290	5.46 ppm	97
19) 2-Methylphenol	4.743	108	31556	5.56 ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.743	121	12846	5.61 ppm	91
21) 3&4-Methylphenol	4.866	108	33212	5.50 ppm	97

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82701.D
Acq On : 27 Apr 2016 6:44 pm
Operator : ashleyn
Sample : ic3623-5
Misc : op93161,e3e3623
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 28 09:23:59 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:22:44 2016
QLast Update : Thu Apr 28 09:22:44 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.845	70	25330	5.07	ppm		96
23) Hexachloroethane	4.920	201	13788	5.79	ppm		87
26) Nitrobenzene	4.984	77	39696	5.18	ppm		97
27) Quinoline	5.957	129	71291	5.75	ppm		96
28) Isophorone	5.182	82	65037	5.24	ppm		99
29) 2-Nitrophenol	5.256	139	20106	5.05	ppm		81
30) 2,4-Dimethylphenol	5.305	107	35831	5.25	ppm		97
31) Benzoic acid	5.406	105	21984	4.28	ppm		96
32) bis(2-Chloroethoxy)met...	5.374	93	36160	5.44	ppm		99
33) 2,4-Dichlorophenol	5.486	162	28650	5.36	ppm		91
34) 2,6-Dichlorophenol	5.690	162	28121	5.37	ppm		96
35) 1,3,5-Trichlorobenzene	5.256	180	33354	5.38	ppm		99
36) 1,2,4-Trichlorobenzene	5.545	180	32258	5.59	ppm		97
37) 1,2,3-Trichlorobenzene	5.759	180	30618	5.59	ppm		98
38) Naphthalene	5.620	128	110465	5.57	ppm		99
39) 4-Chloroaniline	5.679	127	43690	5.24	ppm		96
40) 2,3-Dichloroaniline	6.674	161	36285	5.70	ppm		96
41) Caprolactam	6.027	55	14236	5.18	ppm		97
42) Hexachlorobutadiene	5.732	225	20379	6.05	ppm		97
43) 4-Chloro-3-methylphenol	6.203	107	30733	5.22	ppm		98
44) 2-Methylnaphthalene	6.342	141	62634	5.51	ppm		93
45) 1-Methylnaphthalene	6.449	141	66014	5.61	ppm		98
46) Dimethylnaphthalene	7.091	156	64844	5.70	ppm		97
48) Hexachlorocyclopentadiene	6.513	237	25741	7.38	ppm		90
49) 2,4,6-Trichlorophenol	6.685	196	20723	5.16	ppm		93
50) 2,4,5-Trichlorophenol	6.738	196	23252	5.42	ppm		98
52) 2-Chloronaphthalene	6.915	162	67577	5.52	ppm		97
53) Biphenyl	6.893	154	87576	5.30	ppm		99
54) 2-Nitroaniline	7.059	65	23150	4.93	ppm		99
55) Dimethylphthalate	7.305	163	78324	5.48	ppm		99
56) Acenaphthylene	7.439	152	110126	5.39	ppm		97
57) 2,6-Dinitrotoluene	7.385	165	17570	5.35	ppm		83
58) 3-Nitroaniline	7.605	138	19021	5.19	ppm		92
59) Acenaphthene	7.674	153	72724	5.37	ppm		93
60) 2,4-Dinitrophenol	7.770	184	8113	5.07	ppm		84
61) 4-Nitrophenol	7.931	109	10537	4.34	ppm	#	28
62) Dibenzofuran	7.915	168	95786	5.42	ppm		88
63) 2,4-Dinitrotoluene	7.941	165	23880	5.21	ppm		90
64) 2,3,4,6-Tetrachlorophenol	8.113	232	18184	5.50	ppm		92
65) Diethylphthalate	8.294	149	82307	5.37	ppm		100
66) Fluorene	8.401	166	79104	5.30	ppm		96
67) 4-Chlorophenyl-phenyle...	8.423	204	38565	5.82	ppm		96
68) 4-Nitroaniline	8.460	138	19338	5.42	ppm		90
70) 4,6-Dinitro-2-methylph...	8.524	198	9662	3.69	ppm		96
71) n-Nitrosodiphenylamine	8.605	169	56379	5.41	ppm		94
72) 1,2-Diphenylhydrazine	8.653	77	78221	4.90	ppm		100
74) 4-Bromophenyl-phenylether	9.145	248	23369	5.44	ppm		97
75) Hexachlorobenzene	9.204	284	29177	5.77	ppm		96
76) Pentachlorophenol	9.541	266	22726	8.37	ppm		94
77) Phenanthrene	9.830	178	115804	5.50	ppm		98

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82701.D
Acq On : 27 Apr 2016 6:44 pm
Operator : ashleyn
Sample : ic3623-5
Misc : op93161,e3e3623
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 28 09:23:59 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:22:44 2016
QLast Update : Thu Apr 28 09:22:44 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.910	178	115488	5.38 ppm	98
79) Carbazole	10.199	167	102376	5.26 ppm	96
80) Di-n-butylphthalate	10.824	149	127273	4.83 ppm	98
81) Fluoranthene	11.686	202	122702	5.21 ppm	98
82) Octadecane	9.755	57	43825	4.75 ppm	98
84) Pyrene	12.033	202	129954	5.33 ppm	98
86) Butylbenzylphthalate	13.199	149	55724	4.55 ppm	98
87) Butyl stearate	13.376	56	28528	4.32 ppm	91
88) Benzo[a]anthracene	13.959	228	127135	5.46 ppm	99
89) 3,3'-Dichlorobenzidine	13.980	252	48148	5.33 ppm	92
90) Chrysene	14.012	228	122364	5.70 ppm	99
91) bis(2-Ethylhexyl)phtha...	14.167	149	76560	4.89 ppm	99
93) Di-n-octylphthalate	15.157	149	129029	4.15 ppm	97
94) Benzo[b]fluoranthene	15.563	252	133466	5.04 ppm	98
95) Benzo[k]fluoranthene	15.601	252	123290	5.36 ppm	99
96) Benzo[a]pyrene	16.007	252	112674	5.13 ppm	99
97) Indeno[1,2,3-cd]pyrene	17.542	276	105323	5.05 ppm	97
98) Dibenz(a,h)acridine	17.221	279	99143	4.95 ppm	98
99) Dibenz[a,h]anthracene	17.585	278	111077	5.45 ppm	99
100) 7,12-Dimethylbenz(a)an...	15.558	256	57230	4.70 ppm	99
101) Benzo[g,h,i]perylene	17.954	276	107396	5.47 ppm	98

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

7.6.19

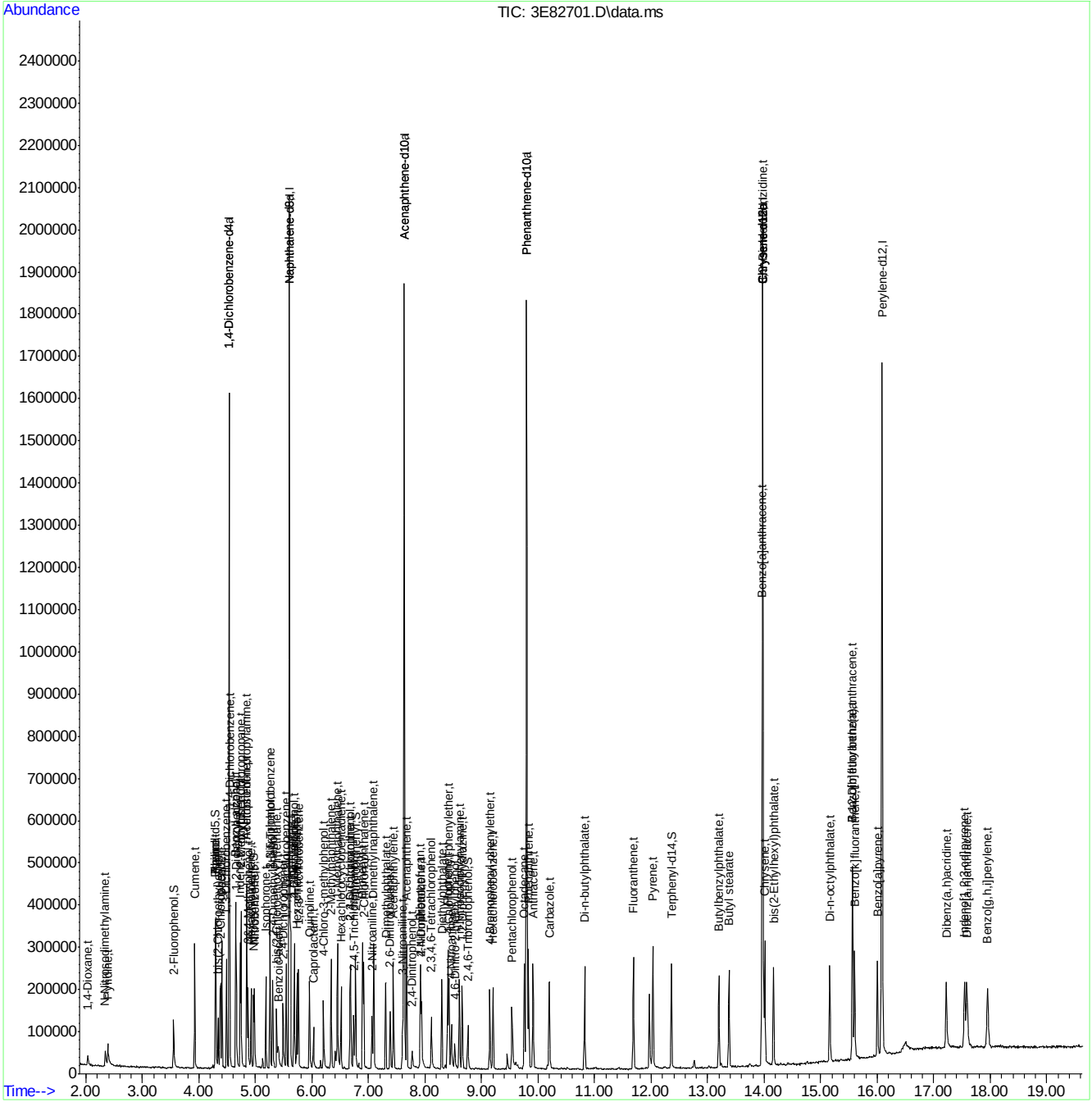
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82701.D
Acq On : 27 Apr 2016 6:44 pm
Operator : ashleyn
Sample : ic3623-5
Misc : op93161,e3e3623
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 28 09:23:59 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:22:44 2016
QLast Update : Thu Apr 28 09:22:44 2016
Response via : Initial Calibration



M3E3623.M Thu Apr 28 09:26:37 2016 MS3E Page: 4

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/28/16 16:14

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82703.D
Acq On : 27 Apr 2016 7:10 pm
Operator : ashleyn
Sample : ic3623-1
Misc : op93161,e3e3623
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 28 16:21:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:28:02 2016
QLast Update : Thu Apr 28 09:28:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	201336	40.00	ppm	0.00
24) Naphthalene-d8	5.599	136	784399	40.00	ppm	0.00
47) Acenaphthene-d10	7.631	164	471658	40.00	ppm	0.00
69) Phenanthrene-d10	9.797	188	809372	40.00	ppm	0.00
83) Chrysene-d12	13.975	240	879982	40.00	ppm	-0.01
92) Perylene-d12	16.087	264	860340	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	201336	40.00	ppm	0.00
104) Acenaphthene-d10a	7.631	164	471658	40.00	ppm	0.00
106) Phenanthrene-d10a	9.797	188	809372	40.00	ppm	0.00
110) Chrysene-d12a	13.975	240	879982	40.00	ppm	-0.01
112) Naphthalene-d8a	5.599	136	784399	40.00	ppm	0.00
114) Chrysene-d12b	13.975	240	879982	40.00	ppm	-0.01

System Monitoring Compounds						
5) 2-Fluorophenol	3.555	112	5953	0.96	ppm	0.00
Spiked Amount 50.000			Recovery = 1.92%			
8) Phenol-d5	4.294	99	7146	0.88	ppm	0.00
Spiked Amount 50.000			Recovery = 1.76%			
25) Nitrobenzene-d5	4.968	82	8116	1.04	ppm	0.00
Spiked Amount 50.000			Recovery = 2.08%			
51) 2-Fluorobiphenyl	6.775	172	17193	1.11	ppm	0.00
Spiked Amount 50.000			Recovery = 2.22%			
73) 2,4,6-Tribromophenol	8.760	330	2839	0.99	ppm	0.00
Spiked Amount 50.000			Recovery = 1.98%			
85) Terphenyl-d14	12.354	244	19679	1.08	ppm	-0.01
Spiked Amount 50.000			Recovery = 2.16%			
108) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.036	88	2343	1.33	ppm		84
3) Pyridine	2.422	79	3481	0.67	ppm		88
4) N-Nitrosodimethylamine	2.379	74	1649	0.56	ppm	#	1
6) Indene	4.727	116	12150	1.01	ppm		99
7) Cumene	3.925	105	18710	1.08	ppm		97
9) Phenol	4.299	94	8156	0.92	ppm		89
10) Aniline	4.294	93	9942	0.97	ppm		86
11) bis(2-Chloroethyl)ether	4.342	93	6644	1.12	ppm		94
12) 2-Chlorophenol	4.385	128	7357	1.01	ppm		93
13) Decane	4.406	43	8247	1.08	ppm		86
14) 1,3-Dichlorobenzene	4.486	146	8687	1.10	ppm		95
15) 1,4-Dichlorobenzene	4.545	146	9617	1.17	ppm		94
16) Benzyl alcohol	4.652	108	4099	0.91	ppm		89
17) 1,2-Dichlorobenzene	4.657	146	7819	1.04	ppm		98
18) Acetophenone	4.845	105	10573	1.07	ppm		85
19) 2-Methylphenol	4.748	108	6283	1.02	ppm		92
20) 2,2'-oxybis(1-Chloropr...	4.743	121	2911	1.18	ppm	#	92
21) 3&4-Methylphenol	4.871	108	6617	1.02	ppm		80

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82703.D
Acq On : 27 Apr 2016 7:10 pm
Operator : ashleyn
Sample : ic3623-1
Misc : op93161,e3e3623
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 28 16:21:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:28:02 2016
QLast Update : Thu Apr 28 09:28:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.845	70	5407	1.03	ppm		83
23) Hexachloroethane	4.925	201	3129	1.20	ppm	#	78
26) Nitrobenzene	4.989	77	8613	1.07	ppm		98
27) Quinoline	5.957	129	14762	1.09	ppm		97
28) Isophorone	5.181	82	13387	1.02	ppm		89
29) 2-Nitrophenol	5.256	139	4086	0.98	ppm		74
30) 2,4-Dimethylphenol	5.304	107	7196	1.01	ppm		94
32) bis(2-Chloroethoxy)met...	5.379	93	7418	1.04	ppm		91
33) 2,4-Dichlorophenol	5.497	162	4911	0.87	ppm		98
34) 2,6-Dichlorophenol	5.690	162	6273	1.12	ppm		95
35) 1,3,5-Trichlorobenzene	5.262	180	7293	1.10	ppm		91
36) 1,2,4-Trichlorobenzene	5.545	180	7124	1.14	ppm		86
37) 1,2,3-Trichlorobenzene	5.759	180	7087	1.19	ppm		97
38) Naphthalene	5.620	128	23806	1.11	ppm		96
39) 4-Chloroaniline	5.684	127	8731	0.99	ppm		89
40) 2,3-Dichloroaniline	6.674	161	7806	1.13	ppm		99
41) Caprolactam	6.016	55	3391	1.17	ppm		82
42) Hexachlorobutadiene	5.732	225	4637	1.26	ppm		95
43) 4-Chloro-3-methylphenol	6.208	107	6644	1.05	ppm		94
44) 2-Methylnaphthalene	6.342	141	12709	1.04	ppm		97
45) 1-Methylnaphthalene	6.449	141	13691	1.08	ppm		97
46) Dimethylnaphthalene	7.091	156	13555	1.11	ppm		96
48) Hexachlorocyclopentadiene	6.513	237	2973	0.89	ppm		74
49) 2,4,6-Trichlorophenol	6.684	196	3952	0.91	ppm		95
50) 2,4,5-Trichlorophenol	6.749	196	5441	1.17	ppm		92
52) 2-Chloronaphthalene	6.914	162	13603	1.02	ppm		99
53) Biphenyl	6.893	154	17804	1.00	ppm		92
54) 2-Nitroaniline	7.059	65	5223	1.06	ppm		85
55) Dimethylphthalate	7.300	163	16447	1.06	ppm		94
56) Acenaphthylene	7.439	152	23329	1.05	ppm		97
57) 2,6-Dinitrotoluene	7.385	165	3404	0.97	ppm		85
58) 3-Nitroaniline	7.610	138	3926	1.01	ppm		85
59) Acenaphthene	7.674	153	16005	1.09	ppm		95
60) 2,4-Dinitrophenol	7.786	184	203	0.14	ppm	#	36
61) 4-Nitrophenol	7.952	109	2029m	0.84	ppm		
62) Dibenzofuran	7.915	168	21721	1.13	ppm		74
63) 2,4-Dinitrotoluene	7.941	165	4358	0.90	ppm		68
64) 2,3,4,6-Tetrachlorophenol	8.113	232	3215	0.90	ppm		82
65) Diethylphthalate	8.294	149	16231	0.98	ppm		96
66) Fluorene	8.401	166	17628	1.09	ppm		94
67) 4-Chlorophenyl-phenyle...	8.428	204	8145	1.11	ppm		95
68) 4-Nitroaniline	8.471	138	3455	0.91	ppm		85
70) 4,6-Dinitro-2-methylph...	8.530	198	949	0.38	ppm		95
71) n-Nitrosodiphenylamine	8.610	169	10751	0.95	ppm		98
72) 1,2-Diphenylhydrazine	8.658	77	15273	0.90	ppm		93
74) 4-Bromophenyl-phenylether	9.145	248	5450	1.15	ppm		99
75) Hexachlorobenzene	9.204	284	6748	1.20	ppm		90
76) Pentachlorophenol	9.541	266	3510	1.28	ppm	#	75
77) Phenanthrene	9.829	178	25171	1.08	ppm		98
78) Anthracene	9.910	178	24438	1.04	ppm		94

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82703.D
Acq On : 27 Apr 2016 7:10 pm
Operator : ashleyn
Sample : ic3623-1
Misc : op93161,e3e3623
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 28 16:21:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:28:02 2016
QLast Update : Thu Apr 28 09:28:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
79) Carbazole	10.198	167	21762	1.03 ppm	97
80) Di-n-butylphthalate	10.824	149	25922	0.94 ppm	100
81) Fluoranthene	11.691	202	25823	1.02 ppm	95
82) Octadecane	9.755	57	8950	0.93 ppm	98
84) Pyrene	12.033	202	27046	1.03 ppm	99
86) Butylbenzylphthalate	13.199	149	11749	0.93 ppm	91
87) Butyl stearate	13.376	56	5607	0.83 ppm	95
88) Benzo[a]anthracene	13.959	228	28123	1.11 ppm	89
89) 3,3'-Dichlorobenzidine	13.980	252	8797	0.91 ppm	82
90) Chrysene	14.012	228	26639	1.13 ppm	99
91) bis(2-Ethylhexyl)phtha...	14.167	149	14654	0.89 ppm	91
93) Di-n-octylphthalate	15.157	149	25082	0.77 ppm	99
94) Benzo[b]fluoranthene	15.563	252	29043	1.00 ppm	94
95) Benzo[k]fluoranthene	15.606	252	26060	1.00 ppm	88
96) Benzo[a]pyrene	16.002	252	24478	1.01 ppm	98
97) Indeno[1,2,3-cd]pyrene	17.548	276	22582	0.98 ppm	88
98) Dibenz(a,h)acridine	17.227	279	20454	0.93 ppm	97
99) Dibenz[a,h]anthracene	17.590	278	23967	1.05 ppm	97
100) 7,12-Dimethylbenz(a)an...	15.558	256	11743	0.89 ppm	98
101) Benzo[g,h,i]perylene	17.954	276	23216	1.05 ppm	94

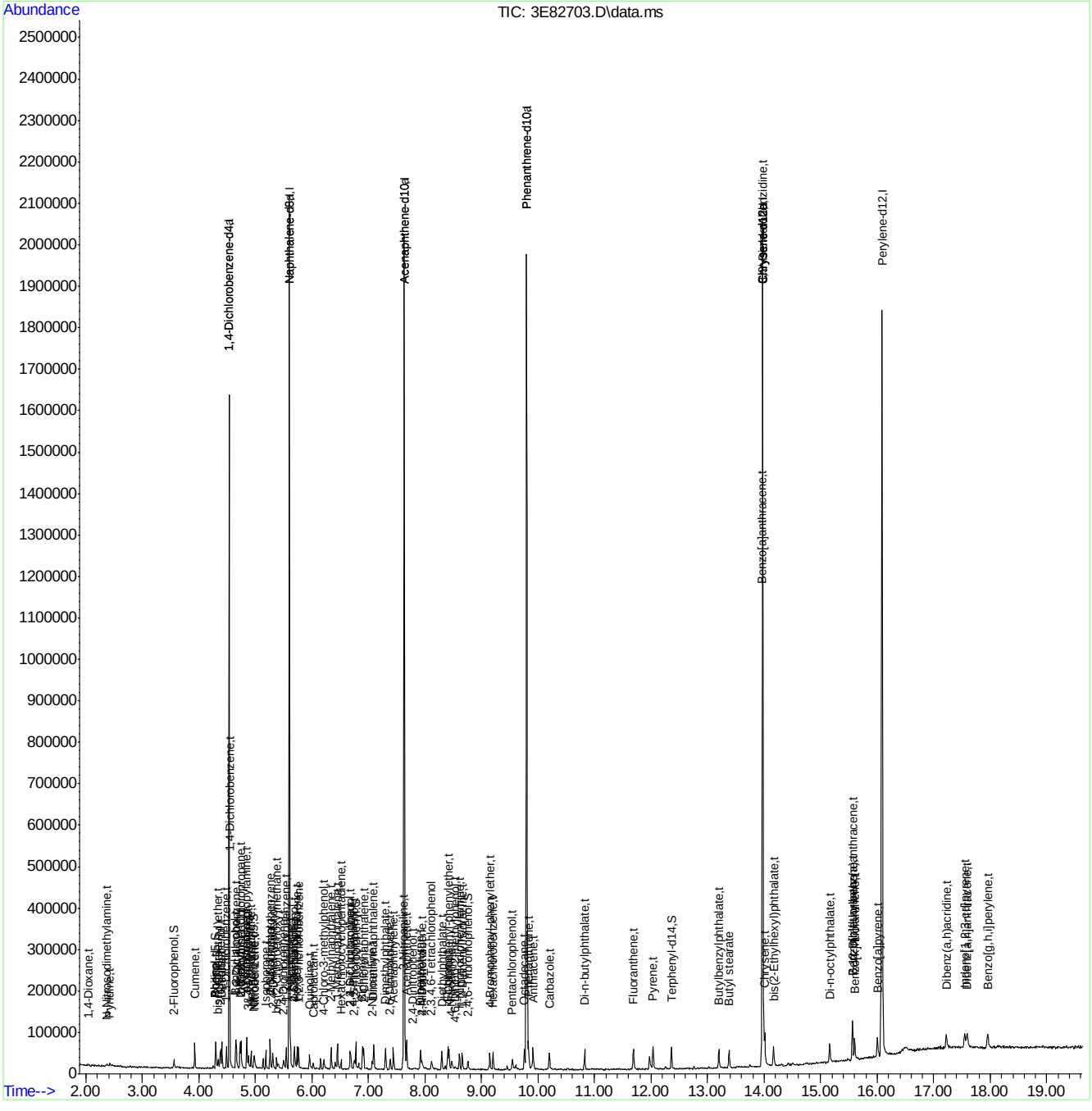
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82703.D
Acq On : 27 Apr 2016 7:10 pm
Operator : ashleyn
Sample : ic3623-1
Misc : op93161,e3e3623
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 28 16:21:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:28:02 2016
QLast Update : Thu Apr 28 09:28:02 2016
Response via : Initial Calibration



M3E3623.M Thu Apr 28 16:21:17 2016 MS3E Page: 4

Manual Integration Approval Summary

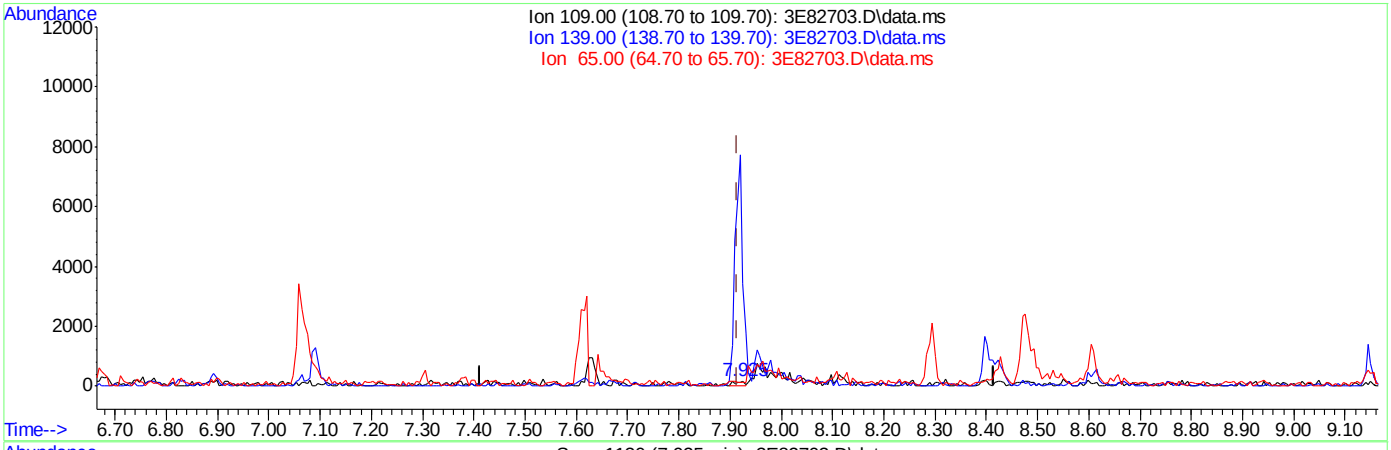
Sample Number:	E3E3623-IC3623	**Method:**	SW846 8270D
Lab FileID:	3E82703.D	**Analyst approved:**	04/28/16 10:43 Ashley Noble
Injection Time:	04/27/16 19:10	**Supervisor approved:**	04/28/16 16:14 Kristi Schollenberger

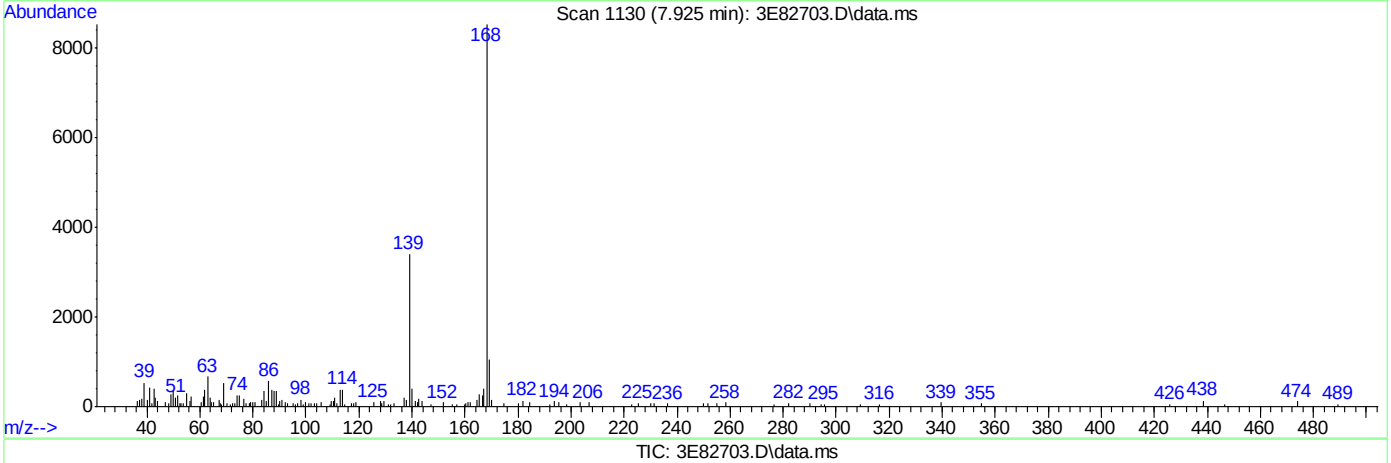
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitrophenol	100-02-7		7.95	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82703.D
Acq On : 27 Apr 2016 7:10 pm
Operator : ashleyn
Sample : ic3623-1
Misc : op93161,e3e3623
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 28 09:28:13 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:28:02 2016
QLast Update : Thu Apr 28 09:28:02 2016
Response via : Initial Calibration





TIC: 3E82703.D\data.ms

(61) 4-Nitrophenol (t)

7.925min (+0.011) 0.10ppm

response 231

Ion	Exp%	Act%
109.00	100	100
139.00	369.70	1748.75#
65.00	133.80	0.00#
0.00	0.00	0.00

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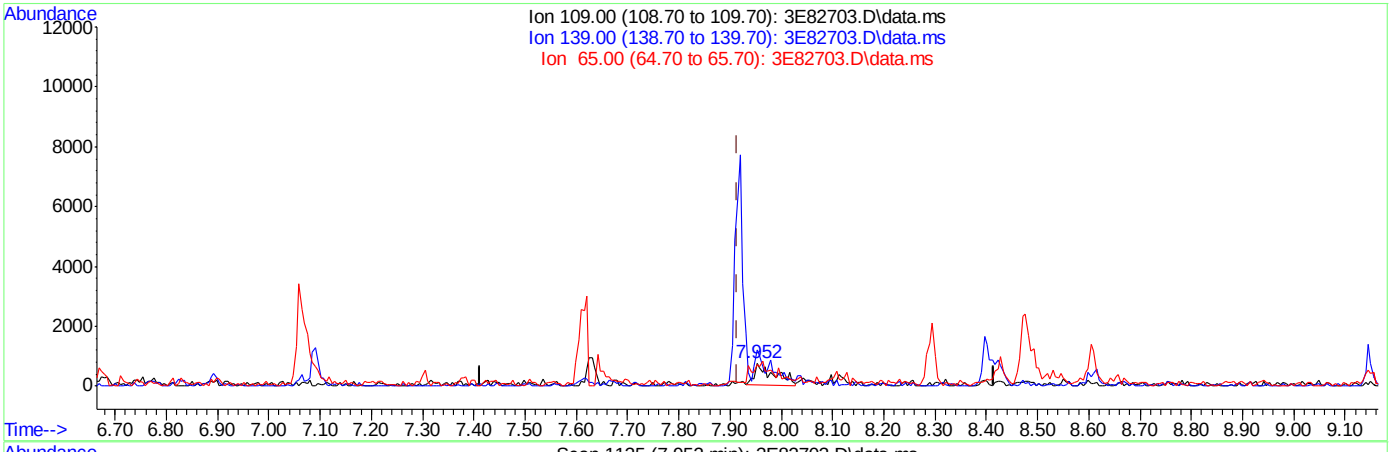
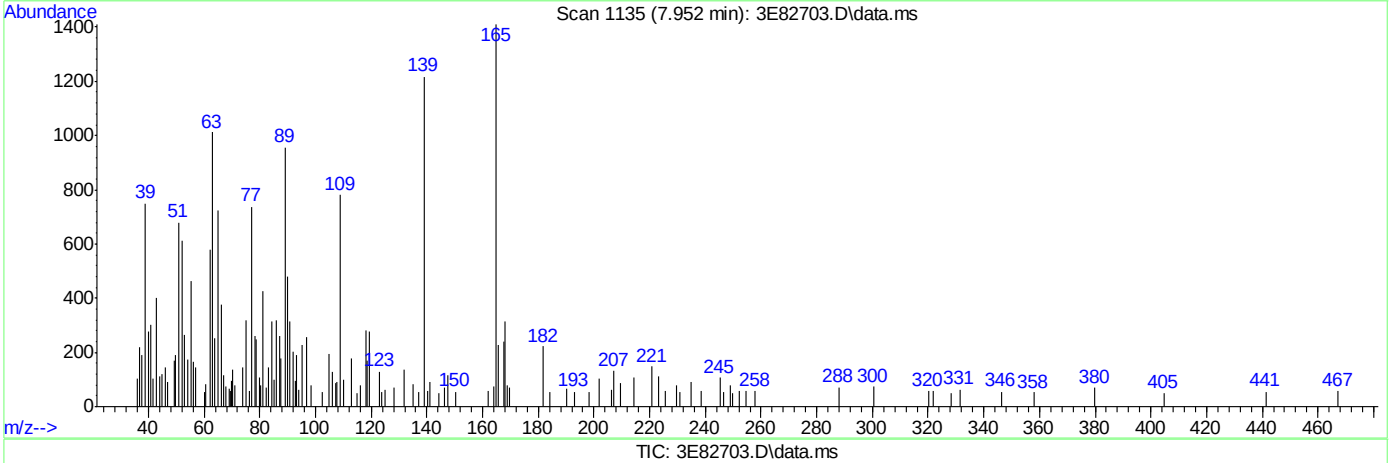
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82703.D
Acq On : 27 Apr 2016 7:10 pm
Operator : ashleyn
Sample : ic3623-1
Misc : op93161,e3e3623
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 28 09:29:07 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:28:02 2016
QLast Update : Thu Apr 28 09:28:02 2016
Response via : Initial Calibration





TIC: 3E82703.D\data.ms

(61) 4-Nitrophenol (t)

7.952min (+0.037) 0.84ppm m

response 2029

Ion	Exp%	Act%
109.00	100	100
139.00	369.70	155.70#
65.00	133.80	92.70#
0.00	0.00	0.00

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82704.D
Acq On : 27 Apr 2016 7:36 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 28 09:54:56 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:51:16 2016
QLast Update : Thu Apr 28 09:51:16 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	253195	40.00	ppm	0.00
24) Naphthalene-d8	5.599	136	923379	40.00	ppm	0.00
47) Acenaphthene-d10	7.631	164	539347	40.00	ppm	0.00
69) Phenanthrene-d10	9.797	188	888750	40.00	ppm	0.00
83) Chrysene-d12	13.975	240	903049	40.00	ppm	-0.01
92) Perylene-d12	16.087	264	817282	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	253195	40.00	ppm	0.00
104) Acenaphthene-d10a	7.631	164	539347	40.00	ppm	0.00
106) Phenanthrene-d10a	9.797	188	888750	40.00	ppm	0.00
110) Chrysene-d12a	13.975	240	903049	40.00	ppm	-0.01
112) Naphthalene-d8a	5.599	136	923379	40.00	ppm	0.00
114) Chrysene-d12b	13.975	240	903049	40.00	ppm	-0.01

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
9) Phenol	4.299	94	449994	40.65	ppm		83
12) 2-Chlorophenol	4.385	128	425787	46.41	ppm		93
19) 2-Methylphenol	4.743	108	353432	45.55	ppm		97
21) 3&4-Methylphenol	4.866	108	371762	45.59	ppm		97
29) 2-Nitrophenol	5.256	139	223915	45.88	ppm		76
30) 2,4-Dimethylphenol	5.304	107	425084	50.60	ppm		94
31) Benzoic acid	5.438	105	290920	47.01	ppm		98
33) 2,4-Dichlorophenol	5.481	162	333794	50.96	ppm		97
34) 2,6-Dichlorophenol	5.690	162	321020	47.98	ppm		97
43) 4-Chloro-3-methylphenol	6.198	107	341283	45.68	ppm		99
49) 2,4,6-Trichlorophenol	6.679	196	242291	49.54	ppm		99
50) 2,4,5-Trichlorophenol	6.727	196	241668	44.37	ppm		99
60) 2,4-Dinitrophenol	7.765	184	83159	44.06	ppm		87
61) 4-Nitrophenol	7.909	109	121744	42.22	ppm	#	17
64) 2,3,4,6-Tetrachlorophenol	8.113	232	203154	50.32	ppm		93
70) 4,6-Dinitro-2-methylph...	8.524	198	143701	44.41	ppm		95
76) Pentachlorophenol	9.535	266	150808	50.00	ppm		97

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82704.D
Acq On : 27 Apr 2016 7:36 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 28 09:54:56 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:51:16 2016
QLast Update : Thu Apr 28 09:51:16 2016
Response via : Initial Calibration

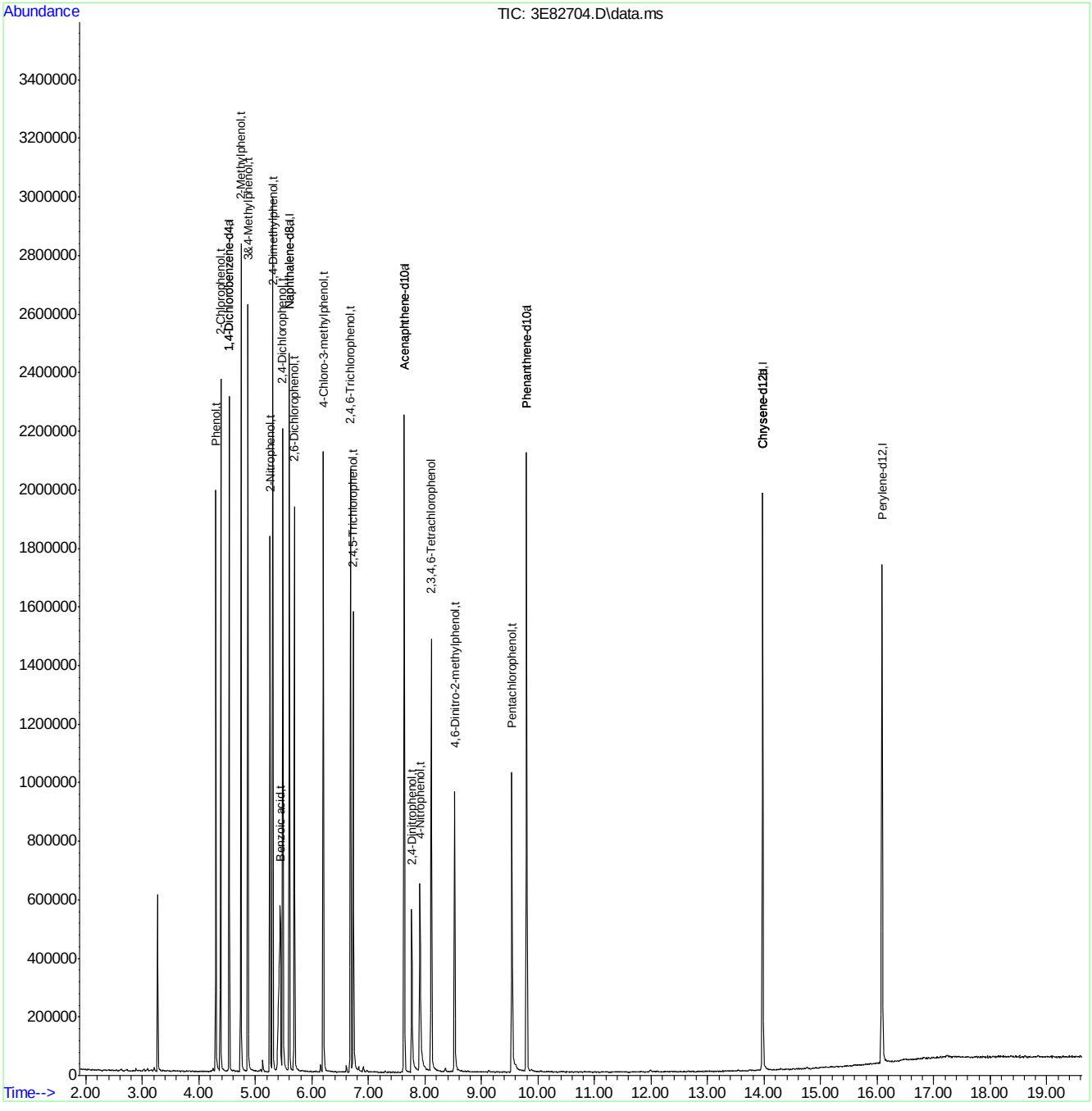
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82704.D
Acq On : 27 Apr 2016 7:36 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 28 09:54:56 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:51:16 2016
QLast Update : Thu Apr 28 09:51:16 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82705.D
Acq On : 27 Apr 2016 8:01 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 28 09:56:48 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
QLast Update : Thu Apr 28 09:55:31 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	242808	40.00 ppm	0.00
24) Naphthalene-d8	5.599	136	977222	40.00 ppm	0.00
47) Acenaphthene-d10	7.631	164	578835	40.00 ppm	0.00
69) Phenanthrene-d10	9.797	188	974888	40.00 ppm	0.00
83) Chrysene-d12	13.975	240	940245	40.00 ppm	-0.01
92) Perylene-d12	16.087	264	693572	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	242808	40.00 ppm	0.00
104) Acenaphthene-d10a	7.631	164	578835	40.00 ppm	0.00
106) Phenanthrene-d10a	9.797	188	974888	40.00 ppm	0.00
110) Chrysene-d12a	13.975	240	940245	40.00 ppm	-0.01
112) Naphthalene-d8a	5.599	136	977222	40.00 ppm	0.00
114) Chrysene-d12b	13.975	240	940245	40.00 ppm	-0.01

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
25) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
51) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
108) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
109) 1-Chlorooctadecane	0.000	57	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
3) Pyridine	2.502	79	329134	52.30 ppm	100
10) Aniline	4.299	93	578760	46.94 ppm	74
16) Benzyl alcohol	4.652	108	253354	47.24 ppm	95
39) 4-Chloroaniline	5.679	127	470004	42.70 ppm	98
44) 2-Methylnaphthalene	6.342	141	721109	47.02 ppm	98
54) 2-Nitroaniline	7.064	65	249409	41.02 ppm	95
58) 3-Nitroaniline	7.610	138	209078	43.63 ppm	98
62) Dibenzofuran	7.920	168	1121670	46.86 ppm	82
68) 4-Nitroaniline	8.476	138	191613	41.60 ppm	92
79) Carbazole	10.198	167	1149453	44.83 ppm	98

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

7.6.22

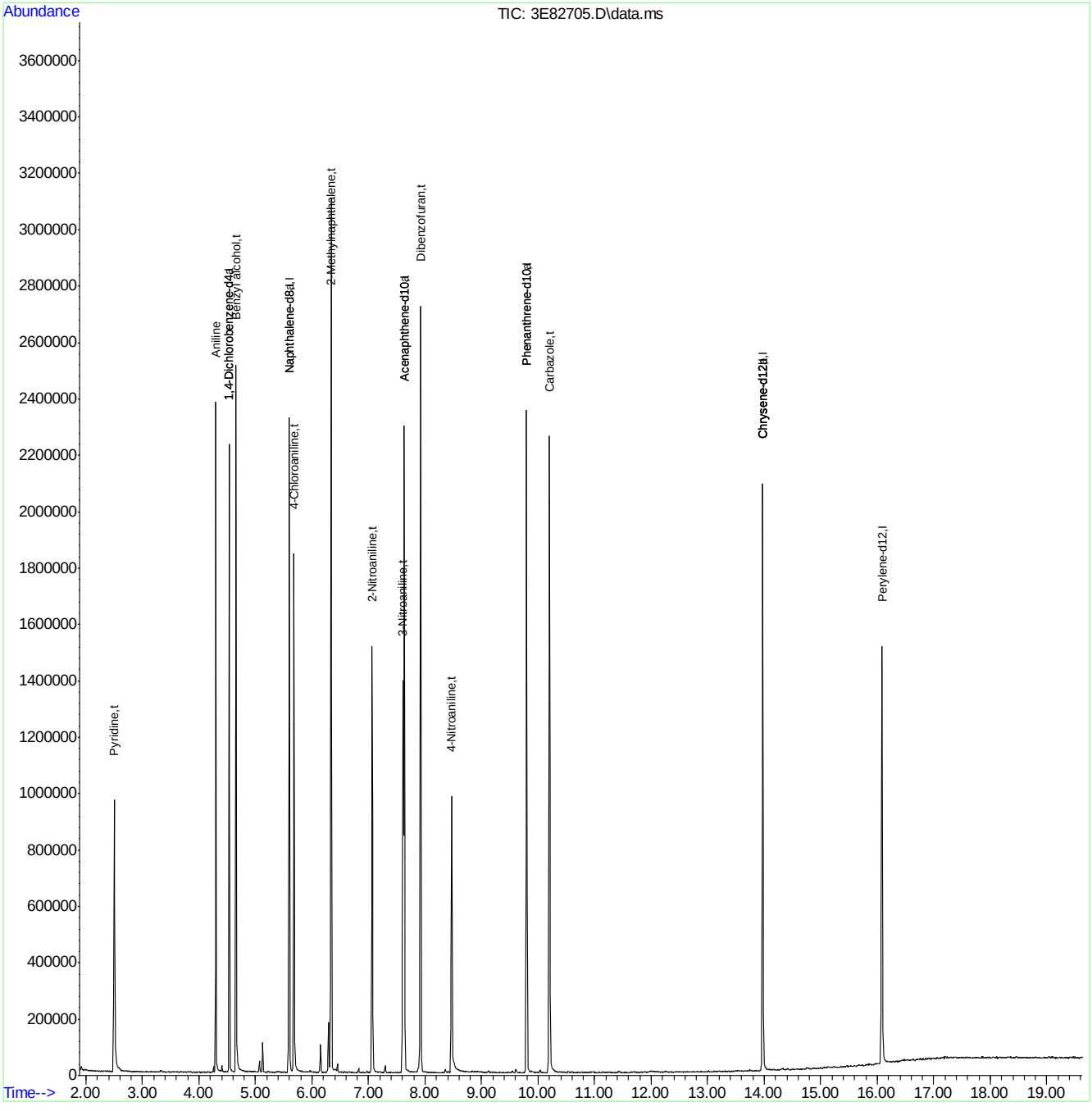
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82705.D
Acq On : 27 Apr 2016 8:01 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 28 09:56:48 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
QLast Update : Thu Apr 28 09:55:31 2016
Response via : Initial Calibration



M3E3623.M Thu Apr 28 09:57:00 2016 MS3E Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82706.D
Acq On : 27 Apr 2016 8:27 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 28 09:59:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
QLast Update : Thu Apr 28 09:55:31 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	294934	40.00 ppm	0.00
24) Naphthalene-d8	5.599	136	1122153	40.00 ppm	0.00
47) Acenaphthene-d10	7.631	164	634276	40.00 ppm	0.00
69) Phenanthrene-d10	9.797	188	1042906	40.00 ppm	0.00
83) Chrysene-d12	13.975	240	1006219	40.00 ppm	-0.01
92) Perylene-d12	16.087	264	917479	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	294934	40.00 ppm	0.00
104) Acenaphthene-d10a	7.631	164	634276	40.00 ppm	0.00
106) Phenanthrene-d10a	9.797	188	1042906	40.00 ppm	0.00
110) Chrysene-d12a	13.975	240	1006219	40.00 ppm	-0.01
112) Naphthalene-d8a	5.599	136	1122153	40.00 ppm	0.00
114) Chrysene-d12b	13.975	240	1006219	40.00 ppm	-0.01

System Monitoring Compounds					
5) 2-Fluorophenol	3.556	112	386028	42.69 ppm	0.00
Spiked Amount 50.000			Recovery	= 85.38%	
8) Phenol-d5	4.288	99	472410	40.16 ppm	0.00
Spiked Amount 50.000			Recovery	= 80.32%	
25) Nitrobenzene-d5	4.968	82	473886	42.23 ppm	0.00
Spiked Amount 50.000			Recovery	= 84.46%	
51) 2-Fluorobiphenyl	6.775	172	956727	45.48 ppm	0.00
Spiked Amount 50.000			Recovery	= 90.96%	
73) 2,4,6-Tribromophenol	8.760	330	158523	43.10 ppm	0.00
Spiked Amount 50.000			Recovery	= 86.20%	
85) Terphenyl-d14	12.359	244	976576	46.23 ppm	0.00
Spiked Amount 50.000			Recovery	= 92.46%	
108) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
109) 1-Chlorooctadecane	0.000	57	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	

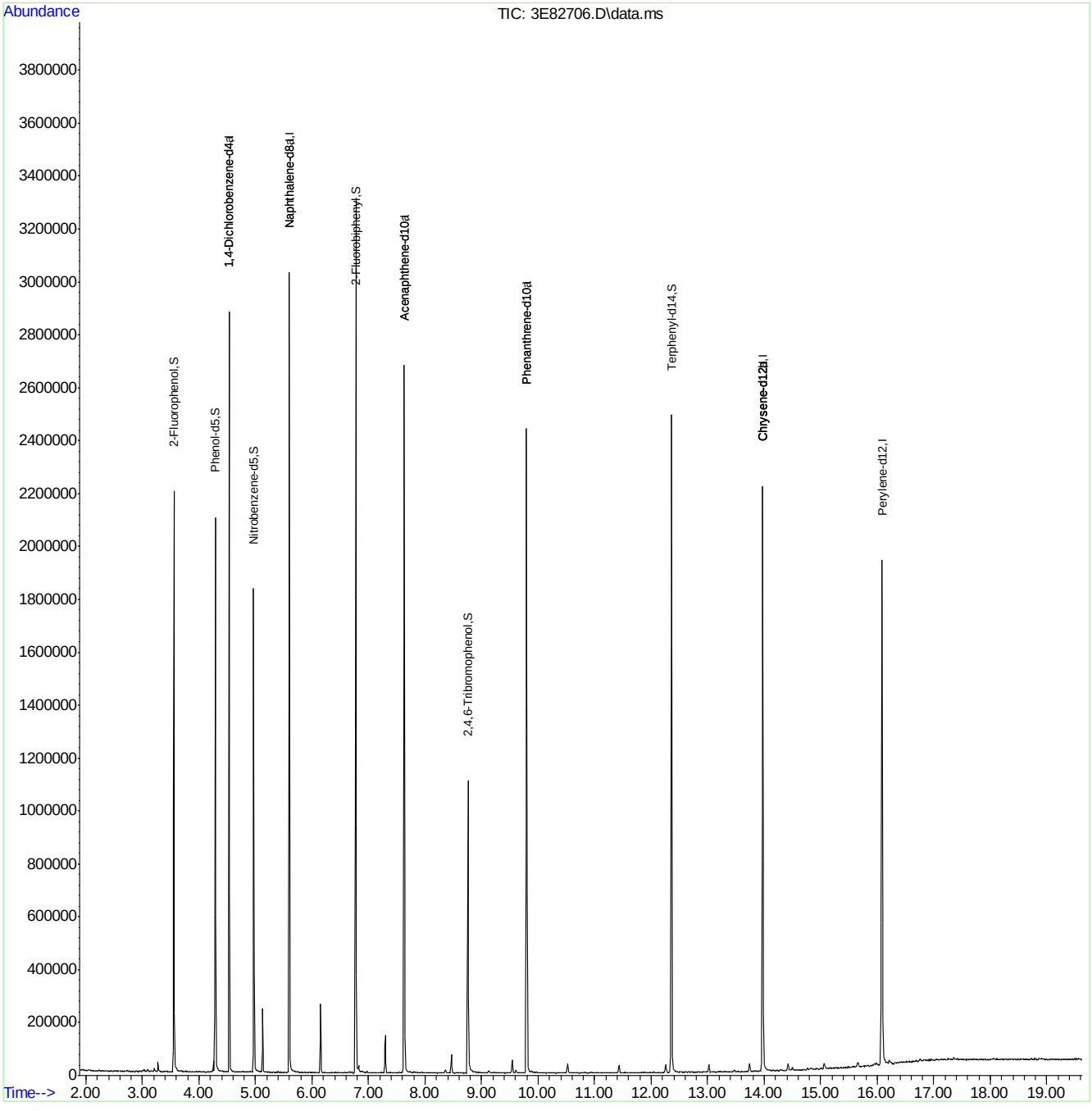
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82706.D
Acq On : 27 Apr 2016 8:27 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 28 09:59:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
QLast Update : Thu Apr 28 09:55:31 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82707.D
Acq On : 27 Apr 2016 8:53 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 28 10:38:48 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:34:49 2016
QLast Update : Thu Apr 28 10:34:49 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	245156	40.00	ppm	0.00
24) Naphthalene-d8	5.599	136	874463	40.00	ppm	0.00
47) Acenaphthene-d10	7.631	164	480121	40.00	ppm	0.00
69) Phenanthrene-d10	9.797	188	773529	40.00	ppm	0.00
83) Chrysene-d12	13.980	240	755367	40.00	ppm	0.00
92) Perylene-d12	16.087	264	606378	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	245156	40.00	ppm	0.00
104) Acenaphthene-d10a	7.631	164	480121	40.00	ppm	0.00
106) Phenanthrene-d10a	9.797	188	773529	40.00	ppm	0.00
110) Chrysene-d12a	13.980	240	755367	40.00	ppm	0.00
112) Naphthalene-d8a	5.599	136	874463	40.00	ppm	0.00
114) Chrysene-d12b	13.980	240	755367	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
4) N-Nitrosodimethylamine	2.357	74	178528	49.37	ppm		98
11) bis(2-Chloroethyl)ether	4.342	93	340477	46.31	ppm		97
14) 1,3-Dichlorobenzene	4.492	146	460725	47.43	ppm		100
15) 1,4-Dichlorobenzene	4.545	146	470686	46.17	ppm		100
17) 1,2-Dichlorobenzene	4.657	146	427142	46.52	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.743	121	121248	40.25	ppm	#	53
22) n-Nitroso-di-n-propyla...	4.850	70	276418	42.93	ppm		96
23) Hexachloroethane	4.925	201	159719	49.00	ppm		93
26) Nitrobenzene	4.984	77	412334	45.66	ppm		97
28) Isophorone	5.187	82	727904	49.66	ppm		99
32) bis(2-Chloroethoxy)met...	5.379	93	364758	45.71	ppm		97
36) 1,2,4-Trichlorobenzene	5.545	180	348581	49.25	ppm		99
38) Naphthalene	5.620	128	1153907	47.73	ppm		99
42) Hexachlorobutadiene	5.732	225	212044	49.99	ppm		99
48) Hexachlorocyclopentadiene	6.513	237	175970	47.49	ppm		98
52) 2-Chloronaphthalene	6.914	162	656450	48.24	ppm		99
55) Dimethylphthalate	7.310	163	754000	47.30	ppm		99
56) Acenaphthylene	7.444	152	1039435	45.76	ppm		97

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82707.D
Acq On : 27 Apr 2016 8:53 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 28 10:38:48 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:34:49 2016
QLast Update : Thu Apr 28 10:34:49 2016
Response via : Initial Calibration

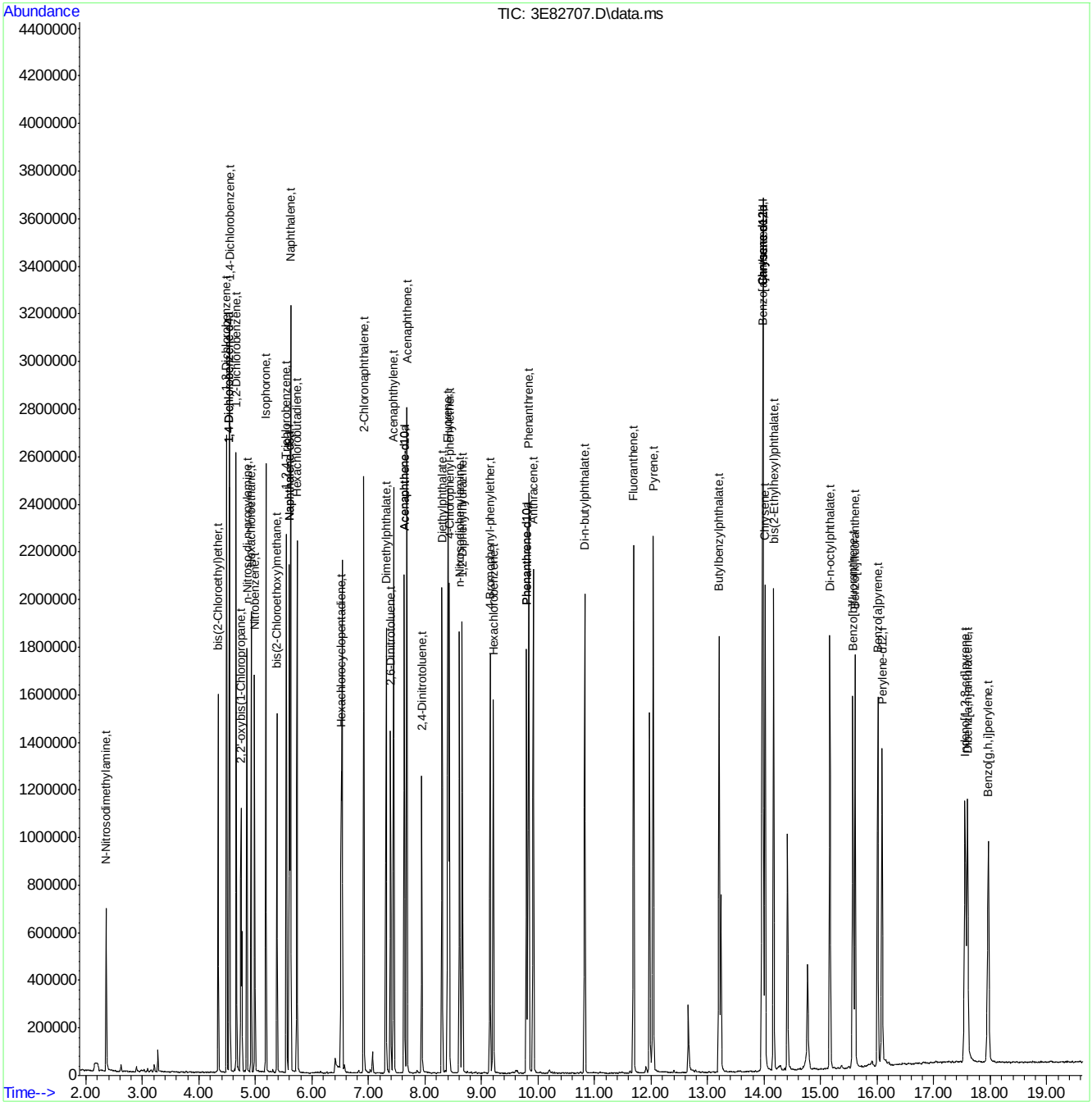
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
57) 2,6-Dinitrotoluene	7.390	165	168140	47.11 ppm	92
59) Acenaphthene	7.679	153	704636	46.72 ppm	96
63) 2,4-Dinitrotoluene	7.941	165	209749	42.96 ppm	72
65) Diethylphthalate	8.300	149	753475	45.00 ppm	99
66) Fluorene	8.407	166	742158	44.65 ppm	99
67) 4-Chlorophenyl-phenyle...	8.428	204	348265	45.95 ppm	95
71) n-Nitrosodiphenylamine	8.610	169	485872	45.22 ppm	96
72) 1,2-Diphenylhydrazine	8.658	77	744267	46.50 ppm	99
74) 4-Bromophenyl-phenylether	9.150	248	222198	48.32 ppm	94
75) Hexachlorobenzene	9.209	284	256330	46.48 ppm	99
77) Phenanthrene	9.835	178	1012118	45.10 ppm	100
78) Anthracene	9.915	178	991047	44.08 ppm	99
80) Di-n-butylphthalate	10.830	149	1190567	45.31 ppm	99
81) Fluoranthene	11.691	202	1077282	44.26 ppm	99
84) Pyrene	12.038	202	1092155	48.30 ppm	99
86) Butylbenzylphthalate	13.204	149	495725	45.97 ppm	99
88) Benzo[a]anthracene	13.964	228	990248	44.85 ppm	98
90) Chrysene	14.023	228	891994	43.30 ppm	99
91) bis(2-Ethylhexyl)phtha...	14.167	149	631657	45.52 ppm	98
93) Di-n-octylphthalate	15.162	149	1023328	42.07 ppm	98
94) Benzo[b]fluoranthene	15.569	252	885751	43.21 ppm	93
95) Benzo[k]fluoranthene	15.611	252	856958	46.84 ppm	99
96) Benzo[a]pyrene	16.012	252	790344	46.18 ppm	98
97) Indeno[1,2,3-cd]pyrene	17.558	276	787469	48.30 ppm	98
99) Dibenz[a,h]anthracene	17.596	278	761946	47.04 ppm	98
101) Benzo[g,h,i]perylene	17.965	276	722162	45.98 ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82707.D
Acq On : 27 Apr 2016 8:53 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 28 10:38:48 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 10:34:49 2016
QLast Update : Thu Apr 28 10:34:49 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82708.D
Acq On : 27 Apr 2016 9:18 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 28 10:04:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
QLast Update : Thu Apr 28 09:55:31 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	235746	40.00	ppm	0.00
24) Naphthalene-d8	5.599	136	889763	40.00	ppm	0.00
47) Acenaphthene-d10	7.631	164	490972	40.00	ppm	0.00
69) Phenanthrene-d10	9.797	188	822120	40.00	ppm	0.00
83) Chrysene-d12	13.975	240	835477	40.00	ppm	-0.01
92) Perylene-d12	16.087	264	680722	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	235746	40.00	ppm	0.00
104) Acenaphthene-d10a	7.631	164	490972	40.00	ppm	0.00
106) Phenanthrene-d10a	9.797	188	822120	40.00	ppm	0.00
110) Chrysene-d12a	13.975	240	835477	40.00	ppm	-0.01
112) Naphthalene-d8a	5.599	136	889763	40.00	ppm	0.00
114) Chrysene-d12b	13.975	240	835477	40.00	ppm	-0.01

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds						Qvalue
2) 1,4-Dioxane	2.053	88	105118	48.92	ppm	98
6) Indene	4.727	116	704707	50.11	ppm	98
7) Cumene	3.930	105	1012036	49.20	ppm	98
13) Decane	4.411	43	442492	48.94	ppm	99
18) Acetophenone	4.845	105	526101	44.99	ppm	98
27) Quinoline	5.957	129	744147	48.09	ppm	98
40) 2,3-Dichloroaniline	6.674	161	326418	41.03	ppm	97
41) Caprolactam	6.037	55	139338	41.36	ppm	98
45) 1-Methylnaphthalene	6.454	141	681355	46.78	ppm	99
46) Dimethylnaphthalene	7.091	156	659227	46.76	ppm	99
53) Biphenyl	6.898	154	901152	48.56	ppm	99
82) Octadecane	9.760	57	463250	47.70	ppm	99
100) 7,12-Dimethylbenz(a)an...	15.563	256	262491	25.59	ppm	98

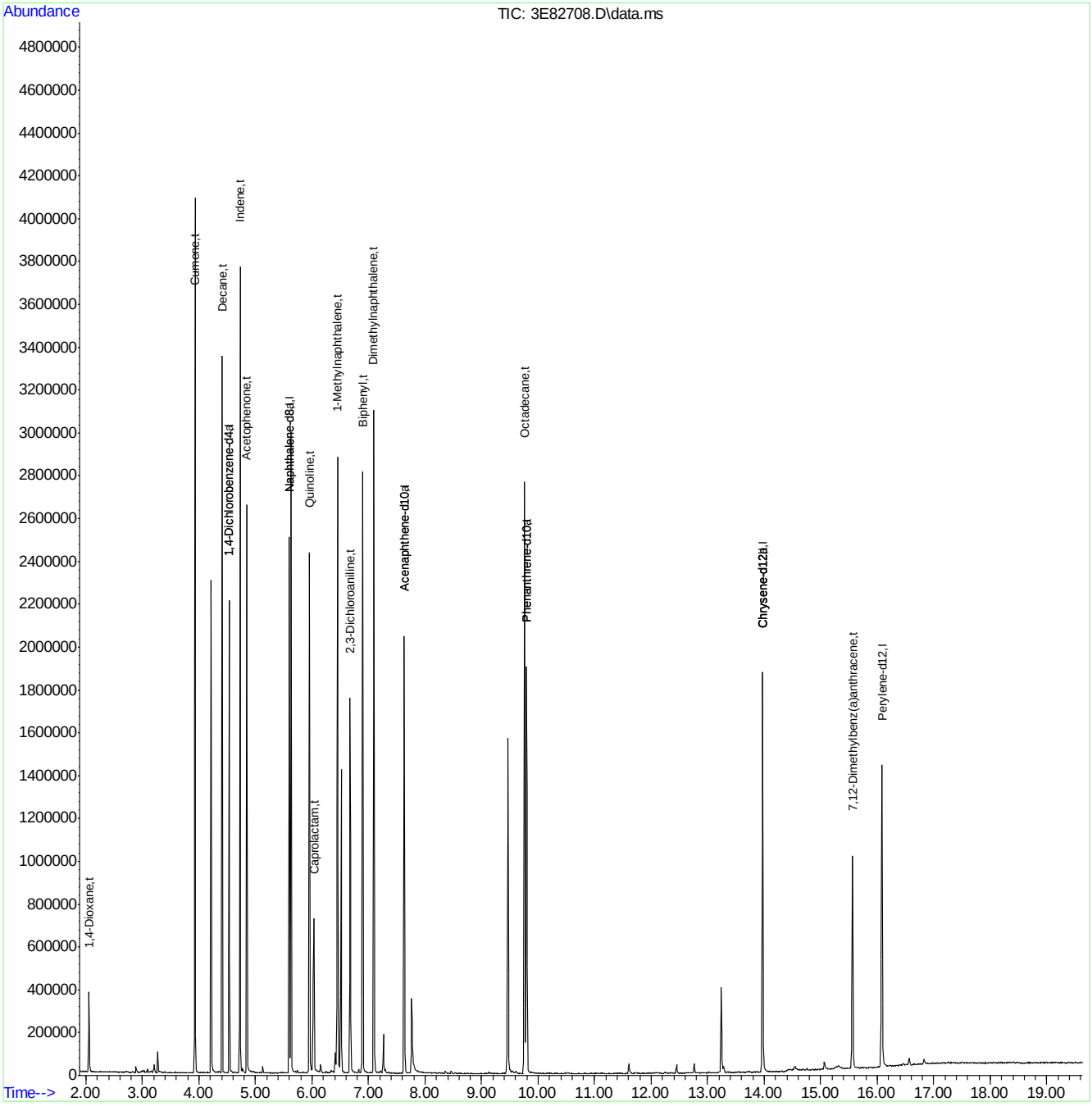
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82708.D
Acq On : 27 Apr 2016 9:18 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 28 10:04:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
QLast Update : Thu Apr 28 09:55:31 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82709.D
Acq On : 27 Apr 2016 9:44 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 28 10:06:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
QLast Update : Thu Apr 28 09:55:31 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.534	152	183200	40.00	ppm	0.00
24) Naphthalene-d8	5.599	136	721250	40.00	ppm	0.00
47) Acenaphthene-d10	7.631	164	436095	40.00	ppm	0.00
69) Phenanthrene-d10	9.797	188	765816	40.00	ppm	0.00
83) Chrysene-d12	13.975	240	856539	40.00	ppm	-0.01
92) Perylene-d12	16.087	264	840907	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.534	152	183200	40.00	ppm	0.00
104) Acenaphthene-d10a	7.631	164	436095	40.00	ppm	0.00
106) Phenanthrene-d10a	9.797	188	765816	40.00	ppm	0.00
110) Chrysene-d12a	13.975	240	856539	40.00	ppm	-0.01
112) Naphthalene-d8a	5.599	136	721250	40.00	ppm	0.00
114) Chrysene-d12b	13.975	240	856539	40.00	ppm	-0.01

System Monitoring Compounds

5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
89) 3,3'-Dichlorobenzidine	13.980	252	452494	48.60	ppm	98

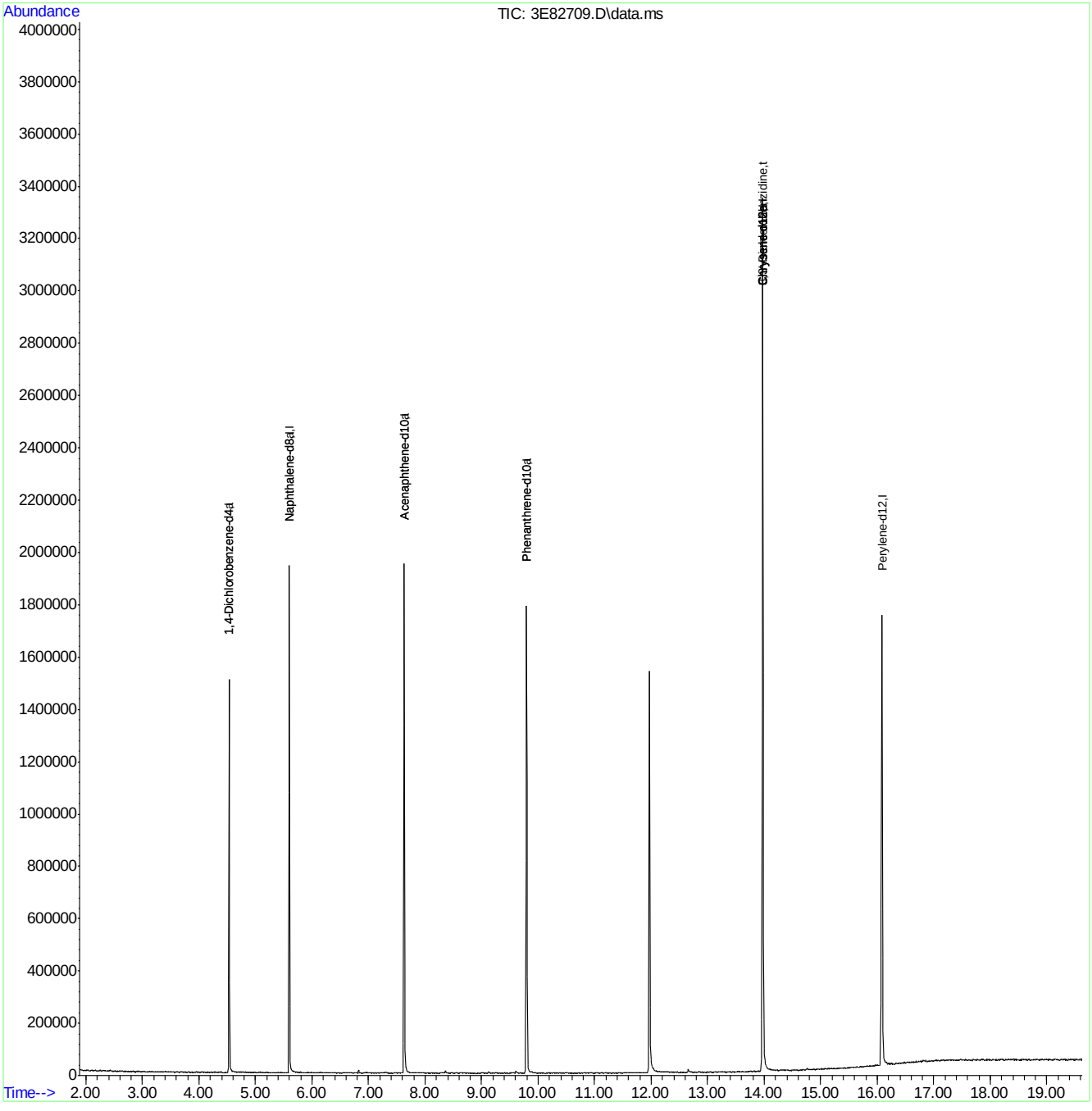
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3623\
Data File : 3E82709.D
Acq On : 27 Apr 2016 9:44 pm
Operator : ashleyn
Sample : icv3623-50
Misc : op93161,e3e3623
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 28 10:06:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Apr 28 09:55:31 2016
QLast Update : Thu Apr 28 09:55:31 2016
Response via : Initial Calibration



M3E3623.M Thu Apr 28 10:06:17 2016 MS3E

SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/16/16 10:37

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83218.D
Acq On : 14 May 2016 9:38 am
Operator : ashleyn
Sample : cc3623-25
Misc : op93596,e3e3649
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 09:21:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.367	152	177828	40.00	ppm	-0.05
24) Naphthalene-d8	5.399	136	634768	40.00	ppm	-0.06
47) Acenaphthene-d10	7.383	164	405128	40.00	ppm	-0.08
69) Phenanthrene-d10	9.523	188	718047	40.00	ppm	-0.09
83) Chrysene-d12	13.689	240	776322	40.00	ppm	-0.09
92) Perylene-d12	15.797	264	624652	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.367	152	177828	40.00	ppm	-0.05
104) Acenaphthene-d10a	7.383	164	405128	40.00	ppm	-0.08
106) Phenanthrene-d10a	9.523	188	718047	40.00	ppm	-0.09
108) Chrysene-d12a	13.689	240	776322	40.00	ppm	-0.09
110) Naphthalene-d8a	5.399	136	634768	40.00	ppm	-0.06

System Monitoring Compounds						
5) 2-Fluorophenol	3.404	112	122686	22.50	ppm	-0.05
Spiked Amount 50.000			Recovery = 45.00%			
8) Phenol-d5	4.153	99	154770	21.82	ppm	-0.02
Spiked Amount 50.000			Recovery = 43.64%			
25) Nitrobenzene-d5	4.794	82	151599	23.88	ppm	-0.05
Spiked Amount 50.000			Recovery = 47.76%			
51) 2-Fluorobiphenyl	6.543	172	355121	26.43	ppm	-0.08
Spiked Amount 50.000			Recovery = 52.86%			
73) 2,4,6-Tribromophenol	8.506	330	68442	27.03	ppm	-0.09
Spiked Amount 50.000			Recovery = 54.06%			
85) Terphenyl-d14	12.079	244	429089	26.33	ppm	-0.11
Spiked Amount 50.000			Recovery = 52.66%			

Target Compounds							Qvalue
2) 1,4-Dioxane	1.805	88	42948	26.49	ppm		94
3) Pyridine	2.163	79	102471	22.23	ppm		99
4) N-Nitrosodimethylamine	2.125	74	55462	21.15	ppm		96
6) Indene	4.554	116	238457	22.48	ppm		99
7) Cumene	3.757	105	341370	22.00	ppm		95
9) Phenol	4.163	94	157098	20.21	ppm		77
10) Aniline	4.131	93	164668	18.24	ppm	#	57
11) bis(2-Chloroethyl)ether	4.179	93	114462	21.46	ppm		90
12) 2-Chlorophenol	4.227	128	147168	22.84	ppm		97
13) Decane	4.243	43	143764	21.08	ppm		94
14) 1,3-Dichlorobenzene	4.324	146	170132	24.15	ppm		96
15) 1,4-Dichlorobenzene	4.377	146	176347	23.85	ppm		99
16) Benzyl alcohol	4.490	108	88708	22.58	ppm		90
17) 1,2-Dichlorobenzene	4.490	146	161740	24.29	ppm		98
18) Acetophenone	4.677	105	186037	21.09	ppm		97
19) 2-Methylphenol	4.596	108	117905	21.64	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.580	121	50779	23.24	ppm		97
21) 3&4-Methylphenol	4.714	108	123196	21.51	ppm		99
22) n-Nitroso-di-n-propyla...	4.682	70	94620	20.26	ppm		90
23) Hexachloroethane	4.741	201	68215	28.85	ppm		91
26) Nitrobenzene	4.810	77	158537	24.18	ppm		98
27) Quinoline	5.757	129	268217	24.30	ppm		99
28) Isophorone	5.003	82	247665	23.27	ppm		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83218.D
Acq On : 14 May 2016 9:38 am
Operator : ashleyn
Sample : cc3623-25
Misc : op93596,e3e3649
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 09:21:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
29) 2-Nitrophenol	5.073	139	82460	24.58 ppm #	70
30) 2,4-Dimethylphenol	5.131	107	138731	24.02 ppm	99
31) Benzoic acid	5.254	105	97244	22.86 ppm	97
32) bis(2-Chloroethoxy)met...	5.196	93	132674	22.90 ppm	98
33) 2,4-Dichlorophenol	5.308	162	127208	28.25 ppm	97
34) 2,6-Dichlorophenol	5.495	162	128218	27.88 ppm	97
35) 1,3,5-Trichlorobenzene	5.073	180	159558	29.31 ppm	97
36) 1,2,4-Trichlorobenzene	5.351	180	151471	29.48 ppm	95
37) 1,2,3-Trichlorobenzene	5.554	180	146703	29.65 ppm	99
38) Naphthalene	5.420	128	424487	24.19 ppm	99
39) 4-Chloroaniline	5.490	127	160411	22.44 ppm	96
40) 2,3-Dichloroaniline	6.452	161	156787	27.62 ppm	94
41) Caprolactam	5.848	55	54450	22.65 ppm	99
42) Hexachlorobutadiene	5.527	225	100503	32.64 ppm	97
43) 4-Chloro-3-methylphenol	6.019	107	126456	24.62 ppm	96
44) 2-Methylnaphthalene	6.121	141	263108	26.41 ppm	96
45) 1-Methylnaphthalene	6.228	141	275200	26.48 ppm	95
46) Dimethylnaphthalene	6.854	156	279239	27.77 ppm	97
48) Hexachlorocyclopentadiene	6.281	237	131548	42.74 ppm	95
49) 2,4,6-Trichlorophenol	6.469	196	101823	27.72 ppm	96
50) 2,4,5-Trichlorophenol	6.538	196	106692	26.08 ppm	95
52) 2-Chloronaphthalene	6.682	162	287243	25.01 ppm	97
53) Biphenyl	6.661	154	374913	24.48 ppm	98
54) 2-Nitroaniline	6.838	65	99741	23.44 ppm	99
55) Dimethylphthalate	7.073	163	343408	25.53 ppm	99
56) Acenaphthylene	7.196	152	456428	23.81 ppm	97
57) 2,6-Dinitrotoluene	7.158	165	74891	24.87 ppm	97
58) 3-Nitroaniline	7.378	138	76172	22.71 ppm	91
59) Acenaphthene	7.426	153	307747	24.18 ppm	99
60) 2,4-Dinitrophenol	7.549	184	69036	47.92 ppm	90
61) 4-Nitrophenol	7.758	109	53578	24.73 ppm	81
62) Dibenzofuran	7.661	168	423389	25.27 ppm	86
63) 2,4-Dinitrotoluene	7.709	165	102609	24.91 ppm	82
64) 2,3,4,6-Tetrachlorophenol	7.870	232	83840	27.65 ppm	97
65) Diethylphthalate	8.052	149	353111	24.99 ppm	96
66) Fluorene	8.143	166	351939	25.09 ppm	99
67) 4-Chlorophenyl-phenyle...	8.169	204	183999	28.77 ppm	91
68) 4-Nitroaniline	8.239	138	70794	21.96 ppm	89
70) 4,6-Dinitro-2-methylph...	8.292	198	58923	23.99 ppm	92
71) n-Nitrosodiphenylamine	8.357	169	242110	24.28 ppm	98
72) 1,2-Diphenylhydrazine	8.399	77	337589	22.72 ppm	92
74) 4-Bromophenyl-phenylether	8.881	248	116163	27.21 ppm	93
75) Hexachlorobenzene	8.940	284	137640	26.89 ppm	96
76) Pentachlorophenol	9.282	266	108981	44.72 ppm	96
77) Phenanthrene	9.560	178	495888	23.80 ppm	98
78) Anthracene	9.640	178	493208	23.63 ppm	97
79) Carbazole	9.934	167	434339	23.00 ppm	99
80) Di-n-butylphthalate	10.560	149	557803	22.87 ppm	99
81) Fluoranthene	11.405	202	575818	25.48 ppm	96
82) Octadecane	9.491	57	164950	19.45 ppm	87

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83218.D
Acq On : 14 May 2016 9:38 am
Operator : ashleyn
Sample : cc3623-25
Misc : op93596,e3e3649
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 09:21:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
84) Pyrene	11.753	202	600883	25.86 ppm	100
86) Butylbenzylphthalate	12.924	149	245690	22.17 ppm	96
87) Butyl stearate	13.101	56	113008	19.42 ppm	89
88) Benzo[a]anthracene	13.673	228	553995	24.42 ppm	98
89) 3,3'-Dichlorobenzidine	13.700	252	200450	23.76 ppm	97
90) Chrysene	13.727	228	511743	24.17 ppm	98
91) bis(2-Ethylhexyl)phtha...	13.887	149	294144	20.62 ppm	95
93) Di-n-octylphthalate	14.877	149	489737	20.97 ppm	99
94) Benzo[b]fluoranthene	15.283	252	534625	25.32 ppm	98
95) Benzo[k]fluoranthene	15.315	252	486869	25.84 ppm	99
96) Benzo[a]pyrene	15.722	252	444012	25.19 ppm	96
97) Indeno[1,2,3-cd]pyrene	17.193	276	388767m	23.15 ppm	
98) Dibenz(a,h)acridine	16.893	279	369167	23.35 ppm	92
99) Dibenz[a,h]anthracene	17.225	278	414174	24.82 ppm	98
100) 7,12-Dimethylbenz(a)an...	15.272	256	244675	25.99 ppm	96
101) Benzo[g,h,i]perylene	17.567	276	396624	24.51 ppm	97

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

7.6.27

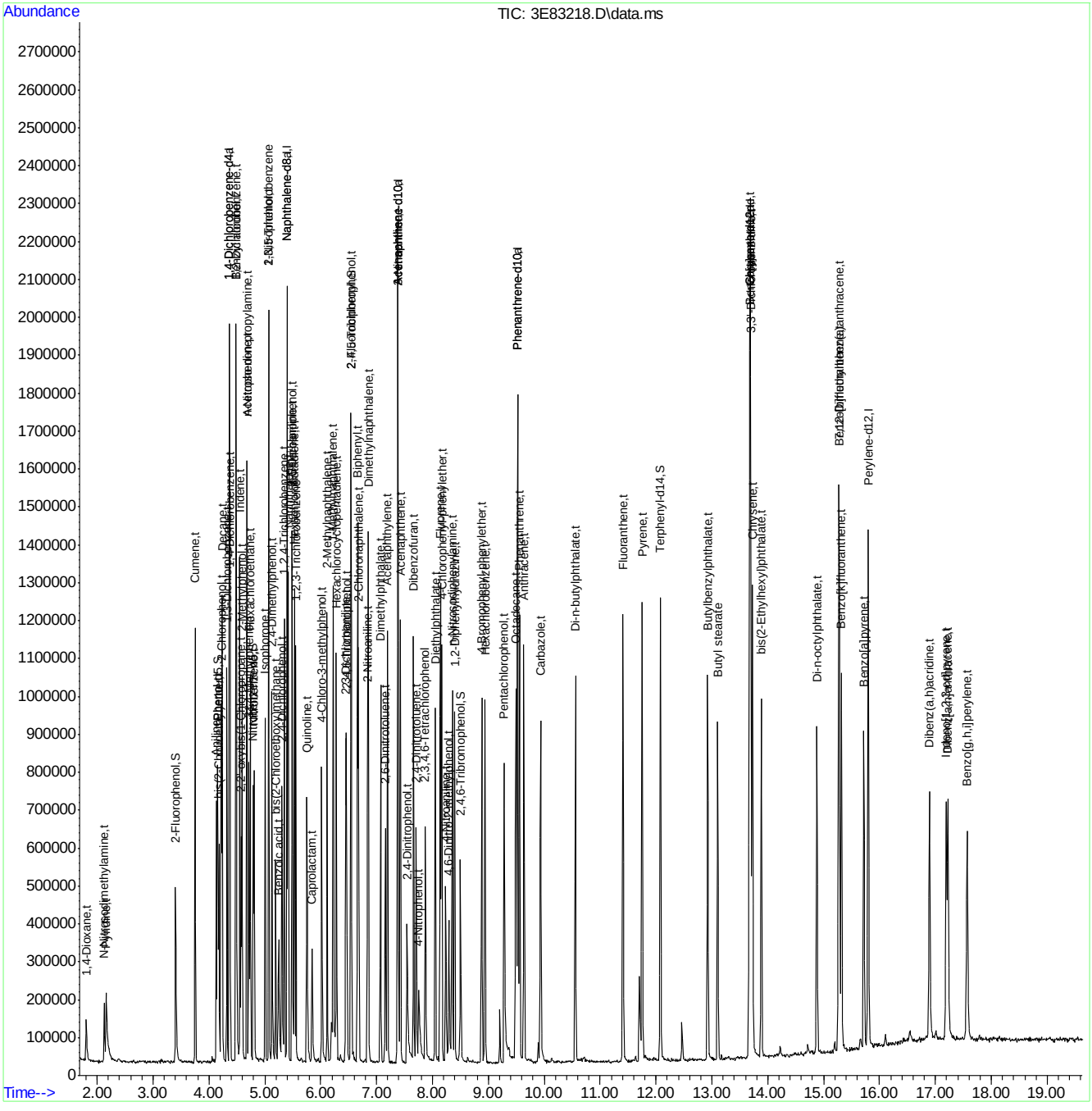
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83218.D
Acq On : 14 May 2016 9:38 am
Operator : ashleyn
Sample : cc3623-25
Misc : op93596,e3e3649
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 09:21:10 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Manual Integration Approval Summary

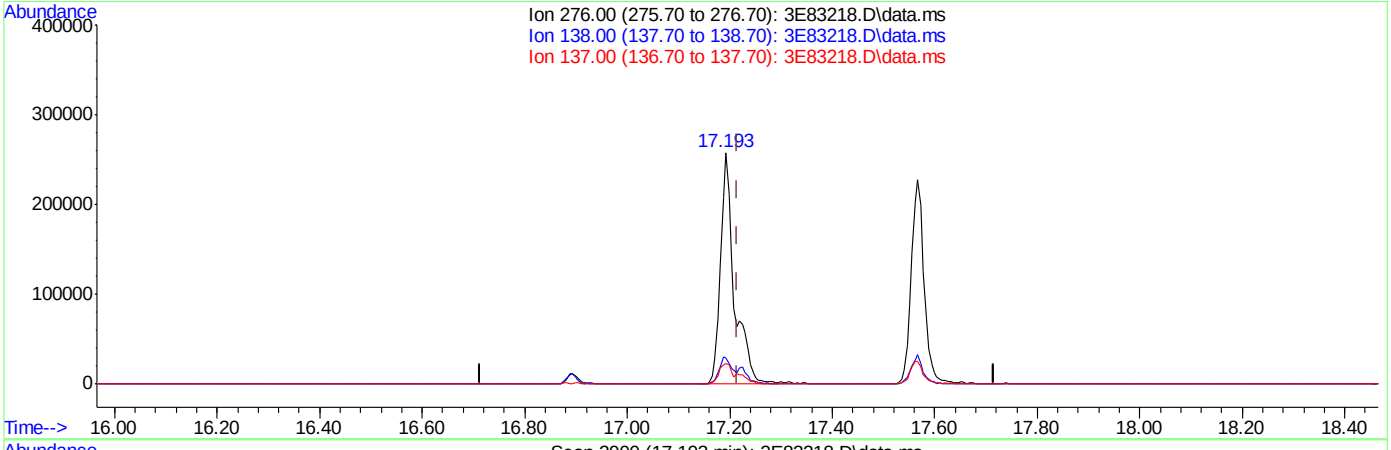
Sample Number:	E3E3649-CC3623	**Method:**	SW846 8270D
Lab FileID:	3E83218.D	**Analyst approved:**	05/16/16 09:24 Ashley Noble
Injection Time:	05/14/16 09:38	**Supervisor approved:**	05/16/16 10:37 Nina Pandya

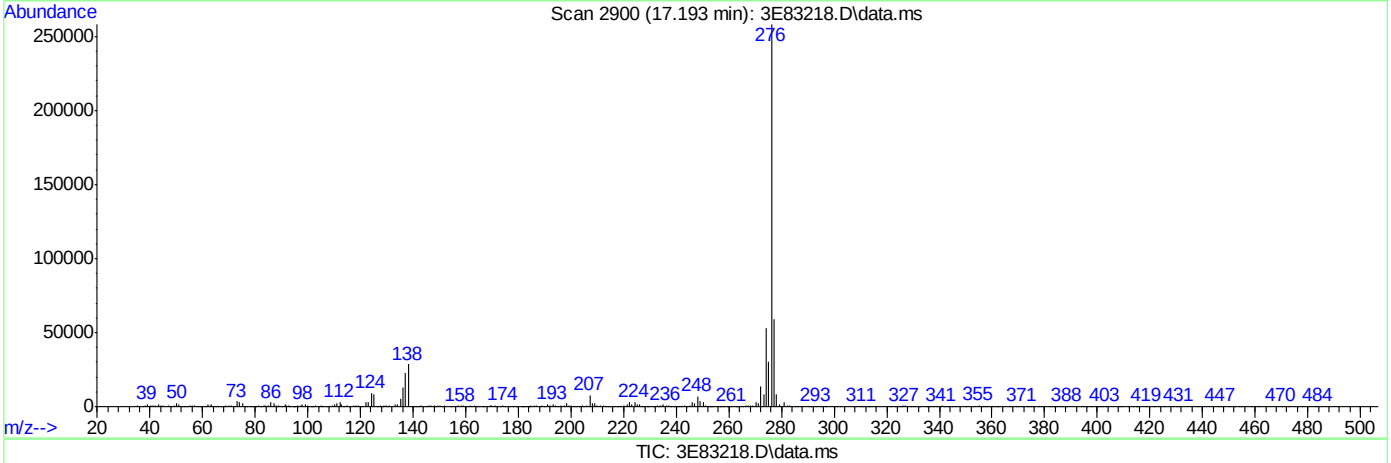
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.19	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83218.D
Acq On : 14 May 2016 9:38 am
Operator : ashleyn
Sample : cc3623-25
Misc : op93596,e3e3649
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 09:20:19 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration





TIC: 3E83218.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.193min (-0.023) 28.87ppm

response 484848

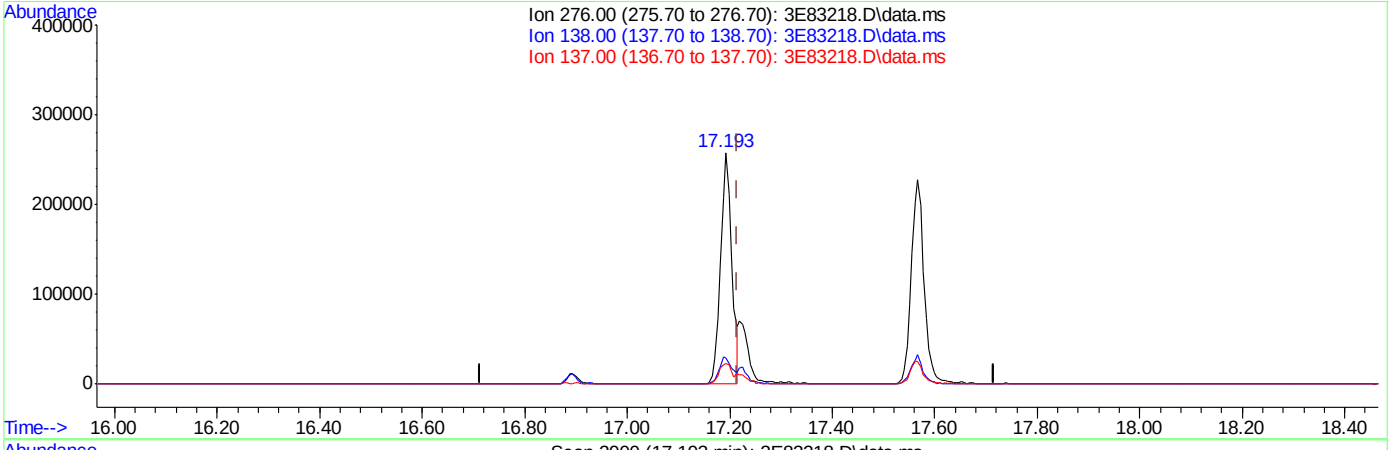
Ion	Exp%	Act%
276.00	100	100
138.00	14.30	11.09
137.00	9.10	8.62
0.00	0.00	0.00

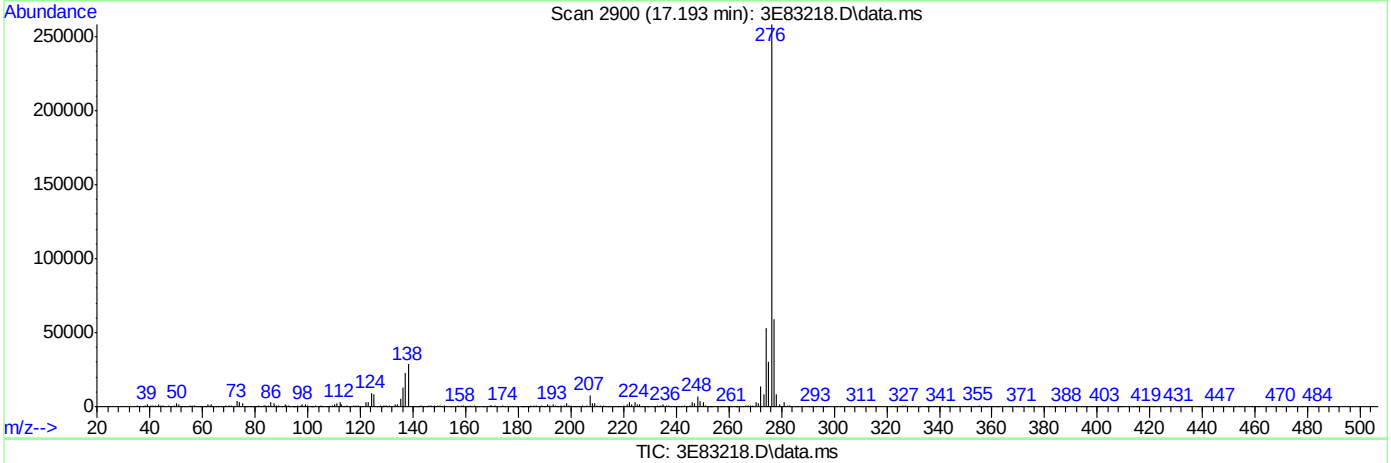
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83218.D
Acq On : 14 May 2016 9:38 am
Operator : ashleyn
Sample : cc3623-25
Misc : op93596,e3e3649
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 09:20:19 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration





TIC: 3E83218.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.193min (-0.023) 23.15ppm m

response 388767

Ion	Exp%	Act%
276.00	100	100
138.00	14.30	11.08
137.00	9.10	8.81
0.00	0.00	0.00

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83219.D
Acq On : 14 May 2016 10:12 am
Operator : ashleyn
Sample : cc3621-25
Misc : op93596,e3e3649
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 16 09:21:52 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.366	152	206579	40.00	ppm	-0.05
24) Naphthalene-d8	5.399	136	773408	40.00	ppm	-0.06
47) Acenaphthene-d10	7.383	164	511999	40.00	ppm	-0.08
69) Phenanthrene-d10	9.523	188	943348	40.00	ppm	-0.09
83) Chrysene-d12	13.684	240	1035026	40.00	ppm	-0.10
92) Perylene-d12	15.797	264	936575	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4a	4.366	152	206579	40.00	ppm	-0.05
104) Acenaphthene-d10a	7.383	164	511999	40.00	ppm	-0.08
106) Phenanthrene-d10a	9.523	188	943348	40.00	ppm	-0.09
108) Chrysene-d12a	13.684	240	1035026	40.00	ppm	-0.10
110) Naphthalene-d8a	5.399	136	773408	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	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds							Qvalue
103) Benzaldehyde	4.046	105	112893	20.16	ppm	#	81
105) 1,2,4,5-Tetrachloroben...	6.303	216	202238	31.90	ppm		98
107) Atrazine	9.212	215	67846	28.26	ppm	#	84
109) benzidine	11.699	184	217880	17.10	ppm		97
111) Hydroquinone	5.875	110	156803	29.49	ppm		63

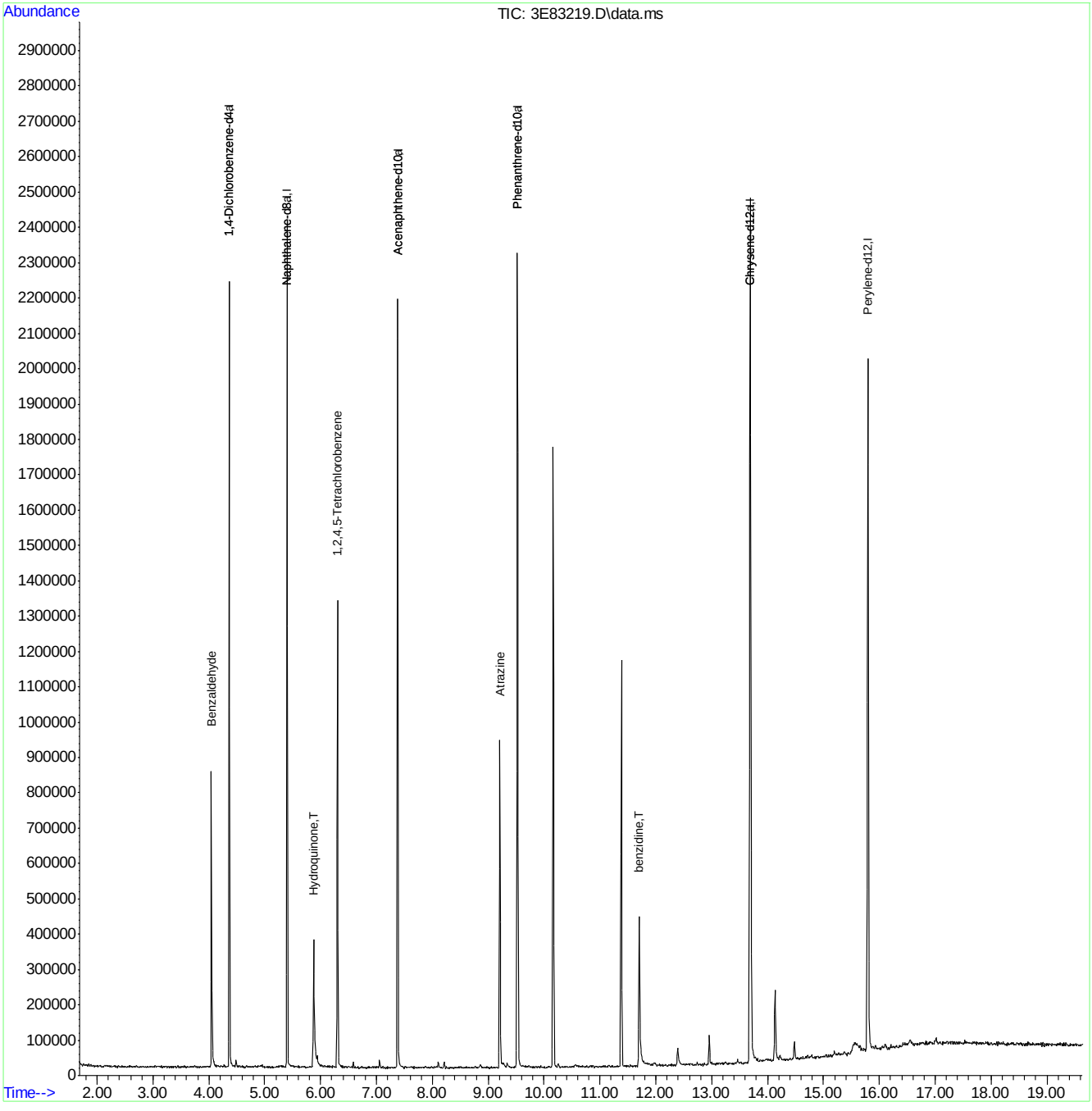
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3649\
Data File : 3E83219.D
Acq On : 14 May 2016 10:12 am
Operator : ashleyn
Sample : cc3621-25
Misc : op93596,e3e3649
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 16 09:21:52 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 09:20:14 2016
QLast Update : Mon May 16 09:20:14 2016
Response via : Initial Calibration



M3E3623.M Mon May 16 09:22:17 2016 MS3E

SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/16/16 15:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83274.D
Acq On : 16 May 2016 11:02 am
Operator : ashleyn
Sample : cc3623-50
Misc : op93878,e3e3650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 13:11:08 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.457	152	208829	40.00	ppm	0.04
24) Naphthalene-d8	5.506	136	747076	40.00	ppm	0.05
47) Acenaphthene-d10	7.517	164	462182	40.00	ppm	0.06
69) Phenanthrene-d10	9.678	188	810292	40.00	ppm	0.07
83) Chrysene-d12	13.855	240	731741	40.00	ppm	0.07
92) Perylene-d12	15.968	264	578243	40.00	ppm	0.17
102) 1,4-Dichlorobenzene-d4a	4.457	152	208829	40.00	ppm	0.04
104) Acenaphthene-d10a	7.517	164	462182	40.00	ppm	0.06
106) Phenanthrene-d10a	9.678	188	810292	40.00	ppm	0.07
108) Chrysene-d12a	13.855	240	731741	40.00	ppm	0.07
110) Naphthalene-d8a	5.506	136	747076	40.00	ppm	0.05

System Monitoring Compounds						
5) 2-Fluorophenol	3.655	112	297875	46.53	ppm	0.20
Spiked Amount 50.000			Recovery = 93.06%			
8) Phenol-d5	4.398	99	405293	48.66	ppm	0.22
Spiked Amount 50.000			Recovery = 97.32%			
25) Nitrobenzene-d5	4.896	82	379159	50.75	ppm	0.05
Spiked Amount 50.000			Recovery = 101.50%			
51) 2-Fluorobiphenyl	6.666	172	806850	52.64	ppm	0.05
Spiked Amount 50.000			Recovery = 105.28%			
73) 2,4,6-Tribromophenol	8.677	330	141577	49.54	ppm	0.08
Spiked Amount 50.000			Recovery = 99.08%			
85) Terphenyl-d14	12.234	244	937922	61.06	ppm	0.05
Spiked Amount 50.000			Recovery = 122.12%			

Target Compounds							Qvalue
2) 1,4-Dioxane	1.917	88	94745	49.76	ppm		95
3) Pyridine	2.270	79	233425	43.13	ppm		94
4) N-Nitrosodimethylamine	2.243	74	142216	46.17	ppm		96
6) Indene	4.645	116	545081	43.76	ppm		95
7) Cumene	3.842	105	815342	44.75	ppm		97
9) Phenol	4.415	94	377446	41.34	ppm		84
10) Aniline	4.227	93	372023	35.08	ppm		78
11) bis(2-Chloroethyl)ether	4.270	93	291351	46.52	ppm		97
12) 2-Chlorophenol	4.398	128	344726	45.55	ppm		99
13) Decane	4.329	43	340817	42.55	ppm		99
14) 1,3-Dichlorobenzene	4.415	146	396321	47.90	ppm		97
15) 1,4-Dichlorobenzene	4.468	146	406857	46.85	ppm		100
16) Benzyl alcohol	4.602	108	182345	39.53	ppm		99
17) 1,2-Dichlorobenzene	4.580	146	383119	48.99	ppm		98
18) Acetophenone	4.773	105	451214	43.56	ppm		98
19) 2-Methylphenol	4.794	108	265132	41.43	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.671	121	114378	44.58	ppm	#	86
21) 3&4-Methylphenol	4.917	108	296915	44.15	ppm		96
22) n-Nitroso-di-n-propyla...	4.778	70	231808	42.27	ppm		90
23) Hexachloroethane	4.837	201	161736	58.25	ppm		83
26) Nitrobenzene	4.912	77	524618	67.99	ppm		89
27) Quinoline	5.875	129	640713	49.31	ppm		98
28) Isophorone	5.110	82	590974	47.19	ppm		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83274.D
Acq On : 16 May 2016 11:02 am
Operator : ashleyn
Sample : cc3623-50
Misc : op93878,e3e3650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 13:11:08 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
29) 2-Nitrophenol	5.179	139	192971	48.87 ppm		97
30) 2,4-Dimethylphenol	5.302	107	333630	49.09 ppm		100
31) Benzoic acid	5.458	105	126855m	25.33 ppm		
32) bis(2-Chloroethoxy)met...	5.297	93	335922	49.27 ppm		96
33) 2,4-Dichlorophenol	5.527	162	301118	56.82 ppm		90
34) 2,6-Dichlorophenol	5.634	162	291193	53.79 ppm		96
35) 1,3,5-Trichlorobenzene	5.174	180	375845	58.67 ppm		98
36) 1,2,4-Trichlorobenzene	5.458	180	358220	59.24 ppm		96
37) 1,2,3-Trichlorobenzene	5.671	180	333240	57.23 ppm		97
38) Naphthalene	5.527	128	1004589	48.64 ppm		98
39) 4-Chloroaniline	5.607	127	361693	42.98 ppm		97
40) 2,3-Dichloroaniline	6.586	161	361560	54.13 ppm		98
41) Caprolactam	5.982	55	133378	47.15 ppm		87
42) Hexachlorobutadiene	5.634	225	244932	67.59 ppm		96
43) 4-Chloro-3-methylphenol	6.271	107	288884	47.78 ppm	#	68
44) 2-Methylnaphthalene	6.238	141	619080	52.80 ppm		94
45) 1-Methylnaphthalene	6.345	141	638180	52.18 ppm		94
46) Dimethylnaphthalene	6.982	156	657590	55.56 ppm		100
48) Hexachlorocyclopentadiene	6.404	237	381128	98.60 ppm		98
49) 2,4,6-Trichlorophenol	6.640	196	236298	56.39 ppm		99
50) 2,4,5-Trichlorophenol	6.832	196	230720	49.43 ppm		100
52) 2-Chloronaphthalene	6.811	162	680206	51.92 ppm		98
53) Biphenyl	6.789	154	887664	50.81 ppm		99
54) 2-Nitroaniline	6.993	65	238953	49.22 ppm		93
55) Dimethylphthalate	7.207	163	806200	52.53 ppm		100
56) Acenaphthylene	7.330	152	1083765	49.57 ppm		96
57) 2,6-Dinitrotoluene	7.297	165	178124	51.84 ppm		96
58) 3-Nitroaniline	7.538	138	173495	45.34 ppm		99
59) Acenaphthene	7.560	153	716189	49.32 ppm		93
60) 2,4-Dinitrophenol	7.709	184	160196	88.74 ppm		93
61) 4-Nitrophenol	8.287	109	96729	39.14 ppm		97
62) Dibenzofuran	7.800	168	969394	50.72 ppm		88
63) 2,4-Dinitrotoluene	7.854	165	253421	53.92 ppm		86
64) 2,3,4,6-Tetrachlorophenol	8.073	232	141931	41.02 ppm		95
65) Diethylphthalate	8.185	149	843255	52.31 ppm		98
66) Fluorene	8.287	166	832812	52.05 ppm		98
67) 4-Chlorophenyl-phenyle...	8.308	204	431773	59.18 ppm		96
68) 4-Nitroaniline	8.421	138	179650	48.84 ppm		95
70) 4,6-Dinitro-2-methylph...	8.447	198	145871	49.06 ppm		91
71) n-Nitrosodiphenylamine	8.506	169	580013	51.54 ppm		99
72) 1,2-Diphenylhydrazine	8.538	77	827116	49.33 ppm		95
74) 4-Bromophenyl-phenylether	9.025	248	284068	58.97 ppm		95
75) Hexachlorobenzene	9.089	284	333314	57.69 ppm		99
76) Pentachlorophenol	9.506	266	83199	30.25 ppm		92
77) Phenanthrene	9.710	178	1150707	48.94 ppm		100
78) Anthracene	9.790	178	1166450	49.53 ppm		100
79) Carbazole	10.116	167	1022587	47.99 ppm		99
80) Di-n-butylphthalate	10.705	149	1339177	48.66 ppm		97
81) Fluoranthene	11.566	202	1310628	51.40 ppm		97
82) Octadecane	9.624	57	421323	44.02 ppm		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83274.D
Acq On : 16 May 2016 11:02 am
Operator : ashleyn
Sample : cc3623-50
Misc : op93878,e3e3650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 13:11:08 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
84) Pyrene	11.913	202	1313949	59.99 ppm	98
86) Butylbenzylphthalate	13.074	149	530638	50.80 ppm	96
87) Butyl stearate	13.240	56	266493	48.59 ppm	92
88) Benzo[a]anthracene	13.839	228	1088178	50.88 ppm	98
89) 3,3'-Dichlorobenzidine	13.866	252	391225	49.19 ppm	99
90) Chrysene	13.898	228	974843	48.84 ppm	99
91) bis(2-Ethylhexyl)phtha...	14.031	149	613380	45.63 ppm	98
93) Di-n-octylphthalate	15.026	149	994776	42.80 ppm	96
94) Benzo[b]fluoranthene	15.454	252	1008010	51.57 ppm	99
95) Benzo[k]fluoranthene	15.492	252	920817	52.78 ppm	98
96) Benzo[a]pyrene	15.893	252	849811	52.08 ppm	96
97) Indeno[1,2,3-cd]pyrene	17.412	276	903275m	58.10 ppm	
98) Dibenz(a,h)acridine	17.091	279	783647	53.54 ppm	91
99) Dibenz[a,h]anthracene	17.444	278	922749	59.74 ppm	97
100) 7,12-Dimethylbenz(a)an...	15.443	256	439711	50.46 ppm	99
101) Benzo[g,h,i]perylene	17.813	276	880171	58.76 ppm	99

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

7.6.29

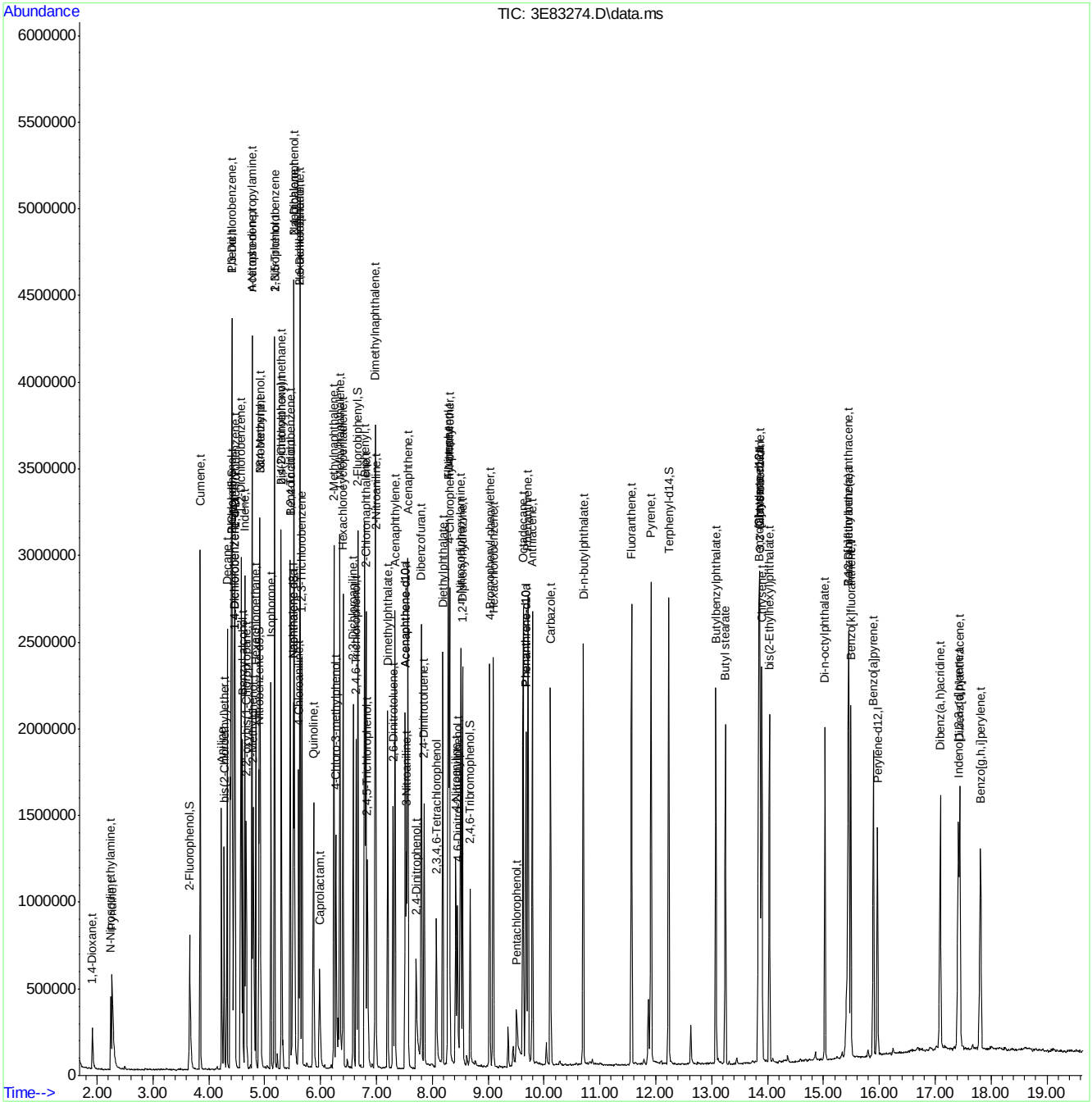
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83274.D
Acq On : 16 May 2016 11:02 am
Operator : ashleyn
Sample : cc3623-50
Misc : op93878,e3e3650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 13:11:08 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Manual Integration Approval Summary

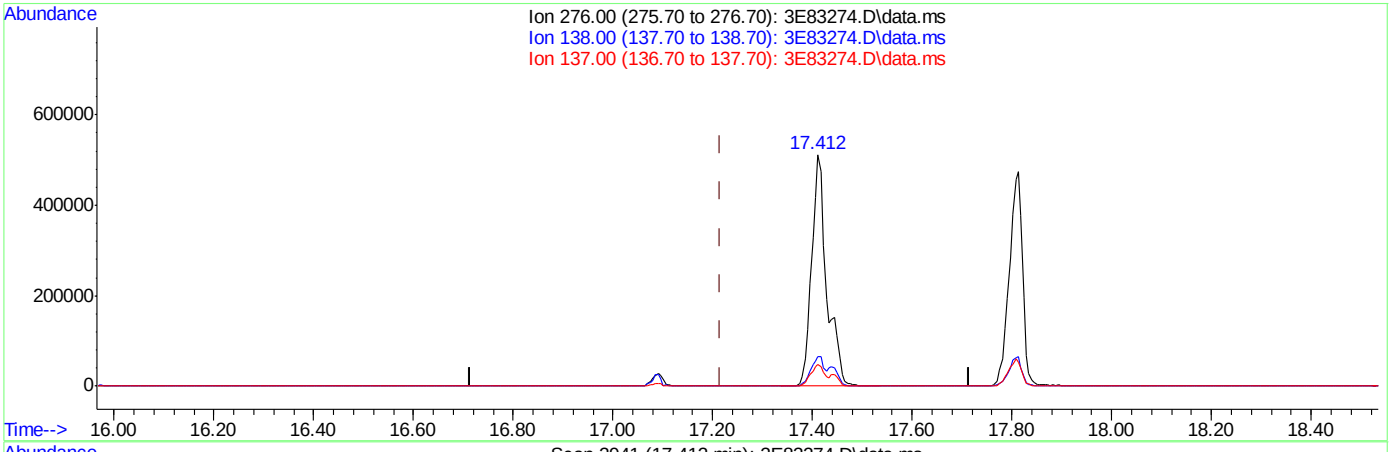
Sample Number:	E3E3650-CC3623	**Method:**	EPA 625
Lab FileID:	3E83274.D	**Analyst approved:**	05/16/16 13:18 Ashley Noble
Injection Time:	05/16/16 11:02	**Supervisor approved:**	05/16/16 15:04 Nina Pandya

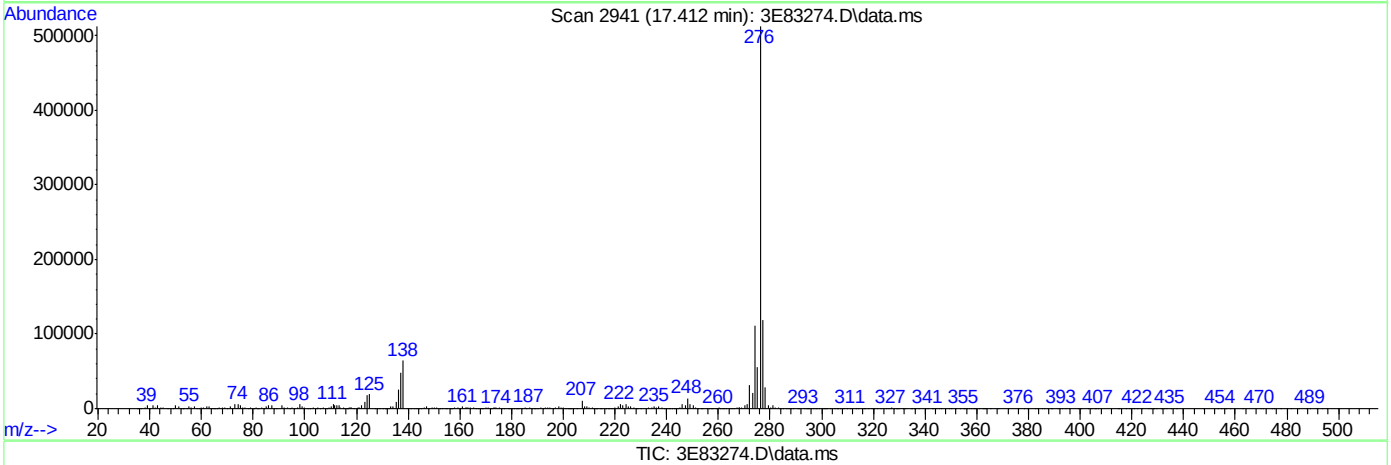
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.46	Split peak
Indeno(1,2,3-cd)pyrene	193-39-5		17.41	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83274.D
Acq On : 16 May 2016 11:02 am
Operator : ashleyn
Sample : cc3623-50
Misc : op93878,e3e3650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 13:09:16 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration





TIC: 3E83274.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.412min (+0.196) 69.24ppm

response 1076450

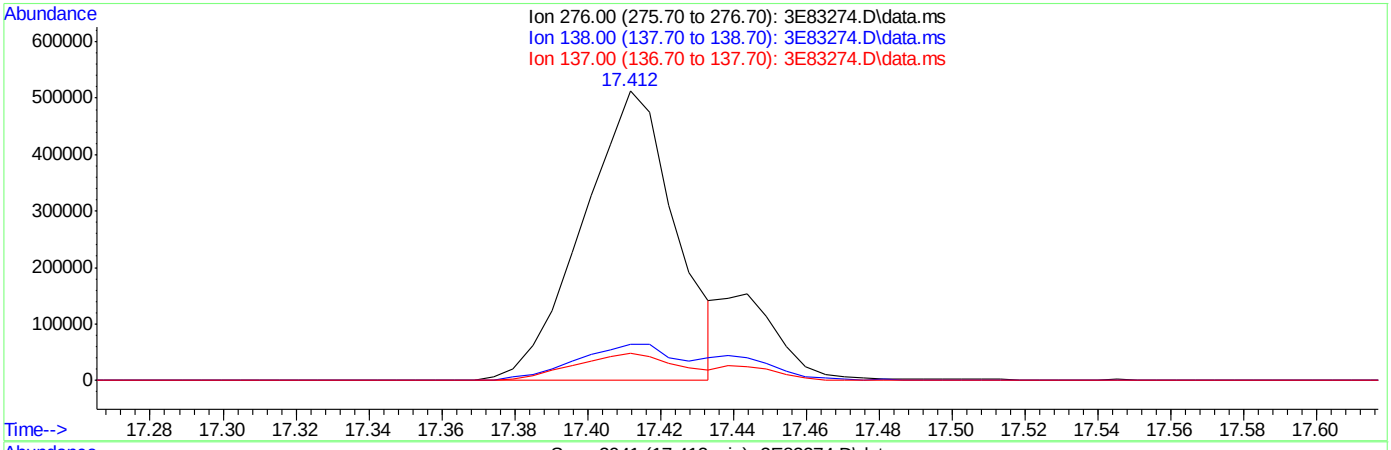
Ion	Exp%	Act%
276.00	100	100
138.00	14.30	12.48
137.00	9.10	9.20
0.00	0.00	0.00

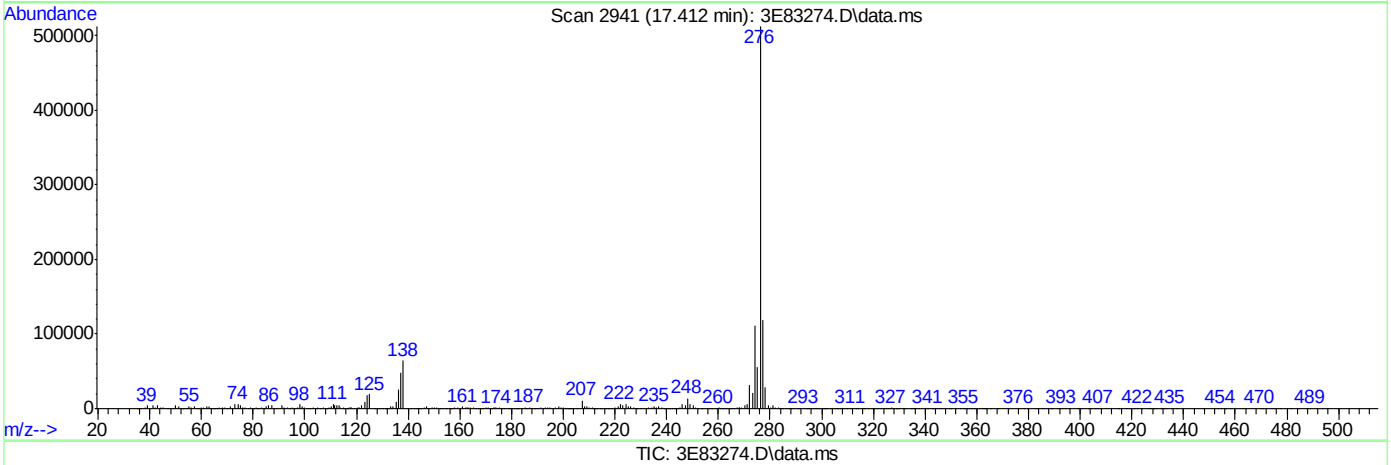
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83274.D
Acq On : 16 May 2016 11:02 am
Operator : ashleyn
Sample : cc3623-50
Misc : op93878,e3e3650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 13:09:16 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration





TIC: 3E83274.D\data.ms

(97) Indeno[1,2,3-cd]pyrene (t)

17.412min (+0.196) 58.10ppm m

response 903275

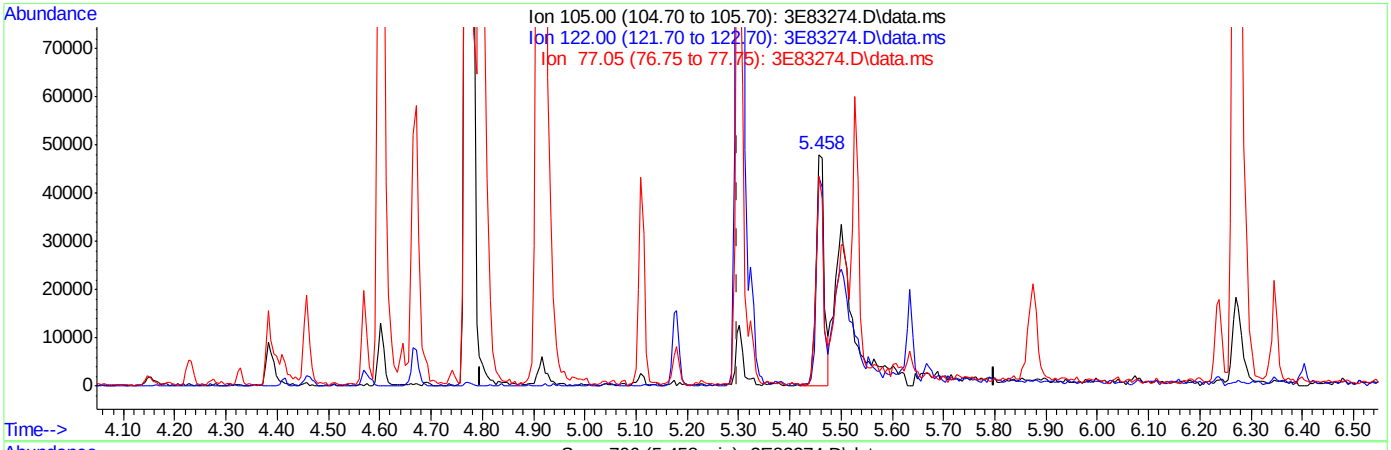
Ion	Exp%	Act%
276.00	100	100
138.00	14.30	12.58
137.00	9.10	9.30
0.00	0.00	0.00

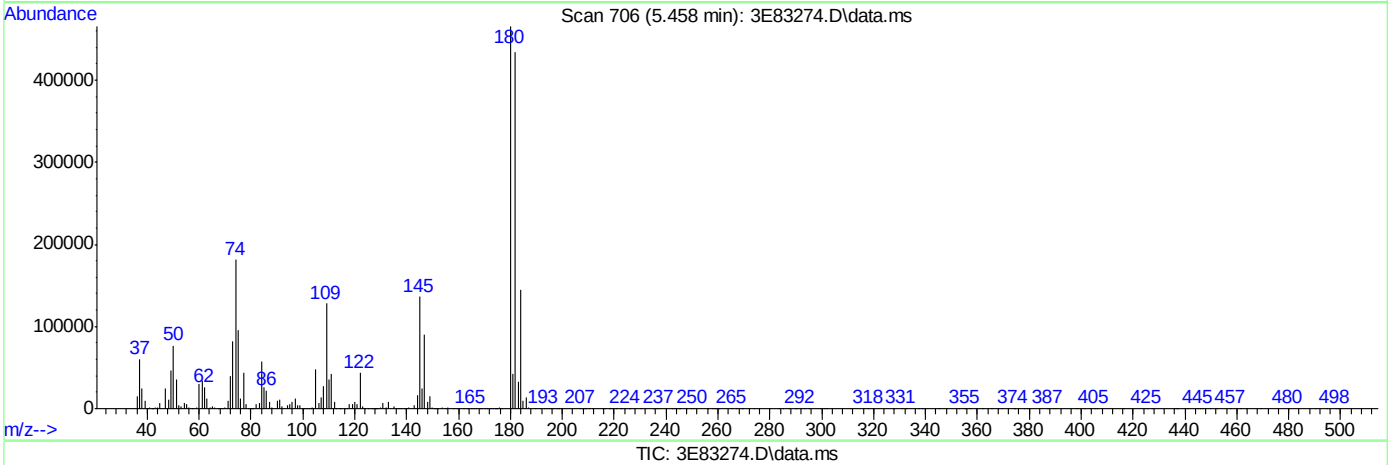
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83274.D
Acq On : 16 May 2016 11:02 am
Operator : ashleyn
Sample : cc3623-50
Misc : op93878,e3e3650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 13:09:16 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration





(31) Benzoic acid (t)

5.458min (+0.159) 10.55ppm

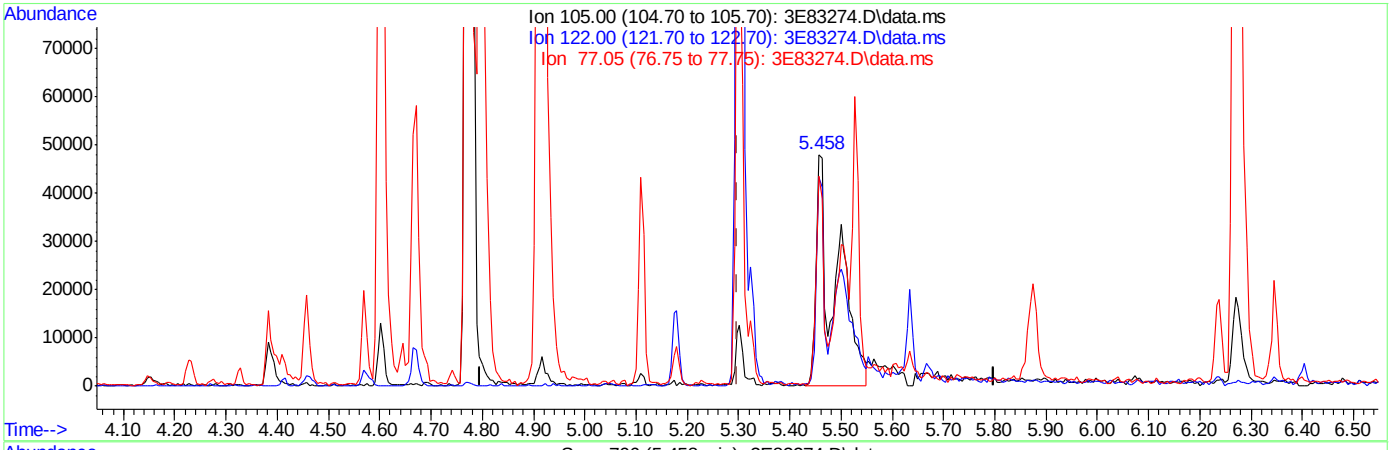
response 52836

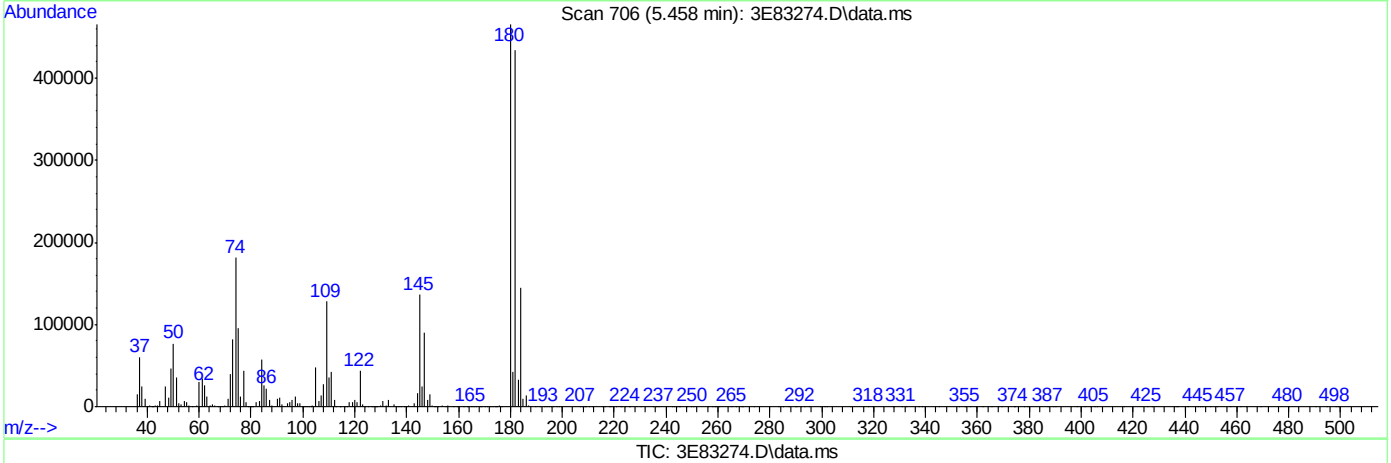
Ion	Exp%	Act%
105.00	100	100
122.00	74.00	92.71
77.05	79.10	91.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3650\
Data File : 3E83274.D
Acq On : 16 May 2016 11:02 am
Operator : ashleyn
Sample : cc3623-50
Misc : op93878,e3e3650
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 16 13:09:16 2016
Quant Method : C:\msdchem\1\METHODS\M3E3623.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon May 16 13:09:11 2016
QLast Update : Mon May 16 13:09:11 2016
Response via : Initial Calibration





(31) Benzoic acid (t)

5.458min (+0.159) 25.33ppm m

response 126855

Ion	Exp%	Act%
105.00	100	100
122.00	74.00	89.98
77.05	79.10	90.60
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60763a.D
Acq On : 21 Apr 2016 2:34 pm
Operator : linseyk
Sample : icc2855-1
Misc : op93052a,e3m2855
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 22 08:25:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:25:42 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.640	150	400870	4.00	ppm	0.00
14) Fluorene-d10	13.625	176	625702	4.00	ppm	0.00
21) Fluoranthene-d10	17.843	212	1077133	4.00	ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	871075	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	4.515	112	1020090	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
4) Phenol-d5	6.104	99	1710029	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
7) Nitrobenzene-d5	7.726	82	1614929	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
15) 2-Fluorobiphenyl	11.303	172	3472226	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
20) 2,4,6-Tribromophenol	14.172	330	412126	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
28) Terphenyl-d14	18.647	244	3034780	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.289	88	20871	1.00	ppm	100
5) Phenol	6.128	94	465092	5.00	ppm	100
6) bis(2-Chloroethyl)ether	6.285	93	70869	1.00	ppm	100
8) Nitrobenzene	7.764	77	86151	1.00	ppm	100
9) Naphthalene	9.138	128	219827	1.00	ppm	100
10) Hexachlorobutadiene	9.421	225	40324	1.00	ppm	100
11) 2-Methylnaphthalene	10.517	141	120636	1.00	ppm	100
12) 1-Methylnaphthalene	10.702	141	140296	1.00	ppm	100
13) Hexachlorocyclopentadiene	10.846	237	70869	2.00	ppm	100
16) Acenaphthylene	12.293	152	240199	1.00	ppm	100
17) Acenaphthene	12.648	153	154130	1.00	ppm	100
18) 4,6-dinitro-2-methylph...	13.851	198	102012	5.00	ppm	100
19) Fluorene	13.682	166	186031	1.00	ppm	100
22) Hexachlorobenzene	14.783	284	51035	1.00	ppm	100
23) Pentachlorophenol	15.200	266	181848	5.00	ppm	100
24) Phenanthrene	15.602	178	268689	1.00	ppm	100
25) Anthracene	15.711	178	253406	1.00	ppm	100
26) Fluoranthene	17.874	202	309707	1.00	ppm	100
27) Pyrene	18.261	202	317795	1.00	ppm	100
29) Benzo[a]anthracene	20.346	228	287712	1.00	ppm	100
30) Chrysene	20.408	228	289281	1.00	ppm	100
32) Benzo[b]fluoranthene	22.015	252	292603	1.00	ppm	100
33) Benzo[k]fluoranthene	22.061	252	269694	0.99	ppm	100
34) Benzo[a]pyrene	22.463	252	265091	1.00	ppm	100
35) Indeno[1,2,3-cd]pyrene	23.963	276	292264	1.00	ppm	100
36) Dibenz[a,h]anthracene	24.020	278	233740	0.93	ppm	81
37) Benzo[g,h,i]perylene	24.358	276	248979	1.00	ppm	100

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60763a.D
Acq On : 21 Apr 2016 2:34 pm
Operator : linseyk
Sample : icc2855-1
Misc : op93052a,e3m2855
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 22 08:25:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:25:42 2016
Response via : Initial Calibration

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

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

7.6.30

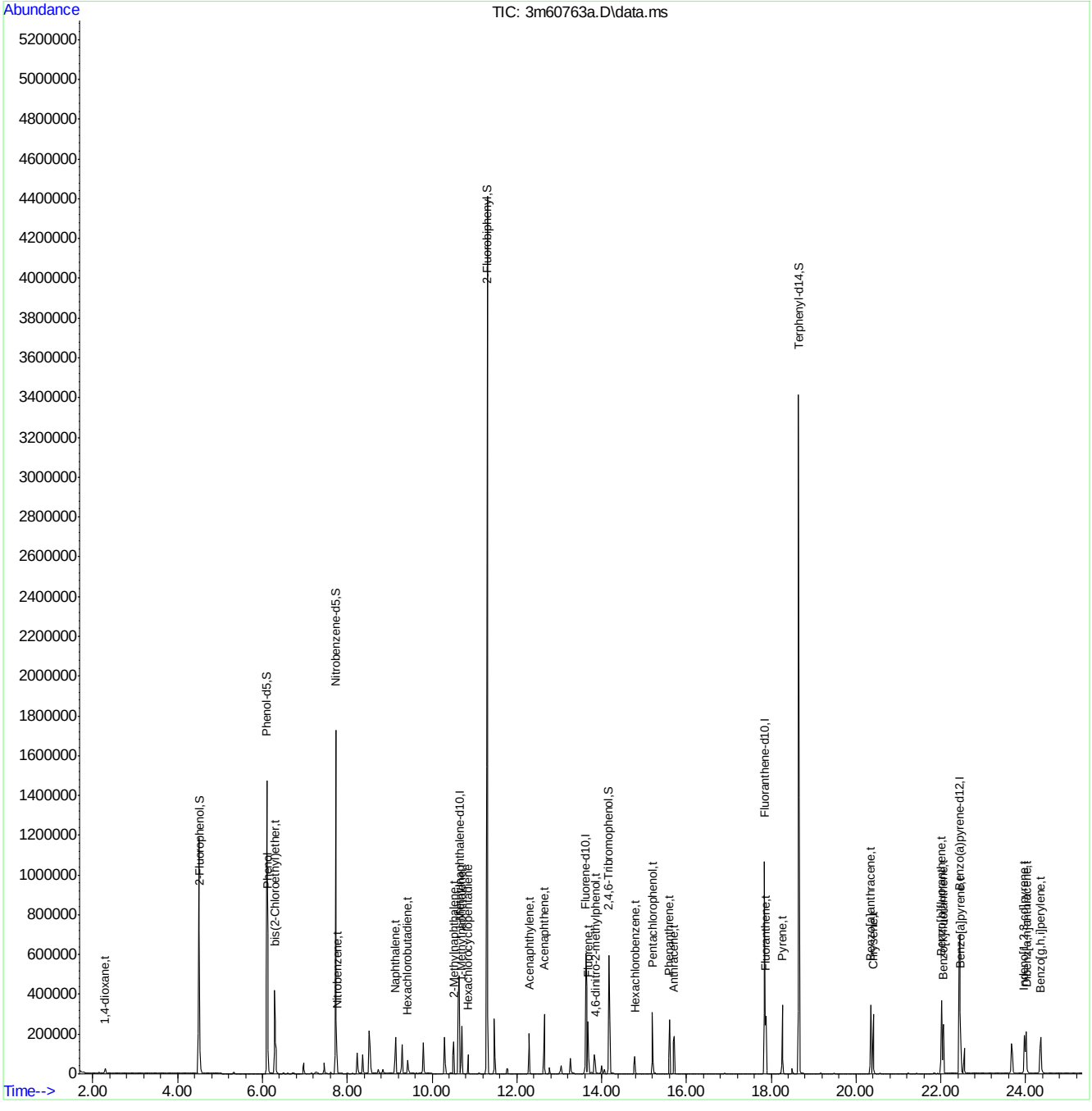
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60763a.D
Acq On : 21 Apr 2016 2:34 pm
Operator : linseyk
Sample : icc2855-1
Misc : op93052a,e3m2855
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 22 08:25:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:25:42 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60764a.D
Acq On : 21 Apr 2016 3:07 pm
Operator : linseyk
Sample : ic2855-0.5
Misc : op93052a,e3m2855
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 22 08:26:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:26:05 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.620	150	358247	4.00	ppm	-0.02
14) Fluorene-d10	13.625	176	572881	4.00	ppm	0.00
21) Fluoranthene-d10	17.843	212	971465	4.00	ppm	0.00
31) Benzo(a)pyrene-d12	22.432	264	803329	4.00	ppm	-0.02
System Monitoring Compounds						
3) 2-Fluorophenol	4.515	112	465758	10.22	ppm	0.00
Spiked Amount 50.000			Recovery = 20.44%			
4) Phenol-d5	6.104	99	786231	10.29	ppm	0.00
Spiked Amount 50.000			Recovery = 20.58%			
7) Nitrobenzene-d5	7.726	82	745253	10.33	ppm	0.00
Spiked Amount 50.000			Recovery = 20.66%			
15) 2-Fluorobiphenyl	11.303	172	1590025	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
20) 2,4,6-Tribromophenol	14.172	330	191850	10.17	ppm	0.00
Spiked Amount 50.000			Recovery = 20.34%			
28) Terphenyl-d14	18.647	244	1433884	10.48	ppm	0.00
Spiked Amount 50.000			Recovery = 20.96%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.289	88	9527	0.51	ppm	66
5) Phenol	6.116	94	208854	2.51	ppm #	64
6) bis(2-Chloroethyl)ether	6.285	93	31897	0.50	ppm	98
8) Nitrobenzene	7.764	77	37433	0.49	ppm	96
9) Naphthalene	9.138	128	98367	0.50	ppm	99
10) Hexachlorobutadiene	9.421	225	18124	0.50	ppm	97
11) 2-Methylnaphthalene	10.517	141	50870	0.47	ppm	97
12) 1-Methylnaphthalene	10.702	141	62617	0.50	ppm	98
13) Hexachlorocyclopentadiene	10.845	237	29084	0.92	ppm	100
16) Acenaphthylene	12.293	152	105827	0.48	ppm	99
17) Acenaphthene	12.648	153	67805	0.48	ppm	97
18) 4,6-dinitro-2-methylph...	13.851	198	30000	1.61	ppm	98
19) Fluorene	13.682	166	81831	0.48	ppm	98
22) Hexachlorobenzene	14.783	284	23082	0.50	ppm	99
23) Pentachlorophenol	15.200	266	74585	2.27	ppm	96
24) Phenanthrene	15.602	178	120971	0.50	ppm	98
25) Anthracene	15.695	178	110700	0.48	ppm	87
26) Fluoranthene	17.874	202	132546	0.47	ppm	98
27) Pyrene	18.261	202	140572	0.49	ppm	100
29) Benzo[a]anthracene	20.346	228	124954	0.48	ppm	99
30) Chrysene	20.408	228	123107	0.47	ppm	98
32) Benzo[b]fluoranthene	22.015	252	128656	0.48	ppm	98
33) Benzo[k]fluoranthene	22.061	252	114388	0.46	ppm	97
34) Benzo[a]pyrene	22.463	252	116726	0.48	ppm	99
35) Indeno[1,2,3-cd]pyrene	23.963	276	127053	0.47	ppm	99
36) Dibenz[a,h]anthracene	24.020	278	97979	0.45	ppm	100
37) Benzo[g,h,i]perylene	24.358	276	108758	0.47	ppm	99

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60764a.D
Acq On : 21 Apr 2016 3:07 pm
Operator : linseyk
Sample : ic2855-0.5
Misc : op93052a,e3m2855
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 22 08:26:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:26:05 2016
Response via : Initial Calibration

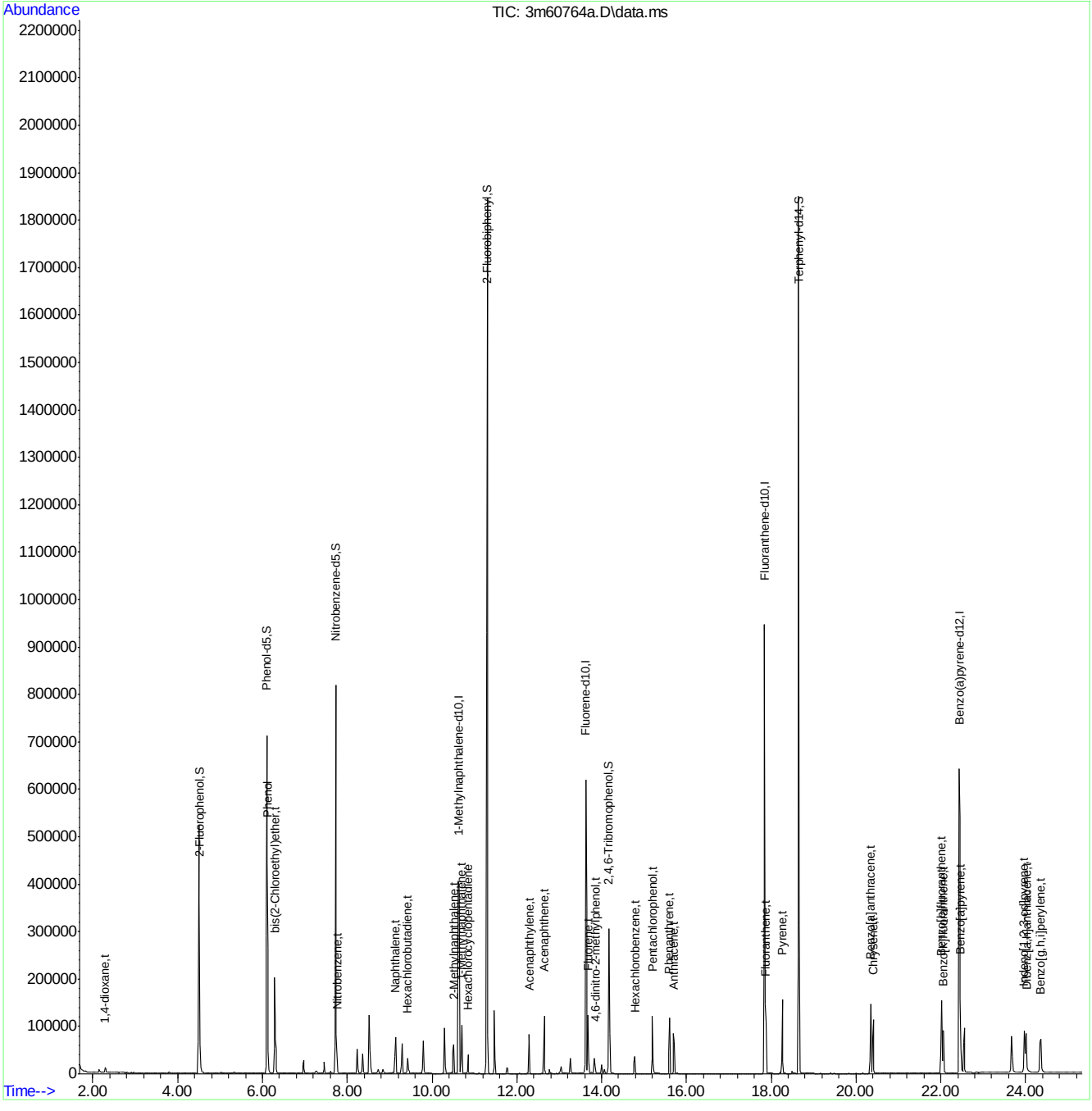
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60764a.D
Acq On : 21 Apr 2016 3:07 pm
Operator : linseyk
Sample : ic2855-0.5
Misc : op93052a,e3m2855
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 22 08:26:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:26:05 2016
Response via : Initial Calibration



M3M2855SIM.M Fri Apr 22 08:26:41 2016 RPT1 Page: 3

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60765a.D
Acq On : 21 Apr 2016 3:39 pm
Operator : linseyk
Sample : ic2855-0.2
Misc : op93052a,e3m2855
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 22 08:26:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:26:46 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.641	150	350963	4.00	ppm	0.02
14) Fluorene-d10	13.625	176	541559	4.00	ppm	0.00
21) Fluoranthene-d10	17.844	212	945802	4.00	ppm	0.00
31) Benzo(a)pyrene-d12	22.432	264	762324	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	4.515	112	182333	4.04	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.08%	
4) Phenol-d5	6.104	99	309088	4.07	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.14%	
7) Nitrobenzene-d5	7.726	82	282457	3.93	ppm	0.00
Spiked Amount 50.000			Recovery	=	7.86%	
15) 2-Fluorobiphenyl	11.303	172	631033	4.20	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.40%	
20) 2,4,6-Tribromophenol	14.172	330	70258	3.91	ppm	0.00
Spiked Amount 50.000			Recovery	=	7.82%	
28) Terphenyl-d14	18.647	244	584275	4.28	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.56%	
Target Compounds						Qvalue
2) 1,4-dioxane	2.290	88	3559	0.19	ppm #	20
5) Phenol	6.116	94	80728	0.99	ppm #	72
6) bis(2-Chloroethyl)ether	6.285	93	12510	0.20	ppm	96
8) Nitrobenzene	7.764	77	14471	0.19	ppm	100
9) Naphthalene	9.139	128	39500	0.21	ppm	99
10) Hexachlorobutadiene	9.421	225	7119	0.20	ppm	100
11) 2-Methylnaphthalene	10.517	141	20355	0.20	ppm	100
12) 1-Methylnaphthalene	10.702	141	25492	0.21	ppm	98
13) Hexachlorocyclopentadiene	10.846	237	9938	0.33	ppm	99
16) Acenaphthylene	12.293	152	39006	0.19	ppm	99
17) Acenaphthene	12.648	153	26171	0.20	ppm	99
18) 4,6-dinitro-2-methylph...	13.852	198	7553	0.52	ppm	92
19) Fluorene	13.682	166	31388	0.20	ppm	99
22) Hexachlorobenzene	14.783	284	8969	0.20	ppm	98
23) Pentachlorophenol	15.200	266	23466	0.77	ppm	99
24) Phenanthrene	15.602	178	45498	0.19	ppm	100
25) Anthracene	15.711	178	40800	0.19	ppm	99
26) Fluoranthene	17.874	202	52573	0.20	ppm	99
27) Pyrene	18.261	202	52427	0.19	ppm	99
29) Benzo[a]anthracene	20.347	228	46665	0.19	ppm	99
30) Chrysene	20.408	228	48799	0.20	ppm	99
32) Benzo[b]fluoranthene	22.015	252	49094	0.20	ppm	98
33) Benzo[k]fluoranthene	22.062	252	44557	0.20	ppm	99
34) Benzo[a]pyrene	22.463	252	44223	0.20	ppm	99
35) Indeno[1,2,3-cd]pyrene	23.963	276	49013	0.20	ppm	100
36) Dibenz[a,h]anthracene	24.020	278	39930	0.20	ppm	100
37) Benzo[g,h,i]perylene	24.358	276	41535	0.20	ppm	100

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60765a.D
Acq On : 21 Apr 2016 3:39 pm
Operator : linseyk
Sample : ic2855-0.2
Misc : op93052a,e3m2855
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 22 08:26:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:26:46 2016
Response via : Initial Calibration

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

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

7.6.32

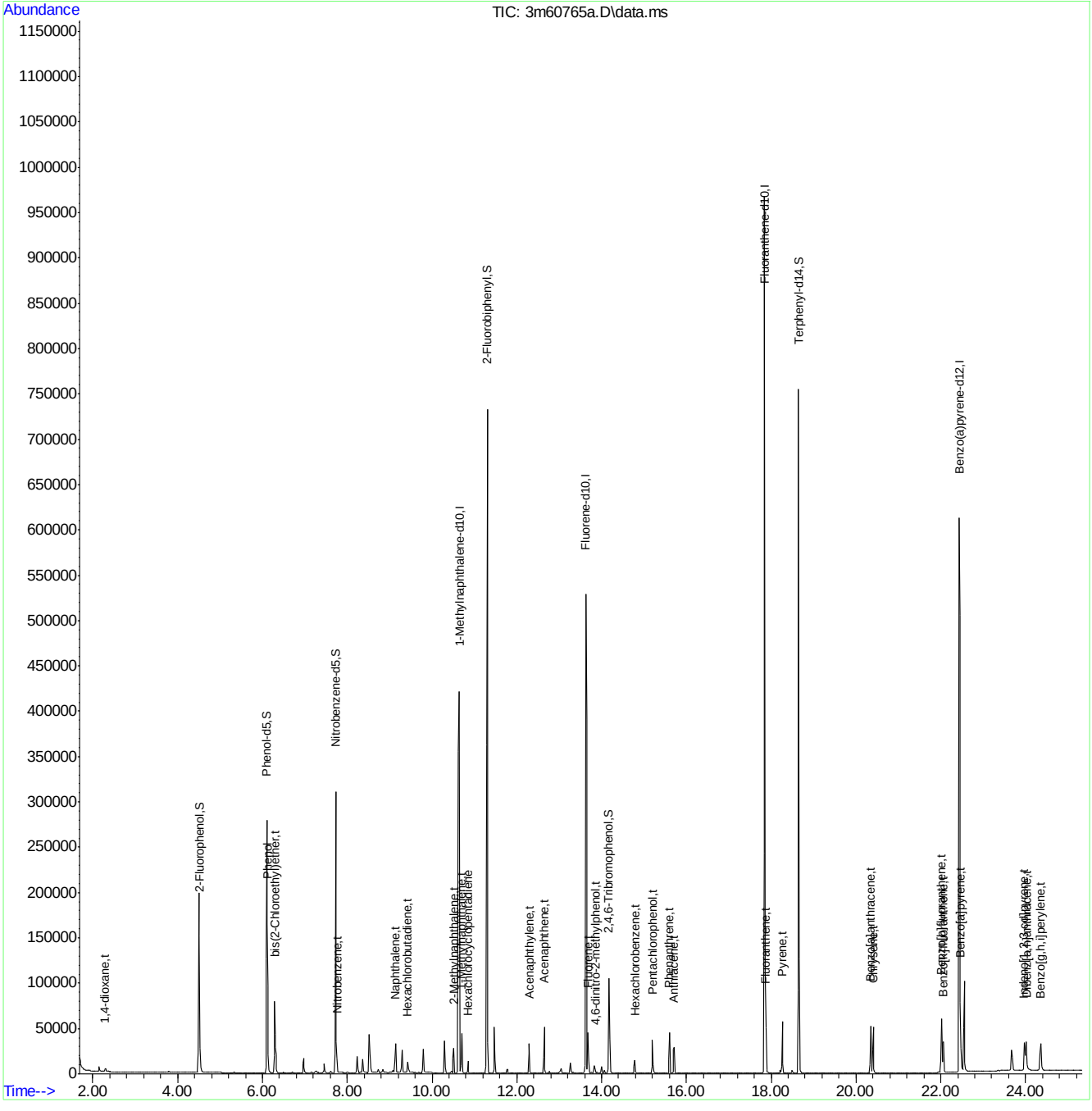
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60765a.D
Acq On : 21 Apr 2016 3:39 pm
Operator : linseyk
Sample : ic2855-0.2
Misc : op93052a,e3m2855
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 22 08:26:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:26:46 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60766.D
Acq On : 21 Apr 2016 4:12 pm
Operator : linseyk
Sample : ic2855-0.1
Misc : op93052a,e3m2855
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 22 08:27:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:27:18 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.641	150	340968	4.00	ppm	0.00
14) Fluorene-d10	13.644	176	502575	4.00	ppm	0.02
21) Fluoranthene-d10	17.844	212	887342	4.00	ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	703545	4.00	ppm	0.02
System Monitoring Compounds						
3) 2-Fluorophenol	4.515	112	86528	1.97	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.94%	
4) Phenol-d5	6.104	99	144256	1.94	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.88%	
7) Nitrobenzene-d5	7.726	82	129224	1.86	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.72%	
15) 2-Fluorobiphenyl	11.303	172	294276	2.08	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.16%	
20) 2,4,6-Tribromophenol	14.172	330	28910	1.75	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.50%	
28) Terphenyl-d14	18.647	244	266058	2.03	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.06%	
Target Compounds						Qvalue
2) 1,4-dioxane	2.305	88	1953	0.11	ppm	93
5) Phenol	6.116	94	38102	0.48	ppm #	73
6) bis(2-Chloroethyl)ether	6.285	93	5932	0.10	ppm	92
8) Nitrobenzene	7.764	77	6815	0.10	ppm	96
9) Naphthalene	9.139	128	19053	0.10	ppm	99
10) Hexachlorobutadiene	9.421	225	3313	0.10	ppm	99
11) 2-Methylnaphthalene	10.517	141	9659	0.10	ppm	97
12) 1-Methylnaphthalene	10.702	141	12284	0.10	ppm	94
13) Hexachlorocyclopentadiene	10.846	237	4166	0.15	ppm	100
16) Acenaphthylene	12.293	152	17405	0.09	ppm	100
17) Acenaphthene	12.648	153	11953	0.10	ppm	99
18) 4,6-dinitro-2-methylph...	13.852	198	2417	0.21	ppm	96
19) Fluorene	13.682	166	14084	0.10	ppm	100
22) Hexachlorobenzene	14.783	284	4120	0.10	ppm	99
23) Pentachlorophenol	15.201	266	9313	0.35	ppm	100
24) Phenanthrene	15.602	178	20817	0.10	ppm	100
25) Anthracene	15.711	178	17457	0.09	ppm	100
26) Fluoranthene	17.874	202	24361	0.10	ppm	99
27) Pyrene	18.261	202	23618	0.09	ppm	99
29) Benzo[a]anthracene	20.347	228	21304	0.09	ppm	99
30) Chrysene	20.408	228	22498	0.10	ppm	99
32) Benzo[b]fluoranthene	22.015	252	22115	0.10	ppm	99
33) Benzo[k]fluoranthene	22.062	252	22174	0.11	ppm	99
34) Benzo[a]pyrene	22.463	252	19014	0.09	ppm	99
35) Indeno[1,2,3-cd]pyrene	23.963	276	22099	0.10	ppm	98
36) Dibenz[a,h]anthracene	24.020	278	18120	0.10	ppm	100
37) Benzo[g,h,i]perylene	24.358	276	19184	0.10	ppm	99

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60766.D
Acq On : 21 Apr 2016 4:12 pm
Operator : linseyk
Sample : ic2855-0.1
Misc : op93052a,e3m2855
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 22 08:27:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:27:18 2016
Response via : Initial Calibration

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

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

7.6.33

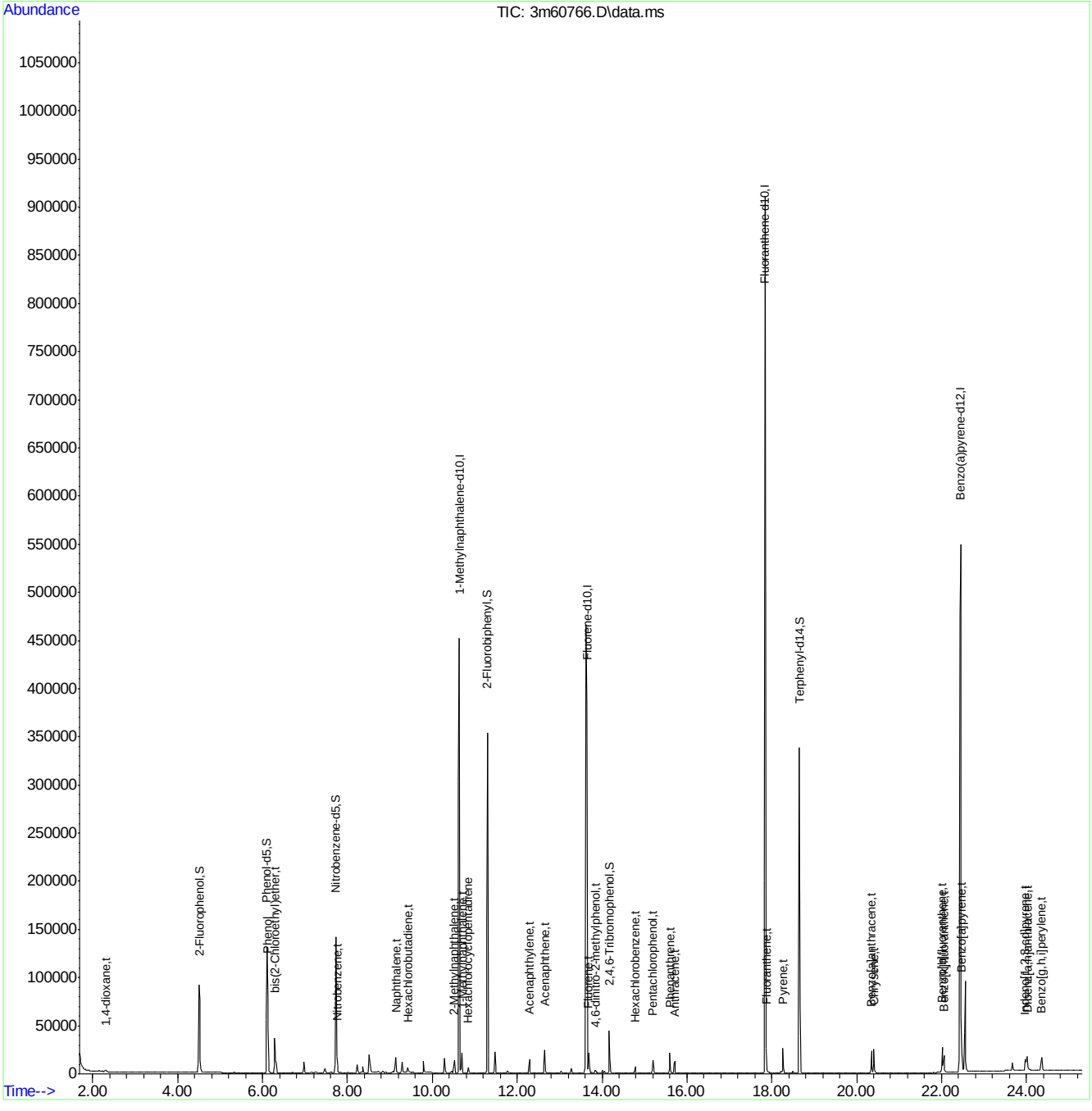
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60766.D
Acq On : 21 Apr 2016 4:12 pm
Operator : linseyk
Sample : ic2855-0.1
Misc : op93052a,e3m2855
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 22 08:27:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:27:18 2016
Response via : Initial Calibration



M3M2855SIM.M Fri Apr 22 08:27:46 2016 RPT1 Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60767.D
Acq On : 21 Apr 2016 4:44 pm
Operator : linseyk
Sample : ic2855-0.05
Misc : op93052a,e3m2855
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 22 08:34:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:32:39 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	10.641	150	339033	4.00 ppm	0.00
14) Fluorene-d10	13.626	176	520555	4.00 ppm	-0.02
21) Fluoranthene-d10	17.844	212	888983	4.00 ppm	0.00
31) Benzo(a)pyrene-d12	22.432	264	706519	4.00 ppm	-0.02
System Monitoring Compounds					
3) 2-Fluorophenol	4.515	112	42704	1.01 ppm	0.00
Spiked Amount 50.000			Recovery	= 2.02%	
4) Phenol-d5	6.104	99	70262	1.00 ppm	0.00
Spiked Amount 50.000			Recovery	= 2.00%	
7) Nitrobenzene-d5	7.726	82	63026	0.97 ppm	0.00
Spiked Amount 50.000			Recovery	= 1.94%	
15) 2-Fluorobiphenyl	11.303	172	145045	1.01 ppm	0.00
Spiked Amount 50.000			Recovery	= 2.02%	
20) 2,4,6-Tribromophenol	14.172	330	13489	0.83 ppm	0.00
Spiked Amount 50.000			Recovery	= 1.66%	
28) Terphenyl-d14	18.647	244	135801	1.05 ppm	0.00
Spiked Amount 50.000			Recovery	= 2.10%	
Target Compounds					Qvalue
2) 1,4-dioxane	2.305	88	1056	0.06 ppm	90
5) Phenol	6.116	94	18706	0.25 ppm #	73
6) bis(2-Chloroethyl)ether	6.285	93	3013	0.05 ppm	88
8) Nitrobenzene	7.764	77	3438	0.05 ppm	92
9) Naphthalene	9.139	128	9285	0.05 ppm	99
10) Hexachlorobutadiene	9.421	225	1685	0.05 ppm	99
11) 2-Methylnaphthalene	10.518	141	4767	0.05 ppm	96
12) 1-Methylnaphthalene	10.702	141	6629	0.05 ppm	95
13) Hexachlorocyclopentadiene	10.846	237	2049	0.08 ppm	97
16) Acenaphthylene	12.293	152	8346	0.05 ppm	99
17) Acenaphthene	12.648	153	5946	0.05 ppm	99
18) 4,6-dinitro-2-methylph...	13.852	198	948	0.07 ppm	91
19) Fluorene	13.682	166	7106	0.05 ppm	100
22) Hexachlorobenzene	14.783	284	2065	0.05 ppm	96
23) Pentachlorophenol	15.201	266	4271	0.17 ppm	98
24) Phenanthrene	15.603	178	10238	0.05 ppm	99
25) Anthracene	15.711	178	8587	0.04 ppm	98
26) Fluoranthene	17.875	202	12772	0.05 ppm	99
27) Pyrene	18.261	202	11982	0.05 ppm	98
29) Benzo[a]anthracene	20.347	228	11591	0.05 ppm	100
30) Chrysene	20.408	228	11884	0.05 ppm	99
32) Benzo[b]fluoranthene	22.015	252	11635	0.04 ppm	99
33) Benzo[k]fluoranthene	22.062	252	11007	0.05 ppm	100
34) Benzo[a]pyrene	22.463	252	12936	0.06 ppm	98
35) Indeno[1,2,3-cd]pyrene	23.963	276	10547	0.05 ppm	100
36) Dibenz[a,h]anthracene	24.020	278	8444	0.05 ppm	100
37) Benzo[g,h,i]perylene	24.358	276	9475	0.05 ppm	99

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60767.D
Acq On : 21 Apr 2016 4:44 pm
Operator : linseyk
Sample : ic2855-0.05
Misc : op93052a,e3m2855
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 22 08:34:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:32:39 2016
Response via : Initial Calibration

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

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

7.6.34

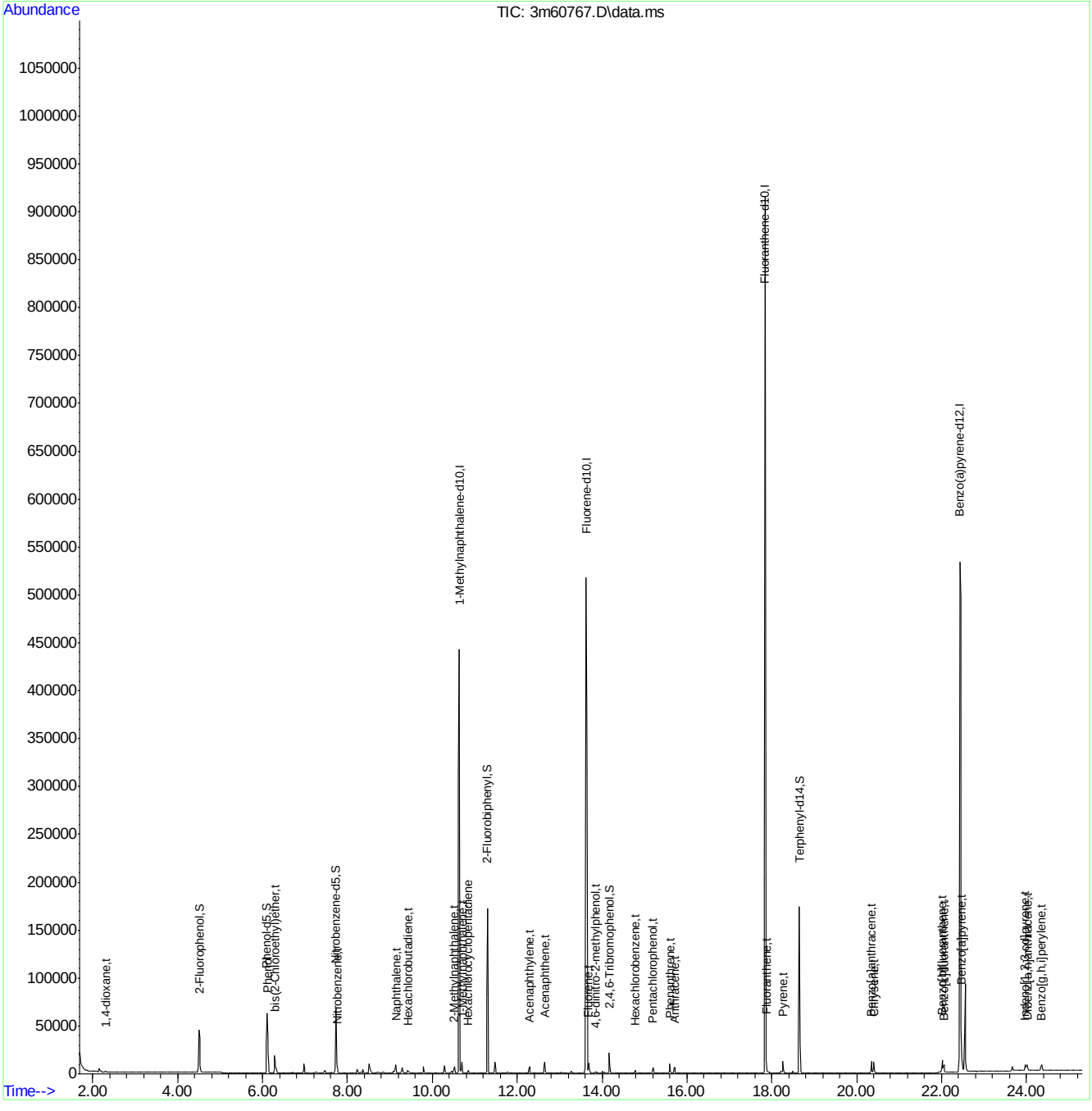
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60767.D
Acq On : 21 Apr 2016 4:44 pm
Operator : linseyk
Sample : ic2855-0.05
Misc : op93052a,e3m2855
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 22 08:34:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:32:39 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
04/22/16 12:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60768.D
Acq On : 21 Apr 2016 5:17 pm
Operator : linseyk
Sample : ic2855-0.02
Misc : op93052a,e3m2855
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 22 08:29:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:28:25 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.640	150	345303	4.00	ppm	0.00
14) Fluorene-d10	13.644	176	525823	4.00	ppm	0.02
21) Fluoranthene-d10	17.843	212	917656	4.00	ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	713000	4.00	ppm	0.02
System Monitoring Compounds						
3) 2-Fluorophenol	4.515	112	17018	0.39	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.78%	
4) Phenol-d5	6.104	99	28195	0.38	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.76%	
7) Nitrobenzene-d5	7.726	82	25103	0.37	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.74%	
15) 2-Fluorobiphenyl	11.303	172	57726	0.39	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.78%	
20) 2,4,6-Tribromophenol	14.172	330	4756	0.28	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.56%	
28) Terphenyl-d14	18.647	244	56137	0.41	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.82%	
Target Compounds						Qvalue
2) 1,4-dioxane	2.305	88	245m	0.01	ppm	
5) Phenol	6.116	94	7474	0.09	ppm #	72
6) bis(2-Chloroethyl)ether	6.285	93	1201	0.02	ppm	90
8) Nitrobenzene	7.764	77	1406	0.02	ppm	86
9) Naphthalene	9.138	128	3866	0.02	ppm	100
10) Hexachlorobutadiene	9.421	225	661	0.02	ppm	97
11) 2-Methylnaphthalene	10.517	141	1996	0.02	ppm	93
12) 1-Methylnaphthalene	10.702	141	3332	0.03	ppm	91
13) Hexachlorocyclopentadiene	10.846	237	791	0.03	ppm	99
16) Acenaphthylene	12.293	152	3367	0.02	ppm	98
17) Acenaphthene	12.648	153	2382	0.02	ppm	98
18) 4,6-dinitro-2-methylph...	13.852	198	336	0.03	ppm	95
19) Fluorene	13.682	166	2916	0.02	ppm	97
22) Hexachlorobenzene	14.783	284	860	0.02	ppm	95
23) Pentachlorophenol	15.200	266	1647	0.07	ppm	97
24) Phenanthrene	15.602	178	4501	0.02	ppm	99
25) Anthracene	15.711	178	3476	0.02	ppm	96
26) Fluoranthene	17.874	202	6605	0.03	ppm	99
27) Pyrene	18.261	202	5085	0.02	ppm	97
29) Benzo[a]anthracene	20.346	228	5580	0.02	ppm	99
30) Chrysene	20.408	228	6534	0.03	ppm	99
32) Benzo[b]fluoranthene	22.015	252	5729	0.02	ppm	96
33) Benzo[k]fluoranthene	22.061	252	5167	0.02	ppm	95
34) Benzo[a]pyrene	22.463	252	4349m	0.02	ppm	
35) Indeno[1,2,3-cd]pyrene	23.963	276	4283	0.02	ppm	99
36) Dibenz[a,h]anthracene	24.020	278	3214	0.02	ppm	100
37) Benzo[g,h,i]perylene	24.358	276	3711	0.02	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60768.D
Acq On : 21 Apr 2016 5:17 pm
Operator : linseyk
Sample : ic2855-0.02
Misc : op93052a,e3m2855
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 22 08:29:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:28:25 2016
Response via : Initial Calibration

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

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

7.6.35

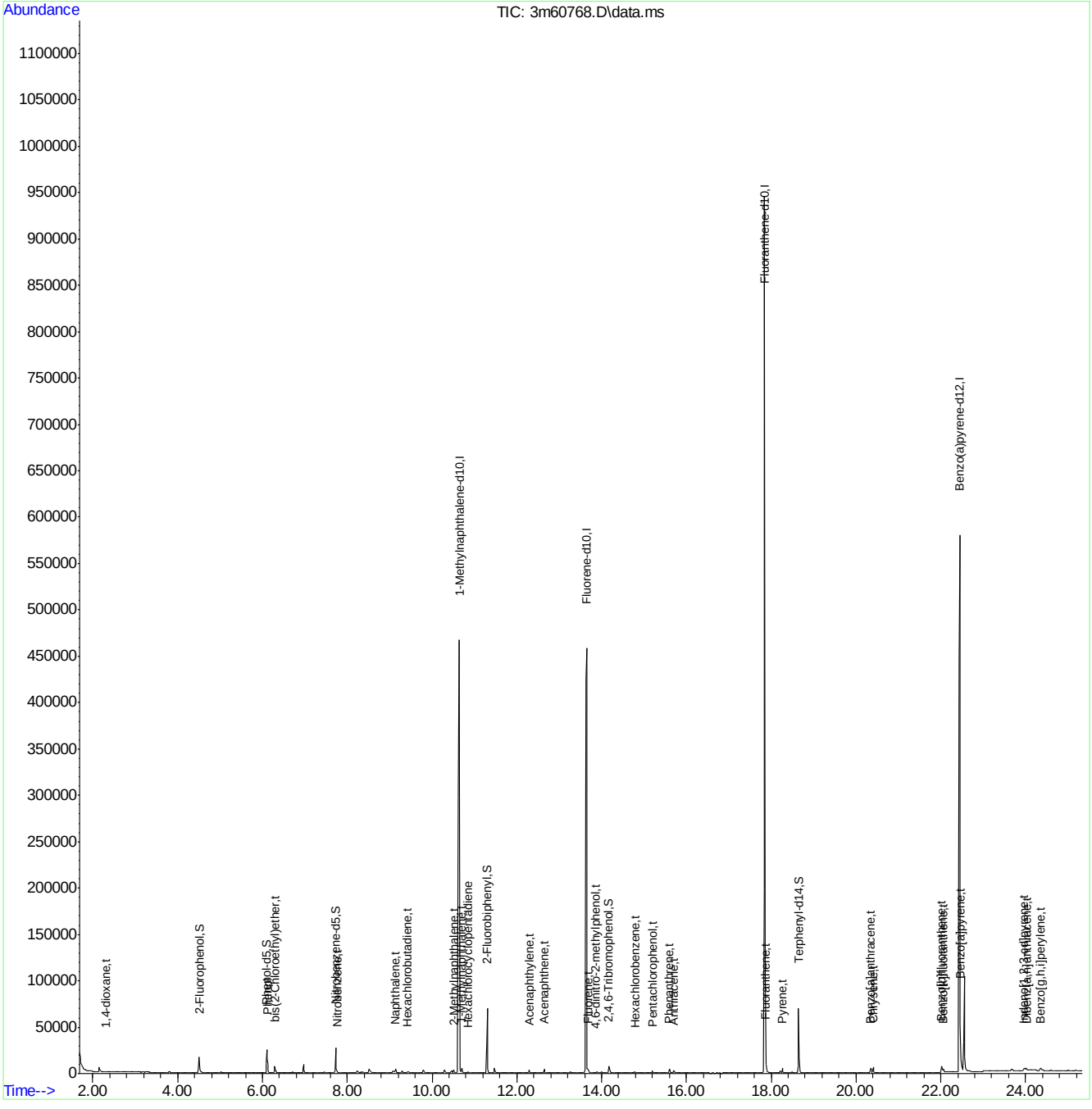
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60768.D
Acq On : 21 Apr 2016 5:17 pm
Operator : linseyk
Sample : ic2855-0.02
Misc : op93052a,e3m2855
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 22 08:29:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:28:25 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Manual Integration Approval Summary

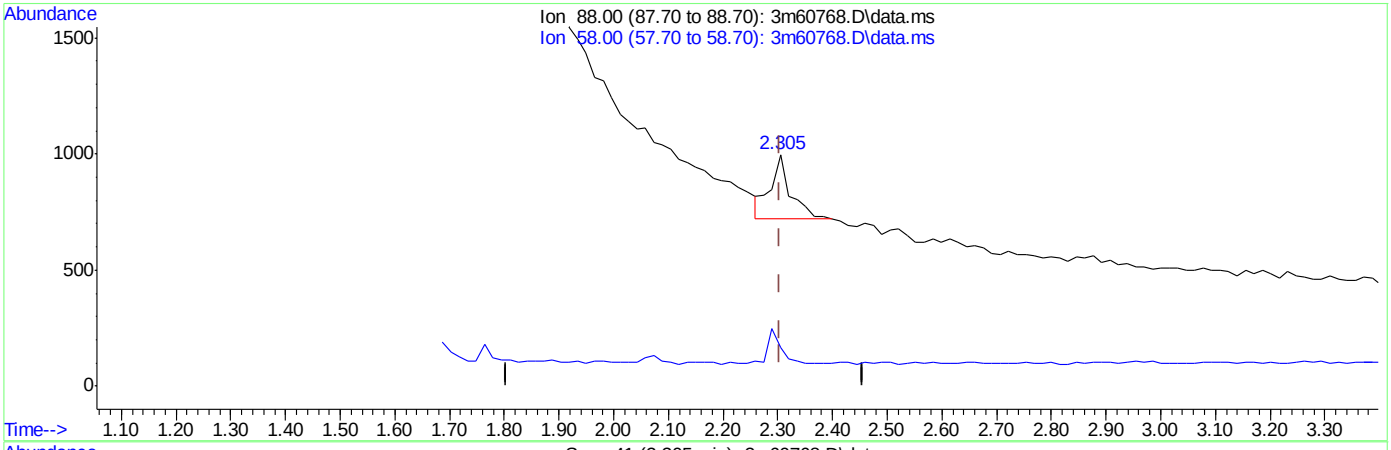
Sample Number:	E3M2855-IC2855	**Method:**	SW846 8270D BY SIM
Lab FileID:	3M60768.D	**Analyst approved:**	04/22/16 09:15 Linsey Kirschmann
Injection Time:	04/21/16 17:17	**Supervisor approved:**	04/22/16 12:27 Nina Pandya

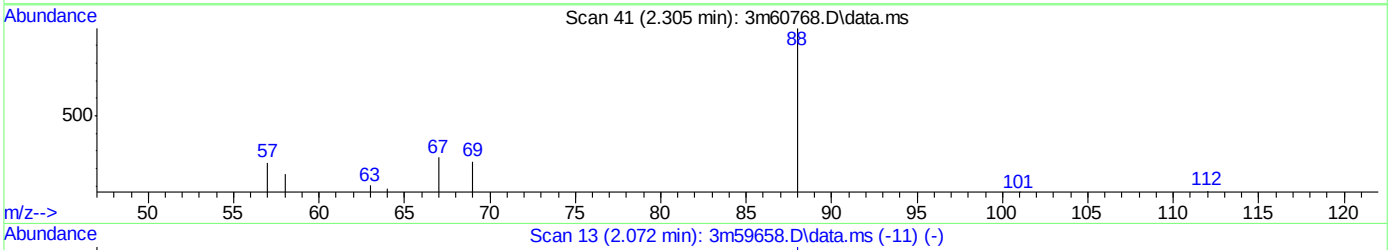
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dioxane	123-91-1		2.30	Baseline ripple
Benzo(a)pyrene	50-32-8		22.46	Baseline ripple

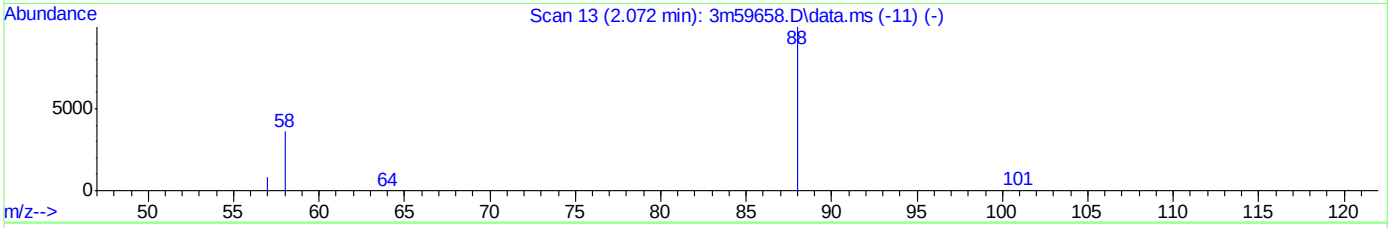
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60768.D
Acq On : 21 Apr 2016 5:17 pm
Operator : linseyk
Sample : ic2855-0.02
Misc : op93052a,e3m2855
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 22 08:28:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:28:25 2016
Response via : Initial Calibration







TIC: 3m60768.D\data.ms

(2) 1,4-dioxane (t)

2.305min (-0.000) 0.04ppm

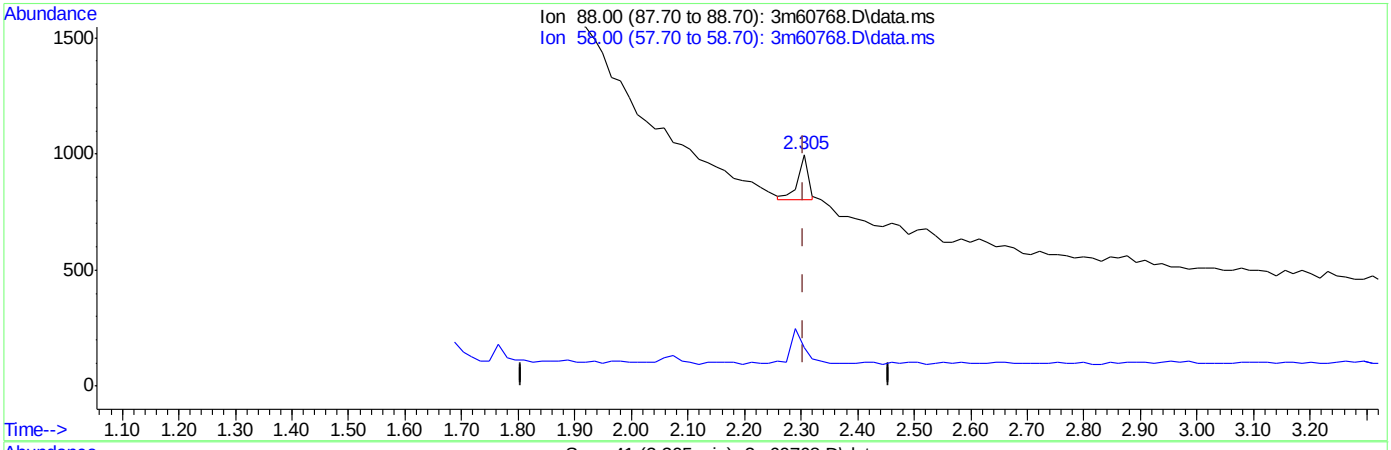
response 710

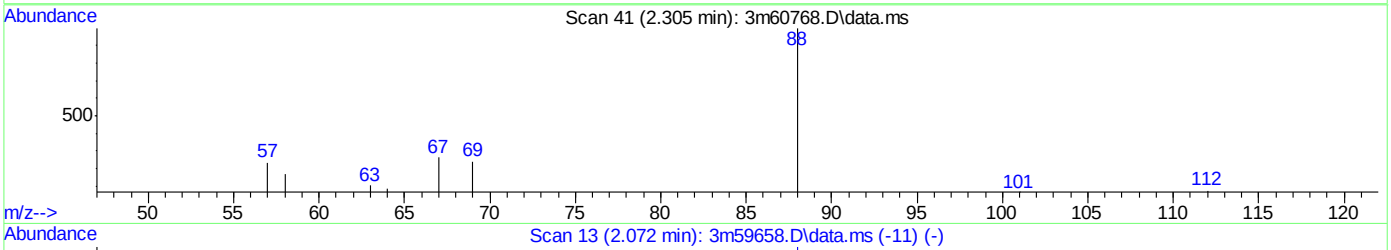
Ion	Exp%	Act%
88.00	100	100
58.00	32.40	28.23
0.00	0.00	0.00
0.00	0.00	0.00

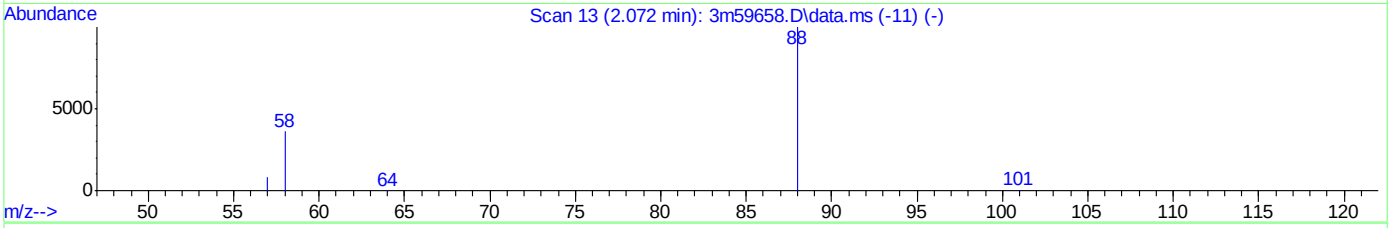
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60768.D
Acq On : 21 Apr 2016 5:17 pm
Operator : linseyk
Sample : ic2855-0.02
Misc : op93052a,e3m2855
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 22 08:28:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:28:25 2016
Response via : Initial Calibration







TIC: 3m60768.D\data.ms

(2) 1,4-dioxane (t)

2.305min (-0.000) 0.01ppm m

response 245

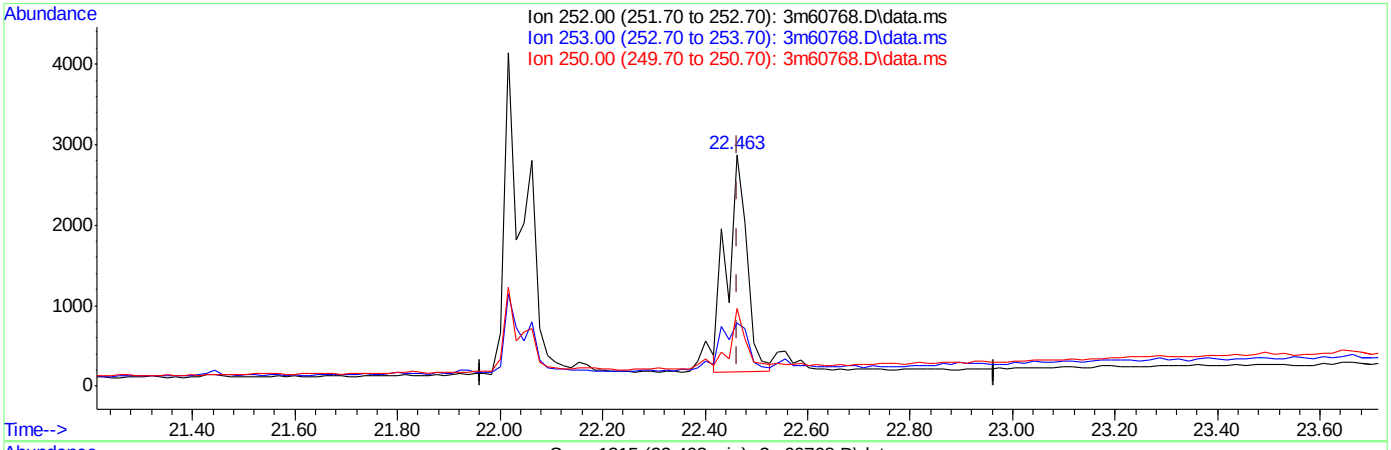
Ion	Exp%	Act%
88.00	100	100
58.00	32.40	16.63
0.00	0.00	0.00
0.00	0.00	0.00

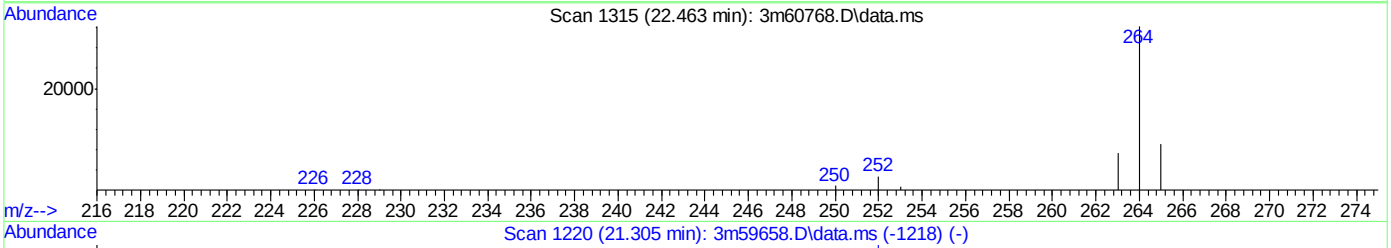
SGS ACCUTEST JC20184

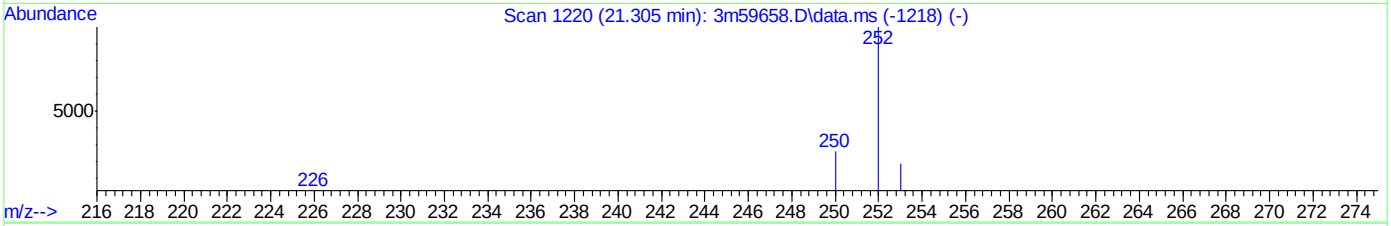
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60768.D
Acq On : 21 Apr 2016 5:17 pm
Operator : linseyk
Sample : ic2855-0.02
Misc : op93052a,e3m2855
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 22 08:28:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:28:25 2016
Response via : Initial Calibration







TIC: 3m60768.D\data.ms

(34) Benzo[a]pyrene (t)

22.463min (-0.000) 0.03ppm

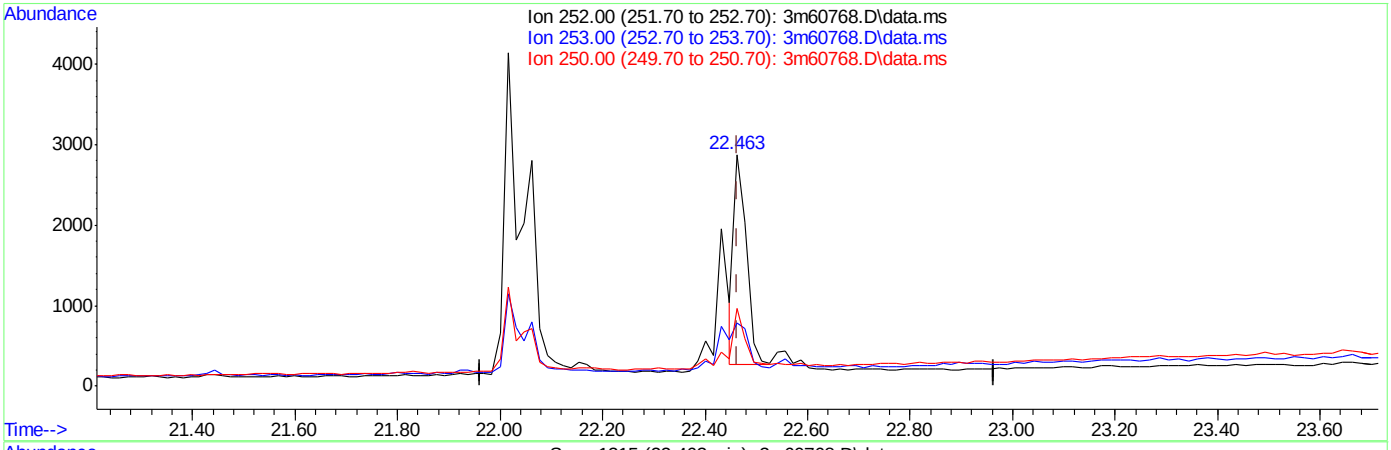
response 7218

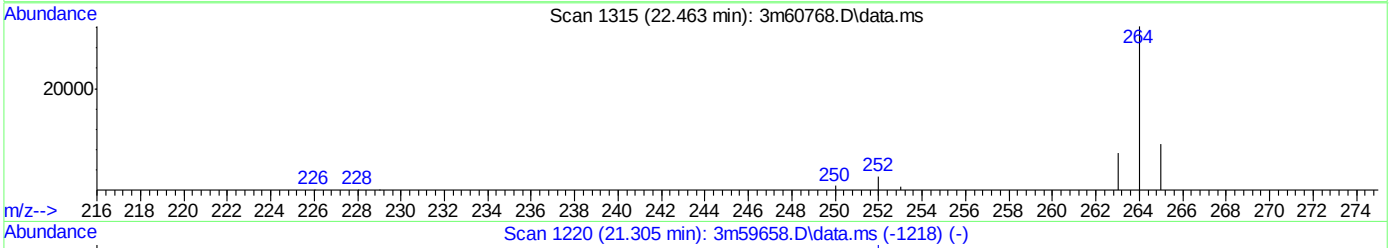
Ion	Exp%	Act%
252.00	100	100
253.00	18.80	20.93
250.00	26.10	27.47
0.00	0.00	0.00

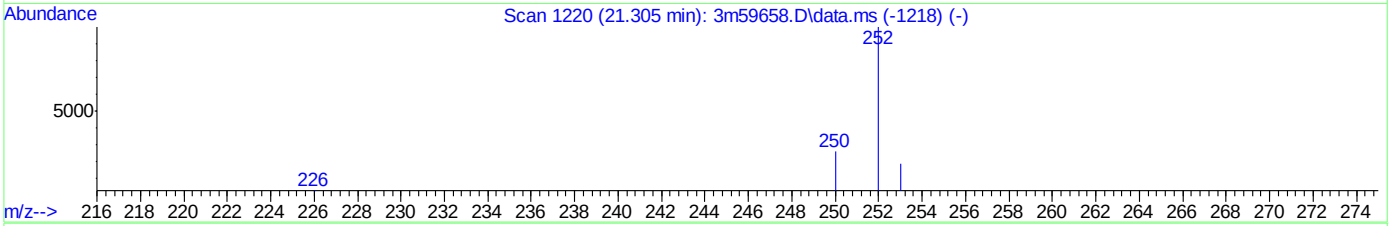
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60768.D
Acq On : 21 Apr 2016 5:17 pm
Operator : linseyk
Sample : ic2855-0.02
Misc : op93052a,e3m2855
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 22 08:28:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:28:25 2016
Response via : Initial Calibration







TIC: 3m60768.D\data.ms

(34) Benzo[a]pyrene (t)

22.463min (-0.000) 0.02ppm m

response 4349

Ion	Exp%	Act%
252.00	100	100
253.00	18.80	27.27
250.00	26.10	33.41
0.00	0.00	0.00

3M60769.D

Manual Integrations APPROVED (compounds with "m" flag)

Nina Pandya 04/22/16 12:27

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60769.D
Acq On : 21 Apr 2016 5:49 pm
Operator : linseyk
Sample : ic2855-0.01
Misc : op93052a,e3m2855
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 22 08:30:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:30:05 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	10.640	150	341727	4.00 ppm	0.00
14) Fluorene-d10	13.644	176	510798	4.00 ppm	0.00
21) Fluoranthene-d10	17.843	212	894999	4.00 ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	717706	4.00 ppm	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	4.515	112	7703	0.18 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.36%	
4) Phenol-d5	6.104	99	12728	0.18 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.36%	
7) Nitrobenzene-d5	7.726	82	11420	0.17 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.34%	
15) 2-Fluorobiphenyl	11.303	172	27514	0.19 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.38%	
20) 2,4,6-Tribromophenol	14.172	330	2174	0.13 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.26%	
28) Terphenyl-d14	18.647	244	28577	0.21 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.42%	
Target Compounds					Qvalue
2) 1,4-dioxane	2.305	88	176m	0.01 ppm	
5) Phenol	6.116	94	3362	0.04 ppm	# 69
6) bis(2-Chloroethyl)ether	6.285	93	566	0.01 ppm	89
8) Nitrobenzene	7.764	77	712	0.01 ppm	83
9) Naphthalene	9.139	128	1910	0.01 ppm	98
10) Hexachlorobutadiene	9.421	225	308	0.01 ppm	98
11) 2-Methylnaphthalene	10.517	141	971	0.01 ppm	94
12) 1-Methylnaphthalene	10.702	141	1726	0.01 ppm	95
13) Hexachlorocyclopentadiene	10.846	237	382	0.02 ppm	97
16) Acenaphthylene	12.293	152	1639	0.01 ppm	99
17) Acenaphthene	12.648	153	1117	0.01 ppm	98
18) 4,6-dinitro-2-methylph...	13.852	198	146	0.01 ppm	70
19) Fluorene	13.682	166	1465	0.01 ppm	99
22) Hexachlorobenzene	14.783	284	417	0.01 ppm	95
23) Pentachlorophenol	15.200	266	877	0.04 ppm	98
24) Phenanthrene	15.602	178	2267	0.01 ppm	98
25) Anthracene	15.711	178	1713	0.01 ppm	97
26) Fluoranthene	17.874	202	4045	0.02 ppm	99
27) Pyrene	18.261	202	2880	0.01 ppm	98
29) Benzo[a]anthracene	20.347	228	3441	0.02 ppm	98
30) Chrysene	20.408	228	4214	0.02 ppm	97
32) Benzo[b]fluoranthene	22.015	252	4562	0.02 ppm	88
33) Benzo[k]fluoranthene	22.062	252	1997	0.01 ppm	94
34) Benzo[a]pyrene	22.463	252	2699	0.01 ppm	86
35) Indeno[1,2,3-cd]pyrene	23.963	276	2125	0.01 ppm	100
36) Dibenz[a,h]anthracene	24.020	278	2112	0.01 ppm	100
37) Benzo[g,h,i]perylene	24.358	276	1927	0.01 ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60769.D
Acq On : 21 Apr 2016 5:49 pm
Operator : linseyk
Sample : ic2855-0.01
Misc : op93052a,e3m2855
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 22 08:30:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:30:05 2016
Response via : Initial Calibration

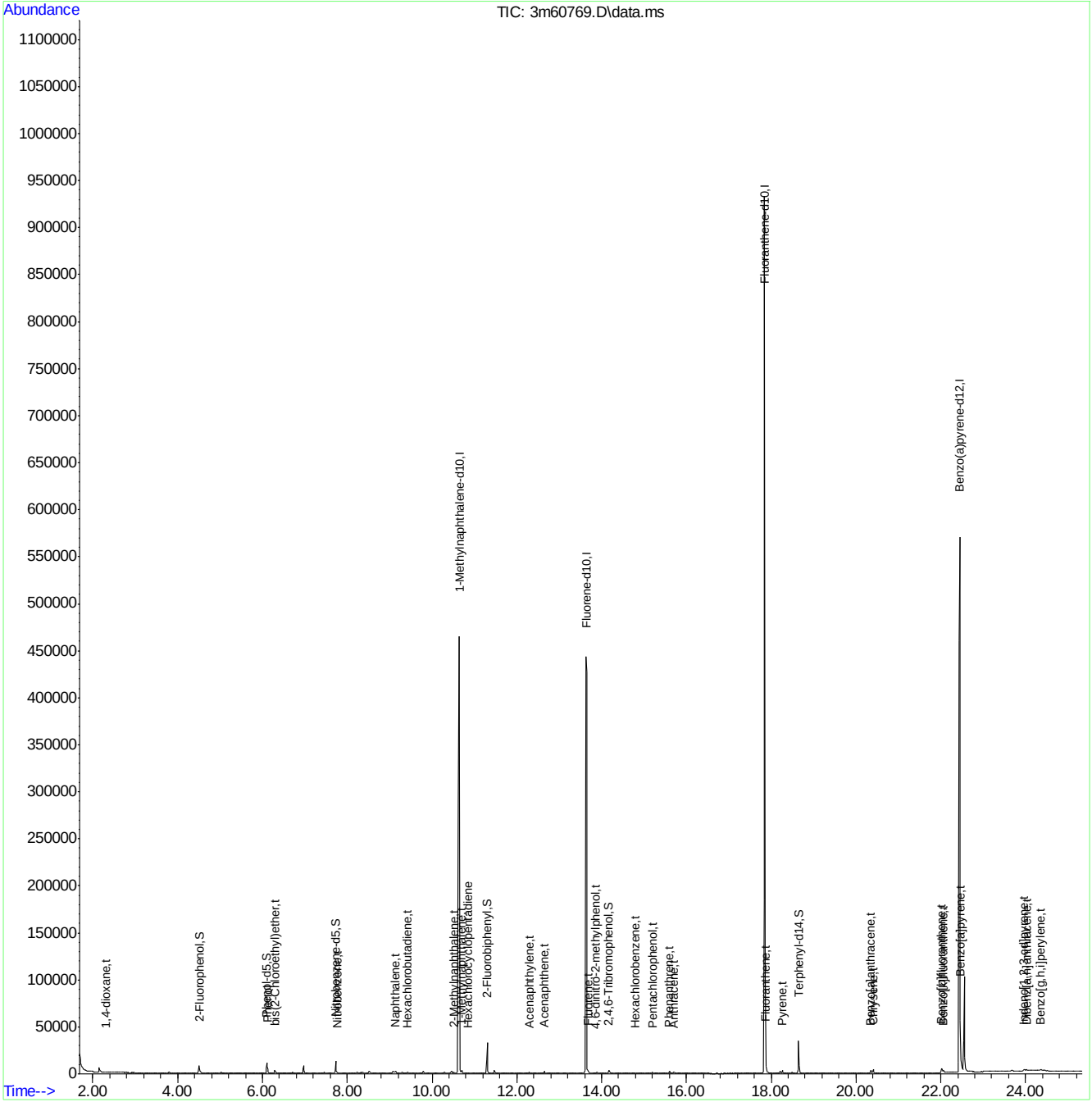
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60769.D
Acq On : 21 Apr 2016 5:49 pm
Operator : linseyk
Sample : ic2855-0.01
Misc : op93052a,e3m2855
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 22 08:30:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:30:05 2016
Response via : Initial Calibration



SGS ACCUTEST JC20184

Manual Integration Approval Summary

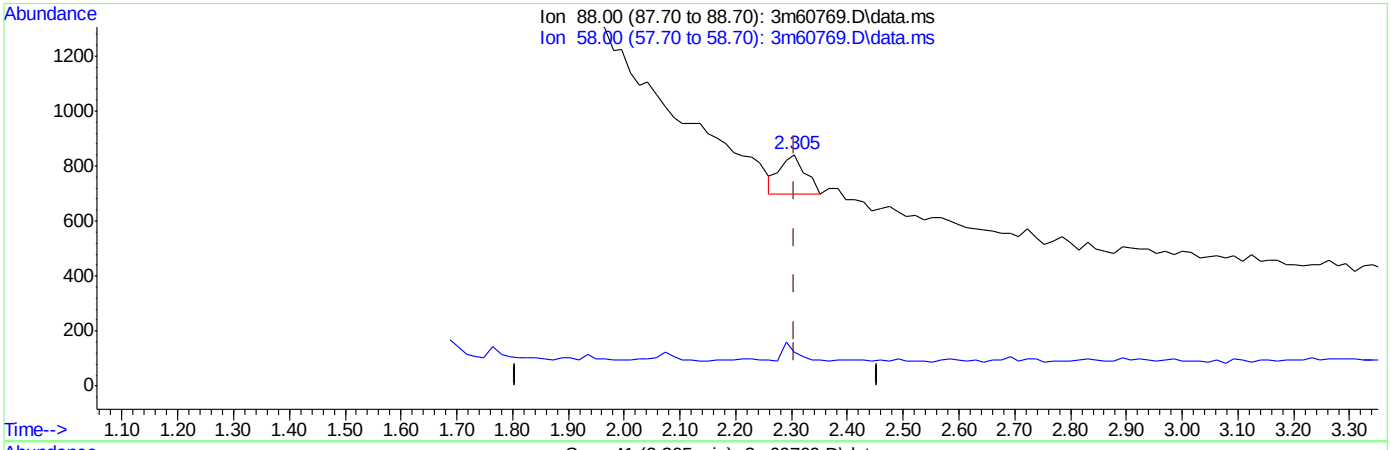
Sample Number:	E3M2855-IC2855	**Method:**	SW846 8270D BY SIM
Lab FileID:	3M60769.D	**Analyst approved:**	04/22/16 09:15 Linsey Kirschmann
Injection Time:	04/21/16 17:49	**Supervisor approved:**	04/22/16 12:27 Nina Pandya

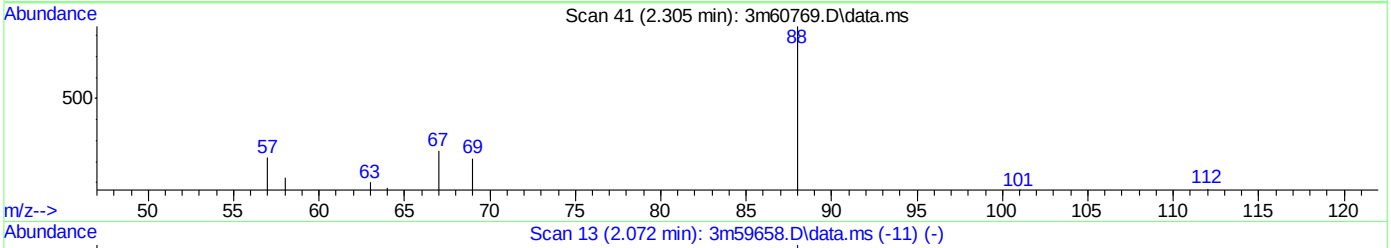
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dioxane	123-91-1		2.31	Baseline ripple

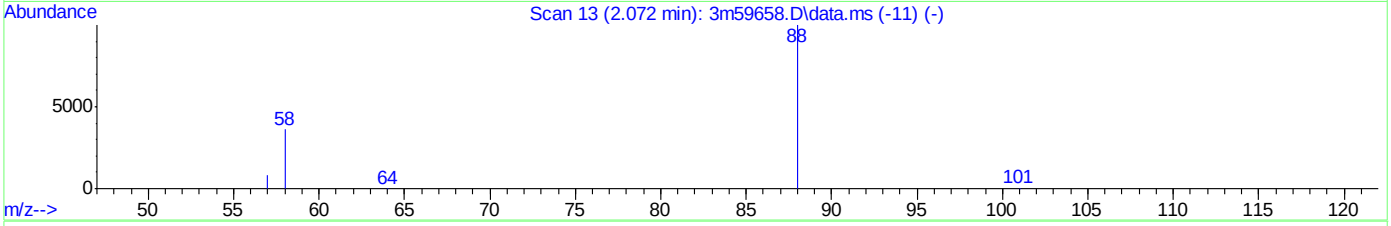
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60769.D
Acq On : 21 Apr 2016 5:49 pm
Operator : linseyk
Sample : ic2855-0.01
Misc : op93052a,e3m2855
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 22 08:30:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:30:05 2016
Response via : Initial Calibration







TIC: 3m60769.D\data.ms

(2) 1,4-dioxane (t)

2.305min (+0.000) 0.02ppm

response 450

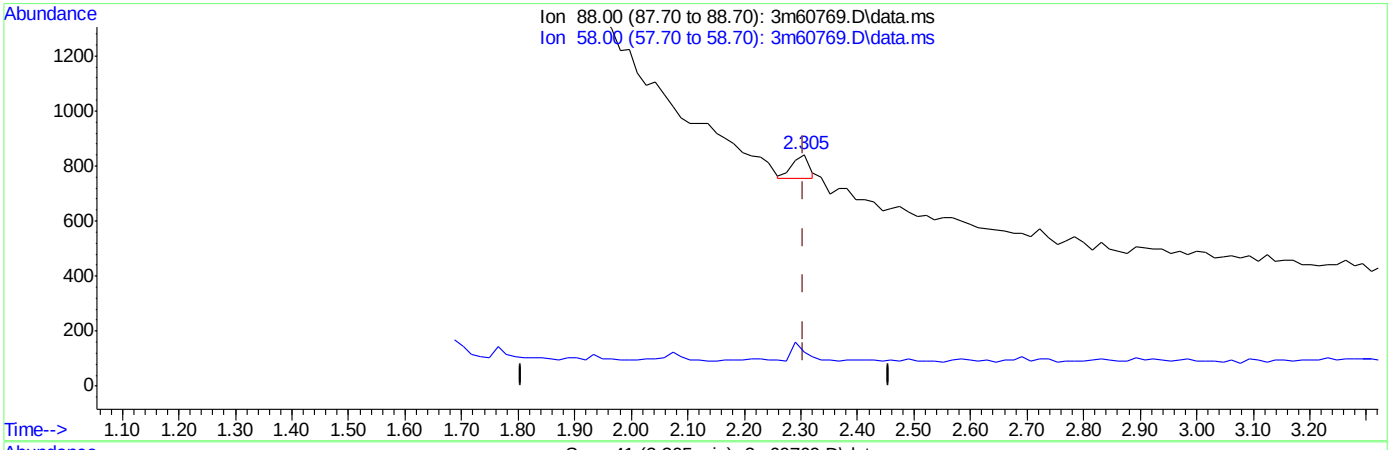
Ion	Exp%	Act%
88.00	100	100
58.00	32.40	25.45
0.00	0.00	0.00
0.00	0.00	0.00

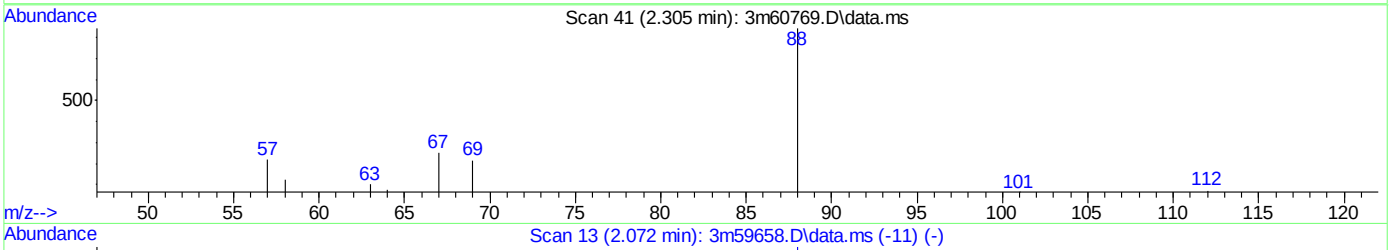
SGS ACCUTEST JC20184

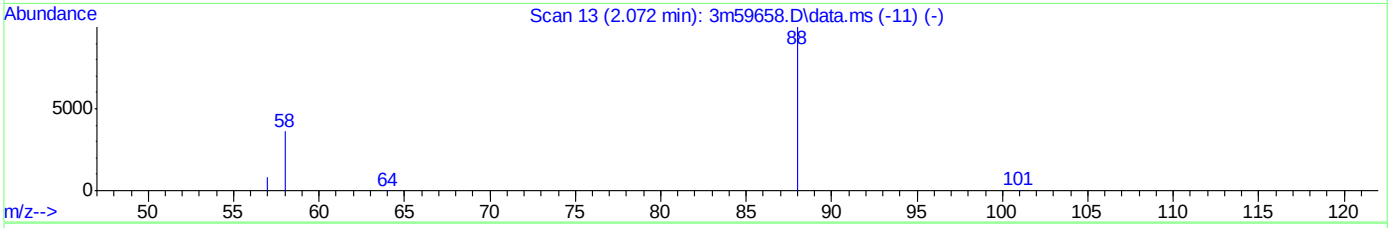
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60769.D
Acq On : 21 Apr 2016 5:49 pm
Operator : linseyk
Sample : ic2855-0.01
Misc : op93052a,e3m2855
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 22 08:30:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:30:05 2016
Response via : Initial Calibration







TIC: 3m60769.D\data.ms

(2) 1,4-dioxane (t)

2.305min (+0.000) 0.01ppm m

response 176

Ion	Exp%	Act%
88.00	100	100
58.00	32.40	14.85
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60770.D
Acq On : 21 Apr 2016 6:22 pm
Operator : linseyk
Sample : ic2855-5.0
Misc : op93052a,e3m2855
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 22 08:30:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:30:48 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.641	150	366417	4.00	ppm	0.00
14) Fluorene-d10	13.644	176	628480	4.00	ppm	0.00
21) Fluoranthene-d10	17.844	212	939162	4.00	ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	756981	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	4.515	112	4214444	90.43	ppm	0.00
Spiked Amount 50.000			Recovery = 180.86%			
4) Phenol-d5	6.128	99	7328789	95.76	ppm	0.02
Spiked Amount 50.000			Recovery = 191.52%			
7) Nitrobenzene-d5	7.745	82	7395086	102.34	ppm	0.02
Spiked Amount 50.000			Recovery = 204.68%			
15) 2-Fluorobiphenyl	11.319	172	14347827	81.47	ppm	0.02
Spiked Amount 50.000			Recovery = 162.94%			
20) 2,4,6-Tribromophenol	14.191	330	1892615	94.39	ppm	0.02
Spiked Amount 50.000			Recovery = 188.78%			
28) Terphenyl-d14	18.662	244	11761490	83.98	ppm	0.02
Spiked Amount 50.000			Recovery = 167.96%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.290	88	94789	4.85	ppm	75
5) Phenol	6.140	94	1983163	23.95	ppm #	79
6) bis(2-Chloroethyl)ether	6.298	93	266705	4.16	ppm #	60
8) Nitrobenzene	7.764	77	406472	5.38	ppm #	58
9) Naphthalene	9.139	128	1024731	5.04	ppm	98
10) Hexachlorobutadiene	9.421	225	174841	4.87	ppm	95
11) 2-Methylnaphthalene	10.517	141	553815	5.26	ppm	96
12) 1-Methylnaphthalene	10.702	141	647057	4.41	ppm	93
13) Hexachlorocyclopentadiene	10.846	237	345119	13.01	ppm	95
16) Acenaphthylene	12.293	152	1074573	4.94	ppm	99
17) Acenaphthene	12.648	153	680855	4.63	ppm	99
18) 4,6-dinitro-2-methylph...	13.852	198	689664	56.92	ppm	74
19) Fluorene	13.682	166	778408	4.36	ppm	94
22) Hexachlorobenzene	14.783	284	229525	5.21	ppm	94
23) Pentachlorophenol	15.201	266	786510	32.34	ppm	95
24) Phenanthrene	15.603	178	1190802	5.25	ppm	99
25) Anthracene	15.711	178	1181627	5.75	ppm	98
26) Fluoranthene	17.874	202	1318777	5.01	ppm	99
27) Pyrene	18.261	202	1382848	5.27	ppm	98
29) Benzo[a]anthracene	20.347	228	1195931	5.01	ppm	96
30) Chrysene	20.408	228	1263858	5.17	ppm	98
32) Benzo[b]fluoranthene	22.015	252	1201158	4.18	ppm	95
33) Benzo[k]fluoranthene	22.062	252	1191473	5.12	ppm	97
34) Benzo[a]pyrene	22.463	252	1113412	4.67	ppm	98
35) Indeno[1,2,3-cd]pyrene	23.982	276	1248948	5.29	ppm	89
36) Dibenz[a,h]anthracene	24.020	278	1051200	5.43	ppm	100
37) Benzo[g,h,i]perylene	24.358	276	1074162	5.23	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60770.D
Acq On : 21 Apr 2016 6:22 pm
Operator : linseyk
Sample : ic2855-5.0
Misc : op93052a,e3m2855
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 22 08:30:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:30:48 2016
Response via : Initial Calibration

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

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

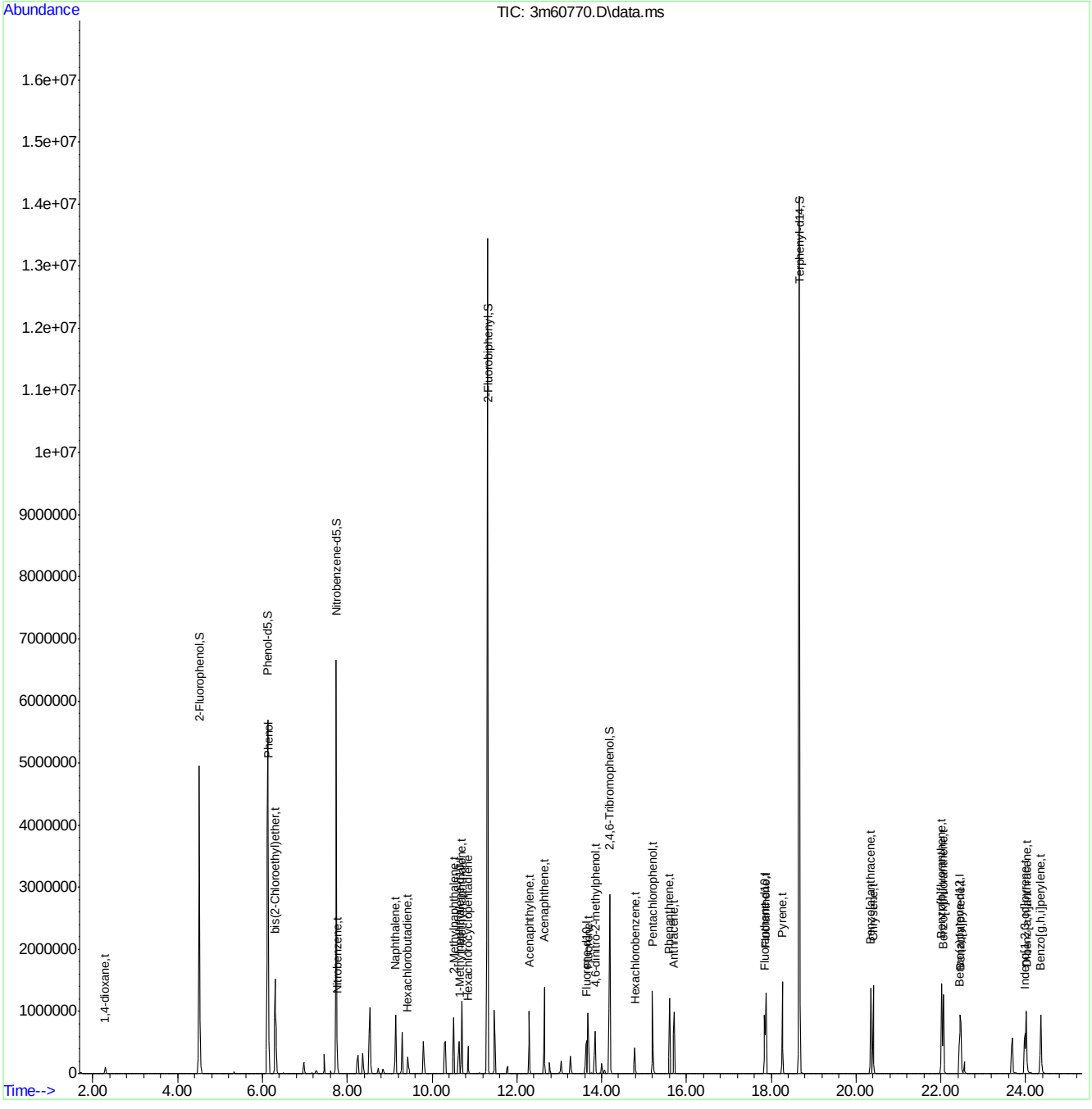
7.6.37

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60770.D
Acq On : 21 Apr 2016 6:22 pm
Operator : linseyk
Sample : ic2855-5.0
Misc : op93052a,e3m2855
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 22 08:30:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:30:48 2016
Response via : Initial Calibration



M3M2855SIM.M Fri Apr 22 08:31:12 2016 RPT1 Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60771.D
Acq On : 21 Apr 2016 6:55 pm
Operator : linseyk
Sample : ic2855-2.5
Misc : op93052a,e3m2855
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 22 08:31:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:31:18 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.640	150	385250	4.00	ppm	0.00
14) Fluorene-d10	13.644	176	616747	4.00	ppm	0.00
21) Fluoranthene-d10	17.843	212	966990	4.00	ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	773663	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	4.515	112	2363254	48.90	ppm	0.00
Spiked Amount 50.000			Recovery = 97.80%			
4) Phenol-d5	6.116	99	3871836	48.37	ppm	-0.01
Spiked Amount 50.000			Recovery = 96.74%			
7) Nitrobenzene-d5	7.726	82	3072767	40.29	ppm	-0.02
Spiked Amount 50.000			Recovery = 80.58%			
15) 2-Fluorobiphenyl	11.303	172	7301000	42.25	ppm	-0.02
Spiked Amount 50.000			Recovery = 84.50%			
20) 2,4,6-Tribromophenol	14.191	330	926725	47.63	ppm	0.00
Spiked Amount 50.000			Recovery = 95.26%			
28) Terphenyl-d14	18.662	244	6991573	49.82	ppm	0.00
Spiked Amount 50.000			Recovery = 99.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.289	88	48881	2.39	ppm #	59
5) Phenol	6.128	94	1024552	11.84	ppm #	67
6) bis(2-Chloroethyl)ether	6.285	93	142356	2.16	ppm	77
8) Nitrobenzene	7.764	77	205619	2.56	ppm	76
9) Naphthalene	9.138	128	535435	2.50	ppm	98
10) Hexachlorobutadiene	9.421	225	87273	2.32	ppm	94
11) 2-Methylnaphthalene	10.517	141	279805	2.51	ppm	94
12) 1-Methylnaphthalene	10.702	141	340057	2.24	ppm	91
13) Hexachlorocyclopentadiene	10.846	237	158162	5.40	ppm	93
16) Acenaphthylene	12.293	152	544103	2.55	ppm	98
17) Acenaphthene	12.648	153	350568	2.45	ppm	95
18) 4,6-dinitro-2-methylph...	13.851	198	297531	19.93	ppm	92
19) Fluorene	13.682	166	399367	2.31	ppm	96
22) Hexachlorobenzene	14.783	284	115675	2.53	ppm	95
23) Pentachlorophenol	15.200	266	400828	15.26	ppm	98
24) Phenanthrene	15.602	178	602735	2.56	ppm	99
25) Anthracene	15.711	178	589914	2.71	ppm	98
26) Fluoranthene	17.874	202	671708	2.48	ppm	99
27) Pyrene	18.261	202	685271	2.51	ppm	99
29) Benzo[a]anthracene	20.346	228	610065	2.48	ppm	98
30) Chrysene	20.408	228	651165	2.57	ppm	98
32) Benzo[b]fluoranthene	22.015	252	621501	2.16	ppm	98
33) Benzo[k]fluoranthene	22.061	252	586018	2.45	ppm	99
34) Benzo[a]pyrene	22.463	252	565533	2.34	ppm	99
35) Indeno[1,2,3-cd]pyrene	23.963	276	624468	2.57	ppm	97
36) Dibenz[a,h]anthracene	24.020	278	520048	2.60	ppm	100
37) Benzo[g,h,i]perylene	24.358	276	542545	2.57	ppm	100

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60771.D
Acq On : 21 Apr 2016 6:55 pm
Operator : linseyk
Sample : ic2855-2.5
Misc : op93052a,e3m2855
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 22 08:31:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:31:18 2016
Response via : Initial Calibration

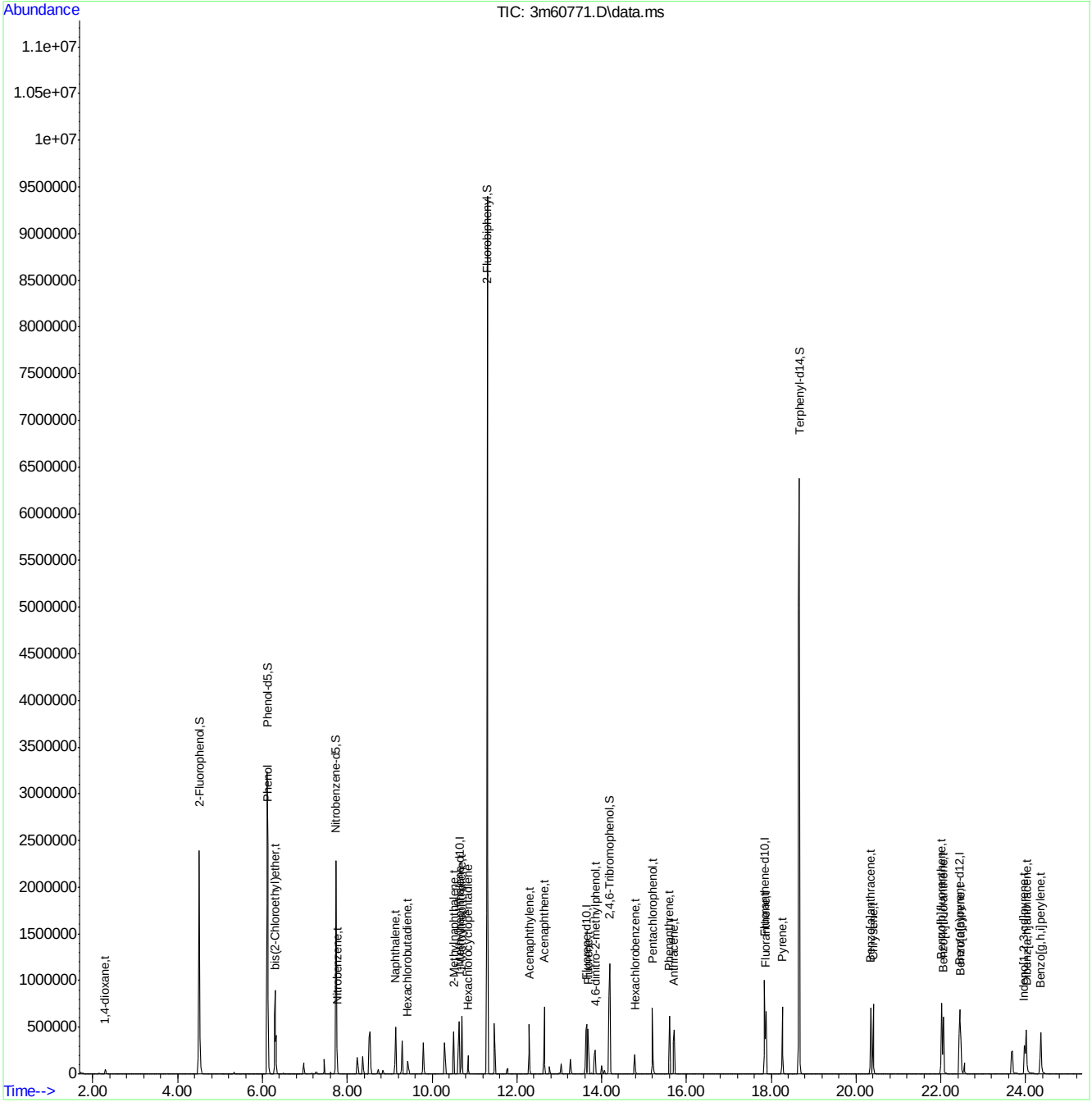
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60771.D
Acq On : 21 Apr 2016 6:55 pm
Operator : linseyk
Sample : ic2855-2.5
Misc : op93052a,e3m2855
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 22 08:31:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:31:18 2016
Response via : Initial Calibration



M3M2855SIM.M Fri Apr 22 08:31:41 2016 RPT1 Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60772.D
Acq On : 21 Apr 2016 7:27 pm
Operator : linseyk
Sample : icv2855-1.0
Misc : op93052a,e3m2855
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 22 08:56:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:34:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	10.641	150	468880	4.00 ppm	0.00
14) Fluorene-d10	13.644	176	745589	4.00 ppm	0.00
21) Fluoranthene-d10	17.844	212	1195677	4.00 ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	940216	4.00 ppm	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	0.000	112	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
4) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
7) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
15) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
20) 2,4,6-Tribromophenol	0.000	330	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
28) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
5) Phenol	6.128	94	476638	4.56 ppm	99
18) 4,6-dinitro-2-methylph...	13.852	198	87949	3.84 ppm	95
23) Pentachlorophenol	15.201	266	168629	4.34 ppm	92

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

7.6.39

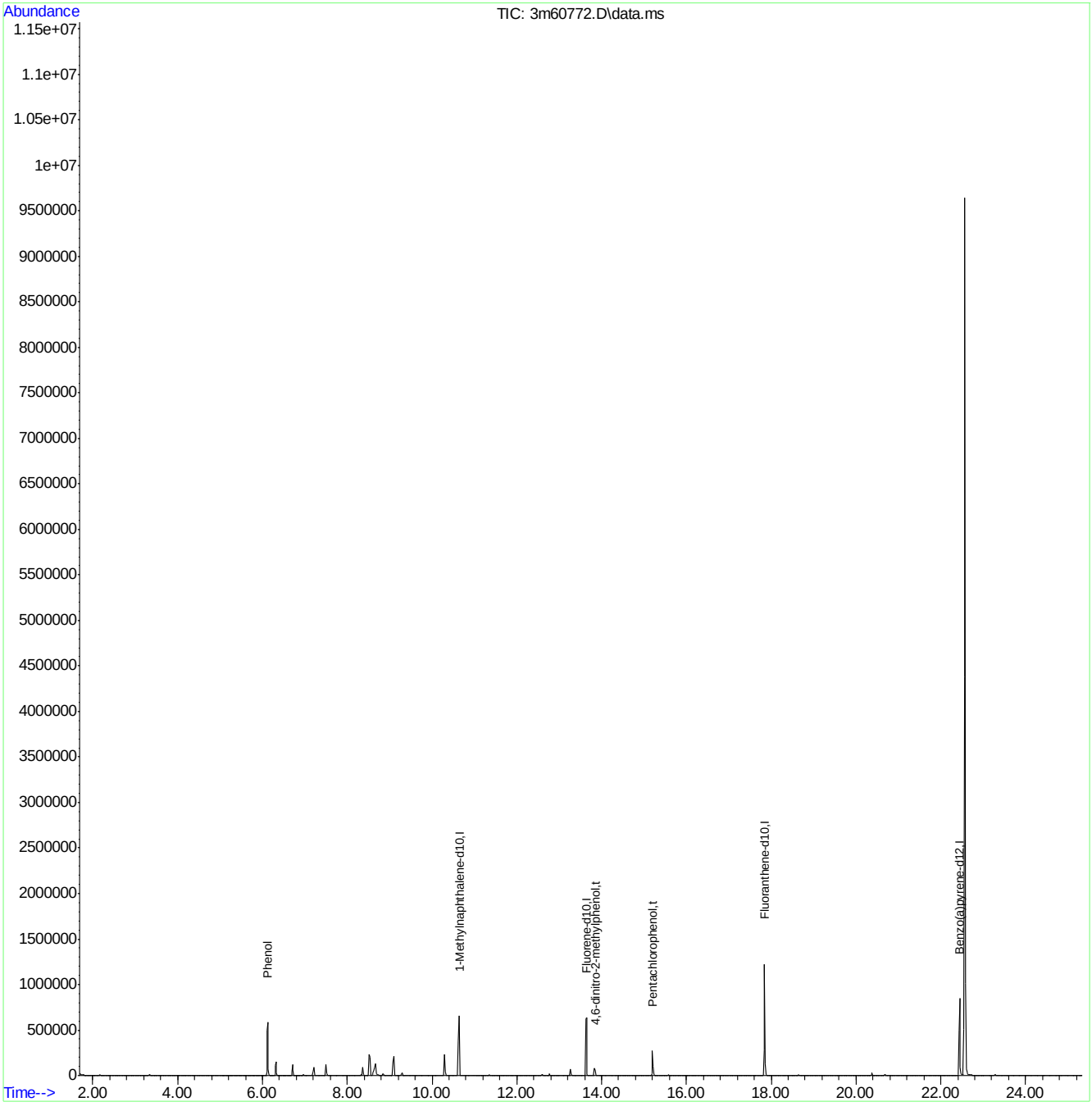
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60772.D
Acq On : 21 Apr 2016 7:27 pm
Operator : linseyk
Sample : icv2855-1.0
Misc : op93052a,e3m2855
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 22 08:56:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:34:22 2016
Response via : Initial Calibration



M3M2855SIM.M Fri Apr 22 08:56:16 2016 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60773.D
Acq On : 21 Apr 2016 8:00 pm
Operator : linseyk
Sample : icv2855-1.0
Misc : op93052a,e3m2855
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 22 08:58:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:34:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	10.640	150	381667	4.00 ppm	0.00
14) Fluorene-d10	13.644	176	568016	4.00 ppm	0.00
21) Fluoranthene-d10	17.843	212	891736	4.00 ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	666840	4.00 ppm	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
4) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
7) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
15) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
20) 2,4,6-Tribromophenol	0.000	330	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
28) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
2) 1,4-dioxane	2.320	88	21008	1.07 ppm	93
6) bis(2-Chloroethyl)ether	6.285	93	64147	1.00 ppm	87
8) Nitrobenzene	7.764	77	65386	0.82 ppm	100
9) Naphthalene	9.138	128	240749	1.14 ppm	99
10) Hexachlorobutadiene	9.421	225	41080	1.11 ppm	99
11) 2-Methylnaphthalene	10.517	141	115129	1.04 ppm	98
16) Acenaphthylene	12.293	152	209375	1.06 ppm	99
17) Acenaphthene	12.648	153	152795	1.16 ppm	96
19) Fluorene	13.682	166	170302	1.08 ppm	100
22) Hexachlorobenzene	14.783	284	47590	1.13 ppm	96
24) Phenanthrene	15.602	178	253476	1.16 ppm	95
25) Anthracene	15.711	178	221984	1.15 ppm	98
26) Fluoranthene	17.874	202	279548	1.02 ppm	99
27) Pyrene	18.261	202	275135	1.08 ppm	98
29) Benzo[a]anthracene	20.362	228	271481	1.11 ppm	94
30) Chrysene	20.408	228	239361	1.02 ppm	94
32) Benzo[b]fluoranthene	22.015	252	207742	0.94 ppm	97
33) Benzo[k]fluoranthene	22.061	252	230502	1.12 ppm	98
34) Benzo[a]pyrene	22.463	252	199534	0.97 ppm	99
35) Indeno[1,2,3-cd]pyrene	23.963	276	218688	1.04 ppm	98
36) Dibenz[a,h]anthracene	24.020	278	173448	1.00 ppm	100
37) Benzo[g,h,i]perylene	24.358	276	191304	1.05 ppm	100

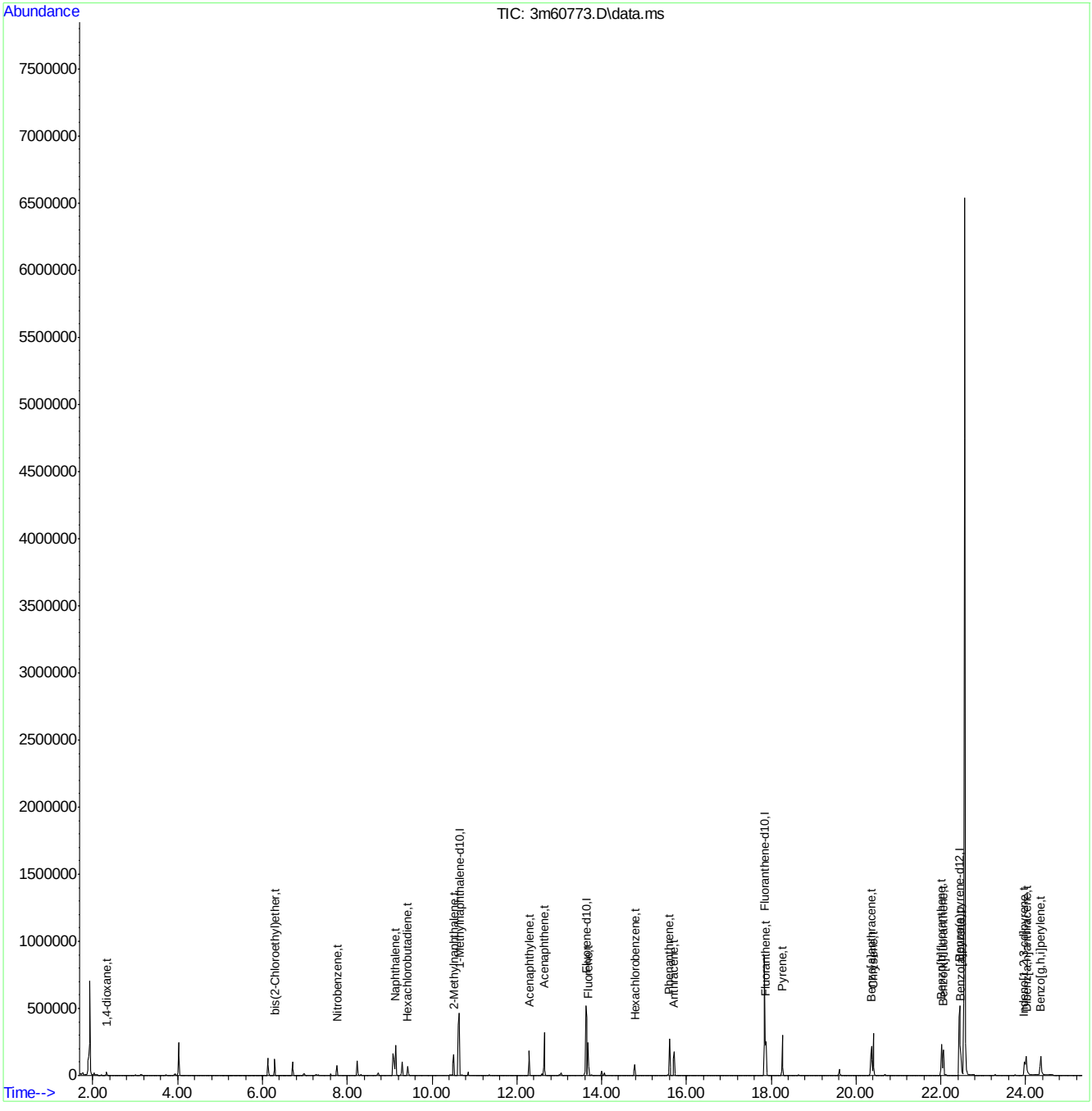
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60773.D
Acq On : 21 Apr 2016 8:00 pm
Operator : linseyk
Sample : icv2855-1.0
Misc : op93052a,e3m2855
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 22 08:58:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:34:22 2016
Response via : Initial Calibration



M3M2855SIM.M Fri Apr 22 08:58:28 2016 RPT1 Page: 2

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60774.D
Acq On : 21 Apr 2016 8:35 pm
Operator : linseyk
Sample : icv2855-1.0
Misc : op93052a,e3m2855
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 22 08:58:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:34:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.640	150	433101	4.00	ppm	0.00
14) Fluorene-d10	13.644	176	614407	4.00	ppm	0.00
21) Fluoranthene-d10	17.843	212	1087112	4.00	ppm	0.00
31) Benzo(a)pyrene-d12	22.448	264	854436	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
4) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
7) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
15) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
20) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
28) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-dioxane	2.289	88	25472	1.14	ppm	95
12) 1-Methylnaphthalene	10.702	141	161130	0.95	ppm	94
13) Hexachlorocyclopentadiene	10.845	237	34911	1.05	ppm	99

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

7.6.41

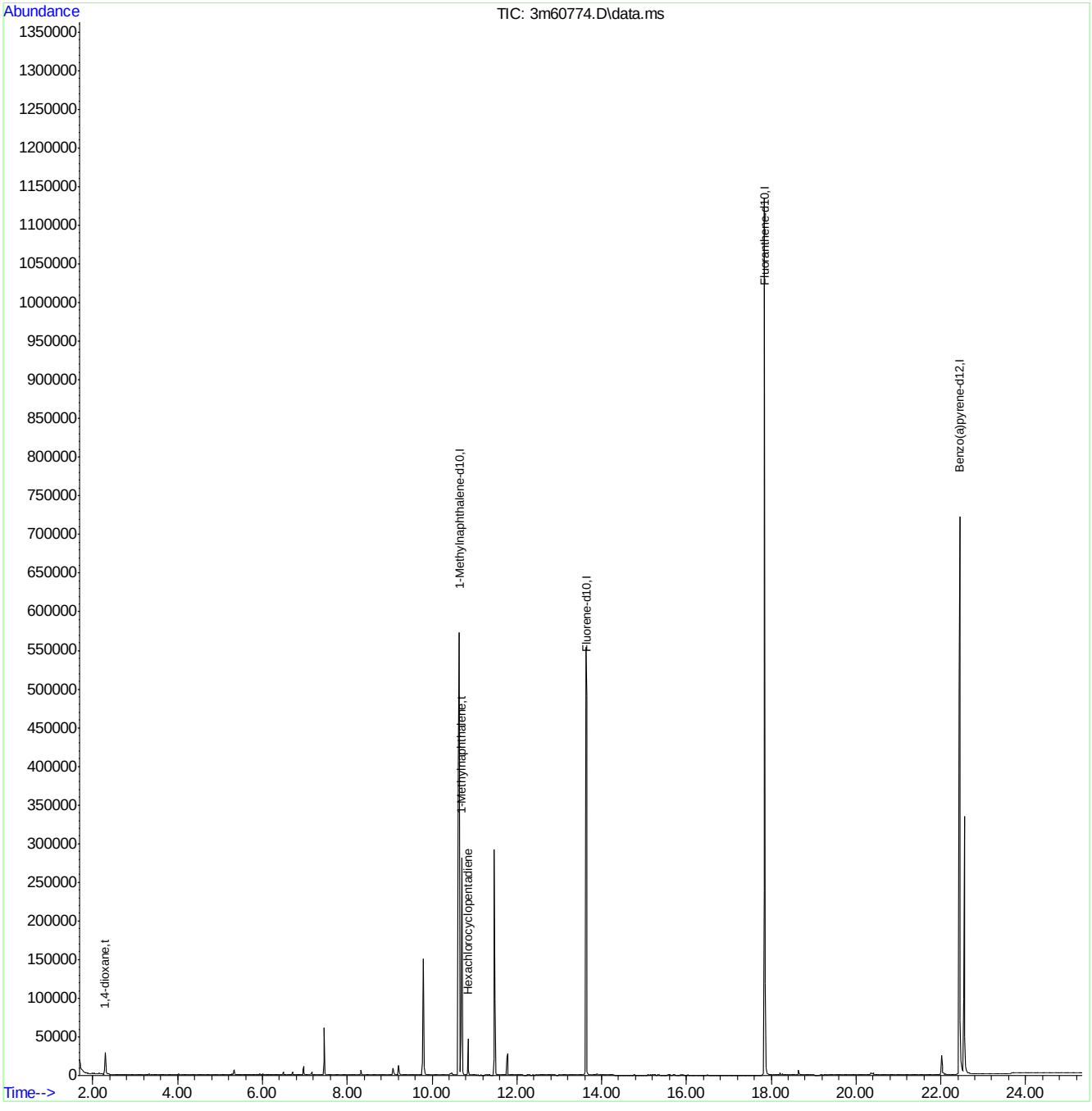
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2855\
Data File : 3m60774.D
Acq On : 21 Apr 2016 8:35 pm
Operator : linseyk
Sample : icv2855-1.0
Misc : op93052a,e3m2855
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 22 08:58:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 22 08:34:22 2016
Response via : Initial Calibration



M3M2855SIM.M Fri Apr 22 08:58:16 2016 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61317.D
Acq On : 13 May 2016 11:03 pm
Operator : JULIUSJ
Sample : CC2855-0.5
Misc : op93756a,e3m2883
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 13 23:27:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	10.406	150	496931	4.00	ppm		0.04
14) Fluorene-d10	13.411	176	774794	4.00	ppm		0.04
21) Fluoranthene-d10	17.623	212	1268988	4.00	ppm		0.03
31) Benzo(a)pyrene-d12	22.227	264	1070216	4.00	ppm		0.03
System Monitoring Compounds							
3) 2-Fluorophenol	4.353	112	629336	10.12	ppm		0.04
Spiked Amount 50.000			Recovery	=	20.24%		
4) Phenol-d5	5.976	99	989017	9.61	ppm		0.05
Spiked Amount 50.000			Recovery	=	19.22%		
7) Nitrobenzene-d5	7.512	82	796863	8.33	ppm		0.02
Spiked Amount 50.000			Recovery	=	16.66%		
15) 2-Fluorobiphenyl	11.083	172	2019181	9.48	ppm		0.05
Spiked Amount 50.000			Recovery	=	18.96%		
20) 2,4,6-Tribromophenol	13.957	330	224725	9.27	ppm		0.04
Spiked Amount 50.000			Recovery	=	18.54%		
28) Terphenyl-d14	18.442	244	1951349	10.60	ppm		0.03
Spiked Amount 50.000			Recovery	=	21.20%		
Target Compounds							Qvalue
2) 1,4-dioxane	2.143	88	12549	0.49	ppm		98
5) Phenol	5.988	94	259239	2.34	ppm		93
6) bis(2-Chloroethyl)ether	6.084	93	37053	0.44	ppm	#	63
8) Nitrobenzene	7.549	77	44770	0.43	ppm		93
9) Naphthalene	8.924	128	123129	0.45	ppm		86
10) Hexachlorobutadiene	9.206	225	22905	0.48	ppm		95
11) 2-Methylnaphthalene	10.283	141	73851	0.51	ppm		92
12) 1-Methylnaphthalene	10.467	141	72420	0.37	ppm	#	52
13) Hexachlorocyclopentadiene	10.631	237	30359	0.79	ppm		92
16) Acenaphthylene	12.057	152	127668	0.48	ppm		100
17) Acenaphthene	12.412	153	84195	0.47	ppm		99
18) 4,6-dinitro-2-methylph...	13.637	198	32314	1.80	ppm	#	1
19) Fluorene	13.467	166	97954	0.46	ppm		75
22) Hexachlorobenzene	14.547	284	28055	0.47	ppm		93
23) Pentachlorophenol	14.995	266	72066	1.85	ppm		90
24) Phenanthrene	15.366	178	150762	0.48	ppm		96
25) Anthracene	15.475	178	135688	0.49	ppm		95
26) Fluoranthene	17.654	202	170624	0.44	ppm		98
27) Pyrene	18.056	202	172736	0.48	ppm		87
29) Benzo[a]anthracene	20.142	228	158013	0.45	ppm		92
30) Chrysene	20.203	228	157660	0.47	ppm		92
32) Benzo[b]fluoranthene	21.810	252	166551	0.47	ppm		93
33) Benzo[k]fluoranthene	21.857	252	151514	0.46	ppm		89
34) Benzo[a]pyrene	22.258	252	149749	0.45	ppm		98
35) Indeno[1,2,3-cd]pyrene	23.730	276	174271	0.52	ppm		98
36) Dibenz[a,h]anthracene	23.768	278	143606	0.52	ppm		100
37) Benzo[g,h,i]perylene	24.088	276	151484	0.52	ppm		99

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61317.D
Acq On : 13 May 2016 11:03 pm
Operator : JULIUSJ
Sample : CC2855-0.5
Misc : op93756a,e3m2883
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 13 23:27:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration

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

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

7.6.42

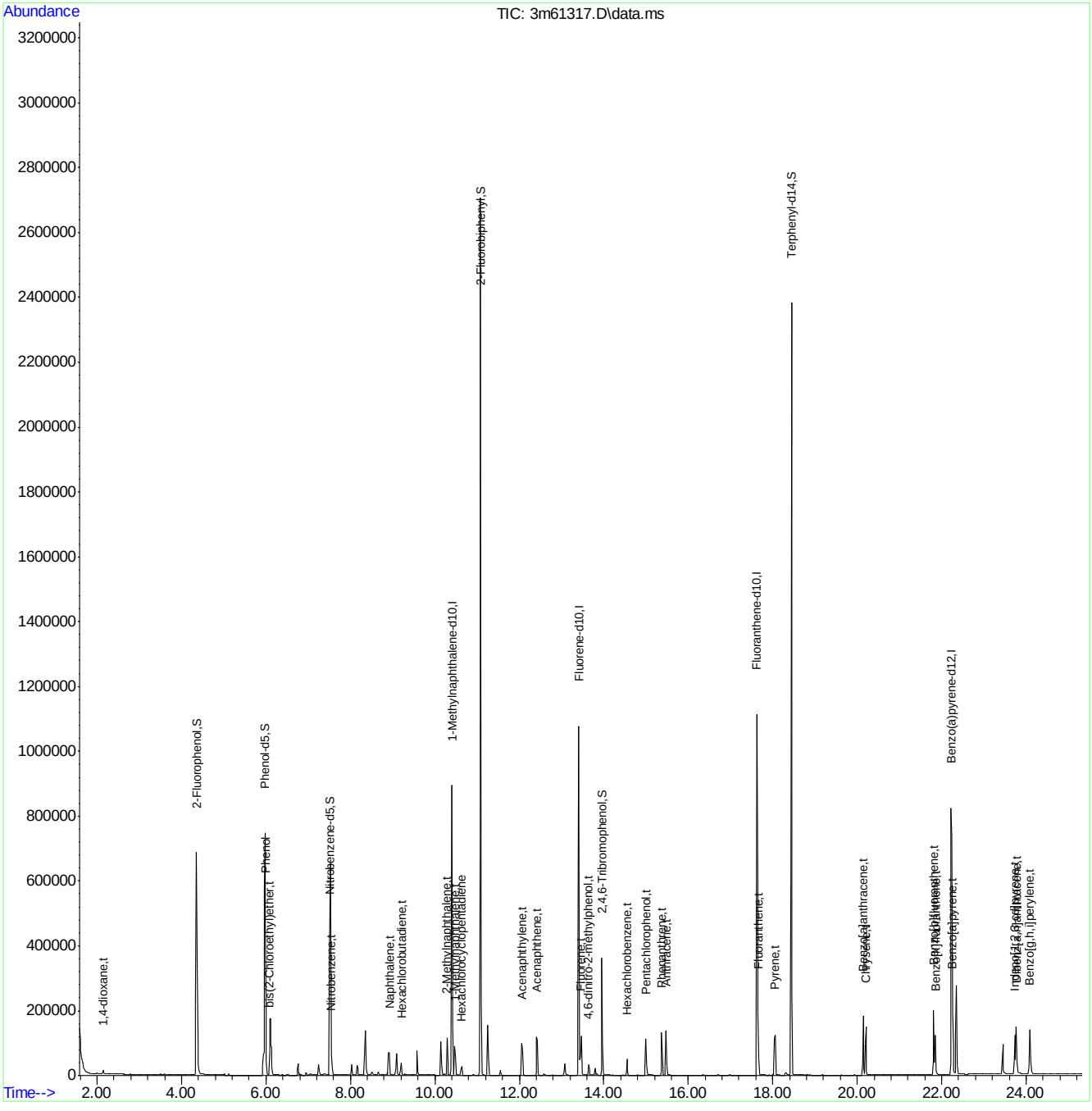
7

SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3M2883\
Data File : 3m61317.D
Acq On : 13 May 2016 11:03 pm
Operator : JULIUSJ
Sample : CC2855-0.5
Misc : op93756a,e3m2883
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 13 23:27:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3M2855SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 12 12:34:26 2016
Response via : Initial Calibration



SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3621

Print Analyst Name: Ashley M. Dye

Analyst Signature: AMD

Date: 4/26/2016

Columns: ZB5MSplus30mx.25mmx.25µ

Method 8270D/625

Initial Cal. Method ~~V13E3591~~ 3620

Injection Volume: 1µL AMD 4/26/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See page 1	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 4/27/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	3E82667	DFTPP				1					RR	RR ions at
	82668	DFTPP				1					OK	1:15PM
	82669	IC3621-100		~~BNA~~ TCL42W AMD 4/26/16		2					OK	SV151827-73A
	82670	-80				3					OK	-73B
	82671	IC3621-50				4					OK	-73C
	82672	IC3621-25				5					OK	-73D
	82673	-10				6					OK	-73E
	82674	-5				7					OK	-73G
	82675	-2				8					OK	-73H
	82676	-1				9					OK	-73I
	82677	ICV3620-50		Acids		10					OK	SV151827-129
	82678	ICV3620-50		Anilines		11					OK	-130
	82679	ICV3620-50		ABN SUR		12					OK	OP161712 33
	82680	ICV3620-50		BM		13					OK	SV161935-1 benzidine NO #89
	82681	ICV3620-50		BN2		14					OK	SV151827-134 #100
	82682	ICV3621-50		Benzidines		15		ANY	1/29/16		OK	good for #89. benz. ok can't run SV151827-38C
	82683	ICV3621-50		HQ		16					OK	-98D 7:40PM

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

3

SGS ACCUTEST JC20184

SGS ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E3E3622

Print Analyst Name: Ashley N.

Analyst Signature: AM

Date: 4/27/16

Columns: ZB5msplus 30m x 25mm x 2

Method: 8270D/625

Initial Cal. Method: M3E3620

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV1515279 1	dftpp	50ppm
QMS732	Internal std	4000ppm
162418	dam (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: AWO

Date: 4/27/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	BE82684	dftpp			W	1					OK	9:39AM
	82685	ICV3620-50		Benzidine std		2					OK	SV161935148 ~~benzidine~~ 11:46
												cannot run for benzidine

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: QR015-07
Rev. Date: 1/19/16

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3623

Print Analyst Name: Ashley N.

Analyst Signature: dM

Date: 4/27/16

Columns: ZB5msplus 30mx.25mmx.25µm

Method 8270D/625

Initial Cal. Method M3E3623

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU 151827-9	dftpp	50ppm
-107E	BNA	50ppm
not run →	~~TCMX~~	~~50ppm~~
CM(73)	Internal Std	400ppm
162418	Chem (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: 4/28/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	3E82686	dftpp			W	1					not using	12:24pm reinstall
	82687	CC3620-50		BNA		2					↓	2:47 heavy PAH's r reinstall
	82688	dftpp			W	1					NG	127r reinject
	82689	dftpp				1					↓	~~127r retune~~
	82690	dftpp			W	1					not using	127r retune
	82691	DFTPP			W	1						127r retune
	82692	DFTPP			W	1						abundances retune
	82693	DFTPP			W	1						abundances retune
	82694	DFTPP			W	1					OK	321PM. recalibrate.
	82695	CC3620SU			W	2					not using	heavy PAH's ↓
	82696	ICC3623-50		BNA		~~23~~ 5					OK	SV151827-107E
	82697	ic3623-100				~~32~~ 3					OK	-106A
	82698	-80				4					OK	-106B
	82699	-25				5					OK	-107F
	82700	-10				6					OK	-106E
	82701	-5				7					OK	-106G
	82702	-2				8					OK	-106H ran before 82696

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

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3623

Print Analyst Name: Ashley N.

Analyst Signature: AN

Date: 4/27/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See page #7	

Columns: ZB5msplus3Dmx 21mmx 0.25µ

Method 8270D 1625

Initial Cal. Method M3E 3623

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: AMC

Date: 4/28/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	~~3E~~ 82703	ic3623-1		BNA		9					OK	SV151877-106I
	82704	icv 3623-5D		Acids		10					OK	~~-129~~ -114 AN 4/27/16 (a)
	82705	icv 3623-5D		Anilines		11					OK	~~-130~~ -115 AN (a) 4/27
	82706	icv 3623-5D		ABNsum		12					OK	OP16171233
	82707	icv 3623-5D		BN1		13					OK	SV161935-1 [NO# 8
	82708	icv 3623-5D		BN2		14					OK	(a) AN 4/27/16 134 contin SV151877-~~35E~~ [100 ↓ NOS
	82709	icv 3623-5D		Benzidine 3rd		15					OK	SV161935-14B
	~~82710~~ AN 4/27/16 (a)											9:44pm

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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7.7.3

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3649

Print Analyst Name: Ashley N.

Analyst Signature: dm

Date: 5-14-16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV158729-1	DFTPP	50ppm
161935-19B	BNA	25ppm
158877-177D	TCL42	↓
CM5732	Internal Std	4000ppm
162661	DOM (Esther)	—

Columns: ZB5ms (P) 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method M3E 3623

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: Amie

Date: 5/18/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	3E 83217	DFTPP			W	1					OK	9:21 AM
	83218	CC3623-25		BNA		2					OK	10.1 42T
	83219	CC 3621-25		TCL42		3					OK	1245 TCBT / benzidl
	83220	tcl42 verif 2ppm				4					OK	SV158877-128C
	83221	OP93902-MB1	93902-1		W	5					OK	
	83222	-BS1				6					OK	
	83223	OP93878-MB1	93878	(625) AB625	W	7		+			OK	
	83224	-BS1				8					OK	
	83225	JC20029-17	93895-1	ABTCLP	W	9					OK	
	83226	-18				10					OK	
	83227	-19				11					OK	
	83228	-20				12					OK	
	83229	JC20184-1	93902-1	ABSL + 2NAPP + NAPD	W	13					OK	RR 1:10 (14Dioxane)
	83230	-2				14					OK	
	83231	-3				15					OK	
	83232	-4				16					OK	
	83233	-5				17					OK	

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-07
Rev. Date: 1/19/16

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3649

Print Analyst Name: Ashley N.

Date: 5-14-16

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 95	

Columns: ZB5msi 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method M3E3623

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: Anne

Date: 5/18/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	83234	JC20184-6	93902-1		W	18					OK	
	83235	DP93902-MS		AB8270		19					OK	
	83236	-MSD				20					OK AN 5/16/16	
R	83237	JC19954-1	93835-1	AB8270	W	21			4.56		not OK using	moved to CF1 (MS+MSD) confirmed. AN 5/16 CF1
	83238	-2				22			3.66		not using	AN 5/16 CF1
	83239	-3 4	AN 5/16/16			23			4.56			
	83240	-14				24			5			RR for I.S.
	83241	-15				25					OK	
	83242	JC18964-10 AR	93853-1	SPLP TCL 1	W	26					not using	RR 1:5+ (X2000)
	83243	-12AR				27						RR 1:5+ (X2000)
	83244	JC19501-2R		SPLP 2MMAP.		28			3.66		RR/OK	C/O
	83245	JC20007-3	93878-1	(625) 24DMP.	W	29			5		not using	(625) moved to F core. RR for I.S / C/O
	83246	JC20065-1		ABPPL		30			5			RR for I.S
	83247	JC20040-2B		ABPPL (R)		31			5			RR for I.S
	83248	JC20066-1		ABPPL		32			5			RR for I.S
	83249	DP93878-MS		AB625		33			3.66		OK	I.S confirmed by MSD
	83250	-MSD				34			3.66		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

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3649

Print Analyst Name: Ashley N.

Analyst Signature: AN

Date: 5-14-16

Columns: ZB5MS(P)/30mx.25mmx.25µm

Method 8270D/625

Initial Cal. Method M3E3623

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See page	

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: AMM Date: 5/18/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	3E83251	JC19995-7	93878-1	ABTCL212	W	35			S	\	not using (625)	moved to FCONE
	83252	JC20102-1		BTCL11		36			3-6	\	OK	confirmed by MS/MSD RR1.2 for 1,3 JNS 5/16
	83253	-2				37			S	\	OK	RR1.S NH
	83254	-3				38			S	\	OK	RR1.S. NH
	83255	-5				39			/	\	OK	
	83256	-6				40			/	\	OK	
	83257	-8				41			/	\	OK	
	83258	-9				42			S	\	OK	RR1.S. NH
	83259	-10				43			S	\	OK	RR1.S.
	83260	-11				44			/	\	OK	
	83261	-12				45			/	\	OK	
	83262	-13				46			/	\	OK	
	83263	-14				47			/	\	OK	
	83264	-15				48			/	\	OK	
	83265	-7				49			3-6	\	not using	RR1.S
	83266	-4				50			2-6	\		RR1.S. 6:47AM
												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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Form: OR015-07
Rev. Date: 1/19/16

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: E3E3650

Print Analyst Name: Ashley N.

Date: 5-16-2016

Analyst Signature: AN

Columns: ZB5ms 30mx.25mmx.25µm

Method: 8270D/625

Initial Cal. Method: M3E3623

Injection Volume: 1µL

Standard Data

Lot#	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 1518291	dftpp	50ppm
161935-19E	BNA	↓
151827-	TCL42	
CM5732	Internal Std	4000ppm
162641	dcm (Final)	—

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: 5/18/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	BE 83267	dftpp			W	1					not using	PCP↑ reinject
	83268	dftpp				1					↓	PCP↑ Abundance↓ reinstall
	83269	dftpp				1					NG	PCP↑ abundance↓ retune
	83270	dftpp			W	1					not using	PCPT can't use check!
	83271	cc 3623-SD		BNA		2					↓	#6164 PCP↓ / reinstall 9,10,13 16↓60 / 42T 67T
	83272	dftpp			W	1					NG	PCPT Reinstall
	83273	dftpp			W	1					OK	10:48AM
	83274	CC 3623-SD		BNA		2					OK	10,11,61 PCP↓ / pyrene↑ NBZ 42↑
	83275	CC 3621-SD		TCL42		3					not needed	1245TCB/ATRZ/AB↑
	83276	bnaveif-1ppm				4					↓	~~NEED PCP~~ AN 5/16/16 SV1518271-62H dilutions only
	83277	2ppm				5					not run/ not needed	CUT from sequence
R	83278	JC20184-1	93902-1	ABSL + 2MNAP + MNAP	W	6	10		/	\	OK	
R	83279	JC19501-2R	93753-2	SPLP 2MNAP	W	7			/	\	OK	12:47pm
												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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Form: OR015-07

Rev. Date: 1/19/16

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E3M2855

Date: 4/21/16

Analyst Signature: JK

Columns: Rxi-5SilMS30mx.25mmx.25um

Method 8270D/625

Initial Cal. Method M8M2855sim

Injection Volume: 1ul

Standard Data		
Lot #	Description	Conc.
		1/4/2016

Standard Data		
Lot #	Description	Conc.
SVI51827-08	DFTPP	50ppm
SVI51827-03	SIM Internal	400ppm
159148	Dimethylsulfone	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 4-22-2016

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	3m60750	Condition			W	100					Condition	
	60755	↓			W	100					↓	
	60760	Condition			W	99						
	60761	DFTPP ~~ICC2855-1.0~~ 4/21/16		4/21/16 ~~BFB SIM~~	W	1					~~ok~~	deg ↑ resistant
	60762	DFTPP			W	1					OK	1:31pm
	60763A	ICC2855-1.0			W	2					ok	SVI51827-12AC
	60764A	IC2855-0.5				3					ok	104D
	60765A	IC2855-0.2				4					OK	104E
	60766	IC2855-0.1				5					ok	104F
	60767	IC2855-0.05				6					OK	104G
	60768	IC2855-0.02				7					ok	104H
	60769	IC2855-0.01				8					ok	104I
	60770	IC2855-5.0				9					ok	104A
	60771	IC2855-2.5				10					OK	104B
	60772	ICV2855-1.0		Acid		11					ok	SVI51827-27
	60773	ICV2855-1.0		BN1		12					ok	OP16A12-28
	60774	ICV2855-1.0		BN2		13					ok	SVI51829-85 8:35pm

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

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All strikeouts 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: OR015-05
Rev. Date: 1/16/2006

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3M2883

Print Analyst Name: Julius M. Johnson

Analyst Signature: JMJ

Date: 5/13/16

Columns: ZB5ms (t) 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method M3M2855SIM

Injection Volume: 1µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151821108	DFTPP	50ppm
SV161935-9B	SIM STD	0.5ppm
SV161935-7	SIM Internal	400ppm
162661	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: JM Date: 5-17-16

R	Data File (t) JMJ 5/13/16	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	E3M61316	DFTPP				1					OK	10:38pm
	61317	CC2855-0.5				2					OK	Acids & BN only
	61318	OP93902-MB1	93902	BS020		3					OK	
	61319	-BS12				4					OK	
	61320	-MS				5					OK	
	61321	-MSD				6					OK	
	61322	JC20184-1		BSIM14DIOX BSIM+NAP		7					OK	
	61323	-2				8					OK	
	61324	-3				9					OK	
	61325	-4				10					OK	
	61326	-5				11					OK	
	61327	-6				12					OK	4:29am
												JM

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

ABN Aqueous Extraction Logbook

LOGBOOK ID: 6-1727

Date Started: 5-13-16 Time Started: 4:00pm
Date Finished: 5-13-16 Time Finished: 8:13pm

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓ 3510C SIM____
Continuous Liquid Liquid: SW846 3520C/CLP/other____

BATCH # MS 93902	RACK#
Extracted by:	KS
Concentrated by:	MSP/KS ~~[illegible]~~
Vialed by:	KS
Relinquished by:	
Accepted by:	
Supervisor Review:	5/13/16

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked
					Rd wired

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

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	5	clear	1		
BS1			DI H2O	1000	1	5	Yellow	1		
JC20184-3 MS		3	Yellow	900	1	5	Yellow	1		
MSD		6	Yellow	900	1	5	Yellow	1		
BS2 SIM			DI H2O	1000	1	5	Yellow	1		
JC20184-2 MS		1	Yellow	940	1	5	Yellow	1		
MSD		1	Yellow	940	1	5	Yellow	1		
JC20184-1	ABN	1	Brown	900	1	5	clear	1		
-2		2	Yellow	920	1	5	clear	1		
-3		4	Yellow	940	1	5	clear	1		
-4		3	clear	950	1	5	clear	1		
-5		3	Yellow	910	1	5	clear	1		
-6		1	Yellow	920	1	5	clear	1		

1dTAT

Comments: okay to split ~~MS/MSD~~ SIM MS/MSD, not enough bottles
CL 5/13/16

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	74/73.2	0.5/0.1	75/73	N/A
Waterbath Chiller (GPM)	F2	2	Ma	Ma	2
NEVAP (32-38°C; LPM)	2	36	0.1	36	10

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN op	161717100	50	1

WITNESS SIGN: SD SPIKE SIGN: KS

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	16193526	50	Acid: 1
Acid (for SIM)			A(SIM): 0.1
Base #1	16193525	50	1
Base #2	16193522	50	1
Anilines	16193520	50	1
BSIM	16171256	1	1

WITNESS SIGN: SD SPIKE SIGN: KS

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	162641	Fisher	6X60

REAGENT	LOT #	BRAND
NaOH	153803	Fisher
H2SO4	266410	Baker
Sodium Sulfate	157477	Fisher
Glass Wool	02205-2	lab
Filter Paper		
pH strips		

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC20184-3 (MS/MSD)

Final Volume:

Other:

SGS ACCUTEST INC.
Form: OP022A-08
Rev Date: 1/13/16

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ABN Aqueous Extraction Logbook

LOGBOOK ID: 6-1727

Date Started: 5-13-16 Time Started: 4:00pm
Date Finished: 5-13-16 Time Finished: 8:13pm

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓ 3510C SIM____
Continuous Liquid Liquid: SW846 3520C/CLP/other____

BATCH # MS 93902 RACK#

Extracted by:	KS
Concentrated by:	MSP/KS
Vialed by:	KS
Relinquished by:	
Accepted by:	
Supervisor Review:	5/13/16

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked
					Rod wired

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

	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	5	clear	1		
BS1				DI H2O	1000	1	5	Yellow	1		
MS	JC20184-3		3	Yellow	900	1	5	Yellow	1		
MSD			6	Yellow	900	1	5	Yellow	1		
BS2		SIM		DI H2O	1000	1	5	Yellow	1		
MS	JC20184-2		1	Yellow	940	1	5	Yellow	1		
MSD			1	Yellow	940	1	5	Yellow	1		
	JC20184-1	ABN	1	Brown	900	1	5	clear	1		
	-2		2	Yellow	920	1	5	clear	1		
	-3		4	Yellow	940	1	5	clear	1		
	-4		3	clear	950	1	5	clear	1		
	-5		3	Yellow	910	1	5	clear	1		
	-6		1	Yellow	920	1	5	clear	1		

1dTAT

Comments: okay to split ~~MS/MSD~~ SIM MS/MSD, not enough bottles
CL 5/13/16

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	74/73.2	0.5/0.1	75/73	N/A
Waterbath Chiller (GPM)	F2	2	Ma	Ma	2
NEVAP (32-38°C; LPM)	2	36	0.1	36	10

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN op	161717100	50	1

WITNESS SIGN: SD SPIKE SIGN: KS

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	16193526	50	Acid: 1
Acid (for SIM)			A(SIM): 0.1
Base #1	16193525	50	1
Base #2	16193522	50	1
Anilines	16193520	50	1
BSIM	16171256	1	1

WITNESS SIGN: SD SPIKE SIGN: KS

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	162641	Fisher	6X60

REAGENT	LOT #	BRAND
NaOH	153803	Fisher
H2SO4	266410	Baker
Sodium Sulfate	157477	Fisher
Glass Wool	02Q05-2	lab
Filter Paper		
pH strips		

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC20184-3 (MS/MSD)

Final Volume:

Other:

SGS ACCUTEST INC.
Form: OP022A-08
Rev Date: 1/13/16

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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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5286-MB1 [a]	GH104988.D	1	05/16/16	XPL	n/a	n/a	GGH5286

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

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	94%	56-145%

(a) Reported from 1st Signal. %RSD of initial calibration on 2nd signal excess method criteria (20%) so using for confirmation only.

Blank Spike Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5286-BS [a]	GH104989.D	1	05/16/16	XPL	n/a	n/a	GGH5286

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
64-17-5	Ethanol	5000	5700	114	74-123
78-83-1	Isobutyl Alcohol	5000	6370	127* [b]	70-124
67-63-0	Isopropyl Alcohol	5000	5420	108	76-121
71-23-8	n-Propyl Alcohol	5000	6210	124* [b]	73-122
71-36-3	n-Butyl Alcohol	5000	6270	125* [b]	67-116
78-92-2	sec-Butyl Alcohol	5000	5640	113	74-118
67-56-1	Methanol	5000	5040	101	67-121

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	114%	56-145%

(a) Reported from 1st Signal. %RSD of initial calibration on 2nd signal excess method criteria (20%) so using for confirmation only.
(b) High percent recoveries and no associated positive found in the QC batch.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC20184-3MS	GH104991.D	1	05/17/16	XPL	n/a	n/a	GGH5286
JC20184-3MSD	GH104992.D	1	05/17/16	XPL	n/a	n/a	GGH5286
JC20184-3	GH104990.D	1	05/17/16	XPL	n/a	n/a	GGH5286

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	JC20184-3 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	5920	118	5000	5690	114	4	58-145/27
78-83-1	Isobutyl Alcohol	ND		5000	5820	116	5000	6130	123	5	69-131/25
67-63-0	Isopropyl Alcohol	ND		5000	5190	104	5000	5320	106	2	70-133/28
71-23-8	n-Propyl Alcohol	ND		5000	6040	121	5000	6170	123	2	66-137/29
71-36-3	n-Butyl Alcohol	ND		5000	6130	123	5000	6200	124	1	63-131/25
78-92-2	sec-Butyl Alcohol	ND		5000	5550	111	5000	5610	112	1	64-136/25
67-56-1	Methanol	ND		5000	4440	89	5000	5080	102	13	48-148/34

CAS No.	Surrogate Recoveries	MS	MSD	JC20184-3	Limits
111-27-3	Hexanol	84%	91%	77%	56-145%

* = Outside of Control Limits.

GC Identification Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5285-CC5269	**Injection Date:**	05/16/16
Lab File ID:	GH104987.D	**Injection Time:**	23:17
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH5286-BS	**Injection Date:**	05/16/16
Lab File ID:	GH104989.D	**Injection Time:**	23:46
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1 [a]	1.49	1.49	5700		ug/l	86.1
Ethanol	2	1.11	1.11	2270		ug/l	
Isobutyl Alcohol	1 [a]	3.36	3.36	6370		ug/l	113.0
Isobutyl Alcohol	2	2.89	2.89	1770		ug/l	
Isopropyl Alcohol	1 [a]	1.80	1.80	5420		ug/l	95.0
Isopropyl Alcohol	2	1.36	1.36	1930		ug/l	
n-Propyl Alcohol	1 [a]	2.56	2.56	6210		ug/l	106.3
n-Propyl Alcohol	2	1.94	1.94	1900		ug/l	
n-Butyl Alcohol	1 [a]	3.80	3.80	6270		ug/l	102.5
n-Butyl Alcohol	2	3.38	3.38	2020		ug/l	
sec-Butyl Alcohol	1 [a]	2.99	2.99	5640		ug/l	96.5
sec-Butyl Alcohol	2	2.51	2.51	1970		ug/l	
Methanol	1 [a]	1.15	1.15	5040		ug/l	54.9
Methanol	2	0.86	0.86	2870		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5285-CC5269	**Injection Date:**	05/16/16
Lab File ID:	GH104987.D	**Injection Time:**	23:17
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC20184-3MS	**Injection Date:**	05/17/16
Lab File ID:	GH104991.D	**Injection Time:**	00:22
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1 [a]	1.49	1.49	5920		ug/l	93.1
Ethanol	2	1.11	1.11	2160		ug/l	
Isobutyl Alcohol	1 [a]	3.36	3.36	5820		ug/l	112.5
Isobutyl Alcohol	2	2.89	2.89	1630		ug/l	
Isopropyl Alcohol	1 [a]	1.80	1.80	5190		ug/l	95.7
Isopropyl Alcohol	2	1.36	1.36	1830		ug/l	
n-Propyl Alcohol	1 [a]	2.56	2.56	6040		ug/l	108.6
n-Propyl Alcohol	2	1.94	1.94	1790		ug/l	
n-Butyl Alcohol	1 [a]	3.80	3.80	6130		ug/l	93.3
n-Butyl Alcohol	2	3.38	3.38	2230		ug/l	
sec-Butyl Alcohol	1 [a]	2.99	2.99	5550		ug/l	99.6
sec-Butyl Alcohol	2	2.51	2.51	1860		ug/l	
Methanol	1 [a]	1.15	1.15	4440		ug/l	46.0
Methanol	2	0.86	0.86	2780		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5285-CC5269	**Injection Date:**	05/16/16
Lab File ID:	GH104987.D	**Injection Time:**	23:17
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC20184-3MSD	**Injection Date:**	05/17/16
Lab File ID:	GH104992.D	**Injection Time:**	00:36
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1 [a]	1.49	1.49	5690		ug/l	86.6
Ethanol	2	1.11	1.11	2250		ug/l	
Isobutyl Alcohol	1 [a]	3.36	3.36	6130		ug/l	110.8
Isobutyl Alcohol	2	2.89	2.89	1760		ug/l	
Isopropyl Alcohol	1 [a]	1.80	1.80	5320		ug/l	93.9
Isopropyl Alcohol	2	1.36	1.36	1920		ug/l	
n-Propyl Alcohol	1 [a]	2.56	2.56	6170		ug/l	104.7
n-Propyl Alcohol	2	1.94	1.94	1930		ug/l	
n-Butyl Alcohol	1 [a]	3.80	3.80	6200		ug/l	102.1
n-Butyl Alcohol	2	3.38	3.38	2010		ug/l	
sec-Butyl Alcohol	1 [a]	2.99	2.99	5610		ug/l	96.0
sec-Butyl Alcohol	2	2.51	2.51	1970		ug/l	
Methanol	1 [a]	1.15	1.15	5080		ug/l	55.3
Methanol	2	0.86	0.86	2880		ug/l	

(a) QC results reported from this column.

Volatile Surrogate Recovery Summary

Job Number: JC20184
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]
JC20184-1	GH104996.D	97
JC20184-2	GH104997.D	100
JC20184-3	GH104990.D	77
JC20184-4	GH104993.D	101
JC20184-5	GH104994.D	103
JC20184-6	GH104995.D	101
GGH5286-BS	GH104989.D	114
GGH5286-MB1	GH104988.D	94
JC20184-3MS	GH104991.D	84
JC20184-3MSD	GH104992.D	91

Surrogate Compounds	Recovery Limits
S1 = Hexanol	56-145%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5285-CC5269	**Injection Date:**	05/16/16
Lab File ID:	GH104987.D	**Injection Time:**	23:17
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] **RT**
Check Std	5.60

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
GGH5286-MB1	GH104988.D	05/16/16	23:31	5.60
GGH5286-BS	GH104989.D	05/16/16	23:46	5.60
JC20184-3	GH104990.D	05/17/16	00:07	5.60
JC20184-3MS	GH104991.D	05/17/16	00:22	5.60
JC20184-3MSD	GH104992.D	05/17/16	00:36	5.60
JC20184-4	GH104993.D	05/17/16	00:51	5.60
JC20184-5	GH104994.D	05/17/16	01:12	5.60
JC20184-6	GH104995.D	05/17/16	01:27	5.60
JC20184-1	GH104996.D	05/17/16	01:41	5.60
JC20184-2	GH104997.D	05/17/16	01:56	5.60

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #1

Initial Calibration Summary

Job Number: JC20184 **Sample:** GGH5269-ICC5269
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH104677.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report GCGH

Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue May 10 11:06:41 2016
Response via : Initial Calibration

Calibration Files
0.5 =GH104675.D 1 =GH104676.D 5 =GH104677.D 10 =GH104678.D
50 =GH104679.D 0.1 =GH104674.D = =

Compound	0.5	1	5	10	50	0.1	Avg	%RSD
1) Methanol	1.593	1.539	1.394	1.397	1.324	1.614	1.477 E1	8.16
2) Ethanol	1.886	1.927	1.846	1.938	1.739	1.891	1.871 E1	3.88
3) Tert-Butyl A	2.841	2.742	2.685	2.870	2.582	2.661	2.730 E1	4.04
4) 1-Propanol	2.460	2.397	2.412	2.420	2.246	1.437	2.229 E1	17.71
5) 2-Propanol	2.027	2.007	1.963	2.223	1.850	2.379	2.075 E1	9.26
6) Isobutanol	3.098	2.831	2.858	2.791	2.576	2.339	2.749 E1	9.48
7) 1-Butanol	1.745	2.588	2.859	2.723	2.489	2.288	2.449 E1	16.19
8) 2-Butanol	2.464	3.139	2.505	2.469	2.291	2.251	2.520 E1	12.72
9) Hexanol	7.782	7.590	7.989	8.011	8.288	6.248	7.651 E1	9.50

Signal #2

1) Methanol	1.288	3.166	1.383	1.032	2.946	2.383	2.033 E1	45.20
2) Ethanol	2.817	4.146	3.410	2.123	3.657	2.911	3.177 E1	22.41
3) Tert-Butyl A	6.834	6.135	8.110	5.969	5.847	6.282	6.529 E1	12.97
4) 1-Propanol	4.091	3.958	7.681	4.455	4.689	4.687	4.927 E1	28.06
5) 2-Propanol	4.552	4.456	4.692	3.160	4.050	4.175	4.181 E1	13.25
6) Isobutanol	9.360	5.533	5.494	4.786	5.166	6.882	6.204 E1	27.41
7) 1-Butanol	5.498	5.794	5.135	4.164	5.031	5.438	5.177 E1	10.93
8) 2-Butanol	4.534	5.210	5.963	4.341	4.794	4.806	4.941 E1	11.74
9) Hexanol	1.693	1.682	1.706	1.575	1.818	1.401	1.646 E2	8.66

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

MGH5269.M Tue May 10 11:10:00 2016 GCGH

Initial Calibration Verification

Job Number: JC20184 **Sample:** GGH5269-ICV5269
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH104683.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH104683.D\FID1A.CH        Vial: 10
Acq On    :  9 May 2016   5:42 pm                   Operator: XULIU
Sample    : ICV5269-5000                            Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104683.D\FID2B.CH        Vial: 10
Acq On    :  9 May 2016   6:04 pm                   Operator: XULIU
Sample    : ICV5269-5000                            Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:29:55 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	14.769	13.949	5.6	100	0.00	1.11- 1.17
2	Ethanol	18.712	19.655	-5.0	106	0.00	1.44- 1.53
3	Tert-Butyl Alcohol	27.303	28.294	-3.6	105	0.00	2.01- 2.13
4	1-Propanol	22.287	23.452	-5.2	97	0.00	2.50- 2.62
5	2-Propanol	20.750	19.885	4.2	101	0.00	1.75- 1.84
6	Isobutanol	27.487	29.253	-6.4	102	-0.01	3.31- 3.41
7	1-Butanol	24.487	27.754	-13.3	97	0.00	3.80- 3.86
8	2-Butanol	25.198	24.667	2.1	98	0.00	2.93- 3.05
9 S	Hexanol	76.514	69.300	9.4	87	0.00	5.57- 5.63
*****	Signal #2 *****						
1	Methanol	18.183	29.885	-64.4#	216#	0.00	0.85- 0.91
2	Ethanol	31.774	39.803	-25.3#	117	-0.01	1.10- 1.16
3	Tert-Butyl Alcohol	65.293	63.130	3.3	78	-0.01	1.59- 1.65
4	1-Propanol	49.271	52.689	-6.9	69	0.00	1.93- 2.00
5	2-Propanol	41.806	43.484	-4.0	93	-0.01	1.35- 1.41
6	Isobutanol	62.036	58.038	6.4	106	0.00	2.87- 2.93
7	1-Butanol	51.767	64.401	-24.4#	125	-0.01	3.35- 3.41
8	2-Butanol	49.414	52.519	-6.3	88	0.00	2.50- 2.56
9 S	Hexanol	164.574	152.865	7.1	90	0.01	5.41- 5.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH104677.D MGH5269.M Tue May 10 10:47:36 2016 GCGH

Continuing Calibration Summary

Job Number: JC20184 **Sample:** GGH5285-CC5269
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH104987.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH104987.D\FID1A.CH        Vial: 95
Acq On    : 16 May 2016  11:17 pm                   Operator: XULIU
Sample    : CC5269-10000                            Inst    : GCGH
Misc      : GC48423,GGH5285,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104987.D\FID2B.CH        Vial: 95
Acq On    : 16 May 2016  11:31 pm                   Operator: XULIU
Sample    : CC5269-10000                            Inst    : GCGH
Misc      : GC48423,GGH5285,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 11:06:41 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	14.769	15.927	-7.8	114	0.00	1.12- 1.18
2	Ethanol	18.712	19.526	-4.4	101	0.00	1.45- 1.54
3	Tert-Butyl Alcohol	27.303	28.688	-5.1	100	0.00	2.01- 2.13
4	1-Propanol	22.287	26.535	-19.1	110	0.00	2.50- 2.62
5	2-Propanol	20.750	20.740	0.0	93	0.00	1.75- 1.85
6	Isobutanol	27.487	29.916	-8.8	107	0.00	3.31- 3.41
7	1-Butanol	24.487	28.850	-17.8	106	0.00	3.77- 3.83
8	2-Butanol	25.198	26.500	-5.2	107	0.00	2.93- 3.05
9 S	Hexanol	76.514	64.512	15.7	81	0.00	5.57- 5.63
*****	Signal #2 *****						
1	Methanol	20.329	11.614	42.9#	113	-0.03	0.83- 0.89
2	Ethanol	31.774	13.333	58.0#	63	-0.03	1.08- 1.14
3	Tert-Butyl Alcohol	65.293	21.428	67.2#	36#	-0.03	1.57- 1.63
4	1-Propanol	49.271	17.206	65.1#	39#	-0.02	1.91- 1.98
5	2-Propanol	41.806	15.020	64.1#	48#	-0.03	1.33- 1.39
6	Isobutanol	62.036	26.984	56.5#	56	-0.01	2.86- 2.92
7	1-Butanol	51.767	19.070	63.2#	46#	-0.01	3.35- 3.41
8	2-Butanol	49.414	18.319	62.9#	42#	-0.02	2.48- 2.54
9 S	Hexanol	164.574	45.374	72.4#	29#	0.05	5.45- 5.51

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH104678.D MGH5269.M Tue May 17 08:52:13 2016 GCGH

Continuing Calibration Summary

Job Number: JC20184 **Sample:** GGH5286-CC5269
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH104998.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH104998.D\FID1A.CH        Vial: 90
Acq On    : 17 May 2016   2:17 am                   Operator: XULIU
Sample    : CC5269-5000                             Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104998.D\FID2B.CH        Vial: 90
Acq On    : 17 May 2016   2:32 am                   Operator: XULIU
Sample    : CC5269-5000                             Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 11:06:41 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	14.769	14.450	2.2	104	0.00	1.12- 1.18
2	Ethanol	18.712	18.759	-0.3	102	0.00	1.45- 1.54
3	Tert-Butyl Alcohol	27.303	24.512	10.2	91	0.00	2.02- 2.14
4	1-Propanol	22.287	25.404	-14.0	105	0.00	2.51- 2.63
5	2-Propanol	20.750	19.127	7.8	97	0.00	1.76- 1.85
6	Isobutanol	27.487	29.917	-8.8	105	0.00	3.32- 3.41
7	1-Butanol	24.487	28.538	-16.5	100	0.00	3.78- 3.84
8	2-Butanol	25.198	26.962	-7.0	108	0.00	2.94- 3.06
9 S	Hexanol	76.514	74.781	2.3	94	0.00	5.57- 5.63
*****	Signal #2 *****						
1	Methanol	20.329	11.905	41.4#	86	-0.03	0.83- 0.89
2	Ethanol	31.774	13.277	58.2#	39#	-0.03	1.08- 1.14
3	Tert-Butyl Alcohol	65.293	21.186	67.6#	26#	-0.03	1.57- 1.63
4	1-Propanol	49.271	17.212	65.1#	22#	-0.02	1.90- 1.97
5	2-Propanol	41.806	14.725	64.8#	31#	-0.03	1.33- 1.39
6	Isobutanol	62.036	19.248	69.0#	35#	-0.01	2.86- 2.92
7	1-Butanol	51.767	23.097	55.4#	45#	-0.01	3.35- 3.41
8	2-Butanol	49.414	17.751	64.1#	30#	-0.02	2.48- 2.54
9 S	Hexanol	164.574	51.214	68.9#	30#	0.05	5.45- 5.51

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH104677.D MGH5269.M Tue May 17 09:32:00 2016 GCGH

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH104996.D\FID1A.CH          Vial: 30
Acq On    : 17 May 2016   1:41 am                     Operator: XULIU
Sample    : JC20184-1                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104996.D\FID2B.CH          Vial: 30
Acq On    : 17 May 2016   1:56 am                     Operator: XULIU
Sample    : JC20184-1                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:14 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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           5.60   5.48    372448   248515 4867.711  1510.049 #
 Spiked Amount   5000.000                  Recovery     =   97.35%    30.20%

Target Compounds
```

9.1.1

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH104996.D  MGH5269.M      Tue May 17 09:18:37 2016      GCGH
```

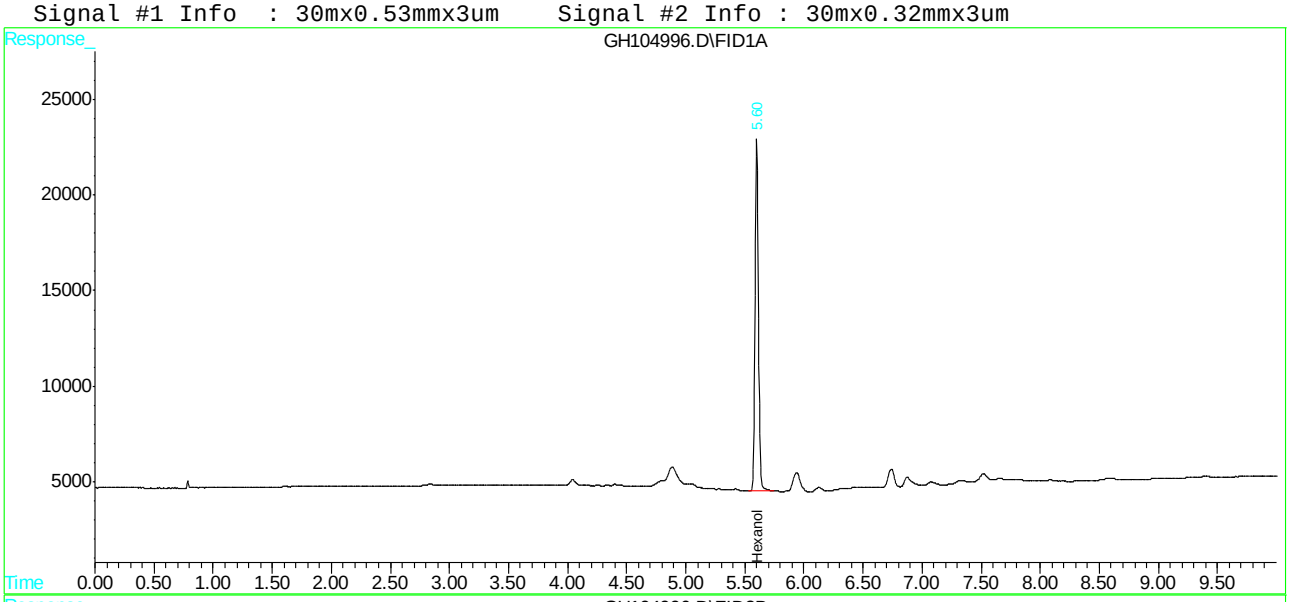
Quantitation Report (QT Reviewed)

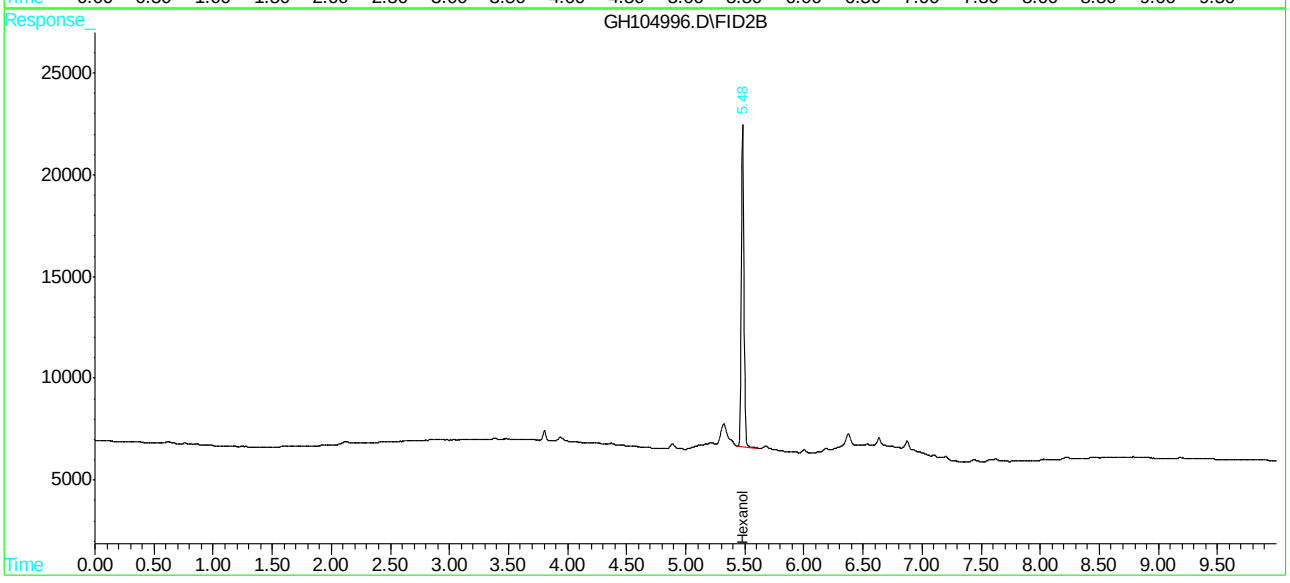
```
Data File : C:\HPCHEM\1\DATA\GH104996.D\FID1A.CH          Vial: 30
Acq On    : 17 May 2016   1:41 am                     Operator: XULIU
Sample    : JC20184-1                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104996.D\FID2B.CH          Vial: 30
Acq On    : 17 May 2016   1:56 am                     Operator: XULIU
Sample    : JC20184-1                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:14 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104997.D\FID1A.CH          Vial: 31
Acq On    : 17 May 2016   1:56 am                     Operator: XULIU
Sample    : JC20184-2                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104997.D\FID2B.CH          Vial: 31
Acq On    : 17 May 2016   2:17 am                     Operator: XULIU
Sample    : JC20184-2                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:18 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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           5.60   5.48    380837   238234 4977.352  1447.582 #
 Spiked Amount   5000.000                  Recovery     =   99.55%    28.95%

Target Compounds
```

9.1.2

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH104997.D  MGH5269.M      Tue May 17 09:18:52 2016      GCGH
```

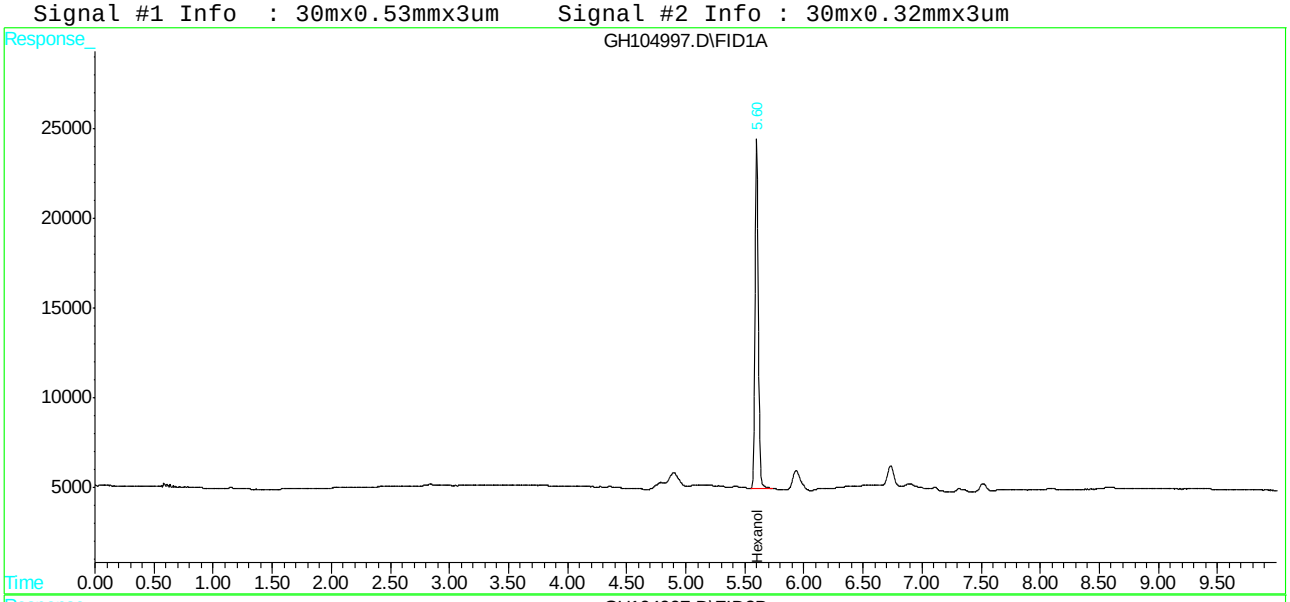
Quantitation Report (QT Reviewed)

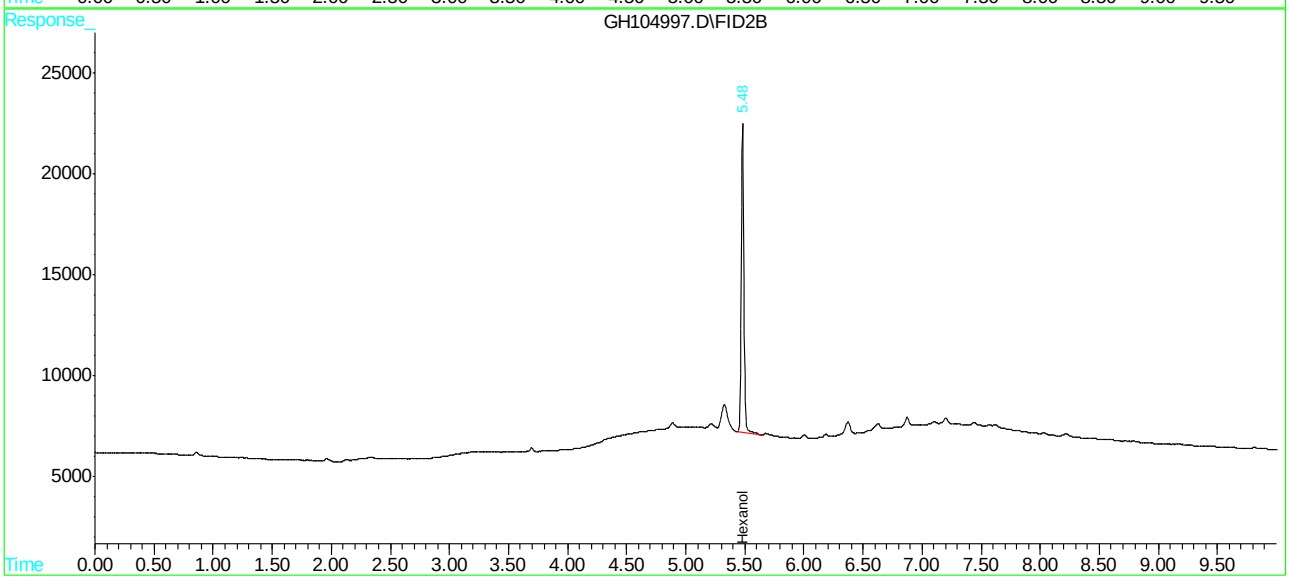
```
Data File : C:\HPCHEM\1\DATA\GH104997.D\FID1A.CH          Vial: 31
Acq On    : 17 May 2016   1:56 am                     Operator: XULIU
Sample    : JC20184-2                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104997.D\FID2B.CH          Vial: 31
Acq On    : 17 May 2016   2:17 am                     Operator: XULIU
Sample    : JC20184-2                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:18 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104990.D\FID1A.CH          Vial: 24
Acq On    : 17 May 2016  12:07 am                     Operator: XULIU
Sample    : JC20184-3                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104990.D\FID2B.CH          Vial: 24
Acq On    : 17 May 2016  12:22 am                     Operator: XULIU
Sample    : JC20184-3                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:11 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.48	296371	199603	3873.425	1212.851 #
Spiked Amount 5000.000			Recovery	=	77.47%	24.26%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH104990.D MGH5269.M Tue May 17 09:16:42 2016 GCGH

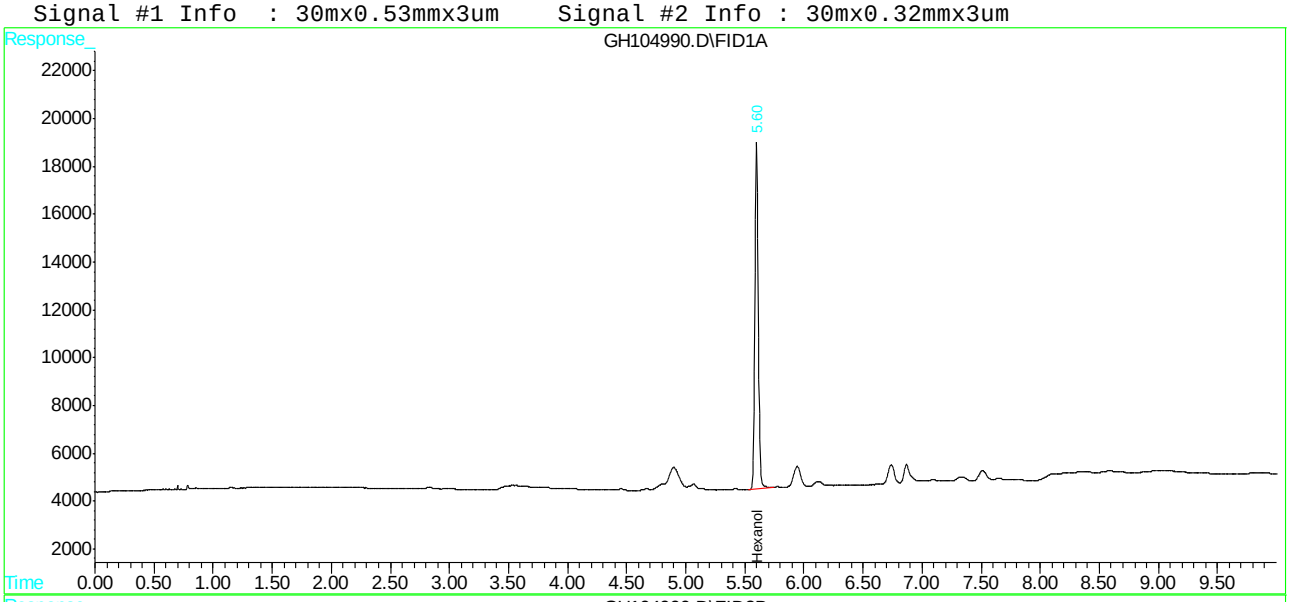
Quantitation Report (QT Reviewed)

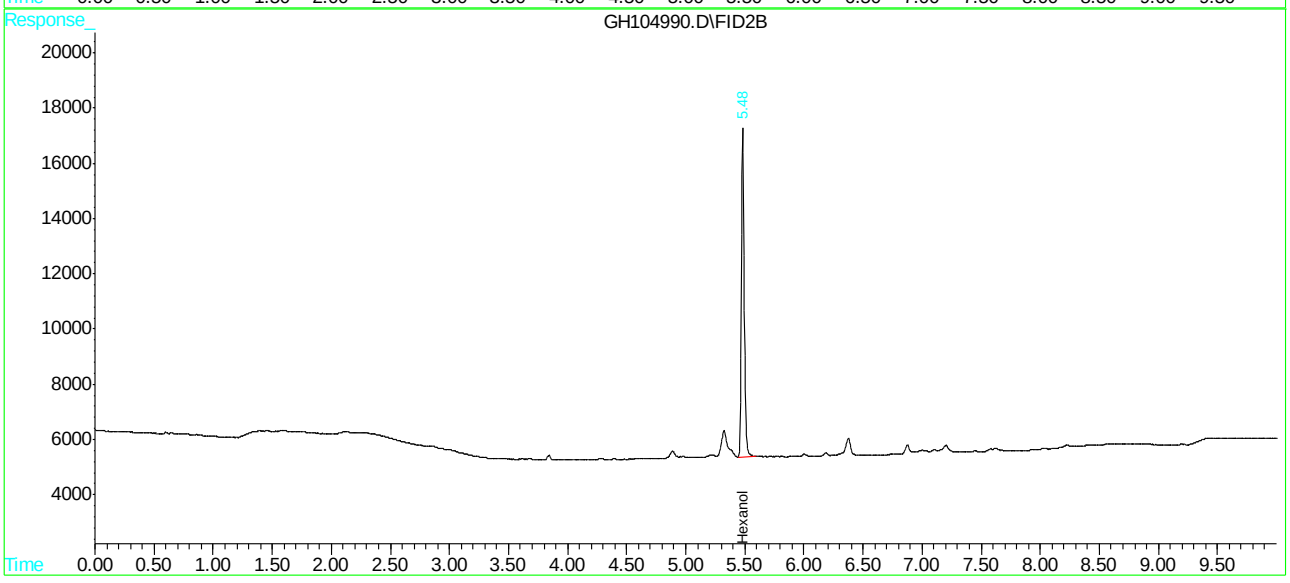
```
Data File : C:\HPCHEM\1\DATA\GH104990.D\FID1A.CH          Vial: 24
Acq On    : 17 May 2016  12:07 am                     Operator: XULIU
Sample    : JC20184-3                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104990.D\FID2B.CH          Vial: 24
Acq On    : 17 May 2016  12:22 am                     Operator: XULIU
Sample    : JC20184-3                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:11 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104993.D\FID1A.CH          Vial: 27
Acq On    : 17 May 2016  12:51 am                     Operator: XULIU
Sample    : JC20184-4                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104993.D\FID2B.CH          Vial: 27
Acq On    : 17 May 2016   1:12 am                     Operator: XULIU
Sample    : JC20184-4                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:13 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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           5.60   5.48    386905   274014 5056.653  1664.989 #
 Spiked Amount   5000.000                  Recovery     =  101.13%    33.30%

Target Compounds
```

9.1.4

9

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH104993.D  MGH5269.M      Tue May 17 09:17:59 2016      GCGH
```


SGS ACCUTEST JC20184

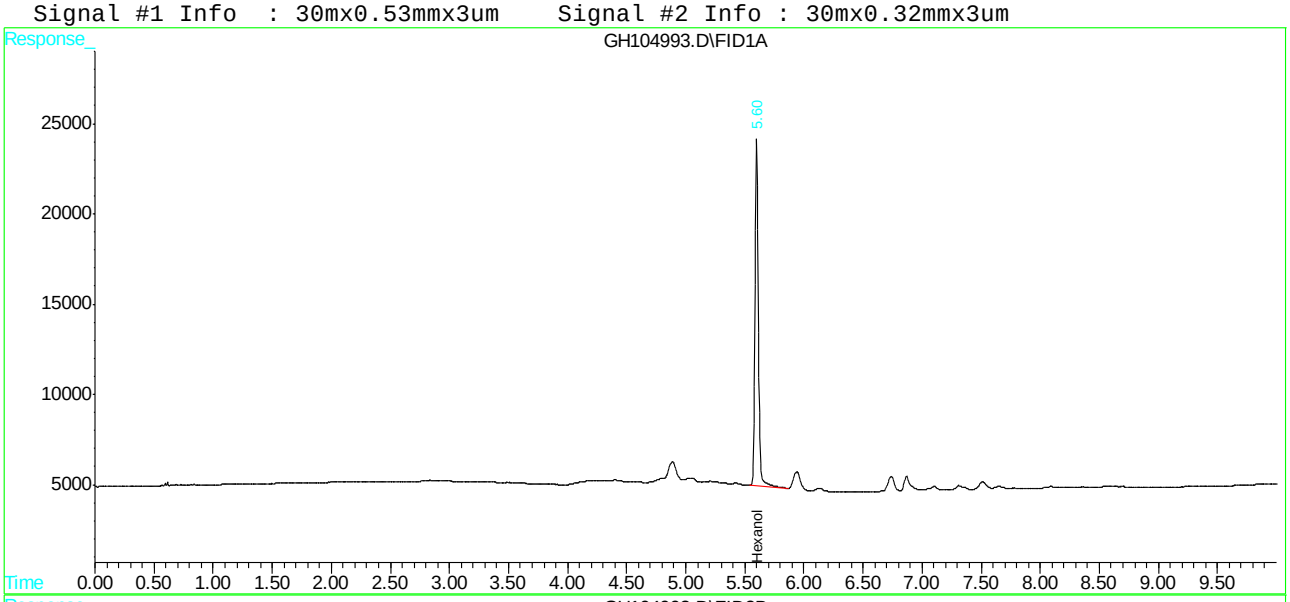
Quantitation Report (QT Reviewed)

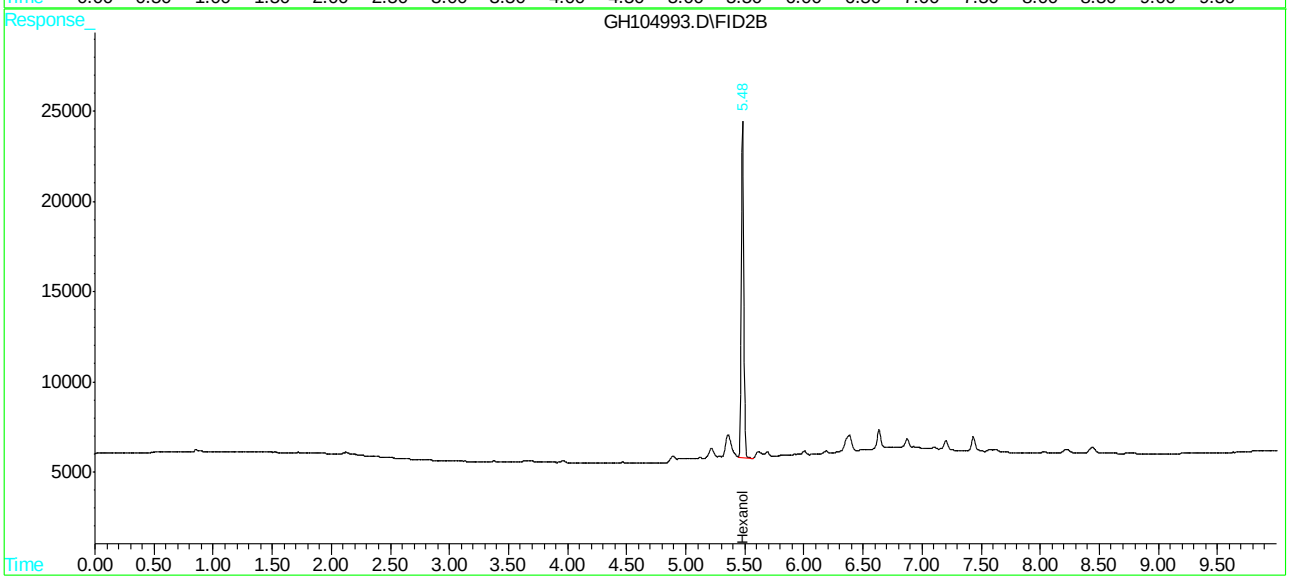
```
Data File : C:\HPCHEM\1\DATA\GH104993.D\FID1A.CH          Vial: 27
Acq On    : 17 May 2016  12:51 am                     Operator: XULIU
Sample    : JC20184-4                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104993.D\FID2B.CH          Vial: 27
Acq On    : 17 May 2016   1:12 am                     Operator: XULIU
Sample    : JC20184-4                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:13 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104994.D\FID1A.CH          Vial: 28
Acq On    : 17 May 2016   1:12 am                     Operator: XULIU
Sample    : JC20184-5                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104994.D\FID2B.CH          Vial: 28
Acq On    : 17 May 2016   1:27 am                     Operator: XULIU
Sample    : JC20184-5                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:18 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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           5.60   5.48    392934   275333 5135.446  1673.005 #
 Spiked Amount   5000.000                  Recovery     =  102.71%    33.46%

Target Compounds
```

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH104994.D MGH5269.M Tue May 17 09:18:13 2016 GCGH

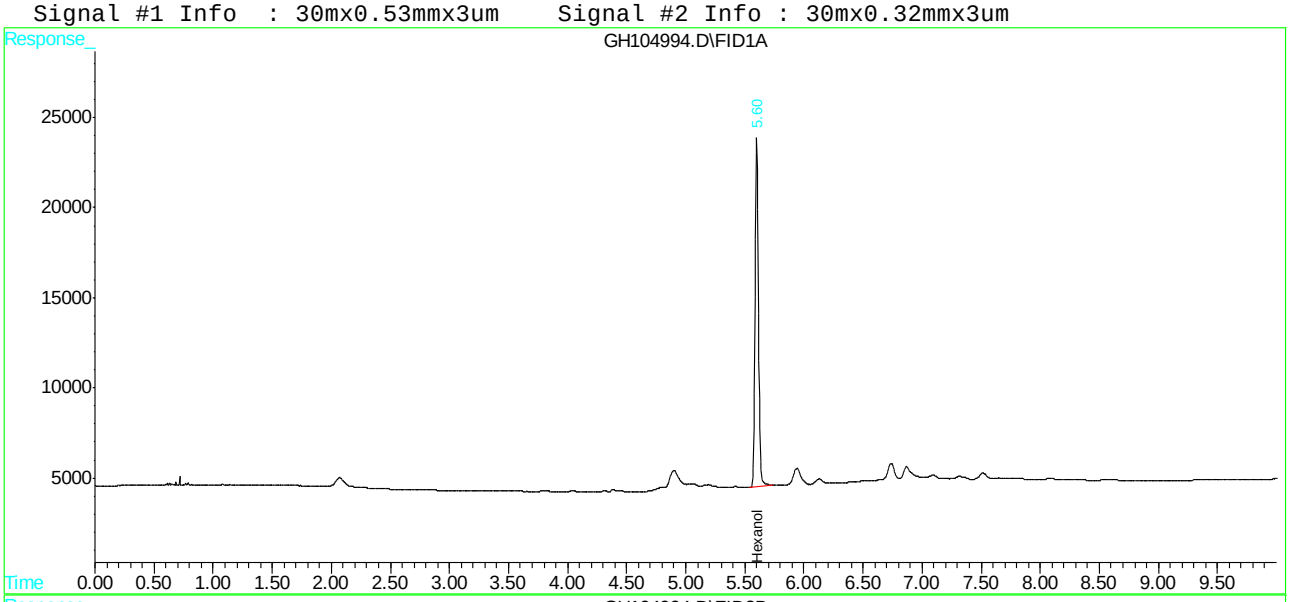
Quantitation Report (QT Reviewed)

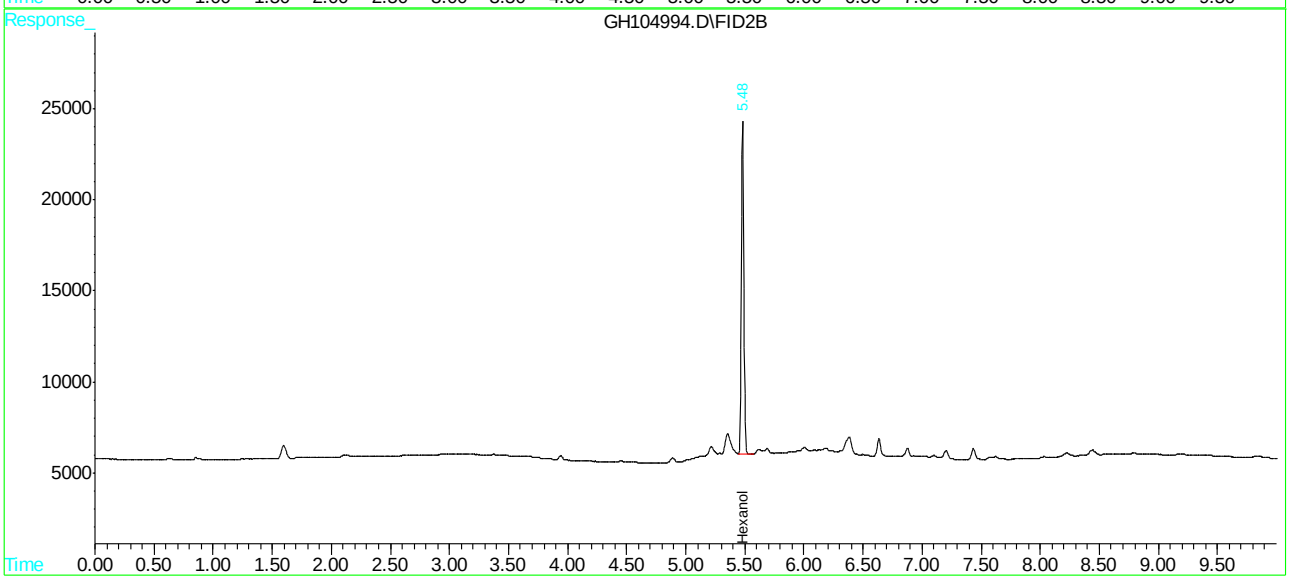
```
Data File : C:\HPCHEM\1\DATA\GH104994.D\FID1A.CH          Vial: 28
Acq On    : 17 May 2016   1:12 am                     Operator: XULIU
Sample    : JC20184-5                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104994.D\FID2B.CH          Vial: 28
Acq On    : 17 May 2016   1:27 am                     Operator: XULIU
Sample    : JC20184-5                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:18 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104995.D\FID1A.CH          Vial: 29
Acq On    : 17 May 2016   1:27 am                     Operator: XULIU
Sample    : JC20184-6                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104995.D\FID2B.CH          Vial: 29
Acq On    : 17 May 2016   1:41 am                     Operator: XULIU
Sample    : JC20184-6                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:13 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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           5.60   5.48    387460   257365 5063.905  1563.829 #
 Spiked Amount   5000.000                  Recovery     =  101.28%    31.28%

Target Compounds
```

9.1.6

9

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH104995.D  MGH5269.M      Tue May 17 09:18:26 2016      GCGH
```

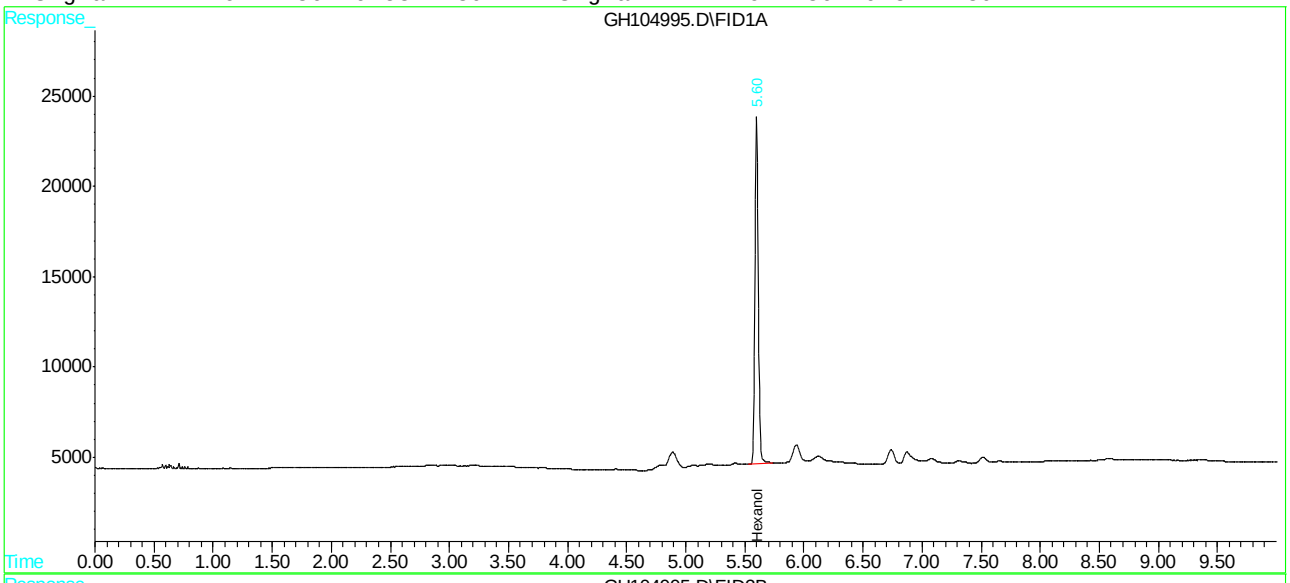
Quantitation Report (QT Reviewed)

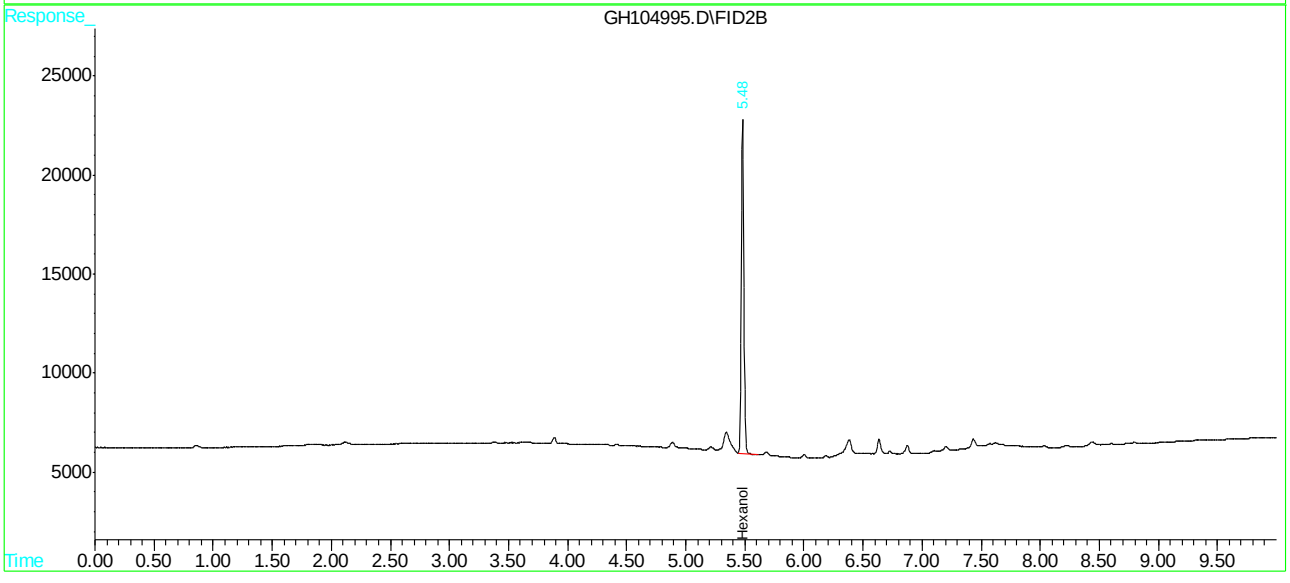
```
Data File : C:\HPCHEM\1\DATA\GH104995.D\FID1A.CH          Vial: 29
Acq On    : 17 May 2016   1:27 am                     Operator: XULIU
Sample    : JC20184-6                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104995.D\FID2B.CH          Vial: 29
Acq On    : 17 May 2016   1:41 am                     Operator: XULIU
Sample    : JC20184-6                                 Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:13 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104988.D\FID1A.CH          Vial: 91
Acq On    : 16 May 2016  11:31 pm                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104988.D\FID2B.CH          Vial: 91
Acq On    : 16 May 2016  11:46 pm                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:11 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.48	359010	266100	4692.087	1616.903 #
Spiked Amount 5000.000			Recovery	=	93.84%	32.34%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH104988.D MGH5269.M Tue May 17 09:16:05 2016 GCGH

SGS ACCUTEST JC20184

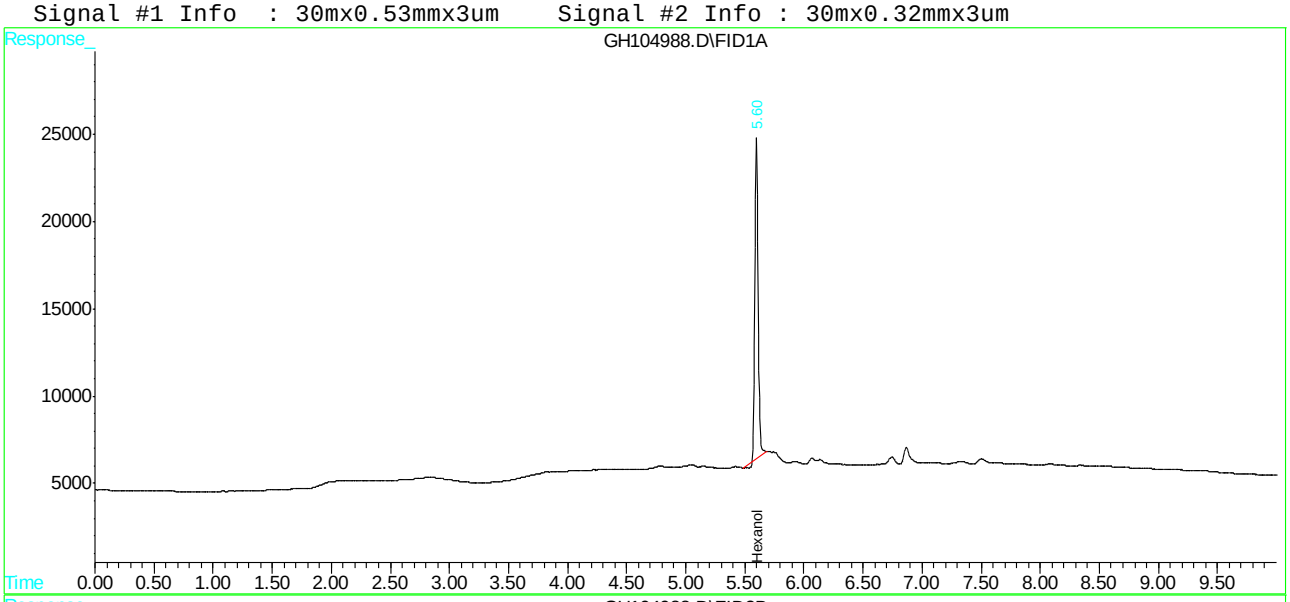
Quantitation Report (QT Reviewed)

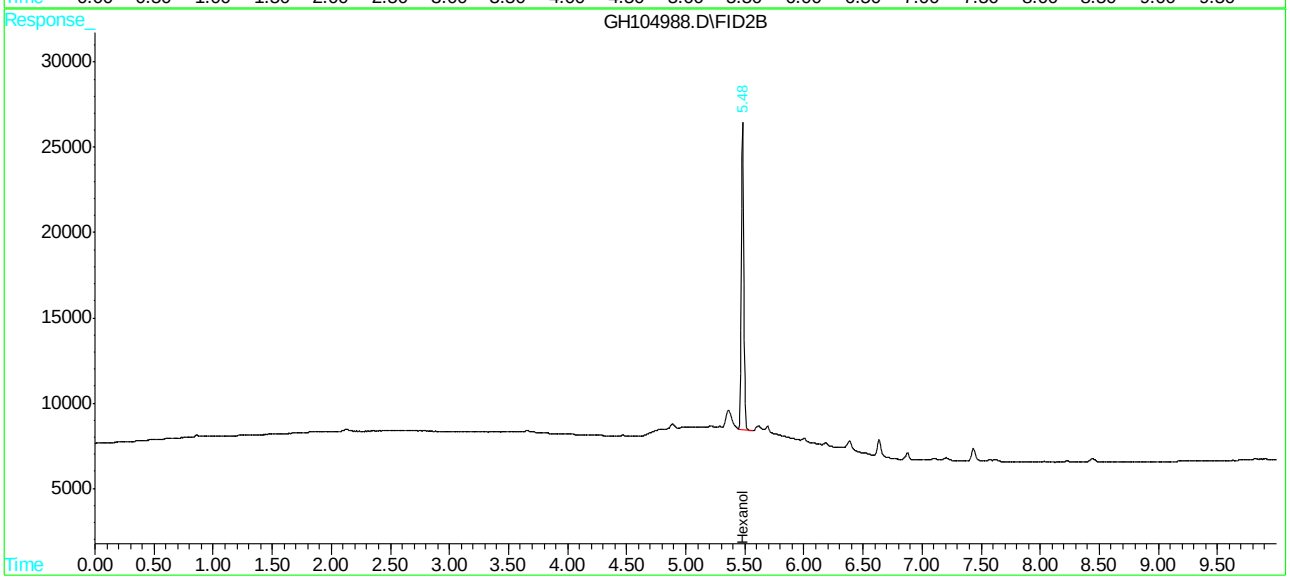
```
Data File : C:\HPCHEM\1\DATA\GH104988.D\FID1A.CH          Vial: 91
Acq On    : 16 May 2016  11:31 pm                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104988.D\FID2B.CH          Vial: 91
Acq On    : 16 May 2016  11:46 pm                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:11 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104989.D\FID1A.CH          Vial: 92
Acq On    : 16 May 2016  11:46 pm                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104989.D\FID2B.CH          Vial: 92
Acq On    : 17 May 2016  12:07 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:11 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.48	435010	301376	5685.362	1831.249	#
Spiked Amount	5000.000			Recovery	=	113.71%	36.62%	
	Target Compounds							
1)	Methanol	1.15	0.86	74402	58255	5037.745	2865.645	#
2)	Ethanol	1.49	1.11	106677	72147	5700.871	2270.610	#
3)	Tert-Butyl Alcoh	2.07	1.60	157891	118448	5782.834	1814.097	#
4)	1-Propanol	2.56	1.94f	138496	93610	6214.089	1899.922	#
5)	2-Propanol	1.80	1.36f	112509	80729	5422.080	1931.018	#
6)	Isobutanol	3.36	2.89	175221	109539	6374.801	1765.734	#
7)	1-Butanol	3.80	3.38	153567	104615	6271.482	2020.884	#
8)	2-Butanol	2.99	2.51f	142151	97520	5641.271	1973.520	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC20184

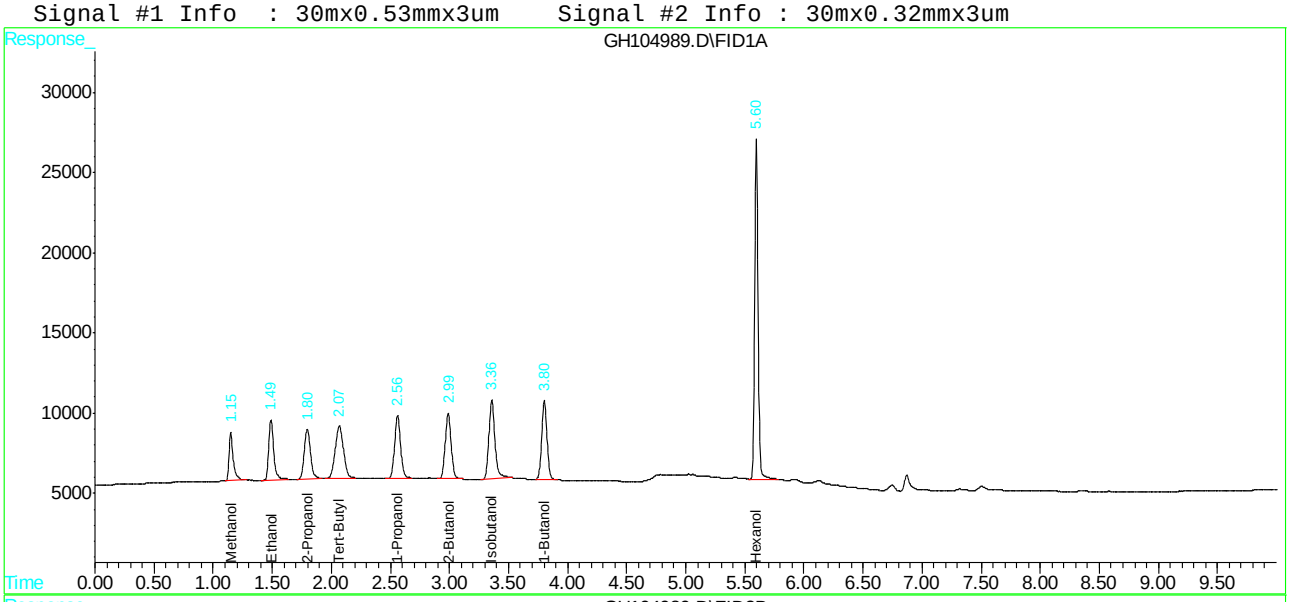
Quantitation Report (QT Reviewed)

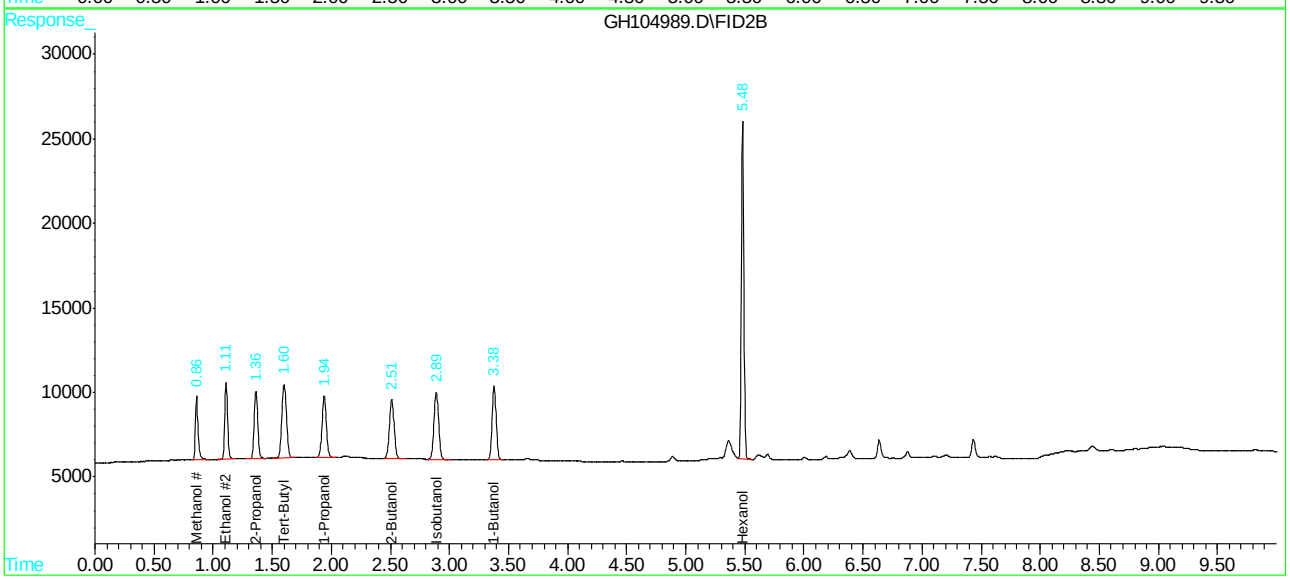
```
Data File : C:\HPCHEM\1\DATA\GH104989.D\FID1A.CH          Vial: 92
Acq On    : 16 May 2016  11:46 pm                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104989.D\FID2B.CH          Vial: 92
Acq On    : 17 May 2016  12:07 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:11 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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 JC20184

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH104991.D\FID1A.CH          Vial: 25
Acq On    : 17 May 2016  12:22 am                     Operator: XULIU
Sample    : JC20184-3MS                               Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104991.D\FID2B.CH          Vial: 25
Acq On    : 17 May 2016  12:36 am                     Operator: XULIU
Sample    : JC20184-3MS                               Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:12 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.48	322529	220855	4215.290	1341.983	#
Spiked Amount	5000.000			Recovery	=	84.31%	26.84%	
	Target Compounds							
1)	Methanol	1.15	0.86	65501	56583	4435.009	2783.383	
2)	Ethanol	1.49	1.11	110854	68685	5924.098	2161.654	#
3)	Tert-Butyl Alcoh	2.07	1.60	149970	112664	5492.723	1725.503	#
4)	1-Propanol	2.56	1.94f	134624	88203	6040.366	1790.176	#
5)	2-Propanol	1.80	1.36f	107746	76317	5192.523	1825.482	#
6)	Isobutanol	3.36	2.89	159931	101298	5818.508	1632.893	#
7)	1-Butanol	3.80	3.38	150090	115450	6129.471	2230.190	#
8)	2-Butanol	2.99	2.51f	139835	92094	5549.366	1863.710	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

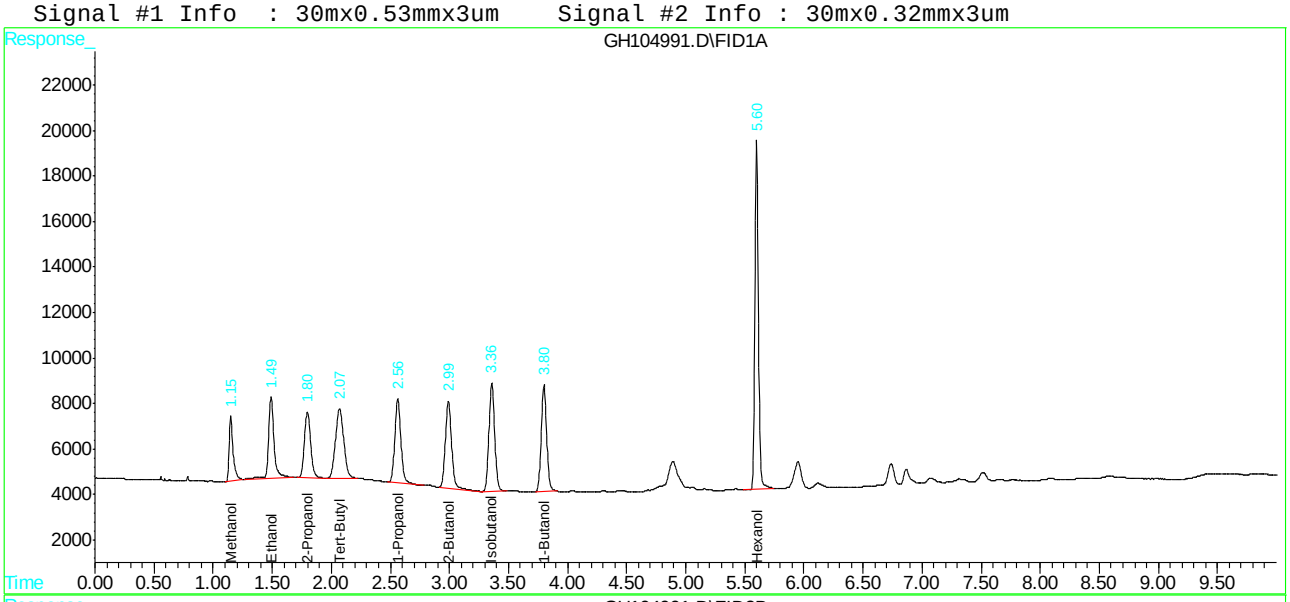
Quantitation Report (QT Reviewed)

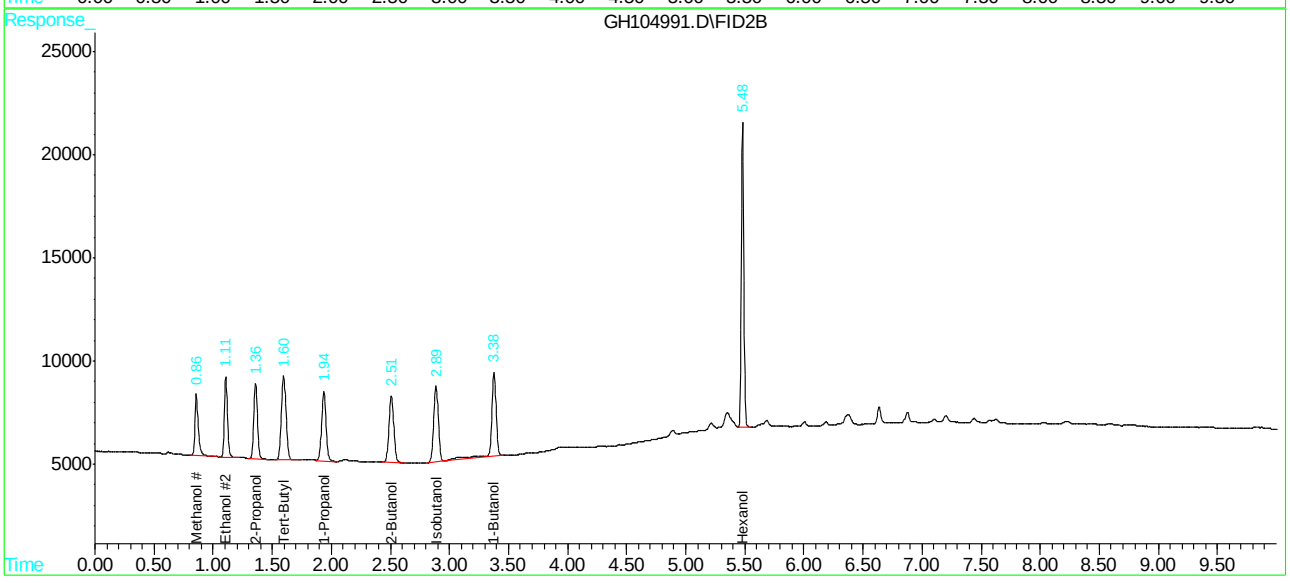
```
Data File : C:\HPCHEM\1\DATA\GH104991.D\FID1A.CH          Vial: 25
Acq On    : 17 May 2016  12:22 am                     Operator: XULIU
Sample    : JC20184-3MS                               Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104991.D\FID2B.CH          Vial: 25
Acq On    : 17 May 2016  12:36 am                     Operator: XULIU
Sample    : JC20184-3MS                               Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:12 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104992.D\FID1A.CH          Vial: 26
Acq On    : 17 May 2016  12:36 am                     Operator: XULIU
Sample    : JC20184-3MSD                              Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104992.D\FID2B.CH          Vial: 26
Acq On    : 17 May 2016  12:51 am                     Operator: XULIU
Sample    : JC20184-3MSD                              Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:12 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.48	348108	246842	4549.601	1499.887	#
Spiked Amount	5000.000			Recovery	=	90.99%	30.00%	
	Target Compounds							
1)	Methanol	1.15	0.86	75053	58569	5081.799	2881.068	#
2)	Ethanol	1.49	1.11	106517	71579	5692.364	2252.737	#
3)	Tert-Butyl Alcoh	2.07	1.60	155997	117914	5713.481	1805.917	#
4)	1-Propanol	2.56	1.94f	137430	95056	6166.268	1929.268	#
5)	2-Propanol	1.80	1.36f	110482	80252	5324.391	1919.622	#
6)	Isobutanol	3.36	2.89	168420	109294	6127.363	1761.794	#
7)	1-Butanol	3.80	3.38	151863	103917	6201.905	2007.399	#
8)	2-Butanol	2.99	2.51f	141346	97137	5609.316	1965.766	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC20184

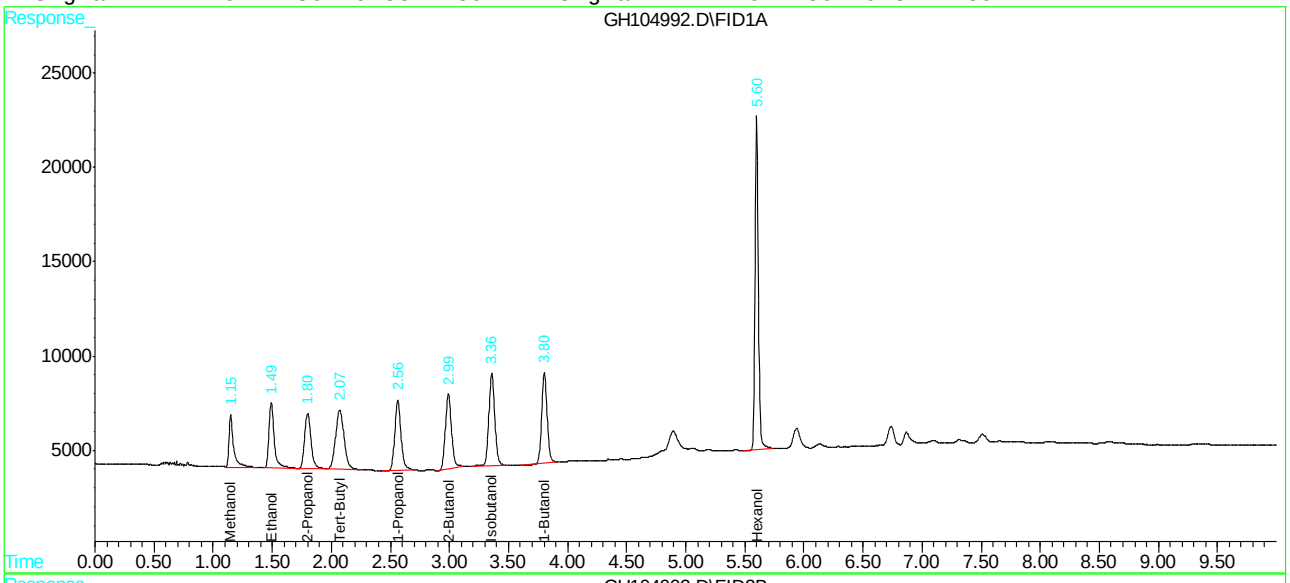
Quantitation Report (QT Reviewed)

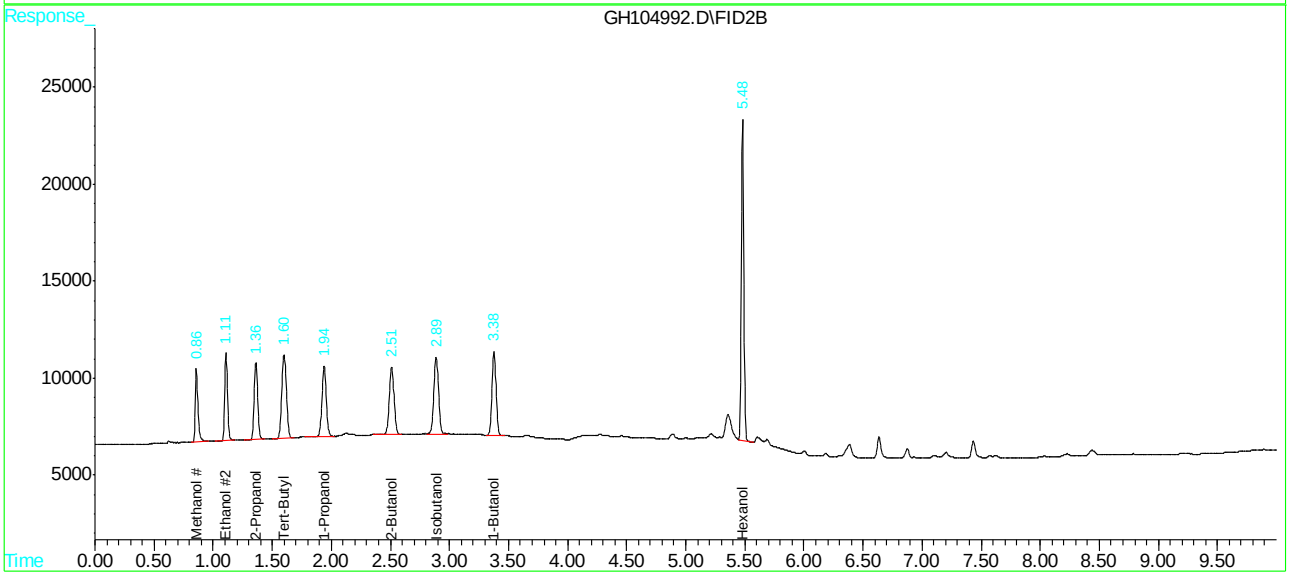
```
Data File : C:\HPCHEM\1\DATA\GH104992.D\FID1A.CH          Vial: 26
Acq On    : 17 May 2016  12:36 am                     Operator: XULIU
Sample    : JC20184-3MSD                              Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104992.D\FID2B.CH          Vial: 26
Acq On    : 17 May 2016  12:51 am                     Operator: XULIU
Sample    : JC20184-3MSD                              Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:12 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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
05/10/16 12:49

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH104674.D\FID1A.CH          Vial: 2
Acq On    :  9 May 2016   1:28 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104674.D\FID2B.CH          Vial: 2
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 10:29 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 09:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.61	5.44	49985	112111	653.275	663.209	
	Spiked Amount 5000.000			Recovery	=	13.07%	13.26%	
	Target Compounds							
1)	Methanol	1.15	0.88	1614	2383	109.284	94.588	
2)	Ethanol	1.50	1.13	1891	2911	101.049	88.894	
3)	Tert-Butyl Alcoh	2.08	1.62	2661	6282	97.471	106.692	
4)	1-Propanol	2.58f	1.96	1437	4687	56.648m	117.370	#
5)	2-Propanol	1.81	1.38	2379	4175	114.673	105.617	
6)	Isobutanol	3.38	2.91	2339	6882	85.109	109.048	
7)	1-Butanol	3.84	3.38	2288	5438	87.938m	102.310	
8)	2-Butanol	3.00	2.53	2251	4806	89.595	104.191	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC20184

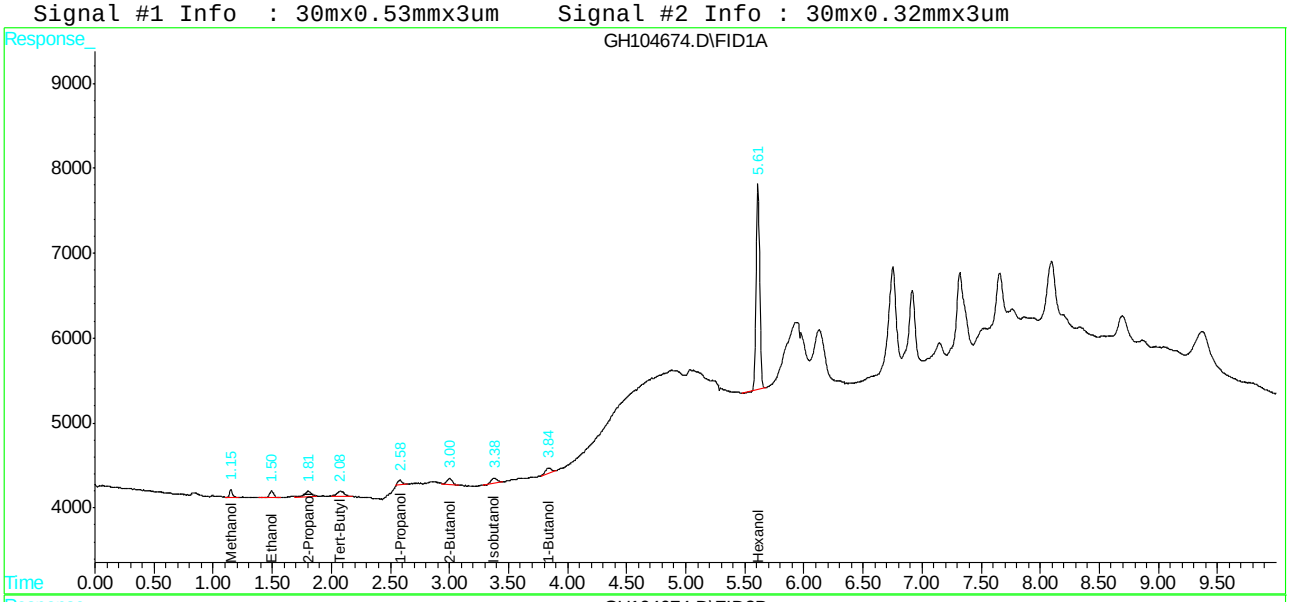
Quantitation Report (QT Reviewed)

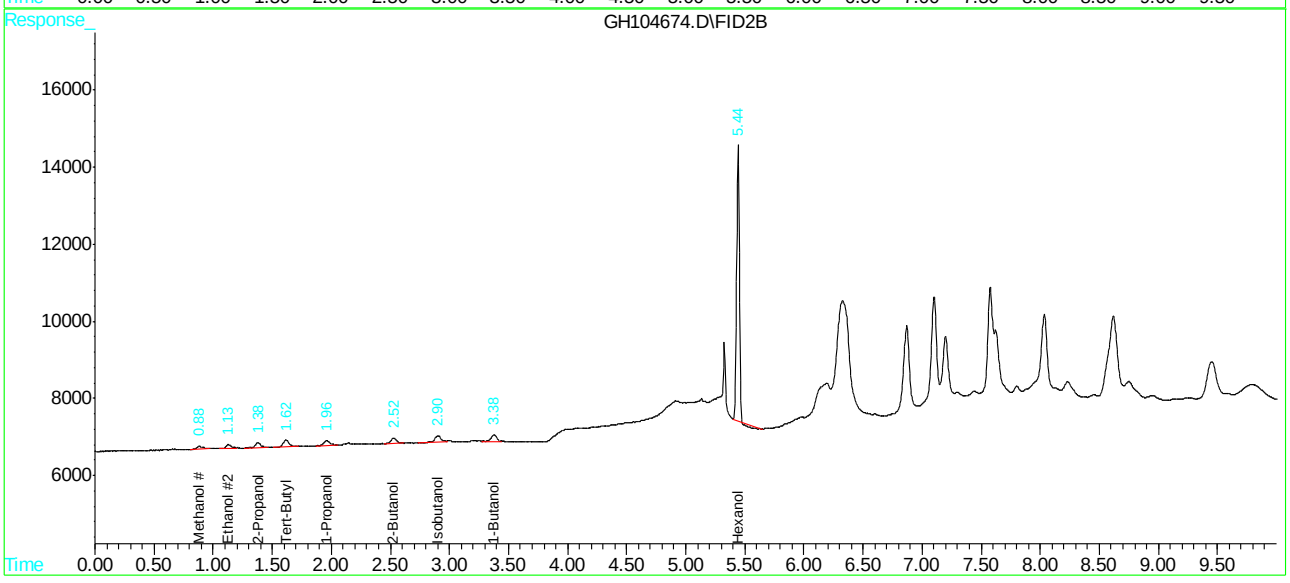
```
Data File : C:\HPCHEM\1\DATA\GH104674.D\FID1A.CH          Vial: 2
Acq On    :  9 May 2016   1:28 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104674.D\FID2B.CH          Vial: 2
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 10:29 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 09:30:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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:	GGH5269-IC5269	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH104674.D	**Analyst approved:**	05/10/16 10:51 Xu Liu
Injection Time:	05/09/16 13:28	**Supervisor approved:**	05/10/16 12:49 Owen McKenna

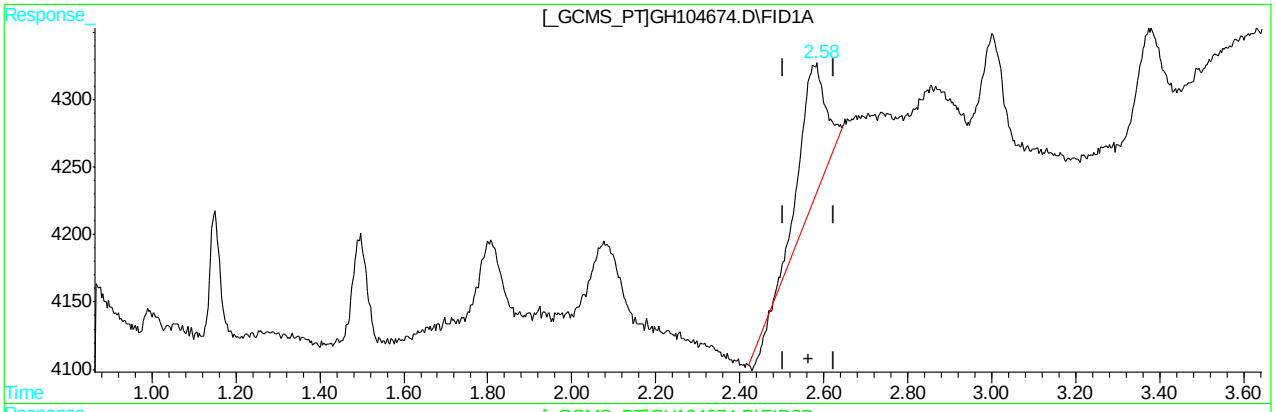
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Propyl Alcohol	71-23-8	1	2.58	Poor instrument integration
n-Butyl Alcohol	71-36-3	1	3.84	Poor instrument integration

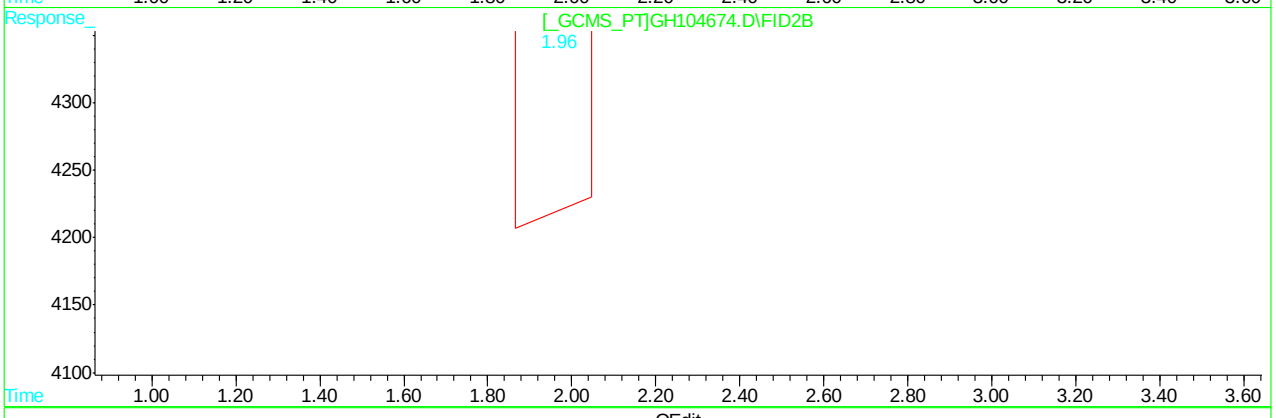
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH104674.D\FID1A.CH          Vial: 2
Acq On    :  9 May 2016   1:28 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104674.D\FID2B.CH          Vial: 2
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10  9:41 2016  Quant Results File: MGH5269.RES


Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:22:20 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

2.58min 150.557PPB

response 3820

(4) 1-Propanol #2

1.96min 117.370PPB

response 4687

(+) = Expected Retention Time

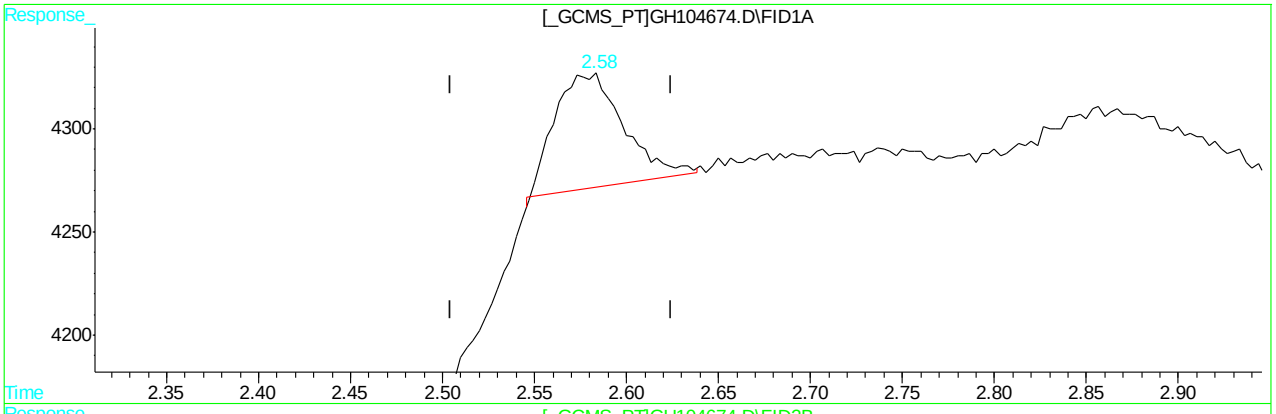
GH104674.D MGH5269.M Tue May 10 10:24:42 2016 GCGH

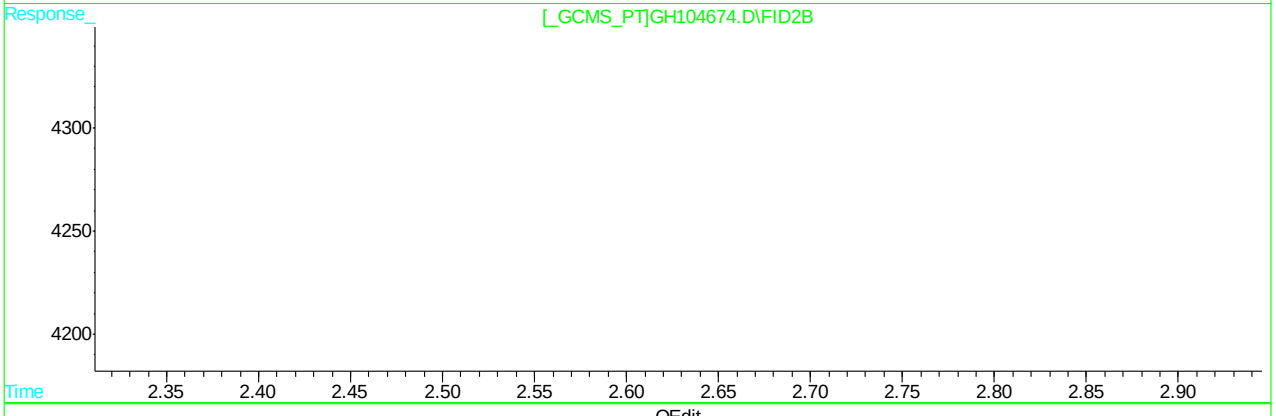
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH104674.D\FID1A.CH          Vial: 2
Acq On    :  9 May 2016   1:28 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104674.D\FID2B.CH          Vial: 2
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10  9:41 2016  Quant Results File: MGH5269.RES


Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:22:20 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

2.58min 56.648PPB m

response 1437

(4) 1-Propanol #2

1.96min 117.370PPB

response 4687

(+) = Expected Retention Time

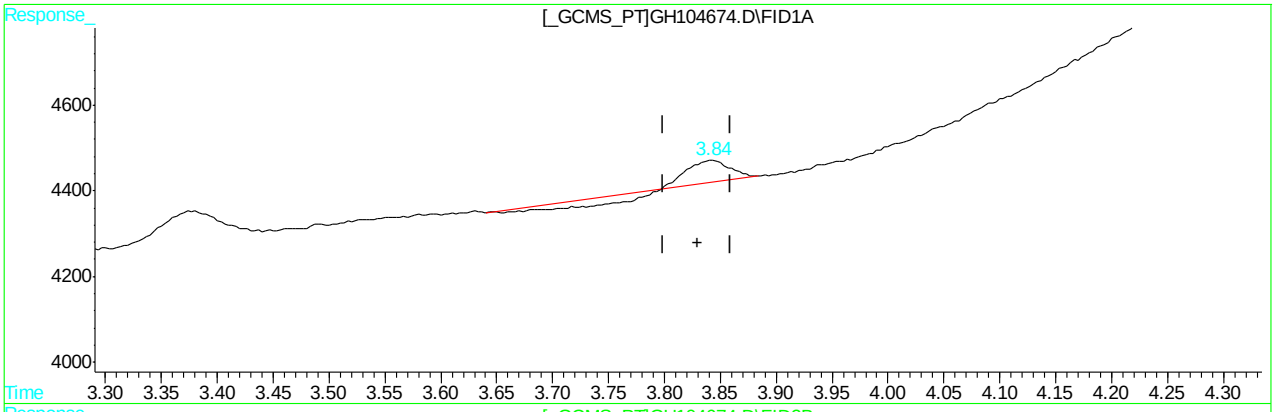
GH104674.D MGH5269.M Tue May 10 10:26:13 2016 GCGH

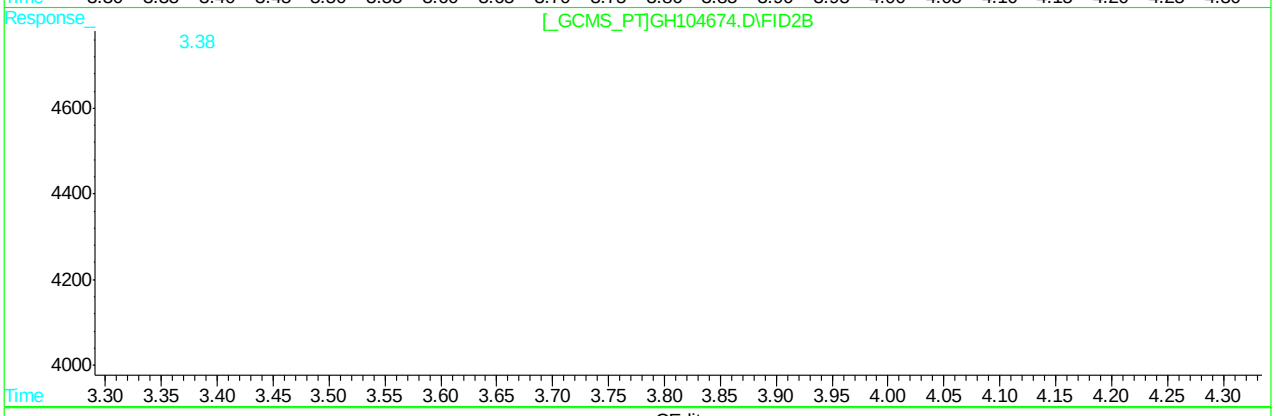
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH104674.D\FID1A.CH          Vial: 2
Acq On    :  9 May 2016   1:28 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104674.D\FID2B.CH          Vial: 2
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 10:25 2016  Quant Results File: MGH5269.RES


Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:27:58 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

3.84min 11.608PPB

response 302

(7) 1-Butanol #2

3.38min 102.310PPB

response 5438

(+) = Expected Retention Time

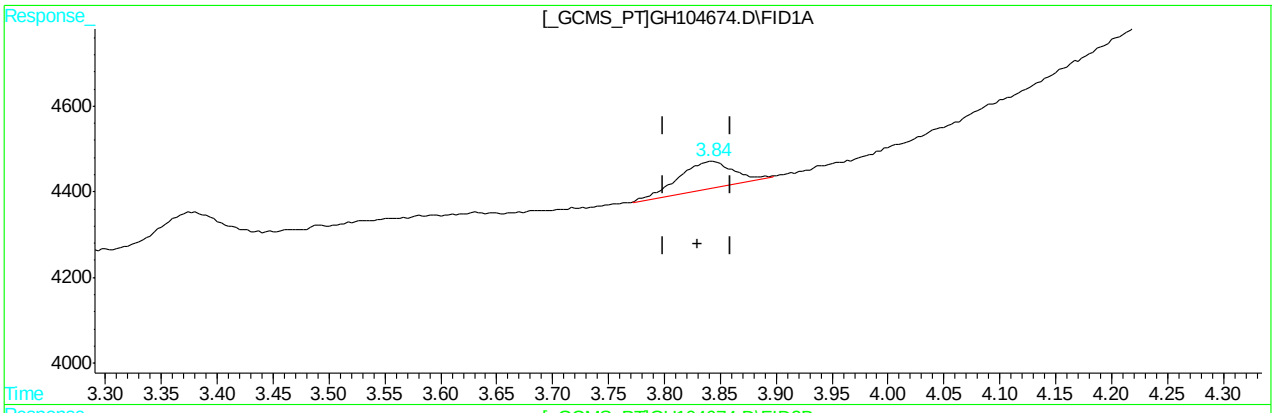
GH104674.D MGH5269.M Tue May 10 10:28:49 2016 GCGH

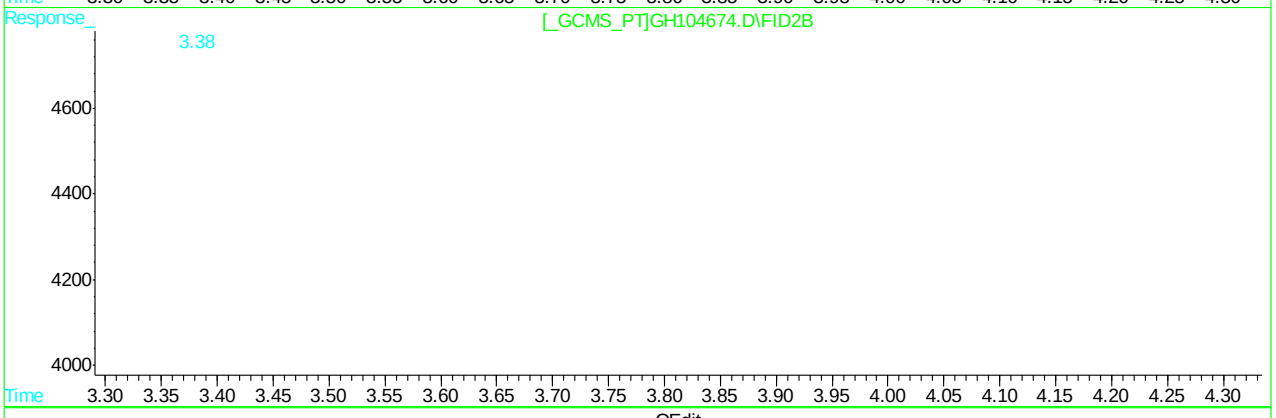
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH104674.D\FID1A.CH          Vial: 2
Acq On    :  9 May 2016   1:28 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104674.D\FID2B.CH          Vial: 2
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-100                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 10:25 2016  Quant Results File: MGH5269.RES


Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:27:58 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

3.84min 87.938PPB m

response 2288

(7) 1-Butanol #2

3.38min 102.310PPB

response 5438

(+) = Expected Retention Time

GH104674.D MGH5269.M Tue May 10 10:29:46 2016 GCGH

Manual Integrations APPROVED (compounds with "m" flag)
Owen McKenna
05/10/16 12:49

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH104675.D\FID1A.CH          Vial: 3
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104675.D\FID2B.CH          Vial: 3
Acq On    :  9 May 2016   2:04 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 11:06 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 09:54:33 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.61	5.45	155641	338544	2034.146	2002.705
Spiked Amount	5000.000			Recovery	=	40.68%	40.05%
	Target Compounds						
1)	Methanol	1.14	0.95f	7966	6439	539.359	255.524m#
2)	Ethanol	1.49	1.15	9431	14087	503.977	430.233
3)	Tert-Butyl Alcoh	2.08	1.62f	14207	34168	520.325	580.335
4)	1-Propanol	2.57	1.98	12300	20457	484.805	512.230
5)	2-Propanol	1.80	1.39	10136	22758	488.484	575.762
6)	Isobutanol	3.37	2.91	15489	46800	563.522	741.552
7)	1-Butanol	3.83	3.39	8724	27492	335.300	517.205 #
8)	2-Butanol	3.00	2.53	12319	22672	490.327	491.547

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC20184

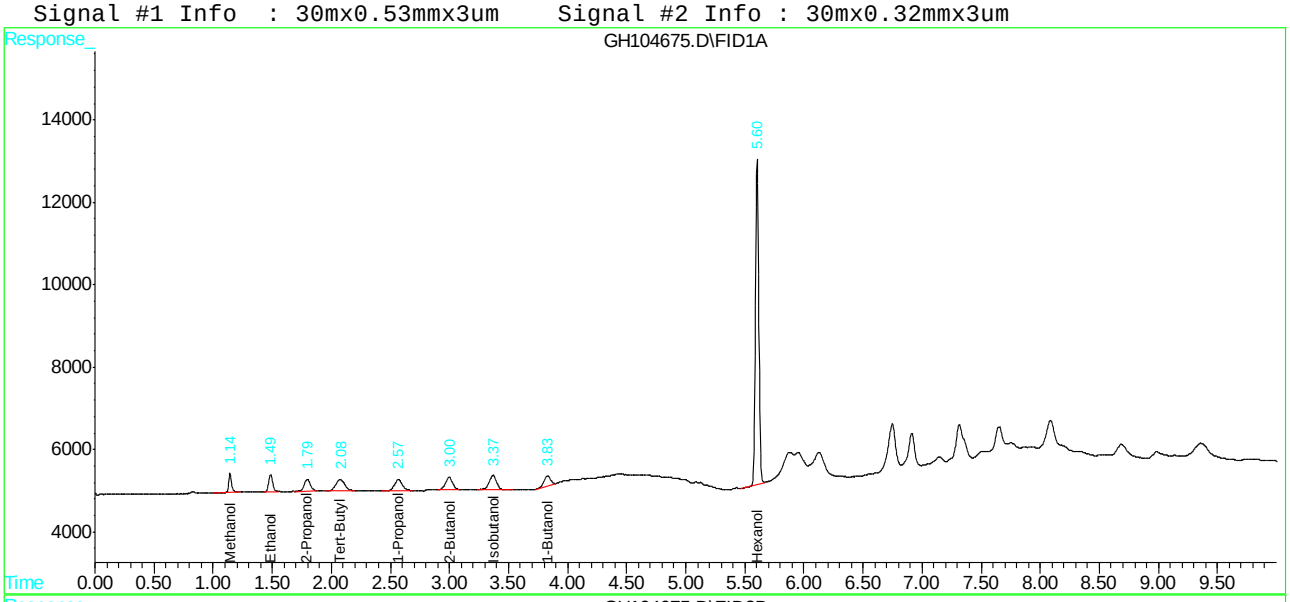
Quantitation Report (QT Reviewed)

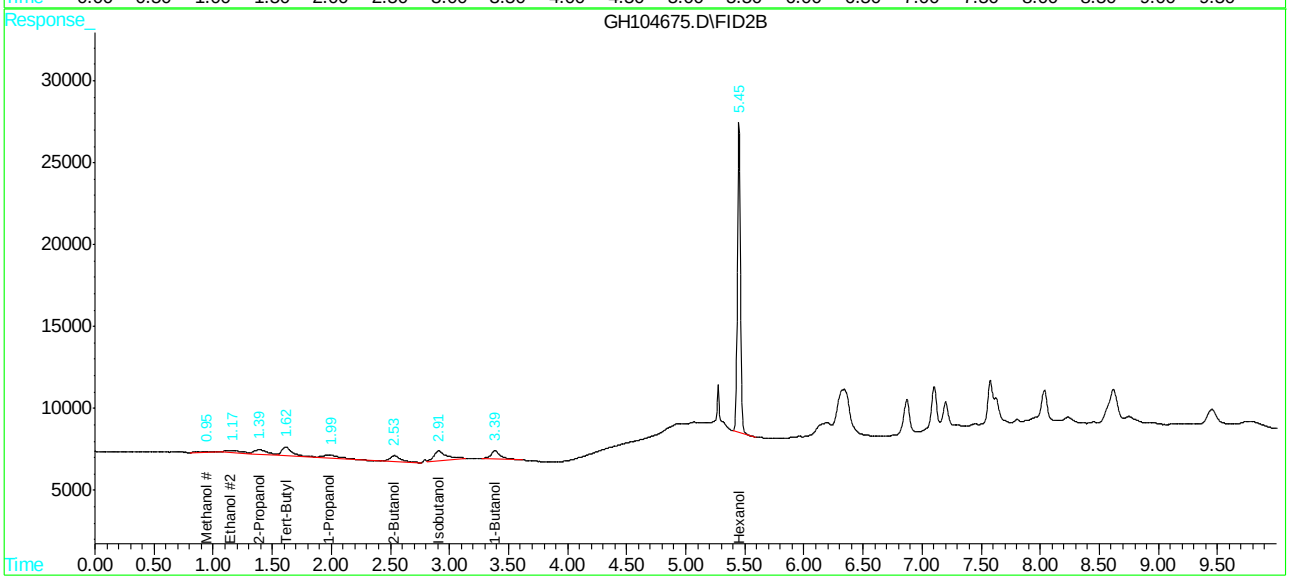
```
Data File : C:\HPCHEM\1\DATA\GH104675.D\FID1A.CH          Vial: 3
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104675.D\FID2B.CH          Vial: 3
Acq On    :  9 May 2016   2:04 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 11:06 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 09:54:33 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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:	GGH5269-IC5269	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH104675.D	**Analyst approved:**	05/10/16 11:09 Xu Liu
Injection Time:	05/09/16 13:49	**Supervisor approved:**	05/10/16 12:49 Owen McKenna

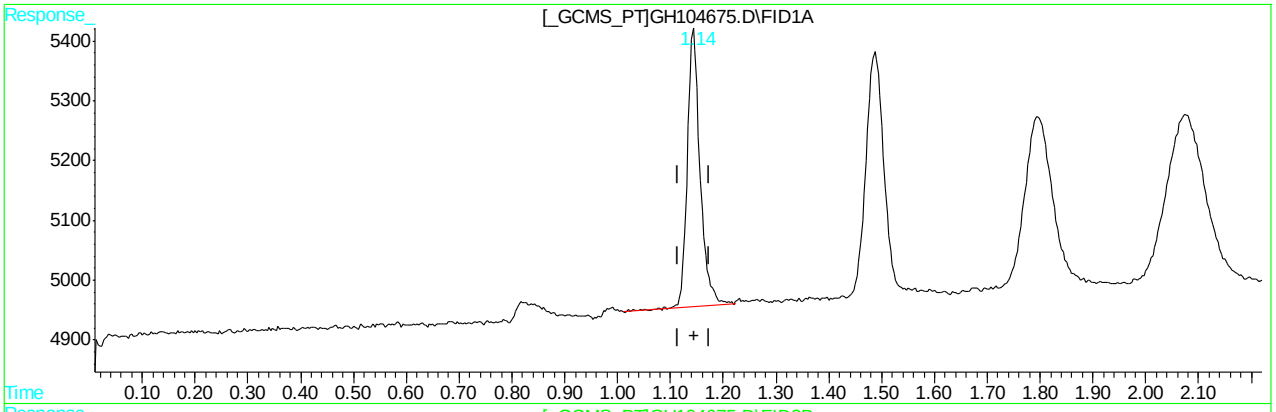
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	0.95	Missed peak

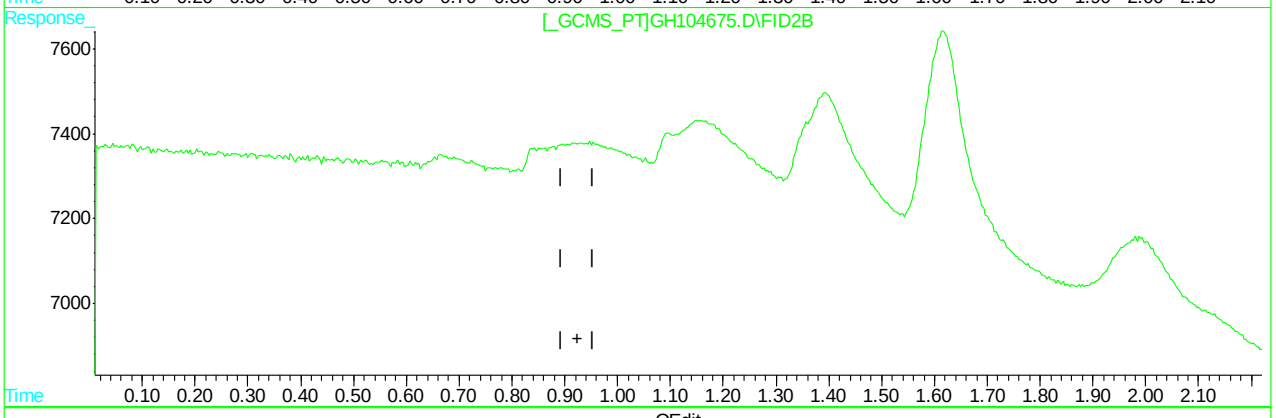
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH104675.D\FID1A.CH          Vial: 3
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104675.D\FID2B.CH          Vial: 3
Acq On    :  9 May 2016   2:04 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10  9:57 2016  Quant Results File: MGH5269.RES


Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:29:55 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.14min 539.359PPB

response 7966

(1) Methanol #2

0.00min 0.000PPB

response 0

(+) = Expected Retention Time

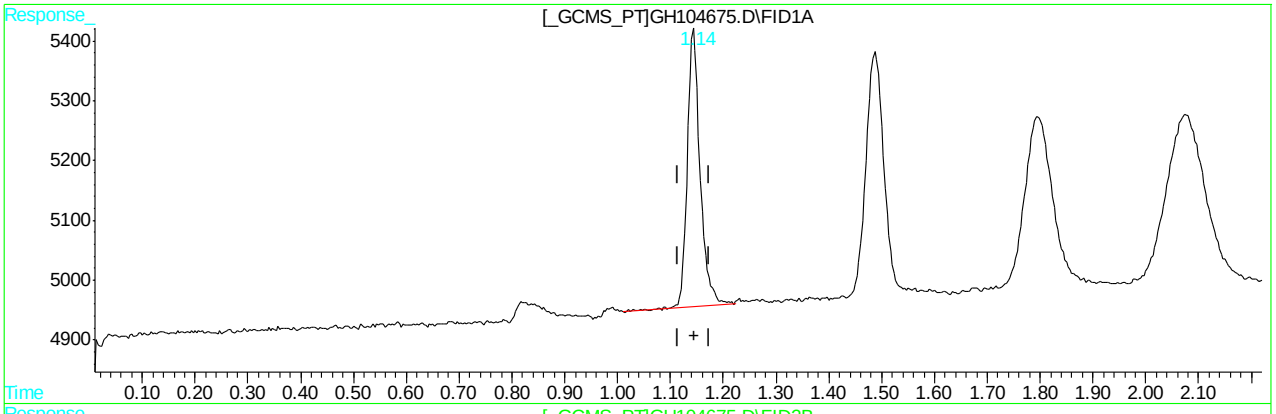
GH104675.D MGH5269.M Tue May 10 11:06:18 2016 GCGH

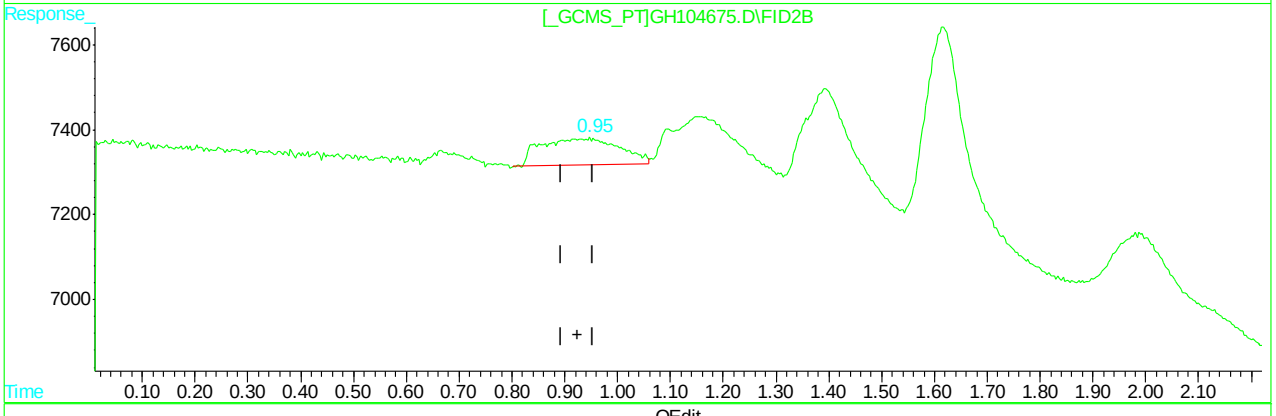
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH104675.D\FID1A.CH          Vial: 3
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104675.D\FID2B.CH          Vial: 3
Acq On    :  9 May 2016   2:04 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10  9:57 2016  Quant Results File: MGH5269.RES


Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:29:55 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.14min 539.359PPB

response 7966

(1) Methanol #2

0.95min 255.524PPB m

response 6439

(+) = Expected Retention Time

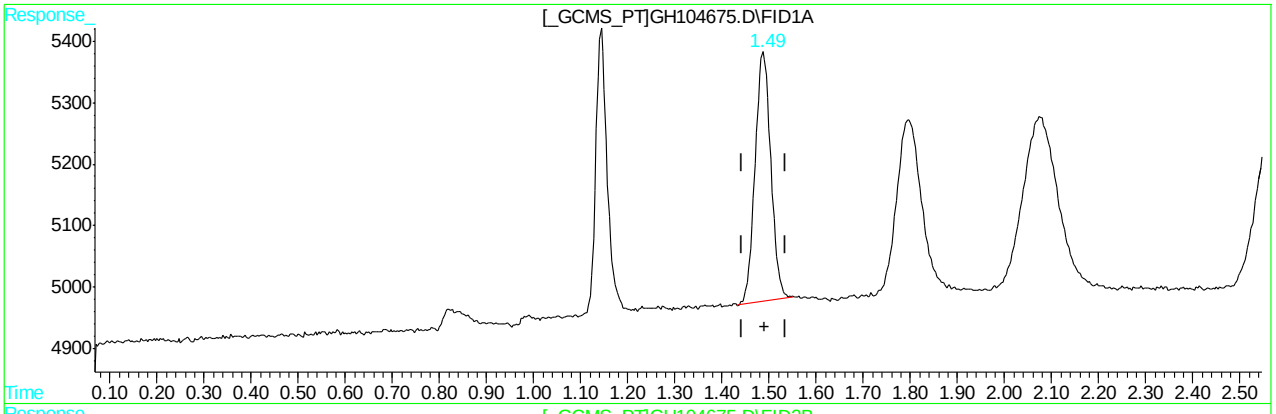
GH104675.D MGH5269.M Tue May 10 11:06:25 2016 GCGH

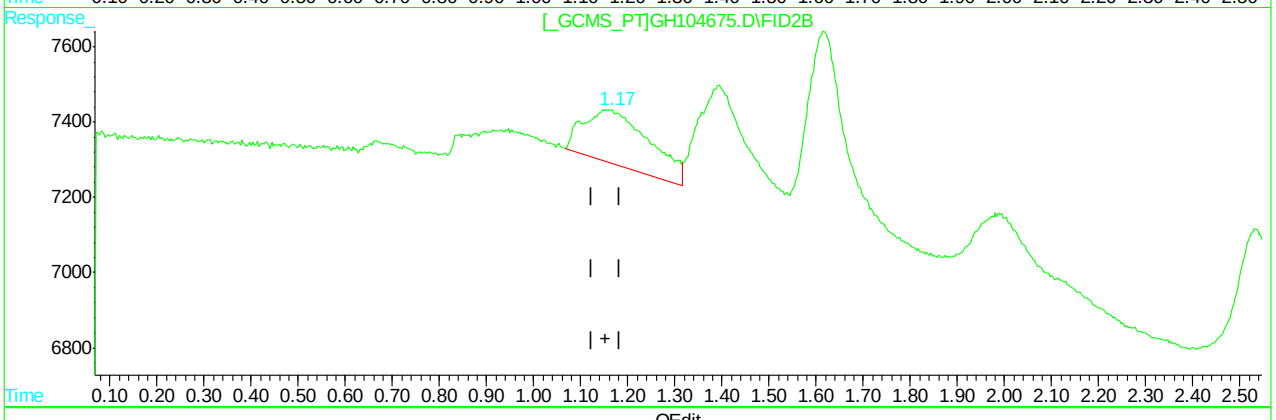
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH104675.D\FID1A.CH          Vial: 3
Acq On    :  9 May 2016   1:49 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104675.D\FID2B.CH          Vial: 3
Acq On    :  9 May 2016   2:04 pm                     Operator: XULIU
Sample    : IC5269-500                                Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 11:06 2016  Quant Results File: MGH5269.RES


Method       : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 11:06:41 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.49min 503.977PPB

response 9431

(2) Ethanol #2

1.15min 430.233PPB

response 14087

(+) = Expected Retention Time

GH104675.D MGH5269.M Tue May 10 11:24:42 2016 GCGH

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH104676.D\FID1A.CH          Vial: 4
Acq On    :  9 May 2016   2:04 pm                     Operator: XULIU
Sample    : IC5269-1000                               Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104676.D\FID2B.CH          Vial: 4
Acq On    :  9 May 2016   2:18 pm                     Operator: XULIU
Sample    : IC5269-1000                               Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10  9:58 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 09:57:36 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.44	303591	672843	3967.781	3980.295
	Spiked Amount 5000.000			Recovery	=	79.36%	79.61%
	Target Compounds						
1)	Methanol	1.15	0.90	15388	31657	1041.927	1256.339
2)	Ethanol	1.49	1.14	19273	41463	1029.941	1266.307
3)	Tert-Butyl Alcoh	2.07	1.62f	27422	61351	1004.338	1042.011
4)	1-Propanol	2.56	1.97	23966	39583	944.641	991.147
5)	2-Propanol	1.80	1.39	20074	44557	967.396	1127.272
6)	Isobutanol	3.37	2.91	28308	55331	1029.904	876.740
7)	1-Butanol	3.83	3.39	25885	57940	994.891	1090.021
8)	2-Butanol	3.00	2.53	31386	52105	1249.275	1129.682

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC20184

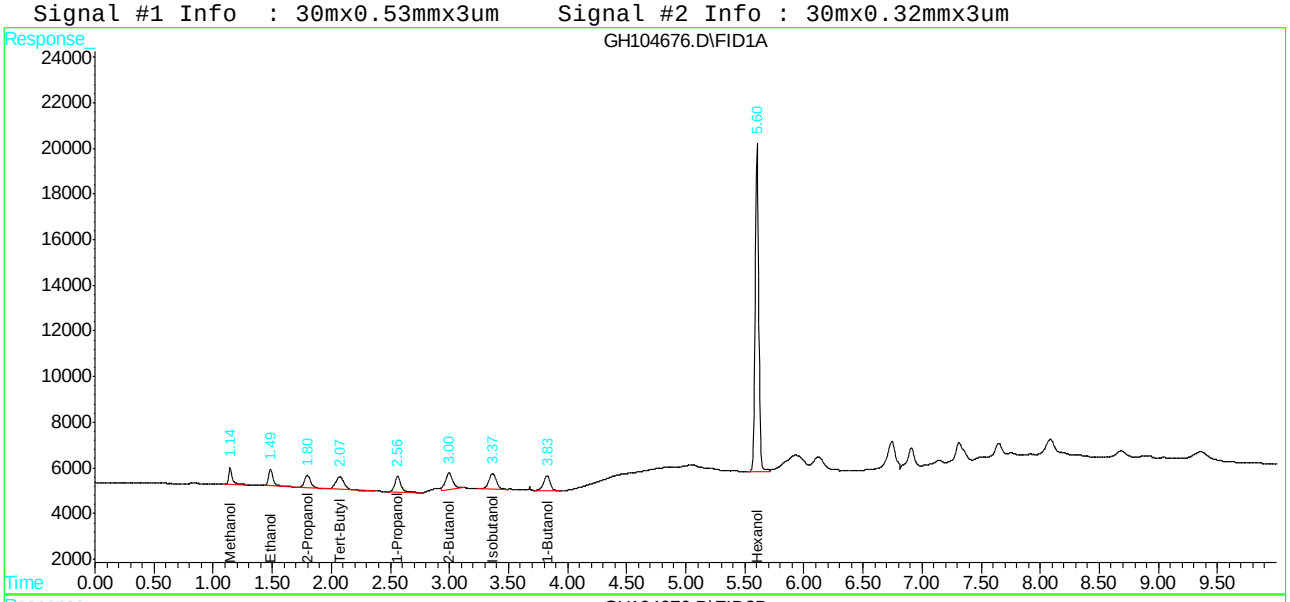
Quantitation Report (QT Reviewed)

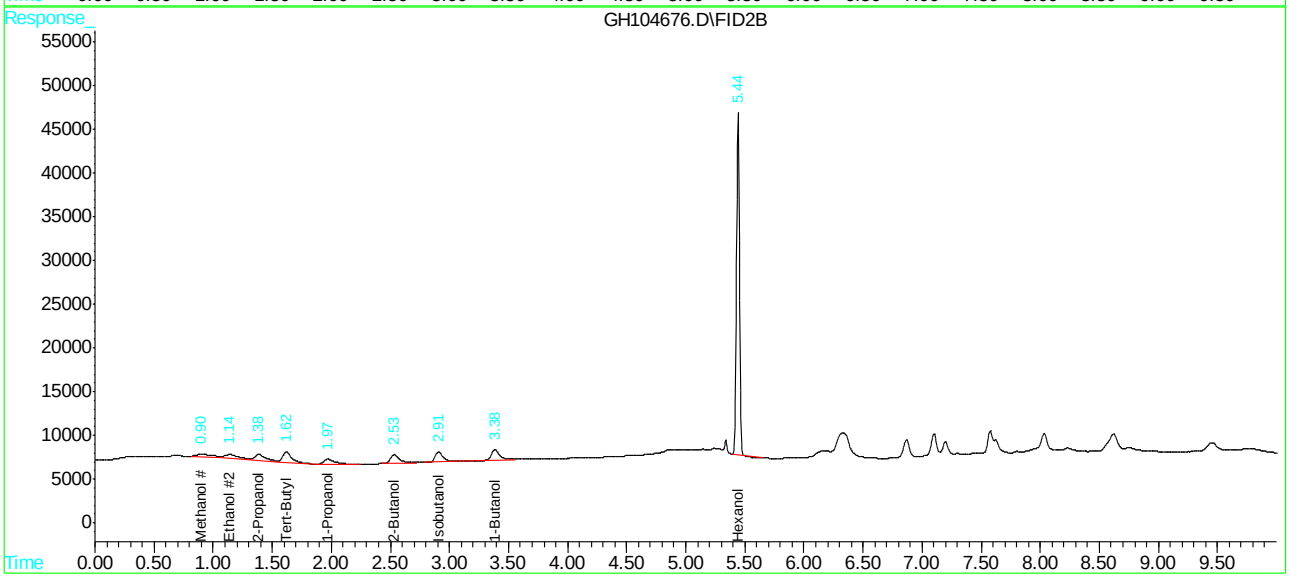
```
Data File : C:\HPCHEM\1\DATA\GH104676.D\FID1A.CH          Vial: 4
Acq On    :  9 May 2016   2:04 pm                     Operator: XULIU
Sample    : IC5269-1000                               Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104676.D\FID2B.CH          Vial: 4
Acq On    :  9 May 2016   2:18 pm                     Operator: XULIU
Sample    : IC5269-1000                               Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10  9:58 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 09:57:36 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104677.D\FID1A.CH Vial: 5
Acq On : 9 May 2016 2:18 pm Operator: XULIU
Sample : ICC5269-5000 Inst : GCGH
Misc : GC48342,GGH5269,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104677.D\FID2B.CH Vial: 5
Acq On : 9 May 2016 2:33 pm Operator: XULIU
Sample : ICC5269-5000 Inst : GCGH
Misc : GC48342,GGH5269,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 10 9:53 2016 Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue May 10 09:53:11 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.61	5.45	399452	852765	5220.642	5044.646	
Spiked Amount	5000.000			Recovery	=	104.41%	100.89%	
	Target Compounds							
1)	Methanol	1.14	0.93	69718	69126	4720.585	2743.319	#
2)	Ethanol	1.49	1.16	92298	170511	4932.446	5207.532	
3)	Tert-Butyl Alcoh	2.07	1.62	134234	405477	4916.384	6886.825	#
4)	1-Propanol	2.57	1.98	120620	384047	4754.340	9616.362	#
5)	2-Propanol	1.80	1.39	98162	234600	4730.664	5935.275	
6)	Isobutanol	3.37	2.90	142882	274685	5198.247	4352.446	
7)	1-Butanol	3.83	3.38	142943	256728	5494.115	4829.771	
8)	2-Butanol	3.00	2.53	125245	298157	4985.133	6464.358	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH104677.D MGH5269.M Tue May 10 10:16:59 2016 GCGH

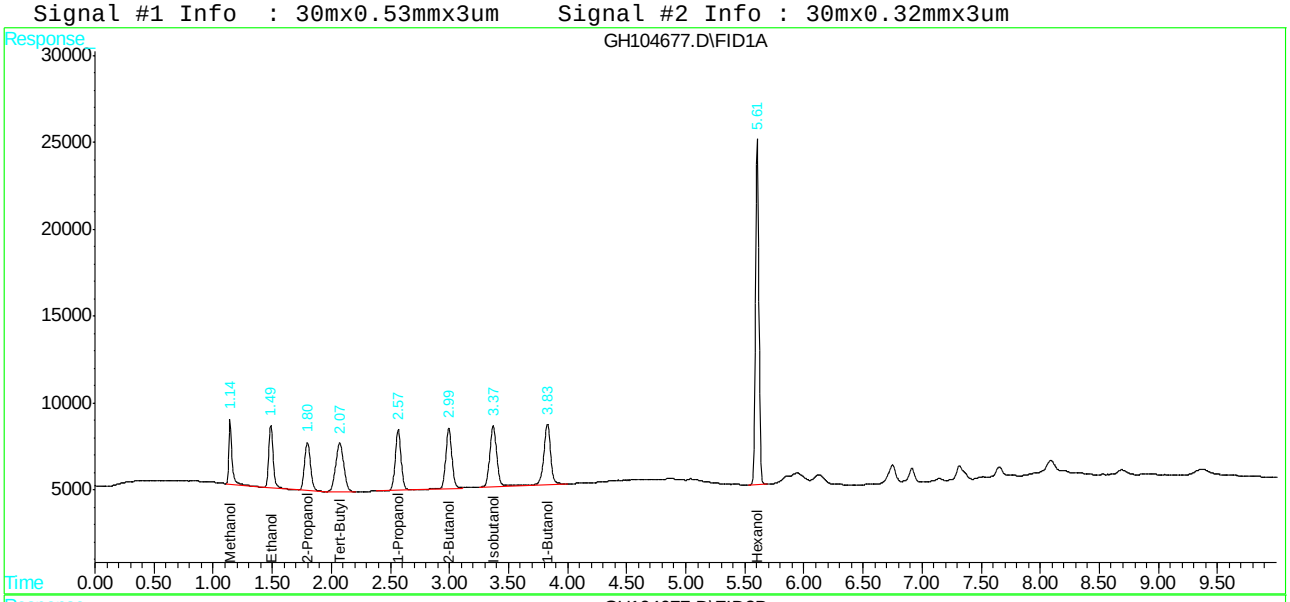
Quantitation Report (QT Reviewed)

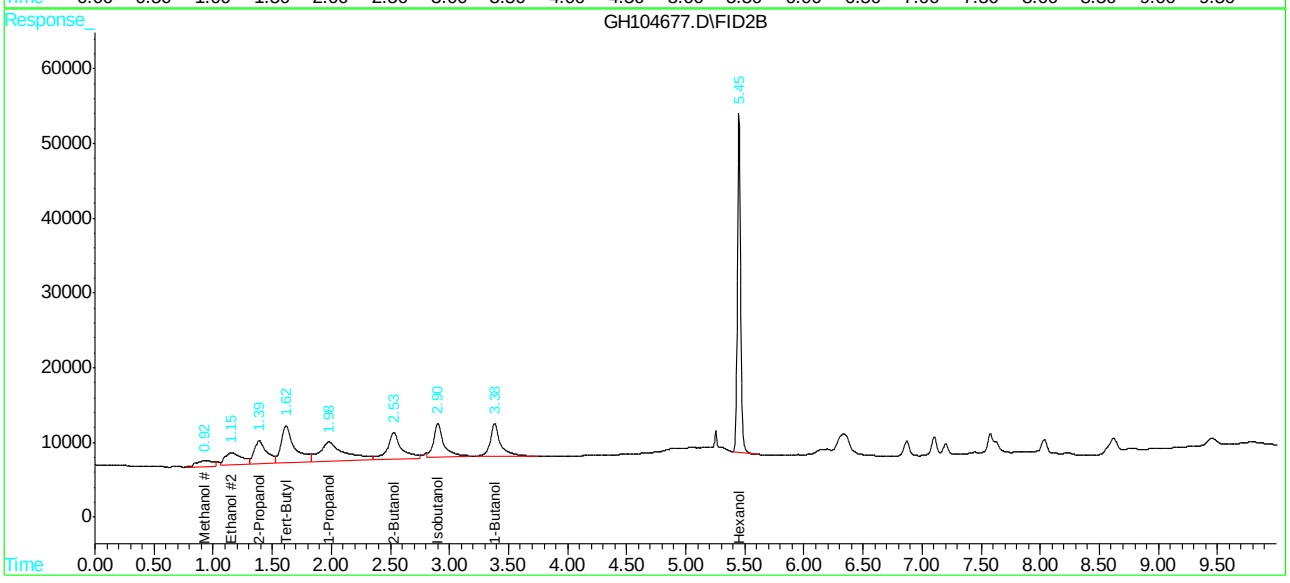
```
Data File : C:\HPCHEM\1\DATA\GH104677.D\FID1A.CH          Vial: 5
Acq On    :  9 May 2016   2:18 pm                     Operator: XULIU
Sample    : ICC5269-5000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104677.D\FID2B.CH          Vial: 5
Acq On    :  9 May 2016   2:33 pm                     Operator: XULIU
Sample    : ICC5269-5000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10  9:53 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 09:53:11 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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 JC20184

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH104678.D\FID1A.CH          Vial: 6
Acq On    :  9 May 2016   2:33 pm                     Operator: XULIU
Sample    : IC5269-10000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104678.D\FID2B.CH          Vial: 6
Acq On    :  9 May 2016   2:54 pm                     Operator: XULIU
Sample    : IC5269-10000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 10:07 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:07:17 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.61	5.39	400565	787400	5235.190	4657.969
Spiked Amount 5000.000			Recovery	=	104.70%	93.16%
Target Compounds						
1) Methanol	1.15	0.91	139678	103161	9457.541	4094.038 #
2) Ethanol	1.49	1.17f	193822	212310	10357.983	6484.084
3) Tert-Butyl Alcoh	2.07	1.67f	287026	596945	10512.470	10138.817
4) 1-Propanol	2.57	2.01f	241983	445497	9537.952	11155.026
5) 2-Propanol	1.80	1.43f	222300	316022	10713.155	7995.202
6) Isobutanol	3.37	2.95f	279069	478633	10152.927	7584.056
7) 1-Butanol	3.83	3.43f	272252	416396	10464.176	7833.566
8) 2-Butanol	3.00	2.58f	246940	434114	9828.962	9412.052

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC20184

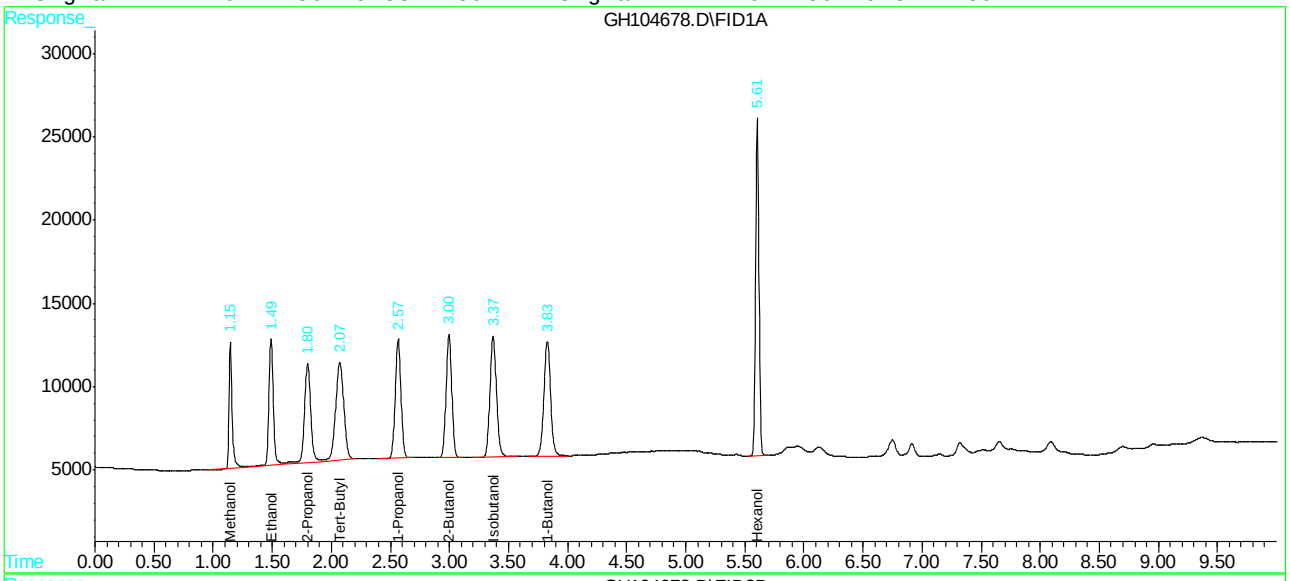
Quantitation Report (QT Reviewed)

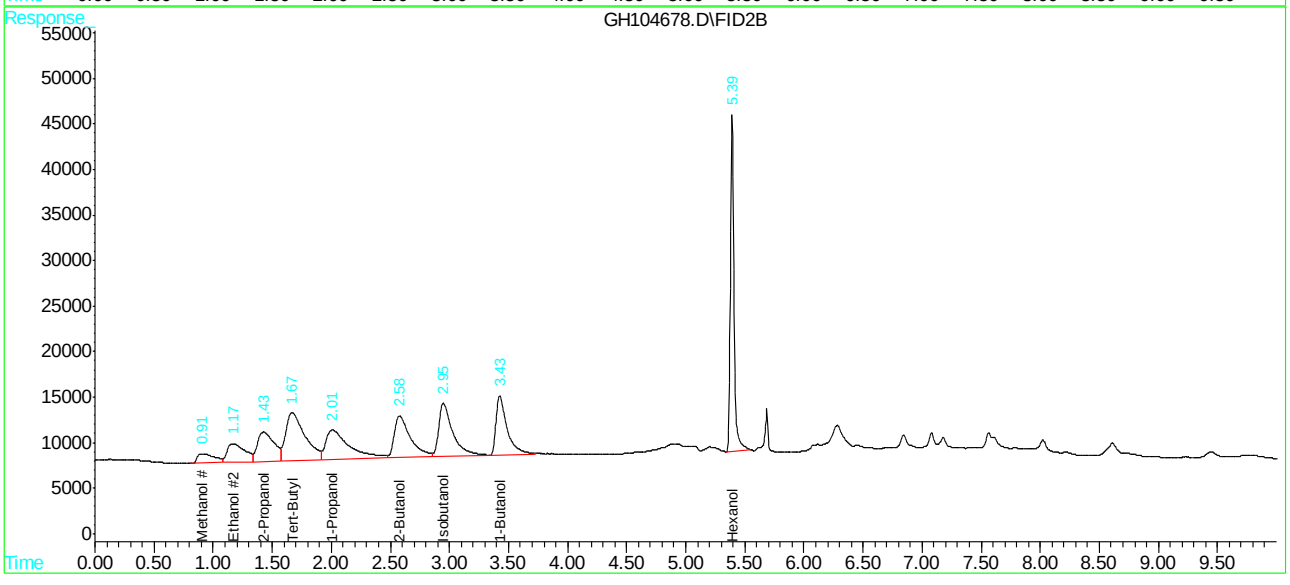
```
Data File : C:\HPCHEM\1\DATA\GH104678.D\FID1A.CH          Vial: 6
Acq On    :  9 May 2016   2:33 pm                     Operator: XULIU
Sample    : IC5269-10000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104678.D\FID2B.CH          Vial: 6
Acq On    :  9 May 2016   2:54 pm                     Operator: XULIU
Sample    : IC5269-10000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 10:07 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:07:17 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104679.D\FID1A.CH Vial: 7
Acq On : 9 May 2016 2:54 pm Operator: XULIU
Sample : IC5269-50000 Inst : GCGH
Misc : GC48342,GGH5269,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104679.D\FID2B.CH Vial: 7
Acq On : 9 May 2016 3:09 pm Operator: XULIU
Sample : IC5269-50000 Inst : GCGH
Misc : GC48342,GGH5269,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 10 10:09 2016 Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue May 10 10:09:13 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.61	5.45f	497290	1090728	6499.330	6452.345
Spiked Amount	5000.000			Recovery	=	129.99%	129.05%
	Target Compounds						
1)	Methanol	1.14	0.87f	662127	1473199	44832.252	58465.418
2)	Ethanol	1.49	1.12f	869497	1828416	46466.502	55841.082
3)	Tert-Butyl Alcoh	2.07	1.62	1291147	2923252	47288.930	49649.987
4)	1-Propanol	2.56	1.96	1123233	2344658	44273.121	58709.139
5)	2-Propanol	1.80	1.38	924902	2024797	44573.192	51226.377
6)	Isobutanol	3.37	2.90	1287768	2583184	46850.874	40931.194
7)	1-Butanol	3.83	3.38	1244720	2515352	47841.645	47320.746
8)	2-Butanol	2.99	2.53	1145678	2396916	45601.457	51967.691

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH104679.D MGH5269.M Tue May 10 10:18:25 2016 GCGH

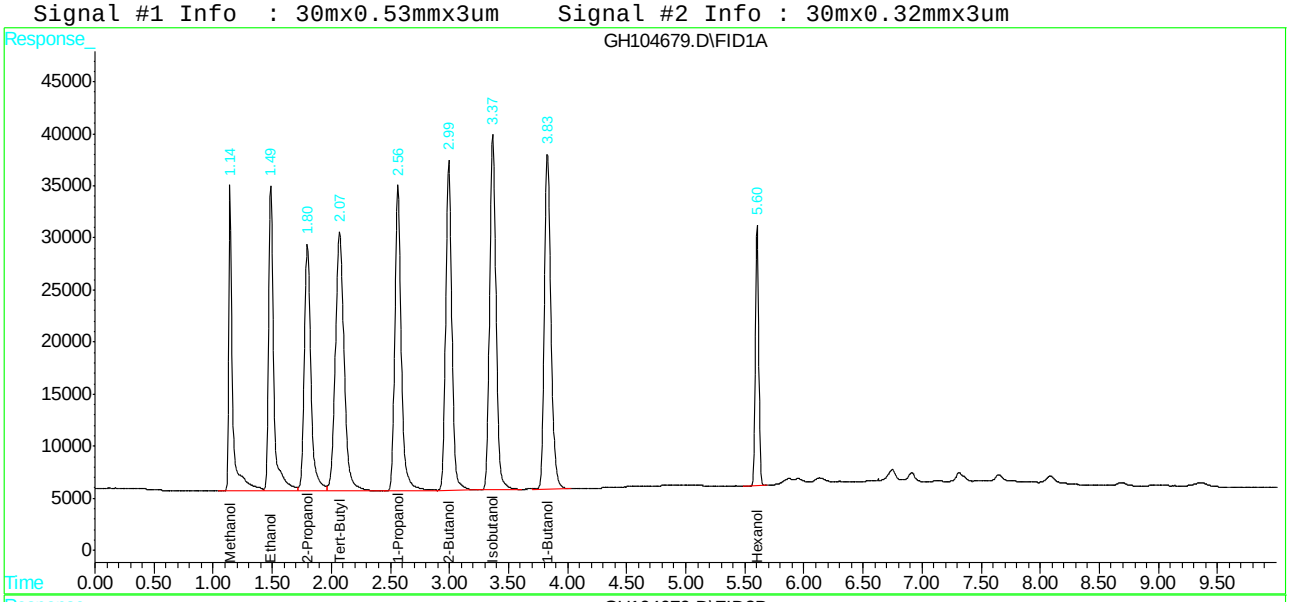
Quantitation Report (QT Reviewed)

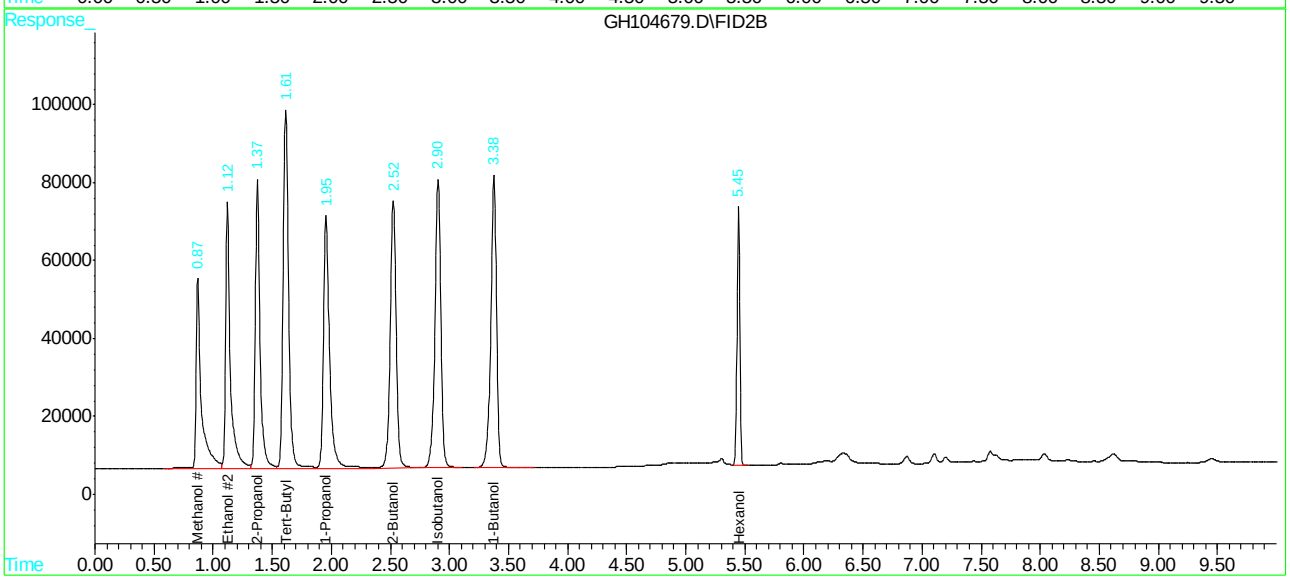
Data File : C:\HPCHEM\1\DATA\GH104679.D\FID1A.CH Vial: 7
Acq On : 9 May 2016 2:54 pm Operator: XULIU
Sample : IC5269-50000 Inst : GCGH
Misc : GC48342,GGH5269,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104679.D\FID2B.CH Vial: 7
Acq On : 9 May 2016 3:09 pm Operator: XULIU
Sample : IC5269-50000 Inst : GCGH
Misc : GC48342,GGH5269,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 10 10:09 2016 Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue May 10 10:09:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104683.D\FID1A.CH          Vial: 10
Acq On    :  9 May 2016   5:42 pm                     Operator: XULIU
Sample    : ICV5269-5000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104683.D\FID2B.CH          Vial: 10
Acq On    :  9 May 2016   6:04 pm                     Operator: XULIU
Sample    : ICV5269-5000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 10:32 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:29:55 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.44	346499	764323	4528.568	4644.253
Spiked Amount 5000.000			Recovery	=	90.57%	92.89%
Target Compounds						
1) Methanol	1.14	0.88	69747	149424	4722.538	6848.279 #
2) Ethanol	1.49	1.13	98274	199013	5251.857	6263.326
3) Tert-Butyl Alcoh	2.07	1.62	141470	315650	5181.430	4834.343
4) 1-Propanol	2.56	1.96	117258	263447	5261.158	5346.941
5) 2-Propanol	1.79	1.38	99427	217420	4791.629	5200.646
6) Isobutanol	3.36	2.90	146264	290191	5321.284	4677.799
7) 1-Butanol	3.83	3.38	138769	322004	5667.134	6220.286
8) 2-Butanol	2.99	2.53	123337	262596	4894.660	5314.179

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

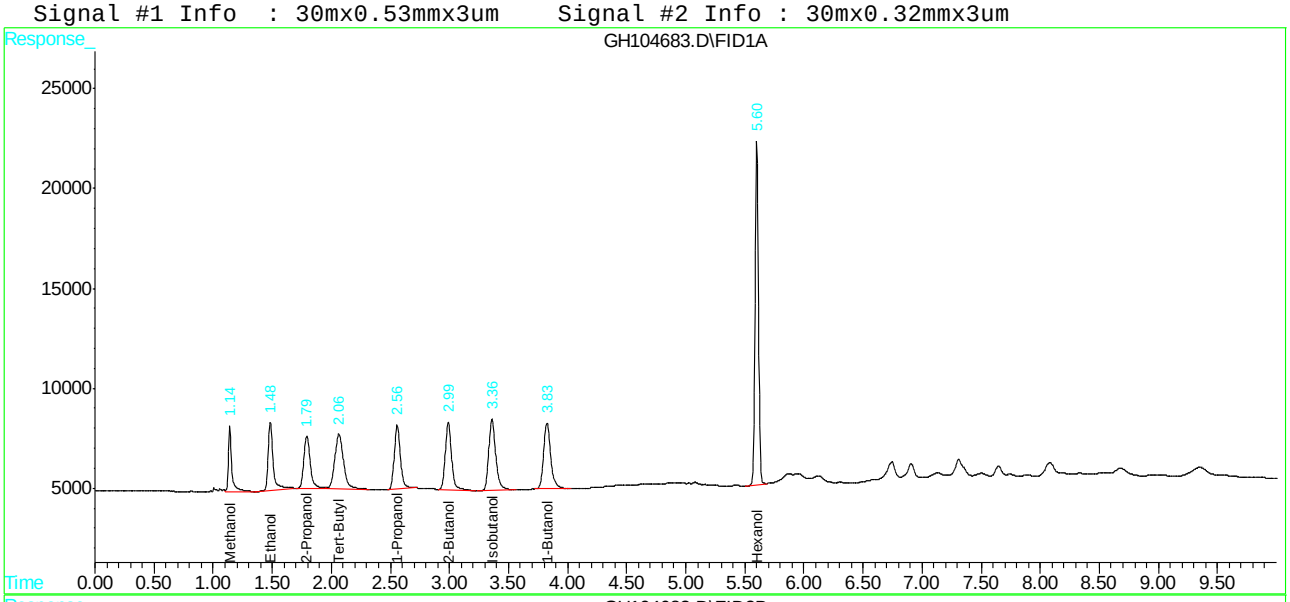
Quantitation Report (QT Reviewed)

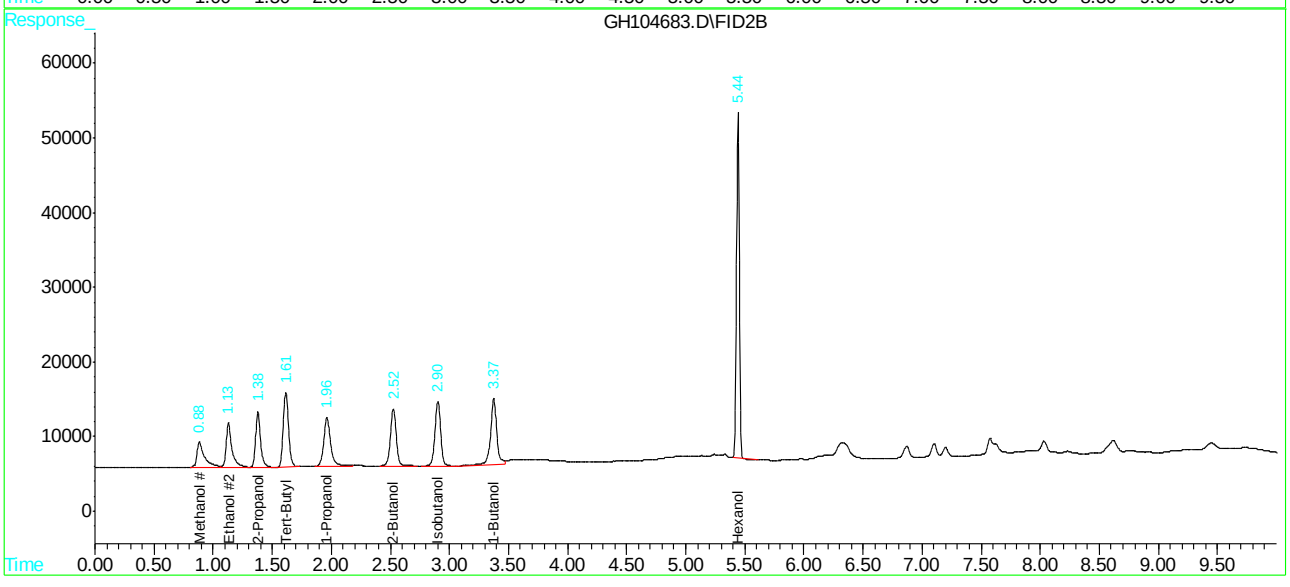
```
Data File : C:\HPCHEM\1\DATA\GH104683.D\FID1A.CH          Vial: 10
Acq On    :  9 May 2016   5:42 pm                     Operator: XULIU
Sample    : ICV5269-5000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104683.D\FID2B.CH          Vial: 10
Acq On    :  9 May 2016   6:04 pm                     Operator: XULIU
Sample    : ICV5269-5000                              Inst    : GCGH
Misc      : GC48342,GGH5269,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 10 10:32 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 10 10:29:55 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104987.D\FID1A.CH          Vial: 95
Acq On    : 16 May 2016  11:17 pm                     Operator: XULIU
Sample    : CC5269-10000                              Inst    : GCGH
Misc      : GC48423,GGH5285,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104987.D\FID2B.CH          Vial: 95
Acq On    : 16 May 2016  11:31 pm                     Operator: XULIU
Sample    : CC5269-10000                              Inst    : GCGH
Misc      : GC48423,GGH5285,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  8:25 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.48	322562	226870	4215.726	1378.532 #
Spiked Amount	5000.000			Recovery	=	84.31%	27.57%
	Target Compounds						
1)	Methanol	1.15	0.86	159266	116138	10783.835	5712.929 #
2)	Ethanol	1.49	1.11	195256	133332	10434.606	4196.215 #
3)	Tert-Butyl Alcoh	2.07	1.60	286883	214282	10507.232	3281.842 #
4)	1-Propanol	2.56	1.94f	265353	172058	11905.946	3492.111 #
5)	2-Propanol	1.80	1.36f	207401	150196	9995.159	3592.663 #
6)	Isobutanol	3.36	2.89	299158	269838	10883.820	4349.707 #
7)	1-Butanol	3.80	3.38	288496	190698	11781.823	3683.795 #
8)	2-Butanol	2.99	2.51f	264998	183195	10516.460	3707.332 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

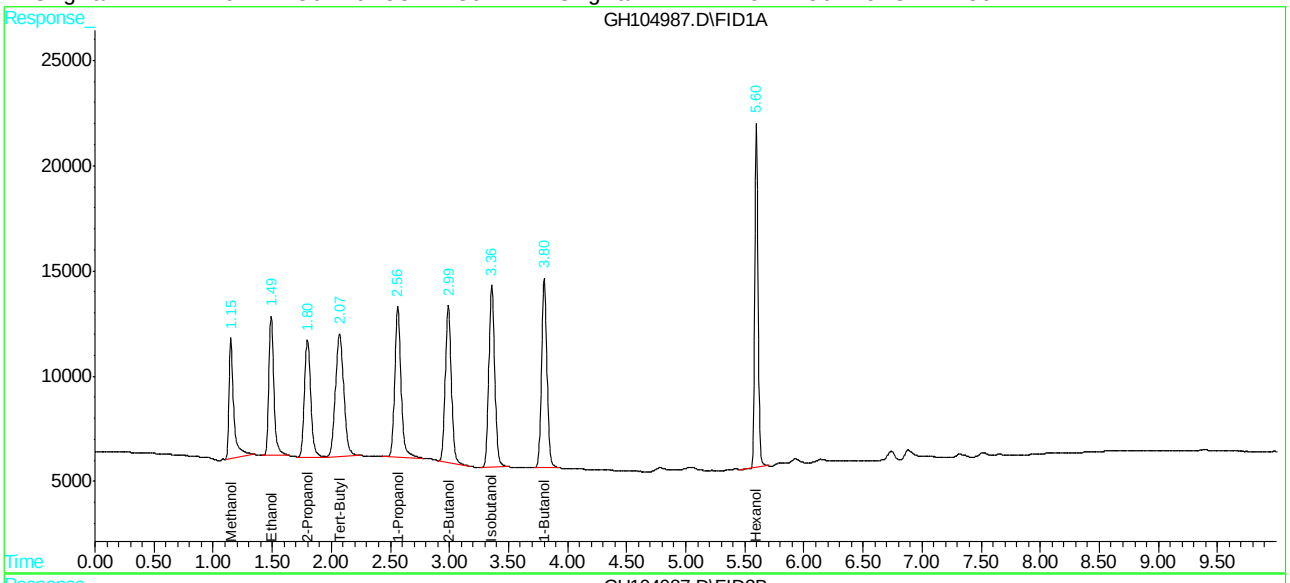
Quantitation Report (QT Reviewed)

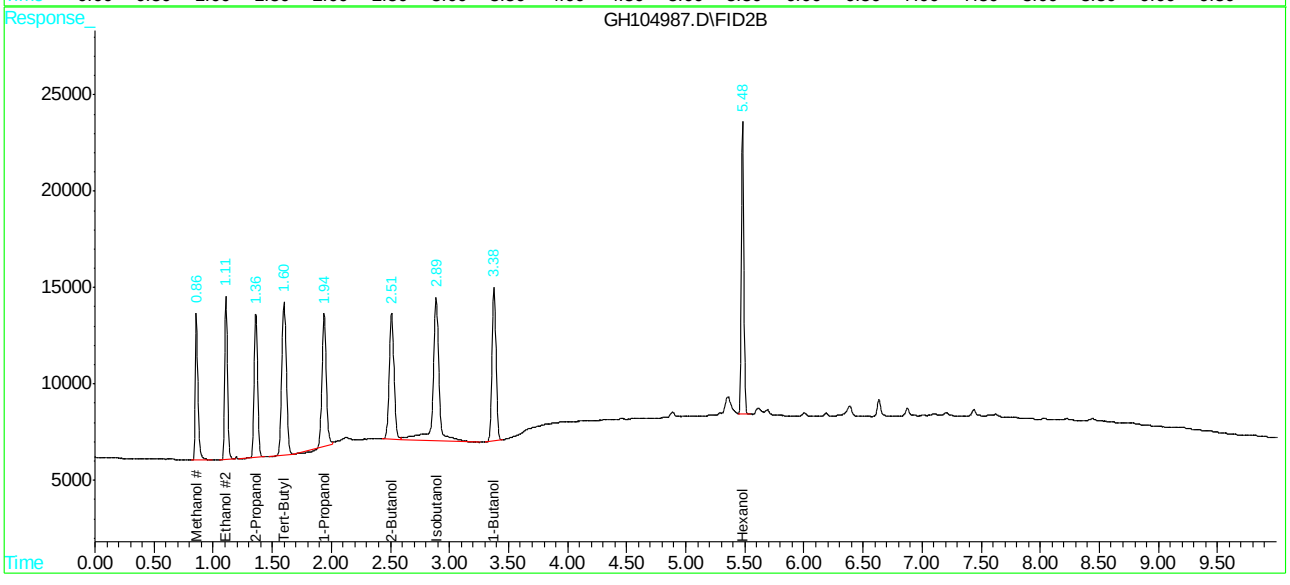
```
Data File : C:\HPCHEM\1\DATA\GH104987.D\FID1A.CH          Vial: 95
Acq On    : 16 May 2016  11:17 pm                     Operator: XULIU
Sample    : CC5269-10000                              Inst    : GCGH
Misc      : GC48423,GGH5285,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104987.D\FID2B.CH          Vial: 95
Acq On    : 16 May 2016  11:31 pm                     Operator: XULIU
Sample    : CC5269-10000                              Inst    : GCGH
Misc      : GC48423,GGH5285,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  8:25 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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\GH104998.D\FID1A.CH          Vial: 90
Acq On    : 17 May 2016   2:17 am                     Operator: XULIU
Sample    : CC5269-5000                               Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104998.D\FID2B.CH          Vial: 90
Acq On    : 17 May 2016   2:32 am                     Operator: XULIU
Sample    : CC5269-5000                               Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:14 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5269.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	5.60	5.48	373905	256068	4886.758	1555.948 #
Spiked Amount	5000.000			Recovery	=	97.74%	31.12%
	Target Compounds						
1)	Methanol	1.15	0.86	72251	59526	4892.071	2928.140 #
2)	Ethanol	1.49	1.11	93797	66386	5012.573	2089.288 #
3)	Tert-Butyl Alcoh	2.08	1.60	122560	105931	4488.836	1622.390 #
4)	1-Propanol	2.57	1.94f	127019	86060	5699.120	1746.685 #
5)	2-Propanol	1.80	1.36f	95636	73624	4608.935	1761.087 #
6)	Isobutanol	3.36	2.89	149587	96240	5442.211	1551.366 #
7)	1-Butanol	3.81	3.38	142688	115485	5827.206	2230.873 #
8)	2-Butanol	3.00	2.51f	134809	88757	5349.897	1796.190 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC20184

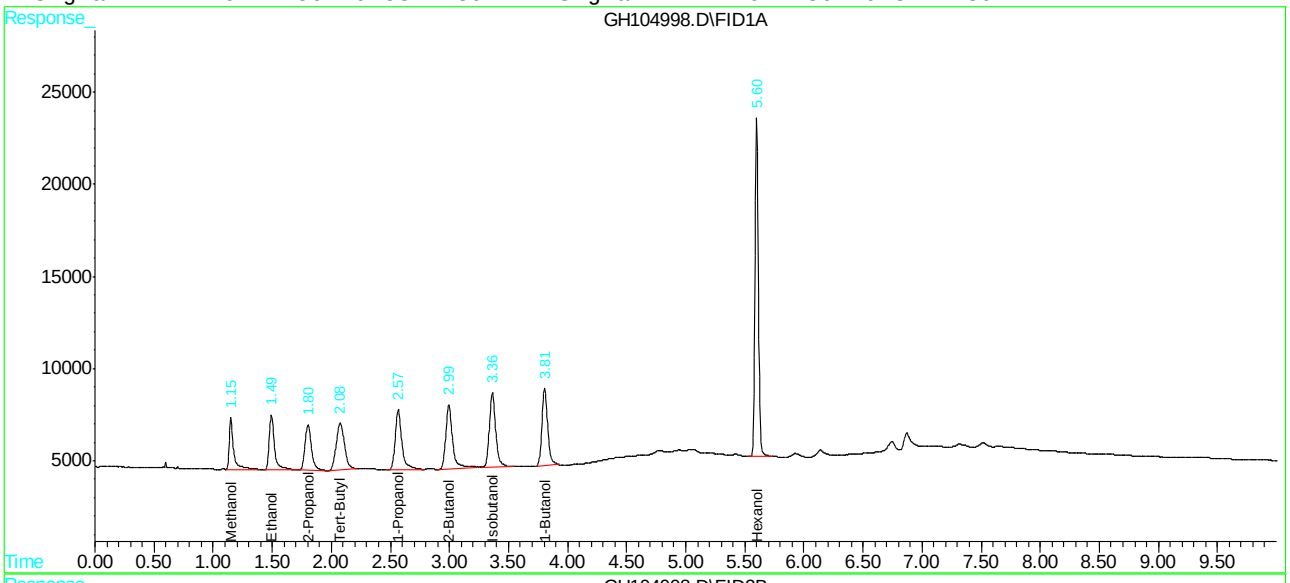
Quantitation Report (QT Reviewed)

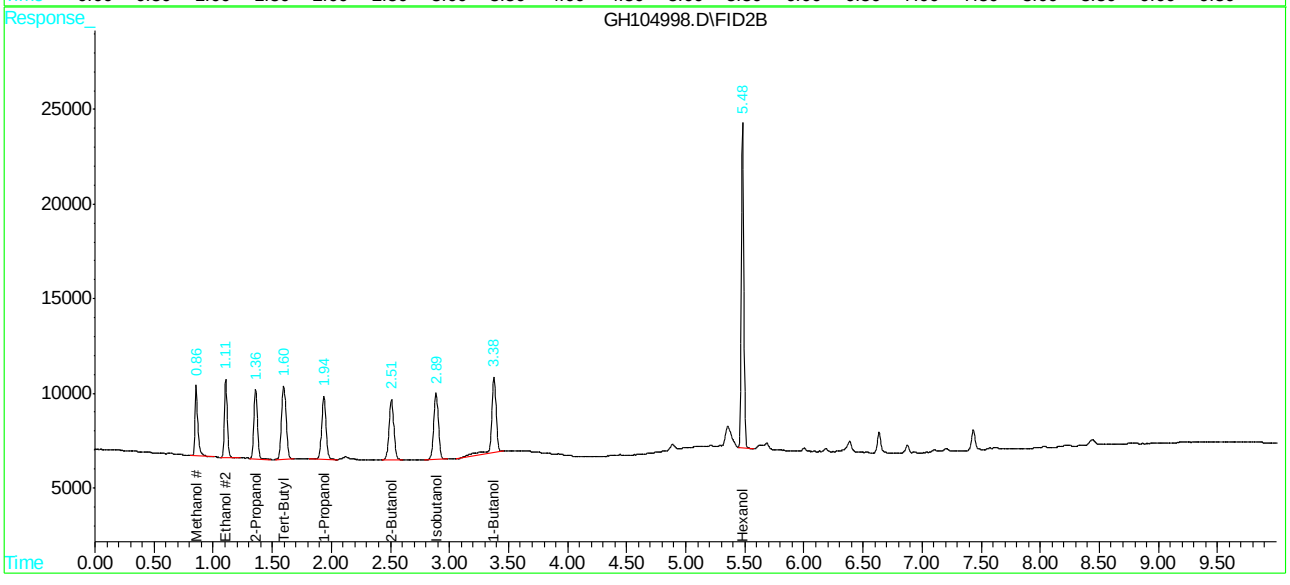
```
Data File : C:\HPCHEM\1\DATA\GH104998.D\FID1A.CH          Vial: 90
Acq On    : 17 May 2016   2:17 am                     Operator: XULIU
Sample    : CC5269-5000                               Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH104998.D\FID2B.CH          Vial: 90
Acq On    : 17 May 2016   2:32 am                     Operator: XULIU
Sample    : CC5269-5000                               Inst    : GCGH
Misc      : GC48421,GGH5286,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 17  9:14 2016  Quant Results File: MGH5269.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5269.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue May 17 07:48:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5269.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: GGH5269

Print Analyst Name: Xielin

Date: 5/9/16

Analyst Signature:

Columns: ZB624 / RTX-1 (30m x 0.25mm x 3um) (30m x 0.32mm x

Method 8015C ALC

Initial Cal. Method MGH5269

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015MX-18	ALL SUR	2000ppm
015MX-19	ALL STD	100ppm
015MX-30	ALL STD(2)	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: 5/12/16

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
	GH104669	2B					1						not ul		
	104670	2B					1						not ul		
	104671	2B					1						not ul		
	104672	2B					1						not ul		
	104673	2B					1					✓	ok		
	104674	2G5269-100					1					✓	ok	10ul STD, 4ul sur/10ml 1/20	
	104675	2G5269-500					1					✓	ok	5ul STD, 1ul sur/1ml 1/20	
	104676	2G5269-1000					1					✓	ok	10ul STD, 2ul sur/1ml 1/20	
	104677	2G5269-5000					1					✓	ok	50ul STD, 2.5ul sur/1ml 1/20	
	104678	2G5269-10,000					1					✓	ok	100ul STD, 2.5ul sur/1ml 1/20	
	104679	2G5269-50,000					1					✓	ok	500ul STD, 2ul sur/1ml 1/20	
	104680	2G5269-100,000					1					✓	not need		
	104681	2G5269-100,000					1						N/G	1000ul STD, 4ul sur/ml 1/20	
	104682	2G5269-5000					1						N/G		
	104683	2G5269-5000					1					✓	ok	50ul STD(2), 2.5ul sur/1ml 1/20	

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 JC20184

9.6.1

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SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5285

Print Analyst Name: [illegible]

Analyst Signature: [illegible]

Date: 5/16/16

Columns: 2B624 / RTX-1 (30m x 0.32mm x 3um) (30m x 0.32mm x 3um)

Method 8015C ALL

Initial Cal. Method MGH5269

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015MMX428	ALL SWF (5/15)	2000 ppm
015MMXC19	ALL SWF (5/15)	100 ppm
015MMX430	ALL SWF (5/15)	100 ppm

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:** 5/17/16

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
	GH10459	2B					1					✓	ok		
	10460	CC5269-5000					1					✓	ok	50µl STD/mlw	
	10461	MB1					1					✓	ok		
	10462	BS					1					✓	ok	50µl STD/mlw	
	10463	JC19644-1	48420 CMTX	W	6		1					✓	ok		✓
	10464	JC19644-1MS	✓	W	6		1					✓	ok		✓
	10465	JC19644-1MSD	✓	W	6		1					✓	ok		✓
	10466	JC19644-2	✓	W	5		1					✓	ok		✓
	10467	JC19644-3	✓	W	6		1					✓	ok		✓
	10468	JC19759-1	✓	W	6		1					✓	ok		✓
	10469	JC19759-2	✓	W	6		1					✓	ok		✓
	10470	CC5269-10,000					1					✓	ok		
	10471	MB2					1					✓	ok		
	10472	JC19759-3	✓	W	6		1					✓	ok		✓
	10473	JC19759-4	✓	W	5		1					✓	ok		✓
	10474	JC19759-5	✓	W	6		1					✓	ok		✓
	10475	JC19759-6	✓	W	6		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

VOLATILE ANALYSIS LOG

Batch ID: GGH5285

Print Analyst Name: Xi Liu

Date: 5/16/16

Analyst Signature:

Columns: ZB624 / RTX-1 (30m x 0.53mm x 3μm) (30m x 0.25mm x 1μ)

Method 8015CAK

Initial Cal. Method MGH5269

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Pg 153	

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: 5/17/16

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
	GH104976	JC19914-1	48420 CMB	G W	5		1					✓	ok		✓
	104977	JC19114-2	✓	G W	5		1					✓	ok		✓
	104978	JC19114-4	✓	G W	5		1					✓	ok		✓
	104979	JC19114-5	✓	G W	5		1					✓	ok		✓
	104980	CC5269-5000					1					✓	ok	50ul 120/mel 20	
	104981	MBX3					1					✓	ok		
	104982	JC20098-1	48422 CMB	G W	5		1					✓	ok	JC20098-1	✓
	104983	JC20098-4	✓	G W	5		1					✓	ok	JC20098-4	✓
	104984	JC20098-5	✓	G W	5		1					✓	ok	JC20098-5	✓
	104985	JC20314-2	48423 CMB	G W	4		1					✓	ok		✓
	104986	JC20314-4	✓	G W	2		1					✓	ok		✓
	104987	CC5269-10,000					1					✓	ok	100ul 120/mel 20	
	104988						1								
	104989						1								

5/16

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 JC20184

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5286

Print Analyst Name: Xulin

Analyst Signature:

Date: 5/16/16

Columns: ZB624 / RTX-1 (30m x0.5mm x3um) (30m x0.32mm x3um)

Method 8015C ALL

Initial Cal. Method MCH5269

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015mix48	ALL SUR (5/15)	2000 ppm
015mix48	ALL STD (5/15)	100 ppm
015mix131	ALL 8010(2) (5/15)	100 ppm

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:** 5/17/16

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
	GH104988	MB					1					✓	ok		
	104989	BS					1					✓	ok	50ul 8010(2)/ml H2O	
	104990	JC20184-3	48422 CMB	G W	17		1					✓	ok		✓
	104991	JC20184-3MS	✓	G W	17		1					✓	ok	50ul 8010(2) /ml sample	✓
	104992	JC20184-3MSD	✓	G W	17		1					✓	ok	50ul 8010(2)/ml sample	✓
	104993	JC20184-4	✓	G W	4		1					✓	ok		✓
	104994	JC20184-5	✓	G W	6		1					✓	ok		✓
	104995	JC20184-6	✓	G W	5		1					✓	ok		✓
	104996	JC20184-1	✓	G W	6		1					✓	ok		✓
	104997	JC20184-2	✓	G W	6		1					✓	ok		✓
	104998	CC5269-5000					1					✓	ok	50ul 8010/ml H2O	
	104999	A1B2					1					✓	ok		
	105000	JC19996-1	48422 CMB	G W	3		1					✓	ok		✓
	105001	JC19996-3	✓	G W	3		1					✓	ok		✓
	105002	JC19996-4	✓	G W	5		1					✓	ok		✓
	105003	JC19996-5	✓	G W	5		1					✓	ok		✓
	105004	JC19996-6	✓	G W	5		1					✓	ok		✓
	105005	CC5269-10,000					1					✓	ok	100ul/ml H2O	

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 JC20184

9.6.3

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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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93907-MB1	1G123077.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

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	118%	26-132%
877-09-8	Tetrachloro-m-xylene	106%	26-132%
2051-24-3	Decachlorobiphenyl	98%	10-118%
2051-24-3	Decachlorobiphenyl	99%	10-118%

Blank Spike Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93907-BS1	1G123078.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.25	0.32	128	38-138
319-84-6	alpha-BHC	0.25	0.31	124	51-144
319-85-7	beta-BHC	0.25	0.32	128	55-137
319-86-8	delta-BHC	0.25	0.31	124	33-148
58-89-9	gamma-BHC (Lindane)	0.25	0.32	128	53-142
5103-71-9	alpha-Chlordane	0.25	0.33	132	52-137
5103-74-2	gamma-Chlordane	0.25	0.33	132	52-140
60-57-1	Dieldrin	0.25	0.34	136	54-144
72-54-8	4,4'-DDD	0.25	0.34	136	46-151
72-55-9	4,4'-DDE	0.25	0.33	132	51-142
50-29-3	4,4'-DDT	0.25	0.33	132	53-158
72-20-8	Endrin	0.25	0.32	128	53-149
1031-07-8	Endosulfan sulfate	0.25	0.32	128	49-148
7421-93-4	Endrin aldehyde	0.25	0.34	136	45-137
53494-70-5	Endrin ketone	0.25	0.34	136	48-142
959-98-8	Endosulfan-I	0.25	0.33	132	54-139
33213-65-9	Endosulfan-II	0.25	0.33	132	54-142
76-44-8	Heptachlor	0.25	0.30	120	45-137
1024-57-3	Heptachlor epoxide	0.25	0.34	136	54-140
72-43-5	Methoxychlor	0.25	0.31	124	51-157

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	122%	26-132%
877-09-8	Tetrachloro-m-xylene	112%	26-132%
2051-24-3	Decachlorobiphenyl	113%	10-118%
2051-24-3	Decachlorobiphenyl	112%	10-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP93907-MS	1G123145.D	1	05/17/16	RK	05/13/16	OP93907	G1G3990
OP93907-MSD	1G123146.D	1	05/17/16	RK	05/13/16	OP93907	G1G3990
JC20184-3	1G123111.D	1	05/16/16	RK	05/13/16	OP93907	G1G3989

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC20184-1, JC20184-2, JC20184-3, JC20184-4, JC20184-5, JC20184-6

CAS No.	Compound	JC20184-3 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		0.288	0.32	111	0.288	0.32	111	0	37-159/40
319-84-6	alpha-BHC	ND		0.288	0.31	108	0.288	0.31	108	0	37-164/37
319-85-7	beta-BHC	ND		0.288	0.33	115	0.288	0.35	122	6	46-151/36
319-86-8	delta-BHC	ND		0.288	0.31	108	0.288	0.32	111	3	32-168/36
58-89-9	gamma-BHC (Lindane)	ND		0.288	0.32	111	0.288	0.32	111	0	44-160/37
5103-71-9	alpha-Chlordane	ND		0.288	0.35	122	0.288	0.37	129	6	38-160/35
5103-74-2	gamma-Chlordane	ND		0.288	0.32	111	0.288	0.33	115	3	39-157/37
60-57-1	Dieldrin	ND		0.288	0.33	115	0.288	0.34	118	3	42-161/36
72-54-8	4,4'-DDD	ND		0.288	0.33	115	0.288	0.34	118	3	40-161/36
72-55-9	4,4'-DDE	ND		0.288	0.32	111	0.288	0.33	115	3	34-158/36
50-29-3	4,4'-DDT	ND		0.288	0.31	108	0.288	0.31	108	0	41-173/33
72-20-8	Endrin	ND		0.288	0.34	118	0.288	0.35	122	3	44-166/35
1031-07-8	Endosulfan sulfate	ND		0.288	0.29	101	0.288	0.31	108	7	46-161/36
7421-93-4	Endrin aldehyde	ND		0.288	0.33	115	0.288	0.34	118	3	34-149/36
53494-70-5	Endrin ketone	ND		0.288	0.31	108	0.288	0.32	111	3	44-157/36
959-98-8	Endosulfan-I	ND		0.288	0.32	111	0.288	0.33	115	3	43-154/35
33213-65-9	Endosulfan-II	ND		0.288	0.32	111	0.288	0.34	118	6	40-162/35
76-44-8	Heptachlor	ND		0.288	0.31	108	0.288	0.31	108	0	33-153/37
1024-57-3	Heptachlor epoxide	ND		0.288	0.33	115	0.288	0.34	118	3	45-154/37
72-43-5	Methoxychlor	ND		0.288	0.31	108	0.288	0.32	111	3	48-169/32
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC20184-3	Limits
877-09-8	Tetrachloro-m-xylene	96%	94%	109%	26-132%
877-09-8	Tetrachloro-m-xylene	88%	84%	97%	26-132%
2051-24-3	Decachlorobiphenyl	74%	79%	81%	10-118%
2051-24-3	Decachlorobiphenyl	74%	77%	76%	10-118%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G3989-CC3988	**Injection Date:**	05/16/16
Lab File ID:	1G123075.D	**Injection Time:**	14:16
Instrument ID:	GC1G	**Method:**	SW846 8081B

	IS 1 AREA	RT	IS 2 AREA	RT
Check Std	909497780	1.49	121708915	1.33
Upper Limit [a]	1818995560	1.99	243417830	1.83
Lower Limit [b]	454748890	0.99	60854458	0.83

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP93907-MB1	827107163	1.49	107696326	1.33
OP93907-BS1	913700876	1.49	120342012	1.33
OP93838-MB1	970895907	1.49	139449712	1.33
ZZZZZZ	1021639456	1.49	150523861	1.33
JC20184-1	899949724	1.49	128690205	1.33
JC20184-2	844082976	1.49	114748415	1.33
JC20184-4	878632912	1.49	122203816	1.33
JC20184-3	951142939	1.49	115350497	1.33
JC20184-5	889507680	1.49	128713704	1.33
JC20184-6	884823324	1.49	119283668	1.33

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.

Semivolatile Internal Standard Area Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G3990-CC3988	**Injection Date:**	05/17/16
Lab File ID:	1G123133.D	**Injection Time:**	08:45
Instrument ID:	GC1G	**Method:**	SW846 8081B

	IS 1 AREA	RT	IS 2 AREA	RT
Check Std	842090134	1.50	125878292	1.33
Upper Limit [a]	1684180268	2.00	251756584	1.83
Lower Limit [b]	421045067	1.00	62939146	0.83

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP93854-MB1	958491329	1.50	140897441	1.33
OP93854-BS1	1020843963	1.49	152876860	1.33
OP93925-MB1	840706382	1.49	117024580	1.33
OP93925-BS1	828493079	1.49	121477666	1.33
OP93925-BSD	852365962	1.49	122332534	1.33
ZZZZZZ	770012262	1.49	111050548	1.33
ZZZZZZ	875179343	1.49	127001168	1.33
ZZZZZZ	887495825	1.49	127218677	1.33
ZZZZZZ	878169146	1.49	127360000	1.33
ZZZZZZ	902399285	1.49	130237285	1.33
OP93907-MS	928822987	1.49	120639956	1.33
OP93907-MSD	937567509	1.50	118573028	1.33
ZZZZZZ	1047666354	1.49	158610964	1.33
ZZZZZZ	1017961480	1.49	153746205	1.33
ZZZZZZ	1047064316	1.49	152516308	1.33
ZZZZZZ	867752697	1.49	143222984	1.33
JC20016-4	1077418991	1.49	158605192	1.33
OP93854-MS	1085120230	1.49	157447304	1.33
OP93854-MSD	1124615822	1.49	163398996	1.33

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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: G1G3988-DDT
Lab File ID: 1G123059.D
Instrument ID: GC1G
Injection Date: 05/16/16
Injection Time: 09:09

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	1011043	7386221
4,4'-DDE	837634	4492810
4,4'-DDT	267769932	1336844219
DDT Breakdown [a]	0.7 %	0.9 %
Endrin aldehyde	1371237	7932699
Endrin ketone	6408544	33500252
Endrin	129236444	661131236
Endrin Breakdown [b]	5.7 %	5.9 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G3988-IC3988	1G123061.D	05/16/16	10:11	01:02	Initial cal 1
G1G3988-IC3988	1G123062.D	05/16/16	10:28	01:19	Initial cal 2
G1G3988-IC3988	1G123063.D	05/16/16	10:46	01:37	Initial cal 5
G1G3988-IC3988	1G123064.D	05/16/16	11:03	01:54	Initial cal 10
G1G3988-ICC3988	1G123065.D	05/16/16	11:21	02:12	Initial cal 25
G1G3988-IC3988	1G123066.D	05/16/16	11:38	02:29	Initial cal 50
G1G3988-IC3988	1G123067.D	05/16/16	11:56	02:47	Initial cal 75
G1G3988-IC3988	1G123068.D	05/16/16	12:13	03:04	Initial cal 100
G1G3988-IC3988	1G123069.D	05/16/16	12:31	03:22	Initial cal 500
G1G3988-IC3988	1G123070.D	05/16/16	12:48	03:39	Initial cal 500
G1G3988-ICV3988	1G123071.D	05/16/16	13:06	03:57	Initial cal verification 25
G1G3988-ICV3988	1G123072.D	05/16/16	13:23	04:15	Initial cal verification 25
G1G3988-ICV3988	1G123073.D	05/16/16	13:41	04:32	Initial cal verification 500
G1G3988-ICV3988	1G123074.D	05/16/16	13:58	04:50	Initial cal verification 500
G1G3989-CC3988	1G123075.D	05/16/16	14:16	05:07	Continuing cal 25
OP93907-MB1	1G123077.D	05/16/16	14:51	05:43	Method Blank
OP93907-BS1	1G123078.D	05/16/16	15:09	06:00	Blank Spike
OP93838-MB1	1G123079.D	05/16/16	15:26	06:18	Method Blank
ZZZZZZ	1G123080.D	05/16/16	15:44	06:35	(unrelated sample)
JC20184-1	1G123081.D	05/16/16	16:01	06:53	RA20-GWD
JC20184-2	1G123082.D	05/16/16	16:19	07:10	S-40D
JC20184-4	1G123084.D	05/16/16	16:54	07:45	MW-20S
JC20184-3	1G123111.D	05/16/16	17:11	08:03	S-39D
JC20184-5	1G123085.D	05/16/16	17:29	08:20	MW-20D

DDT/Endrin Breakdown Check

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample:	G1G3988-DDT	**Injection Date:**	05/16/16
Lab File ID:	1G123059.D	**Injection Time:**	09:09
Instrument ID:	GC1G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC20184-6	1G123086.D	05/16/16	17:46	08:38	S40S

DDT/Endrin Breakdown Check

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: G1G3990-DDT
Lab File ID: 1G123132.D
Instrument ID: GC1G
Injection Date: 05/17/16
Injection Time: 08:27

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	1544545	8770357
4,4'-DDE	1763605	10355652
4,4'-DDT	266658590	1288797995
DDT Breakdown [a]	1.2 %	1.5 %
Endrin aldehyde	1784385	9698560
Endrin ketone	5653645	34723962
Endrin	129958740	681991830
Endrin Breakdown [b]	5.4 %	6.1 %

(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
G1G3990-CC3988	1G123133.D	05/17/16	08:45	00:17	Continuing cal 50
OP93854-MB1	1G123135.D	05/17/16	09:20	00:52	Method Blank
OP93854-BS1	1G123136.D	05/17/16	09:37	01:10	Blank Spike
OP93925-MB1	1G123137.D	05/17/16	09:55	01:27	Method Blank
OP93925-BS1	1G123138.D	05/17/16	10:12	01:44	Blank Spike
OP93925-BSD	1G123139.D	05/17/16	10:30	02:02	Blank Spike Duplicate
ZZZZZZ	1G123140.D	05/17/16	10:47	02:19	(unrelated sample)
ZZZZZZ	1G123141.D	05/17/16	11:05	02:37	(unrelated sample)
ZZZZZZ	1G123142.D	05/17/16	11:22	02:54	(unrelated sample)
ZZZZZZ	1G123143.D	05/17/16	11:40	03:12	(unrelated sample)
ZZZZZZ	1G123144.D	05/17/16	11:57	03:29	(unrelated sample)
OP93907-MS	1G123145.D	05/17/16	12:15	03:47	Matrix Spike
OP93907-MSD	1G123146.D	05/17/16	12:32	04:04	Matrix Spike Duplicate
ZZZZZZ	1G123147.D	05/17/16	12:50	04:22	(unrelated sample)
ZZZZZZ	1G123148.D	05/17/16	13:07	04:40	(unrelated sample)
ZZZZZZ	1G123149.D	05/17/16	13:25	04:58	(unrelated sample)
ZZZZZZ	1G123150.D	05/17/16	13:42	05:15	(unrelated sample)
JC20016-4	1G123151.D	05/17/16	14:00	05:33	(used for QC only; not part of job JC20184)
OP93854-MS	1G123152.D	05/17/16	14:17	05:50	Matrix Spike
OP93854-MSD	1G123153.D	05/17/16	14:35	06:08	Matrix Spike Duplicate

GC Identification Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G3989-CC3988	**Injection Date:**	05/16/16
Lab File ID:	1G123075.D	**Injection Time:**	14:16
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP93907-BS1	**Injection Date:**	05/16/16
Lab File ID:	1G123078.D	**Injection Time:**	15:09
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.53	3.53	0.32		ug/l	0.0
Aldrin	2	4.34	4.34	0.32		ug/l	
alpha-BHC	1	2.41	2.41	0.32		ug/l	3.2
alpha-BHC	2 [a]	2.94	2.94	0.31		ug/l	
beta-BHC	1	2.78	2.78	0.33		ug/l	3.1
beta-BHC	2 [a]	3.43	3.43	0.32		ug/l	
delta-BHC	1	2.97	2.97	0.33		ug/l	6.3
delta-BHC	2 [a]	3.81	3.81	0.31		ug/l	
gamma-BHC (Lindane)	1	2.71	2.71	0.33		ug/l	3.1
gamma-BHC (Lindane)	2 [a]	3.35	3.35	0.32		ug/l	
alpha-Chlordane	1	4.57	4.57	0.33		ug/l	0.0
alpha-Chlordane	2 [a]	5.64	5.64	0.33		ug/l	
gamma-Chlordane	1 [a]	4.39	4.40	0.33		ug/l	3.0
gamma-Chlordane	2	5.41	5.41	0.34		ug/l	
Dieldrin	1 [a]	5.07	5.07	0.34		ug/l	0.0
Dieldrin	2	6.15	6.15	0.34		ug/l	
4,4'-DDD	1 [a]	5.51	5.51	0.34		ug/l	0.0
4,4'-DDD	2	6.83	6.83	0.34		ug/l	
4,4'-DDE	1 [a]	4.67	4.68	0.33		ug/l	0.0
4,4'-DDE	2	5.90	5.90	0.33		ug/l	
4,4'-DDT	1 [a]	5.92	5.92	0.33		ug/l	3.0
4,4'-DDT	2	7.36	7.36	0.34		ug/l	
Endrin	1	5.39	5.39	0.32		ug/l	0.0
Endrin	2 [a]	6.65	6.64	0.32		ug/l	
Endosulfan sulfate	1 [a]	7.03	7.03	0.32		ug/l	6.1
Endosulfan sulfate	2	8.02	8.02	0.34		ug/l	
Endrin aldehyde	1 [a]	6.34	6.34	0.34		ug/l	2.9
Endrin aldehyde	2	7.56	7.56	0.35		ug/l	
Endrin ketone	1 [a]	7.46	7.46	0.34		ug/l	0.0
Endrin ketone	2	8.96	8.97	0.34		ug/l	
Endosulfan-I	1 [a]	4.75	4.75	0.33		ug/l	3.0
Endosulfan-I	2	5.73	5.73	0.34		ug/l	
Endosulfan-II	1	5.71	5.71	0.33		ug/l	0.0
Endosulfan-II	2 [a]	6.99	6.99	0.33		ug/l	
Heptachlor	1	3.19	3.20	0.31		ug/l	3.3
Heptachlor	2 [a]	3.90	3.90	0.30		ug/l	
Heptachlor epoxide	1 [a]	4.24	4.24	0.34		ug/l	0.0
Heptachlor epoxide	2	5.14	5.14	0.34		ug/l	
Methoxychlor	1 [a]	6.70	6.69	0.31		ug/l	3.2
Methoxychlor	2	8.60	8.60	0.32		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G3990-CC3988	**Injection Date:**	05/17/16
Lab File ID:	1G123133.D	**Injection Time:**	08:45
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP93907-MS	**Injection Date:**	05/17/16
Lab File ID:	1G123145.D	**Injection Time:**	12:15
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.52	3.53	0.32		ug/l	6.5
Aldrin	2	4.34	4.34	0.30		ug/l	
alpha-BHC	1 [a]	2.41	2.41	0.31		ug/l	13.8
alpha-BHC	2	2.94	2.94	0.27		ug/l	
beta-BHC	1 [a]	2.78	2.78	0.33		ug/l	16.4
beta-BHC	2	3.43	3.43	0.28		ug/l	
delta-BHC	1 [a]	2.97	2.97	0.31		ug/l	13.8
delta-BHC	2	3.81	3.81	0.27		ug/l	
gamma-BHC (Lindane)	1 [a]	2.71	2.71	0.32		ug/l	13.3
gamma-BHC (Lindane)	2	3.35	3.35	0.28		ug/l	
alpha-Chlordane	1 [a]	4.56	4.56	0.35		ug/l	15.4
alpha-Chlordane	2	5.64	5.64	0.30		ug/l	
gamma-Chlordane	1 [a]	4.39	4.40	0.32		ug/l	3.2
gamma-Chlordane	2	5.41	5.42	0.31		ug/l	
Dieldrin	1 [a]	5.06	5.07	0.33		ug/l	6.3
Dieldrin	2	6.15	6.15	0.31		ug/l	
4,4'-DDD	1 [a]	5.50	5.50	0.33		ug/l	3.1
4,4'-DDD	2	6.83	6.83	0.32		ug/l	
4,4'-DDE	1 [a]	4.67	4.67	0.32		ug/l	6.5
4,4'-DDE	2	5.90	5.90	0.30		ug/l	
4,4'-DDT	1 [a]	5.92	5.92	0.31		ug/l	0.0
4,4'-DDT	2	7.36	7.36	0.31		ug/l	
Endrin	1 [a]	5.38	5.39	0.34		ug/l	6.1
Endrin	2	6.64	6.65	0.32		ug/l	
Endosulfan sulfate	1 [a]	7.03	7.03	0.29		ug/l	3.4
Endosulfan sulfate	2	8.02	8.02	0.30		ug/l	
Endrin aldehyde	1 [a]	6.34	6.34	0.33		ug/l	6.3
Endrin aldehyde	2	7.56	7.56	0.31		ug/l	
Endrin ketone	1 [a]	7.45	7.45	0.31		ug/l	3.3
Endrin ketone	2	8.97	8.97	0.30		ug/l	
Endosulfan-I	1 [a]	4.74	4.75	0.32		ug/l	3.2
Endosulfan-I	2	5.73	5.73	0.31		ug/l	
Endosulfan-II	1 [a]	5.71	5.71	0.32		ug/l	6.5
Endosulfan-II	2	6.99	6.99	0.30		ug/l	
Heptachlor	1 [a]	3.19	3.20	0.31		ug/l	13.8
Heptachlor	2	3.90	3.90	0.27		ug/l	
Heptachlor epoxide	1 [a]	4.24	4.24	0.33		ug/l	5.9
Heptachlor epoxide	2	5.14	5.14	0.35		ug/l	
Methoxychlor	1 [a]	6.69	6.69	0.31		ug/l	3.3
Methoxychlor	2	8.60	8.60	0.30		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G3990-CC3988	**Injection Date:**	05/17/16
Lab File ID:	1G123133.D	**Injection Time:**	08:45
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP93907-MSD	**Injection Date:**	05/17/16
Lab File ID:	1G123146.D	**Injection Time:**	12:32
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.53	3.53	0.32		ug/l	9.8
Aldrin	2	4.34	4.34	0.29		ug/l	
alpha-BHC	1 [a]	2.41	2.41	0.31		ug/l	13.8
alpha-BHC	2	2.94	2.94	0.27		ug/l	
beta-BHC	1 [a]	2.78	2.78	0.35		ug/l	15.4
beta-BHC	2	3.43	3.43	0.30		ug/l	
delta-BHC	1 [a]	2.97	2.97	0.32		ug/l	13.3
delta-BHC	2	3.81	3.81	0.28		ug/l	
gamma-BHC (Lindane)	1 [a]	2.71	2.71	0.32		ug/l	13.3
gamma-BHC (Lindane)	2	3.35	3.35	0.28		ug/l	
alpha-Chlordane	1 [a]	4.56	4.56	0.37		ug/l	17.6
alpha-Chlordane	2	5.64	5.64	0.31		ug/l	
gamma-Chlordane	1 [a]	4.39	4.40	0.33		ug/l	3.1
gamma-Chlordane	2	5.42	5.42	0.32		ug/l	
Dieldrin	1 [a]	5.06	5.07	0.34		ug/l	9.2
Dieldrin	2	6.15	6.15	0.31		ug/l	
4,4'-DDD	1 [a]	5.50	5.50	0.34		ug/l	6.1
4,4'-DDD	2	6.83	6.83	0.32		ug/l	
4,4'-DDE	1 [a]	4.67	4.67	0.33		ug/l	6.3
4,4'-DDE	2	5.90	5.90	0.31		ug/l	
4,4'-DDT	1 [a]	5.92	5.92	0.31		ug/l	0.0
4,4'-DDT	2	7.36	7.36	0.31		ug/l	
Endrin	1 [a]	5.38	5.39	0.35		ug/l	9.0
Endrin	2	6.65	6.65	0.32		ug/l	
Endosulfan sulfate	1 [a]	7.03	7.03	0.31		ug/l	0.0
Endosulfan sulfate	2	8.02	8.02	0.31		ug/l	
Endrin aldehyde	1 [a]	6.34	6.34	0.34		ug/l	6.1
Endrin aldehyde	2	7.56	7.56	0.32		ug/l	
Endrin ketone	1 [a]	7.46	7.45	0.32		ug/l	3.2
Endrin ketone	2	8.97	8.97	0.31		ug/l	
Endosulfan-I	1 [a]	4.75	4.75	0.33		ug/l	6.3
Endosulfan-I	2	5.73	5.73	0.31		ug/l	
Endosulfan-II	1 [a]	5.71	5.71	0.34		ug/l	9.2
Endosulfan-II	2	6.99	6.99	0.31		ug/l	
Heptachlor	1 [a]	3.19	3.20	0.31		ug/l	13.8
Heptachlor	2	3.90	3.90	0.27		ug/l	
Heptachlor epoxide	1 [a]	4.24	4.24	0.34		ug/l	2.9
Heptachlor epoxide	2	5.14	5.14	0.35		ug/l	
Methoxychlor	1 [a]	6.69	6.69	0.32		ug/l	6.5
Methoxychlor	2	8.60	8.60	0.30		ug/l	

(a) QC results reported from this column.

Semivolatile Surrogate Recovery Summary

Job Number: JC20184
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]
JC20184-1	1G123081.D	91	101	48	53
JC20184-2	1G123082.D	127	119	88	91
JC20184-3	1G123111.D	109	97	81	76
JC20184-4	1G123084.D	87	85	76	82
JC20184-5	1G123085.D	99	102	67	76
JC20184-6	1G123086.D	97	91	74	78
OP93907-BS1	1G123078.D	122	112	113	112
OP93907-MB1	1G123077.D	118	106	98	99
OP93907-MS	1G123145.D	96	88	74	74
OP93907-MSD	1G123146.D	94	84	79	77

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

GC Surrogate Retention Time Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G3989-CC3988	**Injection Date:**	05/16/16
Lab File ID:	1G123075.D	**Injection Time:**	14:16
Instrument ID:	GC1G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	1.92	2.29	9.23	10.68

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP93907-MB1	1G123077.D	05/16/16	14:51	1.92	2.29	9.23	10.68
OP93907-BS1	1G123078.D	05/16/16	15:09	1.92	2.29	9.23	10.68
OP93838-MB1	1G123079.D	05/16/16	15:26	1.92	2.30	9.23	10.68
ZZZZZZ	1G123080.D	05/16/16	15:44	1.92	2.29	9.23	10.68
JC20184-1	1G123081.D	05/16/16	16:01	1.92	2.29	9.23	10.68
JC20184-2	1G123082.D	05/16/16	16:19	1.92	2.29	9.23	10.68
JC20184-4	1G123084.D	05/16/16	16:54	1.92	2.30	9.23	10.68
JC20184-3	1G123111.D	05/16/16	17:11	1.92	2.29	9.23	10.68
JC20184-5	1G123085.D	05/16/16	17:29	1.93	2.30	9.23	10.68
JC20184-6	1G123086.D	05/16/16	17:46	1.92	2.30	9.23	10.68

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G3990-CC3988	**Injection Date:**	05/17/16
Lab File ID:	1G123133.D	**Injection Time:**	08:45
Instrument ID:	GC1G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	1.92	2.30	9.23	10.68

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP93854-MB1	1G123135.D	05/17/16	09:20	1.93	2.30	9.23	10.68
OP93854-BS1	1G123136.D	05/17/16	09:37	1.92	2.30	9.23	10.68
OP93925-MB1	1G123137.D	05/17/16	09:55	1.92	2.29	9.23	10.68
OP93925-BS1	1G123138.D	05/17/16	10:12	1.92	2.29	9.23	10.68
OP93925-BSD	1G123139.D	05/17/16	10:30	1.92	2.29	9.23	10.68
ZZZZZZ	1G123140.D	05/17/16	10:47	1.92	2.29	9.23	10.68
ZZZZZZ	1G123141.D	05/17/16	11:05	1.92	2.29	9.23	10.67
ZZZZZZ	1G123142.D	05/17/16	11:22	1.92	2.29	9.23	10.67
ZZZZZZ	1G123143.D	05/17/16	11:40	1.92	2.29	9.23	10.68
ZZZZZZ	1G123144.D	05/17/16	11:57	1.92	2.29	9.23	10.68
OP93907-MS	1G123145.D	05/17/16	12:15	1.92	2.29	9.23	10.68
OP93907-MSD	1G123146.D	05/17/16	12:32	1.93	2.29	9.23	10.68
ZZZZZZ	1G123147.D	05/17/16	12:50	1.92	2.29	9.23	10.67
ZZZZZZ	1G123148.D	05/17/16	13:07	1.92	2.29	9.23	10.67
ZZZZZZ	1G123149.D	05/17/16	13:25	1.92	2.29	9.23	10.68
ZZZZZZ	1G123150.D	05/17/16	13:42	1.92	2.29	9.23	10.67
JC20016-4	1G123151.D	05/17/16	14:00	1.92	2.29	9.23	10.67
OP93854-MS	1G123152.D	05/17/16	14:17	1.92	2.29	9.23	10.67
OP93854-MSD	1G123153.D	05/17/16	14:35	1.92	2.29	9.23	10.67

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: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G1G3988-ICC3988
Lab FileID: 1G123065.D

Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Initial Calibration

Calibration Files
2 =1G123062.D 5 =1G123063.D 10 =1G123064.D 25 =1G123065.D
50 =1G123066.D 100 =1G123068.D 1 =1G123061.D 75 =1G123067.D

Compound	2	5	10	25	50	100	1	75	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.805	0.896	0.893	0.933	0.958	0.974	0.813	0.957	0.904	7.21
3) alpha-BHC	1.137	1.209	1.191	1.290	1.407	1.521	1.131	1.455	1.292	11.66
4) gamma-BHC	1.072	1.155	1.138	1.217	1.308	1.399	1.033	1.340	1.208	10.87
5) Heptachlor	1.163	1.203	1.149	1.202	1.264	1.326	1.246	1.281	1.229	4.94
6) beta-BHC	0.592	0.584	0.560	0.566	0.580	0.587	0.579	0.576	0.578	1.85
7) delta-BHC	1.027	1.091	1.093	1.166	1.279	1.388	1.108	1.321	1.184	10.92
8) Aldrin	1.013	1.087	1.054	1.117	1.186	1.263	1.030	1.213	1.120	8.15
9) Heptachlor E	1.001	1.103	1.065	1.096	1.140	1.182	1.105	1.142	1.104	4.95
10) gamma-Chlord	1.076	1.117	1.045	1.093	1.146	1.204	1.258	1.152	1.137	6.13
11) alpha-Chlord	1.074	1.112	1.057	1.097	1.137	1.184	1.214	1.143	1.127	4.74
12) Endosulfan I	1.026	1.064	1.023	1.061	1.098	1.139	1.162	1.102	1.084	4.62
13) 4,4'-DDE	1.078	1.106	1.059	1.110	1.157	1.211	1.206	1.165	1.136	5.01
14) Dieldrin	1.041	1.085	1.047	1.112	1.172	1.240	1.143	1.193	1.129	6.28
15) Endrin	0.982	0.997	0.952	0.986	1.028	1.069	1.139	1.036	1.024	5.77
16) 4,4'-DDD	0.826	0.859	0.829	0.881	0.931	0.987	0.879	0.948	0.893	6.46
17) Endosulfan I	1.022	1.062	1.012	1.052	1.089	1.120	1.135	1.090	1.073	4.09
18) 4,4'-DDT	0.863	0.927	0.909	0.955	1.010	1.068	1.019	1.027	0.972	7.17
19) Endrin Aldeh	0.821	0.829	0.801	0.816	0.848	0.897	0.880	0.887	0.847	4.29
20) Endosulfan S	0.930	0.984	0.958	0.988	1.008	1.027	1.334	1.010	1.030	12.29
21) Methoxychlor	0.571	0.514	0.563	0.570	0.572	0.571	0.680	0.567	0.576	8.06
22) Mirex	1.007	1.028	0.964	0.959	0.936	0.922	1.099	0.923	0.980	6.28
23) Endrin Keton	1.043	1.134	1.099	1.150	1.182	1.214	1.303	1.197	1.165	6.73
24) Decachlorobi	1.297	1.273	1.230	1.201	1.180	1.152	1.325	1.170	1.229	5.18
25) I 1-bromo-2-nitrobenzen	ISTD									
26) Toxaphene{A}					0.016				0.016	0.00
27) Toxaphene{B}					0.047				0.047	0.00
28) Toxaphene{C}					0.025				0.025	0.00
29) Toxaphene{D}					0.029				0.029	0.00
30) Toxaphene{E}					0.033				0.033	0.00
31) I 1-bromo-2-nitrobenzen	ISTD									
32) Chlordane {A					0.037				0.037	0.00
33) Chlordane {B					0.048				0.048	0.00
34) Chlordane {C					0.162				0.162	0.00
35) Chlordane {D					0.253				0.253	0.00
36) Chlordane {E					0.038				0.038	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.940	0.955	0.933	0.903	0.873	0.825	0.850	0.836	0.889	5.66
3) alpha-BHC	1.408	1.400	1.368	1.329	1.326	1.310	1.204	1.310	1.332	4.85
4) gamma-BHC	1.293	1.307	1.234	1.212	1.195	1.169	1.061	1.172	1.205	6.46

Initial Calibration Summary

Job Number: JC20184 **Sample:** G1G3988-ICC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123065.D
Project: BMSMC, Building 5 Area, PR

5)	Heptachlor	1.273	1.228	1.160	1.101	1.094	1.061	1.021	1.063	1.125	7.83
6)	beta-BHC	0.621	0.639	0.576	0.556	0.525	0.493	0.508	0.503	0.553	9.98
7)	delta-BHC	1.343	1.290	1.214	1.203	1.200	1.181	1.030	1.179	1.205	7.59
8)	Aldrin	1.082	1.079	1.038	1.041	1.030	1.011	0.948	1.007	1.030	4.16
9)	Heptachlor E	0.966	0.993	0.923	0.918	0.897	0.871	0.930	0.870	0.921	4.67
10)	gamma-Chlord	0.967	0.993	0.929	0.941	0.916	0.898	0.991	0.892	0.941	4.20
11)	alpha-Chlord	0.992	0.981	0.925	0.920	0.893	0.868	1.011	0.864	0.932	6.10
12)	Endosulfan I	0.886	0.911	0.881	0.887	0.854	0.822	0.809	0.823	0.859	4.37
13)	4,4'-DDE	0.951	0.956	0.919	0.925	0.900	0.884	0.983	0.875	0.924	4.05
14)	Dieldrin	0.998	1.007	0.947	0.962	0.940	0.916	1.034	0.913	0.965	4.59
15)	Endrin	0.888	0.924	0.851	0.828	0.810	0.776	0.951	0.765	0.849	7.93
16)	4,4'-DDD	0.776	0.823	0.758	0.771	0.749	0.733	0.755	0.724	0.761	4.03
17)	Endosulfan I	0.923	0.922	0.859	0.853	0.822	0.802	0.978	0.794	0.869	7.57
18)	4,4'-DDT	0.762	0.802	0.738	0.765	0.745	0.731	0.701	0.731	0.747	4.01
19)	Endrin Aldeh	0.681	0.706	0.667	0.661	0.643	0.625	0.718	0.634	0.667	5.00
20)	Endosulfan S	0.805	0.813	0.765	0.762	0.738	0.709	0.775	0.715	0.760	5.03
21)	Methoxychlor	0.410	0.429	0.394	0.383	0.373	0.352	0.502	0.366	0.401	11.88
22)	Mirex	0.674	0.685	0.651	0.611	0.586	0.553	0.759	0.565	0.635	11.00
23)	Endrin Keton	0.896	0.915	0.860	0.846	0.817	0.782	0.912	0.792	0.853	6.18
24)	Decachlorobi	0.665	0.678	0.638	0.607	0.581	0.543	0.726	0.561	0.625	10.09

25) I 1-bromo-2-nitrobenzen ----------ISTD----------

26)	Toxaphene{A}	0.013	0.013	0.00
27)	Toxaphene{B}	0.029	0.029	0.00
28)	Toxaphene{C}	0.051	0.051	0.00
29)	Toxaphene{D}	0.032	0.032	0.00
30)	Toxaphene{E}	0.030	0.030	0.00

31) I 1-bromo-2-nitrobenzen ----------ISTD----------

32)	Chlordane {A	0.037	0.037	0.00
33)	Chlordane {B	0.037	0.037	0.00
34)	Chlordane {C	0.122	0.122	0.00
35)	Chlordane {D	0.201	0.201	0.00
36)	Chlordane {E	0.036	0.036	0.00

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

1PST3988.M Mon May 16 15:10:27 2016 RPT1

10.9.1

10

Initial Calibration Verification

Job Number: JC20184 **Sample:** G1G3988-ICV3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123071.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123071.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123071.D\ECD2B.CH
Acq On    : 5-16-16 01:06:17 PM                      Operator: thomasl
Sample    : icv3988-25                               Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 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	104	0.00	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.903	0.853	5.5	95	0.00	1.89- 1.95
3	A	alpha-BHC	1.292	1.118	13.5	90	0.00	2.38- 2.44
4	MA	gamma-BHC	1.208	1.067	11.7	91	0.00	2.68- 2.74
5	MA	Heptachlor	1.229	1.045	15.0	91	0.00	3.16- 3.22
6	B	beta-BHC	0.578	0.497	14.0	91	0.00	2.75- 2.81
7	B	delta-BHC	1.184	1.097	7.3	98	0.00	2.94- 3.00
8	MB	Aldrin	1.121	0.976	12.9	91	0.00	3.50- 3.56
9	B	Heptachlor Epoxide	1.100	0.968	12.0	92	0.00	4.21- 4.27
10	B	gamma-Chlordane	1.134	0.980	13.6	93	0.00	4.37- 4.43
11	B	alpha-Chlordane	1.127	0.970	13.9	92	0.00	4.53- 4.59
12	A	Endosulfan I	1.085	0.910	16.1	89	0.00	4.72- 4.78
13	B	4,4'-DDE	1.137	0.977	14.1	92	0.00	4.65- 4.71
14	MA	Dieldrin	1.129	0.981	13.1	92	0.00	5.04- 5.10
15	MA	Endrin	1.023	0.875	14.5	92	0.00	5.36- 5.42
16	A	4,4'-DDD	0.892	0.781	12.4	92	0.00	5.47- 5.54
17	B	Endosulfan II	1.073	0.918	14.4	91	0.00	5.68- 5.74
18	MA	4,4'-DDT	0.972	0.806	17.1	88	0.00	5.89- 5.95
19	B	Endrin Aldehyde	0.848	0.757	10.7	97	0.00	6.31- 6.37
20	B	Endosulfan Sulfate	1.030	0.868	15.7	92	0.00	7.00- 7.06
21	A	Methoxychlor	0.586	0.478	18.4	88	0.00	6.67- 6.73
22		Mirex		----------NA----------				
23	B	Endrin Ketone	1.166	1.016	12.9	92	0.00	7.43- 7.49
24	SA	Decachlorobiphenyl	1.229	1.137	7.5	99	0.00	9.20- 9.26
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.23- 1.43
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.23- 1.43
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

***** Signal #2 *****

10.9.2 10

Initial Calibration Verification

Job Number: JC20184 **Sample:** G1G3988-ICV3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123071.D
Project: BMSMC, Building 5 Area, PR

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	1.46- 1.52
2	SAB	Tetrachloro-m-xylene	0.889	0.853	4.0	98	0.00	2.26- 2.32
3	A	alpha-BHC	1.331	1.193	10.4	93	0.00	2.91- 2.97
4	MA	gamma-BHC	1.205	1.086	9.9	93	0.00	3.32- 3.38
5	MA	Heptachlor	1.125	1.000	11.1	94	0.00	3.87- 3.93
6	B	beta-BHC	0.552	0.492	10.9	92	0.00	3.40- 3.46
7	B	delta-BHC	1.205	1.134	5.9	98	0.00	3.78- 3.84
8	MB	Aldrin	1.031	0.960	6.9	96	0.00	4.31- 4.37
9	B	Heptachlor Epoxide	0.920	0.853	7.3	97	0.00	5.11- 5.17
10	B	gamma-Chlordane	0.939	0.884	5.9	98	0.00	5.39- 5.45
11	B	alpha-Chlordane	0.933	0.845	9.4	95	0.00	5.61- 5.67
12	A	Endosulfan I	0.860	0.796	7.4	93	0.00	5.70- 5.76
13	B	4,4'-DDE	0.925	0.847	8.4	95	0.00	5.87- 5.93
14	MA	Dieldrin	0.963	0.890	7.6	96	0.00	6.12- 6.18
15	MA	Endrin	0.852	0.751	11.9	94	0.00	6.62- 6.68
16	A	4,4'-DDD	0.763	0.706	7.5	95	0.00	6.80- 6.86
17	B	Endosulfan II	0.868	0.780	10.1	95	0.00	6.96- 7.02
18	MA	4,4'-DDT	0.744	0.671	9.8	91	0.00	7.33- 7.39
19	B	Endrin Aldehyde	0.666	0.637	4.4	100	0.00	7.53- 7.59
20	B	Endosulfan Sulfate	0.760	0.703	7.5	96	0.00	7.99- 8.05
21	A	Methoxychlor	0.398	0.343	13.8	93	0.00	8.57- 8.63
22		Mirex		----------NA----------				
23	B	Endrin Ketone	0.851	0.786	7.6	97	0.00	8.94- 9.00
24	SA	Decachlorobiphenyl	0.624	0.586	6.1	100	0.00	10.65-10.71
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.39- 1.59
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.39- 1.59
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123065.D 1PST3988.M Mon May 16 17:24:55 2016 RPT1

10.9.2

10

Initial Calibration Verification

Job Number: JC20184 **Sample:** G1G3988-ICV3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123072.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123072.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123072.D\ECD2B.CH
Acq On    : 5-16-16 01:23:45 PM                      Operator: thomasl
Sample    : icv3988-25                               Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 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	104	0.00	1.30- 1.36
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3	A	alpha-BHC		----------NA----------				
4	MA	gamma-BHC		----------NA----------				
5	MA	Heptachlor		----------NA----------				
6	B	beta-BHC		----------NA----------				
7	B	delta-BHC		----------NA----------				
8	MB	Aldrin		----------NA----------				
9	B	Heptachlor Epoxide		----------NA----------				
10	B	gamma-Chlordane		----------NA----------				
11	B	alpha-Chlordane		----------NA----------				
12	A	Endosulfan I		----------NA----------				
13	B	4,4'-DDE		----------NA----------				
14	MA	Dieldrin		----------NA----------				
15	MA	Endrin		----------NA----------				
16	A	4,4'-DDD		----------NA----------				
17	B	Endosulfan II		----------NA----------				
18	MA	4,4'-DDT		----------NA----------				
19	B	Endrin Aldehyde		----------NA----------				
20	B	Endosulfan Sulfate		----------NA----------				
21	A	Methoxychlor		----------NA----------				
22		Mirex	0.980	0.896	8.6	97	0.00	6.80- 6.86
23	B	Endrin Ketone		----------NA----------				
24	SA	Decachlorobiphenyl		----------NA----------				
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.23- 1.43
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.23- 1.43
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

***** Signal #2 *****

Initial Calibration Verification

Job Number: JC20184 **Sample:** G1G3988-ICV3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123072.D
Project: BMSMC, Building 5 Area, PR

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	1.47- 1.53
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3	A	alpha-BHC		----------NA----------				
4	MA	gamma-BHC		----------NA----------				
5	MA	Heptachlor		----------NA----------				
6	B	beta-BHC		----------NA----------				
7	B	delta-BHC		----------NA----------				
8	MB	Aldrin		----------NA----------				
9	B	Heptachlor Epoxide		----------NA----------				
10	B	gamma-Chlordane		----------NA----------				
11	B	alpha-Chlordane		----------NA----------				
12	A	Endosulfan I		----------NA----------				
13	B	4,4'-DDE		----------NA----------				
14	MA	Dieldrin		----------NA----------				
15	MA	Endrin		----------NA----------				
16	A	4,4'-DDD		----------NA----------				
17	B	Endosulfan II		----------NA----------				
18	MA	4,4'-DDT		----------NA----------				
19	B	Endrin Aldehyde		----------NA----------				
20	B	Endosulfan Sulfate		----------NA----------				
21	A	Methoxychlor		----------NA----------				
22		Mirex	0.635	0.598	5.8	102	0.00	8.87- 8.93
23	B	Endrin Ketone		----------NA----------				
24	SA	Decachlorobiphenyl		----------NA----------				
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.40- 1.60
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.40- 1.60
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123065.D 1PST3988.M Mon May 16 17:24:56 2016 RPT1

10.9.3 10

Initial Calibration Verification

Job Number: JC20184 **Sample:** G1G3988-ICV3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123073.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD2B.CH
Acq On    : 5-16-16 01:41:21 PM                      Operator: thomasl
Sample    : icv3988-500                              Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 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	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.904	0.857	5.2	91	0.00	1.89- 1.95
3	A	alpha-BHC		----------NA----------				
4	MA	gamma-BHC		----------NA----------				
5	MA	Heptachlor		----------NA----------				
6	B	beta-BHC		----------NA----------				
7	B	delta-BHC		----------NA----------				
8	MB	Aldrin		----------NA----------				
9	B	Heptachlor Epoxide		----------NA----------				
10	B	gamma-Chlordane		----------NA----------				
11	B	alpha-Chlordane		----------NA----------				
12	A	Endosulfan I		----------NA----------				
13	B	4,4'-DDE		----------NA----------				
14	MA	Dieldrin		----------NA----------				
15	MA	Endrin		----------NA----------				
16	A	4,4'-DDD		----------NA----------				
17	B	Endosulfan II		----------NA----------				
18	MA	4,4'-DDT		----------NA----------				
19	B	Endrin Aldehyde		----------NA----------				
20	B	Endosulfan Sulfate		----------NA----------				
21	A	Methoxychlor		----------NA----------				
22		Mirex		----------NA----------				
23	B	Endrin Ketone		----------NA----------				
24	SA	Decachlorobiphenyl	1.229	1.129	8.1	98	0.00	9.20- 9.26
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.23- 1.43
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	1.23- 1.43
32		Chlordane {A}	0.037	0.039	-5.4	112	0.00	3.01- 3.21
33		Chlordane {B}	0.048	0.044	8.3	97	0.00	3.57- 3.77
34		Chlordane {C}	0.162	0.142	12.3	92	0.00	4.30- 4.50
35		Chlordane {D}	0.253	0.226	10.7	94	0.00	4.45- 4.65
36		Chlordane {E}	0.038	0.035	7.9	98	0.00	5.50- 5.70

***** Signal #2 *****

Initial Calibration Verification

Job Number: JC20184
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G1G3988-ICV3988
Lab FileID: 1G123073.D

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.46- 1.52
2	SAB	Tetrachloro-m-xylene	0.889	0.816	8.2	94	0.00	2.26- 2.32
3	A	alpha-BHC		----------NA----------				
4	MA	gamma-BHC		----------NA----------				
5	MA	Heptachlor		----------NA----------				
6	B	beta-BHC		----------NA----------				
7	B	delta-BHC		----------NA----------				
8	MB	Aldrin		----------NA----------				
9	B	Heptachlor Epoxide		----------NA----------				
10	B	gamma-Chlordane		----------NA----------				
11	B	alpha-Chlordane		----------NA----------				
12	A	Endosulfan I		----------NA----------				
13	B	4,4'-DDE		----------NA----------				
14	MA	Dieldrin		----------NA----------				
15	MA	Endrin		----------NA----------				
16	A	4,4'-DDD		----------NA----------				
17	B	Endosulfan II		----------NA----------				
18	MA	4,4'-DDT		----------NA----------				
19	B	Endrin Aldehyde		----------NA----------				
20	B	Endosulfan Sulfate		----------NA----------				
21	A	Methoxychlor		----------NA----------				
22		Mirex		----------NA----------				
23	B	Endrin Ketone		----------NA----------				
24	SA	Decachlorobiphenyl	0.625	0.584	6.6	101	0.00	10.65-10.71
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.39- 1.59
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	1.39- 1.59
32		Chlordane {A}	0.037	0.040	-8.1	113	0.00	3.61- 3.81
33		Chlordane {B}	0.037	0.036	2.7	101	0.00	4.43- 4.63
34		Chlordane {C}	0.122	0.111	9.0	94	0.00	5.32- 5.52
35		Chlordane {D}	0.201	0.185	8.0	95	0.00	5.54- 5.74
36		Chlordane {E}	0.036	0.033	8.3	94	0.00	6.97- 7.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123066.D 1PST3988.M Mon May 16 15:08:04 2016 RPT1

10.9.4 10

Initial Calibration Verification

Job Number: JC20184 **Sample:** G1G3988-ICV3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123074.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On    : 5-16-16 01:58:48 PM                      Operator: thomasl
Sample    : icv3988-500                              Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 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	103	0.00	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.904	0.843	6.7	91	0.00	1.89- 1.95
3	A	alpha-BHC		----------NA----------				
4	MA	gamma-BHC		----------NA----------				
5	MA	Heptachlor		----------NA----------				
6	B	beta-BHC		----------NA----------				
7	B	delta-BHC		----------NA----------				
8	MB	Aldrin		----------NA----------				
9	B	Heptachlor Epoxide		----------NA----------				
10	B	gamma-Chlordane		----------NA----------				
11	B	alpha-Chlordane		----------NA----------				
12	A	Endosulfan I		----------NA----------				
13	B	4,4'-DDE		----------NA----------				
14	MA	Dieldrin		----------NA----------				
15	MA	Endrin		----------NA----------				
16	A	4,4'-DDD		----------NA----------				
17	B	Endosulfan II		----------NA----------				
18	MA	4,4'-DDT		----------NA----------				
19	B	Endrin Aldehyde		----------NA----------				
20	B	Endosulfan Sulfate		----------NA----------				
21	A	Methoxychlor		----------NA----------				
22		Mirex		----------NA----------				
23	B	Endrin Ketone		----------NA----------				
24	SA	Decachlorobiphenyl	1.229	1.090	11.3	95	0.00	9.20- 9.26
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.23- 1.43
26	L8	Toxaphene{A}	0.016	0.018	-12.5	114	0.00	4.97- 5.17
27	L8	Toxaphene{B}	0.047	0.047	0.0	102	0.00	5.60- 5.80
28	L8	Toxaphene{C}	0.025	0.026	-4.0	105	0.00	5.77- 5.97
29	L8	Toxaphene{D}	0.029	0.030	-3.4	105	0.00	6.10- 6.30
30	L8	Toxaphene{E}	0.033	0.032	3.0	99	0.00	6.75- 6.95
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.00	1.23- 1.43
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

***** Signal #2 *****

Initial Calibration Verification

Job Number: JC20184 **Sample:** G1G3988-ICV3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123074.D
Project: BMSMC, Building 5 Area, PR

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.46- 1.52
2	SAB	Tetrachloro-m-xylene	0.889	0.812	8.7	93	0.00	2.27- 2.33
3	A	alpha-BHC		----------NA----------				
4	MA	gamma-BHC		----------NA----------				
5	MA	Heptachlor		----------NA----------				
6	B	beta-BHC		----------NA----------				
7	B	delta-BHC		----------NA----------				
8	MB	Aldrin		----------NA----------				
9	B	Heptachlor Epoxide		----------NA----------				
10	B	gamma-Chlordane		----------NA----------				
11	B	alpha-Chlordane		----------NA----------				
12	A	Endosulfan I		----------NA----------				
13	B	4,4'-DDE		----------NA----------				
14	MA	Dieldrin		----------NA----------				
15	MA	Endrin		----------NA----------				
16	A	4,4'-DDD		----------NA----------				
17	B	Endosulfan II		----------NA----------				
18	MA	4,4'-DDT		----------NA----------				
19	B	Endrin Aldehyde		----------NA----------				
20	B	Endosulfan Sulfate		----------NA----------				
21	A	Methoxychlor		----------NA----------				
22		Mirex		----------NA----------				
23	B	Endrin Ketone		----------NA----------				
24	SA	Decachlorobiphenyl	0.625	0.575	8.0	99	0.00	10.65-10.71
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.39- 1.59
26	L8	Toxaphene{A}	0.013	0.014	-7.7	102	0.00	6.02- 6.22
27	L8	Toxaphene{B}	0.029	0.031	-6.9	107	0.00	6.86- 7.06
28	L8	Toxaphene{C}	0.051	0.052	-2.0	103	0.00	7.02- 7.22
29	L8	Toxaphene{D}	0.032	0.033	-3.1	103	0.00	7.46- 7.66
30	L8	Toxaphene{E}	0.030	0.031	-3.3	102	0.00	8.34- 8.54
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	1.39- 1.59
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123066.D 1PST3988.M Mon May 16 15:08:05 2016 RPT1

10.9.5 10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3989-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123075.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123075.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123075.D\ECD2B.CH
Acq On    : 5-16-16 02:16:30 PM                      Operator: rebeccak
Sample    : cc3988-25                                Inst    : GC1G
Misc      : op93854,g1g3989,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 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	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.903	0.934	-3.4	102	0.00	1.89- 1.95
3	A	alpha-BHC	1.292	1.292	0.0	101	0.00	2.38- 2.44
4	MA	gamma-BHC	1.208	1.227	-1.6	102	0.00	2.68- 2.74
5	MA	Heptachlor	1.229	1.195	2.8	101	0.00	3.17- 3.23
6	B	beta-BHC	0.578	0.572	1.0	102	0.00	2.75- 2.81
7	B	delta-BHC	1.184	1.167	1.4	101	0.00	2.94- 3.00
8	MB	Aldrin	1.121	1.133	-1.1	103	0.00	3.50- 3.56
9	B	Heptachlor Epoxide	1.100	1.109	-0.8	102	0.00	4.21- 4.27
10	B	gamma-Chlordane	1.134	1.107	2.4	103	0.00	4.37- 4.43
11	B	alpha-Chlordane	1.127	1.110	1.5	102	0.00	4.54- 4.60
12	A	Endosulfan I	1.085	1.067	1.7	102	0.00	4.72- 4.78
13	B	4,4'-DDE	1.137	1.117	1.8	102	0.00	4.65- 4.71
14	MA	Dieldrin	1.129	1.115	1.2	102	0.00	5.04- 5.10
15	MA	Endrin	1.023	0.936	8.5	96	0.00	5.36- 5.42
16	A	4,4'-DDD	0.892	0.886	0.7	102	0.00	5.47- 5.54
17	B	Endosulfan II	1.073	1.052	2.0	101	0.00	5.68- 5.74
18	MA	4,4'-DDT	0.972	0.926	4.7	98	0.00	5.89- 5.95
19	B	Endrin Aldehyde	0.848	0.813	4.1	101	0.00	6.31- 6.37
20	B	Endosulfan Sulfate	1.030	0.964	6.4	99	0.00	7.00- 7.06
21	A	Methoxychlor	0.586	0.542	7.5	96	0.00	6.66- 6.72
22		Mirex	0.980	0.969	1.1	102	0.00	6.79- 6.85
23	B	Endrin Ketone	1.166	1.137	2.5	100	0.00	7.43- 7.49
24	SA	Decachlorobiphenyl	1.229	1.222	0.6	103	0.00	9.20- 9.26
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.23- 1.43
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.23- 1.43
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

***** Signal #2 *****

10.9.6 10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3989-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123075.D
Project: BMSMC, Building 5 Area, PR

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.46- 1.52
2	SAB	Tetrachloro-m-xylene	0.889	0.914	-2.8	104	0.00	2.26- 2.32
3	A	alpha-BHC	1.331	1.343	-0.9	103	0.00	2.91- 2.97
4	MA	gamma-BHC	1.205	1.220	-1.2	103	0.00	3.32- 3.38
5	MA	Heptachlor	1.125	1.125	0.0	105	0.00	3.87- 3.93
6	B	beta-BHC	0.552	0.555	-0.5	102	0.00	3.40- 3.46
7	B	delta-BHC	1.205	1.182	1.9	101	0.00	3.78- 3.84
8	MB	Aldrin	1.031	1.087	-5.4	107	0.00	4.31- 4.37
9	B	Heptachlor Epoxide	0.920	0.960	-4.3	107	0.00	5.11- 5.17
10	B	gamma-Chlordane	0.939	0.974	-3.7	106	0.00	5.38- 5.44
11	B	alpha-Chlordane	0.933	0.957	-2.6	107	0.00	5.61- 5.67
12	A	Endosulfan I	0.860	0.924	-7.4	107	0.00	5.70- 5.76
13	B	4,4'-DDE	0.925	0.953	-3.0	106	0.00	5.87- 5.93
14	MA	Dieldrin	0.963	0.996	-3.4	106	0.00	6.12- 6.18
15	MA	Endrin	0.852	0.806	5.4	100	0.00	6.61- 6.67
16	A	4,4'-DDD	0.763	0.794	-4.1	105	0.00	6.80- 6.86
17	B	Endosulfan II	0.868	0.885	-2.0	106	0.00	6.96- 7.02
18	MA	4,4'-DDT	0.744	0.763	-2.6	102	0.00	7.33- 7.39
19	B	Endrin Aldehyde	0.666	0.684	-2.7	106	0.00	7.53- 7.59
20	B	Endosulfan Sulfate	0.760	0.770	-1.3	103	0.00	7.99- 8.05
21	A	Methoxychlor	0.398	0.385	3.3	103	0.00	8.57- 8.63
22		Mirex	0.635	0.656	-3.3	110	0.00	8.87- 8.93
23	B	Endrin Ketone	0.851	0.876	-2.9	106	0.00	8.94- 9.00
24	SA	Decachlorobiphenyl	0.624	0.640	-2.6	108	0.00	10.65-10.71
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.39- 1.59
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.39- 1.59
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123065.D 1PST3988.M Mon May 16 17:32:10 2016 RPT1

10.9.6

10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3989-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123088.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123088.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123088.D\ECD2B.CH
Acq On    : 5-16-16 07:32:17 PM                      Operator: dharas
Sample    : cc3988-50                                Inst    : GC1G
Misc      : op93907,g1g3989,850,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 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	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.903	0.896	0.8	95	0.00	1.89- 1.95
3	A	alpha-BHC	1.292	1.337	-3.5	97	0.00	2.38- 2.44
4	MA	gamma-BHC	1.208	1.235	-2.2	96	0.00	2.68- 2.74
5	MA	Heptachlor	1.229	1.234	-0.4	99	0.00	3.16- 3.22
6	B	beta-BHC	0.578	0.545	5.7	96	0.00	2.75- 2.81
7	B	delta-BHC	1.184	1.218	-2.9	97	0.00	2.94- 3.00
8	MB	Aldrin	1.121	1.142	-1.9	98	0.00	3.49- 3.55
9	B	Heptachlor Epoxide	1.100	1.081	1.7	96	0.00	4.21- 4.27
10	B	gamma-Chlordane	1.134	1.072	5.5	95	0.00	4.36- 4.42
11	B	alpha-Chlordane	1.127	1.079	4.3	96	0.00	4.53- 4.59
12	A	Endosulfan I	1.085	1.046	3.6	97	0.00	4.72- 4.78
13	B	4,4'-DDE	1.137	1.106	2.7	97	0.00	4.64- 4.70
14	MA	Dieldrin	1.129	1.288	-14.1	112	0.00	5.04- 5.10
15	MA	Endrin	1.023	1.022	0.1	101	0.00	5.36- 5.42
16	A	4,4'-DDD	0.892	0.895	-0.3	98	0.00	5.47- 5.54
17	B	Endosulfan II	1.073	1.040	3.1	97	0.00	5.68- 5.74
18	MA	4,4'-DDT	0.972	0.990	-1.9	100	0.00	5.89- 5.95
19	B	Endrin Aldehyde	0.848	0.808	4.7	97	0.00	6.31- 6.37
20	B	Endosulfan Sulfate	1.030	0.956	7.2	96	0.00	7.00- 7.06
21	A	Methoxychlor	0.586	0.565	3.6	101	0.00	6.66- 6.72
22		Mirex	0.980	0.896	8.6	97	0.00	6.79- 6.85
23	B	Endrin Ketone	1.166	1.113	4.5	96	0.00	7.43- 7.49
24	SA	Decachlorobiphenyl	1.229	1.173	4.6	101	0.00	9.20- 9.26
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.23- 1.43
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.23- 1.43
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

***** Signal #2 *****

10.9.7 10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3989-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123088.D
Project: BMSMC, Building 5 Area, PR

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	96	0.00	1.46- 1.52
2	SAB	Tetrachloro-m-xylene	0.889	0.845	4.9	93	0.00	2.26- 2.32
3	A	alpha-BHC	1.331	1.286	3.4	93	0.00	2.90- 2.96
4	MA	gamma-BHC	1.205	1.158	3.9	93	0.00	3.32- 3.38
5	MA	Heptachlor	1.125	1.088	3.3	96	0.00	3.87- 3.93
6	B	beta-BHC	0.552	0.500	9.4	92	0.00	3.40- 3.46
7	B	delta-BHC	1.205	1.160	3.7	93	0.00	3.78- 3.84
8	MB	Aldrin	1.031	0.998	3.2	93	0.00	4.31- 4.37
9	B	Heptachlor Epoxide	0.920	0.907	1.4	97	0.00	5.11- 5.17
10	B	gamma-Chlordane	0.939	0.912	2.9	96	0.00	5.39- 5.45
11	B	alpha-Chlordane	0.933	0.886	5.0	95	0.00	5.61- 5.67
12	A	Endosulfan I	0.860	0.855	0.6	96	0.00	5.70- 5.76
13	B	4,4'-DDE	0.925	1.046	-13.1	112	0.00	5.87- 5.93
14	MA	Dieldrin	0.963	0.940	2.4	96	0.00	6.12- 6.18
15	MA	Endrin	0.852	0.829	2.7	98	0.00	6.61- 6.67
16	A	4,4'-DDD	0.763	0.757	0.8	97	0.00	6.80- 6.87
17	B	Endosulfan II	0.868	0.832	4.1	97	0.00	6.96- 7.02
18	MA	4,4'-DDT	0.744	0.790	-6.2	102	0.00	7.33- 7.39
19	B	Endrin Aldehyde	0.666	0.647	2.9	97	0.00	7.53- 7.59
20	B	Endosulfan Sulfate	0.760	0.749	1.4	98	0.00	7.99- 8.05
21	A	Methoxychlor	0.398	0.408	-2.5	105	0.00	8.57- 8.63
22		Mirex	0.635	0.601	5.4	99	0.00	8.86- 8.92
23	B	Endrin Ketone	0.851	0.838	1.5	99	0.00	8.94- 9.00
24	SA	Decachlorobiphenyl	0.624	0.605	3.0	100	0.00	10.65-10.71
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	95	0.00	1.39- 1.59
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.39- 1.59
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123066.D 1PST3988.M Tue May 17 10:02:50 2016 RPT1

10.9.7 10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3990-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123133.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD2B.CH
Acq On    : 5-17-16 08:45:06 AM                      Operator: rebeccak
Sample    : cc3988-50                                Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 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	104	0.00	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.903	0.880	2.5	96	0.00	1.89- 1.95
3	A	alpha-BHC	1.292	1.292	0.0	96	0.00	2.38- 2.44
4	MA	gamma-BHC	1.208	1.197	0.9	95	0.00	2.68- 2.74
5	MA	Heptachlor	1.229	1.202	2.2	99	0.00	3.17- 3.23
6	B	beta-BHC	0.578	0.527	8.8	95	0.00	2.75- 2.81
7	B	delta-BHC	1.184	1.160	2.0	95	0.00	2.94- 3.00
8	MB	Aldrin	1.121	1.112	0.8	98	0.00	3.50- 3.56
9	B	Heptachlor Epoxide	1.100	1.103	-0.3	101	0.00	4.21- 4.27
10	B	gamma-Chlordane	1.134	1.023	9.8	93	0.00	4.37- 4.43
11	B	alpha-Chlordane	1.127	1.028	8.8	94	0.00	4.53- 4.59
12	A	Endosulfan I	1.085	1.003	7.6	95	0.00	4.72- 4.78
13	B	4,4'-DDE	1.137	1.054	7.3	95	0.00	4.64- 4.70
14	MA	Dieldrin	1.129	1.081	4.3	96	0.00	5.04- 5.10
15	MA	Endrin	1.023	0.998	2.4	101	0.00	5.36- 5.42
16	A	4,4'-DDD	0.892	0.852	4.5	95	0.00	5.47- 5.54
17	B	Endosulfan II	1.073	0.987	8.0	94	0.00	5.68- 5.74
18	MA	4,4'-DDT	0.972	0.914	6.0	94	0.00	5.89- 5.95
19	B	Endrin Aldehyde	0.848	0.755	11.0	93	0.00	6.31- 6.37
20	B	Endosulfan Sulfate	1.030	0.893	13.3	92	0.00	7.00- 7.06
21	A	Methoxychlor	0.586	0.530	9.6	97	0.00	6.66- 6.72
22		Mirex	0.980	0.835	14.8	93	0.00	6.79- 6.85
23	B	Endrin Ketone	1.166	0.980	16.0	86	0.00	7.42- 7.48
24	SA	Decachlorobiphenyl	1.229	1.127	8.3	100	0.00	9.20- 9.26
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.23- 1.43
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	1.23- 1.43
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

***** Signal #2 *****

10.9.8 10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3990-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123133.D
Project: BMSMC, Building 5 Area, PR

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	94	0.00	1.47- 1.53
2	SAB	Tetrachloro-m-xylene	0.889	0.817	8.1	88	0.00	2.27- 2.33
3	A	alpha-BHC	1.331	1.217	8.6	86	0.00	2.91- 2.97
4	MA	gamma-BHC	1.205	1.106	8.2	87	0.00	3.32- 3.38
5	MA	Heptachlor	1.125	1.036	7.9	89	0.00	3.87- 3.93
6	B	beta-BHC	0.552	0.474	14.1	84	0.00	3.40- 3.46
7	B	delta-BHC	1.205	1.085	10.0	85	0.00	3.78- 3.84
8	MB	Aldrin	1.031	0.960	6.9	87	0.00	4.31- 4.37
9	B	Heptachlor Epoxide	0.920	0.867	5.8	90	0.00	5.11- 5.17
10	B	gamma-Chlordane	0.939	0.872	7.1	89	0.00	5.39- 5.45
11	B	alpha-Chlordane	0.933	0.844	9.5	89	0.00	5.61- 5.67
12	A	Endosulfan I	0.860	0.816	5.1	89	0.00	5.70- 5.76
13	B	4,4'-DDE	0.925	0.861	6.9	90	0.00	5.87- 5.93
14	MA	Dieldrin	0.963	0.898	6.7	89	0.00	6.12- 6.18
15	MA	Endrin	0.852	0.809	5.0	94	0.00	6.62- 6.68
16	A	4,4'-DDD	0.763	0.717	6.0	90	0.00	6.80- 6.86
17	B	Endosulfan II	0.868	0.785	9.6	89	0.00	6.96- 7.02
18	MA	4,4'-DDT	0.744	0.717	3.6	90	0.00	7.33- 7.39
19	B	Endrin Aldehyde	0.666	0.602	9.6	88	0.00	7.53- 7.59
20	B	Endosulfan Sulfate	0.760	0.685	9.9	87	0.00	7.99- 8.05
21	A	Methoxychlor	0.398	0.381	4.3	96	0.00	8.57- 8.63
22		Mirex	0.635	0.554	12.8	89	0.00	8.87- 8.93
23	B	Endrin Ketone	0.851	0.741	12.9	85	0.00	8.94- 9.00
24	SA	Decachlorobiphenyl	0.624	0.589	5.6	95	0.00	10.65-10.71
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	1.40- 1.60
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.40- 1.60
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123066.D 1PST3988.M Tue May 17 12:49:39 2016 RPT1

10.9.8 10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3990-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123155.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On    : 5-17-16 04:19:00 PM                      Operator: dharas
Sample    : cc3988-25                                Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 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	107	0.00	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.903	0.900	0.3	103	0.00	1.89- 1.95
3	A	alpha-BHC	1.292	1.272	1.5	105	0.00	2.38- 2.44
4	MA	gamma-BHC	1.208	1.204	0.3	106	0.00	2.68- 2.74
5	MA	Heptachlor	1.229	1.229	0.0	109	0.00	3.16- 3.22
6	B	beta-BHC	0.578	0.570	1.4	107	0.00	2.75- 2.81
7	B	delta-BHC	1.184	1.152	2.7	105	0.00	2.94- 3.00
8	MB	Aldrin	1.121	1.128	-0.6	108	0.00	3.49- 3.55
9	B	Heptachlor Epoxide	1.100	1.090	0.9	106	0.00	4.21- 4.27
10	B	gamma-Chlordane	1.134	1.086	4.2	106	0.00	4.36- 4.42
11	B	alpha-Chlordane	1.127	1.096	2.8	107	0.00	4.53- 4.59
12	A	Endosulfan I	1.085	1.062	2.1	107	0.00	4.71- 4.77
13	B	4,4'-DDE	1.137	1.115	1.9	107	0.00	4.64- 4.70
14	MA	Dieldrin	1.129	1.120	0.8	108	0.00	5.03- 5.09
15	MA	Endrin	1.023	1.041	-1.8	113	0.00	5.35- 5.41
16	A	4,4'-DDD	0.892	0.890	0.2	108	0.00	5.47- 5.54
17	B	Endosulfan II	1.073	1.056	1.6	107	0.00	5.68- 5.74
18	MA	4,4'-DDT	0.972	0.981	-0.9	110	0.00	5.88- 5.94
19	B	Endrin Aldehyde	0.848	0.804	5.2	105	0.00	6.31- 6.37
20	B	Endosulfan Sulfate	1.030	0.983	4.6	106	0.00	6.99- 7.05
21	A	Methoxychlor	0.586	0.600	-2.4	112	0.00	6.66- 6.72
22		Mirex	0.980	0.962	1.8	107	0.00	6.79- 6.85
23	B	Endrin Ketone	1.166	1.119	4.0	104	0.00	7.42- 7.48
24	SA	Decachlorobiphenyl	1.229	1.241	-1.0	110	0.00	9.19- 9.25
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.23- 1.43
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.23- 1.43
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

***** Signal #2 *****

10.9.9 10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3990-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123155.D
Project: BMSMC, Building 5 Area, PR

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.47- 1.53
2	SAB	Tetrachloro-m-xylene	0.889	0.865	2.7	97	0.00	2.27- 2.33
3	A	alpha-BHC	1.331	1.286	3.4	98	0.00	2.91- 2.97
4	MA	gamma-BHC	1.205	1.171	2.8	97	0.00	3.32- 3.38
5	MA	Heptachlor	1.125	1.117	0.7	102	0.00	3.87- 3.93
6	B	beta-BHC	0.552	0.528	4.3	96	0.00	3.40- 3.46
7	B	delta-BHC	1.205	1.156	4.1	97	0.00	3.78- 3.84
8	MB	Aldrin	1.031	1.022	0.9	99	0.00	4.31- 4.37
9	B	Heptachlor Epoxide	0.920	0.925	-0.5	102	0.00	5.11- 5.17
10	B	gamma-Chlordane	0.939	0.934	0.5	100	0.00	5.38- 5.44
11	B	alpha-Chlordane	0.933	0.917	1.7	101	0.00	5.61- 5.67
12	A	Endosulfan I	0.860	0.875	-1.7	99	0.00	5.70- 5.76
13	B	4,4'-DDE	0.925	0.923	0.2	101	0.00	5.87- 5.93
14	MA	Dieldrin	0.963	0.961	0.2	101	0.00	6.12- 6.18
15	MA	Endrin	0.852	0.873	-2.5	106	0.00	6.61- 6.67
16	A	4,4'-DDD	0.763	0.780	-2.2	102	0.00	6.80- 6.86
17	B	Endosulfan II	0.868	0.855	1.5	101	0.00	6.96- 7.02
18	MA	4,4'-DDT	0.744	0.788	-5.9	104	0.00	7.33- 7.39
19	B	Endrin Aldehyde	0.666	0.654	1.8	100	0.00	7.52- 7.58
20	B	Endosulfan Sulfate	0.760	0.754	0.8	100	0.00	7.99- 8.05
21	A	Methoxychlor	0.398	0.414	-4.0	109	0.00	8.57- 8.63
22		Mirex	0.635	0.613	3.5	101	0.00	8.86- 8.92
23	B	Endrin Ketone	0.851	0.834	2.0	99	0.00	8.94- 9.00
24	SA	Decachlorobiphenyl	0.624	0.648	-3.8	108	0.00	10.64-10.70
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.40- 1.60
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.40- 1.60
32		Chlordane {A}		----------NA----------				
33		Chlordane {B}		----------NA----------				
34		Chlordane {C}		----------NA----------				
35		Chlordane {D}		----------NA----------				
36		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123065.D 1PST3988.M Wed May 18 12:38:21 2016 RPT1

10.9.9 10

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3990-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123156.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD2B.CH
Acq On    : 5-17-16 04:36:31 PM                      Operator: dharas
Sample    : cc3988-500                               Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 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	103	0.00	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.903	0.994	-10.1	107	0.00	1.89- 1.95
3	A	alpha-BHC		----------NA----------				
4	MA	gamma-BHC		----------NA----------				
5	MA	Heptachlor		----------NA----------				
6	B	beta-BHC		----------NA----------				
7	B	delta-BHC		----------NA----------				
8	MB	Aldrin		----------NA----------				
9	B	Heptachlor Epoxide		----------NA----------				
10	B	gamma-Chlordane		----------NA----------				
11	B	alpha-Chlordane		----------NA----------				
12	A	Endosulfan I		----------NA----------				
13	B	4,4'-DDE		----------NA----------				
14	MA	Dieldrin		----------NA----------				
15	MA	Endrin		----------NA----------				
16	A	4,4'-DDD		----------NA----------				
17	B	Endosulfan II		----------NA----------				
18	MA	4,4'-DDT		----------NA----------				
19	B	Endrin Aldehyde		----------NA----------				
20	B	Endosulfan Sulfate		----------NA----------				
21	A	Methoxychlor		----------NA----------				
22		Mirex		----------NA----------				
23	B	Endrin Ketone		----------NA----------				
24	SA	Decachlorobiphenyl	1.229	1.281	-4.2	112	0.00	9.20- 9.26
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.23- 1.43
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	1.23- 1.43
32		Chlordane {A}	0.037	0.035	5.4	101	0.00	3.01- 3.21
33		Chlordane {B}	0.048	0.043	10.4	97	0.00	3.57- 3.77
34		Chlordane {C}	0.162	0.156	3.7	103	0.00	4.29- 4.49
35		Chlordane {D}	0.253	0.245	3.2	103	0.00	4.45- 4.65
36		Chlordane {E}	0.038	0.037	2.6	103	0.00	5.50- 5.70

***** Signal #2 *****

Continuing Calibration Summary

Job Number: JC20184 **Sample:** G1G3990-CC3988
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G123156.D
Project: BMSMC, Building 5 Area, PR

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	96	0.00	1.46- 1.52
2	SAB	Tetrachloro-m-xylene	0.889	0.900	-1.2	99	0.00	2.26- 2.32
3	A	alpha-BHC		----------NA----------				
4	MA	gamma-BHC		----------NA----------				
5	MA	Heptachlor		----------NA----------				
6	B	beta-BHC		----------NA----------				
7	B	delta-BHC		----------NA----------				
8	MB	Aldrin		----------NA----------				
9	B	Heptachlor Epoxide		----------NA----------				
10	B	gamma-Chlordane		----------NA----------				
11	B	alpha-Chlordane		----------NA----------				
12	A	Endosulfan I		----------NA----------				
13	B	4,4'-DDE		----------NA----------				
14	MA	Dieldrin		----------NA----------				
15	MA	Endrin		----------NA----------				
16	A	4,4'-DDD		----------NA----------				
17	B	Endosulfan II		----------NA----------				
18	MA	4,4'-DDT		----------NA----------				
19	B	Endrin Aldehyde		----------NA----------				
20	B	Endosulfan Sulfate		----------NA----------				
21	A	Methoxychlor		----------NA----------				
22		Mirex		----------NA----------				
23	B	Endrin Ketone		----------NA----------				
24	SA	Decachlorobiphenyl	0.624	0.637	-2.1	105	0.00	10.64-10.70
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	95	0.00	1.39- 1.59
26	L8	Toxaphene{A}		----------NA----------				
27	L8	Toxaphene{B}		----------NA----------				
28	L8	Toxaphene{C}		----------NA----------				
29	L8	Toxaphene{D}		----------NA----------				
30	L8	Toxaphene{E}		----------NA----------				
31	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.39- 1.59
32		Chlordane {A}	0.037	0.034	8.1	93	0.00	3.61- 3.81
33		Chlordane {B}	0.037	0.035	5.4	94	0.00	4.43- 4.63
34		Chlordane {C}	0.122	0.118	3.3	97	0.00	5.31- 5.51
35		Chlordane {D}	0.201	0.195	3.0	96	0.00	5.54- 5.74
36		Chlordane {E}	0.036	0.033	8.3	90	0.00	6.97- 7.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G123066.D 1PST3988.M Wed May 18 12:38:57 2016 RPT1

10.9.10

10

GC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/16/16 17:09

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123081.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123081.D\ECD2B.CH
Acq On    : 5-16-16 04:01:35 PM                      Operator: rebeccak
Sample    : jc20184-1                                Inst    : GC1G
Misc      : op93907,g1g3989,860,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 16:37 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2-nitrob	1.33	1.49	128.7E6	899.9E6	50.000	50.000
25) I 1-bromo-2-nitrob	1.33	1.49	128.7E6	899.9E6	50.000	50.000
31) I 1-bromo-2-nitrob	1.33	1.49	128.7E6	899.9E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	1.92	2.29	84243292	644.9E6	36.219m	40.284m
Spiked Amount 40.000	Range 30 - 150		Recovery =		90.55%	100.71%
24) SA Decachlorobiphen	9.23	10.68	61165252	238.5E6	19.343	21.205
Spiked Amount 40.000			Recovery =		48.36%	53.01%
Target Compounds						

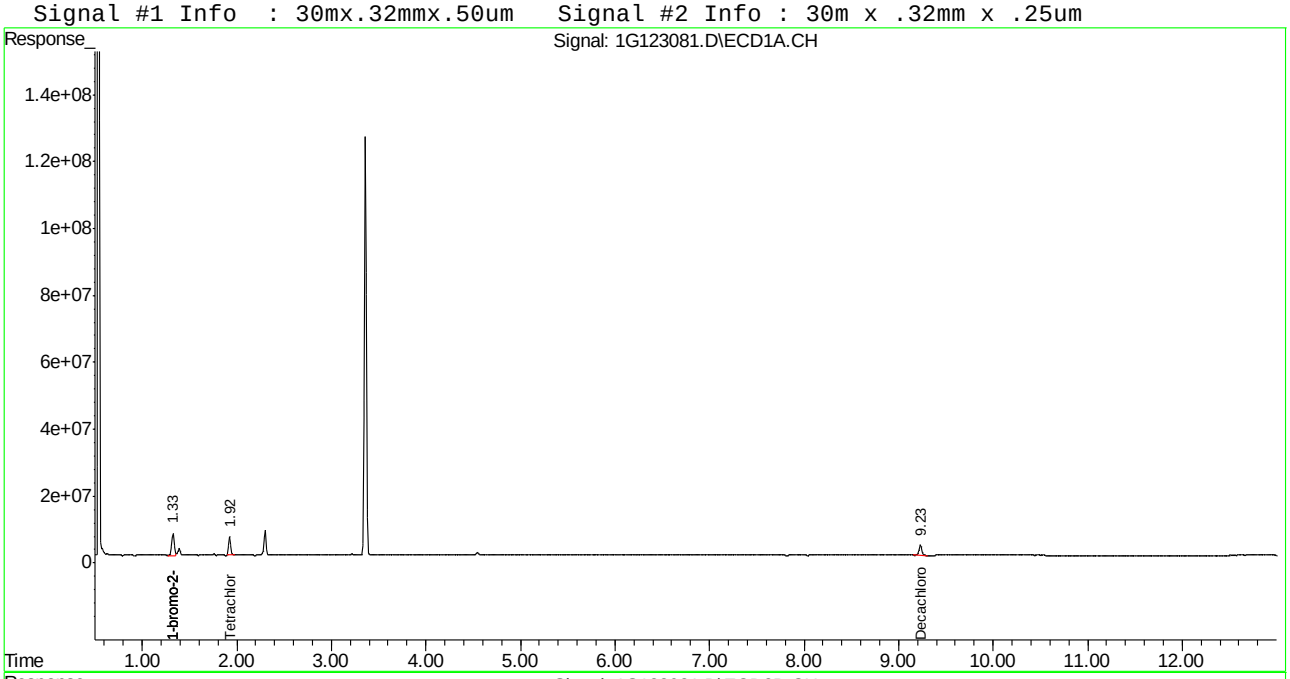
(f)=RT Delta > 1/2 Window (m)=manual int.

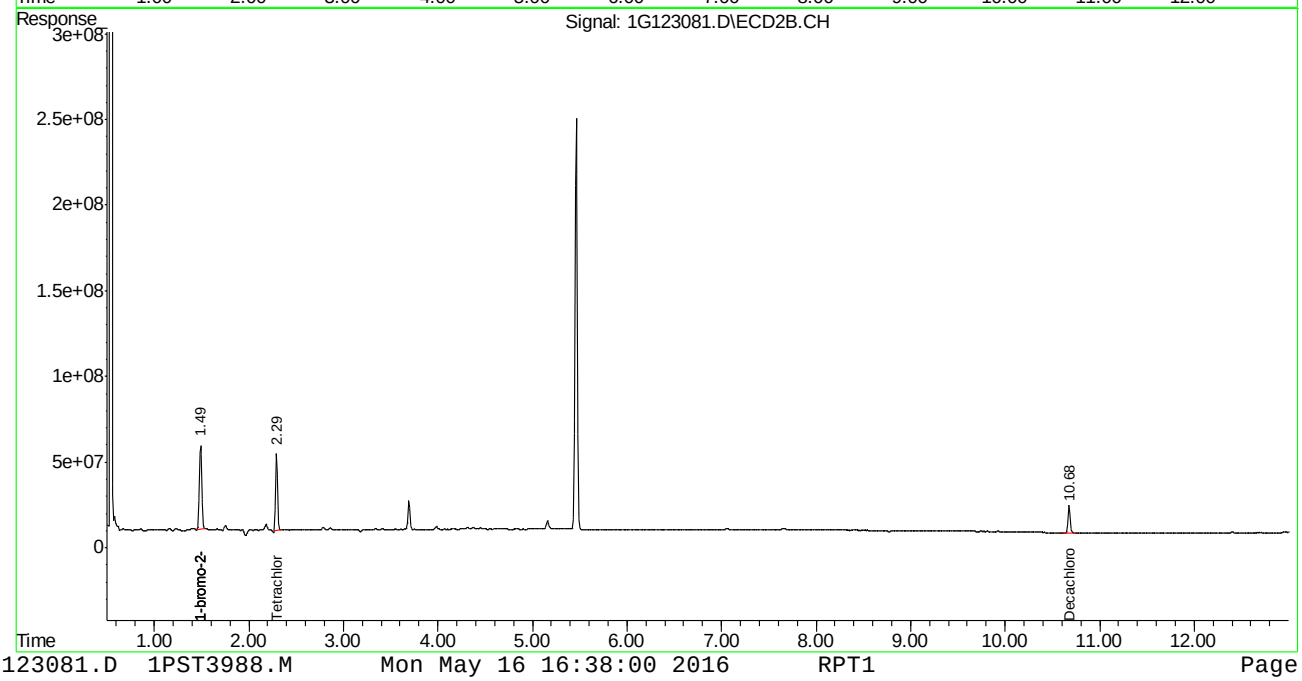
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123081.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123081.D\ECD2B.CH
Acq On : 5-16-16 04:01:35 PM Operator: rebeccak
Sample : jc20184-1 Inst : GC1G
Misc : op93907,g1g3989,860,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 16:37 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

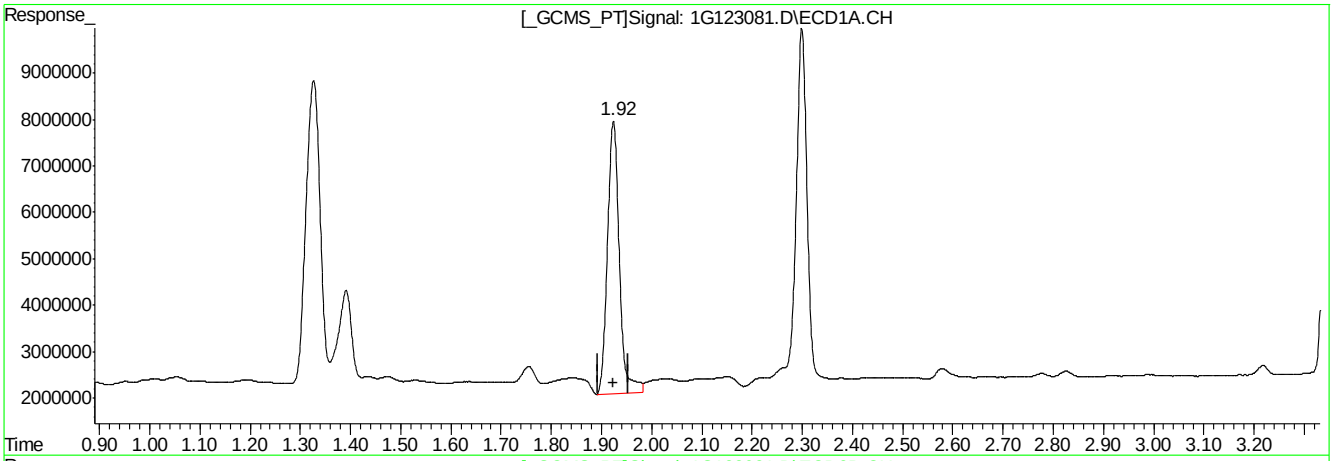
Sample Number:	JC20184-1	**Method:**	SW846 8081B
Lab FileID:	1G123081.D	**Analyst approved:**	05/16/16 16:44 Dhara Saparia
Injection Time:	05/16/16 16:01	**Supervisor approved:**	05/16/16 17:09 Gwendolyn Burns

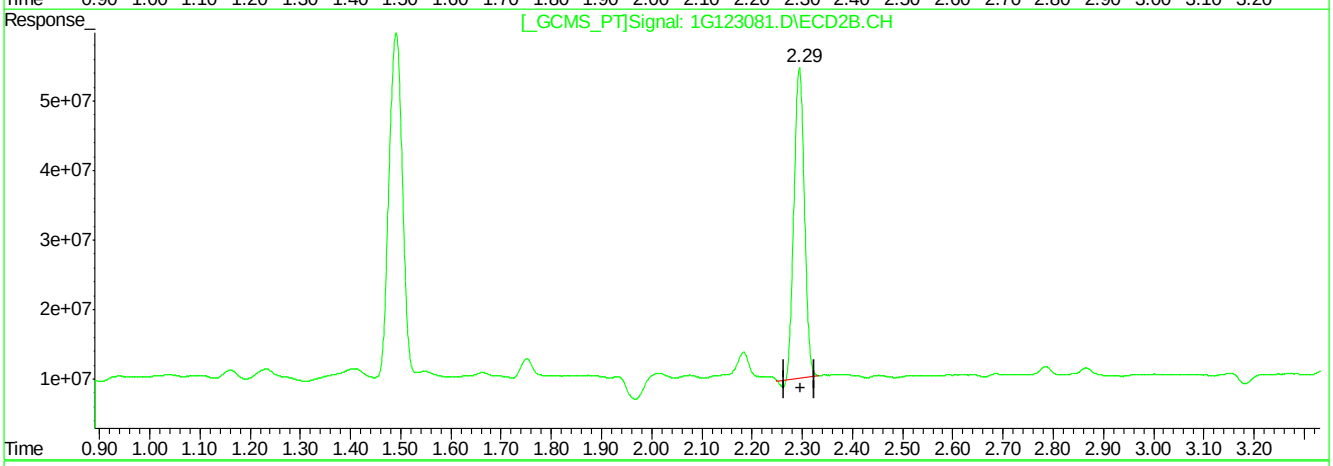
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	1.92	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	2.29	Poorly defined baseline

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123081.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123081.D\ECD2B.CH
Acq On    : 5-16-16 04:01:35 PM                      Operator: rebeccak
Sample    : jc20184-1                                Inst    : GC1G
Misc      : op93907,g1g3989,860,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 16:36 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

1.92min 41.417PPB

response 96331780

(2) Tetrachloro-m-xylene #2 (SAB)

2.29min 40.258PPB

response 644521092

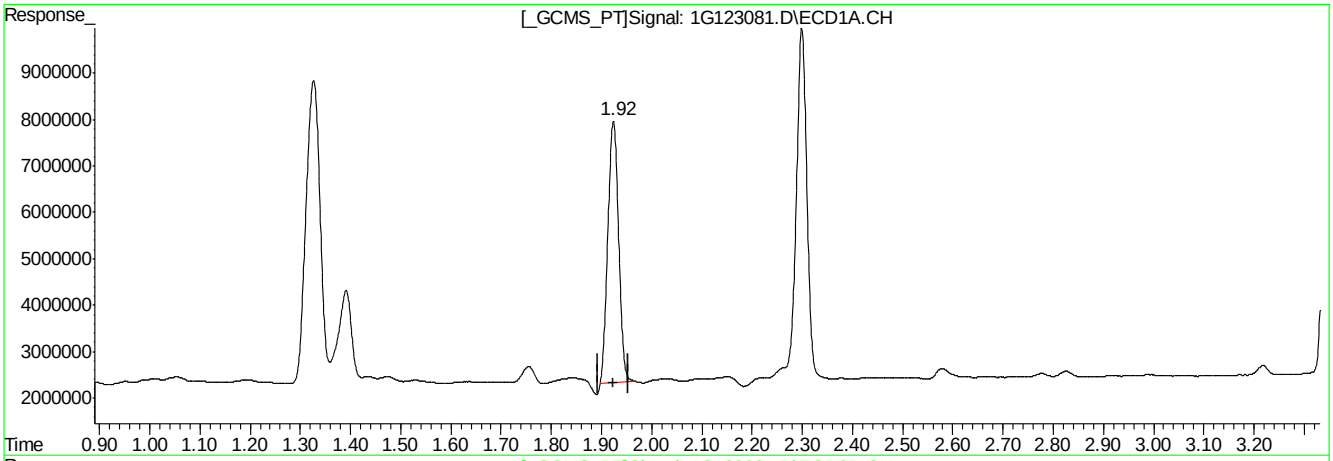
(+) = Expected Retention Time

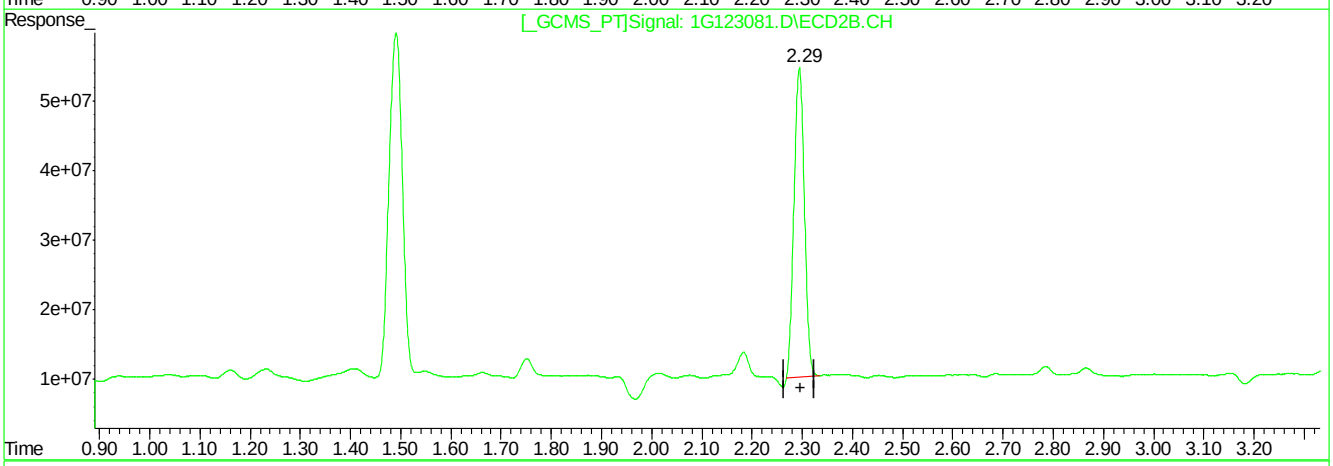
1G123081.D 1PST3988.M Mon May 16 16:36:57 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123081.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123081.D\ECD2B.CH
Acq On    : 5-16-16 04:01:35 PM                      Operator: rebeccak
Sample    : jc20184-1                                Inst    : GC1G
Misc      : op93907,g1g3989,860,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 16:36 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

1.92min 36.219PPB m

response 84243292

(2) Tetrachloro-m-xylene #2 (SAB)

2.29min 40.284PPB m

response 644945307

(+) = Expected Retention Time

1G123081.D 1PST3988.M Mon May 16 16:37:22 2016 RPT1

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\1G3989\1G123082.D\ECD1A.CH Vial: 31
Acq On    : 5-16-16 04:19:03 PM                      Operator: rebeccak
Sample    : jc20184-2                                Inst    : GC1G
Misc      : op93907,g1g3989,850,,,10,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G3989\1G123082.D\ECD2B.CH Vial: 31
Acq On    : 5-16-16 04:19:04 PM                      Operator: rebeccak
Sample    : jc20184-2                                Inst    : GC1G
Misc      : op93907,g1g3989,850,,,10,1               Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 16 16:41 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2-nitrob	1.33	1.49	114.7E6	844.1E6	50.000	50.000
25) I 1-bromo-2-nitrob	1.33	1.49	114.7E6	844.1E6	50.000	50.000
31) I 1-bromo-2-nitrob	1.33	1.49	114.7E6	844.1E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	1.92	2.29	105.3E6	716.2E6	50.773	47.698
Spiked Amount 40.000	Range 30 - 150		Recovery =		126.93%	119.25%
24) SA Decachlorobiphen	9.23	10.68	99459261	385.9E6	35.274	36.577
Spiked Amount 40.000			Recovery =		88.19%	91.44%
Target Compounds						

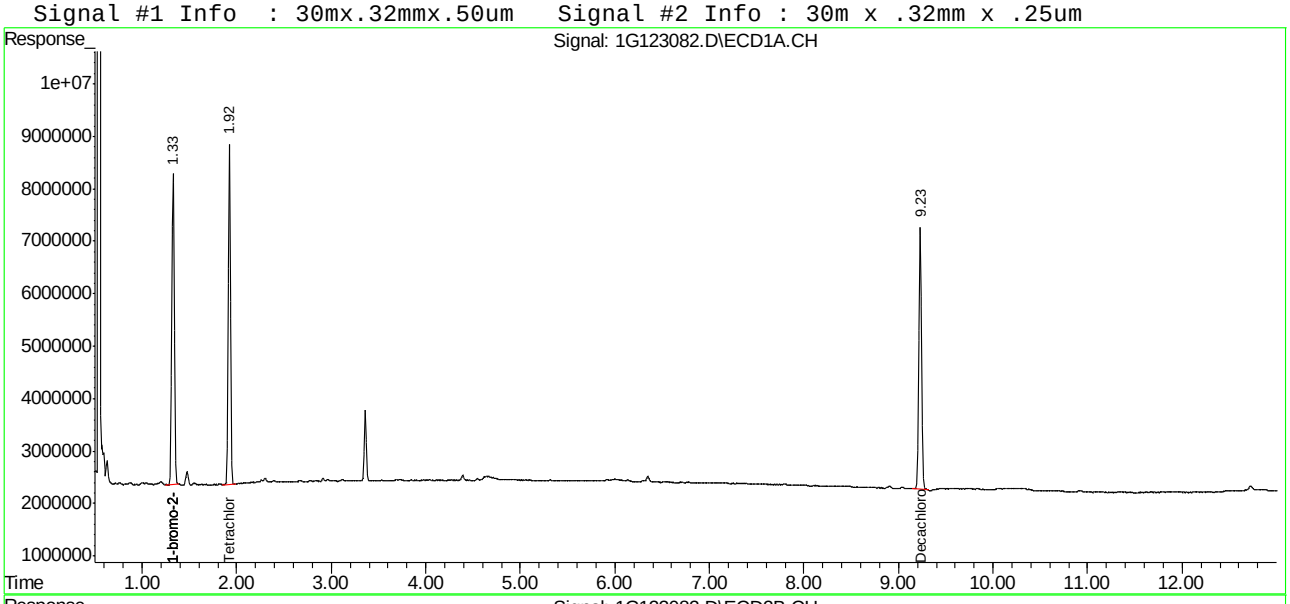
Quantitation Report (QT Reviewed)

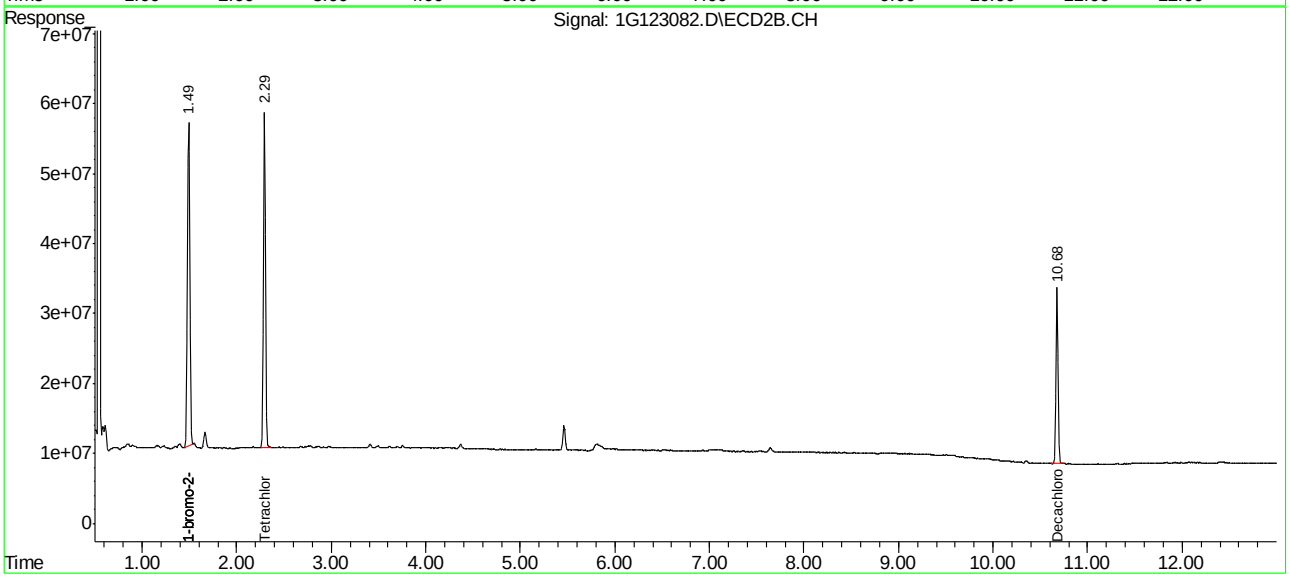
```
Data File : C:\MSDCHEM\1\DATA\1G3989\1G123082.D\ECD1A.CH Vial: 31
Acq On    : 5-16-16 04:19:03 PM                      Operator: rebeccak
Sample    : jc20184-2                                Inst    : GC1G
Misc      : op93907,g1g3989,850,,,10,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G3989\1G123082.D\ECD2B.CH Vial: 31
Acq On    : 5-16-16 04:19:04 PM                      Operator: rebeccak
Sample    : jc20184-2                                Inst    : GC1G
Misc      : op93907,g1g3989,850,,,10,1               Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May 16 16:41 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```





Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123111.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123111.D\ECD2B.CH
Acq On    : 5-16-16 05:11:39 PM                      Operator: rebeccak
Sample    : jc20184-3                                Inst    : GC1G
Misc      : op93907,g1g3989,850,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 17:34 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```

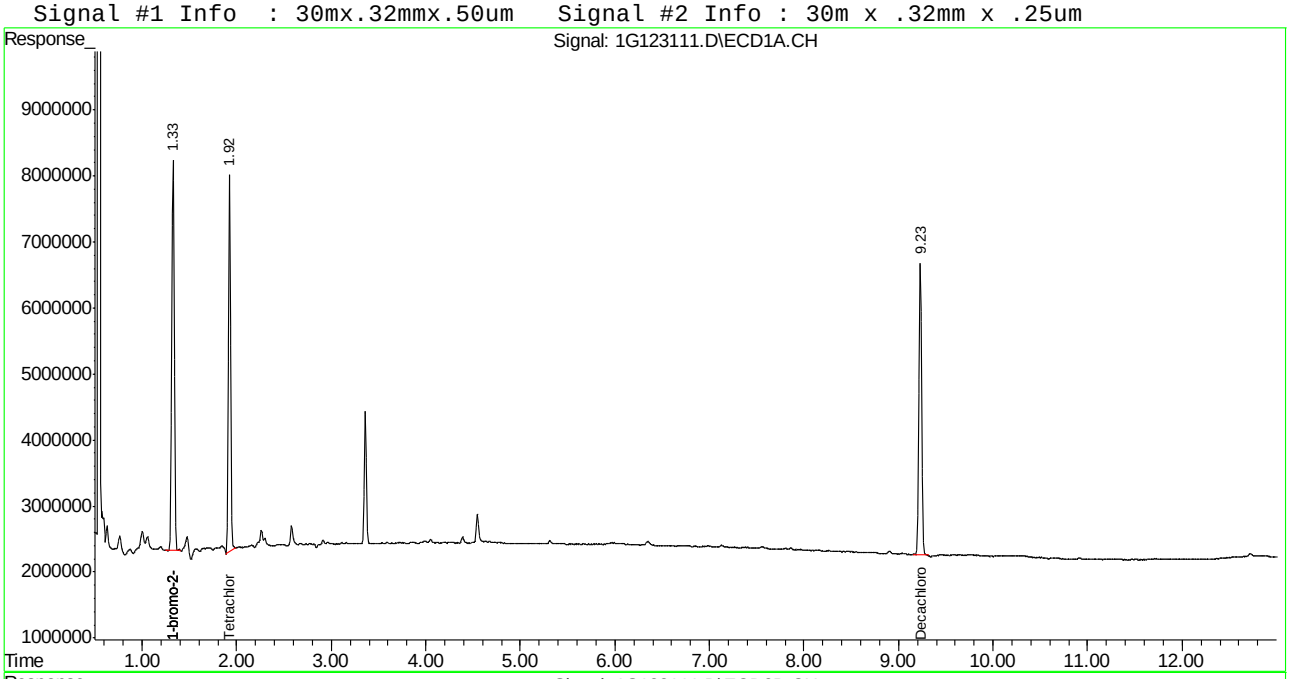
Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2-nitrob	1.33	1.49	115.4E6	951.1E6	50.000	50.000
25) I 1-bromo-2-nitrob	1.33	1.49	115.4E6	951.1E6	50.000	50.000
31) I 1-bromo-2-nitrob	1.33	1.49	115.4E6	951.1E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	1.92	2.29	90628092	653.3E6	43.495	38.629
Spiked Amount 40.000	Range 30 - 150		Recovery =		108.74%	96.57%
24) SA Decachlorobiphen	9.23	10.68	91601372	362.8E6	32.311	30.552
Spiked Amount 40.000			Recovery =		80.78%	76.38%
Target Compounds						

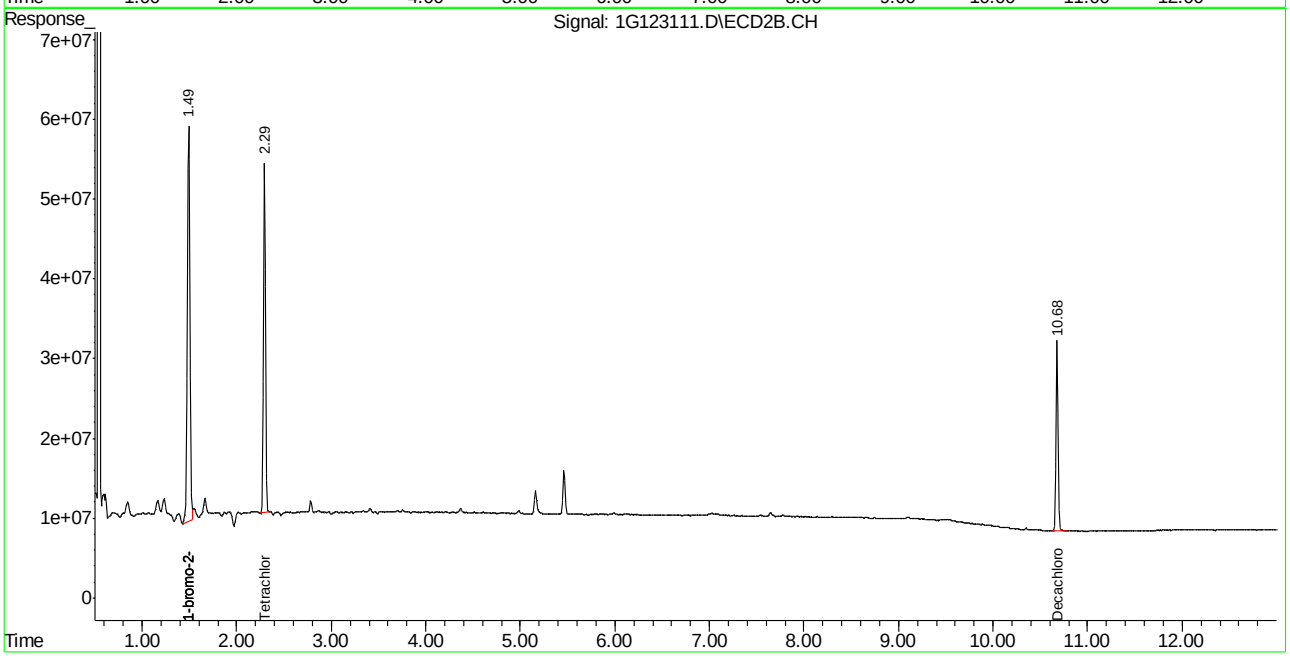
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123111.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123111.D\ECD2B.CH
Acq On : 5-16-16 05:11:39 PM Operator: rebeccak
Sample : jc20184-3 Inst : GC1G
Misc : op93907,g1g3989,850,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:34 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123084.D\ECD1A.CH Vial: 33
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123084.D\ECD2B.CH
Acq On : 5-16-16 04:54:04 PM Operator: rebeccak
Sample : jc20184-4 Inst : GC1G
Misc : op93907,g1g3989,990,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:08 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2-nitrob	1.33	1.49	122.2E6	878.6E6	50.000	50.000
25) I 1-bromo-2-nitrob	1.33	1.49	122.2E6	878.6E6	50.000	50.000
31) I 1-bromo-2-nitrob	1.33	1.49	122.2E6	878.6E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	1.92	2.30	76981317	532.1E6	34.854	34.045
Spiked Amount 40.000	Range 30 - 150		Recovery =		87.13%	85.11%
24) SA Decachlorobiphen	9.23	10.68	91681858	358.8E6	30.532	32.676
Spiked Amount 40.000			Recovery =		76.33%	81.69%
Target Compounds						

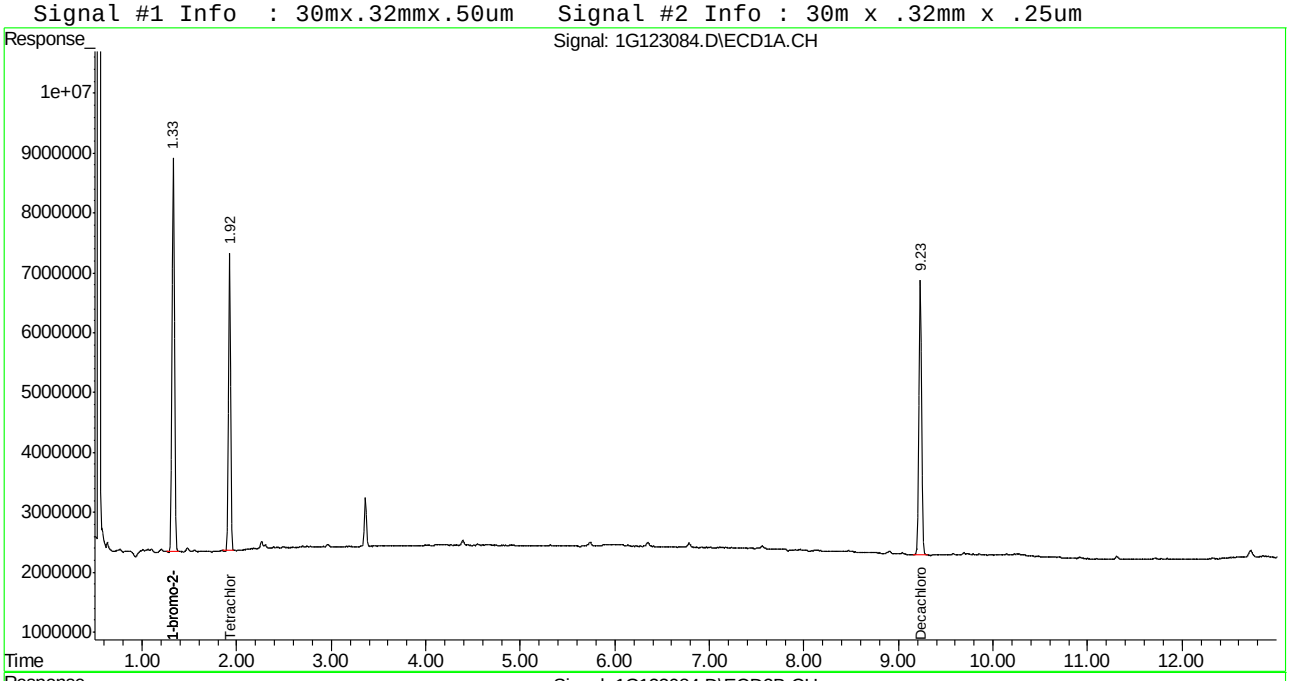
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123084.D 1PST3988.M Mon May 16 17:08:12 2016 RPT1

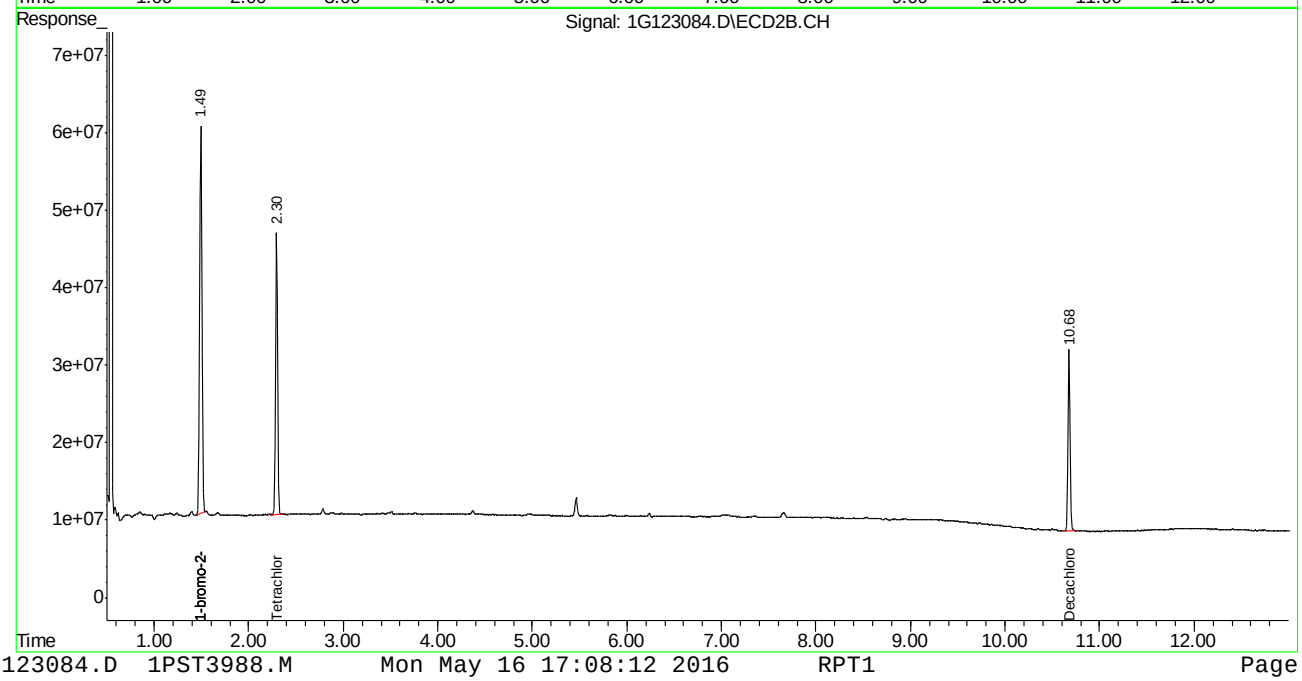
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123084.D\ECD1A.CH Vial: 33
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123084.D\ECD2B.CH
Acq On : 5-16-16 04:54:04 PM Operator: rebeccak
Sample : jc20184-4 Inst : GC1G
Misc : op93907,g1g3989,990,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:08 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123085.D\ECD1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123085.D\ECD2B.CH
Acq On : 5-16-16 05:29:07 PM Operator: rebeccak
Sample : jc20184-5 Inst : GC1G
Misc : op93907,g1g3989,850,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:43 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2-nitrob	1.33	1.49	128.7E6	889.5E6	50.000	50.000
25) I 1-bromo-2-nitrob	1.33	1.49	128.7E6	889.5E6	50.000	50.000
31) I 1-bromo-2-nitrob	1.33	1.49	128.7E6	889.5E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	1.93	2.30	91946936	646.0E6	39.546	40.847
Spiked Amount 40.000	Range 30 - 150		Recovery =		98.87%	102.12%
24) SA Decachlorobiphen	9.23	10.68	84922427	338.7E6	26.845	30.501
Spiked Amount 40.000			Recovery =		67.11%	76.25%
Target Compounds						

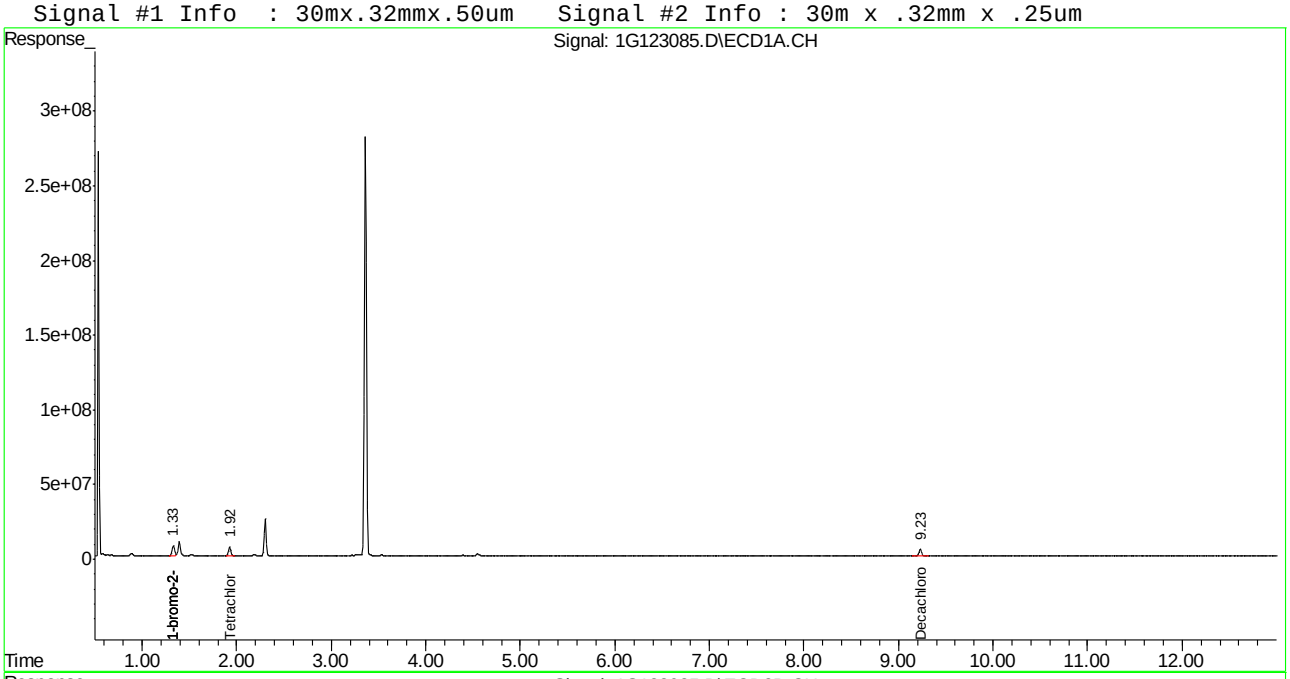
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123085.D 1PST3988.M Mon May 16 17:43:35 2016 RPT1

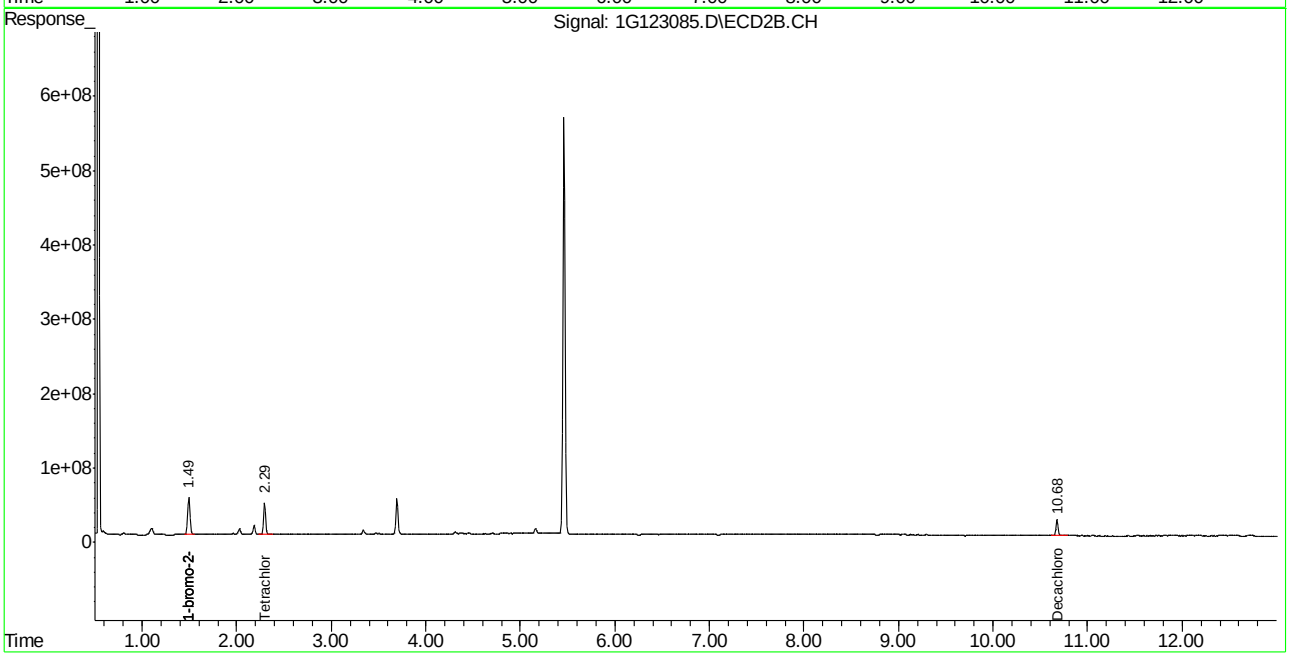
Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123085.D\ECD1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123085.D\ECD2B.CH
Acq On    : 5-16-16 05:29:07 PM                      Operator: rebeccak
Sample    : jc20184-5                                Inst    : GC1G
Misc      : op93907,g1g3989,850,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 17:43 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```





Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123086.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123086.D\ECD2B.CH
Acq On    : 5-16-16 05:46:38 PM                      Operator: rebeccak
Sample    : jc20184-6                                Inst    : GC1G
Misc      : op93907,g1g3989,850,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 18:09 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	119.3E6	884.8E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	119.3E6	884.8E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	119.3E6	884.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.30	83694951	573.9E6	38.843	36.475
Spiked Amount	40.000	Range	30 - 150	Recovery	=	97.11%	91.19%
24) SA	Decachlorobiphen	9.23	10.68	87147297	342.9E6	29.726	31.043
Spiked Amount	40.000			Recovery	=	74.31%	77.61%
	Target Compounds						

11.1.6

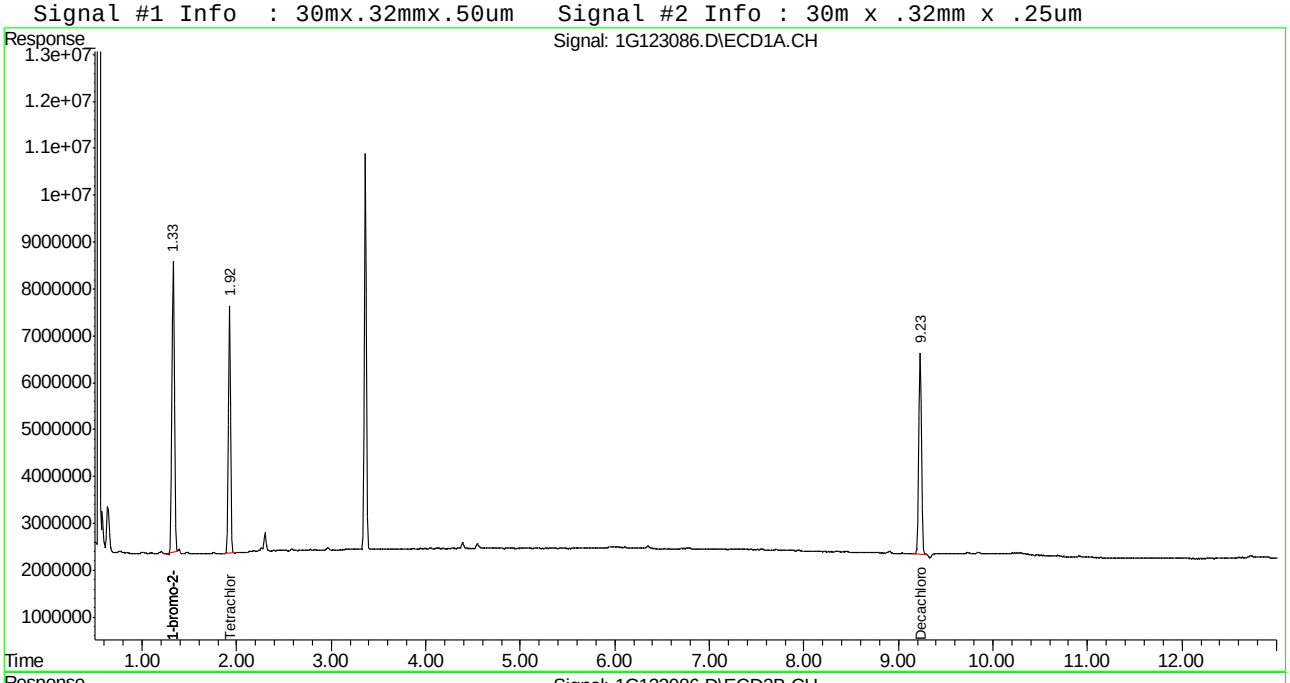
11

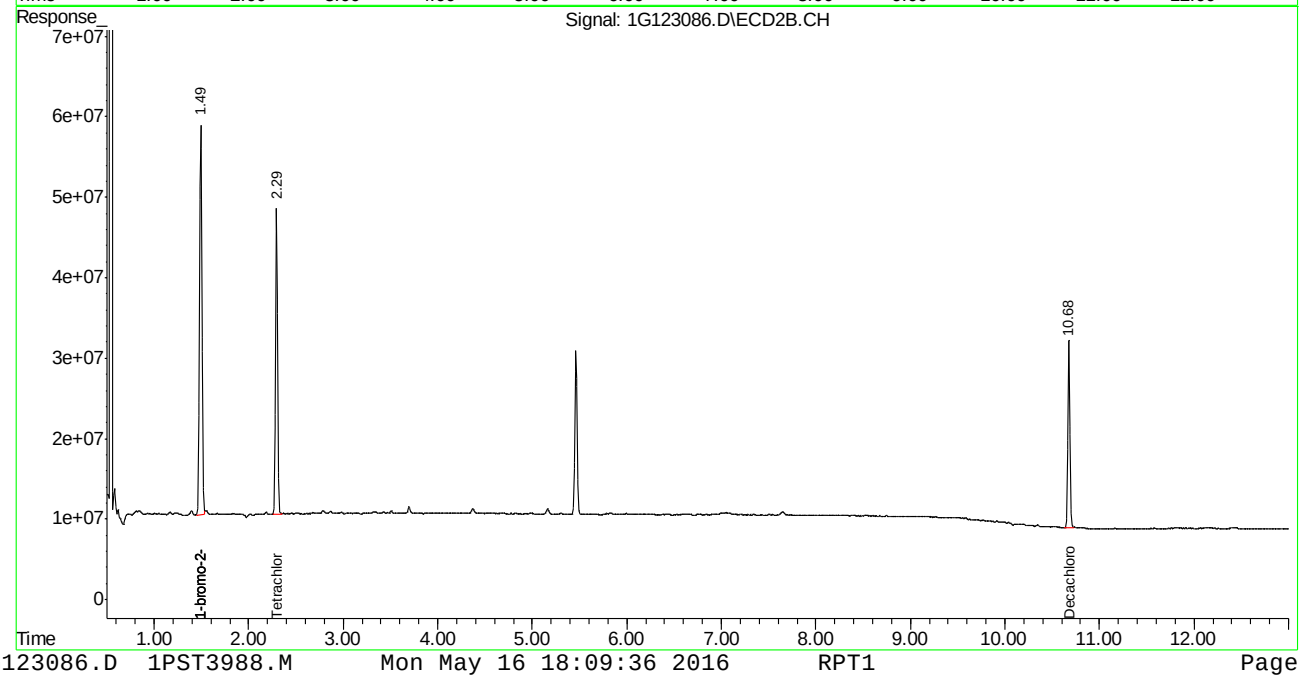
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123086.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123086.D\ECD2B.CH
Acq On : 5-16-16 05:46:38 PM Operator: rebeccak
Sample : jc20184-6 Inst : GC1G
Misc : op93907,g1g3989,850,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 18:09 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123077.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123077.D\ECD2B.CH
Acq On    : 5-16-16 02:51:33 PM                      Operator: rebeccak
Sample    : op93907-mb1                              Inst    : GC1G
Misc      : op93907,g1g3989,1000,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 15:29 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2-nitrob	1.33	1.49	107.7E6	827.1E6	50.000	50.000
25) I 1-bromo-2-nitrob	1.33	1.49	107.7E6	827.1E6	50.000	50.000
31) I 1-bromo-2-nitrob	1.33	1.49	107.7E6	827.1E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	1.92	2.29	92046643	625.3E6	47.289	42.496
Spiked Amount 40.000	Range 30 - 150		Recovery =		118.22%	106.24%
24) SA Decachlorobiphen	9.23	10.68	103.7E6	409.6E6	39.204	39.619
Spiked Amount 40.000			Recovery =		98.01%	99.05%
Target Compounds						

11.2.1

11

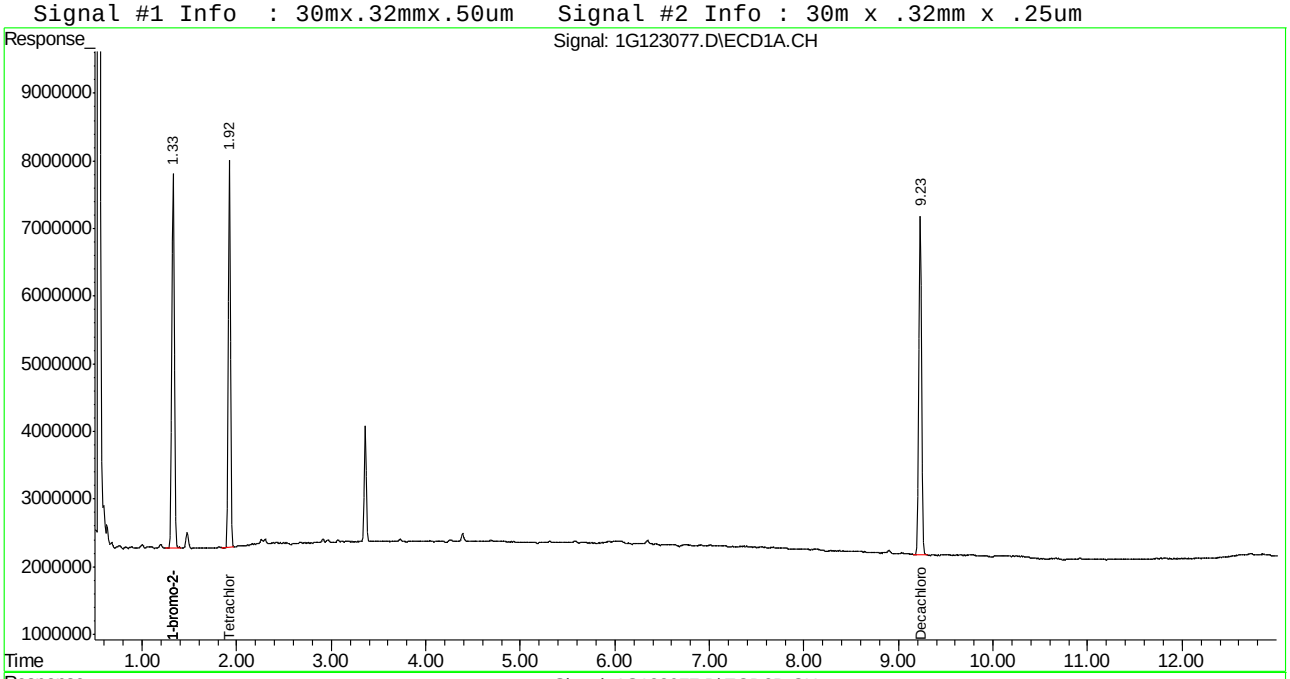
SGS ACCUTEST JC20184

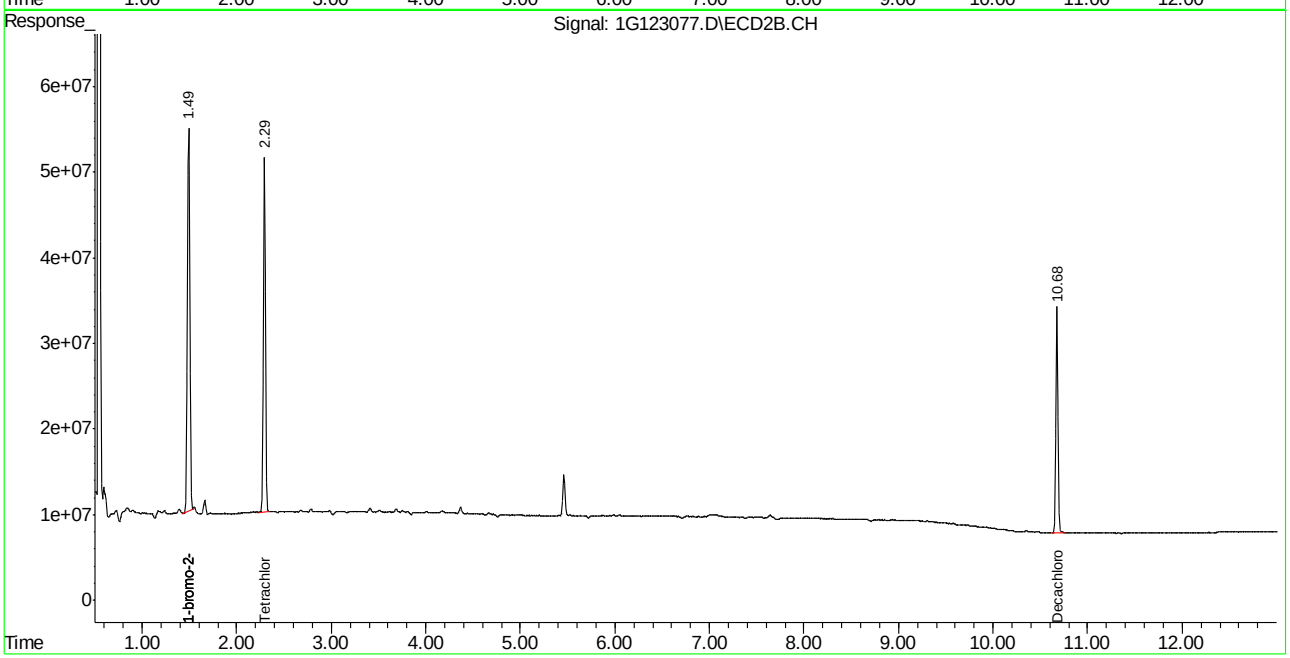
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123077.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123077.D\ECD2B.CH
Acq On : 5-16-16 02:51:33 PM Operator: rebeccak
Sample : op93907-mb1 Inst : GC1G
Misc : op93907,g1g3989,1000,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 15:29 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123078.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123078.D\ECD2B.CH
Acq On : 5-16-16 03:09:01 PM Operator: rebeccak
Sample : op93907-bs1 Inst : GC1G
Misc : op93907,g1g3989,1000,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:31 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	120.3E6	913.7E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	120.3E6	913.7E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	120.3E6	913.7E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	106.4E6	727.2E6	48.963	44.758
Spiked Amount	40.000	Range	30 - 150	Recovery	=	122.41%	111.90%
24) SA	Decachlorobiphen	9.23	10.68	133.4E6	509.8E6	45.096	44.691
Spiked Amount	40.000			Recovery	=	112.74%	111.73%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	99300360	753.9E6	31.922	30.989
4) MA	gamma-BHC	2.71	3.35	96032963	695.8E6	33.029	31.594
5) MA	Heptachlor	3.19	3.90	92212730	614.5E6	31.163	29.879
6) B	beta-BHC	2.78	3.43	45642441	324.8E6	32.809	32.203
7) B	delta-BHC	2.97	3.81	94696237	691.1E6	33.224	31.393
8) MB	Aldrin	3.53	4.34	86009503	609.6E6	31.885	32.363
9) B	Heptachlor Epoxi	4.24	5.14	90788207	579.3E6	34.297	34.467
10) B	gamma-Chlordane	4.39	5.41	90902260	586.1E6	33.295	34.142
11) B	alpha-Chlordane	4.57	5.64	89922418	565.1E6	33.161	33.150
12) A	Endosulfan I	4.75	5.73	85772788	534.9E6	32.858	34.040
13) B	4,4'-DDE	4.67	5.90	89946876	559.4E6	32.868	33.078
14) MA	Dieldrin	5.07	6.15	92730624	602.0E6	34.118	34.195
15) MA	Endrin	5.39	6.65	79342229	498.4E6	32.219	32.008
16) A	4,4'-DDD	5.51	6.83	73233504	479.8E6	34.100	34.418
17) B	Endosulfan II	5.71	6.99	86510396	530.4E6	33.493	33.430
18) MA	4,4'-DDT	5.92	7.36	76272127	461.5E6	32.610	33.931
19) B	Endrin Aldehyde	6.34	7.56	68631656	421.6E6	33.620	34.624
20) B	Endosulfan Sulfa	7.03	8.02	79186277	471.5E6	31.943	33.945
21) A	Methoxychlor	6.70	8.60	44358333	232.5E6	31.465	31.940
23) B	Endrin Ketone	7.46	8.96	94617819	531.5E6	33.728	34.174

(f)=RT Delta > 1/2 Window (m)=manual int.

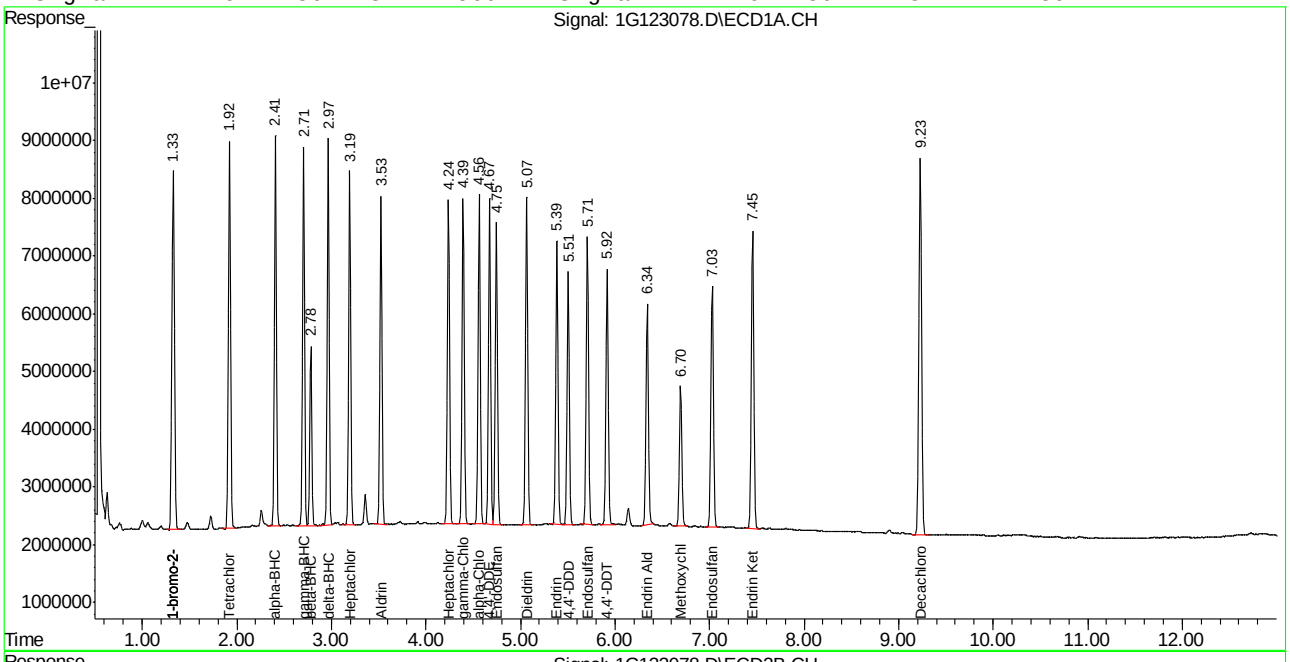
SGS ACCUTEST JC20184

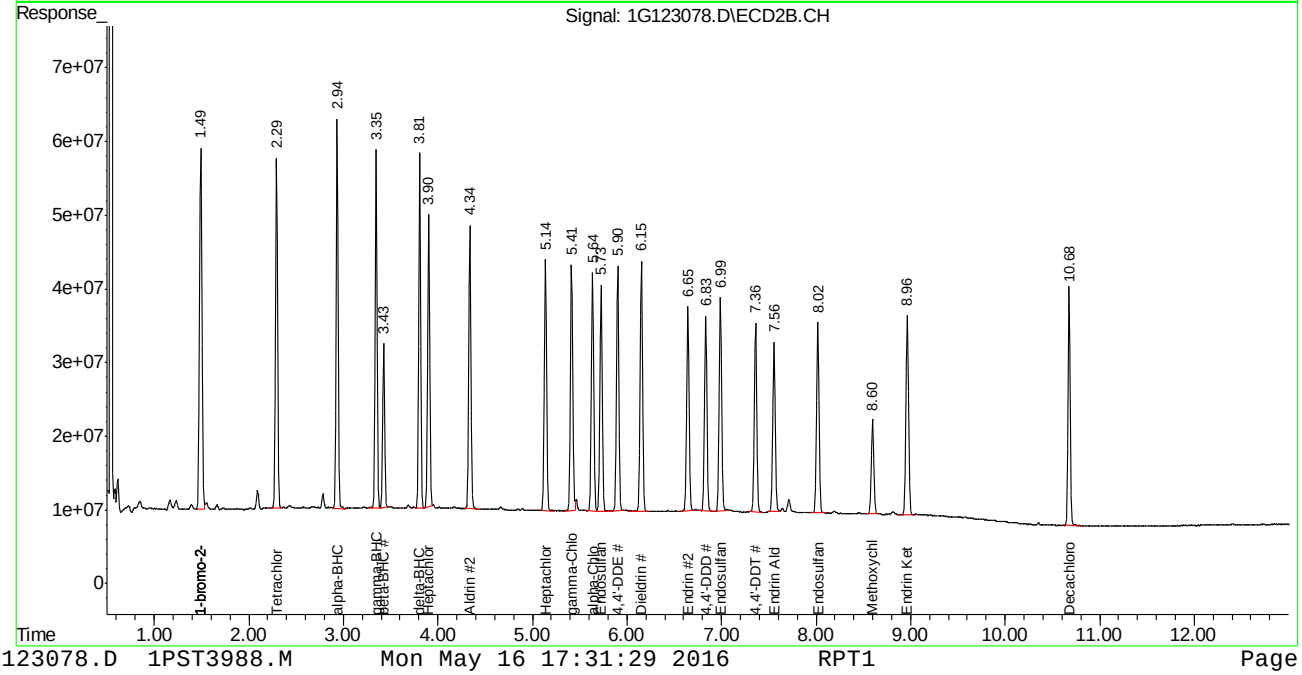
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123078.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123078.D\ECD2B.CH
Acq On : 5-16-16 03:09:01 PM Operator: rebeccak
Sample : op93907-bs1 Inst : GC1G
Misc : op93907,g1g3989,1000,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:31 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/19/16 12:02

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123145.D\ECD1A.CH Vial: 61
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123145.D\ECD2B.CH
Acq On : 17 May 2016 12:15 pm Operator: rebeccak
Sample : op93907-ms Inst : GC1G
Misc : op93907,g1g3990,870,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 13:00 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	120.6E6	928.8E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	120.6E6	928.8E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	120.6E6	928.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	83511640	583.8E6	38.322m	35.346
Spiked Amount	40.000	Range	30 - 150	Recovery	=	95.81%	88.36%
24) SA	Decachlorobiphen	9.23	10.68	88159693	341.7E6	29.733	29.462
Spiked Amount	40.000			Recovery	=	74.33%	73.66%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	82752824	585.2E6	26.537	23.661
4) MA	gamma-BHC	2.71	3.35	79987210	544.2E6	27.443	24.307
5) MA	Heptachlor	3.19	3.90	79651837	494.7E6	26.852	23.663
6) B	beta-BHC	2.78	3.43	40455161	251.9E6	29.009	24.566
7) B	delta-BHC	2.97	3.81	77407283	532.5E6	27.092	23.796
8) MB	Aldrin	3.52	4.34	74751577	493.0E6	27.643	25.743
9) B	Heptachlor Epoxi	4.24	5.14	77336045	517.5E6	29.143	30.287
10) B	gamma-Chlordane	4.39	5.41	77139440	467.0E6	28.184	26.759
11) B	alpha-Chlordane	4.56	5.64	83352730	457.1E6	30.662	26.380
12) A	Endosulfan I	4.74	5.73	71993531	434.8E6	27.511	27.219
13) B	4,4'-DDE	4.67	5.90	76248229	455.3E6	27.793	26.483
14) MA	Dieldrin	5.06	6.15	77326195	485.2E6	28.380	27.110
15) MA	Endrin	5.38	6.64	72553028	438.2E6	29.390	27.683
16) A	4,4'-DDD	5.50	6.83	60947860	390.3E6	28.309	27.547
17) B	Endosulfan II	5.71	6.99	72164235	427.4E6	27.870	26.498
18) MA	4,4'-DDT	5.92	7.36	62278728	371.3E6	26.561	26.856
19) B	Endrin Aldehyde	6.34	7.56	58181832	339.1E6	28.431	27.402
20) B	Endosulfan Sulfa	7.03	8.02	63509066	367.3E6	25.556	26.015
21) A	Methoxychlor	6.69	8.60	37621724	191.8E6	26.621	25.916
23) B	Endrin Ketone	7.45	8.97	75021095	419.3E6	26.676	26.521

(f)=RT Delta > 1/2 Window (m)=manual int.

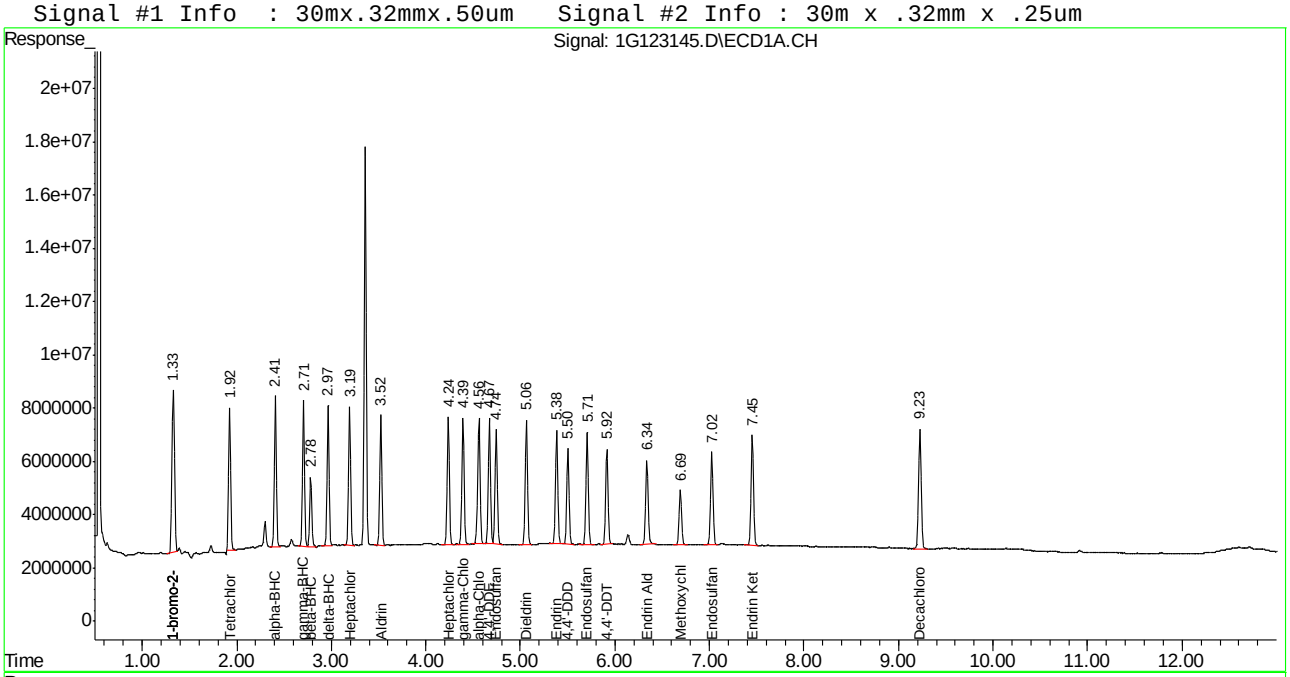
SGS ACCUTEST JC20184

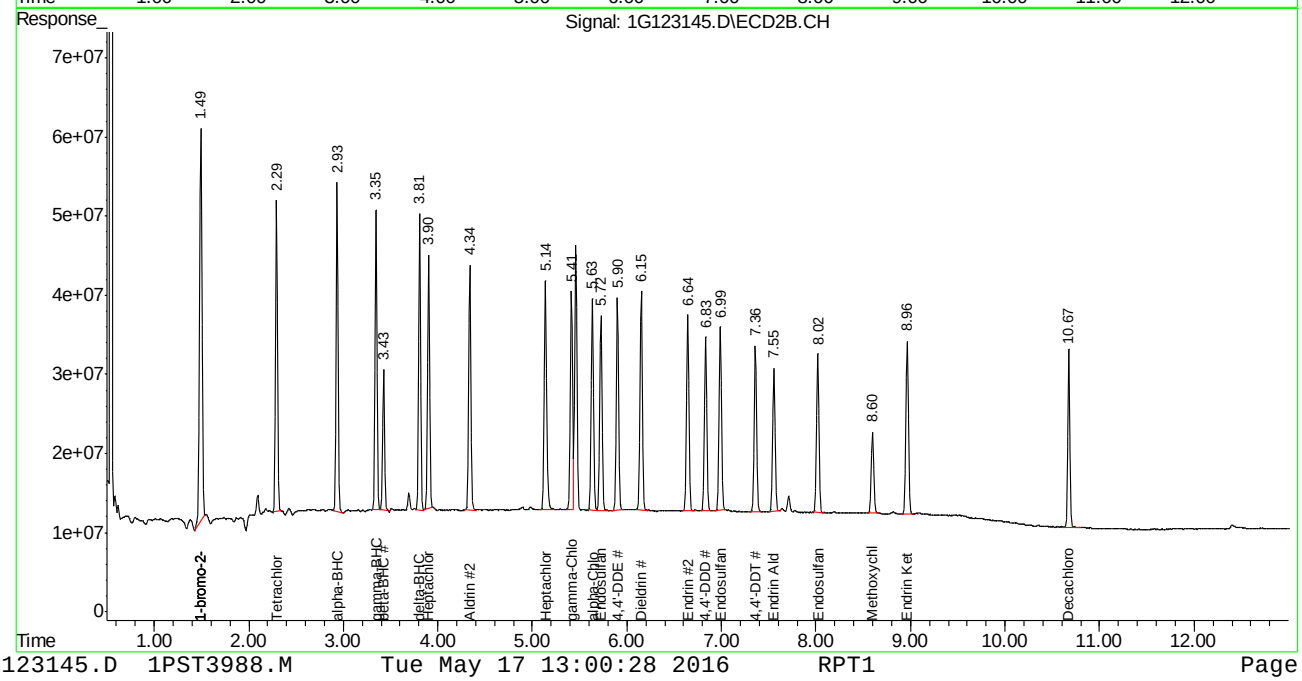
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123145.D\ECD1A.CH Vial: 61
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123145.D\ECD2B.CH
Acq On : 17 May 2016 12:15 pm Operator: rebeccak
Sample : op93907-ms Inst : GC1G
Misc : op93907,g1g3990,870,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 13:00 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integration Approval Summary

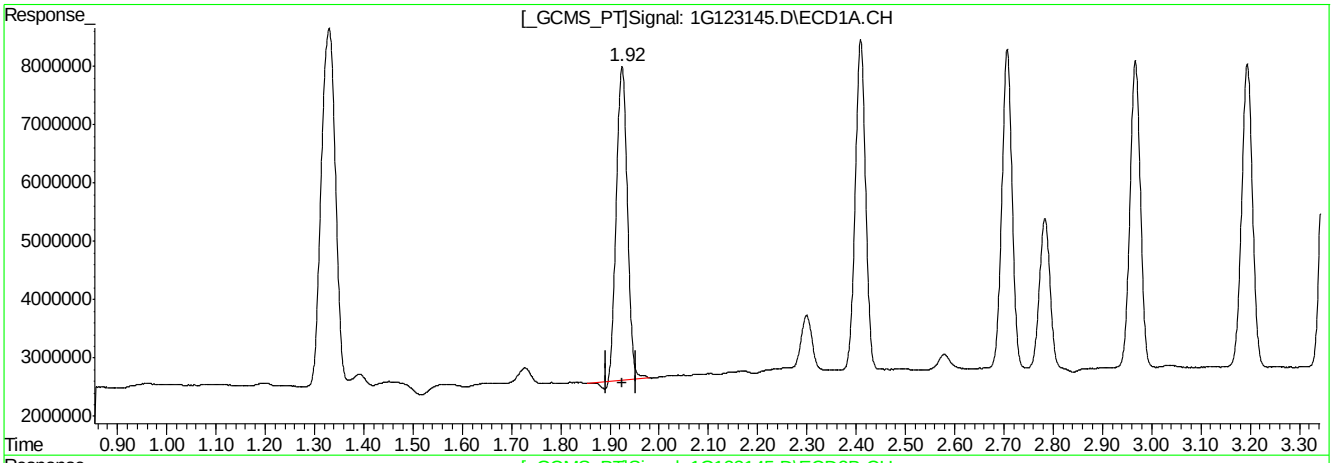
Sample Number:	OP93907-MS	**Method:**	SW846 8081B
Lab FileID:	1G123145.D	**Analyst approved:**	05/17/16 13:02 Dhara Saparia
Injection Time:	05/17/16 12:15	**Supervisor approved:**	05/19/16 12:02 Gwendolyn Burns

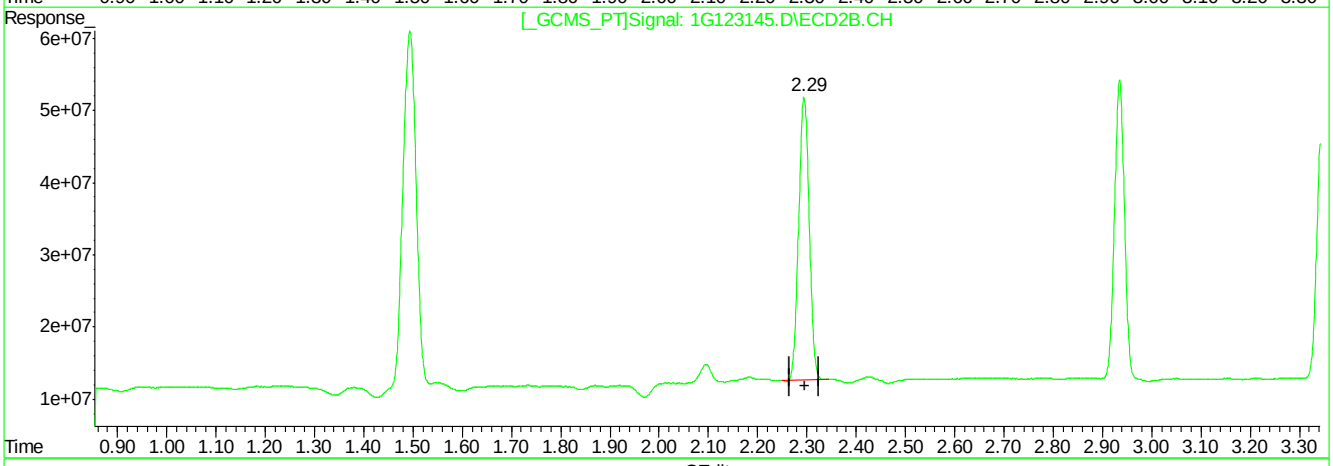
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	1.92	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123145.D\ECD1A.CH Vial: 61
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123145.D\ECD2B.CH
Acq On    : 17 May 2016  12:15 pm                    Operator: rebeccak
Sample    : op93907-ms                               Inst    : GC1G
Misc      : op93907,g1g3990,870,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:59 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

1.92min 38.065PPB

response 82952465

(2) Tetrachloro-m-xylene #2 (SAB)

2.29min 35.346PPB

response 583751790

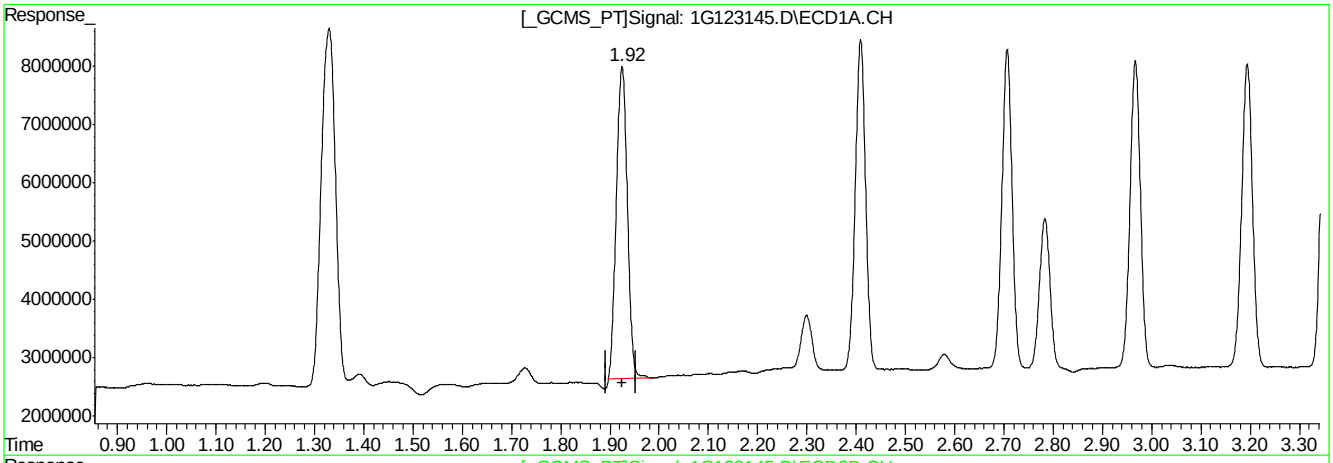
(+) = Expected Retention Time

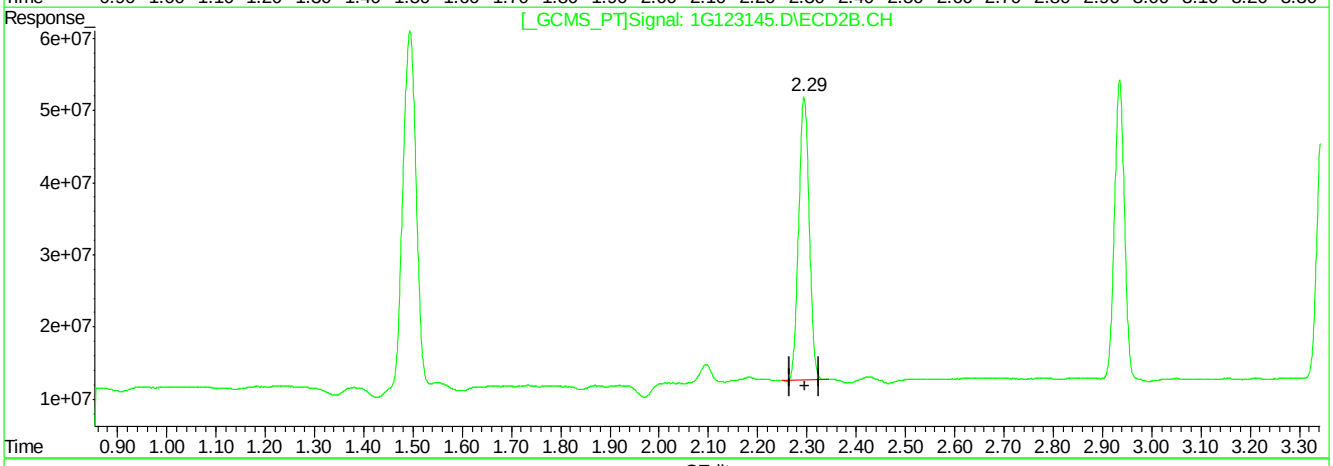
1G123145.D 1PST3988.M Tue May 17 12:59:36 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123145.D\ECD1A.CH Vial: 61
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123145.D\ECD2B.CH
Acq On    : 17 May 2016  12:15 pm                    Operator: rebeccak
Sample    : op93907-ms                               Inst    : GC1G
Misc      : op93907,g1g3990,870,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:59 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

1.92min 38.322PPB m

response 83511640

(2) Tetrachloro-m-xylene #2 (SAB)

2.29min 35.346PPB

response 583751790

(+) = Expected Retention Time

1G123145.D 1PST3988.M Tue May 17 13:00:02 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/19/16 12:02

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123146.D\ECD1A.CH Vial: 62
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123146.D\ECD2B.CH
Acq On : 17 May 2016 12:32 pm Operator: rebeccak
Sample : op93907-msd Inst : GC1G
Misc : op93907,g1g3990,870,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 13:01 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.50	118.6E6	937.6E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.50	118.6E6	937.6E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.50	118.6E6	937.6E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.93	2.29	80575309	559.5E6	37.619m	33.559
Spiked Amount	40.000	Range	30 - 150	Recovery	=	94.05%	83.90%
24) SA	Decachlorobiphen	9.23	10.68	92530917	360.9E6	31.752	30.829
Spiked Amount	40.000			Recovery	=	79.38%	77.07%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	82109744	583.3E6	26.790	23.364
4) MA	gamma-BHC	2.71	3.35	80076035	549.2E6	27.952	24.299
5) MA	Heptachlor	3.19	3.90	78112403	492.0E6	26.792	23.315
6) B	beta-BHC	2.78	3.43	41574300	269.0E6	30.331	25.990
7) B	delta-BHC	2.97	3.81	78757872	549.8E6	28.045	24.342
8) MB	Aldrin	3.53	4.34	74040269	487.2E6	27.857	25.207
9) B	Heptachlor Epoxi	4.24	5.14	78018085	532.2E6	29.913	30.860
10) B	gamma-Chlordane	4.39	5.42	78307084	483.0E6	29.110	27.416
11) B	alpha-Chlordane	4.56	5.64	85865464	465.0E6	32.137	26.581
12) A	Endosulfan I	4.75	5.73	73003412	434.9E6	28.383	26.972
13) B	4,4'-DDE	4.67	5.90	76787836	461.1E6	28.478	26.574
14) MA	Dieldrin	5.06	6.15	78872851	493.2E6	29.452	27.302
15) MA	Endrin	5.38	6.65	74123386	447.5E6	30.549	28.002
16) A	4,4'-DDD	5.50	6.83	62882312	399.1E6	29.717	27.900
17) B	Endosulfan II	5.71	6.99	74195148	442.0E6	29.154	27.150
18) MA	4,4'-DDT	5.92	7.36	62973174	375.9E6	27.326	26.936
19) B	Endrin Aldehyde	6.34	7.56	60133404	346.4E6	29.896	27.725
20) B	Endosulfan Sulfa	7.03	8.02	66097400	382.0E6	27.061	26.802
21) A	Methoxychlor	6.69	8.60	38116731	195.4E6	27.441	26.156
23) B	Endrin Ketone	7.46	8.97	76726885	429.5E6	27.759	26.910

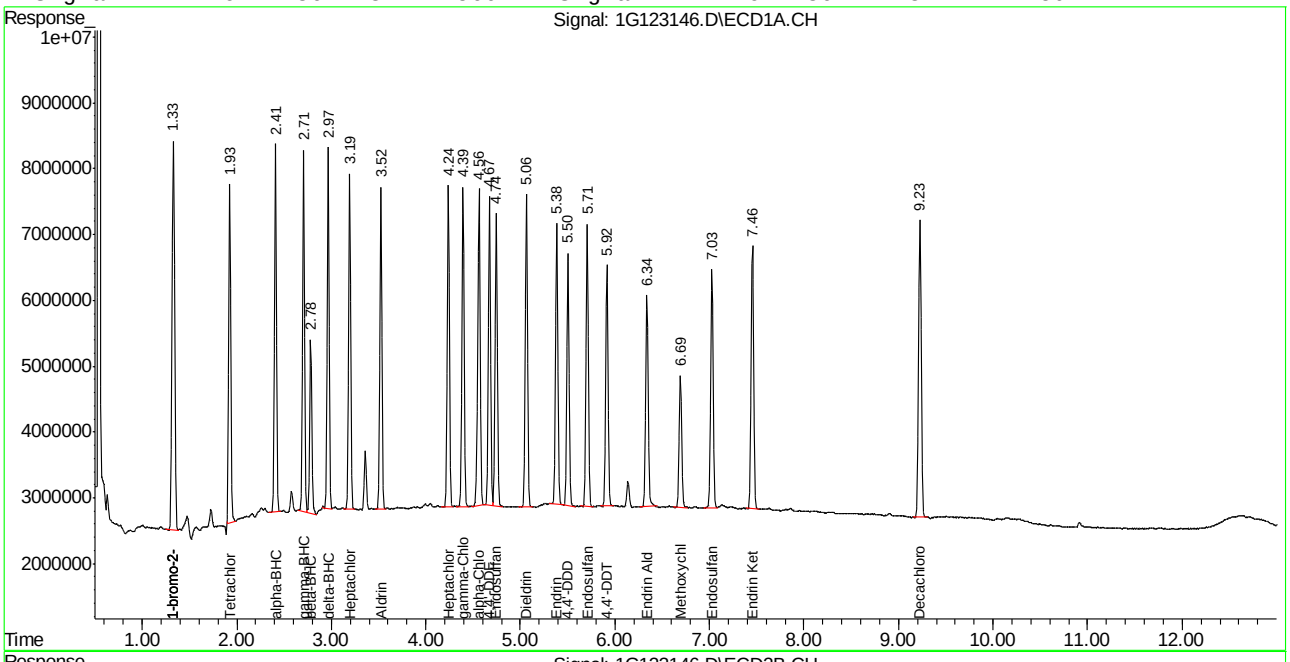
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123146.D 1PST3988.M Tue May 17 13:01:22 2016 RPT1 Page 1

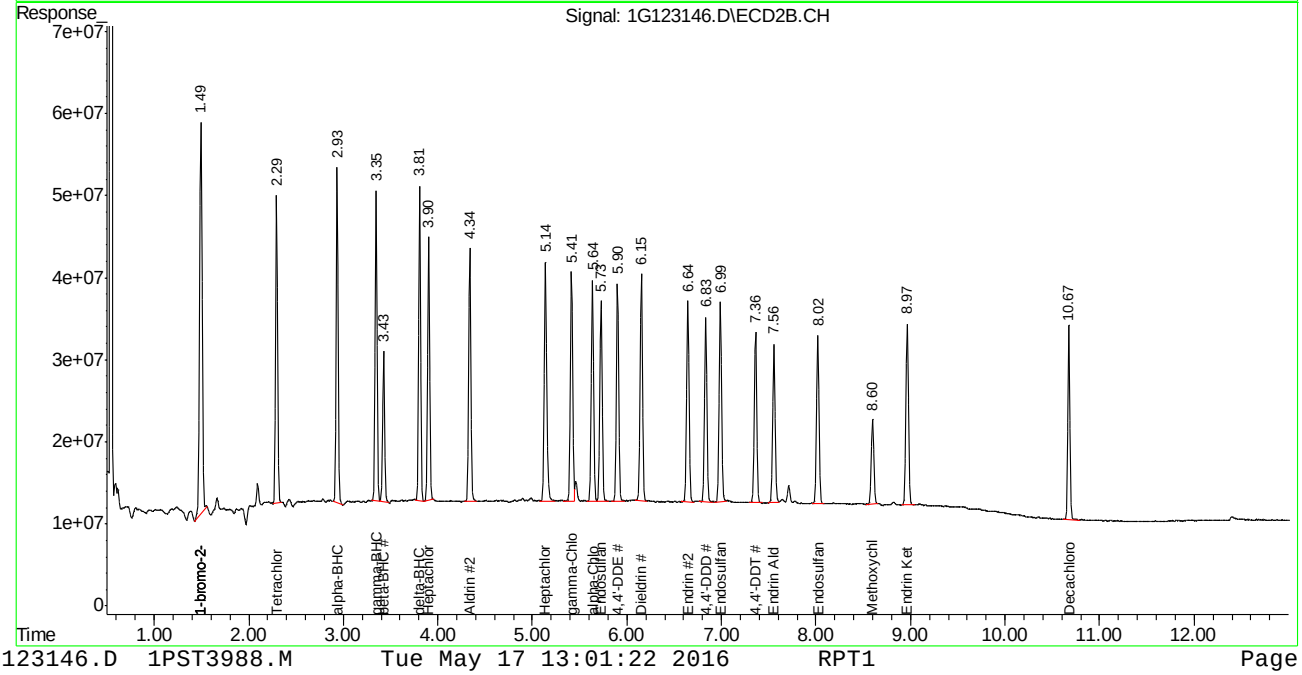
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123146.D\ECD1A.CH Vial: 62
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123146.D\ECD2B.CH
Acq On : 17 May 2016 12:32 pm Operator: rebeccak
Sample : op93907-msd Inst : GC1G
Misc : op93907,g1g3990,870,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 13:01 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

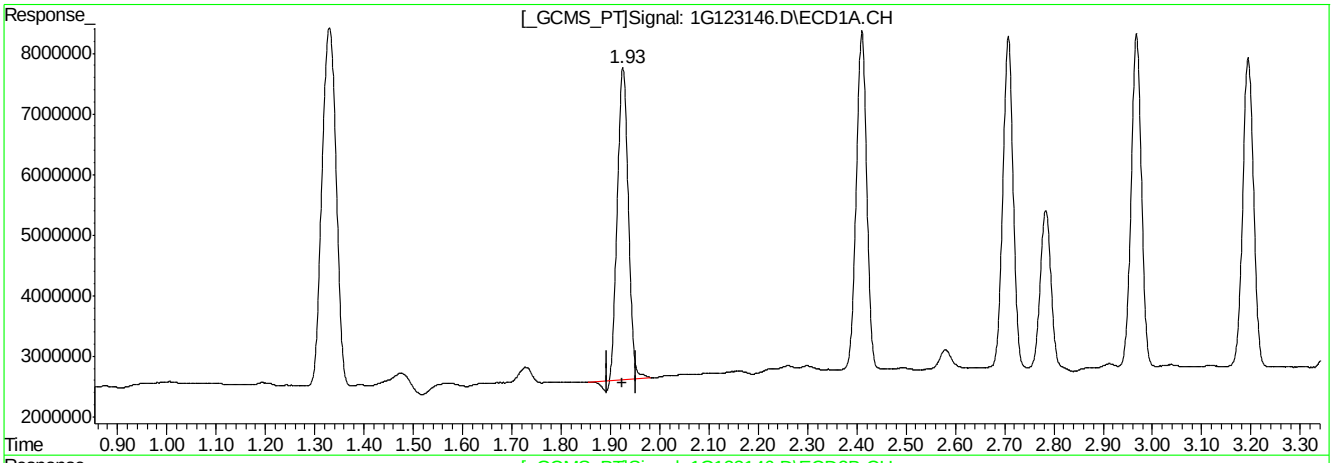
Sample Number:	OP93907-MSD	**Method:**	SW846 8081B
Lab FileID:	1G123146.D	**Analyst approved:**	05/17/16 13:02 Dhara Saparia
Injection Time:	05/17/16 12:32	**Supervisor approved:**	05/19/16 12:02 Gwendolyn Burns

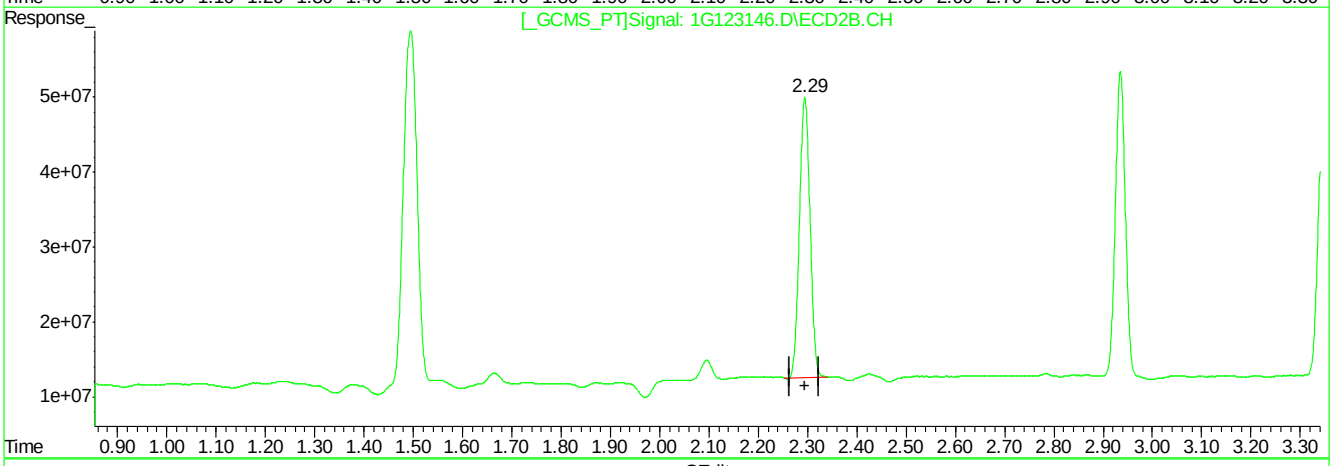
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	1.93	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123146.D\ECD1A.CH Vial: 62
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123146.D\ECD2B.CH
Acq On    : 17 May 2016  12:32 pm                    Operator: rebeccak
Sample    : op93907-msd                              Inst    : GC1G
Misc      : op93907,g1g3990,870,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 13:00 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

1.93min 36.718PPB

response 78644018

(2) Tetrachloro-m-xylene #2 (SAB)

2.29min 33.559PPB

response 559456325

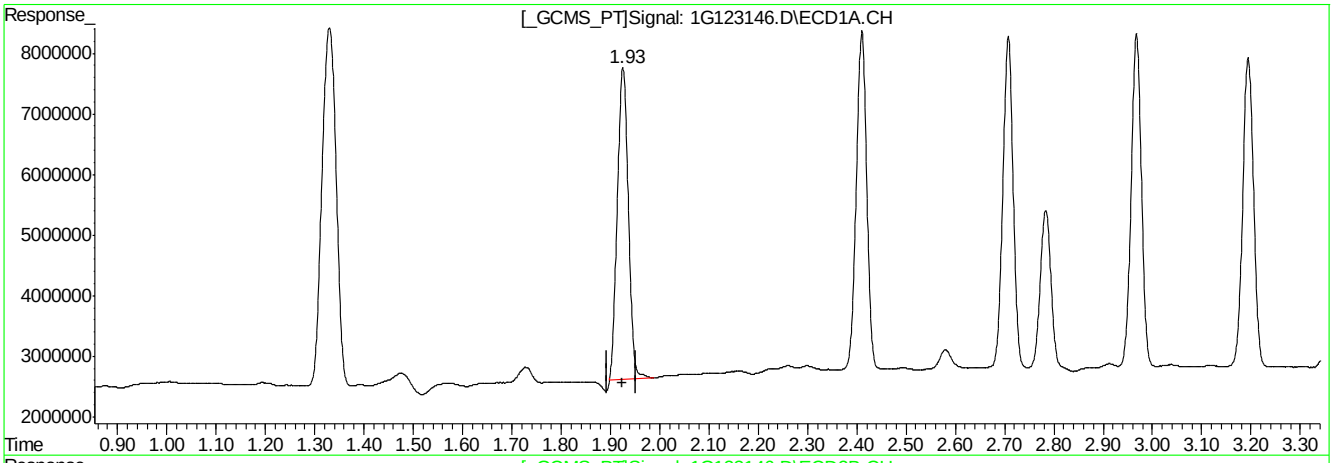
(+) = Expected Retention Time

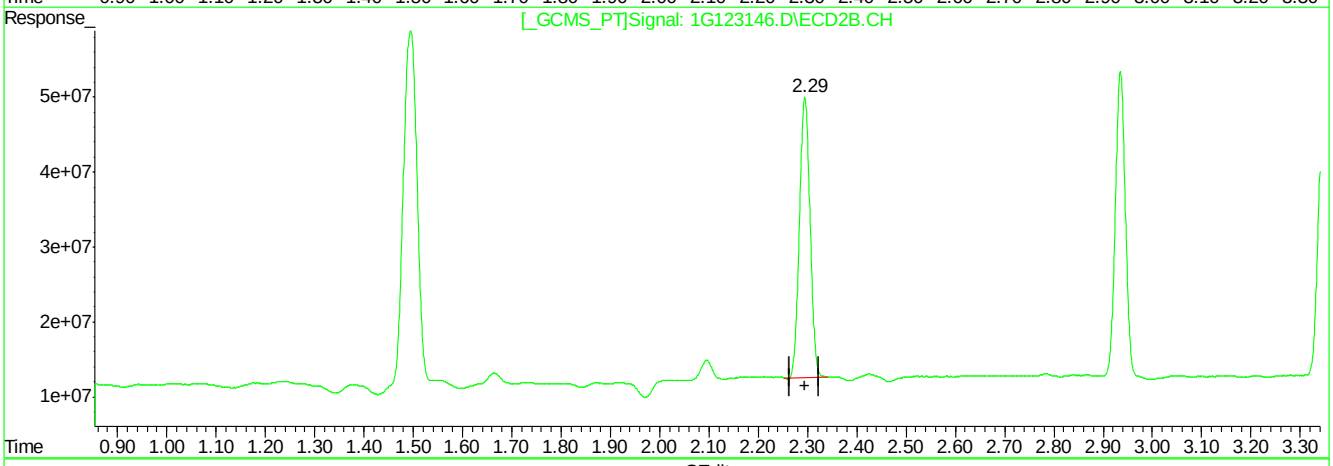
1G123146.D 1PST3988.M Tue May 17 13:00:45 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123146.D\ECD1A.CH Vial: 62
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123146.D\ECD2B.CH
Acq On    : 17 May 2016  12:32 pm                    Operator: rebeccak
Sample    : op93907-msd                              Inst    : GC1G
Misc      : op93907,g1g3990,870,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 13:00 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

1.93min 37.619PPB m

response 80575309

(2) Tetrachloro-m-xylene #2 (SAB)

2.29min 33.559PPB

response 559456325

(+) = Expected Retention Time

1G123146.D 1PST3988.M Tue May 17 13:00:56 2016 RPT1

SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/16/16 17:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123059.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123059.D\ECD2B.CH
Acq On : 5-16-16 09:09:02 AM Operator: rebeccak
Sample : ddt Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:05 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3985.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	121.1E6	841.9E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	121.1E6	841.9E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	121.1E6	841.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	43640483	307.2E6	22.875	22.147
Spiked Amount	40.000	Range	30 - 150	Recovery	=	57.19%	55.37%
24) SA	Decachlorobiphen	9.23	10.68	60882083	222.9E6	22.606	22.898
Spiked Amount	40.000			Recovery	=	56.52%	57.25%
	Target Compounds						
13) B	4,4'-DDE	4.67	5.90	837634	4492810	0.315m	0.310m
15) MA	Endrin	5.39	6.64	129.2E6	661.1E6	52.441	57.352
16) A	4,4'-DDD	5.50	6.83	1011043	7386221	0.468m	0.586m
18) MA	4,4'-DDT	5.92	7.36	267.8E6	1336.8E6	113.949	118.863
19) B	Endrin Aldehyde	6.34	7.55	1371237	7932699	0.719m	0.779m
23) B	Endrin Ketone	7.45	8.97	6408544	33500252	2.819	2.736

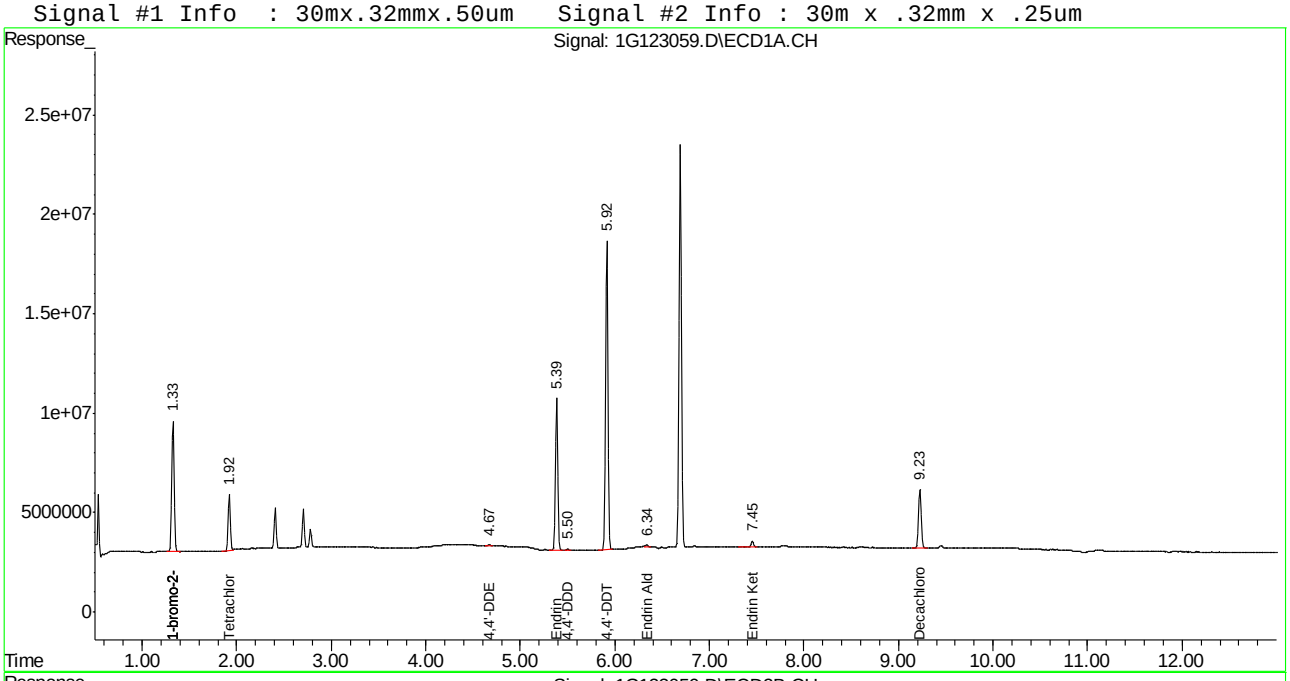
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123059.D 1PST3988.M Mon May 16 15:17:21 2016 RPT1 Page 1

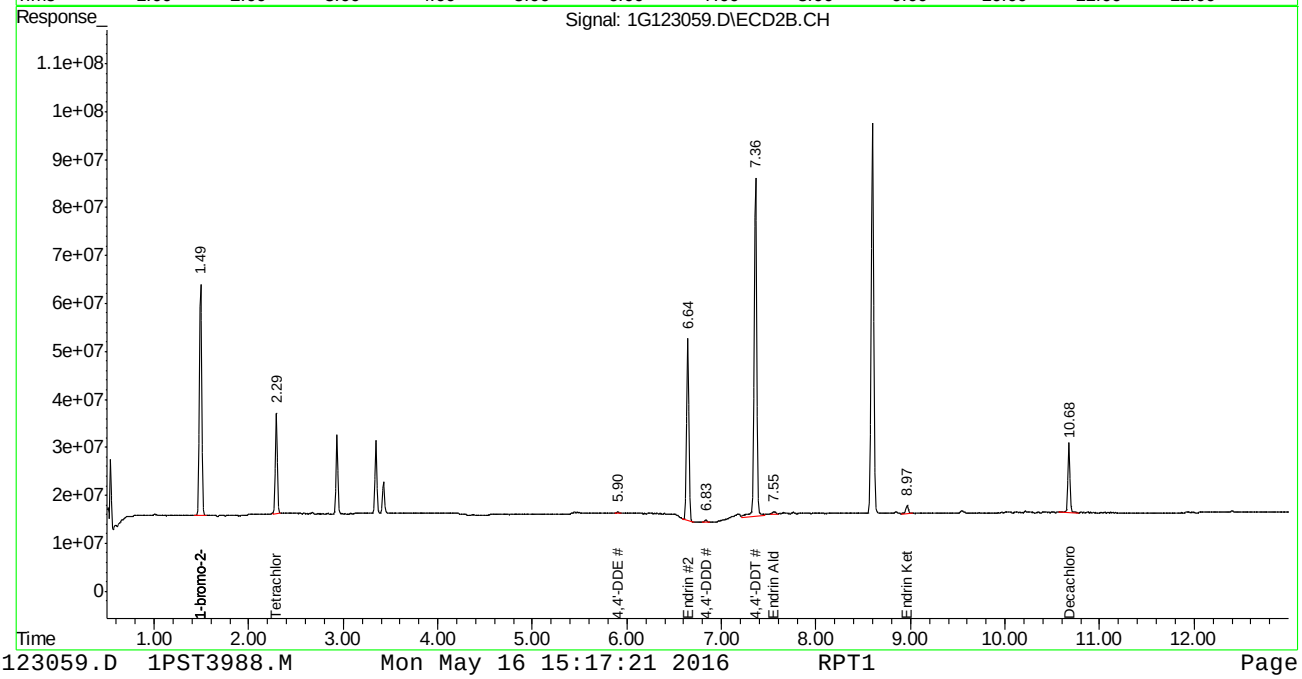
Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123059.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123059.D\ECD2B.CH
Acq On    : 5-16-16 09:09:02 AM                    Operator: rebeccak
Sample    : ddt                                    Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1             Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 13:05 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3985.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```





Manual Integration Approval Summary

Sample Number:	G1G3988-DDT	**Method:**	SW846 8081B
Lab FileID:	1G123059.D	**Analyst approved:**	05/16/16 15:18 Dhara Saparia
Injection Time:	05/16/16 09:09	**Supervisor approved:**	05/16/16 17:43 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	4.67	Poor instrument integration
4,4'-DDD	72-54-8	1	5.50	Poor instrument integration
4,4'-DDE	72-55-9	2	5.90	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.34	Poor instrument integration
4,4'-DDD	72-54-8	2	6.83	Poor instrument integration
Endrin aldehyde	7421-93-4	2	7.55	Poor instrument integration

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/17/16 13:17

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On : 5-17-16 08:27:39 AM Operator: rebeccak
Sample : ddt Inst : GC1G
Misc : op93908,g1g3990,5.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 12:32 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	125.9E6	830.5E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	125.9E6	830.5E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	125.9E6	830.5E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	42621786	286.5E6	18.737	19.402
Spiked Amount	40.000	Range	30 - 150	Recovery	=	46.84%	48.51%
24) SA	Decachlorobiphen	9.22	10.67	64315473	227.0E6	20.780	21.894
Spiked Amount	40.000			Recovery	=	51.95%	54.73%
	Target Compounds						
13) B	4,4'-DDE	4.67	5.90	1763605	10355652	0.616m	0.674m
15) MA	Endrin	5.38	6.64	130.0E6	682.0E6	50.432	48.183
16) A	4,4'-DDD	5.50	6.83	1544545	8770357	0.687m	0.692m
18) MA	4,4'-DDT	5.91	7.36	266.7E6	1288.8E6	108.950	104.257
19) B	Endrin Aldehyde	6.33	7.55	1784385	9698560	0.835m	0.876m
23) B	Endrin Ketone	7.45	8.96	5653645	34723962	1.926	2.456m

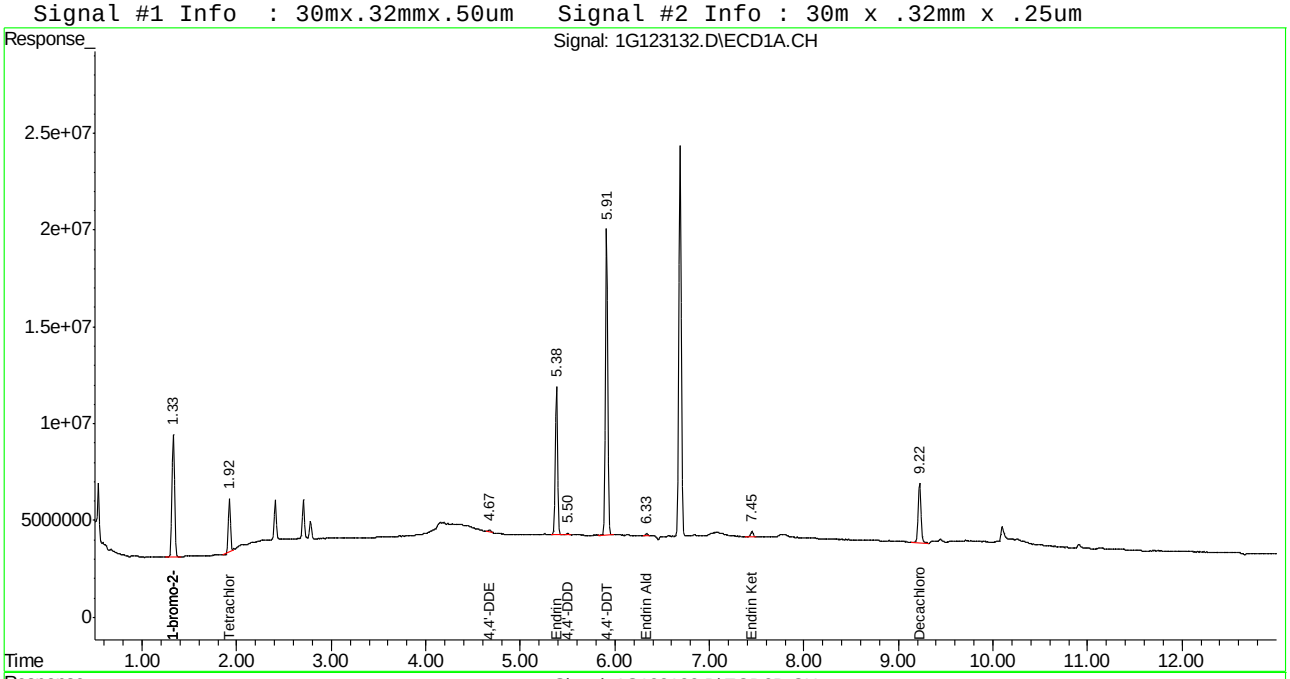
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123132.D 1PST3988.M Tue May 17 12:33:01 2016 RPT1 Page 1

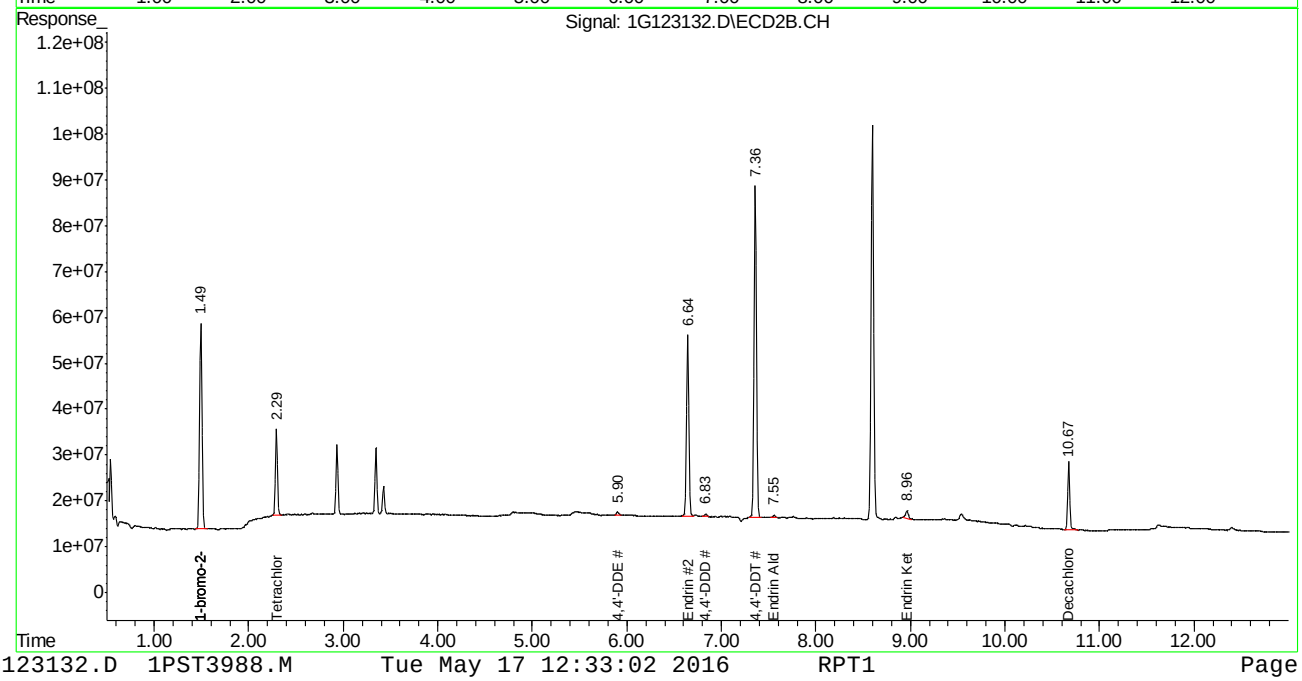
Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                    Operator: rebeccak
Sample    : ddt                                    Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1             Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:32 2016  Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```





SGS ACCUTEST JC20184

Manual Integration Approval Summary

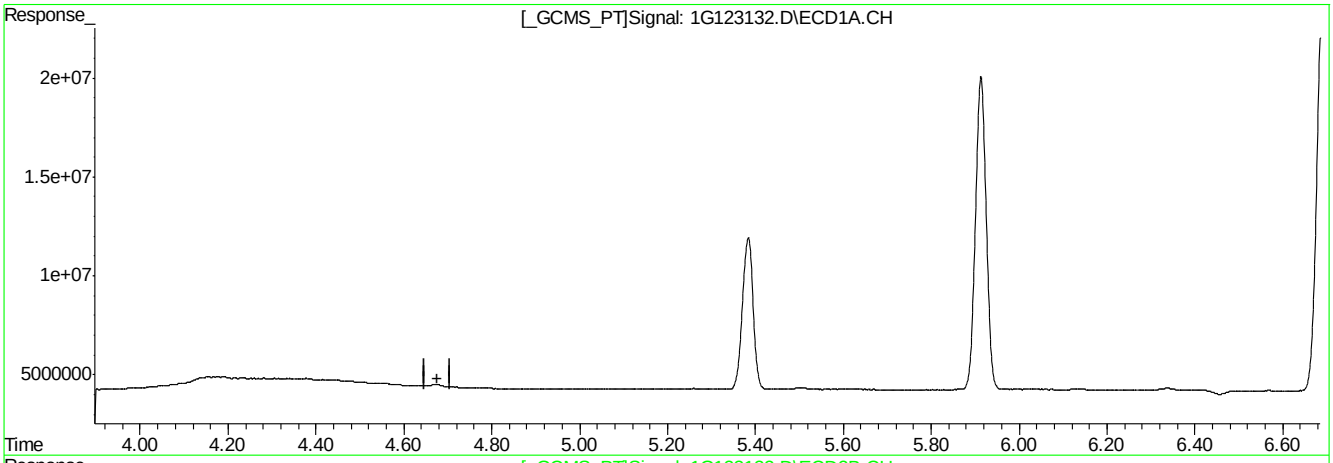
Sample Number:	G1G3990-DDT	**Method:**	SW846 8081B
Lab FileID:	1G123132.D	**Analyst approved:**	05/17/16 12:55 Dhara Saparia
Injection Time:	05/17/16 08:27	**Supervisor approved:**	05/17/16 13:17 Gwendolyn Burns

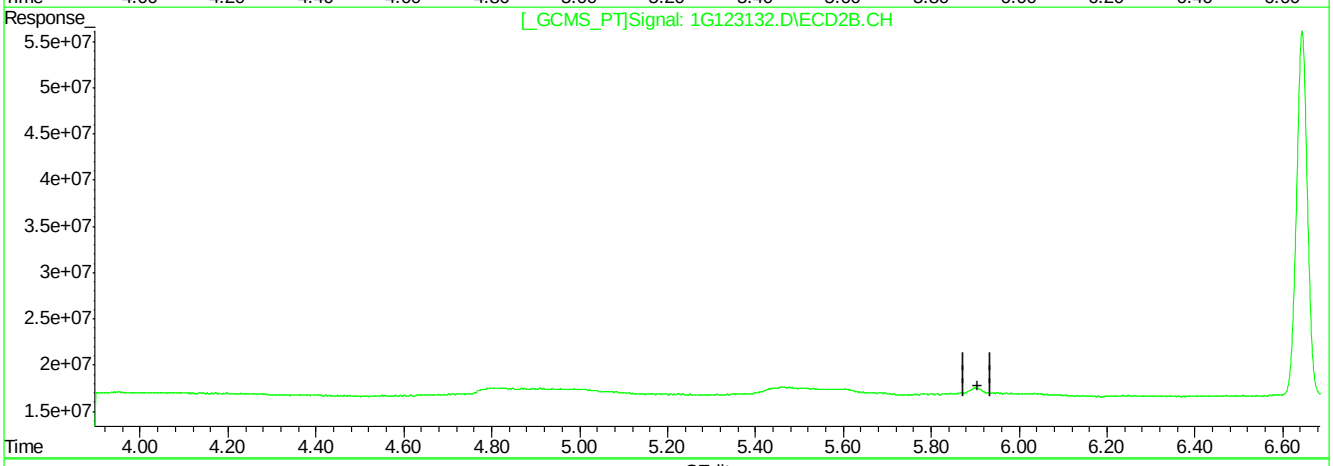
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	4.67	Poor instrument integration
4,4'-DDD	72-54-8	1	5.50	Poor instrument integration
4,4'-DDE	72-55-9	2	5.90	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.33	Poor instrument integration
4,4'-DDD	72-54-8	2	6.83	Poor instrument integration
Endrin aldehyde	7421-93-4	2	7.55	Poor instrument integration
Endrin ketone	53494-70-5	2	8.96	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                      Operator: rebeccak
Sample    : ddt                                      Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:30 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(13) 4,4'-DDE (B)

0.00min 0.000PPB

response 0

(13) 4,4'-DDE #2 (B)

0.00min 0.000PPB

response 0

(+) = Expected Retention Time

1G123132.D 1PST3988.M Tue May 17 12:31:25 2016 RPT1

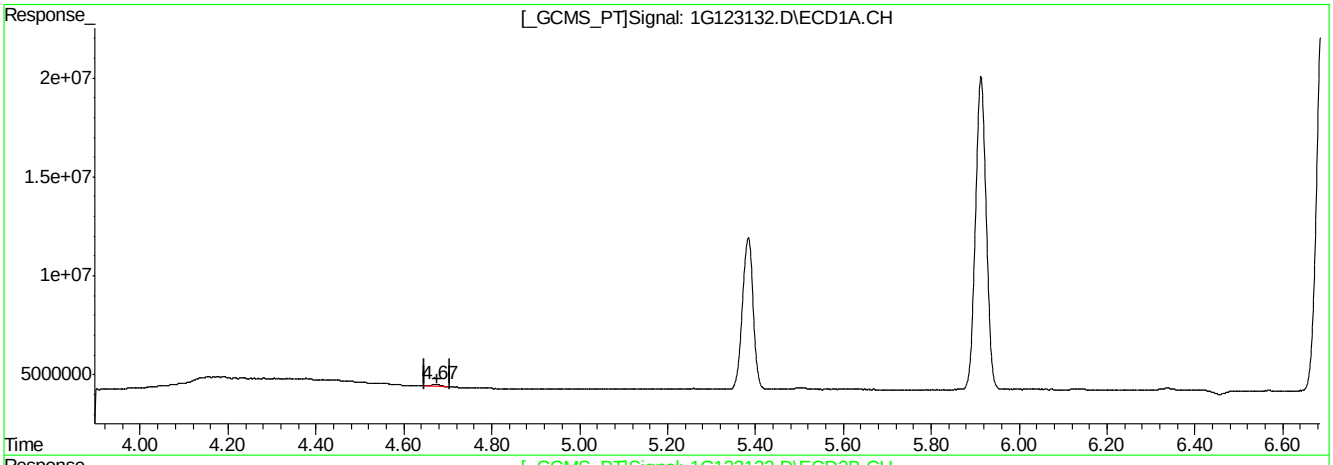
11.5.2.2 11

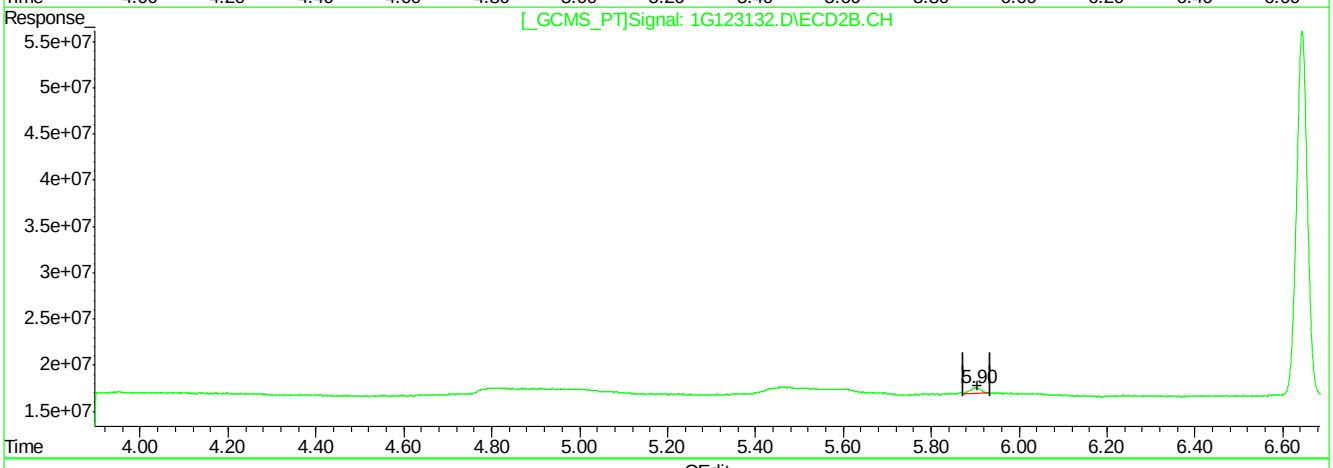
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                      Operator: rebeccak
Sample    : ddt                                      Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:30 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(13) 4,4'-DDE (B)

4.67min 0.616PPB m

response 1763605

(13) 4,4'-DDE #2 (B)

5.90min 0.674PPB m

response 10355652

(+) = Expected Retention Time

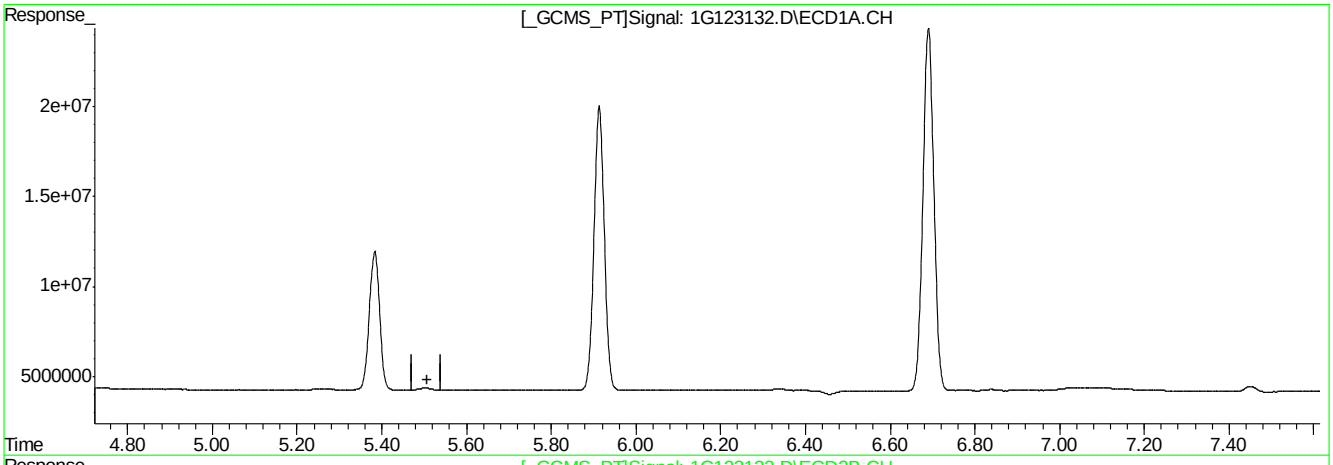
1G123132.D 1PST3988.M Tue May 17 12:31:41 2016 RPT1

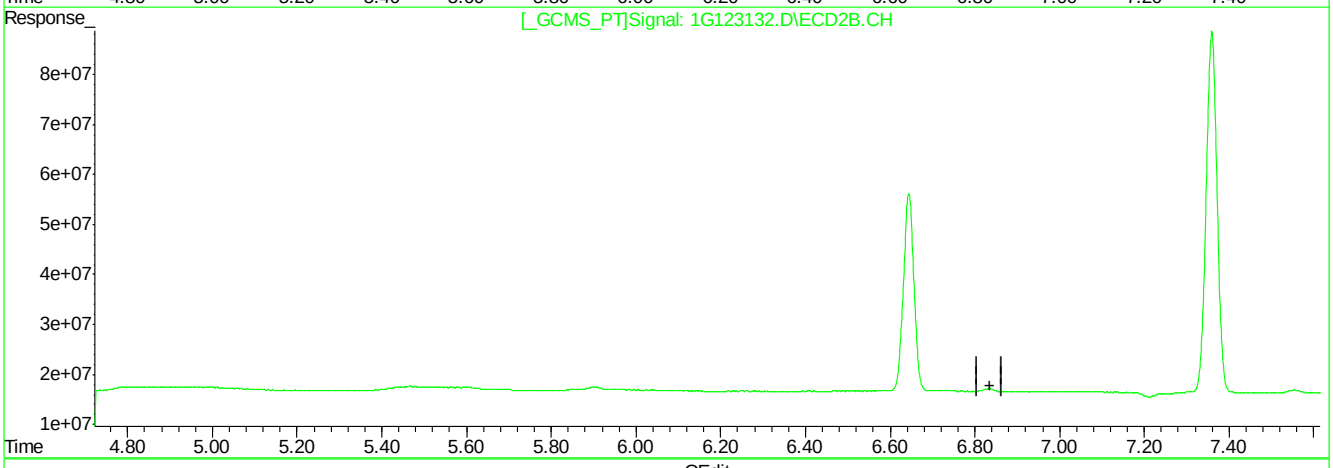
11.5.2.3 11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                      Operator: rebeccak
Sample    : ddt                                      Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:30 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(16) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(16) 4,4'-DDD #2 (A)

0.00min 0.000PPB

response 0

(+) = Expected Retention Time

1G123132.D 1PST3988.M Tue May 17 12:31:52 2016 RPT1

11.5.2.4

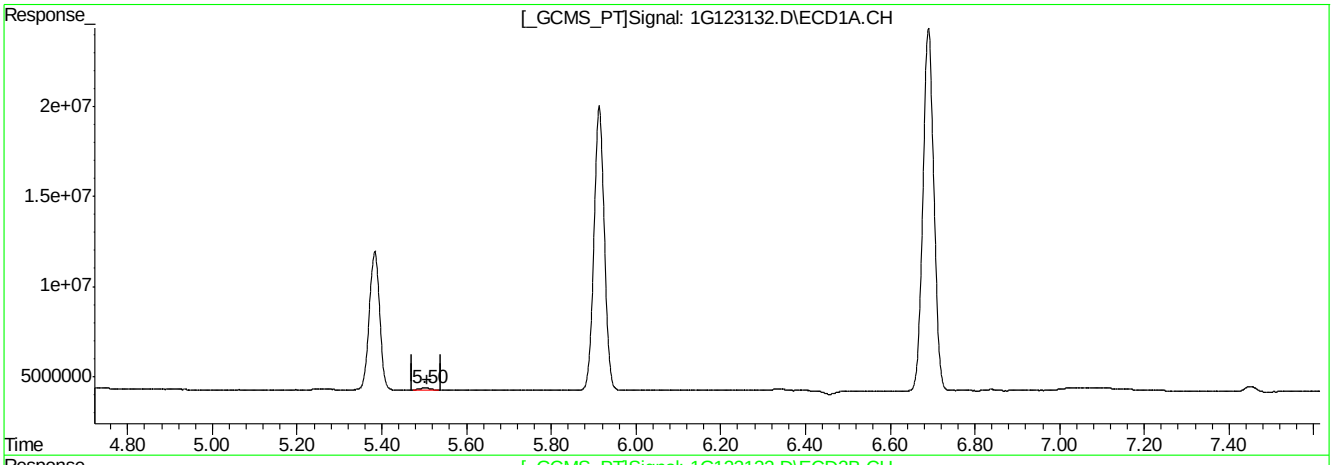
11

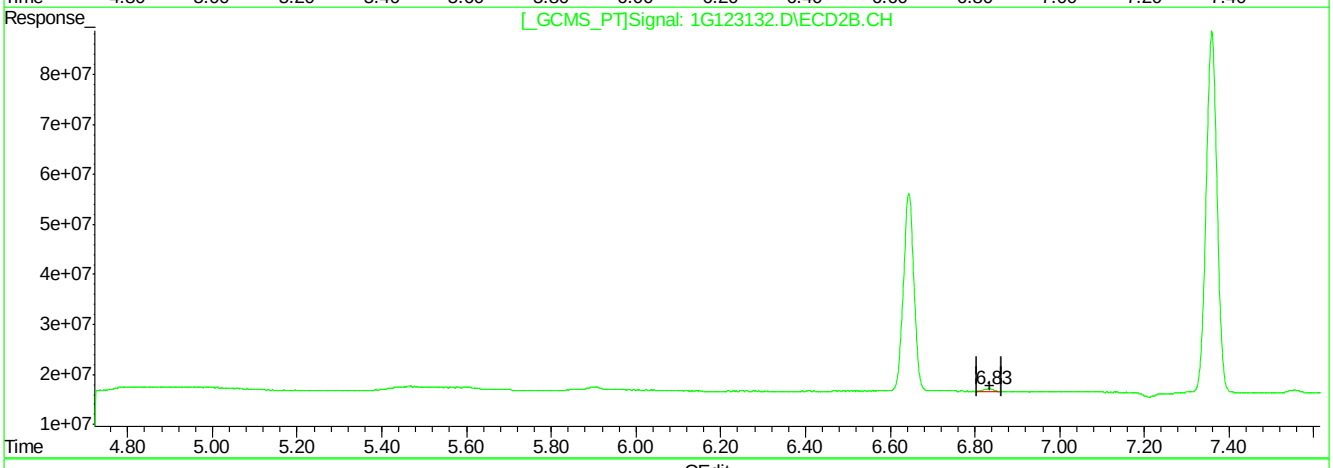
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                      Operator: rebeccak
Sample    : ddt                                      Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:30 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(16) 4,4'-DDD (A)

5.50min 0.687PPB m

response 1544545

(16) 4,4'-DDD #2 (A)

6.83min 0.692PPB m

response 8770357

(+) = Expected Retention Time

1G123132.D 1PST3988.M Tue May 17 12:32:06 2016 RPT1

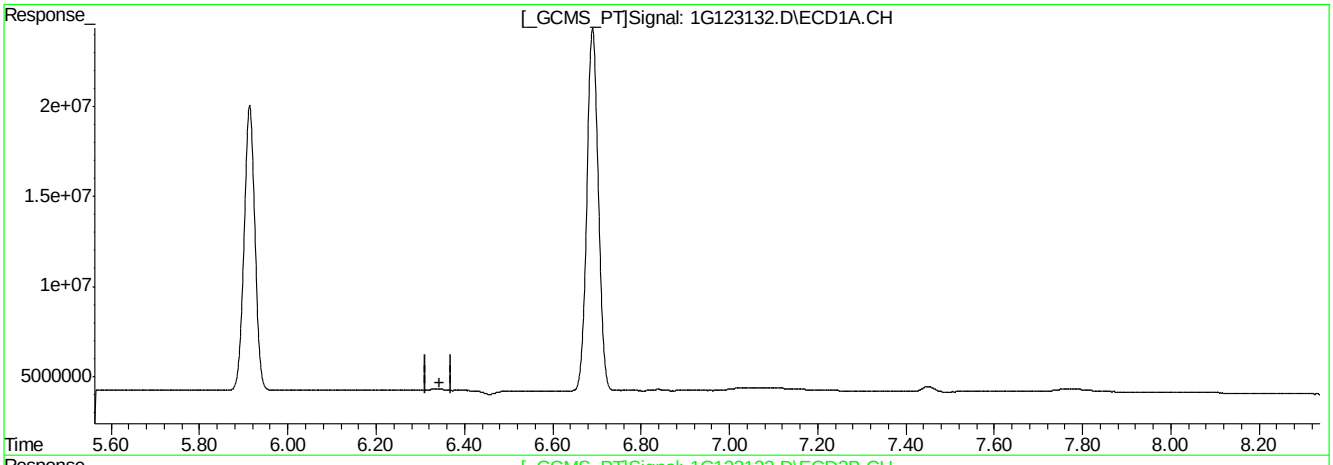
11.5.2.5

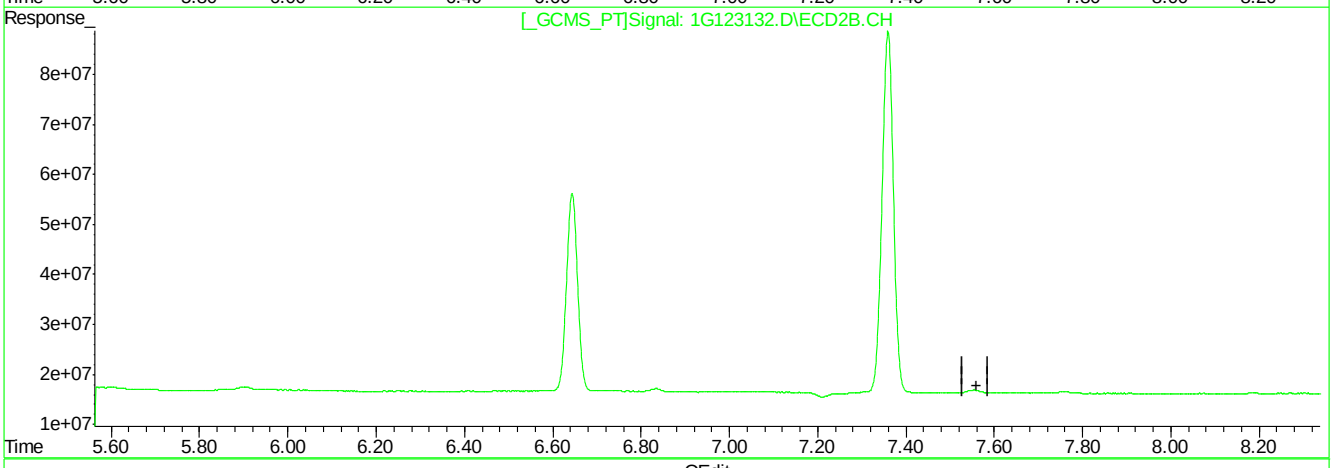
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                      Operator: rebeccak
Sample    : ddt                                      Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:30 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(19) Endrin Aldehyde (B)

0.00min 0.000PPB

response 0

(19) Endrin Aldehyde #2 (B)

0.00min 0.000PPB

response 0

(+) = Expected Retention Time

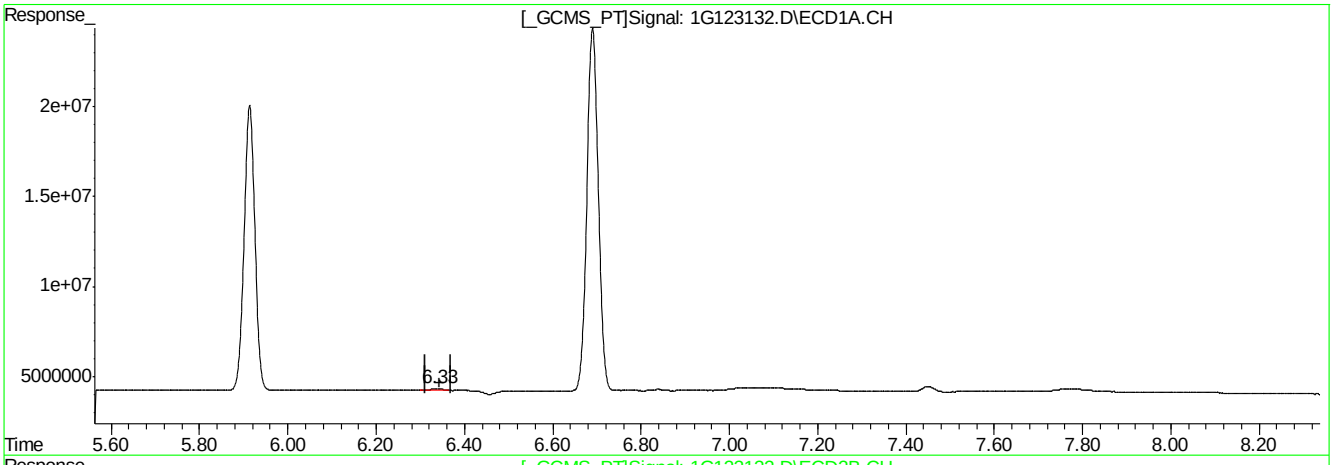
1G123132.D 1PST3988.M Tue May 17 12:32:12 2016 RPT1

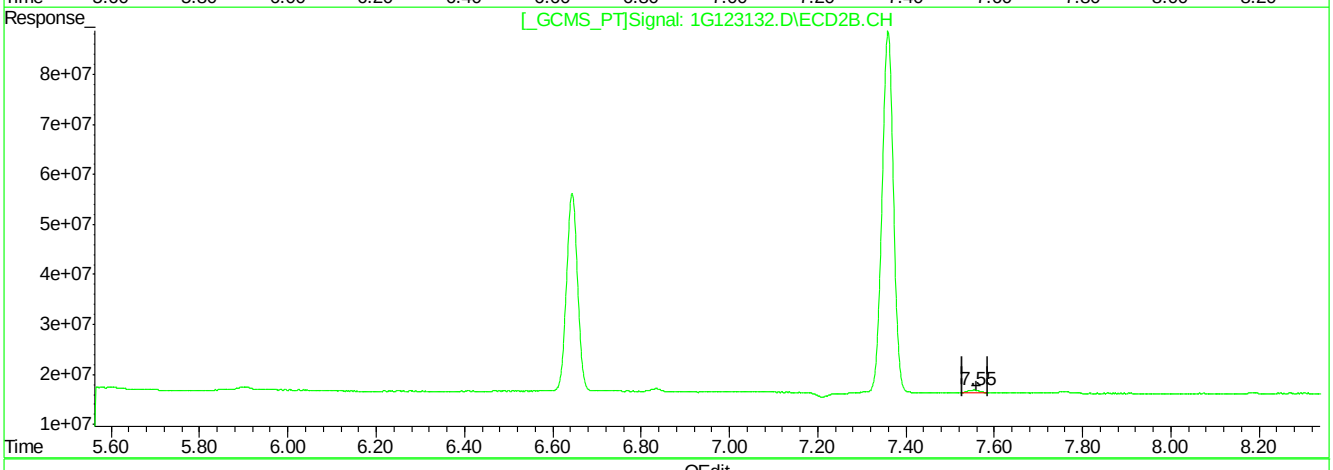
11.5.2.6 11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                      Operator: rebeccak
Sample    : ddt                                      Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:30 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(19) Endrin Aldehyde (B)

6.33min 0.835PPB m

response 1784385

(19) Endrin Aldehyde #2 (B)

7.55min 0.876PPB m

response 9698560

(+) = Expected Retention Time

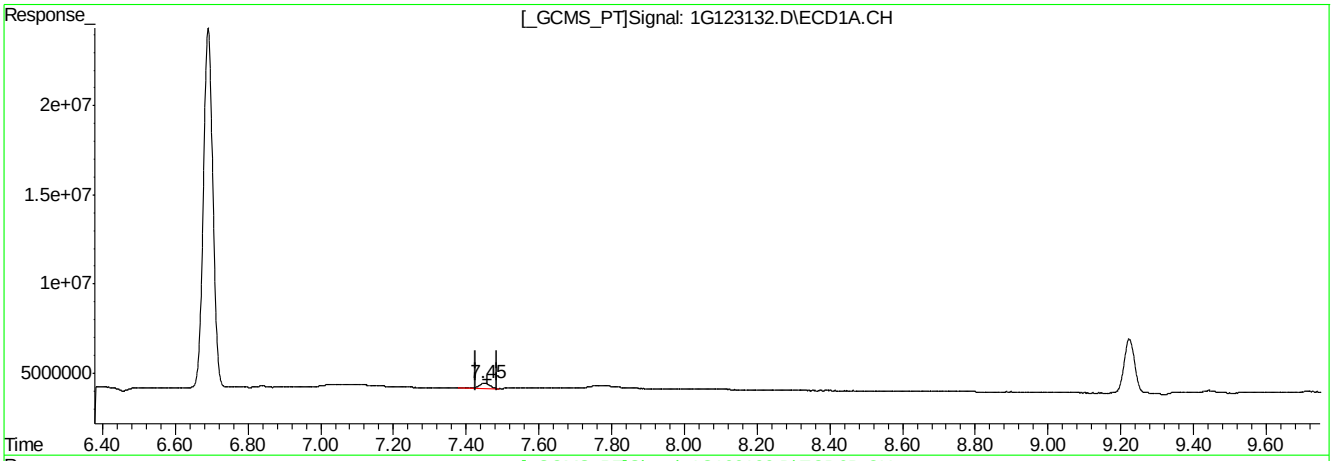
1G123132.D 1PST3988.M Tue May 17 12:32:27 2016 RPT1

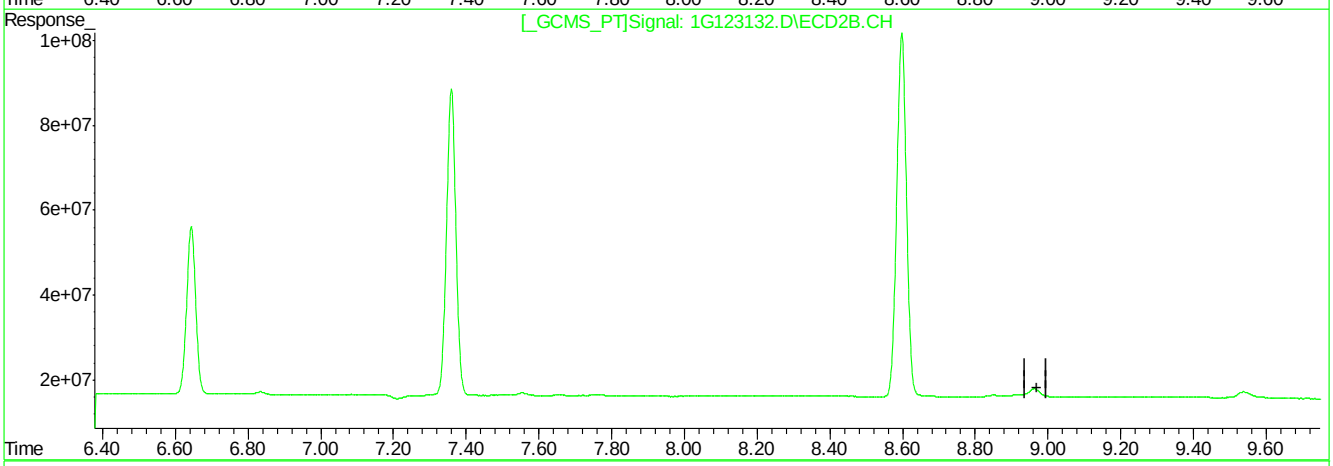
11.5.2.7 11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                      Operator: rebeccak
Sample    : ddt                                      Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:30 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Endrin Ketone (B)

7.45min 1.926PPB

response 5653645

(23) Endrin Ketone #2 (B)

0.00min 0.000PPB

response 0

(+) = Expected Retention Time

1G123132.D 1PST3988.M Tue May 17 12:32:31 2016 RPT1

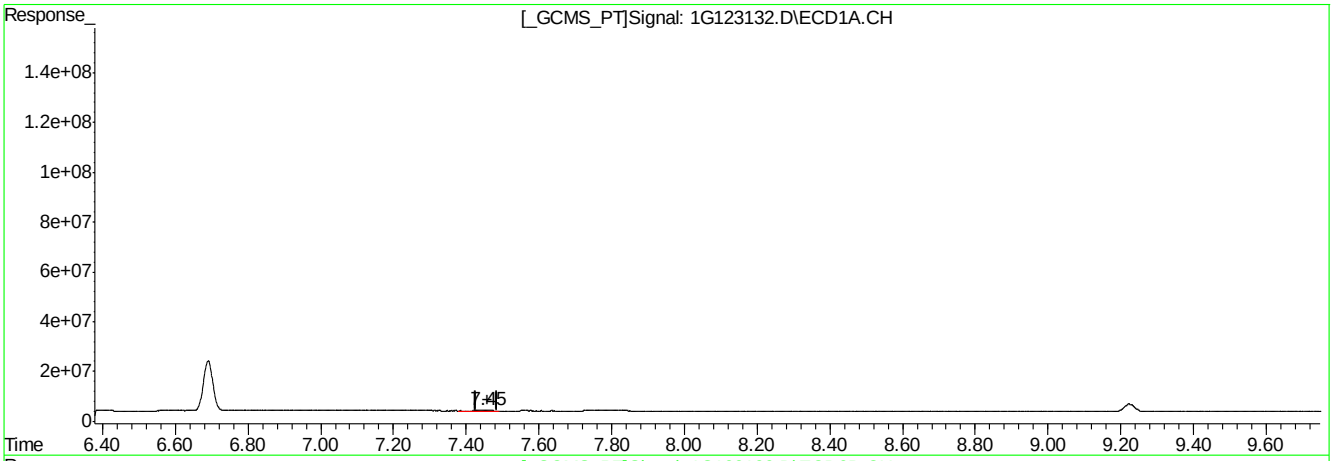
11.5.2.8

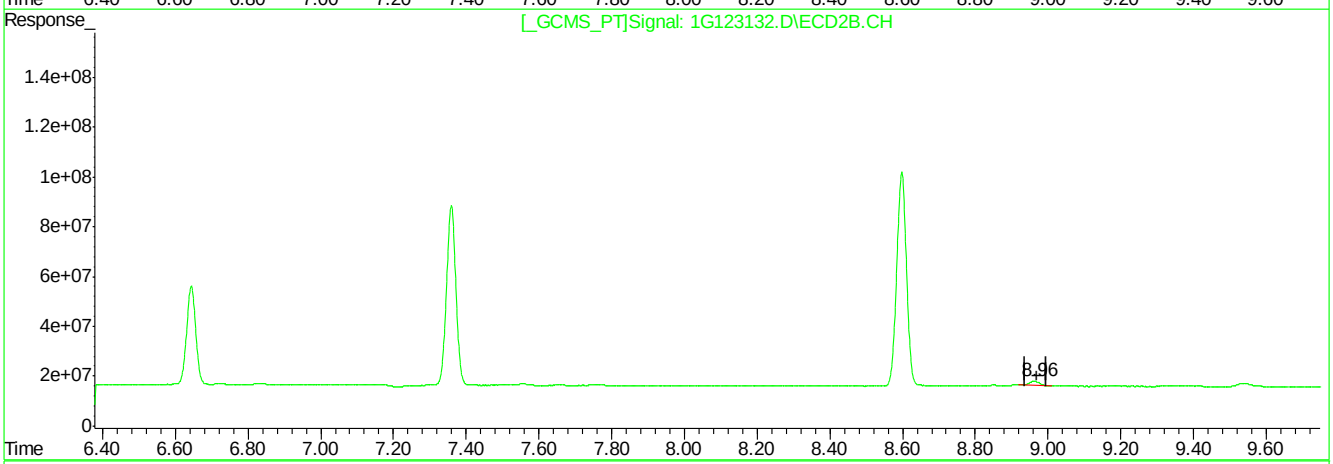
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123132.D\ECD2B.CH
Acq On    : 5-17-16 08:27:39 AM                      Operator: rebeccak
Sample    : ddt                                      Inst    : GC1G
Misc      : op93908,g1g3990,5.4,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 12:30 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Endrin Ketone (B)

7.45min 1.926PPB

response 5653645

(23) Endrin Ketone #2 (B)

8.96min 2.456PPB m

response 34723962

(+) = Expected Retention Time

1G123132.D 1PST3988.M Tue May 17 12:32:42 2016 RPT1

11.5.2.9

11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/16/16 17:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On : 16 May 2016 10:11 am Operator: thomasl
Sample : ic3988-1 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:24 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	97981670	767.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.93	2.29	1593097	13048604	1.032m	1.032
Spiked Amount	40.000	Range	30 - 150	Recovery	=	2.58%#	2.58%#
24) SA	Decachlorobiphen	9.24	10.68	2597406	11137800	1.192	1.256
Spiked Amount	40.000			Recovery	=	2.98%	3.14%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	2216924	18467738	0.930	0.983
4) MA	gamma-BHC	2.71	3.35	2024492	16275184	0.909	0.958
5) MA	Heptachlor	3.20	3.90	2441832	15659516	1.072	0.982
6) B	beta-BHC	2.79	3.43	1135172	7800568	1.050m	1.022
7) B	delta-BHC	2.97	3.81	2171307	15797517	1.005	0.950
8) MB	Aldrin	3.53	4.34	2019036	14551482	0.935	0.968
9) B	Heptachlor Epoxi	4.25	5.14	2165480	14276101	1.028	1.062
10) B	gamma-Chlordane	4.40	5.42	2465581	15200309	1.169	1.136
11) B	alpha-Chlordane	4.57	5.64	2379533	15515114	1.148	1.178
12) A	Endosulfan I	4.75	5.73	2276516	12414982	1.106	0.999
13) B	4,4'-DDE	4.68	5.90	2363972	15081593	1.100	1.143
14) MA	Dieldrin	5.07	6.16	2240390	15873467	1.007	1.164
15) MA	Endrin	5.40	6.65	2231189	14587124	1.119	1.389
16) A	4,4'-DDD	5.51	6.84	1723248	11581992	0.985m	1.008
17) B	Endosulfan II	5.72	6.99	2223675	15003113	1.077	1.126
18) MA	4,4'-DDT	5.92	7.36	1997680	10752582	1.050m	1.049m
19) B	Endrin Aldehyde	6.35	7.56	1723536	11015067	1.117m	1.188
20) B	Endosulfan Sulfa	7.04	8.03	2613752	11897470	1.590	1.188
21) A	Methoxychlor	6.70	8.60	1332584	7701428	1.342m	1.543
22)	Mirex	6.83	8.90	2154376	11644852	1.252	1.324
23) B	Endrin Ketone	7.47	8.97	2552572	13997924	1.387	1.254

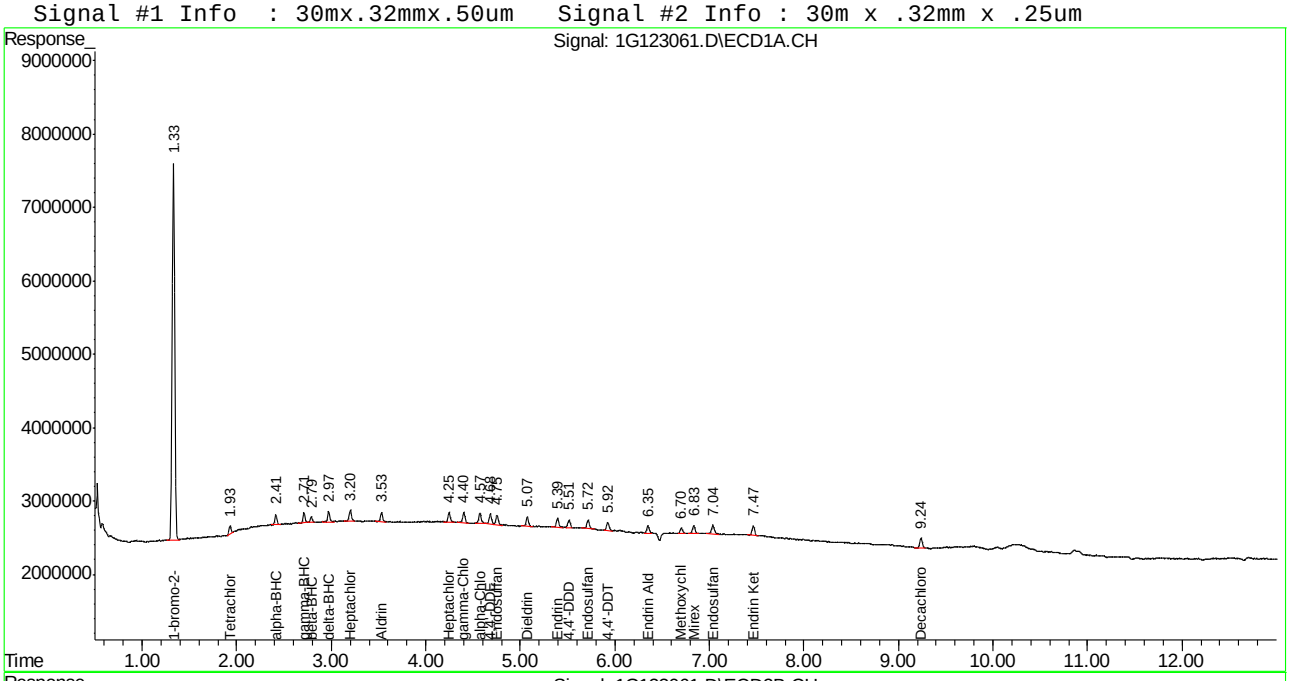
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123061.D 1PST3988.M Mon May 16 13:24:09 2016 RPT1 Page 1

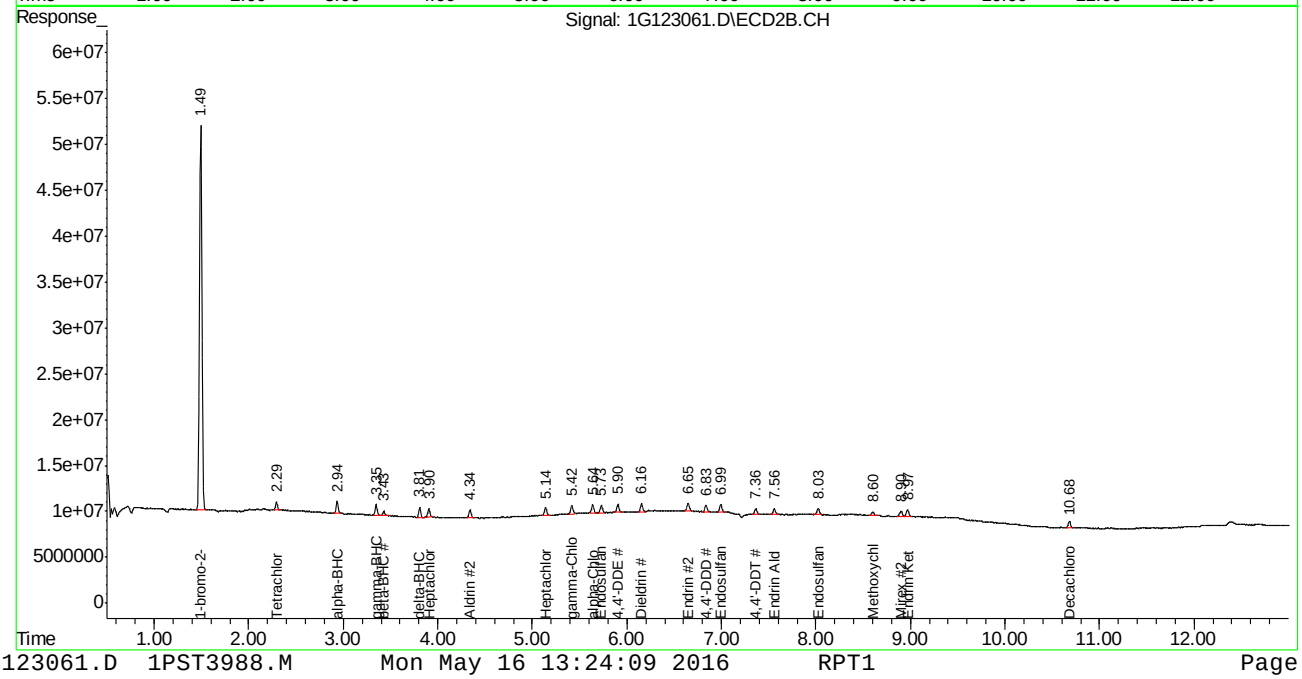
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On : 16 May 2016 10:11 am Operator: thomasl
Sample : ic3988-1 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:24 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integration Approval Summary

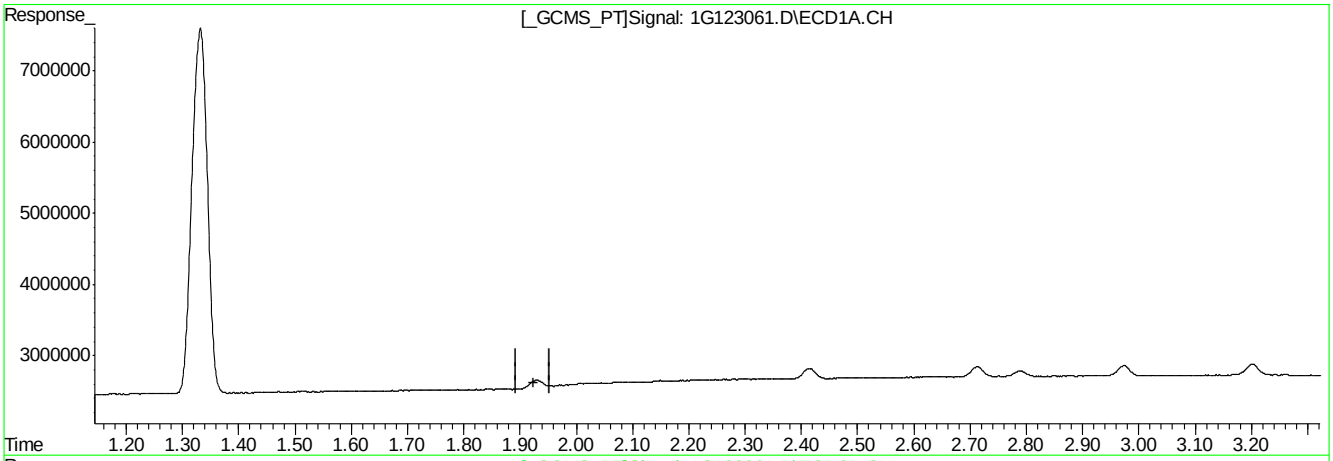
Sample Number:	G1G3988-IC3988	**Method:**	SW846 8081B
Lab FileID:	1G123061.D	**Analyst approved:**	05/16/16 15:18 Dhara Saparia
Injection Time:	05/16/16 10:11	**Supervisor approved:**	05/16/16 17:43 Gwendolyn Burns

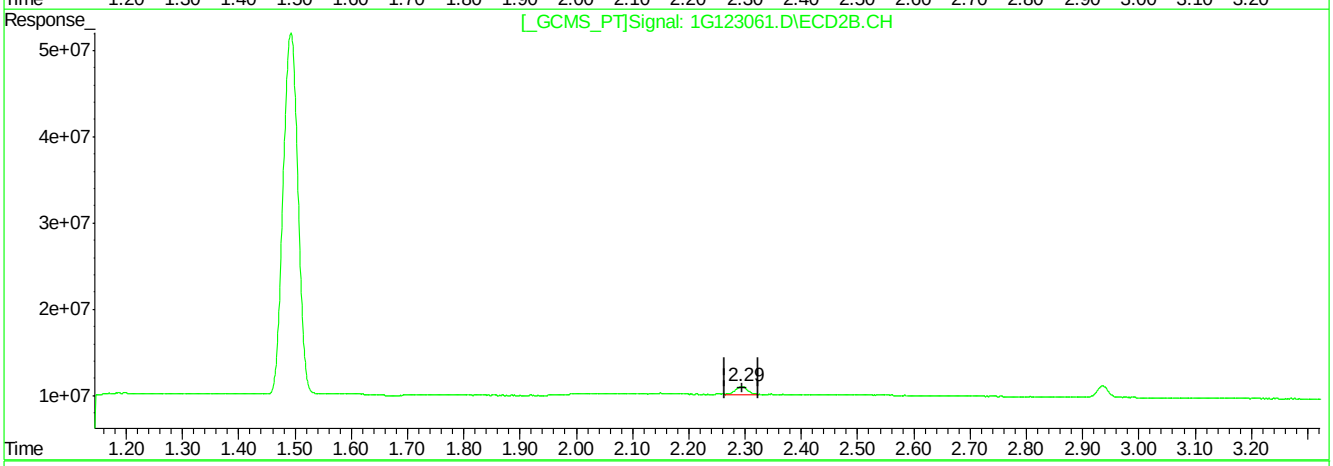
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	1.93	Poor instrument integration
beta-BHC	319-85-7	1	2.79	Poor instrument integration
4,4'-DDD	72-54-8	1	5.51	Poor instrument integration
4,4'-DDT	50-29-3	1	5.92	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.35	Poor instrument integration
Methoxychlor	72-43-5	1	6.70	Poor instrument integration
4,4'-DDT	50-29-3	2	7.36	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On    : 16 May 2016  10:11 am                    Operator: thomasl
Sample    : ic3988-1                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

0.00min 0.000PPB

response 0

(2) Tetrachloro-m-xylene #2 (SAB)

2.29min 1.032PPB

response 13048604

(+) = Expected Retention Time

1G123061.D 1PST3988.M Mon May 16 12:27:54 2016 RPT1

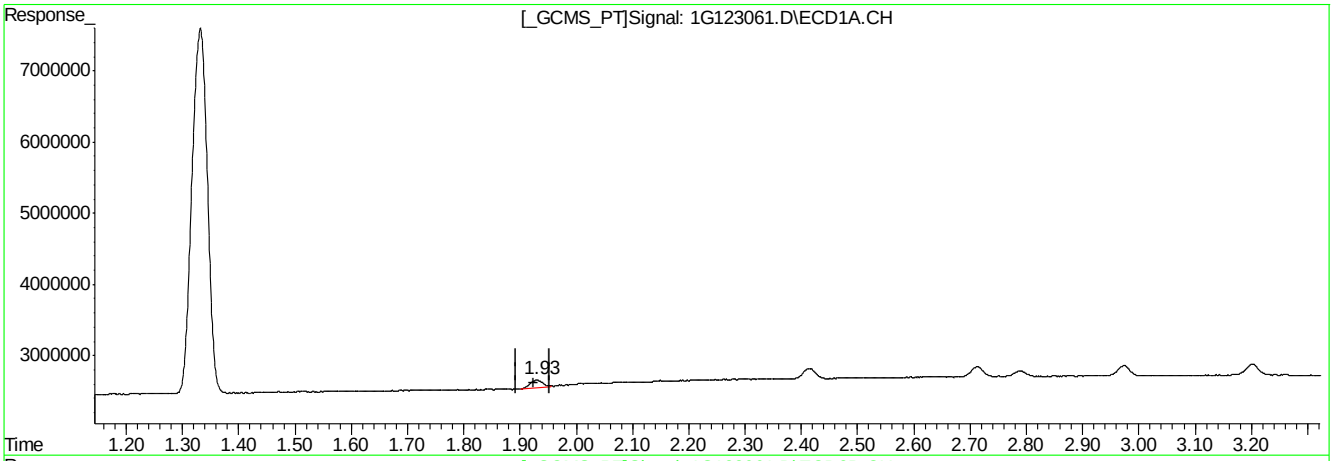
11.6.1.2

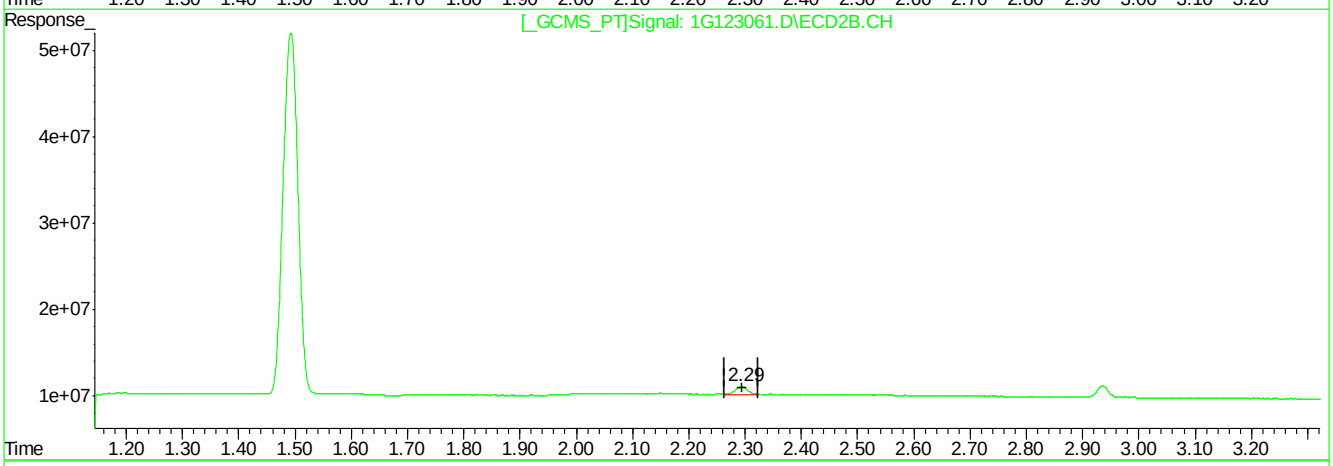
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On    : 16 May 2016  10:11 am                    Operator: thomasl
Sample    : ic3988-1                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

1.93min 1.032PPB m

response 1593097

(2) Tetrachloro-m-xylene #2 (SAB)

2.29min 1.032PPB

response 13048604

(+) = Expected Retention Time

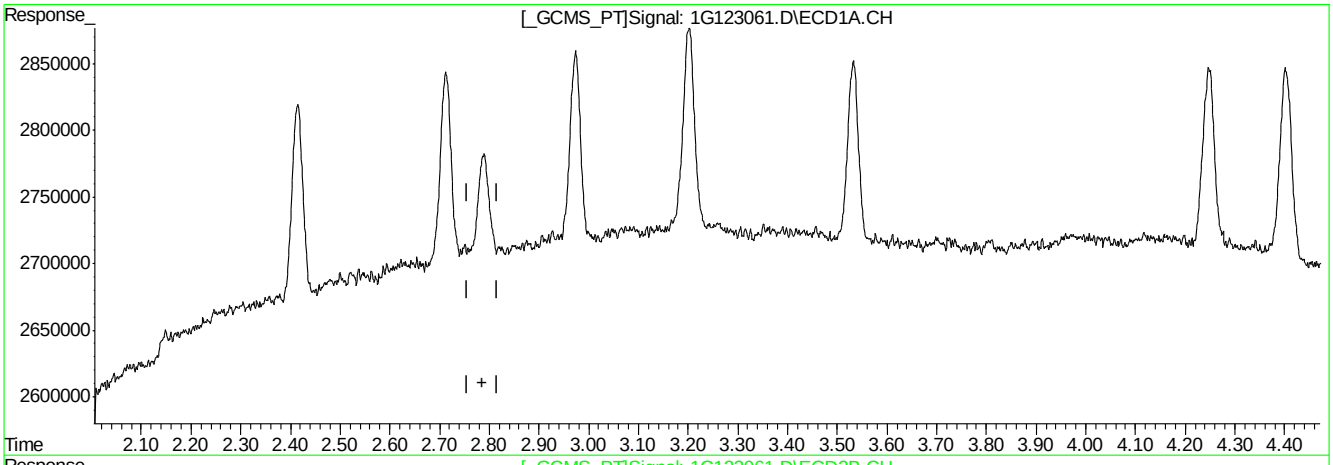
1G123061.D 1PST3988.M Mon May 16 12:28:03 2016 RPT1

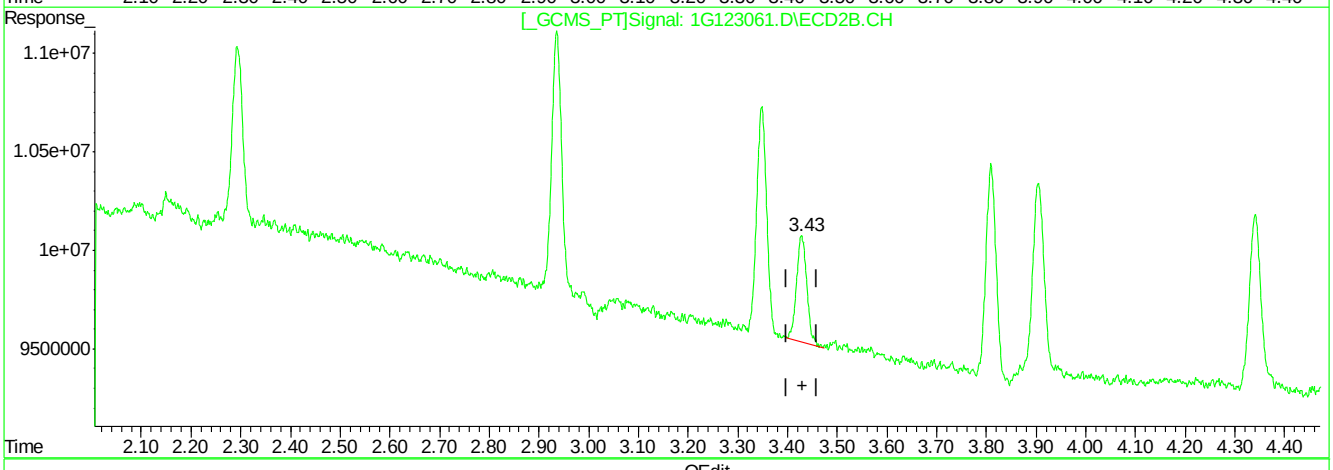
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On : 16 May 2016 10:11 am Operator: thomasl
Sample : ic3988-1 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(6) beta-BHC (B)

0.00min 0.000PPB

response 0

(6) beta-BHC #2 (B)

3.43min 1.022PPB

response 7800568

(+) = Expected Retention Time
1G123061.D 1PST3988.M Mon May 16 12:28:09 2016 RPT1

11.6.1.4

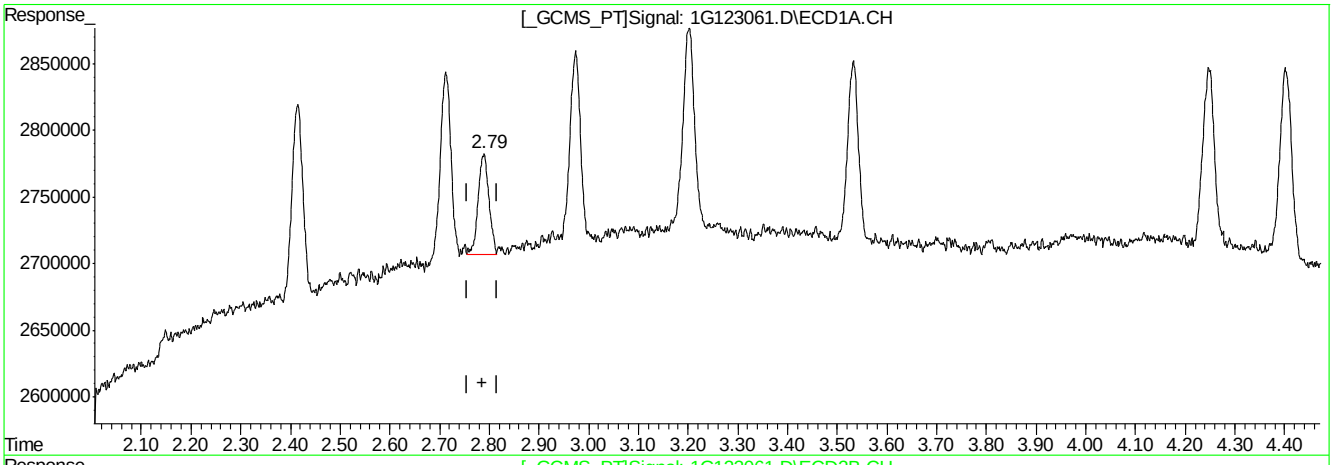
11

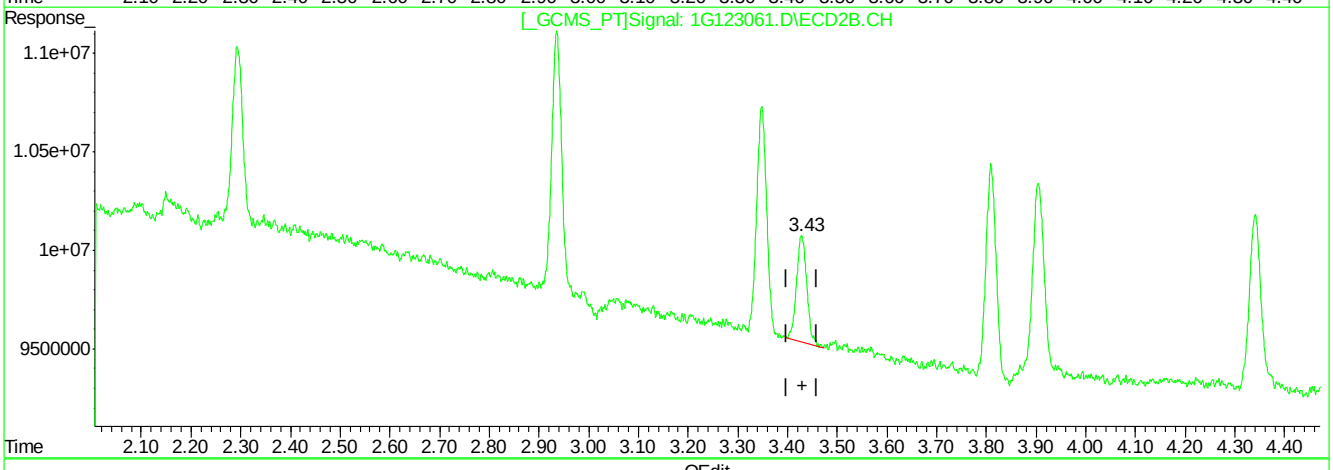
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On    : 16 May 2016  10:11 am                    Operator: thomasl
Sample    : ic3988-1                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(6) beta-BHC (B)

2.79min 1.050PPB m

response 1135172

(6) beta-BHC #2 (B)

3.43min 1.022PPB

response 7800568

(+) = Expected Retention Time

1G123061.D 1PST3988.M Mon May 16 12:28:17 2016 RPT1

11.6.1.5

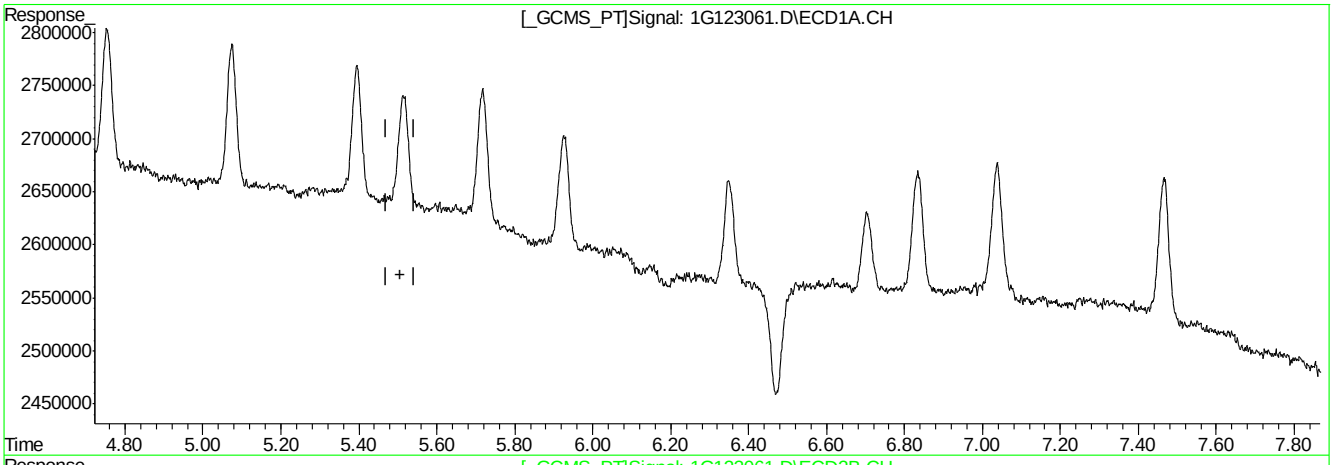
11

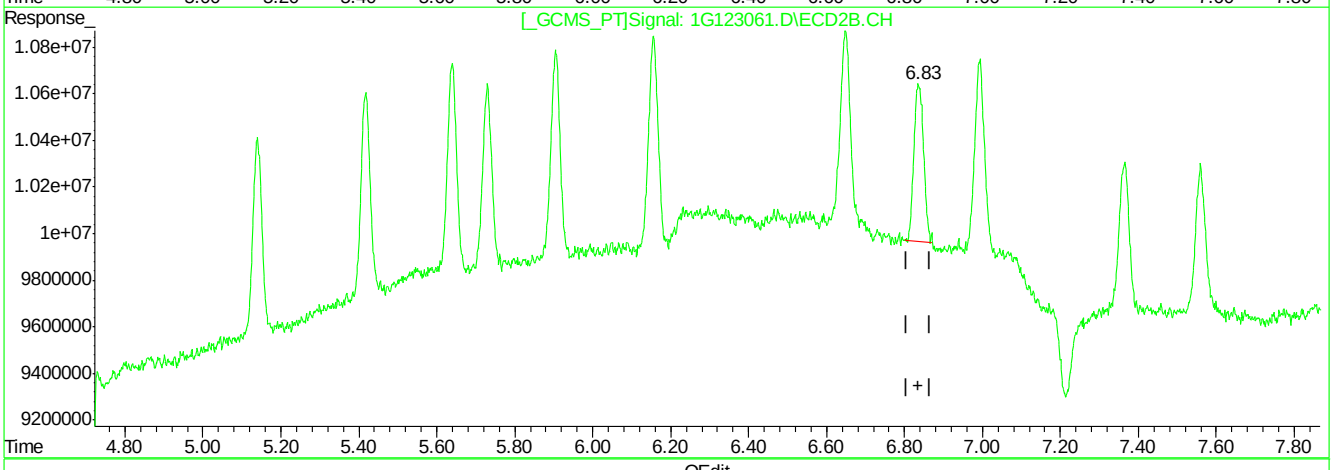
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On : 16 May 2016 10:11 am Operator: thomasl
Sample : ic3988-1 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(16) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(16) 4,4'-DDD #2 (A)

6.84min 1.008PPB

response 11581992

(+) = Expected Retention Time

1G123061.D 1PST3988.M Mon May 16 12:28:28 2016 RPT1

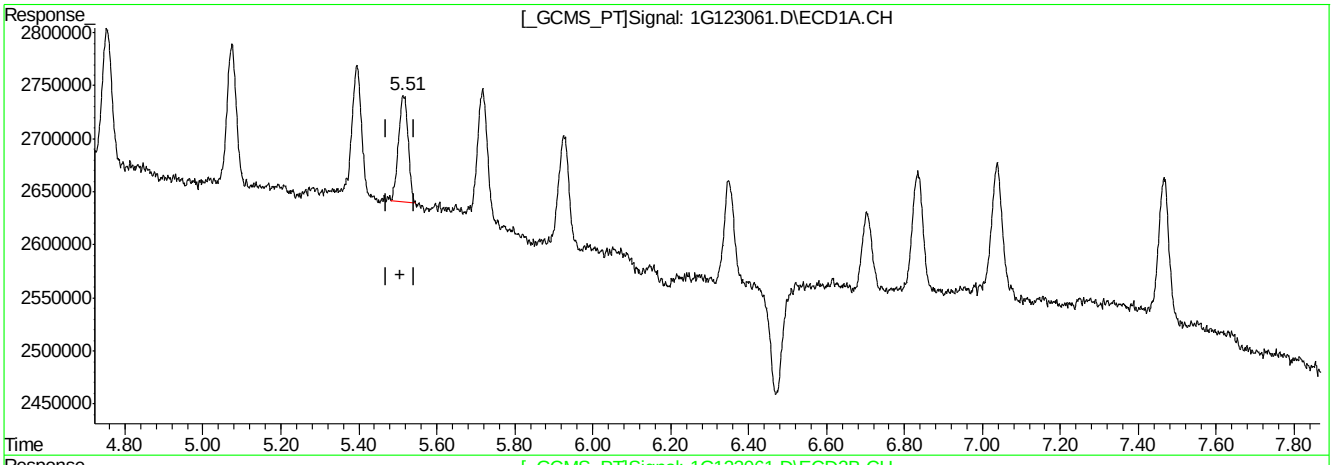
11.6.1.6

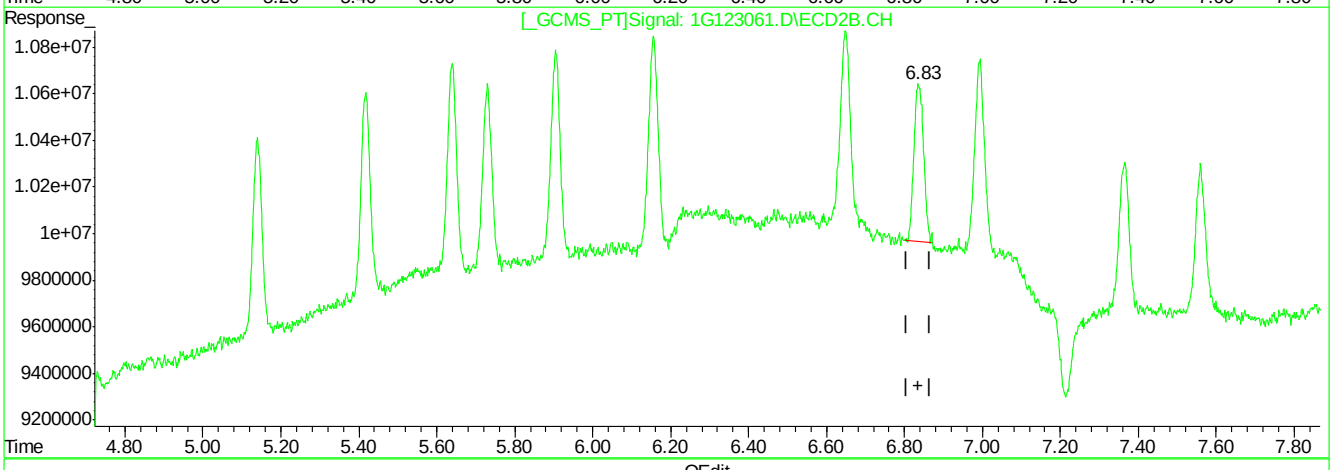
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On : 16 May 2016 10:11 am Operator: thomasl
Sample : ic3988-1 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(16) 4,4'-DDD (A)

5.51min 0.985PPB m

response 1723248

(16) 4,4'-DDD #2 (A)

6.84min 1.008PPB

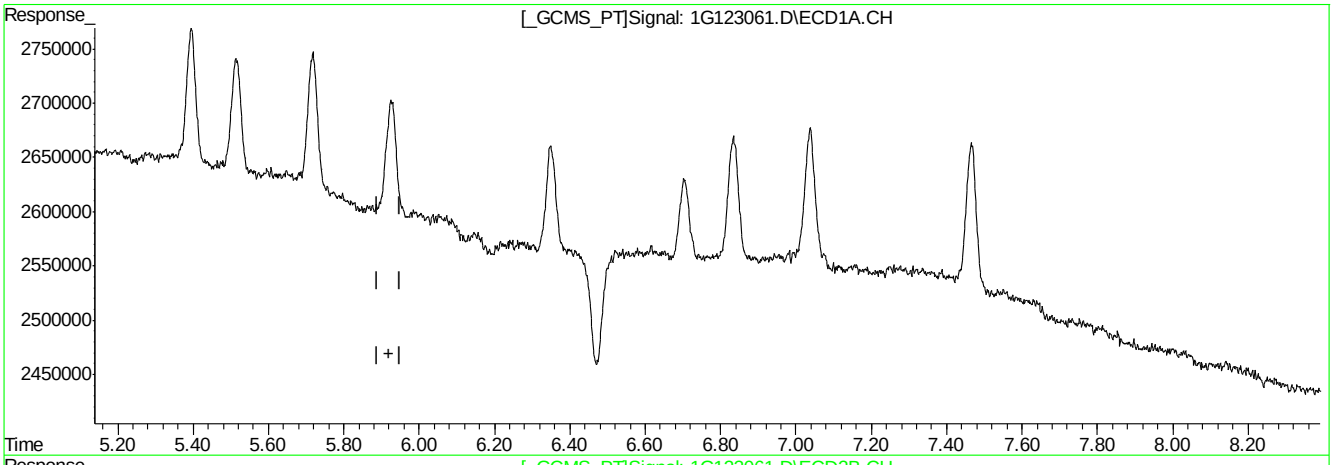
response 11581992

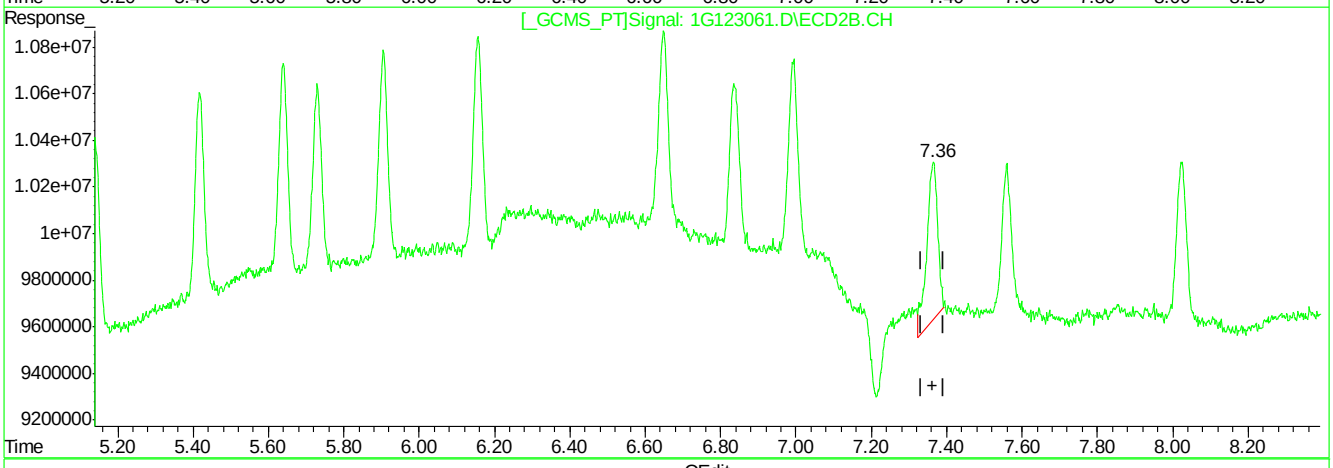
(+) = Expected Retention Time
1G123061.D 1PST3988.M Mon May 16 12:28:40 2016 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On : 16 May 2016 10:11 am Operator: thomasl
Sample : ic3988-1 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDT (MA)

0.00min 0.000PPB

response 0

(18) 4,4'-DDT #2 (MA)

7.36min 1.322PPB

response 13552736

(+) = Expected Retention Time

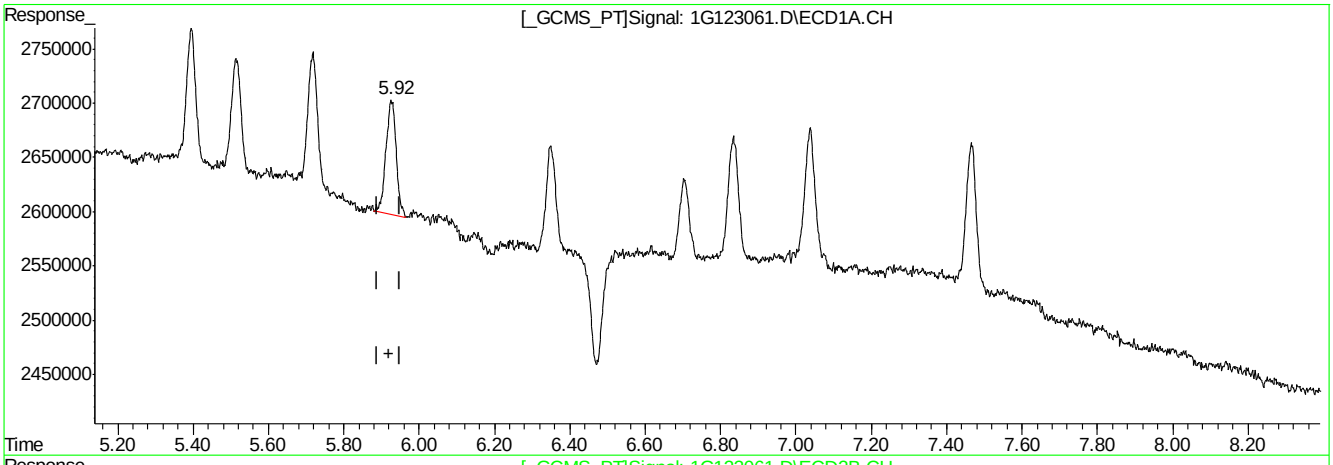
1G123061.D 1PST3988.M Mon May 16 12:28:45 2016 RPT1

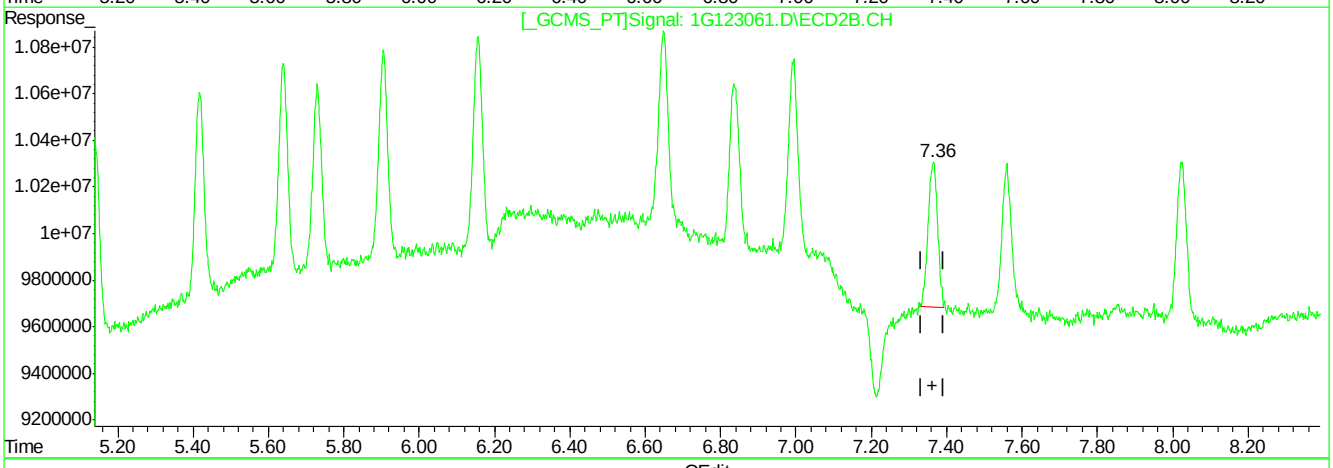
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On : 16 May 2016 10:11 am Operator: thomasl
Sample : ic3988-1 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDT (MA)

5.92min 1.050PPB m

response 1997680

(18) 4,4'-DDT #2 (MA)

7.36min 1.049PPB m

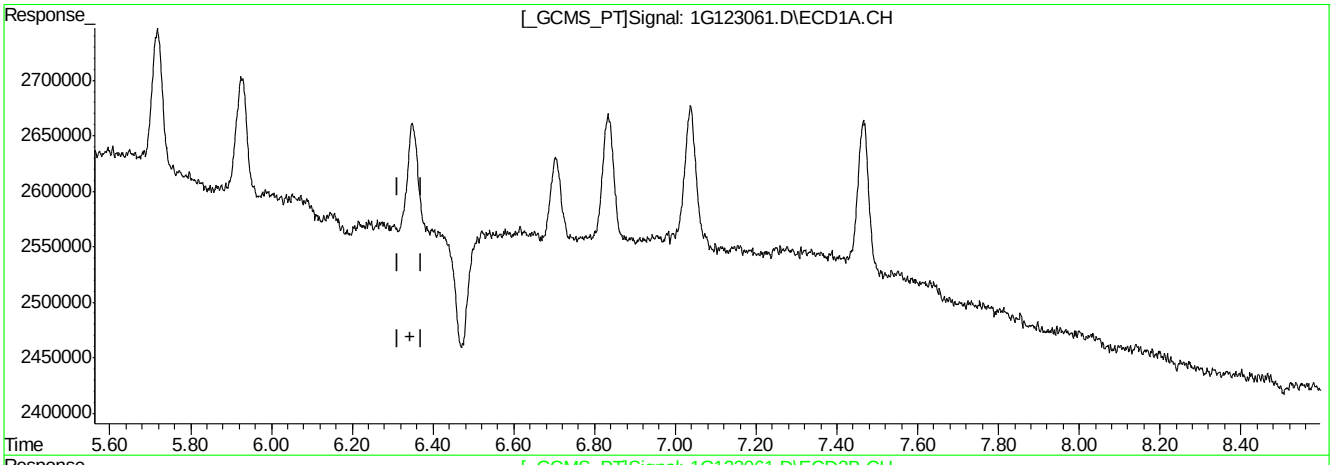
response 10752582

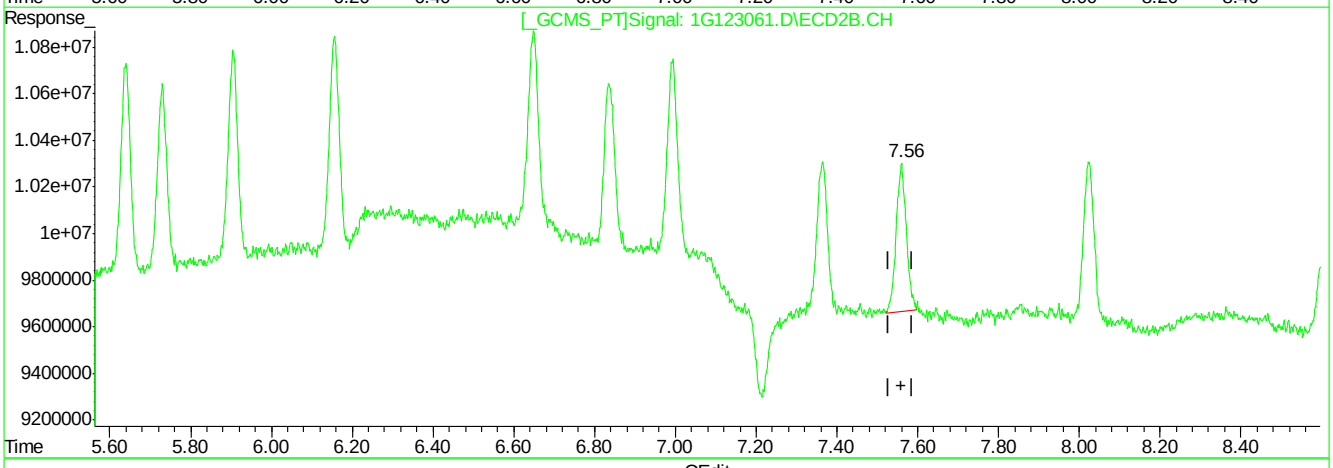
(+) = Expected Retention Time
1G123061.D 1PST3988.M Mon May 16 12:29:18 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On    : 16 May 2016  10:11 am                    Operator: thomasl
Sample    : ic3988-1                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(19) Endrin Aldehyde (B)

0.00min 0.000PPB

response 0

(19) Endrin Aldehyde #2 (B)

7.56min 1.188PPB

response 11015067

(+) = Expected Retention Time

1G123061.D 1PST3988.M Mon May 16 12:29:21 2016 RPT1

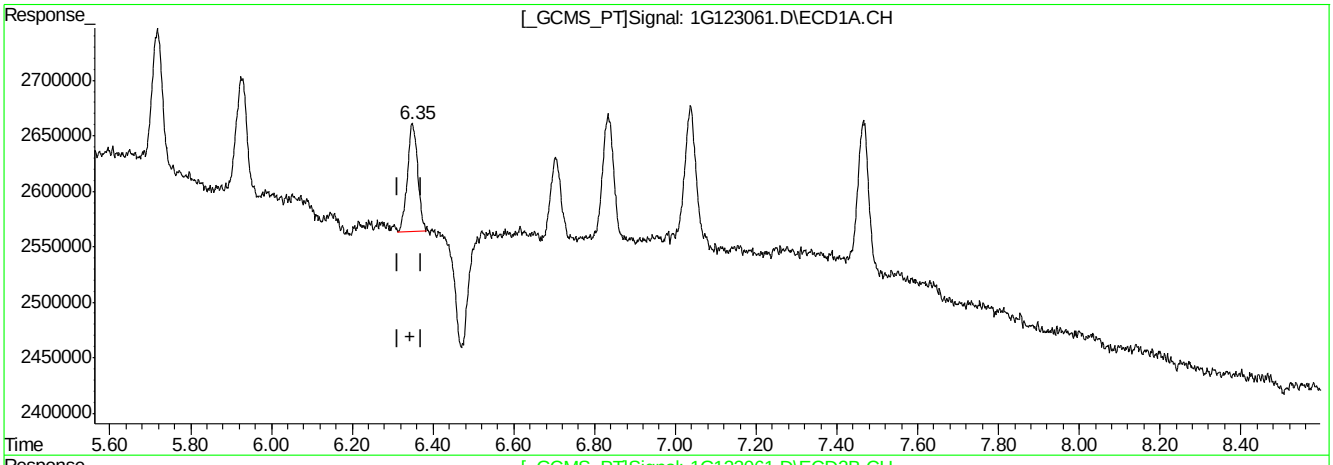
11.6.1.10

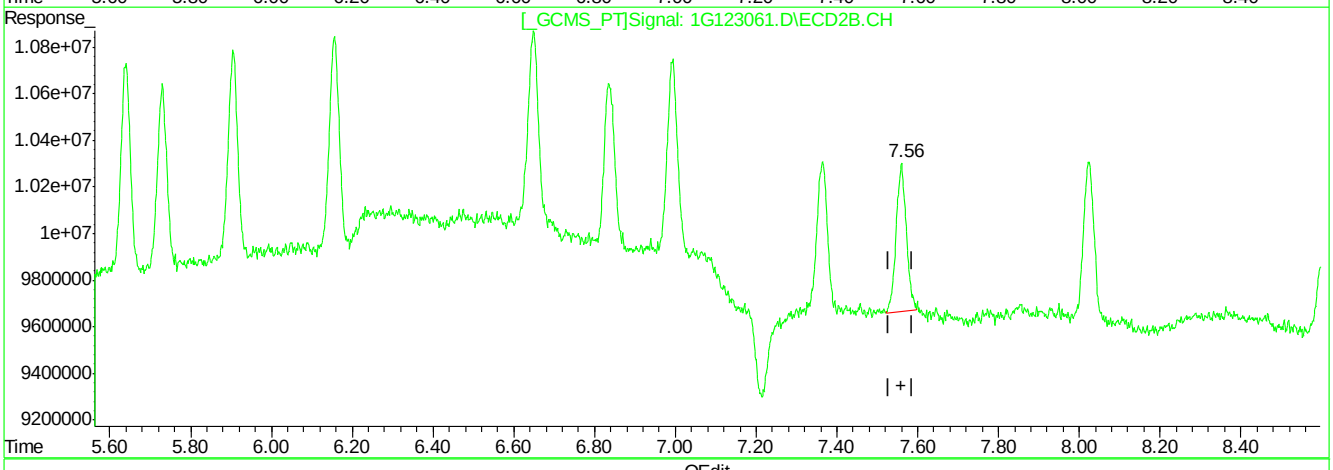
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On    : 16 May 2016  10:11 am                    Operator: thomasl
Sample    : ic3988-1                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(19) Endrin Aldehyde (B)

6.35min 1.117PPB m

response 1723536

(19) Endrin Aldehyde #2 (B)

7.56min 1.188PPB

response 11015067

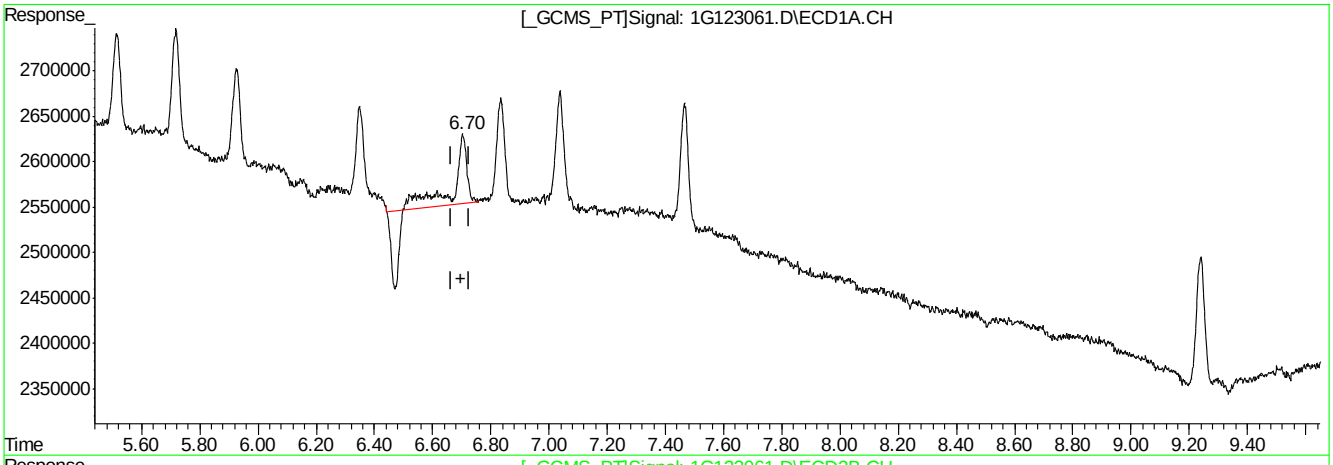
(+) = Expected Retention Time

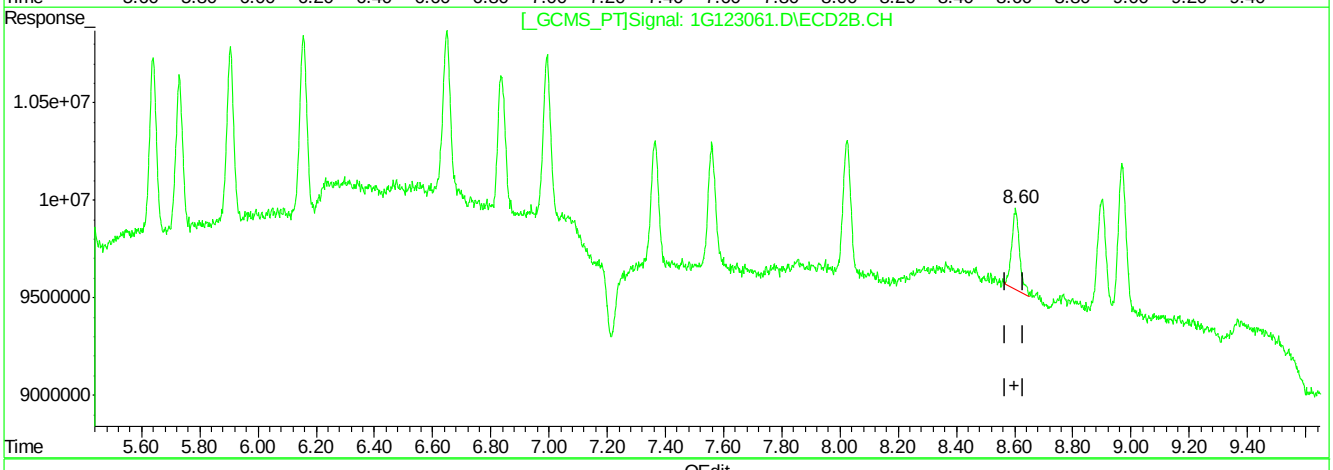
1G123061.D 1PST3988.M Mon May 16 12:29:30 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On    : 16 May 2016  10:11 am                    Operator: thomasl
Sample    : ic3988-1                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Methoxychlor (A)

6.70min 1.199PPB

response 1190508

(21) Methoxychlor #2 (A)

8.60min 1.543PPB

response 7701428

(+) = Expected Retention Time

1G123061.D 1PST3988.M Mon May 16 12:29:34 2016 RPT1

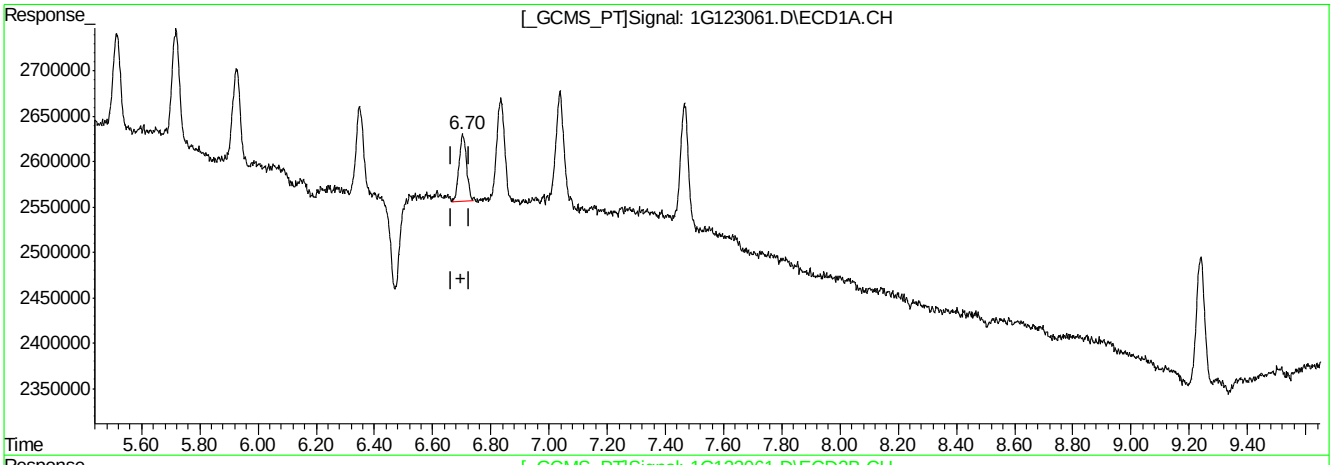
11.6.1.12

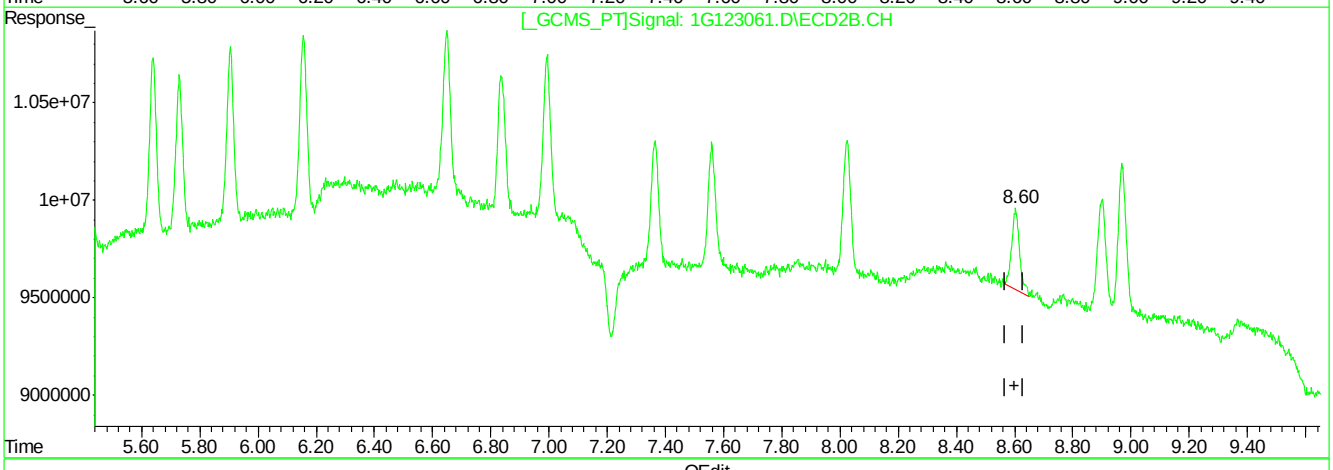
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123061.D\ECD2B.CH
Acq On    : 16 May 2016  10:11 am                    Operator: thomasl
Sample    : ic3988-1                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:27 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Methoxychlor (A)

6.70min 1.342PPB m

response 1332584

(21) Methoxychlor #2 (A)

8.60min 1.543PPB

response 7701428

(+) = Expected Retention Time

1G123061.D 1PST3988.M Mon May 16 12:29:42 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/16/16 17:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD2B.CH
Acq On : 16 May 2016 10:28 am Operator: thomasl
Sample : ic3988-2 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:24 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	117.0E6	867.0E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	3768744	32599980	2.044	2.282
	Spiked Amount 40.000	Range 30 - 150		Recovery	=	5.11%#	5.71%#
24) SA	Decachlorobiphen	9.23	10.68	6069623	23070405	2.332	2.302
	Spiked Amount 40.000			Recovery	=	5.83%	5.76%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	5320474	48837024	1.868	2.301
4) MA	gamma-BHC	2.71	3.35	5018534	44847471	1.886m	2.335
5) MA	Heptachlor	3.20	3.90	5445600	44161193	2.001	2.449
6) B	beta-BHC	2.78	3.43	2769736	21541691	2.145	2.497
7) B	delta-BHC	2.97	3.81	4807183	46590770	1.863	2.480
8) MB	Aldrin	3.53	4.34	4740046	37530736	1.838	2.209
9) B	Heptachlor Epoxi	4.24	5.14	4685771	33501205	1.863	2.206
10) B	gamma-Chlordane	4.39	5.41	5037830	33533081	2.000	2.217
11) B	alpha-Chlordane	4.56	5.64	5027448	34398295	2.030	2.311
12) A	Endosulfan I	4.75	5.73	4802907	30738861	1.953	2.189
13) B	4,4'-DDE	4.68	5.90	5044117	32973270	1.965	2.212
14) MA	Dieldrin	5.07	6.15	4870970	34619553	1.833	2.246
15) MA	Endrin	5.39	6.65	4597980	30785656	1.930	2.593
16) A	4,4'-DDD	5.51	6.84	3866996	26908810	1.852	2.073
17) B	Endosulfan II	5.71	6.99	4782891	32023828	1.940	2.127
18) MA	4,4'-DDT	5.92	7.36	4038475	26426436	1.778	2.282
19) B	Endrin Aldehyde	6.34	7.56	3844888	23619944	2.087	2.253
20) B	Endosulfan Sulfa	7.03	8.02	4353332	27916601	2.218	2.466
21) A	Methoxychlor	6.70	8.60	2673330	14224405	2.255m	2.522m
22)	Mirex	6.83	8.90	4711419	23364971	2.293	2.351
23) B	Endrin Ketone	7.46	8.97	4883106	31085411	2.222	2.465

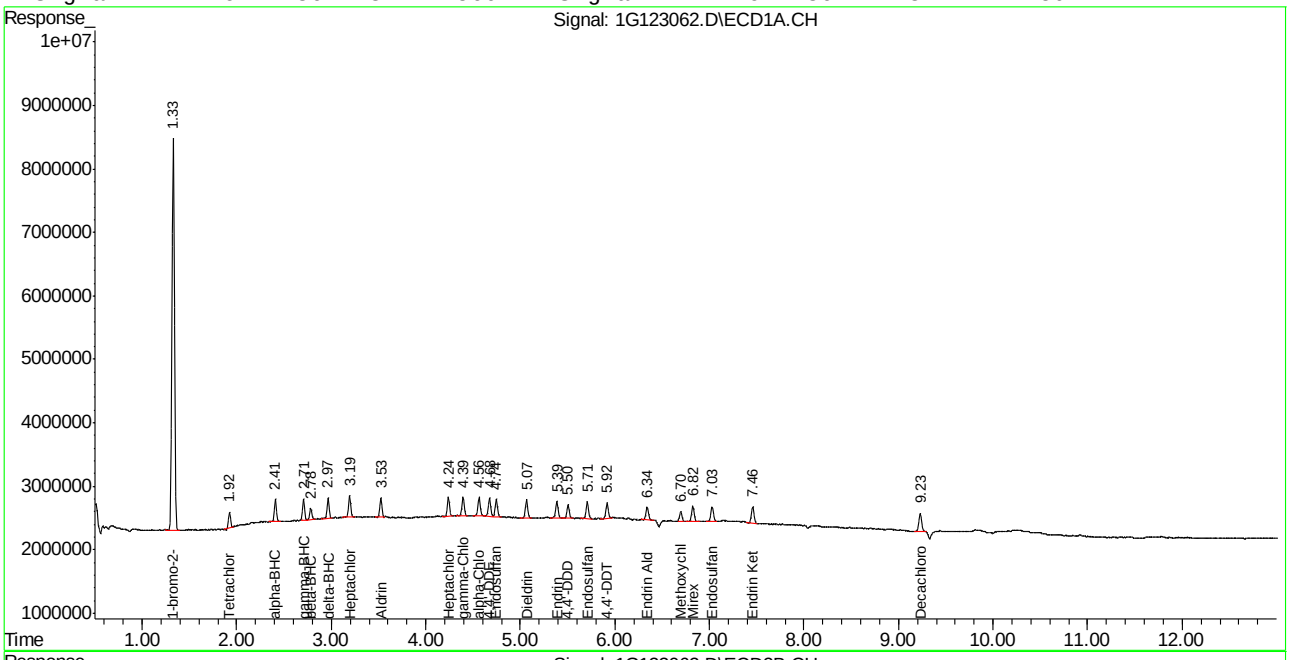
(f)=RT Delta > 1/2 Window (m)=manual int.

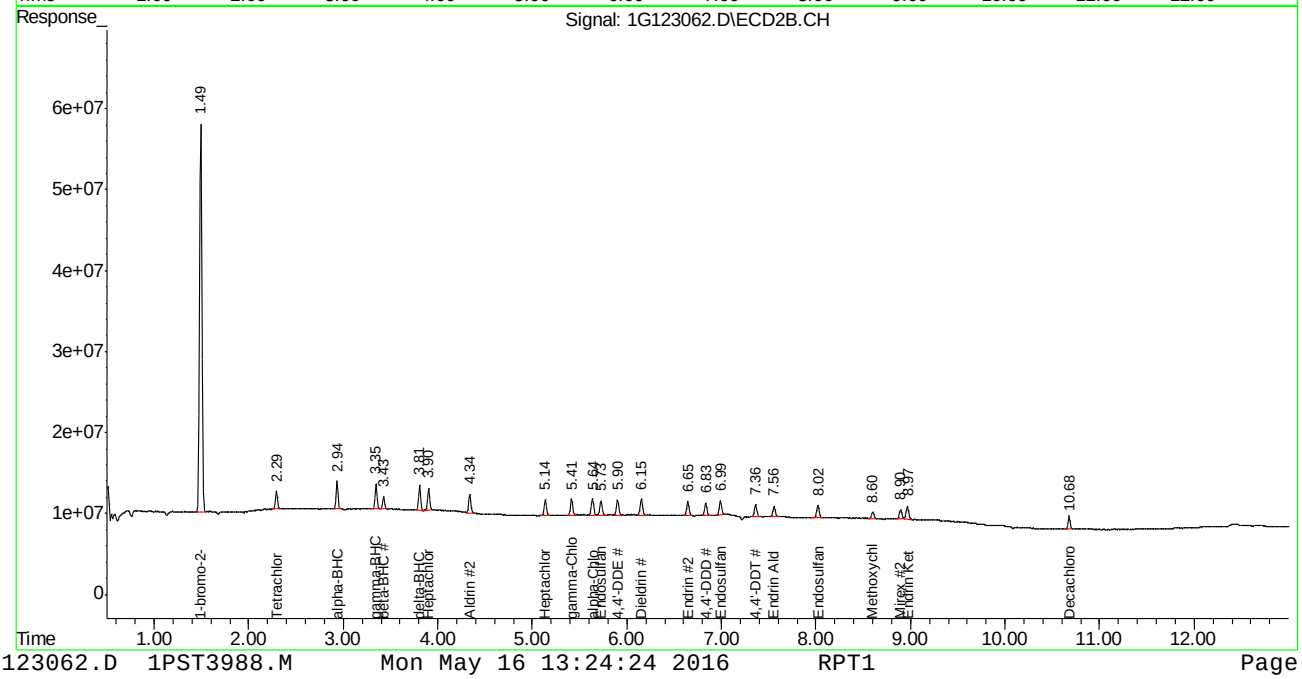
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD2B.CH
Acq On : 16 May 2016 10:28 am Operator: thomasl
Sample : ic3988-2 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:24 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integration Approval Summary

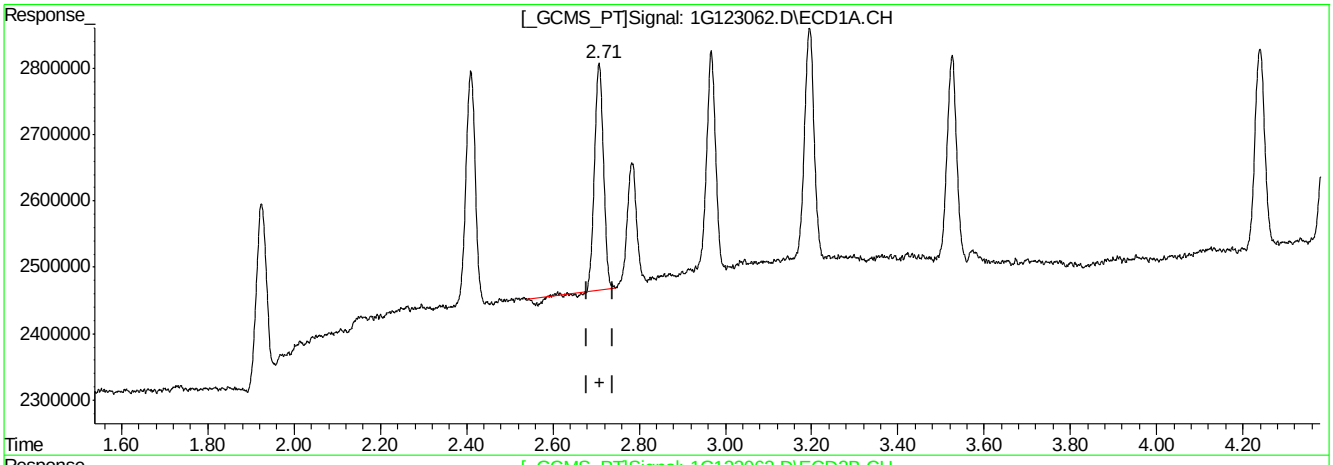
Sample Number:	G1G3988-IC3988	**Method:**	SW846 8081B
Lab FileID:	1G123062.D	**Analyst approved:**	05/16/16 15:18 Dhara Saparia
Injection Time:	05/16/16 10:28	**Supervisor approved:**	05/16/16 17:43 Gwendolyn Burns

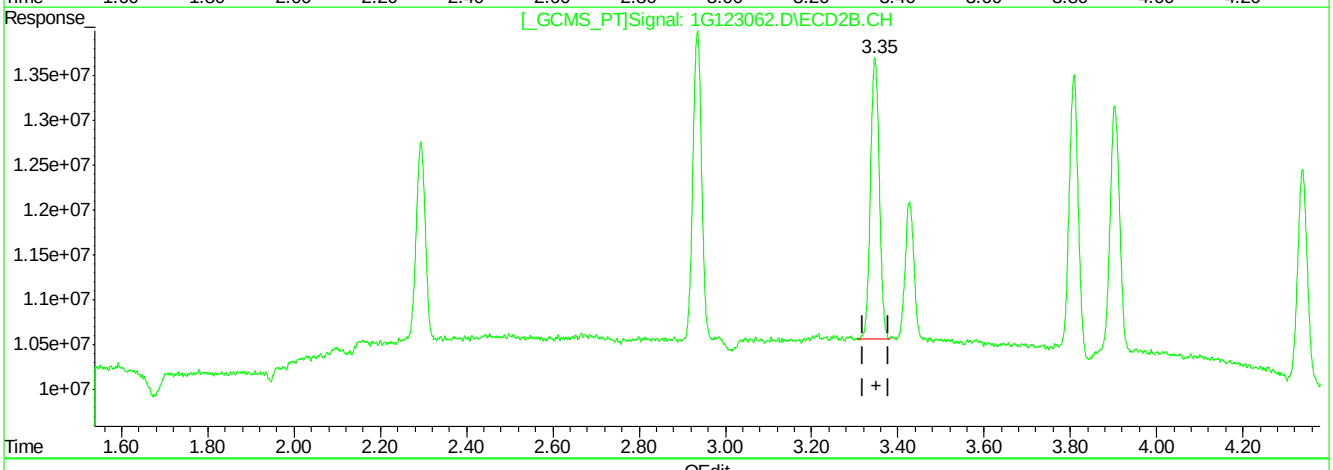
Parameter	CAS	Sig#	R.T. (min.)	Reason
gamma-BHC (Lindane)	58-89-9	1	2.71	Poor instrument integration
Methoxychlor	72-43-5	1	6.70	Poor instrument integration
Methoxychlor	72-43-5	2	8.60	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD2B.CH
Acq On    : 16 May 2016  10:28 am                    Operator: thomasl
Sample    : ic3988-2                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:13 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(4) gamma-BHC (MA)

2.71min 1.804PPB

response 4799798

(4) gamma-BHC #2 (MA)

3.35min 2.335PPB

response 44847471

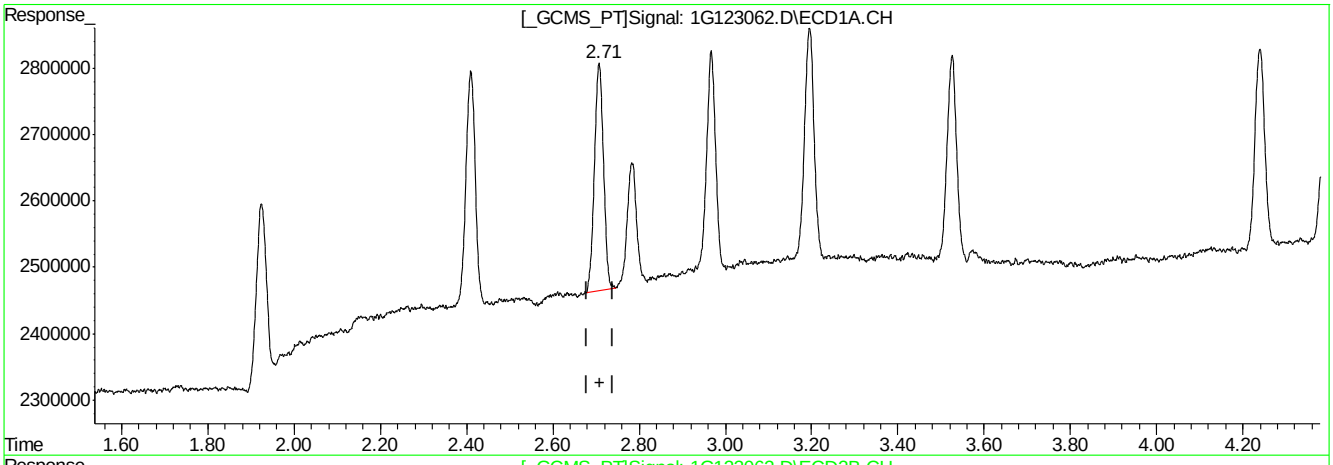
(+) = Expected Retention Time

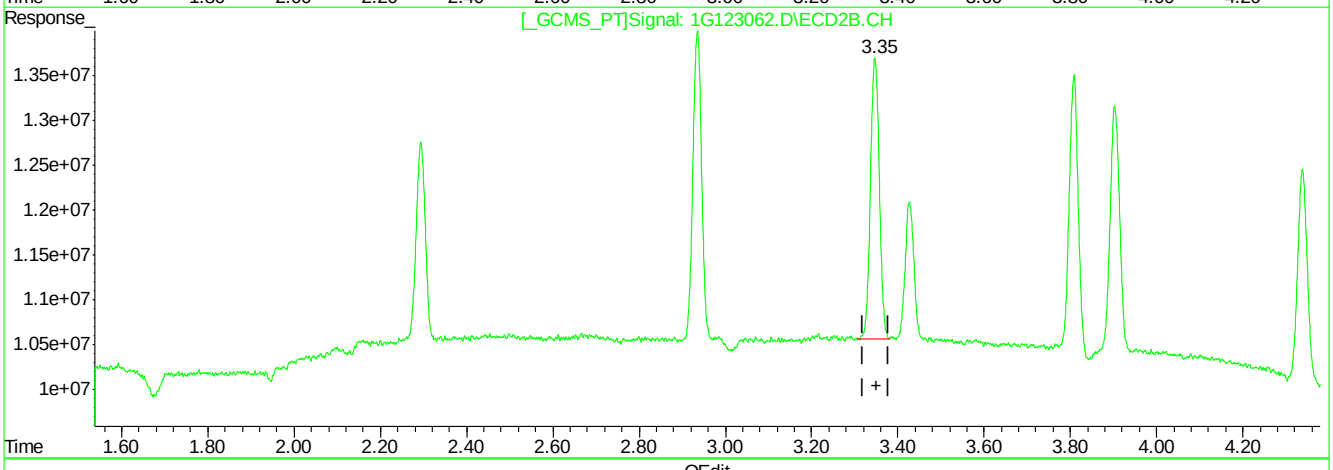
1G123062.D 1PST3988.M Mon May 16 12:13:40 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD2B.CH
Acq On    : 16 May 2016  10:28 am                    Operator: thomasl
Sample    : ic3988-2                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:13 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(4) gamma-BHC (MA)

2.71min 1.886PPB m

response 5018534

(4) gamma-BHC #2 (MA)

3.35min 2.335PPB

response 44847471

(+) = Expected Retention Time

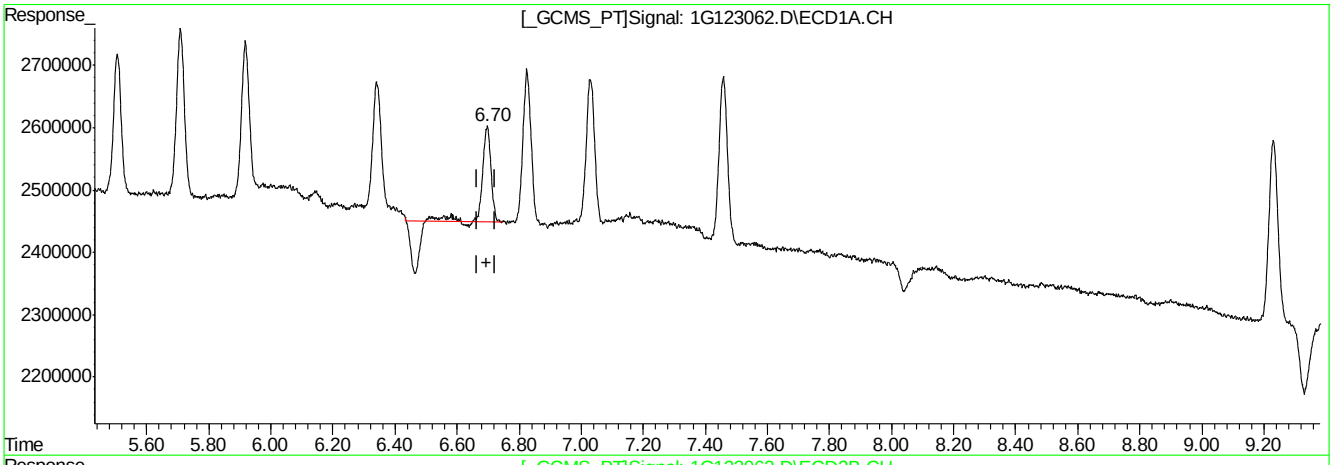
1G123062.D 1PST3988.M Mon May 16 12:13:48 2016 RPT1

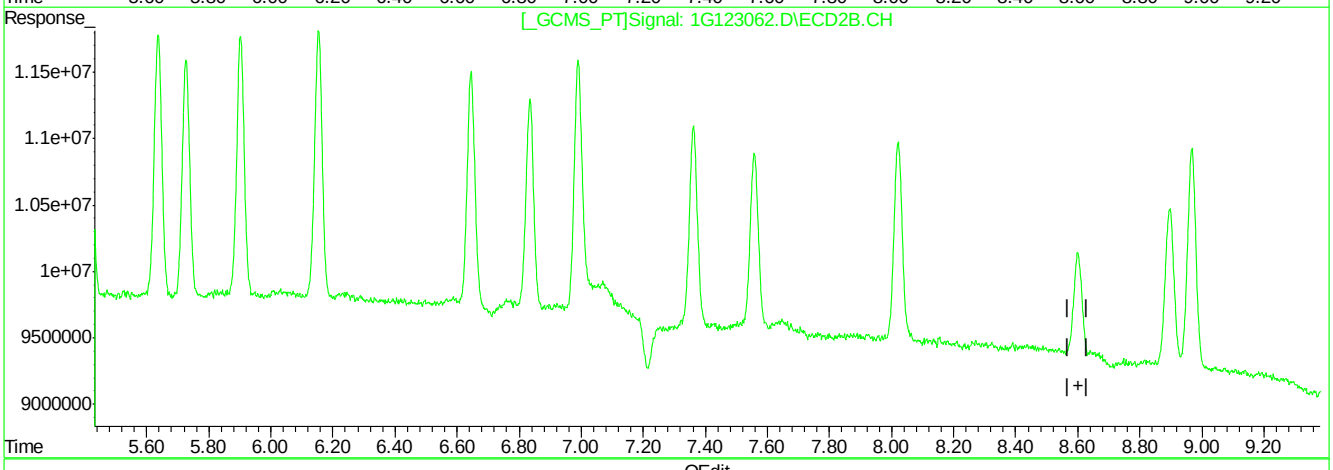
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD2B.CH
Acq On    : 16 May 2016  10:28 am                    Operator: thomasl
Sample    : ic3988-2                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:13 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Methoxychlor (A)

6.70min 1.395PPB

response 1654441

(21) Methoxychlor #2 (A)

0.00min 0.000PPB

response 0

(+) = Expected Retention Time

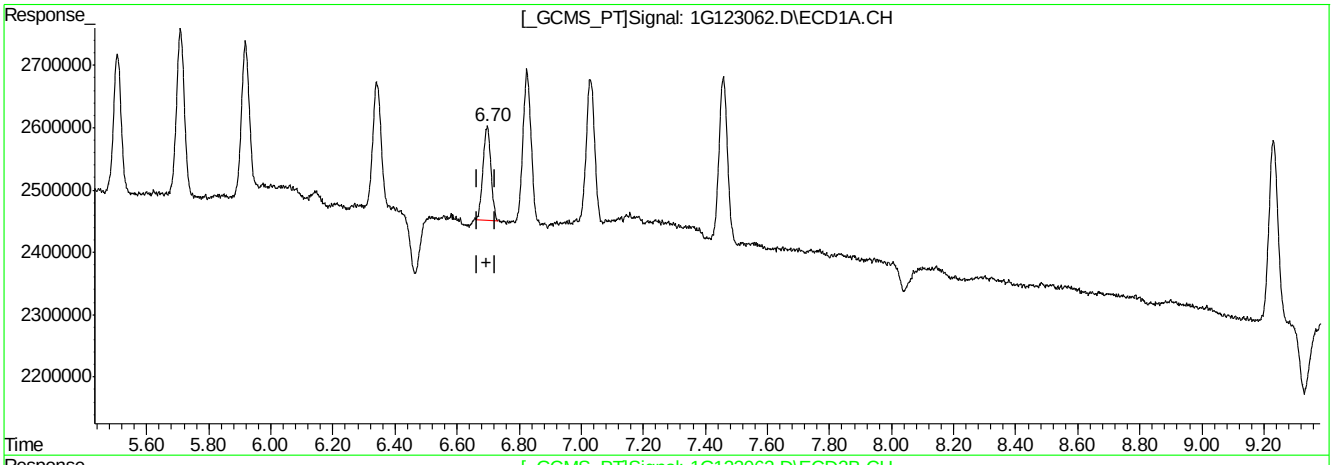
1G123062.D 1PST3988.M Mon May 16 12:14:00 2016 RPT1

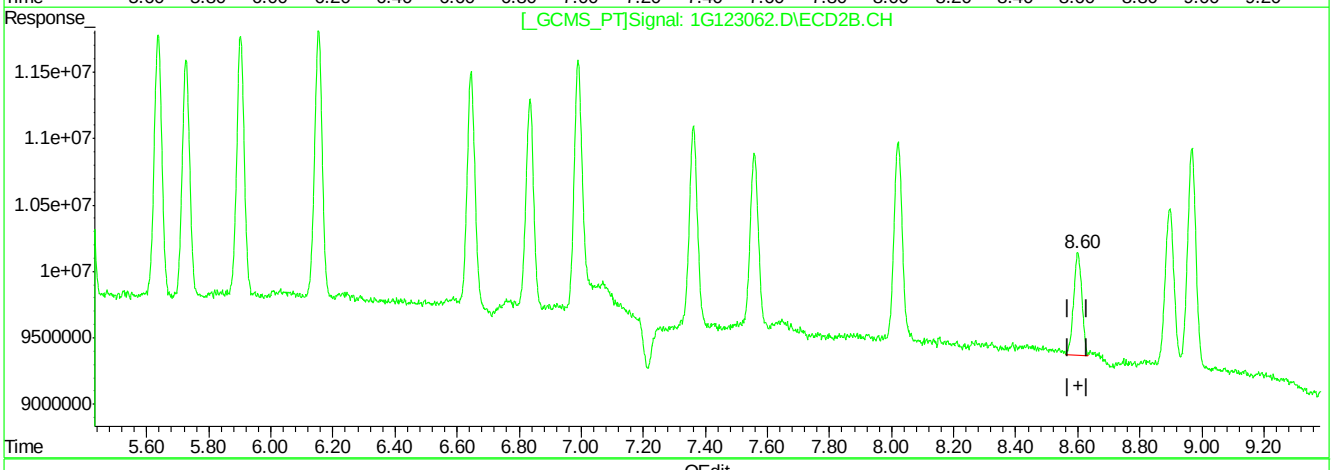
11.6.2.4 11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123062.D\ECD2B.CH
Acq On    : 16 May 2016  10:28 am                    Operator: thomasl
Sample    : ic3988-2                                 Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 12:13 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Methoxychlor (A)

6.70min 2.255PPB m

response 2673330

(21) Methoxychlor #2 (A)

8.60min 2.522PPB m

response 14224405

(+) = Expected Retention Time

1G123062.D 1PST3988.M Mon May 16 12:14:24 2016 RPT1

11.6.2.5

11

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123063.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123063.D\ECD2B.CH
Acq On : 16 May 2016 10:46 am Operator: thomasl
Sample : ic3988-5 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:21 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	113.6E6	855.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	10136401	81388560	4.936	5.348
Spiked Amount	40.000	Range	30 - 150	Recovery	=	12.34%#	13.37%#
24) SA	Decachlorobiphen	9.23	10.68	14488084	57537937	5.189	5.382
Spiked Amount	40.000			Recovery	=	12.97%	13.46%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	13729734	119.5E6	4.674	5.244
4) MA	gamma-BHC	2.71	3.35	13145392	111.6E6	4.789	5.413
5) MA	Heptachlor	3.20	3.90	13674867	105.3E6	4.894	5.470
6) B	beta-BHC	2.78	3.43	6640000	54109928	5.055	5.723
7) B	delta-BHC	2.97	3.81	12394888	110.1E6	4.606	5.338
8) MB	Aldrin	3.53	4.34	12380831	93164632	4.862	5.289
9) B	Heptachlor Epoxi	4.24	5.14	12130184	84083910	4.834	5.336
10) B	gamma-Chlordane	4.40	5.42	12491341	84035576	4.836	5.221
11) B	alpha-Chlordane	4.56	5.64	12579719	84688404	4.911	5.313
12) A	Endosulfan I	4.75	5.73	12108270	78325452	4.913	5.328
13) B	4,4'-DDE	4.67	5.90	12623806	82683735	4.888	5.229
14) MA	Dieldrin	5.07	6.15	12336127	85228777	4.807	5.164
15) MA	Endrin	5.39	6.65	11285271	81139456	4.851	5.585
16) A	4,4'-DDD	5.51	6.83	9740947	71643432	4.802	5.503
17) B	Endosulfan II	5.71	6.99	12115481	78275160	4.970	5.264
18) MA	4,4'-DDT	5.92	7.36	10495672	66836532	4.750	5.231
19) B	Endrin Aldehyde	6.34	7.56	9494629	59981905	4.931	5.257
20) B	Endosulfan Sulfa	7.03	8.02	11187191	69329572	4.780	5.328
21) A	Methoxychlor	6.70	8.60	6739268	34874789	5.150	5.083
22)	Mirex	6.83	8.90	11682729	58478048	5.247	5.379
23) B	Endrin Ketone	7.46	8.97	12910199	77332804	4.875	5.302

(f)=RT Delta > 1/2 Window (m)=manual int.

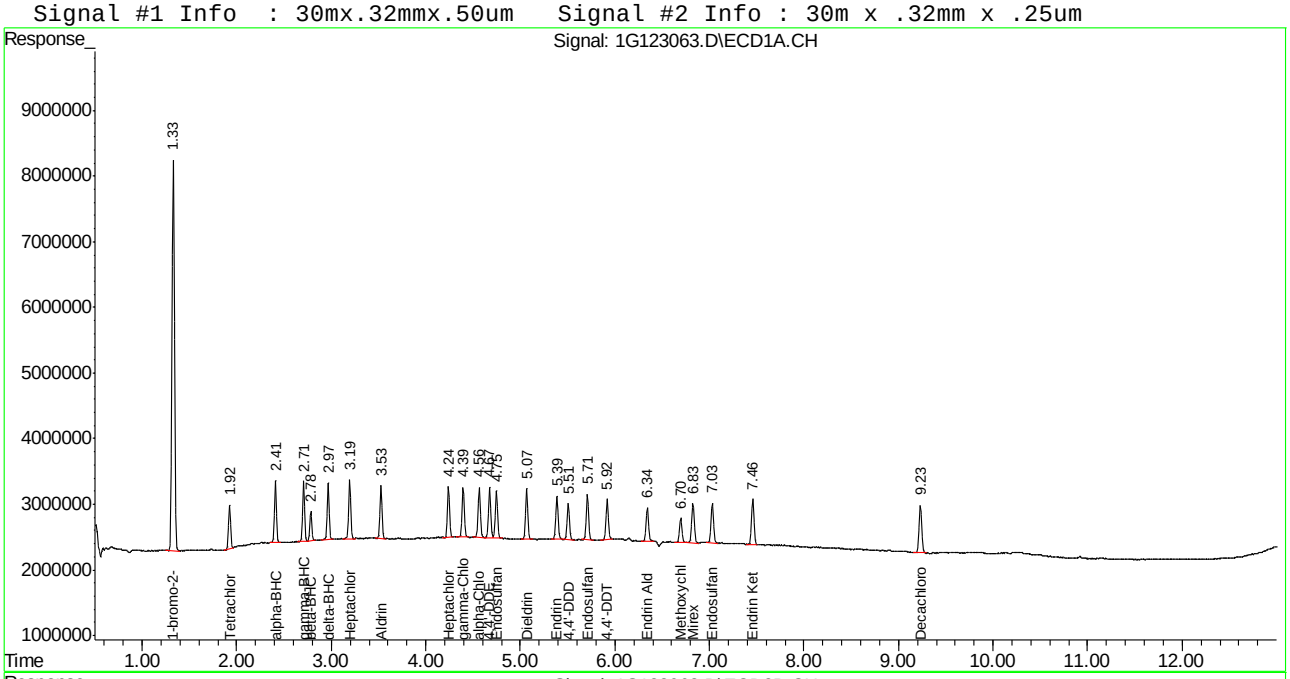
SGS ACCUTEST JC20184

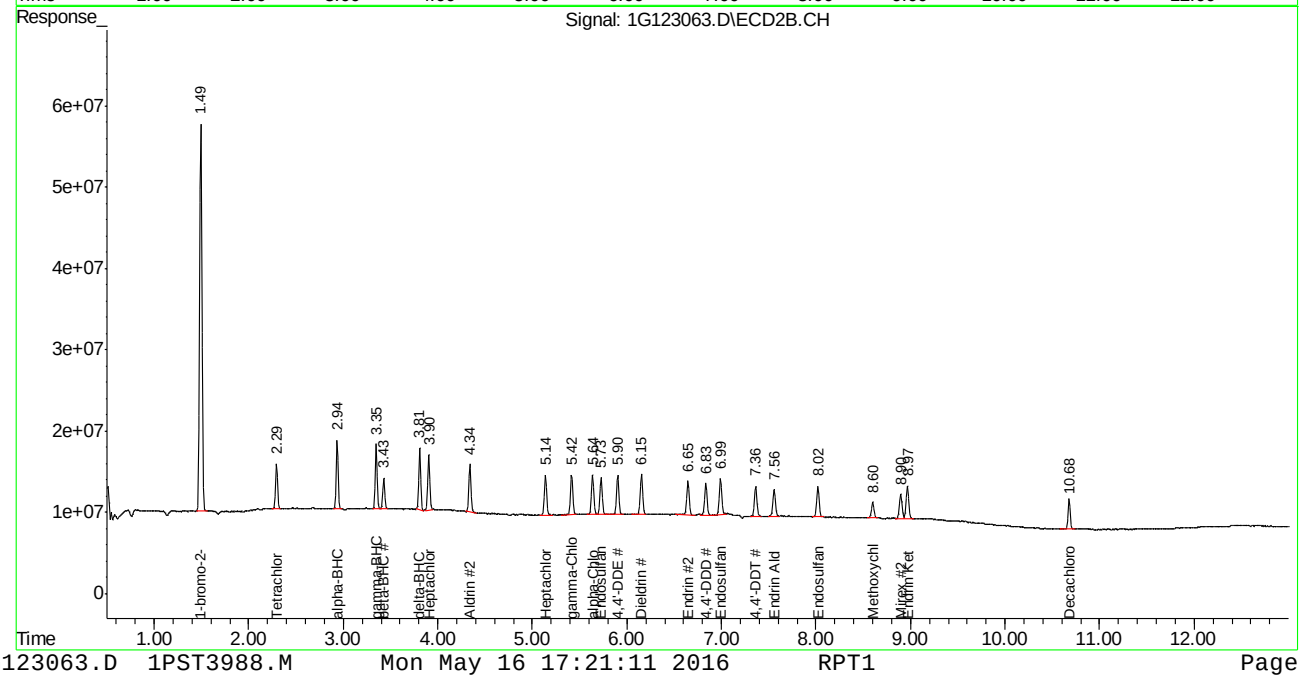
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123063.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123063.D\ECD2B.CH
Acq On : 16 May 2016 10:46 am Operator: thomasl
Sample : ic3988-5 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:21 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/16/16 17:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123064.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123064.D\ECD2B.CH
Acq On : 16 May 2016 11:03 am Operator: thomasl
Sample : ic3988-10 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:24 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	116.2E6	865.7E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	20750289	161.5E6	11.337	11.324
Spiked Amount	40.000	Range	30 - 150	Recovery	=	28.34%#	28.31%#
24) SA	Decachlorobiphen	9.23	10.68	28580121	110.5E6	11.061	11.042
Spiked Amount	40.000			Recovery	=	27.65%	27.61%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	27666553	236.8E6	9.785	11.172
4) MA	gamma-BHC	2.71	3.35	26439385	213.7E6	10.012	11.144
5) MA	Heptachlor	3.20	3.90	26685288	200.9E6	9.879	11.159
6) B	beta-BHC	2.78	3.43	12999848	99651131	10.141	11.571
7) B	delta-BHC	2.97	3.81	25401856	210.2E6	9.915	11.208
8) MB	Aldrin	3.53	4.34	24498041	179.8E6	9.569	10.600
9) B	Heptachlor Epoxi	4.24	5.14	24743436	159.8E6	9.911	10.536
10) B	gamma-Chlordane	4.40	5.41	24283346	160.9E6	9.712	10.656
11) B	alpha-Chlordane	4.57	5.64	24561033	160.1E6	9.992	10.773
12) A	Endosulfan I	4.75	5.73	23759924	152.6E6	9.734	10.882
13) B	4,4'-DDE	4.68	5.90	24597236	159.1E6	9.654	10.691
14) MA	Dieldrin	5.07	6.15	24330429	163.9E6	9.221	10.647
15) MA	Endrin	5.39	6.65	22119397	147.4E6	9.355	12.432
16) A	4,4'-DDD	5.51	6.83	19255220	131.2E6	9.288	10.124
17) B	Endosulfan II	5.71	6.99	23501982	148.7E6	9.600	9.892
18) MA	4,4'-DDT	5.92	7.36	21117760	127.9E6	9.367	11.056m
19) B	Endrin Aldehyde	6.34	7.56	18612425	115.5E6	10.178	11.037
20) B	Endosulfan Sulfa	7.03	8.02	22259824	132.5E6	11.425	11.723
21) A	Methoxychlor	6.70	8.60	13073987	68225543	11.107	12.114
22)	Mirex	6.82	8.89	22387131	112.7E6	10.976	11.356
23) B	Endrin Ketone	7.46	8.97	25533264	148.8E6	11.705	11.820

(f)=RT Delta > 1/2 Window (m)=manual int.

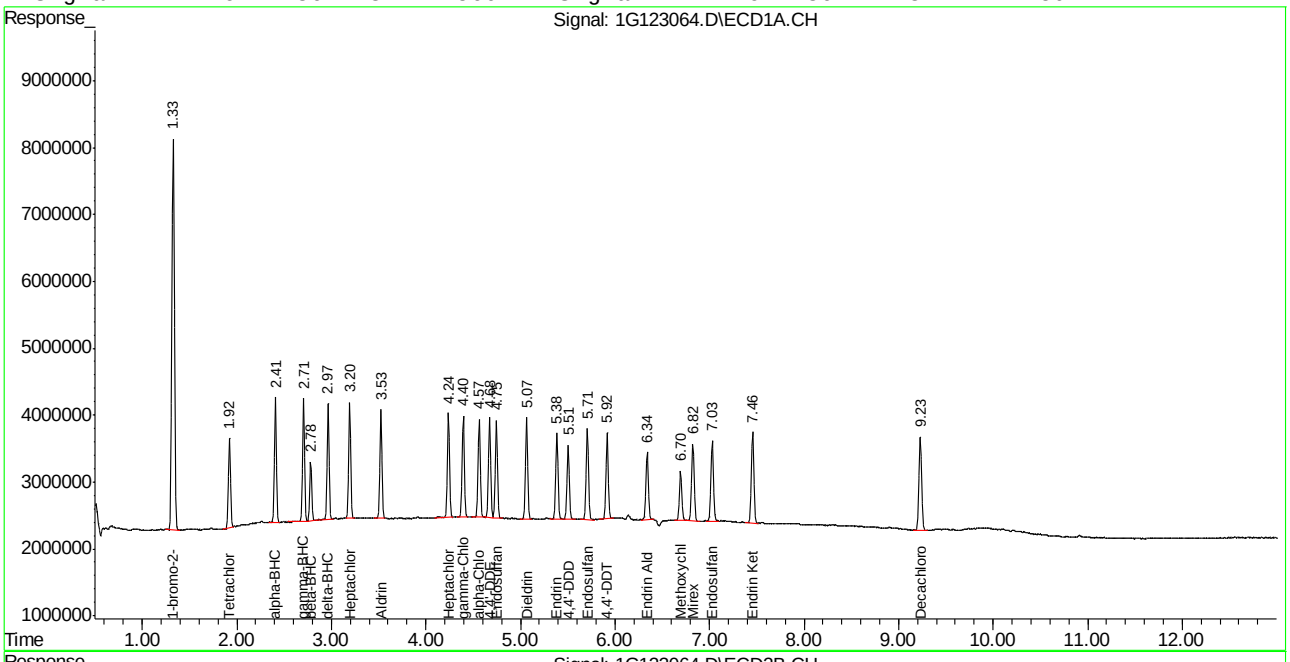
SGS ACCUTEST JC20184

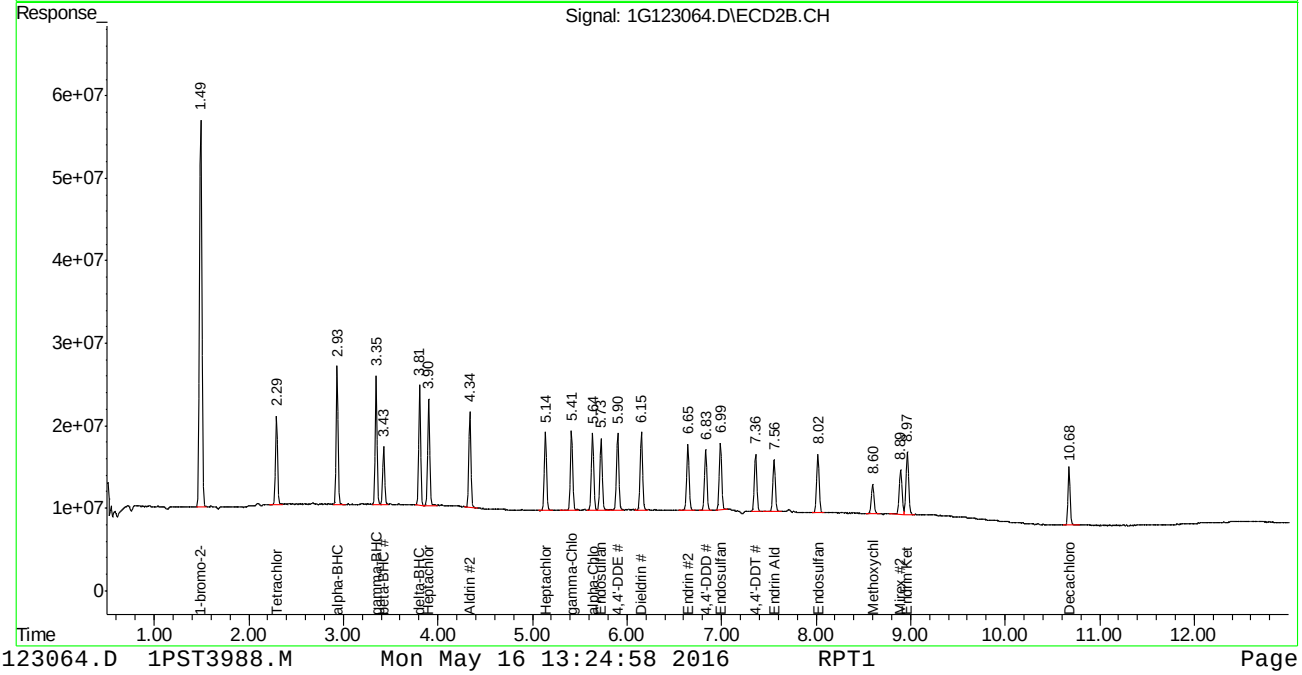
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123064.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123064.D\ECD2B.CH
Acq On : 16 May 2016 11:03 am Operator: thomasl
Sample : ic3988-10 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:24 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





1G123064.D 1PST3988.M Mon May 16 13:24:58 2016 RPT1 Page 2

Manual Integration Approval Summary

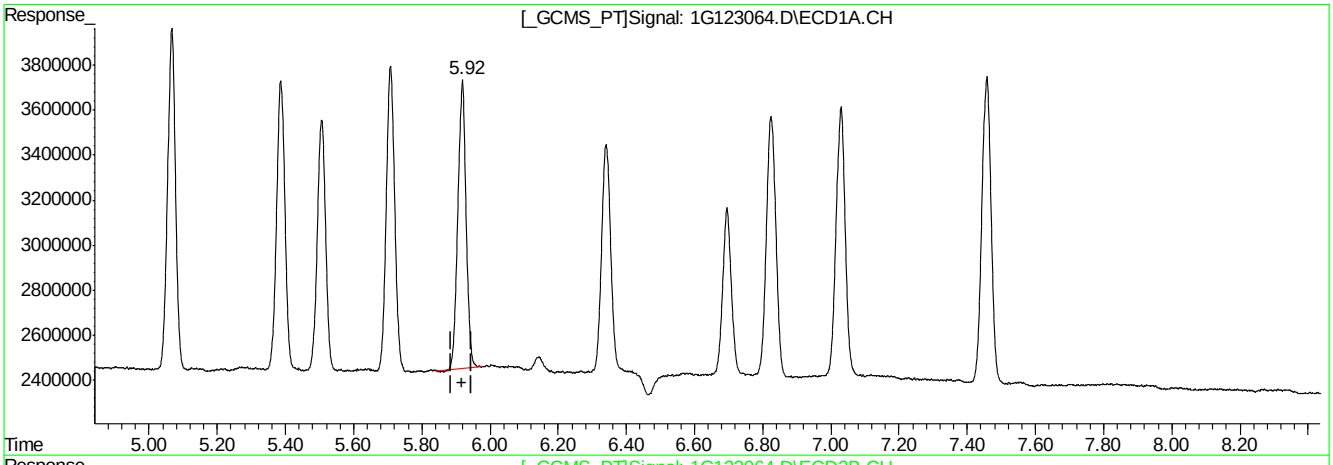
Sample Number:	G1G3988-IC3988	**Method:**	SW846 8081B
Lab FileID:	1G123064.D	**Analyst approved:**	05/16/16 15:18 Dhara Saparia
Injection Time:	05/16/16 11:03	**Supervisor approved:**	05/16/16 17:43 Gwendolyn Burns

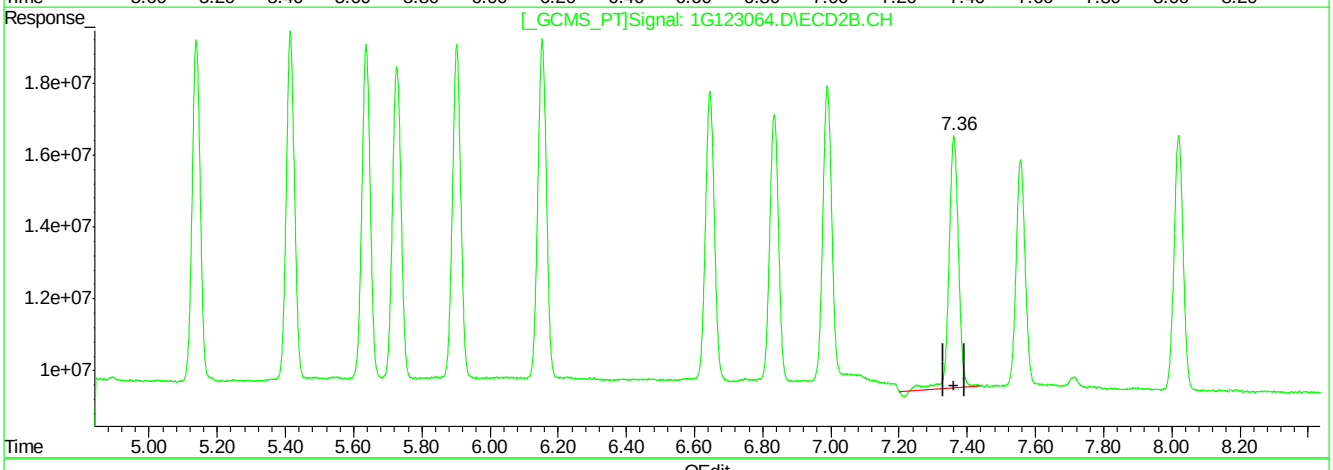
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDT	50-29-3	2	7.36	Poor instrument integration

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123064.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123064.D\ECD2B.CH
Acq On : 16 May 2016 11:03 am Operator: thomasl
Sample : ic3988-10 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 12:10 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDT (MA)

5.92min 9.367PPB

response 21117760

(18) 4,4'-DDT #2 (MA)

7.36min 11.861PPB

response 137166036

(+) = Expected Retention Time

1G123064.D 1PST3988.M Mon May 16 12:10:34 2016 RPT1

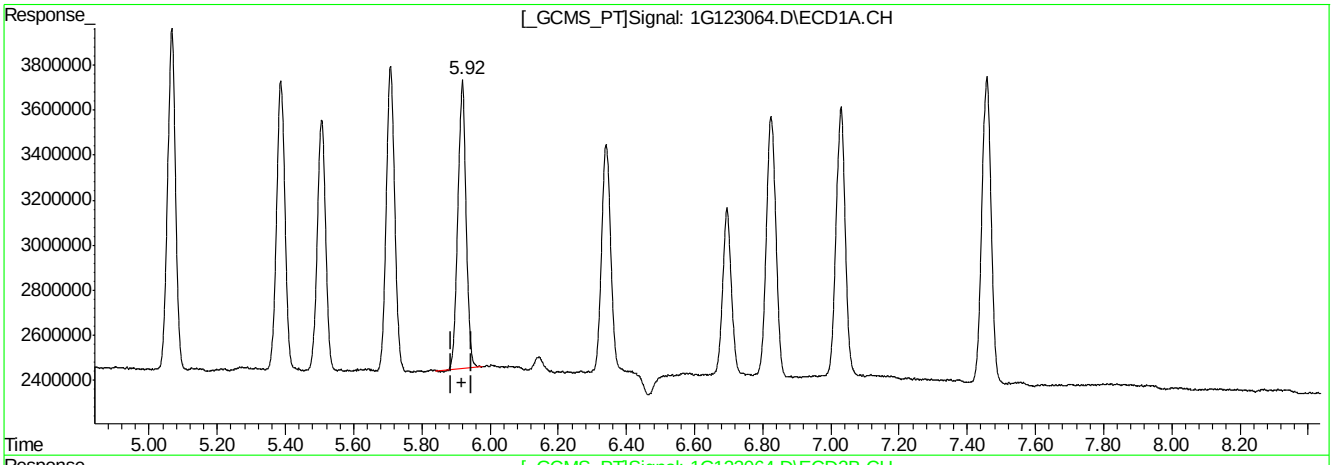
11.6.4.2

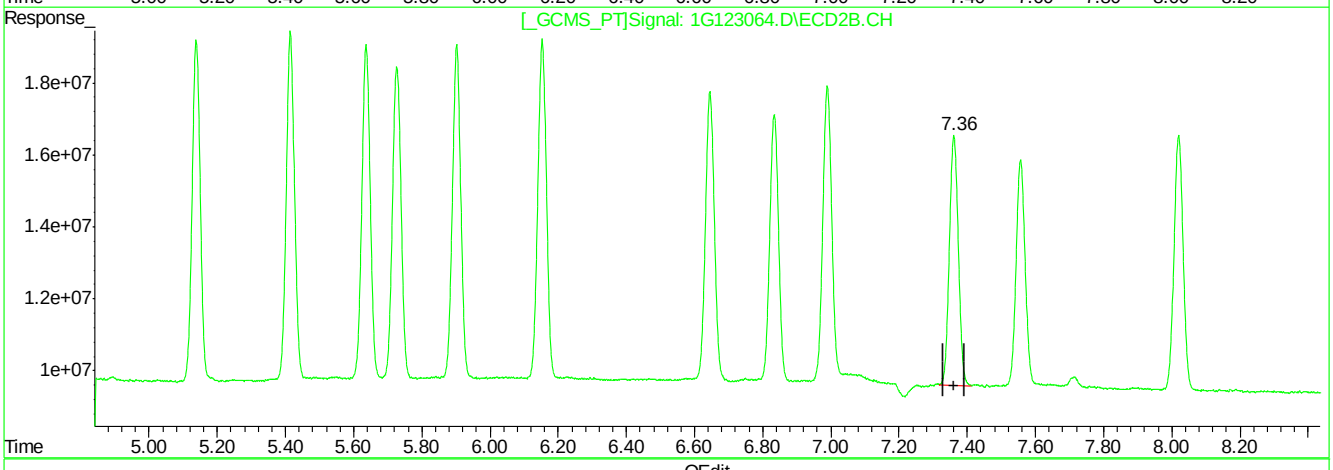
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123064.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123064.D\ECD2B.CH
Acq On : 16 May 2016 11:03 am Operator: thomasl
Sample : ic3988-10 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 12:10 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDT (MA)

5.92min 9.367PPB

response 21117760

(18) 4,4'-DDT #2 (MA)

7.36min 11.056PPB m

response 127854903

(+) = Expected Retention Time

1G123064.D 1PST3988.M Mon May 16 12:10:48 2016 RPT1

11.6.4.3 11

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123065.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123065.D\ECD2B.CH
Acq On : 16 May 2016 11:21 am Operator: thomasl
Sample : icc3988-25 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:25 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.50	120.1E6	887.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.93	2.30	56001112	401.1E6	29.592	27.416
Spiked Amount	40.000	Range	30 - 150	Recovery	=	73.98%	68.54%
24) SA	Decachlorobiphen	9.23	10.68	72131465	269.7E6	27.000	26.273
Spiked Amount	40.000			Recovery	=	67.50%	65.68%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	77477232	590.0E6	26.502	27.144
4) MA	gamma-BHC	2.71	3.35	73074919	538.3E6	26.763	27.368
5) MA	Heptachlor	3.20	3.90	72196368	488.8E6	25.851	26.479
6) B	beta-BHC	2.78	3.43	33996166	246.9E6	25.651	27.951
7) B	delta-BHC	2.97	3.81	70029708	534.0E6	26.437	27.758
8) MB	Aldrin	3.53	4.34	67086616	462.1E6	25.345	26.565
9) B	Heptachlor Epoxi	4.24	5.14	65839458	407.4E6	25.506	26.192
10) B	gamma-Chlordane	4.40	5.42	65644651	417.8E6	25.392	26.971
11) B	alpha-Chlordane	4.57	5.64	65894613	408.3E6	25.928	26.785
12) A	Endosulfan I	4.75	5.73	63722290	393.7E6	25.250	27.380
13) B	4,4'-DDE	4.68	5.90	66665136	410.5E6	25.307	26.890
14) MA	Dieldrin	5.07	6.15	66773431	427.0E6	24.476	27.049
15) MA	Endrin	5.39	6.65	59199626	367.8E6	24.216	30.253
16) A	4,4'-DDD	5.51	6.83	52918646	342.4E6	24.690	25.764
17) B	Endosulfan II	5.71	6.99	63186885	378.6E6	24.965	24.557
18) MA	4,4'-DDT	5.92	7.36	57322192	339.4E6	24.591	28.615
19) B	Endrin Aldehyde	6.34	7.56	48971969	293.6E6	25.902	27.348
20) B	Endosulfan Sulfa	7.03	8.02	59336726	338.5E6	29.456	29.200
21) A	Methoxychlor	6.70	8.60	34211597	170.1E6	28.111	29.441
22)	Mirex	6.82	8.90	57582116	271.3E6	27.304	26.659
23) B	Endrin Ketone	7.46	8.97	69042755	375.5E6	30.612	29.080

(f)=RT Delta > 1/2 Window (m)=manual int.

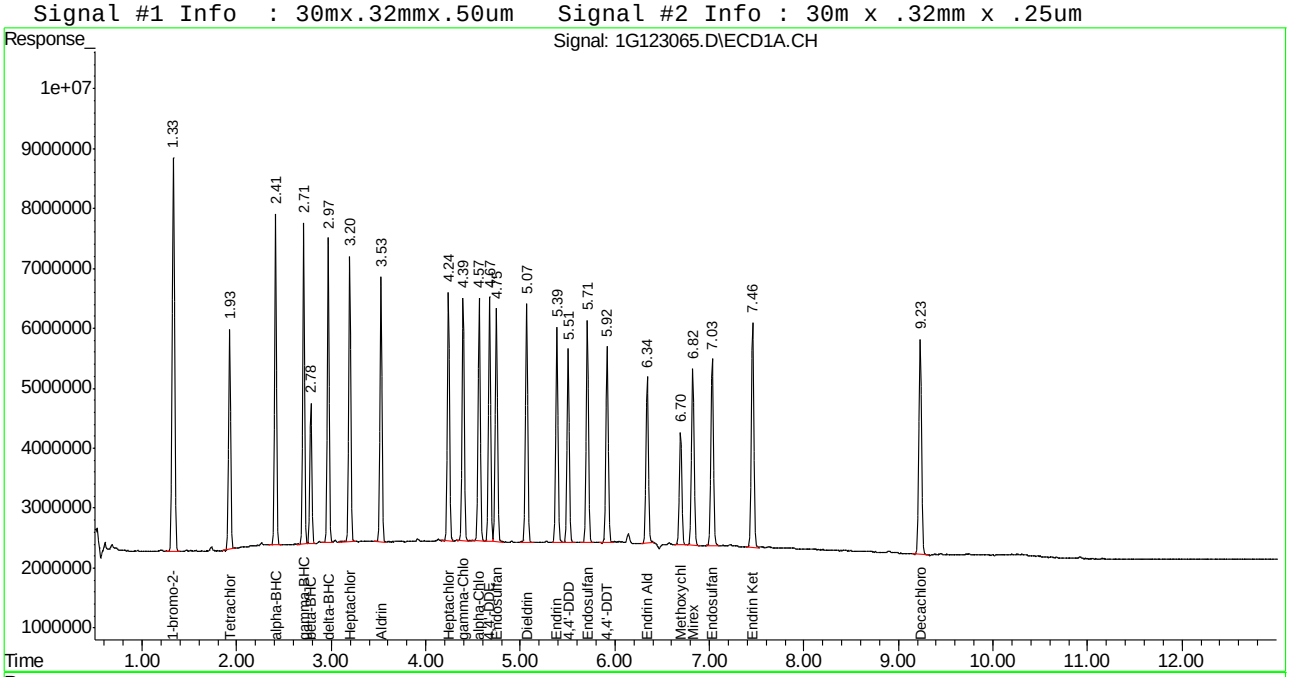
SGS ACCUTEST JC20184

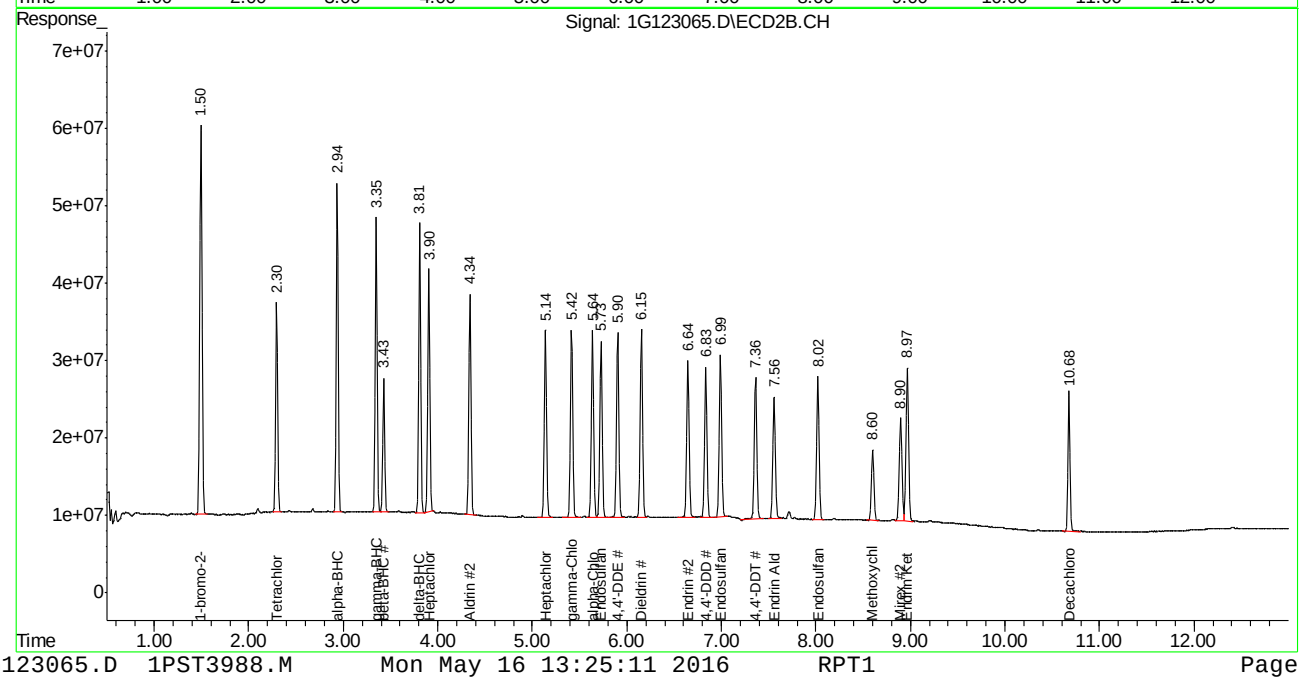
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123065.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123065.D\ECD2B.CH
Acq On : 16 May 2016 11:21 am Operator: thomasl
Sample : icc3988-25 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:25 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123066.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123066.D\ECD2B.CH
Acq On : 16 May 2016 11:38 am Operator: thomasl
Sample : ic3988-50 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:25 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	120.8E6	899.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.93	2.30	115.7E6	785.5E6	60.809	53.005
Spiked Amount	40.000	Range	30 - 150	Recovery	=	152.02%#	132.51%
24) SA	Decachlorobiphen	9.23	10.68	142.6E6	522.4E6	53.051	50.240
Spiked Amount	40.000			Recovery	=	132.63%	125.60%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	169.9E6	1192.7E6	57.785	54.166
4) MA	gamma-BHC	2.71	3.35	158.0E6	1075.0E6	57.533	53.959
5) MA	Heptachlor	3.20	3.90	152.7E6	983.9E6	54.351	52.609
6) B	beta-BHC	2.78	3.43	70021076	472.4E6	52.527	52.797
7) B	delta-BHC	2.97	3.81	154.5E6	1079.6E6	57.976	55.398
8) MB	Aldrin	3.53	4.34	143.3E6	926.1E6	53.808	52.561
9) B	Heptachlor Epoxi	4.24	5.14	137.7E6	807.0E6	53.041	51.220
10) B	gamma-Chlordane	4.40	5.42	138.4E6	824.0E6	53.236	52.515
11) B	alpha-Chlordane	4.57	5.64	137.3E6	802.8E6	53.722	51.988
12) A	Endosulfan I	4.75	5.73	132.7E6	768.1E6	52.275	52.728
13) B	4,4'-DDE	4.68	5.90	139.7E6	809.7E6	52.740	52.357
14) MA	Dieldrin	5.07	6.15	141.6E6	845.4E6	51.608	52.867
15) MA	Endrin	5.39	6.65	124.2E6	728.6E6	50.505	59.165
16) A	4,4'-DDD	5.51	6.84	112.4E6	673.3E6	52.150	50.009
17) B	Endosulfan II	5.71	6.99	131.5E6	738.9E6	51.652	47.319
18) MA	4,4'-DDT	5.92	7.36	122.1E6	670.4E6	52.057	55.798
19) B	Endrin Aldehyde	6.34	7.56	102.4E6	578.2E6	53.862	53.179
20) B	Endosulfan Sulfa	7.03	8.02	121.8E6	664.2E6	60.105	56.569
21) A	Methoxychlor	6.70	8.60	69094100	335.2E6	56.445	57.285
22)	Mirex	6.83	8.90	113.1E6	526.9E6	53.322	51.106
23) B	Endrin Ketone	7.46	8.97	142.8E6	734.5E6	62.947	56.149

(f)=RT Delta > 1/2 Window (m)=manual int.

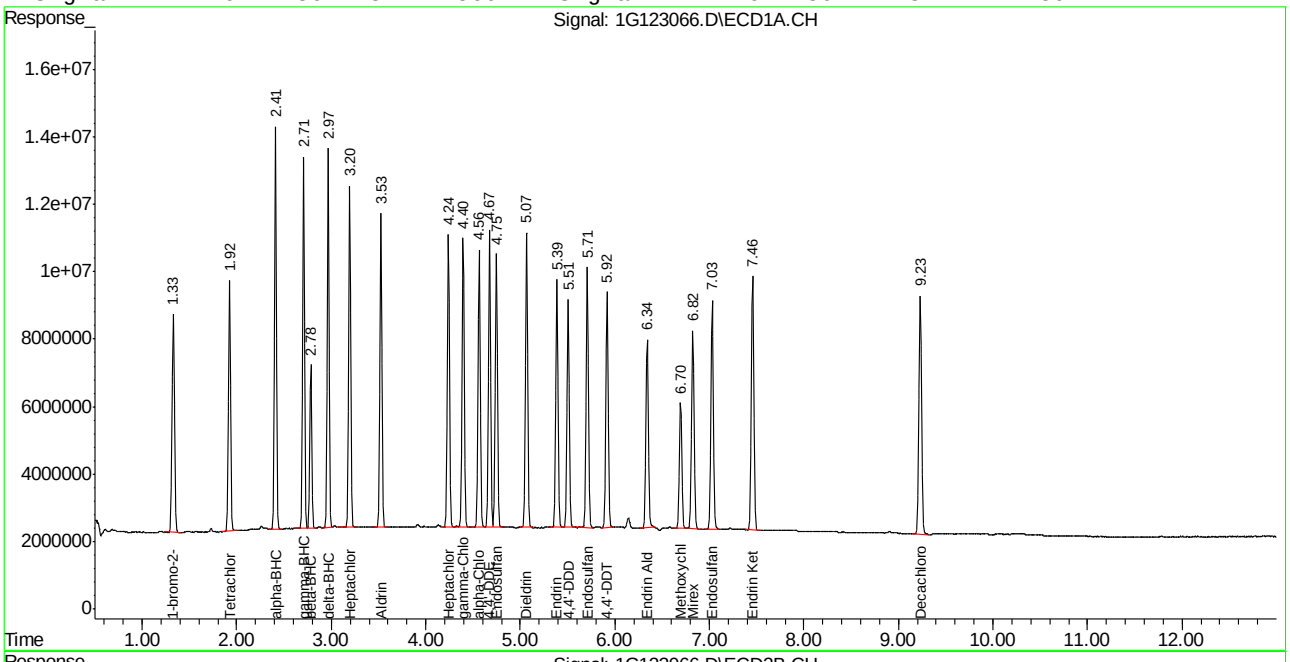
SGS ACCUTEST JC20184

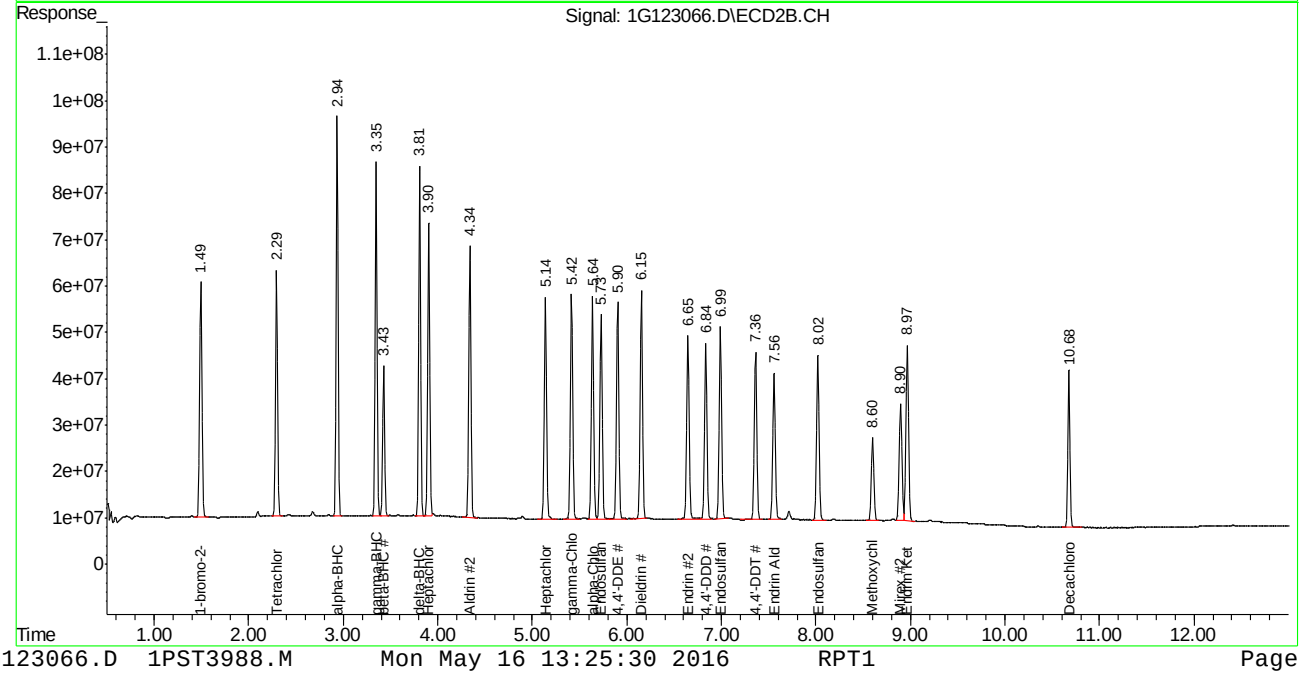
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123066.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123066.D\ECD2B.CH
Acq On : 16 May 2016 11:38 am Operator: thomasl
Sample : ic3988-50 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:25 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123067.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123067.D\ECD2B.CH
Acq On : 16 May 2016 11:56 am Operator: thomasl
Sample : ic3988-75 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:25 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	119.1E6	896.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	171.1E6	1124.0E6	91.121	76.126
Spiked Amount	40.000	Range	30 - 150	Recovery	=	227.80%#	190.32%#
24) SA	Decachlorobiphen	9.23	10.68	209.2E6	753.7E6	78.927	72.756
Spiked Amount	40.000			Recovery	=	197.32%	181.89%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	260.0E6	1760.3E6	89.653	80.238
4) MA	gamma-BHC	2.71	3.35	239.5E6	1574.7E6	88.422	79.328
5) MA	Heptachlor	3.20	3.90	229.0E6	1428.6E6	82.654	76.671
6) B	beta-BHC	2.78	3.43	103.0E6	676.1E6	78.339	75.834
7) B	delta-BHC	2.97	3.81	236.1E6	1584.9E6	89.839	81.626
8) MB	Aldrin	3.53	4.34	216.8E6	1353.7E6	82.580	77.109
9) B	Heptachlor Epoxi	4.24	5.14	204.0E6	1169.6E6	79.673	74.503
10) B	gamma-Chlordane	4.40	5.42	205.9E6	1198.4E6	80.294	76.654
11) B	alpha-Chlordane	4.56	5.64	204.3E6	1161.7E6	81.016	75.507
12) A	Endosulfan I	4.75	5.73	197.0E6	1106.9E6	78.683	76.266
13) B	4,4'-DDE	4.67	5.90	208.2E6	1176.4E6	79.665	76.348
14) MA	Dieldrin	5.07	6.15	213.2E6	1227.7E6	78.774	77.055
15) MA	Endrin	5.39	6.65	185.1E6	1028.9E6	76.327	83.860
16) A	4,4'-DDD	5.51	6.83	169.4E6	972.5E6	79.648	72.496
17) B	Endosulfan II	5.71	6.99	194.8E6	1067.4E6	77.591	68.606
18) MA	4,4'-DDT	5.92	7.36	183.5E6	982.5E6	79.339	82.072
19) B	Endrin Aldehyde	6.34	7.56	158.6E6	851.7E6	84.543	78.618
20) B	Endosulfan Sulfa	7.03	8.02	180.5E6	960.8E6	90.343	82.129
21) A	Methoxychlor	6.70	8.60	101.3E6	491.6E6	83.867	84.322
22)	Mirex	6.83	8.90	165.0E6	759.7E6	78.872	73.959
23) B	Endrin Ketone	7.46	8.97	213.9E6	1065.0E6	95.611	81.705

(f)=RT Delta > 1/2 Window (m)=manual int.

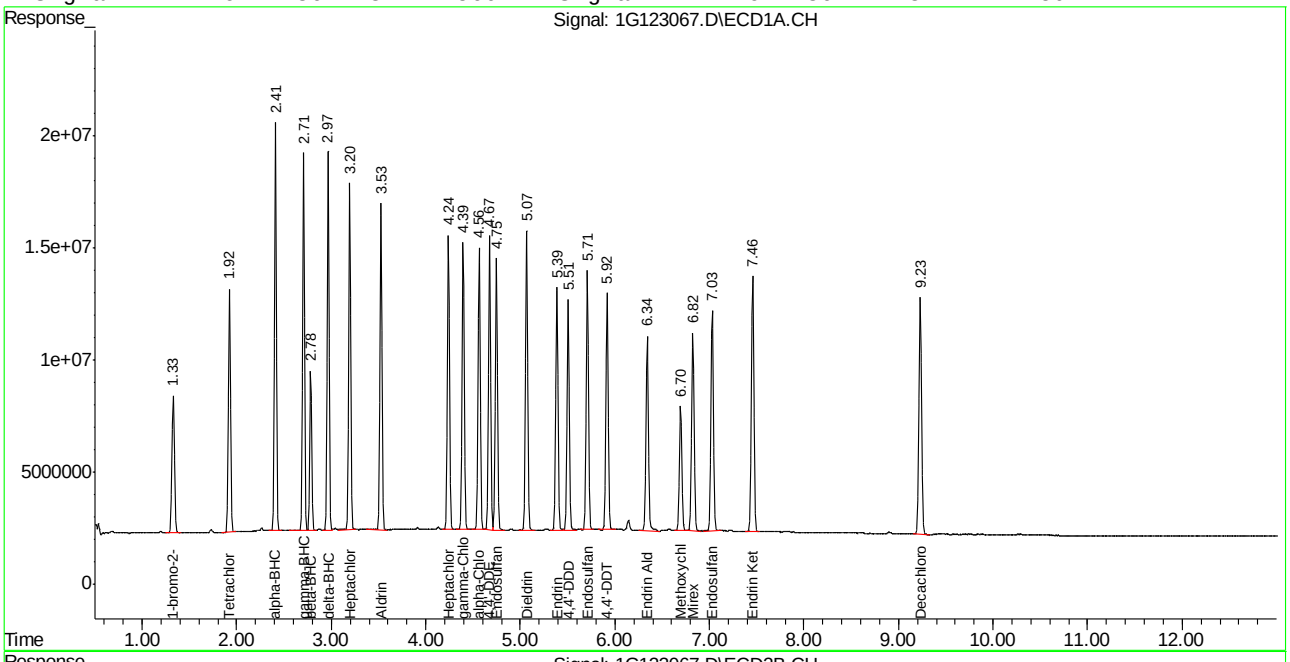
SGS ACCUTEST JC20184

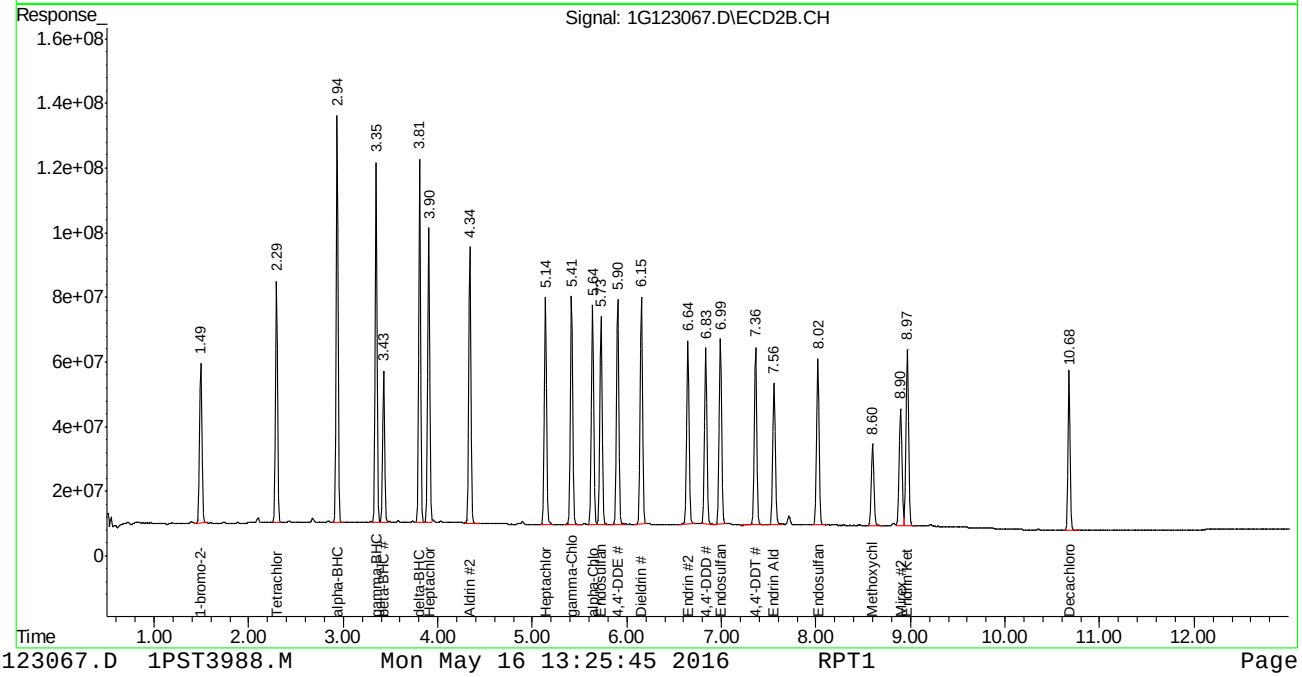
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123067.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123067.D\ECD2B.CH
Acq On : 16 May 2016 11:56 am Operator: thomasl
Sample : ic3988-75 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:25 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123068.D\ECD1A.CH Vial: 13
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123068.D\ECD2B.CH
Acq On : 16 May 2016 12:13 pm Operator: thomasl
Sample : ic3988-100 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:25 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.50	120.7E6	915.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.93	2.30	235.1E6	1510.5E6	123.638	100.097
Spiked Amount	40.000	Range	30 - 150	Recovery	=	309.10%#	250.24%#
24) SA	Decachlorobiphen	9.23	10.68	278.0E6	995.2E6	103.549	94.001
Spiked Amount	40.000			Recovery	=	258.87%	235.00%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	367.0E6	2399.7E6	124.938	107.027
4) MA	gamma-BHC	2.71	3.35	337.6E6	2141.8E6	123.055	105.571
5) MA	Heptachlor	3.20	3.91	320.1E6	1943.4E6	114.072	102.051
6) B	beta-BHC	2.78	3.43	141.7E6	903.6E6	106.372	99.171
7) B	delta-BHC	2.97	3.81	335.1E6	2163.1E6	125.901	109.003
8) MB	Aldrin	3.53	4.34	304.8E6	1851.8E6	114.591	103.210
9) B	Heptachlor Epoxi	4.24	5.14	285.2E6	1595.1E6	109.969	99.415
10) B	gamma-Chlordane	4.40	5.42	290.7E6	1644.1E6	111.892	102.900
11) B	alpha-Chlordane	4.56	5.64	285.7E6	1590.4E6	111.868	101.145
12) A	Endosulfan I	4.75	5.73	274.8E6	1505.9E6	108.375	101.521
13) B	4,4'-DDE	4.68	5.90	292.2E6	1618.8E6	110.382	102.793
14) MA	Dieldrin	5.07	6.16	299.3E6	1678.2E6	109.180	103.056
15) MA	Endrin	5.39	6.65	258.1E6	1420.5E6	105.072	113.280
16) A	4,4'-DDD	5.51	6.83	238.3E6	1342.2E6	110.627	97.896
17) B	Endosulfan II	5.71	6.99	270.3E6	1469.5E6	106.279	92.417
18) MA	4,4'-DDT	5.92	7.36	257.7E6	1338.6E6	110.029	109.412
19) B	Endrin Aldehyde	6.34	7.56	216.5E6	1144.8E6	113.944	103.394
20) B	Endosulfan Sulfa	7.03	8.02	247.8E6	1299.2E6	122.436	108.665
21) A	Methoxychlor	6.70	8.60	137.7E6	644.4E6	112.618	108.154
22)	Mirex	6.83	8.90	222.5E6	1012.6E6	104.993	96.451
23) B	Endrin Ketone	7.46	8.97	293.1E6	1431.8E6	129.340	107.484

(f)=RT Delta > 1/2 Window (m)=manual int.

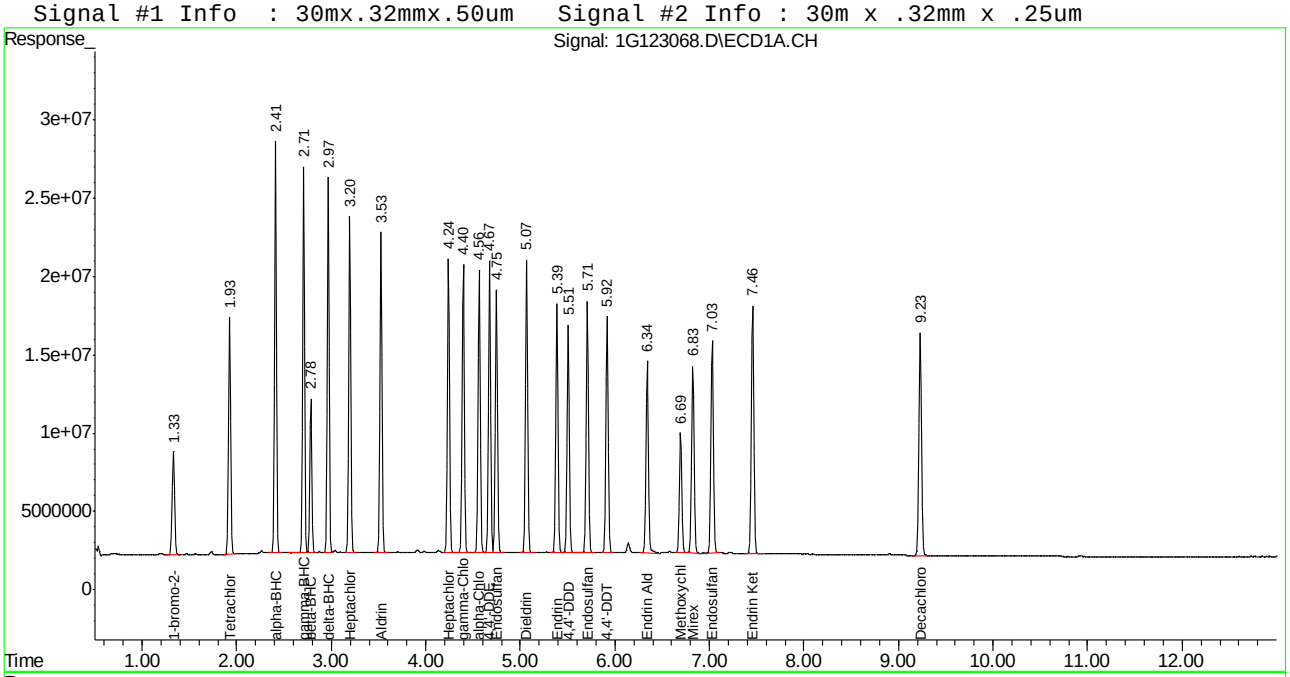
SGS ACCUTEST JC20184

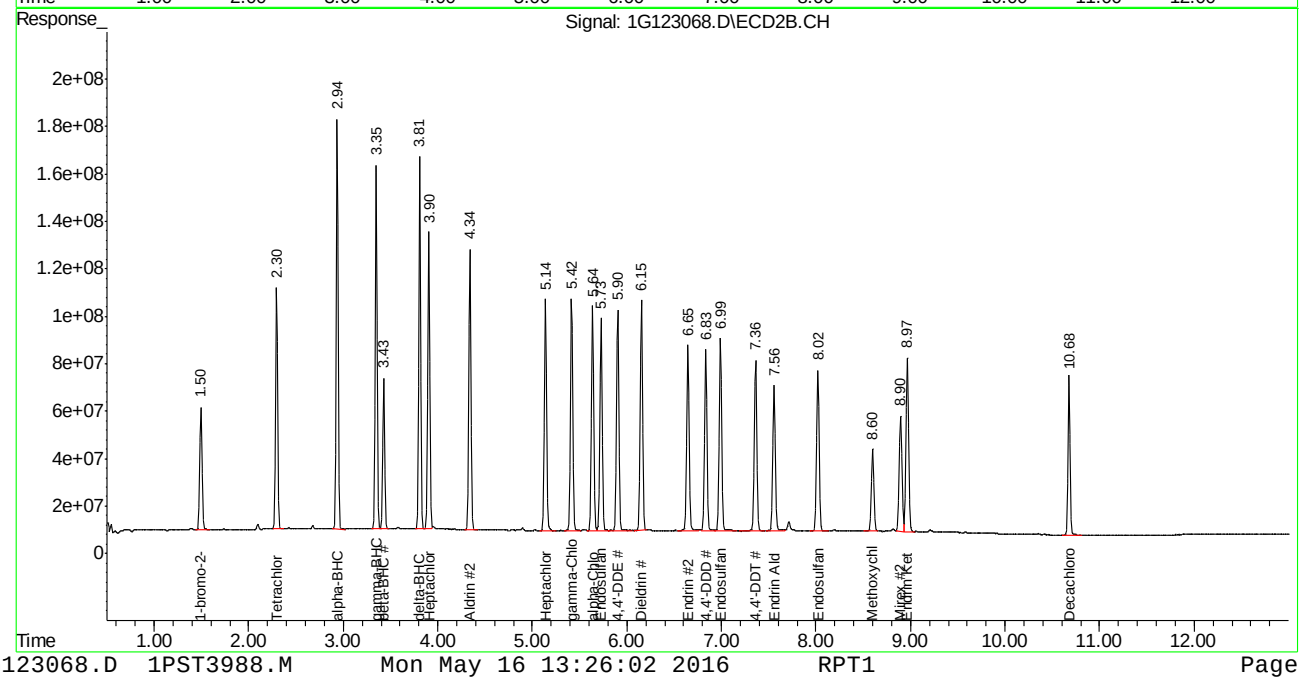
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123068.D\ECD1A.CH Vial: 13
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123068.D\ECD2B.CH
Acq On : 16 May 2016 12:13 pm Operator: thomasl
Sample : ic3988-100 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:25 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integrations
APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/16/16 17:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123069.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123069.D\ECD2B.CH
Acq On : 16 May 2016 12:31 pm Operator: thomasl
Sample : ic3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:26 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
31) I	1-bromo-2-nitrob	1.33	1.49	116.8E6	869.4E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
32)	Chlordane {A}	3.11	3.71	42766969	319.2E6	567.867	591.249
33)	Chlordane {B}	3.67	4.53	55545856	323.4E6	556.551	520.110
34)	Chlordane {C}	4.40	5.42	189.5E6	1058.3E6	547.997	549.001
35)	Chlordane {D}	4.56	5.64	296.0E6	1751.4E6	550.296	554.452m
36)	Chlordane {E}	5.61	7.07	44250029	315.1E6	588.663	506.346

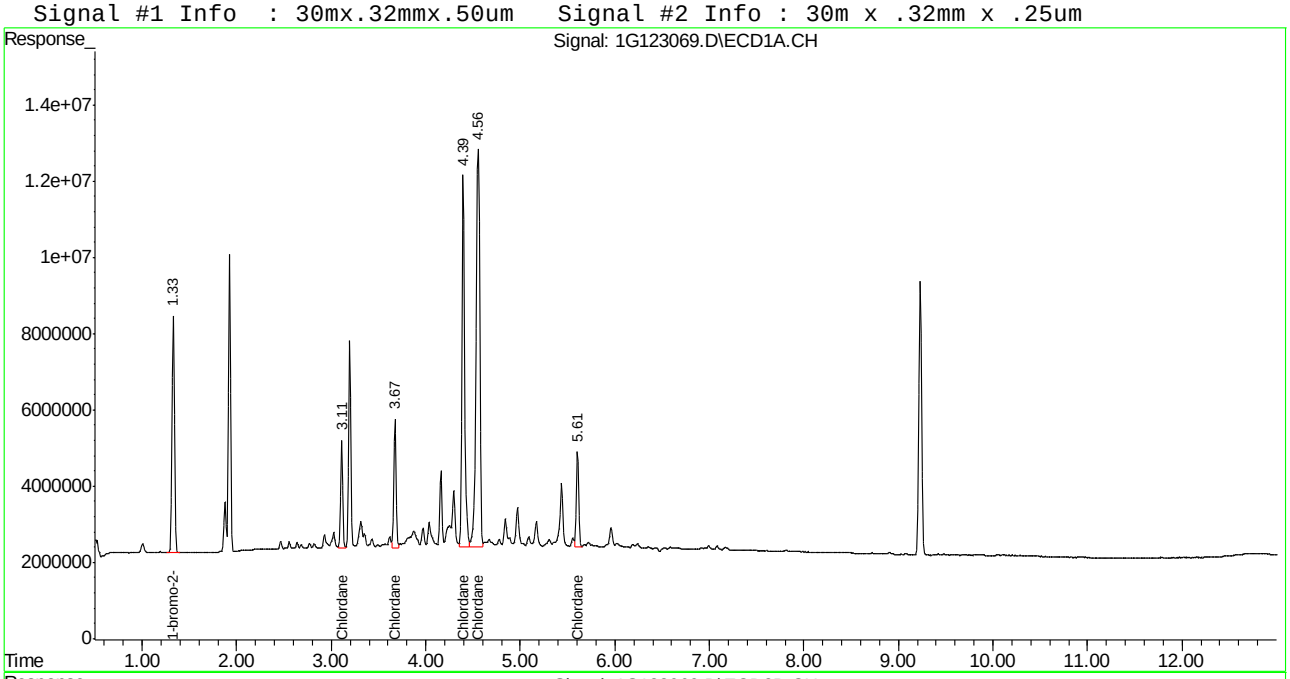
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123069.D 1PST3988.M Mon May 16 13:26:21 2016 RPT1 Page 1

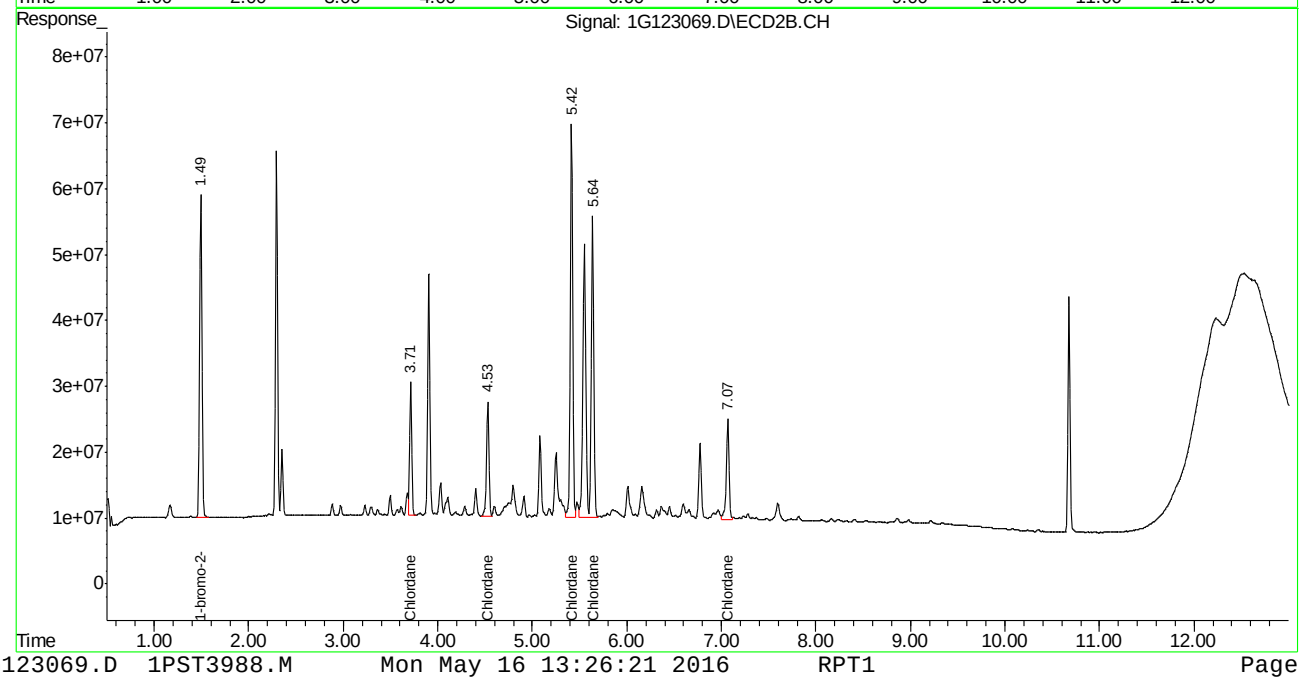
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123069.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123069.D\ECD2B.CH
Acq On : 16 May 2016 12:31 pm Operator: thomasl
Sample : ic3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:26 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integration Approval Summary

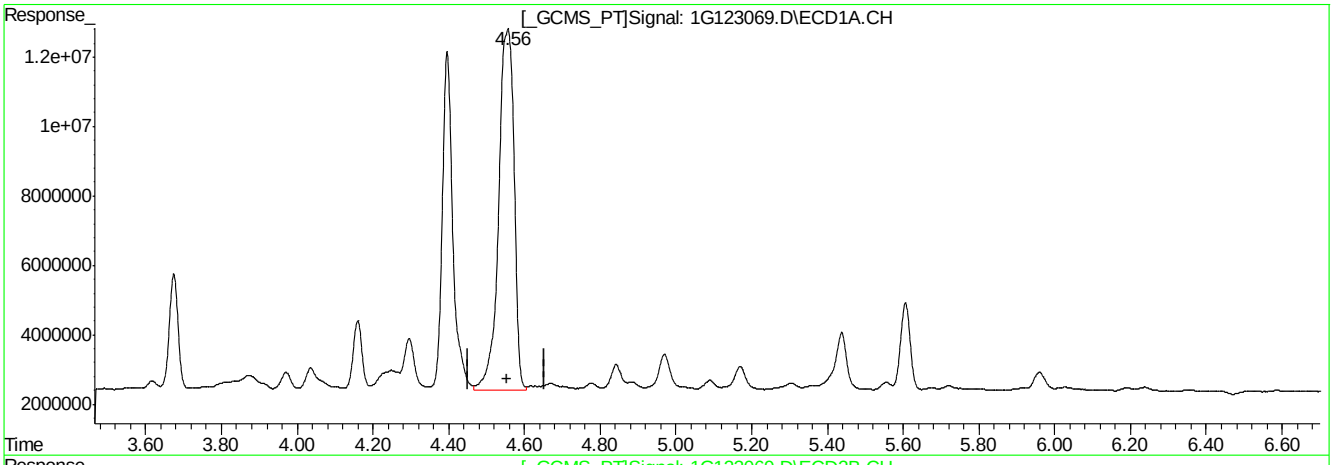
Sample Number:	G1G3988-IC3988	**Method:**	SW846 8081B
Lab FileID:	1G123069.D	**Analyst approved:**	05/16/16 15:18 Dhara Saparia
Injection Time:	05/16/16 12:31	**Supervisor approved:**	05/16/16 17:43 Gwendolyn Burns

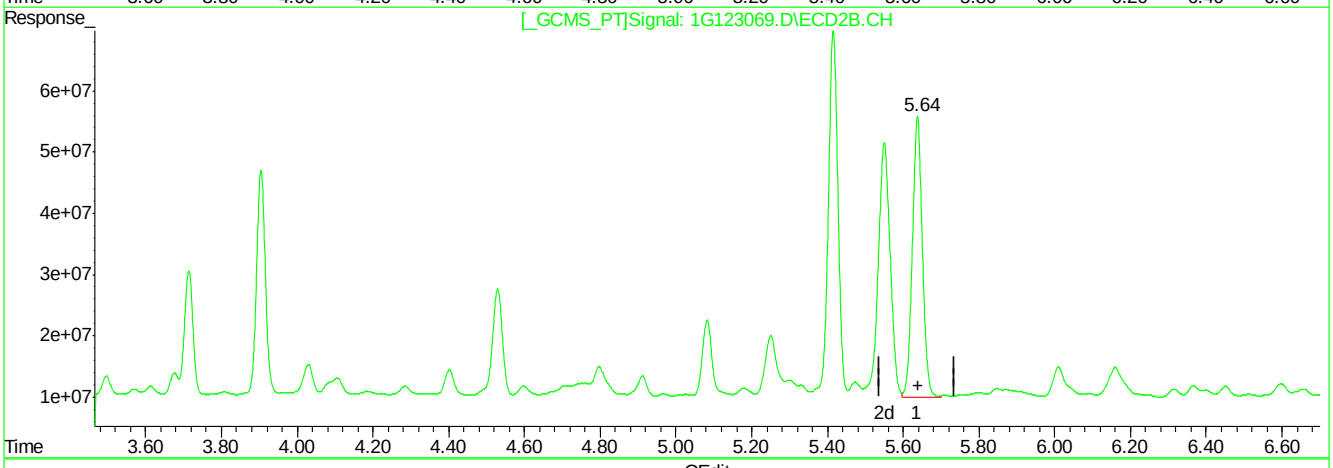
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	5.64	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123069.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123069.D\ECD2B.CH
Acq On    : 16 May 2016  12:31 pm                    Operator: thomasl
Sample    : ic3988-500                               Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 13:08 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(35) Chlordane {D}

4.56min 550.296PPB

response 295995575

(35) Chlordane {D} #2

5.64min 265.578PPB

response 838910491

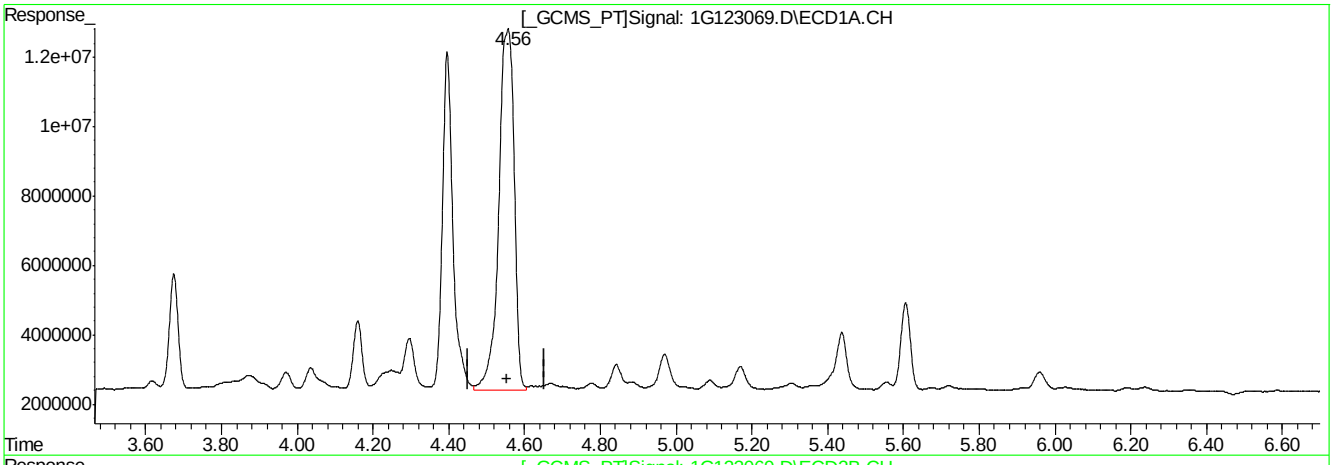
(+) = Expected Retention Time

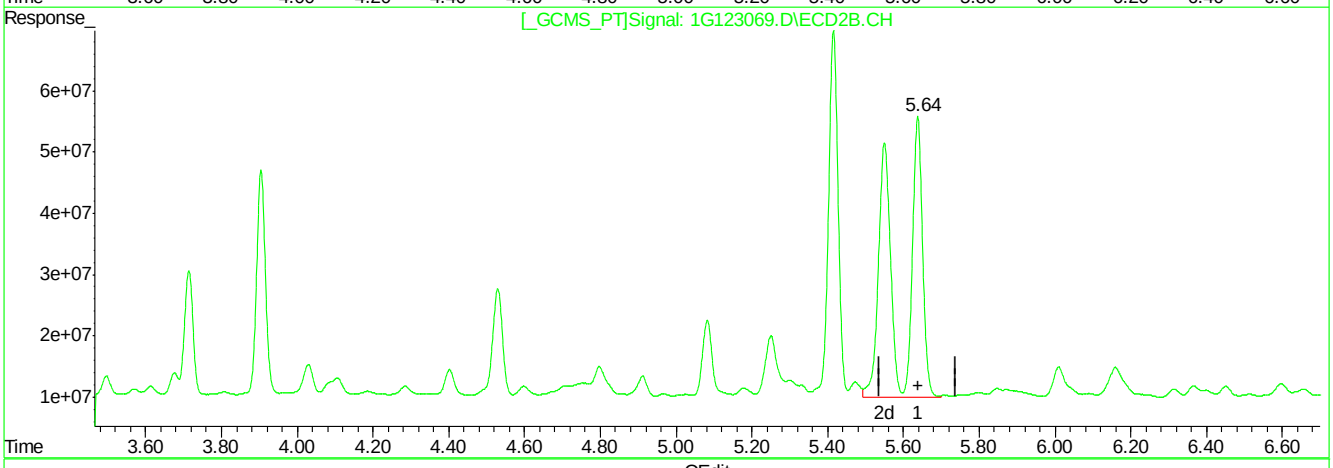
1G123069.D 1PST3988.M Mon May 16 13:08:12 2016 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123069.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123069.D\ECD2B.CH
Acq On : 16 May 2016 12:31 pm Operator: thomasl
Sample : ic3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:08 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(35) Chlordane {D}

4.56min 550.296PPB

response 295995575

(35) Chlordane {D} #2

5.64min 554.452PPB m

response 1751408243

(+) = Expected Retention Time

1G123069.D 1PST3988.M Mon May 16 13:09:04 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/16/16 17:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123070.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123070.D\ECD2B.CH
Acq On : 16 May 2016 12:48 pm Operator: thomasl
Sample : ic3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:26 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
25) I	1-bromo-2-nitrob	1.33	1.49	123.2E6	905.8E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
26) L8	Toxaphene{A}	5.08	6.12	20160542	122.0E6	498.711	522.284
27) L8	Toxaphene{B}	5.69	6.96	57479048	263.2E6	665.347	775.867
28) L8	Toxaphene{C}	5.87	7.12	30957300	459.8E6	476.346m	584.300m
29) L8	Toxaphene{D}	6.20	7.56	35322203	286.1E6	520.794	577.370
30) L8	Toxaphene{E}	6.85	8.44	40690779	273.5E6	526.068	646.077

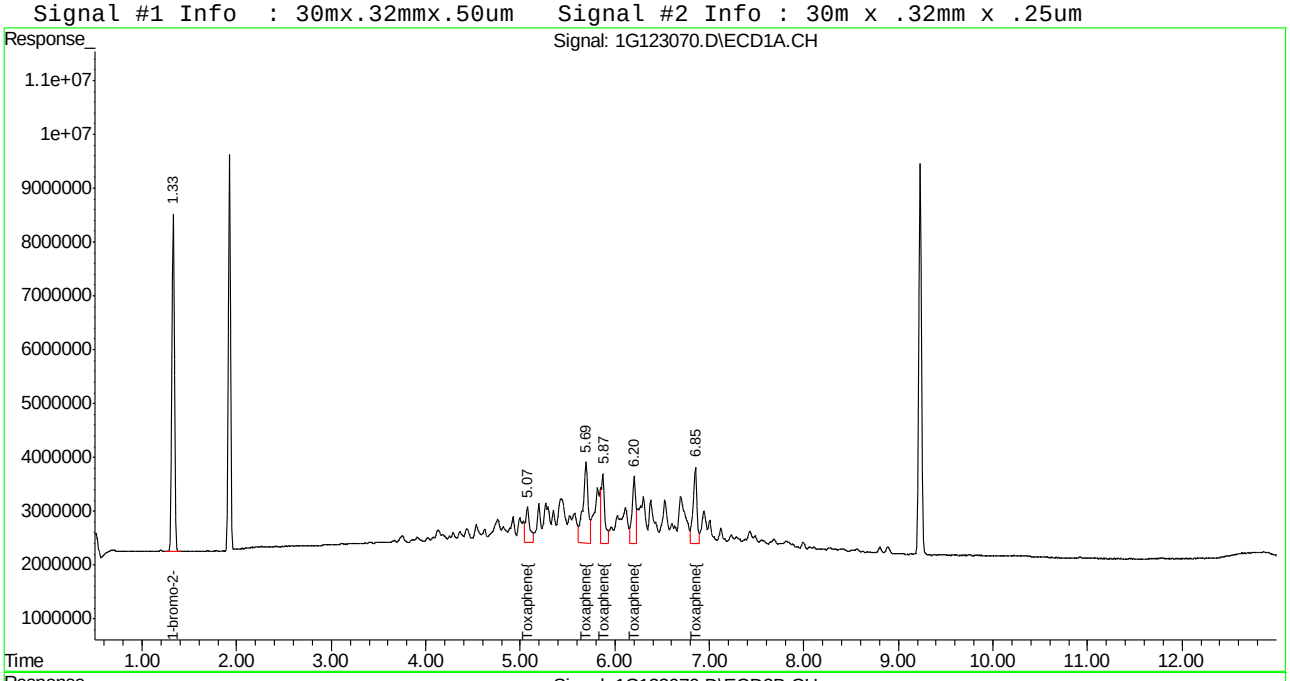
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123070.D 1PST3988.M Mon May 16 13:26:42 2016 RPT1 Page 1

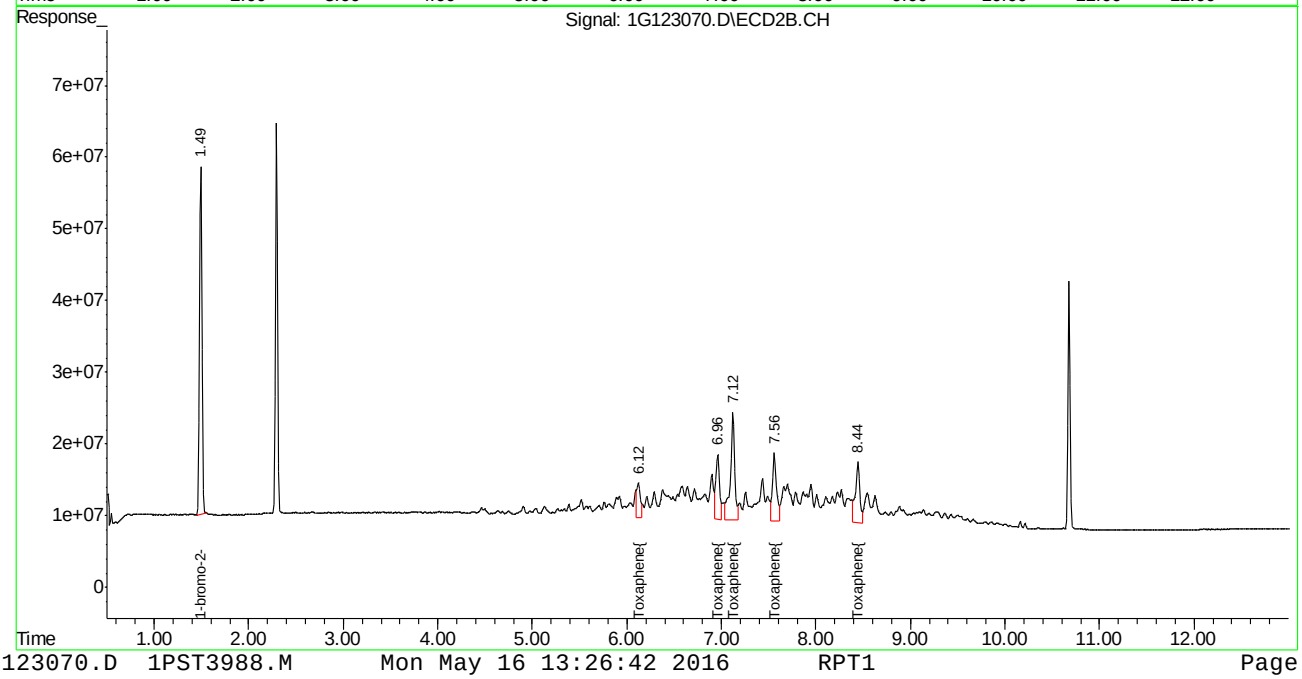
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123070.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123070.D\ECD2B.CH
Acq On : 16 May 2016 12:48 pm Operator: thomasl
Sample : ic3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:26 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integration Approval Summary

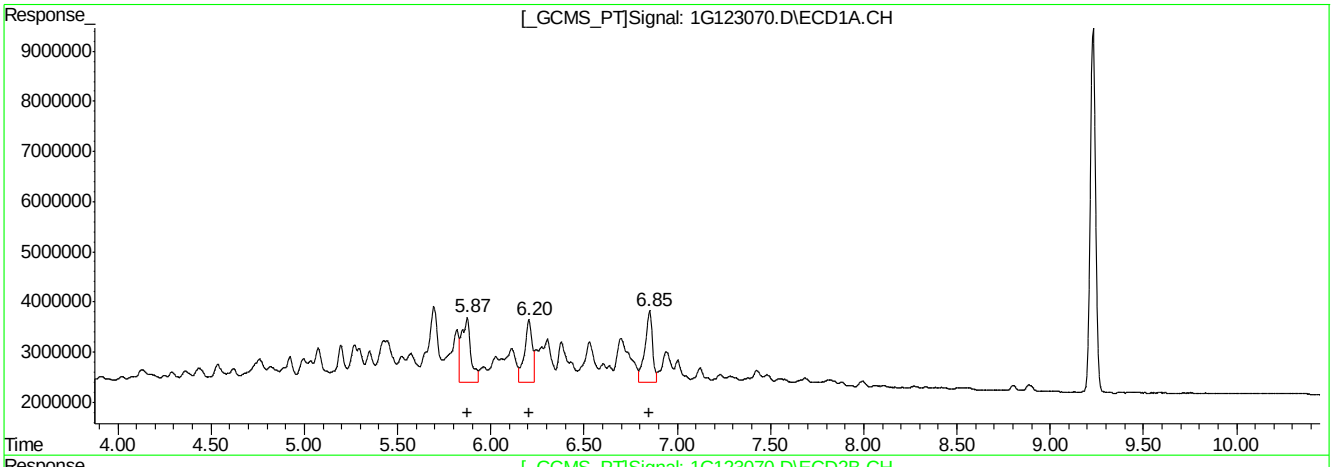
Sample Number:	G1G3988-IC3988	**Method:**	SW846 8081B
Lab FileID:	1G123070.D	**Analyst approved:**	05/16/16 15:18 Dhara Saparia
Injection Time:	05/16/16 12:48	**Supervisor approved:**	05/16/16 17:43 Gwendolyn Burns

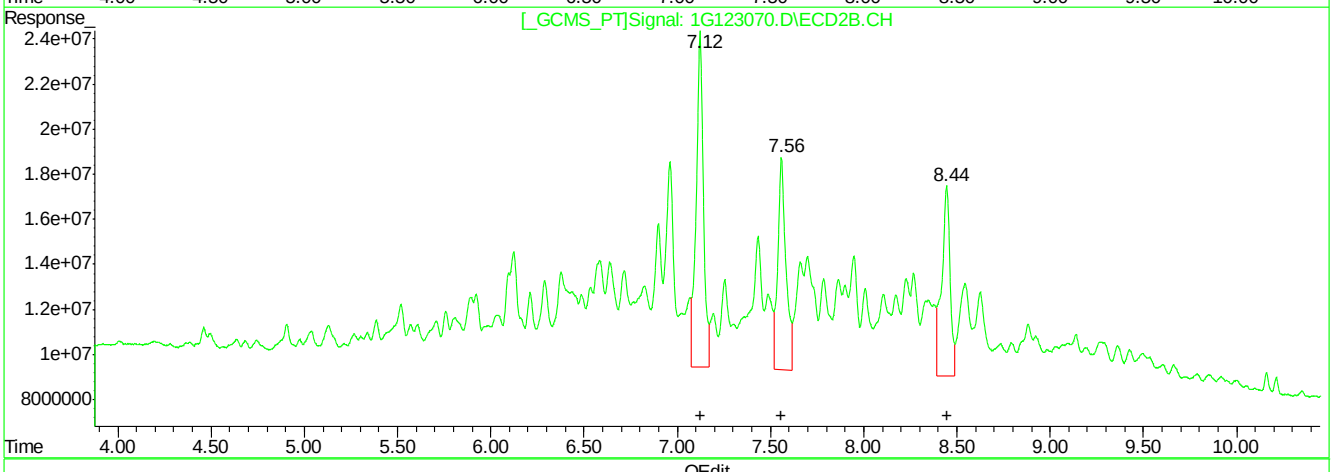
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-C		1	5.87	Poor instrument integration
Toxaphene-C		2	7.12	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123070.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123070.D\ECD2B.CH
Acq On    : 16 May 2016  12:48 pm                    Operator: thomasl
Sample    : ic3988-500                               Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 13:14 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration
```





QEdit

(28) Toxaphene{C} (L8)

R.T.	Response	Conc
5.87	43893204	675.39
6.20	35322203	520.79
6.85	40690779	526.07

(28) Toxaphene{C} #2 (L8)

R.T.	Response	Conc
7.12	396795147	504.20
7.56	286123301	577.37
8.44	273520737	646.08

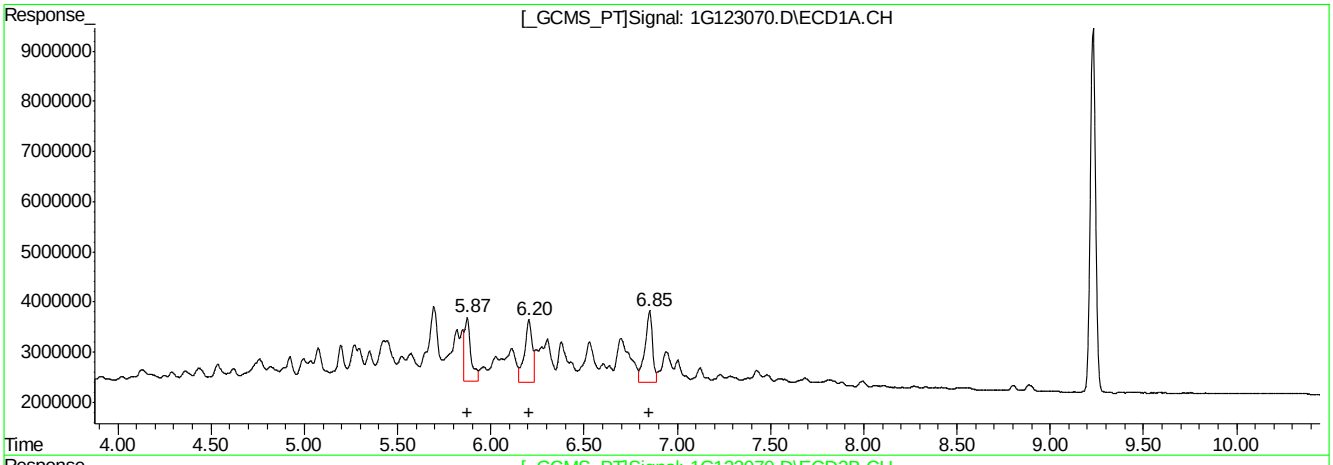
(+) = Expected Retention Time

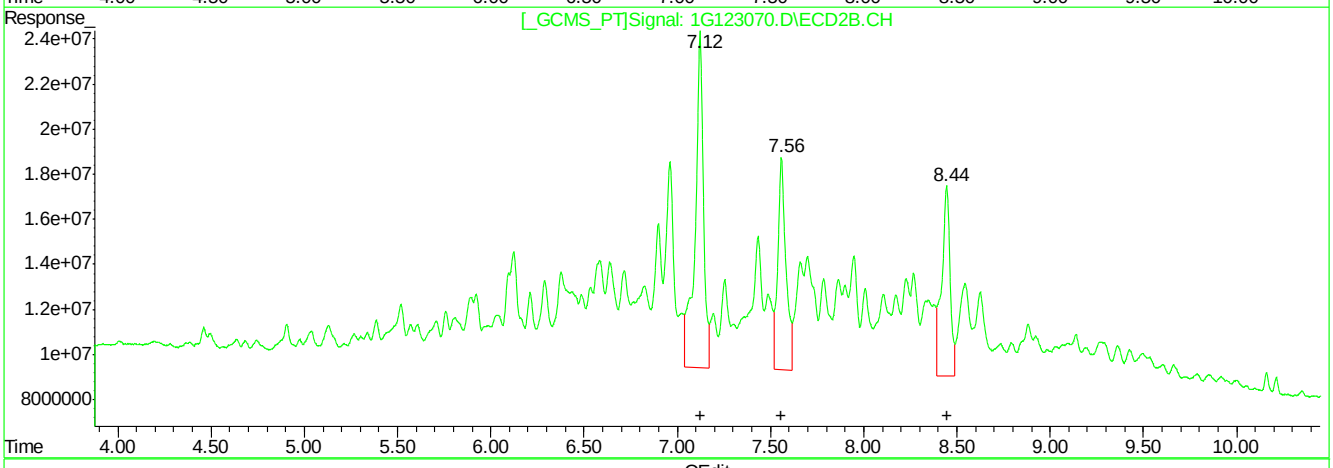
1G123070.D 1PST3988.M Mon May 16 13:19:55 2016 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123070.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123070.D\ECD2B.CH
Acq On : 16 May 2016 12:48 pm Operator: thomasl
Sample : ic3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 13:14 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 09:01:14 2016
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{C} #2 (L8)

R.T.	Response	Conc
5.87	30957300	476.35
6.20	35322203	520.79
6.85	40690779	526.07

(28) Toxaphene{C} #2 (L8)

R.T.	Response	Conc
7.12	459829039	584.30
7.56	286123301	577.37
8.44	273520737	646.08

(+) = Expected Retention Time

1G123070.D 1PST3988.M Mon May 16 13:21:52 2016 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123071.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123071.D\ECD2B.CH
Acq On : 5-16-16 01:06:17 PM Operator: thomasl
Sample : icv3988-25 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:23 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	125.2E6	922.1E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	125.2E6	922.1E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	125.2E6	922.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	53419128	393.3E6	23.624	23.987
Spiked Amount	40.000 Range	30 - 150	Recovery	=		59.06%	59.97%
24) SA	Decachlorobiphen	9.23	10.68	71179744	270.2E6	23.136	23.468
Spiked Amount	40.000		Recovery	=		57.84%	58.67%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	69973400	549.9E6	21.626	22.397
4) MA	gamma-BHC	2.71	3.35	66781531	500.5E6	22.081	22.520
5) MA	Heptachlor	3.19	3.90	65404367	461.2E6	21.249	22.221
6) B	beta-BHC	2.78	3.43	31083974	226.9E6	21.481	22.291
7) B	delta-BHC	2.97	3.81	68657461	522.6E6	23.158	23.527
8) MB	Aldrin	3.53	4.34	61093108	442.8E6	21.773	23.294
9) B	Heptachlor Epoxi	4.24	5.14	60578460	393.3E6	22.001	23.188
10) B	gamma-Chlordane	4.40	5.42	61356009	407.7E6	21.605	23.534
11) B	alpha-Chlordane	4.56	5.64	60710912	389.7E6	21.523	22.652
12) A	Endosulfan I	4.75	5.73	56933601	366.9E6	20.967	23.140
13) B	4,4'-DDE	4.68	5.90	61141327	390.5E6	21.479	22.881
14) MA	Dieldrin	5.07	6.15	61381168	410.2E6	21.711	23.086
15) MA	Endrin	5.39	6.65	54757160	346.2E6	21.377	22.030
16) A	4,4'-DDD	5.51	6.83	48859032	325.7E6	21.872	23.151
17) B	Endosulfan II	5.71	6.99	57469158	359.5E6	21.390	22.452
18) MA	4,4'-DDT	5.92	7.36	50470978	309.2E6	20.745	22.531
19) B	Endrin Aldehyde	6.34	7.56	47393363	293.9E6	22.319	23.920
20) B	Endosulfan Sulfa	7.03	8.02	54345520	324.3E6	21.075	23.134
21) A	Methoxychlor	6.70	8.60	29944802	158.4E6	20.420	21.555
23) B	Endrin Ketone	7.46	8.97	63565849	362.6E6	21.784	23.099

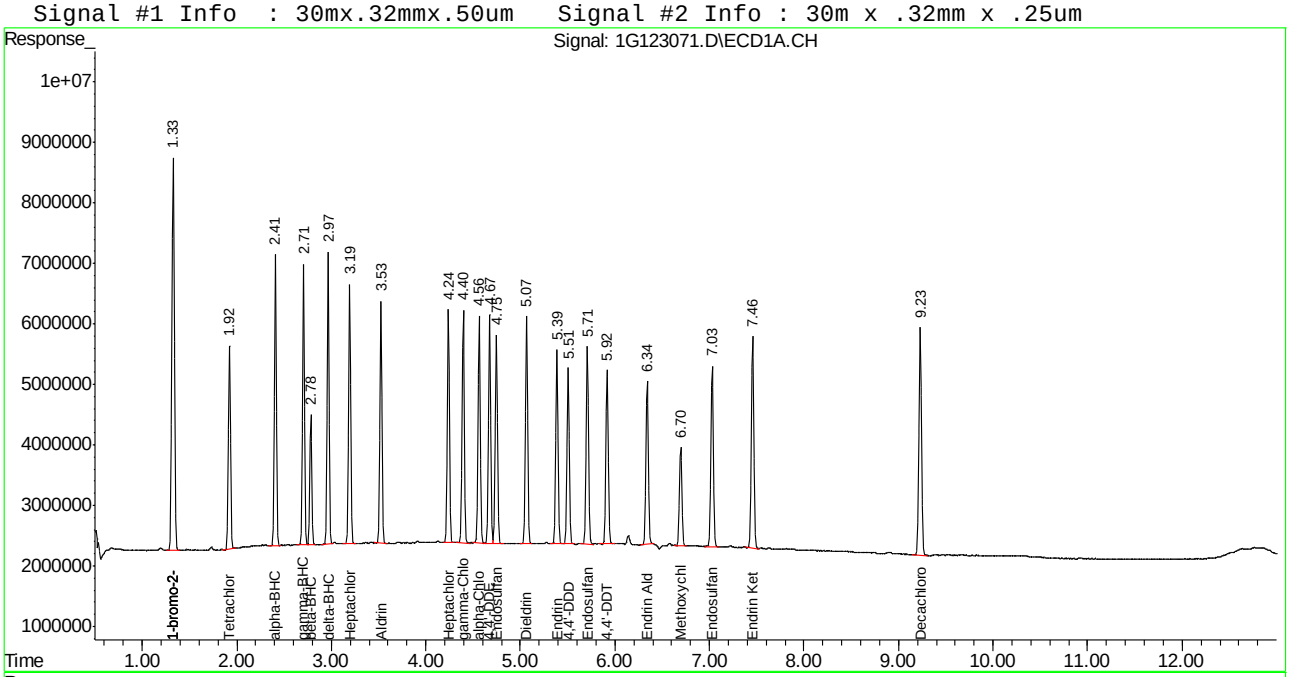
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123071.D 1PST3988.M Mon May 16 17:23:59 2016 RPT1 Page 1

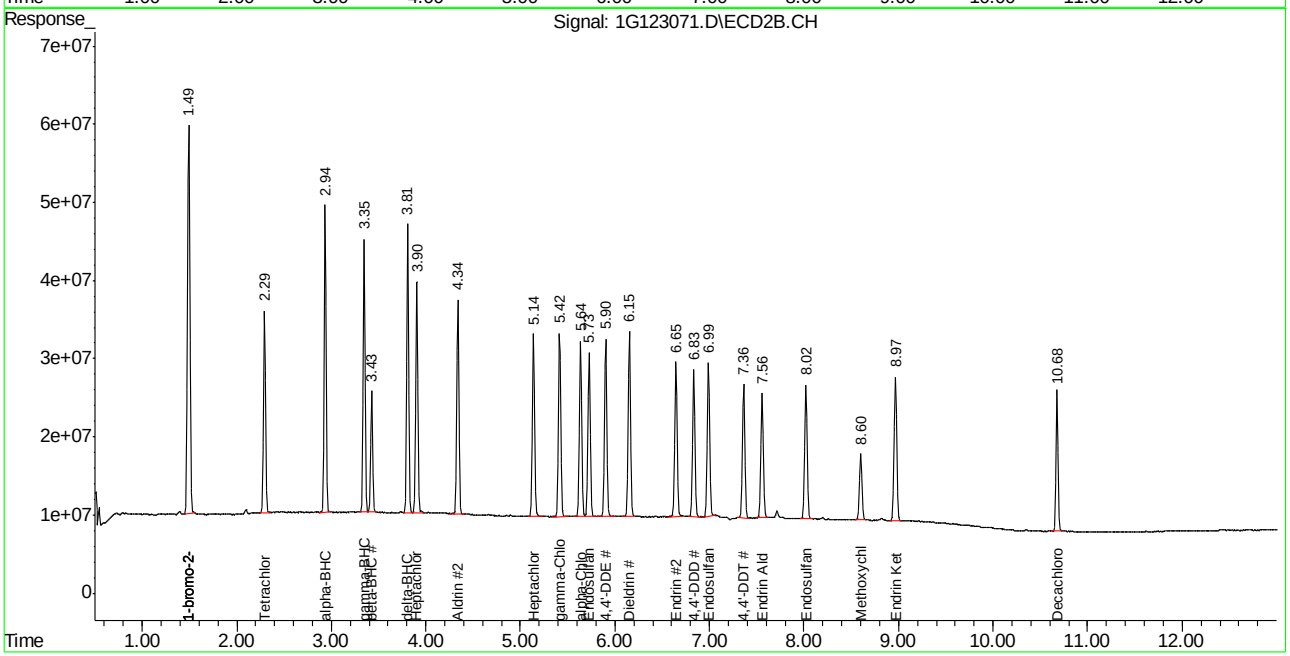
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123071.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123071.D\ECD2B.CH
Acq On : 5-16-16 01:06:17 PM Operator: thomasl
Sample : icv3988-25 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:23 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123072.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123072.D\ECD2B.CH
Acq On : 5-16-16 01:23:45 PM Operator: thomasl
Sample : icv3988-25 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:24 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.50	124.5E6	923.2E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.50	124.5E6	923.2E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.50	124.5E6	923.2E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
22)	Mirex	6.83	8.90	55767800	276.1E6	22.863	23.537

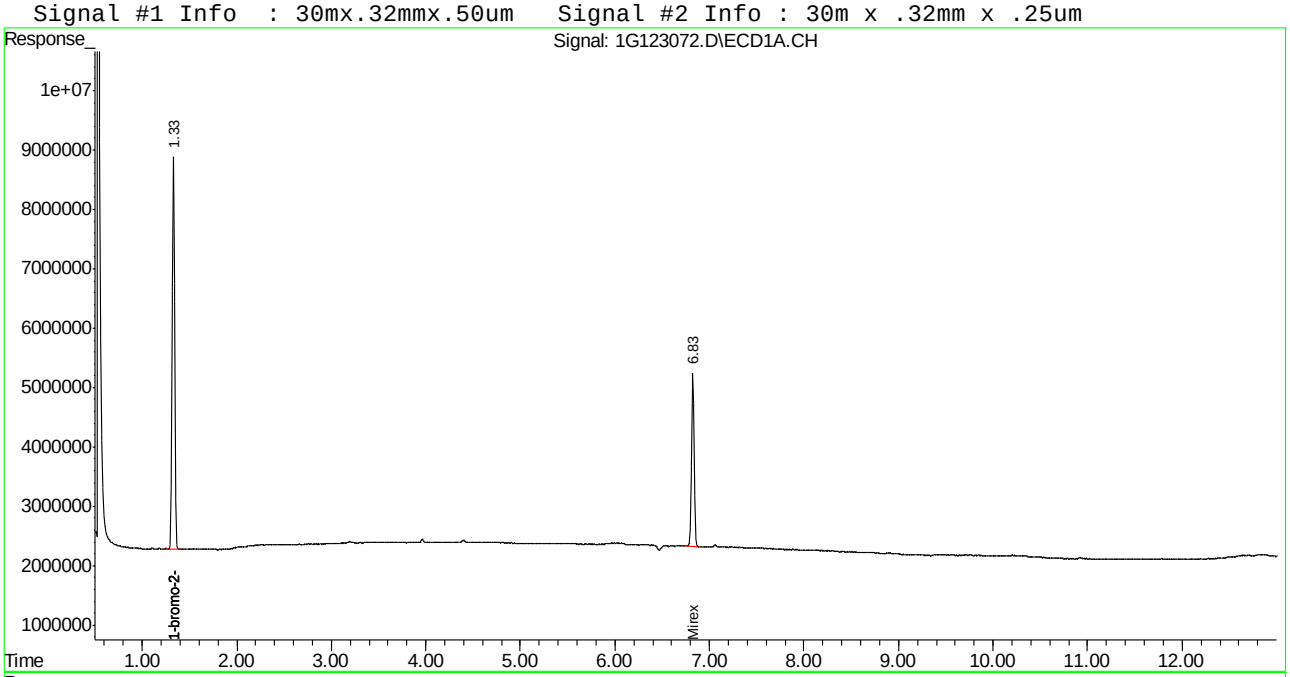
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123072.D 1PST3988.M Mon May 16 17:24:33 2016 RPT1 Page 1

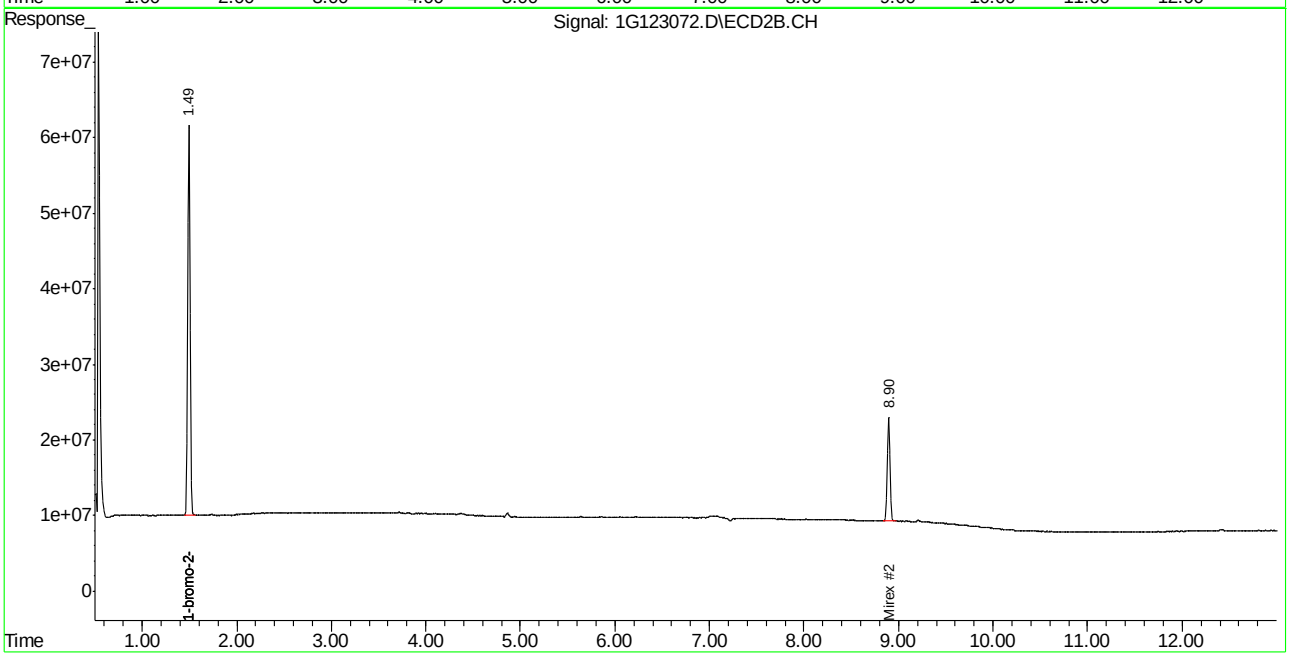
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123072.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123072.D\ECD2B.CH
Acq On : 5-16-16 01:23:45 PM Operator: thomasl
Sample : icv3988-25 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:24 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





1G123072.D 1PST3988.M Mon May 16 17:24:33 2016 RPT1 Page 2

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/16/16 17:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD2B.CH
Acq On : 5-16-16 01:41:21 PM Operator: thomasl
Sample : icv3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 14:56 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	123.5E6	900.2E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	123.5E6	900.2E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	123.5E6	900.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	105.8E6	734.7E6	47.413	45.875
Spiked Amount	40.000	Range	30 - 150	Recovery	=	118.53%	114.69%
24) SA	Decachlorobiphen	9.23	10.68	139.4E6	525.8E6	45.949	46.731
Spiked Amount	40.000			Recovery	=	114.87%	116.83%
	Target Compounds						
32)	Chlordane {A}	3.11	3.71	48030860	359.5E6	531.033	543.871
33)	Chlordane {B}	3.67	4.53	54143132	326.9E6	460.895	488.212
34)	Chlordane {C}	4.40	5.42	175.2E6	999.5E6	437.175	456.024
35)	Chlordane {D}	4.55	5.64	279.1E6	1667.0E6	445.780	459.597m
36)	Chlordane {E}	5.60	7.07	43378325	296.3E6	463.521	453.997

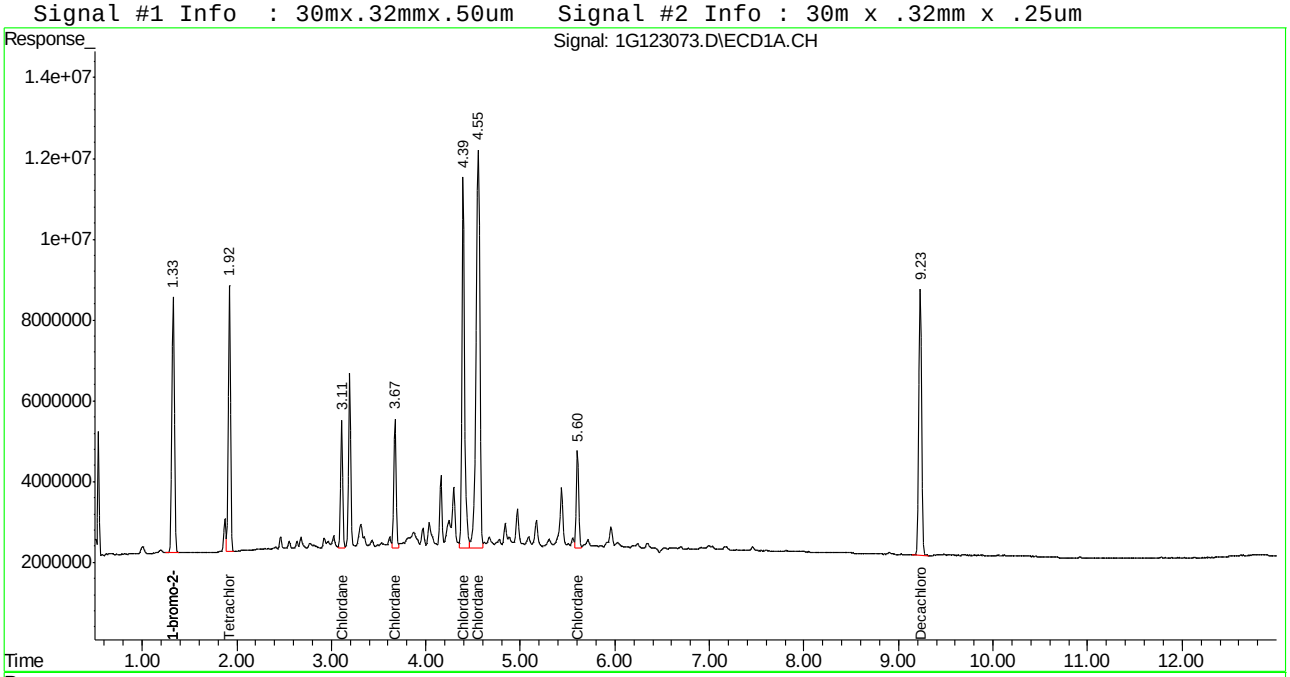
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123073.D 1PST3988.M Mon May 16 14:57:03 2016 RPT1 Page 1

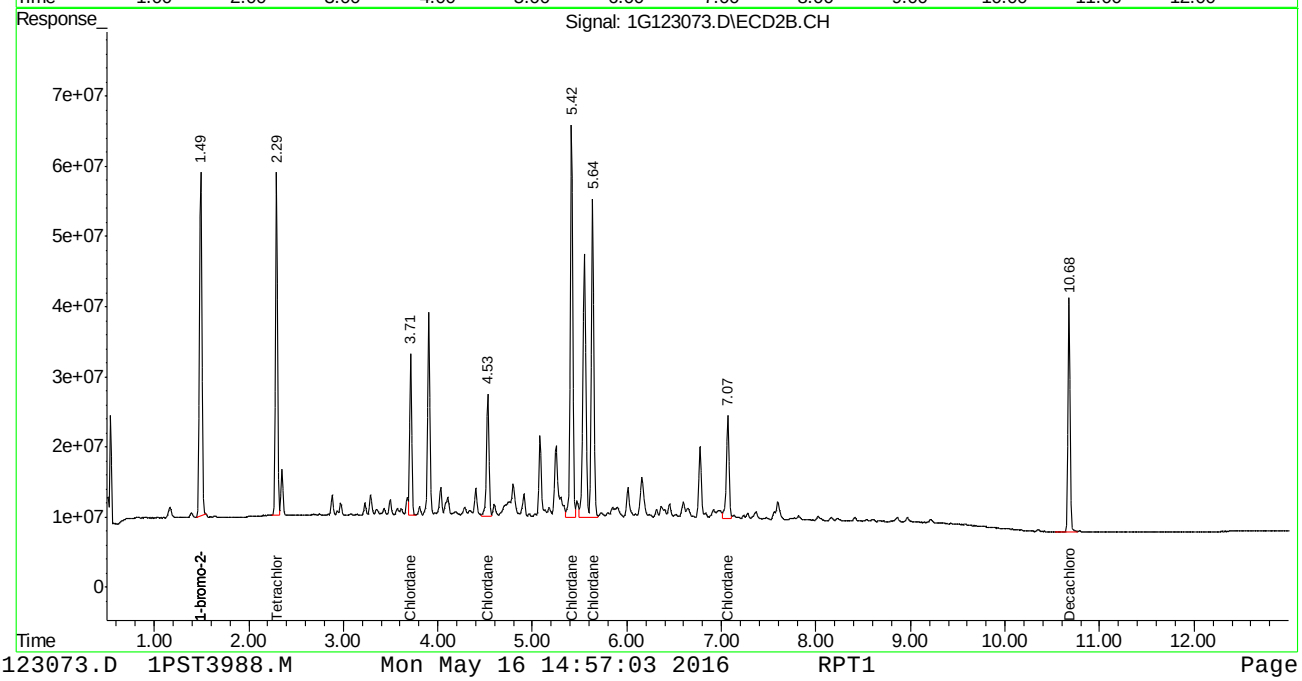
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD2B.CH
Acq On : 5-16-16 01:41:21 PM Operator: thomasl
Sample : icv3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 14:56 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





1G123073.D 1PST3988.M Mon May 16 14:57:03 2016 RPT1 Page 2

SGS ACCUTEST JC20184

Manual Integration Approval Summary

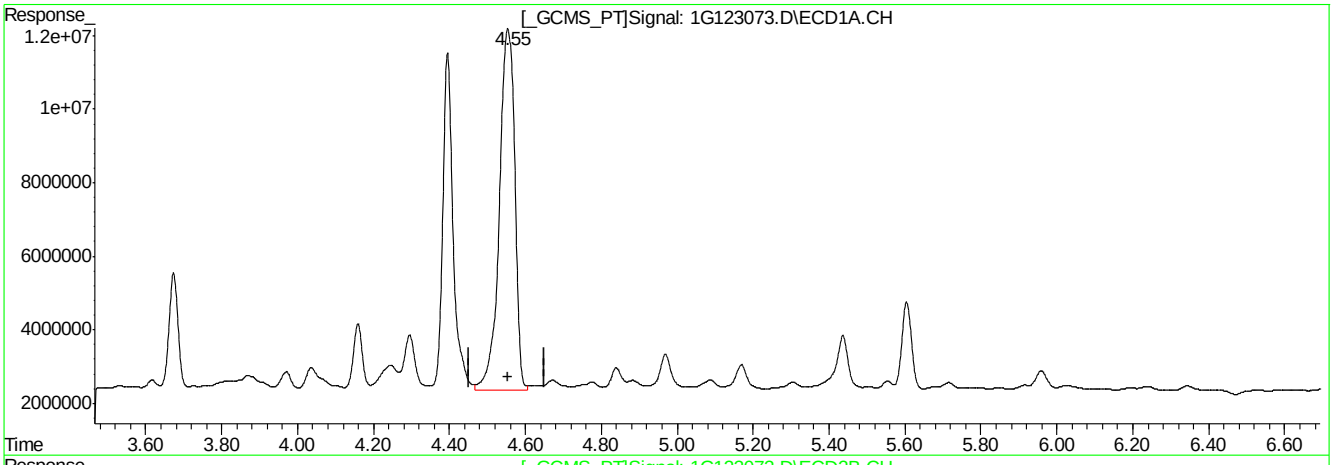
Sample Number:	G1G3988-ICV3988	**Method:**	SW846 8081B
Lab FileID:	1G123073.D	**Analyst approved:**	05/16/16 15:18 Dhara Saparia
Injection Time:	05/16/16 13:41	**Supervisor approved:**	05/16/16 17:43 Gwendolyn Burns

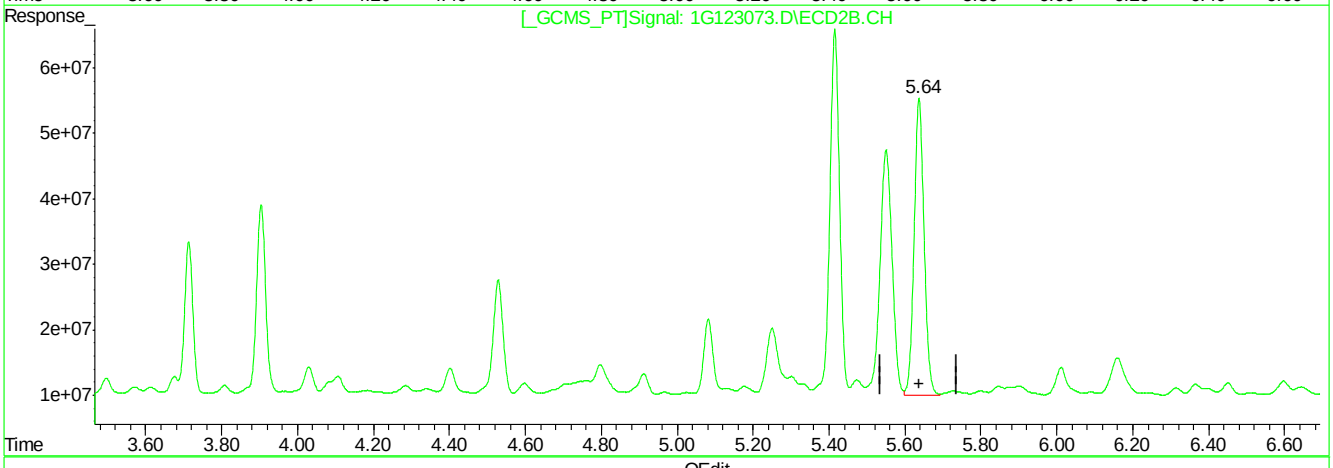
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	5.64	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD2B.CH
Acq On    : 5-16-16 01:41:21 PM                      Operator: thomasl
Sample    : icv3988-500                              Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 14:55 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
```





QEdit

(35) Chlordane {D}

4.55min 445.780PPB

response 279058613

(35) Chlordane {D} #2

5.64min 228.397PPB

response 828390770

(+) = Expected Retention Time

1G123073.D 1PST3988.M Mon May 16 14:56:04 2016 RPT1

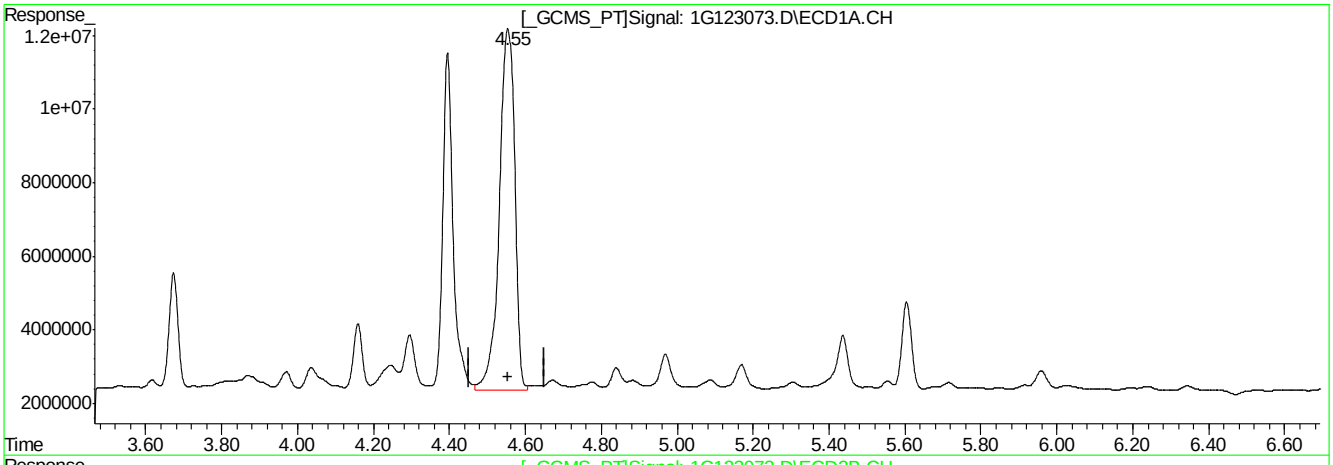
11.6.13.2

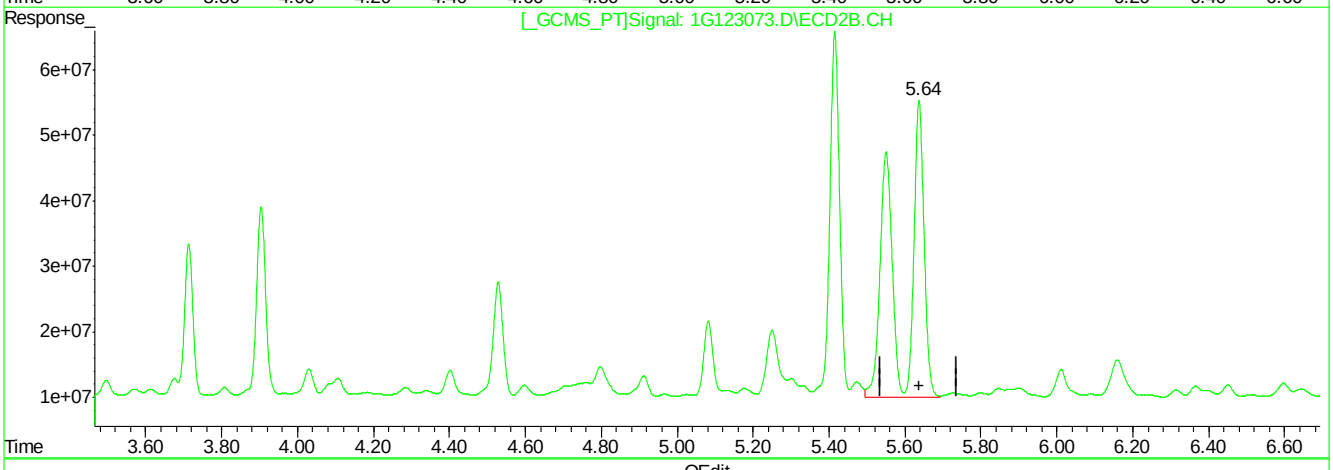
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123073.D\ECD2B.CH
Acq On    : 5-16-16 01:41:21 PM                      Operator: thomasl
Sample    : icv3988-500                              Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 14:55 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
```





QEdit

(35) Chlordane {D}

4.55min 445.780PPB

response 279058613

(35) Chlordane {D} #2

5.64min 459.597PPB m

response 1666951512

(+) = Expected Retention Time

1G123073.D 1PST3988.M Mon May 16 14:56:47 2016 RPT1

11.6.13.3

11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/16/16 17:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On : 5-16-16 01:58:48 PM Operator: thomasl
Sample : icv3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 15:06 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	124.8E6	901.9E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	124.8E6	901.9E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	124.8E6	901.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.30	105.3E6	732.6E6	46.665	45.661
Spiked Amount	40.000	Range	30 - 150	Recovery	=	116.66%	114.15%
24) SA	Decachlorobiphen	9.23	10.68	136.1E6	519.0E6	44.369	46.037
Spiked Amount	40.000			Recovery	=	110.92%	115.09%
	Target Compounds						
26) L8	Toxaphene{A}	5.07	6.12	23030714	124.7E6	563.788	513.130m
27) L8	Toxaphene{B}	5.70	6.96	58437381	282.7E6	501.755	539.366
28) L8	Toxaphene{C}	5.87	7.12	32628867	473.3E6	520.175m	516.853
29) L8	Toxaphene{D}	6.20	7.56	36980687	294.9E6	516.700m	517.505
30) L8	Toxaphene{E}	6.85	8.44	40360721	279.0E6	489.524	512.161

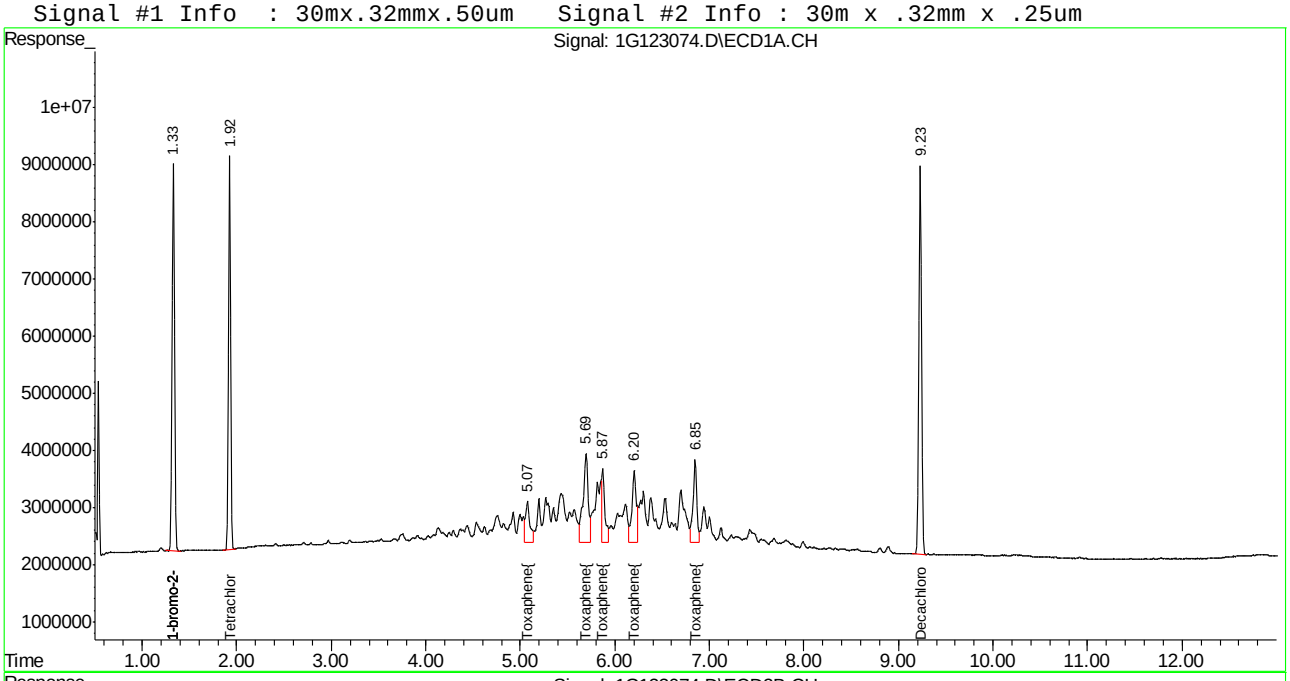
(f)=RT Delta > 1/2 Window (m)=manual int.

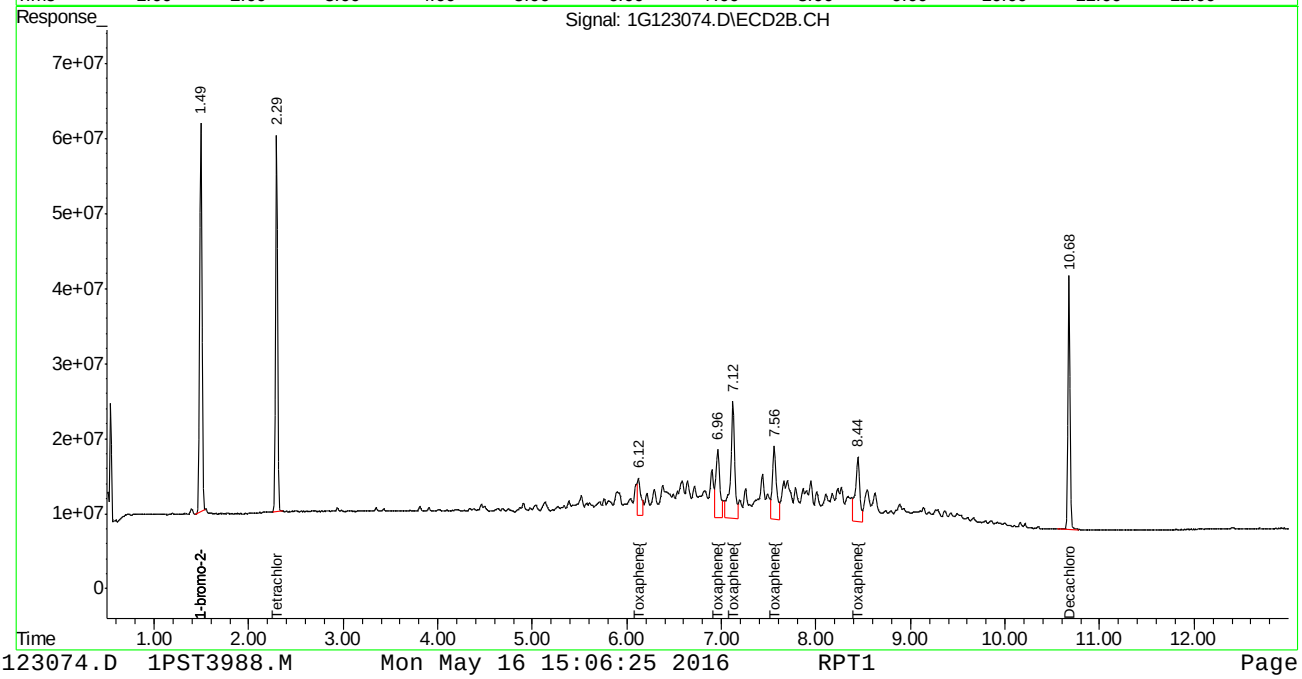
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On : 5-16-16 01:58:48 PM Operator: thomasl
Sample : icv3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 15:06 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integration Approval Summary

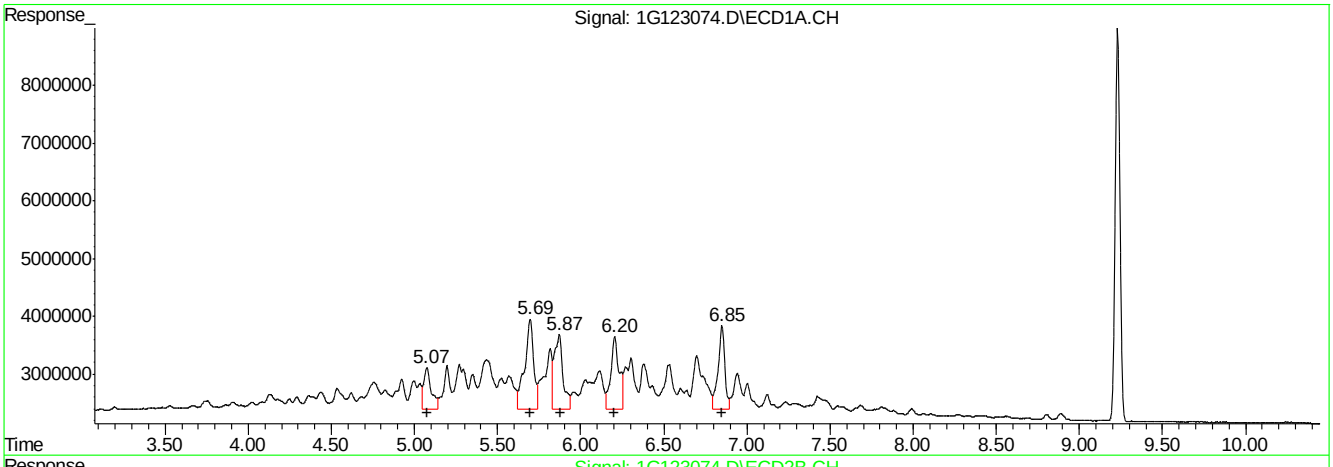
Sample Number:	G1G3988-ICV3988	**Method:**	SW846 8081B
Lab FileID:	1G123074.D	**Analyst approved:**	05/16/16 15:18 Dhara Saparia
Injection Time:	05/16/16 13:58	**Supervisor approved:**	05/16/16 17:43 Gwendolyn Burns

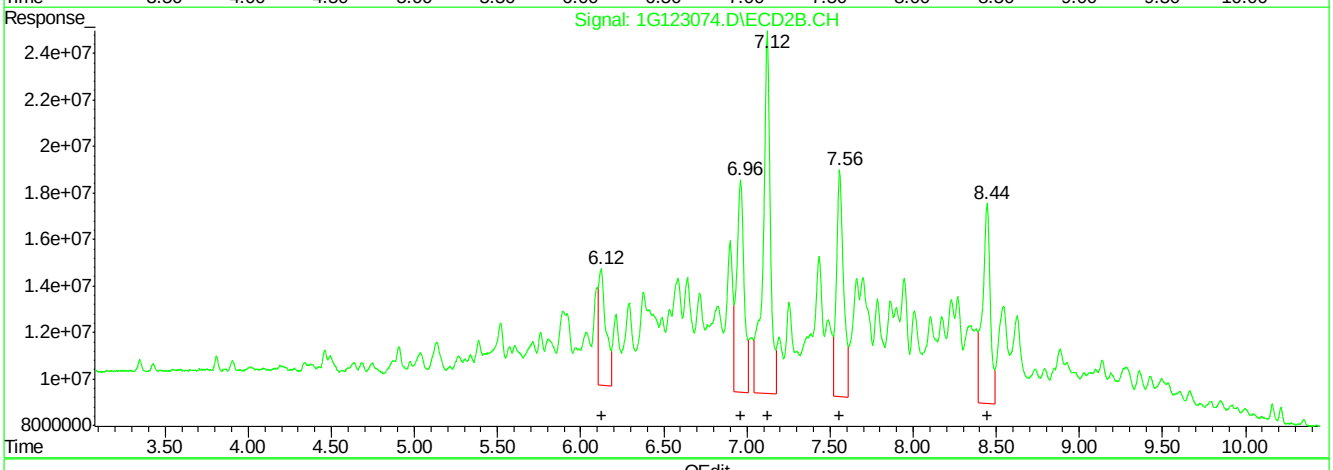
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-C		1	5.87	Poor instrument integration
Toxaphene-A		2	6.12	Poor instrument integration
Toxaphene-D		1	6.20	Poor instrument integration

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On : 5-16-16 01:58:48 PM Operator: thomasl
Sample : icv3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 15:04 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration





QEdit

(26) Toxaphene{A} (L8)

R.T.	Response	Conc
5.07	23030714	563.79
5.70	58437381	501.76
5.87	46177996	736.18
6.20	43685039	610.37
6.85	40360721	489.52

(26) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.12	148449773	611.04
6.96	282709621	539.37
7.12	473281843	516.85
7.56	294865837	517.51
8.44	278967293	512.16

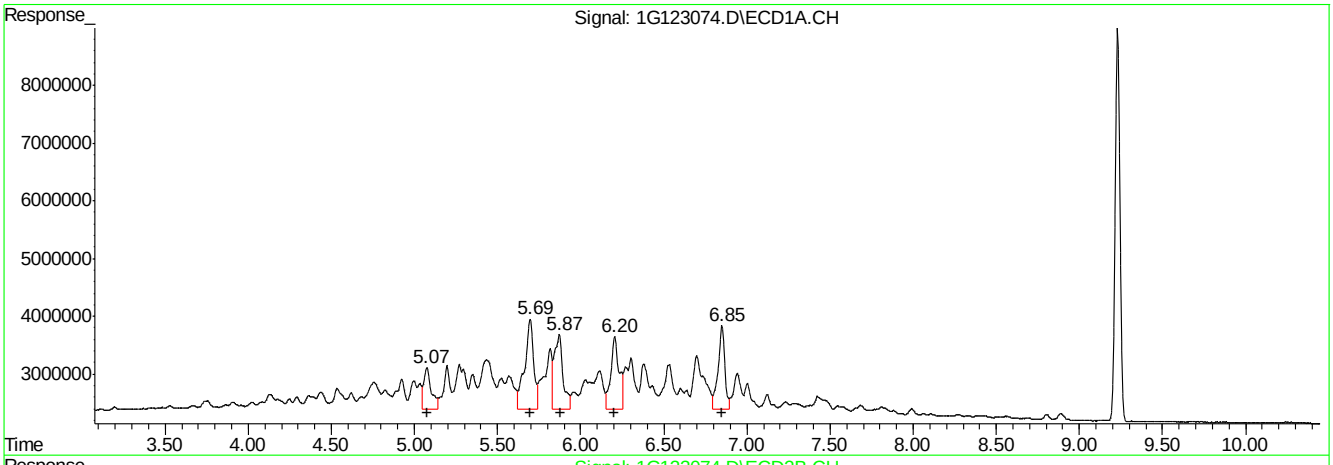
(+) = Expected Retention Time

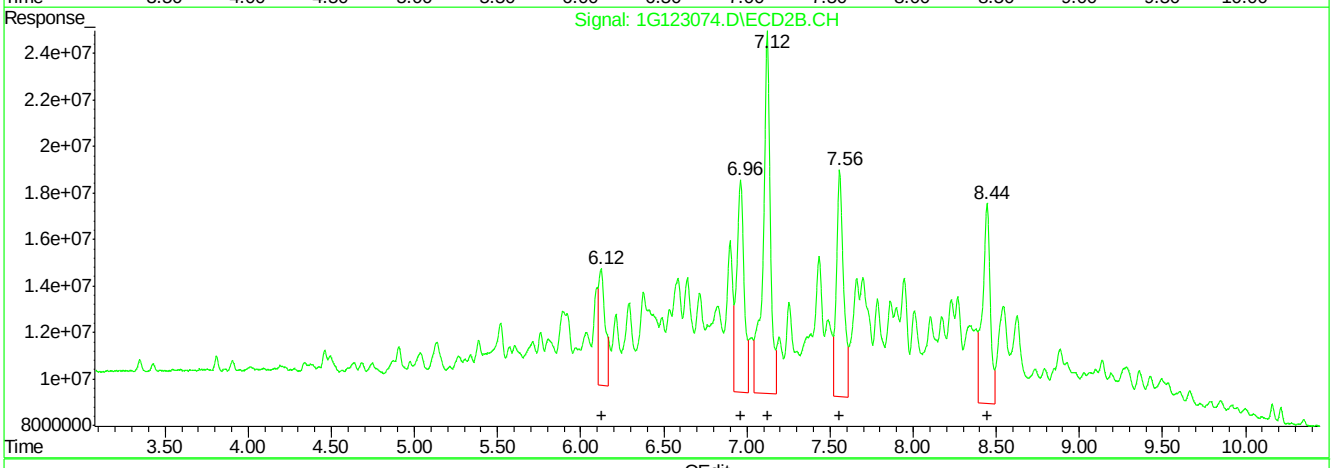
1G123074.D 1PST3988.M Mon May 16 15:04:32 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On    : 5-16-16 01:58:48 PM                      Operator: thomasl
Sample    : icv3988-500                              Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 15:04 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
5.07	23030714	563.79
5.70	58437381	501.76
5.87	46177996	736.18
6.20	43685039	610.37
6.85	40360721	489.52

(26) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.12	124663264	513.13
6.96	282709621	539.37
7.12	473281843	516.85
7.56	294865837	517.51
8.44	278967293	512.16

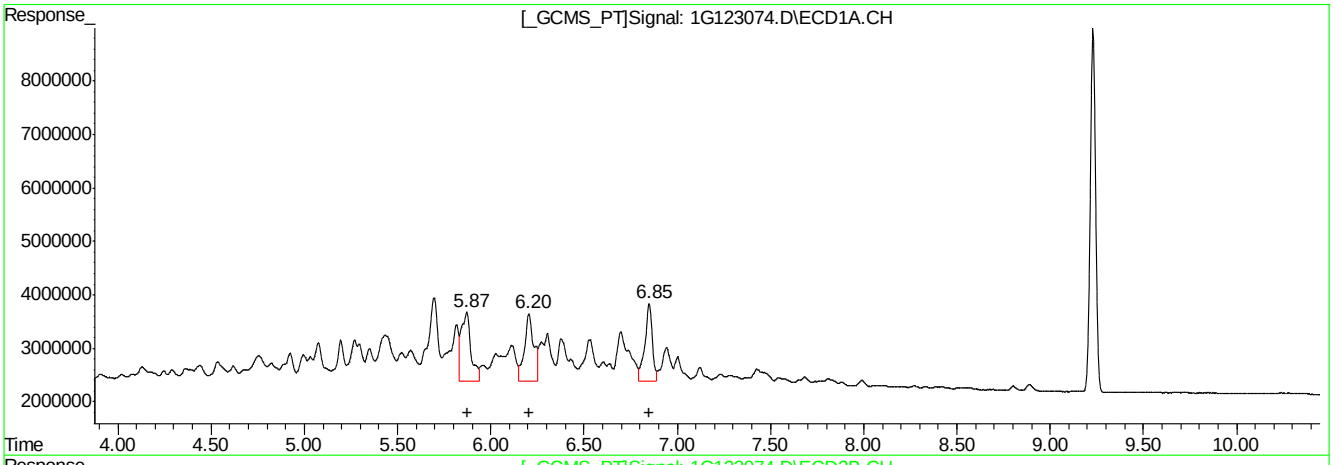
(+) = Expected Retention Time

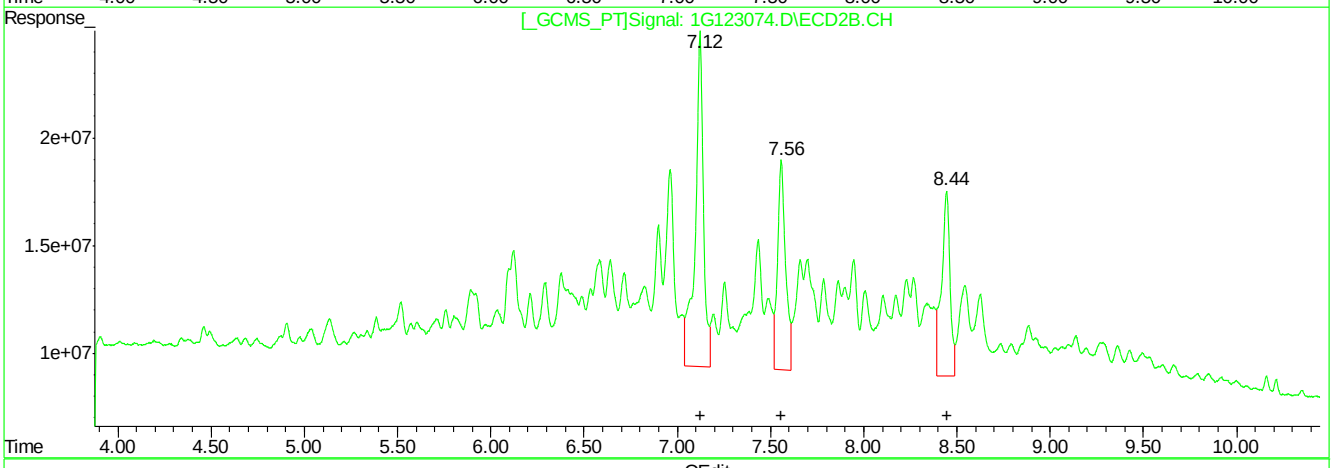
1G123074.D 1PST3988.M Mon May 16 15:05:02 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On    : 5-16-16 01:58:48 PM                      Operator: thomasl
Sample    : icv3988-500                              Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 15:04 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
```





QEdit

(28) Toxaphene{C} (L8)

R.T.	Response	Conc
5.87	46177996	736.18
6.20	43685039	610.37
6.85	40360721	489.52

(28) Toxaphene{C} #2 (L8)

R.T.	Response	Conc
7.12	473281843	516.85
7.56	294865837	517.51
8.44	278967293	512.16

(+) = Expected Retention Time

1G123074.D 1PST3988.M Mon May 16 15:05:12 2016 RPT1

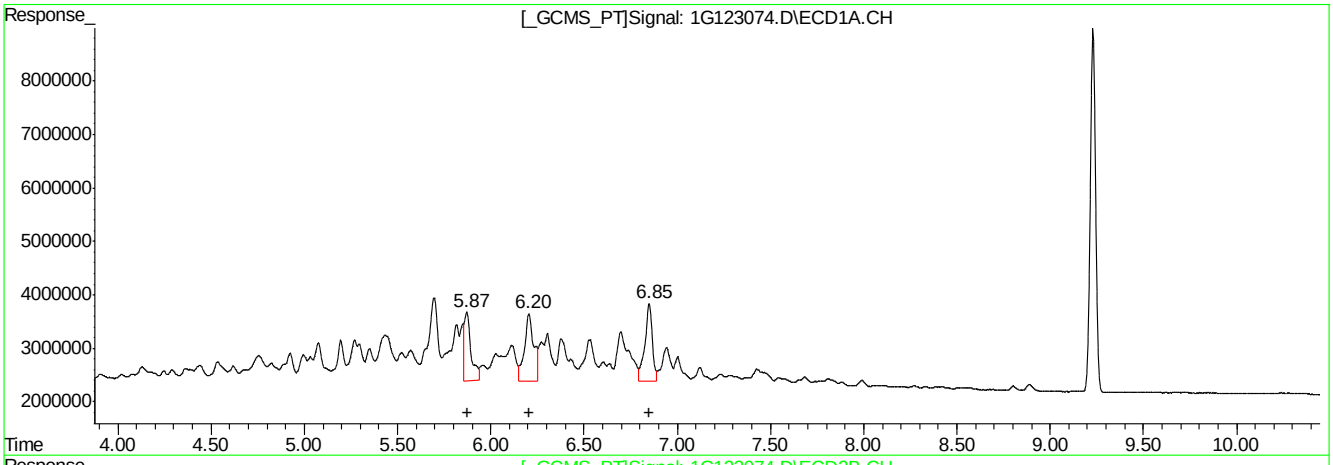
11.6.14.4

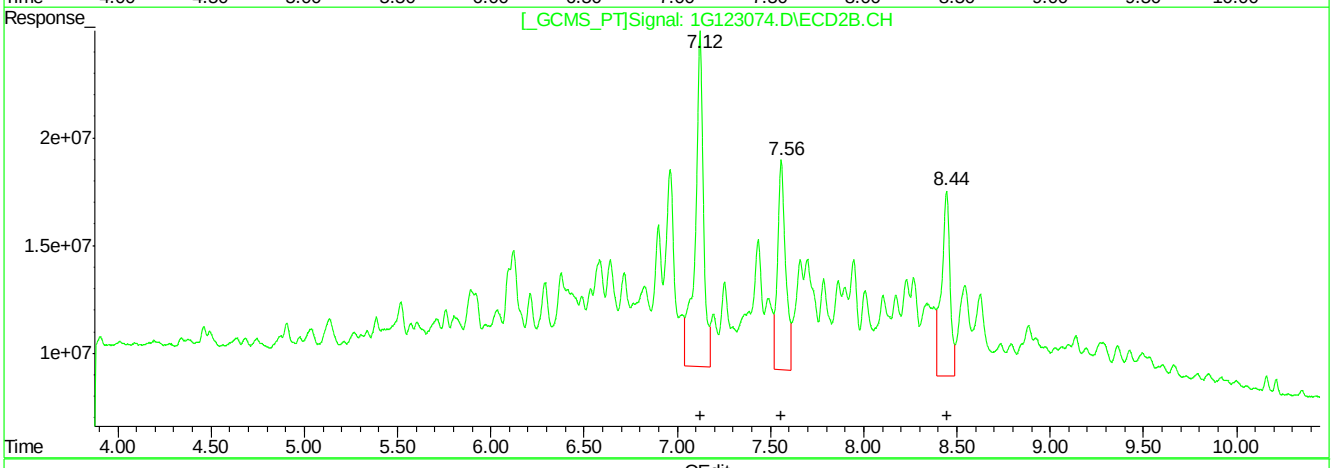
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On    : 5-16-16 01:58:48 PM                      Operator: thomasl
Sample    : icv3988-500                              Inst    : GC1G
Misc      : op93854,g1g3988,930,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 16 15:05 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration
```





QEdit

(28) Toxaphene{C} (L8)

R.T.	Response	Conc
5.87	32628867	520.18
6.20	43685039	610.37
6.85	40360721	489.52

(28) Toxaphene{C} #2 (L8)

R.T.	Response	Conc
7.12	473281843	516.85
7.56	294865837	517.51
8.44	278967293	512.16

(+) = Expected Retention Time

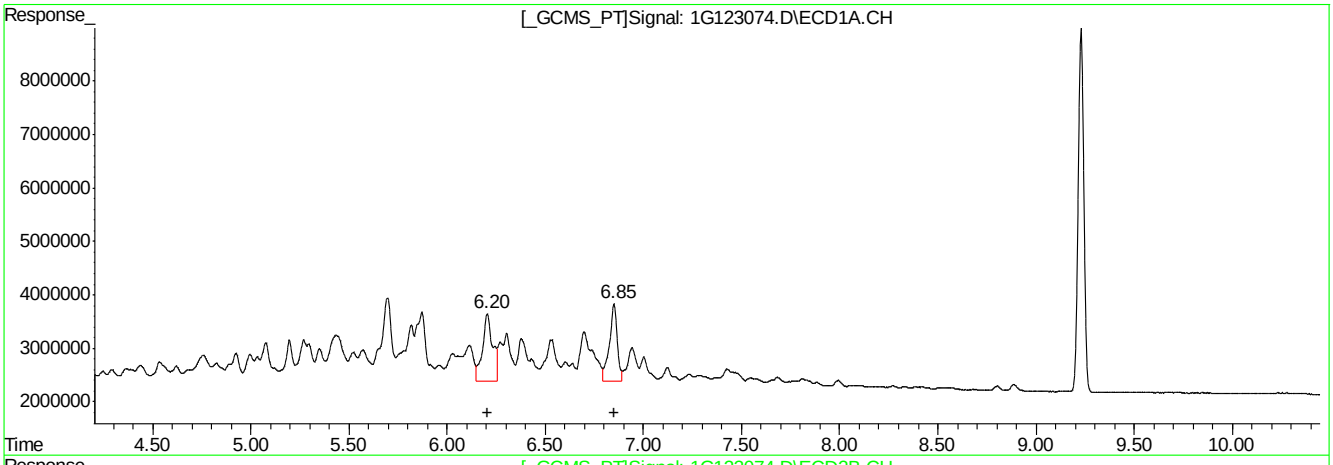
1G123074.D 1PST3988.M Mon May 16 15:05:57 2016 RPT1

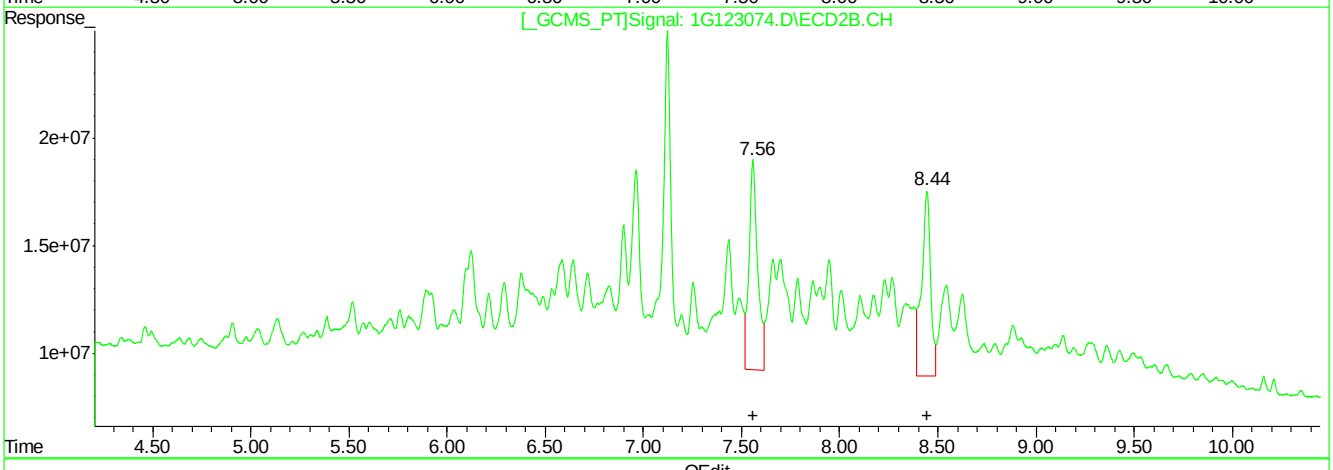
11.6.14.5 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On : 5-16-16 01:58:48 PM Operator: thomasl
Sample : icv3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 15:05 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration





QEdit

(29) Toxaphene{D} (L8)

R.T.	Response	Conc
6.20	43685039	610.37
6.85	40360721	489.52

(29) Toxaphene{D} #2 (L8)

R.T.	Response	Conc
7.56	294865837	517.51
8.44	278967293	512.16

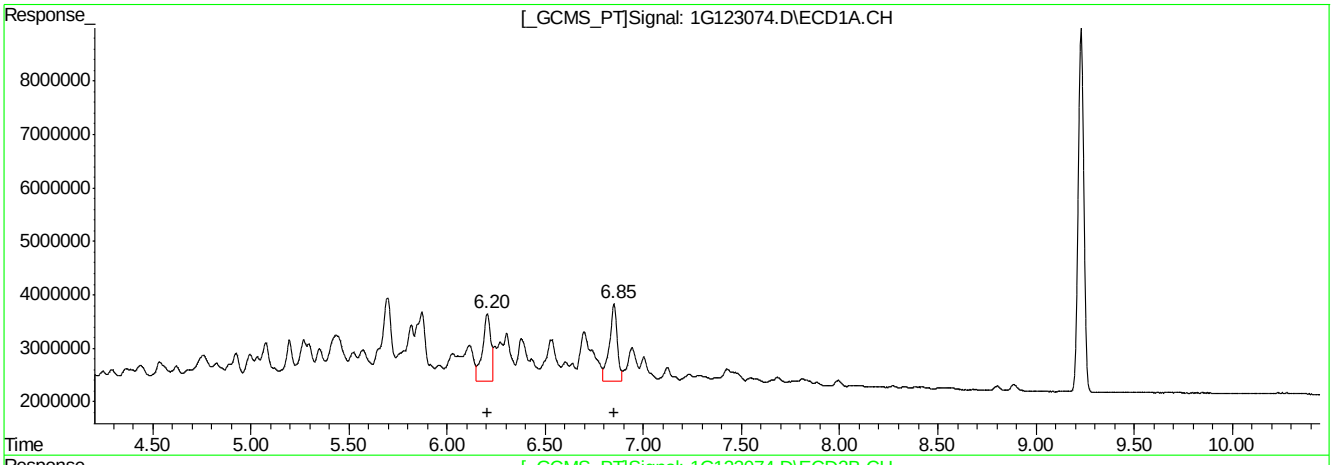
(+) = Expected Retention Time

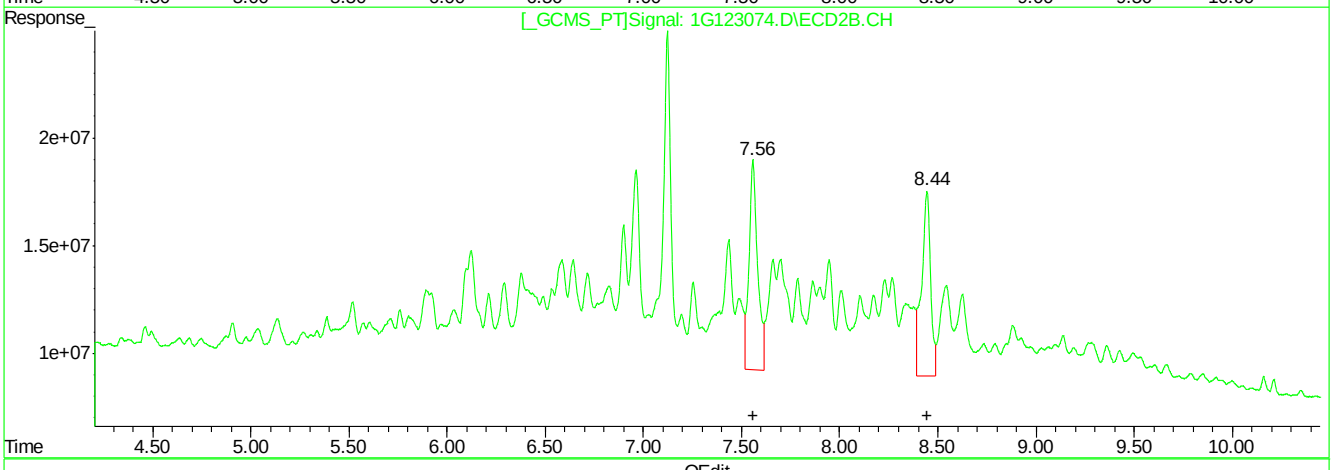
1G123074.D 1PST3988.M Mon May 16 15:06:01 2016 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\1G3988\1G123074.D\ECD2B.CH
Acq On : 5-16-16 01:58:48 PM Operator: thomasl
Sample : icv3988-500 Inst : GC1G
Misc : op93854,g1g3988,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 15:05 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 13:30:31 2016
Response via : Multiple Level Calibration





QEdit

(29) Toxaphene{D} #2 (L8)

R.T.	Response	Conc
6.20	36980687	516.70
6.85	40360721	489.52

(29) Toxaphene{D} #2 (L8)

R.T.	Response	Conc
7.56	294865837	517.51
8.44	278967293	512.16

(+) = Expected Retention Time

1G123074.D 1PST3988.M Mon May 16 15:06:12 2016 RPT1

11.6.14.7 11

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123075.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123075.D\ECD2B.CH
Acq On : 5-16-16 02:16:30 PM Operator: rebeccak
Sample : cc3988-25 Inst : GC1G
Misc : op93854,g1g3989,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:28 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	121.7E6	909.5E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	121.7E6	909.5E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	121.7E6	909.5E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	56855401	415.9E6	25.861	25.715
Spiked Amount	40.000 Range	30 - 150	Recovery	=		64.65%	64.29%
24) SA	Decachlorobiphen	9.23	10.68	74379496	291.0E6	24.866	25.629
Spiked Amount	40.000		Recovery	=		62.17%	64.07%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	78612575	610.5E6	24.988	25.210
4) MA	gamma-BHC	2.71	3.35	74646633	554.6E6	25.385	25.296
5) MA	Heptachlor	3.20	3.90	72717659	511.6E6	24.299	24.989
6) B	beta-BHC	2.78	3.43	34808507	252.4E6	24.740	25.140
7) B	delta-BHC	2.97	3.81	70993634	537.6E6	24.629	24.534
8) MB	Aldrin	3.53	4.34	68970272	494.1E6	25.281	26.352
9) B	Heptachlor Epoxi	4.24	5.14	67475188	436.8E6	25.204	26.107
10) B	gamma-Chlordane	4.40	5.41	67362109	442.7E6	24.396	25.908
11) B	alpha-Chlordane	4.57	5.64	67541268	435.2E6	24.627	25.650
12) A	Endosulfan I	4.75	5.73	64949478	420.0E6	24.601	26.851
13) B	4,4'-DDE	4.68	5.90	67956970	433.2E6	24.554	25.738
14) MA	Dieldrin	5.07	6.15	67876427	453.1E6	24.693	25.857
15) MA	Endrin	5.39	6.64	56986771	366.5E6	22.881	23.642
16) A	4,4'-DDD	5.51	6.83	53898564	361.2E6	24.815	26.032
17) B	Endosulfan II	5.71	6.99	63999224	402.6E6	24.500	25.492
18) MA	4,4'-DDT	5.92	7.36	56324630	346.8E6	23.811	25.618
19) B	Endrin Aldehyde	6.34	7.56	49498885	311.1E6	23.975	25.667
20) B	Endosulfan Sulfa	7.03	8.02	58633425	350.1E6	23.386	25.318
21) A	Methoxychlor	6.69	8.60	32982101	175.1E6	23.133	24.159
22)	Mirex	6.82	8.90	58941108	298.1E6	24.714	25.799
23) B	Endrin Ketone	7.46	8.97	69166786	398.1E6	24.379	25.717

(f)=RT Delta > 1/2 Window (m)=manual int.

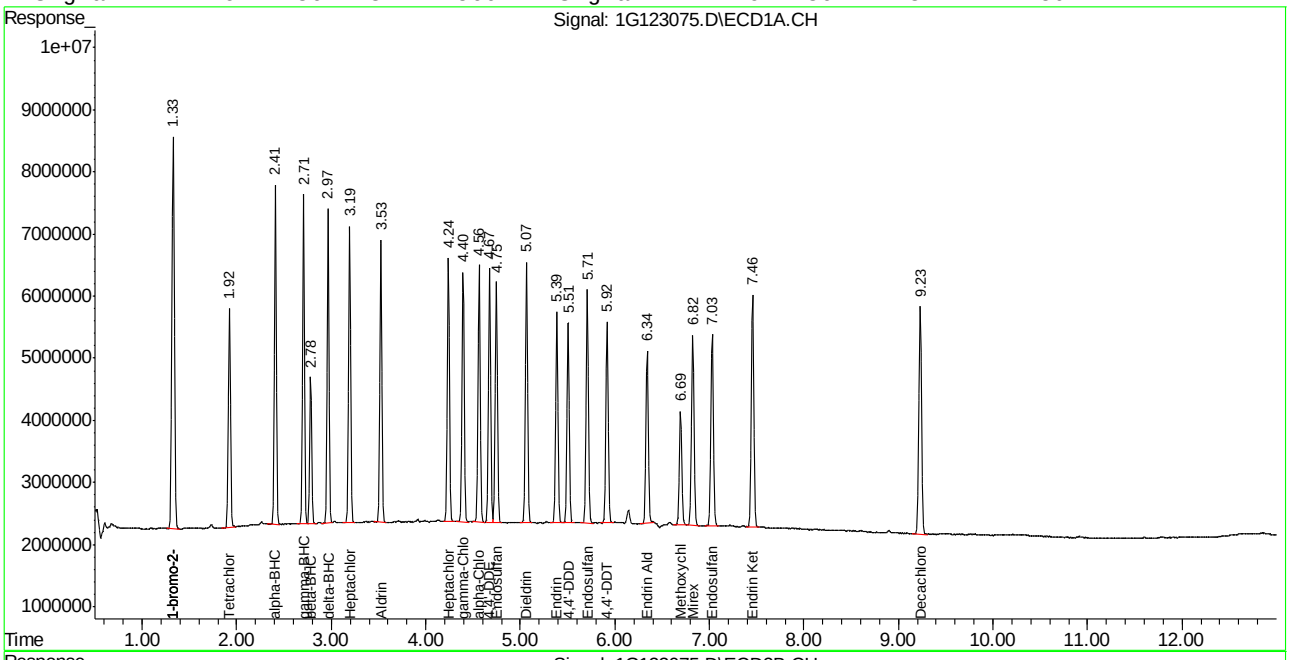
SGS ACCUTEST JC20184

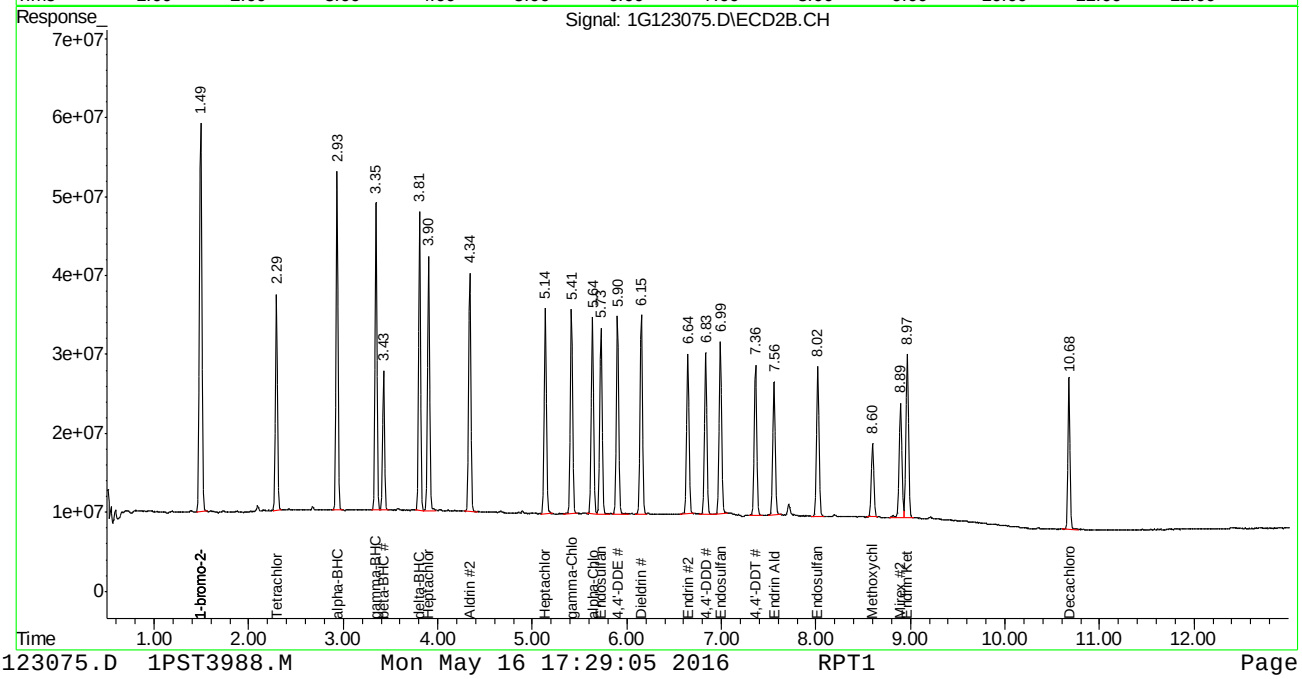
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123075.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123075.D\ECD2B.CH
Acq On : 5-16-16 02:16:30 PM Operator: rebeccak
Sample : cc3988-25 Inst : GC1G
Misc : op93854,g1g3989,930,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 16 17:28 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123088.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123088.D\ECD2B.CH
Acq On : 5-16-16 07:32:17 PM Operator: dharas
Sample : cc3988-50 Inst : GC1G
Misc : op93907,g1g3989,850,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 7:26 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	122.8E6	864.9E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	122.8E6	864.9E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	122.8E6	864.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	110.1E6	730.7E6	49.609	47.514
Spiked Amount	40.000	Range	30 - 150	Recovery	=	124.02%	118.79%
24) SA	Decachlorobiphen	9.23	10.68	144.1E6	522.9E6	47.730	48.421
Spiked Amount	40.000			Recovery	=	119.32%	121.05%
	Target Compounds						
3) A	alpha-BHC	2.41	2.93	164.2E6	1112.3E6	51.715	48.298
4) MA	gamma-BHC	2.71	3.35	151.7E6	1001.5E6	51.124	48.036
5) MA	Heptachlor	3.19	3.90	151.5E6	940.8E6	50.167	48.322
6) B	beta-BHC	2.78	3.43	66998121	432.7E6	47.184	45.318
7) B	delta-BHC	2.97	3.81	149.6E6	1003.0E6	51.413	48.136
8) MB	Aldrin	3.52	4.34	140.3E6	863.1E6	50.942	48.403
9) B	Heptachlor Epoxi	4.24	5.14	132.8E6	784.4E6	49.148	49.298
10) B	gamma-Chlordane	4.39	5.42	131.6E6	788.6E6	47.230	48.528
11) B	alpha-Chlordane	4.56	5.64	132.5E6	766.0E6	47.871	47.470
12) A	Endosulfan I	4.75	5.73	128.5E6	739.1E6	48.230	49.693
13) B	4,4'-DDE	4.67	5.90	135.8E6	904.8E6	48.635	56.520
14) MA	Dieldrin	5.07	6.15	158.2E6	813.0E6	57.032	48.787
15) MA	Endrin	5.39	6.64	125.6E6	717.2E6	49.957	48.655
16) A	4,4'-DDD	5.50	6.84	110.0E6	655.2E6	50.178	49.652
17) B	Endosulfan II	5.71	6.99	127.8E6	719.4E6	48.472	47.903
18) MA	4,4'-DDT	5.92	7.36	121.7E6	683.3E6	50.962	53.071
19) B	Endrin Aldehyde	6.34	7.56	99246756	559.9E6	47.631	48.580
20) B	Endosulfan Sulfa	7.03	8.02	117.4E6	648.2E6	46.416	49.298
21) A	Methoxychlor	6.69	8.60	69454288	352.5E6	48.267	51.157
22)	Mirex	6.82	8.89	110.1E6	519.7E6	45.731	47.290
23) B	Endrin Ketone	7.46	8.97	136.7E6	725.0E6	47.743	49.245

(f)=RT Delta > 1/2 Window (m)=manual int.

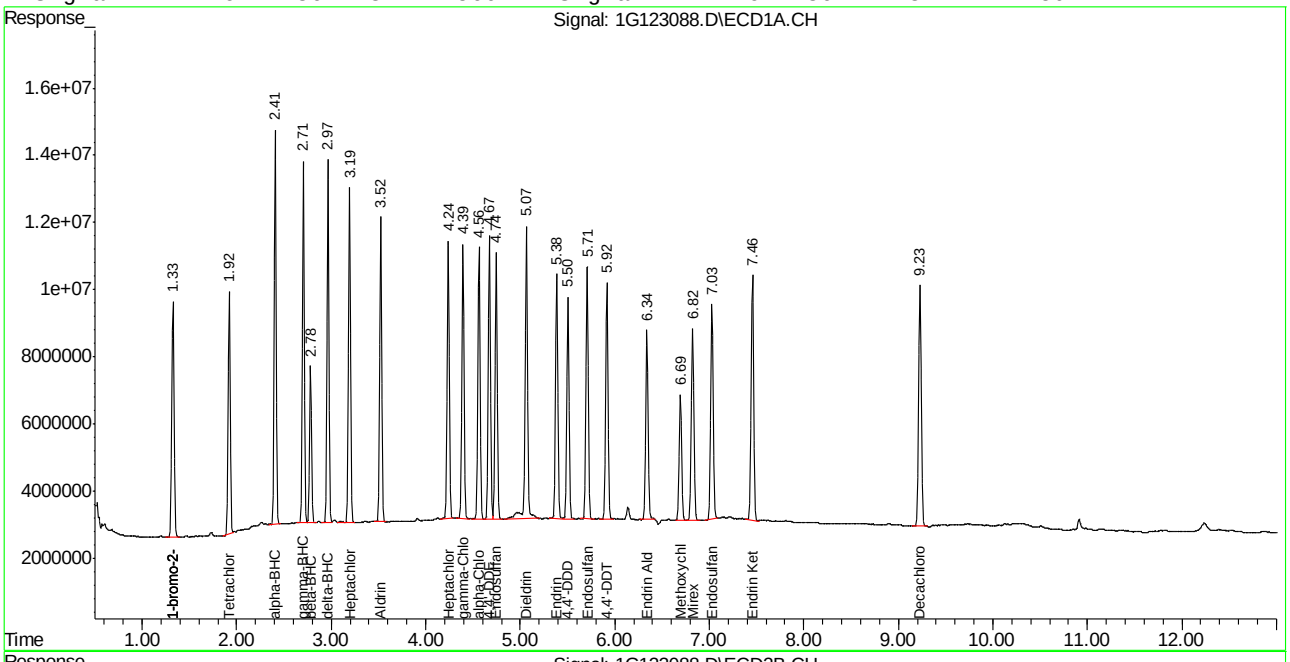
SGS ACCUTEST JC20184

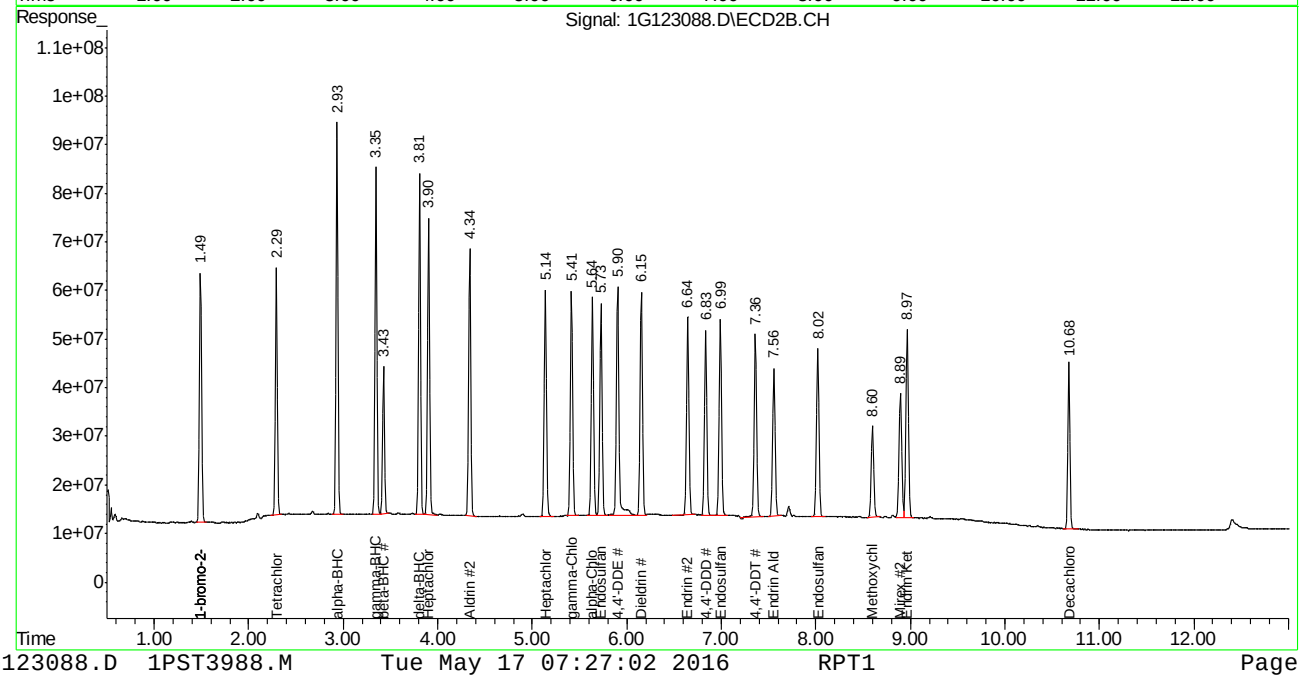
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3989\1G123088.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3989\1G123088.D\ECD2B.CH
Acq On : 5-16-16 07:32:17 PM Operator: dharas
Sample : cc3988-50 Inst : GC1G
Misc : op93907,g1g3989,850,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 7:26 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/17/16 13:17

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD2B.CH
Acq On : 5-17-16 08:45:06 AM Operator: rebeccak
Sample : cc3988-50 Inst : GC1G
Misc : op93908,g1g3990,5.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 12:34 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.50	125.9E6	842.1E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.50	125.9E6	842.1E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.50	125.9E6	842.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.30	110.8E6	688.0E6	48.732	45.947
Spiked Amount	40.000	Range	30 - 150	Recovery	=	121.83%	114.87%
24) SA	Decachlorobiphen	9.23	10.68	141.9E6	496.1E6	45.857	47.189
Spiked Amount	40.000			Recovery	=	114.64%	117.97%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	162.6E6	1024.9E6	49.976	45.710
4) MA	gamma-BHC	2.71	3.35	150.7E6	931.3E6	49.554	45.880
5) MA	Heptachlor	3.20	3.90	151.3E6	872.0E6	48.872	46.005
6) B	beta-BHC	2.78	3.43	66304963	399.0E6	45.566	42.928
7) B	delta-BHC	2.97	3.81	146.0E6	913.4E6	48.975	45.022
8) MB	Aldrin	3.53	4.34	140.0E6	808.5E6	49.599	46.570
9) B	Heptachlor Epoxi	4.24	5.14	138.8E6	730.1E6	50.140	47.130
10) B	gamma-Chlordane	4.40	5.42	128.8E6	734.5E6	45.103	46.420
11) B	alpha-Chlordane	4.56	5.64	129.4E6	710.6E6	45.603	45.230
12) A	Endosulfan I	4.75	5.73	126.2E6	687.0E6	46.226	47.442
13) B	4,4'-DDE	4.67	5.90	132.7E6	724.7E6	46.353	46.501
14) MA	Dieldrin	5.07	6.15	136.0E6	755.8E6	47.845	46.583
15) MA	Endrin	5.39	6.65	125.7E6	681.4E6	48.783	47.478
16) A	4,4'-DDD	5.50	6.83	107.3E6	603.5E6	47.752	46.975
17) B	Endosulfan II	5.71	6.99	124.3E6	660.9E6	45.991	45.201
18) MA	4,4'-DDT	5.92	7.36	115.1E6	603.8E6	47.045	48.169
19) B	Endrin Aldehyde	6.34	7.56	95082552	507.0E6	44.529m	45.184
20) B	Endosulfan Sulfa	7.03	8.02	112.4E6	576.8E6	43.340	45.053
21) A	Methoxychlor	6.69	8.60	66704590	320.4E6	45.235m	47.757
22)	Mirex	6.82	8.90	105.1E6	466.9E6	42.606	43.637
23) B	Endrin Ketone	7.45	8.97	123.4E6	624.3E6	42.038	43.556

11.6.17 11

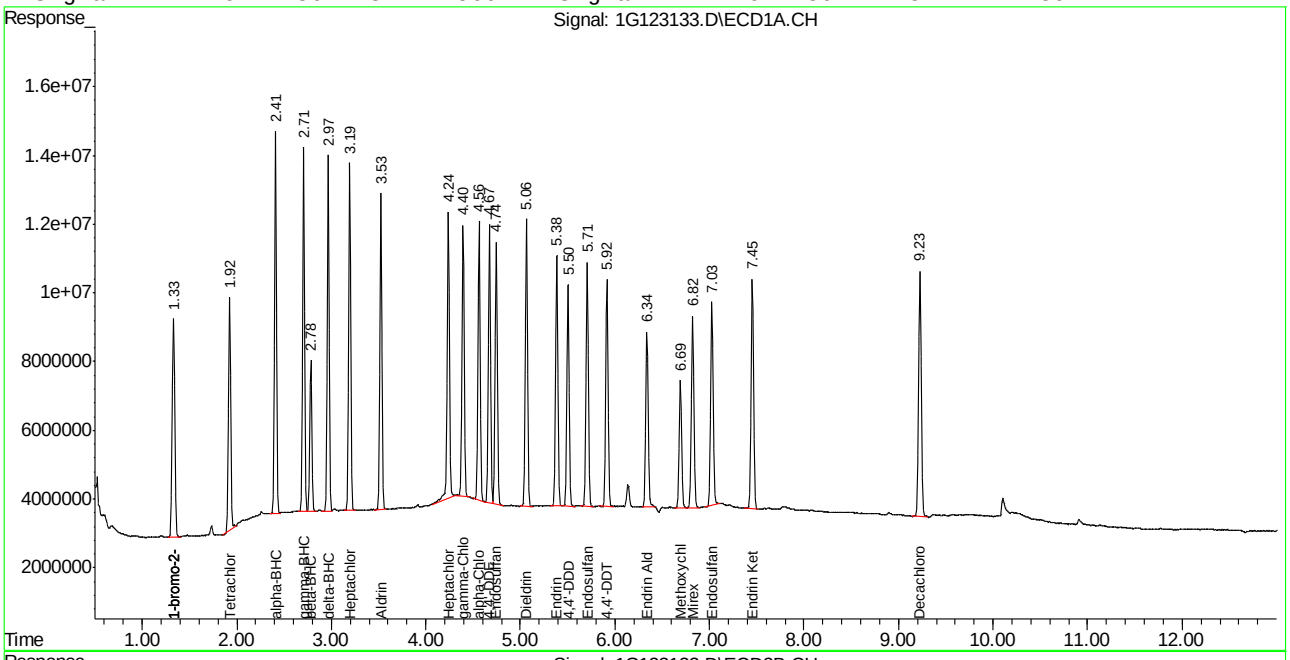
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123133.D 1PST3988.M Tue May 17 12:34:16 2016 RPT1 Page 1

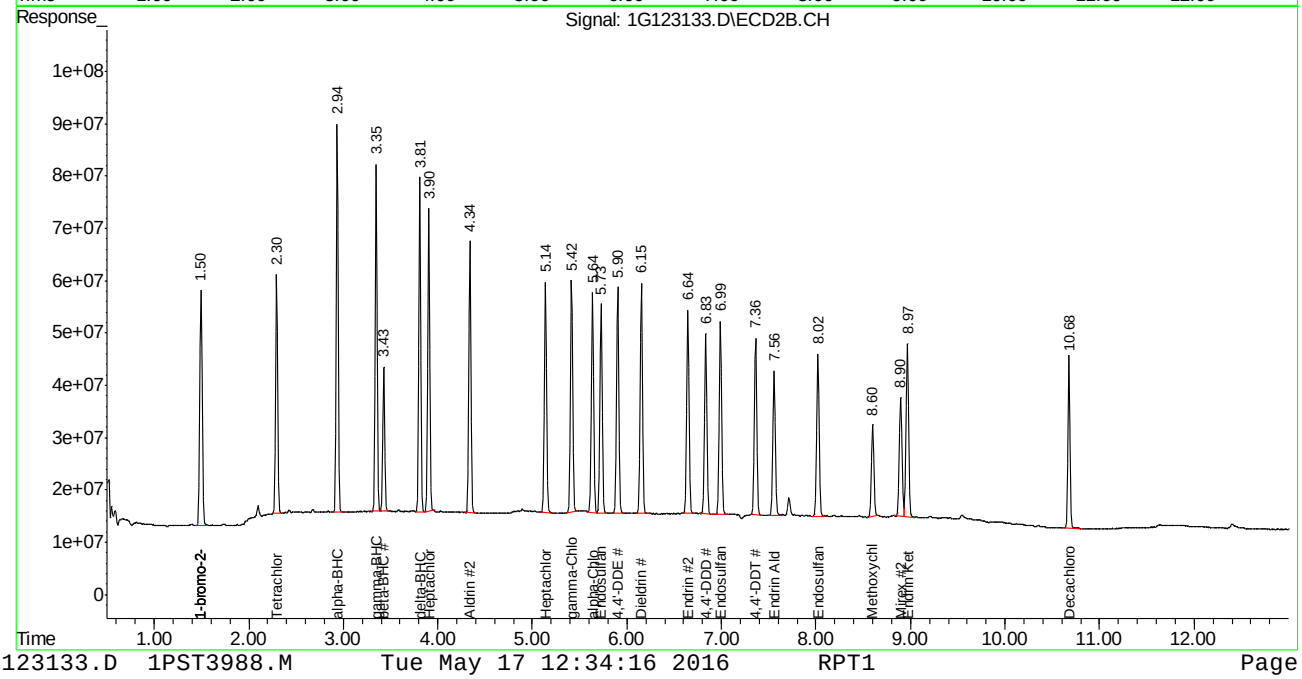
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD2B.CH
Acq On : 5-17-16 08:45:06 AM Operator: rebeccak
Sample : cc3988-50 Inst : GC1G
Misc : op93908,g1g3990,5.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 12:34 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





11.6.17 11

Manual Integration Approval Summary

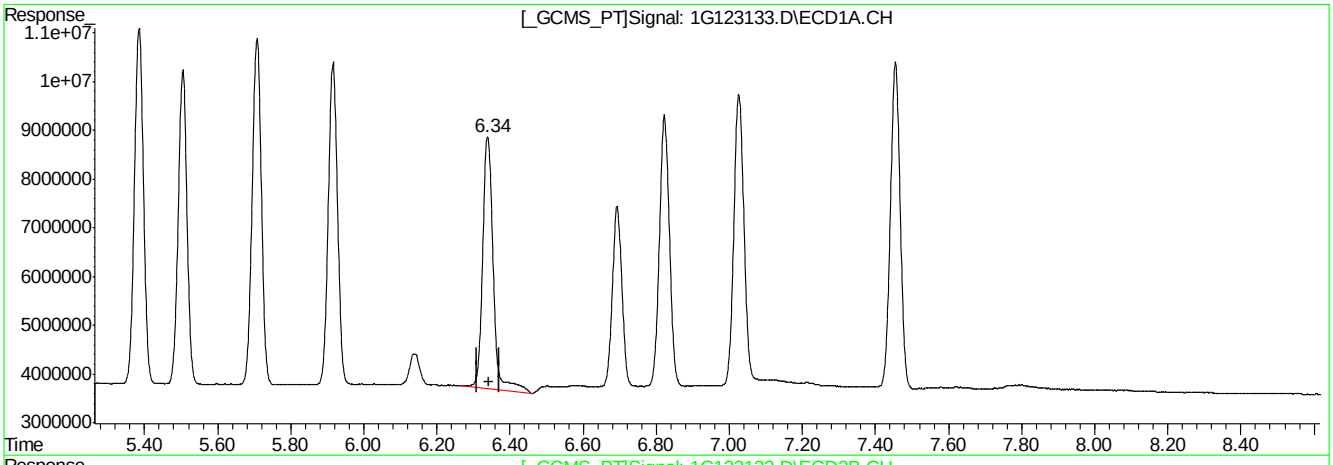
Sample Number:	G1G3990-CC3988	**Method:**	SW846 8081B
Lab FileID:	1G123133.D	**Analyst approved:**	05/17/16 12:55 Dhara Saparia
Injection Time:	05/17/16 08:45	**Supervisor approved:**	05/17/16 13:17 Gwendolyn Burns

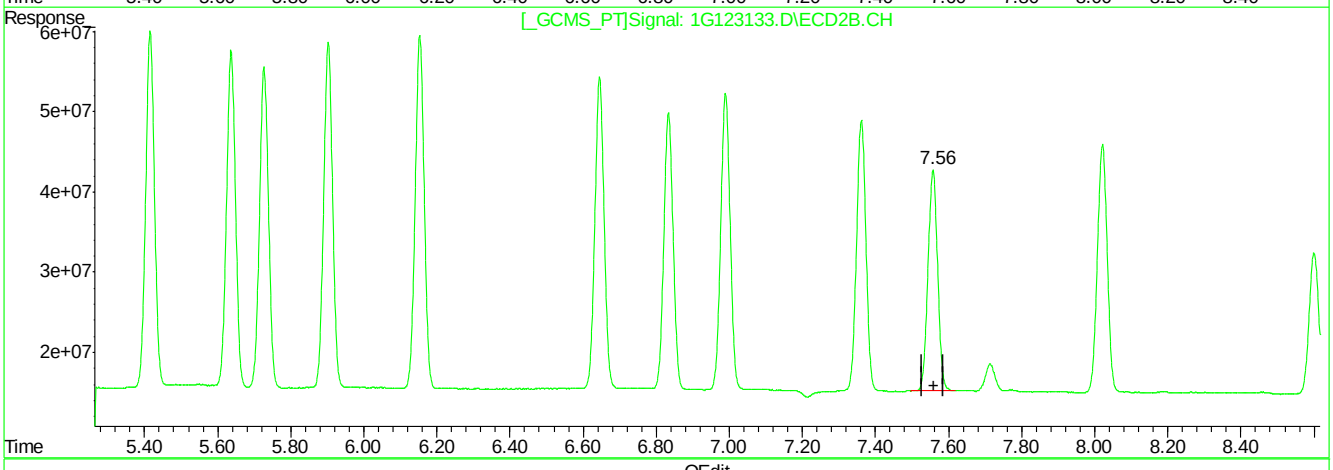
Parameter	CAS	Sig#	R.T. (min.)	Reason
Endrin aldehyde	7421-93-4	1	6.34	Poor instrument integration
Methoxychlor	72-43-5	1	6.69	Poor instrument integration

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD2B.CH
Acq On : 5-17-16 08:45:06 AM Operator: rebeccak
Sample : cc3988-50 Inst : GC1G
Misc : op93908,g1g3990,5.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 12:33 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration





QEdit

(19) Endrin Aldehyde (B)

6.34min 48.408PPB

response 103365576

(19) Endrin Aldehyde #2 (B)

7.56min 45.184PPB

response 507009260

(+) = Expected Retention Time
1G123133.D 1PST3988.M Tue May 17 12:33:50 2016 RPT1

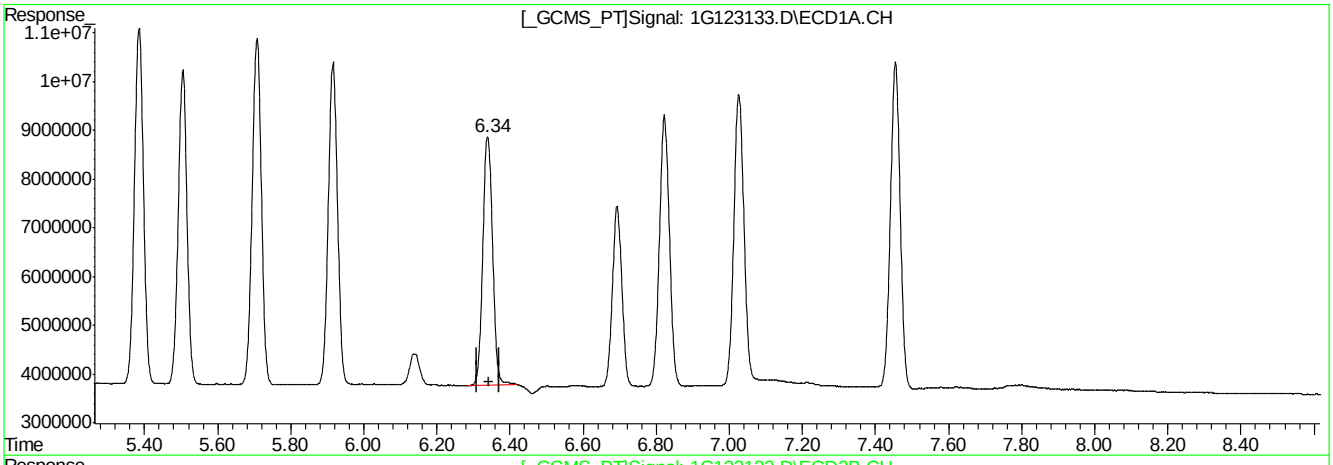
11.6.17.2

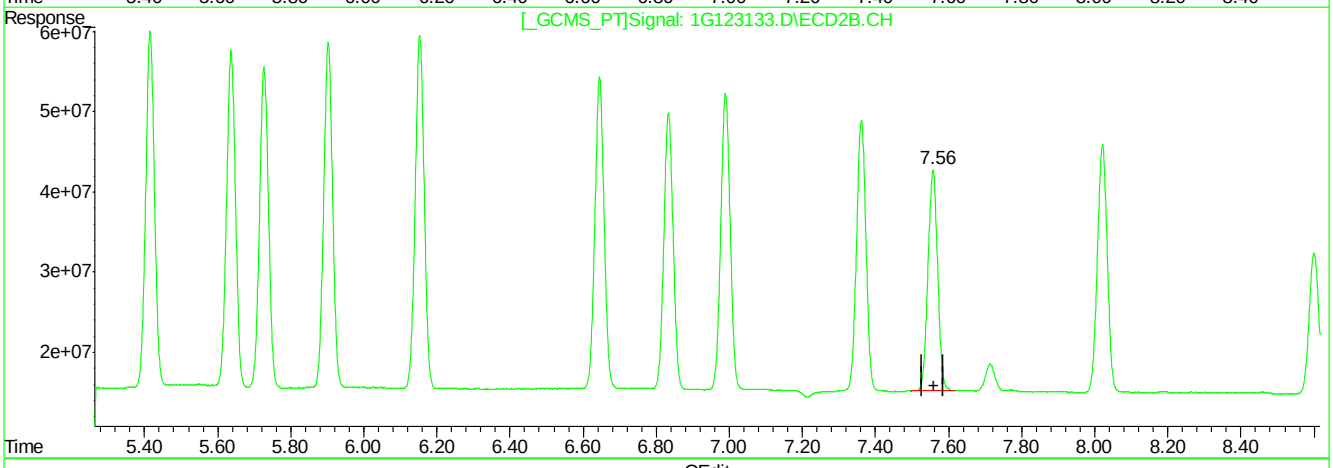
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD2B.CH
Acq On : 5-17-16 08:45:06 AM Operator: rebeccak
Sample : cc3988-50 Inst : GC1G
Misc : op93908,g1g3990,5.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 12:33 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration





QEdit

(19) Endrin Aldehyde (B)

6.34min 44.529PPB m

response 95082552

(19) Endrin Aldehyde #2 (B)

7.56min 45.184PPB

response 507009260

(+) = Expected Retention Time

1G123133.D 1PST3988.M Tue May 17 12:33:59 2016 RPT1

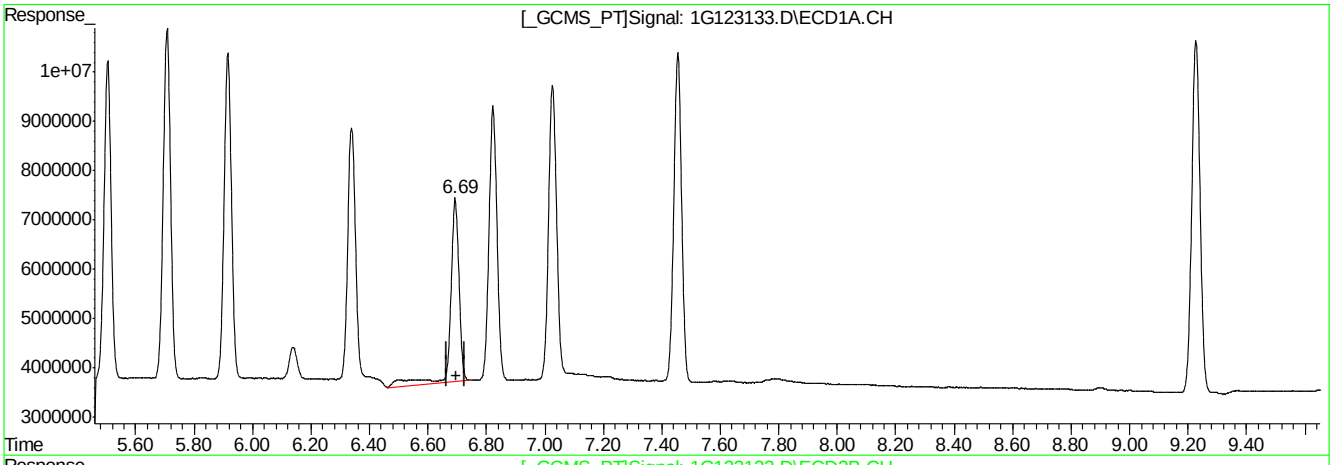
11.6.17.3

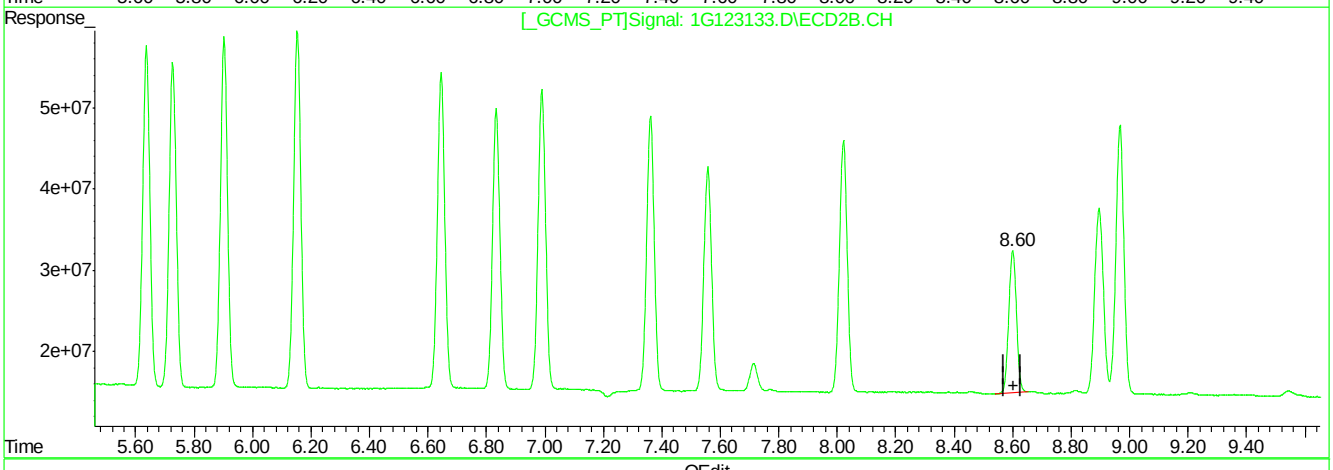
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD2B.CH
Acq On : 5-17-16 08:45:06 AM Operator: rebeccak
Sample : cc3988-50 Inst : GC1G
Misc : op93908,g1g3990,5.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 12:33 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration





QEdit

(21) Methoxychlor (A)

6.69min 52.157PPB

response 76911756

(21) Methoxychlor #2 (A)

8.60min 47.757PPB

response 320430708

(+) = Expected Retention Time

1G123133.D 1PST3988.M Tue May 17 12:34:03 2016 RPT1

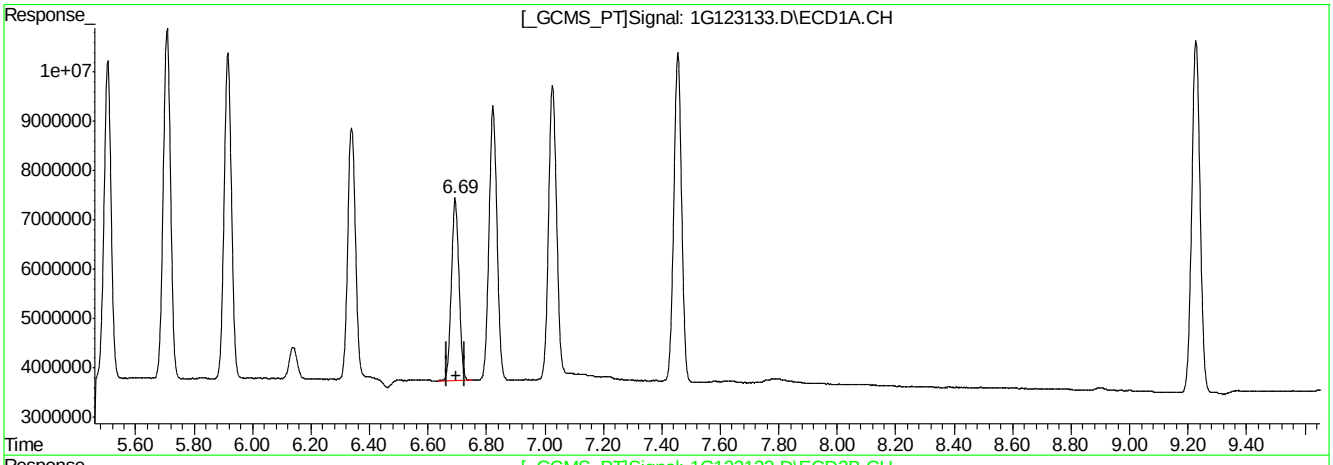
11.6.17.4

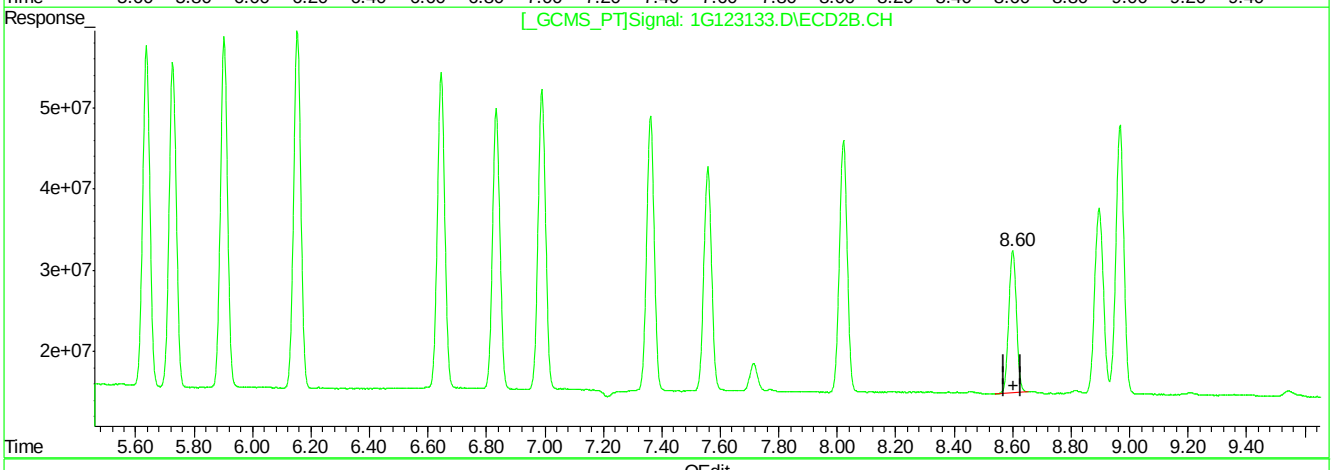
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123133.D\ECD2B.CH
Acq On : 5-17-16 08:45:06 AM Operator: rebeccak
Sample : cc3988-50 Inst : GC1G
Misc : op93908,g1g3990,5.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 12:33 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration





QEdit

(21) Methoxychlor (A)

6.69min 45.235PPB m

response 66704590

(21) Methoxychlor #2 (A)

8.60min 47.757PPB

response 320430708

(+) = Expected Retention Time

1G123133.D 1PST3988.M Tue May 17 12:34:11 2016 RPT1

11.6.17.5

11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/18/16 15:12

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On : 5-17-16 04:19:00 PM Operator: dharas
Sample : cc3988-25 Inst : GC1G
Misc : op93854,g1g3990,910,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 16:42 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.50	128.2E6	895.4E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.50	128.2E6	895.4E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.50	128.2E6	895.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.30	57701426	387.4E6	24.921	24.333
Spiked Amount	40.000 Range	30 - 150	Recovery	=		62.30%	60.83%
24) SA	Decachlorobiphen	9.22	10.67	79547637	289.9E6	25.251m	25.937
Spiked Amount	40.000		Recovery	=		63.13%	64.84%
	Target Compounds						
3) A	alpha-BHC	2.41	2.94	81525345	575.7E6	24.606	24.149
4) MA	gamma-BHC	2.71	3.35	77191549	524.0E6	24.926	24.280
5) MA	Heptachlor	3.19	3.90	78769979	500.0E6	24.993	24.807
6) B	beta-BHC	2.78	3.43	36511611	236.5E6	24.641	23.931
7) B	delta-BHC	2.97	3.81	73810138	517.6E6	24.313	23.993
8) MB	Aldrin	3.52	4.34	72313859	457.4E6	25.169	24.778
9) B	Heptachlor Epoxi	4.24	5.14	69829141	414.3E6	24.767	25.152
10) B	gamma-Chlordane	4.39	5.41	69600344	418.0E6	23.934	24.847
11) B	alpha-Chlordane	4.56	5.64	70272542	410.6E6	24.330	24.579
12) A	Endosulfan I	4.74	5.73	68091651	391.7E6	24.490	25.438
13) B	4,4'-DDE	4.67	5.90	71459817	413.2E6	24.516	24.933
14) MA	Dieldrin	5.06	6.15	71798298	430.0E6	24.802	24.928
15) MA	Endrin	5.38	6.64	66741644	390.6E6	25.446	25.597
16) A	4,4'-DDD	5.50	6.83	57050184	349.3E6	24.941	25.572
17) B	Endosulfan II	5.71	6.99	67690060	383.0E6	24.605	24.634
18) MA	4,4'-DDT	5.91	7.36	62846107	352.6E6	25.227	26.459
19) B	Endrin Aldehyde	6.34	7.55	51514420	292.7E6	23.692m	24.536
20) B	Endosulfan Sulfa	7.02	8.02	62992728	337.7E6	23.857	24.809
21) A	Methoxychlor	6.69	8.60	38454129	185.2E6	25.610m	25.957
22)	Mirex	6.82	8.89	61630740	274.6E6	24.538	24.141
23) B	Endrin Ketone	7.45	8.97	71743681	373.2E6	24.011	24.490

(f)=RT Delta > 1/2 Window (m)=manual int.

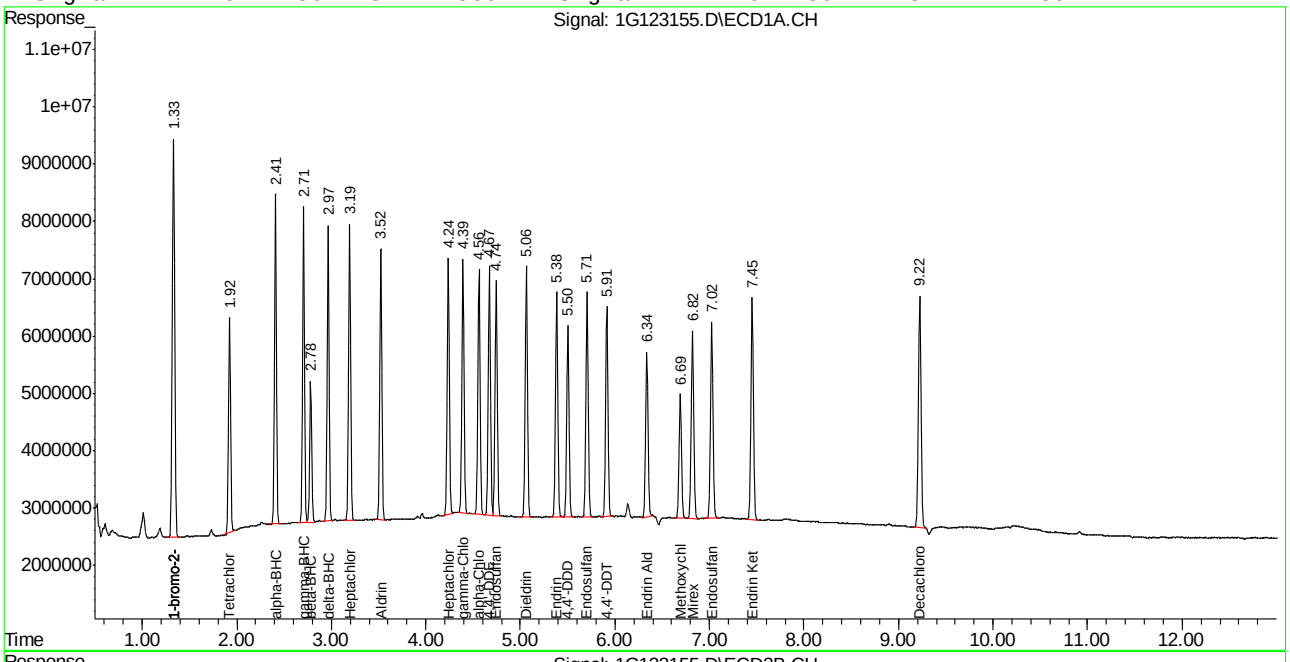
SGS ACCUTEST JC20184

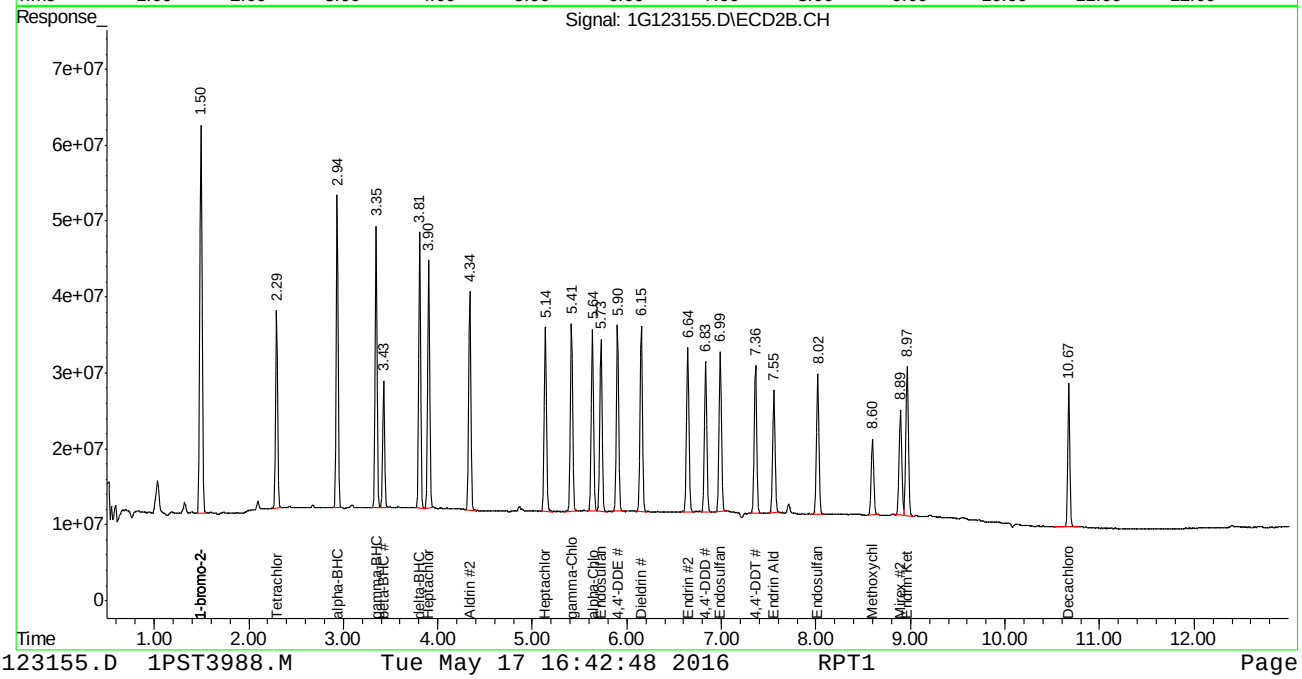
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On : 5-17-16 04:19:00 PM Operator: dharas
Sample : cc3988-25 Inst : GC1G
Misc : op93854,g1g3990,910,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 16:42 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





1G123155.D 1PST3988.M Tue May 17 16:42:48 2016 RPT1 Page 2

Manual Integration Approval Summary

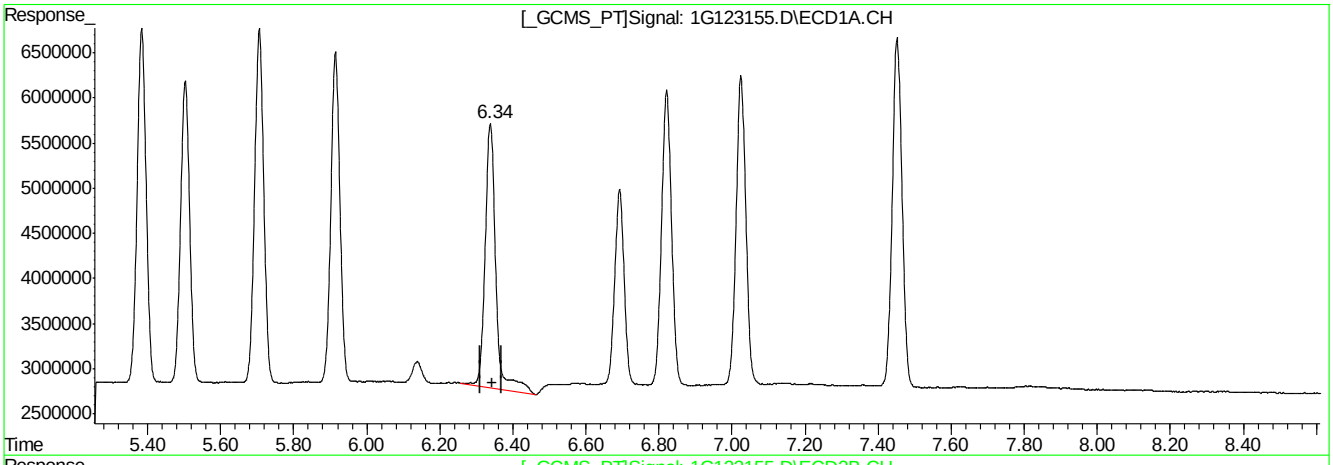
Sample Number:	G1G3990-CC3988	**Method:**	SW846 8081B
Lab FileID:	1G123155.D	**Analyst approved:**	05/18/16 12:42 Dhara Saparia
Injection Time:	05/17/16 16:19	**Supervisor approved:**	05/18/16 15:12 Gwendolyn Burns

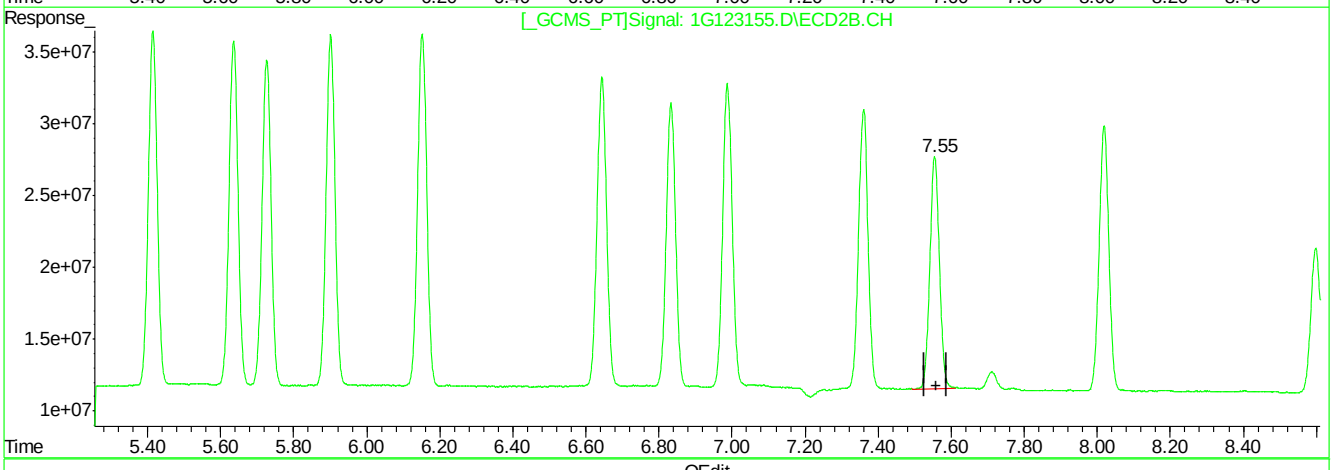
Parameter	CAS	Sig#	R.T. (min.)	Reason
Endrin aldehyde	7421-93-4	1	6.34	Poor instrument integration
Methoxychlor	72-43-5	1	6.69	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	9.22	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On    : 5-17-16 04:19:00 PM                      Operator: dharas
Sample    : cc3988-25                                Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 16:40 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(19) Endrin Aldehyde (B)

6.34min 27.198PPB

response 59136788

(19) Endrin Aldehyde #2 (B)

7.55min 24.536PPB

response 292730632

(+) = Expected Retention Time

1G123155.D 1PST3988.M Tue May 17 16:41:44 2016 RPT1

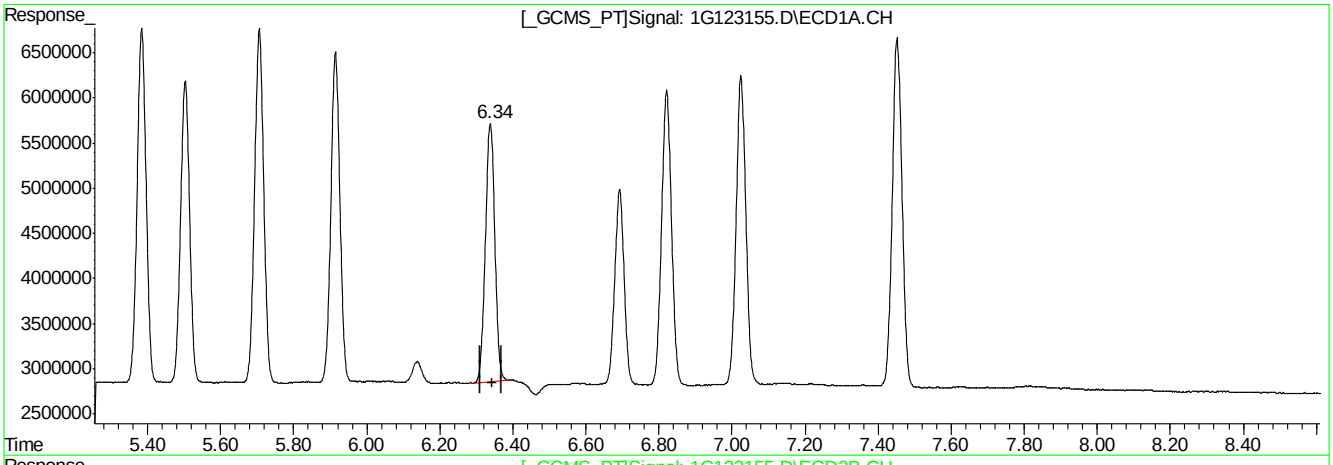
11.6.18.2

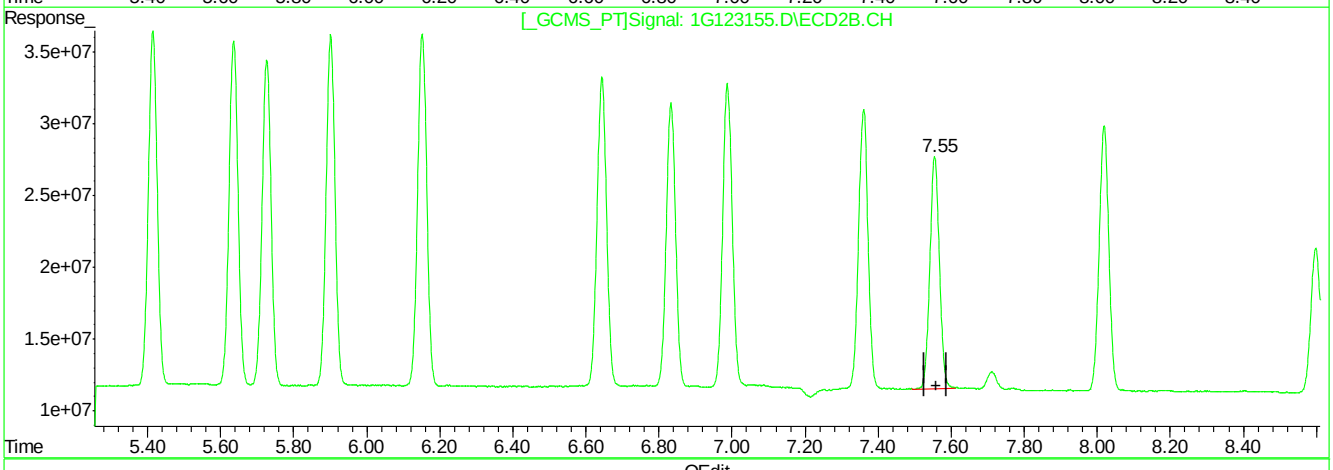
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On    : 5-17-16 04:19:00 PM                      Operator: dharas
Sample    : cc3988-25                                Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 16:40 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(19) Endrin Aldehyde (B)

6.34min 23.692PPB m

response 51514420

(19) Endrin Aldehyde #2 (B)

7.55min 24.536PPB

response 292730632

(+) = Expected Retention Time

1G123155.D 1PST3988.M Tue May 17 16:41:51 2016 RPT1

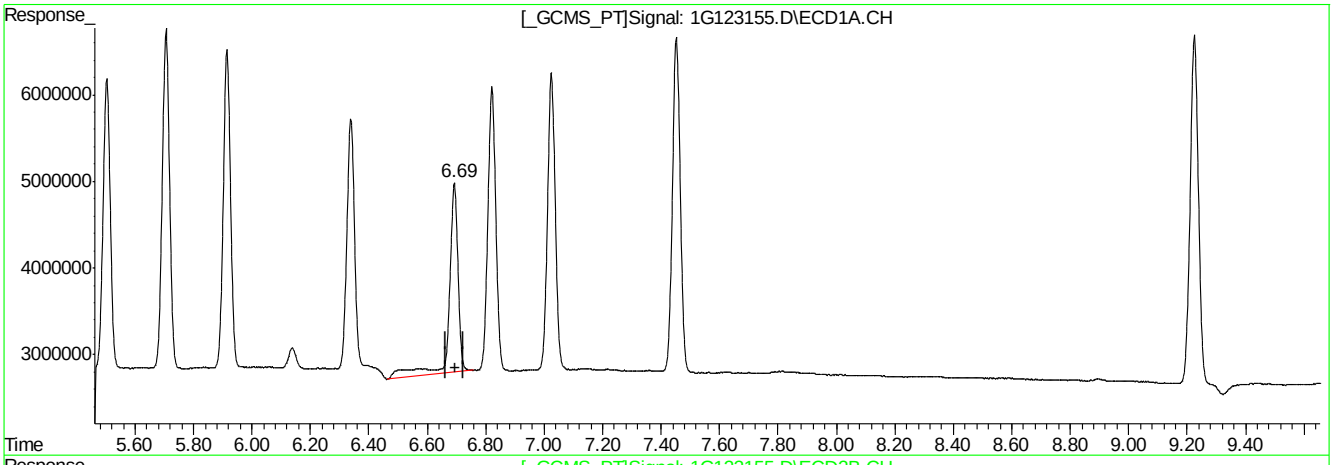
11.6.18.3

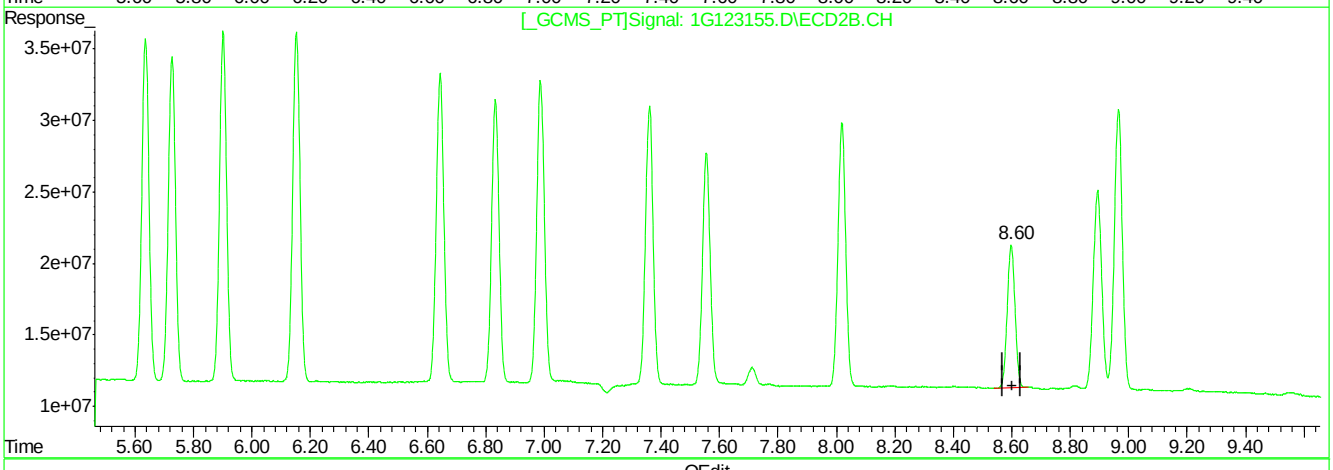
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On    : 5-17-16 04:19:00 PM                      Operator: dharas
Sample    : cc3988-25                                Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 16:40 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Methoxychlor (A)

6.69min 31.756PPB

response 47682788

(21) Methoxychlor #2 (A)

8.60min 25.957PPB

response 185175499

(+) = Expected Retention Time

1G123155.D 1PST3988.M Tue May 17 16:42:00 2016 RPT1

11.6.18.4

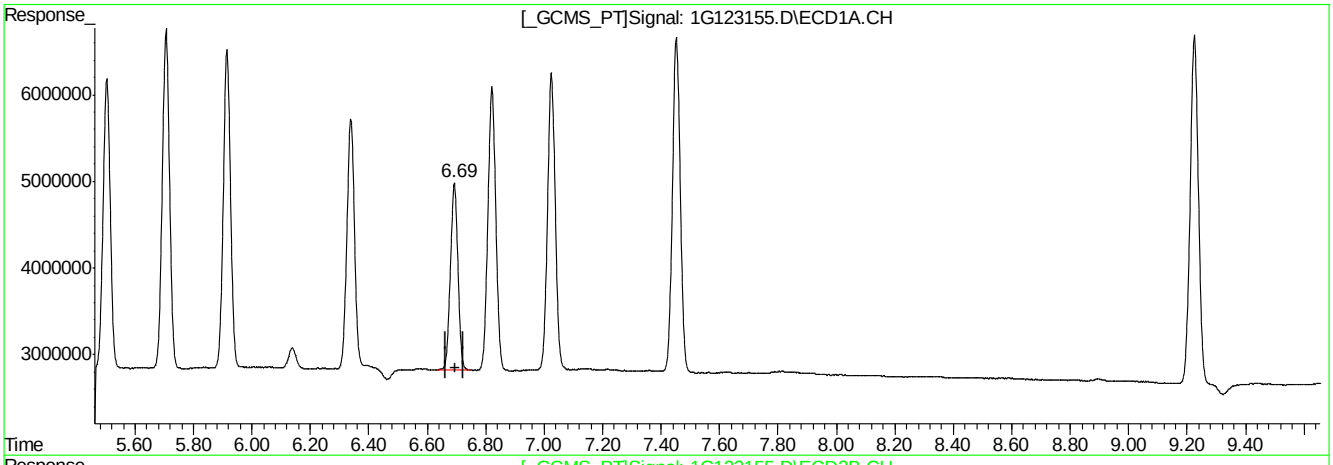
11

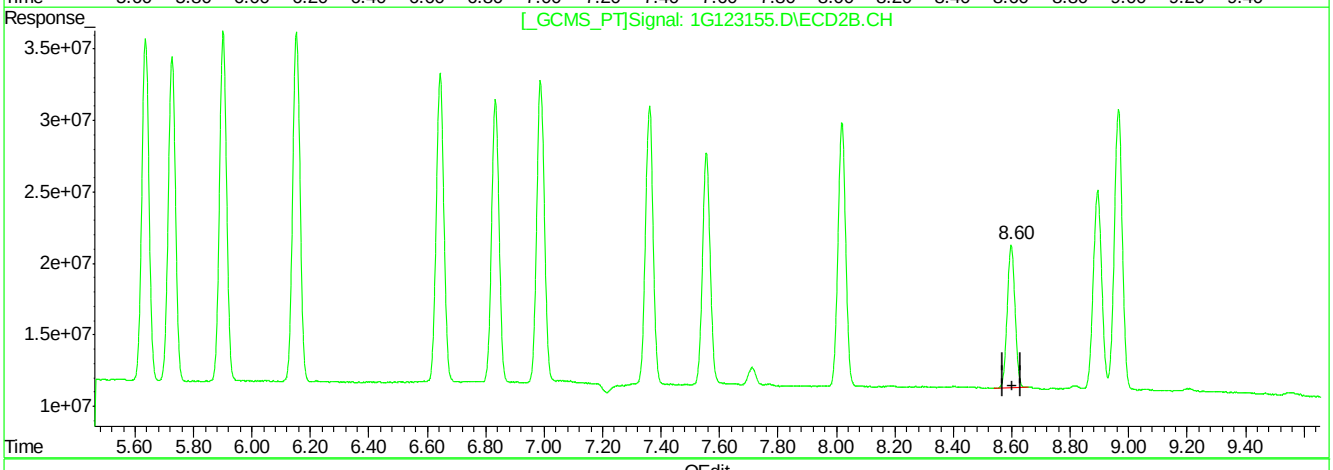
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On    : 5-17-16 04:19:00 PM                      Operator: dharas
Sample    : cc3988-25                                Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 16:40 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Methoxychlor (A)

6.69min 25.610PPB m

response 38454129

(21) Methoxychlor #2 (A)

8.60min 25.957PPB

response 185175499

(+) = Expected Retention Time

1G123155.D 1PST3988.M Tue May 17 16:42:07 2016 RPT1

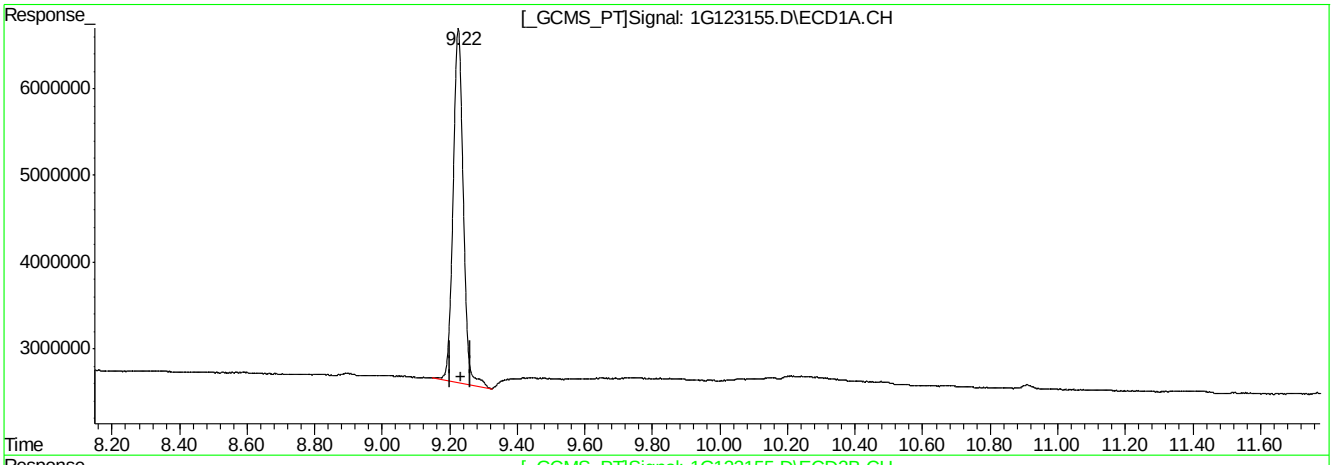
11.6.18.5

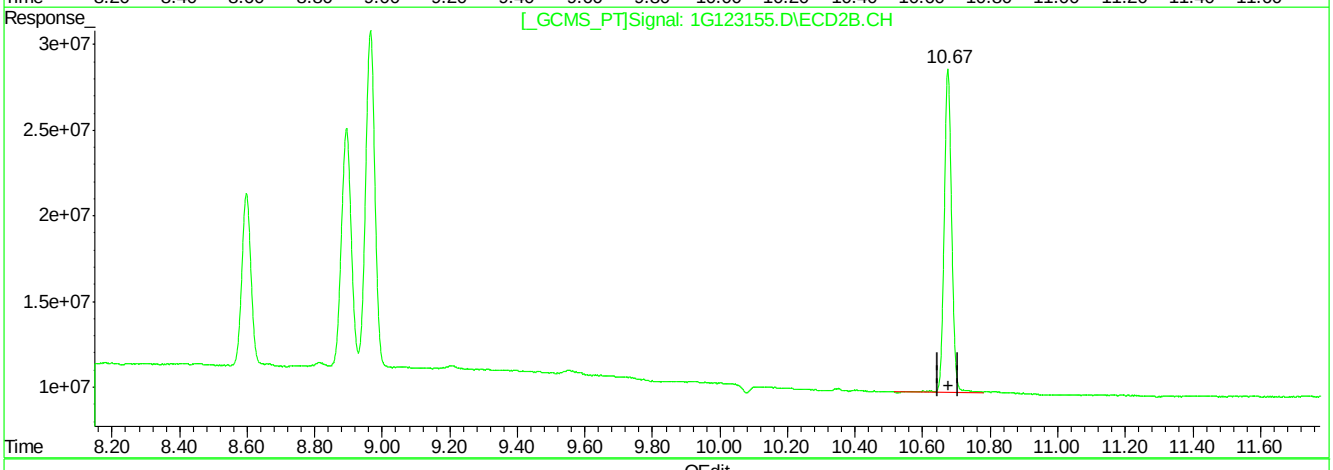
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On : 5-17-16 04:19:00 PM Operator: dharas
Sample : cc3988-25 Inst : GC1G
Misc : op93854,g1g3990,910,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 16:40 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration





QEdit

(24) Decachlorobiphenyl (SA)

9.23min 26.657PPB

response 83975221

(24) Decachlorobiphenyl #2 (SA)

10.67min 25.937PPB

response 289948540

(+) = Expected Retention Time
1G123155.D 1PST3988.M Tue May 17 16:42:14 2016 RPT1

11.6.18.6

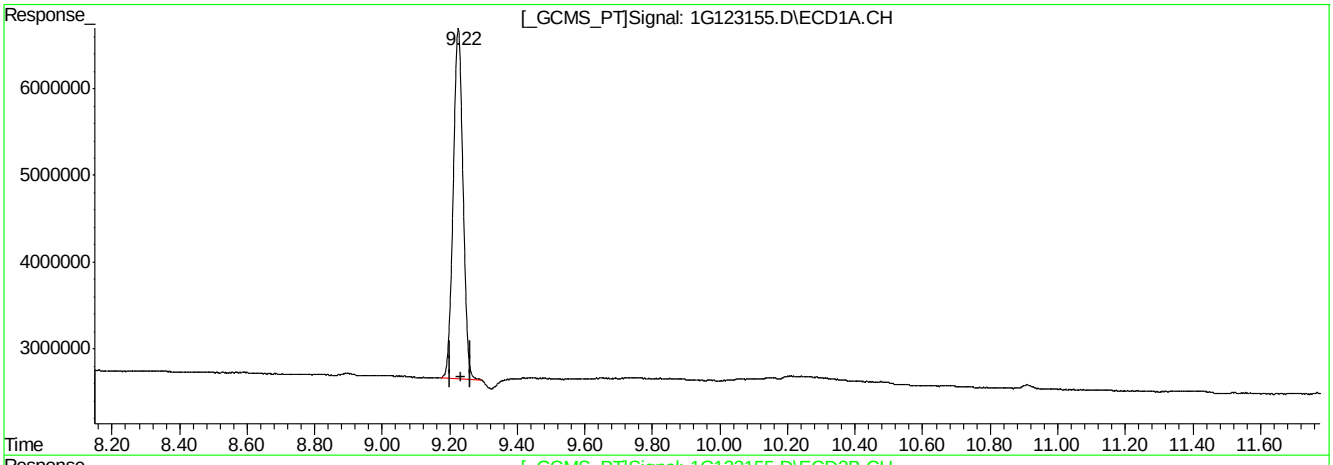
11

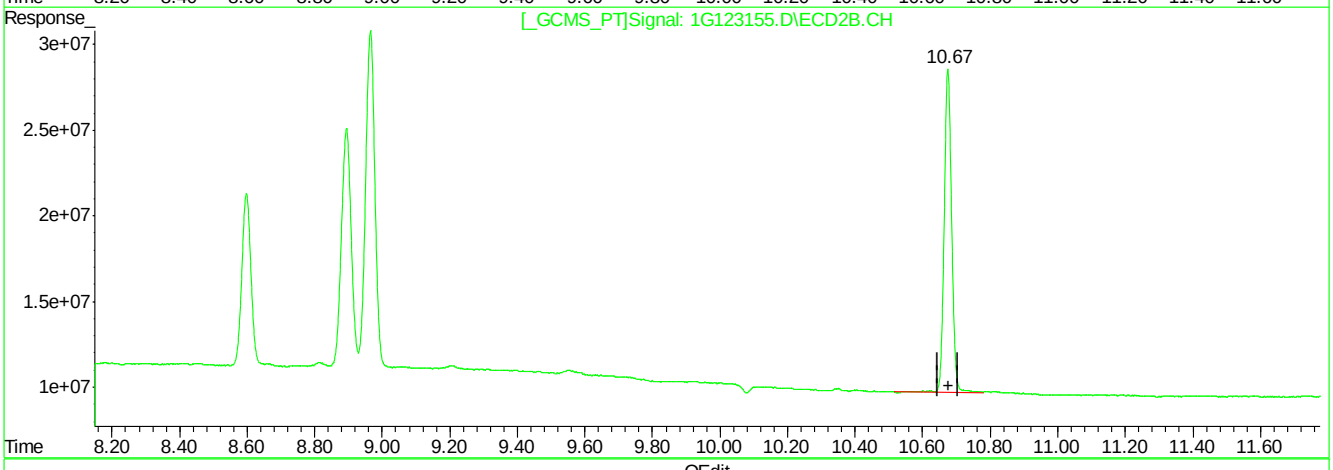
SGS ACCUTEST JC20184

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123155.D\ECD2B.CH
Acq On    : 5-17-16 04:19:00 PM                      Operator: dharas
Sample    : cc3988-25                                Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 16:40 2016  Quant Results File: 1PST3988.RES

Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(24) Decachlorobiphenyl (SA)

9.22min 25.251PPB m

response 79547637

(24) Decachlorobiphenyl #2 (SA)

10.67min 25.937PPB

response 289948540

(+) = Expected Retention Time

1G123155.D 1PST3988.M Tue May 17 16:42:22 2016 RPT1

11.6.18.7

11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/18/16 15:12

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD2B.CH
Acq On : 5-17-16 04:36:31 PM Operator: dharas
Sample : cc3988-500 Inst : GC1G
Misc : op93854,g1g3990,910,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 18:07 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Initial Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	1.33	1.49	124.3E6	862.9E6	50.000	50.000
25) I	1-bromo-2-nitrob	1.33	1.49	124.3E6	862.9E6	50.000	50.000
31) I	1-bromo-2-nitrob	1.33	1.49	124.3E6	862.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.92	2.29	123.6E6	777.0E6	55.022	50.642
Spiked Amount	40.000	Range	30 - 150	Recovery	=	137.56%	126.61%
24) SA	Decachlorobiphen	9.23	10.67	159.3E6	549.3E6	52.128m	50.985m
Spiked Amount	40.000			Recovery	=	130.32%	127.46%
	Target Compounds						
32)	Chlordane {A}	3.11	3.71	42991301	296.5E6	472.211	468.017
33)	Chlordane {B}	3.67	4.53	53640688	302.8E6	453.635	471.748
34)	Chlordane {C}	4.39	5.41	194.3E6	1021.5E6	481.566	486.215
35)	Chlordane {D}	4.55	5.64	305.0E6	1685.8E6	484.025	484.899m
36)	Chlordane {E}	5.60	7.07	45782590	282.3E6	486.017	451.254

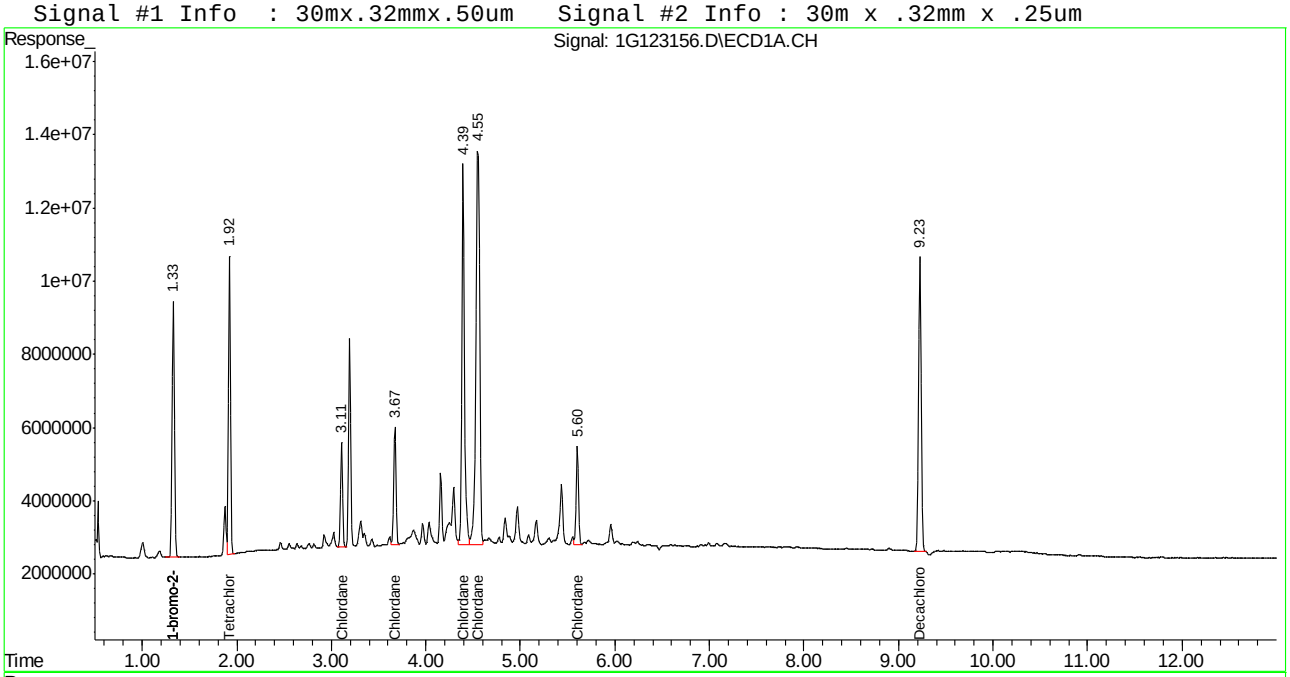
(f)=RT Delta > 1/2 Window (m)=manual int.
1G123156.D 1PST3988.M Tue May 17 18:07:57 2016 RPT1 Page 1

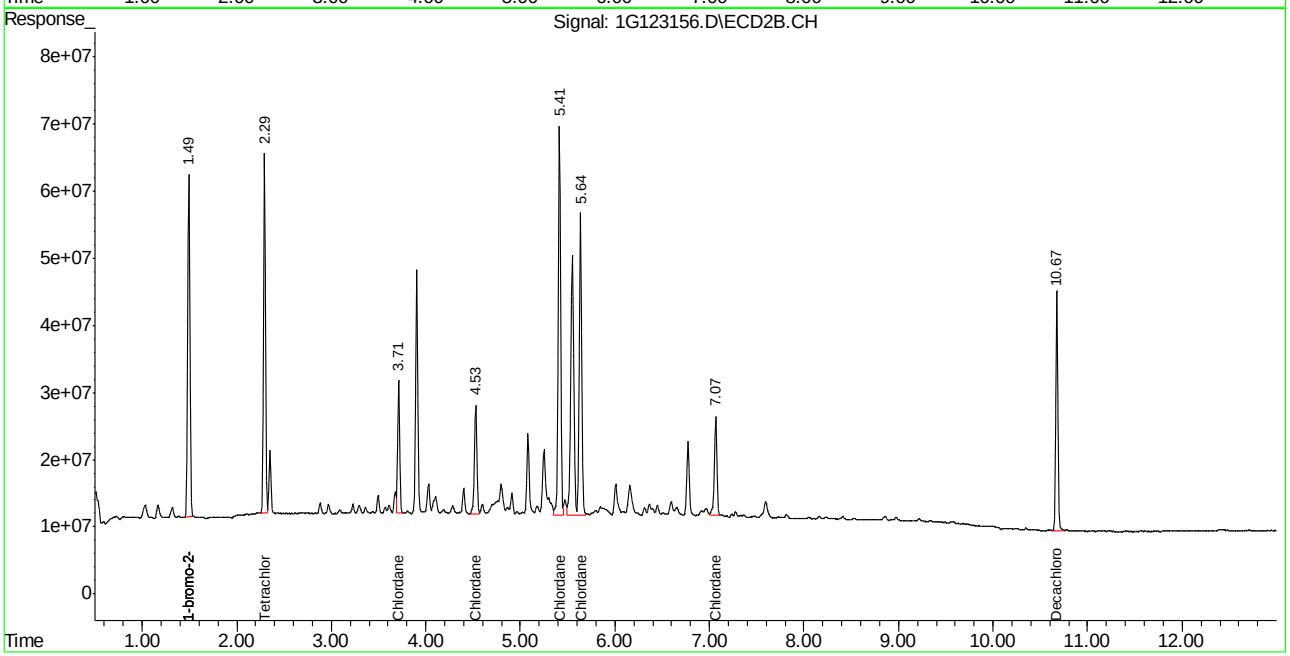
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD2B.CH
Acq On : 5-17-16 04:36:31 PM Operator: dharas
Sample : cc3988-500 Inst : GC1G
Misc : op93854,g1g3990,910,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 18:07 2016 Quant Results File: 1PST3988.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST3988.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC20184

Manual Integration Approval Summary

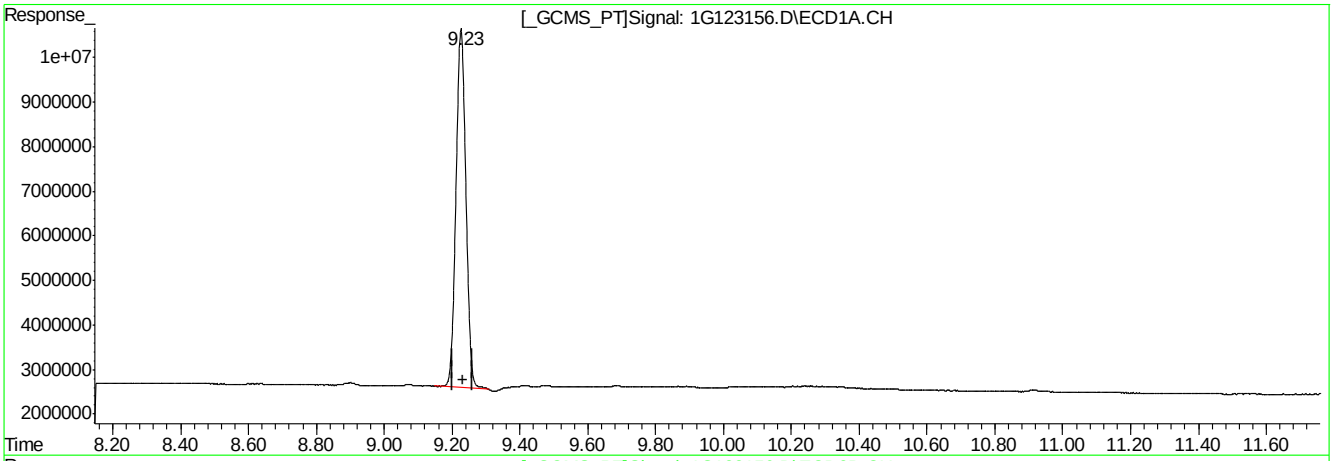
Sample Number:	G1G3990-CC3988	**Method:**	SW846 8081B
Lab FileID:	1G123156.D	**Analyst approved:**	05/18/16 12:42 Dhara Saparia
Injection Time:	05/17/16 16:36	**Supervisor approved:**	05/18/16 15:12 Gwendolyn Burns

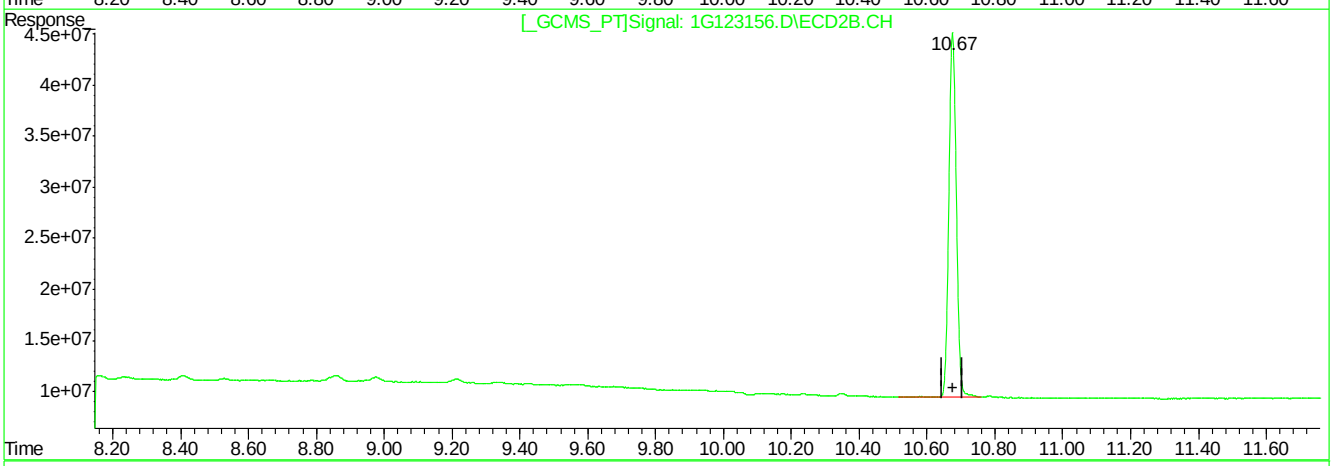
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	5.64	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	9.23	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	10.67	Poor instrument integration

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD2B.CH
Acq On    : 5-17-16 04:36:31 PM                      Operator: dharas
Sample    : cc3988-500                               Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 18:05 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(24) Decachlorobiphenyl (SA)

9.23min 52.792PPB

response 161301341

(24) Decachlorobiphenyl #2 (SA)

10.68min 51.238PPB

response 552045563

(+) = Expected Retention Time

1G123156.D 1PST3988.M Tue May 17 18:06:22 2016 RPT1

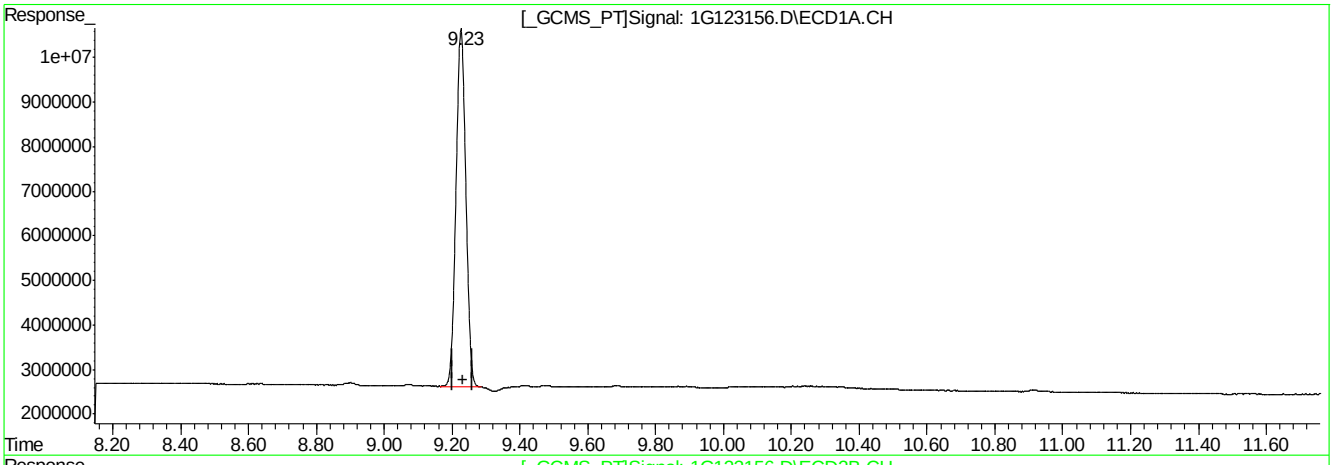
11.6.19.2

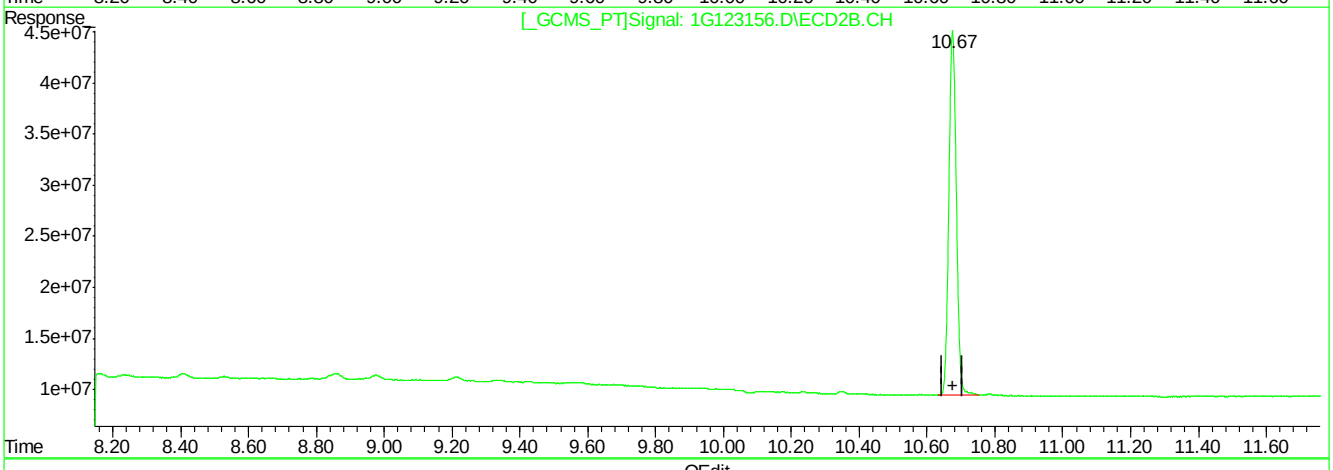
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD2B.CH
Acq On    : 5-17-16 04:36:31 PM                      Operator: dharas
Sample    : cc3988-500                               Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 18:05 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(24) Decachlorobiphenyl (SA)

9.23min 52.128PPB m

response 159274009

(24) Decachlorobiphenyl #2 (SA)

10.67min 50.985PPB m

response 549315983

(+) = Expected Retention Time

1G123156.D 1PST3988.M Tue May 17 18:06:36 2016 RPT1

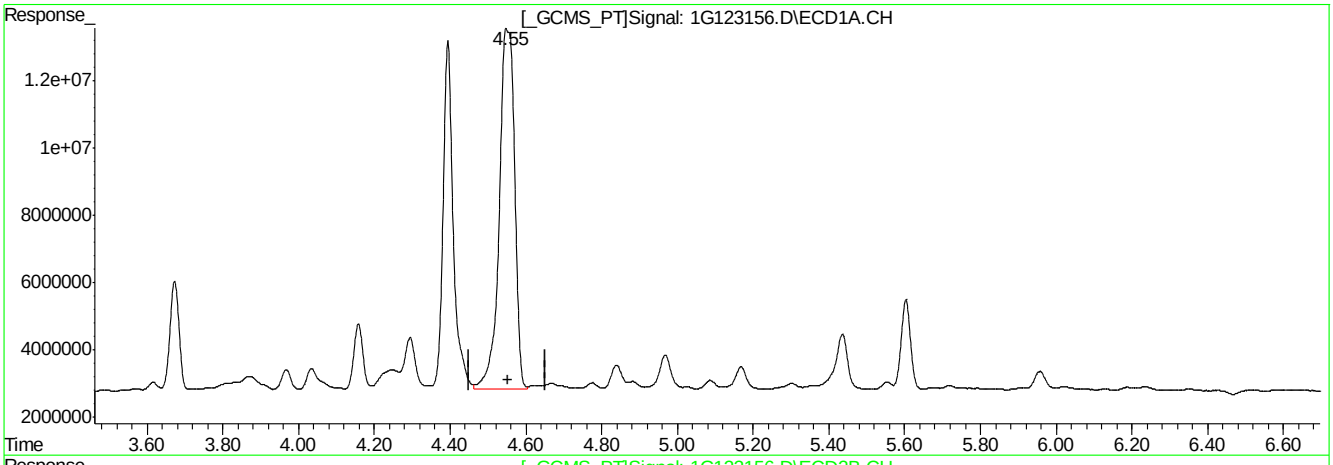
11.6.19.3

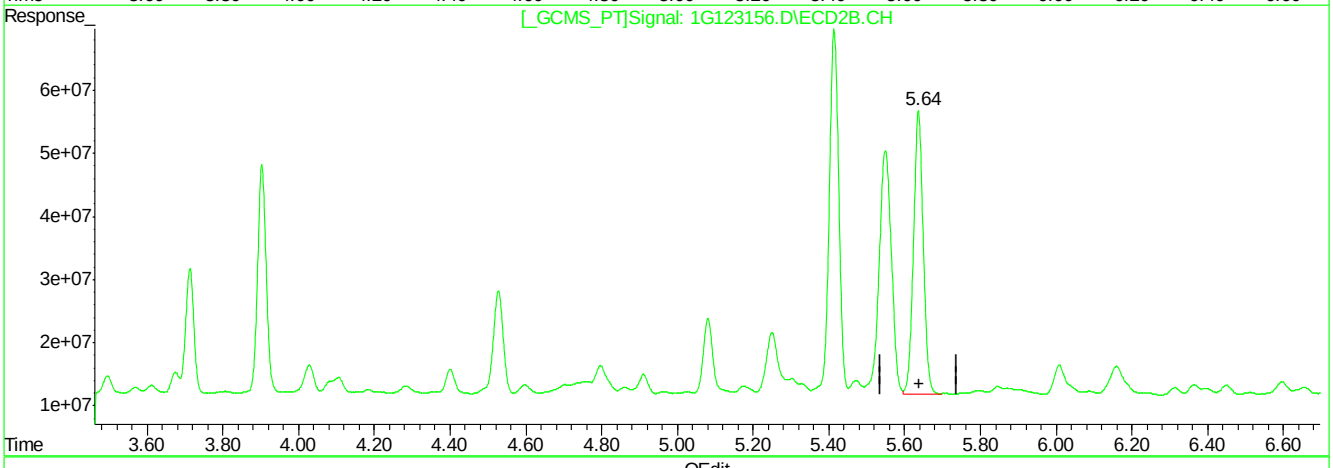
11

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD2B.CH
Acq On    : 5-17-16 04:36:31 PM                      Operator: dharas
Sample    : cc3988-500                               Inst    : GC1G
Misc      : op93854,g1g3990,910,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: May 17 18:05 2016  Quant Results File: 1PST3988.RES


Method       : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration
```





QEdit

(35) Chlordane {D}

4.55min 484.025PPB

response 304991903

(35) Chlordane {D} #2

5.64min 231.658PPB

response 805402855

(+) = Expected Retention Time

1G123156.D 1PST3988.M Tue May 17 18:06:47 2016 RPT1

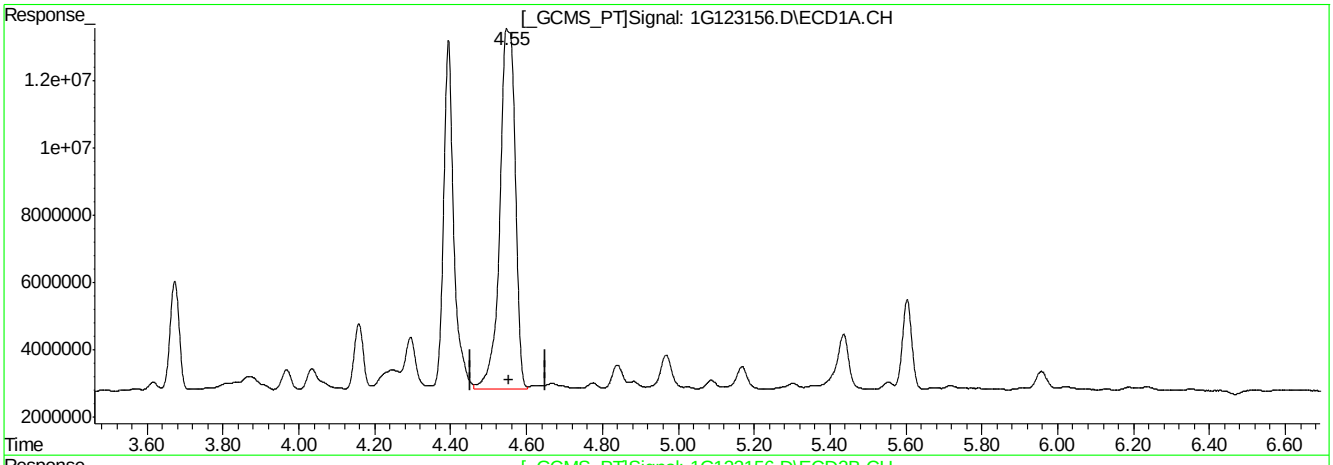
11.6.19.4

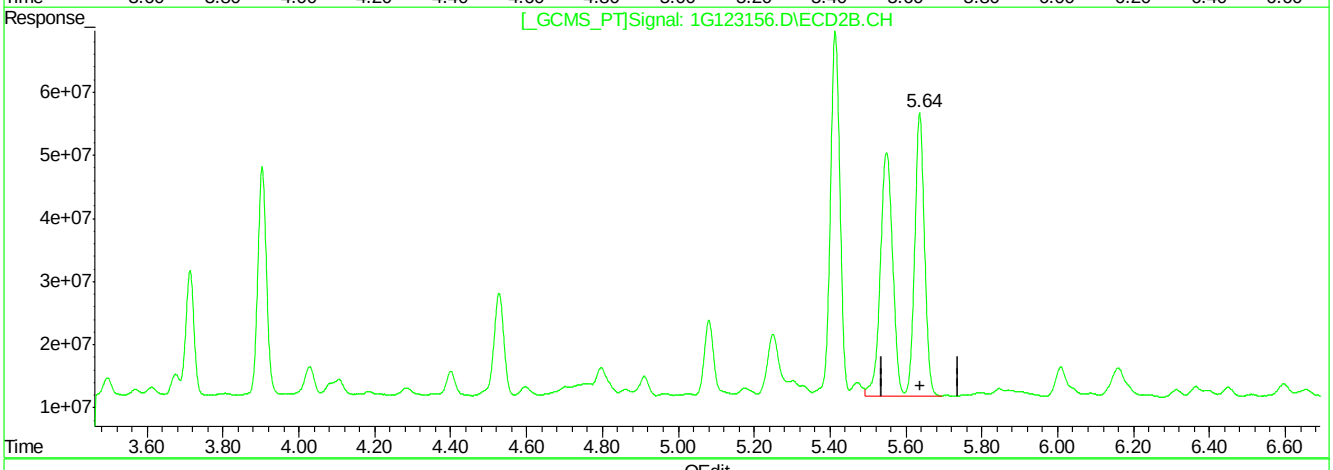
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G3990\1G123156.D\ECD2B.CH
Acq On : 5-17-16 04:36:31 PM Operator: dharas
Sample : cc3988-500 Inst : GC1G
Misc : op93854,g1g3990,910,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 17 18:05 2016 Quant Results File: 1PST3988.RES

Method : C:\MSDCHEM\1\METHODS\1PST3988.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Mon May 16 17:21:26 2016
Response via : Multiple Level Calibration





QEdit

(35) Chlordane {D}

4.55min 484.025PPB

response 304991903

(35) Chlordane {D} #2

5.64min 484.899PPB m

response 1685845873

(+) = Expected Retention Time

1G123156.D 1PST3988.M Tue May 17 18:07:25 2016 RPT1

11.6.19.5

11

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G3988

Print Analyst Name: Rebecca Krug

Analyst Signature: RK

Date: 5/16/16

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method IPST3988

Injection Volume: 1.0uL

Date Archived:

Standard Data

Lot #	Description	Conc.
SV161874-1MB	Pest mix 1st source	25 ppb
-1MB		50
-1MBC		2
-1MBD		
-1MBE		5
-1MBF		10
-1MBF source		75
-1MBH		100
8191712999	mirex 2nd source	250 ppb

Standard Data

Lot #	Description	Conc.
SV161874-79	Pest DSTD	5 ppm
-79	PCM	10-250 ppb
161933-09	DB	20 ppb
161874-20	chlordane 1st source	10 ppm
-21	Toxaphene 1st source	10 ppm
-96	Chlordane 2nd source	500 ppb
-97	Toxaphene 2nd source	500 ppb
160563	Hexane Cleanup	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/19/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	123059 1g1G29 RK 5/16/16	dclt				1			✓	OK	
	060	113				2			✓	OK	
	061	IC3988-1	Pest mix	1st source		6			✓	OK	
	062	-2				7			✓	OK	
	063	-5				8			✓	OK	
	064	-10				9			✓	OK	
	065	IC3988-25				10			✓	OK	
	066	IC3988-50				11			✓	OK	
	067	-75				12			✓	OK	
	068	-100				13			✓	OK	
	069	-500	CHL			14	20		✓	OK	
	070	-500	TOX			15	20		✓	OK	
	071	ICV3988-25	Pest	2nd source		16	10		✓	OK	lot # SV16.1874.95
	072	-25	mirex			17	10		✓	OK	
	073	-500	CHL			18			✓	OK	
	074	-500	TOX			19			✓	OK	
											RK 5/17/16

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

Form: OR016-08
Rev. Date: 1/19/16

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G3989

Print Analyst Name: Rebecca Krug

Analyst Signature: RK

Date: 5/16/16

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method IPST3988

Injection Volume: 1.0 L

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV1161214-DJ	Pest ISTD	5000
-74	PGM	10-2000
-1484	Pest mix	2500
-1484	Pest mix	50
161933-01	IB	20
160863	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: 5/19/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1g123075	CC3988-25				4		✓	✓	OK	
	076	IB				2		✓	✓	OK	
	077	OP93907-MB1	93907	tcl 8081	W	26		✓	✓	OK	
	078	OP93907-BS1				27		✓	✓	OK	
	079	OP93838-MB1	93838	ppl 8081	S	28		✓	✓	OK	
	080	JC19991-1				29		✓	✓	OK	
	081	JC20184-1	93907	tcl 8081	W	30		✓	✓	OK	
	082	-2				31		✓	✓	OK	
	083	-3				32				Not usin	Bad injection
	084	-4				33		✓	✓	OK	
	085	-5				34		✓	✓	OK	
	086	-6				35		✓	✓	OK	
	087	ddt				1		✓	✓	OK	7:14PM
	088	CC3988-50				5		✓	✓	OK	
	089	IB				3		✓	✓	OK	
	090	OP93935-MB1	93935	pest TCL	W	6		✓	✓	OK	OP93936
	091	-BS1				7		✓	✓	OK	
	092	JC20133-1A				8		✓	✓	OK	
	093	-2A				9		✓	✓	OK	

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Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-08
Rev. Date: 1/19/16

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G 3989

Print Analyst Name: Dhara Saparia

Analyst Signature:

Date: 5/16/16

Columns: 2ACLP2 | 2ACLP11

Method 8081

Initial Cal. Method 18ST3988

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 161874WD5	Pest ISTD	5 ppm
-74	PEM	10-250 ppb
-1WA	Pest mix	25 ppb
-1WB	Pest mix	50
161933-04	IB	20
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: 5/19/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	18123094	JC20133-3A	93935	8081 TCLP	W	10		/	/	OK	
	095	-4A				11		/	/	OK	
	096	-5A				12		/	/	OK	
	097	-6A	93936			13		/	/	OK	
	098	-7A				14		/	/	OK	
	099	-8A				15		/	/	OK	
	100	-9A				16		/	/	OK	
	101	-10A				17		/	/	OK	
	102	-11A				18		/	/	OK	
	103	OP93935-LB19				19		/	/	OK	↑ TCMX
	104	OP93936-LB21				20		/	/	OK	
	105	OP93936-LS8				21		/	/	OK	+ Mg
	106	-MSD				22		/	/	OK	
	107	OP93935-LS7				23		/	/	OK	+ MS
	108	-MSD				24		/	/	OK	
	109	CC3988-25				4		/	/	OK	
	110	IB				3		/	/	OK	
	112	OP93908-MB1	93908	8081 TCL	S	25		/	/	OK	
	113	-BS1				26		/	/	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: G1G 3989

Print Analyst Name: Dhara Saparia

Analyst Signature:

Date: 5/16/16

Columns: 2BCLMI / 2BCLPT

Method 8081

Initial Cal. Method 18ST 3928

Injection Volume: 1.0

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
16189WDS	Pest ISTD	5 PPM
-74	PEM	10-250
-1WM	Pest mix	25 PPb
-1WMS	Pest mix	50
161933-09	IB	20
160863	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: Date: 5/19/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	12123114	OP93908-BS13	93908	8081 TCL	S	27			/	OK	
	115	-BSD13				28			/	OK	
	116	-BS14				29			/	OK	
	117	-BSD14				30			/	OK	
	118	JC20133-1				31			/	OK	
	119	-2				32			/	OK	
	120	-3				33			/	OK	
	121	-4				34			/	OK	
	122	-5				35			/	OK	
	123	-6				36			/	OK	
	124	OP93908-MS				37			/	OK	
	125	-MSD				38			/	OK	
	126	JC20133-7				39			/	OK	
	127	-8				40			/	OK	
	128	-9				41			/	OK	
	129	-10				42			/	OK	
	130	-11				43				not using	>12hrs since DDT breakdown was run
	12123111	JC20154-3	93907			32	/	/		OK	Run before sequence 12123085
	131	Hexane				100	/	/		OK	Run before seq. 12123087

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Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-08
Rev. Date: 1/19/16

SGS ACCUTEST JC20184

11.7.2 11

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G3990

Print Analyst Name: Rebecca Krug

Analyst Signature: RK

Date: 5/17/16

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method IPST3988

Injection Volume: 1.0 ul

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
S/16IF7W-135	PCBT DSD	500ppm
-79	PCBM	10-250
-1H8A	PCBT mix	25 ppb
-1H8Y	PCBT mix	50
1G1932-09	ZB	20
1808G3	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: 5/19/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	lg123 132	ddt				1				OK	
	133	cc3988-50				4				OK	
	134	IB				3				OK	
	135	OP93854-MB1	93854	AP9 8081	W	51				OK	
	136	OP93854-BS1				52				OK	
	137	OP93925-MB1	93925			53				OK	
	138	OP93925-BS1				54				OK	
	139	OP93925-BSD				55				OK	
	140	JC20314-2				56				OK	
	141	JC20133-11	93908			57				OK	
	142	JC20150-1	93938 6 RK 5/17/16	tclp 8081	W	58				RX	↓ TOMF
	143	JC20113-5A				59				OK	
	144	JC20111-5A				60				OK	
	145	OP93907-MS	93907	tcl 8081	W	61				OK	
	146	OP93907-MSD				62				OK	
	147	JC20017-5	93838	tcl 8081	S	63				OK	
	148	-6		sc08 8081		64				OK	
	149	-7				65				OK	
	150	-8				66				OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-08
Rev. Date: 1/19/16

SGS ACCUTEST JC20184

11.7.3 11

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G3990

Print Analyst Name: Rebecca Krug

Analyst Signature: RK

Date: 5/17/16

Columns: ZBCLPI / ZBCLPII

Method 8081 , 608

Initial Cal. Method IPST3988

Injection Volume: 1.0 µl

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 161574-135	Pest ISTD	5 ppm
-79	PCM	10-250 ppm
-1688	Pest mix	25 ppb
-1687	↓	50
161933-09	IB	20 ↓
160863	Hexane (Blank)	–
161574-29	chlordane std	10 ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/20/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	MALS #	Dilution	IS	SU	Status (Data)	Comments
	1g123151	JC20016-4	93854	APG 8081	W	67				OK	
	152	OP93854-MS				68				OK	
	153	OP93854-MSD				69				OK	
	154	ddt				1				OK	
	155	CC3988-25	Pest			2				OK	
	156	CC3988-500	CHL			5				OK	
	157	IB				3				OK	
	158	OP93642-BSD13	93642	608 PPL	W	6				OK	
	159	-BSD13				7				OK	
	160	OP93506-MS1	93506	608 PPL	W	8				OK	
	161	-BS1				9				OK	
	162	-MS				10				OK	
	163	-MSD				11				OK	
	164	JC19676-1				12				OK	
	165	JC19996-1				13				OK	
	166	CC3988-50	Pest			4				OK	
	167	CC3988-500	CHL			5				OK	
	168	IB				3				OK	
	169	OP93772-MS1	93772	608 PPL	W	14				OK	

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Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-08
Rev. Date: 1/19/16

SGS ACCUTEST JC20184

11.7.3 11

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G 3990

Print Analyst Name: Dhara Saporia

Date: 5/17/16

Analyst Signature:

Columns: 2BCLPI / 2BCLPII

Method 8081, 608

Initial Cal. Method 1PST 3988

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 161874-115	Pest DSTD	5 ppm
-99	PCM	10-250 ppb
-1WA	Pest mix	25 ppb
-1WB	Pest mix	50
161933-09	IB	20
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: Date: 5/19/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	12123170	0893977-MB1	93977	608 PPL	W	15				OK	
	171	-BS1				16				OK	
	172	-BSD				17				OK	
	173	JC20365-1				18				OK	
R	174	JC19815-3	93772	608 PPL	W	19				OK	HAd TBA
	175	-4				20				OK	↓
	176	-6				21				OK	
	177	CC3988-25				2				OK	
	178	IB				3				OK	
	179	JC19815-5	93772	608 PPL	W	22				not OK using	ecc ↓ - need RR
	180	-7				23				not OK using	
	181	-8				24				not OK using	HAd TBA
	182	-9				25				not OK using	
	183	-10				26				not OK using	HAd TBA
	184	-11				27				not OK using	↓
	185	CC3988-50				4				not OK using	ddt/methoxy ↓ both
	186	IB				3				not OK using	
											RK 5/18/16

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

Form: OR016-08
Rev. Date: 1/19/16

LOGBOOK ID: 6-1766

Pest/PCB Extraction Log - Aqueous

Date Started: 5-13-16 Time Started: 6:00pm
Date Finished: 5-15-16 Time Finished: 9:30am

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other_____
Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # GC 93907 RACK# GE-12

Extracted by:	SD
Concentrated by:	MJP, GM,
Vialed by:	GM, SD
Relinquished by:	SD
Accepted by:	
Supervisor Review:	5/13/16

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC20184-3 (MS/MSD)

Final Volume:

Other:

	Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	GPC	Copper	H2SO4	Florisil	Comments
	Required MB1	Pest			DI H2O	1000	clear	10		✓			
	BS1				DI H2O	1000	clear	10		✓			
	JC20184-3 MS		7		clear	870	clear	10		✓			
	MSD		4		clear	870	clear	10		✓			
	BS												
	MS												
	MSD												
1	JC20184-1	Pest	2		brown/yellow	850	clear	10		✓			
2	-2		3		Clear	850	clear	10		✓			
3	-3		5		Clear	850	clear	10		✓			
4	-4		1		Clear	970	clear	10		✓			
5	-5		2		yellow	850	clear	10		✓			
6	-6		2		Yellow	850	clear	10		✓			
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

1d TAT

Comments:

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	3	65	–	–	OK
Buchi Chiller	B3	11	–	–	OK
Waterbath (70-80°C)	6/7	75/75	0.5/0.1	75/75	N/A
Waterbath Chiller (GPM)	F-2	1	–	–	OK
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	OP161712101	400	1

WITNESS SIGN: SD SPIKE SIGN: ADC

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST	OP161712953	250	1
PCB			

WITNESS SIGN: SD SPIKE SIGN: ADC

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	162661	Fisher	3/60
HEXANE	166863	Fisher	50

REAGENT	LOT #	BRAND
Sodium Sulfate	168470	Fisher
Glass Wool	02205-2	Lab
Filter Paper		
Copper	16171260	Alartch
Florisil		
1:1 Sulfuric Acid		
Chlorine Strips		

SGS ACCUTEST INC.
Form: OP021A-06
Rev Date: 1/13/16

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