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Automated Report

Technical Report for

Anderson, Mulholland & Associates

BMSMC, Former Tank Farm, PR

BMS:Former Tank Farm

SGS Accutest Job Number: JC15883

Sampling Date: 03/04/16

Report to:

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Total number of pages in report: **601**

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: JC15883

BMSMC, Former Tank Farm, PR
Project No: BMS:Former Tank Farm

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC15883-1	03/04/16	12:29	NMR	03/10/16	AQ	Ground Water	MW-15
JC15883-1D	03/04/16	12:45	NMR	03/10/16	AQ	Water Dup/MSD	MW-15MSD
JC15883-1S	03/04/16	12:38	NMR	03/10/16	AQ	Water Matrix Spike	MW-15MS
JC15883-2	03/04/16	14:53	NMR	03/10/16	AQ	Ground Water	MW-17
JC15883-3	03/04/16	17:24	NMR	03/10/16	AQ	Ground Water	MW-14
JC15883-4	03/04/16	18:25	NMR	03/10/16	AQ	Ground Water	MW-18
JC15883-5	03/04/16	18:25	NMR	03/10/16	AQ	Trip Blank Water	TB030716

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Anderson, Mulholland & Associates	**Job No**	JC15883
Site:	BMSMC, Former Tank Farm, PR	**Report Date**	3/24/2016 9:58:51 AM

On 03/10/2016, 4 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a maximum corrected temperature of 6 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JC15883 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.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** V3D5036

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC15883-1MS, JC15883-1MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP91987

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC15883-1MS, JC15883-1MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP91987A

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC15883-1MS, JC15883-1MSD were used as the QC samples indicated.

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

Matrix: AQ **Batch ID:** GGH5205

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC15883-1MS, JC15883-1MSD were used as the QC samples indicated.

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: JC15883
Account: Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Collected: 03/04/16

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC15883-1	**MW-15**					
Cyclohexane		0.70 J	5.0	0.28	ug/l	SW846 8260C
1,2-Dichlorobenzene		0.31 J	1.0	0.19	ug/l	SW846 8260C
Isopropylbenzene		30.0	1.0	0.23	ug/l	SW846 8260C
Methylcyclohexane		0.56 J	5.0	0.22	ug/l	SW846 8260C
Methyl Tert Butyl Ether		34.9	1.0	0.24	ug/l	SW846 8260C
Tetrahydrofuran		4.5 J	10	1.4	ug/l	SW846 8260C
m,p-Xylene		0.41 J	1.0	0.38	ug/l	SW846 8260C
Xylene (total)		0.41 J	1.0	0.17	ug/l	SW846 8260C
1,4-Dioxane		5.00	0.10	0.055	ug/l	SW846 8270D BY SIM
JC15883-2	**MW-17**					
Isopropylbenzene		17.7	1.0	0.23	ug/l	SW846 8260C
Methylcyclohexane		0.26 J	5.0	0.22	ug/l	SW846 8260C
Methyl Tert Butyl Ether		3.8	1.0	0.24	ug/l	SW846 8260C
m,p-Xylene		0.76 J	1.0	0.38	ug/l	SW846 8260C
o-Xylene		0.18 J	1.0	0.17	ug/l	SW846 8260C
Xylene (total)		0.94 J	1.0	0.17	ug/l	SW846 8260C
1,4-Dioxane		12.4	1.0	0.74	ug/l	SW846 8270D
Fluorene		0.54 J	1.0	0.30	ug/l	SW846 8270D
JC15883-3	**MW-14**					
4-Chloroaniline		0.90 J	5.0	0.23	ug/l	SW846 8270D
1,4-Dioxane		1.76	0.10	0.053	ug/l	SW846 8270D BY SIM
JC15883-4	**MW-18**					
Chlorobenzene		0.90 J	1.0	0.19	ug/l	SW846 8260C
Cyclohexane		1.5 J	5.0	0.28	ug/l	SW846 8260C
1,2-Dichlorobenzene		0.68 J	1.0	0.19	ug/l	SW846 8260C
1,4-Dichlorobenzene		0.33 J	1.0	0.27	ug/l	SW846 8260C
cis-1,2-Dichloroethene		0.31 J	1.0	0.27	ug/l	SW846 8260C
Ethylbenzene		1.5	1.0	0.27	ug/l	SW846 8260C
Isopropylbenzene		7.5	1.0	0.23	ug/l	SW846 8260C
Methylcyclohexane		4.0 J	5.0	0.22	ug/l	SW846 8260C
Methyl Tert Butyl Ether		0.34 J	1.0	0.24	ug/l	SW846 8260C
Toluene		0.40 J	1.0	0.16	ug/l	SW846 8260C
Vinyl chloride		0.26 J	1.0	0.15	ug/l	SW846 8260C
m,p-Xylene		3.8	1.0	0.38	ug/l	SW846 8260C
o-Xylene		0.91 J	1.0	0.17	ug/l	SW846 8260C
Xylene (total)		4.7	1.0	0.17	ug/l	SW846 8260C
Fluoranthene		0.44 J	1.1	0.25	ug/l	SW846 8270D

Summary of Hits

Job Number: JC15883
Account: Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Collected: 03/04/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Fluorene		1.1	1.1	0.32	ug/l	SW846 8270D
1,4-Dioxane		2.11	0.11	0.057	ug/l	SW846 8270D BY SIM

JC15883-5 **TB030716**

No hits reported in this sample.

Sample Results

Report of Analysis

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Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC15883-1	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D117669.D	1	03/11/16	XC	n/a	n/a	V3D5036
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	0.70	5.0	0.28	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	0.31	1.0	0.19	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

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

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC15883-1	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	30.0	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	0.56	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	34.9	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	4.5	10	1.4	ug/l	J
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	0.41	1.0	0.38	ug/l	J
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	0.41	1.0	0.17	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC15883-1	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P103277.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
Run #2							

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

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.96	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.2	0.90	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.84	ug/l	
	3&4-Methylphenol	ND	2.1	0.69	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.2	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.32	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.25	ug/l	
98-86-2	Acetophenone	ND	2.1	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.1	0.43	ug/l	
100-52-7	Benzaldehyde	ND	5.2	0.35	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.34	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.33	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.42	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.38	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.28	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	0.24	ug/l	
86-74-8	Carbazole	ND	1.0	0.30	ug/l	

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

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC15883-1	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.44	ug/l	
218-01-9	Chrysene	ND	1.0	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.29	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.28	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.27	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.33	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.55	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.38	ug/l	
132-64-9	Dibenzofuran	ND	5.2	0.28	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.81	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.30	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.32	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.79	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.24	ug/l	
86-73-7	Fluorene	ND	1.0	0.30	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.44	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.38	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.30	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.40	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.30	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	0.22	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	0.25	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.35	ug/l	
91-20-3	Naphthalene	ND	1.0	0.29	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.48	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.32	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.30	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.24	ug/l	
129-00-0	Pyrene	ND	1.0	0.35	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	61%		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-15		
Lab Sample ID:	JC15883-1	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	44%		10-110%
118-79-6	2,4,6-Tribromophenol	104%		39-149%
4165-60-0	Nitrobenzene-d5	98%		32-128%
321-60-8	2-Fluorobiphenyl	93%		35-119%
1718-51-0	Terphenyl-d14	91%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC15883-1	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M64079.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.014	ug/l	
123-91-1	1,4-Dioxane	5.00	0.10	0.055	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%		24-125%
321-60-8	2-Fluorobiphenyl	67%		19-127%
1718-51-0	Terphenyl-d14	80%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	JC15883-1	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103697.D	1	03/11/16	XPL	n/a	n/a	GGH5205
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	88%		56-145%
111-27-3	Hexanol	85%		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-17		
Lab Sample ID:	JC15883-2	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D117670.D	1	03/11/16	XC	n/a	n/a	V3D5036
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	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-17		
Lab Sample ID:	JC15883-2	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	17.7	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	0.26	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	3.8	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	0.76	1.0	0.38	ug/l	J
95-47-6	o-Xylene	0.18	1.0	0.17	ug/l	J
1330-20-7	Xylene (total)	0.94	1.0	0.17	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	97%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-17		
Lab Sample ID:	JC15883-2	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P103278.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
Run #2							

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

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.96	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.2	0.90	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.84	ug/l	
	3&4-Methylphenol	ND	2.1	0.69	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.2	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.32	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.25	ug/l	
98-86-2	Acetophenone	ND	2.1	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.1	0.43	ug/l	
100-52-7	Benzaldehyde	ND	5.2	0.35	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.34	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.33	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.42	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.38	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.28	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	0.24	ug/l	
86-74-8	Carbazole	ND	1.0	0.30	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-17		
Lab Sample ID:	JC15883-2	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.44	ug/l	
218-01-9	Chrysene	ND	1.0	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.29	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.28	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.27	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.33	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.55	ug/l	
123-91-1	1,4-Dioxane	12.4	1.0	0.74	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.38	ug/l	
132-64-9	Dibenzofuran	ND	5.2	0.28	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.81	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.30	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.32	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.79	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.24	ug/l	
86-73-7	Fluorene	0.54	1.0	0.30	ug/l	J
118-74-1	Hexachlorobenzene	ND	1.0	0.44	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.38	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.30	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.40	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.30	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	0.22	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	0.25	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.35	ug/l	
91-20-3	Naphthalene	ND	1.0	0.29	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.48	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.32	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.30	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.24	ug/l	
129-00-0	Pyrene	ND	1.0	0.35	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	MW-17		
Lab Sample ID:	JC15883-2	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		14-88%
4165-62-2	Phenol-d5	46%		10-110%
118-79-6	2,4,6-Tribromophenol	107%		39-149%
4165-60-0	Nitrobenzene-d5	104%		32-128%
321-60-8	2-Fluorobiphenyl	96%		35-119%
1718-51-0	Terphenyl-d14	96%		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-17		
Lab Sample ID:	JC15883-2	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M64080.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.014	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	100%		24-125%
321-60-8	2-Fluorobiphenyl	74%		19-127%
1718-51-0	Terphenyl-d14	86%		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-17		
Lab Sample ID:	JC15883-2	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103700.D	1	03/11/16	XPL	n/a	n/a	GGH5205
Run #2							

Low Molecular Alcohol List

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	100%		56-145%
111-27-3	Hexanol	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-14		
Lab Sample ID:	JC15883-3	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D117682.D	1	03/11/16	XC	n/a	n/a	V3D5036
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

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

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

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC15883-3	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	97%		73-122%
2037-26-5	Toluene-D8	95%		84-119%
460-00-4	4-Bromofluorobenzene	96%		78-117%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC15883-3	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P103279.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
Run #2							

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

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	0.90	5.0	0.23	ug/l	J
86-74-8	Carbazole	ND	1.0	0.29	ug/l	

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

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC15883-3	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		14-88%

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

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC15883-3	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	44%		10-110%
118-79-6	2,4,6-Tribromophenol	102%		39-149%
4165-60-0	Nitrobenzene-d5	96%		32-128%
321-60-8	2-Fluorobiphenyl	95%		35-119%
1718-51-0	Terphenyl-d14	91%		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-14		
Lab Sample ID:	JC15883-3	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M64081.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	1.76	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%		24-125%
321-60-8	2-Fluorobiphenyl	69%		19-127%
1718-51-0	Terphenyl-d14	82%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	JC15883-3	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103701.D	1	03/11/16	XPL	n/a	n/a	GGH5205
Run #2							

Low Molecular Alcohol List

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

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

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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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-18		
Lab Sample ID:	JC15883-4	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D117683.D	1	03/11/16	XC	n/a	n/a	V3D5036
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	0.90	1.0	0.19	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	1.5	5.0	0.28	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	0.68	1.0	0.19	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	0.33	1.0	0.27	ug/l	J
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.31	1.0	0.27	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	1.5	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	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-18		
Lab Sample ID:	JC15883-4	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	7.5	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	4.0	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	0.34	1.0	0.24	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	0.40	1.0	0.16	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	0.26	1.0	0.15	ug/l	J
	m,p-Xylene	3.8	1.0	0.38	ug/l	
95-47-6	o-Xylene	0.91	1.0	0.17	ug/l	J
1330-20-7	Xylene (total)	4.7	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	98%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-18		
Lab Sample ID:	JC15883-4	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P103280.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.4	1.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.4	1.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.4	1.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.4	0.94	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.88	ug/l	
	3&4-Methylphenol	ND	2.2	0.72	ug/l	
88-75-5	2-Nitrophenol	ND	5.4	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	5.4	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.34	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.4	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.4	1.6	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.4	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.31	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.26	ug/l	
98-86-2	Acetophenone	ND	2.2	0.30	ug/l	
120-12-7	Anthracene	ND	1.1	0.26	ug/l	
1912-24-9	Atrazine	ND	2.2	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.4	0.36	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.34	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.36	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.34	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.44	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.40	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.29	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.28	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.32	ug/l	
106-47-8	4-Chloroaniline	ND	5.4	0.25	ug/l	
86-74-8	Carbazole	ND	1.1	0.32	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-18		
Lab Sample ID:	JC15883-4	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.2	0.46	ug/l	
218-01-9	Chrysene	ND	1.1	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.2	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.2	0.31	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.2	0.29	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.28	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.35	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.57	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.39	ug/l	
132-64-9	Dibenzofuran	ND	5.4	0.29	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.85	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.31	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.34	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.83	ug/l	
206-44-0	Fluoranthene	0.44	1.1	0.25	ug/l	J
86-73-7	Fluorene	1.1	1.1	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.45	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.39	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	0.32	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.41	ug/l	
78-59-1	Isophorone	ND	2.2	0.31	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.1	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.31	ug/l	
88-74-4	2-Nitroaniline	ND	5.4	0.22	ug/l	
99-09-2	3-Nitroaniline	ND	5.4	0.26	ug/l	
100-01-6	4-Nitroaniline	ND	5.4	0.37	ug/l	
91-20-3	Naphthalene	ND	1.1	0.30	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.34	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.32	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.25	ug/l	
129-00-0	Pyrene	ND	1.1	0.36	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%		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-18		
Lab Sample ID:	JC15883-4	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	47%		10-110%
118-79-6	2,4,6-Tribromophenol	105%		39-149%
4165-60-0	Nitrobenzene-d5	101%		32-128%
321-60-8	2-Fluorobiphenyl	94%		35-119%
1718-51-0	Terphenyl-d14	91%		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-18		
Lab Sample ID:	JC15883-4	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M64082.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.11	0.014	ug/l	
123-91-1	1,4-Dioxane	2.11	0.11	0.057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	96%		24-125%
321-60-8	2-Fluorobiphenyl	71%		19-127%
1718-51-0	Terphenyl-d14	79%		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-18		
Lab Sample ID:	JC15883-4	**Date Sampled:**	03/04/16
Matrix:	AQ - Ground Water	**Date Received:**	03/10/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103702.D	1	03/11/16	XPL	n/a	n/a	GGH5205
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	123%		56-145%
111-27-3	Hexanol	99%		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:	TB030716		
Lab Sample ID:	JC15883-5	**Date Sampled:**	03/04/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D117678.D	1	03/11/16	XC	n/a	n/a	V3D5036
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

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

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

Report of Analysis

Client Sample ID:	TB030716		
Lab Sample ID:	JC15883-5	**Date Sampled:**	03/04/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/10/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		76-120%
17060-07-0	1,2-Dichloroethane-D4	95%		73-122%
2037-26-5	Toluene-D8	96%		84-119%
460-00-4	4-Bromofluorobenzene	97%		78-117%

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

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

SGS Accutest

Report of Analysis

Client Sample ID:	TB030716		
Lab Sample ID:	JC15883-5	**Date Sampled:**	03/04/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/10/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Former Tank Farm, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103703.D	1	03/11/16	XPL	n/a	n/a	GGH5205
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	113%		56-145%
111-27-3	Hexanol	108%		56-145%

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

GW
WTB

CHAIN OF CUSTODY

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

FEDEX 8012 1953 5170

Accutest Job #: JC15883
Accutest Quote #:

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

Facility Information
Anderson Mulholland
Project Name:
Location:
Project/PO #: BMS: Former Tank Farm
FAX #: 914-251-1286

Analytical Information

Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	VOCs, 8260C	SVOC, 8270D	Volatile Alcohols, 8015B	SVOC, 8270D SIM								
MW- 15	3/4/16	1229	NMR	GW	8	X				X	X	X	X	X								
MW- 15 MS		1238		GW	8	X				X	X	X	X	X	1							ESD
MW- 15 MSD		1245		GW	8	X				X	X	X	X	X								V699
MW- 17		1453		GW	8	X				X	X	X	X	X								
MW- 14		1724		GW	8	X				X	X	X	X	X	2							
MW- 18	3/4/16	1825	NMR	GW	8	X				X	X	X	X	X	3							
MW-				GW	8	X				X	X	X	X	X	4							
MW-				GW	8	X				X	X	X	X	X								
MW-				GW	8	X				X	X	X	X	X								
TB030716	3/7/16	2014	NMR	W	4	X					X		X		5							

INITIAL ASESSMENT IAS
LABEL VERIFICATION

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

RUSH TAT is for FAX data unless previously approved.

Approved By:

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

Comments / Remarks

Federal Express ID # 8012 1953 5170
Lab Trip Blank Date 3/07/16 Time 1000
SVOC Analysis by Method 8270D SIM for 1,4 Dioxane and Naphthalene only.

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

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	3/8/16 1043	1 FEDEX	2 FEDEX	3/10/16 1000	2 [signature]
3		3	4		4
5		5			

Seal # 152, 154, 156, 158 Preserved where applicat yes
On Ice: yes
4.4, 5.6 °C IP

SGS Accutest Sample Receipt Summary

Job Number: JC15883 **Client:** _____ **Project:** _____

Date / Time Received: 3/10/2016 10:00:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (4.4); Cooler 2: (5.6);

Cooler Temps (Corrected) °C: Cooler 1: (4.8); Cooler 2: (6.0);

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:	2		

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

5.1

5

JC15883: Chain of Custody
Page 2 of 3

Job Change Order: JC15883

Requested Date:	3/17/2016	**Received Date:**	3/10/2016
Account Name:	Anderson, Mulholland & Associate	**Due Date:**	3/24/2016
Project Description:	BMSMC, Former Tank Farm, PR	**Deliverable:**	FULT1
CSR:	matthews	**TAT (Days):**	14

==========

Sample #: JC15883-1 thru 4, 1S, 1D

Dept:

TAT: 14

Change:
please add VMS+THF, VMS+IPTOLU, VMS+124TMB, VMS+BNZLCHL AND BMS+MNAP

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Sample #: JC15883-5

Dept:

TAT: 14

Change:
please add VMS+THF, VMS+IPTOLU, VMS+124TMB, VMS+BNZLCHL

TB030716

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Above Changes Per: Terry Taylor

Date/Time: 3/17/2016 4:50:57 PM

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

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC15883

BMSMC, Former Tank Farm, PR
Project No: BMS:Former Tank Farm

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC15883-1 MW-15	Collected: 04-MAR-16 12:29 By: NMR		Received: 10-MAR-16 By: AS			
JC15883-1	SW846 8260C	11-MAR-16 12:28	XC			V8260TCL20
JC15883-1	SW846 8270D	11-MAR-16 15:56	LK	11-MAR-16	AQ	AB8270TCL20-14DX
JC15883-1	SW846-8015C (DAI)	11-MAR-16 16:28	XPL			D8015LMA
JC15883-1	SW846 8270D BY SIM	15-MAR-16 15:01	LK	11-MAR-16	DH	B8270SIM14DIOX,BSIM + NAP
JC15883-2 MW-17	Collected: 04-MAR-16 14:53 By: NMR		Received: 10-MAR-16 By: AS			
JC15883-2	SW846 8260C	11-MAR-16 12:56	XC			V8260TCL20
JC15883-2	SW846 8270D	11-MAR-16 16:25	LK	11-MAR-16	AQ	AB8270TCL20-14DX
JC15883-2	SW846-8015C (DAI)	11-MAR-16 17:18	XPL			D8015LMA
JC15883-2	SW846 8270D BY SIM	15-MAR-16 15:31	LK	11-MAR-16	DH	BSIM + NAP
JC15883-3 MW-14	Collected: 04-MAR-16 17:24 By: NMR		Received: 10-MAR-16 By: AS			
JC15883-3	SW846 8270D	11-MAR-16 16:54	LK	11-MAR-16	AQ	AB8270TCL20-14DX
JC15883-3	SW846-8015C (DAI)	11-MAR-16 17:33	XPL			D8015LMA
JC15883-3	SW846 8260C	11-MAR-16 18:27	XC			V8260TCL20
JC15883-3	SW846 8270D BY SIM	15-MAR-16 16:01	LK	11-MAR-16	DH	B8270SIM14DIOX,BSIM + NAP
JC15883-4 MW-18	Collected: 04-MAR-16 18:25 By: NMR		Received: 10-MAR-16 By: AS			
JC15883-4	SW846 8270D	11-MAR-16 17:23	LK	11-MAR-16	AQ	AB8270TCL20-14DX
JC15883-4	SW846-8015C (DAI)	11-MAR-16 17:47	XPL			D8015LMA
JC15883-4	SW846 8260C	11-MAR-16 18:54	XC			V8260TCL20
JC15883-4	SW846 8270D BY SIM	15-MAR-16 16:31	LK	11-MAR-16	DH	B8270SIM14DIOX,BSIM + NAP
JC15883-5 TB030716	Collected: 04-MAR-16 18:25 By: NMR		Received: 10-MAR-16 By: AS			
JC15883-5	SW846 8260C	11-MAR-16 16:36	XC			V8260TCL20
JC15883-5	SW846-8015C (DAI)	11-MAR-16 18:02	XPL			D8015LMA

SGS Accutest Internal Chain of Custody

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Received: 03/10/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC15883-1.1	Secured Storage	Brian Johnson	03/11/16 05:02	Retrieve from Storage
JC15883-1.1	Brian Johnson		03/11/16 13:10	Depleted
JC15883-1.1.1	Brian Johnson	Organics Prep	03/11/16 05:25	Extract from JC15883-1.1
JC15883-1.1.1	Organics Prep	Adil Quyser	03/11/16 12:37	Extract from JC15883-1.1
JC15883-1.1.1	Adil Quyser	Extract Storage	03/11/16 12:37	Return to Storage
JC15883-1.3	Secured Storage	Brian Johnson	03/11/16 05:02	Retrieve from Storage
JC15883-1.3	Brian Johnson		03/11/16 13:10	Depleted
JC15883-1.3.1	Brian Johnson	Organics Prep	03/11/16 05:25	Extract from JC15883-1.3
JC15883-1.3.1	Organics Prep	Adil Quyser	03/11/16 12:37	Extract from JC15883-1.3
JC15883-1.3.1	Adil Quyser	Extract Storage	03/11/16 12:37	Return to Storage
JC15883-1.5	Secured Storage	Brian Johnson	03/11/16 05:02	Retrieve from Storage
JC15883-1.5	Brian Johnson		03/11/16 13:10	Depleted
JC15883-1.5.1	Brian Johnson	Organics Prep	03/11/16 05:25	Extract from JC15883-1.5
JC15883-1.5.1	Organics Prep	Adil Quyser	03/11/16 12:37	Extract from JC15883-1.5
JC15883-1.5.1	Adil Quyser	Extract Storage	03/11/16 12:37	Return to Storage
JC15883-1.5.1	Extract Storage	Linsey Kirschmann	03/11/16 13:04	Retrieve from Storage
JC15883-1.5.1	Linsey Kirschmann	GCMSP	03/11/16 13:04	Load on Instrument
JC15883-1.5.1	GCMSP	Linsey Kirschmann	03/14/16 10:42	Unload from Instrument
JC15883-1.5.1	Linsey Kirschmann	Extract Freezer	03/14/16 10:42	Return to Storage
JC15883-1.5.1	Extract Freezer	Linsey Kirschmann	03/15/16 10:20	Retrieve from Storage
JC15883-1.5.1	Linsey Kirschmann	GCMS4M	03/15/16 10:20	Load on Instrument
JC15883-1.5.1	GCMS4M	Linsey Kirschmann	03/17/16 14:27	Unload from Instrument
JC15883-1.5.1	Linsey Kirschmann	Extract Freezer	03/17/16 14:27	Return to Storage
JC15883-1.10	Secured Storage	Ximena Collado	03/11/16 12:33	Retrieve from Storage
JC15883-1.10	Ximena Collado	GCMS3D	03/11/16 12:33	Load on Instrument
JC15883-1.10	GCMS3D	Ximena Collado	03/14/16 12:13	Unload from Instrument
JC15883-1.10	Ximena Collado	Secured Storage	03/14/16 12:13	Return to Storage
JC15883-1.11	Secured Storage	Ximena Collado	03/11/16 12:33	Retrieve from Storage
JC15883-1.11	Ximena Collado	GCMS3D	03/11/16 12:33	Load on Instrument
JC15883-1.11	GCMS3D	Ximena Collado	03/14/16 12:13	Unload from Instrument
JC15883-1.11	Ximena Collado	Secured Storage	03/14/16 12:13	Return to Storage
JC15883-1.19	Secured Storage	Xu Liu	03/11/16 13:52	Retrieve from Storage
JC15883-1.19	Xu Liu	Secured Storage	03/11/16 14:13	Return to Storage
JC15883-2.2	Secured Storage	Brian Johnson	03/11/16 05:02	Retrieve from Storage
JC15883-2.2	Brian Johnson		03/11/16 13:10	Depleted

SGS Accutest Internal Chain of Custody

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Received: 03/10/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC15883-2.2.1	Brian Johnson	Organics Prep	03/11/16 05:25	Extract from JC15883-2.2
JC15883-2.2.1	Organics Prep	Adil Quyser	03/11/16 12:37	Extract from JC15883-2.2
JC15883-2.2.1	Adil Quyser	Extract Storage	03/11/16 12:37	Return to Storage
JC15883-2.2.1	Extract Storage	Linsey Kirschmann	03/11/16 13:04	Retrieve from Storage
JC15883-2.2.1	Linsey Kirschmann	GCMSP	03/11/16 13:04	Load on Instrument
JC15883-2.2.1	GCMSP	Linsey Kirschmann	03/14/16 10:42	Unload from Instrument
JC15883-2.2.1	Linsey Kirschmann	Extract Freezer	03/14/16 10:42	Return to Storage
JC15883-2.2.1	Extract Freezer	Linsey Kirschmann	03/15/16 10:20	Retrieve from Storage
JC15883-2.2.1	Linsey Kirschmann	GCMS4M	03/15/16 10:20	Load on Instrument
JC15883-2.2.1	GCMS4M	Linsey Kirschmann	03/17/16 14:27	Unload from Instrument
JC15883-2.2.1	Linsey Kirschmann	Extract Freezer	03/17/16 14:27	Return to Storage
JC15883-2.3	Secured Storage	Xu Liu	03/11/16 13:52	Retrieve from Storage
JC15883-2.3	Xu Liu	Secured Storage	03/11/16 14:13	Return to Storage
JC15883-2.7	Secured Storage	Ximena Collado	03/11/16 12:33	Retrieve from Storage
JC15883-2.7	Ximena Collado	GCMS3D	03/11/16 12:33	Load on Instrument
JC15883-2.7	GCMS3D	Ximena Collado	03/14/16 12:13	Unload from Instrument
JC15883-2.7	Ximena Collado	Secured Storage	03/14/16 12:13	Return to Storage
JC15883-3.1	Secured Storage	Brian Johnson	03/11/16 05:02	Retrieve from Storage
JC15883-3.1	Brian Johnson		03/11/16 13:10	Depleted
JC15883-3.1.1	Brian Johnson	Organics Prep	03/11/16 05:25	Extract from JC15883-3.1
JC15883-3.1.1	Organics Prep	Adil Quyser	03/11/16 12:37	Extract from JC15883-3.1
JC15883-3.1.1	Adil Quyser	Extract Storage	03/11/16 12:37	Return to Storage
JC15883-3.1.1	Extract Storage	Linsey Kirschmann	03/11/16 13:04	Retrieve from Storage
JC15883-3.1.1	Linsey Kirschmann	GCMSP	03/11/16 13:04	Load on Instrument
JC15883-3.1.1	GCMSP	Linsey Kirschmann	03/14/16 10:42	Unload from Instrument
JC15883-3.1.1	Linsey Kirschmann	Extract Freezer	03/14/16 10:42	Return to Storage
JC15883-3.1.1	Extract Freezer	Linsey Kirschmann	03/15/16 10:20	Retrieve from Storage
JC15883-3.1.1	Linsey Kirschmann	GCMS4M	03/15/16 10:20	Load on Instrument
JC15883-3.1.1	GCMS4M	Linsey Kirschmann	03/17/16 14:27	Unload from Instrument
JC15883-3.1.1	Linsey Kirschmann	Extract Freezer	03/17/16 14:27	Return to Storage
JC15883-3.3	Secured Storage	Xu Liu	03/11/16 13:52	Retrieve from Storage
JC15883-3.3	Xu Liu	Secured Storage	03/11/16 14:13	Return to Storage
JC15883-3.7	Secured Storage	Ximena Collado	03/11/16 12:33	Retrieve from Storage
JC15883-3.7	Ximena Collado	GCMS3D	03/11/16 12:33	Load on Instrument
JC15883-3.7	GCMS3D	Ximena Collado	03/14/16 12:13	Unload from Instrument
JC15883-3.7	Ximena Collado	Secured Storage	03/14/16 12:13	Return to Storage

SGS Accutest Internal Chain of Custody

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Received: 03/10/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC15883-4.2	Secured Storage	Brian Johnson	03/11/16 05:02	Retrieve from Storage
JC15883-4.2	Brian Johnson		03/11/16 13:10	Depleted
JC15883-4.2.1	Brian Johnson	Organics Prep	03/11/16 05:25	Extract from JC15883-4.2
JC15883-4.2.1	Organics Prep	Adil Quyser	03/11/16 12:37	Extract from JC15883-4.2
JC15883-4.2.1	Adil Quyser	Extract Storage	03/11/16 12:37	Return to Storage
JC15883-4.2.1	Extract Storage	Linsey Kirschmann	03/11/16 13:04	Retrieve from Storage
JC15883-4.2.1	Linsey Kirschmann	GCMSP	03/11/16 13:04	Load on Instrument
JC15883-4.2.1	GCMSP	Linsey Kirschmann	03/14/16 10:42	Unload from Instrument
JC15883-4.2.1	Linsey Kirschmann	Extract Freezer	03/14/16 10:42	Return to Storage
JC15883-4.2.1	Extract Freezer	Linsey Kirschmann	03/15/16 10:20	Retrieve from Storage
JC15883-4.2.1	Linsey Kirschmann	GCMS4M	03/15/16 10:20	Load on Instrument
JC15883-4.2.1	GCMS4M	Linsey Kirschmann	03/17/16 14:27	Unload from Instrument
JC15883-4.2.1	Linsey Kirschmann	Extract Freezer	03/17/16 14:27	Return to Storage
JC15883-4.3	Secured Storage	Xu Liu	03/11/16 13:52	Retrieve from Storage
JC15883-4.3	Xu Liu	Secured Storage	03/11/16 14:13	Return to Storage
JC15883-4.7	Secured Storage	Ximena Collado	03/11/16 12:33	Retrieve from Storage
JC15883-4.7	Ximena Collado	GCMS3D	03/11/16 12:33	Load on Instrument
JC15883-4.7	GCMS3D	Ximena Collado	03/14/16 12:13	Unload from Instrument
JC15883-4.7	Ximena Collado	Secured Storage	03/14/16 12:13	Return to Storage
JC15883-5.1	Secured Storage	Ximena Collado	03/11/16 12:33	Retrieve from Storage
JC15883-5.1	Ximena Collado	GCMS3D	03/11/16 12:33	Load on Instrument
JC15883-5.1	GCMS3D	Ximena Collado	03/14/16 12:13	Unload from Instrument
JC15883-5.1	Ximena Collado	Secured Storage	03/14/16 12:13	Return to Storage
JC15883-5.3	Secured Storage	Xu Liu	03/11/16 13:52	Retrieve from Storage
JC15883-5.3	Xu Liu	Secured Storage	03/11/16 14:13	Return to Storage

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D5036-MB	3D117666.D	1	03/11/16	XC	n/a	n/a	V3D5036

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D5036-MB	3D117666.D	1	03/11/16	XC	n/a	n/a	V3D5036

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	76-120%
17060-07-0	1,2-Dichloroethane-D4	106%	73-122%
2037-26-5	Toluene-D8	97%	84-119%
460-00-4	4-Bromofluorobenzene	94%	78-117%

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

Blank Spike Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D5036-BS	3D117667.D	1	03/11/16	XC	n/a	n/a	V3D5036

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	46.9	94	47-144
71-43-2	Benzene	50	45.8	92	81-119
100-44-7	Benzyl Chloride	50	47.9	96	40-157
74-97-5	Bromochloromethane	50	46.3	93	84-120
75-27-4	Bromodichloromethane	50	44.6	89	81-125
75-25-2	Bromoform	50	45.0	90	74-128
74-83-9	Bromomethane	50	49.5	99	52-146
78-93-3	2-Butanone (MEK)	50	48.5	97	68-130
75-15-0	Carbon disulfide	50	46.0	92	71-129
56-23-5	Carbon tetrachloride	50	44.7	89	77-140
108-90-7	Chlorobenzene	50	46.2	92	84-116
75-00-3	Chloroethane	50	44.3	89	70-148
67-66-3	Chloroform	50	45.2	90	81-120
74-87-3	Chloromethane	50	37.6	75	50-143
110-82-7	Cyclohexane	50	49.9	100	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	45.3	91	66-132
124-48-1	Dibromochloromethane	50	46.1	92	81-122
106-93-4	1,2-Dibromoethane	50	44.2	88	81-120
95-50-1	1,2-Dichlorobenzene	50	46.9	94	80-117
541-73-1	1,3-Dichlorobenzene	50	46.0	92	81-116
106-46-7	1,4-Dichlorobenzene	50	45.2	90	80-115
75-71-8	Dichlorodifluoromethane	50	43.2	86	36-169
75-34-3	1,1-Dichloroethane	50	45.4	91	80-125
107-06-2	1,2-Dichloroethane	50	45.7	91	78-131
75-35-4	1,1-Dichloroethene	50	46.4	93	73-127
156-59-2	cis-1,2-Dichloroethene	50	46.2	92	77-118
156-60-5	trans-1,2-Dichloroethene	50	44.9	90	75-118
78-87-5	1,2-Dichloropropane	50	44.7	89	80-124
10061-01-5	cis-1,3-Dichloropropene	50	48.0	96	72-121
10061-02-6	trans-1,3-Dichloropropene	50	45.5	91	73-122
100-41-4	Ethylbenzene	50	49.0	98	80-118
76-13-1	Freon 113	50	47.0	94	76-140
591-78-6	2-Hexanone	50	46.6	93	66-128
98-82-8	Isopropylbenzene	50	54.6	109	78-125
99-87-6	p-Isopropyltoluene	50	52.6	105	81-124
79-20-9	Methyl Acetate	50	37.9	76	63-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D5036-BS	3D117667.D	1	03/11/16	XC	n/a	n/a	V3D5036

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	50.8	102	69-132
1634-04-4	Methyl Tert Butyl Ether	100	96.5	97	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	52.7	105	73-129
75-09-2	Methylene chloride	50	44.1	88	75-122
100-42-5	Styrene	50	54.5	109	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	43.9	88	69-116
127-18-4	Tetrachloroethene	50	46.7	93	69-138
109-99-9	Tetrahydrofuran	50	44.2	88	56-132
108-88-3	Toluene	50	45.5	91	80-122
87-61-6	1,2,3-Trichlorobenzene	50	49.3	99	74-137
120-82-1	1,2,4-Trichlorobenzene	50	49.0	98	75-135
71-55-6	1,1,1-Trichloroethane	50	46.4	93	80-131
79-00-5	1,1,2-Trichloroethane	50	43.7	87	78-122
79-01-6	Trichloroethene	50	45.0	90	83-122
75-69-4	Trichlorofluoromethane	50	43.7	87	66-143
95-63-6	1,2,4-Trimethylbenzene	50	52.1	104	82-125
75-01-4	Vinyl chloride	50	37.5	75	57-138
	m,p-Xylene	100	104	104	82-119
95-47-6	o-Xylene	50	53.5	107	82-119
1330-20-7	Xylene (total)	150	157	105	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	73-122%
2037-26-5	Toluene-D8	98%	84-119%
460-00-4	4-Bromofluorobenzene	101%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15883-1MS	3D117675.D	1	03/11/16	XC	n/a	n/a	V3D5036
JC15883-1MSD	3D117676.D	1	03/11/16	XC	n/a	n/a	V3D5036
JC15883-1	3D117669.D	1	03/11/16	XC	n/a	n/a	V3D5036

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

CAS No.	Compound	JC15883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	41.6	83	50	41.8	84	0	33-158/19
71-43-2	Benzene	ND		50	46.8	94	50	47.8	96	2	43-138/12
100-44-7	Benzyl Chloride	ND		50	47.4	95	50	47.6	95	0	48-155/17
74-97-5	Bromochloromethane	ND		50	44.4	89	50	46.0	92	4	75-127/12
75-27-4	Bromodichloromethane	ND		50	44.7	89	50	45.2	90	1	72-128/13
75-25-2	Bromoform	ND		50	45.3	91	50	46.6	93	3	70-131/12
74-83-9	Bromomethane	ND		50	47.8	96	50	50.2	100	5	47-142/16
78-93-3	2-Butanone (MEK)	ND		50	47.7	95	50	49.2	98	3	56-146/12
75-15-0	Carbon disulfide	ND		50	46.7	93	50	48.4	97	4	38-136/17
56-23-5	Carbon tetrachloride	ND		50	45.7	91	50	46.9	94	3	45-149/17
108-90-7	Chlorobenzene	ND		50	48.3	97	50	49.6	99	3	70-124/12
75-00-3	Chloroethane	ND		50	43.4	87	50	45.7	91	5	47-139/15
67-66-3	Chloroform	ND		50	43.9	88	50	45.2	90	3	66-126/13
74-87-3	Chloromethane	ND		50	36.1	72	50	37.1	74	3	41-140/15
110-82-7	Cyclohexane	0.70	J	50	54.6	108	50	55.4	109	1	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	48.4	97	50	50.3	101	4	64-136/14
124-48-1	Dibromochloromethane	ND		50	47.0	94	50	48.0	96	2	75-126/12
106-93-4	1,2-Dibromoethane	ND		50	45.4	91	50	47.1	94	4	77-124/11
95-50-1	1,2-Dichlorobenzene	0.31	J	50	48.6	97	50	49.7	99	2	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		50	47.9	96	50	48.9	98	2	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		50	47.0	94	50	47.8	96	2	69-122/12
75-71-8	Dichlorodifluoromethane	ND		50	42.7	85	50	44.5	89	4	24-161/20
75-34-3	1,1-Dichloroethane	ND		50	44.0	88	50	45.7	91	4	60-129/13
107-06-2	1,2-Dichloroethane	ND		50	43.5	87	50	44.9	90	3	72-133/12
75-35-4	1,1-Dichloroethene	ND		50	48.7	97	50	51.1	102	5	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		50	46.0	92	50	47.5	95	3	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		50	44.6	89	50	45.7	91	2	53-128/15
78-87-5	1,2-Dichloropropane	ND		50	44.0	88	50	45.0	90	2	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		50	48.7	97	50	50.3	101	3	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		50	45.6	91	50	46.7	93	2	68-130/14
100-41-4	Ethylbenzene	ND		50	52.5	105	50	54.2	108	3	38-139/12
76-13-1	Freon 113	ND		50	46.2	92	50	47.2	94	2	34-154/18
591-78-6	2-Hexanone	ND		50	53.4	107	50	55.0	110	3	55-148/15
98-82-8	Isopropylbenzene	30.0		50	95.3	131	50	97.4	135	2	54-137/15
99-87-6	p-Isopropyltoluene	ND		50	57.5	115	50	58.5	117	2	57-135/16
79-20-9	Methyl Acetate	ND		50	33.4	67	50	33.5	67	0	60-137/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15883-1MS	3D117675.D	1	03/11/16	XC	n/a	n/a	V3D5036
JC15883-1MSD	3D117676.D	1	03/11/16	XC	n/a	n/a	V3D5036
JC15883-1	3D117669.D	1	03/11/16	XC	n/a	n/a	V3D5036

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

CAS No.	Compound	JC15883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-87-2	Methylcyclohexane	0.56	J	50	53.5	106	50	54.1	107	1	30-152/17
1634-04-4	Methyl Tert Butyl Ether	34.9		100	122	87	100	126	91	3	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		50	54.4	109	50	55.6	111	2	68-139/12
75-09-2	Methylene chloride	ND		50	42.1	84	50	44.0	88	4	63-128/13
100-42-5	Styrene	ND		50	57.0	114	50	58.3	117	2	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	43.7	87	50	44.8	90	2	67-126/13
127-18-4	Tetrachloroethene	ND		50	51.3	103	50	51.8	104	1	43-145/15
109-99-9	Tetrahydrofuran	4.5	J	50	48.7	88	50	51.1	93	5	49-135/14
108-88-3	Toluene	ND		50	47.8	96	50	48.7	97	2	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND		50	52.4	105	50	53.7	107	2	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND		50	53.6	107	50	54.7	109	2	65-138/15
71-55-6	1,1,1-Trichloroethane	ND		50	46.7	93	50	48.1	96	3	51-141/16
79-00-5	1,1,2-Trichloroethane	ND		50	43.4	87	50	44.5	89	3	71-127/12
79-01-6	Trichloroethene	ND		50	47.1	94	50	48.1	96	2	55-136/14
75-69-4	Trichlorofluoromethane	ND		50	44.1	88	50	45.8	92	4	33-157/21
95-63-6	1,2,4-Trimethylbenzene	ND		50	55.1	110	50	56.1	112	2	40-143/13
75-01-4	Vinyl chloride	ND		50	37.4	75	50	38.7	77	3	34-147/17
	m,p-Xylene	0.41	J	100	111	111	100	113	113	2	42-139/13
95-47-6	o-Xylene	ND		50	57.3	115	50	58.6	117	2	56-134/13
1330-20-7	Xylene (total)	0.41	J	150	168	112	150	172	114	2	46-137/12

CAS No.	Surrogate Recoveries	MS	MSD	JC15883-1	Limits
1868-53-7	Dibromofluoromethane	93%	93%	108%	76-120%
17060-07-0	1,2-Dichloroethane-D4	89%	90%	104%	73-122%
2037-26-5	Toluene-D8	98%	98%	97%	84-119%
460-00-4	4-Bromofluorobenzene	105%	105%	103%	78-117%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: V3D5030-BFB
Lab File ID: 3D117551.D
Instrument ID: GCMS3D
Injection Date: 03/03/16
Injection Time: 12:45

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	24629	17.7		Pass
75	30.0 - 60.0% of mass 95	64293	46.1		Pass
95	Base peak, 100% relative abundance	139533	100.0		Pass
96	5.0 - 9.0% of mass 95	10081	7.22		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	132477	94.9		Pass
175	5.0 - 9.0% of mass 174	10876	7.79	(8.21) [a]	Pass
176	95.0 - 101.0% of mass 174	128778	92.3	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	8956	6.42	(6.95) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D5030-IC5030	3D117552.D	03/03/16	13:21	00:36	Initial cal 0.2
V3D5030-IC5030	3D117553.D	03/03/16	13:48	01:03	Initial cal 0.5
V3D5030-IC5030	3D117554.D	03/03/16	14:15	01:30	Initial cal 1
V3D5030-IC5030	3D117555.D	03/03/16	14:42	01:57	Initial cal 2
V3D5030-IC5030	3D117556.D	03/03/16	15:09	02:24	Initial cal 5
V3D5030-IC5030	3D117557.D	03/03/16	15:36	02:51	Initial cal 10
V3D5030-IC5030	3D117558.D	03/03/16	16:04	03:19	Initial cal 20
V3D5030-ICC5030	3D117559.D	03/03/16	16:31	03:46	Initial cal 50
V3D5030-IC5030	3D117560.D	03/03/16	16:58	04:13	Initial cal 100
V3D5030-IC5030	3D117561.D	03/03/16	17:25	04:40	Initial cal 200
V3D5030-ICV5030	3D117564.D	03/03/16	18:46	06:01	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: V3D5036-BFB
Lab File ID: 3D117663.D
Instrument ID: GCMS3D
Injection Date: 03/11/16
Injection Time: 09:02

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19249	17.1		Pass
75	30.0 - 60.0% of mass 95	50347	44.7		Pass
95	Base peak, 100% relative abundance	112707	100.0		Pass
96	5.0 - 9.0% of mass 95	7202	6.39		Pass
173	Less than 2.0% of mass 174	456	0.40	(0.41) [a]	Pass
174	50.0 - 120.0% of mass 95	110712	98.2		Pass
175	5.0 - 9.0% of mass 174	8323	7.38	(7.52) [a]	Pass
176	95.0 - 101.0% of mass 174	107600	95.5	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	7440	6.60	(6.91) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D5036-CC5030	3D117664.D	03/11/16	09:53	00:51	Continuing cal 20
V3D5036-CC5030	3D117665.D	03/11/16	10:32	01:30	Continuing cal 1
V3D5036-MB	3D117666.D	03/11/16	11:00	01:58	Method Blank
V3D5036-BS	3D117667.D	03/11/16	11:31	02:29	Blank Spike
JC15883-1	3D117669.D	03/11/16	12:28	03:26	MW-15
JC15883-2	3D117670.D	03/11/16	12:56	03:54	MW-17
ZZZZZZ	3D117671.D	03/11/16	13:23	04:21	(unrelated sample)
ZZZZZZ	3D117672.D	03/11/16	13:51	04:49	(unrelated sample)
ZZZZZZ	3D117673.D	03/11/16	14:18	05:16	(unrelated sample)
ZZZZZZ	3D117674.D	03/11/16	14:46	05:44	(unrelated sample)
JC15883-1MS	3D117675.D	03/11/16	15:13	06:11	Matrix Spike
JC15883-1MSD	3D117676.D	03/11/16	15:41	06:39	Matrix Spike Duplicate
JC15883-5	3D117678.D	03/11/16	16:36	07:34	TB030716
ZZZZZZ	3D117679.D	03/11/16	17:04	08:02	(unrelated sample)
ZZZZZZ	3D117680.D	03/11/16	17:31	08:29	(unrelated sample)
ZZZZZZ	3D117681.D	03/11/16	17:59	08:57	(unrelated sample)
JC15883-3	3D117682.D	03/11/16	18:27	09:25	MW-14
JC15883-4	3D117683.D	03/11/16	18:54	09:52	MW-18
ZZZZZZ	3D117684.D	03/11/16	19:22	10:20	(unrelated sample)
ZZZZZZ	3D117685.D	03/11/16	19:49	10:47	(unrelated sample)
ZZZZZZ	3D117686.D	03/11/16	20:17	11:15	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	V3D5036-CC5030	**Injection Date:**	03/11/16
Lab File ID:	3D117664.D	**Injection Time:**	09:53
Instrument ID:	GCMS3D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	216380	7.40	357835	9.68	503673	10.62	418800	13.75	240364	16.08
Upper Limit [a]	432760	7.90	715670	10.18	1007346	11.12	837600	14.25	480728	16.58
Lower Limit [b]	108190	6.90	178918	9.18	251837	10.12	209400	13.25	120182	15.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3D5036-MB	207875	7.39	311647	9.68	452755	10.62	370566	13.75	220382	16.08
V3D5036-BS	222179	7.39	362081	9.68	507942	10.62	423726	13.75	239757	16.08
JC15883-1	209619	7.40	327556	9.68	465135	10.62	385128	13.75	224370	16.08
JC15883-2	204666	7.40	326739	9.68	468950	10.62	391811	13.75	229211	16.08
ZZZZZZ	219346	7.39	368972	9.68	518952	10.62	407060	13.75	239059	16.08
ZZZZZZ	212939	7.39	332137	9.68	468675	10.62	382790	13.75	221837	16.08
ZZZZZZ	206890	7.39	365492	9.68	518893	10.62	410977	13.75	236401	16.08
ZZZZZZ	237542	7.39	353654	9.68	500989	10.62	411575	13.75	240540	16.08
JC15883-1MS	249725	7.39	398213	9.68	553488	10.62	453402	13.75	252519	16.08
JC15883-1MSD	246021	7.40	390508	9.68	544351	10.62	444582	13.75	248285	16.08
JC15883-5	219641	7.40	361574	9.68	503656	10.62	407058	13.75	237865	16.08
ZZZZZZ	216158	7.39	357187	9.68	499959	10.62	406792	13.75	238838	16.08
ZZZZZZ	300015	7.38	373375	9.68	518358	10.62	412009	13.75	231978	16.08
ZZZZZZ	228272	7.39	364442	9.68	506632	10.62	403786	13.75	239550	16.08
JC15883-3	222772	7.39	353378	9.68	498797	10.62	398401	13.75	237431	16.08
JC15883-4	208485	7.39	337112	9.68	480163	10.62	393025	13.75	229908	16.08
ZZZZZZ	217778	7.39	328011	9.68	461826	10.62	374435	13.75	221112	16.08
ZZZZZZ	229533	7.39	346252	9.68	489141	10.62	394069	13.75	235696	16.08
ZZZZZZ	222727	7.39	363959	9.68	502893	10.62	413010	13.75	235135	16.08

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

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

Volatile Surrogate Recovery Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

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

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC15883-1	3D117669.D	108	104	97	103
JC15883-2	3D117670.D	107	105	97	100
JC15883-3	3D117682.D	100	97	95	96
JC15883-4	3D117683.D	101	98	96	100
JC15883-5	3D117678.D	97	95	96	97
JC15883-1MS	3D117675.D	93	89	98	105
JC15883-1MSD	3D117676.D	93	90	98	105
V3D5036-BS	3D117667.D	99	96	98	101
V3D5036-MB	3D117666.D	107	106	97	94

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: V3D5030-ICC5030
Lab FileID: 3D117559.D

Response Factor Report MS3D

```
Method       : C:\msdchem\1\METHODS\M3D5030.M (RTE Integrator)
Title        : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
Last Update  : Wed Mar 09 10:59:00 2016
Response via : Initial Calibration

Calibration Files
5   =3D117556.D  0.5 =3D117553.D  2   =3D117555.D  50  =3D117559.D
100 =3D117560.D  1   =3D117554.D  200 =3D117561.D  20  =3D117558.D
10  =3D117557.D  0.2 =3D117552.D      =                =

Compound
        5     0.5   2     50    100   1     200   20    10    0.2    Avg   %RSD
-------------------------------------------------------------------------------

1) I   Tert Butyl Alcohol-d9 ----------------ISTD---------------------
2)  1,4-dioxane
     0.100             0.105 0.106       0.103 0.105 0.110        0.105    3.18
3)  tertiary butyl alcohol
     1.243       1.434 1.090 1.123 1.322 1.068 1.147 1.216        1.205   10.37

4) I   pentafluorobenzene    ----------------ISTD---------------------
5)  FREON 115
                                                                  0.000#  -1.00
6)  FREON 152A
                                                                  0.000#  -1.00
7)  chlorotrifluoroethene
                                                                  0.000#  -1.00
8)  chlorodifluoromethane
     1.348 1.398 1.184 1.111 1.142 1.248 1.055 1.171 1.157 1.032  1.185    9.92
9)  dichlorodifluoromethane
     1.123       1.082 0.943 0.941 1.187 0.861 0.989 0.991        1.015   10.63
10)  chloromethane
     1.278 1.587 1.374 1.178 1.253 1.631 1.209 1.257 1.162 1.575  1.350   13.39
11)  vinyl chloride
     1.341 1.537 1.419 1.159 1.198 1.579 1.124 1.231 1.217 1.491  1.330   12.55
12)  bromomethane
     0.709       0.723 0.585 0.564       0.404 0.668 0.641        0.613   17.83
13)  chloroethane
     0.479 0.555 0.512 0.426 0.436 0.547 0.364 0.460 0.424        0.467   13.47
14)  1,3-butadiene
                                                                  0.000#  -1.00
15)  vinyl bromide
                                                                  0.000#  -1.00
16)  trichlorofluoromethane
     1.173 1.174 1.170 1.013 1.011 1.296 0.931 1.068 1.047 0.931  1.081   10.99
17)  pentane
                                                                  0.000#  -1.00
18)  ethyl ether
     0.275 0.273 0.234 0.228 0.232 0.232 0.215 0.245 0.240        0.242    8.34
19)  freon 123a
                                                                  0.000#  -1.00
20)  FREON 123
                                                                  0.000#  -1.00
21)  acrolein
     0.143 0.162 0.120 0.108 0.124 0.127       0.117 0.120 0.157  0.131   14.37
22)  1,1-dichloroethene
     0.944 1.071 0.814 0.838 0.878 0.781 0.815 0.843 0.824 0.789  0.860   10.23
23)  acetone
```

Initial Calibration Summary

Job Number: JC15883 **Sample:** V3D5030-ICC5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117559.D
Project: BMSMC, Former Tank Farm, PR

	0.063		0.052	0.054		0.050	0.055	0.062			0.056	9.43
24)	allyl chloride											
	0.306	0.332	0.273	0.293	0.307	0.237	0.293	0.303	0.277		0.291	9.17
25)	acetonitrile											
	0.059		0.045	0.046		0.040	0.048	0.051			0.048	13.59
26)	acetaldehyde											
											0.000#	-1.00
27)	iodomethane											
	1.214	1.361	1.009	1.088	1.151	0.978	1.092	1.123	1.081	0.991	1.109	10.36
28)	iso-butyl alcohol											
	0.161	0.186	0.139	0.137	0.143	0.135	0.133	0.144	0.141		0.146	11.52
29)	carbon disulfide											
	2.412		1.992	2.079	2.144		1.961	2.189	2.088		2.124	7.07
30)	methylene chloride											
	0.720	0.857	0.613	0.587	0.596	0.611	0.554	0.625	0.613	0.708	0.648	13.81
31)	methyl acetate											
	0.488		0.521	0.394	0.416	0.582	0.391	0.417	0.441		0.456	14.96
32)	methyl tert butyl ether											
	1.644	1.841	1.349	1.573	1.651	1.265	1.574	1.577	1.532	1.495	1.550	10.31
33)	trans-1,2-dichloroethene											
	0.918	0.966	0.749	0.768	0.785	0.706	0.711	0.812	0.796	0.760	0.797	10.57
34)	di-isopropyl ether											
	1.838	1.867	1.616	1.783	1.864	1.677	1.771	1.813	1.692	1.386	1.731	8.50
35)	ethyl tert-butyl ether											
	1.655	1.671	1.474	1.640	1.767	1.467	1.703	1.631	1.528	1.189	1.573	10.58
36)	2-butanone											
	0.051		0.055	0.060		0.059	0.053	0.057			0.056	6.15
37)	1,1-dichloroethane											
	1.102	1.228	0.951	0.923	0.947	0.872	0.865	1.001	0.989	0.901	0.978	11.46
38)	chloroprene											
	0.696	0.718	0.615	0.664	0.700	0.636	0.648	0.660	0.605	0.473	0.641	10.85
39)	acrylonitrile											
	0.242	0.263	0.197	0.206	0.216	0.191	0.203	0.215	0.219	0.221	0.217	9.88
40)	vinyl acetate											
	0.075		0.062	0.075	0.083		0.082	0.074	0.079		0.076	9.16
41)	ethyl acetate											
	0.073		0.071	0.062	0.068		0.066	0.066	0.062		0.067	6.50
42)	2,2-dichloropropane											
	1.110	1.244	0.878	0.896	0.931	0.883	0.854	0.970	0.948	0.955	0.967	12.51
43)	cis-1,2-dichloroethene											
	0.630	0.749	0.545	0.558	0.576	0.485	0.530	0.576	0.571	0.546	0.577	12.31
44)	propionitrile											
	0.100	0.100	0.081	0.082	0.088	0.079	0.085	0.088	0.091	0.095	0.089	8.40
45)	methyl acrylate											
	0.074		0.054	0.067	0.074		0.073	0.068	0.071		0.069	10.07
46)	bromochloromethane											
	0.343	0.384	0.284	0.288	0.299	0.273	0.279	0.308	0.314		0.308	11.55
47)	tetrahydrofuran											
	0.163		0.150	0.142	0.158	0.168	0.155	0.147	0.147		0.154	5.73
48)	chloroform											
	1.063	1.259	0.889	0.881	0.895	0.860	0.831	0.936	0.942	1.003	0.956	13.27
49)	Tert-Butyl Formate											
	0.493	0.529	0.438	0.482	0.534	0.476	0.528	0.481	0.464	0.415	0.484	8.11
50)	dibromofluoromethane (s)											
	0.517	0.528	0.524	0.497	0.500	0.527	0.490	0.506	0.502	0.530	0.512	2.88
51)	1,2-dichloroethane-d4 (s)											
	0.537	0.552	0.547	0.510	0.513	0.543	0.502	0.521	0.513	0.553	0.529	3.65
52)	freon 113											
	0.756	0.754	0.630	0.609	0.632	0.653	0.581	0.611	0.618	0.416	0.626	15.14
53)	methacrylonitrile											

```
      0.328 0.408 0.287 0.283 0.305 0.306 0.301 0.287 0.301        0.312   12.42
54)  1,1,1-trichloroethane
      1.024 1.136 0.831 0.877 0.910 0.817 0.848 0.907 0.904 0.927  0.918   10.50
55)  tert amyl alcohol
                                                                   0.000#  -1.00
56)  2,2,4-Trimethylpentane
      2.051 1.784 1.586 2.184 2.372 1.691 2.240 2.046 1.792        1.972   13.70
57)  tert-amyl methyl ether
      1.573 1.655 1.412 1.554 1.678 1.425 1.631 1.565 1.490 1.151  1.514   10.31

58) I   1,4-difluorobenzene   ----------------ISTD---------------------
59)  epichlorohydrin
      0.038 0.041 0.038 0.033 0.037 0.039 0.036 0.035 0.036        0.037    6.40
60)  n-butyl alcohol
      0.012 0.012 0.013 0.011 0.013 0.013 0.013 0.012 0.012        0.012    5.81
61)  cyclohexane
      0.684 0.678 0.532 0.643 0.668 0.468 0.610 0.640 0.606 0.524  0.605   12.14
62)  carbon tetrachloride
      0.721 0.803 0.572 0.604 0.616 0.571 0.563 0.629 0.630 0.631  0.634   11.77
63)  1,1-dichloropropene
      0.509 0.534 0.410 0.443 0.452 0.367 0.418 0.454 0.456 0.439  0.448   10.59
64)  hexane
      0.415 0.404 0.349 0.394 0.399 0.348 0.365 0.386 0.357 0.278  0.370   10.78
65)  benzene
      1.575 1.782 1.372 1.374 1.405 1.240 1.318 1.441 1.431 1.474  1.441   10.39
66)  heptane
      0.259 0.221 0.197 0.237 0.240 0.201 0.218 0.234 0.222        0.225    8.59
67)  isopropyl acetate
      0.694 0.718 0.620 0.614 0.683 0.664 0.662 0.619 0.633        0.656    5.66
68)  1,2-dichloroethane
      0.540 0.555 0.468 0.451 0.459 0.409 0.437 0.470 0.499 0.526  0.481    9.84
69)  trichloroethene
      0.393 0.453 0.351 0.337 0.348 0.343 0.329 0.348 0.355 0.293  0.355   11.89
70)  ethyl acrylate
                                                                   0.000#  -1.00
71)  tert amyl ethyl ether
                                                                   0.000#  -1.00
72)  2-nitropropane
      0.148       0.152 0.120 0.128 0.165 0.123 0.132 0.147        0.139   11.32
73)  2-chloroethyl vinyl ether
      0.194 0.178 0.171 0.200 0.214 0.168 0.205 0.202 0.201 0.136  0.187   12.61
74)  methyl methacrylate
      0.191             0.194 0.218       0.221 0.186 0.189        0.200    7.76
75)  1,2-dichloropropane
      0.430 0.476 0.358 0.362 0.369 0.334 0.346 0.384 0.397 0.385  0.384   11.03
76)  methylcyclohexane
      0.655 0.630 0.536 0.662 0.673 0.569 0.621 0.647 0.598 0.400  0.599   13.73
77)  dibromomethane
      0.274 0.302 0.235 0.229 0.237 0.228 0.223 0.243 0.255 0.214  0.244   10.84
78)  bromodichloromethane
      0.519 0.595 0.447 0.453 0.468 0.441 0.447 0.467 0.488 0.427  0.475   10.45
79)  cis-1,3-dichloropropene
      0.541 0.588 0.445 0.494 0.524 0.390 0.520 0.493 0.516 0.409  0.492   12.41
80)  toluene-d8 (s)
      1.108 1.098 1.116 1.093 1.099 1.104 1.113 1.108 1.108 1.089  1.104    0.79
81)  4-methyl-2-pentanone
      0.141 0.114 0.117 0.139 0.157 0.100 0.150 0.138 0.139        0.133   13.98
82)  toluene
      0.830 0.970 0.697 0.740 0.772 0.688 0.742 0.754 0.788 0.786  0.777   10.30
83)  3-methyl-1-butanol
```

```
       0.010 0.008 0.009 0.010 0.012 0.008 0.012 0.010 0.010        0.010#  14.53
 84)  trans-1,3-dichloropropene
       0.487 0.558 0.423 0.455 0.474 0.386 0.461 0.462 0.487 0.455  0.465    9.61
 85)  ethyl methacrylate
       0.325 0.333 0.279 0.352 0.394 0.246 0.394 0.330 0.327 0.248  0.323   16.16
 86)  1,1,2-trichloroethane
       0.284 0.333 0.251 0.245 0.251 0.226 0.243 0.257 0.277        0.263   11.96
 87)  2-hexanone
       0.100       0.079 0.096 0.115       0.115 0.091 0.090        0.098   13.22

 88) I   chlorobenzene-d5      ----------------ISTD---------------------
 89)  tetrachloroethene
       0.494 0.527 0.431 0.429 0.443 0.397 0.414 0.440 0.439 0.434  0.445    8.53
 90)  1,3-dichloropropane
       0.592 0.682 0.518 0.518 0.541 0.491 0.515 0.535 0.550 0.402  0.534   13.34
 91)  butyl acetate
       0.210 0.224 0.199 0.216 0.244 0.190 0.234 0.209 0.203        0.214    8.05
 92)  3,3-Dimethyl-1-Butanol
       0.042       0.044 0.046 0.061 0.044 0.064 0.042 0.042        0.048   18.46
 93)  dibromochloromethane
       0.483 0.496 0.413 0.424 0.446 0.384 0.429 0.429 0.442 0.409  0.436    7.71
 94)  1,2-dibromoethane
       0.393 0.395 0.362 0.351 0.370 0.333 0.352 0.357 0.377 0.400  0.369    6.01
 95)  n-Butyl Ether
       1.319 1.354 1.051 1.506 1.626 0.992 1.547 1.401 1.291 1.249  1.334   15.24
 96)  chlorobenzene
       1.109 1.236 0.953 0.961 0.998 0.902 0.949 0.995 1.035 0.995  1.013    9.48
 97)  1,1,1,2-tetrachloroethane
       0.526 0.580 0.474 0.481 0.501 0.394 0.477 0.484 0.489 0.439  0.484   10.13
 98)  ethylbenzene
       1.730 1.858 1.407 1.642 1.714 1.295 1.601 1.636 1.624 1.437  1.594   10.60
 99)  m,p-xylene
       0.625 0.627 0.498 0.626 0.655 0.463 0.615 0.627 0.613 0.481  0.583   12.34
100)  o-xylene
       0.598 0.600 0.523 0.650 0.691 0.462 0.655 0.628 0.593 0.498  0.590   12.53
101)  styrene
       0.922 0.870 0.702 0.991 1.042 0.659 0.998 0.962 0.910 0.757  0.881   15.02
102)  Butyl Acrylate
                                                                    0.000#  -1.00
103)  bromoform
       0.359 0.396 0.300 0.319 0.341 0.311 0.327 0.319 0.338 0.319  0.333    8.38

104) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
105)  isopropylbenzene
       2.720 2.785 2.132 3.244 3.482 1.977 3.268 3.015 2.763 2.123  2.751   19.13
106)  4-bromofluorobenzene (s)
       0.773 0.767 0.760 0.820 0.828 0.755 0.818 0.802 0.784 0.775  0.788    3.40
107)  bromobenzene
       0.916 1.040 0.793 0.843 0.867 0.695 0.811 0.839 0.874 0.776  0.845   10.83
108)  cyclohexanone
       0.030 0.035 0.022 0.033 0.035 0.028 0.032 0.035 0.029        0.031   13.51
109)  1,1,2,2-tetrachloroethane
       1.044 1.225 0.901 0.905 0.944 0.861 0.881 0.919 0.980 1.009  0.967   11.13
110)  trans-1,4-dichloro-2-butene
       0.222 0.221 0.188 0.188 0.200 0.189 0.186 0.192 0.203        0.199    7.10
111)  1,2,3-trichloropropane
       0.236 0.226 0.206 0.199 0.210 0.167 0.191 0.211 0.227        0.208   10.01
112)  n-propylbenzene
       3.423 3.413 2.687 3.543 3.669 2.540 3.368 3.496 3.337 2.755  3.223   12.49
113)  4-Ethyltoluene
```

Initial Calibration Summary

Job Number: JC15883 **Sample:** V3D5030-ICC5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117559.D
Project: BMSMC, Former Tank Farm, PR

```
                                                                          0.000#  -1.00
114)  2-chlorotoluene
       0.767 0.753 0.603 0.774 0.801 0.536 0.757 0.749 0.728              0.719   12.29
115)  4-chlorotoluene
       0.725 0.705 0.577 0.718 0.739 0.539 0.706 0.718 0.703 0.468        0.660   14.42
116)  1,3,5-trimethylbenzene
       2.503       1.894 2.824 2.983       2.845 2.707 2.561              2.617   13.74
117)  tert-butylbenzene
       1.816       1.414 2.309 2.537       2.466 2.101 1.882              2.075   19.31
118)  pentachloroethane
       0.693 0.693 0.591 0.707 0.757 0.553 0.737 0.678 0.669 0.698        0.678    9.15
119)  1,2,4-trimethylbenzene
       2.433       1.772 2.772 2.911       2.746 2.682 2.532              2.550   14.81
120)  sec-butylbenzene
       3.301       2.412 3.826 4.106       3.883 3.551 3.305              3.483   16.08
121)  1,3-dichlorobenzene
       1.853 1.951 1.539 1.609 1.641 1.421 1.569 1.650 1.728 1.557        1.652    9.46
122)  p-isopropyltoluene
       2.709       1.879 3.184 3.367       3.221 2.971 2.737              2.867   17.46
123)  1,4-dichlorobenzene
       1.863 2.100 1.590 1.613 1.626 1.538 1.557 1.661 1.714              1.696   10.64
124)  1,2-dichlorobenzene
       1.912 1.980 1.652 1.707 1.754 1.529 1.651 1.749 1.809 1.547        1.729    8.40
125)  1,4-Diethylbenzene
                                                                          0.000#  -1.00
126)  n-butylbenzene
       1.474 1.462 1.098 1.599 1.668 1.056 1.560 1.544 1.438 1.228        1.413   15.04
127)  1,2,4,5-Tetramethylbenzene
                                                                          0.000#  -1.00
128)  1,2-dibromo-3-chloropropane
       0.265 0.258 0.218 0.234 0.257 0.206 0.253 0.230 0.244              0.241    8.29
129)  1,3,5-trichlorobenzene
       1.928 2.051 1.639 1.841 1.921 1.544 1.891 1.860 1.852 1.688        1.821    8.38
130)  1,2,4-trichlorobenzene
       1.815 1.930 1.545 1.844 1.919 1.356 1.903 1.806 1.794 1.487        1.740   11.63
131)  hexachlorobutadiene
       1.008 1.101 0.810 0.954 1.011 0.868 1.008 0.955 0.939 0.913        0.957    8.57
132)  naphthalene
       3.404       2.612 3.948 4.242       4.115 3.723 3.627              3.667   14.92
133)  1,2,3-trichlorobenzene
       1.918 1.859 1.560 1.900 2.000 1.386 1.926 1.894 1.934 1.593        1.797   11.47
134)  hexachloroethane
       0.649 0.750 0.536 0.677 0.746 0.541 0.736 0.648 0.615 0.494        0.639   14.42
135)  Benzyl chloride
       1.699 1.797 1.737 1.554 1.644 1.851 1.547 1.584 1.640 1.522        1.658    6.74
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M3D5030.M         Wed Mar 09 11:05:57 2016   3D
```

Initial Calibration Verification

Job Number: JC15883 **Sample:** V3D5030-ICV5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117564.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\3D117564.D                    Vial: 34
Acq On    :  3 Mar 2016   6:46 pm                       Operator: XimenaC
Sample    : ICV5030-50                                  Inst    : MS3D
Misc      : MS98160,V3D5030,5,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\M3D5030.M (RTE Integrator)
Title        : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
Last Update  : Wed Mar 09 10:59:00 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.010  Min. Rel. Area :  50%  Max. R.T. Dev  0.30min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	102	0.00	7.39
2		1,4-dioxane	0.105	0.103	1.9	99	0.00	11.27
3	M	tertiary butyl alcohol	1.205	1.097	9.0	102	0.00	7.51
4	I	pentafluorobenzene	1.000	1.000	0.0	95	0.00	9.68
5		FREON 115		----------NA----------				
6		FREON 152A		----------NA----------				
7		chlorotrifluoroethene		----------NA----------				
8		chlorodifluoromethane	1.185	0.898	24.2	77	-0.02	3.99
9		dichlorodifluoromethane	1.015	0.808	20.4	81	0.00	3.97
10		chloromethane	1.350	1.206	10.7	97	-0.01	4.33
11		vinyl chloride	1.330	1.179	11.4	97	0.00	4.60
12		bromomethane	0.613	0.572	6.7	93	-0.01	5.23
13		chloroethane	0.467	0.410	12.2	91	-0.01	5.41
14		1,3-butadiene		----------NA----------				
15		vinyl bromide		----------NA----------				
16		trichlorofluoromethane	1.081	0.937	13.3	88	-0.01	5.88
17		pentane		----------NA----------				
18		ethyl ether	0.242	0.228	5.8	95	0.00	6.28
19		freon 123a		----------NA----------				
20		FREON 123		----------NA----------				
21		acrolein	0.131	0.109	16.8	95	0.00	6.52
22		1,1-dichloroethene	0.860	0.755	12.2	86	0.00	6.70
23		acetone	0.056	0.055	1.8	100	0.00	6.73
24		allyl chloride	0.291	0.274	5.8	89	0.00	7.25
25		acetonitrile	0.048	0.045	6.3	96	0.00	7.16
26	m	acetaldehyde		----------NA----------				
27		iodomethane	1.109	1.013	8.7	88	-0.01	6.96
28		iso-butyl alcohol	0.146	0.125	14.4	87	0.00	9.88
29		carbon disulfide	2.124	1.907	10.2	87	0.00	7.10
30		methylene chloride	0.648	0.548	15.4	89	0.00	7.44
31		methyl acetate	0.456	0.382	16.2	92	0.00	7.19
32		methyl tert butyl ether	1.550	1.576	-1.7	95	0.00	7.80
33		trans-1,2-dichloroethene	0.797	0.715	10.3	88	0.00	7.83
34		di-isopropyl ether	1.731	1.789	-3.4	95	0.00	8.40
35		ethyl tert-butyl ether	1.573	1.665	-5.8	96	0.00	8.87
36		2-butanone	0.056	0.057	-1.8	98	0.00	9.08
37	M	1,1-dichloroethane	0.978	0.920	5.9	95	0.00	8.42
38		chloroprene	0.641	0.608	5.1	87	0.00	8.52
39		acrylonitrile	0.217	0.212	2.3	98	0.00	7.74
40		vinyl acetate	0.076	0.077	-1.3	97	0.00	8.36
41		ethyl acetate	0.067	0.067	0.0	103	0.00	9.09

Initial Calibration Verification

Job Number: JC15883 **Sample:** V3D5030-ICV5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117564.D
Project: BMSMC, Former Tank Farm, PR

42		2,2-dichloropropane	0.967	0.860	11.1	91	0.00	9.17
43		cis-1,2-dichloroethene	0.577	0.543	5.9	92	0.00	9.14
44		propionitrile	0.089	0.086	3.4	99	0.00	9.17
45		methyl acrylate	0.069	0.074	-7.2	105	0.00	9.18
46		bromochloromethane	0.308	0.279	9.4	92	0.00	9.44
47		tetrahydrofuran	0.154	0.154	0.0	103	0.00	9.45
48		chloroform	0.956	0.866	9.4	93	0.00	9.53
49		Tert-Butyl Formate	0.484	0.413	14.7	81	0.00	9.56
50	S	dibromofluoromethane (s)	0.512	0.483	5.7	92	0.00	9.72
51	S	1,2-dichloroethane-d4 (s)	0.529	0.495	6.4	92	0.00	10.15
52		freon 113	0.626	0.511	18.4	80	-0.01	6.72
53		methacrylonitrile	0.312	0.295	5.4	99	0.00	9.35
54		1,1,1-trichloroethane	0.918	0.865	5.8	94	0.00	9.78
55		tert amyl alcohol		----------NA----------				
56		2,2,4-Trimethylpentane	1.972	1.626	17.5	71	0.00	10.29
57		tert-amyl methyl ether	1.514	1.596	-5.4	98	0.00	10.28
58	I	1,4-difluorobenzene	1.000	1.000	0.0	94	0.00	10.62
59		epichlorohydrin	0.037	0.035	5.4	99	0.00	11.81
60		n-butyl alcohol	0.012	0.012	0.0	101	0.00	10.67
61	M	cyclohexane	0.605	0.552	8.8	81	0.00	9.89
62		carbon tetrachloride	0.634	0.567	10.6	88	0.00	9.97
63		1,1-dichloropropene	0.448	0.448	0.0	95	0.00	9.95
64		hexane	0.370	0.272	26.5	65	0.00	8.18
65	M	benzene	1.441	1.352	6.2	92	0.00	10.20
66		heptane	0.225	0.174	22.7	69	0.00	10.45
67		isopropyl acetate	0.656	0.734	-11.9	112	0.00	10.11
68		1,2-dichloroethane	0.481	0.446	7.3	93	0.00	10.24
69		trichloroethene	0.355	0.332	6.5	92	0.00	10.93
70		ethyl acrylate		----------NA----------				
71		tert amyl ethyl ether		----------NA----------				
72		2-nitropropane	0.139	0.132	5.0	103	0.00	11.69
73		2-chloroethyl vinyl ether	0.187	0.219	-17.1	103	0.00	11.72
74		methyl methacrylate	0.200	0.218	-9.0	105	0.00	11.18
75		1,2-dichloropropane	0.384	0.360	6.3	93	0.00	11.23
76		methylcyclohexane	0.599	0.538	10.2	76	0.00	11.22
77		dibromomethane	0.244	0.227	7.0	93	0.00	11.33
78		bromodichloromethane	0.475	0.437	8.0	91	0.00	11.48
79		cis-1,3-dichloropropene	0.492	0.502	-2.0	95	0.00	11.94
80	S	toluene-d8 (s)	1.104	1.097	0.6	94	0.00	12.24
81		4-methyl-2-pentanone	0.133	0.149	-12.0	101	0.00	12.04
82		toluene	0.777	0.737	5.1	94	0.00	12.32
83		3-methyl-1-butanol	0.010	0.011	-10.0	104	0.00	12.04
84		trans-1,3-dichloropropene	0.465	0.451	3.0	93	0.00	12.51
85		ethyl methacrylate	0.323	0.369	-14.2	99	0.00	12.49
86		1,1,2-trichloroethane	0.263	0.248	5.7	95	0.00	12.73
87		2-hexanone	0.098	0.108	-10.2	106	0.00	12.89
88	I	chlorobenzene-d5	1.000	1.000	0.0	94	0.00	13.75
89		tetrachloroethene	0.445	0.414	7.0	91	0.00	12.86
90		1,3-dichloropropane	0.534	0.525	1.7	96	0.00	12.91
91		butyl acetate	0.214	0.240	-12.1	105	0.00	12.96
92		3,3-Dimethyl-1-Butanol	0.048	0.051	-6.2	104	0.00	13.06
93		dibromochloromethane	0.436	0.422	3.2	94	0.00	13.15
94		1,2-dibromoethane	0.369	0.353	4.3	95	0.00	13.31
95		n-Butyl Ether	1.334	1.540	-15.4	96	0.00	13.74
96		chlorobenzene	1.013	0.970	4.2	95	0.00	13.78
97		1,1,1,2-tetrachloroethane	0.484	0.462	4.5	91	0.00	13.85
98		ethylbenzene	1.594	1.628	-2.1	94	0.00	13.84
99		m,p-xylene	0.583	0.626	-7.4	94	0.00	13.96

Initial Calibration Verification

Job Number: JC15883 **Sample:** V3D5030-ICV5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117564.D
Project: BMSMC, Former Tank Farm, PR

100		o-xylene	0.590	0.659	-11.7	96	0.00	14.36
101		styrene	0.881	0.985	-11.8	94	0.00	14.38
102		Butyl Acrylate		----------NA----------				
103		bromoform	0.333	0.328	1.5	97	0.00	14.61
104	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	95	0.00	16.08
105		isopropylbenzene	2.751	3.161	-14.9	93	0.00	14.71
106	S	4-bromofluorobenzene (s)	0.788	0.824	-4.6	96	0.00	14.92
107		bromobenzene	0.845	0.826	2.2	93	0.00	15.10
108		cyclohexanone	0.031	0.031	0.0	89	0.00	14.85
109		1,1,2,2-tetrachloroethane	0.967	0.900	6.9	95	0.00	15.00
110		trans-1,4-dichloro-2-bute	0.199	0.199	0.0	101	0.00	15.03
111		1,2,3-trichloropropane	0.208	0.203	2.4	97	0.00	15.08
112		n-propylbenzene	3.223	3.530	-9.5	95	0.00	15.13
113		4-Ethyltoluene		----------NA----------				
114		2-chlorotoluene	0.719	0.745	-3.6	92	0.00	15.26
115		4-chlorotoluene	0.660	0.712	-7.9	94	0.00	15.38
116		1,3,5-trimethylbenzene	2.617	2.753	-5.2	93	0.00	15.29
117		tert-butylbenzene	2.075	2.270	-9.4	94	0.00	15.62
118		pentachloroethane	0.678	0.699	-3.1	94	0.00	15.69
119		1,2,4-trimethylbenzene	2.550	2.736	-7.3	94	0.00	15.68
120		sec-butylbenzene	3.483	3.670	-5.4	91	0.00	15.85
121		1,3-dichlorobenzene	1.652	1.570	5.0	93	0.00	16.01
122		p-isopropyltoluene	2.867	3.101	-8.2	93	0.00	15.98
123		1,4-dichlorobenzene	1.696	1.581	6.8	93	0.00	16.10
124		1,2-dichlorobenzene	1.729	1.701	1.6	95	0.00	16.46
125		1,4-Diethylbenzene		----------NA----------				
126		n-butylbenzene	1.413	1.529	-8.2	91	0.00	16.37
127		1,2,4,5-Tetramethylbenzen		----------NA----------				
128		1,2-dibromo-3-chloropropa	0.241	0.239	0.8	97	0.00	17.19
129		1,3,5-trichlorobenzene	1.821	1.777	2.4	92	0.00	17.36
130		1,2,4-trichlorobenzene	1.740	1.852	-6.4	96	0.00	17.93
131		hexachlorobutadiene	0.957	0.933	2.5	93	0.00	18.03
132		naphthalene	3.667	4.024	-9.7	97	0.00	18.19
133		1,2,3-trichlorobenzene	1.797	1.926	-7.2	96	0.00	18.38
134		hexachloroethane	0.639	0.675	-5.6	95	0.00	16.74
135		Benzyl chloride	1.658	1.496	9.8	92	0.00	16.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3D117559.D M3D5030.M Wed Mar 09 11:05:46 2016 3D

Continuing Calibration Summary

Job Number: JC15883 **Sample:** V3D5036-CC5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117664.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\3D\v3d5036\3D117664.D      Vial: 2
Acq On    : 11 Mar 2016   9:53 am                    Operator: XimenaC
Sample    : cc5030-20                                Inst    : MS3D
Misc      : MS99464,V3D5036,5,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\M3D5030.M (RTE Integrator)
Title        : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
Last Update  : Thu Mar 10 10:05:01 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.010  Min. Rel. Area :  50%  Max. R.T. Dev  0.30min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	79	0.00	7.40
2		1,4-dioxane	0.105	0.104	1.0	78	0.00	11.26
3	M	tertiary butyl alcohol	1.205	1.100	8.7	76	0.00	7.51
4	I	pentafluorobenzene	1.000	1.000	0.0	83	0.00	9.68
5		FREON 115		----------NA----------				
6		FREON 152A		----------NA----------				
7		PROPYLENE		----------NA----------				
8		chlorotrifluoroethene		----------NA----------				
9		chlorodifluoromethane	1.185	1.137	4.1	81	-0.01	3.99
10		dichlorodifluoromethane	1.015	0.933	8.1	79	0.00	3.97
11		chloromethane	1.350	1.075	20.4#	71	-0.01	4.33
12		vinyl chloride	1.330	1.120	15.8	76	0.00	4.60
13		bromomethane	0.613	0.592	3.4	74	-0.01	5.23
14		chloroethane	0.467	0.418	10.5	76	-0.01	5.41
15		1,3-butadiene		----------NA----------				
16		vinyl bromide		----------NA----------				
17		trichlorofluoromethane	1.081	0.977	9.6	76	-0.01	5.88
18		pentane		----------NA----------				
19		ethyl ether	0.242	0.226	6.6	77	0.00	6.29
20		freon 123a		----------NA----------				
21		FREON 123		----------NA----------				
22		acrolein	0.131	0.123	6.1	88	0.00	6.52
23		1,1-dichloroethene	0.860	0.787	8.5	78	0.00	6.70
24		acetone	0.056	0.053	5.4	80	0.00	6.72
25		allyl chloride	0.291	0.266	8.6	73	0.00	7.25
26		acetonitrile	0.048	0.045	6.3	77	0.00	7.16
27	m	acetaldehyde		----------NA----------				
28		iodomethane	1.109	1.045	5.8	78	0.00	6.97
29		iso-butyl alcohol	0.146	0.132	9.6	77	0.00	9.88
30		carbon disulfide	2.124	1.962	7.6	75	0.00	7.10
31		methylene chloride	0.648	0.585	9.7	78	0.00	7.44
32		methyl acetate	0.456	0.396	13.2	79	0.00	7.19
33		methyl tert butyl ether	1.550	1.469	5.2	78	0.00	7.79
34		trans-1,2-dichloroethene	0.797	0.758	4.9	78	0.00	7.83
35		di-isopropyl ether	1.731	1.706	1.4	78	0.00	8.40
36		ethyl tert-butyl ether	1.573	1.446	8.1	74	0.00	8.87
37		2-butanone	0.056	0.057	-1.8	90	-0.01	9.07
38	M	1,1-dichloroethane	0.978	0.913	6.6	76	0.00	8.42
39		chloroprene	0.641	0.632	1.4	80	0.00	8.52
40		acrylonitrile	0.217	0.202	6.9	78	0.00	7.74
41		vinyl acetate	0.076	0.063	17.1	71	0.00	8.36

Continuing Calibration Summary

Job Number: JC15883 **Sample:** V3D5036-CC5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117664.D
Project: BMSMC, Former Tank Farm, PR

42		ethyl acetate	0.067	0.059	11.9	75	0.00	9.09
43		2,2-dichloropropane	0.967	0.951	1.7	82	0.00	9.17
44		cis-1,2-dichloroethene	0.577	0.538	6.8	78	0.00	9.14
45		propionitrile	0.089	0.081	9.0	77	0.00	9.16
46		methyl acrylate	0.069	0.063	8.7	77	0.00	9.17
47		bromochloromethane	0.308	0.289	6.2	78	0.00	9.44
48		tetrahydrofuran	0.154	0.134	13.0	76	0.00	9.45
49		chloroform	0.956	0.853	10.8	76	0.00	9.52
50		Tert-Butyl Formate	0.484	0.491	-1.4	85	0.00	9.56
51	S	dibromofluoromethane (s)	0.512	0.510	0.4	84	0.00	9.72
52	S	1,2-dichloroethane-d4 (s)	0.529	0.517	2.3	83	0.00	10.15
53		freon 113	0.626	0.621	0.8	85	0.00	6.73
54		methacrylonitrile	0.312	0.269	13.8	78	0.00	9.35
55		1,1,1-trichloroethane	0.918	0.876	4.6	81	0.00	9.78
56		tert amyl alcohol		----------NA----------				
57		2,2,4-Trimethylpentane	1.972	1.983	-0.6	81	0.00	10.29
58		tert-amyl methyl ether	1.514	1.384	8.6	74	0.00	10.28
59	I	1,4-difluorobenzene	1.000	1.000	0.0	83	0.00	10.62
60		epichlorohydrin	0.037	0.032	13.5	75	0.00	11.81
61		n-butyl alcohol	0.012	0.011	8.3	76	0.00	10.66
62	M	cyclohexane	0.605	0.617	-2.0	80	0.00	9.89
63		carbon tetrachloride	0.634	0.585	7.7	77	0.00	9.97
64		1,1-dichloropropene	0.448	0.428	4.5	78	0.00	9.95
65		hexane	0.370	0.394	-6.5	85	0.00	8.18
66	M	benzene	1.441	1.324	8.1	76	0.00	10.20
67		heptane	0.225	0.241	-7.1	85	0.00	10.45
68		isopropyl acetate	0.656	0.580	11.6	78	0.00	10.11
69		1,2-dichloroethane	0.481	0.443	7.9	78	0.00	10.23
70		trichloroethene	0.355	0.319	10.1	76	0.00	10.93
71		ethyl acrylate		----------NA----------				
72		tert amyl ethyl ether		----------NA----------				
73		2-nitropropane	0.139	0.116	16.5	73	0.00	11.69
74		2-chloroethyl vinyl ether	0.187	0.188	-0.5	77	0.00	11.72
75		methyl methacrylate	0.200	0.164	18.0	73	0.00	11.18
76		1,2-dichloropropane	0.384	0.352	8.3	76	0.00	11.23
77		methylcyclohexane	0.599	0.636	-6.2	81	0.00	11.22
78		dibromomethane	0.244	0.223	8.6	76	0.00	11.33
79		bromodichloromethane	0.475	0.427	10.1	76	0.00	11.48
80		cis-1,3-dichloropropene	0.492	0.456	7.3	77	0.00	11.93
81	S	toluene-d8 (s)	1.104	1.082	2.0	81	0.00	12.24
82		4-methyl-2-pentanone	0.133	0.130	2.3	78	0.00	12.04
83		toluene	0.777	0.708	8.9	78	0.00	12.32
84		3-methyl-1-butanol	0.010	0.009#	10.0	79	0.00	12.03
85		trans-1,3-dichloropropene	0.465	0.424	8.8	76	0.00	12.51
86		ethyl methacrylate	0.323	0.300	7.1	75	0.00	12.49
87		1,1,2-trichloroethane	0.263	0.241	8.4	78	0.00	12.73
88		2-hexanone	0.098	0.084	14.3	76	0.00	12.88
89	I	chlorobenzene-d5	1.000	1.000	0.0	81	0.00	13.75
90		tetrachloroethene	0.445	0.419	5.8	77	0.00	12.86
91		1,3-dichloropropane	0.534	0.500	6.4	76	0.00	12.90
92		butyl acetate	0.214	0.201	6.1	78	0.00	12.96
93		3,3-Dimethyl-1-Butanol	0.048	0.041	14.6	79	0.00	13.06
94		dibromochloromethane	0.436	0.410	6.0	78	0.00	13.15
95		1,2-dibromoethane	0.369	0.341	7.6	78	0.00	13.31
96		n-Butyl Ether	1.334	1.295	2.9	75	0.00	13.74
97		chlorobenzene	1.013	0.943	6.9	77	0.00	13.78
98		1,1,1,2-tetrachloroethane	0.484	0.454	6.2	76	0.00	13.85
99		ethylbenzene	1.594	1.565	1.8	78	0.00	13.84

Continuing Calibration Summary

Job Number: JC15883 **Sample:** V3D5036-CC5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117664.D
Project: BMSMC, Former Tank Farm, PR

100		m,p-xylene	0.583	0.609	-4.5	79	0.00	13.96
101		o-xylene	0.590	0.587	0.5	76	0.00	14.36
102		styrene	0.881	0.927	-5.2	78	0.00	14.38
103		Butyl Acrylate		----------NA----------				
104		bromoform	0.333	0.298	10.5	76	0.00	14.61
105	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	81	0.00	16.08
106		isopropylbenzene	2.751	2.812	-2.2	76	0.00	14.71
107	S	4-bromofluorobenzene (s)	0.788	0.793	-0.6	81	0.00	14.92
108		bromobenzene	0.845	0.792	6.3	77	0.00	15.10
109		cyclohexanone	0.031	0.081	-161.3#	186	0.00	14.85
110		1,1,2,2-tetrachloroethane	0.967	0.865	10.5	77	0.00	15.00
111		trans-1,4-dichloro-2-bute	0.199	0.162	18.6	69	0.00	15.03
112		1,2,3-trichloropropane	0.208	0.195	6.2	75	0.00	15.08
113		n-propylbenzene	3.223	3.294	-2.2	77	0.00	15.13
114		4-Ethyltoluene		----------NA----------				
115		2-chlorotoluene	0.719	0.706	1.8	77	0.00	15.26
116		4-chlorotoluene	0.660	0.680	-3.0	77	0.00	15.37
117		1,3,5-trimethylbenzene	2.617	2.572	1.7	77	0.00	15.28
118		tert-butylbenzene	2.075	1.933	6.8	75	0.00	15.62
119		pentachloroethane	0.678	0.645	4.9	77	0.00	15.69
120		1,2,4-trimethylbenzene	2.550	2.541	0.4	77	0.00	15.68
121		sec-butylbenzene	3.483	3.390	2.7	78	0.00	15.84
122		1,3-dichlorobenzene	1.652	1.601	3.1	79	0.00	16.01
123		p-isopropyltoluene	2.867	2.830	1.3	78	0.00	15.97
124		1,4-dichlorobenzene	1.696	1.573	7.3	77	0.00	16.10
125		1,2-dichlorobenzene	1.729	1.654	4.3	77	0.00	16.46
126		1,4-Diethylbenzene		----------NA----------				
127		n-butylbenzene	1.413	1.481	-4.8	78	0.00	16.37
128		1,2,4,5-Tetramethylbenzen		----------NA----------				
129		1,2-dibromo-3-chloropropa	0.241	0.216	10.4	76	0.00	17.19
130		1,3,5-trichlorobenzene	1.821	1.726	5.2	76	0.00	17.35
131		1,2,4-trichlorobenzene	1.740	1.676	3.7	76	0.00	17.93
132		hexachlorobutadiene	0.957	0.862	9.9	74	0.00	18.03
133		naphthalene	3.667	3.452	5.9	76	0.00	18.19
134		1,2,3-trichlorobenzene	1.797	1.772	1.4	76	0.00	18.38
135		hexachloroethane	0.639	0.591	7.5	74	0.00	16.74
136		Benzyl chloride	1.658	1.562	5.8	80	0.00	16.19

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3D117558.D M3D5030.M Sat Mar 12 15:43:35 2016 RPT1

6.7.3

6

Continuing Calibration Summary

Job Number: JC15883 **Sample:** V3D5036-CC5030
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3D117665.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\3D\v3d5036\3D117665.D      Vial: 3
Acq On    : 11 Mar 2016  10:32 am                    Operator: XimenaC
Sample    : cc5030-1                                 Inst    : MS3D
Misc      : MS99464,V3D5036,5,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\M3D5030.M (RTE Integrator)
Title        : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
Last Update  : Thu Mar 10 10:05:01 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.010  Min. Rel. Area :  50%  Max. R.T. Dev  0.30min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	80	-0.02	7.38
4	I	pentafluorobenzene	1.000	1.000	0.0	83	0.00	9.68
11		chloromethane	1.350	1.123	16.8	57	-0.02	4.32
51	S	dibromofluoromethane (s)	0.512	0.543	-6.1	85	0.00	9.72
52	S	1,2-dichloroethane-d4 (s)	0.529	0.552	-4.3	84	0.00	10.15
59	I	1,4-difluorobenzene	1.000	1.000	0.0	84	0.00	10.62
81	S	toluene-d8 (s)	1.104	1.076	2.5	82	0.00	12.24
89	I	chlorobenzene-d5	1.000	1.000	0.0	83	0.00	13.75
105	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	82	0.00	16.08
107	S	4-bromofluorobenzene (s)	0.788	0.756	4.1	82	0.00	14.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3D117554.D M3D5030.M Sat Mar 12 15:46:07 2016 RPT1

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117669.D
Acq On : 11 Mar 2016 12:28 pm
Operator : XimenaC
Sample : jc15883-1
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 16:52:15 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.398	65	209619	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	327556	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.618	114	465135	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	385128	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	224370	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	180456	53.79	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 107.58%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	180938	52.21	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 104.42%			
81) toluene-d8 (s)	12.243	98	496669	48.37	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 96.74%			
107) 4-bromofluorobenzene (s)	14.917	95	181286	51.26	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.52%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	7.509	59	356741	705.87	ug/L #	15
29) iso-butyl alcohol	9.884	41	3573	3.72	ug/L	86
33) methyl tert butyl ether	7.797	73	354134	34.87	ug/L	99
48) tetrahydrofuran	9.454	42	4535	4.50	ug/L	95
62) cyclohexane	9.889	84	3917	0.70	ug/L #	53
66) benzene	10.203	78	2028	0.15	ug/L	79
77) methylcyclohexane	11.221	83	3098	0.56	ug/L	87
91) 1,3-dichloropropane	12.909	76	1048	0.25	ug/L	84
100) m,p-xylene	13.963	106	1846	0.41	ug/L	91
106) isopropylbenzene	14.712	105	370295	30.00	ug/L	99
113) n-propylbenzene	15.127	91	162156	11.21	ug/L	99
121) sec-butylbenzene	15.840	105	18333	1.17	ug/L	95
125) 1,2-dichlorobenzene	16.464	146	2409	0.31	ug/L	93
127) n-butylbenzene	16.369	92	9077	1.43	ug/L	100
133) naphthalene	18.189	128	4877	0.30	ug/L	83
134) 1,2,3-trichlorobenzene	18.383	180	1605	0.20	ug/L #	71

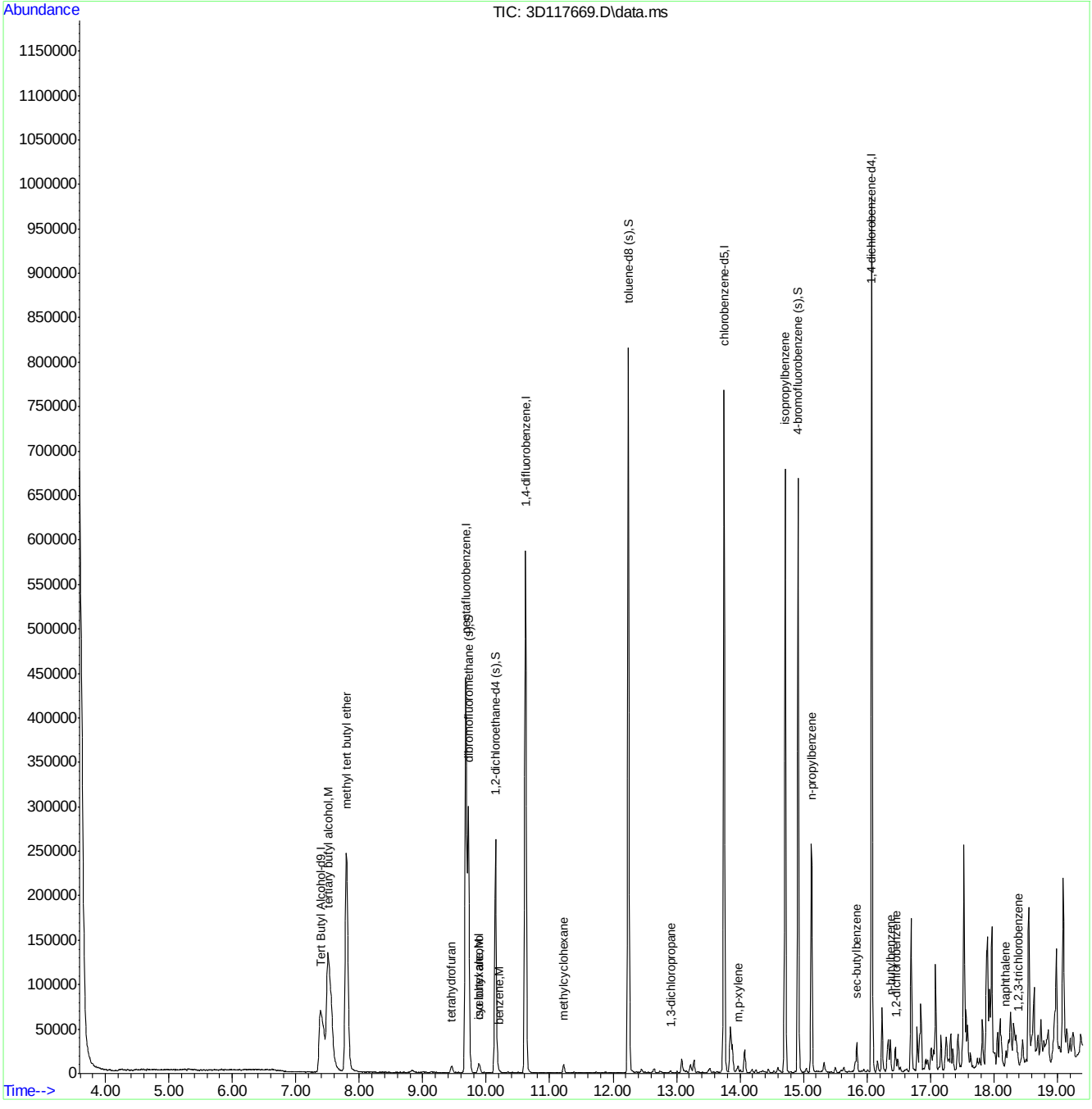
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

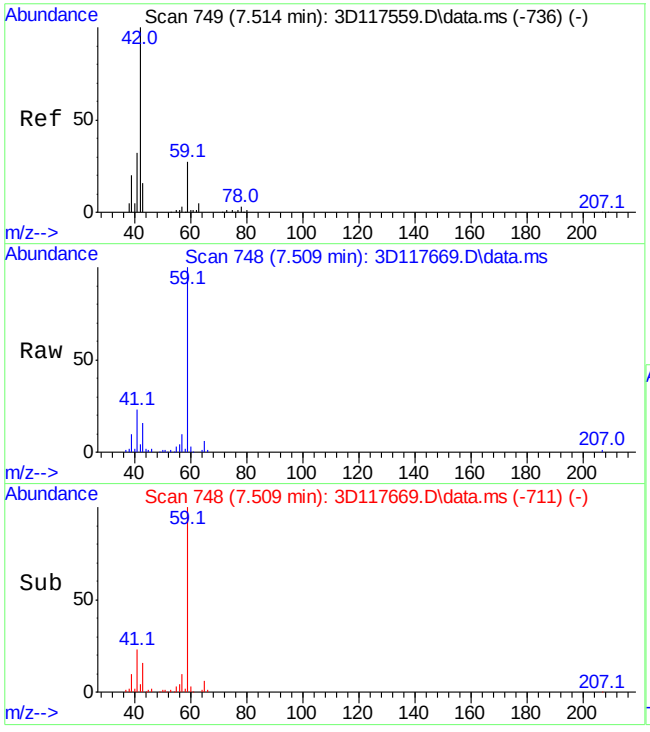
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117669.D
Acq On : 11 Mar 2016 12:28 pm
Operator : XimenaC
Sample : jc15883-1
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 16:52:15 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



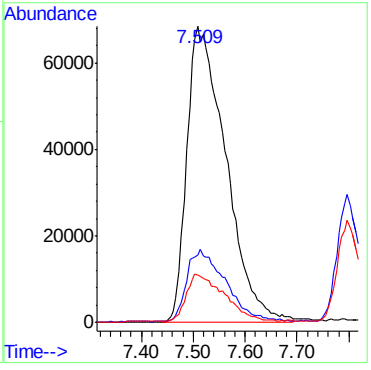
SGS ACCUTEST JC15883

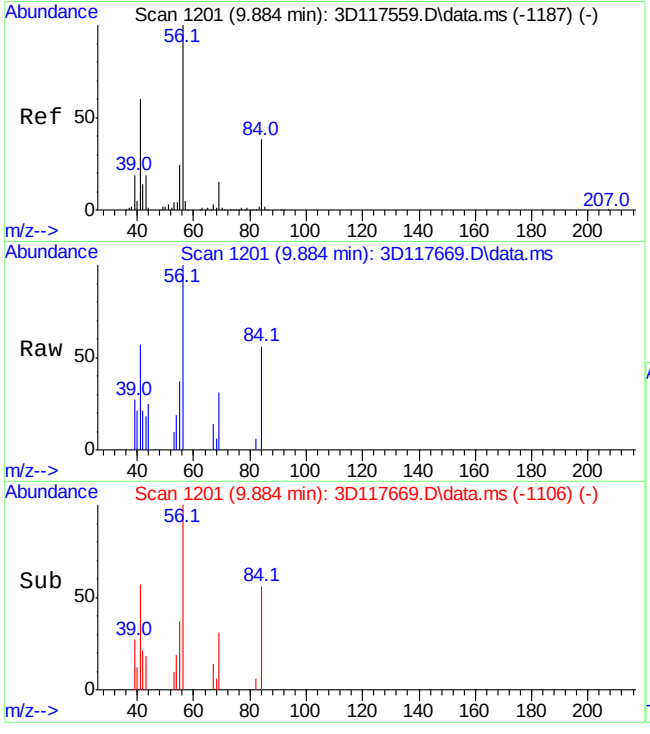


#3
tertiary butyl alcohol
Concen: 705.87 ug/L
RT: 7.509 min Scan# 748
Delta R.T. -0.005 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 59 Resp: 356741

Ion	Ratio	Lower	Upper
59	100		
41	22.6	108.1	168.1#
43	15.9	33.2	93.2#

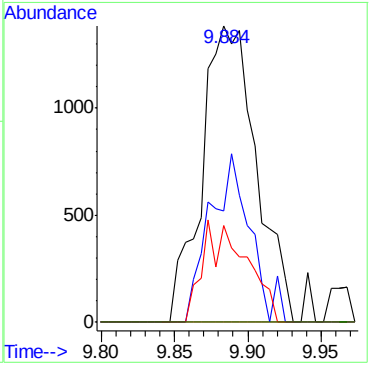


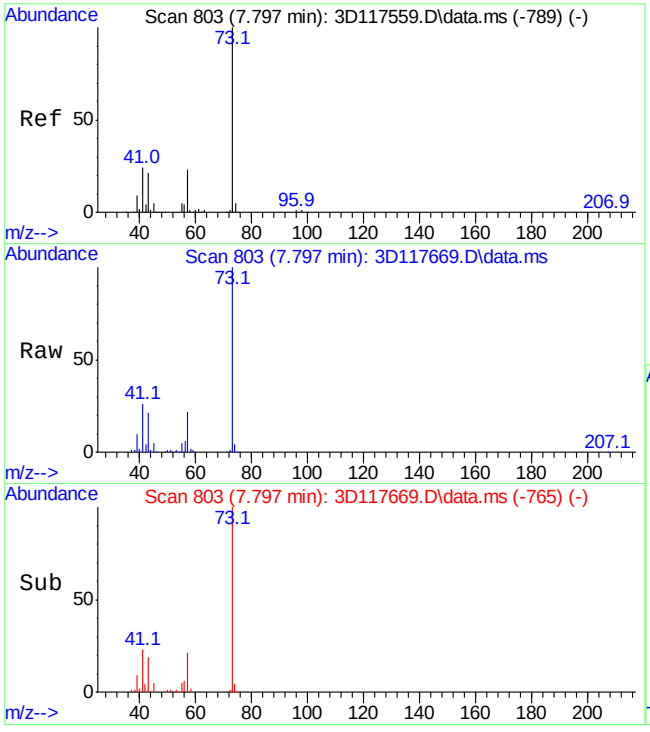


#29
iso-butyl alcohol
Concen: 3.72 ug/L
RT: 9.884 min Scan# 1201
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 41 Resp: 3573

Ion	Ratio	Lower	Upper
41	100		
42	37.3	0.0	53.9
43	32.5	0.8	60.8
74	0.0	0.0	30.3

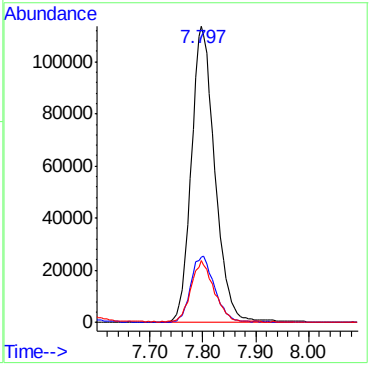


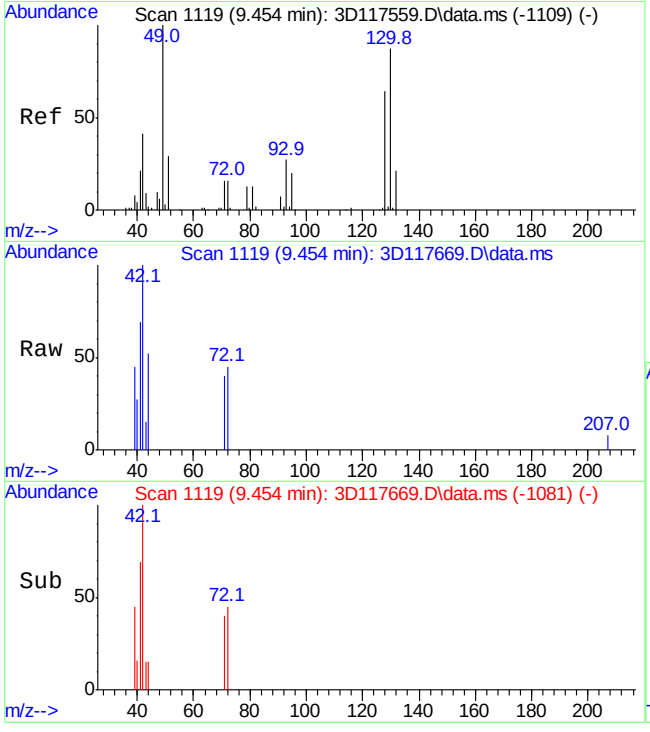


#33
methyl tert butyl ether
Concen: 34.87 ug/L
RT: 7.797 min Scan# 803
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 73 Resp: 354134

Ion	Ratio	Lower	Upper
73	100		
57	22.1	0.0	52.8
43	20.8	0.0	50.7

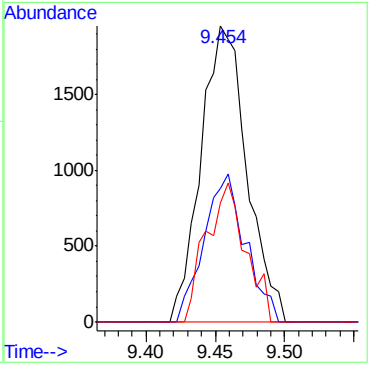


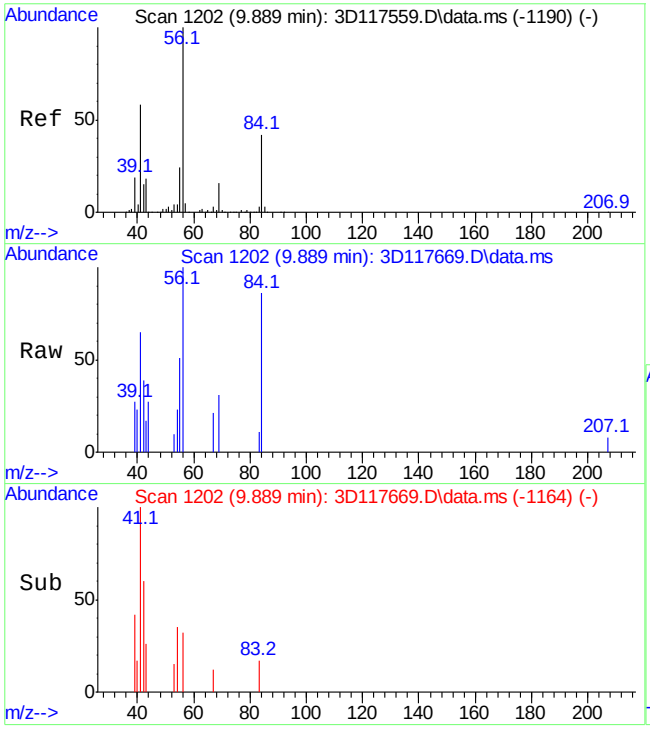


#48
tetrahydrofuran
Concen: 4.50 ug/L
RT: 9.454 min Scan# 1119
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 42 Resp: 4535

Ion	Ratio	Lower	Upper
42	100		
72	45.1	9.7	69.7
71	40.2	9.2	69.2

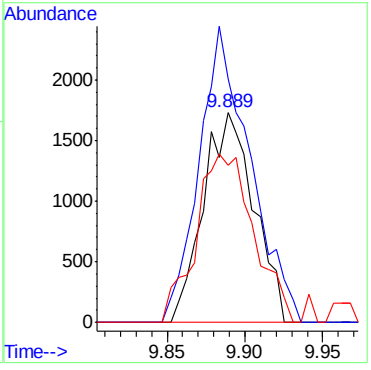


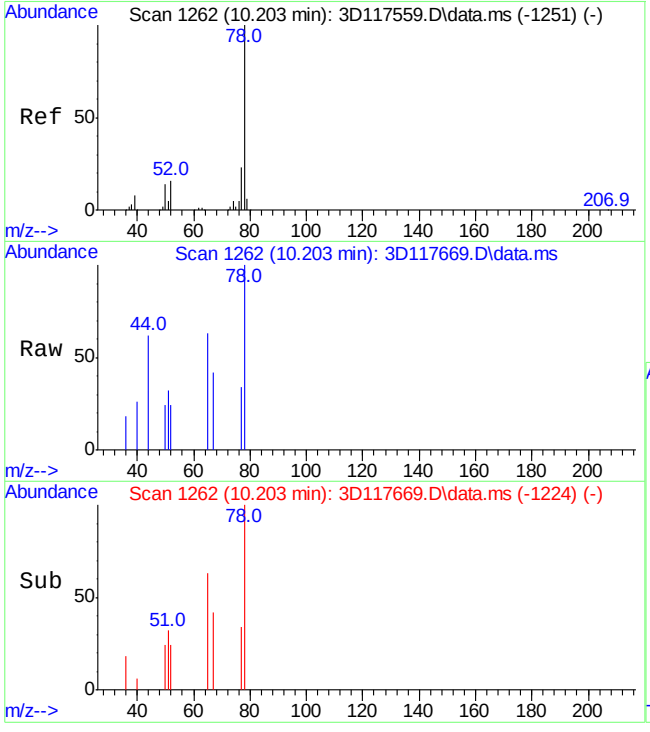


#62
cyclohexane
Concen: 0.70 ug/L
RT: 9.889 min Scan# 1202
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 84 Resp: 3917

Ion	Ratio	Lower	Upper
84	100		
56	141.7	187.7	247.7#
41	91.2	120.6	180.6#

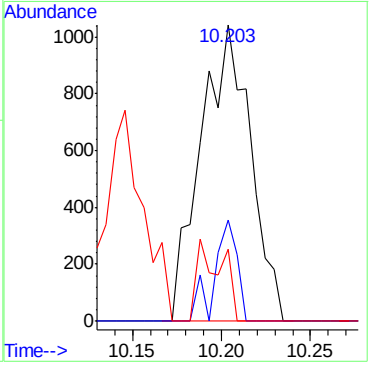


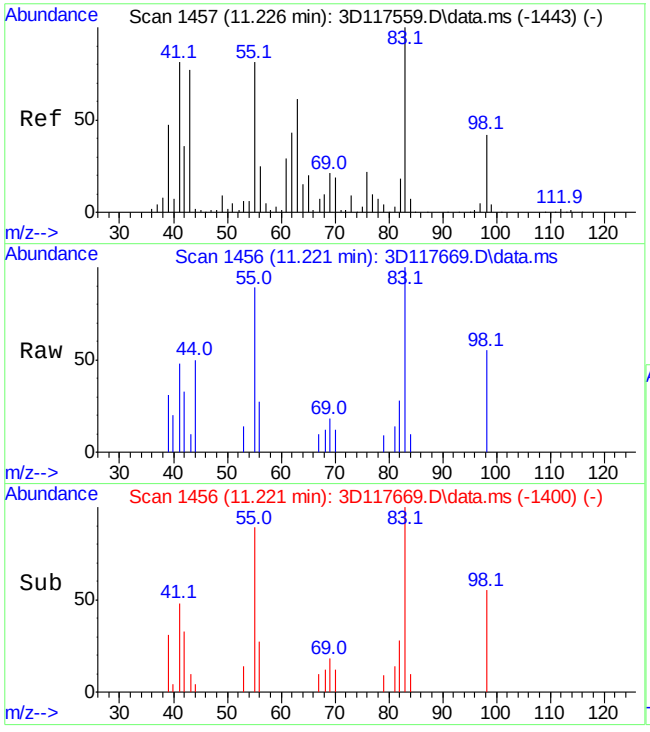


#66
benzene
Concen: 0.15 ug/L
RT: 10.203 min Scan# 1262
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 78 Resp: 2028

Ion	Ratio	Lower	Upper
78	100		
77	34.2	0.0	53.4
52	24.5	0.0	46.2

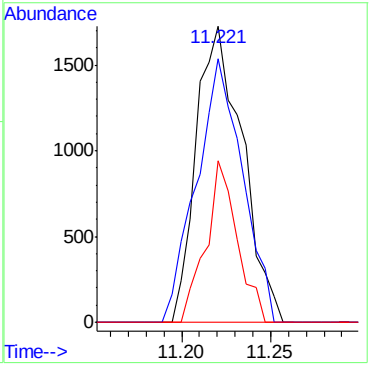


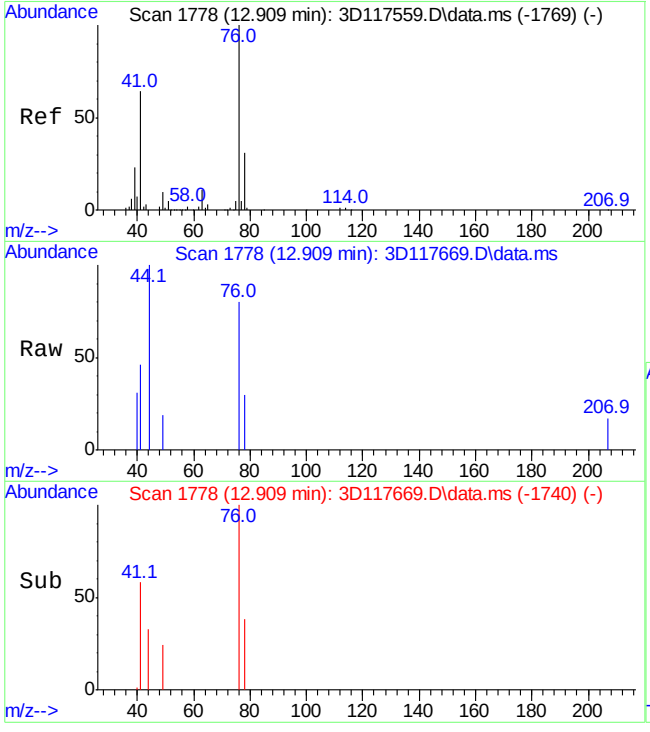


#77
methylcyclohexane
Concen: 0.56 ug/L
RT: 11.221 min Scan# 1456
Delta R.T. -0.005 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 83 Resp: 3098

Ion	Ratio	Lower	Upper
83	100		
55	88.9	51.1	111.1
98	54.6	11.5	71.5

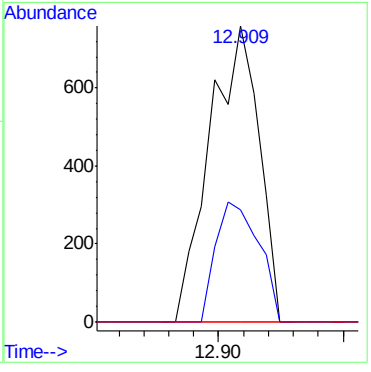


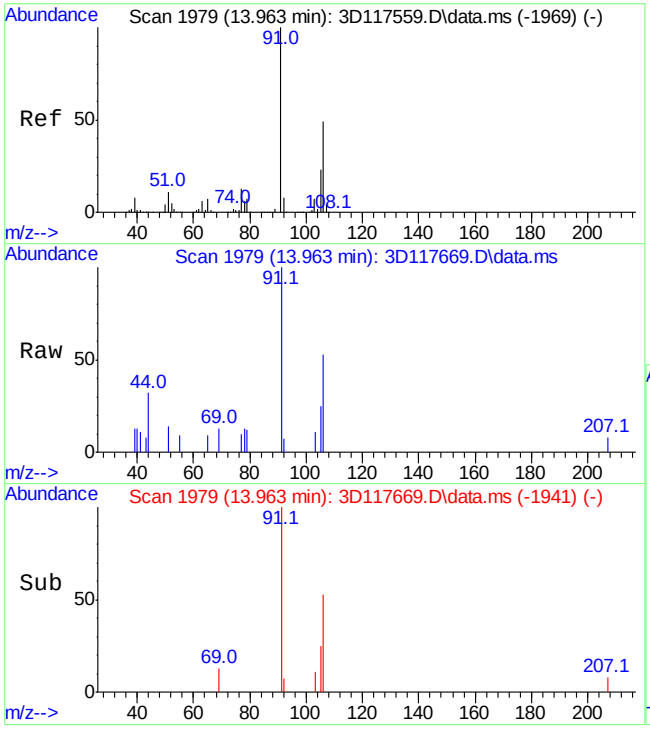


#91
1,3-dichloropropane
Concen: 0.25 ug/L
RT: 12.909 min Scan# 1778
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 76 Resp: 1048

Ion	Ratio	Lower	Upper
76	100		
78	37.8	1.3	61.3
63	0.0	0.0	40.6

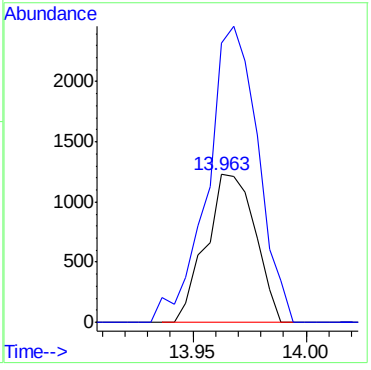


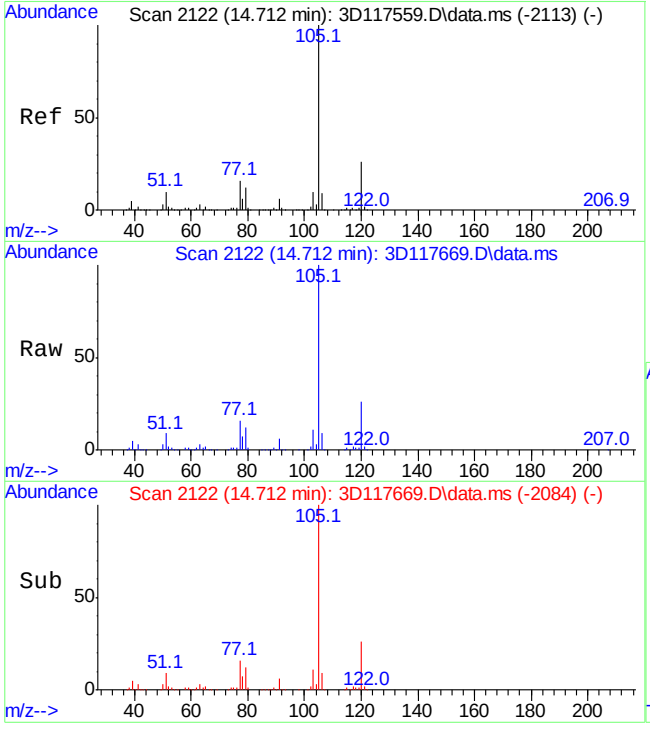


#100
m,p-xylene
Concen: 0.41 ug/L
RT: 13.963 min Scan# 1979
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion:106 Resp: 1846

Ion	Ratio	Lower	Upper
106	100		
91	189.2	141.9	263.5

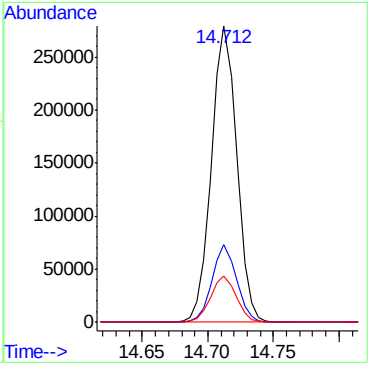


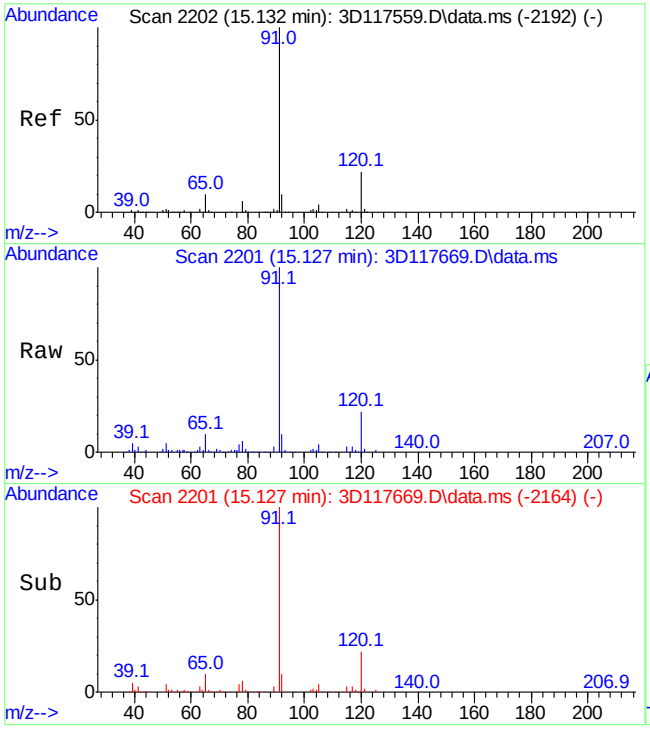


#106
isopropylbenzene
Concen: 30.00 ug/L
RT: 14.712 min Scan# 2122
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion:105 Resp: 370295

Ion	Ratio	Lower	Upper
105	100		
120	26.2	0.0	55.7
77	15.5	0.0	45.5

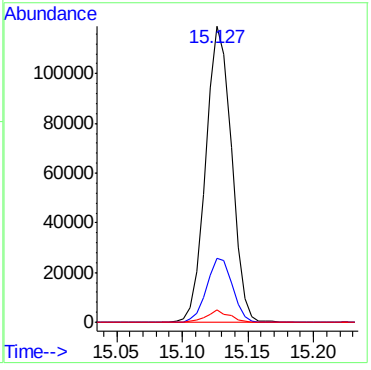


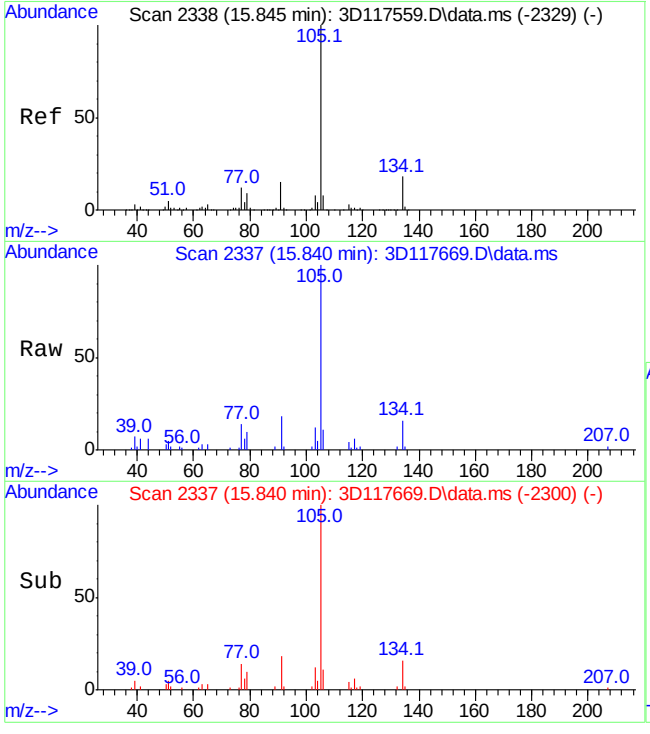


#113
n-propylbenzene
Concen: 11.21 ug/L
RT: 15.127 min Scan# 2201
Delta R.T. -0.005 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 91 Resp: 162156

Ion	Ratio	Lower	Upper
91	100		
120	21.7	0.0	52.0
105	4.1	0.0	33.8

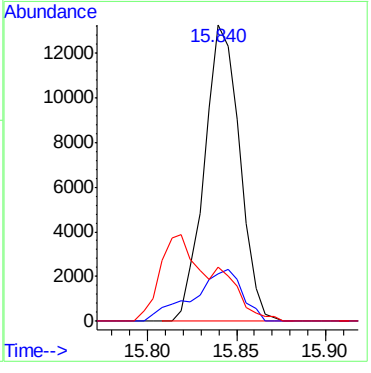


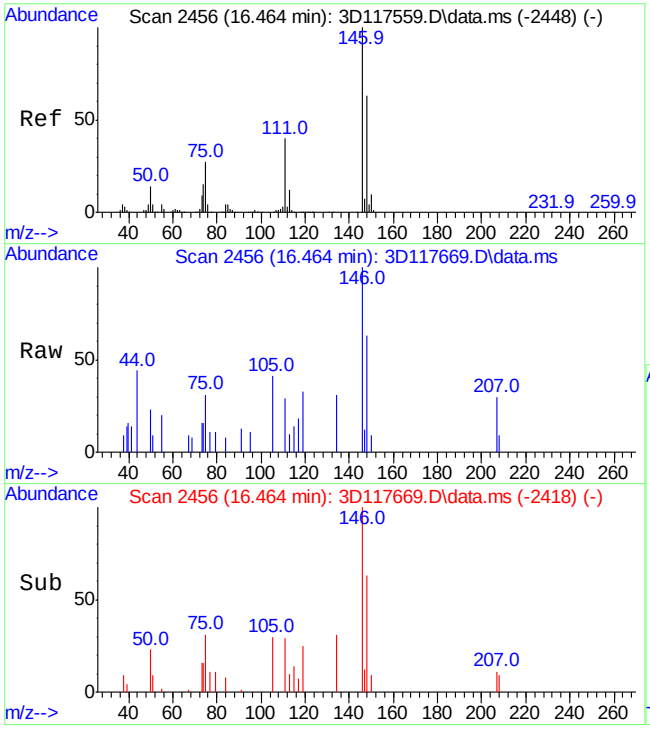


#121
sec-butylbenzene
Concen: 1.17 ug/L
RT: 15.840 min Scan# 2337
Delta R.T. -0.005 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion:105 Resp: 18333

Ion	Ratio	Lower	Upper
105	100		
134	16.1	0.0	47.7
91	18.0	0.0	44.9

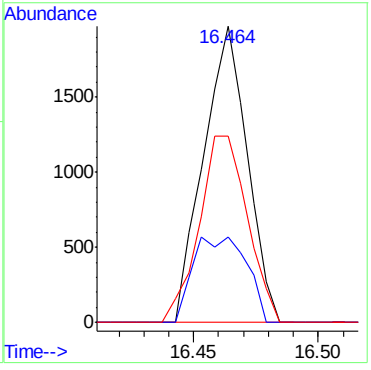


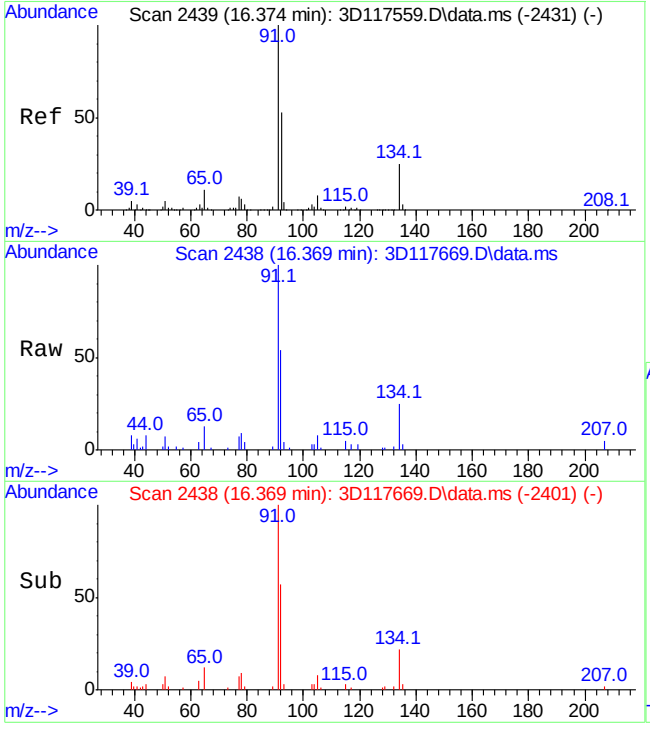


#125
1,2-dichlorobenzene
Concen: 0.31 ug/L
RT: 16.464 min Scan# 2456
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion:146 Resp: 2409

Ion	Ratio	Lower	Upper
146	100		
111	28.7	9.5	69.5
148	62.9	33.0	93.0

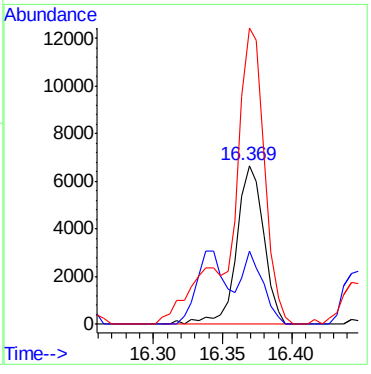


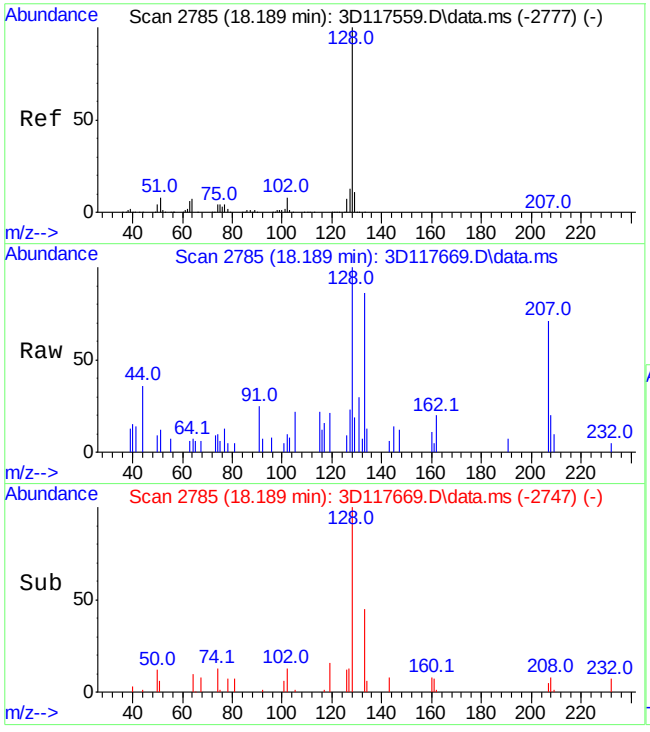


#127
n-butylbenzene
Concen: 1.43 ug/L
RT: 16.369 min Scan# 2438
Delta R.T. -0.005 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion: 92 Resp: 9077

Ion	Ratio	Lower	Upper
92	100		
134	46.3	16.5	76.5
91	186.5	157.0	217.0

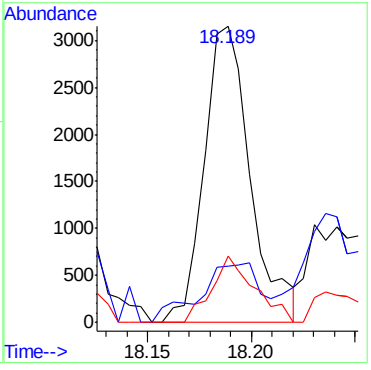


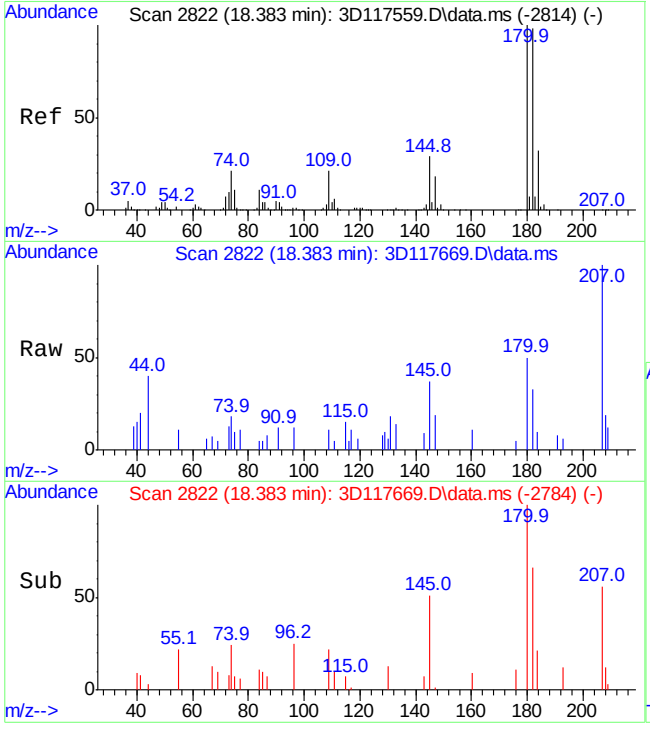


#133
naphthalene
Concen: 0.30 ug/L
RT: 18.189 min Scan# 2785
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion:128 Resp: 4877

Ion	Ratio	Lower	Upper
128	100		
129	14.1	0.0	40.8
127	22.5	0.0	42.8

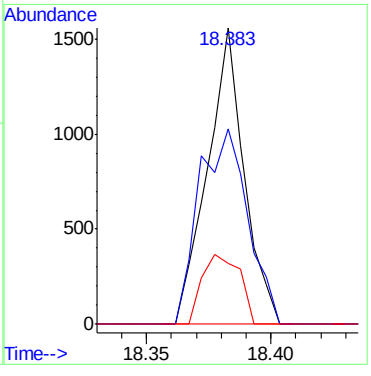




#134
1,2,3-trichlorobenzene
Concen: 0.20 ug/L
RT: 18.383 min Scan# 2822
Delta R.T. 0.000 min
Lab File: 3D117669.D
Acq: 11 Mar 2016 12:28 pm

Tgt Ion:180 Resp: 1605

Ion	Ratio	Lower	Upper
180	100		
182	65.9	68.1	128.1#
184	20.6	1.6	61.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117670.D
Acq On : 11 Mar 2016 12:56 pm
Operator : XimenaC
Sample : jc15883-2
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 12 15:55:02 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.398	65	204666	500.00	ug/L	0.00
4) pentafluorobenzene	9.684	168	326739	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.623	114	468950	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	391811	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	229211	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	178743	53.41	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.82%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	181808	52.59	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.18%			
81) toluene-d8 (s)	12.243	98	502196	48.51	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 97.02%			
107) 4-bromofluorobenzene (s)	14.917	95	180443	49.94	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.88%			
Target Compounds						Qvalue
33) methyl tert butyl ether	7.797	73	38242	3.78	ug/L	97
77) methylcyclohexane	11.221	83	1444	0.26	ug/L	95
100) m,p-xylene	13.957	106	3482	0.76	ug/L	89
101) o-xylene	14.366	106	841	0.18	ug/L	77
106) isopropylbenzene	14.712	105	223798	17.75	ug/L	98

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

7.1.2

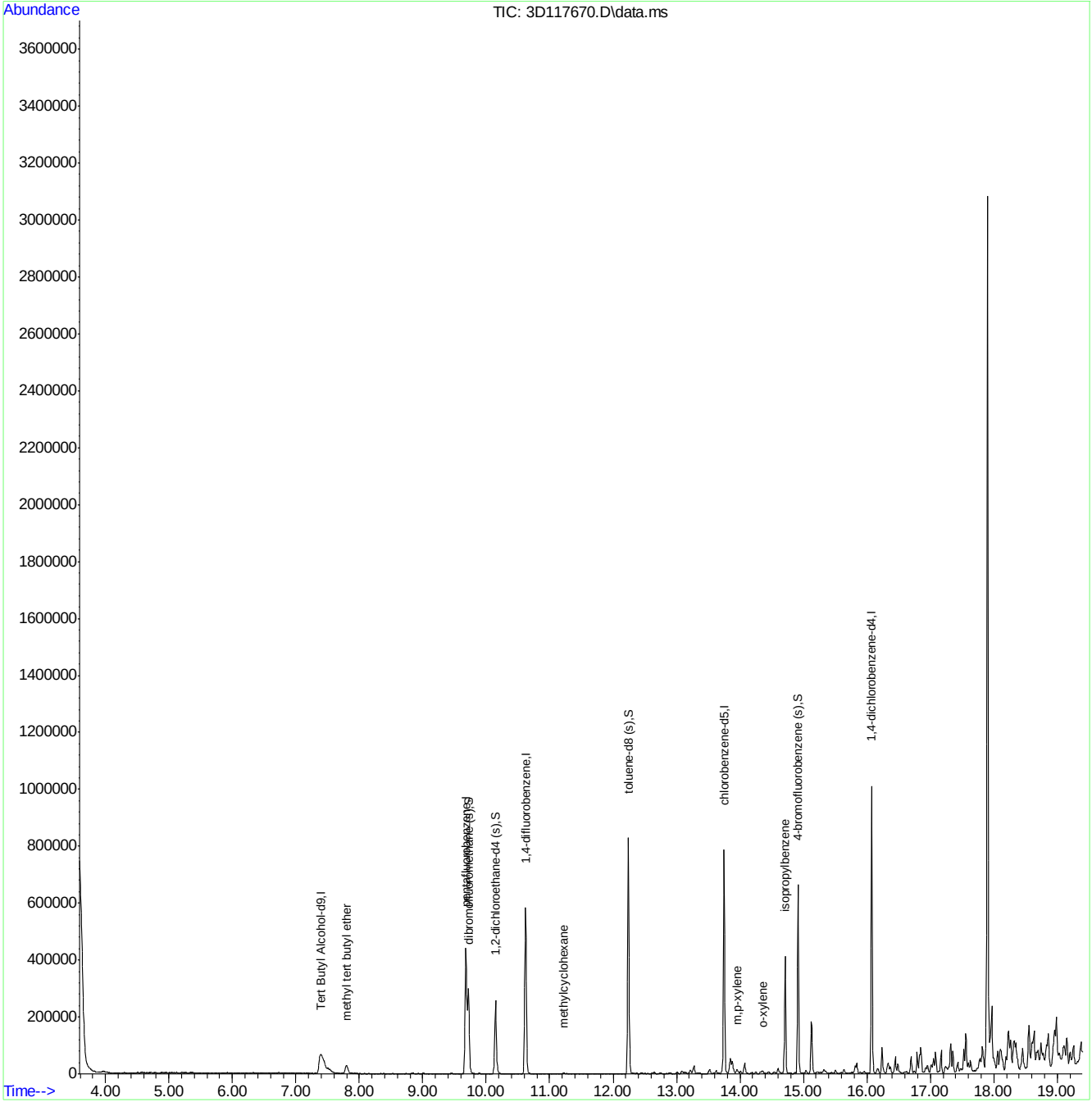
7

SGS ACCUTEST JC15883

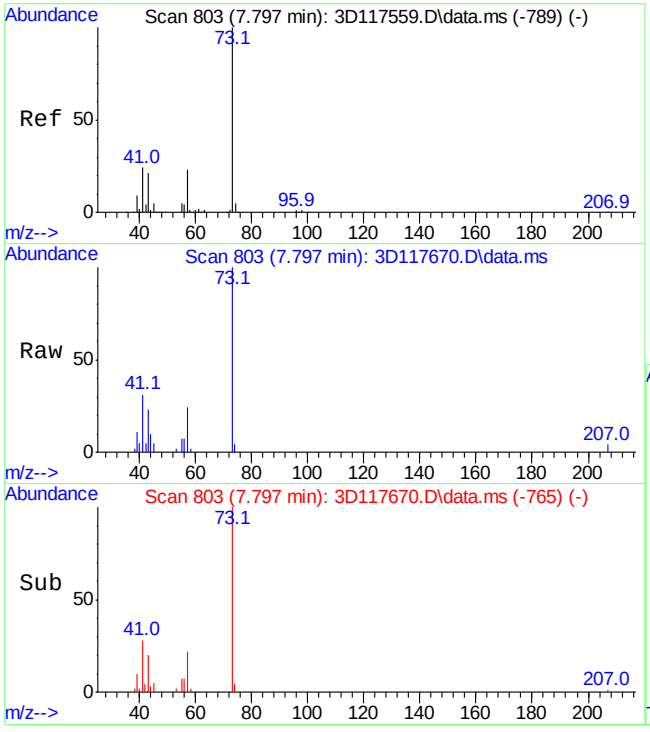
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117670.D
Acq On : 11 Mar 2016 12:56 pm
Operator : XimenaC
Sample : jc15883-2
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 12 15:55:02 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



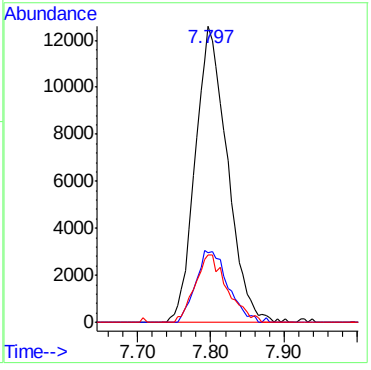
M3D5030.M Sat Mar 12 17:13:58 2016 RPT1 Page: 2

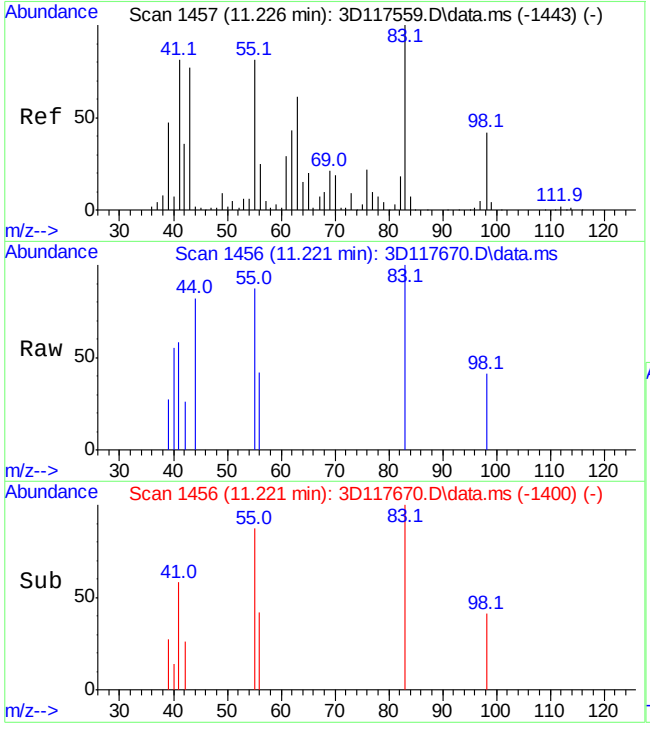


#33
methyl tert butyl ether
Concen: 3.78 ug/L
RT: 7.797 min Scan# 803
Delta R.T. 0.000 min
Lab File: 3D117670.D
Acq: 11 Mar 2016 12:56 pm

Tgt Ion: 73 Resp: 38242

Ion	Ratio	Lower	Upper
73	100		
57	23.5	0.0	52.8
43	22.9	0.0	50.7

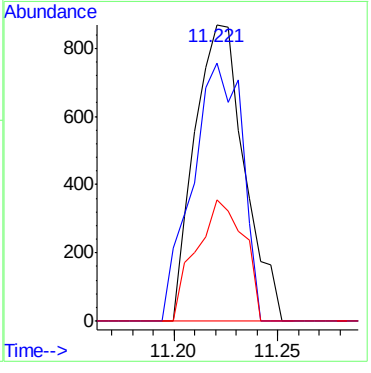


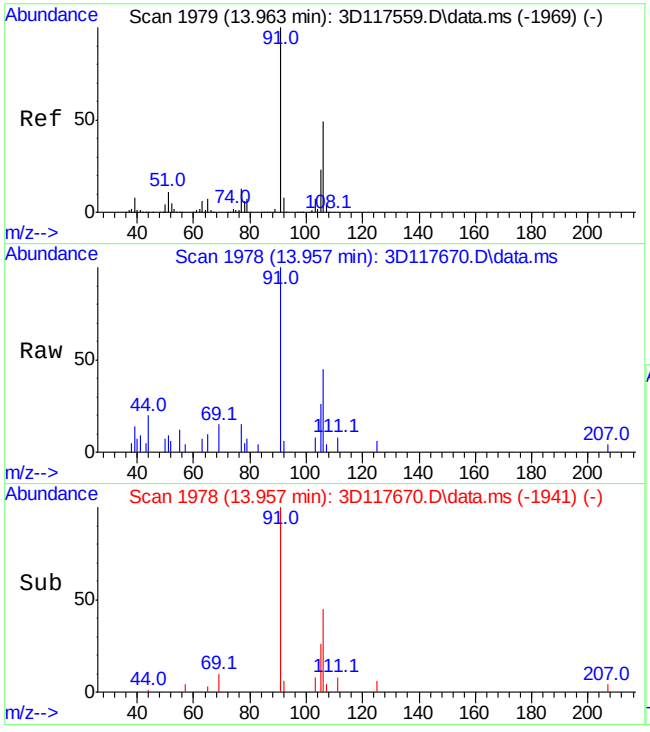


#77
methylcyclohexane
Concen: 0.26 ug/L
RT: 11.221 min Scan# 1456
Delta R.T. -0.005 min
Lab File: 3D117670.D
Acq: 11 Mar 2016 12:56 pm

Tgt Ion: 83 Resp: 1444

Ion	Ratio	Lower	Upper
83	100		
55	87.2	51.1	111.1
98	40.8	11.5	71.5

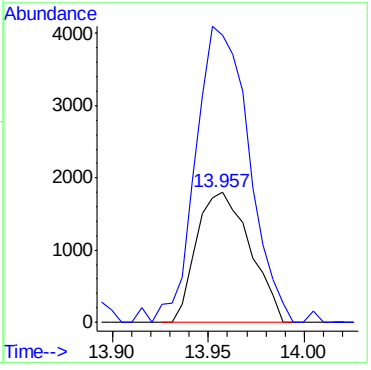


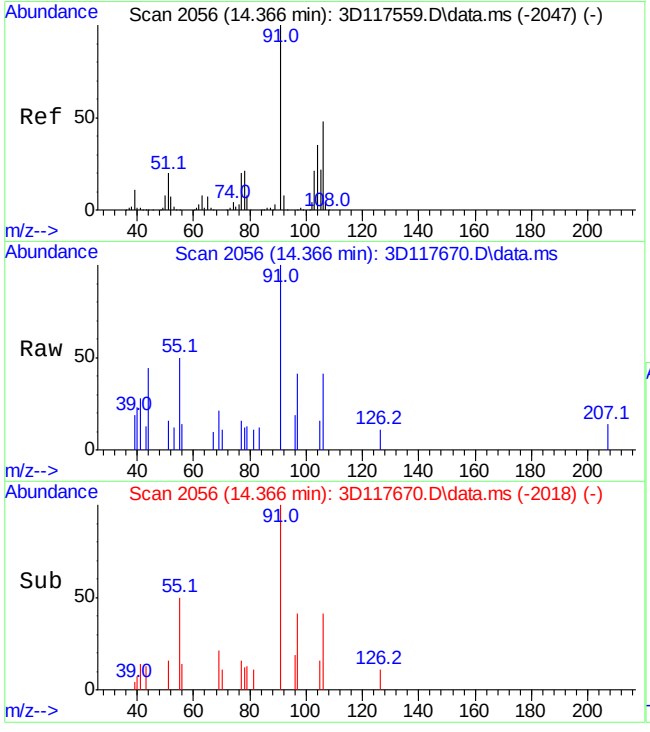


#100
m,p-xylene
Concen: 0.76 ug/L
RT: 13.957 min Scan# 1978
Delta R.T. -0.005 min
Lab File: 3D117670.D
Acq: 11 Mar 2016 12:56 pm

Tgt Ion:106 Resp: 3482

Ion	Ratio	Lower	Upper
106	100		
91	220.3	141.9	263.5

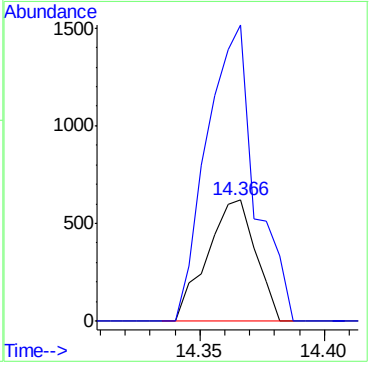


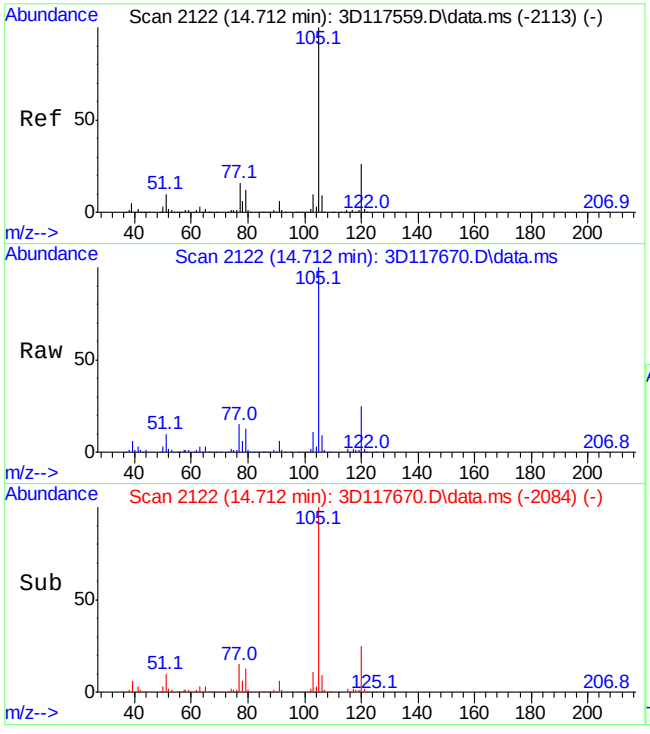


#101
o-xylene
Concen: 0.18 ug/L
RT: 14.366 min Scan# 2056
Delta R.T. 0.000 min
Lab File: 3D117670.D
Acq: 11 Mar 2016 12:56 pm

Tgt Ion:106 Resp: 841

Ion	Ratio	Lower	Upper
106	100		
91	245.1	147.0	273.0

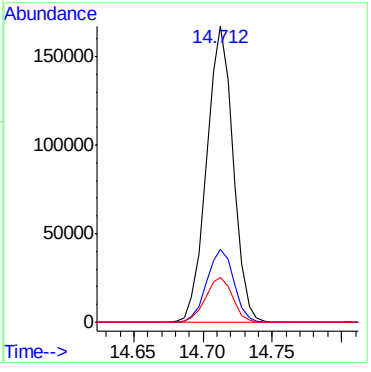




#106
isopropylbenzene
Concen: 17.75 ug/L
RT: 14.712 min Scan# 2122
Delta R.T. 0.000 min
Lab File: 3D117670.D
Acq: 11 Mar 2016 12:56 pm

Tgt Ion:105 Resp: 223798

Ion	Ratio	Lower	Upper
105	100		
120	24.6	0.0	55.7
77	15.1	0.0	45.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\retrieve\
Data File : 3D117682.D
Acq On : 11 Mar 2016 6:27 pm
Operator : XimenaC
Sample : jc15883-3
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 09:18:53 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.393	65	222772	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	353378	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.623	114	498797	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	398401	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	237431	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	180713	49.93	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.86%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	181538	48.55	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 97.10%			
81) toluene-d8 (s)	12.243	98	525057	47.69	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 95.38%			
107) 4-bromofluorobenzene (s)	14.917	95	180252	48.16	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 96.32%			

Target Compounds Qvalue

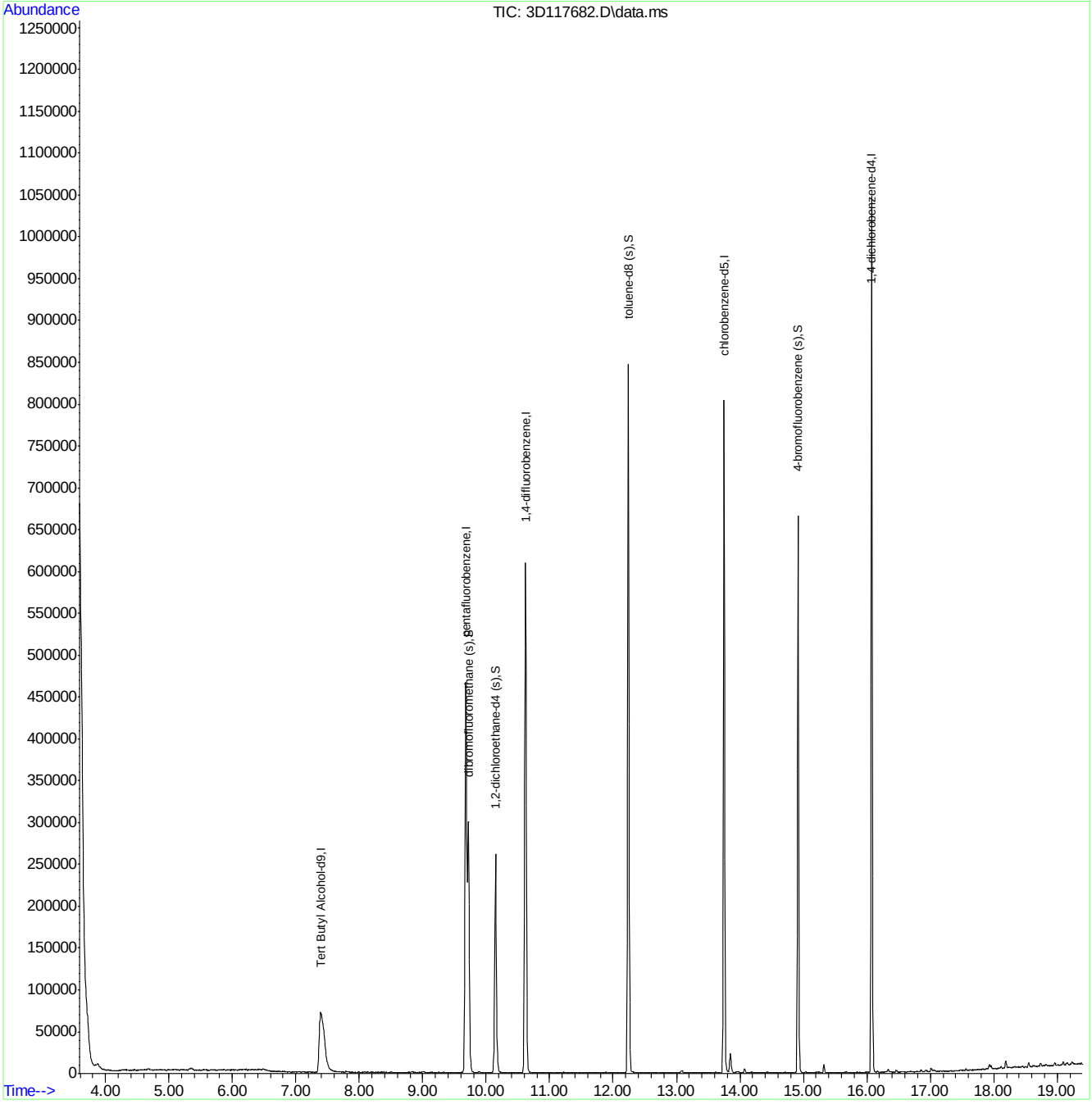
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\retrieve\
Data File : 3D117682.D
Acq On : 11 Mar 2016 6:27 pm
Operator : XimenaC
Sample : jc15883-3
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 09:18:53 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



M3D5030.M Sat Mar 19 09:33:38 2016 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\retrieve\
Data File : 3D117683.D
Acq On : 11 Mar 2016 6:54 pm
Operator : XimenaC
Sample : jc15883-4
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 19 09:23:04 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

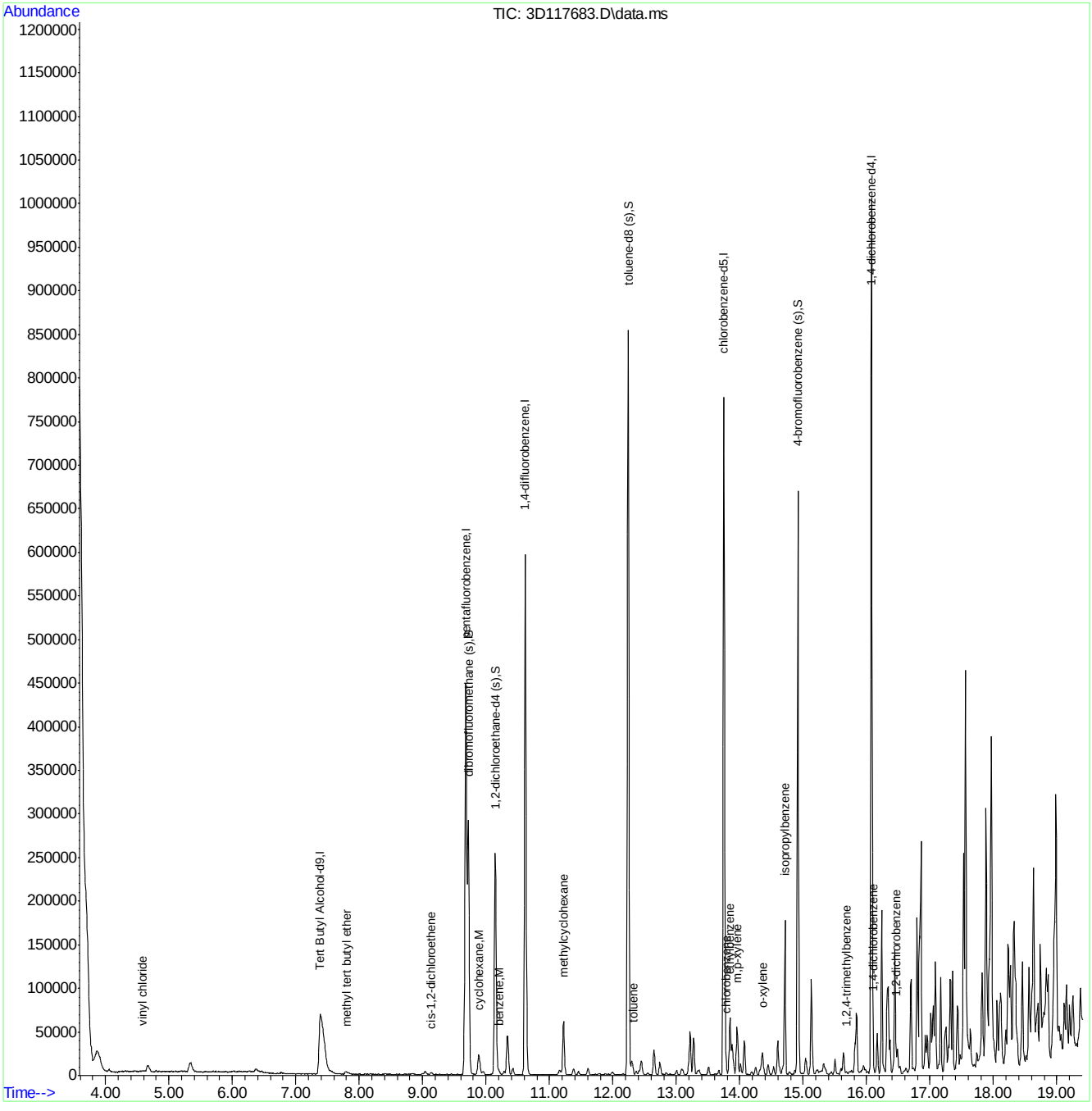
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.388	65	208485	500.00	ug/L	-0.01
4) pentafluorobenzene	9.679	168	337112	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.618	114	480163	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	393025	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	229908	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	173509	50.25	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.50%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	174529	48.93	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 97.86%			
81) toluene-d8 (s)	12.243	98	509686	48.09	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 96.18%			
107) 4-bromofluorobenzene (s)	14.917	95	182075	50.24	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.48%			
Target Compounds						Qvalue
12) vinyl chloride	4.588	62	2346	0.26	ug/L #	50
33) methyl tert butyl ether	7.797	73	3559	0.34	ug/L	93
44) cis-1,2-dichloroethene	9.134	96	1217	0.31	ug/L #	55
62) cyclohexane	9.884	84	8732	1.50	ug/L #	60
66) benzene	10.203	78	2974	0.21	ug/L	98
77) methylcyclohexane	11.220	83	22978	3.99	ug/L	95
83) toluene	12.316	92	2964	0.40	ug/L	83
97) chlorobenzene	13.784	112	7178	0.90	ug/L	98
99) ethylbenzene	13.842	91	18251	1.46	ug/L	96
100) m,p-xylene	13.957	106	17188	3.75	ug/L	87
101) o-xylene	14.361	106	4218	0.91	ug/L	98
106) isopropylbenzene	14.712	105	95054	7.51	ug/L	98
120) 1,2,4-trimethylbenzene	15.677	105	1544	0.13	ug/L	88
124) 1,4-dichlorobenzene	16.102	146	2569	0.33	ug/L	94
125) 1,2-dichlorobenzene	16.464	146	5390	0.68	ug/L	96

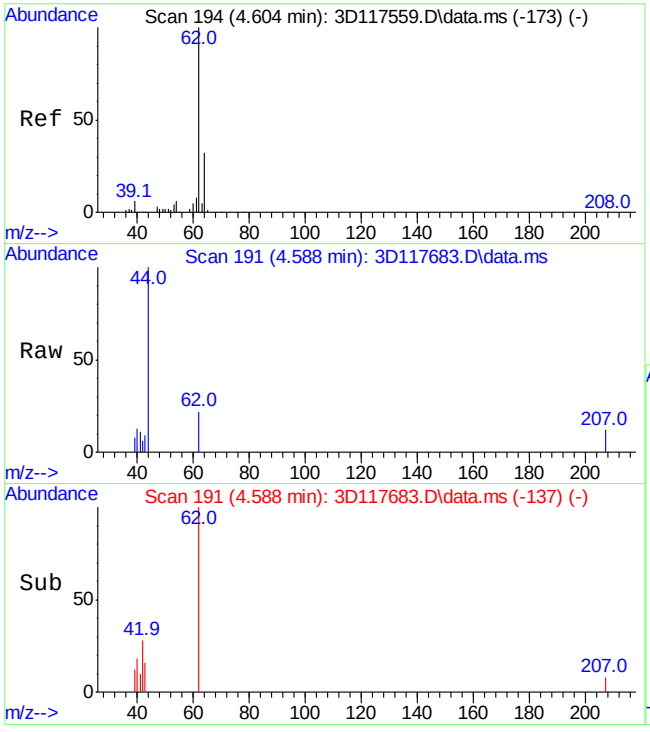
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\retrieve\
Data File : 3D117683.D
Acq On : 11 Mar 2016 6:54 pm
Operator : XimenaC
Sample : jc15883-4
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 19 09:23:04 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

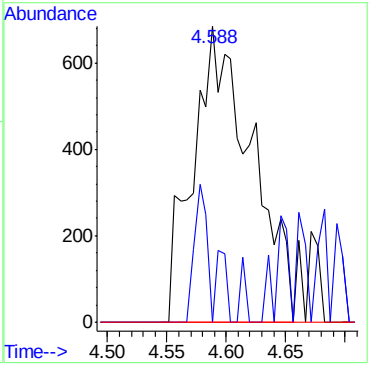


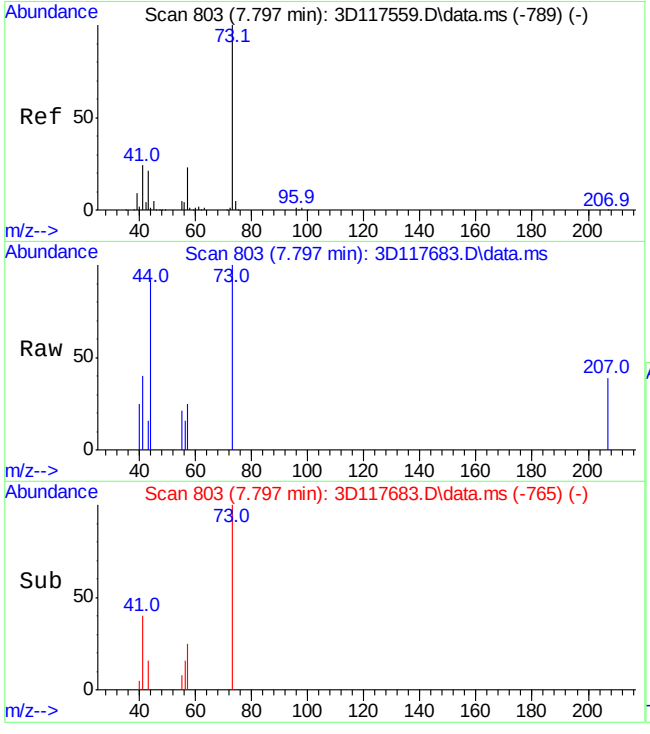


#12
vinyl chloride
Concen: 0.26 ug/L
RT: 4.588 min Scan# 191
Delta R.T. -0.016 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion: 62 Resp: 2346

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
61	0.0	0.0	38.2

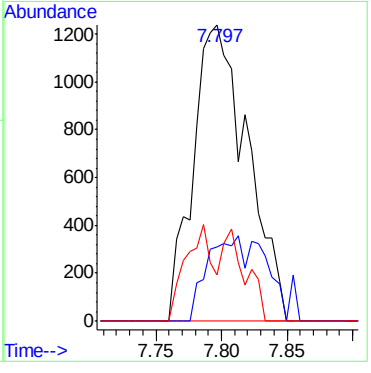


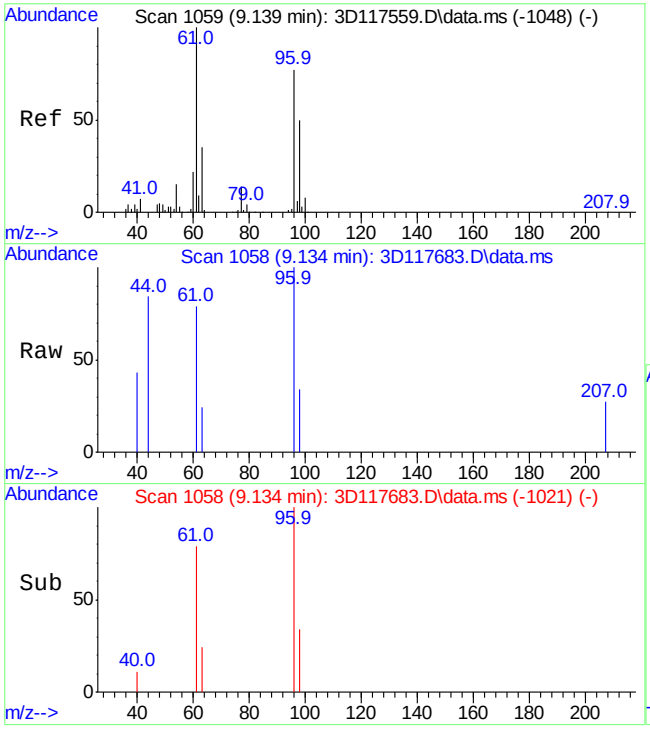


#33
methyl tert butyl ether
Concen: 0.34 ug/L
RT: 7.797 min Scan# 803
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion: 73 Resp: 3559

Ion	Ratio	Lower	Upper
73	100		
57	25.0	0.0	52.8
43	15.7	0.0	50.7

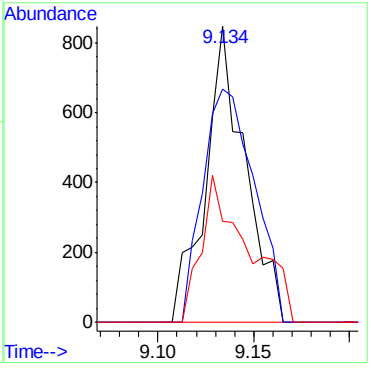


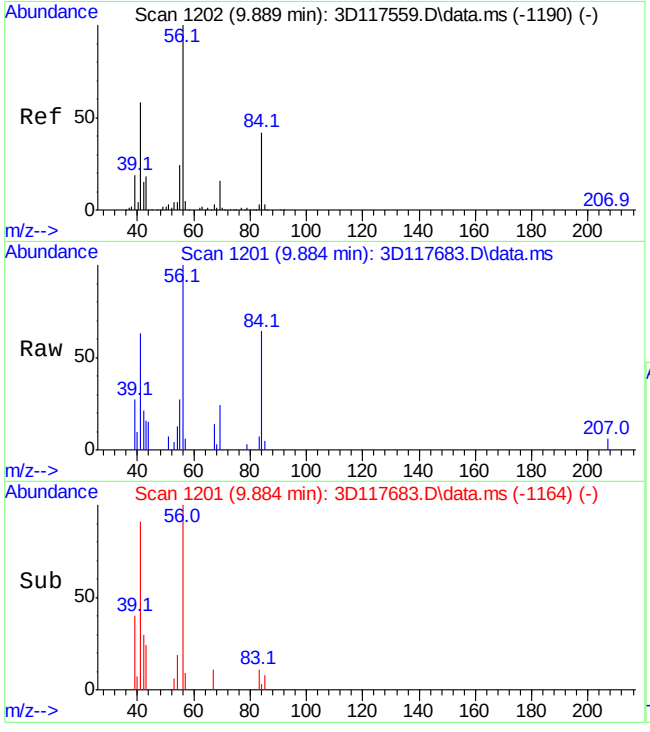


#44
cis-1,2-dichloroethene
Concen: 0.31 ug/L
RT: 9.134 min Scan# 1058
Delta R.T. -0.005 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion: 96 Resp: 1217

Ion	Ratio	Lower	Upper
96	100		
61	78.7	106.7	166.7#
98	34.2	34.9	94.9#

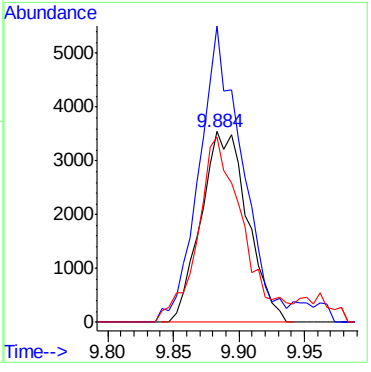


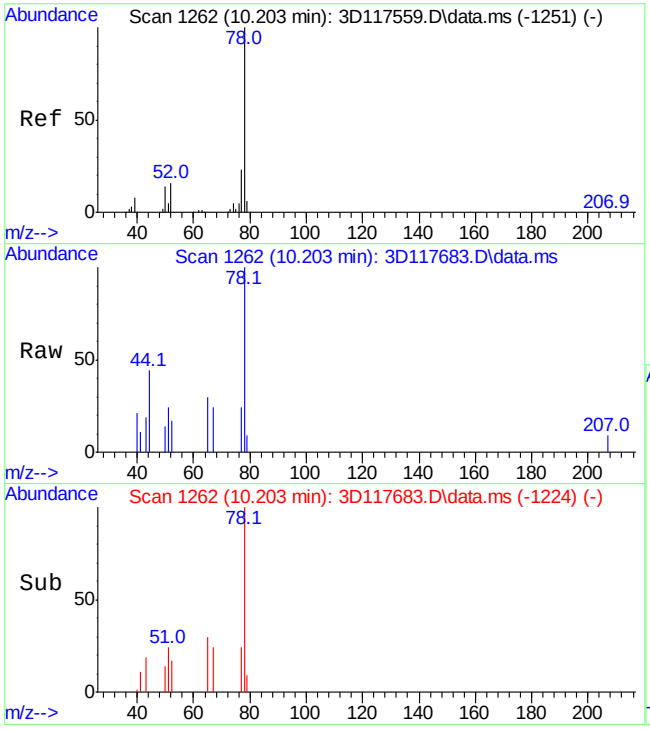


#62
cyclohexane
Concen: 1.50 ug/L
RT: 9.884 min Scan# 1201
Delta R.T. -0.005 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion: 84 Resp: 8732

Ion	Ratio	Lower	Upper
84	100		
56	150.3	187.7	247.7#
41	103.8	120.6	180.6#

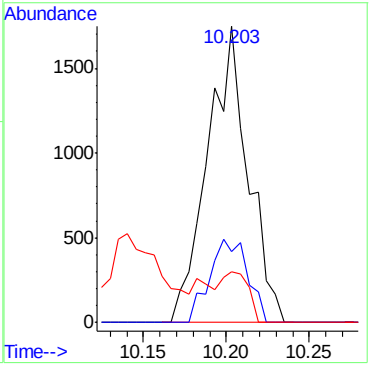


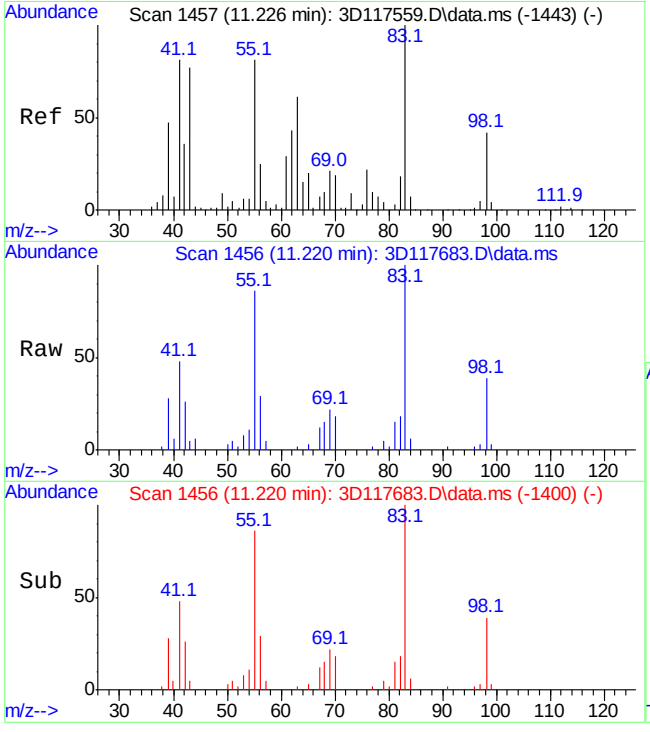


#66
benzene
Concen: 0.21 ug/L
RT: 10.203 min Scan# 1262
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion: 78 Resp: 2974

Ion	Ratio	Lower	Upper
78	100		
77	23.9	0.0	53.4
52	17.2	0.0	46.2

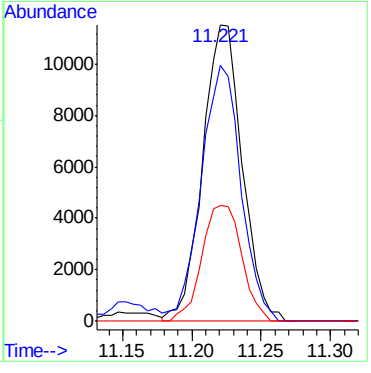


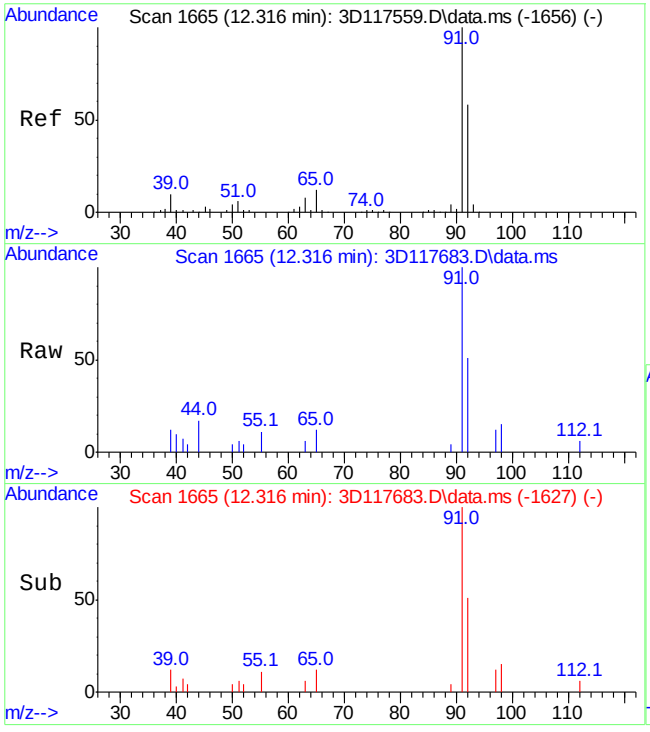


#77
methylcyclohexane
Concen: 3.99 ug/L
RT: 11.220 min Scan# 1456
Delta R.T. -0.005 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion: 83 Resp: 22978

Ion	Ratio	Lower	Upper
83	100		
55	86.5	51.1	111.1
98	38.9	11.5	71.5

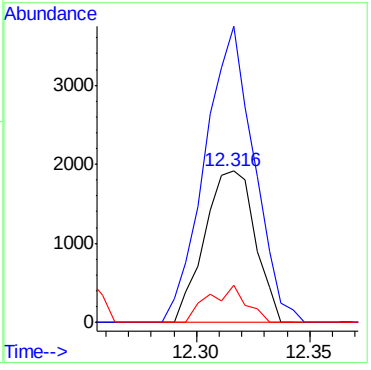


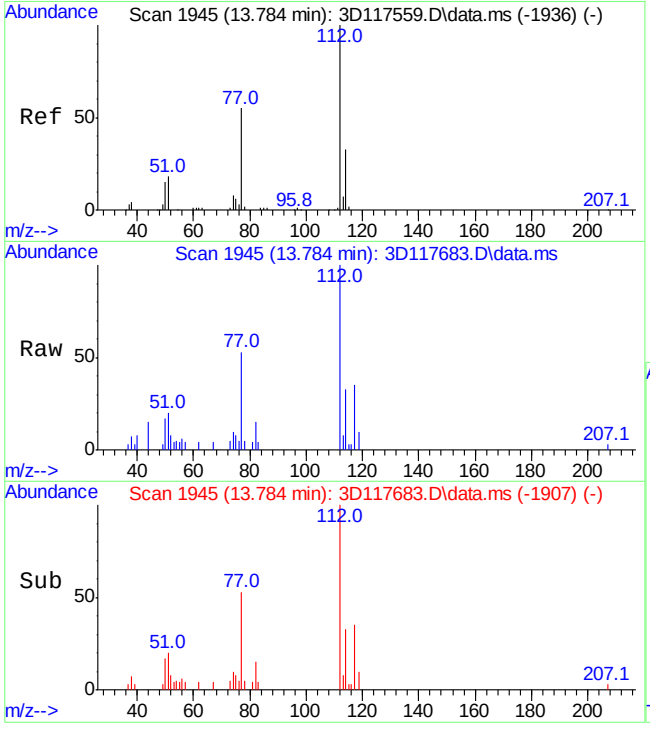


#83
toluene
Concen: 0.40 ug/L
RT: 12.316 min Scan# 1665
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion: 92 Resp: 2964

Ion	Ratio	Lower	Upper
92	100		
91	196.1	141.5	201.5
65	24.3	0.0	50.0

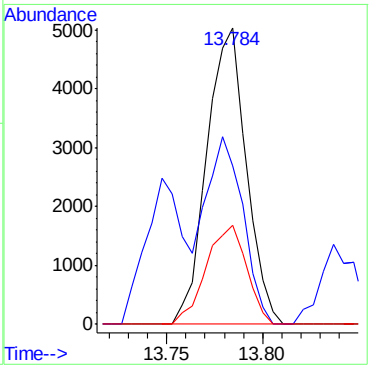


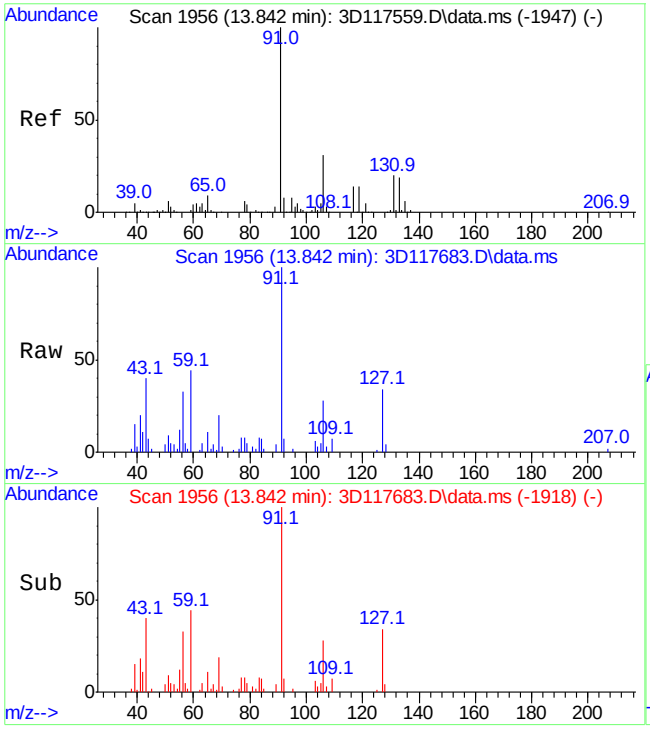


#97
chlorobenzene
Concen: 0.90 ug/L
RT: 13.784 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion:112 Resp: 7178

Ion	Ratio	Lower	Upper
112	100		
77	53.4	25.2	85.2
114	33.3	2.8	62.8

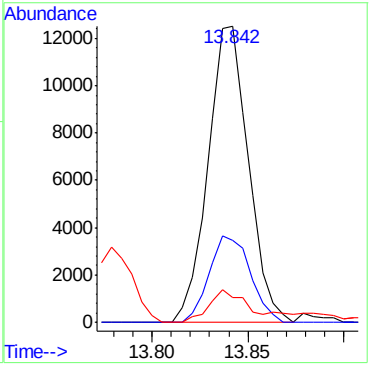


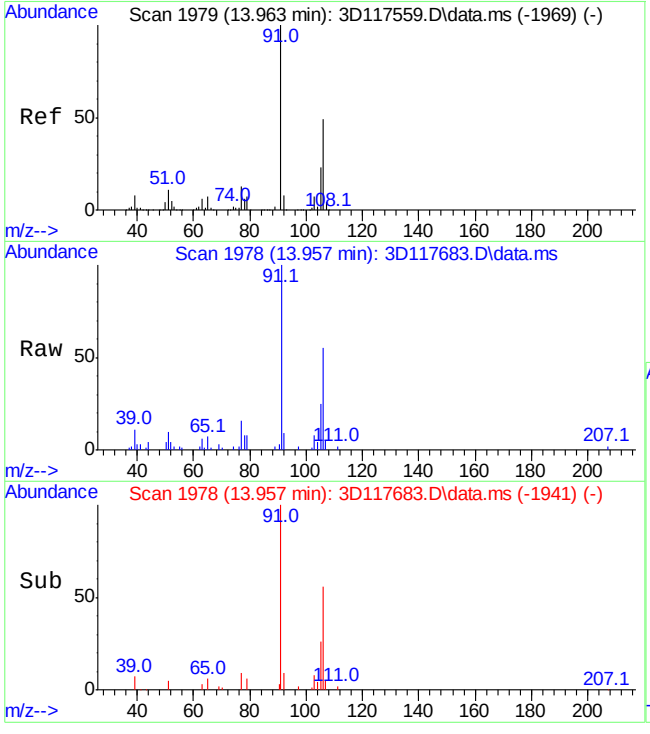


#99
ethylbenzene
Concen: 1.46 ug/L
RT: 13.842 min Scan# 1956
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion: 91 Resp: 18251

Ion	Ratio	Lower	Upper
91	100		
106	27.8	0.5	60.5
77	8.3	0.0	38.5

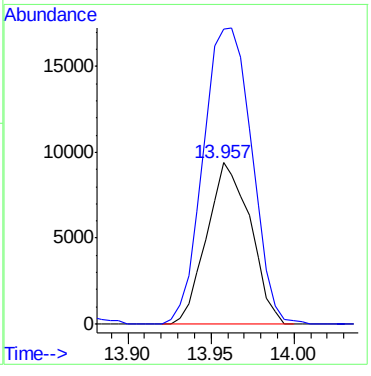


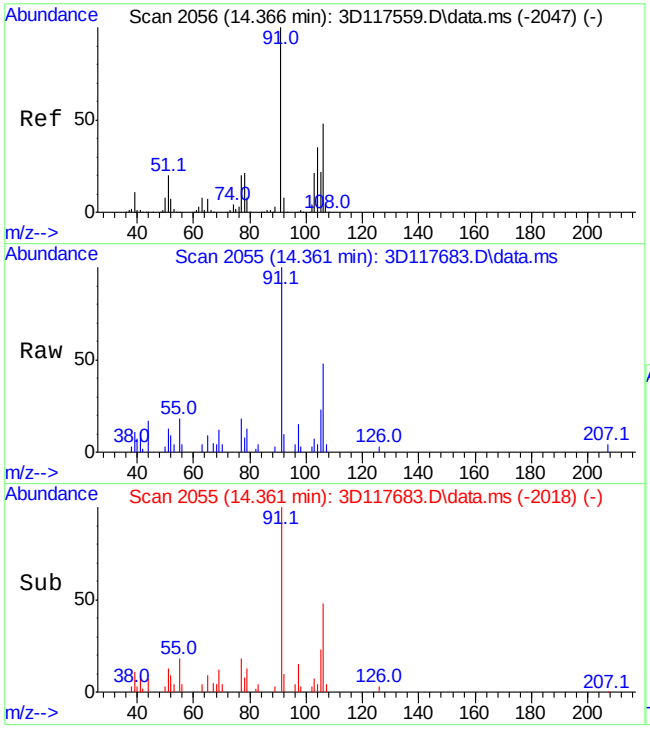


#100
m,p-xylene
Concen: 3.75 ug/L
RT: 13.957 min Scan# 1978
Delta R.T. -0.005 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion:106 Resp: 17188

Ion	Ratio	Lower	Upper
106	100		
91	182.8	141.9	263.5

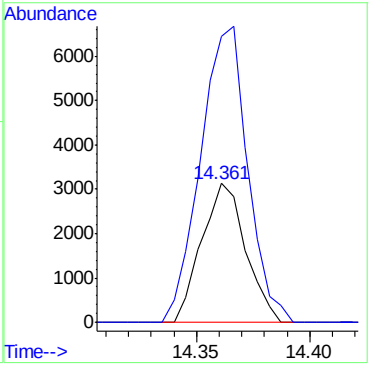


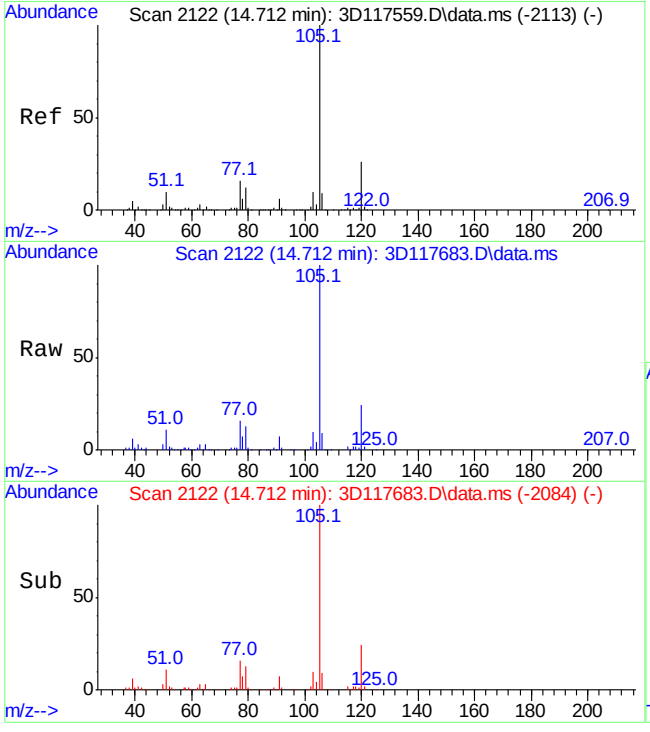


#101
o-xylene
Concen: 0.91 ug/L
RT: 14.361 min Scan# 2055
Delta R.T. -0.005 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion:106 Resp: 4218

Ion	Ratio	Lower	Upper
106	100		
91	206.3	147.0	273.0

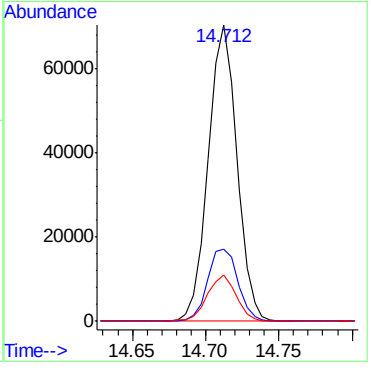


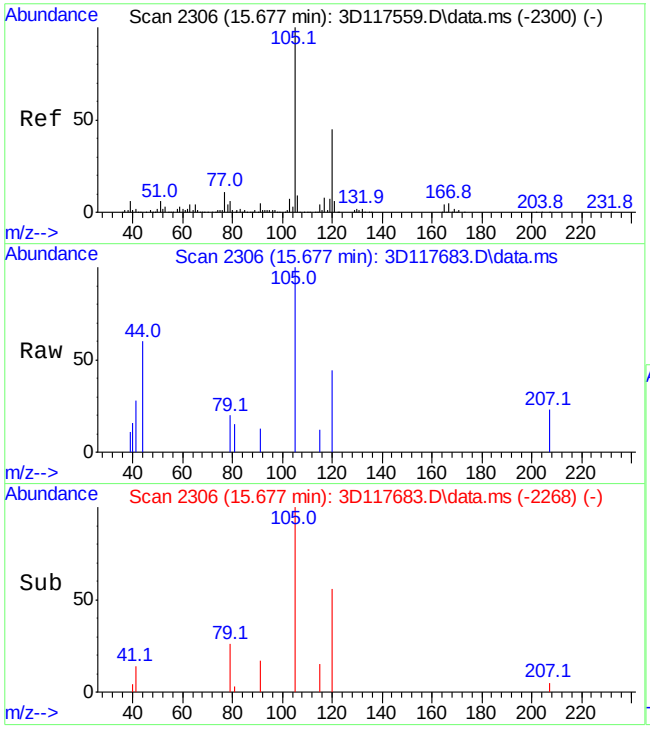


#106
isopropylbenzene
Concen: 7.51 ug/L
RT: 14.712 min Scan# 2122
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion:105 Resp: 95054

Ion	Ratio	Lower	Upper
105	100		
120	24.4	0.0	55.7
77	15.7	0.0	45.5

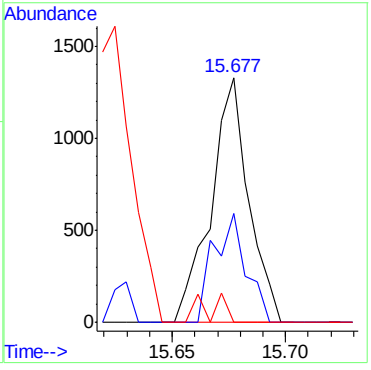


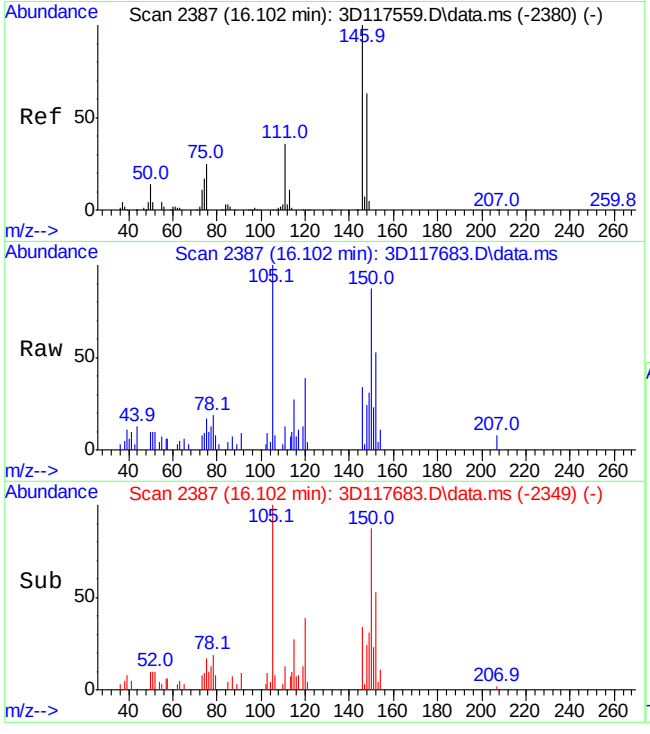


#120
1,2,4-trimethylbenzene
Concen: 0.13 ug/L
RT: 15.677 min Scan# 2306
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion:105 Resp: 1544

Ion	Ratio	Lower	Upper
105	100		
120	44.4	16.2	76.2
119	0.0	0.0	46.1

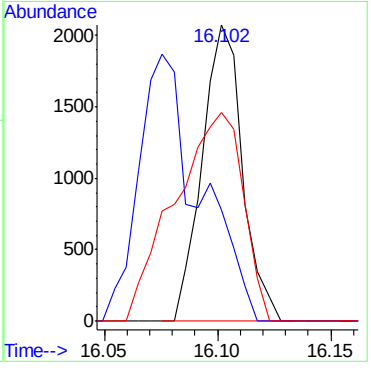




#124
1,4-dichlorobenzene
Concen: 0.33 ug/L
RT: 16.102 min Scan# 2387
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

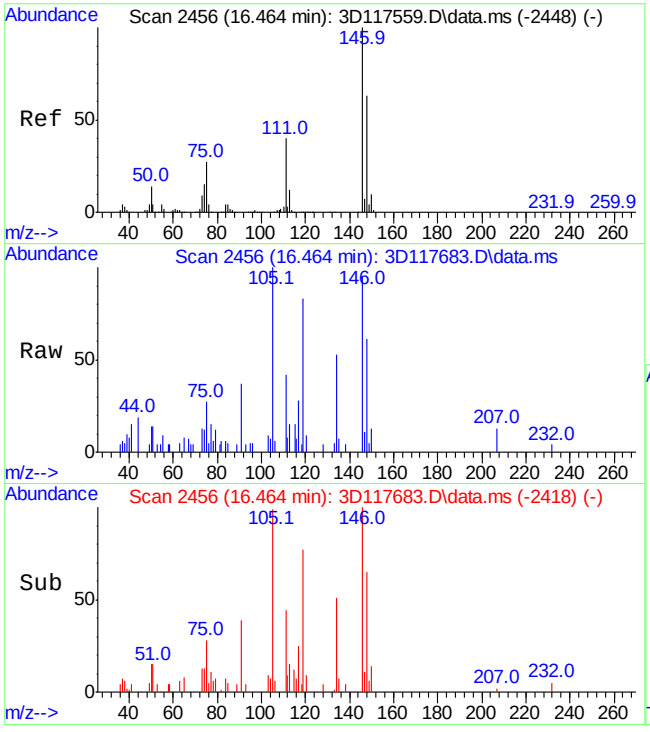
Tgt Ion:146 Resp: 2569

Ion	Ratio	Lower	Upper
146	100		
111	37.5	6.7	66.7
148	70.3	33.0	93.0



7.1.4

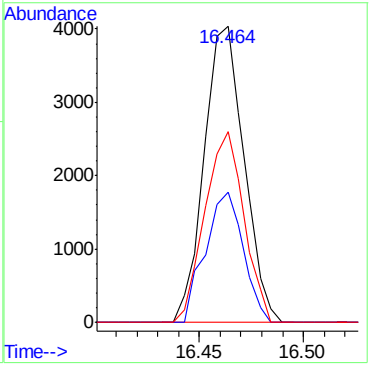
7



#125
1,2-dichlorobenzene
Concen: 0.68 ug/L
RT: 16.464 min Scan# 2456
Delta R.T. 0.000 min
Lab File: 3D117683.D
Acq: 11 Mar 2016 6:54 pm

Tgt Ion:146 Resp: 5390

Ion	Ratio	Lower	Upper
146	100		
111	44.0	9.5	69.5
148	64.6	33.0	93.0



7.1.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117678.D
Acq On : 11 Mar 2016 4:36 pm
Operator : XimenaC
Sample : jc15883-5
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 12 16:24:34 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.398	65	219641	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	361574	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.623	114	503656	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	407058	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	237865	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	179970	48.60	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 97.20%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	182191	47.62	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 95.24%			
81) toluene-d8 (s)	12.243	98	530988	47.76	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 95.52%			
107) 4-bromofluorobenzene (s)	14.917	95	182093	48.56	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.12%			

Target Compounds Qvalue

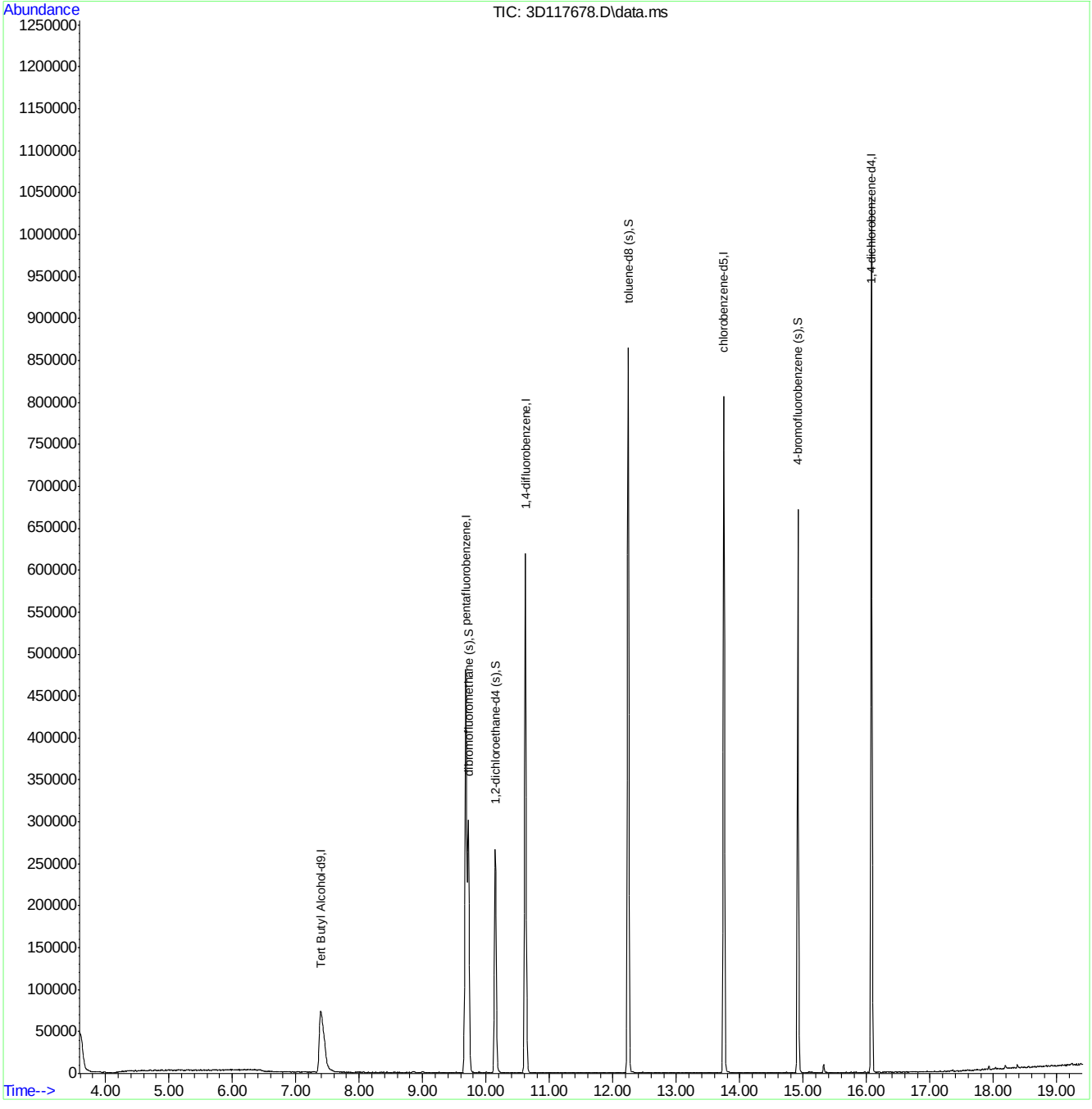
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117678.D
Acq On : 11 Mar 2016 4:36 pm
Operator : XimenaC
Sample : jc15883-5
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 12 16:24:34 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



M3D5030.M Sat Mar 12 17:14:13 2016 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117666.D
Acq On : 11 Mar 2016 11:00 am
Operator : XimenaC
Sample : mb
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 12 15:46:55 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.388	65	207875	500.00	ug/L	-0.01
4) pentafluorobenzene	9.679	168	311647	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.618	114	452755	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	370566	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	220382	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	171351	53.68	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 107.36%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	175151	53.12	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 106.24%			
81) toluene-d8 (s)	12.243	98	487161	48.75	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 97.50%			
107) 4-bromofluorobenzene (s)	14.917	95	163624	47.10	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 94.20%			

Target Compounds Qvalue

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

7.2.1

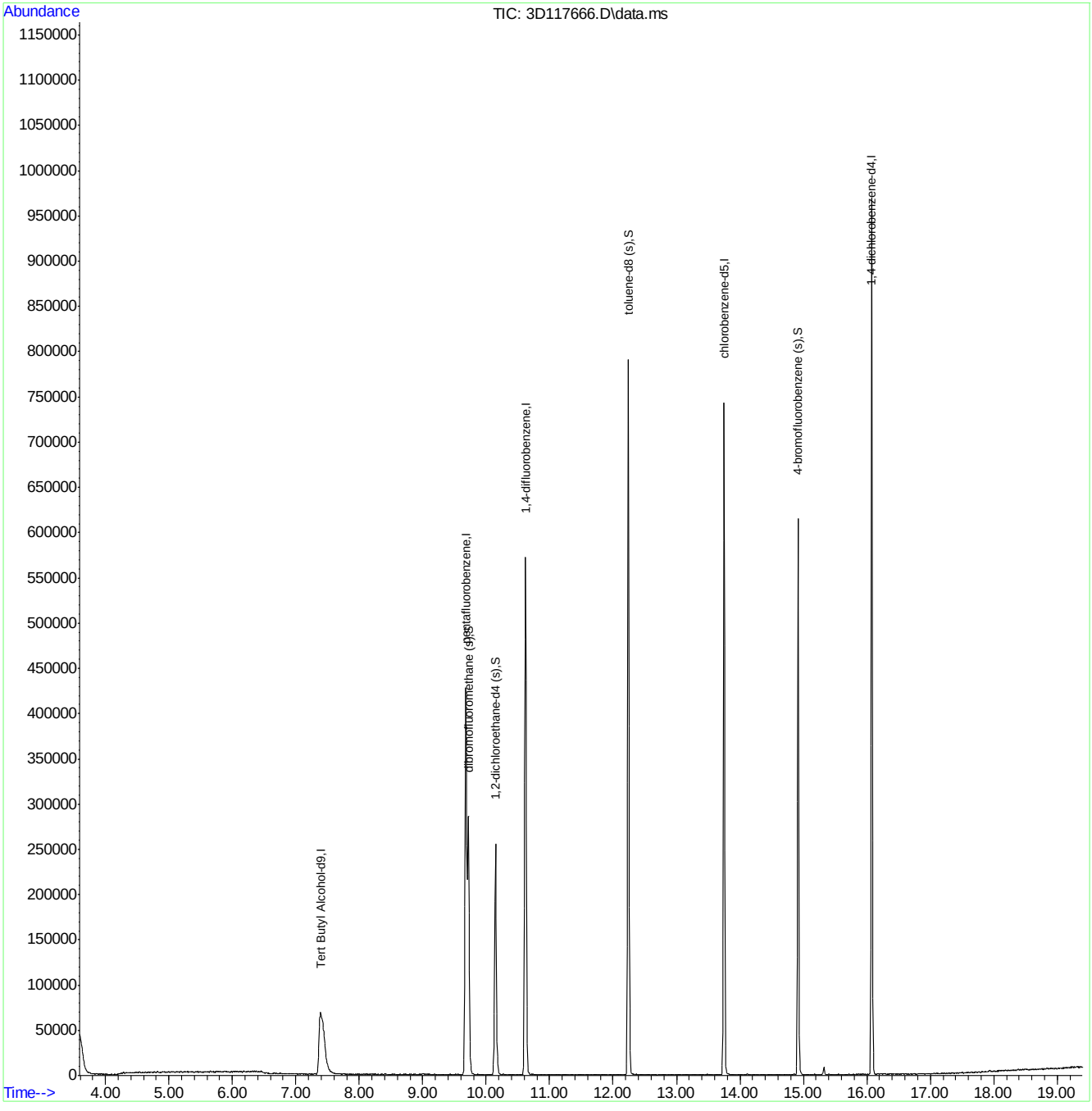
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117666.D
Acq On : 11 Mar 2016 11:00 am
Operator : XimenaC
Sample : mb
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 12 15:46:55 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



M3D5030.M Sat Mar 12 17:13:03 2016 RPT1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117667.D
Acq On : 11 Mar 2016 11:31 am
Operator : XimenaC
Sample : bs
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 15:39:22 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.393	65	222179	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	362081	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.618	114	507942	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	423726	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	239757	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	183231	49.41	ug/L	0.00
Spiked Amount 50.000 Range 76 - 120 Recovery = 98.82%						
52) 1,2-dichloroethane-d4 (s)	10.146	65	184681	48.20	ug/L	0.00
Spiked Amount 50.000 Range 73 - 122 Recovery = 96.40%						
81) toluene-d8 (s)	12.243	98	550585	49.11	ug/L	0.00
Spiked Amount 50.000 Range 84 - 119 Recovery = 98.22%						
107) 4-bromofluorobenzene (s)	14.917	95	190729	50.46	ug/L	0.00
Spiked Amount 50.000 Range 78 - 117 Recovery = 100.92%						
Target Compounds						Qvalue
2) 1,4-dioxane	11.268	88	56997	1223.06	ug/L	92
3) tertiary butyl alcohol	7.524	59	119503	223.09	ug/L #	47
7) PROPYLENE	3.817	41	1951	0.25	ug/L #	72
9) chlorodifluoromethane	3.996	51	345725	40.30	ug/L	98
10) dichlorodifluoromethane	3.969	85	317127	43.16	ug/L	98
11) chloromethane	4.342	50	367708	37.60	ug/L	99
12) vinyl chloride	4.599	62	361377	37.53	ug/L	99
13) bromomethane	5.238	94	219791	49.48	ug/L	99
14) chloroethane	5.411	64	149695	44.27	ug/L	95
17) trichlorofluoromethane	5.888	101	341836	43.65	ug/L	98
19) ethyl ether	6.287	74	79270	45.31	ug/L	98
22) acrolein	6.523	56	406587	428.93	ug/L	98
23) 1,1-dichloroethene	6.706	61	288905	46.41	ug/L	99
24) acetone	6.733	58	18998	46.85	ug/L #	81
25) allyl chloride	7.252	76	103636	49.15	ug/L	97
26) acetonitrile	7.162	40	151521	432.65	ug/L	97
28) iodomethane	6.968	142	372735	46.42	ug/L	99
29) iso-butyl alcohol	9.884	41	466489	439.80	ug/L	99
30) carbon disulfide	7.110	76	707781	46.02	ug/L	98
31) methylene chloride	7.440	84	206977	44.08	ug/L	94
32) methyl acetate	7.194	43	125268	37.91	ug/L	99
33) methyl tert butyl ether	7.797	73	1082703	96.45	ug/L	99
34) trans-1,2-dichloroethene	7.828	61	259103	44.88	ug/L	99
35) di-isopropyl ether	8.400	45	593040	47.32	ug/L	98
36) ethyl tert-butyl ether	8.866	59	546785	48.01	ug/L	99
37) 2-butanone	9.081	72	19601	48.48	ug/L #	98
38) 1,1-dichloroethane	8.421	63	321820	45.45	ug/L	99
39) chloroprene	8.515	53	213977	46.07	ug/L	99
40) acrylonitrile	7.744	53	366749	233.13	ug/L	98
41) vinyl acetate	8.353	86	25774	47.00	ug/L	70
42) ethyl acetate	9.092	45	21468	44.42	ug/L	94
43) 2,2-dichloropropane	9.171	77	318505	45.49	ug/L	97

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117667.D
Acq On : 11 Mar 2016 11:31 am
Operator : XimenaC
Sample : bs
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 15:39:22 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	cis-1,2-dichloroethene	9.139	96	193026	46.21	ug/L		100
45)	propionitrile	9.165	54	287272	446.18	ug/L		96
46)	methyl acrylate	9.176	85	23617	47.49	ug/L		86
47)	bromochloromethane	9.438	128	103185	46.27	ug/L		98
48)	tetrahydrofuran	9.454	42	49226	44.21	ug/L		95
49)	chloroform	9.527	83	313001	45.22	ug/L		98
50)	Tert-Butyl Formate	9.564	59	128555	36.67	ug/L	#	97
53)	freon 113	6.727	151	213041	47.00	ug/L		96
54)	methacrylonitrile	9.354	41	93407	41.37	ug/L		97
55)	1,1,1-trichloroethane	9.784	97	308528	46.40	ug/L		98
57)	2,2,4-Trimethylpentane	10.293	57	754107	52.81	ug/L		99
58)	tert-amyl methyl ether	10.282	73	544161	49.65	ug/L		99
60)	epichlorohydrin	11.808	57	81999	217.52	ug/L		97
61)	n-butyl alcohol	10.670	56	278225	2231.19	ug/L		98
62)	cyclohexane	9.889	84	306866	49.89	ug/L		99
63)	carbon tetrachloride	9.978	117	287859	44.69	ug/L		100
64)	1,1-dichloropropene	9.947	75	226182	49.68	ug/L		97
65)	hexane	8.180	57	158199	42.14	ug/L		99
66)	benzene	10.198	78	670474	45.79	ug/L		99
67)	heptane	10.450	57	109511	47.84	ug/L		97
68)	isopropyl acetate	10.109	43	335605	50.33	ug/L		97
69)	1,2-dichloroethane	10.235	62	223404	45.68	ug/L		97
70)	trichloroethene	10.927	95	162277	45.01	ug/L		96
73)	2-nitropropane	11.687	41	60876	42.96	ug/L		99
74)	2-chloroethyl vinyl ether	11.719	63	505570	266.26	ug/L		99
75)	methyl methacrylate	11.179	69	95118	46.87	ug/L		82
76)	1,2-dichloropropane	11.226	63	174617	44.73	ug/L		99
77)	methylcyclohexane	11.221	83	309272	50.83	ug/L		99
78)	dibromomethane	11.331	93	109956	44.37	ug/L		95
79)	bromodichloromethane	11.483	83	215425	44.61	ug/L		100
80)	cis-1,3-dichloropropene	11.939	75	239718	47.95	ug/L		99
82)	4-methyl-2-pentanone	12.039	58	71102	52.68	ug/L		94
83)	toluene	12.316	92	358992	45.49	ug/L		99
84)	3-methyl-1-butanol	12.039	70	102636	1022.94	ug/L		97
85)	trans-1,3-dichloropropene	12.505	75	214786	45.49	ug/L		98
86)	ethyl methacrylate	12.489	69	168088	51.26	ug/L		98
87)	1,1,2-trichloroethane	12.725	83	116678	43.66	ug/L		99
88)	2-hexanone	12.883	58	46481	46.61	ug/L		100
90)	tetrachloroethene	12.862	166	176243	46.75	ug/L		98
91)	1,3-dichloropropane	12.909	76	207683	45.87	ug/L		96
92)	butyl acetate	12.961	56	91549	50.37	ug/L		97
93)	3,3-Dimethyl-1-Butanol	13.061	57	197249	483.37	ug/L		99
94)	dibromochloromethane	13.150	129	170025	46.07	ug/L		99
95)	1,2-dibromoethane	13.307	107	138167	44.18	ug/L		97
96)	n-Butyl Ether	13.737	57	646937	57.25	ug/L		100
97)	chlorobenzene	13.779	112	396727	46.20	ug/L		98
98)	1,1,1,2-tetrachloroethane	13.847	131	192036	46.78	ug/L		97
99)	ethylbenzene	13.842	91	662577	49.04	ug/L		98
100)	m,p-xylene	13.963	106	511752	103.60	ug/L		99
101)	o-xylene	14.361	106	267263	53.47	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117667.D
Acq On : 11 Mar 2016 11:31 am
Operator : XimenaC
Sample : bs
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 15:39:22 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) styrene	14.377	104	406823	54.47	ug/L	99
104) bromoform	14.608	173	127092	45.03	ug/L	100
106) isopropylbenzene	14.712	105	719897	54.57	ug/L	98
108) bromobenzene	15.100	156	189951	46.87	ug/L	93
109) cyclohexanone	14.849	55	116699	784.86	ug/L	95
110) 1,1,2,2-tetrachloroethane	14.996	83	203614	43.91	ug/L	99
111) trans-1,4-dichloro-2-b...	15.027	53	42901	45.04	ug/L	95
112) 1,2,3-trichloropropane	15.085	110	45565	45.63	ug/L	92
113) n-propylbenzene	15.127	91	821128	53.13	ug/L	100
115) 2-chlorotoluene	15.263	126	171360	49.73	ug/L	94
116) 4-chlorotoluene	15.373	126	162495	51.35	ug/L	98
117) 1,3,5-trimethylbenzene	15.284	105	638236	50.86	ug/L	99
118) tert-butylbenzene	15.625	119	522845	52.55	ug/L	97
119) pentachloroethane	15.693	167	160721	49.46	ug/L	99
120) 1,2,4-trimethylbenzene	15.677	105	636979	52.10	ug/L	99
121) sec-butylbenzene	15.840	105	857743	51.35	ug/L	99
122) 1,3-dichlorobenzene	16.007	146	364500	46.02	ug/L	99
123) p-isopropyltoluene	15.971	119	722876	52.58	ug/L	99
124) 1,4-dichlorobenzene	16.102	146	367868	45.24	ug/L	99
125) 1,2-dichlorobenzene	16.464	146	388447	46.86	ug/L	98
127) n-butylbenzene	16.369	92	359121	53.02	ug/L	98
129) 1,2-dibromo-3-chloropr...	17.192	157	52268	45.29	ug/L	97
130) 1,3,5-trichlorobenzene	17.355	180	407569	46.66	ug/L	100
131) 1,2,4-trichlorobenzene	17.926	180	408491	48.96	ug/L	99
132) hexachlorobutadiene	18.026	225	208466	45.44	ug/L	99
133) naphthalene	18.189	128	865983	49.24	ug/L	99
134) 1,2,3-trichlorobenzene	18.383	180	424450	49.26	ug/L	97
135) hexachloroethane	16.741	119	152865	49.87	ug/L	99
136) Benzyl chloride	16.196	91	380393	47.86	ug/L	100

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

7.3.1

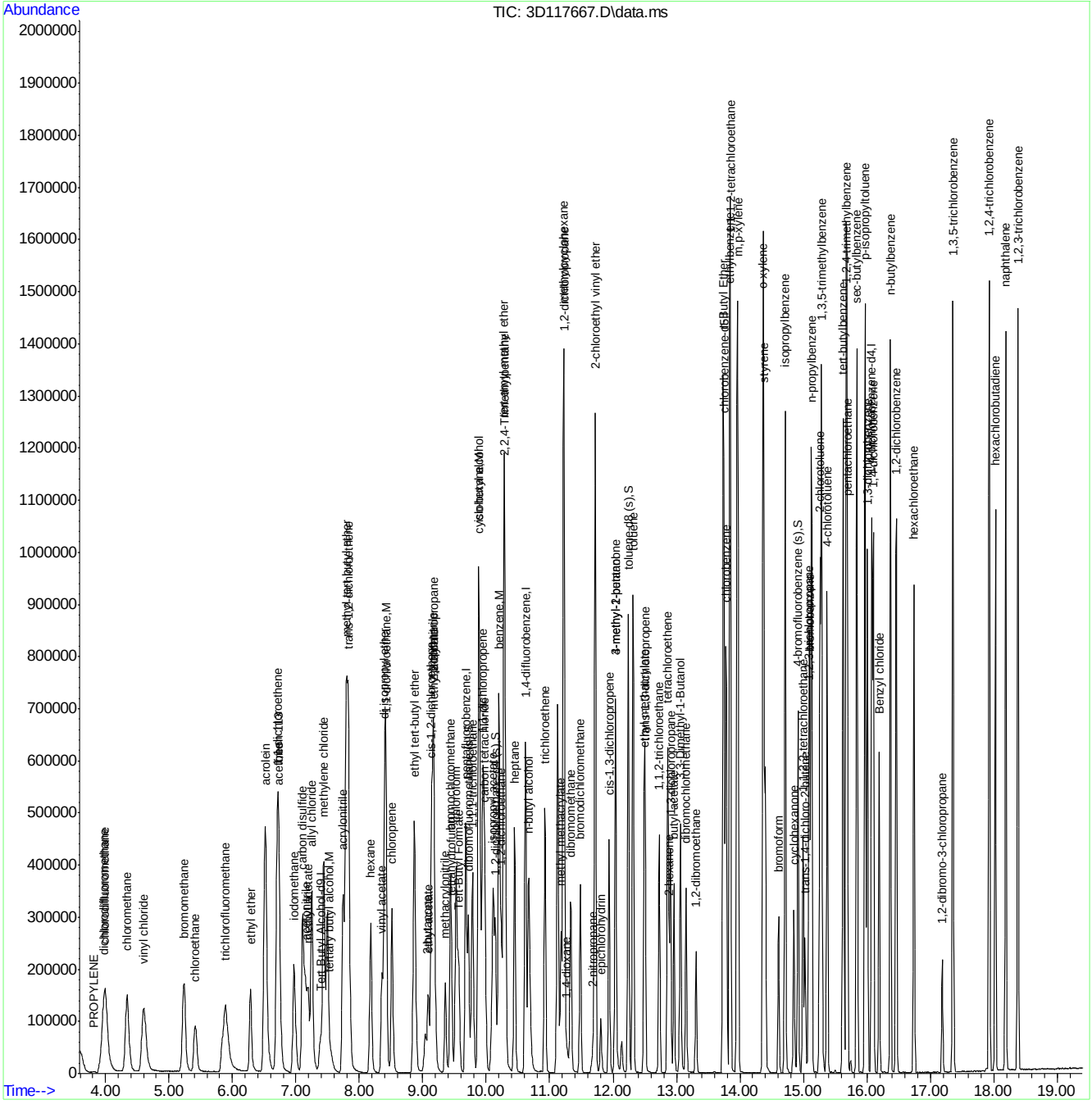
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117667.D
Acq On : 11 Mar 2016 11:31 am
Operator : XimenaC
Sample : bs
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 15:39:22 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117675.D
Acq On : 11 Mar 2016 3:13 pm
Operator : XimenaC
Sample : jc15883-1ms
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 12 18:22:21 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.393	65	249725	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	398213	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.623	114	553488	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	453402	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	252519	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	190098	46.61	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 93.22%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	188434	44.72	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 89.44%			
81) toluene-d8 (s)	12.243	98	601304	49.22	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.44%			
107) 4-bromofluorobenzene (s)	14.917	95	208485	52.37	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.74%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.268	88	58778	1122.15	ug/L	92
3) tertiary butyl alcohol	7.519	59	522580	867.95	ug/L #	27
9) chlorodifluoromethane	3.985	51	330538	35.04	ug/L	98
10) dichlorodifluoromethane	3.959	85	345142	42.71	ug/L	98
11) chloromethane	4.342	50	387932	36.07	ug/L	97
12) vinyl chloride	4.604	62	396142	37.41	ug/L	98
13) bromomethane	5.238	94	233306	47.76	ug/L	99
14) chloroethane	5.411	64	161345	43.39	ug/L	92
17) trichlorofluoromethane	5.883	101	380095	44.13	ug/L	95
19) ethyl ether	6.287	74	84252	43.79	ug/L	93
22) acrolein	6.523	56	440656	422.69	ug/L	99
23) 1,1-dichloroethene	6.706	61	333327	48.69	ug/L	96
24) acetone	6.738	58	18535	41.56	ug/L #	82
25) allyl chloride	7.252	76	118899	51.27	ug/L	97
26) acetonitrile	7.157	40	139316	361.70	ug/L	97
28) iodomethane	6.974	142	431846	48.90	ug/L	98
29) iso-butyl alcohol	9.884	41	523586	448.84	ug/L	98
30) carbon disulfide	7.110	76	790337	46.73	ug/L	99
31) methylene chloride	7.440	84	217244	42.07	ug/L	93
32) methyl acetate	7.199	43	121366	33.39	ug/L	99
33) methyl tert butyl ether	7.797	73	1502990	121.74	ug/L	99
34) trans-1,2-dichloroethene	7.834	61	283286	44.62	ug/L	99
35) di-isopropyl ether	8.405	45	613946	44.54	ug/L	99
36) ethyl tert-butyl ether	8.866	59	573988	45.83	ug/L	99
37) 2-butanone	9.081	72	21212	47.70	ug/L	87
38) 1,1-dichloroethane	8.421	63	342684	44.00	ug/L	99
39) chloroprene	8.515	53	233100	45.63	ug/L	97
40) acrylonitrile	7.744	53	371880	214.94	ug/L	100
41) vinyl acetate	8.358	86	26724	44.31	ug/L	80
42) ethyl acetate	9.092	45	22326	42.01	ug/L	93
43) 2,2-dichloropropane	9.171	77	353276	45.87	ug/L	98
44) cis-1,2-dichloroethene	9.139	96	211250	45.99	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117675.D
Acq On : 11 Mar 2016 3:13 pm
Operator : XimenaC
Sample : jc15883-1ms
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 12 18:22:21 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) propionitrile	9.165	54	295178	416.86	ug/L		98
46) methyl acrylate	9.176	85	26262	48.02	ug/L		81
47) bromochloromethane	9.438	128	108899	44.40	ug/L		97
48) tetrahydrofuran	9.454	42	59664	48.72	ug/L		96
49) chloroform	9.527	83	334581	43.95	ug/L		99
50) Tert-Butyl Formate	9.564	59	103569	26.86	ug/L	#	98
53) freon 113	6.732	151	230115	46.16	ug/L		95
54) methacrylonitrile	9.359	41	101534	40.89	ug/L		99
55) 1,1,1-trichloroethane	9.784	97	341291	46.67	ug/L		99
57) 2,2,4-Trimethylpentane	10.293	57	866959	55.21	ug/L		98
58) tert-amyl methyl ether	10.282	73	562605	46.67	ug/L		99
60) epichlorohydrin	11.808	57	80163	195.15	ug/L		99
61) n-butyl alcohol	10.670	56	297346	2188.31	ug/L		97
62) cyclohexane	9.889	84	365803	54.58	ug/L		96
63) carbon tetrachloride	9.978	117	320712	45.69	ug/L		99
64) 1,1-dichloropropene	9.952	75	260880	52.59	ug/L		98
65) hexane	8.180	57	199156	48.68	ug/L		99
66) benzene	10.203	78	746451	46.79	ug/L		99
67) heptane	10.450	57	130900	52.47	ug/L		98
68) isopropyl acetate	10.114	43	357629	49.22	ug/L		97
69) 1,2-dichloroethane	10.235	62	231930	43.52	ug/L		97
70) trichloroethene	10.927	95	185199	47.14	ug/L		97
73) 2-nitropropane	11.692	41	42169	27.31	ug/L		96
75) methyl methacrylate	11.179	69	111726	50.52	ug/L		82
76) 1,2-dichloropropane	11.226	63	186996	43.96	ug/L		99
77) methylcyclohexane	11.221	83	354980	53.54	ug/L		99
78) dibromomethane	11.331	93	116996	43.33	ug/L		96
79) bromodichloromethane	11.483	83	235082	44.68	ug/L		100
80) cis-1,3-dichloropropene	11.939	75	265039	48.65	ug/L		99
82) 4-methyl-2-pentanone	12.038	58	79968	54.38	ug/L		98
83) toluene	12.316	92	411309	47.83	ug/L		99
84) 3-methyl-1-butanol	12.038	70	115357	1055.11	ug/L		97
85) trans-1,3-dichloropropene	12.505	75	234868	45.65	ug/L		97
86) ethyl methacrylate	12.489	69	196480	54.98	ug/L		98
87) 1,1,2-trichloroethane	12.725	83	126286	43.37	ug/L		99
88) 2-hexanone	12.888	58	57997	53.37	ug/L		96
90) tetrachloroethene	12.862	166	206878	51.28	ug/L		98
91) 1,3-dichloropropane	12.909	76	228790	47.22	ug/L		100
92) butyl acetate	12.961	56	106112	54.56	ug/L		97
93) 3,3-Dimethyl-1-Butanol	13.061	57	266115	609.44	ug/L	#	98
94) dibromochloromethane	13.150	129	185619	47.00	ug/L		98
95) 1,2-dibromoethane	13.307	107	151763	45.35	ug/L		95
96) n-Butyl Ether	13.737	57	762052	63.02	ug/L		98
97) chlorobenzene	13.779	112	444143	48.33	ug/L		98
98) 1,1,1,2-tetrachloroethane	13.847	131	209485	47.69	ug/L		98
99) ethylbenzene	13.842	91	758846	52.49	ug/L		99
100) m,p-xylene	13.963	106	586385	110.94	ug/L		100
101) o-xylene	14.361	106	306392	57.28	ug/L		99
102) styrene	14.377	104	455894	57.04	ug/L		98
104) bromoform	14.608	173	136801	45.30	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117675.D
Acq On : 11 Mar 2016 3:13 pm
Operator : XimenaC
Sample : jc15883-1ms
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 12 18:22:21 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) isopropylbenzene	14.712	105	1324688	95.35	ug/L	99
108) bromobenzene	15.100	156	207902	48.70	ug/L	95
109) cyclohexanone	14.849	55	68547	437.72	ug/L	99
110) 1,1,2,2-tetrachloroethane	14.996	83	213466	43.71	ug/L	100
111) trans-1,4-dichloro-2-b...	15.027	53	40520	40.39	ug/L	94
112) 1,2,3-trichloropropane	15.085	110	48416	46.04	ug/L	96
113) n-propylbenzene	15.127	91	1146971	70.46	ug/L	99
115) 2-chlorotoluene	15.263	126	193180	53.22	ug/L	95
116) 4-chlorotoluene	15.373	126	182949	54.89	ug/L	94
117) 1,3,5-trimethylbenzene	15.284	105	714931	54.10	ug/L	100
118) tert-butylbenzene	15.625	119	613110	58.51	ug/L	98
119) pentachloroethane	15.693	167	175935	51.40	ug/L	97
120) 1,2,4-trimethylbenzene	15.677	105	709108	55.07	ug/L	98
121) sec-butylbenzene	15.840	105	1027058	58.38	ug/L	99
122) 1,3-dichlorobenzene	16.007	146	399790	47.92	ug/L	99
123) p-isopropyltoluene	15.971	119	832061	57.47	ug/L	99
124) 1,4-dichlorobenzene	16.102	146	402344	46.98	ug/L	99
125) 1,2-dichlorobenzene	16.464	146	424635	48.63	ug/L	98
127) n-butylbenzene	16.369	92	428758	60.10	ug/L	97
129) 1,2-dibromo-3-chloropr...	17.187	157	58897	48.45	ug/L	98
130) 1,3,5-trichlorobenzene	17.355	180	463421	50.38	ug/L	100
131) 1,2,4-trichlorobenzene	17.926	180	470903	53.59	ug/L	100
132) hexachlorobutadiene	18.026	225	248870	51.51	ug/L	98
133) naphthalene	18.189	128	1019212	55.03	ug/L	99
134) 1,2,3-trichlorobenzene	18.383	180	475363	52.38	ug/L	99
135) hexachloroethane	16.741	119	168215	52.11	ug/L	98
136) Benzyl chloride	16.196	91	397216	47.45	ug/L	100

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

7.4.1

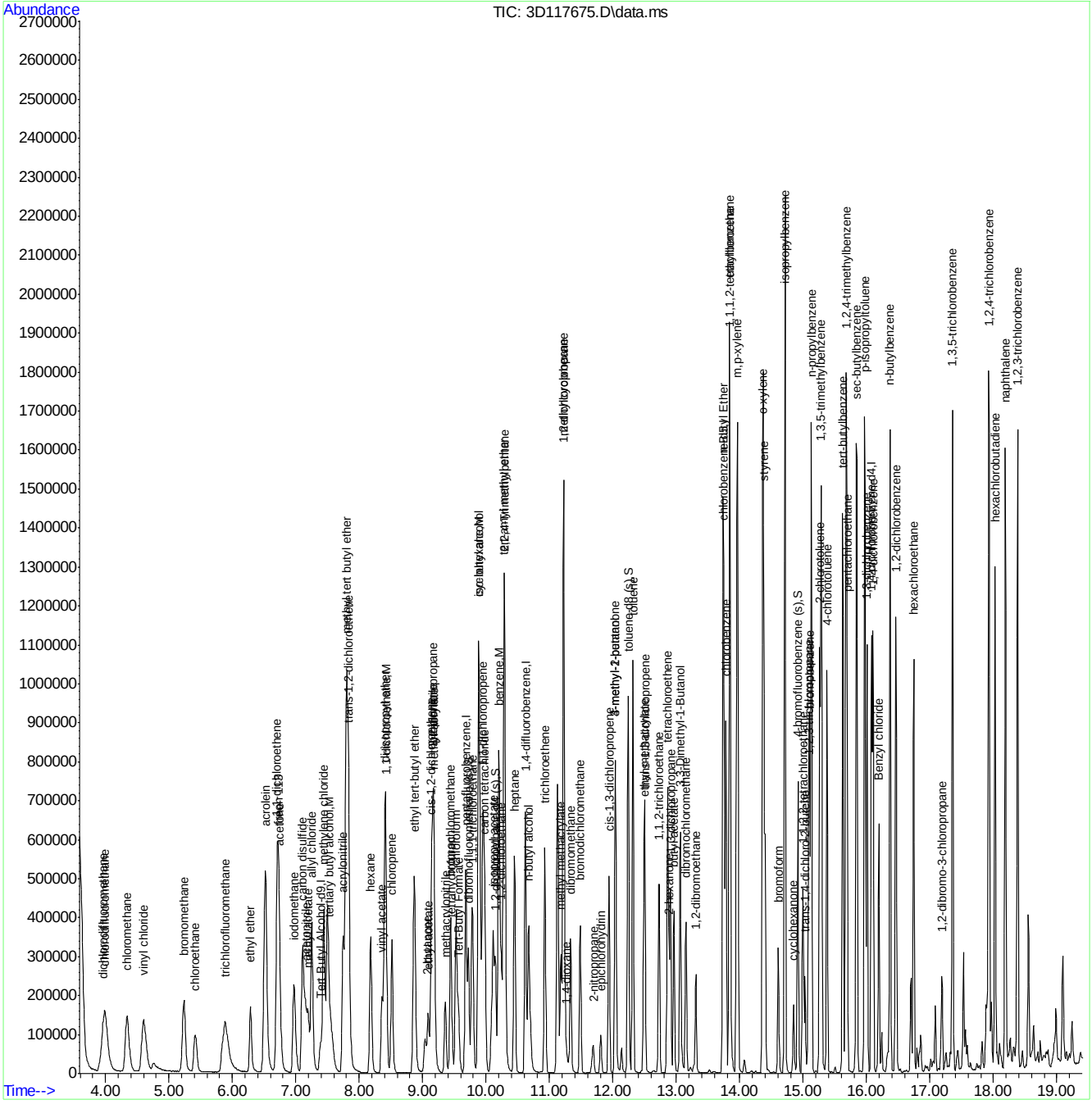
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117675.D
Acq On : 11 Mar 2016 3:13 pm
Operator : XimenaC
Sample : jc15883-1ms
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 12 18:22:21 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117676.D
Acq On : 11 Mar 2016 3:41 pm
Operator : XimenaC
Sample : jc15883-1msd
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 12 18:22:28 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.404	65	246021	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	390508	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.618	114	544351	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	444582	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	248285	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.721	113	185389	46.35	ug/L	0.00
Spiked Amount 50.000 Range 76 - 120 Recovery = 92.70%						
52) 1,2-dichloroethane-d4 (s)	10.146	65	185367	44.86	ug/L	0.00
Spiked Amount 50.000 Range 73 - 122 Recovery = 89.72%						
81) toluene-d8 (s)	12.243	98	585882	48.76	ug/L	0.00
Spiked Amount 50.000 Range 84 - 119 Recovery = 97.52%						
107) 4-bromofluorobenzene (s)	14.917	95	204695	52.30	ug/L	0.00
Spiked Amount 50.000 Range 78 - 117 Recovery = 104.60%						
Target Compounds						Qvalue
2) 1,4-dioxane	11.268	88	58312	1130.02	ug/L	95
3) tertiary butyl alcohol	7.519	59	542084	913.90	ug/L #	26
9) chlorodifluoromethane	3.996	51	334529	36.16	ug/L	98
10) dichlorodifluoromethane	3.975	85	352613	44.50	ug/L	97
11) chloromethane	4.342	50	391394	37.11	ug/L	97
12) vinyl chloride	4.599	62	401468	38.66	ug/L	99
13) bromomethane	5.238	94	240657	50.23	ug/L	97
14) chloroethane	5.416	64	166537	45.66	ug/L	97
17) trichlorofluoromethane	5.878	101	386785	45.80	ug/L	100
19) ethyl ether	6.287	74	84981	45.04	ug/L	95
22) acrolein	6.523	56	457637	447.64	ug/L	99
23) 1,1-dichloroethene	6.706	61	342859	51.07	ug/L	98
24) acetone	6.738	58	18273	41.78	ug/L #	81
25) allyl chloride	7.252	76	123847	54.46	ug/L	96
26) acetonitrile	7.162	40	140123	370.97	ug/L	96
28) iodomethane	6.968	142	439311	50.73	ug/L	98
29) iso-butyl alcohol	9.884	41	527055	460.73	ug/L	99
30) carbon disulfide	7.110	76	803486	48.44	ug/L	98
31) methylene chloride	7.440	84	222827	44.01	ug/L	93
32) methyl acetate	7.194	43	119524	33.53	ug/L	100
33) methyl tert butyl ether	7.797	73	1528746	126.27	ug/L	99
34) trans-1,2-dichloroethene	7.828	61	284426	45.68	ug/L	100
35) di-isopropyl ether	8.400	45	612500	45.31	ug/L	99
36) ethyl tert-butyl ether	8.866	59	576630	46.95	ug/L	98
37) 2-butanone	9.081	72	21463	49.22	ug/L	85
38) 1,1-dichloroethane	8.421	63	348897	45.68	ug/L	98
39) chloroprene	8.515	53	232177	46.35	ug/L	98
40) acrylonitrile	7.744	53	377862	222.71	ug/L	98
41) vinyl acetate	8.358	86	27261	46.09	ug/L	69
42) ethyl acetate	9.092	45	21905	42.03	ug/L	94
43) 2,2-dichloropropane	9.171	77	353044	46.75	ug/L	98
44) cis-1,2-dichloroethene	9.139	96	213922	47.49	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117676.D
Acq On : 11 Mar 2016 3:41 pm
Operator : XimenaC
Sample : jc15883-1msd
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 12 18:22:28 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) propionitrile	9.165	54	297813	428.88	ug/L	98
46) methyl acrylate	9.176	85	26709	49.80	ug/L	76
47) bromochloromethane	9.438	128	110713	46.03	ug/L	96
48) tetrahydrofuran	9.454	42	61310	51.06	ug/L	97
49) chloroform	9.527	83	337531	45.21	ug/L	97
50) Tert-Butyl Formate	9.564	59	82388	21.79	ug/L #	97
53) freon 113	6.727	151	230511	47.15	ug/L	99
54) methacrylonitrile	9.354	41	101835	41.82	ug/L	96
55) 1,1,1-trichloroethane	9.784	97	344970	48.11	ug/L	98
57) 2,2,4-Trimethylpentane	10.293	57	857858	55.70	ug/L	98
58) tert-amyl methyl ether	10.282	73	562160	47.56	ug/L	99
60) epichlorohydrin	11.808	57	76622	189.66	ug/L	99
61) n-butyl alcohol	10.670	56	291473	2181.09	ug/L	98
62) cyclohexane	9.889	84	365360	55.43	ug/L	98
63) carbon tetrachloride	9.978	117	323886	46.92	ug/L	99
64) 1,1-dichloropropene	9.952	75	263046	53.91	ug/L	98
65) hexane	8.180	57	201157	50.00	ug/L	98
66) benzene	10.198	78	750304	47.82	ug/L	99
67) heptane	10.445	57	127415	51.93	ug/L	97
68) isopropyl acetate	10.114	43	352764	49.37	ug/L	98
69) 1,2-dichloroethane	10.235	62	235272	44.89	ug/L	98
70) trichloroethene	10.927	95	185979	48.13	ug/L	97
73) 2-nitropropane	11.687	41	42359	27.90	ug/L	96
75) methyl methacrylate	11.179	69	106349	48.90	ug/L	80
76) 1,2-dichloropropane	11.226	63	188098	44.96	ug/L	98
77) methylcyclohexane	11.221	83	352997	54.13	ug/L	100
78) dibromomethane	11.331	93	117668	44.31	ug/L	97
79) bromodichloromethane	11.483	83	233848	45.19	ug/L	99
80) cis-1,3-dichloropropene	11.939	75	269440	50.29	ug/L	98
82) 4-methyl-2-pentanone	12.038	58	80488	55.65	ug/L	98
83) toluene	12.316	92	411932	48.71	ug/L	99
84) 3-methyl-1-butanol	12.038	70	116782	1086.07	ug/L	95
85) trans-1,3-dichloropropene	12.505	75	236399	46.71	ug/L	97
86) ethyl methacrylate	12.489	69	196934	56.04	ug/L	98
87) 1,1,2-trichloroethane	12.731	83	127329	44.46	ug/L	97
88) 2-hexanone	12.888	58	58752	54.98	ug/L	96
90) tetrachloroethene	12.862	166	205073	51.84	ug/L	97
91) 1,3-dichloropropane	12.909	76	228289	48.05	ug/L	98
92) butyl acetate	12.961	56	103597	54.32	ug/L	98
93) 3,3-Dimethyl-1-Butanol	13.061	57	264979	618.88	ug/L #	99
94) dibromochloromethane	13.150	129	185839	47.99	ug/L	99
95) 1,2-dibromoethane	13.307	107	154668	47.14	ug/L	98
96) n-Butyl Ether	13.732	57	775609	65.41	ug/L	98
97) chlorobenzene	13.779	112	446915	49.60	ug/L	99
98) 1,1,1,2-tetrachloroethane	13.847	131	209975	48.75	ug/L	99
99) ethylbenzene	13.842	91	768478	54.21	ug/L	99
100) m,p-xylene	13.963	106	586828	113.22	ug/L	99
101) o-xylene	14.361	106	307282	58.59	ug/L	96
102) styrene	14.377	104	457072	58.32	ug/L	98
104) bromoform	14.608	173	137903	46.57	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117676.D
Acq On : 11 Mar 2016 3:41 pm
Operator : XimenaC
Sample : jc15883-1msd
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 12 18:22:28 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

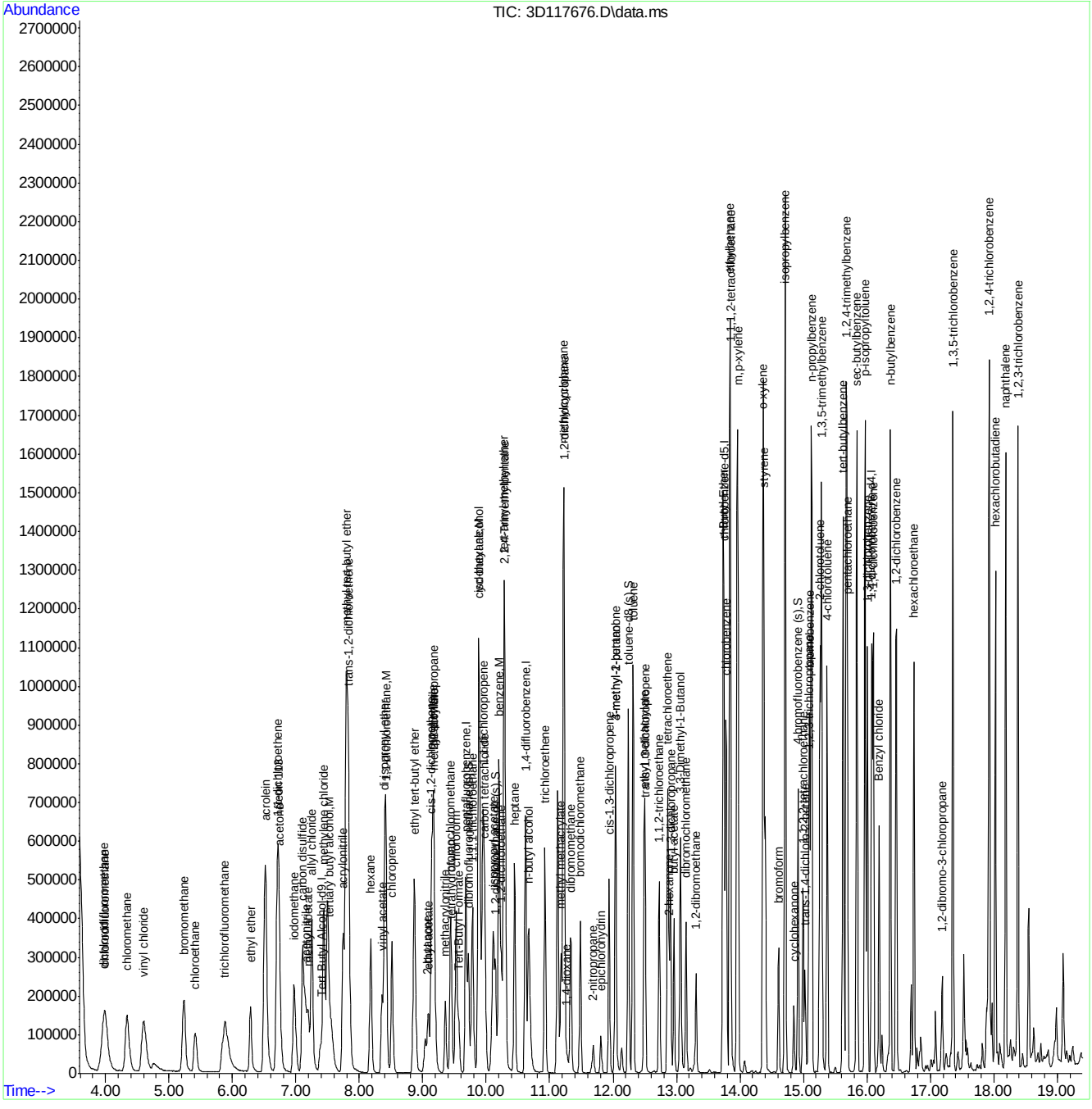
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) isopropylbenzene	14.712	105	1330034	97.37	ug/L	98
108) bromobenzene	15.095	156	208297	49.63	ug/L	96
109) cyclohexanone	14.849	55	66763	433.59	ug/L	97
110) 1,1,2,2-tetrachloroethane	14.996	83	215305	44.84	ug/L	100
111) trans-1,4-dichloro-2-b...	15.027	53	43857	44.46	ug/L	95
112) 1,2,3-trichloropropane	15.085	110	48678	47.07	ug/L	94
113) n-propylbenzene	15.127	91	1144990	71.54	ug/L	100
115) 2-chlorotoluene	15.263	126	194561	54.52	ug/L	95
116) 4-chlorotoluene	15.373	126	186544	56.93	ug/L	98
117) 1,3,5-trimethylbenzene	15.284	105	719082	55.34	ug/L	100
118) tert-butylbenzene	15.625	119	618929	60.07	ug/L	98
119) pentachloroethane	15.693	167	176784	52.53	ug/L	97
120) 1,2,4-trimethylbenzene	15.677	105	710020	56.08	ug/L	98
121) sec-butylbenzene	15.840	105	1034374	59.80	ug/L	99
122) 1,3-dichlorobenzene	16.007	146	401154	48.91	ug/L	99
123) p-isopropyltoluene	15.971	119	833282	58.53	ug/L	99
124) 1,4-dichlorobenzene	16.102	146	402889	47.85	ug/L	99
125) 1,2-dichlorobenzene	16.464	146	426439	49.67	ug/L	98
127) n-butylbenzene	16.369	92	430933	61.43	ug/L	96
129) 1,2-dibromo-3-chloropr...	17.187	157	60080	50.27	ug/L	97
130) 1,3,5-trichlorobenzene	17.355	180	463994	51.30	ug/L	100
131) 1,2,4-trichlorobenzene	17.926	180	472793	54.73	ug/L	99
132) hexachlorobutadiene	18.026	225	250988	52.83	ug/L	100
133) naphthalene	18.189	128	1016841	55.84	ug/L	100
134) 1,2,3-trichlorobenzene	18.383	180	479124	53.69	ug/L	98
135) hexachloroethane	16.741	119	170129	53.60	ug/L	98
136) Benzyl chloride	16.191	91	392189	47.65	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117676.D
Acq On : 11 Mar 2016 3:41 pm
Operator : XimenaC
Sample : jc15883-1msd
Misc : MS99497,V3D5036,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 12 18:22:28 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

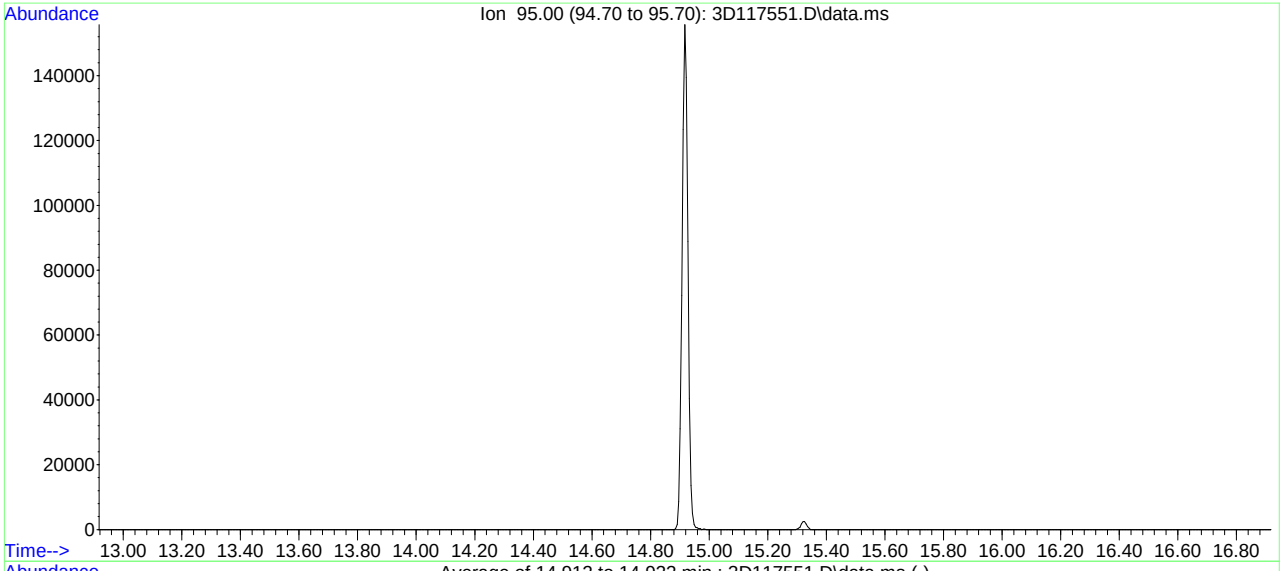


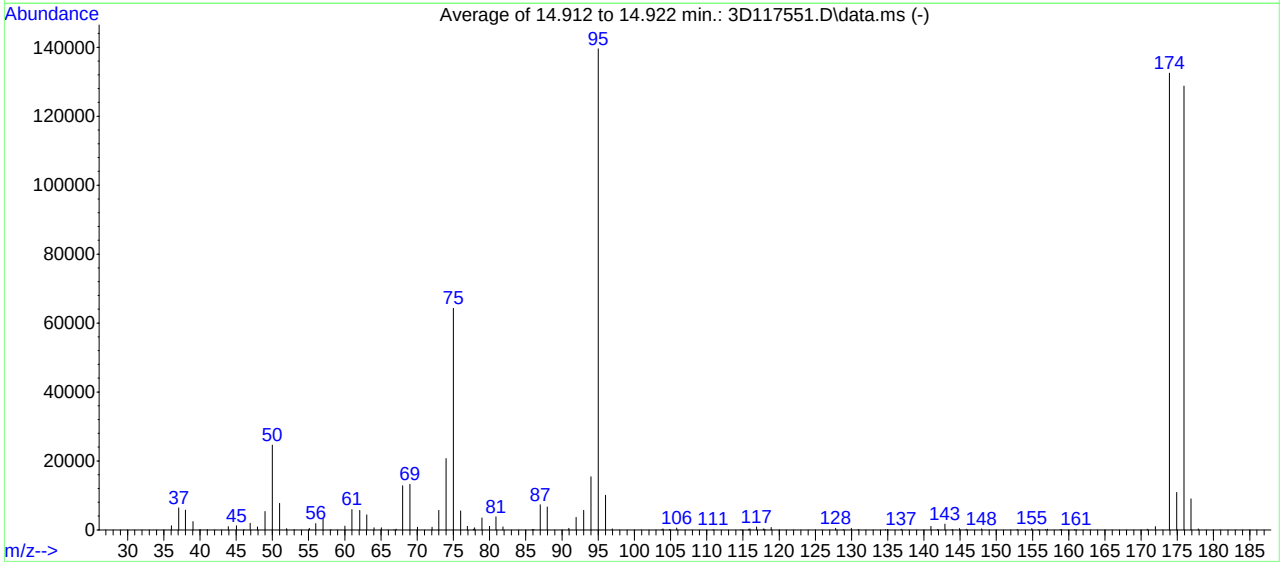
SGS ACCUTEST JC15883

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\3D117551.D Vial: 21
Acq On : 3 Mar 2016 12:45 pm Operator: XimenaC
Sample : bfb Inst : MS3D
Misc : MS98160,V3D5030,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D5030.M (RTE Integrator)
Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um





AutoFind: Scans 2160, 2161, 2162; Background Corrected with Scan 2152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	24629	PASS
75	95	30	60	46.1	64293	PASS
95	95	100	100	100.0	139533	PASS
96	95	5	9	7.2	10081	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	94.9	132477	PASS
175	174	5	9	8.2	10876	PASS
176	174	95	101	97.2	128778	PASS
177	176	5	9	7.0	8956	PASS

3D117551.D M3D5030.M Fri Mar 04 12:27:27 2016 3D

Average of 14.912 to 14.922 min.: 3D117551.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1207	49.00	5330	62.05	5626	74.00	20717
37.05	6405	50.00	24629	63.05	4340	75.00	64293
38.00	5727	51.00	7661	64.05	622	76.00	5500
39.05	2415	51.95	356	65.05	635	76.95	1018
40.00	136	53.00	79	66.80	81	77.80	179
41.00	52	55.10	438	67.10	243	77.95	578
43.90	965	56.00	1815	68.00	12797	78.95	3449
45.05	1188	57.00	3251	69.00	13214	80.00	1041
46.10	74	58.10	79	70.05	788	80.90	3795
46.95	1902	60.00	1112	72.05	793	81.85	867
47.95	859	61.00	5937	73.00	5691	85.90	132

Average of 14.912 to 14.922 min.: 3D117551.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.10	99	103.95	324	127.80	484	144.90	410
87.00	7258	104.85	135	128.85	108	145.85	241
87.95	6620	105.85	552	129.95	423	147.95	325
90.95	476	110.90	53	130.95	165	152.90	159
91.95	3592	114.70	51	134.70	58	154.90	374
93.00	5680	115.80	181	135.00	123	155.80	57
94.00	15385	115.95	318	136.85	219	156.80	81
95.00	139533	116.90	844	140.95	1012	157.05	223
96.00	10081	117.80	304	141.90	102	158.80	52
96.95	317	118.00	175	142.90	1634	158.95	113
103.80	143	118.90	717	143.90	106	160.80	62

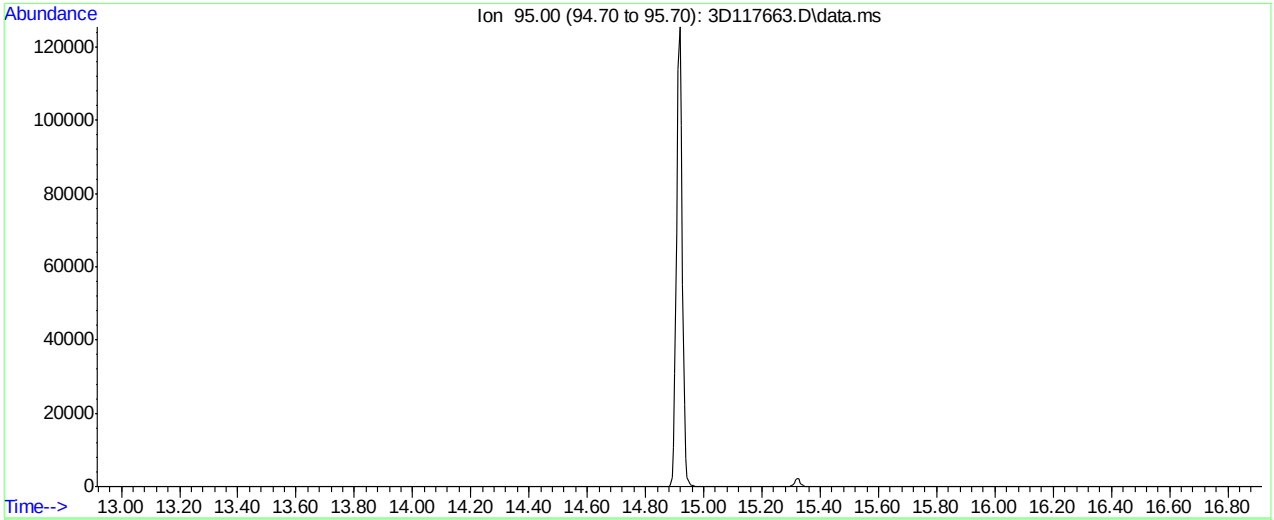
Average of 14.912 to 14.922 min.: 3D117551.D\data.ms
bfb
Modified:subtracted

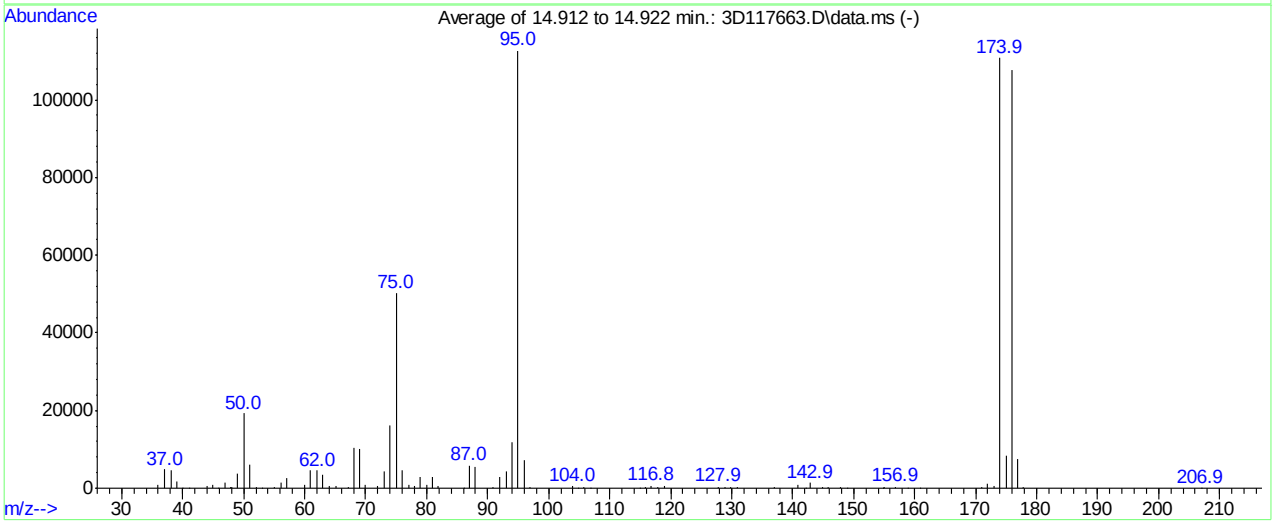
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
161.00	67						
170.85	175						
171.95	960						
173.90	132477						
174.90	10876						
175.90	128778						
176.90	8956						
177.90	306						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\3D\v3d5036\3D117663.D Vial: 1
Acq On : 11 Mar 2016 9:02 am Operator: XimenaC
Sample : bfb Inst : MS3D
Misc : MS99464,V3D5036,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D5030.M (RTE Integrator)
Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um





AutoFind: Scans 2160, 2161, 2162; Background Corrected with Scan 2152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	19249	PASS
75	95	30	60	44.7	50347	PASS
95	95	100	100	100.0	112707	PASS
96	95	5	9	6.4	7202	PASS
173	174	0.00	2	0.4	456	PASS
174	95	50	120	98.2	110712	PASS
175	174	5	9	7.5	8323	PASS
176	174	95	101	97.2	107600	PASS
177	176	5	9	6.9	7440	PASS

3D117663.D M3D5030.M Sat Mar 12 15:40:57 2016 RPT1

Average of 14.912 to 14.922 min.: 3D117663.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	917	48.10	211	62.05	4612	75.00	50347
37.05	4808	49.05	3764	63.00	3602	76.05	4603
38.05	4591	50.00	19249	64.00	597	77.05	774
39.05	1880	51.05	5931	65.05	550	78.00	584
39.95	28	52.00	334	67.10	353	78.90	2764
41.00	54	53.00	63	68.00	10353	79.95	875
43.95	692	55.00	311	69.00	10142	80.90	2865
45.00	966	56.05	1415	70.00	870	81.90	688
45.90	51	57.00	2673	71.95	450	86.05	141
47.00	1347	60.00	956	73.00	4353	87.00	5838
47.90	370	61.00	4573	74.00	16095	88.00	5355

Average of 14.912 to 14.922 min.: 3D117663.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.90	360	114.90	125	142.10	61	170.95	234
92.00	2871	115.90	358	142.95	1331	171.95	1282
93.00	4434	116.85	688	144.95	348	173.10	456
94.00	11949	117.95	363	145.80	192	173.95	110712
95.00	112707	118.90	656	147.90	286	174.95	8323
96.05	7202	127.90	416	148.90	67	175.90	107600
97.00	245	128.85	203	154.80	118	176.90	7440
103.95	451	129.90	392	155.05	180	177.85	188
104.80	73	130.85	188	156.90	301	206.95	6
105.80	425	136.95	231	158.85	119		
106.85	102	140.95	875	160.80	57		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117552.D
Acq On : 3 Mar 2016 1:21 pm
Operator : XimenaC
Sample : IC5030-0.2
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 10:58:50 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Mar 09 10:45:49 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.388	65	282694	500.00 ug/L	-0.01
4) pentafluorobenzene	9.679	168	412945	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	594863	50.00 ug/L	0.00
88) chlorobenzene-d5	13.753	117	494868	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	288844	50.00 ug/L	0.00

System Monitoring Compounds					
50) dibromofluoromethane (s)	9.721	113	218966	51.77 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.54%		
51) 1,2-dichloroethane-d4 (s)	10.146	65	228185	52.22 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 104.44%		
80) toluene-d8 (s)	12.243	98	647888	49.34 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.68%		
106) 4-bromofluorobenzene (s)	14.917	95	223843	49.16 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.32%		

Target Compounds					Qvalue
8) chlorodifluoromethane	4.006	51	1704	0.17 ug/L	67
10) chloromethane	4.310	50	2601	0.23 ug/L	87
11) vinyl chloride	4.593	62	2463	0.22 ug/L	80
16) trichlorofluoromethane	5.873	101	1537	0.17 ug/L	93
21) acrolein	6.523	56	2593	2.46 ug/L	70
22) 1,1-dichloroethene	6.701	61	1303	0.18 ug/L	80
27) iodomethane	6.963	142	1637	0.18 ug/L	78
30) methylene chloride	7.430	84	1169	0.22 ug/L #	73
32) methyl tert butyl ether	7.797	73	2470	0.19 ug/L	83
33) trans-1,2-dichloroethene	7.828	61	1255	0.19 ug/L	87
34) di-isopropyl ether	8.400	45	2290	0.16 ug/L	84
35) ethyl tert-butyl ether	8.861	59	1964	0.15 ug/L #	71
37) 1,1-dichloroethane	8.421	63	1488	0.18 ug/L	81
38) chloroprene	8.510	53	781	0.15 ug/L	62
39) acrylonitrile	7.744	53	1824	1.02 ug/L	77
42) 2,2-dichloropropane	9.160	77	1577	0.20 ug/L	80
43) cis-1,2-dichloroethene	9.144	96	902	0.19 ug/L #	72
44) propionitrile	9.171	54	1561	2.13 ug/L	95
48) chloroform	9.527	83	1657	0.21 ug/L	95
49) Tert-Butyl Formate	9.569	59	685	0.17 ug/L #	18
52) freon 113	6.727	151	687	0.13 ug/L #	62
54) 1,1,1-trichloroethane	9.779	97	1532	0.20 ug/L	83
57) tert-amyl methyl ether	10.287	73	1901	0.15 ug/L	93
61) cyclohexane	9.894	84	1248	0.17 ug/L #	63
62) carbon tetrachloride	9.983	117	1502	0.20 ug/L	97
63) 1,1-dichloropropene	9.952	75	1044	0.20 ug/L	85
64) hexane	8.180	57	662	0.15 ug/L	90
65) benzene	10.203	78	3508	0.20 ug/L	94
68) 1,2-dichloroethane	10.235	62	1252	0.22 ug/L	84
69) trichloroethene	10.927	95	698	0.17 ug/L	81
73) 2-chloroethyl vinyl ether	11.719	63	1618	0.73 ug/L	88
75) 1,2-dichloropropane	11.221	63	917	0.20 ug/L #	43
76) methylcyclohexane	11.226	83	951	0.13 ug/L	82
77) dibromomethane	11.331	93	510	0.18 ug/L #	74
78) bromodichloromethane	11.488	83	1017	0.18 ug/L	89
79) cis-1,3-dichloropropene	11.939	75	974	0.17 ug/L	89
82) toluene	12.316	92	1870	0.20 ug/L	93
84) trans-1,3-dichloropropene	12.505	75	1082	0.20 ug/L	88
85) ethyl methacrylate	12.495	69	590	0.15 ug/L	69
89) tetrachloroethene	12.867	166	860	0.20 ug/L #	69
90) 1,3-dichloropropane	12.909	76	795	0.15 ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117552.D
Acq On : 3 Mar 2016 1:21 pm
Operator : XimenaC
Sample : IC5030-0.2
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 10:58:50 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Mar 09 10:45:49 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) dibromochloromethane	13.145	129	809	0.19 ug/L	75
94) 1,2-dibromoethane	13.302	107	792	0.22 ug/L	97
95) n-Butyl Ether	13.737	57	2472	0.19 ug/L #	1
96) chlorobenzene	13.784	112	1970	0.20 ug/L	88
97) 1,1,1,2-tetrachloroethane	13.847	131	868	0.18 ug/L	92
98) ethylbenzene	13.842	91	2844	0.18 ug/L	83
99) m,p-xylene	13.968	106	1906	0.33 ug/L	95
100) o-xylene	14.356	106	985	0.17 ug/L	79
101) styrene	14.377	104	1499	0.17 ug/L	91
103) bromoform	14.613	173	632	0.19 ug/L	90
105) isopropylbenzene	14.712	105	2453	0.15 ug/L	92
107) bromobenzene	15.095	156	896	0.18 ug/L	90
109) 1,1,2,2-tetrachloroethane	14.996	83	1166	0.21 ug/L	86
112) n-propylbenzene	15.132	91	3183	0.17 ug/L	91
115) 4-chlorotoluene	15.378	126	541	0.14 ug/L	93
118) pentachloroethane	15.693	167	807	0.21 ug/L	85
121) 1,3-dichlorobenzene	16.008	146	1799	0.19 ug/L	86
124) 1,2-dichlorobenzene	16.464	146	1787	0.18 ug/L	95
126) n-butylbenzene	16.369	92	1419	0.17 ug/L	97
129) 1,3,5-trichlorobenzene	17.360	180	1950	0.19 ug/L	94
130) 1,2,4-trichlorobenzene	17.932	180	1718	0.17 ug/L	94
131) hexachlorobutadiene	18.026	225	1055	0.19 ug/L	93
133) 1,2,3-trichlorobenzene	18.383	180	1840	0.18 ug/L	86
134) hexachloroethane	16.742	119	571	0.15 ug/L	93
135) Benzyl chloride	16.196	91	1758	0.18 ug/L #	60

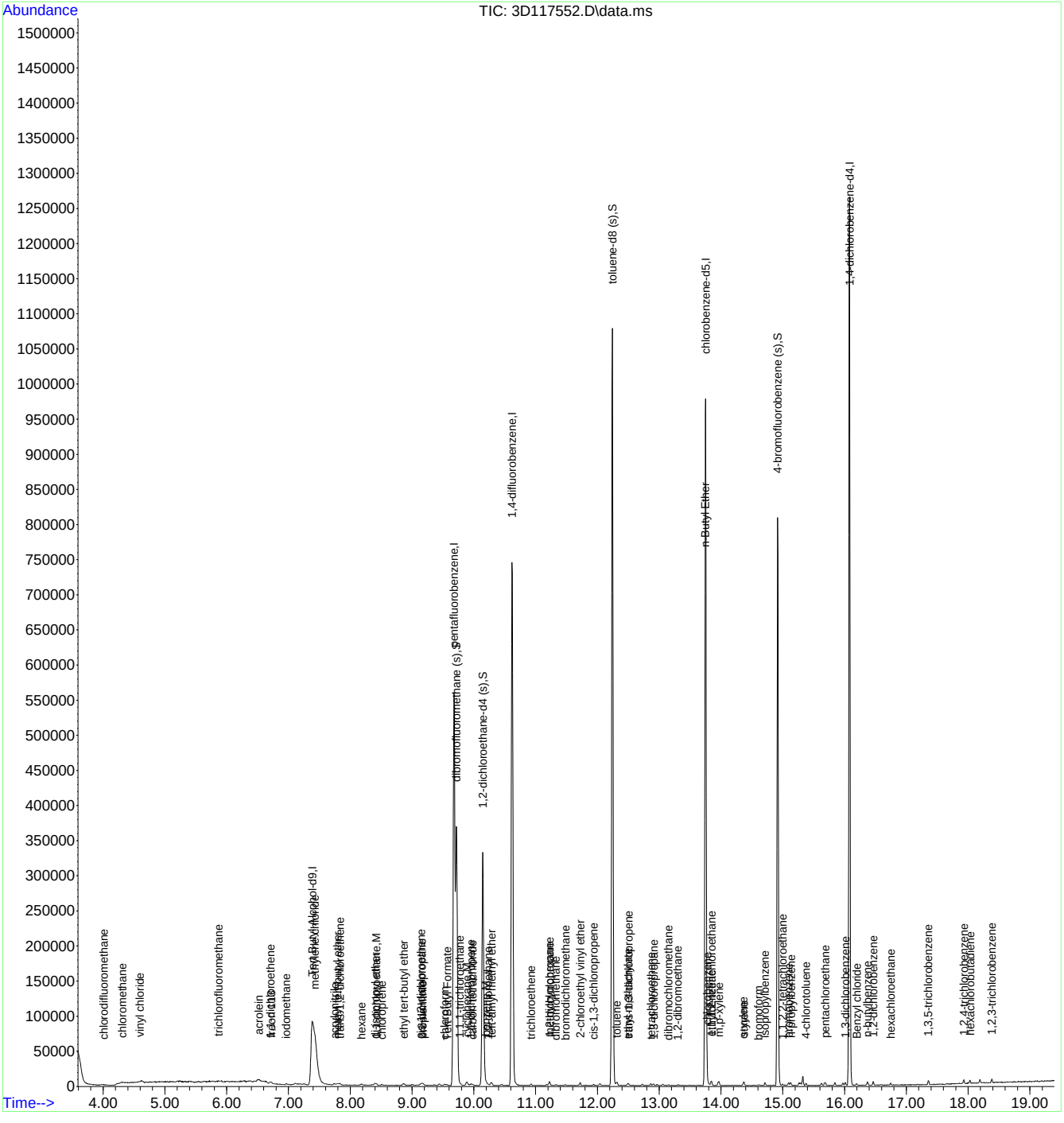
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117552.D
Acq On : 3 Mar 2016 1:21 pm
Operator : XimenaC
Sample : IC5030-0.2
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 10:58:50 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Mar 09 10:45:49 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117553.D
Acq On : 3 Mar 2016 1:48 pm
Operator : XimenaC
Sample : IC5030-0.5
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 08 11:31:00 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.388	65	258813	500.00 ug/L	-0.01
4) pentafluorobenzene	9.679	168	408638	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	585708	50.00 ug/L	0.00
88) chlorobenzene-d5	13.753	117	490150	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	287967	50.00 ug/L	0.00

System Monitoring Compounds					
50) dibromofluoromethane (s)	9.721	113	215695	53.07 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.14%		
51) 1,2-dichloroethane-d4 (s)	10.146	65	225592	54.11 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.22%		
80) toluene-d8 (s)	12.243	98	642906	50.19 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.38%		
106) 4-bromofluorobenzene (s)	14.917	95	220788	46.76 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 93.52%		

Target Compounds					Qvalue
8) chlorodifluoromethane	4.006	51	5711	0.63 ug/L	71
10) chloromethane	4.316	50	6485	0.67 ug/L	92
11) vinyl chloride	4.588	62	6280	0.66 ug/L	85
13) chloroethane	5.411	64	2269	0.65 ug/L	89
16) trichlorofluoromethane	5.894	101	4797	0.58 ug/L	86
18) ethyl ether	6.282	74	1116	0.60 ug/L	95
21) acrolein	6.523	56	6637	7.50 ug/L	85
22) 1,1-dichloroethene	6.706	61	4378	0.64 ug/L	96
24) allyl chloride	7.246	76	1357	0.57 ug/L #	51
27) iodomethane	6.969	142	5560	0.63 ug/L	95
28) iso-butyl alcohol	9.884	41	7600	6.80 ug/L	93
30) methylene chloride	7.440	84	3503	0.73 ug/L	83
32) methyl tert butyl ether	7.802	73	7522	0.59 ug/L	93
33) trans-1,2-dichloroethene	7.828	61	3949	0.63 ug/L	97
34) di-isopropyl ether	8.400	45	7628	0.52 ug/L	95
35) ethyl tert-butyl ether	8.872	59	6829	0.51 ug/L	86
37) 1,1-dichloroethane	8.426	63	5017	0.67 ug/L	97
38) chloroprene	8.515	53	2933	0.54 ug/L	88
39) acrylonitrile	7.745	53	5368	3.19 ug/L	93
42) 2,2-dichloropropane	9.171	77	5084	0.69 ug/L	97
43) cis-1,2-dichloroethene	9.139	96	3061	0.67 ug/L	89
44) propionitrile	9.160	54	4094	6.08 ug/L	69
46) bromochloromethane	9.438	128	1568	0.67 ug/L	83
48) chloroform	9.527	83	5145	0.71 ug/L	95
49) Tert-Butyl Formate	9.564	59	2161	0.55 ug/L #	95
52) freon 113	6.727	151	3082	0.62 ug/L	90
53) methacrylonitrile	9.359	41	1669	0.72 ug/L	83
54) 1,1,1-trichloroethane	9.784	97	4642	0.65 ug/L	92
56) 2,2,4-Trimethylpentane	10.282	57	7292	0.41 ug/L	78
57) tert-amyl methyl ether	10.282	73	6765	0.53 ug/L	98
59) epichlorohydrin	11.813	57	1203	3.10 ug/L	83
60) n-butyl alcohol	10.665	56	3462	25.94 ug/L	74
61) cyclohexane	9.894	84	3972	0.53 ug/L #	75
62) carbon tetrachloride	9.978	117	4703	0.66 ug/L	83
63) 1,1-dichloropropene	9.957	75	3129	0.60 ug/L	95
64) hexane	8.185	57	2365	0.51 ug/L	87
65) benzene	10.198	78	10436	0.65 ug/L	91
66) heptane	10.450	57	1297	0.47 ug/L #	73
67) isopropyl acetate	10.120	43	4207	0.58 ug/L #	1
68) 1,2-dichloroethane	10.240	62	3252	0.62 ug/L	89
69) trichloroethene	10.932	95	2651	0.67 ug/L	81

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117553.D
Acq On : 3 Mar 2016 1:48 pm
Operator : XimenaC
Sample : IC5030-0.5
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 08 11:31:00 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
73) 2-chloroethyl vinyl ether	11.719	63	5211	2.23 ug/L	94
75) 1,2-dichloropropane	11.231	63	2789	0.66 ug/L	97
76) methylcyclohexane	11.226	83	3688	0.48 ug/L	88
77) dibromomethane	11.331	93	1767	0.66 ug/L	93
78) bromodichloromethane	11.483	83	3487	0.66 ug/L	88
79) cis-1,3-dichloropropene	11.939	75	3445	0.59 ug/L	85
81) 4-methyl-2-pentanone	12.044	58	668	0.41 ug/L #	51
82) toluene	12.322	92	5681	0.66 ug/L	83
83) 3-methyl-1-butanol	12.039	70	944	8.06 ug/L #	71
84) trans-1,3-dichloropropene	12.505	75	3270	0.61 ug/L	90
85) ethyl methacrylate	12.495	69	1953	0.47 ug/L	90
86) 1,1,2-trichloroethane	12.725	83	1948	0.68 ug/L	84
89) tetrachloroethene	12.862	166	2582	0.61 ug/L	97
90) 1,3-dichloropropane	12.914	76	3341	0.66 ug/L	91
91) butyl acetate	12.961	56	1099	0.52 ug/L #	74
93) dibromochloromethane	13.150	129	2430	0.58 ug/L	94
94) 1,2-dibromoethane	13.313	107	1938	0.56 ug/L	97
95) n-Butyl Ether	13.737	57	6636	0.45 ug/L #	14
96) chlorobenzene	13.779	112	6058	0.64 ug/L	99
97) 1,1,1,2-tetrachloroethane	13.847	131	2844	0.60 ug/L	88
98) ethylbenzene	13.842	91	9109	0.57 ug/L	93
99) m,p-xylene	13.963	106	6143	1.00 ug/L	93
100) o-xylene	14.367	106	2941	0.46 ug/L	99
101) styrene	14.377	104	4262	0.44 ug/L	87
103) bromoform	14.613	173	1943	0.62 ug/L	83
105) isopropylbenzene	14.718	105	8019	0.43 ug/L	90
107) bromobenzene	15.106	156	2994	0.62 ug/L #	60
108) cyclohexanone	14.854	55	994	5.16 ug/L	70
109) 1,1,2,2-tetrachloroethane	15.001	83	3529	0.68 ug/L	90
110) trans-1,4-dichloro-2-b...	15.027	53	635	0.59 ug/L	85
111) 1,2,3-trichloropropane	15.090	110	651	0.57 ug/L	87
112) n-propylbenzene	15.132	91	9829	0.48 ug/L	98
114) 2-chlorotoluene	15.263	126	2167	0.49 ug/L	87
115) 4-chlorotoluene	15.373	126	2031	0.49 ug/L	93
118) pentachloroethane	15.693	167	1995	0.49 ug/L	80
121) 1,3-dichlorobenzene	16.008	146	5618	0.61 ug/L	90
123) 1,4-dichlorobenzene	16.102	146	6048	0.65 ug/L	92
124) 1,2-dichlorobenzene	16.464	146	5702	0.58 ug/L	97
126) n-butylbenzene	16.375	92	4210	0.46 ug/L #	77
128) 1,2-dibromo-3-chloropr...	17.198	157	744	0.55 ug/L	71
129) 1,3,5-trichlorobenzene	17.360	180	5905	0.56 ug/L	94
130) 1,2,4-trichlorobenzene	17.927	180	5558	0.52 ug/L	86
131) hexachlorobutadiene	18.031	225	3171	0.58 ug/L	86
133) 1,2,3-trichlorobenzene	18.383	180	5352	0.49 ug/L	98
134) hexachloroethane	16.742	119	2161	0.55 ug/L	86
135) Benzyl chloride	16.196	91	5176	0.58 ug/L	97

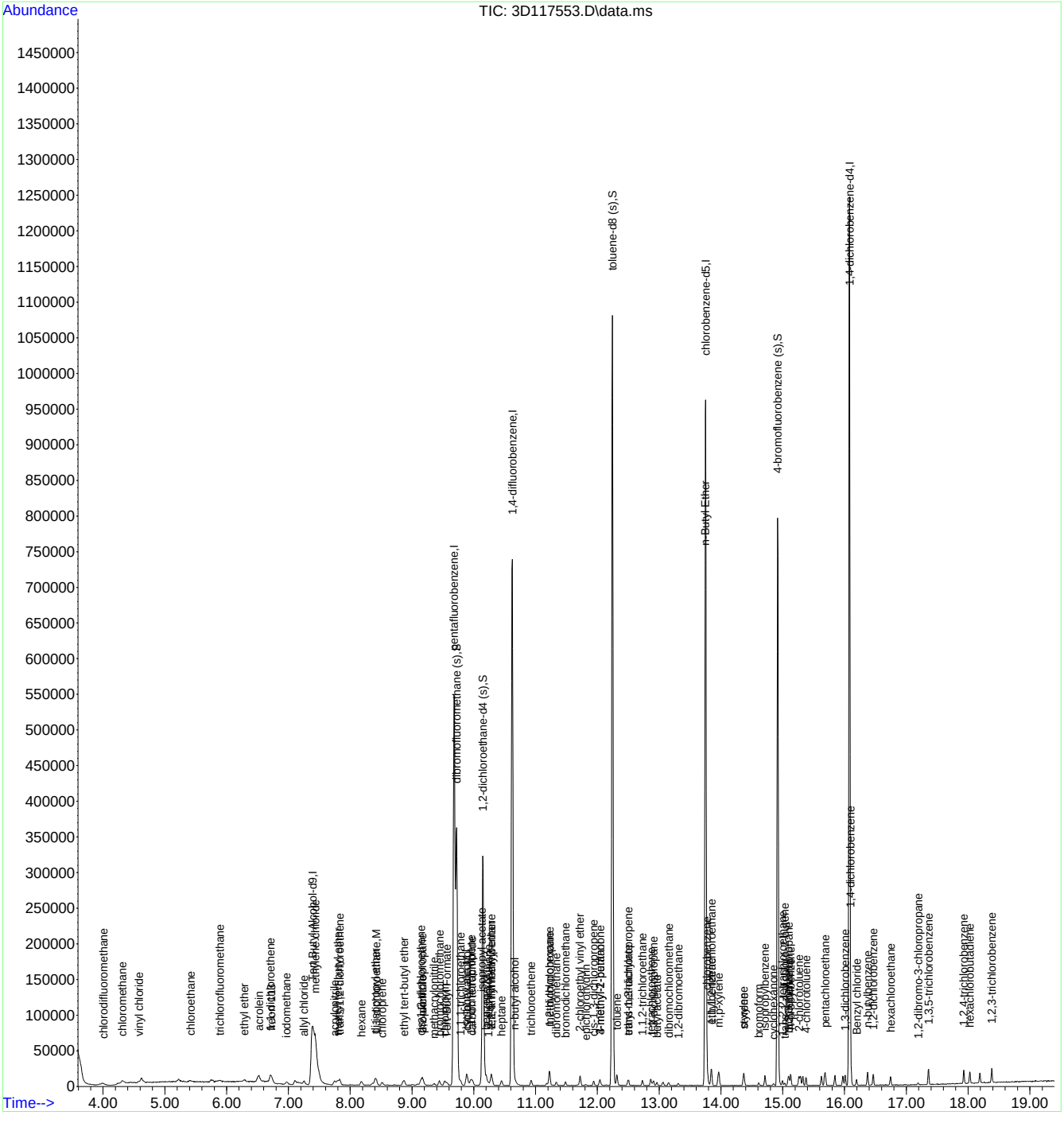
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117553.D
Acq On : 3 Mar 2016 1:48 pm
Operator : XimenaC
Sample : IC5030-0.5
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 08 11:31:00 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117554.D
Acq On : 3 Mar 2016 2:15 pm
Operator : XimenaC
Sample : IC5030-1
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 09 10:40:01 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.393	65	262989	500.00 ug/L	0.00
4) pentafluorobenzene	9.684	168	401966	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	575201	50.00 ug/L	0.00
88) chlorobenzene-d5	13.753	117	476413	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	286259	50.00 ug/L	0.00

System Monitoring Compounds

50) dibromofluoromethane (s)	9.721	113	211829	52.98 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.96%		
51) 1,2-dichloroethane-d4 (s)	10.146	65	218098	53.18 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 106.36%		
80) toluene-d8 (s)	12.243	98	635259	50.50 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.00%		
106) 4-bromofluorobenzene (s)	14.917	95	215988	46.02 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 92.04%		

Target Compounds

					Qvalue
3) tertiary butyl alcohol	7.509	59	3476	6.06 ug/L	91
8) chlorodifluoromethane	3.990	51	10037	1.12 ug/L	92
9) dichlorodifluoromethane	3.970	85	9543	1.26 ug/L	94
10) chloromethane	4.326	50	13114	1.38 ug/L	97
11) vinyl chloride	4.599	62	12692	1.36 ug/L	93
13) chloroethane	5.401	64	4395	1.28 ug/L	90
16) trichlorofluoromethane	5.883	101	10422	1.28 ug/L	90
18) ethyl ether	6.282	74	1864	1.02 ug/L #	71
21) acrolein	6.523	56	1019222	1170.95 ug/L	99
22) 1,1-dichloroethene	6.712	61	6275	0.93 ug/L	88
24) allyl chloride	7.252	76	1907	0.81 ug/L #	74
27) iodomethane	6.969	142	7866	0.90 ug/L	91
28) iso-butyl alcohol	9.884	41	10818	9.84 ug/L	99
30) methylene chloride	7.440	84	4910	1.04 ug/L	98
31) methyl acetate	7.199	43	4681	1.48 ug/L #	82
32) methyl tert butyl ether	7.797	73	10173	0.80 ug/L	96
33) trans-1,2-dichloroethene	7.828	61	5679	0.92 ug/L	93
34) di-isopropyl ether	8.405	45	13480	0.94 ug/L	94
35) ethyl tert-butyl ether	8.867	59	11792	0.89 ug/L	94
37) 1,1-dichloroethane	8.421	63	7010	0.94 ug/L	89
38) chloroprene	8.520	53	5113	0.96 ug/L	96
39) acrylonitrile	7.744	53	7661	4.63 ug/L	92
42) 2,2-dichloropropane	9.165	77	7095	0.98 ug/L	93
43) cis-1,2-dichloroethene	9.139	96	3903	0.87 ug/L	93
44) propionitrile	9.171	54	6345	9.57 ug/L	99
46) bromochloromethane	9.443	128	2193	0.95 ug/L	89
47) tetrahydrofuran	9.454	42	1347	1.18 ug/L #	36
48) chloroform	9.527	83	6913	0.98 ug/L	89
49) Tert-Butyl Formate	9.564	59	3828	0.99 ug/L #	94
52) freon 113	6.722	151	5246	1.07 ug/L #	73
53) methacrylonitrile	9.365	41	2457	1.08 ug/L	71
54) 1,1,1-trichloroethane	9.784	97	6568	0.93 ug/L	94
56) 2,2,4-Trimethylpentane	10.293	57	13592	0.77 ug/L	82
57) tert-amyl methyl ether	10.282	73	11460	0.92 ug/L	83
59) epichlorohydrin	11.808	57	2252	5.91 ug/L	89
60) n-butyl alcohol	10.670	56	7311	55.79 ug/L	74
61) cyclohexane	9.899	84	5389	0.73 ug/L #	74
62) carbon tetrachloride	9.978	117	6564	0.94 ug/L	92
63) 1,1-dichloropropene	9.952	75	4226	0.83 ug/L	91
64) hexane	8.180	57	4007	0.88 ug/L	91
65) benzene	10.203	78	14261	0.90 ug/L	97

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117554.D
Acq On : 3 Mar 2016 2:15 pm
Operator : XimenaC
Sample : IC5030-1
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 09 10:40:01 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

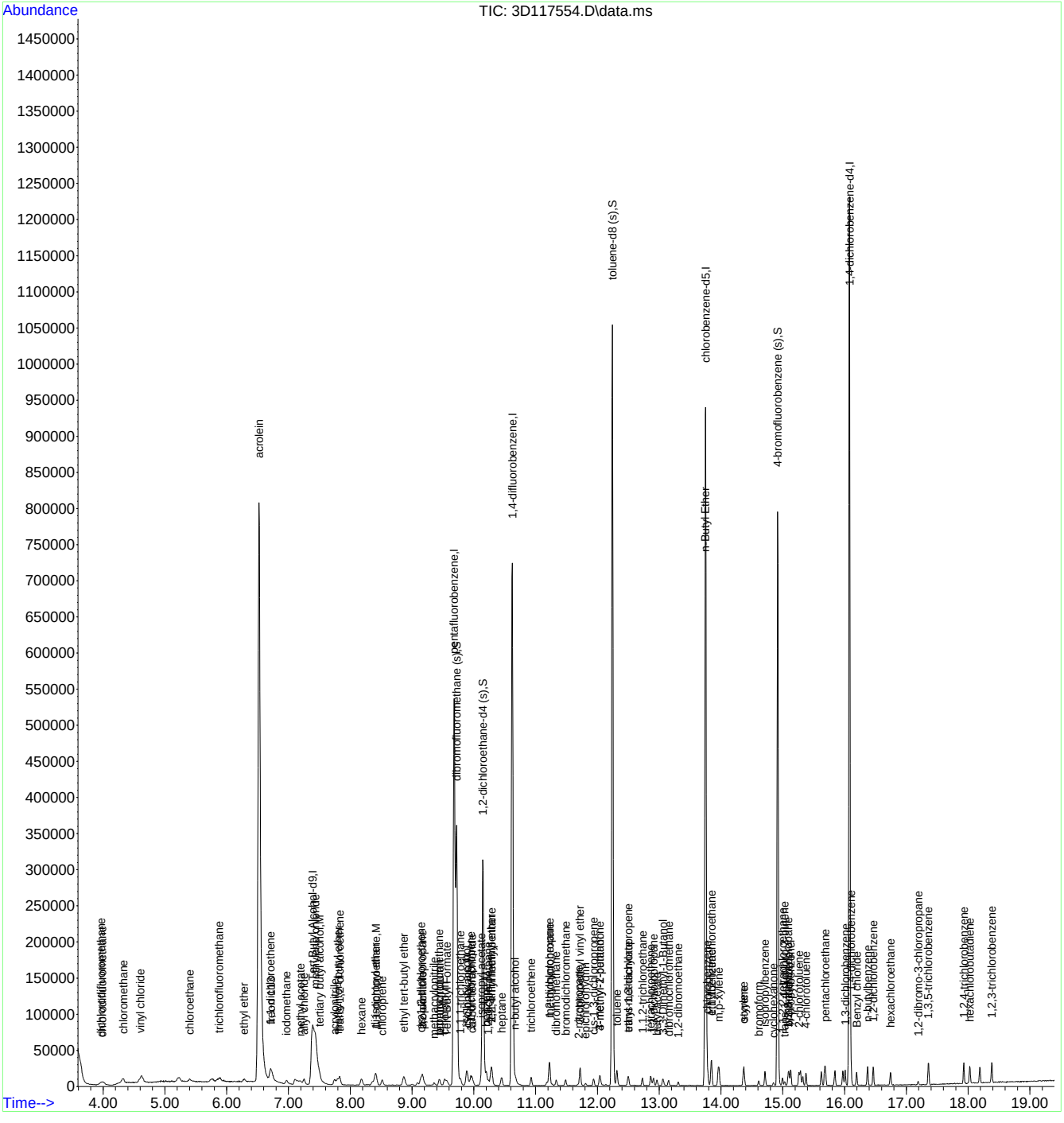
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
66) heptane	10.455	57	2315	0.85 ug/L #	80
67) isopropyl acetate	10.114	43	7635	1.08 ug/L #	68
68) 1,2-dichloroethane	10.235	62	4703	0.91 ug/L	68
69) trichloroethene	10.932	95	3942	1.02 ug/L	92
72) 2-nitropropane	11.693	41	1902	1.38 ug/L	87
73) 2-chloroethyl vinyl ether	11.724	63	9654	4.20 ug/L	94
75) 1,2-dichloropropane	11.231	63	3841	0.92 ug/L	93
76) methylcyclohexane	11.221	83	6542	0.86 ug/L	93
77) dibromomethane	11.331	93	2620	0.99 ug/L	91
78) bromodichloromethane	11.488	83	5079	0.97 ug/L	95
79) cis-1,3-dichloropropene	11.934	75	4482	0.79 ug/L	86
81) 4-methyl-2-pentanone	12.039	58	1145	0.72 ug/L #	71
82) toluene	12.316	92	7916	0.93 ug/L	90
83) 3-methyl-1-butanol	12.044	70	1853	16.10 ug/L #	78
84) trans-1,3-dichloropropene	12.505	75	4442	0.85 ug/L	88
85) ethyl methacrylate	12.495	69	2833	0.70 ug/L	86
86) 1,1,2-trichloroethane	12.725	83	2601	0.92 ug/L	94
89) tetrachloroethene	12.867	166	3786	0.93 ug/L	92
90) 1,3-dichloropropane	12.909	76	4676	0.95 ug/L	98
91) butyl acetate	12.961	56	1812	0.88 ug/L #	76
92) 3,3-Dimethyl-1-Butanol	13.061	57	4151	9.43 ug/L #	91
93) dibromochloromethane	13.155	129	3658	0.91 ug/L	91
94) 1,2-dibromoethane	13.313	107	3169	0.95 ug/L	96
95) n-Butyl Ether	13.737	57	9450	0.66 ug/L #	37
96) chlorobenzene	13.784	112	8594	0.94 ug/L	97
97) 1,1,1,2-tetrachloroethane	13.847	131	3752	0.82 ug/L	87
98) ethylbenzene	13.842	91	12338	0.79 ug/L	98
99) m,p-xylene	13.968	106	8819	1.48 ug/L	87
100) o-xylene	14.361	106	4402	0.71 ug/L	90
101) styrene	14.377	104	6282	0.67 ug/L	87
103) bromoform	14.613	173	2966	0.98 ug/L	89
105) isopropylbenzene	14.712	105	11321	0.61 ug/L	97
107) bromobenzene	15.100	156	3979	0.82 ug/L	94
108) cyclohexanone	14.854	55	1579	8.25 ug/L	86
109) 1,1,2,2-tetrachloroethane	14.996	83	4930	0.95 ug/L	94
110) trans-1,4-dichloro-2-b...	15.032	53	1082	1.01 ug/L #	84
111) 1,2,3-trichloropropane	15.085	110	958	0.84 ug/L	66
112) n-propylbenzene	15.127	91	14541	0.72 ug/L	96
114) 2-chlorotoluene	15.263	126	3069	0.69 ug/L	88
115) 4-chlorotoluene	15.378	126	3088	0.75 ug/L #	80
118) pentachloroethane	15.693	167	3168	0.78 ug/L	89
121) 1,3-dichlorobenzene	16.013	146	8134	0.88 ug/L	96
123) 1,4-dichlorobenzene	16.107	146	8804	0.95 ug/L	93
124) 1,2-dichlorobenzene	16.464	146	8752	0.90 ug/L	99
126) n-butylbenzene	16.375	92	6046	0.66 ug/L	92
128) 1,2-dibromo-3-chloropr...	17.187	157	1181	0.88 ug/L	93
129) 1,3,5-trichlorobenzene	17.360	180	8838	0.84 ug/L	99
130) 1,2,4-trichlorobenzene	17.932	180	7762	0.74 ug/L	99
131) hexachlorobutadiene	18.026	225	4970	0.91 ug/L	93
133) 1,2,3-trichlorobenzene	18.383	180	7936	0.73 ug/L	92
134) hexachloroethane	16.742	119	3100	0.80 ug/L	88
135) Benzyl chloride	16.196	91	10599	1.19 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117554.D
Acq On : 3 Mar 2016 2:15 pm
Operator : XimenaC
Sample : IC5030-1
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 09 10:40:01 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117555.D
Acq On : 3 Mar 2016 2:42 pm
Operator : XimenaC
Sample : IC5030-2
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 08 11:42:49 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.393	65	262445	500.00	ug/L	0.00
4) pentafluorobenzene	9.685	168	407857	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	583215	50.00	ug/L	0.00
88) chlorobenzene-d5	13.753	117	485322	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	287125	50.00	ug/L	0.00

System Monitoring Compounds						
50) dibromofluoromethane (s)	9.721	113	213666	52.67	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.34%			
51) 1,2-dichloroethane-d4 (s)	10.146	65	223169	53.63	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.26%			
80) toluene-d8 (s)	12.243	98	650985	51.04	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 102.08%			
106) 4-bromofluorobenzene (s)	14.917	95	218335	46.38	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 92.76%			

Target Compounds						Qvalue
3) tertiary butyl alcohol	7.535	59	7526	13.15	ug/L #	33
8) chlorodifluoromethane	3.996	51	19311	2.13	ug/L	94
9) dichlorodifluoromethane	3.985	85	17660	2.30	ug/L	93
10) chloromethane	4.310	50	22421	2.33	ug/L	94
11) vinyl chloride	4.599	62	23149	2.45	ug/L	96
12) bromomethane	5.223	94	11801	2.47	ug/L	96
13) chloroethane	5.401	64	8359	2.41	ug/L	79
16) trichlorofluoromethane	5.894	101	19080	2.31	ug/L	97
18) ethyl ether	6.292	74	3818	2.05	ug/L	87
21) acrolein	6.523	56	1955437	2214.08	ug/L	99
22) 1,1-dichloroethene	6.706	61	13277	1.94	ug/L	89
24) allyl chloride	7.247	76	4461	1.87	ug/L #	81
27) iodomethane	6.969	142	16457	1.85	ug/L	99
28) iso-butyl alcohol	9.884	41	22754	20.39	ug/L	93
29) carbon disulfide	7.110	76	32498	1.92	ug/L	98
30) methylene chloride	7.441	84	10005	2.09	ug/L	82
31) methyl acetate	7.194	43	8502	2.64	ug/L #	84
32) methyl tert butyl ether	7.802	73	22015	1.72	ug/L	100
33) trans-1,2-dichloroethene	7.834	61	12227	1.95	ug/L	88
34) di-isopropyl ether	8.405	45	26371	1.81	ug/L	91
35) ethyl tert-butyl ether	8.867	59	24049	1.80	ug/L	97
37) 1,1-dichloroethane	8.421	63	15517	2.06	ug/L	97
38) chloroprene	8.515	53	10033	1.85	ug/L	91
39) acrylonitrile	7.750	53	16053	9.56	ug/L	97
40) vinyl acetate	8.363	86	1012	1.65	ug/L #	10
41) ethyl acetate	9.087	45	1162	2.30	ug/L #	68
42) 2,2-dichloropropane	9.171	77	14328	1.96	ug/L	95
43) cis-1,2-dichloroethene	9.144	96	8895	1.95	ug/L	83
44) propionitrile	9.165	54	13178	19.60	ug/L	84
45) methyl acrylate	9.186	85	885	1.62	ug/L	15
46) bromochloromethane	9.443	128	4638	1.97	ug/L	89
47) tetrahydrofuran	9.464	42	2452	2.12	ug/L	82
48) chloroform	9.527	83	14505	2.02	ug/L	96
49) Tert-Butyl Formate	9.564	59	7150	1.82	ug/L #	95
52) freon 113	6.727	151	10283	2.07	ug/L	94
53) methacrylonitrile	9.365	41	4677	2.03	ug/L	85
54) 1,1,1-trichloroethane	9.784	97	13559	1.90	ug/L	93
56) 2,2,4-Trimethylpentane	10.287	57	25879	1.45	ug/L	87
57) tert-amyl methyl ether	10.282	73	23036	1.82	ug/L	94
59) epichlorohydrin	11.808	57	4452	11.53	ug/L	96
60) n-butyl alcohol	10.670	56	15002	112.90	ug/L	92

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117555.D
Acq On : 3 Mar 2016 2:42 pm
Operator : XimenaC
Sample : IC5030-2
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 08 11:42:49 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
61) cyclohexane	9.894	84	12417	1.66 ug/L #	88
62) carbon tetrachloride	9.978	117	13355	1.89 ug/L	94
63) 1,1-dichloropropene	9.947	75	9558	1.85 ug/L	92
64) hexane	8.180	57	8147	1.77 ug/L	94
65) benzene	10.204	78	32010	2.00 ug/L	96
66) heptane	10.445	57	4587	1.66 ug/L	87
67) isopropyl acetate	10.114	43	14466	2.02 ug/L	59
68) 1,2-dichloroethane	10.235	62	10915	2.08 ug/L	92
69) trichloroethene	10.932	95	8182	2.08 ug/L	90
72) 2-nitropropane	11.698	41	3541	2.53 ug/L	98
73) 2-chloroethyl vinyl ether	11.719	63	19948	8.55 ug/L	97
75) 1,2-dichloropropane	11.221	63	8362	1.98 ug/L	96
76) methylcyclohexane	11.221	83	12506	1.62 ug/L	96
77) dibromomethane	11.331	93	5473	2.05 ug/L	90
78) bromodichloromethane	11.483	83	10434	1.97 ug/L	91
79) cis-1,3-dichloropropene	11.939	75	10383	1.80 ug/L	93
81) 4-methyl-2-pentanone	12.039	58	2733	1.69 ug/L #	84
82) toluene	12.317	92	16263	1.88 ug/L	99
83) 3-methyl-1-butanol	12.039	70	4316	36.99 ug/L	80
84) trans-1,3-dichloropropene	12.505	75	9868	1.86 ug/L	95
85) ethyl methacrylate	12.495	69	6511	1.59 ug/L	96
86) 1,1,2-trichloroethane	12.731	83	5864	2.05 ug/L	95
87) 2-hexanone	12.888	58	1854	1.65 ug/L	81
89) tetrachloroethene	12.862	166	8365	2.01 ug/L	94
90) 1,3-dichloropropane	12.904	76	10049	2.00 ug/L	89
91) butyl acetate	12.961	56	3860	1.84 ug/L	98
92) 3,3-Dimethyl-1-Butanol	13.061	57	8570	19.11 ug/L #	98
93) dibromochloromethane	13.155	129	8022	1.95 ug/L	95
94) 1,2-dibromoethane	13.307	107	7027	2.06 ug/L	88
95) n-Butyl Ether	13.737	57	20402	1.40 ug/L #	68
96) chlorobenzene	13.779	112	18504	1.98 ug/L	95
97) 1,1,1,2-tetrachloroethane	13.848	131	9206	1.97 ug/L	94
98) ethylbenzene	13.842	91	27309	1.71 ug/L	97
99) m,p-xylene	13.968	106	19331	3.18 ug/L	89
100) o-xylene	14.367	106	10150	1.61 ug/L	72
101) styrene	14.377	104	13620	1.42 ug/L	97
103) bromoform	14.608	173	5820	1.88 ug/L	85
105) isopropylbenzene	14.713	105	24491	1.31 ug/L	98
107) bromobenzene	15.101	156	9107	1.88 ug/L	90
108) cyclohexanone	14.849	55	2582	13.46 ug/L	92
109) 1,1,2,2-tetrachloroethane	14.996	83	10343	1.99 ug/L	95
110) trans-1,4-dichloro-2-b...	15.027	53	2154	2.00 ug/L #	82
111) 1,2,3-trichloropropane	15.085	110	2370	2.07 ug/L	89
112) n-propylbenzene	15.127	91	30858	1.52 ug/L	98
114) 2-chlorotoluene	15.263	126	6930	1.56 ug/L	88
115) 4-chlorotoluene	15.378	126	6625	1.61 ug/L	98
116) 1,3,5-trimethylbenzene	15.289	105	21753	1.34 ug/L	90
117) tert-butylbenzene	15.625	119	16235	1.22 ug/L	98
118) pentachloroethane	15.693	167	6785	1.67 ug/L	96
119) 1,2,4-trimethylbenzene	15.677	105	20348	1.28 ug/L	97
120) sec-butylbenzene	15.845	105	27700	1.26 ug/L	97
121) 1,3-dichlorobenzene	16.008	146	17677	1.91 ug/L	90
122) p-isopropyltoluene	15.976	119	21586	1.18 ug/L	95
123) 1,4-dichlorobenzene	16.102	146	18258	1.97 ug/L	92
124) 1,2-dichlorobenzene	16.464	146	18971	1.94 ug/L	97
126) n-butylbenzene	16.375	92	12606	1.37 ug/L	93
128) 1,2-dibromo-3-chloropr...	17.193	157	2505	1.86 ug/L	77
129) 1,3,5-trichlorobenzene	17.360	180	18821	1.78 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117555.D
Acq On : 3 Mar 2016 2:42 pm
Operator : XimenaC
Sample : IC5030-2
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 08 11:42:49 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
130) 1,2,4-trichlorobenzene	17.932	180	17739	1.68 ug/L	97
131) hexachlorobutadiene	18.026	225	9307	1.70 ug/L	95
132) naphthalene	18.189	128	30003	1.32 ug/L	97
133) 1,2,3-trichlorobenzene	18.383	180	17917	1.64 ug/L	97
134) hexachloroethane	16.747	119	6154	1.58 ug/L	98
135) Benzyl chloride	16.196	91	19948	2.24 ug/L	98

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

7.6.4

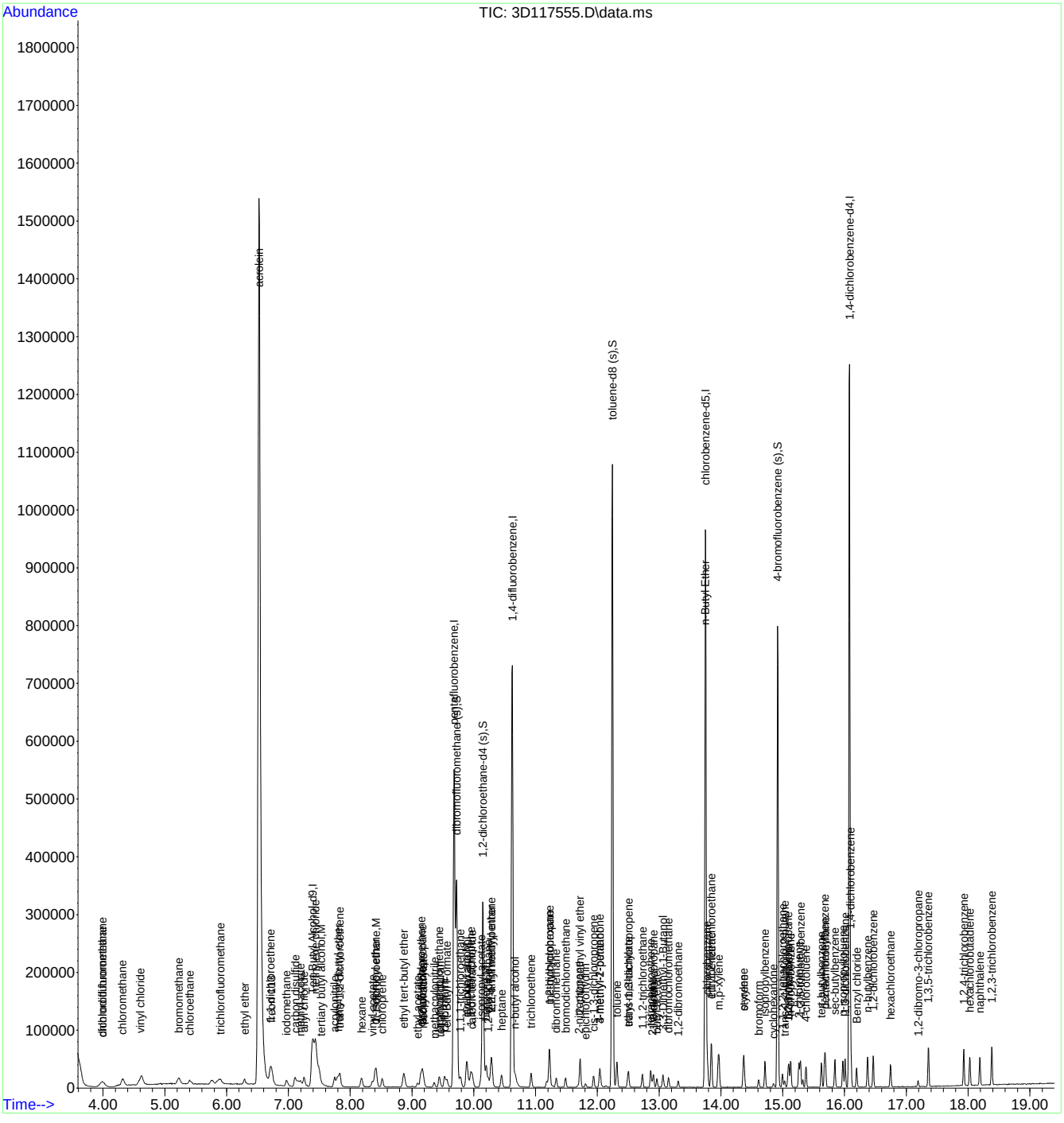
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117555.D
Acq On : 3 Mar 2016 2:42 pm
Operator : XimenaC
Sample : IC5030-2
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 08 11:42:49 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117556.D
Acq On : 3 Mar 2016 3:09 pm
Operator : XimenaC
Sample : IC5030-5
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 08 11:48:55 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.388	65	275535	500.00 ug/L	-0.01
4) pentafluorobenzene	9.679	168	414286	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	590617	50.00 ug/L	0.00
88) chlorobenzene-d5	13.753	117	495811	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	292234	50.00 ug/L	0.00

System Monitoring Compounds					
50) dibromofluoromethane (s)	9.721	113	214180	51.98 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.96%		
51) 1,2-dichloroethane-d4 (s)	10.146	65	222633	52.67 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.34%		
80) toluene-d8 (s)	12.243	98	654520	50.67 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.34%		
106) 4-bromofluorobenzene (s)	14.917	95	225946	47.16 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 94.32%		

Target Compounds					Qvalue
2) 1,4-dioxane	11.262	88	6863	118.16 ug/L	85
3) tertiary butyl alcohol	7.508	59	17129	28.51 ug/L	80
8) chlorodifluoromethane	3.990	51	55836	6.06 ug/L	95
9) dichlorodifluoromethane	3.969	85	46521	5.96 ug/L	100
10) chloromethane	4.326	50	52927	5.42 ug/L	99
11) vinyl chloride	4.593	62	55559	5.78 ug/L	99
12) bromomethane	5.228	94	29361	6.06 ug/L	97
13) chloroethane	5.406	64	19856	5.63 ug/L	96
16) trichlorofluoromethane	5.888	101	48583	5.79 ug/L	99
18) ethyl ether	6.292	74	11393	6.04 ug/L	92
21) acrolein	6.523	56	59171	65.96 ug/L	99
22) 1,1-dichloroethene	6.706	61	39098	5.63 ug/L	98
23) acetone	6.732	58	2613	6.07 ug/L #	76
24) allyl chloride	7.246	76	12671	5.22 ug/L	97
25) acetonitrile	7.162	40	24632	66.43 ug/L	87
27) iodomethane	6.968	142	50274	5.58 ug/L	97
28) iso-butyl alcohol	9.889	41	66572	58.72 ug/L	100
29) carbon disulfide	7.110	76	99937	5.80 ug/L	100
30) methylene chloride	7.440	84	29825	6.14 ug/L	96
31) methyl acetate	7.194	43	20223	6.19 ug/L	97
32) methyl tert butyl ether	7.797	73	68091	5.23 ug/L	98
33) trans-1,2-dichloroethene	7.834	61	38044	5.98 ug/L	97
34) di-isopropyl ether	8.405	45	76139	5.15 ug/L	96
35) ethyl tert-butyl ether	8.872	59	68561	5.05 ug/L	96
36) 2-butanone	9.081	72	2125	4.64 ug/L	49
37) 1,1-dichloroethane	8.421	63	45638	5.97 ug/L	99
38) chloroprene	8.520	53	28836	5.24 ug/L	92
39) acrylonitrile	7.744	53	50043	29.34 ug/L	96
40) vinyl acetate	8.363	86	3120	5.01 ug/L #	60
41) ethyl acetate	9.092	45	3026	5.88 ug/L	88
42) 2,2-dichloropropane	9.176	77	45977	6.19 ug/L	92
43) cis-1,2-dichloroethene	9.139	96	26113	5.65 ug/L	99
44) propionitrile	9.171	54	41261	60.40 ug/L	91
45) methyl acrylate	9.165	85	3056	5.51 ug/L	76
46) bromochloromethane	9.443	128	14213	5.95 ug/L	93
47) tetrahydrofuran	9.459	42	6750	5.75 ug/L	97
48) chloroform	9.527	83	44046	6.03 ug/L	98
49) Tert-Butyl Formate	9.564	59	20436	5.11 ug/L #	95
52) freon 113	6.732	151	31318	6.21 ug/L	88
53) methacrylonitrile	9.359	41	13587	5.80 ug/L	94
54) 1,1,1-trichloroethane	9.784	97	42440	5.84 ug/L	97

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117556.D
Acq On : 3 Mar 2016 3:09 pm
Operator : XimenaC
Sample : IC5030-5
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 08 11:48:55 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	10.287	57	84975	4.70 ug/L	92
57) tert-amyl methyl ether	10.282	73	65174	5.06 ug/L	93
59) epichlorohydrin	11.808	57	11303	28.90 ug/L	95
60) n-butyl alcohol	10.670	56	34843	258.93 ug/L	90
61) cyclohexane	9.889	84	40380	5.32 ug/L	93
62) carbon tetrachloride	9.983	117	42571	5.96 ug/L	93
63) 1,1-dichloropropene	9.946	75	30070	5.74 ug/L	95
64) hexane	8.185	57	24486	5.26 ug/L	96
65) benzene	10.203	78	93047	5.73 ug/L	98
66) heptane	10.450	57	15273	5.47 ug/L	94
67) isopropyl acetate	10.114	43	40962	5.65 ug/L	87
68) 1,2-dichloroethane	10.235	62	31904	5.99 ug/L	97
69) trichloroethene	10.927	95	23193	5.82 ug/L	99
72) 2-nitropropane	11.687	41	8728	6.15 ug/L	83
73) 2-chloroethyl vinyl ether	11.719	63	57288	24.26 ug/L	98
74) methyl methacrylate	11.179	69	11261	4.91 ug/L	98
75) 1,2-dichloropropane	11.226	63	25425	5.94 ug/L	99
76) methylcyclohexane	11.226	83	38704	4.95 ug/L	94
77) dibromomethane	11.331	93	16187	5.98 ug/L	92
78) bromodichloromethane	11.483	83	30682	5.73 ug/L	98
79) cis-1,3-dichloropropene	11.939	75	31978	5.48 ug/L	96
81) 4-methyl-2-pentanone	12.038	58	8341	5.08 ug/L	93
82) toluene	12.316	92	49012	5.61 ug/L	98
83) 3-methyl-1-butanol	12.033	70	11364	96.16 ug/L	90
84) trans-1,3-dichloropropene	12.505	75	28757	5.35 ug/L	95
85) ethyl methacrylate	12.489	69	19202	4.62 ug/L	95
86) 1,1,2-trichloroethane	12.725	83	16797	5.81 ug/L	97
87) 2-hexanone	12.888	58	5929	5.20 ug/L	94
89) tetrachloroethene	12.862	166	24508	5.76 ug/L	99
90) 1,3-dichloropropane	12.909	76	29351	5.72 ug/L	92
91) butyl acetate	12.966	56	10426	4.86 ug/L	93
92) 3,3-Dimethyl-1-Butanol	13.061	57	21065	45.99 ug/L	96
93) dibromochloromethane	13.155	129	23950	5.70 ug/L	97
94) 1,2-dibromoethane	13.307	107	19473	5.60 ug/L	91
95) n-Butyl Ether	13.737	57	65402	4.38 ug/L #	89
96) chlorobenzene	13.784	112	54998	5.77 ug/L	95
97) 1,1,1,2-tetrachloroethane	13.853	131	26067	5.47 ug/L	94
98) ethylbenzene	13.842	91	85776	5.27 ug/L	100
99) m,p-xylene	13.968	106	61970	9.99 ug/L	98
100) o-xylene	14.361	106	29666	4.61 ug/L	94
101) styrene	14.377	104	45725	4.65 ug/L	97
103) bromoform	14.608	173	17823	5.64 ug/L	94
105) isopropylbenzene	14.712	105	79492	4.19 ug/L	97
107) bromobenzene	15.100	156	26757	5.43 ug/L	97
108) cyclohexanone	14.849	55	8721	44.65 ug/L	99
109) 1,1,2,2-tetrachloroethane	14.996	83	30502	5.77 ug/L	95
110) trans-1,4-dichloro-2-b...	15.032	53	6489	5.91 ug/L #	79
111) 1,2,3-trichloropropane	15.085	110	6893	5.91 ug/L	100
112) n-propylbenzene	15.132	91	100037	4.83 ug/L	98
114) 2-chlorotoluene	15.263	126	22413	4.96 ug/L	93
115) 4-chlorotoluene	15.378	126	21191	5.05 ug/L	98
116) 1,3,5-trimethylbenzene	15.289	105	73142	4.43 ug/L	96
117) tert-butylbenzene	15.625	119	53057	3.93 ug/L	98
118) pentachloroethane	15.693	167	20253	4.90 ug/L	93
119) 1,2,4-trimethylbenzene	15.677	105	71090	4.39 ug/L	99
120) sec-butylbenzene	15.845	105	96480	4.31 ug/L	99
121) 1,3-dichlorobenzene	16.007	146	54150	5.76 ug/L	98
122) p-isopropyltoluene	15.976	119	79179	4.26 ug/L	99

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117556.D
Acq On : 3 Mar 2016 3:09 pm
Operator : XimenaC
Sample : IC5030-5
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 08 11:48:55 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	16.102	146	54436	5.77 ug/L	99
124) 1,2-dichlorobenzene	16.464	146	55869	5.60 ug/L	98
126) n-butylbenzene	16.374	92	43069	4.61 ug/L	93
128) 1,2-dibromo-3-chloropr...	17.192	157	7749	5.66 ug/L	96
129) 1,3,5-trichlorobenzene	17.360	180	56356	5.24 ug/L	99
130) 1,2,4-trichlorobenzene	17.932	180	53041	4.92 ug/L	96
131) hexachlorobutadiene	18.031	225	29467	5.28 ug/L	94
132) naphthalene	18.189	128	99484	4.31 ug/L	99
133) 1,2,3-trichlorobenzene	18.383	180	56065	5.05 ug/L	98
134) hexachloroethane	16.741	119	18953	4.79 ug/L	98
135) Benzyl chloride	16.196	91	49658	5.47 ug/L	97

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

7.6.5

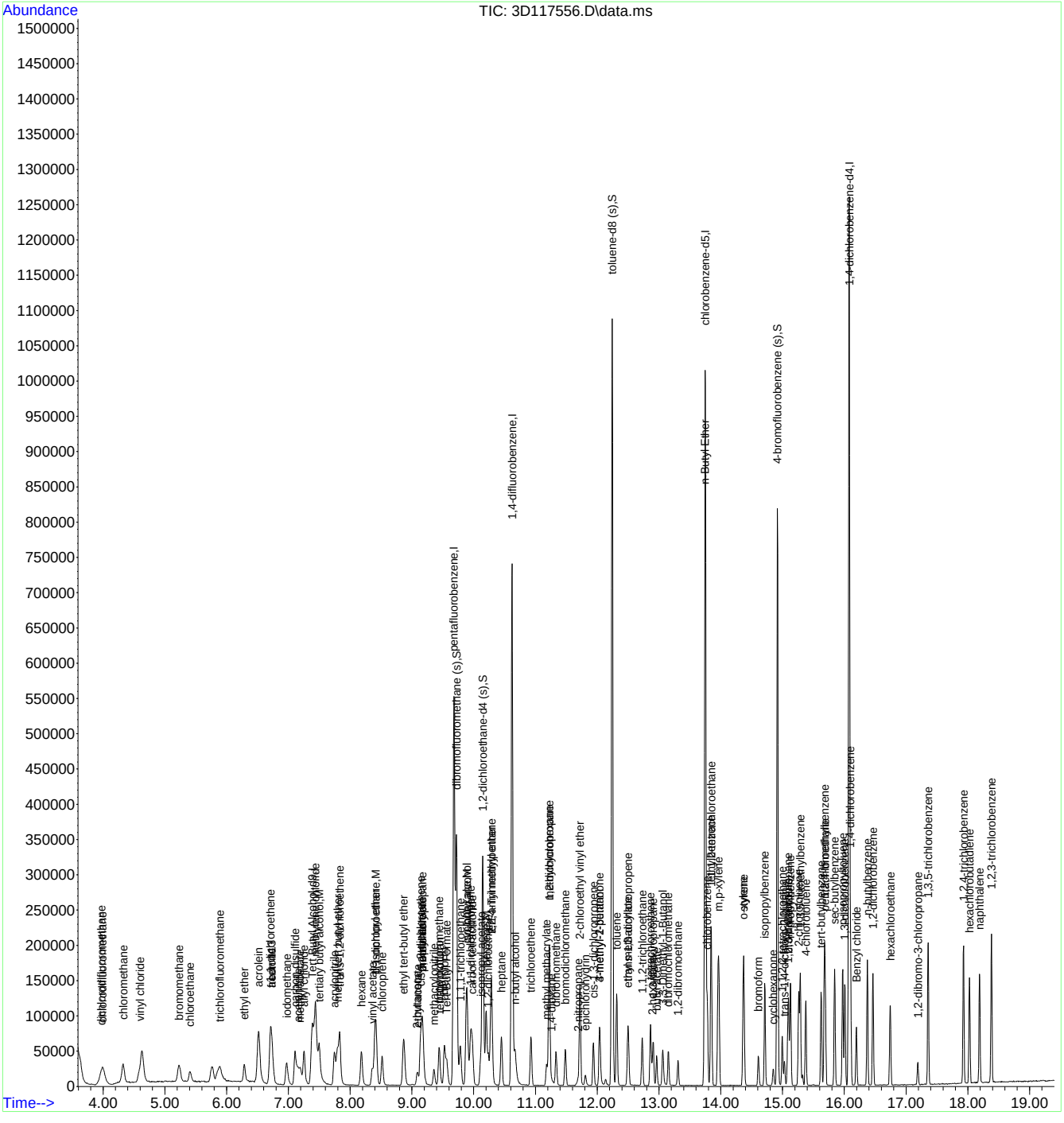
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117556.D
Acq On : 3 Mar 2016 3:09 pm
Operator : XimenaC
Sample : IC5030-5
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 08 11:48:55 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117557.D
Acq On : 3 Mar 2016 3:36 pm
Operator : XimenaC
Sample : IC5030-10
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 08 12:04:51 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.388	65	259307	500.00 ug/L	-0.01
4) pentafluorobenzene	9.679	168	416773	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	583881	50.00 ug/L	0.00
88) chlorobenzene-d5	13.753	117	494697	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	284320	50.00 ug/L	0.00

System Monitoring Compounds					
50) dibromofluoromethane (s)	9.721	113	209356	50.51 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.02%		
51) 1,2-dichloroethane-d4 (s)	10.146	65	213897	50.30 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.60%		
80) toluene-d8 (s)	12.243	98	646680	50.65 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.30%		
106) 4-bromofluorobenzene (s)	14.917	95	222873	47.81 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 95.62%		

Target Compounds					Qvalue
2) 1,4-dioxane	11.268	88	14226	260.25 ug/L	95
3) tertiary butyl alcohol	7.509	59	31529	55.76 ug/L	87
8) chlorodifluoromethane	4.001	51	96440	10.41 ug/L	99
9) dichlorodifluoromethane	3.975	85	82617	10.52 ug/L	100
10) chloromethane	4.326	50	96823	9.86 ug/L	100
11) vinyl chloride	4.594	62	101408	10.50 ug/L	98
12) bromomethane	5.228	94	53426	10.96 ug/L	99
13) chloroethane	5.401	64	35317	9.95 ug/L	99
16) trichlorofluoromethane	5.889	101	87290	10.34 ug/L	99
18) ethyl ether	6.287	74	19985	10.52 ug/L	88
21) acrolein	6.523	56	100390	111.24 ug/L	97
22) 1,1-dichloroethene	6.707	61	68679	9.84 ug/L	95
23) acetone	6.727	58	5132	11.86 ug/L	94
24) allyl chloride	7.252	76	23078	9.46 ug/L	96
25) acetonitrile	7.152	40	42740	114.57 ug/L	95
27) iodomethane	6.969	142	90142	9.94 ug/L	99
28) iso-butyl alcohol	9.884	41	117183	102.75 ug/L	98
29) carbon disulfide	7.105	76	174007	10.04 ug/L	99
30) methylene chloride	7.441	84	51063	10.44 ug/L	98
31) methyl acetate	7.194	43	36796	11.19 ug/L	98
32) methyl tert butyl ether	7.797	73	127685	9.74 ug/L	98
33) trans-1,2-dichloroethene	7.834	61	66309	10.36 ug/L	99
34) di-isopropyl ether	8.400	45	141016	9.49 ug/L	93
35) ethyl tert-butyl ether	8.867	59	127379	9.32 ug/L	98
36) 2-butanone	9.076	72	4735	10.27 ug/L	89
37) 1,1-dichloroethane	8.421	63	82478	10.72 ug/L	99
38) chloroprene	8.515	53	50445	9.12 ug/L	98
39) acrylonitrile	7.745	53	91449	53.30 ug/L	98
40) vinyl acetate	8.358	86	6550	10.45 ug/L	70
41) ethyl acetate	9.087	45	5136	9.93 ug/L	95
42) 2,2-dichloropropane	9.171	77	79054	10.58 ug/L	98
43) cis-1,2-dichloroethene	9.139	96	47614	10.24 ug/L	98
44) propionitrile	9.165	54	76205	110.90 ug/L	92
45) methyl acrylate	9.171	85	5888	10.56 ug/L	98
46) bromochloromethane	9.438	128	26166	10.88 ug/L	96
47) tetrahydrofuran	9.454	42	12240	10.37 ug/L	98
48) chloroform	9.527	83	78526	10.69 ug/L	98
49) Tert-Butyl Formate	9.564	59	38706	9.63 ug/L #	97
52) freon 113	6.733	151	51508	10.15 ug/L	96
53) methacrylonitrile	9.354	41	25104	10.65 ug/L	93
54) 1,1,1-trichloroethane	9.779	97	75353	10.31 ug/L	96

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117557.D
Acq On : 3 Mar 2016 3:36 pm
Operator : XimenaC
Sample : IC5030-10
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 08 12:04:51 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	10.287	57	149405	8.21 ug/L	94
57) tert-amyl methyl ether	10.282	73	124194	9.59 ug/L	95
59) epichlorohydrin	11.808	57	21140	54.67 ug/L	98
60) n-butyl alcohol	10.670	56	69562	522.90 ug/L	97
61) cyclohexane	9.889	84	70790	9.43 ug/L	92
62) carbon tetrachloride	9.978	117	73593	10.43 ug/L	97
63) 1,1-dichloropropene	9.952	75	53220	10.28 ug/L	99
64) hexane	8.180	57	41743	9.07 ug/L	93
65) benzene	10.204	78	167090	10.41 ug/L	98
66) heptane	10.450	57	25880	9.37 ug/L	93
67) isopropyl acetate	10.114	43	73882	10.30 ug/L	94
68) 1,2-dichloroethane	10.235	62	58255	11.07 ug/L	98
69) trichloroethene	10.927	95	41436	10.52 ug/L	96
72) 2-nitropropane	11.687	41	17115	12.21 ug/L	99
73) 2-chloroethyl vinyl ether	11.719	63	117477	50.32 ug/L	99
74) methyl methacrylate	11.179	69	22077	9.74 ug/L	90
75) 1,2-dichloropropane	11.226	63	46408	10.96 ug/L	97
76) methylcyclohexane	11.221	83	69812	9.03 ug/L	95
77) dibromomethane	11.331	93	29757	11.12 ug/L	90
78) bromodichloromethane	11.483	83	56988	10.77 ug/L	99
79) cis-1,3-dichloropropene	11.939	75	60234	10.43 ug/L	98
81) 4-methyl-2-pentanone	12.039	58	16263	10.02 ug/L	95
82) toluene	12.317	92	92072	10.65 ug/L	98
83) 3-methyl-1-butanol	12.039	70	23177	198.39 ug/L	94
84) trans-1,3-dichloropropene	12.505	75	56897	10.70 ug/L	98
85) ethyl methacrylate	12.490	69	38190	9.30 ug/L	96
86) 1,1,2-trichloroethane	12.731	83	32359	11.32 ug/L	95
87) 2-hexanone	12.888	58	10544	9.36 ug/L	95
89) tetrachloroethene	12.867	166	43410	10.23 ug/L	99
90) 1,3-dichloropropane	12.909	76	54443	10.63 ug/L	95
91) butyl acetate	12.961	56	20089	9.39 ug/L	85
92) 3,3-Dimethyl-1-Butanol	13.061	57	41231	90.22 ug/L	98
93) dibromochloromethane	13.150	129	43760	10.43 ug/L	99
94) 1,2-dibromoethane	13.307	107	37340	10.76 ug/L	98
95) n-Butyl Ether	13.737	57	127708	8.57 ug/L	94
96) chlorobenzene	13.785	112	102447	10.78 ug/L	99
97) 1,1,1,2-tetrachloroethane	13.848	131	48420	10.18 ug/L	98
98) ethylbenzene	13.842	91	160704	9.89 ug/L	98
99) m,p-xylene	13.963	106	121274	19.60 ug/L	100
100) o-xylene	14.361	106	58679	9.13 ug/L	98
101) styrene	14.377	104	90054	9.18 ug/L	98
103) bromoform	14.608	173	33424	10.60 ug/L	98
105) isopropylbenzene	14.713	105	157102	8.52 ug/L	99
107) bromobenzene	15.101	156	49689	10.37 ug/L	97
108) cyclohexanone	14.849	55	16668	87.72 ug/L	96
109) 1,1,2,2-tetrachloroethane	14.996	83	55719	10.83 ug/L	99
110) trans-1,4-dichloro-2-b...	15.027	53	11550	10.81 ug/L	88
111) 1,2,3-trichloropropane	15.085	110	12890	11.36 ug/L	97
112) n-propylbenzene	15.127	91	189757	9.42 ug/L	100
114) 2-chlorotoluene	15.263	126	41413	9.41 ug/L	99
115) 4-chlorotoluene	15.378	126	39951	9.78 ug/L	96
116) 1,3,5-trimethylbenzene	15.289	105	145629	9.07 ug/L	100
117) tert-butylbenzene	15.625	119	107037	8.15 ug/L	97
118) pentachloroethane	15.693	167	38058	9.46 ug/L	95
119) 1,2,4-trimethylbenzene	15.677	105	143998	9.13 ug/L	98
120) sec-butylbenzene	15.845	105	187942	8.64 ug/L	98
121) 1,3-dichlorobenzene	16.008	146	98280	10.74 ug/L	98
122) p-isopropyltoluene	15.976	119	155628	8.60 ug/L	99

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117557.D
Acq On : 3 Mar 2016 3:36 pm
Operator : XimenaC
Sample : IC5030-10
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 08 12:04:51 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	16.102	146	97458	10.63 ug/L	96
124) 1,2-dichlorobenzene	16.464	146	102861	10.60 ug/L	97
126) n-butylbenzene	16.375	92	81777	9.00 ug/L	99
128) 1,2-dibromo-3-chloropr...	17.193	157	13862	10.40 ug/L	95
129) 1,3,5-trichlorobenzene	17.360	180	105338	10.06 ug/L	100
130) 1,2,4-trichlorobenzene	17.932	180	101993	9.73 ug/L	96
131) hexachlorobutadiene	18.026	225	53368	9.83 ug/L	97
132) naphthalene	18.189	128	206236	9.19 ug/L	99
133) 1,2,3-trichlorobenzene	18.383	180	109992	10.18 ug/L	96
134) hexachloroethane	16.742	119	34982	9.08 ug/L	99
135) Benzyl chloride	16.196	91	93252	10.55 ug/L	99

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

7.6.6

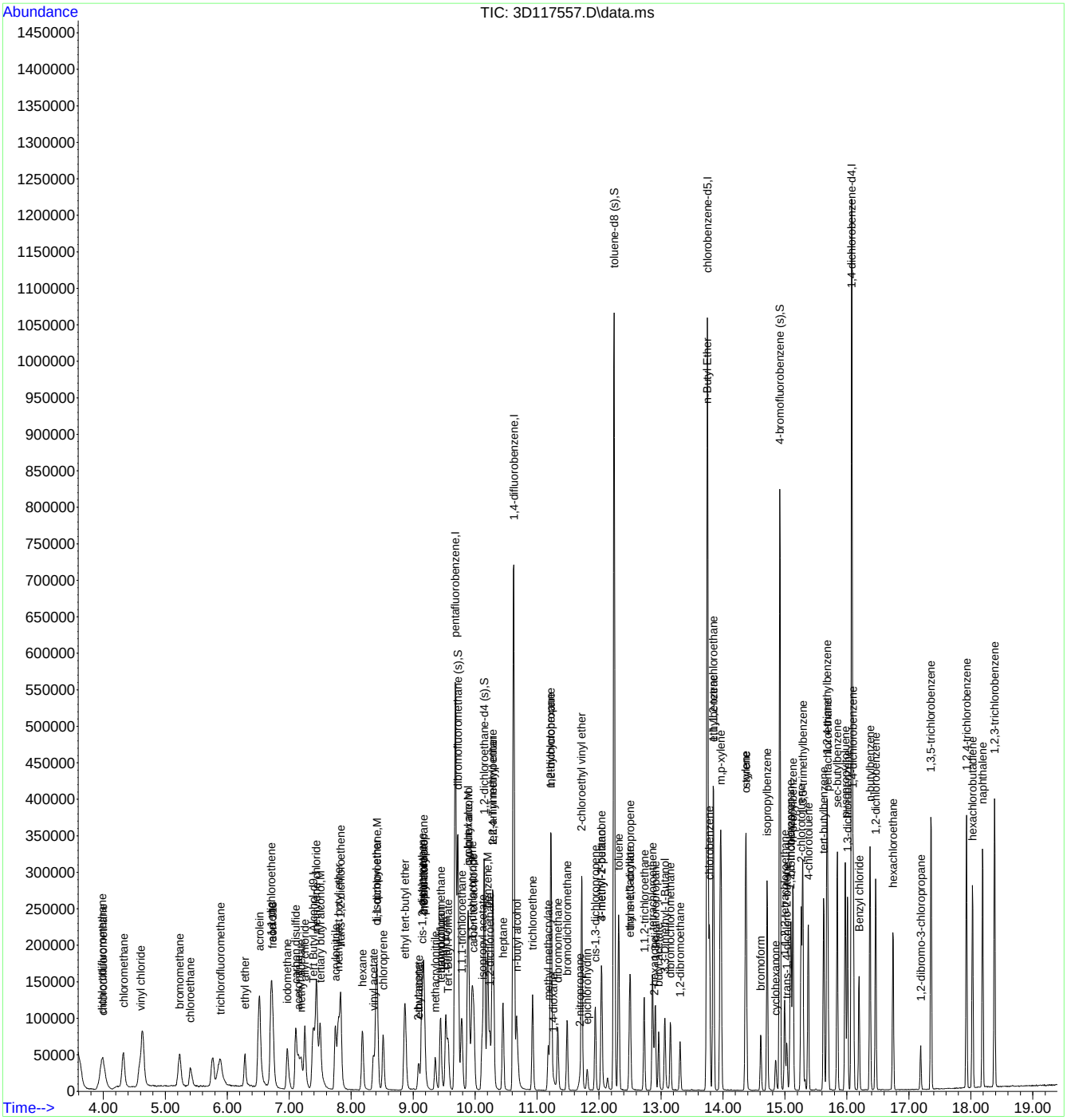
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117557.D
Acq On : 3 Mar 2016 3:36 pm
Operator : XimenaC
Sample : IC5030-10
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 08 12:04:51 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117558.D
Acq On : 3 Mar 2016 4:04 pm
Operator : XimenaC
Sample : IC5030-20
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 08 12:03:13 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.388	65	274562	500.00 ug/L	-0.01
4) pentafluorobenzene	9.679	168	428914	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	608392	50.00 ug/L	0.00
88) chlorobenzene-d5	13.753	117	514916	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	295041	50.00 ug/L	0.00

System Monitoring Compounds					
50) dibromofluoromethane (s)	9.721	113	216918	50.85 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.70%		
51) 1,2-dichloroethane-d4 (s)	10.146	65	223376	51.05 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 102.10%		
80) toluene-d8 (s)	12.243	98	673858	50.65 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.30%		
106) 4-bromofluorobenzene (s)	14.917	95	236730	48.94 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.88%		

Target Compounds					Qvalue
2) 1,4-dioxane	11.268	88	28895	499.24 ug/L	99
3) tertiary butyl alcohol	7.508	59	62980	105.19 ug/L #	74
8) chlorodifluoromethane	3.996	51	200858	21.07 ug/L	98
9) dichlorodifluoromethane	3.969	85	169729	20.99 ug/L	98
10) chloromethane	4.331	50	215644	21.33 ug/L	98
11) vinyl chloride	4.609	62	211256	21.25 ug/L	99
12) bromomethane	5.243	94	114535	22.83 ug/L	98
13) chloroethane	5.406	64	78949	21.62 ug/L	99
16) trichlorofluoromethane	5.894	101	183301	21.10 ug/L	98
18) ethyl ether	6.287	74	42074	21.53 ug/L	97
21) acrolein	6.523	56	200000	215.34 ug/L	98
22) 1,1-dichloroethene	6.706	61	144586	20.12 ug/L	98
23) acetone	6.732	58	9500	21.33 ug/L #	84
24) allyl chloride	7.252	76	51906	20.67 ug/L	98
25) acetonitrile	7.157	40	82873	215.87 ug/L	97
27) iodomethane	6.968	142	192733	20.65 ug/L	99
28) iso-butyl alcohol	9.889	41	246430	209.97 ug/L	96
29) carbon disulfide	7.110	76	375623	21.06 ug/L	98
30) methylene chloride	7.440	84	107188	21.30 ug/L	96
31) methyl acetate	7.194	43	71472	21.12 ug/L	98
32) methyl tert butyl ether	7.797	73	270513	20.05 ug/L	99
33) trans-1,2-dichloroethene	7.828	61	139334	21.15 ug/L	96
34) di-isopropyl ether	8.405	45	311086	20.33 ug/L	97
35) ethyl tert-butyl ether	8.872	59	279846	19.89 ug/L	98
36) 2-butanone	9.081	72	9039	19.04 ug/L	82
37) 1,1-dichloroethane	8.421	63	171707	21.69 ug/L	98
38) chloroprene	8.515	53	113202	19.88 ug/L	99
39) acrylonitrile	7.744	53	184593	104.55 ug/L	97
40) vinyl acetate	8.363	86	12733	19.75 ug/L	88
41) ethyl acetate	9.092	45	11240	21.11 ug/L	96
42) 2,2-dichloropropane	9.171	77	166442	21.64 ug/L	98
43) cis-1,2-dichloroethene	9.139	96	98834	20.65 ug/L	96
44) propionitrile	9.165	54	150123	212.28 ug/L	96
45) methyl acrylate	9.176	85	11715	20.41 ug/L	100
46) bromochloromethane	9.443	128	52783	21.33 ug/L	96
47) tetrahydrofuran	9.454	42	25286	20.81 ug/L	99
48) chloroform	9.527	83	160545	21.24 ug/L	99
49) Tert-Butyl Formate	9.564	59	82516	19.95 ug/L #	98
52) freon 113	6.732	151	104765	20.05 ug/L	100
53) methacrylonitrile	9.354	41	49260	20.30 ug/L	95
54) 1,1,1-trichloroethane	9.784	97	155621	20.69 ug/L	99

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117558.D
Acq On : 3 Mar 2016 4:04 pm
Operator : XimenaC
Sample : IC5030-20
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 08 12:03:13 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	10.293	57	350989	18.74 ug/L	98
57) tert-amyl methyl ether	10.282	73	268572	20.15 ug/L	97
59) epichlorohydrin	11.808	57	42330	105.06 ug/L	98
60) n-butyl alcohol	10.670	56	140878	1016.32 ug/L	97
61) cyclohexane	9.889	84	155791	19.91 ug/L	96
62) carbon tetrachloride	9.978	117	153100	20.82 ug/L	98
63) 1,1-dichloropropene	9.952	75	110449	20.48 ug/L	99
64) hexane	8.180	57	93874	19.58 ug/L	99
65) benzene	10.203	78	350644	20.97 ug/L	99
66) heptane	10.450	57	56928	19.78 ug/L	97
67) isopropyl acetate	10.114	43	150710	20.17 ug/L	97
68) 1,2-dichloroethane	10.240	62	114372	20.86 ug/L	100
69) trichloroethene	10.927	95	84703	20.64 ug/L	98
72) 2-nitropropane	11.692	41	32208	22.05 ug/L	97
73) 2-chloroethyl vinyl ether	11.724	63	245955	101.10 ug/L	99
74) methyl methacrylate	11.179	69	45248	19.16 ug/L	98
75) 1,2-dichloropropane	11.226	63	93376	21.17 ug/L	98
76) methylcyclohexane	11.226	83	157429	19.54 ug/L	98
77) dibromomethane	11.331	93	59101	21.20 ug/L	94
78) bromodichloromethane	11.488	83	113641	20.61 ug/L	99
79) cis-1,3-dichloropropene	11.939	75	120059	19.96 ug/L	97
81) 4-methyl-2-pentanone	12.044	58	33696	19.92 ug/L	99
82) toluene	12.316	92	183464	20.37 ug/L	99
83) 3-methyl-1-butanol	12.038	70	48166	395.68 ug/L	98
84) trans-1,3-dichloropropene	12.505	75	112455	20.29 ug/L	98
85) ethyl methacrylate	12.495	69	80241	18.75 ug/L	99
86) 1,1,2-trichloroethane	12.731	83	62574	21.01 ug/L	97
87) 2-hexanone	12.888	58	22196	18.90 ug/L	94
89) tetrachloroethene	12.867	166	90688	20.54 ug/L	98
90) 1,3-dichloropropane	12.909	76	110220	20.67 ug/L	99
91) butyl acetate	12.961	56	43103	19.36 ug/L	99
92) 3,3-Dimethyl-1-Butanol	13.061	57	87485	183.91 ug/L	99
93) dibromochloromethane	13.150	129	88403	20.25 ug/L	98
94) 1,2-dibromoethane	13.307	107	73580	20.36 ug/L	96
95) n-Butyl Ether	13.737	57	288608	18.61 ug/L	97
96) chlorobenzene	13.784	112	204869	20.70 ug/L	99
97) 1,1,1,2-tetrachloroethane	13.847	131	99596	20.12 ug/L	98
98) ethylbenzene	13.842	91	336983	19.93 ug/L	100
99) m,p-xylene	13.963	106	258094	40.07 ug/L	98
100) o-xylene	14.366	106	129362	19.34 ug/L	98
101) styrene	14.377	104	198129	19.41 ug/L	98
103) bromoform	14.613	173	65728	20.03 ug/L	98
105) isopropylbenzene	14.712	105	355849	18.59 ug/L	99
107) bromobenzene	15.100	156	99074	19.92 ug/L	98
108) cyclohexanone	14.849	55	41626	211.11 ug/L	96
109) 1,1,2,2-tetrachloroethane	14.996	83	108513	20.33 ug/L	99
110) trans-1,4-dichloro-2-b...	15.027	53	22676	20.45 ug/L #	80
111) 1,2,3-trichloropropane	15.085	110	24939	21.19 ug/L	93
112) n-propylbenzene	15.132	91	412578	19.74 ug/L	98
114) 2-chlorotoluene	15.263	126	88399	19.36 ug/L	99
115) 4-chlorotoluene	15.378	126	84784	20.01 ug/L	97
116) 1,3,5-trimethylbenzene	15.289	105	319524	19.18 ug/L	98
117) tert-butylbenzene	15.625	119	247944	18.20 ug/L	99
118) pentachloroethane	15.693	167	80067	19.19 ug/L	96
119) 1,2,4-trimethylbenzene	15.677	105	316549	19.35 ug/L	99
120) sec-butylbenzene	15.845	105	419046	18.56 ug/L	97
121) 1,3-dichlorobenzene	16.007	146	194784	20.51 ug/L	98
122) p-isopropyltoluene	15.976	119	350600	18.66 ug/L	99

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117558.D
Acq On : 3 Mar 2016 4:04 pm
Operator : XimenaC
Sample : IC5030-20
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 08 12:03:13 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	16.102	146	195986	20.59 ug/L	98
124) 1,2-dichlorobenzene	16.464	146	206421	20.49 ug/L	99
126) n-butylbenzene	16.374	92	182193	19.31 ug/L	100
128) 1,2-dibromo-3-chloropr...	17.192	157	27173	19.65 ug/L	95
129) 1,3,5-trichlorobenzene	17.360	180	219465	20.21 ug/L	100
130) 1,2,4-trichlorobenzene	17.932	180	213180	19.60 ug/L	100
131) hexachlorobutadiene	18.026	225	112721	20.02 ug/L	98
132) naphthalene	18.189	128	439414	18.86 ug/L	99
133) 1,2,3-trichlorobenzene	18.383	180	223562	19.94 ug/L	98
134) hexachloroethane	16.741	119	76421	19.12 ug/L	99
135) Benzyl chloride	16.196	91	186992	20.39 ug/L	99

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

7.6.7

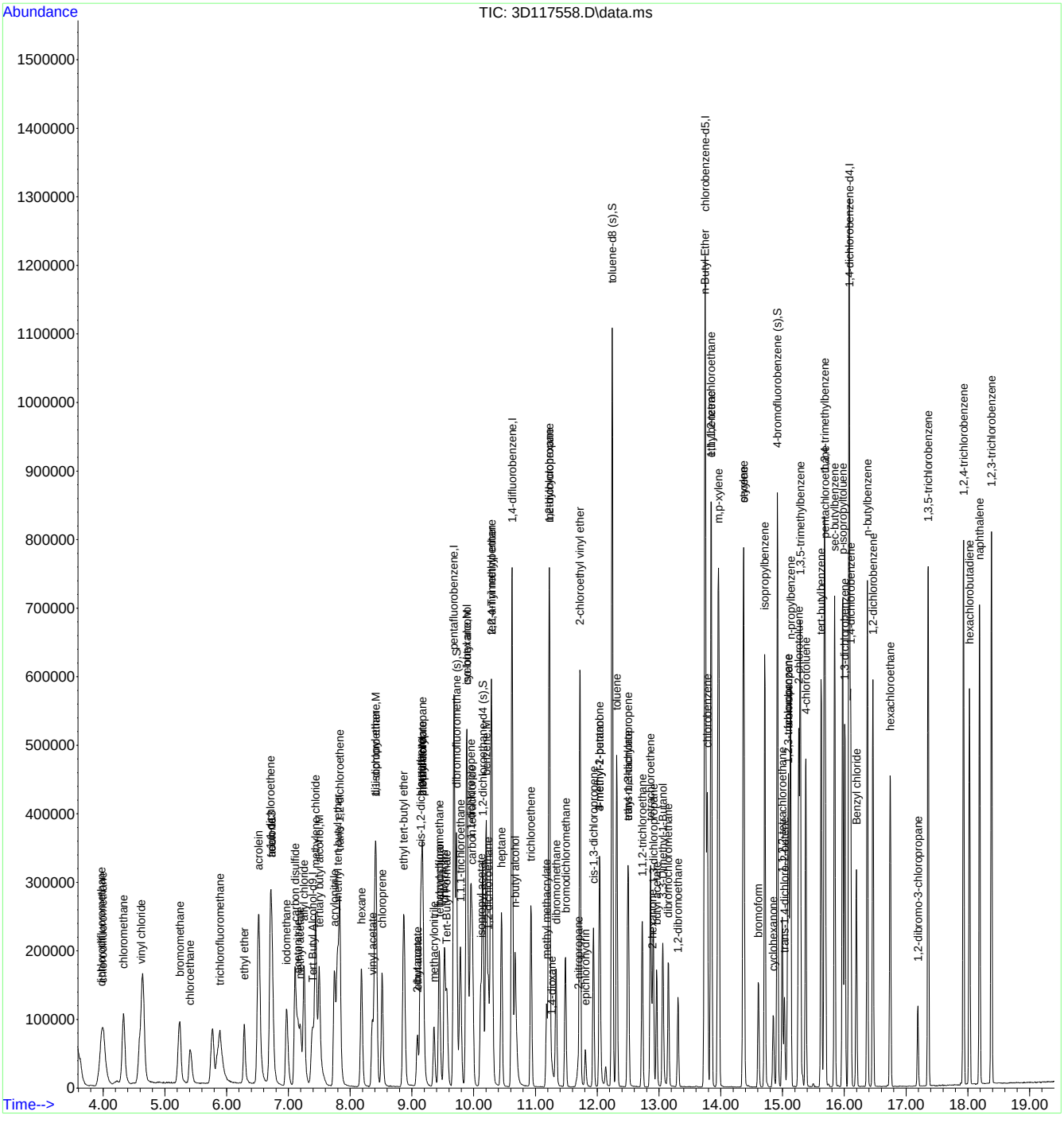
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117558.D
Acq On : 3 Mar 2016 4:04 pm
Operator : XimenaC
Sample : IC5030-20
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 08 12:03:13 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117559.D
Acq On : 3 Mar 2016 4:31 pm
Operator : XimenaC
Sample : ICC5030-50
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 08 10:16:53 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:15:47 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.398	65	293878	500.00 ug/L	0.00
4) pentafluorobenzene	9.679	168	462340	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	653277	50.00 ug/L	0.00
88) chlorobenzene-d5	13.753	117	548883	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	307035	50.00 ug/L	0.00

System Monitoring Compounds

50) dibromofluoromethane (s)	9.721	113	229922	48.55 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 97.10%		
51) 1,2-dichloroethane-d4 (s)	10.146	65	235851	48.21 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.42%		
80) toluene-d8 (s)	12.243	98	714321	49.55 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.10%		
106) 4-bromofluorobenzene (s)	14.917	95	251695	52.00 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.00%		

Target Compounds

					Qvalue
2) 1,4-dioxane	11.268	88	77438	1343.54 ug/L	100
3) tertiary butyl alcohol	7.514	59	160216	226.11 ug/L	100
8) chlorodifluoromethane	4.001	51	513716	46.92 ug/L	99
9) dichlorodifluoromethane	3.980	85	435791	47.61 ug/L	100
10) chloromethane	4.336	50	544787	43.64 ug/L	100
11) vinyl chloride	4.604	62	535903	43.59 ug/L	100
12) bromomethane	5.238	94	270412	47.67 ug/L	100
13) chloroethane	5.416	64	196807	45.58 ug/L	100
16) trichlorofluoromethane	5.894	101	468155	46.82 ug/L	100
18) ethyl ether	6.287	74	105324	47.16 ug/L	100
21) acrolein	6.523	56	500581	413.81 ug/L	100
22) 1,1-dichloroethene	6.706	61	387243	48.72 ug/L	100
23) acetone	6.727	58	24005	46.36 ug/L	100
24) allyl chloride	7.257	76	135335	50.27 ug/L	100
25) acetonitrile	7.162	40	206908	462.68 ug/L	100
27) iodomethane	6.974	142	503152	49.08 ug/L	100
28) iso-butyl alcohol	9.884	41	632566	467.34 ug/L	100
29) carbon disulfide	7.110	76	961172	47.66 ug/L	100
30) methylene chloride	7.440	84	271230	45.24 ug/L	100
31) methyl acetate	7.194	43	182366	43.27 ug/L	100
32) methyl tert butyl ether	7.797	73	727093	50.75 ug/L	100
33) trans-1,2-dichloroethene	7.833	61	355096	48.17 ug/L	100
34) di-isopropyl ether	8.405	45	824546	51.52 ug/L	100
35) ethyl tert-butyl ether	8.872	59	758269	52.15 ug/L	100
36) 2-butanone	9.081	72	25581	49.55 ug/L	100
37) 1,1-dichloroethane	8.421	63	426644	47.35 ug/L	100
38) chloroprene	8.515	53	306903	51.75 ug/L	100
39) acrylonitrile	7.744	53	475796	236.89 ug/L	100
40) vinyl acetate	8.358	86	34750	49.63 ug/L	100
41) ethyl acetate	9.092	45	28697	46.49 ug/L	100
42) 2,2-dichloropropane	9.170	77	414449	46.35 ug/L	100
43) cis-1,2-dichloroethene	9.139	96	258009	48.38 ug/L	100
44) propionitrile	9.165	54	381153	463.69 ug/L	100
45) methyl acrylate	9.176	85	30929	48.71 ug/L	100
46) bromochloromethane	9.438	128	133342	46.82 ug/L	100
47) tetrahydrofuran	9.454	42	65495	45.87 ug/L	100
48) chloroform	9.527	83	407459	46.10 ug/L	100
49) Tert-Butyl Formate	9.564	59	222951	49.81 ug/L #	100
52) freon 113	6.732	151	281572	48.65 ug/L	100
53) methacrylonitrile	9.359	41	130756	45.36 ug/L	100
54) 1,1,1-trichloroethane	9.784	97	405294	47.74 ug/L	100

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117559.D
Acq On : 3 Mar 2016 4:31 pm
Operator : XimenaC
Sample : ICC5030-50
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 08 10:16:53 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:15:47 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	10.292	57	1009638	55.38 ug/L	100
57) tert-amyl methyl ether	10.282	73	718351	51.33 ug/L	100
59) epichlorohydrin	11.808	57	108164	223.18 ug/L	100
60) n-butyl alcohol	10.670	56	372106	2326.08 ug/L	100
61) cyclohexane	9.889	84	420144	53.25 ug/L	99
62) carbon tetrachloride	9.978	117	394781	47.65 ug/L	100
63) 1,1-dichloropropene	9.952	75	289504	49.44 ug/L	100
64) hexane	8.180	57	257415	53.31 ug/L	100
65) benzene	10.203	78	897774	47.68 ug/L	100
66) heptane	10.450	57	154512	52.46 ug/L	100
67) isopropyl acetate	10.114	43	401184	46.83 ug/L	100
68) 1,2-dichloroethane	10.240	62	294328	46.79 ug/L	100
69) trichloroethene	10.927	95	220292	47.51 ug/L	100
72) 2-nitropropane	11.692	41	78426	43.04 ug/L	100
73) 2-chloroethyl vinyl ether	11.719	63	653046	267.42 ug/L	100
74) methyl methacrylate	11.179	69	126768	29.72 ug/L	100
75) 1,2-dichloropropane	11.226	63	236782	47.16 ug/L	100
76) methylcyclohexane	11.226	83	432608	55.28 ug/L	100
77) dibromomethane	11.336	93	149689	46.96 ug/L	100
78) bromodichloromethane	11.488	83	295998	47.66 ug/L	100
79) cis-1,3-dichloropropene	11.939	75	323002	50.24 ug/L	100
81) 4-methyl-2-pentanone	12.038	58	90804	52.31 ug/L	100
82) toluene	12.316	92	483522	47.64 ug/L	100
83) 3-methyl-1-butanol	12.038	70	130712	1013.25 ug/L	100
84) trans-1,3-dichloropropene	12.505	75	297529	48.99 ug/L	100
85) ethyl methacrylate	12.489	69	229737	54.47 ug/L	100
86) 1,1,2-trichloroethane	12.730	83	159874	46.52 ug/L	100
87) 2-hexanone	12.888	58	63041	49.15 ug/L	100
89) tetrachloroethene	12.867	166	235311	48.18 ug/L	100
90) 1,3-dichloropropane	12.909	76	284256	48.46 ug/L	100
91) butyl acetate	12.961	56	118669	50.40 ug/L	100
92) 3,3-Dimethyl-1-Butanol	13.061	57	253542	479.67 ug/L	100
93) dibromochloromethane	13.155	129	232669	48.66 ug/L	100
94) 1,2-dibromoethane	13.307	107	192590	47.54 ug/L	100
95) n-Butyl Ether	13.737	57	826562	56.47 ug/L	100
96) chlorobenzene	13.784	112	527371	47.40 ug/L	100
97) 1,1,1,2-tetrachloroethane	13.847	131	263815	49.61 ug/L	100
98) ethylbenzene	13.842	91	901111	51.48 ug/L	100
99) m,p-xylene	13.963	106	686663	107.30 ug/L	100
100) o-xylene	14.366	106	356574	55.06 ug/L	100
101) styrene	14.377	104	544032	56.23 ug/L	100
103) bromoform	14.613	173	174878	47.83 ug/L	100
105) isopropylbenzene	14.712	105	995882	58.95 ug/L	100
107) bromobenzene	15.100	156	258756	49.85 ug/L	100
108) cyclohexanone	14.849	55	102597	540.15 ug/L	100
109) 1,1,2,2-tetrachloroethane	14.996	83	277781	46.78 ug/L	100
110) trans-1,4-dichloro-2-b...	15.032	53	57693	47.30 ug/L	100
111) 1,2,3-trichloropropane	15.085	110	61249	47.90 ug/L	100
112) n-propylbenzene	15.132	91	1087709	54.96 ug/L	100
114) 2-chlorotoluene	15.263	126	237604	53.84 ug/L	100
115) 4-chlorotoluene	15.378	126	220494	54.41 ug/L	100
116) 1,3,5-trimethylbenzene	15.289	105	867009	53.95 ug/L	100
117) tert-butylbenzene	15.625	119	708851	55.63 ug/L	100
118) pentachloroethane	15.693	167	217109	52.17 ug/L	100
119) 1,2,4-trimethylbenzene	15.677	105	851147	54.36 ug/L	100
120) sec-butylbenzene	15.845	105	1174700	54.92 ug/L	100
121) 1,3-dichlorobenzene	16.013	146	494080	48.71 ug/L	100
122) p-isopropyltoluene	15.976	119	977519	55.53 ug/L	100

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117559.D
Acq On : 3 Mar 2016 4:31 pm
Operator : XimenaC
Sample : ICC5030-50
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 08 10:16:53 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:15:47 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
123) 1,4-dichlorobenzene	16.102	146	495182	47.56	ug/L	100
124) 1,2-dichlorobenzene	16.464	146	524103	49.37	ug/L	100
126) n-butylbenzene	16.374	92	490845	56.58	ug/L	100
128) 1,2-dibromo-3-chloropr...	17.192	157	71949	48.68	ug/L	100
129) 1,3,5-trichlorobenzene	17.360	180	565150	50.53	ug/L	100
130) 1,2,4-trichlorobenzene	17.932	180	566040	52.98	ug/L	100
131) hexachlorobutadiene	18.026	225	292995	49.87	ug/L	100
132) naphthalene	18.189	128	1212102	53.83	ug/L	100
133) 1,2,3-trichlorobenzene	18.383	180	583351	52.87	ug/L	100
134) hexachloroethane	16.741	119	207945	52.98	ug/L	100
135) Benzyl chloride	16.196	91	477167	46.88	ug/L	100

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

7.6.8

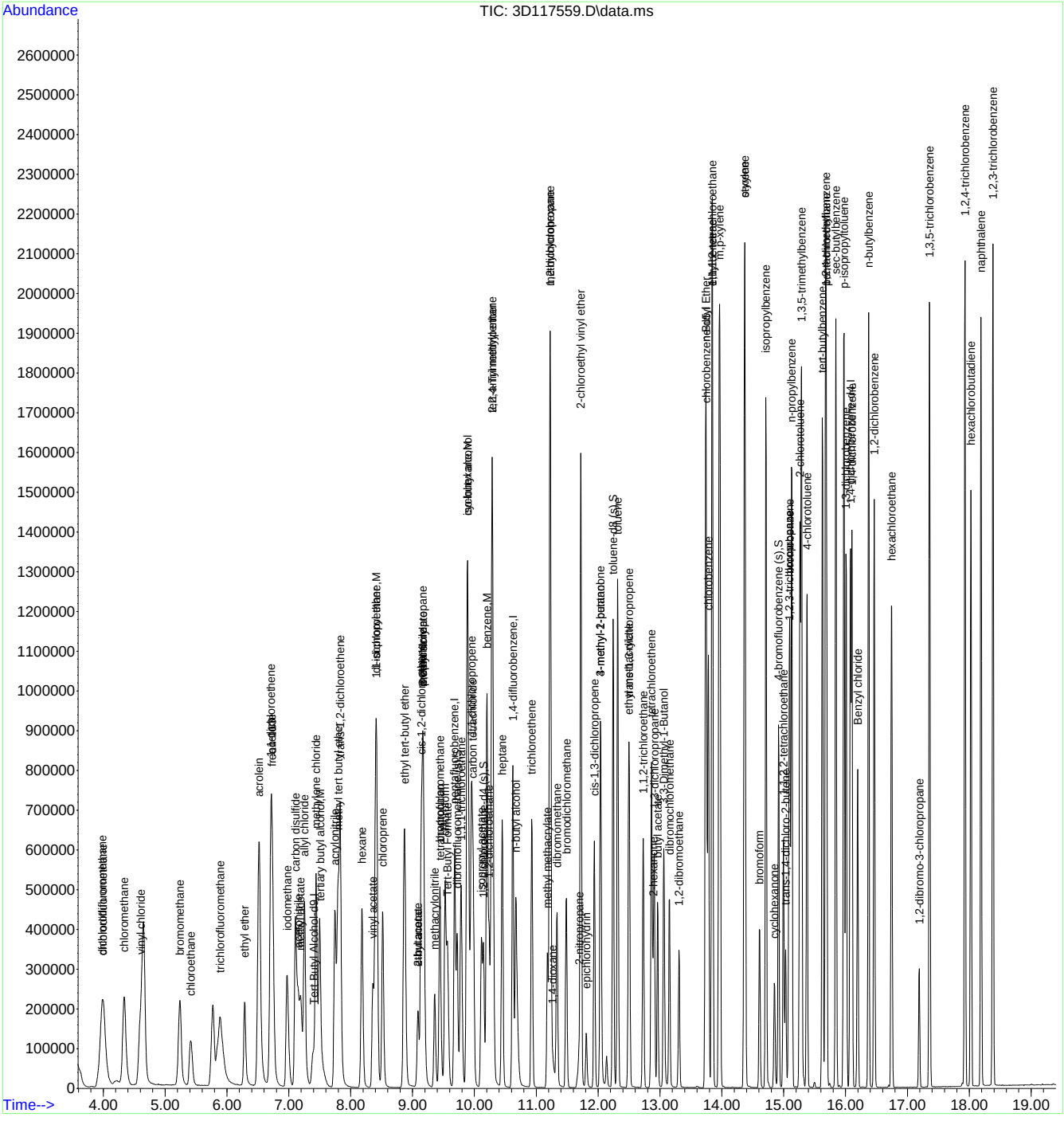
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117559.D
Acq On : 3 Mar 2016 4:31 pm
Operator : XimenaC
Sample : ICC5030-50
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 08 10:16:53 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:15:47 2016
Response via : Initial Calibration



M3D5030.M Wed Mar 09 11:04:06 2016 3D Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117560.D
Acq On : 3 Mar 2016 4:58 pm
Operator : XimenaC
Sample : IC5030-100
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 08 12:02:02 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.404	65	312984	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	446198	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	640744	50.00	ug/L	0.00
88) chlorobenzene-d5	13.753	117	534614	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	300098	50.00	ug/L	0.00

System Monitoring Compounds						
50) dibromofluoromethane (s)	9.721	113	223219	50.30	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.60%			
51) 1,2-dichloroethane-d4 (s)	10.146	65	228828	50.27	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.54%			
80) toluene-d8 (s)	12.243	98	704292	50.26	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.52%			
106) 4-bromofluorobenzene (s)	14.917	95	248398	50.49	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.98%			

Target Compounds						Qvalue
2) 1,4-dioxane	11.268	88	165978	2515.66	ug/L	98
3) tertiary butyl alcohol	7.519	59	351620	515.17	ug/L #	67
8) chlorodifluoromethane	3.996	51	1019528	102.82	ug/L	98
9) dichlorodifluoromethane	3.975	85	839635	99.82	ug/L	97
10) chloromethane	4.342	50	1118158	106.34	ug/L	98
11) vinyl chloride	4.604	62	1068940	103.34	ug/L	100
12) bromomethane	5.238	94	503295	96.43	ug/L	100
13) chloroethane	5.411	64	388805	102.35	ug/L	97
16) trichlorofluoromethane	5.883	101	902618	99.89	ug/L	98
18) ethyl ether	6.292	74	207163	101.90	ug/L	96
21) acrolein	6.523	56	22118	22.89	ug/L	91
22) 1,1-dichloroethene	6.706	61	783603	104.84	ug/L	98
23) acetone	6.738	58	48395	104.45	ug/L	89
24) allyl chloride	7.252	76	273734	104.79	ug/L	98
25) acetonitrile	7.163	40	412098	1031.87	ug/L	99
27) iodomethane	6.969	142	1026718	105.72	ug/L	99
28) iso-butyl alcohol	9.889	41	1279338	1047.81	ug/L	99
29) carbon disulfide	7.110	76	1913570	103.14	ug/L	99
30) methylene chloride	7.440	84	532308	101.68	ug/L	99
31) methyl acetate	7.194	43	371492	105.54	ug/L	99
32) methyl tert butyl ether	7.802	73	1473596	105.00	ug/L	99
33) trans-1,2-dichloroethene	7.828	61	700825	102.25	ug/L	96
34) di-isopropyl ether	8.405	45	1663271	104.51	ug/L	99
35) ethyl tert-butyl ether	8.872	59	1576949	107.75	ug/L	99
36) 2-butanone	9.087	72	53728	108.81	ug/L	99
37) 1,1-dichloroethane	8.421	63	845426	102.66	ug/L	99
38) chloroprene	8.515	53	624661	105.45	ug/L	99
39) acrylonitrile	7.745	53	965898	525.88	ug/L	100
40) vinyl acetate	8.358	86	74273	110.73	ug/L	89
41) ethyl acetate	9.092	45	60822	109.81	ug/L	96
42) 2,2-dichloropropane	9.176	77	830595	103.83	ug/L	97
43) cis-1,2-dichloroethene	9.139	96	514152	103.24	ug/L	98
44) propionitrile	9.165	54	788910	1072.34	ug/L	96
45) methyl acrylate	9.176	85	65947	110.47	ug/L	92
46) bromochloromethane	9.443	128	267043	103.76	ug/L	97
47) tetrahydrofuran	9.459	42	141238	111.72	ug/L	96
48) chloroform	9.527	83	798576	101.54	ug/L	97
49) Tert-Butyl Formate	9.564	59	476387	110.70	ug/L #	98
52) freon 113	6.727	151	563960	103.77	ug/L	99
53) methacrylonitrile	9.359	41	272369	107.92	ug/L	99
54) 1,1,1-trichloroethane	9.784	97	812292	103.84	ug/L	97

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117560.D
Acq On : 3 Mar 2016 4:58 pm
Operator : XimenaC
Sample : IC5030-100
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 08 12:02:02 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	10.293	57	2117082	108.64 ug/L	99
57) tert-amyl methyl ether	10.282	73	1497868	108.03 ug/L	97
59) epichlorohydrin	11.808	57	235220	554.30 ug/L	98
60) n-butyl alcohol	10.670	56	843921	5780.80 ug/L	98
61) cyclohexane	9.894	84	856175	103.88 ug/L	99
62) carbon tetrachloride	9.978	117	789570	101.96 ug/L	99
63) 1,1-dichloropropene	9.952	75	579397	102.02 ug/L	99
64) hexane	8.180	57	510897	101.18 ug/L	98
65) benzene	10.204	78	1800333	102.23 ug/L	99
66) heptane	10.450	57	307267	101.38 ug/L	98
67) isopropyl acetate	10.114	43	875378	111.23 ug/L	100
68) 1,2-dichloroethane	10.240	62	588490	101.93 ug/L	99
69) trichloroethene	10.927	95	445803	103.16 ug/L	98
72) 2-nitropropane	11.693	41	164587	106.98 ug/L	95
73) 2-chloroethyl vinyl ether	11.719	63	1369612	534.57 ug/L	99
74) methyl methacrylate	11.184	69	279556	112.42 ug/L	97
75) 1,2-dichloropropane	11.226	63	472705	101.77 ug/L	100
76) methylcyclohexane	11.226	83	861829	101.56 ug/L	99
77) dibromomethane	11.331	93	304036	103.54 ug/L	93
78) bromodichloromethane	11.488	83	599155	103.19 ug/L	99
79) cis-1,3-dichloropropene	11.939	75	671634	106.00 ug/L	99
81) 4-methyl-2-pentanone	12.044	58	200582	112.61 ug/L	98
82) toluene	12.316	92	989616	104.34 ug/L	99
83) 3-methyl-1-butanol	12.039	70	309216	2411.90 ug/L	97
84) trans-1,3-dichloropropene	12.505	75	607072	104.01 ug/L	99
85) ethyl methacrylate	12.489	69	504687	111.99 ug/L	98
86) 1,1,2-trichloroethane	12.731	83	322146	102.72 ug/L	99
87) 2-hexanone	12.888	58	146736	118.66 ug/L	99
89) tetrachloroethene	12.862	166	473618	103.32 ug/L	97
90) 1,3-dichloropropane	12.909	76	578220	104.42 ug/L	99
91) butyl acetate	12.961	56	261231	113.00 ug/L	96
92) 3,3-Dimethyl-1-Butanol	13.061	57	652837	1321.80 ug/L	99
93) dibromochloromethane	13.150	129	476750	105.19 ug/L	100
94) 1,2-dibromoethane	13.307	107	395338	105.38 ug/L	99
95) n-Butyl Ether	13.737	57	1738214	107.95 ug/L	98
96) chlorobenzene	13.785	112	1066976	103.86 ug/L	99
97) 1,1,1,2-tetrachloroethane	13.847	131	535532	104.21 ug/L	99
98) ethylbenzene	13.842	91	1833151	104.43 ug/L	100
99) m,p-xylene	13.963	106	1401401	209.54 ug/L	99
100) o-xylene	14.366	106	739029	106.40 ug/L	99
101) styrene	14.377	104	1114371	105.15 ug/L	98
103) bromoform	14.613	173	364668	107.05 ug/L	98
105) isopropylbenzene	14.713	105	2089760	107.35 ug/L	99
107) bromobenzene	15.101	156	520211	102.85 ug/L	99
108) cyclohexanone	14.849	55	209096	1042.57 ug/L	99
109) 1,1,2,2-tetrachloroethane	14.996	83	566876	104.40 ug/L	99
110) trans-1,4-dichloro-2-b...	15.032	53	120000	106.40 ug/L	98
111) 1,2,3-trichloropropane	15.085	110	125896	105.15 ug/L	97
112) n-propylbenzene	15.132	91	2202348	103.58 ug/L	99
114) 2-chlorotoluene	15.263	126	480786	103.51 ug/L	100
115) 4-chlorotoluene	15.378	126	443722	102.95 ug/L	99
116) 1,3,5-trimethylbenzene	15.289	105	1790657	105.65 ug/L	100
117) tert-butylbenzene	15.625	119	1522440	109.87 ug/L	99
118) pentachloroethane	15.693	167	454210	107.02 ug/L	99
119) 1,2,4-trimethylbenzene	15.677	105	1747203	105.01 ug/L	99
120) sec-butylbenzene	15.845	105	2464573	107.33 ug/L	99
121) 1,3-dichlorobenzene	16.008	146	984739	101.96 ug/L	97
122) p-isopropyltoluene	15.976	119	2020894	105.76 ug/L	100

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117560.D
Acq On : 3 Mar 2016 4:58 pm
Operator : XimenaC
Sample : IC5030-100
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 08 12:02:02 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	16.102	146	976068	100.83 ug/L	98
124) 1,2-dichlorobenzene	16.464	146	1052770	102.76 ug/L	100
126) n-butylbenzene	16.375	92	1001107	104.34 ug/L	98
128) 1,2-dibromo-3-chloropr...	17.192	157	154264	109.68 ug/L	97
129) 1,3,5-trichlorobenzene	17.360	180	1153011	104.37 ug/L	99
130) 1,2,4-trichlorobenzene	17.932	180	1151658	104.08 ug/L	100
131) hexachlorobutadiene	18.026	225	606551	105.90 ug/L	99
132) naphthalene	18.189	128	2546265	107.46 ug/L	100
133) 1,2,3-trichlorobenzene	18.383	180	1200515	105.28 ug/L	99
134) hexachloroethane	16.742	119	447456	110.08 ug/L	100
135) Benzyl chloride	16.196	91	986660	105.78 ug/L	100

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

7.6.9

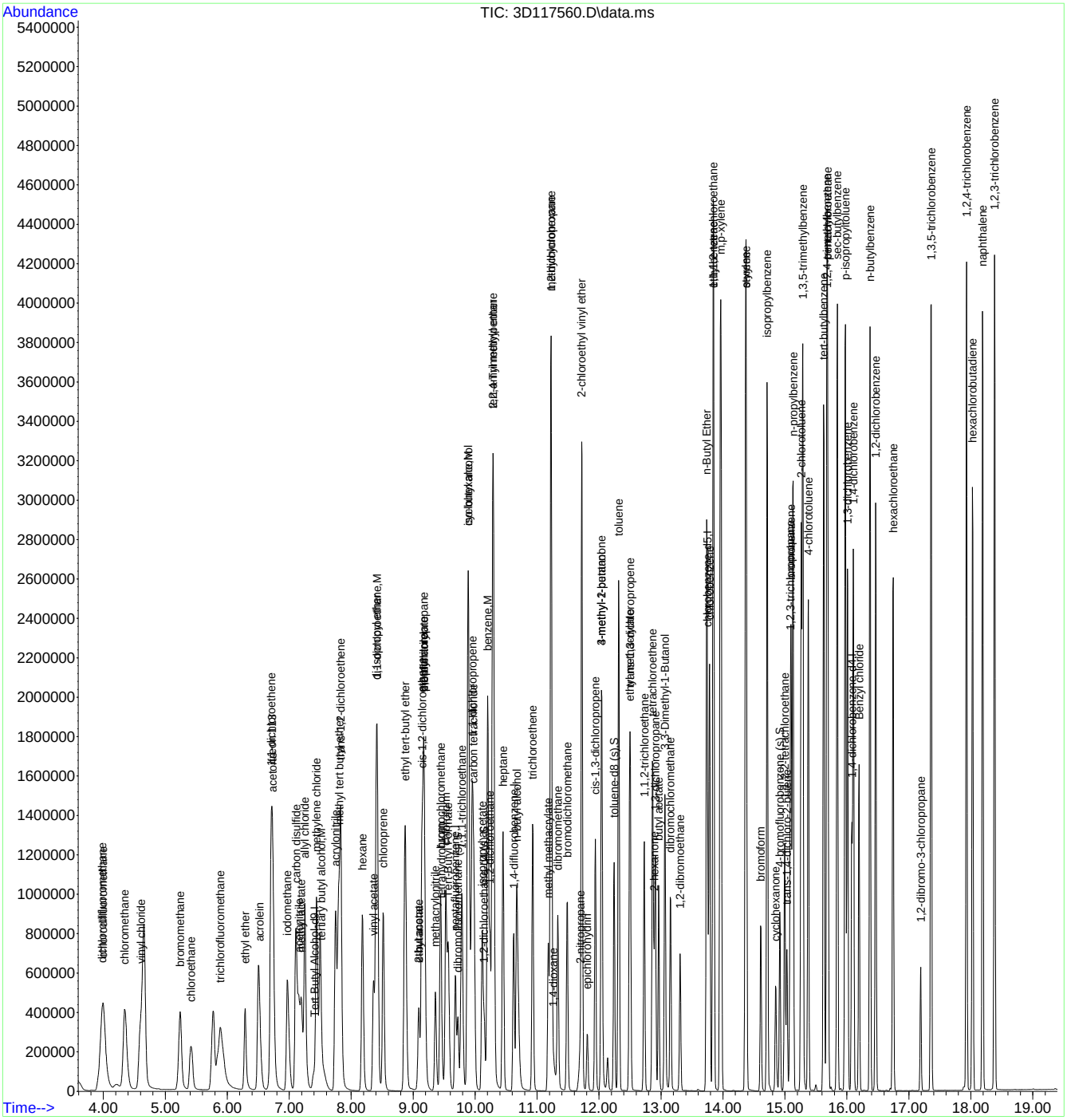
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117560.D
Acq On : 3 Mar 2016 4:58 pm
Operator : XimenaC
Sample : IC5030-100
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 08 12:02:02 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117561.D
Acq On : 3 Mar 2016 5:25 pm
Operator : XimenaC
Sample : IC5030-200
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 08 12:06:52 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.404	65	319002	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	446186	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	643410	50.00	ug/L	0.00
88) chlorobenzene-d5	13.753	117	545234	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	309047	50.00	ug/L	0.00

System Monitoring Compounds

50) dibromofluoromethane (s)	9.721	113	218433	49.22	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 98.44%			
51) 1,2-dichloroethane-d4 (s)	10.146	65	223858	49.18	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 98.36%			
80) toluene-d8 (s)	12.243	98	716383	50.91	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.82%			
106) 4-bromofluorobenzene (s)	14.917	95	252909	49.91	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.82%			

Target Compounds

						Qvalue
2) 1,4-dioxane	11.268	88	329181	4895.13	ug/L	94
3) tertiary butyl alcohol	7.524	59	681689	979.93	ug/L #	37
8) chlorodifluoromethane	3.990	51	1883695	189.98	ug/L	98
9) dichlorodifluoromethane	3.964	85	1536573	182.68	ug/L	97
10) chloromethane	4.342	50	2158218	205.25	ug/L	98
11) vinyl chloride	4.593	62	2005240	193.86	ug/L	99
12) bromomethane	5.228	94	721772	138.29	ug/L	100
13) chloroethane	5.406	64	649140	170.89	ug/L	96
16) trichlorofluoromethane	5.878	101	1662260	183.96	ug/L	99
18) ethyl ether	6.282	74	384202	188.99	ug/L	97
22) 1,1-dichloroethene	6.701	61	1455141	194.69	ug/L	98
23) acetone	6.733	58	88901	191.88	ug/L	93
24) allyl chloride	7.246	76	522923	200.19	ug/L	96
25) acetonitrile	7.157	40	717576	1796.83	ug/L	97
27) iodomethane	6.968	142	1948672	200.66	ug/L	99
28) iso-butyl alcohol	9.884	41	2375897	1945.98	ug/L	98
29) carbon disulfide	7.100	76	3500273	188.68	ug/L	98
30) methylene chloride	7.435	84	988780	188.88	ug/L	98
31) methyl acetate	7.194	43	697072	198.04	ug/L	99
32) methyl tert butyl ether	7.797	73	2809915	200.23	ug/L	99
33) trans-1,2-dichloroethene	7.828	61	1268411	185.07	ug/L	98
34) di-isopropyl ether	8.405	45	3160380	198.58	ug/L	100
35) ethyl tert-butyl ether	8.866	59	3039741	207.70	ug/L	100
36) 2-butanone	9.081	72	104708	212.07	ug/L	99
37) 1,1-dichloroethane	8.421	63	1544082	187.51	ug/L	99
38) chloroprene	8.515	53	1156105	195.17	ug/L	98
39) acrylonitrile	7.744	53	1810825	985.92	ug/L	99
40) vinyl acetate	8.358	86	145534	216.98	ug/L #	78
41) ethyl acetate	9.092	45	116931	211.11	ug/L	93
42) 2,2-dichloropropane	9.171	77	1524745	190.61	ug/L	99
43) cis-1,2-dichloroethene	9.139	96	946012	189.97	ug/L	98
44) propionitrile	9.165	54	1523040	2070.27	ug/L	99
45) methyl acrylate	9.176	85	130262	218.21	ug/L	91
46) bromochloromethane	9.438	128	497476	193.30	ug/L	99
47) tetrahydrofuran	9.454	42	276831	218.99	ug/L	97
48) chloroform	9.527	83	1482611	188.52	ug/L	98
49) Tert-Butyl Formate	9.564	59	942399	219.00	ug/L #	97
52) freon 113	6.722	151	1036923	190.80	ug/L	99
53) methacrylonitrile	9.359	41	536796	212.70	ug/L	98
54) 1,1,1-trichloroethane	9.784	97	1513175	193.43	ug/L	98
56) 2,2,4-Trimethylpentane	10.293	57	3997236	205.12	ug/L	99

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117561.D
Acq On : 3 Mar 2016 5:25 pm
Operator : XimenaC
Sample : IC5030-200
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 08 12:06:52 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
57) tert-amyl methyl ether	10.282	73	2911074	209.96 ug/L	97
59) epichlorohydrin	11.813	57	469469	1101.73 ug/L	99
60) n-butyl alcohol	10.675	56	1702043	11610.57 ug/L	98
61) cyclohexane	9.889	84	1570331	189.75 ug/L	100
62) carbon tetrachloride	9.978	117	1449321	186.38 ug/L	100
63) 1,1-dichloropropene	9.947	75	1074634	188.45 ug/L	99
64) hexane	8.174	57	940400	185.46 ug/L	98
65) benzene	10.203	78	3391586	191.79 ug/L	100
66) heptane	10.450	57	562049	184.67 ug/L	98
67) isopropyl acetate	10.114	43	1704542	215.70 ug/L	99
68) 1,2-dichloroethane	10.235	62	1125151	194.07 ug/L	99
69) trichloroethene	10.927	95	846485	195.07 ug/L	97
72) 2-nitropropane	11.692	41	317817	205.73 ug/L	96
73) 2-chloroethyl vinyl ether	11.724	63	2641642	1026.79 ug/L	98
74) methyl methacrylate	11.179	69	568177	227.54 ug/L	98
75) 1,2-dichloropropane	11.226	63	889689	190.75 ug/L	100
76) methylcyclohexane	11.226	83	1597073	187.42 ug/L	100
77) dibromomethane	11.331	93	573765	194.59 ug/L	96
78) bromodichloromethane	11.483	83	1149491	197.15 ug/L	99
79) cis-1,3-dichloropropene	11.939	75	1337833	210.27 ug/L	99
81) 4-methyl-2-pentanone	12.044	58	387170	216.46 ug/L	94
82) toluene	12.316	92	1910602	200.60 ug/L	98
83) 3-methyl-1-butanol	12.044	70	618560	4804.81 ug/L	96
84) trans-1,3-dichloropropene	12.505	75	1185520	202.28 ug/L	99
85) ethyl methacrylate	12.489	69	1013860	224.04 ug/L	98
86) 1,1,2-trichloroethane	12.731	83	624448	198.29 ug/L	99
87) 2-hexanone	12.888	58	295386	237.87 ug/L	96
89) tetrachloroethene	12.862	166	903466	193.26 ug/L	98
90) 1,3-dichloropropane	12.909	76	1123728	198.98 ug/L	98
91) butyl acetate	12.961	56	510515	216.54 ug/L	96
92) 3,3-Dimethyl-1-Butanol	13.066	57	1387687	2754.92 ug/L	98
93) dibromochloromethane	13.155	129	935920	202.47 ug/L	99
94) 1,2-dibromoethane	13.307	107	767734	200.65 ug/L	97
95) n-Butyl Ether	13.737	57	3374221	205.48 ug/L	98
96) chlorobenzene	13.784	112	2070375	197.61 ug/L	99
97) 1,1,1,2-tetrachloroethane	13.847	131	1039905	198.41 ug/L	99
98) ethylbenzene	13.842	91	3491451	195.03 ug/L	100
99) m,p-xylene	13.963	106	2682739	393.31 ug/L	100
100) o-xylene	14.366	106	1429567	201.80 ug/L	99
101) styrene	14.377	104	2176987	201.42 ug/L	99
103) bromoform	14.608	173	714035	205.52 ug/L	99
105) isopropylbenzene	14.712	105	4039890	201.51 ug/L	99
107) bromobenzene	15.100	156	1002066	192.37 ug/L	99
108) cyclohexanone	14.849	55	393262	1904.06 ug/L	98
109) 1,1,2,2-tetrachloroethane	14.996	83	1089015	194.74 ug/L	100
110) trans-1,4-dichloro-2-b...	15.032	53	229367	197.49 ug/L	95
111) 1,2,3-trichloropropane	15.085	110	236488	191.80 ug/L	96
112) n-propylbenzene	15.132	91	4164066	190.17 ug/L	99
114) 2-chlorotoluene	15.263	126	935652	195.61 ug/L	99
115) 4-chlorotoluene	15.378	126	872618	196.59 ug/L	99
116) 1,3,5-trimethylbenzene	15.289	105	3517183	201.51 ug/L	99
117) tert-butylbenzene	15.625	119	3048896	213.66 ug/L	99
118) pentachloroethane	15.693	167	910924	208.42 ug/L	98
119) 1,2,4-trimethylbenzene	15.677	105	3393995	198.08 ug/L	99
120) sec-butylbenzene	15.845	105	4799578	202.96 ug/L	100
121) 1,3-dichlorobenzene	16.013	146	1938962	194.94 ug/L	99
122) p-isopropyltoluene	15.976	119	3981206	202.31 ug/L	100
123) 1,4-dichlorobenzene	16.107	146	1924179	193.03 ug/L	98

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117561.D
Acq On : 3 Mar 2016 5:25 pm
Operator : XimenaC
Sample : IC5030-200
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 08 12:06:52 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
124) 1,2-dichlorobenzene	16.464	146	2040632	193.41 ug/L	99
126) n-butylbenzene	16.374	92	1928611	195.18 ug/L	99
128) 1,2-dibromo-3-chloropr...	17.192	157	312778	215.95 ug/L	98
129) 1,3,5-trichlorobenzene	17.360	180	2337819	205.49 ug/L	100
130) 1,2,4-trichlorobenzene	17.932	180	2352872	206.48 ug/L	99
131) hexachlorobutadiene	18.031	225	1245749	211.20 ug/L	95
132) naphthalene	18.189	128	5086345	208.45 ug/L	100
133) 1,2,3-trichlorobenzene	18.383	180	2380572	202.71 ug/L	98
134) hexachloroethane	16.741	119	909820	217.34 ug/L	99
135) Benzyl chloride	16.196	91	1912725	199.12 ug/L	100

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

7.6.10

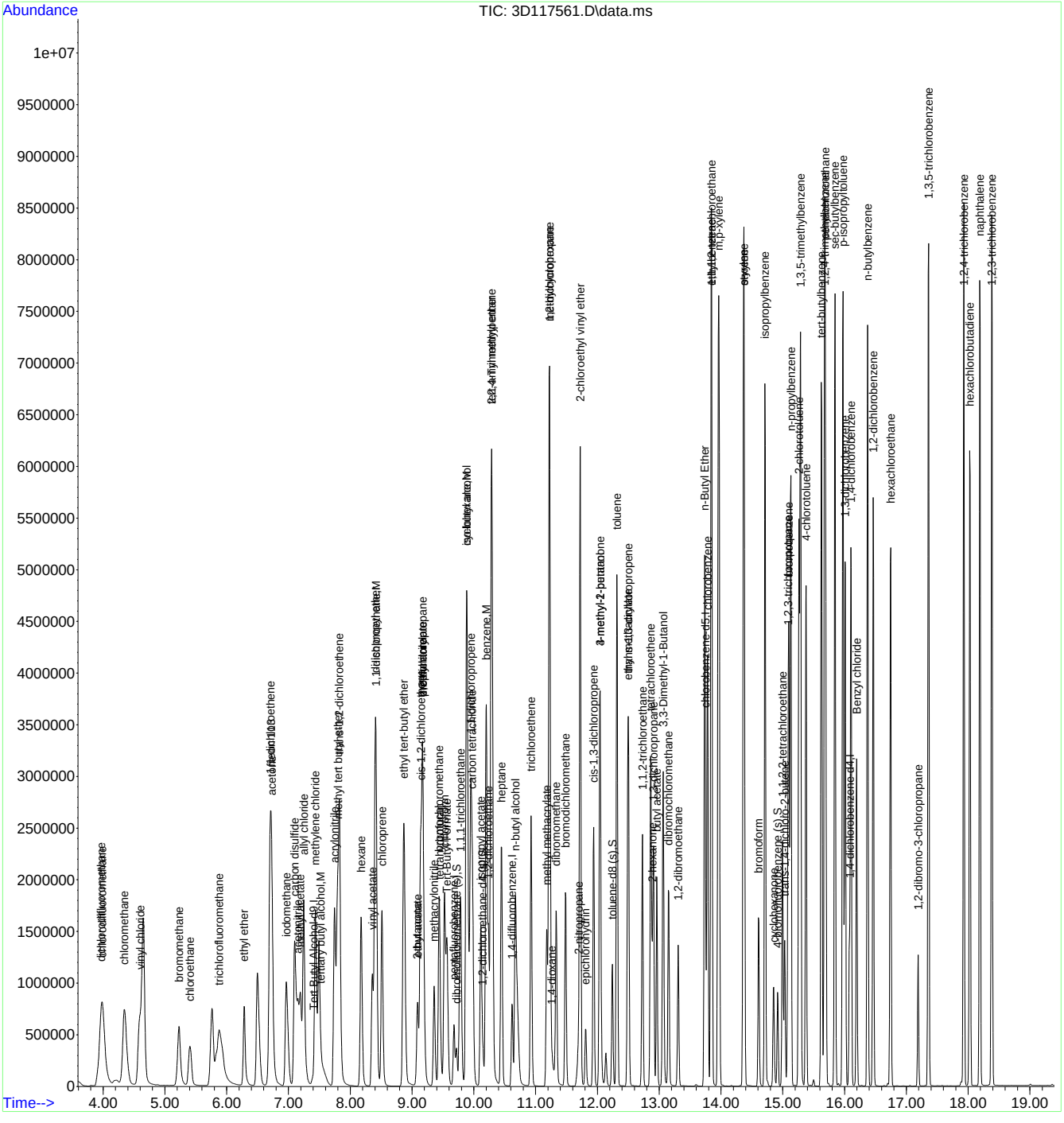
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117561.D
Acq On : 3 Mar 2016 5:25 pm
Operator : XimenaC
Sample : IC5030-200
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 08 12:06:52 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Tue Mar 08 10:34:34 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117564.D
Acq On : 3 Mar 2016 6:46 pm
Operator : XimenaC
Sample : ICV5030-50
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 09 11:04:39 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Mar 09 10:59:00 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.393	65	298879	500.00 ug/L	0.00
4) pentafluorobenzene	9.679	168	439082	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.623	114	613252	50.00 ug/L	0.00
88) chlorobenzene-d5	13.753	117	518041	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	16.081	152	292105	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.721	113	211989	47.14 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 94.28%		
51) 1,2-dichloroethane-d4 (s)	10.146	65	217167	46.74 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 93.48%		
80) toluene-d8 (s)	12.243	98	672844	49.71 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.42%		
106) 4-bromofluorobenzene (s)	14.917	95	240590	52.25 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.50%		

Target Compounds					Qvalue
2) 1,4-dioxane	11.268	88	76769	1224.59 ug/L	100
3) tertiary butyl alcohol	7.514	59	163898	227.45 ug/L #	75
8) chlorodifluoromethane	3.985	51	394171	37.89 ug/L	98
9) dichlorodifluoromethane	3.975	85	354931	39.83 ug/L	98
10) chloromethane	4.326	50	529491	44.65 ug/L	98
11) vinyl chloride	4.599	62	517692	44.34 ug/L	99
12) bromomethane	5.228	94	251086	46.61 ug/L	97
13) chloroethane	5.406	64	179976	43.89 ug/L	96
16) trichlorofluoromethane	5.883	101	411439	43.33 ug/L	97
18) ethyl ether	6.282	74	100193	47.23 ug/L	95
21) acrolein	6.523	56	477269	415.20 ug/L	100
22) 1,1-dichloroethene	6.701	61	331391	43.90 ug/L	99
23) acetone	6.727	58	24017	48.84 ug/L	90
24) allyl chloride	7.252	76	120406	47.09 ug/L	96
25) acetonitrile	7.157	40	198919	468.38 ug/L	98
27) iodomethane	6.963	142	444889	45.69 ug/L	99
28) iso-butyl alcohol	9.884	41	549246	427.01 ug/L	98
29) carbon disulfide	7.105	76	837519	44.91 ug/L	99
30) methylene chloride	7.435	84	240708	42.28 ug/L	98
31) methyl acetate	7.194	43	167741	41.86 ug/L	99
32) methyl tert butyl ether	7.797	73	1372183	100.80 ug/L	100
33) trans-1,2-dichloroethene	7.829	61	313982	44.85 ug/L	98
34) di-isopropyl ether	8.400	45	785500	51.68 ug/L	98
35) ethyl tert-butyl ether	8.867	59	731016	52.94 ug/L	99
36) 2-butanone	9.076	72	25144	51.28 ug/L	88
37) 1,1-dichloroethane	8.421	63	403761	47.02 ug/L	98
38) chloroprene	8.515	53	267020	47.41 ug/L	99
39) acrylonitrile	7.745	53	466314	244.44 ug/L	99
40) vinyl acetate	8.358	86	33787	50.81 ug/L	91
41) ethyl acetate	9.092	45	29506	50.35 ug/L	92
42) 2,2-dichloropropane	9.171	77	377563	44.46 ug/L	97
43) cis-1,2-dichloroethene	9.139	96	238278	47.04 ug/L	99
44) propionitrile	9.165	54	377442	483.42 ug/L	95
45) methyl acrylate	9.176	85	32409	53.74 ug/L	90
46) bromochloromethane	9.438	128	122680	45.36 ug/L	97
47) tetrahydrofuran	9.454	42	67767	50.19 ug/L	99
48) chloroform	9.527	83	380088	45.28 ug/L	99
49) Tert-Butyl Formate	9.564	59	181436	42.68 ug/L #	99
52) freon 113	6.722	151	224185	40.78 ug/L	98
53) methacrylonitrile	9.354	41	129562	47.33 ug/L	99
54) 1,1,1-trichloroethane	9.784	97	379927	47.12 ug/L	97

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117564.D
Acq On : 3 Mar 2016 6:46 pm
Operator : XimenaC
Sample : ICV5030-50
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 09 11:04:39 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Mar 09 10:59:00 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	10.287	57	713937	41.23 ug/L	97
57) tert-amyl methyl ether	10.282	73	700643	52.71 ug/L	98
59) epichlorohydrin	11.808	57	107431	236.04 ug/L	98
60) n-butyl alcohol	10.670	56	374279	2486.05 ug/L	99
61) cyclohexane	9.889	84	338240	45.55 ug/L	91
62) carbon tetrachloride	9.973	117	347486	44.68 ug/L	98
63) 1,1-dichloropropene	9.947	75	274779	49.99 ug/L	98
64) hexane	8.180	57	167003	36.85 ug/L	99
65) benzene	10.198	78	828965	46.90 ug/L	99
66) heptane	10.450	57	106456	38.52 ug/L	98
67) isopropyl acetate	10.109	43	450215	55.93 ug/L	96
68) 1,2-dichloroethane	10.235	62	273482	46.32 ug/L	99
69) trichloroethene	10.927	95	203395	46.73 ug/L	97
72) 2-nitropropane	11.693	41	80962	47.33 ug/L	98
73) 2-chloroethyl vinyl ether	11.719	63	670527	292.49 ug/L	99
74) methyl methacrylate	11.179	69	133542	54.50 ug/L	84
75) 1,2-dichloropropane	11.226	63	221005	46.89 ug/L	99
76) methylcyclohexane	11.221	83	329987	44.92 ug/L	99
77) dibromomethane	11.331	93	138980	46.45 ug/L	94
78) bromodichloromethane	11.483	83	268281	46.02 ug/L	99
79) cis-1,3-dichloropropene	11.939	75	307727	50.98 ug/L	98
81) 4-methyl-2-pentanone	12.039	58	91529	56.17 ug/L	99
82) toluene	12.317	92	452144	47.46 ug/L	99
83) 3-methyl-1-butanol	12.039	70	135641	1119.73 ug/L	98
84) trans-1,3-dichloropropene	12.505	75	276434	48.49 ug/L	98
85) ethyl methacrylate	12.490	69	226552	57.22 ug/L	99
86) 1,1,2-trichloroethane	12.731	83	151884	47.08 ug/L	97
87) 2-hexanone	12.888	58	66529	55.26 ug/L	97
89) tetrachloroethene	12.862	166	214651	46.57 ug/L	97
90) 1,3-dichloropropane	12.909	76	272113	49.16 ug/L	99
91) butyl acetate	12.961	56	124528	56.04 ug/L	99
92) 3,3-Dimethyl-1-Butanol	13.061	57	263774	528.71 ug/L	98
93) dibromochloromethane	13.150	129	218716	48.47 ug/L	99
94) 1,2-dibromoethane	13.307	107	182837	47.82 ug/L	96
95) n-Butyl Ether	13.737	57	797589	57.73 ug/L	99
96) chlorobenzene	13.785	112	502442	47.85 ug/L	99
97) 1,1,1,2-tetrachloroethane	13.848	131	239588	47.74 ug/L	99
98) ethylbenzene	13.842	91	843149	51.04 ug/L	100
99) m,p-xylene	13.963	106	648185	107.33 ug/L	100
100) o-xylene	14.361	106	341222	55.84 ug/L	97
101) styrene	14.377	104	510430	55.90 ug/L	99
103) bromoform	14.608	173	169701	49.18 ug/L	97
105) isopropylbenzene	14.713	105	923370	57.46 ug/L	99
107) bromobenzene	15.101	156	241250	48.86 ug/L	99
108) cyclohexanone	14.854	55	91205	503.47 ug/L	97
109) 1,1,2,2-tetrachloroethane	14.996	83	262993	46.56 ug/L	99
110) trans-1,4-dichloro-2-b...	15.032	53	58013	49.99 ug/L	98
111) 1,2,3-trichloropropane	15.085	110	59365	48.80 ug/L	95
112) n-propylbenzene	15.127	91	1030995	54.75 ug/L	99
114) 2-chlorotoluene	15.263	126	217494	51.80 ug/L	99
115) 4-chlorotoluene	15.378	126	207942	53.94 ug/L	99
116) 1,3,5-trimethylbenzene	15.289	105	804060	52.59 ug/L	99
117) tert-butylbenzene	15.625	119	663123	54.71 ug/L	99
118) pentachloroethane	15.693	167	204179	51.57 ug/L	98
119) 1,2,4-trimethylbenzene	15.677	105	799136	53.65 ug/L	99
120) sec-butylbenzene	15.845	105	1071893	52.67 ug/L	99
121) 1,3-dichlorobenzene	16.008	146	458515	47.51 ug/L	97
122) p-isopropyltoluene	15.976	119	905821	54.08 ug/L	100

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117564.D
Acq On : 3 Mar 2016 6:46 pm
Operator : XimenaC
Sample : ICV5030-50
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 09 11:04:39 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Mar 09 10:59:00 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	16.102	146	461848	46.62 ug/L	100
124) 1,2-dichlorobenzene	16.464	146	496743	49.18 ug/L	99
126) n-butylbenzene	16.375	92	446657	54.12 ug/L	99
128) 1,2-dibromo-3-chloropr...	17.193	157	69830	49.66 ug/L	99
129) 1,3,5-trichlorobenzene	17.360	180	519058	48.78 ug/L	100
130) 1,2,4-trichlorobenzene	17.932	180	541046	53.23 ug/L	99
131) hexachlorobutadiene	18.026	225	272640	48.78 ug/L	99
132) naphthalene	18.189	128	1175409	54.86 ug/L	100
133) 1,2,3-trichlorobenzene	18.383	180	562716	53.60 ug/L	98
134) hexachloroethane	16.742	119	197185	52.80 ug/L	99
135) Benzyl chloride	16.196	91	437072	45.13 ug/L	100

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

7.6.11

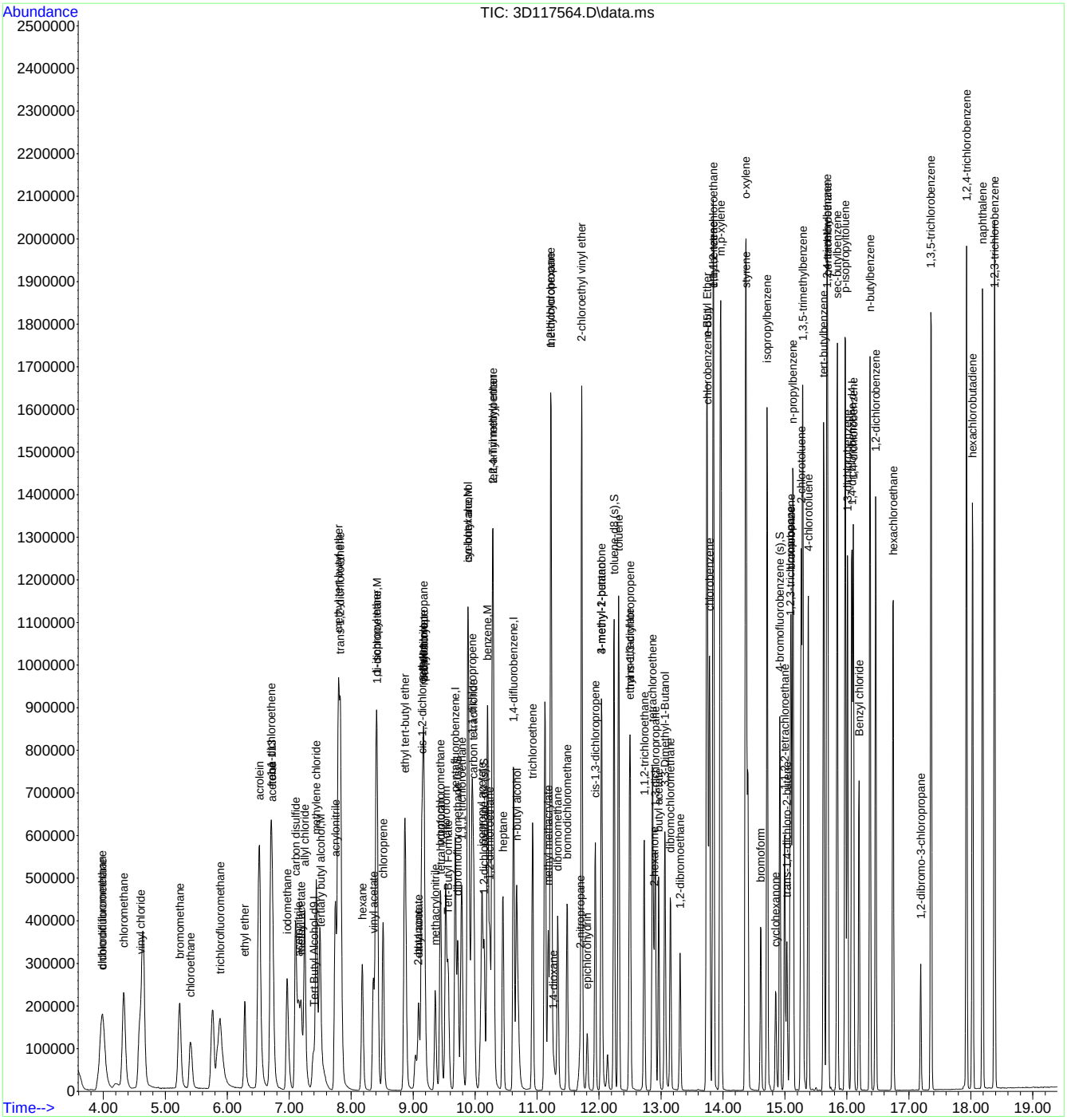
7

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D117564.D
Acq On : 3 Mar 2016 6:46 pm
Operator : XimenaC
Sample : ICV5030-50
Misc : MS98160,V3D5030,5,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 09 11:04:39 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Mar 09 10:59:00 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117664.D
Acq On : 11 Mar 2016 9:53 am
Operator : XimenaC
Sample : cc5030-20
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 15:43:00 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.398	65	216380	500.00	ug/L	0.00
4) pentafluorobenzene	9.679	168	357835	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.618	114	503673	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	418800	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	240364	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.716	113	182406	49.77	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.54%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	185143	48.90	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 97.80%			
81) toluene-d8 (s)	12.238	98	544779	49.00	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.00%			
107) 4-bromofluorobenzene (s)	14.917	95	190696	50.33	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.66%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.262	88	22509	495.95	ug/L	96
3) tertiary butyl alcohol	7.508	59	47589	91.22	ug/L	81
9) chlorodifluoromethane	3.990	51	162675	19.19	ug/L	99
10) dichlorodifluoromethane	3.975	85	133536	18.39	ug/L	97
11) chloromethane	4.326	50	153873	15.92	ug/L	98
12) vinyl chloride	4.599	62	160324	16.85	ug/L	98
13) bromomethane	5.228	94	84695	19.29	ug/L	98
14) chloroethane	5.406	64	59863	17.91	ug/L	95
17) trichlorofluoromethane	5.883	101	139798	18.06	ug/L	98
19) ethyl ether	6.287	74	32417	18.75	ug/L	95
22) acrolein	6.523	56	176057	187.94	ug/L	96
23) 1,1-dichloroethene	6.701	61	112608	18.30	ug/L	99
24) acetone	6.722	58	7633	19.05	ug/L	89
25) allyl chloride	7.252	76	38044	18.26	ug/L	91
26) acetonitrile	7.157	40	63919	184.68	ug/L	98
28) iodomethane	6.968	142	149620	18.86	ug/L	99
29) iso-butyl alcohol	9.884	41	188609	179.93	ug/L	96
30) carbon disulfide	7.105	76	280862	18.48	ug/L	99
31) methylene chloride	7.440	84	83683	18.04	ug/L	92
32) methyl acetate	7.189	43	56671	17.35	ug/L	98
33) methyl tert butyl ether	7.792	73	210202	18.95	ug/L	99
34) trans-1,2-dichloroethene	7.828	61	108481	19.01	ug/L	99
35) di-isopropyl ether	8.400	45	244172	19.71	ug/L	96
36) ethyl tert-butyl ether	8.866	59	207025	18.40	ug/L	99
37) 2-butanone	9.071	72	8099	20.27	ug/L	88
38) 1,1-dichloroethane	8.415	63	130611	18.66	ug/L	98
39) chloroprene	8.515	53	90462	19.71	ug/L	98
40) acrylonitrile	7.739	53	144454	92.91	ug/L	97
41) vinyl acetate	8.358	86	9088	16.77	ug/L	82
42) ethyl acetate	9.092	45	8406	17.60	ug/L	94
43) 2,2-dichloropropane	9.171	77	136094	19.67	ug/L	95
44) cis-1,2-dichloroethene	9.139	96	76952	18.64	ug/L	99

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117664.D
Acq On : 11 Mar 2016 9:53 am
Operator : XimenaC
Sample : cc5030-20
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 15:43:00 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) propionitrile	9.160	54	115343	181.27	ug/L	92
46) methyl acrylate	9.171	85	9046	18.41	ug/L	86
47) bromochloromethane	9.438	128	41343	18.76	ug/L	95
48) tetrahydrofuran	9.448	42	19154	17.41	ug/L	96
49) chloroform	9.522	83	122123	17.85	ug/L	100
50) Tert-Butyl Formate	9.558	59	70280	20.29	ug/L #	95
53) freon 113	6.727	151	88952	19.86	ug/L	94
54) methacrylonitrile	9.354	41	38475	17.24	ug/L	96
55) 1,1,1-trichloroethane	9.784	97	125352	19.08	ug/L	99
57) 2,2,4-Trimethylpentane	10.287	57	283861	20.12	ug/L	99
58) tert-amyl methyl ether	10.277	73	198137	18.29	ug/L	95
60) epichlorohydrin	11.808	57	31934	85.43	ug/L	99
61) n-butyl alcohol	10.665	56	106758	863.39	ug/L	98
62) cyclohexane	9.889	84	124340	20.39	ug/L	99
63) carbon tetrachloride	9.973	117	117922	18.46	ug/L	100
64) 1,1-dichloropropene	9.946	75	86153	19.08	ug/L	98
65) hexane	8.180	57	79358	21.32	ug/L	97
66) benzene	10.198	78	266788	18.38	ug/L	98
67) heptane	10.450	57	48542	21.38	ug/L	95
68) isopropyl acetate	10.109	43	116902	17.68	ug/L	98
69) 1,2-dichloroethane	10.235	62	89246	18.40	ug/L	100
70) trichloroethene	10.927	95	64210	17.96	ug/L	94
73) 2-nitropropane	11.687	41	23463	16.70	ug/L	99
74) 2-chloroethyl vinyl ether	11.719	63	189143	100.46	ug/L	100
75) methyl methacrylate	11.179	69	33131	16.46	ug/L	97
76) 1,2-dichloropropane	11.226	63	70872	18.31	ug/L	98
77) methylcyclohexane	11.221	83	128103	21.23	ug/L	96
78) dibromomethane	11.331	93	44884	18.27	ug/L	95
79) bromodichloromethane	11.483	83	85956	17.95	ug/L	99
80) cis-1,3-dichloropropene	11.934	75	91965	18.55	ug/L	99
82) 4-methyl-2-pentanone	12.038	58	26257	19.62	ug/L	98
83) toluene	12.316	92	142740	18.24	ug/L	98
84) 3-methyl-1-butanol	12.033	70	37896	380.90	ug/L	99
85) trans-1,3-dichloropropene	12.505	75	85419	18.24	ug/L	98
86) ethyl methacrylate	12.489	69	60366	18.56	ug/L	98
87) 1,1,2-trichloroethane	12.725	83	48567	18.33	ug/L	99
88) 2-hexanone	12.883	58	16924	17.12	ug/L	94
90) tetrachloroethene	12.862	166	70248	18.85	ug/L	98
91) 1,3-dichloropropane	12.904	76	83736	18.71	ug/L	97
92) butyl acetate	12.961	56	33653	18.73	ug/L	96
93) 3,3-Dimethyl-1-Butanol	13.061	57	69372	172.00	ug/L	99
94) dibromochloromethane	13.150	129	68656	18.82	ug/L	97
95) 1,2-dibromoethane	13.307	107	57054	18.46	ug/L	97
96) n-Butyl Ether	13.737	57	216889	19.42	ug/L	98
97) chlorobenzene	13.779	112	158050	18.62	ug/L	99
98) 1,1,1,2-tetrachloroethane	13.847	131	76010	18.74	ug/L	99
99) ethylbenzene	13.842	91	262226	19.64	ug/L	99
100) m,p-xylene	13.963	106	203906	41.76	ug/L	99
101) o-xylene	14.361	106	98375	19.91	ug/L	95
102) styrene	14.377	104	155289	21.04	ug/L	97

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117664.D
Acq On : 11 Mar 2016 9:53 am
Operator : XimenaC
Sample : cc5030-20
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 15:43:00 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) bromoform	14.608	173	49915	17.89	ug/L	97
106) isopropylbenzene	14.712	105	270401	20.45	ug/L	98
108) bromobenzene	15.100	156	76139	18.74	ug/L	94
109) cyclohexanone	14.849	55	77577	520.43	ug/L	96
110) 1,1,2,2-tetrachloroethane	14.996	83	83142	17.89	ug/L	99
111) trans-1,4-dichloro-2-b...	15.027	53	15565	16.30	ug/L	98
112) 1,2,3-trichloropropane	15.085	110	18748	18.73	ug/L	95
113) n-propylbenzene	15.127	91	316700	20.44	ug/L	100
115) 2-chlorotoluene	15.263	126	67897	19.65	ug/L	98
116) 4-chlorotoluene	15.373	126	65348	20.60	ug/L	98
117) 1,3,5-trimethylbenzene	15.284	105	247272	19.66	ug/L	98
118) tert-butylbenzene	15.625	119	185805	18.63	ug/L	99
119) pentachloroethane	15.693	167	62010	19.03	ug/L	97
120) 1,2,4-trimethylbenzene	15.677	105	244352	19.94	ug/L	97
121) sec-butylbenzene	15.840	105	325895	19.46	ug/L	97
122) 1,3-dichlorobenzene	16.007	146	153896	19.38	ug/L	98
123) p-isopropyltoluene	15.971	119	272058	19.74	ug/L	98
124) 1,4-dichlorobenzene	16.102	146	151239	18.55	ug/L	98
125) 1,2-dichlorobenzene	16.464	146	159015	19.13	ug/L	98
127) n-butylbenzene	16.369	92	142420	20.97	ug/L	95
129) 1,2-dibromo-3-chloropr...	17.187	157	20744	17.93	ug/L	89
130) 1,3,5-trichlorobenzene	17.355	180	165982	18.96	ug/L	100
131) 1,2,4-trichlorobenzene	17.926	180	161142	19.27	ug/L	99
132) hexachlorobutadiene	18.026	225	82886	18.02	ug/L	98
133) naphthalene	18.189	128	331934	18.83	ug/L	99
134) 1,2,3-trichlorobenzene	18.383	180	170364	19.72	ug/L	97
135) hexachloroethane	16.741	119	56823	18.49	ug/L	99
136) Benzyl chloride	16.191	91	150225	18.85	ug/L	100

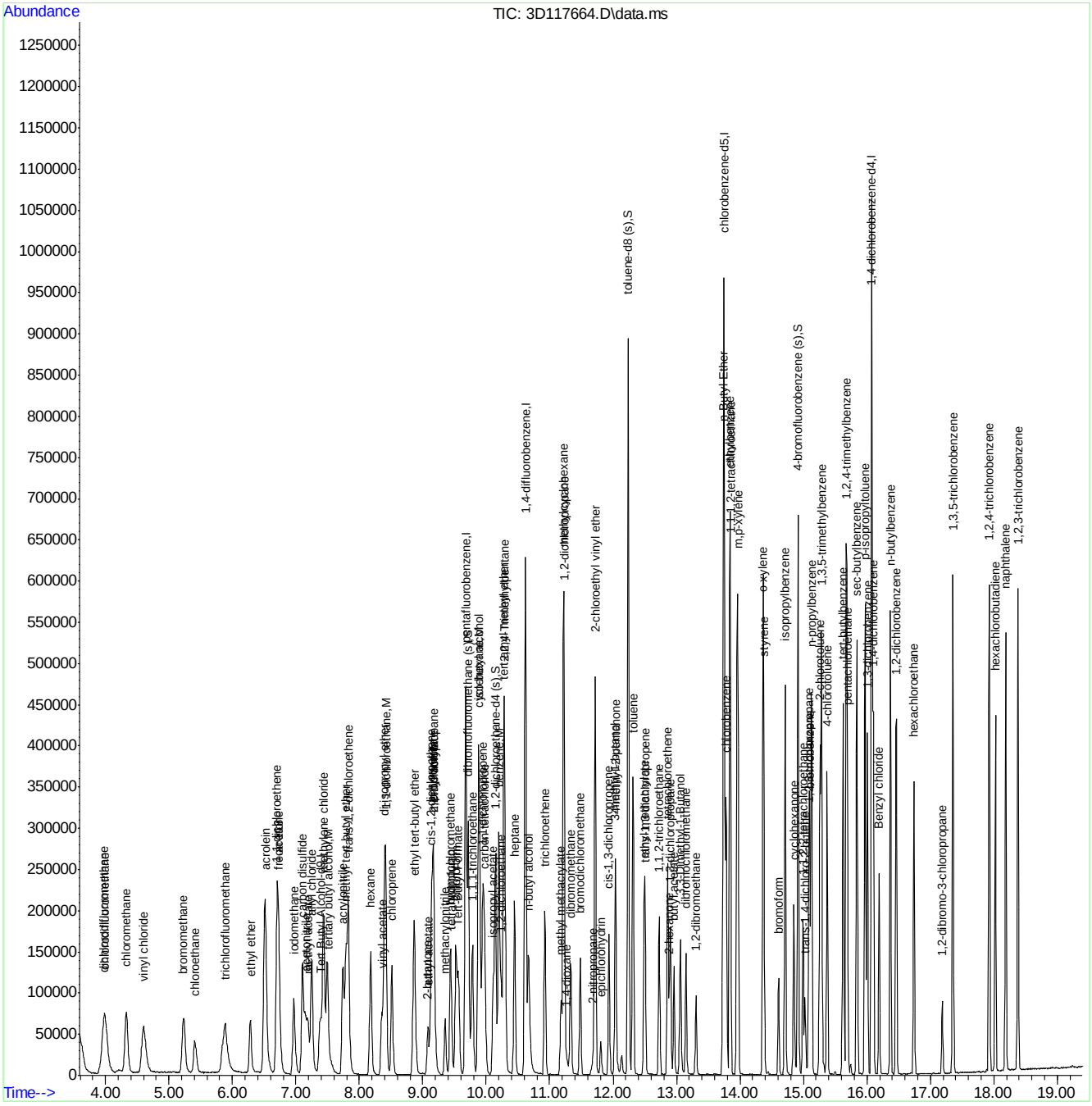
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117664.D
Acq On : 11 Mar 2016 9:53 am
Operator : XimenaC
Sample : cc5030-20
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 15:43:00 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117665.D
Acq On : 11 Mar 2016 10:32 am
Operator : XimenaC
Sample : cc5030-1
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 15:45:15 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.383	65	209258	500.00	ug/L	-0.02
4) pentafluorobenzene	9.679	168	333433	50.00	ug/L	0.00
59) 1,4-difluorobenzene	10.618	114	482876	50.00	ug/L	0.00
89) chlorobenzene-d5	13.748	117	395969	50.00	ug/L	0.00
105) 1,4-dichlorobenzene-d4	16.076	152	235469	50.00	ug/L	0.00
System Monitoring Compounds						
51) dibromofluoromethane (s)	9.716	113	181004	53.00	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.00%			
52) 1,2-dichloroethane-d4 (s)	10.146	65	183922	52.13	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 104.26%			
81) toluene-d8 (s)	12.243	98	519492	48.74	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 97.48%			
107) 4-bromofluorobenzene (s)	14.917	95	178075	47.97	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 95.94%			
Target Compounds						Qvalue
11) chloromethane	4.321	50	7486	0.83	ug/L	87

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

7.6.13

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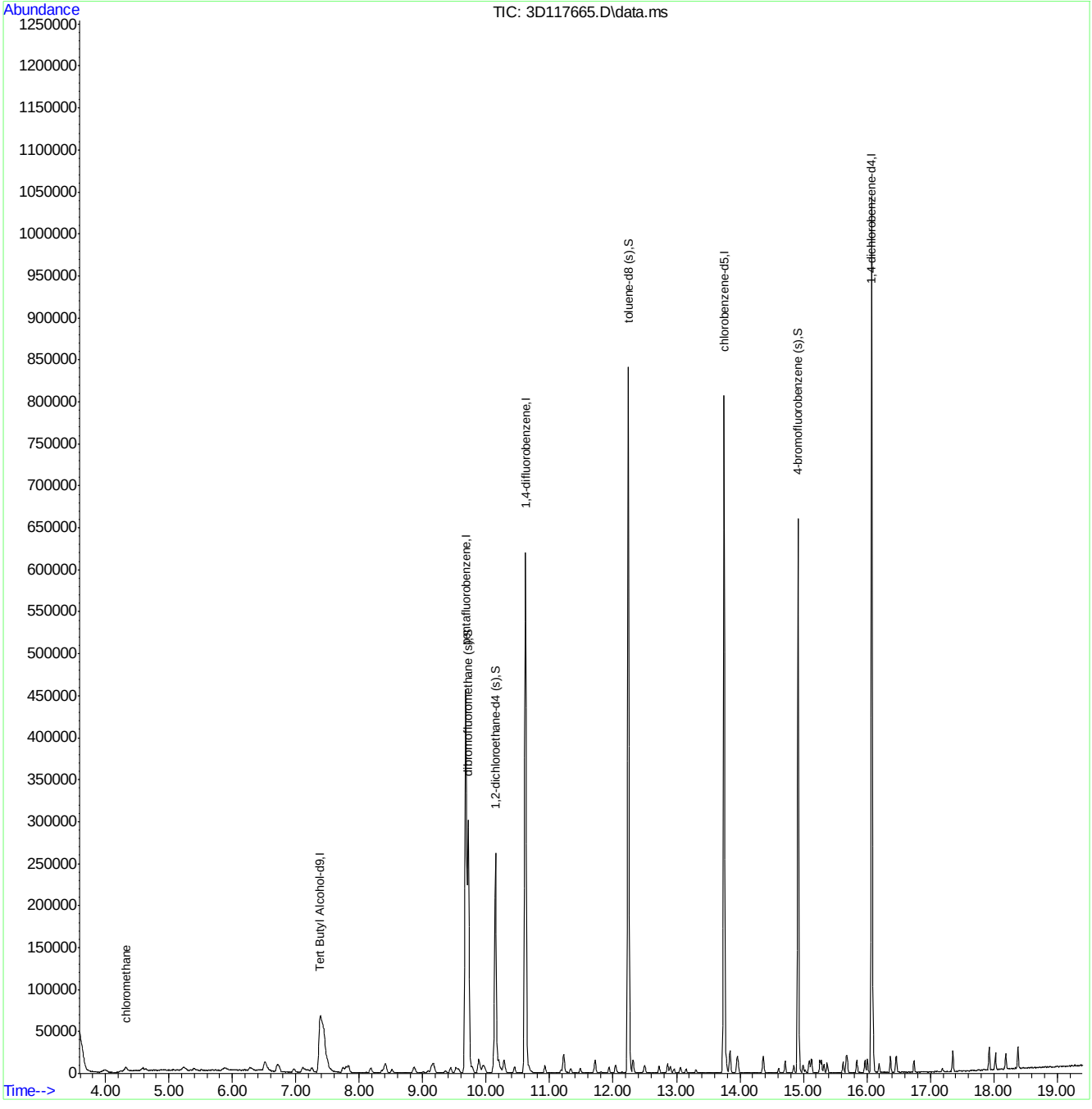
SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3D\v3d5036\
Data File : 3D117665.D
Acq On : 11 Mar 2016 10:32 am
Operator : XimenaC
Sample : cc5030-1
Misc : MS99464,V3D5036,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 15:45:15 2016
Quant Method : C:\msdchem\1\METHODS\M3D5030.M
Quant Title : Method SW846 8260C, RXI 624 60m x 0.25mm x 1.4 um
QLast Update : Thu Mar 10 10:05:01 2016
Response via : Initial Calibration



M3D5030.M Sat Mar 12 17:13:00 2016 RPT1 Page: 2

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3D5030

Print Analyst Name: XIMENA

Date: 3/3/16

Analyst Signature: [illegible]

Columns: Rxi-624 Sil ms (60mx0.25 mm x

Method V8260C

Initial Cal. Method M3D5030

Standard Data

Lot #	Description	Conc.
V015-2258	-109.68 A	100 ppm
V015-2258	-130.58 B	100 ppm
V015-2284	-22.6 C	100 ppm
V015-2258	-116.43 Aux	1000 ppm
V015-2258	-134 I/S	250/2500 ppm

Standard Data

Lot #	Description	Conc.
V015-2258	-108.34 Ext A	100 ppm
V015-2284	-07.5 Ext B	100 ppm
V015-2284	-03.7 Ext C	100 ppm
V015-2258	-141.7 Ext Aux	1000 ppm
V015-2284	-14.11 Hex	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: [signature] **Date:** 3/4/2016

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
	3D 117551	bfb											OK	12:45pm	
	117552	IC 5030-0.2	V8260C AQ ✓				5				✓		OK	1ul A,B,C, Acr → 500 ne	
	117553	IC 5030-0.5	✓				5				✓		OK	2.5 ul A,B,C, Acr → 500 m	
	117554	IC 5030 -1	✓				5				✓		OK	200 ul Acr + 2 ul A,B,C → 20	
	117555	IC 5030 - 2	✓				5				✓		OK	200 ul Acr + 2 ul A,B,C → 100	
	117556	IC 5030 -5	✓				5				✓		OK	5 ul A,B,C, Acr → 100 ne	
	117557	IC 5030 -10	✓				5				✓		OK	5 ul A,B,C, Acr → 50 me	
	117558	IC 5030 -20	✓				5				✓		OK	10 ul A,B,C, Acr → 50 me	
	117559	IC 5030 -50	✓				5				✓		OK	25 ul A,B,C, Acr → 50 me	
	117560	IC 5030 -100	✓				5				✓		OK	1 ul Acr + 50 ul A,B,C → 50	
	117561	IC 5030 -200	✓				5				✓		OK	100 ul A,B,C → 50 me	
	117562	ib					5						✓		
	117563	ib					5						✓		
	117564	ICV 5030-50	✓				5				✓		OK	25 ul Ext (A,B,C, Acr, hex)	→ 50

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: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3D 5036

Print Analyst Name: XIMENA

Analyst Signature: [signature]

Columns: Rxi-624 Sil MS (60mm-0.25 mm x 1.4 µm)

Method V8260C

Initial Cal. Method M3D 5030

Date: 3/11/16

Standard Data

Lot #	Description	Conc.
V016-2284	33.2 A	100 ppm
V016-2284	37.4 B	100 ppm
V016-2284	37.3 C	100 ppm
V016-2284	32.15 Acr	1000 ppm
V015-2284	30 I/S	750/2000 ppm

Standard Data

Lot #	Description	Conc.
V016-2284	31.7 Ext A	100 ppm
V016-2284	07.27 Ext B	100 ppm
V016-2284	38.2 Ext C	100 ppm
V015-2284	141.4 Ext Acr	1000 ppm
V016-2284	41.1 Hex	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. pH paper 216315 exp 6/15/18

Supervisor Signature: [signature] **Date:** 3/15/16

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
	3D117663	bfb											OK	9:02am	
	117664	CC 5030-20					5 5						OK	11 ↓ 20ml Std A B C Acr/100ml	
	117665	CC 5030-1											OK	1 µl Std A B C Acr 1100ml	
	117666	mb					5			+	W		OK		
	117667	bs					5				W		OK	25ml Ext (A B C Acr hex)/50ml	
	117668	ib					5						/		
	117669	JC15883-1	99497 TCL20	GW	12		5		1X		W		OK		✓
	117670	JC15883-2	✓	GW	7		5		1X		W		OK		✓
R	117671	JC15517-5	99329 DTXMT	GW	4		5		1X	+	W		OK	DONT report EPA TCL compounds as TICs VLS	✓
R	117672	JC15517-3	✓	GW	3		5		1X	+	W		OK		✓
	117673	JC15517-2	✓	GW	3		5/10		10X		W		OK	DONT report EPA TCL compounds as TICs VLS	✓
R	117674	JC15517-2	✓	GW	3		5		1X	+	W		OK/DL	✓	✓
	117675	JC15883-1ms	99497 TCL20	GW	10		5		1X		W		OK	25ml Ext (A B C Acr hex)/50ml	✓
	117676	JC15883-1msd	✓	GW	11		5		1X		W		OK		✓
	117677	ib					5				W		/		
	117678	JC15883-5	99497 TCL20	WB	1		5		1X		W		OK		✓
	117679	JC15545-19	99514 TCL42+	SB	2		5		1X	+	W		OK		✓
	117680	JC15913-1	99492 PPTCL42+	EF	4		5		1X	+	W		OK	VMS+ MPXYL, NAP, OXYL, TBA	✓

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: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3D5036

Print Analyst Name: XIMENA

Analyst Signature: [illegible]

Columns: Rxi-624 Sil MS (60mx0.25mmx1.4 um)

Method V8260C

Initial Cal. Method M3D5030

Date: 3/11/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Sel 19	
	267	

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:** 3/16/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
OK	3D117681	JC15913-1	99492 PPTCL42+	EF	4		5/50		10X		✓	✓	OK	VMS+ MPXYL, NAP, OXYL, TBA	✓
	117682	JC15883-3	99497 TCLW	GW	7		5		1X		✓	✓	OK		✓
	117683	JC15883-4	✓	GW	7		5		1X		✓	✓	OK		✓
	117684	JC15981-9	99547 MDVO	GW	6		5		1X		✓	✓	OK		✓
	117685	JC15981-11	✓	GW	6		5		1X		✓	✓	OK		
	117686	JC15981-10	✓	GW	4		5		1X		✓	✓	OK	8:17PM	✓
	117687	bfb2											NOT USED		
	117688	CC5030-50					5						NG	Gases ↓	
	117689	IB											NOT USED		
	117689A	~~Rerun~~ ~~IB~~ BFB2					5						OK		
	117690	CC5030-50											OK	Acrolein ↑ 25ul Std ABC Acn / Done	
	117690A	~~Rerun~~ ~~bfb2~~ IB					5								
	117691	MB2	99498 PPL+10	WB	3		5		1X	+	✓	✓	OK		✓
	117691A	JC15923-6								+	✓	✓	OK		
	117692	JC15923-7	✓	WB	1		5		1X	+	✓	✓	OK		✓
	117693	JC15923-4	✓	GW	4		5		1X	+	✓	✓	OK		✓
	117694	JC15923-3	✓	GW	3		5		1X	+	✓	✓	OK		✓
	117695	JC15923-2	✓	GW	4		5		1X	+	✓	✓	OK		✓
	117696	JC15923-1	✓	GW	3		5		1X	+	✓	✓	OK		✓
	117697	JC15923-5	✓	GW	3		5		1X	+	✓	✓	OK		✓

XC 3/11/16

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

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Form: OR001-9
Rev. Date: 2/14/2007

7.7.2

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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: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-MB1	P103271.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	

Method Blank Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-MB1	P103271.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.72	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

Method Blank Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-MB1	P103271.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	67%	14-88%
4165-62-2	Phenol-d5	46%	10-110%
118-79-6	2,4,6-Tribromophenol	101%	39-149%
4165-60-0	Nitrobenzene-d5	103%	32-128%
321-60-8	2-Fluorobiphenyl	96%	35-119%
1718-51-0	Terphenyl-d14	98%	10-126%

Method Blank Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987A-MB1	4P15573.D	1	03/14/16	AD	03/11/16	OP91987A	E4P800

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	99%	24-125%
321-60-8	2-Fluorobiphenyl	86%	19-127%
1718-51-0	Terphenyl-d14	96%	10-119%

Method Blank Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987A-MB1	4M64070.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	87%	24-125%
321-60-8	2-Fluorobiphenyl	64%	19-127%
1718-51-0	Terphenyl-d14	80%	10-119%

Blank Spike Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-BS1	P103272.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	37.4	75	48-106
59-50-7	4-Chloro-3-methyl phenol	50	43.2	86	49-113
120-83-2	2,4-Dichlorophenol	50	41.3	83	49-111
105-67-9	2,4-Dimethylphenol	50	43.8	88	42-117
51-28-5	2,4-Dinitrophenol	100	73.1	73	37-132
534-52-1	4,6-Dinitro-o-cresol	50	37.5	75	49-119
95-48-7	2-Methylphenol	50	35.4	71	42-103
	3&4-Methylphenol	50	33.4	67	39-110
88-75-5	2-Nitrophenol	50	42.4	85	49-114
100-02-7	4-Nitrophenol	50	25.5	51	16-95
87-86-5	Pentachlorophenol	50	38.4	77	30-136
108-95-2	Phenol	50	20.3	41	10-110
58-90-2	2,3,4,6-Tetrachlorophenol	50	39.8	80	47-118
95-95-4	2,4,5-Trichlorophenol	50	41.4	83	55-116
88-06-2	2,4,6-Trichlorophenol	50	41.2	82	56-115
83-32-9	Acenaphthene	50	35.7	71	54-112
208-96-8	Acenaphthylene	50	34.5	69	49-99
98-86-2	Acetophenone	50	39.0	78	52-111
120-12-7	Anthracene	50	39.7	79	58-112
1912-24-9	Atrazine	50	40.3	81	62-134
100-52-7	Benzaldehyde	50	37.3	75	40-129
56-55-3	Benzo(a)anthracene	50	42.1	84	44-120
50-32-8	Benzo(a)pyrene	50	41.9	84	41-127
205-99-2	Benzo(b)fluoranthene	50	41.5	83	41-129
191-24-2	Benzo(g,h,i)perylene	50	38.9	78	34-128
207-08-9	Benzo(k)fluoranthene	50	40.6	81	42-122
101-55-3	4-Bromophenyl phenyl ether	50	39.5	79	54-121
85-68-7	Butyl benzyl phthalate	50	45.3	91	20-143
92-52-4	1,1'-Biphenyl	50	36.2	72	51-106
91-58-7	2-Chloronaphthalene	50	31.7	63	48-104
106-47-8	4-Chloroaniline	50	26.3	53	10-110
86-74-8	Carbazole	50	41.8	84	56-110
105-60-2	Caprolactam	50	12.6	25	10-110
218-01-9	Chrysene	50	40.1	80	45-125
111-91-1	bis(2-Chloroethoxy)methane	50	40.1	80	47-117
111-44-4	bis(2-Chloroethyl)ether	50	39.0	78	48-115

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-BS1	P103272.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-60-1	bis(2-Chloroisopropyl)ether	50	24.2	48	44-112
7005-72-3	4-Chlorophenyl phenyl ether	50	35.0	70	50-117
121-14-2	2,4-Dinitrotoluene	50	34.4	69	57-122
606-20-2	2,6-Dinitrotoluene	50	41.6	83	58-122
91-94-1	3,3'-Dichlorobenzidine	100	42.1	42	10-110
123-91-1	1,4-Dioxane	50	21.5	43	10-110
53-70-3	Dibenzo(a,h)anthracene	50	41.6	83	36-130
132-64-9	Dibenzofuran	50	38.5	77	55-108
84-74-2	Di-n-butyl phthalate	50	44.3	89	45-123
117-84-0	Di-n-octyl phthalate	50	37.7	75	37-144
84-66-2	Diethyl phthalate	50	39.0	78	23-130
131-11-3	Dimethyl phthalate	50	38.4	77	10-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	37.5	75	36-138
206-44-0	Fluoranthene	50	41.5	83	58-116
86-73-7	Fluorene	50	36.9	74	57-113
118-74-1	Hexachlorobenzene	50	37.1	74	49-122
87-68-3	Hexachlorobutadiene	50	28.1	56	24-112
77-47-4	Hexachlorocyclopentadiene	100	50.4	50	14-119
67-72-1	Hexachloroethane	50	27.2	54	31-107
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.3	83	34-128
78-59-1	Isophorone	50	43.6	87	52-119
90-12-0	1-Methylnaphthalene	50	36.7	73	46-103
91-57-6	2-Methylnaphthalene	50	37.2	74	45-107
88-74-4	2-Nitroaniline	50	44.8	90	51-127
99-09-2	3-Nitroaniline	50	32.4	65	10-110
100-01-6	4-Nitroaniline	50	41.7	83	50-112
91-20-3	Naphthalene	50	33.9	68	40-102
98-95-3	Nitrobenzene	50	38.4	77	44-116
621-64-7	N-Nitroso-di-n-propylamine	50	37.8	76	49-117
86-30-6	N-Nitrosodiphenylamine	50	39.0	78	51-113
85-01-8	Phenanthrene	50	39.1	78	56-111
129-00-0	Pyrene	50	41.6	83	47-120
95-94-3	1,2,4,5-Tetrachlorobenzene	50	28.1	56	36-114

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-BS1	P103272.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	54%	14-88%
4165-62-2	Phenol-d5	37%	10-110%
118-79-6	2,4,6-Tribromophenol	83%	39-149%
4165-60-0	Nitrobenzene-d5	79%	32-128%
321-60-8	2-Fluorobiphenyl	75%	35-119%
1718-51-0	Terphenyl-d14	81%	10-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987A-BS12	4P15574.D	1	03/14/16	AD	03/11/16	OP91987A	E4P800

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-20-3	Naphthalene	1	0.878	88	40-119
123-91-1	1,4-Dioxane	1	0.463	46	20-160

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	92%	24-125%
321-60-8	2-Fluorobiphenyl	87%	19-127%
1718-51-0	Terphenyl-d14	88%	10-119%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987A-BS12	4M64071.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-20-3	Naphthalene	1	0.791	79	40-119
123-91-1	1,4-Dioxane	1	0.516	52	20-160

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	81%	24-125%
321-60-8	2-Fluorobiphenyl	61%	19-127%
1718-51-0	Terphenyl-d14	75%	10-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-MS	P103281.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
OP91987-MSD	P103282.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
JC15883-1	P103277.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	JC15883-1 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		101	91.8	91	101	92.1	91	0	49-110/20
59-50-7	4-Chloro-3-methyl phenol	ND		101	103	102	101	103	102	0	44-121/18
120-83-2	2,4-Dichlorophenol	ND		101	100	99	101	100	99	0	42-120/19
105-67-9	2,4-Dimethylphenol	ND		101	105	104	101	105	104	0	33-132/23
51-28-5	2,4-Dinitrophenol	ND		202	194	96	202	200	99	3	21-145/26
534-52-1	4,6-Dinitro-o-cresol	ND		101	95.4	94	101	95.7	95	0	25-134/27
95-48-7	2-Methylphenol	ND		101	92.1	91	101	94.2	93	2	47-112/18
	3&4-Methylphenol	ND		101	90.7	90	101	93.1	92	3	44-113/19
88-75-5	2-Nitrophenol	ND		101	102	101	101	102	101	0	45-118/20
100-02-7	4-Nitrophenol	ND		101	89.7	89	101	89.7	89	0	23-144/28
87-86-5	Pentachlorophenol	ND		101	98.8	98	101	99.4	98	1	25-151/25
108-95-2	Phenol	ND		101	70.3	70	101	70.8	70	1	22-100/22
58-90-2	2,3,4,6-Tetrachlorophenol	ND		101	99.5	99	101	98.6	98	1	44-122/21
95-95-4	2,4,5-Trichlorophenol	ND		101	100	99	101	99.6	99	0	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND		101	99.4	98	101	101	100	2	53-120/21
83-32-9	Acenaphthene	ND		101	88.9	88	101	89.3	88	0	52-120/23
208-96-8	Acenaphthylene	ND		101	86.7	86	101	85.1	84	2	50-101/22
98-86-2	Acetophenone	ND		101	92.1	91	101	91.7	91	0	31-141/23
120-12-7	Anthracene	ND		101	96.5	96	101	95.9	95	1	54-117/22
1912-24-9	Atrazine	ND		101	98.3	97	101	96.2	95	2	42-152/23
100-52-7	Benzaldehyde	ND		101	87.1	86	101	87.4	87	0	10-164/30
56-55-3	Benzo(a)anthracene	ND		101	102	101	101	101	100	1	40-123/24
50-32-8	Benzo(a)pyrene	ND		101	98.8	98	101	98.2	97	1	41-127/25
205-99-2	Benzo(b)fluoranthene	ND		101	96.5	96	101	98.2	97	2	39-127/27
191-24-2	Benzo(g,h,i)perylene	ND		101	90.7	90	101	88.4	88	3	34-128/28
207-08-9	Benzo(k)fluoranthene	ND		101	98.0	97	101	94.5	94	4	39-122/26
101-55-3	4-Bromophenyl phenyl ether	ND		101	99.7	99	101	100	99	0	51-124/23
85-68-7	Butyl benzyl phthalate	ND		101	110	109	101	110	109	0	21-146/28
92-52-4	1,1'-Biphenyl	ND		101	86.3	85	101	84.8	84	2	27-142/23
91-58-7	2-Chloronaphthalene	ND		101	81.5	81	101	82.8	82	2	51-109/23
106-47-8	4-Chloroaniline	ND		101	56.5	56	101	54.0	53	5	10-110/55
86-74-8	Carbazole	ND		101	99.3	98	101	98.7	98	1	52-116/22
105-60-2	Caprolactam	ND		101	53.9	53	101	55.2	55	2	10-106/34
218-01-9	Chrysene	ND		101	96.1	95	101	95.7	95	0	41-128/24
111-91-1	bis(2-Chloroethoxy)methane	ND		101	94.2	93	101	95.4	94	1	46-120/24
111-44-4	bis(2-Chloroethyl)ether	ND		101	92.0	91	101	91.6	91	0	42-123/28

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-MS	P103281.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
OP91987-MSD	P103282.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
JC15883-1	P103277.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	JC15883-1 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		101	59.1	59	101	60.6	60	3	41-117/25
7005-72-3	4-Chlorophenyl phenyl ether	ND		101	88.7	88	101	88.1	87	1	48-121/21
121-14-2	2,4-Dinitrotoluene	ND		101	86.2	85	101	84.5	84	2	54-123/27
606-20-2	2,6-Dinitrotoluene	ND		101	101	100	101	102	101	1	55-125/26
91-94-1	3,3'-Dichlorobenzidine	ND		202	111	55	202	112	55	1	10-107/47
123-91-1	1,4-Dioxane	5.4		101	65.3	59	101	64.7	59	1	10-119/31
53-70-3	Dibenzo(a,h)anthracene	ND		101	96.9	96	101	95.8	95	1	35-130/27
132-64-9	Dibenzofuran	ND		101	89.9	89	101	89.5	89	0	53-112/22
84-74-2	Di-n-butyl phthalate	ND		101	107	106	101	106	105	1	38-129/23
117-84-0	Di-n-octyl phthalate	ND		101	94.6	94	101	93.7	93	1	35-145/26
84-66-2	Diethyl phthalate	ND		101	92.8	92	101	92.0	91	1	16-136/30
131-11-3	Dimethyl phthalate	ND		101	92.4	91	101	91.2	90	1	10-143/39
117-81-7	bis(2-Ethylhexyl)phthalate	ND		101	92.6	92	101	93.0	92	0	34-141/28
206-44-0	Fluoranthene	ND		101	99.8	99	101	98.3	97	2	47-123/24
86-73-7	Fluorene	ND		101	92.0	91	101	90.9	90	1	56-117/22
118-74-1	Hexachlorobenzene	ND		101	91.5	91	101	91.3	90	0	46-125/24
87-68-3	Hexachlorobutadiene	ND		101	73.5	73	101	78.0	77	6	26-121/24
77-47-4	Hexachlorocyclopentadiene	ND		202	137	68	202	140	69	2	10-133/31
67-72-1	Hexachloroethane	ND		101	72.6	72	101	78.0	77	7	35-111/26
193-39-5	Indeno(1,2,3-cd)pyrene	ND		101	98.1	97	101	95.5	95	3	32-130/30
78-59-1	Isophorone	ND		101	103	102	101	103	102	0	47-126/23
90-12-0	1-Methylnaphthalene	ND		101	88.3	87	101	88.9	88	1	34-124/25
91-57-6	2-Methylnaphthalene	ND		101	87.2	86	101	88.2	87	1	34-123/24
88-74-4	2-Nitroaniline	ND		101	107	106	101	106	105	1	46-137/23
99-09-2	3-Nitroaniline	ND		101	67.8	67	101	65.7	65	3	10-110/50
100-01-6	4-Nitroaniline	ND		101	98.3	97	101	94.2	93	4	38-118/25
91-20-3	Naphthalene	ND		101	85.3	84	101	86.2	85	1	30-121/23
98-95-3	Nitrobenzene	ND		101	91.1	90	101	90.3	89	1	35-130/25
621-64-7	N-Nitroso-di-n-propylamine	ND		101	91.3	90	101	92.2	91	1	45-123/22
86-30-6	N-Nitrosodiphenylamine	ND		101	96.7	96	101	96.3	95	0	46-123/24
85-01-8	Phenanthrene	ND		101	94.8	94	101	93.9	93	1	48-121/23
129-00-0	Pyrene	ND		101	102	101	101	102	101	0	43-124/26
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		101	75.3	75	101	76.0	75	1	25-142/24

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987-MS	P103281.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
OP91987-MSD	P103282.D	1	03/11/16	LK	03/11/16	OP91987	EP4536
JC15883-1	P103277.D	1	03/11/16	LK	03/11/16	OP91987	EP4536

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Surrogate Recoveries	MS	MSD	JC15883-1	Limits
367-12-4	2-Fluorophenol	80%	82%	61%	14-88%
4165-62-2	Phenol-d5	67%	68%	44%	10-110%
118-79-6	2,4,6-Tribromophenol	102%	106%	104%	39-149%
4165-60-0	Nitrobenzene-d5	92%	93%	98%	32-128%
321-60-8	2-Fluorobiphenyl	88%	88%	93%	35-119%
1718-51-0	Terphenyl-d14	96%	97%	91%	10-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91987A-MS	4M64075.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841
OP91987A-MSD	4M64076.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841
JC15883-1	4M64079.D	1	03/15/16	LK	03/11/16	OP91987A	E4M2841

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

JC15883-1, JC15883-2, JC15883-3, JC15883-4

CAS No.	Compound	JC15883-1 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	1.83	92	2	1.89	95	3	23-140/36
123-91-1	1,4-Dioxane	5.00		2	5.87	44	2	6.76	88	14	20-160/30

CAS No.	Surrogate Recoveries	MS	MSD	JC15883-1	Limits
4165-60-0	Nitrobenzene-d5	78%	83%	92%	24-125%
321-60-8	2-Fluorobiphenyl	57%	62%	67%	19-127%
1718-51-0	Terphenyl-d14	74%	74%	80%	10-119%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: E4M2828-DFTPP
Lab File ID: 4M63800.D
Instrument ID: GCMS4M
Injection Date: 02/29/16
Injection Time: 15:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	194405	32.8		Pass
68	Less than 2.0% of mass 69	2903	0.49	(1.21) [a]	Pass
69	Mass 69 relative abundance	240415	40.5		Pass
70	Less than 2.0% of mass 69	1258	0.21	(0.52) [a]	Pass
127	40.0 - 60.0% of mass 198	300819	50.7		Pass
197	Less than 1.0% of mass 198	2515	0.42		Pass
198	Base peak, 100% relative abundance	593003	100.0		Pass
199	5.0 - 9.0% of mass 198	39222	6.61		Pass
275	10.0 - 30.0% of mass 198	119693	20.2		Pass
365	1.0 - 100.0% of mass 198	17294	2.92		Pass
441	Present, but less than mass 443	73077	12.3	(78.9) [b]	Pass
442	40.0 - 100.0% of mass 198	502827	84.8		Pass
443	17.0 - 23.0% of mass 442	92581	15.6	(18.4) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4M2828-ICC2828	4M63805.D	02/29/16	16:57	01:13	Initial cal 1
E4M2828-IC2828	4M63806.D	02/29/16	17:30	01:46	Initial cal 0.5
E4M2828-IC2828	4M63807.D	02/29/16	18:03	02:19	Initial cal 0.2
E4M2828-IC2828	4M63808.D	02/29/16	18:35	02:51	Initial cal 0.1
E4M2828-IC2828	4M63809.D	02/29/16	19:06	03:22	Initial cal 0.05
E4M2828-IC2828	4M63810.D	02/29/16	19:38	03:54	Initial cal 0.02
E4M2828-IC2828	4M63811.D	02/29/16	20:10	04:26	Initial cal 0.01
E4M2828-IC2828	4M63812.D	02/29/16	20:41	04:57	Initial cal 5.0
E4M2828-IC2828	4M63813.D	02/29/16	21:12	05:28	Initial cal 2.5
E4M2828-ICV2828	4M63814.D	02/29/16	21:43	05:59	Initial cal verification 1.0
E4M2828-ICV2828	4M63815.D	02/29/16	22:14	06:30	Initial cal verification 1.0
E4M2828-ICV2828	4M63816.D	02/29/16	22:45	07:01	Initial cal verification 1.0

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: E4M2841-DFTPP
Lab File ID: 4M64066.D
Instrument ID: GCMS4M
Injection Date: 03/15/16
Injection Time: 08:51

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	221971	36.6		Pass
68	Less than 2.0% of mass 69	3010	0.50	(1.14) [a]	Pass
69	Mass 69 relative abundance	264069	43.5		Pass
70	Less than 2.0% of mass 69	1723	0.28	(0.65) [a]	Pass
127	40.0 - 60.0% of mass 198	313173	51.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	606869	100.0		Pass
199	5.0 - 9.0% of mass 198	40109	6.61		Pass
275	10.0 - 30.0% of mass 198	114771	18.9		Pass
365	1.0 - 100.0% of mass 198	16891	2.78		Pass
441	Present, but less than mass 443	67909	11.2	(76.9) [b]	Pass
442	40.0 - 100.0% of mass 198	468459	77.2		Pass
443	17.0 - 23.0% of mass 442	88336	14.6	(18.9) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4M2841-CC2828	4M64067.D	03/15/16	09:01	00:10	Continuing cal 1
OP92075A-MB1	4M64068.D	03/15/16	09:31	00:40	Method Blank
OP92075A-BS12	4M64069.D	03/15/16	10:01	01:10	Blank Spike
OP91987A-MB1	4M64070.D	03/15/16	10:31	01:40	Method Blank
OP91987A-BS12	4M64071.D	03/15/16	11:01	02:10	Blank Spike
ZZZZZZ	4M64077.D	03/15/16	11:31	02:40	(unrelated sample)
ZZZZZZ	4M64078.D	03/15/16	12:01	03:10	(unrelated sample)
JC12475-74	4M64072.D	03/15/16	12:31	03:40	(used for QC only; not part of job JC15883)
OP92075A-MS	4M64073.D	03/15/16	13:01	04:10	Matrix Spike
OP92075A-MSD	4M64074.D	03/15/16	13:31	04:40	Matrix Spike Duplicate
OP91987A-MS	4M64075.D	03/15/16	14:01	05:10	Matrix Spike
OP91987A-MSD	4M64076.D	03/15/16	14:31	05:40	Matrix Spike Duplicate
JC15883-1	4M64079.D	03/15/16	15:01	06:10	MW-15
JC15883-2	4M64080.D	03/15/16	15:31	06:40	MW-17
JC15883-3	4M64081.D	03/15/16	16:01	07:10	MW-14
JC15883-4	4M64082.D	03/15/16	16:31	07:40	MW-18
ZZZZZZ	4M64083.D	03/15/16	17:01	08:10	(unrelated sample)
ZZZZZZ	4M64084.D	03/15/16	17:31	08:40	(unrelated sample)
ZZZZZZ	4M64085.D	03/15/16	18:01	09:10	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: E4M2841-DFTPP
Lab File ID: 4M64066.D
Instrument ID: GCMS4M
Injection Date: 03/15/16
Injection Time: 08:51

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	4M64086.D	03/15/16	18:31	09:40	(unrelated sample)
ZZZZZZ	4M64087.D	03/15/16	19:01	10:10	(unrelated sample)
ZZZZZZ	4M64088.D	03/15/16	19:31	10:40	(unrelated sample)
ZZZZZZ	4M64089.D	03/15/16	20:01	11:10	(unrelated sample)
ZZZZZZ	4M64090.D	03/15/16	20:31	11:40	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: E4P767-DFTPP
Lab File ID: 4P14945.D
Instrument ID: GCMS4P
Injection Date: 02/01/16
Injection Time: 16:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	44967	42.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	59960	56.0		Pass
70	Less than 2.0% of mass 69	24	0.02	(0.04) [a]	Pass
127	40.0 - 60.0% of mass 198	50540	47.2		Pass
197	Less than 1.0% of mass 198	542	0.51		Pass
198	Base peak, 100% relative abundance	106984	100.0		Pass
199	5.0 - 9.0% of mass 198	7920	7.40		Pass
275	10.0 - 30.0% of mass 198	27999	26.2		Pass
365	1.0 - 100.0% of mass 198	3301	3.09		Pass
441	Present, but less than mass 443	13533	12.6	(73.8) [b]	Pass
442	40.0 - 100.0% of mass 198	93328	87.2		Pass
443	17.0 - 23.0% of mass 442	18332	17.1	(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
E4P767-IC767	4P14948.D	02/01/16	17:52	01:46	Initial cal 0.5
E4P767-ICC767	4P14949.D	02/01/16	18:22	02:16	Initial cal 1.0
E4P767-IC767	4P14950.D	02/01/16	18:52	02:46	Initial cal 0.2
E4P767-IC767	4P14951.D	02/01/16	19:22	03:16	Initial cal 0.1
E4P767-IC767	4P14952.D	02/01/16	19:53	03:47	Initial cal 0.05
E4P767-IC767	4P14953.D	02/01/16	20:23	04:17	Initial cal 0.02
E4P767-IC767	4P14954.D	02/01/16	20:53	04:47	Initial cal 0.01
E4P767-IC767	4P14955.D	02/01/16	21:23	05:17	Initial cal 5
E4P767-IC767	4P14956.D	02/01/16	21:54	05:48	Initial cal 2.5
E4P767-ICV767	4P14957.D	02/01/16	22:24	06:18	Initial cal verification 1.0
E4P767-ICV767	4P14958.D	02/01/16	22:54	06:48	Initial cal verification 1.0
E4P767-ICV767	4P14959.D	02/01/16	23:24	07:18	Initial cal verification 1.0

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: E4P800-DFTPP
Lab File ID: 4P15552.D
Instrument ID: GCMS4P
Injection Date: 03/14/16
Injection Time: 09:02

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	33826	41.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	45329	55.8		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	41098	50.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	81229	100.0		Pass
199	5.0 - 9.0% of mass 198	5883	7.24		Pass
275	10.0 - 30.0% of mass 198	20693	25.5		Pass
365	1.0 - 100.0% of mass 198	2266	2.79		Pass
441	Present, but less than mass 443	9883	12.2	(71.3) [b]	Pass
442	40.0 - 100.0% of mass 198	68060	83.8		Pass
443	17.0 - 23.0% of mass 442	13852	17.1	(20.4) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4P800-CC767	4P15553.D	03/14/16	09:13	00:11	Continuing cal .5
ZZZZZZ	4P15554.D	03/14/16	09:50	00:48	(unrelated sample)
ZZZZZZ	4P15555.D	03/14/16	10:19	01:17	(unrelated sample)
OP91989A-MB1	4P15565.D	03/14/16	10:48	01:46	Method Blank
OP91989A-LB30	4P15566.D	03/14/16	11:18	02:16	Leachate Blank
OP91989A-BS12	4P15567.D	03/14/16	11:47	02:45	Blank Spike
JC14962-3R	4P15568.D	03/14/16	12:16	03:14	(used for QC only; not part of job JC15883)
ZZZZZZ	4P15569.D	03/14/16	12:46	03:44	(unrelated sample)
ZZZZZZ	4P15570.D	03/14/16	13:15	04:13	(unrelated sample)
OP91989A-MS	4P15571.D	03/14/16	13:45	04:43	Matrix Spike
OP91989A-LS16	4P15571.D	03/14/16	13:45	04:43	Leachate Spike
OP91989A-MSD	4P15572.D	03/14/16	14:14	05:12	Matrix Spike Duplicate
ZZZZZZ	4P15556.D	03/14/16	14:43	05:41	(unrelated sample)
ZZZZZZ	4P15557.D	03/14/16	15:13	06:11	(unrelated sample)
ZZZZZZ	4P15558.D	03/14/16	15:42	06:40	(unrelated sample)
OP91987A-MB1	4P15573.D	03/14/16	16:12	07:10	Method Blank
OP91987A-BS12	4P15574.D	03/14/16	16:42	07:40	Blank Spike
ZZZZZZ	4P15575.D	03/14/16	17:11	08:09	(unrelated sample)
ZZZZZZ	4P15576.D	03/14/16	17:41	08:39	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: E4P800-DFTPP
Lab File ID: 4P15552.D
Instrument ID: GCMS4P
Injection Date: 03/14/16
Injection Time: 09:02

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	4P15577.D	03/14/16	18:10	09:08	(unrelated sample)
ZZZZZZ	4P15578.D	03/14/16	18:39	09:37	(unrelated sample)
ZZZZZZ	4P15579.D	03/14/16	19:09	10:07	(unrelated sample)
ZZZZZZ	4P15559.D	03/14/16	19:38	10:36	(unrelated sample)
ZZZZZZ	4P15560.D	03/14/16	20:08	11:06	(unrelated sample)
ZZZZZZ	4P15561.D	03/14/16	20:37	11:35	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: EP4514-DFTPP
Lab File ID: P102786.D
Instrument ID: GCMSP
Injection Date: 02/24/16
Injection Time: 01:55

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	18668	34.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	23706	44.0		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	30563	56.7		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	53930	100.0		Pass
199	5.0 - 9.0% of mass 198	3929	7.29		Pass
275	10.0 - 30.0% of mass 198	11130	20.6		Pass
365	1.0 - 100.0% of mass 198	1487	2.76		Pass
441	Present, but less than mass 443	6594	12.2	(77.6) [b]	Pass
442	40.0 - 100.0% of mass 198	42661	79.1		Pass
443	17.0 - 23.0% of mass 442	8492	15.7	(19.9) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP4514-IC4514	P102787.D	02/24/16	02:07	00:12	Initial cal 100
EP4514-IC4514	P102788.D	02/24/16	02:36	00:41	Initial cal 80
EP4514-IC4514	P102789.D	02/24/16	03:06	01:11	Initial cal 10
EP4514-IC4514	P102790.D	02/24/16	03:35	01:40	Initial cal 5
EP4514-IC4514	P102791.D	02/24/16	04:05	02:10	Initial cal 2
EP4514-IC4514	P102792.D	02/24/16	04:34	02:39	Initial cal 1
EP4514-IC4514	P102793.D	02/24/16	05:04	03:09	Initial cal 25
EP4514-ICC4514	P102794.D	02/24/16	05:33	03:38	Initial cal 50
EP4514-ICV4513	P102795.D	02/24/16	06:02	04:07	Initial cal verification 50
EP4514-ICV4513	P102796.D	02/24/16	06:32	04:37	Initial cal verification 50
EP4514-ICV4513	P102797.D	02/24/16	07:01	05:06	Initial cal verification 50
EP4514-ICV4514	P102798A.D	02/24/16	07:31	05:36	Initial cal verification 50
EP4514-ICV4513	P102798.D	02/24/16	07:31	05:36	Initial cal verification 50
EP4514-ICV4513	P102799.D	02/24/16	08:00	06:05	Initial cal verification 50
EP4514-ICV4514	P102799A.D	02/24/16	08:00	06:05	Initial cal verification 50
EP4514-ICV4514	P102800.D	02/24/16	08:29	06:34	Initial cal verification 50
EP4514-ICV4514	P102801A.D	02/24/16	08:58	07:03	Initial cal verification 50
EP4514-ICV4513	P102801.D	02/24/16	08:58	07:03	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: EP4524-DFTPP
Lab File ID: P103010.D
Instrument ID: GCMSP
Injection Date: 03/02/16
Injection Time: 16:56

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	29961	34.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	38523	44.2		Pass
70	Less than 2.0% of mass 69	119	0.14	(0.31) [a]	Pass
127	40.0 - 60.0% of mass 198	48031	55.2		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	87088	100.0		Pass
199	5.0 - 9.0% of mass 198	5993	6.88		Pass
275	10.0 - 30.0% of mass 198	19109	21.9		Pass
365	1.0 - 100.0% of mass 198	2328	2.67		Pass
441	Present, but less than mass 443	9869	11.3	(79.2) [b]	Pass
442	40.0 - 100.0% of mass 198	65456	75.2		Pass
443	17.0 - 23.0% of mass 442	12454	14.3	(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
EP4524-IC4524	P103011.D	03/02/16	17:10	00:14	Initial cal 100
EP4524-IC4524	P103012.D	03/02/16	17:40	00:44	Initial cal 80
EP4524-IC4524	P103013.D	03/02/16	18:09	01:13	Initial cal 10
EP4524-IC4524	P103014.D	03/02/16	18:39	01:43	Initial cal 5
EP4524-IC4524	P103015.D	03/02/16	19:08	02:12	Initial cal 2
EP4524-IC4524	P103016.D	03/02/16	19:37	02:41	Initial cal 1
EP4524-ICC4524	P103017.D	03/02/16	20:06	03:10	Initial cal 50
EP4524-IC4524	P103018.D	03/02/16	20:36	03:40	Initial cal 25
EP4524-ICV4524	P103019.D	03/02/16	21:05	04:09	Initial cal verification 50
EP4524-ICV4524	P103020.D	03/02/16	21:34	04:38	Initial cal verification 50
EP4524-ICV4524	P103021.D	03/02/16	22:03	05:07	Initial cal verification 50
EP4524-ICV4524	P103022.D	03/02/16	22:32	05:36	Initial cal verification 50
EP4524-ICV4524	P103023.D	03/02/16	23:02	06:06	Initial cal verification 50
EP4524-ICV4524	P103024.D	03/02/16	23:31	06:35	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: EP4536-DFTPP
Lab File ID: P103268.D
Instrument ID: GCMSP
Injection Date: 03/11/16
Injection Time: 11:26

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	34212	40.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	43370	51.5		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	48533	57.6		Pass
197	Less than 1.0% of mass 198	125	0.15		Pass
198	Base peak, 100% relative abundance	84210	100.0		Pass
199	5.0 - 9.0% of mass 198	5653	6.71		Pass
275	10.0 - 30.0% of mass 198	17119	20.3		Pass
365	1.0 - 100.0% of mass 198	2035	2.42		Pass
441	Present, but less than mass 443	8407	9.98	(75.8) [b]	Pass
442	40.0 - 100.0% of mass 198	55311	65.7		Pass
443	17.0 - 23.0% of mass 442	11088	13.2	(20.0) [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
EP4536-CC4524	P103269.D	03/11/16	11:39	00:13	Continuing cal 25
EP4536-CC4514	P103270.D	03/11/16	12:10	00:44	Continuing cal 25
OP91987-MB1	P103271.D	03/11/16	13:03	01:37	Method Blank
OP91987-BS1	P103272.D	03/11/16	13:32	02:06	Blank Spike
ZZZZZZ	P103273.D	03/11/16	14:01	02:35	(unrelated sample)
ZZZZZZ	P103274.D	03/11/16	14:30	03:04	(unrelated sample)
ZZZZZZ	P103275.D	03/11/16	14:59	03:33	(unrelated sample)
ZZZZZZ	P103276.D	03/11/16	15:27	04:01	(unrelated sample)
JC15883-1	P103277.D	03/11/16	15:56	04:30	MW-15
JC15883-2	P103278.D	03/11/16	16:25	04:59	MW-17
JC15883-3	P103279.D	03/11/16	16:54	05:28	MW-14
JC15883-4	P103280.D	03/11/16	17:23	05:57	MW-18
OP91987-MS	P103281.D	03/11/16	17:52	06:26	Matrix Spike
OP91987-MSD	P103282.D	03/11/16	18:21	06:55	Matrix Spike Duplicate
JC15217-1	P103283.D	03/11/16	18:55	07:29	(used for QC only; not part of job JC15883)
ZZZZZZ	P103284A.D	03/11/16	19:56	08:30	(unrelated sample)
ZZZZZZ	P103285.D	03/11/16	20:24	08:58	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	E4M2841-CC2828	**Injection Date:**	03/15/16
Lab File ID:	4M64067.D	**Injection Time:**	09:01
Instrument ID:	GCMS4M	**Method:**	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	413367	9.87	751535	12.85	1095022	17.02	835149	21.60
Upper Limit [a]	826734	10.37	1503070	13.35	2190044	17.52	1670298	22.10
Lower Limit [b]	206684	9.37	375768	12.35	547511	16.52	417575	21.10

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
OP92075A-MB1	369247	9.88	685611	12.85	929125	17.02	686580	21.60
OP92075A-BS12	440417	9.87	814451	12.85	1133536	17.02	799924	21.60
OP91987A-MB1	351400	9.87	674943	12.85	929062	17.02	700828	21.60
OP91987A-BS12	439057	9.87	806835	12.85	1114096	17.02	848157	21.60
ZZZZZZ	380932	9.87	706122	12.85	963148	17.02	717364	21.60
ZZZZZZ	397296	9.87	769218	12.85	1048311	17.02	781684	21.60
JC12475-74	382582	9.87	676266	12.85	976687	17.03	642935	21.60
OP92075A-MS	345519	9.88	612456	12.85	989179	17.05	710853	21.60
OP92075A-MSD	322279	9.87	556009	12.85	921107	17.03	639550	21.60
OP91987A-MS	298825	9.87	535501	12.85	805932	17.02	609899	21.60
OP91987A-MSD	319606	9.87	574560	12.85	869466	17.02	650047	21.60
JC15883-1	291807	9.87	553162	12.85	799204	17.02	608907	21.60
JC15883-2	299345	9.87	579490	12.85	856202	17.03	648320	21.60
JC15883-3	303650	9.87	564462	12.85	849338	17.02	645617	21.60
JC15883-4	317212	9.87	613765	12.85	904358	17.02	685364	21.60
ZZZZZZ	317900	9.87	578831	12.85	965167	17.03	678036	21.60
ZZZZZZ	325316	9.87	584557	12.85	912092	17.03	693899	21.60
ZZZZZZ	349099	9.87	642976	12.85	956820	17.02	736404	21.60
ZZZZZZ	323198	9.87	571305	12.85	861681	17.02	668984	21.60
ZZZZZZ	312225	9.87	569293	12.85	880211	17.03	661329	21.60
ZZZZZZ	313477	9.87	583767	12.85	825098	17.02	638743	21.60
ZZZZZZ	314817	9.87	576930	12.85	854497	17.03	646077	21.60
ZZZZZZ	302648	9.87	575697	12.85	835256	17.02	634685	21.60

IS 1 = 1-Methylnaphthalene-d10
IS 2 = Fluorene-d10
IS 3 = Fluoranthene-d10
IS 4 = Benzo(a)pyrene-d12

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

Semivolatile Internal Standard Area Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	E4P800-CC767	**Injection Date:**	03/14/16
Lab File ID:	4P15553.D	**Injection Time:**	09:13
Instrument ID:	GCMS4P	**Method:**	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	81338	8.41	129755	11.41	206234	15.65	171120	20.29
Upper Limit [a]	162676	8.91	259510	11.91	412468	16.15	342240	20.79
Lower Limit [b]	40669	7.91	64878	10.91	103117	15.15	85560	19.79

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
ZZZZZZ	62002	8.43	93287	11.41	158697	15.65	129929	20.29
ZZZZZZ	68966	8.41	110432	11.41	170710	15.65	145233	20.30
OP91989A-MB1	72492	8.41	114328	11.41	178942	15.65	151818	20.29
OP91989A-LB30	79541	8.41	130070	11.41	206013	15.65	165845	20.28
OP91989A-BS12	77261	8.41	127678	11.41	188215	15.65	152509	20.29
JC14962-3R	80825	8.41	131418	11.41	199326	15.65	161395	20.29
ZZZZZZ	84914	8.41	131186	11.41	206850	15.65	166619	20.30
ZZZZZZ	74198	8.41	116187	11.41	180654	15.65	143829	20.30
OP91989A-LS16	83630	8.41	140638	11.41	211360	15.65	167636	20.30
OP91989A-MS	83630	8.41	140638	11.41	211360	15.65	167636	20.30
OP91989A-MSD	82876	8.41	135654	11.41	206948	15.65	164420	20.30
ZZZZZZ	70707	8.43	110238	11.41	170742	15.65	134526	20.30
ZZZZZZ	75485	8.43	115711	11.41	181820	15.65	142344	20.30
ZZZZZZ	76652	8.43	115460	11.41	188859	15.65	149170	20.30
OP91987A-MB1	75096	8.43	128337	11.41	182136	15.65	145073	20.30
OP91987A-BS12	72525	8.43	116330	11.41	177255	15.65	138740	20.29
ZZZZZZ	74119	8.43	109607	11.41	183320	15.65	145343	20.30
ZZZZZZ	90902	8.43	130100	11.41	227665	15.65	172721	20.31
ZZZZZZ	86132	8.43	149081	11.41	223151	15.65	176447	20.30
ZZZZZZ	90666	8.43	129091	11.41	229283	15.65	180611	20.30
ZZZZZZ	89893	8.43	116792	11.41	221499	15.65	177484	20.30
ZZZZZZ	87483	8.43	105925	11.43	198948	15.65	164410	20.30
ZZZZZZ	75503	8.43	104469	11.41	180854	15.65	142756	20.30
ZZZZZZ	74392	8.43	108106	11.41	184149	15.65	143266	20.30

IS 1 = 1-Methylnaphthalene-d10
IS 2 = Fluorene-d10
IS 3 = Fluoranthene-d10
IS 4 = Benzo(a)pyrene-d12

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

Semivolatile Internal Standard Area Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	EP4536-CC4524	**Injection Date:**	03/11/16
Lab File ID:	P103269.D	**Injection Time:**	11:39
Instrument ID:	GCMSP	**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	191332	4.22	671286	5.97	403589	8.68	595797	11.04	549016	15.73	518779	18.28
Upper Limit [a]	382664	4.72	1342572	6.47	807178	9.18	1191594	11.54	1098032	16.23	1037558	18.78
Lower Limit [b]	95666	3.72	335643	5.47	201795	8.18	297899	10.54	274508	15.23	259390	17.78

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
OP91987-MB1	161000	4.22	557849	5.97	323708	8.68	483818	11.04	428427	15.73	386147	18.28
OP91987-BS1	165420	4.22	565420	5.97	329315	8.68	482127	11.04	419599	15.73	392674	18.28
ZZZZZZ	163896	4.22	565098	5.97	326079	8.68	498282	11.04	442757	15.72	406017	18.27
ZZZZZZ	160322	4.22	558898	5.97	322902	8.68	488713	11.04	437480	15.72	400108	18.27
ZZZZZZ	156893	4.22	549730	5.97	317015	8.68	479423	11.04	435143	15.72	392383	18.27
ZZZZZZ	164321	4.22	553612	5.98	325830	8.68	499823	11.04	454803	15.73	413159	18.28
JC15883-1	164100	4.22	556263	5.97	328361	8.68	501635	11.04	451610	15.72	405108	18.27
JC15883-2	152953	4.22	527659	5.97	304537	8.68	469361	11.04	427577	15.72	378513	18.27
JC15883-3	152659	4.22	548525	5.97	317630	8.68	478249	11.04	430747	15.72	383235	18.27
JC15883-4	150017	4.22	525690	5.97	307204	8.68	476424	11.04	429893	15.72	386428	18.27
OP91987-MS	166425	4.22	572396	5.97	332913	8.68	479532	11.04	414021	15.73	387627	18.28
OP91987-MSD	179877	4.22	618786	5.97	365511	8.68	522326	11.04	449146	15.73	419592	18.28
JC15217-1	138681	4.22	501311	5.97	305470	8.68	465280	11.04	429270	15.72	382936	18.27
ZZZZZZ	136980	4.22	489387	5.97	288105	8.68	445341	11.04	410607	15.72	367365	18.27
ZZZZZZ	136831	4.22	500189	5.97	296954	8.68	454271	11.04	423299	15.72	389931	18.27

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 Surrogate Recovery Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, 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
JC15883-1	P103277.D	61	44	104	98	93	91
JC15883-2	P103278.D	66	46	107	104	96	96
JC15883-3	P103279.D	62	44	102	96	95	91
JC15883-4	P103280.D	64	47	105	101	94	91
OP91987-BS1	P103272.D	54	37	83	79	75	81
OP91987-MB1	P103271.D	67	46	101	103	96	98
OP91987-MS	P103281.D	80	67	102	92	88	96
OP91987-MSD	P103282.D	82	68	106	93	88	97

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: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, 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
JC15883-1	4M64079.D	92	67	80
JC15883-2	4M64080.D	100	74	86
JC15883-3	4M64081.D	92	69	82
JC15883-4	4M64082.D	96	71	79
OP91987A-BS12	4P15574.D	92	87	88
OP91987A-BS12	4M64071.D	81	61	75
OP91987A-MB1	4P15573.D	99	86	96
OP91987A-MB1	4M64070.D	87	64	80
OP91987A-MS	4M64075.D	78	57	74
OP91987A-MSD	4M64076.D	83	62	74

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

Initial Calibration Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: E4M2828-ICC2828
Lab FileID: 4M63805.D

```
                        Response Factor Report  GCMS4M

Method       : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

Calibration Files
0.05=4m63809.D   .2  =4m63807.D   2.5 =4m63813.D   .02 =4m63810.D
.1  =4m63808.D   1   =4m63805.D   .01 =4m63811.D   .5  =4m63806.D
5   =4m63812.D       =                =                =

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

1) I   1-Methylnaphthalene-d ----------------ISTD---------------------
2)  2-Fluorophenol
          0.939 0.952 0.861 1.171 0.881 0.764       0.772 0.807        0.893   14.81
3)  Phenol-d5
          1.482 1.516 1.247 1.781 1.399 1.238       1.235 0.985        1.360   17.63
4)  Phenol
          1.399 1.640 1.496 1.378 1.395 1.309       1.323 1.448        1.423    7.48
5)  bis(2-Chloroethyl)ether
          1.021 1.192 1.056 1.101 1.021 0.938 1.132 0.955 1.072        1.054    7.73
6)  Nitrobenzene-d5
          1.001 1.197 1.070 0.996 1.012 0.979       0.973 0.846        1.009    9.77
7)  Naphthalene
          3.489 4.006 3.467 3.615 3.476 3.108 3.611 3.178 3.430        3.487    7.47
8)  Hexachlorobutadiene
          0.536 0.602 0.528 0.549 0.518 0.479 0.541 0.489 0.527        0.530    6.72
9)  2-Methylnaphthalene
          1.243 1.439 1.268 1.322 1.236 1.181 1.412 1.196 1.284        1.287    6.97
10)  Hexachlorocyclopentadiene
                0.225 0.330       0.149 0.265       0.212 0.347        0.255   29.41
           ---- Quadratic regression ----  Coefficient =  0.9991
             Response Ratio = -0.01623 + 0.31497 *A + 0.01559 *A^2

11)  2-Fluorobiphenyl
          1.650 1.954 1.361 1.658 1.657 1.736       1.699              1.674   10.41

12) I   Fluorene-d10          ----------------ISTD---------------------
13)  Acenaphthylene
          1.297 1.509 1.412 1.350 1.277 1.208 1.319 1.164 1.174        1.301    8.69
14)  Acenaphthene
          0.738 0.867 0.730 0.774 0.747 0.673 0.770 0.678 0.619        0.733    9.76
15)  Dibenzofuran
          1.978 2.348 2.027 2.060 1.978 1.780 2.056 1.739 1.680        1.961   10.42
16)  Fluorene
          1.185 1.458 1.205 1.196 1.198 1.203 1.230 1.258 1.070        1.223    8.36
17)  2,4,6-Tribromophenol
          0.173 0.183 0.193       0.161 0.165       0.164 0.203        0.178    9.13
18)  Hexachlorobenzene
          0.468 0.543 0.430 0.490 0.456 0.400 0.539 0.419 0.364        0.457   13.24
19)  Pentachlorophenol
          0.090 0.150 0.221       0.098 0.175       0.142 0.201        0.154   32.01
           ---- Quadratic regression ----  Coefficient =  0.9972
             Response Ratio = -0.02883 + 0.23421 *A + -0.00449 *A^2

20)  Phenanthrene
```

Initial Calibration Summary

Job Number: JC15883 **Sample:** E4M2828-ICC2828
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M63805.D
Project: BMSMC, Former Tank Farm, PR

```
          1.982 2.322 1.896 2.044 1.958 1.816 2.266 1.854 1.633        1.974   10.94
21)  Anthracene
          1.634 2.044 1.873 1.753 1.656 1.694 2.030 1.698 1.667        1.783    8.98

22) I   Fluoranthene-d10      ----------------ISTD---------------------
23)  Fluoranthene
          1.347 1.562 1.425       1.350 1.303       1.299 1.377        1.380    6.61
24)  Pyrene
          1.179 1.461 1.378       1.178 1.310       1.291 1.380        1.311    8.08
25)  Terphenyl-d14
          0.621 0.746 0.509 0.639 0.605 0.681       0.710              0.644   12.11
26)  Benzo[a]anthracene
          0.990 1.191 1.149       0.980 1.037       1.010 1.143        1.071    8.14
27)  Chrysene
          1.083 1.343 1.220       1.132 1.099       1.103 1.154        1.162    7.92

28) I   Benzo(a)pyrene-d12    ----------------ISTD---------------------
29)  Benzo[b]fluoranthene
          1.348 1.722 1.639       1.428 1.536       1.525 1.626        1.546    8.35
30)  Benzo[k]fluoranthene
          1.172 1.440 1.361       1.161 1.283       1.371 1.344        1.304    8.07
31)  Benzo[a]pyrene
          1.056 1.581 1.400       1.381 1.324       1.384 1.365        1.356   11.47
32)  Indeno[1,2,3-cd]pyrene
          1.295 1.620 1.491       1.361 1.419       1.451 1.529        1.452    7.41
33)  Dibenz[a,h]anthracene
          1.077 1.354 1.245       1.111 1.191       1.228 1.277        1.212    7.88
34)  Benzo[g,h,i]perylene
          1.228 1.457 1.285       1.234 1.243       1.301 1.303        1.293    6.09

35) I   1-Methylnaphthalene-d ----------------ISTD---------------------
36)  1,4-Dioxane
                0.437 0.328       0.472 0.316       0.308 0.345        0.368   18.86
37)  1-Methylnaphthalene
          1.419 1.609 1.493 1.508 1.391 1.268 1.432 1.251 1.472        1.427    7.98

38) I   Fluorene-d10a         ----------------ISTD---------------------
39)  4,6-dinitro-2-methylphenol
          0.054 0.096 0.179       0.059 0.129       0.104 0.218        0.120   50.59
           ---- Quadratic regression ----  Coefficient =  0.9995
             Response Ratio = -0.01478 + 0.13796 *A + 0.01321 *A^2

40)  1,2-Diphenylhydrazine
                1.165 1.171       0.906 1.080       1.070 1.159        1.092    9.27
41)  n-nitrosodiphenylamine
                0.786 0.686       0.633 0.617       0.634 0.644        0.667    9.42
-------------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

         M4M2828SIM.M        Tue Mar 01 08:34:34 2016   MANAGER
```

8.7.1

8

Initial Calibration Verification

Job Number: JC15883 **Sample:** E4M2828-ICV2828
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M63814.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2828\4m63814.D          Vial: 11
Acq On    : 29 Feb 2016   9:43 pm                    Operator: linseyk
Sample    : icv2828-1.0                              Inst    : GCMS4M
Misc      : op91493a,e4m2828                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Mar 01 08:26:32 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	9.87
5	t	bis(2-Chloroethyl)ether	1.054	1.198	-13.7	138	0.00	5.69
7	t	Naphthalene	3.487	3.814	-9.4	133	0.00	8.41
8	t	Hexachlorobutadiene	0.530	0.586	-10.6	133	0.00	8.70
9	t	2-Methylnaphthalene	1.287	1.423	-10.6	131	-0.02	9.73
		----------	True	Calc.	% Drift	----------		
10	t	Hexachlorocyclopentadiene	1.000	0.972	2.8	100	0.00	10.09
		----------	AvgRF	CCRF	% Dev	----------		
12	I	Fluorene-d10	1.000	1.000	0.0	111	0.00	12.85
13	t	Acenaphthylene	1.301	1.473	-13.2	135	0.00	11.50
14	t	Acenaphthene	0.733	0.805	-9.8	133	0.00	11.85
15	t	Dibenzofuran	1.961	2.197	-12.0	137	0.00	12.21
16	t	Fluorene	1.223	1.207	1.3	111	0.00	12.89
18	t	Hexachlorobenzene	0.457	0.449	1.8	124	0.00	14.00
		----------	AvgRF	CCRF	% Dev	----------		
20	t	Phenanthrene	1.974	1.938	1.8	118	-0.02	14.78
21	t	Anthracene	1.783	1.818	-2.0	119	0.00	14.89
22	I	Fluoranthene-d10	1.000	1.000	0.0	118	0.00	17.02
23	t	Fluoranthene	1.380	1.380	0.0	125	0.00	17.03
24	t	Pyrene	1.311	1.342	-2.4	121	0.00	17.43
26	t	Benzo[a]anthracene	1.071	1.048	2.1	119	0.00	19.50
27	t	Chrysene	1.162	1.116	4.0	120	0.00	19.56
28	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	116	0.00	21.59
29	t	Benzo[b]fluoranthene	1.546	1.461	5.5	110	0.00	21.16
30	t	Benzo[k]fluoranthene	1.304	1.324	-1.5	119	0.00	21.20
31	t	Benzo[a]pyrene	1.356	1.397	-3.0	122	0.00	21.61
32	t	Indeno[1,2,3-cd]pyrene	1.452	1.422	2.1	116	0.00	23.17
33	t	Dibenz[a,h]anthracene	1.212	1.157	4.5	112	0.00	23.20
34	t	Benzo[g,h,i]perylene	1.293	1.225	5.3	114	-0.01	23.56
35	I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	108	0.00	9.87
36	t	1,4-Dioxane	0.368	0.362	1.6	124	0.03	2.39
38	I	Fluorene-d10a	1.000	1.000	0.0	111	0.00	12.85
		----------	AvgRF	CCRF	% Dev	----------		
40	t	1,2-Diphenylhydrazine	1.092	1.033	5.4	106	0.00	13.25

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: E4M2828-ICV2828
Lab FileID: 4M63814.D

```
41 t   n-nitrosodiphenylamine      0.667   0.690     -3.4  124  -0.02   13.18
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    4m63805.D  M4M2828SIM.M       Tue Mar 01 08:34:18 2016   MANAGER
```

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: E4M2828-ICV2828
Lab FileID: 4M63815.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2828\4m63815.D          Vial: 12
Acq On    : 29 Feb 2016  10:14 pm                     Operator: linseyk
Sample    : icv2828-1.0                               Inst    : GCMS4M
Misc      : op91493a,e4m2828                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Mar 01 08:26:32 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.
35 I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	86	0.00	9.87
37 t	1-Methylnaphthalene	1.427	1.558	-9.2	106	0.00	9.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4m63805.D M4M2828SIM.M Tue Mar 01 08:34:20 2016 MANAGER

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: E4M2828-ICV2828
Lab FileID: 4M63816.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2828\4m63816.D          Vial: 13
Acq On    : 29 Feb 2016  10:45 pm                     Operator: linseyk
Sample    : icv2828-1.0                               Inst    : GCMS4M
Misc      : op91493a,e4m2828                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Mar 01 08:26:32 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	84	0.00	9.87
4	t	Phenol	1.423	1.222	14.1	79	0.00	5.58
		----------	AvgRF	CCRF	% Dev	----------		
12	I	Fluorene-d10	1.000	1.000	0.0	87	0.00	12.85
		----------	True	Calc.	% Drift	----------		
19	t	Pentachlorophenol	5.000	3.553	28.9	69	0.00	14.43
		----------	AvgRF	CCRF	% Dev	----------		
22	I	Fluoranthene-d10	1.000	1.000	0.0	90	0.00	17.02
28	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	91	0.00	21.59
35	I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	84	0.00	9.87
38	I	Fluorene-d10a	1.000	1.000	0.0	87	0.00	12.85
		----------	True	Calc.	% Drift	----------		
39	t	4,6-dinitro-2-methylpheno	5.000	3.687	26.3	66	0.00	13.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4m63805.D M4M2828SIM.M Tue Mar 01 08:34:22 2016 MANAGER

Continuing Calibration Summary

Job Number: JC15883 **Sample:** E4M2841-CC2828
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M64067.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E4M2841\4m64067.D          Vial: 2
Acq On    : 15 Mar 2016   9:01 am                    Operator: linseyk
Sample    : cc2828-1                                 Inst    : GCMS4M
Misc      : op91969a,e4m2841                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
Last Update  : Tue Mar 01 08:26:32 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	53	0.00	9.87
2	S	2-Fluorophenol	0.893	0.719	19.5	50	-0.05	4.19
3	S	Phenol-d5	1.360	1.171	13.9	50	0.01	5.58
4	t	Phenol	1.423	1.249	12.2	50	0.01	5.59
5	t	bis(2-Chloroethyl)ether	1.054	0.915	13.2	52	0.00	5.69
6	S	Nitrobenzene-d5	1.009	0.939	6.9	51	0.02	7.06
7	t	Naphthalene	3.487	3.084	11.6	53	0.02	8.42
8	t	Hexachlorobutadiene	0.530	0.496	6.4	55	0.00	8.70
9	t	2-Methylnaphthalene	1.287	1.619	-25.8#	73	-0.05	9.76
		----------	True	Calc.	% Drift	----------		
10	t	Hexachlorocyclopentadiene	2.000	2.551	-27.6#	76	0.02	10.11
		----------	AvgRF	CCRF	% Dev	----------		
11	S	2-Fluorobiphenyl	1.674	1.268	24.3#	39#	0.00	10.52
12	I	Fluorene-d10	1.000	1.000	0.0	55	0.00	12.85
13	t	Acenaphthylene	1.301	1.120	13.9	51	0.02	11.52
14	t	Acenaphthene	0.733	0.757	-3.3	62	0.04	11.87
15	t	Dibenzofuran	1.961	1.123	42.7#	35#	0.03	12.24
16	t	Fluorene	1.223	1.209	1.1	55	-0.02	12.89
17	S	2,4,6-Tribromophenol	0.178	0.201	-12.9	67	0.00	13.40
18	t	Hexachlorobenzene	0.457	0.404	11.6	56	0.02	14.01
		----------	True	Calc.	% Drift	----------		
19	t	Pentachlorophenol	5.000	4.976	0.5	64	0.02	14.44
		----------	AvgRF	CCRF	% Dev	----------		
20	t	Phenanthrene	1.974	1.743	11.7	53	0.00	14.80
21	t	Anthracene	1.783	1.645	7.7	53	0.02	14.91
22	I	Fluoranthene-d10	1.000	1.000	0.0	54	-0.04	17.02
23	t	Fluoranthene	1.380	1.213	12.1	50	-0.02	17.05
24	t	Pyrene	1.311	1.209	7.8	50	-0.04	17.43
25	S	Terphenyl-d14	0.644	0.645	-0.2	51	-0.04	17.81
26	t	Benzo[a]anthracene	1.071	1.098	-2.5	57	-0.02	19.52
27	t	Chrysene	1.162	1.147	1.3	57	-0.02	19.58
28	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	52	-0.03	21.60
29	t	Benzo[b]fluoranthene	1.546	1.510	2.3	51	-0.03	21.17
30	t	Benzo[k]fluoranthene	1.304	1.405	-7.7	57	-0.03	21.21
31	t	Benzo[a]pyrene	1.356	1.334	1.6	53	-0.03	21.63

Continuing Calibration Summary

Job Number: JC15883 **Sample:** E4M2841-CC2828
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4M64067.D
Project: BMSMC, Former Tank Farm, PR

32	t	Indeno[1,2,3-cd]pyrene	1.452	1.539	-6.0	57	-0.04	23.17
33	t	Dibenz[a,h]anthracene	1.212	1.281	-5.7	56	-0.02	23.20
34	t	Benzo[g,h,i]perylene	1.293	1.324	-2.4	56	-0.04	23.57
35	I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	53	0.00	9.87
36	t	1,4-Dioxane	0.368	0.337	8.4	56	-0.04	2.37
37	t	1-Methylnaphthalene	1.427	1.561	-9.4	65	0.00	9.95
38	I	Fluorene-d10a	1.000	1.000	0.0	55	0.00	12.85
		----------	True	Calc.	% Drift	----------		
39	t	4,6-dinitro-2-methylpheno	5.000	4.622	7.6	55	-0.05	13.06
		----------	AvgRF	CCRF	% Dev	----------		
40	t	1,2-Diphenylhydrazine	1.092	1.111	-1.7	57	0.00	13.25
41	t	n-nitrosodiphenylamine	0.667	0.908	-36.1#	81	0.00	13.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4m63805.D M4M2828SIM.M Tue Mar 15 12:45:22 2016 MANAGER

8.7.5

8

Initial Calibration Summary

Job Number: JC15883 **Sample:** E4P767-ICC767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P14949.D
Project: BMSMC, Former Tank Farm, PR

```
                         Response Factor Report  MS4P

Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Feb 02 08:55:09 2016
Response via : Initial Calibration

Calibration Files
2.5 =4p14956.D   1.0 =4p14949.D   0.5 =4p14948.D   0.2 =4p14950.D
0.1 =4p14951.D   0.05=4p14952.D   0.02=4p14953.D   0.01=4p14954.D
5   =4p14955.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
          0.397 0.422 0.463 0.544 0.643                   0.360        0.471   22.27
           ---- Quadratic regression ----  Coefficient =  1.0000
             Response Ratio = 0.00593 + 0.41624 *A + -0.04843 *A^2

3)  2-Fluorophenol
          0.672 0.703 0.715 0.834 0.725 0.652 0.706       0.612        0.702    9.27
4)  Phenol-d5
          1.198 1.206 1.215 1.355 1.068 0.979 0.970       1.064        1.132   11.78
5)  Phenol
          1.364 1.425 1.422 1.544 1.318 1.119 1.111       1.436        1.342   11.52
6)  bis(2-Chloroethyl)ether
          1.198 1.124 1.126 1.313 1.142 1.025 1.708 0.947 1.039        1.180   19.00
7)  Nitrobenzene-d5
          1.141 1.142 1.130 1.314 1.119 0.983 1.029       1.054        1.114    8.96
8)  Naphthalene
          2.563 2.595 2.484 3.016 2.730 2.488 2.840 2.669 2.394        2.642    7.40
9)  Hexachlorobutadiene
          0.607 0.596 0.574 0.697 0.635 0.573 0.672 0.676 0.564        0.622    8.08
10)  2-Methylnaphthalene
          1.349 1.325 1.305 1.519 1.322 1.278 1.195 1.272 1.253        1.313    6.83
11)  1-Methylnaphthalene
          1.372 1.406 1.430 1.700 1.426 1.361 1.350 1.447 1.280        1.419    8.25
12)  Hexachlorocyclopentadiene
          0.628 0.542 0.513 0.507 0.361                   0.632        0.531   18.75

13) I   Fluorene-d10          ----------------ISTD---------------------
14)  2-Fluorobiphenyl
          1.019 1.031 1.213 1.477 1.087 1.066 1.079                    1.139   14.22
15)  Acenaphthylene
          1.461 1.391 1.352 1.531 1.444 1.287             1.331        1.400    6.03
16)  Acenaphthene
          0.978 1.003 1.052 1.286 1.024 0.949 1.014 1.067 0.887        1.029   10.77
17)  Dibenzofuran
          1.237 1.210 1.483 1.637 1.331 1.306             1.094        1.328   13.65
18)  Fluorene
          1.219 1.217 1.319 1.515 1.174 1.117             1.114        1.239   11.31
19)  4,6-dinitro-2-methylphenol
          0.124 0.095 0.098 0.086 0.053 0.042             0.142        0.091   39.08
           ---- Quadratic regression ----  Coefficient =  0.9996
             Response Ratio = -0.00728 + 0.10435 *A + 0.00626 *A^2

20)  n-nitrosodiphenylamine
```

Initial Calibration Summary

Job Number: JC15883 **Sample:** E4P767-ICC767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P14949.D
Project: BMSMC, Former Tank Farm, PR

```
          0.625 0.592 0.655 0.724 0.572 0.520            0.545        0.605   11.53
21)  1,2-Diphenylhydrazine
          1.390 1.316 1.185 1.360 1.169 0.981            1.218        1.231   11.39
22)  2,4,6-Tribromophenol
          0.157 0.154 0.158 0.173 0.135 0.117            0.148        0.149   12.34

23)     Fluoranthene-d10      ----------------ISTD---------------------
24)  Hexachlorobenzene
          0.325 0.305 0.320 0.376 0.318 0.291 0.323 0.332 0.307        0.322    7.37
25)  Pentachlorophenol
          0.147 0.119 0.124 0.110 0.078 0.067            0.149        0.113   27.93
           ---- Quadratic regression ----  Coefficient =  0.9991
             Response Ratio = -0.01083 + 0.14227 *A + 0.00146 *A^2

26)  Phenanthrene
          1.242 1.180 1.238 1.407 1.160 1.062 1.130 1.176 1.166        1.196    8.01
27)  Anthracene
          1.155 1.051 1.147 1.257 1.009 0.939 0.993 0.884 1.148        1.065   11.29
28)  Fluoranthene
          1.263 1.232 1.325 1.496 1.243 1.167            1.187        1.273    8.71
29)  Pyrene
          1.275 1.231 1.333 1.433 1.246 1.120 1.257      1.243        1.267    7.05
30)  Terphenyl-d14
          0.607 0.595 0.632 0.730 0.626 0.563 0.593 0.571 0.581        0.611    8.22
31)  Benzo[a]anthracene
          1.132 1.097 1.174 1.236 1.077 0.917            1.124        1.108    8.96
32)  Chrysene
          1.286 1.285 1.315 1.507 1.324 1.207            1.246        1.310    7.31

33) I   Benzo(a)pyrene-d12    ----------------ISTD---------------------
34)  Benzo[b]fluoranthene
          1.610 1.601 1.669 2.013 1.672 1.337            1.689        1.656   11.97
35)  Benzo[k]fluoranthene
          1.682 1.478 1.501 1.644 1.319 1.443            1.436        1.501    8.35
36)  Benzo[a]pyrene
          1.527 1.486 1.576 1.904 1.639 1.898            1.429        1.637   11.73
37)  Indeno[1,2,3-cd]pyrene
          1.714 1.655 1.720 2.018 1.706 1.645            1.613        1.725    7.87
38)  Dibenz[a,h]anthracene
          1.425 1.365 1.430 1.660 1.405 1.312            1.358        1.422    7.94
39)  Benzo[g,h,i]perylene
          1.520 1.462 1.514 1.819 1.559 1.514            1.413        1.543    8.46
-----------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

         M4P767SIM.M        Tue Feb 02 09:03:27 2016
```

8.7.6

8

Initial Calibration Verification

Job Number: JC15883 **Sample:** E4P767-ICV767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P14957.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e4p767\4p14957.D          Vial: 12
Acq On    :  1 Feb 2016  10:24 pm                   Operator: juliusj
Sample    : icv767-1.0                              Inst    : MS4P
Misc      : op90759a,e4p767                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Feb 02 08:55:09 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	97	0.00	8.75
		----------	AvgRF	CCRF	% Dev	----------		
6	t	bis(2-Chloroethyl)ether	1.180	1.334	-13.1	115	-0.02	4.65
8	t	Naphthalene	2.642	2.526	4.4	94	-0.02	7.27
9	t	Hexachlorobutadiene	0.622	0.617	0.8	100	0.00	7.57
10	t	2-Methylnaphthalene	1.313	1.247	5.0	91	0.00	8.62
13	I	Fluorene-d10	1.000	1.000	0.0	92	0.00	11.74
15	t	Acenaphthylene	1.400	1.421	-1.5	94	0.00	10.38
16	t	Acenaphthene	1.029	1.019	1.0	93	0.00	10.74
17		Dibenzofuran	1.328	1.289	2.9	98	0.00	11.11
18	t	Fluorene	1.239	1.176	5.1	89	0.00	11.79
		----------	AvgRF	CCRF	% Dev	----------		
20		n-nitrosodiphenylamine	0.605	0.590	2.5	92	0.00	12.08
21		1,2-Diphenylhydrazine	1.231	1.287	-4.5	90	0.00	12.13
23		Fluoranthene-d10	1.000	1.000	0.0	100	0.00	15.95
24	t	Hexachlorobenzene	0.322	0.301	6.5	99	0.00	12.90
		----------	AvgRF	CCRF	% Dev	----------		
26	t	Phenanthrene	1.196	1.203	-0.6	102	-0.02	13.69
27	t	Anthracene	1.065	0.948	11.0	91	-0.02	13.80
28	t	Fluoranthene	1.273	1.232	3.2	100	-0.02	15.97
29	t	Pyrene	1.267	1.163	8.2	95	-0.02	16.36
31	t	Benzo[a]anthracene	1.108	1.017	8.2	93	0.00	18.47
32	t	Chrysene	1.310	1.314	-0.3	103	0.00	18.52
33	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	92	0.00	20.57
34	t	Benzo[b]fluoranthene	1.656	1.410	14.9	81	0.00	20.13
35	t	Benzo[k]fluoranthene	1.501	1.567	-4.4	97	0.00	20.18
36	t	Benzo[a]pyrene	1.637	1.411	13.8	87	0.00	20.59
37	t	Indeno[1,2,3-cd]pyrene	1.725	1.573	8.8	87	0.00	22.13
38	t	Dibenz[a,h]anthracene	1.422	1.310	7.9	88	0.00	22.17
39	t	Benzo[g,h,i]perylene	1.543	1.460	5.4	92	0.00	22.52

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

8.7.7

8

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample: E4P767-ICV767
Lab FileID: 4P14957.D

```
4p14949.D  M4P767SIM.M       Tue Feb 02 09:03:11 2016
```

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: E4P767-ICV767
Lab FileID: 4P14958.D

```
                    Evaluate Continuing Calibration Report

 Data File : C:\msdchem\1\DATA\e4p767\4p14958.D          Vial: 13
 Acq On    :  1 Feb 2016  10:54 pm                   Operator: juliusj
 Sample    : icv767-1.0                              Inst    : MS4P
 Misc      : op90759a,e4p767                         Multiplr: 1.00
 MS Integration Params: lscint.p

 Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
 Title        : Semi Volatile Extractables by GC/MS
 Last Update  : Tue Feb 02 08:55:09 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   81  -0.02    8.73

           ----------------------- True    Calc.   % Drift  ------------
 2 t   1,4-Dioxane                 1.000   0.940      6.0   77   0.00    1.94

           ----------------------- AvgRF   CCRF     % Dev   -------------
11 t   1-Methylnaphthalene         1.419   1.289      9.2   74  -0.02    8.79

---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    4p14949.D  M4P767SIM.M       Tue Feb 02 09:03:13 2016
```

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: E4P767-ICV767
Lab FileID: 4P14959.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e4p767\4p14959.D          Vial: 14
Acq On    :  1 Feb 2016  11:24 pm                   Operator: juliusj
Sample    : icv767-1.0                              Inst    : MS4P
Misc      : op90759a,e4p767                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Feb 02 08:55:09 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  129  -0.02    8.73

          ----------------------- AvgRF   CCRF     % Dev   -------------
5     Phenol                      1.342   1.347     -0.4  121   0.00    4.54

13 I  Fluorene-d10                1.000   1.000      0.0   99   0.00   11.74

          ----------------------- True    Calc.   % Drift  ------------
19    4,6-dinitro-2-methylpheno   5.000   6.227    -24.5  141  -0.02   11.94

          ----------------------- AvgRF   CCRF     % Dev   -------------

23    Fluoranthene-d10            1.000   1.000      0.0  121   0.00   15.95

          ----------------------- True    Calc.   % Drift  ------------
25 t  Pentachlorophenol           5.000   5.339     -6.8  148  -0.02   13.32
-----------------------------------------------------------------------------
-----------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    4p14949.D  M4P767SIM.M       Tue Feb 02 09:03:15 2016
```

8.7.9

8

Continuing Calibration Summary

Job Number: JC15883 **Sample:** E4P800-CC767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P15553.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e4p800\4p15553.D          Vial: 2
Acq On    : 14 Mar 2016   9:13 am                   Operator: ashleyd
Sample    : cc767-.5                                Inst    : MS4P
Misc      : op91934a,e4p800                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Mon Mar 14 09:09:23 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	70	-0.08	8.41
		----------	True	Calc.	% Drift	----------		
2	t	1,4-Dioxane	0.500	0.490	2.0	68	-0.04	1.73
		----------	AvgRF	CCRF	% Dev	----------		
3	S	2-Fluorophenol	0.702	0.738	-5.1	72	-0.12	3.06
4	S	Phenol-d5	1.132	1.233	-8.9	71	-0.11	4.25
5		Phenol	1.342	1.428	-6.4	70	-0.06	4.27
6	t	bis(2-Chloroethyl)ether	1.180	1.057	10.4	65	-0.05	4.37
7	S	Nitrobenzene-d5	1.114	1.128	-1.3	69	-0.07	5.64
8	t	Naphthalene	2.642	2.653	-0.4	74	-0.08	6.96
9	t	Hexachlorobutadiene	0.622	0.600	3.5	73	-0.08	7.24
10	t	2-Methylnaphthalene	1.313	1.306	0.5	70	-0.06	8.30
11	t	1-Methylnaphthalene	1.419	1.371	3.4	67	-0.06	8.49
12		Hexachlorocyclopentadiene	0.531	0.111	79.1#	15#	-0.07	8.66
13	I	Fluorene-d10	1.000	1.000	0.0	76	-0.07	11.41
14	S	2-Fluorobiphenyl	1.139	1.142	-0.3	71	-0.08	9.08
15	t	Acenaphthylene	1.400	1.470	-5.0	82	-0.09	10.05
16	t	Acenaphthene	1.029	1.072	-4.2	77	-0.09	10.41
17		Dibenzofuran	1.328	1.455	-9.6	74	-0.07	10.78
18	t	Fluorene	1.239	1.236	0.2	71	-0.07	11.46
		----------	True	Calc.	% Drift	----------		
19		4,6-dinitro-2-methylpheno	2.500	2.153	13.9	63	-0.08	11.66
		----------	AvgRF	CCRF	% Dev	----------		
20		n-nitrosodiphenylamine	0.605	0.807	-33.4#	93	-0.08	11.78
21		1,2-Diphenylhydrazine	1.231	1.480	-20.2#	94	-0.08	11.83
22	S	2,4,6-Tribromophenol	0.149	0.178	-19.5	85	-0.11	11.97
23		Fluoranthene-d10	1.000	1.000	0.0	85	-0.07	15.65
24	t	Hexachlorobenzene	0.322	0.293	9.0	77	-0.07	12.59
		----------	True	Calc.	% Drift	----------		
25	t	Pentachlorophenol	2.500	1.453	41.9#	45	-0.04	13.03
		----------	AvgRF	CCRF	% Dev	----------		
26	t	Phenanthrene	1.196	1.163	2.8	80	-0.08	13.38
27	t	Anthracene	1.065	1.086	-2.0	80	-0.08	13.48
28	t	Fluoranthene	1.273	1.260	1.0	81	-0.05	15.68

Continuing Calibration Summary

Job Number: JC15883 **Sample:** E4P800-CC767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P15553.D
Project: BMSMC, Former Tank Farm, PR

29	t	Pyrene	1.267	1.350	-6.6	86	-0.05	16.08
30	S	Terphenyl-d14	0.611	0.649	-6.2	87	-0.05	16.46
31	t	Benzo[a]anthracene	1.108	1.362	-22.9#	98	-0.08	18.19
32	t	Chrysene	1.310	1.349	-3.0	87	-0.08	18.25
33	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	90	-0.07	20.29
34	t	Benzo[b]fluoranthene	1.656	1.857	-12.1	100	-0.07	19.87
35	t	Benzo[k]fluoranthene	1.501	1.429	4.8	86	-0.07	19.90
36	t	Benzo[a]pyrene	1.637	1.496	8.6	85	-0.07	20.32
37	t	Indeno[1,2,3-cd]pyrene	1.725	1.833	-6.3	96	-0.08	21.81
38	t	Dibenz[a,h]anthracene	1.422	1.539	-8.2	97	-0.08	21.84
39	t	Benzo[g,h,i]perylene	1.543	1.554	-0.7	92	-0.09	22.18

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4p14948.D M4P767SIM.M Mon Mar 14 13:21:11 2016

8.7.10

8

Initial Calibration Summary

Job Number: JC15883 **Sample:** EP4514-ICC4514
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P102794.D
Project: BMSMC, Former Tank Farm, PR

```
                         Response Factor Report  MSP

  Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
  Title        : Semi Volatile Extractables by GC/MS
  Last Update  : Wed Feb 24 16:59:22 2016
  Response via : Initial Calibration

  Calibration Files
  2   =P102791.D  5   =P102790.D  25  =P102793.D  80  =P102788.D
  100 =P102787.D  50  =P102794.D  10  =P102789.D  1   =P102792.D

   Compound          2     5     25    80    100   50    10    1     Avg %RSD
  ---------------------------------------------------------------------------
159) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
160) Benzaldehyde 1.493 1.438 1.178 0.968 0.861 1.070 1.264 1.347 1.202  18.71

161) I   Phenanthrene-d10b     ----------------ISTD---------------------
162) Atrazine     0.205 0.229 0.206 0.195 0.191 0.202 0.206 0.198 0.204   5.61

163) I   Chrysene-d12b         ----------------ISTD---------------------
164) Benzidine    0.801 0.928 0.737 0.484       0.617 0.814 0.548 0.704  22.70

165) I   Naphthalene-d8b       ----------------ISTD---------------------
166) Hydroquinone 0.277 0.369 0.396 0.399 0.390 0.390 0.346       0.367  11.94

167) I   Acenaphthene-d10b     ----------------ISTD---------------------
168) 1,2,4,5-Tetr 0.648 0.646 0.535 0.467 0.439 0.496 0.546 0.615 0.549  14.65
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MP4513.M          Thu Feb 25 16:37:51 2016
```

8.7.11

8

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: EP4514-ICV4514
Lab FileID: P102798A.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D          Vial: 21
Acq On    : 24 Feb 2016   7:31 am                    Operator: sarad
Sample    : icv4514-50                               Inst    : MSP
Misc      : op91338,ep4514                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Feb 24 16:59:22 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
167 I	Acenaphthene-d10b	1.000	1.000	0.0	95	0.00	8.86
168	1,2,4,5-Tetrachlorobenzen	0.549	0.509	7.3	97	0.00	7.49

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P102805A.D MP4513.M Thu Feb 25 16:23:15 2016

Initial Calibration Verification

Job Number: JC15883 **Sample:** EP4514-ICV4514
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P102799A.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D          Vial: 22
Acq On    : 24 Feb 2016   8:00 am                    Operator: sarad
Sample    : icv4514-50                               Inst    : MSP
Misc      : op91338,ep4514                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Feb 24 16:59:22 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
159	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	95	0.00	4.37
160		Benzaldehyde	1.202	1.156	3.8	103	0.00	3.84
161	I	Phenanthrene-d10b	1.000	1.000	0.0	94	0.00	11.22
162		Atrazine	0.204	0.201	1.5	94	0.00	10.88

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P102805A.D MP4513.M Thu Feb 25 16:23:17 2016

8.7.13

8

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: EP4514-ICV4514
Lab FileID: P102800.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D          Vial: 23
Acq On    : 24 Feb 2016   8:29 am                   Operator: sarad
Sample    : icv4514-50                              Inst    : MSP
Misc      : op91338,ep4514                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Feb 24 16:59:22 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
165 I	Naphthalene-d8b	1.000	1.000	0.0	103	0.00	6.13
166	Hydroquinone	0.367	0.386	-5.2	102	0.00	6.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P102805A.D MP4513.M Thu Feb 25 16:23:18 2016

8.7.14

8

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: EP4514-ICV4514
Lab FileID: P102801A.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D          Vial: 24
Acq On    : 24 Feb 2016   8:58 am                    Operator: sarad
Sample    : icv4514-50                               Inst    : MSP
Misc      : op91338,ep4514                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Feb 24 16:59:22 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
163 I	Chrysene-d12b	1.000	1.000	0.0	113	0.00	15.95
164	Benzidine	0.704	1.090	-54.8#	199	0.00	13.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P102805A.D MP4513.M Thu Feb 25 16:23:20 2016

8.7.15

8

Initial Calibration Summary

Job Number: JC15883 **Sample:** EP4524-ICC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103017.D
Project: BMSMC, Former Tank Farm, PR

Response Factor Report MSP

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration

Calibration Files
2 =P103015.D 5 =P103014.D 25 =P103018.D 80 =P103012.D
100 =P103011.D 50 =P103017.D 10 =P103013.D 1 =P103016.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------									
2) 1,4-Dioxane	0.777	0.716	0.721	0.624	0.626	0.757	0.631	0.834	0.711	11.04
3) Pyridine	1.581	1.654	1.751	1.401	1.419	1.729	1.626	1.675	1.604	8.20
4) N-Nitrosodim	0.614	0.593	0.639	0.546	0.542	0.651	0.585	0.630	0.600	6.83
5) 2-Fluorophen	1.323	1.387	1.551	1.302	1.296	1.576	1.419	1.284	1.392	8.32
6) Indene	2.297	2.390	2.495	1.972	1.913	2.492	2.363	2.280	2.275	9.69
7) Cumene	3.409	3.405	3.648	2.649	2.520	3.496	3.392	3.773	3.287	13.83
8) Phenol-d5	1.776	1.728	1.873	1.465	1.425	1.874	1.763	1.685	1.699	9.99
9) Phenol	1.784	1.739	1.897	1.633	1.612	1.882	1.788	1.689	1.753	6.03
10) Aniline	2.052	2.064	2.156	1.506	1.449	1.969	2.005	2.079	1.910	14.30
11) bis(2-Chloro	1.413	1.288	1.330	1.122	1.128	1.343	1.281	1.413	1.290	8.75
12) 2-Chlorophen	1.441	1.367	1.438	1.165	1.131	1.437	1.406	1.241	1.328	9.74
13) Decane	1.204	1.083	1.130	0.870	0.839	1.086	1.091	1.153	1.057	12.45
14) 1,3-Dichloro	1.591	1.524	1.598	1.285	1.239	1.574	1.547	1.548	1.488	9.57
15) 1,4-Dichloro	1.552	1.437	1.566	1.239	1.206	1.529	1.469	1.435	1.429	9.59
16) Benzyl alcoh	0.777	0.790	0.887	0.706	0.687	0.908	0.818	0.745	0.790	10.05
17) 1,2-Dichloro	1.397	1.435	1.460	1.133	1.094	1.430	1.399	1.500	1.356	11.33
18) Acetophenone	1.790	1.873	1.977	1.586	1.554	1.954	1.818	1.840	1.799	8.63
19) 2-Methylphen	1.126	1.113	1.253	1.028	1.034	1.246	1.168	1.069	1.130	7.76
20) 2,2'-oxybis(	0.420	0.420	0.453	0.382	0.386	0.453	0.417	0.462	0.424	7.19
21) 3&4-Methylph	1.202	1.219	1.370	1.149	1.129	1.388	1.258	1.147	1.233	8.11
22) n-Nitroso-di	0.914	0.895	0.992	0.804	0.793	0.986	0.933	0.904	0.903	8.15
23) Hexachloroet	0.473	0.473	0.503	0.429	0.431	0.499	0.469	0.449	0.466	6.01
24) I Naphthalene-d8	----------ISTD----------									
25) Nitrobenzene	0.409	0.398	0.438	0.380	0.376	0.445	0.409	0.384	0.405	6.40
26) Nitrobenzene	0.382	0.397	0.415	0.352	0.342	0.413	0.395	0.414	0.389	7.32
27) Quinoline	0.709	0.738	0.786	0.669	0.652	0.799	0.705	0.709	0.721	7.18
28) Isophorone	0.614	0.665	0.744	0.615	0.600	0.756	0.684	0.593	0.659	9.75
29) 2-Nitropheno	0.175	0.178	0.219	0.192	0.188	0.225	0.191	0.156	0.191	11.94
30) 2,4-Dimethyl	0.290	0.312	0.362	0.328	0.322	0.384	0.322	0.270	0.324	11.16
31) Benzoic acid			0.240	0.278	0.271	0.284	0.184		0.251	16.36
32) bis(2-Chloro	0.417	0.422	0.458	0.381	0.370	0.462	0.411	0.408	0.416	7.78
33) 2,4-Dichloro	0.260	0.285	0.325	0.273	0.262	0.325	0.293	0.240	0.283	10.80
34) 2,6-Dichloro	0.252	0.281	0.303	0.254	0.245	0.303	0.277	0.258	0.271	8.40
35) 1,3,5-Trichl	0.321	0.331	0.343	0.271	0.262	0.339	0.320	0.349	0.317	10.33
36) 1,2,4-Trichl	0.319	0.333	0.332	0.278	0.267	0.331	0.318	0.328	0.313	8.35
37) 1,2,3-Trichl	0.317	0.301	0.302	0.245	0.235	0.301	0.299	0.302	0.288	10.51
38) Naphthalene	1.054	1.051	1.090	0.838	0.786	1.070	1.009	1.039	0.992	11.53
39) 4-Chloroanil	0.414	0.447	0.475	0.373	0.358	0.472	0.444	0.392	0.422	10.57
40) 2,3-Dichloro	0.366	0.375	0.394	0.329	0.321	0.402	0.361	0.326	0.359	8.71
41) Caprolactam	0.109	0.128	0.149	0.141	0.142	0.158	0.129	0.109	0.133	13.41
42) Hexachlorobu	0.162	0.164	0.167	0.139	0.135	0.165	0.153	0.161	0.156	7.80
43) 4-Chloro-3-m	0.259	0.300	0.353	0.303	0.298	0.369	0.314	0.220	0.302	15.74
44) 2-Methylnaph	0.557	0.577	0.604	0.480	0.456	0.598	0.576	0.549	0.550	9.80
45) 1-Methylnaph	0.693	0.715	0.736	0.588	0.561	0.727	0.690	0.652	0.670	9.70

Initial Calibration Summary

Job Number: JC15883 **Sample:** EP4524-ICC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103017.D
Project: BMSMC, Former Tank Farm, PR

```
46) Dimethylnaph 0.586 0.605 0.648 0.513 0.496 0.645 0.604 0.593 0.586   9.45

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.217 0.230 0.305 0.276 0.276 0.326 0.274 0.180 0.261  18.47
49) 2,4,6-Trichl 0.284 0.296 0.356 0.319 0.312 0.367 0.325 0.248 0.313  12.26
50) 2,4,5-Trichl 0.284 0.325 0.364 0.329 0.331 0.395 0.335 0.246 0.326  13.92
51) 2-Fluorobiph 1.305 1.294 1.293 1.016 0.980 1.290 1.266 1.265 1.214  11.05
52) 2-Chloronaph 1.154 1.133 1.128 0.877 0.854 1.110 1.086 1.063 1.051  11.21
53) Biphenyl     1.513 1.426 1.446 1.106 1.046 1.421 1.411 1.438 1.351  12.84
54) 2-Nitroanili 0.262 0.278 0.351 0.318 0.321 0.371 0.312 0.218 0.304  16.32
55) Dimethylphth 1.206 1.244 1.318 1.114 1.092 1.351 1.234 1.158 1.215   7.55
56) Acenaphthyle 1.703 1.754 1.864 1.436 1.376 1.850 1.719 1.725 1.678  10.67
57) 2,6-Dinitrot 0.198 0.238 0.295 0.275 0.273 0.320 0.276 0.198 0.259  17.03
58) 3-Nitroanili 0.250 0.291 0.358 0.317 0.313 0.379 0.320 0.211 0.305  17.86
59) Acenaphthene 1.053 1.077 1.142 0.906 0.884 1.147 1.054 1.083 1.043   9.42
60) 2,4-Dinitrop 0.026 0.053 0.126 0.160 0.162 0.162 0.087       0.111  50.86
         ----- Quadratic regression -----                Coefficient =  0.9983
              Response Ratio = -0.02896 + 0.16490 *A + 0.00063 *A^2

61) 4-Nitropheno 0.121 0.126 0.180 0.185 0.192 0.204 0.153       0.166  19.76
62) Dibenzofuran 1.533 1.549 1.623 1.278 1.225 1.609 1.500 1.442 1.470  10.02
63) 2,4-Dinitrot 0.261 0.314 0.400 0.352 0.351 0.413 0.348 0.195 0.329  21.86
         ----- Quadratic regression -----                Coefficient =  0.9979
              Response Ratio = -0.01311 + 0.45486 *A + -0.04135 *A^2

64) 2,3,4,6-Tetr 0.186 0.233 0.277 0.260 0.259 0.300 0.239       0.251  14.48
65) Diethylphtha 1.200 1.218 1.321 1.116 1.090 1.371 1.230 1.111 1.207   8.39
66) Fluorene     1.213 1.267 1.314 1.069 1.037 1.337 1.237 1.128 1.200   9.27
67) 4-Chlorophen 0.554 0.570 0.587 0.487 0.476 0.586 0.544 0.504 0.539   8.19
68) 4-Nitroanili 0.236 0.276 0.339 0.309 0.313 0.365 0.307       0.306  13.62

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.069 0.131 0.148 0.154 0.159 0.100       0.127  27.86
            ----- Linear regression -----  Coefficient =  0.9977
              Response Ratio = -0.01194 + 0.15773 *A

71) n-Nitrosodip 0.546 0.570 0.641 0.551 0.547 0.670 0.574 0.509 0.576   9.30
72) 1,2-Diphenyl 0.760 0.793 0.884 0.737 0.725 0.903 0.816 0.698 0.789   9.42
73) 2,4,6-Tribro 0.066 0.080 0.103 0.101 0.103 0.114 0.088       0.094  17.60
74) 4-Bromopheny 0.178 0.188 0.210 0.193 0.196 0.227 0.193 0.180 0.196   8.28
75) Hexachlorobe 0.214 0.207 0.220 0.197 0.201 0.231 0.209 0.220 0.212   5.30
76) Pentachlorop 0.048 0.069 0.118 0.127 0.130 0.139 0.094       0.103  33.32
         ----- Quadratic regression -----                Coefficient =  0.9978
              Response Ratio = -0.01809 + 0.14437 *A + -0.00235 *A^2

77) Phenanthrene 1.037 1.026 1.137 0.918 0.903 1.148 1.038 0.999 1.026   8.64
78) Anthracene   0.999 1.043 1.156 0.949 0.929 1.190 1.067 0.895 1.029  10.32
79) Carbazole    0.997 1.080 1.202 0.975 0.958 1.230 1.078 0.910 1.054  10.97
80) Di-n-butylph 0.997 1.176 1.462 1.220 1.191 1.541 1.316 0.923 1.228  17.17
81) Fluoranthene 1.023 1.082 1.246 1.045 1.024 1.289 1.127 0.998 1.104   9.86
82) Octadecane   0.374 0.389 0.456 0.385 0.376 0.487 0.406 0.349 0.403  11.47

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.223 1.275 1.447 1.202 1.155 1.428 1.291 1.163 1.273   8.82
85) Terphenyl-d1 0.745 0.751 0.866 0.769 0.754 0.903 0.768 0.744 0.788   7.78
86) Butylbenzylp 0.419 0.537 0.707 0.665 0.655 0.760 0.591       0.619  18.48
87) Butyl steara 0.170 0.244 0.348 0.324 0.311 0.372 0.283       0.293  23.39
         ----- Quadratic regression -----                Coefficient =  0.9985
              Response Ratio = -0.02367 + 0.43258 *A + -0.04551 *A^2
```

8.7.16

8

Initial Calibration Summary

Job Number: JC15883 **Sample:** EP4524-ICC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103017.D
Project: BMSMC, Former Tank Farm, PR

```
 88) Benzo[a]anth 0.969 0.988 1.160 1.035 1.019 1.205 0.996 0.976 1.044   8.54
 89) 3,3'-Dichlor 0.241 0.306 0.423 0.407 0.405 0.452 0.351       0.369  20.10
          ----- Quadratic regression -----                Coefficient =  0.9988
               Response Ratio = -0.02261 + 0.49442 *A + -0.03344 *A^2

 90) Chrysene     1.038 0.993 1.143 0.986 0.977 1.151 1.022 0.954 1.033   7.24
 91) bis(2-Ethylh 0.477 0.661 0.928 0.879 0.847 1.001 0.763       0.794  22.42
          ----- Quadratic regression -----                Coefficient =  0.9986
               Response Ratio = -0.06180 + 1.15010 *A + -0.11255 *A^2


 92) I   Perylene-d12          ----------------ISTD---------------------
 93) Di-n-octylph 0.708 1.144 1.681 1.427 1.382 1.836 1.391       1.367  26.85
          ----- Quadratic regression -----                Coefficient =  0.9944
               Response Ratio = -0.12624 + 2.19676 *A + -0.31528 *A^2

 94) Benzo[b]fluo 1.065 1.146 1.275 1.087 1.067 1.352 1.159 0.951 1.138  11.17
 95) Benzo[k]fluo 1.066 1.142 1.251 0.962 0.951 1.249 1.104 1.041 1.096  10.49
 96) Benzo[a]pyre 0.879 0.999 1.179 0.964 0.951 1.215 1.054 0.787 1.004  14.32
 97) Indeno[1,2,3 0.723 0.849 1.037 0.907 0.929 1.110 0.895 0.637 0.886  17.34
 98) Dibenz(a,h)a 0.599 0.757 0.961 0.850 0.835 1.057 0.848       0.844  17.22
 99) Dibenz[a,h]a 0.873 0.922 1.092 0.945 0.946 1.175 0.956 0.728 0.955  14.09
100) 7,12-Dimethy 0.378 0.428 0.561 0.484 0.474 0.593 0.454       0.482  15.43
101) Benzo[g,h,i] 0.910 1.004 1.136 0.965 0.972 1.218 1.007 0.903 1.015  10.80
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MP4524.M          Thu Mar 03 11:11:34 2016
```

8.7.16

8

Initial Calibration Verification

Job Number: JC15883 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103019.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D          Vial: 10
Acq On    :  2 Mar 2016   9:05 pm                   Operator: sarad
Sample    : icv4524-50                              Inst    : MSP
Misc      : op91633,ep4524                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  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	120	0.00	4.34
9	t	Phenol	1.753	1.661	5.2	106	0.00	3.98
12	t	2-Chlorophenol	1.328	1.289	2.9	108	0.00	4.11
19	t	2-Methylphenol	1.130	1.149	-1.7	111	-0.01	4.72
21	t	3&4-Methylphenol	1.233	1.212	1.7	105	0.00	4.93
24	I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	6.10
29	t	2-Nitrophenol	0.191	0.202	-5.8	103	0.00	5.55
30	t	2,4-Dimethylphenol	0.324	0.361	-11.4	108	0.00	5.67
31	t	Benzoic acid	0.251	0.233	7.2	95	0.00	5.87
33	t	2,4-Dichlorophenol	0.283	0.281	0.7	100	0.00	5.95
34		2,6-Dichlorophenol	0.271	0.281	-3.7	107	0.00	6.25
43	t	4-Chloro-3-methylphenol	0.302	0.311	-3.0	97	-0.01	7.07
47	I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	8.82
49	t	2,4,6-Trichlorophenol	0.313	0.326	-4.2	103	0.00	7.67
50	t	2,4,5-Trichlorophenol	0.326	0.319	2.1	94	0.00	7.77
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	39.374	21.3	76	0.00	8.96
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.166	0.167	-0.6	95	0.00	9.26
		----------	AvgRF	CCRF	% Dev	----------		
64		2,3,4,6-Tetrachlorophenol	0.251	0.238	5.2	92	0.00	9.39
69	I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	11.18
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	42.455	15.1	91	0.00	9.81
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	43.186	15.1	9 0	0.00	10.93

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:38 2016

8.7.17

8

Initial Calibration Verification

Job Number: JC15883 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103020.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D          Vial: 11
Acq On    :  2 Mar 2016   9:34 pm                   Operator: sarad
Sample    : icv4524-50                              Inst    : MSP
Misc      : op91633,ep4524                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  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	133	0.00	4.35
3	t	Pyridine	1.604	1.667	-3.9	128	0.08	2.05
10	t	Aniline	1.910	2.027	-6.1	137	0.01	3.96
16	t	Benzyl alcohol	0.790	0.848	-7.3	124	0.00	4.54
24	I	Naphthalene-d8	1.000	1.000	0.0	139	0.00	6.10
39	t	4-Chloroaniline	0.422	0.362	14.2	107	0.00	6.24
44	t	2-Methylnaphthalene	0.550	0.517	6.0	120	0.00	7.19
47	I	Acenaphthene-d10	1.000	1.000	0.0	130	0.00	8.82
54	t	2-Nitroaniline	0.304	0.346	-13.8	121	0.00	8.14
58	t	3-Nitroaniline	0.305	0.330	-8.2	113	0.00	8.80
62	t	Dibenzofuran	1.470	1.515	-3.1	123	0.00	9.15
68	t	4-Nitroaniline	0.306	0.335	-9.5	120	0.00	9.77
69	I	Phenanthrene-d10	1.000	1.000	0.0	142	0.00	11.18
79	t	Carbazole	1.054	1.026	2.7	118	0.00	11.61
83	I	Chrysene-d12	1.000	1.000	0.0	134	0.00	15.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:39 2016

8.7.18

8

Initial Calibration Verification

Job Number: JC15883 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103021.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D          Vial: 12
Acq On    :  2 Mar 2016  10:03 pm                   Operator: sarad
Sample    : icv4524-50                              Inst    : MSP
Misc      : op91633,ep4524                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.00	4.34
5	S	2-Fluorophenol	1.392	1.384	0.6	104	0.00	2.97
8	S	Phenol-d5	1.699	1.713	-0.8	109	0.00	3.96
24	I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	6.09
25	S	Nitrobenzene-d5	0.405	0.405	0.0	107	0.00	5.07
47	I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	8.82
51	S	2-Fluorobiphenyl	1.214	1.195	1.6	106	0.00	7.79
69	I	Phenanthrene-d10	1.000	1.000	0.0	114	0.00	11.18
73	S	2,4,6-Tribromophenol	0.094	0.089	5.3	89	0.00	10.09
83	I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	15.90
85	S	Terphenyl-d14	0.788	0.797	-1.1	96	0.00	14.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:40 2016

8.7.19

8

Initial Calibration Verification

Job Number: JC15883 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103022.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.00	4.34
4	t	N-Nitrosodimethylamine	0.600	0.543	9.5	99	0.00	1.94
11	t	bis(2-Chloroethyl)ether	1.290	1.356	-5.1	120	0.00	4.02
14	t	1,3-Dichlorobenzene	1.488	1.444	3.0	109	0.00	4.28
15	t	1,4-Dichlorobenzene	1.429	1.376	3.7	107	0.00	4.36
17	t	1,2-Dichlorobenzene	1.356	1.367	-0.8	114	0.00	4.56
20	t	2,2'-oxybis(1-Chloropropa	0.424	0.383	9.7	101	0.00	4.70
22		n-Nitroso-di-n-propylamin	0.903	0.894	1.0	108	0.00	4.88
23	t	Hexachloroethane	0.466	0.461	1.1	110	0.00	5.00
24	I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	6.10
26	t	Nitrobenzene	0.389	0.376	3.3	104	0.00	5.10
28	t	Isophorone	0.659	0.702	-6.5	107	0.00	5.44
32	t	bis(2-Chloroethoxy)methan	0.416	0.418	-0.5	104	0.00	5.78
36	t	1,2,4-Trichlorobenzene	0.313	0.310	1.0	108	0.00	6.02
38	t	Naphthalene	0.992	0.988	0.4	106	0.00	6.13
42	t	Hexachlorobutadiene	0.156	0.162	-3.8	112	0.00	6.34
47	I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	8.82
52	t	2-Chloronaphthalene	1.051	1.078	-2.6	112	0.00	7.94
55	t	Dimethylphthalate	1.215	1.170	3.7	100	0.00	8.47
56	t	Acenaphthylene	1.678	1.583	5.7	99	0.00	8.59
57	t	2,6-Dinitrotoluene	0.259	0.255	1.5	92	0.00	8.54
59	t	Acenaphthene	1.043	1.017	2.5	102	0.00	8.87
		----------	True	Calc.	% Drift		----------	
63	t	2,4-Dinitrotoluene	50.000	43.762	12.5	97	0.00	9.17
		----------	AvgRF	CCRF	% Dev		----------	
65	t	Diethylphthalate	1.207	1.155	4.3	97	0.00	9.60
66	t	Fluorene	1.200	1.168	2.7	101	0.00	9.69
67	t	4-Chlorophenyl-phenylethe	0.539	0.506	6.1	100	0.00	9.74
69	I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	11.18
		----------	AvgRF	CCRF	% Dev		----------	
71	t	n-Nitrosodiphenylamine	0.576	0.537	6.8	96	0.00	9.93
72	t	1,2-Diphenylhydrazine	0.789	0.743	5.8	98	0.00	9.98
74	t	4-Bromophenyl-phenylether	0.196	0.192	2.0	101	0.00	10.51
75	t	Hexachlorobenzene	0.212	0.189	10.8	98	0.00	10.58
		----------	AvgRF	CCRF	% Dev		----------	
77	t	Phenanthrene	1.026	0.983	4.2	102	0.00	11.22
78	t	Anthracene	1.029	0.974	5.3	98	0.00	11.30

Initial Calibration Verification

Job Number: JC15883 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103022.D
Project: BMSMC, Former Tank Farm, PR

80	t	Di-n-butylphthalate	1.228	1.242	-1.1	96	0.00	12.29
81	t	Fluoranthene	1.104	1.075	2.6	99	0.00	13.24
83	I	Chrysene-d12	1.000	1.000	0.0	101	0.00	15.90
84	t	Pyrene	1.273	1.392	-9.3	99	0.00	13.63
86	t	Butylbenzylphthalate	0.619	0.697	-12.6	93	0.00	15.00
		----------	AvgRF	CCRF	% Dev	----------		
88	t	Benzo[a]anthracene	1.044	1.135	-8.7	95	0.00	15.89
		----------	AvgRF	CCRF	% Dev	----------		
90	t	Chrysene	1.033	1.076	-4.2	95	0.00	15.95
		----------	True	Calc.	% Drift	----------		
91	t	bis(2-Ethylhexyl)phthalat	50.000	46.469	7.1	91	0.00	16.17
		----------	AvgRF	CCRF	% Dev	----------		
92	I	Perylene-d12	1.000	1.000	0.0	99	0.00	18.47
		----------	True	Calc.	% Drift	----------		
93	t	Di-n-octylphthalate	50.000	48.962	2.1	90	0.00	17.38
		----------	AvgRF	CCRF	% Dev	----------		
94	t	Benzo[b]fluoranthene	1.138	1.192	-4.7	87	0.00	17.83
95	t	Benzo[k]fluoranthene	1.096	1.232	-12.4	97	-0.01	17.88
96	t	Benzo[a]pyrene	1.004	1.154	-14.9	94	0.00	18.37
97	t	Indeno[1,2,3-cd]pyrene	0.886	1.025	-15.7	91	0.00	20.09
99	t	Dibenz[a,h]anthracene	0.955	1.071	-12.1	90	0.00	20.14
101	t	Benzo[g,h,i]perylene	1.015	1.094	-7.8	89	0.00	20.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:41 2016

8.7.20

8

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: EP4524-ICV4524
Lab FileID: P103023.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D          Vial: 14
Acq On    :  2 Mar 2016  11:02 pm                   Operator: sarad
Sample    : icv4524-50                              Inst    : MSP
Misc      : op91633,ep4524                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  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	103	0.00	4.34
2	t	1,4-Dioxane	0.711	0.616	13.4	83	0.00	1.78
6	t	Indene	2.275	2.163	4.9	89	0.00	4.67
7	t	Cumene	3.287	3.030	7.8	89	0.00	3.43
13	t	Decane	1.057	0.961	9.1	91	0.00	4.16
18	t	Acetophenone	1.799	1.668	7.3	88	0.00	4.86
24	I	Naphthalene-d8	1.000	1.000	0.0	105	0.00	6.09
27	t	Quinoline	0.721	0.630	12.6	82	-0.01	6.63
40	t	2,3-Dichloroaniline	0.359	0.294	18.1	76	0.00	7.64
41	t	Caprolactam	0.133	0.121	9.0	80	-0.03	6.71
45	t	1-Methylnaphthalene	0.670	0.603	10.0	87	0.00	7.34
46	t	Dimethylnaphthalene	0.586	0.531	9.4	86	0.00	8.18
47	I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	8.82
48	t	Hexachlorocyclopentadiene	0.261	0.270	-3.4	84	0.00	7.46
53	t	Biphenyl	1.351	1.303	3.6	92	0.00	7.94
69	I	Phenanthrene-d10	1.000	1.000	0.0	96	0.00	11.18
82	t	Octadecane	0.403	0.414	-2.7	82	0.00	11.17
		----------	AvgRF	CCRF	% Dev	----------		
92	I	Perylene-d12	1.000	1.000	0.0	90	0.00	18.46
100	t	7,12-Dimethylbenz(a)anthr	0.482	0.516	-7.1	79	0.00	17.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:22:22 2016

Initial Calibration Verification

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR
Sample: EP4524-ICV4524
Lab FileID: P103024.D

```
                    Evaluate Continuing Calibration Report

 Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D          Vial: 15
 Acq On    :  2 Mar 2016  11:31 pm                   Operator: sarad
 Sample    : icv4524-50                              Inst    : MSP
 Misc      : op91633,ep4524                          Multiplr: 1.00
 MS Integration Params: rteint.p

 Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title        : Semi Volatile Extractables by GC/MS
 Last Update  : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration

 Min. RRF     :   0.050  Min. Rel. Area :  48%  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  125  -0.01   15.90
           ----------------------- True    Calc.   % Drift  ------------
89 t   3,3'-Dichlorobenzidine     50.000  43.268     13.5  105   0.00   15.91
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    P103017A.D MP4524.M         Thu Mar 03 11:09:43 2016
```

Continuing Calibration Summary

Job Number: JC15883 **Sample:** EP4536-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103269.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4536\P103269.D          Vial: 2
Acq On    : 11 Mar 2016  11:39 am                   Operator: linseyk
Sample    : cc4524-25                               Inst    : MSP
Misc      : op91862,ep4536                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Fri Mar 11 22:35:39 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  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	154	0.00	4.22
2	t	1,4-Dioxane	0.711	0.721	-1.4	154	-0.03	1.70
3	t	Pyridine	1.604	1.671	-4.2	147	-0.04	1.88
4	t	N-Nitrosodimethylamine	0.600	0.651	-8.5	157	-0.04	1.85
5	S	2-Fluorophenol	1.392	1.493	-7.3	148	-0.01	2.85
6	t	Indene	2.275	2.332	-2.5	144	0.00	4.55
7	t	Cumene	3.287	3.318	-0.9	140	-0.02	3.32
8	S	Phenol-d5	1.699	1.799	-5.9	148	0.01	3.83
9	t	Phenol	1.753	1.855	-5.8	150	-0.03	3.84
10	t	Aniline	1.910	1.790	6.3	128	-0.01	3.83
11	t	bis(2-Chloroethyl)ether	1.290	1.305	-1.2	151	0.00	3.90
12	t	2-Chlorophenol	1.328	1.354	-2.0	145	-0.02	3.98
13	t	Decane	1.057	1.144	-8.2	156	0.00	4.04
14	t	1,3-Dichlorobenzene	1.488	1.467	1.4	141	0.00	4.15
15	t	1,4-Dichlorobenzene	1.429	1.406	1.6	138	0.00	4.25
16	t	Benzyl alcohol	0.790	0.864	-9.4	150	0.00	4.41
17	t	1,2-Dichlorobenzene	1.356	1.315	3.0	138	0.00	4.44
18	t	Acetophenone	1.799	1.873	-4.1	146	0.00	4.75
19	t	2-Methylphenol	1.130	1.154	-2.1	142	-0.01	4.59
20	t	2,2'-oxybis(1-Chloropropa	0.424	0.408	3.8	138	0.00	4.59
21	t	3&4-Methylphenol	1.233	1.296	-5.1	145	0.00	4.80
22		n-Nitroso-di-n-propylamin	0.903	0.983	-8.9	152	0.00	4.76
23	t	Hexachloroethane	0.466	0.448	3.9	137	0.00	4.88
24	I	Naphthalene-d8	1.000	1.000	0.0	152	0.00	5.97
25	S	Nitrobenzene-d5	0.405	0.433	-6.9	150	-0.01	4.95
26	t	Nitrobenzene	0.389	0.413	-6.2	151	-0.02	4.97
27	t	Quinoline	0.721	0.741	-2.8	143	0.00	6.50
28	t	Isophorone	0.659	0.735	-11.5	150	0.00	5.31
29	t	2-Nitrophenol	0.191	0.207	-8.4	143	0.00	5.43
30	t	2,4-Dimethylphenol	0.324	0.330	-1.9	139	0.00	5.54
31	t	Benzoic acid	0.251	0.272	-8.4	172	-0.02	5.73
32	t	bis(2-Chloroethoxy)methan	0.416	0.451	-8.4	150	0.00	5.66
33	t	2,4-Dichlorophenol	0.283	0.301	-6.4	141	-0.01	5.81
34		2,6-Dichlorophenol	0.271	0.278	-2.6	140	0.00	6.12
35		1,3,5-Trichlorobenzene	0.317	0.309	2.5	137	0.00	5.44
36	t	1,2,4-Trichlorobenzene	0.313	0.302	3.5	138	0.00	5.90
37		1,2,3-Trichlorobenzene	0.288	0.278	3.5	140	0.00	6.22
38	t	Naphthalene	0.992	0.988	0.4	138	0.00	6.00
39	t	4-Chloroaniline	0.422	0.441	-4.5	141	0.00	6.11
40	t	2,3-Dichloroaniline	0.359	0.365	-1.7	141	0.03	7.51
41	t	Caprolactam	0.133	0.160	-20.3#	163	0.00	6.61

Continuing Calibration Summary

Job Number: JC15883 **Sample:** EP4536-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103269.D
Project: BMSMC, Former Tank Farm, PR

42	t	Hexachlorobutadiene	0.156	0.147	5.8	134	0.00	6.22
43	t	4-Chloro-3-methylphenol	0.302	0.346	-14.6	149	0.00	6.93
44	t	2-Methylnaphthalene	0.550	0.556	-1.1	140	0.02	7.06
45	t	1-Methylnaphthalene	0.670	0.671	-0.1	138	0.02	7.20
46	t	Dimethylnaphthalene	0.586	0.603	-2.9	141	0.04	8.04
47	I	Acenaphthene-d10	1.000	1.000	0.0	156	0.00	8.68
48	t	Hexachlorocyclopentadiene	0.261	0.274	-5.0	140	-0.02	7.32
49	t	2,4,6-Trichlorophenol	0.313	0.322	-2.9	141	-0.01	7.54
50	t	2,4,5-Trichlorophenol	0.326	0.354	-8.6	151	-0.03	7.62
51	S	2-Fluorobiphenyl	1.214	1.172	3.5	141	0.00	7.66
52	t	2-Chloronaphthalene	1.051	1.008	4.1	139	0.00	7.81
53	t	Biphenyl	1.351	1.303	3.6	140	0.00	7.80
54	t	2-Nitroaniline	0.304	0.348	-14.5	154	0.00	8.00
55	t	Dimethylphthalate	1.215	1.237	-1.8	146	0.00	8.33
56	t	Acenaphthylene	1.678	1.624	3.2	136	0.00	8.45
57	t	2,6-Dinitrotoluene	0.259	0.283	-9.3	150	0.00	8.40
58	t	3-Nitroaniline	0.305	0.336	-10.2	146	0.00	8.66
59	t	Acenaphthene	1.043	1.012	3.0	138	0.00	8.73
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	48.824	2.4	171	0.01	8.83
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.166	0.182	-9.6	157	-0.04	9.07
62	t	Dibenzofuran	1.470	1.454	1.1	139	0.00	9.01
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	25.000	23.000	8.0	146	0.02	9.04
		----------	AvgRF	CCRF	% Dev	----------		
64		2,3,4,6-Tetrachlorophenol	0.251	0.265	-5.6	149	0.00	9.25
65	t	Diethylphthalate	1.207	1.243	-3.0	146	0.02	9.47
66	t	Fluorene	1.200	1.199	0.1	142	0.01	9.56
67	t	4-Chlorophenyl-phenylethe	0.539	0.520	3.5	138	0.01	9.59
68	t	4-Nitroaniline	0.306	0.327	-6.9	150	0.02	9.64
69	I	Phenanthrene-d10	1.000	1.000	0.0	151	0.00	11.04
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	24.515	1.9	156	0.00	9.68
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.576	0.600	-4.2	142	0.00	9.80
72	t	1,2-Diphenylhydrazine	0.789	0.867	-9.9	149	0.00	9.84
73	S	2,4,6-Tribromophenol	0.094	0.101	-7.4	149	-0.01	9.95
74	t	4-Bromophenyl-phenylether	0.196	0.201	-2.6	145	0.00	10.37
75	t	Hexachlorobenzene	0.212	0.207	2.4	143	0.00	10.44
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	49.746	0.5	163	0.00	10.78
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.026	1.027	-0.1	137	0.00	11.08
78	t	Anthracene	1.029	1.042	-1.3	137	0.00	11.16
79	t	Carbazole	1.054	1.113	-5.6	140	0.00	11.46
80	t	Di-n-butylphthalate	1.228	1.405	-14.4	146	0.01	12.15
81	t	Fluoranthene	1.104	1.167	-5.7	142	0.00	13.08
82	t	Octadecane	0.403	0.430	-6.7	143	0.01	11.04

Continuing Calibration Summary

Job Number: JC15883 **Sample:** EP4536-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103269.D
Project: BMSMC, Former Tank Farm, PR

83	I	Chrysene-d12	1.000	1.000	0.0	154	0.01	15.73
84	t	Pyrene	1.273	1.316	-3.4	141	-0.01	13.47
85	S	Terphenyl-d14	0.788	0.792	-0.5	141	0.00	13.84
86	t	Butylbenzylphthalate	0.619	0.697	-12.6	152	0.01	14.83
		----------	True	Calc.	% Drift	----------		
87		Butyl stearate	25.000	25.393	-1.6	165	0.01	15.06
		----------	AvgRF	CCRF	% Dev	----------		
88	t	Benzo[a]anthracene	1.044	1.066	-2.1	142	0.01	15.71
		----------	True	Calc.	% Drift	----------		
89	t	3,3'-Dichlorobenzidine	25.000	22.190	11.2	141	0.01	15.74
		----------	AvgRF	CCRF	% Dev	----------		
90	t	Chrysene	1.033	1.031	0.2	139	0.00	15.77
		----------	True	Calc.	% Drift	----------		
91	t	bis(2-Ethylhexyl)phthalat	25.000	23.525	5.9	153	0.02	16.00
		----------	AvgRF	CCRF	% Dev	----------		
92	I	Perylene-d12	1.000	1.000	0.0	157	-0.02	18.28
		----------	True	Calc.	% Drift	----------		
93	t	Di-n-octylphthalate	25.000	23.510	6.0	158	-0.02	17.21
		----------	AvgRF	CCRF	% Dev	----------		
94	t	Benzo[b]fluoranthene	1.138	1.203	-5.7	148	-0.03	17.65
95	t	Benzo[k]fluoranthene	1.096	1.093	0.3	137	-0.04	17.70
96	t	Benzo[a]pyrene	1.004	1.072	-6.8	143	-0.03	18.18
97	t	Indeno[1,2,3-cd]pyrene	0.886	0.986	-11.3	149	-0.02	19.90
98	t	Dibenz(a,h)acridine	0.844	0.925	-9.6	151	-0.02	19.59
99	t	Dibenz[a,h]anthracene	0.955	1.020	-6.8	147	-0.02	19.95
100	t	7,12-Dimethylbenz(a)anthr	0.482	0.492	-2.1	138	-0.04	17.66
101	t	Benzo[g,h,i]perylene	1.015	1.060	-4.4	146	-0.03	20.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103018A.D MP4524.M Mon Mar 14 12:10:43 2016

8.7.23

8

Continuing Calibration Summary

Job Number: JC15883 **Sample:** EP4536-CC4514
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103270.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4536\P103270.D          Vial: 3
Acq On    : 11 Mar 2016  12:10 pm                   Operator: linseyk
Sample    : cc4514-25                               Inst    : MSP
Misc      : op91862,ep4536                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Mon Mar 14 12:46:33 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
102	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	124	0.00	4.22
103		Benzaldehyde	1.202	1.146	4.7	121	-0.02	3.70
104	I	Phenanthrene-d10b	1.000	1.000	0.0	121	-0.02	11.04
105		Atrazine	0.204	0.226	-10.8	133	-0.01	10.70
106	I	Chrysene-d12b	1.000	1.000	0.0	128	-0.03	15.72
107		Benzidine	0.704	0.675	4.1	118	-0.03	13.39
108	I	Naphthalene-d8b	1.000	1.000	0.0	125	-0.01	5.97
109		Hydroquinone	0.367	0.395	-7.6	125	0.08	6.72
110	I	Acenaphthene-d10b	1.000	1.000	0.0	131	-0.02	8.68
111		1,2,4,5-Tetrachlorobenzen	0.549	0.523	4.7	128	-0.04	7.32

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103018A.D MP4524.M Mon Mar 14 12:51:36 2016

8.7.24

8

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103277.D Vial: 10
Acq On : 11 Mar 2016 3:56 pm Operator: linseyk
Sample : jc15883-1 Inst : MSP
Misc : op91987,ep4536,970 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 16:19:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	164100	40.00	ppm	0.00
24) Naphthalene-d8	5.97	136	556263	40.00	ppm	-0.01
47) Acenaphthene-d10	8.68	164	328361	40.00	ppm	-0.02
69) Phenanthrene-d10	11.04	188	501635	40.00	ppm	-0.02
83) Chrysene-d12	15.72	240	451610	40.00	ppm	-0.03
92) Perylene-d12	18.27	264	405108	40.00	ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	164100	40.00	ppm	0.00
104) Phenanthrene-d10b	11.04	188	501635	40.00	ppm	-0.02
106) Chrysene-d12b	15.72	240	451610	40.00	ppm	-0.03
108) Naphthalene-d8b	5.97	136	556263	40.00	ppm	-0.01
110) Acenaphthene-d10b	8.68	164	328361	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	2.85	112	173479	30.37	ppm	-0.01
Spiked Amount 50.000			Recovery = 60.74%			
8) Phenol-d5	3.83	99	151907	21.80	ppm	0.01
Spiked Amount 50.000			Recovery = 43.60%			
25) Nitrobenzene-d5	4.95	82	275958	49.00	ppm	-0.03
Spiked Amount 50.000			Recovery = 98.00%			
51) 2-Fluorobiphenyl	7.65	172	462513	46.43	ppm	-0.03
Spiked Amount 50.000			Recovery = 92.86%			
73) 2,4,6-Tribromophenol	9.95	330	60766	51.81	ppm	-0.03
Spiked Amount 50.000			Recovery = 103.62%			
85) Terphenyl-d14	13.84	244	403781	45.41	ppm	-0.03
Spiked Amount 50.000			Recovery = 90.82%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.70	88	15200	5.21	ppm	97

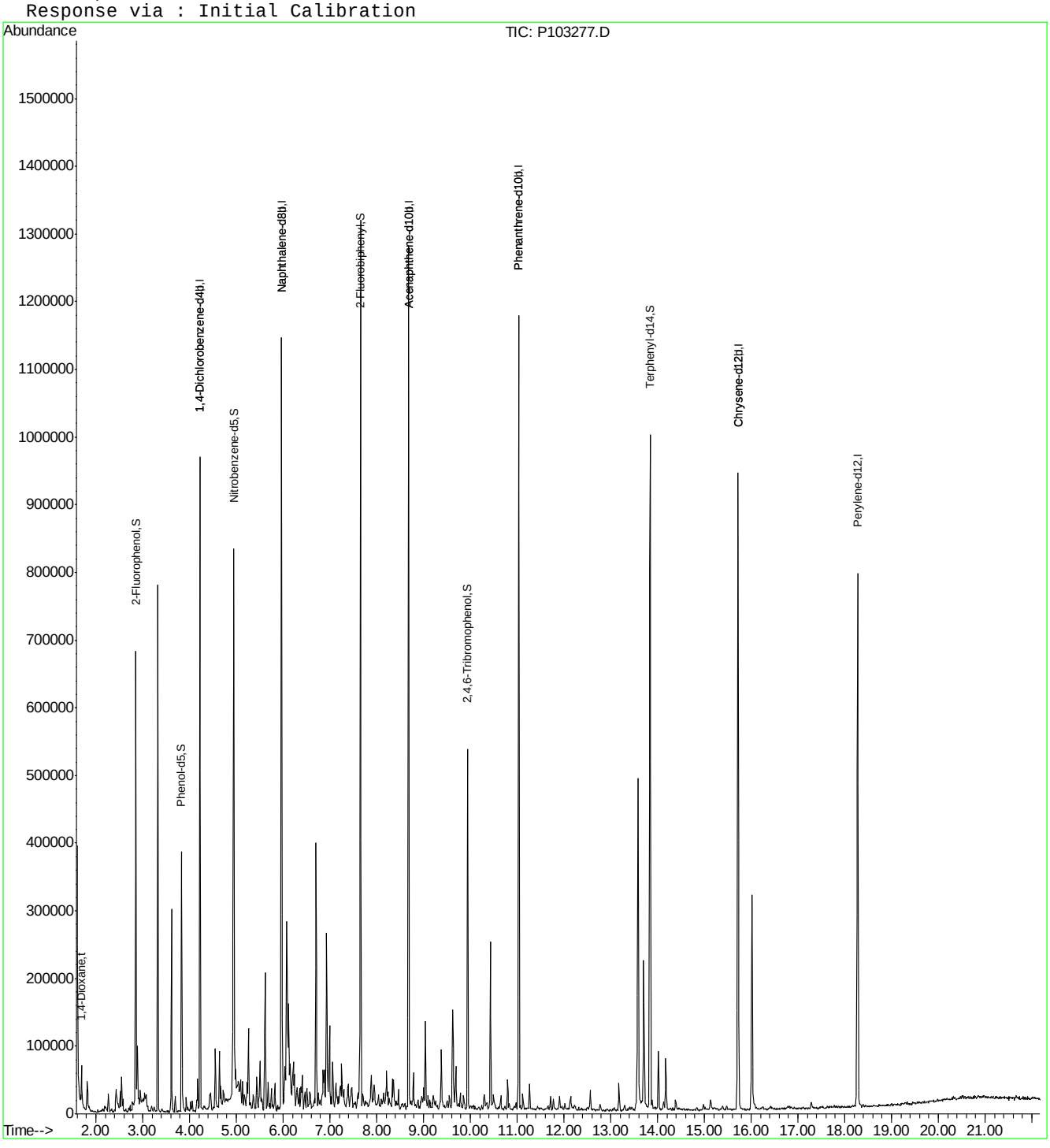
(#) = qualifier out of range (m) = manual integration (+) = signals summed

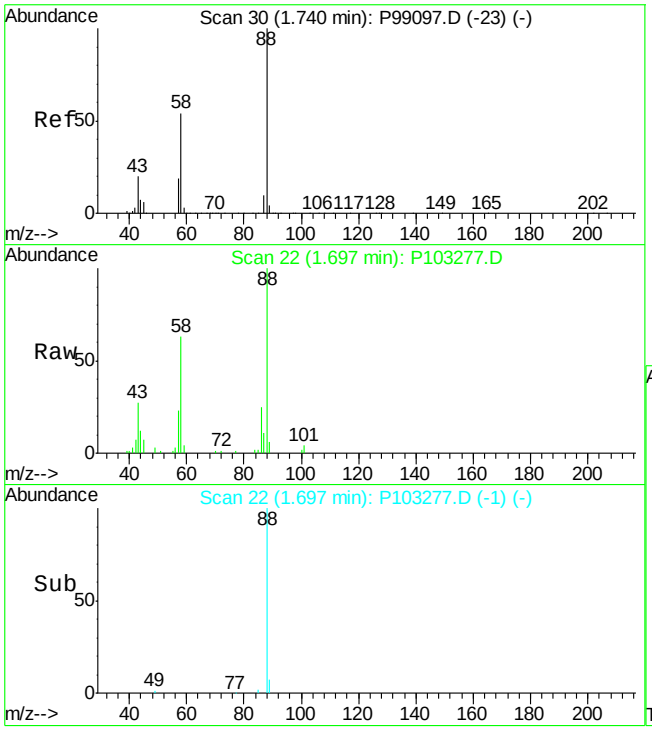
SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103277.D Vial: 10
Acq On : 11 Mar 2016 3:56 pm Operator: linseyk
Sample : jc15883-1 Inst : MSP
Misc : op91987,ep4536,970 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:25 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration

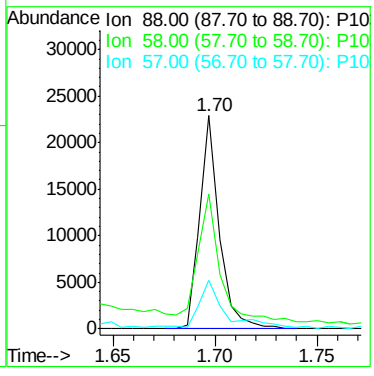




#2
1,4-Dioxane
Concen: 5.21 ppm
RT: 1.70 min Scan# 22
Delta R.T. -0.03 min
Lab File: P103277.D
Acq: 11 Mar 2016 3:56 pm

Tgt Ion: 88 Resp: 15200

Ion	Ratio	Lower	Upper
88	100		
58	58.1	31.0	91.0
57	21.8	0.0	51.2



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103278.D Vial: 11
Acq On : 11 Mar 2016 4:25 pm Operator: linseyk
Sample : jc15883-2 Inst : MSP
Misc : op91987,ep4536,970 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 16:47:57 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

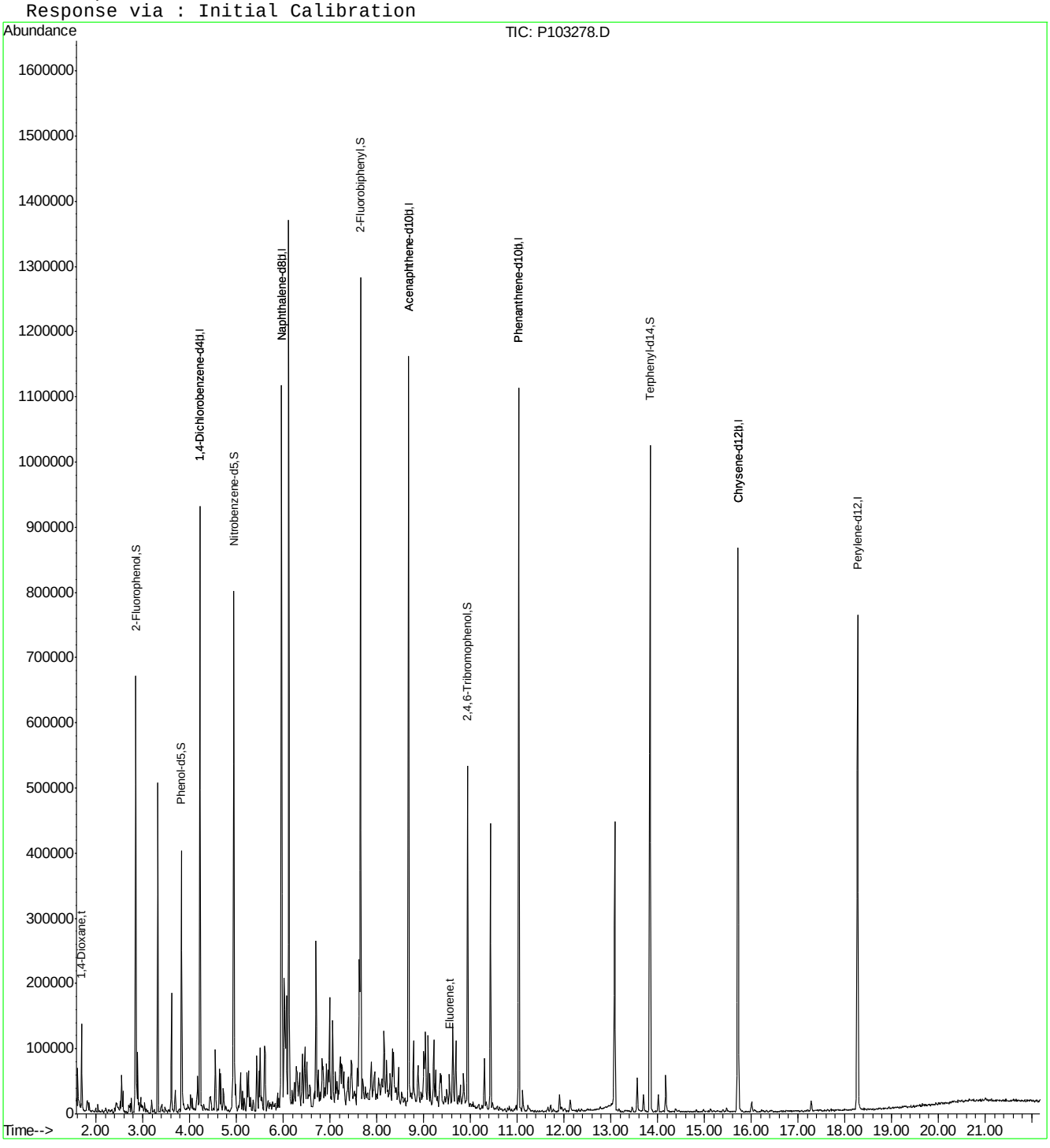
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	152953	40.00	ppm	0.00
24) Naphthalene-d8	5.97	136	527659	40.00	ppm	-0.01
47) Acenaphthene-d10	8.68	164	304537	40.00	ppm	-0.02
69) Phenanthrene-d10	11.04	188	469361	40.00	ppm	-0.02
83) Chrysene-d12	15.72	240	427577	40.00	ppm	-0.03
92) Perylene-d12	18.27	264	378513	40.00	ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	152953	40.00	ppm	0.00
104) Phenanthrene-d10b	11.04	188	469361	40.00	ppm	-0.02
106) Chrysene-d12b	15.72	240	427577	40.00	ppm	-0.03
108) Naphthalene-d8b	5.97	136	527659	40.00	ppm	-0.01
110) Acenaphthene-d10b	8.68	164	304537	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	2.85	112	175588	32.98	ppm	-0.01
Spiked Amount 50.000			Recovery = 65.96%			
8) Phenol-d5	3.83	99	150381	23.15	ppm	0.01
Spiked Amount 50.000			Recovery = 46.30%			
25) Nitrobenzene-d5	4.95	82	277643	51.98	ppm	-0.03
Spiked Amount 50.000			Recovery = 103.96%			
51) 2-Fluorobiphenyl	7.65	172	444955	48.16	ppm	-0.03
Spiked Amount 50.000			Recovery = 96.32%			
73) 2,4,6-Tribromophenol	9.94	330	58718	53.51	ppm	-0.03
Spiked Amount 50.000			Recovery = 107.02%			
85) Terphenyl-d14	13.84	244	405279	48.14	ppm	-0.03
Spiked Amount 50.000			Recovery = 96.28%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.70	88	32663	12.02	ppm	100
66) Fluorene	9.55	166	4785	0.52	ppm	92

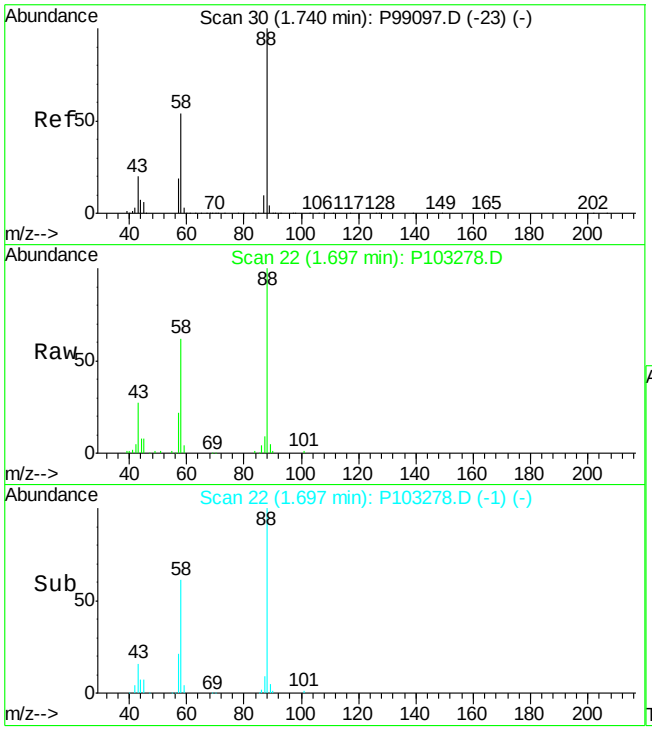
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103278.D Vial: 11
Acq On : 11 Mar 2016 4:25 pm Operator: linseyk
Sample : jc15883-2 Inst : MSP
Misc : op91987,ep4536,970 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:28 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration

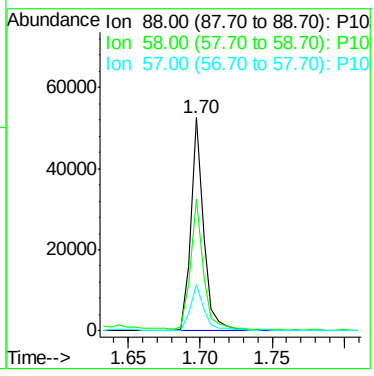


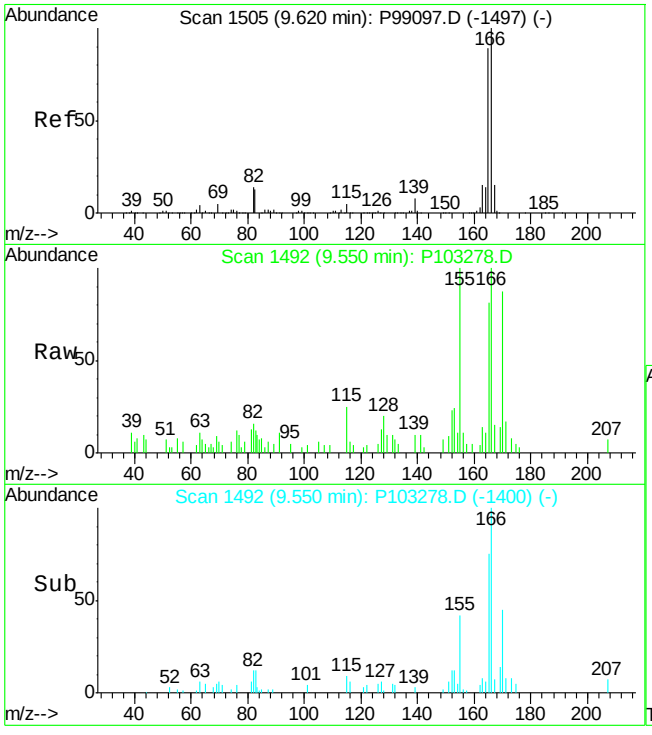


#2
1,4-Dioxane
Concen: 12.02 ppm
RT: 1.70 min Scan# 22
Delta R.T. -0.03 min
Lab File: P103278.D
Acq: 11 Mar 2016 4:25 pm

Tgt Ion: 88 Resp: 32663

Ion	Ratio	Lower	Upper
88	100		
58	60.9	31.0	91.0
57	21.5	0.0	51.2

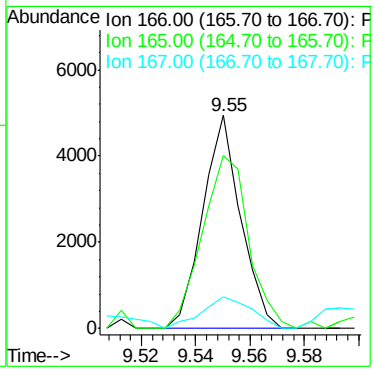




#66
Fluorene
Concen: 0.52 ppm
RT: 9.55 min Scan# 1492
Delta R.T. -0.01 min
Lab File: P103278.D
Acq: 11 Mar 2016 4:25 pm

Tgt Ion:166 Resp: 4785

Ion	Ratio	Lower	Upper
166	100		
165	81.2	59.5	119.5
167	15.1	0.0	43.7



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103279.D Vial: 12
Acq On : 11 Mar 2016 4:54 pm Operator: linseyk
Sample : jc15883-3 Inst : MSP
Misc : op91987,ep4536,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 17:16:47 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	152659	40.00 ppm	0.00
24) Naphthalene-d8	5.97	136	548525	40.00 ppm	-0.01
47) Acenaphthene-d10	8.68	164	317630	40.00 ppm	-0.02
69) Phenanthrene-d10	11.04	188	478249	40.00 ppm	-0.02
83) Chrysene-d12	15.72	240	430747	40.00 ppm	-0.03
92) Perylene-d12	18.27	264	383235	40.00 ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	152659	40.00 ppm	0.00
104) Phenanthrene-d10b	11.04	188	478249	40.00 ppm	-0.02
106) Chrysene-d12b	15.72	240	430747	40.00 ppm	-0.03
108) Naphthalene-d8b	5.97	136	548525	40.00 ppm	-0.01
110) Acenaphthene-d10b	8.68	164	317630	40.00 ppm	-0.02

System Monitoring Compounds					
5) 2-Fluorophenol	2.85	112	165119	31.08 ppm	-0.01
Spiked Amount 50.000			Recovery = 62.16%		
8) Phenol-d5	3.83	99	144086	22.22 ppm	0.02
Spiked Amount 50.000			Recovery = 44.44%		
25) Nitrobenzene-d5	4.95	82	267887	48.24 ppm	-0.03
Spiked Amount 50.000			Recovery = 96.48%		
51) 2-Fluorobiphenyl	7.65	172	457527	47.48 ppm	-0.03
Spiked Amount 50.000			Recovery = 94.96%		
73) 2,4,6-Tribromophenol	9.94	330	57230	51.18 ppm	-0.03
Spiked Amount 50.000			Recovery = 102.36%		
85) Terphenyl-d14	13.84	244	387469	45.68 ppm	-0.03
Spiked Amount 50.000			Recovery = 91.36%		

Target Compounds					Qvalue
39) 4-Chloroaniline	6.08	127	5206	0.90 ppm	89

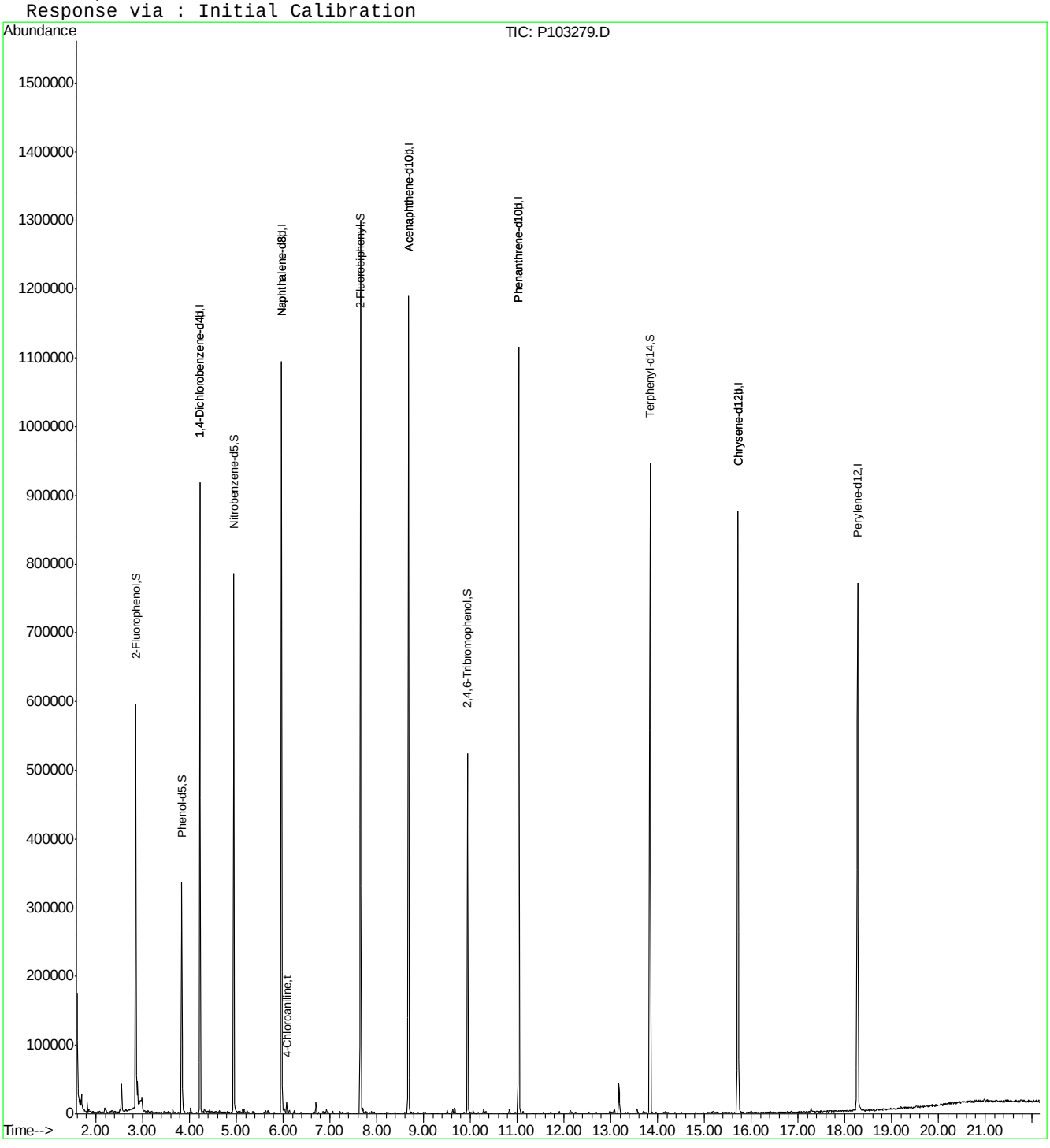
(#) = qualifier out of range (m) = manual integration (+) = signals summed

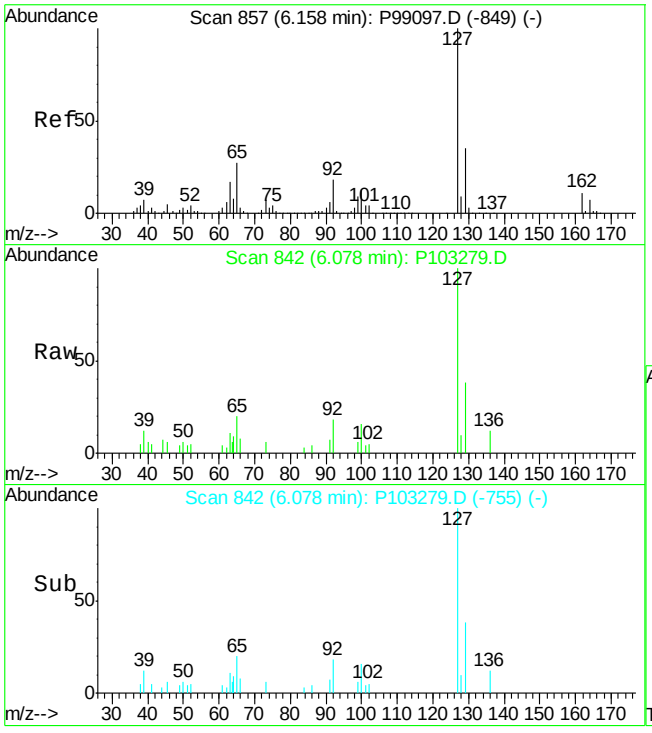
SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103279.D Vial: 12
Acq On : 11 Mar 2016 4:54 pm Operator: linseyk
Sample : jc15883-3 Inst : MSP
Misc : op91987,ep4536,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:30 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration

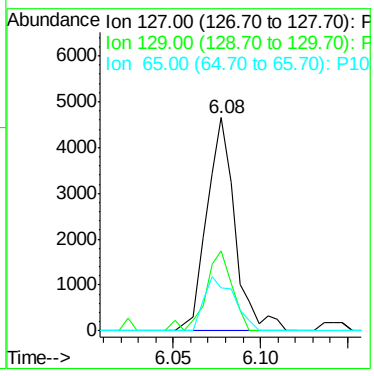




#39
4-Chloroaniline
Concen: 0.90 ppm
RT: 6.08 min Scan# 842
Delta R.T. -0.04 min
Lab File: P103279.D
Acq: 11 Mar 2016 4:54 pm

Tgt Ion:127 Resp: 5206

Ion	Ratio	Lower	Upper
127	100		
129	37.5	2.6	62.6
65	20.2	0.0	57.5



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103280.D Vial: 13
Acq On : 11 Mar 2016 5:23 pm Operator: linseyk
Sample : jc15883-4 Inst : MSP
Misc : op91987,ep4536,930 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 17:45:41 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

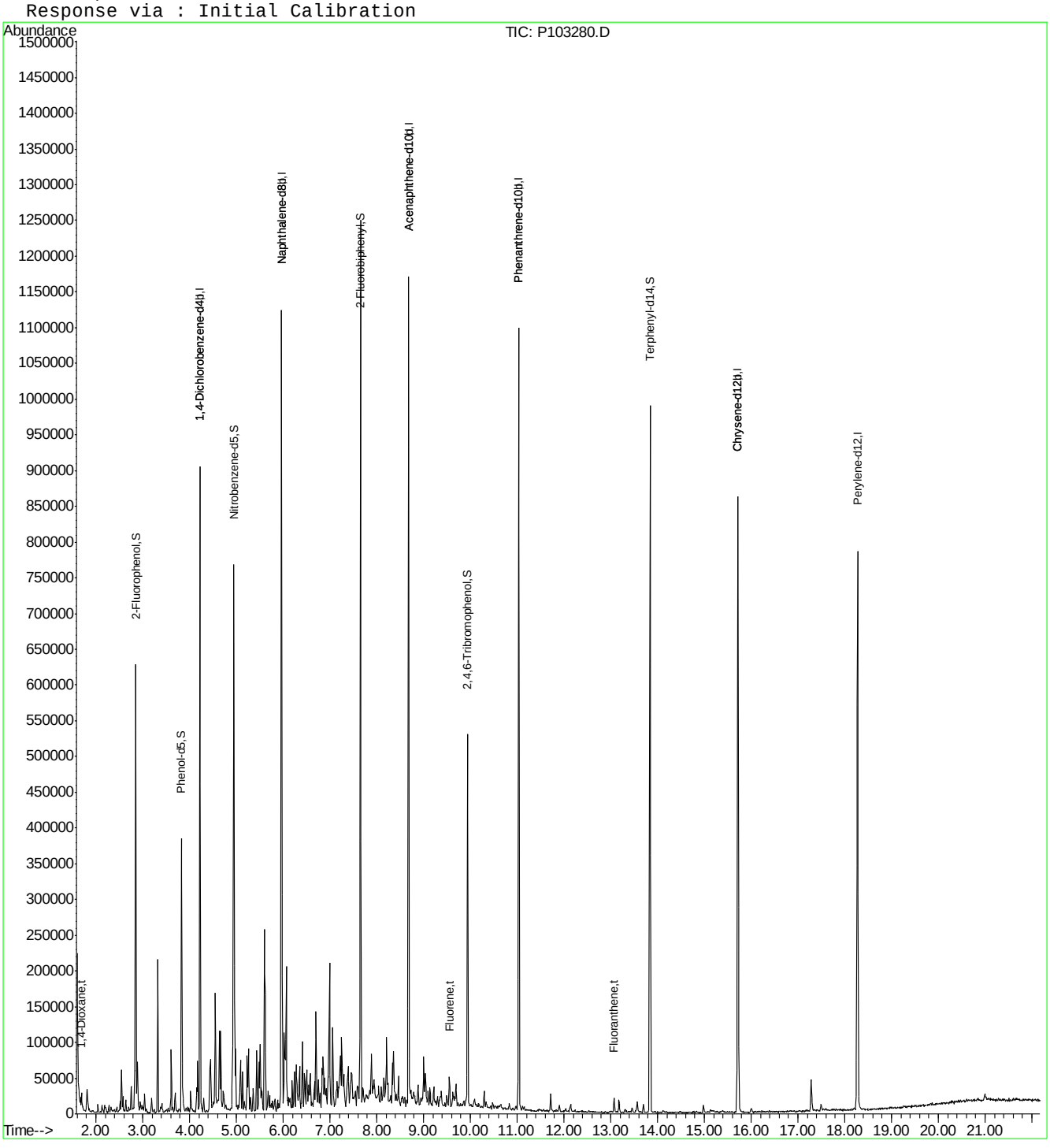
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	150017	40.00	ppm	0.00
24) Naphthalene-d8	5.97	136	525690	40.00	ppm	-0.01
47) Acenaphthene-d10	8.68	164	307204	40.00	ppm	-0.02
69) Phenanthrene-d10	11.04	188	476424	40.00	ppm	-0.02
83) Chrysene-d12	15.72	240	429893	40.00	ppm	-0.03
92) Perylene-d12	18.27	264	386428	40.00	ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	150017	40.00	ppm	0.00
104) Phenanthrene-d10b	11.04	188	476424	40.00	ppm	-0.02
106) Chrysene-d12b	15.72	240	429893	40.00	ppm	-0.03
108) Naphthalene-d8b	5.97	136	525690	40.00	ppm	-0.01
110) Acenaphthene-d10b	8.68	164	307204	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	2.85	112	167856	32.15	ppm	-0.01
Spiked Amount 50.000			Recovery = 64.30%			
8) Phenol-d5	3.83	99	150367	23.60	ppm	0.01
Spiked Amount 50.000			Recovery = 47.20%			
25) Nitrobenzene-d5	4.94	82	269264	50.60	ppm	-0.03
Spiked Amount 50.000			Recovery = 101.20%			
51) 2-Fluorobiphenyl	7.65	172	437695	46.96	ppm	-0.03
Spiked Amount 50.000			Recovery = 93.92%			
73) 2,4,6-Tribromophenol	9.94	330	58272	52.31	ppm	-0.03
Spiked Amount 50.000			Recovery = 104.62%			
85) Terphenyl-d14	13.84	244	385680	45.56	ppm	-0.03
Spiked Amount 50.000			Recovery = 91.12%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.70	88	4854	1.82	ppm	84
66) Fluorene	9.55	166	9434	1.02	ppm	99
81) Fluoranthene	13.07	202	5398	0.41	ppm	94

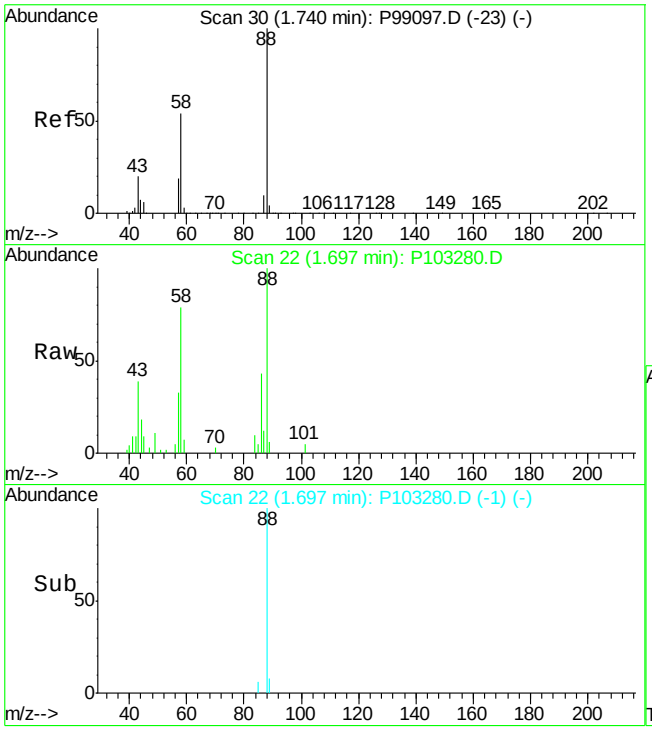
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103280.D Vial: 13
Acq On : 11 Mar 2016 5:23 pm Operator: linseyk
Sample : jc15883-4 Inst : MSP
Misc : op91987,ep4536,930 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:32 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration

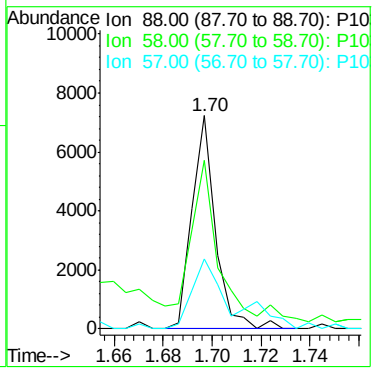


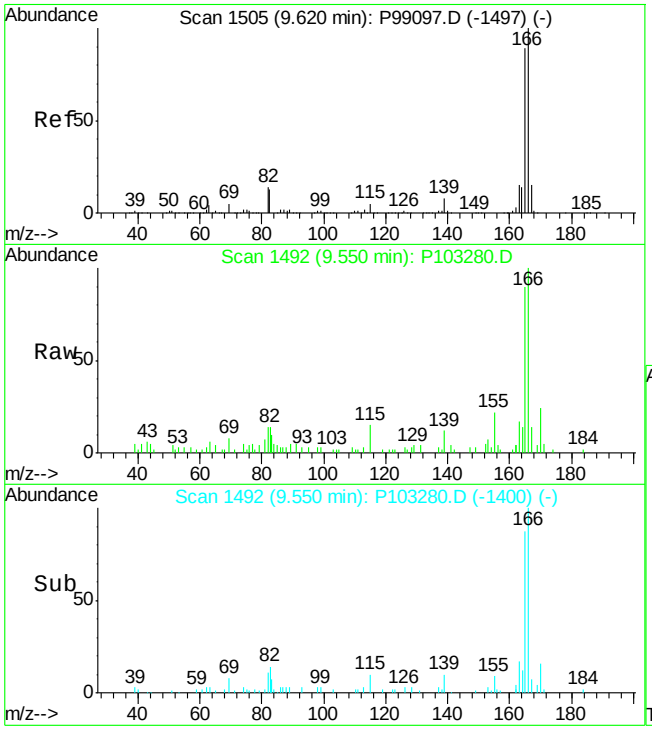


#2
1,4-Dioxane
Concen: 1.82 ppm
RT: 1.70 min Scan# 22
Delta R.T. -0.03 min
Lab File: P103280.D
Acq: 11 Mar 2016 5:23 pm

Tgt Ion: 88 Resp: 4854

Ion	Ratio	Lower	Upper
88	100		
58	71.0	31.0	91.0
57	32.5	0.0	51.2

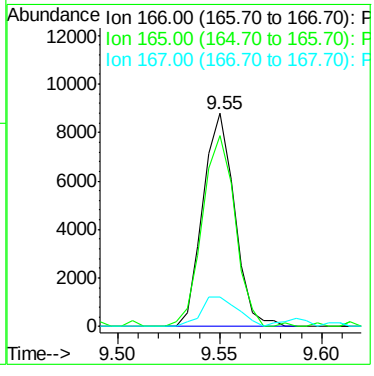


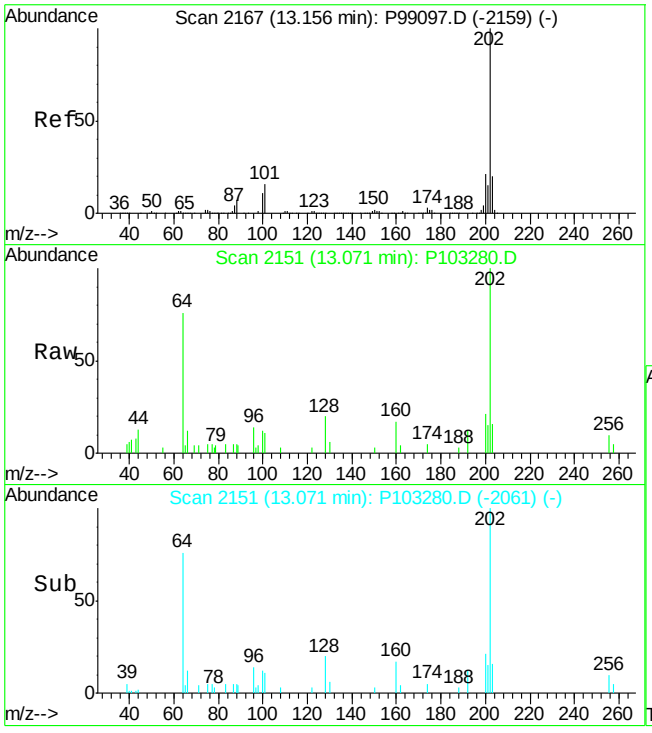


#66
Fluorene
Concen: 1.02 ppm
RT: 9.55 min Scan# 1492
Delta R.T. -0.01 min
Lab File: P103280.D
Acq: 11 Mar 2016 5:23 pm

Tgt Ion:166 Resp: 9434

Ion	Ratio	Lower	Upper
166	100		
165	89.6	59.5	119.5
167	12.1	0.0	43.7

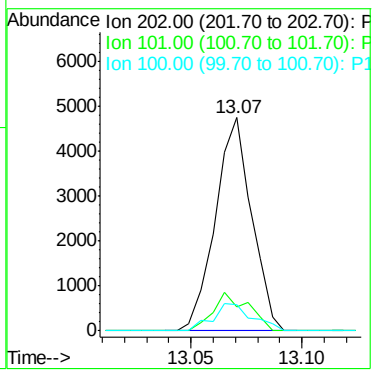




#81
Fluoranthene
Concen: 0.41 ppm
RT: 13.07 min Scan# 2151
Delta R.T. -0.02 min
Lab File: P103280.D
Acq: 11 Mar 2016 5:23 pm

Tgt Ion:202 Resp: 5398

Ion	Ratio	Lower	Upper
202	100		
101	11.3	0.0	44.5
100	12.0	0.0	40.6



9.1.4

9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64079.D
Acq On : 15 Mar 2016 3:01 pm
Operator : linseyk
Sample : jc15883-1
Misc : op91987a,e4m2841,970
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 12:54:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	291807	4.00	ppm	# 0.00
12) Fluorene-d10	12.846	176	553162	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	799204	4.00	ppm	-0.04
28) Benzo(a)pyrene-d12	21.600	264	608907	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	291807	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	553162	4.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.200	112	1719434	26.38	ppm	-0.04
Spiked Amount 50.000	Range 11 - 58		Recovery = 52.76%			
3) Phenol-d5	5.594	99	1845327	18.60	ppm	0.03
Spiked Amount 50.000			Recovery = 37.20%			
6) Nitrobenzene-d5	7.061	82	3396632	46.13	ppm	0.02
Spiked Amount 50.000			Recovery = 92.26%			
11) 2-Fluorobiphenyl	10.519	172	4114760	33.70	ppm	0.00
Spiked Amount 50.000			Recovery = 67.40%			
17) 2,4,6-Tribromophenol	13.395	330	1072119	43.67	ppm	0.00
Spiked Amount 50.000			Recovery = 87.34%			
25) Terphenyl-d14	17.806	244	5149218	39.99	ppm	-0.04
Spiked Amount 50.000			Recovery = 79.98%			
Target Compounds						Qvalue
14) Acenaphthene	11.868	153	13798	0.14	ppm	# 73
16) Fluorene	12.894	166	48543	0.29	ppm	97
36) 1,4-Dioxane	2.357	88	129944	4.85	ppm	83

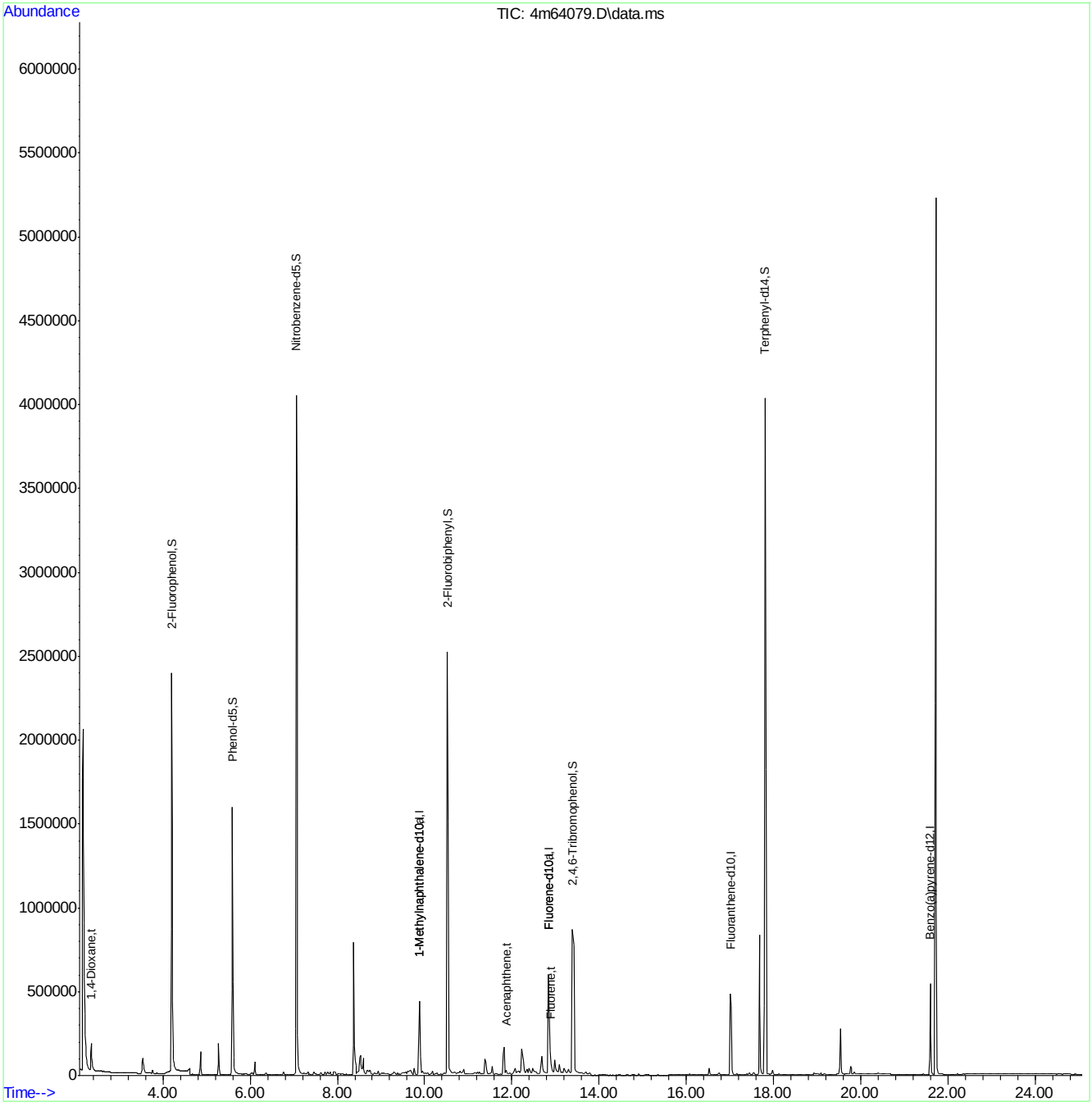
(#) = qualifier out of range (m) = manual integration (+) = signals summed

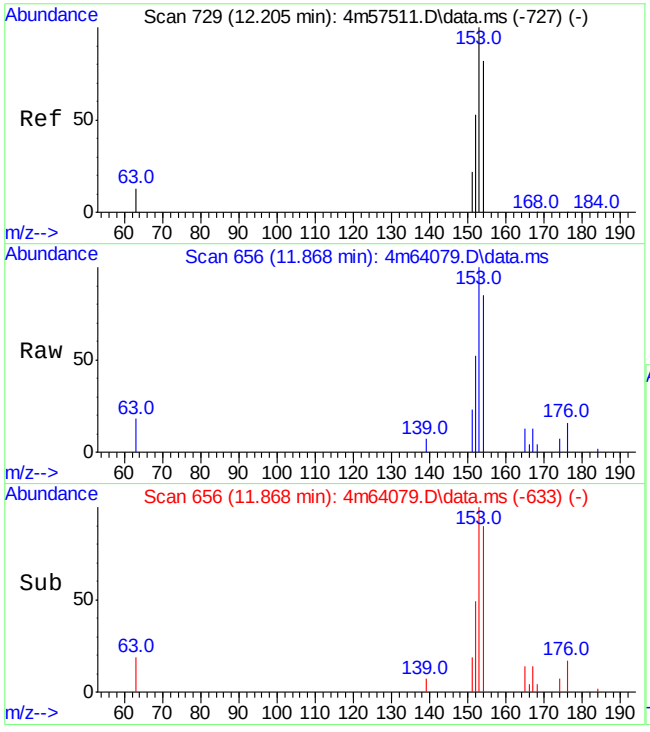
SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64079.D
Acq On : 15 Mar 2016 3:01 pm
Operator : linseyk
Sample : jc15883-1
Misc : op91987a,e4m2841,970
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 12:54:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

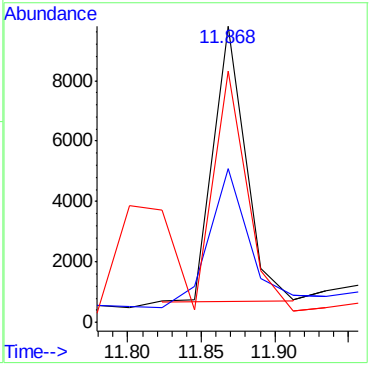


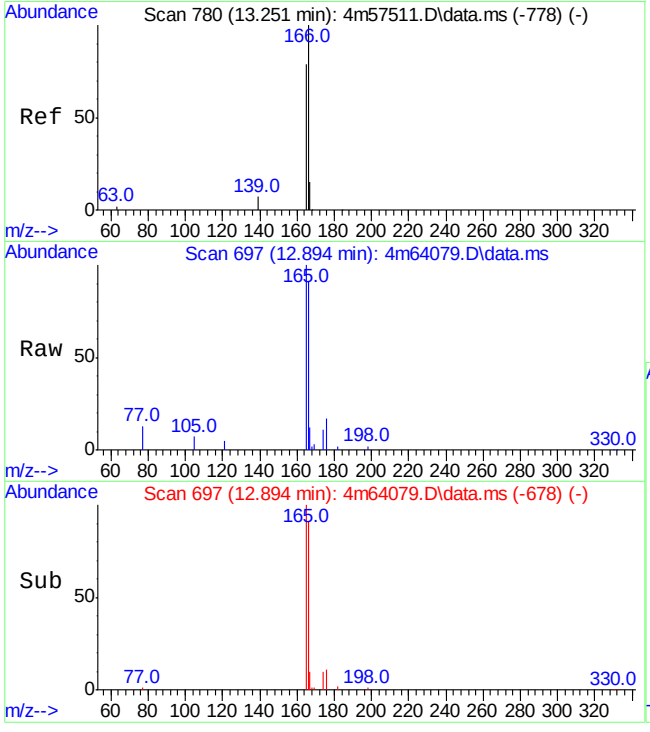


#14
Acenaphthene
Concen: 0.14 ppm
RT: 11.868 min Scan# 656
Delta R.T. 0.044 min
Lab File: 4m64079.D
Acq: 15 Mar 2016 3:01 pm

Tgt Ion:153 Resp: 13798

Ion	Ratio	Lower	Upper
153	100		
152	48.6	12.5	72.5
154	69.0	73.8	133.8#

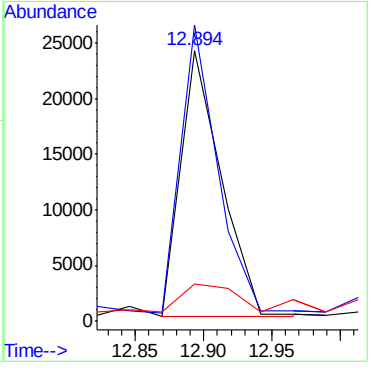


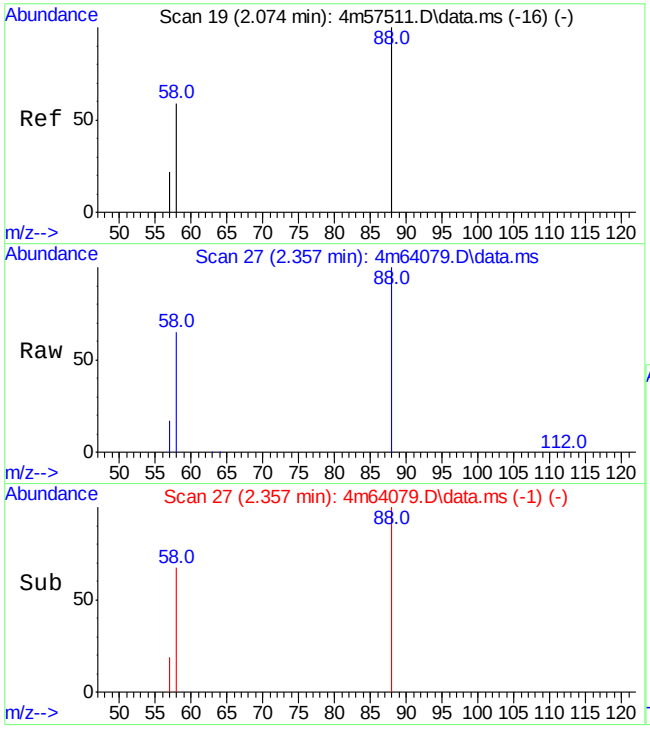


#16
Fluorene
Concen: 0.29 ppm
RT: 12.894 min Scan# 697
Delta R.T. -0.024 min
Lab File: 4m64079.D
Acq: 15 Mar 2016 3:01 pm

Tgt Ion:166 Resp: 48543

Ion	Ratio	Lower	Upper
166	100		
165	108.2	80.6	140.6
167	8.1	0.0	41.1

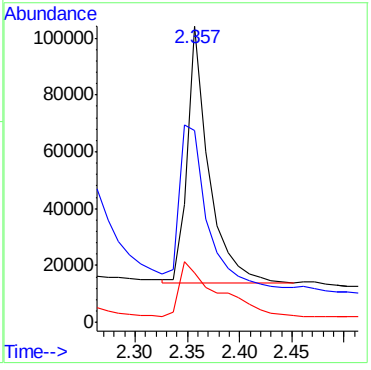




#36
1,4-Dioxane
Concen: 4.85 ppm
RT: 2.357 min Scan# 27
Delta R.T. -0.052 min
Lab File: 4m64079.D
Acq: 15 Mar 2016 3:01 pm

Tgt Ion: 88 Resp: 129944

Ion	Ratio	Lower	Upper
88	100		
58	58.9	56.2	96.2
57	17.0	0.0	35.9



9.1.5

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64080.D
Acq On : 15 Mar 2016 3:31 pm
Operator : linseyk
Sample : jc15883-2
Misc : op91987a,e4m2841,970
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 12:55:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

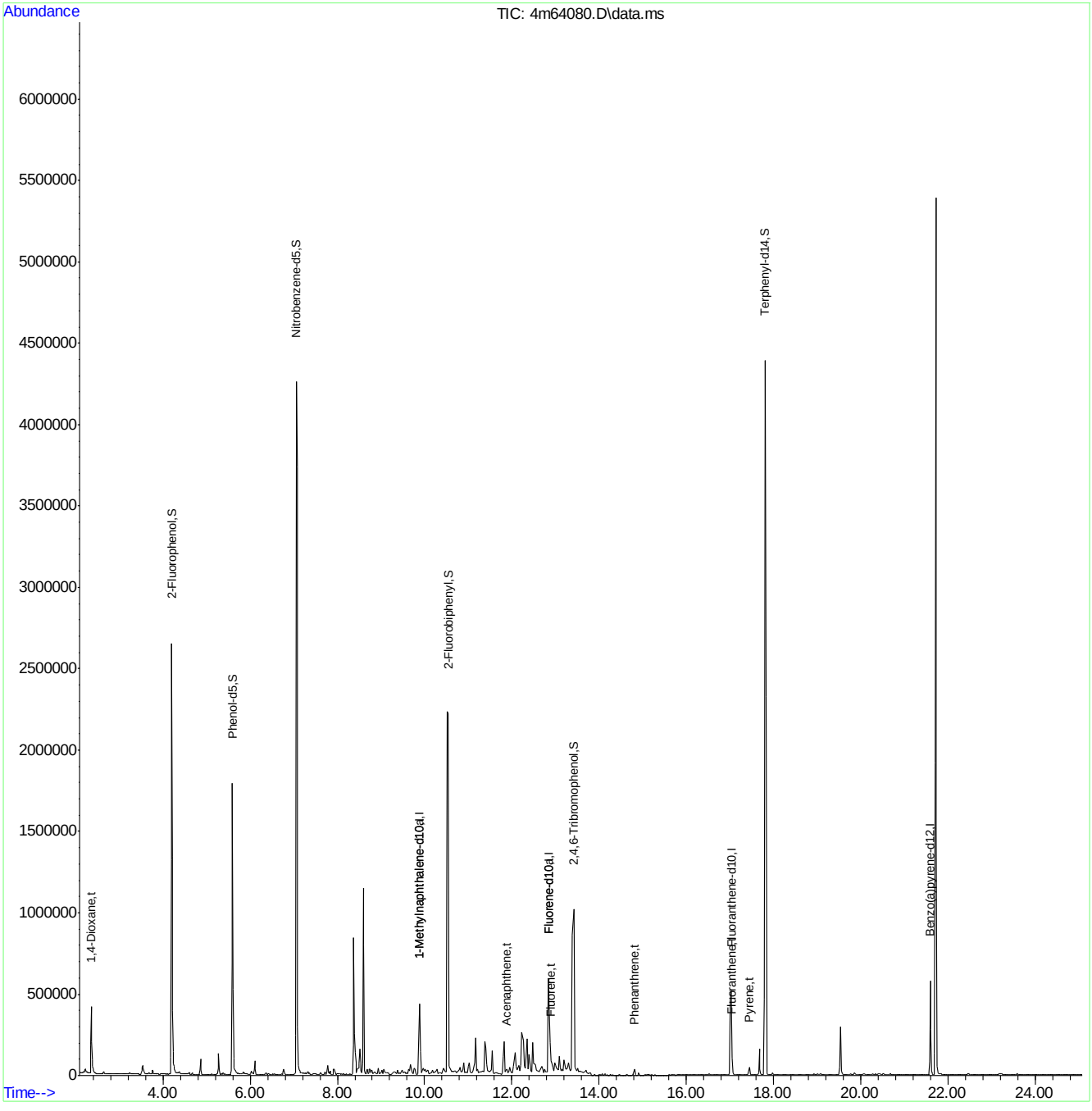
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	299345	4.00	ppm	# 0.00
12) Fluorene-d10	12.846	176	579490	4.00	ppm	0.00
22) Fluoranthene-d10	17.034	212	856202	4.00	ppm	-0.02
28) Benzo(a)pyrene-d12	21.600	264	648320	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	299345	4.00	ppm	# 0.00
38) Fluorene-d10a	12.846	176	579490	4.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.200	112	1924018	28.78	ppm	-0.04
Spiked Amount 50.000	Range 11 - 58		Recovery = 57.56%			
3) Phenol-d5	5.594	99	2054406	20.18	ppm	0.03
Spiked Amount 50.000			Recovery = 40.36%			
6) Nitrobenzene-d5	7.061	82	3759234	49.77	ppm	0.02
Spiked Amount 50.000			Recovery = 99.54%			
11) 2-Fluorobiphenyl	10.543	172	4612015	36.82	ppm	0.02
Spiked Amount 50.000			Recovery = 73.64%			
17) 2,4,6-Tribromophenol	13.419	330	1187188	46.16	ppm	0.02
Spiked Amount 50.000			Recovery = 92.32%			
25) Terphenyl-d14	17.806	244	5934860	43.03	ppm	-0.04
Spiked Amount 50.000			Recovery = 86.06%			
Target Compounds						Qvalue
14) Acenaphthene	11.868	153	14562	0.14	ppm	# 70
16) Fluorene	12.894	166	64336	0.36	ppm	98
20) Phenanthrene	14.815	178	39582	0.14	ppm	93
23) Fluoranthene	17.053	202	89240	0.30	ppm	95
24) Pyrene	17.448	202	58378	0.21	ppm	92
36) 1,4-Dioxane	2.357	88	296407	10.78	ppm	89

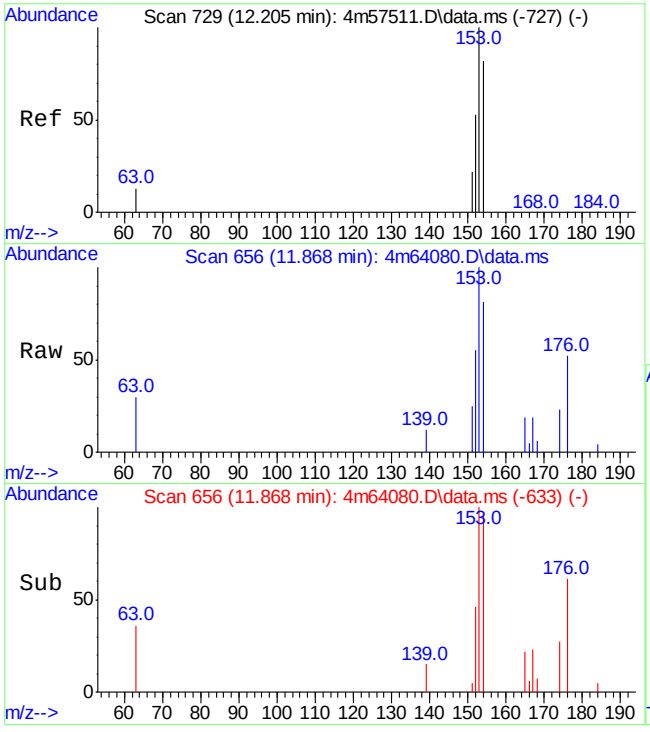
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64080.D
Acq On : 15 Mar 2016 3:31 pm
Operator : linseyk
Sample : jc15883-2
Misc : op91987a,e4m2841,970
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 12:55:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

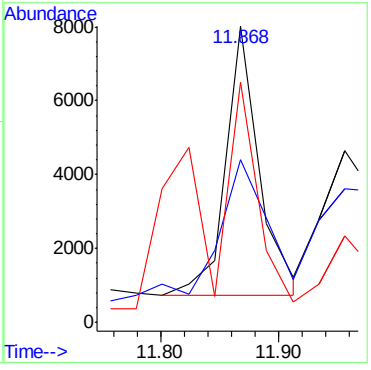


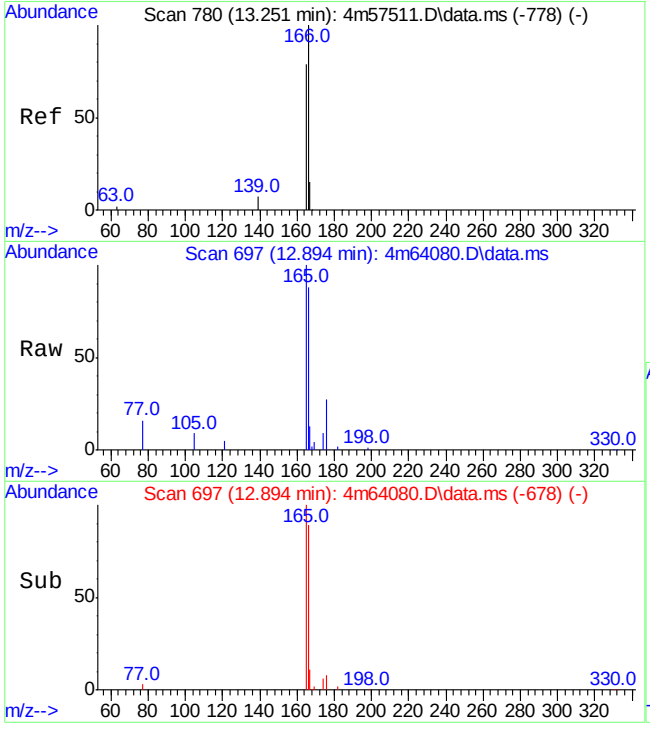


#14
Acenaphthene
Concen: 0.14 ppm
RT: 11.868 min Scan# 656
Delta R.T. 0.044 min
Lab File: 4m64080.D
Acq: 15 Mar 2016 3:31 pm

Tgt Ion:153 Resp: 14562

Ion	Ratio	Lower	Upper
153	100		
152	46.9	12.5	72.5
154	63.0	73.8	133.8#

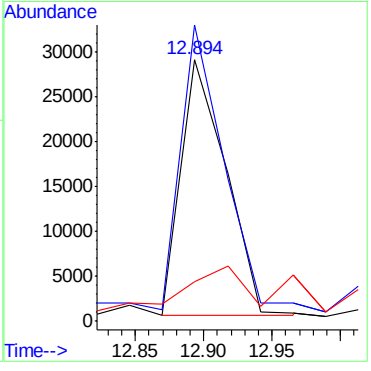


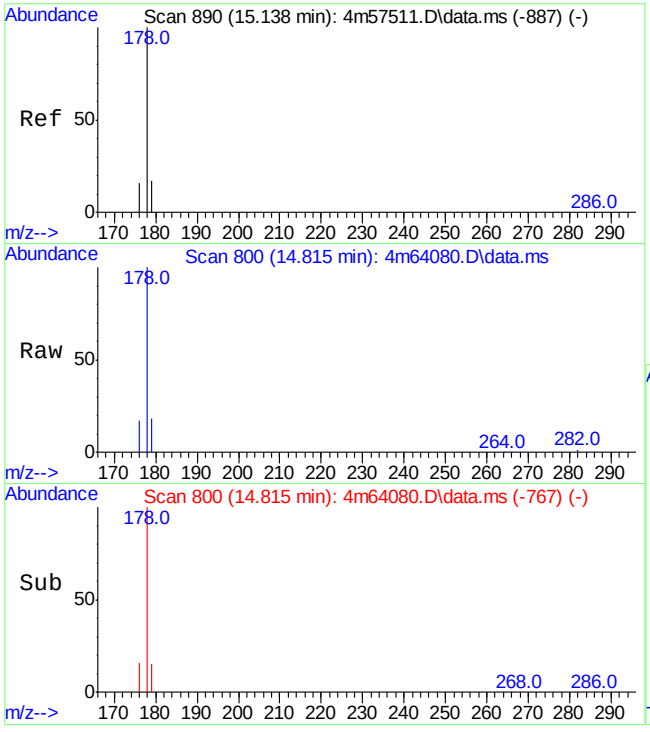


#16
Fluorene
Concen: 0.36 ppm
RT: 12.894 min Scan# 697
Delta R.T. -0.024 min
Lab File: 4m64080.D
Acq: 15 Mar 2016 3:31 pm

Tgt Ion:166 Resp: 64336

Ion	Ratio	Lower	Upper
166	100		
165	110.6	80.6	140.6
167	3.1	0.0	41.1

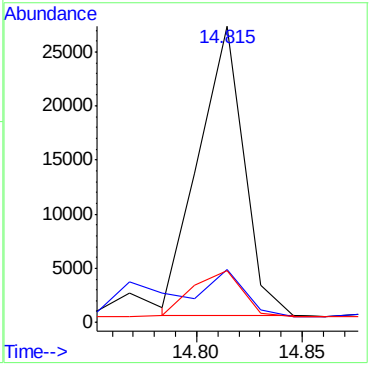


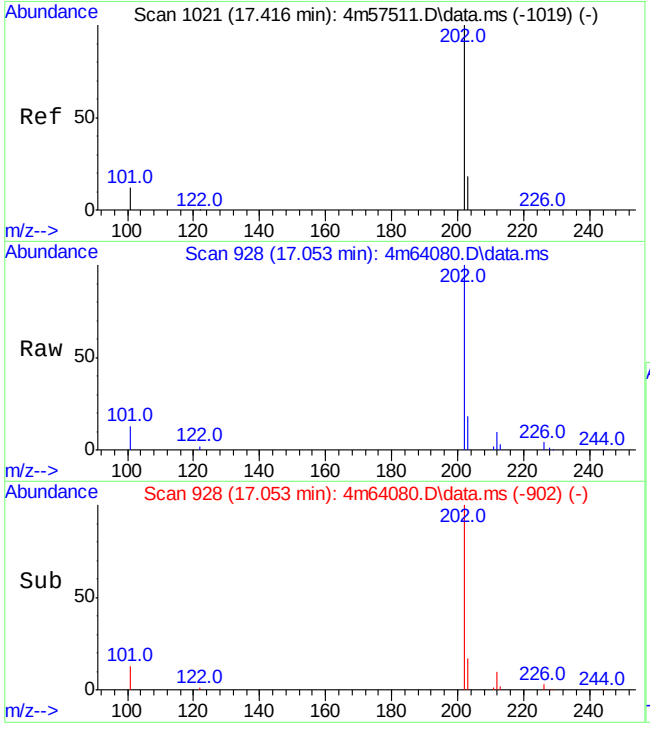


#20
Phenanthrene
Concen: 0.14 ppm
RT: 14.815 min Scan# 800
Delta R.T. 0.015 min
Lab File: 4m64080.D
Acq: 15 Mar 2016 3:31 pm

Tgt Ion:178 Resp: 39582

Ion	Ratio	Lower	Upper
178	100		
179	12.3	0.0	47.1
176	16.1	0.0	45.0

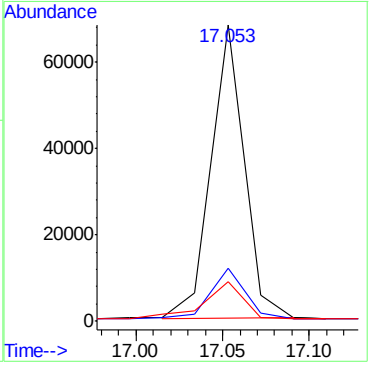


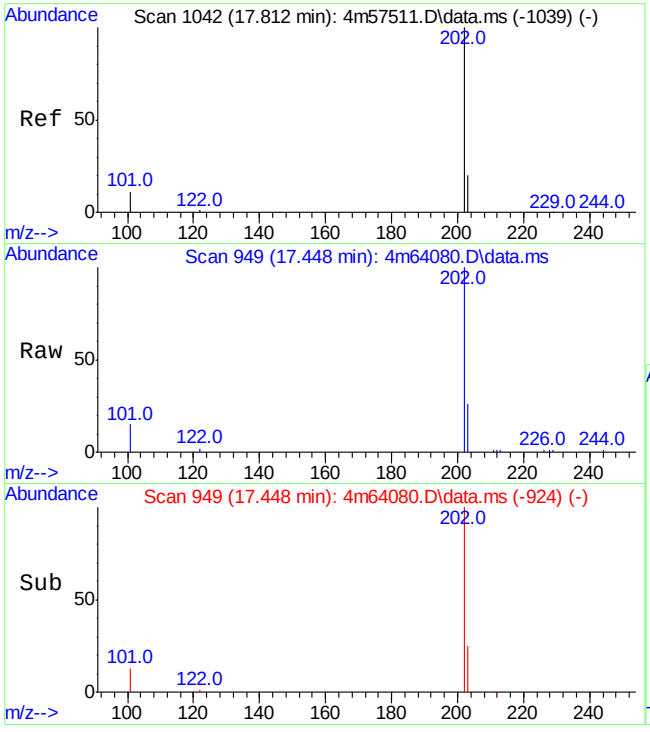


#23
Fluoranthene
Concen: 0.30 ppm
RT: 17.053 min Scan# 928
Delta R.T. -0.019 min
Lab File: 4m64080.D
Acq: 15 Mar 2016 3:31 pm

Tgt Ion:202 Resp: 89240

Ion	Ratio	Lower	Upper
202	100		
203	17.1	0.0	46.2
101	12.0	0.0	45.2

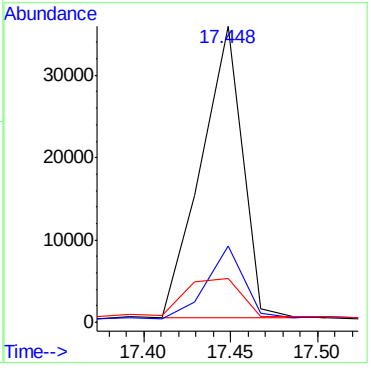


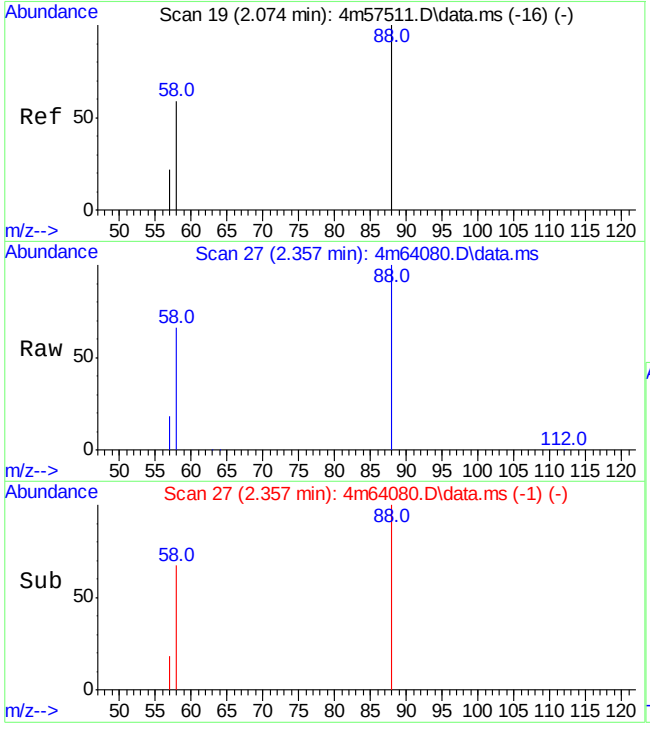


#24
Pyrene
Concen: 0.21 ppm
RT: 17.448 min Scan# 949
Delta R.T. -0.020 min
Lab File: 4m64080.D
Acq: 15 Mar 2016 3:31 pm

Tgt Ion:202 Resp: 58378

Ion	Ratio	Lower	Upper
202	100		
203	24.7	0.0	49.1
101	13.0	0.0	43.4

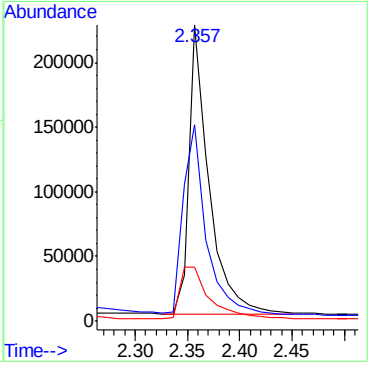




#36
1,4-Dioxane
Concen: 10.78 ppm
RT: 2.357 min Scan# 27
Delta R.T. -0.052 min
Lab File: 4m64080.D
Acq: 15 Mar 2016 3:31 pm

Tgt Ion: 88 Resp: 296407

Ion	Ratio	Lower	Upper
88	100		
58	65.6	56.2	96.2
57	18.0	0.0	35.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64081.D
Acq On : 15 Mar 2016 4:01 pm
Operator : linseyk
Sample : jc15883-3
Misc : op91987a,e4m2841,1000
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 12:56:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	303650	4.00	ppm	# 0.00
12) Fluorene-d10	12.846	176	564462	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	849338	4.00	ppm	-0.04
28) Benzo(a)pyrene-d12	21.600	264	645617	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	303650	4.00	ppm	# 0.00
38) Fluorene-d10a	12.846	176	564462	4.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.200	112	1763840	26.01	ppm	-0.04
Spiked Amount 50.000	Range 11 - 58		Recovery = 52.02%			
3) Phenol-d5	5.594	99	1906952	18.47	ppm	0.03
Spiked Amount 50.000			Recovery = 36.94%			
6) Nitrobenzene-d5	7.061	82	3534038	46.13	ppm	0.02
Spiked Amount 50.000			Recovery = 92.26%			
11) 2-Fluorobiphenyl	10.519	172	4406921	34.69	ppm	0.00
Spiked Amount 50.000			Recovery = 69.38%			
17) 2,4,6-Tribromophenol	13.395	330	1111835	44.38	ppm	0.00
Spiked Amount 50.000			Recovery = 88.76%			
25) Terphenyl-d14	17.806	244	5618536	41.06	ppm	-0.04
Spiked Amount 50.000			Recovery = 82.12%			
Target Compounds						Qvalue
36) 1,4-Dioxane	2.357	88	49019	1.76	ppm	92

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

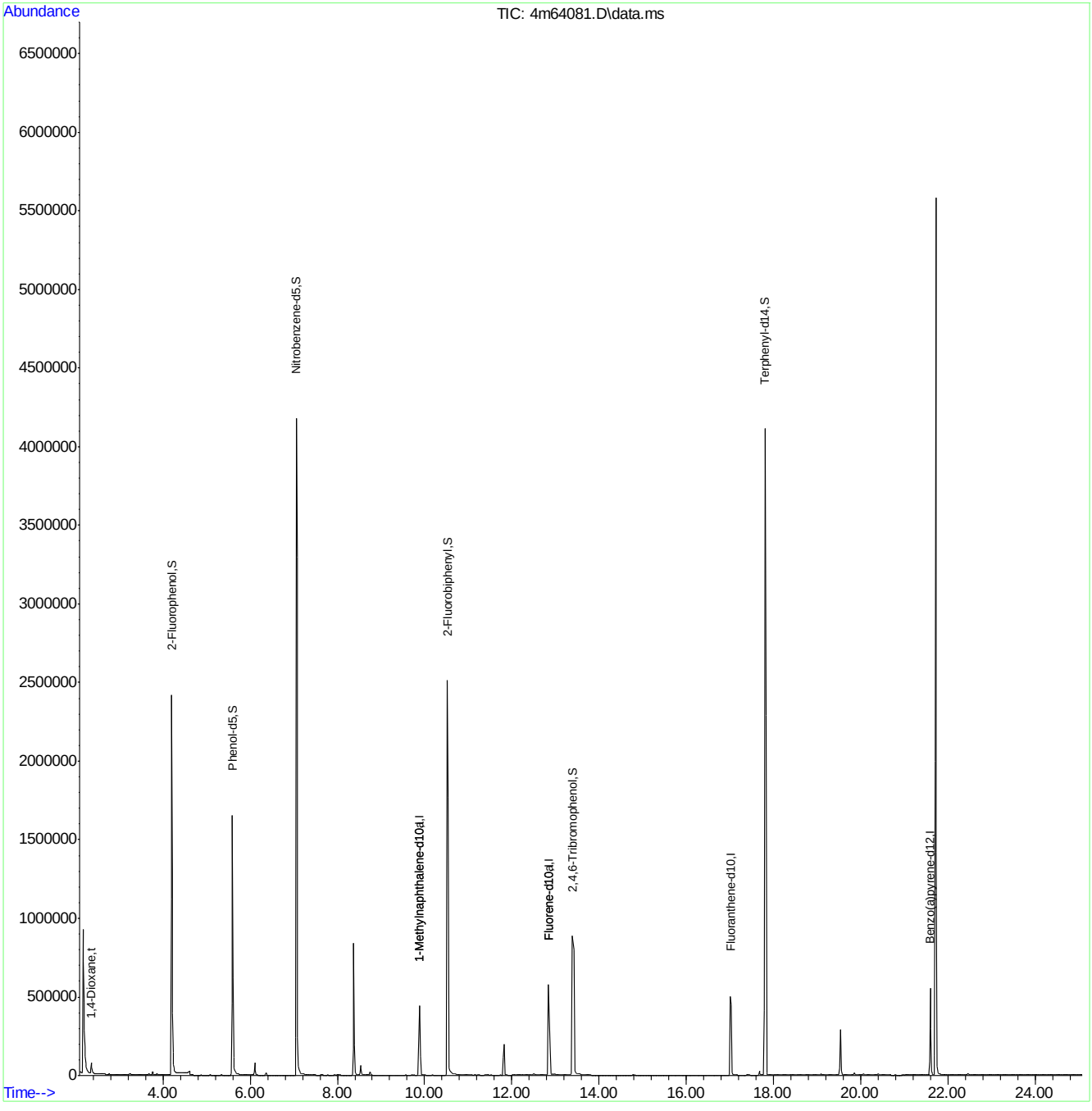
9.1.7

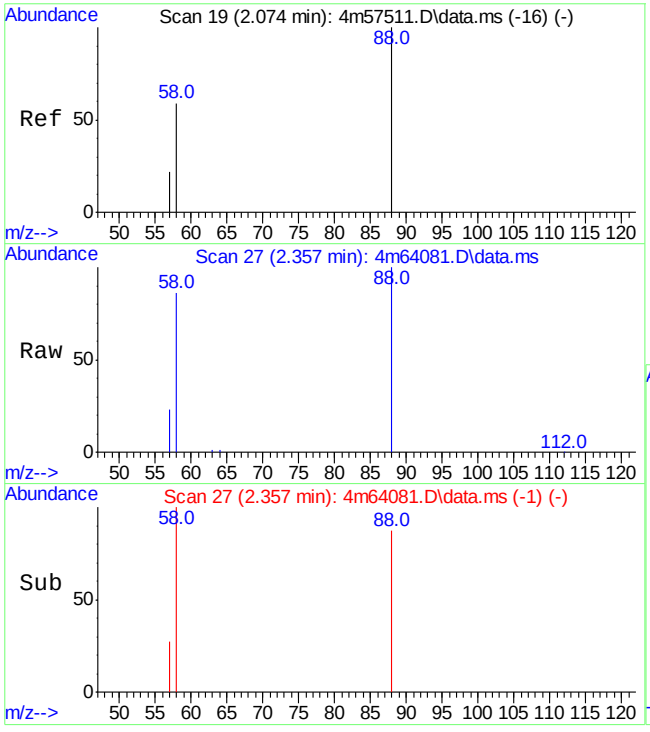
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64081.D
Acq On : 15 Mar 2016 4:01 pm
Operator : linseyk
Sample : jc15883-3
Misc : op91987a,e4m2841,1000
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 12:56:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

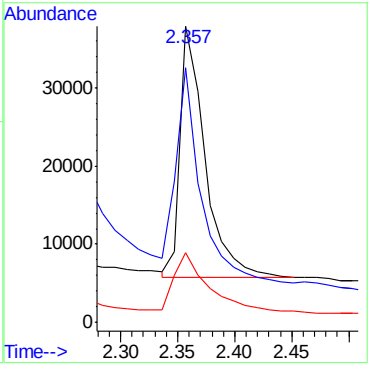




#36
1,4-Dioxane
Concen: 1.76 ppm
RT: 2.357 min Scan# 27
Delta R.T. -0.052 min
Lab File: 4m64081.D
Acq: 15 Mar 2016 4:01 pm

Tgt Ion: 88 Resp: 49019

Ion	Ratio	Lower	Upper
88	100		
58	81.9	56.2	96.2
57	23.2	0.0	35.9



9.1.7

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64082.D
Acq On : 15 Mar 2016 4:31 pm
Operator : linseyk
Sample : jc15883-4
Misc : op91987a,e4m2841,930
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 12:56:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

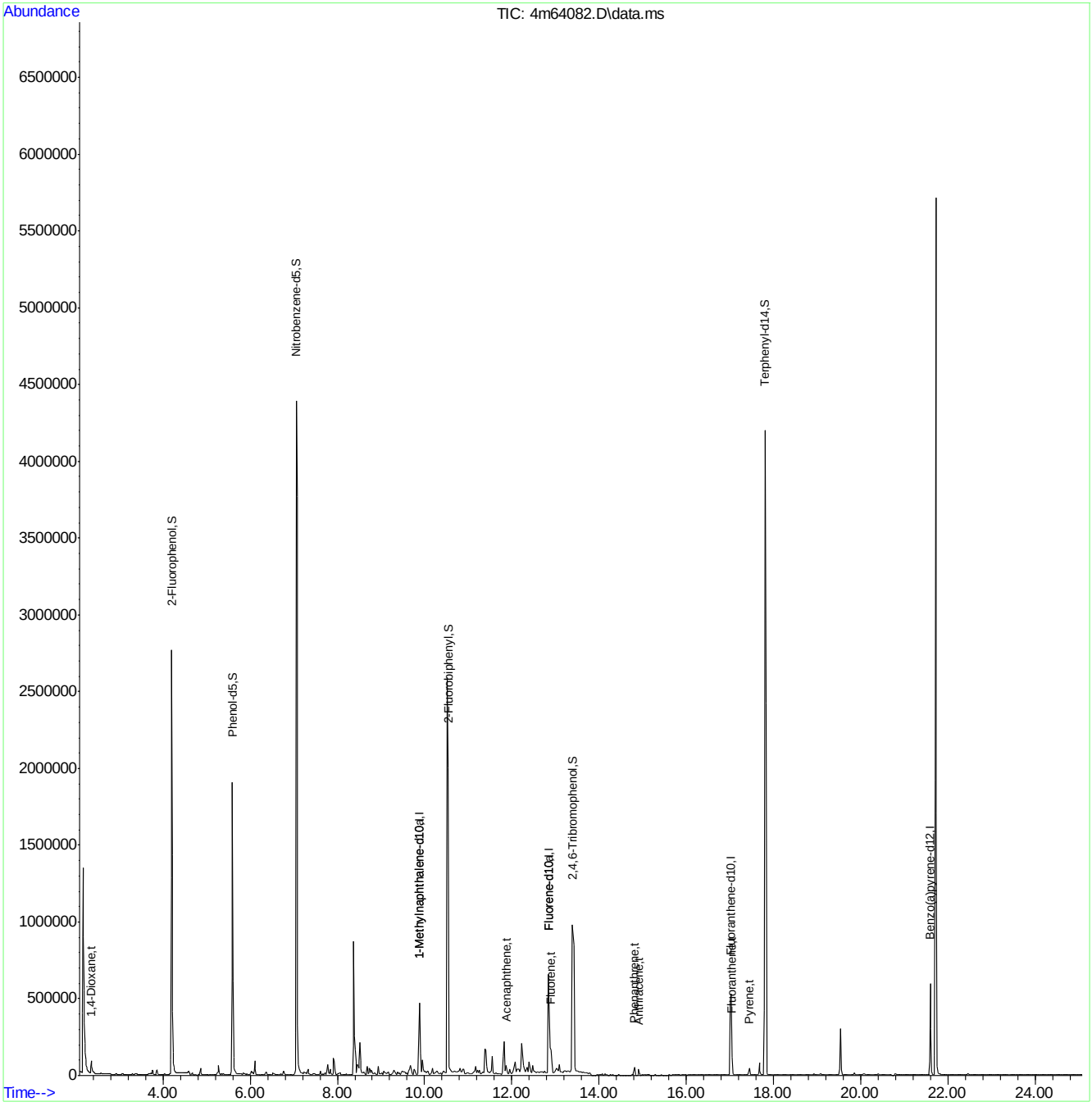
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	9.875	152	317212	4.00 ppm	# 0.00
12) Fluorene-d10	12.846	176	613765	4.00 ppm	0.00
22) Fluoranthene-d10	17.015	212	904358	4.00 ppm	-0.04
28) Benzo(a)pyrene-d12	21.600	264	685364	4.00 ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	317212	4.00 ppm	# 0.00
38) Fluorene-d10a	12.846	176	613765	4.00 ppm	# 0.00
System Monitoring Compounds					
2) 2-Fluorophenol	4.200	112	1983778	28.00 ppm	-0.04
Spiked Amount 50.000	Range 11 - 58		Recovery	= 56.00%	
3) Phenol-d5	5.594	99	2181425	20.22 ppm	0.03
Spiked Amount 50.000			Recovery	= 40.44%	
6) Nitrobenzene-d5	7.061	82	3846463	48.06 ppm	0.02
Spiked Amount 50.000			Recovery	= 96.12%	
11) 2-Fluorobiphenyl	10.543	172	4724396	35.60 ppm	0.02
Spiked Amount 50.000			Recovery	= 71.20%	
17) 2,4,6-Tribromophenol	13.395	330	1197221	43.95 ppm	0.00
Spiked Amount 50.000			Recovery	= 87.90%	
25) Terphenyl-d14	17.806	244	5783070	39.70 ppm	-0.04
Spiked Amount 50.000			Recovery	= 79.40%	
Target Compounds					Qvalue
14) Acenaphthene	11.868	153	28292	0.25 ppm	76
16) Fluorene	12.894	166	137879	0.74 ppm	96
20) Phenanthrene	14.815	178	58377	0.19 ppm	94
21) Anthracene	14.907	178	43559	0.16 ppm	99
23) Fluoranthene	17.053	202	103204	0.33 ppm	95
24) Pyrene	17.448	202	52308	0.18 ppm	92
36) 1,4-Dioxane	2.357	88	57214	1.96 ppm	91

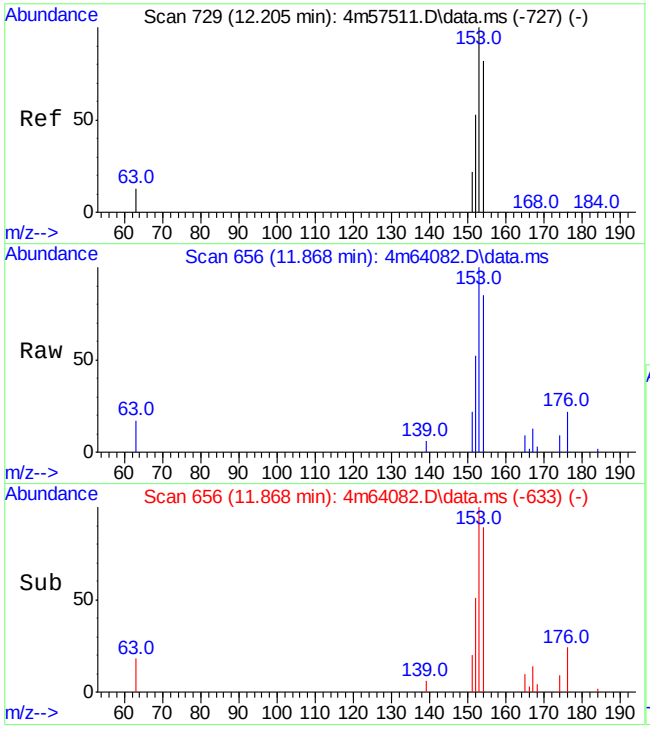
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64082.D
Acq On : 15 Mar 2016 4:31 pm
Operator : linseyk
Sample : jc15883-4
Misc : op91987a,e4m2841,930
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 12:56:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

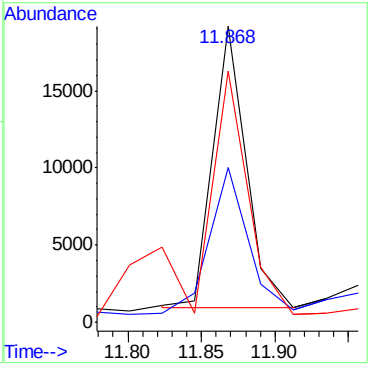


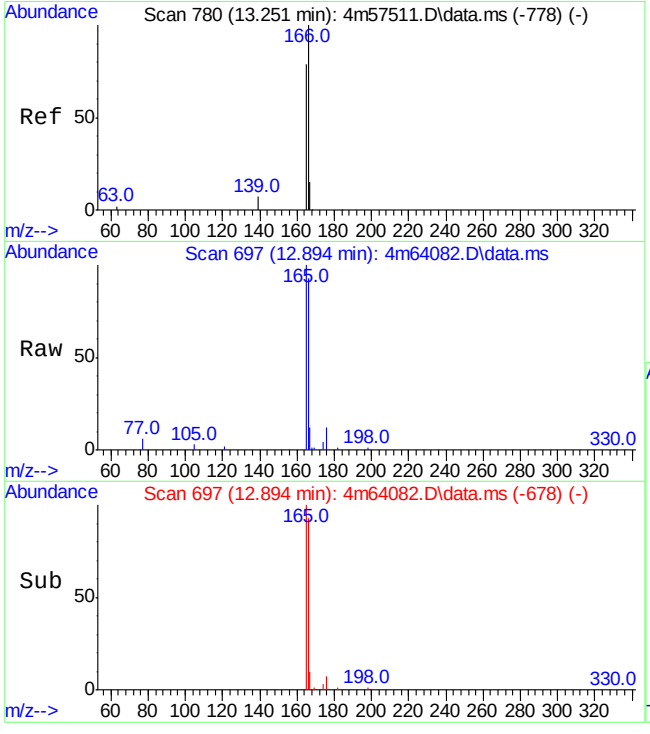


#14
Acenaphthene
Concen: 0.25 ppm
RT: 11.868 min Scan# 656
Delta R.T. 0.044 min
Lab File: 4m64082.D
Acq: 15 Mar 2016 4:31 pm

Tgt Ion:153 Resp: 28292

Ion	Ratio	Lower	Upper
153	100		
152	51.4	12.5	72.5
154	74.8	73.8	133.8

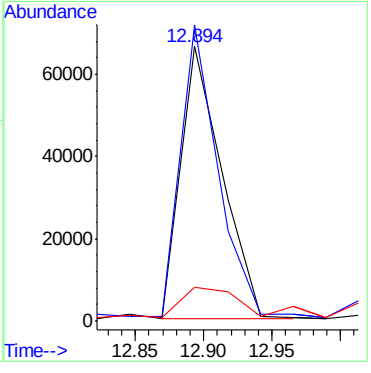


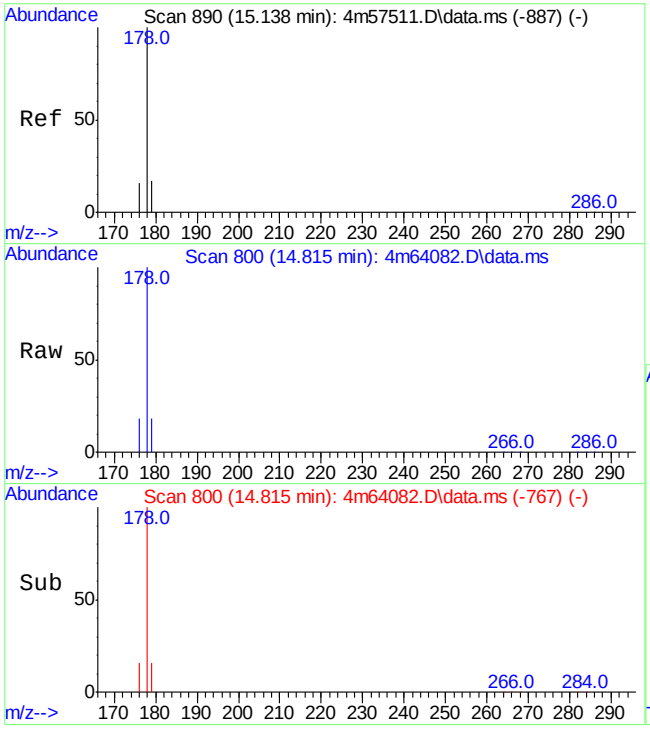


#16
Fluorene
Concen: 0.74 ppm
RT: 12.894 min Scan# 697
Delta R.T. -0.024 min
Lab File: 4m64082.D
Acq: 15 Mar 2016 4:31 pm

Tgt Ion:166 Resp: 137879

Ion	Ratio	Lower	Upper
166	100		
165	106.9	80.6	140.6
167	9.1	0.0	41.1

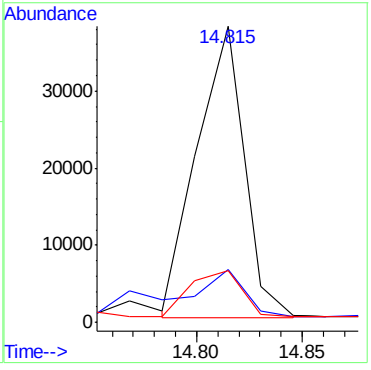


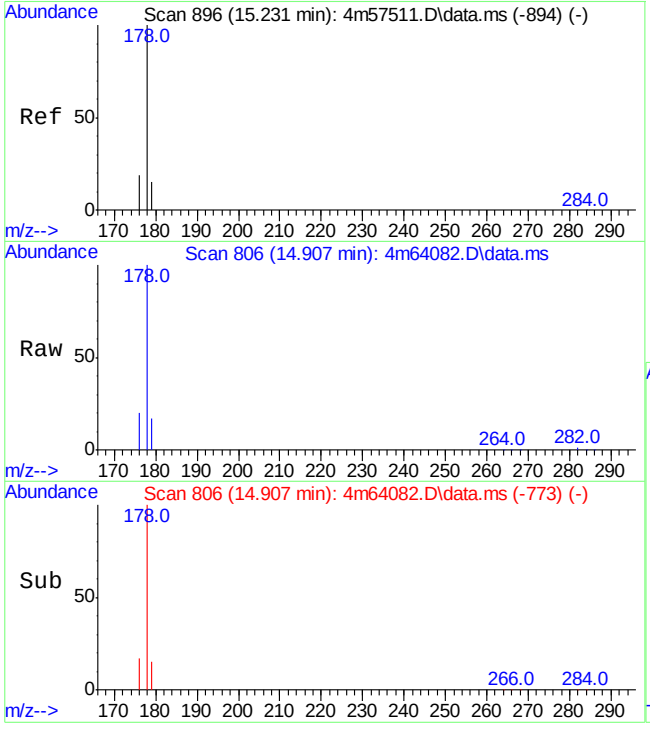


#20
Phenanthrene
Concen: 0.19 ppm
RT: 14.815 min Scan# 800
Delta R.T. 0.015 min
Lab File: 4m64082.D
Acq: 15 Mar 2016 4:31 pm

Tgt Ion:178 Resp: 58377

Ion	Ratio	Lower	Upper
178	100		
179	13.6	0.0	47.1
176	16.2	0.0	45.0

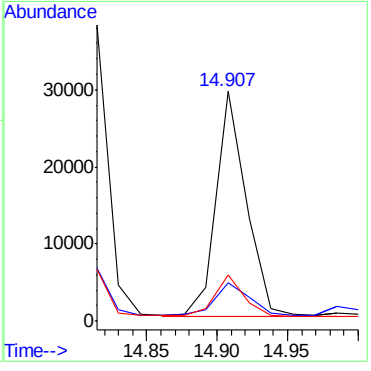


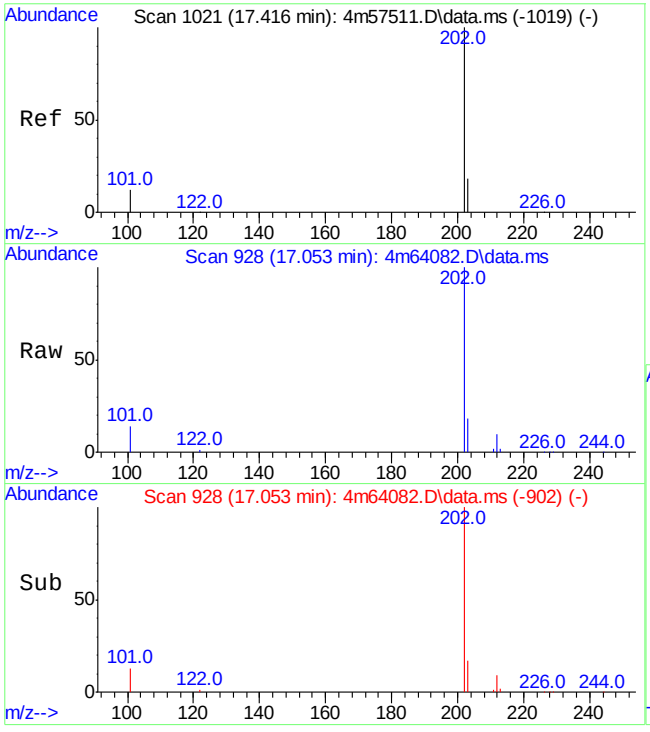


#21
Anthracene
Concen: 0.16 ppm
RT: 14.907 min Scan# 806
Delta R.T. 0.015 min
Lab File: 4m64082.D
Acq: 15 Mar 2016 4:31 pm

Tgt Ion:178 Resp: 43559

Ion	Ratio	Lower	Upper
178	100		
179	14.5	0.0	44.8
176	18.5	0.0	47.7

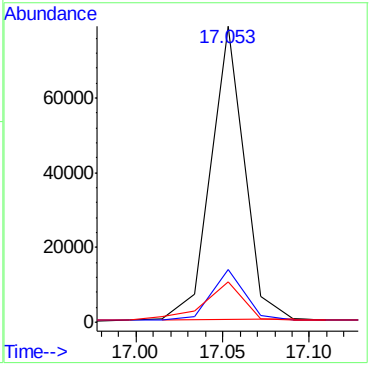


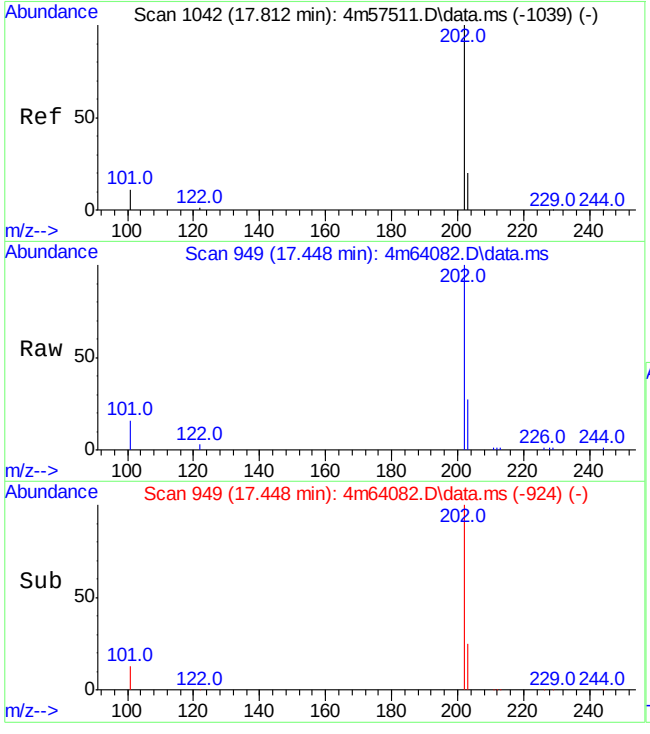


#23
Fluoranthene
Concen: 0.33 ppm
RT: 17.053 min Scan# 928
Delta R.T. -0.019 min
Lab File: 4m64082.D
Acq: 15 Mar 2016 4:31 pm

Tgt Ion:202 Resp: 103204

Ion	Ratio	Lower	Upper
202	100		
203	17.2	0.0	46.2
101	12.3	0.0	45.2

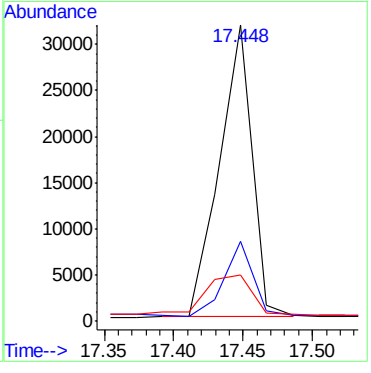


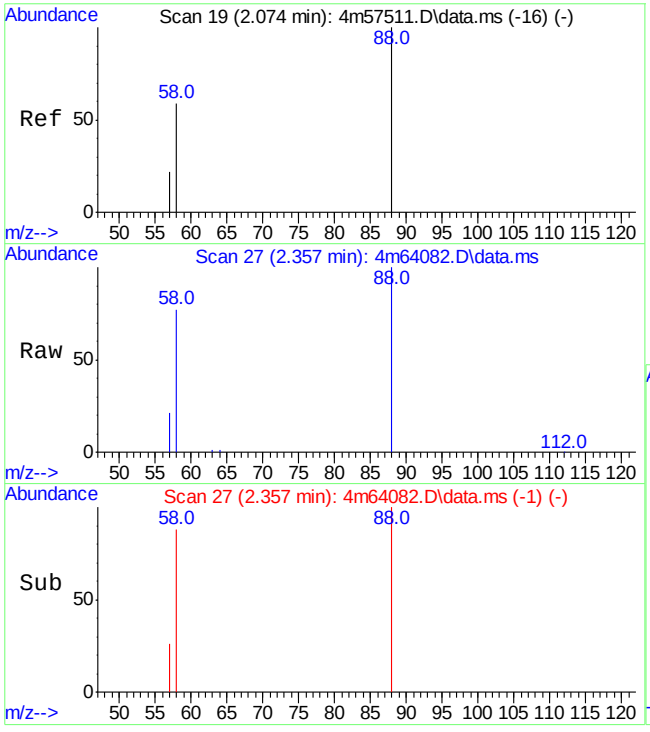


#24
Pyrene
Concen: 0.18 ppm
RT: 17.448 min Scan# 949
Delta R.T. -0.020 min
Lab File: 4m64082.D
Acq: 15 Mar 2016 4:31 pm

Tgt Ion:202 Resp: 52308

Ion	Ratio	Lower	Upper
202	100		
203	25.3	0.0	49.1
101	13.1	0.0	43.4

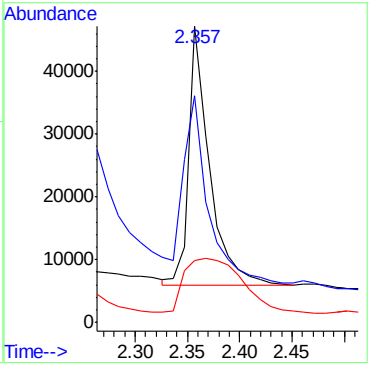




#36
1,4-Dioxane
Concen: 1.96 ppm
RT: 2.357 min Scan# 27
Delta R.T. -0.052 min
Lab File: 4m64082.D
Acq: 15 Mar 2016 4:31 pm

Tgt Ion: 88 Resp: 57214

Ion	Ratio	Lower	Upper
88	100		
58	68.3	56.2	96.2
57	19.9	0.0	35.9



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103271.D Vial: 4
Acq On : 11 Mar 2016 1:03 pm Operator: linseyk
Sample : op91987-mb1 Inst : MSP
Misc : op91987,ep4536,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 13:26:06 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	161000	40.00 ppm	0.00
24) Naphthalene-d8	5.97	136	557849	40.00 ppm	-0.01
47) Acenaphthene-d10	8.68	164	323708	40.00 ppm	-0.02
69) Phenanthrene-d10	11.04	188	483818	40.00 ppm	-0.02
83) Chrysene-d12	15.73	240	428427	40.00 ppm	-0.02
92) Perylene-d12	18.28	264	386147	40.00 ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	161000	40.00 ppm	0.00
104) Phenanthrene-d10b	11.04	188	483818	40.00 ppm	-0.02
106) Chrysene-d12b	15.73	240	428427	40.00 ppm	-0.02
108) Naphthalene-d8b	5.97	136	557849	40.00 ppm	-0.01
110) Acenaphthene-d10b	8.68	164	323708	40.00 ppm	-0.02

System Monitoring Compounds					
5) 2-Fluorophenol	2.85	112	186730	33.32 ppm	-0.01
Spiked Amount 50.000			Recovery = 66.64%		
8) Phenol-d5	3.83	99	158006	23.11 ppm	0.01
Spiked Amount 50.000			Recovery = 46.22%		
25) Nitrobenzene-d5	4.94	82	291143	51.55 ppm	-0.03
Spiked Amount 50.000			Recovery = 103.10%		
51) 2-Fluorobiphenyl	7.65	172	473548	48.22 ppm	-0.03
Spiked Amount 50.000			Recovery = 96.44%		
73) 2,4,6-Tribromophenol	9.95	330	56920	50.32 ppm	-0.03
Spiked Amount 50.000			Recovery = 100.64%		
85) Terphenyl-d14	13.85	244	412076	48.85 ppm	-0.02
Spiked Amount 50.000			Recovery = 97.70%		

Target Compounds Qvalue

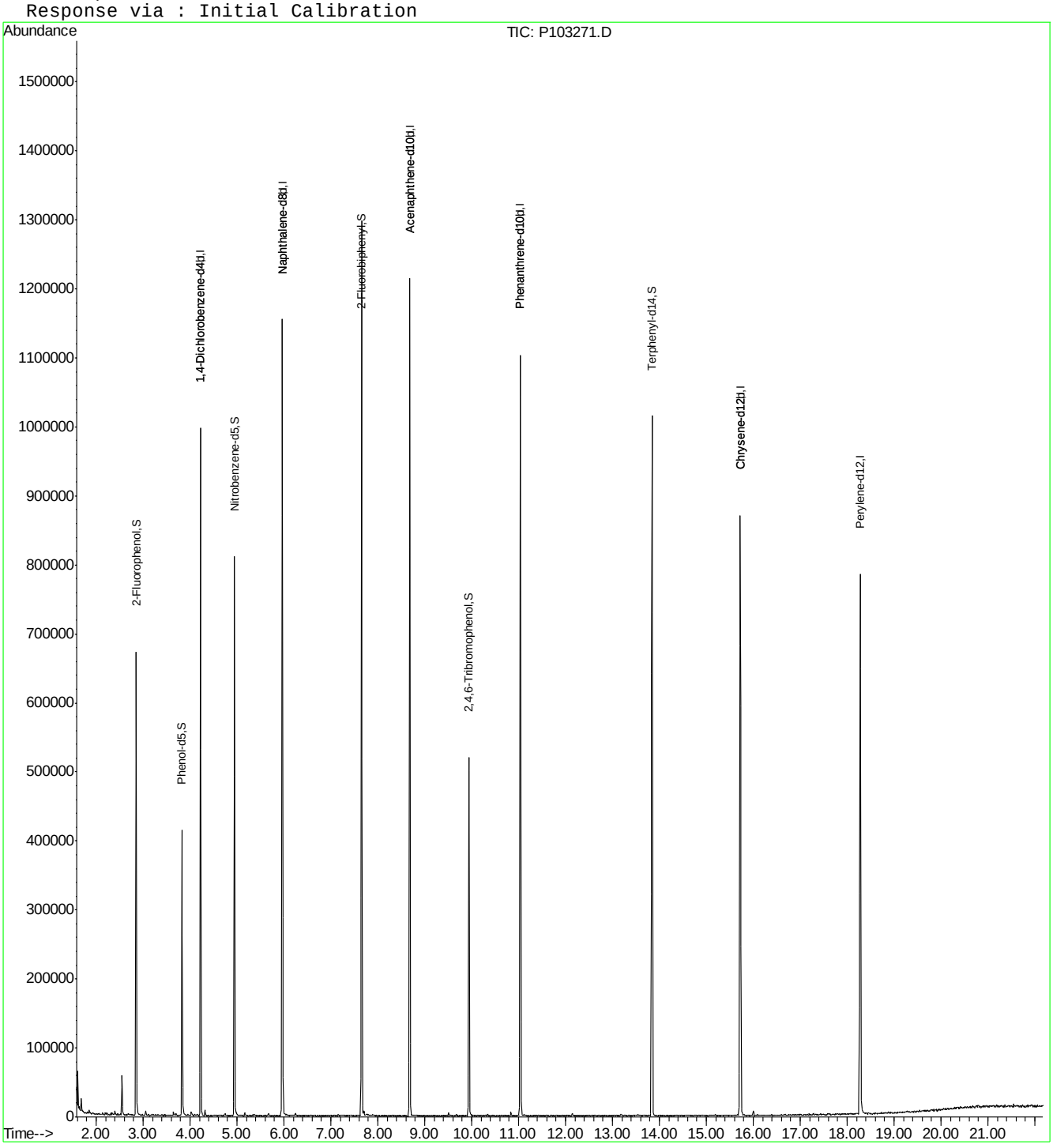
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103271.D Vial: 4
Acq On : 11 Mar 2016 1:03 pm Operator: linseyk
Sample : op91987-mb1 Inst : MSP
Misc : op91987,ep4536,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:11 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration



P103271.D MP4524.M Mon Mar 14 12:11:58 2016 Page 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15573.D
Acq On : 14 Mar 2016 4:12 pm
Operator : ashleyd
Sample : op91987a-mb1
Misc : op91987a,e4p800,1000
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 15 09:44:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	8.430	150	75096	4.00 ppm	-0.06
13) Fluorene-d10	11.411	176	128337	4.00 ppm	-0.07
23) Fluoranthene-d10	15.653	212	182136	4.00 ppm	-0.07
33) Benzo(a)pyrene-d12	20.299	264	145073	4.00 ppm	-0.06
System Monitoring Compounds					
3) 2-Fluorophenol	3.076	112	414528	31.43 ppm	-0.10
Spiked Amount 50.000			Recovery = 62.86%		
4) Phenol-d5	4.269	99	490682	23.09 ppm	-0.10
Spiked Amount 50.000			Recovery = 46.18%		
7) Nitrobenzene-d5	5.639	82	1038801	49.68 ppm	-0.07
Spiked Amount 50.000			Recovery = 99.36%		
14) 2-Fluorobiphenyl	9.081	172	1565641	42.85 ppm	-0.08
Spiked Amount 50.000			Recovery = 85.70%		
22) 2,4,6-Tribromophenol	11.953	330	224351	46.99 ppm	-0.13
Spiked Amount 50.000			Recovery = 93.98%		
30) Terphenyl-d14	16.462	244	1336468	48.06 ppm	-0.04
Spiked Amount 50.000			Recovery = 96.12%		

Target Compounds Qvalue

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

9.2.2

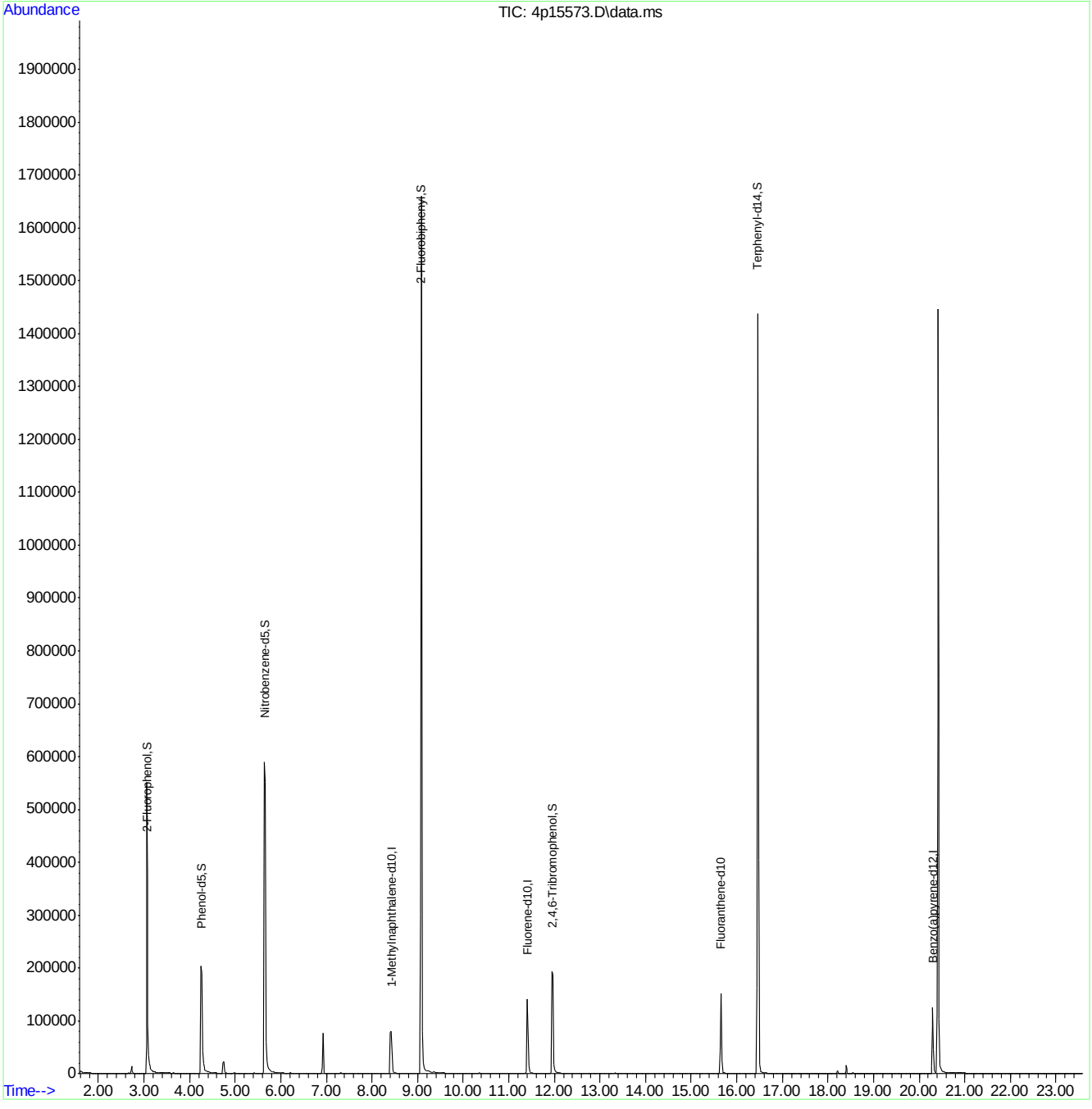
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15573.D
Acq On : 14 Mar 2016 4:12 pm
Operator : ashleyd
Sample : op91987a-mb1
Misc : op91987a,e4p800,1000
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 15 09:44:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64070.D
Acq On : 15 Mar 2016 10:31 am
Operator : linseyk
Sample : op91987a-mb1
Misc : op91987a,e4m2841,1000
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 12:41:57 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

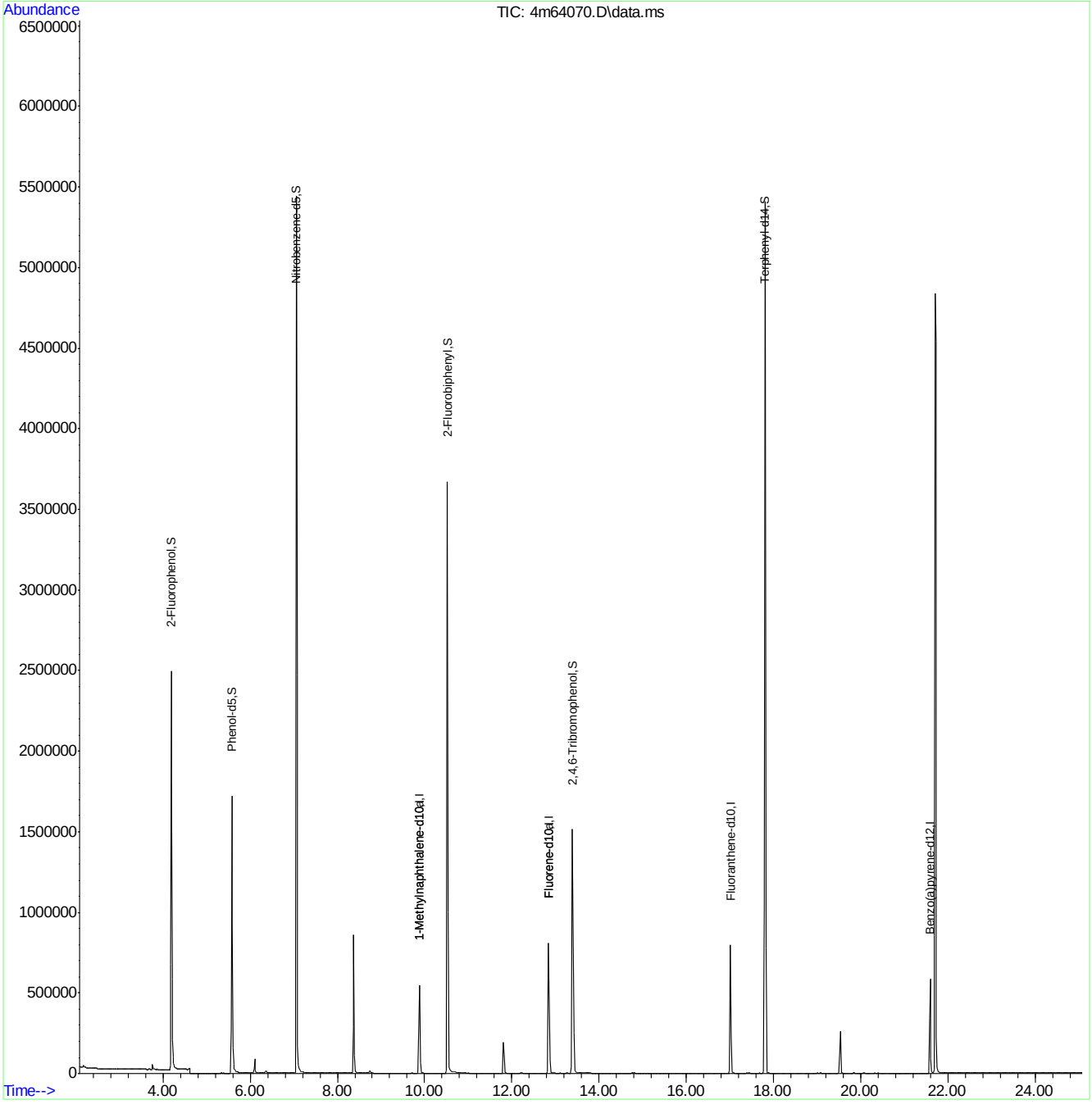
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	351400	4.00	ppm	# 0.00
12) Fluorene-d10	12.846	176	674943	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	929062	4.00	ppm	-0.04
28) Benzo(a)pyrene-d12	21.600	264	700828	4.00	ppm	-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	351400	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	674943	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.190	112	1868687	23.81	ppm	-0.05
Spiked Amount 50.000	Range 11 - 58		Recovery = 47.62%			
3) Phenol-d5	5.580	99	2054967	17.20	ppm	0.01
Spiked Amount 50.000			Recovery = 34.40%			
6) Nitrobenzene-d5	7.061	82	3846702	43.39	ppm	0.02
Spiked Amount 50.000			Recovery = 86.78%			
11) 2-Fluorobiphenyl	10.519	172	4709376	32.03	ppm	0.00
Spiked Amount 50.000			Recovery = 64.06%			
17) 2,4,6-Tribromophenol	13.395	330	1261951	42.12	ppm	0.00
Spiked Amount 50.000			Recovery = 84.24%			
25) Terphenyl-d14	17.806	244	5950441	39.76	ppm	-0.04
Spiked Amount 50.000			Recovery = 79.52%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64070.D
Acq On : 15 Mar 2016 10:31 am
Operator : linseyk
Sample : op91987a-mb1
Misc : op91987a,e4m2841,1000
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 12:41:57 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration



M4M2828SIM.M Tue Mar 15 12:42:04 2016 MANAGER Page: 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103272.D Vial: 5
Acq On : 11 Mar 2016 1:32 pm Operator: linseyk
Sample : op91987-bs1 Inst : MSP
Misc : op91987,ep4536,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 13:54:51 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	165420	40.00	ppm	0.00
24) Naphthalene-d8	5.97	136	565420	40.00	ppm	-0.01
47) Acenaphthene-d10	8.68	164	329315	40.00	ppm	-0.02
69) Phenanthrene-d10	11.04	188	482127	40.00	ppm	-0.01
83) Chrysene-d12	15.73	240	419599	40.00	ppm	-0.02
92) Perylene-d12	18.28	264	392674	40.00	ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	165420	40.00	ppm	0.00
104) Phenanthrene-d10b	11.04	188	482127	40.00	ppm	-0.01
106) Chrysene-d12b	15.73	240	419599	40.00	ppm	-0.02
108) Naphthalene-d8b	5.97	136	565420	40.00	ppm	-0.01
110) Acenaphthene-d10b	8.68	164	329315	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	2.86	112	155880	27.07	ppm	0.00
Spiked Amount 50.000			Recovery = 54.14%			
8) Phenol-d5	3.83	99	129553	18.44	ppm	0.01
Spiked Amount 50.000			Recovery = 36.88%			
25) Nitrobenzene-d5	4.95	82	226393	39.55	ppm	-0.02
Spiked Amount 50.000			Recovery = 79.10%			
51) 2-Fluorobiphenyl	7.65	172	374456	37.48	ppm	-0.03
Spiked Amount 50.000			Recovery = 74.96%			
73) 2,4,6-Tribromophenol	9.95	330	46813	41.53	ppm	-0.03
Spiked Amount 50.000			Recovery = 83.06%			
85) Terphenyl-d14	13.84	244	336263	40.70	ppm	-0.03
Spiked Amount 50.000			Recovery = 81.40%			

Target Compounds							Qvalue
2) 1,4-Dioxane	1.70	88	63279	21.53	ppm		97
3) Pyridine	1.89	79	160940	24.26	ppm		96
4) N-Nitrosodimethylamine	1.86	42	63796	25.72	ppm		89
6) Indene	4.55	116	350029	37.20	ppm		98
7) Cumene	3.32	105	439229	32.32	ppm		99
9) Phenol	3.84	94	147190	20.30	ppm		81
10) Aniline	3.83	93	234612	29.70	ppm		74
11) bis(2-Chloroethyl)ether	3.90	93	207863	38.97	ppm		97
12) 2-Chlorophenol	3.98	128	205281	37.37	ppm		97
13) Decane	4.04	43	116926	26.75	ppm		97
14) 1,3-Dichlorobenzene	4.15	146	176606	28.70	ppm		98
15) 1,4-Dichlorobenzene	4.25	146	171515	29.02	ppm		100
16) Benzyl alcohol	4.41	108	122535	37.52	ppm		93
17) 1,2-Dichlorobenzene	4.44	146	170210	30.36	ppm		99
18) Acetophenone	4.75	105	290243	39.02	ppm		97
19) 2-Methylphenol	4.59	108	165546	35.43	ppm		99
20) 2,2'-oxybis(1-Chloropropan	4.59	121	42508	24.23	ppm	#	58
21) 3&4-Methylphenol	4.80	108	170367	33.42	ppm		99
22) n-Nitroso-di-n-propylamine	4.76	70	141088	37.79	ppm		98
23) Hexachloroethane	4.88	201	52389	27.20	ppm		99
26) Nitrobenzene	4.98	77	210869	38.40	ppm		97
27) Quinoline	6.50	129	396151	38.88	ppm		99
28) Isophorone	5.31	82	406113	43.61	ppm		99

(#) = qualifier out of range (m) = manual integration
P103272.D MP4524.M Mon Mar 14 12:13:16 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103272.D Vial: 5
Acq On : 11 Mar 2016 1:32 pm Operator: linseyk
Sample : op91987-bs1 Inst : MSP
Misc : op91987,ep4536,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 13:54:51 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 2-Nitrophenol	5.43	139	114349	42.45 ppm	97
30) 2,4-Dimethylphenol	5.54	107	200269	43.77 ppm	99
31) Benzoic acid	5.70	105	40579	11.42 ppm	98
32) bis(2-Chloroethoxy)methane	5.66	93	235690	40.07 ppm	98
33) 2,4-Dichlorophenol	5.81	162	165080	41.29 ppm	98
34) 2,6-Dichlorophenol	6.12	162	153099	39.90 ppm	95
36) 1,2,4-Trichlorobenzene	5.90	180	127880	28.87 ppm	94
38) Naphthalene	6.00	128	475958	33.94 ppm	99
39) 4-Chloroaniline	6.11	127	157027	26.34 ppm	99
40) 2,3-Dichloroaniline	7.51	161	191993	37.80 ppm	98
41) Caprolactam	6.60	55	23725	12.62 ppm	94
42) Hexachlorobutadiene	6.22	225	61749	28.05 ppm	98
43) 4-Chloro-3-methylphenol	6.93	107	184428	43.18 ppm	99
44) 2-Methylnaphthalene	7.06	141	288781	37.17 ppm	99
45) 1-Methylnaphthalene	7.20	142	347684	36.69 ppm	99
46) Dimethylnaphthalene	8.04	156	304910	36.79 ppm	99
48) Hexachlorocyclopentadiene	7.32	237	108186	50.43 ppm	98
49) 2,4,6-Trichlorophenol	7.54	196	106201	41.16 ppm	99
50) 2,4,5-Trichlorophenol	7.61	196	111102	41.39 ppm	99
52) 2-Chloronaphthalene	7.81	162	274330	31.71 ppm	99
53) Biphenyl	7.80	154	402646	36.20 ppm	99
54) 2-Nitroaniline	8.00	65	112009	44.78 ppm	98
55) Dimethylphthalate	8.33	163	384164	38.42 ppm	99
56) Acenaphthylene	8.45	152	476215	34.46 ppm	100
57) 2,6-Dinitrotoluene	8.40	165	88774	41.62 ppm	92
58) 3-Nitroaniline	8.66	138	81366	32.41 ppm	99
59) Acenaphthene	8.73	153	306533	35.69 ppm	99
60) 2,4-Dinitrophenol	8.83	184	90447	73.13 ppm	94
61) 4-Nitrophenol	9.07	109	34870	25.52 ppm	96
62) Dibenzofuran	9.01	168	466242	38.53 ppm	95
63) 2,4-Dinitrotoluene	9.04	165	114523	34.43 ppm	89
64) 2,3,4,6-Tetrachlorophenol	9.25	232	82121	39.81 ppm	97
65) Diethylphthalate	9.47	149	387777	39.02 ppm	99
66) Fluorene	9.56	166	364927	36.93 ppm	97
67) 4-Chlorophenyl-phenylether	9.59	204	154971	34.95 ppm	97
68) 4-Nitroaniline	9.64	138	105187	41.71 ppm	94
70) 4,6-Dinitro-2-methylphenol	9.68	198	65531	37.50 ppm	94
71) n-Nitrosodiphenylamine	9.79	169	270714	38.99 ppm	99
72) 1,2-Diphenylhydrazine	9.84	77	392594	41.27 ppm	98
74) 4-Bromophenyl-phenylether	10.37	248	93067	39.45 ppm	98
75) Hexachlorobenzene	10.44	284	95099	37.13 ppm	99
76) Pentachlorophenol	10.78	266	57041	38.39 ppm	97
77) Phenanthrene	11.08	178	483037	39.06 ppm	100
78) Anthracene	11.16	178	491895	39.68 ppm	100
79) Carbazole	11.46	167	530680	41.79 ppm	100
80) Di-n-butylphthalate	12.14	149	655563	44.29 ppm	100
81) Fluoranthene	13.08	202	551788	41.46 ppm	97
82) Octadecane	11.04	57	196925	40.56 ppm	98
84) Pyrene	13.47	202	555499	41.60 ppm	98

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103272.D Vial: 5
Acq On : 11 Mar 2016 1:32 pm Operator: linseyk
Sample : op91987-bs1 Inst : MSP
Misc : op91987,ep4536,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 13:54:51 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	Butylbenzylphthalate	14.83	149	293854	45.26	ppm	96
88)	Benzo[a]anthracene	15.71	228	460817	42.09	ppm	97
89)	3,3'-Dichlorobenzidine	15.74	252	193346	42.11	ppm	99
90)	Chrysene	15.77	228	434720	40.12	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.00	149	384660	37.47	ppm	99
93)	Di-n-octylphthalate	17.21	149	653178	37.68	ppm	99
94)	Benzo[b]fluoranthene	17.65	252	462995	41.45	ppm	98
95)	Benzo[k]fluoranthene	17.70	252	437214	40.64	ppm	98
96)	Benzo[a]pyrene	18.18	252	413207	41.94	ppm	98
97)	Indeno[1,2,3-cd]pyrene	19.90	276	359200	41.30	ppm	97
99)	Dibenz[a,h]anthracene	19.95	278	389376	41.55	ppm	100
100)	7,12-Dimethylbenz(a)anthra	17.67	256	188237	39.81	ppm	99
101)	Benzo[g,h,i]perylene	20.26	276	387218	38.88	ppm	97
103)	Benzaldehyde	3.70	105	185707	37.35	ppm	96
105)	Atrazine	10.70	200	99161	40.30	ppm	93
107)	Benzidine	13.39	184	352944	47.78	ppm	99
111)	1,2,4,5-Tetrachlorobenzene	7.32	216	126836	28.06	ppm	97

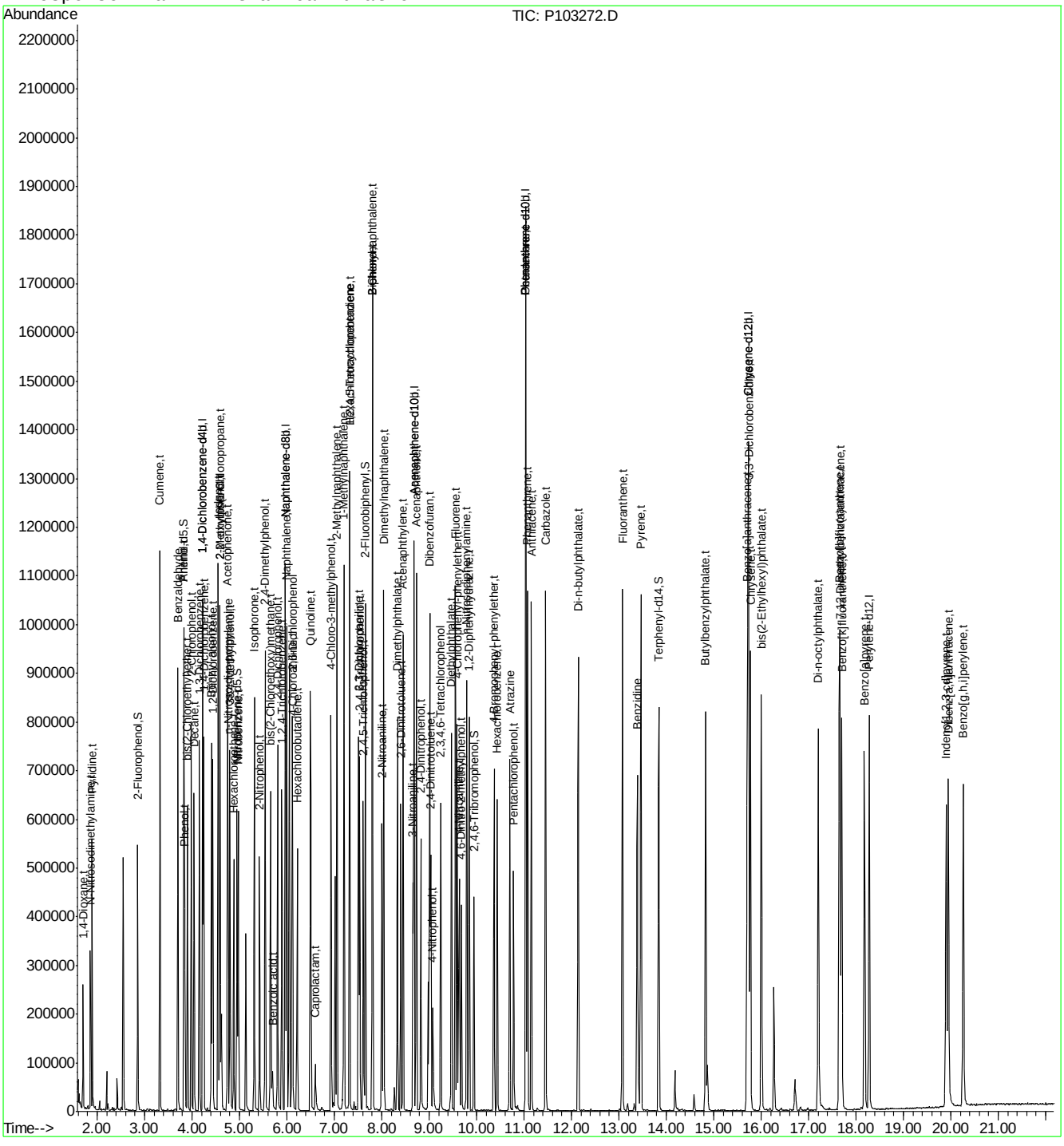
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103272.D Vial: 5
Acq On : 11 Mar 2016 1:32 pm Operator: linseyk
Sample : op91987-bs1 Inst : MSP
Misc : op91987,ep4536,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:13 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15574.D
Acq On : 14 Mar 2016 4:42 pm
Operator : ashleyd
Sample : op91987a-bs12
Misc : op91987a,e4p800,1000
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 09:46:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.428	150	72525	4.00	ppm	-0.06
13) Fluorene-d10	11.407	176	116330	4.00	ppm	-0.07
23) Fluoranthene-d10	15.649	212	177255	4.00	ppm	-0.07
33) Benzo(a)pyrene-d12	20.294	264	138740	4.00	ppm	-0.07
System Monitoring Compounds						
3) 2-Fluorophenol	3.076	112	403016	31.64	ppm	-0.10
Spiked Amount 50.000			Recovery = 63.28%			
4) Phenol-d5	4.251	99	469287	22.87	ppm	-0.11
Spiked Amount 50.000			Recovery = 45.74%			
7) Nitrobenzene-d5	5.638	82	930290	46.07	ppm	-0.07
Spiked Amount 50.000			Recovery = 92.14%			
14) 2-Fluorobiphenyl	9.079	172	1440489	43.50	ppm	-0.08
Spiked Amount 50.000			Recovery = 87.00%			
22) 2,4,6-Tribromophenol	11.970	330	227148	52.48	ppm	-0.11
Spiked Amount 50.000			Recovery = 104.96%			
30) Terphenyl-d14	16.458	244	1189561	43.95	ppm	-0.05
Spiked Amount 50.000			Recovery = 87.90%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.735	88	3876	0.46	ppm	81
5) Phenol	4.269	94	73310	3.01	ppm #	31
6) bis(2-Chloroethyl)ether	4.372	93	18102	0.85	ppm #	35
8) Naphthalene	6.956	128	42059	0.88	ppm	92
9) Hexachlorobutadiene	7.243	225	7914	0.70	ppm	88
10) 2-Methylnaphthalene	8.302	141	19843	0.83	ppm	98
15) Acenaphthylene	10.048	152	33033	0.81	ppm	98
16) Acenaphthene	10.414	153	25899	0.87	ppm	97
17) Dibenzofuran	10.781	168	35118	0.91	ppm	74
18) Fluorene	11.457	166	29619	0.82	ppm	88
19) 4,6-dinitro-2-methylph...	11.655	198	8455	2.94	ppm #	48
20) n-nitrosodiphenylamine	11.780	169	19791	1.13	ppm	81
21) 1,2-Diphenylhydrazine	11.829	77	40741	1.14	ppm	90
24) Hexachlorobenzene	12.586	284	10594	0.74	ppm	78
25) Pentachlorophenol	13.033	266	8283	1.61	ppm	96
26) Phenanthrene	13.377	178	43442	0.82	ppm	98
27) Anthracene	13.481	178	37732	0.80	ppm	98
28) Fluoranthene	15.684	202	45071	0.80	ppm	96
29) Pyrene	16.080	202	44799	0.80	ppm	96
31) Benzo[a]anthracene	18.198	228	35281	0.72	ppm	98
32) Chrysene	18.246	228	41013	0.71	ppm	93
34) Benzo[b]fluoranthene	19.868	252	33866	0.59	ppm	96
35) Benzo[k]fluoranthene	19.902	252	31511	0.61	ppm	99
36) Benzo[a]pyrene	20.328	252	30861	0.54	ppm	94
37) Indeno[1,2,3-cd]pyrene	21.814	276	28124	0.47	ppm	99
38) Dibenz[a,h]anthracene	21.852	278	23540	0.48	ppm	100
39) Benzo[g,h,i]perylene	22.179	276	23896	0.45	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15574.D
Acq On : 14 Mar 2016 4:42 pm
Operator : ashleyd
Sample : op91987a-bs12
Misc : op91987a,e4p800,1000
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 09:46:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

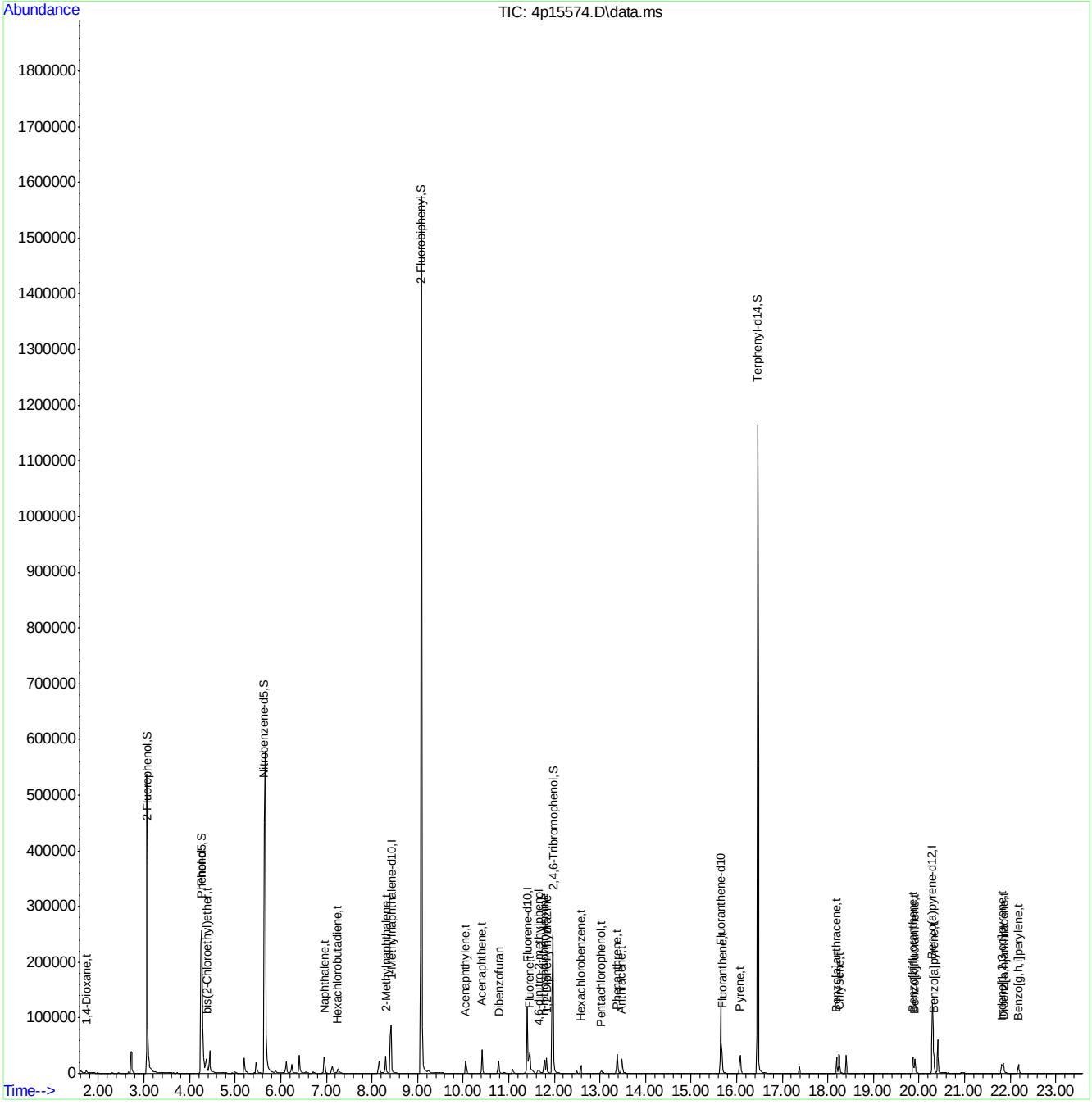
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15574.D
Acq On : 14 Mar 2016 4:42 pm
Operator : ashleyd
Sample : op91987a-bs12
Misc : op91987a,e4p800,1000
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 09:46:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64071.D
Acq On : 15 Mar 2016 11:01 am
Operator : linseyk
Sample : op91987a-bs12
Misc : op91987a,e4m2841,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 12:42:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.875	152	439057	4.00	ppm	#	0.00
12) Fluorene-d10	12.846	176	806835	4.00	ppm		0.00
22) Fluoranthene-d10	17.015	212	1114096	4.00	ppm		-0.04
28) Benzo(a)pyrene-d12	21.600	264	848157	4.00	ppm		-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	439057	4.00	ppm		0.00
38) Fluorene-d10a	12.846	176	806835	4.00	ppm		0.00
System Monitoring Compounds							
2) 2-Fluorophenol	4.200	112	2404806	24.53	ppm		-0.04
Spiked Amount 50.000	Range 11 - 58		Recovery = 49.06%				
3) Phenol-d5	5.580	99	2550645	17.08	ppm		0.01
Spiked Amount 50.000			Recovery = 34.16%				
6) Nitrobenzene-d5	7.061	82	4495804	40.58	ppm		0.02
Spiked Amount 50.000			Recovery = 81.16%				
11) 2-Fluorobiphenyl	10.519	172	5564053	30.29	ppm		0.00
Spiked Amount 50.000			Recovery = 60.58%				
17) 2,4,6-Tribromophenol	13.395	330	1595306	44.55	ppm		0.00
Spiked Amount 50.000			Recovery = 89.10%				
25) Terphenyl-d14	17.806	244	6751472	37.62	ppm		-0.04
Spiked Amount 50.000			Recovery = 75.24%				
Target Compounds							Qvalue
4) Phenol	5.608	94	368294	2.36	ppm		85
5) bis(2-Chloroethyl)ether	5.691	93	94431	0.82	ppm	#	19
7) Naphthalene	8.423	128	302678	0.79	ppm		98
8) Hexachlorobutadiene	8.701	225	40648	0.70	ppm		81
9) 2-Methylnaphthalene	9.756	142	147291	1.04	ppm		66
10) Hexachlorocyclopentadiene	10.114	237	21710	0.83	ppm		68
13) Acenaphthylene	11.522	152	188430	0.72	ppm		91
14) Acenaphthene	11.868	153	133797	0.91	ppm		94
15) Dibenzofuran	12.236	168	194667	0.49	ppm	#	48
16) Fluorene	12.894	166	200362	0.81	ppm		90
18) Hexachlorobenzene	14.011	284	60714	0.66	ppm		94
19) Pentachlorophenol	14.444	266	178912	4.37	ppm		96
20) Phenanthrene	14.799	178	283671	0.71	ppm		91
21) Anthracene	14.907	178	258556	0.72	ppm		98
23) Fluoranthene	17.053	202	275945	0.72	ppm		90
24) Pyrene	17.429	202	282665	0.77	ppm		86
26) Benzo[a]anthracene	19.519	228	230080	0.77	ppm	#	88
27) Chrysene	19.576	228	226222	0.70	ppm		86
29) Benzo[b]fluoranthene	21.174	252	187134	0.57	ppm		98
30) Benzo[k]fluoranthene	21.215	252	186517	0.67	ppm		97
31) Benzo[a]pyrene	21.628	252	172863	0.60	ppm		93
32) Indeno[1,2,3-cd]pyrene	23.170	276	156072	0.51	ppm		95
33) Dibenz[a,h]anthracene	23.211	278	131869	0.51	ppm		97
34) Benzo[g,h,i]perylene	23.569	276	131588	0.48	ppm		99
36) 1,4-Dioxane	2.368	88	20805	0.52	ppm	#	71
39) 4,6-dinitro-2-methylph...	13.061	198	132324	4.66	ppm	#	38
40) 1,2-Diphenylhydrazine	13.252	77	186572	0.85	ppm		90

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64071.D
Acq On : 15 Mar 2016 11:01 am
Operator : linseyk
Sample : op91987a-bs12
Misc : op91987a,e4m2841,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 12:42:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) n-nitrosodiphenylamine	13.204	169	157870	1.17 ppm	78

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

9.3.3

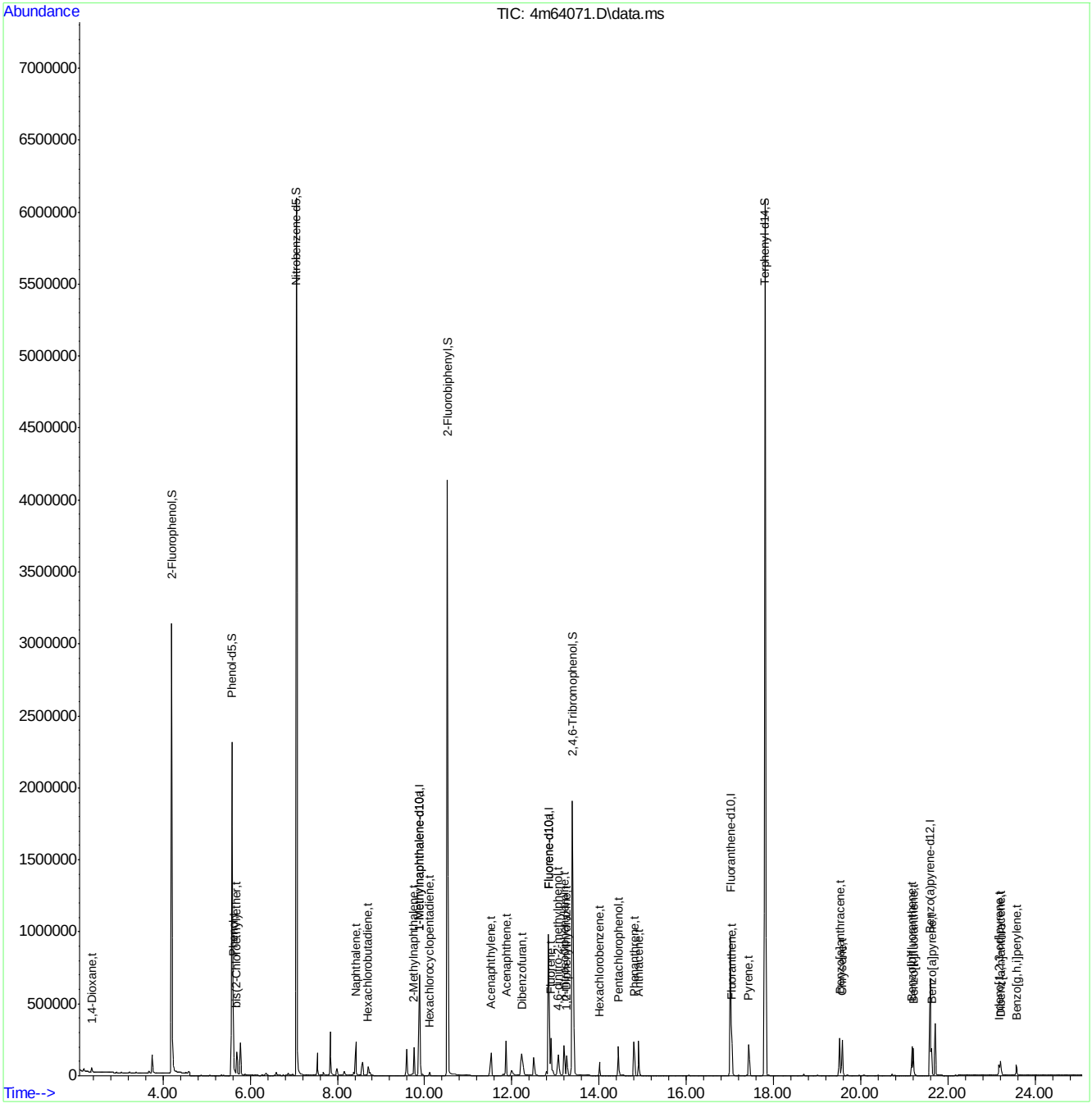
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64071.D
Acq On : 15 Mar 2016 11:01 am
Operator : linseyk
Sample : op91987a-bs12
Misc : op91987a,e4m2841,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 12:42:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103281.D Vial: 14
Acq On : 11 Mar 2016 5:52 pm Operator: linseyk
Sample : op91987-ms Inst : MSP
Misc : op91987,ep4536,495 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 18:14:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	166425	40.00	ppm	0.00
24) Naphthalene-d8	5.97	136	572396	40.00	ppm	-0.01
47) Acenaphthene-d10	8.68	164	332913	40.00	ppm	-0.02
69) Phenanthrene-d10	11.04	188	479532	40.00	ppm	-0.01
83) Chrysene-d12	15.73	240	414021	40.00	ppm	-0.02
92) Perylene-d12	18.28	264	387627	40.00	ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	166425	40.00	ppm	0.00
104) Phenanthrene-d10b	11.04	188	479532	40.00	ppm	-0.01
106) Chrysene-d12b	15.73	240	414021	40.00	ppm	-0.02
108) Naphthalene-d8b	5.97	136	572396	40.00	ppm	-0.01
110) Acenaphthene-d10b	8.68	164	332913	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	2.85	112	232918	40.21	ppm	-0.01
Spiked Amount 50.000			Recovery	=	80.42%	
8) Phenol-d5	3.83	99	235784	33.36	ppm	0.01
Spiked Amount 50.000			Recovery	=	66.72%	
25) Nitrobenzene-d5	4.95	82	267671	46.19	ppm	-0.02
Spiked Amount 50.000			Recovery	=	92.38%	
51) 2-Fluorobiphenyl	7.66	172	444260	43.99	ppm	-0.02
Spiked Amount 50.000			Recovery	=	87.98%	
73) 2,4,6-Tribromophenol	9.95	330	57279	51.09	ppm	-0.03
Spiked Amount 50.000			Recovery	=	102.18%	
85) Terphenyl-d14	13.84	244	392343	48.13	ppm	-0.03
Spiked Amount 50.000			Recovery	=	96.26%	

Target Compounds							Qvalue
2) 1,4-Dioxane	1.70	88	95507	32.30	ppm		99
3) Pyridine	1.89	79	208797	31.28	ppm		98
4) N-Nitrosodimethylamine	1.86	42	91734	36.75	ppm		86
6) Indene	4.55	116	414974	43.84	ppm		100
7) Cumene	3.32	105	622514	45.52	ppm		98
9) Phenol	3.84	94	253729	34.79	ppm		87
10) Aniline	3.83	93	225471	28.37	ppm		71
11) bis(2-Chloroethyl)ether	3.90	93	244487	45.56	ppm		96
12) 2-Chlorophenol	3.98	128	251035	45.43	ppm		98
13) Decane	4.04	43	167940	38.19	ppm		96
14) 1,3-Dichlorobenzene	4.15	146	226019	36.50	ppm		99
15) 1,4-Dichlorobenzene	4.25	146	221044	37.17	ppm		99
16) Benzyl alcohol	4.41	108	165251	50.29	ppm		96
17) 1,2-Dichlorobenzene	4.44	146	217261	38.51	ppm		99
18) Acetophenone	4.75	105	341226	45.59	ppm		98
19) 2-Methylphenol	4.59	108	214212	45.57	ppm		99
20) 2,2'-oxybis(1-Chloropropan	4.58	121	51604	29.24	ppm	#	78
21) 3&4-Methylphenol	4.80	108	230307	44.90	ppm		98
22) n-Nitroso-di-n-propylamine	4.76	70	169745	45.20	ppm		97
23) Hexachloroethane	4.88	201	69658	35.95	ppm		95
26) Nitrobenzene	4.98	77	250830	45.12	ppm		97
27) Quinoline	6.50	129	463924	44.98	ppm		99
28) Isophorone	5.31	82	480440	50.96	ppm		98

(#) = qualifier out of range (m) = manual integration
P103281.D MP4524.M Mon Mar 14 12:33:32 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103281.D Vial: 14
Acq On : 11 Mar 2016 5:52 pm Operator: linseyk
Sample : op91987-ms Inst : MSP
Misc : op91987,ep4536,495 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 18:14:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) 2-Nitrophenol	5.43	139	137338	50.36	ppm	98
30) 2,4-Dimethylphenol	5.54	107	241717	52.19	ppm	99
31) Benzoic acid	5.73	105	91866	25.53	ppm	98
32) bis(2-Chloroethoxy)methane	5.66	93	277513	46.61	ppm	98
33) 2,4-Dichlorophenol	5.81	162	201109	49.69	ppm	98
34) 2,6-Dichlorophenol	6.12	162	184035	47.38	ppm	96
36) 1,2,4-Trichlorobenzene	5.90	180	172277	38.42	ppm	95
38) Naphthalene	6.00	128	599642	42.24	ppm	100
39) 4-Chloroaniline	6.11	127	168713	27.95	ppm	97
40) 2,3-Dichloroaniline	7.51	161	229426	44.62	ppm	99
41) Caprolactam	6.62	55	50720	26.66	ppm	95
42) Hexachlorobutadiene	6.22	225	81060	36.37	ppm	97
43) 4-Chloro-3-methylphenol	6.93	107	219411	50.75	ppm	98
44) 2-Methylnaphthalene	7.06	141	339600	43.18	ppm	98
45) 1-Methylnaphthalene	7.20	142	419097	43.69	ppm	99
46) Dimethylnaphthalene	8.04	156	373531	44.52	ppm	99
48) Hexachlorocyclopentadiene	7.32	237	146543	67.57	ppm	99
49) 2,4,6-Trichlorophenol	7.54	196	128359	49.21	ppm	99
50) 2,4,5-Trichlorophenol	7.62	196	134866	49.70	ppm	100
52) 2-Chloronaphthalene	7.81	162	352979	40.37	ppm	98
53) Biphenyl	7.80	154	480011	42.69	ppm	100
54) 2-Nitroaniline	8.01	65	133800	52.91	ppm	97
55) Dimethylphthalate	8.33	163	462217	45.73	ppm	99
56) Acenaphthylene	8.45	152	599499	42.91	ppm	99
57) 2,6-Dinitrotoluene	8.40	165	107334	49.78	ppm	91
58) 3-Nitroaniline	8.66	138	85156	33.55	ppm	96
59) Acenaphthene	8.73	153	382226	44.03	ppm	99
60) 2,4-Dinitrophenol	8.83	184	123610	96.20	ppm	98
61) 4-Nitrophenol	9.09	109	61347	44.41	ppm	95
62) Dibenzofuran	9.01	168	544267	44.49	ppm	96
63) 2,4-Dinitrotoluene	9.04	165	141536	42.68	ppm	84
64) 2,3,4,6-Tetrachlorophenol	9.25	232	102653	49.23	ppm	96
65) Diethylphthalate	9.47	149	461571	45.94	ppm	98
66) Fluorene	9.56	166	454696	45.52	ppm	100
67) 4-Chlorophenyl-phenylether	9.59	204	196777	43.90	ppm	100
68) 4-Nitroaniline	9.64	138	123999	48.64	ppm	99
70) 4,6-Dinitro-2-methylphenol	9.68	198	83599	47.24	ppm	96
71) n-Nitrosodiphenylamine	9.80	169	330494	47.86	ppm	99
72) 1,2-Diphenylhydrazine	9.84	77	473067	50.00	ppm	98
74) 4-Bromophenyl-phenylether	10.37	248	115800	49.36	ppm	97
75) Hexachlorobenzene	10.44	284	115349	45.28	ppm	98
76) Pentachlorophenol	10.78	266	74272	48.90	ppm	95
77) Phenanthrene	11.07	178	577257	46.93	ppm	99
78) Anthracene	11.16	178	588971	47.76	ppm	99
79) Carbazole	11.46	167	620882	49.15	ppm	100
80) Di-n-butylphthalate	12.14	149	777508	52.81	ppm	100
81) Fluoranthene	13.08	202	654033	49.41	ppm	96
82) Octadecane	11.04	57	230611	47.76	ppm	98
84) Pyrene	13.47	202	668412	50.73	ppm	99

(#) = qualifier out of range (m) = manual integration
P103281.D MP4524.M Mon Mar 14 12:33:32 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103281.D Vial: 14
Acq On : 11 Mar 2016 5:52 pm Operator: linseyk
Sample : op91987-ms Inst : MSP
Misc : op91987,ep4536,495 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 18:14:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	Butylbenzylphthalate	14.83	149	350321	54.68	ppm	99
88)	Benzo[a]anthracene	15.70	228	542984	50.26	ppm	99
89)	3,3'-Dichlorobenzidine	15.74	252	245565	54.91	ppm	99
90)	Chrysene	15.77	228	508811	47.59	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.00	149	459028	45.85	ppm	99
93)	Di-n-octylphthalate	17.20	149	780691	46.85	ppm	99
94)	Benzo[b]fluoranthene	17.64	252	526904	47.79	ppm	98
95)	Benzo[k]fluoranthene	17.70	252	515007	48.49	ppm	97
96)	Benzo[a]pyrene	18.18	252	475432	48.89	ppm	99
97)	Indeno[1,2,3-cd]pyrene	19.90	276	416746	48.54	ppm	97
99)	Dibenz[a,h]anthracene	19.94	278	443912	47.99	ppm	98
100)	7,12-Dimethylbenz(a)anthra	17.66	256	218954	46.91	ppm	98
101)	Benzo[g,h,i]perylene	20.26	276	441207	44.88	ppm	99
103)	Benzaldehyde	3.70	105	215794	43.14	ppm	96
105)	Atrazine	10.70	200	119018	48.64	ppm	91
107)	Benzidine	13.39	184	235942	32.37	ppm	99
111)	1,2,4,5-Tetrachlorobenzene	7.33	216	170316	37.28	ppm	99

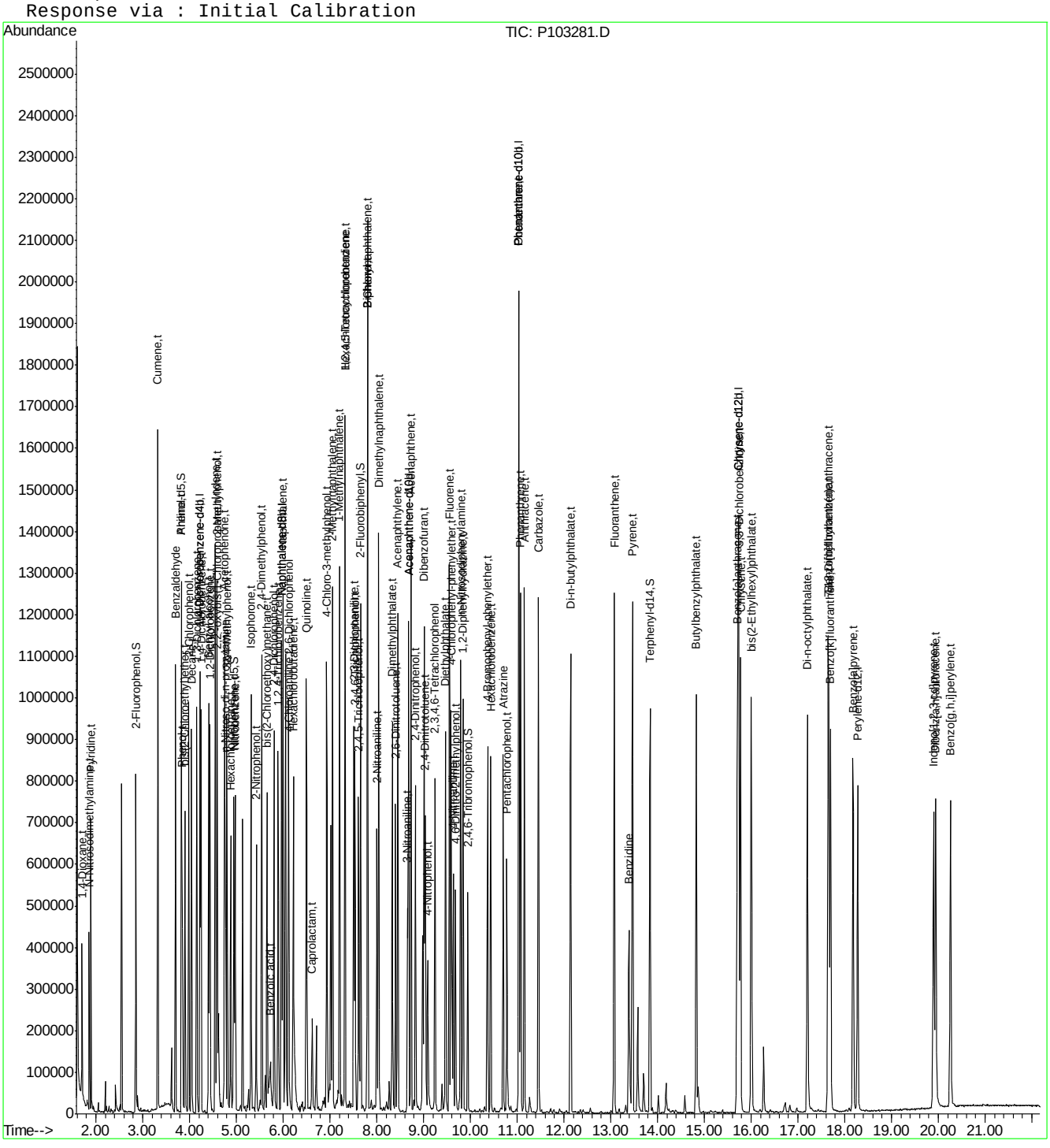
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103281.D Vial: 14
Acq On : 11 Mar 2016 5:52 pm Operator: linseyk
Sample : op91987-ms Inst : MSP
Misc : op91987,ep4536,495 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:33 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103282.D Vial: 15
Acq On : 11 Mar 2016 6:21 pm Operator: linseyk
Sample : op91987-msd Inst : MSP
Misc : op91987,ep4536,495 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 18:43:17 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	179877	40.00	ppm	0.00
24) Naphthalene-d8	5.97	136	618786	40.00	ppm	-0.01
47) Acenaphthene-d10	8.68	164	365511	40.00	ppm	-0.01
69) Phenanthrene-d10	11.04	188	522326	40.00	ppm	-0.01
83) Chrysene-d12	15.73	240	449146	40.00	ppm	-0.02
92) Perylene-d12	18.28	264	419592	40.00	ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	179877	40.00	ppm	0.00
104) Phenanthrene-d10b	11.04	188	522326	40.00	ppm	-0.01
106) Chrysene-d12b	15.73	240	449146	40.00	ppm	-0.02
108) Naphthalene-d8b	5.97	136	618786	40.00	ppm	-0.01
110) Acenaphthene-d10b	8.68	164	365511	40.00	ppm	-0.01

System Monitoring Compounds						
5) 2-Fluorophenol	2.86	112	256960	41.04	ppm	0.00
Spiked Amount 50.000			Recovery = 82.08%			
8) Phenol-d5	3.83	99	261034	34.17	ppm	0.01
Spiked Amount 50.000			Recovery = 68.34%			
25) Nitrobenzene-d5	4.95	82	291974	46.61	ppm	-0.02
Spiked Amount 50.000			Recovery = 93.22%			
51) 2-Fluorobiphenyl	7.66	172	487792	43.99	ppm	-0.02
Spiked Amount 50.000			Recovery = 87.98%			
73) 2,4,6-Tribromophenol	9.95	330	64577	52.88	ppm	-0.02
Spiked Amount 50.000			Recovery = 105.76%			
85) Terphenyl-d14	13.84	244	427677	48.36	ppm	-0.03
Spiked Amount 50.000			Recovery = 96.72%			

Target Compounds							Qvalue
2) 1,4-Dioxane	1.70	88	102304	32.01	ppm		99
3) Pyridine	1.89	79	229862	31.86	ppm		99
4) N-Nitrosodimethylamine	1.86	42	102716	38.08	ppm		87
6) Indene	4.55	116	450482	44.03	ppm		98
7) Cumene	3.32	105	661407	44.75	ppm		98
9) Phenol	3.84	94	276224	35.04	ppm		86
10) Aniline	3.83	93	240466	28.00	ppm		73
11) bis(2-Chloroethyl)ether	3.90	93	263013	45.35	ppm		96
12) 2-Chlorophenol	3.98	128	272157	45.57	ppm		97
13) Decane	4.04	43	179889	37.85	ppm		97
14) 1,3-Dichlorobenzene	4.15	146	253074	37.82	ppm		99
15) 1,4-Dichlorobenzene	4.25	146	249230	38.78	ppm		97
16) Benzyl alcohol	4.41	108	181365	51.07	ppm		97
17) 1,2-Dichlorobenzene	4.44	146	240424	39.43	ppm		99
18) Acetophenone	4.75	105	367271	45.40	ppm		99
19) 2-Methylphenol	4.59	108	236877	46.63	ppm		100
20) 2,2'-oxybis(1-Chloropropan	4.59	121	57208	29.99	ppm	#	70
21) 3&4-Methylphenol	4.81	108	255540	46.10	ppm		99
22) n-Nitroso-di-n-propylamine	4.76	70	185364	45.66	ppm		97
23) Hexachloroethane	4.88	201	80829	38.59	ppm		96
26) Nitrobenzene	4.98	77	268557	44.68	ppm		96
27) Quinoline	6.50	129	507229	45.49	ppm		98
28) Isophorone	5.31	82	521663	51.19	ppm		98

(#) = qualifier out of range (m) = manual integration
P103282.D MP4524.M Mon Mar 14 12:34:35 2016

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103282.D Vial: 15
Acq On : 11 Mar 2016 6:21 pm Operator: linseyk
Sample : op91987-msd Inst : MSP
Misc : op91987,ep4536,495 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 18:43:17 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29)	2-Nitrophenol	5.43	139	148670	50.43	ppm	98
30)	2,4-Dimethylphenol	5.54	107	261483	52.22	ppm	97
31)	Benzoic acid	5.75	105	151753	39.02	ppm	99
32)	bis(2-Chloroethoxy)methane	5.66	93	304001	47.23	ppm	98
33)	2,4-Dichlorophenol	5.81	162	216503	49.49	ppm	96
34)	2,6-Dichlorophenol	6.13	162	199957	47.62	ppm	98
36)	1,2,4-Trichlorobenzene	5.90	180	194203	40.06	ppm	97
38)	Naphthalene	6.00	128	654614	42.66	ppm	99
39)	4-Chloroaniline	6.11	127	174463	26.74	ppm	97
40)	2,3-Dichloroaniline	7.51	161	244529	43.99	ppm	98
41)	Caprolactam	6.62	55	56254	27.35	ppm	97
42)	Hexachlorobutadiene	6.22	225	93014	38.61	ppm	95
43)	4-Chloro-3-methylphenol	6.93	107	239094	51.15	ppm	99
44)	2-Methylnaphthalene	7.06	141	371182	43.66	ppm	98
45)	1-Methylnaphthalene	7.20	142	456353	44.00	ppm	99
46)	Dimethylnaphthalene	8.04	156	405209	44.67	ppm	99
48)	Hexachlorocyclopentadiene	7.33	237	165032	69.31	ppm	99
49)	2,4,6-Trichlorophenol	7.54	196	142680	49.83	ppm	100
50)	2,4,5-Trichlorophenol	7.62	196	146924	49.31	ppm	99
52)	2-Chloronaphthalene	7.81	162	393420	40.98	ppm	100
53)	Biphenyl	7.80	154	518181	41.98	ppm	100
54)	2-Nitroaniline	8.01	65	144990	52.22	ppm	95
55)	Dimethylphthalate	8.33	163	500812	45.13	ppm	100
56)	Acenaphthylene	8.45	152	646357	42.14	ppm	99
57)	2,6-Dinitrotoluene	8.41	165	119160	50.34	ppm	97
58)	3-Nitroaniline	8.66	138	90673	32.54	ppm	99
59)	Acenaphthene	8.73	153	421370	44.21	ppm	98
60)	2,4-Dinitrophenol	8.83	184	139887	98.92	ppm	97
61)	4-Nitrophenol	9.09	109	67365	44.42	ppm	96
62)	Dibenzofuran	9.01	168	595231	44.31	ppm	93
63)	2,4-Dinitrotoluene	9.04	165	152562	41.84	ppm	93
64)	2,3,4,6-Tetrachlorophenol	9.25	232	111714	48.80	ppm	97
65)	Diethylphthalate	9.47	149	502425	45.55	ppm	99
66)	Fluorene	9.56	166	493610	45.00	ppm	98
67)	4-Chlorophenyl-phenylether	9.59	204	214598	43.61	ppm	97
68)	4-Nitroaniline	9.64	138	130484	46.61	ppm	95
70)	4,6-Dinitro-2-methylphenol	9.68	198	91327	47.37	ppm	98
71)	n-Nitrosodiphenylamine	9.80	169	358542	47.67	ppm	99
72)	1,2-Diphenylhydrazine	9.84	77	512722	49.75	ppm	97
74)	4-Bromophenyl-phenylether	10.37	248	126656	49.56	ppm	98
75)	Hexachlorobenzene	10.44	284	125340	45.17	ppm	98
76)	Pentachlorophenol	10.78	266	81481	49.22	ppm	99
77)	Phenanthrene	11.08	178	622922	46.50	ppm	99
78)	Anthracene	11.16	178	637669	47.48	ppm	99
79)	Carbazole	11.46	167	671905	48.84	ppm	98
80)	Di-n-butylphthalate	12.14	149	841576	52.48	ppm	99
81)	Fluoranthene	13.08	202	701408	48.65	ppm	96
82)	Octadecane	11.04	57	253499	48.19	ppm	98
84)	Pyrene	13.47	202	718831	50.29	ppm	98

(#) = qualifier out of range (m) = manual integration
P103282.D MP4524.M Mon Mar 14 12:34:35 2016

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103282.D Vial: 15
Acq On : 11 Mar 2016 6:21 pm Operator: linseyk
Sample : op91987-msd Inst : MSP
Misc : op91987,ep4536,495 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 18:43:17 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	Butylbenzylphthalate	14.83	149	378368	54.44	ppm	98
88)	Benzo[a]anthracene	15.70	228	584180	49.85	ppm	99
89)	3,3'-Dichlorobenzidine	15.74	252	269343	55.57	ppm	98
90)	Chrysene	15.77	228	549599	47.38	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.00	149	499900	46.05	ppm	99
93)	Di-n-octylphthalate	17.20	149	838272	46.40	ppm	99
94)	Benzo[b]fluoranthene	17.65	252	580039	48.60	ppm	99
95)	Benzo[k]fluoranthene	17.70	252	537569	46.76	ppm	97
96)	Benzo[a]pyrene	18.18	252	511867	48.62	ppm	99
97)	Indeno[1,2,3-cd]pyrene	19.90	276	439143	47.25	ppm	99
99)	Dibenz[a,h]anthracene	19.95	278	474905	47.43	ppm	99
100)	7,12-Dimethylbenz(a)anthra	17.66	256	238049	47.11	ppm	100
101)	Benzo[g,h,i]perylene	20.26	276	465765	43.76	ppm	97
103)	Benzaldehyde	3.70	105	233875	43.25	ppm	97
105)	Atrazine	10.71	200	126928	47.62	ppm	96
107)	Benzidine	13.39	184	211614	26.77	ppm	98
111)	1,2,4,5-Tetrachlorobenzene	7.33	216	188767	37.63	ppm	98

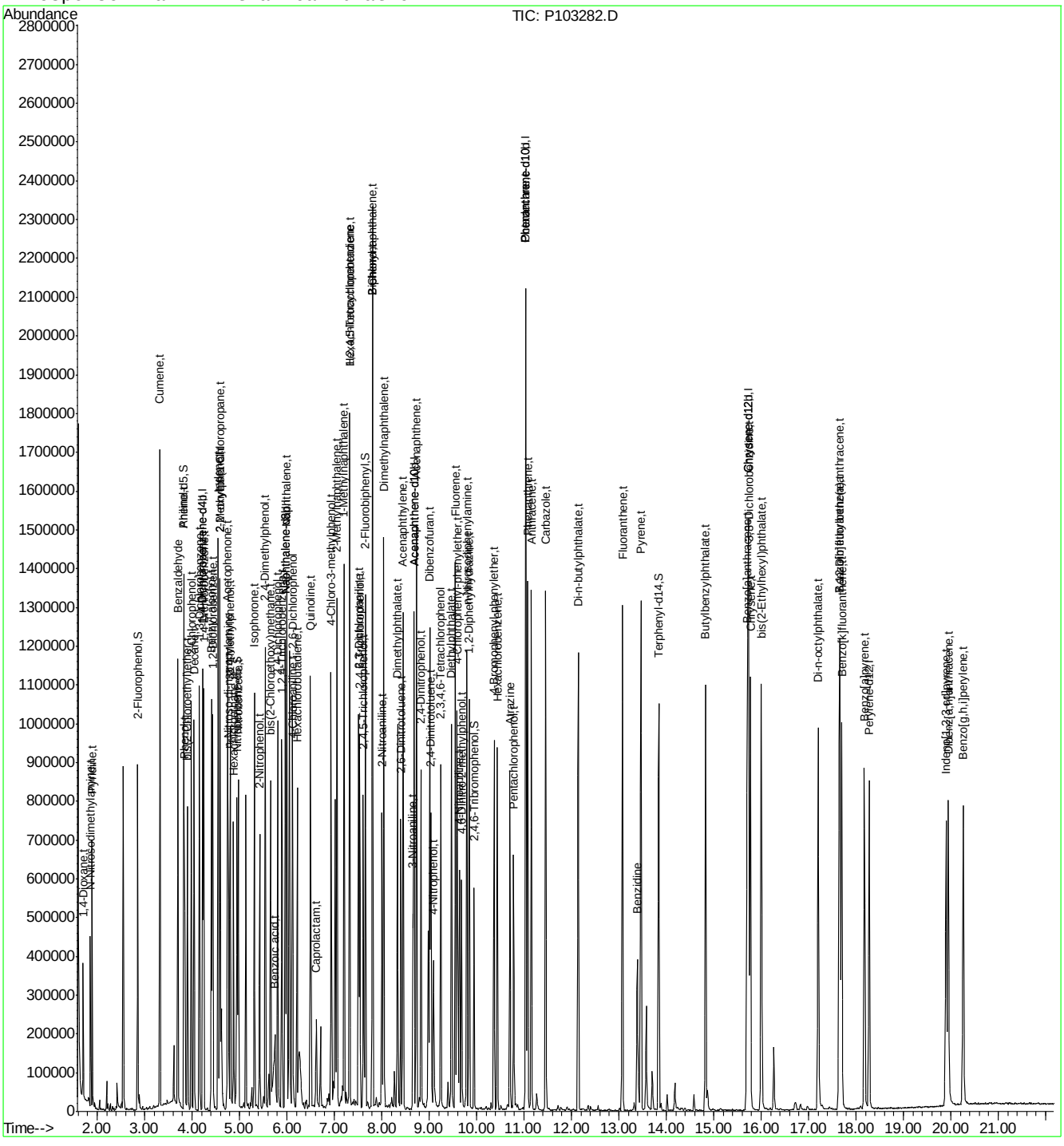
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103282.D Vial: 15
Acq On : 11 Mar 2016 6:21 pm Operator: linseyk
Sample : op91987-msd Inst : MSP
Misc : op91987,ep4536,495 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:34 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64075.D
Acq On : 15 Mar 2016 2:01 pm
Operator : linseyk
Sample : op91987a-ms
Misc : op91987a,e4m2841,500
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 12:52:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.875	152	298825	4.00	ppm	#	0.00
12) Fluorene-d10	12.846	176	535501	4.00	ppm		0.00
22) Fluoranthene-d10	17.015	212	805932	4.00	ppm		-0.04
28) Benzo(a)pyrene-d12	21.600	264	609899	4.00	ppm		-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	298825	4.00	ppm		0.00
38) Fluorene-d10a	12.846	176	535501	4.00	ppm	#	0.00
System Monitoring Compounds							
2) 2-Fluorophenol	4.200	112	2064874	30.94	ppm		-0.04
Spiked Amount 50.000	Range 11 - 58		Recovery = 61.88%#				
3) Phenol-d5	5.594	99	2737888	26.94	ppm		0.03
Spiked Amount 50.000			Recovery = 53.88%				
6) Nitrobenzene-d5	7.061	82	2946059	39.08	ppm		0.02
Spiked Amount 50.000			Recovery = 78.16%				
11) 2-Fluorobiphenyl	10.519	172	3547024	28.37	ppm		0.00
Spiked Amount 50.000			Recovery = 56.74%				
17) 2,4,6-Tribromophenol	13.395	330	938355	39.48	ppm		0.00
Spiked Amount 50.000			Recovery = 78.96%				
25) Terphenyl-d14	17.806	244	4782856	36.84	ppm		-0.04
Spiked Amount 50.000			Recovery = 73.68%				
Target Compounds							Qvalue
4) Phenol	5.608	94	382634	3.60	ppm		83
5) bis(2-Chloroethyl)ether	5.704	93	60921	0.77	ppm		94
7) Naphthalene	8.423	128	237829	0.91	ppm		93
8) Hexachlorobutadiene	8.701	225	29004	0.73	ppm		78
9) 2-Methylnaphthalene	9.756	142	96152	1.00	ppm		93
10) Hexachlorocyclopentadiene	10.114	237	531	0.23	ppm		72
13) Acenaphthylene	11.522	152	149730	0.86	ppm		94
14) Acenaphthene	11.868	153	95232	0.97	ppm		87
15) Dibenzofuran	12.236	168	158090	0.60	ppm	#	1
16) Fluorene	12.894	166	143228	0.88	ppm		95
18) Hexachlorobenzene	14.011	284	44196	0.72	ppm		98
19) Pentachlorophenol	14.444	266	170997	6.13	ppm		83
20) Phenanthrene	14.815	178	201669	0.76	ppm		99
21) Anthracene	14.908	178	199061	0.83	ppm		100
23) Fluoranthene	17.053	202	224007	0.81	ppm		95
24) Pyrene	17.448	202	221356	0.84	ppm		97
26) Benzo[a]anthracene	19.519	228	202753	0.94	ppm	#	93
27) Chrysene	19.576	228	183662	0.78	ppm		92
29) Benzo[b]fluoranthene	21.174	252	182842	0.78	ppm		97
30) Benzo[k]fluoranthene	21.215	252	153398	0.77	ppm		98
31) Benzo[a]pyrene	21.628	252	159757	0.77	ppm		99
32) Indeno[1,2,3-cd]pyrene	23.184	276	165602	0.75	ppm		98
33) Dibenz[a,h]anthracene	23.211	278	134722	0.73	ppm		91
34) Benzo[g,h,i]perylene	23.583	276	140560	0.71	ppm		99
36) 1,4-Dioxane	2.357	88	80534	2.93	ppm		92
39) 4,6-dinitro-2-methylph...	13.085	198	69859	3.86	ppm	#	71
40) 1,2-Diphenylhydrazine	13.252	77	120474	0.82	ppm		89

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64075.D
Acq On : 15 Mar 2016 2:01 pm
Operator : linseyk
Sample : op91987a-ms
Misc : op91987a,e4m2841,500
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 12:52:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.204	169	102619	1.15	ppm	71

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

9.4.3

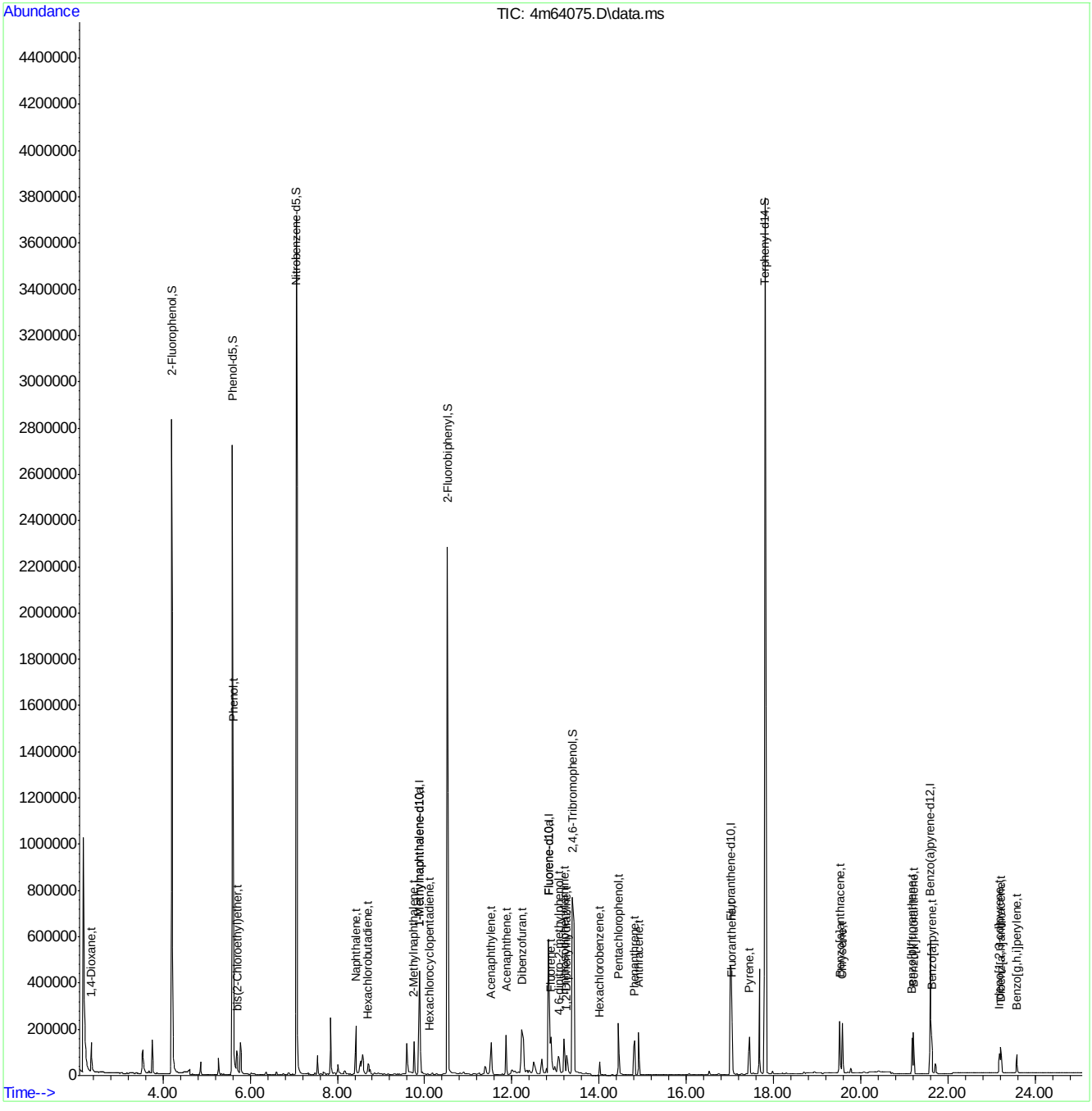
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64075.D
Acq On : 15 Mar 2016 2:01 pm
Operator : linseyk
Sample : op91987a-ms
Misc : op91987a,e4m2841,500
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 12:52:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64076.D
Acq On : 15 Mar 2016 2:31 pm
Operator : linseyk
Sample : op91987a-msd
Misc : op91987a,e4m2841,500
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 16 12:53:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.875	152	319606	4.00	ppm	#	0.00
12) Fluorene-d10	12.846	176	574560	4.00	ppm		0.00
22) Fluoranthene-d10	17.015	212	869466	4.00	ppm		-0.04
28) Benzo(a)pyrene-d12	21.600	264	650047	4.00	ppm		-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	319606	4.00	ppm		0.00
38) Fluorene-d10a	12.846	176	574560	4.00	ppm	#	0.00
System Monitoring Compounds							
2) 2-Fluorophenol	4.200	112	2225584	31.18	ppm		-0.04
Spiked Amount 50.000	Range 11 - 58		Recovery = 62.36%#				
3) Phenol-d5	5.594	99	2865531	26.37	ppm		0.03
Spiked Amount 50.000			Recovery = 52.74%				
6) Nitrobenzene-d5	7.061	82	3366545	41.75	ppm		0.02
Spiked Amount 50.000			Recovery = 83.50%				
11) 2-Fluorobiphenyl	10.519	172	4150923	31.04	ppm		0.00
Spiked Amount 50.000			Recovery = 62.08%				
17) 2,4,6-Tribromophenol	13.395	330	1054569	41.35	ppm		0.00
Spiked Amount 50.000			Recovery = 82.70%				
25) Terphenyl-d14	17.806	244	5157581	36.82	ppm		-0.04
Spiked Amount 50.000			Recovery = 73.64%				
Target Compounds							Qvalue
4) Phenol	5.608	94	381983	3.36	ppm		84
5) bis(2-Chloroethyl)ether	5.704	93	70125	0.83	ppm		95
7) Naphthalene	8.423	128	263619	0.95	ppm		92
8) Hexachlorobutadiene	8.701	225	33571	0.79	ppm		77
9) 2-Methylnaphthalene	9.756	142	107749	1.05	ppm		94
10) Hexachlorocyclopentadiene	10.114	237	909	0.24	ppm		72
13) Acenaphthylene	11.522	152	169850	0.91	ppm		94
14) Acenaphthene	11.868	153	111226	1.06	ppm		88
15) Dibenzofuran	12.236	168	177522	0.63	ppm	#	1
16) Fluorene	12.894	166	167345	0.95	ppm		97
18) Hexachlorobenzene	14.011	284	50560	0.77	ppm		99
19) Pentachlorophenol	14.444	266	168778	5.66	ppm		82
20) Phenanthrene	14.815	178	229134	0.81	ppm		99
21) Anthracene	14.908	178	224786	0.88	ppm		100
23) Fluoranthene	17.053	202	257026	0.86	ppm		96
24) Pyrene	17.448	202	253510	0.89	ppm		96
26) Benzo[a]anthracene	19.519	228	225264	0.97	ppm	#	93
27) Chrysene	19.576	228	204423	0.81	ppm		91
29) Benzo[b]fluoranthene	21.174	252	198452	0.79	ppm		97
30) Benzo[k]fluoranthene	21.215	252	168092	0.79	ppm		98
31) Benzo[a]pyrene	21.628	252	163785	0.74	ppm		99
32) Indeno[1,2,3-cd]pyrene	23.184	276	165667	0.70	ppm		97
33) Dibenz[a,h]anthracene	23.211	278	135557	0.69	ppm		90
34) Benzo[g,h,i]perylene	23.583	276	140597	0.67	ppm		99
36) 1,4-Dioxane	2.357	88	99181	3.38	ppm		90
39) 4,6-dinitro-2-methylph...	13.085	198	83739	4.23	ppm	#	64
40) 1,2-Diphenylhydrazine	13.252	77	141132	0.90	ppm		88

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64076.D
Acq On : 15 Mar 2016 2:31 pm
Operator : linseyk
Sample : op91987a-msd
Misc : op91987a,e4m2841,500
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 16 12:53:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.204	169	117570	1.23	ppm	72

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

9.4.4

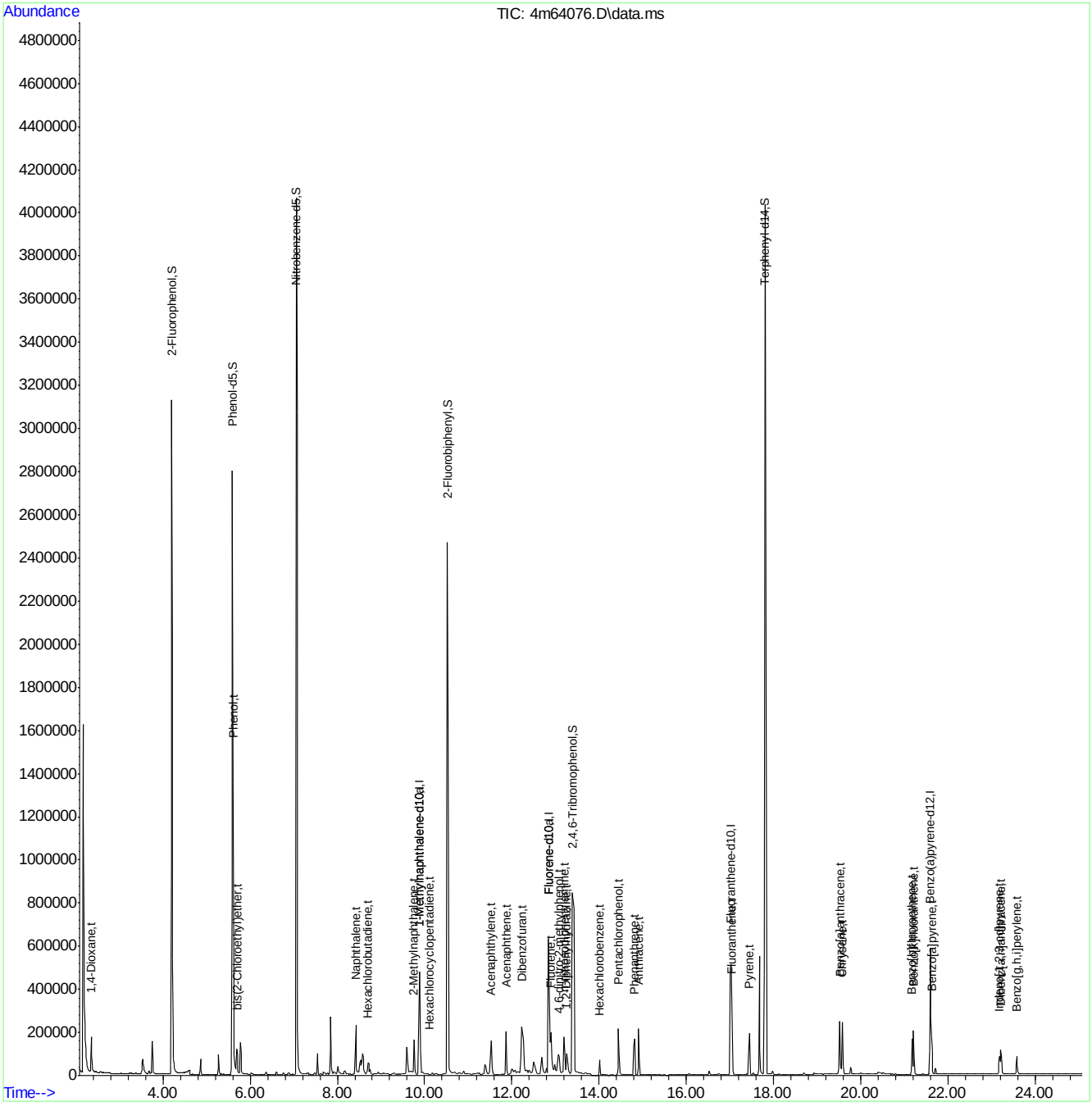
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64076.D
Acq On : 15 Mar 2016 2:31 pm
Operator : linseyk
Sample : op91987a-msd
Misc : op91987a,e4m2841,500
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 16 12:53:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

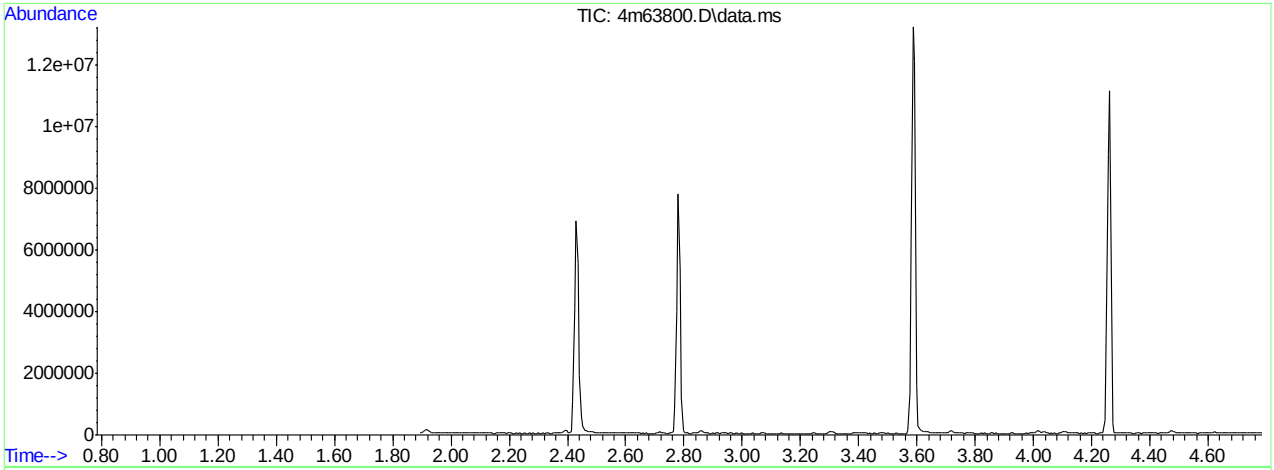


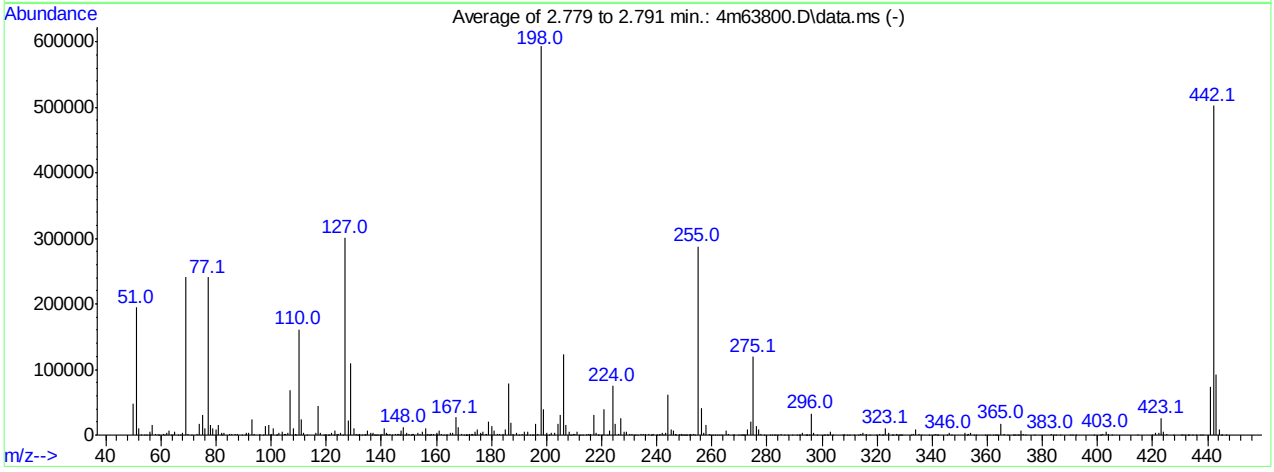
SGS ACCUTEST JC15883

DFTPP

Data File : C:\msdchem\1\DATA\E4M2828\4m63800.D Vial: 1
Acq On : 29 Feb 2016 3:44 pm Operator: linseyk
Sample : dftpp Inst : GCMS4M
Misc : op91493a,e4m2828 Multiplr: 1.00
MS Integration Params: events3.e

Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M (ChemStation Integrator)
Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um





AutoFind: Scans 156, 157, 158; Background Corrected with Scan 151

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.8	194405	PASS
68	69	0.00	2	1.2	2903	PASS
69	198	0.00	100	40.5	240415	PASS
70	69	0.00	2	0.5	1258	PASS
127	198	40	60	50.7	300819	PASS
197	198	0.00	1	0.4	2515	PASS
198	198	100	100	100.0	593003	PASS
199	198	5	9	6.6	39222	PASS
275	198	10	30	20.2	119693	PASS
365	198	1	100	2.9	17294	PASS
441	443	0.01	100	78.9	73077	PASS
442	198	40	100	84.8	502827	PASS
443	442	17	23	18.4	92581	PASS

4m63800.D DFTPP4M.M Tue Mar 01 08:37:16 2016 MANAGER

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	48787	59.20	85	69.00	240415	80.95	16163
51.05	194405	61.00	2070	70.00	1258	82.00	3553
52.10	9556	61.30	89	71.10	123	82.20	265
52.95	348	62.00	3006	72.95	2259	83.00	3760
54.00	272	63.00	6703	74.05	16947	84.90	2488
54.95	415	63.90	306	75.00	31509	85.90	1096
56.00	4892	64.20	410	76.10	10475	87.05	1815
56.20	352	65.05	4536	77.10	241139	87.95	968
57.00	15055	66.20	217	78.10	16050	89.20	129
58.10	975	66.95	685	79.00	11000	90.50	89
58.95	325	68.00	2903	80.05	8814	91.00	3077

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.90	3485	102.00	366	111.00	24527	122.80	449
93.00	23958	102.95	3047	111.95	3392	123.05	6117
94.05	2031	103.95	4473	112.95	913	123.90	1164
96.05	2287	104.90	1902	116.05	3575	124.20	1435
97.10	371	105.10	2040	117.00	44407	125.00	4147
98.00	13914	106.00	2640	118.05	2938	126.20	330
99.00	15470	107.00	68939	119.00	257	127.00	300819
99.80	151	108.00	10827	120.10	948	128.00	22283
100.05	1005	108.80	105	120.80	315	129.00	109962
100.95	9582	109.05	1935	121.30	220	130.00	9584
101.80	563	110.00	161491	122.05	3503	130.90	1139

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.10	418	137.90	166	145.95	2295	153.10	3218
131.90	86	138.10	73	146.20	1450	154.05	1869
132.25	1193	138.80	513	146.60	323	155.05	6025
133.05	495	139.60	586	147.05	6568	156.00	10856
134.00	2277	140.10	1032	148.00	12093	156.70	96
134.30	417	141.00	10943	148.80	296	157.00	1082
135.00	7475	141.95	3040	149.05	2861	157.20	793
136.00	2804	142.30	1234	150.10	1034	157.80	812
136.60	137	143.05	2421	151.00	690	158.10	1463
137.00	3819	143.95	846	151.30	964	159.10	1928
137.60	705	144.95	928	151.80	1359	159.60	191

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.05	3190	169.00	2379	175.00	8139	184.05	1404
160.30	439	170.05	760	176.10	3861	185.05	9103
160.95	6526	170.60	245	176.40	1016	186.10	78028
161.95	1538	170.90	627	177.05	4380	187.00	19041
162.70	303	171.10	468	177.90	1361	188.05	1812
163.50	164	171.95	2033	178.10	1333	189.05	2922
163.95	437	172.70	252	179.00	20045	190.00	627
165.00	3102	173.00	1382	180.00	14616	190.95	1561
165.95	3236	173.20	1015	181.00	6874	192.00	5557
167.05	27026	174.00	5348	182.00	1176	192.80	473
167.95	12594	174.20	691	183.15	1109	193.05	5709

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
194.10	799	203.05	3781	211.70	441	219.90	416
194.95	759	204.00	17756	212.10	371	221.00	38595
195.30	150	205.05	31385	213.00	136	222.10	252
196.00	16345	206.10	123880	214.40	80	223.00	7695

196.70	2515	207.05	15323	215.05	1311	224.00	75035
198.00	593003	208.05	4376	215.70	74	225.05	16475
199.00	39222	208.65	634	216.00	2099	226.05	2588
199.80	229	209.20	361	217.00	30803	227.10	25800
200.05	3221	209.95	1091	218.00	4093	227.95	4814
200.70	228	210.30	2488	218.60	187	229.05	4798
201.60	3648	211.00	5438	218.95	447	230.00	1193

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.05	2460	239.80	366	247.00	1193	252.35	1060
231.70	74	240.10	639	247.90	199	252.70	613
232.20	398	240.80	624	248.20	444	253.35	1885
232.95	255	241.05	1402	248.80	95	253.80	280
234.05	2228	242.00	3675	249.05	1852	255.00	287547
235.00	2147	242.20	188	249.30	77	256.05	41209
235.95	1273	243.10	3998	249.90	329	257.05	3124
237.00	2505	244.10	62156	250.10	456	258.00	14879
238.00	383	245.05	7841	250.70	488	259.00	2126
238.20	158	246.00	7345	251.10	81	259.60	426
238.85	1012	246.70	780	251.60	171	260.10	115

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
261.10	143	271.15	737	282.00	118	293.00	2842
261.90	70	271.60	81	282.80	801	293.90	560
262.70	74	272.15	831	283.20	333	294.30	456
263.70	597	273.05	8787	284.05	571	294.60	382
265.00	6520	274.05	19905	285.05	1474	295.10	240
265.90	1034	275.05	119693	286.15	653	296.00	33020
267.70	69	276.00	14423	287.70	390	297.00	4114
268.05	430	277.05	9024	289.00	565	298.05	290
269.75	290	277.90	1425	290.70	271	300.70	70
270.40	112	279.05	288	291.50	130	301.00	217
270.80	529	281.10	88	292.00	655	301.80	99

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
302.10	175	314.95	4088	326.85	1783	338.90	188
303.05	4786	315.95	2007	327.10	206	340.30	232
303.95	828	317.10	267	327.90	647	341.10	1995
307.30	74	319.90	269	328.15	568	341.80	135
307.80	348	321.05	1298	328.70	73	342.20	141
308.10	855	321.70	666	328.95	179	345.20	119
309.00	255	322.15	362	332.15	911	346.00	2922
309.95	771	323.05	10647	333.05	1090	346.90	422
311.70	307	324.05	2661	334.00	7951	351.95	3893
313.10	143	325.20	122	335.05	2521	352.50	209
314.05	1483	325.95	431	335.95	383	352.90	1360

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.10	1302	365.00	17294	377.00	536	402.05	2596
354.05	3587	366.00	2513	383.00	1781	403.00	4532
355.05	436	367.20	72	384.05	190	403.95	1959
356.10	146	369.20	68	384.95	208	405.25	180
359.00	660	369.80	147	386.50	227	414.65	175
360.00	91	370.10	320	390.05	706	420.00	430
360.90	176	370.95	808	390.80	118	420.95	4103
361.90	71	371.20	410	391.95	400	422.10	3358
363.00	96	372.05	7317	398.60	133	423.10	26258
363.25	381	372.95	2356	400.90	327	424.00	4884
363.60	228	374.00	434	401.10	284	425.05	1036

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms

M4M2828SIM.M Tue Mar 01 08:33:17 2016 MANAGER Page: 4

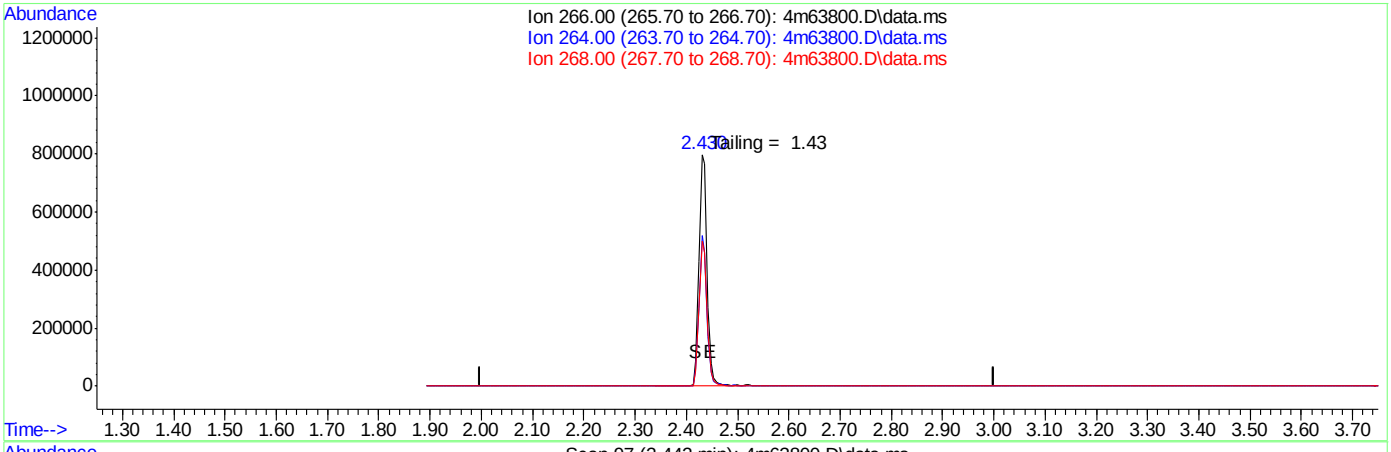
dftpp
Modified:subtracted

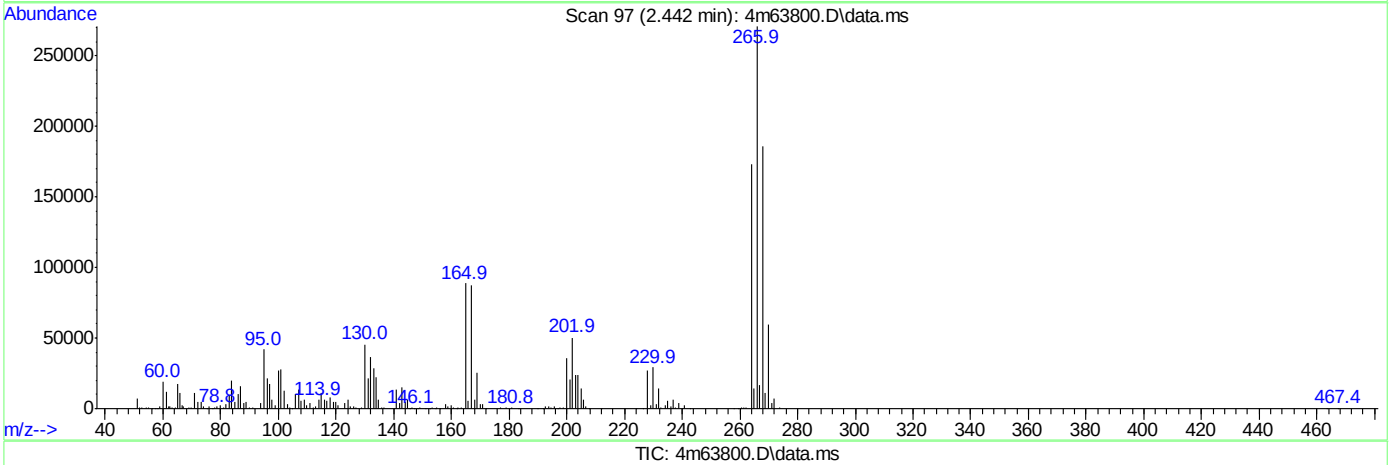
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
427.70	394	442.10	502827				
430.40	307	443.10	92581				
430.70	83	444.10	8895				
431.60	208	445.00	153				
433.00	97	445.20	268				
433.30	107	446.50	292				
434.60	84						
435.50	483						
437.30	140						
438.00	203						
441.05	73077						

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63800.D
Acq On    : 29 Feb 2016   3:44 pm
Operator  : linseyk
Sample    : dftpp
Misc      : op91493a,e4m2828
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Feb 29 15:50:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title  : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration
```





TIC: 4m63800.D\data.ms

(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

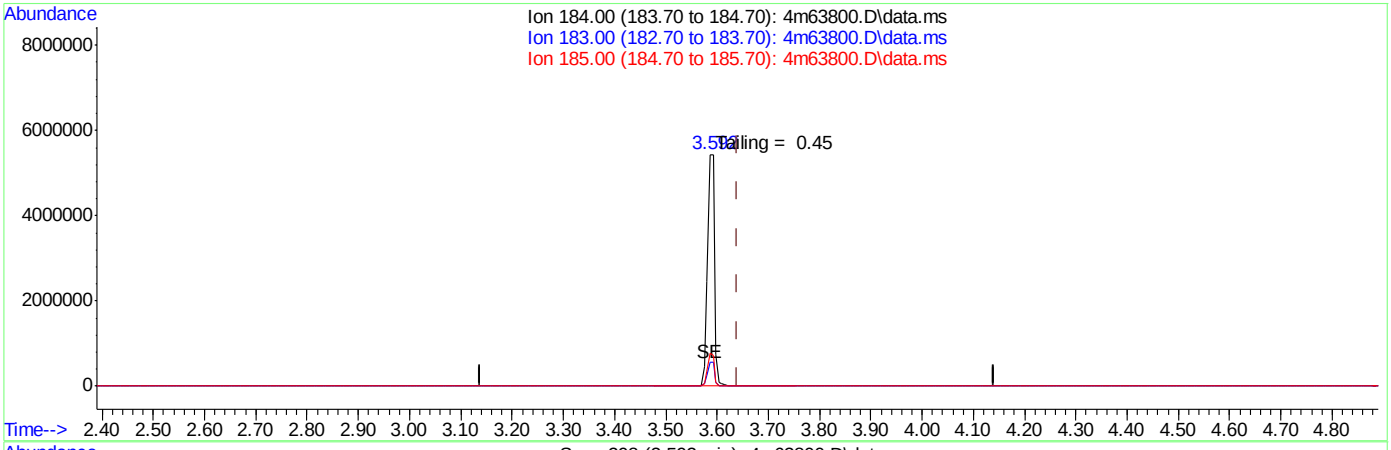
response 0

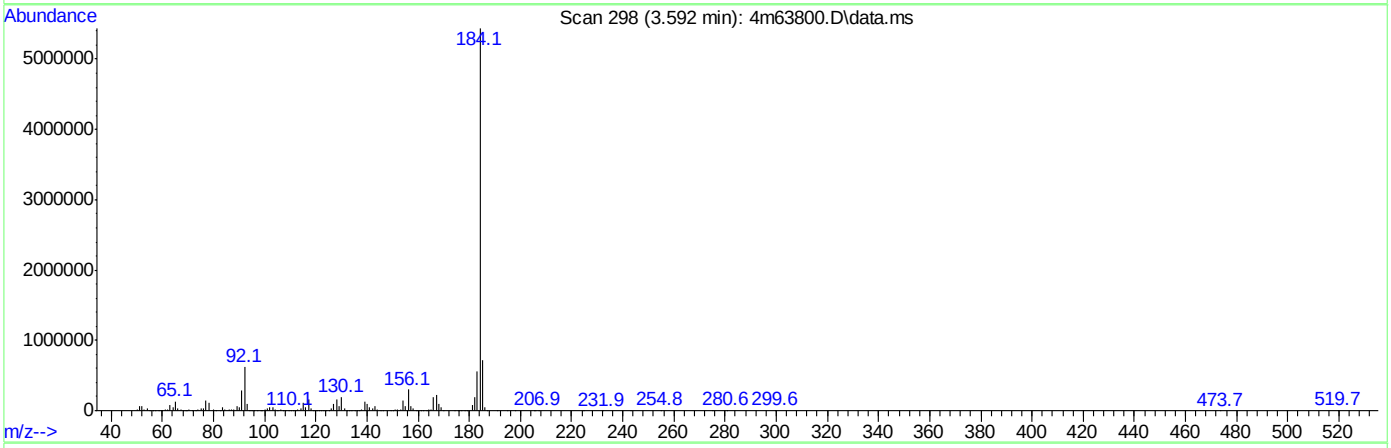
Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63800.D
Acq On : 29 Feb 2016 3:44 pm
Operator : linseyk
Sample : dftpp
Misc : op91493a,e4m2828
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 29 15:50:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m63800.D\data.ms

(2) benzidine (t)

3.591min (-0.049) 848.85ppb

response 50664310

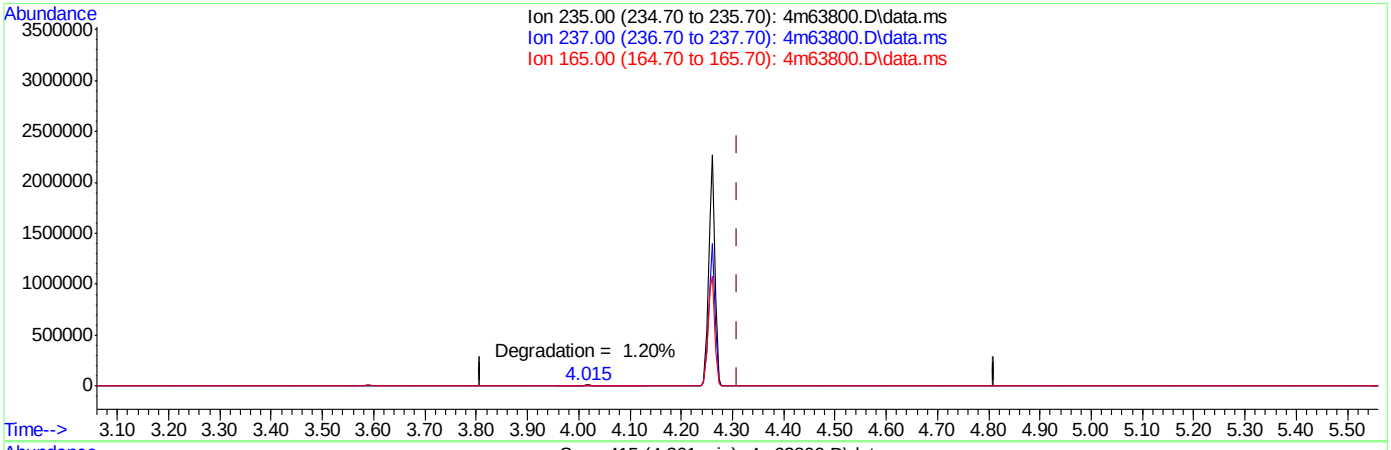
Ion	Exp%	Act%
184.00	100	100
183.00	10.60	10.38
185.00	13.40	13.78
0.00	0.00	0.00

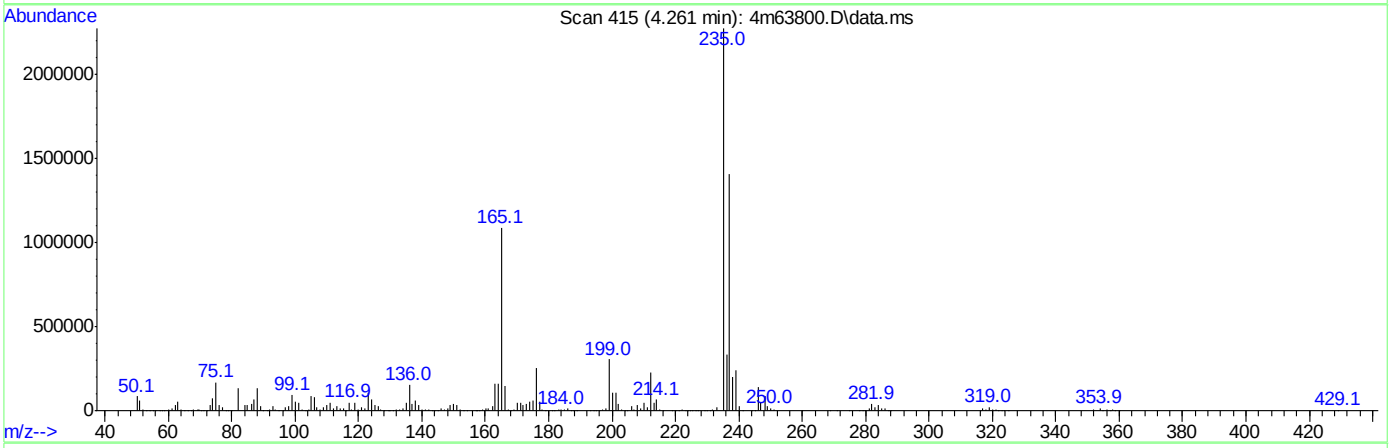
SGS ACCUTEST JC15883

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63800.D
Acq On    : 29 Feb 2016   3:44 pm
Operator  : linseyk
Sample    : dftpp
Misc      : op91493a,e4m2828
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Feb 29 15:50:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title  : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration
```





(3) ddt (t)

4.263min (-0.047) 676.77ppb

response 18730279

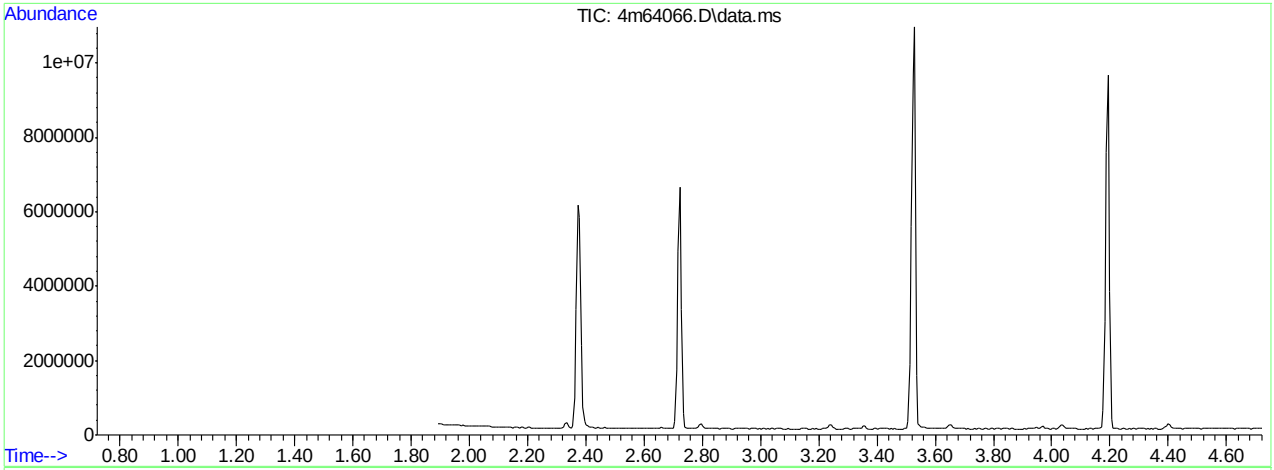
Ion	Exp%	Act%
235.00	100	100
237.00	63.70	62.65
165.00	48.70	50.73
0.00	0.00	0.00

SGS ACCUTEST JC15883

DFTPP

Data File : C:\msdchem\1\DATA\E4M2841\4m64066.D Vial: 1
Acq On : 15 Mar 2016 8:51 am Operator: linseyk
Sample : dftpp Inst : GCMS4M
Misc : op91969a,e4m2841 Multiplr: 1.00
MS Integration Params: events3.e

Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M (ChemStation Integrator)
Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um



AutoFind: Scans 145, 146, 147; Background Corrected with Scan 140

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.6	221971	PASS
68	69	0.00	2	1.1	3010	PASS
69	198	0.00	100	43.5	264069	PASS
70	69	0.00	2	0.7	1723	PASS
127	198	40	60	51.6	313173	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	606869	PASS
199	198	5	9	6.6	40109	PASS
275	198	10	30	18.9	114771	PASS
365	198	1	100	2.8	16891	PASS
441	443	0.01	100	76.9	67909	PASS
442	198	40	100	77.2	468459	PASS
443	442	17	23	18.9	88336	PASS

4m64066.D DFTPP4M.M Tue Mar 15 12:46:24 2016 MANAGER

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	57176	61.00	2605	73.05	983	84.95	1526
51.05	221971	62.00	2454	74.10	16891	87.00	640
52.05	11141	63.10	7310	75.00	32928	88.90	655
53.00	221	64.10	1112	76.05	11442	90.00	274
53.20	300	65.05	3963	77.10	262677	91.00	3607
53.95	89	66.10	408	78.10	17909	92.00	4184
55.00	227	67.15	51	79.00	12592	93.00	24473
56.00	6322	68.00	3010	80.05	10961	94.00	1656
57.00	16001	69.00	264069	81.00	17891	94.95	15
58.00	959	70.00	1723	82.05	3250	95.20	335
59.00	404	71.05	12	83.00	4872	96.00	1776

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.90	307	106.15	1305	118.00	3117	127.00	313173
97.20	383	107.00	74617	118.90	100	128.05	21609
98.00	17194	108.00	12414	119.15	685	129.00	111216
99.00	14621	109.00	896	120.05	1255	130.00	8950
100.00	354	109.20	472	120.85	428	130.90	1672
100.15	1345	110.00	162888	121.20	114	131.80	246
101.00	8746	111.00	21179	122.00	6297	132.10	522
102.10	949	112.00	2388	123.00	6637	132.60	263
103.00	3108	113.00	822	124.00	3084	132.80	148
103.95	5084	116.10	2786	125.00	3679	133.05	130
105.05	4168	117.00	49589	126.00	770	134.05	2566

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.00	6819	144.95	915	151.40	553	160.90	1759
135.95	3026	145.80	910	151.90	889	161.10	3247
137.00	3927	146.05	1205	153.05	4351	162.15	1679
138.00	576	146.80	1649	154.05	3028	162.80	151
138.65	187	147.05	3325	155.00	6344	163.05	768
139.10	463	148.05	11681	156.10	9875	163.60	287
139.90	1131	149.05	2536	157.00	2100	164.05	622
141.00	10843	149.70	184	158.00	2082	165.00	3873
142.10	4164	150.00	416	158.70	301	166.05	3963
143.00	2660	150.20	230	159.00	1352	167.00	27315
144.05	1340	151.15	2515	160.10	2782	167.95	10265

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
168.95	1524	177.90	710	185.05	9305	195.00	850
169.20	737	178.20	709	186.10	77259	196.00	18204
170.05	821	179.00	18163	187.00	20088	198.00	606869
170.90	496	180.10	13048	187.95	2318	199.00	40109
171.20	282	181.05	6358	189.00	3811	200.05	3177
172.00	2358	181.95	1373	189.90	514	201.25	1691
173.05	2580	182.70	679	190.10	474	201.65	2601
174.05	4800	183.10	814	191.05	1239	203.05	3543
175.10	10630	183.80	490	192.00	5567	204.05	17290
176.10	3732	184.10	569	193.05	6244	205.10	31603
177.05	3800	184.30	326	194.05	1664	206.10	132173

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
207.00	17662	216.05	2359	225.90	664	235.00	1669
208.00	2993	217.00	32069	226.10	1804	235.95	1389
208.95	1246	218.05	5057	227.05	28627	236.50	285
210.20	1456	219.10	751	227.95	3913	237.00	2178

M4M2828SIM.M Tue Mar 15 12:44:33 2016 MANAGER Page: 0

211.05	5215	219.80	288	229.00	6489	238.10	210
211.75	902	220.00	373	229.90	967	238.25	221
212.10	246	221.10	35163	231.05	2765	238.95	887
212.85	163	221.70	3216	231.70	161	239.90	1083
213.20	168	223.00	8199	231.90	191	240.80	602
214.10	189	224.10	74973	233.00	545	241.05	917
215.00	1222	225.05	17149	234.05	1738	242.05	4146

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
243.05	4883	250.95	554	261.05	370	272.15	803
244.10	59067	251.90	766	261.75	208	273.00	8465
245.10	7530	252.70	334	263.80	412	274.05	22648
246.00	9396	253.00	1148	265.05	5531	275.05	114771
247.00	1320	253.90	617	266.15	457	276.00	15398
247.20	427	255.10	292331	267.10	74	277.05	9261
247.90	155	256.00	43664	267.70	98	278.10	1418
248.15	357	257.00	2635	268.40	78	279.10	371
248.50	193	258.00	14468	270.05	442	281.10	253
249.05	2151	259.00	1858	270.95	722	281.90	102
250.00	145	260.05	350	271.50	122	282.20	156

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
283.05	1159	293.95	480	308.00	807	321.10	876
284.00	1331	294.40	119	309.00	174	321.80	262
284.90	802	295.10	712	310.10	404	321.95	656
285.10	1377	296.05	32459	312.80	148	323.10	12736
285.95	319	297.10	5179	313.10	367	323.95	1378
289.10	388	297.80	255	314.10	1872	324.20	1036
290.10	87	300.80	190	315.00	3426	324.95	225
290.95	296	301.05	801	316.10	2346	325.70	68
291.95	250	302.15	677	316.95	433	327.05	2041
292.20	112	303.05	4230	319.00	139	327.90	997
293.00	2206	304.00	829	320.90	308	329.10	290

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
331.80	290	346.00	2263	355.90	77	372.05	7125
332.00	437	346.20	246	358.90	621	372.80	224
333.00	1045	347.05	461	360.05	228	373.05	862
334.05	6623	348.10	101	360.30	82	373.30	157
335.05	2307	350.20	81	361.10	87	373.80	202
337.10	110	351.20	87	362.80	68	383.00	1551
339.05	144	352.00	4327	365.00	16891	383.70	70
340.00	134	353.10	2990	365.90	396	384.00	422
341.05	1314	354.05	4400	366.15	1681	384.20	115
342.00	573	355.00	439	370.05	508	384.90	98
345.10	149	355.20	386	371.10	1052	389.95	1259

Average of 2.716 to 2.728 min.: 4m64066.D\data.ms
dftpp
Modified:subtracted

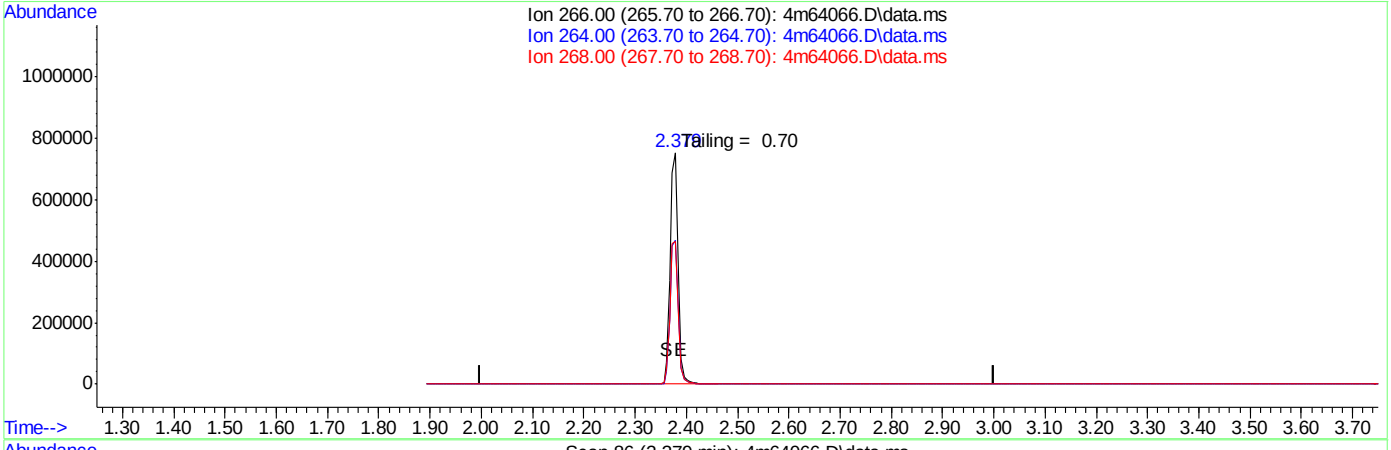
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
390.60	162	414.90	175	433.40	198		
391.00	217	420.00	103	434.10	429		
391.20	274	421.10	2834	436.10	81		
391.80	316	422.05	3036	439.90	97		
396.00	98	423.10	22773	441.10	67909		
401.20	408	424.10	4347	442.10	468459		
402.10	2678	425.00	369	443.10	88336		
403.00	3638	425.20	83	444.05	7507		
404.05	1669	426.95	223	444.95	836		
404.85	260	432.00	263	451.70	122		
410.10	87	432.30	78	504.10	84		

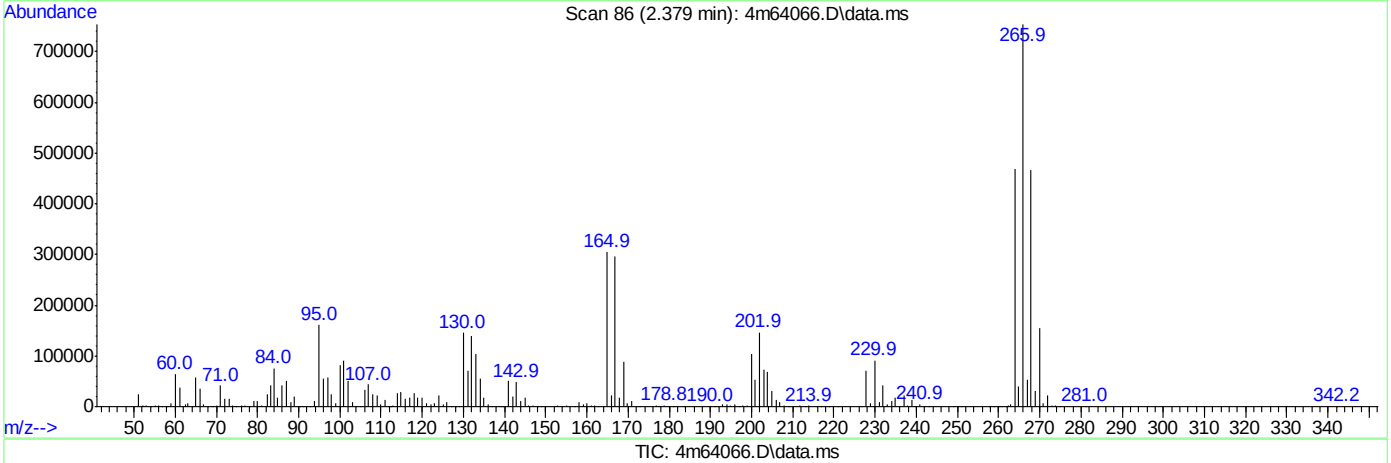
M4M2828SIM.M Tue Mar 15 12:44:33 2016 MANAGER Page: 1

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64066.D
Acq On    : 15 Mar 2016   8:51 am
Operator  : linseyk
Sample    : dftpp
Misc      : op91969a,e4m2841
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 15 08:57:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title  : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration
```





TIC: 4m64066.D\data.ms

(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

response 0

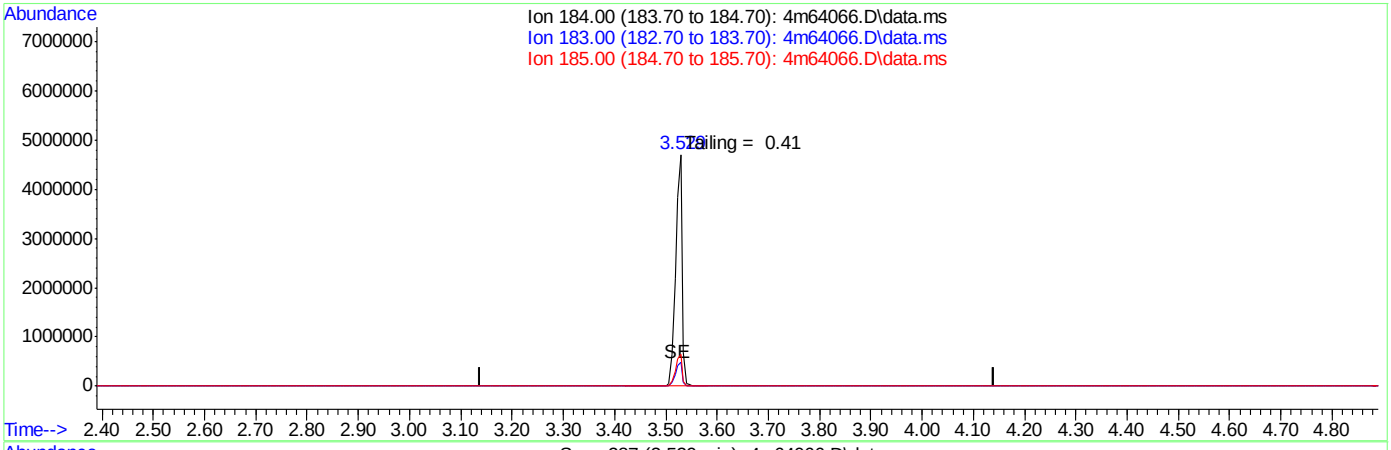
Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

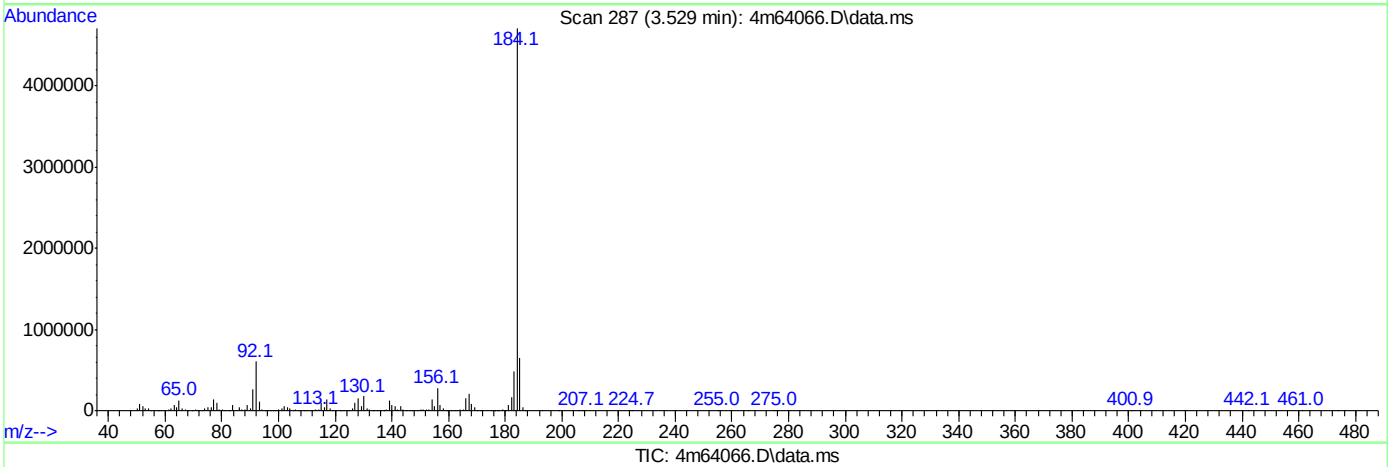
SGS ACCUTEST JC15883

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64066.D
Acq On    : 15 Mar 2016   8:51 am
Operator  : linseyk
Sample    : dftpp
Misc      : op91969a,e4m2841
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 15 08:57:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title  : Semi Volatile  GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration
```





TIC: 4m64066.D\data.ms

(2) benzidine (t)

3.640min (-3.640) 0.00ppb

response 0

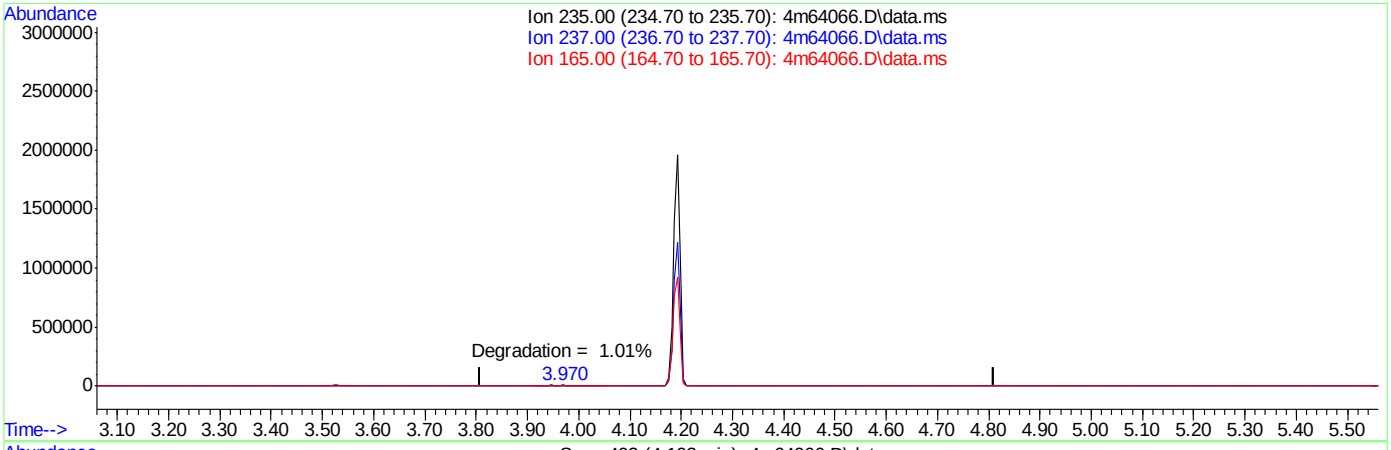
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00#
185.00	13.40	0.00#
0.00	0.00	0.00

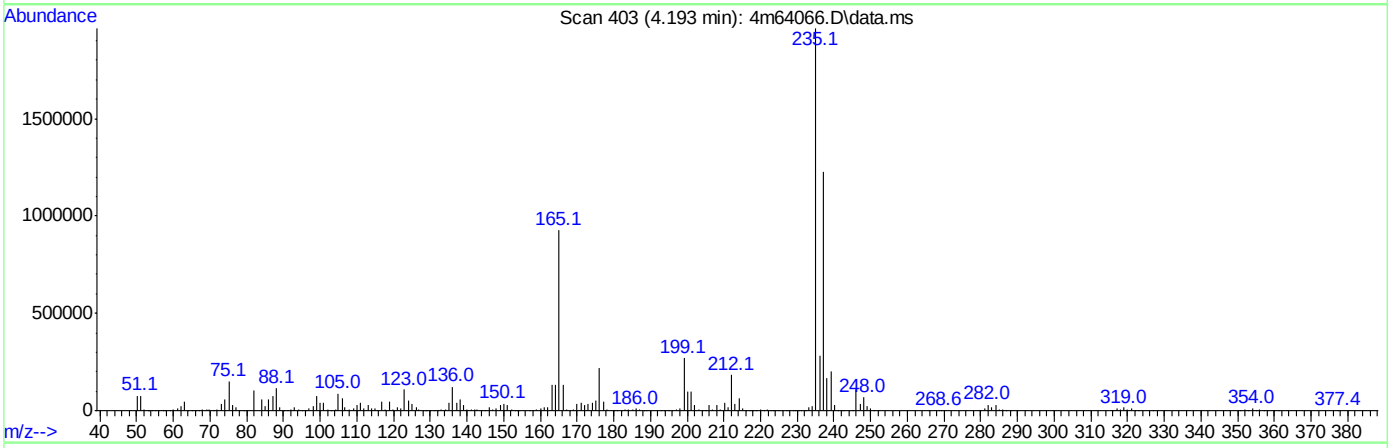
SGS ACCUTEST JC15883

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64066.D
Acq On : 15 Mar 2016 8:51 am
Operator : linseyk
Sample : dftpp
Misc : op91969a,e4m2841
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 15 08:57:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Jul 29 12:02:51 2013
Response via : Initial Calibration





TIC: 4m64066.D\data.ms

(3) ddt (t)

4.310min (-4.310) 0.00ppb

response 0

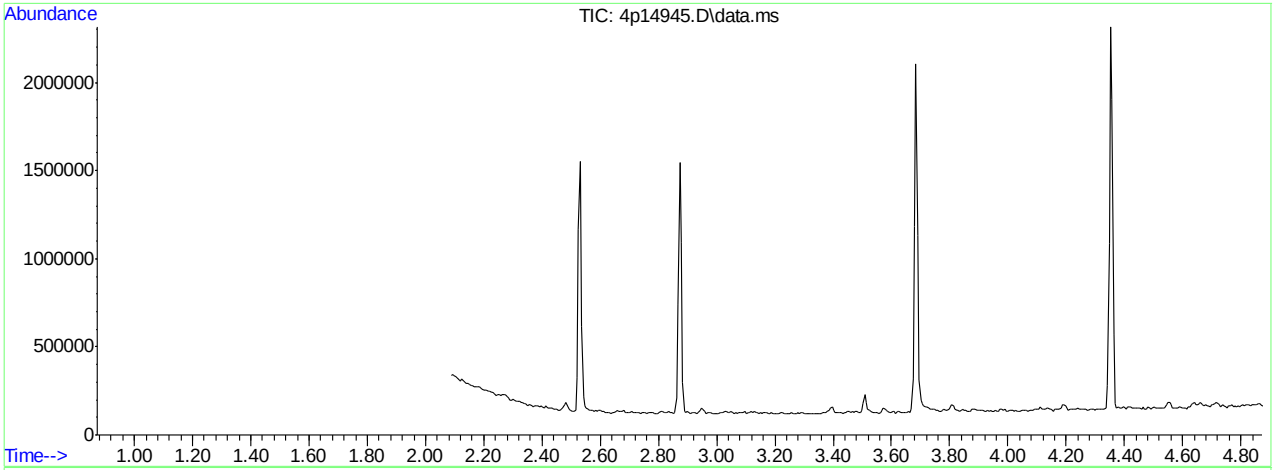
Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	48.70	0.00#
0.00	0.00	0.00

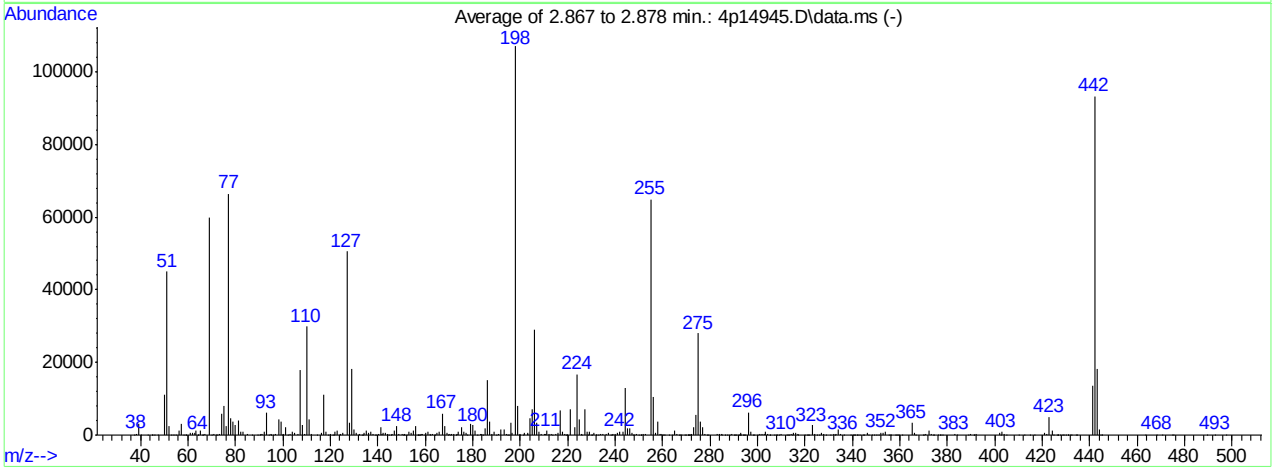
SGS ACCUTEST JC15883

DFTPPR

Data File : C:\msdchem\1\DATA\e4p767\4p14945.D Vial: 1
Acq On : 1 Feb 2016 4:06 pm Operator: juliusj
Sample : dftpp Inst : MS4P
Misc : op90759a,e4p767 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS





AutoFind: Scans 147, 148, 149; Background Corrected with Scan 142

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.0	44967	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	56.0	59960	PASS
70	69	0.00	2	0.0	24	PASS
127	198	40	60	47.2	50540	PASS
197	198	0.00	1	0.5	542	PASS
198	198	100	100	100.0	106984	PASS
199	198	5	9	7.4	7920	PASS
275	198	10	30	26.2	27999	PASS
365	198	1	100	3.1	3301	PASS
441	443	0.10	100	73.8	13533	PASS
442	198	40	100	87.2	93328	PASS
443	442	17	23	19.6	18332	PASS

4p14945.D DFTPP4P.M Tue Feb 02 09:03:45 2016

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.15	44	52.10	2342	63.00	558	72.00	111
38.10	378	53.00	108	63.15	1288	72.20	78
39.15	2964	54.00	62	64.10	60	73.10	317
40.10	8	55.05	158	64.30	152	74.05	5768
43.10	53	56.10	1247	65.15	1155	75.10	8137
44.90	155	57.10	3197	66.00	115	76.10	2417
45.15	49	58.10	131	66.20	10	77.10	66502
45.80	47	59.00	102	67.10	290	78.10	4583
47.10	89	59.20	102	69.10	59960	79.10	3647
50.05	11154	61.05	729	70.10	24	80.05	2767
51.10	44967	62.10	770	71.10	254	81.10	3994

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.10	1019	95.00	160	104.00	994	117.10	11165
83.10	908	95.20	409	105.05	739	118.10	1020
85.10	167	96.10	117	106.15	287	119.00	123
87.00	108	96.95	298	107.10	17904	120.05	257
89.20	132	98.10	4470	108.10	2712	121.15	104
90.10	111	99.10	3771	109.15	205	121.40	107
90.90	326	99.90	125	110.10	29869	122.10	787
91.05	442	100.05	404	111.10	4412	123.10	1149
92.10	1064	101.05	2176	112.00	459	123.90	93
93.10	6151	102.05	33	114.20	28	124.10	342
94.10	74	103.05	367	116.10	766	125.15	734

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.10	50540	136.05	623	144.80	39	153.10	914
128.05	3348	137.20	865	145.40	43	154.10	484
129.10	18139	138.05	220	146.05	308	155.05	1093
130.05	1707	138.85	117	147.10	1254	156.15	2371
131.10	479	139.25	37	148.05	2506	156.80	55
131.80	42	140.15	166	149.05	434	157.00	153
132.10	261	141.10	2052	150.10	245	157.30	63
133.05	101	141.90	259	150.80	63	157.70	136
133.90	94	142.15	665	151.15	191	158.10	433
134.15	520	143.10	692	151.40	63	158.95	380
135.10	1348	144.15	181	152.00	90	159.90	148

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.10	581	169.05	563	177.05	651	187.15	3727
161.05	1081	169.80	61	177.80	63	188.10	405
162.10	244	170.05	192	179.05	3035	189.15	853
162.30	89	170.60	32	180.15	2730	190.10	128
163.15	241	171.10	295	181.05	1169	191.05	216
163.90	26	172.15	167	182.10	34	192.00	1594
164.10	69	172.90	79	183.20	206	193.05	1431
165.15	656	173.20	305	183.95	268	194.15	290
166.05	1062	174.10	958	184.20	70	194.90	124
167.10	5973	175.10	2221	185.10	1912	195.20	36
168.05	2510	176.05	915	186.10	15082	196.10	3441

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
196.80	542	206.10	29112	216.10	590	225.90	73
198.10	106984	207.10	3374	217.05	6725	226.05	354
199.10	7920	208.00	993	218.05	849	227.10	6991
199.90	333	209.05	461	218.85	172	228.05	863

200.10	160	210.10	420	219.10	48	228.90	104
201.10	56	210.60	308	219.60	18	229.10	994
201.55	596	211.10	1163	219.90	49	229.90	67
203.00	514	212.25	250	221.05	7085	230.10	139
203.20	316	213.10	175	223.05	2177	231.05	635
204.10	4629	213.75	68	224.10	16774	232.00	72
205.15	7120	215.05	321	225.10	4285	232.20	38

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
232.95	110	243.15	918	251.90	223	262.70	17
234.00	209	244.10	13038	253.00	310	264.00	103
235.05	445	245.15	1933	255.10	64920	265.05	1237
236.05	174	246.05	1979	256.10	10623	266.10	211
237.05	516	247.10	536	257.05	572	266.80	88
238.10	139	247.70	52	258.10	3576	267.50	24
238.70	58	248.05	111	258.95	358	268.10	62
239.00	245	249.05	395	259.20	280	269.10	18
240.05	165	250.10	129	260.00	108	269.95	162
241.00	497	250.90	25	260.30	35	270.50	29
242.05	942	251.10	119	260.90	117	270.90	22

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
271.10	80	279.10	71	291.10	35	297.95	65
271.40	81	283.00	392	291.90	67	298.40	23
271.60	81	284.15	263	292.30	62	299.80	21
272.20	257	284.80	78	292.50	52	301.00	176
273.05	2164	285.05	405	292.80	28	302.05	213
274.05	5454	286.20	30	293.00	487	302.80	275
275.10	27999	287.30	33	294.00	131	303.15	995
276.05	3765	288.00	17	294.30	78	304.15	300
277.10	2276	289.20	165	295.00	107	305.10	18
278.00	407	290.15	68	296.05	6303	305.30	39
278.80	20	290.75	62	297.05	1001	306.95	70

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
308.00	108	316.90	32	328.05	356	340.80	77
308.20	85	317.25	175	328.80	32	341.05	153
309.05	153	319.70	134	330.90	22	341.90	25
310.00	222	320.85	152	331.95	198	342.10	113
312.20	25	321.20	120	332.50	45	343.20	42
312.80	137	321.80	21	333.00	242	344.20	44
313.30	29	323.10	2731	334.10	1532	344.90	25
314.05	318	324.05	459	335.00	407	346.10	607
314.80	146	325.10	42	336.20	100	347.00	80
315.15	494	326.05	93	339.10	53	348.10	54
316.15	529	327.00	715	340.05	71	349.20	17

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
350.20	22	359.30	57	374.20	90	392.10	210
351.10	33	361.00	22	376.00	19	402.10	583
352.05	674	365.00	3301	377.00	42	402.60	42
353.05	600	366.05	528	377.20	20	403.00	888
354.05	1052	366.60	27	377.90	17	403.95	285
355.15	101	369.90	41	382.95	269	404.95	66
355.80	24	370.10	46	384.05	139	410.15	63
356.00	34	370.85	176	389.05	44	412.30	33
357.90	36	372.10	1283	390.00	233	414.90	60
358.50	20	373.10	382	391.05	112	416.80	24
358.90	43	374.00	24	391.40	75	421.10	771

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms

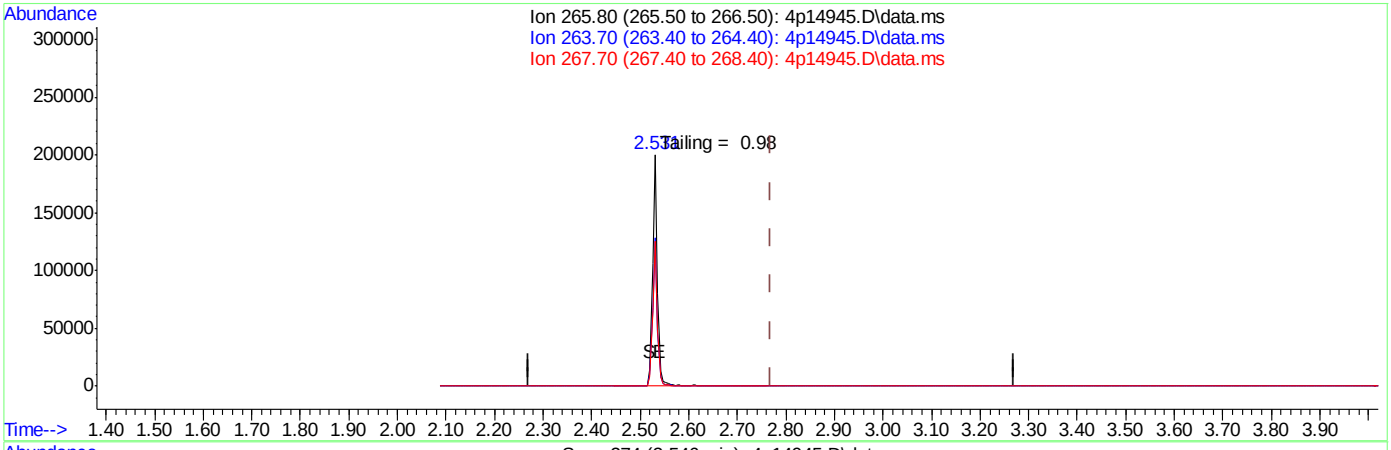
dftpp
Modified:subtracted

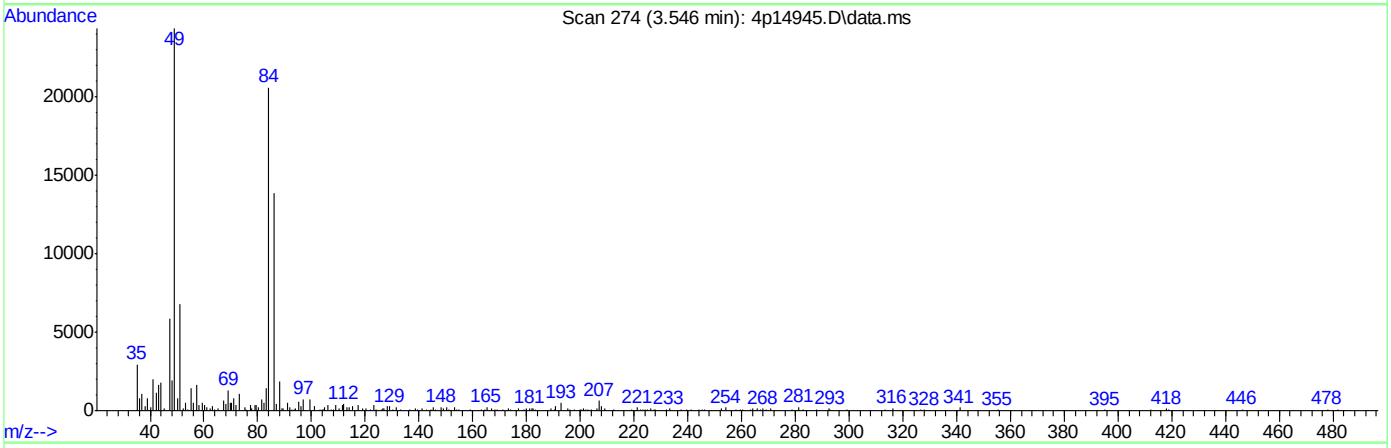
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
422.00	310	430.65	58	444.90	33		
423.00	5014	431.00	34	445.20	29		
424.10	1290	431.70	23	463.30	17		
424.85	111	432.50	91	468.20	29		
426.05	77	434.30	22	470.50	25		
426.50	18	434.80	35	474.60	18		
426.75	79	441.10	13533	475.10	19		
427.70	61	442.10	93328	489.40	20		
428.70	68	443.10	18332	492.90	34		
429.00	25	443.90	126	497.30	17		
429.70	32	444.10	1669				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14945.D
Acq On : 1 Feb 2016 4:06 pm
Operator : juliusj
Sample : dftpp
Misc : op90759a,e4p767
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 16:12:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





TIC: 4p14945.D\data.ms

(1) Pentachlorophenol (MC)

2.531min (-0.239) 75.38ng m

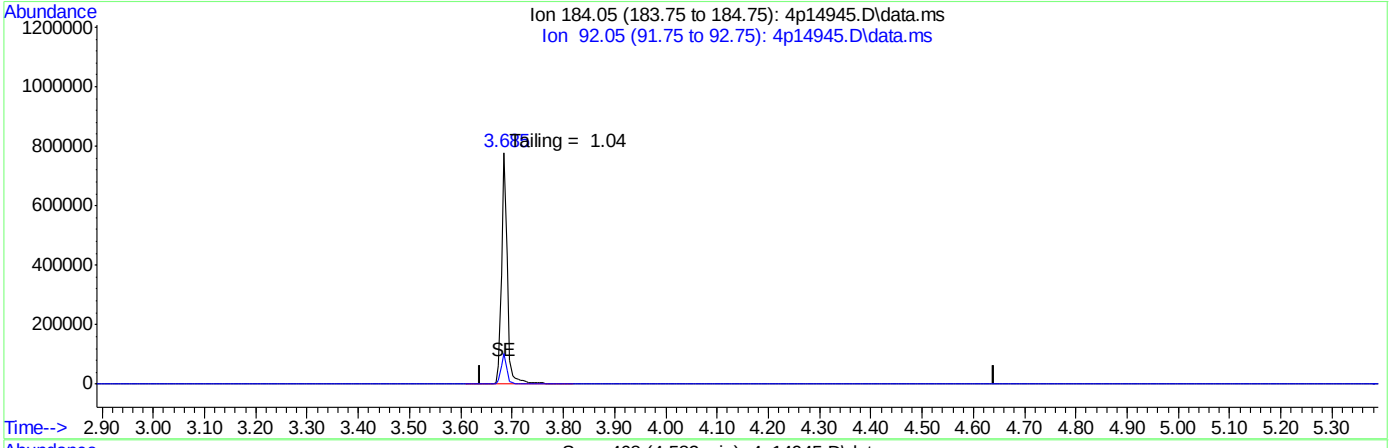
response 140947

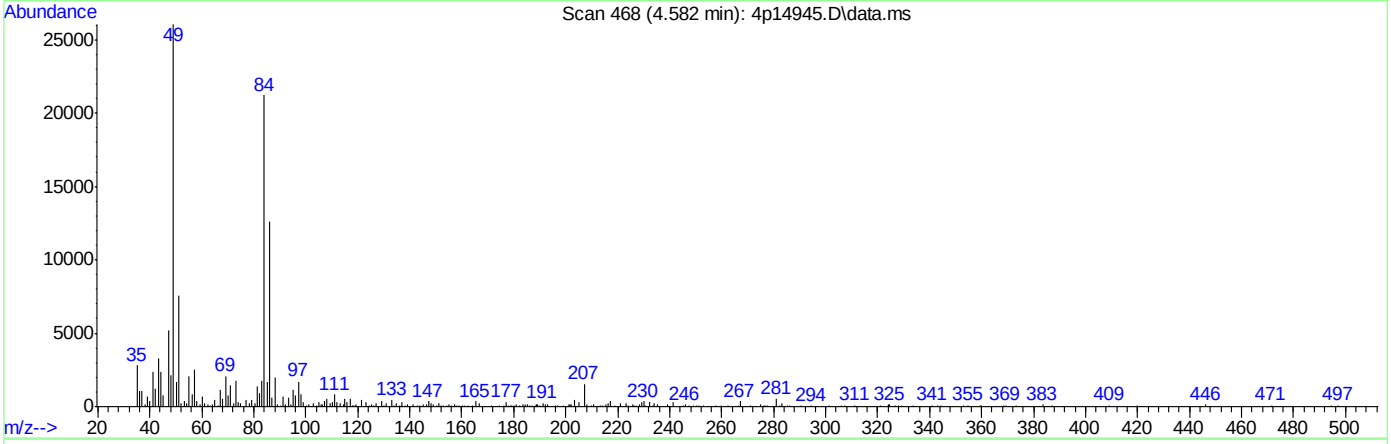
Ion	Exp%	Act%
265.80	100	100
263.70	64.70	63.87
267.70	64.60	62.62
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14945.D
Acq On : 1 Feb 2016 4:06 pm
Operator : juliusj
Sample : dftpp
Misc : op90759a,e4p767
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 16:12:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





TIC: 4p14945.D\data.ms

(2) Benzidine (M)

4.140min (-4.140) 0.00ng

response 0

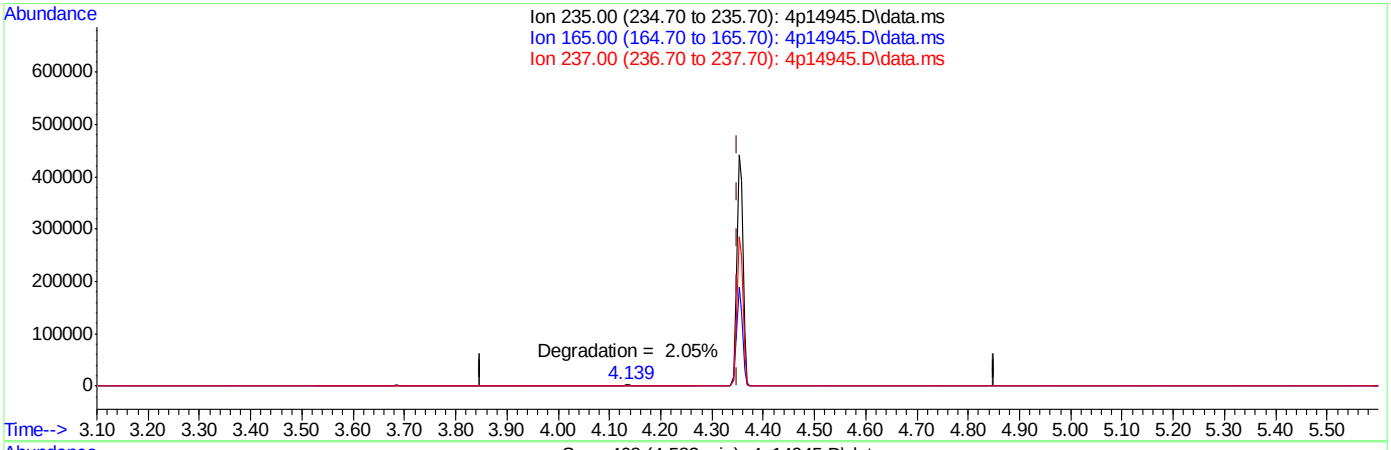
Ion	Exp%	Act%
184.05	100	0.00
92.05	11.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

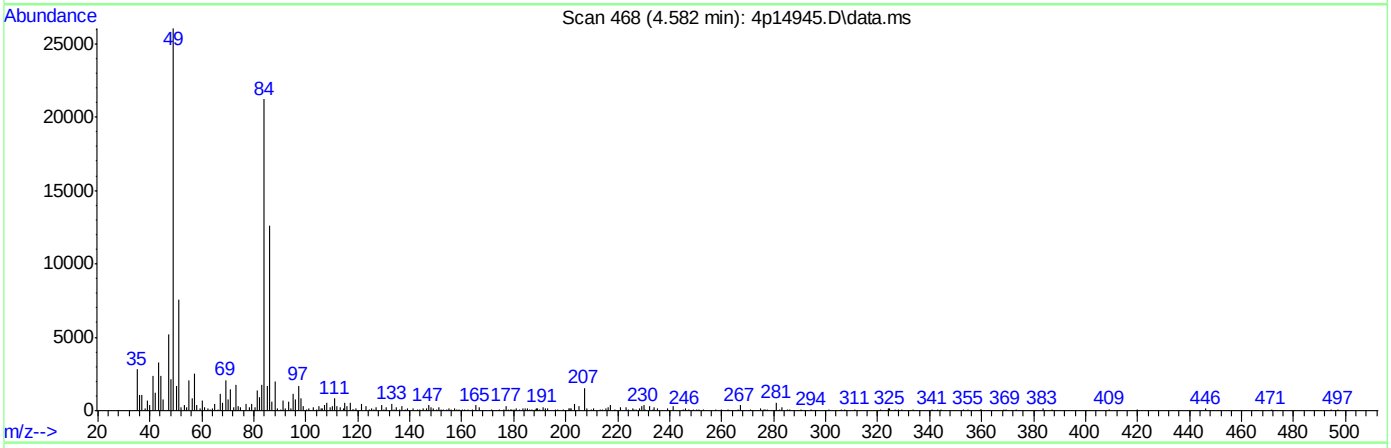
SGS ACCUTEST JC15883

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14945.D
Acq On : 1 Feb 2016 4:06 pm
Operator : juliusj
Sample : dftpp
Misc : op90759a,e4p767
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 16:12:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





TIC: 4p14945.D\data.ms

(3) PP-DDT (MC)

4.352min (+0.002) 195.21ppb

response 365003

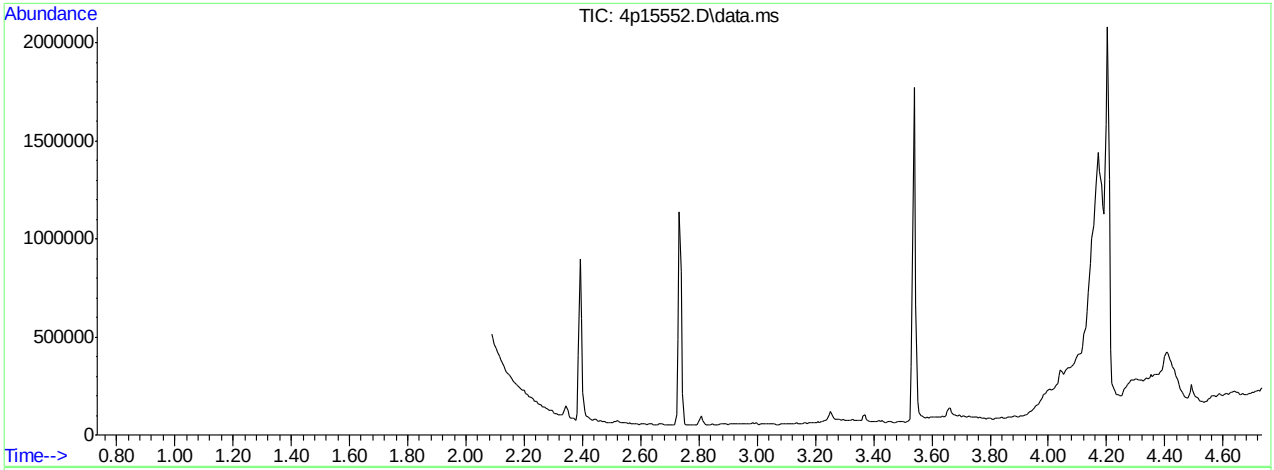
Ion	Exp%	Act%
235.00	100	100
165.00	58.00	42.58
237.00	62.20	64.43
0.00	0.00	0.00

SGS ACCUTEST JC15883

DFTPPR

Data File : C:\msdchem\1\DATA\e4p800\4p15552.D Vial: 1
Acq On : 14 Mar 2016 9:02 am Operator: ashleyd
Sample : dftpp Inst : MS4P
Misc : op91934a,e4p800 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 121, 122, 123; Background Corrected with Scan 116

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.6	33826	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	55.8	45329	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	50.6	41098	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	81229	PASS
199	198	5	9	7.2	5883	PASS
275	198	10	30	25.5	20693	PASS
365	198	1	100	2.8	2266	PASS
441	443	0.10	100	71.3	9883	PASS
442	198	40	100	83.8	68060	PASS
443	442	17	23	20.4	13852	PASS

4p15552.D DFTPP4P.M Mon Mar 14 13:17:01 2016

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	108	51.05	33826	62.15	371	76.10	2272
37.05	138	52.05	2146	63.10	1566	77.10	50717
38.10	395	53.00	220	64.00	171	78.05	3242
39.10	2147	55.10	314	65.05	717	79.10	2796
41.15	42	56.10	910	66.20	40	80.05	2087
42.15	141	57.10	2447	67.10	7	81.10	3236
43.10	54	58.10	189	69.10	45329	82.10	807
44.00	72	58.90	36	71.10	100	83.10	819
45.10	136	59.15	51	73.05	29	84.05	285
47.90	49	61.05	665	74.05	3701	85.10	957
50.10	9098	62.00	70	75.05	6964	85.95	877

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.95	116	99.10	2417	110.10	23065	120.10	104
87.20	196	100.00	358	111.10	3890	120.60	22
88.00	225	101.05	1496	112.10	451	122.05	703
89.00	75	101.80	37	113.10	125	123.10	913
89.80	61	102.00	69	114.35	112	123.90	119
91.10	698	103.10	752	114.60	43	124.05	217
92.05	761	104.10	937	116.10	656	124.80	127
93.10	4642	105.05	800	117.10	8749	125.10	495
94.15	569	107.10	13920	118.15	752	127.05	41098
96.10	334	108.05	2224	119.00	140	128.10	2812
98.05	3203	109.05	407	119.40	62	129.05	15309

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.10	1336	139.95	149	149.05	429	158.05	332
131.05	379	141.05	1787	150.05	115	158.90	116
132.10	238	142.10	390	151.05	297	159.20	129
133.00	215	143.00	143	151.80	68	160.10	649
134.00	508	143.20	90	152.05	103	161.10	716
135.10	1261	144.30	99	153.10	553	161.90	84
136.05	646	145.20	246	154.05	619	162.10	225
136.80	95	146.10	229	155.10	1086	162.90	104
137.05	519	146.30	143	156.05	1448	163.10	112
138.10	49	147.10	771	156.70	17	164.00	53
138.70	68	148.05	2353	157.15	422	165.00	544

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
165.95	367	175.10	1215	184.10	384	194.15	144
166.20	228	176.15	641	185.20	1756	195.05	279
167.05	3782	177.10	690	186.10	10863	196.15	2762
168.05	1837	177.95	38	187.10	3481	198.10	81229
169.05	118	178.20	294	188.10	377	199.05	5883
170.10	57	179.00	2560	189.15	603	200.00	377
170.30	37	180.05	2143	190.00	115	201.35	144
171.10	266	181.10	898	190.30	79	201.65	414
171.95	401	181.80	56	191.05	477	202.05	190
173.10	523	182.05	265	192.05	1083	203.00	560
174.15	700	182.95	104	193.10	1070	204.05	2786

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
205.10	5585	212.90	57	222.05	47	231.80	33
206.10	22753	213.20	27	223.10	1723	232.00	63
207.15	2876	214.10	20	224.10	13498	232.20	56
208.05	685	214.40	41	225.10	3449	233.05	151

209.05	130	215.00	245	226.05	257	234.05	306
210.00	147	216.15	543	227.10	4376	235.10	255
210.25	416	217.10	5757	228.00	755	235.95	249
210.90	110	218.10	598	229.05	1234	237.00	322
211.10	635	219.10	157	229.80	22	237.70	25
211.60	87	221.10	5425	230.20	71	238.70	43
212.15	185	221.80	361	231.10	494	239.10	149

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
239.90	39	248.05	30	257.05	517	266.70	25
240.15	201	249.05	329	258.05	2735	267.35	94
240.95	277	249.90	22	258.90	241	268.05	72
241.20	86	250.20	58	259.10	151	269.10	31
242.05	502	251.05	70	260.15	209	270.10	103
243.10	497	251.95	86	261.10	169	271.05	122
244.10	10233	252.30	44	262.20	27	271.80	24
245.05	1289	253.00	154	263.10	21	272.20	49
246.10	1710	253.80	107	265.00	1012	273.15	1264
246.70	138	255.10	50704	265.60	56	274.05	3873
247.05	197	256.05	7526	266.00	85	275.10	20693

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
276.10	2601	284.15	101	293.05	478	302.20	119
277.10	1695	284.50	102	293.80	45	303.05	767
277.90	72	285.20	320	294.15	87	304.05	145
278.15	192	286.40	26	295.00	40	305.60	18
279.10	91	287.90	30	296.05	5213	307.30	30
279.40	34	288.20	59	297.05	819	308.05	28
279.80	40	288.70	18	298.15	72	309.00	48
280.30	24	288.90	101	299.05	69	309.70	28
281.80	23	291.10	60	299.80	20	310.15	111
282.15	58	291.80	19	300.40	29	311.90	29
283.10	221	292.00	56	301.00	37	312.20	27

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
312.80	50	321.15	119	331.00	73	340.00	21
313.00	18	322.15	94	331.60	26	341.00	179
314.15	252	323.10	1920	332.10	113	341.20	99
314.90	347	324.15	395	332.80	86	341.90	24
315.00	347	325.00	46	333.00	78	345.80	23
315.95	225	325.95	123	334.05	1033	346.00	437
316.20	99	326.60	42	334.90	67	347.00	151
317.20	71	327.05	461	335.15	225	350.20	50
317.90	18	327.95	124	336.00	42	351.10	39
319.30	24	328.70	22	337.60	28	351.30	91
320.30	19	329.15	58	338.70	18	352.00	570

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.10	474	362.80	20	373.00	279	391.20	77
354.10	611	365.10	2266	374.05	53	392.05	88
354.80	92	366.05	414	377.00	23	393.00	19
355.05	100	367.25	63	382.40	17	398.50	17
356.10	38	368.25	67	382.80	77	402.05	426
356.90	17	368.90	22	383.10	180	403.05	557
358.80	54	369.10	25	383.90	120	404.00	139
359.20	24	370.15	71	385.30	29	405.40	37
360.10	27	370.50	25	390.00	142	408.70	27
361.90	21	371.00	124	390.40	18	409.90	29
362.60	21	372.10	1030	391.00	48	410.20	25

Average of 2.728 to 2.739 min.: 4p15552.D\data.ms

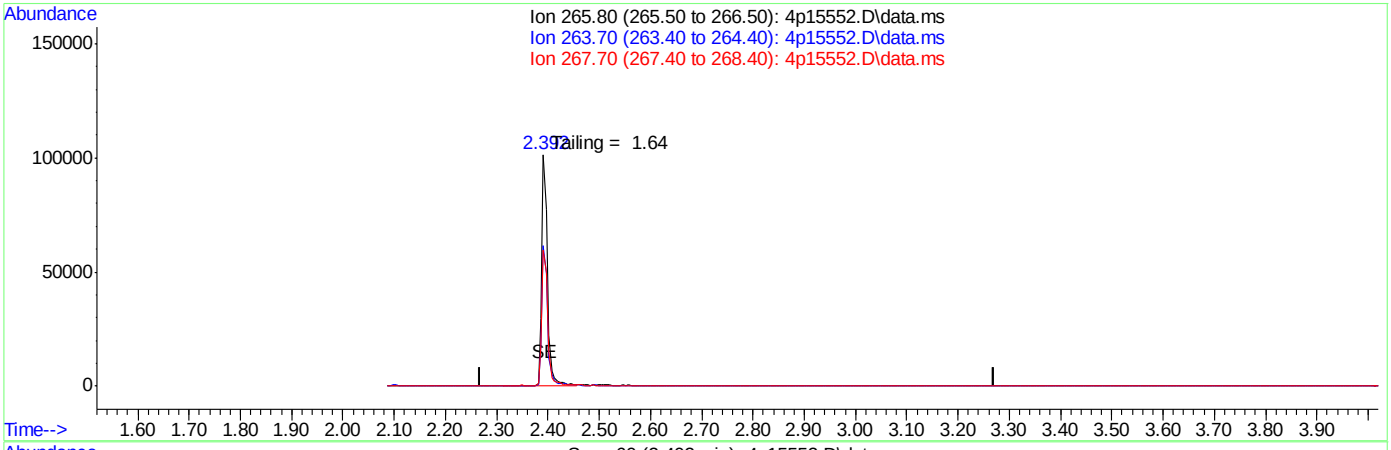
dftpp
Modified:subtracted

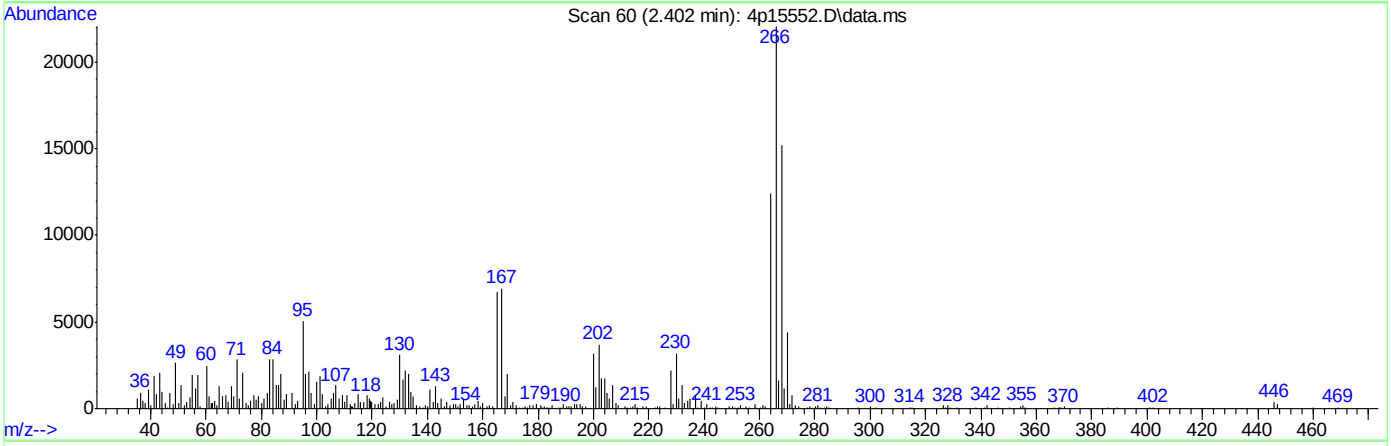
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
411.00	34	425.05	140	435.20	18	461.60	28
413.00	28	426.90	25	441.10	9883	465.20	40
415.10	102	427.10	26	442.10	68060	468.50	19
416.40	18	427.90	40	443.10	13852	476.00	18
419.10	20	428.25	53	443.90	83	492.40	50
419.70	67	429.90	26	444.10	1134		
420.80	17	430.20	46	445.15	41		
421.00	431	431.90	57	445.70	50		
422.05	402	432.30	66	446.20	36		
423.05	3152	433.20	30	447.30	28		
424.10	672	433.40	25	456.00	25		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15552.D
Acq On : 14 Mar 2016 9:02 am
Operator : ashleyd
Sample : dftpp
Misc : op91934a,e4p800
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 09:08:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





(1) Pentachlorophenol (MC)

2.770min (-2.770) 0.00ng

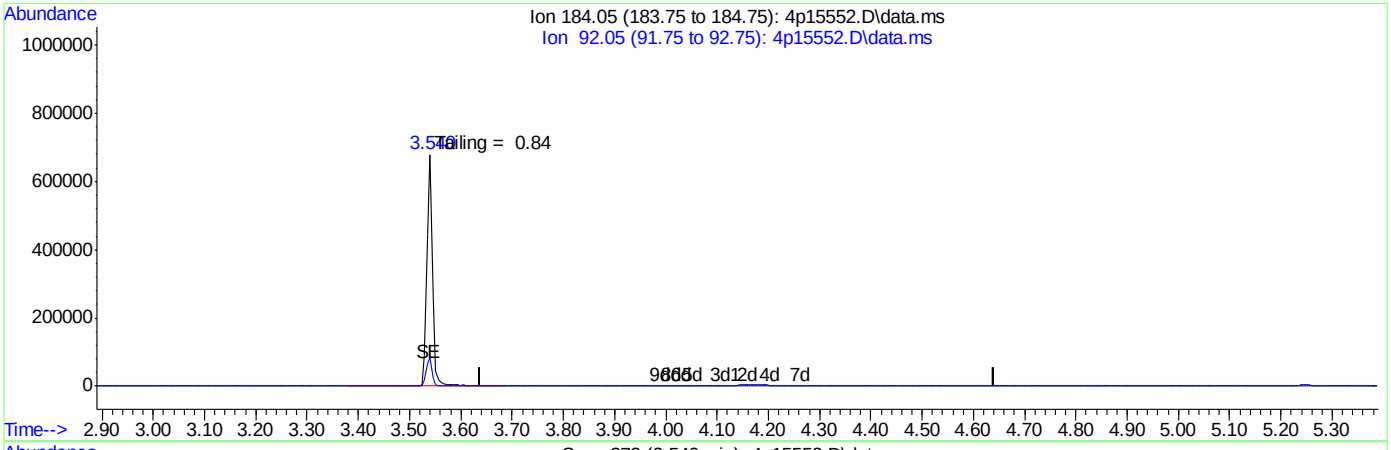
response 0

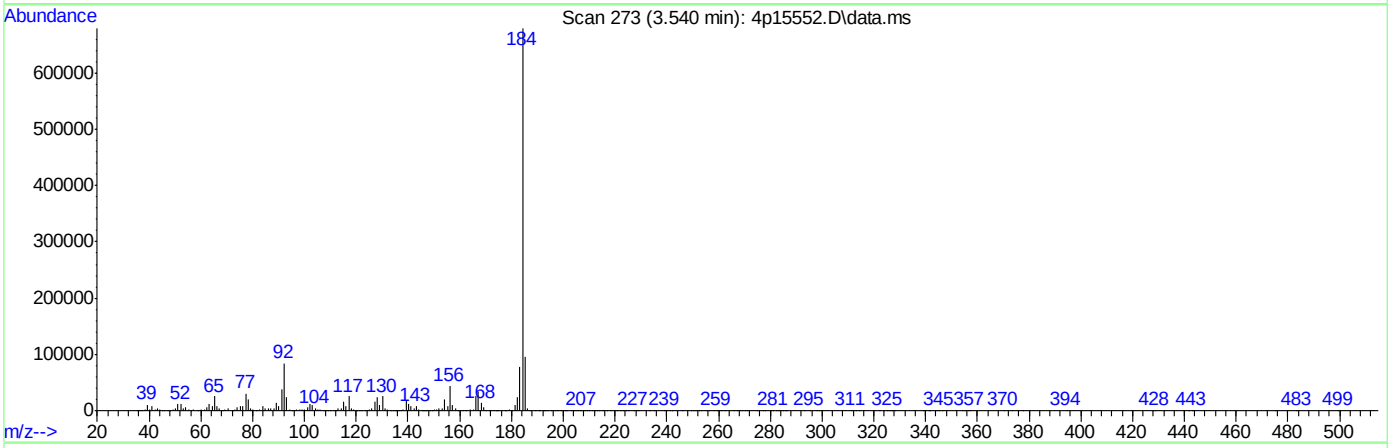
Ion	Exp%	Act%
265.80	100	0.00
263.70	64.70	0.00#
267.70	64.60	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15552.D
Acq On : 14 Mar 2016 9:02 am
Operator : ashleyd
Sample : dftpp
Misc : op91934a,e4p800
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 09:08:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





TIC: 4p15552.D\data.ms

(2) Benzidine (M)

4.140min 0.00ng d

response 0

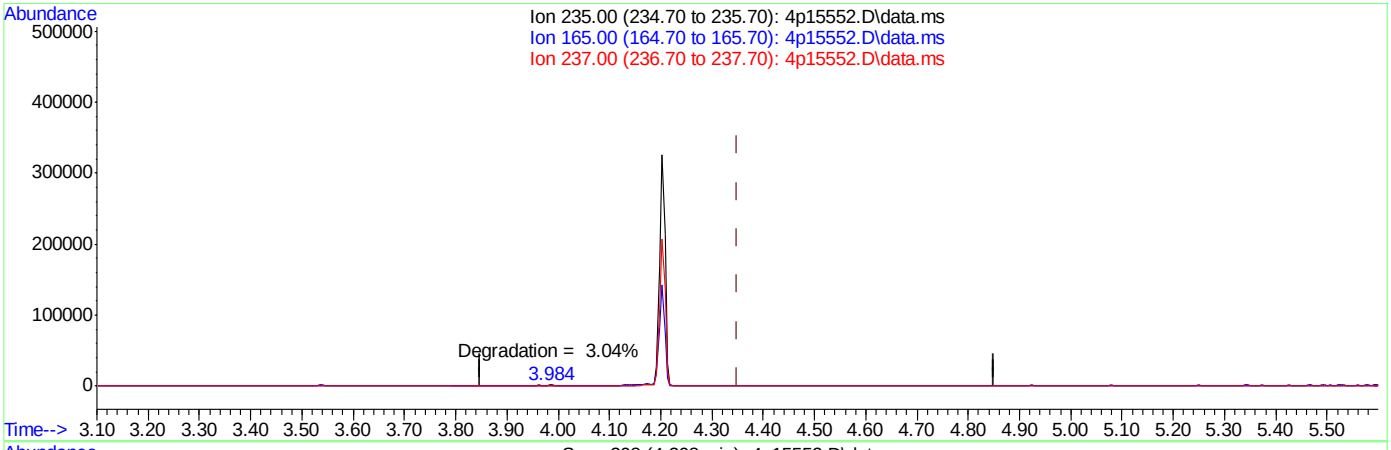
Ion	Exp%	Act%
184.05	100	0.00
92.05	11.60	0.00
0.00	0.00	0.00
0.00	0.00	0.00

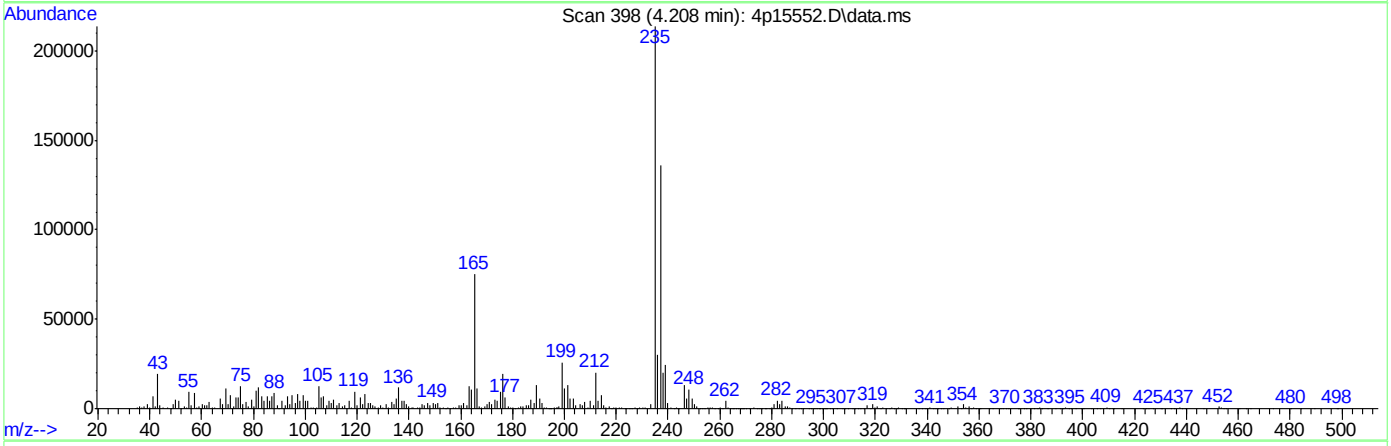
SGS ACCUTEST JC15883

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15552.D
Acq On : 14 Mar 2016 9:02 am
Operator : ashleyd
Sample : dftpp
Misc : op91934a,e4p800
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 09:08:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





TIC: 4p15552.D\data.ms

(3) PP-DDT (MC)

4.203min (-0.147) 132.73ppb

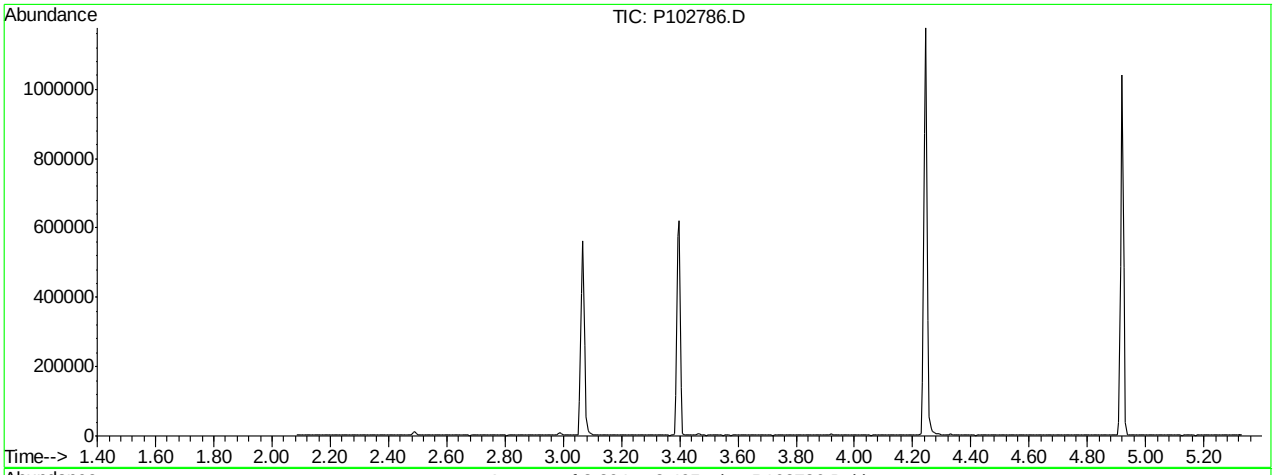
response 248183

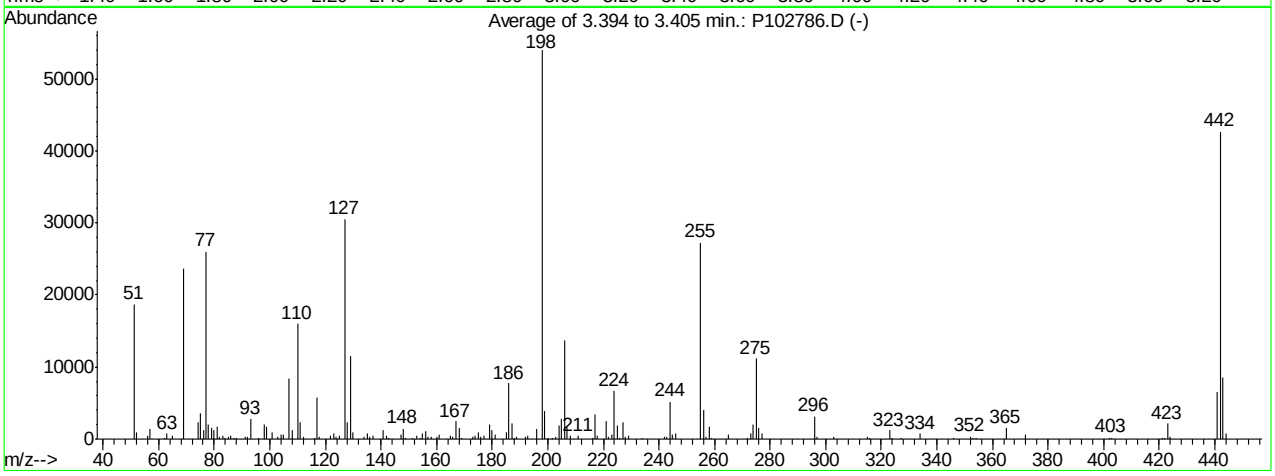
Ion	Exp%	Act%
235.00	100	100
165.00	58.00	43.53
237.00	62.20	63.46
0.00	0.00	0.00

SGS ACCUTEST JC15883

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
Acq On : 24 Feb 2016 1:55 am Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 230, 231, 232; Background Corrected with Scan 225

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.6	18668	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.0	23706	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	56.7	30563	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	53930	PASS
199	198	5	9	7.3	3929	PASS
275	198	10	30	20.6	11130	PASS
365	198	1	100	2.8	1487	PASS
441	443	0.10	100	77.6	6594	PASS
442	198	40	100	79.1	42661	PASS
443	442	17	23	19.9	8492	PASS

P102786.D DFTPPP.M Wed Feb 24 09:01:28 2016

Average of 3.394 to 3.405 min.: P102786.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
51.00	18668	77.00	25986	87.80	123	107.00	8385
52.00	1008	78.00	1975	90.95	354	107.95	1240
56.00	521	79.00	1614	91.90	370	110.00	16002
57.00	1408	80.00	1188	93.00	2756	110.95	2304
61.90	150	80.90	1772	96.00	127	111.90	295
63.00	732	81.90	308	98.00	1975	116.00	174
65.00	509	83.00	507	98.90	1792	116.95	5691
68.90	23706	83.90	130	101.00	991	117.85	289
74.00	2320	84.95	350	102.90	352	121.95	447
75.00	3660	85.90	529	103.95	575	123.00	744
76.05	1258	87.00	131	105.00	557	123.90	378

Average of 3.394 to 3.405 min.: P102786.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
124.95	433	142.70	123	157.95	265	175.95	329
127.00	30563	142.90	119	159.90	357	176.95	496
128.00	2341	147.00	667	160.95	653	178.90	2001
129.00	11491	147.95	1469	164.90	515	179.95	1291
129.95	900	149.00	167	165.90	372	180.90	568
133.90	306	151.10	132	166.95	2444	185.00	906
134.90	787	153.00	403	168.00	1599	186.00	7768
135.95	393	154.00	208	169.00	150	186.95	2228
136.95	401	155.00	718	172.85	274	187.90	150
140.90	1203	156.00	1028	173.95	530	188.90	327
141.95	404	156.95	276	174.95	962	191.90	381

Average of 3.394 to 3.405 min.: P102786.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
192.95	536	207.90	435	226.90	2401	256.95	321
196.00	1467	210.95	444	227.90	291	257.90	1713
197.90	53930	216.00	185	228.90	425	259.00	122
198.90	3929	216.90	3425	233.90	128	264.90	553
199.90	136	217.90	476	241.95	361	271.90	125
201.50	165	220.95	2531	242.95	355	272.90	792
203.00	341	221.90	280	244.00	5140	273.90	1999
204.00	1911	222.90	679	244.95	621	274.90	11130
205.00	2868	224.00	6671	245.90	848	275.95	1583
206.00	13678	224.95	1834	254.90	27247	276.90	804
207.00	1679	225.90	119	255.90	4037	295.90	3150

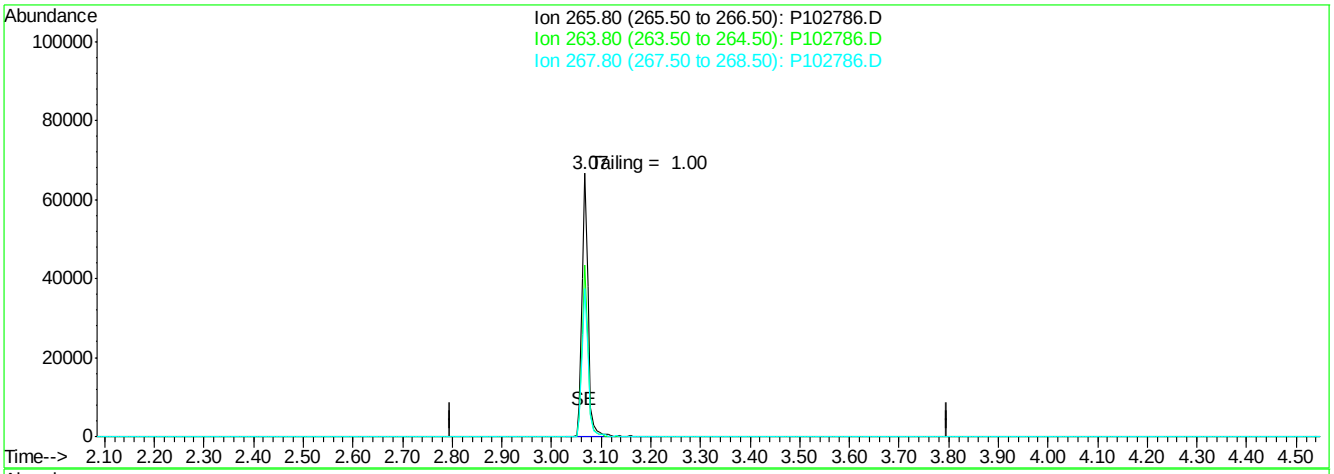
Average of 3.394 to 3.405 min.: P102786.D
dftpp
Modified:subtracted

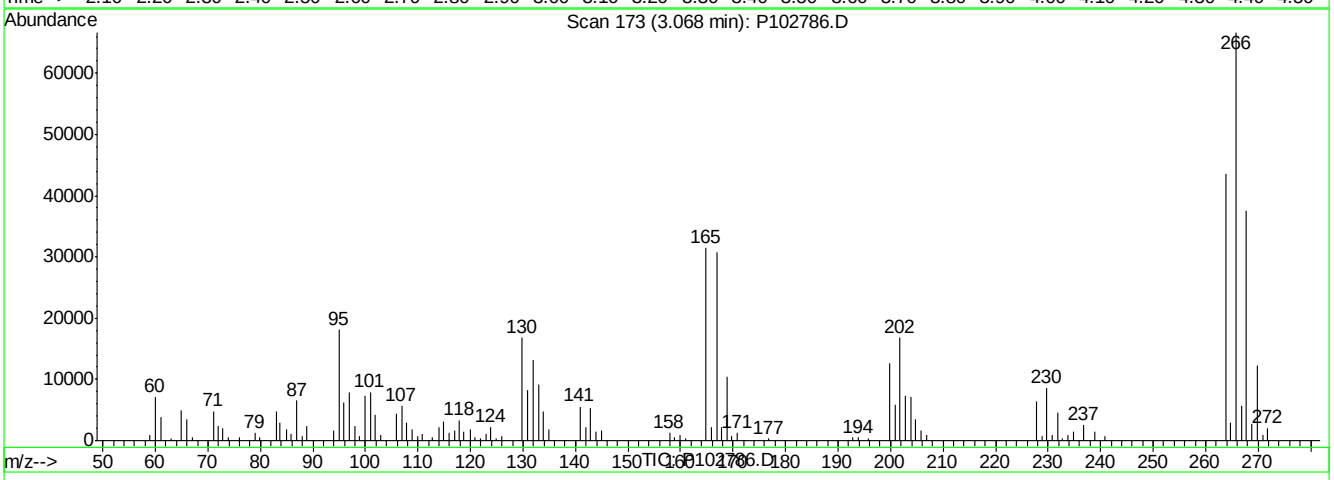
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.80	367	353.90	213	442.90	8492		
302.90	248	364.90	1487	443.90	828		
314.85	382	371.85	664				
315.90	135	401.90	176				
323.00	1207	402.90	188				
323.80	122	420.90	148				
326.90	153	422.00	160				
333.95	711	422.95	2166				
345.90	161	423.90	241				
352.00	322	440.95	6594				
353.00	153	441.90	42661				

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
Acq On : 24 Feb 2016 1:55 am Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

3.07min 208.02ppb

response 57519

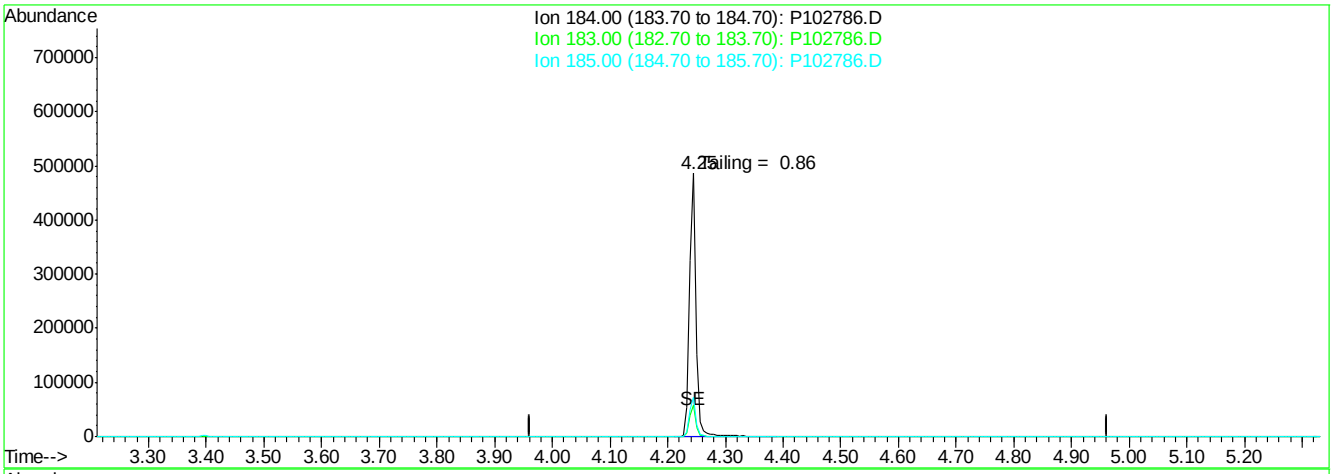
Ion	Exp%	Act%
265.80	100	100
263.80	63.10	65.27
267.80	63.20	55.97
0.00	0.00	0.00

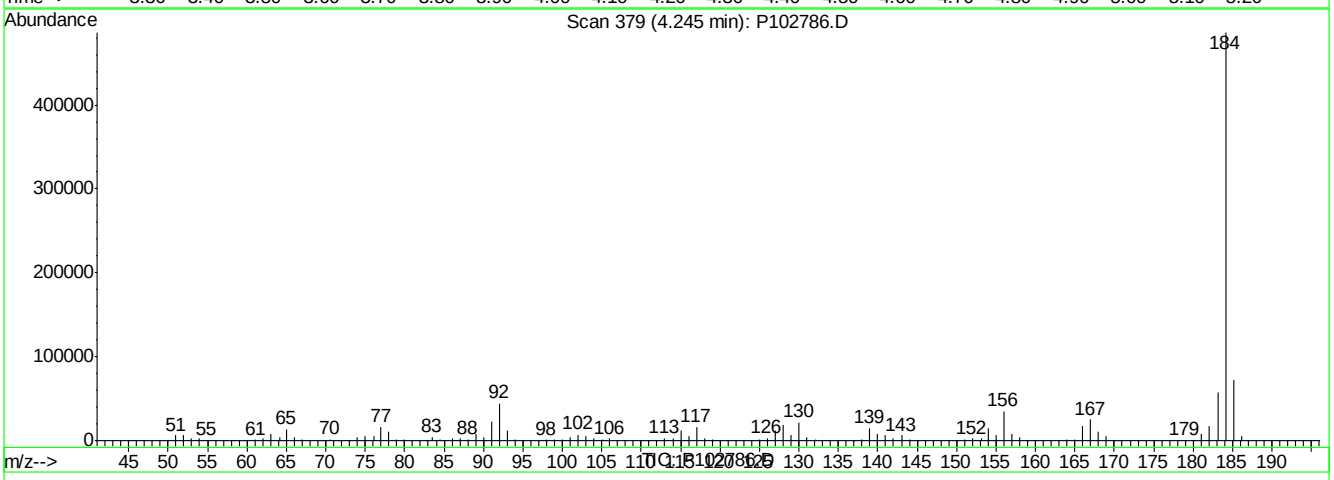
P102786.D DFTPPP.M Wed Feb 24 09:01:35 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
Acq On : 24 Feb 2016 1:55 am Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(2) Benzidine (t)

4.25min 132.10ppb

response 375509

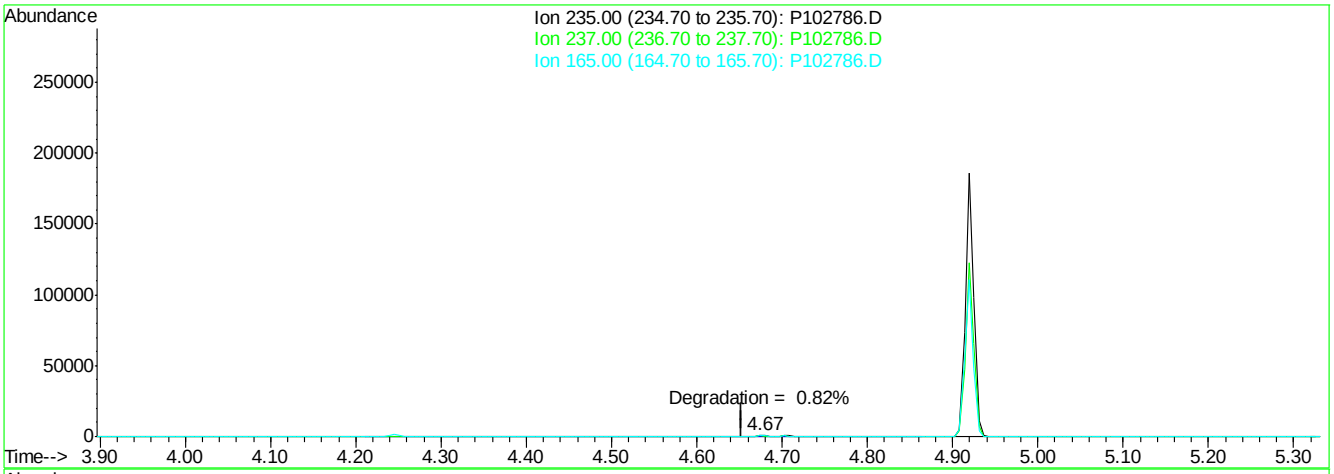
Ion	Exp%	Act%
184.00	100	100
183.00	0.00	11.47
185.00	0.00	14.61
0.00	0.00	0.00

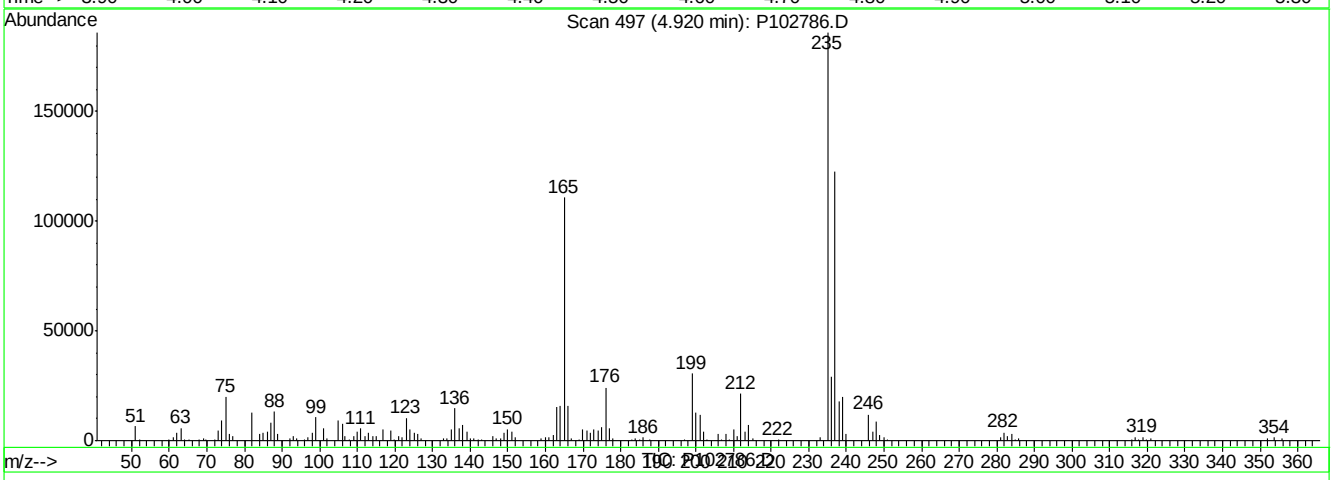
P102786.D DFTPPP.M Wed Feb 24 09:01:39 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
Acq On : 24 Feb 2016 1:55 am Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(3) ddt

4.92min 98.65ppb

response 128279

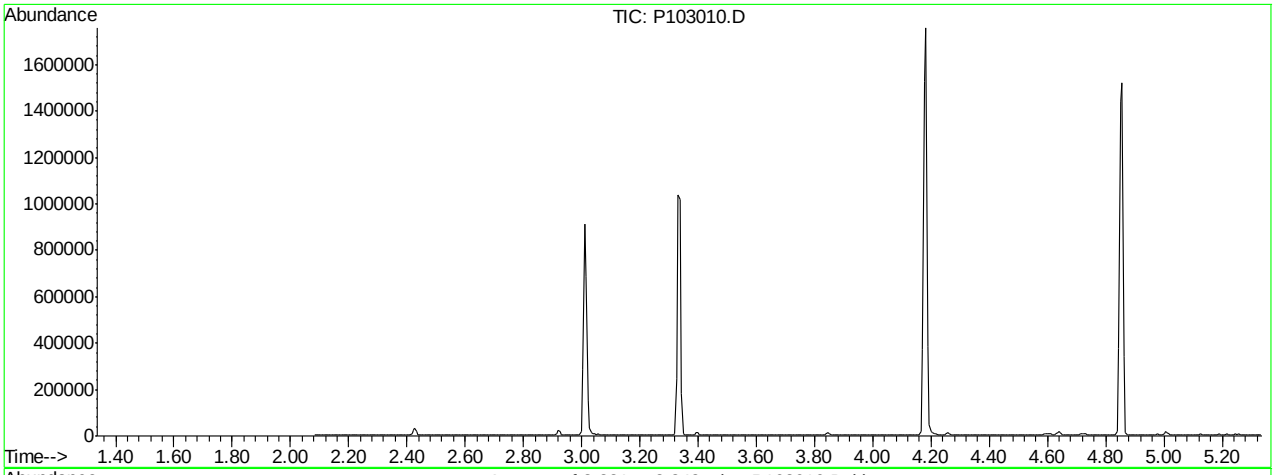
Ion	Exp%	Act%
235.00	100	100
237.00	65.40	66.06
165.00	55.50	60.08
0.00	0.00	0.00

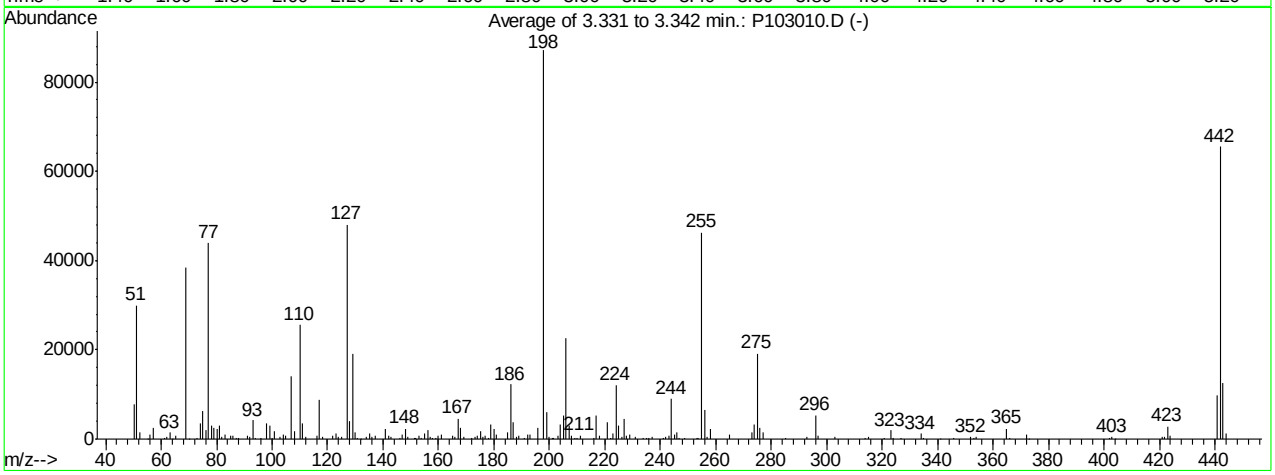
P102786.D DFTPPP.M Wed Feb 24 09:01:46 2016

SGS ACCUTEST JC15883

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
Acq On : 2 Mar 2016 4:56 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 219, 220, 221; Background Corrected with Scan 214

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.4	29961	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.2	38523	PASS
70	69	0.00	2	0.3	119	PASS
127	198	40	60	55.2	48031	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	87088	PASS
199	198	5	9	6.9	5993	PASS
275	198	10	30	21.9	19109	PASS
365	198	1	100	2.7	2328	PASS
441	443	0.10	100	79.2	9869	PASS
442	198	40	100	75.2	65456	PASS
443	442	17	23	19.0	12454	PASS

P103010.D DFTPPP.M Thu Mar 03 08:55:28 2016

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	7918	69.00	38523	81.95	617	98.00	3529
51.05	29961	69.90	119	83.05	909	99.00	3032
52.10	1568	72.95	325	85.00	779	100.05	324
55.10	127	74.05	3401	85.90	815	101.00	1657
56.00	892	75.00	6289	86.95	355	103.00	508
57.00	2405	76.10	2020	87.95	273	104.00	895
61.05	310	77.10	43879	91.00	685	105.00	849
62.00	456	78.10	3069	92.00	603	107.00	13956
63.05	1416	79.00	2571	93.05	4266	108.00	1737
64.10	118	80.00	2196	94.00	348	110.00	25592
65.05	756	81.00	3087	96.00	138	111.00	3642

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
112.05	454	130.00	1463	147.00	1042	158.95	278
116.05	636	130.90	139	148.00	2369	160.00	700
117.00	8823	132.10	117	148.90	462	161.00	1024
118.05	627	133.95	525	151.20	143	165.00	714
122.00	747	135.00	1252	151.80	156	166.00	615
123.00	1240	136.00	598	152.95	661	167.00	4618
124.00	545	137.05	797	153.90	358	168.00	2478
125.00	611	141.00	2341	155.00	1349	169.00	395
127.00	48031	142.05	647	156.00	1990	171.90	385
128.00	3925	143.00	527	157.05	465	173.00	482
129.00	19067	146.00	259	157.90	357	174.00	866

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	1760	189.00	759	204.00	3341	221.00	3814
175.95	453	190.95	343	205.00	5296	222.00	340
177.00	741	192.00	902	206.00	22535	222.90	1343
177.95	327	193.00	1098	207.00	3106	224.00	12115
179.00	3264	196.00	2527	207.95	672	225.00	3045
180.00	2227	198.00	87088	209.00	158	226.05	412
181.00	920	198.95	5993	210.00	192	226.95	4563
185.00	1582	199.90	427	211.00	835	227.95	656
186.00	12226	200.90	140	216.00	188	228.90	1024
187.00	3749	201.55	345	217.00	5332	230.95	445
188.00	408	203.00	695	217.95	791	234.00	200

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
234.90	221	253.10	230	276.95	1590	326.95	281
235.95	278	253.80	143	285.00	328	334.00	1172
237.00	449	255.00	46267	293.00	409	334.90	175
240.95	294	256.00	6608	295.95	5356	340.90	123
242.00	605	256.85	522	296.90	724	345.90	375
243.00	751	257.90	2386	302.95	595	351.95	489
244.00	8992	265.00	902	314.00	173	353.00	341
245.00	1094	273.00	1566	314.95	552	353.95	426
246.00	1451	273.95	3350	320.80	136	364.90	2328
246.95	335	275.00	19109	323.00	1903	365.95	354
248.90	172	276.00	2456	324.05	306	371.95	941

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

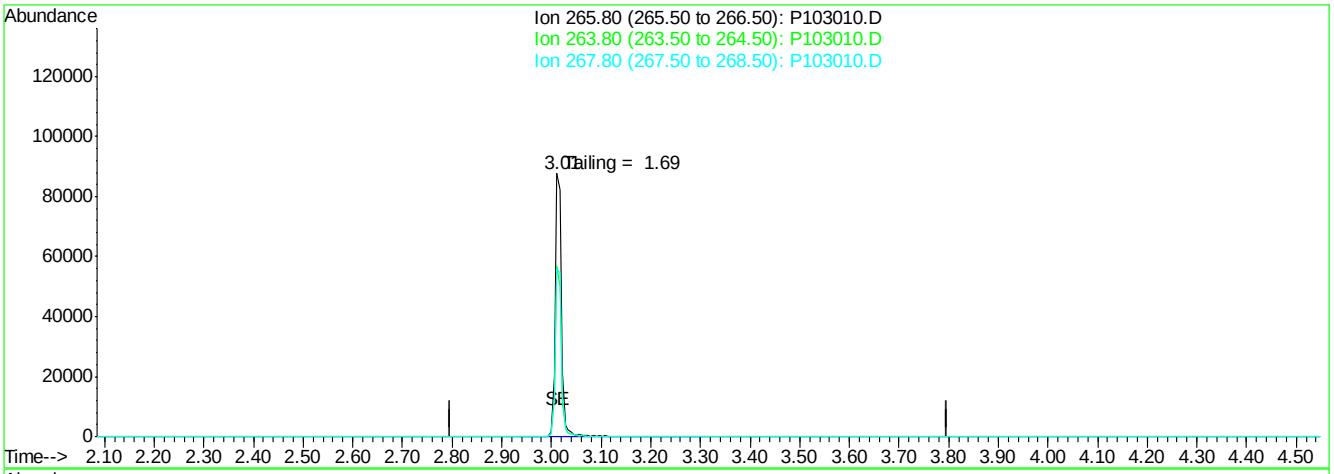
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.00	123	443.90	1215				
401.95	295						
402.95	437						
404.00	120						

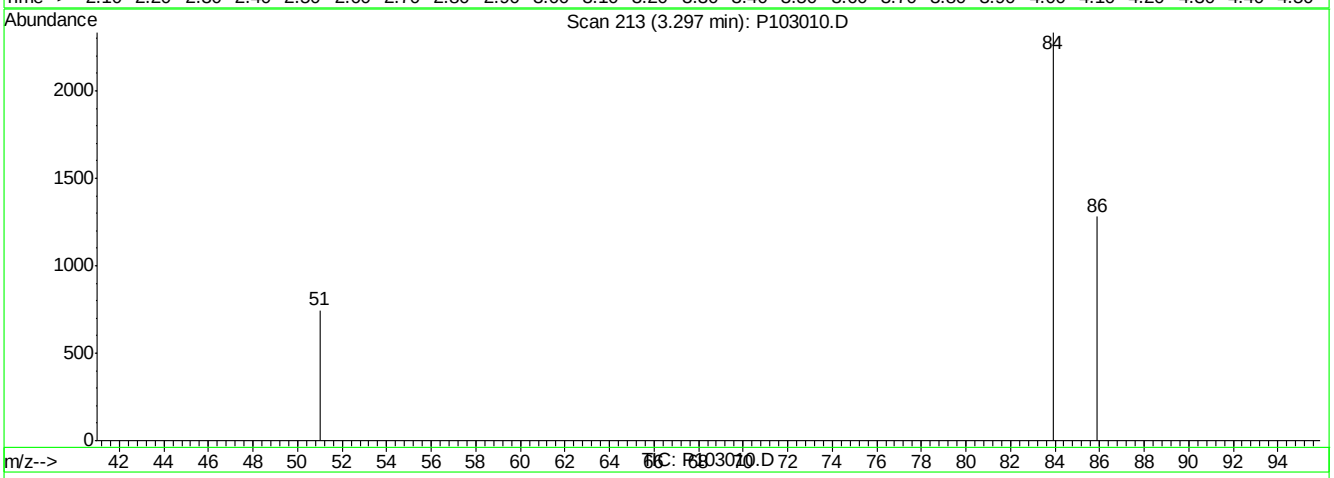
420.95	490
421.95	391
422.95	2864
423.90	772
441.00	9869
442.00	65456
443.00	12454

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D          Vial: 1
Acq On    :  2 Mar 2016   4:56 pm                   Operator: sarad
Sample    : dftpp                                   Inst    : MSP
Misc      : op91633,ep4524                          Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar  2 17:01 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title        : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update  : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration
```





(1) Pentachlorophenol (t)

3.30min 0.00ppb

response 0

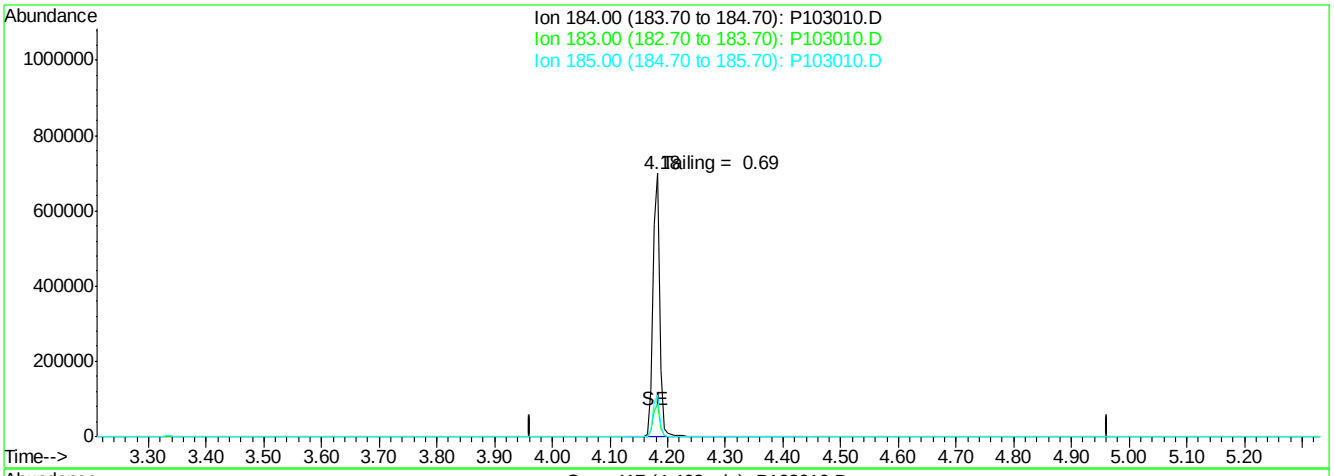
Ion	Exp%	Act%
265.80	100	0.00
263.80	63.10	0.00#
267.80	63.20	0.00#
0.00	0.00	0.00

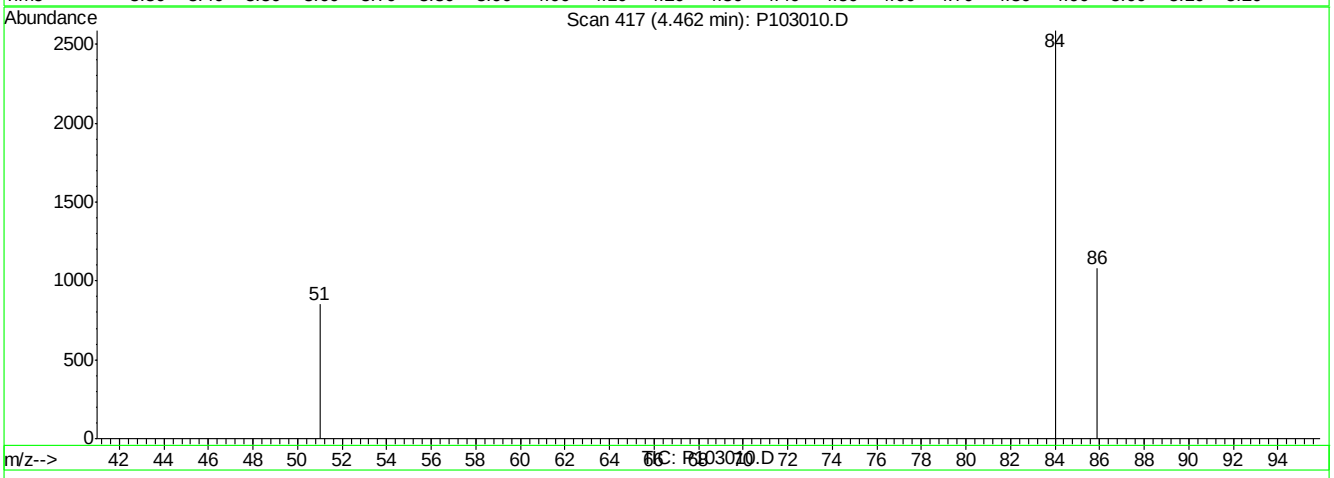
P103010.D DFTPPP.M Wed Mar 02 17:02:42 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
Acq On : 2 Mar 2016 4:56 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 2 17:01 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(2) Benzidine (t)

4.46min 0.00ppb

response 0

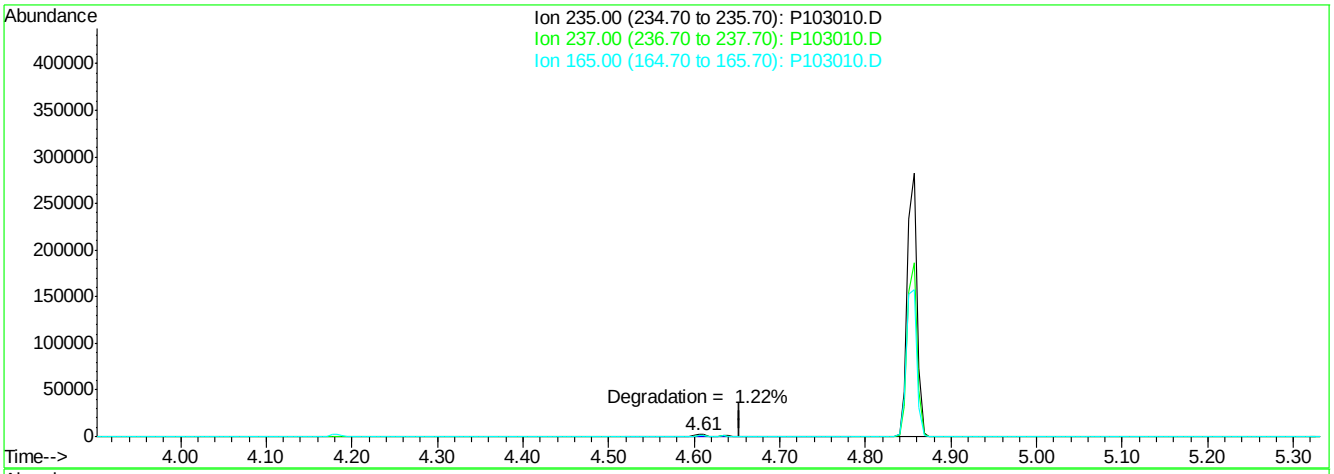
Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

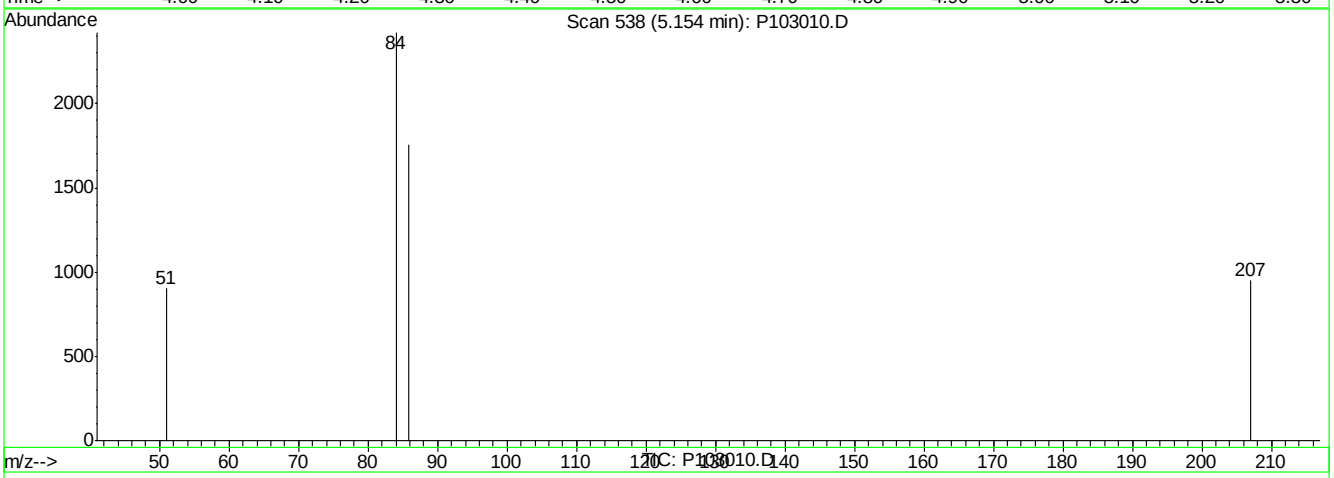
P103010.D DFTPPP.M Wed Mar 02 17:02:49 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
Acq On : 2 Mar 2016 4:56 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 2 17:01 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(3) ddt

5.15min 0.00ppb

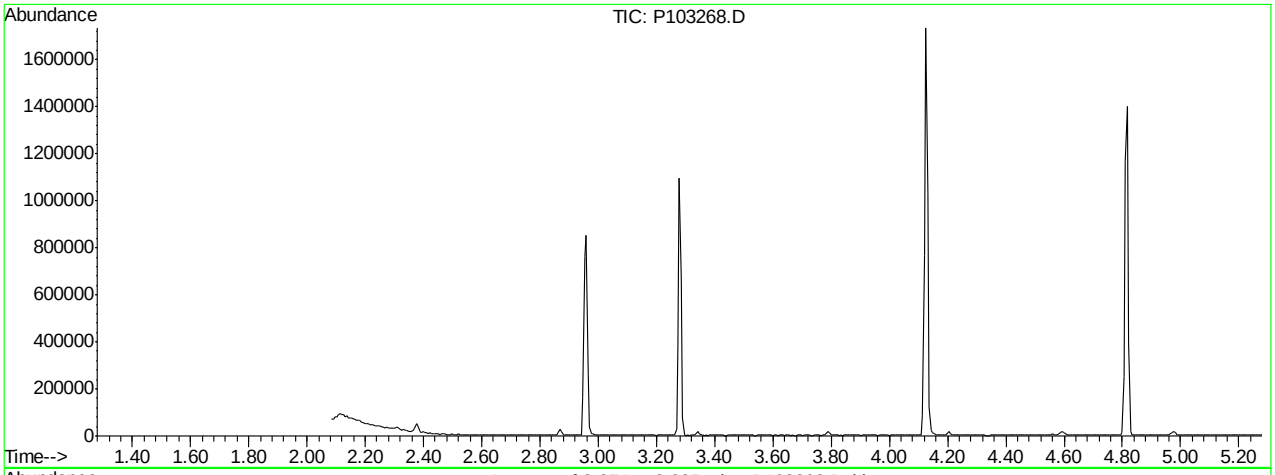
response 0

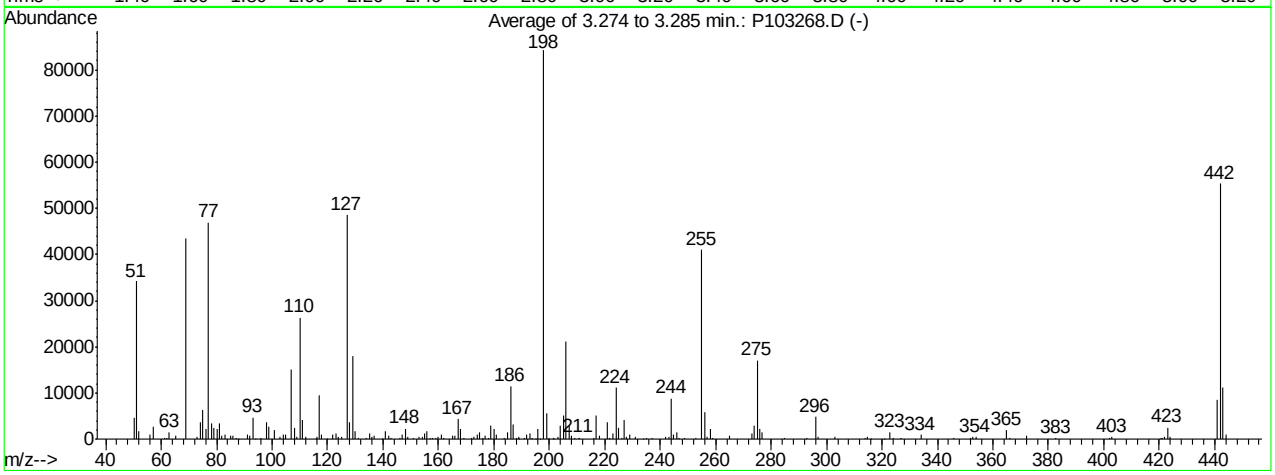
Ion	Exp%	Act%
235.00	100	0.00
237.00	65.40	0.00#
165.00	55.50	0.00#
0.00	0.00	0.00

P103010.D DFTPPP.M Wed Mar 02 17:02:56 2016

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4536\P103268.D Vial: 1
Acq On : 11 Mar 2016 11:26 am Operator: linseyk
Sample : dftpp Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 209, 210, 211; Background Corrected with Scan 205

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.6	34212	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.5	43370	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	57.6	48533	PASS
197	198	0.00	1	0.1	125	PASS
198	198	100	100	100.0	84210	PASS
199	198	5	9	6.7	5653	PASS
275	198	10	30	20.3	17119	PASS
365	198	1	100	2.4	2035	PASS
441	443	0.10	100	75.8	8407	PASS
442	198	40	100	65.7	55311	PASS
443	442	17	23	20.0	11088	PASS

P103268.D DFTPPP.M Mon Mar 14 11:49:59 2016

Average of 3.274 to 3.285 min.: P103268.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	4652	74.00	3703	85.95	763	103.00	377
51.05	34212	75.00	6321	86.90	229	103.95	1023
52.00	1715	76.10	2228	88.00	129	105.00	1020
56.00	1061	77.10	46938	91.00	988	107.00	15152
57.00	2621	78.00	3501	92.05	743	108.00	2503
61.00	238	78.95	2419	93.00	4631	109.00	407
62.05	362	80.00	2248	93.90	120	110.00	26290
63.00	1536	81.00	3357	96.00	338	111.00	4049
65.05	840	82.00	755	98.00	3549	111.95	460
69.00	43370	83.05	878	99.00	2717	115.80	125
73.00	506	84.90	788	101.00	1843	116.00	461

Average of 3.274 to 3.285 min.: P103268.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
117.00	9363	131.00	178	148.00	2313	161.00	1009
118.00	869	134.00	341	148.95	537	161.90	187
120.00	117	135.00	1330	151.10	161	164.95	660
121.95	917	136.05	377	152.95	574	165.95	673
122.95	1225	137.00	842	154.00	539	167.00	4344
124.00	578	139.70	128	155.00	1204	167.95	2113
124.90	415	140.95	1777	156.00	1723	169.10	201
127.00	48533	142.00	710	157.00	353	172.00	217
128.00	3698	142.90	365	158.00	219	172.95	488
129.00	18093	146.00	227	158.90	165	174.00	981
129.95	1634	146.95	1010	160.00	496	175.00	1540

Average of 3.274 to 3.285 min.: P103268.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.90	225	188.80	118	200.05	355	211.00	317
176.95	624	189.00	395	201.40	240	216.00	211
177.90	305	190.90	141	201.70	121	216.90	5230
179.00	2836	191.95	890	202.95	471	217.95	715
179.90	2294	192.95	1145	204.00	2928	221.00	3555
181.00	1048	194.00	293	205.00	5139	221.70	147
183.90	168	194.90	121	206.00	21209	221.90	253
185.05	1453	196.00	2260	207.00	2976	222.95	1126
186.00	11524	196.70	125	208.00	665	224.00	11153
186.95	3268	197.90	84210	209.00	132	225.00	2537
188.00	227	198.90	5653	210.80	348	226.15	317

Average of 3.274 to 3.285 min.: P103268.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
227.00	4104	245.95	1441	273.95	3033	315.90	120
227.95	592	246.90	271	275.00	17119	320.90	124
228.95	946	249.00	175	276.00	2091	322.95	1549
231.00	432	253.00	169	276.90	1369	324.00	253
233.80	118	255.00	41040	284.90	161	326.90	303
234.90	134	255.95	5929	292.90	172	333.95	968
236.95	313	257.05	390	295.95	4808	345.95	267
242.00	468	257.95	2092	296.95	582	352.00	354
242.95	585	258.90	328	302.95	555	352.90	382
244.00	8821	264.95	772	313.90	137	353.90	476
244.95	1094	272.90	1257	314.90	375	364.90	2035

Average of 3.274 to 3.285 min.: P103268.D
dftpp
Modified:subtracted

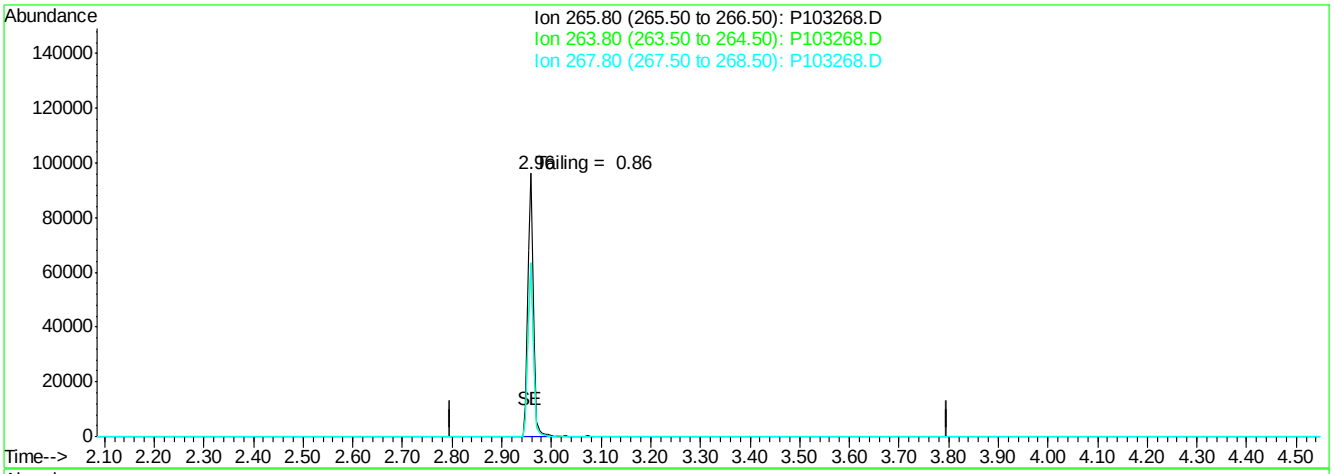
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
365.90	267	442.00	55311				
372.00	725	443.00	11088				
382.80	133	443.95	1096				
401.85	297						

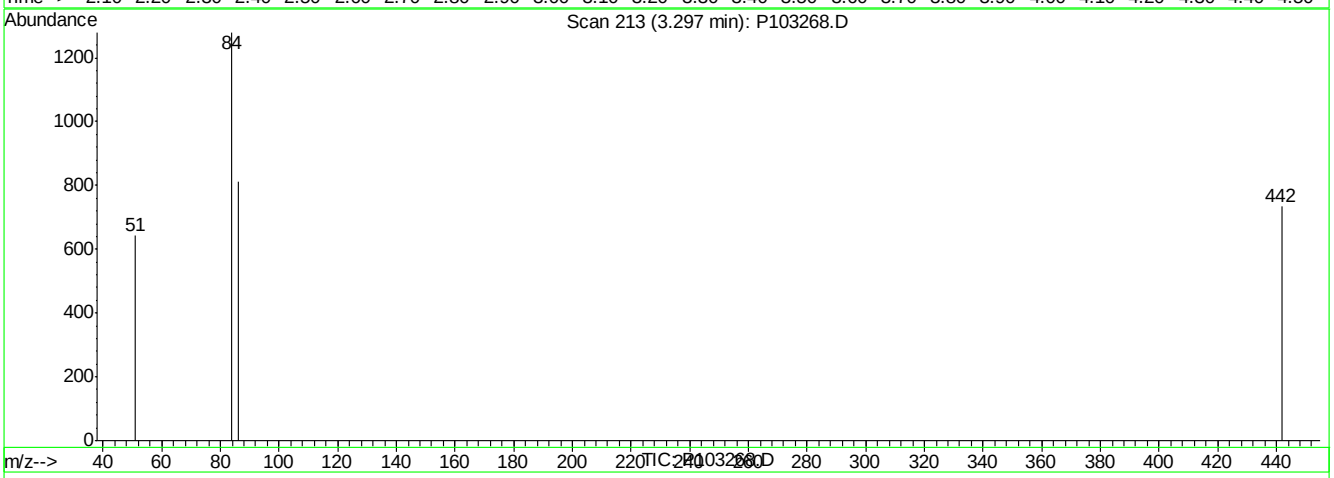
402.90	442
420.80	174
421.00	302
422.00	383
423.00	2527
423.95	474
441.00	8407

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103268.D Vial: 1
Acq On : 11 Mar 2016 11:26 am Operator: linseyk
Sample : dftpp Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 12:31 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

3.30min 0.00ppb

response 0

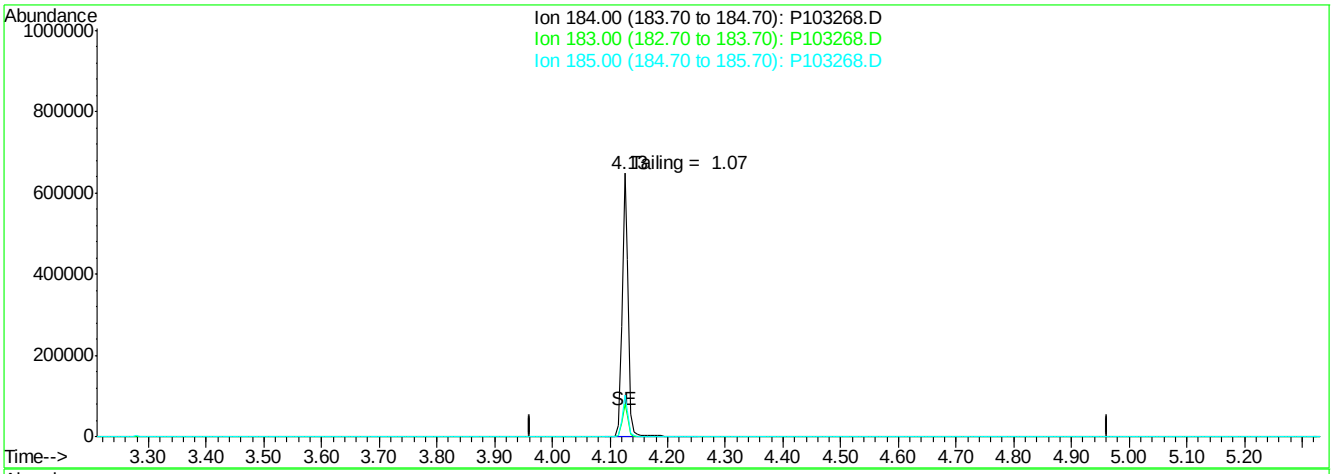
Ion	Exp%	Act%
265.80	100	0.00
263.80	63.10	0.00#
267.80	63.20	0.00#
0.00	0.00	0.00

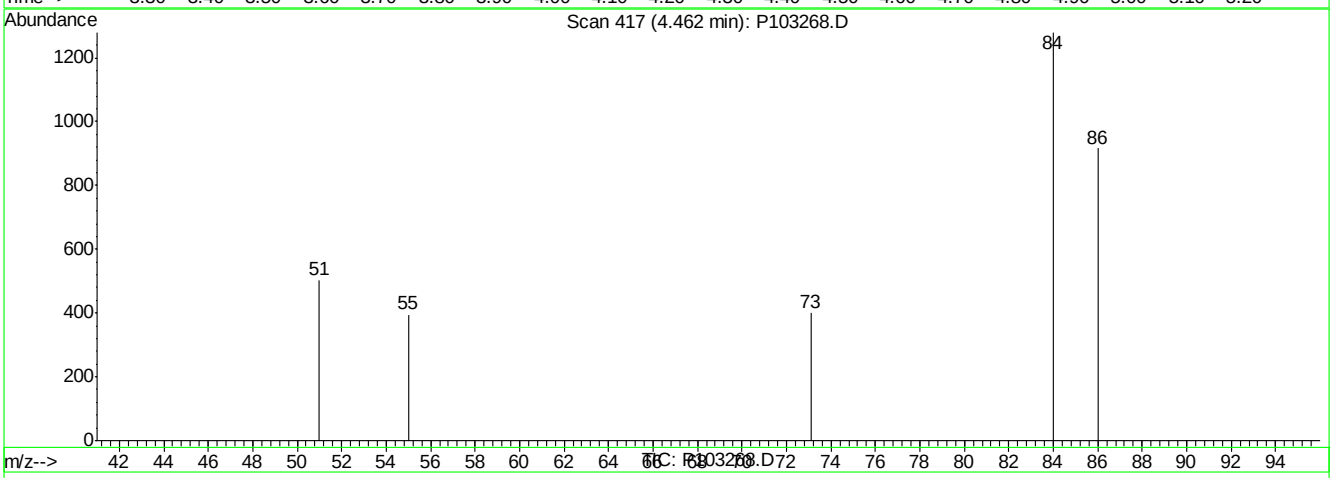
P103268.D DFTPPP.M Mon Mar 14 11:50:10 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103268.D Vial: 1
Acq On : 11 Mar 2016 11:26 am Operator: linseyk
Sample : dftpp Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 12:31 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(2) Benzidine (t)

4.46min 0.00ppb

response 0

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

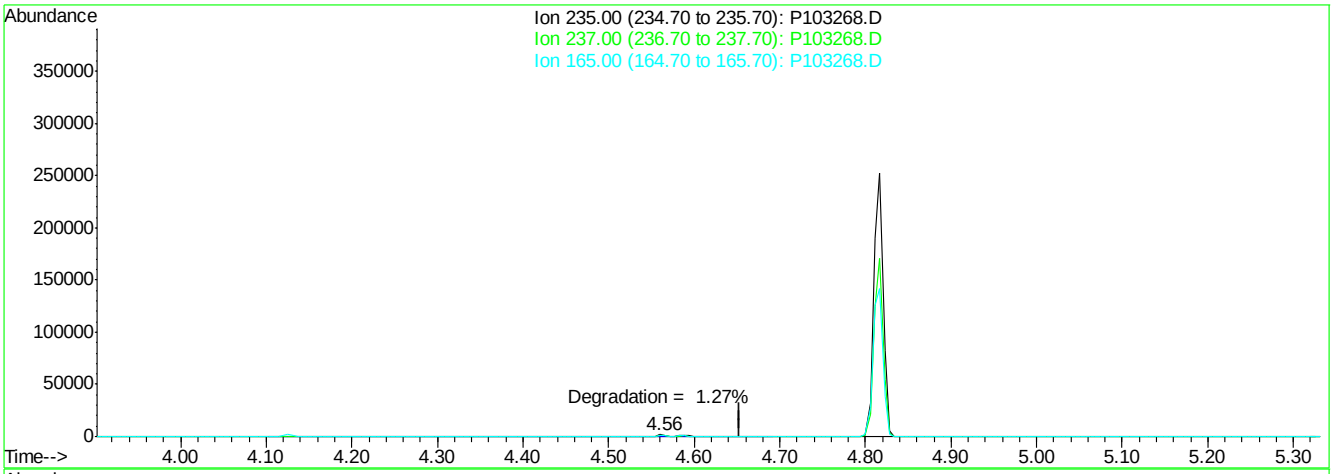
P103268.D DFTPPP.M Mon Mar 14 11:50:15 2016

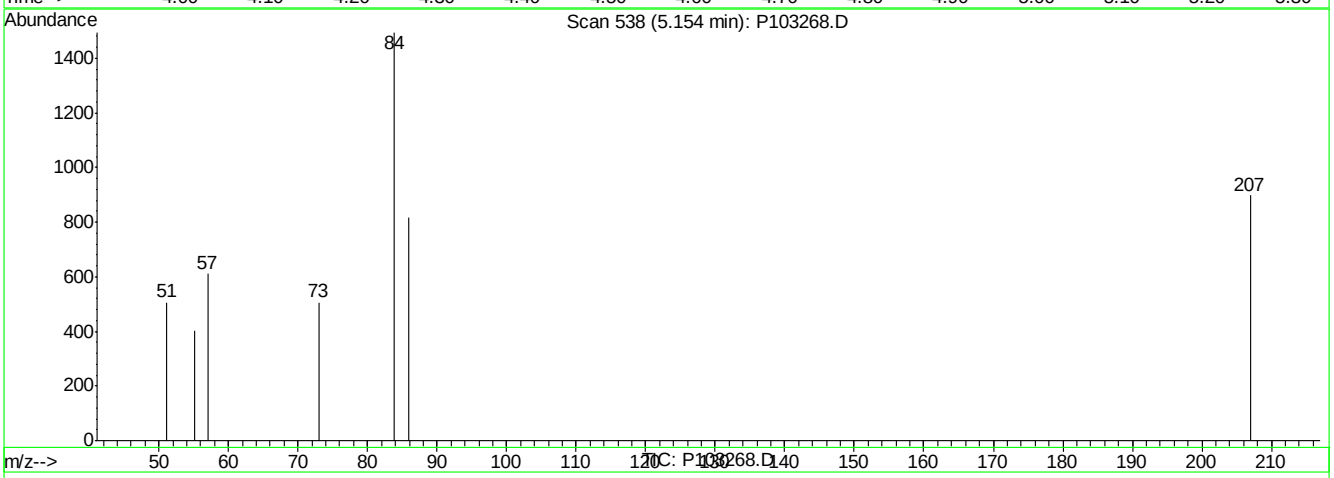
SGS ACCUTEST JC15883

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103268.D Vial: 1
Acq On : 11 Mar 2016 11:26 am Operator: linseyk
Sample : dftpp Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 12:31 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(3) ddt

5.15min 0.00ppb

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	65.40	0.00#
165.00	55.50	0.00#
0.00	0.00	0.00

P103268.D DFTPPP.M Mon Mar 14 11:50:22 2016

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63805.D
Acq On : 29 Feb 2016 4:57 pm
Operator : linseyk
Sample : icc2828-1
Misc : op91493a,e4m2828
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 08:09:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	781339	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1367003	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	2020779	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1596024	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	781339	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1367003	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.169	112	2989296	20.02	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 40.04%			
3) Phenol-d5	5.567	99	4834654	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
6) Nitrobenzene-d5	7.046	82	3823922	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
11) 2-Fluorobiphenyl	10.519	172	6780221	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
17) 2,4,6-Tribromophenol	13.395	330	1125599	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
25) Terphenyl-d14	17.806	244	6878007	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
Target Compounds						Qvalue
4) Phenol	5.580	94	1278878	5.00	ppm	100
5) bis(2-Chloroethyl)ether	5.691	93	184962	1.01	ppm	100
7) Naphthalene	8.407	128	607107	1.00	ppm	100
8) Hexachlorobutadiene	8.701	225	93560	1.00	ppm	100
9) 2-Methylnaphthalene	9.756	142	230718	1.00	ppm	100
10) Hexachlorocyclopentadiene	10.090	237	103337	2.00	ppm	100
13) Acenaphthylene	11.498	152	412953	1.00	ppm	100
14) Acenaphthene	11.846	153	229976	1.00	ppm	100
15) Dibenzofuran	12.209	168	608379	1.00	ppm	100
16) Fluorene	12.894	166	411070	1.00	ppm	100
18) Hexachlorobenzene	13.995	284	136734	1.00	ppm	100
19) Pentachlorophenol	14.428	266	300222	5.01	ppm	100
20) Phenanthrene	14.799	178	620661	1.00	ppm	100
21) Anthracene	14.892	178	578792	1.00	ppm	100
23) Fluoranthene	17.034	202	658156	1.00	ppm	100
24) Pyrene	17.430	202	662002	1.00	ppm	100
26) Benzo[a]anthracene	19.501	228	522659	1.00	ppm	100
27) Chrysene	19.557	228	555438	1.00	ppm	100
29) Benzo[b]fluoranthene	21.160	252	613031	1.00	ppm	100
30) Benzo[k]fluoranthene	21.201	252	511751	1.00	ppm	100
31) Benzo[a]pyrene	21.614	252	529210	1.00	ppm	100
32) Indeno[1,2,3-cd]pyrene	23.170	276	566290	1.00	ppm	100
33) Dibenz[a,h]anthracene	23.198	278	474751	1.00	ppm	100
34) Benzo[g,h,i]perylene	23.569	276	496131	1.00	ppm	100
36) 1,4-Dioxane	2.357	88	57005	0.92	ppm	100
37) 1-Methylnaphthalene	9.923	142	247700	1.00	ppm	100
39) 4,6-dinitro-2-methylph...	13.061	198	220394	5.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63805.D
Acq On : 29 Feb 2016 4:57 pm
Operator : linseyk
Sample : icc2828-1
Misc : op91493a,e4m2828
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 08:09:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	369119	1.00	ppm	100
41) n-nitrosodiphenylamine	13.204	169	210846	1.00	ppm	100

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

9.6.1

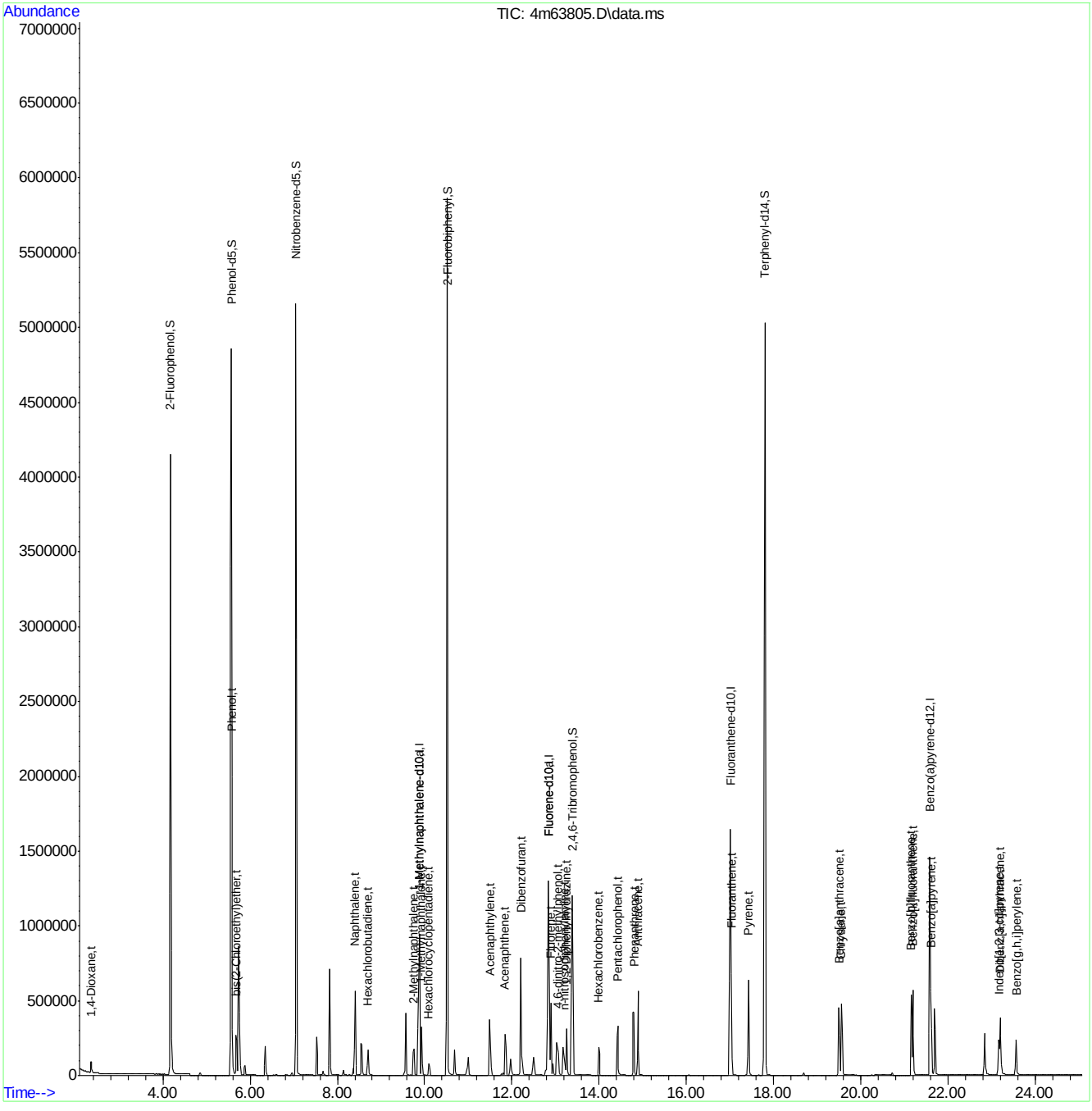
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63805.D
Acq On : 29 Feb 2016 4:57 pm
Operator : linseyk
Sample : icc2828-1
Misc : op91493a,e4m2828
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 08:09:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63806.D
Acq On : 29 Feb 2016 5:30 pm
Operator : linseyk
Sample : ic2828-0.5
Misc : op91493a,e4m2828
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 08:09:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	706984	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1206087	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1797932	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1424936	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	706984	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1206087	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	1364467	10.10	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery	=	20.20%	
3) Phenol-d5	5.567	99	2182540	9.98	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.96%	
6) Nitrobenzene-d5	7.046	82	1720264	9.94	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.88%	
11) 2-Fluorobiphenyl	10.519	172	3003501	9.79	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.58%	
17) 2,4,6-Tribromophenol	13.395	330	494783	9.96	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.92%	
25) Terphenyl-d14	17.806	244	3192004	10.43	ppm	0.00
Spiked Amount 50.000			Recovery	=	20.86%	
Target Compounds						Qvalue
4) Phenol	5.580	94	584537	2.53	ppm	97
5) bis(2-Chloroethyl)ether	5.691	93	84356	0.51	ppm	95
7) Naphthalene	8.407	128	280891	0.51	ppm	99
8) Hexachlorobutadiene	8.701	225	43230	0.51	ppm	99
9) 2-Methylnaphthalene	9.756	142	105732	0.51	ppm	98
10) Hexachlorocyclopentadiene	10.114	237	37543	0.80	ppm #	55
13) Acenaphthylene	11.498	152	175456	0.48	ppm	99
14) Acenaphthene	11.846	153	102203	0.50	ppm	99
15) Dibenzofuran	12.209	168	262174	0.49	ppm	94
16) Fluorene	12.894	166	189722	0.52	ppm	99
18) Hexachlorobenzene	13.995	284	63226	0.52	ppm	98
19) Pentachlorophenol	14.428	266	107178	2.03	ppm	96
20) Phenanthrene	14.799	178	279464	0.51	ppm	99
21) Anthracene	14.892	178	256062	0.50	ppm	99
23) Fluoranthene	17.034	202	291836	0.50	ppm	99
24) Pyrene	17.429	202	290213	0.49	ppm	98
26) Benzo[a]anthracene	19.500	228	226958	0.49	ppm	98
27) Chrysene	19.557	228	247800	0.50	ppm	99
29) Benzo[b]fluoranthene	21.160	252	271684	0.50	ppm	98
30) Benzo[k]fluoranthene	21.201	252	244194	0.53	ppm	97
31) Benzo[a]pyrene	21.614	252	246571	0.52	ppm	99
32) Indeno[1,2,3-cd]pyrene	23.170	276	258485	0.51	ppm	98
33) Dibenz[a,h]anthracene	23.198	278	218668	0.52	ppm	93
34) Benzo[g,h,i]perylene	23.569	276	231644	0.52	ppm	100
36) 1,4-Dioxane	2.357	88	27183	0.49	ppm	97
37) 1-Methylnaphthalene	9.923	142	110558	0.49	ppm	97
39) 4,6-dinitro-2-methylph...	13.061	198	78310	2.01	ppm	90

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63806.D
Acq On : 29 Feb 2016 5:30 pm
Operator : linseyk
Sample : ic2828-0.5
Misc : op91493a,e4m2828
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 08:09:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	161267	0.50	ppm	100
41) n-nitrosodiphenylamine	13.204	169	95634	0.51	ppm	98

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

9.6.2

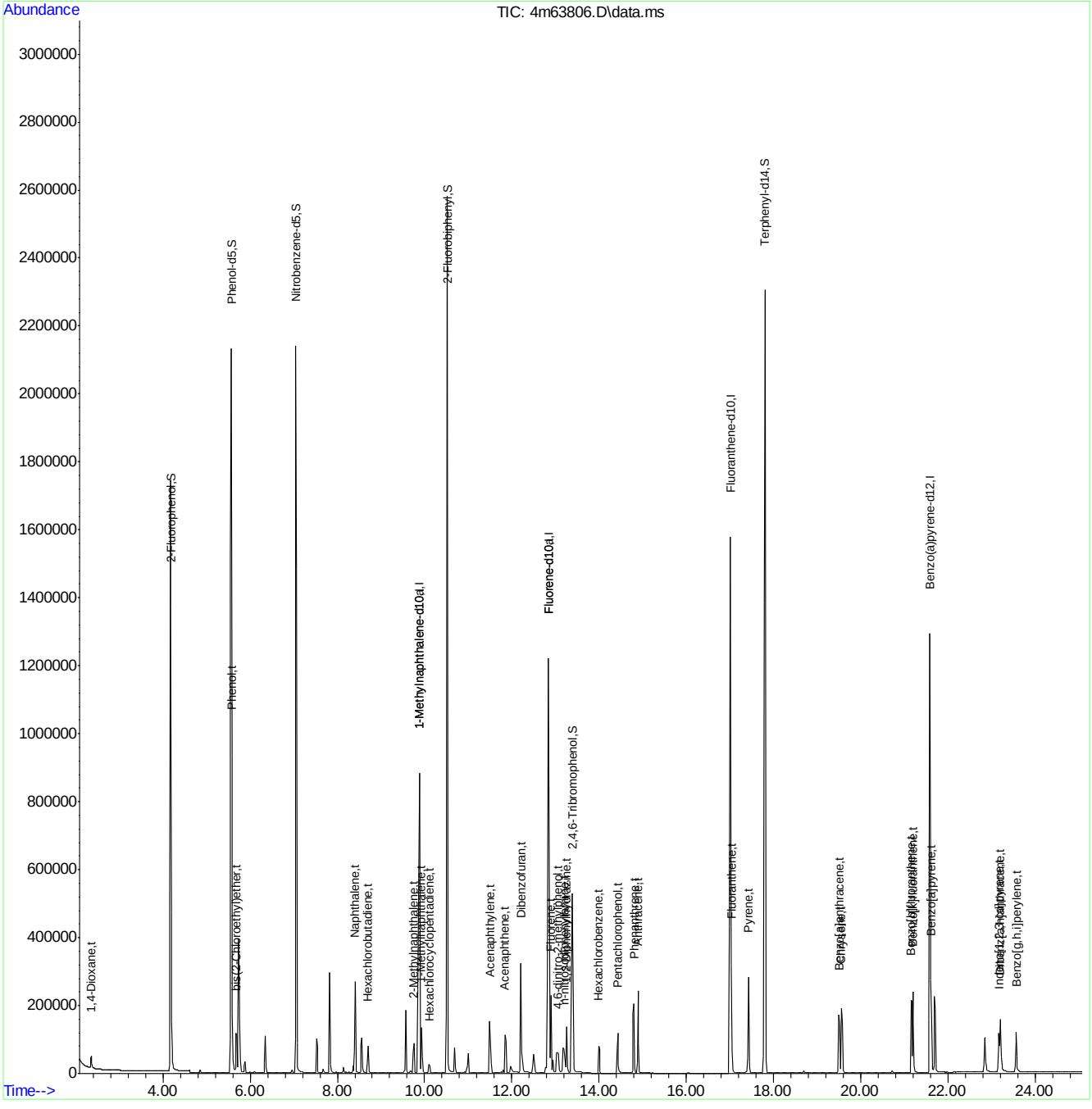
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63806.D
Acq On : 29 Feb 2016 5:30 pm
Operator : linseyk
Sample : ic2828-0.5
Misc : op91493a,e4m2828
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 08:09:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63807.D
Acq On : 29 Feb 2016 6:03 pm
Operator : linseyk
Sample : ic2828-0.2
Misc : op91493a,e4m2828
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 01 08:10:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	700454	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1186757	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1914526	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1594089	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	700454	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1186757	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	667163	4.96	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery	=	9.92%#	
3) Phenol-d5	5.567	99	1061779	4.90	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.80%	
6) Nitrobenzene-d5	7.046	82	838503	4.91	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.82%	
11) 2-Fluorobiphenyl	10.519	172	1368724	4.55	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.10%	
17) 2,4,6-Tribromophenol	13.395	330	217309	4.46	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.92%	
25) Terphenyl-d14	17.806	244	1428293	4.29	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.58%	
Target Compounds						Qvalue
4) Phenol	5.580	94	287160	1.25	ppm	99
5) bis(2-Chloroethyl)ether	5.690	93	41747	0.25	ppm	96
7) Naphthalene	8.407	128	140284	0.25	ppm	99
8) Hexachlorobutadiene	8.701	225	21078	0.25	ppm	98
9) 2-Methylnaphthalene	9.755	142	50409	0.24	ppm	99
10) Hexachlorocyclopentadiene	10.090	237	15743	0.38	ppm	98
13) Acenaphthylene	11.498	152	89543	0.25	ppm	99
14) Acenaphthene	11.846	153	51455	0.26	ppm	96
15) Dibenzofuran	12.209	168	139320	0.27	ppm #	65
16) Fluorene	12.894	166	86521	0.24	ppm	96
18) Hexachlorobenzene	13.995	284	32207	0.26	ppm	98
19) Pentachlorophenol	14.428	266	44420	0.94	ppm	97
20) Phenanthrene	14.784	178	137761	0.25	ppm	89
21) Anthracene	14.892	178	121266	0.24	ppm	99
23) Fluoranthene	17.034	202	149564	0.24	ppm	97
24) Pyrene	17.429	202	139884	0.22	ppm	99
26) Benzo[a]anthracene	19.500	228	114017	0.23	ppm	97
27) Chrysene	19.557	228	128539	0.24	ppm	98
29) Benzo[b]fluoranthene	21.160	252	137262	0.22	ppm	99
30) Benzo[k]fluoranthene	21.201	252	114811	0.22	ppm	99
31) Benzo[a]pyrene	21.614	252	125999	0.23	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.170	276	129084	0.23	ppm	97
33) Dibenz[a,h]anthracene	23.197	278	107933	0.22	ppm	97
34) Benzo[g,h,i]perylene	23.555	276	116152	0.23	ppm	99
36) 1,4-Dioxane	2.357	88	15297	0.28	ppm	88
37) 1-Methylnaphthalene	9.923	142	56355	0.26	ppm	99
39) 4,6-dinitro-2-methylph...	13.061	198	28386	0.82	ppm	82

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63807.D
Acq On : 29 Feb 2016 6:03 pm
Operator : linseyk
Sample : ic2828-0.2
Misc : op91493a,e4m2828
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 01 08:10:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	69139	0.22	ppm		99
41) n-nitrosodiphenylamine	13.180	169	46627	0.25	ppm	#	49

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

9.6.3

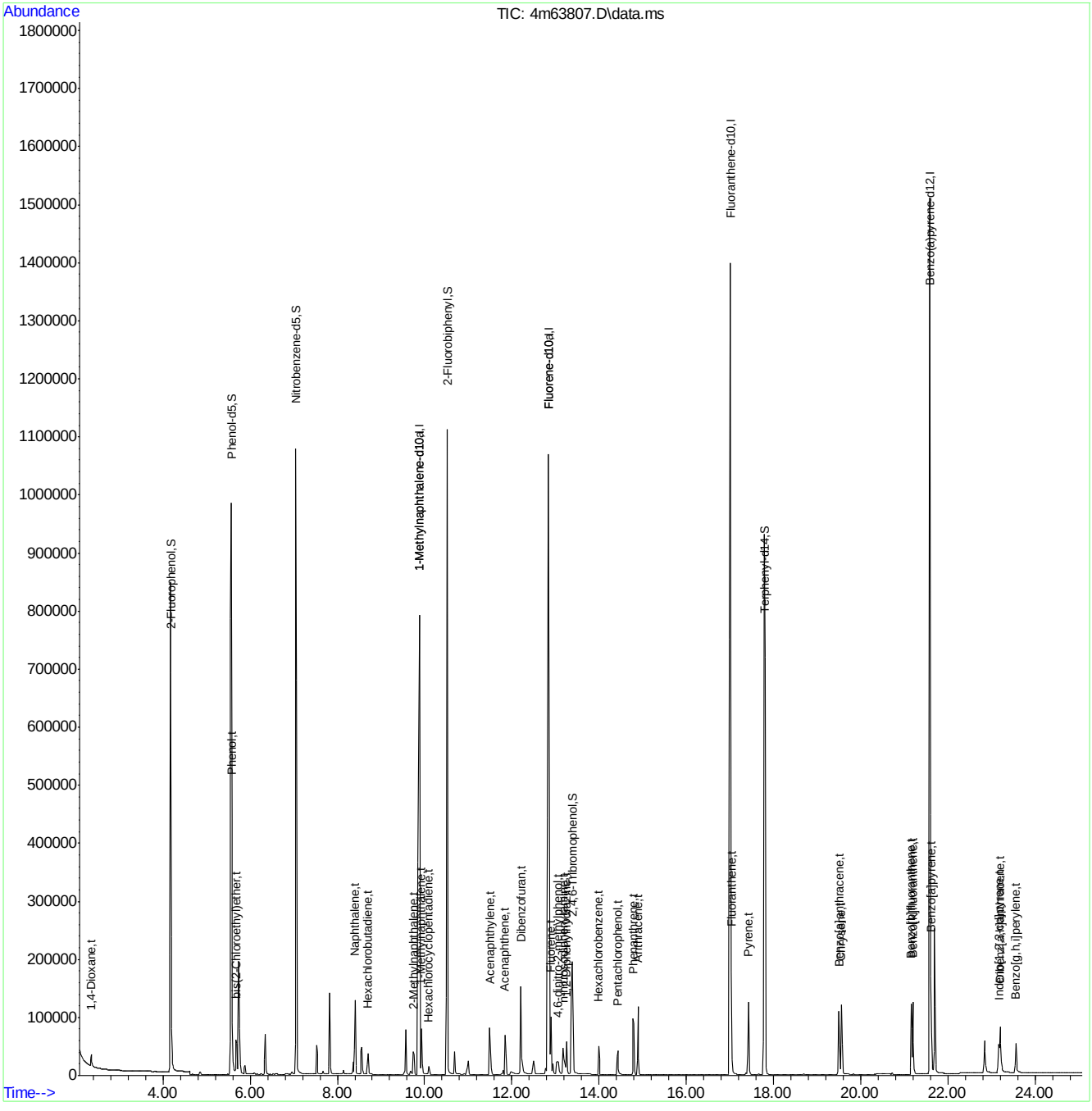
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63807.D
Acq On : 29 Feb 2016 6:03 pm
Operator : linseyk
Sample : ic2828-0.2
Misc : op91493a,e4m2828
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 01 08:10:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration



M4M2828SIM.M Tue Mar 01 08:32:50 2016 MANAGER Page: 3

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63808.D
Acq On : 29 Feb 2016 6:35 pm
Operator : linseyk
Sample : ic2828-0.1
Misc : op91493a,e4m2828
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 01 08:10:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	639637	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1083102	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1729786	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1454782	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	639637	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1083102	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	281624	2.12	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery	=	4.24%#	
3) Phenol-d5	5.567	99	447297	2.10	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.20%	
6) Nitrobenzene-d5	7.046	82	323504	1.93	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.86%	
11) 2-Fluorobiphenyl	10.519	172	530045	1.85	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.70%	
17) 2,4,6-Tribromophenol	13.395	330	87378	1.89	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.78%	
25) Terphenyl-d14	17.787	244	523559	1.70	ppm	-0.02
Spiked Amount 50.000			Recovery	=	3.40%	
Target Compounds						Qvalue
4) Phenol	5.581	94	111501	0.49	ppm	96
5) bis(2-Chloroethyl)ether	5.691	93	16333	0.10	ppm	93
7) Naphthalene	8.407	128	55579	0.10	ppm	99
8) Hexachlorobutadiene	8.701	225	8280	0.10	ppm	97
9) 2-Methylnaphthalene	9.756	142	19758	0.10	ppm	98
10) Hexachlorocyclopentadiene	10.090	237	4767	0.13	ppm	98
13) Acenaphthylene	11.498	152	34577	0.10	ppm	99
14) Acenaphthene	11.846	153	20229	0.10	ppm	99
15) Dibenzofuran	12.209	168	53546	0.10	ppm #	46
16) Fluorene	12.894	166	32444	0.09	ppm	95
18) Hexachlorobenzene	13.995	284	12339	0.10	ppm	98
19) Pentachlorophenol	14.428	266	13240	0.31	ppm	94
20) Phenanthrene	14.784	178	53014	0.10	ppm	89
21) Anthracene	14.892	178	44831	0.09	ppm	98
23) Fluoranthene	17.034	202	58361	0.10	ppm	95
24) Pyrene	17.430	202	50940	0.09	ppm	99
26) Benzo[a]anthracene	19.501	228	42370	0.09	ppm	98
27) Chrysene	19.557	228	48958	0.10	ppm	95
29) Benzo[b]fluoranthene	21.160	252	51919	0.09	ppm	97
30) Benzo[k]fluoranthene	21.201	252	42214	0.09	ppm	99
31) Benzo[a]pyrene	21.614	252	50224	0.10	ppm	97
32) Indeno[1,2,3-cd]pyrene	23.170	276	49510	0.09	ppm	97
33) Dibenz[a,h]anthracene	23.198	278	40412	0.09	ppm	94
34) Benzo[g,h,i]perylene	23.556	276	44897	0.09	ppm	99
36) 1,4-Dioxane	2.357	88	7547	0.13	ppm	91
37) 1-Methylnaphthalene	9.923	142	22236	0.10	ppm	100
39) 4,6-dinitro-2-methylph...	13.061	198	7985	0.27	ppm	69

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63808.D
Acq On : 29 Feb 2016 6:35 pm
Operator : linseyk
Sample : ic2828-0.1
Misc : op91493a,e4m2828
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 01 08:10:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	24537	0.08	ppm		100
41) n-nitrosodiphenylamine	13.180	169	17150	0.09	ppm	#	46

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

9.6.4

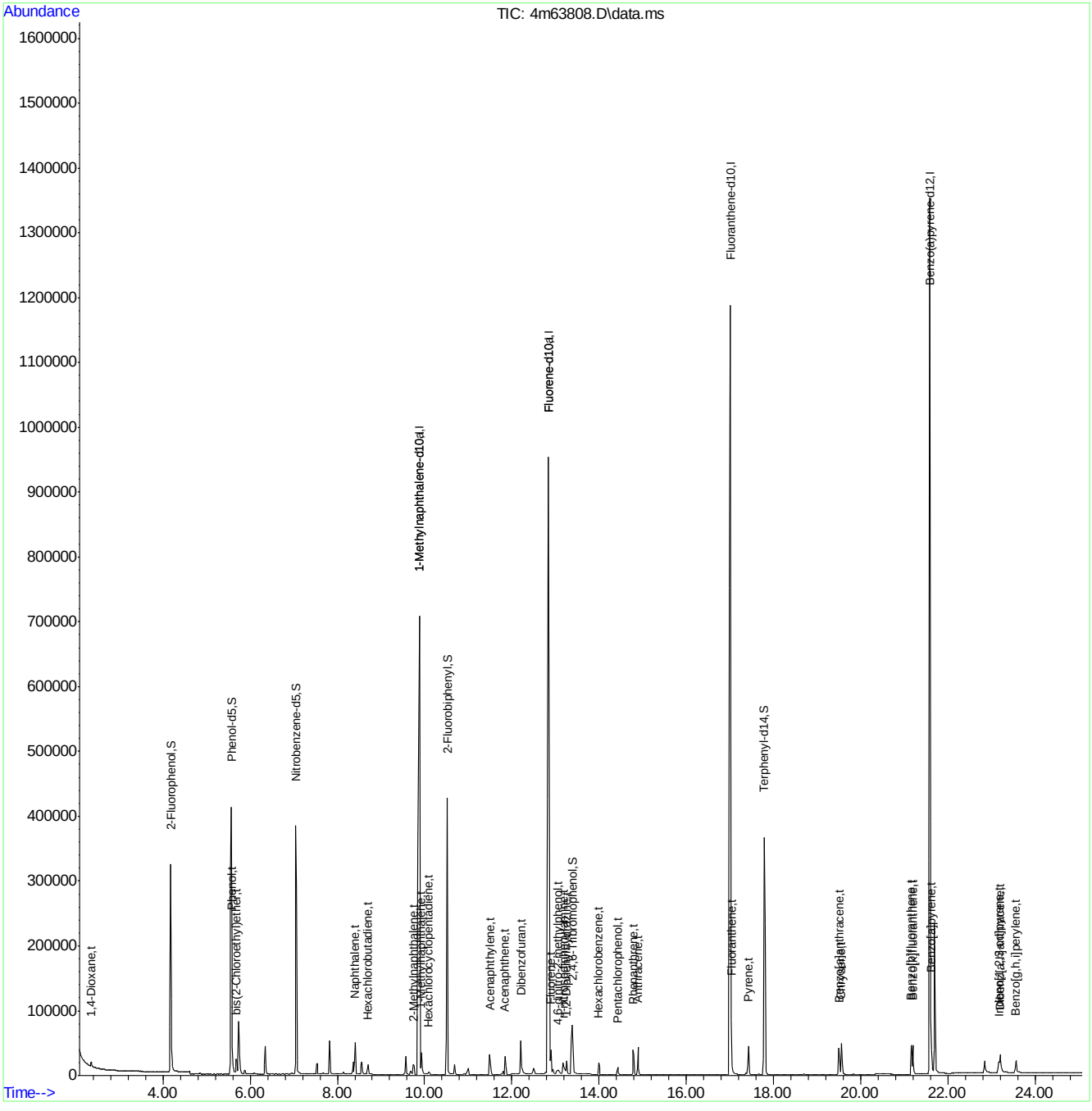
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63808.D
Acq On : 29 Feb 2016 6:35 pm
Operator : linseyk
Sample : ic2828-0.1
Misc : op91493a,e4m2828
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 01 08:10:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63809.D
Acq On : 29 Feb 2016 7:06 pm
Operator : linseyk
Sample : ic2828-0.05
Misc : op91493a,e4m2828
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 01 08:25:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:25:13 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	694523	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1177003	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1909627	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1605492	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	694523	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1177003	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	163001	1.05	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery	=	2.10%#	
3) Phenol-d5	5.567	99	257302	1.09	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.18%	
6) Nitrobenzene-d5	7.046	82	173857	0.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.98%	
11) 2-Fluorobiphenyl	10.519	172	286419	0.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.98%	
17) 2,4,6-Tribromophenol	13.395	330	50909	0.97	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.94%	
25) Terphenyl-d14	17.806	244	296255	0.96	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.92%	
Target Compounds						Qvalue
4) Phenol	5.580	94	60730	0.25	ppm	92
5) bis(2-Chloroethyl)ether	5.691	93	8868	0.05	ppm	88
7) Naphthalene	8.407	128	30290	0.05	ppm	100
8) Hexachlorobutadiene	8.701	225	4652	0.05	ppm	97
9) 2-Methylnaphthalene	9.756	142	10791	0.05	ppm	98
10) Hexachlorocyclopentadiene	10.090	237	2032	0.32	ppm	95
13) Acenaphthylene	11.498	152	19078	0.05	ppm	100
14) Acenaphthene	11.846	153	10856	0.05	ppm	98
15) Dibenzofuran	12.209	168	29096	0.05	ppm #	35
16) Fluorene	12.894	166	17430	0.05	ppm	99
18) Hexachlorobenzene	13.995	284	6890	0.05	ppm	96
19) Pentachlorophenol	14.428	266	6607	0.41	ppm	93
20) Phenanthrene	14.784	178	29167	0.05	ppm	89
21) Anthracene	14.892	178	24033	0.05	ppm	98
23) Fluoranthene	17.034	202	32144	0.05	ppm	93
24) Pyrene	17.429	202	28146	0.04	ppm	99
26) Benzo[a]anthracene	19.500	228	23631	0.05	ppm	98
27) Chrysene	19.557	228	25845	0.05	ppm	99
29) Benzo[b]fluoranthene	21.160	252	27044	0.04	ppm	98
30) Benzo[k]fluoranthene	21.201	252	23516	0.04	ppm	99
31) Benzo[a]pyrene	21.614	252	21190	0.04	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.170	276	25980	0.04	ppm	98
33) Dibenz[a,h]anthracene	23.198	278	21606	0.04	ppm	89
34) Benzo[g,h,i]perylene	23.569	276	24653	0.05	ppm	100
37) 1-Methylnaphthalene	9.923	142	12317	0.05	ppm	98
39) 4,6-dinitro-2-methylph...	13.061	198	3980	1.05	ppm	59
40) 1,2-Diphenylhydrazine	13.252	77	13470	0.04	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63809.D
Acq On : 29 Feb 2016 7:06 pm
Operator : linseyk
Sample : ic2828-0.05
Misc : op91493a,e4m2828
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 01 08:25:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:25:13 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.180	169	9063	0.05	ppm #	47

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

9.6.5

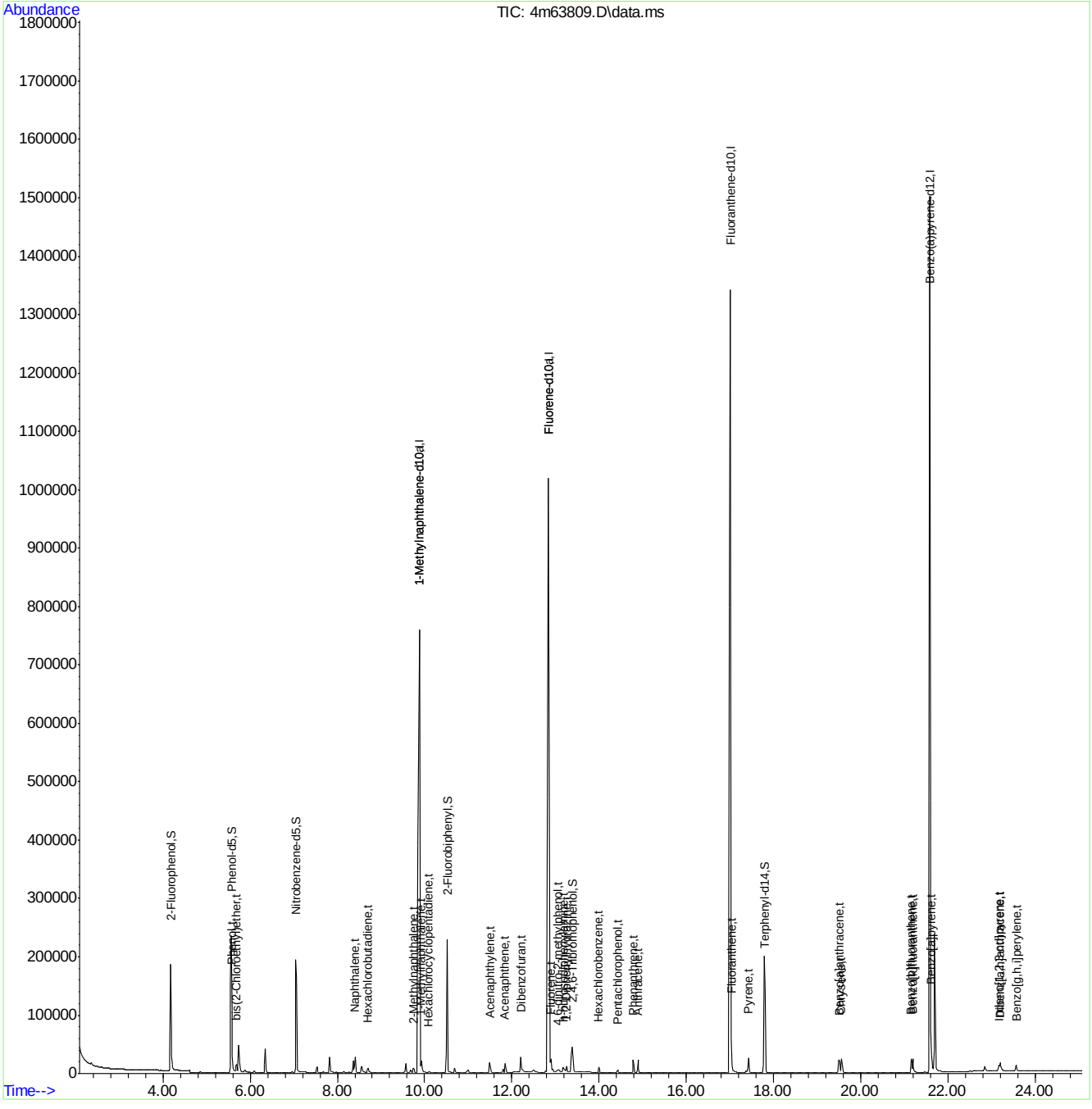
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63809.D
Acq On : 29 Feb 2016 7:06 pm
Operator : linseyk
Sample : ic2828-0.05
Misc : op91493a,e4m2828
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 01 08:25:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:25:13 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63810.D
Acq On : 29 Feb 2016 7:38 pm
Operator : linseyk
Sample : ic2828-0.02
Misc : op91493a,e4m2828
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 01 08:12:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	716215	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1193120	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1963049	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1587835	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	716215	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1193120	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	83839	0.54	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery	=	1.08%#	
3) Phenol-d5	5.567	99	127588	0.52	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.04%	
6) Nitrobenzene-d5	7.046	82	71362	0.39	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.78%	
11) 2-Fluorobiphenyl	10.519	172	118784	0.38	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.76%	
17) 2,4,6-Tribromophenol	13.395	330	25138	0.50	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.00%	
25) Terphenyl-d14	17.787	244	125468	0.38	ppm	-0.02
Spiked Amount 50.000			Recovery	=	0.76%	
Target Compounds						Qvalue
4) Phenol	5.580	94	24674	0.10	ppm	91
5) bis(2-Chloroethyl)ether	5.691	93	3941	0.02	ppm	73
7) Naphthalene	8.407	128	12947	0.02	ppm	100
8) Hexachlorobutadiene	8.701	225	1967	0.02	ppm	98
9) 2-Methylnaphthalene	9.756	142	4733	0.02	ppm	95
10) Hexachlorocyclopentadiene	10.090	237	623	0.02	ppm	85
13) Acenaphthylene	11.498	152	8052	0.02	ppm	98
14) Acenaphthene	11.846	153	4619	0.02	ppm	98
15) Dibenzofuran	12.209	168	12287	0.02	ppm #	21
16) Fluorene	12.894	166	7135	0.02	ppm	96
18) Hexachlorobenzene	13.995	284	2926	0.02	ppm	95
19) Pentachlorophenol	14.428	266	2454	0.06	ppm	90
20) Phenanthrene	14.784	178	12191	0.02	ppm	90
21) Anthracene	14.892	178	10459	0.02	ppm	99
23) Fluoranthene	17.034	202	14607	0.02	ppm	83
24) Pyrene	17.429	202	12045	0.02	ppm	97
26) Benzo[a]anthracene	19.500	228	10808	0.02	ppm	99
27) Chrysene	19.557	228	10844	0.02	ppm	97
29) Benzo[b]fluoranthene	21.160	252	11416	0.02	ppm	98
30) Benzo[k]fluoranthene	21.201	252	8805	0.02	ppm	96
31) Benzo[a]pyrene	21.614	252	9173	0.02	ppm	97
32) Indeno[1,2,3-cd]pyrene	23.170	276	11303	0.02	ppm	100
33) Dibenz[a,h]anthracene	23.198	278	8304	0.02	ppm #	67
34) Benzo[g,h,i]perylene	23.569	276	10451	0.02	ppm	100
37) 1-Methylnaphthalene	9.923	142	5399	0.02	ppm	99
39) 4,6-dinitro-2-methylph...	13.061	198	1288	0.05	ppm	46
40) 1,2-Diphenylhydrazine	13.252	77	5851	0.02	ppm	99

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63810.D
Acq On : 29 Feb 2016 7:38 pm
Operator : linseyk
Sample : ic2828-0.02
Misc : op91493a,e4m2828
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 01 08:12:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) n-nitrosodiphenylamine	13.204	169	4154	0.02 ppm	91

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

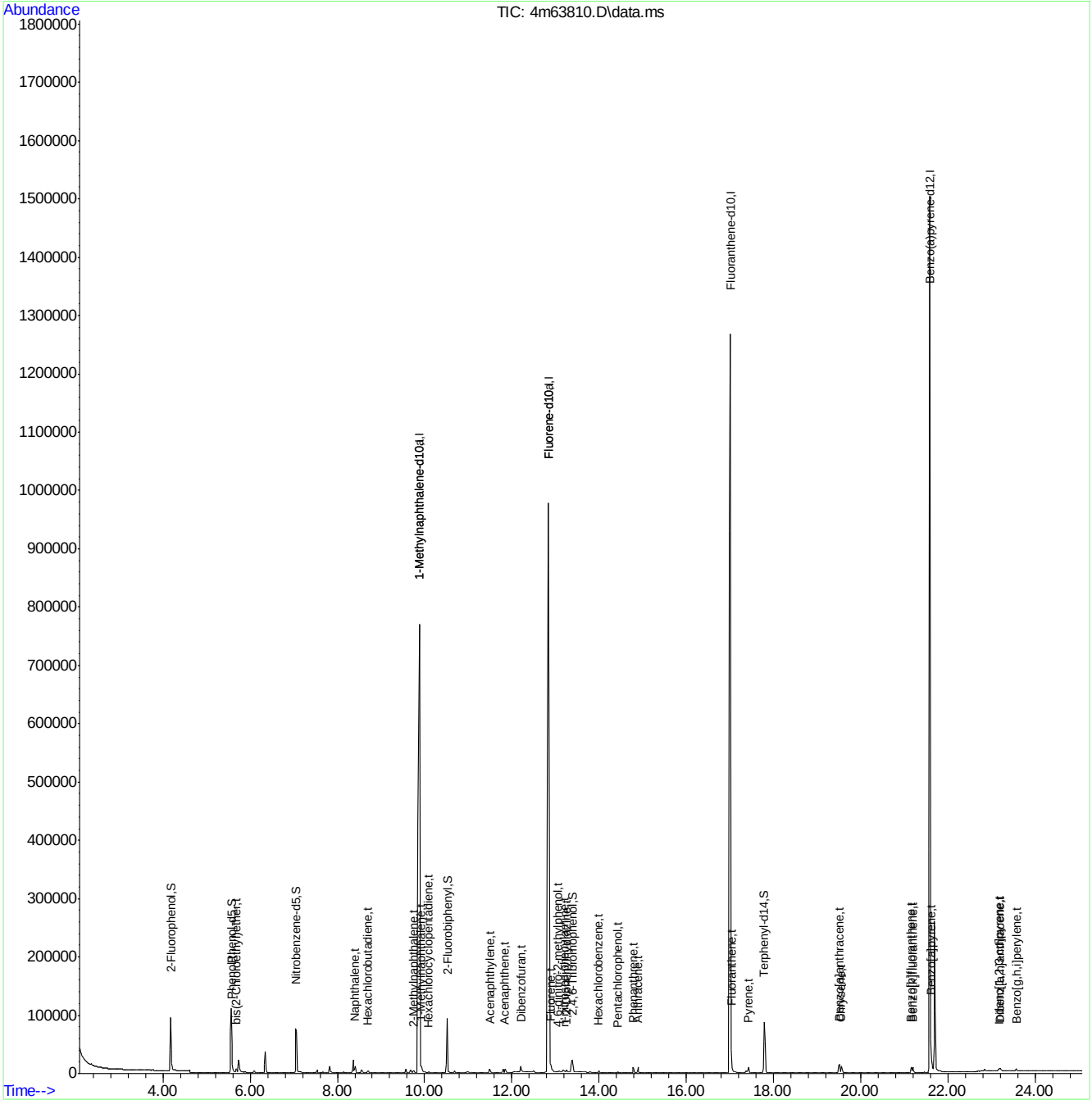
9.6.6

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63810.D
Acq On : 29 Feb 2016 7:38 pm
Operator : linseyk
Sample : ic2828-0.02
Misc : op91493a,e4m2828
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 01 08:12:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63811.D
Acq On : 29 Feb 2016 8:10 pm
Operator : linseyk
Sample : ic2828-0.01
Misc : op91493a,e4m2828
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 01 08:13:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	689334	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1099348	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1816415	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1499607	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	689334	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1099348	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	50726	0.32	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 0.64%#			
3) Phenol-d5	5.567	99	75313	0.30	ppm	0.00
Spiked Amount 50.000			Recovery = 0.60%			
6) Nitrobenzene-d5	7.061	82	33456	0.19	ppm	0.02
Spiked Amount 50.000			Recovery = 0.38%			
11) 2-Fluorobiphenyl	10.519	172	57836	0.19	ppm	0.00
Spiked Amount 50.000			Recovery = 0.38%			
17) 2,4,6-Tribromophenol	13.395	330	15393	0.33	ppm	0.00
Spiked Amount 50.000			Recovery = 0.66%			
25) Terphenyl-d14	17.806	244	67482	0.22	ppm	0.00
Spiked Amount 50.000			Recovery = 0.44%			
Target Compounds						Qvalue
4) Phenol	5.580	94	11417	0.05	ppm	86
5) bis(2-Chloroethyl)ether	5.691	93	1951	0.01	ppm	79
7) Naphthalene	8.407	128	6223	0.01	ppm	99
8) Hexachlorobutadiene	8.701	225	933	0.01	ppm	99
9) 2-Methylnaphthalene	9.756	142	2433	0.01	ppm	92
13) Acenaphthylene	11.498	152	3625	0.01	ppm	99
14) Acenaphthene	11.846	153	2116	0.01	ppm	98
15) Dibenzofuran	12.209	168	5652	0.01	ppm #	16
16) Fluorene	12.894	166	3380	0.01	ppm	91
18) Hexachlorobenzene	13.995	284	1480	0.01	ppm	98
19) Pentachlorophenol	14.428	266	1319	0.04	ppm	94
20) Phenanthrene	14.784	178	6228	0.01	ppm	89
21) Anthracene	14.892	178	5578	0.01	ppm	99
23) Fluoranthene	17.034	202	8490	0.01	ppm	97
24) Pyrene	17.430	202	6233	0.01	ppm	99
26) Benzo[a]anthracene	19.501	228	5666	0.01	ppm	98
27) Chrysene	19.557	228	6140	0.01	ppm	97
29) Benzo[b]fluoranthene	21.160	252	5699	0.01	ppm	98
30) Benzo[k]fluoranthene	21.201	252	4864	0.01	ppm	97
31) Benzo[a]pyrene	21.614	252	5220	0.01	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.170	276	5992	0.01	ppm	97
33) Dibenz[a,h]anthracene	23.198	278	4916	0.01	ppm	86
34) Benzo[g,h,i]perylene	23.569	276	5417	0.01	ppm	99
37) 1-Methylnaphthalene	9.923	142	2467	0.01	ppm	100
40) 1,2-Diphenylhydrazine	13.252	77	2741	0.01	ppm	100
41) n-nitrosodiphenylamine	13.204	169	1991	0.01	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63811.D
Acq On : 29 Feb 2016 8:10 pm
Operator : linseyk
Sample : ic2828-0.01
Misc : op91493a,e4m2828
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 01 08:13:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

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

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

9.6.7

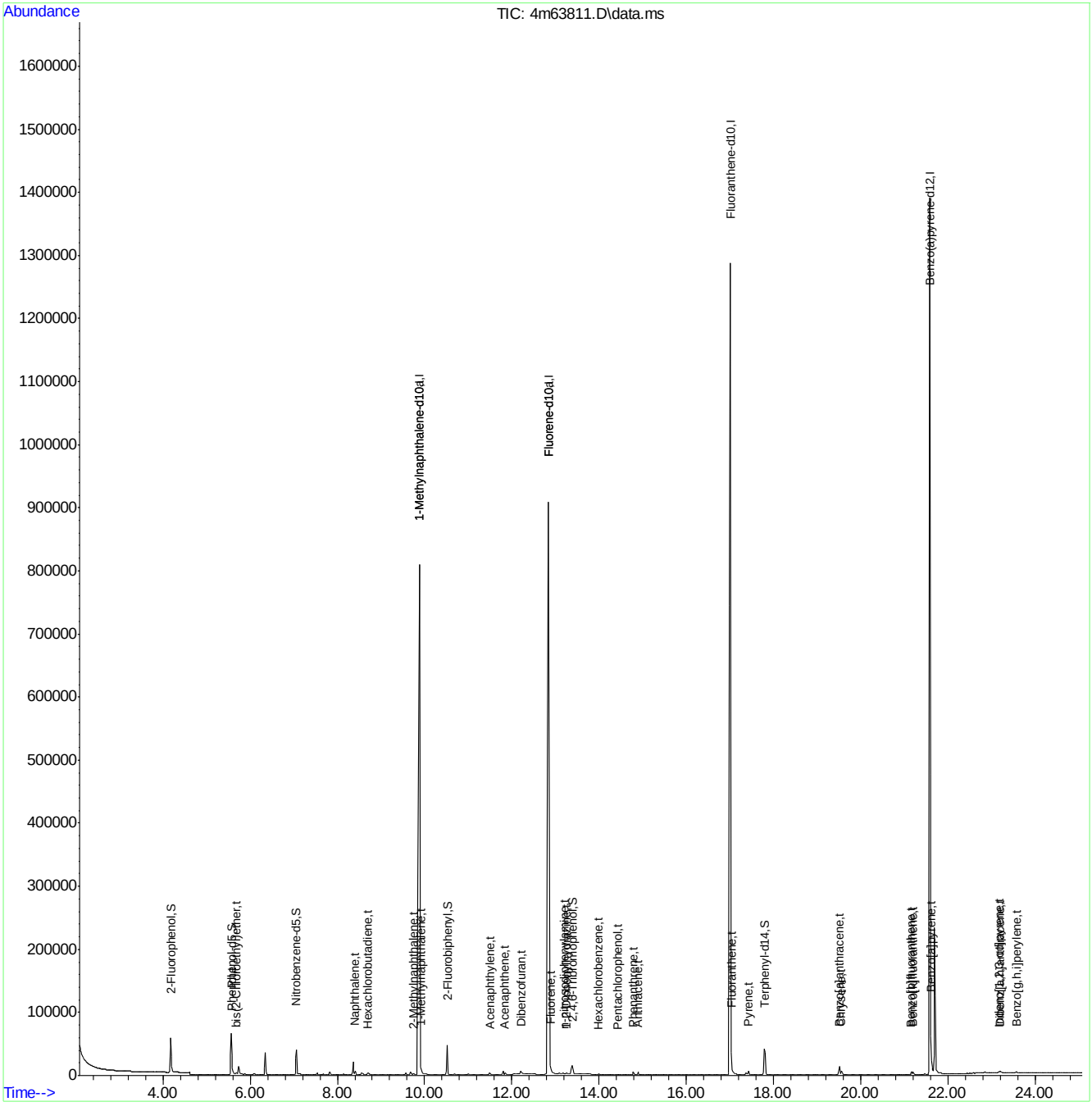
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63811.D
Acq On : 29 Feb 2016 8:10 pm
Operator : linseyk
Sample : ic2828-0.01
Misc : op91493a,e4m2828
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 01 08:13:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63812.D
Acq On : 29 Feb 2016 8:41 pm
Operator : linseyk
Sample : ic2828-5.0
Misc : op91493a,e4m2828
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 01 08:13:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	705319	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1510468	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1975318	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.586	264	1566003	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	705319	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1510468	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.169	112	14223355	88.34	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	= 176.68%#		
3) Phenol-d5	5.567	99	17366664	68.32	ppm	0.00
Spiked Amount 50.000			Recovery	= 136.64%		
6) Nitrobenzene-d5	7.061	82	14913918	82.40	ppm	0.02
Spiked Amount 50.000			Recovery	= 164.80%		
11) 2-Fluorobiphenyl	10.519	172	13470904	44.27	ppm	0.00
Spiked Amount 50.000			Recovery	= 88.54%		
17) 2,4,6-Tribromophenol	13.395	330	7684170	120.23	ppm	0.00
Spiked Amount 50.000			Recovery	= 240.46%		
25) Terphenyl-d14	17.806	244	15853243	48.13	ppm	0.00
Spiked Amount 50.000			Recovery	= 96.26%		
Target Compounds						Qvalue
4) Phenol	5.580	94	6382844	25.72	ppm	42
5) bis(2-Chloroethyl)ether	5.690	93	944843	5.10	ppm	65
7) Naphthalene	8.407	128	3024091	4.90	ppm	100
8) Hexachlorobutadiene	8.701	225	464420	4.96	ppm	97
9) 2-Methylnaphthalene	9.755	142	1132272	4.98	ppm	98
10) Hexachlorocyclopentadiene	10.090	237	611256	16.30	ppm	97
13) Acenaphthylene	11.498	152	2216760	4.50	ppm	99
14) Acenaphthene	11.846	153	1168819	4.13	ppm	97
15) Dibenzofuran	12.209	168	3172752	4.22	ppm	90
16) Fluorene	12.894	166	2019551	4.29	ppm	98
18) Hexachlorobenzene	13.995	284	687483	3.84	ppm	99
19) Pentachlorophenol	14.413	266	1893780	38.29	ppm	72
20) Phenanthrene	14.784	178	3082371	4.01	ppm	88
21) Anthracene	14.892	178	3146514	4.66	ppm	99
23) Fluoranthene	17.034	202	3400660	5.02	ppm	99
24) Pyrene	17.429	202	3406966	5.37	ppm	98
26) Benzo[a]anthracene	19.500	228	2823430	5.49	ppm	99
27) Chrysene	19.557	228	2848581	5.01	ppm	99
29) Benzo[b]fluoranthene	21.160	252	3183161	5.38	ppm	99
30) Benzo[k]fluoranthene	21.201	252	2630504	5.23	ppm	98
31) Benzo[a]pyrene	21.614	252	2672123	5.07	ppm	100
32) Indeno[1,2,3-cd]pyrene	23.170	276	2992076	5.35	ppm	100
33) Dibenz[a,h]anthracene	23.197	278	2498977	5.35	ppm	98
34) Benzo[g,h,i]perylene	23.569	276	2549968	5.04	ppm	100
36) 1,4-Dioxane	2.357	88	303830	4.50	ppm	91
37) 1-Methylnaphthalene	9.923	142	1297652	5.22	ppm	98
39) 4,6-dinitro-2-methylph...	13.061	198	2055270	61.62	ppm	97

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63812.D
Acq On : 29 Feb 2016 8:41 pm
Operator : linseyk
Sample : ic2828-5.0
Misc : op91493a,e4m2828
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 01 08:13:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	2187522	5.49 ppm	97
41) n-nitrosodiphenylamine	13.204	169	1215551	4.82 ppm	96

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

9.6.8

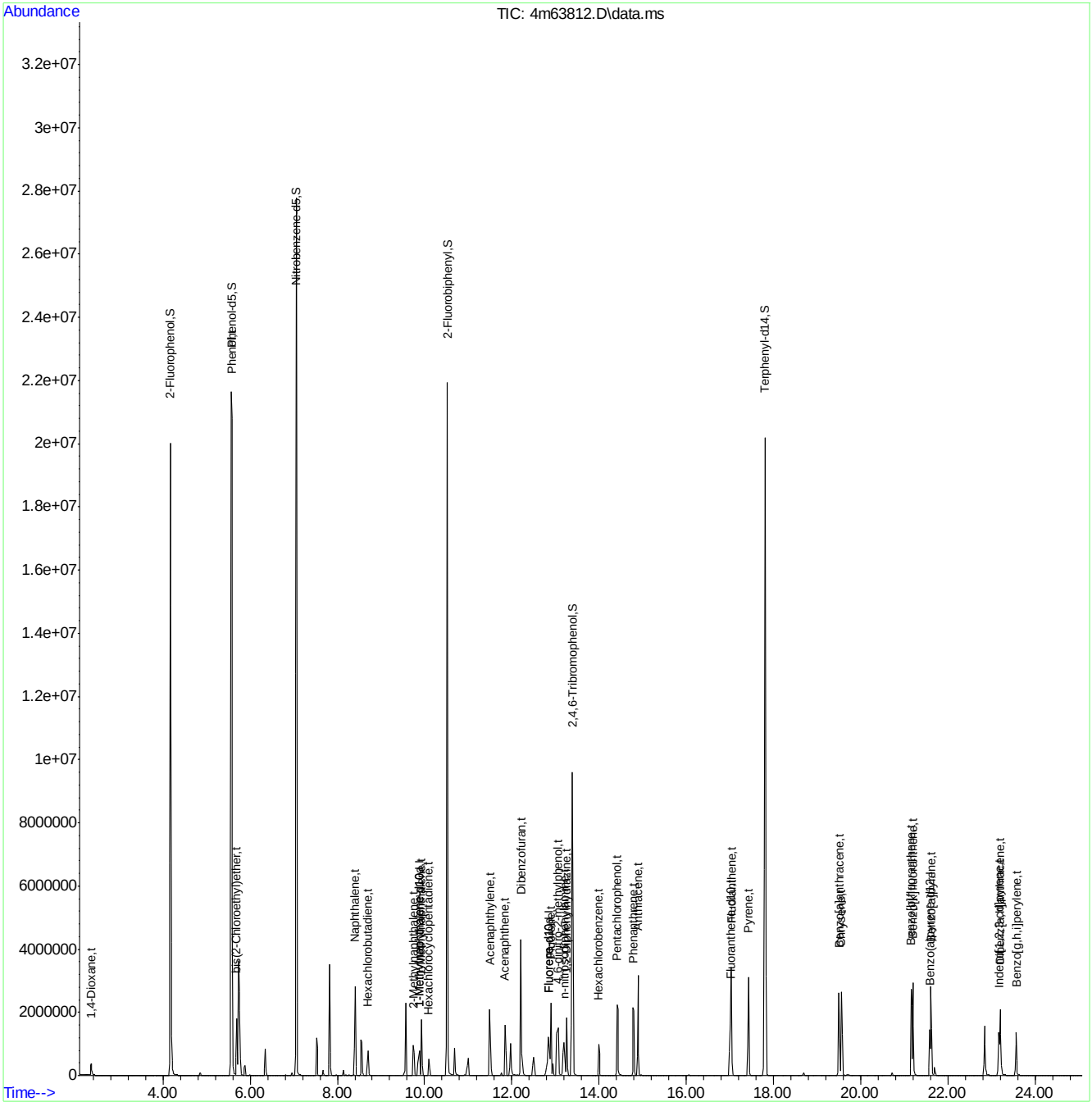
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63812.D
Acq On : 29 Feb 2016 8:41 pm
Operator : linseyk
Sample : ic2828-5.0
Misc : op91493a,e4m2828
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 01 08:13:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration



M4M2828SIM.M Tue Mar 01 08:33:10 2016 MANAGER Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63813.D
Acq On : 29 Feb 2016 9:12 pm
Operator : linseyk
Sample : ic2828-2.5
Misc : op91493a,e4m2828
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 08:14:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	753656	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1382567	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	2011785	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1644955	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	753656	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1382567	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.169	112	8112991	47.96	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery	=	95.92%#	
3) Phenol-d5	5.567	99	11744566	45.29	ppm	0.00
Spiked Amount 50.000			Recovery	=	90.58%	
6) Nitrobenzene-d5	7.046	82	10075705	53.44	ppm	0.00
Spiked Amount 50.000			Recovery	=	106.88%	
11) 2-Fluorobiphenyl	10.519	172	12818846	42.83	ppm	0.00
Spiked Amount 50.000			Recovery	=	85.66%	
17) 2,4,6-Tribromophenol	13.395	330	3336877	55.18	ppm	0.00
Spiked Amount 50.000			Recovery	=	110.36%	
25) Terphenyl-d14	17.806	244	12792211	41.18	ppm	0.00
Spiked Amount 50.000			Recovery	=	82.36%	
Target Compounds						Qvalue
4) Phenol	5.580	94	3522911	13.23	ppm	94
5) bis(2-Chloroethyl)ether	5.691	93	497389	2.50	ppm	89
7) Naphthalene	8.407	128	1632864	2.48	ppm	99
8) Hexachlorobutadiene	8.701	225	248734	2.49	ppm	97
9) 2-Methylnaphthalene	9.755	142	597419	2.46	ppm	98
10) Hexachlorocyclopentadiene	10.090	237	310595	6.88	ppm	95
13) Acenaphthylene	11.498	152	1219861	2.74	ppm	99
14) Acenaphthene	11.846	153	630800	2.49	ppm	95
15) Dibenzofuran	12.209	168	1751615	2.60	ppm	81
16) Fluorene	12.894	166	1041346	2.46	ppm	97
18) Hexachlorobenzene	13.995	284	371931	2.34	ppm	96
19) Pentachlorophenol	14.413	266	954085	19.36	ppm	75
20) Phenanthrene	14.784	178	1638249	2.39	ppm	90
21) Anthracene	14.892	178	1618241	2.64	ppm	99
23) Fluoranthene	17.034	202	1791841	2.60	ppm	98
24) Pyrene	17.429	202	1733255	2.65	ppm	97
26) Benzo[a]anthracene	19.500	228	1444964	2.71	ppm	98
27) Chrysene	19.557	228	1534224	2.65	ppm	97
29) Benzo[b]fluoranthene	21.160	252	1685428	2.68	ppm	99
30) Benzo[k]fluoranthene	21.201	252	1399436	2.63	ppm	100
31) Benzo[a]pyrene	21.614	252	1439006	2.59	ppm	99
32) Indeno[1,2,3-cd]pyrene	23.170	276	1533293	2.58	ppm	96
33) Dibenz[a,h]anthracene	23.197	278	1280250	2.58	ppm	99
34) Benzo[g,h,i]perylene	23.569	276	1320767	2.48	ppm	100
36) 1,4-Dioxane	2.357	88	154408	2.18	ppm	77
37) 1-Methylnaphthalene	9.923	142	703291	2.63	ppm	95
39) 4,6-dinitro-2-methylph...	13.061	198	773118	20.35	ppm	96

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63813.D
Acq On : 29 Feb 2016 9:12 pm
Operator : linseyk
Sample : ic2828-2.5
Misc : op91493a,e4m2828
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 08:14:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	1012220	2.72	ppm		100
41) n-nitrosodiphenylamine	13.180	169	593056	2.59	ppm	#	47

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

9.6.9

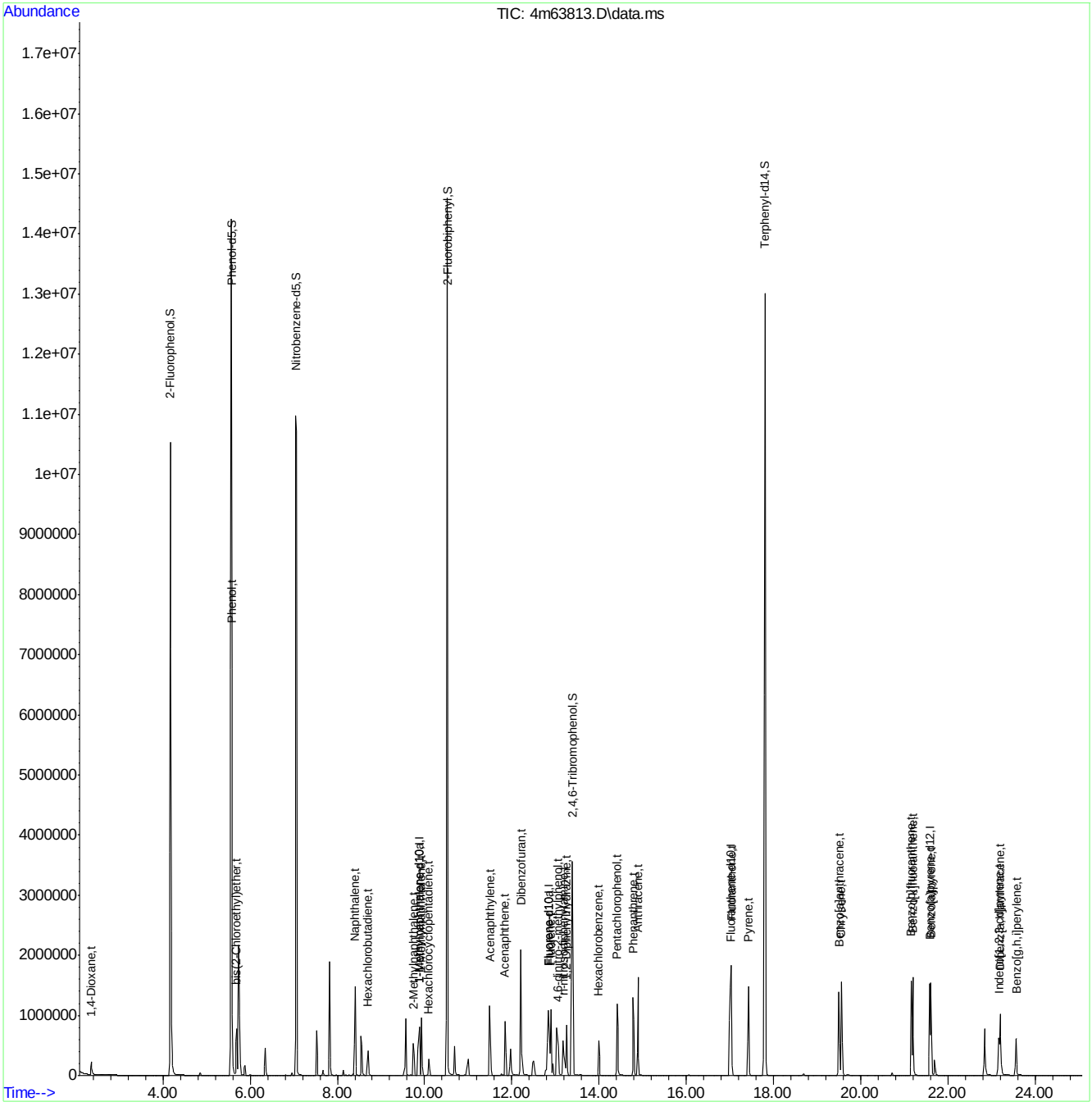
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63813.D
Acq On : 29 Feb 2016 9:12 pm
Operator : linseyk
Sample : ic2828-2.5
Misc : op91493a,e4m2828
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 08:14:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63814.D
Acq On : 29 Feb 2016 9:43 pm
Operator : linseyk
Sample : icv2828-1.0
Misc : op91493a,e4m2828
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 01 08:28:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.875	152	846370	4.00	ppm		0.00
12) Fluorene-d10	12.846	176	1516052	4.00	ppm		0.00
22) Fluoranthene-d10	17.015	212	2386073	4.00	ppm		0.00
28) Benzo(a)pyrene-d12	21.587	264	1846435	4.00	ppm		0.00
35) 1-Methylnaphthalene-d10a	9.875	152	846370	4.00	ppm		0.00
38) Fluorene-d10a	12.846	176	1516052	4.00	ppm		0.00
System Monitoring Compounds							
2) 2-Fluorophenol	0.000	112	0d	0.00	ppm		
Spiked Amount 50.000	Range 11 - 58		Recovery	=	0.00%#		
3) Phenol-d5	0.000	99	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
25) Terphenyl-d14	0.000	244	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
Target Compounds							Qvalue
5) bis(2-Chloroethyl)ether	5.690	93	253551	1.14	ppm		93
7) Naphthalene	8.407	128	807029	1.09	ppm		99
8) Hexachlorobutadiene	8.701	225	124008	1.11	ppm		93
9) 2-Methylnaphthalene	9.732	142	301131	1.11	ppm	#	48
10) Hexachlorocyclopentadiene	10.090	237	51811	0.97	ppm		93
13) Acenaphthylene	11.498	152	558238	1.13	ppm		98
14) Acenaphthene	11.846	153	305138	1.10	ppm		95
15) Dibenzofuran	12.209	168	832753	1.12	ppm	#	14
16) Fluorene	12.894	166	457382	0.99	ppm		95
18) Hexachlorobenzene	13.995	284	170203	0.98	ppm		94
20) Phenanthrene	14.784	178	734412	0.98	ppm		90
21) Anthracene	14.892	178	689142	1.02	ppm		98
23) Fluoranthene	17.034	202	823079	1.00	ppm		97
24) Pyrene	17.429	202	800753	1.02	ppm		98
26) Benzo[a]anthracene	19.500	228	625302	0.98	ppm		99
27) Chrysene	19.557	228	665910	0.96	ppm		98
29) Benzo[b]fluoranthene	21.160	252	674470	0.94	ppm		97
30) Benzo[k]fluoranthene	21.201	252	611396	1.02	ppm		98
31) Benzo[a]pyrene	21.614	252	644760	1.03	ppm		99
32) Indeno[1,2,3-cd]pyrene	23.170	276	656638	0.98	ppm		97
33) Dibenz[a,h]anthracene	23.197	278	534040	0.95	ppm		98
34) Benzo[g,h,i]perylene	23.555	276	565323	0.95	ppm		99
36) 1,4-Dioxane	2.388	88	76578	0.98	ppm		79
40) 1,2-Diphenylhydrazine	13.252	77	391506	0.95	ppm		96
41) n-nitrosodiphenylamine	13.180	169	261439	1.03	ppm	#	50

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63814.D
Acq On : 29 Feb 2016 9:43 pm
Operator : linseyk
Sample : icv2828-1.0
Misc : op91493a,e4m2828
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 01 08:28:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

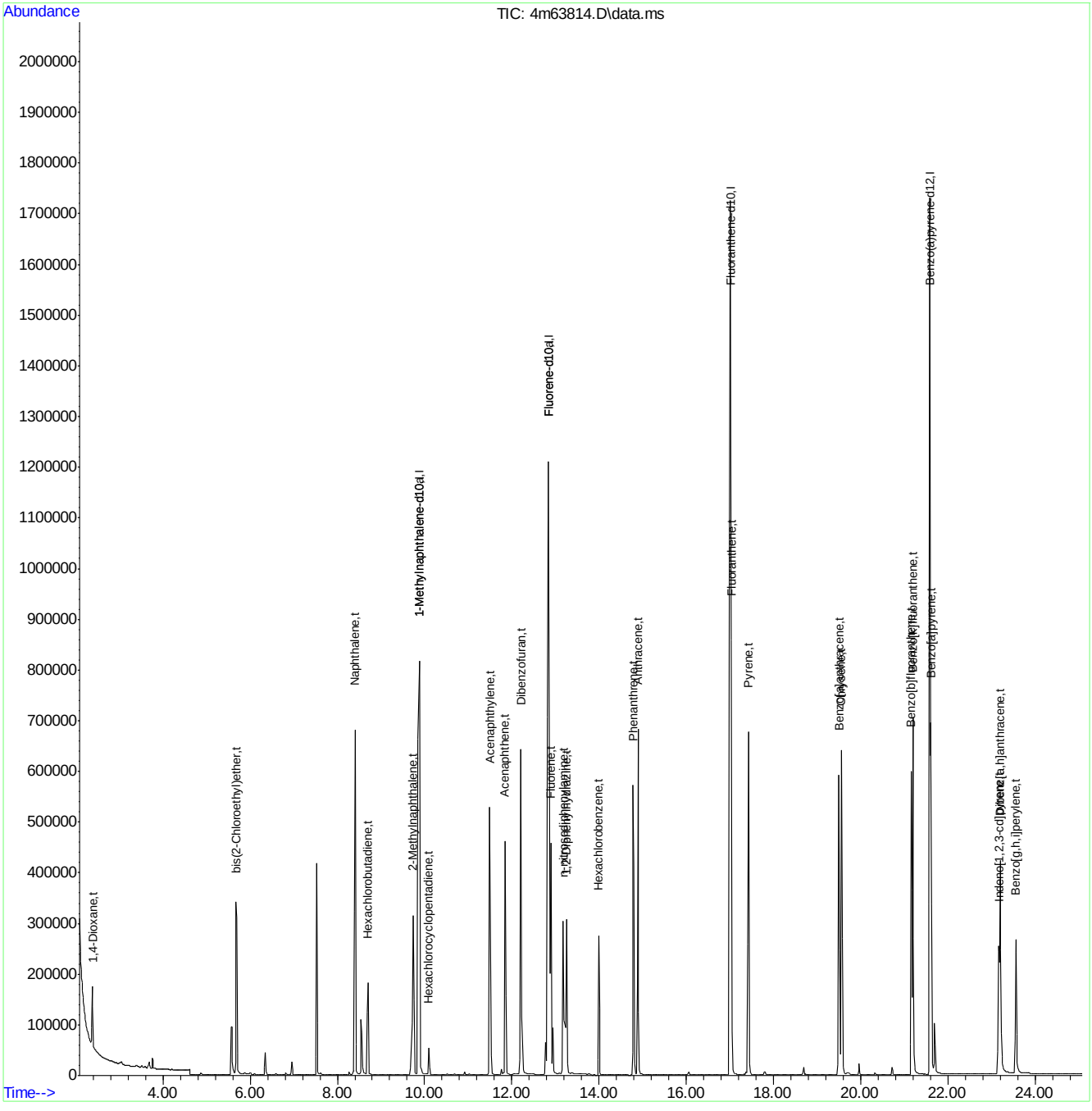
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63814.D
Acq On : 29 Feb 2016 9:43 pm
Operator : linseyk
Sample : icv2828-1.0
Misc : op91493a,e4m2828
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 01 08:28:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration



M4M2828SIM.M Tue Mar 01 08:33:17 2016 MANAGER Page: 3

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63815.D
Acq On : 29 Feb 2016 10:14 pm
Operator : linseyk
Sample : icv2828-1.0
Misc : op91493a,e4m2828
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 01 08:28:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	671339	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1161296	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1908813	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1574374	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	671339	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1161296	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery	=	0.00%#	
3) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
37) 1-Methylnaphthalene	9.923	142	261504	1.09	ppm	95

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

9.6.11

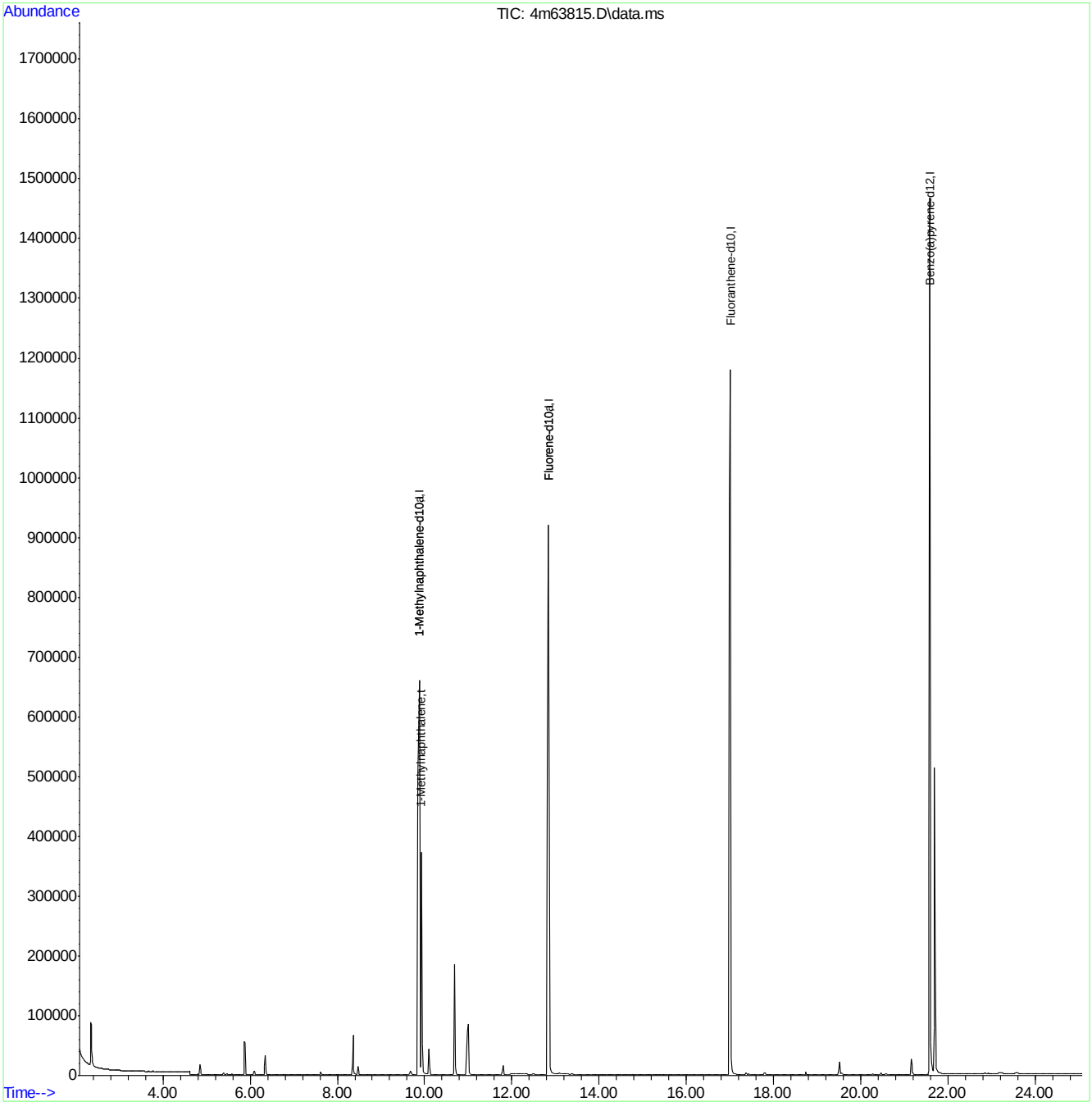
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63815.D
Acq On : 29 Feb 2016 10:14 pm
Operator : linseyk
Sample : icv2828-1.0
Misc : op91493a,e4m2828
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 01 08:28:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration



M4M2828SIM.M Tue Mar 01 08:28:50 2016 MANAGER Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63816.D
Acq On : 29 Feb 2016 10:45 pm
Operator : linseyk
Sample : icv2828-1.0
Misc : op91493a,e4m2828
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 08:29:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	9.875	152	657887	4.00 ppm	0.00
12) Fluorene-d10	12.846	176	1185062	4.00 ppm	0.00
22) Fluoranthene-d10	17.015	212	1818452	4.00 ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1455844	4.00 ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	657887	4.00 ppm	0.00
38) Fluorene-d10a	12.846	176	1185062	4.00 ppm	0.00
System Monitoring Compounds					
2) 2-Fluorophenol	0.000	112	0d	0.00 ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery	= 0.00%#	
3) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
6) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
11) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
4) Phenol	5.580	94	1005232	4.29 ppm	94
19) Pentachlorophenol	14.428	266	208142	3.55 ppm	99
39) 4,6-dinitro-2-methylph...	13.061	198	146475	3.69 ppm	98

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

9.6.12

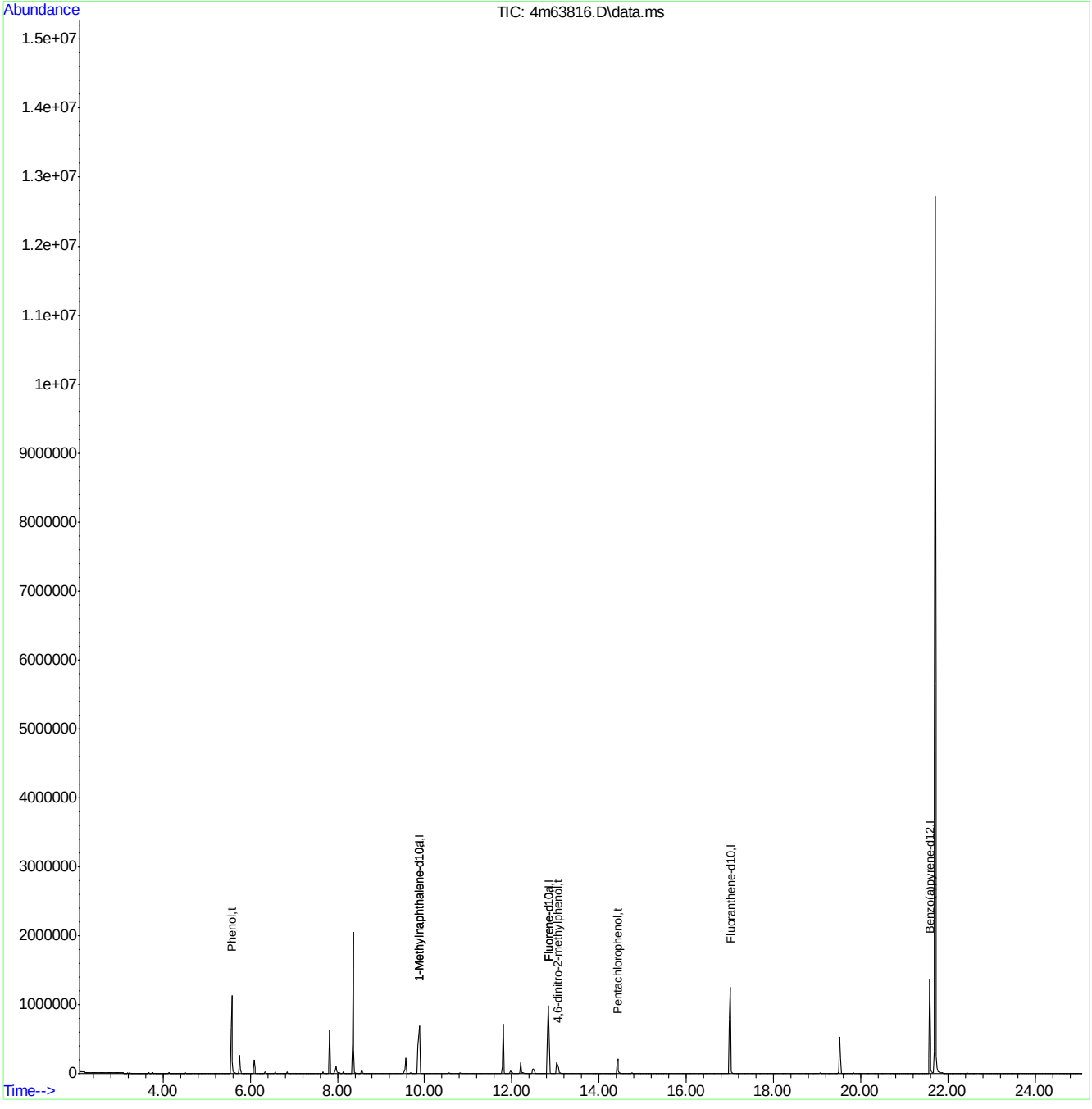
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63816.D
Acq On : 29 Feb 2016 10:45 pm
Operator : linseyk
Sample : icv2828-1.0
Misc : op91493a,e4m2828
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 08:29:16 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration



M4M2828SIM.M Tue Mar 01 08:32:18 2016 MANAGER Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64067.D
Acq On : 15 Mar 2016 9:01 am
Operator : linseyk
Sample : cc2828-1
Misc : op91969a,e4m2841
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:39:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	9.875	152	413367	4.00	ppm	#	0.00
12) Fluorene-d10	12.846	176	751535	4.00	ppm		0.00
22) Fluoranthene-d10	17.015	212	1095022	4.00	ppm		-0.04
28) Benzo(a)pyrene-d12	21.600	264	835149	4.00	ppm		-0.03
35) 1-Methylnaphthalene-d10a	9.875	152	413367	4.00	ppm		0.00
38) Fluorene-d10a	12.846	176	751535	4.00	ppm	#	0.00
System Monitoring Compounds							
2) 2-Fluorophenol	4.190	112	1485464	16.09	ppm		-0.05
Spiked Amount 50.000	Range 11 - 58		Recovery = 32.18%				
3) Phenol-d5	5.580	99	2420862	17.22	ppm		0.01
Spiked Amount 50.000			Recovery = 34.44%				
6) Nitrobenzene-d5	7.061	82	1941221	18.61	ppm		0.02
Spiked Amount 50.000			Recovery = 37.22%				
11) 2-Fluorobiphenyl	10.519	172	2619906	15.15	ppm		0.00
Spiked Amount 50.000			Recovery = 30.30%				
17) 2,4,6-Tribromophenol	13.395	330	755664	22.65	ppm		0.00
Spiked Amount 50.000			Recovery = 45.30%				
25) Terphenyl-d14	17.806	244	3533649	20.03	ppm		-0.04
Spiked Amount 50.000			Recovery = 40.06%				
Target Compounds							Qvalue
4) Phenol	5.594	94	645552	4.39	ppm		62
5) bis(2-Chloroethyl)ether	5.691	93	94588	0.87	ppm	#	27
7) Naphthalene	8.423	128	318732	0.88	ppm		99
8) Hexachlorobutadiene	8.701	225	51265	0.94	ppm		82
9) 2-Methylnaphthalene	9.756	142	167328	1.26	ppm		67
10) Hexachlorocyclopentadiene	10.114	237	78953	2.55	ppm	#	67
13) Acenaphthylene	11.522	152	210510	0.86	ppm		91
14) Acenaphthene	11.868	153	142208	1.03	ppm		93
15) Dibenzofuran	12.236	168	210901	0.57	ppm		72
16) Fluorene	12.894	166	227061	0.99	ppm		88
18) Hexachlorobenzene	14.011	284	75941	0.89	ppm		93
19) Pentachlorophenol	14.444	266	192087	4.98	ppm		98
20) Phenanthrene	14.799	178	327437	0.88	ppm		92
21) Anthracene	14.907	178	309073	0.92	ppm		97
23) Fluoranthene	17.053	202	332101	0.88	ppm		90
24) Pyrene	17.429	202	330936	0.92	ppm		86
26) Benzo[a]anthracene	19.519	228	300506	1.02	ppm	#	87
27) Chrysene	19.576	228	314028	0.99	ppm		86
29) Benzo[b]fluoranthene	21.174	252	315176	0.98	ppm		96
30) Benzo[k]fluoranthene	21.215	252	293290	1.08	ppm		96
31) Benzo[a]pyrene	21.628	252	278600	0.98	ppm		93
32) Indeno[1,2,3-cd]pyrene	23.170	276	321341	1.06	ppm		97
33) Dibenz[a,h]anthracene	23.198	278	267526	1.06	ppm		86
34) Benzo[g,h,i]perylene	23.569	276	276511	1.02	ppm		99
36) 1,4-Dioxane	2.368	88	34780	0.92	ppm	#	78
37) 1-Methylnaphthalene	9.946	142	161302	1.09	ppm		100
39) 4,6-dinitro-2-methylph...	13.061	198	121954	4.62	ppm	#	45

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64067.D
Acq On : 15 Mar 2016 9:01 am
Operator : linseyk
Sample : cc2828-1
Misc : op91969a,e4m2841
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:39:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	208781	1.02 ppm	91
41) n-nitrosodiphenylamine	13.204	169	170591	1.36 ppm	81

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

9.6.13

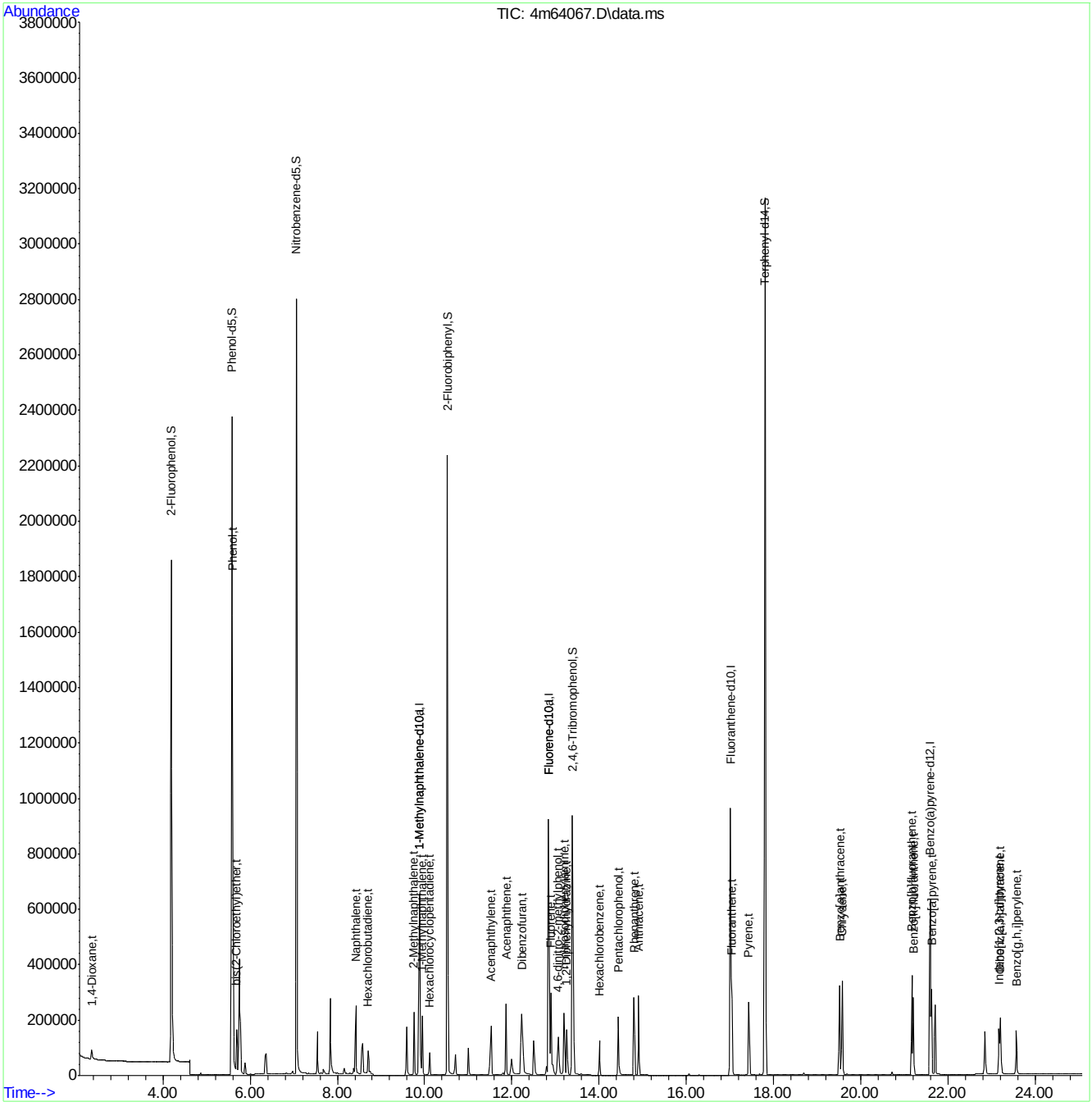
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2841\
Data File : 4m64067.D
Acq On : 15 Mar 2016 9:01 am
Operator : linseyk
Sample : cc2828-1
Misc : op91969a,e4m2841
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:39:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14948.D
Acq On : 1 Feb 2016 5:52 pm
Operator : juliusj
Sample : ic767-0.5
Misc : op90759a,e4p767
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 02 08:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:35:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.752	150	116866	4.00	ppm	0.00
13) Fluorene-d10	11.741	176	171703	4.00	ppm	0.00
23) Fluoranthene-d10	15.949	212	243157	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	190560	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	208877	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
4) Phenol-d5	4.527	99	354969	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
7) Nitrobenzene-d5	5.965	82	330070	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
14) 2-Fluorobiphenyl	9.403	172	520728	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
22) 2,4,6-Tribromophenol	12.296	330	67870	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
30) Terphenyl-d14	16.757	244	383901	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	6758	0.46	ppm	99
5) Phenol	4.544	94	103891	2.50	ppm	100
6) bis(2-Chloroethyl)ether	4.665	93	16449	0.50	ppm	100
8) Naphthalene	7.292	128	36286	0.50	ppm	100
9) Hexachlorobutadiene	7.587	225	8392	0.50	ppm	100
10) 2-Methylnaphthalene	8.626	141	19058	0.50	ppm	100
11) 1-Methylnaphthalene	8.815	141	20892	0.50	ppm	100
12) Hexachlorocyclopentadiene	8.983	237	14992	1.00	ppm #	100
15) Acenaphthylene	10.379	152	29013	0.50	ppm	100
16) Acenaphthene	10.746	153	22588	0.50	ppm	100
17) Dibenzofuran	11.113	168	31827	0.50	ppm	100
18) Fluorene	11.790	166	28317	0.50	ppm	100
19) 4,6-dinitro-2-methylph...	11.964	198	10508	2.50	ppm	100
20) n-nitrosodiphenylamine	12.113	169	14064	0.50	ppm	100
21) 1,2-Diphenylhydrazine	12.163	77	25432	0.50	ppm	100
24) Hexachlorobenzene	12.919	284	9739	0.50	ppm	100
25) Pentachlorophenol	13.333	266	18835	2.50	ppm	100
26) Phenanthrene	13.711	178	37619	0.50	ppm	100
27) Anthracene	13.814	178	34857	0.50	ppm	100
28) Fluoranthene	15.983	202	40284	0.50	ppm	100
29) Pyrene	16.379	202	40512	0.50	ppm	100
31) Benzo[a]anthracene	18.476	228	35675	0.50	ppm	100
32) Chrysene	18.533	228	39954	0.50	ppm	100
34) Benzo[b]fluoranthene	20.143	252	39767	0.50	ppm	100
35) Benzo[k]fluoranthene	20.178	252	35752	0.50	ppm	100
36) Benzo[a]pyrene	20.603	252	37547	0.50	ppm	100
37) Indeno[1,2,3-cd]pyrene	22.141	276	40972	0.50	ppm	100
38) Dibenz[a,h]anthracene	22.170	278	34054	0.50	ppm	100
39) Benzo[g,h,i]perylene	22.535	276	36070	0.50	ppm	100

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14948.D
Acq On : 1 Feb 2016 5:52 pm
Operator : juliusj
Sample : ic767-0.5
Misc : op90759a,e4p767
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 02 08:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:35:53 2016
Response via : Initial Calibration

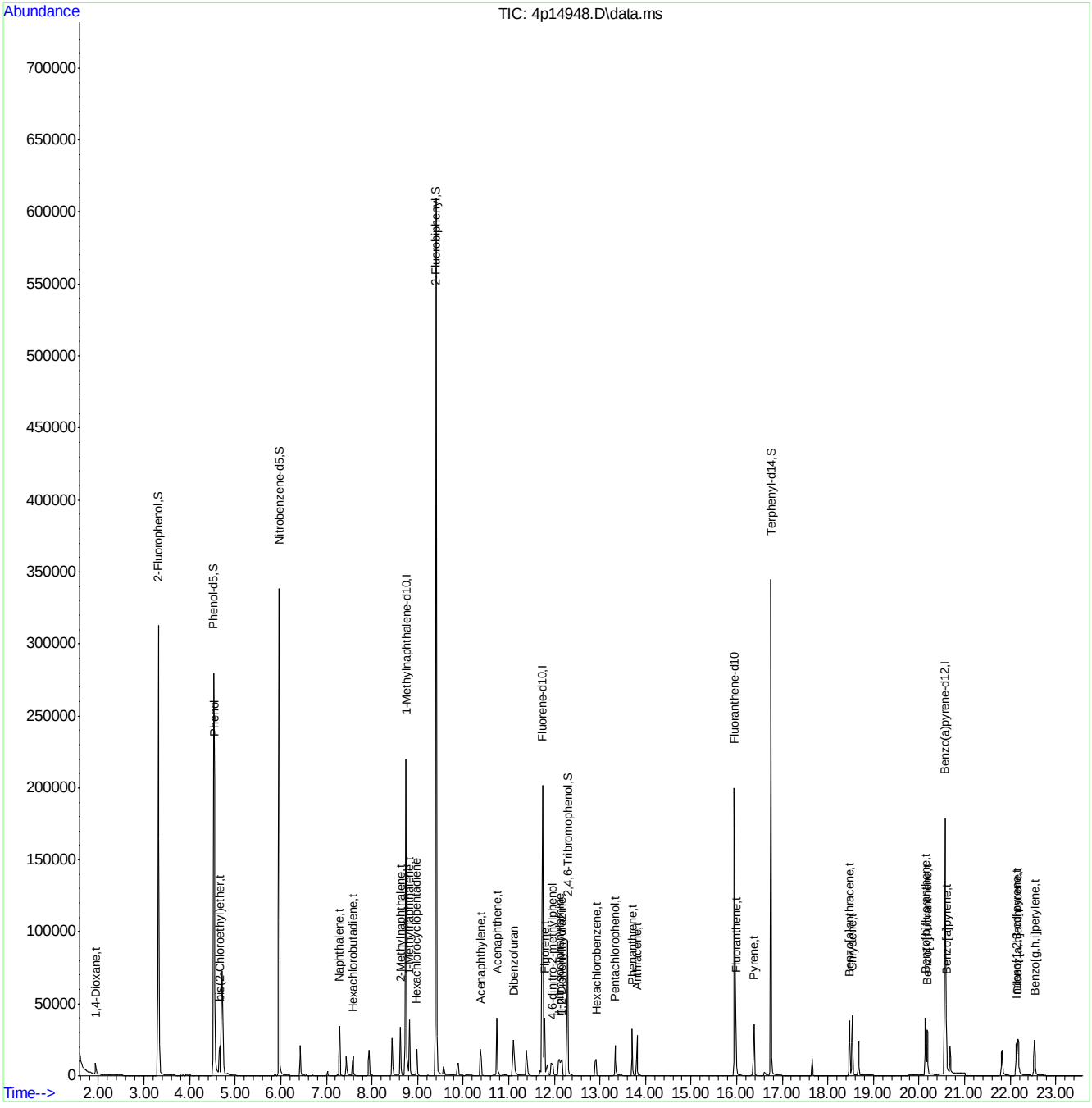
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14948.D
Acq On : 1 Feb 2016 5:52 pm
Operator : juliusj
Sample : ic767-0.5
Misc : op90759a,e4p767
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 02 08:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:35:53 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14949.D
Acq On : 1 Feb 2016 6:22 pm
Operator : juliusj
Sample : icc767-1.0
Misc : op90759a,e4p767
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 02 08:36:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:36:36 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.752	150	123313	4.00	ppm	0.00
13) Fluorene-d10	11.741	176	202458	4.00	ppm	0.00
23) Fluoranthene-d10	15.948	212	279533	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.565	264	213575	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	433572	19.67	ppm	0.00
Spiked Amount 50.000			Recovery = 39.34%			
4) Phenol-d5	4.527	99	743457	19.85	ppm	0.00
Spiked Amount 50.000			Recovery = 39.70%			
7) Nitrobenzene-d5	5.964	82	704063	20.22	ppm	0.00
Spiked Amount 50.000			Recovery = 40.44%			
14) 2-Fluorobiphenyl	9.403	172	1043332	16.99	ppm	0.00
Spiked Amount 50.000			Recovery = 33.98%			
22) 2,4,6-Tribromophenol	12.275	330	155533	19.44	ppm	-0.02
Spiked Amount 50.000			Recovery = 38.88%			
30) Terphenyl-d14	16.757	244	830925	18.83	ppm	0.00
Spiked Amount 50.000			Recovery = 37.66%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	12999	0.91	ppm	94
5) Phenol	4.544	94	219708	5.01	ppm #	84
6) bis(2-Chloroethyl)ether	4.664	93	34645	1.00	ppm	85
8) Naphthalene	7.292	128	79992	1.04	ppm	97
9) Hexachlorobutadiene	7.574	225	18376	1.04	ppm	78
10) 2-Methylnaphthalene	8.626	141	40846	1.02	ppm	87
11) 1-Methylnaphthalene	8.815	141	43358	0.98	ppm	86
12) Hexachlorocyclopentadiene	8.983	237	33435	2.11	ppm #	94
15) Acenaphthylene	10.379	152	70406	1.03	ppm	96
16) Acenaphthene	10.746	153	50772	0.95	ppm	91
17) Dibenzofuran	11.112	168	61228	0.82	ppm	93
18) Fluorene	11.790	166	61619	0.92	ppm	92
19) 4,6-dinitro-2-methylph...	11.964	198	24140	4.87	ppm	99
20) n-nitrosodiphenylamine	12.088	169	29972	0.90	ppm #	42
21) 1,2-Diphenylhydrazine	12.138	77	66593	1.11	ppm	81
24) Hexachlorobenzene	12.902	284	21342	0.95	ppm	74
25) Pentachlorophenol	13.332	266	41539	4.80	ppm	89
26) Phenanthrene	13.711	178	82435	0.95	ppm	97
27) Anthracene	13.814	178	73436	0.92	ppm	97
28) Fluoranthene	15.983	202	86066	0.93	ppm	97
29) Pyrene	16.379	202	85996	0.92	ppm	96
31) Benzo[a]anthracene	18.474	228	76647	0.93	ppm	99
32) Chrysene	18.531	228	89812	0.98	ppm	99
34) Benzo[b]fluoranthene	20.139	252	85494	0.96	ppm	98
35) Benzo[k]fluoranthene	20.185	252	78934	0.98	ppm	88
36) Benzo[a]pyrene	20.599	252	79356	0.94	ppm	100
37) Indeno[1,2,3-cd]pyrene	22.137	276	88350	0.96	ppm	100
38) Dibenz[a,h]anthracene	22.176	278	72890	0.95	ppm	93
39) Benzo[g,h,i]perylene	22.531	276	78035	0.97	ppm	100

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14949.D
Acq On : 1 Feb 2016 6:22 pm
Operator : juliusj
Sample : icc767-1.0
Misc : op90759a,e4p767
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 02 08:36:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:36:36 2016
Response via : Initial Calibration

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

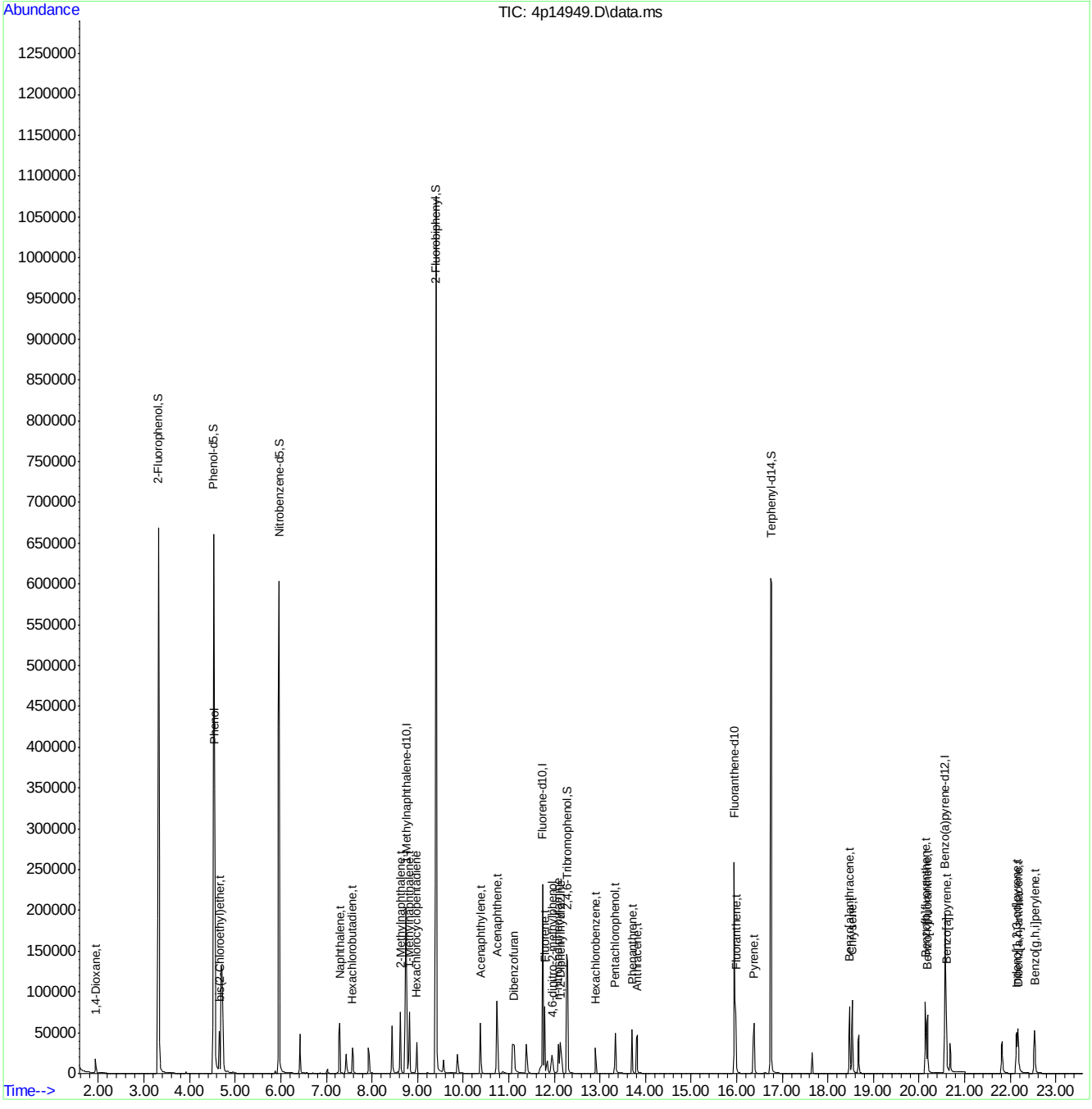
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14949.D
Acq On : 1 Feb 2016 6:22 pm
Operator : juliusj
Sample : icc767-1.0
Misc : op90759a,e4p767
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 02 08:36:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:36:36 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14950.D
Acq On : 1 Feb 2016 6:52 pm
Operator : juliusj
Sample : ic767-0.2
Misc : op90759a,e4p767
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 02 08:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	8.748	150	145085	4.00	ppm		0.00
13) Fluorene-d10	11.737	176	205337	4.00	ppm		0.00
23) Fluoranthene-d10	15.948	212	295085	4.00	ppm		0.00
33) Benzo(a)pyrene-d12	20.569	264	219556	4.00	ppm		0.00
System Monitoring Compounds							
3) 2-Fluorophenol	3.317	112	121045	4.71	ppm		0.00
Spiked Amount 50.000			Recovery	=	9.42%		
4) Phenol-d5	4.527	99	196549	4.48	ppm		0.00
Spiked Amount 50.000			Recovery	=	8.96%		
7) Nitrobenzene-d5	5.961	82	190624	4.63	ppm		0.00
Spiked Amount 50.000			Recovery	=	9.26%		
14) 2-Fluorobiphenyl	9.399	172	303209	5.26	ppm		0.00
Spiked Amount 50.000			Recovery	=	10.52%		
22) 2,4,6-Tribromophenol	12.292	330	35599	4.45	ppm		0.02
Spiked Amount 50.000			Recovery	=	8.90%		
30) Terphenyl-d14	16.740	244	215346	4.76	ppm		-0.02
Spiked Amount 50.000			Recovery	=	9.52%		
Target Compounds							Qvalue
2) 1,4-Dioxane	1.936	88	3945	0.25	ppm		95
5) Phenol	4.544	94	56008	1.08	ppm	#	90
6) bis(2-Chloroethyl)ether	4.664	93	9525	0.23	ppm		97
8) Naphthalene	7.288	128	21877	0.24	ppm		97
9) Hexachlorobutadiene	7.583	225	5059	0.24	ppm		76
10) 2-Methylnaphthalene	8.622	141	11017	0.23	ppm		89
11) 1-Methylnaphthalene	8.811	141	12331	0.24	ppm		91
12) Hexachlorocyclopentadiene	8.979	237	7356	0.38	ppm	#	96
15) Acenaphthylene	10.375	152	15718	0.22	ppm		96
16) Acenaphthene	10.742	153	13206	0.25	ppm		93
17) Dibenzofuran	11.109	168	16808	0.24	ppm	#	59
18) Fluorene	11.786	166	15550	0.24	ppm		93
19) 4,6-dinitro-2-methylph...	11.960	198	4410	0.89	ppm		77
20) n-nitrosodiphenylamine	12.109	169	7432	0.23	ppm	#	59
21) 1,2-Diphenylhydrazine	12.134	77	13964	0.22	ppm		98
24) Hexachlorobenzene	12.902	284	5548	0.24	ppm		99
25) Pentachlorophenol	13.332	266	8078	0.90	ppm		92
26) Phenanthrene	13.711	178	20754	0.23	ppm		99
27) Anthracene	13.814	178	18553	0.23	ppm		98
28) Fluoranthene	15.983	202	22071	0.23	ppm		98
29) Pyrene	16.379	202	21140	0.22	ppm		98
31) Benzo[a]anthracene	18.476	228	18242	0.22	ppm		98
32) Chrysene	18.533	228	22239	0.23	ppm		99
34) Benzo[b]fluoranthene	20.143	252	22094	0.25	ppm		94
35) Benzo[k]fluoranthene	20.178	252	18051	0.22	ppm		92
36) Benzo[a]pyrene	20.592	252	20902	0.25	ppm		92
37) Indeno[1,2,3-cd]pyrene	22.139	276	22157	0.24	ppm		100
38) Dibenz[a,h]anthracene	22.178	278	18223	0.24	ppm		97
39) Benzo[g,h,i]perylene	22.533	276	19966	0.24	ppm		100

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14950.D
Acq On : 1 Feb 2016 6:52 pm
Operator : juliusj
Sample : ic767-0.2
Misc : op90759a,e4p767
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 02 08:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:27 2016
Response via : Initial Calibration

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

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

9.6.16

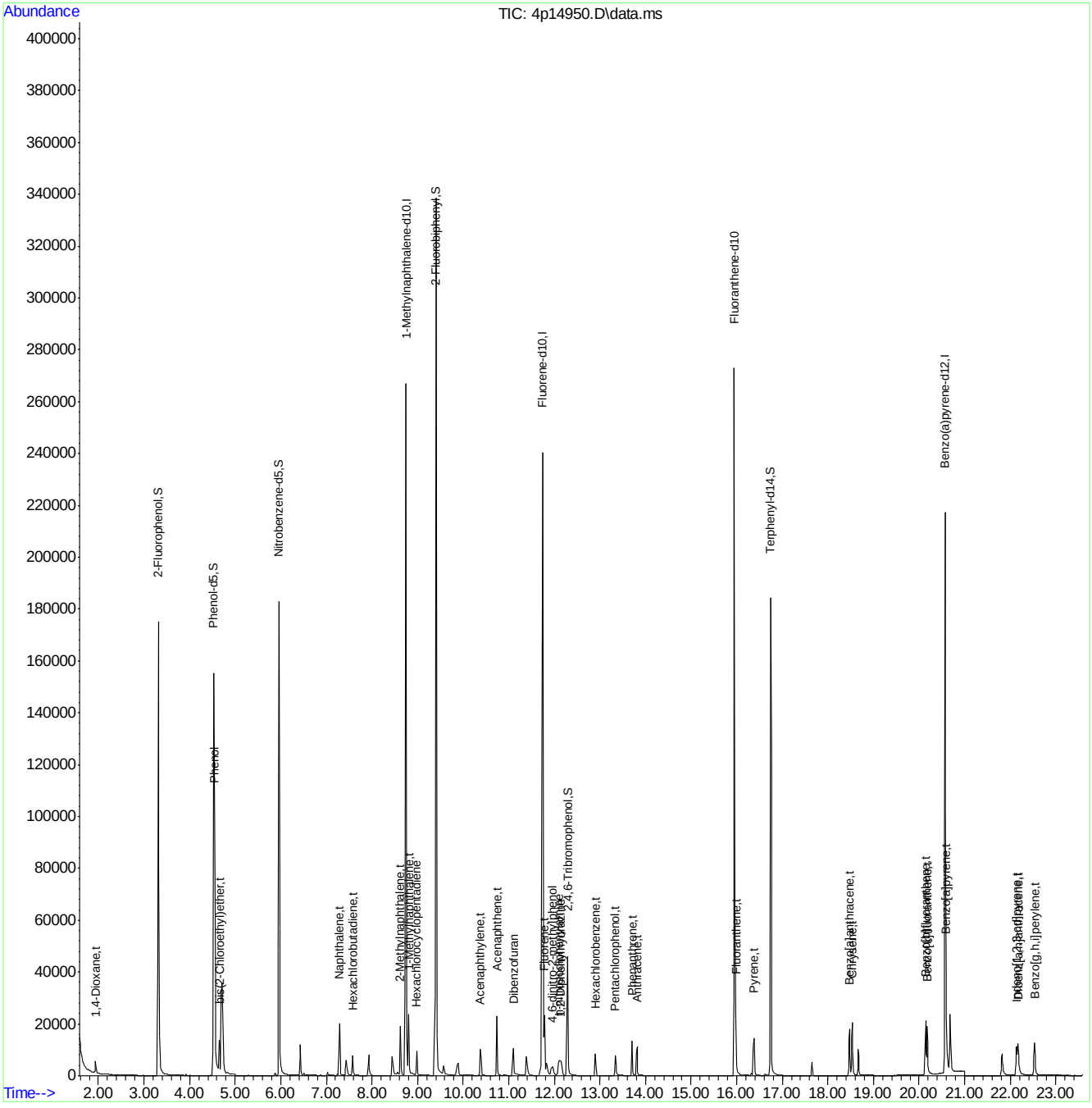
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14950.D
Acq On : 1 Feb 2016 6:52 pm
Operator : juliusj
Sample : ic767-0.2
Misc : op90759a,e4p767
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 02 08:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:27 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14951.D
Acq On : 1 Feb 2016 7:22 pm
Operator : juliusj
Sample : ic767-0.1
Misc : op90759a,e4p767
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 02 08:38:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:56 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.752	150	132054	4.00	ppm	0.00
13) Fluorene-d10	11.741	176	209961	4.00	ppm	0.00
23) Fluoranthene-d10	15.948	212	305759	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	232454	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	47888	1.93	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.86%	
4) Phenol-d5	4.527	99	70492	1.70	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.40%	
7) Nitrobenzene-d5	5.965	82	73864	1.87	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.74%	
14) 2-Fluorobiphenyl	9.403	172	114140	1.75	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.50%	
22) 2,4,6-Tribromophenol	12.275	330	14159	1.67	ppm	-0.02
Spiked Amount 50.000			Recovery	=	3.34%	
30) Terphenyl-d14	16.740	244	95651	1.92	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.84%	
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	2122	0.14	ppm	89
5) Phenol	4.544	94	21748	0.45	ppm	92
6) bis(2-Chloroethyl)ether	4.664	93	3770	0.10	ppm	98
8) Naphthalene	7.292	128	9014	0.10	ppm	97
9) Hexachlorobutadiene	7.574	225	2096	0.10	ppm	79
10) 2-Methylnaphthalene	8.626	141	4365	0.10	ppm	87
11) 1-Methylnaphthalene	8.815	141	4709	0.09	ppm	87
12) Hexachlorocyclopentadiene	8.983	237	2385	0.14	ppm #	94
15) Acenaphthylene	10.379	152	7582	0.10	ppm	96
16) Acenaphthene	10.746	153	5375	0.09	ppm	90
17) Dibenzofuran	11.112	168	6986	0.09	ppm	96
18) Fluorene	11.790	166	6161	0.09	ppm	95
19) 4,6-dinitro-2-methylph...	11.964	198	1392	0.28	ppm	95
20) n-nitrosodiphenylamine	12.113	169	3000	0.09	ppm	98
21) 1,2-Diphenylhydrazine	12.138	77	6136	0.09	ppm	98
24) Hexachlorobenzene	12.902	284	2427	0.10	ppm	98
25) Pentachlorophenol	13.332	266	2979	0.33	ppm	98
26) Phenanthrene	13.711	178	8866	0.09	ppm	100
27) Anthracene	13.814	178	7716	0.09	ppm	98
28) Fluoranthene	15.983	202	9503	0.09	ppm	99
29) Pyrene	16.379	202	9526	0.09	ppm	99
31) Benzo[a]anthracene	18.476	228	8236	0.09	ppm	99
32) Chrysene	18.533	228	10118	0.10	ppm	100
34) Benzo[b]fluoranthene	20.143	252	9717	0.09	ppm	99
35) Benzo[k]fluoranthene	20.178	252	7667	0.09	ppm	99
36) Benzo[a]pyrene	20.592	252	9527	0.10	ppm	100
37) Indeno[1,2,3-cd]pyrene	22.132	276	9916	0.09	ppm	95
38) Dibenz[a,h]anthracene	22.180	278	8164	0.09	ppm	97
39) Benzo[g,h,i]perylene	22.525	276	9060	0.10	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14951.D
Acq On : 1 Feb 2016 7:22 pm
Operator : juliusj
Sample : ic767-0.1
Misc : op90759a,e4p767
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 02 08:38:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:56 2016
Response via : Initial Calibration

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

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

9.6.17

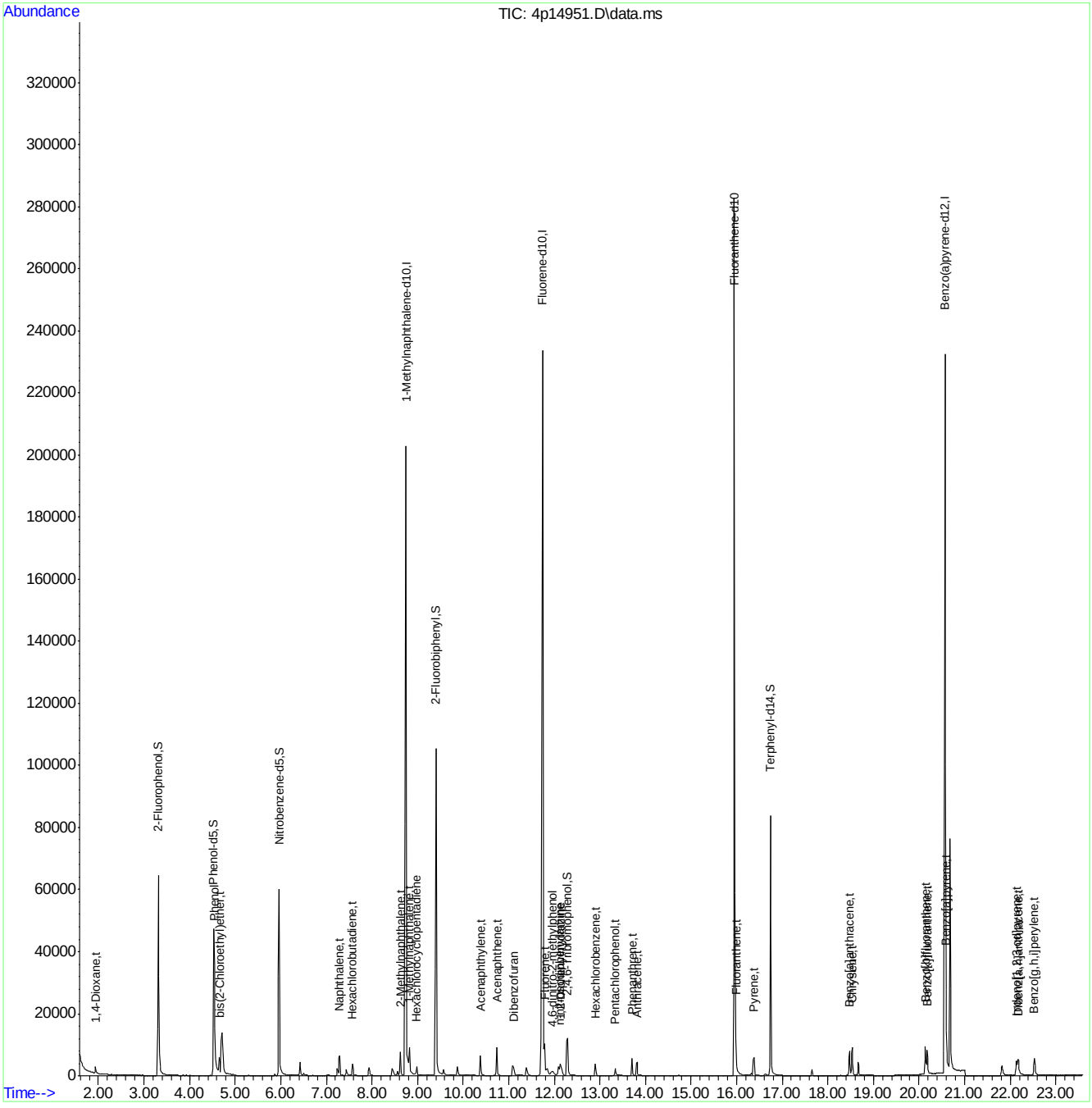
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14951.D
Acq On : 1 Feb 2016 7:22 pm
Operator : juliusj
Sample : ic767-0.1
Misc : op90759a,e4p767
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 02 08:38:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:56 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14952.D
Acq On : 1 Feb 2016 7:53 pm
Operator : juliusj
Sample : ic767-0.05
Misc : op90759a,e4p767
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 02 08:38:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:38:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.748	150	136992	4.00	ppm	0.00
13) Fluorene-d10	11.737	176	216131	4.00	ppm	0.00
23) Fluoranthene-d10	15.948	212	316972	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	227941	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	22318	0.88	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.76%	
4) Phenol-d5	4.527	99	33544	0.81	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.62%	
7) Nitrobenzene-d5	5.961	82	33652	0.84	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.68%	
14) 2-Fluorobiphenyl	9.399	172	57575	0.89	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.78%	
22) 2,4,6-Tribromophenol	12.292	330	6297	0.75	ppm	0.02
Spiked Amount 50.000			Recovery	=	1.50%	
30) Terphenyl-d14	16.740	244	44624	0.87	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.74%	
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	1363	0.08	ppm	99
5) Phenol	4.544	94	9585	0.20	ppm	92
6) bis(2-Chloroethyl)ether	4.664	93	1756	0.04	ppm	97
8) Naphthalene	7.288	128	4261	0.05	ppm	99
9) Hexachlorobutadiene	7.570	225	982	0.05	ppm	95
10) 2-Methylnaphthalene	8.622	141	2189	0.05	ppm	90
11) 1-Methylnaphthalene	8.811	141	2330	0.05	ppm	96
12) Hexachlorocyclopentadiene	8.979	237	867	0.05	ppm #	97
15) Acenaphthylene	10.375	152	3477	0.05	ppm	99
16) Acenaphthene	10.742	153	2565	0.04	ppm	94
17) Dibenzofuran	11.109	168	3527	0.05	ppm	94
18) Fluorene	11.786	166	3019	0.04	ppm	97
19) 4,6-dinitro-2-methylph...	11.960	198	564	0.13	ppm #	52
20) n-nitrosodiphenylamine	12.109	169	1405	0.04	ppm	94
21) 1,2-Diphenylhydrazine	12.134	77	2649	0.04	ppm	99
24) Hexachlorobenzene	12.902	284	1154	0.04	ppm	99
25) Pentachlorophenol	13.332	266	1326	0.16	ppm	99
26) Phenanthrene	13.694	178	4209	0.04	ppm	88
27) Anthracene	13.797	178	3720	0.04	ppm	88
28) Fluoranthene	15.983	202	4623	0.04	ppm	100
29) Pyrene	16.361	202	4438	0.04	ppm	86
31) Benzo[a]anthracene	18.476	228	3634	0.04	ppm	99
32) Chrysene	18.533	228	4782	0.04	ppm	97
34) Benzo[b]fluoranthene	20.143	252	3809	0.04	ppm	98
35) Benzo[k]fluoranthene	20.178	252	4112	0.05	ppm	97
36) Benzo[a]pyrene	20.592	252	5408	0.06	ppm	98
37) Indeno[1,2,3-cd]pyrene	22.139	276	4688	0.05	ppm	94
38) Dibenz[a,h]anthracene	22.178	278	3737	0.04	ppm	94
39) Benzo[g,h,i]perylene	22.523	276	4314	0.05	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14952.D
Acq On : 1 Feb 2016 7:53 pm
Operator : juliusj
Sample : ic767-0.05
Misc : op90759a,e4p767
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 02 08:38:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:38:22 2016
Response via : Initial Calibration

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

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

9.6.18

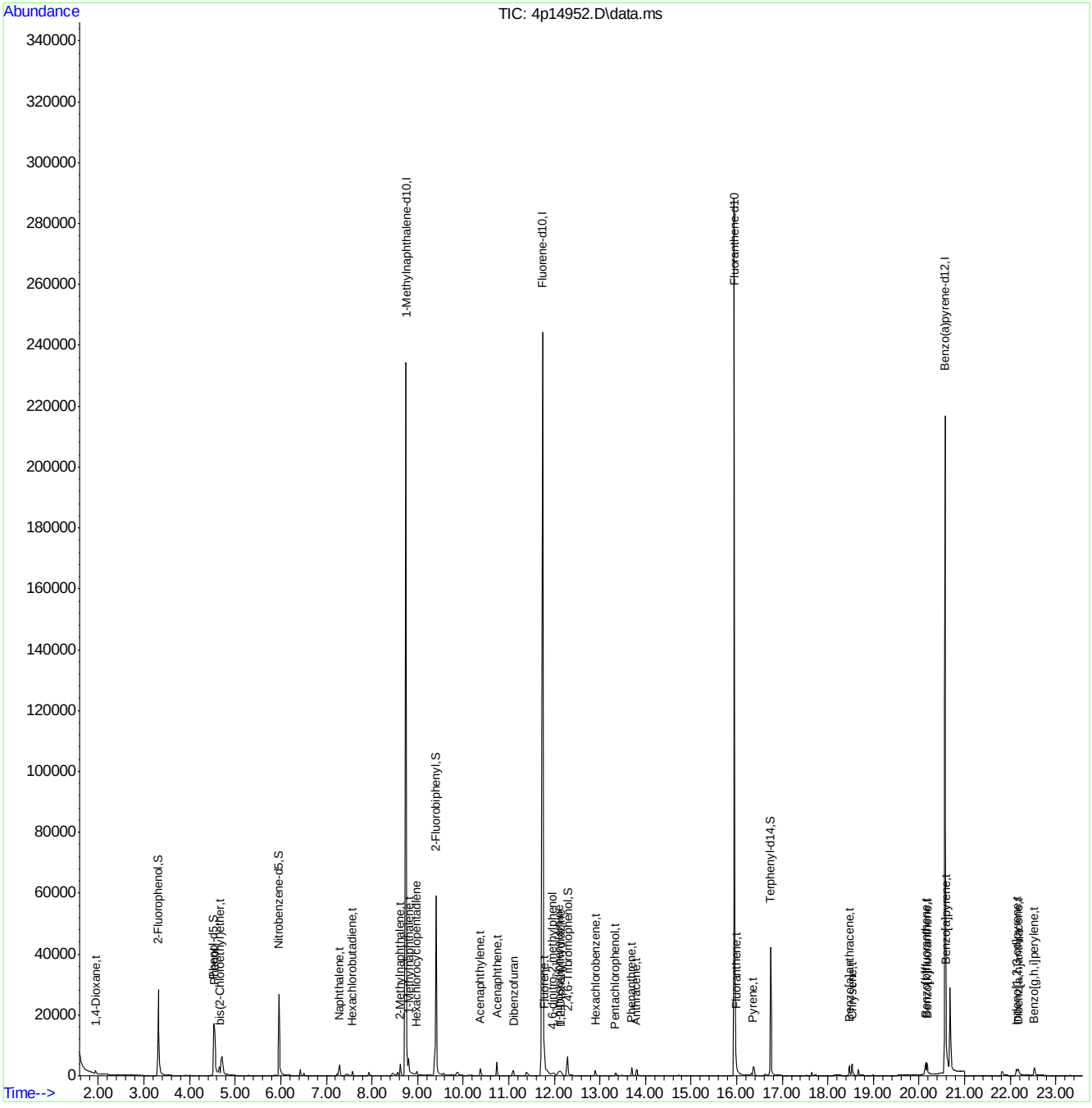
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14952.D
Acq On : 1 Feb 2016 7:53 pm
Operator : juliusj
Sample : ic767-0.05
Misc : op90759a,e4p767
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 02 08:38:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:38:22 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:39:23 2016 Page: 3

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14953.D
Acq On : 1 Feb 2016 8:23 pm
Operator : juliusj
Sample : ic767-0.02
Misc : op90759a,e4p767
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 02 08:40:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:39:25 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	8.752	150	120159	4.00 ppm	0.00
13) Fluorene-d10	11.741	176	182801	4.00 ppm	0.00
23) Fluoranthene-d10	15.949	212	292186	4.00 ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	207117	4.00 ppm	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	3.331	112	8478	0.39 ppm	0.01
Spiked Amount 50.000			Recovery	= 0.78%	
4) Phenol-d5	4.527	99	11659	0.33 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.66%	
7) Nitrobenzene-d5	5.965	82	12369	0.36 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.72%	
14) 2-Fluorobiphenyl	9.403	172	19721	0.37 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.74%	
22) 2,4,6-Tribromophenol	12.275	330	2315	0.33 ppm	-0.02
Spiked Amount 50.000			Recovery	= 0.66%	
30) Terphenyl-d14	16.740	244	17335	0.38 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.76%	
Target Compounds					Qvalue
5) Phenol	4.544	94	3336	0.08 ppm #	86
6) bis(2-Chloroethyl)ether	4.665	93	1026	0.03 ppm	93
8) Naphthalene	7.279	128	1706	0.02 ppm	93
9) Hexachlorobutadiene	7.574	225	404	0.02 ppm	88
10) 2-Methylnaphthalene	8.626	141	718	0.02 ppm	84
11) 1-Methylnaphthalene	8.815	141	811	0.02 ppm	89
12) Hexachlorocyclopentadiene	8.983	237	213	0.01 ppm #	89
15) Acenaphthylene	10.379	152	1602	0.03 ppm	96
16) Acenaphthene	10.746	153	927	0.02 ppm	88
17) Dibenzofuran	11.113	168	1314	0.02 ppm	94
18) Fluorene	11.790	166	959	0.02 ppm	87
19) 4,6-dinitro-2-methylph...	11.964	198	207	0.06 ppm	92
20) n-nitrosodiphenylamine	12.113	169	561	0.02 ppm	98
21) 1,2-Diphenylhydrazine	12.138	77	1074	0.02 ppm	97
24) Hexachlorobenzene	12.902	284	472	0.02 ppm	95
25) Pentachlorophenol	13.350	266	526	0.07 ppm	90
26) Phenanthrene	13.694	178	1651	0.02 ppm	97
27) Anthracene	13.797	178	1451	0.02 ppm	96
28) Fluoranthene	15.966	202	2202	0.02 ppm	90
29) Pyrene	16.362	202	1837	0.02 ppm	99
31) Benzo[a]anthracene	18.476	228	1464	0.02 ppm	97
32) Chrysene	18.524	228	1859	0.02 ppm	89
34) Benzo[b]fluoranthene	20.143	252	1474	0.02 ppm	100
35) Benzo[k]fluoranthene	20.178	252	1590	0.02 ppm	96
36) Benzo[a]pyrene	20.592	252	1700	0.02 ppm	95
37) Indeno[1,2,3-cd]pyrene	22.132	276	1903	0.02 ppm	94
38) Dibenz[a,h]anthracene	22.180	278	1551	0.02 ppm	97
39) Benzo[g,h,i]perylene	22.525	276	1757	0.02 ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14953.D
Acq On : 1 Feb 2016 8:23 pm
Operator : juliusj
Sample : ic767-0.02
Misc : op90759a,e4p767
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 02 08:40:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:39:25 2016
Response via : Initial Calibration

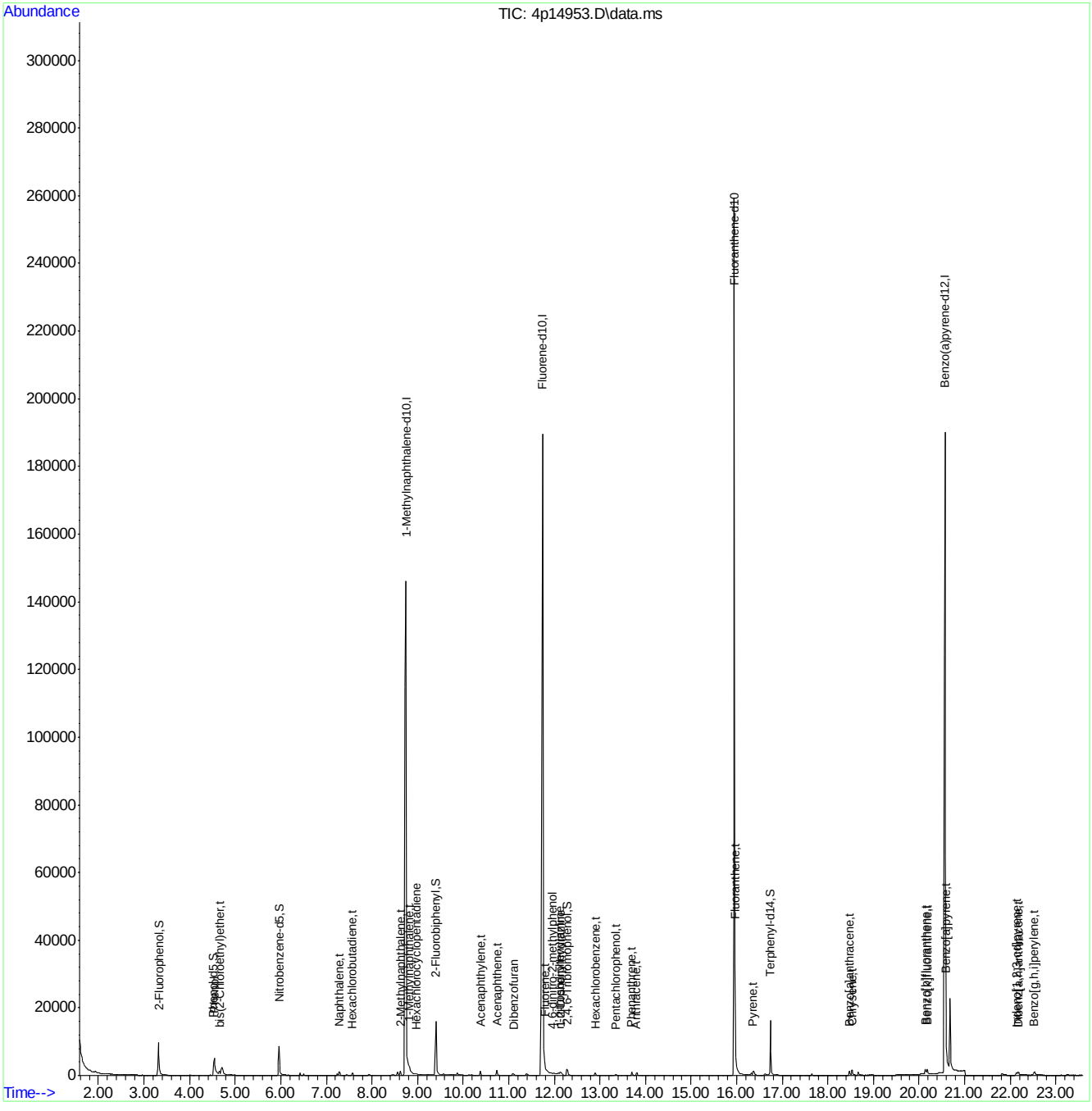
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14953.D
Acq On : 1 Feb 2016 8:23 pm
Operator : juliusj
Sample : ic767-0.02
Misc : op90759a,e4p767
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 02 08:40:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:39:25 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14954.D
Acq On : 1 Feb 2016 8:53 pm
Operator : juliusj
Sample : ic767-0.01
Misc : op90759a,e4p767
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 02 08:40:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:40:24 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	8.752	150	104757	4.00 ppm	0.00
13) Fluorene-d10	11.740	176	158214	4.00 ppm	0.00
23) Fluoranthene-d10	15.948	212	254166	4.00 ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	185992	4.00 ppm	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	3.330	112	3607	0.19 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.38%	
4) Phenol-d5	4.544	99	4128	0.14 ppm	0.02
Spiked Amount 50.000			Recovery	= 0.28%	
7) Nitrobenzene-d5	5.964	82	4995	0.17 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.34%	
14) 2-Fluorobiphenyl	9.403	172	8607	0.19 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.38%	
22) 2,4,6-Tribromophenol	12.275	330	1045	0.17 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.34%	
30) Terphenyl-d14	16.740	244	7255	0.18 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.36%	
Target Compounds					Qvalue
5) Phenol	4.544	94	1217	0.04 ppm #	60
6) bis(2-Chloroethyl)ether	4.664	93	248	0.01 ppm	95
8) Naphthalene	7.279	128	699	0.01 ppm	98
9) Hexachlorobutadiene	7.574	225	177	0.01 ppm	95
10) 2-Methylnaphthalene	8.626	141	333	0.01 ppm	99
11) 1-Methylnaphthalene	8.815	141	379	0.01 ppm	97
15) Acenaphthylene	10.379	152	646	0.01 ppm	97
16) Acenaphthene	10.746	153	422	0.01 ppm	94
17) Dibenzofuran	11.112	168	564	0.01 ppm	92
18) Fluorene	11.790	166	415	0.01 ppm	99
20) n-nitrosodiphenylamine	12.113	169	225	0.01 ppm	85
21) 1,2-Diphenylhydrazine	12.138	77	503	0.01 ppm	94
24) Hexachlorobenzene	12.902	284	211	0.01 ppm	96
25) Pentachlorophenol	13.350	266	236	0.04 ppm	93
26) Phenanthrene	13.694	178	747	0.01 ppm	97
27) Anthracene	13.797	178	562	0.01 ppm	97
28) Fluoranthene	15.966	202	1153	0.01 ppm	97
29) Pyrene	16.361	202	833	0.01 ppm	99
31) Benzo[a]anthracene	18.476	228	694	0.01 ppm	95
32) Chrysene	18.533	228	876	0.01 ppm	90
34) Benzo[b]fluoranthene	20.143	252	741	0.01 ppm	97
35) Benzo[k]fluoranthene	20.177	252	765	0.01 ppm	98
36) Benzo[a]pyrene	20.592	252	681	0.01 ppm	91
37) Indeno[1,2,3-cd]pyrene	22.139	276	776	0.01 ppm	96
38) Dibenz[a,h]anthracene	22.178	278	574	0.01 ppm	80
39) Benzo[g,h,i]perylene	22.533	276	756	0.01 ppm	87

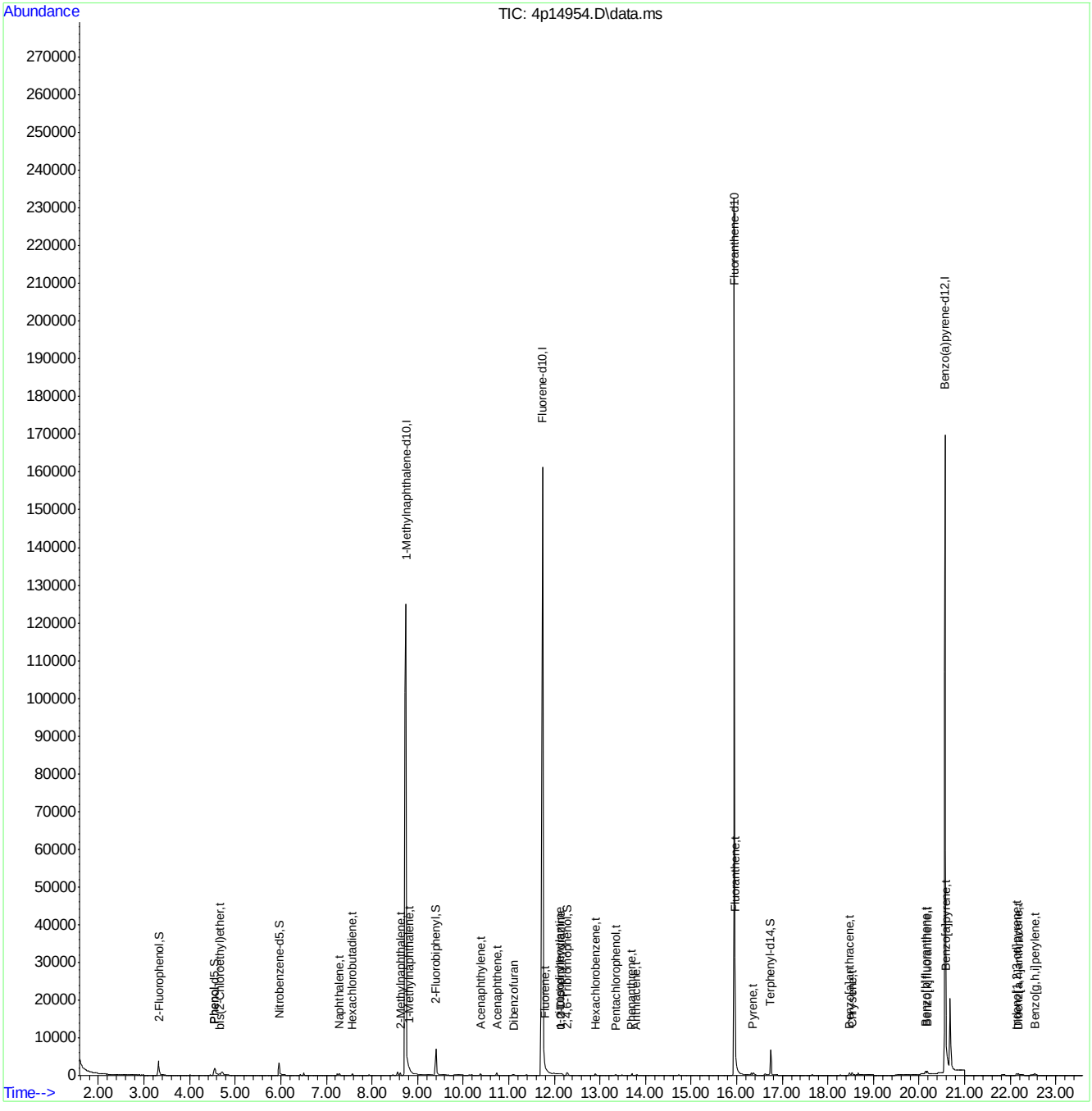
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14954.D
Acq On : 1 Feb 2016 8:53 pm
Operator : juliusj
Sample : ic767-0.01
Misc : op90759a,e4p767
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 02 08:40:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:40:24 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:41:06 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14955.D
Acq On : 1 Feb 2016 9:23 pm
Operator : juliusj
Sample : ic767-5
Misc : op90759a,e4p767
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 02 08:41:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:29 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.748	150	147959	4.00	ppm	0.00
13) Fluorene-d10	11.737	176	258328	4.00	ppm	0.00
23) Fluoranthene-d10	15.948	212	320902	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.565	264	243905	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	2265128	84.76	ppm	-0.01
Spiked Amount 50.000			Recovery = 169.52%			
4) Phenol-d5	4.527	99	3935833	93.98	ppm	-0.02
Spiked Amount 50.000			Recovery = 187.96%			
7) Nitrobenzene-d5	5.961	82	3896890	94.12	ppm	0.00
Spiked Amount 50.000			Recovery = 188.24%			
14) 2-Fluorobiphenyl	9.399	172	5148616	68.80	ppm	0.00
Spiked Amount 50.000			Recovery = 137.60%			
22) 2,4,6-Tribromophenol	12.292	330	954779	95.38	ppm	0.02
Spiked Amount 50.000			Recovery = 190.76%			
30) Terphenyl-d14	16.757	244	4662020	94.41	ppm	0.02
Spiked Amount 50.000			Recovery = 188.82%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	66645	3.14	ppm	83
5) Phenol	4.544	94	1328137	27.13	ppm #	68
6) bis(2-Chloroethyl)ether	4.647	93	192097	4.34	ppm #	1
8) Naphthalene	7.288	128	442742	4.45	ppm	90
9) Hexachlorobutadiene	7.570	225	104259	4.46	ppm	95
10) 2-Methylnaphthalene	8.622	141	231667	4.76	ppm	97
11) 1-Methylnaphthalene	8.811	141	236764	4.43	ppm	97
12) Hexachlorocyclopentadiene	8.979	237	233903	13.15	ppm #	90
15) Acenaphthylene	10.375	152	429863	4.75	ppm	98
16) Acenaphthene	10.742	153	286318	4.20	ppm	98
17) Dibenzofuran	11.109	168	353260	3.93	ppm	59
18) Fluorene	11.786	166	359666	4.39	ppm	90
19) 4,6-dinitro-2-methylph...	11.960	198	229380	47.48	ppm #	43
20) n-nitrosodiphenylamine	12.084	169	175918	4.45	ppm #	33
21) 1,2-Diphenylhydrazine	12.134	77	393374	5.07	ppm	96
24) Hexachlorobenzene	12.902	284	123053	4.74	ppm	99
25) Pentachlorophenol	13.332	266	299383	37.53	ppm	90
26) Phenanthrene	13.694	178	467876	4.89	ppm	97
27) Anthracene	13.797	178	460331	5.52	ppm	95
28) Fluoranthene	15.966	202	476251	4.59	ppm	96
29) Pyrene	16.361	202	498486	4.89	ppm	99
31) Benzo[a]anthracene	18.474	228	450888	5.11	ppm	97
32) Chrysene	18.531	228	499873	4.69	ppm	97
34) Benzo[b]fluoranthene	20.139	252	515074	4.86	ppm	97
35) Benzo[k]fluoranthene	20.174	252	437947	4.83	ppm	93
36) Benzo[a]pyrene	20.588	252	435724	4.20	ppm	90
37) Indeno[1,2,3-cd]pyrene	22.128	276	491748	4.54	ppm	97
38) Dibenz[a,h]anthracene	22.166	278	414126	4.64	ppm	82
39) Benzo[g,h,i]perylene	22.521	276	430681	4.45	ppm	95

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14955.D
Acq On : 1 Feb 2016 9:23 pm
Operator : juliusj
Sample : ic767-5
Misc : op90759a,e4p767
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 02 08:41:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:29 2016
Response via : Initial Calibration

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

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

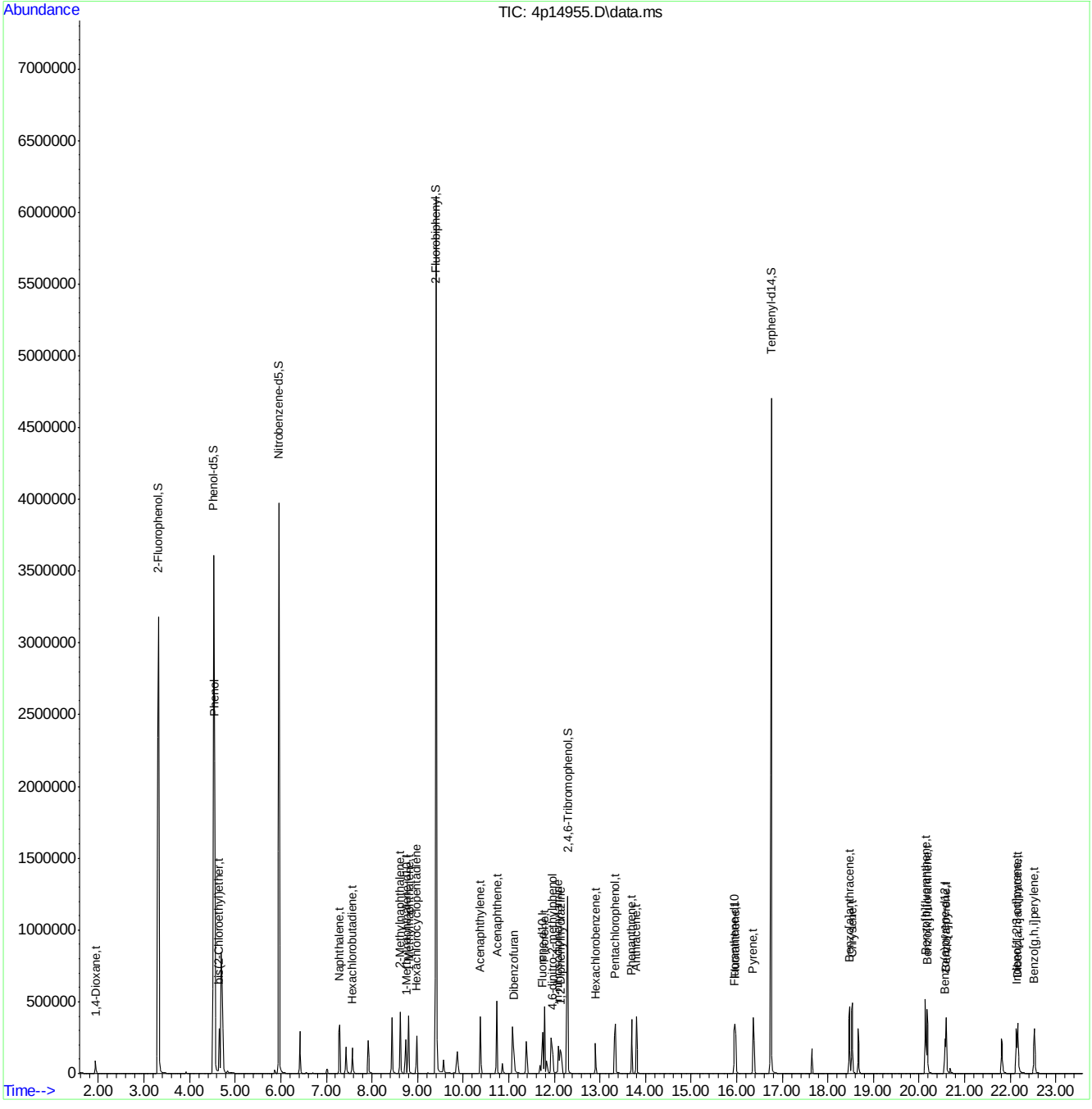
9.6.21

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14955.D
Acq On : 1 Feb 2016 9:23 pm
Operator : juliusj
Sample : ic767-5
Misc : op90759a,e4p767
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 02 08:41:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:29 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14956.D
Acq On : 1 Feb 2016 9:54 pm
Operator : juliusj
Sample : ic767-2.5
Misc : op90759a,e4p767
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 02 08:42:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.748	150	131488	4.00	ppm	0.00
13) Fluorene-d10	11.737	176	217765	4.00	ppm	0.00
23) Fluoranthene-d10	15.949	212	289783	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	214983	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	1104808	47.55	ppm	0.00
Spiked Amount 50.000			Recovery = 95.10%			
4) Phenol-d5	4.527	99	1968442	53.35	ppm	0.00
Spiked Amount 50.000			Recovery = 106.70%			
7) Nitrobenzene-d5	5.961	82	1874633	51.38	ppm	0.00
Spiked Amount 50.000			Recovery = 102.76%			
14) 2-Fluorobiphenyl	9.400	172	2773421	43.97	ppm	0.00
Spiked Amount 50.000			Recovery = 87.94%			
22) 2,4,6-Tribromophenol	12.271	330	428301	51.23	ppm	-0.02
Spiked Amount 50.000			Recovery = 102.46%			
30) Terphenyl-d14	16.740	244	2198427	49.65	ppm	-0.02
Spiked Amount 50.000			Recovery = 99.30%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	32589	1.84	ppm	97
5) Phenol	4.544	94	560303	12.73	ppm	95
6) bis(2-Chloroethyl)ether	4.647	93	98416	2.54	ppm #	60
8) Naphthalene	7.289	128	210646	2.42	ppm	100
9) Hexachlorobutadiene	7.570	225	49897	2.43	ppm	100
10) 2-Methylnaphthalene	8.622	141	110885	2.58	ppm	99
11) 1-Methylnaphthalene	8.811	141	112725	2.41	ppm	99
12) Hexachlorocyclopentadiene	8.979	237	103176	6.14	ppm #	100
15) Acenaphthylene	10.376	152	198788	2.63	ppm	99
16) Acenaphthene	10.742	153	133042	2.36	ppm	98
17) Dibenzofuran	11.109	168	168366	2.30	ppm	88
18) Fluorene	11.787	166	165961	2.45	ppm	100
19) 4,6-dinitro-2-methylph...	11.960	198	84461	18.04	ppm	90
20) n-nitrosodiphenylamine	12.084	169	85054	2.60	ppm	96
21) 1,2-Diphenylhydrazine	12.134	77	189225	2.89	ppm	99
24) Hexachlorobenzene	12.902	284	58915	2.53	ppm	99
25) Pentachlorophenol	13.333	266	133535	17.11	ppm	99
26) Phenanthrene	13.694	178	224887	2.61	ppm	99
27) Anthracene	13.797	178	209233	2.74	ppm	100
28) Fluoranthene	15.966	202	228787	2.48	ppm	99
29) Pyrene	16.362	202	230938	2.52	ppm	99
31) Benzo[a]anthracene	18.466	228	205091	2.56	ppm	92
32) Chrysene	18.524	228	232864	2.45	ppm	90
34) Benzo[b]fluoranthene	20.143	252	216289	2.33	ppm	97
35) Benzo[k]fluoranthene	20.178	252	225992	2.85	ppm	98
36) Benzo[a]pyrene	20.592	252	205121	2.31	ppm	95
37) Indeno[1,2,3-cd]pyrene	22.130	276	230288	2.46	ppm	98
38) Dibenz[a,h]anthracene	22.168	278	191422	2.47	ppm	99
39) Benzo[g,h,i]perylene	22.524	276	204234	2.45	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14956.D
Acq On : 1 Feb 2016 9:54 pm
Operator : juliusj
Sample : ic767-2.5
Misc : op90759a,e4p767
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 02 08:42:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:54 2016
Response via : Initial Calibration

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

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

9.6.22

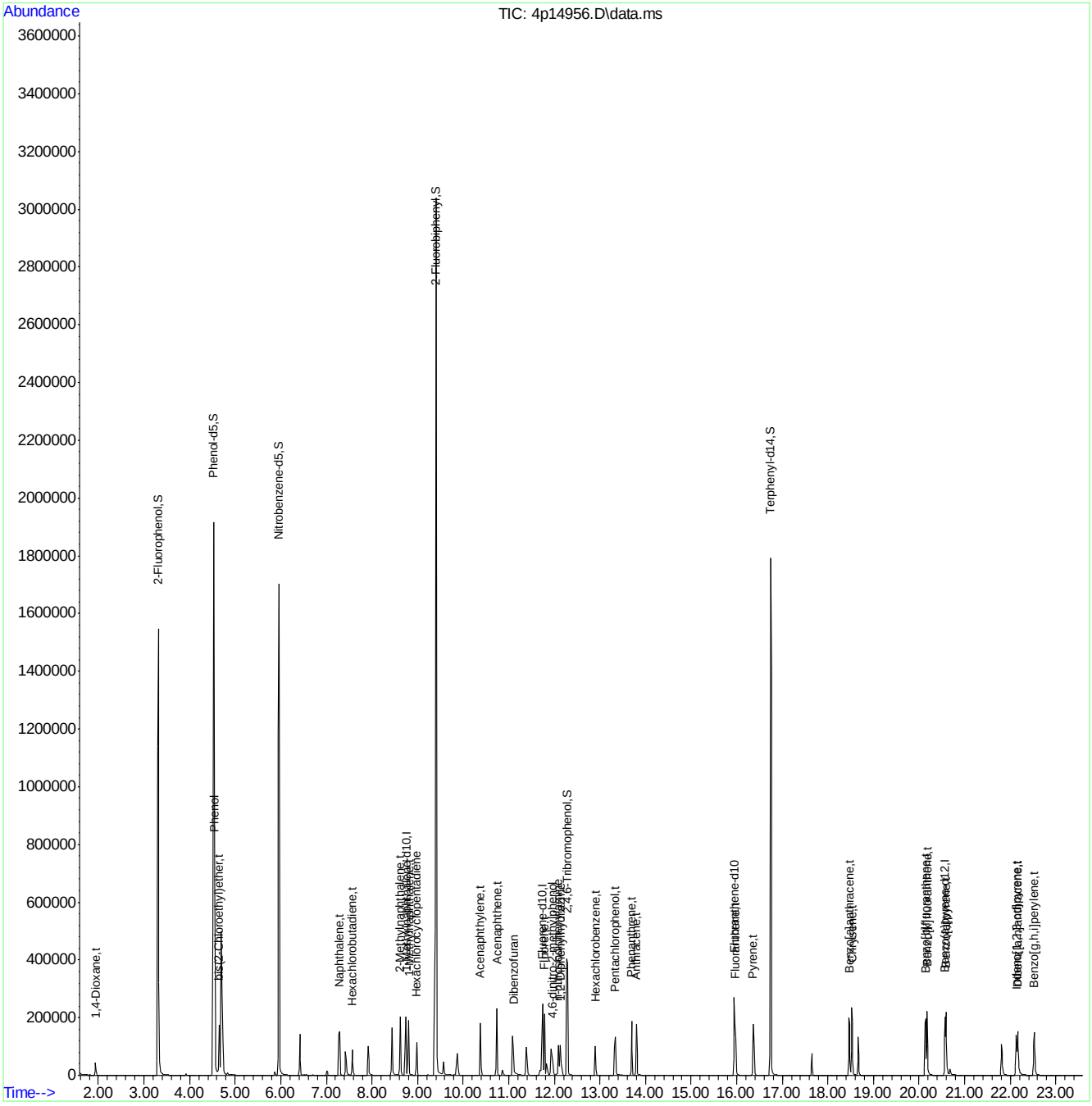
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14956.D
Acq On : 1 Feb 2016 9:54 pm
Operator : juliusj
Sample : ic767-2.5
Misc : op90759a,e4p767
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 02 08:42:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:54 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:42:17 2016 Page: 3

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14957.D
Acq On : 1 Feb 2016 10:24 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 02 08:46:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:46:07 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	8.748	150	119320	4.00	ppm		0.00
13) Fluorene-d10	11.737	176	186403	4.00	ppm		0.00
23) Fluoranthene-d10	15.948	212	280630	4.00	ppm		0.00
33) Benzo(a)pyrene-d12	20.569	264	195953	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%		
14) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
22) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
30) Terphenyl-d14	0.000	244	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
Target Compounds							Qvalue
6) bis(2-Chloroethyl)ether	4.647	93	39800	1.13	ppm	#	60
8) Naphthalene	7.275	128	75350	0.96	ppm		92
9) Hexachlorobutadiene	7.570	225	18394	0.99	ppm		94
10) 2-Methylnaphthalene	8.622	141	37200	0.95	ppm		94
15) Acenaphthylene	10.375	152	66208	1.02	ppm		99
16) Acenaphthene	10.742	153	47469	0.99	ppm		94
17) Dibenzofuran	11.109	168	60050	0.97	ppm	#	60
18) Fluorene	11.786	166	54825	0.95	ppm		96
20) n-nitrosodiphenylamine	12.084	169	27511	0.98	ppm		97
21) 1,2-Diphenylhydrazine	12.134	77	59973	1.05	ppm		99
24) Hexachlorobenzene	12.902	284	21121	0.94	ppm		86
26) Phenanthrene	13.694	178	84406	1.01	ppm		91
27) Anthracene	13.797	178	66501	0.89	ppm		90
28) Fluoranthene	15.966	202	86423	0.97	ppm		90
29) Pyrene	16.361	202	81576	0.92	ppm		88
31) Benzo[a]anthracene	18.466	228	71319	0.92	ppm		97
32) Chrysene	18.524	228	92171	1.00	ppm		96
34) Benzo[b]fluoranthene	20.132	252	69078	0.85	ppm		95
35) Benzo[k]fluoranthene	20.178	252	76748	1.04	ppm		96
36) Benzo[a]pyrene	20.592	252	69102	0.86	ppm		97
37) Indeno[1,2,3-cd]pyrene	22.130	276	77075	0.91	ppm		98
38) Dibenz[a,h]anthracene	22.168	278	64176	0.92	ppm		94
39) Benzo[g,h,i]perylene	22.523	276	71534	0.95	ppm		99

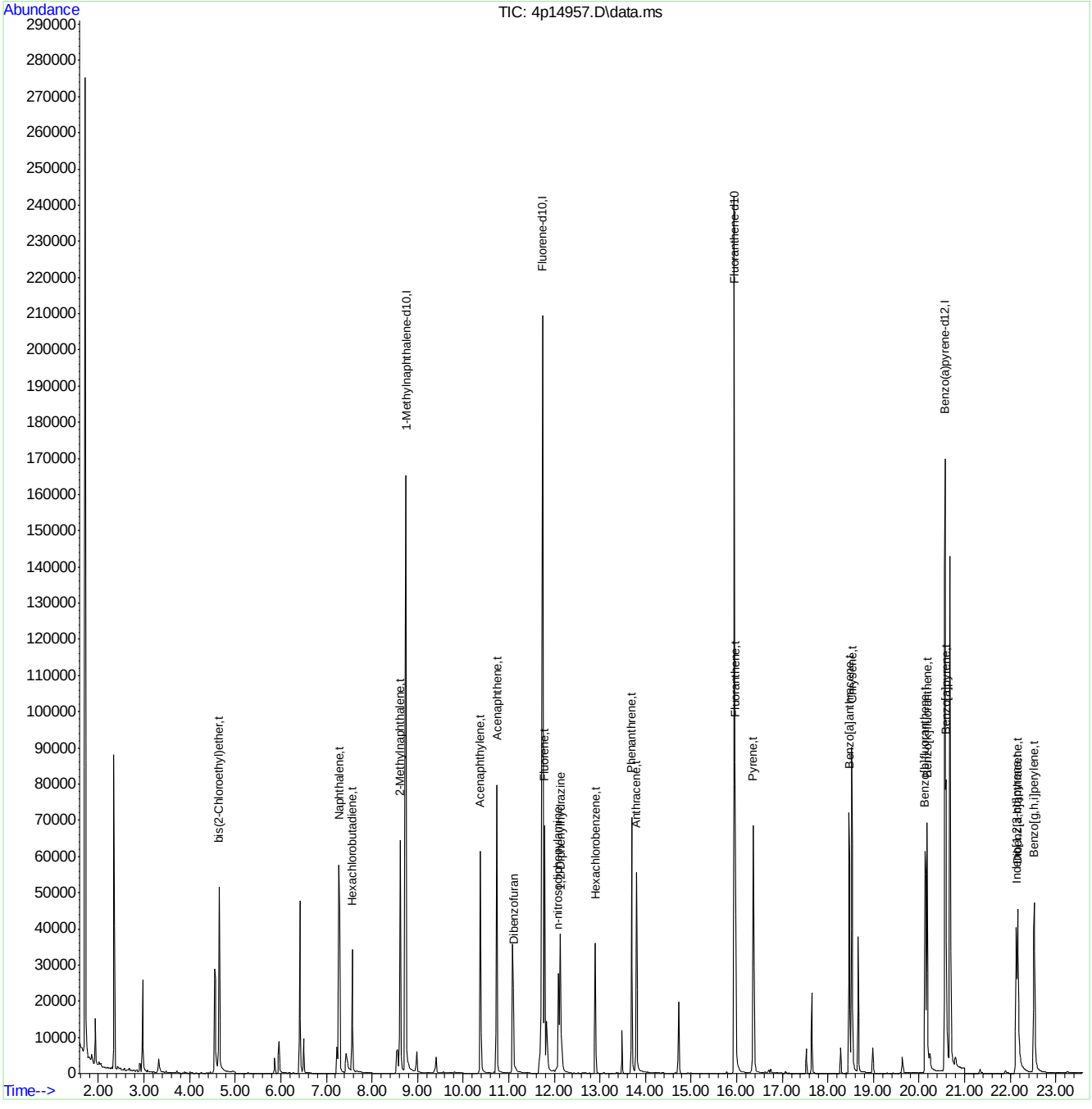
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14957.D
Acq On : 1 Feb 2016 10:24 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 02 08:46:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:46:07 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:51:51 2016 Page: 2

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14958.D
Acq On : 1 Feb 2016 10:54 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 02 08:51:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:47:59 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.731	150	99683	4.00	ppm	-0.02
13) Fluorene-d10	11.741	176	128179	4.00	ppm	0.00
23) Fluoranthene-d10	15.949	212	220510	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.565	264	158253	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	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
7) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
14) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
22) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
30) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	10074	0.94	ppm	# 63
11) 1-Methylnaphthalene	8.794	141	32115	0.91	ppm	# 62

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

9.6.24

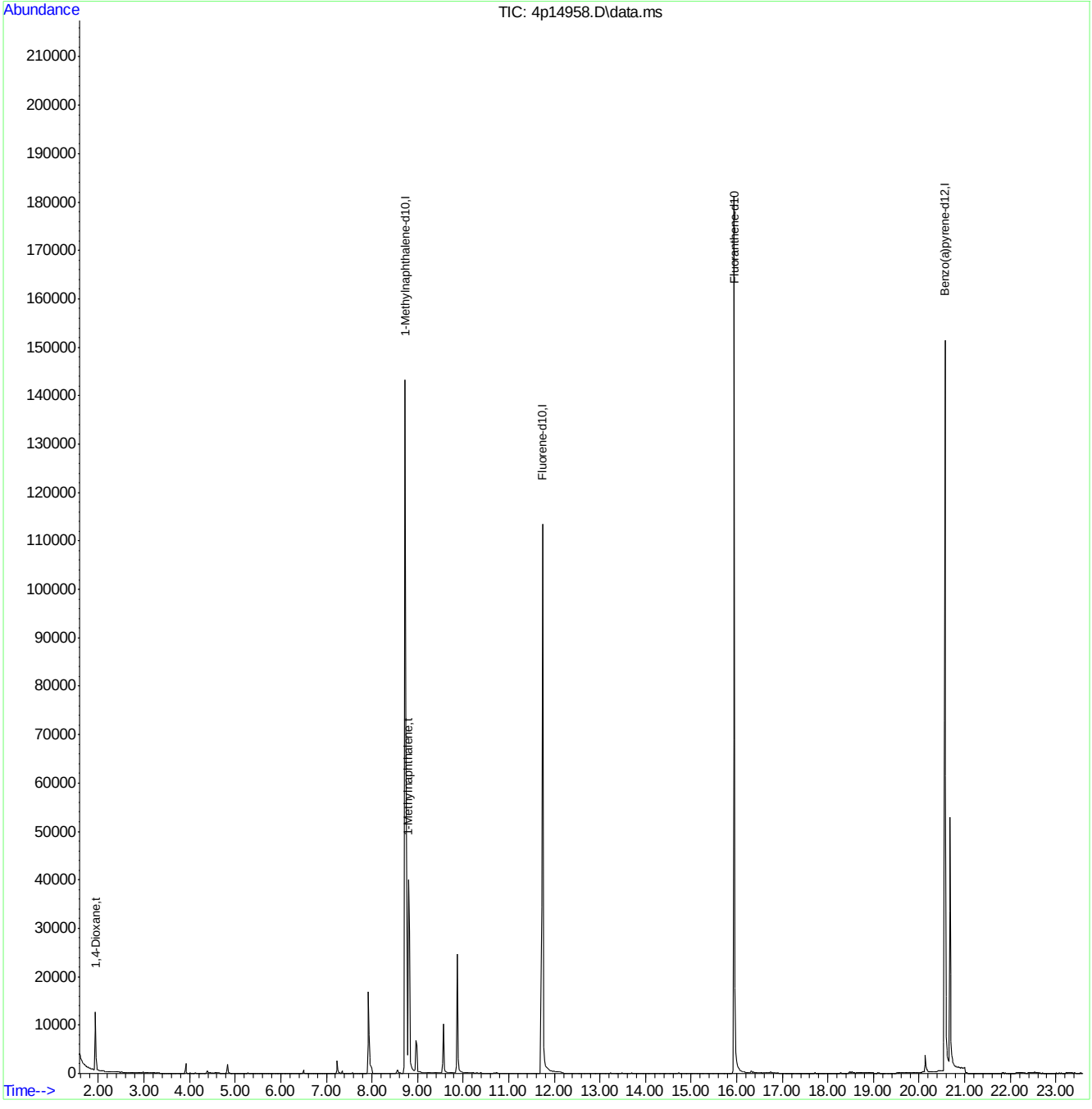
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14958.D
Acq On : 1 Feb 2016 10:54 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 02 08:51:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:47:59 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:51:42 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14959.D
Acq On : 1 Feb 2016 11:24 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 02 08:55:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:55:09 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.731	150	158470	4.00	ppm	-0.02
13) Fluorene-d10	11.741	176	199519	4.00	ppm	0.00
23) Fluoranthene-d10	15.949	212	338174	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.557	264	247357	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%	
14) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
22) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
30) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
5) Phenol	4.544	94	266757	5.02	ppm	# 86
19) 4,6-dinitro-2-methylph...	11.939	198	33982	6.23	ppm	49
25) Pentachlorophenol	13.315	266	61434	5.34	ppm	82

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

9.6.25

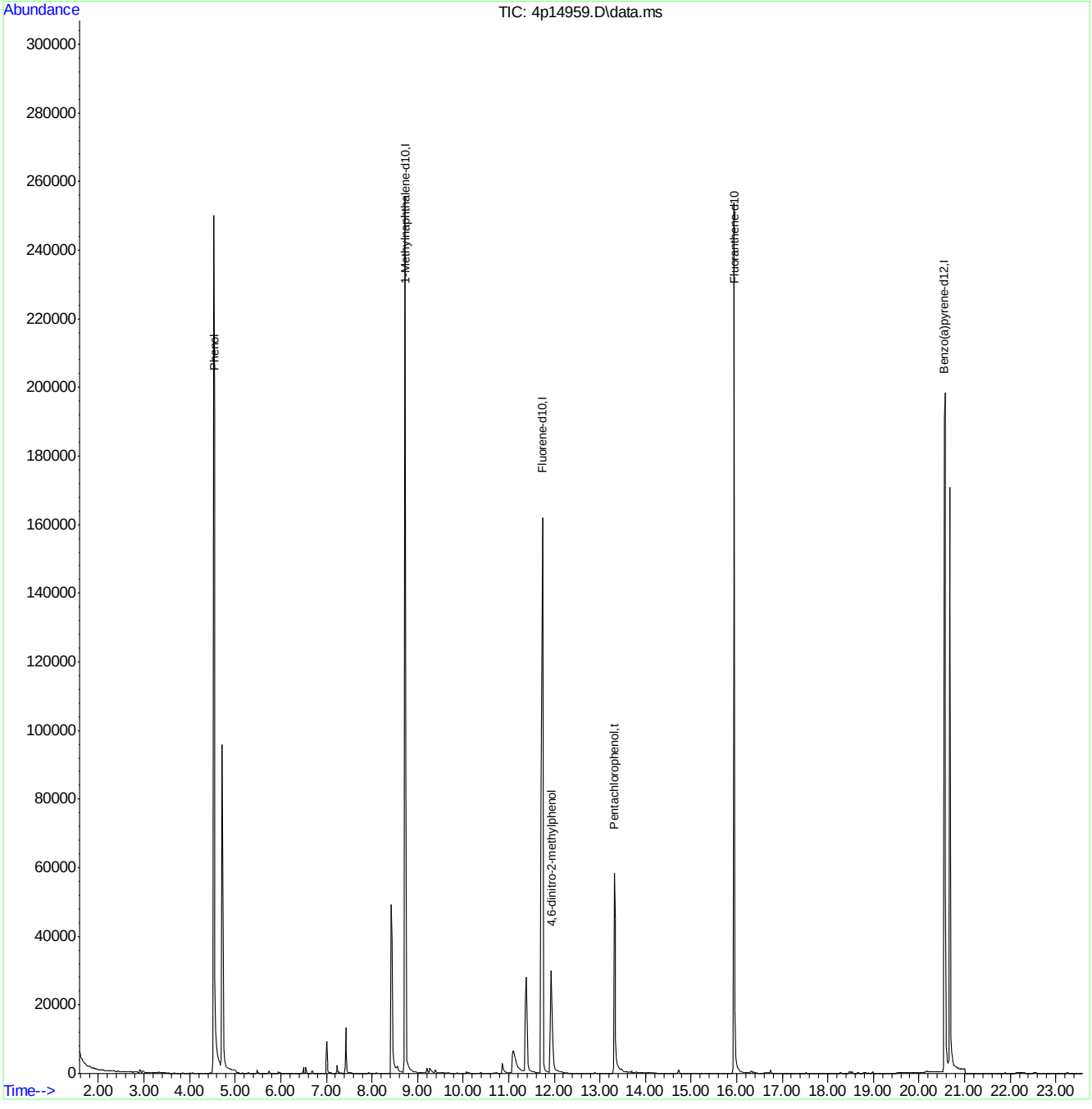
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14959.D
Acq On : 1 Feb 2016 11:24 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 02 08:55:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:55:09 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:55:55 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15553.D
Acq On : 14 Mar 2016 9:13 am
Operator : ashleyd
Sample : cc767-.5
Misc : op91934a,e4p800
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 14 09:40:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.407	150	81338	4.00	ppm	-0.08
13) Fluorene-d10	11.407	176	129755	4.00	ppm	-0.07
23) Fluoranthene-d10	15.649	212	206234	4.00	ppm	-0.07
33) Benzo(a)pyrene-d12	20.294	264	171120	4.00	ppm	-0.07
System Monitoring Compounds						
3) 2-Fluorophenol	3.062	112	150150	10.51	ppm	-0.12
Spiked Amount 50.000			Recovery = 21.02%			
4) Phenol-d5	4.251	99	250738	10.89	ppm	-0.11
Spiked Amount 50.000			Recovery = 21.78%			
7) Nitrobenzene-d5	5.637	82	229347	10.13	ppm	-0.07
Spiked Amount 50.000			Recovery = 20.26%			
14) 2-Fluorobiphenyl	9.079	172	370521	10.03	ppm	-0.08
Spiked Amount 50.000			Recovery = 20.06%			
22) 2,4,6-Tribromophenol	11.970	330	57882	11.99	ppm	-0.11
Spiked Amount 50.000			Recovery = 23.98%			
30) Terphenyl-d14	16.458	244	334872	10.63	ppm	-0.05
Spiked Amount 50.000			Recovery = 21.26%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.735	88	4571	0.49	ppm #	68
5) Phenol	4.269	94	72574	2.66	ppm #	38
6) bis(2-Chloroethyl)ether	4.372	93	10748	0.45	ppm #	31
8) Naphthalene	6.956	128	26976	0.50	ppm	93
9) Hexachlorobutadiene	7.243	225	6099	0.48	ppm	92
10) 2-Methylnaphthalene	8.302	141	13283	0.50	ppm	95
11) 1-Methylnaphthalene	8.491	141	13944	0.48	ppm	91
12) Hexachlorocyclopentadiene	8.659	237	2256	0.21	ppm #	100
15) Acenaphthylene	10.048	152	23844	0.53	ppm	99
16) Acenaphthene	10.414	153	17395	0.52	ppm	98
17) Dibenzofuran	10.781	168	23594	0.55	ppm	67
18) Fluorene	11.457	166	20043	0.50	ppm	89
19) 4,6-dinitro-2-methylph...	11.655	198	6579	2.15	ppm	57
20) n-nitrosodiphenylamine	11.779	169	13093	0.67	ppm	79
21) 1,2-Diphenylhydrazine	11.829	77	24007	0.60	ppm	87
24) Hexachlorobenzene	12.586	284	7541	0.45	ppm	77
25) Pentachlorophenol	13.033	266	8467	1.45	ppm	96
26) Phenanthrene	13.377	178	29987	0.49	ppm	97
27) Anthracene	13.481	178	27994	0.51	ppm	97
28) Fluoranthene	15.684	202	32482	0.49	ppm	95
29) Pyrene	16.079	202	34813	0.53	ppm	96
31) Benzo[a]anthracene	18.188	228	35122	0.61	ppm	93
32) Chrysene	18.246	228	34774	0.51	ppm	92
34) Benzo[b]fluoranthene	19.868	252	39724	0.56	ppm	100
35) Benzo[k]fluoranthene	19.902	252	30572	0.48	ppm	98
36) Benzo[a]pyrene	20.317	252	31995	0.46	ppm	95
37) Indeno[1,2,3-cd]pyrene	21.814	276	39202	0.53	ppm	97
38) Dibenz[a,h]anthracene	21.842	278	32919	0.54	ppm	98
39) Benzo[g,h,i]perylene	22.179	276	33245	0.50	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15553.D
Acq On : 14 Mar 2016 9:13 am
Operator : ashleyd
Sample : cc767-.5
Misc : op91934a,e4p800
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 14 09:40:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

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

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

9.6.26

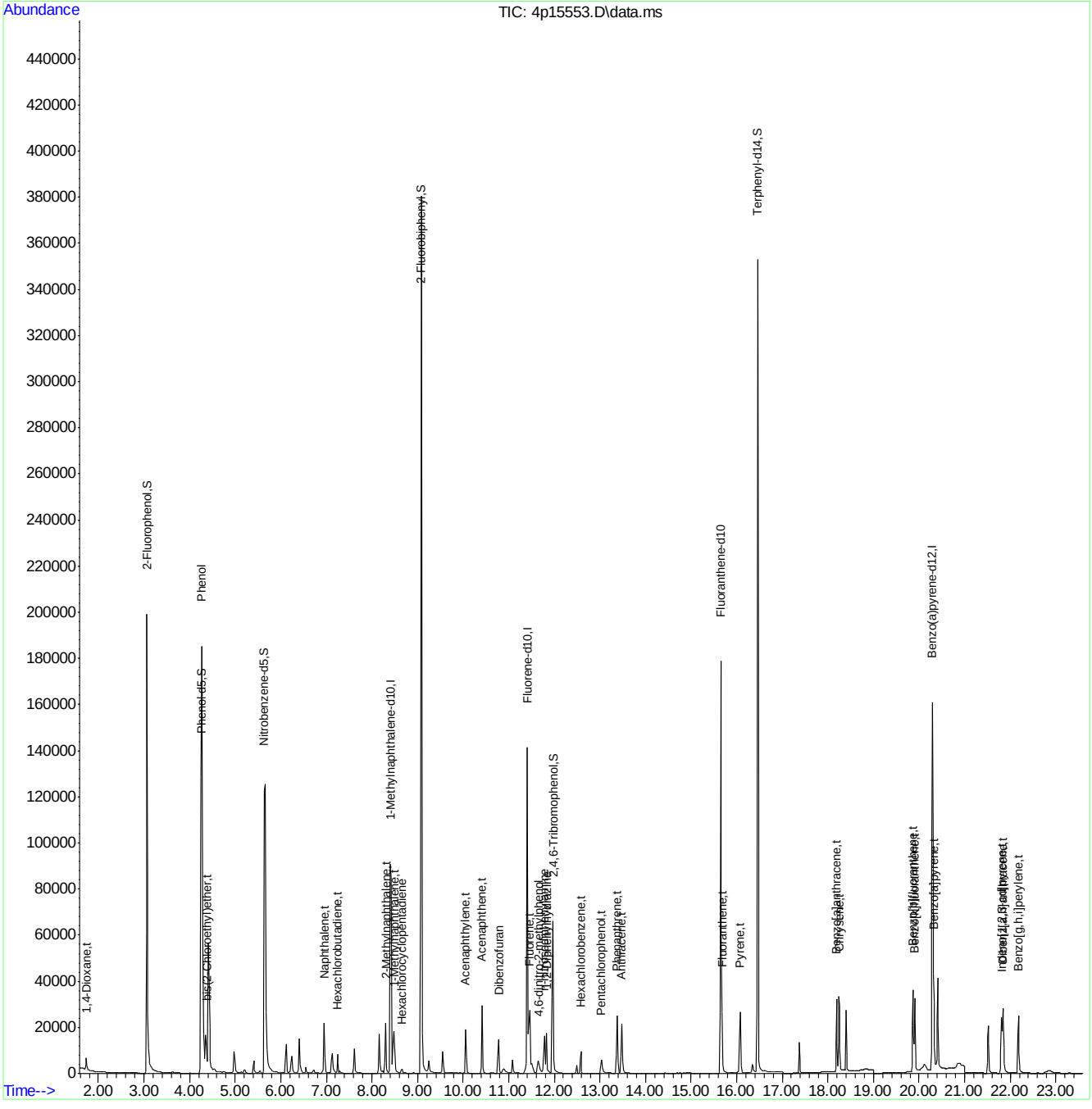
9

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p800\
Data File : 4p15553.D
Acq On : 14 Mar 2016 9:13 am
Operator : ashleyd
Sample : cc767-.5
Misc : op91934a,e4p800
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 14 09:40:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102787.D Vial: 10
Acq On : 24 Feb 2016 2:07 am Operator: sarad
Sample : ic4514-100 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:43 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	126755	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	450907	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	254484	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	412235	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	351857	40.00 ppm	0.00
92) Perylene-d12	18.52	264	355480	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	126755	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	450907	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	254484	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	412235	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	351857	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	355480	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	126755	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	412235	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	351857	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	450907	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	254484	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	450907	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	126755	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	351857	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	351857	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	450907	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	272885	71.62 ppm	99
162) Atrazine	10.88	200	197090	93.69 ppm	93
164) Benzidine	13.59	184	399210	67.45 ppm	99
166) Hydroquinone	6.81	110	439864	106.41 ppm	97
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	279294	79.97 ppm	99

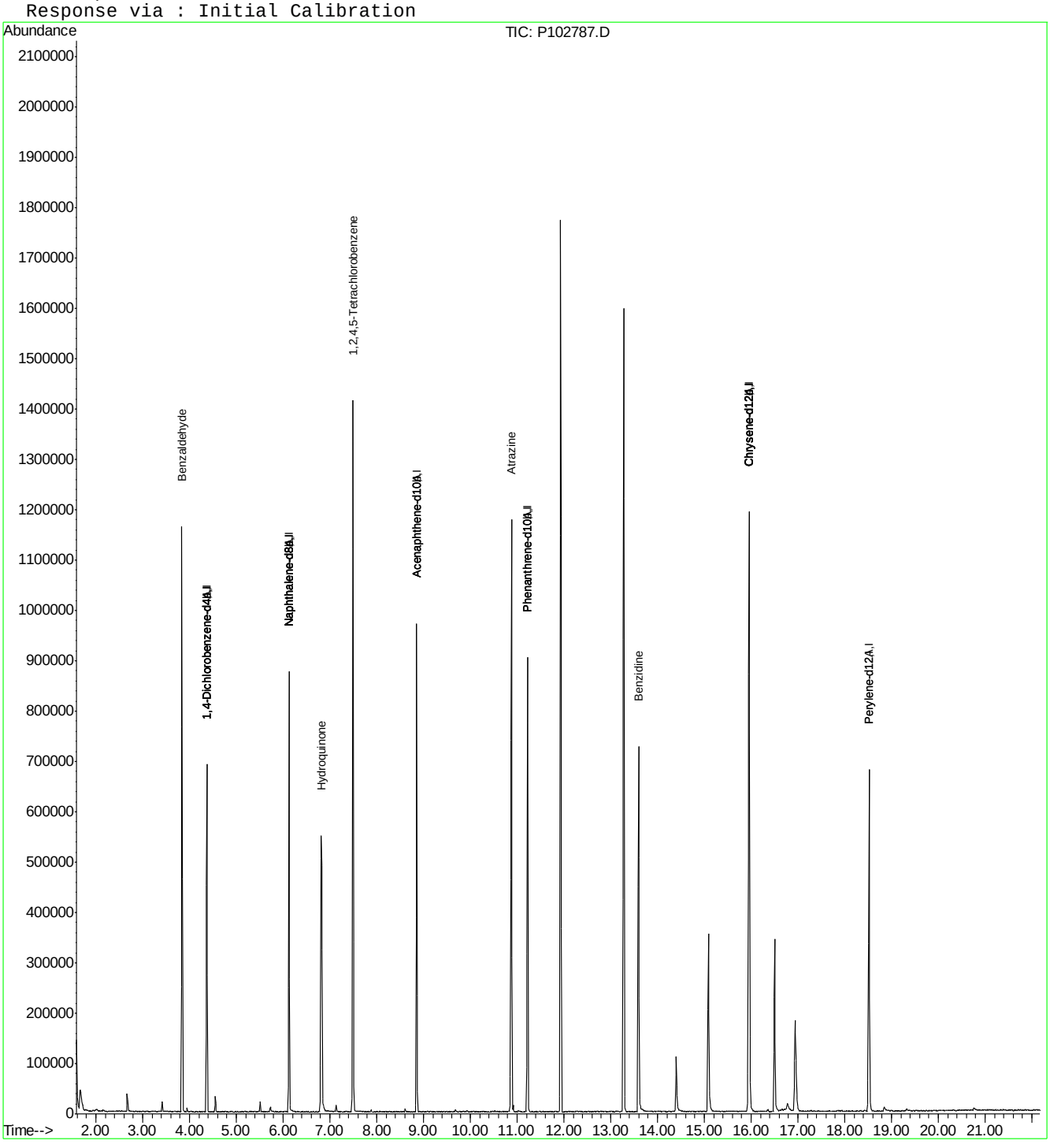
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102787.D Vial: 10
Acq On : 24 Feb 2016 2:07 am Operator: sarad
Sample : ic4514-100 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:34 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102788.D Vial: 11
Acq On : 24 Feb 2016 2:36 am Operator: sarad
Sample : ic4514-80 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:07 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	119957	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	428470	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	236592	40.00 ppm	0.00
69) Phenanthrene-d10	11.23	188	390766	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	333749	40.00 ppm	0.00
92) Perylene-d12	18.52	264	337313	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	119957	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	428470	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	236592	40.00 ppm	0.00
132) Phenanthrene-d10A	11.23	188	390766	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	333749	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	337313	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	119957	40.00 ppm	0.00
161) Phenanthrene-d10b	11.23	188	390766	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	333749	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	428470	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	236592	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	428470	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	119957	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	333749	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	333749	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	428470	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

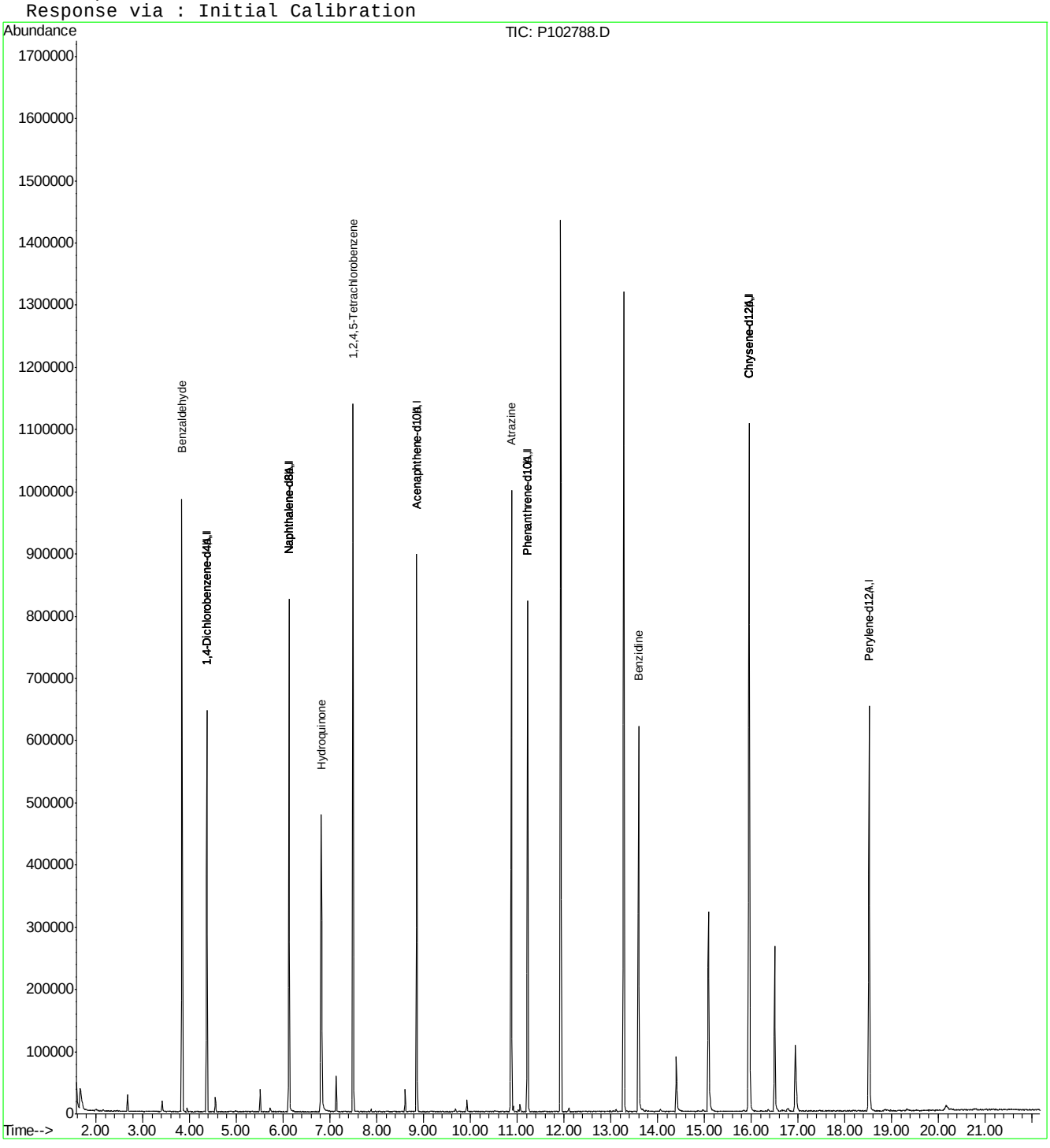
Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	232196	64.39 ppm	99
162) Atrazine	10.88	200	152338	76.39 ppm	97
164) Benzidine	13.59	184	323040	57.54 ppm	99
166) Hydroquinone	6.81	110	341882	87.04 ppm	98
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	220907	68.03 ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102788.D MP4513.M Wed Feb 24 14:35:08 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102788.D Vial: 11
Acq On : 24 Feb 2016 2:36 am Operator: sarad
Sample : ic4514-80 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:34 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102789.D Vial: 12
Acq On : 24 Feb 2016 3:06 am Operator: sarad
Sample : ic4514-10 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:10 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	136729	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	481198	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	270846	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	430378	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	374718	40.00	ppm	0.00
92) Perylene-d12	18.52	264	368292	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	136729	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	481198	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	270846	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	430378	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	374718	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	368292	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	136729	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	430378	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	374718	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	481198	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	270846	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	481198	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	136729	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	374718	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	374718	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	481198	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds

						Qvalue
160) Benzaldehyde	3.84	105	43208	10.51	ppm	98
162) Atrazine	10.86	200	22196	10.11	ppm	90
164) Benzidine	13.59	184	76244	12.10	ppm	99
166) Hydroquinone	6.80	110	41650	9.44	ppm	98
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	37002	9.95	ppm	98

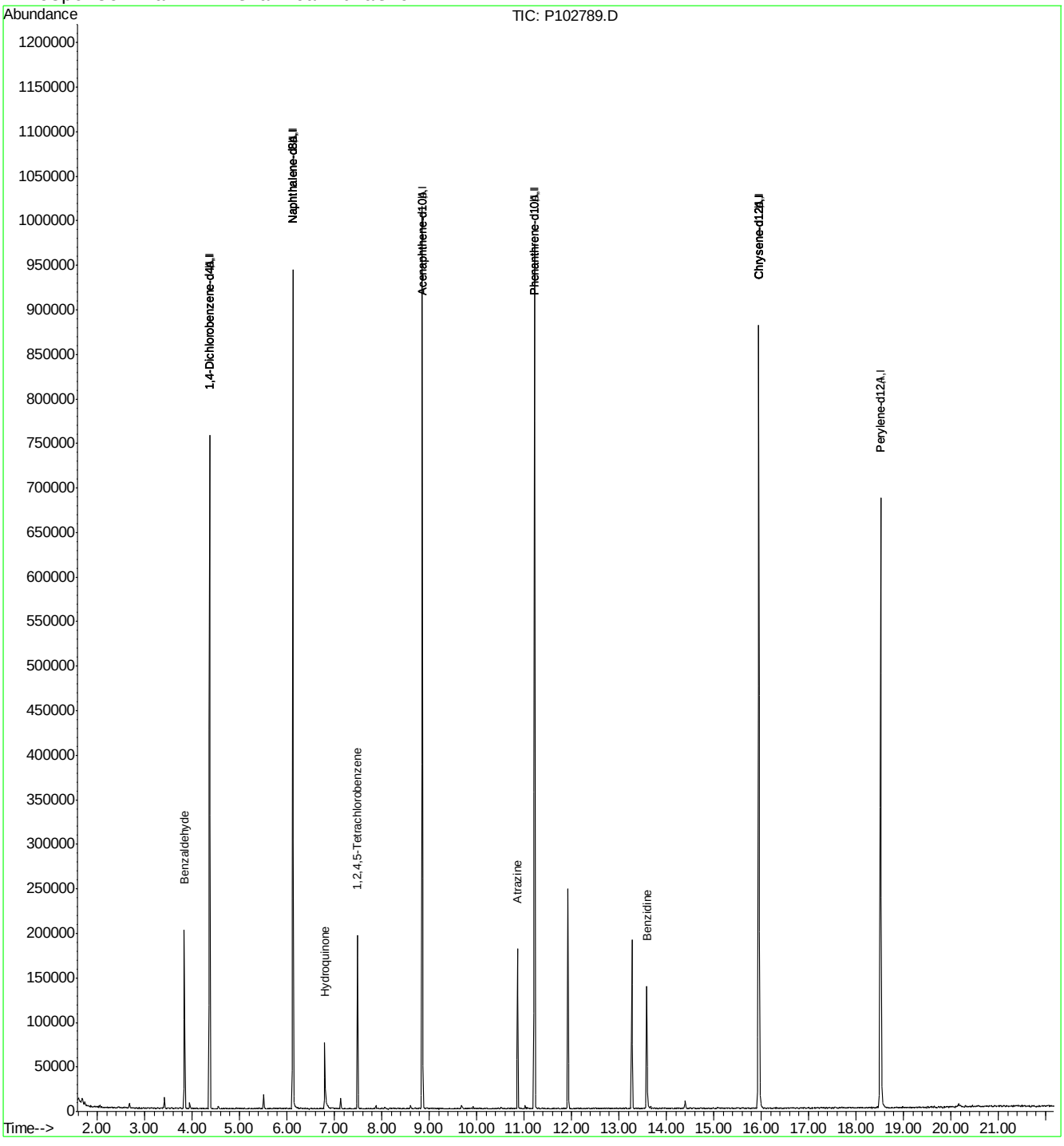
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102789.D Vial: 12
Acq On : 24 Feb 2016 3:06 am Operator: sarad
Sample : ic4514-10 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:35 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102790.D Vial: 13
Acq On : 24 Feb 2016 3:35 am Operator: sarad
Sample : ic4514-5 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:14 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	164954	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	563561	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	313072	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	511186	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	452088	40.00	ppm	0.00
92) Perylene-d12	18.52	264	443331	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	164954	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	563561	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	313072	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	511186	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	452088	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	443331	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	164954	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	511186	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	452088	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	563561	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	313072	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	563561	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	164954	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	452088	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	452088	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	563561	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

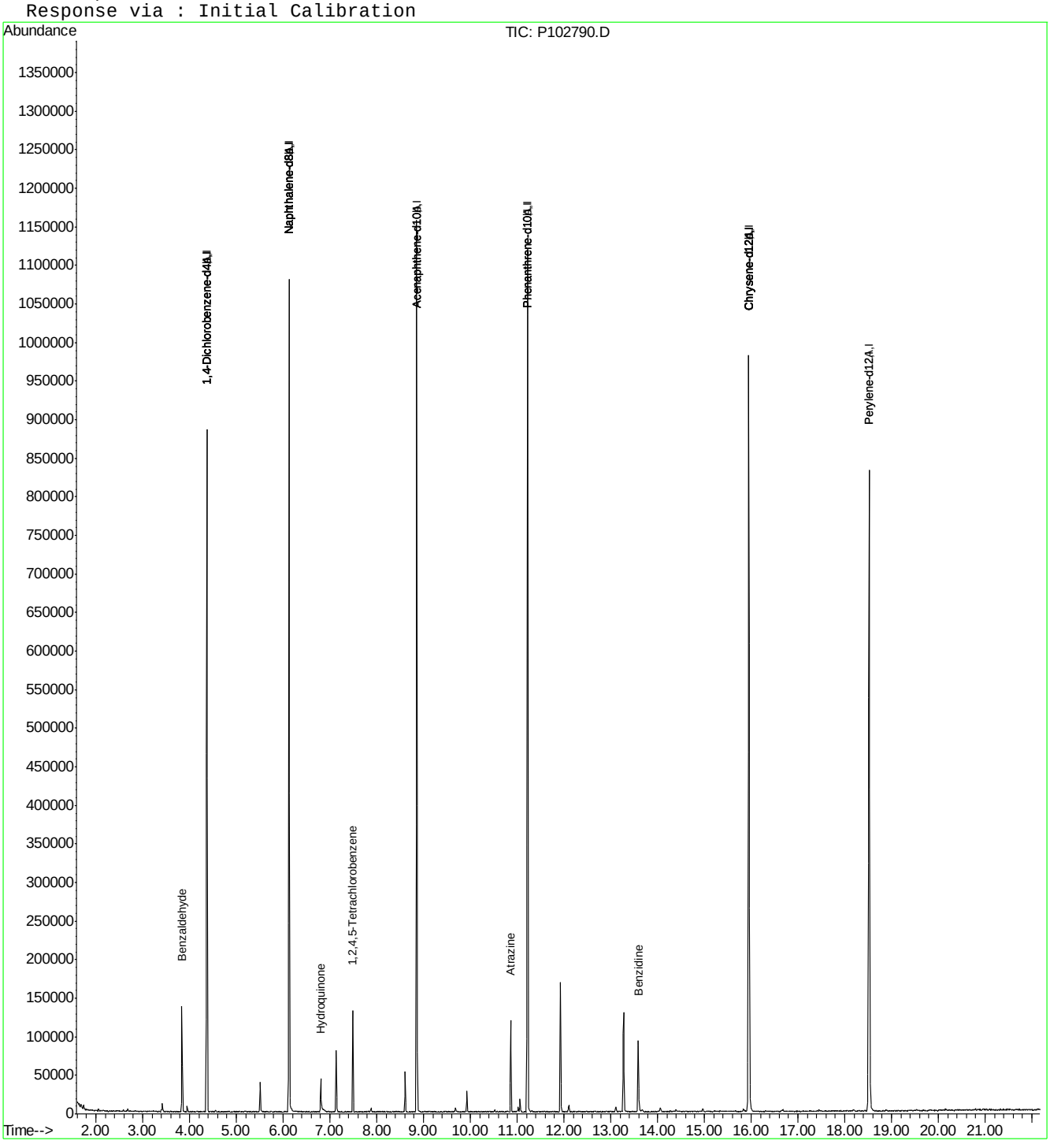
Target Compounds						Qvalue
160) Benzaldehyde	3.84	105	29655	5.98	ppm	99
162) Atrazine	10.86	200	14635	5.61	ppm	98
164) Benzidine	13.59	184	52465	6.90	ppm	98
166) Hydroquinone	6.80	110	26007	5.03	ppm	94
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	25271	5.88	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102790.D MP4513.M Wed Feb 24 14:36:07 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102790.D Vial: 13
Acq On : 24 Feb 2016 3:35 am Operator: sarad
Sample : ic4514-5 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:35 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102791.D Vial: 14
Acq On : 24 Feb 2016 4:05 am Operator: sarad
Sample : ic4514-2 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:19 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	157400	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	549331	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	307207	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	486864	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	411356	40.00 ppm	0.00
92) Perylene-d12	18.52	264	397949	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	157400	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	549331	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	307207	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	486864	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	411356	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	397949	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	157400	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	486864	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	411356	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	549331	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	307207	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	549331	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	157400	40.00 ppm	-0.09
176) Chrysene-d12c	15.95	240	411356	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	411356	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	549331	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

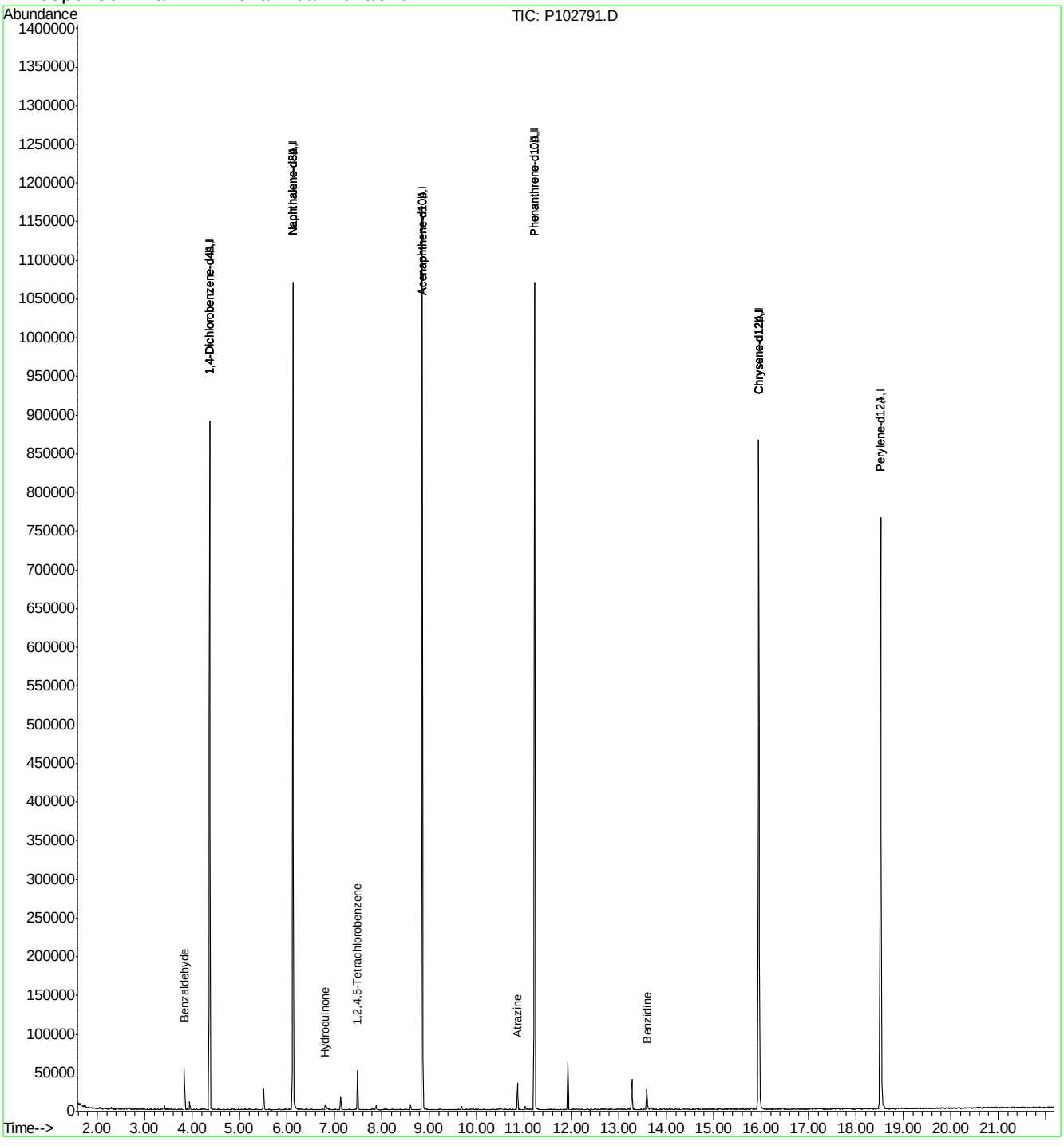
Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	11747	2.48 ppm	96
162) Atrazine	10.86	200	4998	2.01 ppm	93
164) Benzidine	13.59	184	16474	2.38 ppm	99
166) Hydroquinone	6.81	110	7600	1.51 ppm	92
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	9946	2.36 ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102791.D MP4513.M Wed Feb 24 14:36:37 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102791.D Vial: 14
Acq On : 24 Feb 2016 4:05 am Operator: sarad
Sample : ic4514-2 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:36 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



P102791.D MP4513.M Wed Feb 24 14:36:37 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102792.D Vial: 15
Acq On : 24 Feb 2016 4:34 am Operator: sarad
Sample : ic4514-1 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:21 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	135191	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	472196	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	264454	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	432389	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	378494	40.00	ppm	0.00
92) Perylene-d12	18.52	264	356091	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	135191	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	472196	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	264454	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	432389	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	378494	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	356091	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	135191	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	432389	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	378494	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	472196	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	264454	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	472196	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	135191	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	378441	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	378441	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	472196	40.00	ppm	0.16

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

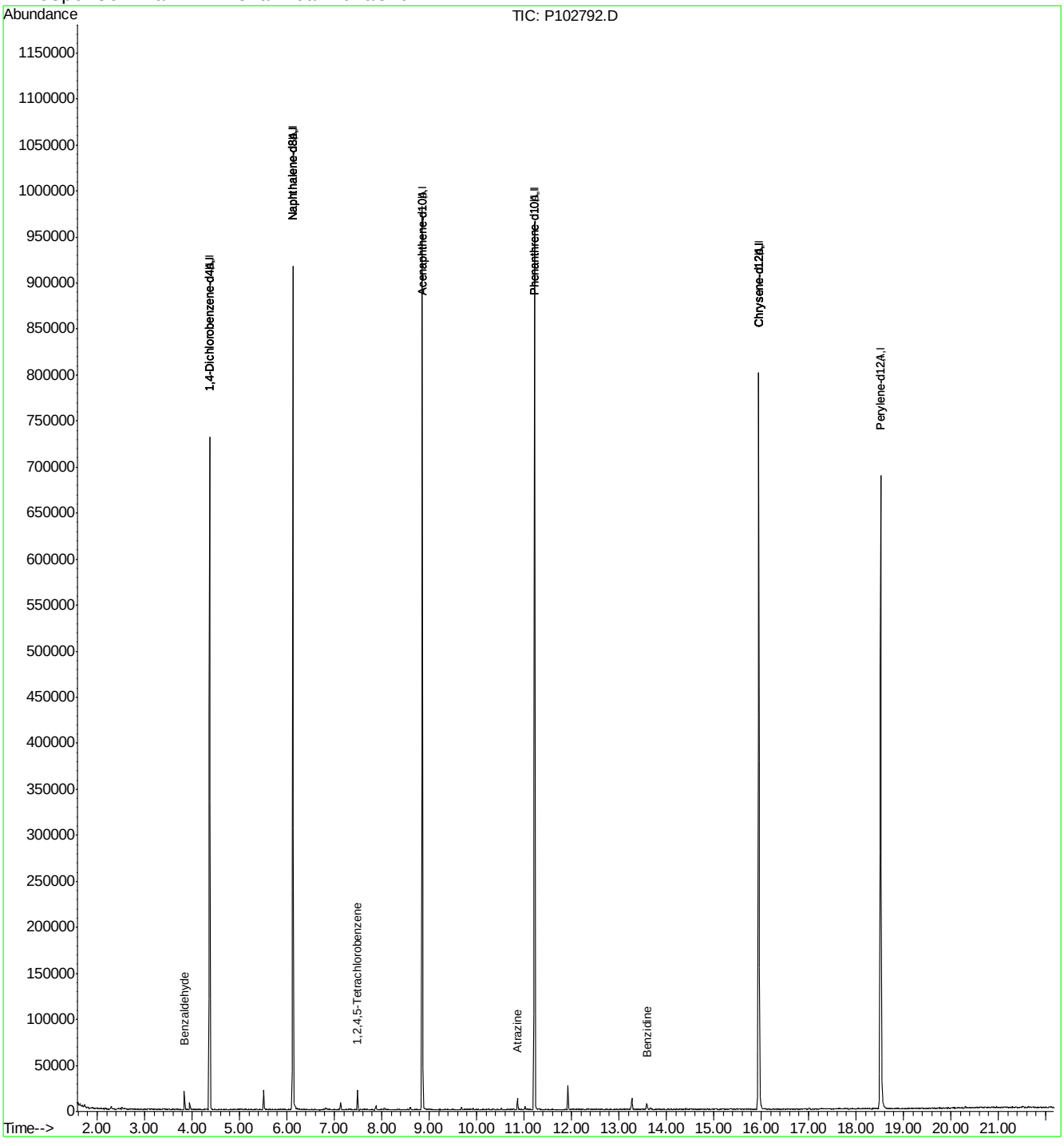
Target Compounds							Qvalue
160) Benzaldehyde	3.84	105	4552	1.12	ppm		97
162) Atrazine	10.86	200	2144	0.97	ppm		82
164) Benzidine	13.59	184	5187	0.81	ppm	#	66
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	4065	1.12	ppm		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102792.D MP4513.M Wed Feb 24 14:37:07 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102792.D Vial: 15
Acq On : 24 Feb 2016 4:34 am Operator: sarad
Sample : ic4514-1 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:37 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102793.D Vial: 16
Acq On : 24 Feb 2016 5:04 am Operator: sarad
Sample : ic4514-25 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:28 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	124747	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	436946	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	242658	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	388953	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	333803	40.00	ppm	0.00
92) Perylene-d12	18.51	264	324604	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	124747	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	436946	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	242658	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	388953	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	333803	40.00	ppm	0.00
155) Perylene-d12A	18.51	264	324604	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	124747	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	388953	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	333803	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	436946	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	242658	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	436946	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	124747	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	333803	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	333803	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	436946	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds

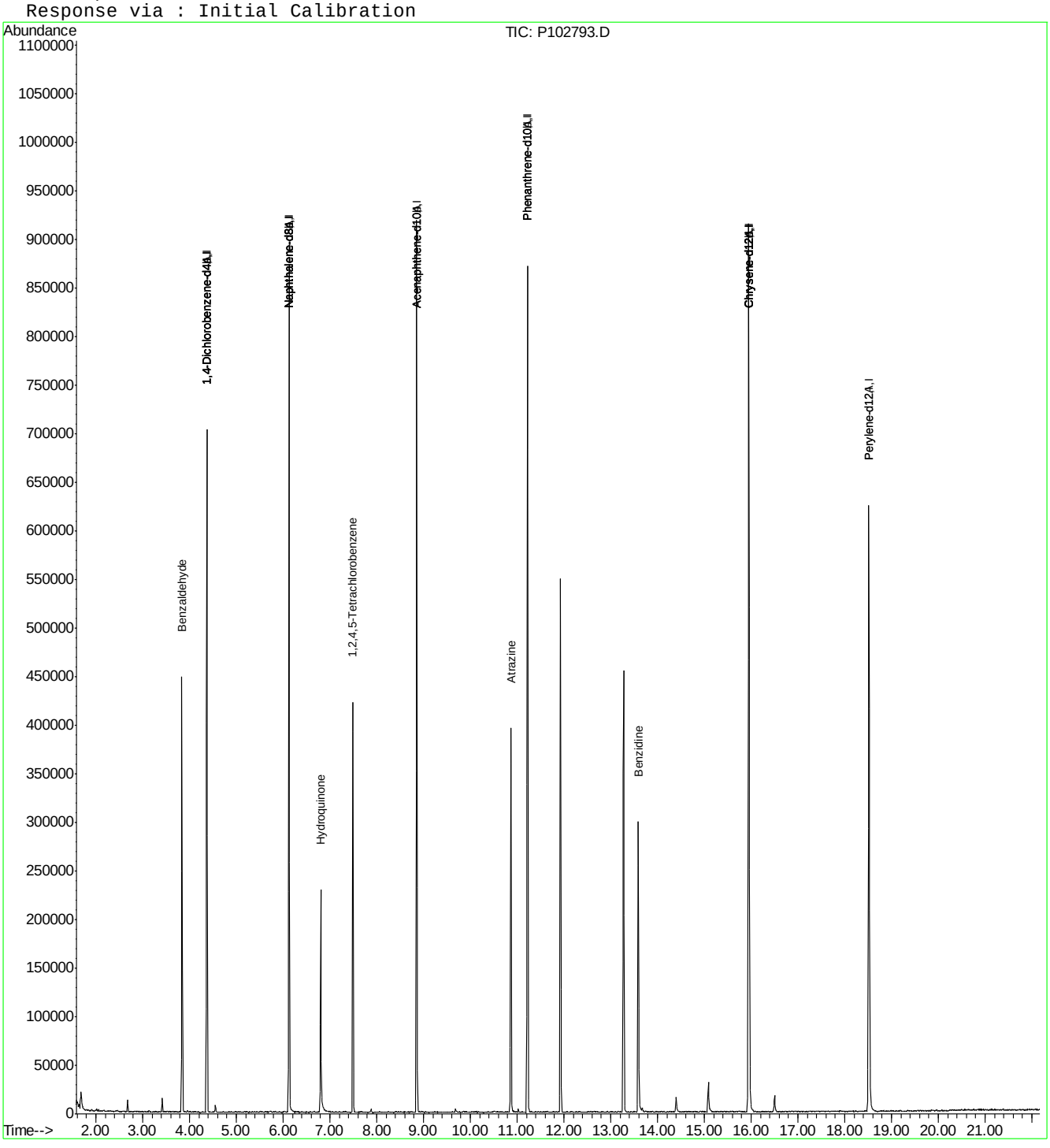
						Qvalue
160) Benzaldehyde	3.84	105	91859	24.50	ppm	96
162) Atrazine	10.87	200	50010	25.20	ppm	97
164) Benzidine	13.59	184	153732	27.38	ppm	99
166) Hydroquinone	6.80	110	108014	26.96	ppm	99
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	81204	24.38	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102793.D MP4513.M Wed Feb 24 14:37:38 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102793.D Vial: 16
Acq On : 24 Feb 2016 5:04 am Operator: sarad
Sample : ic4514-25 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:37 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102794.D Vial: 17
Acq On : 24 Feb 2016 5:33 am Operator: sarad
Sample : icc4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:33 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	123738	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	444756	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	244838	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	386844	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	326980	40.00	ppm	0.00
92) Perylene-d12	18.52	264	322241	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	123738	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	444756	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	244838	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	386844	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	326980	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	322241	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	123738	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	386844	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	326980	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	444756	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	244838	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	444756	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	123738	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	326980	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	326980	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	444756	40.00	ppm	0.16

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
160) Benzaldehyde	3.84	105	165508	44.50	ppm	100
162) Atrazine	10.88	200	97727	49.51	ppm	100
164) Benzidine	13.59	184	251988	45.82	ppm	100
166) Hydroquinone	6.81	110	216907	53.20	ppm	100
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	151776	45.17	ppm	100

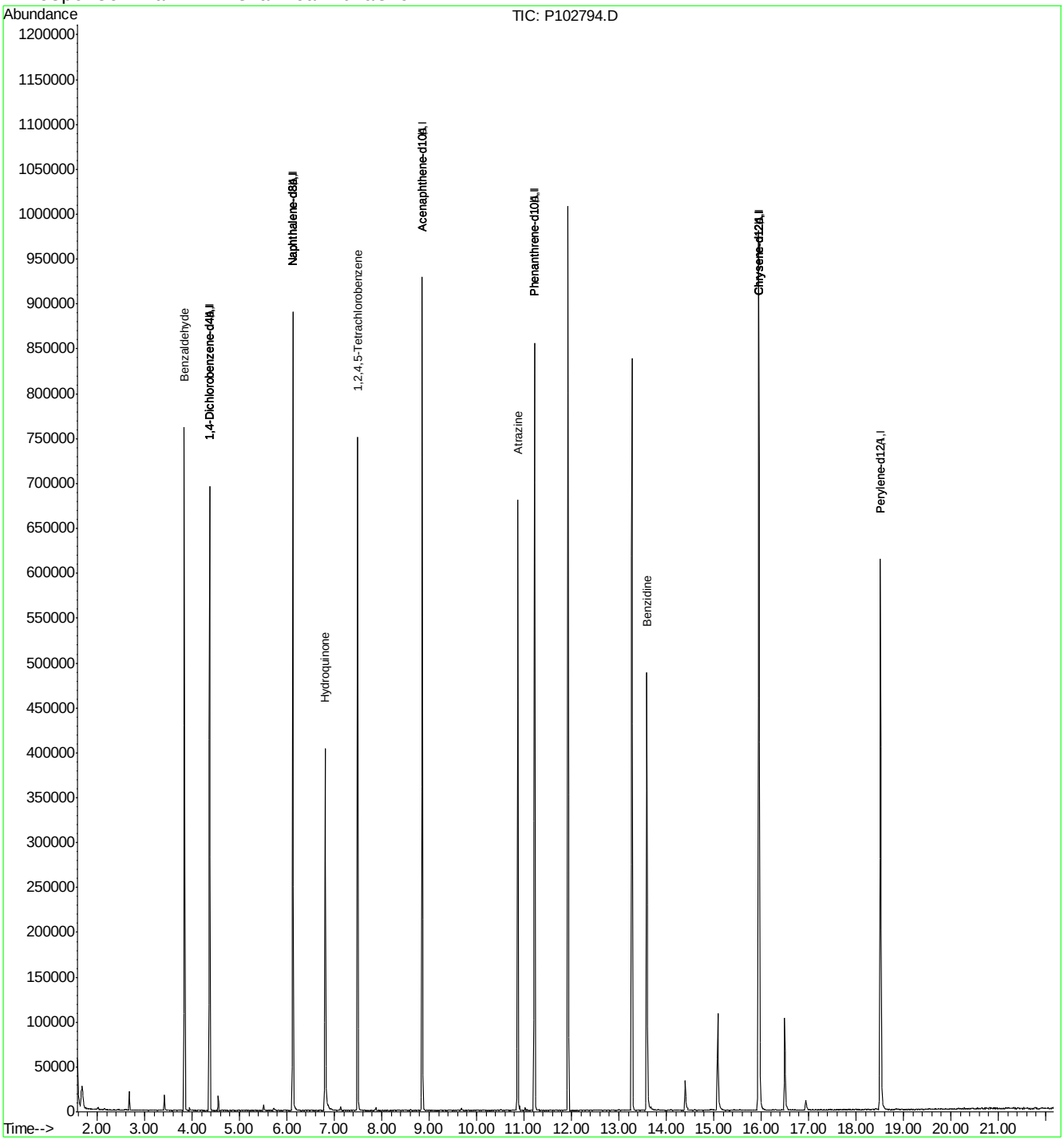
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102794.D Vial: 17
Acq On : 24 Feb 2016 5:33 am Operator: sarad
Sample : icc4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:37 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D Vial: 21
Acq On : 24 Feb 2016 7:31 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 12:54:33 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	117275	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	407577	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	231457	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	379681	40.00	ppm	0.00
83) Chrysene-d12	15.96	240	296388	40.00	ppm	0.00
92) Perylene-d12	18.52	264	300664	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	117275	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	407577	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	231457	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	379681	40.00	ppm	0.00
147) Chrysene-d12A	15.96	240	296388	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	300664	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	117275	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	379681	40.00	ppm	0.00
163) Chrysene-d12b	15.96	240	296388	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	407577	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	231457	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	407577	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	117275	40.00	ppm	-0.08
176) Chrysene-d12c	15.96	240	296388	40.00	ppm	0.00
178) Chrysene-d12d	15.96	240	296388	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	407577	40.00	ppm	0.16

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

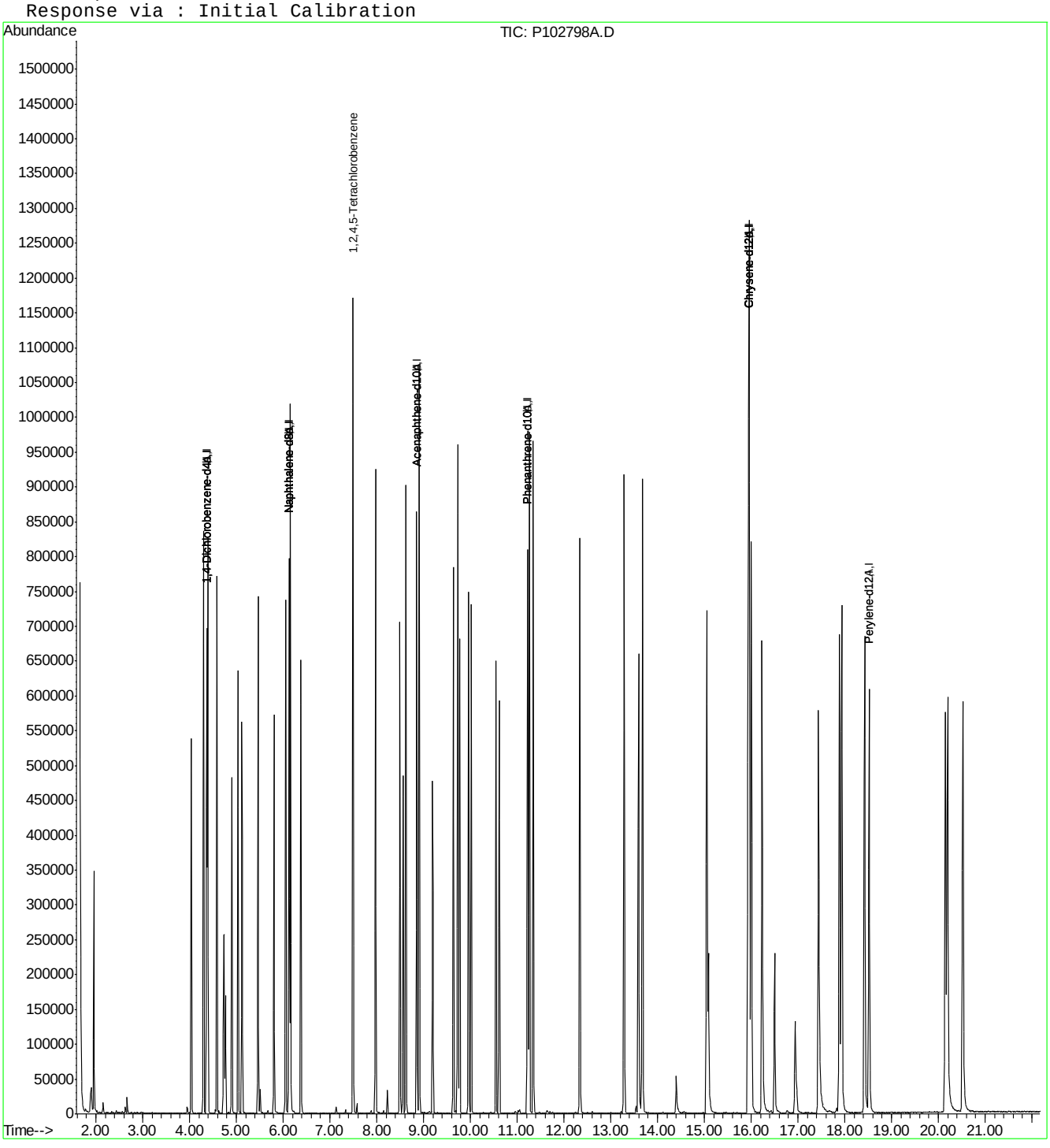
Target Compounds						Qvalue
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	147147	46.32	ppm	100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D Vial: 21
Acq On : 24 Feb 2016 7:31 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 25 16:19 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 16:59:22 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D Vial: 22
Acq On : 24 Feb 2016 8:00 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 12:59:11 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	117905	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	432668	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	239323	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	363483	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	338502	40.00 ppm	0.00
92) Perylene-d12	18.51	264	316787	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	117905	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	432668	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	239323	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	363483	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	338502	40.00 ppm	0.00
155) Perylene-d12A	18.51	264	316787	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	117905	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	363483	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	338502	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	432668	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	239323	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	432668	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	117905	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	338502	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	338502	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	432668	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	170305	48.05 ppm	97
162) Atrazine	10.88	200	91512	49.34 ppm	98

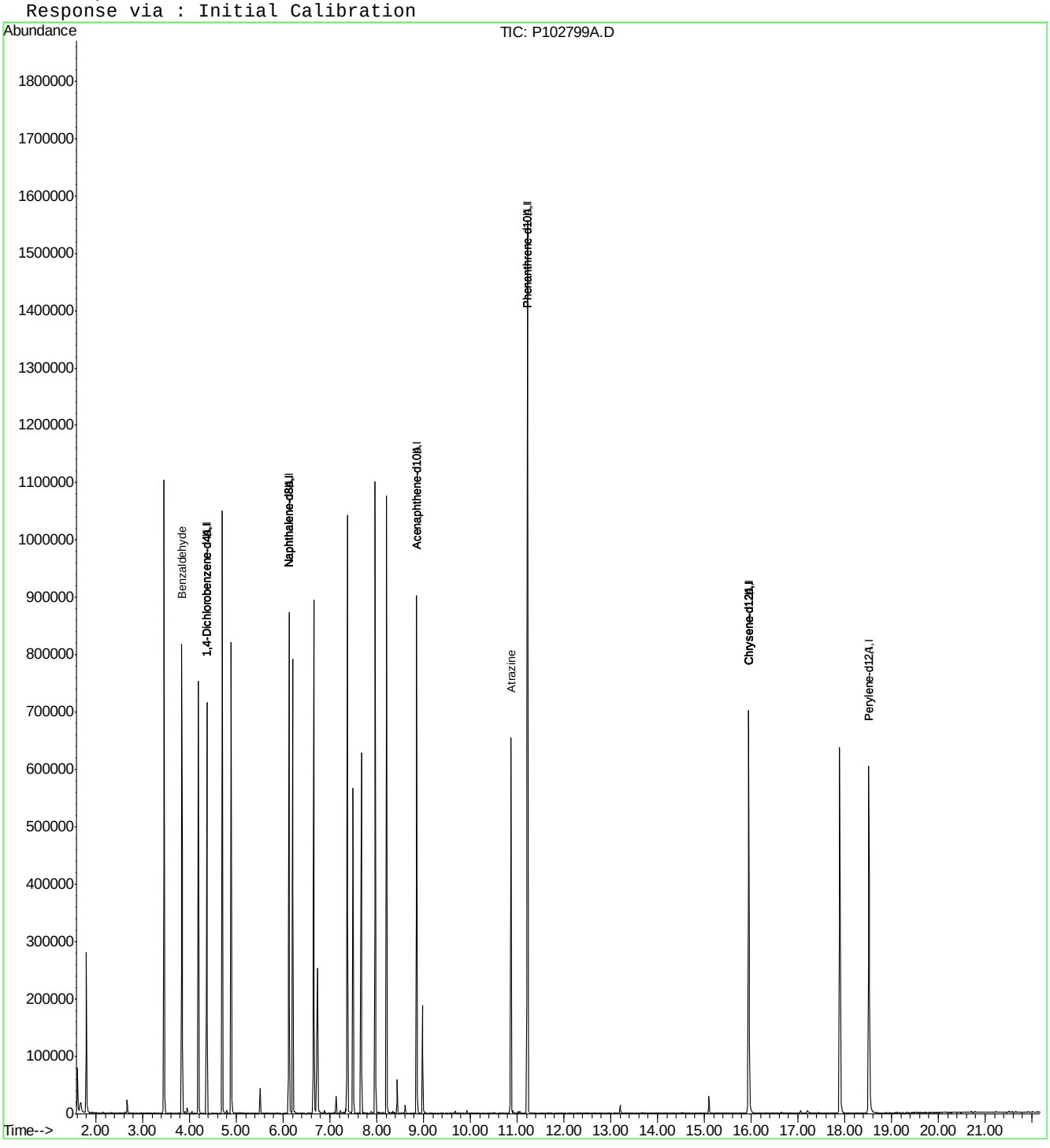
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D Vial: 22
Acq On : 24 Feb 2016 8:00 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 25 16:20 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 16:59:22 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D Vial: 23
Acq On : 24 Feb 2016 8:29 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 13:00:48 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	131165	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	459959	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	224297	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	391280	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	349495	40.00	ppm	0.00
92) Perylene-d12	18.52	264	345730	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	131165	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	459959	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	224297	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	391280	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	349495	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	345730	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	131165	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	391280	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	349495	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	459959	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	224297	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	459959	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	131165	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	349495	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	349495	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	459959	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

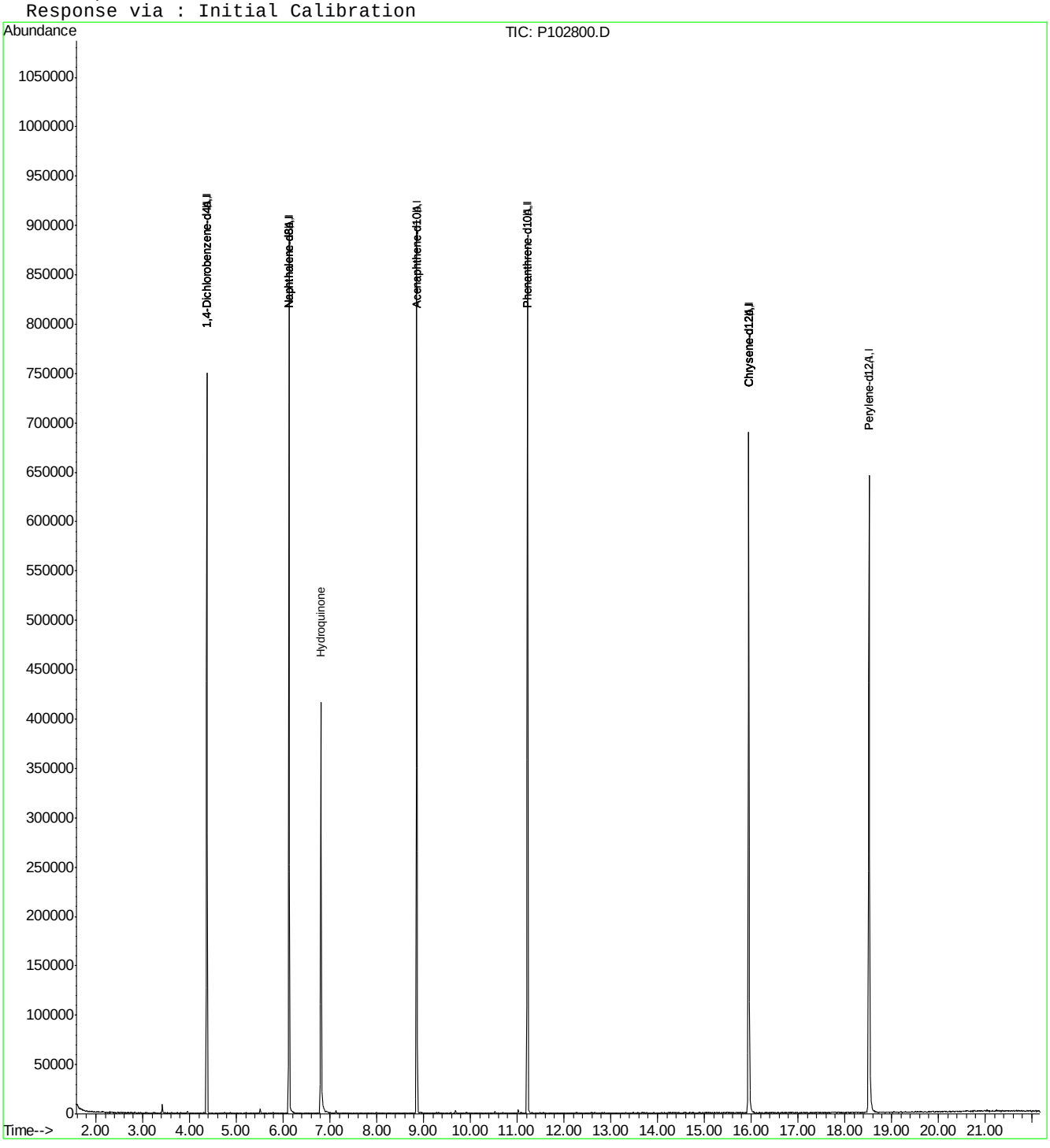
Target Compounds						Qvalue
166) Hydroquinone	6.81	110	221965	52.64	ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D Vial: 23
Acq On : 24 Feb 2016 8:29 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 13:01 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D Vial: 24
Acq On : 24 Feb 2016 8:58 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 13:01:35 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	151289	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	527124	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	254350	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	443644	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	368888	40.00 ppm	0.00
92) Perylene-d12	18.52	264	382458	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	151289	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	527124	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	254350	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	443644	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	368888	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	382458	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	151289	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	443644	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	368888	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	527124	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	254350	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	527124	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	151289	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	368888	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	368888	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	527124	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
164) Benzidine	13.59	184	502401	77.37 ppm	99

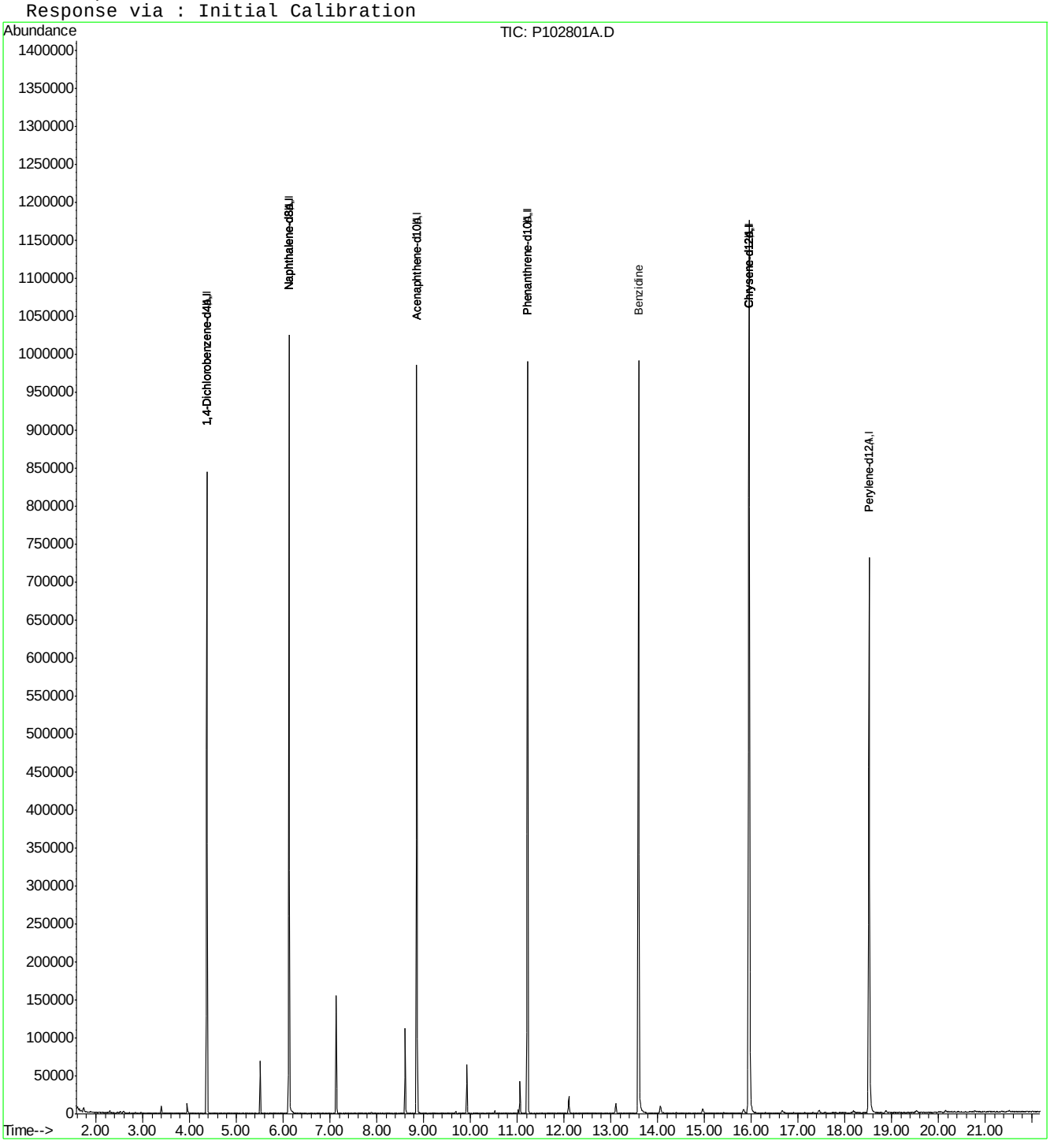
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D Vial: 24
Acq On : 24 Feb 2016 8:58 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 25 16:21 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 16:59:22 2016
Response via : Initial Calibration



P102801A.D MP4513.M Thu Feb 25 16:22:00 2016 Page 2

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/03/16 15:11

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	176183	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	619829	40.00	ppm	0.00
47) Acenaphthene-d10	8.83	164	355407	40.00	ppm	0.00
69) Phenanthrene-d10	11.20	188	512187	40.00	ppm	0.00
83) Chrysene-d12	15.92	240	467796	40.00	ppm	0.00
92) Perylene-d12	18.48	264	486176	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	176183	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	619829	40.00	ppm	-0.02
121) Acenaphthene-d10A	8.83	164	355407	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.20	188	512187	40.00	ppm	-0.03
147) Chrysene-d12A	15.92	240	467796	40.00	ppm	-0.03
155) Perylene-d12A	18.48	264	486176	40.00	ppm	-0.04
159) 1,4-Dichlorobenzene-d4b	4.35	152	176183	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.20	188	512187	40.00	ppm	-0.03
163) Chrysene-d12b	15.92	240	467796	40.00	ppm	-0.03
165) Naphthalene-d8b	6.10	136	619829	40.00	ppm	-0.02
167) Acenaphthene-d10b	8.83	164	355407	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	619829	40.00	ppm	-0.02
174) 1,4-Dichlorobenzene-d4a	4.35	152	176183	40.00	ppm	-0.11
176) Chrysene-d12c	15.92	240	467796	40.00	ppm	-0.03
178) Chrysene-d12d	15.92	240	467796	40.00	ppm	-0.03
180) Naphthalene-d8a	6.10	136	619829	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	570985	93.30	ppm	0.00
Spiked Amount 50.000			Recovery = 186.60%			
8) Phenol-d5	3.96	99	627844	83.61	ppm	0.00
Spiked Amount 50.000			Recovery = 167.22%			
25) Nitrobenzene-d5	5.08	82	582783	98.09	ppm	0.00
Spiked Amount 50.000			Recovery = 196.18%			
51) 2-Fluorobiphenyl	7.80	172	870565	80.04	ppm	0.00
Spiked Amount 50.000			Recovery = 160.08%			
73) 2,4,6-Tribromophenol	10.11	330	131612	118.89	ppm	0.00
Spiked Amount 50.000			Recovery = 237.78%			
85) Terphenyl-d14	14.02	244	882195	98.61	ppm	0.00
Spiked Amount 50.000			Recovery = 197.22%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	275570	89.87	ppm	98
3) Pyridine	1.97	79	625045	93.10	ppm	92
4) N-Nitrosodimethylamine	1.94	42	238728	96.60	ppm	94
6) Indene	4.68	116	842496	86.20	ppm	97
7) Cumene	3.44	105	1110136	77.47	ppm	94
9) Phenol	3.98	94	709824	95.03	ppm	89
10) Aniline	3.95	93	638029	73.70	ppm	77
11) bis(2-Chloroethyl)ether	4.03	93	497004	93.03	ppm	98
12) 2-Chlorophenol	4.12	128	498225	86.03	ppm	95
13) Decane	4.17	43	369574	82.31	ppm	96
14) 1,3-Dichlorobenzene	4.28	146	545682	82.60	ppm	98
15) 1,4-Dichlorobenzene	4.37	146	531119	83.51	ppm	97

(#) = qualifier out of range (m) = manual integration
P103011.D MP4524.M Thu Mar 03 09:00:36 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.54	108	302600	85.76	ppm		96
17)	1,2-Dichlorobenzene	4.57	146	481791	78.82	ppm		95
18)	Acetophenone	4.88	105	684389	85.99	ppm		96
19)	2-Methylphenol	4.73	108	455556	92.82	ppm		100
20)	2,2'-oxybis(1-Chloropropan	4.71	121	169965	94.83	ppm	#	99
21)	3&4-Methylphenol	4.94	108	497101	96.56	ppm		97
22)	n-Nitroso-di-n-propylamine	4.90	70	349466	94.00	ppm		98
23)	Hexachloroethane	5.01	201	189667	96.96	ppm		92
26)	Nitrobenzene	5.11	77	529194	92.25	ppm		96
27)	Quinoline	6.66	129	1009644	91.70	ppm		97
28)	Isophorone	5.45	82	929548	91.48	ppm		97
29)	2-Nitrophenol	5.56	139	291563	100.49	ppm		88
30)	2,4-Dimethylphenol	5.69	107	498439	97.43	ppm		96
31)	Benzoic acid	5.96	105	420356	112.35	ppm		96
32)	bis(2-Chloroethoxy)methane	5.79	93	572823	92.08	ppm		97
33)	2,4-Dichlorophenol	5.95	162	405260	96.09	ppm		97
34)	2,6-Dichlorophenol	6.26	162	380206	93.29	ppm		96
35)	1,3,5-Trichlorobenzene	5.58	180	406052	81.82	ppm		98
36)	1,2,4-Trichlorobenzene	6.03	180	413411	84.87	ppm		99
37)	1,2,3-Trichlorobenzene	6.36	180	363649	80.87	ppm		98
38)	Naphthalene	6.14	128	1217903	80.13	ppm		95
39)	4-Chloroaniline	6.25	127	554419	82.52	ppm		99
40)	2,3-Dichloroaniline	7.65	161	496811	94.91	ppm		96
41)	Caprolactam	6.79	55	219369m	107.52	ppm		
42)	Hexachlorobutadiene	6.36	225	209515	93.01	ppm		99
43)	4-Chloro-3-methylphenol	7.09	107	462362	99.17	ppm	#	42
44)	2-Methylnaphthalene	7.20	141	706818	83.64	ppm		97
45)	1-Methylnaphthalene	7.35	142	869043	84.23	ppm		97
46)	Dimethylnaphthalene	8.19	156	769096	85.59	ppm		98
48)	Hexachlorocyclopentadiene	7.47	237	490346	194.12	ppm		98
49)	2,4,6-Trichlorophenol	7.69	196	276998	101.75	ppm		99
50)	2,4,5-Trichlorophenol	7.78	196	293890	101.38	ppm		99
52)	2-Chloronaphthalene	7.96	162	758937	82.32	ppm		97
53)	Biphenyl	7.95	154	928981	76.13	ppm		96
54)	2-Nitroaniline	8.16	65	285397	105.21	ppm		95
55)	Dimethylphthalate	8.48	163	970545	90.20	ppm		97
56)	Acenaphthylene	8.60	152	1222694	78.81	ppm		95
57)	2,6-Dinitrotoluene	8.55	165	242513	110.57	ppm		98
58)	3-Nitroaniline	8.81	138	278297	96.07	ppm		92
59)	Acenaphthene	8.88	153	785358	83.79	ppm		100
60)	2,4-Dinitrophenol	8.98	184	287438	203.82	ppm		98
61)	4-Nitrophenol	9.26	109	170879	114.27	ppm		97
62)	Dibenzofuran	9.17	168	1087992	84.28	ppm		97
63)	2,4-Dinitrotoluene	9.19	165	311807	103.79	ppm		99
64)	2,3,4,6-Tetrachlorophenol	9.40	232	230485	108.28	ppm		98
65)	Diethylphthalate	9.62	149	968281	89.11	ppm		97
66)	Fluorene	9.71	166	921407	88.88	ppm		99
67)	4-Chlorophenyl-phenylether	9.74	204	422718	93.14	ppm		98
68)	4-Nitroaniline	9.81	138	278252	106.61	ppm		96

(#) = qualifier out of range (m) = manual integration
P103011.D MP4524.M Thu Mar 03 09:00:36 2016

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

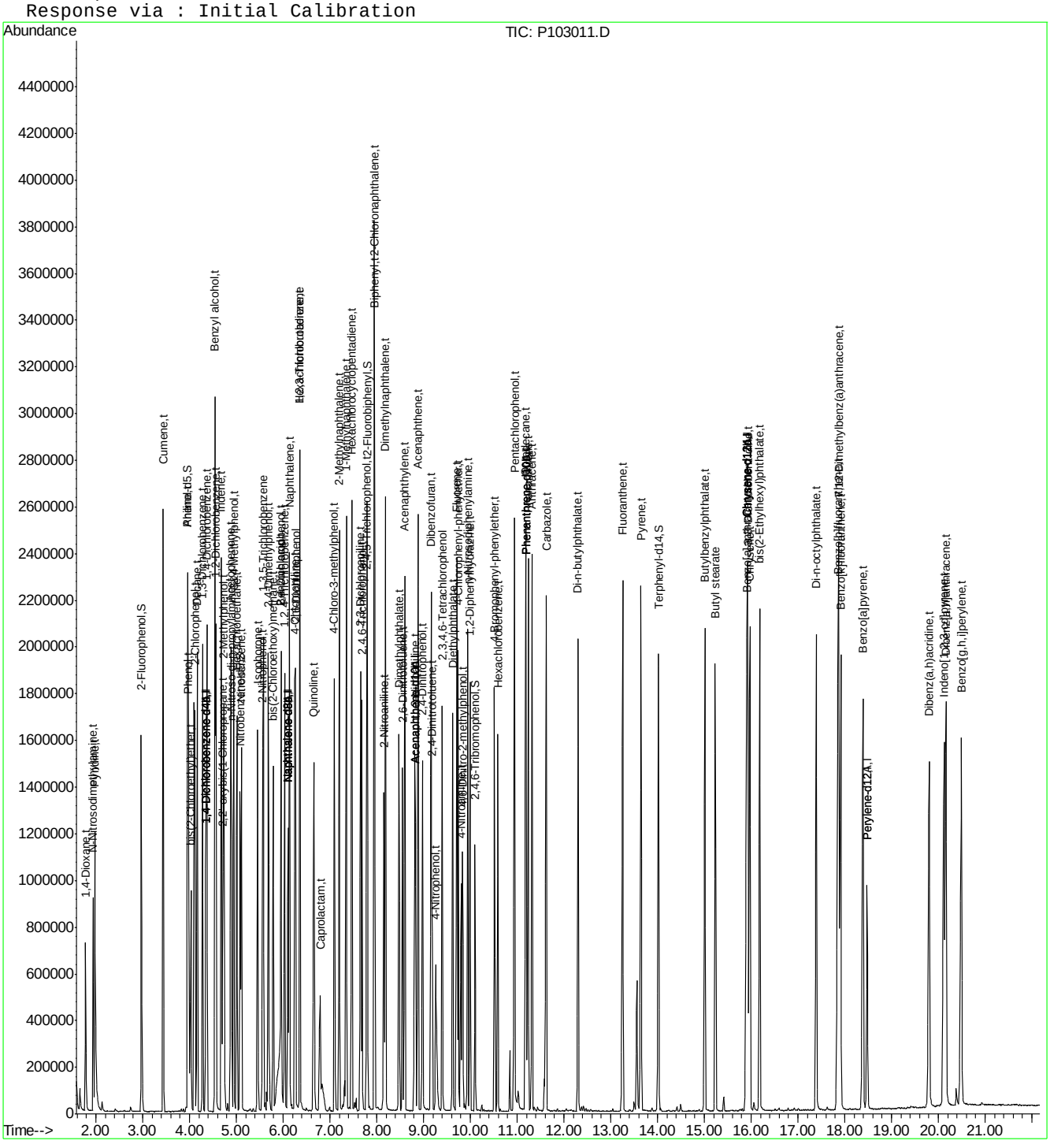
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.84	198	196683	105.35	ppm	97
71)	n-Nitrosodiphenylamine	9.95	169	700545	101.13	ppm	99
72)	1,2-Diphenylhydrazine	9.99	77	928012	94.85	ppm	99
74)	4-Bromophenyl-phenylether	10.52	248	251581	105.30	ppm	100
75)	Hexachlorobenzene	10.59	284	257612	102.37	ppm	92
76)	Pentachlorophenol	10.94	266	332916	203.41	ppm	97
77)	Phenanthrene	11.24	178	1156803	88.24	ppm	96
78)	Anthracene	11.32	178	1189353	89.49	ppm	96
79)	Carbazole	11.62	167	1226554	94.89	ppm	97
80)	Di-n-butylphthalate	12.30	149	1524547	95.65	ppm	96
81)	Fluoranthene	13.26	202	1310898	99.03	ppm	99
82)	Octadecane	11.18	57	481755	105.14	ppm	95
84)	Pyrene	13.65	202	1350284	87.92	ppm	99
86)	Butylbenzylphthalate	15.01	149	765646	104.04	ppm	97
87)	Butyl stearate	15.23	56	363522	105.15	ppm	97
88)	Benzo[a]anthracene	15.90	228	1191767	96.57	ppm	98
89)	3,3'-Dichlorobenzidine	15.93	252	473076	111.18	ppm	97
90)	Chrysene	15.98	228	1142770	93.42	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.18	149	991080	101.19	ppm	92
93)	Di-n-octylphthalate	17.39	149	1680169	99.74	ppm	95
94)	Benzo[b]fluoranthene	17.85	252	1296844	98.82	ppm	97
95)	Benzo[k]fluoranthene	17.92	252	1156230	89.91	ppm	98
96)	Benzo[a]pyrene	18.39	252	1156450	97.79	ppm	97
97)	Indeno[1,2,3-cd]pyrene	20.12	276	1128833	106.11	ppm	95
98)	Dibenz(a,h)acridine	19.81	279	1014285	105.93	ppm	98
99)	Dibenz[a,h]anthracene	20.17	278	1149581	103.89	ppm	96
100)	7,12-Dimethylbenz(a)anthra	17.87	256	576640	103.98	ppm	98
101)	Benzo[g,h,i]perylene	20.50	276	1181370	101.52	ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:00 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Manual Integration Approval Summary

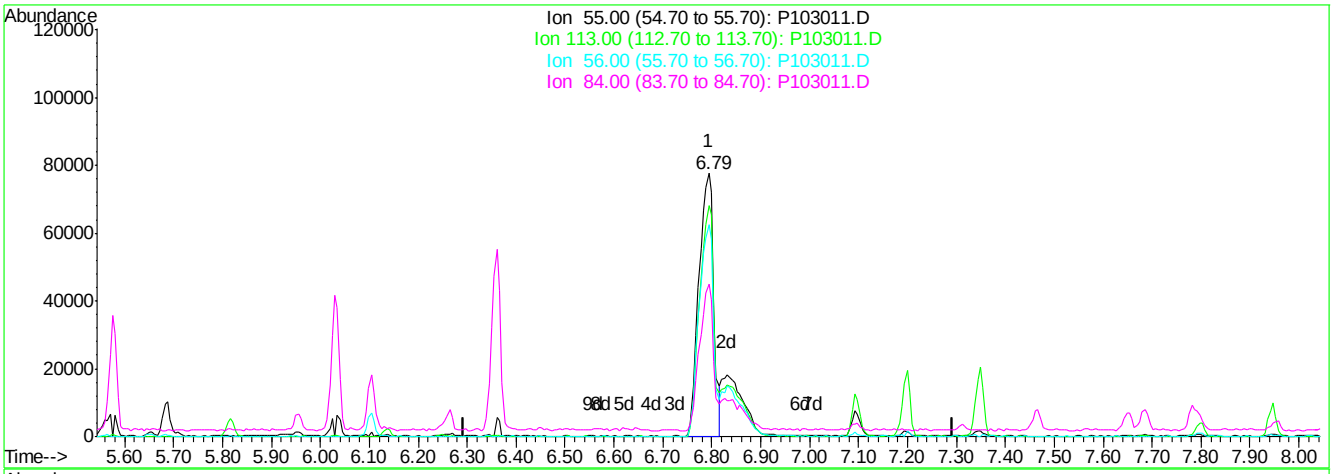
Sample Number:	EP4524-IC4524	**Method:**	SW846 8270D
Lab FileID:	P103011.D	**Analyst approved:**	03/03/16 11:25 Linsey Kirschmann
Injection Time:	03/02/16 17:10	**Supervisor approved:**	03/03/16 15:11 Nina Pandya

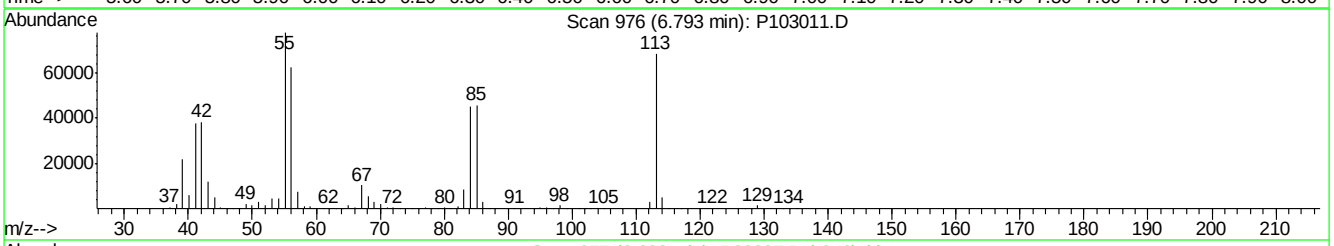
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.79	Split peak

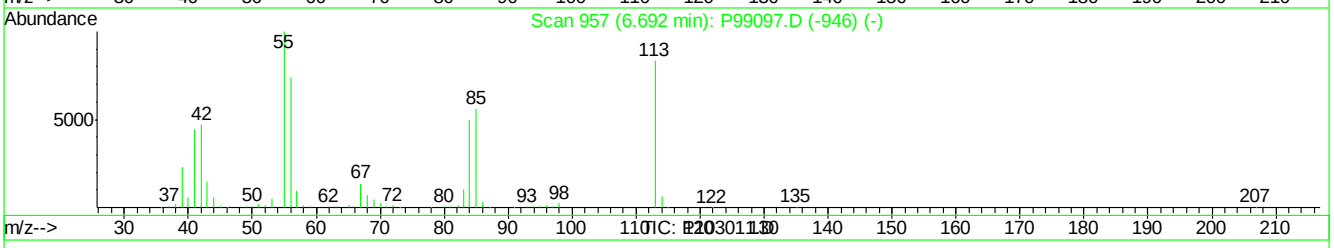
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 8:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Multiple Level Calibration







(41) Caprolactam (t)

6.79min 79.82ppm

response 162838

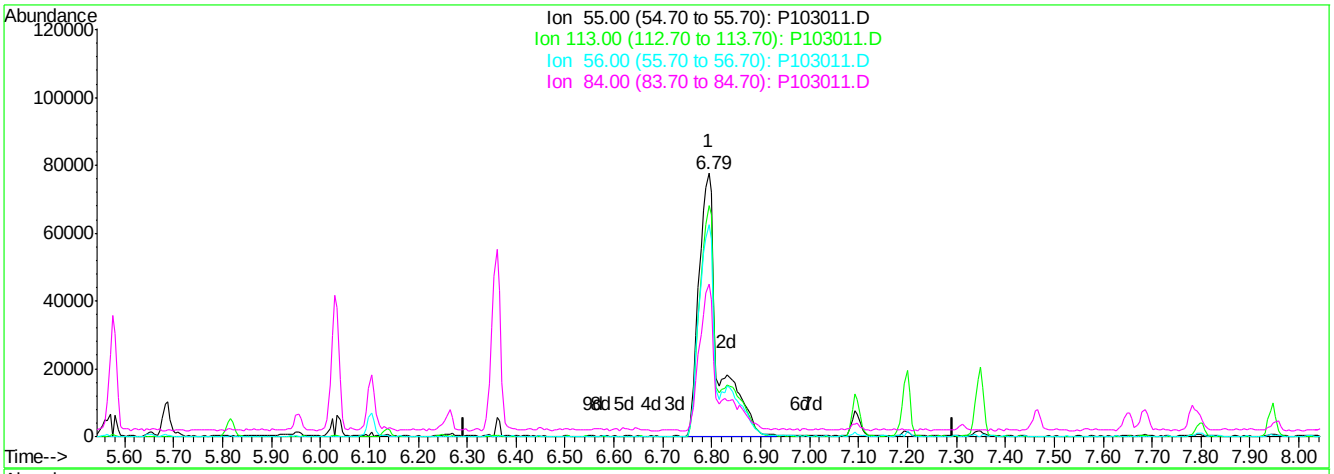
Ion	Exp%	Act%
55.00	100	100
113.00	88.10	87.95
56.00	77.60	81.09
84.00	52.10	55.97

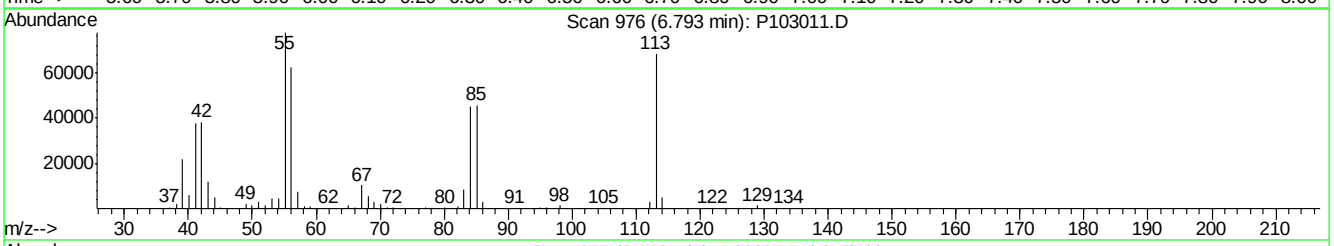
P103011.D MP4524.M Thu Mar 03 08:59:22 2016

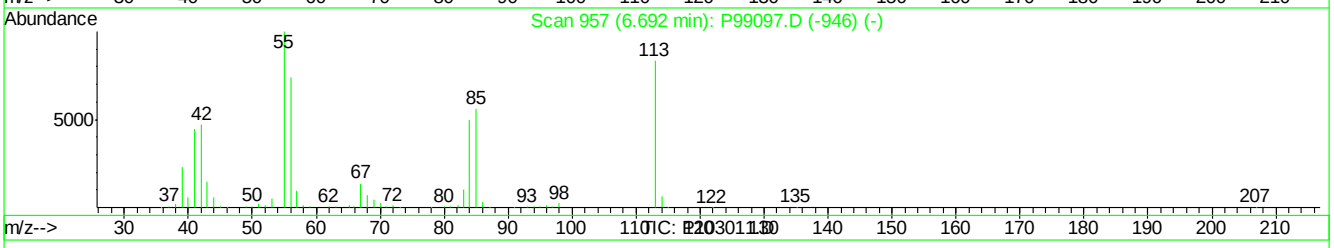
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 8:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Multiple Level Calibration







(41) Caprolactam (t)

6.79min 107.52ppm m

response 219369

Ion	Exp%	Act%
55.00	100	100
113.00	88.10	87.80
56.00	77.60	80.48
84.00	52.10	57.88

P103011.D MP4524.M Thu Mar 03 08:59:31 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
Acq On : 2 Mar 2016 5:40 pm Operator: sarad
Sample : ic4524-80 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	178586	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	620528	40.00	ppm	0.00
47) Acenaphthene-d10	8.83	164	360281	40.00	ppm	0.00
69) Phenanthrene-d10	11.20	188	528608	40.00	ppm	0.00
83) Chrysene-d12	15.92	240	473646	40.00	ppm	0.00
92) Perylene-d12	18.48	264	491928	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	178586	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	620528	40.00	ppm	-0.02
121) Acenaphthene-d10A	8.83	164	360281	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.20	188	528608	40.00	ppm	-0.03
147) Chrysene-d12A	15.92	240	473646	40.00	ppm	-0.03
155) Perylene-d12A	18.48	264	491928	40.00	ppm	-0.04
159) 1,4-Dichlorobenzene-d4b	4.35	152	178586	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.20	188	528608	40.00	ppm	-0.03
163) Chrysene-d12b	15.92	240	473646	40.00	ppm	-0.03
165) Naphthalene-d8b	6.10	136	620528	40.00	ppm	-0.02
167) Acenaphthene-d10b	8.83	164	360281	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	620528	40.00	ppm	-0.02
174) 1,4-Dichlorobenzene-d4a	4.35	152	178586	40.00	ppm	-0.11
176) Chrysene-d12c	15.92	240	473646	40.00	ppm	-0.04
178) Chrysene-d12d	15.92	240	473646	40.00	ppm	-0.04
180) Naphthalene-d8a	6.10	136	620528	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	465094	74.97	ppm	0.00
Spiked Amount 50.000			Recovery = 149.94%			
8) Phenol-d5	3.96	99	523320	68.75	ppm	0.00
Spiked Amount 50.000			Recovery = 137.50%			
25) Nitrobenzene-d5	5.08	82	471793	79.32	ppm	0.00
Spiked Amount 50.000			Recovery = 158.64%			
51) 2-Fluorobiphenyl	7.80	172	732307	66.42	ppm	0.00
Spiked Amount 50.000			Recovery = 132.84%			
73) 2,4,6-Tribromophenol	10.10	330	106345	93.08	ppm	0.00
Spiked Amount 50.000			Recovery = 186.16%			
85) Terphenyl-d14	14.02	244	728869	80.47	ppm	0.00
Spiked Amount 50.000			Recovery = 160.94%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	222785	71.68	ppm	98
3) Pyridine	1.97	79	500405	73.53	ppm	93
4) N-Nitrosodimethylamine	1.94	42	194874	77.79	ppm	93
6) Indene	4.68	116	704226	71.09	ppm	96
7) Cumene	3.44	105	946025	65.13	ppm	96
9) Phenol	3.98	94	583308	77.04	ppm	92
10) Aniline	3.95	93	537736	61.28	ppm	78
11) bis(2-Chloroethyl)ether	4.03	93	400655	73.98	ppm	97
12) 2-Chlorophenol	4.12	128	416149	70.89	ppm	96
13) Decane	4.17	43	310686	68.27	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	458830	68.52	ppm	100
15) 1,4-Dichlorobenzene	4.37	146	442639	68.66	ppm	98

(#) = qualifier out of range (m) = manual integration
P103012.D MP4524.M Thu Mar 03 09:01:53 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
Acq On : 2 Mar 2016 5:40 pm Operator: sarad
Sample : ic4524-80 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.54	108	252119	70.49	ppm		97
17)	1,2-Dichlorobenzene	4.57	146	404580	65.29	ppm		97
18)	Acetophenone	4.88	105	566522	70.23	ppm		97
19)	2-Methylphenol	4.73	108	367071	73.78	ppm		100
20)	2,2'-oxybis(1-Chloropropan	4.72	121	136332	75.04	ppm	#	95
21)	3&4-Methylphenol	4.94	108	410262	78.62	ppm		99
22)	n-Nitroso-di-n-propylamine	4.90	70	286991	76.16	ppm		98
23)	Hexachloroethane	5.01	201	153332	77.33	ppm		92
26)	Nitrobenzene	5.11	77	436257	75.96	ppm		97
27)	Quinoline	6.65	129	829668	75.27	ppm		97
28)	Isophorone	5.45	82	762842	74.99	ppm		98
29)	2-Nitrophenol	5.56	139	238435	82.08	ppm		90
30)	2,4-Dimethylphenol	5.68	107	407424	79.55	ppm		99
31)	Benzoic acid	5.94	105	344557	91.99	ppm		98
32)	bis(2-Chloroethoxy)methane	5.79	93	473263	75.99	ppm		99
33)	2,4-Dichlorophenol	5.95	162	338773	80.23	ppm		98
34)	2,6-Dichlorophenol	6.26	162	314906	77.18	ppm		97
35)	1,3,5-Trichlorobenzene	5.58	180	336682	67.77	ppm		99
36)	1,2,4-Trichlorobenzene	6.03	180	344599	70.67	ppm		98
37)	1,2,3-Trichlorobenzene	6.36	180	303801	67.48	ppm		98
38)	Naphthalene	6.14	128	1040109	68.36	ppm		96
39)	4-Chloroaniline	6.25	127	462641	68.78	ppm		98
40)	2,3-Dichloroaniline	7.65	161	408885	78.02	ppm		96
41)	Caprolactam	6.78	55	174783	85.57	ppm		96
42)	Hexachlorobutadiene	6.35	225	172834	76.64	ppm		100
43)	4-Chloro-3-methylphenol	7.09	107	375944	80.55	ppm	#	30
44)	2-Methylnaphthalene	7.19	141	595854	70.43	ppm		97
45)	1-Methylnaphthalene	7.35	142	729873	70.66	ppm		99
46)	Dimethylnaphthalene	8.19	156	636599	70.76	ppm		99
48)	Hexachlorocyclopentadiene	7.47	237	397814	155.36	ppm		98
49)	2,4,6-Trichlorophenol	7.69	196	229870	83.30	ppm		99
50)	2,4,5-Trichlorophenol	7.78	196	236902	80.62	ppm		98
52)	2-Chloronaphthalene	7.95	162	632054	67.63	ppm		98
53)	Biphenyl	7.94	154	796865	64.42	ppm		98
54)	2-Nitroaniline	8.15	65	229126	83.33	ppm		94
55)	Dimethylphthalate	8.48	163	802593	73.58	ppm		97
56)	Acenaphthylene	8.60	152	1034752	65.79	ppm		98
57)	2,6-Dinitrotoluene	8.55	165	198006	89.06	ppm		99
58)	3-Nitroaniline	8.81	138	228215	77.72	ppm		91
59)	Acenaphthene	8.88	153	652927	68.71	ppm		98
60)	2,4-Dinitrophenol	8.97	184	230535	164.09	ppm		100
61)	4-Nitrophenol	9.26	109	133510	88.07	ppm		99
62)	Dibenzofuran	9.16	168	920930	70.38	ppm		98
63)	2,4-Dinitrotoluene	9.18	165	253510	80.31	ppm		100
64)	2,3,4,6-Tetrachlorophenol	9.40	232	187545	86.91	ppm		98
65)	Diethylphthalate	9.62	149	804416	73.03	ppm		97
66)	Fluorene	9.70	166	770464	73.31	ppm		98
67)	4-Chlorophenyl-phenylether	9.74	204	351230	76.35	ppm		96
68)	4-Nitroaniline	9.80	138	222666	84.16	ppm		93

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
Acq On : 2 Mar 2016 5:40 pm Operator: sarad
Sample : ic4524-80 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.83	198	155961	82.07	ppm	94
71)	n-Nitrosodiphenylamine	9.95	169	583030	81.55	ppm	99
72)	1,2-Diphenylhydrazine	9.99	77	778787	77.13	ppm	99
74)	4-Bromophenyl-phenylether	10.52	248	204104	82.78	ppm	96
75)	Hexachlorobenzene	10.59	284	208450	80.26	ppm	96
76)	Pentachlorophenol	10.94	266	268273	150.32	ppm	98
77)	Phenanthrene	11.23	178	970432	71.73	ppm	97
78)	Anthracene	11.31	178	1003378	73.15	ppm	98
79)	Carbazole	11.62	167	1030855	77.27	ppm	98
80)	Di-n-butylphthalate	12.30	149	1289557	78.39	ppm	96
81)	Fluoranthene	13.25	202	1105211	80.90	ppm	99
82)	Octadecane	11.18	57	406806	86.03	ppm	95
84)	Pyrene	13.65	202	1138686	73.23	ppm	97
86)	Butylbenzylphthalate	15.00	149	630046	84.56	ppm	96
87)	Butyl stearate	15.23	56	306617	87.60	ppm	95
88)	Benzo[a]anthracene	15.90	228	980886	78.50	ppm	99
89)	3,3'-Dichlorobenzidine	15.93	252	385724	89.53	ppm	96
90)	Chrysene	15.97	228	934208	75.43	ppm	99
91)	bis(2-Ethylhexyl)phthalate	16.18	149	832867	83.98	ppm	95
93)	Di-n-octylphthalate	17.39	149	1403680	73.23	ppm	96
94)	Benzo[b]fluoranthene	17.85	252	1069927	80.57	ppm	99
95)	Benzo[k]fluoranthene	17.91	252	946696	72.76	ppm	96
96)	Benzo[a]pyrene	18.39	252	948815	79.29	ppm	98
97)	Indeno[1,2,3-cd]pyrene	20.11	276	891968	82.87	ppm	100
98)	Dibenz(a,h)acridine	19.80	279	835853	86.28	ppm	100
99)	Dibenz[a,h]anthracene	20.15	278	929880	83.06	ppm	97
100)	7,12-Dimethylbenz(a)anthra	17.86	256	476117	84.85	ppm	98
101)	Benzo[g,h,i]perylene	20.49	276	949594	80.65	ppm	98

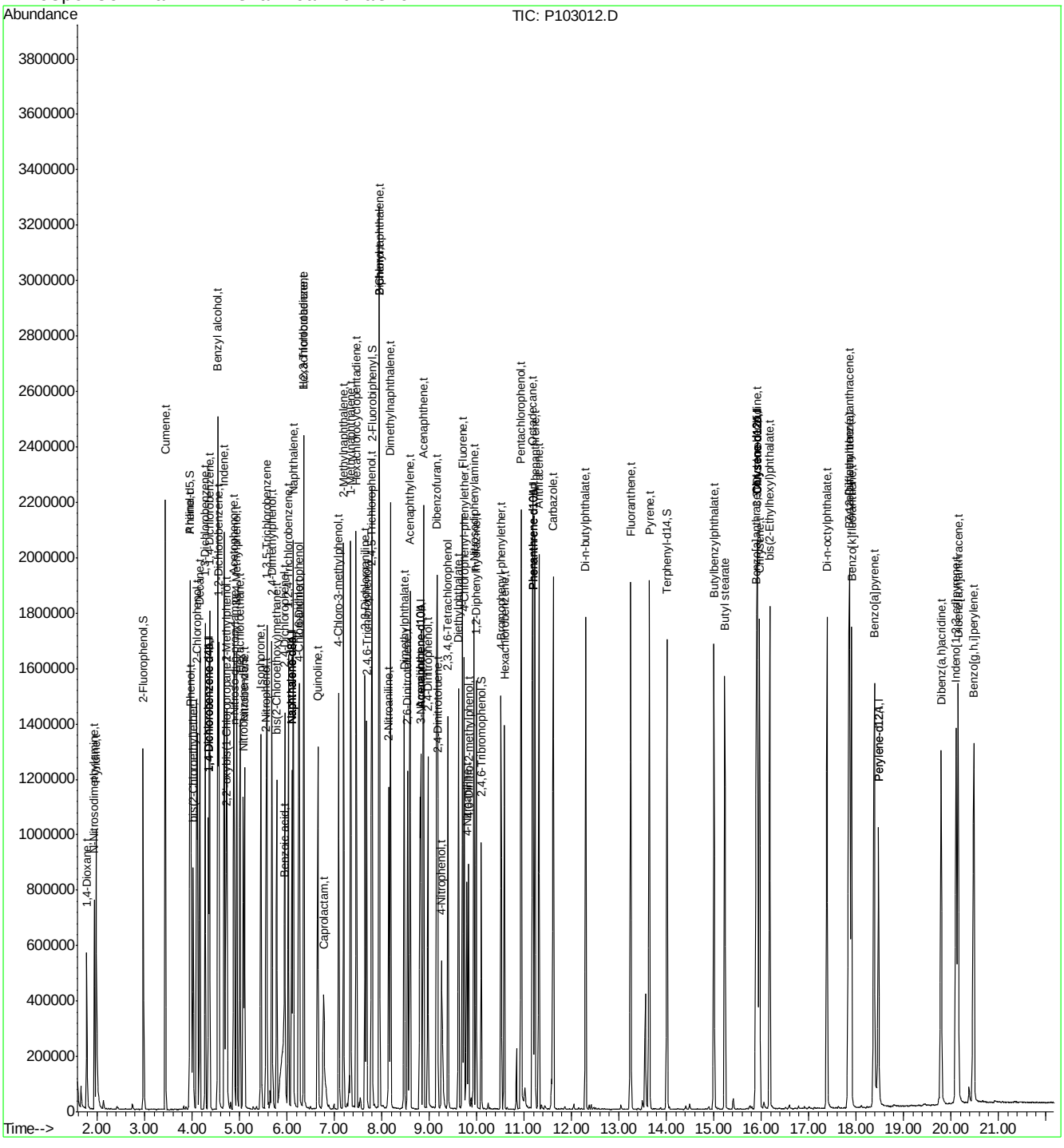
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
Acq On : 2 Mar 2016 5:40 pm Operator: sarad
Sample : ic4524-80 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:01 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
Acq On : 2 Mar 2016 6:09 pm Operator: sarad
Sample : ic4524-10 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155426	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	552817	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	324485	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	498966	40.00	ppm	-0.01
83) Chrysene-d12	15.91	240	463163	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	421054	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155426	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	552817	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	324485	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	498966	40.00	ppm	-0.04
147) Chrysene-d12A	15.91	240	463163	40.00	ppm	-0.04
155) Perylene-d12A	18.47	264	421054	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155426	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	498966	40.00	ppm	-0.04
163) Chrysene-d12b	15.91	240	463163	40.00	ppm	-0.04
165) Naphthalene-d8b	6.10	136	552817	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	324485	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	552817	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155426	40.00	ppm	-0.11
176) Chrysene-d12c	15.91	240	463163	40.00	ppm	-0.05
178) Chrysene-d12d	15.91	240	463163	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	552817	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	55136	10.21	ppm	0.00
Spiked Amount 50.000			Recovery = 20.42%			
8) Phenol-d5	3.97	99	68507	10.34	ppm	0.01
Spiked Amount 50.000			Recovery = 20.68%			
25) Nitrobenzene-d5	5.07	82	56575	10.68	ppm	-0.01
Spiked Amount 50.000			Recovery = 21.36%			
51) 2-Fluorobiphenyl	7.79	172	102683	10.34	ppm	-0.02
Spiked Amount 50.000			Recovery = 20.68%			
73) 2,4,6-Tribromophenol	10.09	330	10993	10.19	ppm	-0.02
Spiked Amount 50.000			Recovery = 20.38%			
85) Terphenyl-d14	14.01	244	88944	10.04	ppm	-0.02
Spiked Amount 50.000			Recovery = 20.08%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	24506	9.06	ppm	95
3) Pyridine	1.97	79	63167	10.66	ppm	93
4) N-Nitrosodimethylamine	1.94	42	22730	10.43	ppm	94
6) Indene	4.68	116	91808	10.65	ppm	97
7) Cumene	3.44	105	131818	10.43	ppm	99
9) Phenol	3.99	94	69485	10.54	ppm	97
10) Aniline	3.95	93	77890	10.20	ppm	99
11) bis(2-Chloroethyl)ether	4.02	93	49772	10.56	ppm	97
12) 2-Chlorophenol	4.12	128	54613	10.69	ppm	99
13) Decane	4.16	43	42382	10.70	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	60103	10.31	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	57065	10.17	ppm	99

(#) = qualifier out of range (m) = manual integration
P103013.D MP4524.M Thu Mar 03 09:06:42 2016

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
Acq On : 2 Mar 2016 6:09 pm Operator: sarad
Sample : ic4524-10 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
16) Benzyl alcohol	4.53	108	31766	10.21 ppm		98
17) 1,2-Dichlorobenzene	4.56	146	54367	10.08 ppm		99
18) Acetophenone	4.87	105	70625	10.06 ppm		99
19) 2-Methylphenol	4.73	108	45378	10.48 ppm		95
20) 2,2'-oxybis(1-Chloropropan	4.71	121	16189	10.24 ppm	#	99
21) 3&4-Methylphenol	4.94	108	48892	10.77 ppm		95
22) n-Nitroso-di-n-propylamine	4.88	70	36256	11.06 ppm		96
23) Hexachloroethane	5.01	201	18214	10.55 ppm		91
26) Nitrobenzene	5.10	77	54545	10.66 ppm		97
27) Quinoline	6.63	129	97447	9.92 ppm		97
28) Isophorone	5.44	82	94489	10.43 ppm		97
29) 2-Nitrophenol	5.55	139	26353	10.18 ppm		86
30) 2,4-Dimethylphenol	5.68	107	44496	9.75 ppm		96
31) Benzoic acid	5.82	105	25492	7.64 ppm		91
32) bis(2-Chloroethoxy)methane	5.78	93	56753	10.23 ppm		98
33) 2,4-Dichlorophenol	5.95	162	40441	10.75 ppm		98
34) 2,6-Dichlorophenol	6.25	162	38262	10.53 ppm		98
35) 1,3,5-Trichlorobenzene	5.57	180	44259	10.00 ppm		97
36) 1,2,4-Trichlorobenzene	6.02	180	43968	10.12 ppm		94
37) 1,2,3-Trichlorobenzene	6.36	180	41326	10.30 ppm		97
38) Naphthalene	6.13	128	139418	10.29 ppm		97
39) 4-Chloroaniline	6.24	127	61411	10.25 ppm		98
40) 2,3-Dichloroaniline	7.64	161	49954	10.70 ppm		99
41) Caprolactam	6.71	55	17813	9.79 ppm		97
42) Hexachlorobutadiene	6.35	225	21189	10.55 ppm		99
43) 4-Chloro-3-methylphenol	7.09	107	43449	10.45 ppm		99
44) 2-Methylnaphthalene	7.19	141	79541	10.55 ppm		99
45) 1-Methylnaphthalene	7.34	142	95406	10.37 ppm		98
46) Dimethylnaphthalene	8.18	156	83542	10.42 ppm		100
48) Hexachlorocyclopentadiene	7.46	237	44535	19.31 ppm		96
49) 2,4,6-Trichlorophenol	7.67	196	26349	10.60 ppm		95
50) 2,4,5-Trichlorophenol	7.78	196	27159	10.26 ppm		96
52) 2-Chloronaphthalene	7.94	162	88123	10.47 ppm		99
53) Biphenyl	7.94	154	114437	10.27 ppm		97
54) 2-Nitroaniline	8.13	65	25270	10.20 ppm		92
55) Dimethylphthalate	8.46	163	100109	10.19 ppm		99
56) Acenaphthylene	8.59	152	139479	9.85 ppm		97
57) 2,6-Dinitrotoluene	8.53	165	22361	11.17 ppm		100
58) 3-Nitroaniline	8.79	138	25976	9.82 ppm		98
59) Acenaphthene	8.87	153	85464	9.99 ppm		96
60) 2,4-Dinitrophenol	8.96	184	14131	16.88 ppm		93
61) 4-Nitrophenol	9.28	109	12377	9.07 ppm		91
62) Dibenzofuran	9.15	168	121720	10.33 ppm		97
63) 2,4-Dinitrotoluene	9.17	165	28231	9.50 ppm		94
64) 2,3,4,6-Tetrachlorophenol	9.39	232	19384	9.97 ppm		94
65) Diethylphthalate	9.60	149	99740	10.05 ppm		97
66) Fluorene	9.69	166	100352	10.60 ppm		98
67) 4-Chlorophenyl-phenylether	9.74	204	44163	10.66 ppm		96
68) 4-Nitroaniline	9.76	138	24865	10.43 ppm		95

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
Acq On : 2 Mar 2016 6:09 pm Operator: sarad
Sample : ic4524-10 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	12476	11.42	ppm	90
71)	n-Nitrosodiphenylamine	9.93	169	71605	10.61	ppm	99
72)	1,2-Diphenylhydrazine	9.98	77	101728	10.67	ppm	95
74)	4-Bromophenyl-phenylether	10.51	248	24024	10.32	ppm	97
75)	Hexachlorobenzene	10.58	284	26016	10.61	ppm	88
76)	Pentachlorophenol	10.93	266	23396	15.80	ppm	97
77)	Phenanthrene	11.22	178	129538	10.14	ppm	98
78)	Anthracene	11.30	178	133090	10.28	ppm	98
79)	Carbazole	11.61	167	134489	10.68	ppm	99
80)	Di-n-butylphthalate	12.30	149	164165	10.57	ppm	98
81)	Fluoranthene	13.24	202	140545	10.90	ppm	97
82)	Octadecane	11.17	57	50585	11.33	ppm	97
84)	Pyrene	13.63	202	149529	9.83	ppm	98
86)	Butylbenzylphthalate	15.00	149	68466	9.40	ppm	98
87)	Butyl stearate	15.22	56	32764	9.57	ppm	96
88)	Benzo[a]anthracene	15.89	228	115379	9.44	ppm	99
89)	3,3'-Dichlorobenzidine	15.91	252	40668	9.65	ppm	96
90)	Chrysene	15.95	228	118321	9.77	ppm	97
91)	bis(2-Ethylhexyl)phthalate	16.17	149	88395	9.12	ppm	99
93)	Di-n-octylphthalate	17.38	149	146382	9.00	ppm	98
94)	Benzo[b]fluoranthene	17.83	252	121995	10.73	ppm	97
95)	Benzo[k]fluoranthene	17.87	252	116254	10.44	ppm	99
96)	Benzo[a]pyrene	18.36	252	110921	10.83	ppm	99
97)	Indeno[1,2,3-cd]pyrene	20.09	276	94257	10.23	ppm	95
98)	Dibenz(a,h)acridine	19.78	279	89244	10.76	ppm	100
99)	Dibenz[a,h]anthracene	20.13	278	100671	10.51	ppm	99
100)	7,12-Dimethylbenz(a)anthra	17.84	256	47828	9.96	ppm	97
101)	Benzo[g,h,i]perylene	20.45	276	106051	10.52	ppm	97

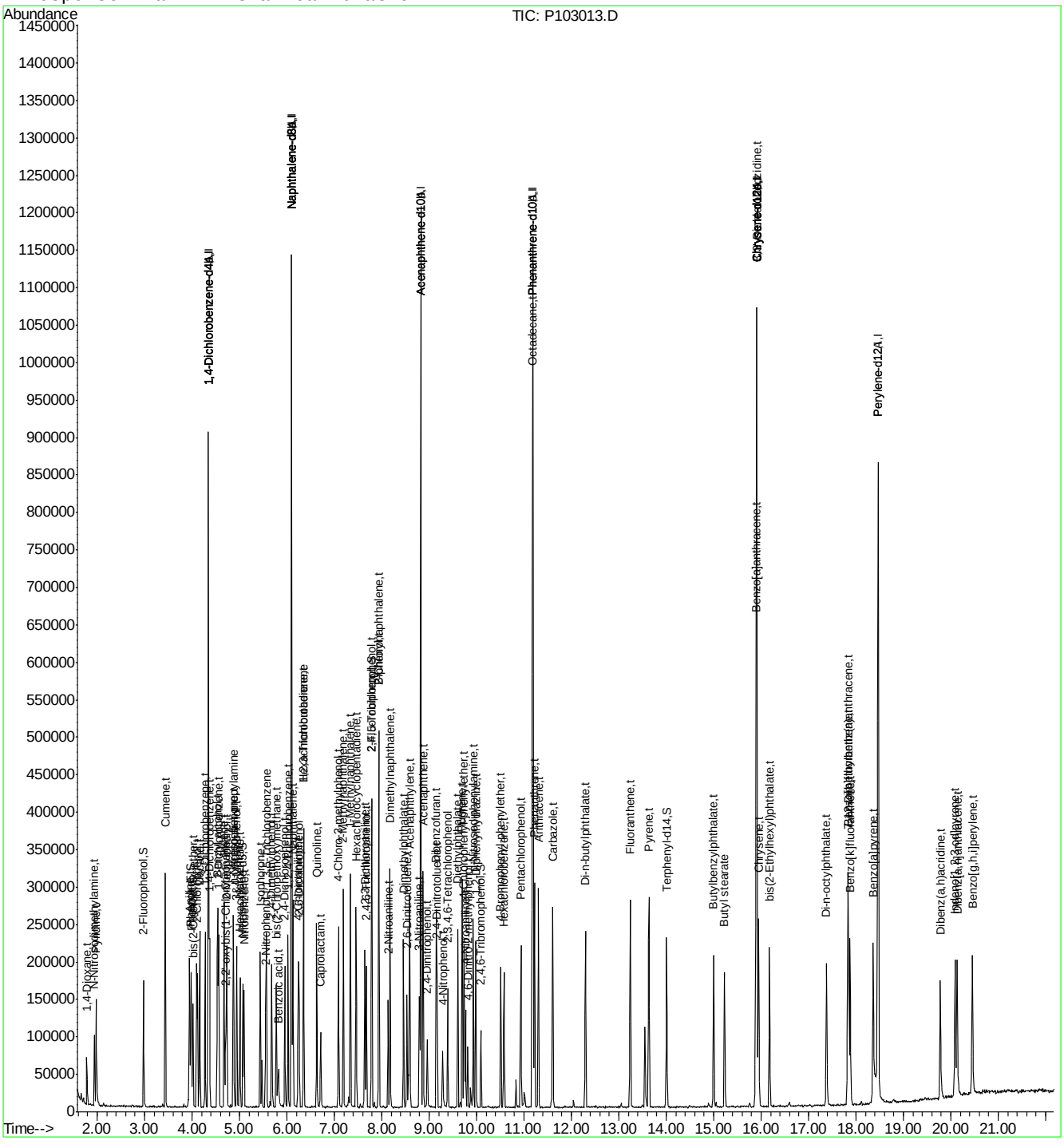
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
Acq On : 2 Mar 2016 6:09 pm Operator: sarad
Sample : ic4524-10 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:06 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155607	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	540889	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	318775	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	495165	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	453126	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	406577	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155607	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	540889	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	318775	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	495165	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	453126	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	406577	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155607	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	495165	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	453126	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	540889	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	318775	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	540889	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155607	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	453126	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	453126	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	540889	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	26969	4.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.98%	
8) Phenol-d5	3.97	99	33602	5.07	ppm	0.01
Spiked Amount 50.000			Recovery	=	10.14%	
25) Nitrobenzene-d5	5.07	82	26904	5.19	ppm	-0.01
Spiked Amount 50.000			Recovery	=	10.38%	
51) 2-Fluorobiphenyl	7.79	172	51547	5.28	ppm	-0.02
Spiked Amount 50.000			Recovery	=	10.56%	
73) 2,4,6-Tribromophenol	10.09	330	4944	4.62	ppm	-0.02
Spiked Amount 50.000			Recovery	=	9.24%	
85) Terphenyl-d14	14.01	244	42527	4.91	ppm	-0.02
Spiked Amount 50.000			Recovery	=	9.82%	

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	13932	5.14	ppm	96
3) Pyridine	1.98	79	32165	5.42	ppm	98
4) N-Nitrosodimethylamine	1.94	42	11536	5.29	ppm	89
6) Indene	4.67	116	46488	5.39	ppm	96
7) Cumene	3.44	105	66227	5.23	ppm	97
9) Phenol	3.99	94	33826	5.13	ppm	98
10) Aniline	3.95	93	40145	5.25	ppm	94
11) bis(2-Chloroethyl)ether	4.02	93	25050	5.31	ppm	98
12) 2-Chlorophenol	4.12	128	26588	5.20	ppm	96
13) Decane	4.16	43	21057	5.31	ppm	98
14) 1,3-Dichlorobenzene	4.28	146	29636	5.08	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	27956	4.98	ppm	97

(#) = qualifier out of range (m) = manual integration
P103014.D MP4524.M Thu Mar 03 09:08:06 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.53	108	15363	4.93	ppm		95
17)	1,2-Dichlorobenzene	4.56	146	27909	5.17	ppm		97
18)	Acetophenone	4.87	105	36422	5.18	ppm		96
19)	2-Methylphenol	4.73	108	21653	4.99	ppm		99
20)	2,2'-oxybis(1-Chloropropan	4.71	121	8174	5.16	ppm	#	94
21)	3&4-Methylphenol	4.94	108	23708	5.21	ppm		98
22)	n-Nitroso-di-n-propylamine	4.88	70	17413	5.30	ppm		98
23)	Hexachloroethane	5.01	201	9201	5.33	ppm		92
26)	Nitrobenzene	5.10	77	26808	5.36	ppm		96
27)	Quinoline	6.63	129	49913	5.19	ppm		98
28)	Isophorone	5.44	82	44969	5.07	ppm		97
29)	2-Nitrophenol	5.55	139	12006	4.74	ppm		85
30)	2,4-Dimethylphenol	5.68	107	21081	4.72	ppm		99
31)	Benzoic acid	5.81	105	9949	3.05	ppm		94
32)	bis(2-Chloroethoxy)methane	5.78	93	28551	5.26	ppm		98
33)	2,4-Dichlorophenol	5.95	162	19286	5.24	ppm		97
34)	2,6-Dichlorophenol	6.25	162	19007	5.34	ppm		95
35)	1,3,5-Trichlorobenzene	5.57	180	22364	5.16	ppm		98
36)	1,2,4-Trichlorobenzene	6.02	180	22530	5.30	ppm		92
37)	1,2,3-Trichlorobenzene	6.35	180	20382	5.19	ppm		91
38)	Naphthalene	6.13	128	71028	5.36	ppm		99
39)	4-Chloroaniline	6.24	127	30237	5.16	ppm		99
40)	2,3-Dichloroaniline	7.64	161	25352	5.55	ppm		98
41)	Caprolactam	6.71	55	8639	4.85	ppm		94
42)	Hexachlorobutadiene	6.35	225	11099	5.65	ppm		94
43)	4-Chloro-3-methylphenol	7.09	107	20273	4.98	ppm		96
44)	2-Methylnaphthalene	7.19	141	39005	5.29	ppm		97
45)	1-Methylnaphthalene	7.34	142	48329	5.37	ppm		97
46)	Dimethylnaphthalene	8.18	156	40886	5.21	ppm		98
48)	Hexachlorocyclopentadiene	7.46	237	18369	8.11	ppm		98
49)	2,4,6-Trichlorophenol	7.67	196	11786	4.83	ppm		96
50)	2,4,5-Trichlorophenol	7.78	196	12956	4.98	ppm		94
52)	2-Chloronaphthalene	7.94	162	45135	5.46	ppm		98
53)	Biphenyl	7.94	154	56812	5.19	ppm		96
54)	2-Nitroaniline	8.13	65	11086	4.56	ppm		94
55)	Dimethylphthalate	8.46	163	49583	5.14	ppm		98
56)	Acenaphthylene	8.59	152	69909	5.02	ppm		96
57)	2,6-Dinitrotoluene	8.53	165	9473	4.82	ppm		92
58)	3-Nitroaniline	8.79	138	11577	4.46	ppm		88
59)	Acenaphthene	8.87	153	42922	5.11	ppm		95
60)	2,4-Dinitrophenol	8.96	184	4195	9.06	ppm		93
61)	4-Nitrophenol	9.29	109	5034	3.75	ppm		90
62)	Dibenzofuran	9.15	168	61714	5.33	ppm		95
63)	2,4-Dinitrotoluene	9.17	165	12512	4.60	ppm		99
64)	2,3,4,6-Tetrachlorophenol	9.39	232	9273	4.86	ppm		94
65)	Diethylphthalate	9.60	149	48549	4.98	ppm		99
66)	Fluorene	9.69	166	50498	5.43	ppm		96
67)	4-Chlorophenyl-phenylether	9.73	204	22699	5.58	ppm		91
68)	4-Nitroaniline	9.76	138	10988	4.69	ppm		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	4274	7.14	ppm	94
71)	n-Nitrosodiphenylamine	9.93	169	35277	5.27	ppm	99
72)	1,2-Diphenylhydrazine	9.98	77	49064	5.19	ppm	95
74)	4-Bromophenyl-phenylether	10.51	248	11636	5.04	ppm	91
75)	Hexachlorobenzene	10.58	284	12826	5.27	ppm	95
76)	Pentachlorophenol	10.93	266	8538	8.36	ppm	94
77)	Phenanthrene	11.22	178	63535	5.01	ppm	100
78)	Anthracene	11.30	178	64555	5.02	ppm	99
79)	Carbazole	11.61	167	66824	5.35	ppm	98
80)	Di-n-butylphthalate	12.30	149	72767	4.72	ppm	98
81)	Fluoranthene	13.24	202	66948	5.23	ppm	97
82)	Octadecane	11.17	57	24057	5.43	ppm	95
84)	Pyrene	13.63	202	72231	4.86	ppm	99
86)	Butylbenzylphthalate	15.00	149	30411	4.27	ppm	94
87)	Butyl stearate	15.22	56	13848	4.14	ppm	91
88)	Benzo[a]anthracene	15.89	228	55988	4.68	ppm	97
89)	3,3'-Dichlorobenzidine	15.91	252	17340	4.21	ppm	91
90)	Chrysene	15.94	228	56260	4.75	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.17	149	37454	3.95	ppm	100
93)	Di-n-octylphthalate	17.38	149	58128	5.00	ppm	98
94)	Benzo[b]fluoranthene	17.83	252	58241	5.31	ppm	99
95)	Benzo[k]fluoranthene	17.87	252	58022	5.40	ppm	95
96)	Benzo[a]pyrene	18.36	252	50767	5.13	ppm	96
97)	Indeno[1,2,3-cd]pyrene	20.08	276	43144	4.85	ppm	95
98)	Dibenz(a,h)acridine	19.77	279	38461	4.80	ppm	96
99)	Dibenz[a,h]anthracene	20.13	278	46854	5.06	ppm	96
100)	7,12-Dimethylbenz(a)anthra	17.84	256	21729	4.69	ppm	99
101)	Benzo[g,h,i]perylene	20.45	276	51032	5.24	ppm	98

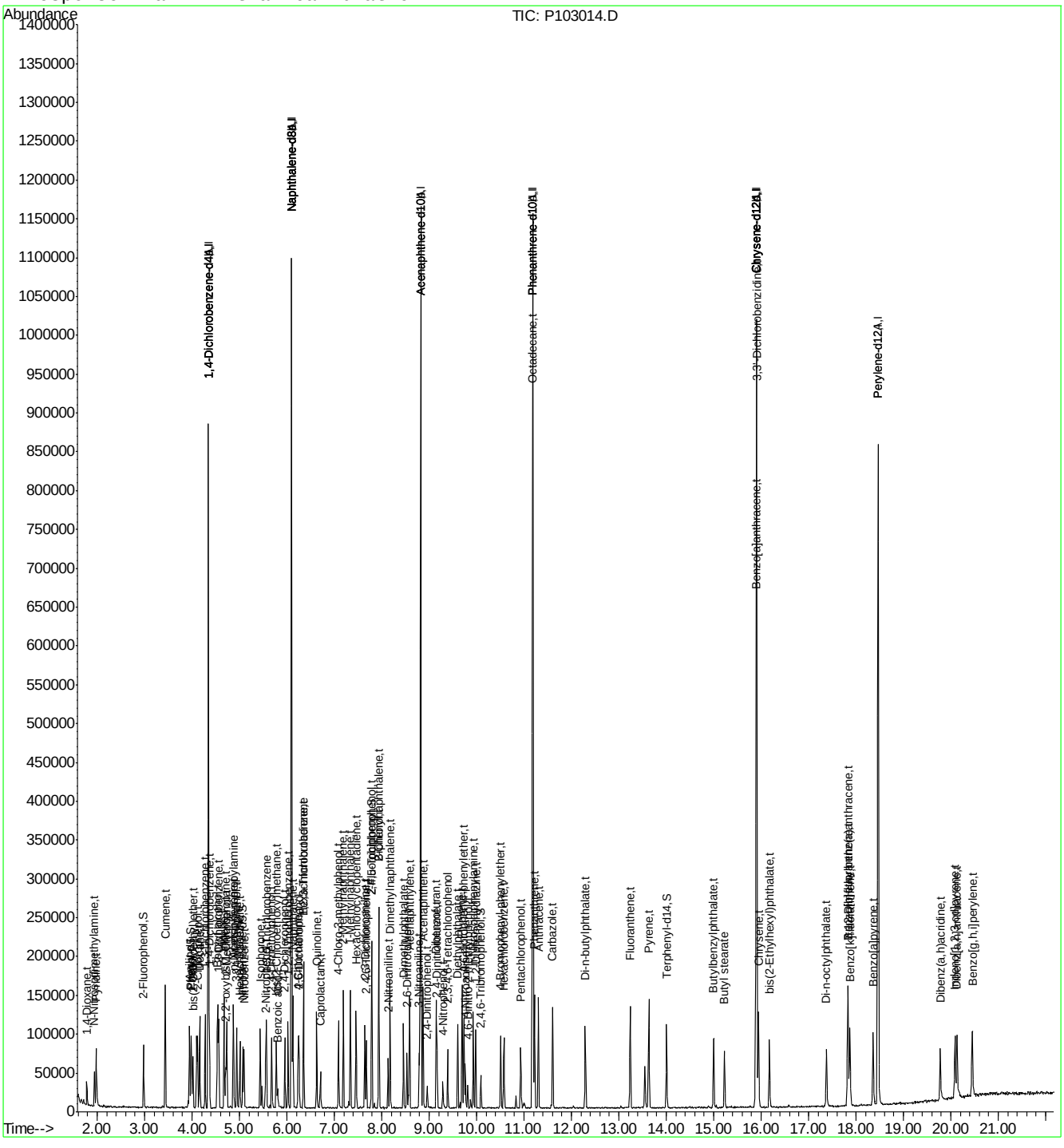
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:07 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration



P103014.D MP4524.M Thu Mar 03 09:08:06 2016 Page 4

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/03/16 15:11

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	148071	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	519283	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	303889	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	468881	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	427194	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	384484	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	148071	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	519283	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	303889	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	468881	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	427194	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	384484	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	148071	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	468881	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	427194	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	519283	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	303889	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	519283	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	148071	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	427194	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	427194	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	519283	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.98	112	9792	1.90	ppm	0.01
Spiked Amount 50.000			Recovery = 3.80%			
8) Phenol-d5	3.98	99	13152	2.08	ppm	0.02
Spiked Amount 50.000			Recovery = 4.16%			
25) Nitrobenzene-d5	5.07	82	10608	2.13	ppm	-0.01
Spiked Amount 50.000			Recovery = 4.26%			
51) 2-Fluorobiphenyl	7.79	172	19830	2.13	ppm	-0.02
Spiked Amount 50.000			Recovery = 4.26%			
73) 2,4,6-Tribromophenol	10.09	330	1548	1.53	ppm	-0.02
Spiked Amount 50.000			Recovery = 3.06%			
85) Terphenyl-d14	14.01	244	15913	1.95	ppm	-0.02
Spiked Amount 50.000			Recovery = 3.90%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	5752	2.23	ppm	92
3) Pyridine	1.98	79	11702	2.07	ppm	96
4) N-Nitrosodimethylamine	1.94	42	4545	2.19	ppm	92
6) Indene	4.67	116	17006	2.07	ppm	95
7) Cumene	3.44	105	25241	2.10	ppm	97
9) Phenol	3.99	94	13209	2.10	ppm	97
10) Aniline	3.95	93	15193	2.09	ppm	79
11) bis(2-Chloroethyl)ether	4.02	93	10462	2.33	ppm	96
12) 2-Chlorophenol	4.12	128	10670	2.19	ppm	97
13) Decane	4.16	43	8913	2.36	ppm	89
14) 1,3-Dichlorobenzene	4.28	146	11777	2.12	ppm	89
15) 1,4-Dichlorobenzene	4.37	146	11491	2.15	ppm	89

(#) = qualifier out of range (m) = manual integration
P103015.D MP4524.M Thu Mar 03 09:10:04 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
16) Benzyl alcohol	4.53	108	5754	1.94 ppm		83
17) 1,2-Dichlorobenzene	4.56	146	10342	2.01 ppm		95
18) Acetophenone	4.87	105	13254	1.98 ppm		92
19) 2-Methylphenol	4.73	108	8340	2.02 ppm		96
20) 2,2'-oxybis(1-Chloropropan	4.72	121	3109	2.06 ppm		95
21) 3&4-Methylphenol	4.95	108	8900	2.06 ppm		98
22) n-Nitroso-di-n-propylamine	4.88	70	6765	2.17 ppm		97
23) Hexachloroethane	5.01	201	3499	2.13 ppm		90
26) Nitrobenzene	5.10	77	9920	2.06 ppm		95
27) Quinoline	6.63	129	18405	2.00 ppm		95
28) Isophorone	5.44	82	15954	1.87 ppm		95
29) 2-Nitrophenol	5.55	139	4542	1.87 ppm		91
30) 2,4-Dimethylphenol	5.68	107	7536	1.76 ppm		95
31) Benzoic acid	5.79	105	2676	0.85 ppm		87
32) bis(2-Chloroethoxy)methane	5.78	93	10818	2.08 ppm		92
33) 2,4-Dichlorophenol	5.96	162	6748	1.91 ppm		84
34) 2,6-Dichlorophenol	6.25	162	6535	1.91 ppm		91
35) 1,3,5-Trichlorobenzene	5.57	180	8324	2.00 ppm		95
36) 1,2,4-Trichlorobenzene	6.02	180	8294	2.03 ppm		89
37) 1,2,3-Trichlorobenzene	6.36	180	8219	2.18 ppm		95
38) Naphthalene	6.13	128	27359	2.15 ppm		96
39) 4-Chloroaniline	6.24	127	10739	1.91 ppm		94
40) 2,3-Dichloroaniline	7.64	161	9506	2.17 ppm		97
41) Caprolactam	6.70	55	2827	1.65 ppm		78
42) Hexachlorobutadiene	6.35	225	4199	2.22 ppm		95
43) 4-Chloro-3-methylphenol	7.09	107	6722	1.72 ppm		95
44) 2-Methylnaphthalene	7.19	141	14472	2.04 ppm		92
45) 1-Methylnaphthalene	7.34	142	17995	2.08 ppm		94
46) Dimethylnaphthalene	8.18	156	15216	2.02 ppm		92
48) Hexachlorocyclopentadiene	7.46	237	6584	3.05 ppm		96
49) 2,4,6-Trichlorophenol	7.67	196	4312	1.85 ppm		99
50) 2,4,5-Trichlorophenol	7.79	196	4313	1.74 ppm		95
52) 2-Chloronaphthalene	7.94	162	17541	2.23 ppm		94
53) Biphenyl	7.94	154	22996	2.20 ppm		97
54) 2-Nitroaniline	8.13	65	3978	1.72 ppm		83
55) Dimethylphthalate	8.46	163	18317	1.99 ppm		99
56) Acenaphthylene	8.59	152	25872	1.95 ppm		94
57) 2,6-Dinitrotoluene	8.53	165	3010	1.60 ppm		93
58) 3-Nitroaniline	8.79	138	3802	1.53 ppm		98
59) Acenaphthene	8.87	153	15999	2.00 ppm		93
60) 2,4-Dinitrophenol	8.96	184	785	6.33 ppm		82
61) 4-Nitrophenol	9.29	109	1841	1.44 ppm	#	83
62) Dibenzofuran	9.15	168	23300	2.11 ppm		98
63) 2,4-Dinitrotoluene	9.17	165	3967	1.95 ppm		92
64) 2,3,4,6-Tetrachlorophenol	9.39	232	2826	1.55 ppm		80
65) Diethylphthalate	9.60	149	18236	1.96 ppm		95
66) Fluorene	9.69	166	18432	2.08 ppm		93
67) 4-Chlorophenyl-phenylether	9.73	204	8412	2.17 ppm		98
68) 4-Nitroaniline	9.76	138	3584	1.61 ppm		94

(#) = qualifier out of range (m) = manual integration
P103015.D MP4524.M Thu Mar 03 09:10:04 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	1004	5.44	ppm	92
71)	n-Nitrosodiphenylamine	9.93	169	12791	2.02	ppm	95
72)	1,2-Diphenylhydrazine	9.98	77	17812	1.99	ppm	91
74)	4-Bromophenyl-phenylether	10.51	248	4180	1.91	ppm	92
75)	Hexachlorobenzene	10.58	284	5013	2.18	ppm	90
76)	Pentachlorophenol	10.93	266	2234	5.26	ppm	89
77)	Phenanthrene	11.22	178	24318	2.03	ppm	98
78)	Anthracene	11.30	178	23432	1.93	ppm	99
79)	Carbazole	11.60	167	23377	1.98	ppm	99
80)	Di-n-butylphthalate	12.29	149	23363	1.60	ppm	93
81)	Fluoranthene	13.24	202	23983	1.98	ppm	97
82)	Octadecane	11.17	57	8767	2.09	ppm	97
84)	Pyrene	13.63	202	26127	1.86	ppm	93
86)	Butylbenzylphthalate	14.99	149	8941	1.33	ppm	90
87)	Butyl stearate	15.22	56	3624	1.15	ppm	87
88)	Benzo[a]anthracene	15.89	228	20705	1.84	ppm	99
89)	3,3'-Dichlorobenzidine	15.91	252	5154	1.33	ppm	87
90)	Chrysene	15.94	228	22166	1.98	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.17	149	10184	1.14	ppm	92
93)	Di-n-octylphthalate	17.38	149	13602	2.95	ppm	97
94)	Benzo[b]fluoranthene	17.83	252	20465	1.97	ppm	94
95)	Benzo[k]fluoranthene	17.87	252	20495	2.02	ppm	91
96)	Benzo[a]pyrene	18.36	252	16901	1.81	ppm	99
97)	Indeno[1,2,3-cd]pyrene	20.08	276	13908m	1.65	ppm	
98)	Dibenz(a,h)acridine	19.78	279	11517	1.52	ppm	97
99)	Dibenz[a,h]anthracene	20.13	278	16778	1.92	ppm	92
100)	7,12-Dimethylbenz(a)anthra	17.83	256	7263	1.66	ppm	87
101)	Benzo[g,h,i]perylene	20.45	276	17502	1.90	ppm	98

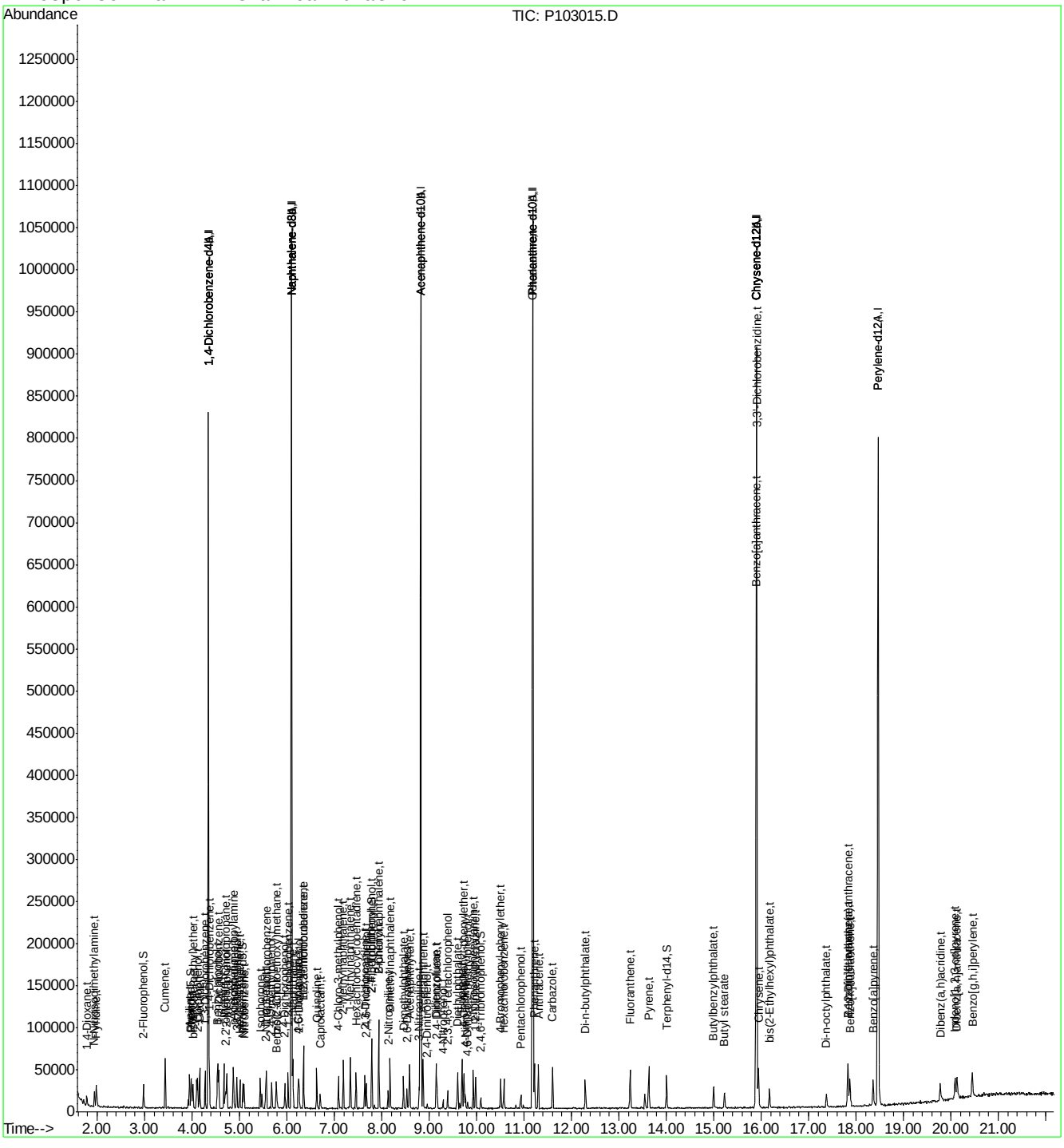
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:09 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Manual Integration Approval Summary

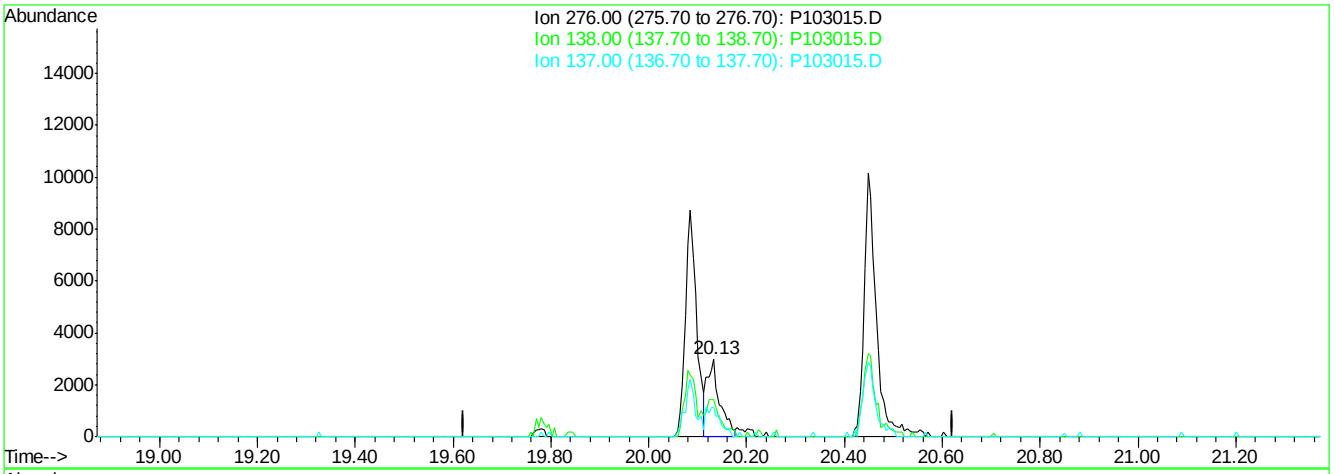
Sample Number:	EP4524-IC4524	**Method:**	SW846 8270D
Lab FileID:	P103015.D	**Analyst approved:**	03/03/16 11:25 Linsey Kirschmann
Injection Time:	03/02/16 19:08	**Supervisor approved:**	03/03/16 15:11 Nina Pandya

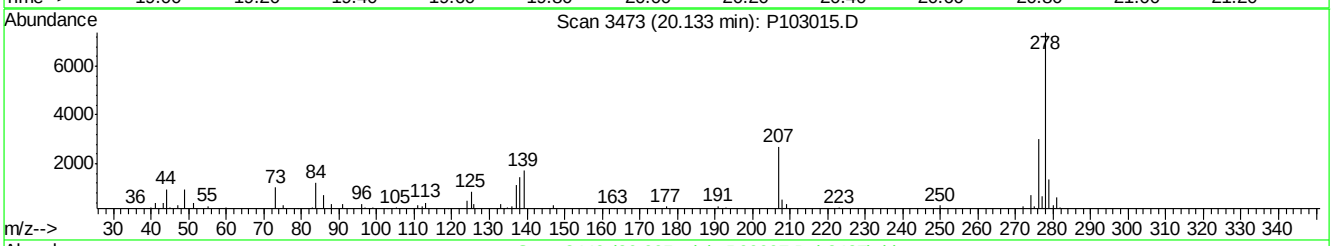
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		20.08	Poor instrument integration

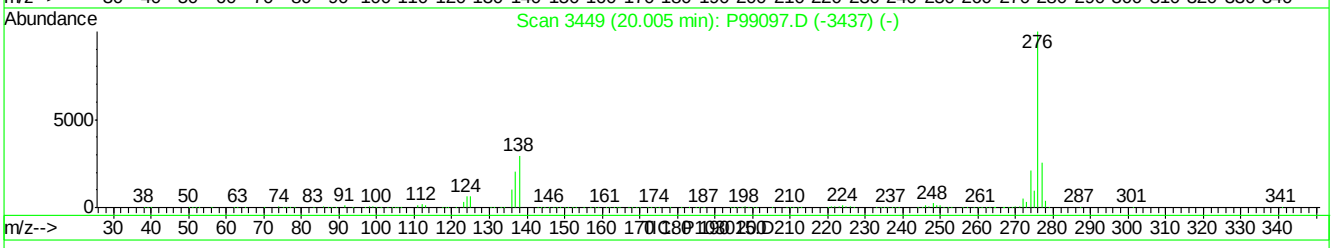
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:08 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Multiple Level Calibration







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

20.13min 0.65ppm

response 5497

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	45.22
137.00	20.50	50.31
0.00	0.00	0.00

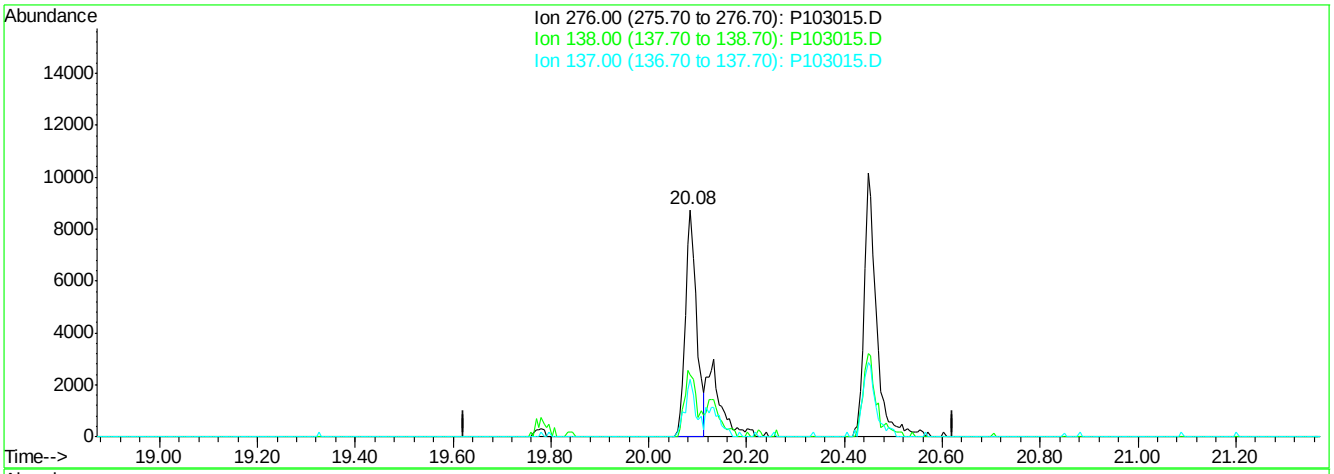
P103015.D MP4524.M Thu Mar 03 09:09:23 2016

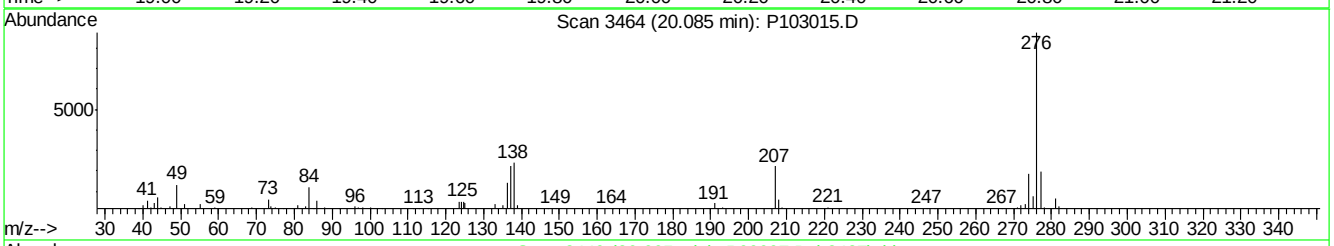
SGS ACCUTEST JC15883

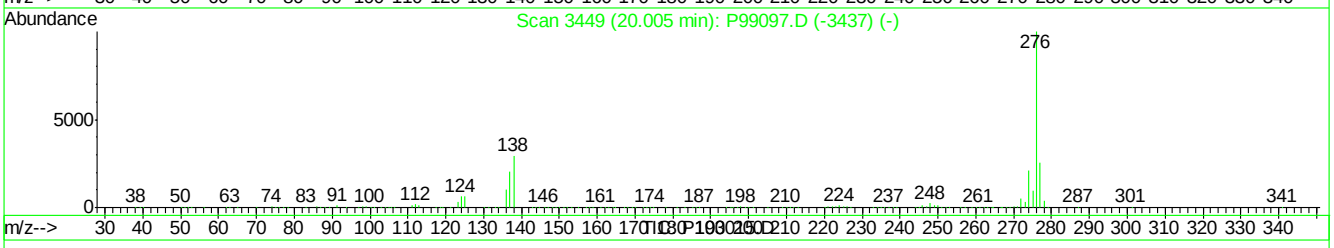
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:09 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Multiple Level Calibration







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

20.08min 1.65ppm m

response 13908

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	27.33
137.00	20.50	25.37
0.00	0.00	0.00

P103015.D MP4524.M Thu Mar 03 09:09:29 2016

SGS ACCUTEST JC15883

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/03/16 15:11

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155171	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	555275	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	323538	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	495080	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	448414	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	398461	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155171	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	555275	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	323538	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	495080	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	448414	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	398461	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155171	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	495080	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	448414	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	555275	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	323538	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	555275	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155171	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	448414	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	448414	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	555275	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	4980	0.92	ppm	0.00
Spiked Amount 50.000			Recovery = 1.84%			
8) Phenol-d5	3.98	99	6538	0.99	ppm	0.02
Spiked Amount 50.000			Recovery = 1.98%			
25) Nitrobenzene-d5	5.07	82	5331	1.00	ppm	-0.01
Spiked Amount 50.000			Recovery = 2.00%			
51) 2-Fluorobiphenyl	7.79	172	10228	1.03	ppm	-0.02
Spiked Amount 50.000			Recovery = 2.06%			
73) 2,4,6-Tribromophenol	10.09	330	673	0.63	ppm	-0.02
Spiked Amount 50.000			Recovery = 1.26%			
85) Terphenyl-d14	14.01	244	8345	0.97	ppm	-0.02
Spiked Amount 50.000			Recovery = 1.94%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	3235	1.20	ppm	91
3) Pyridine	1.99	79	6499	1.10	ppm	98
4) N-Nitrosodimethylamine	1.94	42	2444	1.12	ppm	90
6) Indene	4.67	116	8844	1.03	ppm	91
7) Cumene	3.44	105	14638	1.16	ppm	92
9) Phenol	3.99	94	6552	1.00	ppm	93
10) Aniline	3.95	93	8065	1.06	ppm	87
11) bis(2-Chloroethyl)ether	4.02	93	5482	1.17	ppm	98
12) 2-Chlorophenol	4.12	128	4814	0.94	ppm	97
13) Decane	4.16	43	4471	1.13	ppm	89
14) 1,3-Dichlorobenzene	4.28	146	6006	1.03	ppm	99
15) 1,4-Dichlorobenzene	4.36	146	5565	0.99	ppm	82

(#) = qualifier out of range (m) = manual integration
P103016.D MP4524.M Thu Mar 03 09:14:57 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.53	108	2890	0.93	ppm		97
17)	1,2-Dichlorobenzene	4.56	146	5817	1.08	ppm		95
18)	Acetophenone	4.87	105	7136	1.02	ppm		95
19)	2-Methylphenol	4.73	108	4147	0.96	ppm		91
20)	2,2'-oxybis(1-Chloropropan	4.72	121	1794	1.14	ppm		98
21)	3&4-Methylphenol	4.94	108	4450	0.98	ppm		86
22)	n-Nitroso-di-n-propylamine	4.88	70	3507	1.07	ppm		89
23)	Hexachloroethane	5.00	201	1742	1.01	ppm		90
26)	Nitrobenzene	5.09	77	5747	1.12	ppm		89
27)	Quinoline	6.63	129	9837	1.00	ppm		90
28)	Isophorone	5.44	82	8238	0.91	ppm		95
29)	2-Nitrophenol	5.55	139	2172	0.84	ppm		84
30)	2,4-Dimethylphenol	5.68	107	3754	0.82	ppm		90
31)	Benzoic acid	5.79	105	835	0.25	ppm		95
32)	bis(2-Chloroethoxy)methane	5.78	93	5666	1.02	ppm		95
33)	2,4-Dichlorophenol	5.96	162	3337	0.88	ppm		97
34)	2,6-Dichlorophenol	6.25	162	3575	0.98	ppm		94
35)	1,3,5-Trichlorobenzene	5.57	180	4850	1.09	ppm		85
36)	1,2,4-Trichlorobenzene	6.02	180	4557	1.04	ppm		86
37)	1,2,3-Trichlorobenzene	6.35	180	4197	1.04	ppm		93
38)	Naphthalene	6.13	128	14418	1.06	ppm		98
39)	4-Chloroaniline	6.24	127	5443	0.90	ppm		97
40)	2,3-Dichloroaniline	7.64	161	4523	0.96	ppm		91
41)	Caprolactam	6.70	55	1510	0.83	ppm	#	76
42)	Hexachlorobutadiene	6.35	225	2229	1.10	ppm		90
43)	4-Chloro-3-methylphenol	7.09	107	3059	0.73	ppm	#	67
44)	2-Methylnaphthalene	7.19	141	7623	1.01	ppm		98
45)	1-Methylnaphthalene	7.34	142	9057	0.98	ppm		93
46)	Dimethylnaphthalene	8.18	156	8233	1.02	ppm		96
48)	Hexachlorocyclopentadiene	7.46	237	2913	1.27	ppm		88
49)	2,4,6-Trichlorophenol	7.68	196	2008	0.81	ppm		98
50)	2,4,5-Trichlorophenol	7.79	196	1993	0.76	ppm		97
52)	2-Chloronaphthalene	7.94	162	8595	1.02	ppm		90
53)	Biphenyl	7.94	154	11633	1.05	ppm		95
54)	2-Nitroaniline	8.13	65	1760	0.71	ppm		95
55)	Dimethylphthalate	8.46	163	9365	0.96	ppm		96
56)	Acenaphthylene	8.59	152	13949	0.99	ppm		95
57)	2,6-Dinitrotoluene	8.53	165	1603	0.80	ppm		93
58)	3-Nitroaniline	8.79	138	1709	0.65	ppm		73
59)	Acenaphthene	8.87	153	8759	1.03	ppm		92
60)	2,4-Dinitrophenol	8.96	184	259	5.87	ppm	#	22
61)	4-Nitrophenol	9.30	109	572	0.42	ppm	#	56
62)	Dibenzofuran	9.15	168	11667	0.99	ppm		98
63)	2,4-Dinitrotoluene	9.17	165	1578	1.12	ppm		88
64)	2,3,4,6-Tetrachlorophenol	9.39	232	1177	0.61	ppm		89
65)	Diethylphthalate	9.60	149	8984	0.91	ppm		98
66)	Fluorene	9.69	166	9121	0.97	ppm		89
67)	4-Chlorophenyl-phenylether	9.73	204	4077	0.99	ppm		96
68)	4-Nitroaniline	9.76	138	1447	0.61	ppm		92

(#) = qualifier out of range (m) = manual integration
P103016.D MP4524.M Thu Mar 03 09:14:57 2016

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	406	5.09	ppm	#	29
71)	n-Nitrosodiphenylamine	9.93	169	6294	0.94	ppm		96
72)	1,2-Diphenylhydrazine	9.98	77	8640	0.91	ppm		90
74)	4-Bromophenyl-phenylether	10.51	248	2225	0.96	ppm		96
75)	Hexachlorobenzene	10.58	284	2726	1.12	ppm		95
76)	Pentachlorophenol	10.93	266	748	4.45	ppm		78
77)	Phenanthrene	11.22	178	12359	0.98	ppm		98
78)	Anthracene	11.30	178	11081	0.86	ppm		93
79)	Carbazole	11.60	167	11258	0.90	ppm		93
80)	Di-n-butylphthalate	12.29	149	11428	0.74	ppm		98
81)	Fluoranthene	13.24	202	12351	0.97	ppm		94
82)	Octadecane	11.17	57	4325	0.98	ppm		95
84)	Pyrene	13.63	202	13036	0.89	ppm		96
86)	Butylbenzylphthalate	15.00	149	3399	0.48	ppm		87
87)	Butyl stearate	15.22	56	1463	0.44	ppm		73
88)	Benzo[a]anthracene	15.89	228	10942	0.92	ppm		97
89)	3,3'-Dichlorobenzidine	15.91	252	2232	0.55	ppm		86
90)	Chrysene	15.94	228	10699	0.91	ppm		93
91)	bis(2-Ethylhexyl)phthalate	16.17	149	3603	0.38	ppm		96
93)	Di-n-octylphthalate	17.38	149	5368	2.53	ppm		95
94)	Benzo[b]fluoranthene	17.83	252	9472	0.88	ppm		98
95)	Benzo[k]fluoranthene	17.87	252	10371	0.98	ppm		91
96)	Benzo[a]pyrene	18.36	252	7839	0.81	ppm		97
97)	Indeno[1,2,3-cd]pyrene	20.09	276	6348m	0.73	ppm		
98)	Dibenz(a,h)acridine	19.78	279	5613	0.72	ppm		86
99)	Dibenz[a,h]anthracene	20.13	278	7251	0.80	ppm		92
100)	7,12-Dimethylbenz(a)anthra	17.84	256	2773	0.61	ppm		87
101)	Benzo[g,h,i]perylene	20.45	276	8994	0.94	ppm		87

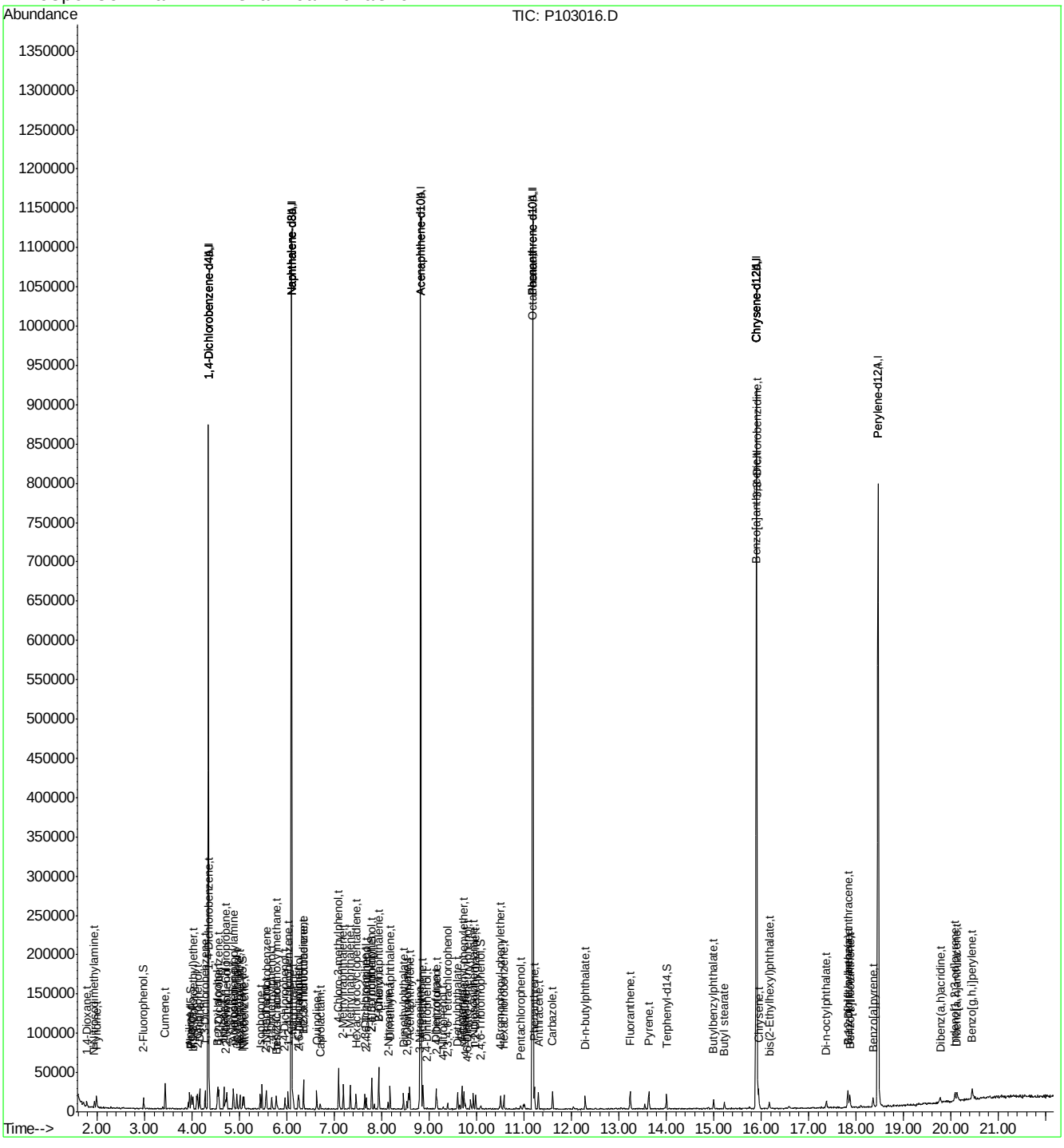
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:14 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



Manual Integration Approval Summary

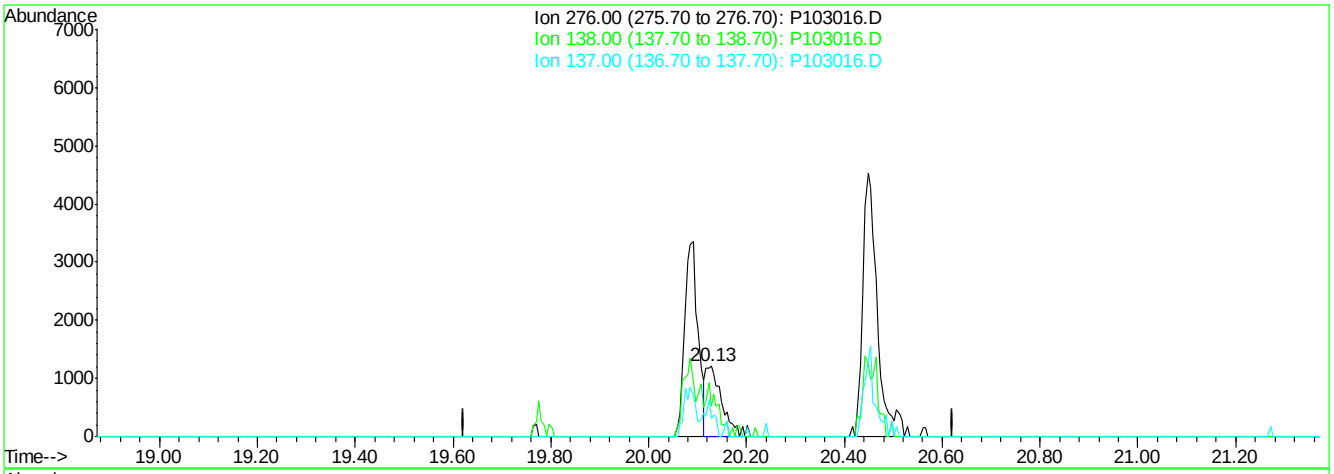
Sample Number:	EP4524-IC4524	**Method:**	SW846 8270D
Lab FileID:	P103016.D	**Analyst approved:**	03/03/16 11:25 Linsey Kirschmann
Injection Time:	03/02/16 19:37	**Supervisor approved:**	03/03/16 15:11 Nina Pandya

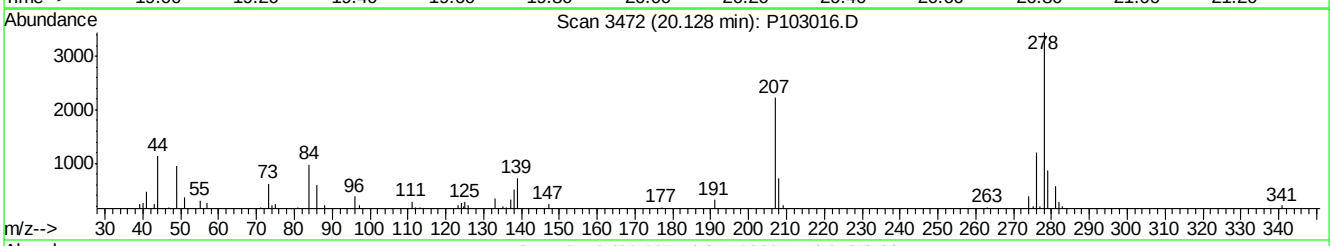
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		20.09	Poor instrument integration

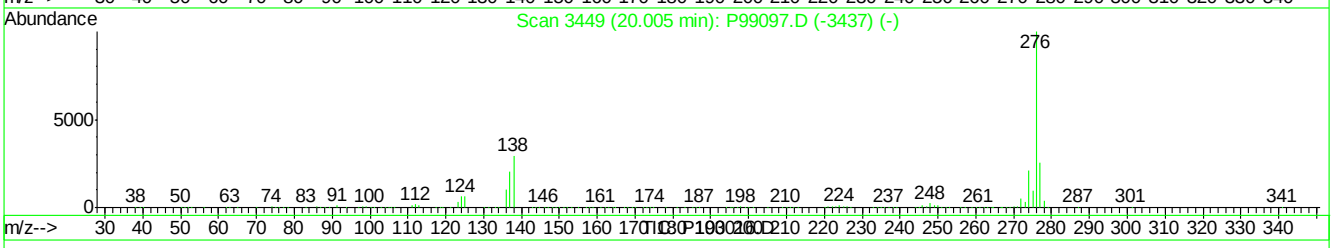
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 8:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Multiple Level Calibration







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

20.13min 0.32ppm

response 2751

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	24.11
137.00	20.50	15.27
0.00	0.00	0.00

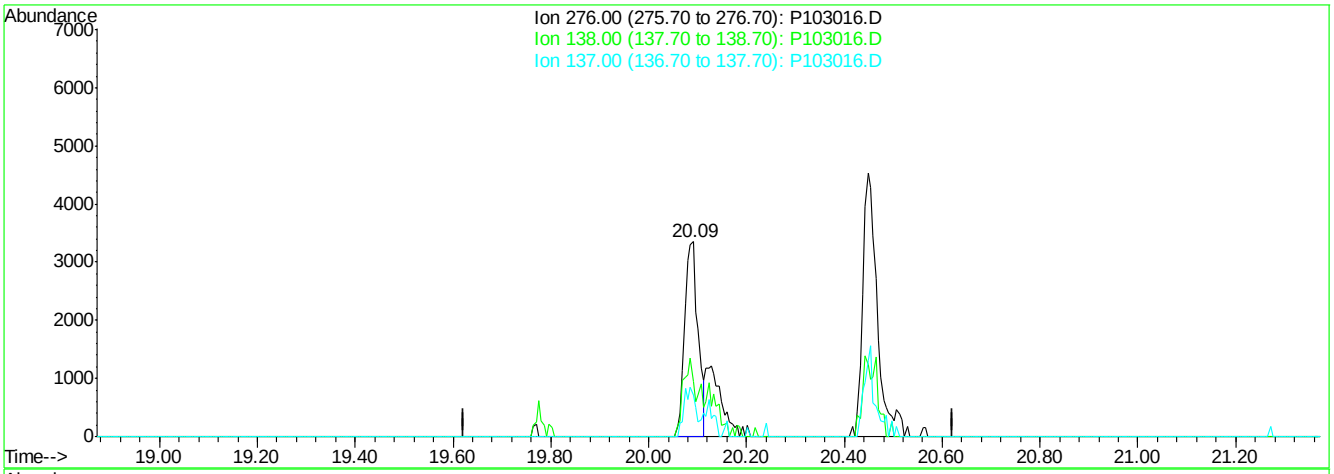
P103016.D MP4524.M Thu Mar 03 09:14:13 2016

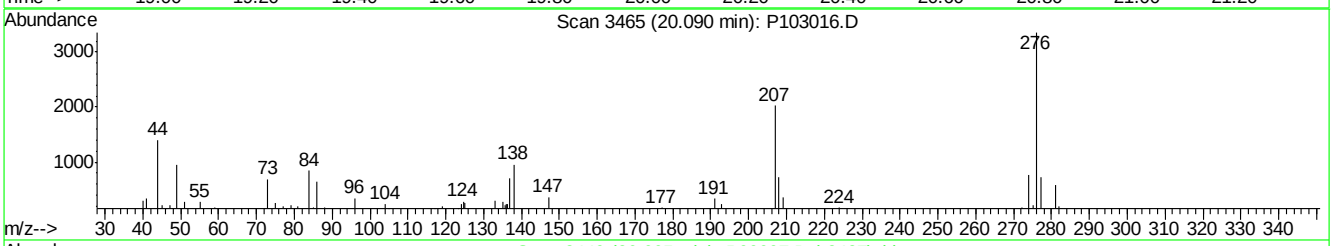
SGS ACCUTEST JC15883

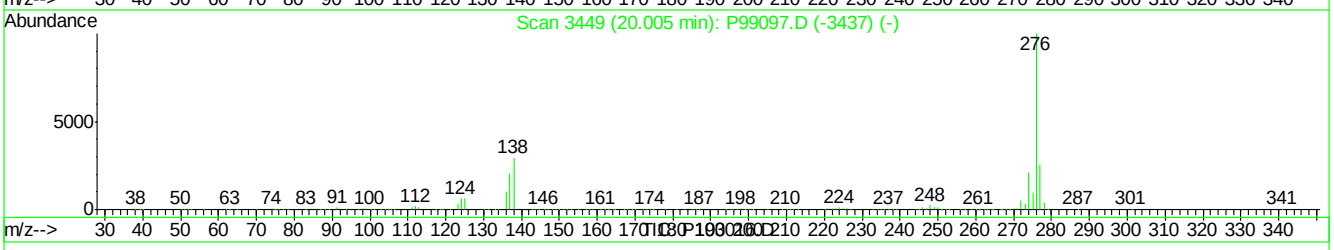
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:14 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Multiple Level Calibration







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

20.09min 0.73ppm m

response 6348

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	28.36
137.00	20.50	21.29
0.00	0.00	0.00

P103016.D MP4524.M Thu Mar 03 09:14:20 2016

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
Acq On : 2 Mar 2016 8:06 pm Operator: sarad
Sample : icc4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	124231	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	437439	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	253741	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	378134	40.00	ppm	-0.01
83) Chrysene-d12	15.91	240	350683	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	328054	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	124231	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	437439	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	253741	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	378134	40.00	ppm	-0.04
147) Chrysene-d12A	15.91	240	350683	40.00	ppm	-0.04
155) Perylene-d12A	18.47	264	328054	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	124231	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	378134	40.00	ppm	-0.04
163) Chrysene-d12b	15.91	240	350683	40.00	ppm	-0.04
165) Naphthalene-d8b	6.10	136	437439	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	253741	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	437439	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	124231	40.00	ppm	-0.11
176) Chrysene-d12c	15.91	240	350683	40.00	ppm	-0.05
178) Chrysene-d12d	15.91	240	350683	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	437439	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	244782	56.72	ppm	0.00
Spiked Amount 50.000			Recovery = 113.44%			
8) Phenol-d5	3.96	99	291076	54.97	ppm	0.00
Spiked Amount 50.000			Recovery = 109.94%			
25) Nitrobenzene-d5	5.07	82	243526	58.08	ppm	-0.01
Spiked Amount 50.000			Recovery = 116.16%			
51) 2-Fluorobiphenyl	7.79	172	409109	52.68	ppm	-0.01
Spiked Amount 50.000			Recovery = 105.36%			
73) 2,4,6-Tribromophenol	10.09	330	54000	66.07	ppm	-0.01
Spiked Amount 50.000			Recovery = 132.14%			
85) Terphenyl-d14	14.01	244	395789	59.01	ppm	-0.01
Spiked Amount 50.000			Recovery = 118.02%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	117581	54.38	ppm	95
3) Pyridine	1.97	79	268554	56.73	ppm	95
4) N-Nitrosodimethylamine	1.94	42	101045	57.99	ppm	98
6) Indene	4.68	116	387000	56.16	ppm	98
7) Cumene	3.44	105	542916	53.73	ppm	99
9) Phenol	3.98	94	292195	55.48	ppm	91
10) Aniline	3.95	93	305737	50.09	ppm	93
11) bis(2-Chloroethyl)ether	4.02	93	208557	55.36	ppm	97
12) 2-Chlorophenol	4.11	128	223091	54.63	ppm	97
13) Decane	4.16	43	168665	53.28	ppm	99
14) 1,3-Dichlorobenzene	4.28	146	244389	52.47	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	237485	52.96	ppm	100

(#) = qualifier out of range (m) = manual integration
P103017.D MP4524.M Thu Mar 03 09:16:27 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
Acq On : 2 Mar 2016 8:06 pm Operator: sarad
Sample : icc4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.53	108	141064	56.70	ppm		99
17)	1,2-Dichlorobenzene	4.56	146	222053	51.52	ppm		99
18)	Acetophenone	4.87	105	303490	54.08	ppm		97
19)	2-Methylphenol	4.73	108	193523	55.92	ppm		98
20)	2,2'-oxybis(1-Chloropropan	4.71	121	70318	55.64	ppm	#	84
21)	3&4-Methylphenol	4.94	108	215516	59.37	ppm		99
22)	n-Nitroso-di-n-propylamine	4.89	70	153156	58.43	ppm		97
23)	Hexachloroethane	5.01	201	77555	56.23	ppm		94
26)	Nitrobenzene	5.10	77	225838	55.78	ppm		98
27)	Quinoline	6.64	129	437092	56.25	ppm		99
28)	Isophorone	5.44	82	413211	57.62	ppm		99
29)	2-Nitrophenol	5.55	139	123178	60.15	ppm		92
30)	2,4-Dimethylphenol	5.68	107	209702	58.08	ppm		98
31)	Benzoic acid	5.88	105	155312	58.82	ppm		96
32)	bis(2-Chloroethoxy)methane	5.78	93	252768	57.57	ppm		98
33)	2,4-Dichlorophenol	5.95	162	177728	59.71	ppm		99
34)	2,6-Dichlorophenol	6.26	162	165495	57.54	ppm		97
35)	1,3,5-Trichlorobenzene	5.57	180	185172	52.87	ppm		99
36)	1,2,4-Trichlorobenzene	6.02	180	181262	52.73	ppm		95
37)	1,2,3-Trichlorobenzene	6.36	180	164492	51.83	ppm		99
38)	Naphthalene	6.13	128	585134	54.55	ppm		99
39)	4-Chloroaniline	6.24	127	257943	54.40	ppm		98
40)	2,3-Dichloroaniline	7.64	161	220036	59.56	ppm		98
41)	Caprolactam	6.75	55	86330	59.96	ppm		97
42)	Hexachlorobutadiene	6.35	225	90265	56.78	ppm		99
43)	4-Chloro-3-methylphenol	7.08	107	201867	61.35	ppm		95
44)	2-Methylnaphthalene	7.19	141	326822	54.80	ppm		98
45)	1-Methylnaphthalene	7.34	142	397618	54.61	ppm		99
46)	Dimethylnaphthalene	8.18	156	352622	55.60	ppm		100
48)	Hexachlorocyclopentadiene	7.46	237	206540	114.53	ppm		100
49)	2,4,6-Trichlorophenol	7.67	196	116436	59.91	ppm		100
50)	2,4,5-Trichlorophenol	7.78	196	125359	60.57	ppm		99
52)	2-Chloronaphthalene	7.95	162	352021	53.48	ppm		99
53)	Biphenyl	7.94	154	450733	51.74	ppm		100
54)	2-Nitroaniline	8.14	65	117767	60.81	ppm		91
55)	Dimethylphthalate	8.47	163	428351	55.76	ppm		98
56)	Acenaphthylene	8.59	152	586858	52.98	ppm		100
57)	2,6-Dinitrotoluene	8.54	165	101635	64.90	ppm		94
58)	3-Nitroaniline	8.80	138	120352	58.19	ppm		95
59)	Acenaphthene	8.87	153	363738	54.35	ppm		97
60)	2,4-Dinitrophenol	8.96	184	102911	107.60	ppm		98
61)	4-Nitrophenol	9.26	109	64581	60.49	ppm		97
62)	Dibenzofuran	9.15	168	510264	55.37	ppm		98
63)	2,4-Dinitrotoluene	9.17	165	131015	57.04	ppm		98
64)	2,3,4,6-Tetrachlorophenol	9.39	232	95041	62.54	ppm		97
65)	Diethylphthalate	9.61	149	434775	56.04	ppm		99
66)	Fluorene	9.70	166	423992	57.28	ppm		100
67)	4-Chlorophenyl-phenylether	9.74	204	185974	57.40	ppm		97
68)	4-Nitroaniline	9.78	138	115638	62.06	ppm		100

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
Acq On : 2 Mar 2016 8:06 pm Operator: sarad
Sample : icc4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.82	198	74923	56.72	ppm	96
71)	n-Nitrosodiphenylamine	9.93	169	316794	61.94	ppm	99
72)	1,2-Diphenylhydrazine	9.98	77	426774	59.08	ppm	95
74)	4-Bromophenyl-phenylether	10.51	248	107403	60.89	ppm	99
75)	Hexachlorobenzene	10.58	284	109393	58.88	ppm	94
76)	Pentachlorophenol	10.93	266	131524	98.75	ppm	97
77)	Phenanthrene	11.23	178	542665	56.07	ppm	99
78)	Anthracene	11.31	178	562547	57.33	ppm	99
79)	Carbazole	11.61	167	581354	60.92	ppm	99
80)	Di-n-butylphthalate	12.30	149	728458	61.91	ppm	100
81)	Fluoranthene	13.25	202	609214	62.34	ppm	98
82)	Octadecane	11.17	57	230371	68.10	ppm	97
84)	Pyrene	13.64	202	625809	54.36	ppm	97
86)	Butylbenzylphthalate	15.00	149	332955	60.35	ppm	98
87)	Butyl stearate	15.23	56	163184	62.97	ppm	94
88)	Benzo[a]anthracene	15.89	228	528127	57.08	ppm	100
89)	3,3'-Dichlorobenzidine	15.92	252	197984	62.07	ppm	98
90)	Chrysene	15.96	228	504341	55.00	ppm	99
91)	bis(2-Ethylhexyl)phthalate	16.17	149	438733	59.75	ppm	98
93)	Di-n-octylphthalate	17.38	149	753065	55.08	ppm	98
94)	Benzo[b]fluoranthene	17.84	252	554377	62.60	ppm	99
95)	Benzo[k]fluoranthene	17.89	252	512346	59.04	ppm	100
96)	Benzo[a]pyrene	18.37	252	498096	62.42	ppm	99
97)	Indeno[1,2,3-cd]pyrene	20.10	276	455306	63.43	ppm	98
98)	Dibenz(a,h)acridine	19.79	279	433348	67.08	ppm	98
99)	Dibenz[a,h]anthracene	20.14	278	481767	64.53	ppm	99
100)	7,12-Dimethylbenz(a)anthra	17.85	256	243106	64.97	ppm	99
101)	Benzo[g,h,i]perylene	20.47	276	499527	63.61	ppm	98

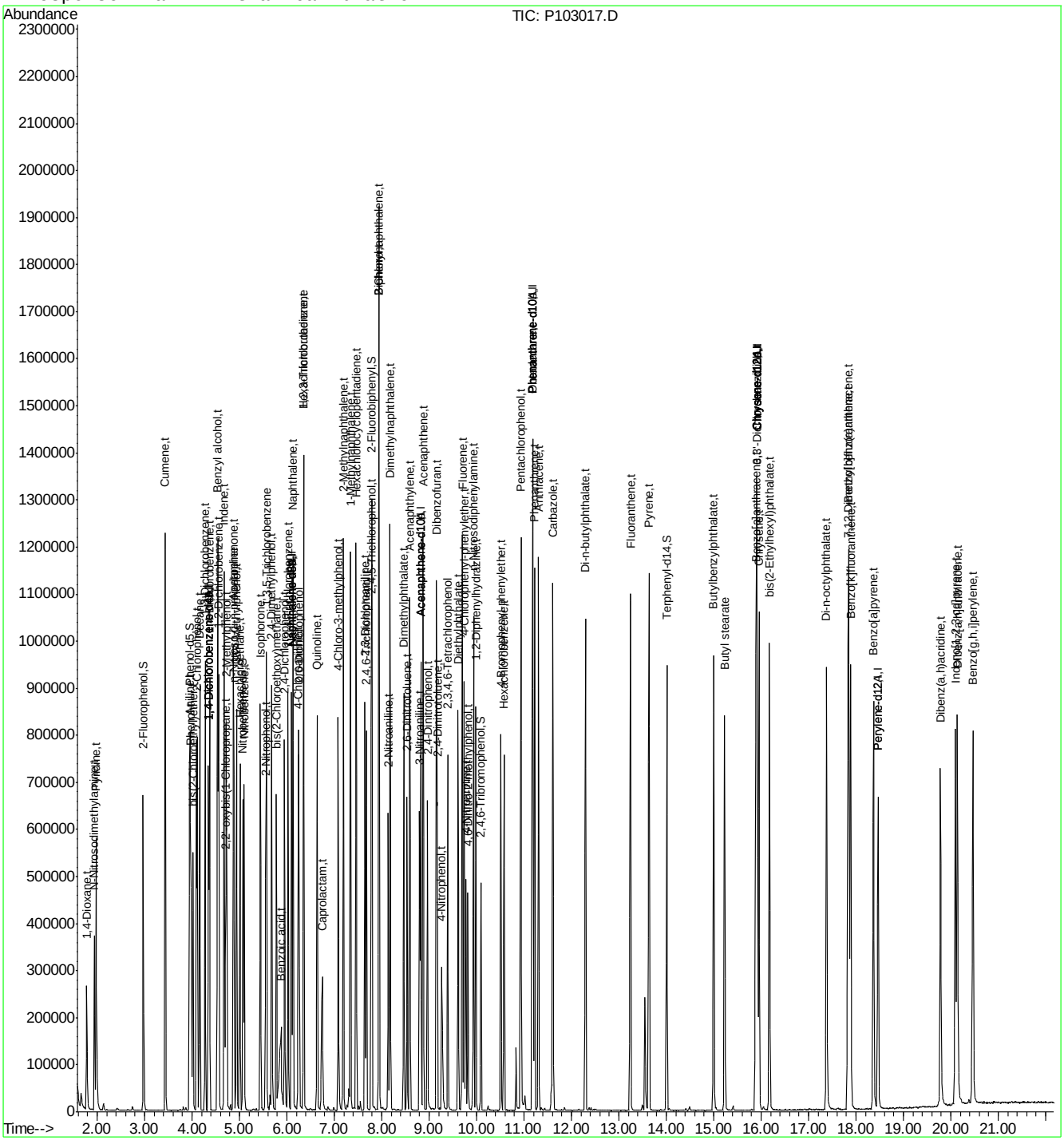
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
Acq On : 2 Mar 2016 8:06 pm Operator: sarad
Sample : icc4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:16 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
Acq On : 2 Mar 2016 8:36 pm Operator: sarad
Sample : ic4524-25 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	124470	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	442285	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	259301	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	393353	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	355354	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	330253	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	124470	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	442285	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	259301	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	393353	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	355354	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	330253	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	124470	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	393353	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	355354	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	442285	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	259301	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	442285	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	124470	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	355354	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	355354	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	442285	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	120675	27.91	ppm	0.00
Spiked Amount 50.000			Recovery = 55.82%			
8) Phenol-d5	3.97	99	145695	27.46	ppm	0.00
Spiked Amount 50.000			Recovery = 54.92%			
25) Nitrobenzene-d5	5.07	82	121082	28.56	ppm	-0.01
Spiked Amount 50.000			Recovery = 57.12%			
51) 2-Fluorobiphenyl	7.79	172	209611	26.41	ppm	-0.01
Spiked Amount 50.000			Recovery = 52.82%			
73) 2,4,6-Tribromophenol	10.09	330	25324	29.79	ppm	-0.02
Spiked Amount 50.000			Recovery = 59.58%			
85) Terphenyl-d14	14.01	244	192291	28.30	ppm	-0.02
Spiked Amount 50.000			Recovery = 56.60%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	56098	25.90	ppm	96
3) Pyridine	1.97	79	136188	28.71	ppm	97
4) N-Nitrosodimethylamine	1.94	42	49690	28.46	ppm	99
6) Indene	4.67	116	194064	28.11	ppm	98
7) Cumene	3.43	105	283811	28.04	ppm	98
9) Phenol	3.98	94	147604	27.97	ppm	97
10) Aniline	3.95	93	167753	27.43	ppm	82
11) bis(2-Chloroethyl)ether	4.02	93	103434	27.40	ppm	99
12) 2-Chlorophenol	4.11	128	111889	27.35	ppm	96
13) Decane	4.16	43	87928	27.72	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	124339	26.64	ppm	97
15) 1,4-Dichlorobenzene	4.37	146	121849	27.12	ppm	98

(#) = qualifier out of range (m) = manual integration
P103018.D MP4524.M Thu Mar 03 09:17:56 2016

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
Acq On : 2 Mar 2016 8:36 pm Operator: sarad
Sample : ic4524-25 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
16)	Benzyl alcohol	4.53	108	69022	27.69 ppm		96
17)	1,2-Dichlorobenzene	4.56	146	113594	26.30 ppm		100
18)	Acetophenone	4.87	105	153764	27.35 ppm		99
19)	2-Methylphenol	4.73	108	97495	28.12 ppm		99
20)	2,2'-oxybis(1-Chloropropan	4.71	121	35279	27.86 ppm	#	88
21)	3&4-Methylphenol	4.94	108	106602	29.31 ppm		98
22)	n-Nitroso-di-n-propylamine	4.88	70	77193	29.39 ppm		97
23)	Hexachloroethane	5.01	201	39144	28.32 ppm		92
26)	Nitrobenzene	5.10	77	114670	28.01 ppm		98
27)	Quinoline	6.63	129	217173	27.64 ppm		98
28)	Isophorone	5.44	82	205558	28.35 ppm		97
29)	2-Nitrophenol	5.55	139	60673	29.31 ppm		91
30)	2,4-Dimethylphenol	5.68	107	99929	27.38 ppm		99
31)	Benzoic acid	5.84	105	66251	24.82 ppm		97
32)	bis(2-Chloroethoxy)methane	5.78	93	126470	28.49 ppm		98
33)	2,4-Dichlorophenol	5.95	162	89796	29.84 ppm		97
34)	2,6-Dichlorophenol	6.25	162	83622	28.76 ppm		99
35)	1,3,5-Trichlorobenzene	5.57	180	94745	26.75 ppm		99
36)	1,2,4-Trichlorobenzene	6.02	180	91759	26.40 ppm		98
37)	1,2,3-Trichlorobenzene	6.36	180	83571	26.04 ppm		98
38)	Naphthalene	6.13	128	301381	27.79 ppm		98
39)	4-Chloroaniline	6.24	127	131232	27.37 ppm		98
40)	2,3-Dichloroaniline	7.64	161	108904	29.16 ppm		99
41)	Caprolactam	6.72	55	41224	28.32 ppm		98
42)	Hexachlorobutadiene	6.35	225	46039	28.64 ppm		97
43)	4-Chloro-3-methylphenol	7.08	107	97636	29.35 ppm		98
44)	2-Methylnaphthalene	7.19	141	166891	27.68 ppm		97
45)	1-Methylnaphthalene	7.34	142	203584	27.65 ppm		99
46)	Dimethylnaphthalene	8.18	156	179244	27.95 ppm		99
48)	Hexachlorocyclopentadiene	7.46	237	98948	53.69 ppm		99
49)	2,4,6-Trichlorophenol	7.67	196	57772	29.09 ppm		97
50)	2,4,5-Trichlorophenol	7.78	196	58929	27.86 ppm		97
52)	2-Chloronaphthalene	7.94	162	182832	27.18 ppm		99
53)	Biphenyl	7.94	154	234397	26.33 ppm		99
54)	2-Nitroaniline	8.13	65	56891	28.75 ppm		90
55)	Dimethylphthalate	8.46	163	213580	27.21 ppm		99
56)	Acenaphthylene	8.59	152	302131	26.69 ppm		98
57)	2,6-Dinitrotoluene	8.54	165	47737	29.83 ppm		97
58)	3-Nitroaniline	8.79	138	58009	27.45 ppm		95
59)	Acenaphthene	8.87	153	185046	27.06 ppm		97
60)	2,4-Dinitrophenol	8.96	184	40855	45.93 ppm		98
61)	4-Nitrophenol	9.27	109	29246	26.81 ppm		98
62)	Dibenzofuran	9.15	168	263103	27.94 ppm		97
63)	2,4-Dinitrotoluene	9.17	165	64864	26.76 ppm		94
64)	2,3,4,6-Tetrachlorophenol	9.39	232	44863	28.89 ppm		96
65)	Diethylphthalate	9.60	149	214134	27.01 ppm		98
66)	Fluorene	9.69	166	212970	28.16 ppm		99
67)	4-Chlorophenyl-phenylether	9.73	204	95178	28.75 ppm		98
68)	4-Nitroaniline	9.77	138	55005	28.89 ppm		97

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
Acq On : 2 Mar 2016 8:36 pm Operator: sarad
Sample : ic4524-25 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

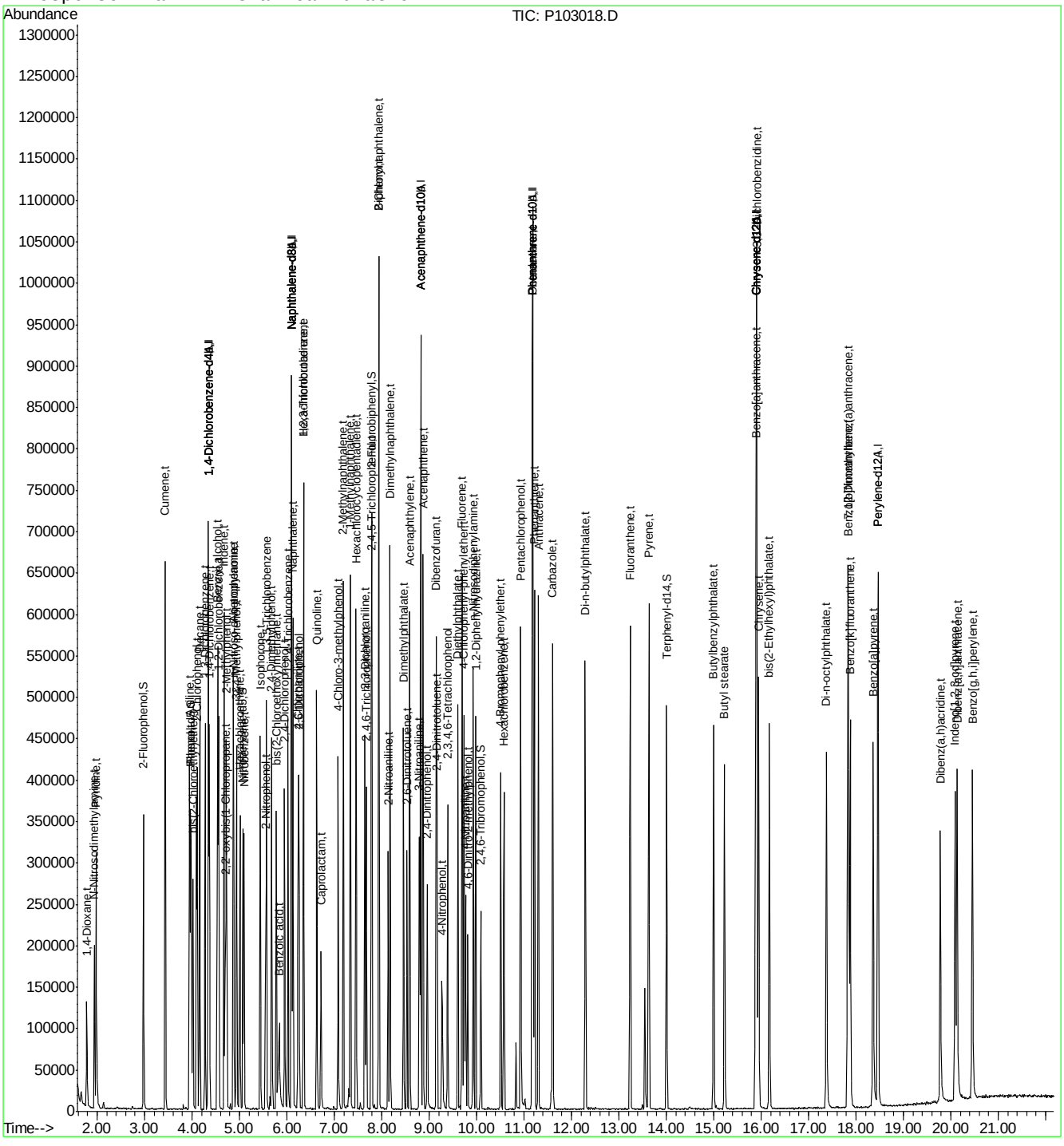
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	32324	26.38	ppm	96
71)	n-Nitrosodiphenylamine	9.93	169	157662	29.63	ppm	98
72)	1,2-Diphenylhydrazine	9.98	77	217259	28.91	ppm	97
74)	4-Bromophenyl-phenylether	10.51	248	51682	28.17	ppm	96
75)	Hexachlorobenzene	10.58	284	54145	28.02	ppm	98
76)	Pentachlorophenol	10.93	266	57853	41.80	ppm	100
77)	Phenanthrene	11.22	178	279626	27.77	ppm	98
78)	Anthracene	11.30	178	284194	27.84	ppm	98
79)	Carbazole	11.61	167	295428	29.76	ppm	99
80)	Di-n-butylphthalate	12.29	149	359469	29.37	ppm	99
81)	Fluoranthene	13.24	202	306291	30.13	ppm	98
82)	Octadecane	11.17	57	112226	31.89	ppm	95
84)	Pyrene	13.63	202	321366	27.55	ppm	97
86)	Butylbenzylphthalate	15.00	149	156979	28.08	ppm	99
87)	Butyl stearate	15.22	56	77227	29.41	ppm	93
88)	Benzo[a]anthracene	15.89	228	257688	27.49	ppm	99
89)	3,3'-Dichlorobenzidine	15.91	252	94027	29.09	ppm	99
90)	Chrysene	15.95	228	253919	27.33	ppm	97
91)	bis(2-Ethylhexyl)phthalate	16.17	149	206131	27.70	ppm	99
93)	Di-n-octylphthalate	17.38	149	346960	23.67	ppm	99
94)	Benzo[b]fluoranthene	17.83	252	263165	29.52	ppm	98
95)	Benzo[k]fluoranthene	17.88	252	258312	29.57	ppm	97
96)	Benzo[a]pyrene	18.36	252	243353	30.29	ppm	99
97)	Indeno[1,2,3-cd]pyrene	20.09	276	214090	29.63	ppm	96
98)	Dibenz(a,h)acridine	19.78	279	198286	30.49	ppm	99
99)	Dibenz[a,h]anthracene	20.13	278	225316	29.98	ppm	98
100)	7,12-Dimethylbenz(a)anthra	17.84	256	115782	30.74	ppm	99
101)	Benzo[g,h,i]perylene	20.46	276	234554	29.67	ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
Acq On : 2 Mar 2016 8:36 pm Operator: sarad
Sample : ic4524-25 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:17 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
Acq On : 2 Mar 2016 9:05 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:47:37 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	149576	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	503799	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	294376	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	436802	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	397805	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	355781	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	149576	40.00	ppm	-0.03
112) Naphthalene-d8A	6.10	136	503799	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	294376	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	436802	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	397805	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	355781	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	149576	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	436802	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	397805	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	503799	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	294376	40.00	ppm	-0.04
169) Naphthalene-d8c	6.10	136	503799	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	149576	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	397753	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	397753	40.00	ppm	-0.06
180) Naphthalene-d8a	6.10	136	503799	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
9) Phenol	3.98	94	310486	47.36	ppm	88
12) 2-Chlorophenol	4.11	128	241093	48.54	ppm	99
19) 2-Methylphenol	4.72	108	214907	50.87	ppm	98
21) 3&4-Methylphenol	4.93	108	226649	49.17	ppm	99
29) 2-Nitrophenol	5.55	139	127036	52.92	ppm	98
30) 2,4-Dimethylphenol	5.67	107	227368	55.77	ppm	99
31) Benzoic acid	5.87	105	147006	46.42	ppm	97
33) 2,4-Dichlorophenol	5.95	162	177172	49.74	ppm	96
34) 2,6-Dichlorophenol	6.25	162	177036	51.78	ppm	96
43) 4-Chloro-3-methylphenol	7.07	107	196038	51.51	ppm	99
49) 2,4,6-Trichlorophenol	7.67	196	120063	52.06	ppm	100
50) 2,4,5-Trichlorophenol	7.77	196	117443	48.94	ppm	97

(#) = qualifier out of range (m) = manual integration
P103019.D MP4524.M Thu Mar 03 10:49:19 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
Acq On : 2 Mar 2016 9:05 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:47:37 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60)	2,4-Dinitrophenol	8.96	184	39439	39.37	ppm	96
61)	4-Nitrophenol	9.26	109	61537	50.38	ppm	99
64)	2,3,4,6-Tetrachlorophenol	9.39	232	87709	47.57	ppm	97
70)	4,6-Dinitro-2-methylphenol	9.81	198	67907	42.45	ppm	96
76)	Pentachlorophenol	10.93	266	58985	43.19	ppm	98

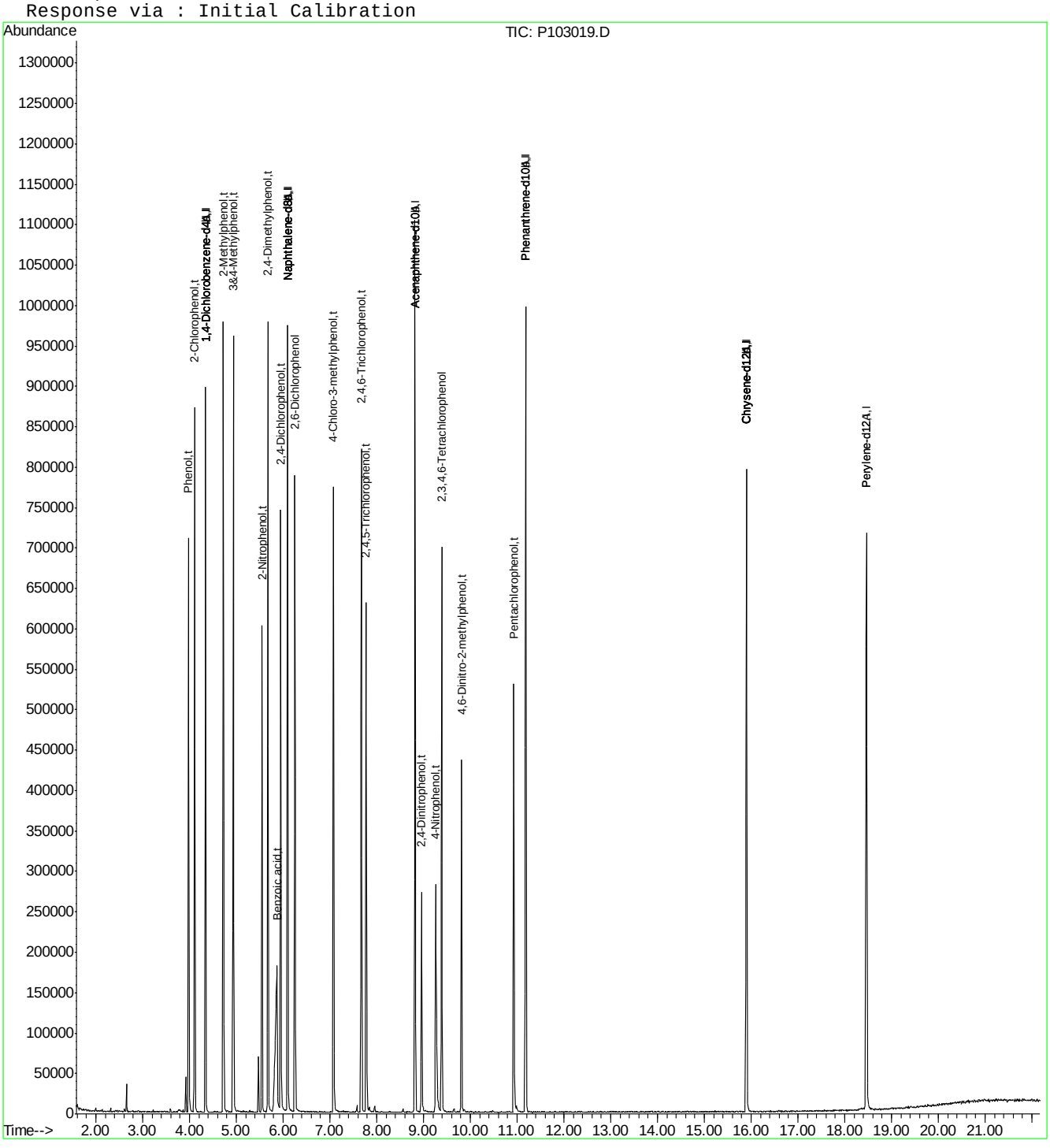
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
Acq On : 2 Mar 2016 9:05 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:49 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



P103019.D MP4524.M Thu Mar 03 10:49:20 2016 Page 3

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D Vial: 11
Acq On : 2 Mar 2016 9:34 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:51:46 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	165057	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	607388	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	330896	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	536143	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	470505	40.00	ppm	0.00
92) Perylene-d12	18.47	264	408173	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	165057	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	607388	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	330896	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	536143	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	470505	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	408173	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	165057	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	536143	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	470505	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	607388	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	330896	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	607388	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	165057	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	470505	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	470505	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	607388	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
3) Pyridine	2.05	79	343881	51.94	ppm	97
10) Aniline	3.96	93	418196	53.06	ppm	82
16) Benzyl alcohol	4.54	108	174956	53.69	ppm	98
39) 4-Chloroaniline	6.24	127	275208	42.97	ppm	99
44) 2-Methylnaphthalene	7.19	141	392398	47.02	ppm	97
54) 2-Nitroaniline	8.14	65	143073	56.92	ppm	96
58) 3-Nitroaniline	8.80	138	136496	54.11	ppm	98
62) Dibenzofuran	9.15	168	626653	51.53	ppm	99
68) 4-Nitroaniline	9.77	138	138652	54.71	ppm	96
79) Carbazole	11.61	167	687445	48.68	ppm	100

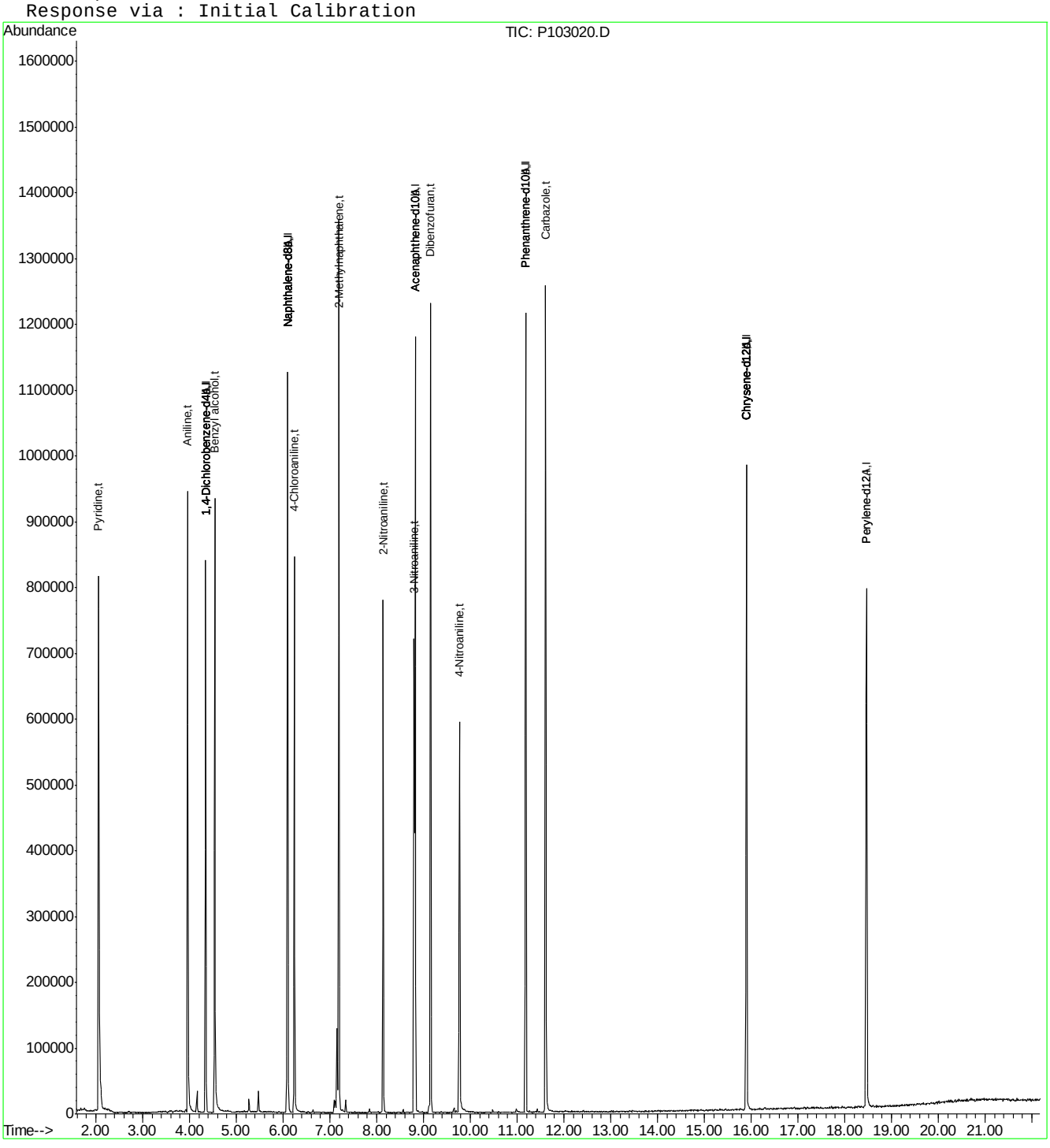
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D Vial: 11
Acq On : 2 Mar 2016 9:34 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:53 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D Vial: 12
Acq On : 2 Mar 2016 10:03 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:53:33 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	147735	40.00	ppm	0.00
24) Naphthalene-d8	6.09	136	516601	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	290907	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	432489	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	382422	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	337814	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	147735	40.00	ppm	-0.03
112) Naphthalene-d8A	6.09	136	516601	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	290907	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	432489	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	382422	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	337814	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	147735	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	432489	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	382422	40.00	ppm	-0.05
165) Naphthalene-d8b	6.09	136	516601	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	290907	40.00	ppm	-0.04
169) Naphthalene-d8c	6.09	136	516601	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	147735	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	382422	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	382422	40.00	ppm	-0.06
180) Naphthalene-d8a	6.09	136	516601	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	255627	49.71	ppm	0.00
Spiked Amount 50.000			Recovery = 99.42%			
8) Phenol-d5	3.96	99	316260	50.41	ppm	0.00
Spiked Amount 50.000			Recovery = 100.82%			
25) Nitrobenzene-d5	5.07	82	261274	49.96	ppm	0.00
Spiked Amount 50.000			Recovery = 99.92%			
51) 2-Fluorobiphenyl	7.79	172	434452	49.23	ppm	0.00
Spiked Amount 50.000			Recovery = 98.46%			
73) 2,4,6-Tribromophenol	10.09	330	48286	47.75	ppm	0.00
Spiked Amount 50.000			Recovery = 95.50%			
85) Terphenyl-d14	14.01	244	381107	50.61	ppm	0.00
Spiked Amount 50.000			Recovery = 101.22%			

Target Compounds Qvalue

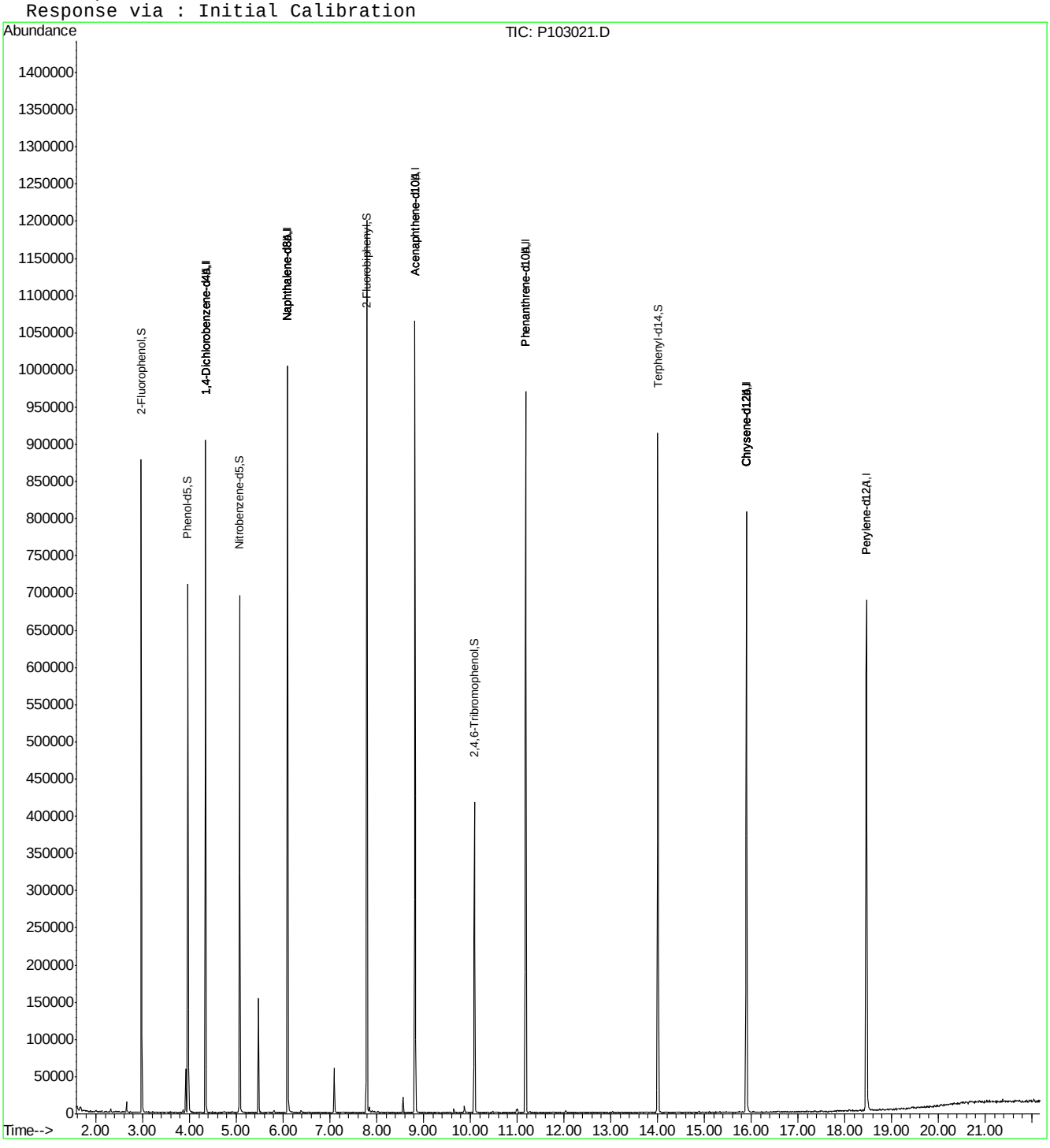
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D Vial: 12
Acq On : 2 Mar 2016 10:03 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:55 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/03/16 15:11

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:55:57 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	147977	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	502321	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	292838	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	450924	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	354813	40.00	ppm	0.00
92) Perylene-d12	18.47	264	324202	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	147977	40.00	ppm	-0.03
112) Naphthalene-d8A	6.10	136	502321	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	292838	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	450924	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	354813	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	324202	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.34	152	147977	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	450924	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	354813	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	502321	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	292838	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	502321	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	147977	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	354813	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	354813	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	502321	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
4) N-Nitrosodimethylamine	1.94	42	100466	45.27	ppm	97
11) bis(2-Chloroethyl)ether	4.02	93	250856	52.58	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	267100	48.52	ppm	100
15) 1,4-Dichlorobenzene	4.36	146	254446	48.13	ppm	96
17) 1,2-Dichlorobenzene	4.56	146	252827	50.40	ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.70	121	70906m	45.19	ppm	
22) n-Nitroso-di-n-propylamine	4.88	70	165394	49.53	ppm	98
23) Hexachloroethane	5.00	201	85287	49.50	ppm	93
26) Nitrobenzene	5.10	77	235985	48.37	ppm	96
28) Isophorone	5.44	82	440842	53.28	ppm	99
32) bis(2-Chloroethoxy)methane	5.78	93	262567	50.25	ppm	97
36) 1,2,4-Trichlorobenzene	6.02	180	194922	49.53	ppm	96

(#) = qualifier out of range (m) = manual integration
P103022.D MP4524.M Thu Mar 03 11:02:09 2016

9.6.50
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:55:57 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Naphthalene	6.13	128	620274	49.79	ppm	99
42)	Hexachlorobutadiene	6.34	225	101443	51.87	ppm	99
52)	2-Chloronaphthalene	7.94	162	394779	51.32	ppm	98
55)	Dimethylphthalate	8.47	163	428353	48.18	ppm	99
56)	Acenaphthylene	8.59	152	579395	47.15	ppm	99
57)	2,6-Dinitrotoluene	8.54	165	93484	49.29	ppm	91
59)	Acenaphthene	8.87	153	372302	48.75	ppm	99
63)	2,4-Dinitrotoluene	9.17	165	127397	43.76	ppm	96
65)	Diethylphthalate	9.60	149	422921	47.86	ppm	99
66)	Fluorene	9.69	166	427669	48.67	ppm	99
67)	4-Chlorophenyl-phenylether	9.74	204	185257	46.99	ppm	97
71)	n-Nitrosodiphenylamine	9.93	169	302754	46.62	ppm	97
72)	1,2-Diphenylhydrazine	9.98	77	418609	47.05	ppm	97
74)	4-Bromophenyl-phenylether	10.51	248	108414	49.14	ppm	94
75)	Hexachlorobenzene	10.58	284	106751	44.57	ppm	96
77)	Phenanthrene	11.22	178	553887	47.89	ppm	100
78)	Anthracene	11.30	178	548726	47.32	ppm	98
80)	Di-n-butylphthalate	12.29	149	700159	50.57	ppm	100
81)	Fluoranthene	13.24	202	605721	48.66	ppm	100
84)	Pyrene	13.63	202	617401	54.68	ppm	99
86)	Butylbenzylphthalate	15.00	149	309331	56.34	ppm	98
88)	Benzo[a]anthracene	15.89	228	503192	54.35	ppm	99
90)	Chrysene	15.95	228	477209	52.08	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.17	149	398242	46.47	ppm	99
93)	Di-n-octylphthalate	17.38	149	677691	48.96	ppm	99
94)	Benzo[b]fluoranthene	17.83	252	483064	52.39	ppm	98
95)	Benzo[k]fluoranthene	17.88	252	499185	56.20	ppm	98
96)	Benzo[a]pyrene	18.37	252	467487	57.48	ppm	97
97)	Indeno[1,2,3-cd]pyrene	20.09	276	415393	57.85	ppm	98
99)	Dibenz[a,h]anthracene	20.14	278	434182	56.12	ppm	98
101)	Benzo[g,h,i]perylene	20.46	276	443324	53.91	ppm	99

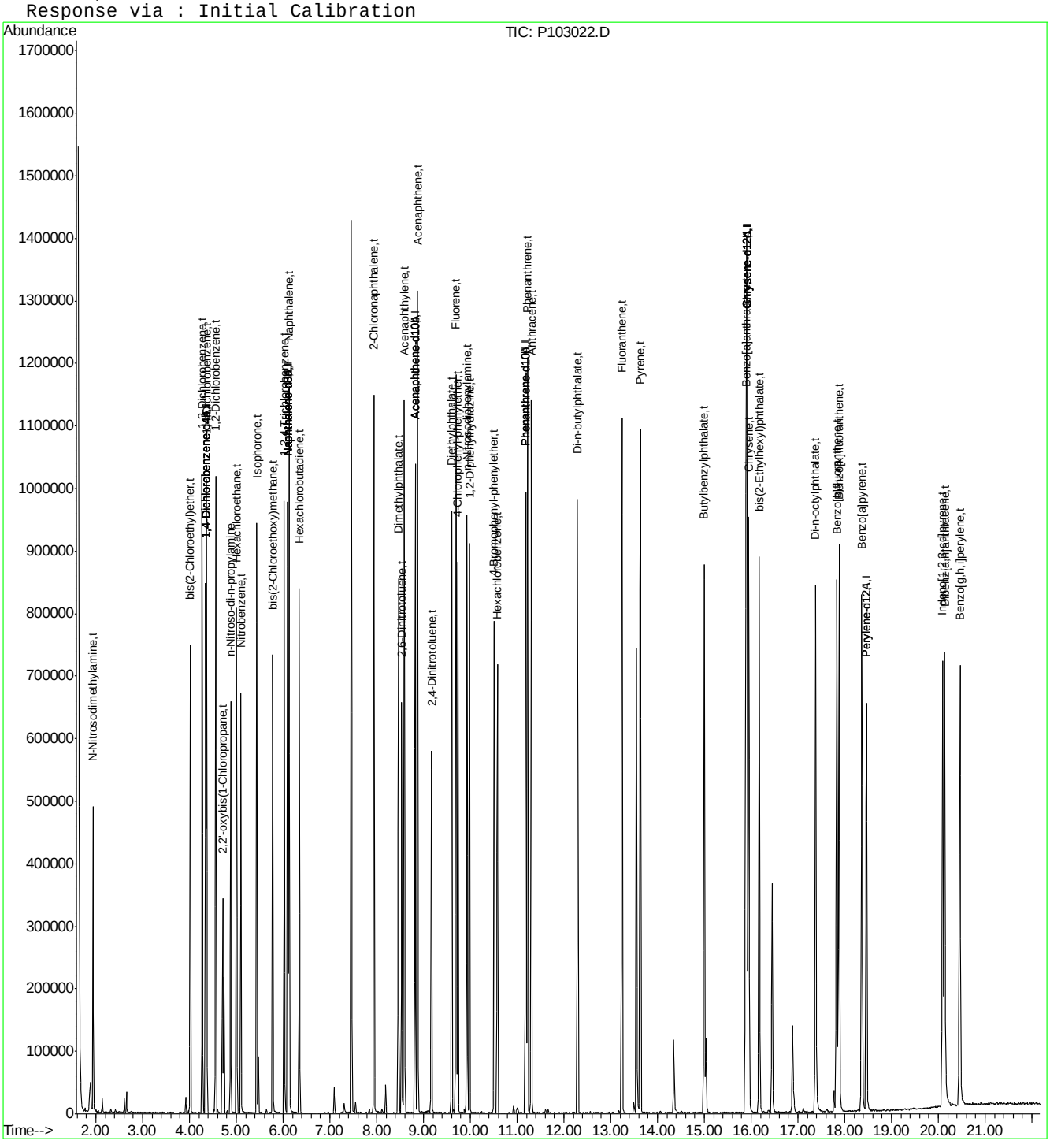
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 11:02 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Manual Integration Approval Summary

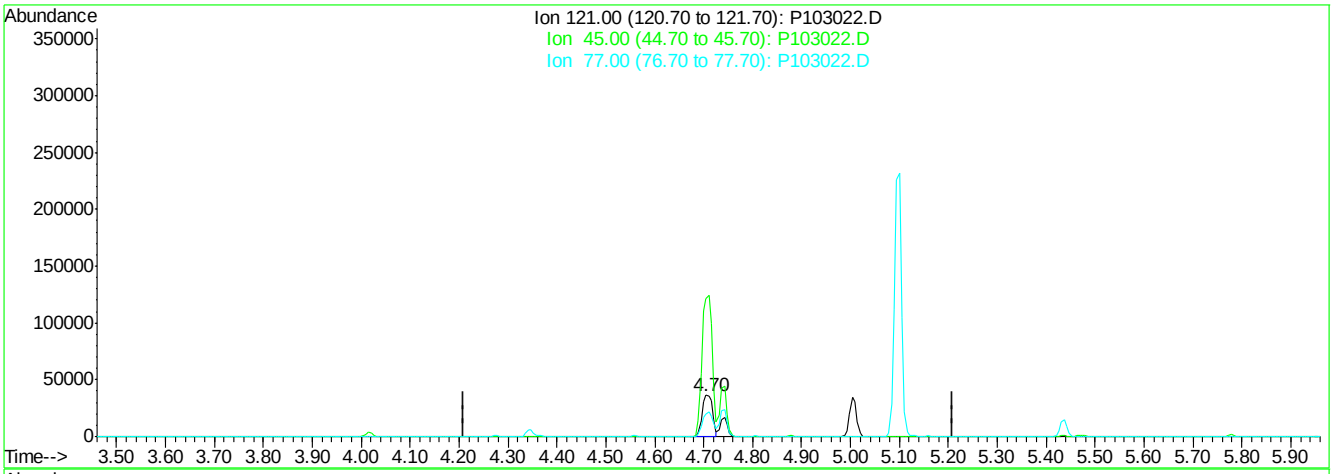
Sample Number:	EP4524-ICV4524	**Method:**	SW846 8270D
Lab FileID:	P103022.D	**Analyst approved:**	03/03/16 11:25 Linsey Kirschmann
Injection Time:	03/02/16 22:32	**Supervisor approved:**	03/03/16 15:11 Nina Pandya

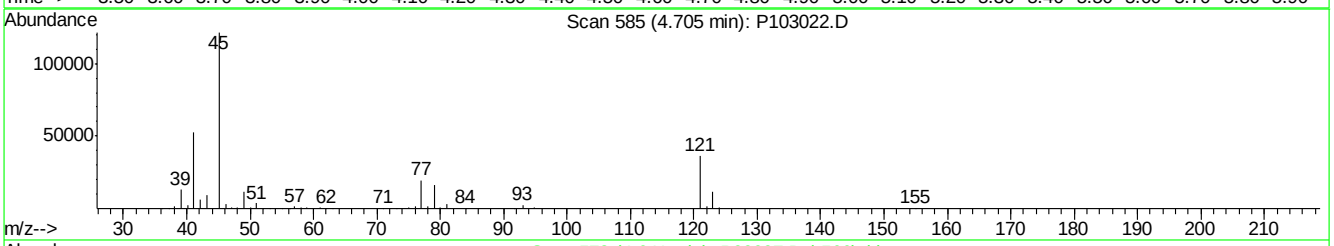
Parameter	CAS	Sig#	R.T. (min.)	Reason
bis(2-Chloroisopropyl)ether	108-60-1		4.70	Split peak

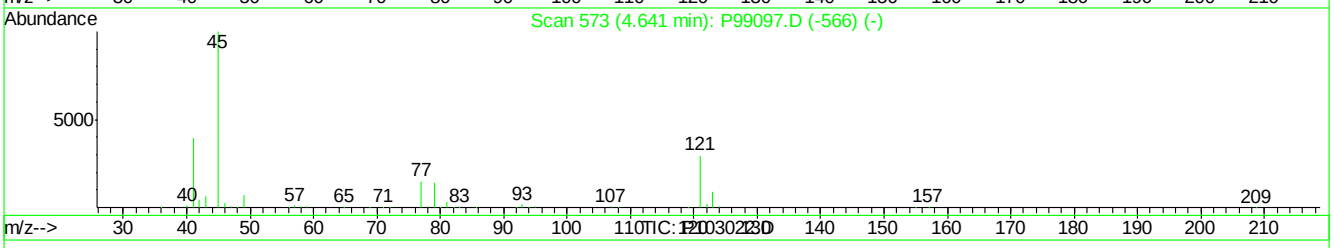
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration







(20) 2,2'-oxybis(1-Chloropropane (t)

4.70min 34.84ppm

response 54660

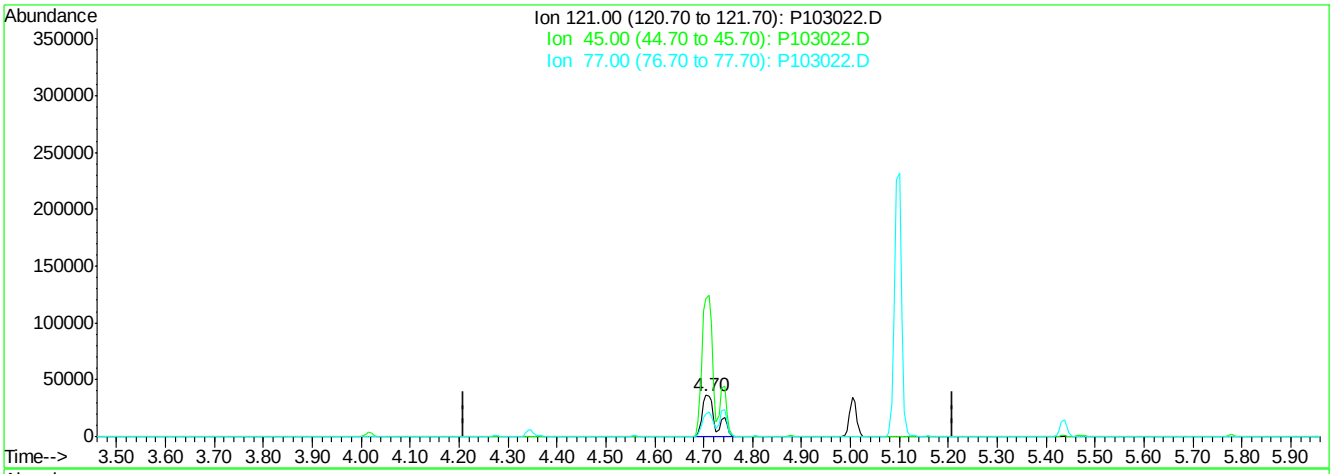
Ion	Exp%	Act%
121.00	100	100
45.00	344.10	335.24
77.00	51.90	46.67
0.00	0.00	0.00

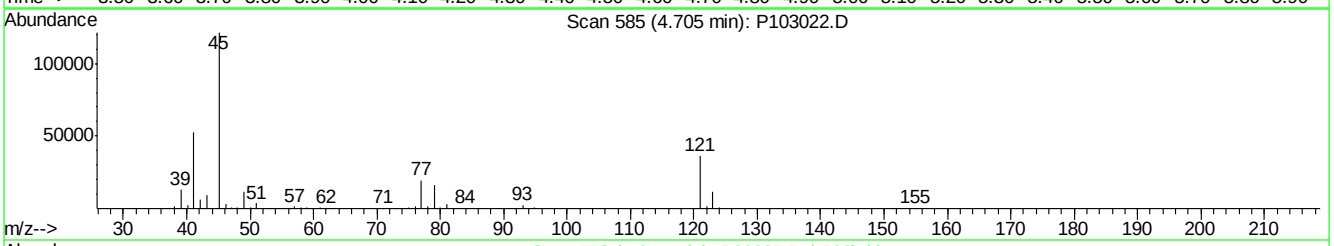
P103022.D MP4524.M Thu Mar 03 10:56:43 2016

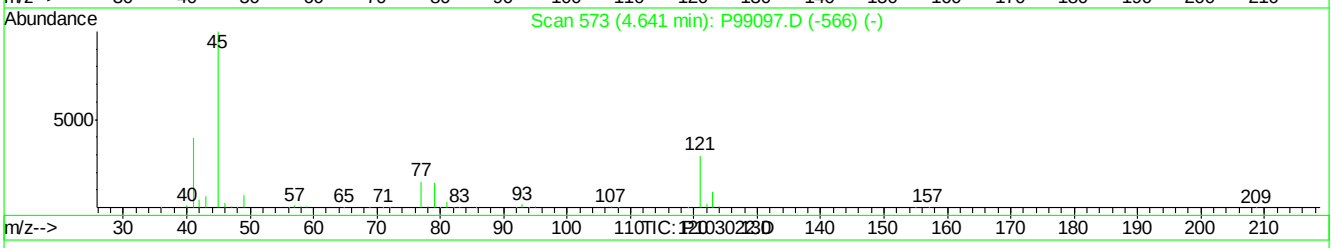
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration







(20) 2,2'-oxybis(1-Chloropropane (t)

4.70min 45.19ppm m

response 70906

Ion	Exp%	Act%
121.00	100	100
45.00	344.10	333.44
77.00	51.90	53.69
0.00	0.00	0.00

P103022.D MP4524.M Thu Mar 03 10:56:49 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
Acq On : 2 Mar 2016 11:02 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 11:20:23 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	127339	40.00	ppm	0.00
24) Naphthalene-d8	6.09	136	457549	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	255729	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	363505	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	347332	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	296697	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	127339	40.00	ppm	-0.03
112) Naphthalene-d8A	6.09	136	457549	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	255729	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	363505	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	347332	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	296697	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	127339	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	363505	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	347332	40.00	ppm	-0.05
165) Naphthalene-d8b	6.09	136	457549	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	255729	40.00	ppm	-0.04
169) Naphthalene-d8c	6.09	136	457549	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	127339	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	347332	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	347332	40.00	ppm	-0.06
180) Naphthalene-d8a	6.09	136	457549	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	98061	43.34	ppm	91
6) Indene	4.67	116	344256	47.53	ppm	98
7) Cumene	3.43	105	482301	46.10	ppm	99
13) Decane	4.16	43	153028	45.48	ppm	98
18) Acetophenone	4.86	105	265568	46.37	ppm	98
27) Quinoline	6.63	129	360557	43.73	ppm	99
40) 2,3-Dichloroaniline	7.64	161	168248	40.93	ppm	99
41) Caprolactam	6.71	55	69184	45.49	ppm	93
45) 1-Methylnaphthalene	7.34	142	345005	44.99	ppm	100
46) Dimethylnaphthalene	8.18	156	303892	45.31	ppm	99
48) Hexachlorocyclopentadiene	7.46	237	86594	51.98	ppm	99
53) Biphenyl	7.94	154	416380	48.21	ppm	99

(#) = qualifier out of range (m) = manual integration
P103023.D MP4524.M Thu Mar 03 11:22:12 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
Acq On : 2 Mar 2016 11:02 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 11:20:23 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

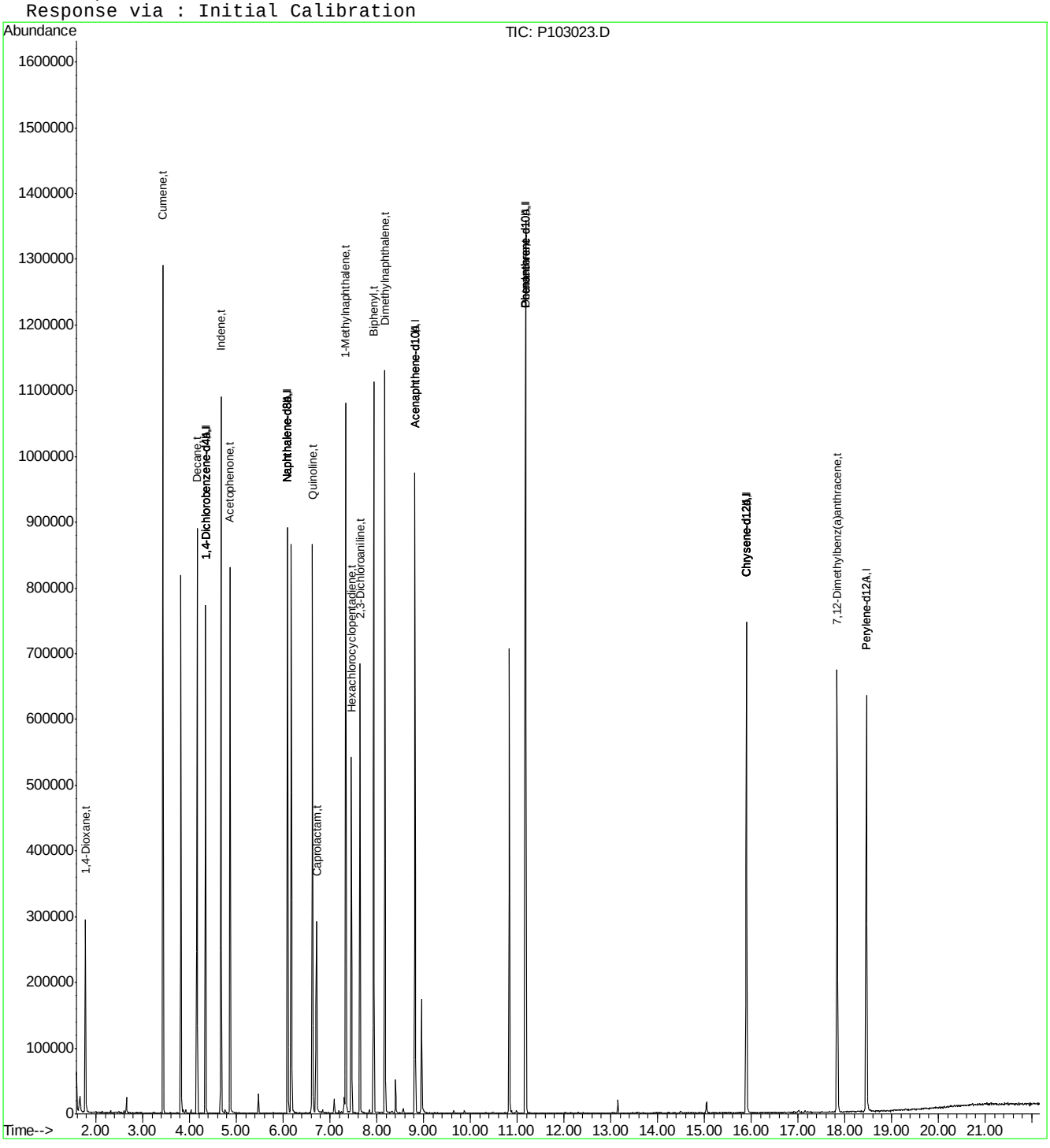
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82)	Octadecane	11.17	57	187929	51.34	ppm	97
100)	7,12-Dimethylbenz(a)anthra	17.84	256	191465	53.59	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P103023.D MP4524.M Thu Mar 03 11:22:13 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
Acq On : 2 Mar 2016 11:02 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 11:22 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D Vial: 15
Acq On : 2 Mar 2016 11:31 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 11:03:32 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	158201	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	545592	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	322768	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	489171	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	437455	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	397000	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	158201	40.00	ppm	-0.03
112) Naphthalene-d8A	6.10	136	545592	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	322768	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	489171	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	437455	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	397000	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	158201	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	489171	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	437455	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	545592	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	322768	40.00	ppm	-0.04
169) Naphthalene-d8c	6.10	136	545592	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	158201	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	437455	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	437455	40.00	ppm	-0.06
180) Naphthalene-d8a	6.10	136	545592	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
89) 3,3'-Dichlorobenzidine	15.91	252	206949	43.27	ppm	97

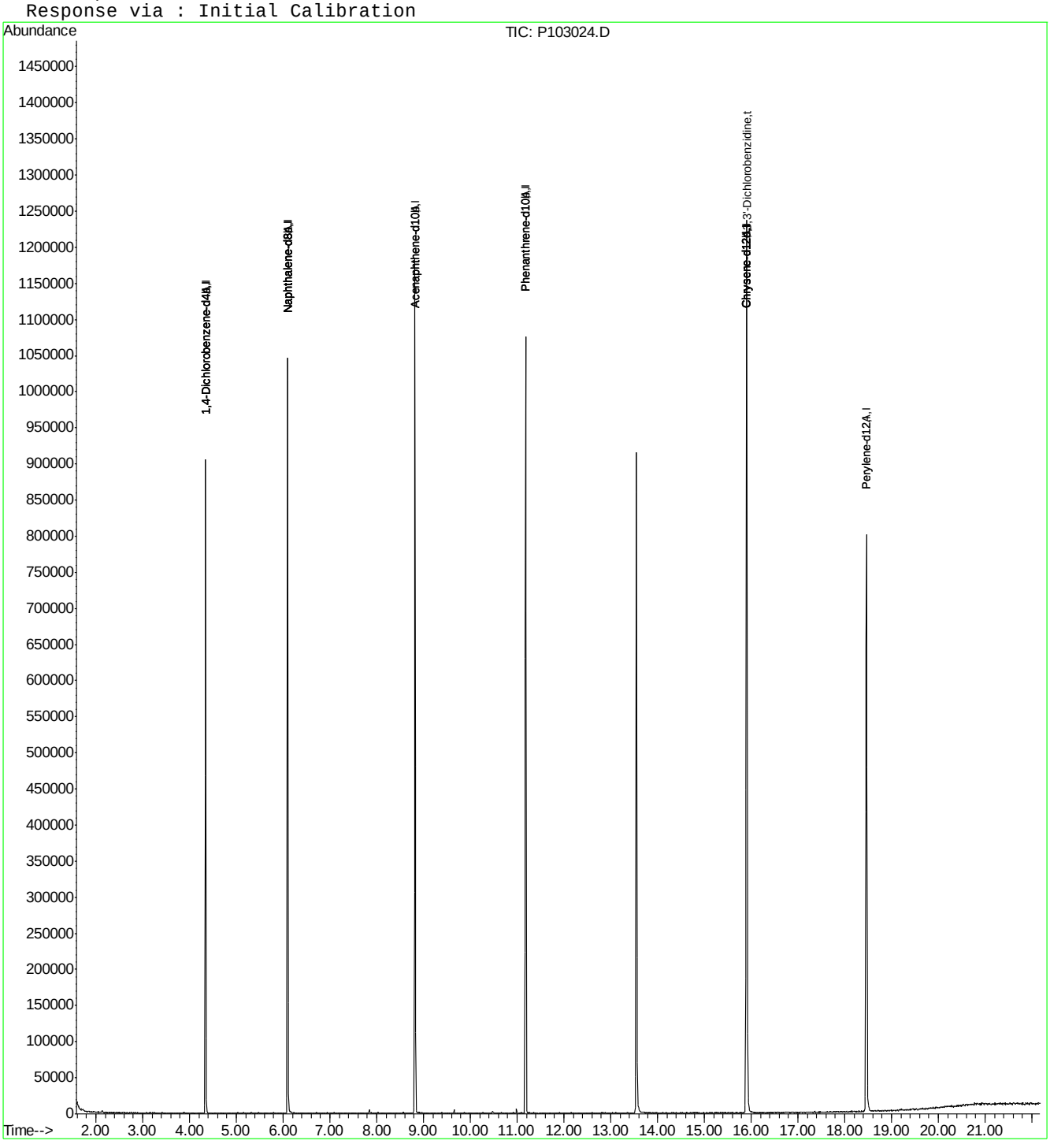
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D Vial: 15
Acq On : 2 Mar 2016 11:31 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 11:04 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103269.D Vial: 2
Acq On : 11 Mar 2016 11:39 am Operator: linseyk
Sample : cc4524-25 Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 12:02:00 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	191332	40.00 ppm	0.00
24) Naphthalene-d8	5.97	136	671286	40.00 ppm	0.00
47) Acenaphthene-d10	8.68	164	403589	40.00 ppm	-0.01
69) Phenanthrene-d10	11.04	188	595797	40.00 ppm	-0.01
83) Chrysene-d12	15.73	240	549016	40.00 ppm	-0.02
92) Perylene-d12	18.28	264	518779	40.00 ppm	-0.02
102) 1,4-Dichlorobenzene-d4b	4.22	152	191332	40.00 ppm	0.00
104) Phenanthrene-d10b	11.04	188	595797	40.00 ppm	-0.01
106) Chrysene-d12b	15.73	240	549016	40.00 ppm	-0.02
108) Naphthalene-d8b	5.97	136	671286	40.00 ppm	0.00
110) Acenaphthene-d10b	8.68	164	403589	40.00 ppm	-0.01
System Monitoring Compounds					
5) 2-Fluorophenol	2.85	112	178553	26.81 ppm	-0.01
Spiked Amount 50.000			Recovery = 53.62%		
8) Phenol-d5	3.83	99	215085	26.47 ppm	0.01
Spiked Amount 50.000			Recovery = 52.94%		
25) Nitrobenzene-d5	4.95	82	181789	26.75 ppm	-0.02
Spiked Amount 50.000			Recovery = 53.50%		
51) 2-Fluorobiphenyl	7.66	172	295564	24.14 ppm	-0.02
Spiked Amount 50.000			Recovery = 48.28%		
73) 2,4,6-Tribromophenol	9.95	330	37664	27.04 ppm	-0.03
Spiked Amount 50.000			Recovery = 54.08%		
85) Terphenyl-d14	13.84	244	271614	25.13 ppm	-0.03
Spiked Amount 50.000			Recovery = 50.26%		

Target Compounds					Qvalue
2) 1,4-Dioxane	1.70	88	86217	25.36 ppm	97
3) Pyridine	1.88	79	199800	26.03 ppm	98
4) N-Nitrosodimethylamine	1.85	42	77899	27.15 ppm	88
6) Indene	4.55	116	278853	25.62 ppm	99
7) Cumene	3.32	105	396752	25.24 ppm	98
9) Phenol	3.84	94	221822	26.45 ppm	82
10) Aniline	3.83	93	214089	23.43 ppm	72
11) bis(2-Chloroethyl)ether	3.90	93	156026	25.29 ppm	93
12) 2-Chlorophenol	3.98	128	161881	25.48 ppm	98
13) Decane	4.04	43	136794	27.06 ppm	97
14) 1,3-Dichlorobenzene	4.15	146	175472	24.65 ppm	97
15) 1,4-Dichlorobenzene	4.25	146	168103	24.59 ppm	96
16) Benzyl alcohol	4.41	108	103281	27.34 ppm	98
17) 1,2-Dichlorobenzene	4.44	146	157205	24.24 ppm	100
18) Acetophenone	4.75	105	224006	26.03 ppm	99
19) 2-Methylphenol	4.59	108	137989	25.53 ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.59	121	48804	24.06 ppm #	70
21) 3&4-Methylphenol	4.80	108	155023	26.29 ppm	100
22) n-Nitroso-di-n-propylamine	4.76	70	117507	27.21 ppm	93
23) Hexachloroethane	4.88	201	53546	24.04 ppm	96
26) Nitrobenzene	4.97	77	173103	26.55 ppm	99
27) Quinoline	6.50	129	310732	25.69 ppm	99
28) Isophorone	5.31	82	308215	27.88 ppm	98

(#) = qualifier out of range (m) = manual integration
P103269.D MP4524.M Mon Mar 14 12:09:59 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103269.D Vial: 2
Acq On : 11 Mar 2016 11:39 am Operator: linseyk
Sample : cc4524-25 Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 12:02:00 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) 2-Nitrophenol	5.43	139	86719	27.11	ppm	98
30) 2,4-Dimethylphenol	5.54	107	138566	25.51	ppm	97
31) Benzoic acid	5.73	105	114082	27.04	ppm	97
32) bis(2-Chloroethoxy)methane	5.66	93	189141	27.09	ppm	99
33) 2,4-Dichlorophenol	5.81	162	126198	26.59	ppm	98
34) 2,6-Dichlorophenol	6.12	162	116754	25.63	ppm	98
35) 1,3,5-Trichlorobenzene	5.44	180	129752	24.39	ppm	95
36) 1,2,4-Trichlorobenzene	5.90	180	126734	24.10	ppm	94
37) 1,2,3-Trichlorobenzene	6.22	180	116817	24.19	ppm	99
38) Naphthalene	6.00	128	414702	24.91	ppm	99
39) 4-Chloroaniline	6.11	127	185127	26.15	ppm	99
40) 2,3-Dichloroaniline	7.51	161	153228	25.41	ppm	99
41) Caprolactam	6.61	55	67268	30.15	ppm	93
42) Hexachlorobutadiene	6.22	225	61564	23.56	ppm	99
43) 4-Chloro-3-methylphenol	6.93	107	145049	28.61	ppm	99
44) 2-Methylnaphthalene	7.06	141	233392	25.31	ppm	96
45) 1-Methylnaphthalene	7.20	142	281504	25.02	ppm	100
46) Dimethylnaphthalene	8.04	156	252867	25.70	ppm	99
48) Hexachlorocyclopentadiene	7.32	237	138386	52.64	ppm	99
49) 2,4,6-Trichlorophenol	7.54	196	81267	25.70	ppm	98
50) 2,4,5-Trichlorophenol	7.62	196	89275	27.14	ppm	97
52) 2-Chloronaphthalene	7.81	162	254265	23.98	ppm	100
53) Biphenyl	7.80	154	328604	24.11	ppm	99
54) 2-Nitroaniline	8.00	65	87712	28.61	ppm	98
55) Dimethylphthalate	8.33	163	312008	25.46	ppm	99
56) Acenaphthylene	8.45	152	409589	24.19	ppm	99
57) 2,6-Dinitrotoluene	8.40	165	71507	27.36	ppm	92
58) 3-Nitroaniline	8.66	138	84740	27.54	ppm	97
59) Acenaphthene	8.73	153	255195	24.25	ppm	99
60) 2,4-Dinitrophenol	8.83	184	69927	48.82	ppm	95
61) 4-Nitrophenol	9.07	109	45895	27.41	ppm	95
62) Dibenzofuran	9.01	168	366784	24.73	ppm	98
63) 2,4-Dinitrotoluene	9.04	165	94748	23.00	ppm	93
64) 2,3,4,6-Tetrachlorophenol	9.25	232	66726	26.40	ppm	95
65) Diethylphthalate	9.47	149	313569	25.75	ppm	100
66) Fluorene	9.56	166	302383	24.97	ppm	98
67) 4-Chlorophenyl-phenylether	9.59	204	131253	24.15	ppm	96
68) 4-Nitroaniline	9.64	138	82465	26.68	ppm	98
70) 4,6-Dinitro-2-methylphenol	9.68	198	50478	24.51	ppm	98
71) n-Nitrosodiphenylamine	9.80	169	223480	26.05	ppm	99
72) 1,2-Diphenylhydrazine	9.84	77	322858	27.46	ppm	100
74) 4-Bromophenyl-phenylether	10.37	248	74855	25.68	ppm	97
75) Hexachlorobenzene	10.44	284	77175	24.38	ppm	99
76) Pentachlorophenol	10.78	266	94028	49.75	ppm	96
77) Phenanthrene	11.08	178	382579	25.04	ppm	100
78) Anthracene	11.16	178	388144	25.33	ppm	100
79) Carbazole	11.46	167	414439	26.41	ppm	99
80) Di-n-butylphthalate	12.15	149	523233	28.60	ppm	99
81) Fluoranthene	13.08	202	434458	26.42	ppm	96

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103269.D Vial: 2
Acq On : 11 Mar 2016 11:39 am Operator: linseyk
Sample : cc4524-25 Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 12:02:00 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82)	Octadecane	11.04	57	160228	26.71	ppm	98
84)	Pyrene	13.47	202	451711	25.85	ppm	99
86)	Butylbenzylphthalate	14.83	149	239062	28.14	ppm	100
87)	Butyl stearate	15.06	56	127707	25.39	ppm	94
88)	Benzo[a]anthracene	15.71	228	365731	25.53	ppm	99
89)	3,3'-Dichlorobenzidine	15.74	252	132517	22.19	ppm	99
90)	Chrysene	15.77	228	353943	24.96	ppm	99
91)	bis(2-Ethylhexyl)phthalate	16.00	149	316059	23.53	ppm	99
93)	Di-n-octylphthalate	17.21	149	547820	23.51	ppm	98
94)	Benzo[b]fluoranthene	17.65	252	389934	26.43	ppm	97
95)	Benzo[k]fluoranthene	17.70	252	354280	24.92	ppm	97
96)	Benzo[a]pyrene	18.18	252	347525	26.70	ppm	99
97)	Indeno[1,2,3-cd]pyrene	19.90	276	319561	27.81	ppm	98
98)	Dibenz(a,h)acridine	19.59	279	299831	27.40	ppm	96
99)	Dibenz[a,h]anthracene	19.95	278	330658	26.71	ppm	99
100)	7,12-Dimethylbenz(a)anthra	17.66	256	159471	25.53	ppm	96
101)	Benzo[g,h,i]perylene	20.27	276	343546	26.11	ppm	99

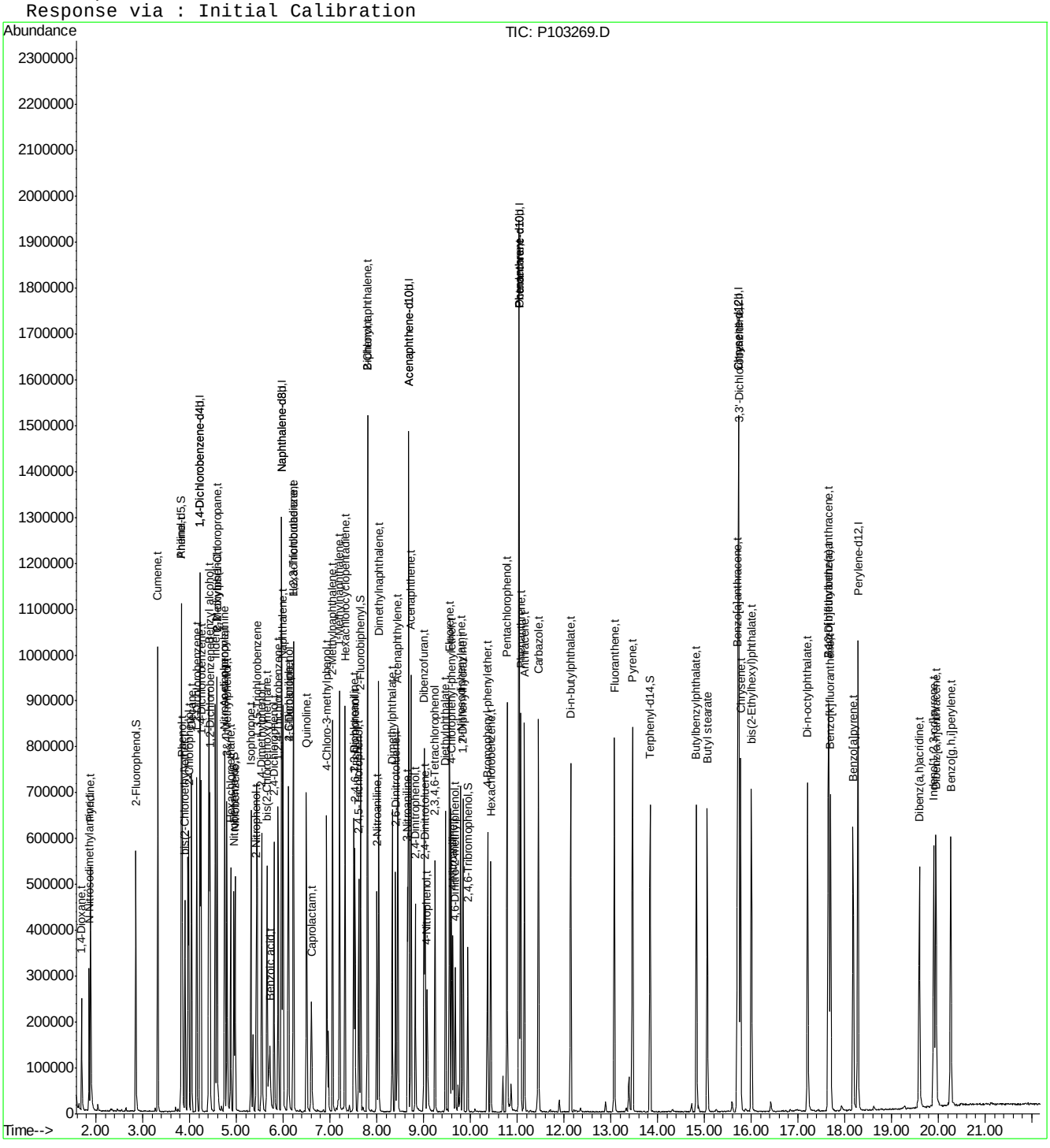
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103269.D Vial: 2
Acq On : 11 Mar 2016 11:39 am Operator: linseyk
Sample : cc4524-25 Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 13:04 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103270.D Vial: 3
Acq On : 11 Mar 2016 12:10 pm Operator: linseyk
Sample : cc4514-25 Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 11 12:32:21 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 10 17:30:14 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	154568	40.00	ppm	0.00
24) Naphthalene-d8	5.97	136	547845	40.00	ppm	-0.01
47) Acenaphthene-d10	8.68	164	317658	40.00	ppm	-0.02
69) Phenanthrene-d10	11.04	188	471247	40.00	ppm	-0.02
83) Chrysene-d12	15.72	240	428565	40.00	ppm	-0.03
92) Perylene-d12	18.28	264	395519	40.00	ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	154568	40.00	ppm	0.00
104) Phenanthrene-d10b	11.04	188	471247	40.00	ppm	-0.02
106) Chrysene-d12b	15.72	240	428565	40.00	ppm	-0.03
108) Naphthalene-d8b	5.97	136	547845	40.00	ppm	-0.01
110) Acenaphthene-d10b	8.68	164	317658	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds						Qvalue
103) Benzaldehyde	3.70	105	110747	23.84	ppm	97
105) Atrazine	10.70	200	66707	27.74	ppm	90
107) Benzidine	13.39	184	180704	23.95	ppm	98
109) Hydroquinone	6.72	110	135172	26.91	ppm	98
111) 1,2,4,5-Tetrachlorobenzene	7.32	216	103854	23.82	ppm	97

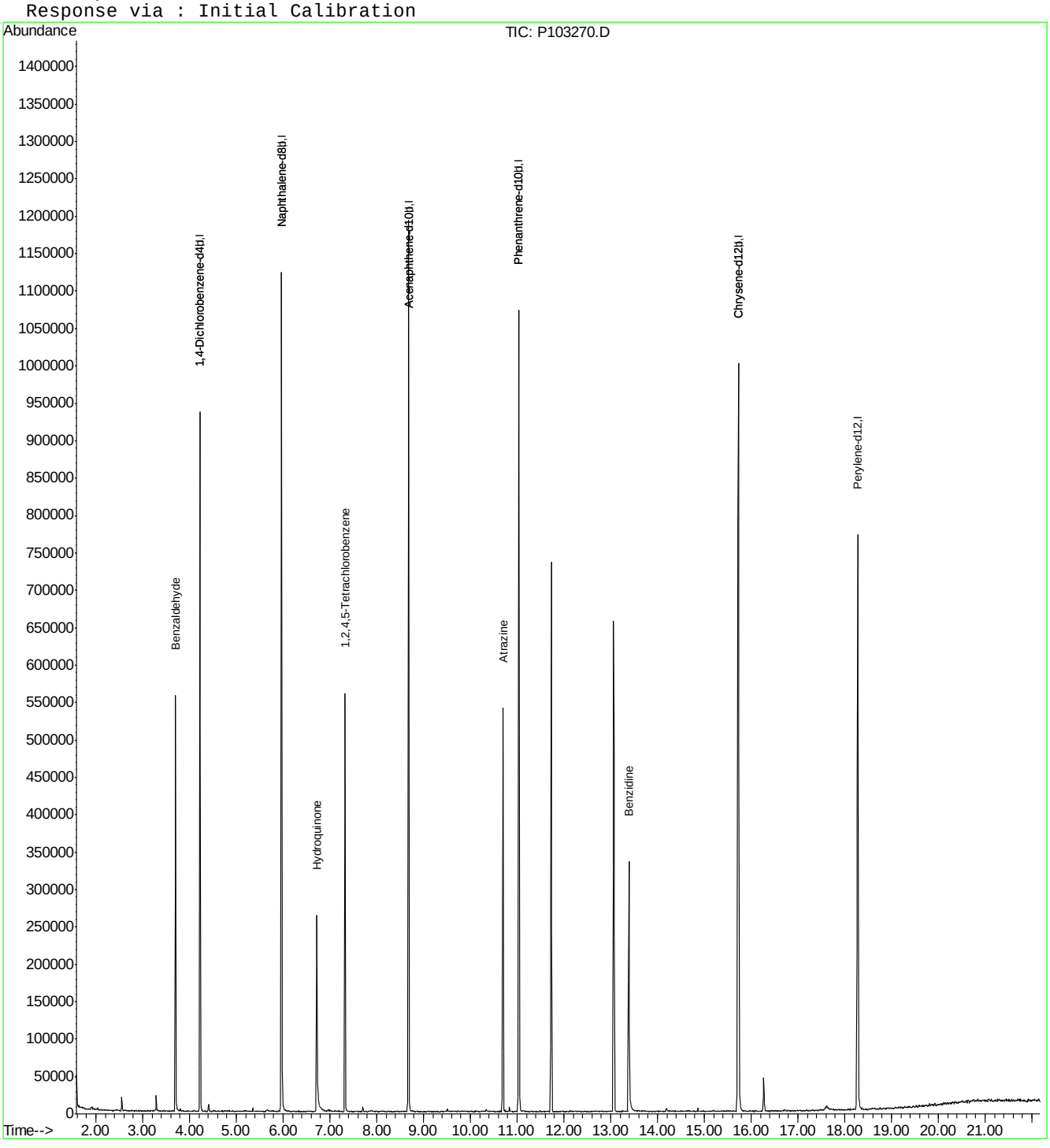
(#) = qualifier out of range (m) = manual integration (+) = signals summed
P103270.D MP4524.M Mon Mar 14 12:51:27 2016

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4536\P103270.D Vial: 3
Acq On : 11 Mar 2016 12:10 pm Operator: linseyk
Sample : cc4514-25 Inst : MSP
Misc : op91862,ep4536 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 12:51 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Mar 14 12:46:33 2016
Response via : Initial Calibration



SGS ACCUTEST JC15883

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4M2828

Date: 2/29/16

Analyst Signature: [illegible]

Columns: Rxi-5Sil MS 30m x 0.25mm x 0.25um

Method 8270D/625

Initial Cal. Method M4M 28 28 Com AMO

Injection Volume: 2 ul 2/29/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151829 ok	DFTPP	50ppm
-113	SIM std.	1ppm
-127	SIM Internal	400ppm
1609106	OCM-Chrisher	—

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: 3/1/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	4m63794	DFTPP			W	1					NG	51↓ recurcet
	63795	DFTPP			W	1					↓	51↓ before
	63796	DFTPP			W	1					NG ↓	1:12pm
	63797	CC2816-1.0		BNsim	W	2						bkg ↑ Hcb, Acids ↓ Target volume 2/29/16
	63798	DFTPP			W	1					NG ↓	Abun↓ ↑Em
	63799	DFTPP			W	1						Abun↓ ↑Em
	63800	DFTPP			W	1					OK	3:44pm
	63801	CC2816-1.0 28 2/29/16		BNsim	W	2					nothing	recalibrate use 1st point. ic2828-1.0
	63802	ic2882X-0.5 2/29/16			W	3					↓	SV151829-113B
	63803	ic2828-5				4						SV1517
	63804	-2.5				5						non new lot #.
	63805	ICC2828-1.0		BNsim	W	2					OK	SV151827420
	63806	ic2828-0.5				3					OK	D
	63807	ic2828 -.2				4					OK	E
	63808	-.1				5					OK	F
	63809	-.05				6					OK	G
	63810	-.02				7					OK	H

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

9.7.1

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ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4M2828

Date: 2/29/16

Analyst Signature: AHW

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Seepage 133	

Columns: RXISI/ms30m×25mm×5µm

Method 8270D/625

Initial Cal. Method M4M2828sim

Injection Volume: 1mL

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [illegible]

Date: 3/1/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4M6811	ic2828-.01		BNAsim	W	8					OK	SU5187421
	63812	-5				9					OK	A
	63813	-2.5				10					OK	B
	63814	ICV2828-1.0		BN1sim	W	11					OK	OP15162473 1ppm
	63815	-1.0		BN2sim	W	12					OK	SU5182985 1ppm
	63816	-1.0		Acidsim	W	13					OK	SU5182727 5ppm

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.

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

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Form: OR015-05
Rev. Date: 1/16/2006

SGS ACCUTEST JC15883

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4m 2841

Date: 3/15/16

Analyst Signature: JK

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SUS182408	DFTPP	50ppm
SUS182442	SIMSTD.	10ppm
83	SIM Internal	40ppm
1160906	DCM (Fisher)	—

Columns: RXI-5Si MS 30m x .25mm x .25um

Method 8270D 1625

Initial Cal. Method M4m2828Sim

Injection Volume: 1ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: AMO Date: 3/16/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4m64066	DFTPP			W	1					OK	8:51AM
	64067	CC2828-1.0	1/3/16	Bnasim	W	2					OK	
	64068	OP92075-mb	92075	ABS270	S	3			✓	✓	OK	
	64069	-bsd				4			✓	✓	OK	
	64070	OP91987-mb	91987-1	ABS270	W	5			✓	✓	OK	
	64071	-bsd				6			✓	✓	OK	
	64072	JC12475-7	92075-1	ABSIMNO +1,4dioxane	S	7			✓	✓	OK	
	64073	OP92075-ms		ABS270		8			/	/	OK	
	64074	-msd				9			/	/	OK	
	64075	OP91987-ms	91987-1	ABS270		10			/	/	OK	
	64076	-msd				11			/	/	OK	
	64077	JC15103-1	91733-1	1,4dioxane	W	12			✓	✓	OK	Run After 4m64071
	64078	-3				13			✓	✓	OK	
	64079	JC15883-1	91987-1	~~ABSIMNO~~ TPHP +1,4dioxane		14			/	/	OK	
	64080	-2				15			/	/	OK	
	64081	-3				16			/	/	OK	
	64082	-4				17			/	/	OK	

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.

181

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

SGS ACCUTEST JC15883

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4M2841

Date: 3/15/16

Analyst Signature: [illegible]

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	See Pg 181	

Columns: RXI-5SilMS 30m x .25mm x .25um

Method 8270D/625

Initial Cal. Method M4M2828Sim

Injection Volume: 1uL

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [illegible]

Date: 3/16/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4m 64083	JC15698-16	91987-1	1,4dioxane	W	18			/	/	OK	run by 8270!
	64084	-17				19			/	/	OK	
	64085	-18				20			/	/	OK	run by 8270!
	64086	-19				21			/	/	OK	
	64087	JC15712-1		1,4dioxane		22			/	/	OK	run by 8270!
	64088	JC15714-1		Rush		23			/	/	OK	
	64089	-3				24			/	/	OK	
	64090	-5				25			/	/	OK	8:31pm
	64091	-6				26					M	Out of Clock 9:02pm

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.

183

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

SGS ACCUTEST JC15883

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4P767

Date: 2/1/16

Analyst Signature: [illegible]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151769121	DFTPP	50ppm
SV151829113A	Sim std	1ppm
~~SV151829113A~~		
AMO 2/2/16		
58933	DCM (Fisher)	—

Columns: Rtx5silms 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method IM4P714 (2/1/16) Sim

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: AMO

Date: 2/2/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	4P14945	DFTPP				1					OK	4:06pm
	14946	CC741-1.0				2					Not Using	Repeatedly benzene low. Re-injecting different lot #
	14947	CC741-1.0				2					↓	
	14948	ICC767-0.5 (AMO 2/1/16)		BNA Sim		3					OK	SV151829113B
	14949	ICC767-1.0				4					OK	SV151829113A
	14950	IC767-0.2				5					OK	SV151769921E
	14951	IC767-0.1				6					OK	SV151769921F
	14952	IC767-0.05				7					OK	SV151769921G
	14953	IC767-0.02				8					OK	SV151769921H
	14954	IC767-0.01				9					OK	SV151769921I
	14955	IC767-5				10					OK	SV151769921A
	14956	IC767-2.5				11					OK	SV151769921B
	14957	ICV767-1.0		BSim		12					OK	OP15162430
	14958	ICV767-1.0		BN2 2nd		13					OK	SV15182985
	14959	ICV767-1.0		Acid 2nd		14					OK	SV15176906

AMO

TX = Matrix. Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

ample volume/weight used and final volumes refer to extraction log.

47

ll strikeouts must be initialed, dated and reason code applied as follows:
= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

rm: OR015-05
v. Date: 1/16/2006

9.7.3

9

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4P800

Date: 3/14/16.

Analyst Signature: AMO.

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SVS182910 8	DFTPP	50 ppm
SVS182742	SIMstd.	5 ppm
SVS182753	simintemal	400 ppm
160906	DCM (Fisher)	—

Columns: RxiSSil MS 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method M4P767SIM

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: [signature] Date: 3-17-16

Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
4015552	DFTPP				1					OK	902am.
15553	CC767-.5		BNASIM.	W	2					OK	pen-no(a) ↑
15554	JC15404-3	91877-1	1,4DIOX	W	3			✓	✓	OK	
15555	JC15458-2		1,4DIOX		4			✓	✓	OK	
15556	-3				5			✓	✓	OK	
15557	-4				6			✓	✓	OK	
15558	-5b	AMO 3/14/16			7			✓	✓	OK	
15559	-7				8			✓	✓	OK	
15560	-8				9			✓	✓	OK	
15561	-9				10			✓	✓	OK	837PM.
15562	-10				11					not an.	cut from sequence.
15563	-12				12					↓	↓
15564	JC15469-1	91934-1	BSIMNJ+ 1,4DIOX	W	13						
15565	op91989-mb1	91989-1	B8270sp.	W	14			✓	✓	OK	
15566	-lb30				15			✓	✓	OK	pah hits.
15567	-bs12				16			✓	✓	OK	
15568	JC14962-32		Pah		17			✓	✓	OK	

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.

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

153

Form: OR015-05
Rev. Date: 1/16/2006

9.7.4 9

SGS ACCUTEST JC15883

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4P800

Date: 3/14/16.

Analyst Signature: AMO

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 153	

Columns: 2x15m x 30m x 25mm x 5µm

Method 8270D/625

Initial Cal. Method M4P767sim

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: [signature] Date: 3/17/16

Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
E4P15569	JC14962-5R	919894	PAH	W	18			✓	✓	OK	
15570	-7R				19			✓	✓	OK	
15571	op919894sb		B8270pp		20			✓	✓	OK	0/180 MS.
15572	mbd				21			✓	✓	OK	
15573	op919894mbl	919894	AB8270	W	22			✓	✓	OK	
15574	tsb2				23			✓	✓	OK	
15575	JC15924-1		114DIOX-		24			✓	✓	OK	
15576	-2				25			✓	✓	OK	
15577	-3				26			✓	✓	OK	
15578	-4				27			✓	✓	OK	
15579	-5				28			✓	✓	OK	709PM.

AMO

W = 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.

155

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
Date: 1/16/2006

SGS ACCUTEST JC15883

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

SD ② 2/24/16

Batch ID: EP4514

Date: 2/~~23~~ 24/ 2016

Analyst Signature: SED

Standard Data

Lot #	Description	Conc.
SV151829-102A	TCL42	100 ppm
-102B	↓	80 ↓
-102E		10
-102G		5
-102H		2
-102I	↓	1 ↓

Standard Data

Lot #	Description	Conc.
SV151828-108	DFTPP	50 ppm
SV151829-107A	TCL42	50 ppm
-107B	↓	25 ppm
CM-5732	SD ② ~~CM-5732~~ I Std	4000 ppm
160168	2/24/16 ~~Internal S~~ Dcm (Fluor)	—

Columns: Rxi-5sil ms 30m x .25mm x .25um

Method 8270 D/625

Initial Cal. Method MP4513

Injection Volume: 1 ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 2/29/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	P102786	DFTPP			W	1					OK	1:55 am
	102787	TC4514-100		TCL42	W	10					OK	
	102788	-80				11					OK	
	102789	-10				12					OK	
	102790	-5				13					OK	
	102791	-2				14					OK	
	102792	-1				15					OK	
	102793	-25				16					OK	
	102794	TCC4514-50				17					OK	
	102795	TCV4513-50		Acids		18					~~AK~~ OK 2/24/16	SV151829-128 ~~Lot~~ AK 2/24/16
	102796	-50		Aniline		19					OK	-129
	102797	-50		ABN SURR		20					OK	OP15162442
	102798	-50		BN1		21					OK	SV151827-26
	102799	-50		BN2		22					OK	SV151829-116
	102800	TCV4514-50		HQ		23					OK	-64D
	102801	-50		Benzidine 3rd		24					OK	-88C 8:58 am

TX = Matrix . Designate W for water, S for soil, O for oil. ~~L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.~~

ample volume/weight used and final volumes refer to extraction log.

123

ll strikeouts must be initialed, dated and reason code applied as follows:
= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

orm: OR015-05
ev. Date: 1/16/2006

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EP4524

Date: 3/2/16

Analyst Signature: [illegible]

Columns: Rxi-5ilms 30mX.25mmX.25um

Method 8270D/625

Initial Cal. Method MP4513 24 JK3216

Injection Volume: 1uL

Standard Data

Lot #	Description	Conc.
SV151824-134A	BNA	100
-134B		80
-134E		10
-134F		5
-134G		2
-134H		1

Standard Data

Lot #	Description	Conc.
SV151829-108	DFTPP	50 ppm
SV151827-30A	BNA	50 ppm
-30B	↓	25 ppm
CM-5732	Internal Std	4000 ppm
160906	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: [illegible]

Date: 3/3/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	P102997	DFTPP			W	1					NG	127↑ reinject
	102998	DFTPP			W	1					↓	127↑ reinjec
	102999	DFTPP			W	1					NG	127↑ retune
	103000	DFTPP			W	1					↓	127↑ reinject JK3216
	103001	DFTPP			W	1					↓	127↑ retune
	103002	DFTPP			W	1					NG	127↑ retune
	103003	DFTPP			W	1					NG	12:38pm
	103004	CC451350		BNA	W	2					↓	RT↑ reinjec
	103005	DFTPP			W	1					NG	127↑ reinject
	103006	DFTPP			W	1					↓	127↑ reinjec
	103007	DFTPP			W	1					NG	127↑, retune
	103008	DFTPP			W	1					↓	127↑, retune
	103009	DFTPP			W	1					↓	127↑, retune
	103010	DFTPP			W	1					OK	
	103011	IC4524-100		BNA		2					OK	
	103012	-80				3					OK	
	103013	-10				4					OK	

TX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

ample volume/weight used and final volumes refer to extraction log.

151

ll strikeouts must be initialed, dated and reason code applied as follows:
= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

orm: OR015-05
ev. Date: 1/16/2006

SGS ACCUTEST JC15883

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EP4524

Date: 3/2/2016

Analyst Signature: SED

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 151	

Columns: Rxi-5 silms 30m x .25mm x .25um

Method 8270 D/625

Initial Cal. Method MP4524

Injection Volume: 1 µl

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: 3/3/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	P103014	ICC4524-5		BNA	W	5					OK	
	103015	-2				6					OK	
	103016	-1				7					OK	
	103017	ICC4524-~~25~~ 50	SD ② 3/2/16			8					OK	
	103018	ICC4524-25 ~~ICC4524-50~~				9					OK	
	103019	ICV4524-50		Acids		10					OK	SV151829-128
	103020	-50		Aniline		11					OK	-114
	103021	-50		ABN surr		12					OK	OP1516244 2
	103022	-50		BN1		13					OK	SV151827-26
	103023	-50		BN2		14					OK	-2
	103024	-50		Benzidine 3rd		15					OK	-38F

TX = Matrix. Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

ample volume/weight used and final volumes refer to extraction log.

153

ll strikeouts must be initialed, dated and reason code applied as follows:
= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

orm: OR015-05
ev. Date: 1/16/2006

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Date: 3/11/16

Batch ID: EP4536

Analyst Signature: JK

Columns: Rxi-5sil MS 30m x .25mm x .25um

Method 8270 D 1625

Initial Cal. Method MP4524

Injection Volume: 1 ul

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
WS1124108	DFTPP	50ppm
-124	BNQ	25ppm
-101	TCL42	25ppm
CN15732	Internal Std	4000ppm
1100906	DCM-dishers	—

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: 3/14/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	P103268	DFTPP			W	1					OK	11:20AM
	103269	CC4524-25		BNQ	W	2					OK	41↑
	103270	CC4514-25		TCL42	W	3					OK	
	103271	OP91987-MB	91987	ABS270		4			/	/	OK	
	103272	-bs1				5			/	/	OK	
	103273	JC15714-1		ABSL		6			/	/	OK	
	103274	-3				7			/	/	OK	
	103275	-5				8			/	/	OK	
	103276	-6				9			/	/	OK	m1:10
	103277	JC15883-1		ABTCL20		10			/	/	OK	
	103278	-2				11			/	/	OK	
	103279	-3				12			/	/	OK	
	103280	-4				13			/	/	OK	
	103281	OP91987-MS		ABS270		14			/	/	OK	
	103282	-Msd				15			/	/	OK	
	103283 3	JC15217-1	91862	ABSL(APA)	W	16	4		/	N /	OK JC34116	All Surr Areas
	103284 4A	JC15569-2	91953	ABSL	W	17	20		/	/	OK	sequence stopped, RR as A rilc

X = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

mple volume/weight used and final volumes refer to extraction log.

193

strikeouts must be initialed, dated and reason code applied as follows:
reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

m: OR015-05
. Date: 1/16/2006

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EP4536

Date: 3/11/2016

Analyst Signature: SED

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See page 193	

Columns: Rxi-5 silms 30mx.25mmx.25um

Method 8270 D/625

Initial Cal. Method MP4524

Injection Volume: 1 ul

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: 3/14/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	P103285	JC15569-11	91953	ABSL	W	~~W~~ 18	20		/	/	OK	MI:100
	103286	-11				19	4		/	/	OK	8:53pm
	103287	Acid spike SV151827-67				20			/	-	OK	ran after P103283

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.

195

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

SGS ACCUTEST JC15883

LOGBOOK ID: G-1674

ABN Aqueous Extraction Logbook

Date Started: ~~0900~~ 0800 3/11/16 Time Started: 0800

Date Finished: 3/11/16 Time Finished: 1230

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):

Separatory Funnel: SW846 3510C/CLP/other_____ 3510C SIM_____

Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # MS 91987	RACK# B-17
Extracted by:	YB, NB, BOJ
Concentrated by:	BOJ
Vialed by:	AQ
Relinquished by:	AQ
Accepted by:	
Supervisor Review:	3/11/16

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:

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust(mL) < 2 H2SO4	pH Adjust(mL) > 11 NaOH	Final Extract Color	Final Extract Vol(mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN		DIH2O	1000	1	4	Clear	1		
	BS1			DIH2O	1000	1	4	Yellow	1		
Required	JC15883-1 MS		1	Yellow	495	1	4	Yellow	1		
	↓ MSD		1	Yellow	495	1	4	Yellow	1		
	JC15883-1 BS	12 SIM		DIH2O	1000	1	4	1:Yellow	1		
	↓ MS		3	Yellow	500	1	4	Yellow	1		
	MSD		3	Yellow	500	1	4	Yellow	1		
1	JC15883-1	ABN	5	Yellow	970	1	4	1:Yellow	1		
2	-2		2	Yellow	970	1	4	1:Yellow	1		
3	-3		1	Yellow	1000	1	4	1:Yellow	1		
4	-4		2	Yellow	930	1	4	1:Yellow	1		
5	JC15924-1		1	Clear	900	1	4	Brown	1		
6	-2		2	gold	900	1	4	1:Yellow	1		
7	-3		1	Yellow	900	1	4	1:Yellow	1		
8	-4		2	Yellow	900	1	4	1:Yellow	1		
9	-5		1	Clear	1000	1	4	1:Yellow	1		
10	JC15698-16		1	gold	1000	1	4	1:Yellow	1		
11	-17		2	peach	1000	1	4	1:Yellow	1		
12	-18		2	Clear	900	1	4	1:Yellow	1		
13	-19		1	Clear	950	1	4	1:Yellow	1		
14	JC15712-1		2	clear	1000	1	4	1:Yellow	1		
15	JC15714-1		1	Yellow	1000	1	4	1:Yellow	1		
16	-3		1	Clear	1000	1	4	1:Yellow	1		
17	-5		1	LtYellow	996	1	4	1:Yellow	1		
18	-6		2	Yellow	1000	1	4	Brown	1		
19											
20											

3dTAT

SPECIAL P[illegible] INSTRUCTIONS

Rx Reason Rush

Spiking:

Weights/V[illegible]

Required MS/MSD: JC15883-1 (MS/MSD & SIM MS/MSD)

Final Volume:

Other:

Comments:

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	75.75	1.6, 1.2	77.76	N/A
Waterbath Chiller (GPM)	F2	-7	—	—	2
NEVAP (32-38°C; LPM)	Nevap2	34.7	0.1	34.8	10
					10 yes

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	15162436	50	1

WITNESS SIGN: BJ SPIKE SIGN: NG

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	15182743	50	Acid: 1
Acid (for SIM)			A(SIM): 0.1
Base #1	15182744	50	1
Base #2	15182745	50	1
Anilines	15182746	50	1
BSIM	15162432	1ppm 40	1

WITNESS SIGN: BJ SPIKE SIGN: NG

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	158253	Fisher	60mL x 6

REAGENT	LOT #	BRAND
NaOH	153803	Fisher
H2SO4	2511607	Fisher
Sodium Sulfate	153169	Fisher
Glass Wool	09829-2	Lab
Filter Paper		
pH strips	212713	Hydrion

SGS ACCUTEST INC.
Form: OP022A-08
Rev Date: 1/13/16

29

LOGBOOK ID: G-1674

ABN Aqueous Extraction Logbook

Date Started: ~~0900~~ 0800 3/11/16 Time Started: 0800

Date Finished: 3/11/16 Time Finished: 1230

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):

Separatory Funnel: SW846 3510C/CLP/other_____ 3510C SIM_____

Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH #	MS 91987	RACK#	B-17
Extracted by:	YB, NB, BOJ		
Concentrated by:	BOJ		
Vialed by:	AQ		
Relinquished by:	AQ		
Accepted by:			
Supervisor Review:	3/11/16		

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:

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust(mL) < H2SO4	pH Adjust(mL) >11 NaOH	Final Extract Color	Final Extract Vol(mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN		DI H2O	1000	1	4	Clear	1		
	BS1			DI H2O	1000	1	4	Yellow	1		
	JC15883-1 MS		1	Yellow	495	1	4	Yellow	1		
	↓ MSD		1	Yellow	495	1	4	Yellow	1		
	JC15883-1 BS	12 SIM		DI H2O	1000	1	4	1:Yellow	1		
	↓ MS		3	Yellow	500	1	4	Yellow	1		
	MSD		3	Yellow	500	1	4	Yellow	1		
1	JC15883-1	ABN	5	Yellow	970	1	4	1:Yellow	1		
2	-2		2	Yellow	970	1	4	1:Yellow	1		
3	-3		1	Yellow	1000	1	4	1:Yellow	1		
4	-4		2	Yellow	930	1	4	1:Yellow	1		
5	JC15924-1		1	Clear	900	1	4	Brown	1		
6	-2		2	gold	900	1	4	1:Yellow	1		
7	-3		1	Yellow	900	1	4	1:Yellow	1		
8	-4		2	Yellow	900	1	4	1:Yellow	1		
9	-5		1	Clear	1000	1	4	1:Yellow	1		
10	JC15698-16		1	gold	1000	1	4	1:Yellow	1		
11	-17		2	peach	1000	1	4	1:Yellow	1		
12	-18		2	Clear	900	1	4	1:Yellow	1		
13	-19		1	Clear	950	1	4	1:Yellow	1		
14	JC15712-1		2	clear	1000	1	4	1:Yellow	1		
15	JC15714-1		1	Yellow	1000	1	4	1:Yellow	1		
16	-3		1	Clear	1000	1	4	1:Yellow	1		
17	-5		1	LT Yellow	996	1	4	1:Yellow	1		
18	-6		2	Yellow	1000	1	4	Brown	1		
19											
20											

Required

3dTAT

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	75,75	1.6,1.2	77,76	N/A
Waterbath Chiller (GPM)	F2	-7	—	—	2
NEVAP (32-38°C; LPM)	Nevap2	34.7	0.1	34.8	10
					10 yes

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	15162436	50	1

WITNESS SIGN: BJ SPIKE SIGN: NG

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	15182743	50	Acid: 1
Acid (for SIM)			A(SIM): 0.1
Base #1	15182744	50	1
Base #2	15182745	50	1
Anilines	15182746	50	1
BSIM	15162432	1ppm ~~50~~ 40	1

WITNESS SIGN: BJ SPIKE SIGN: NG

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	158253	Fisher	60mL x 6

REAGENT	LOT #	BRAND
NaOH	153803	Fisher
H2SO4	2511607	Fisher
Sodium Sulfate	153169	Fisher
Glass Wool	09829-2	Lab
Filter Paper		
pH strips	212719	Hydrion

SPECIAL P[illegible]

Rx Reason: Rush

Spiking:

Weights/V[illegible]

Required MS/MSD: JC15883-1 (MS/MSD & SIM MS/MSD)

Final Volume:

Other:

Comments:

SGS ACCUTEST INC.
Form: OP022A-08
Rev Date: 1/13/16

29

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: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5205-MB4	GH103695.D	1	03/11/16	XPL	n/a	n/a	GGH5205

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

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

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	84%	56-145%
111-27-3	Hexanol	86%	56-145%

Method Blank Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5205-MB2	GH103674.D	1	03/11/16	XPL	n/a	n/a	GGH5205

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

GGH5205-BS

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

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	87%	56-145%
111-27-3	Hexanol	91%	56-145%

Blank Spike Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5205-BS	GH103675.D	1	03/11/16	XPL	n/a	n/a	GGH5205

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
64-17-5	Ethanol	5000	4750	95	74-123
78-83-1	Isobutyl Alcohol	5000	4870	97	70-124
67-63-0	Isopropyl Alcohol	5000	4850	97	76-121
71-23-8	n-Propyl Alcohol	5000	4750	95	73-122
71-36-3	n-Butyl Alcohol	5000	4390	88	67-116
78-92-2	sec-Butyl Alcohol	5000	4800	96	74-118
67-56-1	Methanol	5000	4060	81	67-121

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	88%	56-145%
111-27-3	Hexanol	91%	56-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15883-1MS	GH103698.D	1	03/11/16	XPL	n/a	n/a	GGH5205
JC15883-1MSD	GH103699.D	1	03/11/16	XPL	n/a	n/a	GGH5205
JC15883-1	GH103697.D	1	03/11/16	XPL	n/a	n/a	GGH5205

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC15883-1, JC15883-2, JC15883-3, JC15883-4, JC15883-5

CAS No.	Compound	JC15883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
64-17-5	Ethanol	ND		5000	5340	107	5000	4820	96	10	58-145/27
78-83-1	Isobutyl Alcohol	ND		5000	5150	103	5000	5530	111	7	69-131/25
67-63-0	Isopropyl Alcohol	ND		5000	5390	108	5000	4840	97	11	70-133/28
71-23-8	n-Propyl Alcohol	ND		5000	5170	103	5000	4430	89	15	66-137/29
71-36-3	n-Butyl Alcohol	ND		5000	4520	90	5000	4530	91	0	63-131/25
78-92-2	sec-Butyl Alcohol	ND		5000	5170	103	5000	5030	101	3	64-136/25
67-56-1	Methanol	ND		5000	5070	101	5000	5000	100	1	48-148/34

CAS No.	Surrogate Recoveries	MS	MSD	JC15883-1	Limits
111-27-3	Hexanol	96%	96%	88%	56-145%
111-27-3	Hexanol	94%	96%	85%	56-145%

* = Outside of Control Limits.

GC Identification Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	GGH5205-CC5193	**Injection Date:**	03/11/16
Lab File ID:	GH103673.D	**Injection Time:**	08:25
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH5205-BS	**Injection Date:**	03/11/16
Lab File ID:	GH103675.D	**Injection Time:**	09:20
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.82	1.83	5040		ug/l	5.9
Ethanol	2 [a]	1.02	1.02	4750		ug/l	
Isobutyl Alcohol	1	3.79	3.79	4960		ug/l	1.8
Isobutyl Alcohol	2 [a]	2.69	2.69	4870		ug/l	
Isopropyl Alcohol	1	2.20	2.21	5010		ug/l	3.2
Isopropyl Alcohol	2 [a]	1.24	1.24	4850		ug/l	
n-Propyl Alcohol	1	2.96	2.97	5030		ug/l	5.7
n-Propyl Alcohol	2 [a]	1.76	1.77	4750		ug/l	
n-Butyl Alcohol	1	4.21	4.21	4750		ug/l	7.9
n-Butyl Alcohol	2 [a]	3.18	3.18	4390		ug/l	
sec-Butyl Alcohol	1 [a]	3.40	3.40	4800		ug/l	0.4
sec-Butyl Alcohol	2	2.32	2.31	4820		ug/l	
Methanol	1	1.40	1.40	4740		ug/l	15.5
Methanol	2 [a]	0.79	0.79	4060		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	GGH5205-CC5193	**Injection Date:**	03/11/16
Lab File ID:	GH103694.D	**Injection Time:**	15:16
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC15883-1MS	**Injection Date:**	03/11/16
Lab File ID:	GH103698.D	**Injection Time:**	16:42
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.82	1.82	5270		ug/l	1.3
Ethanol	2 [a]	1.02	1.02	5340		ug/l	
Isobutyl Alcohol	1	3.78	3.78	5260		ug/l	2.1
Isobutyl Alcohol	2 [a]	2.70	2.70	5150		ug/l	
Isopropyl Alcohol	1	2.19	2.19	5270		ug/l	2.3
Isopropyl Alcohol	2 [a]	1.25	1.25	5390		ug/l	
n-Propyl Alcohol	1	2.96	2.96	5460		ug/l	5.5
n-Propyl Alcohol	2 [a]	1.77	1.77	5170		ug/l	
n-Butyl Alcohol	1	4.20	4.20	5170		ug/l	13.4
n-Butyl Alcohol	2 [a]	3.18	3.18	4520		ug/l	
sec-Butyl Alcohol	1	3.39	3.39	5230		ug/l	1.2
sec-Butyl Alcohol	2 [a]	2.32	2.31	5170		ug/l	
Methanol	1	1.39	1.39	5210		ug/l	2.7
Methanol	2 [a]	0.79	0.80	5070		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	GGH5205-CC5193	**Injection Date:**	03/11/16
Lab File ID:	GH103694.D	**Injection Time:**	15:16
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC15883-1MSD	**Injection Date:**	03/11/16
Lab File ID:	GH103699.D	**Injection Time:**	16:57
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.82	1.82	5240		ug/l	8.3
Ethanol	2 [a]	1.02	1.02	4820		ug/l	
Isobutyl Alcohol	1	3.78	3.78	5350		ug/l	3.3
Isobutyl Alcohol	2 [a]	2.70	2.70	5530		ug/l	
Isopropyl Alcohol	1	2.20	2.19	4990		ug/l	3.1
Isopropyl Alcohol	2 [a]	1.25	1.25	4840		ug/l	
n-Propyl Alcohol	1	2.96	2.96	5390		ug/l	19.6
n-Propyl Alcohol	2 [a]	1.77	1.77	4430		ug/l	
n-Butyl Alcohol	1	4.20	4.20	5070		ug/l	11.3
n-Butyl Alcohol	2 [a]	3.19	3.18	4530		ug/l	
sec-Butyl Alcohol	1	3.39	3.39	5240		ug/l	4.1
sec-Butyl Alcohol	2 [a]	2.32	2.31	5030		ug/l	
Methanol	1	1.39	1.39	4950		ug/l	1.0
Methanol	2 [a]	0.80	0.80	5000		ug/l	

(a) QC results reported from this column.

Volatile Surrogate Recovery Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Method: SW846-8015C (DAI) **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
JC15883-1	GH103697.D	88	85
JC15883-2	GH103700.D	100	101
JC15883-3	GH103701.D	99	102
JC15883-4	GH103702.D	123	99
JC15883-5	GH103703.D	113	108
GGH5205-BS	GH103675.D	88	91
GGH5205-MB4	GH103695.D	84	86
JC15883-1MS	GH103698.D	96	94
JC15883-1MSD	GH103699.D	96	96
GGH5205-MB2	GH103674.D	87	91

Surrogate Compounds	Recovery Limits
S1 = Hexanol	56-145%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	GGH5205-CC5193	**Injection Date:**	03/11/16
Lab File ID:	GH103673.D	**Injection Time:**	08:25
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.33	5.87

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5205-MB2	GH103674.D	03/11/16	09:05	5.32	5.86
GGH5205-BS	GH103675.D	03/11/16	09:20	5.32	5.86
ZZZZZZ	GH103676.D	03/11/16	09:34	5.33	5.87
JC15518-1	GH103677.D	03/11/16	09:56	5.32	5.86
JC15518-1MS	GH103678.D	03/11/16	10:07	5.32	5.87
JC15518-1MSD	GH103679.D	03/11/16	10:25	5.33	5.86
ZZZZZZ	GH103680.D	03/11/16	10:39	5.33	5.86
ZZZZZZ	GH103681.D	03/11/16	10:53	5.32	5.86
ZZZZZZ	GH103682.D	03/11/16	11:08	5.33	5.86

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC15883
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Former Tank Farm, PR

Check Std:	GGH5205-CC5193	**Injection Date:**	03/11/16
Lab File ID:	GH103694.D	**Injection Time:**	15:16
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.32	5.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5205-MB4	GH103695.D	03/11/16	15:59	5.32	5.86
ZZZZZZ	GH103696.D	03/11/16	16:14	5.32	5.86
JC15883-1	GH103697.D	03/11/16	16:28	5.33	5.86
JC15883-1MS	GH103698.D	03/11/16	16:42	5.32	5.86
JC15883-1MSD	GH103699.D	03/11/16	16:57	5.33	5.86
JC15883-2	GH103700.D	03/11/16	17:18	5.33	5.86
JC15883-3	GH103701.D	03/11/16	17:33	5.32	5.86
JC15883-4	GH103702.D	03/11/16	17:47	5.32	5.86
JC15883-5	GH103703.D	03/11/16	18:02	5.32	5.86

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

Initial Calibration Summary

Job Number: JC15883 **Sample:** GGH5193-ICC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103541.D
Project: BMSMC, Former Tank Farm, PR

Response Factor Report GCGH

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Mar 01 12:10:59 2016
Response via : Initial Calibration

Calibration Files
0.5 =GH103543.D 1 =GH103536.D 5 =GH103541.D 10 =GH103538.D
50 =GH103539.D 100 =GH103540.D 0.1 =GH103544.D =

Compound	0.5	1	5	10	50	100	0.1	Avg		%RSD
1) Methanol	1.426	1.841	1.852	1.703	1.663	1.780	1.952	1.745	E1	9.79
2) Ethanol	2.194	2.249	2.373	2.356	2.184	2.349	2.002	2.244	E1	5.89
3) Tert-Butyl A	2.774	3.753	3.616	3.510	3.237	3.492	3.482	3.409	E1	9.40
4) 1-Propanol	2.092	3.059	3.087	2.991	2.821	3.030	3.265	2.907	E1	13.16
5) 2-Propanol	1.682	2.949	2.637	2.504	2.346	2.529	2.559	2.458	E1	15.80
6) Propionitril										
7) Isobutanol	2.896	3.485	3.556	3.505	3.219	3.484	3.542	3.384	E1	7.18
8) 1-Butanol	2.743	3.627	3.420	3.389	3.054	3.265	3.899	3.343	E1	11.25
9) 2-Butanol	2.347	3.176	3.154	3.122	2.873	3.066	3.756	3.071	E1	13.64
10) Hexanol	1.693	1.305	1.255	1.265	1.256	0.953	1.202	1.275	E2	17.09

Signal #2

1) Methanol	1.818	1.614	1.723	1.711	1.573	1.708	2.010	1.736	E1	8.31
2) Ethanol	2.024	2.267	2.294	2.284	2.092	2.288	2.194	2.206	E1	4.91
3) Tert-Butyl A	2.906	3.370	3.219	3.317	3.054	3.303	3.221	3.198	E1	5.13
4) 1-Propanol	2.365	2.891	3.042	2.928	2.683	2.894	3.320	2.875	E1	10.31
5) 2-Propanol	2.053	2.413	2.353	2.406	2.218	2.413	2.475	2.333	E1	6.33
6) Propionitril										
7) Isobutanol	2.864	3.107	3.214	3.374	3.059	3.290	3.670	3.226	E1	7.97
8) 1-Butanol	** This compound does not meet initial calibration criteria.									
	3.431	3.074	3.191	3.268	2.937	3.245	5.688	3.548	E1	26.96
9) 2-Butanol	2.452	2.996	2.918	2.985	2.721	2.924	3.049	2.864	E1	7.31
10) Hexanol	1.783	1.289	1.223	1.238	1.230	0.945	1.219	1.275	E2	19.65

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

MGH5193.M Tue Mar 01 12:19:45 2016 GCGH

Initial Calibration Verification

Job Number: JC15883 **Sample:** GGH5193-ICV5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103545.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
Acq On    : 29 Feb 2016   1:20 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
Acq On    : 29 Feb 2016   1:36 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 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	17.453	17.951	-2.9	97	0.00	1.33- 1.50
2	Ethanol	22.440	23.663	-5.5	100	0.00	1.80- 1.89
3	Tert-Butyl Alcohol	34.092	35.190	-3.2	97	0.00	2.47- 2.56
4	1-Propanol	29.066	30.968	-6.5	100	0.00	2.96- 3.03
5	2-Propanol	24.580	25.257	-2.8	96	0.00	2.18- 2.27
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	34.562	-2.1	97	0.00	3.76- 3.85
8	1-Butanol	33.426	33.817	-1.2	99	0.00	4.18- 4.27
9	2-Butanol	30.706	31.208	-1.6	99	0.00	3.37- 3.47
10 S	Hexanol	127.542	124.268	2.6	99	0.00	5.85- 5.91

***** Signal #2 *****

1	Methanol	17.364	17.370	-0.0	101	0.00	0.77- 0.83
2	Ethanol	22.062	22.926	-3.9	100	0.00	0.99- 1.05
3	Tert-Butyl Alcohol	31.985	33.340	-4.2	104	0.00	1.44- 1.50
4	1-Propanol	28.748	29.155	-1.4	96	0.00	1.74- 1.80
5	2-Propanol	23.330	24.634	-5.6	105	0.00	1.22- 1.28
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	33.041	-2.4	103	0.00	2.67- 2.73
8	1-Butanol	35.477	32.815	7.5	103	0.00	3.16- 3.22
9	2-Butanol	28.637	29.520	-3.1	101	0.00	2.29- 2.35
10 S	Hexanol	127.519	121.131	5.0	99	0.00	5.29- 5.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103541.D MGH5193.M Tue Mar 01 12:26:43 2016 GCGH

Continuing Calibration Summary

Job Number: JC15883 **Sample:** GGH5205-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103673.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103673.D\FID1A.CH         Vial: 94
Acq On    : 11 Mar 2016   8:25 am                    Operator: XULIU
Sample    : CC5193-5000                              Inst    : GCGH
Misc      : GC47883,GGH5204,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103673.D\FID2B.CH         Vial: 94
Acq On    : 11 Mar 2016   8:39 am                    Operator: XULIU
Sample    : CC5193-5000                              Inst    : GCGH
Misc      : GC47883,GGH5204,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 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	17.453	15.343	12.1	83	0.00	1.31- 1.49
2	Ethanol	22.440	24.872	-10.8	105	0.00	1.78- 1.88
3	Tert-Butyl Alcohol	34.092	36.565	-7.3	101	0.00	2.45- 2.54
4	1-Propanol	29.066	32.016	-10.1	104	0.00	2.94- 3.01
5	2-Propanol	24.580	26.953	-9.7	102	0.00	2.16- 2.25
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	35.587	-5.2	100	0.00	3.74- 3.84
8	1-Butanol	33.426	34.299	-2.6	100	0.00	4.17- 4.26
9	2-Butanol	30.706	32.115	-4.6	102	0.00	3.36- 3.45
10 S	Hexanol	127.542	134.893	-5.8	108	0.00	5.84- 5.90

***** Signal #2 *****

1	Methanol	17.364	18.090	-4.2	105	0.00	0.76- 0.82
2	Ethanol	22.062	24.162	-9.5	105	0.00	0.99- 1.05
3	Tert-Butyl Alcohol	31.985	35.431	-10.8	110	0.00	1.42- 1.48
4	1-Propanol	28.748	30.962	-7.7	102	0.00	1.74- 1.80
5	2-Propanol	23.330	25.684	-10.1	109	0.00	1.21- 1.27
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	34.492	-6.9	107	0.00	2.66- 2.72
8	1-Butanol	35.477	31.639	10.8	99	0.00	3.15- 3.21
9	2-Butanol	28.637	31.429	-9.7	108	0.00	2.28- 2.34
10 S	Hexanol	127.519	139.787	-9.6	114	0.00	5.28- 5.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103541.D MGH5193.M Fri Mar 11 10:17:53 2016 GCGH

10.7.3 10

Continuing Calibration Summary

Job Number: JC15883 **Sample:** GGH5205-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103683.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103683.D\FID1A.CH        Vial: 95
Acq On    : 11 Mar 2016  11:22 am                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47881,GGH5205,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103683.D\FID2B.CH        Vial: 95
Acq On    : 11 Mar 2016  11:42 am                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47881,GGH5205,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 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	17.453	16.369	6.2	96	0.00	1.31- 1.48
2	Ethanol	22.440	23.701	-5.6	101	0.00	1.78- 1.87
3	Tert-Butyl Alcohol	34.092	34.011	0.2	97	0.00	2.44- 2.53
4	1-Propanol	29.066	30.561	-5.1	102	0.00	2.93- 3.00
5	2-Propanol	24.580	24.988	-1.7	100	0.00	2.15- 2.25
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	35.430	-4.7	101	0.00	3.74- 3.83
8	1-Butanol	33.426	33.000	1.3	97	0.00	4.16- 4.25
9	2-Butanol	30.706	31.039	-1.1	99	0.00	3.35- 3.45
10 S	Hexanol	127.542	121.350	4.9	96	0.00	5.83- 5.89

***** Signal #2 *****

1	Methanol	17.364	15.018	13.5	88	0.00	0.76- 0.82
2	Ethanol	22.062	20.024	9.2	88	0.00	0.99- 1.05
3	Tert-Butyl Alcohol	31.985	31.133	2.7	94	0.00	1.43- 1.49
4	1-Propanol	28.748	28.974	-0.8	99	0.00	1.74- 1.80
5	2-Propanol	23.330	21.405	8.3	89	0.00	1.21- 1.27
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	33.271	-3.1	99	0.00	2.66- 2.72
8	1-Butanol	35.477	31.843	10.2	97	0.00	3.14- 3.20
9	2-Butanol	28.637	28.367	0.9	95	0.00	2.29- 2.35
10 S	Hexanol	127.519	117.940	7.5	95	0.00	5.27- 5.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103538.D MGH5193.M Fri Mar 11 13:35:13 2016 GCGH

Continuing Calibration Summary

Job Number: JC15883 **Sample:** GGH5205-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103694.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103694.D\FID1A.CH        Vial: 95
Acq On    : 11 Mar 2016   3:16 pm                   Operator: XULIU
Sample    : CC5193-5000                             Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103694.D\FID2B.CH        Vial: 95
Acq On    : 11 Mar 2016   3:30 pm                   Operator: XULIU
Sample    : CC5193-5000                             Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 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	17.453	17.852	-2.3	96	0.00	1.30- 1.48
2		Ethanol	22.440	24.140	-7.6	102	0.00	1.77- 1.86
3		Tert-Butyl Alcohol	34.092	40.248	-18.1	111	0.00	2.43- 2.52
4		1-Propanol	29.066	32.378	-11.4	105	0.00	2.92- 2.99
5		2-Propanol	24.580	28.308	-15.2	107	0.00	2.15- 2.24
6		Propionitrile		----------NA----------				
7		Isobutanol	33.839	36.265	-7.2	102	0.00	3.73- 3.82
8		1-Butanol	33.426	34.866	-4.3	102	0.00	4.15- 4.25
9		2-Butanol	30.706	32.413	-5.6	103	0.00	3.34- 3.44
10	S	Hexanol	127.542	127.141	0.3	101	0.00	5.83- 5.89

***** Signal #2 *****

1		Methanol	17.364	19.112	-10.1	111	0.00	0.77- 0.83
2		Ethanol	22.062	25.011	-13.4	109	0.00	0.99- 1.05
3		Tert-Butyl Alcohol	31.985	35.345	-10.5	110	0.00	1.43- 1.49
4		1-Propanol	28.748	30.585	-6.4	101	0.00	1.74- 1.80
5		2-Propanol	23.330	26.058	-11.7	111	0.00	1.22- 1.28
6		Propionitrile		----------NA----------				
7		Isobutanol	32.255	33.306	-3.3	104	0.00	2.67- 2.73
8		1-Butanol	35.477	34.057	4.0	107	0.00	3.15- 3.21
9		2-Butanol	28.637	30.400	-6.2	104	0.00	2.28- 2.34
10	S	Hexanol	127.519	125.913	1.3	103	0.00	5.27- 5.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103541.D MGH5193.M Mon Mar 14 08:26:46 2016 GCGH

10.7.5 10

Continuing Calibration Summary

Job Number: JC15883 **Sample:** GGH5205-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103704.D
Project: BMSMC, Former Tank Farm, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103704.D\FID1A.CH        Vial: 9
Acq On    : 11 Mar 2016   6:16 pm                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103704.D\FID2B.CH        Vial: 9
Acq On    : 11 Mar 2016   6:31 pm                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 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	17.453	16.661	4.5	98	0.00	1.31- 1.48
2	Ethanol	22.440	22.690	-1.1	96	0.00	1.77- 1.87
3	Tert-Butyl Alcohol	34.092	33.642	1.3	96	0.00	2.44- 2.53
4	1-Propanol	29.066	30.099	-3.6	101	0.00	2.93- 3.00
5	2-Propanol	24.580	24.285	1.2	97	0.00	2.15- 2.24
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	34.779	-2.8	99	0.00	3.73- 3.83
8	1-Butanol	33.426	32.476	2.8	96	0.00	4.15- 4.25
9	2-Butanol	30.706	30.149	1.8	97	0.00	3.35- 3.44
10 S	Hexanol	127.542	129.233	-1.3	102	0.00	5.83- 5.89

***** Signal #2 *****

1	Methanol	17.364	15.292	11.9	89	0.00	0.77- 0.83
2	Ethanol	22.062	22.194	-0.6	97	0.00	0.99- 1.05
3	Tert-Butyl Alcohol	31.985	32.084	-0.3	97	0.00	1.43- 1.49
4	1-Propanol	28.748	28.238	1.8	96	0.00	1.74- 1.80
5	2-Propanol	23.330	23.489	-0.7	98	0.00	1.21- 1.27
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	33.771	-4.7	100	0.00	2.66- 2.72
8	1-Butanol	35.477	31.034	12.5	95	0.00	3.15- 3.21
9	2-Butanol	28.637	28.889	-0.9	97	0.00	2.29- 2.35
10 S	Hexanol	127.519	128.327	-0.6	104	0.00	5.27- 5.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103538.D MGH5193.M Mon Mar 14 09:07:34 2016 GCGH

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103697.D\FID1A.CH          Vial: 2
Acq On    : 11 Mar 2016   4:28 pm                     Operator: XULIU
Sample    : JC15883-1                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103697.D\FID2B.CH          Vial: 2
Acq On    : 11 Mar 2016   4:42 pm                     Operator: XULIU
Sample    : JC15883-1                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:53 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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
10) S   Hexanol           5.86   5.33    539940   562483 4233.441  4410.964
  Spiked Amount   5000.000                  Recovery     =   84.67%    88.22%

Target Compounds
```

11.1.1

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103697.D  MGH5193.M      Mon Mar 14 08:53:43 2016      GCGH
```


SGS ACCUTEST JC15883

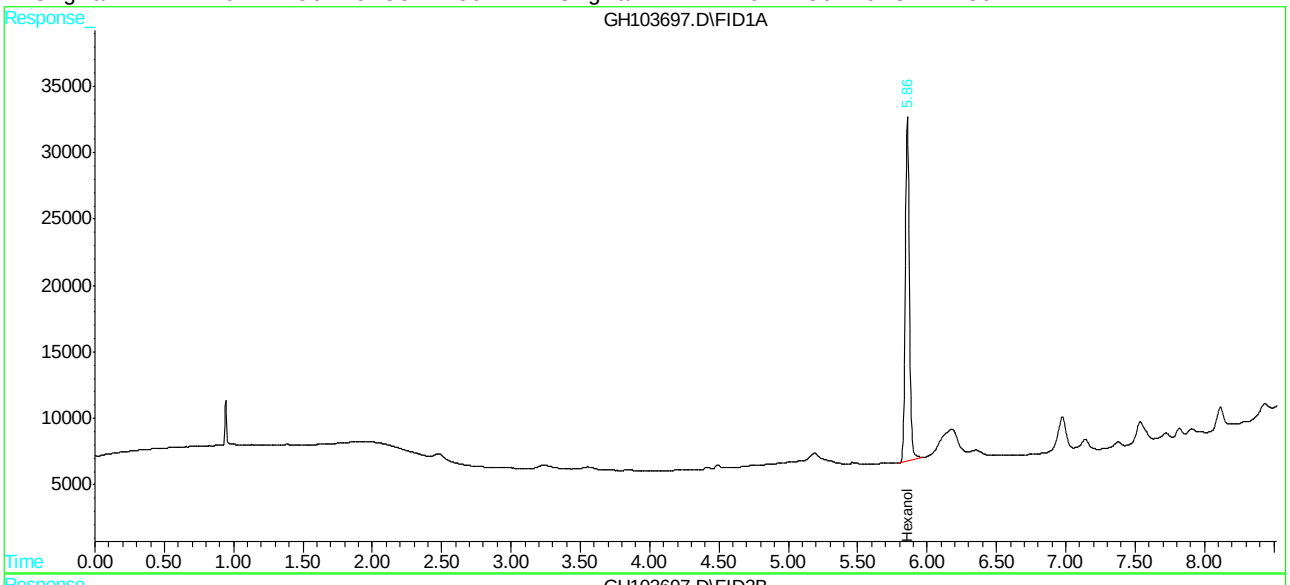
Quantitation Report (QT Reviewed)

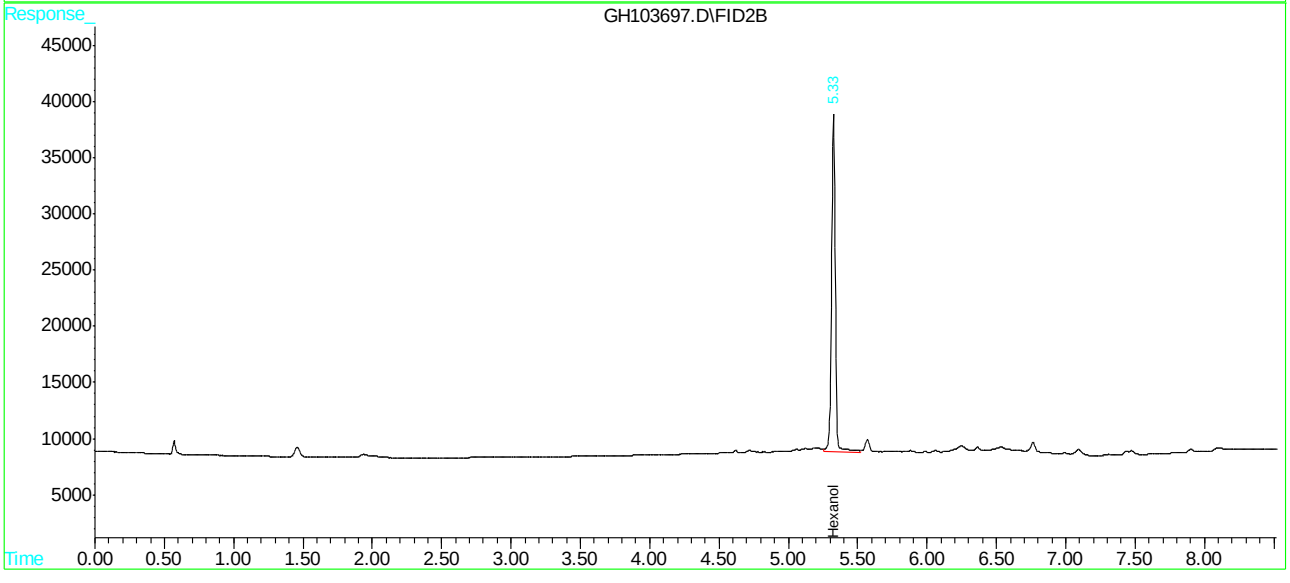
Data File : C:\HPCHEM\1\DATA\GH103697.D\FID1A.CH Vial: 2
Acq On : 11 Mar 2016 4:28 pm Operator: XULIU
Sample : JC15883-1 Inst : GCGH
Misc : GC47905,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103697.D\FID2B.CH Vial: 2
Acq On : 11 Mar 2016 4:42 pm Operator: XULIU
Sample : JC15883-1 Inst : GCGH
Misc : GC47905,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 14 8:53 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Mar 01 12:10:59 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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\GH103700.D\FID1A.CH          Vial: 5
Acq On    : 11 Mar 2016   5:18 pm                     Operator: XULIU
Sample    : JC15883-2                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103700.D\FID2B.CH          Vial: 5
Acq On    : 11 Mar 2016   5:33 pm                     Operator: XULIU
Sample    : JC15883-2                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:56 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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
10) S   Hexanol           5.86   5.33    641345   637512 5028.514  4999.337
  Spiked Amount   5000.000                  Recovery     =  100.57%    99.99%

Target Compounds
```

11.1.2

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103700.D  MGH5193.M      Mon Mar 14 08:56:38 2016      GCGH
```

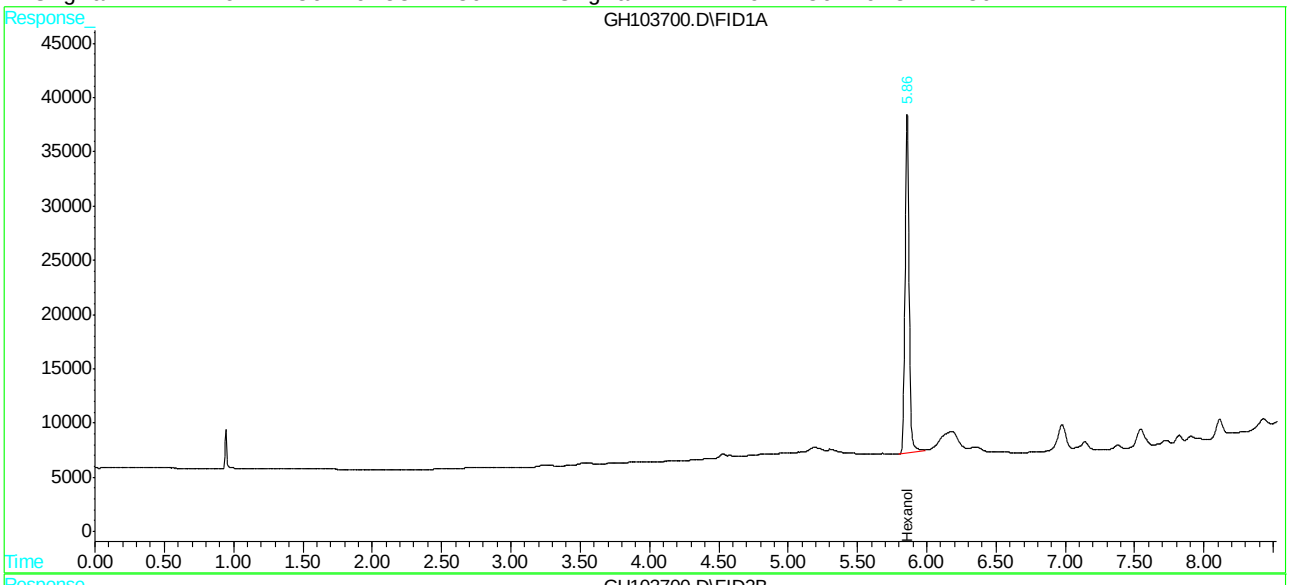
Quantitation Report (QT Reviewed)

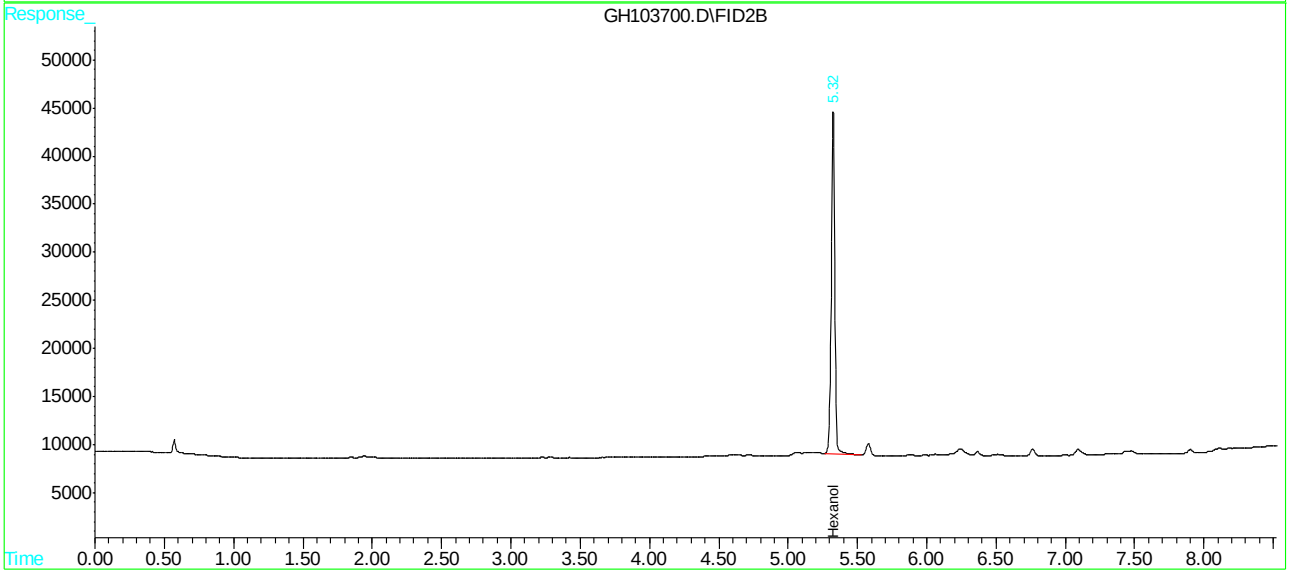
```
Data File : C:\HPCHEM\1\DATA\GH103700.D\FID1A.CH          Vial: 5
Acq On    : 11 Mar 2016   5:18 pm                     Operator: XULIU
Sample    : JC15883-2                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103700.D\FID2B.CH          Vial: 5
Acq On    : 11 Mar 2016   5:33 pm                     Operator: XULIU
Sample    : JC15883-2                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:56 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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\GH103701.D\FID1A.CH          Vial: 6
Acq On    : 11 Mar 2016   5:33 pm                     Operator: XULIU
Sample    : JC15883-3                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103701.D\FID2B.CH          Vial: 6
Acq On    : 11 Mar 2016   5:47 pm                     Operator: XULIU
Sample    : JC15883-3                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:49 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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
10) S   Hexanol           5.86   5.32    651266   632267 5106.296  4958.207
  Spiked Amount   5000.000                  Recovery     =  102.13%    99.16%

Target Compounds
```

11.1.3

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103701.D  MGH5193.M      Mon Mar 14 08:56:49 2016      GCGH
```


SGS ACCUTEST JC15883

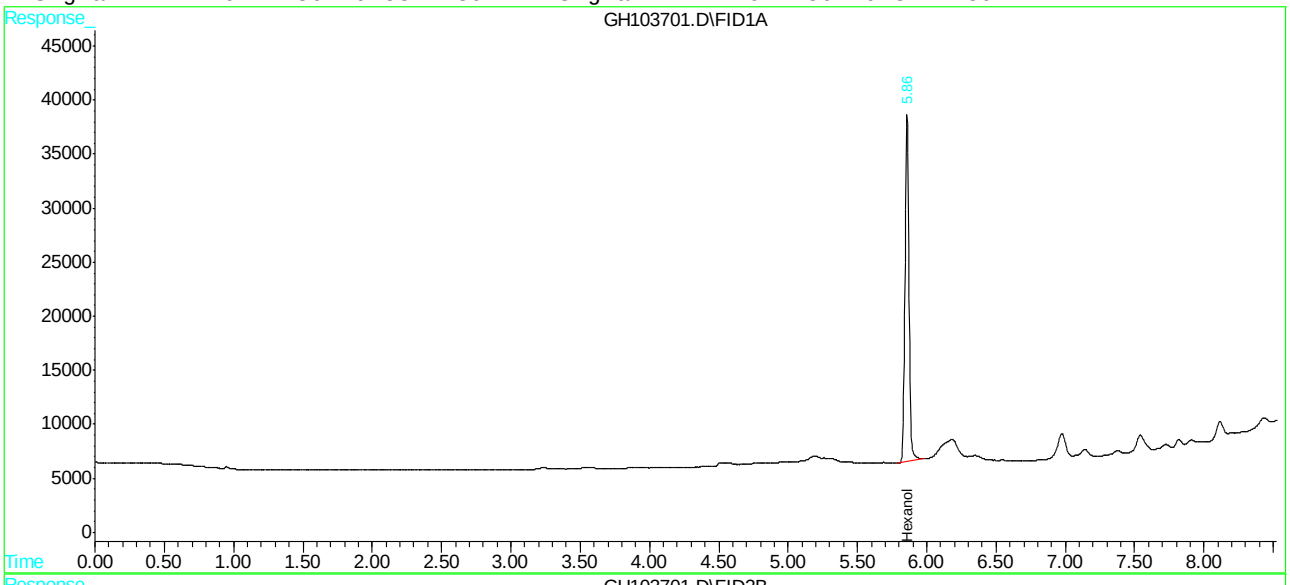
Quantitation Report (QT Reviewed)

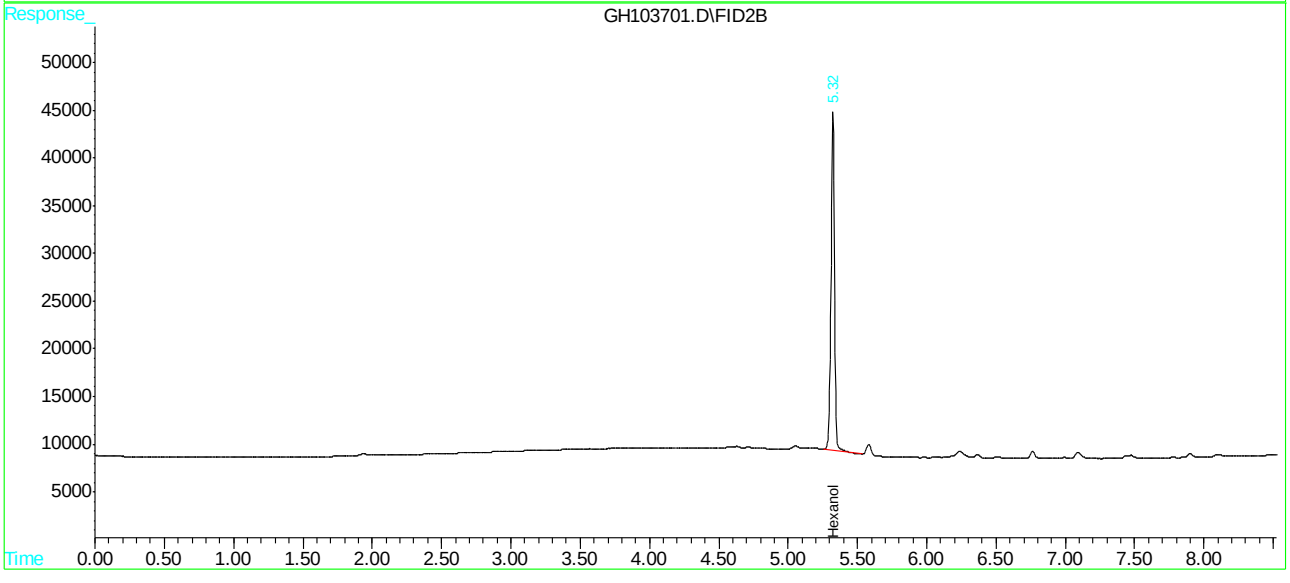
```
Data File : C:\HPCHEM\1\DATA\GH103701.D\FID1A.CH          Vial: 6
Acq On    : 11 Mar 2016   5:33 pm                     Operator: XULIU
Sample    : JC15883-3                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103701.D\FID2B.CH          Vial: 6
Acq On    : 11 Mar 2016   5:47 pm                     Operator: XULIU
Sample    : JC15883-3                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:49 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103702.D\FID1A.CH          Vial: 7
Acq On    : 11 Mar 2016   5:47 pm                     Operator: XULIU
Sample    : JC15883-4                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103702.D\FID2B.CH          Vial: 7
Acq On    : 11 Mar 2016   6:02 pm                     Operator: XULIU
Sample    : JC15883-4                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:49 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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
10) S   Hexanol           5.86   5.32    632244   783224 4957.152  6142.005
  Spiked Amount   5000.000                  Recovery     =   99.14%   122.84%

Target Compounds
```

11.1.4

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103702.D  MGH5193.M      Mon Mar 14 08:57:00 2016      GCGH
```


SGS ACCUTEST JC15883

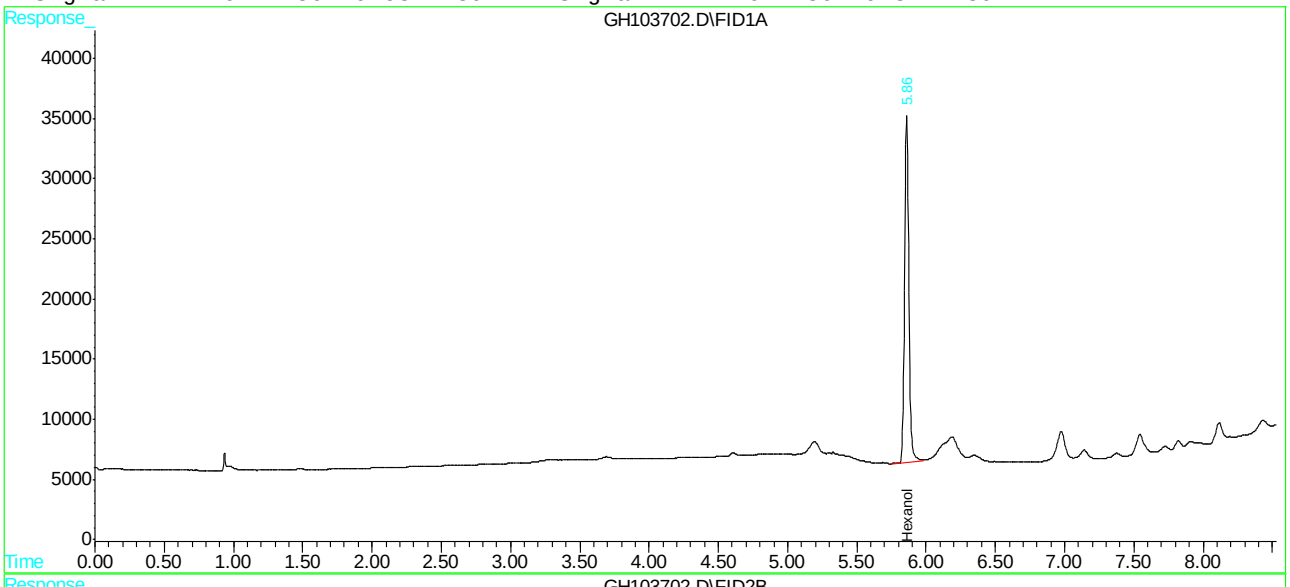
Quantitation Report (QT Reviewed)

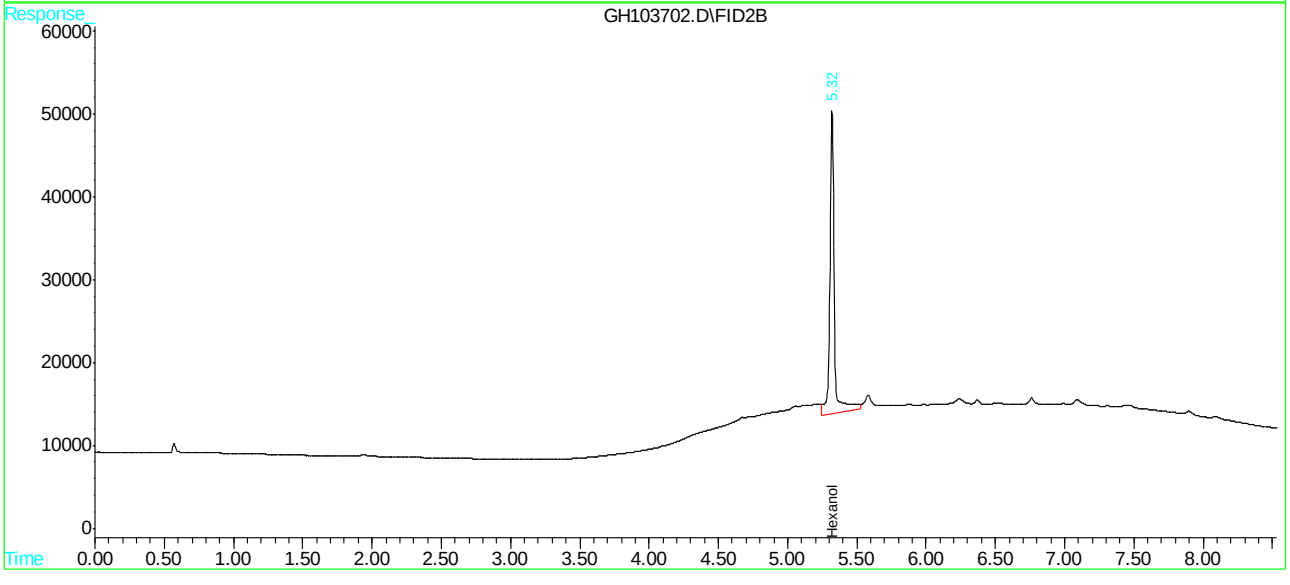
Data File : C:\HPCHEM\1\DATA\GH103702.D\FID1A.CH Vial: 7
Acq On : 11 Mar 2016 5:47 pm Operator: XULIU
Sample : JC15883-4 Inst : GCGH
Misc : GC47905,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103702.D\FID2B.CH Vial: 7
Acq On : 11 Mar 2016 6:02 pm Operator: XULIU
Sample : JC15883-4 Inst : GCGH
Misc : GC47905,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 14 8:49 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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\GH103703.D\FID1A.CH          Vial: 8
Acq On    : 11 Mar 2016   6:02 pm                     Operator: XULIU
Sample    : JC15883-5                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103703.D\FID2B.CH          Vial: 8
Acq On    : 11 Mar 2016   6:16 pm                     Operator: XULIU
Sample    : JC15883-5                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 11 19:21 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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
10) S   Hexanol           5.86   5.32    689371   718920 5405.064  5637.737
  Spiked Amount   5000.000                  Recovery     =  108.10%   112.75%

Target Compounds
```

11.1.5

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103703.D  MGH5193.M      Mon Mar 14 08:57:11 2016      GCGH
```


SGS ACCUTEST JC15883

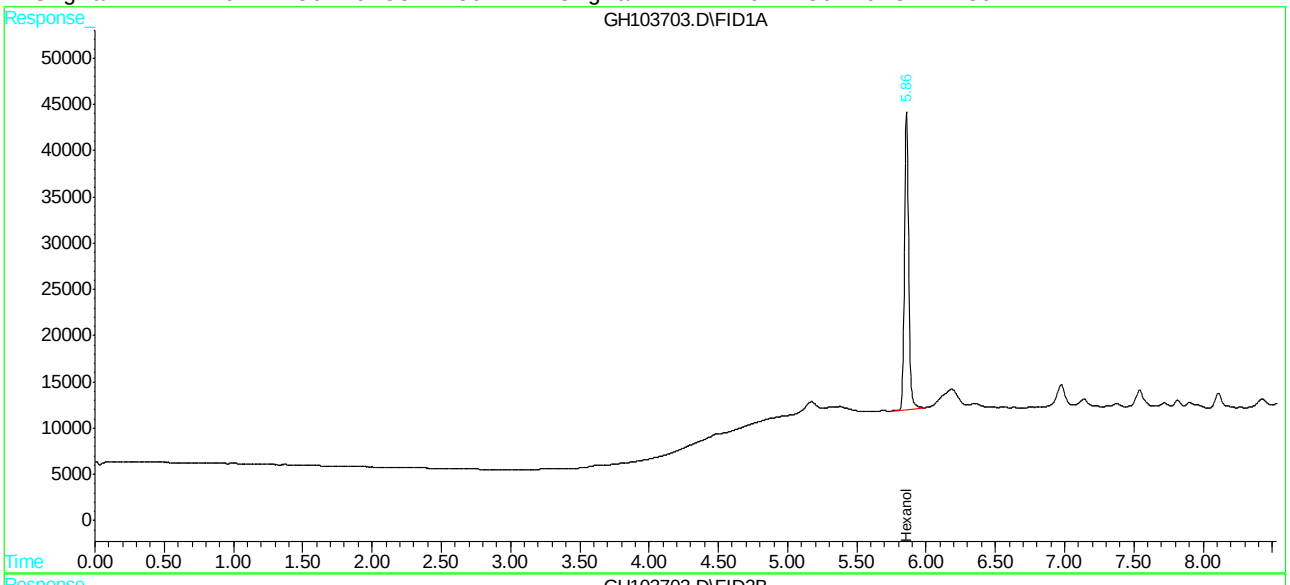
Quantitation Report (QT Reviewed)

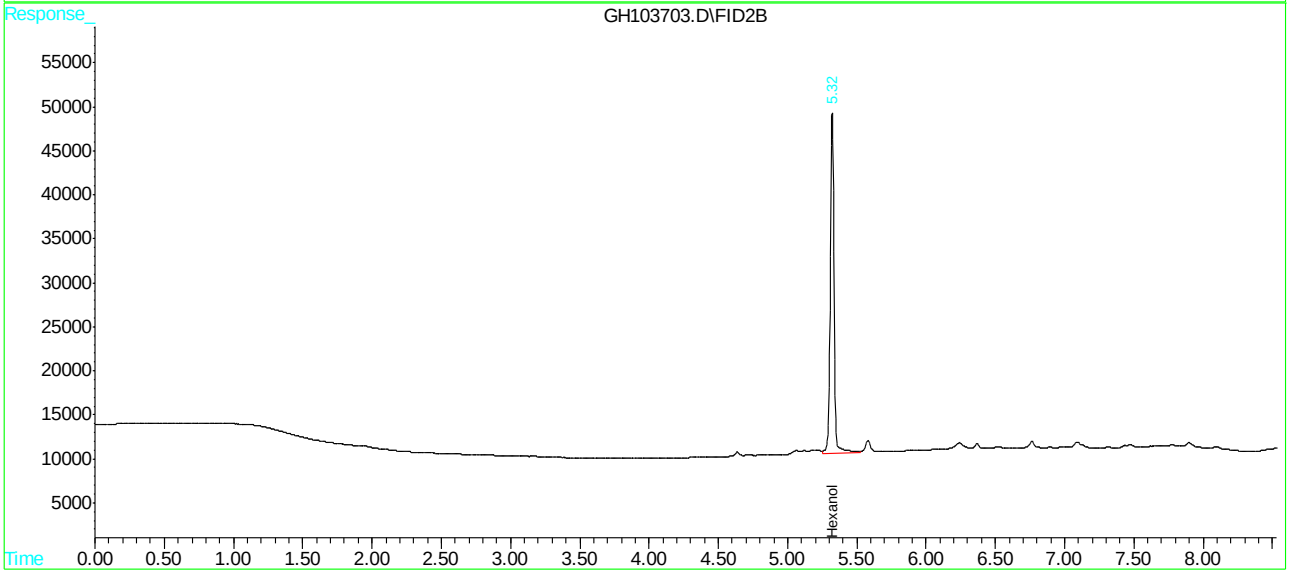
```
Data File : C:\HPCHEM\1\DATA\GH103703.D\FID1A.CH          Vial: 8
Acq On    : 11 Mar 2016   6:02 pm                     Operator: XULIU
Sample    : JC15883-5                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103703.D\FID2B.CH          Vial: 8
Acq On    : 11 Mar 2016   6:16 pm                     Operator: XULIU
Sample    : JC15883-5                                 Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 11 19:21 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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\GH103695.D\FID1A.CH          Vial: 91
Acq On    : 11 Mar 2016   3:59 pm                     Operator: XULIU
Sample    : MB4                                       Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103695.D\FID2B.CH          Vial: 91
Acq On    : 11 Mar 2016   4:14 pm                     Operator: XULIU
Sample    : MB4                                       Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:45 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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
10) S   Hexanol           5.86   5.32    547880   534679 4295.697  4192.926
  Spiked Amount   5000.000                  Recovery     =   85.91%    83.86%

Target Compounds
```

11.2.1

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103695.D  MGH5193.M      Mon Mar 14 08:53:19 2016      GCGH
```


SGS ACCUTEST JC15883

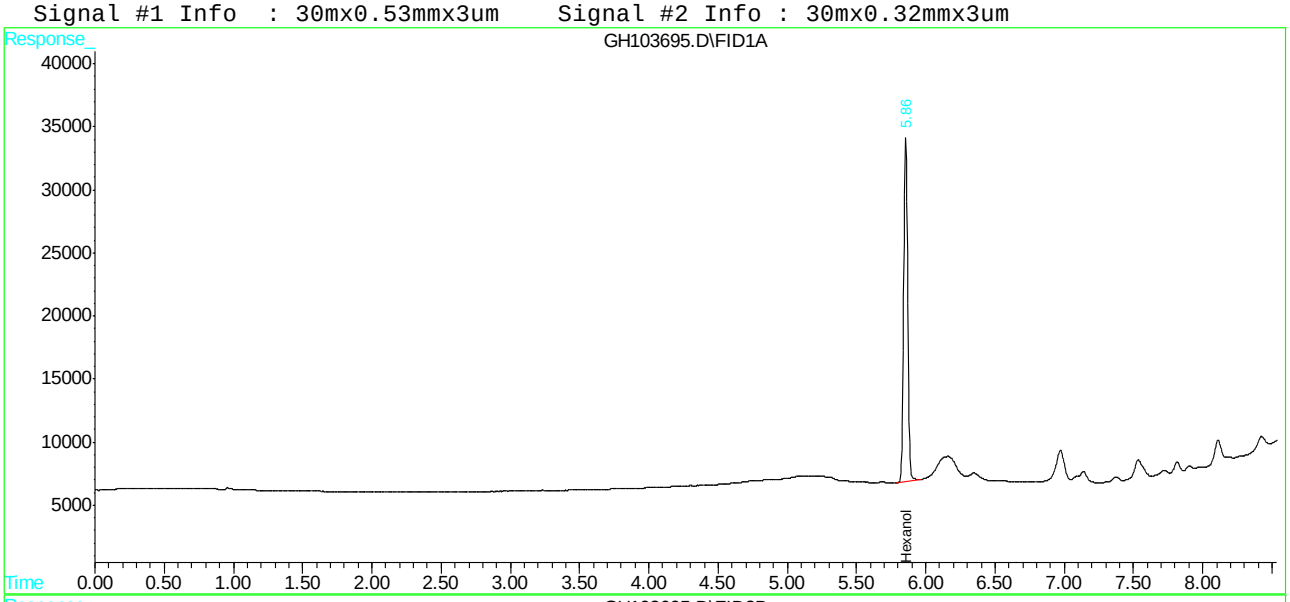
Quantitation Report (QT Reviewed)

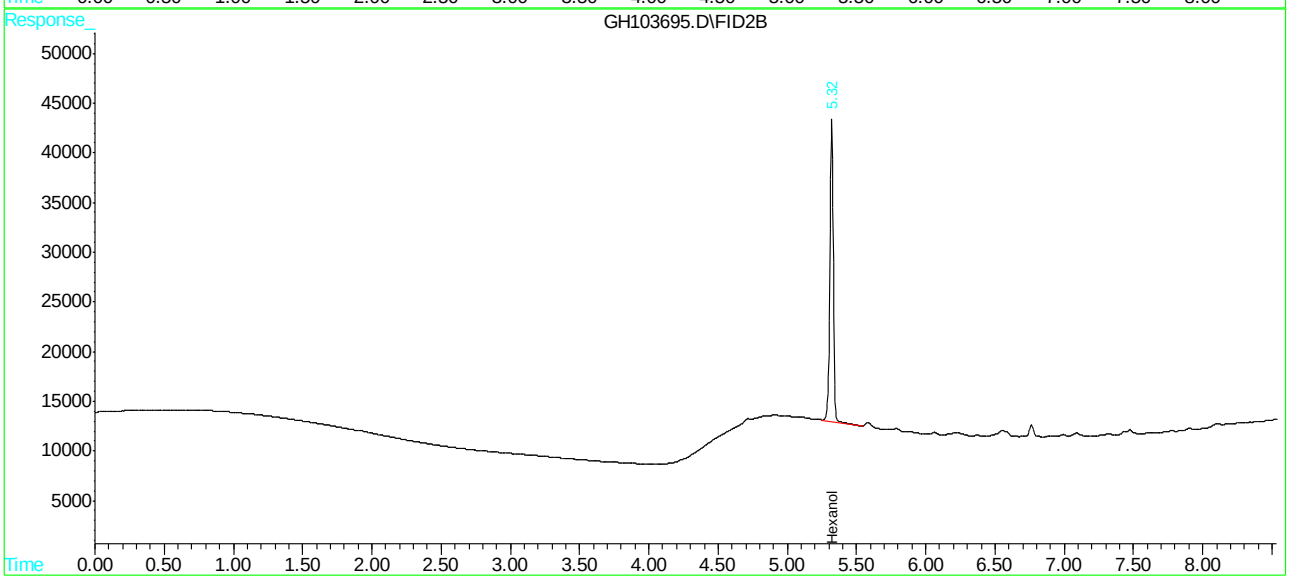
```
Data File : C:\HPCHEM\1\DATA\GH103695.D\FID1A.CH          Vial: 91
Acq On    : 11 Mar 2016   3:59 pm                     Operator: XULIU
Sample    : MB4                                       Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103695.D\FID2B.CH          Vial: 91
Acq On    : 11 Mar 2016   4:14 pm                     Operator: XULIU
Sample    : MB4                                       Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:45 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103674.D\FID1A.CH          Vial: 95
Acq On    : 11 Mar 2016   9:05 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103674.D\FID2B.CH          Vial: 95
Acq On    : 11 Mar 2016   9:20 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 11  9:59 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 08:58:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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
10) S   Hexanol           5.86   5.32    579291   555487 4541.973  4356.099
  Spiked Amount   5000.000                  Recovery     =   90.84%    87.12%

Target Compounds
```

11.2.2

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103674.D  MGH5193.M      Fri Mar 11 10:11:31 2016      GCGH
```


SGS ACCUTEST JC15883

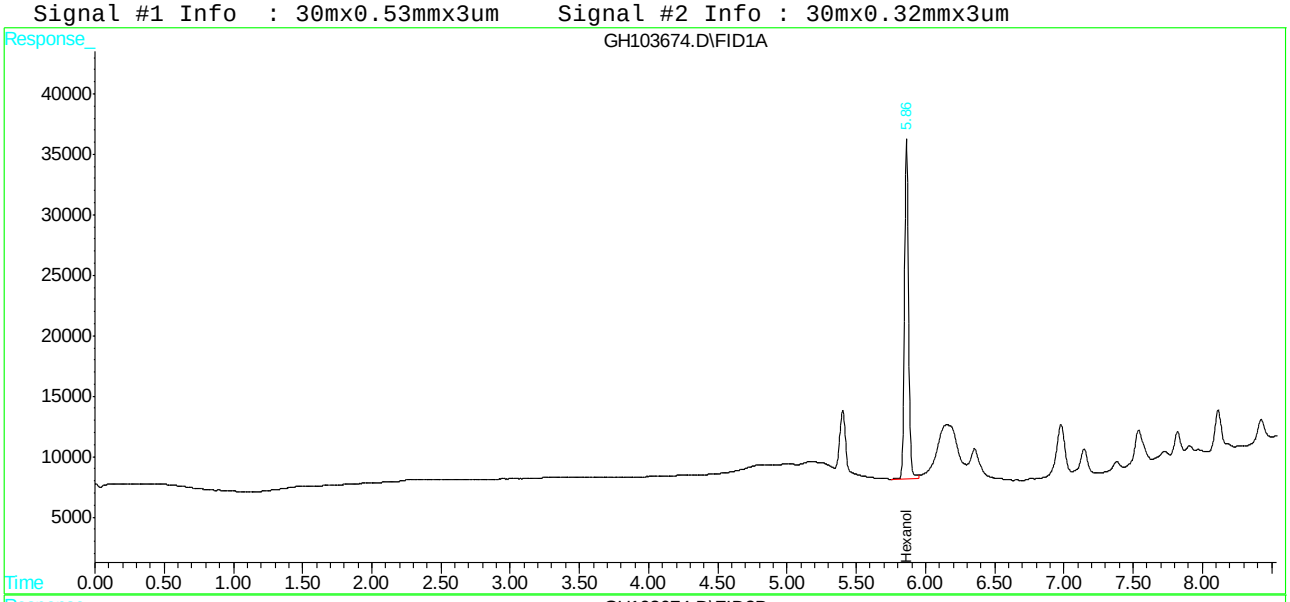
Quantitation Report (QT Reviewed)

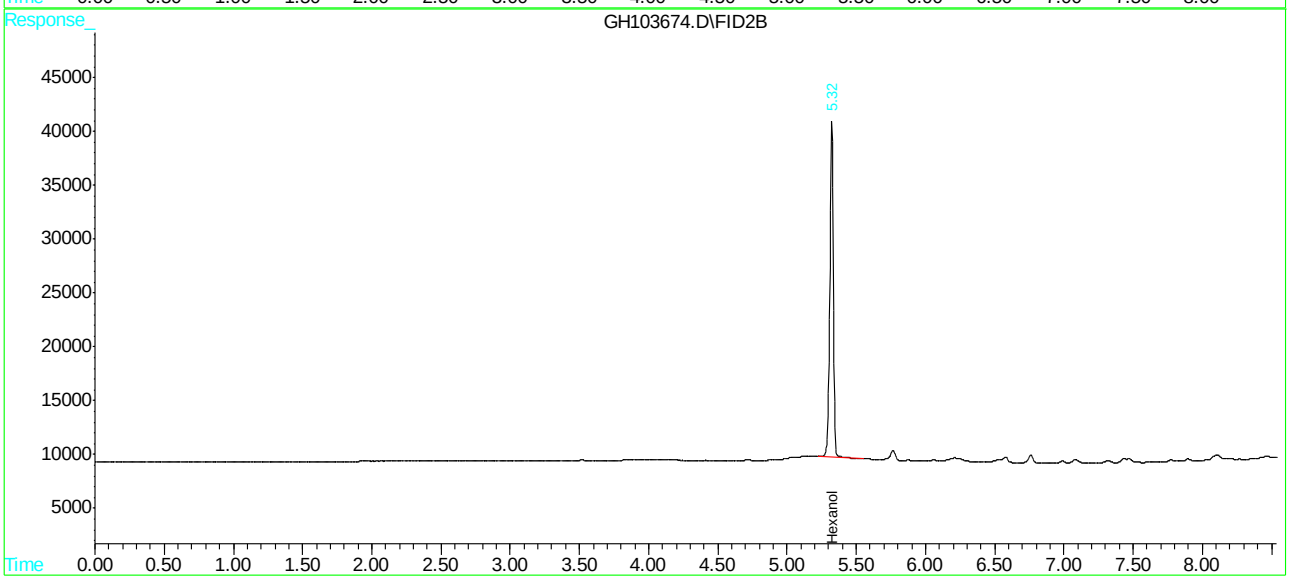
```
Data File : C:\HPCHEM\1\DATA\GH103674.D\FID1A.CH          Vial: 95
Acq On    : 11 Mar 2016   9:05 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103674.D\FID2B.CH          Vial: 95
Acq On    : 11 Mar 2016   9:20 am                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 11  9:59 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 08:58:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103675.D\FID1A.CH Vial: 96
Acq On : 11 Mar 2016 9:20 am Operator: XULIU
Sample : BS Inst : GCGH
Misc : GC47883,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103675.D\FID2B.CH Vial: 96
Acq On : 11 Mar 2016 9:34 am Operator: XULIU
Sample : BS Inst : GCGH
Misc : GC47883,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 11 10:11 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 11 08:58:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.86	5.32	578069	558746	4532.391	4381.658
Spiked Amount	5000.000			Recovery	=	90.65%	87.63%
	Target Compounds						
1)	Methanol	1.40	0.79	82683	70533	4737.542	4062.014
2)	Ethanol	1.82	1.02	113185	104687	5043.887	4745.181
3)	Tert-Butyl Alcoh	2.49	1.45	164415	156308	4822.655	4886.957
4)	1-Propanol	2.96	1.76	146064	136558	5025.314	4750.251
5)	2-Propanol	2.20	1.24	123132	113049	5009.435	4845.727
7)	Isobutanol	3.79	2.69	167789	156987	4958.412	4867.008
8)	1-Butanol	4.21	3.18	158815	155611	4751.302	4386.258
9)	2-Butanol	3.40	2.32	147275	138092	4796.317	4822.112

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103675.D MGH5193.M Fri Mar 11 10:11:48 2016 GCGH

SGS ACCUTEST JC15883

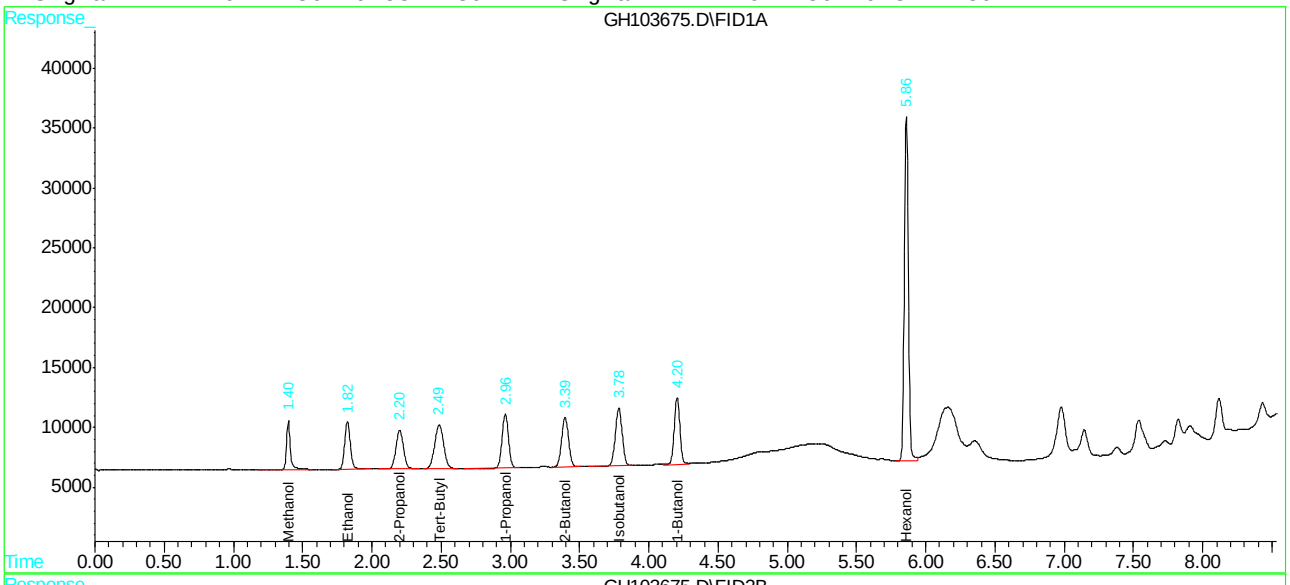
Quantitation Report (QT Reviewed)

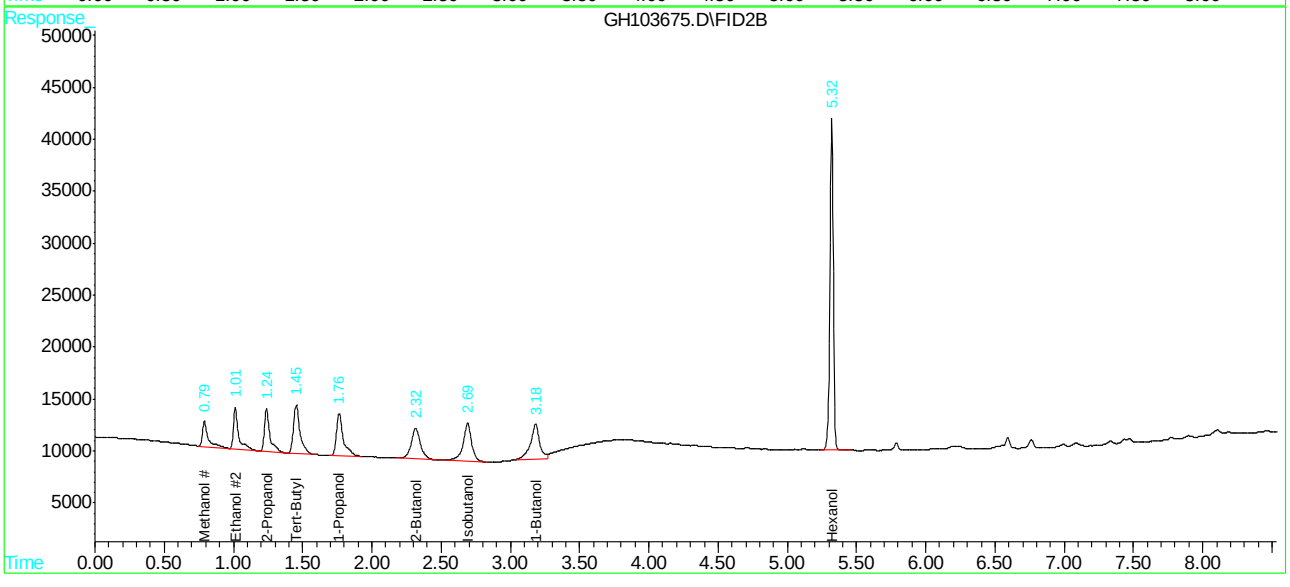
```
Data File : C:\HPCHEM\1\DATA\GH103675.D\FID1A.CH          Vial: 96
Acq On    : 11 Mar 2016   9:20 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103675.D\FID2B.CH          Vial: 96
Acq On    : 11 Mar 2016   9:34 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 11 10:11 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 08:58:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103698.D\FID1A.CH          Vial: 3
Acq On    : 11 Mar 2016   4:42 pm                     Operator: XULIU
Sample    : JC15883-1MS                               Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103698.D\FID2B.CH          Vial: 3
Acq On    : 11 Mar 2016   4:57 pm                     Operator: XULIU
Sample    : JC15883-1MS                               Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:53 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.86	5.32	598708	609620	4694.217	4780.606
	Spiked Amount 5000.000			Recovery	=	93.88%	95.61%
	Target Compounds						
1)	Methanol	1.39	0.79	90895	88060	5208.084	5071.401
2)	Ethanol	1.82	1.02	118321	117700	5272.755	5335.044
3)	Tert-Butyl Alcoh	2.48	1.46	205650	192634	6032.156	6022.691
4)	1-Propanol	2.96	1.77	158656	148535	5458.529	5166.895
5)	2-Propanol	2.19	1.25	129539	125791	5270.108	5391.875
7)	Isobutanol	3.78	2.70	178004	166267	5260.259	5154.704
8)	1-Butanol	4.20	3.18	172731	160317	5167.625	4518.928
9)	2-Butanol	3.39	2.32	160661	148112	5232.240	5171.988

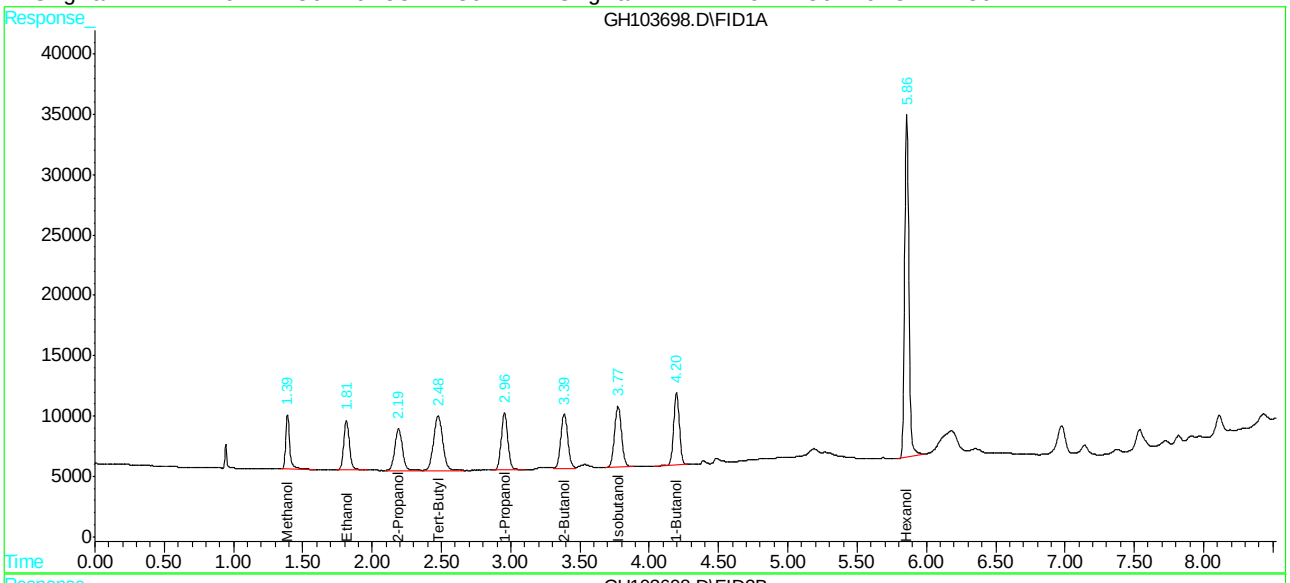
Quantitation Report (QT Reviewed)

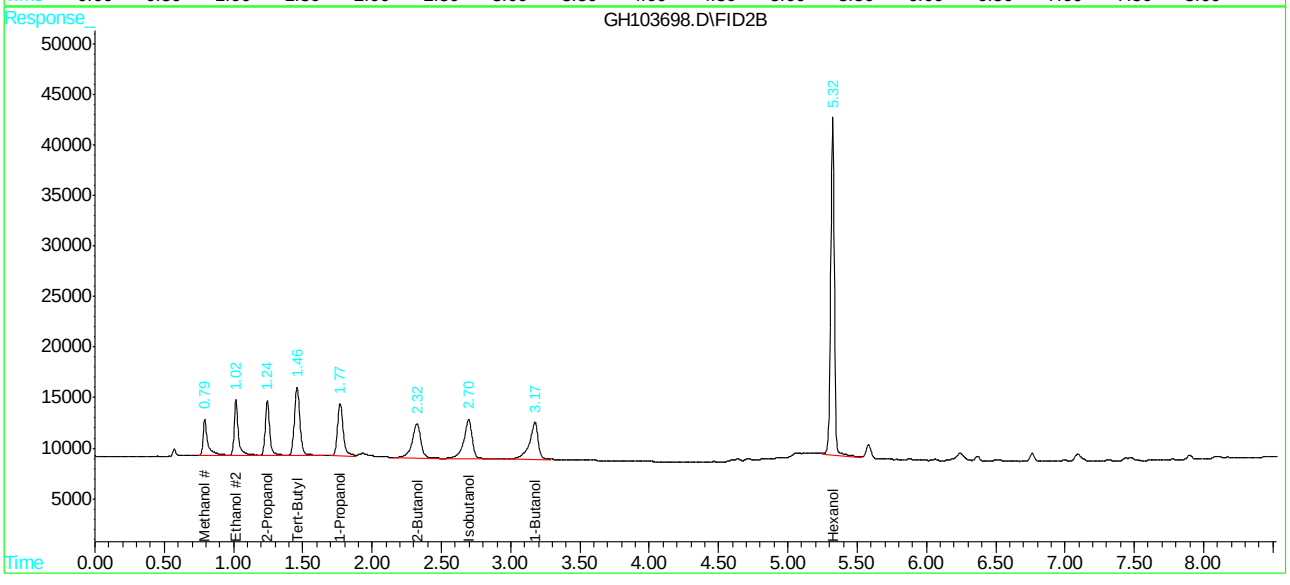
```
Data File : C:\HPCHEM\1\DATA\GH103698.D\FID1A.CH          Vial: 3
Acq On    : 11 Mar 2016   4:42 pm                     Operator: XULIU
Sample    : JC15883-1MS                               Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103698.D\FID2B.CH          Vial: 3
Acq On    : 11 Mar 2016   4:57 pm                     Operator: XULIU
Sample    : JC15883-1MS                               Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:53 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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\GH103699.D\FID1A.CH Vial: 4
Acq On : 11 Mar 2016 4:57 pm Operator: XULIU
Sample : JC15883-1MSD Inst : GCGH
Misc : GC47905,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103699.D\FID2B.CH Vial: 4
Acq On : 11 Mar 2016 5:18 pm Operator: XULIU
Sample : JC15883-1MSD Inst : GCGH
Misc : GC47905,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 14 8:56 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.86	5.33	609131	612241	4775.935	4801.167
Spiked Amount	5000.000			Recovery	=	95.52%	96.02%
	Target Compounds						
1)	Methanol	1.39	0.80	86445	86888	4953.113	5003.906
2)	Ethanol	1.82	1.02	117615	106425	5241.286	4823.984
3)	Tert-Butyl Alcoh	2.48	1.46	203751	197123	5976.473	6163.027
4)	1-Propanol	2.96	1.77	156612	127369	5388.217	4430.596
5)	2-Propanol	2.20	1.25	122558	112858	4986.098	4837.536
7)	Isobutanol	3.78	2.70	181069	178301	5350.859	5527.783
8)	1-Butanol	4.20	3.19	169344	160684	5066.315	4529.250
9)	2-Butanol	3.39	2.32	160856	144160	5238.579	5034.001

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103699.D MGH5193.M Mon Mar 14 08:56:24 2016 GCGH

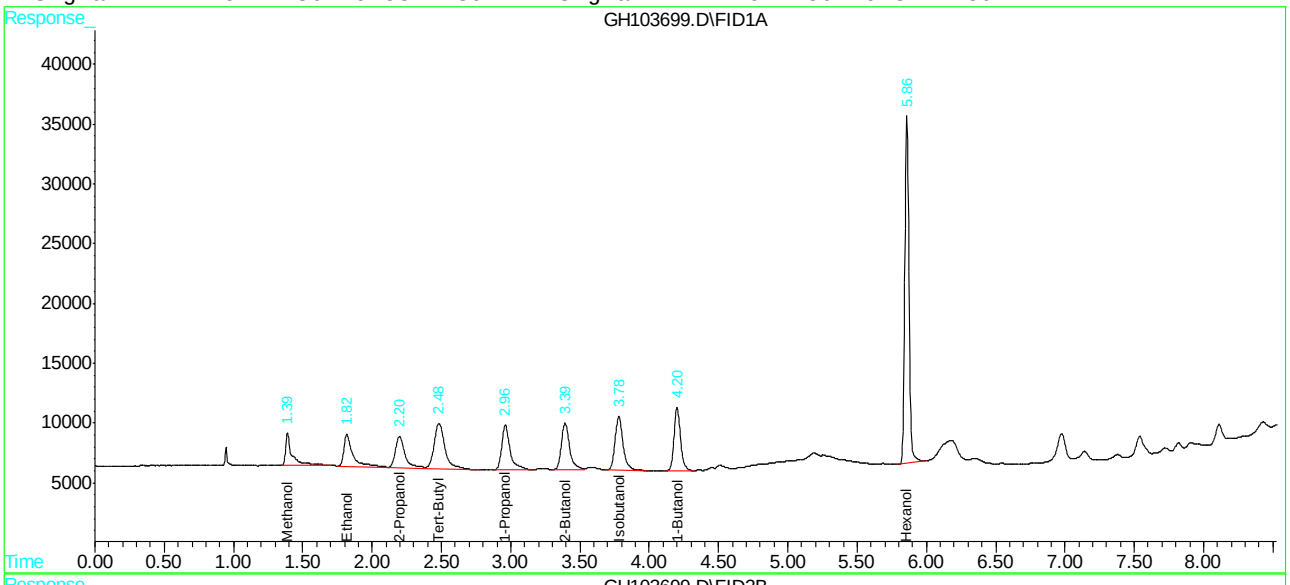
Quantitation Report (QT Reviewed)

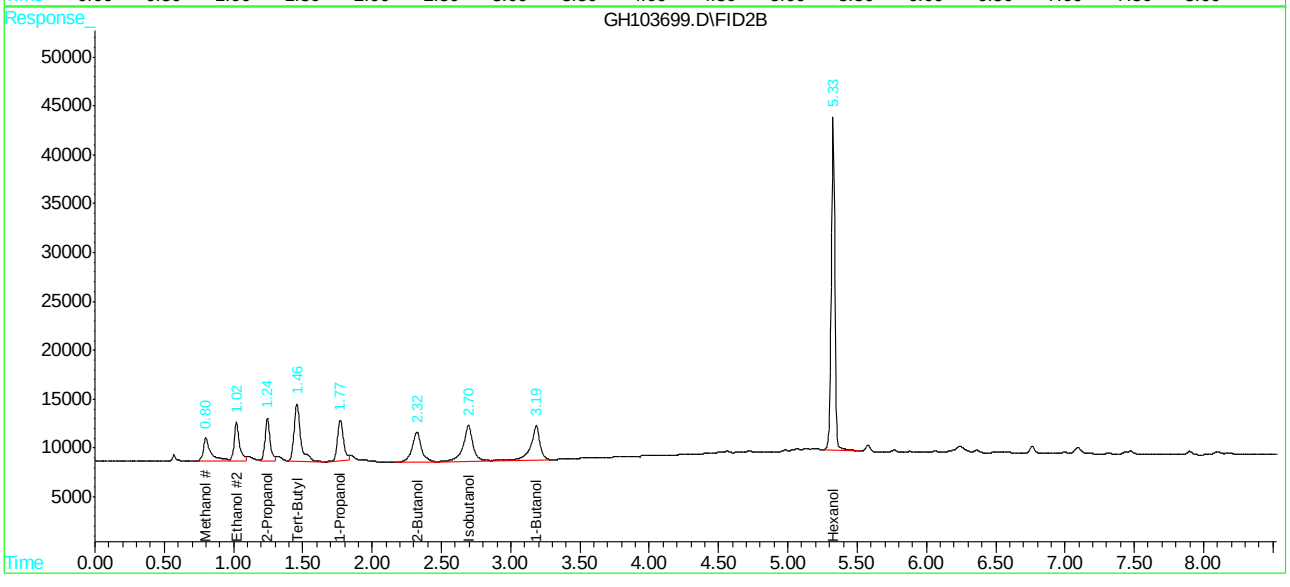
```
Data File : C:\HPCHEM\1\DATA\GH103699.D\FID1A.CH          Vial: 4
Acq On    : 11 Mar 2016   4:57 pm                     Operator: XULIU
Sample    : JC15883-1MSD                              Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103699.D\FID2B.CH          Vial: 4
Acq On    : 11 Mar 2016   5:18 pm                     Operator: XULIU
Sample    : JC15883-1MSD                              Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:56 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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)
Jessica Reitan-Chu
03/01/16 14:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH          Vial: 17
Acq On    : 29 Feb 2016   9:41 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH          Vial: 17
Acq On    : 29 Feb 2016   9:56 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:41 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:34:22 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.89	5.34	521870	515664	4414.308	4449.995
	Spiked Amount 5000.000			Recovery	=	88.29%	89.00%
	Target Compounds						
1)	Methanol	1.43	0.80	18411	16136	1052.348	961.397
2)	Ethanol	1.86	1.02	22490	22670	971.203	1012.320
3)	Tert-Butyl Alcoh	2.52	1.47	37533	33699	1083.596	1045.494
4)	1-Propanol	3.00	1.78	30594	28909	1025.859	1001.376m
5)	2-Propanol	2.24	1.25	29488	24128	1177.659	1027.831
7)	Isobutanol	3.82	2.71	34848	31069	1012.693	960.595
8)	1-Butanol	4.24	3.19	36273	30738	1105.147	972.642
9)	2-Butanol	3.43	2.33	31759	29963	1039.954	1037.836

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

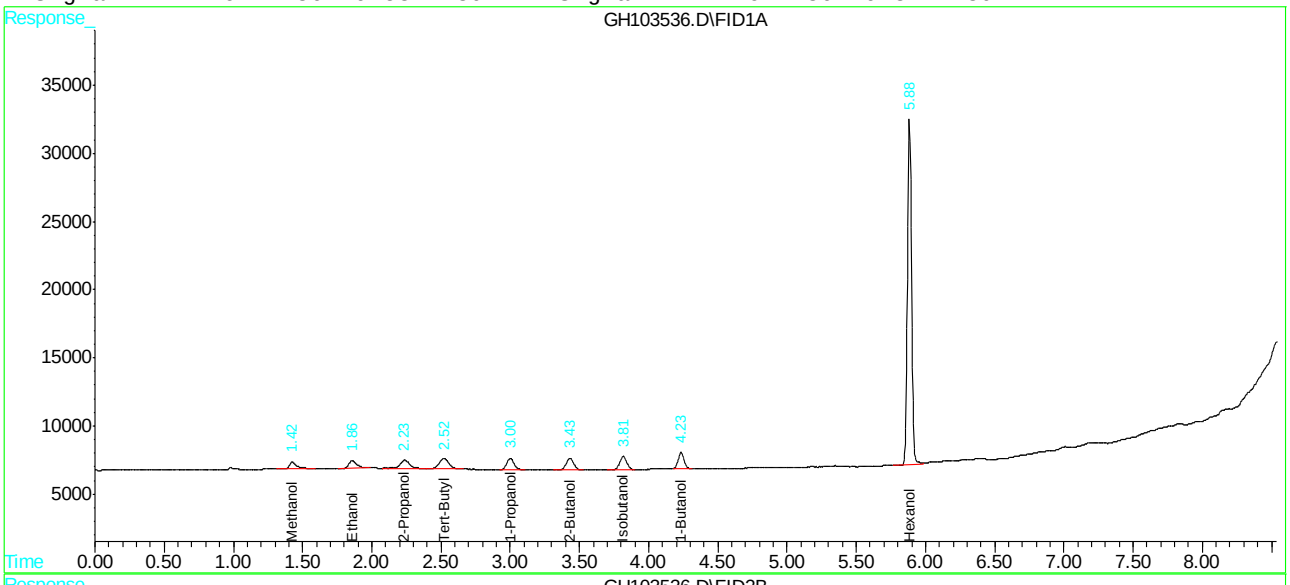
Quantitation Report (QT Reviewed)

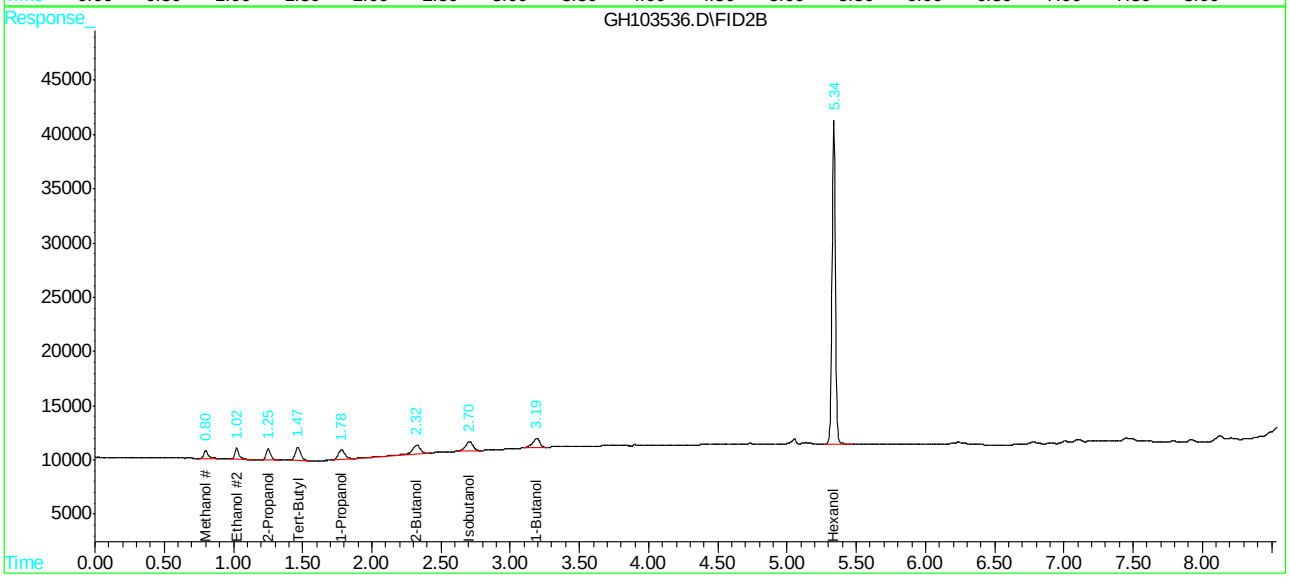
```
Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH          Vial: 17
Acq On    : 29 Feb 2016   9:41 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH          Vial: 17
Acq On    : 29 Feb 2016   9:56 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:41 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:34:22 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Manual Integration Approval Summary

Sample Number:	GGH5193-IC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103536.D	**Analyst approved:**	03/01/16 13:28 Xu Liu
Injection Time:	02/29/16 09:41	**Supervisor approved:**	03/01/16 14:34 Jessica Reitan-Chu

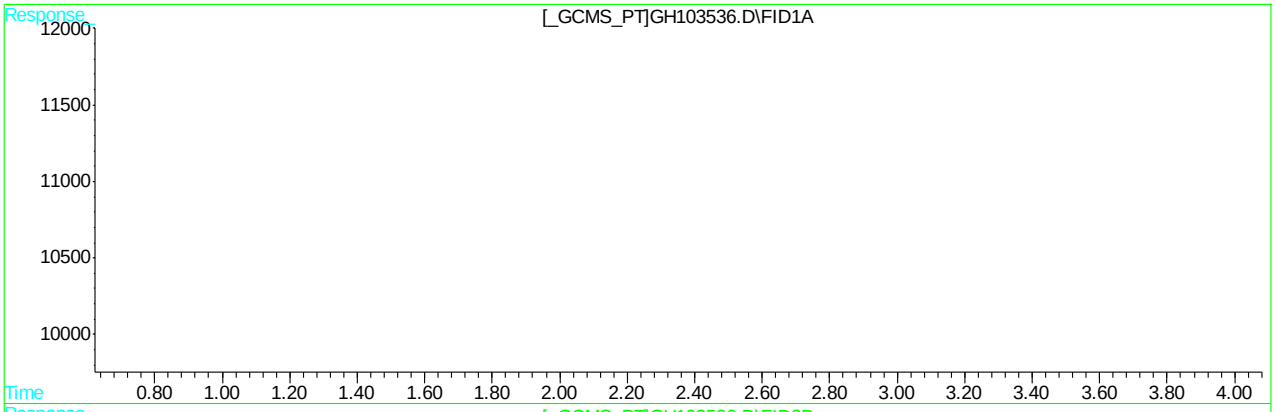
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Propyl Alcohol	71-23-8	2	1.78	Poorly defined baseline

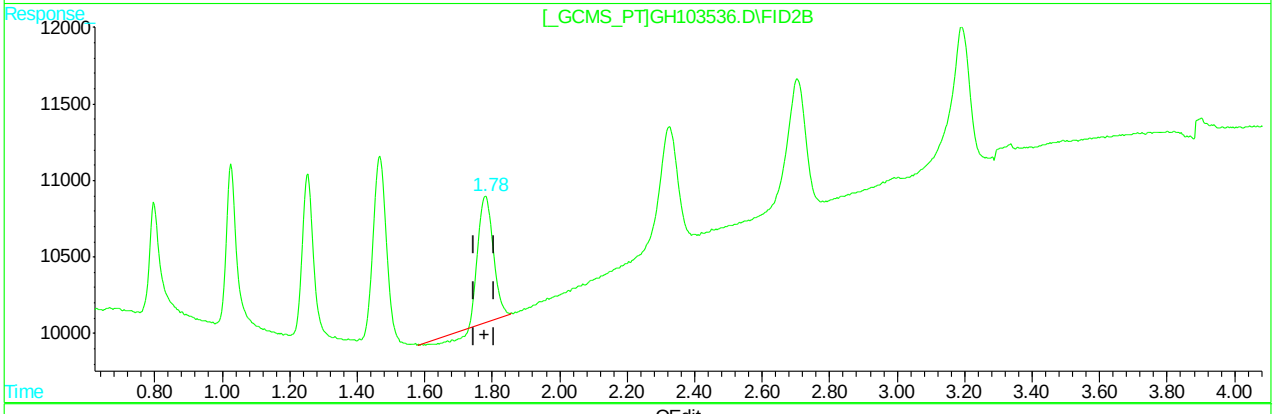
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH          Vial: 17
Acq On    : 29 Feb 2016   9:41 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH          Vial: 17
Acq On    : 29 Feb 2016   9:56 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:39 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:39:43 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

3.00min 1025.859PPB

response 30594

(4) 1-Propanol #2

1.78min 805.984PPB

response 23268

(+) = Expected Retention Time

GH103536.D MGH5193.M Mon Feb 29 13:40:46 2016 GCGH

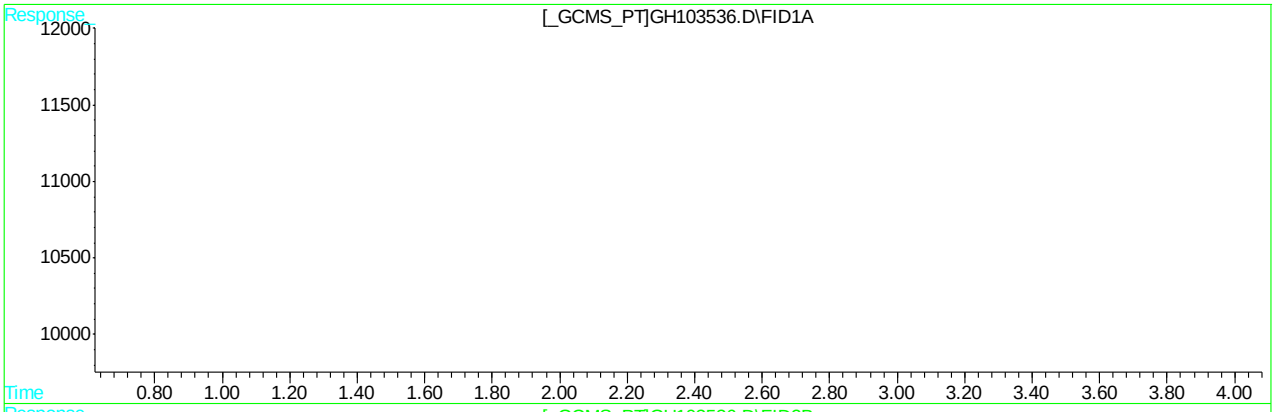
SGS ACCUTEST JC15883

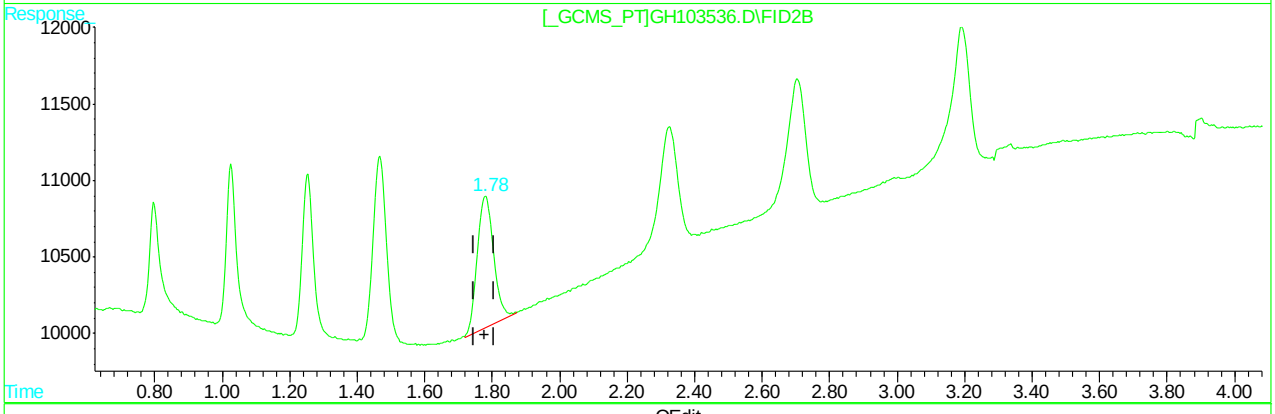
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH          Vial: 17
Acq On    : 29 Feb 2016   9:41 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH          Vial: 17
Acq On    : 29 Feb 2016   9:56 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:39 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:39:43 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

3.00min 1025.859PPB

response 30594

(4) 1-Propanol #2

1.78min 1001.376PPB m

response 28909

(+) = Expected Retention Time

GH103536.D MGH5193.M Mon Feb 29 13:41:35 2016 GCGH

SGS ACCUTEST JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103538.D\FID1A.CH          Vial: 19
Acq On    : 29 Feb 2016  10:10 am                     Operator: XULIU
Sample    : IC5193-10000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103538.D\FID2B.CH          Vial: 19
Acq On    : 29 Feb 2016  10:25 am                     Operator: XULIU
Sample    : IC5193-10000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:24 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 10:49:38 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.88	5.34	632380	618892	5290.958	5011.876
	Spiked Amount 5000.000			Recovery	=	105.82%	100.24%
	Target Compounds						
1)	Methanol	1.42	0.80	170293	171065	11684.918	11628.082
2)	Ethanol	1.85	1.02	235648	228413	11443.732	11055.620
3)	Tert-Butyl Alcoh	2.52	1.47	350977	331750	10799.667	10330.810
4)	1-Propanol	2.99	1.78	299088	292838	10599.555	10839.016
5)	2-Propanol	2.23	1.25	250373	240597	11170.240	10725.872
7)	Isobutanol	3.81	2.70	350529	337406	10985.588	10485.575
8)	1-Butanol	4.23	3.19	338910	326780	10764.220	10083.368
9)	2-Butanol	3.43	2.33	312227	298461	10912.214	11064.895

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC15883

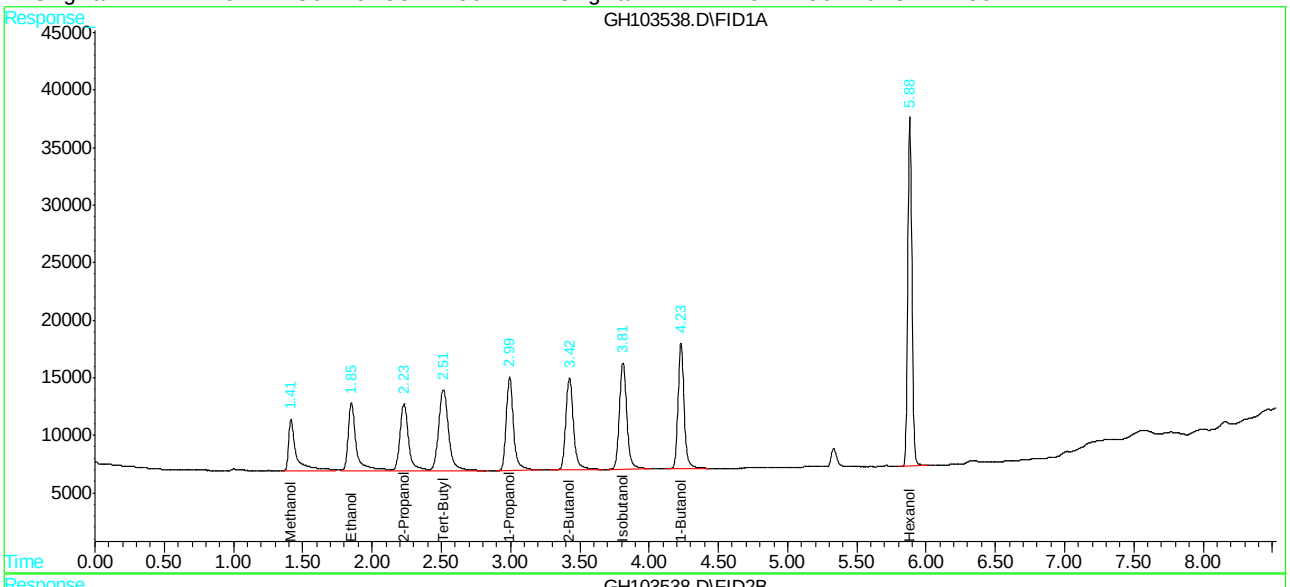
Quantitation Report (QT Reviewed)

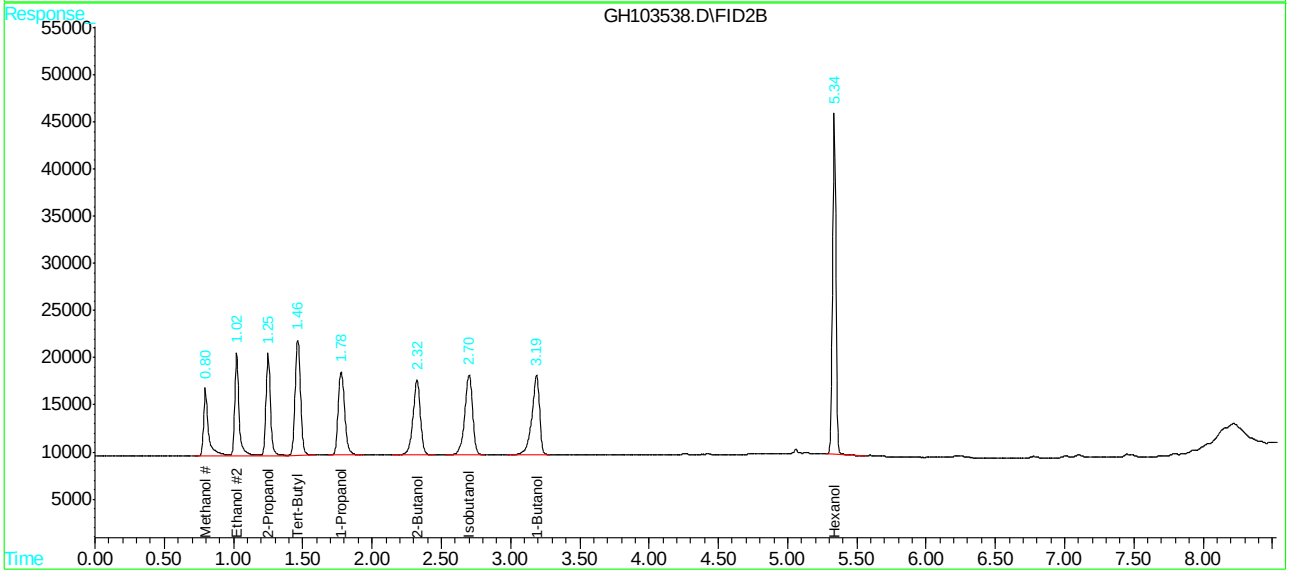
```
Data File : C:\HPCHEM\1\DATA\GH103538.D\FID1A.CH          Vial: 19
Acq On    : 29 Feb 2016  10:10 am                     Operator: XULIU
Sample    : IC5193-10000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103538.D\FID2B.CH          Vial: 19
Acq On    : 29 Feb 2016  10:25 am                     Operator: XULIU
Sample    : IC5193-10000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:24 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 10:49:38 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103539.D\FID1A.CH          Vial: 20
Acq On    : 29 Feb 2016  10:25 am                     Operator: XULIU
Sample    : IC5193-50000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103539.D\FID2B.CH          Vial: 20
Acq On    : 29 Feb 2016  10:39 am                     Operator: XULIU
Sample    : IC5193-50000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:25 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 10:49:38 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.89	5.34	753846	737708	6307.224	5974.064
	Spiked Amount 5000.000			Recovery	=	126.14%	119.48%
	Target Compounds						
1)	Methanol	1.42	0.80	831725	786308	57070.044	53449.149
2)	Ethanol	1.85	1.02	1091869	1046013	53024.163	50628.896
3)	Tert-Butyl Alcoh	2.51	1.47	1618405	1527069	49798.786	47553.501
4)	1-Propanol	2.99	1.78	1410633	1341483	49992.231	49653.259
5)	2-Propanol	2.23	1.25	1173173	1108753	52340.302	49428.497
7)	Isobutanol	3.82	2.70	1609558	1529443	50443.618	47530.526
8)	1-Butanol	4.23	3.20	1527185	1468644	48505.323	45317.541
9)	2-Butanol	3.43	2.32	1436581	1360726	50207.941	50446.386

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC15883

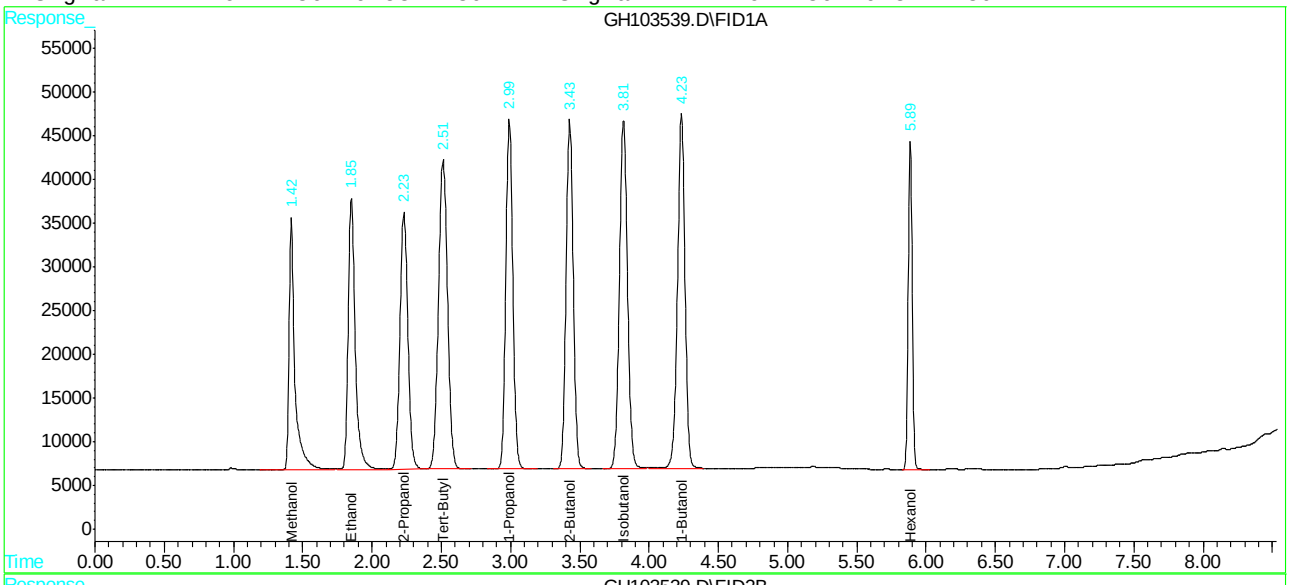
Quantitation Report (QT Reviewed)

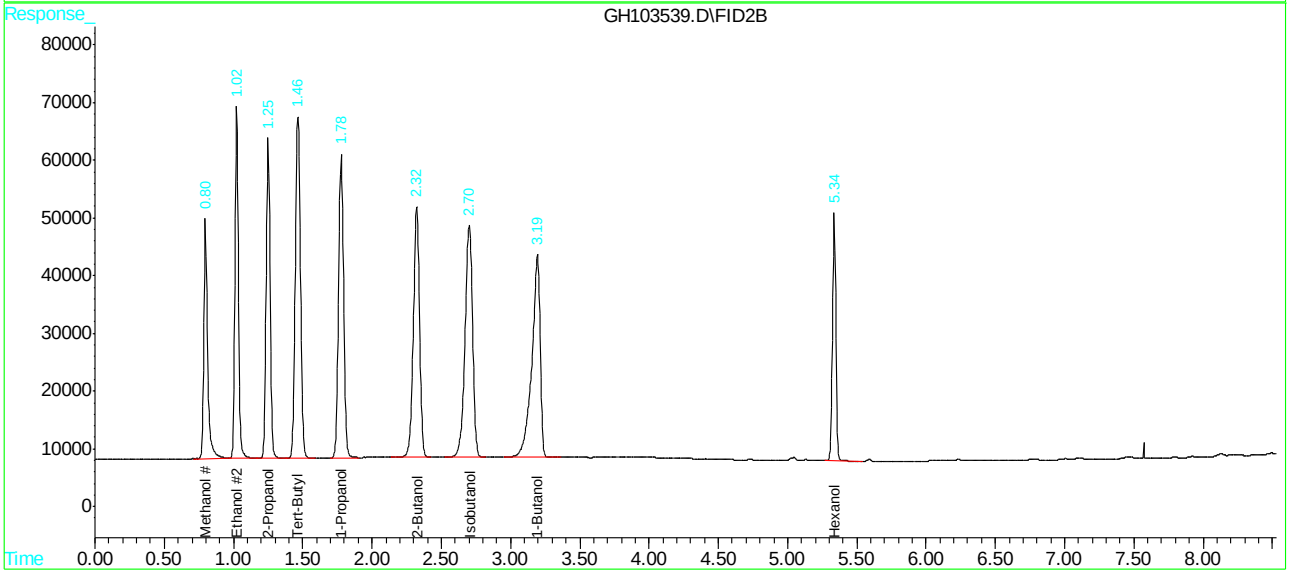
```
Data File : C:\HPCHEM\1\DATA\GH103539.D\FID1A.CH          Vial: 20
Acq On    : 29 Feb 2016  10:25 am                     Operator: XULIU
Sample    : IC5193-50000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103539.D\FID2B.CH          Vial: 20
Acq On    : 29 Feb 2016  10:39 am                     Operator: XULIU
Sample    : IC5193-50000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:25 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 10:49:38 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103540.D\FID1A.CH          Vial: 21
Acq On    : 29 Feb 2016  10:39 am                     Operator: XULIU
Sample    : IC5193-100000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID2B.CH          Vial: 21
Acq On    : 29 Feb 2016  10:57 am                     Operator: XULIU
Sample    : IC5193-100000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:25 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 10:49:38 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.89	5.34	762379	756038	6378.624	6122.502
	Spiked Amount 5000.000			Recovery	=	127.57%	122.45%
	Target Compounds						
1)	Methanol	1.42	0.80	1779651	1707777	122113.328	116085.808
2)	Ethanol	1.85	1.02	2349319	2287965	114089.375	110741.557
3)	Tert-Butyl Alcoh	2.51	1.46	3492408	3302691	107462.375	102847.039
4)	1-Propanol	2.99	1.78	3029689	2893990	107370.879	107117.291
5)	2-Propanol	2.23	1.25	2529033	2413432	112831.064	107591.432
7)	Isobutanol	3.82	2.70	3484319	3290247	109198.681	102251.057
8)	1-Butanol	4.23	3.19	3265181	3245269	103706.261	100138.368
9)	2-Butanol	3.43	2.32	3066220	2923878	107163.152	108397.288

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

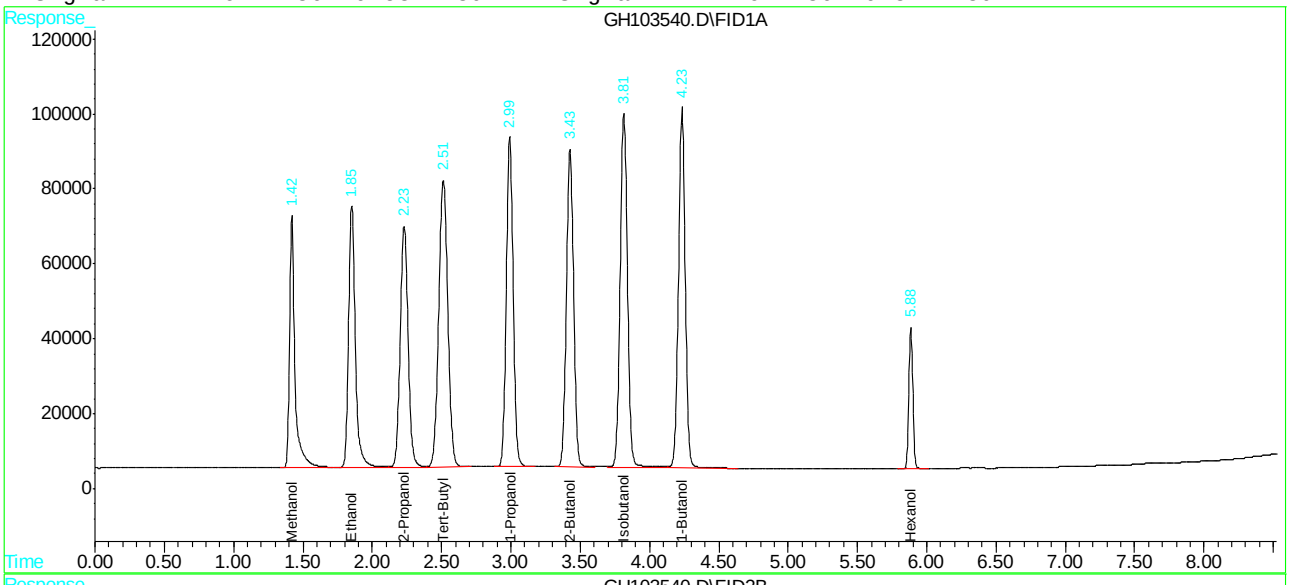
Quantitation Report (QT Reviewed)

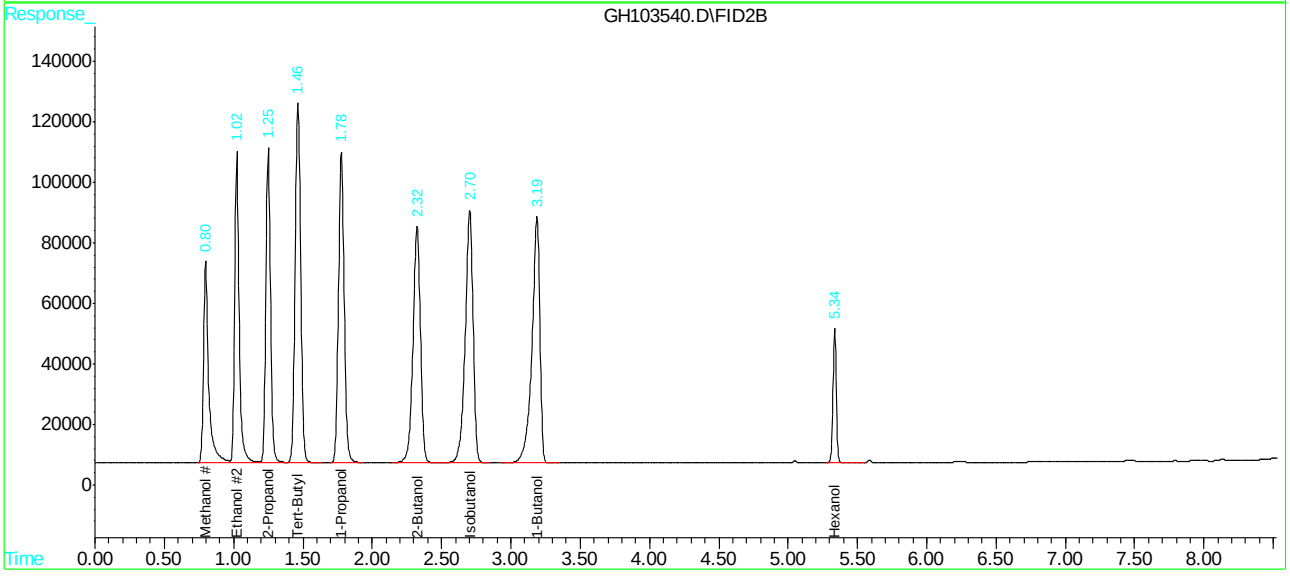
Data File : C:\HPCHEM\1\DATA\GH103540.D\FID1A.CH Vial: 21
Acq On : 29 Feb 2016 10:39 am Operator: XULIU
Sample : IC5193-100000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID2B.CH Vial: 21
Acq On : 29 Feb 2016 10:57 am Operator: XULIU
Sample : IC5193-100000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 29 13:25 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Feb 29 10:49:38 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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)
Jessica Reitan-Chu 03/01/16 14:34

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH Vial: 22
Acq On : 29 Feb 2016 10:57 am Operator: XULIU
Sample : ICC5193-5000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH Vial: 22
Acq On : 29 Feb 2016 11:10 am Operator: XULIU
Sample : ICC5193-5000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 29 13:34 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Feb 29 13:27:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.88	5.34	627374	611421	5306.730	5276.343
Spiked Amount	5000.000			Recovery	=	106.13%	105.53%
	Target Compounds						
1)	Methanol	1.42	0.80	92609	86129	5293.274	5131.587
2)	Ethanol	1.85	1.03	118659	114677	5124.160	5120.833
3)	Tert-Butyl Alcoh	2.51	1.47	180800	160931	5219.790	4965.652
4)	1-Propanol	2.99	1.78	154372	152110	5176.241	5084.369
5)	2-Propanol	2.23	1.25	131831	117651	5264.955	5011.800
7)	Isobutanol	3.81	2.70	177787	160719	5166.554	4673.557
8)	1-Butanol	4.23	3.19	171004	159534	5210.074	5016.629
9)	2-Butanol	3.42	2.33	157688	145917	5163.577	4269.357m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103541.D MGH5193.M Mon Feb 29 13:34:13 2016 GCGH

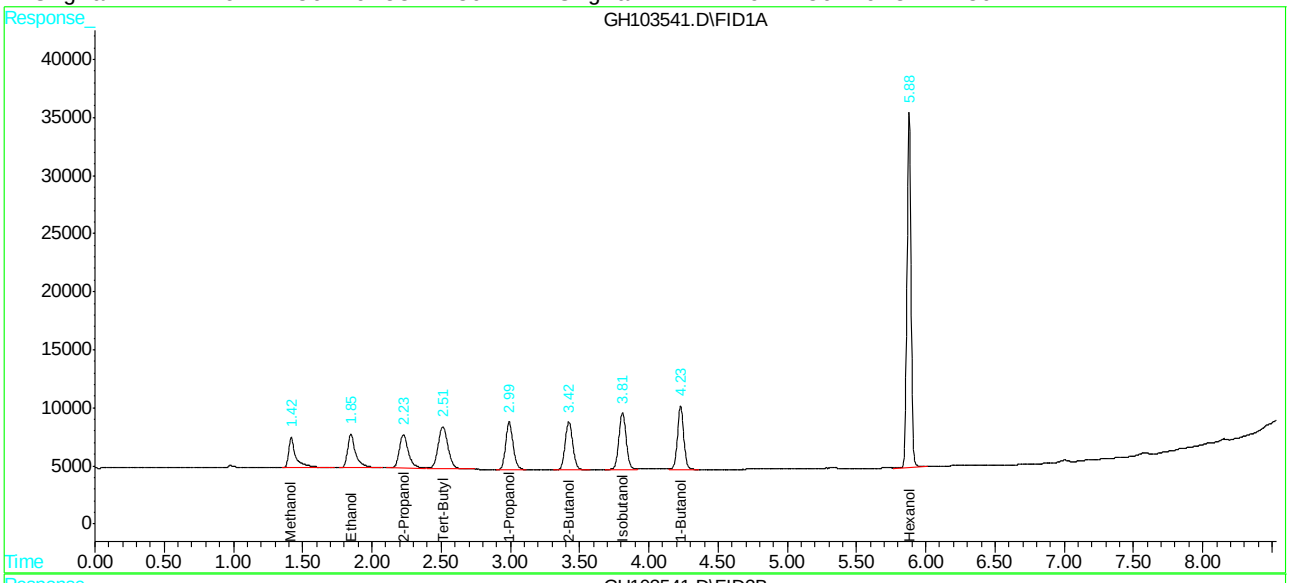
Quantitation Report (QT Reviewed)

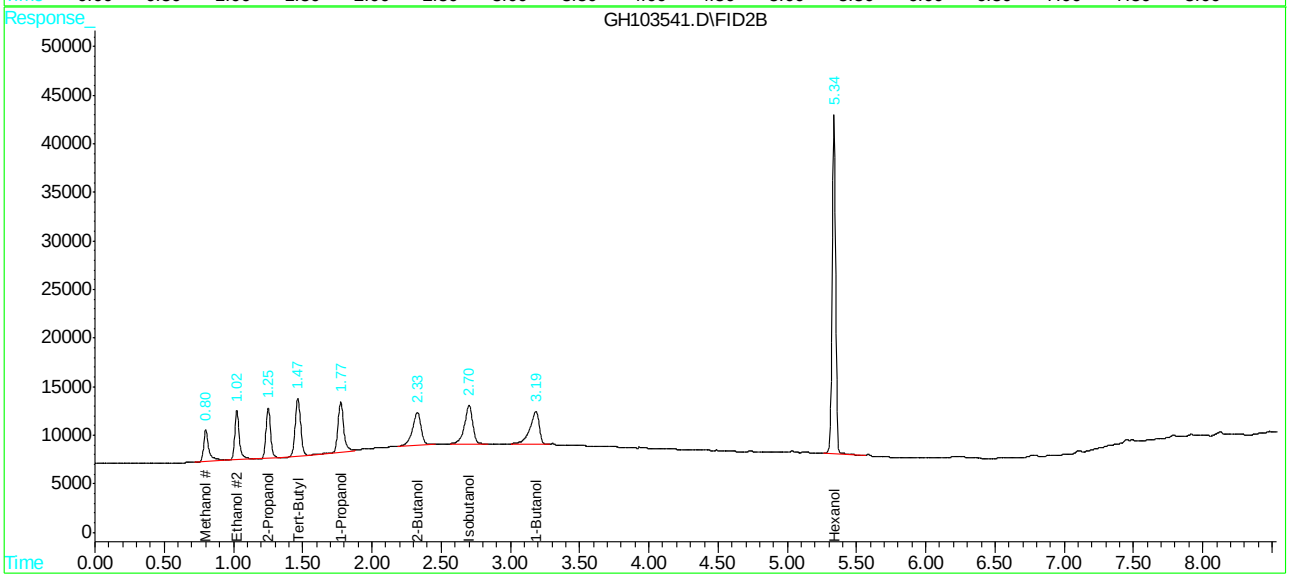
Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH Vial: 22
Acq On : 29 Feb 2016 10:57 am Operator: XULIU
Sample : ICC5193-5000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH Vial: 22
Acq On : 29 Feb 2016 11:10 am Operator: XULIU
Sample : ICC5193-5000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 29 13:34 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Feb 29 13:27:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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:	GGH5193-ICC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103541.D	**Analyst approved:**	03/01/16 13:28 Xu Liu
Injection Time:	02/29/16 10:57	**Supervisor approved:**	03/01/16 14:34 Jessica Reitan-Chu

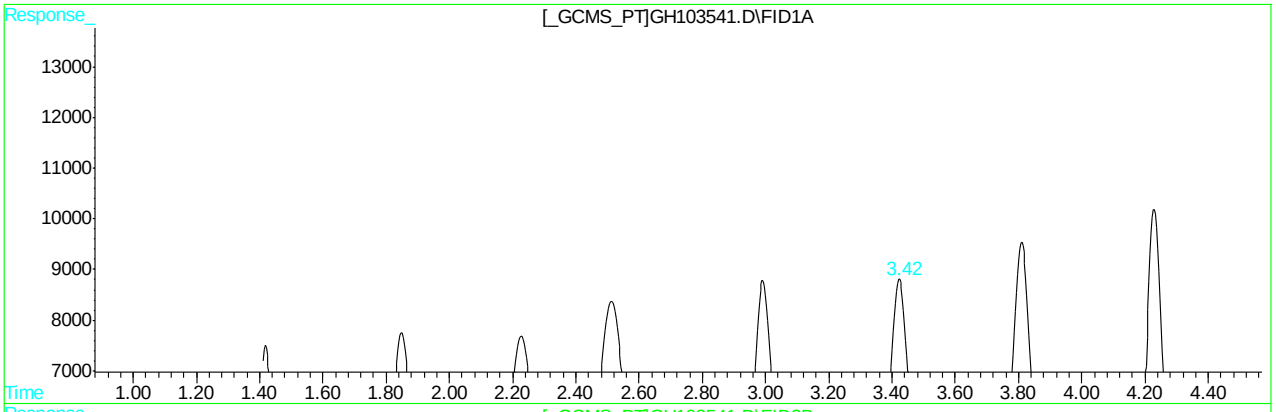
Parameter	CAS	Sig#	R.T. (min.)	Reason
sec-Butyl Alcohol	78-92-2	2	2.33	Poorly defined baseline

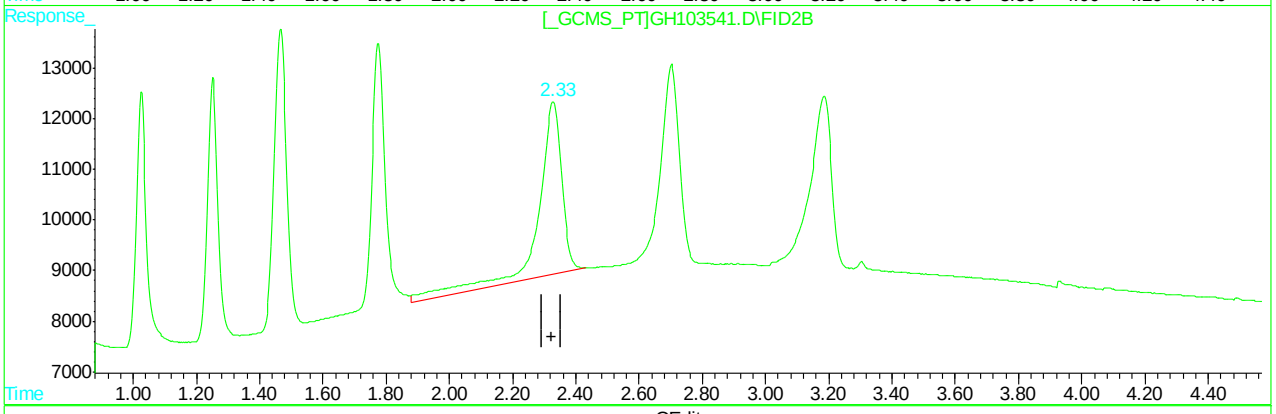
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH          Vial: 22
Acq On    : 29 Feb 2016  10:57 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH          Vial: 22
Acq On    : 29 Feb 2016  11:10 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:32 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:32:26 2016
Response via : Multiple Level Calibration
```





QEdit

(9) 2-Butanol

3.42min 5163.577PPB

response 157688

(9) 2-Butanol #2

2.33min 5176.951PPB

response 176936

(+) = Expected Retention Time

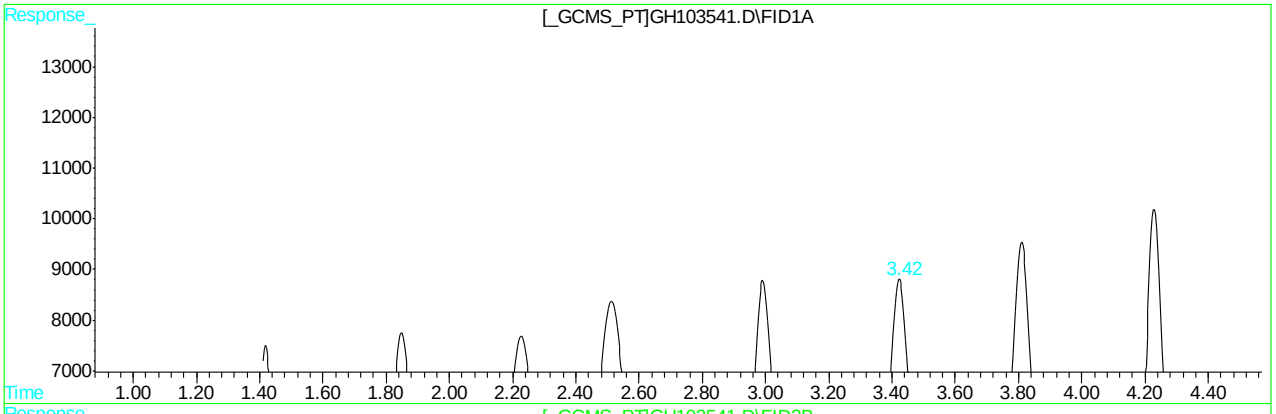
GH103541.D MGH5193.M Mon Feb 29 13:33:18 2016 GCGH

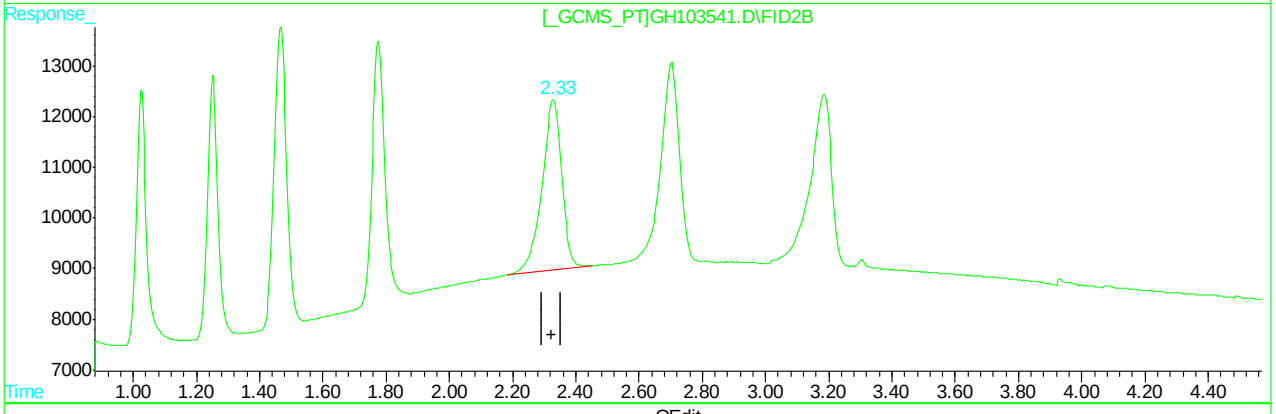
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH          Vial: 22
Acq On    : 29 Feb 2016  10:57 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH          Vial: 22
Acq On    : 29 Feb 2016  11:10 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:32 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:32:26 2016
Response via : Multiple Level Calibration
```





QEdit

(9) 2-Butanol

3.42min 5163.577PPB

response 157688

(9) 2-Butanol #2

2.33min 4269.357PPB m

response 145917

(+) = Expected Retention Time

GH103541.D MGH5193.M Mon Feb 29 13:34:08 2016 GCGH

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 03/01/16 14:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 12:07 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 07:54:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.88	5.34	338506	356649	2628.802	2776.345
Spiked Amount	5000.000			Recovery	=	52.58%	55.53%
	Target Compounds						
1)	Methanol	1.45f	0.80	7128	9089	416.617	502.554m
2)	Ethanol	1.87f	1.03	10970	10120	480.229	458.322
3)	Tert-Butyl Alcoh	2.52	1.47	13871	14529	388.904m	454.774
4)	1-Propanol	3.01f	1.78	10460	11823	355.989m	422.185
5)	2-Propanol	2.24	1.25	8410	10264	318.255m	444.470
7)	Isobutanol	3.82	2.70	14482	14321	431.331	454.428
8)	1-Butanol	4.23	3.19	13713	17157	421.970	537.665
9)	2-Butanol	3.45f	2.33	11734	12260	396.922	432.808

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC15883

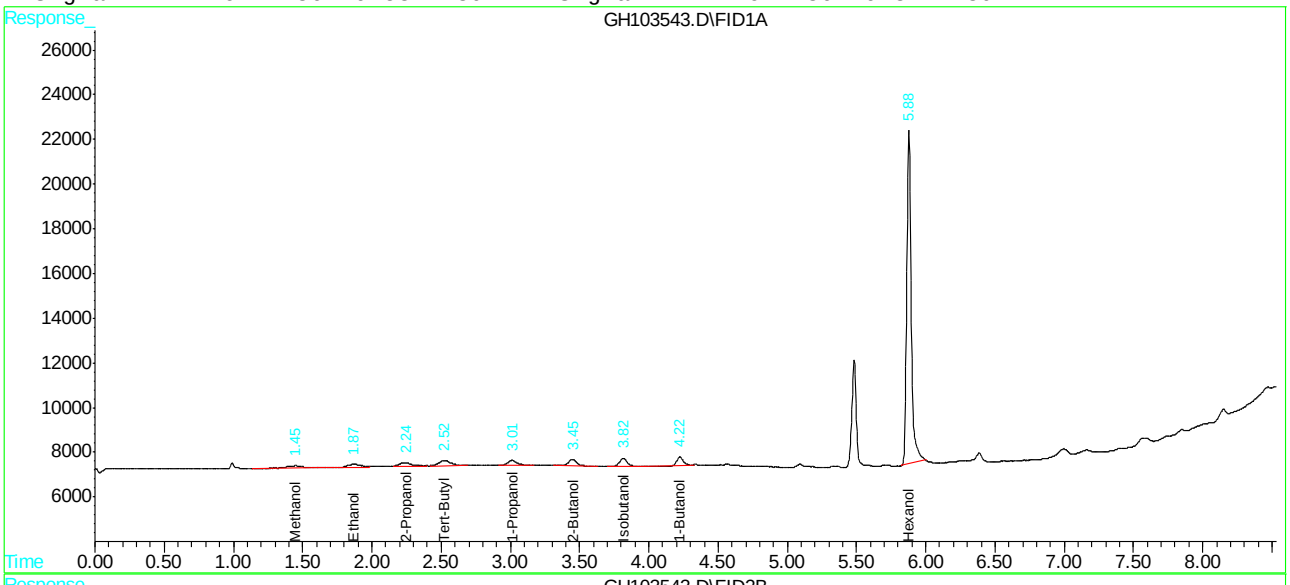
Quantitation Report (QT Reviewed)

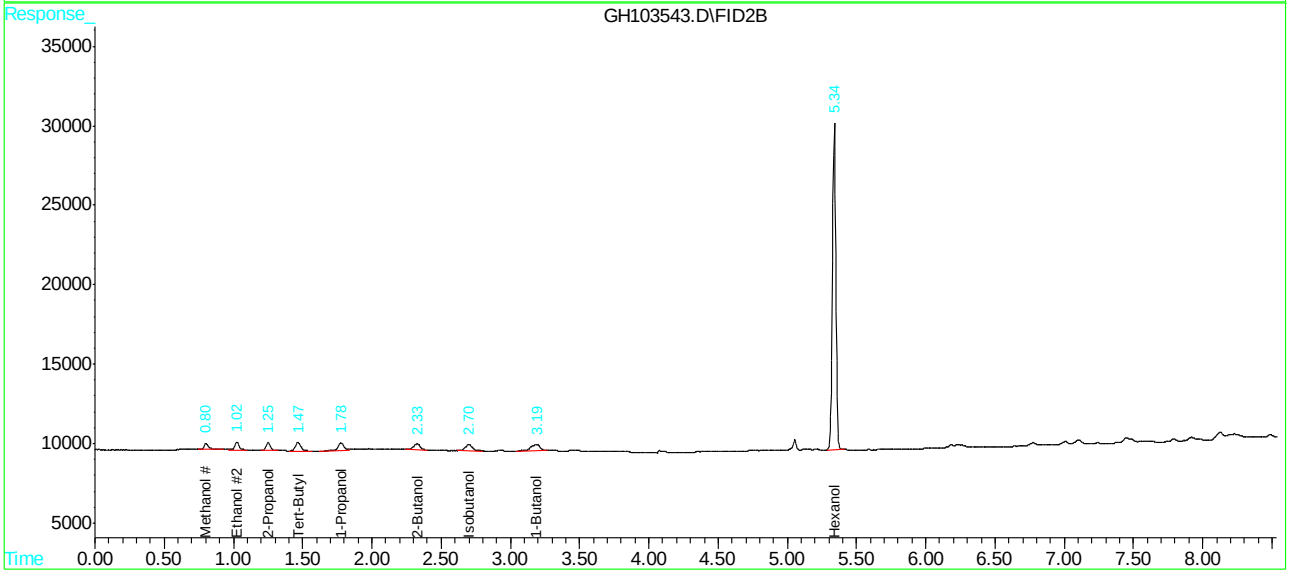
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
Sample : IC5193-500 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
Sample : IC5193-500 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 1 12:07 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Mar 01 07:54:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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:	GGH5193-IC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103543.D	**Analyst approved:**	03/01/16 13:28 Xu Liu
Injection Time:	02/29/16 12:05	**Supervisor approved:**	03/01/16 14:34 Jessica Reitan-Chu

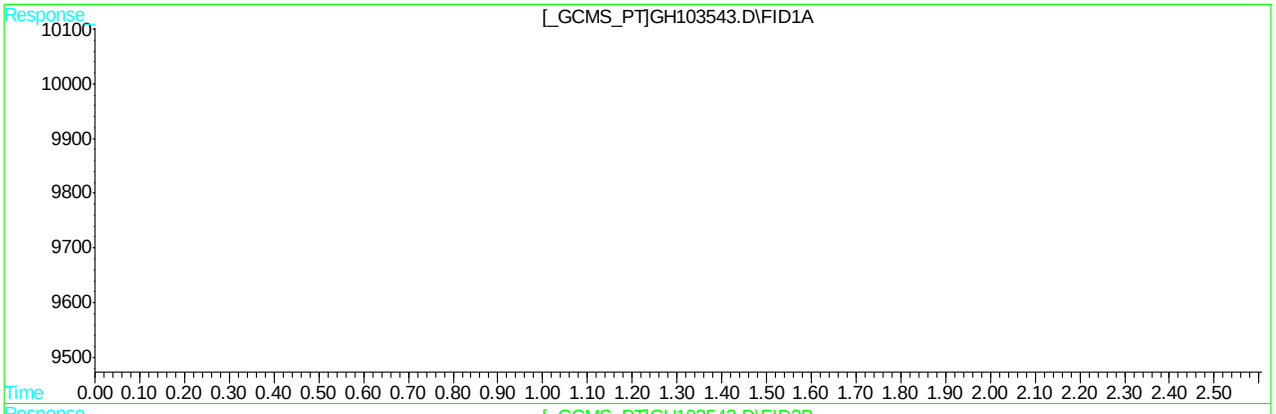
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	0.80	Poorly defined baseline
Isopropyl Alcohol	67-63-0	1	2.24	Poorly defined baseline
Tertiary Butyl Alcohol	75-65-0	1	2.52	Poorly defined baseline
n-Propyl Alcohol	71-23-8	1	3.01	Poorly defined baseline

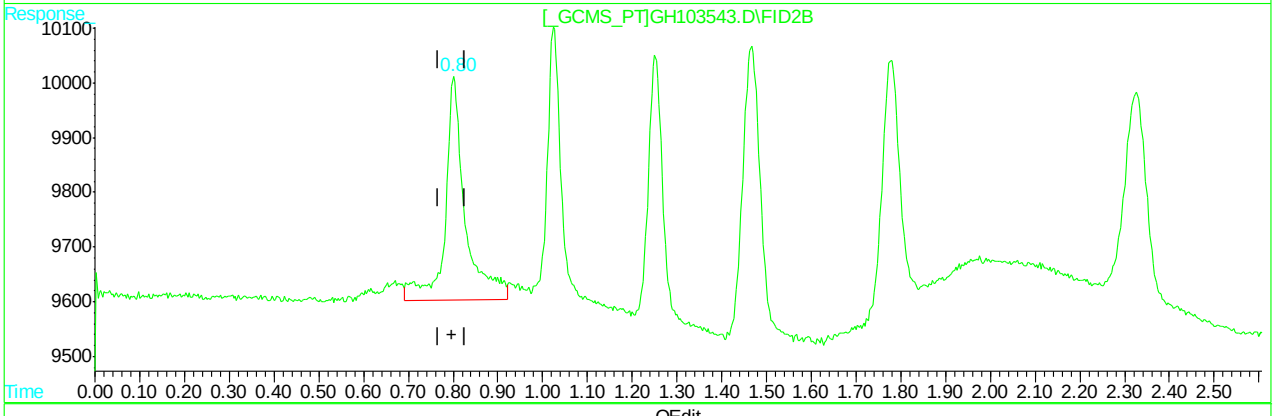
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103543.D\FID1A.CH          Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                     Operator: XULIU
Sample    : IC5193-500                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103543.D\FID2B.CH          Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-500                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  7:57 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:12:38 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.45min 416.617PPB

response 7128

(1) Methanol #2

0.80min 697.836PPB

response 12621

(+) = Expected Retention Time

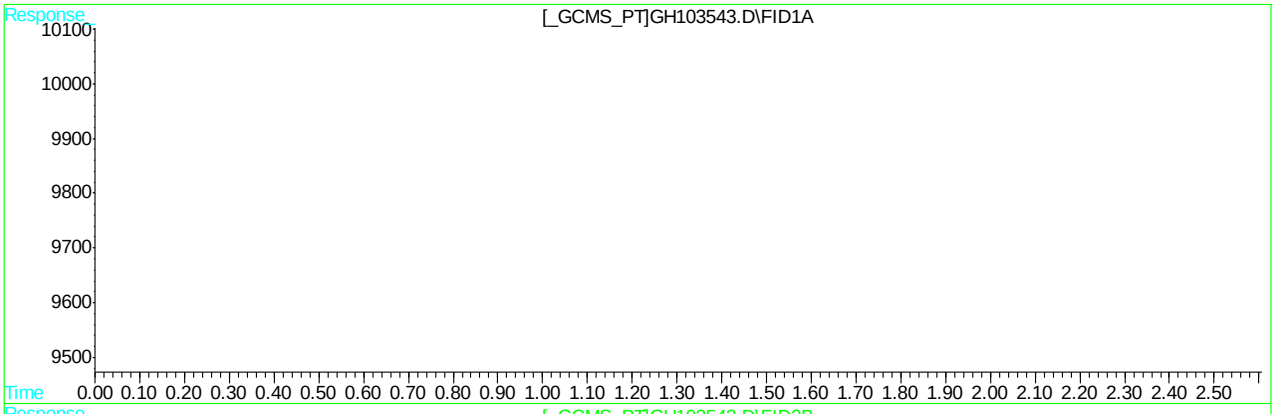
GH103543.D MGH5193.M Tue Mar 01 08:16:04 2016 GCGH

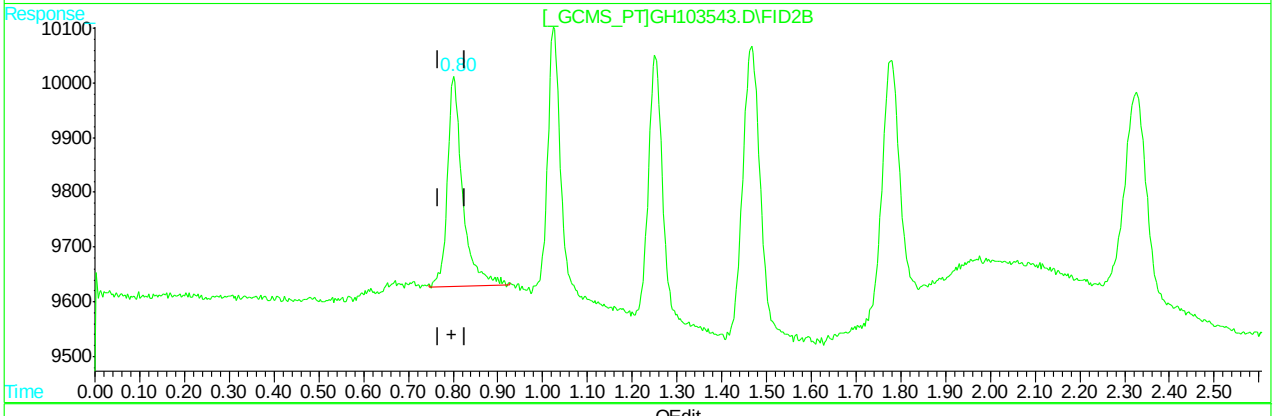
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103543.D\FID1A.CH          Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                     Operator: XULIU
Sample    : IC5193-500                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103543.D\FID2B.CH          Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-500                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  7:57 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:12:38 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.45min 416.617PPB

response 7128

(1) Methanol #2

0.80min 502.554PPB m

response 9089

(+) = Expected Retention Time

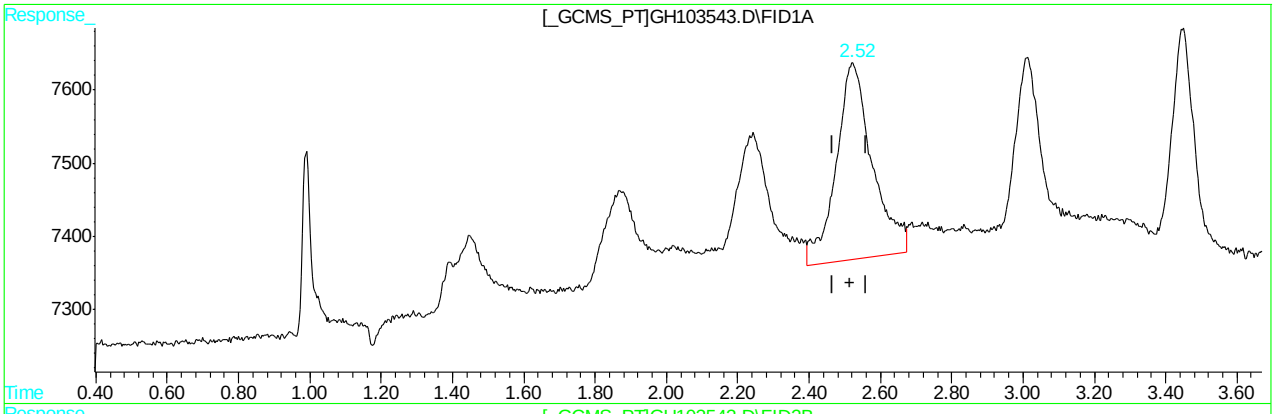
GH103543.D MGH5193.M Tue Mar 01 08:16:50 2016 GCGH

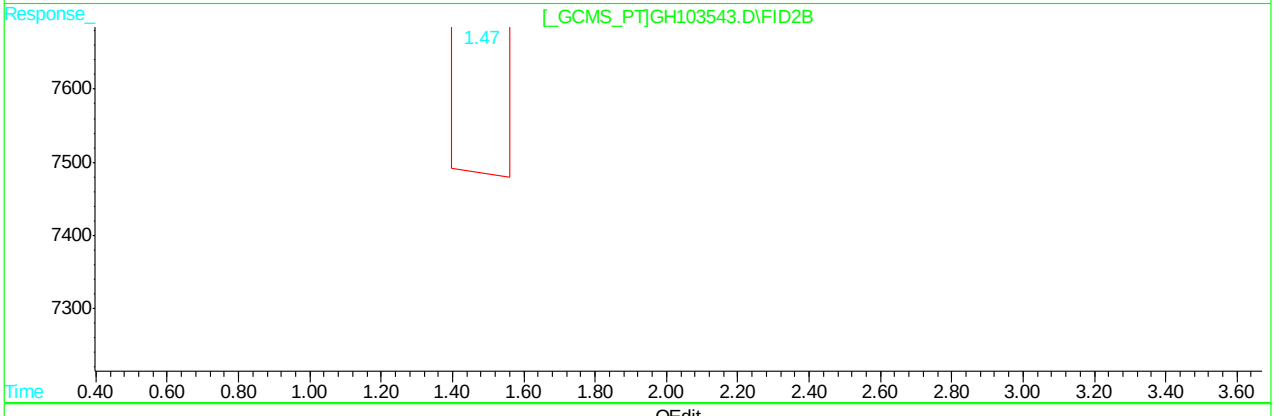
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:16 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

2.52min 531.527PPB

response 18958

(3) Tert-Butyl Alcohol #2

1.47min 454.774PPB

response 14529

(+) = Expected Retention Time

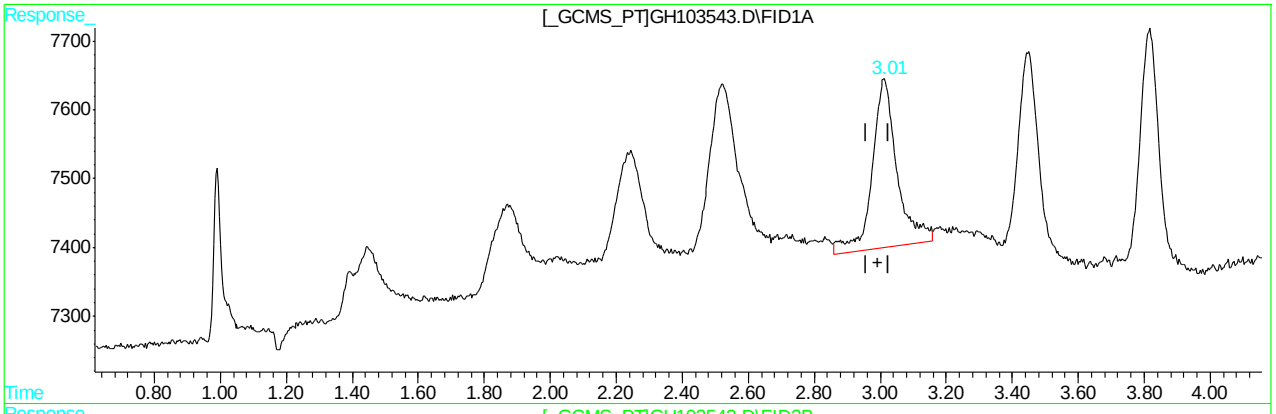
GH103543.D MGH5193.M Tue Mar 01 10:16:49 2016 GCGH

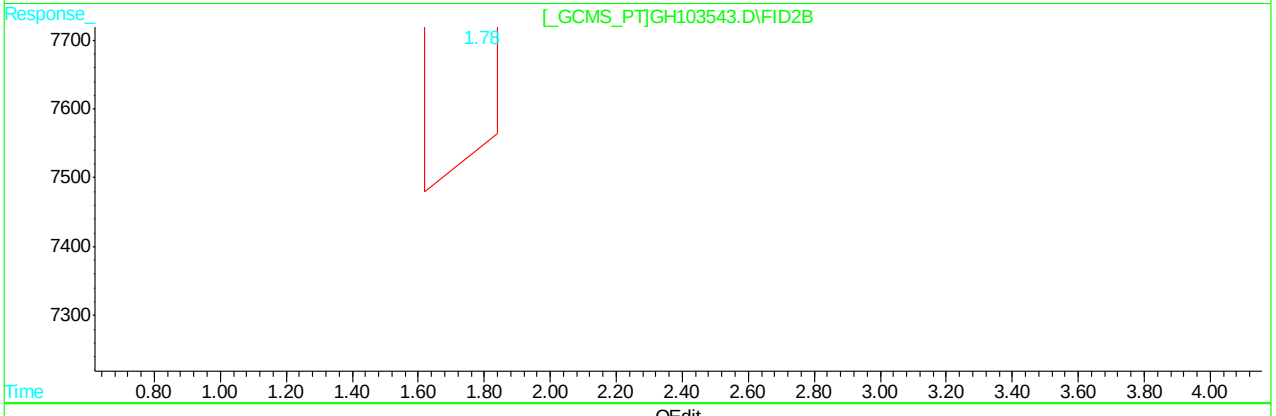
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:16 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

3.01min 449.441PPB

response 13206

(4) 1-Propanol #2

1.78min 422.185PPB

response 11823

(+) = Expected Retention Time

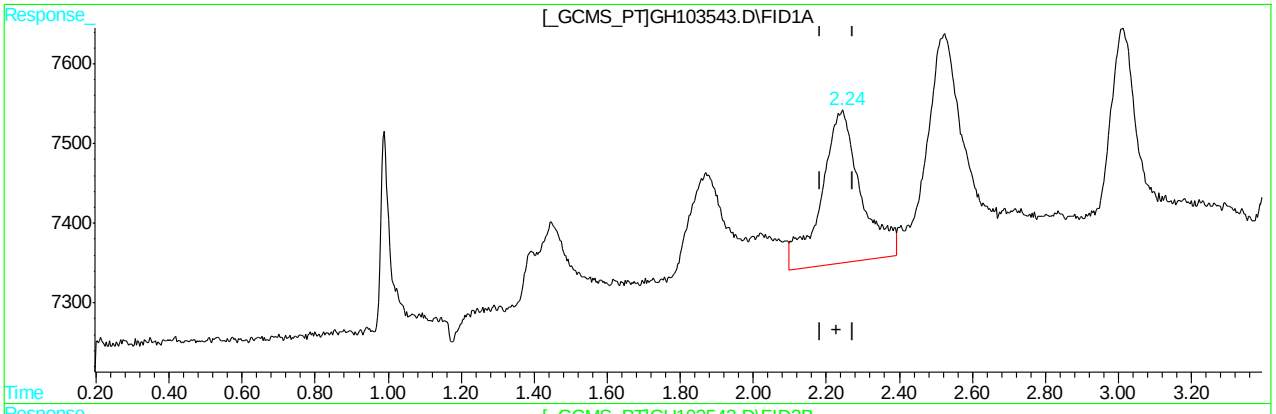
GH103543.D MGH5193.M Tue Mar 01 10:17:11 2016 GCGH

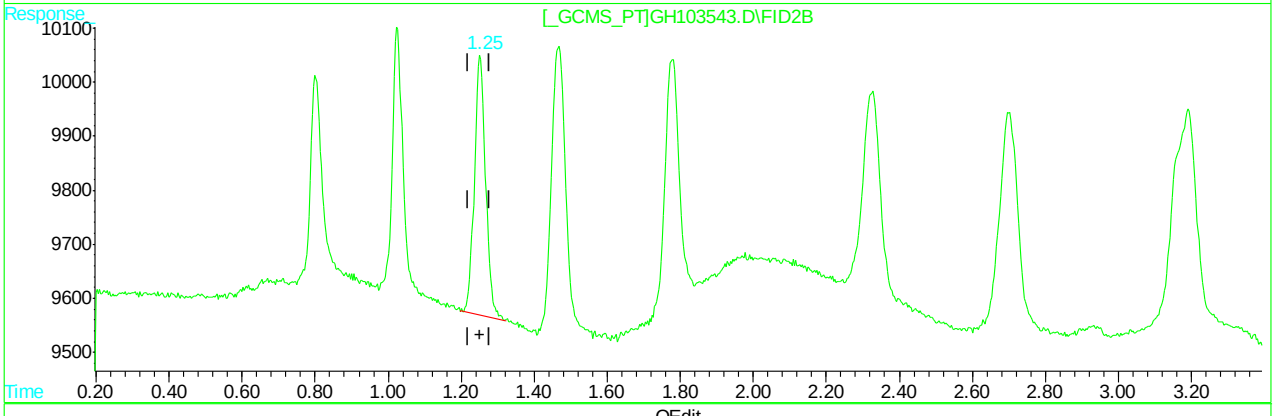
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:16 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

2.24min 546.957PPB

response 14454

(5) 2-Propanol #2

1.25min 444.470PPB

response 10264

(+) = Expected Retention Time

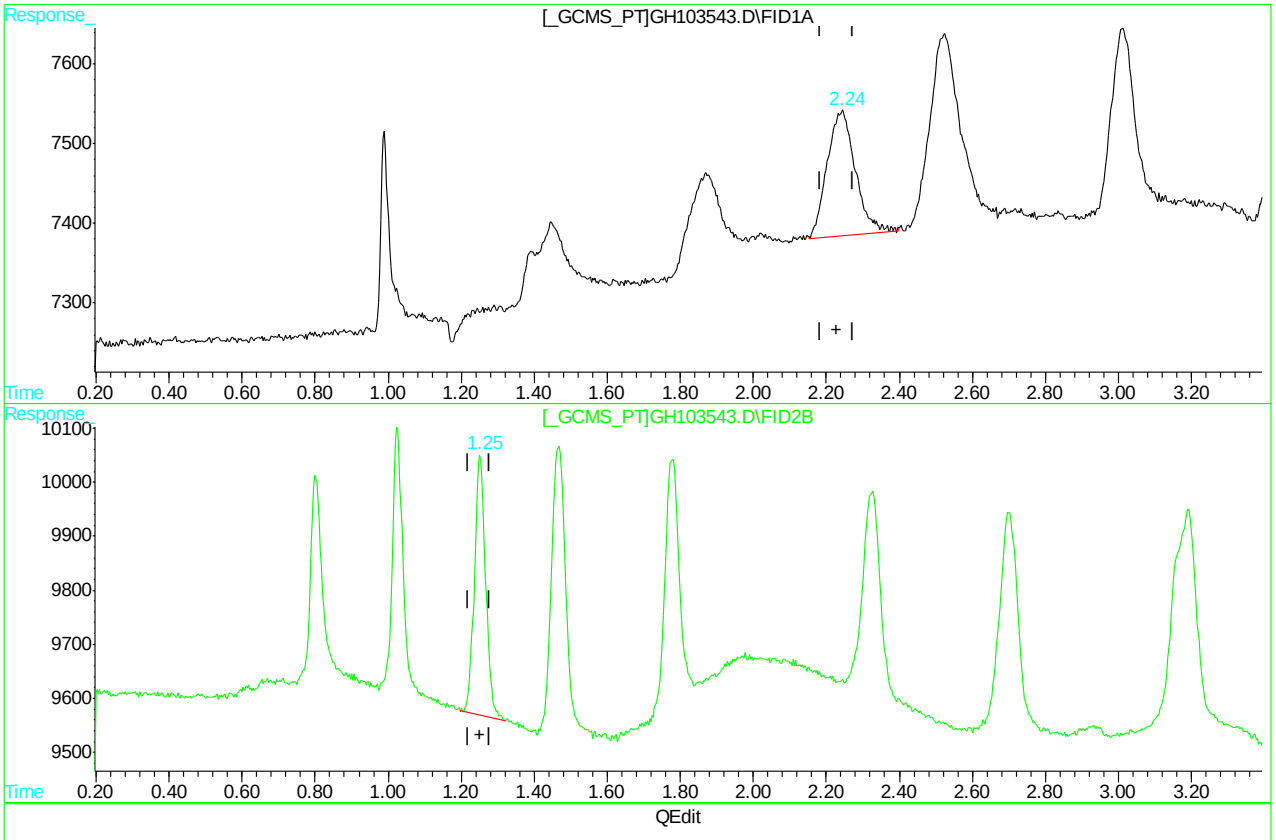
GH103543.D MGH5193.M Tue Mar 01 10:17:42 2016 GCGH

Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:16 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```



(5) 2-Propanol

2.24min 318.255PPB m

response 8410

(5) 2-Propanol #2

1.25min 444.470PPB

response 10264

(+) = Expected Retention Time

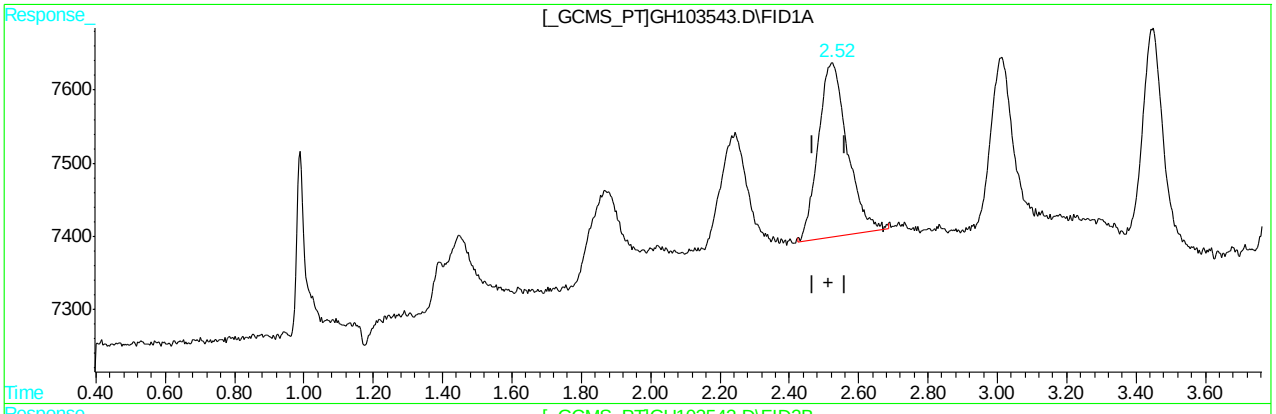
GH103543.D MGH5193.M Tue Mar 01 10:18:02 2016 GCGH

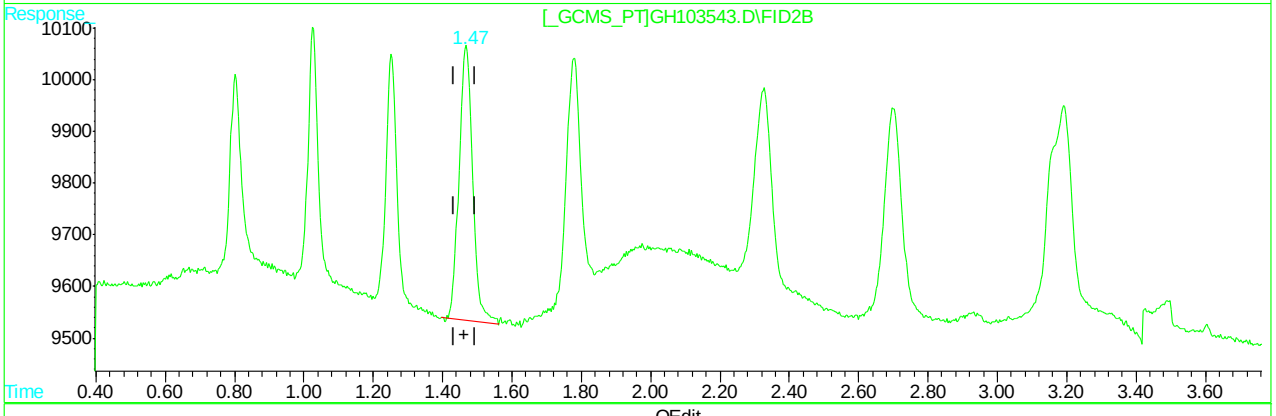
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 10:17 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 11:02:24 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

2.52min 388.904PPB m

response 13871

(3) Tert-Butyl Alcohol #2

1.47min 454.774PPB

response 14529

(+) = Expected Retention Time

GH103543.D MGH5193.M Tue Mar 01 12:06:57 2016 GCGH

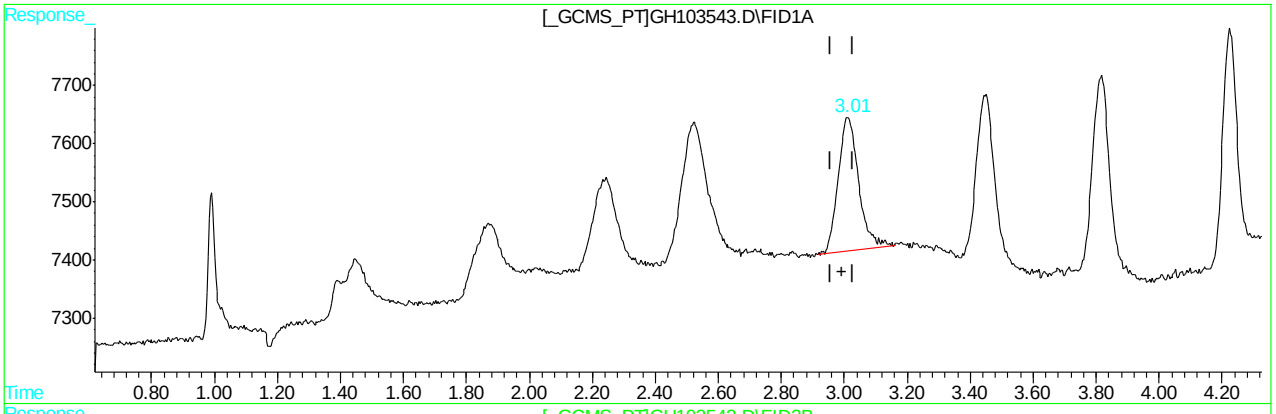
11.5.6.8 11

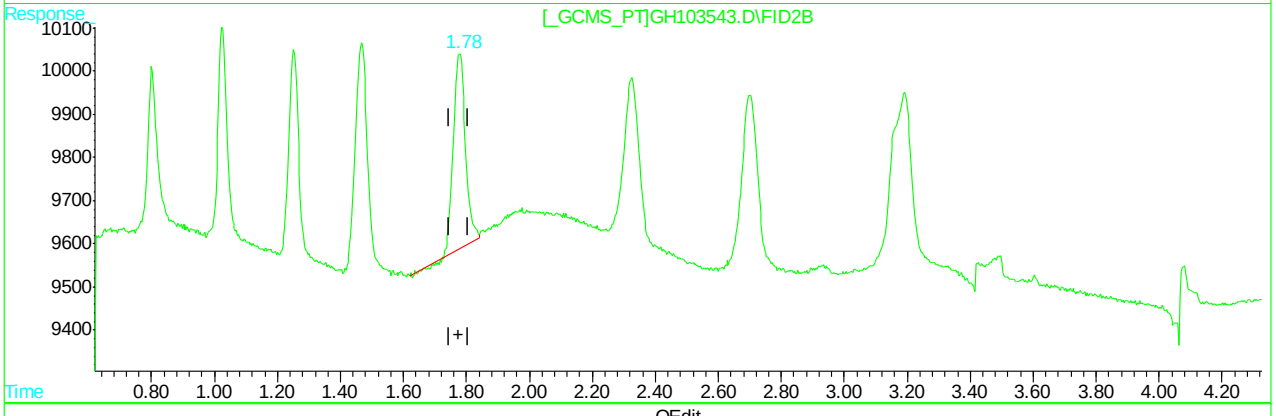
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 10:17 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 11:02:24 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

3.01min 355.989PPB m

response 10460

(4) 1-Propanol #2

1.78min 422.185PPB

response 11823

(+) = Expected Retention Time

GH103543.D MGH5193.M Tue Mar 01 12:07:11 2016 GCGH

11.5.6.9 11

GH103544.D

Manual Integrations APPROVED (compounds with "m" flag)

Jessica Reitan-Chu 03/01/16 14:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 10:15 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:10:45 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.88	5.34	96146	97501	753.837	764.597
	Spiked Amount 5000.000			Recovery	=	15.08%	15.29%
	Target Compounds						
1)	Methanol	1.42	0.80	1952	2010	111.847	109.390
2)	Ethanol	1.85	1.02	2002	2194	82.002m	99.470
3)	Tert-Butyl Alcoh	2.51	1.47	3482	3221	97.961	100.694
4)	1-Propanol	2.99	1.78	3265	3320	109.388	115.495
5)	2-Propanol	2.22	1.25	2559	2475	96.011m	106.098
7)	Isobutanol	3.81	2.70	3542	3670	104.664	113.781
8)	1-Butanol	4.23	3.18	3899	5688	116.654	155.884m
9)	2-Butanol	3.42	2.32	3756	3049	122.321	106.484

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH103544.D MGH5193.M Tue Mar 01 10:16:01 2016 GCGH

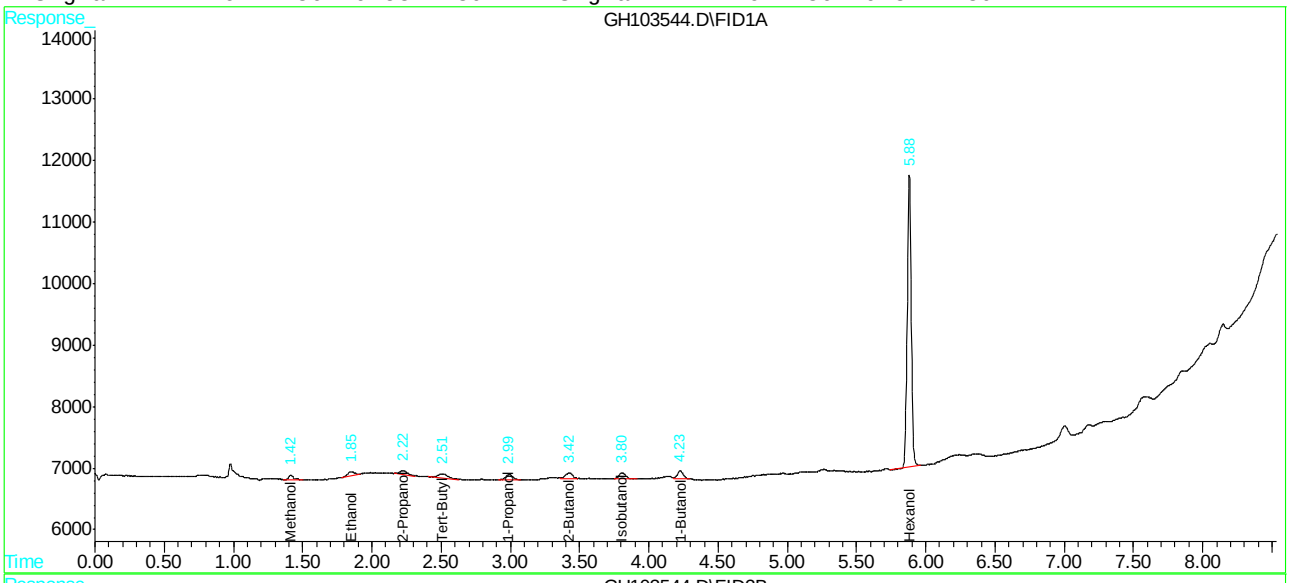
Quantitation Report (QT Reviewed)

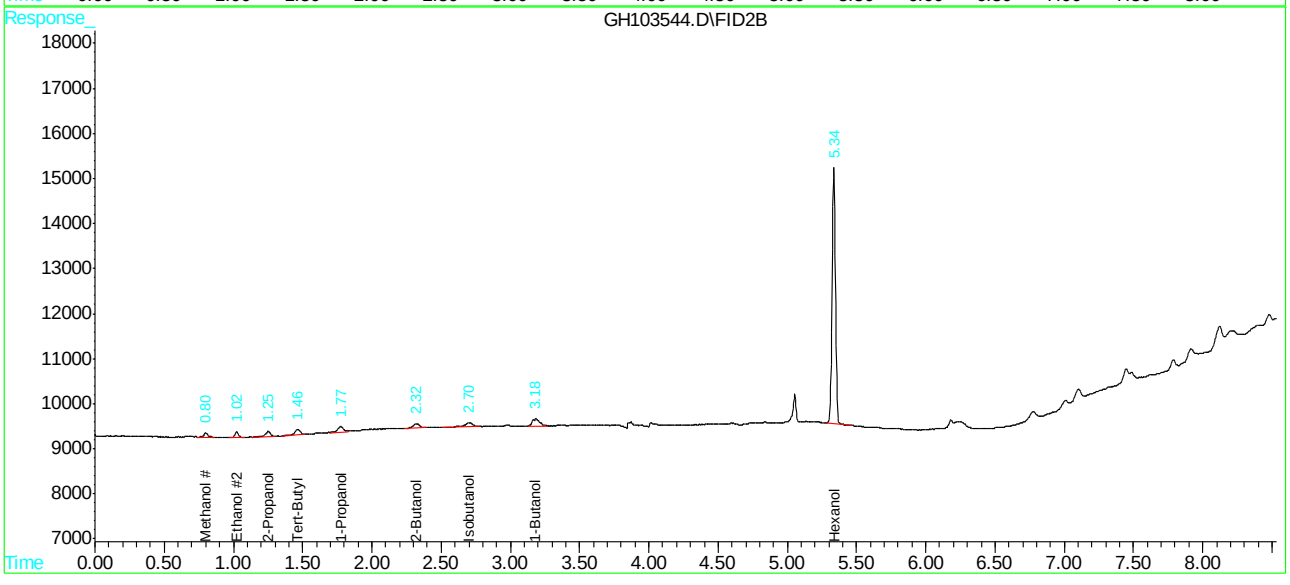
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
Sample : IC5193-100 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
Sample : IC5193-100 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 1 10:15 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Mar 01 08:10:45 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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:	GGH5193-IC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103544.D	**Analyst approved:**	03/01/16 13:28 Xu Liu
Injection Time:	02/29/16 12:23	**Supervisor approved:**	03/01/16 14:34 Jessica Reitan-Chu

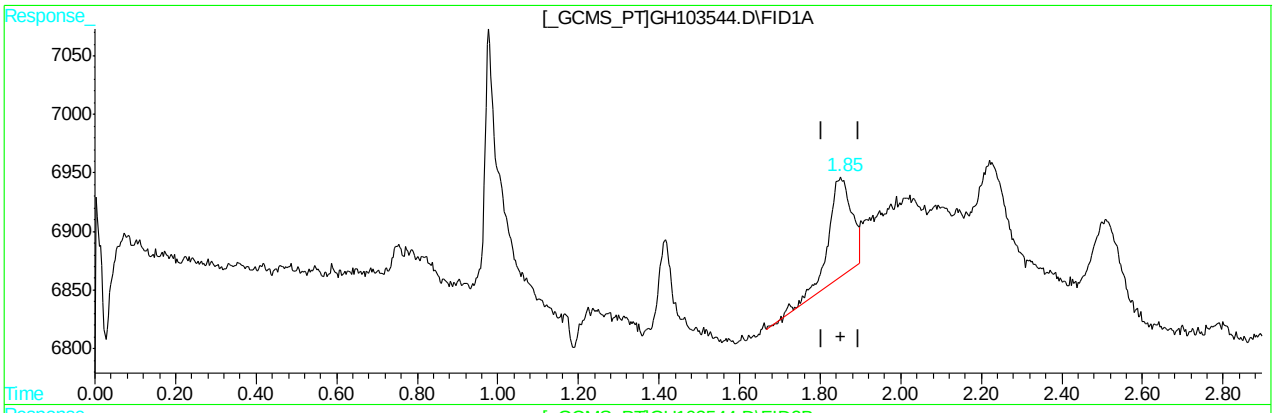
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethanol	64-17-5	1	1.85	Poorly defined baseline
Isopropyl Alcohol	67-63-0	1	2.22	Missed peak
n-Butyl Alcohol	71-36-3	2	3.18	Split peak

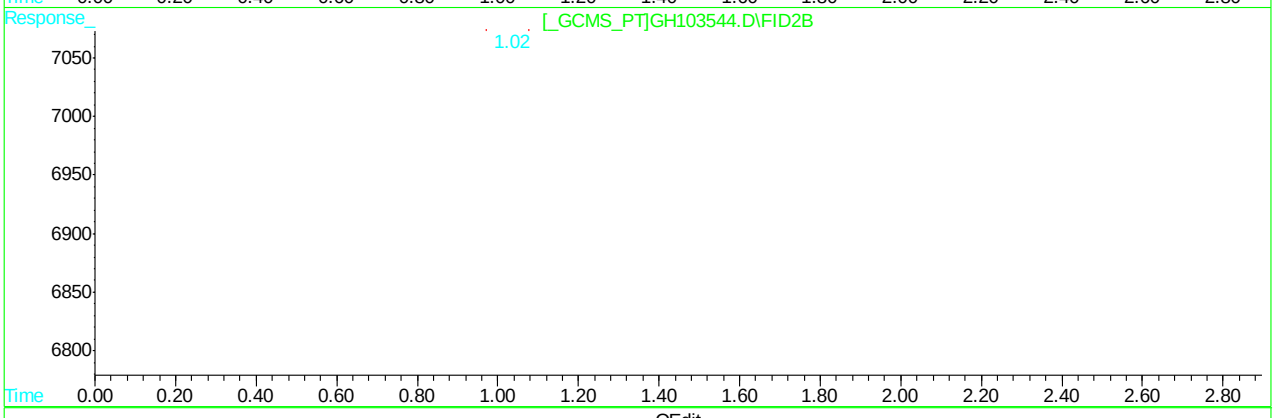
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH          Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH          Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:12 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:12:38 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.85min 138.711PPB

response 3387

(2) Ethanol #2

1.02min 99.470PPB

response 2194

(+) = Expected Retention Time

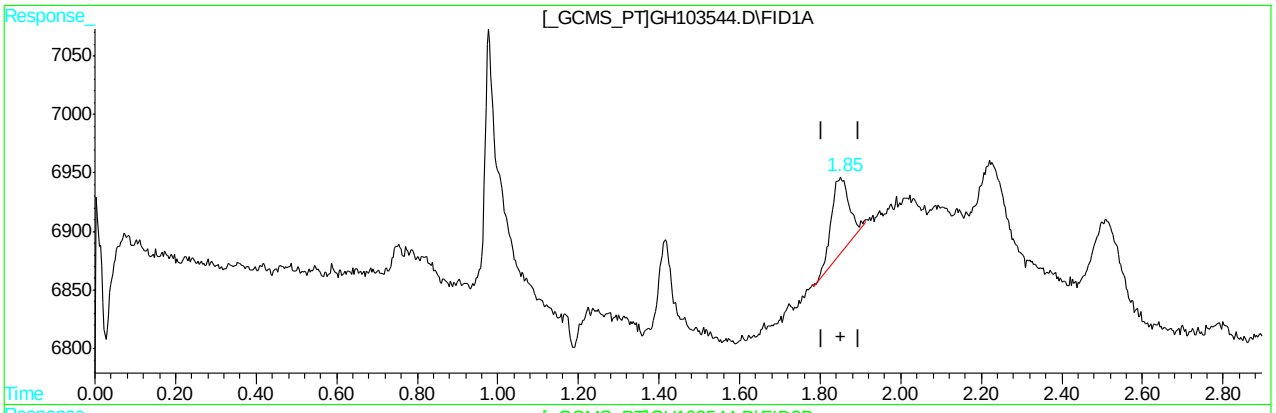
GH103544.D MGH5193.M Tue Mar 01 08:18:52 2016 GCGH

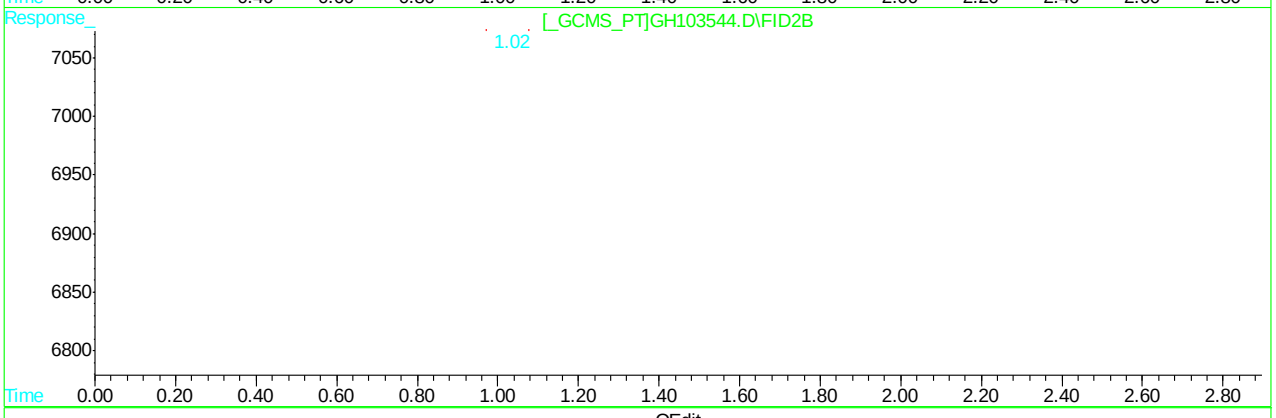
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH          Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH          Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:12 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:12:38 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.85min 82.002PPB m

response 2002

(2) Ethanol #2

1.02min 99.470PPB

response 2194

(+) = Expected Retention Time

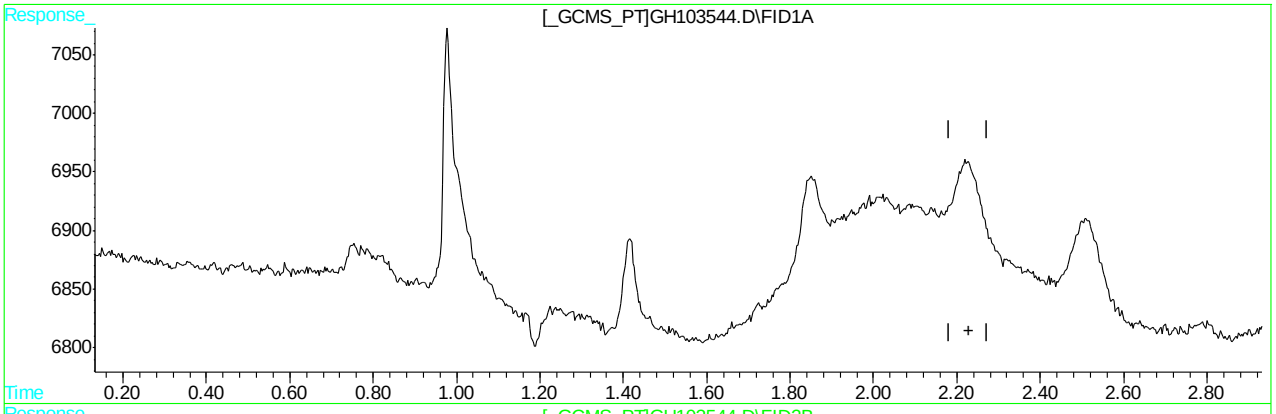
GH103544.D MGH5193.M Tue Mar 01 08:20:10 2016 GCGH

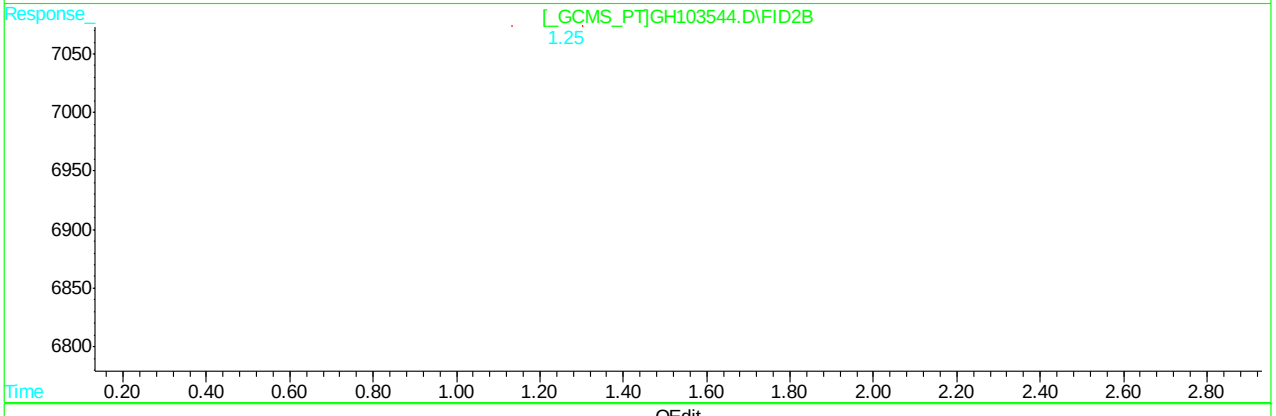
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH          Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH          Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:19 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:23:36 2016
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

0.00min 0.000PPB

response 0

(5) 2-Propanol #2

1.25min 106.098PPB

response 2475

(+) = Expected Retention Time

GH103544.D MGH5193.M Tue Mar 01 08:24:02 2016 GCGH

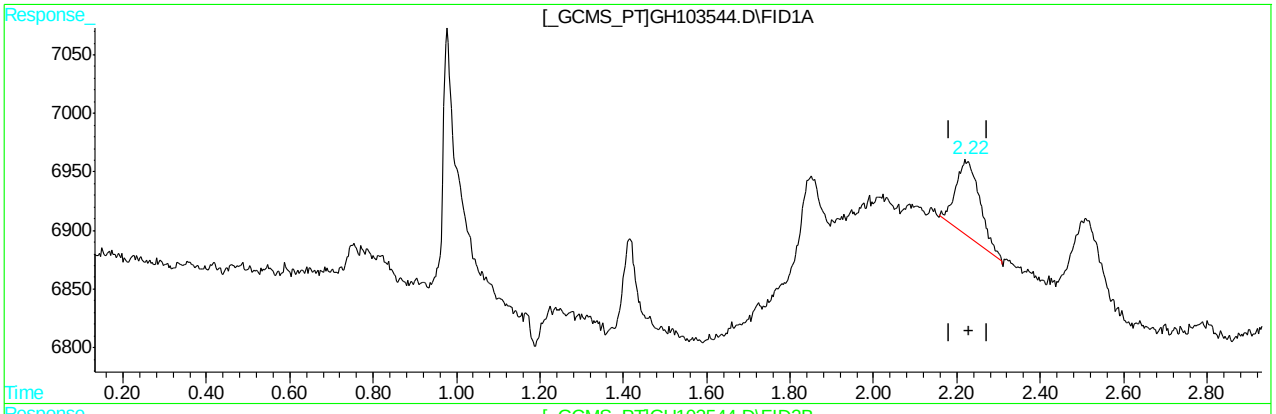
SGS ACCUTEST JC15883

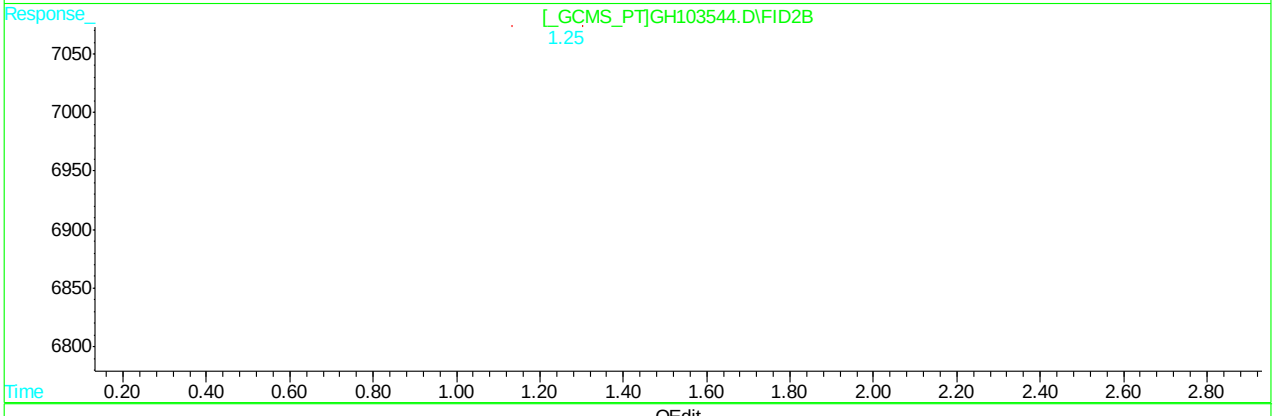
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH          Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH          Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:19 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:23:36 2016
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

2.22min 96.011PPB m

response 2559

(5) 2-Propanol #2

1.25min 106.098PPB

response 2475

(+) = Expected Retention Time

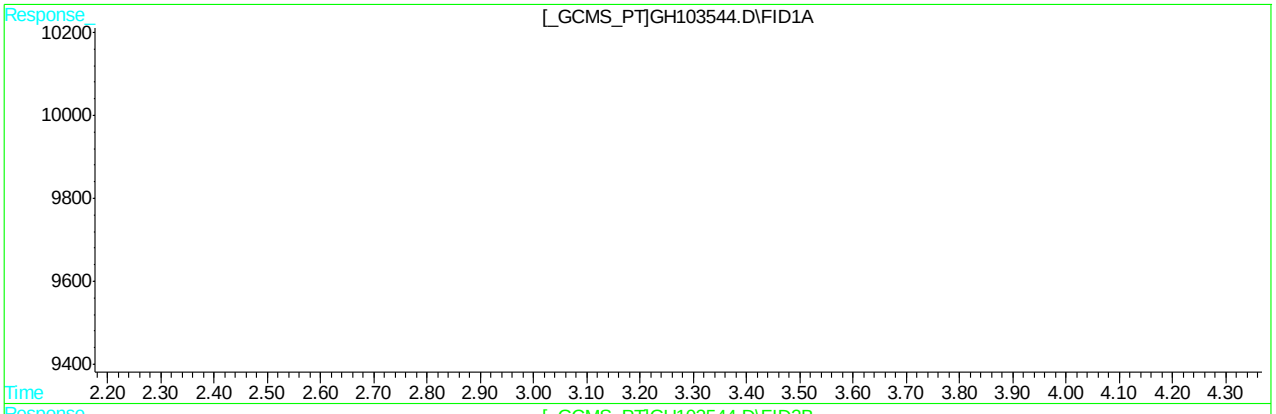
GH103544.D MGH5193.M Tue Mar 01 08:25:29 2016 GCGH

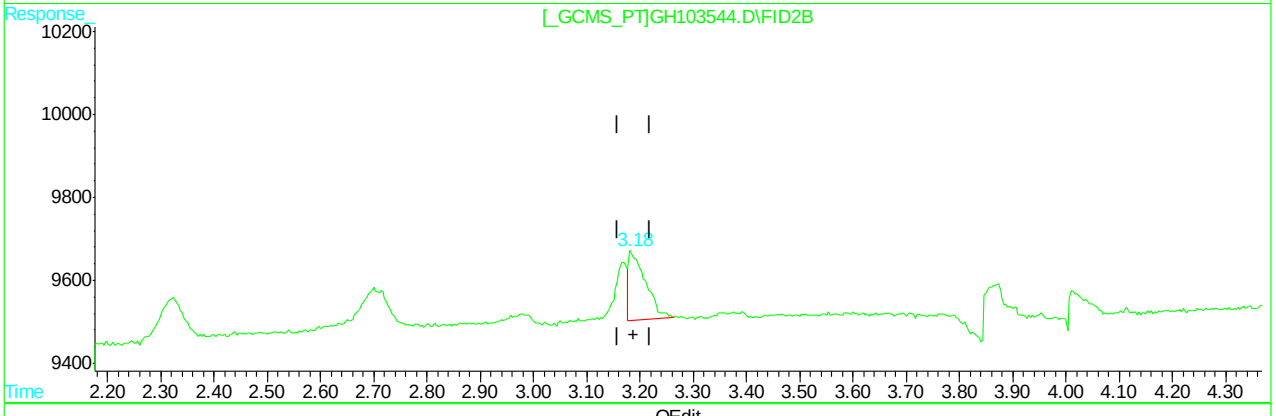
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:25 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 1-Butanol

4.23min 116.654PPB

response 3899

(8) 1-Butanol #2

3.18min 104.373PPB

response 3808

(+) = Expected Retention Time

GH103544.D MGH5193.M Tue Mar 01 10:15:45 2016 GCGH

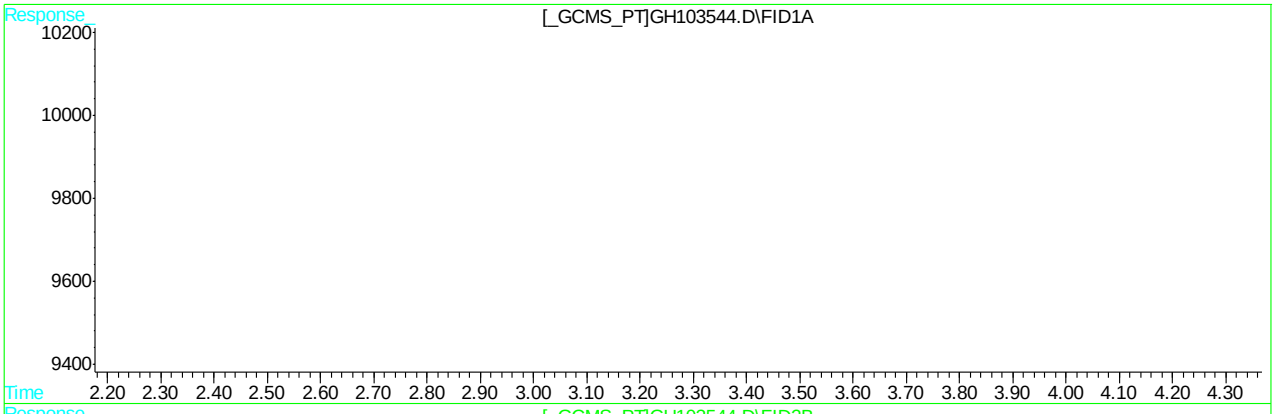
SGS ACCUTEST JC15883

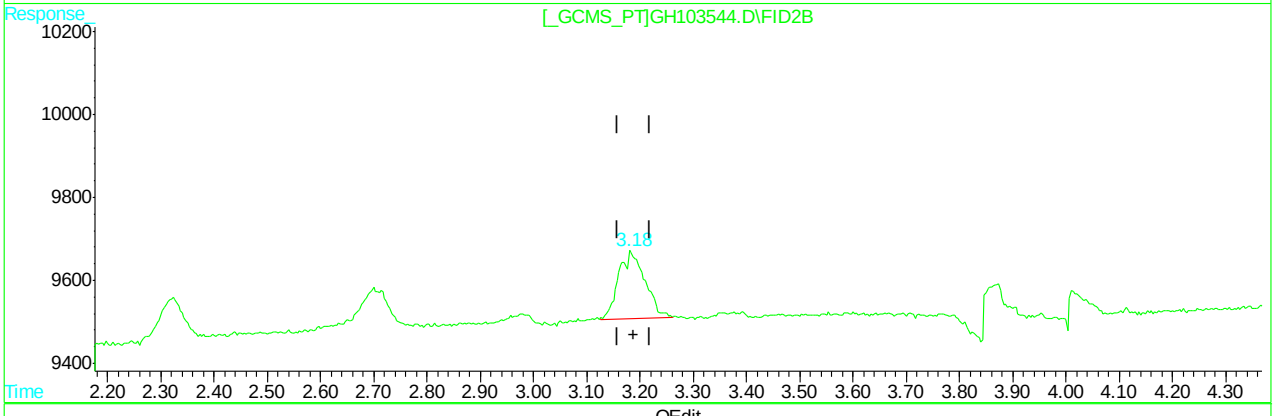
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:25 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 1-Butanol

4.23min 116.654PPB

response 3899

(8) 1-Butanol #2

3.18min 155.884PPB m

response 5688

(+) = Expected Retention Time

GH103544.D MGH5193.M Tue Mar 01 10:15:55 2016 GCGH

11.5.7.7

11

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
Acq On    : 29 Feb 2016   1:20 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
Acq On    : 29 Feb 2016   1:36 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 12:24 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.88	5.34	621339	605656	4871.651	4749.523
	Spiked Amount 5000.000			Recovery	=	97.43%	94.99%
	Target Compounds						
1)	Methanol	1.42	0.80	89753	86850	5142.658	5001.679
2)	Ethanol	1.85	1.02	118314	114631	5272.444	5195.921
3)	Tert-Butyl Alcoh	2.51	1.47	175949	166701	5160.980	5211.888
4)	1-Propanol	2.99	1.77	154839	145777	5327.199	5070.941
5)	2-Propanol	2.23	1.25	126287	123170	5137.821	5279.569
7)	Isobutanol	3.81	2.70	172809	165206	5106.756	5121.827
8)	1-Butanol	4.23	3.19	169085	164075	5058.564	4624.847
9)	2-Butanol	3.42	2.32	156041	147599	5081.800	5154.079

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC15883

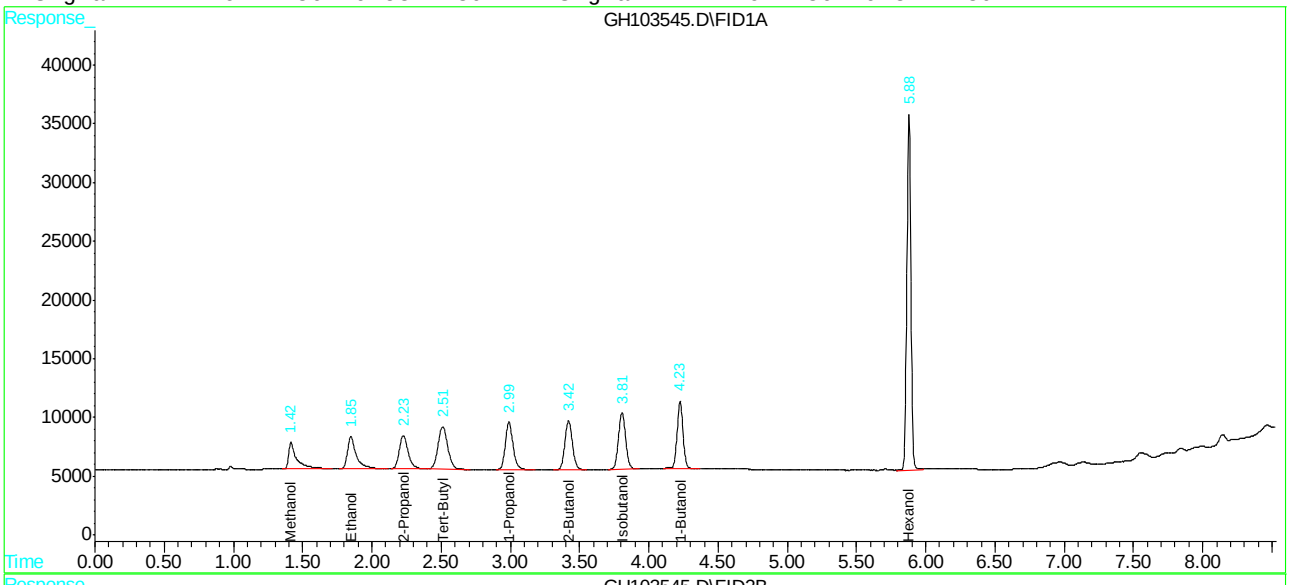
Quantitation Report (QT Reviewed)

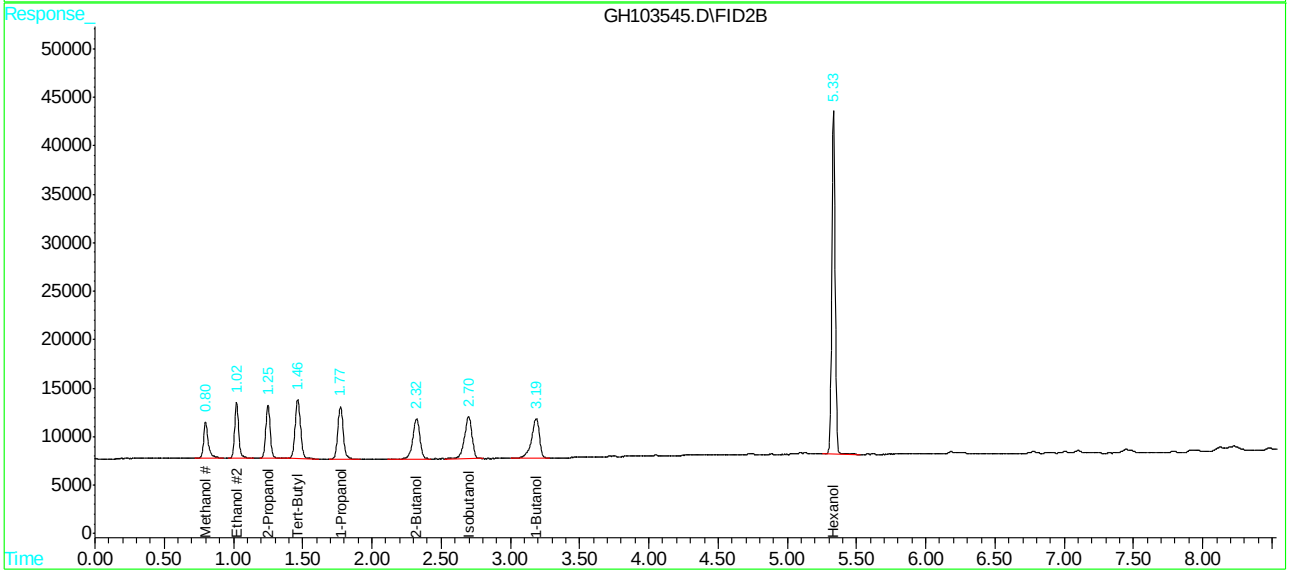
```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
Acq On    : 29 Feb 2016   1:20 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
Acq On    : 29 Feb 2016   1:36 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 12:24 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103673.D\FID1A.CH          Vial: 94
Acq On    : 11 Mar 2016   8:25 am                     Operator: XULIU
Sample    : CC5193-5000                               Inst    : GCGH
Misc      : GC47883,GGH5204,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103673.D\FID2B.CH          Vial: 94
Acq On    : 11 Mar 2016   8:39 am                     Operator: XULIU
Sample    : CC5193-5000                               Inst    : GCGH
Misc      : GC47883,GGH5204,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 11 10:11 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 08:58:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.87	5.33	674467	698935	5288.210	5481.013
	Spiked Amount 5000.000			Recovery	=	105.76%	109.62%
	Target Compounds						
1)	Methanol	1.40	0.79	76713	90451	4395.483	5209.084
2)	Ethanol	1.83	1.02	124362	120810	5541.986	5476.001
3)	Tert-Butyl Alcoh	2.49	1.45	182827	177157	5362.730	5538.801
4)	1-Propanol	2.97	1.77	160078	154808	5507.453	5385.078
5)	2-Propanol	2.21	1.24	134765	128420	5482.705	5504.570
7)	Isobutanol	3.79	2.69	177935	172459	5258.239	5346.670
8)	1-Butanol	4.21	3.18	171494	158196	5130.628	4459.116
9)	2-Butanol	3.40	2.31	160576	157146	5229.487	5487.458

11.5.9 11

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC15883

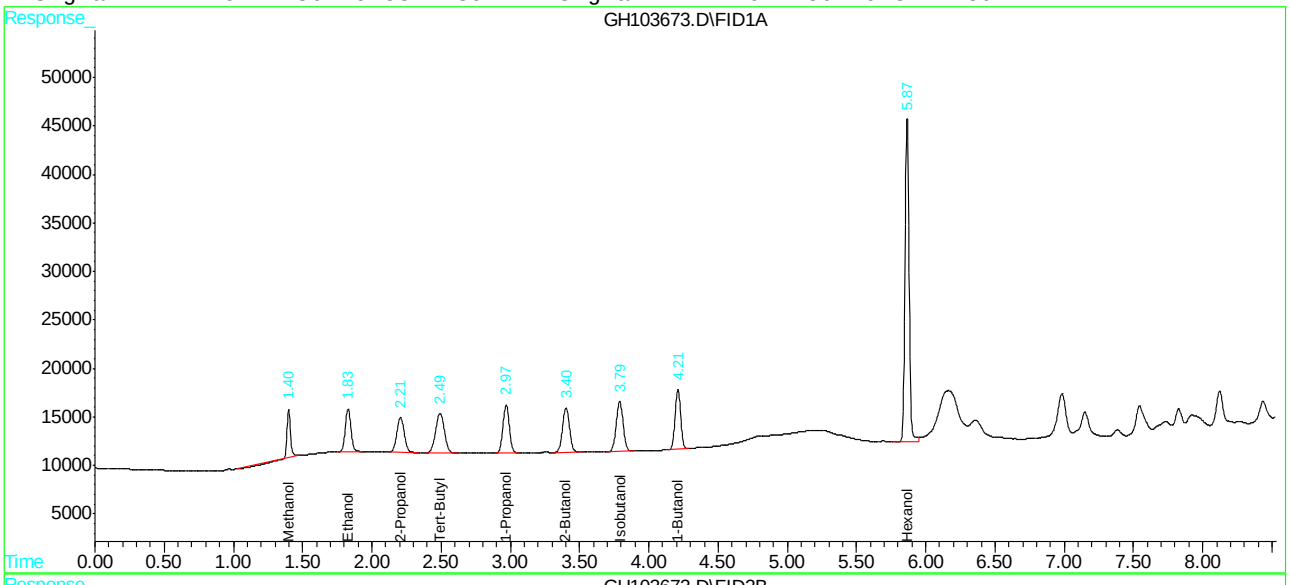
Quantitation Report (QT Reviewed)

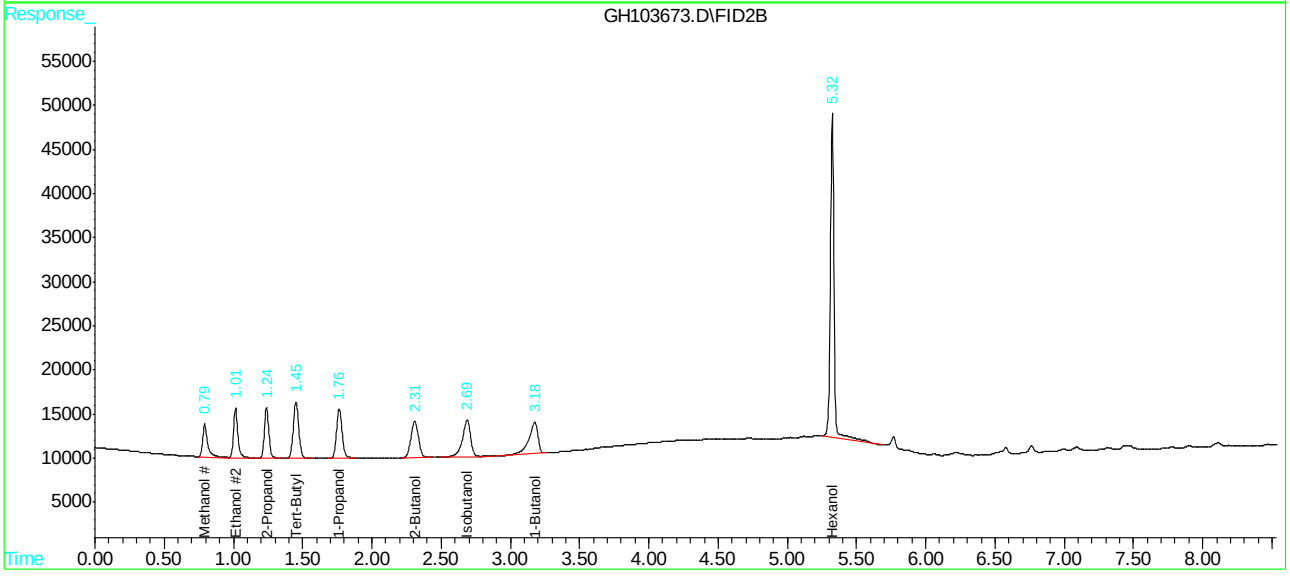
Data File : C:\HPCHEM\1\DATA\GH103673.D\FID1A.CH Vial: 94
Acq On : 11 Mar 2016 8:25 am Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47883,GGH5204,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103673.D\FID2B.CH Vial: 94
Acq On : 11 Mar 2016 8:39 am Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47883,GGH5204,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 11 10:11 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 11 08:58:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103683.D\FID1A.CH          Vial: 95
Acq On    : 11 Mar 2016  11:22 am                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47881,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103683.D\FID2B.CH          Vial: 95
Acq On    : 11 Mar 2016  11:42 am                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47881,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 11 13:27 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.86	5.32	606749	589700	4757.263	4624.395
	Spiked Amount 5000.000			Recovery	=	95.15%	92.49%
	Target Compounds						
1)	Methanol	1.40	0.79	163694	150178	9379.312	8648.745
2)	Ethanol	1.82	1.02	237008	200238	10561.846	9076.281
3)	Tert-Butyl Alcoh	2.49	1.46	340106	311327	9976.067	9733.627
4)	1-Propanol	2.97	1.77	305608	289740	10514.370	10078.774
5)	2-Propanol	2.20	1.24	249882	214049	10166.095	9174.961
7)	Isobutanol	3.78	2.69	354302	332711	10470.137	10314.894
8)	1-Butanol	4.20	3.17	329998	318434	9872.647	8975.828
9)	2-Butanol	3.40	2.32	310392	283673	10108.526	9905.721

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC15883

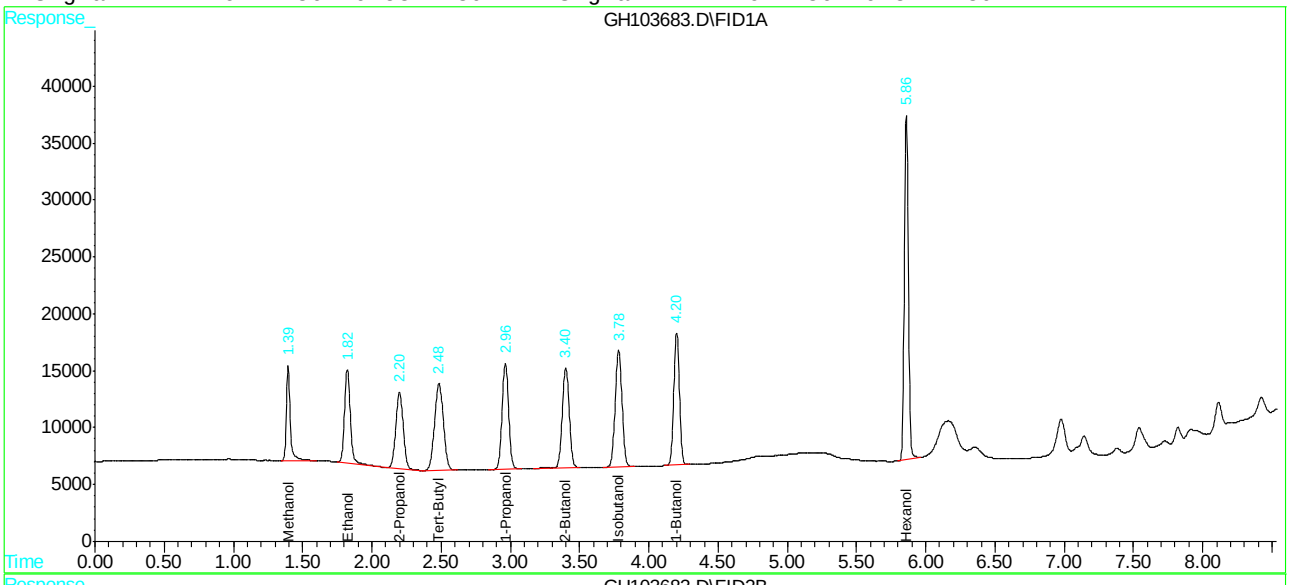
Quantitation Report (QT Reviewed)

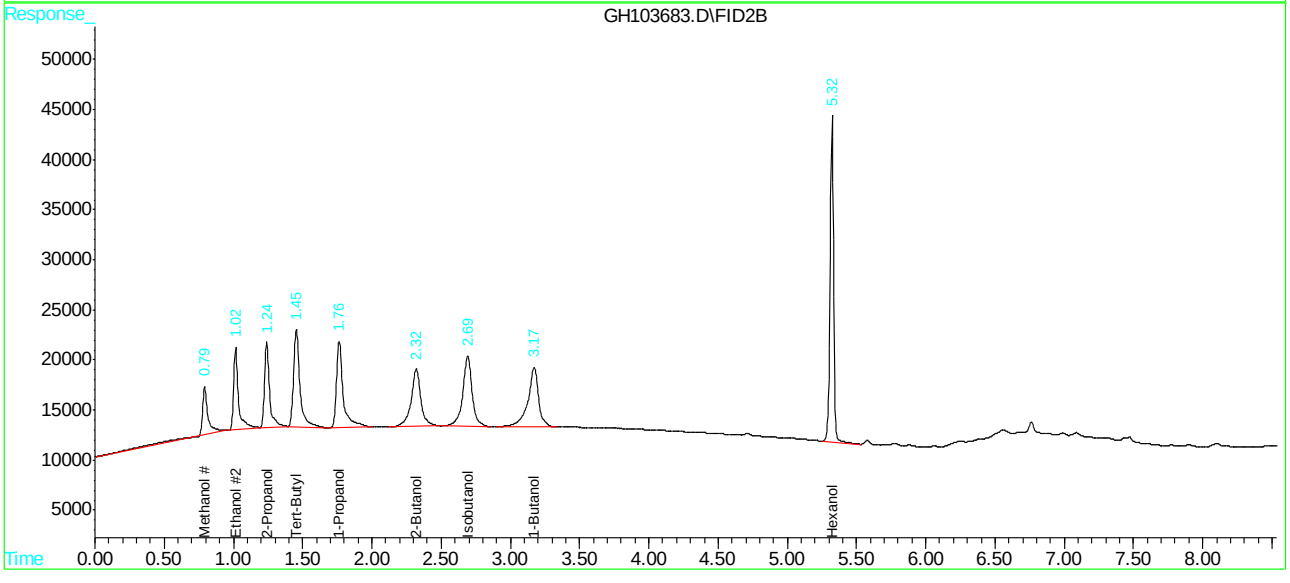
Data File : C:\HPCHEM\1\DATA\GH103683.D\FID1A.CH Vial: 95
Acq On : 11 Mar 2016 11:22 am Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47881,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103683.D\FID2B.CH Vial: 95
Acq On : 11 Mar 2016 11:42 am Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47881,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 11 13:27 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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\GH103694.D\FID1A.CH          Vial: 95
Acq On    : 11 Mar 2016   3:16 pm                     Operator: XULIU
Sample    : CC5193-5000                               Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103694.D\FID2B.CH          Vial: 95
Acq On    : 11 Mar 2016   3:30 pm                     Operator: XULIU
Sample    : CC5193-5000                               Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:19 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.86	5.32	635704	629563	4984.285	4937.001
	Spiked Amount 5000.000			Recovery	=	99.69%	98.74%
	Target Compounds						
1)	Methanol	1.39	0.80	89260	95558	5114.418	5503.170
2)	Ethanol	1.82	1.02	120702	125054	5378.847	5668.355
3)	Tert-Butyl Alcoh	2.48	1.46	201239	176724	5902.795	5525.271
4)	1-Propanol	2.96	1.77	161892	152926	5569.857	5319.632
5)	2-Propanol	2.19	1.25	141540	130289	5758.371	5584.716
7)	Isobutanol	3.78	2.70	181326	166529	5358.446	5162.846
8)	1-Butanol	4.20	3.18	174330	170284	5215.466	4799.862
9)	2-Butanol	3.39	2.31	162064	152001	5277.946	5307.790

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC15883

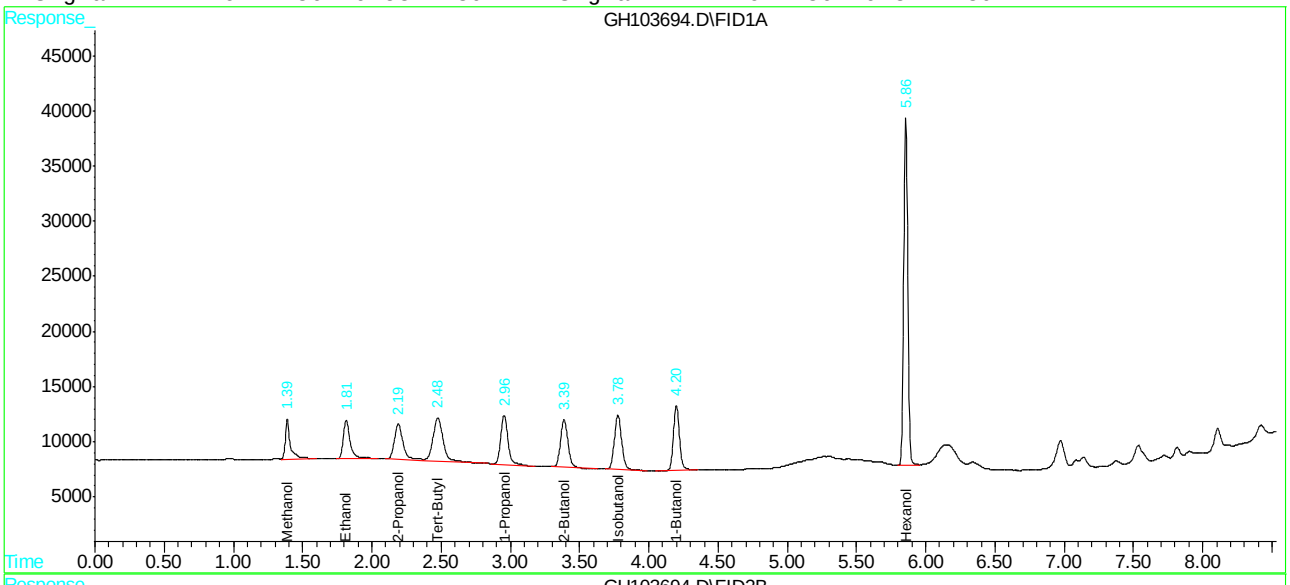
Quantitation Report (QT Reviewed)

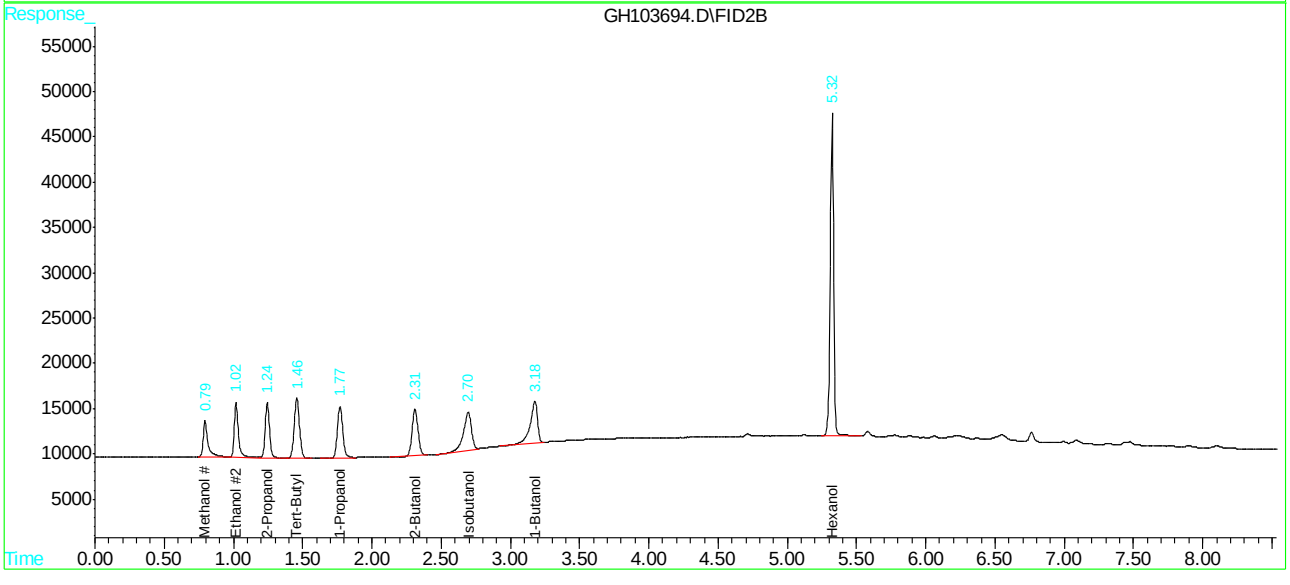
```
Data File : C:\HPCHEM\1\DATA\GH103694.D\FID1A.CH          Vial: 95
Acq On    : 11 Mar 2016   3:16 pm                     Operator: XULIU
Sample    : CC5193-5000                               Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103694.D\FID2B.CH          Vial: 95
Acq On    : 11 Mar 2016   3:30 pm                     Operator: XULIU
Sample    : CC5193-5000                               Inst    : GCGH
Misc      : GC47883,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:19 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.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 JC15883

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103704.D\FID1A.CH          Vial: 9
Acq On    : 11 Mar 2016   6:16 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103704.D\FID2B.CH          Vial: 9
Acq On    : 11 Mar 2016   6:31 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47905,GGH5205,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 14  8:57 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 11 11:46:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.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						
10) S	Hexanol	5.86	5.32	646165	641637	5066.306	5031.683
	Spiked Amount 5000.000			Recovery	=	101.33%	100.63%
	Target Compounds						
1)	Methanol	1.39	0.80	166614	152918	9546.602	8806.575
2)	Ethanol	1.82	1.02	226903	221939	10111.521	10059.930
3)	Tert-Butyl Alcoh	2.48	1.46	336422	320836	9868.004	10030.925
4)	1-Propanol	2.96	1.77	300993	282379	10355.587	9822.721
5)	2-Propanol	2.20	1.24	242851	234889	9880.027	10068.274
7)	Isobutanol	3.78	2.69	347789	337709	10277.671	10469.866
8)	1-Butanol	4.20	3.18	324756	310344	9715.807	8747.773
9)	2-Butanol	3.40	2.32	301489	288891	9818.603	10087.945

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC15883

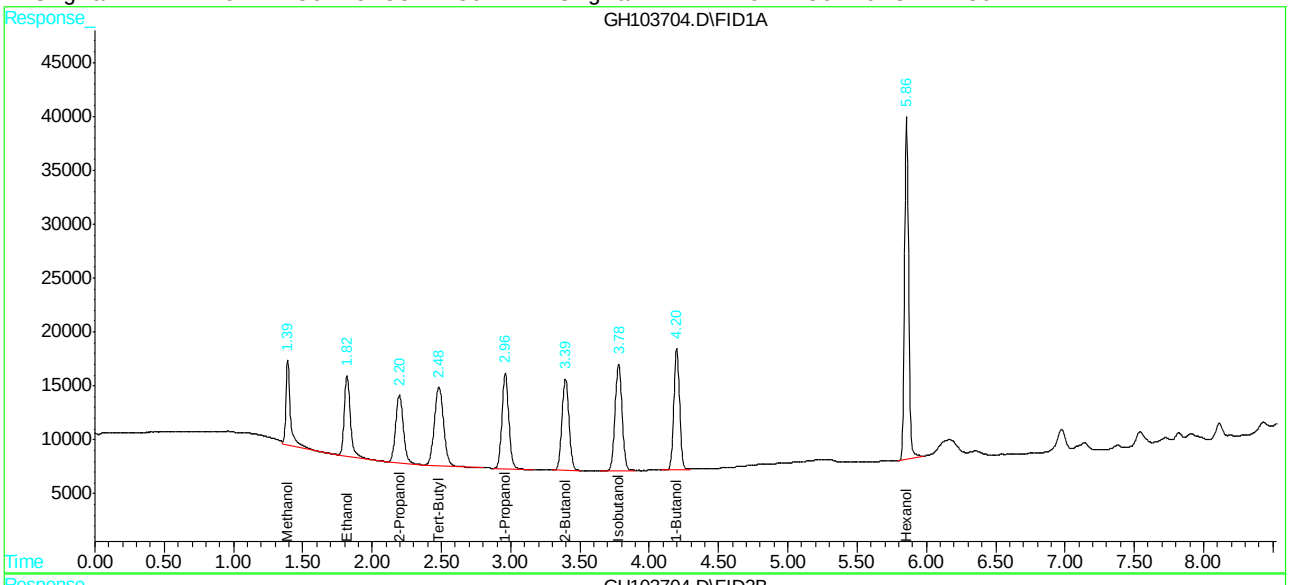
Quantitation Report (QT Reviewed)

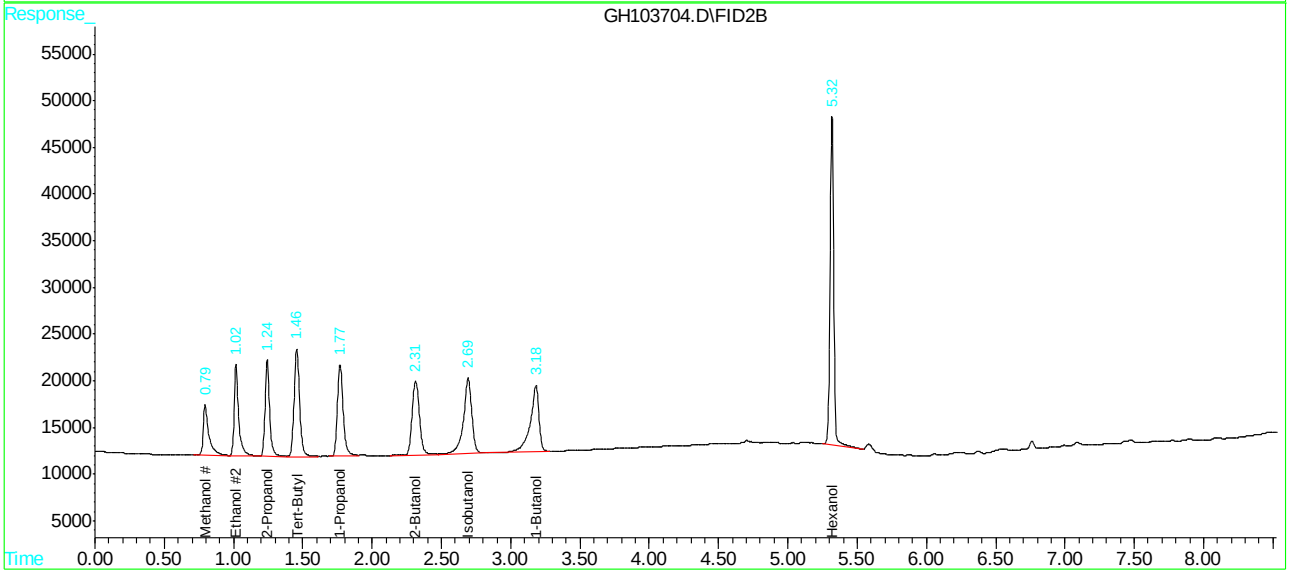
Data File : C:\HPCHEM\1\DATA\GH103704.D\FID1A.CH Vial: 9
Acq On : 11 Mar 2016 6:16 pm Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47905,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103704.D\FID2B.CH Vial: 9
Acq On : 11 Mar 2016 6:31 pm Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47905,GGH5205,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 14 8:57 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 11 11:46:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5193

Print Analyst Name: Xulin

Analyst Signature:

Date: 2/28/16

Columns: 2B6 VO / RTX-1 (30m x0.53 mm x3μm) (30m x0.32mm x3μm)

Method 8015CACC

Initial Cal. Method MGH5193

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015GW0413	ACC Surr (3/15)	2000 ppm
215GW0414	ACC (2U) (3/15)	100 ppm
215GW0415	ACC MD(2) (3/15)	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:** 3/2/16

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
	GH103533	2B					1						OK		
	103534	2C5193-100					1						RR	2nd signal NG	
	103535	2C5193-500					1						RR	1st signal NG	
	103536	2C5193-1000					1						OK	10μl STD, 2μl surr/1ml dw	
	103537	2C5193-5000					1						RR	1st signal NG	
	103538	2C5193-10,000					1						OK	100μl STD, 2.5μl surr/1ml dw	
	103539	2C5193-50,000					1						OK	500μl STD, 3μl surr/1ml dw	
	103540	2C5193-100,000					1						OK	1000μl STD, 4μl surr/1ml dw	
	103541	2C5193-5000					1						OK	50μl STD, 2.5μl surr/1ml dw	
	103542	2C5193-100					1						RR	1st signal NG	
	103543	2C5193-500					1						OK	5μl STD, 1μl surr/1ml dw	
	103544	2C5193-100					1						OK	10μl STD, 4μl surr/10ml dw	
	103545	2C5193-5000					1						OK	50μl STD (2)/1ml dw	

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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.
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Form: OR001-9
Rev. Date: 2/14/2007

11.6.1 11

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: GGH5205 3/11

Print Analyst Name: Xulin

Date: 3/11/16

Analyst Signature:

Columns: 2B644 / RTX-1 (20m x 0.53mm x 3μm) (20m x 0.32mm x 3μm)

Method 8015C ALC

Initial Cal. Method MGH5193

Standard Data

Lot #	Description	Conc.
015W4113	All SNV	2000ppm
015W4114	All STD	100 ppm
015W4115	All STD(2)	100 ppm

Standard Data

Lot #	Description	Conc.

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 3/15/16

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
	GM103669	2B					1					✓	OK		
	103670	CC5193-5000					1						Data not collected, and injector malfunction		
	103671	CC5193-5000					1						N/G	1st signal N/G 50μl STD/mix	
	103672	MB1					1						not run		
	103673	CC5193-5000					1					✓	OK	50μl STD/mix	
	103674	MB2					1					✓	OK		
	103675	BS					1					✓	OK	50μl STD(2)/mix	
	103676	JC15593-1	47886 meth	W W	12		1					✓	OK		✓
	103677	JC15518-1	47883 CoA	W W	5		1					✓	OK		✓
	103678	JC15518-1MS	✓	W W	5		1					✓	OK	50μl STD(2)/mix sample	✓
	103679	JC15518-1MSD	✓	W W	5		1					✓	OK	50μl STD(2)/mix sample	✓
	103680	JC15082-1	47881 MOH	W W	3		1					✓	OK		9
	103681	JC15084-1	✓	W W	5		100μl/mix 50μl/mix	X10³				✓	OK	Turbidity + resin	9
	103682	JC15085-1	✓	W W	8		100μl/mix 50μl/mix	X10³				✓	OK	Turbidity + resin	6
	103683	CC5193-10,000					1					✓	OK	100μl STD/mix	
	103684	MB3					1					✓	OK		
	103685	JC15086-1	47895 Meth	W W	3		100μl/mix 50μl/mix	X10³				✓	OK	Turbidity + resin	6

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Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.
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Form: OR001-9
Rev. Date: 2/14/2007

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11.6.2 11

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5205 (JS) 3/14

Print Analyst Name: Xu Lin

Date: 3/11/16

Analyst Signature:

Columns: ZB624 / RTX-1 (30m x0.53mm x3um) (30m x0.32mm x2um)

Method: 8010/12 ACC

Initial Cal. Method: MGH5193

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	Pg 199	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/15/16

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
	GH103686	JC15518-2	47883 CMA	G W	5		1					✓	ok		✓
	103687	JC15518-3	✓	G W	5		1					✓	ok		✓
	103688	JC15518-4	✓	G W	5		1					✓	ok ~~RR~~	(JS) 3/16 ~~Meth?~~ (JS) 3/16	✓
	103689	JC15518-5	✓	G W	5		1					✓	ok ~~RR~~	(JS) 3/16 ~~Meth?~~ (JS) 3/16	✓
	103690	JC15518-6	✓	G W	5		1					✓	ok ~~RR~~	(JS) 3/16 ~~Meth?~~ (JS) 3/16	✓
	103691	JC15518-7	✓	G W	5		1					✓	ok ~~RR~~	(JS) 3/16 ~~Meth?~~ (JS) 3/16	✓
	103692	JC15518-8	✓	G W	5		1					✓	ok		✓
	103693	CC5193-5000					1					✓	NG	1st signal NG sample/1ml/20	
	103694	CC5193-5000					1					✓	ok	sample/1ml/20	
	103695	JC (JS) 2/14 M334	(JS) 3/11				1					✓	ok		
	103696	JC15518-9	47883 CMA	W G	1		1					✓	ok		6
	103697	JC15883-1	47905 CMA	G W	19		1					✓	ok		✓
	103698	JC15883-1MS	✓	G W	19		1					✓	ok	sample(2)/1ml sample	✓
	103699	JC15883-1MSD	✓	G W	19		1					✓	ok	sample(2)/1ml sample	✓
	103700	JC15883-2	✓	G W	3		1					✓	ok		✓
	103701	JC15883-3	✓	G W	3		1					✓	ok		✓
	103702	JC15883-4	✓	G W	3		1					✓	ok		✓

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Form: OR001-9
Rev. Date: 2/14/2007

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11.6.2 11

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: GGH5205

Print Analyst Name: Xulin

Analyst Signature:

Date: 3/11/16

Columns: ZB624 / RTX-1 (30m x 0.53mm x 3µm) (30m x 0.32mm x 3µm)

Method: 8015C ALL

Initial Cal. Method: MGH5793

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	Pg 199	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 3/11/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (m) or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	GM103703	JC15883-5	47905 CMA	MT	3		1					✓	OK		✓
	103704	CC5193-10.000										✓	OK	100µg/ml/kg	

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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: OR001-9
Rev. Date: 2/14/2007

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SGS ACCUTEST JC15883