New Jersey
ACCUTEST LABORATORIES

07/01/14

Technical Report for

Anderson, Mulholland & Associates

BMS-ICM, Humacao, PR

BM16.00.09 Biopile Closure Subliner

Accutest Job Number: JB69587

Sampling Date: 06/17/14

Report to:

Anderson, Mulholland & Associates

arice@amaiconsult.com

ATTN: Addison Rice

Total number of pages in report: **809**

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Nancy Cole
Laboratory Director

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Sample Summary

Anderson, Mulholland & Associates

Job No: JB69587

BMS-ICM, Humacao, PR
Project No: BM16.00.09 Biopile Closure Subliner

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB69587-1	06/17/14	12:21	NR	06/18/14	SO	Soil	R-2 (0-0.5)
JB69587-2	06/17/14	12:33	NR	06/18/14	SO	Soil	R-1 (0-0.5)
JB69587-3	06/17/14	12:55	NR	06/18/14	SO	Soil	R-3 (0-0.5)
JB69587-4	06/17/14	12:51	NR	06/18/14	SO	Soil	R-4 (0-0.5)
JB69587-5	06/17/14	13:05	NR	06/18/14	SO	Soil	R-12 (0-0.5)
JB69587-6	06/17/14	13:13	NR	06/18/14	SO	Soil	R-5 (0-0.5)
JB69587-7	06/17/14	13:22	NR	06/18/14	SO	Soil	R-6 (0-0.5)
JB69587-8	06/17/14	15:00	NR	06/18/14	SO	Soil	R-7 (0-0.5)
JB69587-9	06/17/14	15:03	NR	06/18/14	SO	Soil	R-7D (0-0.5)
JB69587-10	06/17/14	15:05	NR	06/18/14	AQ	Equipment Blank	EB061714
JB69587-11	06/17/14	15:08	NR	06/18/14	SO	Soil	R-10 (0-0.5)
JB69587-12	06/17/14	15:20	NR	06/18/14	SO	Soil	R-9 (0-0.5)
JB69587-12D	06/17/14	15:26	NR	06/18/14	SO	Soil Dup/MSD	R-9 (0-0.5) MSD

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Anderson, Mulholland & Associates

Job No: JB69587

BMS-ICM, Humacao, PR
Project No: BM16.00.09 Biopile Closure Subliner

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB69587-12S	06/17/14	15:23	NR	06/18/14	SO	Soil Matrix Spike	R-9 (0-0.5) MS
JB69587-13	06/17/14	15:35	NR	06/18/14	SO	Soil	R-11 (0-0.5)
JB69587-14	06/17/14	16:08	NR	06/18/14	SO	Soil	Q1 (0-0.5)
JB69587-15	06/17/14	16:14	NR	06/18/14	SO	Soil	Q2 (0-0.5)
JB69587-16	06/17/14	16:24	NR	06/18/14	SO	Soil	Q3 (0-0.5)
JB69587-17	06/17/14	16:35	NR	06/18/14	SO	Soil	Q4 (0-0.5)
JB69587-18	06/17/14	16:40	NR	06/18/14	AQ	Field Blank Soil	FB061714
JB69587-19	06/17/14	16:40	NR	06/18/14	SO	Trip Blank Soil	TB061714
JB69587-20	06/17/14	16:40	NR	06/18/14	AQ	Trip Blank Soil	TRIP BLANK
JB69587-21	06/17/14	13:51	NR	06/18/14	SO	Soil	R-8 (0-0.5)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Anderson, Mulholland & Associates	**Job No**	JB69587
Site:	BMS-ICM, Humacao, PR	**Report Date**	6/26/2014 5:00:32 PM

On 06/18/2014, 18 Sample(s), 2 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at temperatures of 2.1C/ 1.8 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB69587 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 8260B

Matrix: AQ **Batch ID:** V3A5714

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB69552-11MS, JB69552-11MSD were used as the QC samples indicated.

Matrix: SO **Batch ID:** VA7793

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB69587-3DUP, JB69587-4MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO **Batch ID:** VA7794

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB69700-3MS, JB69959-2DUP, JB69700-3MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Ethylbenzene are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for Duplicate for Benzene, Ethylbenzene, Toluene, Xylene (total) are outside control limits. High RPD due to possible sample analyzed from different vials.

Matrix: SO **Batch ID:** VV6205

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB69587-16MS, JB69587-17DUP were used as the QC samples indicated.

Matrix: SO **Batch ID:** VV6207

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB69587-1MS, JB69587-2DUP were used as the QC samples indicated.

Matrix: SO **Batch ID:** VX6383

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB69587-12MS, JB69587-12MSD were used as the QC samples indicated.

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

Matrix: AQ **Batch ID:** GGH4598

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix: SO **Batch ID:** GGH4595

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB68943-89AMS, JB68943-89AMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO **Batch ID:** GGH4596

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB69587-12MS, JB69587-12MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM2540 G-97

Matrix: SO **Batch ID:** GN6888

- The data for SM2540 G-97 meets quality control requirements.

Matrix: SO **Batch ID:** GN6892

- The data for SM2540 G-97 meets quality control requirements.

Matrix: SO **Batch ID:** GN6976

- The data for SM2540 G-97 meets quality control requirements.

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: JB69587
Account: Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Collected: 06/17/14

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

JB69587-1 **R-2 (0-0.5)**

No hits reported in this sample.

JB69587-2 **R-1 (0-0.5)**

No hits reported in this sample.

JB69587-3 **R-3 (0-0.5)**

No hits reported in this sample.

JB69587-4 **R-4 (0-0.5)**

No hits reported in this sample.

JB69587-5 **R-12 (0-0.5)**

No hits reported in this sample.

JB69587-6 **R-5 (0-0.5)**

No hits reported in this sample.

JB69587-7 **R-6 (0-0.5)**

No hits reported in this sample.

JB69587-8 **R-7 (0-0.5)**

No hits reported in this sample.

JB69587-9 **R-7D (0-0.5)**

No hits reported in this sample.

JB69587-10 **EB061714**

No hits reported in this sample.

JB69587-11 **R-10 (0-0.5)**

No hits reported in this sample.

Summary of Hits

Job Number: JB69587
Account: Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Collected: 06/17/14

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

JB69587-12 **R-9 (0-0.5)**

No hits reported in this sample.

JB69587-13 **R-11 (0-0.5)**

No hits reported in this sample.

JB69587-14 **Q1 (0-0.5)**

No hits reported in this sample.

JB69587-15 **Q2 (0-0.5)**

No hits reported in this sample.

JB69587-16 **Q3 (0-0.5)**

No hits reported in this sample.

JB69587-17 **Q4 (0-0.5)**

No hits reported in this sample.

JB69587-18 **FB061714**

No hits reported in this sample.

JB69587-19 **TB061714**

No hits reported in this sample.

JB69587-20 **TRIP BLANK**

No hits reported in this sample.

JB69587-21 **R-8 (0-0.5)**

No hits reported in this sample.

New Jersey

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Sample Results

Report of Analysis

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	R-2 (0-0.5)		
Lab Sample ID:	JB69587-1	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	94.2
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V145606.D	1	06/23/14	KC	06/18/14 14:00	n/a	VV6207
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.59	0.21	ug/kg	
108-88-3	Toluene	ND	1.2	0.27	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.25	ug/kg	
67-64-1	Acetone	ND	12	2.9	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.9	0.63	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		59-130%
17060-07-0	1,2-Dichloroethane-D4	96%		65-123%
2037-26-5	Toluene-D8	105%		77-125%
460-00-4	4-Bromofluorobenzene	88%		71-132%

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

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	R-2 (0-0.5)		
Lab Sample ID:	JB69587-1	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	94.2
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97017.D	1	06/19/14	XPL	n/a	n/a	GGH4595
Run #2							

	Initial Weight
Run #1	5.2 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	49	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	82%		58-133%
111-27-3	Hexanol	81%		58-133%

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:	R-2 (0-0.5)		
Lab Sample ID:	JB69587-1	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	94.2
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	5.8		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	R-1 (0-0.5)		
Lab Sample ID:	JB69587-2	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	94.0
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V145607.D	1	06/23/14	KC	06/18/14 14:00	n/a	VV6207
Run #2							

	Initial Weight
Run #1	4.8 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.55	0.20	ug/kg	
108-88-3	Toluene	ND	1.1	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.21	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.24	ug/kg	
67-64-1	Acetone	ND	11	2.8	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.5	0.59	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		59-130%
17060-07-0	1,2-Dichloroethane-D4	96%		65-123%
2037-26-5	Toluene-D8	103%		77-125%
460-00-4	4-Bromofluorobenzene	89%		71-132%

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

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	R-1 (0-0.5)		
Lab Sample ID:	JB69587-2	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	94.0
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97018.D	1	06/19/14	XPL	n/a	n/a	GGH4595
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	210	51	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	89%		58-133%
111-27-3	Hexanol	87%		58-133%

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:	R-1 (0-0.5)		
Lab Sample ID:	JB69587-2	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	94.0
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	6		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	R-3 (0-0.5)		
Lab Sample ID:	JB69587-3	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	93.5
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A206661.D	1	06/22/14	CM	06/18/14 14:00	n/a	VA7793
Run #2							

	Initial Weight
Run #1	4.4 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.61	0.22	ug/kg	
108-88-3	Toluene	ND	1.2	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.26	ug/kg	
67-64-1	Acetone	ND	12	3.0	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.1	0.65	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		59-130%
17060-07-0	1,2-Dichloroethane-D4	108%		65-123%
2037-26-5	Toluene-D8	113%		77-125%
460-00-4	4-Bromofluorobenzene	108%		71-132%

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

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	R-3 (0-0.5)		
Lab Sample ID:	JB69587-3	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	93.5
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97019.D	1	06/19/14	XPL	n/a	n/a	GGH4595
Run #2							

	Initial Weight
Run #1	5.3 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	48	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	90%		58-133%
111-27-3	Hexanol	90%		58-133%

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:	R-3 (0-0.5)		
Lab Sample ID:	JB69587-3	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	93.5
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	6.5		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	R-4 (0-0.5)		
Lab Sample ID:	JB69587-4	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	95.7
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A206662.D	1	06/22/14	CM	06/18/14 14:00	n/a	VA7793
Run #2							

	Initial Weight
Run #1	5.7 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.46	0.16	ug/kg	
108-88-3	Toluene	ND	0.92	0.21	ug/kg	
100-41-4	Ethylbenzene	ND	0.92	0.18	ug/kg	
1330-20-7	Xylene (total)	ND	0.92	0.20	ug/kg	
67-64-1	Acetone	ND	9.2	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	4.6	0.49	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		59-130%
17060-07-0	1,2-Dichloroethane-D4	102%		65-123%
2037-26-5	Toluene-D8	107%		77-125%
460-00-4	4-Bromofluorobenzene	104%		71-132%

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

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Report of Analysis

Client Sample ID:	R-4 (0-0.5)		
Lab Sample ID:	JB69587-4	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	95.7
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97020.D	1	06/19/14	XPL	n/a	n/a	GGH4595
Run #2							

	Initial Weight
Run #1	5.1 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	49	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	106%		58-133%
111-27-3	Hexanol	101%		58-133%

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:	R-4 (0-0.5)		
Lab Sample ID:	JB69587-4	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	95.7
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	4.3		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	R-12 (0-0.5)		
Lab Sample ID:	JB69587-5	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	91.3
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A206663.D	1	06/22/14	CM	06/18/14 14:00	n/a	VA7793
Run #2							

	Initial Weight
Run #1	4.9 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.56	0.20	ug/kg	
108-88-3	Toluene	ND	1.1	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.22	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.24	ug/kg	
67-64-1	Acetone	ND	11	2.8	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.6	0.60	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		59-130%
17060-07-0	1,2-Dichloroethane-D4	106%		65-123%
2037-26-5	Toluene-D8	109%		77-125%
460-00-4	4-Bromofluorobenzene	106%		71-132%

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

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Report of Analysis

Client Sample ID:	R-12 (0-0.5)		
Lab Sample ID:	JB69587-5	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	91.3
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97021.D	1	06/19/14	XPL	n/a	n/a	GGH4595
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	220	52	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	102%		58-133%
111-27-3	Hexanol	98%		58-133%

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:	R-12 (0-0.5)		
Lab Sample ID:	JB69587-5	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	91.3
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	8.7		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	R-5 (0-0.5)		
Lab Sample ID:	JB69587-6	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	95.2
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A206664.D	1	06/22/14	CM	06/18/14 14:00	n/a	VA7793
Run #2							

	Initial Weight
Run #1	4.7 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.56	0.20	ug/kg	
108-88-3	Toluene	ND	1.1	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.22	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.24	ug/kg	
67-64-1	Acetone	ND	11	2.8	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.6	0.60	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		59-130%
17060-07-0	1,2-Dichloroethane-D4	104%		65-123%
2037-26-5	Toluene-D8	109%		77-125%
460-00-4	4-Bromofluorobenzene	107%		71-132%

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

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Report of Analysis

Client Sample ID:	R-5 (0-0.5)		
Lab Sample ID:	JB69587-6	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	95.2
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97022.D	1	06/19/14	XPL	n/a	n/a	GGH4595
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	210	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	104%		58-133%
111-27-3	Hexanol	101%		58-133%

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:	R-5 (0-0.5)		
Lab Sample ID:	JB69587-6	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	95.2
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	4.8		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	R-6 (0-0.5)		
Lab Sample ID:	JB69587-7	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	94.7
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A206683.D	1	06/23/14	CM	06/18/14 14:00	n/a	VA7793
Run #2							

	Initial Weight
Run #1	4.8 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.55	0.19	ug/kg	
108-88-3	Toluene	ND	1.1	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.21	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.24	ug/kg	
67-64-1	Acetone	ND	11	2.7	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.5	0.59	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		59-130%
17060-07-0	1,2-Dichloroethane-D4	108%		65-123%
2037-26-5	Toluene-D8	110%		77-125%
460-00-4	4-Bromofluorobenzene	104%		71-132%

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

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Report of Analysis

Client Sample ID:	R-6 (0-0.5)		
Lab Sample ID:	JB69587-7	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	94.7
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97023.D	1	06/19/14	XPL	n/a	n/a	GGH4595
Run #2							

	Initial Weight
Run #1	5.1 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	210	49	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	103%		58-133%
111-27-3	Hexanol	102%		58-133%

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:	R-6 (0-0.5)		
Lab Sample ID:	JB69587-7	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	94.7
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	5.3		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	R-7 (0-0.5)		
Lab Sample ID:	JB69587-8	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	96.7
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X147703.D	1	06/21/14	KC	06/18/14 14:00	n/a	VX6383
Run #2							

	Initial Weight
Run #1	4.2 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.62	0.22	ug/kg	
108-88-3	Toluene	ND	1.2	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.24	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.26	ug/kg	
67-64-1	Acetone	ND	12	3.1	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.2	0.66	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		59-130%
17060-07-0	1,2-Dichloroethane-D4	99%		65-123%
2037-26-5	Toluene-D8	121%		77-125%
460-00-4	4-Bromofluorobenzene	118%		71-132%

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

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Report of Analysis

Client Sample ID:	R-7 (0-0.5)		
Lab Sample ID:	JB69587-8	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	96.7
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97024.D	1	06/19/14	XPL	n/a	n/a	GGH4595
Run #2							

	Initial Weight
Run #1	5.1 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	48	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	103%		58-133%
111-27-3	Hexanol	100%		58-133%

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:	R-7 (0-0.5)		
Lab Sample ID:	JB69587-8	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	96.7
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	3.3		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	R-7D (0-0.5)		
Lab Sample ID:	JB69587-9	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	96.4
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X147704.D	1	06/21/14	KC	06/18/14 14:00	n/a	VX6383
Run #2							

	Initial Weight
Run #1	3.9 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.66	0.24	ug/kg	
108-88-3	Toluene	ND	1.3	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.26	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.29	ug/kg	
67-64-1	Acetone	ND	13	3.3	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.6	0.71	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		59-130%
17060-07-0	1,2-Dichloroethane-D4	100%		65-123%
2037-26-5	Toluene-D8	121%		77-125%
460-00-4	4-Bromofluorobenzene	118%		71-132%

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

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Report of Analysis

Client Sample ID:	R-7D (0-0.5)		
Lab Sample ID:	JB69587-9	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	96.4
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97032.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.3 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	47	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	94%		58-133%
111-27-3	Hexanol	94%		58-133%

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:	R-7D (0-0.5)		
Lab Sample ID:	JB69587-9	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	96.4
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	3.6		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	EB061714		
Lab Sample ID:	JB69587-10	**Date Sampled:**	06/17/14
Matrix:	AQ - Equipment Blank	**Date Received:**	06/18/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A132090.D	1	06/22/14	HA	n/a	n/a	V3A5714
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	
67-64-1	Acetone	ND	10	2.6	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		79-120%
17060-07-0	1,2-Dichloroethane-D4	86%		72-123%
2037-26-5	Toluene-D8	98%		78-119%
460-00-4	4-Bromofluorobenzene	95%		74-119%

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

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Report of Analysis

Client Sample ID:	EB061714		
Lab Sample ID:	JB69587-10	**Date Sampled:**	06/17/14
Matrix:	AQ - Equipment Blank	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97052.D	1	06/20/14	XPL	n/a	n/a	GGH4598
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	45	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	71%		48-150%
111-27-3	Hexanol	78%		48-150%

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

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Report of Analysis

Client Sample ID:	R-10 (0-0.5)		
Lab Sample ID:	JB69587-11	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	96.9
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V145611.D	1	06/23/14	KC	06/18/14 14:00	n/a	VV6207
Run #2							

	Initial Weight
Run #1	3.7 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.70	0.25	ug/kg	
108-88-3	Toluene	ND	1.4	0.32	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.27	ug/kg	
1330-20-7	Xylene (total)	ND	1.4	0.30	ug/kg	
67-64-1	Acetone	ND	14	3.5	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	7.0	0.75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		59-130%
17060-07-0	1,2-Dichloroethane-D4	98%		65-123%
2037-26-5	Toluene-D8	104%		77-125%
460-00-4	4-Bromofluorobenzene	89%		71-132%

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

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Report of Analysis

Client Sample ID:	R-10 (0-0.5)		
Lab Sample ID:	JB69587-11	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	96.9
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97031.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	210	49	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	97%		58-133%
111-27-3	Hexanol	105%		58-133%

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:	R-10 (0-0.5)		
Lab Sample ID:	JB69587-11	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	96.9
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	3.1		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	R-9 (0-0.5)		
Lab Sample ID:	JB69587-12	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	96.0
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X147671.D	1	06/20/14	KC	06/18/14 14:00	n/a	VX6383
Run #2							

	Initial Weight
Run #1	4.6 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.57	0.20	ug/kg	
108-88-3	Toluene	ND	1.1	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.22	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.24	ug/kg	
67-64-1	Acetone	ND	11	2.8	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.7	0.61	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		59-130%
17060-07-0	1,2-Dichloroethane-D4	100%		65-123%
2037-26-5	Toluene-D8	119%		77-125%
460-00-4	4-Bromofluorobenzene	121%		71-132%

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

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Report of Analysis

Client Sample ID:	R-9 (0-0.5)		
Lab Sample ID:	JB69587-12	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	96.0
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97028.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	210	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	78%		58-133%
111-27-3	Hexanol	77%		58-133%

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:	R-9 (0-0.5)		
Lab Sample ID:	JB69587-12	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	96.0
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	4		%	1	06/19/14 12:30	NR	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	R-11 (0-0.5)		
Lab Sample ID:	JB69587-13	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	95.0
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V145612.D	1	06/23/14	KC	06/18/14 14:00	n/a	VV6207
Run #2							

	Initial Weight
Run #1	4.1 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.64	0.23	ug/kg	
108-88-3	Toluene	ND	1.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.28	ug/kg	
67-64-1	Acetone	ND	13	3.2	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.4	0.69	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		59-130%
17060-07-0	1,2-Dichloroethane-D4	97%		65-123%
2037-26-5	Toluene-D8	106%		77-125%
460-00-4	4-Bromofluorobenzene	87%		71-132%

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

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Report of Analysis

Client Sample ID:	R-11 (0-0.5)		
Lab Sample ID:	JB69587-13	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	95.0
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97033.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.1 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	210	49	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	105%		58-133%
111-27-3	Hexanol	102%		58-133%

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:	R-11 (0-0.5)		
Lab Sample ID:	JB69587-13	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	95.0
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	5		%	1	06/20/14 11:35	AC	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	Q1 (0-0.5)		
Lab Sample ID:	JB69587-14	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	94.8
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A206684.D	1	06/23/14	CM	06/18/14 14:00	n/a	VA7793
Run #2							

	Initial Weight
Run #1	4.9 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.54	0.19	ug/kg	
108-88-3	Toluene	ND	1.1	0.25	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.21	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.23	ug/kg	
67-64-1	Acetone	ND	11	2.7	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.4	0.58	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		59-130%
17060-07-0	1,2-Dichloroethane-D4	107%		65-123%
2037-26-5	Toluene-D8	109%		77-125%
460-00-4	4-Bromofluorobenzene	107%		71-132%

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

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Report of Analysis

Client Sample ID:	Q1 (0-0.5)		
Lab Sample ID:	JB69587-14	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	94.8
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97034.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.2 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	48	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	99%		58-133%
111-27-3	Hexanol	102%		58-133%

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:	Q1 (0-0.5)		
Lab Sample ID:	JB69587-14	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	94.8
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	5.2		%	1	06/20/14 11:35	AC	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	Q2 (0-0.5)		
Lab Sample ID:	JB69587-15	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	94.7
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A206685.D	1	06/23/14	CM	06/18/14 14:00	n/a	VA7793
Run #2							

	Initial Weight
Run #1	4.9 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.54	0.19	ug/kg	
108-88-3	Toluene	ND	1.1	0.25	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.21	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.23	ug/kg	
67-64-1	Acetone	ND	11	2.7	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.4	0.58	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		59-130%
17060-07-0	1,2-Dichloroethane-D4	109%		65-123%
2037-26-5	Toluene-D8	108%		77-125%
460-00-4	4-Bromofluorobenzene	105%		71-132%

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

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Report of Analysis

Client Sample ID:	Q2 (0-0.5)		
Lab Sample ID:	JB69587-15	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	94.7
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97037.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.5 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	190	46	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	102%		58-133%
111-27-3	Hexanol	101%		58-133%

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:	Q2 (0-0.5)		
Lab Sample ID:	JB69587-15	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	94.7
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	5.3		%	1	06/20/14 11:35	AC	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	Q3 (0-0.5)		
Lab Sample ID:	JB69587-16	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	91.6
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V145542.D	1	06/20/14	KC	06/18/14 14:00	n/a	VV6205
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.55	0.19	ug/kg	
108-88-3	Toluene	ND	1.1	0.25	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.21	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.23	ug/kg	
67-64-1	Acetone	ND	11	2.7	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.5	0.58	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		59-130%
17060-07-0	1,2-Dichloroethane-D4	104%		65-123%
2037-26-5	Toluene-D8	109%		77-125%
460-00-4	4-Bromofluorobenzene	94%		71-132%

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

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

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Report of Analysis

Client Sample ID:	Q3 (0-0.5)		
Lab Sample ID:	JB69587-16	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	91.6
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97038.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	220	52	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	105%		58-133%
111-27-3	Hexanol	101%		58-133%

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:	Q3 (0-0.5)		
Lab Sample ID:	JB69587-16	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	91.6
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	8.4		%	1	06/20/14 11:35	AC	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	Q4 (0-0.5)		
Lab Sample ID:	JB69587-17	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	91.4
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V145543.D	1	06/20/14	KC	06/18/14 14:00	n/a	VV6205
Run #2							

	Initial Weight
Run #1	5.2 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.53	0.19	ug/kg	
108-88-3	Toluene	ND	1.1	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.23	ug/kg	
67-64-1	Acetone	ND	11	2.6	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.3	0.56	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		59-130%
17060-07-0	1,2-Dichloroethane-D4	101%		65-123%
2037-26-5	Toluene-D8	109%		77-125%
460-00-4	4-Bromofluorobenzene	95%		71-132%

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

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Report of Analysis

Client Sample ID:	Q4 (0-0.5)		
Lab Sample ID:	JB69587-17	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	91.4
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97039.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	220	52	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	99%		58-133%
111-27-3	Hexanol	95%		58-133%

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:	Q4 (0-0.5)		
Lab Sample ID:	JB69587-17	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	91.4
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	8.6		%	1	06/20/14 11:35	AC	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	FB061714		
Lab Sample ID:	JB69587-18	**Date Sampled:**	06/17/14
Matrix:	AQ - Field Blank Soil	**Date Received:**	06/18/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A132091.D	1	06/22/14	HA	n/a	n/a	V3A5714
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	
67-64-1	Acetone	ND	10	2.6	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		79-120%
17060-07-0	1,2-Dichloroethane-D4	85%		72-123%
2037-26-5	Toluene-D8	97%		78-119%
460-00-4	4-Bromofluorobenzene	95%		74-119%

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

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Report of Analysis

Client Sample ID:	FB061714		
Lab Sample ID:	JB69587-18	**Date Sampled:**	06/17/14
Matrix:	AQ - Field Blank Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97053.D	1	06/20/14	XPL	n/a	n/a	GGH4598
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	45	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	98%		48-150%
111-27-3	Hexanol	94%		48-150%

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

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	TB061714		
Lab Sample ID:	JB69587-19	**Date Sampled:**	06/17/14
Matrix:	SO - Trip Blank Soil	**Date Received:**	06/18/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A206694.D	1	06/23/14	CM	n/a	n/a	VA7794
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.18	ug/kg	
108-88-3	Toluene	ND	1.0	0.23	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/kg	
67-64-1	Acetone	ND	10	2.5	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.54	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		59-130%
17060-07-0	1,2-Dichloroethane-D4	103%		65-123%
2037-26-5	Toluene-D8	109%		77-125%
460-00-4	4-Bromofluorobenzene	105%		71-132%

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

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JB69587-20	**Date Sampled:**	06/17/14
Matrix:	AQ - Trip Blank Soil	**Date Received:**	06/18/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A132092.D	1	06/22/14	HA	n/a	n/a	V3A5714
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	
67-64-1	Acetone	ND	10	2.6	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		79-120%
17060-07-0	1,2-Dichloroethane-D4	87%		72-123%
2037-26-5	Toluene-D8	97%		78-119%
460-00-4	4-Bromofluorobenzene	95%		74-119%

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

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	R-8 (0-0.5)		
Lab Sample ID:	JB69587-21	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846 8260B SW846 5035	**Percent Solids:**	96.6
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V145544.D	1	06/20/14	KC	06/18/14 14:00	n/a	VV6205
Run #2							

	Initial Weight
Run #1	4.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.65	0.23	ug/kg	
108-88-3	Toluene	ND	1.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.28	ug/kg	
67-64-1	Acetone	ND	13	3.2	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	0.69	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		59-130%
17060-07-0	1,2-Dichloroethane-D4	104%		65-123%
2037-26-5	Toluene-D8	107%		77-125%
460-00-4	4-Bromofluorobenzene	93%		71-132%

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

Accutest LabLink@802508 09:45 01-Jul-2014

Report of Analysis

Client Sample ID:	R-8 (0-0.5)		
Lab Sample ID:	JB69587-21	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
Method:	SW846-8015C (DAI)	**Percent Solids:**	96.6
Project:	BMS-ICM, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH97040.D	1	06/19/14	XPL	n/a	n/a	GGH4596
Run #2							

	Initial Weight
Run #1	5.1 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	48	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	101%		58-133%
111-27-3	Hexanol	100%		58-133%

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:	R-8 (0-0.5)		
Lab Sample ID:	JB69587-21	**Date Sampled:**	06/17/14
Matrix:	SO - Soil	**Date Received:**	06/18/14
		Percent Solids:	96.6
Project:	BMS-ICM, Humacao, PR		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	3.4		%	1	06/20/14 11:35	AC	SM2540 G-97

RL = Reporting Limit

New Jersey

ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

ACCUTEST LABORATORIES

Foreign Soil SLL SFB STB SSTB

CHAIN OF CUSTODY

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

PAGE 1 OF 2 PNJ

FED-EX Tracking # 7703 3324 6871
Bottle Order Control #
Accutest Quote #
Accutest Job # JB69587

Client / Reporting Information

Company Name: Anderson Mulholland & Assoc.
Street Address: 110 Corporate Park Dr.
City State Zip: White Plains, NY 10604
Project Contact: Terry Taylor
E-mail:
Phone #: 914-251-0400 ext 309
Fax #:
Sampler(s) Name(s): Nestor Rivera
Phone #:

Project Information

Project Name: Biopile Closure Subliner Sampling
Street: Rd #3, Km. 72.5
City State: Humacao, PR
Project #: Bristol-Myers Squibb
Client Purchase Order #:
Project Manager: David Lindstrand

Billing Information (if different from Report to)

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

Requested Analysis (see TEST CODE sheet)

Matrix Codes

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

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOC - See Note	Methanol - D8015	% Moisture								LAB USE ONLY
1	R-2 (0-0.5)		6/17/14	1221	NR	SO	6					3			3	X	X	X								
2	R-1 (0-0.5)			1233												X	X	X								L51
3	R-3 (0-0.5)			1255												X	X	X								1403
4	R-4 (0-0.5)			1251												X	X	X								4955
5	R-12 (0-0.5)			1305												X	X	X								V83
6	R-5 (0-0.5)			1313												X	X	X								
7	R-6 (0-0.5)			1322												X	X	X								
8	R-7 (0-0.5)			1500												X	X	X								
9	R-7D (0-0.5)			1503		SO	6					3			3	X	X	X								
10	EB 061714			1505		LIQ	6	6								X	X									
11	R-10 (0-0.5)			1508		SO	6					3			3	X	X	X								
12	R-9 (0-0.5)		6/17/14	1520	NR	SO	6					3			3	X	X	X								

Turnaround Time (Business days)

- ☐ Std. 10 Business Days
- ☒ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ other _____

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☐ EDD Format _____
- ☐ Other _____

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

Comments / Special Instructions

VOC: Acetone, Benzene, Ethylbenzene, Toluene, Xylene, MIBK

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 Nestor M. Rivera	6/17/14 1732	1 FED EX	2 FED EX	6-18-14 1000	2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 202,204 ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐ Cooler Temp 2.1 2.4

3A

5.1 5

JB69587: Chain of Custody
Page 1 of 4

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
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www.accutest.com

FED-EX Tracking # 7703 3324 6871
Bottle Order Control #
Accutest Quote #
Accutest Job # JB69587

Client / Reporting Information

Company Name: Anderson Mulholland & Assoc.
Street Address: 110 Corporate Park Dr.
City, State, Zip: White Plains, NY 10604
Project Contact: Terry Taylor
E-mail:
Phone #: 914-251-0400 ext 309
Fax #:
Sampler(s) Name(s): Nestor Rivera
Phone #:

Project Information

Project Name: Biopile Closure Subliner Sampling
Street: Rd #3, Km. 77.5
City, State: Humacao PR
Project #: Bristol-Myers Squibb
Client Purchase Order #:
Project Manager: David Lindstrand

Billing Information (if different from Report to)
Company Name:
Street Address:
City, State, Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

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

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOC - see Note	Methanol - D8015	% Moisture									LAB USE ONLY
	R-9MS (0-0.5)		6/17/14	1523	NR	SO	6					3			3	X	X	X									
12	R-9MSD (0-0.5)			1526												X	X	X									
13	R-11 (0-0.5)			1535												X	X	X									
14	Q1 (0-0.5)			1608												X	X	X									
15	Q2 (0-0.5)			1614												X	X	X									
16	Q3 (0-0.5)			1624												X	X	X									
17	Q4 (0-0.5)			1635		SO	6					3			3	X	X	X									
18	FB 061714			1640		Liq	6	6								X	X										
19	TB 061714	2693, 2694	6/17/14	1640	NR	Liq	~~4~~ 2	~~2~~ 2				2				X	X										
20	Trip Blank		6-13-14	0600																							
21	R-8 (0-0.5)		6-17-14	1351			6					3			3												

Turnaround Time (Business days)

- ☐ Std. 10 Business Days
- ☒ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ other _____

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date: 6/18/14

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☐ EDD Format _____
- ☐ Other _____

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

Comments / Special Instructions

VOC: Acetone, Benzene, Ethylbenzene, Toluene, Xylene, MIBK

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	Nestor M. Rivera	6/17/14 1732	FEDEX	2 FEDEX	6-17-14 1000	2
3			3	4		4
5			5			

Custody Seal # 202, 204 ☐ Intact ☐ Not intact
Preserved where applicable ☑
On Ice ☑
Cooler Temp.

JB69587: Chain of Custody
Page 2 of 4

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB69587 **Client:** ANDERSON MULHOLLAND **Project:** BIOPILE CLOSURE SUBLINER SAMPLING

Date / Time Received: 6/18/2014 10:00 **Delivery Method:** FedEx **Airbill #'s:** 7703 3324 6871

Cooler Temps (Initial/Adjusted): #1: (2.1/1.8); #2: (2.4/2.1); 0

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

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

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

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

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

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

Comments Please note for the following issues that Id's and times were written on both the bottle labels and the bottle caps.

1. -4: 2 of 3 bottle caps have time of 13:13, not 12:51. All other Id's, dates, and times were ok.
2. -6: The encore bag is labeled R-4 @ 13:13, the correct id of R-5 was written on the bag and then crossed out.
3. -13: 2 of 3 bottle labels are written as R-7 @ 15:35 yet have R-11 @ 15:35 written on the caps.
4. -20: 2 HCL voa trips blanks were split off from sample -19 which is 2 DI vial trip blanks.
5. -21: Added a complete soil sample R-8(0-0.5) to the Chain.

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB69587 **Initiator:** TIMH

CSR: Sasha May **Response Date:** 6/23/2014

Response:
-4. Sample was collected at 1251.
-6. Encore bag should have been labeled as R-5(0-0.5).
-13. Please use the R-11 (0-0.5) Id.
-19. Item 19 is a trip blank. Keep the VOCs and disregard the analysis for D8015.
-20. Trip blank is no longer needed for D8015METH. No need to run 2nd set of trip blanks.
-21. Please add sample for %MOIST, D8015METH, V8260BTX, VMS+ACE, and VMS+MIBK

All per Nestor Rivera

Accutest Laboratories
V:732.329.0200
2235 US Highway 130
F: 732.329.3499
Dayton, New Jersey
www/accutest.com

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JB69587

BMS-ICM, Humacao, PR
Project No: BM16.00.09 Biopile Closure Subliner

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB69587-1 R-2 (0-0.5)	Collected: 17-JUN-14 12:21 By: NR		Received: 18-JUN-14 By: TH			
JB69587-1	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-1	SW846-8015C (DAI)	19-JUN-14 13:47	XPL			D8015METH
JB69587-1	SW846 8260B	23-JUN-14 15:01	KC			V8260BTX
JB69587-2 R-1 (0-0.5)	Collected: 17-JUN-14 12:33 By: NR		Received: 18-JUN-14 By: TH			
JB69587-2	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-2	SW846-8015C (DAI)	19-JUN-14 14:01	XPL			D8015METH
JB69587-2	SW846 8260B	23-JUN-14 15:30	KC			V8260BTX
JB69587-3 R-3 (0-0.5)	Collected: 17-JUN-14 12:55 By: NR		Received: 18-JUN-14 By: TH			
JB69587-3	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-3	SW846-8015C (DAI)	19-JUN-14 14:15	XPL			D8015METH
JB69587-3	SW846 8260B	22-JUN-14 18:11	CM			V8260BTX
JB69587-4 R-4 (0-0.5)	Collected: 17-JUN-14 12:51 By: NR		Received: 18-JUN-14 By: TH			
JB69587-4	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-4	SW846-8015C (DAI)	19-JUN-14 14:30	XPL			D8015METH
JB69587-4	SW846 8260B	22-JUN-14 18:43	CM			V8260BTX
JB69587-5 R-12 (0-0.5)	Collected: 17-JUN-14 13:05 By: NR		Received: 18-JUN-14 By: TH			
JB69587-5	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-5	SW846-8015C (DAI)	19-JUN-14 14:44	XPL			D8015METH
JB69587-5	SW846 8260B	22-JUN-14 19:14	CM			V8260BTX
JB69587-6 R-5 (0-0.5)	Collected: 17-JUN-14 13:13 By: NR		Received: 18-JUN-14 By: TH			
JB69587-6	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-6	SW846-8015C (DAI)	19-JUN-14 15:04	XPL			D8015METH

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JB69587

BMS-ICM, Humacao, PR
Project No: BM16.00.09 Biopile Closure Subliner

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB69587-6	SW846 8260B	22-JUN-14 19:46	CM			V8260BTX
JB69587-7 R-6 (0-0.5)	Collected: 17-JUN-14 13:22 By: NR		Received: 18-JUN-14 By: TH			
JB69587-7	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-7	SW846-8015C (DAI)	19-JUN-14 15:17	XPL			D8015METH
JB69587-7	SW846 8260B	23-JUN-14 06:39	CM			V8260BTX
JB69587-8 R-7 (0-0.5)	Collected: 17-JUN-14 15:00 By: NR		Received: 18-JUN-14 By: TH			
JB69587-8	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-8	SW846-8015C (DAI)	19-JUN-14 15:32	XPL			D8015METH
JB69587-8	SW846 8260B	21-JUN-14 14:11	KC			V8260BTX
JB69587-9 R-7D (0-0.5)	Collected: 17-JUN-14 15:03 By: NR		Received: 18-JUN-14 By: TH			
JB69587-9	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-9	SW846-8015C (DAI)	19-JUN-14 17:32	XPL			D8015METH
JB69587-9	SW846 8260B	21-JUN-14 14:40	KC			V8260BTX
JB69587-10 EB061714	Collected: 17-JUN-14 15:05 By: NR		Received: 18-JUN-14 By: TH			
JB69587-10	SW846-8015C (DAI)	20-JUN-14 12:10	XPL			D8015METH
JB69587-10	SW846 8260B	22-JUN-14 02:53	HA			V8260BTX
JB69587-11 R-10 (0-0.5)	Collected: 17-JUN-14 15:08 By: NR		Received: 18-JUN-14 By: TH			
JB69587-11	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST
JB69587-11	SW846-8015C (DAI)	19-JUN-14 17:18	XPL			D8015METH
JB69587-11	SW846 8260B	23-JUN-14 17:52	KC			V8260BTX
JB69587-12 R-9 (0-0.5)	Collected: 17-JUN-14 15:20 By: NR		Received: 18-JUN-14 By: TH			
JB69587-12	SM2540 G-97	19-JUN-14 12:30	NR			%MOIST

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JB69587

BMS-ICM, Humacao, PR
Project No: BM16.00.09 Biopile Closure Subliner

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB69587-12	SW846-8015C (DAI)	19-JUN-14 16:28	XPL			D8015METH
JB69587-12	SW846 8260B	20-JUN-14 13:25	KC			V8260BTX
JB69587-13	Collected: 17-JUN-14 15:35 By: NR		Received: 18-JUN-14 By: TH			
R-11 (0-0.5)						
JB69587-13	SW846-8015C (DAI)	19-JUN-14 17:47	XPL			D8015METH
JB69587-13	SM2540 G-97	20-JUN-14 11:35	AC			%MOIST
JB69587-13	SW846 8260B	23-JUN-14 18:21	KC			V8260BTX
JB69587-14	Collected: 17-JUN-14 16:08 By: NR		Received: 18-JUN-14 By: TH			
Q1 (0-0.5)						
JB69587-14	SW846-8015C (DAI)	19-JUN-14 18:01	XPL			D8015METH
JB69587-14	SM2540 G-97	20-JUN-14 11:35	AC			%MOIST
JB69587-14	SW846 8260B	23-JUN-14 07:13	CM			V8260BTX
JB69587-15	Collected: 17-JUN-14 16:14 By: NR		Received: 18-JUN-14 By: TH			
Q2 (0-0.5)						
JB69587-15	SW846-8015C (DAI)	19-JUN-14 18:45	XPL			D8015METH
JB69587-15	SM2540 G-97	20-JUN-14 11:35	AC			%MOIST
JB69587-15	SW846 8260B	23-JUN-14 07:46	CM			V8260BTX
JB69587-16	Collected: 17-JUN-14 16:24 By: NR		Received: 18-JUN-14 By: TH			
Q3 (0-0.5)						
JB69587-16	SW846-8015C (DAI)	19-JUN-14 18:59	XPL			D8015METH
JB69587-16	SM2540 G-97	20-JUN-14 11:35	AC			%MOIST
JB69587-16	SW846 8260B	20-JUN-14 13:25	KC			V8260BTX
JB69587-17	Collected: 17-JUN-14 16:35 By: NR		Received: 18-JUN-14 By: TH			
Q4 (0-0.5)						
JB69587-17	SW846-8015C (DAI)	19-JUN-14 19:14	XPL			D8015METH
JB69587-17	SM2540 G-97	20-JUN-14 11:35	AC			%MOIST
JB69587-17	SW846 8260B	20-JUN-14 13:53	KC			V8260BTX

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JB69587

BMS-ICM, Humacao, PR
Project No: BM16.00.09 Biopile Closure Subliner

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB69587-18	Collected: 17-JUN-14 16:40 By: NR		Received: 18-JUN-14 By: TH			
FB061714						
JB69587-18	SW846-8015C (DAI)	20-JUN-14 12:24	XPL			D8015METH
JB69587-18	SW846 8260B	22-JUN-14 03:24	HA			V8260BTX
JB69587-19	Collected: 17-JUN-14 16:40 By: NR		Received: 18-JUN-14 By: TH			
TB061714						
JB69587-19	SW846 8260B	23-JUN-14 13:00	CM			V8260BTX
JB69587-20	Collected: 17-JUN-14 16:40 By: NR		Received: 18-JUN-14 By: TH			
TRIP BLANK						
JB69587-20	SW846 8260B	22-JUN-14 03:54	HA			V8260BTX
JB69587-21	Collected: 17-JUN-14 13:51 By: NR		Received: 18-JUN-14 By: TH			
R-8 (0-0.5)						
JB69587-21	SW846-8015C (DAI)	19-JUN-14 19:28	XPL			D8015METH
JB69587-21	SM2540 G-97	20-JUN-14 11:35	AC			%MOIST
JB69587-21	SW846 8260B	20-JUN-14 14:22	KC			V8260BTX

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-1.3	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-1.3	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-1.3	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-1.3	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-1.3	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-1.3	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-1.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-1.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-1.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-1.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-1.6	Secured Storage	King Cheng	06/20/14 14:24	Retrieve from Storage
JB69587-1.6	King Cheng	GCMSX	06/20/14 14:24	Load on Instrument
JB69587-1.6	GCMSX	King Cheng	06/23/14 11:28	Unload from Instrument
JB69587-1.6	King Cheng	Secured Storage	06/23/14 11:28	Return to Storage
JB69587-1.6	Secured Storage	King Cheng	06/23/14 12:37	Retrieve from Storage
JB69587-1.6	King Cheng	GCMSV	06/23/14 12:37	Load on Instrument
JB69587-1.6	GCMSV	King Cheng	06/24/14 08:55	Unload from Instrument
JB69587-1.6	King Cheng		06/24/14 08:55	Depleted
JB69587-1.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-1.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-1.7	Secured Storage	King Cheng	06/23/14 15:26	Retrieve from Storage
JB69587-1.7	King Cheng	GCMSV	06/23/14 15:26	Load on Instrument
JB69587-1.7	GCMSV	King Cheng	06/24/14 08:55	Unload from Instrument
JB69587-1.7	King Cheng		06/24/14 08:55	Depleted
JB69587-2.1	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-2.1	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-2.1	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-2.1	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-2.1	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-2.1	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-2.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-2.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-2.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-2.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-2.6	Secured Storage	King Cheng	06/20/14 14:24	Retrieve from Storage
JB69587-2.6	King Cheng	GCMSX	06/20/14 14:24	Load on Instrument
JB69587-2.6	GCMSX	King Cheng	06/23/14 11:28	Unload from Instrument
JB69587-2.6	King Cheng	Secured Storage	06/23/14 11:28	Return to Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-2.6	Secured Storage	King Cheng	06/23/14 12:37	Retrieve from Storage
JB69587-2.6	King Cheng	GCMSV	06/23/14 12:37	Load on Instrument
JB69587-2.6	GCMSV	King Cheng	06/24/14 08:55	Unload from Instrument
JB69587-2.6	King Cheng		06/24/14 08:55	Depleted
JB69587-2.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-2.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-2.7	Secured Storage	King Cheng	06/23/14 15:42	Retrieve from Storage
JB69587-2.7	King Cheng	GCMSV	06/23/14 15:42	Load on Instrument
JB69587-2.7	GCMSV	King Cheng	06/24/14 08:55	Unload from Instrument
JB69587-2.7	King Cheng		06/24/14 08:55	Depleted
JB69587-3.2	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-3.2	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-3.2	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-3.2	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-3.2	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-3.2	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-3.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-3.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-3.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-3.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-3.6	Secured Storage	King Cheng	06/20/14 14:24	Retrieve from Storage
JB69587-3.6	King Cheng	GCMSX	06/20/14 14:24	Load on Instrument
JB69587-3.6	GCMSX	Prashant Shukla	06/22/14 13:43	Unload from Instrument
JB69587-3.6	Prashant Shukla	GCMSA	06/22/14 13:44	Load on Instrument
JB69587-3.6	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-3.6	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-3.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-3.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-3.7	Secured Storage	Prashant Shukla	06/22/14 19:23	Retrieve from Storage
JB69587-3.7	Prashant Shukla	GCMSA	06/22/14 19:23	Load on Instrument
JB69587-3.7	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-3.7	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-4.1	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-4.1	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-4.3	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-4.3	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-4.3	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-4.3	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-4.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-4.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-4.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-4.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-4.6	Secured Storage	King Cheng	06/20/14 14:24	Retrieve from Storage
JB69587-4.6	King Cheng	GCMSX	06/20/14 14:24	Load on Instrument
JB69587-4.6	GCMSX	Prashant Shukla	06/22/14 13:43	Unload from Instrument
JB69587-4.6	Prashant Shukla	GCMSA	06/22/14 13:44	Load on Instrument
JB69587-4.6	GCMSA	Courtney McKenna	06/23/14 15:26	Unload from Instrument
JB69587-4.6	Courtney McKenna		06/23/14 15:27	Depleted
JB69587-4.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-4.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-4.7	Secured Storage	Prashant Shukla	06/22/14 19:23	Retrieve from Storage
JB69587-4.7	Prashant Shukla	GCMSA	06/22/14 19:23	Load on Instrument
JB69587-4.7	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-4.7	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-5.1	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-5.1	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-5.1	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-5.1	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-5.1	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-5.1	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-5.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-5.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-5.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-5.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-5.6	Secured Storage	King Cheng	06/20/14 14:24	Retrieve from Storage
JB69587-5.6	King Cheng	GCMSX	06/20/14 14:24	Load on Instrument
JB69587-5.6	GCMSX	Prashant Shukla	06/22/14 13:43	Unload from Instrument
JB69587-5.6	Prashant Shukla	GCMSA	06/22/14 13:44	Load on Instrument
JB69587-5.6	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-5.6	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-5.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-5.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-6.3	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-6.3	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-6.3	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-6.3	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-6.3	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-6.3	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-6.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-6.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-6.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-6.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-6.6	Secured Storage	King Cheng	06/20/14 14:24	Retrieve from Storage
JB69587-6.6	King Cheng	GCMSX	06/20/14 14:24	Load on Instrument
JB69587-6.6	GCMSX	Prashant Shukla	06/22/14 13:43	Unload from Instrument
JB69587-6.6	Prashant Shukla	GCMSA	06/22/14 13:44	Load on Instrument
JB69587-6.6	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-6.6	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-6.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-6.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-7.3	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-7.3	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-7.3	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-7.3	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-7.3	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-7.3	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-7.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-7.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-7.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-7.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-7.6	Secured Storage	King Cheng	06/20/14 14:24	Retrieve from Storage
JB69587-7.6	King Cheng	GCMSX	06/20/14 14:24	Load on Instrument
JB69587-7.6	GCMSX	Prashant Shukla	06/22/14 18:05	Unload from Instrument
JB69587-7.6	Prashant Shukla	Secured Storage	06/22/14 18:06	Return to Storage
JB69587-7.6	Secured Storage	Prashant Shukla	06/22/14 19:23	Retrieve from Storage
JB69587-7.6	Prashant Shukla	GCMSA	06/22/14 19:23	Load on Instrument
JB69587-7.6	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-7.6	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-7.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-7.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-8.1	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-8.1	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-8.1	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-8.1	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-8.1	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-8.1	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-8.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-8.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-8.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-8.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-8.6	Secured Storage	King Cheng	06/20/14 14:45	Retrieve from Storage
JB69587-8.6	King Cheng	VOA Prep Storage	06/20/14 14:45	Return to Storage
JB69587-8.6	VOA Prep Storage	Thien Nguyen	06/21/14 12:46	Retrieve from Storage
JB69587-8.6	Thien Nguyen	GCMSX	06/21/14 12:46	Load on Instrument
JB69587-8.6	GCMSX	King Cheng	06/23/14 10:02	Unload from Instrument
JB69587-8.6	King Cheng		06/23/14 10:02	Depleted
JB69587-8.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-8.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-8.7	Secured Storage	King Cheng	06/20/14 16:04	Retrieve from Storage
JB69587-8.7	King Cheng	VOA Prep Storage	06/20/14 16:04	Return to Storage
JB69587-8.7	VOA Prep Storage	Thien Nguyen	06/21/14 15:14	Retrieve from Storage
JB69587-8.7	Thien Nguyen	GCMSX	06/21/14 15:14	Load on Instrument
JB69587-8.7	GCMSX	King Cheng	06/23/14 10:02	Unload from Instrument
JB69587-8.7	King Cheng		06/23/14 10:02	Depleted
JB69587-9.2	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-9.2	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-9.2	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-9.2	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-9.2	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-9.2	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-9.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-9.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-9.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-9.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-9.6	Secured Storage	King Cheng	06/20/14 16:04	Retrieve from Storage
JB69587-9.6	King Cheng	VOA Prep Storage	06/20/14 16:04	Return to Storage
JB69587-9.6	VOA Prep Storage	Thien Nguyen	06/21/14 15:14	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-9.6	Thien Nguyen	GCMSX	06/21/14 15:14	Load on Instrument
JB69587-9.6	GCMSX	King Cheng	06/23/14 10:02	Unload from Instrument
JB69587-9.6	King Cheng	Secured Storage	06/23/14 10:03	Return to Storage
JB69587-9.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-9.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-9.7	Secured Storage	King Cheng	06/20/14 14:45	Retrieve from Storage
JB69587-9.7	King Cheng	VOA Prep Storage	06/20/14 14:45	Return to Storage
JB69587-9.7	VOA Prep Storage	Thien Nguyen	06/21/14 12:46	Retrieve from Storage
JB69587-9.7	Thien Nguyen	GCMSX	06/21/14 12:46	Load on Instrument
JB69587-9.7	GCMSX	King Cheng	06/23/14 10:02	Unload from Instrument
JB69587-9.7	King Cheng		06/23/14 10:02	Depleted
JB69587-10.1	Secured Storage	HeeEun Ahn	06/20/14 15:41	Retrieve from Storage
JB69587-10.1	HeeEun Ahn	VOA Prep Storage	06/20/14 15:41	Return to Storage
JB69587-10.1	VOA Prep Storage	Vianna Chau	06/21/14 08:19	Retrieve from Storage
JB69587-10.1	Vianna Chau	GCMS3A	06/21/14 08:19	Load on Instrument
JB69587-10.1	GCMS3A	HeeEun Ahn	06/23/14 11:51	Unload from Instrument
JB69587-10.1	HeeEun Ahn	Secured Storage	06/23/14 11:51	Return to Storage
JB69587-10.3	Secured Storage	Xu Liu	06/20/14 13:30	Retrieve from Storage
JB69587-10.3	Xu Liu	Secured Storage	06/20/14 14:26	Return to Storage
JB69587-11.3	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-11.3	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-11.3	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-11.3	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-11.3	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-11.3	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-11.5	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-11.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-11.6	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-11.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-11.6	Secured Storage	King Cheng	06/20/14 14:45	Retrieve from Storage
JB69587-11.6	King Cheng	VOA Prep Storage	06/20/14 14:45	Return to Storage
JB69587-11.6	VOA Prep Storage	Thien Nguyen	06/21/14 12:46	Retrieve from Storage
JB69587-11.6	Thien Nguyen	GCMSX	06/21/14 12:46	Load on Instrument
JB69587-11.6	GCMSX	King Cheng	06/23/14 10:02	Unload from Instrument
JB69587-11.6	King Cheng		06/23/14 10:02	Depleted
JB69587-11.7	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-11.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-11.7	Secured Storage	King Cheng	06/20/14 16:04	Retrieve from Storage
JB69587-11.7	King Cheng	VOA Prep Storage	06/20/14 16:04	Return to Storage
JB69587-11.7	VOA Prep Storage	King Cheng	06/23/14 11:29	Retrieve from Storage
JB69587-11.7	King Cheng	Secured Storage	06/23/14 11:29	Return to Storage
JB69587-11.7	Secured Storage	King Cheng	06/23/14 15:19	Retrieve from Storage
JB69587-11.7	King Cheng	GCMSV	06/23/14 15:19	Load on Instrument
JB69587-11.7	GCMSV	King Cheng	06/24/14 08:55	Unload from Instrument
JB69587-11.7	King Cheng		06/24/14 08:55	Depleted
JB69587-12.1	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-12.1	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-12.8	Secured Storage	Todd Shoemaker	06/19/14 10:53	Retrieve from Storage
JB69587-12.8	Todd Shoemaker	Secured Staging Area	06/19/14 10:53	Return to Storage
JB69587-12.8	Secured Staging Area	Nicole Reiff	06/19/14 11:01	Retrieve from Storage
JB69587-12.8	Nicole Reiff	Secured Storage	06/19/14 12:23	Return to Storage
JB69587-12.11	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-12.11	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-12.12	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-12.12	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-12.13	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-12.13	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-12.14	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-12.14	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-12.15	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-12.15	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-12.15	Secured Storage	King Cheng	06/20/14 10:43	Retrieve from Storage
JB69587-12.15	King Cheng	GCMSX	06/20/14 10:43	Load on Instrument
JB69587-12.15	GCMSX	King Cheng	06/23/14 11:30	Unload from Instrument
JB69587-12.15	King Cheng		06/23/14 11:30	Depleted
JB69587-12.16	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-12.16	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-12.16	Secured Storage	King Cheng	06/20/14 10:43	Retrieve from Storage
JB69587-12.16	King Cheng	GCMSX	06/20/14 10:43	Load on Instrument
JB69587-12.16	GCMSX	King Cheng	06/23/14 11:30	Unload from Instrument
JB69587-12.16	King Cheng		06/23/14 11:30	Depleted
JB69587-12.17	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-12.17	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-12.18	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-12.18	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-12.18	Secured Storage	King Cheng	06/20/14 10:43	Retrieve from Storage
JB69587-12.18	King Cheng	GCMSX	06/20/14 10:43	Load on Instrument
JB69587-12.18	GCMSX	King Cheng	06/23/14 11:30	Unload from Instrument
JB69587-12.18	King Cheng		06/23/14 11:30	Depleted
JB69587-12.19	Secured Storage	Jayna Patel	06/18/14 14:27	Retrieve from Storage
JB69587-12.19	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-13.1	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-13.1	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-13.2	Secured Storage	Gage Donahue	06/20/14 10:01	Retrieve from Storage
JB69587-13.2	Gage Donahue	Secured Staging Area	06/20/14 10:01	Return to Storage
JB69587-13.2	Secured Staging Area	Andrew Csimbok	06/20/14 10:06	Retrieve from Storage
JB69587-13.2	Andrew Csimbok	Secured Storage	06/20/14 11:37	Return to Storage
JB69587-13.5	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-13.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-13.6	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-13.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-13.6	Secured Storage	King Cheng	06/20/14 14:45	Retrieve from Storage
JB69587-13.6	King Cheng	VOA Prep Storage	06/20/14 14:45	Return to Storage
JB69587-13.6	VOA Prep Storage	Thien Nguyen	06/21/14 12:46	Retrieve from Storage
JB69587-13.6	Thien Nguyen	GCMSX	06/21/14 12:46	Load on Instrument
JB69587-13.6	GCMSX	King Cheng	06/23/14 10:02	Unload from Instrument
JB69587-13.6	King Cheng		06/23/14 10:02	Depleted
JB69587-13.7	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-13.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-13.7	Secured Storage	King Cheng	06/20/14 16:04	Retrieve from Storage
JB69587-13.7	King Cheng	VOA Prep Storage	06/20/14 16:04	Return to Storage
JB69587-13.7	VOA Prep Storage	King Cheng	06/23/14 11:29	Retrieve from Storage
JB69587-13.7	King Cheng	Secured Storage	06/23/14 11:29	Return to Storage
JB69587-13.7	Secured Storage	King Cheng	06/23/14 15:19	Retrieve from Storage
JB69587-13.7	King Cheng	GCMSV	06/23/14 15:19	Load on Instrument
JB69587-13.7	GCMSV	King Cheng	06/24/14 08:55	Unload from Instrument
JB69587-13.7	King Cheng		06/24/14 08:55	Depleted
JB69587-14.2	Secured Storage	Gage Donahue	06/20/14 10:01	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-14.2	Gage Donahue	Secured Staging Area	06/20/14 10:01	Return to Storage
JB69587-14.2	Secured Staging Area	Andrew Csimbok	06/20/14 10:06	Retrieve from Storage
JB69587-14.2	Andrew Csimbok	Secured Storage	06/20/14 11:37	Return to Storage
JB69587-14.3	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-14.3	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-14.5	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-14.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-14.6	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-14.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-14.6	Secured Storage	King Cheng	06/20/14 14:45	Retrieve from Storage
JB69587-14.6	King Cheng	VOA Prep Storage	06/20/14 14:45	Return to Storage
JB69587-14.6	VOA Prep Storage	Thien Nguyen	06/21/14 12:46	Retrieve from Storage
JB69587-14.6	Thien Nguyen	GCMSX	06/21/14 12:46	Load on Instrument
JB69587-14.6	GCMSX	Prashant Shukla	06/22/14 18:05	Unload from Instrument
JB69587-14.6	Prashant Shukla	Secured Storage	06/22/14 18:06	Return to Storage
JB69587-14.6	Secured Storage	Prashant Shukla	06/22/14 19:23	Retrieve from Storage
JB69587-14.6	Prashant Shukla	GCMSA	06/22/14 19:23	Load on Instrument
JB69587-14.6	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-14.6	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-14.7	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-14.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-15.2	Secured Storage	Gage Donahue	06/20/14 10:01	Retrieve from Storage
JB69587-15.2	Gage Donahue	Secured Staging Area	06/20/14 10:01	Return to Storage
JB69587-15.2	Secured Staging Area	Andrew Csimbok	06/20/14 10:06	Retrieve from Storage
JB69587-15.2	Andrew Csimbok	Secured Storage	06/20/14 11:37	Return to Storage
JB69587-15.3	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-15.3	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-15.5	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-15.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-15.6	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-15.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-15.6	Secured Storage	King Cheng	06/20/14 14:45	Retrieve from Storage
JB69587-15.6	King Cheng	VOA Prep Storage	06/20/14 14:45	Return to Storage
JB69587-15.6	VOA Prep Storage	Thien Nguyen	06/21/14 12:46	Retrieve from Storage
JB69587-15.6	Thien Nguyen	GCMSX	06/21/14 12:46	Load on Instrument
JB69587-15.6	GCMSX	Prashant Shukla	06/22/14 18:05	Unload from Instrument

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-15.6	Prashant Shukla	Secured Storage	06/22/14 18:06	Return to Storage
JB69587-15.6	Secured Storage	Prashant Shukla	06/22/14 19:23	Retrieve from Storage
JB69587-15.6	Prashant Shukla	GCMSA	06/22/14 19:23	Load on Instrument
JB69587-15.6	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-15.6	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-15.7	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-15.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-16.1	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-16.1	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-16.3	Secured Storage	Gage Donahue	06/20/14 10:01	Retrieve from Storage
JB69587-16.3	Gage Donahue	Secured Staging Area	06/20/14 10:01	Return to Storage
JB69587-16.3	Secured Staging Area	Andrew Csimbok	06/20/14 10:06	Retrieve from Storage
JB69587-16.3	Andrew Csimbok	Secured Storage	06/20/14 11:37	Return to Storage
JB69587-16.5	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-16.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-16.6	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-16.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-16.6	Secured Storage	King Cheng	06/20/14 11:36	Retrieve from Storage
JB69587-16.6	King Cheng	GCMSV	06/20/14 11:36	Load on Instrument
JB69587-16.6	GCMSV	King Cheng	06/23/14 09:43	Unload from Instrument
JB69587-16.6	King Cheng		06/23/14 09:43	Depleted
JB69587-16.7	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-16.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-16.7	Secured Storage	King Cheng	06/20/14 13:53	Retrieve from Storage
JB69587-16.7	King Cheng	GCMSV	06/20/14 13:53	Load on Instrument
JB69587-16.7	GCMSV	King Cheng	06/23/14 09:43	Unload from Instrument
JB69587-16.7	King Cheng		06/23/14 09:43	Depleted
JB69587-17.2	Secured Storage	Gage Donahue	06/20/14 10:01	Retrieve from Storage
JB69587-17.2	Gage Donahue	Secured Staging Area	06/20/14 10:01	Return to Storage
JB69587-17.2	Secured Staging Area	Andrew Csimbok	06/20/14 10:06	Retrieve from Storage
JB69587-17.2	Andrew Csimbok	Secured Storage	06/20/14 11:37	Return to Storage
JB69587-17.3	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-17.3	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-17.5	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-17.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-17.6	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-17.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-17.6	Secured Storage	King Cheng	06/20/14 11:36	Retrieve from Storage
JB69587-17.6	King Cheng	GCMSV	06/20/14 11:36	Load on Instrument
JB69587-17.6	GCMSV	King Cheng	06/23/14 09:43	Unload from Instrument
JB69587-17.6	King Cheng		06/23/14 09:43	Depleted
JB69587-17.7	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-17.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-17.7	Secured Storage	King Cheng	06/20/14 14:08	Retrieve from Storage
JB69587-17.7	King Cheng	GCMSV	06/20/14 14:08	Load on Instrument
JB69587-17.7	GCMSV	King Cheng	06/23/14 09:43	Unload from Instrument
JB69587-17.7	King Cheng		06/23/14 09:43	Depleted
JB69587-18.1	Secured Storage	HeeEun Ahn	06/20/14 15:41	Retrieve from Storage
JB69587-18.1	HeeEun Ahn	VOA Prep Storage	06/20/14 15:41	Return to Storage
JB69587-18.1	VOA Prep Storage	Vianna Chau	06/21/14 08:19	Retrieve from Storage
JB69587-18.1	Vianna Chau	GCMS3A	06/21/14 08:19	Load on Instrument
JB69587-18.1	GCMS3A	HeeEun Ahn	06/23/14 11:51	Unload from Instrument
JB69587-18.1	HeeEun Ahn	Secured Storage	06/23/14 11:51	Return to Storage
JB69587-18.3	Secured Storage	Xu Liu	06/20/14 13:30	Retrieve from Storage
JB69587-18.3	Xu Liu	Secured Storage	06/20/14 14:26	Return to Storage
JB69587-19.1	Secured Storage	King Cheng	06/20/14 14:45	Retrieve from Storage
JB69587-19.1	King Cheng	VOA Prep Storage	06/20/14 14:45	Return to Storage
JB69587-19.1	VOA Prep Storage	Thien Nguyen	06/21/14 12:46	Retrieve from Storage
JB69587-19.1	Thien Nguyen	GCMSX	06/21/14 12:46	Load on Instrument
JB69587-19.1	GCMSX	Prashant Shukla	06/22/14 18:05	Unload from Instrument
JB69587-19.1	Prashant Shukla	Secured Storage	06/22/14 18:06	Return to Storage
JB69587-19.1	Secured Storage	Prashant Shukla	06/22/14 19:23	Retrieve from Storage
JB69587-19.1	Prashant Shukla	GCMSA	06/22/14 19:23	Load on Instrument
JB69587-19.1	GCMSA	Courtney McKenna	06/23/14 15:25	Unload from Instrument
JB69587-19.1	Courtney McKenna		06/23/14 15:25	Depleted
JB69587-19.2	Secured Storage	Courtney McKenna	06/23/14 12:23	Retrieve from Storage
JB69587-19.2	Courtney McKenna	GCMSA	06/23/14 12:23	Load on Instrument
JB69587-19.2	GCMSA	Courtney McKenna	06/24/14 11:38	Unload from Instrument
JB69587-19.2	Courtney McKenna		06/24/14 11:39	Depleted
JB69587-20.1	Secured Storage	HeeEun Ahn	06/20/14 15:41	Retrieve from Storage
JB69587-20.1	HeeEun Ahn	VOA Prep Storage	06/20/14 15:41	Return to Storage
JB69587-20.1	VOA Prep Storage	Vianna Chau	06/21/14 08:19	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Received: 06/18/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB69587-20.1	Vianna Chau	GCMS3A	06/21/14 08:19	Load on Instrument
JB69587-20.1	GCMS3A	HeeEun Ahn	06/23/14 11:51	Unload from Instrument
JB69587-20.1	HeeEun Ahn	Secured Storage	06/23/14 11:51	Return to Storage
JB69587-21.1	Secured Storage	Gage Donahue	06/20/14 10:01	Retrieve from Storage
JB69587-21.1	Gage Donahue	Secured Staging Area	06/20/14 10:01	Return to Storage
JB69587-21.1	Secured Staging Area	Andrew Csimbok	06/20/14 10:06	Retrieve from Storage
JB69587-21.1	Andrew Csimbok	Secured Storage	06/20/14 11:37	Return to Storage
JB69587-21.3	Secured Storage	Xu Liu	06/19/14 07:57	Retrieve from Storage
JB69587-21.3	Xu Liu	Secured Storage	06/19/14 08:49	Return to Storage
JB69587-21.5	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-21.5	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-21.6	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-21.6	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage
JB69587-21.6	Secured Storage	King Cheng	06/20/14 11:36	Retrieve from Storage
JB69587-21.6	King Cheng	GCMSV	06/20/14 11:36	Load on Instrument
JB69587-21.6	GCMSV	King Cheng	06/23/14 09:43	Unload from Instrument
JB69587-21.6	King Cheng		06/23/14 09:43	Depleted
JB69587-21.7	Secured Storage	Jayna Patel	06/18/14 15:09	Retrieve from Storage
JB69587-21.7	Jayna Patel	Secured Storage	06/18/14 15:10	Return to Storage

New Jersey
ACCUTEST LABORATORIES

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: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX6383-MB	X147663.D	1	06/20/14	KC	n/a	n/a	VX6383

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

JB69587-12

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/kg	
71-43-2	Benzene	ND	0.50	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.54	ug/kg	
108-88-3	Toluene	ND	1.0	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	111%	59-130%
17060-07-0	1,2-Dichloroethane-D4	99%	65-123%
2037-26-5	Toluene-D8	118%	77-125%
460-00-4	4-Bromofluorobenzene	115%	71-132%

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

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV6205-MB	V145535.D	1	06/20/14	KC	n/a	n/a	VV6205

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

JB69587-16, JB69587-17, JB69587-21

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/kg	
71-43-2	Benzene	ND	0.50	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.54	ug/kg	
108-88-3	Toluene	ND	1.0	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	59-130%
17060-07-0	1,2-Dichloroethane-D4	104%	65-123%
2037-26-5	Toluene-D8	105%	77-125%
460-00-4	4-Bromofluorobenzene	95%	71-132%

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

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX6383-MB2	X147700.D	1	06/21/14	KC	n/a	n/a	VX6383

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

JB69587-8, JB69587-9

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/kg	
71-43-2	Benzene	ND	0.50	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.54	ug/kg	
108-88-3	Toluene	ND	1.0	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	114%	59-130%
17060-07-0	1,2-Dichloroethane-D4	103%	65-123%
2037-26-5	Toluene-D8	116%	77-125%
460-00-4	4-Bromofluorobenzene	113%	71-132%

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A5714-MB1	3A132084.D	1	06/21/14	HA	n/a	n/a	V3A5714

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

JB69587-10, JB69587-18, JB69587-20

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	95%	79-120%
17060-07-0	1,2-Dichloroethane-D4	87%	72-123%
2037-26-5	Toluene-D8	97%	78-119%
460-00-4	4-Bromofluorobenzene	96%	74-119%

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

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA7793-MB	A206658.D	1	06/22/14	CM	n/a	n/a	VA7793

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

JB69587-3, JB69587-4, JB69587-5, JB69587-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/kg	
71-43-2	Benzene	ND	0.50	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.54	ug/kg	
108-88-3	Toluene	ND	1.0	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	59-130%
17060-07-0	1,2-Dichloroethane-D4	103%	65-123%
2037-26-5	Toluene-D8	108%	77-125%
460-00-4	4-Bromofluorobenzene	105%	71-132%

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

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA7793-MB2	A206681.D	1	06/23/14	CM	n/a	n/a	VA7793

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

JB69587-7, JB69587-14, JB69587-15

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/kg	
71-43-2	Benzene	ND	0.50	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.54	ug/kg	
108-88-3	Toluene	ND	1.0	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	59-130%
17060-07-0	1,2-Dichloroethane-D4	105%	65-123%
2037-26-5	Toluene-D8	108%	77-125%
460-00-4	4-Bromofluorobenzene	106%	71-132%

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

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA7794-MB	A206691.D	1	06/23/14	CM	n/a	n/a	VA7794

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

JB69587-19

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/kg	
71-43-2	Benzene	ND	0.50	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.54	ug/kg	
108-88-3	Toluene	ND	1.0	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	59-130%
17060-07-0	1,2-Dichloroethane-D4	111%	65-123%
2037-26-5	Toluene-D8	111%	77-125%
460-00-4	4-Bromofluorobenzene	107%	71-132%

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

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV6207-MB	V145599.D	1	06/23/14	KC	n/a	n/a	VV6207

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

JB69587-1, JB69587-2, JB69587-11, JB69587-13

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/kg	
71-43-2	Benzene	ND	0.50	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.54	ug/kg	
108-88-3	Toluene	ND	1.0	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	59-130%
17060-07-0	1,2-Dichloroethane-D4	89%	65-123%
2037-26-5	Toluene-D8	103%	77-125%
460-00-4	4-Bromofluorobenzene	89%	71-132%

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

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX6383-BS	X147664.D	1	06/20/14	KC	n/a	n/a	VX6383

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

JB69587-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	52.1	104	50-147
71-43-2	Benzene	50	51.5	103	75-122
100-41-4	Ethylbenzene	50	51.1	102	75-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	52.2	104	72-130
108-88-3	Toluene	50	50.7	101	75-122
1330-20-7	Xylene (total)	150	152	101	75-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	112%	59-130%
17060-07-0	1,2-Dichloroethane-D4	100%	65-123%
2037-26-5	Toluene-D8	119%	77-125%
460-00-4	4-Bromofluorobenzene	113%	71-132%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV6205-BS	V145536.D	1	06/20/14	KC	n/a	n/a	VV6205

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

JB69587-16, JB69587-17, JB69587-21

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	59.3	119	50-147
71-43-2	Benzene	50	51.5	103	75-122
100-41-4	Ethylbenzene	50	53.4	107	75-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	62.0	124	72-130
108-88-3	Toluene	50	51.8	104	75-122
1330-20-7	Xylene (total)	150	158	105	75-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	59-130%
17060-07-0	1,2-Dichloroethane-D4	104%	65-123%
2037-26-5	Toluene-D8	106%	77-125%
460-00-4	4-Bromofluorobenzene	98%	71-132%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX6383-BS2	X147701.D	1	06/21/14	KC	n/a	n/a	VX6383

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

JB69587-8, JB69587-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	44.4	89	50-147
71-43-2	Benzene	50	49.6	99	75-122
100-41-4	Ethylbenzene	50	50.0	100	75-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	49.7	99	72-130
108-88-3	Toluene	50	49.8	100	75-122
1330-20-7	Xylene (total)	150	150	100	75-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	116%	59-130%
17060-07-0	1,2-Dichloroethane-D4	104%	65-123%
2037-26-5	Toluene-D8	118%	77-125%
460-00-4	4-Bromofluorobenzene	113%	71-132%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A5714-BS	3A132085.D	1	06/22/14	HA	n/a	n/a	V3A5714

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

JB69587-10, JB69587-18, JB69587-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	50.2	100	52-152
71-43-2	Benzene	50	49.7	99	80-121
100-41-4	Ethylbenzene	50	49.6	99	82-120
108-10-1	4-Methyl-2-pentanone(MIBK)	50	53.2	106	68-135
108-88-3	Toluene	50	50.9	102	80-122
1330-20-7	Xylene (total)	150	152	101	82-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	79-120%
17060-07-0	1,2-Dichloroethane-D4	88%	72-123%
2037-26-5	Toluene-D8	99%	78-119%
460-00-4	4-Bromofluorobenzene	97%	74-119%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA7793-BS	A206659.D	1	06/22/14	CM	n/a	n/a	VA7793

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

JB69587-3, JB69587-4, JB69587-5, JB69587-6, JB69587-7, JB69587-14, JB69587-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	50.2	100	50-147
71-43-2	Benzene	50	55.5	111	75-122
100-41-4	Ethylbenzene	50	54.4	109	75-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	58.1	116	72-130
108-88-3	Toluene	50	50.4	101	75-122
1330-20-7	Xylene (total)	150	160	107	75-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	59-130%
17060-07-0	1,2-Dichloroethane-D4	107%	65-123%
2037-26-5	Toluene-D8	107%	77-125%
460-00-4	4-Bromofluorobenzene	105%	71-132%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA7794-BS	A206692.D	1	06/23/14	CM	n/a	n/a	VA7794

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

JB69587-19

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	50.1	100	50-147
71-43-2	Benzene	50	55.0	110	75-122
100-41-4	Ethylbenzene	50	51.7	103	75-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	61.9	124	72-130
108-88-3	Toluene	50	50.1	100	75-122
1330-20-7	Xylene (total)	150	154	103	75-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	59-130%
17060-07-0	1,2-Dichloroethane-D4	110%	65-123%
2037-26-5	Toluene-D8	108%	77-125%
460-00-4	4-Bromofluorobenzene	102%	71-132%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV6207-BS	V145600.D	1	06/23/14	KC	n/a	n/a	VV6207

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

JB69587-1, JB69587-2, JB69587-11, JB69587-13

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	45.1	90	50-147
71-43-2	Benzene	50	53.9	108	75-122
100-41-4	Ethylbenzene	50	56.1	112	75-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	53.5	107	72-130
108-88-3	Toluene	50	53.9	108	75-122
1330-20-7	Xylene (total)	150	167	111	75-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	59-130%
17060-07-0	1,2-Dichloroethane-D4	97%	65-123%
2037-26-5	Toluene-D8	104%	77-125%
460-00-4	4-Bromofluorobenzene	93%	71-132%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69587-16MS	V145545.D	1	06/20/14	KC	n/a	n/a	VV6205
JB69587-16	V145542.D	1	06/20/14	KC	n/a	n/a	VV6205

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

JB69587-16, JB69587-17, JB69587-21

CAS No.	Compound	JB69587-16 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND		55.7	42.4	76	10-181
71-43-2	Benzene	ND		55.7	50.3	90	45-131
100-41-4	Ethylbenzene	ND		55.7	54.7	98	30-139
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		55.7	42.8	77	31-140
108-88-3	Toluene	ND		55.7	52.1	94	38-135
1330-20-7	Xylene (total)	ND		167	162	97	30-140

CAS No.	Surrogate Recoveries	MS	JB69587-16	Limits
1868-53-7	Dibromofluoromethane	101%	107%	59-130%
17060-07-0	1,2-Dichloroethane-D4	85%	104%	65-123%
2037-26-5	Toluene-D8	108%	109%	77-125%
460-00-4	4-Bromofluorobenzene	96%	94%	71-132%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69587-4MS	A206667.D	1	06/22/14	CM	n/a	n/a	VA7793
JB69587-4	A206662.D	1	06/22/14	CM	n/a	n/a	VA7793

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

JB69587-3, JB69587-4, JB69587-5, JB69587-6, JB69587-7, JB69587-14, JB69587-15

CAS No.	Compound	JB69587-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND		87.1	81.7	94	10-181
71-43-2	Benzene	ND		87.1	100	115	45-131
100-41-4	Ethylbenzene	ND		87.1	97.6	112	30-139
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		87.1	73.2	84	31-140
108-88-3	Toluene	ND		87.1	90.6	104	38-135
1330-20-7	Xylene (total)	ND		261	280	107	30-140

CAS No.	Surrogate Recoveries	MS	JB69587-4	Limits
1868-53-7	Dibromofluoromethane	100%	104%	59-130%
17060-07-0	1,2-Dichloroethane-D4	90%	102%	65-123%
2037-26-5	Toluene-D8	108%	107%	77-125%
460-00-4	4-Bromofluorobenzene	105%	104%	71-132%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69587-1MS	V145608.D	1	06/23/14	KC	n/a	n/a	VV6207
JB69587-1	V145606.D	1	06/23/14	KC	n/a	n/a	VV6207

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

JB69587-1, JB69587-2, JB69587-11, JB69587-13

CAS No.	Compound	JB69587-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND		55.3	39.2	71	10-181
71-43-2	Benzene	ND		55.3	57.6	104	45-131
100-41-4	Ethylbenzene	ND		55.3	62.4	113	30-139
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		55.3	42.2	76	31-140
108-88-3	Toluene	ND		55.3	59.7	108	38-135
1330-20-7	Xylene (total)	ND		166	184	111	30-140

CAS No.	Surrogate Recoveries	MS	JB69587-1	Limits
1868-53-7	Dibromofluoromethane	98%	102%	59-130%
17060-07-0	1,2-Dichloroethane-D4	85%	96%	65-123%
2037-26-5	Toluene-D8	105%	105%	77-125%
460-00-4	4-Bromofluorobenzene	91%	88%	71-132%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69700-3MS	A206701.D	1	06/23/14	CM	n/a	n/a	VA7794
JB69700-3	A206697.D	1	06/23/14	CM	n/a	n/a	VA7794

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

JB69587-19

CAS No.	Compound	JB69700-3 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND		49.7	46.4	93	10-181
71-43-2	Benzene	1.5		49.7	54.4	106	45-131
100-41-4	Ethylbenzene	0.53	J	49.7	102	204* [a]	30-139
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		49.7	47.0	94	31-140
108-88-3	Toluene	ND		49.7	44.5	89	38-135
1330-20-7	Xylene (total)	2.0		149	141	93	30-140

CAS No.	Surrogate Recoveries	MS	JB69700-3	Limits
1868-53-7	Dibromofluoromethane	103%	107%	59-130%
17060-07-0	1,2-Dichloroethane-D4	102%	111%	65-123%
2037-26-5	Toluene-D8	111%	109%	77-125%
460-00-4	4-Bromofluorobenzene	105%	104%	71-132%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69587-12MS	X147672.D	1	06/20/14	KC	n/a	n/a	VX6383
JB69587-12MSD	X147673.D	1	06/20/14	KC	n/a	n/a	VX6383
JB69587-12	X147671.D	1	06/20/14	KC	n/a	n/a	VX6383

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

JB69587-8, JB69587-9, JB69587-12

CAS No.	Compound	JB69587-12 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		55.4	37.0	67	57.9	40.0	69	8	10-181/30
71-43-2	Benzene	ND		55.4	52.0	94	57.9	56.8	98	9	45-131/22
100-41-4	Ethylbenzene	ND		55.4	54.0	97	57.9	59.4	103	10	30-139/26
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		55.4	39.9	72	57.9	42.5	73	6	31-140/25
108-88-3	Toluene	ND		55.4	53.3	96	57.9	57.9	100	8	38-135/23
1330-20-7	Xylene (total)	ND		166	160	96	174	176	101	10	30-140/25

CAS No.	Surrogate Recoveries	MS	MSD	JB69587-12	Limits
1868-53-7	Dibromofluoromethane	108%	107%	112%	59-130%
17060-07-0	1,2-Dichloroethane-D4	89%	87%	100%	65-123%
2037-26-5	Toluene-D8	121%	120%	119%	77-125%
460-00-4	4-Bromofluorobenzene	116%	114%	121%	71-132%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69552-11MS	3A132087.D	5	06/22/14	HA	n/a	n/a	V3A5714
JB69552-11MSD	3A132088.D	5	06/22/14	HA	n/a	n/a	V3A5714
JB69552-11	3A132086.D	5	06/22/14	HA	n/a	n/a	V3A5714

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

JB69587-10, JB69587-18, JB69587-20

CAS No.	Compound	JB69552-11 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		250	243	97	250	238	95	2	44-160/20
71-43-2	Benzene	ND		250	263	105	250	261	104	1	50-136/12
100-41-4	Ethylbenzene	886		250	1140	102	250	1090	82	4	49-137/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		250	287	115	250	286	114	0	63-144/13
108-88-3	Toluene	35.4		250	311	110	250	310	110	0	54-137/13
1330-20-7	Xylene (total)	2520		750	3330	108	750	3220	93	3	53-136/12

CAS No.	Surrogate Recoveries	MS	MSD	JB69552-11	Limits
1868-53-7	Dibromofluoromethane	96%	95%	95%	79-120%
17060-07-0	1,2-Dichloroethane-D4	88%	86%	88%	72-123%
2037-26-5	Toluene-D8	99%	100%	97%	78-119%
460-00-4	4-Bromofluorobenzene	95%	95%	95%	74-119%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69587-17DUP	V145546.D	1	06/20/14	KC	n/a	n/a	VV6205
JB69587-17	V145543.D	1	06/20/14	KC	n/a	n/a	VV6205

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

JB69587-16, JB69587-17, JB69587-21

CAS No.	Compound	JB69587-17 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	39
71-43-2	Benzene	ND		ND		nc	24
100-41-4	Ethylbenzene	ND		ND		nc	17
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	33
1330-20-7	Xylene (total)	ND		ND		nc	25

CAS No.	Surrogate Recoveries	DUP	JB69587-17	Limits
1868-53-7	Dibromofluoromethane	107%	106%	59-130%
17060-07-0	1,2-Dichloroethane-D4	101%	101%	65-123%
2037-26-5	Toluene-D8	107%	109%	77-125%
460-00-4	4-Bromofluorobenzene	95%	95%	71-132%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69587-3DUP	A206665.D	1	06/22/14	CM	n/a	n/a	VA7793
JB69587-3	A206661.D	1	06/22/14	CM	n/a	n/a	VA7793

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

JB69587-3, JB69587-4, JB69587-5, JB69587-6, JB69587-7, JB69587-14, JB69587-15

CAS No.	Compound	JB69587-3 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	39
71-43-2	Benzene	ND		ND		nc	24
100-41-4	Ethylbenzene	ND		ND		nc	17
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	33
1330-20-7	Xylene (total)	ND		ND		nc	25

CAS No.	Surrogate Recoveries	DUP	JB69587-3	Limits
1868-53-7	Dibromofluoromethane	105%	106%	59-130%
17060-07-0	1,2-Dichloroethane-D4	106%	108%	65-123%
2037-26-5	Toluene-D8	107%	113%	77-125%
460-00-4	4-Bromofluorobenzene	105%	108%	71-132%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69587-2DUP	V145609.D	1	06/23/14	KC	n/a	n/a	VV6207
JB69587-2	V145607.D	1	06/23/14	KC	n/a	n/a	VV6207

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

JB69587-1, JB69587-2, JB69587-11, JB69587-13

CAS No.	Compound	JB69587-2 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	39
71-43-2	Benzene	ND		ND		nc	24
100-41-4	Ethylbenzene	ND		ND		nc	17
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	33
1330-20-7	Xylene (total)	ND		ND		nc	25

CAS No.	Surrogate Recoveries	DUP	JB69587-2	Limits
1868-53-7	Dibromofluoromethane	103%	104%	59-130%
17060-07-0	1,2-Dichloroethane-D4	96%	96%	65-123%
2037-26-5	Toluene-D8	105%	103%	77-125%
460-00-4	4-Bromofluorobenzene	90%	89%	71-132%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69959-2DUP	A206702.D	1	06/23/14	CM	n/a	n/a	VA7794
JB69959-2	A206703.D	1	06/23/14	CM	n/a	n/a	VA7794

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

JB69587-19

CAS No.	Compound	JB69959-2 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
67-64-1	Acetone	70.4		69.9		1	39
71-43-2	Benzene	3.2		2.3		33* [a]	24
100-41-4	Ethylbenzene	17.3		8.5		68* [a]	17
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
108-88-3	Toluene	0.98	J	0.58	J	51* [a]	33
1330-20-7	Xylene (total)	15.7		8.4		61* [a]	25

CAS No.	Surrogate Recoveries	DUP	JB69959-2	Limits
1868-53-7	Dibromofluoromethane	105%	100%	59-130%
17060-07-0	1,2-Dichloroethane-D4	104%	102%	65-123%
2037-26-5	Toluene-D8	111%	121%	77-125%
460-00-4	4-Bromofluorobenzene	92%	92%	71-132%

(a) High RPD due to possible sample analyzed from different vials.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: V3A5699-BFB
Lab File ID: 3A131735.D
Instrument ID: GCMS3A
Injection Date: 06/12/14
Injection Time: 12:40

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	15424	17.2		Pass
75	30.0 - 60.0% of mass 95	40912	45.5		Pass
95	Base peak, 100% relative abundance	89821	100.0		Pass
96	5.0 - 9.0% of mass 95	5678	6.32		Pass
173	Less than 2.0% of mass 174	975	1.09	(1.13) [a]	Pass
174	50.0 - 120.0% of mass 95	86344	96.1		Pass
175	5.0 - 9.0% of mass 174	6318	7.03	(7.32) [a]	Pass
176	95.0 - 101.0% of mass 174	83589	93.1	(96.8) [a]	Pass
177	5.0 - 9.0% of mass 176	5539	6.17	(6.63) [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
V3A5699-IC5699	3A131737.D	06/12/14	13:45	01:05	Initial cal 0.5
V3A5699-IC5699	3A131738.D	06/12/14	14:16	01:36	Initial cal 1
V3A5699-IC5699	3A131739.D	06/12/14	14:46	02:06	Initial cal 2
V3A5699-IC5699	3A131741.D	06/12/14	15:47	03:07	Initial cal 10
V3A5699-IC5699	3A131742.D	06/12/14	16:18	03:38	Initial cal 20
V3A5699-ICC5699	3A131743.D	06/12/14	16:47	04:07	Initial cal 50
V3A5699-IC5699	3A131744.D	06/12/14	17:18	04:38	Initial cal 100
V3A5699-IC5699	3A131745.D	06/12/14	17:48	05:08	Initial cal 200
V3A5699-IC5699	3A131749.D	06/12/14	19:49	07:09	Initial cal 5
V3A5699-IC5699	3A131750.D	06/12/14	20:20	07:40	Initial cal 0.2
V3A5699-ICV5699	3A131751.D	06/12/14	20:50	08:10	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: V3A5699-BFB2
Lab File ID: 3A131752.D
Instrument ID: GCMS3A
Injection Date: 06/13/14
Injection Time: 08:33

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14662	17.1		Pass
75	30.0 - 60.0% of mass 95	39408	45.9		Pass
95	Base peak, 100% relative abundance	85861	100.0		Pass
96	5.0 - 9.0% of mass 95	5829	6.79		Pass
173	Less than 2.0% of mass 174	583	0.68	(0.70) [a]	Pass
174	50.0 - 120.0% of mass 95	83642	97.4		Pass
175	5.0 - 9.0% of mass 174	6118	7.13	(7.31) [a]	Pass
176	95.0 - 101.0% of mass 174	81778	95.2	(97.8) [a]	Pass
177	5.0 - 9.0% of mass 176	5345	6.23	(6.54) [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
V3A5699-ICV5699	3A131753.D	06/13/14	09:13	00:40	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: V3A5714-BFB
Lab File ID: 3A132081.D
Instrument ID: GCMS3A
Injection Date: 06/21/14
Injection Time: 22:19

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	8537	16.0		Pass
75	30.0 - 60.0% of mass 95	23621	44.2		Pass
95	Base peak, 100% relative abundance	53426	100.0		Pass
96	5.0 - 9.0% of mass 95	3483	6.52		Pass
173	Less than 2.0% of mass 174	318	0.60	(0.58) [a]	Pass
174	50.0 - 120.0% of mass 95	54994	102.9		Pass
175	5.0 - 9.0% of mass 174	4038	7.56	(7.34) [a]	Pass
176	95.0 - 101.0% of mass 174	54357	101.7	(98.8) [a]	Pass
177	5.0 - 9.0% of mass 176	3522	6.59	(6.48) [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
V3A5714-CC5699	3A132082.D	06/21/14	22:49	00:30	Continuing cal 50
V3A5714-MB1	3A132084.D	06/21/14	23:50	01:31	Method Blank
V3A5714-BS	3A132085.D	06/22/14	00:21	02:02	Blank Spike
JB69552-11	3A132086.D	06/22/14	00:51	02:32	(used for QC only; not part of job JB69587)
JB69552-11MS	3A132087.D	06/22/14	01:22	03:03	Matrix Spike
JB69552-11MSD	3A132088.D	06/22/14	01:52	03:33	Matrix Spike Duplicate
JB69587-10	3A132090.D	06/22/14	02:53	04:34	EB061714
JB69587-18	3A132091.D	06/22/14	03:24	05:05	FB061714
JB69587-20	3A132092.D	06/22/14	03:54	05:35	TRIP BLANK
ZZZZZZ	3A132093.D	06/22/14	04:24	06:05	(unrelated sample)
ZZZZZZ	3A132094.D	06/22/14	04:55	06:36	(unrelated sample)
ZZZZZZ	3A132095.D	06/22/14	05:26	07:07	(unrelated sample)
ZZZZZZ	3A132096.D	06/22/14	05:56	07:37	(unrelated sample)
ZZZZZZ	3A132097.D	06/22/14	06:26	08:07	(unrelated sample)
ZZZZZZ	3A132098.D	06/22/14	06:57	08:38	(unrelated sample)
ZZZZZZ	3A132099.D	06/22/14	07:27	09:08	(unrelated sample)
ZZZZZZ	3A132101.D	06/22/14	08:27	10:08	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VA7751-BFB
Lab File ID: A205522.D
Instrument ID: GCMSA
Injection Date: 05/13/14
Injection Time: 09:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.95 - 40.0% of mass 95	11442	18.5		Pass
75	30.0 - 60.0% of mass 95	29336	47.4		Pass
95	Base peak, 100% relative abundance	61848	100.0		Pass
96	5.0 - 9.0% of mass 95	4146	6.70		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	58373	94.4		Pass
175	5.0 - 9.0% of mass 174	4720	7.63	(8.09) [a]	Pass
176	95.0 - 101.0% of mass 174	57616	93.2	(98.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3796	6.14	(6.59) [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
VA7751-IC7751	A205523.D	05/13/14	09:57	00:49	Initial cal 0.2
VA7751-IC7751	A205524.D	05/13/14	10:28	01:20	Initial cal 0.5
VA7751-IC7751	A205525.D	05/13/14	11:01	01:53	Initial cal 1
VA7751-IC7751	A205526.D	05/13/14	11:33	02:25	Initial cal 2
VA7751-IC7751	A205527.D	05/13/14	12:04	02:56	Initial cal 5
VA7751-IC7751	A205528.D	05/13/14	12:36	03:28	Initial cal 10
VA7751-IC7751	A205529.D	05/13/14	13:09	04:01	Initial cal 20
VA7751-ICC7751	A205530.D	05/13/14	13:41	04:33	Initial cal 50
VA7751-IC7751	A205531.D	05/13/14	14:10	05:02	Initial cal 100
VA7751-IC7751	A205532.D	05/13/14	14:42	05:34	Initial cal 200
VA7751-ICV7751	A205535.D	05/13/14	15:43	06:35	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VA7793-BFB
Lab File ID: A206655.D
Instrument ID: GCMSA
Injection Date: 06/22/14
Injection Time: 14:42

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.95 - 40.0% of mass 95	12874	21.3		Pass
75	30.0 - 60.0% of mass 95	30707	50.7		Pass
95	Base peak, 100% relative abundance	60552	100.0		Pass
96	5.0 - 9.0% of mass 95	4285	7.08		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	56003	92.5		Pass
175	5.0 - 9.0% of mass 174	4401	7.27	(7.86) [a]	Pass
176	95.0 - 101.0% of mass 174	54565	90.1	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	3646	6.02	(6.68) [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
VA7793-CC7751	A206656.D	06/22/14	15:15	00:33	Continuing cal 20
VA7793-MB	A206658.D	06/22/14	16:25	01:43	Method Blank
VA7793-BS	A206659.D	06/22/14	17:08	02:26	Blank Spike
JB69587-3	A206661.D	06/22/14	18:11	03:29	R-3 (0-0.5)
JB69587-4	A206662.D	06/22/14	18:43	04:01	R-4 (0-0.5)
JB69587-5	A206663.D	06/22/14	19:14	04:32	R-12 (0-0.5)
JB69587-6	A206664.D	06/22/14	19:46	05:04	R-5 (0-0.5)
JB69587-3DUP	A206665.D	06/22/14	20:18	05:36	Duplicate
ZZZZZZ	A206666.D	06/22/14	20:49	06:07	(unrelated sample)
JB69587-4MS	A206667.D	06/22/14	21:21	06:39	Matrix Spike
ZZZZZZ	A206670.D	06/22/14	23:01	08:19	(unrelated sample)
ZZZZZZ	A206671.D	06/22/14	23:36	08:54	(unrelated sample)
ZZZZZZ	A206672.D	06/23/14	00:12	09:30	(unrelated sample)
ZZZZZZ	A206673.D	06/23/14	00:47	10:05	(unrelated sample)
ZZZZZZ	A206674.D	06/23/14	01:23	10:41	(unrelated sample)
ZZZZZZ	A206675.D	06/23/14	01:58	11:16	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VA7793-BFB2
Lab File ID: A206678.D
Instrument ID: GCMSA
Injection Date: 06/23/14
Injection Time: 03:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.95 - 40.0% of mass 95	14267	22.4		Pass
75	30.0 - 60.0% of mass 95	31904	50.1		Pass
95	Base peak, 100% relative abundance	63659	100.0		Pass
96	5.0 - 9.0% of mass 95	4282	6.73		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	59669	93.7		Pass
175	5.0 - 9.0% of mass 174	4759	7.48	(7.98) [a]	Pass
176	95.0 - 101.0% of mass 174	58760	92.3	(98.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3767	5.92	(6.41) [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
VA7793-CC7751	A206679.D	06/23/14	04:19	00:35	Continuing cal 50
VA7793-MB2	A206681.D	06/23/14	05:30	01:46	Method Blank
ZZZZZZ	A206682.D	06/23/14	06:06	02:22	(unrelated sample)
JB69587-7	A206683.D	06/23/14	06:39	02:55	R-6 (0-0.5)
JB69587-14	A206684.D	06/23/14	07:13	03:29	Q1 (0-0.5)
JB69587-15	A206685.D	06/23/14	07:46	04:02	Q2 (0-0.5)

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VA7794-BFB
Lab File ID: A206689.D
Instrument ID: GCMSA
Injection Date: 06/23/14
Injection Time: 10:12

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.95 - 40.0% of mass 95	12943	20.4		Pass
75	30.0 - 60.0% of mass 95	31168	49.1		Pass
95	Base peak, 100% relative abundance	63443	100.0		Pass
96	5.0 - 9.0% of mass 95	3979	6.27		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	61336	96.7		Pass
175	5.0 - 9.0% of mass 174	4933	7.78	(8.04) [a]	Pass
176	95.0 - 101.0% of mass 174	59080	93.1	(96.3) [a]	Pass
177	5.0 - 9.0% of mass 176	3976	6.27	(6.73) [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
VA7795-CC7751	A206690A.D	06/23/14	10:47	00:35	Continuing cal 20
VA7794-CC7751	A206690.D	06/23/14	10:47	00:35	Continuing cal 20
VA7794-MB	A206691.D	06/23/14	11:20	01:08	Method Blank
VA7795-MB	A206691A.D	06/23/14	11:20	01:08	Method Blank
VA7795-BS	A206692A.D	06/23/14	11:54	01:42	Blank Spike
VA7794-BS	A206692.D	06/23/14	11:54	01:42	Blank Spike
JB69587-19	A206694.D	06/23/14	13:00	02:48	TB061714
JB69906-2	A206695.D	06/23/14	13:32	03:20	(used for QC only; not part of job JB69587)
ZZZZZZ	A206696.D	06/23/14	14:05	03:53	(unrelated sample)
JB69700-3	A206697.D	06/23/14	14:37	04:25	(used for QC only; not part of job JB69587)
ZZZZZZ	A206698.D	06/23/14	15:10	04:58	(unrelated sample)
JB69906-2MS	A206699.D	06/23/14	15:42	05:30	Matrix Spike
JB69700-3MS	A206701.D	06/23/14	16:47	06:35	Matrix Spike
JB69906-2MSD	A206701A.D	06/23/14	17:19	07:07	Matrix Spike Duplicate
JB69959-2DUP	A206702.D	06/23/14	17:52	07:40	Duplicate
JB69959-2	A206703.D	06/23/14	18:25	08:13	(used for QC only; not part of job JB69587)
ZZZZZZ	A206707.D	06/23/14	20:34	10:22	(unrelated sample)
ZZZZZZ	A206708.D	06/23/14	21:06	10:54	(unrelated sample)
ZZZZZZ	A206709.D	06/23/14	21:38	11:26	(unrelated sample)
ZZZZZZ	A206710.D	06/23/14	22:10	11:58	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VV6196-BFB
Lab File ID: V145207.D
Instrument ID: GCMSV
Injection Date: 06/11/14
Injection Time: 09:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9003	17.6		Pass
75	30.0 - 60.0% of mass 95	23149	45.1		Pass
95	Base peak, 100% relative abundance	51288	100.0		Pass
96	5.0 - 9.0% of mass 95	3419	6.67		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	43661	85.1		Pass
175	5.0 - 9.0% of mass 174	3259	6.35	(7.46) [a]	Pass
176	95.0 - 101.0% of mass 174	42106	82.1	(96.4) [a]	Pass
177	5.0 - 9.0% of mass 176	2662	5.19	(6.32) [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
VV6196-IC6196	V145208.D	06/11/14	10:34	00:40	Initial cal 0.2
VV6196-IC6196	V145209.D	06/11/14	11:04	01:10	Initial cal 0.5
VV6196-IC6196	V145210.D	06/11/14	11:33	01:39	Initial cal 1
VV6196-IC6196	V145211.D	06/11/14	12:02	02:08	Initial cal 2
VV6196-IC6196	V145212.D	06/11/14	12:30	02:36	Initial cal 5
VV6196-IC6196	V145213.D	06/11/14	12:58	03:04	Initial cal 10
VV6196-IC6196	V145214.D	06/11/14	13:27	03:33	Initial cal 20
VV6196-ICC6196	V145215.D	06/11/14	13:55	04:01	Initial cal 50
VV6196-IC6196	V145216.D	06/11/14	14:24	04:30	Initial cal 100
VV6196-IC6196	V145217.D	06/11/14	14:52	04:58	Initial cal 200
VV6196-ICV6196	V145220.D	06/11/14	18:06	08:12	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VV6205-BFB
Lab File ID: V145532.D
Instrument ID: GCMSV
Injection Date: 06/20/14
Injection Time: 08:05

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9846	18.3		Pass
75	30.0 - 60.0% of mass 95	25469	47.2		Pass
95	Base peak, 100% relative abundance	53941	100.0		Pass
96	5.0 - 9.0% of mass 95	3725	6.91		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	46976	87.1		Pass
175	5.0 - 9.0% of mass 174	3562	6.60	(7.58) [a]	Pass
176	95.0 - 101.0% of mass 174	46152	85.6	(98.2) [a]	Pass
177	5.0 - 9.0% of mass 176	2962	5.49	(6.42) [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
VV6205-CC6196	V145533.D	06/20/14	08:41	00:36	Continuing cal 20
VV6205-MB	V145535.D	06/20/14	10:01	01:56	Method Blank
VV6205-BS	V145536.D	06/20/14	10:32	02:27	Blank Spike
ZZZZZZ	V145538.D	06/20/14	11:30	03:25	(unrelated sample)
ZZZZZZ	V145539.D	06/20/14	11:58	03:53	(unrelated sample)
ZZZZZZ	V145540.D	06/20/14	12:27	04:22	(unrelated sample)
ZZZZZZ	V145541.D	06/20/14	12:56	04:51	(unrelated sample)
JB69587-16	V145542.D	06/20/14	13:25	05:20	Q3 (0-0.5)
JB69587-17	V145543.D	06/20/14	13:53	05:48	Q4 (0-0.5)
JB69587-21	V145544.D	06/20/14	14:22	06:17	R-8 (0-0.5)
JB69587-16MS	V145545.D	06/20/14	14:50	06:45	Matrix Spike
JB69587-17DUP	V145546.D	06/20/14	15:19	07:14	Duplicate
ZZZZZZ	V145547.D	06/20/14	15:47	07:42	(unrelated sample)
ZZZZZZ	V145548.D	06/20/14	16:16	08:11	(unrelated sample)
ZZZZZZ	V145549.D	06/20/14	16:44	08:39	(unrelated sample)
ZZZZZZ	V145550.D	06/20/14	17:13	09:08	(unrelated sample)
ZZZZZZ	V145551.D	06/20/14	17:41	09:36	(unrelated sample)
ZZZZZZ	V145552.D	06/20/14	18:10	10:05	(unrelated sample)
ZZZZZZ	V145553.D	06/20/14	18:38	10:33	(unrelated sample)
ZZZZZZ	V145554.D	06/20/14	19:06	11:01	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VV6207-BFB
Lab File ID: V145596.D
Instrument ID: GCMSV
Injection Date: 06/23/14
Injection Time: 09:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	7534	17.1		Pass
75	30.0 - 60.0% of mass 95	20965	47.6		Pass
95	Base peak, 100% relative abundance	44058	100.0		Pass
96	5.0 - 9.0% of mass 95	3147	7.14		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	39165	88.9		Pass
175	5.0 - 9.0% of mass 174	2798	6.35	(7.14) [a]	Pass
176	95.0 - 101.0% of mass 174	37984	86.2	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	2585	5.87	(6.81) [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
VV6207-CC6196	V145597.D	06/23/14	10:17	00:36	Continuing cal 20
VV6207-MB	V145599.D	06/23/14	11:41	02:00	Method Blank
VV6207-BS	V145600.D	06/23/14	12:10	02:29	Blank Spike
ZZZZZZ	V145602.D	06/23/14	13:07	03:26	(unrelated sample)
ZZZZZZ	V145603.D	06/23/14	13:36	03:55	(unrelated sample)
ZZZZZZ	V145604.D	06/23/14	14:05	04:24	(unrelated sample)
ZZZZZZ	V145605.D	06/23/14	14:33	04:52	(unrelated sample)
JB69587-1	V145606.D	06/23/14	15:01	05:20	R-2 (0-0.5)
JB69587-2	V145607.D	06/23/14	15:30	05:49	R-1 (0-0.5)
JB69587-1MS	V145608.D	06/23/14	15:59	06:18	Matrix Spike
JB69587-2DUP	V145609.D	06/23/14	16:27	06:46	Duplicate
ZZZZZZ	V145610.D	06/23/14	16:55	07:14	(unrelated sample)
ZZZZZZ	V145610A.D	06/23/14	17:24	07:43	(unrelated sample)
JB69587-11	V145611.D	06/23/14	17:52	08:11	R-10 (0-0.5)
JB69587-13	V145612.D	06/23/14	18:21	08:40	R-11 (0-0.5)
ZZZZZZ	V145613.D	06/23/14	18:50	09:09	(unrelated sample)
ZZZZZZ	V145615.D	06/23/14	19:47	10:06	(unrelated sample)
ZZZZZZ	V145616.D	06/23/14	20:16	10:35	(unrelated sample)
ZZZZZZ	V145617.D	06/23/14	20:44	11:03	(unrelated sample)
ZZZZZZ	V145618.D	06/23/14	21:12	11:31	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VX6381-BFB
Lab File ID: X147608.D
Instrument ID: GCMSX
Injection Date: 06/18/14
Injection Time: 16:20

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11809	19.1		Pass
75	30.0 - 60.0% of mass 95	29144	47.1		Pass
95	Base peak, 100% relative abundance	61912	100.0		Pass
96	5.0 - 9.0% of mass 95	4071	6.58		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	64968	104.9		Pass
175	5.0 - 9.0% of mass 174	5515	8.91	(8.49) [a]	Pass
176	95.0 - 101.0% of mass 174	63733	102.9	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	4092	6.61	(6.42) [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
VX6381-IC6381	X147609.D	06/18/14	16:50	00:30	Initial cal 4
VX6381-IC6381	X147610.D	06/18/14	17:19	00:59	Initial cal 2
VX6381-IC6381	X147611.D	06/18/14	17:49	01:29	Initial cal 1
VX6381-IC6381	X147612.D	06/18/14	18:18	01:58	Initial cal 0.5
VX6381-IC6381	X147613.D	06/18/14	18:48	02:28	Initial cal 0.2
VX6381-IC6381	X147614.D	06/18/14	19:18	02:58	Initial cal 8
VX6381-IC6381	X147615.D	06/18/14	19:47	03:27	Initial cal 20
VX6381-ICC6381	X147616.D	06/18/14	20:17	03:57	Initial cal 50
VX6381-IC6381	X147617.D	06/18/14	20:47	04:27	Initial cal 100
VX6381-IC6381	X147618.D	06/18/14	21:16	04:56	Initial cal 200
VX6381-ICV6381	X147621.D	06/18/14	22:44	06:24	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VX6381-BFB
Lab File ID: X147623.D
Instrument ID: GCMSX
Injection Date: 06/19/14
Injection Time: 09:10

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10593	18.3		Pass
75	30.0 - 60.0% of mass 95	26509	45.9		Pass
95	Base peak, 100% relative abundance	57752	100.0		Pass
96	5.0 - 9.0% of mass 95	3764	6.52		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	59101	102.3		Pass
175	5.0 - 9.0% of mass 174	5035	8.72	(8.52) [a]	Pass
176	95.0 - 101.0% of mass 174	57010	98.7	(96.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3867	6.70	(6.78) [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
VX6381-ICV6381	X147624.D	06/19/14	09:49	00:39	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VX6383-BFB
Lab File ID: X147661.D
Instrument ID: GCMSX
Injection Date: 06/20/14
Injection Time: 08:04

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10098	18.9		Pass
75	30.0 - 60.0% of mass 95	25368	47.4		Pass
95	Base peak, 100% relative abundance	53530	100.0		Pass
96	5.0 - 9.0% of mass 95	3688	6.89		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	56349	105.3		Pass
175	5.0 - 9.0% of mass 174	4713	8.80	(8.36) [a]	Pass
176	95.0 - 101.0% of mass 174	55138	103.0	(97.9) [a]	Pass
177	5.0 - 9.0% of mass 176	3558	6.65	(6.45) [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
VX6383-CC6381	X147662.D	06/20/14	08:37	00:33	Continuing cal 20
VX6383-MB	X147663.D	06/20/14	09:14	01:10	Method Blank
VX6383-BS	X147664.D	06/20/14	09:55	01:51	Blank Spike
ZZZZZZ	X147666.D	06/20/14	10:57	02:53	(unrelated sample)
ZZZZZZ	X147667.D	06/20/14	11:27	03:23	(unrelated sample)
ZZZZZZ	X147668.D	06/20/14	11:56	03:52	(unrelated sample)
ZZZZZZ	X147669.D	06/20/14	12:26	04:22	(unrelated sample)
ZZZZZZ	X147670.D	06/20/14	12:56	04:52	(unrelated sample)
JB69587-12	X147671.D	06/20/14	13:25	05:21	R-9 (0-0.5)
JB69587-12MS	X147672.D	06/20/14	13:55	05:51	Matrix Spike
JB69587-12MSD	X147673.D	06/20/14	14:25	06:21	Matrix Spike Duplicate
ZZZZZZ	X147675.D	06/20/14	15:25	07:21	(unrelated sample)
ZZZZZZ	X147676.D	06/20/14	15:54	07:50	(unrelated sample)
ZZZZZZ	X147677.D	06/20/14	16:24	08:20	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VX6383-BFB
Lab File ID: X147697.D
Instrument ID: GCMSX
Injection Date: 06/21/14
Injection Time: 09:02

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11916	19.2		Pass
75	30.0 - 60.0% of mass 95	30018	48.3		Pass
95	Base peak, 100% relative abundance	62136	100.0		Pass
96	5.0 - 9.0% of mass 95	4104	6.60		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	64824	104.3		Pass
175	5.0 - 9.0% of mass 174	5559	8.95	(8.58) [a]	Pass
176	95.0 - 101.0% of mass 174	62960	101.3	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	4163	6.70	(6.61) [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
VX6383-CC6381	X147698A.D	06/21/14	10:34	01:32	Continuing cal 20
VX6383-MB2	X147700.D	06/21/14	11:44	02:42	Method Blank
VX6383-BS2	X147701.D	06/21/14	12:20	03:18	Blank Spike
JB69587-8	X147703.D	06/21/14	14:11	05:09	R-7 (0-0.5)
JB69587-9	X147704.D	06/21/14	14:40	05:38	R-7D (0-0.5)

Volatile Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	V3A5714-CC5699	**Injection Date:**	06/21/14
Lab File ID:	3A132082.D	**Injection Time:**	22:49
Instrument ID:	GCMS3A	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	104682	8.38	251005	10.79	284398	11.75	255909	15.09	150047	17.58
Upper Limit [a]	209364	8.88	502010	11.29	568796	12.25	511818	15.59	300094	18.08
Lower Limit [b]	52341	7.88	125503	10.29	142199	11.25	127955	14.59	75024	17.08

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3A5714-MB1	95256	8.37	252082	10.79	281774	11.75	248520	15.09	148620	17.58
V3A5714-BS	93522	8.38	245425	10.78	278651	11.75	248953	15.09	145833	17.58
JB69552-11	96850	8.38	252558	10.79	287444	11.75	255996	15.09	153400	17.58
JB69552-11MS	100877	8.38	255800	10.78	292882	11.75	263452	15.09	160591	17.58
JB69552-11MSD	99239	8.38	259766	10.79	292781	11.75	266209	15.09	159778	17.58
JB69587-10	95166	8.38	256787	10.79	284239	11.75	254178	15.09	152935	17.58
JB69587-18	93804	8.38	251392	10.78	281753	11.75	250869	15.09	149384	17.58
JB69587-20	96144	8.38	249965	10.79	278742	11.75	249307	15.09	148693	17.58
ZZZZZZ	91833	8.38	248525	10.79	276088	11.75	247980	15.09	148424	17.58
ZZZZZZ	92035	8.38	245924	10.79	275570	11.75	244054	15.09	146880	17.58
ZZZZZZ	98444	8.38	244241	10.79	273985	11.75	239669	15.09	144267	17.58
ZZZZZZ	88279	8.38	240854	10.79	267052	11.75	236158	15.09	141736	17.58
ZZZZZZ	89077	8.37	242490	10.79	269680	11.75	240213	15.09	145671	17.58
ZZZZZZ	87190	8.38	237704	10.79	269854	11.75	238481	15.09	143614	17.58
ZZZZZZ	91428	8.37	234266	10.79	264418	11.75	237442	15.09	142462	17.58
ZZZZZZ	96771	8.37	238327	10.79	267890	11.75	236968	15.09	142702	17.58

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 Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	VA7793-CC7751	**Injection Date:**	06/22/14
Lab File ID:	A206656.D	**Injection Time:**	15:15
Instrument ID:	GCMSA	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	89240	7.48	195146	9.83	264009	10.79	255315	14.23	144754	16.86
Upper Limit [a]	178480	7.98	390292	10.33	528018	11.29	510630	14.73	289508	17.36
Lower Limit [b]	44620	6.98	97573	9.33	132005	10.29	127658	13.73	72377	16.36

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA7793-MB	80748	7.49	199138	9.83	265111	10.79	250532	14.23	142344	16.86
VA7793-BS	87911	7.49	195792	9.82	265099	10.79	246792	14.23	145037	16.86
JB69587-3	90047	7.48	203894	9.83	274877	10.79	272014	14.23	149873	16.86
JB69587-4	77719	7.48	209251	9.83	286526	10.79	269835	14.23	149953	16.86
JB69587-5	81408	7.49	200364	9.83	270701	10.79	259879	14.23	145006	16.86
JB69587-6	76922	7.48	203941	9.83	276106	10.79	266870	14.23	146629	16.86
JB69587-3DUP	76764	7.49	197337	9.83	265676	10.78	252750	14.23	142889	16.86
ZZZZZZ	73117	7.48	200898	9.83	266046	10.79	257722	14.23	146605	16.86
JB69587-4MS	67789	7.48	237018	9.83	313332	10.78	298725	14.23	165062	16.86
ZZZZZZ	108404	7.50	250245	9.83	329265	10.79	317570	14.23	176298	16.86
ZZZZZZ	111082	7.49	250876	9.83	331426	10.78	314247	14.23	176609	16.86
ZZZZZZ	111202	7.49	255518	9.83	339397	10.78	318483	14.23	179241	16.86
ZZZZZZ	114838	7.49	241545	9.83	319274	10.78	302535	14.23	170291	16.86
ZZZZZZ	114463	7.49	240202	9.83	317796	10.79	300686	14.23	169394	16.86
ZZZZZZ	110141	7.50	233196	9.82	316395	10.79	294715	14.23	169837	16.86

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 Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	VA7793-CC7751	**Injection Date:**	06/23/14
Lab File ID:	A206679.D	**Injection Time:**	04:19
Instrument ID:	GCMSA	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	102222	7.50	208553	9.83	281913	10.78	272212	14.23	156790	16.86
Upper Limit [a]	204444	8.00	417106	10.33	563826	11.28	544424	14.73	313580	17.36
Lower Limit [b]	51111	7.00	104277	9.33	140957	10.28	136106	13.73	78395	16.36

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA7793-MB2	91584	7.48	206007	9.82	278112	10.78	266638	14.23	148658	16.86
ZZZZZZ	104950	7.48	211260	9.82	285408	10.78	270510	14.22	153256	16.86
JB69587-7	96348	7.49	207640	9.82	281898	10.78	275374	14.22	155350	16.86
JB69587-14	99266	7.49	214581	9.82	288742	10.78	276110	14.22	155459	16.86
JB69587-15	94446	7.49	207285	9.82	283361	10.78	271742	14.23	153320	16.86

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 Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	VA7795-CC7751	**Injection Date:**	06/23/14
Lab File ID:	A206690A.D	**Injection Time:**	10:47
Instrument ID:	GCMSA	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	90592	7.47	200950	9.82	272874	10.78	257007	14.22	152874	16.85
Upper Limit [a]	181184	7.97	401900	10.32	545748	11.28	514014	14.72	305748	17.35
Lower Limit [b]	45296	6.97	100475	9.32	136437	10.28	128504	13.72	76437	16.35

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA7795-MB	97433	7.48	191981	9.82	262581	10.78	254797	14.22	144833	16.85
VA7794-MB	97433	7.48	191981	9.82	262581	10.78	254797	14.22	144833	16.85
VA7795-BS	93113	7.49	202961	9.82	274979	10.78	269145	14.22	160892	16.85
VA7794-BS	93113	7.49	202961	9.82	274979	10.78	269145	14.22	160892	16.85
JB69587-19	91997	7.49	212132	9.82	280199	10.78	271895	14.22	151116	16.85
JB69906-2	77781	7.48	204647	9.82	276214	10.78	266229	14.22	141457	16.86
ZZZZZZ	86091	7.49	211325	9.82	286744	10.78	272064	14.22	153648	16.85
JB69700-3	95591	7.48	202582	9.82	276614	10.78	266228	14.22	152688	16.86
ZZZZZZ	71782	7.48	200122	9.82	272701	10.78	253240	14.22	133869	16.86
JB69906-2MS	80715	7.48	202596	9.82	273741	10.78	269029	14.23	150124	16.86
JB69700-3MS	71426	7.48	212672	9.83	287969	10.79	279652	14.23	161083	16.86
JB69906-2MSD	89944	7.49	239828	9.82	322946	10.78	303362	14.22	166279	16.85
JB69959-2DUP	110224	7.49	241629	9.82	326292	10.78	310321	14.22	185751	16.86
JB69959-2	110631	7.49	268430	9.83	358961	10.78	340113	14.23	205832	16.86
ZZZZZZ	97338	7.47	236657	9.82	322577	10.78	313441	14.23	176060	16.86
ZZZZZZ	101346	7.47	244641	9.82	336091	10.78	318519	14.23	178536	16.86
ZZZZZZ	92903	7.48	240167	9.82	321211	10.78	300263	14.22	163612	16.86
ZZZZZZ	87667	7.47	240288	9.82	322519	10.78	303447	14.22	156607	16.85

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 Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	VA7794-CC7751	**Injection Date:**	06/23/14
Lab File ID:	A206690.D	**Injection Time:**	10:47
Instrument ID:	GCMSA	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	90592	7.47	200950	9.82	272874	10.78	257007	14.22	152874	16.85
Upper Limit [a]	181184	7.97	401900	10.32	545748	11.28	514014	14.72	305748	17.35
Lower Limit [b]	45296	6.97	100475	9.32	136437	10.28	128504	13.72	76437	16.35

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA7795-MB	97433	7.48	191981	9.82	262581	10.78	254797	14.22	144833	16.85
VA7794-MB	97433	7.48	191981	9.82	262581	10.78	254797	14.22	144833	16.85
VA7795-BS	93113	7.49	202961	9.82	274979	10.78	269145	14.22	160892	16.85
VA7794-BS	93113	7.49	202961	9.82	274979	10.78	269145	14.22	160892	16.85
JB69587-19	91997	7.49	212132	9.82	280199	10.78	271895	14.22	151116	16.85
JB69906-2	77781	7.48	204647	9.82	276214	10.78	266229	14.22	141457	16.86
ZZZZZZ	86091	7.49	211325	9.82	286744	10.78	272064	14.22	153648	16.85
JB69700-3	95591	7.48	202582	9.82	276614	10.78	266228	14.22	152688	16.86
ZZZZZZ	71782	7.48	200122	9.82	272701	10.78	253240	14.22	133869	16.86
JB69906-2MS	80715	7.48	202596	9.82	273741	10.78	269029	14.23	150124	16.86
JB69700-3MS	71426	7.48	212672	9.83	287969	10.79	279652	14.23	161083	16.86
JB69906-2MSD	89944	7.49	239828	9.82	322946	10.78	303362	14.22	166279	16.85
JB69959-2DUP	110224	7.49	241629	9.82	326292	10.78	310321	14.22	185751	16.86
JB69959-2	110631	7.49	268430	9.83	358961	10.78	340113	14.23	205832	16.86
ZZZZZZ	97338	7.47	236657	9.82	322577	10.78	313441	14.23	176060	16.86
ZZZZZZ	101346	7.47	244641	9.82	336091	10.78	318519	14.23	178536	16.86
ZZZZZZ	92903	7.48	240167	9.82	321211	10.78	300263	14.22	163612	16.86
ZZZZZZ	87667	7.47	240288	9.82	322519	10.78	303447	14.22	156607	16.85

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 Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	VV6205-CC6196	**Injection Date:**	06/20/14
Lab File ID:	V145533.D	**Injection Time:**	08:41
Instrument ID:	GCMSV	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	75948	7.22	203029	9.45	261974	10.39	236806	13.80	124871	16.41
Upper Limit [a]	151896	7.72	406058	9.95	523948	10.89	473612	14.30	249742	16.91
Lower Limit [b]	37974	6.72	101515	8.95	130987	9.89	118403	13.30	62436	15.91

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VV6205-MB	74455	7.22	200363	9.45	261443	10.39	237317	13.80	124591	16.41
VV6205-BS	85501	7.22	201206	9.45	265055	10.39	236492	13.80	129232	16.41
ZZZZZZ	69046	7.21	201138	9.45	259062	10.39	236824	13.80	123082	16.41
ZZZZZZ	62591	7.21	196380	9.45	253750	10.39	232963	13.80	119347	16.41
ZZZZZZ	62625	7.22	191976	9.45	248853	10.39	229808	13.80	116561	16.42
ZZZZZZ	68442	7.21	188846	9.45	244298	10.39	227514	13.80	118249	16.42
JB69587-16	70476	7.22	184211	9.45	241843	10.39	225981	13.80	117111	16.42
JB69587-17	62465	7.22	184040	9.45	244632	10.39	225751	13.80	116990	16.41
JB69587-21	66963	7.22	182131	9.45	239758	10.39	220311	13.80	113974	16.41
JB69587-16MS	39697	7.22	184404	9.45	238609	10.39	213808	13.80	112107	16.41
JB69587-17DUP	60182	7.22	181942	9.45	240283	10.39	220801	13.80	113946	16.41
ZZZZZZ	64514	7.22	178555	9.45	235847	10.39	218487	13.80	116265	16.41
ZZZZZZ	58518	7.21	180387	9.45	236088	10.39	221156	13.80	113121	16.41
ZZZZZZ	57898	7.23	180440	9.45	232441	10.39	219004	13.80	112493	16.41
ZZZZZZ	57855	7.22	169988	9.45	222449	10.39	206608	13.80	105488	16.41
ZZZZZZ	59376	7.22	174165	9.45	231619	10.39	217001	13.80	111852	16.41
ZZZZZZ	57085	7.22	179423	9.45	235013	10.39	217569	13.80	113255	16.41
ZZZZZZ	60392	7.22	181307	9.45	241273	10.39	225619	13.80	116065	16.42
ZZZZZZ	73214	7.22	172679	9.45	229488	10.39	207731	13.80	102076	16.41

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 Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	VV6207-CC6196	**Injection Date:**	06/23/14
Lab File ID:	V145597.D	**Injection Time:**	10:17
Instrument ID:	GCMSV	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	60133	7.21	190893	9.45	248914	10.39	224964	13.80	119581	16.41
Upper Limit [a]	120266	7.71	381786	9.95	497828	10.89	449928	14.30	239162	16.91
Lower Limit [b]	30067	6.71	95447	8.95	124457	9.89	112482	13.30	59791	15.91

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VV6207-MB	45192	7.22	185762	9.45	237902	10.39	214305	13.80	107802	16.41
VV6207-BS	58896	7.22	177241	9.45	229031	10.39	205578	13.80	112952	16.41
ZZZZZZ	66225	7.22	186067	9.45	241288	10.39	219409	13.80	109557	16.41
ZZZZZZ	58718	7.22	182512	9.45	236780	10.39	212649	13.80	110525	16.41
ZZZZZZ	65924	7.22	186201	9.45	245222	10.39	222619	13.80	115071	16.41
ZZZZZZ	58558	7.22	181028	9.45	236824	10.39	214652	13.80	113046	16.41
JB69587-1	57597	7.22	175296	9.45	227276	10.39	209309	13.80	107064	16.41
JB69587-2	55062	7.22	179149	9.45	233595	10.39	211494	13.80	107798	16.41
JB69587-1MS	39354	7.22	181001	9.45	232585	10.39	209586	13.80	109913	16.41
JB69587-2DUP	59164	7.21	184362	9.45	237335	10.39	217181	13.80	110716	16.41
ZZZZZZ	56672	7.22	181438	9.45	236289	10.39	213730	13.80	111564	16.41
ZZZZZZ	60082	7.21	177119	9.45	231130	10.39	207426	13.80	105149	16.41
JB69587-11	56628	7.22	175434	9.45	228654	10.39	208816	13.80	107462	16.41
JB69587-13	54065	7.21	171785	9.45	223281	10.39	206620	13.80	104723	16.41
ZZZZZZ	59958	7.22	185131	9.45	244940	10.39	223004	13.80	113397	16.41
ZZZZZZ	60407	7.21	184937	9.45	242848	10.39	218852	13.80	113987	16.41
ZZZZZZ	61748	7.21	179742	9.45	236186	10.39	214898	13.80	110368	16.41
ZZZZZZ	52078	7.21	176318	9.45	230274	10.39	208549	13.80	106448	16.41
ZZZZZZ	54898	7.21	174370	9.45	227244	10.39	206138	13.80	105441	16.41

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 Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	VX6383-CC6381	**Injection Date:**	06/20/14
Lab File ID:	X147662.D	**Injection Time:**	08:37
Instrument ID:	GCMSX	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	79162	7.55	205024	10.26	234720	11.44	239876	15.64	140785	18.38
Upper Limit [a]	158324	8.05	410048	10.76	469440	11.94	479752	16.14	281570	18.88
Lower Limit [b]	39581	7.05	102512	9.76	117360	10.94	119938	15.14	70393	17.88

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VX6383-MB	66950	7.54	205248	10.25	233368	11.43	241869	15.64	137319	18.38
VX6383-BS	71338	7.54	206321	10.25	233368	11.44	236571	15.64	141219	18.38
ZZZZZZ	75529	7.55	216082	10.26	246701	11.44	250243	15.64	140624	18.38
ZZZZZZ	74072	7.55	221654	10.26	256427	11.44	262031	15.64	142681	18.38
ZZZZZZ	65327	7.55	208439	10.26	242126	11.44	245008	15.64	133141	18.38
ZZZZZZ	63324	7.55	202294	10.26	234604	11.44	231393	15.64	124516	18.38
ZZZZZZ	64994	7.54	205451	10.26	233686	11.44	231932	15.64	134383	18.38
JB69587-12	60927	7.55	206339	10.26	240152	11.44	243015	15.64	133772	18.38
JB69587-12MS	41531	7.55	207216	10.26	237122	11.44	240040	15.64	139123	18.38
JB69587-12MSD	37948*	7.55	208366	10.26	237663	11.44	236879	15.64	136520	18.38
ZZZZZZ	64206	7.55	217766	10.26	251913	11.44	254833	15.65	142713	18.38
ZZZZZZ	56773	7.56	204732	10.26	235851	11.44	238576	15.65	133710	18.38
ZZZZZZ	57055	7.55	211196	10.26	238797	11.44	237638	15.65	137584	18.38

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 Internal Standard Area Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	VX6383-CC6381	**Injection Date:**	06/21/14
Lab File ID:	X147698A.D	**Injection Time:**	10:34
Instrument ID:	GCMSX	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	81913	7.55	207962	10.26	247365	11.44	255638	15.64	147470	18.38
Upper Limit [a]	163826	8.05	415924	10.76	494730	11.94	511276	16.14	294940	18.88
Lower Limit [b]	40957	7.05	103981	9.76	123683	10.94	127819	15.14	73735	17.88

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VX6383-MB2	67279	7.55	200447	10.26	233562	11.44	232520	15.64	137928	18.38
VX6383-BS2	65801	7.55	198931	10.26	239358	11.44	242430	15.64	145863	18.38
JB69587-8	69740	7.55	210849	10.26	246945	11.44	257386	15.64	143890	18.38
JB69587-9	66239	7.55	208135	10.26	245817	11.44	256252	15.65	142450	18.38

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: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB69587-10	3A132090.D	95	86	98	95
JB69587-18	3A132091.D	94	85	97	95
JB69587-20	3A132092.D	95	87	97	95
JB69552-11MS	3A132087.D	96	88	99	95
JB69552-11MSD	3A132088.D	95	86	100	95
V3A5714-BS	3A132085.D	96	88	99	97
V3A5714-MB1	3A132084.D	95	87	97	96

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	79-120%
S2 = 1,2-Dichloroethane-D4	72-123%
S3 = Toluene-D8	78-119%
S4 = 4-Bromofluorobenzene	74-119%

Volatile Surrogate Recovery Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Method: SW846 8260B **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB69587-1	V145606.D	102	96	105	88
JB69587-2	V145607.D	104	96	103	89
JB69587-3	A206661.D	106	108	113	108
JB69587-4	A206662.D	104	102	107	104
JB69587-5	A206663.D	106	106	109	106
JB69587-6	A206664.D	104	104	109	107
JB69587-7	A206683.D	107	108	110	104
JB69587-8	X147703.D	112	99	121	118
JB69587-9	X147704.D	112	100	121	118
JB69587-11	V145611.D	104	98	104	89
JB69587-12	X147671.D	112	100	119	121
JB69587-13	V145612.D	104	97	106	87
JB69587-14	A206684.D	107	107	109	107
JB69587-15	A206685.D	106	109	108	105
JB69587-16	V145542.D	107	104	109	94
JB69587-17	V145543.D	106	101	109	95
JB69587-19	A206694.D	103	103	109	105
JB69587-21	V145544.D	107	104	107	93
JB69587-12MS	X147672.D	108	89	121	116
JB69587-12MSD	X147673.D	107	87	120	114
JB69587-16MS	V145545.D	101	85	108	96
JB69587-17DUP	V145546.D	107	101	107	95
JB69587-1MS	V145608.D	98	85	105	91
JB69587-2DUP	V145609.D	103	96	105	90
JB69587-3DUP	A206665.D	105	106	107	105
JB69587-4MS	A206667.D	100	90	108	105
JB69700-3MS	A206701.D	103	102	111	105
JB69959-2DUP	A206702.D	105	104	111	92
VA7793-BS	A206659.D	107	107	107	105
VA7793-MB	A206658.D	102	103	108	105
VA7793-MB2	A206681.D	106	105	108	106
VA7794-BS	A206692.D	107	110	108	102
VA7794-MB	A206691.D	107	111	111	107
VV6205-BS	V145536.D	107	104	106	98
VV6205-MB	V145535.D	107	104	105	95
VV6207-BS	V145600.D	101	97	104	93
VV6207-MB	V145599.D	99	89	103	89
VX6383-BS	X147664.D	112	100	119	113
VX6383-BS2	X147701.D	116	104	118	113
VX6383-MB	X147663.D	111	99	118	115

Volatile Surrogate Recovery Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Method: SW846 8260B **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
VX6383-MB2	X147700.D	114	103	116	113

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	59-130%
S2 = 1,2-Dichloroethane-D4	65-123%
S3 = Toluene-D8	77-125%
S4 = 4-Bromofluorobenzene	71-132%

Initial Calibration Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Sample: V3A5699-ICC5699
Lab FileID: 3A131743.D

Response Factor Report MS3A

```
Method       : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title        : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update  : Fri Jun 13 08:36:27 2014
Response via : Initial Calibration

Calibration Files
1   =3a131738.D  2   =3a131739.D  100 =3a131744.D  50  =3a131743.D
20  =3a131742.D  200 =3a131745.D  5   =3a131749.D  0.5 =3a131737.D
10  =3a131741.D  0.2 =3a131750.D      =                =

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

1) I   Tert Butyl Alcohol-d9 ----------------ISTD---------------------
2)  tertiary butyl alcohol
           0.726 0.942 0.954 0.960 0.931 0.929       0.867        0.901    9.21
3)  ethanol
                                                                  0.000#  -1.00
4)  1,4-dioxane
                 0.093 0.102 0.100 0.095 0.090       0.088        0.095    5.90

5) I   pentafluorobenzene    ----------------ISTD---------------------
6)  FREON 115
                                                                  0.000#  -1.00
7)  FREON 152A
                                                                  0.000#  -1.00
8)  chlorodifluoromethane
           0.267 0.309 0.319 0.331 0.304 0.292       0.287        0.301    7.08
9)  dichlorodifluoromethane
           0.324 0.431 0.449 0.444 0.399 0.325       0.360        0.390   13.91
10)  chloromethane
      0.468 0.488 0.477 0.497 0.496 0.458 0.436       0.423        0.468    5.84
11)  vinyl chloride
      0.400 0.447 0.457 0.477 0.476 0.441 0.404       0.395        0.437    7.69
12)  bromomethane
      0.322 0.331 0.271 0.306 0.313       0.295       0.277        0.302    7.40
13)  FREON 123A
                                                                  0.000#  -1.00
14)  FREON 123
                                                                  0.000#  -1.00
15)  2-CHLOROPROPANE
      0.488 0.495 0.551 0.566 0.577 0.549 0.508       0.518        0.531    6.31
16)  chloroethane
      0.188 0.204 0.203 0.215 0.217 0.159 0.196       0.181        0.195    9.77
17)  trichlorofluoromethane
           0.427 0.530 0.537 0.529 0.508 0.408       0.426        0.480   11.96
18)  Pentane
                                                                  0.000#  -1.00
19)  1-CHLOROPROPANE
                 0.574 0.593 0.643 0.564 0.805       0.671        0.642   14.02
20)  ethyl ether
      0.163 0.146 0.182 0.187 0.187 0.188 0.171       0.170        0.174    8.52
21)  acrolein
      0.059 0.059 0.078 0.080 0.078 0.078 0.069       0.071        0.072   11.95
22)  1,1-dichloroethene
      0.283 0.282 0.305 0.310 0.318 0.310 0.287       0.287        0.298    4.86
23)  acetone
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** V3A5699-ICC5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A131743.D
Project: BMS-ICM, Humacao, PR

```
                    0.102 0.114 0.106 0.103 0.119       0.108        0.109    6.01
24)  allyl chloride
      0.125 0.135 0.166 0.168 0.158 0.169 0.153       0.156        0.154   10.48
25)  acetonitrile
                    0.016 0.017 0.018 0.017 0.017       0.016        0.017    4.86
26)  iodomethane
      0.582 0.568 0.628 0.645 0.644 0.647 0.609       0.567        0.611    5.69
27)  iso-butyl alcohol
             0.008 0.011 0.011 0.011 0.011 0.011       0.010        0.011   10.38
28)  carbon disulfide
      1.072 0.996 1.090 1.133 1.151 1.105 1.056       1.022        1.078    4.90
29)  methylene chloride
      0.394 0.361 0.351 0.362 0.371 0.358 0.376       0.339        0.364    4.62
30)  methyl acetate
             0.221 0.283 0.289 0.292 0.287 0.256       0.268        0.271    9.38
31)  methyl tert butyl ether
      0.962 0.944 1.008 1.047 1.032 1.011 0.959 0.982 0.942        0.987    3.91
32)  trans-1,2-dichloroethene
      0.464 0.446 0.481 0.485 0.496 0.489 0.463 0.418 0.448        0.466    5.38
33)  di-isopropyl ether
      1.017 0.961 1.070 1.104 1.108 1.087 1.008 0.976 1.016        1.039    5.32
34)  2-butanone
                    0.042 0.044 0.044 0.044 0.036       0.033        0.040   11.99
35)  1,1-dichloroethane
      0.559 0.561 0.613 0.619 0.634 0.622 0.597 0.577 0.575        0.595    4.71
36)  chloroprene
      0.377 0.373 0.465 0.455 0.466 0.468 0.418 0.356 0.414        0.421   10.59
37)  acrylonitrile
      0.111 0.115 0.140 0.144 0.142 0.143 0.130 0.109 0.132        0.129   10.97
38)  vinyl acetate
                    0.059 0.061 0.056 0.062             0.049        0.057    9.19
39)  ethyl tert-butyl ether
      0.985 0.937 1.083 1.110 1.090 1.098 1.002 0.979 0.997        1.031    6.19
40)  ethyl acetate
                    0.048 0.049 0.049 0.050 0.036       0.042        0.046   11.89
41)  2,2-dichloropropane
      0.444 0.445 0.473 0.487 0.505 0.472 0.456 0.399 0.438        0.458    6.80
42)  cis-1,2-dichloroethene
      0.386 0.354 0.374 0.378 0.386 0.384 0.378 0.402 0.358 0.295  0.370    8.03
43)  methylacrylate
                    0.056 0.057 0.054 0.059 0.037       0.045        0.051   16.64
             ----- Linear regression -----  Coefficient =  0.9995
               Response Ratio = -0.00289 + 0.05941 *A

44)  propionitrile
      0.039 0.044 0.055 0.056 0.055 0.055 0.049       0.048        0.050   12.33
45)  bromochloromethane
      0.161 0.170 0.200 0.201 0.200 0.205 0.187 0.154 0.183        0.185   10.22
46)  tetrahydrofuran
             0.146 0.127 0.130 0.133 0.134 0.120       0.126        0.131    6.30
47)  chloroform
      0.376 0.365 0.390 0.396 0.401 0.401 0.380 0.385 0.364        0.384    3.69
48)  t-butyl formate
      0.275 0.261 0.310 0.316 0.318 0.312 0.287       0.287        0.296    7.17
49)  dibromofluoromethane (s)
      0.373 0.307 0.336 0.345 0.353 0.360 0.310       0.313        0.337    7.38
50)  1,2-dichloroethane-d4 (s)
             0.383 0.376 0.384 0.397 0.397 0.365       0.361        0.380    3.77
51)  freon 113
             0.172 0.252 0.251 0.259 0.249 0.220       0.219        0.232   13.30
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** V3A5699-ICC5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A131743.D
Project: BMS-ICM, Humacao, PR

```
52)  methacrylonitrile
            0.189 0.231 0.233 0.225 0.233 0.191       0.205        0.215    9.24
53)  1,1,1-trichloroethane
      0.446 0.451 0.520 0.526 0.529 0.532 0.483 0.449 0.477        0.490    7.48
54)  Cyclohexane
                  0.502 0.502 0.510 0.507 0.407       0.450        0.480    8.79

55) I   1,4-difluorobenzene   ----------------ISTD---------------------
56)  epichlorohydrin
                  0.034 0.035 0.034 0.035 0.029       0.030        0.033    7.87
57)  n-butyl alcohol
                  0.009 0.009 0.009 0.010 0.007       0.008        0.009#  12.07
58)  carbon tetrachloride
      0.328 0.337 0.425 0.428 0.424 0.430 0.371 0.323 0.381        0.383   11.85
59)  1,1-dichloropropene
      0.337 0.344 0.401 0.403 0.398 0.411 0.363 0.317 0.361        0.371    9.16
60)  Tert Amyl Alcohol
                                                                   0.000#  -1.00
61)  hexane
                  0.337 0.335 0.344 0.324 0.292       0.302        0.322    6.48
62)  2,2,4-TRIMETHYLPENTANE
            0.705 1.094 1.079 1.104 1.061 0.908       0.932        0.983   14.84
63)  benzene
      1.131 1.062 1.154 1.181 1.170 1.192 1.105 1.131 1.059 0.885  1.107    8.17
64)  tert-amyl methyl ether
      0.177 0.174 0.213 0.216 0.213 0.220 0.197       0.198        0.201    8.75
65)  heptane
                  0.209 0.202 0.212 0.202 0.168       0.180        0.195    8.94
66)  isopropyl acetate
      0.629 0.619 0.747 0.752 0.751 0.758 0.659       0.684        0.700    8.44
67)  1,2-dichloroethane
      0.349 0.349 0.383 0.400 0.399 0.397 0.368 0.320 0.363        0.370    7.44
68)  Ethyl acrylate
                                                                   0.000#  -1.00
69)  trichloroethene
      0.268 0.271 0.300 0.306 0.305 0.312 0.286 0.254 0.276        0.286    7.04
70)  tert-Amyl Ethyl Ether
                                                                   0.000#  -1.00
71)  methyl methacrylate
            0.157 0.211 0.215 0.208 0.222 0.178       0.184        0.196   12.19
72)  2-nitropropane
                  0.119 0.125 0.126 0.121 0.112       0.112        0.119    5.03
73)  2-chloroethyl vinyl ether
      0.167 0.166 0.216 0.221 0.213 0.221 0.187 0.170 0.189        0.195   12.21
74)  1,2-dichloropropane
      0.279 0.280 0.306 0.314 0.310 0.315 0.295 0.254 0.282        0.293    6.99
75)  dibromomethane
      0.181 0.184 0.203 0.209 0.207 0.209 0.193 0.162 0.187        0.193    8.26
76)  methylcyclohexane
                  0.481 0.469 0.476 0.474 0.409       0.411        0.453    7.42
77)  bromodichloromethane
      0.382 0.370 0.424 0.432 0.427 0.440 0.397 0.349 0.383        0.400    7.94
78)  cis-1,3-dichloropropene
      0.464 0.451 0.516 0.531 0.510 0.541 0.475 0.414 0.463        0.485    8.63
79)  toluene-d8 (s)
      1.077 0.892 1.018 1.069 1.064 1.103 0.917 1.153 0.912        1.023    9.21
80)  4-methyl-2-pentanone
            0.095 0.124 0.129 0.123 0.128 0.107       0.111        0.117   11.08
81)  toluene
      0.625 0.627 0.717 0.729 0.705 0.745 0.676 0.604 0.626 0.487  0.654   11.82
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** V3A5699-ICC5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A131743.D
Project: BMS-ICM, Humacao, PR

```
 82)  3-methyl-1-butanol
            0.010 0.014 0.014 0.014 0.015 0.011       0.012        0.013   13.49
 83)  trans-1,3-dichloropropene
      0.400 0.400 0.482 0.496 0.481 0.506 0.438 0.401 0.429 0.319  0.435   13.31
 84)  ethyl methacrylate
            0.309 0.401 0.413 0.385 0.428 0.339       0.343        0.374   11.78
 85)  1,1,2-trichloroethane
      0.218 0.205 0.238 0.245 0.239 0.249 0.222 0.198 0.218        0.226    7.95
 86)  2-hexanone
                  0.123 0.127 0.125 0.130 0.107       0.106        0.120    8.67

 87) I   chlorobenzene-d5      ----------------ISTD---------------------
 88)  tetrachloroethene
      0.278 0.258 0.307 0.305 0.308 0.320 0.291 0.264 0.276        0.289    7.53
 89)  BUTYL ACRYLATE
                                                                   0.000#  -1.00
 90)  1,3-dichloropropane
      0.461 0.463 0.511 0.521 0.516 0.521 0.492 0.466 0.469 0.379  0.480    9.00
 91)  butyl acetate
            0.157 0.223 0.220 0.220 0.236 0.191       0.196        0.206   12.92
 92)  3,3-dimethyl-1-butanol
      0.026 0.026 0.035 0.035 0.034 0.037 0.030 0.026 0.030        0.031   14.46
 93)  dibromochloromethane
      0.351 0.336 0.403 0.404 0.400 0.419 0.372 0.325 0.358        0.374    9.02
 94)  1,2-dibromoethane
      0.305 0.299 0.338 0.341 0.339 0.347 0.316 0.265 0.313        0.318    8.29
 95)  chlorobenzene
      0.860 0.849 0.916 0.924 0.917 0.961 0.889 0.850 0.838 0.805  0.881    5.47
 96)  1,1,1,2-tetrachloroethane
      0.357 0.344 0.380 0.383 0.384 0.394 0.362 0.310 0.343        0.362    7.38
 97)  ethylbenzene
      1.424 1.375 1.549 1.555 1.540 1.617 1.476 1.410 1.375 1.230  1.455    7.91
 98)  m,p-xylene
      0.523 0.522 0.605 0.600 0.593 0.638 0.560 0.514 0.531 0.400  0.548   12.27
 99)  o-xylene
      0.545 0.526 0.606 0.614 0.598 0.631 0.570 0.541 0.540        0.575    6.72
100)  styrene
      0.844 0.836 1.014 1.021 1.003 1.076 0.918 0.845 0.884        0.938    9.78
101)  bromoform
      0.252 0.260 0.326 0.323 0.315 0.344 0.291 0.254 0.281        0.294   11.67

102) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
103)  isopropylbenzene
      2.399 2.351 2.758 2.742 2.692 2.816 2.553 2.417 2.420 1.888  2.504   11.02
104)  4-bromofluorobenzene (s)
            0.731 0.745 0.764 0.774 0.798 0.724       0.696        0.747    4.59
105)  cyclohexanone
      0.024 0.031 0.029 0.035 0.038 0.027 0.036 0.031 0.026        0.031   16.17
            ----- Linear regression -----  Coefficient =  0.9924
              Response Ratio = 0.01888 + 0.02698 *A

106)  bromobenzene
      0.668 0.691 0.776 0.783 0.758 0.809 0.742 0.671 0.693        0.732    7.20
107)  1,1,2,2-tetrachloroethane
      0.726 0.733 0.795 0.813 0.804 0.795 0.763 0.751 0.745 0.558  0.748    9.84
108)  trans-1,4-dichloro-2-butene
      0.159 0.181 0.216 0.222 0.221 0.217 0.197       0.198        0.201   11.13
109)  1,2,3-trichloropropane
      0.187 0.185 0.208 0.210 0.208 0.209 0.196       0.195        0.200    5.19
110)  n-propylbenzene
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** V3A5699-ICC5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A131743.D
Project: BMS-ICM, Humacao, PR

```
       0.619 0.575 0.709 0.700 0.684 0.737 0.653 0.519 0.606        0.645   11.02
111)  2-chlorotoluene
       0.595 0.606 0.687 0.685 0.677 0.712 0.647 0.595 0.618        0.647    6.95
112)  4-chlorotoluene
       0.593 0.625 0.697 0.693 0.678 0.727 0.682 0.567 0.621        0.654    8.26
113)  1,3,5-trimethylbenzene
       2.077 2.000 2.360 2.365 2.311 2.441 2.149 2.025 2.058        2.198    7.74
114)  tert-butylbenzene
       1.761 1.744 2.068 2.092 2.047 2.099 1.887 1.740 1.809 1.541  1.879   10.18
115)  pentachloroethane
       0.428 0.430 0.519 0.523 0.510 0.535 0.459 0.394 0.454        0.473   10.70
116)  1,2,4-trimethylbenzene
       1.996 1.987 2.315 2.333 2.300 2.378 2.134 2.001 2.061 1.755  2.126    9.48
117)  sec-butylbenzene
       2.715 2.536 3.161 3.175 3.100 3.207 2.812 2.688 2.763 2.313  2.847   10.68
118)  1,3-dichlorobenzene
       1.400 1.362 1.473 1.483 1.452 1.529 1.428 1.390 1.348 1.273  1.414    5.32
119)  p-isopropyltoluene
       2.283 2.178 2.709 2.692 2.666 2.757 2.424 2.297 2.314        2.480    9.05
120)  1,4-dichlorobenzene
       1.427 1.398 1.498 1.519 1.501 1.563 1.461 1.496 1.373 1.384  1.462    4.35
121)  1,2-dichlorobenzene
       1.362 1.336 1.460 1.501 1.480 1.499 1.412 1.389 1.361 1.209  1.401    6.46
122)  benzyl chloride
       1.442 1.410 1.668 1.706 1.699 1.660 1.527 1.564 1.470        1.572    7.34
123)  n-butylbenzene
       1.169 1.119 1.343 1.365 1.339 1.365 1.214 1.133 1.181 0.961  1.219   10.94
124)  1,2-dibromo-3-chloropropane
       0.139 0.131 0.154 0.156 0.157 0.151 0.143       0.149        0.147    6.25
125)  1,3,5-TRICHLOROBENZENE
       1.277 1.251 1.370 1.413 1.387 1.371 1.324 1.301 1.245 1.356  1.330    4.43
126)  1,2,4-trichlorobenzene
       1.206 1.101 1.300 1.316 1.307 1.282 1.210 1.173 1.158 1.456  1.251    8.16
127)  hexachlorobutadiene
       0.598 0.561 0.709 0.714 0.713 0.694 0.661 0.638 0.621        0.657    8.49
128)  naphthalene
       2.505 2.412 2.830 2.895 2.828 2.750 2.539 2.634 2.507        2.656    6.58
129)  1,2,3-trichlorobenzene
       1.079 1.027 1.197 1.226 1.207 1.185 1.123 1.076 1.083        1.134    6.30
130)  hexachloroethane
       0.424 0.423 0.551 0.549 0.528 0.563 0.482 0.402 0.463        0.487   12.85
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M3A5699.M         Fri Jun 13 08:41:13 2014   ACCUNJ
```

Initial Calibration Verification

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Sample: V3A5699-ICV5699
Lab FileID: 3A131751.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\3A131751.D Vial: 17
Acq On : 12 Jun 2014 8:50 pm Operator: HeeEunA
Sample : icv5699-50 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Fri Jun 13 08:36:27 2014
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	96	0.00	8.40
2	M	tertiary butyl alcohol	0.901	1.012	-12.3	102	0.00	8.53
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.095	0.105	-10.5	98	0.00	12.53
5	I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.80
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.301	0.217	27.9#	70	0.00	4.30
9	M	dichlorodifluoromethane	0.390	0.268	31.3#	62	0.00	4.26
10	M	chloromethane	0.468	0.376	19.7	79	0.00	4.70
11	M	vinyl chloride	0.437	0.376	14.0	82	0.00	4.99
12	M	bromomethane	0.302	0.246	18.5	83	0.00	5.79
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.531	0.548	-3.2	100	0.00	7.28
16	M	chloroethane	0.195	0.216	-10.8	104	0.00	6.00
17	M	trichlorofluoromethane	0.480	0.449	6.5	87	0.00	6.53
18	M	Pentane		----------NA----------				
19		1-CHLOROPROPANE	0.642	0.555	13.6	97	0.00	8.42
20	M	ethyl ether	0.174	0.184	-5.7	102	0.00	7.03
21	M	acrolein	0.072	0.073	-1.4	94	0.00	7.41
22	M	1,1-dichloroethene	0.298	0.299	-0.3	100	0.00	7.53
23	M	acetone	0.109	0.101	7.3	92	0.00	7.68
24	M	allyl chloride	0.154	0.188	-22.1#	116	0.00	8.17
25	M	acetonitrile	0.017	0.017	0.0	105	0.00	8.25
26	M	iodomethane	0.611	0.610	0.2	98	0.00	7.87
27	M	iso-butyl alcohol	0.011	0.011	0.0	102	0.00	11.36
28	M	carbon disulfide	1.078	1.084	-0.6	99	0.00	7.98
29	M	methylene chloride	0.364	0.350	3.8	100	0.00	8.41
30	M	methyl acetate	0.271	0.247	8.9	88	0.00	8.18
31	M	methyl tert butyl ether	0.987	0.972	1.5	97	0.00	8.72
32	M	trans-1,2-dichloroethene	0.466	0.463	0.6	99	0.00	8.80
33	M	di-isopropyl ether	1.039	1.050	-1.1	99	0.00	9.37
34	M	2-butanone	0.040	0.042	-5.0	100	0.01	10.26
35	M	1,1-dichloroethane	0.595	0.612	-2.9	103	0.00	9.46
36	M	chloroprene	0.421	0.394	6.4	90	0.00	9.55
37	M	acrylonitrile	0.129	0.137	-6.2	99	0.00	8.84
38	M	vinyl acetate	0.057	0.063	-10.5	107	0.00	9.44
39	M	ethyl tert-butyl ether	1.031	1.017	1.4	95	0.00	9.89
40	M	ethyl acetate	0.046	0.046	0.0	97	0.00	10.24
41	M	2,2-dichloropropane	0.458	0.422	7.9	90	0.00	10.24

Initial Calibration Verification

Job Number: JB69587 **Sample:** V3A5699-ICV5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A131751.D
Project: BMS-ICM, Humacao, PR

42	M	cis-1,2-dichloroethene	0.370	0.367	0.8	101	0.00	10.27
		----------	True	Calc.	% Drift		----------	
43		methylacrylate	50.000	47.901	4.2	98	0.00	10.33
		----------	AvgRF	CCRF	% Dev		----------	
44	M	propionitrile	0.050	0.054	-8.0	102	0.00	10.42
45	M	bromochloromethane	0.185	0.192	-3.8	99	0.00	10.61
46	M	tetrahydrofuran	0.131	0.130	0.8	103	0.00	10.63
47	M	chloroform	0.384	0.382	0.5	100	0.00	10.67
48		t-butyl formate	0.296	0.308	-4.1	101	0.00	10.68
49	S	dibromofluoromethane (s)	0.337	0.339	-0.6	102	0.00	10.89
50	S	1,2-dichloroethane-d4 (s)	0.380	0.377	0.8	102	0.00	11.33
51	M	freon 113	0.232	0.232	0.0	96	0.00	7.46
52	M	methacrylonitrile	0.215	0.216	-0.5	96	0.00	10.58
53	M	1,1,1-trichloroethane	0.490	0.507	-3.5	100	0.00	10.89
54	M	Cyclohexane	0.480	0.481	-0.2	99	0.00	10.93
55	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.76
56	M	epichlorohydrin	0.033	0.034	-3.0	101	0.00	13.12
57	M	n-butyl alcohol	0.009	0.009#	0.0	101	0.00	11.93
58	M	carbon tetrachloride	0.383	0.411	-7.3	100	0.00	11.09
59	M	1,1-dichloropropene	0.371	0.375	-1.1	96	0.00	11.08
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.322	0.361	-12.1	112	0.00	9.07
62		2,2,4-TRIMETHYLPENTANE	0.983	0.896	8.9	86	0.00	11.29
63	M	benzene	1.107	1.146	-3.5	101	0.00	11.37
64	M	tert-amyl methyl ether	0.201	0.203	-1.0	98	0.00	11.37
65	M	heptane	0.195	0.171	12.3	88	0.00	11.48
66	M	isopropyl acetate	0.700	0.737	-5.3	102	0.00	11.29
67	M	1,2-dichloroethane	0.370	0.380	-2.7	99	0.00	11.42
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.286	0.295	-3.1	100	0.00	12.10
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.196	0.206	-5.1	100	0.00	12.39
72	M	2-nitropropane	0.119	0.118	0.8	99	0.00	12.98
73	M	2-chloroethyl vinyl ether	0.195	0.209	-7.2	98	0.00	12.95
74	M	1,2-dichloropropane	0.293	0.305	-4.1	101	0.00	12.41
75	M	dibromomethane	0.193	0.198	-2.6	98	0.00	12.59
76	M	methylcyclohexane	0.453	0.412	9.1	91	0.00	12.28
77	M	bromodichloromethane	0.400	0.423	-5.7	102	0.00	12.72
78	M	cis-1,3-dichloropropene	0.485	0.494	-1.9	96	0.00	13.18
79	S	toluene-d8 (s)	1.023	1.045	-2.2	101	0.00	13.46
80	M	4-methyl-2-pentanone	0.117	0.124	-6.0	99	0.00	13.28
81	M	toluene	0.654	0.701	-7.2	100	0.00	13.54
82	M	3-methyl-1-butanol	0.013	0.014	-7.7	101	0.00	13.32
83	M	trans-1,3-dichloropropene	0.435	0.449	-3.2	94	0.00	13.79
84	M	ethyl methacrylate	0.374	0.388	-3.7	97	0.00	13.74
85	M	1,1,2-trichloroethane	0.226	0.236	-4.4	100	0.00	14.02
86	M	2-hexanone	0.120	0.120	0.0	98	0.00	14.19
87	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	15.09
88	M	tetrachloroethene	0.289	0.304	-5.2	102	0.00	14.15
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.480	0.503	-4.8	99	0.00	14.21
91	M	butyl acetate	0.206	0.209	-1.5	98	0.00	14.23
92		3,3-dimethyl-1-butanol	0.031	0.033	-6.5	95	0.00	14.37
93	M	dibromochloromethane	0.374	0.389	-4.0	99	0.00	14.50
94	M	1,2-dibromoethane	0.318	0.328	-3.1	99	0.00	14.66
95	M	chlorobenzene	0.881	0.910	-3.3	101	0.00	15.12

Initial Calibration Verification

Job Number: JB69587 **Sample:** V3A5699-ICV5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A131751.D
Project: BMS-ICM, Humacao, PR

96	M	1,1,1,2-tetrachloroethane	0.362	0.369	-1.9	99	0.00	15.19
97	M	ethylbenzene	1.455	1.512	-3.9	100	0.00	15.16
98	M	m,p-xylene	0.548	0.590	-7.7	101	0.00	15.27
99	M	o-xylene	0.575	0.588	-2.3	98	0.00	15.72
100	M	styrene	0.938	0.994	-6.0	100	0.00	15.74
101	M	bromoform	0.294	0.312	-6.1	99	0.00	16.07
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	17.57
103	M	isopropylbenzene	2.504	2.660	-6.2	100	0.00	16.07
104	S	4-bromofluorobenzene (s)	0.747	0.746	0.1	101	0.00	16.33
		----------	True	Calc.	% Drift	----------		
105		cyclohexanone	500.000	342.786	31.4#	59	0.00	16.33
		----------	AvgRF	CCRF	% Dev	----------		
106	M	bromobenzene	0.732	0.767	-4.8	101	0.00	16.54
107	M	1,1,2,2-tetrachloroethane	0.748	0.749	-0.1	95	0.00	16.46
108	M	trans-1,4-dichloro-2-bute	0.201	0.202	-0.5	94	0.00	16.50
109	M	1,2,3-trichloropropane	0.200	0.201	-0.5	99	0.00	16.54
110	M	n-propylbenzene	0.645	0.728	-12.9	107	0.00	16.51
111	M	2-chlorotoluene	0.647	0.670	-3.6	101	0.00	16.69
112	M	4-chlorotoluene	0.654	0.679	-3.8	101	0.00	16.80
113	M	1,3,5-trimethylbenzene	2.198	2.292	-4.3	100	0.00	16.66
114	M	tert-butylbenzene	1.879	2.030	-8.0	100	0.00	17.04
115	M	pentachloroethane	0.473	0.500	-5.7	98	0.00	17.17
116	M	1,2,4-trimethylbenzene	2.126	2.351	-10.6	104	0.00	17.09
117	M	sec-butylbenzene	2.847	3.046	-7.0	99	0.00	17.27
118	M	1,3-dichlorobenzene	1.414	1.434	-1.4	100	0.00	17.51
119	M	p-isopropyltoluene	2.480	2.619	-5.6	100	0.00	17.39
120	M	1,4-dichlorobenzene	1.462	1.466	-0.3	99	0.00	17.60
121	M	1,2-dichlorobenzene	1.401	1.433	-2.3	98	0.00	18.04
122	M	benzyl chloride	1.572	1.564	0.5	94	0.00	17.74
123	M	n-butylbenzene	1.219	1.332	-9.3	100	0.00	17.84
124	M	1,2-dibromo-3-chloropropa	0.147	0.150	-2.0	99	0.00	18.91
125		1,3,5-TRICHLOROBENZENE	1.330	1.388	-4.4	101	0.00	19.06
126	M	1,2,4-trichlorobenzene	1.251	1.259	-0.6	98	0.00	19.77
127	M	hexachlorobutadiene	0.657	0.678	-3.2	98	0.00	19.85
128	M	naphthalene	2.656	2.708	-2.0	96	0.00	20.10
129	M	1,2,3-trichlorobenzene	1.134	1.173	-3.4	99	0.00	20.37
130	M	hexachloroethane	0.487	0.537	-10.3	101	0.00	18.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3a131743.D M3A5699.M Fri Jun 13 08:40:54 2014 ACCUNJ

6.9.2

6

Initial Calibration Verification

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Sample: V3A5699-ICV5699
Lab FileID: 3A131753.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\3A131753.D                    Vial: 19
Acq On    : 13 Jun 2014   9:13 am                       Operator: HeeEunA
Sample    : icv5699-50                                  Inst    : MS3A
Misc      : MS68683,V3A5699,5.0,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title        : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update  : Fri Jun 13 08:36:27 2014
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	100	0.00	8.40
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.80
9	M	dichlorodifluoromethane	0.390	0.333	14.6	78	0.00	4.27
10	M	chloromethane	0.468	0.431	7.9	91	0.00	4.70
11	M	vinyl chloride	0.437	0.422	3.4	93	0.00	4.99
12	M	bromomethane	0.302	0.282	6.6	97	0.01	5.80
16	M	chloroethane	0.195	0.242	-24.1#	118	0.00	6.00
17	M	trichlorofluoromethane	0.480	0.509	-6.0	100	0.01	6.54
49	S	dibromofluoromethane (s)	0.337	0.353	-4.7	108	0.00	10.89
50	S	1,2-dichloroethane-d4 (s)	0.380	0.392	-3.2	107	0.00	11.33
55	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.76
79	S	toluene-d8 (s)	1.023	1.066	-4.2	105	0.00	13.47
87	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	15.09
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	17.57
103	M	isopropylbenzene		----------NA----------				
104	S	4-bromofluorobenzene (s)	0.747	0.807	-8.0	105	0.00	16.33
M		hexachloroethane		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3a131743.D M3A5699.M Fri Jun 13 10:10:50 2014 ACCUNJ

Continuing Calibration Summary

Job Number: JB69587 **Sample:** V3A5714-CC5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A132082.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\3A132082.D                    Vial: 24
Acq On    : 21 Jun 2014  10:49 pm                      Operator: HeeEunA
Sample    : cc5699-50                                  Inst    : MS3A
Misc      : MS69352,V3A5714,5.0,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title        : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update  : Wed Jun 18 09:52:58 2014
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	83	-0.01	8.38
2	M	tertiary butyl alcohol	0.901	0.949	-5.3	83	-0.02	8.51
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.095	0.084	11.6	68	-0.01	12.52
5	I	pentafluorobenzene	1.000	1.000	0.0	79	-0.01	10.79
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.301	0.274	9.0	68	-0.02	4.28
9	M	dichlorodifluoromethane	0.390	0.389	0.3	68	-0.02	4.24
10	M	chloromethane	0.468	0.419	10.5	66	-0.02	4.67
11	M	vinyl chloride	0.437	0.429	1.8	71	-0.02	4.97
12	M	bromomethane	0.302	0.287	5.0	74	-0.02	5.77
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.531	0.499	6.0	69	-0.02	7.25
16	M	chloroethane	0.195	0.189	3.1	69	-0.02	5.98
17	M	trichlorofluoromethane	0.480	0.491	-2.3	72	-0.02	6.51
18	M	Pentane		----------NA----------				
19		1-CHLOROPROPANE	0.642	0.536	16.5	71	-0.02	8.40
20	M	ethyl ether	0.174	0.179	-2.9	75	-0.02	7.00
21	M	acrolein	0.072	0.064	11.1	63	-0.02	7.38
22	M	1,1-dichloroethene	0.298	0.300	-0.7	76	-0.02	7.51
23	M	acetone	0.109	0.110	-0.9	76	-0.02	7.65
24	M	allyl chloride	0.154	0.149	3.2	70	-0.01	8.16
25	M	acetonitrile	0.017	0.021	-23.5#	95	-0.02	8.22
26	M	iodomethane	0.611	0.630	-3.1	77	-0.02	7.86
27	M	iso-butyl alcohol	0.011	0.011	0.0	76	0.00	11.35
28	M	carbon disulfide	1.078	1.057	1.9	73	-0.02	7.97
29	M	methylene chloride	0.364	0.341	6.3	74	-0.02	8.40
30	M	methyl acetate	0.271	0.273	-0.7	74	-0.02	8.16
31	M	methyl tert butyl ether	0.987	0.997	-1.0	75	-0.02	8.70
32	M	trans-1,2-dichloroethene	0.466	0.452	3.0	73	-0.02	8.78
33	M	di-isopropyl ether	1.039	0.992	4.5	71	-0.02	9.36
34	M	2-butanone	0.040	0.042	-5.0	76	0.00	10.25
35	M	1,1-dichloroethane	0.595	0.585	1.7	74	-0.02	9.44
36	M	chloroprene	0.421	0.419	0.5	72	-0.01	9.54
37	M	acrylonitrile	0.129	0.139	-7.8	76	-0.01	8.83
38	M	vinyl acetate	0.057	0.056	1.8	73	0.00	9.43
39	M	ethyl tert-butyl ether	1.031	1.015	1.6	72	-0.01	9.87
40	M	ethyl acetate	0.046	0.047	-2.2	75	0.00	10.23
41	M	2,2-dichloropropane	0.458	0.323	29.5#	52	-0.02	10.23

Continuing Calibration Summary

Job Number: JB69587 **Sample:** V3A5714-CC5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A132082.D
Project: BMS-ICM, Humacao, PR

42	M	cis-1,2-dichloroethene	0.370	0.366	1.1	76	-0.01	10.25
		----------	True	Calc.	% Drift	----------		
43		methylacrylate	50.000	50.497	-1.0	78	-0.01	10.32
		----------	AvgRF	CCRF	% Dev	----------		
44	M	propionitrile	0.050	0.053	-6.0	75	-0.01	10.41
45	M	bromochloromethane	0.185	0.200	-8.1	78	-0.01	10.60
46	M	tetrahydrofuran	0.131	0.129	1.5	78	0.00	10.63
47	M	chloroform	0.384	0.379	1.3	75	-0.01	10.66
48		t-butyl formate	0.296	0.301	-1.7	75	-0.01	10.66
49	S	dibromofluoromethane (s)	0.337	0.320	5.0	73	-0.01	10.87
50	S	1,2-dichloroethane-d4 (s)	0.380	0.338	11.1	69	-0.01	11.32
51	M	freon 113	0.232	0.250	-7.8	78	-0.02	7.44
52	M	methacrylonitrile	0.215	0.215	0.0	73	-0.01	10.56
53	M	1,1,1-trichloroethane	0.490	0.509	-3.9	76	0.00	10.88
54	M	Cyclohexane	0.480	0.481	-0.2	75	-0.01	10.91
55	I	1,4-difluorobenzene	1.000	1.000	0.0	77	-0.01	11.75
56	M	epichlorohydrin	0.033	0.031	6.1	69	0.00	13.12
57	M	n-butyl alcohol	0.009	0.010#	-11.1	80	0.00	11.93
58	M	carbon tetrachloride	0.383	0.421	-9.9	76	-0.01	11.08
59	M	1,1-dichloropropene	0.371	0.384	-3.5	73	-0.01	11.07
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.322	0.276	14.3	63	-0.01	9.06
62		2,2,4-TRIMETHYLPENTANE	0.983	0.940	4.4	67	0.00	11.29
63	M	benzene	1.107	1.145	-3.4	74	-0.01	11.35
64	M	tert-amyl methyl ether	0.201	0.213	-6.0	76	-0.01	11.35
65	M	heptane	0.195	0.153	21.5#	58	0.00	11.46
66	M	isopropyl acetate	0.700	0.708	-1.1	72	-0.01	11.28
67	M	1,2-dichloroethane	0.370	0.377	-1.9	73	-0.01	11.41
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.286	0.297	-3.8	75	0.00	12.09
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.196	0.211	-7.7	76	0.00	12.38
72	M	2-nitropropane	0.119	0.116	2.5	71	-0.01	12.97
73	M	2-chloroethyl vinyl ether	0.195	0.207	-6.2	72	0.00	12.95
74	M	1,2-dichloropropane	0.293	0.293	0.0	72	-0.01	12.40
75	M	dibromomethane	0.193	0.204	-5.7	75	0.00	12.58
76	M	methylcyclohexane	0.453	0.456	-0.7	75	0.00	12.28
77	M	bromodichloromethane	0.400	0.416	-4.0	74	0.00	12.71
78	M	cis-1,3-dichloropropene	0.485	0.469	3.3	68	0.00	13.18
79	S	toluene-d8 (s)	1.023	1.013	1.0	73	0.00	13.46
80	M	4-methyl-2-pentanone	0.117	0.130	-11.1	77	0.00	13.28
81	M	toluene	0.654	0.706	-8.0	74	0.00	13.54
82	M	3-methyl-1-butanol	0.013	0.015	-15.4	81	0.00	13.32
83	M	trans-1,3-dichloropropene	0.435	0.436	-0.2	68	0.00	13.79
84	M	ethyl methacrylate	0.374	0.403	-7.8	75	0.00	13.73
85	M	1,1,2-trichloroethane	0.226	0.237	-4.9	74	0.00	14.02
86	M	2-hexanone	0.120	0.128	-6.7	77	0.00	14.19
87	I	chlorobenzene-d5	1.000	1.000	0.0	75	0.00	15.09
88	M	tetrachloroethene	0.289	0.325	-12.5	80	0.00	14.14
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.480	0.508	-5.8	73	0.00	14.21
91	M	butyl acetate	0.206	0.220	-6.8	75	0.00	14.23
92		3,3-dimethyl-1-butanol	0.031	0.039	-25.8#	83	0.00	14.37
93	M	dibromochloromethane	0.374	0.410	-9.6	76	0.00	14.50
94	M	1,2-dibromoethane	0.318	0.345	-8.5	76	0.00	14.66
95	M	chlorobenzene	0.881	0.923	-4.8	75	0.00	15.12

Continuing Calibration Summary

Job Number: JB69587 **Sample:** V3A5714-CC5699
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3A132082.D
Project: BMS-ICM, Humacao, PR

96	M	1,1,1,2-tetrachloroethane	0.362	0.389	-7.5	76	0.00	15.19
97	M	ethylbenzene	1.455	1.526	-4.9	74	0.00	15.16
98	M	m,p-xylene	0.548	0.595	-8.6	74	0.00	15.27
99	M	o-xylene	0.575	0.605	-5.2	74	0.00	15.73
100	M	styrene	0.938	1.011	-7.8	74	0.00	15.74
101	M	bromoform	0.294	0.334	-13.6	77	0.00	16.07
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	74	0.00	17.58
103	M	isopropylbenzene	2.504	2.740	-9.4	74	0.00	16.08
104	S	4-bromofluorobenzene (s)	0.747	0.718	3.9	70	0.00	16.33
		----------	True	Calc.	% Drift	----------		
105		cyclohexanone	500.000	183.105	63.4#	25	0.00	16.34
		----------	AvgRF	CCRF	% Dev	----------		
106	M	bromobenzene	0.732	0.796	-8.7	76	0.00	16.55
107	M	1,1,2,2-tetrachloroethane	0.748	0.825	-10.3	76	0.00	16.46
108	M	trans-1,4-dichloro-2-bute	0.201	0.146	27.4#	49#	0.00	16.50
109	M	1,2,3-trichloropropane	0.200	0.222	-11.0	79	0.00	16.55
110	M	n-propylbenzene	0.645	0.699	-8.4	74	0.00	16.51
111	M	2-chlorotoluene	0.647	0.691	-6.8	75	0.00	16.70
112	M	4-chlorotoluene	0.654	0.692	-5.8	74	0.00	16.80
113	M	1,3,5-trimethylbenzene	2.198	2.324	-5.7	73	0.00	16.67
114	M	tert-butylbenzene	1.879	2.108	-12.2	75	0.00	17.04
115	M	pentachloroethane	0.473	0.500	-5.7	71	0.01	17.17
116	M	1,2,4-trimethylbenzene	2.126	2.301	-8.2	73	0.00	17.10
117	M	sec-butylbenzene	2.847	3.127	-9.8	73	0.00	17.27
118	M	1,3-dichlorobenzene	1.414	1.474	-4.2	74	0.00	17.52
119	M	p-isopropyltoluene	2.480	2.654	-7.0	73	0.01	17.40
120	M	1,4-dichlorobenzene	1.462	1.509	-3.2	74	0.00	17.60
121	M	1,2-dichlorobenzene	1.401	1.503	-7.3	75	0.00	18.04
122	M	benzyl chloride	1.572	0.910	42.1#	40#	0.01	17.75
123	M	n-butylbenzene	1.219	1.283	-5.3	70	0.01	17.85
124	M	1,2-dibromo-3-chloropropa	0.147	0.163	-10.9	78	0.01	18.92
125		1,3,5-TRICHLOROBENZENE	1.330	1.411	-6.1	74	0.01	19.07
126	M	1,2,4-trichlorobenzene	1.251	1.368	-9.4	77	0.01	19.78
127	M	hexachlorobutadiene	0.657	0.731	-11.3	76	0.01	19.86
128	M	naphthalene	2.656	3.118	-17.4	80	0.01	20.11
129	M	1,2,3-trichlorobenzene	1.134	1.297	-14.4	79	0.01	20.38
130	M	hexachloroethane	0.487	0.565	-16.0	77	0.00	18.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3a131743.D M3A5699.M Mon Jun 23 11:39:55 2014 ACCUNJ

Initial Calibration Summary

Job Number: JB69587 **Sample:** VA7751-ICC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A205530.D
Project: BMS-ICM, Humacao, PR

Response Factor Report MSA

```
Method       : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title        : SW 846  8260bB ZB624 60m x 0.25mm x 1.4um
Last Update  : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Calibration Files
5   =A205527.D   2   =A205526.D   20  =A205529.D   50  =A205530.D
100 =A205531.D   1   =A205525.D   200 =A205532.D   0.5 =A205524.D
10  =A205528.D   0.2 =A205523.D       =                =

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

1) I   Tert Butyl Alcohol-d9 ----------------ISTD---------------------
2)  1,4-dioxane
     0.096       0.107 0.098 0.100       0.097       0.105        0.101    4.25
3)  tertiary butyl alcohol
     1.185 1.299 1.226 1.213 1.185 1.473 1.117       1.269        1.246    8.62

4) I   pentafluorobenzene    ----------------ISTD---------------------
5)  chlorotrifluoroethene
                                                                  0.000#  -1.00
6)  chlorodifluoromethane
     0.308 0.348 0.276 0.306 0.307 0.372 0.306 0.249 0.314        0.310   11.59
7)  dichlorodifluoromethane
     0.414 0.437 0.420 0.447 0.422 0.422 0.414       0.451        0.428    3.42
8)  chloromethane
     0.548 0.619 0.551 0.583 0.556 0.611 0.549 0.481 0.588 0.636  0.572    7.89
9)  vinyl chloride
     0.471 0.497 0.484 0.508 0.485 0.492 0.473 0.379 0.498        0.476    8.02
10)  bromomethane
     0.321 0.326 0.329 0.328 0.298 0.385             0.346        0.333    8.06
11)  chloroethane
     0.210 0.216 0.217 0.225 0.208 0.213 0.181       0.232        0.213    7.14
12)  vinyl bromide
                                                                  0.000#  -1.00
13)  trichlorofluoromethane
     0.434 0.449 0.485 0.535 0.505 0.436 0.484       0.498        0.478    7.49
14)  pentane
                                                                  0.000#  -1.00
15)  ethyl ether
     0.176 0.208 0.215 0.232 0.216 0.231 0.204       0.201        0.210    8.49
16)  Freon 123a
                                                                  0.000#  -1.00
17)  acrolein
     0.128 0.072 0.068 0.073       0.074             0.073        0.081   28.15
           ----- Linear regression -----  Coefficient =  0.9993
             Response Ratio = 0.02104 + 0.07146 *A

18)  freon 113
     0.272 0.275 0.261 0.268 0.258       0.259       0.264        0.265    2.51
19)  1,1-dichloroethene
     0.278 0.330 0.339 0.355 0.334 0.394 0.327       0.313        0.334    9.96
20)  acetone
                 0.036 0.041 0.034       0.031       0.034        0.035   10.87
21)  allyl chloride
     0.160 0.185 0.216 0.220 0.212 0.182 0.197       0.195        0.196   10.23
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VA7751-ICC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A205530.D
Project: BMS-ICM, Humacao, PR

22)	acetonitrile											
	0.034		0.030	0.033	0.031		0.030		0.032		0.032	5.30
23)	iodomethane											
	0.577	0.716	0.745	0.787	0.757	0.735	0.723		0.694		0.717	8.78
24)	carbon disulfide											
	1.007	1.244	1.238	1.327	1.255	1.332	1.205		1.148		1.219	8.61
25)	methylene chloride											
	0.491		0.457	0.463	0.437		0.418		0.471		0.456	5.63
26)	methyl acetate											
	0.280	0.352	0.280	0.293	0.281		0.272		0.283		0.292	9.38
27)	methyl tert butyl ether											
	0.990	1.181	1.208	1.304	1.217	1.147	1.161	1.043	1.163		1.157	8.05
28)	trans-1,2-dichloroethene											
	0.310	0.371	0.391	0.398	0.381	0.410	0.365	0.310	0.360		0.366	9.72
29)	hexane											
	0.520	0.496	0.465	0.467	0.437		0.437		0.462		0.469	6.44
30)	di-isopropyl ether											
	1.470	1.555	1.530	1.535	1.476	1.773	1.429	1.420	1.496	1.511	1.520	6.53
31)	t-butyl formate											
	0.326	0.350	0.354	0.370	0.356	0.389	0.343	0.285	0.344		0.346	8.36
32)	ethyl tert-butyl ether											
	1.361	1.477	1.418	1.434	1.397	1.560	1.358	1.244	1.381	1.227	1.386	7.17
33)	2-butanone											
			0.043	0.049	0.043		0.042		0.038		0.043	8.79
34)	1,1-dichloroethane											
	0.592	0.733	0.757	0.783	0.738	0.711	0.704		0.700		0.715	7.99
35)	chloroprene											
	0.541	0.572	0.551	0.558	0.533	0.634	0.524	0.463	0.536	0.466	0.538	9.22
36)	acrylonitrile											
	0.103	0.120	0.125	0.139	0.126	0.115	0.122	0.097	0.121		0.119	10.43
37)	vinyl acetate											
	0.052		0.058	0.061	0.058		0.056		0.053		0.056	5.92
38)	ethyl acetate											
	0.055	0.050	0.053	0.056	0.053		0.052		0.056		0.054	4.03
39)	ethyl acrylate											
	0.399	0.486	0.469	0.488	0.470	0.561	0.457	0.442	0.466		0.471	9.15
40)	2,2-dichloropropane											
	0.467	0.584	0.578	0.590	0.563	0.657	0.530	0.433	0.532		0.548	12.32
41)	cis-1,2-dichloroethene											
	0.362	0.424	0.442	0.459	0.444	0.433	0.420	0.315	0.409		0.412	11.12
42)	propionitrile											
	0.038	0.045	0.049	0.056	0.051	0.043	0.049	0.041	0.049		0.047	11.60
43)	bromochloromethane											
	0.169	0.194	0.224	0.238	0.226	0.208	0.215	0.161	0.208		0.205	12.62
44)	tetrahydrofuran											
	0.131	0.172	0.141	0.153	0.137		0.132		0.143		0.144	10.04
45)	chloroform											
	0.588	0.703	0.732	0.750	0.715	0.794	0.681	0.649	0.682		0.699	8.51
46)	dibromofluoromethane (s)											
	0.369	0.424	0.400	0.395	0.395	0.507	0.381		0.377		0.406	10.86
47)	1,2-dichloroethane-d4 (s)											
	0.403	0.475	0.429	0.436	0.422	0.574	0.405		0.408		0.444	12.98
48)	methacrylonitrile											
	0.115	0.120	0.143	0.156	0.143		0.142		0.132		0.136	10.76
49)	cyclohexane											
	0.444	0.547	0.546	0.573	0.536	0.574	0.515		0.498		0.529	8.14
50)	1,1,1-trichloroethane											
	0.459	0.568	0.578	0.603	0.572	0.583	0.549		0.538		0.556	7.91
51)	iso-butyl alcohol											
											0.000#	-1.00

Initial Calibration Summary

Job Number: JB69587 **Sample:** VA7751-ICC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A205530.D
Project: BMS-ICM, Humacao, PR

```
52)  tert-amyl methyl ether
      1.281 1.387 1.315 1.343 1.282 1.569 1.235 1.259 1.314 1.398  1.338    7.22

53) I   1,4-difluorobenzene   ----------------ISTD--------------------
54)  Di-isobutylene
                                                                    0.000#  -1.00
55)  epichlorohydrin
      0.026       0.027 0.028 0.027       0.027       0.026        0.027    2.82
56)  n-butyl alcohol
      0.008 0.009 0.008 0.010 0.009 0.010 0.009       0.008        0.009#   6.35
57)  carbon tetrachloride
      0.312 0.360 0.375 0.395 0.382 0.361 0.359       0.350        0.362    6.85
58)  1,1-dichloropropene
      0.290 0.348 0.371 0.381 0.370 0.386 0.349       0.337        0.354    8.76
59)  benzene
      0.931 1.105 1.136 1.173 1.133 1.197 1.051 0.902 1.057 0.910  1.059   10.40
60)  Iso-octane
      1.083 1.132 1.031 1.057 1.040 1.213 1.008 0.928 1.024 1.074  1.059    7.18
61)  heptane
      0.224 0.224 0.210 0.208 0.200 0.262 0.195 0.182 0.205        0.212   10.80
62)  tert amyl alcohol
      0.034 0.040 0.036 0.041 0.040 0.034 0.039       0.037        0.038    7.39
63)  isopropyl acetate
      0.634 0.811 0.628 0.653 0.598       0.580       0.579        0.640   12.56
64)  1,2-dichloroethane
      0.307 0.366 0.383 0.399 0.378 0.350 0.352 0.295 0.360        0.354    9.58
65)  trichloroethene
      0.226 0.285 0.287 0.295 0.286 0.308 0.267 0.197 0.259        0.268   13.31
66)  2-nitropropane
      0.094 0.114 0.103 0.113 0.105       0.099       0.104        0.104    6.86
67)  tert-amyl ethyl ether
      0.703 0.803 0.782 0.786 0.806 0.864 0.754 0.669 0.759 0.774  0.770    7.08
68)  methylcyclohexane
      0.465 0.471 0.429 0.434 0.421 0.532 0.415 0.342 0.414        0.436   11.89
69)  2-chloroethyl vinyl ether
      0.157 0.168 0.162 0.170 0.163 0.189 0.153 0.148 0.163 0.145  0.162    7.76
70)  methyl methacrylate
      0.148 0.165 0.177 0.194 0.184 0.161 0.174 0.159 0.173        0.171    8.18
71)  1,2-dichloropropane
      0.259 0.296 0.326 0.336 0.324 0.304 0.301 0.235 0.302        0.298   10.90
72)  dibromomethane
      0.144 0.165 0.179 0.191 0.182 0.161 0.171 0.128 0.170        0.166   11.79
73)  bromodichloromethane
      0.333 0.384 0.417 0.440 0.426 0.394 0.400 0.311 0.386        0.388   10.89
74)  cis-1,3-dichloropropene
      0.430 0.491 0.537 0.555 0.533 0.474 0.501 0.426 0.492 0.377  0.482   11.67
75)  toluene-d8 (s)
      0.961 1.104 1.034 1.024 1.021 1.304 0.960       0.951        1.045   11.16
76)  4-methyl-2-pentanone
      0.088 0.097 0.110 0.123 0.114 0.085 0.110       0.106        0.104   12.52
77)  toluene
      0.597 0.726 0.729 0.755 0.728 0.818 0.681 0.664 0.688 0.770  0.716    8.61
78)  3-methyl-1-butanol
      0.013 0.015 0.014 0.016 0.015 0.017 0.015 0.016 0.014 0.020  0.015   11.23
79)  trans-1,3-dichloropropene
      0.380 0.446 0.483 0.512 0.482 0.465 0.452 0.427 0.458 0.314  0.442   12.97
80)  ethyl methacrylate
      0.299 0.363 0.366 0.412 0.380 0.356 0.364 0.375 0.362 0.394  0.367    7.99
81)  1,1,2-trichloroethane
      0.175 0.228 0.226 0.238 0.227 0.213 0.214 0.189 0.214        0.214    9.38
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VA7751-ICC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A205530.D
Project: BMS-ICM, Humacao, PR

```
 82)  2-hexanone
       0.089 0.090 0.104 0.122 0.107 0.097 0.104       0.100        0.102   10.37

 83) I   chlorobenzene-d5      ----------------ISTD--------------------
 84)  tetrachloroethene
       0.231 0.270 0.287 0.300 0.288 0.312 0.271       0.259        0.277    9.09
 85)  1,3-dichloropropane
       0.380 0.423 0.467 0.490 0.466 0.448 0.439 0.403 0.440 0.328  0.428   11.13
 86)  butyl acetate
       0.202 0.218 0.211 0.220 0.206 0.218 0.198 0.193 0.213        0.209    4.55
 87)  3,3-dimethyl-1-butanol
       0.032 0.033 0.033 0.037 0.036 0.042 0.035 0.034 0.033 0.041  0.036   10.51
 88)  dibromochloromethane
       0.297 0.327 0.368 0.392 0.375 0.344 0.358 0.293 0.346        0.344    9.79
 89)  1,2-dibromoethane
       0.234 0.268 0.286 0.303 0.288 0.275 0.276 0.279 0.276        0.276    6.83
 90)  n-butyl ether
                                                                    0.000#  -1.00
 91)  chlorobenzene
       0.746 0.908 0.939 0.958 0.931 0.967 0.872 0.676 0.875 0.677  0.855   13.22
 92)  1,1,1,2-tetrachloroethane
       0.298 0.324 0.362 0.373 0.363 0.342 0.346 0.277 0.336        0.336    9.38
 93)  ethylbenzene
       1.235 1.475 1.521 1.560 1.497 1.615 1.400 1.227 1.430 1.232  1.419   10.07
 94)  m,p-xylene
       0.481 0.578 0.586 0.602 0.582 0.629 0.544 0.433 0.552 0.440  0.543   12.62
 95)  o-xylene
       0.503 0.598 0.608 0.629 0.611 0.635 0.576 0.444 0.574 0.465  0.564   12.21
 96)  styrene
       0.846 1.036 1.061 1.107 1.057 1.040 0.995 0.856 1.002 0.874  0.987    9.55
 97)  bromoform
       0.213 0.252 0.270 0.294 0.277 0.257 0.271 0.208 0.259        0.256   11.18

 98) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
 99)  isopropylbenzene
       2.190 2.561 2.665 2.650 2.598 2.870 2.445 2.149 2.456 2.439  2.502    8.71
100)  cyclohexanone
       0.049       0.057 0.071 0.060                   0.050        0.058   15.17
             ----- Linear regression -----  Coefficient =  0.9889
               Response Ratio = -0.00085 + 0.06189 *A

101)  4-bromofluorobenzene (s)
       0.719 0.894 0.784 0.772 0.790 1.052 0.745       0.751        0.813   13.48
102)  bromobenzene
       0.648 0.746 0.793 0.794 0.774 0.811 0.732 0.612 0.744        0.740    9.18
103)  1,1,2,2-tetrachloroethane
       0.584 0.660 0.685 0.726 0.680 0.663 0.661 0.679 0.665 0.627  0.663    5.61
104)  trans-1,4-dichloro-2-butene
       0.154 0.170 0.185 0.203 0.189 0.170 0.182       0.188        0.180    8.34
105)  1,2,3-trichloropropane
       0.135 0.145 0.166 0.176 0.163 0.146 0.156       0.164        0.156    8.52
106)  n-propylbenzene
       2.572 3.009 3.085 3.073 3.005 3.362 2.787       2.936        2.979    7.75
107)  2-chlorotoluene
       0.572 0.672 0.697 0.690 0.683 0.704 0.643 0.532 0.655        0.650    9.15
108)  4-chlorotoluene
       1.688 2.019 2.028 2.061 2.034 2.209 1.900 1.695 1.952 1.885  1.947    8.34
109)  p-ethyltoluene
       2.460 2.642 2.590 2.499 2.608 3.043 2.469 2.375 2.588        2.586    7.42
110)  1,3,5-trimethylbenzene
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VA7751-ICC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A205530.D
Project: BMS-ICM, Humacao, PR

```
       1.913 2.400 2.374 2.355 2.302 2.468 2.124 1.882 2.172        2.221    9.58
111)  tert-butylbenzene
       1.669 1.945 2.028 2.010 1.997 2.078 1.903 1.420 1.875 1.677  1.860   11.19
112)  pentachloroethane
       0.412 0.505 0.510 0.513 0.520 0.517 0.507 0.373 0.471        0.481   10.99
113)  1,2,4-trimethylbenzene
       1.957 2.319 2.354 2.379 2.376 2.447 2.207 1.923 2.219 2.217  2.240    7.91
114)  sec-butylbenzene
       2.560 3.055 3.079 3.106 3.042 3.420 2.865 2.406 2.863 2.588  2.898   10.60
115)  1,3-dichlorobenzene
       1.273 1.486 1.534 1.552 1.513 1.602 1.435 1.172 1.453 1.359  1.438    9.32
116)  p-isopropyltoluene
       2.211 2.624 2.668 2.668 2.658 2.847 2.472 2.099 2.490 2.248  2.498    9.68
117)  1,2,3-trimethylbenzene
                                                                    0.000#  -1.00
118)  1,4-dichlorobenzene
       1.240 1.507 1.524 1.545 1.520 1.654 1.419 1.387 1.440 1.530  1.477    7.58
119)  p-diethylbenzene
       1.508 1.593 1.625 1.571 1.644 1.899 1.539 1.380 1.527 1.359  1.564    9.63
120)  1,2-dichlorobenzene
       1.199 1.414 1.482 1.503 1.483 1.508 1.399 1.272 1.383 1.404  1.405    7.24
121)  n-butylbenzene
       1.165 1.455 1.404 1.427 1.406 1.499 1.308 1.116 1.329 1.233  1.334    9.61
122)  1,2,4,5-tetramethylbenzene
       2.510 2.615 2.751 2.677 2.798 2.986 2.586 2.292 2.605 2.437  2.626    7.41
123)  1,2-dibromo-3-chloropropane
       0.105 0.129 0.124 0.133 0.128 0.153 0.124       0.118        0.127   10.75
124)  1,3,5-trichlorobenzene
       1.085 1.360 1.368 1.355 1.398 1.450 1.278 1.066 1.258 1.059  1.268   11.58
125)  1,2,4-trichlorobenzene
       0.930 1.160 1.191 1.209 1.237 1.173 1.131 0.861 1.072 0.987  1.095   11.72
126)  hexachlorobutadiene
       0.621 0.785 0.744 0.765 0.778 0.794 0.715 0.579 0.706 0.652  0.714   10.45
127)  naphthalene
       1.597 1.835 2.042 2.210 2.194 1.919 2.064 1.670 1.931 2.011  1.947   10.42
128)  1,2,3-trichlorobenzene
       0.799 0.970 1.034 1.072 1.097 1.031 1.012 0.803 0.955 0.961  0.973   10.49
129)  hexachloroethane
       0.422 0.473 0.530 0.547 0.557 0.566 0.534       0.492        0.515    9.56
130)  Ethylenimine
                                                                    0.000#  -1.00
131)  Bis(chloromethyl)ether
                                                                    0.000#  -1.00
132)  2-methylnaphthalene
                                                                    0.000#  -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          MA7751.M          Wed May 14 10:26:11 2014   RPT1
```

6.9.5

6

Initial Calibration Verification

Job Number: JB69587 **Sample:** VA7751-ICV7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A205535.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\va7751-7760\A205535.D Vial: 14
Acq On : 13 May 2014 3:43 pm Operator: OksanaT
Sample : icv7751-50 Inst : MSA
Misc : MS66736,VA7751,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
Last Update : Wed May 14 10:24:05 2014
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	108	0.00	7.48
2	M	1,4-dioxane	0.101	0.106	-5.0	117	0.00	11.55
3	M	tertiary butyl alcohol	1.246	1.297	-4.1	115	0.00	7.60
4	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	9.82
5		chlorotrifluoroethene		----------NA----------				
6	M	chlorodifluoromethane	0.310	0.264	14.8	91	0.00	3.95
7	M	dichlorodifluoromethane	0.428	0.398	7.0	94	-0.02	3.94
8	M	chloromethane	0.572	0.564	1.4	102	0.00	4.26
9	M	vinyl chloride	0.476	0.478	-0.4	100	0.00	4.52
10	M	bromomethane	0.333	0.299	10.2	96	0.00	5.19
11	M	chloroethane	0.213	0.209	1.9	98	0.00	5.38
12		vinyl bromide		----------NA----------				
13	M	trichlorofluoromethane	0.478	0.482	-0.8	95	0.00	5.88
14	m	pentane		----------NA----------				
15	M	ethyl ether	0.210	0.229	-9.0	105	0.00	6.29
16		Freon 123a		----------NA----------				
		----------	True	Calc.	% Drift	----------		
17	M	acrolein	500.000	458.891	8.2	98	0.00	6.57
		----------	AvgRF	CCRF	% Dev	----------		
18		freon 113	0.265	0.257	3.0	101	0.00	6.69
19	M	1,1-dichloroethene	0.334	0.329	1.5	98	0.00	6.74
20	M	acetone	0.035	0.037	-5.7	94	0.00	6.80
21	M	allyl chloride	0.196	0.236	-20.4#	113	0.00	7.30
22	M	acetonitrile	0.032	0.035	-9.4	111	0.00	7.29
23	M	iodomethane	0.717	0.745	-3.9	100	0.00	7.03
24	M	carbon disulfide	1.219	1.256	-3.0	100	0.00	7.15
25	M	methylene chloride	0.456	0.446	2.2	102	0.00	7.50
26	M	methyl acetate	0.292	0.290	0.7	105	0.00	7.29
27	M	methyl tert butyl ether	1.157	1.177	-1.7	96	0.00	7.84
28	M	trans-1,2-dichloroethene	0.366	0.366	0.0	97	0.00	7.90
29		hexane	0.469	0.488	-4.1	111	0.00	8.19
30	M	di-isopropyl ether	1.520	1.539	-1.2	106	0.00	8.47
31	m	t-butyl formate	0.346	0.383	-10.7	109	0.00	9.70
32	M	ethyl tert-butyl ether	1.386	1.419	-2.4	105	0.00	8.96
33	M	2-butanone	0.043	0.047	-9.3	101	0.00	9.26
34	M	1,1-dichloroethane	0.715	0.744	-4.1	100	0.00	8.50
35	M	chloroprene	0.538	0.503	6.5	95	0.00	8.61
36	M	acrylonitrile	0.119	0.137	-15.1	104	0.00	7.87
37	M	vinyl acetate	0.056	0.066	-17.9	114	0.00	8.48

Initial Calibration Verification

Job Number: JB69587 **Sample:** VA7751-ICV7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A205535.D
Project: BMS-ICM, Humacao, PR

38	M	ethyl acetate	0.054	0.056	-3.7	107	0.00	9.27
39		ethyl acrylate	0.471	0.493	-4.7	107	0.00	11.14
40	M	2,2-dichloropropane	0.548	0.541	1.3	97	0.00	9.27
41	M	cis-1,2-dichloroethene	0.412	0.434	-5.3	100	0.00	9.28
42	M	propionitrile	0.047	0.057	-21.3#	107	0.00	9.37
43	M	bromochloromethane	0.205	0.225	-9.8	100	0.00	9.61
44	M	tetrahydrofuran	0.144	0.157	-9.0	108	0.00	9.64
45	M	chloroform	0.699	0.715	-2.3	101	0.00	9.67
46	S	dibromofluoromethane (s)	0.406	0.397	2.2	106	0.00	9.88
47	S	1,2-dichloroethane-d4 (s)	0.444	0.430	3.2	104	0.00	10.32
48	M	methacrylonitrile	0.136	0.153	-12.5	104	0.00	9.55
49		cyclohexane	0.529	0.497	6.0	92	0.00	9.98
50	M	1,1,1-trichloroethane	0.556	0.552	0.7	97	0.00	9.93
51		iso-butyl alcohol		----------NA----------				
52	M	tert-amyl methyl ether	1.338	1.326	0.9	104	0.00	10.42
53	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	10.78
54	M	Di-isobutylene		----------NA----------				
55	M	epichlorohydrin	0.027	0.029	-7.4	108	0.00	12.13
56	M	n-butyl alcohol	0.009	0.010	-11.1	114	0.00	10.93
57	M	carbon tetrachloride	0.362	0.357	1.4	95	0.00	10.13
58	M	1,1-dichloropropene	0.354	0.334	5.6	92	0.00	10.11
59	M	benzene	1.059	1.113	-5.1	100	0.00	10.39
60	M	Iso-octane	1.059	0.919	13.2	92	0.00	10.37
61	M	heptane	0.212	0.222	-4.7	113	0.00	10.55
62	m	tert amyl alcohol	0.038	0.038	0.0	97	0.00	10.27
63	M	isopropyl acetate	0.640	0.685	-7.0	111	0.00	10.31
64	M	1,2-dichloroethane	0.354	0.381	-7.6	101	0.00	10.41
65	M	trichloroethene	0.268	0.272	-1.5	97	0.00	11.13
66	M	2-nitropropane	0.104	0.114	-9.6	106	0.00	11.99
67	m	tert-amyl ethyl ether	0.770	0.773	-0.4	104	0.00	11.30
68	m	methylcyclohexane	0.436	0.400	8.3	97	0.00	11.35
69	M	2-chloroethyl vinyl ether	0.162	0.189	-16.7	117	0.00	11.99
70	M	methyl methacrylate	0.171	0.191	-11.7	104	0.00	11.43
71	M	1,2-dichloropropane	0.298	0.322	-8.1	101	0.00	11.42
72	M	dibromomethane	0.166	0.181	-9.0	100	0.00	11.60
73	M	bromodichloromethane	0.388	0.417	-7.5	100	0.00	11.73
74	M	cis-1,3-dichloropropene	0.482	0.506	-5.0	96	0.00	12.23
75	S	toluene-d8 (s)	1.045	1.004	3.9	103	0.00	12.53
76	M	4-methyl-2-pentanone	0.104	0.119	-14.4	102	0.00	12.33
77	M	toluene	0.716	0.689	3.8	96	0.00	12.61
78	M	3-methyl-1-butanol	0.015	0.017	-13.3	111	0.00	12.36
79	M	trans-1,3-dichloropropene	0.442	0.454	-2.7	94	0.00	12.84
80	M	ethyl methacrylate	0.367	0.380	-3.5	97	0.00	12.83
81	M	1,1,2-trichloroethane	0.214	0.220	-2.8	98	0.00	13.08
82	M	2-hexanone	0.102	0.113	-10.8	98	0.00	13.27
83	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.22
84	M	tetrachloroethene	0.277	0.280	-1.1	95	0.00	13.26
85	M	1,3-dichloropropane	0.428	0.474	-10.7	98	0.00	13.28
86	M	butyl acetate	0.209	0.224	-7.2	103	0.00	13.34
87		3,3-dimethyl-1-butanol	0.036	0.042	-16.7	115	0.00	13.46
88	M	dibromochloromethane	0.344	0.372	-8.1	97	0.00	13.58
89	M	1,2-dibromoethane	0.276	0.295	-6.9	99	0.00	13.75
90	M	n-butyl ether		----------NA----------				
91	M	chlorobenzene	0.855	0.915	-7.0	97	0.00	14.26
92	M	1,1,1,2-tetrachloroethane	0.336	0.356	-6.0	97	0.00	14.33
93	M	ethylbenzene	1.419	1.466	-3.3	95	0.00	14.31
94	M	m,p-xylene	0.543	0.568	-4.6	96	0.00	14.43
95	M	o-xylene	0.564	0.589	-4.4	95	0.00	14.91

Initial Calibration Verification

Job Number: JB69587 **Sample:** VA7751-ICV7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A205535.D
Project: BMS-ICM, Humacao, PR

96	M	styrene	0.987	1.045	-5.9	96	0.00	14.92
97	M	bromoform	0.256	0.286	-11.7	99	0.00	15.24
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	16.85
99	M	isopropylbenzene	2.502	2.484	0.7	95	0.00	15.29
		----------	True	Calc.	% Drift	----------		
100	m	cyclohexanone	500.000	230.906	53.8#	41	0.00	15.50
		----------	AvgRF	CCRF	% Dev	----------		
101	S	4-bromofluorobenzene (s)	0.813	0.778	4.3	103	0.00	15.53
102	M	bromobenzene	0.740	0.756	-2.2	97	0.00	15.75
103	M	1,1,2,2-tetrachloroethane	0.663	0.683	-3.0	96	0.00	15.66
104	M	trans-1,4-dichloro-2-bute	0.180	0.193	-7.2	97	0.00	15.70
105	M	1,2,3-trichloropropane	0.156	0.170	-9.0	98	0.00	15.74
106	M	n-propylbenzene	2.979	3.037	-1.9	101	0.00	15.75
107	M	2-chlorotoluene	0.650	0.653	-0.5	96	0.00	15.93
108	M	4-chlorotoluene	1.947	1.927	1.0	95	0.00	16.04
109	m	p-ethyltoluene	2.586	2.534	2.0	103	0.00	15.87
110	M	1,3,5-trimethylbenzene	2.221	2.142	3.6	93	0.00	15.93
111	M	tert-butylbenzene	1.860	1.900	-2.2	96	0.00	16.32
112	M	pentachloroethane	0.481	0.504	-4.8	100	0.00	16.43
113	M	1,2,4-trimethylbenzene	2.240	2.354	-5.1	101	0.00	16.38
114	M	sec-butylbenzene	2.898	2.867	1.1	94	0.00	16.56
115	M	1,3-dichlorobenzene	1.438	1.456	-1.3	96	0.00	16.79
116	M	p-isopropyltoluene	2.498	2.478	0.8	95	0.00	16.70
117	M	1,2,3-trimethylbenzene		----------NA----------				
118	M	1,4-dichlorobenzene	1.477	1.454	1.6	96	0.00	16.88
119	m	p-diethylbenzene	1.564	1.550	0.9	100	0.00	17.13
120	M	1,2-dichlorobenzene	1.405	1.426	-1.5	97	0.00	17.33
121	M	n-butylbenzene	1.334	1.338	-0.3	95	0.00	17.17
122	m	1,2,4,5-tetramethylbenzen	2.626	2.695	-2.6	103	0.00	18.01
123	M	1,2-dibromo-3-chloropropa	0.127	0.133	-4.7	101	0.00	18.20
124	M	1,3,5-trichlorobenzene	1.268	1.305	-2.9	98	0.00	18.39
125	M	1,2,4-trichlorobenzene	1.095	1.175	-7.3	99	0.00	19.11
126	M	hexachlorobutadiene	0.714	0.728	-2.0	97	0.00	19.23
127	M	naphthalene	1.947	2.243	-15.2	103	0.00	19.43
128	M	1,2,3-trichlorobenzene	0.973	1.063	-9.2	101	0.00	19.71
129	M	hexachloroethane	0.515	0.528	-2.5	98	0.00	17.62
130		Ethylenimine		----------NA----------				
131		Bis(chloromethyl)ether		----------NA----------				
132		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A205530.D MA7751.M Wed May 14 10:25:59 2014 RPT1

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7793-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206656.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\A\va7793\A206656.D          Vial: 2
Acq On    : 22 Jun 2014   3:15 pm                     Operator: CourtneM
Sample    : cc7751-20                                 Inst    : MSA
Misc      : MS69379,VA7793,5.0,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title        : SW 846  8260bB ZB624 60m x 0.25mm x 1.4um
Last Update  : Wed May 14 10:24:05 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.010  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	115	0.00	7.48
2	M	1,4-dioxane	0.101	0.091	9.9	98	0.00	11.55
3	M	tertiary butyl alcohol	1.246	1.271	-2.0	119	0.00	7.61
4	I	pentafluorobenzene	1.000	1.000	0.0	91	0.00	9.83
5		chlorotrifluoroethene		----------NA----------				
6	M	chlorodifluoromethane	0.310	0.445	-43.5#	147	0.02	3.98
7	M	dichlorodifluoromethane	0.428	0.464	-8.4	100	0.00	3.95
8	M	chloromethane	0.572	0.627	-9.6	104	0.00	4.26
9	M	vinyl chloride	0.476	0.508	-6.7	95	0.02	4.54
10	M	bromomethane	0.333	0.335	-0.6	93	0.02	5.21
11	M	chloroethane	0.213	0.217	-1.9	91	0.00	5.39
12		vinyl bromide		----------NA----------				
13	M	trichlorofluoromethane	0.478	0.599	-25.3#	112	0.02	5.89
14	m	pentane		----------NA----------				
15	M	ethyl ether	0.210	0.215	-2.4	91	0.00	6.29
16		Freon 123a		----------NA----------				
		----------	True	Calc.	% Drift	----------		
17	M	acrolein	200.000	232.184	-16.1	117	0.01	6.58
		----------	AvgRF	CCRF	% Dev	----------		
18		freon 113	0.265	0.281	-6.0	98	0.03	6.72
19	M	1,1-dichloroethene	0.334	0.331	0.9	89	0.02	6.75
20	M	acetone	0.035	0.035	0.0	86	0.00	6.82
21	M	allyl chloride	0.196	0.199	-1.5	84	0.01	7.31
22	M	acetonitrile	0.032	0.041	-28.1#	125	0.01	7.30
23	M	iodomethane	0.717	0.747	-4.2	91	0.00	7.04
24	M	carbon disulfide	1.219	1.247	-2.3	92	0.01	7.17
25	M	methylene chloride	0.456	0.438	3.9	87	0.01	7.52
26	M	methyl acetate	0.292	0.352	-20.5#	114	0.00	7.30
27	M	methyl tert butyl ether	1.157	1.305	-12.8	98	0.01	7.86
28	M	trans-1,2-dichloroethene	0.366	0.385	-5.2	90	0.00	7.90
29		hexane	0.469	0.472	-0.6	92	0.01	8.21
30	M	di-isopropyl ether	1.520	1.656	-8.9	98	0.00	8.47
31	m	t-butyl formate	0.346	0.401	-15.9	103	0.01	9.70
32	M	ethyl tert-butyl ether	1.386	1.540	-11.1	99	0.01	8.98
33	M	2-butanone	0.043	0.043	0.0	91	0.01	9.26
34	M	1,1-dichloroethane	0.715	0.800	-11.9	96	0.01	8.51
35	M	chloroprene	0.538	0.592	-10.0	98	0.01	8.62
36	M	acrylonitrile	0.119	0.149	-25.2#	109	0.01	7.87
37	M	vinyl acetate	0.056	0.057	-1.8	89	0.01	8.50

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7793-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206656.D
Project: BMS-ICM, Humacao, PR

38	M	ethyl acetate	0.054	0.065	-20.4#	111	0.00	9.27
39		ethyl acrylate		----------NA----------				
40	M	2,2-dichloropropane	0.548	0.619	-13.0	97	0.00	9.28
41	M	cis-1,2-dichloroethene	0.412	0.440	-6.8	90	0.00	9.28
42	M	propionitrile	0.047	0.061	-29.8#	113	0.00	9.37
43	M	bromochloromethane	0.205	0.229	-11.7	93	0.00	9.61
44	M	tetrahydrofuran	0.144	0.172	-19.4	111	0.00	9.65
45	M	chloroform	0.699	0.779	-11.4	97	0.00	9.68
46	S	dibromofluoromethane (s)	0.406	0.431	-6.2	98	0.00	9.89
47	S	1,2-dichloroethane-d4 (s)	0.444	0.481	-8.3	102	0.00	10.32
48	M	methacrylonitrile	0.136	0.155	-14.0	99	0.00	9.56
49		cyclohexane	0.529	0.503	4.9	84	0.01	10.00
50	M	1,1,1-trichloroethane	0.556	0.608	-9.4	96	0.00	9.93
51		iso-butyl alcohol		----------NA----------				
52	M	tert-amyl methyl ether	1.338	1.370	-2.4	95	0.00	10.42
53	I	1,4-difluorobenzene	1.000	1.000	0.0	88	0.00	10.79
54	M	Di-isobutylene		----------NA----------				
55	M	epichlorohydrin	0.027	0.031	-14.8	101	0.00	12.14
56	M	n-butyl alcohol	0.009	0.011	-22.2#	110	0.00	10.93
57	M	carbon tetrachloride	0.362	0.417	-15.2	97	0.01	10.14
58	M	1,1-dichloropropene	0.354	0.385	-8.8	91	0.00	10.12
59	M	benzene	1.059	1.148	-8.4	88	0.00	10.39
60	M	Iso-octane	1.059	1.091	-3.0	93	0.01	10.38
61	M	heptane	0.212	0.198	6.6	83	0.00	10.55
62	m	tert amyl alcohol		----------NA----------				
63	M	isopropyl acetate	0.640	0.663	-3.6	93	0.00	10.31
64	M	1,2-dichloroethane	0.354	0.450	-27.1#	103	0.00	10.42
65	M	trichloroethene	0.268	0.287	-7.1	88	0.00	11.14
66	M	2-nitropropane	0.104	0.138	-32.7#	118	0.00	11.99
67	m	tert-amyl ethyl ether		----------NA----------				
68	m	methylcyclohexane	0.436	0.428	1.8	88	0.01	11.37
69	M	2-chloroethyl vinyl ether	0.162	0.203	-25.3#	109	0.00	12.00
70	M	methyl methacrylate	0.171	0.203	-18.7	100	0.01	11.43
71	M	1,2-dichloropropane	0.298	0.339	-13.8	91	0.00	11.43
72	M	dibromomethane	0.166	0.203	-22.3#	99	0.00	11.60
73	M	bromodichloromethane	0.388	0.460	-18.6	97	0.00	11.74
74	M	cis-1,3-dichloropropene	0.482	0.551	-14.3	90	0.00	12.23
75	S	toluene-d8 (s)	1.045	1.160	-11.0	98	0.00	12.54
76	M	4-methyl-2-pentanone	0.104	0.128	-23.1#	102	0.00	12.34
77	M	toluene	0.716	0.702	2.0	84	0.00	12.62
78	M	3-methyl-1-butanol	0.015	0.017	-13.3	104	0.00	12.36
79	M	trans-1,3-dichloropropene	0.442	0.520	-17.6	94	0.00	12.85
80	M	ethyl methacrylate	0.367	0.389	-6.0	93	0.00	12.84
81	M	1,1,2-trichloroethane	0.214	0.241	-12.6	93	0.00	13.09
82	M	2-hexanone	0.102	0.122	-19.6	102	0.00	13.27
83	I	chlorobenzene-d5	1.000	1.000	0.0	90	0.00	14.23
84	M	tetrachloroethene	0.277	0.267	3.6	84	0.00	13.26
85	M	1,3-dichloropropane	0.428	0.493	-15.2	96	0.00	13.29
86	M	butyl acetate	0.209	0.236	-12.9	101	0.00	13.35
87		3,3-dimethyl-1-butanol	0.036	0.039	-8.3	108	0.00	13.47
88	M	dibromochloromethane	0.344	0.380	-10.5	93	0.00	13.59
89	M	1,2-dibromoethane	0.276	0.300	-8.7	95	0.01	13.76
90	M	n-butyl ether		----------NA----------				
91	M	chlorobenzene	0.855	0.887	-3.7	85	0.00	14.27
92	M	1,1,1,2-tetrachloroethane	0.336	0.374	-11.3	93	0.00	14.34
93	M	ethylbenzene	1.419	1.480	-4.3	88	0.00	14.32
94	M	m,p-xylene	0.543	0.545	-0.4	84	0.00	14.44
95	M	o-xylene	0.564	0.575	-2.0	85	0.00	14.92

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7793-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206656.D
Project: BMS-ICM, Humacao, PR

96	M	styrene	0.987	0.983	0.4	84	0.00	14.93
97	M	bromoform	0.256	0.286	-11.7	96	0.00	15.24
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	88	0.01	16.86
99	M	isopropylbenzene	2.502	2.565	-2.5	84	0.00	15.30
		----------	True	Calc.	% Drift	----------		
100	m	cyclohexanone	200.000	197.455	1.3	93	0.00	15.51
		----------	AvgRF	CCRF	% Dev	----------		
101	S	4-bromofluorobenzene (s)	0.813	0.852	-4.8	95	0.00	15.54
102	M	bromobenzene	0.740	0.820	-10.8	91	0.00	15.76
103	M	1,1,2,2-tetrachloroethane	0.663	0.771	-16.3	99	0.00	15.67
104	M	trans-1,4-dichloro-2-bute	0.180	0.230	-27.8#	109	0.00	15.71
105	M	1,2,3-trichloropropane	0.156	0.199	-27.6#	105	0.00	15.75
106	M	n-propylbenzene	2.979	2.978	0.0	85	0.01	15.76
107	M	2-chlorotoluene	0.650	0.675	-3.8	85	0.00	15.94
108	M	4-chlorotoluene	1.947	2.043	-4.9	88	0.00	16.05
109	m	p-ethyltoluene		----------NA----------				
110	M	1,3,5-trimethylbenzene	2.221	2.284	-2.8	84	0.00	15.93
111	M	tert-butylbenzene	1.860	1.929	-3.7	83	0.00	16.33
112	M	pentachloroethane	0.481	0.550	-14.3	95	0.00	16.43
113	M	1,2,4-trimethylbenzene	2.240	2.301	-2.7	86	0.00	16.38
114	M	sec-butylbenzene	2.898	2.915	-0.6	83	0.00	16.57
115	M	1,3-dichlorobenzene	1.438	1.476	-2.6	84	0.00	16.79
116	M	p-isopropyltoluene	2.498	2.479	0.8	82	0.00	16.71
117	M	1,2,3-trimethylbenzene		----------NA----------				
118	M	1,4-dichlorobenzene	1.477	1.492	-1.0	86	0.00	16.89
119	m	p-diethylbenzene		----------NA----------				
120	M	1,2-dichlorobenzene	1.405	1.487	-5.8	88	0.01	17.34
121	M	n-butylbenzene	1.334	1.282	3.9	80	0.01	17.18
122	m	1,2,4,5-tetramethylbenzen		----------NA----------				
123	M	1,2-dibromo-3-chloropropa	0.127	0.152	-19.7	108	0.01	18.21
124	M	1,3,5-trichlorobenzene	1.268	1.304	-2.8	84	0.01	18.39
125	M	1,2,4-trichlorobenzene	1.095	1.128	-3.0	83	0.00	19.11
126	M	hexachlorobutadiene	0.714	0.774	-8.4	91	0.00	19.23
127	M	naphthalene	1.947	2.152	-10.5	93	0.01	19.45
128	M	1,2,3-trichlorobenzene	0.973	1.036	-6.5	88	0.00	19.72
129	M	hexachloroethane	0.515	0.542	-5.2	90	0.00	17.62
130		Ethylenimine		----------NA----------				
131		Bis(chloromethyl)ether		----------NA----------				
132		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A205529.D MA7751.M Tue Jun 24 08:07:21 2014 ACCUNJ

6.9.7

6

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7793-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206679.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\A\va7793\A206679.D          Vial: 25
Acq On    : 23 Jun 2014   4:19 am                     Operator: CourtneM
Sample    : cc7751-50                                 Inst    : MSA
Misc      : MS69394,VA7793,5.0,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title        : SW 846  8260bB ZB624 60m x 0.25mm x 1.4um
Last Update  : Wed May 14 10:24:05 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.010  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	116	0.02	7.50
2	M	1,4-dioxane	0.101	0.098	3.0	115	0.00	11.55
3	M	tertiary butyl alcohol	1.246	1.245	0.1	119	0.00	7.61
4	I	pentafluorobenzene	1.000	1.000	0.0	97	0.00	9.83
5		chlorotrifluoroethene		----------NA----------				
6	M	chlorodifluoromethane	0.310	0.385	-24.2#	122	0.00	3.96
7	M	dichlorodifluoromethane	0.428	0.441	-3.0	96	-0.01	3.95
8	M	chloromethane	0.572	0.552	3.5	92	0.00	4.26
9	M	vinyl chloride	0.476	0.468	1.7	89	0.01	4.53
10	M	bromomethane	0.333	0.315	5.4	93	0.00	5.20
11	M	chloroethane	0.213	0.207	2.8	89	0.00	5.39
12		vinyl bromide		----------NA----------				
13	M	trichlorofluoromethane	0.478	0.512	-7.1	93	0.03	5.90
14	m	pentane		----------NA----------				
15	M	ethyl ether	0.210	0.216	-2.9	91	0.00	6.30
16		Freon 123a		----------NA----------				
		----------	True	Calc.	% Drift	----------		
17	M	acrolein	500.000	527.292	-5.5	103	0.01	6.58
		----------	AvgRF	CCRF	% Dev	----------		
18		freon 113	0.265	0.271	-2.3	98	0.03	6.72
19	M	1,1-dichloroethene	0.334	0.320	4.2	87	0.03	6.76
20	M	acetone	0.035	0.038	-8.6	89	0.00	6.81
21	M	allyl chloride	0.196	0.186	5.1	82	0.01	7.31
22	M	acetonitrile	0.032	0.038	-18.7	110	0.01	7.30
23	M	iodomethane	0.717	0.714	0.4	88	0.01	7.05
24	M	carbon disulfide	1.219	1.176	3.5	86	0.04	7.20
25	M	methylene chloride	0.456	0.423	7.2	89	0.02	7.52
26	M	methyl acetate	0.292	0.373	-27.7#	123	0.01	7.30
27	M	methyl tert butyl ether	1.157	1.278	-10.5	95	0.01	7.86
28	M	trans-1,2-dichloroethene	0.366	0.367	-0.3	89	0.00	7.90
29		hexane	0.469	0.436	7.0	91	0.00	8.20
30	M	di-isopropyl ether	1.520	1.600	-5.3	101	0.00	8.47
31	m	t-butyl formate	0.346	0.393	-13.6	103	0.00	9.70
32	M	ethyl tert-butyl ether	1.386	1.490	-7.5	101	0.00	8.97
33	M	2-butanone	0.043	0.047	-9.3	94	0.00	9.26
34	M	1,1-dichloroethane	0.715	0.758	-6.0	94	0.00	8.50
35	M	chloroprene	0.538	0.592	-10.0	103	0.00	8.61
36	M	acrylonitrile	0.119	0.155	-30.3#	108	0.01	7.87
37	M	vinyl acetate	0.056	0.061	-8.9	97	0.01	8.50

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7793-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206679.D
Project: BMS-ICM, Humacao, PR

38	M	ethyl acetate	0.054	0.069	-27.8#	119	0.00	9.27
39		ethyl acrylate		----------NA----------				
40	M	2,2-dichloropropane	0.548	0.437	20.3#	72	0.00	9.28
41	M	cis-1,2-dichloroethene	0.412	0.432	-4.9	91	0.01	9.29
42	M	propionitrile	0.047	0.062	-31.9#	108	0.00	9.37
43	M	bromochloromethane	0.205	0.223	-8.8	91	0.00	9.61
44	M	tetrahydrofuran	0.144	0.176	-22.2#	111	0.00	9.65
45	M	chloroform	0.699	0.742	-6.2	96	0.00	9.68
46	S	dibromofluoromethane (s)	0.406	0.423	-4.2	104	0.00	9.88
47	S	1,2-dichloroethane-d4 (s)	0.444	0.475	-7.0	106	0.00	10.32
48	M	methacrylonitrile	0.136	0.160	-17.6	99	0.00	9.56
49		cyclohexane	0.529	0.479	9.5	81	0.00	9.99
50	M	1,1,1-trichloroethane	0.556	0.575	-3.4	92	0.00	9.93
51		iso-butyl alcohol		----------NA----------				
52	M	tert-amyl methyl ether	1.338	1.345	-0.5	97	0.00	10.42
53	I	1,4-difluorobenzene	1.000	1.000	0.0	94	0.00	10.78
54	M	Di-isobutylene		----------NA----------				
55	M	epichlorohydrin	0.027	0.031	-14.8	104	0.00	12.13
56	M	n-butyl alcohol	0.009	0.012	-33.3#	116	0.00	10.93
57	M	carbon tetrachloride	0.362	0.396	-9.4	94	0.00	10.13
58	M	1,1-dichloropropene	0.354	0.372	-5.1	91	0.00	10.11
59	M	benzene	1.059	1.130	-6.7	90	0.00	10.39
60	M	Iso-octane	1.059	1.007	4.9	89	0.00	10.38
61	M	heptane	0.212	0.176	17.0	79	0.00	10.55
62	m	tert amyl alcohol		----------NA----------				
63	M	isopropyl acetate	0.640	0.687	-7.3	99	0.00	10.31
64	M	1,2-dichloroethane	0.354	0.444	-25.4#	104	0.00	10.42
65	M	trichloroethene	0.268	0.282	-5.2	90	0.00	11.14
66	M	2-nitropropane	0.104	0.140	-34.6#	117	0.00	11.99
67	m	tert-amyl ethyl ether		----------NA----------				
68	m	methylcyclohexane	0.436	0.409	6.2	88	0.00	11.35
69	M	2-chloroethyl vinyl ether	0.162	0.212	-30.9#	116	0.00	11.99
70	M	methyl methacrylate	0.171	0.209	-22.2#	102	0.00	11.43
71	M	1,2-dichloropropane	0.298	0.329	-10.4	92	0.00	11.43
72	M	dibromomethane	0.166	0.197	-18.7	97	0.00	11.60
73	M	bromodichloromethane	0.388	0.464	-19.6	99	0.00	11.74
74	M	cis-1,3-dichloropropene	0.482	0.507	-5.2	86	0.00	12.23
75	S	toluene-d8 (s)	1.045	1.146	-9.7	105	0.00	12.54
76	M	4-methyl-2-pentanone	0.104	0.133	-27.9#	102	0.00	12.33
77	M	toluene	0.716	0.687	4.1	85	0.00	12.62
78	M	3-methyl-1-butanol	0.015	0.019	-26.7#	113	0.00	12.36
79	M	trans-1,3-dichloropropene	0.442	0.486	-10.0	89	0.00	12.85
80	M	ethyl methacrylate	0.367	0.418	-13.9	95	0.00	12.83
81	M	1,1,2-trichloroethane	0.214	0.243	-13.6	96	0.00	13.09
82	M	2-hexanone	0.102	0.129	-26.5#	99	0.00	13.27
83	I	chlorobenzene-d5	1.000	1.000	0.0	95	0.00	14.23
84	M	tetrachloroethene	0.277	0.271	2.2	86	0.00	13.26
85	M	1,3-dichloropropane	0.428	0.497	-16.1	96	0.00	13.28
86	M	butyl acetate	0.209	0.235	-12.4	101	0.00	13.35
87		3,3-dimethyl-1-butanol	0.036	0.045	-25.0#	116	0.00	13.47
88	M	dibromochloromethane	0.344	0.387	-12.5	94	0.00	13.58
89	M	1,2-dibromoethane	0.276	0.307	-11.2	96	0.00	13.75
90	M	n-butyl ether		----------NA----------				
91	M	chlorobenzene	0.855	0.872	-2.0	86	0.00	14.26
92	M	1,1,1,2-tetrachloroethane	0.336	0.367	-9.2	93	0.00	14.33
93	M	ethylbenzene	1.419	1.411	0.6	86	0.00	14.32
94	M	m,p-xylene	0.543	0.520	4.2	82	0.00	14.44
95	M	o-xylene	0.564	0.546	3.2	82	0.00	14.91

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7793-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206679.D
Project: BMS-ICM, Humacao, PR

96	M	styrene	0.987	0.980	0.7	84	0.00	14.93
97	M	bromoform	0.256	0.309	-20.7#	100	0.00	15.24
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	91	0.00	16.86
99	M	isopropylbenzene	2.502	2.400	4.1	82	0.00	15.29
		----------	True	Calc.	% Drift	----------		
100	m	cyclohexanone	500.000	224.049	55.2#	35	0.00	15.50
		----------	AvgRF	CCRF	% Dev	----------		
101	S	4-bromofluorobenzene (s)	0.813	0.852	-4.8	100	0.00	15.53
102	M	bromobenzene	0.740	0.772	-4.3	88	0.00	15.76
103	M	1,1,2,2-tetrachloroethane	0.663	0.771	-16.3	97	0.00	15.66
104	M	trans-1,4-dichloro-2-bute	0.180	0.197	-9.4	88	0.00	15.71
105	M	1,2,3-trichloropropane	0.156	0.191	-22.4#	99	0.00	15.75
106	M	n-propylbenzene	2.979	2.766	7.2	82	0.00	15.76
107	M	2-chlorotoluene	0.650	0.647	0.5	85	0.00	15.93
108	M	4-chlorotoluene	1.947	1.898	2.5	84	0.00	16.05
109	m	p-ethyltoluene		----------NA----------				
110	M	1,3,5-trimethylbenzene	2.221	2.126	4.3	82	0.00	15.93
111	M	tert-butylbenzene	1.860	1.812	2.6	82	0.00	16.32
112	M	pentachloroethane	0.481	0.484	-0.6	86	0.00	16.43
113	M	1,2,4-trimethylbenzene	2.240	2.141	4.4	82	0.00	16.38
114	M	sec-butylbenzene	2.898	2.751	5.1	81	0.00	16.57
115	M	1,3-dichlorobenzene	1.438	1.400	2.6	82	0.00	16.79
116	M	p-isopropyltoluene	2.498	2.278	8.8	78	0.00	16.70
117	M	1,2,3-trimethylbenzene		----------NA----------				
118	M	1,4-dichlorobenzene	1.477	1.394	5.6	82	0.00	16.89
119	m	p-diethylbenzene		----------NA----------				
120	M	1,2-dichlorobenzene	1.405	1.407	-0.1	85	0.00	17.33
121	M	n-butylbenzene	1.334	1.178	11.7	75	0.00	17.17
122	m	1,2,4,5-tetramethylbenzen		----------NA----------				
123	M	1,2-dibromo-3-chloropropa	0.127	0.157	-23.6#	108	0.00	18.20
124	M	1,3,5-trichlorobenzene	1.268	1.192	6.0	80	0.00	18.39
125	M	1,2,4-trichlorobenzene	1.095	1.102	-0.6	83	0.00	19.11
126	M	hexachlorobutadiene	0.714	0.719	-0.7	85	0.00	19.23
127	M	naphthalene	1.947	2.450	-25.8#	101	0.00	19.44
128	M	1,2,3-trichlorobenzene	0.973	1.094	-12.4	93	0.00	19.72
129	M	hexachloroethane	0.515	0.536	-4.1	89	0.00	17.62
130		Ethylenimine		----------NA----------				
131		Bis(chloromethyl)ether		----------NA----------				
132		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A205530.D MA7751.M Tue Jun 24 08:09:53 2014 ACCUNJ

6.9.8

6

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7794-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206690.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\A\va7794-7795\A206690.D    Vial: 2
Acq On    : 23 Jun 2014  10:47 am                    Operator: CourtneM
Sample    : cc7751-20                                Inst    : MSA
Misc      : MS69379,VA7794,5,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title        : SW 846  8260bB ZB624 60m x 0.25mm x 1.4um
Last Update  : Wed May 14 10:24:05 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.010  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	117	0.00	7.47
2	M	1,4-dioxane	0.101	0.089	11.9	98	0.00	11.55
3	M	tertiary butyl alcohol	1.246	1.115	10.5	106	0.00	7.60
4	I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	9.82
5		chlorotrifluoroethene		----------NA----------				
6	M	chlorodifluoromethane	0.310	0.364	-17.4	124	0.00	3.96
7	M	dichlorodifluoromethane	0.428	0.442	-3.3	99	0.00	3.95
8	M	chloromethane	0.572	0.565	1.2	96	0.00	4.26
9	M	vinyl chloride	0.476	0.466	2.1	90	0.00	4.52
10	M	bromomethane	0.333	0.315	5.4	90	0.00	5.20
11	M	chloroethane	0.213	0.205	3.8	89	0.00	5.38
12		vinyl bromide		----------NA----------				
13	M	trichlorofluoromethane	0.478	0.570	-19.2	110	0.02	5.89
14	m	pentane		----------NA----------				
15	M	ethyl ether	0.210	0.187	11.0	81	0.00	6.29
16		Freon 123a		----------NA----------				
		----------	True	Calc.	% Drift	----------		
17	M	acrolein	200.000	117.687	41.2#	65	0.00	6.57
		----------	AvgRF	CCRF	% Dev	----------		
18		freon 113	0.265	0.246	7.2	88	0.02	6.71
19	M	1,1-dichloroethene	0.334	0.298	10.8	82	0.01	6.75
20	M	acetone	0.035	0.034	2.9	88	0.00	6.81
21	M	allyl chloride	0.196	0.174	11.2	75	0.00	7.29
22	M	acetonitrile	0.032	0.035	-9.4	111	0.00	7.28
23	M	iodomethane	0.717	0.664	7.4	83	0.00	7.04
24	M	carbon disulfide	1.219	1.097	10.0	83	0.00	7.16
25	M	methylene chloride	0.456	0.420	7.9	86	0.00	7.51
26	M	methyl acetate	0.292	0.291	0.3	97	0.00	7.28
27	M	methyl tert butyl ether	1.157	1.199	-3.6	93	0.00	7.84
28	M	trans-1,2-dichloroethene	0.366	0.361	1.4	87	0.00	7.90
29		hexane	0.469	0.412	12.2	83	0.00	8.20
30	M	di-isopropyl ether	1.520	1.435	5.6	88	0.00	8.47
31	m	t-butyl formate	0.346	0.341	1.4	90	0.00	9.69
32	M	ethyl tert-butyl ether	1.386	1.304	5.9	86	0.00	8.96
33	M	2-butanone	0.043	0.041	4.7	90	0.00	9.25
34	M	1,1-dichloroethane	0.715	0.743	-3.9	92	0.00	8.50
35	M	chloroprene	0.538	0.532	1.1	90	0.00	8.61
36	M	acrylonitrile	0.119	0.137	-15.1	103	0.00	7.86
37	M	vinyl acetate	0.056	0.049	12.5	78	0.00	8.49

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7794-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206690.D
Project: BMS-ICM, Humacao, PR

38	M	ethyl acetate	0.054	0.053	1.9	93	0.00	9.27
39		ethyl acrylate		----------NA----------				
40	M	2,2-dichloropropane	0.548	0.598	-9.1	97	0.00	9.27
41	M	cis-1,2-dichloroethene	0.412	0.419	-1.7	89	0.00	9.28
42	M	propionitrile	0.047	0.055	-17.0	105	0.00	9.37
43	M	bromochloromethane	0.205	0.211	-2.9	88	0.00	9.61
44	M	tetrahydrofuran	0.144	0.162	-12.5	108	0.00	9.65
45	M	chloroform	0.699	0.738	-5.6	94	0.00	9.67
46	S	dibromofluoromethane (s)	0.406	0.428	-5.4	100	0.00	9.88
47	S	1,2-dichloroethane-d4 (s)	0.444	0.471	-6.1	103	0.00	10.32
48	M	methacrylonitrile	0.136	0.143	-5.1	94	0.00	9.55
49		cyclohexane	0.529	0.474	10.4	81	0.00	9.99
50	M	1,1,1-trichloroethane	0.556	0.595	-7.0	96	0.00	9.92
51		iso-butyl alcohol		----------NA----------				
52	M	tert-amyl methyl ether	1.338	1.203	10.1	86	0.00	10.42
53	I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	10.78
54	M	Di-isobutylene		----------NA----------				
55	M	epichlorohydrin	0.027	0.027	0.0	91	0.00	12.13
56	M	n-butyl alcohol	0.009	0.009#	0.0	96	0.00	10.92
57	M	carbon tetrachloride	0.362	0.391	-8.0	94	0.00	10.13
58	M	1,1-dichloropropene	0.354	0.362	-2.3	88	0.00	10.10
59	M	benzene	1.059	1.103	-4.2	88	0.00	10.38
60	M	Iso-octane	1.059	1.183	-11.7	104	0.00	10.37
61	M	heptane	0.212	0.192	9.4	83	0.00	10.55
62	m	tert amyl alcohol		----------NA----------				
63	M	isopropyl acetate	0.640	0.582	9.1	84	0.00	10.31
64	M	1,2-dichloroethane	0.354	0.428	-20.9#	101	0.00	10.41
65	M	trichloroethene	0.268	0.279	-4.1	88	0.00	11.13
66	M	2-nitropropane	0.104	0.125	-20.2#	110	0.00	11.98
67	m	tert-amyl ethyl ether		----------NA----------				
68	m	methylcyclohexane	0.436	0.385	11.7	81	0.00	11.35
69	M	2-chloroethyl vinyl ether	0.162	0.174	-7.4	97	0.00	11.99
70	M	methyl methacrylate	0.171	0.180	-5.3	92	0.00	11.42
71	M	1,2-dichloropropane	0.298	0.321	-7.7	89	0.00	11.42
72	M	dibromomethane	0.166	0.182	-9.6	92	0.00	11.59
73	M	bromodichloromethane	0.388	0.452	-16.5	98	0.00	11.73
74	M	cis-1,3-dichloropropene	0.482	0.520	-7.9	88	0.00	12.23
75	S	toluene-d8 (s)	1.045	1.126	-7.8	99	0.00	12.53
76	M	4-methyl-2-pentanone	0.104	0.121	-16.3	99	0.00	12.33
77	M	toluene	0.716	0.673	6.0	83	0.00	12.61
78	M	3-methyl-1-butanol	0.015	0.015	0.0	96	0.00	12.36
79	M	trans-1,3-dichloropropene	0.442	0.496	-12.2	93	0.00	12.84
80	M	ethyl methacrylate	0.367	0.380	-3.5	94	0.00	12.82
81	M	1,1,2-trichloroethane	0.214	0.227	-6.1	91	0.00	13.08
82	M	2-hexanone	0.102	0.113	-10.8	98	0.00	13.27
83	I	chlorobenzene-d5	1.000	1.000	0.0	91	0.00	14.22
84	M	tetrachloroethene	0.277	0.263	5.1	83	0.00	13.26
85	M	1,3-dichloropropane	0.428	0.477	-11.4	93	0.00	13.29
86	M	butyl acetate	0.209	0.208	0.5	90	0.00	13.35
87		3,3-dimethyl-1-butanol	0.036	0.037	-2.8	102	0.00	13.47
88	M	dibromochloromethane	0.344	0.376	-9.3	93	0.00	13.58
89	M	1,2-dibromoethane	0.276	0.294	-6.5	93	0.00	13.74
90	M	n-butyl ether		----------NA----------				
91	M	chlorobenzene	0.855	0.876	-2.5	85	0.00	14.26
92	M	1,1,1,2-tetrachloroethane	0.336	0.354	-5.4	89	0.00	14.32
93	M	ethylbenzene	1.419	1.462	-3.0	87	0.00	14.31
94	M	m,p-xylene	0.543	0.540	0.6	84	0.00	14.43
95	M	o-xylene	0.564	0.554	1.8	83	0.00	14.91

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7794-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206690.D
Project: BMS-ICM, Humacao, PR

96	M	styrene	0.987	0.969	1.8	83	0.00	14.92
97	M	bromoform	0.256	0.282	-10.2	95	0.00	15.23
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	16.85
99	M	isopropylbenzene	2.502	2.447	2.2	85	0.00	15.29
		----------	True	Calc.	% Drift	----------		
100	m	cyclohexanone	200.000	250.253	-25.1#	125	0.00	15.49
		----------	AvgRF	CCRF	% Dev	----------		
101	S	4-bromofluorobenzene (s)	0.813	0.844	-3.8	100	0.00	15.53
102	M	bromobenzene	0.740	0.750	-1.4	88	0.00	15.76
103	M	1,1,2,2-tetrachloroethane	0.663	0.701	-5.7	95	0.00	15.66
104	M	trans-1,4-dichloro-2-bute	0.180	0.209	-16.1	105	0.00	15.70
105	M	1,2,3-trichloropropane	0.156	0.179	-14.7	100	0.00	15.74
106	M	n-propylbenzene	2.979	2.901	2.6	87	0.00	15.76
107	M	2-chlorotoluene	0.650	0.657	-1.1	87	0.00	15.93
108	M	4-chlorotoluene	1.947	1.976	-1.5	90	0.00	16.04
109	m	p-ethyltoluene		----------NA----------				
110	M	1,3,5-trimethylbenzene	2.221	2.199	1.0	86	0.00	15.92
111	M	tert-butylbenzene	1.860	1.849	0.6	85	0.00	16.32
112	M	pentachloroethane	0.481	0.507	-5.4	92	0.00	16.43
113	M	1,2,4-trimethylbenzene	2.240	2.228	0.5	88	0.00	16.37
114	M	sec-butylbenzene	2.898	2.896	0.1	87	0.00	16.57
115	M	1,3-dichlorobenzene	1.438	1.456	-1.3	88	0.00	16.79
116	M	p-isopropyltoluene	2.498	2.488	0.4	86	0.00	16.70
117	M	1,2,3-trimethylbenzene		----------NA----------				
118	M	1,4-dichlorobenzene	1.477	1.450	1.8	88	0.00	16.88
119	m	p-diethylbenzene		----------NA----------				
120	M	1,2-dichlorobenzene	1.405	1.433	-2.0	90	0.00	17.33
121	M	n-butylbenzene	1.334	1.317	1.3	87	0.00	17.17
122	m	1,2,4,5-tetramethylbenzen		----------NA----------				
123	M	1,2-dibromo-3-chloropropa	0.127	0.141	-11.0	106	0.00	18.19
124	M	1,3,5-trichlorobenzene	1.268	1.345	-6.1	91	0.00	18.39
125	M	1,2,4-trichlorobenzene	1.095	1.187	-8.4	92	0.00	19.10
126	M	hexachlorobutadiene	0.714	0.802	-12.3	100	0.00	19.22
127	M	naphthalene	1.947	2.171	-11.5	99	0.00	19.43
128	M	1,2,3-trichlorobenzene	0.973	1.085	-11.5	97	0.00	19.71
129	M	hexachloroethane	0.515	0.537	-4.3	94	0.00	17.61
130		Ethylenimine		----------NA----------				
131		Bis(chloromethyl)ether		----------NA----------				
132		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A205529.D MA7751.M Tue Jun 24 09:47:04 2014 ACCUNJ

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7795-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206690A.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\A\va7794-7795\A206690a.D Vial: 2
Acq On : 23 Jun 2014 10:47 am Operator: CourtneM
Sample : cc7751-20 Inst : MSA
Misc : MS69545,VA7795,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
Last Update : Wed May 14 10:24:05 2014
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	117	0.00	7.47
2	M	1,4-dioxane	0.101	0.089	11.9	98	0.00	11.55
3	M	tertiary butyl alcohol	1.246	1.115	10.5	106	0.00	7.60
4	I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	9.82
5		chlorotrifluoroethene		----------NA----------				
6	M	chlorodifluoromethane	0.310	0.364	-17.4	124	0.00	3.96
7	M	dichlorodifluoromethane	0.428	0.442	-3.3	99	0.00	3.95
8	M	chloromethane	0.572	0.565	1.2	96	0.00	4.26
9	M	vinyl chloride	0.476	0.466	2.1	90	0.00	4.52
10	M	bromomethane	0.333	0.315	5.4	90	0.00	5.20
11	M	chloroethane	0.213	0.205	3.8	89	0.00	5.38
12		vinyl bromide		----------NA----------				
13	M	trichlorofluoromethane	0.478	0.570	-19.2	110	0.02	5.89
14	m	pentane		----------NA----------				
15	M	ethyl ether	0.210	0.187	11.0	81	0.00	6.29
16		Freon 123a		----------NA----------				
		----------	True	Calc.	% Drift	----------		
17	M	acrolein	200.000	117.687	41.2#	65	0.00	6.57
		----------	AvgRF	CCRF	% Dev	----------		
18		freon 113	0.265	0.246	7.2	88	0.02	6.71
19	M	1,1-dichloroethene	0.334	0.298	10.8	82	0.01	6.75
20	M	acetone	0.035	0.034	2.9	88	0.00	6.81
21	M	allyl chloride	0.196	0.174	11.2	75	0.00	7.29
22	M	acetonitrile	0.032	0.035	-9.4	111	0.00	7.28
23	M	iodomethane	0.717	0.664	7.4	83	0.00	7.04
24	M	carbon disulfide	1.219	1.097	10.0	83	0.00	7.16
25	M	methylene chloride	0.456	0.420	7.9	86	0.00	7.51
26	M	methyl acetate	0.292	0.291	0.3	97	0.00	7.28
27	M	methyl tert butyl ether	1.157	1.199	-3.6	93	0.00	7.84
28	M	trans-1,2-dichloroethene	0.366	0.361	1.4	87	0.00	7.90
29		hexane	0.469	0.412	12.2	83	0.00	8.20
30	M	di-isopropyl ether	1.520	1.435	5.6	88	0.00	8.47
31	m	t-butyl formate	0.346	0.341	1.4	90	0.00	9.69
32	M	ethyl tert-butyl ether	1.386	1.304	5.9	86	0.00	8.96
33	M	2-butanone	0.043	0.041	4.7	90	0.00	9.25
34	M	1,1-dichloroethane	0.715	0.743	-3.9	92	0.00	8.50
35	M	chloroprene	0.538	0.532	1.1	90	0.00	8.61
36	M	acrylonitrile	0.119	0.137	-15.1	103	0.00	7.86
37	M	vinyl acetate	0.056	0.049	12.5	78	0.00	8.49

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7795-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206690A.D
Project: BMS-ICM, Humacao, PR

38	M	ethyl acetate	0.054	0.053	1.9	93	0.00	9.27
39		ethyl acrylate		----------NA----------				
40	M	2,2-dichloropropane	0.548	0.598	-9.1	97	0.00	9.27
41	M	cis-1,2-dichloroethene	0.412	0.419	-1.7	89	0.00	9.28
42	M	propionitrile	0.047	0.055	-17.0	105	0.00	9.37
43	M	bromochloromethane	0.205	0.211	-2.9	88	0.00	9.61
44	M	tetrahydrofuran	0.144	0.162	-12.5	108	0.00	9.65
45	M	chloroform	0.699	0.738	-5.6	94	0.00	9.67
46	S	dibromofluoromethane (s)	0.406	0.428	-5.4	100	0.00	9.88
47	S	1,2-dichloroethane-d4 (s)	0.444	0.471	-6.1	103	0.00	10.32
48	M	methacrylonitrile	0.136	0.143	-5.1	94	0.00	9.55
49		cyclohexane	0.529	0.474	10.4	81	0.00	9.99
50	M	1,1,1-trichloroethane	0.556	0.595	-7.0	96	0.00	9.92
51		iso-butyl alcohol		----------NA----------				
52	M	tert-amyl methyl ether	1.338	1.203	10.1	86	0.00	10.42
53	I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	10.78
54	M	Di-isobutylene		----------NA----------				
55	M	epichlorohydrin	0.027	0.027	0.0	91	0.00	12.13
56	M	n-butyl alcohol	0.009	0.009#	0.0	96	0.00	10.92
57	M	carbon tetrachloride	0.362	0.391	-8.0	94	0.00	10.13
58	M	1,1-dichloropropene	0.354	0.362	-2.3	88	0.00	10.10
59	M	benzene	1.059	1.103	-4.2	88	0.00	10.38
60	M	Iso-octane	1.059	1.183	-11.7	104	0.00	10.37
61	M	heptane	0.212	0.192	9.4	83	0.00	10.55
62	m	tert amyl alcohol		----------NA----------				
63	M	isopropyl acetate	0.640	0.582	9.1	84	0.00	10.31
64	M	1,2-dichloroethane	0.354	0.428	-20.9#	101	0.00	10.41
65	M	trichloroethene	0.268	0.279	-4.1	88	0.00	11.13
66	M	2-nitropropane	0.104	0.125	-20.2#	110	0.00	11.98
67	m	tert-amyl ethyl ether		----------NA----------				
68	m	methylcyclohexane	0.436	0.385	11.7	81	0.00	11.35
69	M	2-chloroethyl vinyl ether	0.162	0.174	-7.4	97	0.00	11.99
70	M	methyl methacrylate	0.171	0.180	-5.3	92	0.00	11.42
71	M	1,2-dichloropropane	0.298	0.321	-7.7	89	0.00	11.42
72	M	dibromomethane	0.166	0.182	-9.6	92	0.00	11.59
73	M	bromodichloromethane	0.388	0.452	-16.5	98	0.00	11.73
74	M	cis-1,3-dichloropropene	0.482	0.520	-7.9	88	0.00	12.23
75	S	toluene-d8 (s)	1.045	1.126	-7.8	99	0.00	12.53
76	M	4-methyl-2-pentanone	0.104	0.121	-16.3	99	0.00	12.33
77	M	toluene	0.716	0.673	6.0	83	0.00	12.61
78	M	3-methyl-1-butanol	0.015	0.015	0.0	96	0.00	12.36
79	M	trans-1,3-dichloropropene	0.442	0.496	-12.2	93	0.00	12.84
80	M	ethyl methacrylate	0.367	0.380	-3.5	94	0.00	12.82
81	M	1,1,2-trichloroethane	0.214	0.227	-6.1	91	0.00	13.08
82	M	2-hexanone	0.102	0.113	-10.8	98	0.00	13.27
83	I	chlorobenzene-d5	1.000	1.000	0.0	91	0.00	14.22
84	M	tetrachloroethene	0.277	0.263	5.1	83	0.00	13.26
85	M	1,3-dichloropropane	0.428	0.477	-11.4	93	0.00	13.29
86	M	butyl acetate	0.209	0.208	0.5	90	0.00	13.35
87		3,3-dimethyl-1-butanol	0.036	0.037	-2.8	102	0.00	13.47
88	M	dibromochloromethane	0.344	0.376	-9.3	93	0.00	13.58
89	M	1,2-dibromoethane	0.276	0.294	-6.5	93	0.00	13.74
90	M	n-butyl ether		----------NA----------				
91	M	chlorobenzene	0.855	0.876	-2.5	85	0.00	14.26
92	M	1,1,1,2-tetrachloroethane	0.336	0.354	-5.4	89	0.00	14.32
93	M	ethylbenzene	1.419	1.462	-3.0	87	0.00	14.31
94	M	m,p-xylene	0.543	0.540	0.6	84	0.00	14.43
95	M	o-xylene	0.564	0.554	1.8	83	0.00	14.91

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VA7795-CC7751
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A206690A.D
Project: BMS-ICM, Humacao, PR

96	M	styrene	0.987	0.969	1.8	83	0.00	14.92
97	M	bromoform	0.256	0.282	-10.2	95	0.00	15.23
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	16.85
99	M	isopropylbenzene	2.502	2.447	2.2	85	0.00	15.29
		----------	True	Calc.	% Drift	----------		
100	m	cyclohexanone	200.000	250.253	-25.1#	125	0.00	15.49
		----------	AvgRF	CCRF	% Dev	----------		
101	S	4-bromofluorobenzene (s)	0.813	0.844	-3.8	100	0.00	15.53
102	M	bromobenzene	0.740	0.750	-1.4	88	0.00	15.76
103	M	1,1,2,2-tetrachloroethane	0.663	0.701	-5.7	95	0.00	15.66
104	M	trans-1,4-dichloro-2-bute	0.180	0.209	-16.1	105	0.00	15.70
105	M	1,2,3-trichloropropane	0.156	0.179	-14.7	100	0.00	15.74
106	M	n-propylbenzene	2.979	2.901	2.6	87	0.00	15.76
107	M	2-chlorotoluene	0.650	0.657	-1.1	87	0.00	15.93
108	M	4-chlorotoluene	1.947	1.976	-1.5	90	0.00	16.04
109	m	p-ethyltoluene		----------NA----------				
110	M	1,3,5-trimethylbenzene	2.221	2.199	1.0	86	0.00	15.92
111	M	tert-butylbenzene	1.860	1.849	0.6	85	0.00	16.32
112	M	pentachloroethane	0.481	0.507	-5.4	92	0.00	16.43
113	M	1,2,4-trimethylbenzene	2.240	2.228	0.5	88	0.00	16.37
114	M	sec-butylbenzene	2.898	2.896	0.1	87	0.00	16.57
115	M	1,3-dichlorobenzene	1.438	1.456	-1.3	88	0.00	16.79
116	M	p-isopropyltoluene	2.498	2.488	0.4	86	0.00	16.70
117	M	1,2,3-trimethylbenzene		----------NA----------				
118	M	1,4-dichlorobenzene	1.477	1.450	1.8	88	0.00	16.88
119	m	p-diethylbenzene		----------NA----------				
120	M	1,2-dichlorobenzene	1.405	1.433	-2.0	90	0.00	17.33
121	M	n-butylbenzene	1.334	1.317	1.3	87	0.00	17.17
122	m	1,2,4,5-tetramethylbenzen		----------NA----------				
123	M	1,2-dibromo-3-chloropropa	0.127	0.141	-11.0	106	0.00	18.19
124	M	1,3,5-trichlorobenzene	1.268	1.345	-6.1	91	0.00	18.39
125	M	1,2,4-trichlorobenzene	1.095	1.187	-8.4	92	0.00	19.10
126	M	hexachlorobutadiene	0.714	0.802	-12.3	100	0.00	19.22
127	M	naphthalene	1.947	2.171	-11.5	99	0.00	19.43
128	M	1,2,3-trichlorobenzene	0.973	1.085	-11.5	97	0.00	19.71
129	M	hexachloroethane	0.515	0.537	-4.3	94	0.00	17.61
130		Ethylenimine		----------NA----------				
131		Bis(chloromethyl)ether		----------NA----------				
132		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A205529.D MA7751.M Tue Jun 24 09:47:07 2014 ACCUNJ

6.9.10

6

Initial Calibration Summary

Job Number: JB69587 **Sample:** VV6196-ICC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145215.D
Project: BMS-ICM, Humacao, PR

```
                         Response Factor Report  MSV

Method       : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title        : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
Last Update  : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Calibration Files
1   =V145210.D   10  =V145213.D   100 =V145216.D   50  =V145215.D
20  =V145214.D   200 =V145217.D   5   =V145212.D   0.5 =V145209.D
2   =V145211.D   0.2 =V145208.D       =                =

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

1) I   Tert Butyl Alcohol-d9 ----------------ISTD---------------------
2)  tertiary butyl alcohol
     0.979 0.977 1.286 1.191 1.052 1.042 0.987       1.229        1.093   11.32
3)  1,4-dioxane
            0.078 0.115 0.102 0.092       0.070       0.083        0.090   18.18
            ----- Linear regression -----  Coefficient =  0.9970
              Response Ratio = -0.01640 + 0.11606 *A


4) I   pentafluorobenzene    ----------------ISTD---------------------
5)  propene
                                                                   0.000   -1.00
6)  chlorodifluoromethane
            0.361 0.481 0.416 0.373 0.382 0.426                    0.407   10.86
7)  dichlorodifluoromethane
            0.440 0.652 0.539 0.515 0.504 0.500                    0.525   13.42
8)  chloromethane
     0.617 0.521 0.753 0.632 0.588 0.587 0.625       0.525        0.606   12.02
9)  vinyl chloride
            0.470 0.697 0.588 0.537       0.537       0.430        0.543   17.25
            ----- Linear regression -----  Coefficient =  0.9941
              Response Ratio = -0.04237 + 0.69972 *A

10)  bromomethane
     0.309 0.282 0.401 0.336 0.317 0.317 0.336       0.280        0.322   11.90
11)  chloroethane
     0.221 0.218 0.316 0.265 0.247 0.247 0.261       0.218        0.249   13.16
12)  trichlorofluoromethane
            0.481 0.689 0.587 0.551 0.553 0.572                    0.572   11.87
13)  ethyl ether
     0.134 0.163 0.226 0.201 0.194 0.203 0.179 0.200 0.204        0.189   14.27
14)  2-chloropropane
     0.625 0.570 0.767 0.667 0.638 0.627 0.661       0.842        0.675   13.01
15)  acrolein
     0.082 0.052       0.064 0.062       0.076 0.072 0.074        0.069   14.54
16)  freon 113
            0.203 0.307 0.270 0.238 0.246 0.228       0.256        0.250   13.14
17)  1,1-dichloroethene
     0.281 0.296 0.388 0.340 0.316 0.322 0.327 0.403 0.397        0.341   13.11
18)  acetone
            0.093 0.098 0.084 0.099 0.089 0.113                    0.096   10.64
19)  iso-butyl alcohol
     0.010 0.010 0.014 0.012 0.012 0.012 0.011       0.012        0.012   12.11
20)  allyl chloride
```

```
      0.149 0.164 0.231 0.207 0.202 0.191 0.199 0.210 0.216        0.197   12.96
21)  acetonitrile
      0.082 0.078 0.107 0.095 0.090 0.091 0.088 0.120 0.108        0.095   14.35
22)  iodomethane
      0.567 0.561 0.755 0.662 0.635 0.650 0.615 0.832 0.731        0.668   13.42
23)  carbon disulfide
      1.229 1.133 1.488 1.300 1.255 1.223 1.241       1.543        1.301   10.83
24)  methylene chloride
             0.497 0.473 0.426 0.461       0.626                   0.497   15.48
             ----- Linear regression -----  Coefficient =  0.9961
               Response Ratio = 0.00045 + 0.46378 *A

25)  1-chloropropane
      0.641 0.603 0.770 0.668 0.646 0.629 0.673       0.849        0.685   12.09
26)  methyl acetate
      0.157 0.172 0.248 0.230 0.214 0.221 0.189       0.217        0.206   14.90
27)  methyl tert butyl ether
      0.825 0.862 1.177 1.050 1.024 1.069 0.968 1.264 1.149        1.043   13.75
28)  trans-1,2-dichloroethene
      0.334 0.339 0.447 0.389 0.378 0.373 0.373 0.492 0.458        0.398   13.78
29)  di-isopropyl ether
      0.945 1.006 1.478 1.325 1.159 1.257 1.113 1.351 1.199        1.204   14.10
30)  2-butanone
             0.022 0.038 0.034 0.032       0.027                   0.031   20.68
             ----- Linear regression -----  Coefficient =  0.9978
               Response Ratio = -0.00283 + 0.03908 *A

31)  1,1-dichloroethane
      0.574 0.610 0.809 0.706 0.679 0.684 0.666       0.809        0.692   12.09
32)  chloroprene
      0.344 0.386 0.607 0.524 0.441       0.426 0.580 0.477        0.473   19.48
             ----- Linear regression -----  Coefficient =  0.9942
               Response Ratio = -0.02560 + 0.60224 *A

33)  acrylonitrile
      0.083 0.089 0.122 0.110 0.111 0.112 0.104 0.119 0.114        0.107   12.33
34)  vinyl acetate
             0.030 0.058 0.051 0.044 0.053                         0.047   23.53
             ----- Linear regression -----  Coefficient =  0.9962
               Response Ratio = -0.00263 + 0.05471 *A

35)  ethyl tert-butyl ether
      0.857 0.943 1.396 1.250 1.104 1.216 1.040 1.234 1.090        1.126   14.83
36)  ethyl acetate
             0.032 0.045 0.041 0.037 0.040 0.023                   0.036   21.41
             ----- Linear regression -----  Coefficient =  0.9965
               Response Ratio = -0.00055 + 0.04142 *A

37)  2,2-dichloropropane
      0.459 0.496 0.674 0.584 0.545 0.568 0.539       0.648        0.564   12.75
38)  cis-1,2-dichloroethene
      0.312 0.352 0.485 0.426 0.412 0.421 0.379 0.460 0.465        0.413   13.70
39)  propionitrile
      0.030 0.034 0.046 0.042 0.042 0.043 0.040 0.033 0.042        0.039   13.55
40)  methyl acrylate
             0.026 0.048 0.043 0.040 0.047 0.021                   0.037   30.17
             ----- Linear regression -----  Coefficient =  0.9989
               Response Ratio = -0.00311 + 0.04773 *A

41)  methacrylonitrile
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VV6196-ICC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145215.D
Project: BMS-ICM, Humacao, PR

```
            0.086 0.131 0.118 0.112 0.123 0.106       0.109        0.112   13.07
42)  bromochloromethane
      0.127 0.160 0.216 0.193 0.188 0.191 0.174 0.186 0.207        0.182   14.48
43)  tetrahydrofuran
            0.080 0.117 0.107 0.106 0.108 0.092       0.124        0.105   14.30
44)  chloroform
      0.537 0.569 0.758 0.668 0.650 0.655 0.637       0.776        0.656   12.50
45)  tert-Butyl Formate
            0.206 0.313 0.280 0.246 0.281 0.220       0.245        0.256   14.74
46)  dibromofluoromethane (s)
      0.301 0.312 0.403 0.354 0.342 0.344 0.301       0.358        0.339   10.16
47)  1,2-dichloroethane-d4 (s)
      0.339 0.312 0.405 0.354 0.352 0.356 0.317       0.388        0.353    9.04
48)  1,1,1-trichloroethane
      0.466 0.474 0.650 0.557 0.532 0.545 0.527       0.622        0.547   11.77
49)  Cyclohexane
      0.407 0.455 0.646 0.544 0.524 0.545 0.494       0.601        0.527   14.52

50) I   1,4-difluorobenzene   ----------------ISTD---------------------
51)  methylcyclohexane
            0.344 0.564 0.468 0.402       0.390       0.432        0.433   17.64
            ----- Linear regression -----  Coefficient =  0.9924
              Response Ratio = -0.03996 + 0.56718 *A

52)  epichlorohydrin
            0.017 0.025 0.023 0.021 0.022 0.021       0.020        0.021   12.02
53)  n-butyl alcohol
            0.005 0.009 0.007 0.007 0.008 0.005                    0.007   22.62
            ----- Linear regression -----  Coefficient =  0.9958
              Response Ratio = -0.01451 + 0.00793 *A

54)  carbon tetrachloride
      0.303 0.325 0.451 0.378 0.364 0.369 0.361       0.438        0.374   13.55
55)  1,1-dichloropropene
      0.325 0.322 0.459 0.385 0.362 0.375 0.346 0.470 0.427        0.386   14.25
56)  hexane
      0.265 0.261 0.407 0.338 0.289       0.285 0.443 0.348        0.330   20.39
            ----- Linear regression -----  Coefficient =  0.9918
              Response Ratio = -0.01769 + 0.40120 *A

57)  2,2,4-Trimethylpentane
            0.766 1.293 1.060 0.899       0.863                    0.976   21.13
            ----- Linear regression -----  Coefficient =  0.9928
              Response Ratio = -0.13102 + 1.32455 *A

58)  benzene
      0.953 1.004 1.383 1.153 1.127 1.159 1.106 1.413 1.311        1.179   13.59
59)  tert-amyl methyl ether
      0.667 0.676 1.023 0.892 0.811 0.883 0.756 0.910 0.796        0.824   14.05
60)  heptane
            0.154 0.245 0.201 0.173       0.171                    0.189   19.09
            ----- Linear regression -----  Coefficient =  0.9927
              Response Ratio = -0.02374 + 0.25082 *A

61)  isopropyl acetate
      0.039 0.042 0.055 0.049 0.048 0.047 0.051       0.048        0.047   10.05
62)  1,2-dichloroethane
      0.248 0.293 0.391 0.342 0.334 0.343 0.325 0.349 0.399        0.336   13.77
63)  trichloroethene
      0.235 0.239 0.339 0.284 0.268 0.280 0.263 0.329 0.309        0.283   13.02
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VV6196-ICC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145215.D
Project: BMS-ICM, Humacao, PR

```
64)  2-chloroethyl vinyl ether
      0.067 0.089 0.139 0.123 0.108 0.124 0.101 0.094 0.100        0.105   20.46
             ----- Linear regression -----  Coefficient =  0.9964
               Response Ratio = -0.00751 + 0.12696 *A

65)  methyl methacrylate
             0.041 0.067 0.059 0.054 0.062                          0.056   17.36
             ----- Linear regression -----  Coefficient =  0.9974
               Response Ratio = -0.00281 + 0.06372 *A

66)  1,2-dichloropropane
      0.221 0.255 0.360 0.305 0.294 0.304 0.288       0.340        0.296   14.78
67)  dibromomethane
      0.124 0.136 0.186 0.164 0.161 0.165 0.155       0.185        0.159   13.44
68)  bromodichloromethane
      0.276 0.323 0.450 0.385 0.373 0.389 0.362       0.431        0.374   14.92
69)  2-nitropropane
             0.058 0.088 0.078 0.074 0.078 0.073       0.073        0.074   11.67
70)  cis-1,3-dichloropropene
      0.354 0.398 0.559 0.477 0.457 0.487 0.418 0.459 0.507        0.457   13.32
71)  toluene-d8 (s)
      0.837 0.885 1.179 0.996 0.965 0.978 0.866 1.237 1.017        0.996   13.65
72)  4-methyl-2-pentanone
             0.070 0.105 0.091 0.088 0.096 0.082       0.083        0.088   12.73
73)  toluene
      0.612 0.596 0.831 0.703 0.673 0.697 0.646 0.834 0.786        0.709   12.63
74)  isoamyl alcohol
             0.008 0.013 0.011 0.010 0.012 0.009       0.011        0.011   14.17
75)  trans-1,3-dichloropropene
             0.336 0.491 0.422 0.406 0.432 0.375       0.417        0.411   11.71
76)  ethyl methacrylate
             0.231 0.363 0.309 0.292 0.332                          0.305   16.13
             ----- Linear regression -----  Coefficient =  0.9962
               Response Ratio = -0.01275 + 0.34043 *A

77)  1,1,2-trichloroethane
      0.148 0.168 0.228 0.199 0.198 0.201 0.191 0.204 0.230        0.196   13.21
78)  2-hexanone
             0.052 0.092 0.083 0.077 0.089 0.081                    0.079   17.93
             ----- Linear regression -----  Coefficient =  0.9989
               Response Ratio = -0.00404 + 0.09064 *A


79) I   chlorobenzene-d5      ----------------ISTD---------------------
80)  tetrachloroethene
      0.236 0.289 0.393 0.331 0.315 0.331 0.309 0.358 0.372        0.326   14.39
81)  1,3-dichloropropane
      0.322 0.373 0.517 0.454 0.440 0.462 0.408 0.436 0.488        0.433   13.66
82)  butyl acetate
             0.042 0.070 0.065 0.054 0.063 0.052                    0.058   18.06
             ----- Linear regression -----  Coefficient =  0.9954
               Response Ratio = -0.00064 + 0.06435 *A

83)  3,3-Dimethyl-1-Butanol
      0.018 0.014 0.025 0.022 0.019 0.024 0.017 0.020 0.018        0.020   18.06
             ----- Linear regression -----  Coefficient =  0.9987
               Response Ratio = -0.00934 + 0.02432 *A

84)  dibromochloromethane
      0.234 0.260 0.372 0.318 0.307 0.335 0.291 0.324 0.333        0.308   13.56
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VV6196-ICC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145215.D
Project: BMS-ICM, Humacao, PR

```
 85)  1,2-dibromoethane
       0.157 0.216 0.299 0.263 0.256 0.270 0.240 0.311 0.285        0.255   18.46
             ----- Linear regression -----  Coefficient =  0.9972
               Response Ratio = -0.00128 + 0.27543 *A

 86)  chlorobenzene
       0.733 0.783 1.049 0.909 0.874 0.909 0.840 1.083 1.016        0.911   13.11
 87)  1,1,1,2-tetrachloroethane
             0.280 0.401 0.342 0.325 0.354 0.303       0.371        0.339   12.02
 88)  ethylbenzene
       1.201 1.300 1.814 1.531 1.438 1.545 1.403       1.661        1.487   13.18
 89)  m,p-xylene
       0.437 0.493 0.697 0.589 0.547 0.595 0.531 0.675 0.629        0.577   14.60
 90)  o-xylene
       0.439 0.499 0.711 0.603 0.560 0.613 0.530 0.644 0.636        0.582   14.28
 91)  styrene
             0.788 1.189 1.023 0.926 1.044 0.834       0.938        0.963   14.09
 92)  bromoform
             0.170 0.248 0.220 0.202 0.227 0.187       0.213        0.210   12.33
 93)  cyclohexanone
       0.042 0.036 0.046 0.039 0.042 0.052 0.037       0.047        0.043   13.24
 94)  4-bromofluorobenzene (s)
       0.484 0.395 0.507 0.435 0.424 0.437 0.408       0.542        0.454   11.35

 95) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 96)  isopropylbenzene
       2.075 2.331 3.349 2.856 2.667 2.850 2.507       2.962        2.700   14.71
 97)  1,1,2,2-tetrachloroethane
       0.665 0.568 0.762 0.689 0.685 0.691 0.648       0.860        0.696   12.25
 98)  trans-1,4-dichloro-2-butene
             0.143 0.193 0.176 0.163 0.176 0.147       0.188        0.170   11.43
 99)  1,2,3-trichloropropane
             0.137 0.185 0.170 0.169 0.172 0.161       0.194        0.170   10.74
100)  bromobenzene
       0.540 0.633 0.859 0.757 0.715 0.753 0.656       0.816        0.716   14.45
101)  n-propylbenzene
             2.778 3.890 3.335 3.144 3.310 2.993       3.608        3.294   11.32
102)  2-chlorotoluene
             0.613 0.843 0.715 0.678 0.722 0.648       0.749        0.709   10.55
103)  4-chlorotoluene
       1.574 1.781 2.428 2.119 1.947 2.081 1.953 2.487 2.373        2.083   14.72
104)  1,3,5-trimethylbenzene
             2.000 2.874 2.452 2.302 2.524 2.182       2.566        2.414   11.79
105)  tert-butylbenzene
             1.671 2.492 2.093 1.908 2.126 1.767       2.098        2.022   13.44
106)  pentachloroethane
       0.348 0.386 0.566 0.489 0.454 0.506 0.420 0.434 0.509        0.457   14.81
107)  1,2,4-trimethylbenzene
             2.012 2.846 2.468 2.326 2.482 2.168       2.554        2.408   11.29
108)  sec-butylbenzene
             2.658 3.870 3.320 3.082 3.288 2.904       3.408        3.219   12.07
109)  p-isopropyltoluene
             2.208 3.203 2.767 2.559 2.788 2.380       2.757        2.666   12.10
110)  1,3-dichlorobenzene
       1.184 1.290 1.704 1.503 1.440 1.490 1.396 1.844 1.712        1.507   14.13
111)  1,4-dichlorobenzene
       1.262 1.320 1.715 1.522 1.450 1.497 1.469       1.780        1.502   11.74
112)  1,2-dichlorobenzene
       1.125 1.208 1.648 1.457 1.376 1.468 1.329 1.721 1.650        1.442   14.23
113)  Benzyl Chloride
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VV6196-ICC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145215.D
Project: BMS-ICM, Humacao, PR

```
       1.042 0.991 1.529 1.365 1.203 1.351 1.157       1.240        1.235   14.40
114)  Indane
                                                                    0.000   -1.00
115)  n-butylbenzene
             1.193 1.696 1.446 1.341 1.460 1.267       1.510        1.416   11.80
116)  hexachloroethane
       0.233 0.370 0.556 0.457 0.409 0.486 0.383 0.503 0.499        0.433   22.35
             ----- Linear regression -----  Coefficient =  0.9947
               Response Ratio = -0.00700 + 0.49962 *A

117)  1,2-dibromo-3-chloropropane
       0.090 0.104 0.167 0.147 0.140 0.160 0.133       0.164        0.138   20.52
             ----- Linear regression -----  Coefficient =  0.9987
               Response Ratio = -0.00487 + 0.16221 *A

118)  1,3,5-trichlorobenzene
       1.000 1.097 1.472 1.294 1.205 1.309 1.157 1.497 1.464        1.277   13.89
119)  1,2,4-trichlorobenzene
       0.933 0.939 1.358 1.190 1.109 1.199 1.052 1.280 1.334        1.155   13.72
120)  hexachlorobutadiene
             0.467 0.674 0.576 0.533 0.570 0.535       0.666        0.574   12.91
121)  naphthalene
       1.928 1.973 2.782 2.510 2.363 2.554 2.167       2.786        2.383   14.09
122)  1,2,3-trichlorobenzene
       0.831 0.894 1.241 1.109 1.036 1.102 0.975       1.234        1.053   14.11
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MVS6196.M         Fri Jun 13 09:48:41 2014   MSV
```

6.9.11

6

Initial Calibration Verification

Job Number: JB69587 **Sample:** VV6196-ICV6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145220.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V145220.D Vial: 14
Acq On : 11 Jun 2014 6:06 pm Operator: KingC
Sample : icv6196-50 Inst : MSV
Misc : MS68813,VV6196,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint4.p

Method : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri Jun 13 09:47:46 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	127	0.00	7.22
2	tertiary butyl alcohol	1.093	1.120	-2.5	119	0.00	7.33
	----------	True	Calc.	% Drift	----------		
3	1,4-dioxane	1250.000	1083.082	13.4	117	0.00	11.15
	----------	AvgRF	CCRF	% Dev	----------		
4 I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	9.45
5	propene		----------NA----------				
6	chlorodifluoromethane	0.407	0.385	5.4	108	-0.01	4.02
7	dichlorodifluoromethane	0.525	0.542	-3.2	117	-0.01	4.00
8	chloromethane	0.606	0.674	-11.2	124	0.00	4.33
	----------	True	Calc.	% Drift	----------		
9	vinyl chloride	50.000	47.382	5.2	123	0.00	4.56
	----------	AvgRF	CCRF	% Dev	----------		
10	bromomethane	0.322	0.352	-9.3	122	0.00	5.18
11	chloroethane	0.249	0.338	-35.7#	149	0.00	5.34
12	trichlorofluoromethane	0.572	0.628	-9.8	125	0.00	5.76
13	ethyl ether	0.189	0.219	-15.9	127	0.00	6.14
14	2-chloropropane	0.675	0.769	-13.9	134	0.00	6.34
15	acrolein	0.069	0.067	2.9	122	0.00	6.41
16	freon 113	0.250	0.281	-12.4	122	0.00	6.52
17	1,1-dichloroethene	0.341	0.381	-11.7	131	0.00	6.57
18	acetone	0.096	0.097	-1.0	134	0.00	6.63
19	iso-butyl alcohol	0.012	0.013	-8.3	122	0.00	10.02
20	allyl chloride	0.197	0.250	-26.9#	141	0.00	7.08
21	acetonitrile	0.095	0.110	-15.8	136	0.00	7.08
22	iodomethane	0.668	0.729	-9.1	128	0.00	6.85
23	carbon disulfide	1.301	1.480	-13.8	133	0.00	6.98
	----------	True	Calc.	% Drift	----------		
24	methylene chloride	50.000	50.558	-1.1	129	0.00	7.28
	----------	AvgRF	CCRF	% Dev	----------		
25	1-chloropropane	0.685	0.710	-3.6	124	0.00	7.31
26	methyl acetate	0.206	0.209	-1.5	106	0.00	7.06
27	methyl tert butyl ether	1.043	1.067	-2.3	119	0.00	7.58
28	trans-1,2-dichloroethene	0.398	0.418	-5.0	125	0.00	7.64
29	di-isopropyl ether	1.204	1.321	-9.7	116	0.00	8.15

Initial Calibration Verification

Job Number: JB69587 **Sample:** VV6196-ICV6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145220.D
Project: BMS-ICM, Humacao, PR

			True	Calc.	% Drift			
30		2-butanone	50.000	49.193	1.6	122	0.00	8.91
			AvgRF	CCRF	% Dev			
31		1,1-dichloroethane	0.692	0.759	-9.7	125	0.00	8.20
			True	Calc.	% Drift			
32		chloroprene	50.000	42.318	15.4	108	0.00	8.31
			AvgRF	CCRF	% Dev			
33		acrylonitrile	0.107	0.118	-10.3	125	0.00	7.60
			True	Calc.	% Drift			
34		vinyl acetate	50.000	55.520	-11.0	133	-0.01	8.17
			AvgRF	CCRF	% Dev			
35		ethyl tert-butyl ether	1.126	1.202	-6.7	112	0.00	8.62
			True	Calc.	% Drift			
36		ethyl acetate	50.000	49.201	1.6	115	0.00	8.92
			AvgRF	CCRF	% Dev			
37		2,2-dichloropropane	0.564	0.607	-7.6	121	0.00	8.94
38		cis-1,2-dichloroethene	0.413	0.443	-7.3	121	0.00	8.94
39		propionitrile	0.039	0.044	-12.8	120	0.00	9.02
			True	Calc.	% Drift			
40		methyl acrylate	50.000	49.970	0.1	122	0.00	9.00
			AvgRF	CCRF	% Dev			
41		methacrylonitrile	0.112	0.118	-5.4	116	0.00	9.20
42		bromochloromethane	0.182	0.197	-8.2	119	0.00	9.26
43		tetrahydrofuran	0.105	0.104	1.0	114	0.00	9.31
44		chloroform	0.656	0.691	-5.3	121	0.00	9.31
45		tert-Butyl Formate	0.256	0.284	-10.9	118	0.00	9.34
46	S	dibromofluoromethane (s)	0.339	0.368	-8.6	121	0.00	9.52
47	S	1,2-dichloroethane-d4 (s)	0.353	0.359	-1.7	118	0.00	9.95
48		1,1,1-trichloroethane	0.547	0.602	-10.1	126	0.00	9.57
49		Cyclohexane	0.527	0.601	-14.0	129	0.00	9.63
50	I	1,4-difluorobenzene	1.000	1.000	0.0	113	0.00	10.39
			True	Calc.	% Drift			
51		methylcyclohexane	50.000	43.561	12.9	110	0.00	10.96
			AvgRF	CCRF	% Dev			
52		epichlorohydrin	0.021	0.023	-9.5	115	0.00	11.72
			True	Calc.	% Drift			
53		n-butyl alcohol	2500.000	2454.438	1.8	116	0.00	10.52
			AvgRF	CCRF	% Dev			
54		carbon tetrachloride	0.374	0.413	-10.4	124	0.00	9.78
55		1,1-dichloropropene	0.386	0.402	-4.1	118	0.00	9.74
			True	Calc.	% Drift			
56		hexane	50.000	49.451	1.1	127	0.00	7.91
57		2,2,4-Trimethylpentane	50.000	42.528	14.9	106	0.00	9.99

Initial Calibration Verification

Job Number: JB69587 **Sample:** VV6196-ICV6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145220.D
Project: BMS-ICM, Humacao, PR

			AvgRF	CCRF	% Dev			
58		benzene	1.179	1.246	-5.7	122	0.00	10.02
59		tert-amyl methyl ether	0.824	0.883	-7.2	112	0.00	10.03
			True	Calc.	% Drift			
60		heptane	50.000	43.888	12.2	110	0.00	10.16
			AvgRF	CCRF	% Dev			
61		isopropyl acetate	0.047	0.052	-10.6	120	0.00	10.04
62		1,2-dichloroethane	0.336	0.354	-5.4	117	0.00	10.04
63		trichloroethene	0.283	0.308	-8.8	123	0.00	10.74
			True	Calc.	% Drift			
64		2-chloroethyl vinyl ether	250.000	230.571	7.8	106	0.00	11.57
65		methyl methacrylate	50.000	49.943	0.1	118	0.00	11.01
			AvgRF	CCRF	% Dev			
66		1,2-dichloropropane	0.296	0.321	-8.4	119	0.00	11.03
67		dibromomethane	0.159	0.167	-5.0	116	0.00	11.20
68		bromodichloromethane	0.374	0.403	-7.8	119	0.00	11.33
69		2-nitropropane	0.074	0.078	-5.4	114	0.00	11.57
70		cis-1,3-dichloropropene	0.457	0.480	-5.0	114	0.00	11.82
71	S	toluene-d8 (s)	0.996	1.064	-6.8	121	0.00	12.12
72		4-methyl-2-pentanone	0.088	0.095	-8.0	119	0.00	11.91
73		toluene	0.709	0.739	-4.2	119	0.00	12.20
74		isoamyl alcohol	0.011	0.012	-9.1	115	0.00	11.94
75		trans-1,3-dichloropropene	0.411	0.405	1.5	109	0.00	12.43
			True	Calc.	% Drift			
76		ethyl methacrylate	50.000	47.087	5.8	113	0.00	12.41
			AvgRF	CCRF	% Dev			
77		1,1,2-trichloroethane	0.196	0.199	-1.5	113	0.00	12.67
			True	Calc.	% Drift			
78		2-hexanone	50.000	45.985	8.0	108	0.00	12.85
			AvgRF	CCRF	% Dev			
79	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	13.80
80		tetrachloroethene	0.326	0.364	-11.7	120	0.00	12.85
81		1,3-dichloropropane	0.433	0.460	-6.2	111	0.00	12.87
			True	Calc.	% Drift			
82		butyl acetate	50.000	49.760	0.5	106	0.00	12.92
83		3,3-Dimethyl-1-Butanol	500.000	464.549	7.1	110	0.00	13.04
			AvgRF	CCRF	% Dev			
84		dibromochloromethane	0.308	0.327	-6.2	112	0.00	13.16
			True	Calc.	% Drift			
85		1,2-dibromoethane	50.000	48.838	2.3	111	0.00	13.33
			AvgRF	CCRF	% Dev			
86		chlorobenzene	0.911	0.951	-4.4	114	0.00	13.83
87		1,1,1,2-tetrachloroethane	0.339	0.354	-4.4	113	0.00	13.90
88		ethylbenzene	1.487	1.626	-9.3	116	0.00	13.89
89		m,p-xylene	0.577	0.616	-6.8	114	0.00	14.01
90		o-xylene	0.582	0.625	-7.4	113	0.00	14.48
91		styrene	0.963	1.033	-7.3	110	0.00	14.50

Initial Calibration Verification

Job Number: JB69587 **Sample:** VV6196-ICV6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145220.D
Project: BMS-ICM, Humacao, PR

92		bromoform	0.210	0.215	-2.4	107	0.00	14.81
93		cyclohexanone	0.043	0.027	37.2#	77	0.00	15.07
94	S	4-bromofluorobenzene (s)	0.454	0.457	-0.7	115	0.00	15.10
95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	16.41
96		isopropylbenzene	2.700	3.136	-16.1	116	0.00	14.86
97		1,1,2,2-tetrachloroethane	0.696	0.684	1.7	105	0.00	15.23
98		trans-1,4-dichloro-2-bute	0.170	0.176	-3.5	105	0.00	15.27
99		1,2,3-trichloropropane	0.170	0.171	-0.6	106	0.00	15.31
100		bromobenzene	0.716	0.784	-9.5	109	0.00	15.32
101		n-propylbenzene	3.294	3.768	-14.4	119	0.00	15.32
102		2-chlorotoluene	0.709	0.772	-8.9	114	0.00	15.50
103		4-chlorotoluene	2.083	2.210	-6.1	110	0.00	15.61
104		1,3,5-trimethylbenzene	2.414	2.613	-8.2	112	0.00	15.50
105		tert-butylbenzene	2.022	2.254	-11.5	114	0.00	15.88
106		pentachloroethane	0.457	0.517	-13.1	112	0.00	15.99
107		1,2,4-trimethylbenzene	2.408	2.710	-12.5	116	0.00	15.94
108		sec-butylbenzene	3.219	3.505	-8.9	111	0.00	16.12
109		p-isopropyltoluene	2.666	2.921	-9.6	111	0.00	16.26
110		1,3-dichlorobenzene	1.507	1.539	-2.1	108	0.00	16.35
111		1,4-dichlorobenzene	1.502	1.545	-2.9	107	0.00	16.44
112		1,2-dichlorobenzene	1.442	1.480	-2.6	107	0.00	16.88
113		Benzyl Chloride	1.235	1.473	-19.3	114	0.00	16.57
114		Indane		----------NA----------				
115		n-butylbenzene	1.416	1.549	-9.4	113	0.00	16.72
		----------	True	Calc.	% Drift	----------		
116		hexachloroethane	50.000	49.884	0.2	113	0.00	17.17
117		1,2-dibromo-3-chloropropa	50.000	48.656	2.7	110	0.00	17.75
		----------	AvgRF	CCRF	% Dev	----------		
118		1,3,5-trichlorobenzene	1.277	1.354	-6.0	110	0.00	17.93
119		1,2,4-trichlorobenzene	1.155	1.197	-3.6	106	0.00	18.65
120		hexachlorobutadiene	0.574	0.627	-9.2	115	0.00	18.77
121		naphthalene	2.383	2.483	-4.2	104	0.00	18.98
122		1,2,3-trichlorobenzene	1.053	1.120	-6.4	107	0.00	19.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
V145215.D MVS6196.M Fri Jun 13 09:48:23 2014 MSV

6.9.12

6

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VV6205-CC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145533.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\V145533.D                    Vial: 2
Acq On    : 20 Jun 2014   8:41 am                     Operator: KingC
Sample    : cc6196-20                                 Inst    : MSV
Misc      : MS69292,VV6205,6.2,,,,1                   Multiplr: 1.00
MS Integration Params: rteint4.p

Method       : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title        : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
Last Update  : Fri Jun 13 09:47:46 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	117	0.00	7.22
2	tertiary butyl alcohol	1.093	1.253	-14.6	140	0.00	7.33
	----------	True	Calc.	% Drift	----------		
3	1,4-dioxane	500.000	516.065	-3.2	132	0.00	11.15
	----------	AvgRF	CCRF	% Dev	----------		
4 I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	9.45
5	propene		----------NA----------				
6	chlorodifluoromethane	0.407	0.357	12.3	104	-0.02	4.01
7	dichlorodifluoromethane	0.525	0.579	-10.3	122	-0.02	4.00
8	chloromethane	0.606	0.607	-0.2	112	-0.02	4.31
	----------	True	Calc.	% Drift	----------		
9	vinyl chloride	20.000	19.966	0.2	119	-0.03	4.54
	----------	AvgRF	CCRF	% Dev	----------		
10	bromomethane	0.322	0.361	-12.1	123	-0.02	5.17
11	chloroethane	0.249	0.262	-5.2	115	-0.02	5.33
12	trichlorofluoromethane	0.572	0.640	-11.9	126	0.00	5.76
13	ethyl ether	0.189	0.208	-10.1	116	-0.01	6.14
14	2-chloropropane	0.675	0.655	3.0	111	-0.01	6.34
15	acrolein	0.069	0.062	10.1	107	0.00	6.41
16	freon 113	0.250	0.265	-6.0	121	-0.02	6.51
17	1,1-dichloroethene	0.341	0.352	-3.2	120	0.00	6.56
18	acetone	0.096	0.114	-18.8	124	0.00	6.63
19	iso-butyl alcohol	0.012	0.013	-8.3	124	0.00	10.02
20	allyl chloride	0.197	0.201	-2.0	108	0.00	7.08
21	acetonitrile	0.095	0.092	3.2	111	0.00	7.08
22	iodomethane	0.668	0.687	-2.8	117	0.00	6.85
23	carbon disulfide	1.301	1.282	1.5	111	-0.01	6.97
	----------	True	Calc.	% Drift	----------		
24	methylene chloride	20.000	18.679	6.6	102	0.00	7.27
	----------	AvgRF	CCRF	% Dev	----------		
25	1-chloropropane	0.685	0.688	-0.4	115	0.00	7.30
26	methyl acetate	0.206	0.239	-16.0	121	0.00	7.07
27	methyl tert butyl ether	1.043	1.114	-6.8	118	-0.01	7.57
28	trans-1,2-dichloroethene	0.398	0.406	-2.0	116	0.00	7.64
29	di-isopropyl ether	1.204	1.227	-1.9	115	0.00	8.15

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VV6205-CC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145533.D
Project: BMS-ICM, Humacao, PR

			True	Calc.	% Drift			
30		2-butanone	20.000	22.923	-14.6	127	0.02	8.93
			AvgRF	CCRF	% Dev			
31		1,1-dichloroethane	0.692	0.739	-6.8	118	0.00	8.20
			True	Calc.	% Drift			
32		chloroprene	20.000	19.142	4.3	126	0.00	8.30
			AvgRF	CCRF	% Dev			
33		acrylonitrile	0.107	0.118	-10.3	115	0.00	7.60
			True	Calc.	% Drift			
34		vinyl acetate	20.000	19.824	0.9	118	0.00	8.19
			AvgRF	CCRF	% Dev			
35		ethyl tert-butyl ether	1.126	1.205	-7.0	118	0.00	8.62
			True	Calc.	% Drift			
36		ethyl acetate	20.000	23.159	-15.8	136	0.00	8.92
			AvgRF	CCRF	% Dev			
37		2,2-dichloropropane	0.564	0.461	18.3	92	0.00	8.94
38		cis-1,2-dichloroethene	0.413	0.444	-7.5	117	0.00	8.94
39		propionitrile	0.039	0.047	-20.5#	121	0.00	9.02
			True	Calc.	% Drift			
40		methyl acrylate	20.000	22.788	-13.9	126	0.00	9.00
			AvgRF	CCRF	% Dev			
41		methacrylonitrile	0.112	0.126	-12.5	122	0.00	9.20
42		bromochloromethane	0.182	0.202	-11.0	117	0.00	9.26
43		tetrahydrofuran	0.105	0.118	-12.4	121	0.00	9.30
44		chloroform	0.656	0.705	-7.5	117	0.00	9.31
45		tert-Butyl Formate	0.256	0.270	-5.5	119	0.00	9.34
46	S	dibromofluoromethane (s)	0.339	0.353	-4.1	112	0.00	9.51
47	S	1,2-dichloroethane-d4 (s)	0.353	0.352	0.3	108	0.00	9.94
48		1,1,1-trichloroethane	0.547	0.603	-10.2	123	0.00	9.56
49		Cyclohexane	0.527	0.574	-8.9	118	-0.01	9.63
50	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	10.39
			True	Calc.	% Drift			
51		methylcyclohexane	20.000	19.791	1.0	124	0.00	10.96
			AvgRF	CCRF	% Dev			
52		epichlorohydrin	0.021	0.023	-9.5	119	0.00	11.72
			True	Calc.	% Drift			
53		n-butyl alcohol	1000.000	1135.367	-13.5	134	0.00	10.52
			AvgRF	CCRF	% Dev			
54		carbon tetrachloride	0.374	0.413	-10.4	122	0.00	9.77
55		1,1-dichloropropene	0.386	0.398	-3.1	118	0.00	9.74
			True	Calc.	% Drift			
56		hexane	20.000	16.333	18.3	105	0.00	7.91
57		2,2,4-Trimethylpentane	20.000	19.909	0.5	119	0.00	10.00

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VV6205-CC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145533.D
Project: BMS-ICM, Humacao, PR

			AvgRF	CCRF	% Dev			
58		benzene	1.179	1.216	-3.1	116	0.00	10.02
59		tert-amyl methyl ether	0.824	0.900	-9.2	119	0.00	10.03
			True	Calc.	% Drift			
60		heptane	20.000	19.060	4.7	112	0.00	10.17
			AvgRF	CCRF	% Dev			
61		isopropyl acetate	0.047	0.054	-14.9	122	0.00	10.04
62		1,2-dichloroethane	0.336	0.369	-9.8	119	0.00	10.04
63		trichloroethene	0.283	0.307	-8.5	123	0.00	10.74
			True	Calc.	% Drift			
64		2-chloroethyl vinyl ether	100.000	123.240	-23.2#	153	0.00	11.57
65		methyl methacrylate	20.000	21.602	-8.0	123	0.00	11.02
			AvgRF	CCRF	% Dev			
66		1,2-dichloropropane	0.296	0.310	-4.7	114	0.00	11.03
67		dibromomethane	0.159	0.175	-10.1	116	0.00	11.20
68		bromodichloromethane	0.374	0.407	-8.8	117	0.00	11.33
69		2-nitropropane	0.074	0.098	-32.4#	143	0.00	11.57
70		cis-1,3-dichloropropene	0.457	0.465	-1.8	109	0.00	11.82
71	S	toluene-d8 (s)	0.996	1.041	-4.5	116	0.00	12.12
72		4-methyl-2-pentanone	0.088	0.102	-15.9	125	0.00	11.91
73		toluene	0.709	0.759	-7.1	121	0.00	12.20
74		isoamyl alcohol	0.011	0.012	-9.1	128	0.00	11.94
75		trans-1,3-dichloropropene	0.411	0.433	-5.4	115	0.00	12.43
			True	Calc.	% Drift			
76		ethyl methacrylate	20.000	21.401	-7.0	123	0.00	12.41
			AvgRF	CCRF	% Dev			
77		1,1,2-trichloroethane	0.196	0.208	-6.1	113	0.00	12.66
			True	Calc.	% Drift			
78		2-hexanone	20.000	22.008	-10.0	125	0.00	12.86
			AvgRF	CCRF	% Dev			
79	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	13.80
80		tetrachloroethene	0.326	0.366	-12.3	126	0.00	12.85
81		1,3-dichloropropane	0.433	0.469	-8.3	116	0.00	12.87
			True	Calc.	% Drift			
82		butyl acetate	20.000	21.279	-6.4	135	0.00	12.92
83		3,3-Dimethyl-1-Butanol	200.000	212.509	-6.3	132	0.00	13.03
			AvgRF	CCRF	% Dev			
84		dibromochloromethane	0.308	0.339	-10.1	120	0.00	13.16
			True	Calc.	% Drift			
85		1,2-dibromoethane	20.000	20.285	-1.4	117	0.00	13.33
			AvgRF	CCRF	% Dev			
86		chlorobenzene	0.911	0.951	-4.4	118	0.00	13.83
87		1,1,1,2-tetrachloroethane	0.339	0.352	-3.8	118	0.00	13.90
88		ethylbenzene	1.487	1.608	-8.1	121	0.00	13.89
89		m,p-xylene	0.577	0.621	-7.6	123	0.00	14.01
90		o-xylene	0.582	0.612	-5.2	119	0.00	14.48
91		styrene	0.963	1.026	-6.5	120	0.00	14.50

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VV6205-CC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145533.D
Project: BMS-ICM, Humacao, PR

92		bromoform	0.210	0.231	-10.0	124	0.00	14.81
93		cyclohexanone	0.043	0.011	74.4#	30#	0.00	15.07
94	S	4-bromofluorobenzene (s)	0.454	0.431	5.1	110	0.00	15.11
95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	16.41
96		isopropylbenzene	2.700	3.040	-12.6	120	0.00	14.86
97		1,1,2,2-tetrachloroethane	0.696	0.758	-8.9	117	0.00	15.23
98		trans-1,4-dichloro-2-bute	0.170	0.177	-4.1	114	0.00	15.27
99		1,2,3-trichloropropane	0.170	0.201	-18.2	125	0.00	15.31
100		bromobenzene	0.716	0.801	-11.9	118	0.00	15.32
101		n-propylbenzene	3.294	3.521	-6.9	118	0.00	15.32
102		2-chlorotoluene	0.709	0.766	-8.0	119	0.00	15.50
103		4-chlorotoluene	2.083	2.214	-6.3	120	0.00	15.61
104		1,3,5-trimethylbenzene	2.414	2.580	-6.9	118	0.00	15.49
105		tert-butylbenzene	2.022	2.197	-8.7	121	0.00	15.88
106		pentachloroethane	0.457	0.502	-9.8	117	0.00	15.99
107		1,2,4-trimethylbenzene	2.408	2.560	-6.3	116	0.00	15.94
108		sec-butylbenzene	3.219	3.467	-7.7	119	0.00	16.12
109		p-isopropyltoluene	2.666	2.886	-8.3	119	0.00	16.26
110		1,3-dichlorobenzene	1.507	1.564	-3.8	114	0.00	16.35
111		1,4-dichlorobenzene	1.502	1.598	-6.4	116	0.00	16.44
112		1,2-dichlorobenzene	1.442	1.514	-5.0	116	0.00	16.88
113		Benzyl Chloride	1.235	0.866	29.9#	76	0.00	16.57
114		Indane		----------NA----------				
115		n-butylbenzene	1.416	1.472	-4.0	116	0.00	16.72
		----------	True	Calc.	% Drift	----------		
116		hexachloroethane	20.000	19.747	1.3	123	0.00	17.17
117		1,2-dibromo-3-chloropropa	20.000	20.848	-4.2	118	0.00	17.75
		----------	AvgRF	CCRF	% Dev	----------		
118		1,3,5-trichlorobenzene	1.277	1.320	-3.4	115	0.00	17.93
119		1,2,4-trichlorobenzene	1.155	1.196	-3.5	114	0.00	18.65
120		hexachlorobutadiene	0.574	0.604	-5.2	120	0.00	18.77
121		naphthalene	2.383	2.593	-8.8	116	0.00	18.98
122		1,2,3-trichlorobenzene	1.053	1.128	-7.1	115	0.00	19.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
V145214.D MVS6196.M Mon Jun 23 12:25:33 2014 MSV

6.9.13

6

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VV6207-CC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145597.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\V145597.D                    Vial: 2
Acq On    : 23 Jun 2014  10:17 am                     Operator: KingC
Sample    : cc6196-20                                 Inst    : MSV
Misc      : MS69467,VV6207,5,,,,1                     Multiplr: 1.00
MS Integration Params: rteint4.p

Method       : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title        : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
Last Update  : Fri Jun 13 09:47:46 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	93	-0.01	7.21
2	tertiary butyl alcohol	1.093	1.218	-11.4	108	0.00	7.33
	----------	True	Calc.	% Drift	----------		
3	1,4-dioxane	500.000	528.033	-5.6	107	0.00	11.15
	----------	AvgRF	CCRF	% Dev	----------		
4 I	pentafluorobenzene	1.000	1.000	0.0	102	0.00	9.45
5	propene		----------NA----------				
6	chlorodifluoromethane	0.407	0.379	6.9	103	-0.02	4.01
7	dichlorodifluoromethane	0.525	0.547	-4.2	108	-0.02	4.00
8	chloromethane	0.606	0.562	7.3	97	-0.01	4.31
	----------	True	Calc.	% Drift	----------		
9	vinyl chloride	20.000	18.922	5.4	105	-0.01	4.55
	----------	AvgRF	CCRF	% Dev	----------		
10	bromomethane	0.322	0.355	-10.2	114	-0.01	5.17
11	chloroethane	0.249	0.272	-9.2	112	-0.01	5.33
12	trichlorofluoromethane	0.572	0.634	-10.8	117	0.00	5.75
13	ethyl ether	0.189	0.185	2.1	97	0.00	6.14
14	2-chloropropane	0.675	0.616	8.7	98	-0.01	6.34
15	acrolein	0.069	0.051	26.1#	83	0.00	6.41
16	freon 113	0.250	0.261	-4.4	112	-0.02	6.51
17	1,1-dichloroethene	0.341	0.328	3.8	106	-0.01	6.56
18	acetone	0.096	0.115	-19.8	118	-0.01	6.62
19	iso-butyl alcohol	0.012	0.012	0.0	106	0.00	10.02
20	allyl chloride	0.197	0.182	7.6	92	0.00	7.08
21	acetonitrile	0.095	0.082	13.7	93	0.00	7.08
22	iodomethane	0.668	0.655	1.9	105	-0.01	6.85
23	carbon disulfide	1.301	1.226	5.8	99	-0.01	6.97
	----------	True	Calc.	% Drift	----------		
24	methylene chloride	20.000	18.159	9.2	93	0.00	7.27
	----------	AvgRF	CCRF	% Dev	----------		
25	1-chloropropane	0.685	0.625	8.8	98	0.00	7.30
26	methyl acetate	0.206	0.196	4.9	94	0.00	7.07
27	methyl tert butyl ether	1.043	1.021	2.1	101	-0.01	7.57
28	trans-1,2-dichloroethene	0.398	0.397	0.3	107	-0.01	7.63
29	di-isopropyl ether	1.204	1.118	7.1	98	0.00	8.15

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VV6207-CC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145597.D
Project: BMS-ICM, Humacao, PR

			True	Calc.	% Drift			
30		2-butanone	20.000	21.167	-5.8	108	0.01	8.92
			AvgRF	CCRF	% Dev			
31		1,1-dichloroethane	0.692	0.693	-0.1	104	0.00	8.20
			True	Calc.	% Drift			
32		chloroprene	20.000	17.803	11.0	109	0.00	8.30
			AvgRF	CCRF	% Dev			
33		acrylonitrile	0.107	0.103	3.7	94	0.00	7.60
			True	Calc.	% Drift			
34		vinyl acetate	20.000	19.098	4.5	106	0.00	8.18
			AvgRF	CCRF	% Dev			
35		ethyl tert-butyl ether	1.126	1.119	0.6	103	0.00	8.62
			True	Calc.	% Drift			
36		ethyl acetate	20.000	20.149	-0.7	111	0.02	8.93
			AvgRF	CCRF	% Dev			
37		2,2-dichloropropane	0.564	0.594	-5.3	111	-0.01	8.93
38		cis-1,2-dichloroethene	0.413	0.427	-3.4	106	0.00	8.94
39		propionitrile	0.039	0.040	-2.6	97	0.00	9.02
			True	Calc.	% Drift			
40		methyl acrylate	20.000	20.331	-1.7	104	0.00	9.00
			AvgRF	CCRF	% Dev			
41		methacrylonitrile	0.112	0.111	0.9	101	0.00	9.21
42		bromochloromethane	0.182	0.197	-8.2	107	0.00	9.26
43		tetrahydrofuran	0.105	0.093	11.4	90	0.00	9.31
44		chloroform	0.656	0.688	-4.9	108	0.00	9.31
45		tert-Butyl Formate	0.256	0.252	1.6	104	0.00	9.34
46	S	dibromofluoromethane (s)	0.339	0.349	-2.9	104	0.00	9.51
47	S	1,2-dichloroethane-d4 (s)	0.353	0.333	5.7	96	0.00	9.95
48		1,1,1-trichloroethane	0.547	0.583	-6.6	111	0.00	9.57
49		Cyclohexane	0.527	0.547	-3.8	106	0.00	9.63
50	I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	10.39
			True	Calc.	% Drift			
51		methylcyclohexane	20.000	19.867	0.7	118	0.00	10.96
			AvgRF	CCRF	% Dev			
52		epichlorohydrin	0.021	0.021	0.0	105	0.00	11.72
			True	Calc.	% Drift			
53		n-butyl alcohol	1000.000	936.474	6.4	103	0.00	10.52
			AvgRF	CCRF	% Dev			
54		carbon tetrachloride	0.374	0.395	-5.6	111	0.00	9.77
55		1,1-dichloropropene	0.386	0.385	0.3	109	0.00	9.74
			True	Calc.	% Drift			
56		hexane	20.000	17.498	12.5	108	0.00	7.91
57		2,2,4-Trimethylpentane	20.000	20.349	-1.7	116	0.00	9.99

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VV6207-CC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145597.D
Project: BMS-ICM, Humacao, PR

			AvgRF	CCRF	% Dev			
58		benzene	1.179	1.159	1.7	105	0.00	10.02
59		tert-amyl methyl ether	0.824	0.822	0.2	104	0.00	10.03
			True	Calc.	% Drift			
60		heptane	20.000	20.717	-3.6	119	0.00	10.16
			AvgRF	CCRF	% Dev			
61		isopropyl acetate	0.047	0.050	-6.4	108	0.00	10.04
62		1,2-dichloroethane	0.336	0.347	-3.3	106	0.00	10.04
63		trichloroethene	0.283	0.295	-4.2	113	0.00	10.74
			True	Calc.	% Drift			
64		2-chloroethyl vinyl ether	100.000	123.664	-23.7#	146	0.00	11.57
65		methyl methacrylate	20.000	18.358	8.2	98	0.00	11.03
			AvgRF	CCRF	% Dev			
66		1,2-dichloropropane	0.296	0.293	1.0	102	0.00	11.03
67		dibromomethane	0.159	0.163	-2.5	103	0.00	11.20
68		bromodichloromethane	0.374	0.392	-4.8	107	0.00	11.33
69		2-nitropropane	0.074	0.087	-17.6	121	0.00	11.57
70		cis-1,3-dichloropropene	0.457	0.469	-2.6	105	0.00	11.82
71	S	toluene-d8 (s)	0.996	1.035	-3.9	110	0.00	12.12
72		4-methyl-2-pentanone	0.088	0.086	2.3	100	0.00	11.92
73		toluene	0.709	0.719	-1.4	109	0.00	12.20
74		isoamyl alcohol	0.011	0.011	0.0	105	0.00	11.94
75		trans-1,3-dichloropropene	0.411	0.424	-3.2	107	0.00	12.43
			True	Calc.	% Drift			
76		ethyl methacrylate	20.000	18.839	5.8	101	0.00	12.41
			AvgRF	CCRF	% Dev			
77		1,1,2-trichloroethane	0.196	0.197	-0.5	102	0.00	12.67
			True	Calc.	% Drift			
78		2-hexanone	20.000	20.056	-0.3	107	0.00	12.86
			AvgRF	CCRF	% Dev			
79	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	13.80
80		tetrachloroethene	0.326	0.349	-7.1	114	0.00	12.85
81		1,3-dichloropropane	0.433	0.441	-1.8	104	0.00	12.87
			True	Calc.	% Drift			
82		butyl acetate	20.000	19.852	0.7	119	0.00	12.92
83		3,3-Dimethyl-1-Butanol	200.000	179.099	10.5	104	0.00	13.04
			AvgRF	CCRF	% Dev			
84		dibromochloromethane	0.308	0.319	-3.6	107	0.00	13.16
			True	Calc.	% Drift			
85		1,2-dibromoethane	20.000	19.381	3.1	106	0.00	13.33
			AvgRF	CCRF	% Dev			
86		chlorobenzene	0.911	0.922	-1.2	109	0.00	13.83
87		1,1,1,2-tetrachloroethane	0.339	0.342	-0.9	109	0.00	13.90
88		ethylbenzene	1.487	1.553	-4.4	111	0.00	13.89
89		m,p-xylene	0.577	0.599	-3.8	113	0.00	14.01
90		o-xylene	0.582	0.593	-1.9	109	0.00	14.48
91		styrene	0.963	0.980	-1.8	109	0.00	14.50

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VV6207-CC6196
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** V145597.D
Project: BMS-ICM, Humacao, PR

92		bromoform	0.210	0.212	-1.0	108	0.00	14.81
93		cyclohexanone	0.043	0.046	-7.0	115	0.00	15.07
94	S	4-bromofluorobenzene (s)	0.454	0.425	6.4	103	0.00	15.10
95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	16.41
96		isopropylbenzene	2.700	2.931	-8.6	111	0.00	14.86
97		1,1,2,2-tetrachloroethane	0.696	0.686	1.4	101	0.00	15.23
98		trans-1,4-dichloro-2-bute	0.170	0.177	-4.1	109	0.00	15.27
99		1,2,3-trichloropropane	0.170	0.172	-1.2	103	0.00	15.31
100		bromobenzene	0.716	0.768	-7.3	108	0.00	15.32
101		n-propylbenzene	3.294	3.447	-4.6	111	0.00	15.32
102		2-chlorotoluene	0.709	0.760	-7.2	113	0.00	15.50
103		4-chlorotoluene	2.083	2.171	-4.2	113	0.00	15.61
104		1,3,5-trimethylbenzene	2.414	2.495	-3.4	109	0.00	15.49
105		tert-butylbenzene	2.022	2.119	-4.8	112	0.00	15.88
106		pentachloroethane	0.457	0.489	-7.0	109	0.00	15.99
107		1,2,4-trimethylbenzene	2.408	2.484	-3.2	108	0.00	15.94
108		sec-butylbenzene	3.219	3.372	-4.8	110	0.00	16.12
109		p-isopropyltoluene	2.666	2.820	-5.8	111	0.00	16.26
110		1,3-dichlorobenzene	1.507	1.538	-2.1	108	0.00	16.35
111		1,4-dichlorobenzene	1.502	1.573	-4.7	110	0.00	16.44
112		1,2-dichlorobenzene	1.442	1.489	-3.3	109	0.00	16.88
113		Benzyl Chloride	1.235	1.369	-10.9	115	0.00	16.57
114		Indane		----------NA----------				
115		n-butylbenzene	1.416	1.484	-4.8	112	0.00	16.72
		----------	True	Calc.	% Drift	----------		
116		hexachloroethane	20.000	18.944	5.3	113	0.00	17.17
117		1,2-dibromo-3-chloropropa	20.000	18.750	6.3	101	0.00	17.75
		----------	AvgRF	CCRF	% Dev	----------		
118		1,3,5-trichlorobenzene	1.277	1.281	-0.3	107	0.00	17.93
119		1,2,4-trichlorobenzene	1.155	1.135	1.7	103	0.00	18.65
120		hexachlorobutadiene	0.574	0.612	-6.6	116	0.00	18.77
121		naphthalene	2.383	2.366	0.7	101	0.00	18.98
122		1,2,3-trichlorobenzene	1.053	1.082	-2.8	105	0.00	19.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
V145214.D MVS6196.M Tue Jun 24 09:45:37 2014 MSV

6.9.14

6

Initial Calibration Summary

Job Number: JB69587 **Sample:** VX6381-ICC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147616.D
Project: BMS-ICM, Humacao, PR

```
                         Response Factor Report  ACC-VOA-M

 Method       : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
 Title        : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
 Last Update  : Thu Jun 19 09:44:28 2014
 Response via : Initial Calibration

 Calibration Files
 1   =x147611.D   2   =x147610.D   100 =x147617.D   50  =x147616.D
 20  =x147615.D   200 =x147618.D   8   =x147614.D   4   =x147609.D
 0.5 =x147612.D   0.2 =x147613.D       =                =

 Compound
         1     2     100   50    20    200   8     4     0.5   0.2    Avg   %RSD
 ---------------------------------------------------------------------------

 1) I   tert butyl alcohol-d9 ----------------ISTD---------------------
 2)  tertiary butyl alcohol
      1.525 1.344 1.200 1.234 1.300 1.128 1.245 1.341              1.290    9.29
 3)  ethyl alcohol
                                                                   0.000   -1.00
 4)  1,4-dioxane
            0.074 0.109 0.111 0.105 0.095 0.092 0.099              0.098   12.98

 5) I   pentafluorobenzene    ----------------ISTD---------------------
 6)  freon 23
                                                                   0.000   -1.00
 7)  freon 115
                                                                   0.000   -1.00
 8)  freon 143a
                                                                   0.000   -1.00
 9)  freon 152a
                                                                   0.000   -1.00
10)  chlorotrifluoroethene
                                                                   0.000   -1.00
11)  chlorodifluoromethane
                  0.348 0.338 0.367 0.329 0.479 0.676              0.423   32.12
             ----- Linear regression -----  Coefficient =  0.9994
               Response Ratio = 0.02438 + 0.32470 *A

12)  dichlorodifluoromethane
      0.493 0.469 0.415 0.418 0.448 0.397 0.449 0.459 0.462        0.446    6.80
13)  freon 114
                                                                   0.000   -1.00
14)  freon 142b
                                                                   0.000   -1.00
15)  chloromethane
      0.625 0.560 0.550 0.536 0.560 0.537 0.540 0.580              0.561    5.30
16)  vinyl chloride
      0.513 0.522 0.484 0.473 0.490 0.462 0.495 0.529 0.547        0.502    5.54
17)  acetaldehyde
                                                                   0.000   -1.00
18)  bromomethane
      0.389 0.388 0.341 0.338 0.359 0.328 0.352 0.374              0.359    6.46
19)  chloroethane
      0.189 0.206 0.197 0.197 0.209 0.188 0.207 0.210 0.192        0.199    4.46
20)  vinyl bromide
                                                                   0.000   -1.00
21)  trichlorofluoromethane
      0.561 0.569 0.482 0.480 0.511 0.456 0.521 0.554 0.454        0.510    8.74
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VX6381-ICC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147616.D
Project: BMS-ICM, Humacao, PR

```
22)  pentane
                                                                    0.000   -1.00
23)  ethyl ether
      0.145 0.147 0.151 0.156 0.164 0.151 0.166 0.142               0.153    5.83
24)  freon 141b
                                                                    0.000   -1.00
25)  freon 123a
                                                                    0.000   -1.00
26)  freon 123
                                                                    0.000   -1.00
27)  acrolein
      0.053 0.056       0.055 0.059       0.058 0.051               0.055    5.44
28)  1,1-dichloroethene
      0.278 0.259 0.241 0.246 0.253 0.233 0.267 0.256 0.226         0.251    6.51
29)  acetone
                  0.024 0.025 0.029 0.023 0.026                     0.025    8.16
30)  allyl chloride
      0.121 0.149 0.143 0.144 0.153 0.141 0.150 0.141               0.143    6.98
31)  acetonitrile
                  0.025 0.027 0.029 0.025 0.032 0.031               0.028   10.45
32)  iodomethane
      0.566 0.577 0.565 0.571 0.587 0.552 0.609 0.566 0.506 0.576   0.567    4.67
33)  iso-butyl alcohol
            0.018 0.015 0.017 0.018 0.016 0.018 0.017               0.017    7.09
34)  carbon disulfide
      1.046 1.022 0.916 0.916 0.945 0.883 1.002 0.963 1.019 1.218   0.993    9.62
35)  methylene chloride
                  0.329 0.346 0.394 0.316 0.522 0.512               0.403   22.81
            ----- Linear regression -----  Coefficient =  0.9997
              Response Ratio = 0.03051 + 0.30992 *A

36)  methyl acetate
            0.243 0.209 0.226 0.245 0.215 0.241 0.216               0.228    6.62
37)  methyl tert butyl ether
      0.973 0.959 0.926 0.977 1.026 0.924 1.039 0.869 0.956         0.961    5.42
38)  trans-1,2-dichloroethene
      0.334 0.338 0.283 0.287 0.302 0.273 0.312 0.301 0.258 0.276   0.296    8.81
39)  di-isopropyl ether
      1.257 1.250 1.173 1.177 1.229 1.152 1.231 1.209 0.914 1.219   1.181    8.45
40)  2-butanone
                  0.032 0.034 0.034 0.031 0.034                     0.033    4.21
41)  1,1-dichloroethane
      0.593 0.588 0.555 0.557 0.574 0.527 0.594 0.555 0.520         0.563    4.86
42)  chloroprene
      0.468 0.446 0.426 0.412 0.421 0.407 0.445 0.455 0.312         0.421   10.84
43)  acrylonitrile
      0.090 0.099 0.093 0.102 0.109 0.093 0.107 0.087               0.097    8.28
44)  vinyl acetate
                  0.042 0.044 0.044 0.042 0.038 0.035               0.041    8.53
45)  ethyl tert-butyl ether
      1.173 1.159 1.107 1.123 1.166 1.098 1.162 1.092 0.876 1.129   1.108    7.84
46)  ethyl acetate
                  0.029 0.032 0.033 0.030 0.029 0.028               0.030    5.48
47)  2,2-dichloropropane
      0.515 0.507 0.448 0.452 0.462 0.423 0.495 0.485 0.477         0.474    6.38
48)  cis-1,2-dichloroethene
      0.358 0.348 0.335 0.343 0.347 0.325 0.365 0.336 0.309 0.408   0.347    7.65
49)  methyl acrylate
            0.218 0.231 0.255 0.257 0.239 0.247 0.180               0.232   11.61
50)  propionitrile
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VX6381-ICC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147616.D
Project: BMS-ICM, Humacao, PR

```
      0.046 0.040 0.038 0.042 0.045 0.039 0.044 0.036              0.041    8.63
51)  tert-Butyl Formate
      0.236 0.288 0.277 0.285 0.305 0.278 0.290 0.263              0.278    7.47
52)  bromochloromethane
      0.159 0.166 0.171 0.177 0.185 0.168 0.180 0.163              0.171    5.17
53)  tetrahydrofuran
                  0.036 0.039 0.039 0.036 0.039 0.029              0.036   10.76
54)  chloroform
      0.606 0.623 0.540 0.553 0.571 0.522 0.582 0.550 0.614        0.573    6.14
55)  dibromofluoromethane (s)
            0.298 0.286 0.297 0.299 0.287 0.324 0.330              0.303    5.65
56)  1,2-dichloroethane-d4 (s)
      0.387 0.360 0.309 0.331 0.328 0.310 0.360 0.358              0.343    8.10
57)  freon 113
      0.263 0.290 0.242 0.237 0.231 0.235 0.264 0.268              0.254    8.20
58)  methacrylonitrile
      0.168 0.177 0.171 0.183 0.192 0.177 0.200 0.162              0.179    6.98
59)  1,1,1-trichloroethane
      0.499 0.501 0.449 0.451 0.464 0.428 0.481 0.466 0.443 0.485  0.467    5.22
60)  cyclohexane
      0.464 0.453 0.399 0.400 0.408 0.383 0.435 0.433 0.397        0.419    6.70
61)  tert amyl alcohol
                                                                   0.000   -1.00
62)  iso-octane
      1.238 1.267 1.130 1.094 1.065 1.113 1.219 1.251 0.900 1.279  1.156   10.30

63) I   1,4-difluorobenzene   ----------------ISTD---------------------
64)  di-isobutylene
                                                                   0.000   -1.00
65)  epichlorohydrin
      0.022 0.026 0.023 0.025 0.027 0.024 0.026 0.024              0.024    7.15
66)  n-butyl alcohol
      0.009 0.008 0.008 0.009 0.010 0.008 0.009 0.008              0.009    6.43
67)  carbon tetrachloride
      0.371 0.357 0.350 0.346 0.357 0.325 0.375 0.348 0.294        0.347    7.08
68)  1,1-dichloropropene
      0.353 0.332 0.328 0.320 0.331 0.307 0.349 0.323              0.330    4.53
69)  hexane
      0.369 0.350 0.306 0.294 0.299 0.290 0.332 0.341              0.323    9.10
70)  benzene
      1.101 1.081 1.027 1.013 1.053 0.966 1.079 1.044 1.072 1.353  1.079    9.63
71)  tert-amyl methyl ether
      0.911 0.913 0.893 0.897 0.951 0.859 0.933 0.891 0.729 0.976  0.895    7.52
72)  heptane
      0.216 0.201 0.178 0.172 0.172 0.168 0.198 0.203              0.188    9.55
73)  isopropyl acetate
      0.740 0.757 0.674 0.703 0.723 0.666 0.748 0.666 0.590 0.721  0.699    7.26
74)  1,2-dichloroethane
      0.330 0.344 0.349 0.356 0.377 0.329 0.374 0.314 0.333 0.300  0.341    7.21
75)  trichloroethene
      0.255 0.269 0.275 0.272 0.273 0.260 0.284 0.265 0.256        0.268    3.65
76)  ethyl acrylate
                                                                   0.000   -1.00
77)  tert amyl ethyl ether
                                                                   0.000   -1.00
78)  2-nitropropane
                                                                   0.000   -1.00
79)  2-chloroethyl vinyl ether
      0.128 0.142 0.139 0.141 0.146 0.139 0.146 0.127 0.103        0.135   10.15
80)  methyl methacrylate
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VX6381-ICC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147616.D
Project: BMS-ICM, Humacao, PR

```
      0.168 0.158 0.163 0.172 0.180 0.164 0.177 0.141              0.165    7.41
 81)  1,2-dichloropropane
      0.281 0.288 0.287 0.288 0.296 0.276 0.299 0.247 0.230 0.265  0.276    8.07
 82)  dibromomethane
      0.149 0.160 0.166 0.168 0.175 0.161 0.174 0.148 0.118        0.158   11.29
 83)  methylcyclohexane
      0.435 0.456 0.419 0.392 0.395 0.393 0.443 0.448              0.422    6.26
 84)  bromodichloromethane
      0.396 0.369 0.387 0.385 0.394 0.371 0.399 0.338 0.341 0.427  0.381    7.12
 85)  cis-1,3-dichloropropene
      0.484 0.480 0.481 0.485 0.496 0.466 0.496 0.418 0.465 0.573  0.484    7.92
 86)  toluene-d8 (s)
            1.167 0.914 0.915 0.919 0.894 1.033 1.119              0.994   11.27
 87)  4-methyl-2-pentanone
      0.092 0.100 0.102 0.113 0.118 0.103 0.111 0.089              0.104    9.84
 88)  toluene
      0.765 0.726 0.664 0.669 0.673 0.631 0.729 0.646 0.769        0.697    7.37
 89)  3-methyl-1-butanol
      0.015 0.014 0.013 0.014 0.015 0.013 0.015 0.013 0.018        0.015   10.13
 90)  trans-1,3-dichloropropene
      0.487 0.453 0.445 0.454 0.467 0.432 0.464 0.391 0.414 0.455  0.446    6.19
 91)  ethyl methacrylate
      0.362 0.347 0.352 0.370 0.368 0.352 0.366 0.297 0.277        0.343    9.71
 92)  1,1,2-trichloroethane
      0.219 0.212 0.210 0.214 0.217 0.204 0.224 0.179 0.176        0.206    8.32
 93)  2-hexanone
      0.119 0.103 0.100 0.110 0.113 0.102 0.109 0.090              0.106    8.53

 94) I   chlorobenzene-d5      ----------------ISTD---------------------
 95)  3,3-Dimethyl-1-butanol
      0.034 0.032 0.031 0.032 0.035 0.030 0.032 0.031              0.032    5.11
 96)  tetrachloroethene
      0.285 0.270 0.268 0.251 0.248 0.238 0.263 0.249 0.262 0.270  0.260    5.27
 97)  1,3-dichloropropane
      0.432 0.401 0.402 0.408 0.429 0.387 0.430 0.358 0.351 0.468  0.407    8.69
 98)  butyl acetate
            0.264 0.182 0.199 0.210 0.186 0.236 0.228              0.215   13.77
 99)  dibromochloromethane
      0.367 0.304 0.328 0.326 0.333 0.318 0.339 0.290 0.260 0.299  0.316    9.36
100)  1,2-dibromoethane
      0.293 0.263 0.259 0.267 0.273 0.254 0.273 0.236 0.227 0.233  0.258    8.03
101)  n-butyl ether
                                                                   0.000   -1.00
102)  chlorobenzene
      0.948 0.876 0.837 0.826 0.843 0.796 0.874 0.800 0.933 0.991  0.872    7.53
103)  1,1,1,2-tetrachloroethane
      0.368 0.329 0.328 0.330 0.340 0.313 0.346 0.294 0.272 0.334  0.325    8.25
104)  ethylbenzene
      1.535 1.420 1.341 1.323 1.352 1.254 1.398 1.346 1.454        1.380    5.95
105)  m,p-xylene
      0.581 0.559 0.519 0.511 0.520 0.490 0.546 0.520 0.534        0.531    5.17
106)  o-xylene
      0.617 0.544 0.545 0.538 0.545 0.519 0.565 0.528 0.548 0.693  0.564    9.30
107)  styrene
      1.042 0.926 0.956 0.948 0.947 0.919 0.956 0.879 0.926        0.944    4.66
108)  bromoform
      0.287 0.255 0.258 0.265 0.268 0.255 0.260 0.234 0.240        0.258    5.99

109) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
110)  isopropylbenzene
```

```
       2.898 2.687 2.370 2.381 2.363 2.211 2.561 2.469              2.492    8.72
111)  Cyclohexanone
                                                                    0.000   -1.00
112)  4-bromofluorobenzene (s)
                    0.672 0.693 0.678 0.663 0.887 1.184             0.796   26.12
             ----- Linear regression -----  Coefficient =  1.0000
               Response Ratio = 0.03636 + 0.65386 *A

113)  bromobenzene
       0.914 0.789 0.753 0.747 0.757 0.728 0.779 0.724 0.859        0.783    8.11
114)  1,1,2,2-tetrachloroethane
       0.870 0.674 0.637 0.665 0.703 0.624 0.709 0.626 0.641        0.683   11.23
115)  trans-1,4-dichloro-2-butene
             0.183 0.178 0.189 0.200 0.174 0.203 0.170              0.185    6.83
116)  1,2,3-trichloropropane
       0.169 0.149 0.151 0.160 0.168 0.147 0.170 0.155              0.159    6.03
117)  n-propylbenzene
       3.394 3.081 2.773 2.749 2.765 2.604 2.934 2.845 3.147        2.921    8.42
118)  4-ethyltoluene
                                                                    0.000   -1.00
119)  2-chlorotoluene
       0.793 0.691 0.650 0.642 0.643 0.617 0.671 0.650 0.657        0.668    7.62
120)  4-chlorotoluene
       2.311 2.038 1.811 1.803 1.851 1.731 1.880 1.865 2.286        1.953   10.89
121)  1,3,5-trimethylbenzene
       2.551 2.314 2.135 2.101 2.136 2.003 2.232 2.138 2.391        2.222    7.63
122)  tert-butylbenzene
       2.262 2.054 1.821 1.800 1.803 1.723 1.910 1.884 2.143        1.933    9.35
123)  pentachloroethane
       0.560 0.479 0.445 0.463 0.491 0.446 0.491 0.463 0.430        0.474    8.09
124)  1,2,4-trimethylbenzene
       2.673 2.349 2.160 2.147 2.161 2.029 2.218 2.250 2.410        2.266    8.37
125)  1,2,3-trimethylbenzene
                                                                    0.000   -1.00
126)  sec-butylbenzene
       3.297 3.081 2.770 2.739 2.758 2.567 2.948 2.903 3.051        2.901    7.60
127)  1,3-dichlorobenzene
       1.826 1.560 1.415 1.418 1.452 1.355 1.485 1.423 1.735        1.519   10.56
128)  p-isopropyltoluene
       2.958 2.692 2.422 2.384 2.423 2.271 2.505 2.522 2.629        2.534    8.03
129)  1,4-dichlorobenzene
       1.883 1.662 1.421 1.423 1.451 1.365 1.497 1.438 1.774        1.546   11.79
130)  1,2-dichlorobenzene
       1.714 1.458 1.408 1.406 1.456 1.348 1.444 1.368 1.592        1.466    7.94
131)  benzyl chloride
       1.544 1.516 1.192 1.235 1.347 1.165 1.306 1.462              1.346   10.93
132)  1,4-diethylbenzene
                                                                    0.000   -1.00
133)  n-butylbenzene
       1.375 1.275 1.192 1.183 1.195 1.117 1.222 1.196 1.248        1.223    5.90
134)  1,2,4,5-tetramethylbenzene
                                                                    0.000   -1.00
135)  1,2-dibromo-3-chloropropane
             0.153 0.115 0.121 0.122 0.110 0.131 0.123              0.125   11.25
136)  1,3,5-trichlorobenzene
       1.230 1.187 1.222 1.195 1.220 1.128 1.141 1.115 1.056 1.144  1.164    4.85
137)  hexachlorobutadiene
       0.676 0.621 0.608 0.603 0.612 0.544 0.619 0.611 0.576 0.698  0.617    7.12
138)  naphthalene
                    1.815 1.766 1.646 1.780 1.311 1.080             1.566   19.27
```

Initial Calibration Summary

Job Number: JB69587 **Sample:** VX6381-ICC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147616.D
Project: BMS-ICM, Humacao, PR

```
              ----- Linear regression -----  Coefficient =  0.9998
                Response Ratio = -0.04976 + 1.80236 *A

139)  1,2,4-trichlorobenzene
                    1.024 0.980 0.939 0.975 0.787 0.693              0.900   14.46
140)  1,2,3-trichlorobenzene
                    0.870 0.827 0.773 0.835 0.630 0.527              0.744   18.26
              ----- Linear regression -----  Coefficient =  0.9994
                Response Ratio = -0.01918 + 0.84768 *A

141)  hexachloroethane
       0.617 0.486 0.517 0.501 0.494 0.487 0.513 0.504 0.559        0.520    8.23
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          MX6381.M          Thu Jun 19 09:47:02 2014   GCMSX
```

Initial Calibration Verification

Job Number: JB69587 **Sample:** VX6381-ICV6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147621.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\x147621.D                    Vial: 14
Acq On    : 18 Jun 2014  10:44 pm                     Operator: KingC
Sample    : icv6381-50                                Inst    : ACC-VOA-M
Misc      : MS68701,VX6381,5,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
Title        : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
Last Update  : Thu Jun 19 09:44:28 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	98	0.00	7.55
2		tertiary butyl alcohol	1.290	1.242	3.7	99	0.00	7.69
3		ethyl alcohol		----------NA----------				
4		1,4-dioxane	0.098	0.109	-11.2	96	-0.01	12.41
5	I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	10.26
6	m	freon 23		----------NA----------				
7	m	freon 115		----------NA----------				
8	m	freon 143a		----------NA----------				
9	m	freon 152a		----------NA----------				
10	m	chlorotrifluoroethene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
11		chlorodifluoromethane	50.000	35.235	29.5#	81	0.00	3.87
		----------	AvgRF	CCRF	% Dev	----------		
12		dichlorodifluoromethane	0.446	0.392	12.1	102	0.00	3.84
13	m	freon 114		----------NA----------				
14	m	freon 142b		----------NA----------				
15		chloromethane	0.561	0.507	9.6	103	0.01	4.20
16		vinyl chloride	0.502	0.453	9.8	104	0.00	4.46
17	m	acetaldehyde		----------NA----------				
18		bromomethane	0.359	0.320	10.9	103	0.00	5.15
19		chloroethane	0.199	0.189	5.0	104	0.00	5.34
20		vinyl bromide		----------NA----------				
21		trichlorofluoromethane	0.510	0.458	10.2	104	0.00	5.82
22		pentane		----------NA----------				
23		ethyl ether	0.153	0.147	3.9	102	0.00	6.27
24	m	freon 141b		----------NA----------				
25	m	freon 123a		----------NA----------				
26	m	freon 123		----------NA----------				
27		acrolein	0.055	0.050	9.1	99	0.00	6.60
28		1,1-dichloroethene	0.251	0.242	3.6	107	0.00	6.73
29		acetone	0.025	0.022	12.0	93	0.00	6.85
30		allyl chloride	0.143	0.138	3.5	104	0.00	7.35
31		acetonitrile	0.028	0.026	7.1	106	0.00	7.38
32		iodomethane	0.567	0.546	3.7	104	0.00	7.06
33		iso-butyl alcohol	0.017	0.016	5.9	99	0.00	10.68
34		carbon disulfide	0.993	0.894	10.0	106	0.00	7.17
		----------	True	Calc.	% Drift	----------		
35		methylene chloride	50.000	47.957	4.1	103	0.00	7.58

Initial Calibration Verification

Job Number: JB69587 **Sample:** VX6381-ICV6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147621.D
Project: BMS-ICM, Humacao, PR

			AvgRF	CCRF	% Dev			
36		methyl acetate	0.228	0.198	13.2	95	0.00	7.35
37		methyl tert butyl ether	0.961	0.898	6.6	100	0.00	7.92
38		trans-1,2-dichloroethene	0.296	0.277	6.4	105	0.00	7.99
39		di-isopropyl ether	1.181	1.158	1.9	107	0.00	8.62
40		2-butanone	0.033	0.028	15.2	90	0.00	9.60
41		1,1-dichloroethane	0.563	0.538	4.4	105	0.00	8.70
42		chloroprene	0.421	0.392	6.9	104	0.00	8.80
43		acrylonitrile	0.097	0.091	6.2	97	0.00	8.02
44		vinyl acetate	0.041	0.047	-14.6	116	0.00	8.68
45		ethyl tert-butyl ether	1.108	1.061	4.2	103	0.00	9.20
46		ethyl acetate	0.030	0.029	3.3	98	0.00	9.61
47		2,2-dichloropropane	0.474	0.414	12.7	100	0.00	9.59
48		cis-1,2-dichloroethene	0.347	0.324	6.6	102	0.00	9.61
49		methyl acrylate	0.232	0.222	4.3	94	0.00	9.70
50		propionitrile	0.041	0.037	9.8	96	0.00	9.77
51		tert-Butyl Formate	0.278	0.274	1.4	104	-0.01	10.10
52		bromochloromethane	0.171	0.163	4.7	100	0.00	10.01
53		tetrahydrofuran	0.036	0.033	8.3	93	0.00	10.04
54		chloroform	0.573	0.525	8.4	103	0.00	10.08
55	S	dibromofluoromethane (s)	0.303	0.274	9.6	100	0.00	10.34
56	S	1,2-dichloroethane-d4 (s)	0.343	0.296	13.7	97	0.00	10.88
57		freon 113	0.254	0.245	3.5	112	0.01	6.69
58		methacrylonitrile	0.179	0.169	5.6	100	0.00	9.96
59		1,1,1-trichloroethane	0.467	0.435	6.9	105	0.00	10.36
60		cyclohexane	0.419	0.397	5.3	108	0.00	10.41
61	m	tert amyl alcohol		----------NA----------				
62	m	iso-octane	1.156	1.071	7.4	106	0.00	10.88
63	I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	11.44
64		di-isobutylene		----------NA----------				
65		epichlorohydrin	0.024	0.024	0.0	101	0.00	13.16
66		n-butyl alcohol	0.009	0.008	11.1	97	0.00	11.67
67		carbon tetrachloride	0.347	0.340	2.0	104	0.00	10.60
68		1,1-dichloropropene	0.330	0.317	3.9	105	0.00	10.59
69		hexane		----------NA----------				
70		benzene	1.079	0.990	8.2	104	0.00	10.93
71		tert-amyl methyl ether	0.895	0.866	3.2	103	0.00	10.97
72		heptane	0.188	0.188	0.0	116	0.00	11.11
73		isopropyl acetate	0.699	0.723	-3.4	109	0.00	10.87
74		1,2-dichloroethane	0.341	0.335	1.8	100	0.00	10.99
75		trichloroethene	0.268	0.263	1.9	103	0.00	11.87
76	m	ethyl acrylate		----------NA----------				
77	m	tert amyl ethyl ether		----------NA----------				
78		2-nitropropane		----------NA----------				
79		2-chloroethyl vinyl ether	0.135	0.135	0.0	101	0.00	12.98
80		methyl methacrylate	0.165	0.157	4.8	97	0.00	12.27
81		1,2-dichloropropane	0.276	0.275	0.4	102	0.00	12.25
82		dibromomethane	0.158	0.160	-1.3	101	0.00	12.47
83		methylcyclohexane	0.422	0.413	2.1	112	0.00	12.11
84		bromodichloromethane	0.381	0.367	3.7	101	0.00	12.65
85		cis-1,3-dichloropropene	0.484	0.457	5.6	100	0.00	13.26
86	S	toluene-d8 (s)	0.994	0.890	10.5	103	0.00	13.62
87		4-methyl-2-pentanone	0.104	0.098	5.8	92	0.00	13.40
88		toluene	0.697	0.652	6.5	103	0.00	13.71
89		3-methyl-1-butanol	0.015	0.013	13.3	99	0.00	13.45
90		trans-1,3-dichloropropene	0.446	0.423	5.2	99	0.00	14.03
91		ethyl methacrylate	0.343	0.334	2.6	96	0.00	14.01
92		1,1,2-trichloroethane	0.206	0.200	2.9	99	0.00	14.32

Initial Calibration Verification

Job Number: JB69587 **Sample:** VX6381-ICV6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147621.D
Project: BMS-ICM, Humacao, PR

93		2-hexanone	0.106	0.095	10.4	92	0.00	14.55
94	I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	15.64
95		3,3-Dimethyl-1-butanol	0.032	0.029	9.4	95	0.00	14.80
96		tetrachloroethene	0.260	0.241	7.3	100	0.00	14.48
97		1,3-dichloropropane	0.407	0.389	4.4	100	0.00	14.56
98		butyl acetate	0.215	0.190	11.6	100	0.00	14.65
99		dibromochloromethane	0.316	0.315	0.3	101	0.00	14.90
100		1,2-dibromoethane	0.258	0.251	2.7	99	0.00	15.09
101	m	n-butyl ether		----------NA----------				
102		chlorobenzene	0.872	0.805	7.7	102	0.00	15.68
103		1,1,1,2-tetrachloroethane	0.325	0.315	3.1	100	0.00	15.77
104		ethylbenzene	1.380	1.303	5.6	103	0.00	15.75
105		m,p-xylene	0.531	0.504	5.1	103	0.00	15.90
106		o-xylene	0.564	0.524	7.1	102	0.00	16.44
107		styrene	0.944	0.912	3.4	101	0.00	16.47
108		bromoform	0.258	0.242	6.2	96	0.00	16.81
109	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	18.38
110		isopropylbenzene	2.492	2.350	5.7	102	0.00	16.86
111		Cyclohexanone		----------NA----------				
		----------	True	Calc.	% Drift	----------		
112	S	4-bromofluorobenzene (s)	50.000	48.317	3.4	100	0.00	17.12
		----------	AvgRF	CCRF	% Dev	----------		
113		bromobenzene	0.783	0.727	7.2	100	0.00	17.34
114		1,1,2,2-tetrachloroethane	0.683	0.625	8.5	97	0.00	17.28
115		trans-1,4-dichloro-2-bute	0.185	0.171	7.6	94	0.00	17.33
116		1,2,3-trichloropropane	0.159	0.148	6.9	96	0.00	17.35
117		n-propylbenzene	2.921	2.715	7.1	102	0.00	17.34
118	m	4-ethyltoluene		----------NA----------				
119		2-chlorotoluene	0.668	0.630	5.7	101	0.00	17.51
120		4-chlorotoluene	1.953	1.736	11.1	100	0.00	17.62
121		1,3,5-trimethylbenzene	2.222	2.078	6.5	102	0.00	17.52
122		tert-butylbenzene	1.933	1.800	6.9	103	0.00	17.89
123		pentachloroethane	0.474	0.462	2.5	103	0.00	17.99
124		1,2,4-trimethylbenzene	2.266	2.079	8.3	100	0.00	17.94
125	m	1,2,3-trimethylbenzene		----------NA----------				
126		sec-butylbenzene	2.901	2.723	6.1	103	0.00	18.11
127		1,3-dichlorobenzene	1.519	1.352	11.0	99	0.00	18.32
128		p-isopropyltoluene	2.534	2.359	6.9	102	0.00	18.24
129		1,4-dichlorobenzene	1.546	1.353	12.5	98	0.00	18.41
130		1,2-dichlorobenzene	1.466	1.335	8.9	98	0.00	18.79
131		benzyl chloride	1.346	1.114	17.2	93	0.00	18.54
132	m	1,4-diethylbenzene		----------NA----------				
133		n-butylbenzene	1.223	1.164	4.8	102	0.00	18.65
134	m	1,2,4,5-tetramethylbenzen		----------NA----------				
135		1,2-dibromo-3-chloropropa	0.125	0.106	15.2	91	0.00	19.57
136		1,3,5-trichlorobenzene	1.164	1.141	2.0	99	0.00	19.71
137		hexachlorobutadiene	0.617	0.585	5.2	100	0.00	20.43
		----------	True	Calc.	% Drift	----------		
138		naphthalene	50.000	45.300	9.4	93	0.00	20.63
		----------	AvgRF	CCRF	% Dev	----------		
139		1,2,4-trichlorobenzene	0.900	0.905	-0.6	95	0.00	20.34
		----------	True	Calc.	% Drift	----------		
140	m	1,2,3-trichlorobenzene	50.000	46.093	7.8	95	0.00	20.87

Initial Calibration Verification

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VX6381-ICV6381
Lab FileID: X147621.D

```
            ----------------------- AvgRF   CCRF     % Dev   -------------
141     hexachloroethane            0.520   0.489      6.0  101   0.00   19.02
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     x147616.D  MX6381.M         Thu Jun 19 09:46:37 2014   GCMSX
```

Initial Calibration Verification

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Sample: VX6381-ICV6381
Lab FileID: X147624.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\x147624.D                    Vial: 17
Acq On    : 19 Jun 2014   9:49 am                     Operator: KingC
Sample    : icv6381-50                                Inst    : ACC-VOA-M
Misc      : MS68701,VX6381,5,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
Title        : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
Last Update  : Thu Jun 19 09:44:28 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	138	0.00	7.55
2		tertiary butyl alcohol		----------NA----------				
3		ethyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	10.26
6	m	freon 23		----------NA----------				
7	m	freon 115		----------NA----------				
8	m	freon 143a		----------NA----------				
9	m	freon 152a		----------NA----------				
10	m	chlorotrifluoroethene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
11		chlorodifluoromethane		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
12		dichlorodifluoromethane		----------NA----------				
13	m	freon 114		----------NA----------				
14	m	freon 142b		----------NA----------				
15		chloromethane		----------NA----------				
16		vinyl chloride		----------NA----------				
17	m	acetaldehyde		----------NA----------				
18		bromomethane		----------NA----------				
19		chloroethane		----------NA----------				
20		vinyl bromide		----------NA----------				
21		trichlorofluoromethane		----------NA----------				
22		pentane		----------NA----------				
23		ethyl ether		----------NA----------				
24	m	freon 141b		----------NA----------				
25	m	freon 123a		----------NA----------				
26	m	freon 123		----------NA----------				
27		acrolein		----------NA----------				
28		1,1-dichloroethene		----------NA----------				
29		acetone		----------NA----------				
30		allyl chloride		----------NA----------				
31		acetonitrile		----------NA----------				
32		iodomethane		----------NA----------				
33		iso-butyl alcohol		----------NA----------				
34		carbon disulfide		----------NA----------				
		----------	True	Calc.	% Drift	----------		
35		methylene chloride		----------NA----------				

Initial Calibration Verification

Job Number: JB69587 **Sample:** VX6381-ICV6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147624.D
Project: BMS-ICM, Humacao, PR

			AvgRF	CCRF	% Dev		
36		methyl acetate		----------NA----------			
37		methyl tert butyl ether		----------NA----------			
38		trans-1,2-dichloroethene		----------NA----------			
39		di-isopropyl ether		----------NA----------			
40		2-butanone		----------NA----------			
41		1,1-dichloroethane		----------NA----------			
42		chloroprene		----------NA----------			
43		acrylonitrile		----------NA----------			
44		vinyl acetate		----------NA----------			
45		ethyl tert-butyl ether		----------NA----------			
46		ethyl acetate		----------NA----------			
47		2,2-dichloropropane		----------NA----------			
48		cis-1,2-dichloroethene		----------NA----------			
49		methyl acrylate		----------NA----------			
50		propionitrile		----------NA----------			
51		tert-Butyl Formate		----------NA----------			
52		bromochloromethane		----------NA----------			
53		tetrahydrofuran		----------NA----------			
54		chloroform		----------NA----------			
55	S	dibromofluoromethane (s)	0.303	0.323	-6.6	118	-0.01	10.33
56	S	1,2-dichloroethane-d4 (s)	0.343	0.342	0.3	112	-0.01	10.87
57		freon 113		----------NA----------			
58		methacrylonitrile		----------NA----------			
59		1,1,1-trichloroethane		----------NA----------			
60		cyclohexane		----------NA----------			
61	m	tert amyl alcohol		----------NA----------			
62	m	iso-octane		----------NA----------			
63	I	1,4-difluorobenzene	1.000	1.000	0.0	110	0.00	11.44
64		di-isobutylene		----------NA----------			
65		epichlorohydrin		----------NA----------			
66		n-butyl alcohol		----------NA----------			
67		carbon tetrachloride		----------NA----------			
68		1,1-dichloropropene		----------NA----------			
69		hexane	0.323	0.331	-2.5	124	0.00	8.30
70		benzene		----------NA----------			
71		tert-amyl methyl ether		----------NA----------			
72		heptane		----------NA----------			
73		isopropyl acetate		----------NA----------			
74		1,2-dichloroethane		----------NA----------			
75		trichloroethene		----------NA----------			
76	m	ethyl acrylate		----------NA----------			
77	m	tert amyl ethyl ether		----------NA----------			
78		2-nitropropane		----------NA----------			
79		2-chloroethyl vinyl ether		----------NA----------			
80		methyl methacrylate		----------NA----------			
81		1,2-dichloropropane		----------NA----------			
82		dibromomethane		----------NA----------			
83		methylcyclohexane		----------NA----------			
84		bromodichloromethane		----------NA----------			
85		cis-1,3-dichloropropene		----------NA----------			
86	S	toluene-d8 (s)	0.994	1.065	-7.1	128	0.00	13.61
87		4-methyl-2-pentanone		----------NA----------			
88		toluene		----------NA----------			
89		3-methyl-1-butanol		----------NA----------			
90		trans-1,3-dichloropropene		----------NA----------			
91		ethyl methacrylate		----------NA----------			
92		1,1,2-trichloroethane		----------NA----------			

Initial Calibration Verification

Job Number: JB69587 **Sample:** VX6381-ICV6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147624.D
Project: BMS-ICM, Humacao, PR

93		2-hexanone		----------NA----------				
94	I	chlorobenzene-d5	1.000	1.000	0.0	108	0.00	15.64
95		3,3-Dimethyl-1-butanol		----------NA----------				
96		tetrachloroethene		----------NA----------				
97		1,3-dichloropropane		----------NA----------				
98		butyl acetate		----------NA----------				
99		dibromochloromethane		----------NA----------				
100		1,2-dibromoethane		----------NA----------				
101	m	n-butyl ether		----------NA----------				
102		chlorobenzene		----------NA----------				
103		1,1,1,2-tetrachloroethane		----------NA----------				
104		ethylbenzene		----------NA----------				
105		m,p-xylene		----------NA----------				
106		o-xylene		----------NA----------				
107		styrene		----------NA----------				
108		bromoform		----------NA----------				
109	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	18.38
110		isopropylbenzene		----------NA----------				
111		Cyclohexanone		----------NA----------				
		----------	True	Calc.	% Drift	----------		
112	S	4-bromofluorobenzene (s)	50.000	55.048	-10.1	115	0.00	17.12
		----------	AvgRF	CCRF	% Dev	----------		
113		bromobenzene		----------NA----------				
114		1,1,2,2-tetrachloroethane		----------NA----------				
115		trans-1,4-dichloro-2-bute		----------NA----------				
116		1,2,3-trichloropropane		----------NA----------				
117		n-propylbenzene		----------NA----------				
118	m	4-ethyltoluene		----------NA----------				
119		2-chlorotoluene		----------NA----------				
120		4-chlorotoluene		----------NA----------				
121		1,3,5-trimethylbenzene		----------NA----------				
122		tert-butylbenzene		----------NA----------				
123		pentachloroethane		----------NA----------				
124		1,2,4-trimethylbenzene		----------NA----------				
125	m	1,2,3-trimethylbenzene		----------NA----------				
126		sec-butylbenzene		----------NA----------				
127		1,3-dichlorobenzene		----------NA----------				
128		p-isopropyltoluene		----------NA----------				
129		1,4-dichlorobenzene		----------NA----------				
130		1,2-dichlorobenzene		----------NA----------				
131		benzyl chloride		----------NA----------				
132	m	1,4-diethylbenzene		----------NA----------				
133		n-butylbenzene		----------NA----------				
134	m	1,2,4,5-tetramethylbenzen		----------NA----------				
135		1,2-dibromo-3-chloropropa		----------NA----------				
136		1,3,5-trichlorobenzene		----------NA----------				
137		hexachlorobutadiene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
138		naphthalene		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
139		1,2,4-trichlorobenzene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
140	m	1,2,3-trichlorobenzene		----------NA----------				

Initial Calibration Verification

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VX6381-ICV6381
Lab FileID: X147624.D

```
            ----------------------- AvgRF   CCRF     % Dev   -------------
141     hexachloroethane                    ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     x147616.D  MX6381.M         Thu Jun 19 10:50:24 2014   GCMSX
```

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VX6383-CC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147662.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\x147662.D                    Vial: 2
Acq On    : 20 Jun 2014   8:37 am                     Operator: KingC
Sample    : cc6381-20                                 Inst    : ACC-VOA-M
Misc      : MS69334,VX6383,5,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
Title        : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
Last Update  : Thu Jun 19 09:44:28 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	116	0.00	7.55
2		tertiary butyl alcohol	1.290	1.155	10.5	103	0.00	7.69
3		ethyl alcohol		----------NA----------				
4		1,4-dioxane	0.098	0.088	10.2	97	-0.01	12.41
5	I	pentafluorobenzene	1.000	1.000	0.0	101	0.00	10.26
6	m	freon 23		----------NA----------				
7	m	freon 115		----------NA----------				
8	m	freon 143a		----------NA----------				
9	m	freon 152a		----------NA----------				
10	m	chlorotrifluoroethene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
11		chlorodifluoromethane	20.000	13.074	34.6#	75	0.00	3.87
		----------	AvgRF	CCRF	% Dev	----------		
12		dichlorodifluoromethane	0.446	0.383	14.1	86	0.00	3.84
13	m	freon 114		----------NA----------				
14	m	freon 142b		----------NA----------				
15		chloromethane	0.561	0.500	10.9	90	0.00	4.18
16		vinyl chloride	0.502	0.451	10.2	93	0.00	4.45
17	m	acetaldehyde		----------NA----------				
18		bromomethane	0.359	0.329	8.4	93	0.00	5.15
19		chloroethane	0.199	0.196	1.5	95	-0.01	5.33
20		vinyl bromide		----------NA----------				
21		trichlorofluoromethane	0.510	0.475	6.9	94	0.00	5.82
22		pentane		----------NA----------				
23		ethyl ether	0.153	0.158	-3.3	97	0.00	6.26
24	m	freon 141b		----------NA----------				
25	m	freon 123a		----------NA----------				
26	m	freon 123		----------NA----------				
27		acrolein	0.055	0.053	3.6	91	0.00	6.59
28		1,1-dichloroethene	0.251	0.263	-4.8	105	0.00	6.73
29		acetone	0.025	0.028	-12.0	98	0.01	6.85
30		allyl chloride	0.143	0.145	-1.4	96	0.00	7.35
31		acetonitrile	0.028	0.028	0.0	99	0.00	7.38
32		iodomethane	0.567	0.589	-3.9	102	0.00	7.06
33		iso-butyl alcohol	0.017	0.018	-5.9	103	0.00	10.68
34		carbon disulfide	0.993	0.962	3.1	103	0.00	7.17
		----------	True	Calc.	% Drift	----------		
35		methylene chloride	20.000	17.428	12.9	89	0.00	7.58

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VX6383-CC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147662.D
Project: BMS-ICM, Humacao, PR

			AvgRF	CCRF	% Dev			
36		methyl acetate	0.228	0.236	-3.5	97	0.00	7.35
37		methyl tert butyl ether	0.961	0.981	-2.1	97	0.00	7.92
38		trans-1,2-dichloroethene	0.296	0.301	-1.7	101	-0.01	7.98
39		di-isopropyl ether	1.181	1.118	5.3	92	0.00	8.62
40		2-butanone	0.033	0.036	-9.1	106	0.00	9.59
41		1,1-dichloroethane	0.563	0.579	-2.8	102	0.00	8.68
42		chloroprene	0.421	0.406	3.6	97	0.00	8.79
43		acrylonitrile	0.097	0.109	-12.4	102	0.00	8.01
44		vinyl acetate	0.041	0.041	0.0	95	-0.01	8.67
45		ethyl tert-butyl ether	1.108	1.070	3.4	93	0.00	9.19
46		ethyl acetate	0.030	0.031	-3.3	96	0.00	9.60
47		2,2-dichloropropane	0.474	0.352	25.7#	77	0.00	9.58
48		cis-1,2-dichloroethene	0.347	0.347	0.0	101	0.00	9.60
49		methyl acrylate	0.232	0.268	-15.5	105	0.00	9.69
50		propionitrile	0.041	0.045	-9.8	101	-0.01	9.76
51		tert-Butyl Formate	0.278	0.275	1.1	91	-0.01	10.10
52		bromochloromethane	0.171	0.175	-2.3	96	-0.01	10.00
53		tetrahydrofuran	0.036	0.041	-13.9	107	0.00	10.03
54		chloroform	0.573	0.558	2.6	99	0.00	10.08
55	S	dibromofluoromethane (s)	0.303	0.343	-13.2	116	0.00	10.34
56	S	1,2-dichloroethane-d4 (s)	0.343	0.351	-2.3	108	-0.01	10.87
57		freon 113	0.254	0.219	13.8	96	0.00	6.68
58		methacrylonitrile	0.179	0.197	-10.1	104	0.00	9.96
59		1,1,1-trichloroethane	0.467	0.471	-0.9	103	0.00	10.35
60		cyclohexane	0.419	0.411	1.9	102	0.00	10.41
61	m	tert amyl alcohol		----------NA----------				
62	m	iso-octane	1.156	0.992	14.2	94	-0.01	10.87
63	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	11.44
64		di-isobutylene		----------NA----------				
65		epichlorohydrin	0.024	0.026	-8.3	97	0.00	13.16
66		n-butyl alcohol	0.009	0.009	0.0	99	0.00	11.66
67		carbon tetrachloride	0.347	0.371	-6.9	104	0.00	10.59
68		1,1-dichloropropene	0.330	0.337	-2.1	102	0.00	10.58
69		hexane	0.323	0.238	26.3#	80	0.00	8.29
70		benzene	1.079	1.062	1.6	101	0.00	10.93
71		tert-amyl methyl ether	0.895	0.894	0.1	94	0.00	10.95
72		heptane	0.188	0.147	21.8#	86	0.00	11.11
73		isopropyl acetate	0.699	0.729	-4.3	101	0.00	10.87
74		1,2-dichloroethane	0.341	0.358	-5.0	95	0.00	10.99
75		trichloroethene	0.268	0.286	-6.7	105	0.00	11.86
76	m	ethyl acrylate		----------NA----------				
77	m	tert amyl ethyl ether		----------NA----------				
78		2-nitropropane		----------NA----------				
79		2-chloroethyl vinyl ether	0.135	0.151	-11.9	104	0.00	12.98
80		methyl methacrylate	0.165	0.184	-11.5	103	0.00	12.26
81		1,2-dichloropropane	0.276	0.290	-5.1	98	0.00	12.24
82		dibromomethane	0.158	0.175	-10.8	100	0.00	12.47
83		methylcyclohexane	0.422	0.393	6.9	100	0.00	12.10
84		bromodichloromethane	0.381	0.385	-1.0	98	0.00	12.64
85		cis-1,3-dichloropropene	0.484	0.473	2.3	96	0.00	13.26
86	S	toluene-d8 (s)	0.994	1.169	-17.6	128	0.00	13.61
87		4-methyl-2-pentanone	0.104	0.120	-15.4	101	0.00	13.40
88		toluene	0.697	0.693	0.6	103	0.00	13.71
89		3-methyl-1-butanol	0.015	0.016	-6.7	101	0.00	13.45
90		trans-1,3-dichloropropene	0.446	0.435	2.5	94	-0.01	14.02
91		ethyl methacrylate	0.343	0.381	-11.1	104	0.00	14.01
92		1,1,2-trichloroethane	0.206	0.221	-7.3	102	0.00	14.31

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VX6383-CC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147662.D
Project: BMS-ICM, Humacao, PR

93		2-hexanone	0.106	0.118	-11.3	105	0.00	14.55
94	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	15.64
95		3,3-Dimethyl-1-butanol	0.032	0.035	-9.4	103	0.00	14.79
96		tetrachloroethene	0.260	0.258	0.8	107	0.00	14.47
97		1,3-dichloropropane	0.407	0.418	-2.7	100	0.00	14.55
98		butyl acetate	0.215	0.205	4.7	100	0.00	14.65
99		dibromochloromethane	0.316	0.328	-3.8	102	-0.01	14.89
100		1,2-dibromoethane	0.258	0.271	-5.0	102	-0.01	15.08
101	m	n-butyl ether		----------NA----------				
102		chlorobenzene	0.872	0.833	4.5	102	0.00	15.68
103		1,1,1,2-tetrachloroethane	0.325	0.329	-1.2	100	0.00	15.77
104		ethylbenzene	1.380	1.381	-0.1	105	0.00	15.75
105		m,p-xylene	0.531	0.528	0.6	105	0.00	15.89
106		o-xylene	0.564	0.543	3.7	103	0.00	16.44
107		styrene	0.944	0.936	0.8	102	0.00	16.46
108		bromoform	0.258	0.268	-3.9	103	0.00	16.81
109	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	18.38
110		isopropylbenzene	2.492	2.367	5.0	103	0.00	16.86
111		Cyclohexanone		----------NA----------				
		----------	True	Calc.	% Drift	----------		
112	S	4-bromofluorobenzene (s)	50.000	56.472	-12.9	118	0.00	17.12
		----------	AvgRF	CCRF	% Dev	----------		
113		bromobenzene	0.783	0.733	6.4	100	0.00	17.33
114		1,1,2,2-tetrachloroethane	0.683	0.676	1.0	99	0.00	17.28
115		trans-1,4-dichloro-2-bute	0.185	0.179	3.2	92	0.00	17.33
116		1,2,3-trichloropropane	0.159	0.167	-5.0	102	-0.01	17.35
117		n-propylbenzene	2.921	2.759	5.5	103	0.00	17.34
118	m	4-ethyltoluene		----------NA----------				
119		2-chlorotoluene	0.668	0.636	4.8	102	0.00	17.51
120		4-chlorotoluene	1.953	1.794	8.1	100	0.00	17.62
121		1,3,5-trimethylbenzene	2.222	2.093	5.8	101	0.00	17.51
122		tert-butylbenzene	1.933	1.804	6.7	103	0.00	17.89
123		pentachloroethane	0.474	0.465	1.9	98	0.00	17.99
124		1,2,4-trimethylbenzene	2.266	2.110	6.9	100	-0.01	17.94
125	m	1,2,3-trimethylbenzene		----------NA----------				
126		sec-butylbenzene	2.901	2.744	5.4	102	0.00	18.11
127		1,3-dichlorobenzene	1.519	1.388	8.6	98	0.00	18.32
128		p-isopropyltoluene	2.534	2.376	6.2	101	0.00	18.24
129		1,4-dichlorobenzene	1.546	1.413	8.6	100	0.00	18.40
130		1,2-dichlorobenzene	1.466	1.364	7.0	96	0.00	18.79
131		benzyl chloride	1.346	0.839	37.7#	64	0.00	18.53
132	m	1,4-diethylbenzene		----------NA----------				
133		n-butylbenzene	1.223	1.143	6.5	98	0.00	18.65
134	m	1,2,4,5-tetramethylbenzen		----------NA----------				
135		1,2-dibromo-3-chloropropa	0.125	0.133	-6.4	112	0.00	19.57
136		1,3,5-trichlorobenzene	1.164	1.182	-1.5	100	0.00	19.71
137		hexachlorobutadiene	0.617	0.601	2.6	101	0.00	20.42
		----------	True	Calc.	% Drift	----------		
138		naphthalene	20.000	20.827	-4.1	110	0.00	20.62
		----------	AvgRF	CCRF	% Dev	----------		
139		1,2,4-trichlorobenzene	0.900	0.968	-7.6	106	0.00	20.34
		----------	True	Calc.	% Drift	----------		
140	m	1,2,3-trichlorobenzene	20.000	20.640	-3.2	110	0.00	20.86

Continuing Calibration Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VX6383-CC6381
Lab FileID: X147662.D

```
            ----------------------- AvgRF   CCRF     % Dev   -------------
141     hexachloroethane            0.520   0.486      6.5  101   0.00   19.02
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     x147615.D  MX6381.M         Fri Jun 20 16:53:43 2014   GCMSX
```

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VX6383-CC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147698A.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\X147698A.D                    Vial: 2
Acq On    : 21 Jun 2014  10:34 am                      Operator: KingC
Sample    : cc6381-20                                  Inst    : ACC-VOA-M
Misc      : MS69379,VX6383,5,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
Title        : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
Last Update  : Thu Jun 19 09:44:28 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	120	0.00	7.55
2		tertiary butyl alcohol	1.290	1.088	15.7	100	0.00	7.69
3		ethyl alcohol		----------NA----------				
4		1,4-dioxane	0.098	0.090	8.2	103	0.00	12.42
5	I	pentafluorobenzene	1.000	1.000	0.0	103	0.00	10.26
6	m	freon 23		----------NA----------				
7	m	freon 115		----------NA----------				
8	m	freon 143a		----------NA----------				
9	m	freon 152a		----------NA----------				
10	m	chlorotrifluoroethene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
11		chlorodifluoromethane	20.000	13.179	34.1#	77	0.00	3.87
		----------	AvgRF	CCRF	% Dev	----------		
12		dichlorodifluoromethane	0.446	0.356	20.2#	82	0.01	3.85
13	m	freon 114		----------NA----------				
14	m	freon 142b		----------NA----------				
15		chloromethane	0.561	0.492	12.3	90	0.00	4.19
16		vinyl chloride	0.502	0.435	13.3	91	0.00	4.46
17	m	acetaldehyde		----------NA----------				
18		bromomethane	0.359	0.321	10.6	92	0.00	5.15
19		chloroethane	0.199	0.186	6.5	91	0.00	5.34
20		vinyl bromide		----------NA----------				
21		trichlorofluoromethane	0.510	0.435	14.7	88	0.00	5.83
22		pentane		----------NA----------				
23		ethyl ether	0.153	0.150	2.0	94	0.00	6.26
24	m	freon 141b		----------NA----------				
25	m	freon 123a		----------NA----------				
26	m	freon 123		----------NA----------				
27		acrolein	0.055	0.064	-16.4	110	0.00	6.59
28		1,1-dichloroethene	0.251	0.240	4.4	97	0.00	6.73
29		acetone	0.025	0.027	-8.0	96	0.01	6.85
30		allyl chloride	0.143	0.142	0.7	95	0.00	7.35
31		acetonitrile	0.028	0.027	3.6	96	0.00	7.38
32		iodomethane	0.567	0.563	0.7	98	0.00	7.06
33		iso-butyl alcohol	0.017	0.019	-11.8	105	0.00	10.67
34		carbon disulfide	0.993	0.928	6.5	101	0.00	7.17
		----------	True	Calc.	% Drift	----------		
35		methylene chloride	20.000	15.818	20.9#	84	0.00	7.58

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VX6383-CC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147698A.D
Project: BMS-ICM, Humacao, PR

			AvgRF	CCRF	% Dev			
36		methyl acetate	0.228	0.229	-0.4	96	0.00	7.34
37		methyl tert butyl ether	0.961	0.946	1.6	95	0.00	7.92
38		trans-1,2-dichloroethene	0.296	0.279	5.7	95	0.00	7.99
39		di-isopropyl ether	1.181	1.101	6.8	92	0.00	8.62
40		2-butanone	0.033	0.035	-6.1	105	0.00	9.59
41		1,1-dichloroethane	0.563	0.541	3.9	97	0.00	8.68
42		chloroprene	0.421	0.399	5.2	97	0.00	8.79
43		acrylonitrile	0.097	0.103	-6.2	97	0.00	8.02
44		vinyl acetate	0.041	0.041	0.0	97	0.00	8.68
45		ethyl tert-butyl ether	1.108	1.045	5.7	92	0.00	9.20
46		ethyl acetate	0.030	0.032	-6.7	99	0.00	9.59
47		2,2-dichloropropane	0.474	0.438	7.6	97	0.00	9.58
48		cis-1,2-dichloroethene	0.347	0.329	5.2	97	0.00	9.61
49		methyl acrylate	0.232	0.240	-3.4	96	0.00	9.70
50		propionitrile	0.041	0.043	-4.9	98	0.00	9.76
51		tert-Butyl Formate	0.278	0.275	1.1	93	0.00	10.10
52		bromochloromethane	0.171	0.171	0.0	95	-0.01	10.00
53		tetrahydrofuran	0.036	0.040	-11.1	104	0.00	10.03
54		chloroform	0.573	0.526	8.2	94	-0.01	10.08
55	S	dibromofluoromethane (s)	0.303	0.354	-16.8	122	0.00	10.34
56	S	1,2-dichloroethane-d4 (s)	0.343	0.363	-5.8	114	0.00	10.88
57		freon 113	0.254	0.220	13.4	98	0.01	6.69
58		methacrylonitrile	0.179	0.186	-3.9	100	0.00	9.97
59		1,1,1-trichloroethane	0.467	0.435	6.9	96	0.00	10.35
60		cyclohexane	0.419	0.388	7.4	98	0.00	10.41
61	m	tert amyl alcohol		----------NA----------				
62	m	iso-octane	1.156	1.043	9.8	101	0.00	10.88
63	I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	11.44
64		di-isobutylene		----------NA----------				
65		epichlorohydrin	0.024	0.026	-8.3	100	0.00	13.16
66		n-butyl alcohol	0.009	0.009	0.0	104	0.00	11.67
67		carbon tetrachloride	0.347	0.327	5.8	97	0.00	10.59
68		1,1-dichloropropene	0.330	0.305	7.6	97	0.00	10.58
69		hexane	0.323	0.273	15.5	96	0.00	8.29
70		benzene	1.079	0.963	10.8	97	0.00	10.93
71		tert-amyl methyl ether	0.895	0.846	5.5	94	0.00	10.96
72		heptane	0.188	0.165	12.2	102	0.00	11.11
73		isopropyl acetate	0.699	0.688	1.6	101	-0.01	10.86
74		1,2-dichloroethane	0.341	0.333	2.3	94	0.00	10.99
75		trichloroethene	0.268	0.258	3.7	100	0.00	11.86
76	m	ethyl acrylate		----------NA----------				
77	m	tert amyl ethyl ether		----------NA----------				
78		2-nitropropane		----------NA----------				
79		2-chloroethyl vinyl ether	0.135	0.143	-5.9	104	0.00	12.98
80		methyl methacrylate	0.165	0.171	-3.6	101	0.00	12.26
81		1,2-dichloropropane	0.276	0.269	2.5	96	0.00	12.24
82		dibromomethane	0.158	0.164	-3.8	99	0.00	12.47
83		methylcyclohexane	0.422	0.366	13.3	98	0.00	12.11
84		bromodichloromethane	0.381	0.365	4.2	98	0.00	12.64
85		cis-1,3-dichloropropene	0.484	0.456	5.8	97	0.00	13.26
86	S	toluene-d8 (s)	0.994	1.175	-18.2	135	0.00	13.61
87		4-methyl-2-pentanone	0.104	0.115	-10.6	103	0.00	13.40
88		toluene	0.697	0.637	8.6	100	0.00	13.71
89		3-methyl-1-butanol	0.015	0.015	0.0	103	0.00	13.45
90		trans-1,3-dichloropropene	0.446	0.441	1.1	100	0.00	14.03
91		ethyl methacrylate	0.343	0.353	-2.9	102	0.00	14.01
92		1,1,2-trichloroethane	0.206	0.208	-1.0	101	0.00	14.31

Continuing Calibration Summary

Job Number: JB69587 **Sample:** VX6383-CC6381
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** X147698A.D
Project: BMS-ICM, Humacao, PR

93		2-hexanone	0.106	0.111	-4.7	104	0.00	14.55
94	I	chlorobenzene-d5	1.000	1.000	0.0	110	0.00	15.64
95		3,3-Dimethyl-1-butanol	0.032	0.032	0.0	100	0.00	14.80
96		tetrachloroethene	0.260	0.232	10.8	103	0.00	14.47
97		1,3-dichloropropane	0.407	0.386	5.2	99	0.00	14.55
98		butyl acetate	0.215	0.186	13.5	97	0.00	14.65
99		dibromochloromethane	0.316	0.307	2.8	101	0.00	14.90
100		1,2-dibromoethane	0.258	0.251	2.7	101	0.00	15.09
101	m	n-butyl ether		----------NA----------				
102		chlorobenzene	0.872	0.764	12.4	100	0.00	15.68
103		1,1,1,2-tetrachloroethane	0.325	0.300	7.7	97	0.00	15.77
104		ethylbenzene	1.380	1.222	11.4	99	0.00	15.75
105		m,p-xylene	0.531	0.478	10.0	101	0.00	15.89
106		o-xylene	0.564	0.491	12.9	99	0.00	16.44
107		styrene	0.944	0.850	10.0	98	0.00	16.46
108		bromoform	0.258	0.246	4.7	101	0.00	16.81
109	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	18.38
110		isopropylbenzene	2.492	2.159	13.4	99	0.00	16.86
111		Cyclohexanone		----------NA----------				
		----------	True	Calc.	% Drift	----------		
112	S	4-bromofluorobenzene (s)	50.000	57.062	-14.1	124	0.00	17.12
		----------	AvgRF	CCRF	% Dev	----------		
113		bromobenzene	0.783	0.672	14.2	96	0.00	17.34
114		1,1,2,2-tetrachloroethane	0.683	0.631	7.6	97	0.00	17.28
115		trans-1,4-dichloro-2-bute	0.185	0.180	2.7	97	0.00	17.32
116		1,2,3-trichloropropane	0.159	0.155	2.5	99	0.00	17.35
117		n-propylbenzene	2.921	2.524	13.6	98	0.00	17.34
118	m	4-ethyltoluene		----------NA----------				
119		2-chlorotoluene	0.668	0.581	13.0	97	0.00	17.51
120		4-chlorotoluene	1.953	1.653	15.4	96	0.00	17.62
121		1,3,5-trimethylbenzene	2.222	1.923	13.5	97	0.00	17.51
122		tert-butylbenzene	1.933	1.635	15.4	98	0.00	17.89
123		pentachloroethane	0.474	0.425	10.3	93	0.00	17.99
124		1,2,4-trimethylbenzene	2.266	1.932	14.7	96	0.00	17.94
125	m	1,2,3-trimethylbenzene		----------NA----------				
126		sec-butylbenzene	2.901	2.488	14.2	97	0.00	18.11
127		1,3-dichlorobenzene	1.519	1.293	14.9	96	0.00	18.32
128		p-isopropyltoluene	2.534	2.167	14.5	96	0.00	18.24
129		1,4-dichlorobenzene	1.546	1.292	16.4	96	0.00	18.40
130		1,2-dichlorobenzene	1.466	1.267	13.6	94	0.00	18.79
131		benzyl chloride	1.346	1.231	8.5	99	0.00	18.53
132	m	1,4-diethylbenzene		----------NA----------				
133		n-butylbenzene	1.223	1.070	12.5	96	0.00	18.65
134	m	1,2,4,5-tetramethylbenzen		----------NA----------				
135		1,2-dibromo-3-chloropropa	0.125	0.117	6.4	103	0.00	19.57
136		1,3,5-trichlorobenzene	1.164	1.134	2.6	100	0.00	19.71
137		hexachlorobutadiene	0.617	0.552	10.5	97	0.00	20.43
		----------	True	Calc.	% Drift	----------		
138		naphthalene	20.000	19.146	4.3	105	0.00	20.63
		----------	AvgRF	CCRF	% Dev	----------		
139		1,2,4-trichlorobenzene	0.900	0.894	0.7	103	0.00	20.34
		----------	True	Calc.	% Drift	----------		
140	m	1,2,3-trichlorobenzene	20.000	19.112	4.4	106	0.00	20.87

Continuing Calibration Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: VX6383-CC6381
Lab FileID: X147698A.D

```
            ----------------------- AvgRF   CCRF     % Dev   -------------
141     hexachloroethane            0.520   0.443     14.8   97   0.00   19.02
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     x147615.D  MX6381.M         Mon Jun 23 09:42:36 2014   GCMSX
```

New Jersey

ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145606.D
Acq On : 23 Jun 2014 3:01 pm
Operator : KingC
Sample : jb69587-1
Misc : MS69379,VV6207,4.5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 24 09:48:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	57597	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	175296	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	227276	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	209309	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	107064	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	60919	51.20	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 102.40%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	59657	48.22	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 96.44%			
71) toluene-d8 (s)	12.12	98	236803	52.32	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 104.64%			
94) 4-bromofluorobenzene (s)	15.11	95	84090	44.23	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 88.46%			

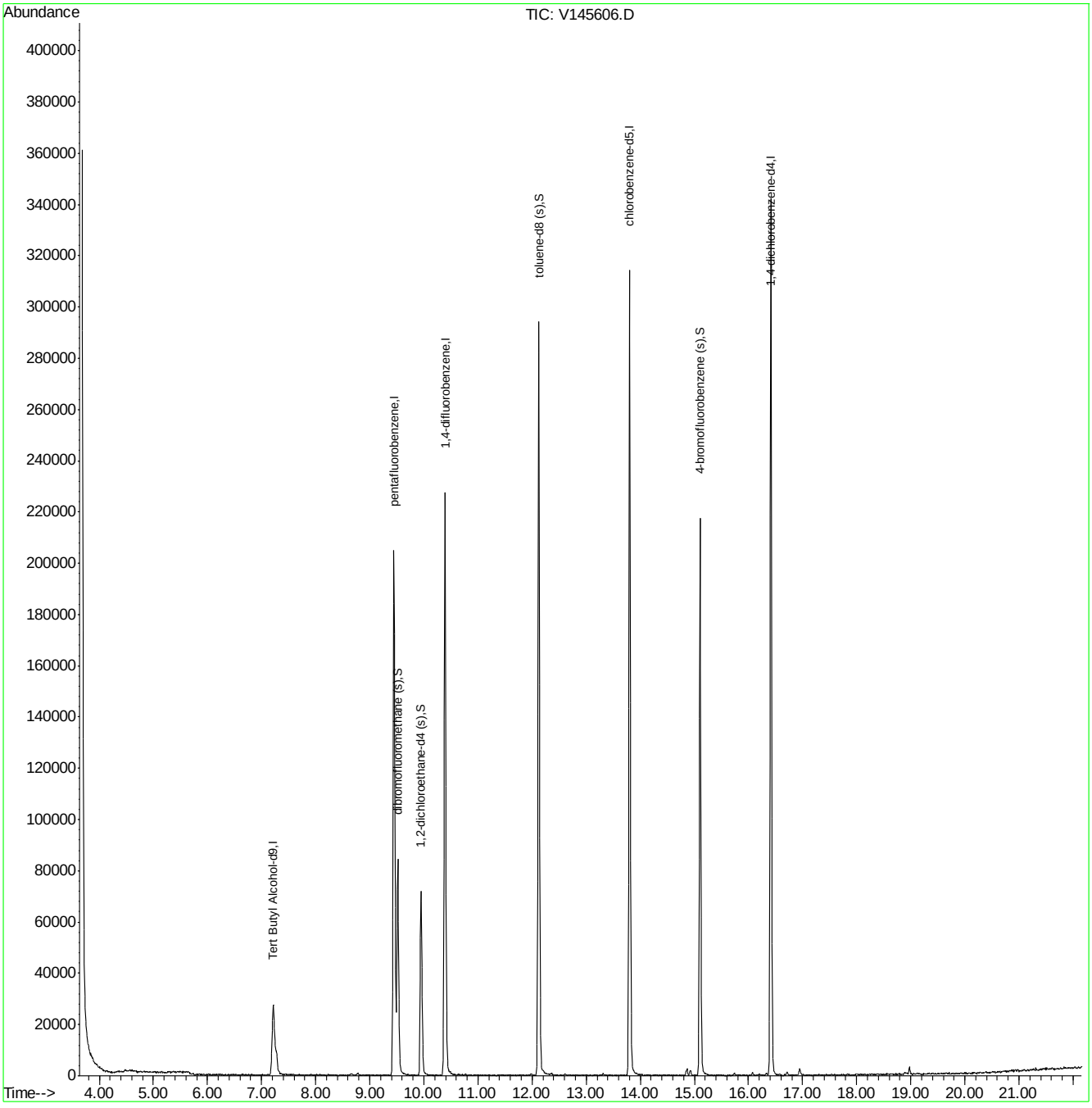
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145606.D
Acq On : 23 Jun 2014 3:01 pm
Operator : KingC
Sample : jb69587-1
Misc : MS69379,VV6207,4.5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 24 09:48:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145607.D
Acq On : 23 Jun 2014 3:30 pm
Operator : KingC
Sample : jb69587-2
Misc : MS69379,VV6207,4.8,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 24 09:48:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	55062	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	179149	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	233595	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	211494	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	107798	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	63310	52.07	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 104.14%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	60678	47.99	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 95.98%			
71) toluene-d8 (s)	12.12	98	239998	51.60	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 103.20%			
94) 4-bromofluorobenzene (s)	15.10	95	85256	44.38	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 88.76%			

Target Compounds Qvalue

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

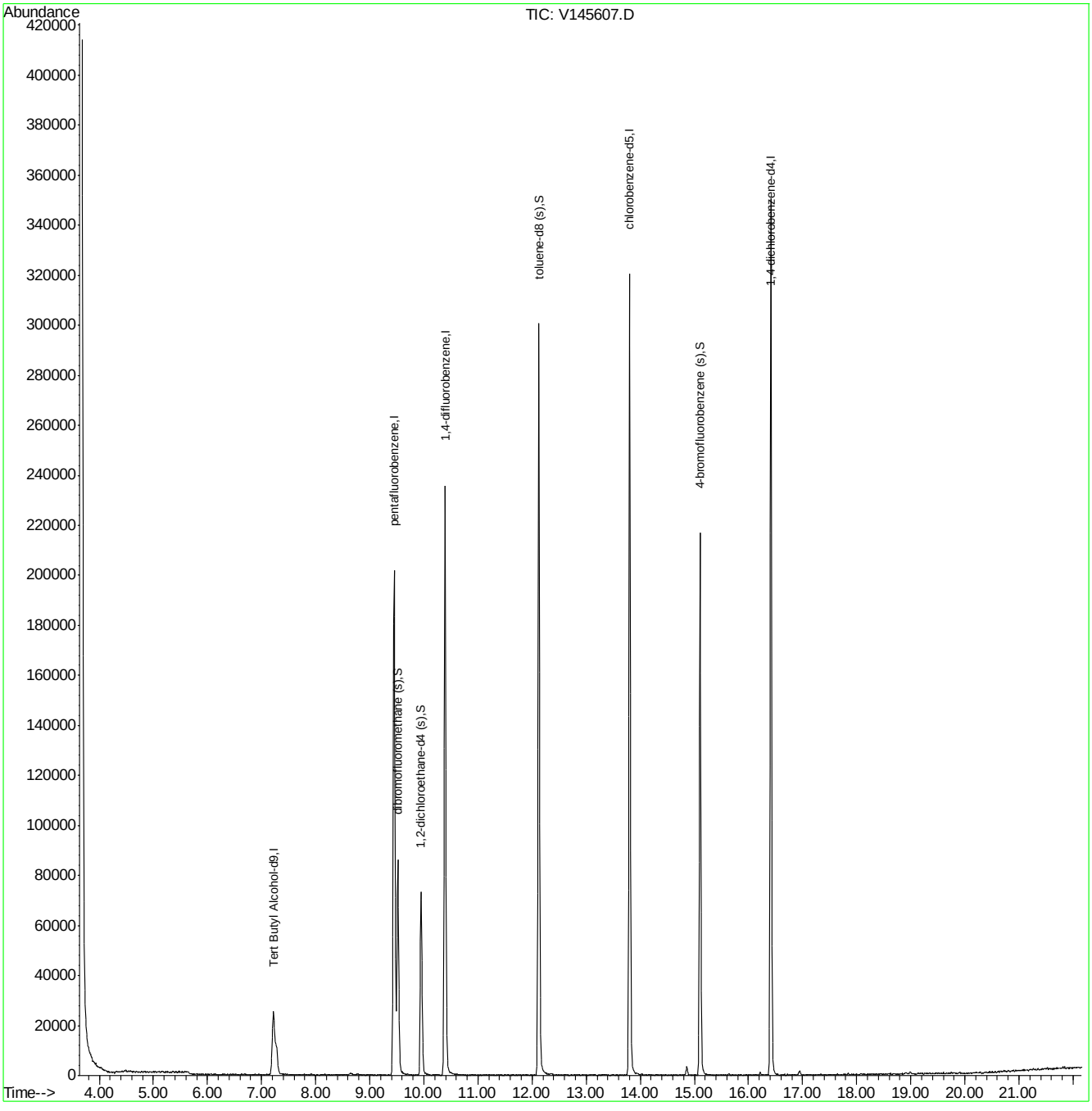
7.1.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145607.D
Acq On : 23 Jun 2014 3:30 pm
Operator : KingC
Sample : jb69587-2
Misc : MS69379,VV6207,4.8,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 24 09:48:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206661.D
Acq On : 22 Jun 2014 6:11 pm
Operator : CourtneM
Sample : jb69587-3
Misc : MS69379,VA7793,4.4,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 23 16:08:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.481	65	90047	500.00	ug/L	0.00
4) pentafluorobenzene	9.829	168	203894	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.786	114	274877	50.00	ug/L	0.00
83) chlorobenzene-d5	14.233	117	272014	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.863	152	149873	50.00	ug/L	0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.892	113	87732	52.98	ug/L	0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 105.96%			
47) 1,2-dichloroethane-d4 (s)	10.326	65	97355	53.76	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 107.52%			
75) toluene-d8 (s)	12.543	98	324091	56.43	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 112.86%			
101) 4-bromofluorobenzene (s)	15.540	95	131078	53.77	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 107.54%			

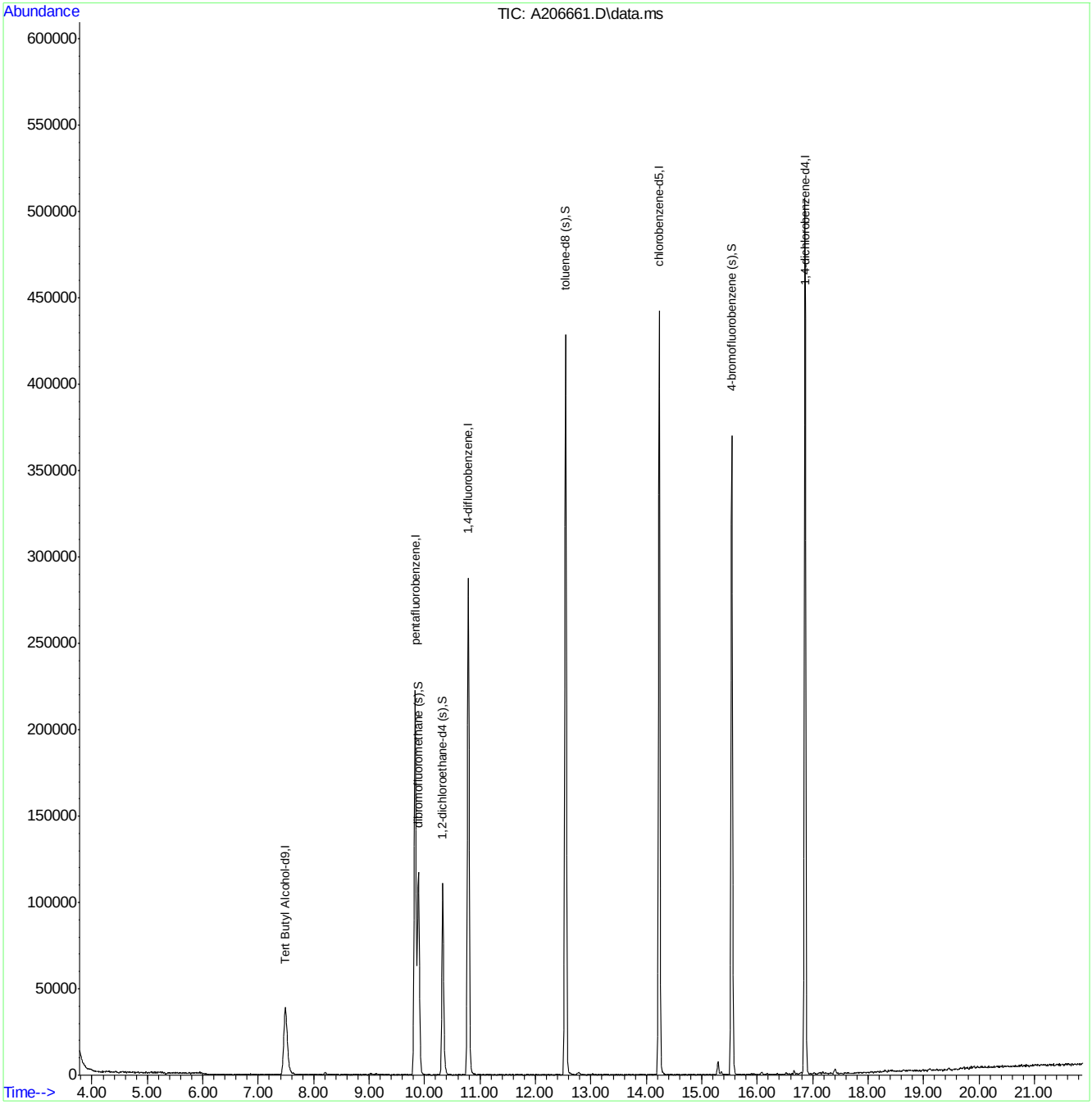
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206661.D
Acq On : 22 Jun 2014 6:11 pm
Operator : CourtneM
Sample : jb69587-3
Misc : MS69379,VA7793,4.4,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 23 16:08:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Mon Jun 23 16:16:17 2014 ACCUNJ

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206662.D
Acq On : 22 Jun 2014 6:43 pm
Operator : CourtneM
Sample : jb69587-4
Misc : MS69379,VA7793,5.7,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 23 16:09:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.484	65	77719	500.00	ug/L	0.00
4) pentafluorobenzene	9.827	168	209251	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.790	114	286526	50.00	ug/L	0.01
83) chlorobenzene-d5	14.231	117	269835	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.862	152	149953	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.890	113	88550	52.10	ug/L	0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 104.20%			
47) 1,2-dichloroethane-d4 (s)	10.324	65	94978	51.11	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 102.22%			
75) toluene-d8 (s)	12.542	98	321070	53.63	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 107.26%			
101) 4-bromofluorobenzene (s)	15.544	95	127235	52.16	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 104.32%			

Target Compounds Qvalue

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

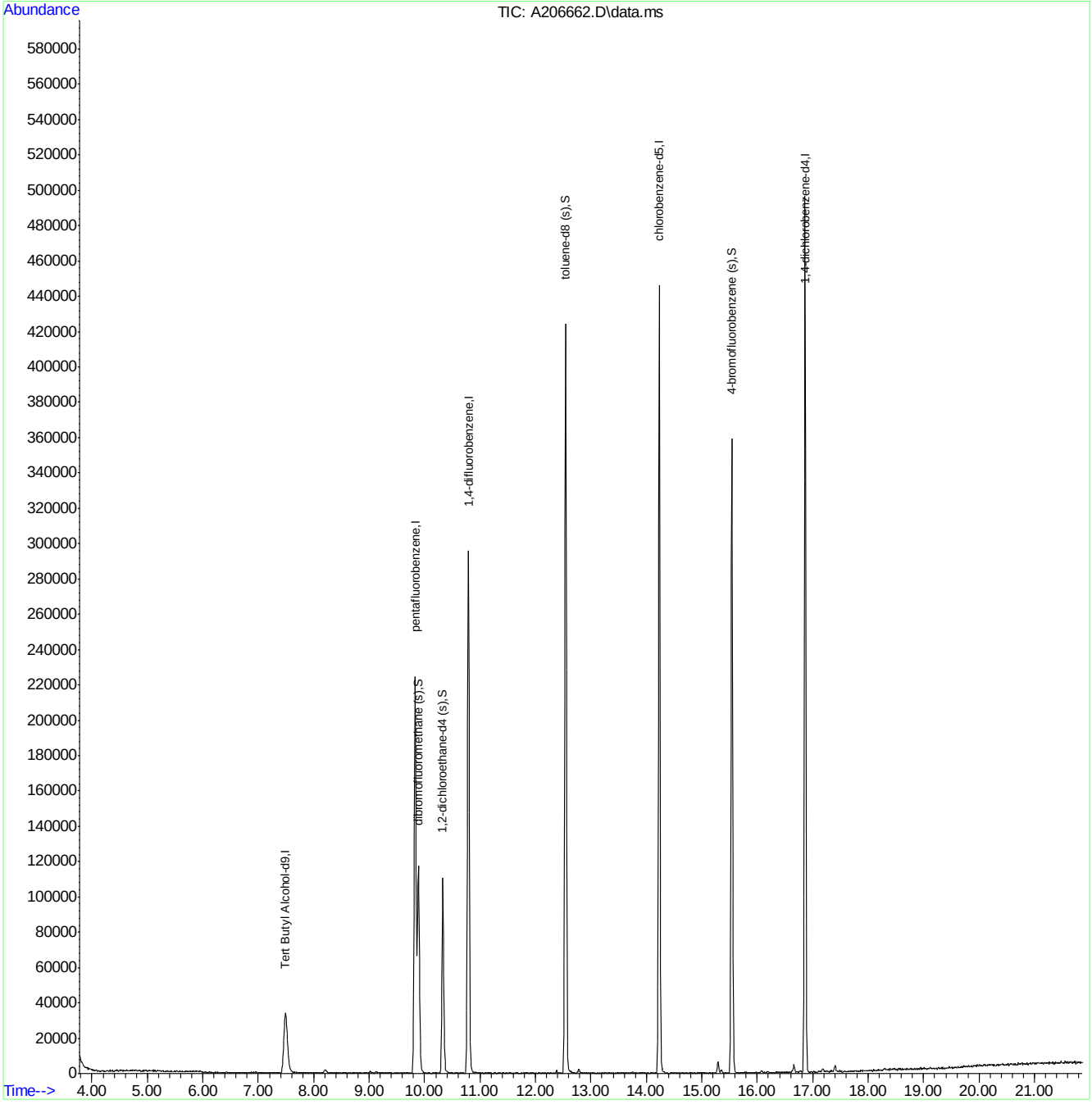
7.1.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206662.D
Acq On : 22 Jun 2014 6:43 pm
Operator : CourtneM
Sample : jb69587-4
Misc : MS69379,VA7793,5.7,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 23 16:09:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Mon Jun 23 16:16:21 2014 ACCUNJ

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206663.D
Acq On : 22 Jun 2014 7:14 pm
Operator : CourtneM
Sample : jb69587-5
Misc : MS69379,VA7793,4.9,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 23 16:09:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.490	65	81408	500.00	ug/L	0.01
4) pentafluorobenzene	9.828	168	200364	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.785	114	270701	50.00	ug/L	0.00
83) chlorobenzene-d5	14.232	117	259879	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.863	152	145006	50.00	ug/L	0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.886	113	86445	53.12	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.24%			
47) 1,2-dichloroethane-d4 (s)	10.325	65	94343	53.02	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 106.04%			
75) toluene-d8 (s)	12.543	98	306914	54.26	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 108.52%			
101) 4-bromofluorobenzene (s)	15.540	95	125203	53.08	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 106.16%			

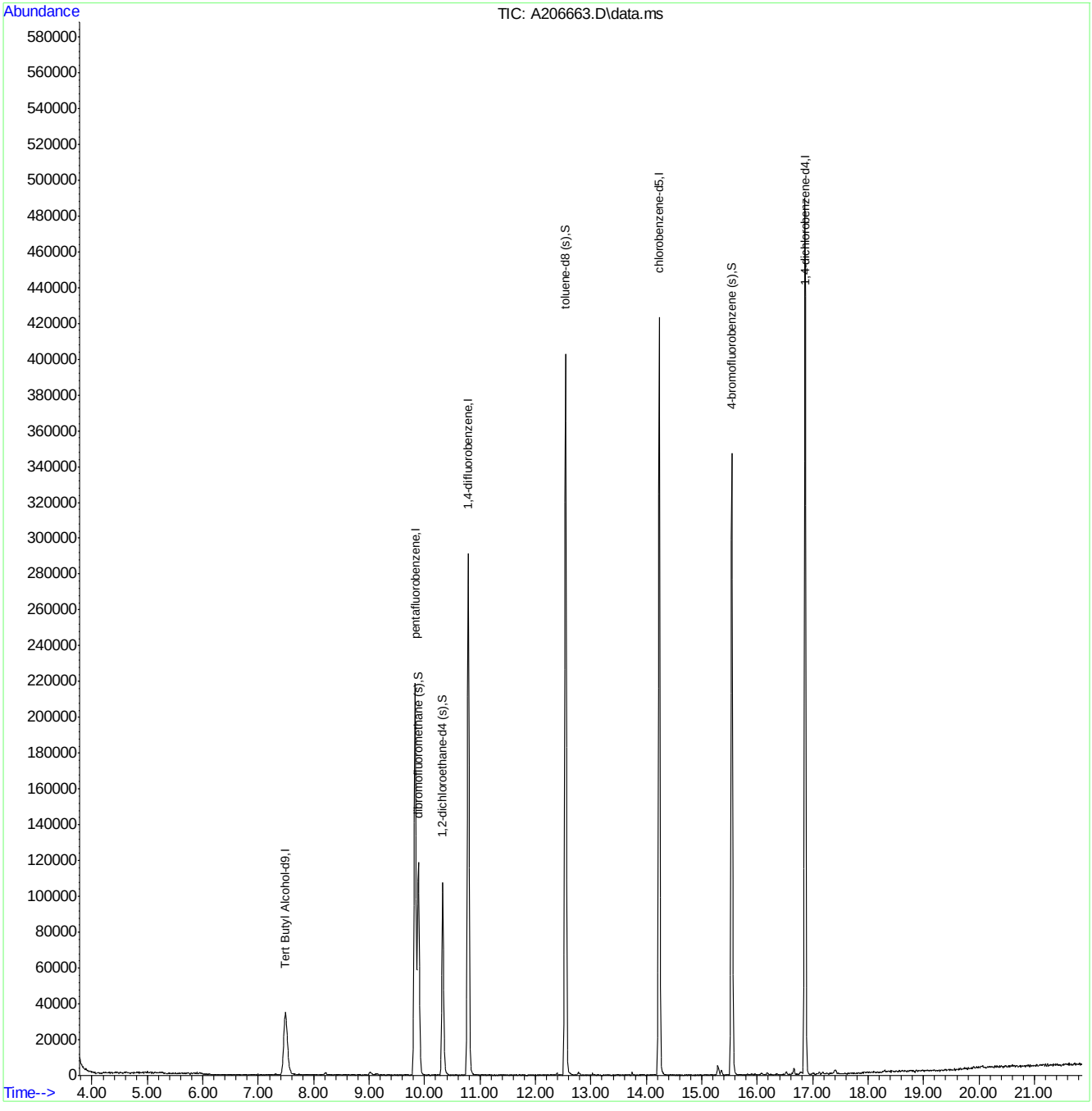
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206663.D
Acq On : 22 Jun 2014 7:14 pm
Operator : CourtneM
Sample : jb69587-5
Misc : MS69379,VA7793,4.9,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 23 16:09:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206664.D
Acq On : 22 Jun 2014 7:46 pm
Operator : CourtneM
Sample : jb69587-6
Misc : MS69379,VA7793,4.7,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 23 16:10:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.480	65	76922	500.00	ug/L	0.00
4) pentafluorobenzene	9.828	168	203941	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.785	114	276106	50.00	ug/L	0.00
83) chlorobenzene-d5	14.232	117	266870	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.863	152	146629	50.00	ug/L	0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.886	113	86291	52.10	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 104.20%			
47) 1,2-dichloroethane-d4 (s)	10.325	65	93853	51.82	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 103.64%			
75) toluene-d8 (s)	12.543	98	315197	54.63	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 109.26%			
101) 4-bromofluorobenzene (s)	15.540	95	127431	53.43	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 106.86%			

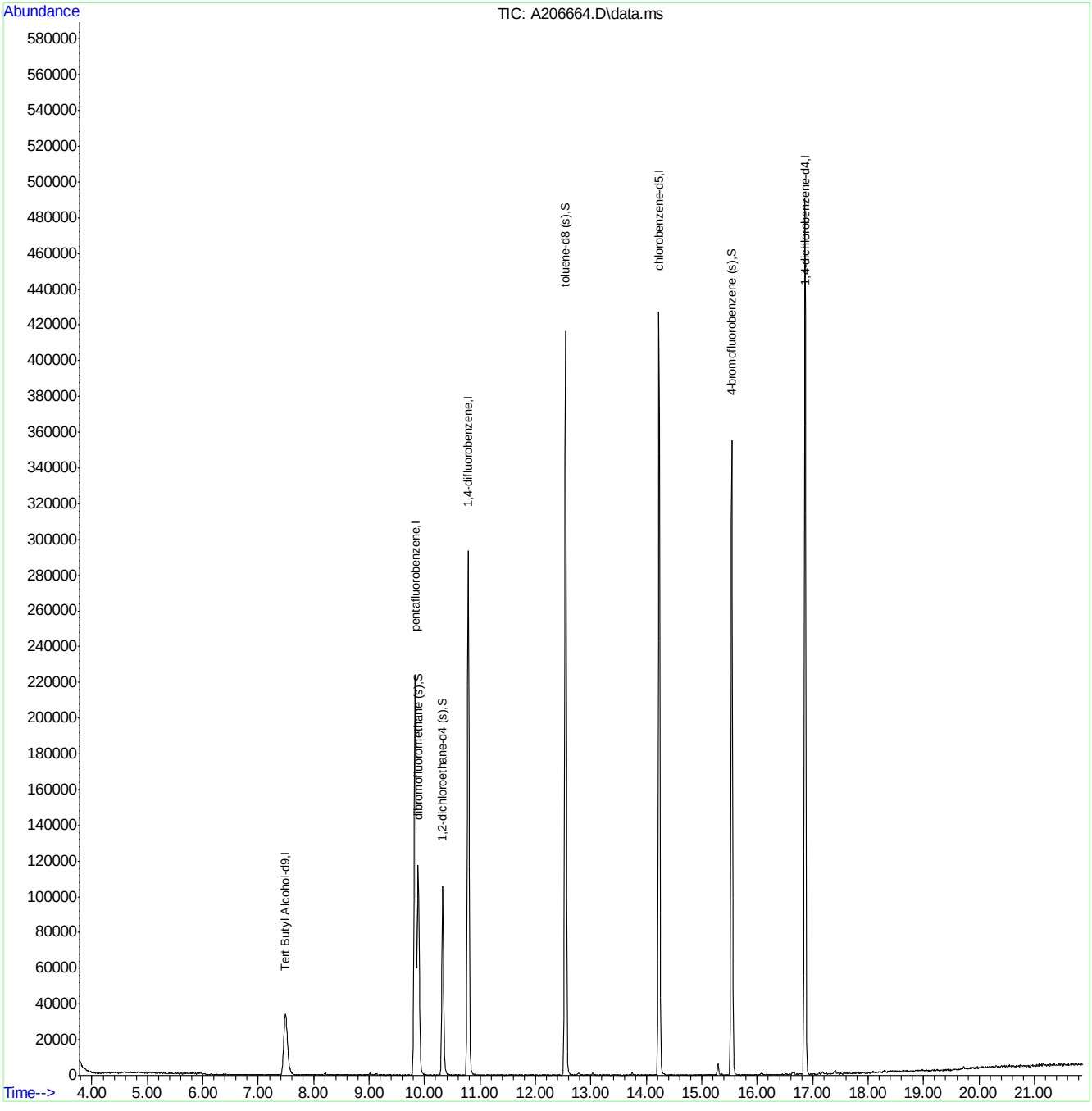
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206664.D
Acq On : 22 Jun 2014 7:46 pm
Operator : CourtneM
Sample : jb69587-6
Misc : MS69379,VA7793,4.7,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 23 16:10:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Mon Jun 23 16:16:31 2014 ACCUNJ

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206683.D
Acq On : 23 Jun 2014 6:39 am
Operator : CourtneM
Sample : jb69587-7
Misc : MS69379,VA7793,4.8,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 23 16:15:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.486	65	96348	500.00	ug/L	0.00
4) pentafluorobenzene	9.824	168	207640	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.781	114	281898	50.00	ug/L	0.00
83) chlorobenzene-d5	14.222	117	275374	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.858	152	155350	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.881	113	90631	53.74	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 107.48%			
47) 1,2-dichloroethane-d4 (s)	10.320	65	99512	53.96	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 107.92%			
75) toluene-d8 (s)	12.538	98	323210	54.87	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 109.74%			
101) 4-bromofluorobenzene (s)	15.535	95	130876	51.79	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 103.58%			

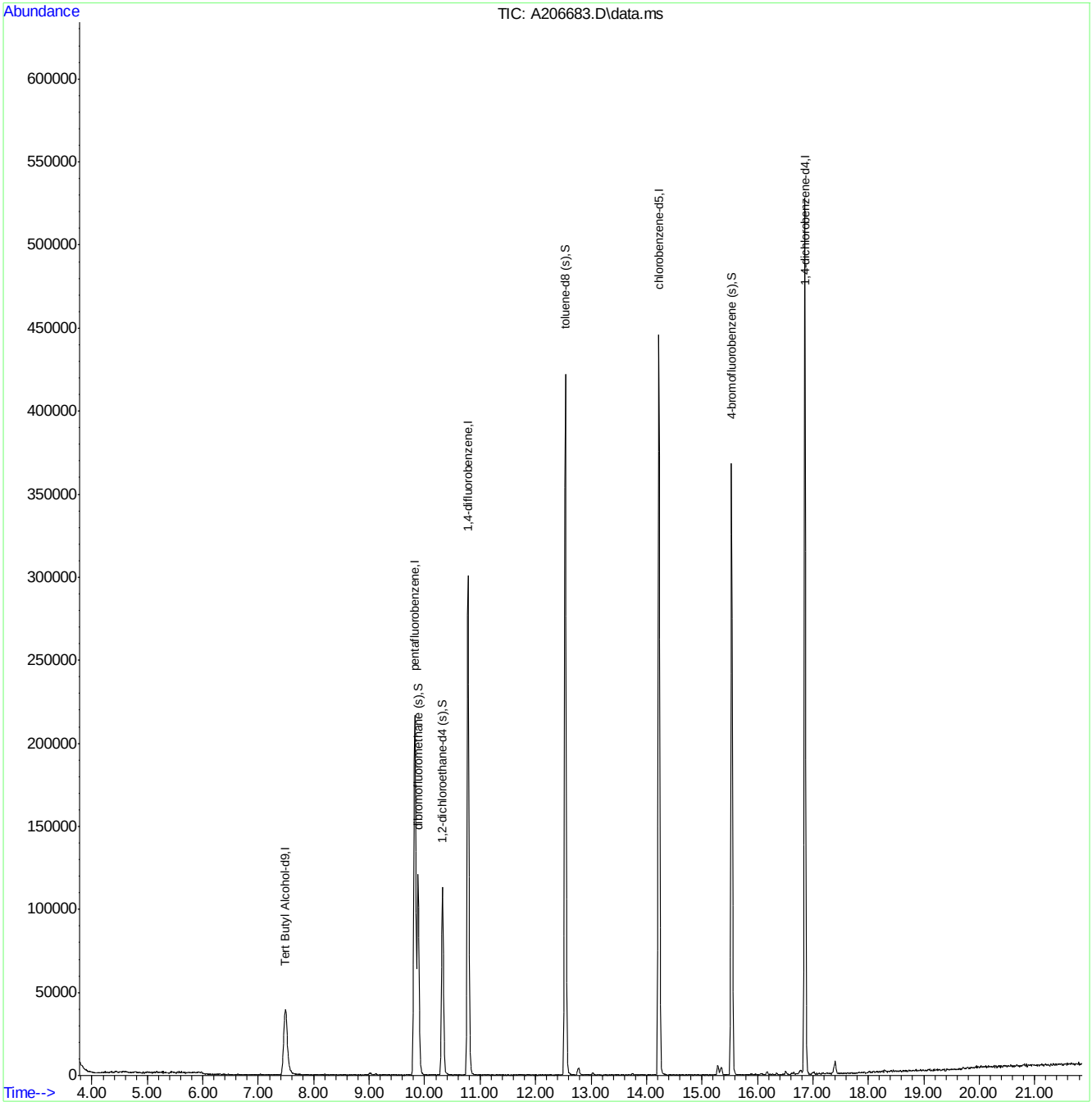
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206683.D
Acq On : 23 Jun 2014 6:39 am
Operator : CourtneM
Sample : jb69587-7
Misc : MS69379,VA7793,4.8,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 23 16:15:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Mon Jun 23 16:17:33 2014 ACCUNJ

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147703.D
Acq On : 21 Jun 2014 2:11 pm
Operator : KingC
Sample : jb69587-8
Misc : MS69379,VX6383,4.2,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 23 09:46:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	69740	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	210849	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	246945	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	257386	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	143890	50.00	ug/L	0.00

System Monitoring Compounds

55) dibromofluoromethane (s)	10.34	113	71427	55.89	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 111.78%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	71457	49.44	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 98.88%			
86) toluene-d8 (s)	13.62	98	296894	60.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 120.90%			
112) 4-bromofluorobenzene (s)	17.12	95	116138	58.94	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 117.88%			

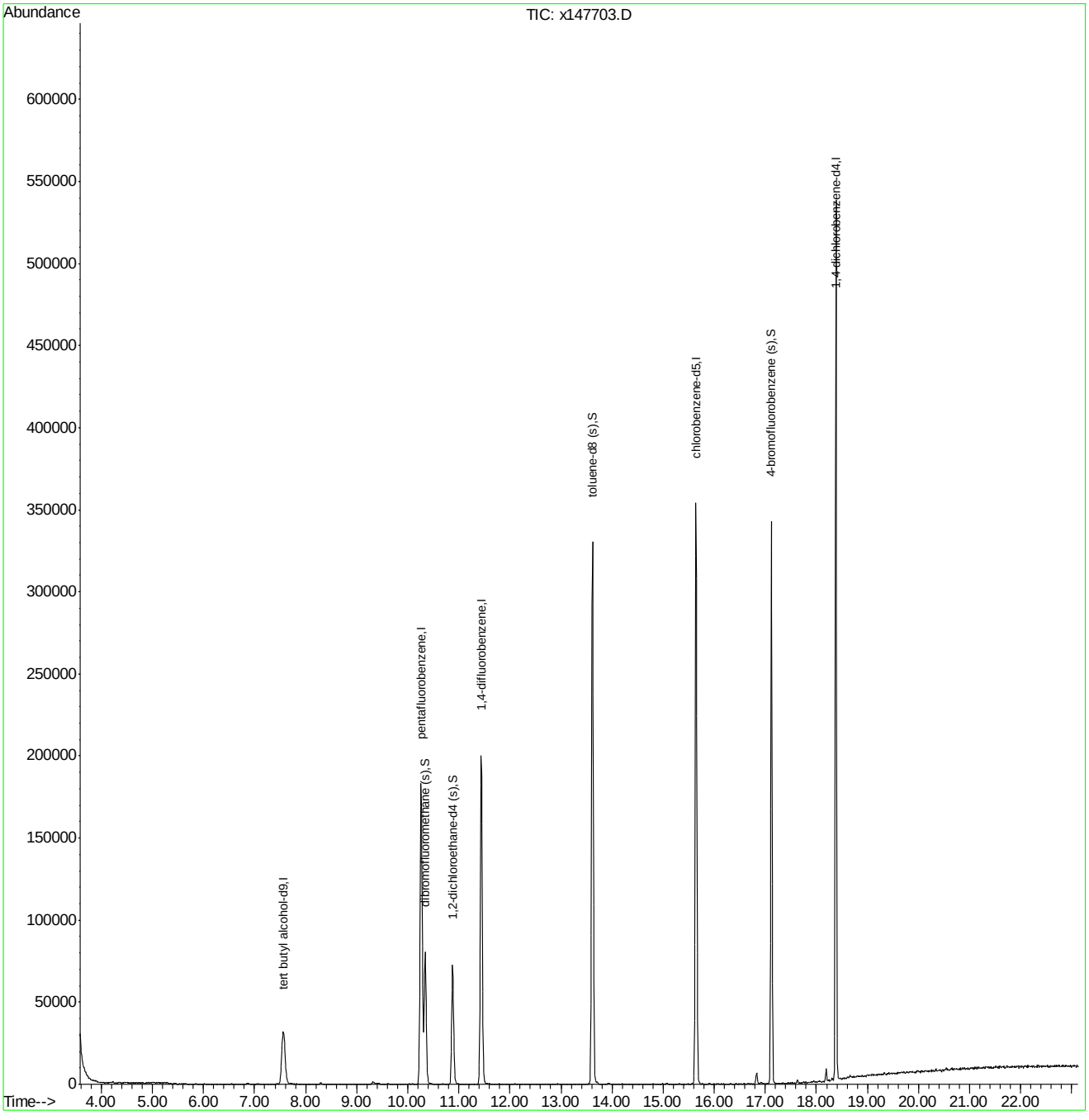
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147703.D
Acq On : 21 Jun 2014 2:11 pm
Operator : KingC
Sample : jb69587-8
Misc : MS69379,VX6383,4.2,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 23 09:46:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



MX6381.M Mon Jun 23 09:47:47 2014 GCMSX

Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147704.D
Acq On : 21 Jun 2014 2:40 pm
Operator : KingC
Sample : jb69587-9
Misc : MS69379,VX6383,3.9,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 23 09:47:23 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	66239	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	208135	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	245817	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	256252	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	142450	50.00	ug/L	0.00

System Monitoring Compounds

55) dibromofluoromethane (s)	10.34	113	70578	55.95	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 111.90%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	71097	49.83	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 99.66%			
86) toluene-d8 (s)	13.62	98	294919	60.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 120.64%			
112) 4-bromofluorobenzene (s)	17.12	95	114992	58.95	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 117.90%			

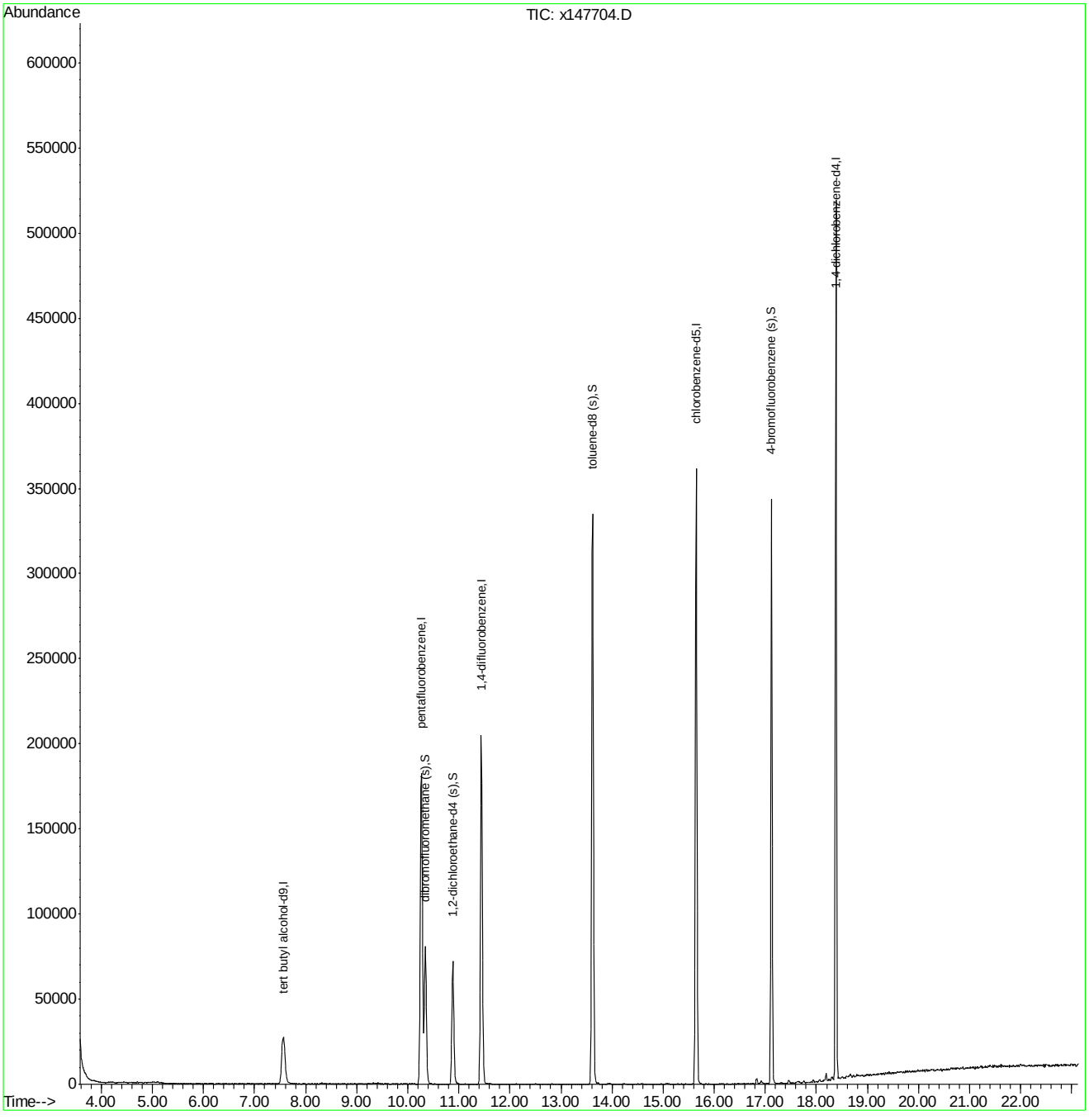
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147704.D
Acq On : 21 Jun 2014 2:40 pm
Operator : KingC
Sample : jb69587-9
Misc : MS69379,VX6383,3.9,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 23 09:47:23 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



MX6381.M Mon Jun 23 09:47:33 2014 GCMSX

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3a132090.D
Acq On : 22 Jun 2014 2:53 am
Operator : HeeEunA
Sample : jb69587-10
Misc : MS69380,V3A5714,5.0,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 23 11:53:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	95166	500.00 ug/L	-0.02
5) pentafluorobenzene	10.79	168	256787	50.00 ug/L	-0.01
55) 1,4-difluorobenzene	11.75	114	284239	50.00 ug/L	-0.01
87) chlorobenzene-d5	15.09	117	254178	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.58	152	152935	50.00 ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.87	113	82194	47.48 ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 94.96%		
50) 1,2-dichloroethane-d4 (s)	11.32	65	83840	42.92 ug/L	-0.01
Spiked Amount 50.000	Range 72 - 123		Recovery = 85.84%		
79) toluene-d8 (s)	13.46	98	284677	48.96 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 97.92%		
104) 4-bromofluorobenzene (s)	16.33	95	108221	47.34 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 94.68%		

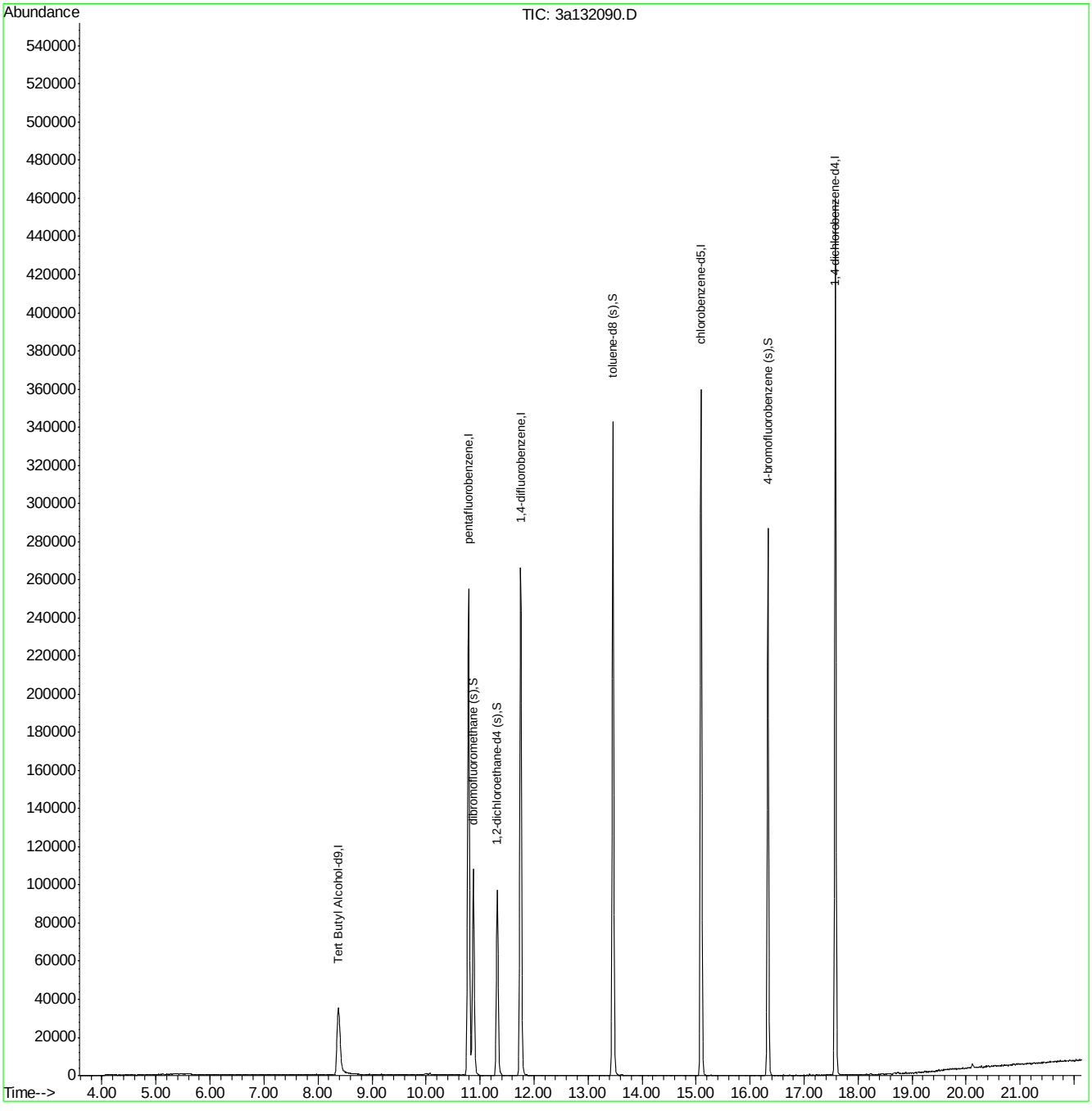
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3a132090.D
Acq On : 22 Jun 2014 2:53 am
Operator : HeeEunA
Sample : jb69587-10
Misc : MS69380,V3A5714,5.0,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 23 11:53:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration



M3A5699.M Mon Jun 23 11:53:41 2014 ACCUNJ

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145611.D
Acq On : 23 Jun 2014 5:52 pm
Operator : KingC
Sample : jb69587-11
Misc : MS69379,VV6207,3.7,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 24 09:54:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	56628	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	175434	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	228654	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	208816	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	107462	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	62148	52.20	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 104.40%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	60652	48.98	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 97.96%			
71) toluene-d8 (s)	12.12	98	237363	52.13	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 104.26%			
94) 4-bromofluorobenzene (s)	15.10	95	83959	44.27	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 88.54%			

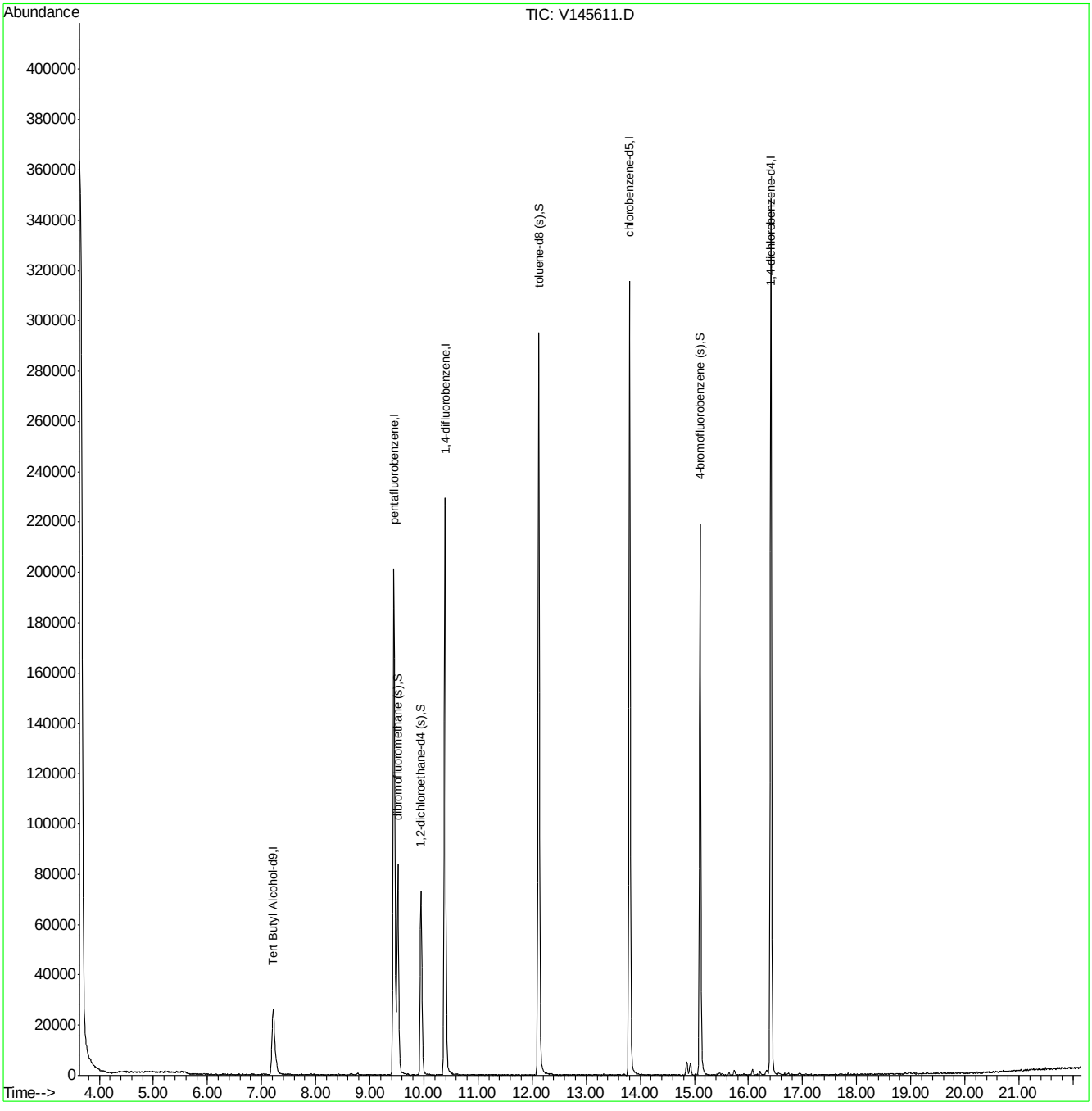
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145611.D
Acq On : 23 Jun 2014 5:52 pm
Operator : KingC
Sample : jb69587-11
Misc : MS69379,VV6207,3.7,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 24 09:54:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147671.D
Acq On : 20 Jun 2014 1:25 pm
Operator : KingC
Sample : jb69587-12
Misc : MS69379,VX6383,4.6,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 20 16:57:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	60927	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	206339	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	240152	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	243015	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	133772	50.00	ug/L	0.00

System Monitoring Compounds

55) dibromofluoromethane (s)	10.34	113	69861	55.86	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 111.72%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	70665	49.96	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 99.92%			
86) toluene-d8 (s)	13.62	98	283581	59.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 118.74%			
112) 4-bromofluorobenzene (s)	17.12	95	110749	60.53	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 121.06%			

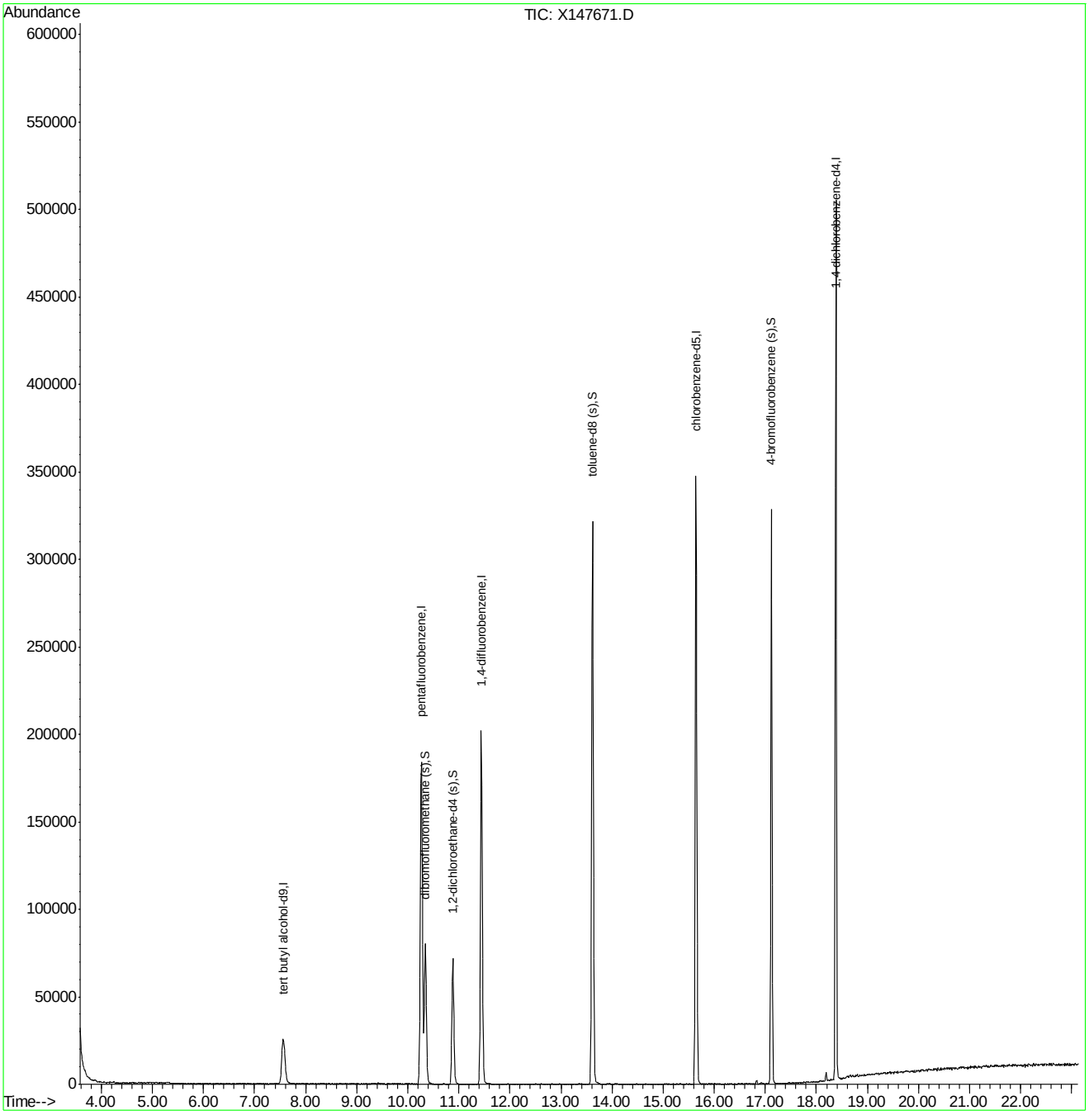
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147671.D
Acq On : 20 Jun 2014 1:25 pm
Operator : KingC
Sample : jb69587-12
Misc : MS69379,VX6383,4.6,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 20 16:57:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 17:03:37 2014 GCMSX

Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145612.D
Acq On : 23 Jun 2014 6:21 pm
Operator : KingC
Sample : jb69587-13
Misc : MS69379,VV6207,4.1,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 24 09:55:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.21	65	54065	500.00	ug/L	-0.01
4) pentafluorobenzene	9.45	168	171785	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	223281	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	206620	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	104723	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.51	113	60377	51.79	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 103.58%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	58646	48.37	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 96.74%			
71) toluene-d8 (s)	12.12	98	236430	53.18	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 106.36%			
94) 4-bromofluorobenzene (s)	15.10	95	82075	43.73	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 87.46%			

Target Compounds Qvalue

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

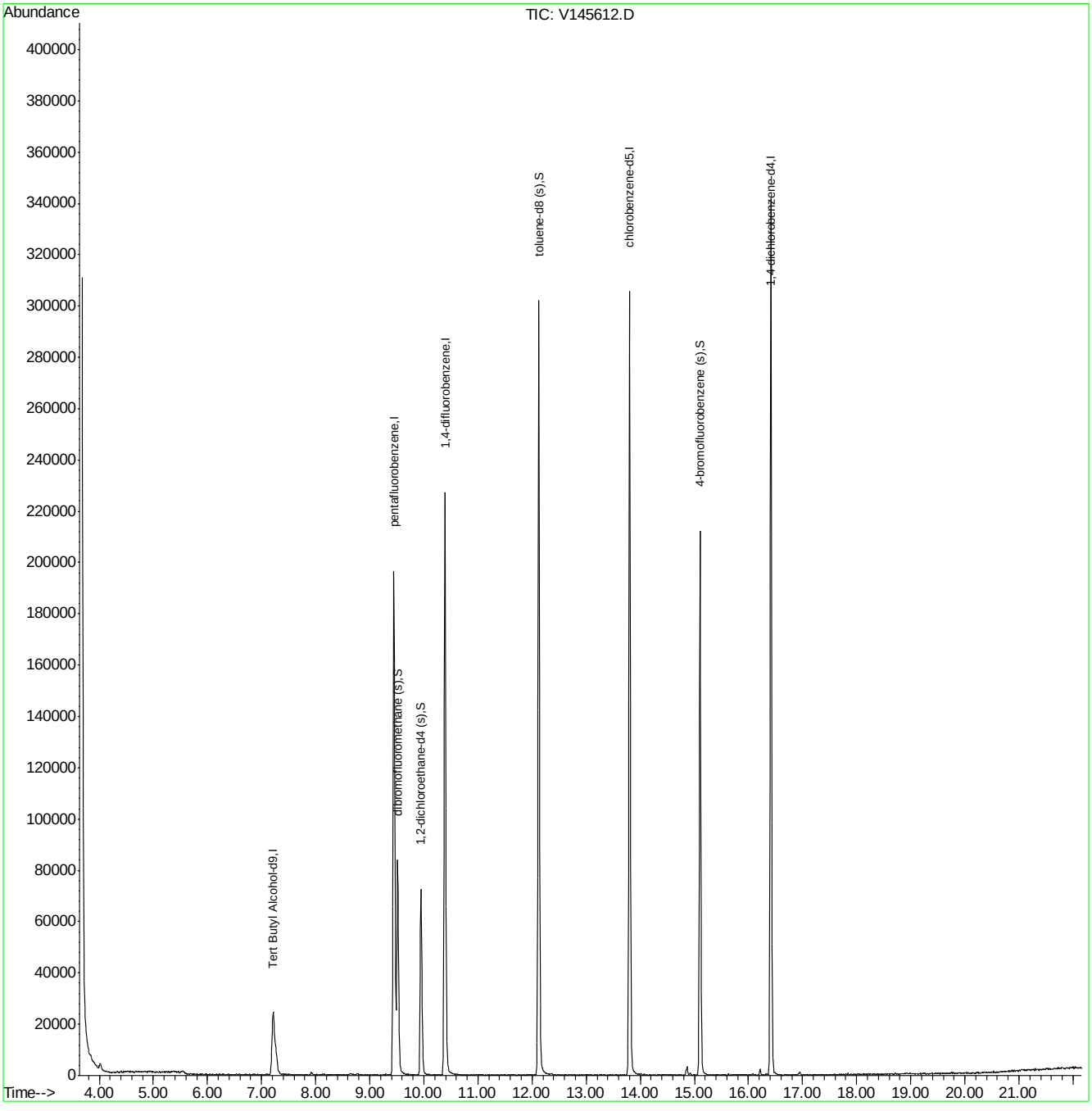
7.1.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145612.D
Acq On : 23 Jun 2014 6:21 pm
Operator : KingC
Sample : jb69587-13
Misc : MS69379,VV6207,4.1,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 24 09:55:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206684.D
Acq On : 23 Jun 2014 7:13 am
Operator : CourtneM
Sample : jb69587-14
Misc : MS69379,VA7793,4.9,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 23 16:15:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.486	65	99266	500.00	ug/L	0.00
4) pentafluorobenzene	9.823	168	214581	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.781	114	288742	50.00	ug/L	0.00
83) chlorobenzene-d5	14.222	117	276110	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.858	152	155459	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.886	113	93060	53.40	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.80%			
47) 1,2-dichloroethane-d4 (s)	10.320	65	101776	53.40	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 106.80%			
75) toluene-d8 (s)	12.538	98	327898	54.35	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 108.70%			
101) 4-bromofluorobenzene (s)	15.535	95	135028	53.40	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 106.80%			
Target Compounds						Qvalue

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

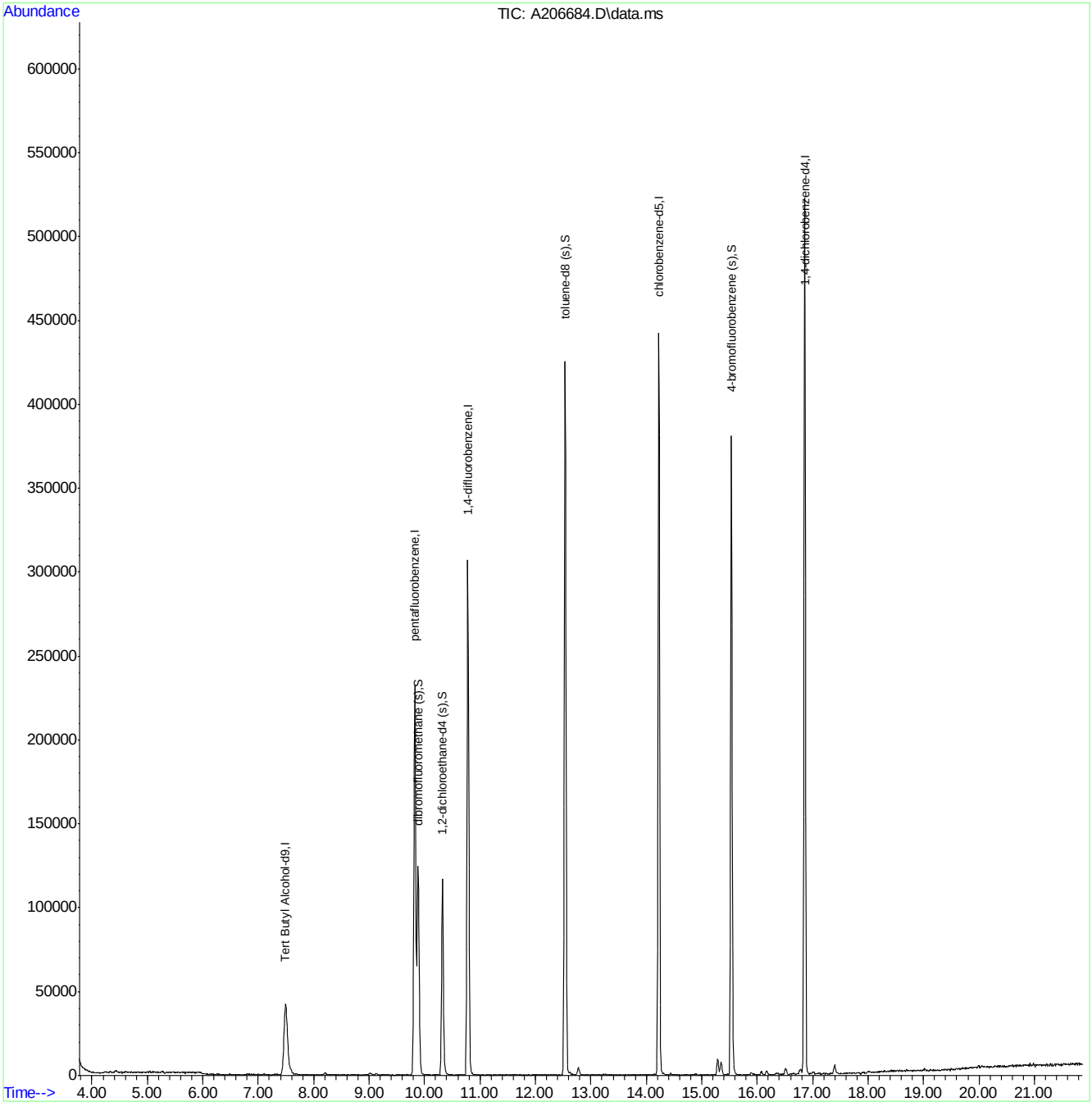
7.1.14

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206684.D
Acq On : 23 Jun 2014 7:13 am
Operator : CourtneM
Sample : jb69587-14
Misc : MS69379,VA7793,4.9,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 23 16:15:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Mon Jun 23 16:17:40 2014 ACCUNJ

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206685.D
Acq On : 23 Jun 2014 7:46 am
Operator : CourtneM
Sample : jb69587-15
Misc : MS69379,VA7793,4.9,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jun 23 16:15:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.490	65	94446	500.00	ug/L	0.01
4) pentafluorobenzene	9.823	168	207285	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.780	114	283361	50.00	ug/L	0.00
83) chlorobenzene-d5	14.226	117	271742	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.857	152	153320	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.880	113	89641	53.25	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.50%			
47) 1,2-dichloroethane-d4 (s)	10.319	65	100146	54.40	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 108.80%			
75) toluene-d8 (s)	12.537	98	320697	54.16	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 108.32%			
101) 4-bromofluorobenzene (s)	15.534	95	131054	52.55	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 105.10%			

Target Compounds Qvalue

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

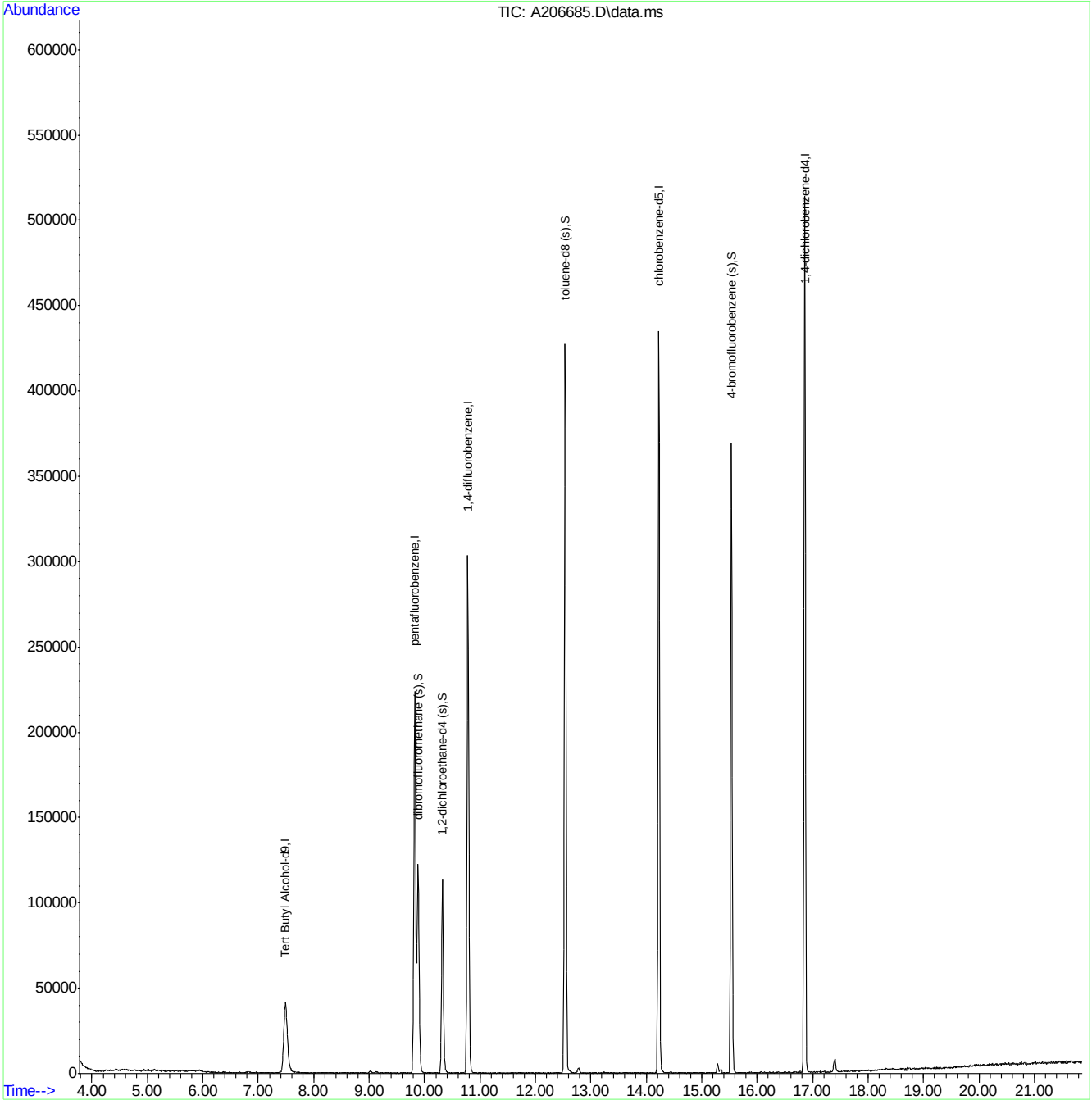
7.1.15

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206685.D
Acq On : 23 Jun 2014 7:46 am
Operator : CourtneM
Sample : jb69587-15
Misc : MS69379,VA7793,4.9,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jun 23 16:15:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145542.D
Acq On : 20 Jun 2014 1:25 pm
Operator : KingC
Sample : jb69587-16
Misc : MS69379,VV6205,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 23 12:37:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	70476	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	184211	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	241843	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	225981	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.42	152	117111	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	66778	53.41	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.82%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	67814	52.16	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 104.32%			
71) toluene-d8 (s)	12.12	98	261380	54.28	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 108.56%			
94) 4-bromofluorobenzene (s)	15.11	95	96370	46.95	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 93.90%			

Target Compounds Qvalue

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

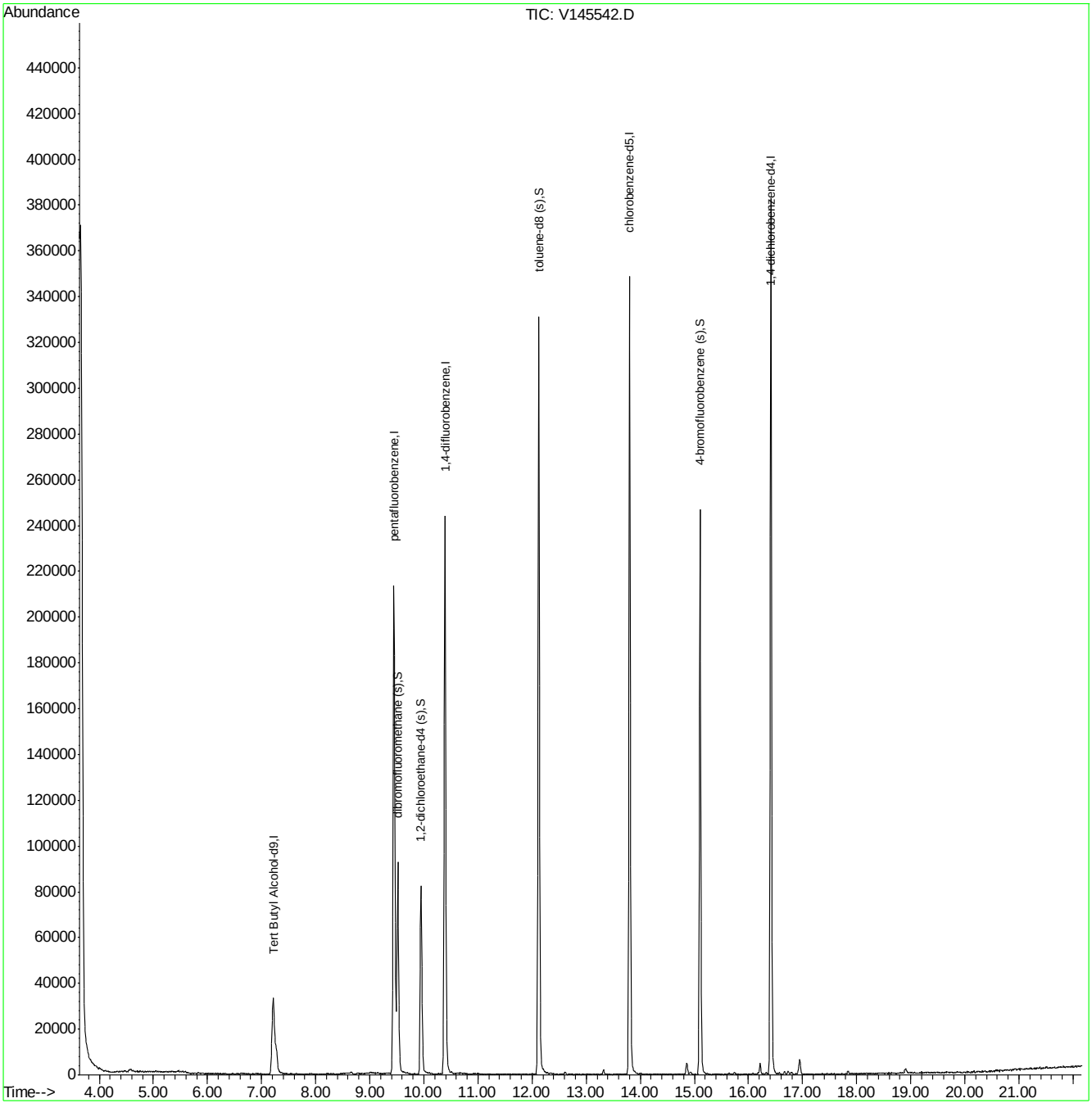
7.1.16

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145542.D
Acq On : 20 Jun 2014 1:25 pm
Operator : KingC
Sample : jb69587-16
Misc : MS69379,VV6205,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 23 12:37:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145543.D
Acq On : 20 Jun 2014 1:53 pm
Operator : KingC
Sample : jb69587-17
Misc : MS69379,VV6205,5.2,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 23 12:59:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	62465	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	184040	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	244632	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	225751	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	116990	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	65993	52.83	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 105.66%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	65718	50.59	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 101.18%			
71) toluene-d8 (s)	12.12	98	264558	54.31	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 108.62%			
94) 4-bromofluorobenzene (s)	15.11	95	97140	47.37	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 94.74%			

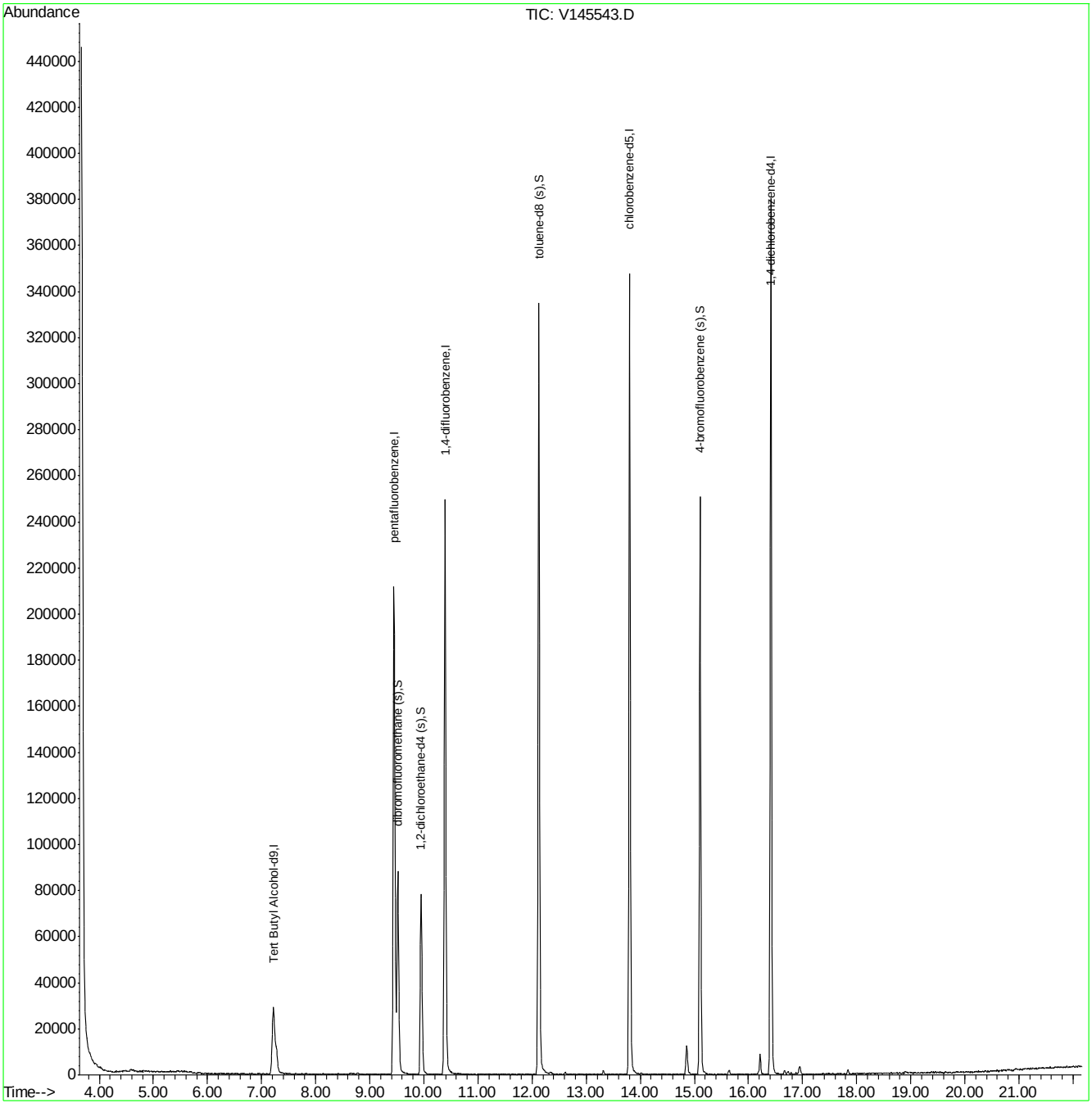
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145543.D
Acq On : 20 Jun 2014 1:53 pm
Operator : KingC
Sample : jb69587-17
Misc : MS69379,VV6205,5.2,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 23 12:59:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



MVS6196.M Mon Jun 23 12:59:24 2014 MSV

ACCUTEST LABORATORIES
JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132091.D
Acq On : 22 Jun 2014 3:24 am
Operator : HeeEunA
Sample : jb69587-18
Misc : MS69380,V3A5714,5.0,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jun 23 11:54:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	93804	500.00 ug/L	-0.02
5) pentafluorobenzene	10.78	168	251392	50.00 ug/L	-0.02
55) 1,4-difluorobenzene	11.75	114	281753	50.00 ug/L	-0.02
87) chlorobenzene-d5	15.09	117	250869	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.58	152	149384	50.00 ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.87	113	79946	47.18 ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 94.36%		
50) 1,2-dichloroethane-d4 (s)	11.32	65	81212	42.47 ug/L	-0.01
Spiked Amount 50.000	Range 72 - 123		Recovery = 84.94%		
79) toluene-d8 (s)	13.46	98	279745	48.54 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 97.08%		
104) 4-bromofluorobenzene (s)	16.33	95	106552	47.72 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 95.44%		

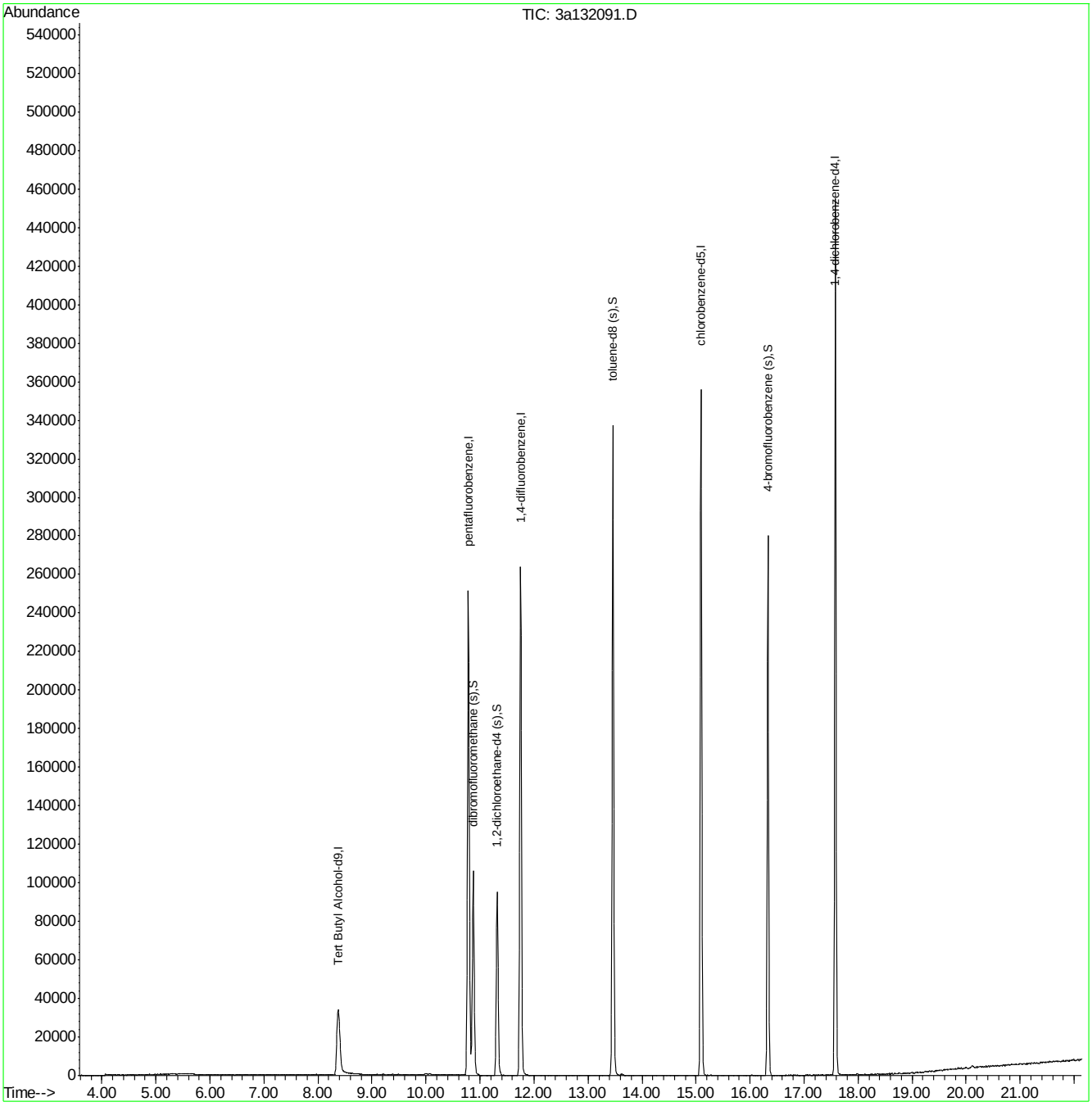
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132091.D
Acq On : 22 Jun 2014 3:24 am
Operator : HeeEunA
Sample : jb69587-18
Misc : MS69380,V3A5714,5.0,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jun 23 11:54:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206694.D
Acq On : 23 Jun 2014 1:00 pm
Operator : CourtneM
Sample : jb69587-19
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 24 09:49:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.486	65	91997	500.00	ug/L	0.00
4) pentafluorobenzene	9.818	168	212132	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.781	114	280199	50.00	ug/L	0.00
83) chlorobenzene-d5	14.222	117	271895	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.853	152	151116	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.881	113	88951	51.63	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 103.26%			
47) 1,2-dichloroethane-d4 (s)	10.320	65	97349	51.67	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 103.34%			
75) toluene-d8 (s)	12.533	98	320143	54.68	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 109.36%			
101) 4-bromofluorobenzene (s)	15.535	95	129155	52.54	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 105.08%			

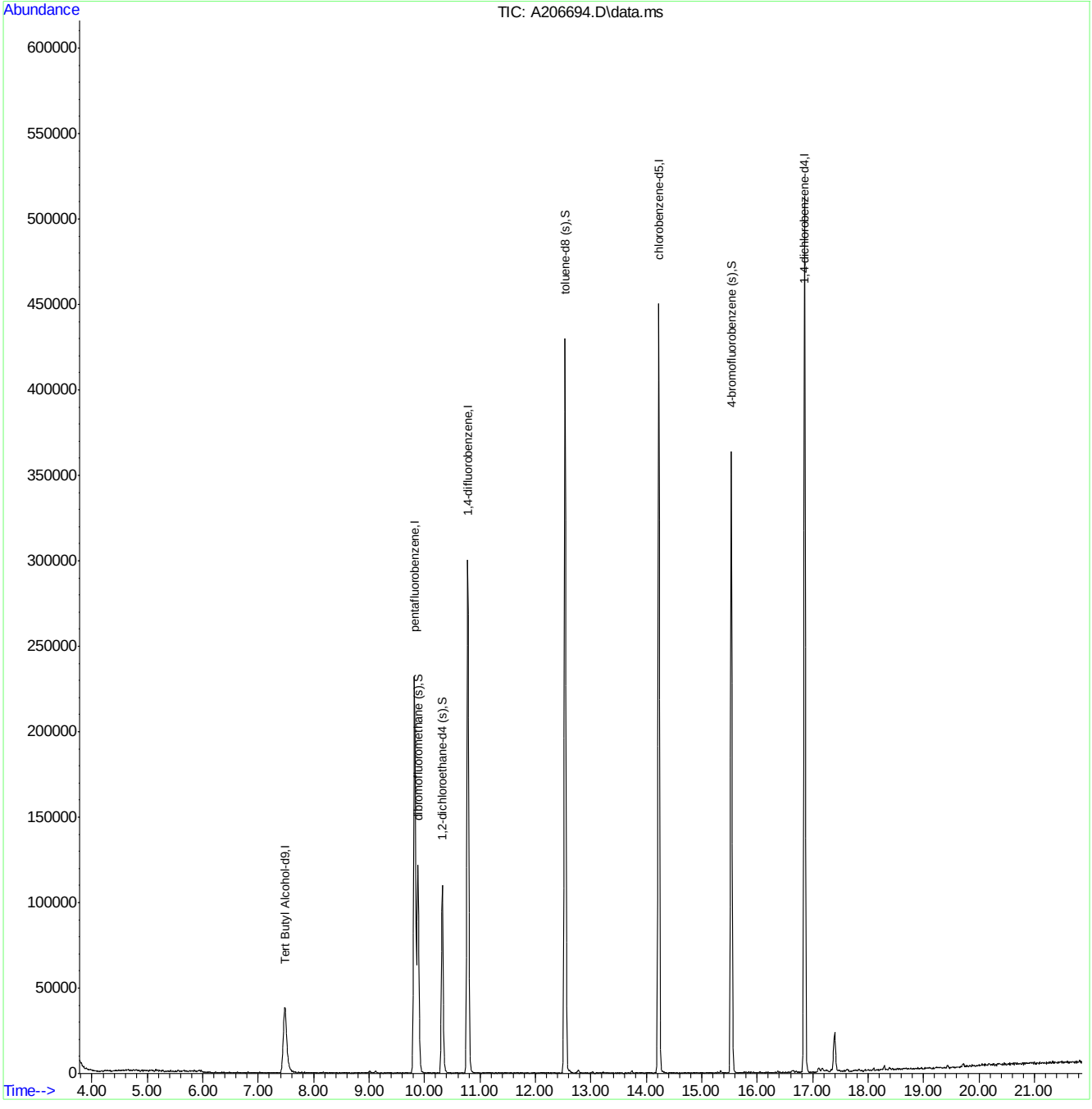
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206694.D
Acq On : 23 Jun 2014 1:00 pm
Operator : CourtneM
Sample : jb69587-19
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 24 09:49:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Tue Jun 24 10:01:48 2014 ACCUNJ

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132092.D
Acq On : 22 Jun 2014 3:54 am
Operator : HeeEunA
Sample : jb69587-20
Misc : MS69380,V3A5714,5.0,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jun 23 11:54:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	96144	500.00 ug/L	-0.02
5) pentafluorobenzene	10.79	168	249965	50.00 ug/L	-0.01
55) 1,4-difluorobenzene	11.75	114	278742	50.00 ug/L	-0.01
87) chlorobenzene-d5	15.09	117	249307	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.58	152	148693	50.00 ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.88	113	79979	47.47 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 94.94%		
50) 1,2-dichloroethane-d4 (s)	11.32	65	82498	43.38 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 86.76%		
79) toluene-d8 (s)	13.46	98	277336	48.64 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 97.28%		
104) 4-bromofluorobenzene (s)	16.33	95	105899	47.65 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 95.30%		

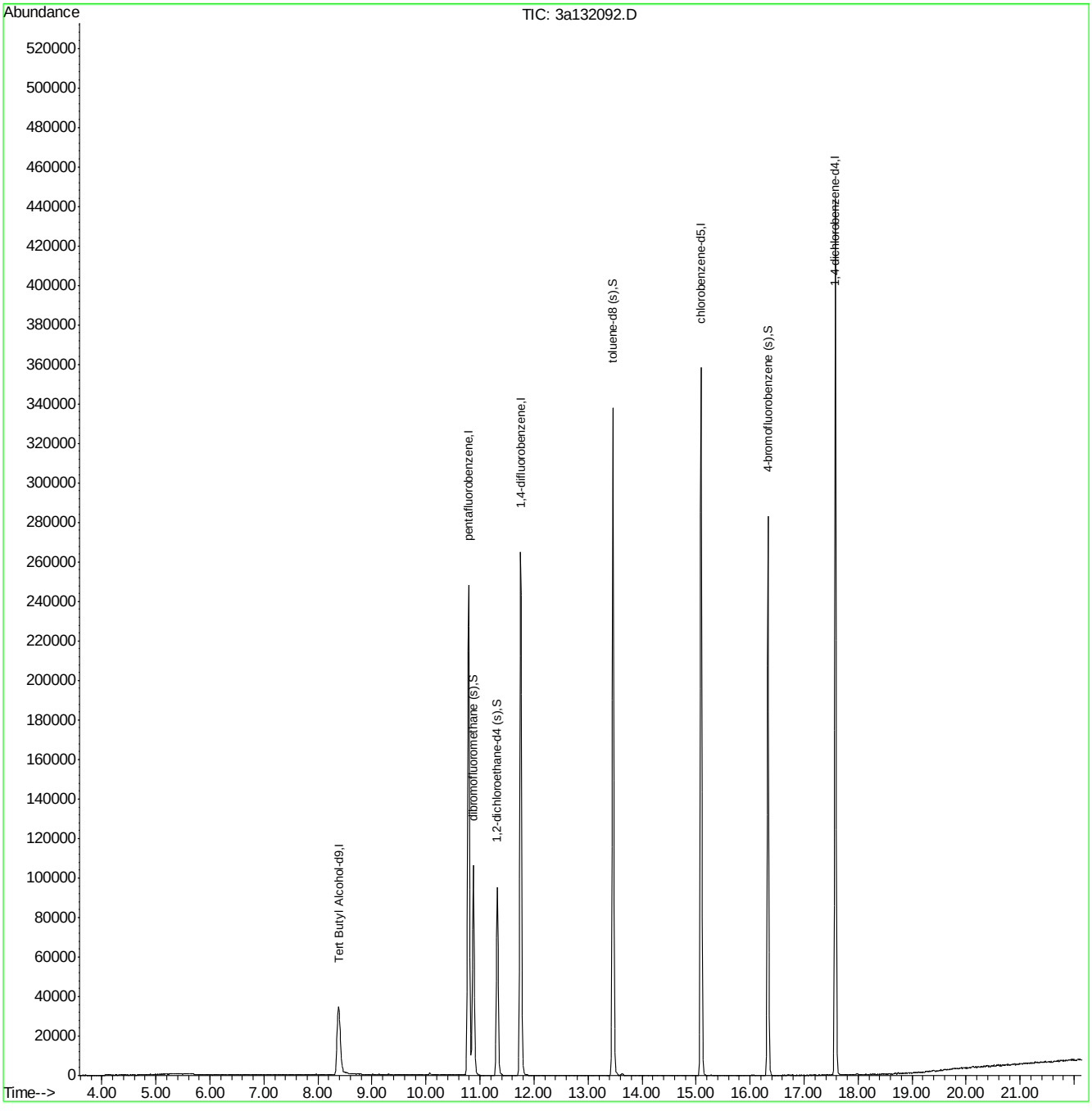
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132092.D
Acq On : 22 Jun 2014 3:54 am
Operator : HeeEunA
Sample : jb69587-20
Misc : MS69380,V3A5714,5.0,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jun 23 11:54:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145544.D
Acq On : 20 Jun 2014 2:22 pm
Operator : KingC
Sample : jb69587-21
Misc : MS69379,VV6205,4.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 23 12:38:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	66963	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	182131	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	239758	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	220311	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	113974	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	66290	53.63	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 107.26%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	66615	51.82	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 103.64%			
71) toluene-d8 (s)	12.12	98	255941	53.61	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 107.22%			
94) 4-bromofluorobenzene (s)	15.10	95	93137	46.54	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 93.08%			

Target Compounds Qvalue

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

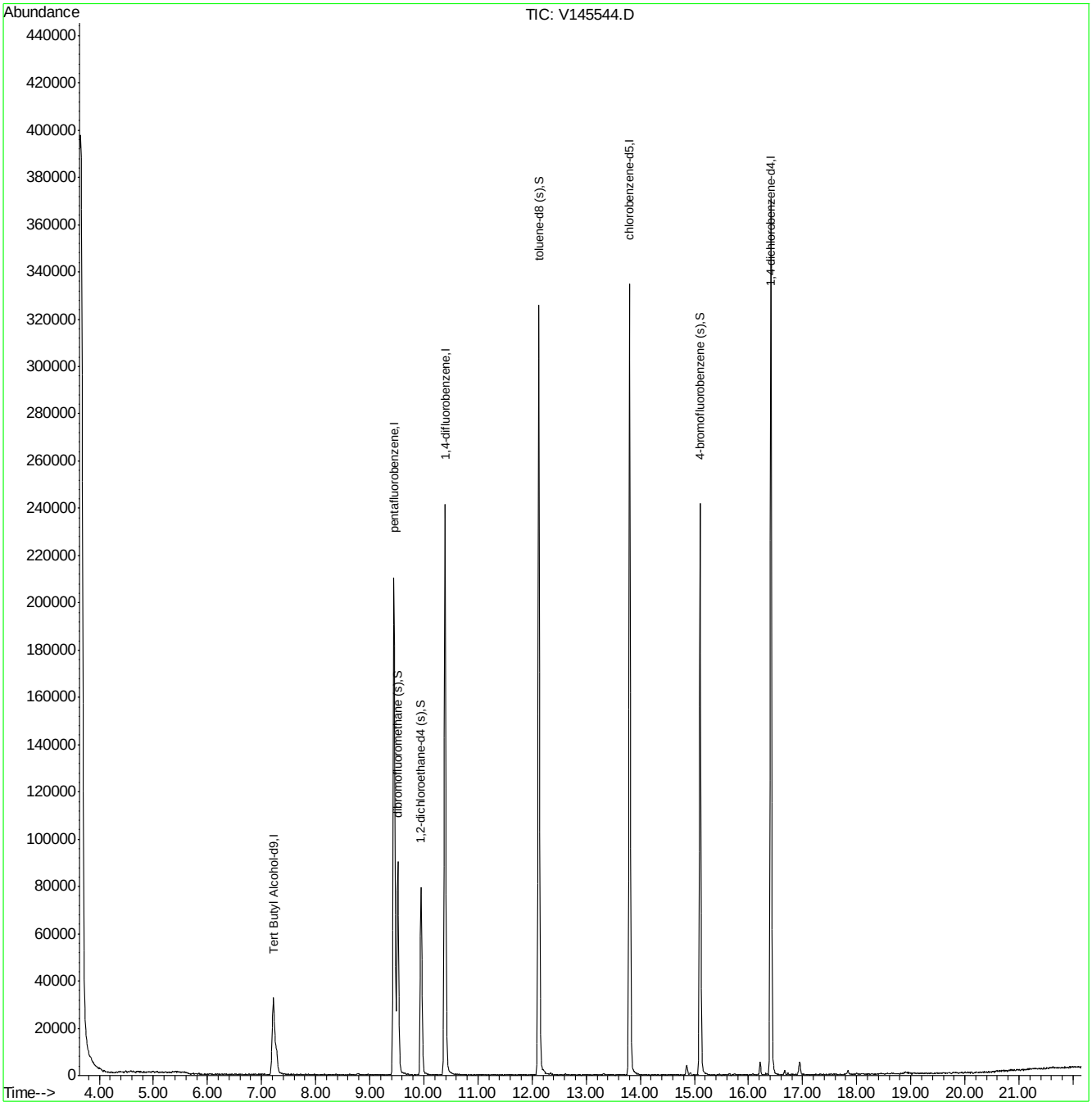
7.1.21

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145544.D
Acq On : 20 Jun 2014 2:22 pm
Operator : KingC
Sample : jb69587-21
Misc : MS69379,VV6205,4.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 23 12:38:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147663.D
Acq On : 20 Jun 2014 9:14 am
Operator : KingC
Sample : mb
Misc : MS69285,VX6383,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 20 16:54:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) tert butyl alcohol-d9	7.54	65	66950	500.00 ug/L	-0.01
5) pentafluorobenzene	10.25	168	205248	50.00 ug/L	-0.01
63) 1,4-difluorobenzene	11.43	114	233368	50.00 ug/L	-0.01
94) chlorobenzene-d5	15.64	117	241869	50.00 ug/L	-0.01
109) 1,4-dichlorobenzene-d4	18.38	152	137319	50.00 ug/L	0.00

System Monitoring Compounds

55) dibromofluoromethane (s)	10.33	113	69062	55.52 ug/L	-0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 111.04%		
56) 1,2-dichloroethane-d4 (s)	10.87	65	69978	49.73 ug/L	-0.01
Spiked Amount 50.000	Range 65 - 123		Recovery = 99.46%		
86) toluene-d8 (s)	13.61	98	274385	59.12 ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 118.24%		
112) 4-bromofluorobenzene (s)	17.12	95	108380	57.57 ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 115.14%		

Target Compounds Qvalue

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

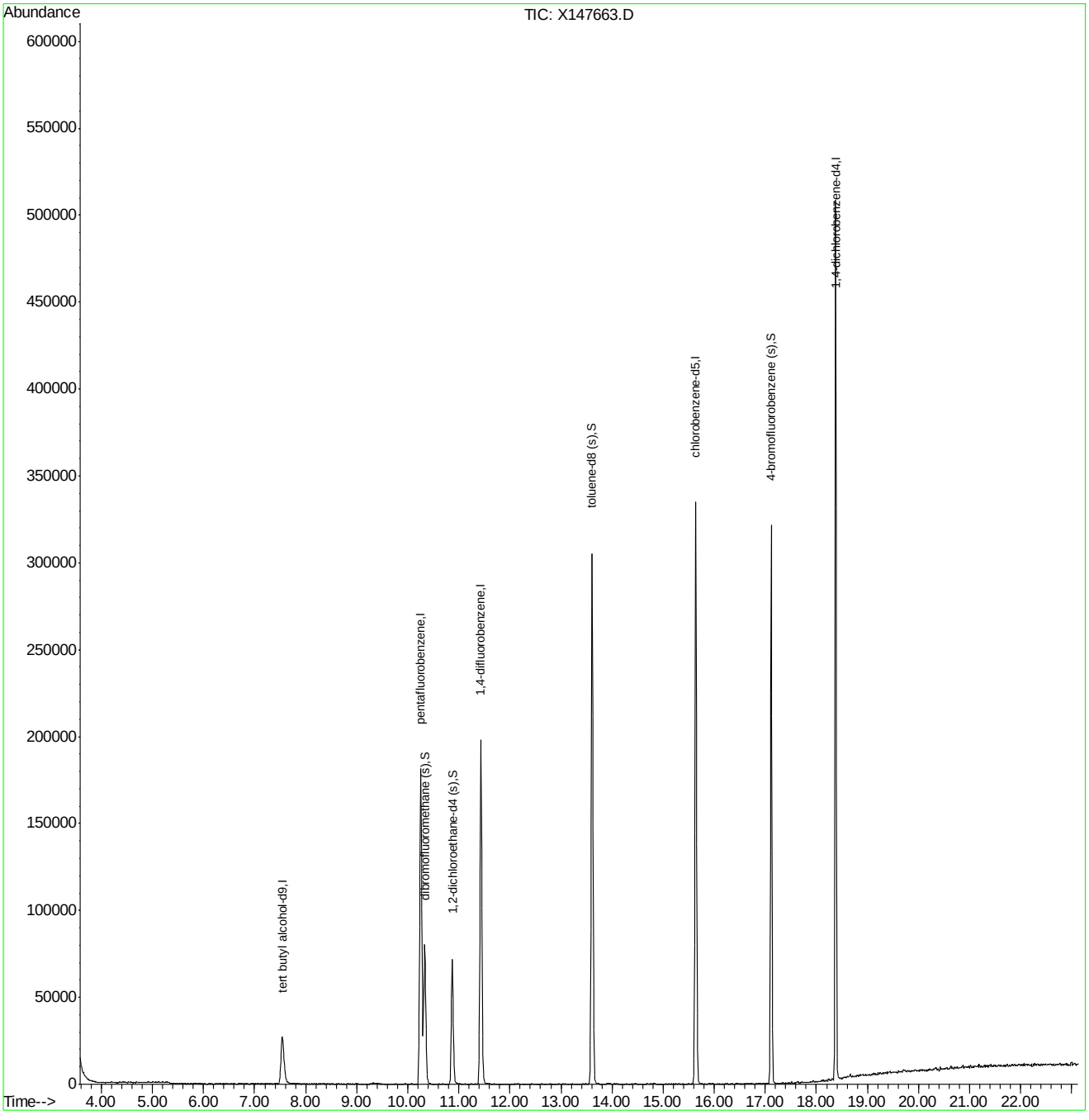
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147663.D
Acq On : 20 Jun 2014 9:14 am
Operator : KingC
Sample : mb
Misc : MS69285,VX6383,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 20 16:54:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145535.D
Acq On : 20 Jun 2014 10:01 am
Operator : KingC
Sample : mb
Misc : MS69292,VV6205,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 23 12:27:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	74455	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	200363	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	261443	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	237317	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	124591	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.51	113	72875	53.59	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 107.18%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	73320	51.84	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 103.68%			
71) toluene-d8 (s)	12.12	98	273762	52.59	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 105.18%			
94) 4-bromofluorobenzene (s)	15.10	95	101901	47.27	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 94.54%			

Target Compounds Qvalue

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

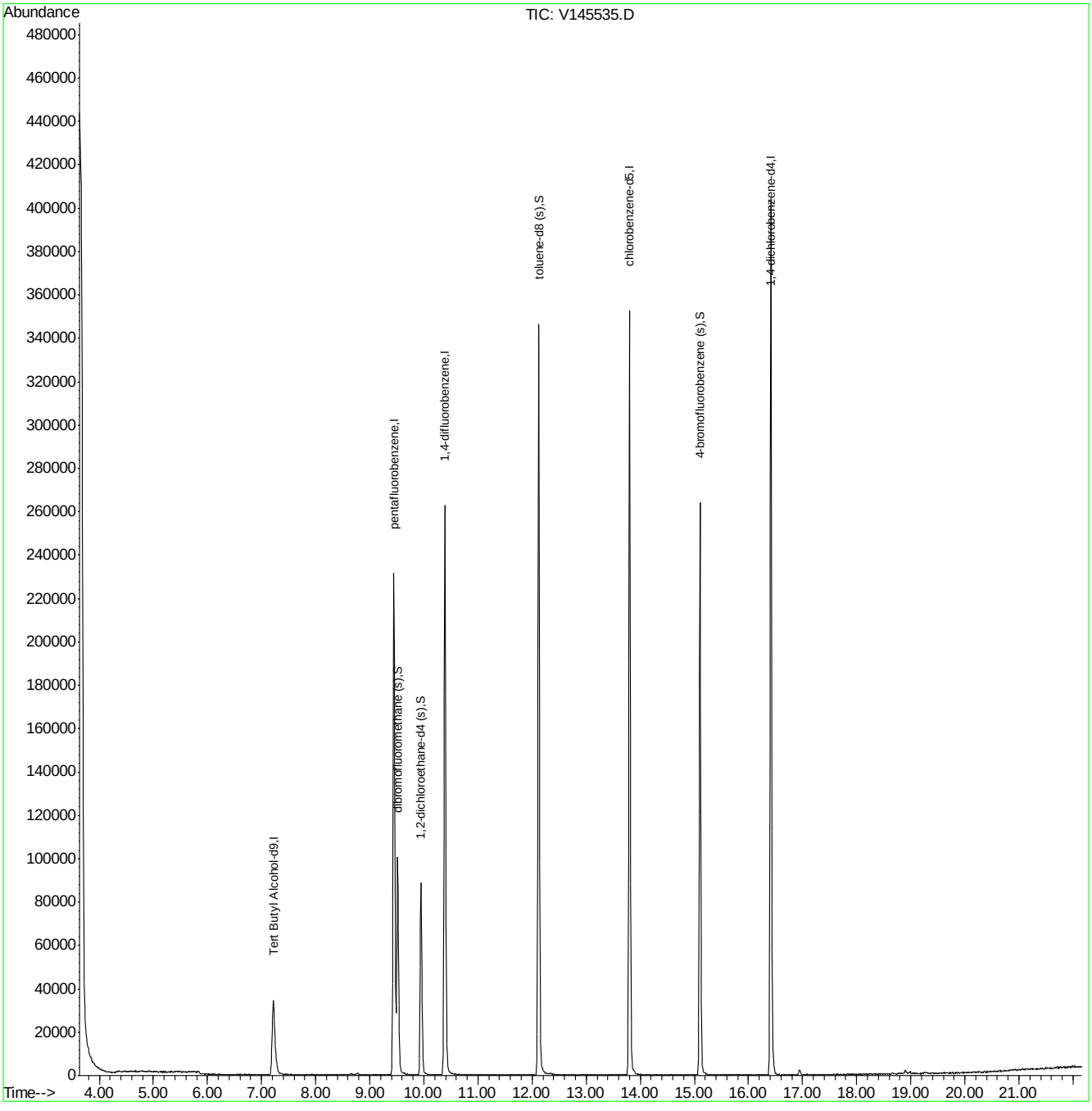
7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145535.D
Acq On : 20 Jun 2014 10:01 am
Operator : KingC
Sample : mb
Misc : MS69292,VV6205,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 23 12:27:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147700.D
Acq On : 21 Jun 2014 11:44 am
Operator : KingC
Sample : mb2
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 23 09:44:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	67279	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	200447	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	233562	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	232520	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	137928	50.00	ug/L	0.00

System Monitoring Compounds

55) dibromofluoromethane (s)	10.34	113	69183	56.95	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 113.90%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	70694	51.45	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 102.90%			
86) toluene-d8 (s)	13.61	98	269881	58.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 116.20%			
112) 4-bromofluorobenzene (s)	17.12	95	107119	56.61	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 113.22%			

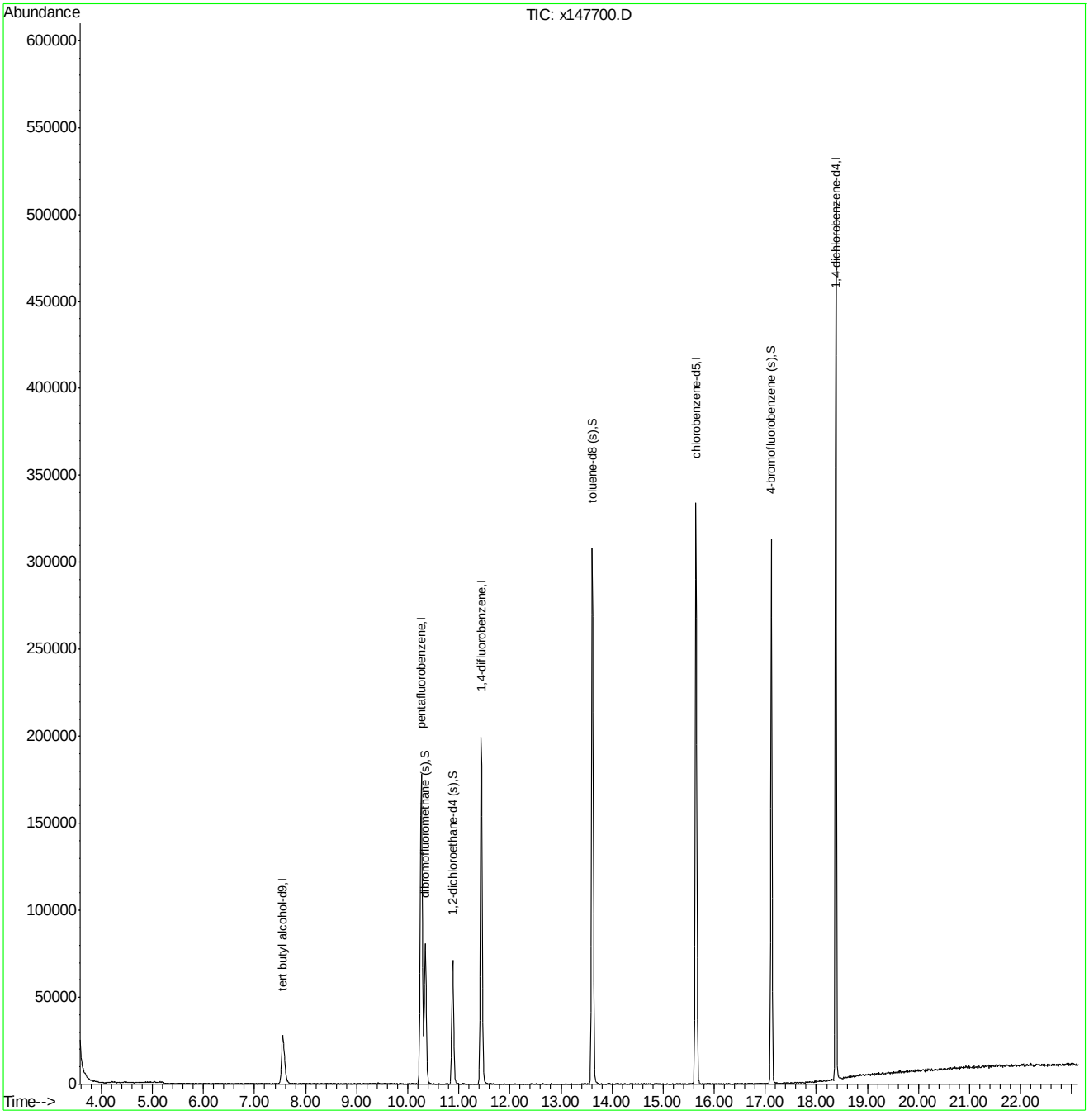
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147700.D
Acq On : 21 Jun 2014 11:44 am
Operator : KingC
Sample : mb2
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 23 09:44:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



MX6381.M Mon Jun 23 09:44:40 2014 GCMSX

Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132084.D
Acq On : 21 Jun 2014 11:50 pm
Operator : HeeEunA
Sample : mb1
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 23 11:41:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.37	65	95256	500.00	ug/L	-0.02
5) pentafluorobenzene	10.79	168	252082	50.00	ug/L	-0.01
55) 1,4-difluorobenzene	11.75	114	281774	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	248520	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.58	152	148620	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.87	113	80460	47.35	ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 94.70%			
50) 1,2-dichloroethane-d4 (s)	11.32	65	83077	43.32	ug/L	-0.01
Spiked Amount 50.000	Range 72 - 123		Recovery = 86.64%			
79) toluene-d8 (s)	13.46	98	279312	48.46	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 96.92%			
104) 4-bromofluorobenzene (s)	16.33	95	106468	47.93	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 95.86%			

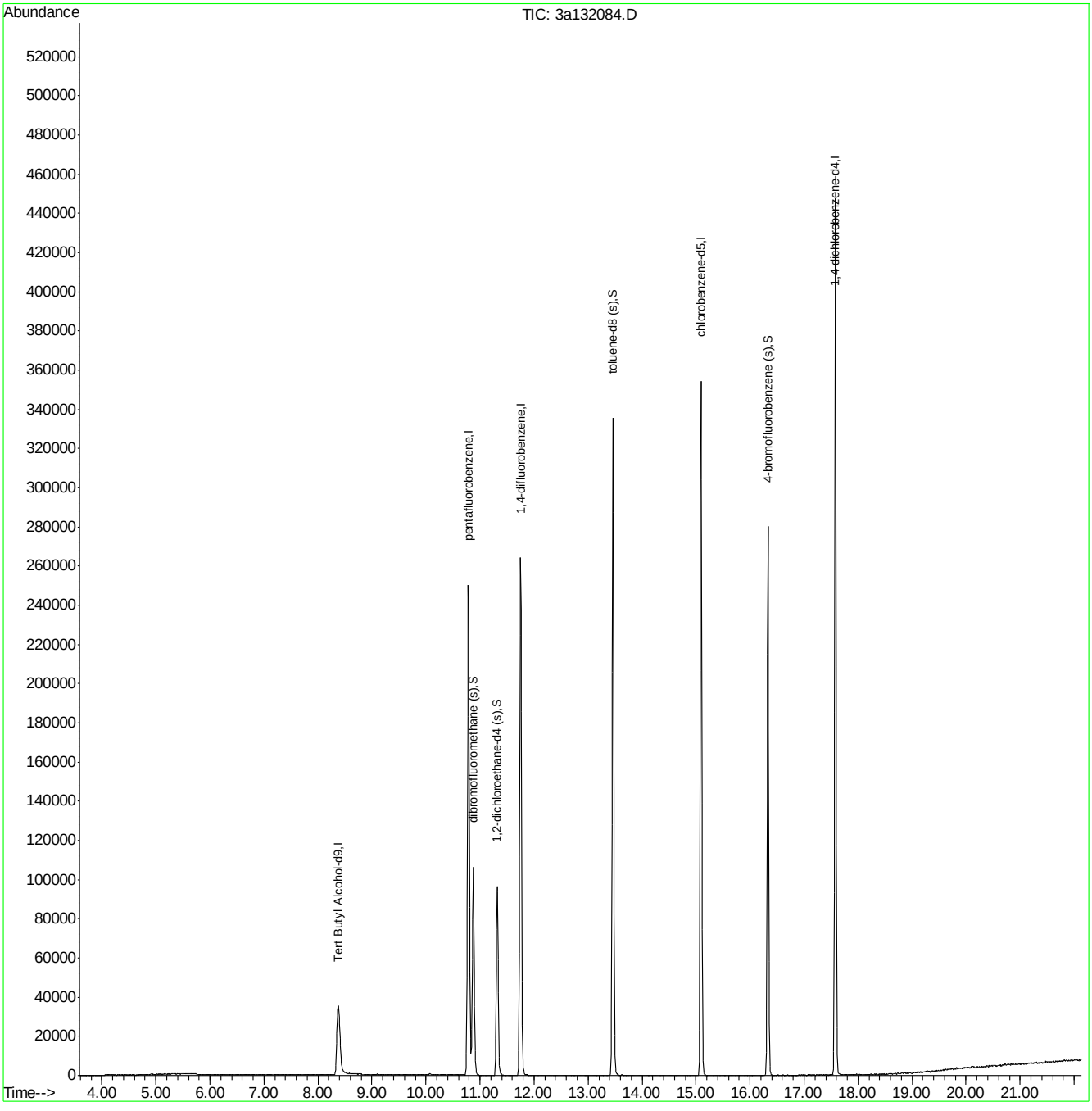
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132084.D
Acq On : 21 Jun 2014 11:50 pm
Operator : HeeEunA
Sample : mb1
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 23 11:41:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206658.D
Acq On : 22 Jun 2014 4:25 pm
Operator : CourtneM
Sample : mb
Misc : MS69440,VA7793,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 23 15:29:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.490	65	80748	500.00	ug/L	0.01
4) pentafluorobenzene	9.828	168	199138	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.791	114	265111	50.00	ug/L	0.01
83) chlorobenzene-d5	14.232	117	250532	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.863	152	142344	50.00	ug/L	0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.891	113	82146	50.79	ug/L	0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 101.58%			
47) 1,2-dichloroethane-d4 (s)	10.330	65	91282	51.61	ug/L	0.01
Spiked Amount 50.000	Range 65 - 123		Recovery = 103.22%			
75) toluene-d8 (s)	12.543	98	299497	54.07	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 108.14%			
101) 4-bromofluorobenzene (s)	15.545	95	121845	52.63	ug/L	0.01
Spiked Amount 50.000	Range 71 - 132		Recovery = 105.26%			

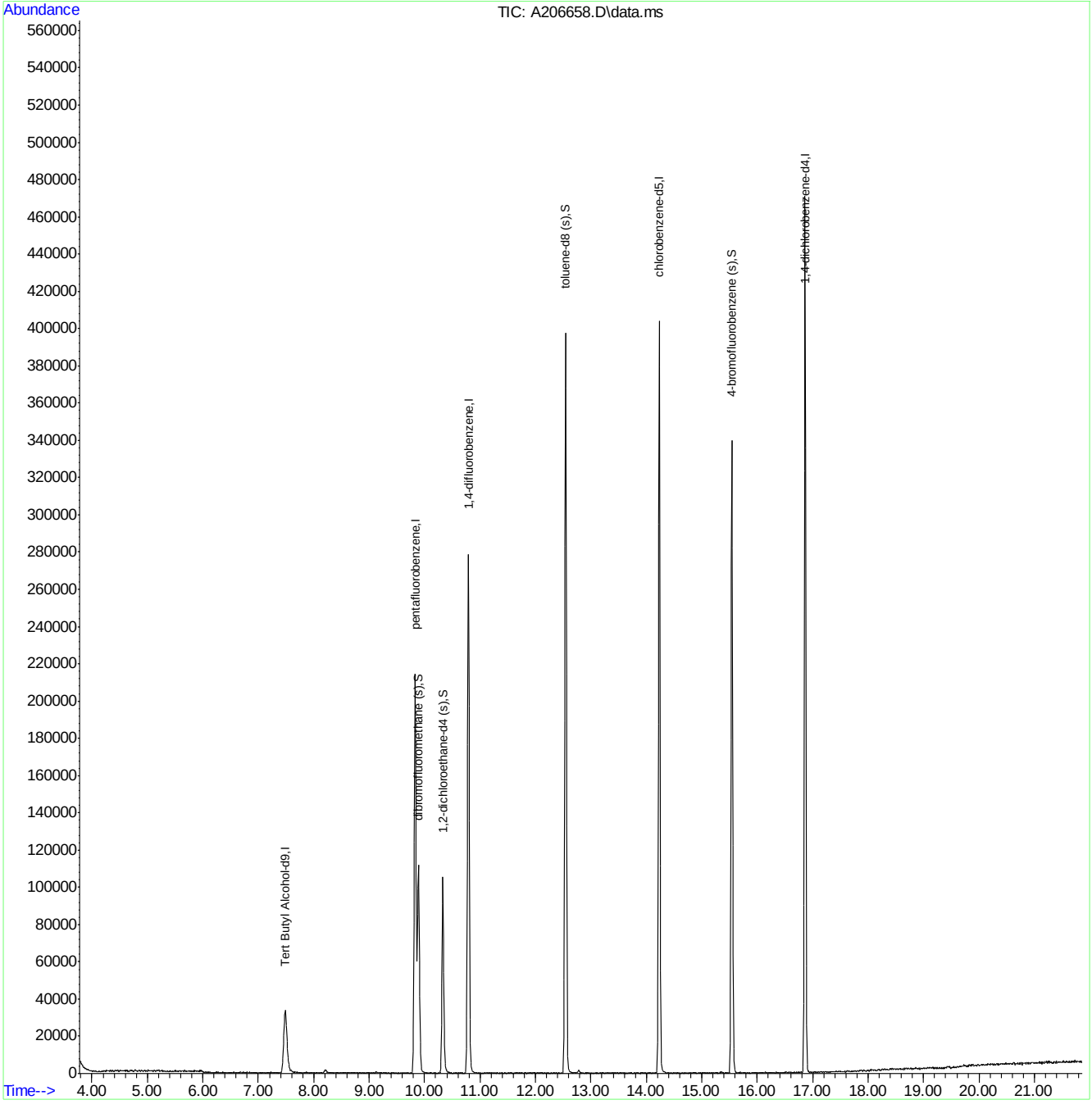
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206658.D
Acq On : 22 Jun 2014 4:25 pm
Operator : CourtneM
Sample : mb
Misc : MS69440,VA7793,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 23 15:29:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Tue Jun 24 08:10:46 2014 ACCUNJ

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206681.D
Acq On : 23 Jun 2014 5:30 am
Operator : CourtneM
Sample : mb2
Misc : MS69394,VA7793,5.0,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 24 08:10:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.484	65	91584	500.00	ug/L	0.00
4) pentafluorobenzene	9.822	168	206007	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.779	114	278112	50.00	ug/L	0.00
83) chlorobenzene-d5	14.226	117	266638	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.857	152	148658	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.880	113	88764	53.05	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.10%			
47) 1,2-dichloroethane-d4 (s)	10.319	65	96391	52.68	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 105.36%			
75) toluene-d8 (s)	12.536	98	313420	53.93	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 107.86%			
101) 4-bromofluorobenzene (s)	15.533	95	128545	53.16	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 106.32%			

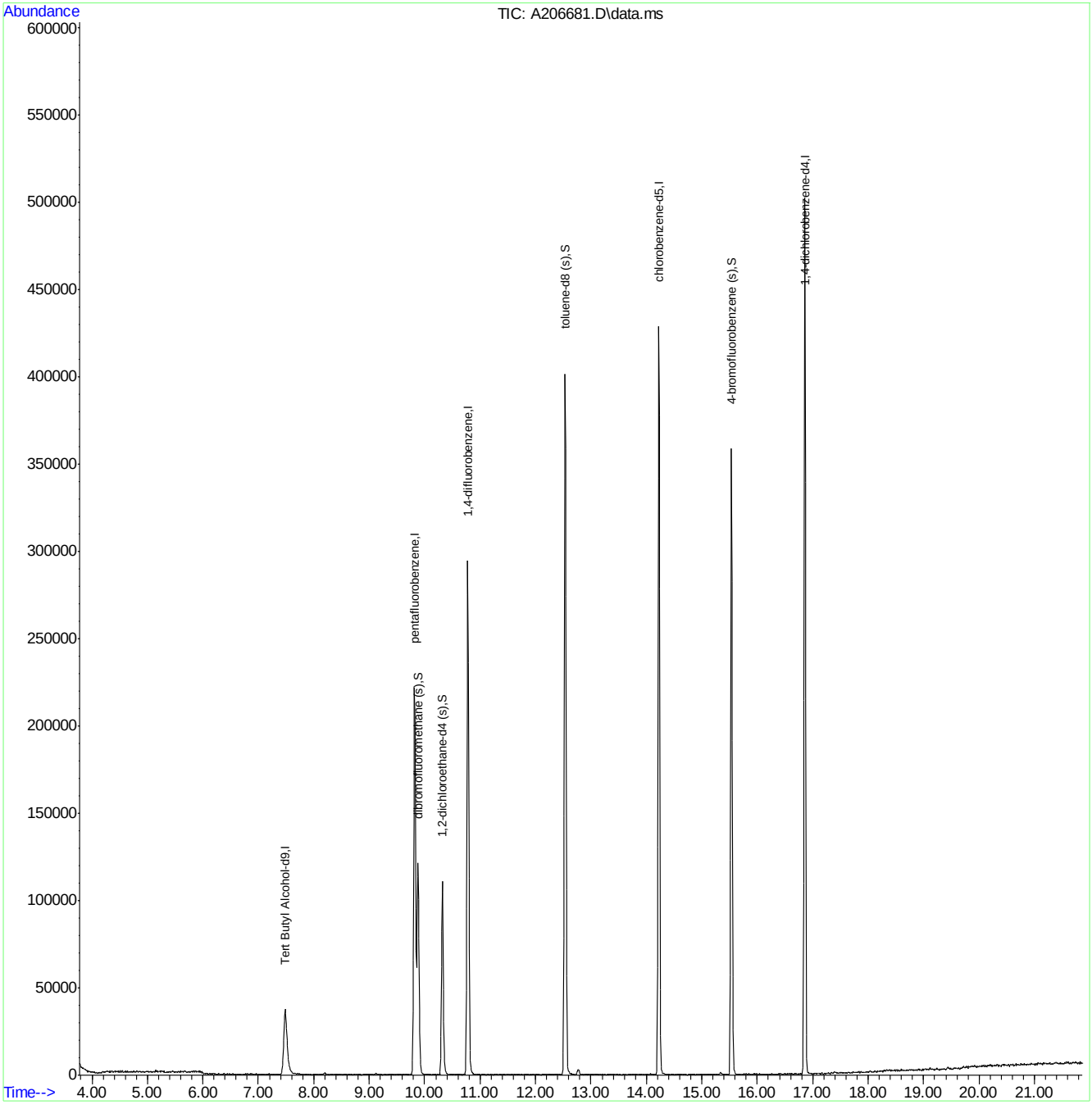
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206681.D
Acq On : 23 Jun 2014 5:30 am
Operator : CourtneM
Sample : mb2
Misc : MS69394,VA7793,5.0,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 24 08:10:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Tue Jun 24 08:12:12 2014 ACCUNJ

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206691.D
Acq On : 23 Jun 2014 11:20 am
Operator : CourtneM
Sample : mb
Misc : MS69394,VA7794,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 24 09:47:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

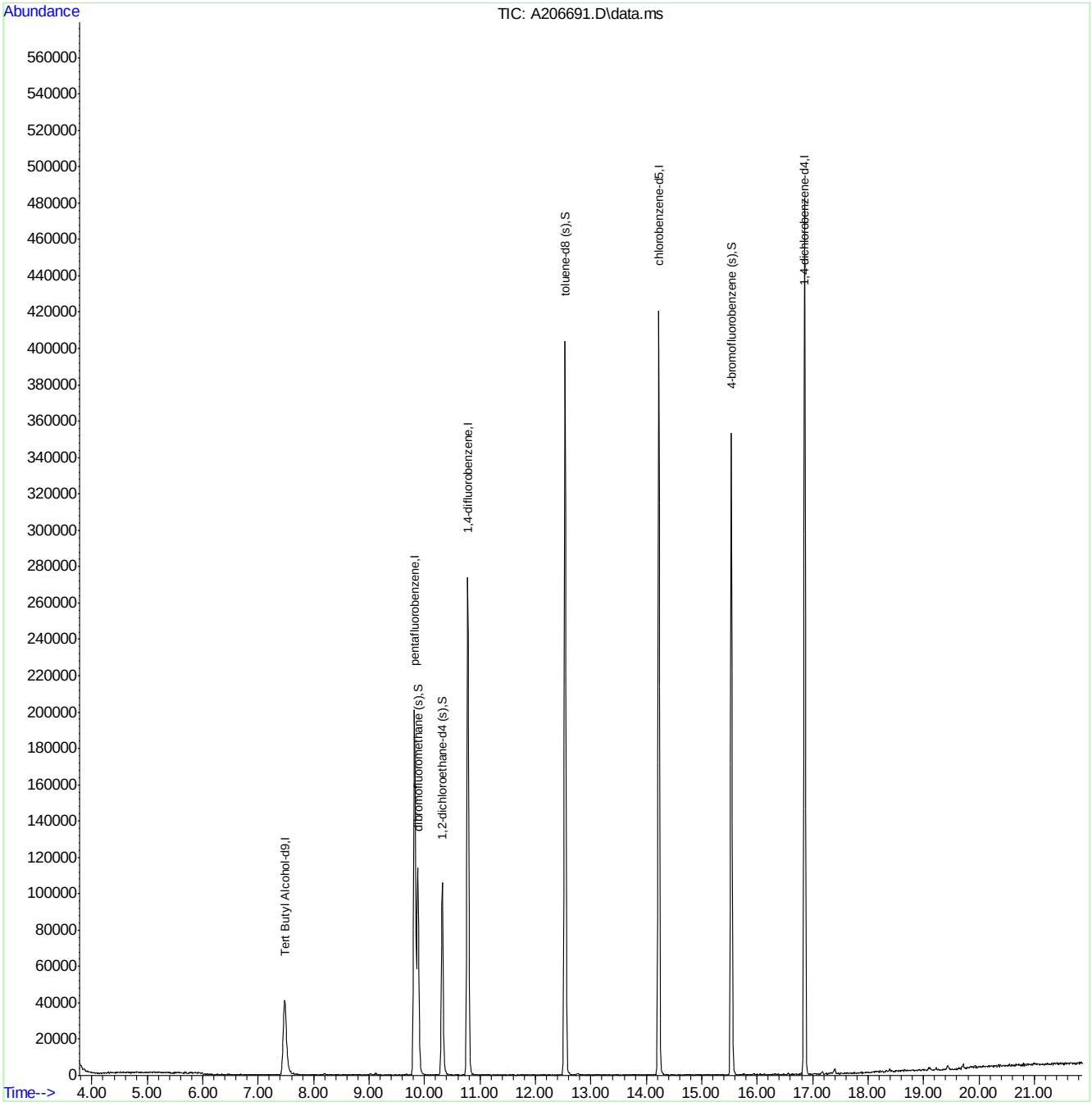
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.475	65	97433	500.00	ug/L	0.00
4) pentafluorobenzene	9.818	168	191981	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.781	114	262581	50.00	ug/L	0.00
83) chlorobenzene-d5	14.222	117	254797	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.853	152	144833	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.881	113	83045	53.26	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.52%			
47) 1,2-dichloroethane-d4 (s)	10.315	65	94388	55.36	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 110.72%			
75) toluene-d8 (s)	12.533	98	303507	55.32	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 110.64%			
101) 4-bromofluorobenzene (s)	15.535	95	126502	53.70	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 107.40%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206691.D
Acq On : 23 Jun 2014 11:20 am
Operator : CourtneM
Sample : mb
Misc : MS69394,VA7794,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 24 09:47:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Tue Jun 24 10:01:22 2014 ACCUNJ

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145599.D
Acq On : 23 Jun 2014 11:41 am
Operator : KingC
Sample : mb
Misc : MS69393,VV6207,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 24 09:46:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	45192	500.00 ug/L	0.00
4) pentafluorobenzene	9.45	168	185762	50.00 ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	237902	50.00 ug/L	0.00
79) chlorobenzene-d5	13.80	117	214305	50.00 ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	107802	50.00 ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	62605	49.66 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 99.32%		
47) 1,2-dichloroethane-d4 (s)	9.95	65	58167	44.36 ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 88.72%		
71) toluene-d8 (s)	12.12	98	244960	51.71 ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 103.42%		
94) 4-bromofluorobenzene (s)	15.11	95	86544	44.46 ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 88.92%		

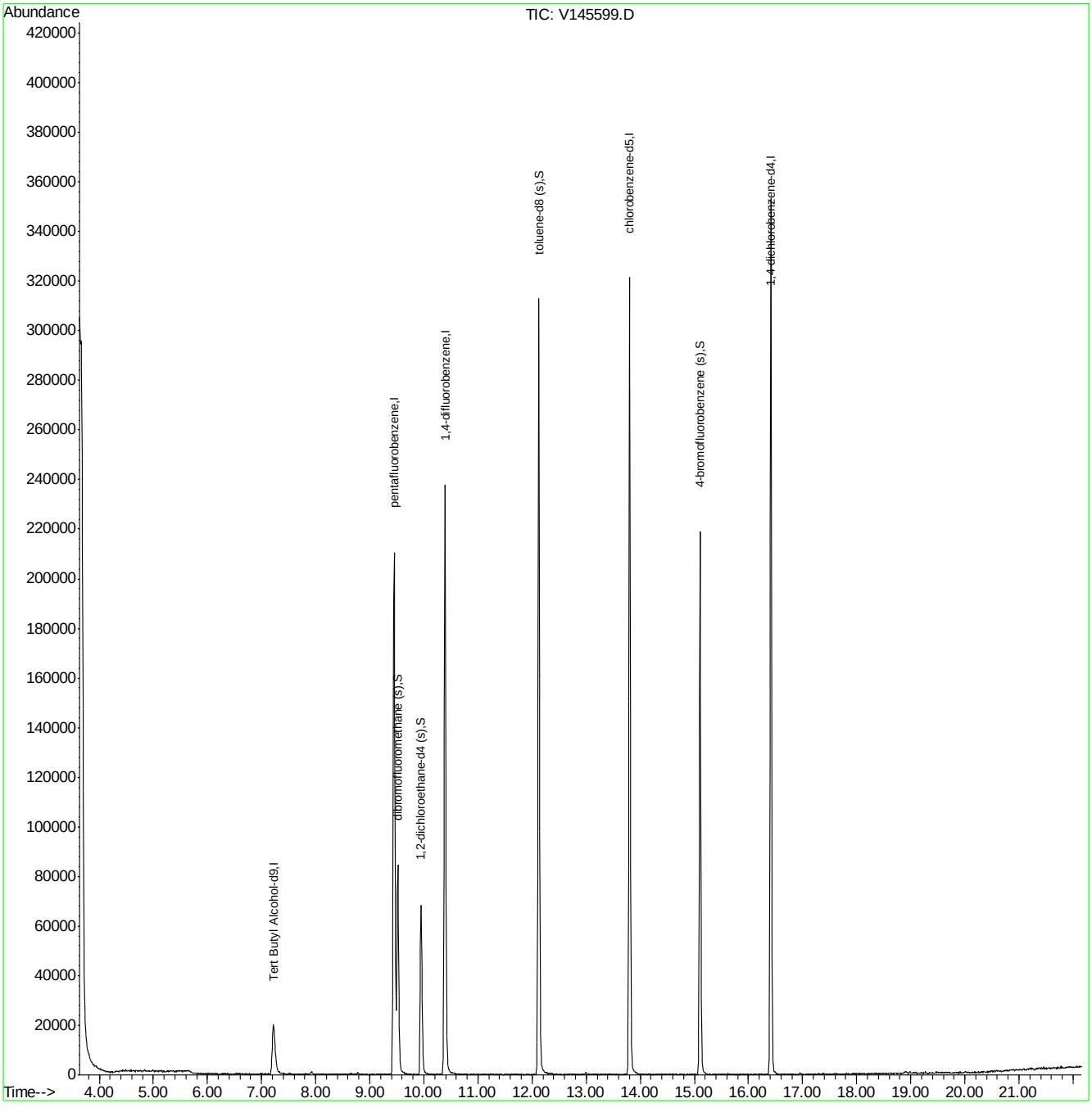
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145599.D
Acq On : 23 Jun 2014 11:41 am
Operator : KingC
Sample : mb
Misc : MS69393,VV6207,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 24 09:46:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



MVS6196.M Tue Jun 24 10:30:29 2014 MSV

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147664.D
Acq On : 20 Jun 2014 9:55 am
Operator : KingC
Sample : bs
Misc : MS69334,VX6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 20 10:21:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.54	65	71338	500.00	ug/L	0.00
5) pentafluorobenzene	10.25	168	206321	50.00	ug/L	-0.01
63) 1,4-difluorobenzene	11.44	114	233368	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	236571	50.00	ug/L	-0.01
109) 1,4-dichlorobenzene-d4	18.38	152	141219	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.33	113	70172	56.11	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 112.22%			
56) 1,2-dichloroethane-d4 (s)	10.87	65	70934	50.15	ug/L	-0.01
Spiked Amount 50.000	Range 65 - 123		Recovery = 100.30%			
86) toluene-d8 (s)	13.61	98	275206	59.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 118.58%			
112) 4-bromofluorobenzene (s)	17.12	95	109746	56.65	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 113.30%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	40498	220.10	ug/L	100
4) 1,4-dioxane	12.41	88	16830	1203.71	ug/L #	83
11) chlorodifluoromethane	3.87	51	50794	34.16	ug/L	97
12) dichlorodifluoromethane	3.84	85	78503	42.70	ug/L	99
15) chloromethane	4.19	50	107621	46.49	ug/L	99
16) vinyl chloride	4.46	62	100925	48.74	ug/L	99
18) bromomethane	5.15	94	68079	46.01	ug/L	98
19) chloroethane	5.34	64	51472	62.56	ug/L	99
21) trichlorofluoromethane	5.82	101	110021	52.31	ug/L	98
23) ethyl ether	6.25	74	32773	51.96	ug/L	99
27) acrolein	6.59	56	106210	465.10	ug/L #	100
28) 1,1-dichloroethene	6.73	96	58888	56.85	ug/L	98
29) acetone	6.85	58	5455	52.09	ug/L	99
30) allyl chloride	7.34	76	36545	62.01	ug/L	92
31) acetonitrile	7.37	40	55071	474.08	ug/L #	70
32) iodomethane	7.05	142	126573	54.06	ug/L	98
33) iso-butyl alcohol	10.67	43	35016	495.96	ug/L	94
34) carbon disulfide	7.17	76	226498	55.27	ug/L	99
35) methylene chloride	7.58	84	70361	50.10	ug/L	98
36) methyl acetate	7.34	43	40307	42.85	ug/L	99
37) methyl tert butyl ether	7.92	73	373670	94.22	ug/L	100
38) trans-1,2-dichloroethene	7.98	96	64352	52.60	ug/L	100
39) di-isopropyl ether	8.62	45	232308	47.67	ug/L	99
40) 2-butanone	9.59	72	6612	48.86	ug/L	78
41) 1,1-dichloroethane	8.68	63	124355	53.57	ug/L	98
42) chloroprene	8.79	53	85991	49.46	ug/L	97
43) acrylonitrile	8.00	53	100057	248.75	ug/L	99
44) vinyl acetate	8.67	86	9315	55.29	ug/L	96
45) ethyl tert-butyl ether	9.19	59	210103	45.93	ug/L	99
46) ethyl acetate	9.59	70	6142	49.32	ug/L	70
47) 2,2-dichloropropane	9.58	77	76094	38.93	ug/L	97
48) cis-1,2-dichloroethene	9.61	96	71279	49.76	ug/L	96
49) methyl acrylate	9.69	55	49567	51.71	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147664.D
Acq On : 20 Jun 2014 9:55 am
Operator : KingC
Sample : bs
Misc : MS69334,VX6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 20 10:21:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.76	54	81347	479.09 ug/L	100
51) tert-Butyl Formate	10.09	59	54675	47.71 ug/L	98
52) bromochloromethane	10.00	128	35255	49.92 ug/L	97
53) tetrahydrofuran	10.03	72	7762	51.77 ug/L	95
54) chloroform	10.08	83	117284	49.57 ug/L	99
57) freon 113	6.67	151	51620	49.27 ug/L	98
58) methacrylonitrile	9.96	41	36858	49.97 ug/L	95
59) 1,1,1-trichloroethane	10.35	97	104980	54.52 ug/L	99
60) cyclohexane	10.41	84	94598	54.68 ug/L	99
62) iso-octane	10.87	57	201580	42.27 ug/L	97
65) epichlorohydrin	13.16	57	27288	238.78 ug/L	100
66) n-butyl alcohol	11.66	56	104704	2586.48 ug/L	96
67) carbon tetrachloride	10.59	117	94348	58.24 ug/L	97
68) 1,1-dichloropropene	10.58	75	82949	53.79 ug/L	97
69) hexane	8.29	57	702	0.47 ug/L	94
70) benzene	10.93	78	259390	51.51 ug/L	98
71) tert-amyl methyl ether	10.95	73	200039	47.87 ug/L	99
72) heptane	11.11	57	37350	42.46 ug/L	94
73) isopropyl acetate	10.86	43	167228	51.28 ug/L	100
74) 1,2-dichloroethane	10.99	62	82497	51.90 ug/L	97
75) trichloroethene	11.86	130	69102	55.32 ug/L	97
79) 2-chloroethyl vinyl ether	12.98	63	159838	254.27 ug/L	99
80) methyl methacrylate	12.26	69	39970	51.74 ug/L	98
81) 1,2-dichloropropane	12.24	63	69258	53.85 ug/L	99
82) dibromomethane	12.47	93	38433	52.23 ug/L	94
83) methylcyclohexane	12.10	83	98861	50.14 ug/L	96
84) bromodichloromethane	12.64	83	91200	51.32 ug/L	97
85) cis-1,3-dichloropropene	13.25	75	104661	46.30 ug/L	98
87) 4-methyl-2-pentanone	13.40	58	25249	52.17 ug/L	99
88) toluene	13.71	92	165025	50.74 ug/L	98
89) 3-methyl-1-butanol	13.45	55	67489	995.84 ug/L	99
90) trans-1,3-dichloropropene	14.02	75	95011	45.63 ug/L	97
91) ethyl methacrylate	14.01	69	81641	50.95 ug/L	98
92) 1,1,2-trichloroethane	14.31	83	47235	49.12 ug/L	97
93) 2-hexanone	14.55	58	25082	50.85 ug/L	97
95) 3,3-Dimethyl-1-butanol	14.79	57	75216	495.63 ug/L	99
96) tetrachloroethene	14.47	164	64322	52.22 ug/L	97
97) 1,3-dichloropropane	14.55	76	92911	48.28 ug/L	98
98) butyl acetate	14.64	56	45023	44.27 ug/L	97
99) dibromochloromethane	14.89	129	75156	50.20 ug/L	99
100) 1,2-dibromoethane	15.08	107	59359	48.63 ug/L	99
102) chlorobenzene	15.68	112	199917	48.43 ug/L	98
103) 1,1,1,2-tetrachloroethane	15.77	131	76583	49.76 ug/L	98
104) ethylbenzene	15.75	91	333902	51.13 ug/L	99
105) m,p-xylene	15.89	106	258957	103.03 ug/L	97
106) o-xylene	16.44	106	130616	48.92 ug/L	98
107) styrene	16.46	104	223284	49.98 ug/L	98
108) bromoform	16.80	173	58926	48.27 ug/L	99
110) isopropylbenzene	16.86	105	345213	49.04 ug/L	100
113) bromobenzene	17.33	156	101962	46.09 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147664.D
Acq On : 20 Jun 2014 9:55 am
Operator : KingC
Sample : bs
Misc : MS69334,VX6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 20 10:21:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

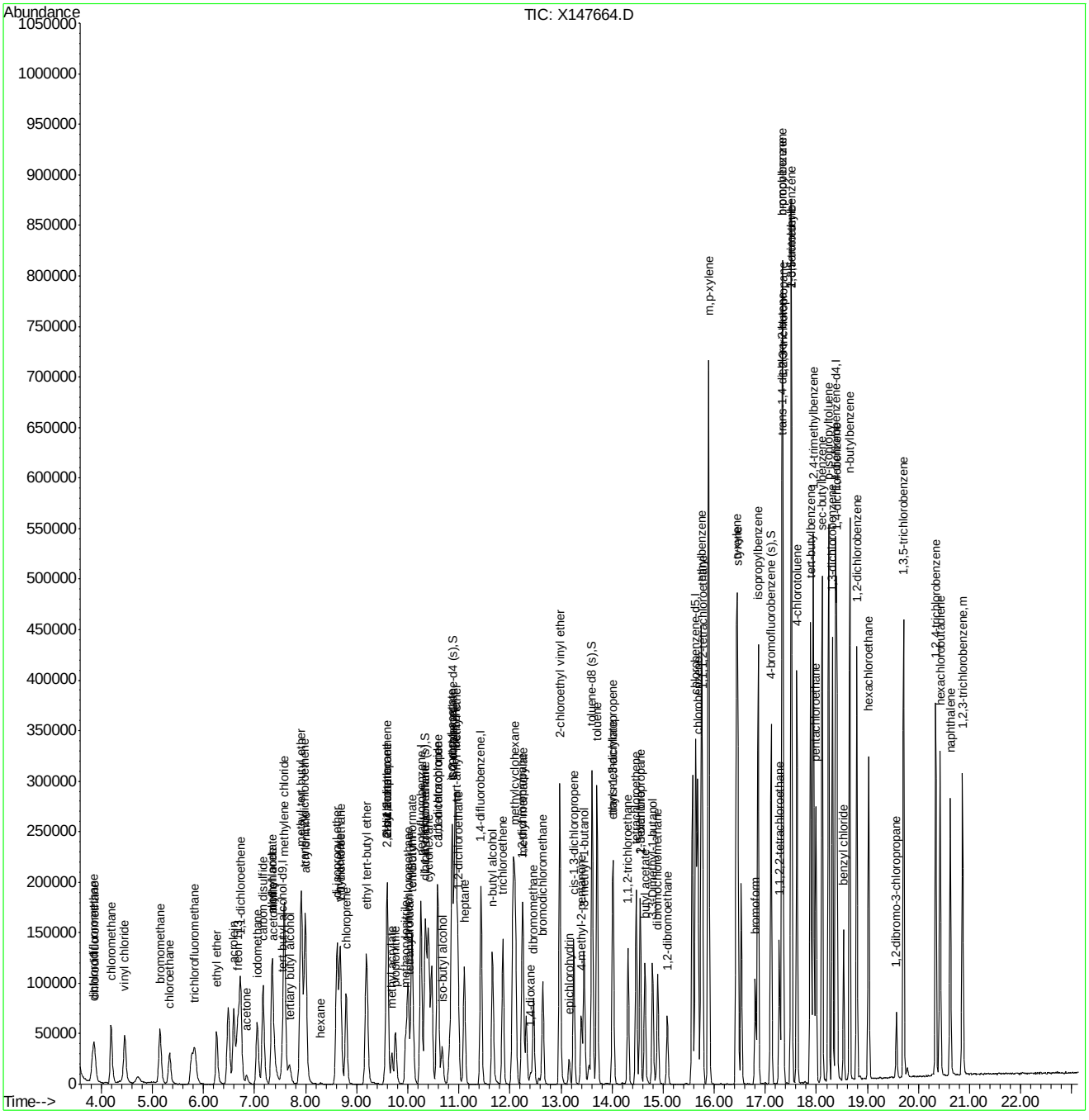
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.27	83	83415	43.23 ug/L	99
115) trans-1,4-dichloro-2-buten	17.32	53	22237	42.55 ug/L	99
116) 1,2,3-trichloropropane	17.35	110	20514	45.82 ug/L	96
117) n-propylbenzene	17.34	91	419936	50.90 ug/L	99
119) 2-chlorotoluene	17.51	126	89926	47.64 ug/L	98
120) 4-chlorotoluene	17.62	91	252483	45.78 ug/L	99
121) 1,3,5-trimethylbenzene	17.51	105	299181	47.66 ug/L	99
122) tert-butylbenzene	17.89	119	263607	48.28 ug/L	99
123) pentachloroethane	17.99	167	65071	48.59 ug/L	99
124) 1,2,4-trimethylbenzene	17.94	105	313952	49.05 ug/L	100
126) sec-butylbenzene	18.11	105	399491	48.75 ug/L	99
127) 1,3-dichlorobenzene	18.31	146	192440	44.86 ug/L	99
128) p-isopropyltoluene	18.24	119	348972	48.76 ug/L	99
129) 1,4-dichlorobenzene	18.40	146	194289	44.50 ug/L	98
130) 1,2-dichlorobenzene	18.79	146	188603	45.55 ug/L	100
131) benzyl chloride	18.53	91	104010	27.36 ug/L	99
133) n-butylbenzene	18.65	92	172434	49.94 ug/L	97
135) 1,2-dibromo-3-chloropropan	19.57	75	15987	45.24 ug/L	82
136) 1,3,5-trichlorobenzene	19.71	180	170999	52.02 ug/L	99
137) hexachlorobutadiene	20.43	225	89506	51.37 ug/L	99
138) naphthalene	20.62	128	244136	49.34 ug/L	100
139) 1,2,4-trichlorobenzene	20.34	180	143030	56.29 ug/L	98
140) 1,2,3-trichlorobenzene	20.86	180	119096	50.88 ug/L	99
141) hexachloroethane	19.02	201	73755	50.25 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147664.D
Acq On : 20 Jun 2014 9:55 am
Operator : KingC
Sample : bs
Misc : MS69334,VX6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 20 10:21:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145536.D
Acq On : 20 Jun 2014 10:32 am
Operator : KingC
Sample : bs
Misc : MS69292,VV6205,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 12:27:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	85501	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	201206	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	265055	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	236492	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	129232	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.51	113	72896	53.38	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.76%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	73781	51.95	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 103.90%			
71) toluene-d8 (s)	12.12	98	279440	52.95	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 105.90%			
94) 4-bromofluorobenzene (s)	15.11	95	104958	48.86	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 97.72%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.34	59	51325	274.64	ug/L	91
3) 1,4-dioxane	11.14	88	21464	1152.16	ug/L	99
6) chlorodifluoromethane	4.02	51	61500	37.59	ug/L	95
7) dichlorodifluoromethane	4.00	85	99774	47.23	ug/L	97
8) chloromethane	4.33	50	121439	49.80	ug/L	99
9) vinyl chloride	4.56	62	120809	45.93	ug/L	99
10) bromomethane	5.18	96	73183	56.41	ug/L	99
11) chloroethane	5.33	64	69872	69.72	ug/L	97
12) trichlorofluoromethane	5.75	101	134295	58.32	ug/L	95
13) ethyl ether	6.15	74	44044	57.78	ug/L	91
14) 2-chloropropane	6.34	43	142847	52.61	ug/L	97
15) acrolein	6.41	56	138308	497.35	ug/L	95
16) freon 113	6.52	151	57896	57.61	ug/L	99
17) 1,1-dichloroethene	6.57	96	75720	55.14	ug/L	93
18) acetone	6.62	43	22940	59.32	ug/L	91
19) iso-butyl alcohol	10.02	74	25969	555.95	ug/L	98
20) allyl chloride	7.08	76	46484	58.76	ug/L	95
21) acetonitrile	7.08	41	214828	559.96	ug/L	92
22) iodomethane	6.85	142	142721	53.12	ug/L	99
23) carbon disulfide	6.98	76	282266	53.90	ug/L	99
24) methylene chloride	7.28	84	87013	46.58	ug/L	98
25) 1-chloropropane	7.31	42	137530	49.91	ug/L	99
26) methyl acetate	7.06	43	46054	55.56	ug/L	97
27) methyl tert butyl ether	7.58	73	458498	109.22	ug/L	99
28) trans-1,2-dichloroethene	7.64	96	82919	51.74	ug/L	98
29) di-isopropyl ether	8.15	45	251183	51.86	ug/L	99
30) 2-butanone	8.91	72	8360	56.78	ug/L	81
31) 1,1-dichloroethane	8.21	63	151841	54.52	ug/L	99
32) chloroprene	8.31	53	101666	44.08	ug/L	98
33) acrylonitrile	7.60	53	127543	296.14	ug/L	98
34) vinyl acetate	8.18	86	12255	58.07	ug/L	93
35) ethyl tert-butyl ether	8.62	59	241002	53.21	ug/L	99
36) ethyl acetate	8.92	45	9159	55.62	ug/L #	83

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145536.D
Acq On : 20 Jun 2014 10:32 am
Operator : KingC
Sample : bs
Misc : MS69292,VV6205,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 12:27:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.94	77	91540	40.32	ug/L		99
38) cis-1,2-dichloroethene	8.94	96	89460	53.88	ug/L		98
39) propionitrile	9.02	54	98475	625.71	ug/L		95
40) methyl acrylate	9.00	85	10043	55.55	ug/L	#	93
41) methacrylonitrile	9.20	67	27061	59.94	ug/L		98
42) bromochloromethane	9.26	128	41556	56.59	ug/L		92
43) tetrahydrofuran	9.30	42	24134	57.26	ug/L		96
44) chloroform	9.31	83	145233	55.00	ug/L		97
45) tert-Butyl Formate	9.34	59	59077	57.35	ug/L		98
48) 1,1,1-trichloroethane	9.57	97	125126	56.88	ug/L		96
49) Cyclohexane	9.64	84	120958	57.03	ug/L		98
51) methylcyclohexane	10.97	83	123338	44.54	ug/L		98
52) epichlorohydrin	11.72	57	31856	283.31	ug/L		100
53) n-butyl alcohol	10.52	56	125845	3086.05	ug/L		96
54) carbon tetrachloride	9.77	117	112912	57.02	ug/L		97
55) 1,1-dichloropropene	9.74	75	104531	51.14	ug/L		97
57) 2,2,4-Trimethylpentane	9.99	57	240983	39.27	ug/L		97
58) benzene	10.02	78	321850	51.51	ug/L		99
59) tert-amyl methyl ether	10.03	73	235843	54.00	ug/L		99
60) heptane	10.16	57	48085	40.90	ug/L		98
61) isopropyl acetate	10.04	61	13594	54.27	ug/L	#	85
62) 1,2-dichloroethane	10.04	62	98448	55.26	ug/L		96
63) trichloroethene	10.75	95	80679	53.79	ug/L		97
64) 2-chloroethyl vinyl ether	11.57	63	195753	293.80	ug/L		99
65) methyl methacrylate	11.02	100	18238	56.20	ug/L	#	94
66) 1,2-dichloropropane	11.03	63	84443	53.85	ug/L		98
67) dibromomethane	11.20	93	47086	55.71	ug/L		96
68) bromodichloromethane	11.33	83	109894	55.47	ug/L		99
69) 2-nitropropane	11.57	41	25544	64.72	ug/L		99
70) cis-1,3-dichloropropene	11.82	75	122630	50.58	ug/L		98
72) 4-methyl-2-pentanone	11.91	58	28836	62.00	ug/L		96
73) toluene	12.20	92	194577	51.79	ug/L		99
74) isoamyl alcohol	11.94	55	78548	1399.50	ug/L		98
75) trans-1,3-dichloropropene	12.43	75	107000	49.08	ug/L		98
76) ethyl methacrylate	12.41	69	89807	51.64	ug/L		99
77) 1,1,2-trichloroethane	12.67	83	56344	54.13	ug/L		98
78) 2-hexanone	12.85	58	25885	56.10	ug/L		89
80) tetrachloroethene	12.85	166	84431	54.78	ug/L		99
81) 1,3-dichloropropane	12.87	76	111411	54.37	ug/L		99
82) butyl acetate	12.92	73	17127	56.77	ug/L		96
83) 3,3-Dimethyl-1-Butanol	13.03	69	64660	581.35	ug/L		98
84) dibromochloromethane	13.16	129	79702	54.70	ug/L		98
85) 1,2-dibromoethane	13.33	107	67317	51.91	ug/L		96
86) chlorobenzene	13.83	112	221246	51.37	ug/L		99
87) 1,1,1,2-tetrachloroethane	13.90	131	84631	52.71	ug/L		97
88) ethylbenzene	13.89	91	375571	53.41	ug/L		99
89) m,p-xylene	14.01	106	287786	105.45	ug/L		97
90) o-xylene	14.48	106	143917	52.30	ug/L		99
91) styrene	14.50	104	245399	53.86	ug/L		98
92) bromoform	14.81	173	55250	55.73	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145536.D
Acq On : 20 Jun 2014 10:32 am
Operator : KingC
Sample : bs
Misc : MS69292,VV6205,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 12:27:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) cyclohexanone	15.07	55	28393	140.72	ug/L	97
96) isopropylbenzene	14.86	105	378982	54.31	ug/L	100
97) 1,1,2,2-tetrachloroethane	15.23	83	92543	51.44	ug/L	98
98) trans-1,4-dichloro-2-buten	15.27	53	21959	50.11	ug/L	92
99) 1,2,3-trichloropropane	15.31	110	23752	54.15	ug/L	93
100) bromobenzene	15.32	156	99137	53.57	ug/L	100
101) n-propylbenzene	15.32	91	460738	54.12	ug/L	99
102) 2-chlorotoluene	15.50	126	93628	51.06	ug/L	98
103) 4-chlorotoluene	15.61	91	270049	50.17	ug/L	98
104) 1,3,5-trimethylbenzene	15.49	105	315294	50.53	ug/L	99
105) tert-butylbenzene	15.88	119	277995	53.19	ug/L	99
106) pentachloroethane	15.99	167	64089	54.28	ug/L	98
107) 1,2,4-trimethylbenzene	15.94	105	331147	53.21	ug/L	99
108) sec-butylbenzene	16.12	105	424415	51.02	ug/L	100
109) p-isopropyltoluene	16.26	119	357246	51.85	ug/L	99
110) 1,3-dichlorobenzene	16.35	146	191089	49.06	ug/L	98
111) 1,4-dichlorobenzene	16.44	146	194047	49.99	ug/L	98
112) 1,2-dichlorobenzene	16.88	146	186399	50.00	ug/L	100
113) Benzyl Chloride	16.57	91	106685	33.43	ug/L	100
115) n-butylbenzene	16.72	92	186083	50.84	ug/L	98
116) hexachloroethane	17.17	201	61329	48.19	ug/L	99
117) 1,2-dibromo-3-chloropropan	17.75	157	21803	53.51	ug/L	98
118) 1,3,5-trichlorobenzene	17.93	180	159874	48.43	ug/L	100
119) 1,2,4-trichlorobenzene	18.65	180	149477	50.07	ug/L	98
120) hexachlorobutadiene	18.77	225	72799	49.05	ug/L	98
121) naphthalene	18.97	128	337215	54.75	ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	142590	52.40	ug/L	99

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

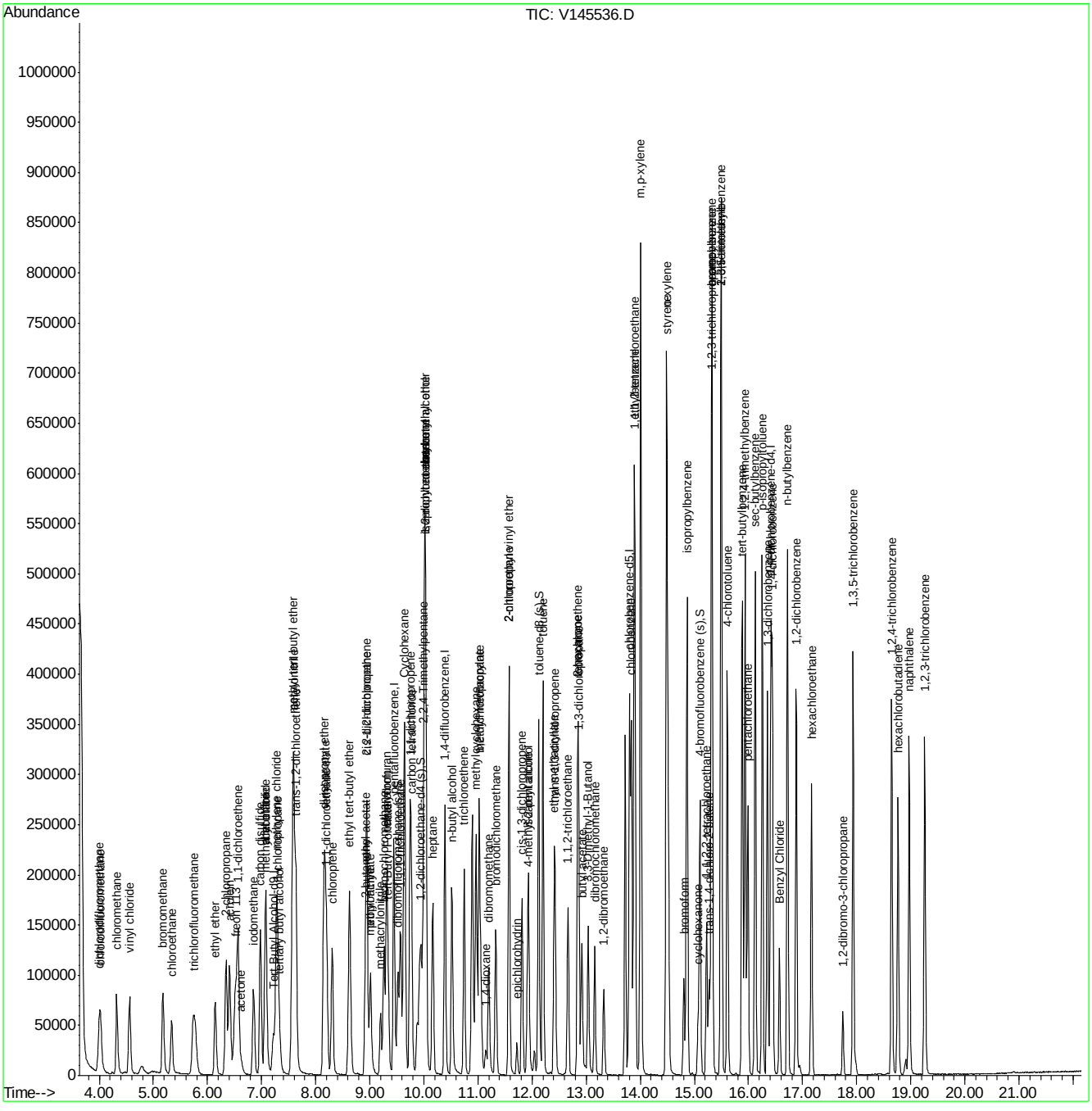
7.3.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145536.D
Acq On : 20 Jun 2014 10:32 am
Operator : KingC
Sample : bs
Misc : MS69292,VV6205,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 12:27:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147701.D
Acq On : 21 Jun 2014 12:20 pm
Operator : KingC
Sample : bs2
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 09:45:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	65801	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	198931	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	239358	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	242430	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	145863	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	69803	57.89	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 115.78%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	71141	52.17	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 104.34%			
86) toluene-d8 (s)	13.62	98	280461	58.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 117.82%			
112) 4-bromofluorobenzene (s)	17.12	95	112710	56.31	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 112.62%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	39391	232.09	ug/L	100
4) 1,4-dioxane	12.42	88	17424	1351.05	ug/L #	84
11) chlorodifluoromethane	3.87	51	60662	43.20	ug/L	96
12) dichlorodifluoromethane	3.84	85	94141	53.11	ug/L	97
15) chloromethane	4.20	50	114183	51.15	ug/L	98
16) vinyl chloride	4.47	62	105493	52.84	ug/L	97
18) bromomethane	5.15	94	72773	51.01	ug/L	100
19) chloroethane	5.34	64	43485	54.82	ug/L	98
21) trichlorofluoromethane	5.82	101	110604	54.54	ug/L	99
23) ethyl ether	6.26	74	32087	52.77	ug/L	97
27) acrolein	6.60	56	115190	523.16	ug/L #	100
28) 1,1-dichloroethene	6.73	96	56764	56.84	ug/L	98
29) acetone	6.84	58	4483	44.40	ug/L	91
30) allyl chloride	7.35	76	36593	64.40	ug/L	94
31) acetonitrile	7.38	40	56716	506.38	ug/L	94
32) iodomethane	7.06	142	124309	55.06	ug/L	95
33) iso-butyl alcohol	10.68	43	33971	499.04	ug/L	96
34) carbon disulfide	7.17	76	218131	55.21	ug/L	99
35) methylene chloride	7.59	84	66537	49.04	ug/L	98
36) methyl acetate	7.35	43	40556	44.71	ug/L	99
37) methyl tert butyl ether	7.92	73	375713	98.25	ug/L	100
38) trans-1,2-dichloroethene	7.99	96	62172	52.71	ug/L	98
39) di-isopropyl ether	8.62	45	236788	50.39	ug/L	98
40) 2-butanone	9.59	72	6445	49.39	ug/L	68
41) 1,1-dichloroethane	8.69	63	119090	53.21	ug/L	98
42) chloroprene	8.79	53	84816	50.60	ug/L	98
43) acrylonitrile	8.01	53	97140	250.47	ug/L	99
44) vinyl acetate	8.68	86	9400	57.87	ug/L	96
45) ethyl tert-butyl ether	9.20	59	215437	48.85	ug/L	99
46) ethyl acetate	9.60	70	6220	51.81	ug/L	97
47) 2,2-dichloropropane	9.58	77	100562	53.36	ug/L	96
48) cis-1,2-dichloroethene	9.61	96	69708	50.47	ug/L	94
49) methyl acrylate	9.69	55	48436	52.41	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147701.D
Acq On : 21 Jun 2014 12:20 pm
Operator : KingC
Sample : bs2
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 09:45:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.76	54	79382	484.89 ug/L	100
51) tert-Butyl Formate	10.10	59	56381	51.02 ug/L	99
52) bromochloromethane	10.01	128	34378	50.48 ug/L	98
53) tetrahydrofuran	10.03	72	7567	52.34 ug/L	97
54) chloroform	10.08	83	114855	50.34 ug/L	98
57) freon 113	6.68	151	55917	55.35 ug/L	96
58) methacrylonitrile	9.97	41	36229	50.94 ug/L	99
59) 1,1,1-trichloroethane	10.35	97	101762	54.81 ug/L	99
60) cyclohexane	10.41	84	92010	55.16 ug/L	99
62) iso-octane	10.88	57	230903	50.22 ug/L	100
65) epichlorohydrin	13.17	57	29007	247.47 ug/L	98
66) n-butyl alcohol	11.67	56	103211	2485.79 ug/L	98
67) carbon tetrachloride	10.59	117	92266	55.53 ug/L	98
68) 1,1-dichloropropene	10.58	75	81678	51.64 ug/L	98
69) hexane	8.30	57	87405	56.58 ug/L	98
70) benzene	10.93	78	256115	49.59 ug/L	100
71) tert-amyl methyl ether	10.96	73	202831	47.32 ug/L	100
72) heptane	11.11	57	46152	51.16 ug/L	97
73) isopropyl acetate	10.87	43	173290	51.81 ug/L	98
74) 1,2-dichloroethane	11.00	62	80691	49.49 ug/L	98
75) trichloroethene	11.86	130	70284	54.86 ug/L	98
79) 2-chloroethyl vinyl ether	12.98	63	163550	253.67 ug/L	99
80) methyl methacrylate	12.27	69	39688	50.09 ug/L	96
81) 1,2-dichloropropane	12.25	63	69566	52.73 ug/L	100
82) dibromomethane	12.47	93	38419	50.90 ug/L	95
83) methylcyclohexane	12.11	83	102547	50.70 ug/L	96
84) bromodichloromethane	12.65	83	92558	50.78 ug/L	98
85) cis-1,3-dichloropropene	13.26	75	111082	47.91 ug/L	98
87) 4-methyl-2-pentanone	13.40	58	24687	49.73 ug/L	99
88) toluene	13.71	92	166061	49.78 ug/L	99
89) 3-methyl-1-butanol	13.45	55	66173	951.98 ug/L	98
90) trans-1,3-dichloropropene	14.03	75	99884	46.77 ug/L	99
91) ethyl methacrylate	14.01	69	80589	49.03 ug/L	99
92) 1,1,2-trichloroethane	14.31	83	48204	48.87 ug/L	99
93) 2-hexanone	14.55	58	23855	47.15 ug/L	90
95) 3,3-Dimethyl-1-butanol	14.80	57	73081	469.92 ug/L	98
96) tetrachloroethene	14.47	164	64893	51.41 ug/L	99
97) 1,3-dichloropropane	14.55	76	93957	47.65 ug/L	98
98) butyl acetate	14.65	56	44112	42.33 ug/L	99
99) dibromochloromethane	14.90	129	75232	49.04 ug/L	96
100) 1,2-dibromoethane	15.09	107	59648	47.69 ug/L	97
102) chlorobenzene	15.68	112	200277	47.35 ug/L	98
103) 1,1,1,2-tetrachloroethane	15.77	131	77176	48.94 ug/L	98
104) ethylbenzene	15.75	91	334618	50.00 ug/L	99
105) m,p-xylene	15.89	106	261293	101.45 ug/L	98
106) o-xylene	16.44	106	132739	48.51 ug/L	98
107) styrene	16.46	104	227955	49.79 ug/L	96
108) bromoform	16.81	173	59371	47.46 ug/L	99
110) isopropylbenzene	16.86	105	349202	48.02 ug/L	99
113) bromobenzene	17.34	156	103411	45.26 ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147701.D
Acq On : 21 Jun 2014 12:20 pm
Operator : KingC
Sample : bs2
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 09:45:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	82633	41.46 ug/L	99
115) trans-1,4-dichloro-2-buten	17.33	53	24644	45.66 ug/L	91
116) 1,2,3-trichloropropane	17.36	110	20706	44.77 ug/L #	85
117) n-propylbenzene	17.34	91	431636	50.65 ug/L	99
119) 2-chlorotoluene	17.51	126	91711	47.03 ug/L	96
120) 4-chlorotoluene	17.62	91	258263	45.33 ug/L	99
121) 1,3,5-trimethylbenzene	17.51	105	302733	46.69 ug/L	99
122) tert-butylbenzene	17.89	119	269095	47.71 ug/L	97
123) pentachloroethane	17.99	167	66281	47.92 ug/L	97
124) 1,2,4-trimethylbenzene	17.94	105	321361	48.61 ug/L	99
126) sec-butylbenzene	18.11	105	410246	48.47 ug/L	99
127) 1,3-dichlorobenzene	18.32	146	197305	44.53 ug/L	98
128) p-isopropyltoluene	18.24	119	358712	48.52 ug/L	99
129) 1,4-dichlorobenzene	18.40	146	199894	44.32 ug/L	99
130) 1,2-dichlorobenzene	18.79	146	192061	44.91 ug/L	99
131) benzyl chloride	18.53	91	176371	44.91 ug/L	100
133) n-butylbenzene	18.65	92	183168	51.36 ug/L	98
135) 1,2-dibromo-3-chloropropan	19.57	75	15646	42.86 ug/L	88
136) 1,3,5-trichlorobenzene	19.71	180	179887	52.98 ug/L	96
137) hexachlorobutadiene	20.43	225	95772	53.22 ug/L	99
138) naphthalene	20.63	128	244461	47.87 ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	151035	57.55 ug/L	98
140) 1,2,3-trichlorobenzene	20.87	180	123204	50.95 ug/L	99
141) hexachloroethane	19.02	201	73844	48.71 ug/L	99

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

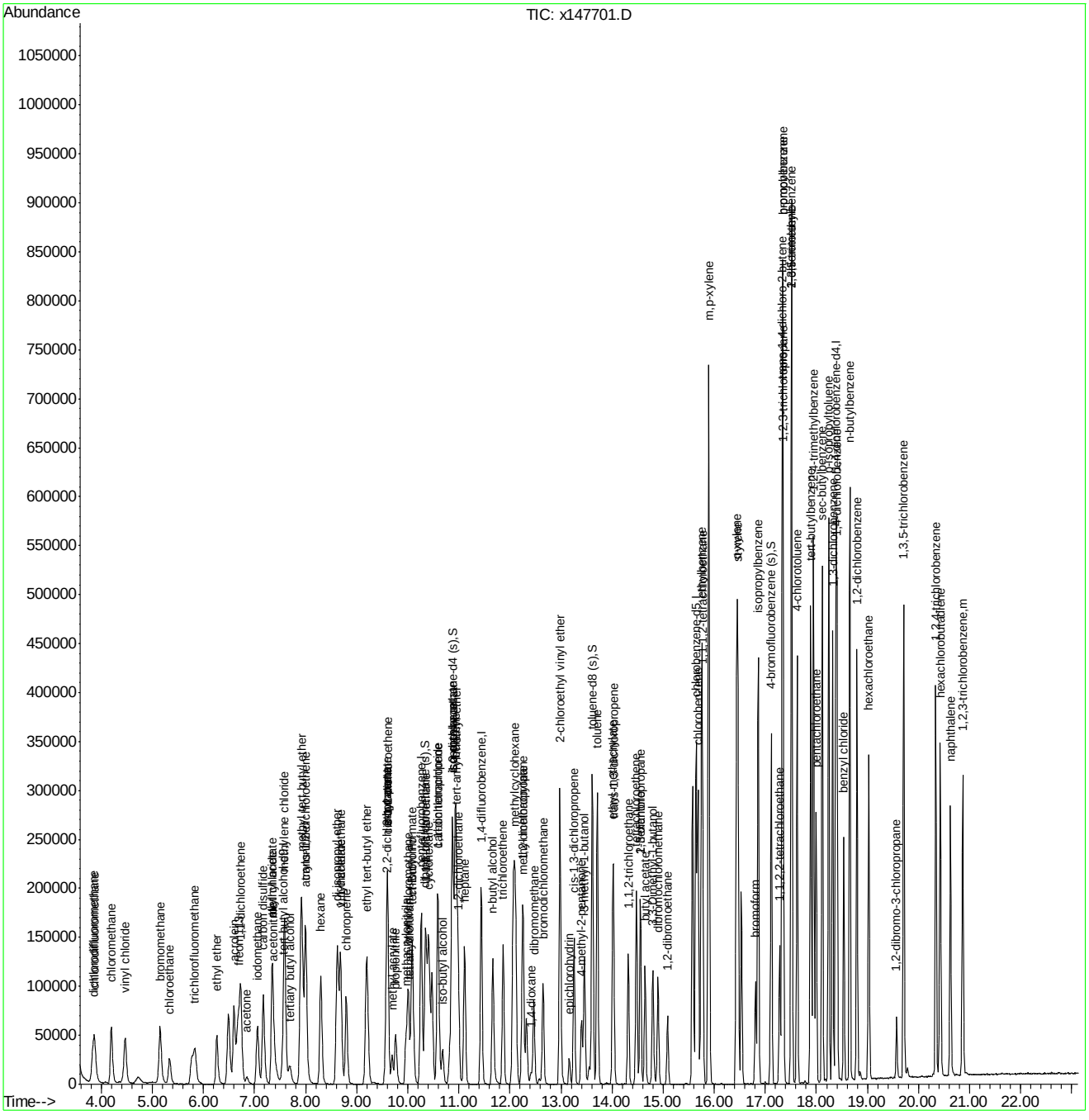
7.3.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : x147701.D
Acq On : 21 Jun 2014 12:20 pm
Operator : KingC
Sample : bs2
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 09:45:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



MX6381.M Mon Jun 23 09:45:27 2014 GCMSX

Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132085.D
Acq On : 22 Jun 2014 12:21 am
Operator : HeeEunA
Sample : bs
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 23 11:41:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	93522	500.00	ug/L	-0.01
5) pentafluorobenzene	10.78	168	245425	50.00	ug/L	-0.02
55) 1,4-difluorobenzene	11.75	114	278651	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	248953	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.58	152	145833	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.87	113	79371	47.98	ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 95.96%			
50) 1,2-dichloroethane-d4 (s)	11.32	65	82563	44.22	ug/L	-0.01
Spiked Amount 50.000	Range 72 - 123		Recovery = 88.44%			
79) toluene-d8 (s)	13.46	98	282178	49.51	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 99.02%			
104) 4-bromofluorobenzene (s)	16.33	95	105194	48.26	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 96.52%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.51	59	47549	282.07	ug/L	100
4) 1,4-dioxane	12.52	88	20755	1170.78	ug/L	99
8) chlorodifluoromethane	4.27	51	55006	37.21	ug/L	99
9) dichlorodifluoromethane	4.23	85	74356	38.83	ug/L	100
10) chloromethane	4.66	50	94879	41.33	ug/L	99
11) vinyl chloride	4.96	62	95415	44.47	ug/L	99
12) bromomethane	5.76	94	64741	43.64	ug/L	99
15) 2-CHLOROPROPANE	7.24	43	116018	44.48	ug/L	100
16) chloroethane	5.97	64	53208	55.50	ug/L	100
17) trichlorofluoromethane	6.50	101	110419	46.82	ug/L	97
19) 1-CHLOROPROPANE	8.40	42	121831	38.69	ug/L	97
20) ethyl ether	7.00	74	42696	49.97	ug/L	95
21) acrolein	7.38	56	158843	450.99	ug/L	100
22) 1,1-dichloroethene	7.50	96	69223	47.36	ug/L	99
23) acetone	7.65	43	26751	50.19	ug/L	98
24) allyl chloride	8.15	76	41082	54.46	ug/L	89
25) acetonitrile	8.22	40	52180	628.03	ug/L	99
26) iodomethane	7.85	142	144301	48.11	ug/L	99
27) iso-butyl alcohol	11.35	74	25550	492.74	ug/L	96
28) carbon disulfide	7.96	76	246881	46.65	ug/L	99
29) methylene chloride	8.39	84	80626	45.10	ug/L	96
30) methyl acetate	8.16	43	61675	46.36	ug/L	98
31) methyl tert butyl ether	8.70	73	477305	98.48	ug/L	98
32) trans-1,2-dichloroethene	8.78	61	102512	44.85	ug/L	95
33) di-isopropyl ether	9.35	45	242941	47.66	ug/L	99
34) 2-butanone	10.25	72	10020	50.51	ug/L #	10
35) 1,1-dichloroethane	9.44	63	138045	47.24	ug/L	99
36) chloroprene	9.53	53	93267	45.10	ug/L	96
37) acrylonitrile	8.83	53	162044	255.07	ug/L	98
38) vinyl acetate	9.43	86	15217	54.19	ug/L	73
39) ethyl tert-butyl ether	9.87	59	241719	47.76	ug/L	99
40) ethyl acetate	10.23	45	11393	50.87	ug/L	83
41) 2,2-dichloropropane	10.23	77	69265	30.83	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132085.D
Acq On : 22 Jun 2014 12:21 am
Operator : HeeEunA
Sample : bs
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 23 11:41:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) cis-1,2-dichloroethene	10.25	96	85080	46.88	ug/L	93
43) methylacrylate	10.32	85	13203	47.70	ug/L	96
44) propionitrile	10.41	54	127009	516.36	ug/L	97
45) bromochloromethane	10.60	128	46617	51.45	ug/L	89
46) tetrahydrofuran	10.62	42	28514	44.35	ug/L	98
47) chloroform	10.65	85	89579	47.49	ug/L	97
48) t-butyl formate	10.66	59	74231	51.10	ug/L	99
51) freon 113	7.44	151	59490	52.33	ug/L	97
52) methacrylonitrile	10.57	41	49653	47.01	ug/L	97
53) 1,1,1-trichloroethane	10.88	97	117629	48.87	ug/L	99
54) Cyclohexane	10.91	84	107731	45.76	ug/L	97
56) epichlorohydrin	13.12	57	41925	229.75	ug/L	98
57) n-butyl alcohol	11.93	56	130882	2738.54	ug/L	97
58) carbon tetrachloride	11.07	117	111354	52.16	ug/L	98
59) 1,1-dichloropropene	11.07	75	97415	47.17	ug/L	99
61) hexane	9.05	57	73967	41.16	ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.28	57	216905	39.59	ug/L	96
63) benzene	11.35	78	306472	49.68	ug/L	100
64) tert-amyl methyl ether	11.35	87	57225	51.09	ug/L	96
65) heptane	11.46	57	37041	34.01	ug/L	99
66) isopropyl acetate	11.28	43	204146	52.35	ug/L	98
67) 1,2-dichloroethane	11.41	62	102561	49.76	ug/L	100
69) trichloroethene	12.09	95	77578	48.61	ug/L	96
71) methyl methacrylate	12.38	69	57217	52.33	ug/L	90
72) 2-nitropropane	12.97	41	31571	47.45	ug/L	96
73) 2-chloroethyl vinyl ether	12.95	63	280634	258.72	ug/L	99
74) 1,2-dichloropropane	12.40	63	79781	48.88	ug/L	99
75) dibromomethane	12.58	93	53426	49.72	ug/L	92
76) methylcyclohexane	12.28	83	114939	45.48	ug/L	95
77) bromodichloromethane	12.71	83	112814	50.56	ug/L	100
78) cis-1,3-dichloropropene	13.18	75	120055	44.42	ug/L	96
80) 4-methyl-2-pentanone	13.28	58	34648	53.23	ug/L	95
81) toluene	13.54	92	185495	50.89	ug/L	98
82) 3-methyl-1-butanol	13.32	55	80063	1126.68	ug/L	96
83) trans-1,3-dichloropropene	13.79	75	109050	44.97	ug/L	95
84) ethyl methacrylate	13.73	69	105204	50.47	ug/L	95
85) 1,1,2-trichloroethane	14.02	83	62261	49.48	ug/L	97
86) 2-hexanone	14.19	58	33899	50.76	ug/L	90
88) tetrachloroethene	14.14	164	75516	52.39	ug/L	98
90) 1,3-dichloropropane	14.21	76	121885	51.01	ug/L	96
91) butyl acetate	14.23	56	55303	53.86	ug/L	96
92) 3,3-dimethyl-1-butanol	14.37	57	89562	583.22	ug/L	98
93) dibromochloromethane	14.50	129	95555	51.28	ug/L	99
94) 1,2-dibromoethane	14.66	107	81412	51.40	ug/L	98
95) chlorobenzene	15.12	112	218983	49.93	ug/L	97
96) 1,1,1,2-tetrachloroethane	15.19	131	91362	50.68	ug/L	98
97) ethylbenzene	15.16	91	359154	49.57	ug/L	99
98) m,p-xylene	15.27	106	279202	102.24	ug/L	96
99) o-xylene	15.73	106	141798	49.56	ug/L	99
100) styrene	15.74	104	236995	50.75	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132085.D
Acq On : 22 Jun 2014 12:21 am
Operator : HeeEunA
Sample : bs
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 23 11:41:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	16.07	173	78846	53.84 ug/L	99
103) isopropylbenzene	16.08	105	376446	51.55 ug/L	99
105) cyclohexanone	16.34	98	13260	133.52 ug/L	94
106) bromobenzene	16.55	156	110691	51.81 ug/L	97
107) 1,1,2,2-tetrachloroethane	16.46	83	111489	51.08 ug/L	99
108) trans-1,4-dichloro-2-buten	16.50	53	21849	37.21 ug/L	94
109) 1,2,3-trichloropropane	16.55	110	30095	51.65 ug/L	99
110) n-propylbenzene	16.51	120	100604	53.50 ug/L	97
111) 2-chlorotoluene	16.70	126	94142	49.92 ug/L	98
112) 4-chlorotoluene	16.80	126	94783	49.71 ug/L	99
113) 1,3,5-trimethylbenzene	16.67	105	320291	49.95 ug/L	99
114) tert-butylbenzene	17.04	119	291407	53.18 ug/L	98
115) pentachloroethane	17.17	167	71362	51.78 ug/L	98
116) 1,2,4-trimethylbenzene	17.10	105	333422	53.77 ug/L	100
117) sec-butylbenzene	17.27	105	427488	51.48 ug/L	100
118) 1,3-dichlorobenzene	17.52	146	204886	49.69 ug/L	99
119) p-isopropyltoluene	17.40	119	365344	50.51 ug/L	98
120) 1,4-dichlorobenzene	17.60	146	210075	49.26 ug/L	99
121) 1,2-dichlorobenzene	18.04	146	209027	51.16 ug/L	99
122) benzyl chloride	17.75	91	112199	24.48 ug/L	98
123) n-butylbenzene	17.85	92	178324	50.16 ug/L	97
124) 1,2-dibromo-3-chloropropan	18.92	75	23099	53.74 ug/L	91
125) 1,3,5-TRICHLOROBENZENE	19.07	180	193043	49.78 ug/L	100
126) 1,2,4-trichlorobenzene	19.78	180	187876	51.49 ug/L	98
127) hexachlorobutadiene	19.86	225	97769	51.05 ug/L	98
128) naphthalene	20.11	128	423815	54.72 ug/L	100
129) 1,2,3-trichlorobenzene	20.38	180	177852	53.80 ug/L	99
130) hexachloroethane	18.30	201	79127	55.67 ug/L	99

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

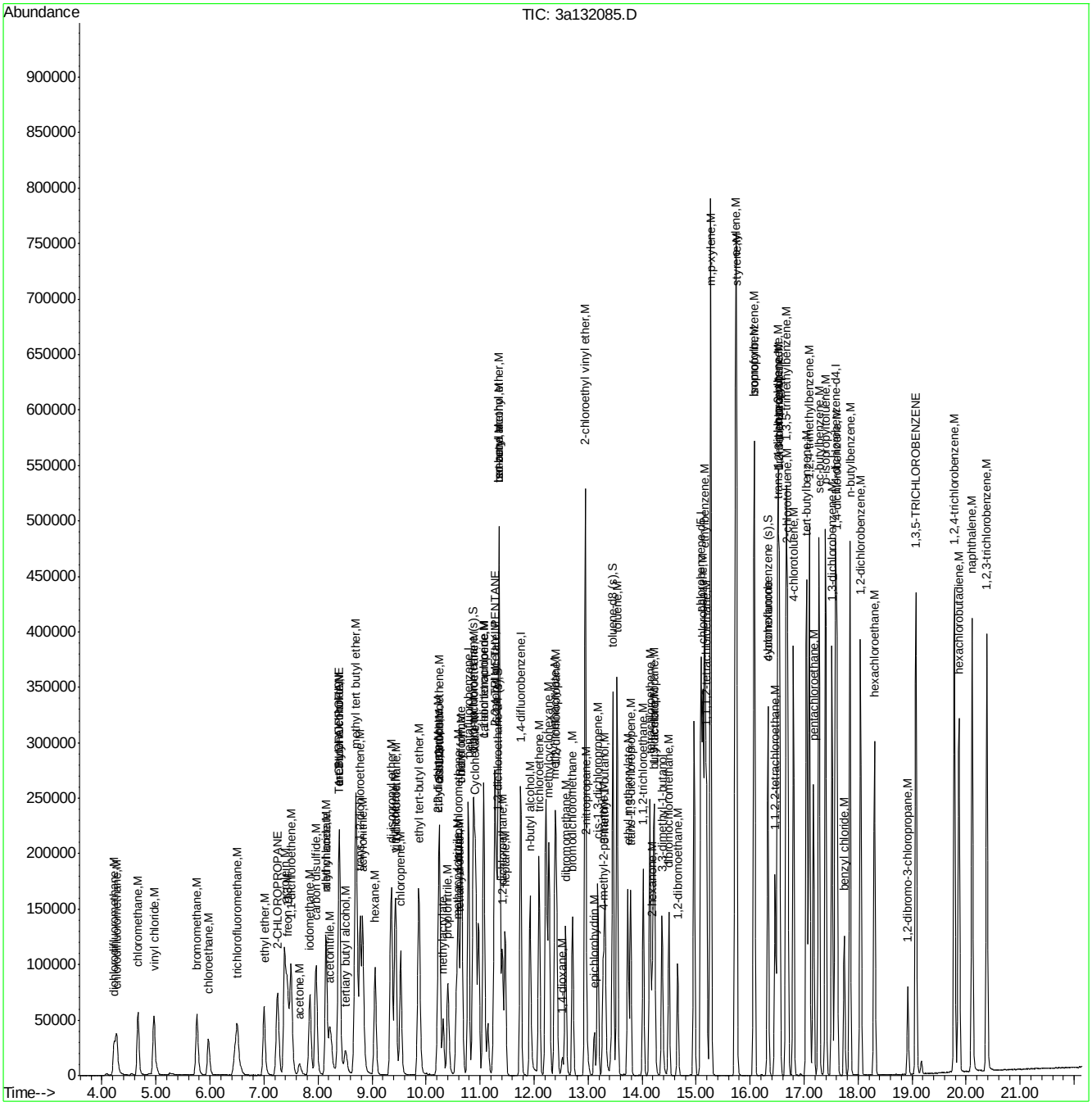
7.3.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132085.D
Acq On : 22 Jun 2014 12:21 am
Operator : HeeEunA
Sample : bs
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 23 11:41:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206659.D
Acq On : 22 Jun 2014 5:08 pm
Operator : CourtneM
Sample : bs
Misc : MS69379,VA7793,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 24 08:08:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.485	65	87911	500.00	ug/L	0.00
4) pentafluorobenzene	9.823	168	195792	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.786	114	265099	50.00	ug/L	0.00
83) chlorobenzene-d5	14.232	117	246792	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.863	152	145037	50.00	ug/L	0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.886	113	85365	53.68	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 107.36%			
47) 1,2-dichloroethane-d4 (s)	10.325	65	92725	53.32	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 106.64%			
75) toluene-d8 (s)	12.538	98	297660	53.74	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 107.48%			
101) 4-bromofluorobenzene (s)	15.540	95	124015	52.57	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 105.14%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.549	88	19575	1107.28	ug/L	96
3) tertiary butyl alcohol	7.601	59	52117	237.92	ug/L	100
6) chlorodifluoromethane	3.966	51	63805	52.64	ug/L	99
7) dichlorodifluoromethane	3.939	85	104231	62.13	ug/L	90
8) chloromethane	4.269	50	126470	56.44	ug/L	96
9) vinyl chloride	4.536	62	104710	56.14	ug/L	99
10) bromomethane	5.200	94	67745	51.92	ug/L	96
11) chloroethane	5.388	64	45597	54.71	ug/L	98
13) trichlorofluoromethane	5.896	101	126083	67.34	ug/L	92
15) ethyl ether	6.293	74	42418	51.48	ug/L	96
17) acrolein	6.575	56	165898	578.12	ug/L	99
18) freon 113	6.722	151	54910	52.86	ug/L	97
19) 1,1-dichloroethene	6.748	96	68831	52.64	ug/L	93
20) acetone	6.811	58	6945	50.23	ug/L #	71
21) allyl chloride	7.308	76	39667	51.71	ug/L #	89
22) acetonitrile	7.292	40	71902	577.46	ug/L	95
23) iodomethane	7.041	142	148766	53.00	ug/L	95
24) carbon disulfide	7.166	76	256548	53.72	ug/L	97
25) methylene chloride	7.517	84	86383	48.33	ug/L	89
26) methyl acetate	7.292	43	58482	51.20	ug/L	97
27) methyl tert butyl ether	7.852	73	481519	106.27	ug/L	100
28) trans-1,2-dichloroethene	7.904	96	77158	53.81	ug/L	92
29) hexane	8.202	57	100358	54.62	ug/L	95
30) di-isopropyl ether	8.479	45	302666	50.86	ug/L	79
31) t-butyl formate	9.698	59	73236	54.00	ug/L	94
32) ethyl tert-butyl ether	8.966	59	267233	49.25	ug/L	99
33) 2-butanone	9.253	72	8860	52.65	ug/L #	72
34) 1,1-dichloroethane	8.505	63	157001	56.09	ug/L	99
35) chloroprene	8.610	53	106771	50.71	ug/L	95
36) acrylonitrile	7.867	53	146624	315.66	ug/L	99
37) vinyl acetate	8.490	86	11795	53.50	ug/L	74
38) ethyl acetate	9.269	45	10838	51.54	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206659.D
Acq On : 22 Jun 2014 5:08 pm
Operator : CourtneM
Sample : bs
Misc : MS69379,VA7793,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 24 08:08:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 2,2-dichloropropane	9.285	77	125000	58.22	ug/L	99
41) cis-1,2-dichloroethene	9.285	96	87650	54.34	ug/L	92
42) propionitrile	9.368	54	112592	612.20	ug/L	96
43) bromochloromethane	9.614	128	43963	54.82	ug/L	96
44) tetrahydrofuran	9.646	42	31583	55.98	ug/L	95
45) chloroform	9.677	83	153752	56.15	ug/L	97
48) methacrylonitrile	9.551	67	29995	56.43	ug/L	91
49) cyclohexane	9.996	84	107944	52.09	ug/L	87
50) 1,1,1-trichloroethane	9.928	97	126962	58.28	ug/L	95
52) tert-amyl methyl ether	10.420	73	240327	45.86	ug/L	96
55) epichlorohydrin	12.135	57	38316	267.74	ug/L	93
56) n-butyl alcohol	10.932	56	127557	2710.35	ug/L	89
57) carbon tetrachloride	10.137	117	119791	62.44	ug/L	97
58) 1,1-dichloropropene	10.116	75	108663	57.89	ug/L	98
59) benzene	10.393	78	311667	55.49	ug/L	96
60) Iso-octane	10.378	57	276133	49.18	ug/L	97
61) heptane	10.556	71	55776	49.58	ug/L	96
63) isopropyl acetate	10.315	43	175650	51.73	ug/L	98
64) 1,2-dichloroethane	10.420	62	119048	63.36	ug/L	98
65) trichloroethene	11.141	95	80548	56.73	ug/L	98
66) 2-nitropropane	11.983	41	34541	62.39	ug/L #	84
68) methylcyclohexane	11.361	83	116468	50.39	ug/L	96
69) 2-chloroethyl vinyl ether	11.999	63	238025	277.30	ug/L	98
70) methyl methacrylate	11.429	69	51252	56.66	ug/L	92
71) 1,2-dichloropropane	11.424	63	88681	56.13	ug/L	99
72) dibromomethane	11.602	93	51196	58.30	ug/L	97
73) bromodichloromethane	11.743	83	122855	59.72	ug/L	99
74) cis-1,3-dichloropropene	12.229	75	142946	55.99	ug/L	95
76) 4-methyl-2-pentanone	12.334	58	32089	58.08	ug/L	89
77) toluene	12.621	92	191286	50.42	ug/L	99
78) 3-methyl-1-butanol	12.365	55	83288	1013.65	ug/L	95
79) trans-1,3-dichloropropene	12.852	75	135557	57.86	ug/L	96
80) ethyl methacrylate	12.831	69	103943	53.41	ug/L	93
81) 1,1,2-trichloroethane	13.092	83	61048	53.86	ug/L	97
82) 2-hexanone	13.275	58	30464	56.57	ug/L	85
84) tetrachloroethene	13.265	164	70688	51.62	ug/L	97
85) 1,3-dichloropropane	13.291	76	121854	57.65	ug/L	98
86) butyl acetate	13.354	56	53541	51.94	ug/L	90
87) 3,3-dimethyl-1-butanol	13.474	57	92180	525.73	ug/L	95
88) dibromochloromethane	13.589	129	95846	56.40	ug/L	99
89) 1,2-dibromoethane	13.751	107	74576	54.73	ug/L	99
91) chlorobenzene	14.264	112	226823	53.75	ug/L	98
92) 1,1,1,2-tetrachloroethane	14.337	131	94508	57.03	ug/L	95
93) ethylbenzene	14.321	91	381122	54.41	ug/L	98
94) m,p-xylene	14.442	106	285488	106.55	ug/L	95
95) o-xylene	14.918	106	149517	53.68	ug/L	94
96) styrene	14.933	104	258449	53.04	ug/L	98
97) bromoform	15.242	173	75569	59.87	ug/L	97
99) isopropylbenzene	15.299	105	384022	52.91	ug/L	99
100) cyclohexanone	15.503	55	66387	370.46	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206659.D
Acq On : 22 Jun 2014 5:08 pm
Operator : CourtneM
Sample : bs
Misc : MS69379,VA7793,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 24 08:08:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

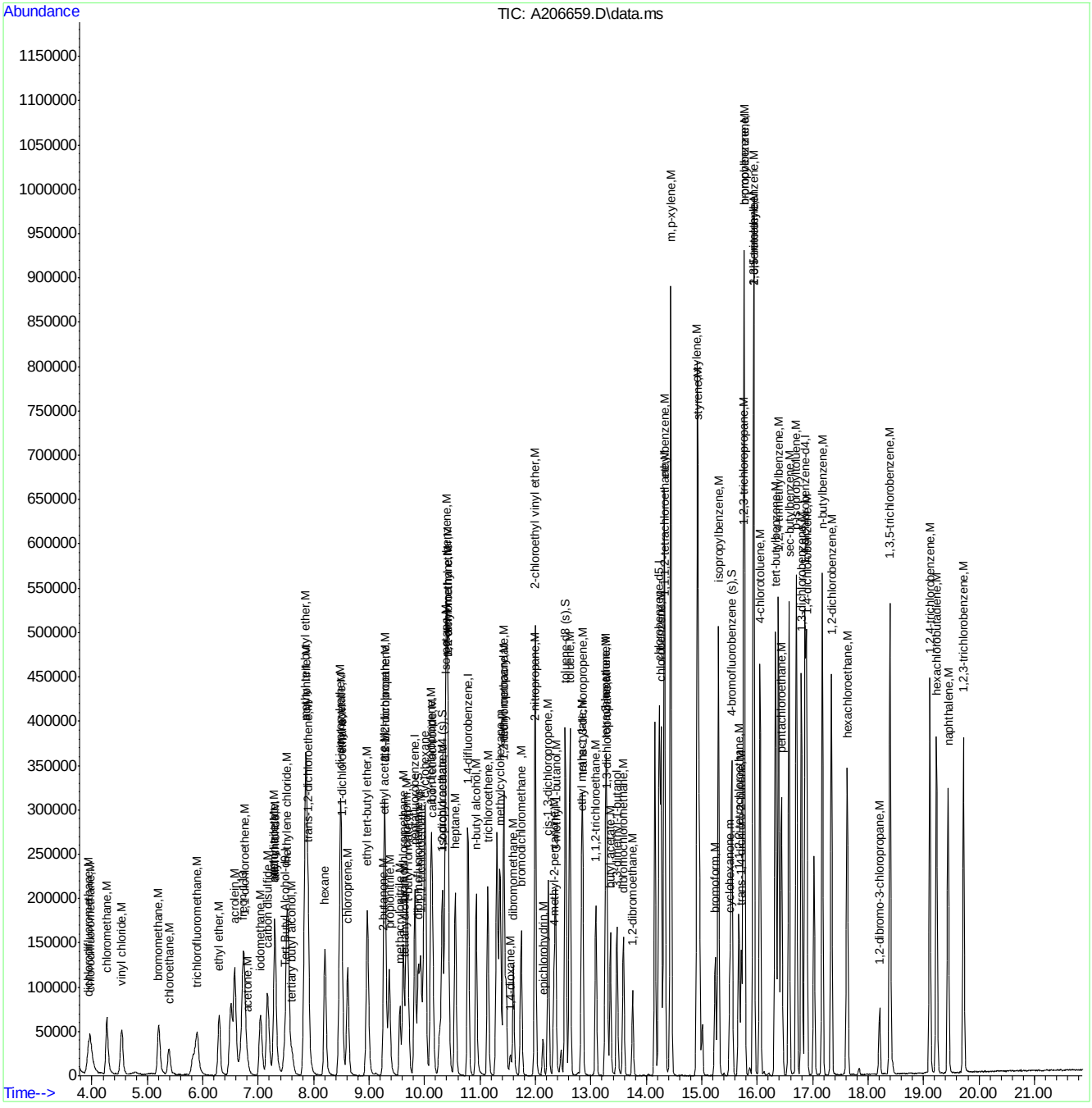
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.765	156	116792	54.45 ug/L	99
103) 1,1,2,2-tetrachloroethane	15.665	83	108219	56.28 ug/L	99
104) trans-1,4-dichloro-2-b...	15.712	53	32905	62.89 ug/L	92
105) 1,2,3-trichloropropane	15.749	110	26544	58.54 ug/L	97
106) n-propylbenzene	15.765	91	451314	52.23 ug/L	98
107) 2-chlorotoluene	15.937	126	100453	53.30 ug/L	97
108) 4-chlorotoluene	16.047	91	302512	53.56 ug/L	98
110) 1,3,5-trimethylbenzene	15.937	105	336079	52.16 ug/L	98
111) tert-butylbenzene	16.330	119	289839	53.71 ug/L	96
112) pentachloroethane	16.434	167	78285	56.12 ug/L	96
113) 1,2,4-trimethylbenzene	16.382	105	340841	52.46 ug/L	99
114) sec-butylbenzene	16.575	105	443778	52.78 ug/L	99
115) 1,3-dichlorobenzene	16.800	146	218793	52.45 ug/L	99
116) p-isopropyltoluene	16.706	119	379920	52.42 ug/L	99
118) 1,4-dichlorobenzene	16.894	146	219032	51.14 ug/L	99
120) 1,2-dichlorobenzene	17.339	146	216054	53.03 ug/L	99
121) n-butylbenzene	17.177	92	196689	50.82 ug/L	99
123) 1,2-dibromo-3-chloropr...	18.202	75	21413	58.33 ug/L	89
124) 1,3,5-trichlorobenzene	18.396	180	199765	54.33 ug/L	99
125) 1,2,4-trichlorobenzene	19.117	180	173656	54.67 ug/L	99
126) hexachlorobutadiene	19.238	225	111496	53.84 ug/L	99
127) naphthalene	19.447	128	309584	54.81 ug/L	99
128) 1,2,3-trichlorobenzene	19.719	180	151251	53.57 ug/L	100
129) hexachloroethane	17.627	201	82665	55.32 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206659.D
Acq On : 22 Jun 2014 5:08 pm
Operator : CourtneM
Sample : bs
Misc : MS69379,VA7793,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 24 08:08:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Tue Jun 24 08:10:52 2014 ACCUNJ

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206692.D
Acq On : 23 Jun 2014 11:54 am
Operator : CourtneM
Sample : bs
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 24 09:48:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.486	65	93113	500.00	ug/L	0.00
4) pentafluorobenzene	9.824	168	202961	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.781	114	274979	50.00	ug/L	0.00
83) chlorobenzene-d5	14.222	117	269145	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.853	152	160892	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.881	113	87911	53.33	ug/L	0.00
Spiked Amount 50.000 Range 59 - 130 Recovery = 106.66%						
47) 1,2-dichloroethane-d4 (s)	10.320	65	98709	54.76	ug/L	0.00
Spiked Amount 50.000 Range 65 - 123 Recovery = 109.52%						
75) toluene-d8 (s)	12.533	98	310495	54.04	ug/L	0.00
Spiked Amount 50.000 Range 77 - 125 Recovery = 108.08%						
101) 4-bromofluorobenzene (s)	15.535	95	132946	50.80	ug/L	0.00
Spiked Amount 50.000 Range 71 - 132 Recovery = 101.60%						
Target Compounds						Qvalue
2) 1,4-dioxane	11.544	88	21064	1124.94	ug/L	94
3) tertiary butyl alcohol	7.606	59	53768	231.74	ug/L	100
6) chlorodifluoromethane	3.966	51	67628	53.82	ug/L	98
7) dichlorodifluoromethane	3.945	85	76305	43.87	ug/L	96
8) chloromethane	4.264	50	109215	47.02	ug/L	100
9) vinyl chloride	4.536	62	88903	45.98	ug/L	98
10) bromomethane	5.200	94	57848	42.77	ug/L	99
11) chloroethane	5.383	64	50058	57.94	ug/L	97
13) trichlorofluoromethane	5.891	101	114300	58.89	ug/L	94
15) ethyl ether	6.288	74	44369	51.94	ug/L	99
17) acrolein	6.576	56	154983	519.55	ug/L	95
18) freon 113	6.712	151	55202	51.26	ug/L #	97
19) 1,1-dichloroethene	6.743	96	67348	49.69	ug/L	89
20) acetone	6.806	58	7179	50.08	ug/L #	72
21) allyl chloride	7.303	76	49252	61.93	ug/L	88
22) acetonitrile	7.297	40	74087	573.99	ug/L #	61
23) iodomethane	7.041	142	146100	50.21	ug/L	94
24) carbon disulfide	7.161	76	253763	51.26	ug/L	97
25) methylene chloride	7.512	84	89077	48.08	ug/L	89
26) methyl acetate	7.287	43	61075	51.58	ug/L	98
27) methyl tert butyl ether	7.847	73	493595	105.09	ug/L	100
28) trans-1,2-dichloroethene	7.899	96	74149	49.88	ug/L	91
29) hexane	8.202	57	98409	51.67	ug/L	95
30) di-isopropyl ether	8.469	45	317346	51.44	ug/L	95
31) t-butyl formate	9.698	59	77624	55.21	ug/L	93
32) ethyl tert-butyl ether	8.966	59	281789	50.10	ug/L	99
33) 2-butanone	9.248	72	9087	52.09	ug/L #	68
34) 1,1-dichloroethane	8.506	63	162871	56.13	ug/L	97
35) chloroprene	8.610	53	110782	50.76	ug/L	96
36) acrylonitrile	7.867	53	148706	308.84	ug/L	98
37) vinyl acetate	8.490	86	12563	54.97	ug/L	78
38) ethyl acetate	9.264	45	11903	54.61	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206692.D
Acq On : 23 Jun 2014 11:54 am
Operator : CourtneM
Sample : bs
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 24 09:48:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	2,2-dichloropropane	9.280	77	128120	57.56	ug/L		99
41)	cis-1,2-dichloroethene	9.280	96	89644	53.61	ug/L		95
42)	propionitrile	9.363	54	115856	607.69	ug/L		89
43)	bromochloromethane	9.609	128	45178	54.35	ug/L		92
44)	tetrahydrofuran	9.646	42	32803	56.08	ug/L		96
45)	chloroform	9.672	83	159678	56.25	ug/L		99
48)	methacrylonitrile	9.552	67	30617	55.57	ug/L		86
49)	cyclohexane	9.996	84	103201	48.04	ug/L		81
50)	1,1,1-trichloroethane	9.923	97	127277	56.36	ug/L		98
52)	tert-amyl methyl ether	10.415	73	255150	46.97	ug/L		95
55)	epichlorohydrin	12.130	57	40851	275.20	ug/L		96
56)	n-butyl alcohol	10.927	56	138540	2837.95	ug/L		90
57)	carbon tetrachloride	10.137	117	116515	58.55	ug/L		99
58)	1,1-dichloropropene	10.106	75	104155	53.50	ug/L		98
59)	benzene	10.388	78	320243	54.97	ug/L		97
60)	Iso-octane	10.373	57	292790	50.27	ug/L		96
61)	heptane	10.551	71	60045	51.46	ug/L		96
63)	isopropyl acetate	10.310	43	185935	52.79	ug/L		98
64)	1,2-dichloroethane	10.415	62	125235	64.25	ug/L		99
65)	trichloroethene	11.136	95	80399	54.59	ug/L		99
66)	2-nitropropane	11.978	41	36606	63.75	ug/L	#	88
68)	methylcyclohexane	11.356	83	117472	49.00	ug/L	#	96
69)	2-chloroethyl vinyl ether	11.989	63	259580	291.55	ug/L		97
70)	methyl methacrylate	11.424	69	54923	58.54	ug/L		85
71)	1,2-dichloropropane	11.424	63	93948	57.33	ug/L		97
72)	dibromomethane	11.597	93	53214	58.42	ug/L		98
73)	bromodichloromethane	11.738	83	131402	61.58	ug/L		97
74)	cis-1,3-dichloropropene	12.224	75	151380	57.16	ug/L		93
76)	4-methyl-2-pentanone	12.329	58	35504	61.95	ug/L		91
77)	toluene	12.616	92	197156	50.10	ug/L		98
78)	3-methyl-1-butanol	12.360	55	90317	1059.70	ug/L		95
79)	trans-1,3-dichloropropene	12.841	75	137451	56.56	ug/L		91
80)	ethyl methacrylate	12.826	69	109904	54.45	ug/L		92
81)	1,1,2-trichloroethane	13.087	83	64736	55.06	ug/L		98
82)	2-hexanone	13.270	58	32941	58.97	ug/L		85
84)	tetrachloroethene	13.260	164	71870	48.12	ug/L		98
85)	1,3-dichloropropane	13.286	76	128426	55.72	ug/L		99
86)	butyl acetate	13.343	56	57836	51.45	ug/L		91
87)	3,3-dimethyl-1-butanol	13.464	57	102662	536.89	ug/L		95
88)	dibromochloromethane	13.584	129	101493	54.76	ug/L		97
89)	1,2-dibromoethane	13.746	107	80434	54.13	ug/L		95
91)	chlorobenzene	14.259	112	238677	51.86	ug/L		98
92)	1,1,1,2-tetrachloroethane	14.332	131	98159	54.32	ug/L		93
93)	ethylbenzene	14.316	91	395211	51.73	ug/L		100
94)	m,p-xylene	14.437	106	299498	102.50	ug/L		97
95)	o-xylene	14.907	106	156084	51.38	ug/L		99
96)	styrene	14.923	104	277330	52.18	ug/L		99
97)	bromoform	15.237	173	78750	57.21	ug/L		98
99)	isopropylbenzene	15.294	105	401268	49.84	ug/L		100
100)	cyclohexanone	15.498	55	84620	425.57	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206692.D
Acq On : 23 Jun 2014 11:54 am
Operator : CourtneM
Sample : bs
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 24 09:48:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.755	156	124589	52.36 ug/L	96
103) 1,1,2,2-tetrachloroethane	15.660	83	111005	52.04 ug/L	99
104) trans-1,4-dichloro-2-b...	15.702	53	33080	56.99 ug/L	93
105) 1,2,3-trichloropropane	15.744	110	27931	55.53 ug/L	99
106) n-propylbenzene	15.760	91	502226	52.40 ug/L	97
107) 2-chlorotoluene	15.932	126	107834	51.58 ug/L	97
108) 4-chlorotoluene	16.042	91	325018	51.87 ug/L	99
110) 1,3,5-trimethylbenzene	15.927	105	365663	51.16 ug/L	96
111) tert-butylbenzene	16.325	119	302946	50.61 ug/L	97
112) pentachloroethane	16.429	167	83320	53.85 ug/L	93
113) 1,2,4-trimethylbenzene	16.377	105	391087	54.26 ug/L	98
114) sec-butylbenzene	16.565	105	474605	50.89 ug/L	99
115) 1,3-dichlorobenzene	16.790	146	238150	51.46 ug/L	100
116) p-isopropyltoluene	16.701	119	409097	50.88 ug/L	97
118) 1,4-dichlorobenzene	16.884	146	239742	50.46 ug/L	99
120) 1,2-dichlorobenzene	17.329	146	235784	52.17 ug/L	98
121) n-butylbenzene	17.167	92	223055	51.96 ug/L	99
123) 1,2-dibromo-3-chloropr...	18.197	75	23544	57.81 ug/L	93
124) 1,3,5-trichlorobenzene	18.385	180	222353	54.51 ug/L	98
125) 1,2,4-trichlorobenzene	19.107	180	200820	57.00 ug/L	98
126) hexachlorobutadiene	19.227	225	133055	57.91 ug/L	100
127) naphthalene	19.437	128	354583	56.59 ug/L	99
128) 1,2,3-trichlorobenzene	19.714	180	178137	56.88 ug/L	99
129) hexachloroethane	17.616	201	89906	54.23 ug/L	100

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

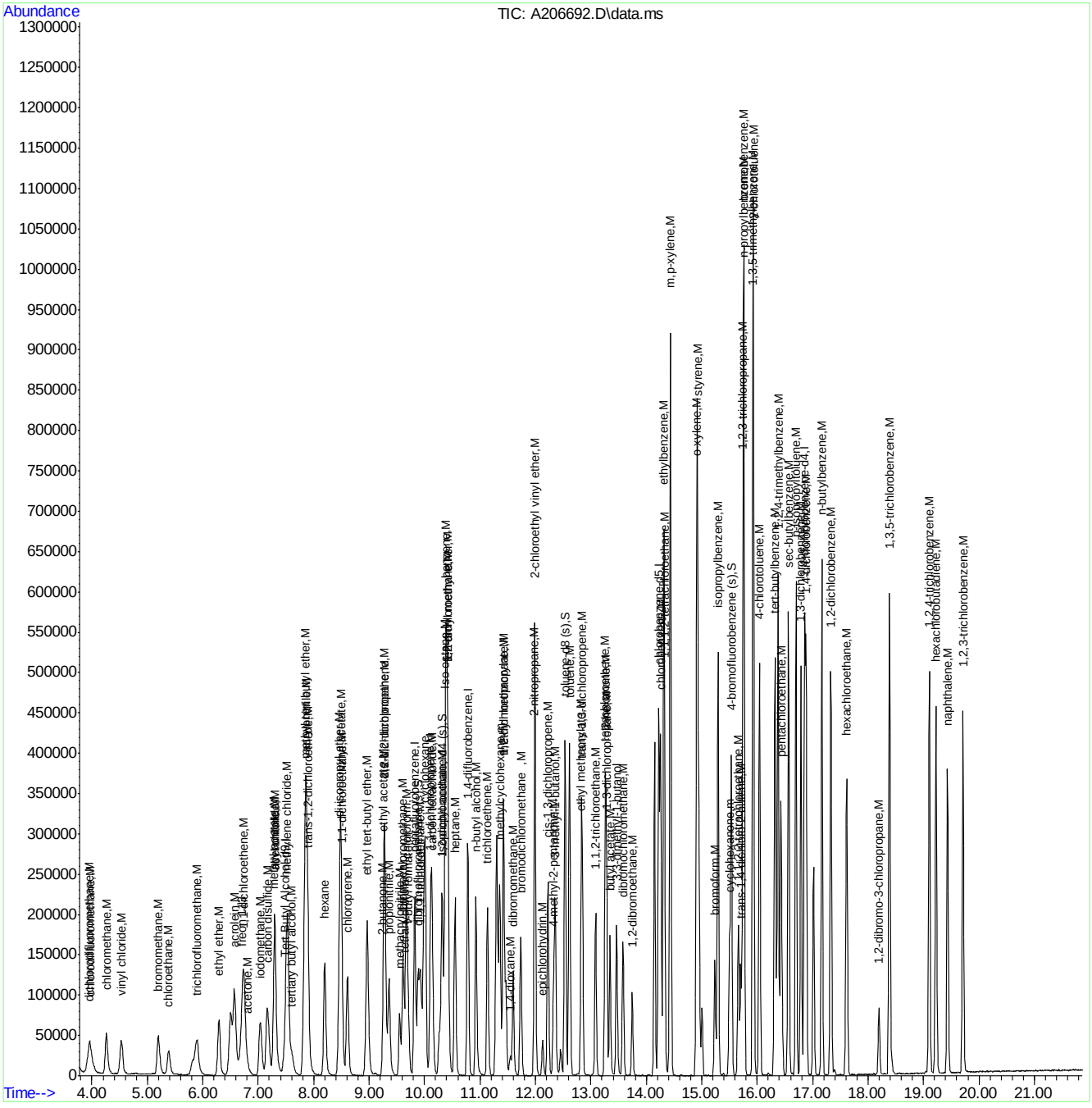
7.3.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206692.D
Acq On : 23 Jun 2014 11:54 am
Operator : CourtneM
Sample : bs
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 24 09:48:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Tue Jun 24 10:01:35 2014 ACCUNJ

Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145600.D
Acq On : 23 Jun 2014 12:10 pm
Operator : KingC
Sample : bs
Misc : MS69467,VV6207,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 12:36:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	58896	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	177241	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	229031	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	205578	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	112952	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.51	113	60818	50.56	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 101.12%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	60822	48.62	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 97.24%			
71) toluene-d8 (s)	12.12	98	237197	52.01	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 104.02%			
94) 4-bromofluorobenzene (s)	15.11	95	86913	46.55	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 93.10%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.33	59	35788	278.01	ug/L	76
3) 1,4-dioxane	11.15	88	16222	1257.26	ug/L	95
6) chlorodifluoromethane	4.02	51	57580	39.95	ug/L	93
7) dichlorodifluoromethane	4.00	85	86413	46.43	ug/L	96
8) chloromethane	4.33	50	96734	45.03	ug/L	99
9) vinyl chloride	4.56	62	99953	43.32	ug/L	98
10) bromomethane	5.18	96	63787	55.82	ug/L	99
11) chloroethane	5.34	64	58431	66.18	ug/L	97
12) trichlorofluoromethane	5.75	101	111459	54.95	ug/L	98
13) ethyl ether	6.14	74	36419	54.24	ug/L	95
14) 2-chloropropane	6.34	43	120778	50.49	ug/L	97
15) acrolein	6.41	56	111267	454.22	ug/L	98
16) freon 113	6.52	151	52021	58.77	ug/L	99
17) 1,1-dichloroethene	6.56	96	66905	55.31	ug/L	95
18) acetone	6.63	43	15346	45.05	ug/L	89
19) iso-butyl alcohol	10.02	74	22599	549.22	ug/L	97
20) allyl chloride	7.08	76	42998	61.71	ug/L	91
21) acetonitrile	7.08	41	176792	523.12	ug/L	88
22) iodomethane	6.86	142	126549	53.47	ug/L	99
23) carbon disulfide	6.98	76	248933	53.96	ug/L	98
24) methylene chloride	7.28	84	77086	46.84	ug/L	98
25) 1-chloropropane	7.30	42	116595	48.03	ug/L	98
26) methyl acetate	7.06	43	34586	47.37	ug/L	95
27) methyl tert butyl ether	7.58	73	375244	101.47	ug/L	98
28) trans-1,2-dichloroethene	7.64	96	74007	52.42	ug/L	98
29) di-isopropyl ether	8.15	45	211652	49.61	ug/L	97
30) 2-butanone	8.91	72	6328	49.30	ug/L	80
31) 1,1-dichloroethane	8.20	63	133531	54.43	ug/L	97
32) chloroprene	8.31	53	87116	42.93	ug/L	98
33) acrylonitrile	7.60	53	98861	260.58	ug/L	97
34) vinyl acetate	8.18	86	10206	55.03	ug/L	80
35) ethyl tert-butyl ether	8.62	59	202936	50.86	ug/L	98
36) ethyl acetate	8.92	45	6876	47.50	ug/L #	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145600.D
Acq On : 23 Jun 2014 12:10 pm
Operator : KingC
Sample : bs
Misc : MS69467,VV6207,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 12:36:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.94	77	105968	52.99	ug/L		98
38) cis-1,2-dichloroethene	8.94	96	80220	54.85	ug/L		95
39) propionitrile	9.02	54	74251	535.58	ug/L		92
40) methyl acrylate	9.00	85	8307	52.36	ug/L	#	88
41) methacrylonitrile	9.20	67	21171	53.23	ug/L		99
42) bromochloromethane	9.26	128	35828	55.38	ug/L		93
43) tetrahydrofuran	9.30	42	18320	49.35	ug/L		95
44) chloroform	9.31	83	129036	55.47	ug/L		97
45) tert-Butyl Formate	9.34	59	49695	54.77	ug/L		97
48) 1,1,1-trichloroethane	9.57	97	111988	57.79	ug/L		98
49) Cyclohexane	9.63	84	107380	57.48	ug/L		83
51) methylcyclohexane	10.96	83	114393	47.55	ug/L		96
52) epichlorohydrin	11.72	57	25538	262.85	ug/L		98
53) n-butyl alcohol	10.52	56	85337	2441.55	ug/L		96
54) carbon tetrachloride	9.77	117	100789	58.90	ug/L		98
55) 1,1-dichloropropene	9.74	75	94096	53.28	ug/L		100
57) 2,2,4-Trimethylpentane	10.00	57	235620	43.78	ug/L		100
58) benzene	10.02	78	291222	53.94	ug/L		100
59) tert-amyl methyl ether	10.03	73	197372	52.30	ug/L		99
60) heptane	10.17	57	50433	48.63	ug/L		96
61) isopropyl acetate	10.03	61	12285	56.76	ug/L	#	73
62) 1,2-dichloroethane	10.04	62	86344	56.08	ug/L		96
63) trichloroethene	10.74	95	73675	56.85	ug/L		97
64) 2-chloroethyl vinyl ether	11.57	63	179475	311.56	ug/L		98
65) methyl methacrylate	11.02	100	14335	51.32	ug/L		93
66) 1,2-dichloropropane	11.03	63	74318	54.84	ug/L		96
67) dibromomethane	11.20	93	40388	55.30	ug/L		98
68) bromodichloromethane	11.33	83	97684	57.06	ug/L		99
69) 2-nitropropane	11.57	41	20970	61.49	ug/L		98
70) cis-1,3-dichloropropene	11.82	75	112410	53.66	ug/L		99
72) 4-methyl-2-pentanone	11.91	58	21514	53.53	ug/L		98
73) toluene	12.20	92	174838	53.85	ug/L		99
74) isoamyl alcohol	11.94	55	51859	1069.31	ug/L		97
75) trans-1,3-dichloropropene	12.43	75	98183	52.12	ug/L		97
76) ethyl methacrylate	12.41	69	72407	48.31	ug/L		99
77) 1,1,2-trichloroethane	12.66	83	48792	54.25	ug/L		95
78) 2-hexanone	12.85	58	19161	48.38	ug/L		94
80) tetrachloroethene	12.84	166	76058	56.77	ug/L		97
81) 1,3-dichloropropane	12.87	76	95439	53.58	ug/L		95
82) butyl acetate	12.92	73	12749	48.68	ug/L		90
83) 3,3-Dimethyl-1-Butanol	13.04	69	45580	475.06	ug/L		98
84) dibromochloromethane	13.16	129	70193	55.42	ug/L		98
85) 1,2-dibromoethane	13.33	107	57463	50.97	ug/L		96
86) chlorobenzene	13.84	112	200609	53.58	ug/L		98
87) 1,1,1,2-tetrachloroethane	13.90	131	75875	54.36	ug/L		98
88) ethylbenzene	13.89	91	342843	56.09	ug/L		99
89) m,p-xylene	14.01	106	264473	111.48	ug/L		99
90) o-xylene	14.48	106	132954	55.59	ug/L		95
91) styrene	14.50	104	223633	56.46	ug/L		100
92) bromoform	14.81	173	47949	55.64	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145600.D
Acq On : 23 Jun 2014 12:10 pm
Operator : KingC
Sample : bs
Misc : MS69467,VV6207,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 12:36:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) cyclohexanone	15.07	55	34528	196.86 ug/L	97
96) isopropylbenzene	14.86	105	351928	57.71 ug/L	99
97) 1,1,2,2-tetrachloroethane	15.23	83	78356	49.84 ug/L	98
98) trans-1,4-dichloro-2-buten	15.27	53	19543	51.02 ug/L	97
99) 1,2,3-trichloropropane	15.31	110	20047	52.29 ug/L #	85
100) bromobenzene	15.32	156	90564	55.99 ug/L	99
101) n-propylbenzene	15.32	91	427930	57.51 ug/L	98
102) 2-chlorotoluene	15.50	126	88571	55.26 ug/L	97
103) 4-chlorotoluene	15.61	91	251061	53.36 ug/L	98
104) 1,3,5-trimethylbenzene	15.49	105	295141	54.12 ug/L	99
105) tert-butylbenzene	15.88	119	258924	56.68 ug/L	98
106) pentachloroethane	15.99	167	58007	56.21 ug/L	98
107) 1,2,4-trimethylbenzene	15.94	105	311203	57.21 ug/L	99
108) sec-butylbenzene	16.12	105	399332	54.92 ug/L	100
109) p-isopropyltoluene	16.26	119	339699	56.40 ug/L	99
110) 1,3-dichlorobenzene	16.35	146	177639	52.18 ug/L	98
111) 1,4-dichlorobenzene	16.44	146	180592	53.23 ug/L	97
112) 1,2-dichlorobenzene	16.88	146	170470	52.32 ug/L	98
113) Benzyl Chloride	16.57	91	142054	50.93 ug/L	100
115) n-butylbenzene	16.72	92	177931	55.62 ug/L	97
116) hexachloroethane	17.17	201	56683	50.92 ug/L	98
117) 1,2-dibromo-3-chloropropan	17.75	157	17218	48.49 ug/L	91
118) 1,3,5-trichlorobenzene	17.93	180	149697	51.88 ug/L	98
119) 1,2,4-trichlorobenzene	18.65	180	134092	51.39 ug/L	99
120) hexachlorobutadiene	18.77	225	68853	53.07 ug/L	97
121) naphthalene	18.97	128	279002	51.83 ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	124567	52.38 ug/L	97

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

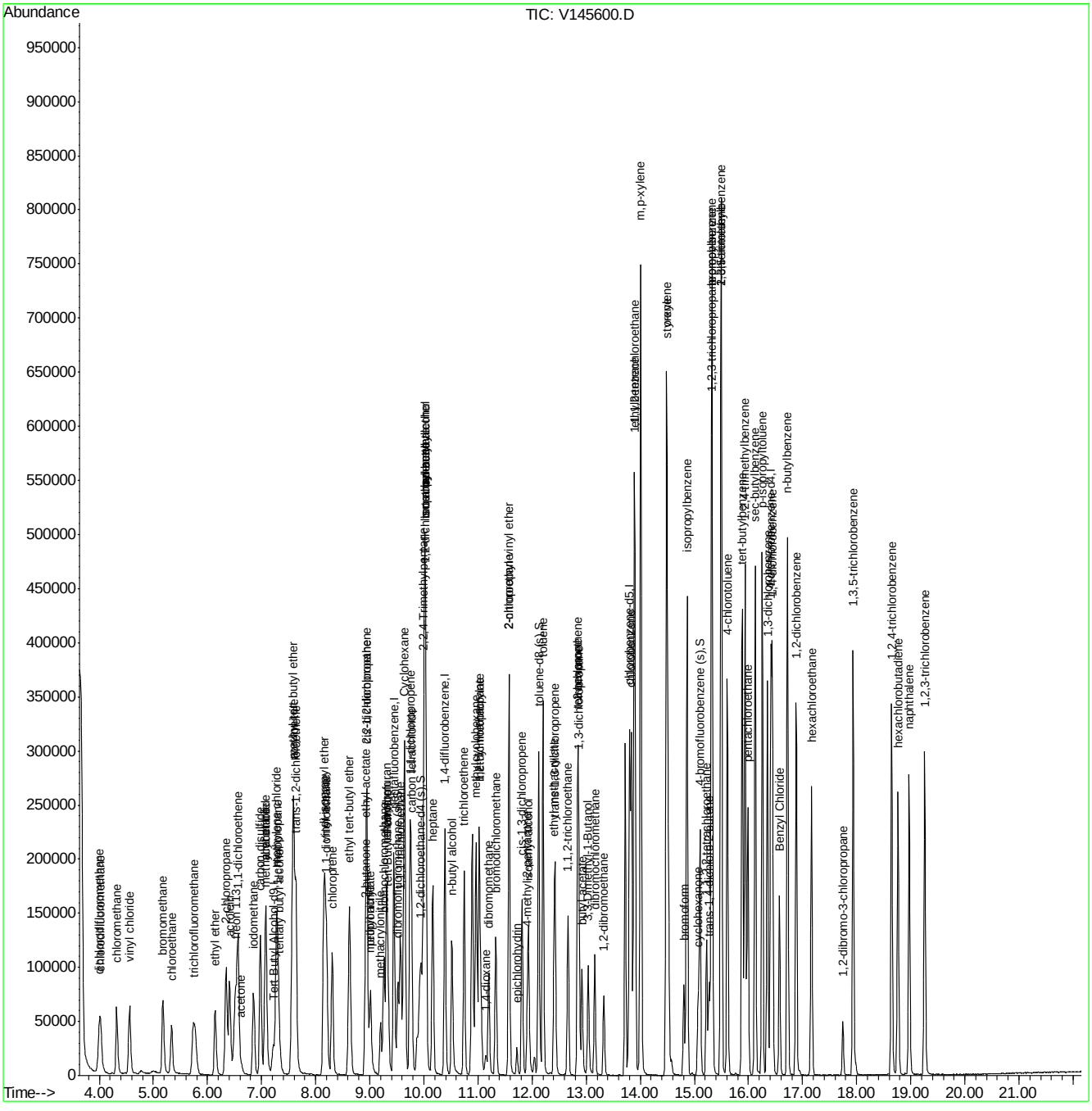
7.3.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145600.D
Acq On : 23 Jun 2014 12:10 pm
Operator : KingC
Sample : bs
Misc : MS69467,VV6207,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 23 12:36:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147672.D
Acq On : 20 Jun 2014 1:55 pm
Operator : KingC
Sample : jb69587-12ms
Misc : MS69379,VX6383,4.7,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 20 16:58:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	41531	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	207216	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	237122	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	240040	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	139123	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	67960	54.11	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 108.22%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	63030	44.37	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 88.74%			
86) toluene-d8 (s)	13.62	98	284311	60.28	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 120.56%			
112) 4-bromofluorobenzene (s)	17.12	95	110334	57.86	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 115.72%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	23880	222.93	ug/L	100
4) 1,4-dioxane	12.42	88	9593	1178.53	ug/L #	83
11) chlorodifluoromethane	3.87	51	57973	39.33	ug/L	99
12) dichlorodifluoromethane	3.85	85	70696	38.29	ug/L	99
15) chloromethane	4.19	50	92583	39.82	ug/L	99
16) vinyl chloride	4.46	62	88184	42.41	ug/L	98
18) bromomethane	5.15	94	57916	38.97	ug/L	95
19) chloroethane	5.34	64	37297	45.14	ug/L	99
21) trichlorofluoromethane	5.82	101	94023	44.51	ug/L	94
23) ethyl ether	6.26	74	26609	42.01	ug/L	100
27) acrolein	6.60	56	53645	233.90	ug/L #	100
28) 1,1-dichloroethene	6.73	96	50973	49.00	ug/L	93
29) acetone	6.85	58	3511	33.38	ug/L	88
30) allyl chloride	7.35	76	26427	44.65	ug/L	92
31) acetonitrile	7.38	40	36847	315.83	ug/L	83
32) iodomethane	7.06	142	112758	47.95	ug/L	97
33) iso-butyl alcohol	10.69	43	20207	284.97	ug/L	95
34) carbon disulfide	7.17	76	190796	46.36	ug/L	98
35) methylene chloride	7.59	84	63814	44.76	ug/L	97
36) methyl acetate	7.35	43	32519	34.42	ug/L	100
37) methyl tert butyl ether	7.92	73	159454	40.03	ug/L	100
38) trans-1,2-dichloroethene	7.99	96	59012	48.03	ug/L	94
39) di-isopropyl ether	8.62	45	216891	44.31	ug/L	99
40) 2-butanone	9.59	72	4163	30.63	ug/L	77
41) 1,1-dichloroethane	8.69	63	111244	47.72	ug/L	97
42) chloroprene	8.80	53	83458	47.80	ug/L	98
43) acrylonitrile	8.01	53	67815	167.86	ug/L	99
44) vinyl acetate	8.68	86	5689	33.62	ug/L	68
45) ethyl tert-butyl ether	9.20	59	195500	42.56	ug/L	99
46) ethyl acetate	9.61	70	4264	34.09	ug/L	32
47) 2,2-dichloropropane	9.59	77	38217	19.47	ug/L	94
48) cis-1,2-dichloroethene	9.61	96	65523	45.54	ug/L	94
49) methyl acrylate	9.70	55	33848	35.16	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147672.D
Acq On : 20 Jun 2014 1:55 pm
Operator : KingC
Sample : jb69587-12ms
Misc : MS69379,VX6383,4.7,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 20 16:58:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.76	54	53261	312.32 ug/L	98
51) tert-Butyl Formate	10.10	59	38436	33.39 ug/L #	96
52) bromochloromethane	10.01	128	30407	42.87 ug/L	95
53) tetrahydrofuran	10.03	72	5108	33.92 ug/L	96
54) chloroform	10.08	83	109009	45.87 ug/L	100
57) freon 113	6.69	151	44976	42.74 ug/L	96
58) methacrylonitrile	9.96	41	26901	36.31 ug/L	94
59) 1,1,1-trichloroethane	10.36	97	96057	49.67 ug/L	97
60) cyclohexane	10.42	84	84154	48.43 ug/L	99
62) iso-octane	10.88	57	156754	32.73 ug/L	98
65) epichlorohydrin	13.16	57	15579	134.16 ug/L	98
66) n-butyl alcohol	11.67	56	59426	1444.75 ug/L	98
67) carbon tetrachloride	10.60	117	85715	52.08 ug/L	98
68) 1,1-dichloropropene	10.58	75	78451	50.06 ug/L	98
69) hexane	8.30	57	46208	30.19 ug/L	97
70) benzene	10.93	78	240145	46.94 ug/L	100
71) tert-amyl methyl ether	10.96	73	176313	41.52 ug/L	100
72) heptane	11.12	57	24291	27.18 ug/L	96
73) isopropyl acetate	10.87	43	115348	34.81 ug/L	100
74) 1,2-dichloroethane	11.00	62	69308	42.91 ug/L	98
75) trichloroethene	11.87	130	65256	51.42 ug/L	95
79) 2-chloroethyl vinyl ether	12.98	63	131179	205.38 ug/L	99
80) methyl methacrylate	12.27	69	29924	38.13 ug/L	99
81) 1,2-dichloropropane	12.25	63	62796	48.05 ug/L	98
82) dibromomethane	12.47	93	32133	42.97 ug/L	96
83) methylcyclohexane	12.11	83	87615	43.73 ug/L	100
84) bromodichloromethane	12.65	83	83068	46.00 ug/L	99
85) cis-1,3-dichloropropene	13.26	75	87789	38.22 ug/L	98
87) 4-methyl-2-pentanone	13.40	58	17724	36.04 ug/L #	33
88) toluene	13.72	92	158807	48.06 ug/L	98
89) 3-methyl-1-butanol	13.45	55	40440	587.27 ug/L	97
90) trans-1,3-dichloropropene	14.03	75	78088	36.91 ug/L	98
91) ethyl methacrylate	14.01	69	64533	39.63 ug/L	97
92) 1,1,2-trichloroethane	14.32	83	40719	41.67 ug/L	97
93) 2-hexanone	14.56	58	16972	33.87 ug/L	99
95) 3,3-Dimethyl-1-butanol	14.80	57	45053	292.58 ug/L	99
96) tetrachloroethene	14.48	164	62270	49.82 ug/L	99
97) 1,3-dichloropropane	14.56	76	80173	41.06 ug/L	99
98) butyl acetate	14.65	56	31391	30.42 ug/L	95
99) dibromochloromethane	14.90	129	65812	43.32 ug/L	99
100) 1,2-dibromoethane	15.09	107	49081	39.63 ug/L	98
102) chlorobenzene	15.68	112	190946	45.59 ug/L	98
103) 1,1,1,2-tetrachloroethane	15.77	131	73812	47.27 ug/L	100
104) ethylbenzene	15.75	91	322585	48.68 ug/L	100
105) m,p-xylene	15.90	106	248631	97.50 ug/L	96
106) o-xylene	16.44	106	126826	46.81 ug/L	100
107) styrene	16.46	104	215543	47.55 ug/L	94
108) bromoform	16.81	173	48162	38.89 ug/L	97
110) isopropylbenzene	16.86	105	333123	48.03 ug/L	99
113) bromobenzene	17.34	156	95356	43.75 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147672.D
Acq On : 20 Jun 2014 1:55 pm
Operator : KingC
Sample : jb69587-12ms
Misc : MS69379,VX6383,4.7,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 20 16:58:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

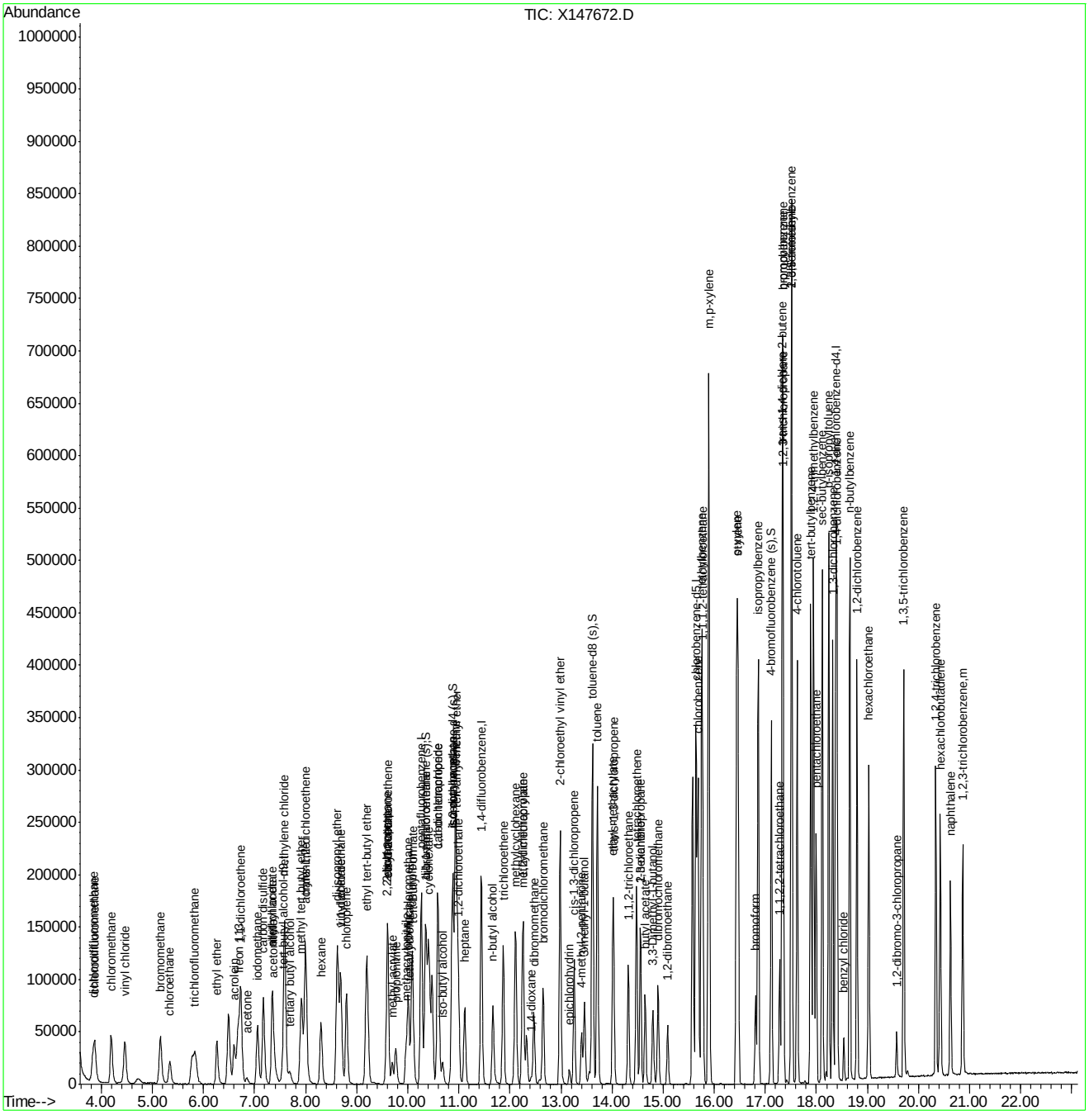
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	67959	35.75 ug/L	98
115) trans-1,4-dichloro-2-buten	17.33	53	14387	27.95 ug/L	89
116) 1,2,3-trichloropropane	17.36	110	16197	36.72 ug/L	93
117) n-propylbenzene	17.35	91	380095	46.76 ug/L	99
119) 2-chlorotoluene	17.51	126	86895	46.72 ug/L	95
120) 4-chlorotoluene	17.62	91	240282	44.22 ug/L	99
121) 1,3,5-trimethylbenzene	17.52	105	290815	47.03 ug/L	98
122) tert-butylbenzene	17.89	119	252599	46.96 ug/L	99
123) pentachloroethane	17.99	167	57173	43.34 ug/L	99
124) 1,2,4-trimethylbenzene	17.94	105	288365	45.73 ug/L	99
126) sec-butylbenzene	18.11	105	379564	47.02 ug/L	100
127) 1,3-dichlorobenzene	18.32	146	181966	43.06 ug/L	99
128) p-isopropyltoluene	18.24	119	325359	46.14 ug/L	99
129) 1,4-dichlorobenzene	18.41	146	179311	41.68 ug/L	99
130) 1,2-dichlorobenzene	18.79	146	171306	42.00 ug/L	99
131) benzyl chloride	18.53	91	29994	8.01 ug/L	99
133) n-butylbenzene	18.65	92	152177	44.74 ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	75	10695	30.72 ug/L #	79
136) 1,3,5-trichlorobenzene	19.71	180	144732	44.69 ug/L	99
137) hexachlorobutadiene	20.43	225	68334	39.81 ug/L	99
138) naphthalene	20.63	128	163762	34.03 ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	111025	44.35 ug/L	96
140) 1,2,3-trichlorobenzene	20.87	180	88617	38.70 ug/L	99
141) hexachloroethane	19.02	201	67628	46.77 ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147672.D
Acq On : 20 Jun 2014 1:55 pm
Operator : KingC
Sample : jb69587-12ms
Misc : MS69379,VX6383,4.7,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 20 16:58:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 17:02:11 2014 GCMSX

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147673.D
Acq On : 20 Jun 2014 2:25 pm
Operator : KingC
Sample : jb69587-12msd
Misc : MS69379,VX6383,4.5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 20 14:57:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	37948	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	208366	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	237663	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	236879	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	136520	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	67274	53.27	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.54%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	62123	43.49	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 86.98%			
86) toluene-d8 (s)	13.62	98	283452	59.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 119.94%			
112) 4-bromofluorobenzene (s)	17.12	95	107080	57.20	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 114.40%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	23827	243.43	ug/L	100
4) 1,4-dioxane	12.42	88	9955	1338.47	ug/L #	83
11) chlorodifluoromethane	3.87	51	61565	41.74	ug/L	99
12) dichlorodifluoromethane	3.85	85	74896	40.34	ug/L	99
15) chloromethane	4.19	50	94662	40.49	ug/L	96
16) vinyl chloride	4.46	62	90750	43.40	ug/L	98
18) bromomethane	5.16	94	59460	39.79	ug/L	94
19) chloroethane	5.34	64	38811	46.71	ug/L	95
21) trichlorofluoromethane	5.82	101	97174	45.75	ug/L	93
23) ethyl ether	6.26	74	27255	42.79	ug/L	96
27) acrolein	6.59	56	54577	236.65	ug/L #	99
28) 1,1-dichloroethene	6.73	96	54486	52.09	ug/L	98
29) acetone	6.84	58	3659	34.59	ug/L	93
30) allyl chloride	7.35	76	27541	46.27	ug/L	94
31) acetonitrile	7.38	40	37378	318.61	ug/L	91
32) iodomethane	7.06	142	117919	49.87	ug/L	98
33) iso-butyl alcohol	10.68	43	20226	283.67	ug/L	98
34) carbon disulfide	7.17	76	201785	48.76	ug/L	99
35) methylene chloride	7.59	84	66827	46.82	ug/L	99
36) methyl acetate	7.35	43	33249	35.00	ug/L	99
37) methyl tert butyl ether	7.92	73	159708	39.87	ug/L	100
38) trans-1,2-dichloroethene	7.99	96	62986	50.98	ug/L	94
39) di-isopropyl ether	8.62	45	223813	45.47	ug/L	99
40) 2-butanone	9.59	72	4491	32.86	ug/L	93
41) 1,1-dichloroethane	8.69	63	117749	50.23	ug/L	98
42) chloroprene	8.80	53	87079	49.60	ug/L	99
43) acrylonitrile	8.02	53	68519	168.67	ug/L	98
44) vinyl acetate	8.68	86	5612	32.98	ug/L	94
45) ethyl tert-butyl ether	9.20	59	201256	43.57	ug/L	100
46) ethyl acetate	9.60	70	4581	36.43	ug/L	43
47) 2,2-dichloropropane	9.58	77	38954	19.73	ug/L	95
48) cis-1,2-dichloroethene	9.61	96	68742	47.51	ug/L	93
49) methyl acrylate	9.69	55	35218	36.38	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147673.D
Acq On : 20 Jun 2014 2:25 pm
Operator : KingC
Sample : jb69587-12msd
Misc : MS69379,VX6383,4.5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 20 14:57:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.76	54	53705	313.19 ug/L	98
51) tert-Butyl Formate	10.10	59	38570	33.32 ug/L #	95
52) bromochloromethane	10.01	128	31422	44.05 ug/L	93
53) tetrahydrofuran	10.04	72	5158	34.06 ug/L	94
54) chloroform	10.08	83	112071	46.90 ug/L	100
57) freon 113	6.68	151	46448	43.90 ug/L	98
58) methacrylonitrile	9.97	41	26575	35.68 ug/L	92
59) 1,1,1-trichloroethane	10.36	97	99940	51.39 ug/L	97
60) cyclohexane	10.41	84	88171	50.46 ug/L	99
62) iso-octane	10.88	57	174887	36.31 ug/L	100
65) epichlorohydrin	13.16	57	15852	136.20 ug/L	100
66) n-butyl alcohol	11.67	56	60314	1463.00 ug/L	99
67) carbon tetrachloride	10.60	117	89465	54.23 ug/L	98
68) 1,1-dichloropropene	10.58	75	82411	52.47 ug/L	99
69) hexane	8.30	57	49966	32.57 ug/L	97
70) benzene	10.93	78	251457	49.03 ug/L	98
71) tert-amyl methyl ether	10.96	73	178698	41.99 ug/L	100
72) heptane	11.12	57	26628	29.73 ug/L	98
73) isopropyl acetate	10.87	43	120978	36.42 ug/L	100
74) 1,2-dichloroethane	10.99	62	72529	44.80 ug/L	98
75) trichloroethene	11.87	130	68782	54.07 ug/L	96
79) 2-chloroethyl vinyl ether	12.98	63	131565	205.51 ug/L	98
80) methyl methacrylate	12.26	69	30370	38.61 ug/L	87
81) 1,2-dichloropropane	12.25	63	65541	50.04 ug/L	99
82) dibromomethane	12.47	93	32974	44.00 ug/L	93
83) methylcyclohexane	12.11	83	93847	46.73 ug/L	99
84) bromodichloromethane	12.65	83	86357	47.72 ug/L	99
85) cis-1,3-dichloropropene	13.26	75	91572	39.78 ug/L	99
87) 4-methyl-2-pentanone	13.40	58	18114	36.75 ug/L	100
88) toluene	13.71	92	165607	50.00 ug/L	100
89) 3-methyl-1-butanol	13.46	55	39547	572.99 ug/L	100
90) trans-1,3-dichloropropene	14.03	75	80436	37.93 ug/L	99
91) ethyl methacrylate	14.01	69	64482	39.51 ug/L	98
92) 1,1,2-trichloroethane	14.32	83	41371	42.24 ug/L	97
93) 2-hexanone	14.55	58	16872	33.59 ug/L	92
95) 3,3-Dimethyl-1-butanol	14.80	57	44951	295.82 ug/L	100
96) tetrachloroethene	14.48	164	65614	53.20 ug/L	97
97) 1,3-dichloropropane	14.56	76	81764	42.44 ug/L	99
98) butyl acetate	14.65	56	31600	31.03 ug/L	99
99) dibromochloromethane	14.90	129	67716	45.17 ug/L	98
100) 1,2-dibromoethane	15.09	107	50003	40.91 ug/L	99
102) chlorobenzene	15.68	112	198743	48.09 ug/L	99
103) 1,1,1,2-tetrachloroethane	15.77	131	75543	49.02 ug/L	96
104) ethylbenzene	15.75	91	335604	51.33 ug/L	100
105) m,p-xylene	15.90	106	258429	102.69 ug/L	98
106) o-xylene	16.44	106	131180	49.07 ug/L	98
107) styrene	16.46	104	221810	49.58 ug/L	96
108) bromoform	16.81	173	48619	39.78 ug/L	97
110) isopropylbenzene	16.86	105	345248	50.73 ug/L	100
113) bromobenzene	17.34	156	97738	45.70 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147673.D
Acq On : 20 Jun 2014 2:25 pm
Operator : KingC
Sample : jb69587-12msd
Misc : MS69379,VX6383,4.5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 20 14:57:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	67690	36.29 ug/L	99
115) trans-1,4-dichloro-2-buten	17.32	53	14475	28.65 ug/L #	81
116) 1,2,3-trichloropropane	17.36	110	16262	37.57 ug/L	94
117) n-propylbenzene	17.34	91	392862	49.25 ug/L	99
119) 2-chlorotoluene	17.51	126	89363	48.97 ug/L	97
120) 4-chlorotoluene	17.62	91	248785	46.66 ug/L	100
121) 1,3,5-trimethylbenzene	17.52	105	301154	49.63 ug/L	99
122) tert-butylbenzene	17.89	119	263676	49.95 ug/L	98
123) pentachloroethane	17.99	167	57635	44.52 ug/L	99
124) 1,2,4-trimethylbenzene	17.94	105	297002	48.00 ug/L	99
126) sec-butylbenzene	18.11	105	394131	49.75 ug/L	99
127) 1,3-dichlorobenzene	18.32	146	187888	45.31 ug/L	99
128) p-isopropyltoluene	18.24	119	339157	49.02 ug/L	99
129) 1,4-dichlorobenzene	18.41	146	184825	43.78 ug/L	99
130) 1,2-dichlorobenzene	18.79	146	175847	43.93 ug/L	99
131) benzyl chloride	18.53	91	29512	8.03 ug/L	99
133) n-butylbenzene	18.65	92	160715	48.15 ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	75	11271	32.99 ug/L	88
136) 1,3,5-trichlorobenzene	19.71	180	155263	48.86 ug/L	99
137) hexachlorobutadiene	20.43	225	76628	45.49 ug/L	97
138) naphthalene	20.63	128	174030	36.74 ug/L	98
139) 1,2,4-trichlorobenzene	20.34	180	119038	48.46 ug/L	98
140) 1,2,3-trichlorobenzene	20.87	180	95758	42.50 ug/L	99
141) hexachloroethane	19.03	201	71065	50.09 ug/L	99

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

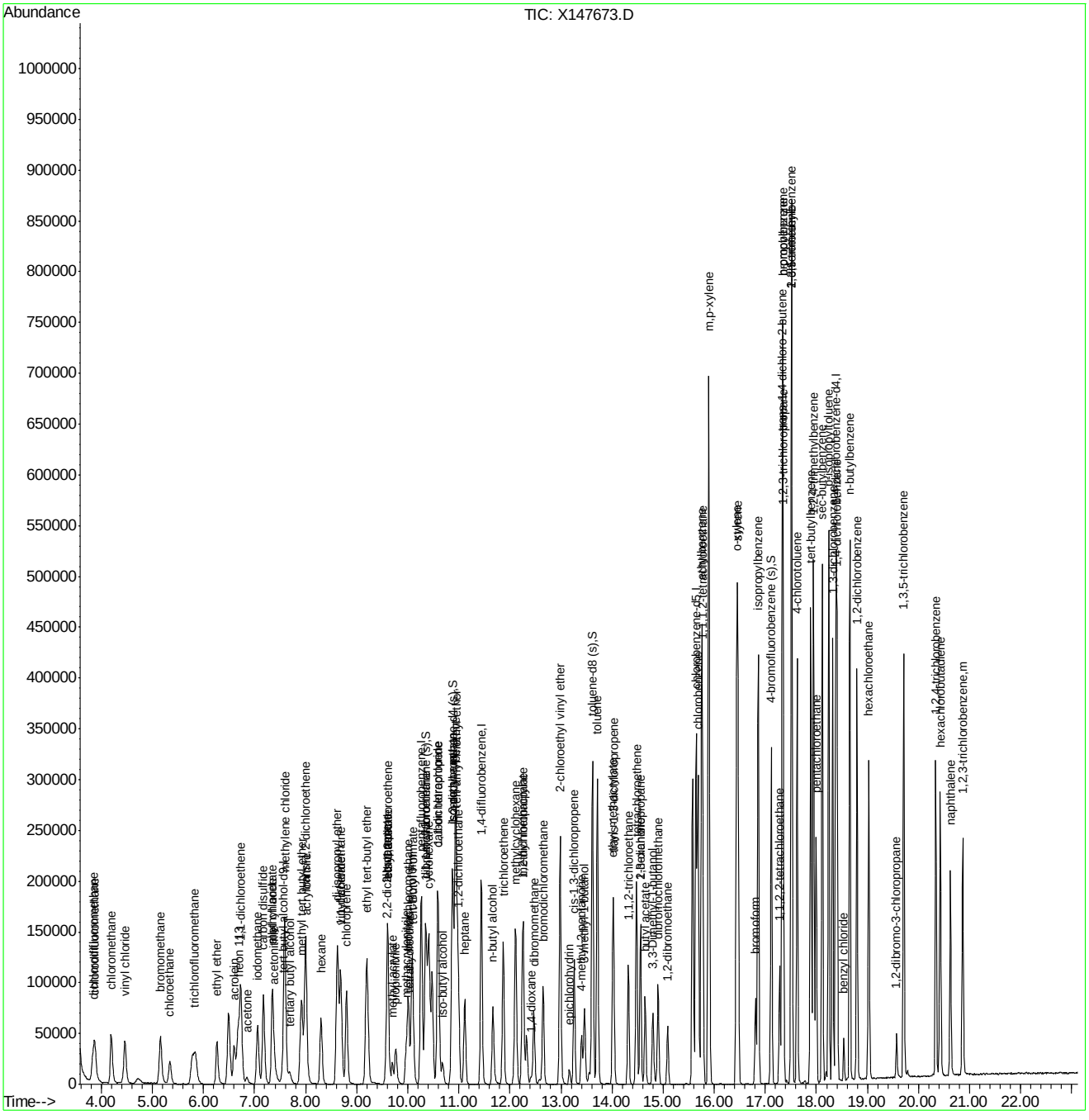
7.4.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147673.D
Acq On : 20 Jun 2014 2:25 pm
Operator : KingC
Sample : jb69587-12msd
Misc : MS69379,VX6383,4.5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 20 14:57:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145545.D
Acq On : 20 Jun 2014 2:50 pm
Operator : KingC
Sample : jb69587-16ms
Misc : MS69379,VV6205,4.9,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 23 12:40:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	39697	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	184404	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	238609	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	213808	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	112107	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.51	113	62965	50.31	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 100.62%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	55134	42.36	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 84.72%			
71) toluene-d8 (s)	12.12	98	257562	54.21	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 108.42%			
94) 4-bromofluorobenzene (s)	15.11	95	92991	47.88	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 95.76%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.34	59	23245	267.91	ug/L	86
3) 1,4-dioxane	11.15	88	10147	1171.86	ug/L	95
6) chlorodifluoromethane	4.02	51	58457	38.98	ug/L	97
7) dichlorodifluoromethane	4.01	85	71835	37.10	ug/L	98
8) chloromethane	4.33	50	89507	40.05	ug/L	99
9) vinyl chloride	4.56	62	82360	34.94	ug/L	99
10) bromomethane	5.18	96	52187	43.89	ug/L	97
11) chloroethane	5.35	64	41705	45.40	ug/L	97
12) trichlorofluoromethane	5.75	101	90063	42.68	ug/L	97
13) ethyl ether	6.15	74	30494	43.65	ug/L	90
14) 2-chloropropane	6.35	43	104611	42.04	ug/L	98
15) acrolein	6.42	56	58812	230.76	ug/L	99
16) freon 113	6.52	151	38829	42.16	ug/L	99
17) 1,1-dichloroethene	6.57	96	53157	42.24	ug/L	97
18) acetone	6.63	43	13491	38.07	ug/L	92
19) iso-butyl alcohol	10.02	74	19945	465.89	ug/L	90
20) allyl chloride	7.08	76	28491	39.30	ug/L	100
21) acetonitrile	7.08	41	127102	361.48	ug/L	87
22) iodomethane	6.85	142	109472	44.46	ug/L	98
23) carbon disulfide	6.98	76	197439	41.13	ug/L	99
24) methylene chloride	7.28	84	72535	42.36	ug/L	99
25) 1-chloropropane	7.31	42	107861	42.71	ug/L	99
26) methyl acetate	7.07	43	28797	37.91	ug/L	98
27) methyl tert butyl ether	7.58	73	158105	41.09	ug/L	99
28) trans-1,2-dichloroethene	7.64	96	66017	44.95	ug/L	99
29) di-isopropyl ether	8.15	45	211016	47.54	ug/L	92
30) 2-butanone	8.92	72	4207	32.81	ug/L	94
31) 1,1-dichloroethane	8.21	63	121017	47.41	ug/L	99
32) chloroprene	8.31	53	81494	38.82	ug/L	99
33) acrylonitrile	7.60	53	71325	180.70	ug/L	98
34) vinyl acetate	8.18	86	5956	31.92	ug/L #	46
35) ethyl tert-butyl ether	8.62	59	191953	46.24	ug/L	99
36) ethyl acetate	8.92	45	5131	34.26	ug/L	78

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145545.D
Acq On : 20 Jun 2014 2:50 pm
Operator : KingC
Sample : jb69587-16ms
Misc : MS69379,VV6205,4.9,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 23 12:40:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.94	77	38158	18.34	ug/L		93
38) cis-1,2-dichloroethene	8.95	96	70060	46.04	ug/L		92
39) propionitrile	9.02	54	54058	374.78	ug/L		94
40) methyl acrylate	9.01	85	5359	33.70	ug/L		96
41) methacrylonitrile	9.20	67	15446	37.33	ug/L		98
42) bromochloromethane	9.26	128	30337	45.07	ug/L		97
43) tetrahydrofuran	9.32	42	13452	34.83	ug/L		98
44) chloroform	9.32	83	114859	47.46	ug/L		97
45) tert-Butyl Formate	9.35	59	32638	34.57	ug/L	#	84
48) 1,1,1-trichloroethane	9.57	97	94009	46.63	ug/L		97
49) Cyclohexane	9.64	84	83371	42.89	ug/L		99
51) methylcyclohexane	10.97	83	86589	35.51	ug/L		100
52) epichlorohydrin	11.72	57	14618	144.41	ug/L		95
53) n-butyl alcohol	10.52	56	55740	1564.89	ug/L		98
54) carbon tetrachloride	9.77	117	81581	45.76	ug/L		98
55) 1,1-dichloropropene	9.75	75	80960	44.00	ug/L		99
56) hexane	7.91	57	46794	26.65	ug/L		99
57) 2,2,4-Trimethylpentane	10.00	57	152780	29.12	ug/L		95
58) benzene	10.02	78	254133	45.18	ug/L		99
59) tert-amyl methyl ether	10.04	73	175663	44.68	ug/L		99
60) heptane	10.17	57	24541	25.24	ug/L		97
61) isopropyl acetate	10.04	61	10255	45.48	ug/L	#	74
62) 1,2-dichloroethane	10.04	62	71857	44.80	ug/L		100
63) trichloroethene	10.75	95	62918	46.60	ug/L		96
64) 2-chloroethyl vinyl ether	11.57	63	119098	199.52	ug/L		99
65) methyl methacrylate	11.02	100	10293	36.05	ug/L	#	86
66) 1,2-dichloropropane	11.03	63	66404	47.04	ug/L		99
67) dibromomethane	11.20	93	32604	42.85	ug/L		95
68) bromodichloromethane	11.33	83	83995	47.10	ug/L		99
69) 2-nitropropane	11.57	41	14569	41.01	ug/L		98
70) cis-1,3-dichloropropene	11.82	75	87529	40.10	ug/L		99
72) 4-methyl-2-pentanone	11.91	58	16105	38.47	ug/L		94
73) toluene	12.20	92	158311	46.80	ug/L		98
74) isoamyl alcohol	11.94	55	35948	711.48	ug/L		99
75) trans-1,3-dichloropropene	12.43	75	74833	38.13	ug/L		95
76) ethyl methacrylate	12.41	69	59798	38.68	ug/L		97
77) 1,1,2-trichloroethane	12.66	83	39061	41.68	ug/L		97
78) 2-hexanone	12.85	58	14451	35.64	ug/L		93
80) tetrachloroethene	12.85	166	69121	49.61	ug/L		98
81) 1,3-dichloropropane	12.87	76	80264	43.32	ug/L		96
82) butyl acetate	12.92	73	9741	35.90	ug/L		92
83) 3,3-Dimethyl-1-Butanol	13.04	69	30067	308.34	ug/L		98
84) dibromochloromethane	13.16	129	59084	44.85	ug/L		96
85) 1,2-dibromoethane	13.33	107	45881	39.19	ug/L		99
86) chlorobenzene	13.83	112	182312	46.82	ug/L		100
87) 1,1,1,2-tetrachloroethane	13.90	131	67852	46.74	ug/L		97
88) ethylbenzene	13.89	91	312250	49.12	ug/L		100
89) m,p-xylene	14.01	106	239761	97.18	ug/L		100
90) o-xylene	14.48	106	120854	48.58	ug/L		99
91) styrene	14.50	104	201983	49.03	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145545.D
Acq On : 20 Jun 2014 2:50 pm
Operator : KingC
Sample : jb69587-16ms
Misc : MS69379,VV6205,4.9,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 23 12:40:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

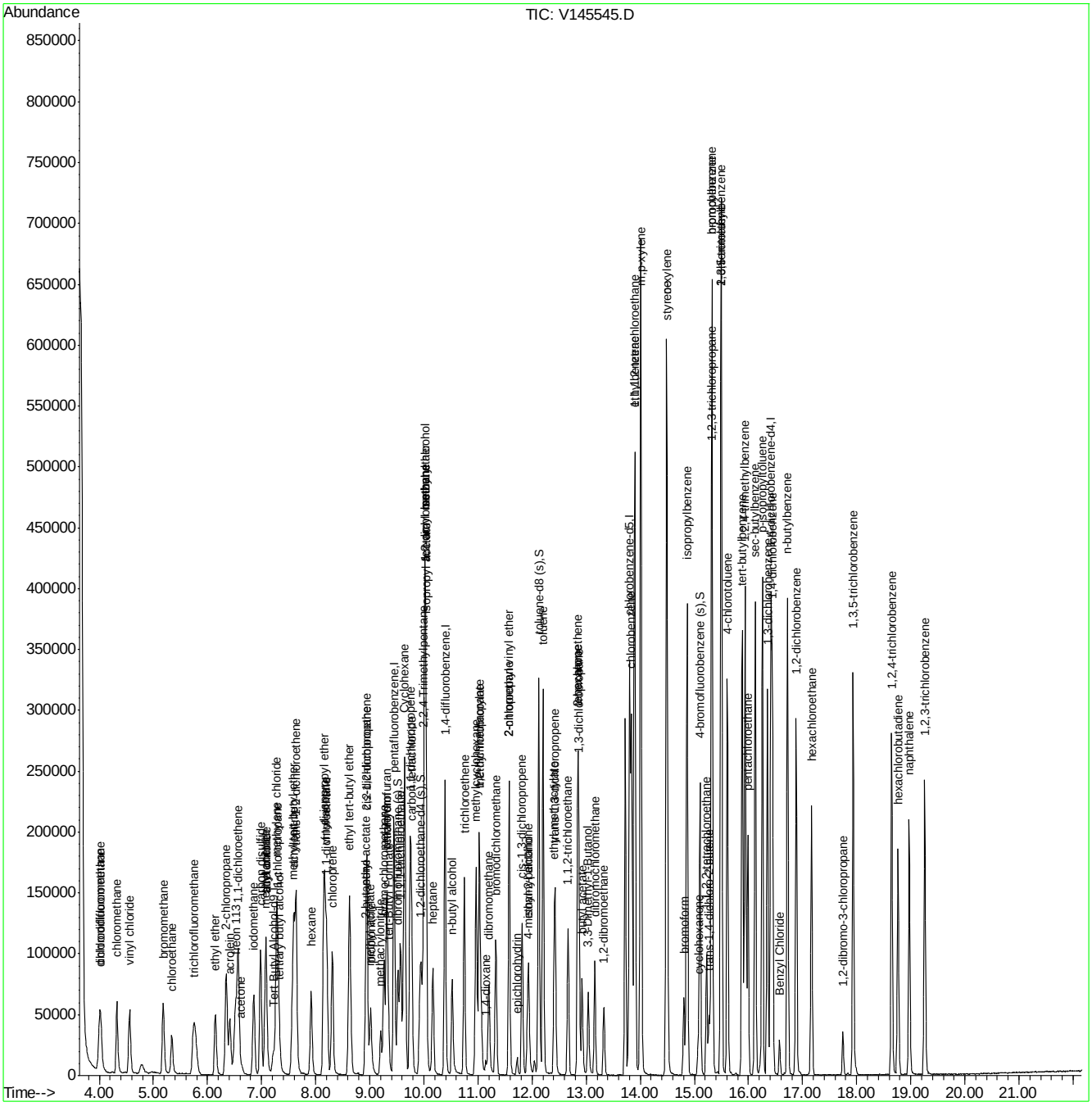
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
92) bromoform	14.81	173	36814	41.07 ug/L	95
93) cyclohexanone	15.07	55	14220	77.96 ug/L	95
96) isopropylbenzene	14.86	105	306847	50.69 ug/L	100
97) 1,1,2,2-tetrachloroethane	15.23	83	61550	39.44 ug/L	97
98) trans-1,4-dichloro-2-buten	15.27	53	10717	28.19 ug/L	95
99) 1,2,3-trichloropropane	15.31	110	15224	40.01 ug/L #	85
100) bromobenzene	15.32	156	79398	49.45 ug/L	97
101) n-propylbenzene	15.32	91	353334	47.84 ug/L	99
102) 2-chlorotoluene	15.50	126	77615	48.79 ug/L	97
103) 4-chlorotoluene	15.61	91	224845	48.15 ug/L	98
104) 1,3,5-trimethylbenzene	15.49	105	261140	48.25 ug/L	100
105) tert-butylbenzene	15.88	119	216127	47.67 ug/L	98
106) pentachloroethane	15.99	167	46412	45.31 ug/L	97
107) 1,2,4-trimethylbenzene	15.94	105	260495	48.25 ug/L	99
108) sec-butylbenzene	16.12	105	335219	46.45 ug/L	99
109) p-isopropyltoluene	16.26	119	281058	47.02 ug/L	98
110) 1,3-dichlorobenzene	16.35	146	157191	46.52 ug/L	98
111) 1,4-dichlorobenzene	16.44	146	156881	46.59 ug/L	99
112) 1,2-dichlorobenzene	16.88	146	147744	45.69 ug/L	99
113) Benzyl Chloride	16.57	91	24885	8.99 ug/L	96
115) n-butylbenzene	16.72	92	137082	43.17 ug/L	99
116) hexachloroethane	17.17	201	46228	41.97 ug/L	99
117) 1,2-dibromo-3-chloropropan	17.75	157	11779	33.89 ug/L	97
118) 1,3,5-trichlorobenzene	17.93	180	122960	42.93 ug/L	97
119) 1,2,4-trichlorobenzene	18.65	180	108687	41.97 ug/L	96
120) hexachlorobutadiene	18.77	225	48211	37.44 ug/L	97
121) naphthalene	18.97	128	206892	38.73 ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	100510	42.58 ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145545.D
Acq On : 20 Jun 2014 2:50 pm
Operator : KingC
Sample : jb69587-16ms
Misc : MS69379,VV6205,4.9,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 23 12:40:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132087.D
Acq On : 22 Jun 2014 1:22 am
Operator : HeeEunA
Sample : jb69552-11ms
Misc : MS69352,V3A5714,5.0,,,,5
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 23 11:44:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	100877	500.00	ug/L	-0.01
5) pentafluorobenzene	10.78	168	255800	50.00	ug/L	-0.02
55) 1,4-difluorobenzene	11.75	114	292882	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	263452	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.58	152	160591	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.87	113	82675	47.95	ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 95.90%			
50) 1,2-dichloroethane-d4 (s)	11.32	65	85441	43.91	ug/L	-0.01
Spiked Amount 50.000	Range 72 - 123		Recovery = 87.82%			
79) toluene-d8 (s)	13.46	98	297728	49.70	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 99.40%			
104) 4-bromofluorobenzene (s)	16.33	95	113852	47.43	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 94.86%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.51	59	51882	285.34	ug/L	100
4) 1,4-dioxane	12.52	88	20263	1059.69	ug/L	99
8) chlorodifluoromethane	4.28	51	67314	43.69	ug/L	99
9) dichlorodifluoromethane	4.23	85	100001	50.11	ug/L	98
10) chloromethane	4.67	50	108288	45.26	ug/L	100
11) vinyl chloride	4.97	62	114137	51.04	ug/L	99
12) bromomethane	5.76	94	74488	48.17	ug/L	99
15) 2-CHLOROPROPANE	7.25	43	128875	47.40	ug/L	100
16) chloroethane	5.98	64	50641	50.68	ug/L	96
17) trichlorofluoromethane	6.51	101	130891	53.26	ug/L	99
19) 1-CHLOROPROPANE	8.40	42	138420	42.17	ug/L	97
20) ethyl ether	7.00	74	45258	50.82	ug/L	92
21) acrolein	7.38	56	169980	463.03	ug/L	96
22) 1,1-dichloroethene	7.51	96	79674	52.30	ug/L	98
23) acetone	7.66	43	27002	48.60	ug/L	96
24) allyl chloride	8.15	76	38988	49.59	ug/L	89
25) acetonitrile	8.22	40	41339	477.37	ug/L	99
26) iodomethane	7.85	142	163875	52.42	ug/L	99
27) iso-butyl alcohol	11.35	74	27457	508.04	ug/L	91
28) carbon disulfide	7.96	76	276806	50.18	ug/L	98
29) methylene chloride	8.39	84	89319	47.94	ug/L	95
30) methyl acetate	8.16	43	63860	46.05	ug/L	99
31) methyl tert butyl ether	8.71	73	252203	49.93	ug/L	98
32) trans-1,2-dichloroethene	8.78	61	119703	50.25	ug/L	95
33) di-isopropyl ether	9.35	45	250292	47.11	ug/L	98
34) 2-butanone	10.24	72	10376	50.18	ug/L #	43
35) 1,1-dichloroethane	9.44	63	151497	49.74	ug/L	99
36) chloroprene	9.53	53	110362	51.21	ug/L	97
37) acrylonitrile	8.83	53	171734	259.36	ug/L	98
38) vinyl acetate	9.43	86	13379	45.71	ug/L	78
39) ethyl tert-butyl ether	9.87	59	256979	48.71	ug/L	99
40) ethyl acetate	10.23	45	10944	46.88	ug/L	88
41) 2,2-dichloropropane	10.23	77	81808	34.94	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132087.D
Acq On : 22 Jun 2014 1:22 am
Operator : HeeEunA
Sample : jb69552-11ms
Misc : MS69352,V3A5714,5.0,,,,5
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 23 11:44:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.25	96	96665	51.11 ug/L	92
43) methylacrylate	10.32	85	14246	49.30 ug/L	92
44) propionitrile	10.41	54	133872	522.19 ug/L	98
45) bromochloromethane	10.60	128	51423	54.45 ug/L	90
46) tetrahydrofuran	10.62	42	26619	39.72 ug/L	95
47) chloroform	10.66	85	98891	50.30 ug/L	99
48) t-butyl formate	10.66	59	4546	3.00 ug/L #	1
51) freon 113	7.43	151	65824	55.56 ug/L	94
52) methacrylonitrile	10.56	41	70028	63.62 ug/L	96
53) 1,1,1-trichloroethane	10.88	97	134638	53.67 ug/L	98
54) Cyclohexane	10.91	84	128082	52.20 ug/L	92
56) epichlorohydrin	13.12	57	31145	162.38 ug/L	99
57) n-butyl alcohol	11.93	56	131665	2621.06 ug/L	96
58) carbon tetrachloride	11.08	117	128494	57.27 ug/L	99
59) 1,1-dichloropropene	11.07	75	117152	53.96 ug/L	99
61) hexane	9.06	57	77371	40.96 ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	267229	46.40 ug/L	100
63) benzene	11.35	78	341092	52.60 ug/L	99
64) tert-amyl methyl ether	11.36	87	61775	52.47 ug/L #	88
65) heptane	11.46	57	42489	37.12 ug/L	99
66) isopropyl acetate	11.28	43	192967	47.08 ug/L	97
67) 1,2-dichloroethane	11.41	62	108335	50.01 ug/L	99
69) trichloroethene	12.09	95	90229	53.79 ug/L	96
71) methyl methacrylate	12.38	69	59465	51.74 ug/L	93
72) 2-nitropropane	12.98	41	22561	32.26 ug/L	100
73) 2-chloroethyl vinyl ether	13.12	63	1027	0.90 ug/L #	46
74) 1,2-dichloropropane	12.40	63	86998	50.71 ug/L	100
75) dibromomethane	12.58	93	59368	52.57 ug/L	94
76) methylcyclohexane	12.28	83	141487	53.27 ug/L	96
77) bromodichloromethane	12.71	83	122930	52.42 ug/L	99
78) cis-1,3-dichloropropene	13.18	75	135754	47.78 ug/L	97
80) 4-methyl-2-pentanone	13.28	58	39219	57.33 ug/L	96
81) toluene	13.54	92	238609	62.28 ug/L	100
82) 3-methyl-1-butanol	13.32	55	86674	1160.45 ug/L	97
83) trans-1,3-dichloropropene	13.79	75	124626	48.90 ug/L	96
84) ethyl methacrylate	13.73	69	117132	53.46 ug/L	94
85) 1,1,2-trichloroethane	14.02	83	68987	52.16 ug/L	99
86) 2-hexanone	14.19	58	35250	50.22 ug/L	91
88) tetrachloroethene	14.14	164	83603	54.81 ug/L	99
90) 1,3-dichloropropane	14.21	76	131789	52.12 ug/L	96
91) butyl acetate	14.23	56	54186	49.87 ug/L	96
92) 3,3-dimethyl-1-butanol	14.37	57	94953	584.29 ug/L	98
93) dibromochloromethane	14.50	129	108259	54.90 ug/L	98
94) 1,2-dibromoethane	14.66	107	89819	53.59 ug/L	98
95) chlorobenzene	15.12	112	250544	53.98 ug/L	99
96) 1,1,1,2-tetrachloroethane	15.19	131	106612	55.89 ug/L	99
97) ethylbenzene	15.16	91	1744414	227.52 ug/L	98
98) m,p-xylene	15.27	106	1454346	503.23 ug/L	96
99) o-xylene	15.73	106	492008	162.51 ug/L	98
100) styrene	15.74	104	289911	58.67 ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132087.D
Acq On : 22 Jun 2014 1:22 am
Operator : HeeEunA
Sample : jb69552-11ms
Misc : MS69352,V3A5714,5.0,,,,5
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 23 11:44:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) bromoform	16.07	173	87768	56.63	ug/L	99
103) isopropylbenzene	16.08	105	585923	72.87	ug/L	99
105) cyclohexanone	16.34	98	14450	131.76	ug/L	96
106) bromobenzene	16.55	156	125674	53.42	ug/L	89
107) 1,1,2,2-tetrachloroethane	16.46	83	129743	53.99	ug/L	99
108) trans-1,4-dichloro-2-buten	16.50	53	20655	31.94	ug/L	97
109) 1,2,3-trichloropropane	16.55	110	34336	53.51	ug/L	99
110) n-propylbenzene	16.51	120	202806	97.94	ug/L	94
111) 2-chlorotoluene	16.70	126	112478	54.16	ug/L	97
112) 4-chlorotoluene	16.80	126	110817	52.78	ug/L	96
113) 1,3,5-trimethylbenzene	16.67	105	979868	138.78	ug/L	99
114) tert-butylbenzene	17.05	119	350028	58.01	ug/L	98
115) pentachloroethane	17.17	167	87985	57.97	ug/L	99
116) 1,2,4-trimethylbenzene	17.10	105	2606566	381.71	ug/L	98
117) sec-butylbenzene	17.27	105	562100	61.47	ug/L	99
118) 1,3-dichlorobenzene	17.52	146	239000	52.64	ug/L	98
119) p-isopropyltoluene	17.40	119	471495	59.19	ug/L	98
120) 1,4-dichlorobenzene	17.60	146	245434	52.27	ug/L	100
121) 1,2-dichlorobenzene	18.04	146	243088	54.03	ug/L	99
122) benzyl chloride	17.74	91	233004	46.16	ug/L #	81
123) n-butylbenzene	17.85	92	263485	67.30	ug/L	98
124) 1,2-dibromo-3-chloropropan	18.92	75	25667	54.23	ug/L	93
125) 1,3,5-TRICHLOROBENZENE	19.07	180	212304	49.72	ug/L	100
126) 1,2,4-trichlorobenzene	19.78	180	192783	47.98	ug/L	99
127) hexachlorobutadiene	19.86	225	104169	49.39	ug/L	99
128) naphthalene	20.11	128	1297831	152.16	ug/L	99
129) 1,2,3-trichlorobenzene	20.38	180	175784	48.28	ug/L	98
130) hexachloroethane	18.30	201	92214	58.92	ug/L	99

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

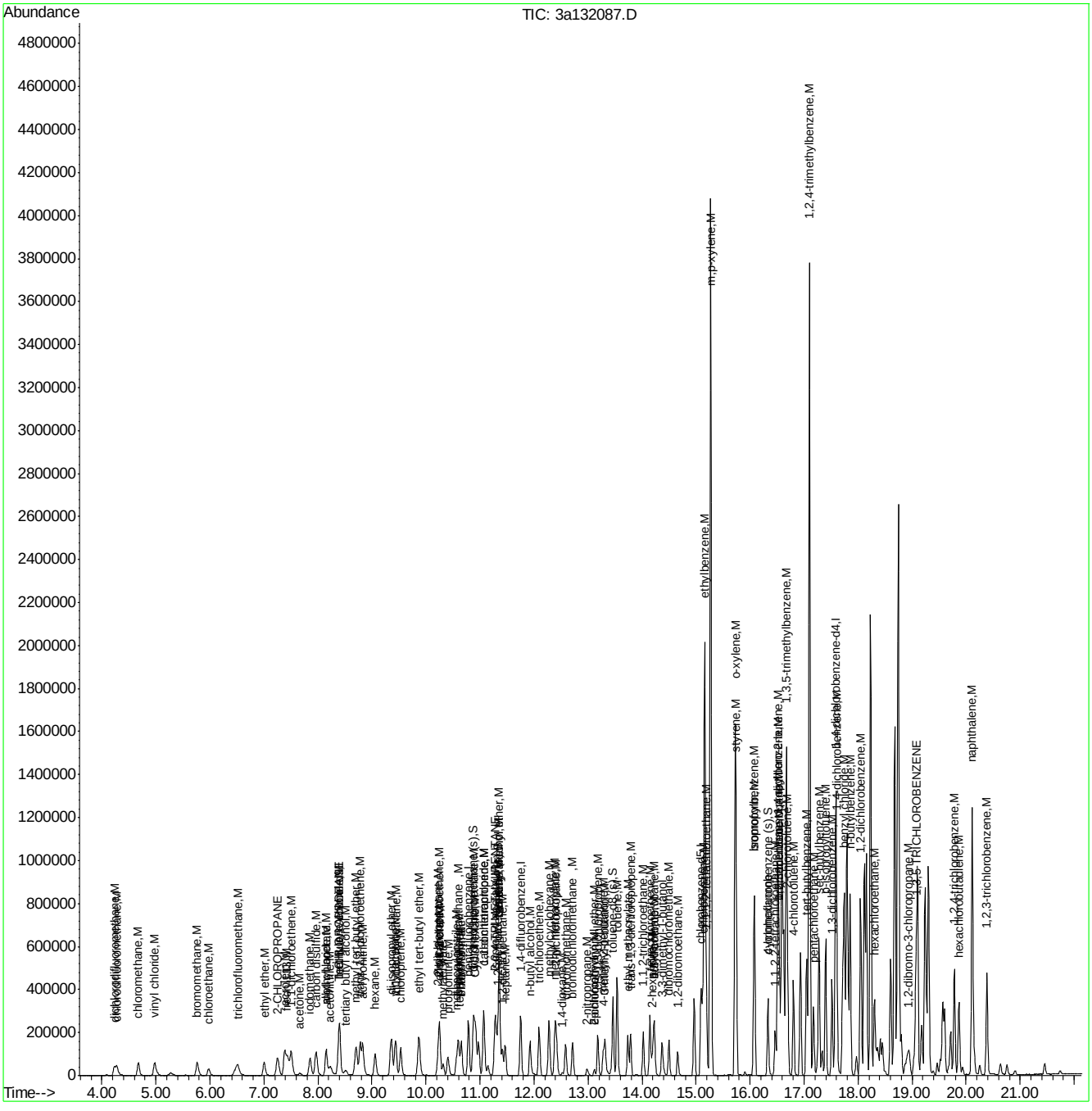
7.4.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132087.D
Acq On : 22 Jun 2014 1:22 am
Operator : HeeEunA
Sample : jb69552-11ms
Misc : MS69352,V3A5714,5.0,,,,5
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 23 11:44:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132088.D
Acq On : 22 Jun 2014 1:52 am
Operator : HeeEunA
Sample : jb69552-11msd
Misc : MS69352,V3A5714,5.0,,,,5
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 23 11:44:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	99239	500.00	ug/L	-0.01
5) pentafluorobenzene	10.79	168	259766	50.00	ug/L	-0.01
55) 1,4-difluorobenzene	11.75	114	292781	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	266209	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.58	152	159778	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.87	113	83195	47.51	ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 95.02%			
50) 1,2-dichloroethane-d4 (s)	11.32	65	85448	43.24	ug/L	-0.01
Spiked Amount 50.000	Range 72 - 123		Recovery = 86.48%			
79) toluene-d8 (s)	13.46	98	298319	49.81	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 99.62%			
104) 4-bromofluorobenzene (s)	16.33	95	113296	47.44	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 94.88%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.51	59	54599	305.24	ug/L	100
4) 1,4-dioxane	12.52	88	21511	1143.52	ug/L	97
8) chlorodifluoromethane	4.28	51	68046	43.49	ug/L	99
9) dichlorodifluoromethane	4.23	85	103005	50.82	ug/L	98
10) chloromethane	4.67	50	104702	43.09	ug/L	99
11) vinyl chloride	4.97	62	112726	49.64	ug/L	100
12) bromomethane	5.77	94	73651	46.90	ug/L	100
15) 2-CHLOROPROPANE	7.25	43	122647	44.42	ug/L	100
16) chloroethane	5.98	64	50475	49.74	ug/L	98
17) trichlorofluoromethane	6.50	101	131088	52.52	ug/L	99
19) 1-CHLOROPROPANE	8.40	42	134017	40.21	ug/L	98
20) ethyl ether	7.00	74	44329	49.01	ug/L	97
21) acrolein	7.38	56	165131	442.96	ug/L	99
22) 1,1-dichloroethene	7.50	96	75869	49.04	ug/L	97
23) acetone	7.66	43	26804	47.51	ug/L	98
24) allyl chloride	8.15	76	36366	45.55	ug/L	87
25) acetonitrile	8.22	40	41800	475.33	ug/L	87
26) iodomethane	7.85	142	158049	49.78	ug/L	99
27) iso-butyl alcohol	11.35	74	27990	509.99	ug/L #	86
28) carbon disulfide	7.96	76	259670	46.36	ug/L	99
29) methylene chloride	8.39	84	87674	46.34	ug/L	96
30) methyl acetate	8.16	43	64377	45.72	ug/L	99
31) methyl tert butyl ether	8.70	73	251515	49.03	ug/L	97
32) trans-1,2-dichloroethene	8.78	61	117822	48.70	ug/L	97
33) di-isopropyl ether	9.36	45	253226	46.93	ug/L	98
34) 2-butanone	10.24	72	10604	50.50	ug/L #	40
35) 1,1-dichloroethane	9.44	63	148614	48.05	ug/L	98
36) chloroprene	9.53	53	111177	50.80	ug/L	97
37) acrylonitrile	8.83	53	170514	253.58	ug/L	99
38) vinyl acetate	9.43	86	14065	47.32	ug/L	68
39) ethyl tert-butyl ether	9.87	59	259597	48.46	ug/L	98
40) ethyl acetate	10.23	45	11027	46.51	ug/L	86
41) 2,2-dichloropropane	10.22	77	78107	32.85	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132088.D
Acq On : 22 Jun 2014 1:52 am
Operator : HeeEunA
Sample : jb69552-11msd
Misc : MS69352,V3A5714,5.0,,,,5
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 23 11:44:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	10.25	96	95692	49.82	ug/L		91
43) methylacrylate	10.32	85	14230	48.53	ug/L		91
44) propionitrile	10.41	54	134419	516.32	ug/L		99
45) bromochloromethane	10.60	128	51440	53.64	ug/L		89
46) tetrahydrofuran	10.62	42	27309	40.13	ug/L		97
47) chloroform	10.65	85	98220	49.20	ug/L		99
48) t-butyl formate	10.66	59	4169	2.71	ug/L	#	1
51) freon 113	7.44	151	66837	55.55	ug/L		95
52) methacrylonitrile	10.56	41	69666	62.32	ug/L		96
53) 1,1,1-trichloroethane	10.88	97	132378	51.96	ug/L		97
54) Cyclohexane	10.91	84	125402	50.33	ug/L		93
56) epichlorohydrin	13.12	57	31037	161.87	ug/L		99
57) n-butyl alcohol	11.93	56	134142	2671.30	ug/L		95
58) carbon tetrachloride	11.08	117	126048	56.19	ug/L		98
59) 1,1-dichloropropene	11.07	75	115134	53.05	ug/L		98
61) hexane	9.06	57	82017	43.44	ug/L		99
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	277647	48.23	ug/L		99
63) benzene	11.35	78	338445	52.21	ug/L		99
64) tert-amyl methyl ether	11.35	87	61507	52.26	ug/L		95
65) heptane	11.46	57	45095	39.41	ug/L		97
66) isopropyl acetate	11.28	43	199665	48.73	ug/L		96
67) 1,2-dichloroethane	11.41	62	108508	50.11	ug/L		100
69) trichloroethene	12.09	95	89458	53.35	ug/L		96
71) methyl methacrylate	12.38	69	60668	52.81	ug/L		91
72) 2-nitropropane	12.98	41	22247	31.82	ug/L		99
73) 2-chloroethyl vinyl ether	13.12	63	1084	0.95	ug/L	#	46
74) 1,2-dichloropropane	12.40	63	86756	50.59	ug/L		100
75) dibromomethane	12.58	93	58867	52.14	ug/L		92
76) methylcyclohexane	12.28	83	143925	54.20	ug/L		96
77) bromodichloromethane	12.71	83	122847	52.40	ug/L		99
78) cis-1,3-dichloropropene	13.18	75	135792	47.81	ug/L		96
80) 4-methyl-2-pentanone	13.28	58	39176	57.29	ug/L		95
81) toluene	13.54	92	237764	62.08	ug/L		99
82) 3-methyl-1-butanol	13.32	55	88303	1182.66	ug/L		95
83) trans-1,3-dichloropropene	13.79	75	124223	48.76	ug/L		95
84) ethyl methacrylate	13.73	69	117298	53.55	ug/L		95
85) 1,1,2-trichloroethane	14.02	83	68882	52.10	ug/L		98
86) 2-hexanone	14.19	58	35852	51.09	ug/L		89
88) tetrachloroethene	14.14	164	85175	55.27	ug/L		98
90) 1,3-dichloropropane	14.21	76	131900	51.62	ug/L		95
91) butyl acetate	14.23	56	55748	50.78	ug/L		92
92) 3,3-dimethyl-1-butanol	14.37	57	99629	606.72	ug/L		98
93) dibromochloromethane	14.50	129	108661	54.53	ug/L		98
94) 1,2-dibromoethane	14.66	107	90276	53.30	ug/L		98
95) chlorobenzene	15.12	112	251891	53.71	ug/L		99
96) 1,1,1,2-tetrachloroethane	15.19	131	104845	54.39	ug/L		99
97) ethylbenzene	15.16	91	1688717	217.97	ug/L		98
98) m,p-xylene	15.27	106	1424077	487.66	ug/L		96
99) o-xylene	15.73	106	478772	156.50	ug/L		97
100) styrene	15.74	104	286198	57.31	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132088.D
Acq On : 22 Jun 2014 1:52 am
Operator : HeeEunA
Sample : jb69552-11msd
Misc : MS69352,V3A5714,5.0,,,,5
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 23 11:44:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
101) bromoform	16.07	173	88518	56.52	ug/L		99
103) isopropylbenzene	16.08	105	578017	72.25	ug/L		99
105) cyclohexanone	16.34	98	14736	135.93	ug/L		95
106) bromobenzene	16.55	156	125433	53.59	ug/L		90
107) 1,1,2,2-tetrachloroethane	16.46	83	128610	53.79	ug/L		99
108) trans-1,4-dichloro-2-buten	16.50	53	18808	29.24	ug/L		98
109) 1,2,3-trichloropropane	16.55	110	34086	53.39	ug/L		99
110) n-propylbenzene	16.51	120	200161	97.15	ug/L		92
111) 2-chlorotoluene	16.70	126	112681	54.53	ug/L		94
112) 4-chlorotoluene	16.80	126	111895	53.56	ug/L		98
113) 1,3,5-trimethylbenzene	16.67	105	935995	133.24	ug/L		99
114) tert-butylbenzene	17.05	119	349970	58.29	ug/L		98
115) pentachloroethane	17.17	167	88243	58.44	ug/L		98
116) 1,2,4-trimethylbenzene	17.10	105	2566747	377.79	ug/L		99
117) sec-butylbenzene	17.27	105	560224	61.58	ug/L		99
118) 1,3-dichlorobenzene	17.52	146	238689	52.83	ug/L		99
119) p-isopropyltoluene	17.40	119	477102	60.20	ug/L		98
120) 1,4-dichlorobenzene	17.60	146	244491	52.33	ug/L		99
121) 1,2-dichlorobenzene	18.04	146	243577	54.41	ug/L		98
122) benzyl chloride	17.75	91	228263	45.45	ug/L	#	80
123) n-butylbenzene	17.85	92	264621	67.94	ug/L		99
124) 1,2-dibromo-3-chloropropan	18.92	75	25741	54.66	ug/L		92
125) 1,3,5-TRICHLOROBENZENE	19.07	180	216099	50.86	ug/L		100
126) 1,2,4-trichlorobenzene	19.78	180	196818	49.24	ug/L		100
127) hexachlorobutadiene	19.86	225	106624	50.81	ug/L		99
128) naphthalene	20.11	128	1315232	154.99	ug/L		99
129) 1,2,3-trichlorobenzene	20.38	180	180039	49.70	ug/L		97
130) hexachloroethane	18.31	201	91424	58.71	ug/L		100

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

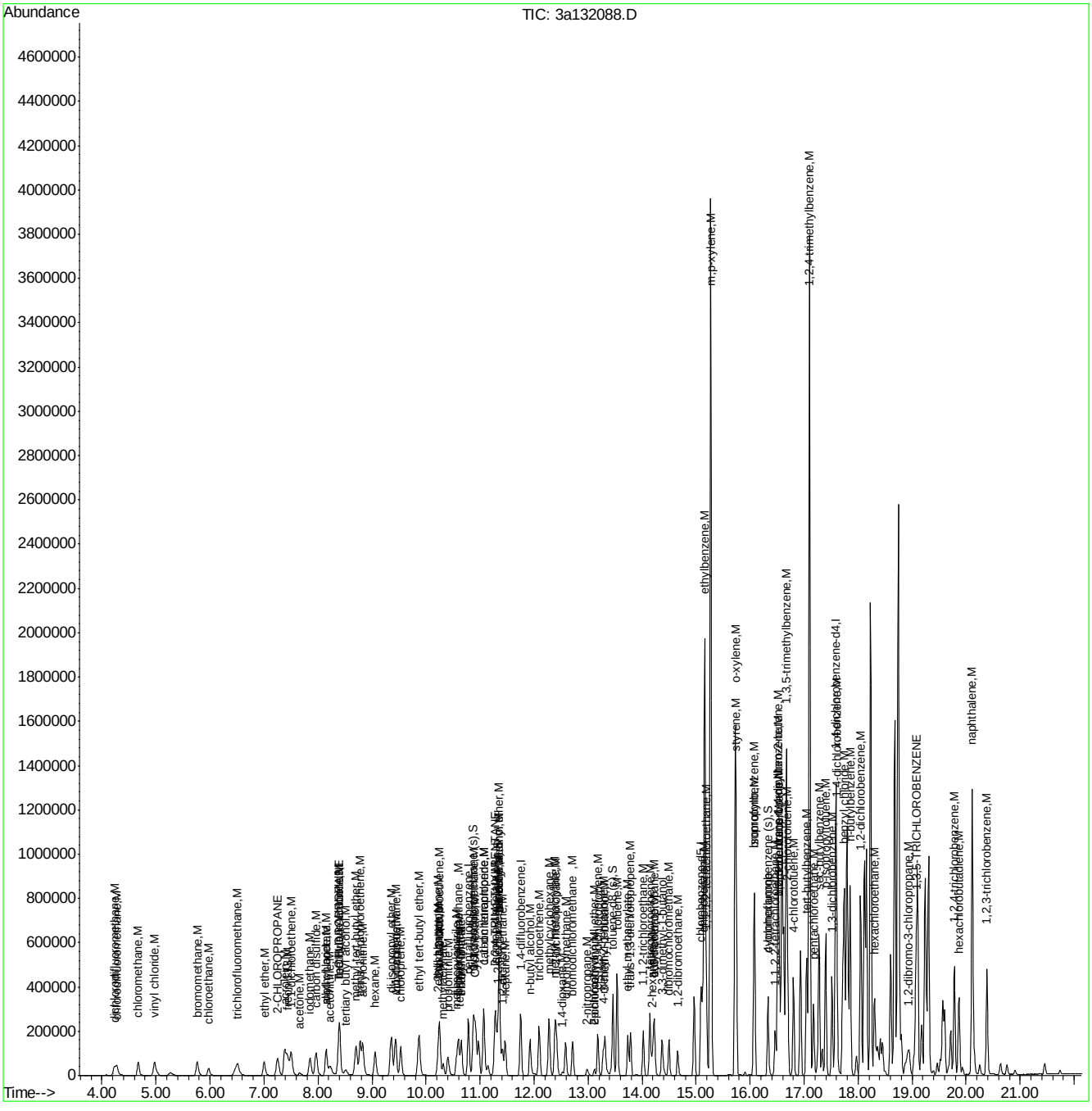
7.4.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a132088.D
Acq On : 22 Jun 2014 1:52 am
Operator : HeeEunA
Sample : jb69552-11msd
Misc : MS69352,V3A5714,5.0,,,,5
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 23 11:44:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206667.D
Acq On : 22 Jun 2014 9:21 pm
Operator : CourtneM
Sample : jb69587-4ms
Misc : MS69379,VA7793,3.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 08:08:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.485	65	67789	500.00	ug/L	0.00
4) pentafluorobenzene	9.828	168	237018	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.785	114	313332	50.00	ug/L	0.00
83) chlorobenzene-d5	14.232	117	298725	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.862	152	165062	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.885	113	96688	50.23	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 100.46%			
47) 1,2-dichloroethane-d4 (s)	10.325	65	94634	44.96	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 89.92%			
75) toluene-d8 (s)	12.542	98	354599	54.16	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 108.32%			
101) 4-bromofluorobenzene (s)	15.539	95	140582	52.36	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 104.72%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.554	88	15764	1156.40	ug/L	95
3) tertiary butyl alcohol	7.610	59	38863	230.08	ug/L	100
6) chlorodifluoromethane	3.970	51	100967	68.81	ug/L	95
7) dichlorodifluoromethane	3.944	85	120062	59.11	ug/L	95
8) chloromethane	4.268	50	147872	54.52	ug/L	95
9) vinyl chloride	4.535	62	131809	58.37	ug/L	99
10) bromomethane	5.210	94	84570	53.54	ug/L	98
11) chloroethane	5.393	64	57217	56.71	ug/L	98
13) trichlorofluoromethane	5.895	101	149261	65.86	ug/L	99
15) ethyl ether	6.297	74	43175	43.28	ug/L	97
17) acrolein	6.585	56	124612	353.13	ug/L	98
18) freon 113	6.721	151	70213	55.83	ug/L #	98
19) 1,1-dichloroethene	6.742	96	84693	53.51	ug/L	97
20) acetone	6.815	58	7856	46.93	ug/L #	68
21) allyl chloride	7.307	76	50476	54.35	ug/L	95
22) acetonitrile	7.296	40	63156	418.99	ug/L #	71
23) iodomethane	7.040	142	179216	52.74	ug/L	98
24) carbon disulfide	7.166	76	322179	55.73	ug/L	98
25) methylene chloride	7.521	84	100631	46.51	ug/L	95
26) methyl acetate	7.296	43	57700	41.73	ug/L	98
27) methyl tert butyl ether	7.846	73	242303	44.17	ug/L	100
28) trans-1,2-dichloroethene	7.908	96	96130	55.38	ug/L	99
29) hexane	8.206	57	118789	53.41	ug/L	94
30) di-isopropyl ether	8.478	45	352350	48.91	ug/L	97
31) t-butyl formate	9.707	59	59084	35.99	ug/L	95
32) ethyl tert-butyl ether	8.970	59	306752	46.70	ug/L	99
33) 2-butanone	9.252	72	8350	40.99	ug/L #	91
34) 1,1-dichloroethane	8.510	63	191831	56.61	ug/L	100
35) chloroprene	8.614	53	150138	58.91	ug/L	98
36) acrylonitrile	7.866	53	119312	212.19	ug/L	99
37) vinyl acetate	8.494	86	9227	34.57	ug/L #	31
38) ethyl acetate	9.273	45	9896	38.88	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206667.D
Acq On : 22 Jun 2014 9:21 pm
Operator : CourtneM
Sample : jb69587-4ms
Misc : MS69379,VA7793,3.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 08:08:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	2,2-dichloropropane	9.279	77	156209	60.10	ug/L		98
41)	cis-1,2-dichloroethene	9.289	96	106983	54.79	ug/L		97
42)	propionitrile	9.373	54	90926	408.40	ug/L		96
43)	bromochloromethane	9.619	128	47680	49.11	ug/L		95
44)	tetrahydrofuran	9.650	42	26182	38.33	ug/L		96
45)	chloroform	9.676	83	180004	54.30	ug/L		99
48)	methacrylonitrile	9.556	67	25758	40.03	ug/L		90
49)	cyclohexane	9.995	84	129209	51.51	ug/L		86
50)	1,1,1-trichloroethane	9.932	97	152153	57.70	ug/L		99
52)	tert-amyl methyl ether	10.419	73	266219	41.96	ug/L		97
55)	epichlorohydrin	12.140	57	32949	194.80	ug/L		98
56)	n-butyl alcohol	10.931	56	98081	1763.23	ug/L		94
57)	carbon tetrachloride	10.142	117	140842	62.11	ug/L		98
58)	1,1-dichloropropene	10.115	75	132073	59.53	ug/L		97
59)	benzene	10.393	78	381368	57.45	ug/L		99
60)	Iso-octane	10.382	57	323153	48.69	ug/L		98
61)	heptane	10.555	71	66244	49.82	ug/L		96
63)	isopropyl acetate	10.314	43	144425	35.99	ug/L		98
64)	1,2-dichloroethane	10.419	62	118867	53.52	ug/L		97
65)	trichloroethene	11.141	95	98689	58.81	ug/L		97
66)	2-nitropropane	11.988	41	29003	44.32	ug/L	#	50
68)	methylcyclohexane	11.360	83	147507	54.00	ug/L		99
69)	2-chloroethyl vinyl ether	11.998	63	245335	241.82	ug/L		99
70)	methyl methacrylate	11.428	69	47351	44.29	ug/L		80
71)	1,2-dichloropropane	11.428	63	102385	54.83	ug/L		98
72)	dibromomethane	11.601	93	51768	49.88	ug/L		99
73)	bromodichloromethane	11.742	83	135064	55.55	ug/L		98
74)	cis-1,3-dichloropropene	12.234	75	161448	53.50	ug/L		98
76)	4-methyl-2-pentanone	12.338	58	27445	42.03	ug/L		96
77)	toluene	12.621	92	233215	52.01	ug/L		95
78)	3-methyl-1-butanol	12.364	55	63345	652.26	ug/L		94
79)	trans-1,3-dichloropropene	12.851	75	144197	52.08	ug/L		98
80)	ethyl methacrylate	12.830	69	99346	43.19	ug/L		93
81)	1,1,2-trichloroethane	13.091	83	62761	46.85	ug/L		98
82)	2-hexanone	13.274	58	29753	46.74	ug/L		92
84)	tetrachloroethene	13.264	164	93048	56.14	ug/L		98
85)	1,3-dichloropropane	13.290	76	126545	49.46	ug/L		99
86)	butyl acetate	13.353	56	47883	38.38	ug/L		97
87)	3,3-dimethyl-1-butanol	13.468	57	73839	347.92	ug/L		96
88)	dibromochloromethane	13.588	129	102572	49.86	ug/L		100
89)	1,2-dibromoethane	13.756	107	74972	45.46	ug/L		99
91)	chlorobenzene	14.263	112	272053	53.26	ug/L		97
92)	1,1,1,2-tetrachloroethane	14.336	131	107820	53.76	ug/L		97
93)	ethylbenzene	14.320	91	475262	56.05	ug/L		98
94)	m,p-xylene	14.441	106	351563	108.40	ug/L		96
95)	o-xylene	14.917	106	177235	52.57	ug/L		96
96)	styrene	14.927	104	303298	51.42	ug/L		98
97)	bromoform	15.241	173	71991	47.12	ug/L		99
99)	isopropylbenzene	15.299	105	472872	57.25	ug/L		99
100)	cyclohexanone	15.508	55	114376	560.46	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206667.D
Acq On : 22 Jun 2014 9:21 pm
Operator : CourtneM
Sample : jb69587-4ms
Misc : MS69379,VA7793,3.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 08:08:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

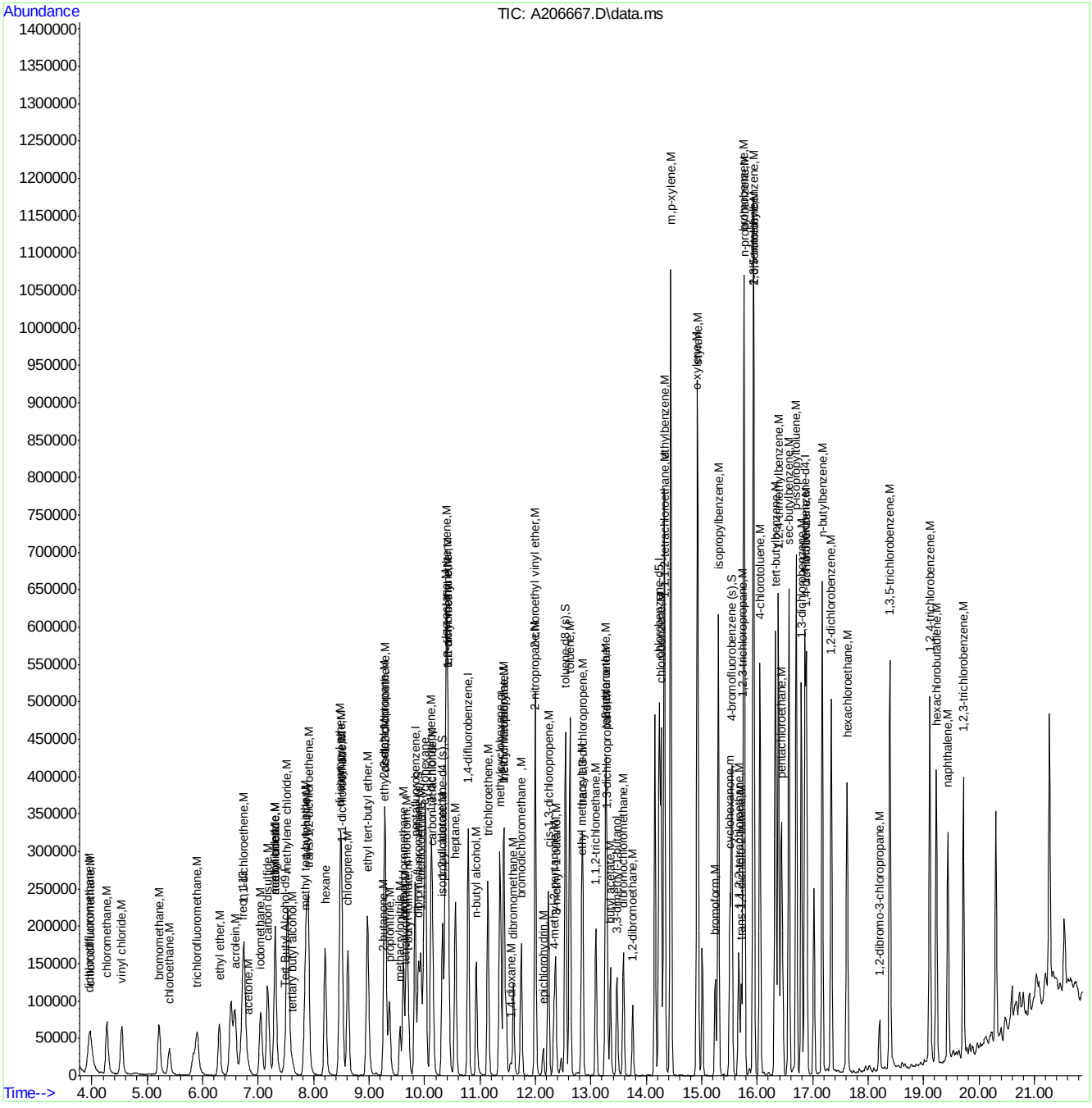
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.759	156	132413	54.24 ug/L	96
103) 1,1,2,2-tetrachloroethane	15.665	83	100671	46.00 ug/L	97
104) trans-1,4-dichloro-2-b...	15.706	53	28414	47.72 ug/L	92
105) 1,2,3-trichloropropane	15.743	110	24343	47.17 ug/L	97
106) n-propylbenzene	15.764	91	557754	56.72 ug/L	100
107) 2-chlorotoluene	15.937	126	121423	56.61 ug/L	95
108) 4-chlorotoluene	16.046	91	352821	54.89 ug/L	98
110) 1,3,5-trimethylbenzene	15.931	105	407802	55.62 ug/L	98
111) tert-butylbenzene	16.329	119	350695	57.11 ug/L	96
112) pentachloroethane	16.433	167	82666	52.07 ug/L	99
113) 1,2,4-trimethylbenzene	16.381	105	407212	55.07 ug/L	98
114) sec-butylbenzene	16.569	105	533872	55.80 ug/L	99
115) 1,3-dichlorobenzene	16.794	146	252309	53.15 ug/L	98
116) p-isopropyltoluene	16.705	119	451137	54.70 ug/L	98
118) 1,4-dichlorobenzene	16.888	146	250474	51.38 ug/L	98
120) 1,2-dichlorobenzene	17.333	146	235857	50.86 ug/L	98
121) n-butylbenzene	17.171	92	233208	52.95 ug/L	99
123) 1,2-dibromo-3-chloropr...	18.201	75	17454	41.78 ug/L	93
124) 1,3,5-trichlorobenzene	18.395	180	219386	52.43 ug/L	98
125) 1,2,4-trichlorobenzene	19.111	180	178284	49.32 ug/L	99
126) hexachlorobutadiene	19.232	225	115865	49.16 ug/L	100
127) naphthalene	19.441	128	285492	44.41 ug/L	99
128) 1,2,3-trichlorobenzene	19.718	180	150409	46.81 ug/L	99
129) hexachloroethane	17.621	201	96935	56.99 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206667.D
Acq On : 22 Jun 2014 9:21 pm
Operator : CourtneM
Sample : jb69587-4ms
Misc : MS69379,VA7793,3.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 08:08:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145608.D
Acq On : 23 Jun 2014 3:59 pm
Operator : KingC
Sample : jb69587-1ms
Misc : MS69379,VV6207,4.8,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 09:49:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	39354	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	181001	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	232585	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	209586	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	109913	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.52	113	60452	49.21	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 98.42%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	54048	42.31	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 84.62%			
71) toluene-d8 (s)	12.12	98	243914	52.67	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 105.34%			
94) 4-bromofluorobenzene (s)	15.10	95	86812	45.60	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 91.20%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.34	59	23803	276.73	ug/L	83
3) 1,4-dioxane	11.15	88	10622	1233.45	ug/L	94
6) chlorodifluoromethane	4.02	51	69229	47.03	ug/L	95
7) dichlorodifluoromethane	4.01	85	108831	57.26	ug/L	96
8) chloromethane	4.33	50	113538	51.76	ug/L	100
9) vinyl chloride	4.57	62	116522	49.03	ug/L	98
10) bromomethane	5.18	96	70162	60.12	ug/L	98
11) chloroethane	5.35	64	54200	60.12	ug/L	99
12) trichlorofluoromethane	5.76	101	124611	60.16	ug/L	97
13) ethyl ether	6.15	74	30647	44.70	ug/L	98
14) 2-chloropropane	6.34	43	115488	47.28	ug/L	97
15) acrolein	6.42	56	61910	247.48	ug/L	94
16) freon 113	6.52	151	49396	54.64	ug/L	99
17) 1,1-dichloroethene	6.57	96	66256	53.64	ug/L	95
18) acetone	6.64	43	12325	35.43	ug/L	93
19) iso-butyl alcohol	10.02	74	21095	502.02	ug/L	89
20) allyl chloride	7.08	76	33926	47.67	ug/L #	84
21) acetonitrile	7.08	41	127635	369.82	ug/L	88
22) iodomethane	6.86	142	123124	50.95	ug/L	100
23) carbon disulfide	6.98	76	234912	49.86	ug/L	100
24) methylene chloride	7.28	84	75437	44.88	ug/L	98
25) 1-chloropropane	7.30	42	119140	48.06	ug/L	98
26) methyl acetate	7.07	43	26768	35.90	ug/L	95
27) methyl tert butyl ether	7.58	73	162326	42.98	ug/L	98
28) trans-1,2-dichloroethene	7.64	96	75742	52.54	ug/L	99
29) di-isopropyl ether	8.15	45	202478	46.47	ug/L	90
30) 2-butanone	8.92	72	4524	35.60	ug/L	73
31) 1,1-dichloroethane	8.21	63	130166	51.96	ug/L	99
32) chloroprene	8.31	53	93476	45.00	ug/L	98
33) acrylonitrile	7.60	53	69728	179.98	ug/L	98
34) vinyl acetate	8.18	86	6520	35.32	ug/L	86
35) ethyl tert-butyl ether	8.62	59	191974	47.12	ug/L	98
36) ethyl acetate	8.91	45	4885	33.25	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145608.D
Acq On : 23 Jun 2014 3:59 pm
Operator : KingC
Sample : jb69587-1ms
Misc : MS69379,VV6207,4.8,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 09:49:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.94	77	53961	26.42	ug/L		97
38) cis-1,2-dichloroethene	8.95	96	78057	52.26	ug/L		91
39) propionitrile	9.02	54	51879	366.44	ug/L		91
40) methyl acrylate	9.00	85	5872	37.25	ug/L	#	77
41) methacrylonitrile	9.20	67	15382	37.87	ug/L		99
42) bromochloromethane	9.27	128	32880	49.77	ug/L		86
43) tetrahydrofuran	9.31	42	12649	33.36	ug/L		95
44) chloroform	9.31	83	125976	53.03	ug/L		97
45) tert-Butyl Formate	9.34	59	36371	39.25	ug/L	#	94
48) 1,1,1-trichloroethane	9.57	97	112397	56.79	ug/L		98
49) Cyclohexane	9.64	84	109118	57.19	ug/L		91
51) methylcyclohexane	10.97	83	111602	45.82	ug/L		97
52) epichlorohydrin	11.73	57	14665	148.63	ug/L		97
53) n-butyl alcohol	10.52	56	56777	1631.17	ug/L		93
54) carbon tetrachloride	9.77	117	101703	58.53	ug/L		100
55) 1,1-dichloropropene	9.74	75	96600	53.86	ug/L		99
56) hexane	7.92	57	56659	32.56	ug/L		95
57) 2,2,4-Trimethylpentane	9.99	57	206773	38.51	ug/L		99
58) benzene	10.02	78	285810	52.13	ug/L		99
59) tert-amyl methyl ether	10.03	73	178186	46.50	ug/L		99
60) heptane	10.17	57	27468	28.28	ug/L		97
61) isopropyl acetate	10.04	61	10956	49.84	ug/L	#	76
62) 1,2-dichloroethane	10.04	62	74827	47.86	ug/L		97
63) trichloroethene	10.75	95	72783	55.30	ug/L		97
64) 2-chloroethyl vinyl ether	11.57	63	144596	247.78	ug/L		99
65) methyl methacrylate	11.02	100	10735	38.42	ug/L		94
66) 1,2-dichloropropane	11.03	63	69066	50.19	ug/L		98
67) dibromomethane	11.20	93	34148	46.04	ug/L		97
68) bromodichloromethane	11.33	83	89566	51.52	ug/L		100
69) 2-nitropropane	11.57	41	15843	45.75	ug/L		99
70) cis-1,3-dichloropropene	11.82	75	94292	44.32	ug/L		98
72) 4-methyl-2-pentanone	11.91	58	15584	38.18	ug/L		92
73) toluene	12.20	92	177960	53.98	ug/L		98
74) isoamyl alcohol	11.94	55	35775	726.39	ug/L		98
75) trans-1,3-dichloropropene	12.43	75	80432	42.04	ug/L		99
76) ethyl methacrylate	12.41	69	59937	39.72	ug/L		97
77) 1,1,2-trichloroethane	12.66	83	41427	45.35	ug/L		97
78) 2-hexanone	12.86	58	13633	34.56	ug/L		89
80) tetrachloroethene	12.85	166	85472	62.58	ug/L		99
81) 1,3-dichloropropane	12.87	76	84101	46.31	ug/L		97
82) butyl acetate	12.92	73	9918	37.27	ug/L		92
83) 3,3-Dimethyl-1-Butanol	13.04	69	30835	321.70	ug/L		99
84) dibromochloromethane	13.16	129	63418	49.11	ug/L		98
85) 1,2-dibromoethane	13.33	107	47587	41.45	ug/L		94
86) chlorobenzene	13.84	112	198812	52.08	ug/L		100
87) 1,1,1,2-tetrachloroethane	13.91	131	74101	52.07	ug/L		97
88) ethylbenzene	13.89	91	351636	56.43	ug/L		99
89) m,p-xylene	14.01	106	269068	111.25	ug/L		99
90) o-xylene	14.48	106	134089	54.99	ug/L		100
91) styrene	14.50	104	218899	54.21	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145608.D
Acq On : 23 Jun 2014 3:59 pm
Operator : KingC
Sample : jb69587-1ms
Misc : MS69379,VV6207,4.8,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 09:49:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
92) bromoform	14.81	173	38691	44.04 ug/L	97
93) cyclohexanone	15.07	55	15029	84.05 ug/L	95
96) isopropylbenzene	14.86	105	358948	60.49 ug/L	99
97) 1,1,2,2-tetrachloroethane	15.23	83	63974	41.81 ug/L	99
98) trans-1,4-dichloro-2-buten	15.27	53	12019	32.25 ug/L	98
99) 1,2,3-trichloropropane	15.31	110	16011	42.92 ug/L #	76
100) bromobenzene	15.32	156	86274	54.81 ug/L	98
101) n-propylbenzene	15.32	91	418848	57.85 ug/L	99
102) 2-chlorotoluene	15.50	126	88491	56.74 ug/L	97
103) 4-chlorotoluene	15.61	91	251859	55.01 ug/L	100
104) 1,3,5-trimethylbenzene	15.49	105	301988	56.91 ug/L	99
105) tert-butylbenzene	15.88	119	260217	58.53 ug/L	100
106) pentachloroethane	15.99	167	48252	48.05 ug/L	96
107) 1,2,4-trimethylbenzene	15.94	105	295628	55.85 ug/L	99
108) sec-butylbenzene	16.12	105	411986	58.23 ug/L	100
109) p-isopropyltoluene	16.26	119	342093	58.37 ug/L	99
110) 1,3-dichlorobenzene	16.35	146	175654	53.02 ug/L	97
111) 1,4-dichlorobenzene	16.44	146	174642	52.90 ug/L	99
112) 1,2-dichlorobenzene	16.88	146	162038	51.11 ug/L	99
113) Benzyl Chloride	16.57	91	32330	11.91 ug/L	99
115) n-butylbenzene	16.72	92	171584	55.12 ug/L	99
116) hexachloroethane	17.17	201	56956	52.56 ug/L	99
117) 1,2-dibromo-3-chloropropan	17.75	157	12851	37.54 ug/L	96
118) 1,3,5-trichlorobenzene	17.93	180	143534	51.12 ug/L	97
119) 1,2,4-trichlorobenzene	18.65	180	124928	49.20 ug/L	98
120) hexachlorobutadiene	18.77	225	66707	52.84 ug/L	98
121) naphthalene	18.98	128	221968	42.38 ug/L	98
122) 1,2,3-trichlorobenzene	19.26	180	112288	48.52 ug/L	96

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

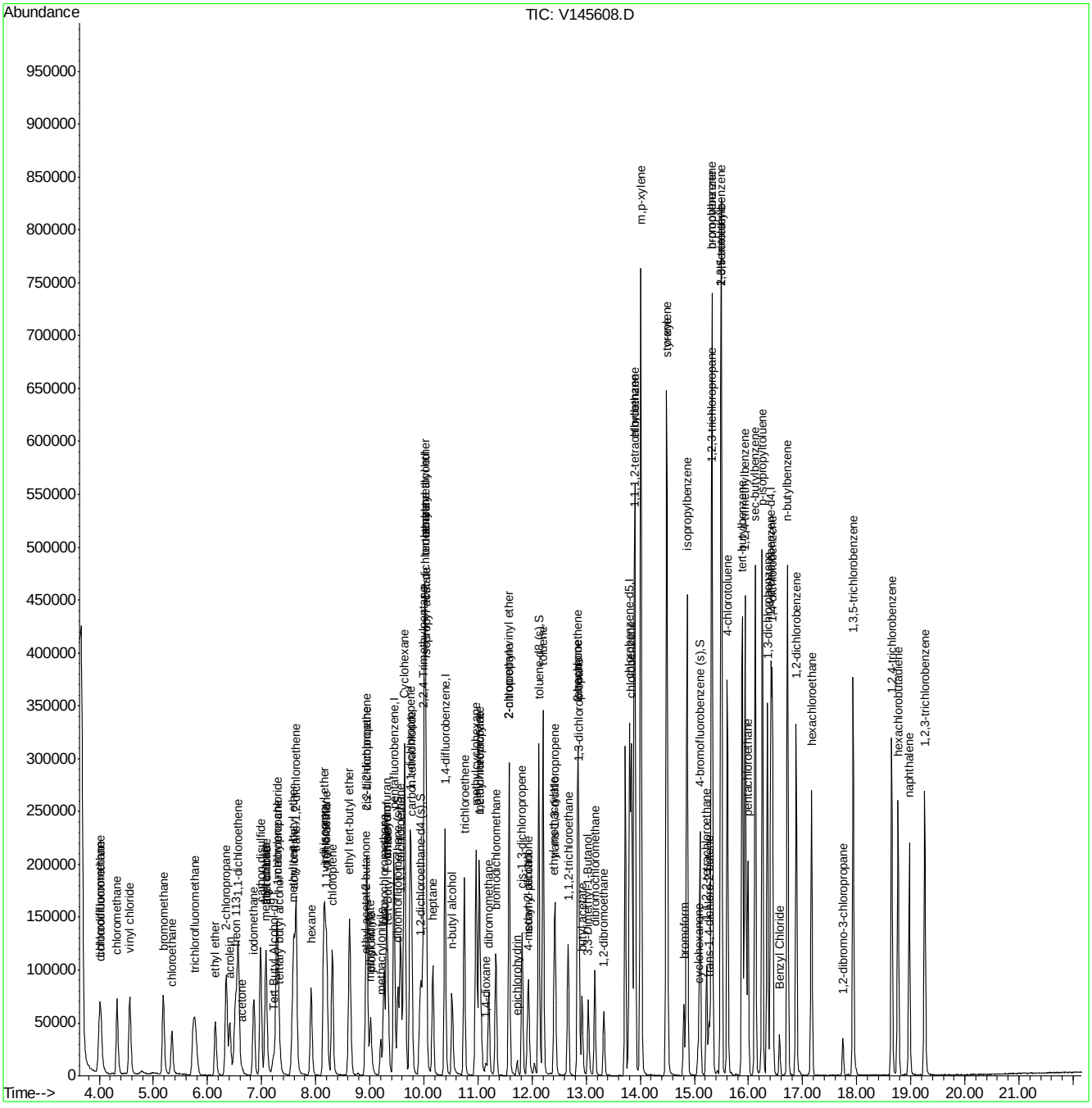
7.4.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145608.D
Acq On : 23 Jun 2014 3:59 pm
Operator : KingC
Sample : jb69587-1ms
Misc : MS69379,VV6207,4.8,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 09:49:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206701.D
Acq On : 23 Jun 2014 4:47 pm
Operator : CourtneM
Sample : jb69700-3ms
Misc : MS69423,VA7794,6.1,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 09:50:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.485	65	71426	500.00	ug/L	0.00
4) pentafluorobenzene	9.828	168	212672	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.785	114	287969	50.00	ug/L	0.00
83) chlorobenzene-d5	14.227	117	279652	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.857	152	161083	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.886	113	88745	51.38	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 102.76%			
47) 1,2-dichloroethane-d4 (s)	10.320	65	96521	51.10	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 102.20%			
75) toluene-d8 (s)	12.537	98	334091	55.52	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 111.04%			
101) 4-bromofluorobenzene (s)	15.534	95	137418	52.45	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 104.90%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.544	88	13471	937.87	ug/L #	2
3) tertiary butyl alcohol	7.616	59	34944	196.34	ug/L	100
6) chlorodifluoromethane	3.965	51	69733	52.96	ug/L	94
7) dichlorodifluoromethane	3.944	85	82298	45.16	ug/L	94
8) chloromethane	4.268	50	104802	43.06	ug/L	98
9) vinyl chloride	4.546	62	91507	45.17	ug/L	96
10) bromomethane	5.205	94	60086	42.40	ug/L	96
11) chloroethane	5.388	64	40259	44.47	ug/L	94
13) trichlorofluoromethane	5.900	101	108558	53.38	ug/L	92
15) ethyl ether	6.292	74	34002	37.99	ug/L	96
17) acrolein	6.580	56	48364	144.39	ug/L	97
18) freon 113	6.721	151	46546	41.25	ug/L	95
19) 1,1-dichloroethene	6.748	96	65877	46.39	ug/L	94
20) acetone	6.816	58	7011	46.68	ug/L #	51
21) allyl chloride	7.312	76	38564	46.28	ug/L #	76
22) acetonitrile	7.291	40	49595	366.69	ug/L #	80
23) iodomethane	7.040	142	131746	43.21	ug/L	96
24) carbon disulfide	7.161	76	234791	45.27	ug/L	95
25) methylene chloride	7.516	84	83191	42.85	ug/L	94
26) methyl acetate	7.291	43	45173	36.41	ug/L	96
27) methyl tert butyl ether	7.851	73	201807	41.00	ug/L #	1
28) trans-1,2-dichloroethene	7.903	96	70336	45.16	ug/L	91
29) hexane	8.201	57	370220	185.50	ug/L	94
30) di-isopropyl ether	8.473	45	275706	42.65	ug/L	90
31) t-butyl formate	9.703	59	47504	32.25	ug/L #	76
32) ethyl tert-butyl ether	8.970	59	241424	40.96	ug/L	77
33) 2-butanone	9.258	72	6955	38.05	ug/L #	88
34) 1,1-dichloroethane	8.505	63	145274	47.78	ug/L	98
35) chloroprene	8.609	53	107806	47.14	ug/L	94
36) acrylonitrile	7.872	53	110157	218.33	ug/L	99
37) vinyl acetate	8.494	86	6213	25.94	ug/L #	28
38) ethyl acetate	9.268	45	7940	34.76	ug/L	75

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206701.D
Acq On : 23 Jun 2014 4:47 pm
Operator : CourtneM
Sample : jb69700-3ms
Misc : MS69423,VA7794,6.1,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 09:50:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 2,2-dichloropropane	9.289	77	116702	50.04	ug/L		96
41) cis-1,2-dichloroethene	9.284	96	79805	45.55	ug/L		94
42) propionitrile	9.368	54	78021	390.55	ug/L		91
43) bromochloromethane	9.614	128	36247	41.61	ug/L	#	85
44) tetrahydrofuran	9.645	42	22605	36.88	ug/L	#	1
45) chloroform	9.671	83	140880	47.37	ug/L		98
48) methacrylonitrile	9.551	67	23403	40.53	ug/L		88
49) cyclohexane	9.995	84	180248	80.08	ug/L	#	1
50) 1,1,1-trichloroethane	9.922	97	115647	48.87	ug/L		99
52) tert-amyl methyl ether	10.419	73	209176	36.75	ug/L		71
55) epichlorohydrin	12.119	57	175088	1126.31	ug/L		66
56) n-butyl alcohol	10.926	56	86634	1694.62	ug/L		83
57) carbon tetrachloride	10.137	117	104045	49.92	ug/L		98
58) 1,1-dichloropropene	10.110	75	100909	49.49	ug/L		97
59) benzene	10.388	78	333909	54.73	ug/L		96
60) Iso-octane	10.382	57	1599949	262.31	ug/L		89
61) heptane	10.555	71	163772	134.02	ug/L		82
63) isopropyl acetate	10.314	43	176765	47.92	ug/L		90
64) 1,2-dichloroethane	10.414	62	101295	49.63	ug/L		94
65) trichloroethene	11.141	95	79716	51.69	ug/L		93
66) 2-nitropropane	11.936	41	409207	680.46	ug/L	#	9
68) methylcyclohexane	11.361	83	277424	110.50	ug/L	#	82
69) 2-chloroethyl vinyl ether	11.993	63	197075	211.36	ug/L		99
70) methyl methacrylate	11.423	69	40286	41.00	ug/L		78
71) 1,2-dichloropropane	11.423	63	82139	47.86	ug/L		100
72) dibromomethane	11.601	93	42502	44.55	ug/L		94
73) bromodichloromethane	11.737	83	119827	53.63	ug/L		99
74) cis-1,3-dichloropropene	12.229	75	130226	46.95	ug/L		98
76) 4-methyl-2-pentanone	12.328	58	28379	47.28	ug/L		98
77) toluene	12.616	92	184276	44.71	ug/L		99
78) 3-methyl-1-butanol	12.359	55	71363	799.54	ug/L		94
79) trans-1,3-dichloropropene	12.846	75	116335	45.71	ug/L		95
80) ethyl methacrylate	12.825	69	89158	42.18	ug/L		94
81) 1,1,2-trichloroethane	13.086	83	59621	48.43	ug/L		96
82) 2-hexanone	13.269	58	24473	41.84	ug/L	#	61
84) tetrachloroethene	13.259	164	67155	43.28	ug/L		96
85) 1,3-dichloropropane	13.285	76	101738	42.48	ug/L		98
86) butyl acetate	13.348	56	39801	34.07	ug/L		95
87) 3,3-dimethyl-1-butanol	13.463	57	64337	323.82	ug/L	#	79
88) dibromochloromethane	13.583	129	81291	42.21	ug/L		98
89) 1,2-dibromoethane	13.751	107	61529	39.85	ug/L		97
91) chlorobenzene	14.258	112	209083	43.72	ug/L		96
92) 1,1,1,2-tetrachloroethane	14.326	131	85133	45.34	ug/L		95
93) ethylbenzene	14.316	91	812337	102.34	ug/L		99
94) m,p-xylene	14.436	106	296273	97.59	ug/L		96
95) o-xylene	14.912	106	138538	43.89	ug/L		95
96) styrene	14.927	104	230454	41.73	ug/L		98
97) bromoform	15.236	173	58146	40.65	ug/L		95
99) isopropylbenzene	15.294	105	589618	73.14	ug/L		100
100) cyclohexanone	15.503	55	62258	312.92	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206701.D
Acq On : 23 Jun 2014 4:47 pm
Operator : CourtneM
Sample : jb69700-3ms
Misc : MS69423,VA7794,6.1,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 09:50:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

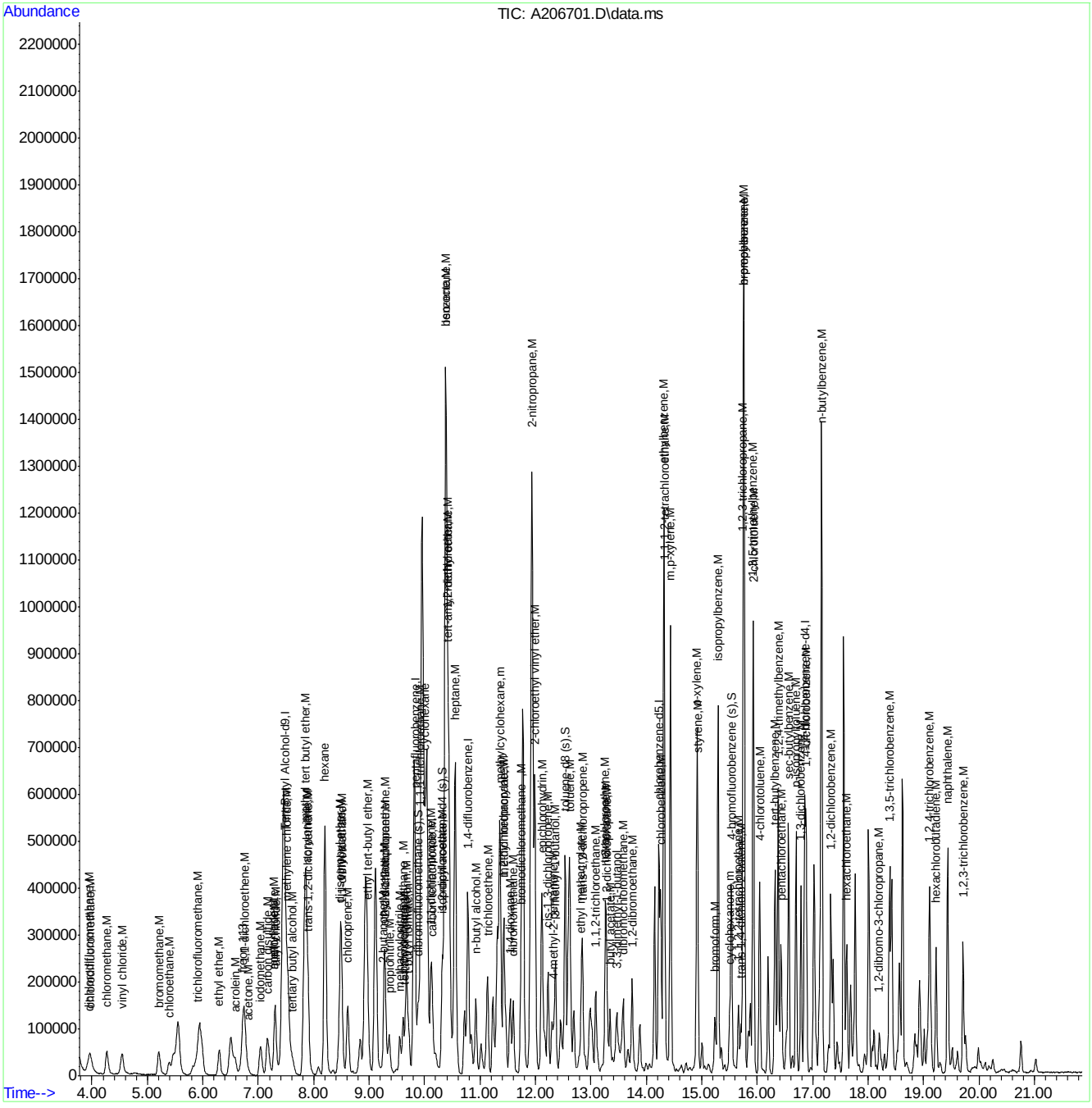
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) bromobenzene	15.754	156	100787	42.30	ug/L	78
103) 1,1,2,2-tetrachloroethane	15.660	83	83015	38.87	ug/L	100
104) trans-1,4-dichloro-2-b...	15.707	53	24835	42.74	ug/L	96
105) 1,2,3-trichloropropane	15.743	110	20237	40.18	ug/L	98
106) n-propylbenzene	15.759	91	1388019	144.64	ug/L	100
107) 2-chlorotoluene	15.932	126	89613	42.81	ug/L	98
108) 4-chlorotoluene	16.047	91	269226	42.92	ug/L	98
110) 1,3,5-trimethylbenzene	15.926	105	349533	48.85	ug/L	98
111) tert-butylbenzene	16.324	119	253265	42.26	ug/L	96
112) pentachloroethane	16.429	167	67741	43.73	ug/L	94
113) 1,2,4-trimethylbenzene	16.376	105	357581	49.55	ug/L	99
114) sec-butylbenzene	16.564	105	433397	46.41	ug/L	98
115) 1,3-dichlorobenzene	16.789	146	185896	40.12	ug/L	98
116) p-isopropyltoluene	16.700	119	339207	42.14	ug/L	98
118) 1,4-dichlorobenzene	16.884	146	186327	39.17	ug/L	99
120) 1,2-dichlorobenzene	17.328	146	177227	39.16	ug/L	99
121) n-butylbenzene	17.166	92	232240	54.03	ug/L	85
123) 1,2-dibromo-3-chloropr...	18.196	75	16073	39.42	ug/L	87
124) 1,3,5-trichlorobenzene	18.390	180	160819	39.38	ug/L	98
125) 1,2,4-trichlorobenzene	19.106	180	133531	37.85	ug/L	99
126) hexachlorobutadiene	19.227	225	76767	33.37	ug/L	97
127) naphthalene	19.436	128	441051	70.30	ug/L	99
128) 1,2,3-trichlorobenzene	19.713	180	111901	35.69	ug/L	98
129) hexachloroethane	17.616	201	67595	40.73	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206701.D
Acq On : 23 Jun 2014 4:47 pm
Operator : CourtneM
Sample : jb69700-3ms
Misc : MS69423,VA7794,6.1,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 24 09:50:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145546.D
Acq On : 20 Jun 2014 3:19 pm
Operator : KingC
Sample : jb69587-17dup
Misc : MS69379,VV6205,4.9,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 23 12:41:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	60182	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	181942	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	240283	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	220801	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	113946	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	66044	53.48	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.96%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	64784	50.45	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 100.90%			
71) toluene-d8 (s)	12.12	98	256781	53.67	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 107.34%			
94) 4-bromofluorobenzene (s)	15.10	95	94962	47.35	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 94.70%			

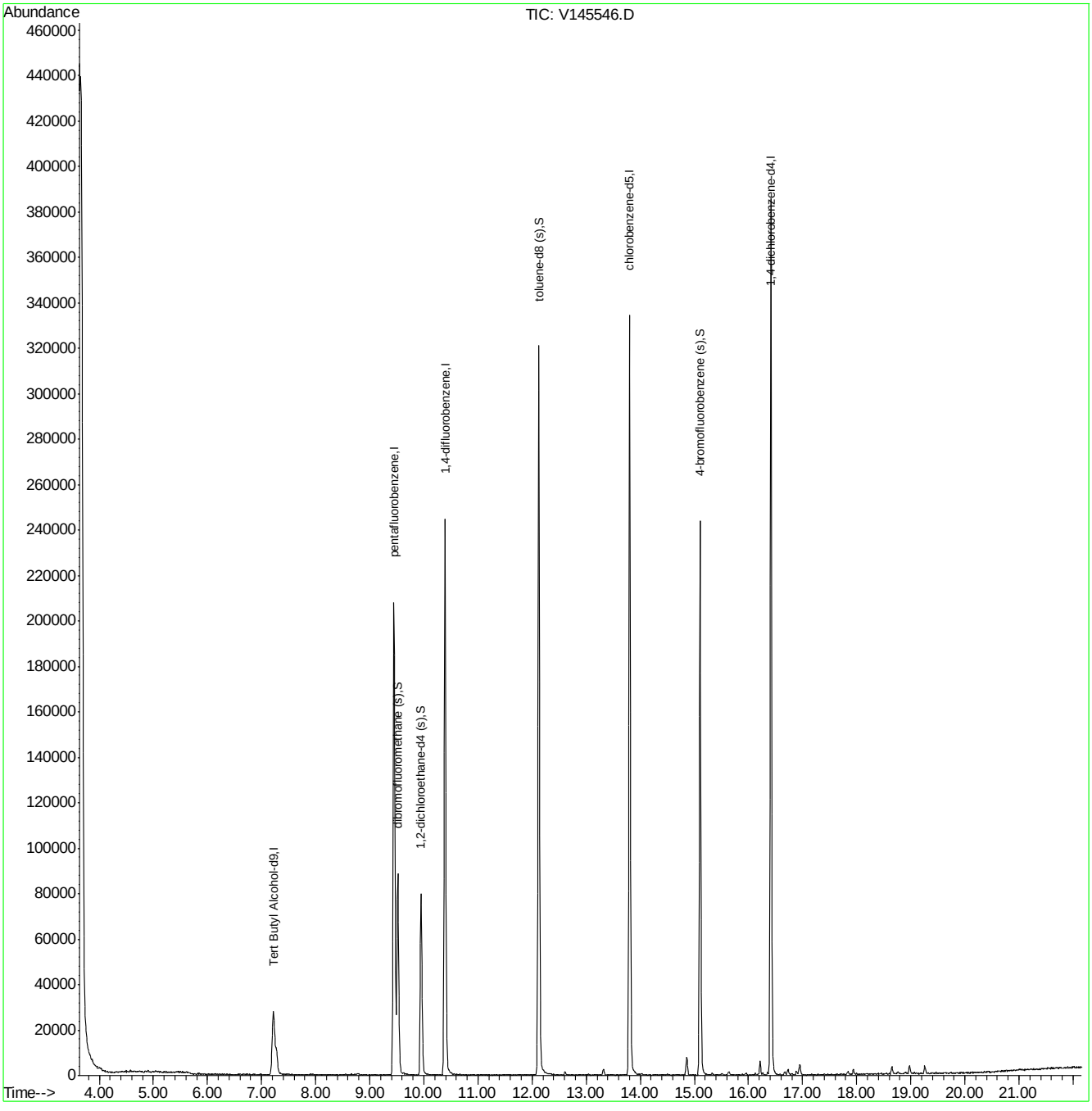
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : V145546.D
Acq On : 20 Jun 2014 3:19 pm
Operator : KingC
Sample : jb69587-17dup
Misc : MS69379,VV6205,4.9,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 23 12:41:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7791-7800\
Data File : A206665.D
Acq On : 22 Jun 2014 8:18 pm
Operator : CourtneM
Sample : jb69587-3dup
Misc : MS69379,VA7793,4.3,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 24 15:15:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.489	65	76764	500.00	ug/L	0.01
4) pentafluorobenzene	9.827	168	197337	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.784	114	265676	50.00	ug/L	0.00
83) chlorobenzene-d5	14.231	117	252750	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.862	152	142889	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.885	113	83976	52.40	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 104.80%			
47) 1,2-dichloroethane-d4 (s)	10.329	65	92891	53.00	ug/L	0.01
Spiked Amount 50.000	Range 65 - 123		Recovery = 106.00%			
75) toluene-d8 (s)	12.542	98	298176	53.71	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 107.42%			
101) 4-bromofluorobenzene (s)	15.539	95	122366	52.65	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 105.30%			

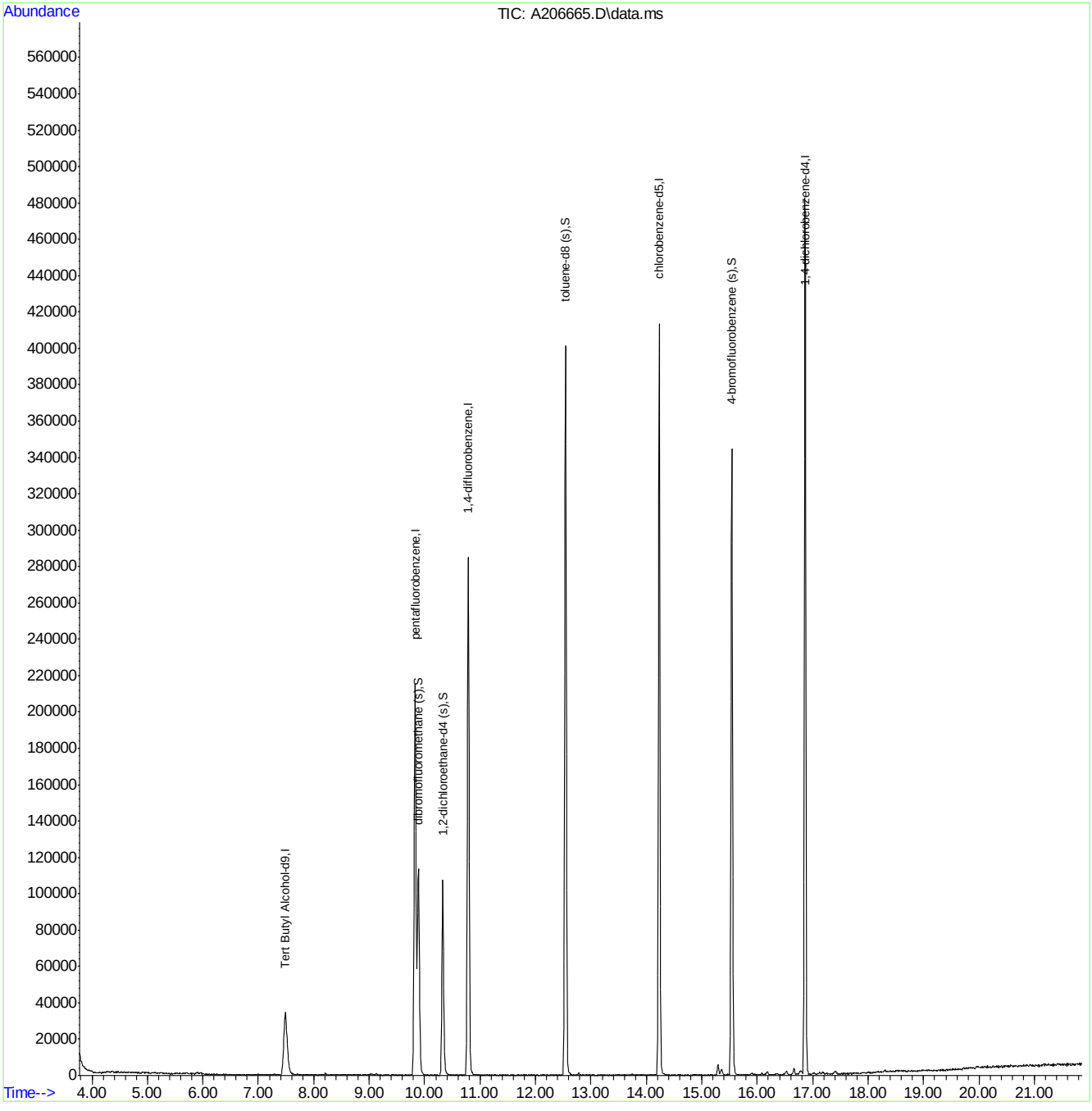
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7791-7800\
Data File : A206665.D
Acq On : 22 Jun 2014 8:18 pm
Operator : CourtneM
Sample : jb69587-3dup
Misc : MS69379,VA7793,4.3,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 24 15:15:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



MA7751.M Tue Jun 24 15:15:30 2014 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145609.D
Acq On : 23 Jun 2014 4:27 pm
Operator : KingC
Sample : jb69587-2dup
Misc : MS69379,VV6207,4.8,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 24 09:49:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.21	65	59164	500.00	ug/L	-0.01
4) pentafluorobenzene	9.45	168	184362	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	237335	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	217181	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	110716	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	64454	51.51	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 103.02%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	62729	48.21	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 96.42%			
71) toluene-d8 (s)	12.12	98	247762	52.43	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 104.86%			
94) 4-bromofluorobenzene (s)	15.10	95	88610	44.92	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 89.84%			

Target Compounds Qvalue

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

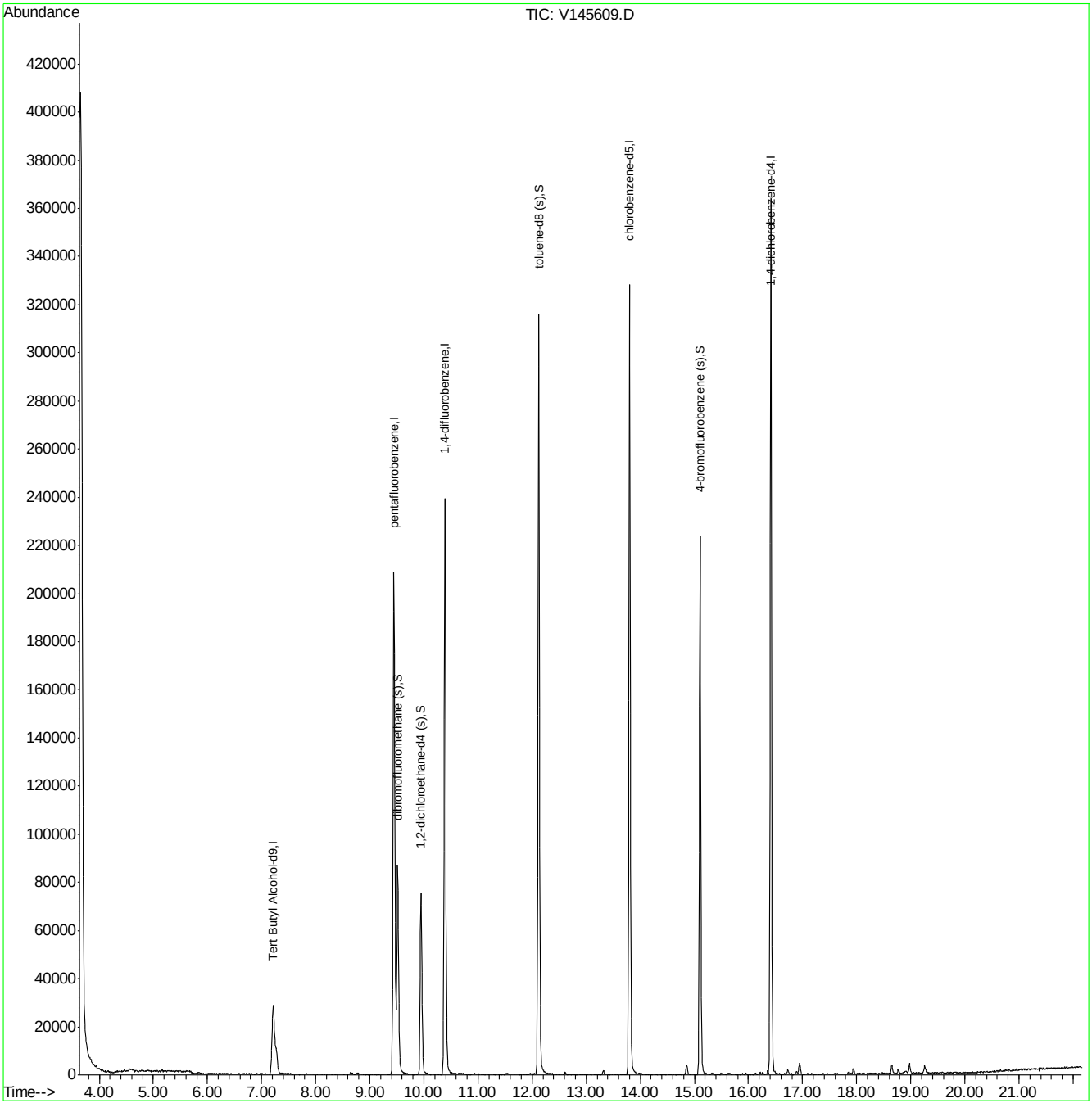
7.5.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145609.D
Acq On : 23 Jun 2014 4:27 pm
Operator : KingC
Sample : jb69587-2dup
Misc : MS69379,VV6207,4.8,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 24 09:49:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



MVS6196.M Tue Jun 24 10:31:10 2014 MSV

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206702.D
Acq On : 23 Jun 2014 5:52 pm
Operator : CourtneM
Sample : jb69959-2dup
Misc : MS69570,VA7794,5.2,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 24 09:52:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

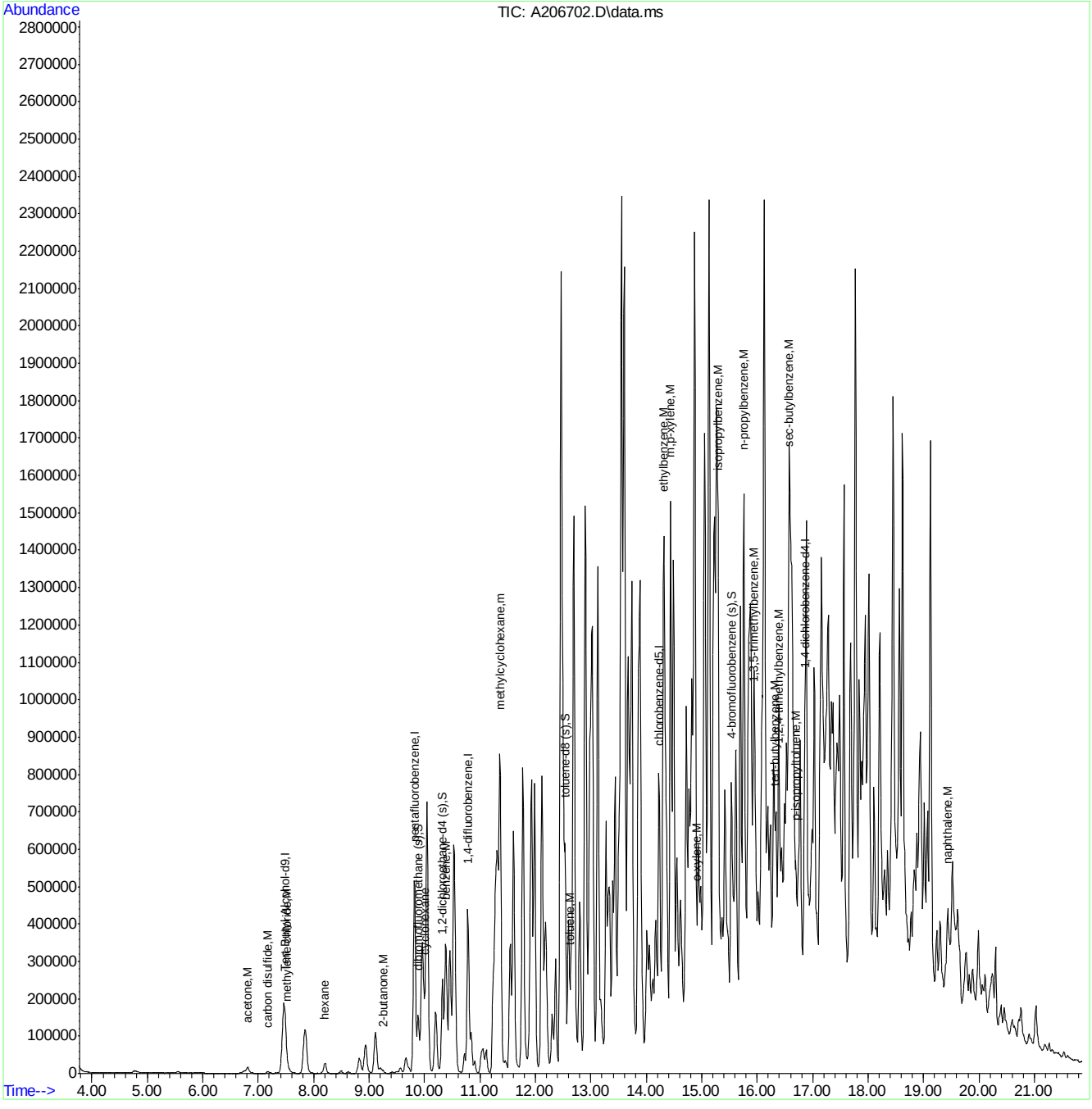
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.486	65	110224	500.00	ug/L	0.00
4) pentafluorobenzene	9.824	168	241629	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.781	114	326292	50.00	ug/L	0.00
83) chlorobenzene-d5	14.222	117	310321	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.858	152	185751	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.881	113	103310	52.64	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 105.28%			
47) 1,2-dichloroethane-d4 (s)	10.320	65	111472	51.94	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 103.88%			
75) toluene-d8 (s)	12.533	98	378101	55.46	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 110.92%			
101) 4-bromofluorobenzene (s)	15.535	95	138755	45.92	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 91.84%			
Target Compounds						Qvalue
20) acetone	6.806	58	10201	59.78	ug/L #	54
24) carbon disulfide	7.172	76	14720	2.50	ug/L	90
25) methylene chloride	7.512	84	3916	1.78	ug/L	92
29) hexane	8.202	57	19878	8.77	ug/L #	81
33) 2-butanone	9.259	72	1961	9.44	ug/L #	1
49) cyclohexane	9.996	84	68817	26.91	ug/L #	1
59) benzene	10.383	78	13485	1.95	ug/L	84
68) methylcyclohexane	11.361	83	448711	157.74	ug/L #	97
77) toluene	12.627	92	2318	0.50	ug/L #	58
93) ethylbenzene	14.316	91	63857	7.25	ug/L	75
94) m,p-xylene	14.437	106	18049	5.36	ug/L	91
95) o-xylene	14.912	106	6436	1.84	ug/L	90
99) isopropylbenzene	15.294	105	590717	63.55	ug/L	99
106) n-propylbenzene	15.760	91	977300	88.32	ug/L	100
110) 1,3,5-trimethylbenzene	15.932	105	22439	2.72	ug/L	93
111) tert-butylbenzene	16.325	119	45783	6.63	ug/L	91
113) 1,2,4-trimethylbenzene	16.377	105	42835	5.15	ug/L	99
114) sec-butylbenzene	16.570	105	362673	33.68	ug/L	99
116) p-isopropyltoluene	16.701	119	53352	5.75	ug/L	96
127) naphthalene	19.437	128	107229	14.82	ug/L	100

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

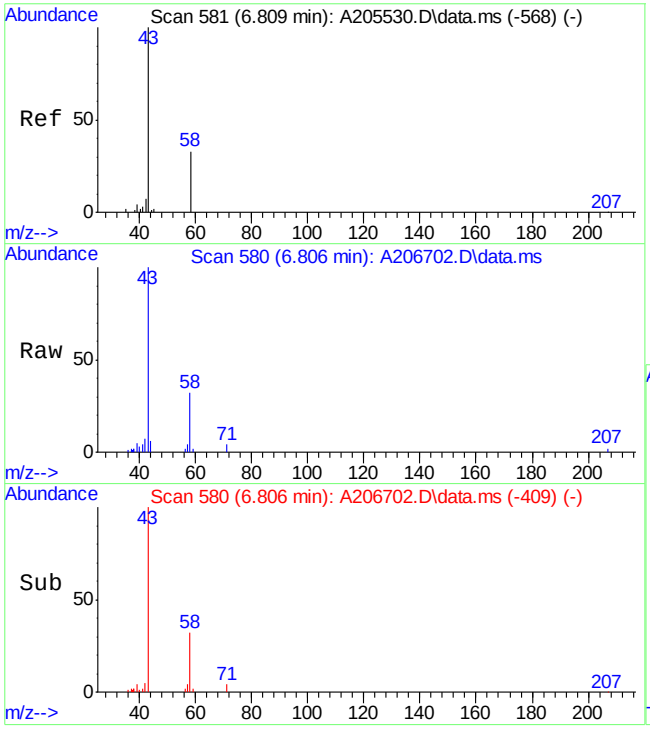
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206702.D
Acq On : 23 Jun 2014 5:52 pm
Operator : CourtneM
Sample : jb69959-2dup
Misc : MS69570,VA7794,5.2,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 24 09:52:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



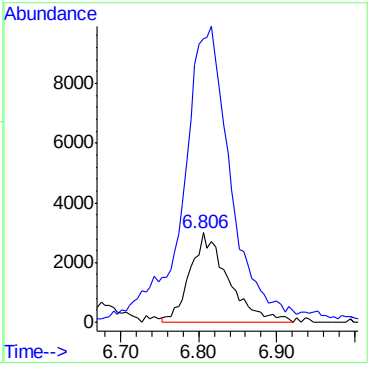
MA7751.M Tue Jun 24 10:01:57 2014 ACCUNJ

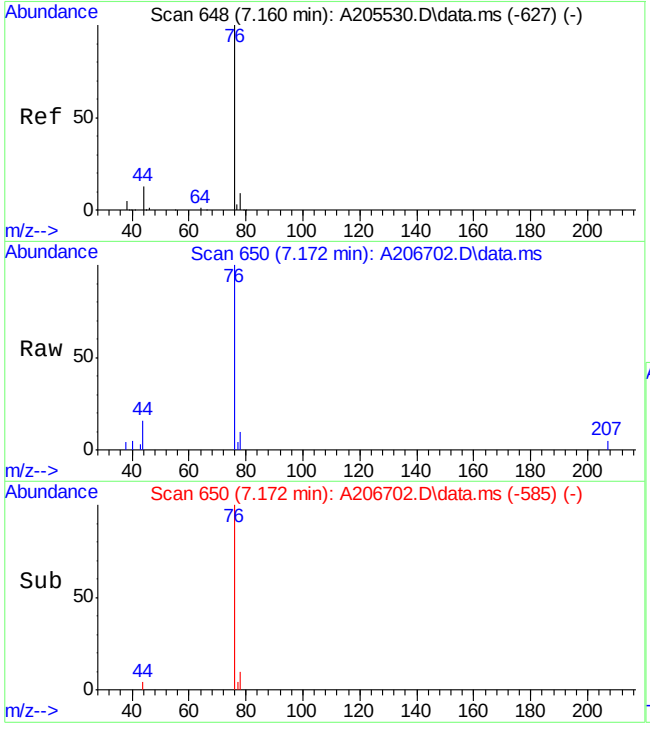


#20
acetone
Concen: 59.78 ug/L
RT: 6.806 min Scan# 580
Delta R.T. -0.004 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 58 Resp: 10201

Ion	Ratio	Lower	Upper
58	100		
43	417.8	293.9	353.9#

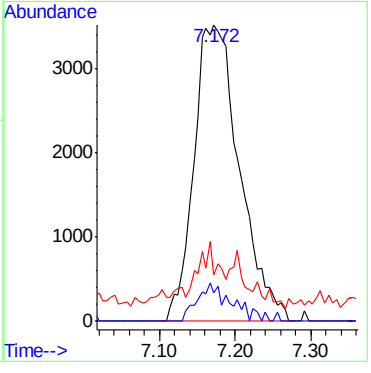


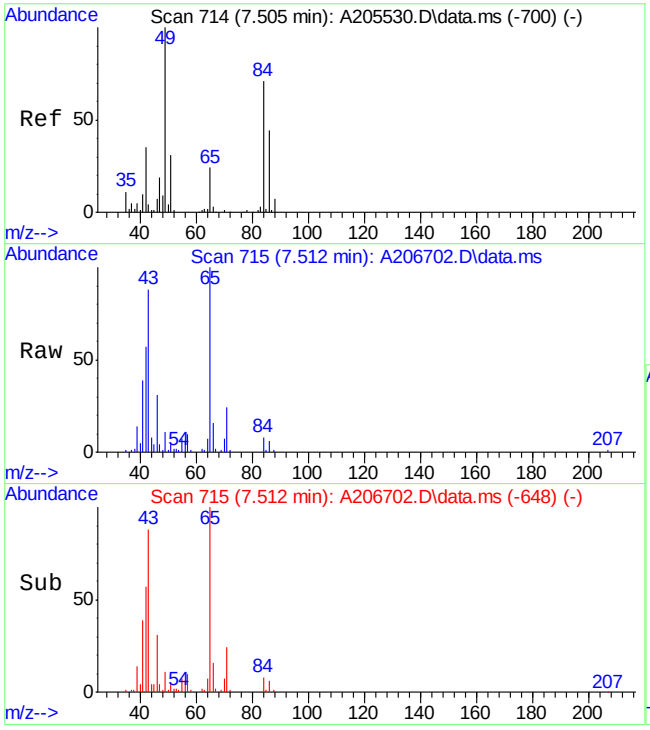


#24
carbon disulfide
Concen: 2.50 ug/L
RT: 7.172 min Scan# 650
Delta R.T. 0.012 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 76 Resp: 14720

Ion	Ratio	Lower	Upper
76	100		
78	9.6	0.0	38.5
44	7.3	0.0	42.9

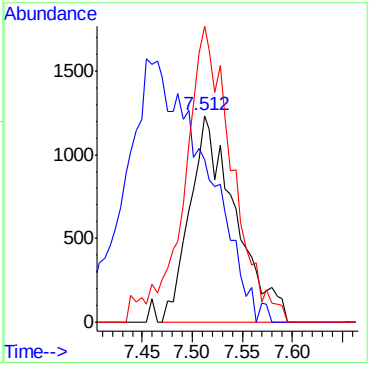


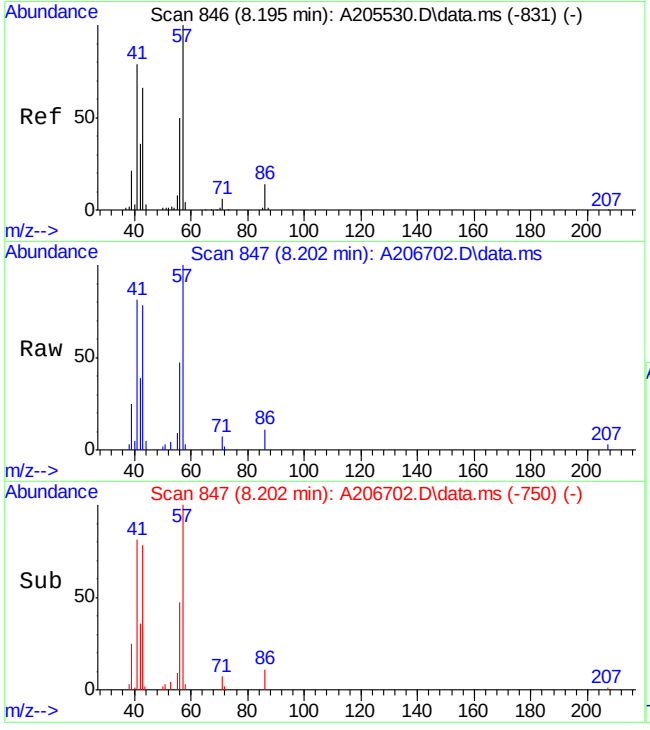


#25
methylene chloride
Concen: 1.78 ug/L
RT: 7.512 min Scan# 715
Delta R.T. 0.007 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 84 Resp: 3916

Ion	Ratio	Lower	Upper
84	100		
86	78.7	32.4	92.4
49	143.3	111.1	171.1

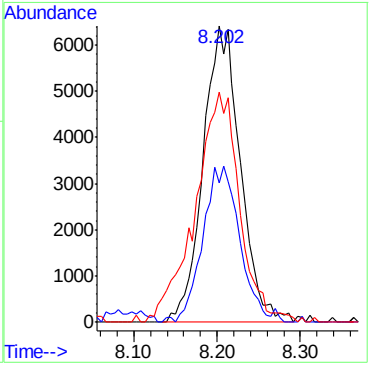




#29
hexane
Concen: 8.77 ug/L
RT: 8.202 min Scan# 847
Delta R.T. 0.008 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

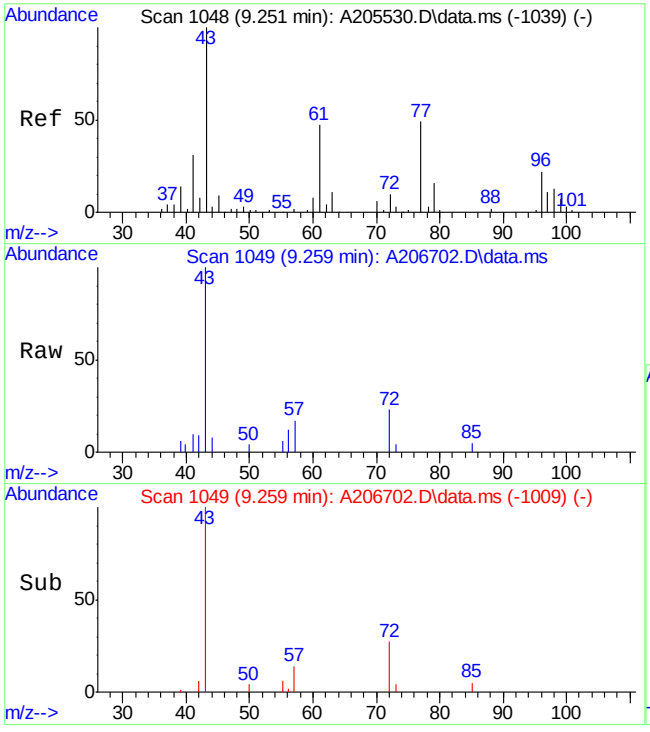
Tgt Ion: 57 Resp: 19878

Ion	Ratio	Lower	Upper
57	100		
56	52.0	35.8	66.4
43	93.1	47.0	87.4#



7.5.4

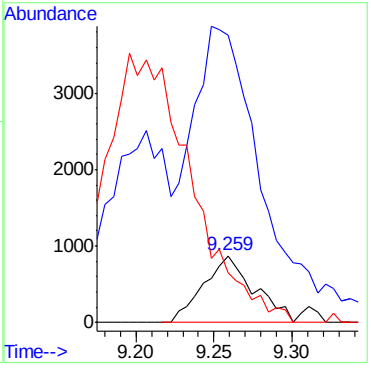
7

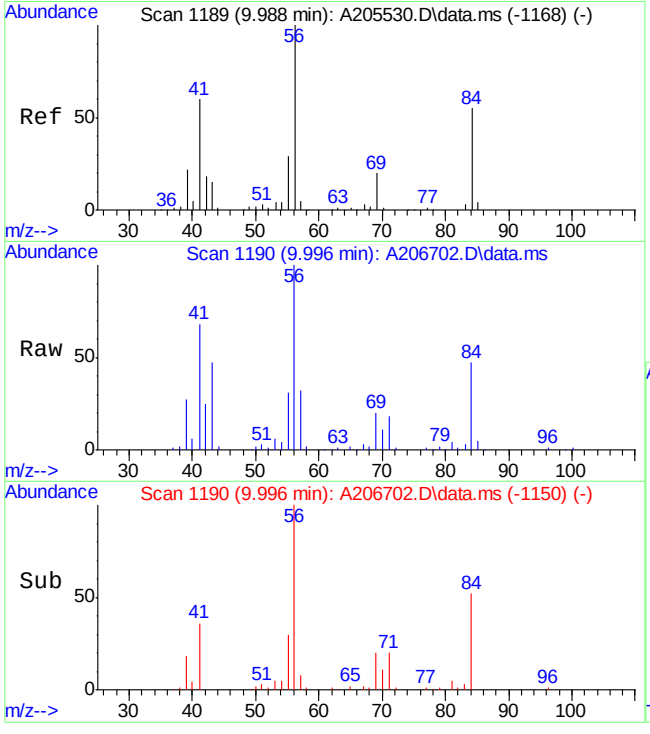


#33
2-butanone
Concen: 9.44 ug/L
RT: 9.259 min Scan# 1049
Delta R.T. 0.008 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 72 Resp: 1961

Ion	Ratio	Lower	Upper
72	100		
43	598.5	1158.2	1218.2#
57	0.0	1.8	61.8#

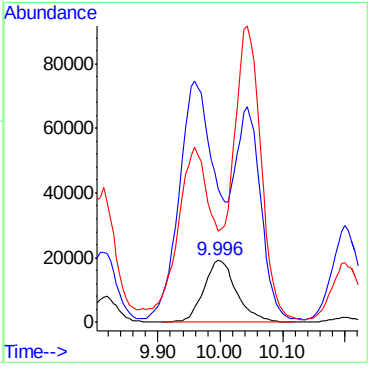




#49
cyclohexane
Concen: 26.91 ug/L
RT: 9.996 min Scan# 1190
Delta R.T. 0.008 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

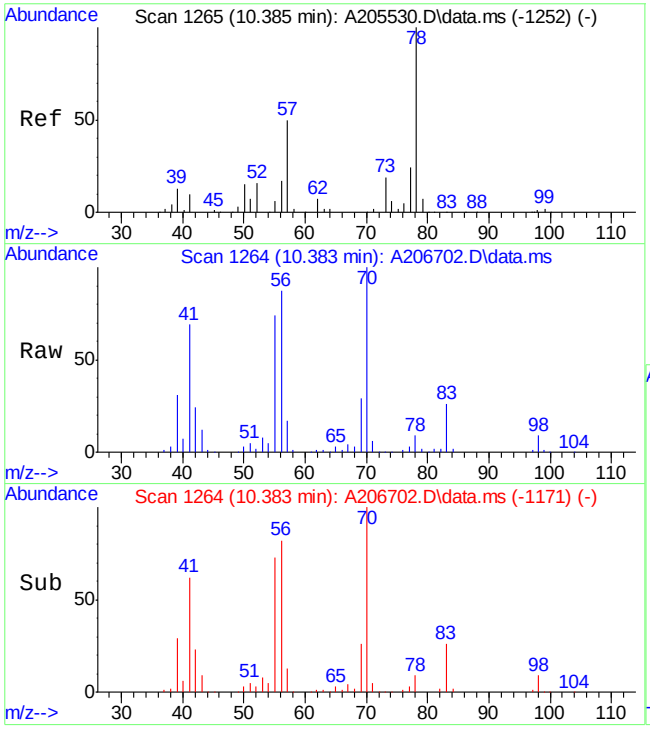
Tgt Ion: 84 Resp: 68817

Ion	Ratio	Lower	Upper
84	100		
56	0.0	179.3	332.9#
41	0.0	107.0	198.8#



7.5.4

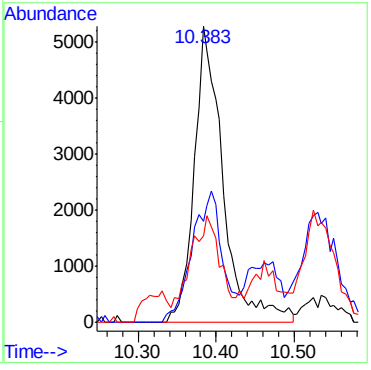
7

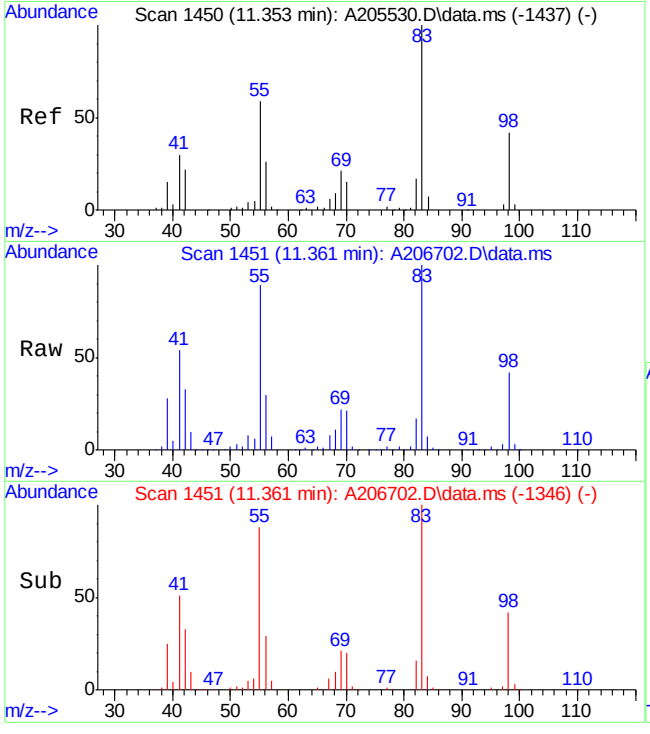


#59
benzene
Concen: 1.95 ug/L
RT: 10.383 min Scan# 1264
Delta R.T. -0.002 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 78 Resp: 13485

Ion	Ratio	Lower	Upper
78	100		
77	34.0	0.0	53.6
52	19.3	0.0	46.0

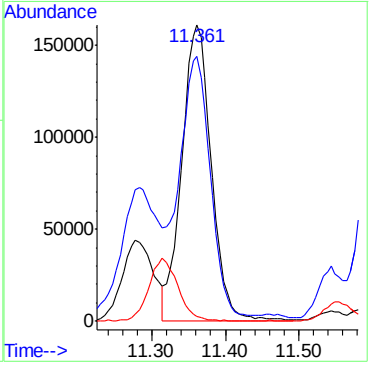


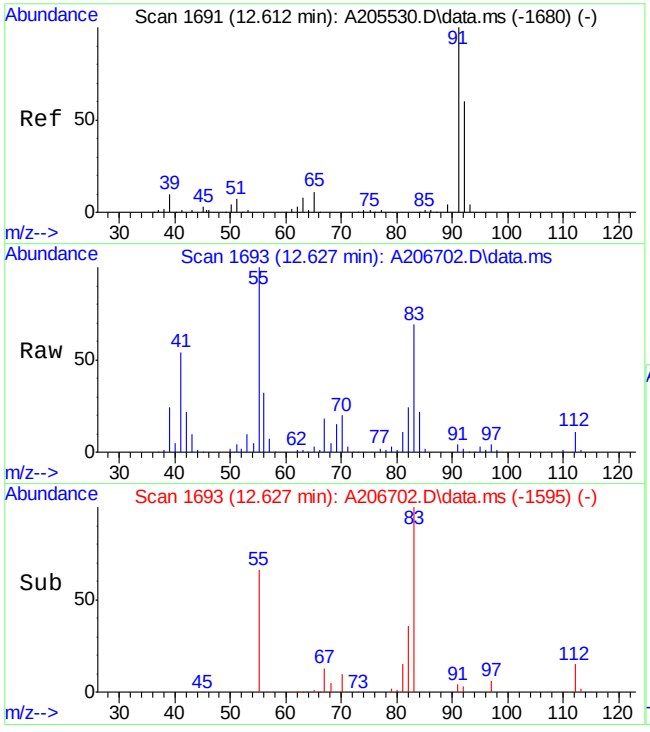


#68
methylcyclohexane
Concen: 157.74 ug/L
RT: 11.361 min Scan# 1451
Delta R.T. 0.009 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 83 Resp: 448711

Ion	Ratio	Lower	Upper
83	100		
55	89.6	56.9	116.9
85	0.0	0.0	30.0

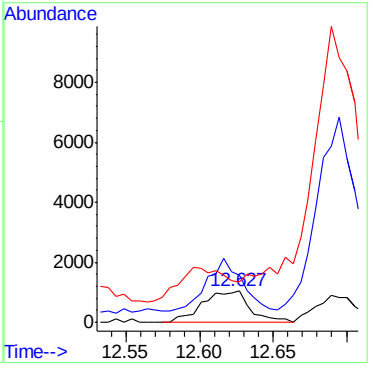


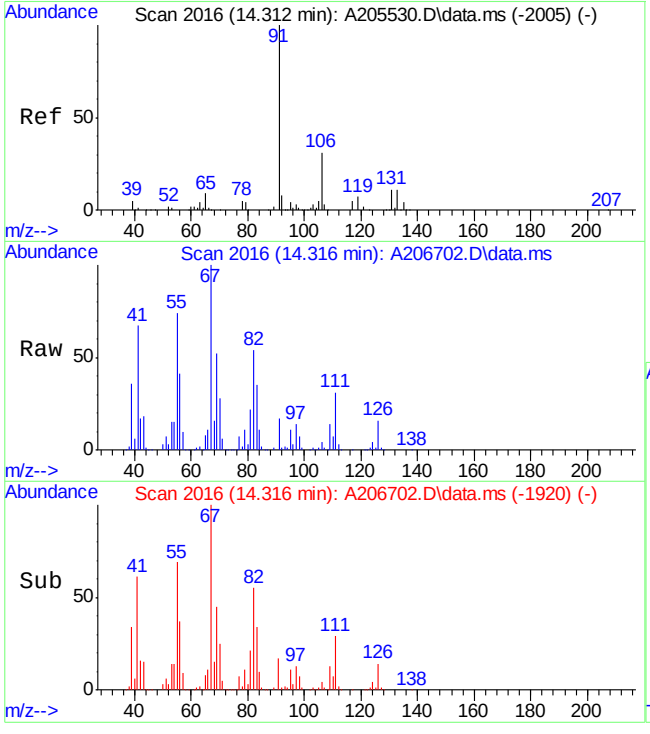


#77
toluene
Concen: 0.50 ug/L
RT: 12.627 min Scan# 1693
Delta R.T. 0.014 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 92 Resp: 2318

Ion	Ratio	Lower	Upper
92	100		
91	115.3	137.1	197.1#
65	51.3	0.0	48.9#

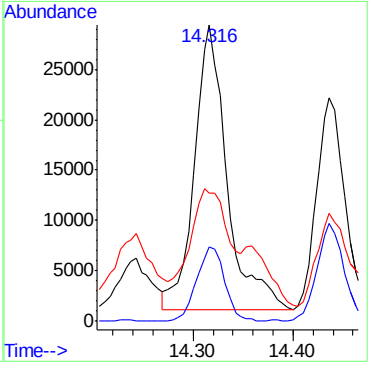


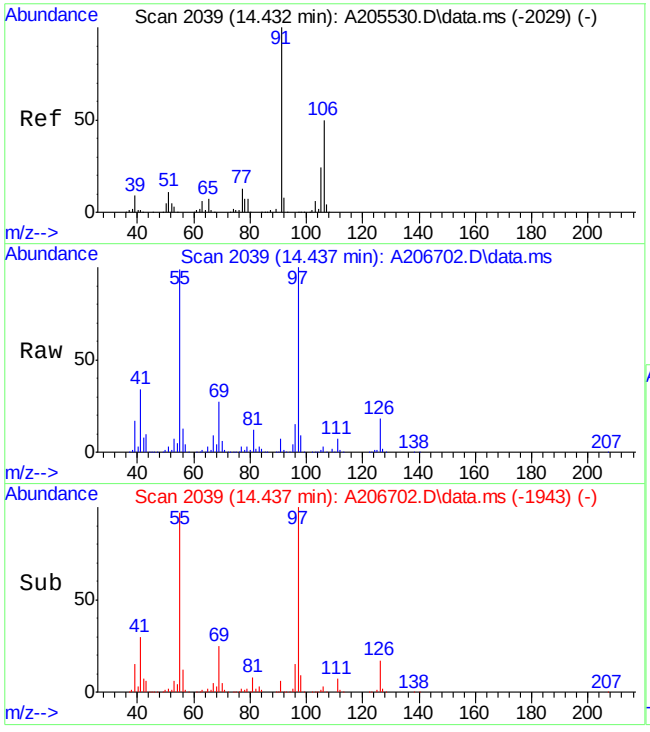


#93
ethylbenzene
Concen: 7.25 ug/L
RT: 14.316 min Scan# 2016
Delta R.T. 0.005 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 91 Resp: 63857

Ion	Ratio	Lower	Upper
91	100		
106	26.0	1.1	61.1
77	38.5	0.0	38.7

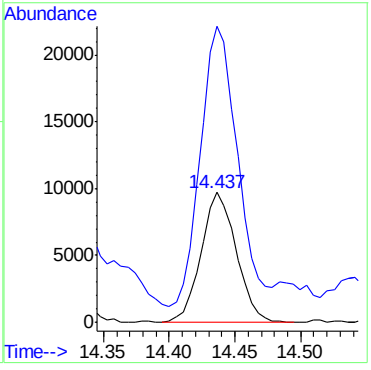


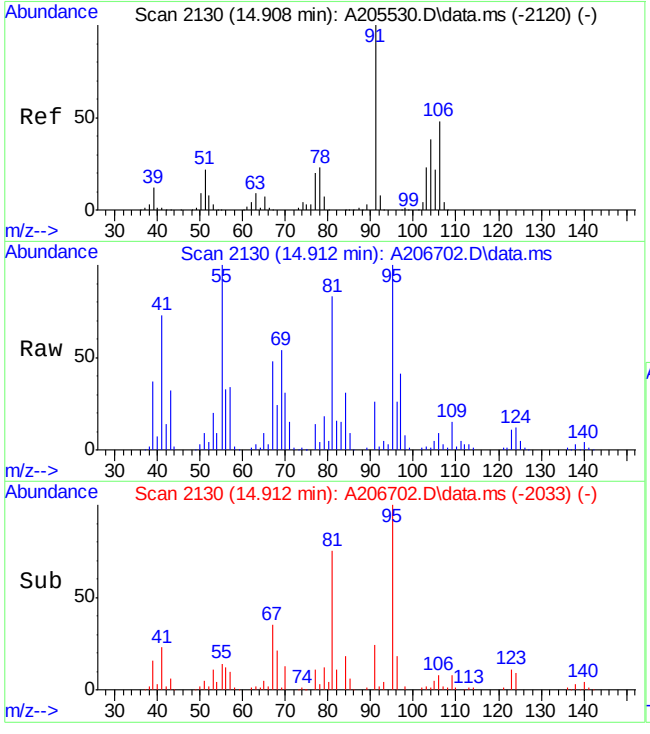


#94
m,p-xylene
Concen: 5.36 ug/L
RT: 14.437 min Scan# 2039
Delta R.T. 0.005 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion:106 Resp: 18049

Ion	Ratio	Lower	Upper
106	100		
91	213.3	169.4	229.4

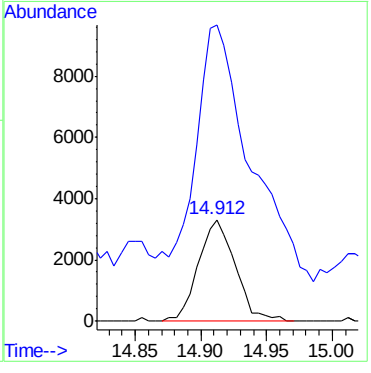




#95
o-xylene
Concen: 1.84 ug/L
RT: 14.912 min Scan# 2130
Delta R.T. 0.005 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

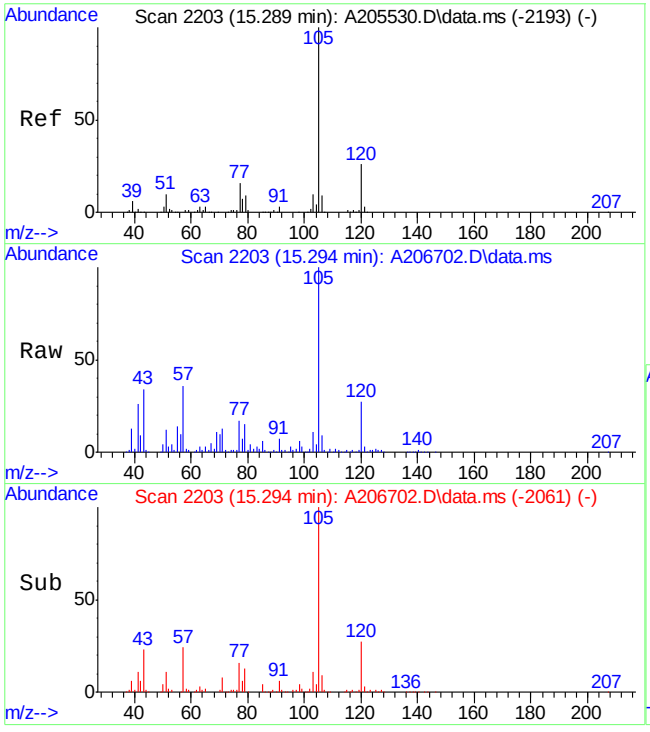
Tgt Ion:106 Resp: 6436

Ion	Ratio	Lower	Upper
106	100		
91	224.0	178.6	238.6



7.5.4

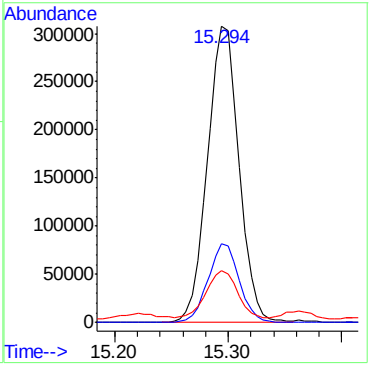
7

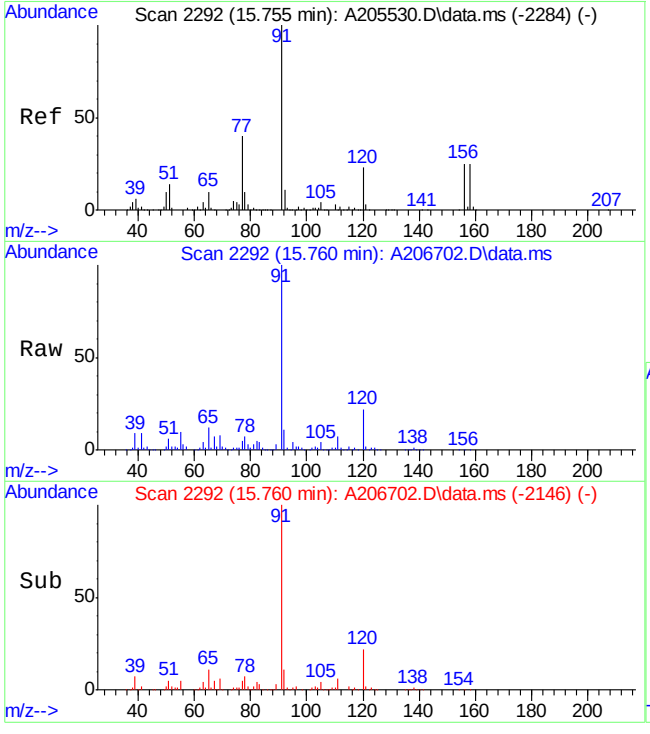


#99
isopropylbenzene
Concen: 63.55 ug/L
RT: 15.294 min Scan# 2203
Delta R.T. 0.005 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion:105 Resp: 590717

Ion	Ratio	Lower	Upper
105	100		
120	26.6	0.0	56.2
77	15.7	0.0	45.7

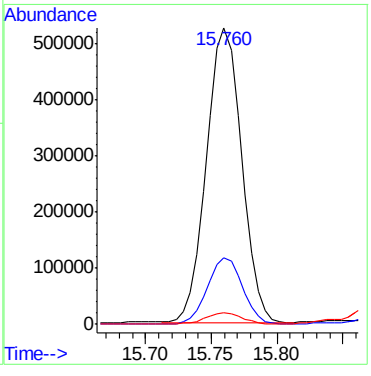


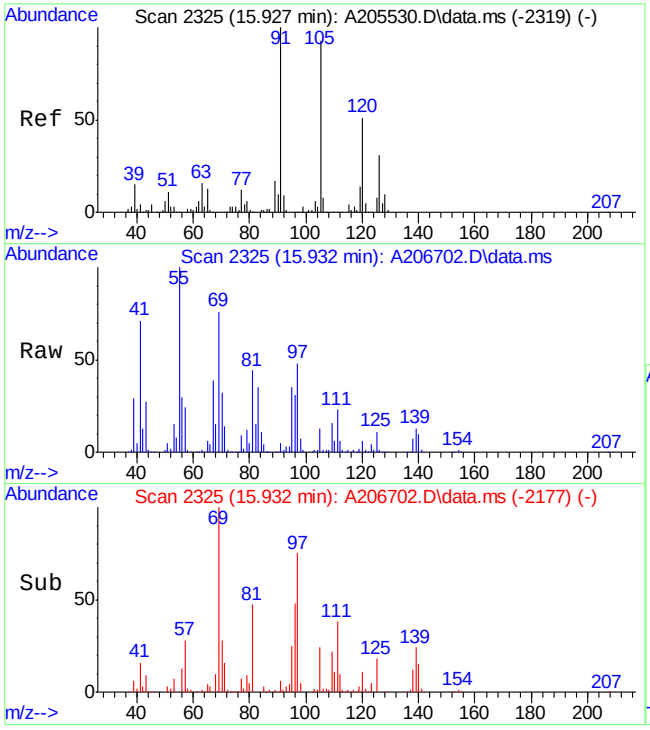


#106
n-propylbenzene
Concen: 88.32 ug/L
RT: 15.760 min Scan# 2292
Delta R.T. 0.006 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion: 91 Resp: 977300

Ion	Ratio	Lower	Upper
91	100		
120	22.5	0.0	52.7
105	3.8	0.0	33.9

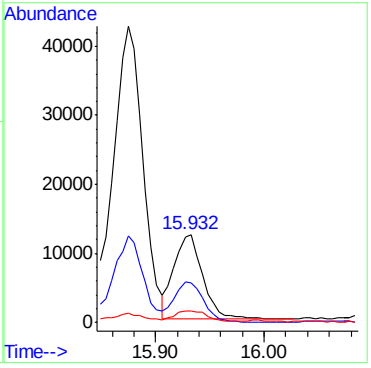


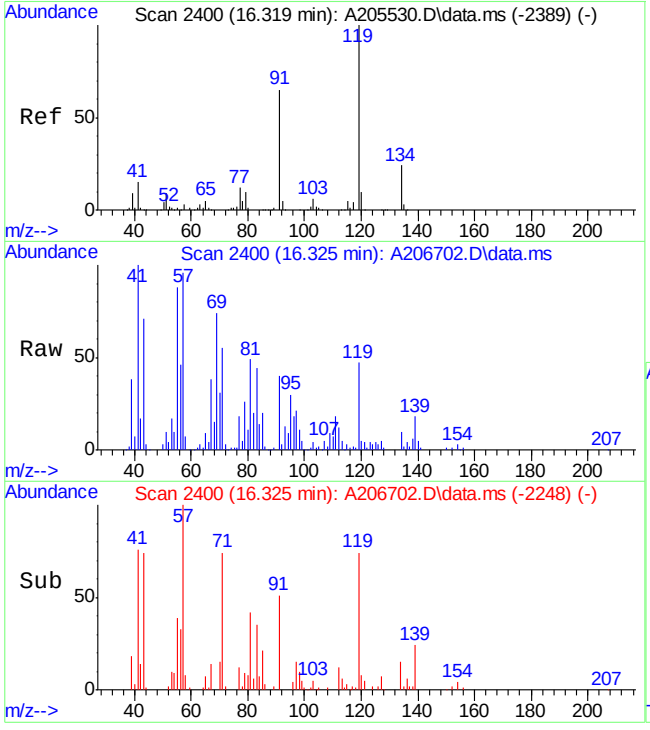


#110
1,3,5-trimethylbenzene
Concen: 2.72 ug/L
RT: 15.932 min Scan# 2325
Delta R.T. 0.005 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion:105 Resp: 22439

Ion	Ratio	Lower	Upper
105	100		
120	46.1	21.5	81.5
119	12.3	0.0	43.0

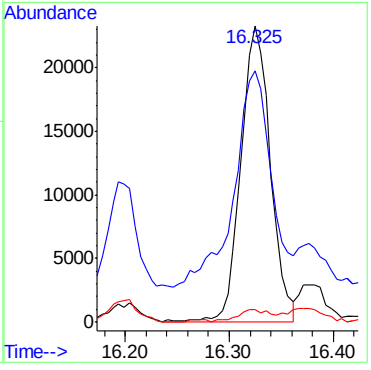


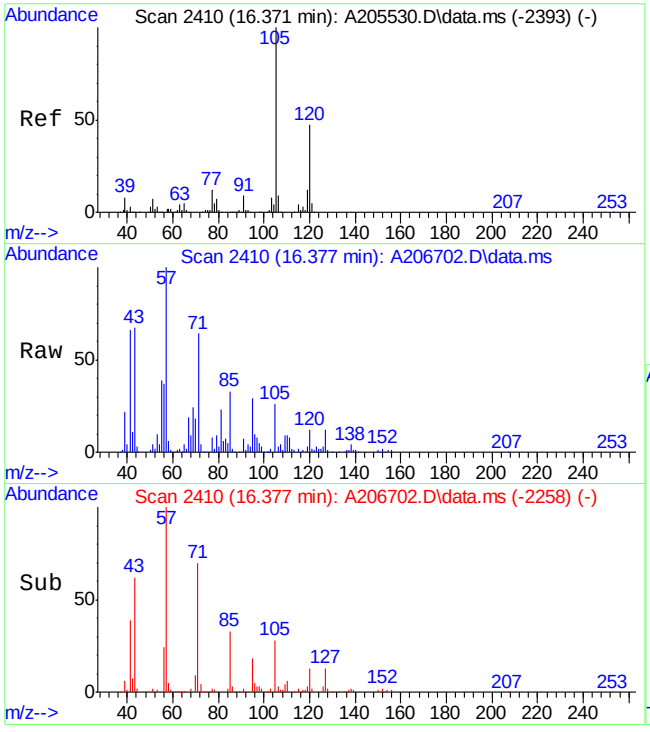


#111
tert-butylbenzene
Concen: 6.63 ug/L
RT: 16.325 min Scan# 2400
Delta R.T. 0.005 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion:119 Resp: 45783

Ion	Ratio	Lower	Upper
119	100		
91	72.5	35.2	95.2
117	4.1	0.0	33.5

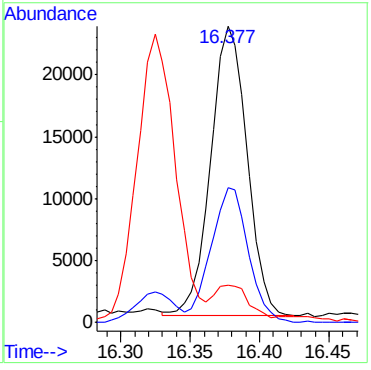


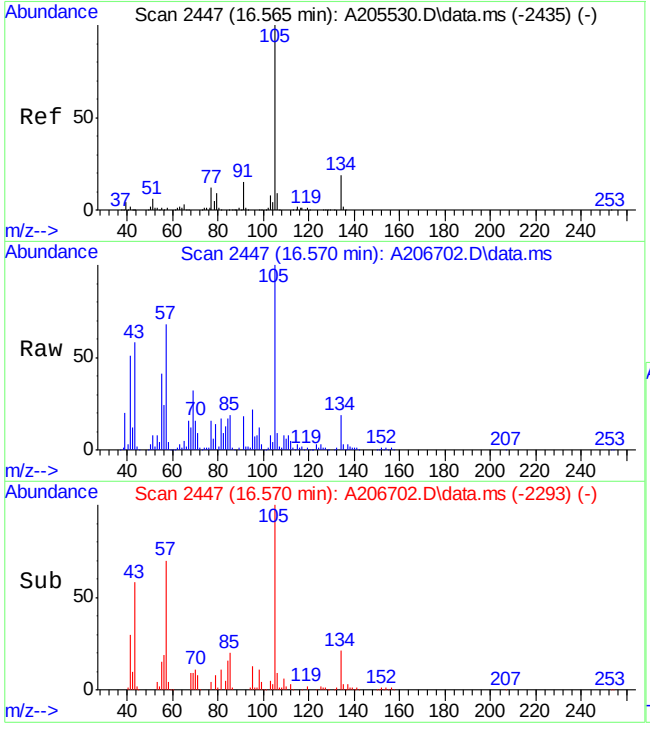


#113
1,2,4-trimethylbenzene
Concen: 5.15 ug/L
RT: 16.377 min Scan# 2410
Delta R.T. 0.006 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion:105 Resp: 42835

Ion	Ratio	Lower	Upper
105	100		
120	46.6	17.2	77.2
119	10.6	0.0	41.8

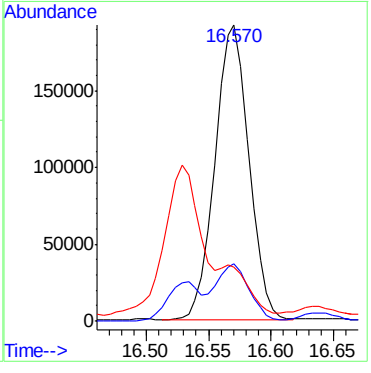




#114
sec-butylbenzene
Concen: 33.68 ug/L
RT: 16.570 min Scan# 2447
Delta R.T. 0.006 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

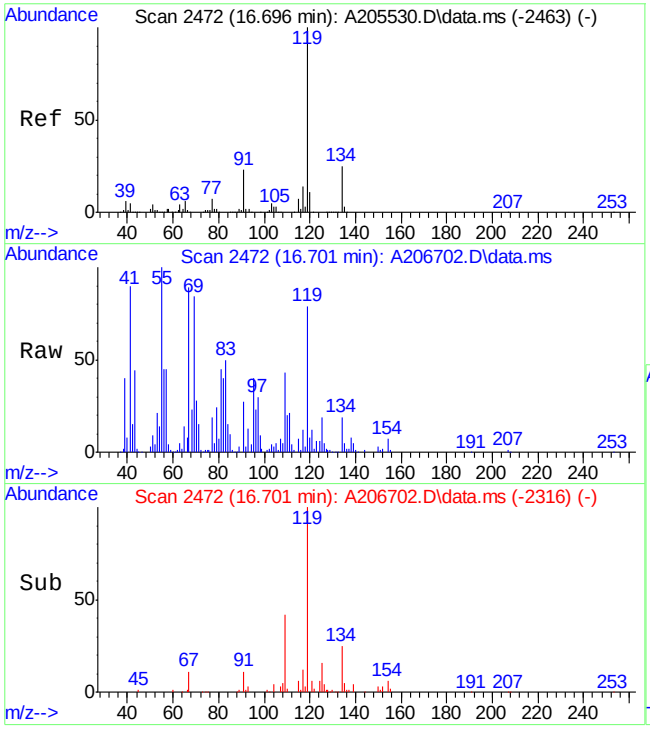
Tgt Ion:105 Resp: 362673

Ion	Ratio	Lower	Upper
105	100		
134	18.4	0.0	48.9
91	15.2	0.0	45.2



7.5.4

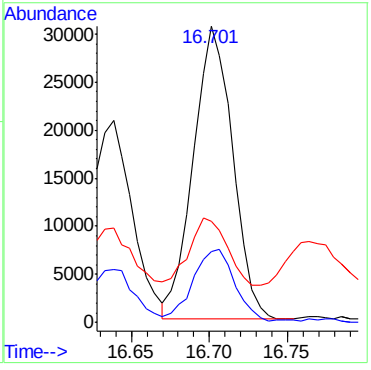
7

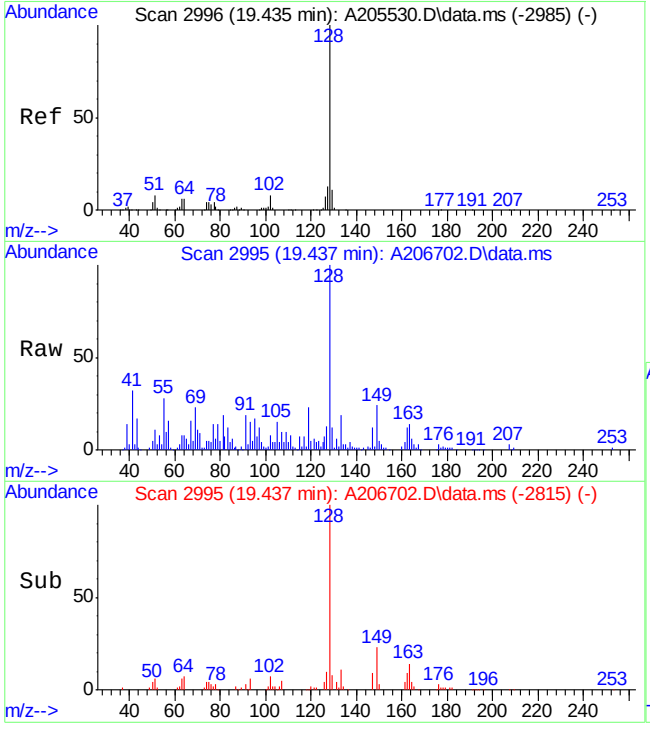


#116
p-isopropyltoluene
Concen: 5.75 ug/L
RT: 16.701 min Scan# 2472
Delta R.T. 0.006 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion:119 Resp: 53352

Ion	Ratio	Lower	Upper
119	100		
134	23.2	0.0	55.0
91	20.5	0.0	52.9

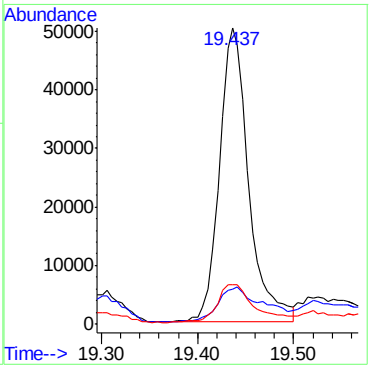




#127
naphthalene
Concen: 14.82 ug/L
RT: 19.437 min Scan# 2995
Delta R.T. 0.002 min
Lab File: A206702.D
Acq: 23 Jun 2014 5:52 pm

Tgt Ion:128 Resp: 107229

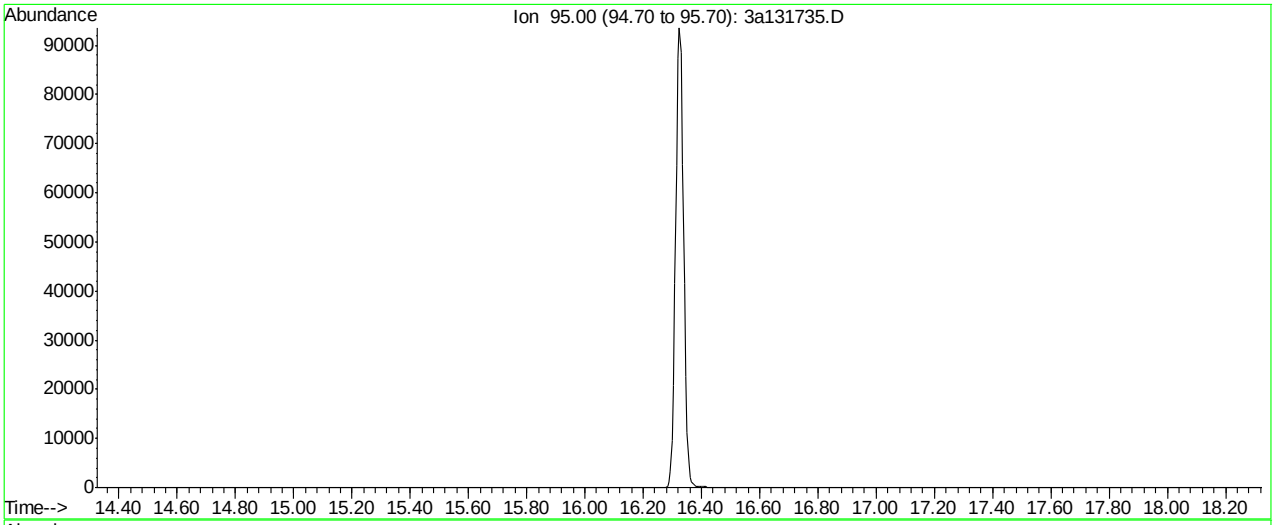
Ion	Ratio	Lower	Upper
128	100		
129	11.3	0.0	41.1
127	12.9	0.0	43.1

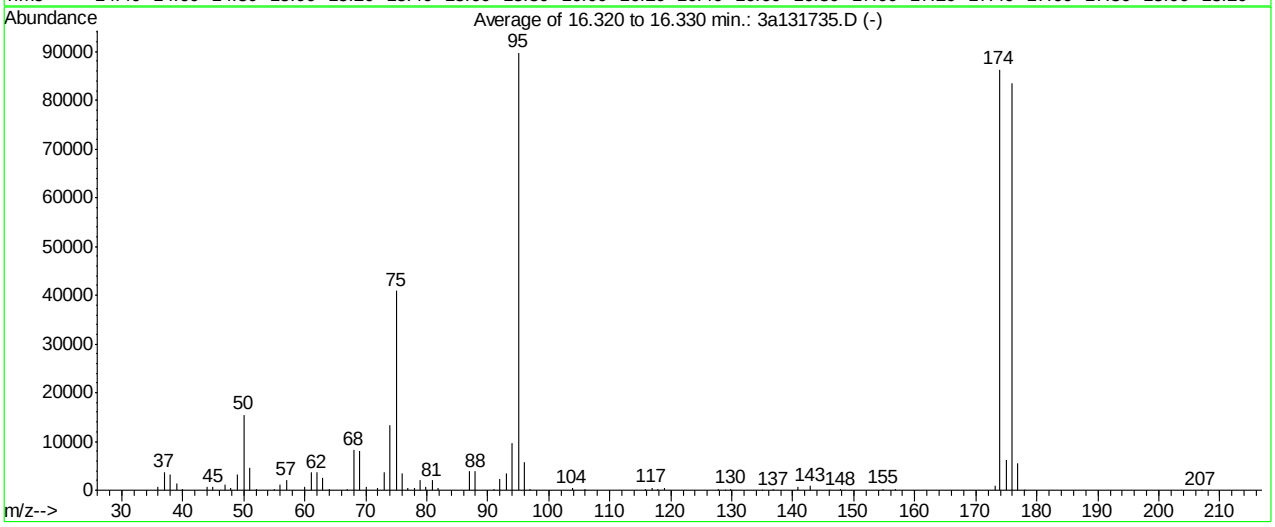


SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\3a131735.D Vial: 1
Acq On : 12 Jun 2014 12:40 pm Operator: HeeEunA
Sample : bfb Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2435, 2436, 2437; Background Corrected with Scan 2426

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	15424	PASS
75	95	30	60	45.5	40912	PASS
95	95	100	100	100.0	89821	PASS
96	95	5	9	6.3	5678	PASS
173	174	0.00	2	1.1	975	PASS
174	95	50	120	96.1	86344	PASS
175	174	5	9	7.3	6318	PASS
176	174	95	101	96.8	83589	PASS
177	176	5	9	6.6	5539	PASS

3a131735.D M3A5699.M Thu Jun 12 15:09:07 2014 ACCUNJ

Average of 16.320 to 16.330 min.: 3a131735.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	742	51.00	4694	68.00	8252	79.90	591
37.00	3792	52.05	199	69.00	8124	80.90	2033
38.00	3258	55.00	196	70.00	681	81.85	432
39.05	1384	56.00	1064	72.00	418	86.95	3856
40.00	169	57.00	2111	73.00	3646	87.95	3886
44.00	595	60.00	711	74.00	13444	90.95	300
45.00	663	61.00	3590	75.00	40912	92.00	2250
47.00	1160	62.00	3606	76.00	3480	93.00	3475
47.95	469	63.00	2613	76.95	462	94.00	9606
49.00	3264	64.00	227	77.95	396	95.00	89821
50.00	15424	66.95	207	78.90	2063	96.00	5678

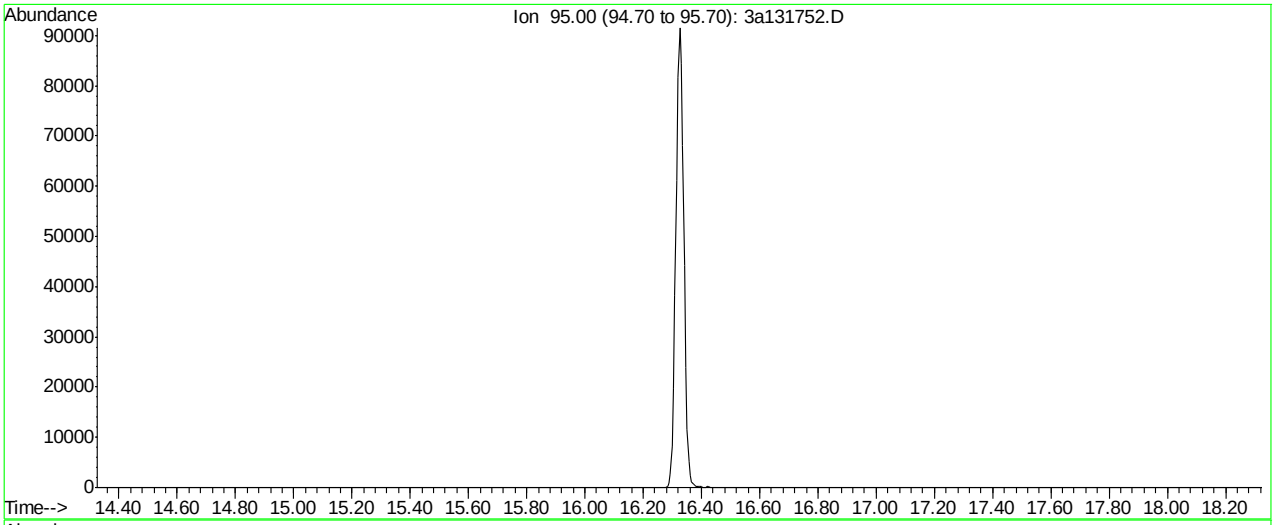
Average of 16.320 to 16.330 min.: 3a131735.D
bfb
Modified:subtracted

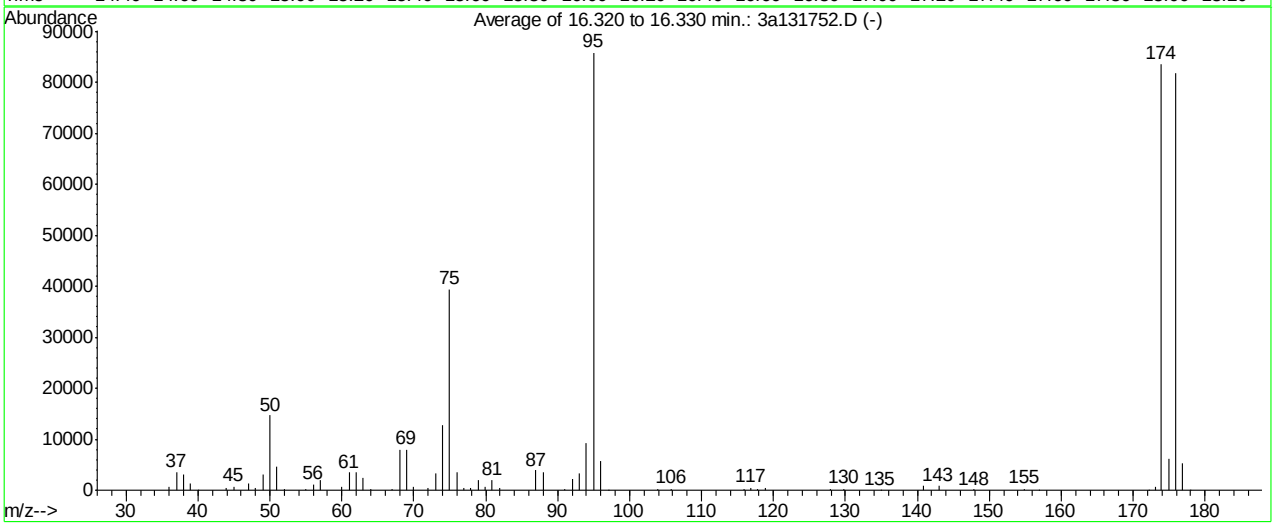
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	163	136.85	125	176.90	5539		
103.85	375	140.85	789	177.90	118		
105.85	337	142.90	827	206.90	56		
115.85	278	145.90	116				
116.90	486	147.85	209				
117.90	332	154.85	240				
118.90	461	156.85	176				
127.85	290	173.10	975				
128.90	112	173.90	86344				
129.85	327	174.95	6318				
134.90	109	175.90	83589				

SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\3a131752.D Vial: 18
Acq On : 13 Jun 2014 8:33 am Operator: HeeEunA
Sample : bfb2 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2435, 2436, 2437; Background Corrected with Scan 2426

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	14662	PASS
75	95	30	60	45.9	39408	PASS
95	95	100	100	100.0	85861	PASS
96	95	5	9	6.8	5829	PASS
173	174	0.00	2	0.7	583	PASS
174	95	50	120	97.4	83642	PASS
175	174	5	9	7.3	6118	PASS
176	174	95	101	97.8	81778	PASS
177	176	5	9	6.5	5345	PASS

3a131752.D M3A5699.M Fri Jun 13 10:08:09 2014 ACCUNJ

Average of 16.320 to 16.330 min.: 3a131752.D
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	657	51.00	4700	68.00	7826	79.90	586
37.00	3561	52.00	202	69.00	8025	80.90	1980
38.00	3174	55.00	288	70.00	668	81.90	443
39.00	1252	56.00	1115	71.95	419	86.95	3944
39.95	104	57.00	2006	73.00	3369	87.95	3599
43.95	366	60.00	708	74.00	12827	90.95	295
45.00	672	61.00	3486	75.00	39408	92.00	2153
47.00	1223	62.00	3464	76.00	3445	93.00	3200
47.95	435	63.00	2495	77.00	501	94.00	9339
49.00	3143	64.00	227	77.95	366	95.00	85861
50.00	14662	67.05	198	78.90	1917	96.00	5829

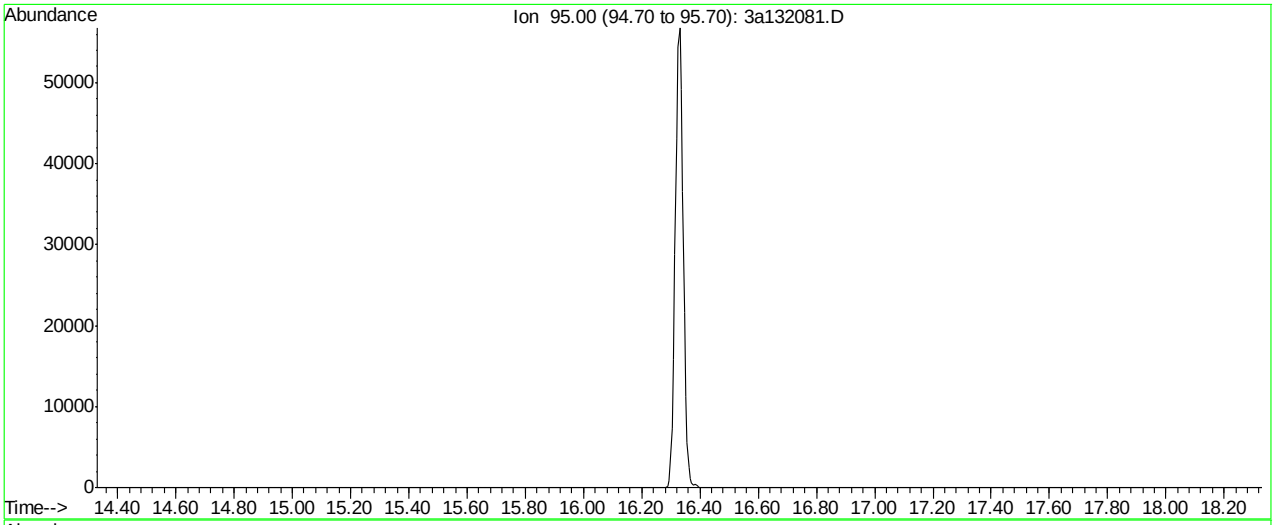
Average of 16.320 to 16.330 min.: 3a131752.D
bfb2
Modified:subtracted

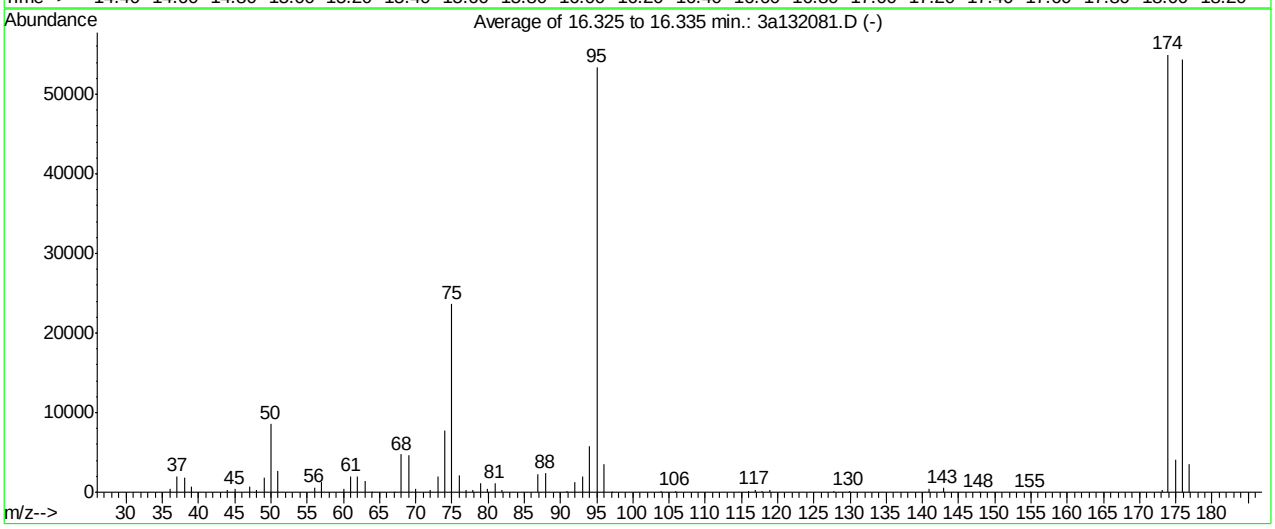
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	114	142.95	807				
103.85	321	147.90	196				
105.80	330	154.90	222				
115.90	264	156.85	101				
116.90	452	172.10	53				
117.85	285	173.10	583				
118.90	416	173.90	83642				
127.85	288	174.90	6118				
129.85	315	175.90	81778				
134.90	60	176.90	5345				
140.90	796	177.90	113				

SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\3a132081.D Vial: 23
Acq On : 21 Jun 2014 10:19 pm Operator: HeeEunA
Sample : bfb Inst : MS3A
Misc : MS69352,V3A5714,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2436, 2437, 2438; Background Corrected with Scan 2427

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.0	8537	PASS
75	95	30	60	44.2	23621	PASS
95	95	100	100	100.0	53426	PASS
96	95	5	9	6.5	3483	PASS
173	174	0.00	2	0.6	318	PASS
174	95	50	120	102.9	54994	PASS
175	174	5	9	7.3	4038	PASS
176	174	95	101	98.8	54357	PASS
177	176	5	9	6.5	3522	PASS

3a132081.D M3A5699.M Mon Jun 23 11:39:03 2014 ACCUNJ

Average of 16.325 to 16.335 min.: 3a132081.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	416	56.00	631	71.95	228	86.90	2320
37.00	2020	57.00	1215	73.00	2023	87.90	2464
38.00	1769	60.00	407	74.00	7766	90.85	109
39.00	690	61.00	2031	75.00	23621	92.00	1251
43.95	307	62.00	1981	76.00	2097	93.00	2012
45.00	373	63.00	1475	76.95	310	94.00	5763
47.05	663	64.00	50	77.90	251	95.00	53426
47.95	245	67.00	61	78.90	1132	96.00	3483
49.00	1823	68.00	4787	79.95	364	97.00	54
50.00	8537	69.00	4711	80.90	1195	103.85	169
51.00	2610	70.00	383	81.90	243	105.90	172

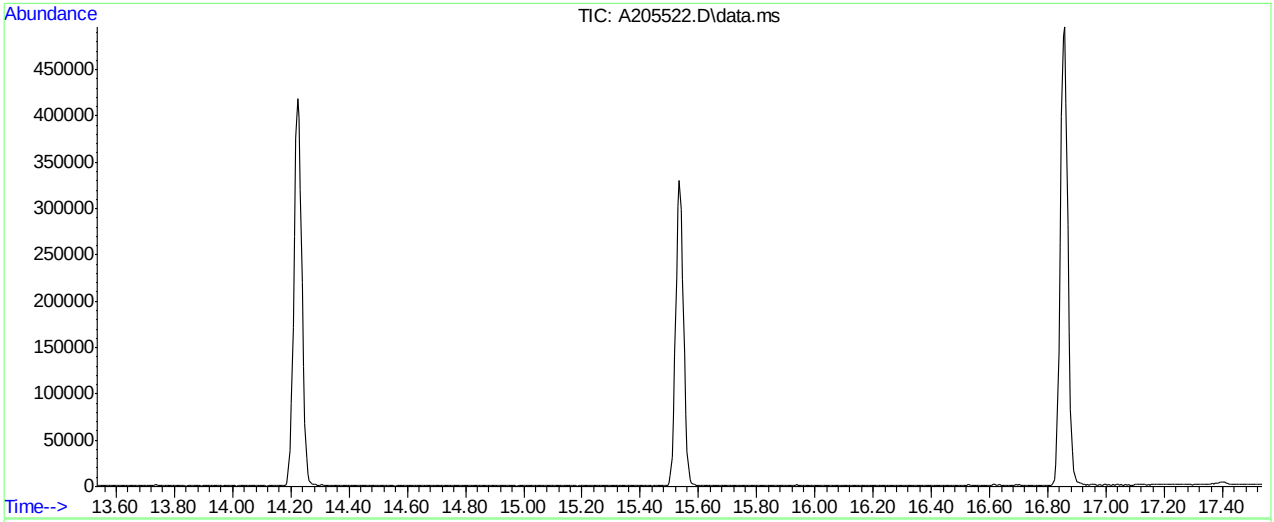
Average of 16.325 to 16.335 min.: 3a132081.D
bfb
Modified:subtracted

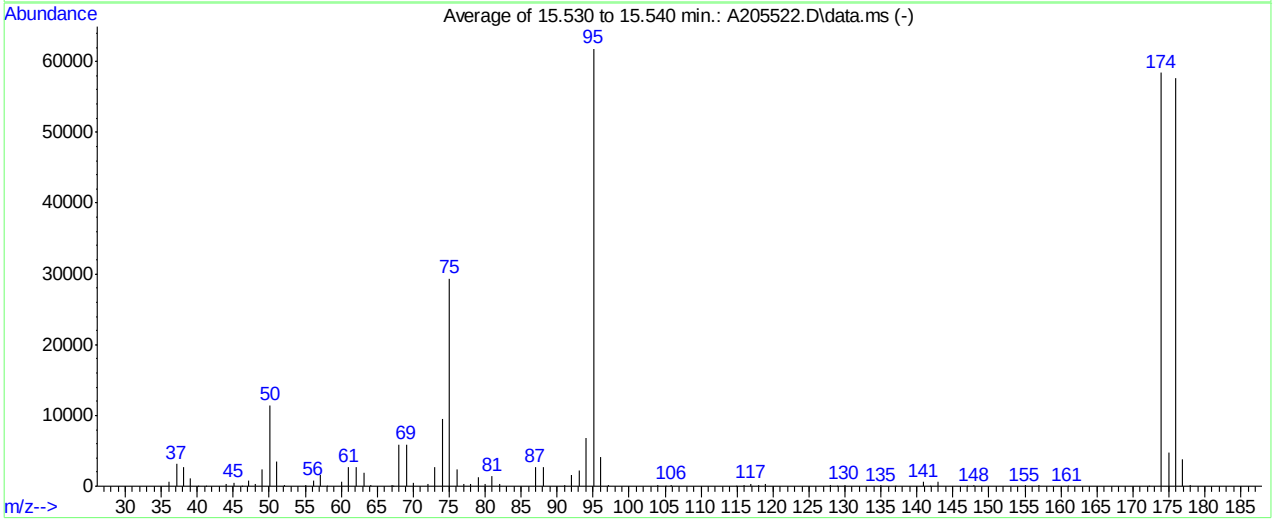
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
115.90	127	173.90	54994				
116.90	286	174.90	4038				
117.90	174	175.90	54357				
118.85	269	176.90	3522				
127.80	137						
129.85	209						
140.85	490						
142.90	529						
147.80	55						
154.90	54						
173.10	318						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\A205522.D Vial: 30
Acq On : 13 May 2014 9:08 am Operator: OksanaT
Sample : bfb Inst : MSA
Misc : MS66736,VA7751,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2249, 2250, 2251; Background Corrected with Scan 2239

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	11442	PASS
75	95	30	60	47.4	29336	PASS
95	95	100	100	100.0	61848	PASS
96	95	5	9	6.7	4146	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	94.4	58373	PASS
175	174	5	9	8.1	4720	PASS
176	174	95	101	98.7	57616	PASS
177	176	5	9	6.6	3796	PASS

A205522.D MA7751.M Tue May 13 16:11:35 2014 RPT1

Average of 15.530 to 15.540 min.: A205522.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	578	49.05	2417	63.10	1910	76.10	2420
37.15	3110	50.10	11442	64.10	164	77.10	341
38.15	2653	51.05	3540	67.00	128	78.00	300
39.10	1077	52.10	154	67.25	64	79.00	1292
40.05	27	55.05	104	68.05	5877	80.00	394
41.15	38	56.10	828	69.05	5936	80.95	1437
44.05	272	57.10	1531	70.10	437	82.00	247
45.10	518	58.05	41	72.05	334	87.00	2756
46.25	43	60.05	625	73.05	2623	88.05	2692
47.10	792	61.05	2752	74.05	9436	91.05	232
48.05	366	62.05	2684	75.05	29336	92.05	1655

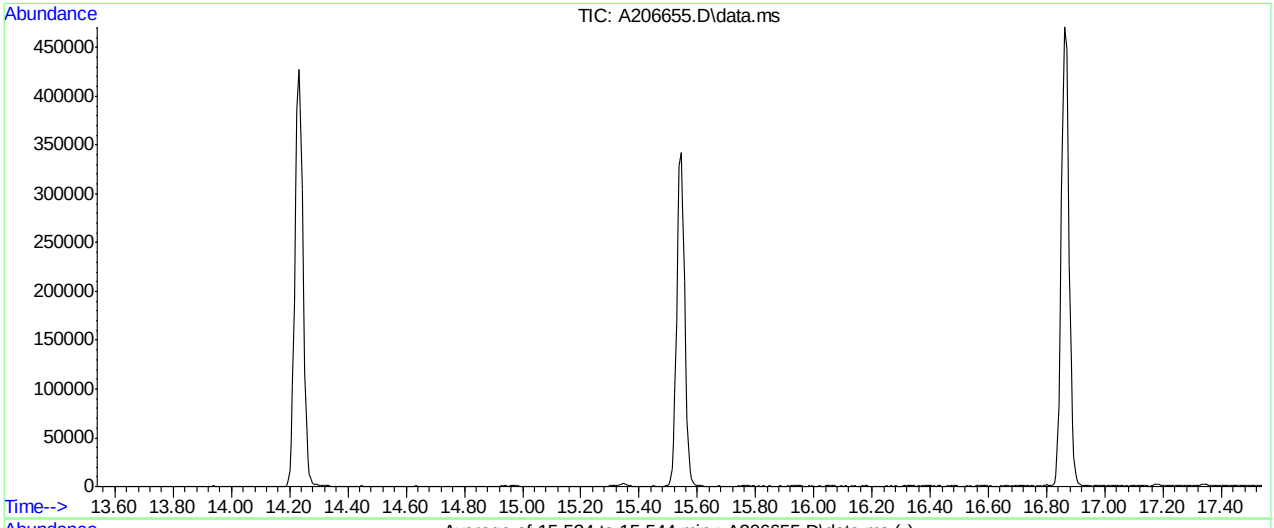
Average of 15.530 to 15.540 min.: A205522.D\data.ms
bfb
Modified:subtracted

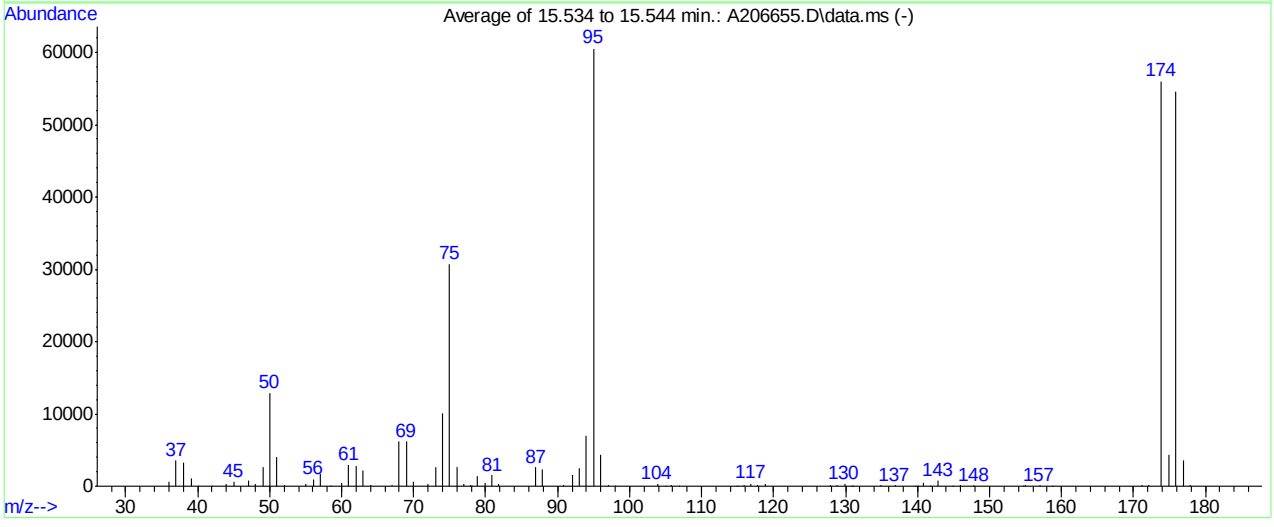
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	2281	117.95	188	147.95	151		
94.05	6738	119.00	334	155.05	155		
95.05	61848	127.95	208	157.00	132		
96.05	4146	128.95	83	160.95	54		
97.10	132	130.00	219	172.15	42		
103.95	230	135.05	110	174.00	58373		
105.05	34	137.00	81	175.05	4720		
105.90	234	140.95	600	176.00	57616		
114.95	33	141.85	74	176.95	3796		
115.95	180	142.95	589	177.95	119		
116.95	375	146.95	49				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\A\va7793\A206655.D Vial: 1
Acq On : 22 Jun 2014 2:42 pm Operator: CourtneM
Sample : bfb Inst : MSA
Misc : MS69379,VA7793,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2249, 2250, 2251; Background Corrected with Scan 2240

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.3	12874	PASS
75	95	30	60	50.7	30707	PASS
95	95	100	100	100.0	60552	PASS
96	95	5	9	7.1	4285	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	92.5	56003	PASS
175	174	5	9	7.9	4401	PASS
176	174	95	101	97.4	54565	PASS
177	176	5	9	6.7	3646	PASS

A206655.D MA7751.M Tue Jun 24 08:02:41 2014 ACCUNJ

Average of 15.534 to 15.544 min.: A206655.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	662	50.00	12874	64.05	185	77.90	127
37.00	3513	51.00	4021	67.00	212	78.10	80
38.00	3306	52.05	98	68.00	6146	78.90	1420
39.05	1135	55.05	290	69.00	6190	79.95	399
40.00	62	56.05	932	69.95	606	80.90	1487
42.00	58	57.00	1711	72.00	295	81.85	377
43.95	330	58.40	36	73.00	2566	86.95	2579
45.00	610	59.95	503	74.00	10150	87.90	2259
47.00	848	61.00	2887	75.00	30707	90.85	227
48.00	376	62.00	2824	76.00	2621	92.00	1553
49.05	2647	63.00	2154	76.95	362	93.00	2545

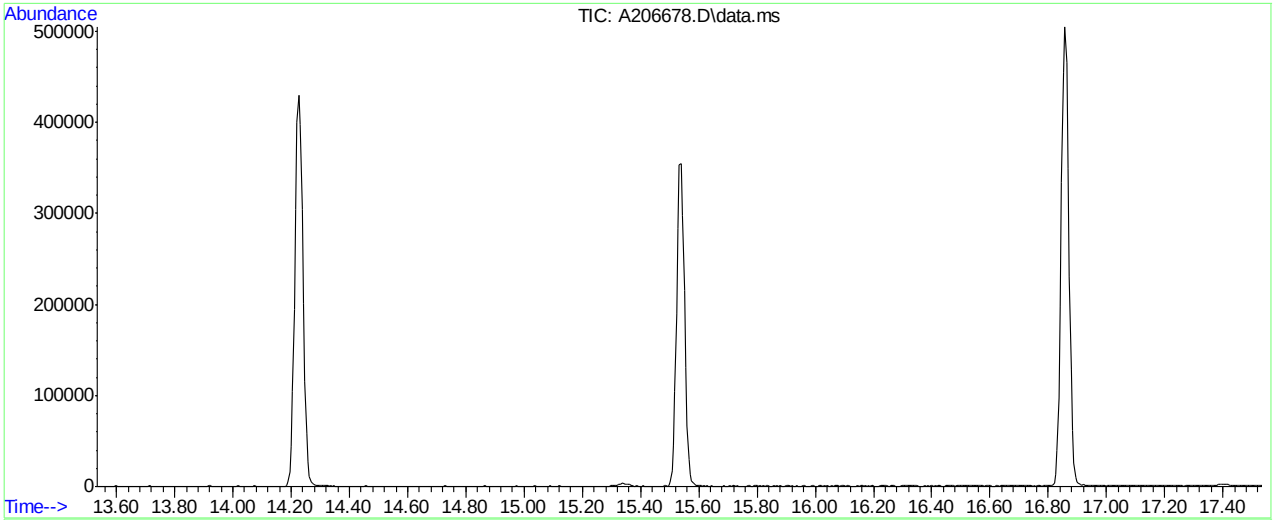
Average of 15.534 to 15.544 min.: A206655.D\data.ms
bfb
Modified:subtracted

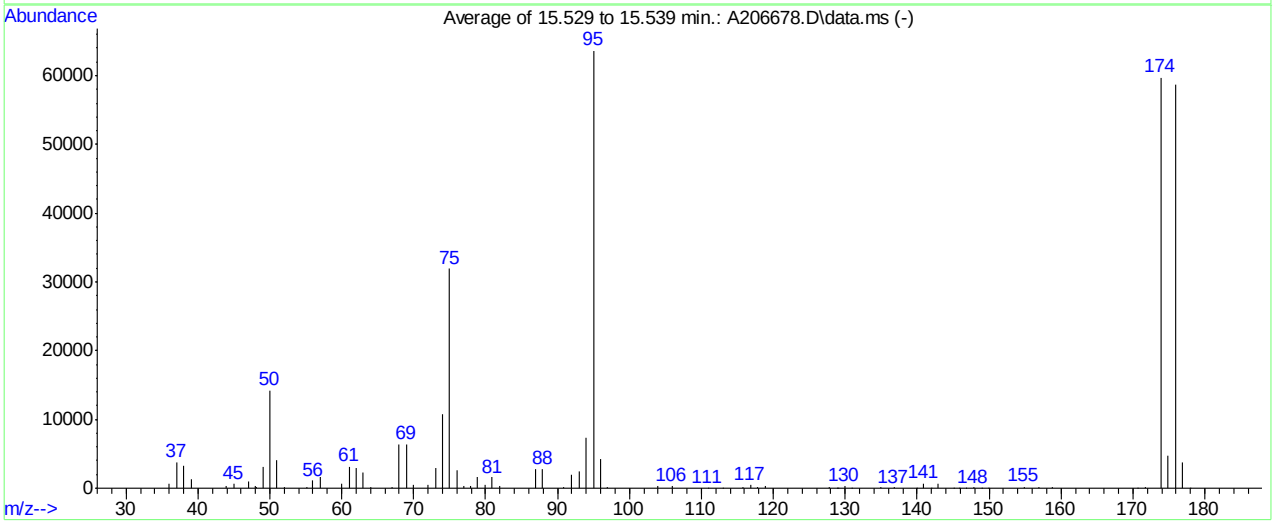
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	6967	116.90	365	140.10	42	171.20	87
95.00	60552	117.80	219	140.85	538	172.15	133
96.00	4285	118.85	329	141.80	44	173.90	56003
97.05	101	127.90	179	142.90	731	174.95	4401
98.00	36	128.85	93	144.80	43	175.90	54565
103.85	264	129.85	282	145.90	138	176.90	3646
105.00	41	130.80	38	147.85	135	177.85	144
105.80	224	131.00	33	154.70	39		
106.80	36	134.90	96	154.95	144		
115.00	67	136.90	111	156.95	147		
115.85	189	139.80	40	158.80	45		

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\A\va7793\A206678.D Vial: 24
Acq On : 23 Jun 2014 3:44 am Operator: CourtneM
Sample : bfb2 Inst : MSA
Misc : MS69394,VA7793,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2248, 2249, 2250; Background Corrected with Scan 2239

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.4	14267	PASS
75	95	30	60	50.1	31904	PASS
95	95	100	100	100.0	63659	PASS
96	95	5	9	6.7	4282	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	93.7	59669	PASS
175	174	5	9	8.0	4759	PASS
176	174	95	101	98.5	58760	PASS
177	176	5	9	6.4	3767	PASS

A206678.D MA7751.M Tue Jun 24 08:09:18 2014 ACCUNJ

Average of 15.529 to 15.539 min.: A206678.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	643	51.00	4029	68.00	6364	79.95	492
37.00	3833	51.95	196	69.00	6368	80.90	1574
38.00	3227	55.15	178	70.00	484	81.90	365
39.05	1368	56.00	1109	72.00	426	86.95	2702
43.95	316	57.00	1708	73.00	2988	87.90	2786
45.00	628	60.00	637	74.00	10737	90.90	245
47.05	1046	61.00	3165	75.00	31904	92.00	1908
47.90	272	62.00	3009	76.00	2639	93.00	2436
48.10	107	63.00	2253	76.95	395	94.00	7384
49.00	3081	64.00	239	77.90	350	95.00	63659
50.00	14267	67.00	126	78.90	1622	96.00	4282

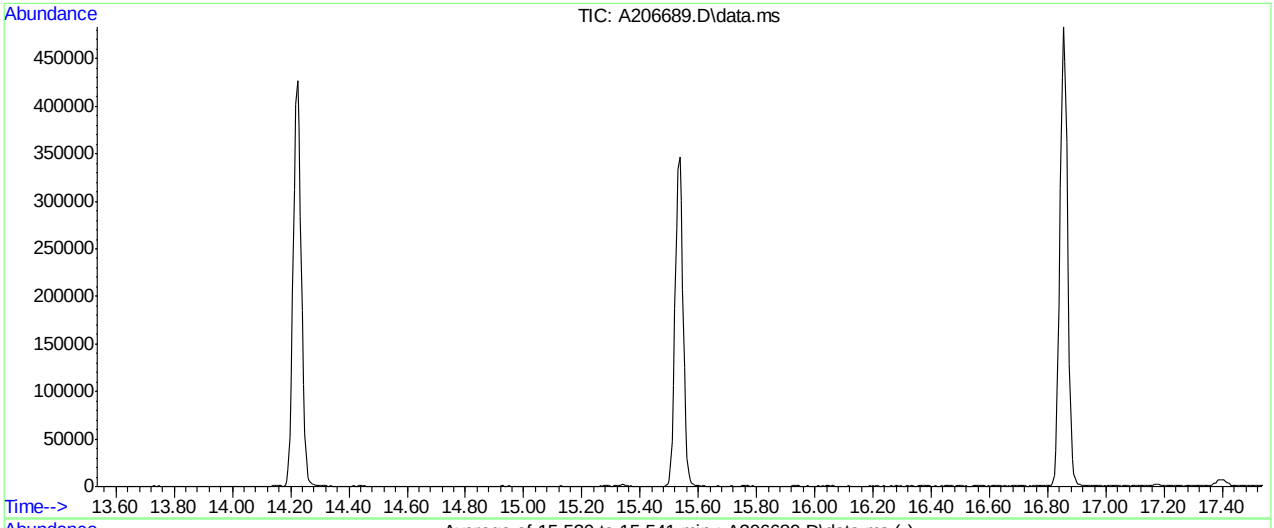
Average of 15.529 to 15.539 min.: A206678.D\data.ms
bfb2
Modified:subtracted

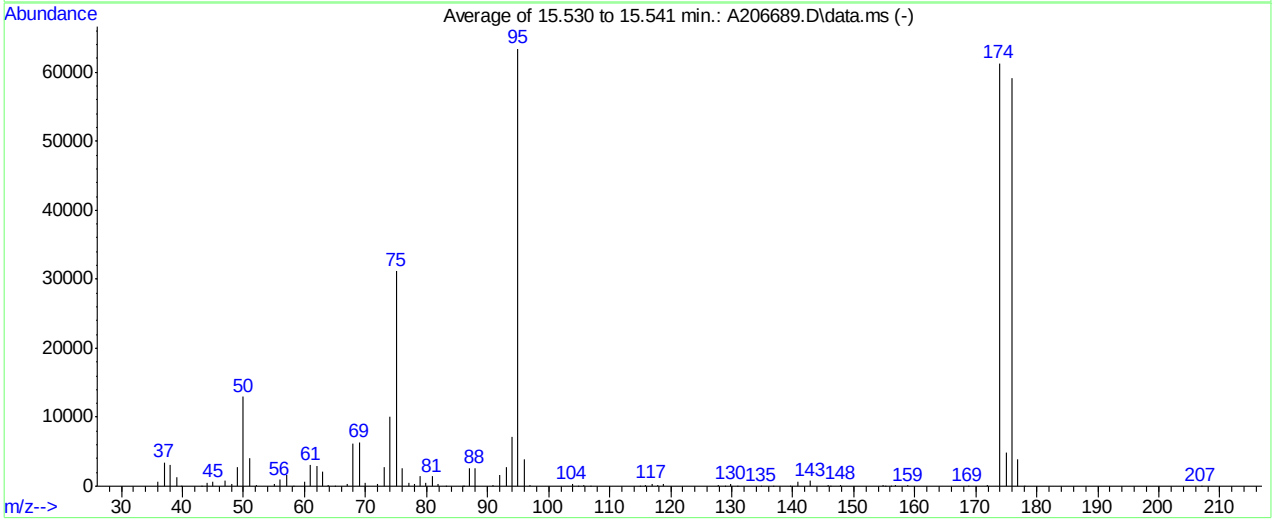
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	164	129.00	39	146.80	42	175.90	58760
103.90	280	129.95	292	147.85	154	176.90	3767
105.90	312	130.90	47	148.90	37	177.95	77
110.90	51	134.95	104	149.90	39		
112.90	39	136.80	127	154.85	229		
115.85	185	139.90	34	156.85	101		
116.85	431	140.90	694	158.85	105		
117.85	249	141.90	39	170.60	34		
118.85	382	142.85	645	171.75	101		
127.85	241	145.10	33	173.90	59669		
128.80	38	145.80	33	174.90	4759		

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\A\va7794-7795\A206689.D Vial: 1
Acq On : 23 Jun 2014 10:12 am Operator: CourtneM
Sample : bfb Inst : MSA
Misc : MS69379,VA7794,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA7751.M (RTE Integrator)
Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2248, 2249, 2250; Background Corrected with Scan 2238

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.4	12943	PASS
75	95	30	60	49.1	31168	PASS
95	95	100	100	100.0	63443	PASS
96	95	5	9	6.3	3979	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	96.7	61336	PASS
175	174	5	9	8.0	4933	PASS
176	174	95	101	96.3	59080	PASS
177	176	5	9	6.7	3976	PASS

A206689.D MA7751.M Tue Jun 24 09:44:51 2014 ACCUNJ

Average of 15.530 to 15.541 min.: A206689.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	638	50.00	12943	63.95	213	77.05	448
37.00	3499	51.00	4111	65.00	34	77.95	286
38.00	3161	52.05	115	67.00	266	78.90	1466
39.05	1265	55.00	269	68.00	6206	79.95	501
39.90	51	55.95	956	69.00	6360	80.90	1448
43.05	74	57.05	1600	69.95	549	81.90	344
44.00	481	58.10	34	72.00	372	83.10	33
45.05	617	60.00	610	73.00	2840	85.95	77
47.05	869	61.00	3018	74.00	10149	86.20	50
48.05	408	62.00	2937	75.00	31168	86.95	2589
49.00	2796	63.00	2087	76.00	2609	87.95	2655

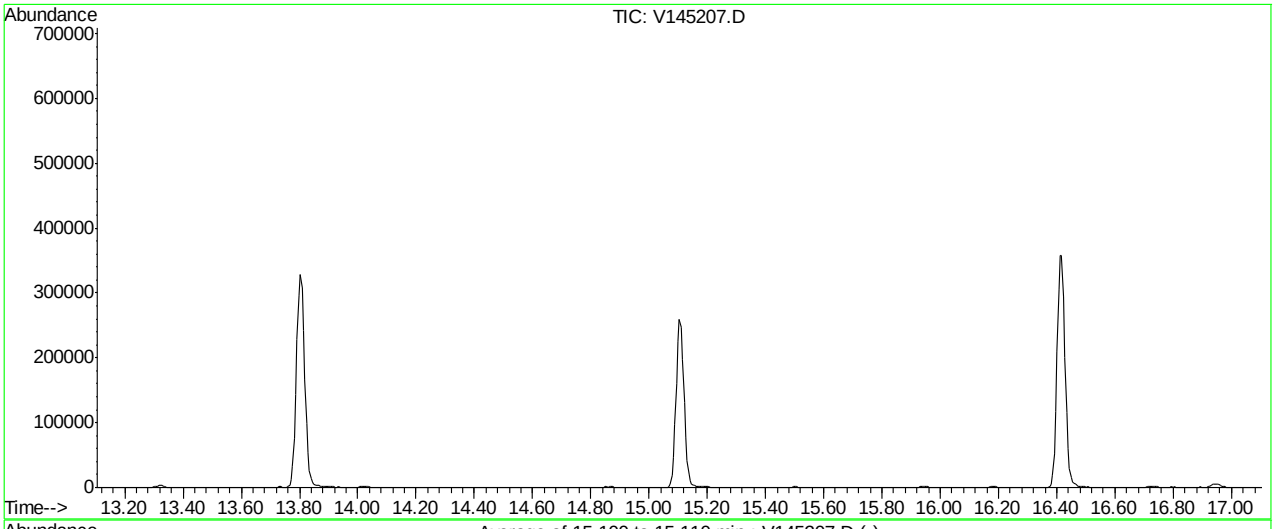
Average of 15.530 to 15.541 min.: A206689.D\data.ms
bfb
Modified:subtracted

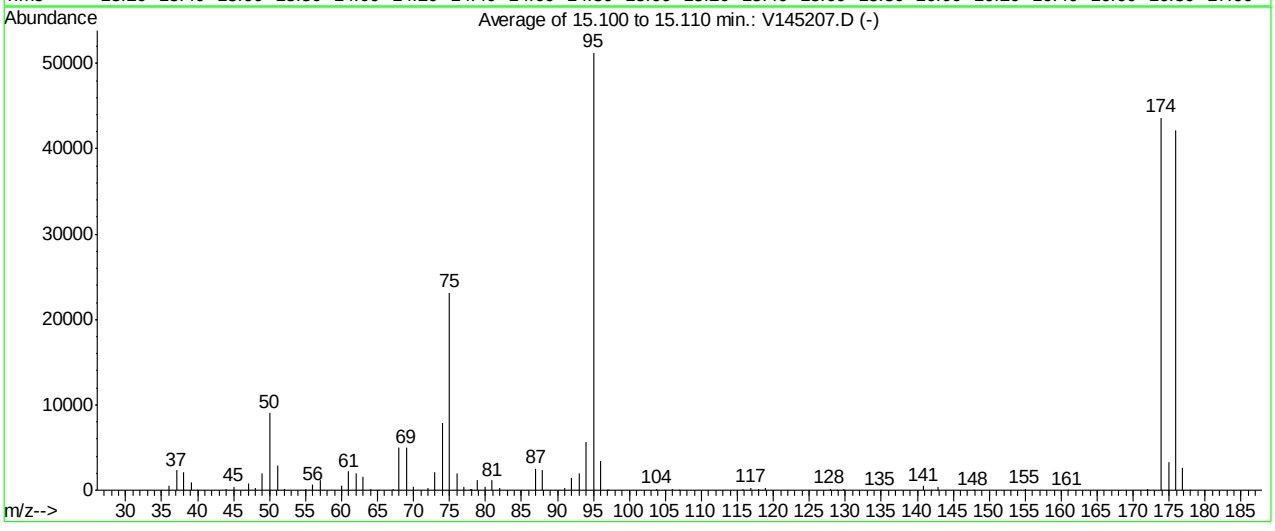
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.85	228	114.90	38	139.50	42	168.70	34
91.95	1689	115.90	194	140.90	604	171.85	136
93.00	2717	116.90	399	142.90	790	173.90	61336
94.00	7231	117.85	227	145.85	141	174.95	4933
95.00	63443	118.85	305	146.10	34	175.90	59080
96.00	3979	127.75	233	147.90	195	176.90	3976
96.95	158	128.85	78	154.85	94	177.90	39
103.85	297	129.85	268	155.10	63	206.90	49
104.80	61	130.85	82	156.10	33		
105.80	163	134.80	86	156.85	129		
106.90	72	136.80	37	158.90	144		

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\V145207.D Vial: 1
Acq On : 11 Jun 2014 9:54 am Operator: KingC
Sample : bfb Inst : MSV
Misc : MS68813,VV6196,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint4.p

Method : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2193, 2194, 2195; Background Corrected with Scan 2183

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	9003	PASS
75	95	30	60	45.1	23149	PASS
95	95	100	100	100.0	51288	PASS
96	95	5	9	6.7	3419	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	85.1	43661	PASS
175	174	5	9	7.5	3259	PASS
176	174	95	101	96.4	42106	PASS
177	176	5	9	6.3	2662	PASS

V145207.D MVS6196.M Thu Jun 12 09:48:10 2014 MSV

Average of 15.100 to 15.110 min.: V145207.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	500	51.05	2909	67.10	125	78.10	167
37.10	2359	52.00	153	68.00	4953	78.90	1186
38.05	2142	54.95	155	69.00	4980	79.95	414
39.10	859	56.00	649	70.00	379	80.90	1153
39.95	49	57.05	1223	71.95	273	81.90	306
44.00	191	60.00	503	73.00	2114	87.00	2557
45.05	400	61.00	2197	74.00	7831	87.95	2309
47.00	737	62.00	2011	75.00	23149	90.95	229
47.95	299	63.00	1636	76.00	1958	91.95	1391
49.00	1957	64.05	101	76.95	360	93.00	2010
50.00	9003	65.10	34	77.90	82	94.00	5669

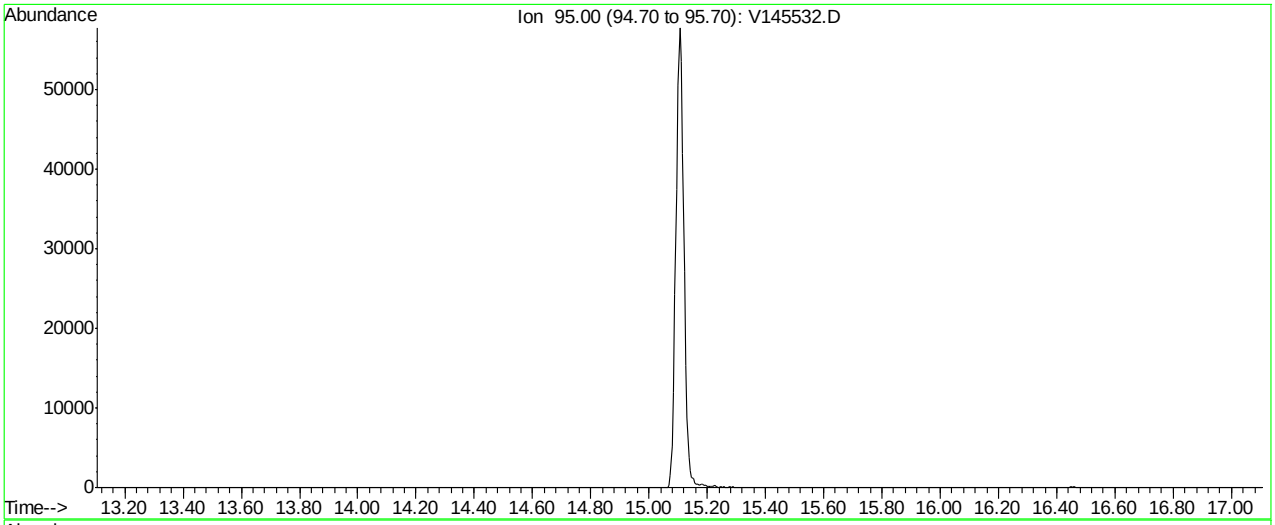
Average of 15.100 to 15.110 min.: V145207.D
bfb
Modified:subtracted

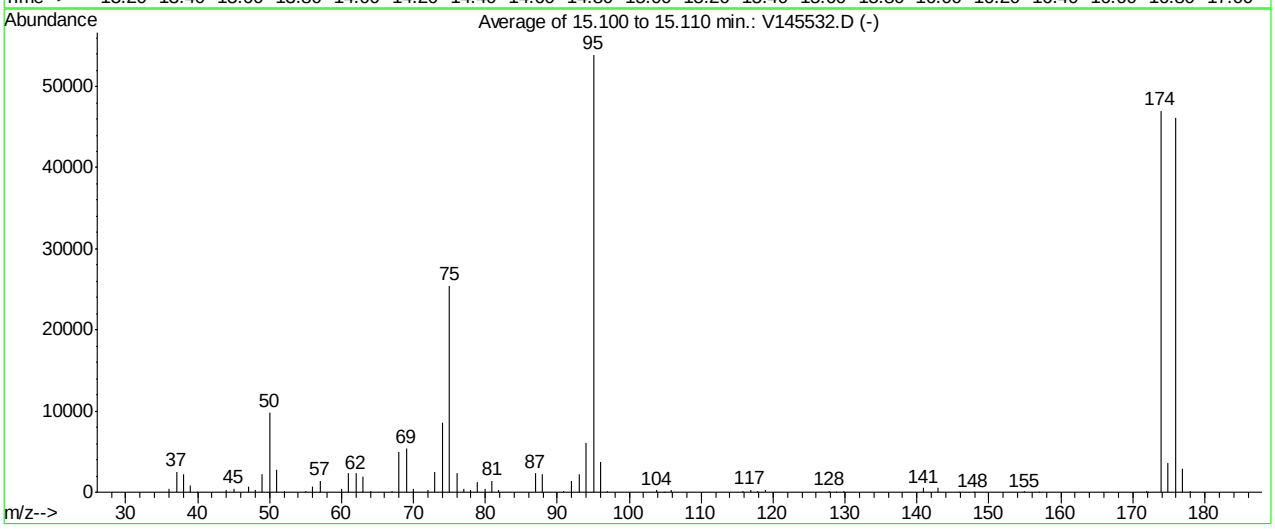
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	51288	118.85	205	171.80	50		
96.00	3419	127.90	166	171.95	127		
96.90	33	128.90	36	173.90	43661		
97.10	38	129.85	149	174.90	3259		
103.85	191	134.90	36	175.90	42106		
104.80	33	140.90	523	176.90	2662		
105.95	174	141.90	34	177.90	36		
106.90	37	142.90	447				
115.75	193	147.80	39				
116.90	285	154.95	152				
117.90	163	160.90	33				

SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\V145532.D Vial: 1
Acq On : 20 Jun 2014 8:05 am Operator: KingC
Sample : bfb Inst : MSV
Misc : MS69292,VV6205,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint4.p

Method : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2193, 2194, 2195; Background Corrected with Scan 2184

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	9846	PASS
75	95	30	60	47.2	25469	PASS
95	95	100	100	100.0	53941	PASS
96	95	5	9	6.9	3725	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	87.1	46976	PASS
175	174	5	9	7.6	3562	PASS
176	174	95	101	98.2	46152	PASS
177	176	5	9	6.4	2962	PASS

V145532.D MVS6196.M Mon Jun 23 12:24:30 2014 MSV

Average of 15.100 to 15.110 min.: V145532.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	475	51.05	2744	68.00	5026	79.90	361
37.05	2529	52.00	158	69.00	5399	80.90	1399
38.05	2256	55.00	133	70.00	432	81.90	258
39.05	857	56.00	752	71.95	240	86.95	2412
39.90	11	57.00	1389	73.00	2442	87.95	2204
43.95	245	60.00	420	74.00	8608	90.90	178
45.05	444	61.00	2292	75.00	25469	92.00	1367
47.05	728	62.00	2305	76.00	2317	93.00	2263
47.95	337	63.00	1895	76.95	358	94.00	6143
49.00	2148	64.00	201	77.95	222	95.00	53941
50.00	9846	66.95	82	78.90	1307	96.00	3725

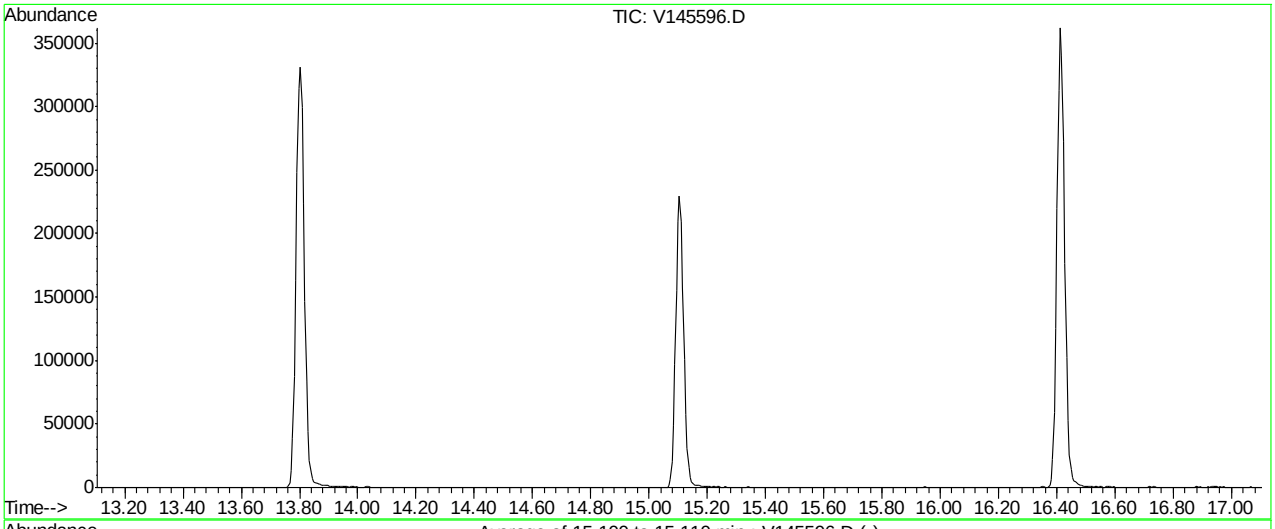
Average of 15.100 to 15.110 min.: V145532.D
bfb
Modified:subtracted

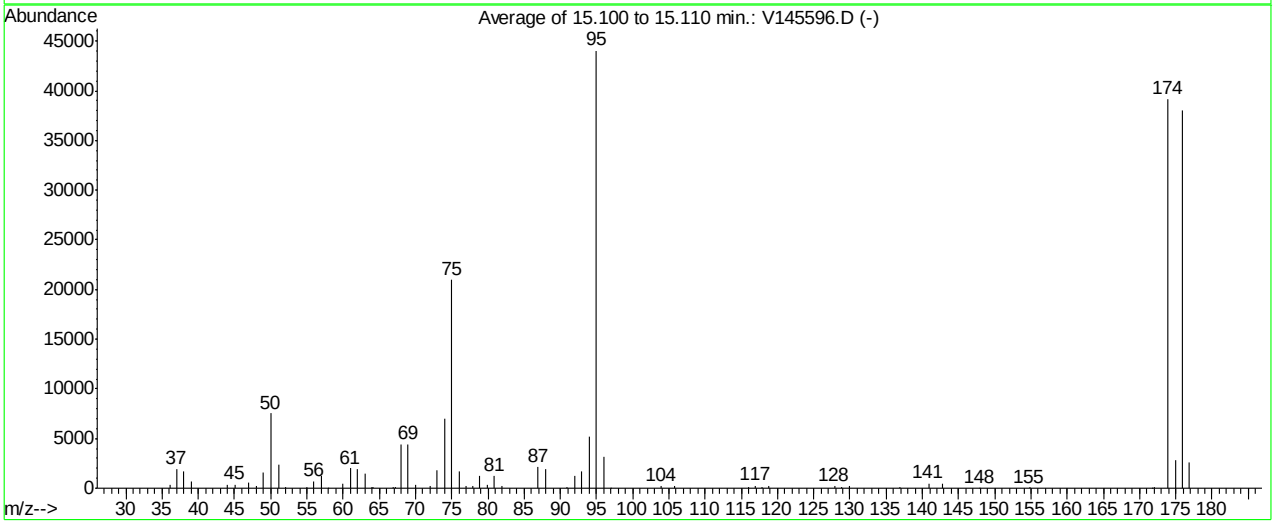
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	84	140.90	542	176.90	2962		
103.85	227	142.90	490	177.95	97		
104.90	35	145.90	40				
105.85	214	147.90	41				
115.85	174	154.95	133				
116.85	290	156.90	37				
117.90	198	171.85	107				
118.90	281	172.10	49				
127.85	193	173.90	46976				
128.80	40	174.90	3562				
129.85	178	175.90	46152				

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\V145596.D Vial: 1
Acq On : 23 Jun 2014 9:41 am Operator: KingC
Sample : bfb Inst : MSV
Misc : MS69467,VV6207,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint4.p

Method : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2193, 2194, 2195; Background Corrected with Scan 2183

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	7534	PASS
75	95	30	60	47.6	20965	PASS
95	95	100	100	100.0	44058	PASS
96	95	5	9	7.1	3147	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	88.9	39165	PASS
175	174	5	9	7.1	2798	PASS
176	174	95	101	97.0	37984	PASS
177	176	5	9	6.8	2585	PASS

V145596.D MVS6196.M Tue Jun 24 09:44:55 2014 MSV

Average of 15.100 to 15.110 min.: V145596.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	388	52.05	75	66.85	81	77.95	228
37.00	1943	54.95	149	67.15	80	78.90	1281
38.00	1716	56.00	708	68.00	4386	79.90	365
39.05	683	57.00	1222	69.00	4436	80.90	1199
44.00	304	58.00	34	70.00	378	81.90	254
45.05	377	60.00	463	72.00	215	86.95	2097
47.00	558	61.00	2008	73.00	1856	87.95	1925
48.00	271	62.00	1960	74.00	6990	90.85	123
49.00	1611	63.00	1497	75.00	20965	92.00	1244
50.00	7534	63.90	63	76.00	1729	93.00	1707
51.05	2367	64.10	94	77.00	269	94.00	5197

Average of 15.100 to 15.110 min.: V145596.D
bfb
Modified:subtracted

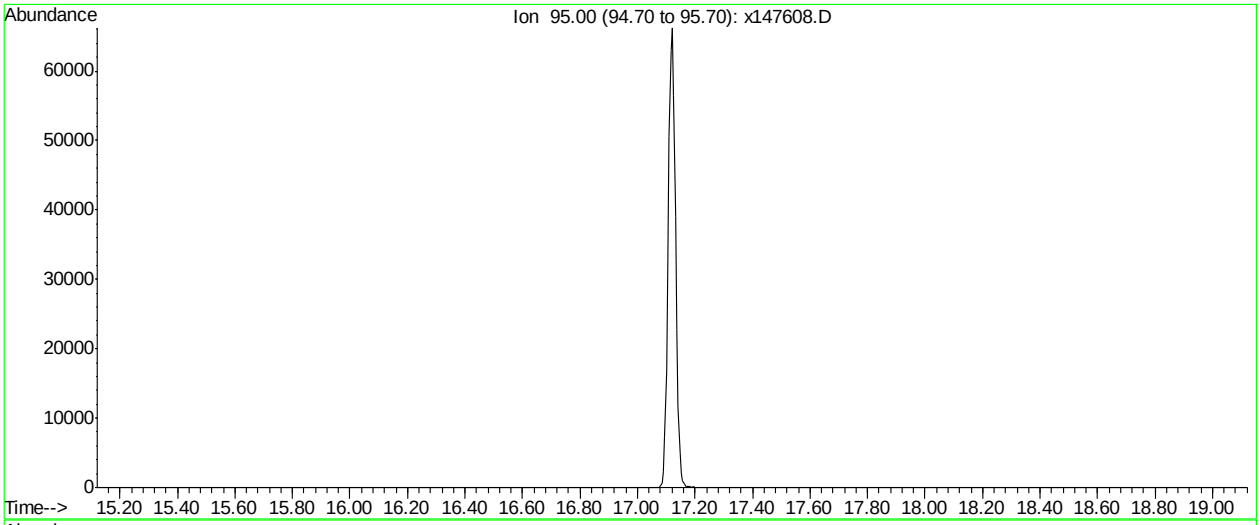
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	44058	129.85	175	176.90	2585		
96.00	3147	136.85	94				
97.00	36	140.90	455				
103.95	204	142.85	426				
105.85	183	147.90	43				
115.95	143	154.85	98				
116.95	242	171.80	47				
117.85	161	172.05	142				
118.85	195	173.90	39165				
127.90	182	174.90	2798				
128.85	70	175.90	37984				

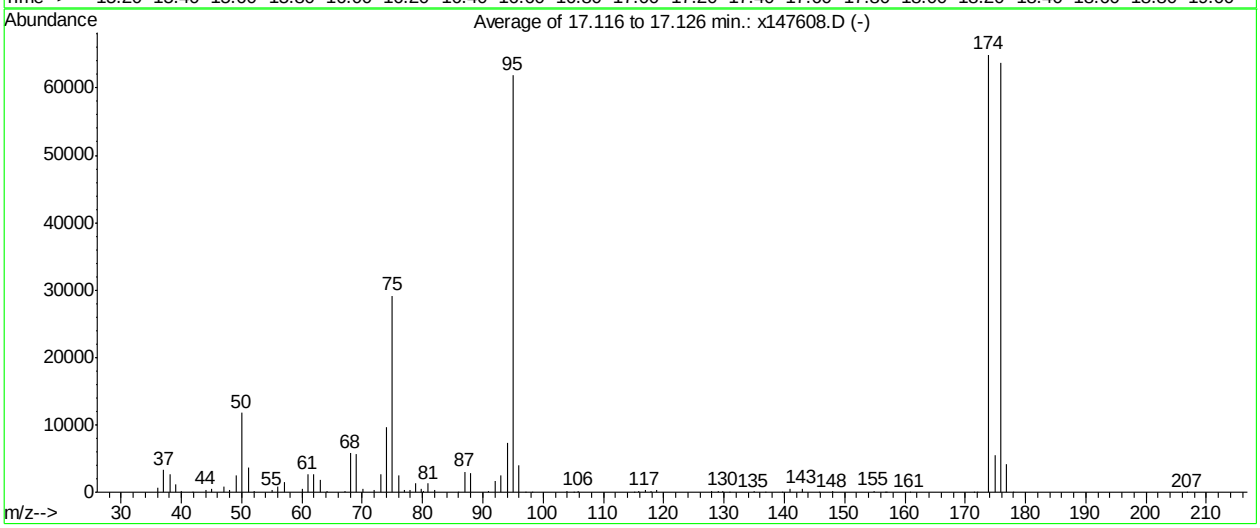
BFB

Data File : C:\msdchem\1\data\x147608.D
Acq On : 18 Jun 2014 4:20 pm
Sample : bfb
Misc : MS68701,VX6381,5,,,,1
MS Integration Params: rteint.p

Vial: 1
Operator: KingC
Inst : ACC-VOA-M
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2588, 2589, 2590; Background Corrected with Scan 2578

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	11809	PASS
75	95	30	60	47.1	29144	PASS
95	95	100	100	100.0	61912	PASS
96	95	5	9	6.6	4071	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	104.9	64968	PASS
175	174	5	9	8.5	5515	PASS
176	174	95	101	98.1	63733	PASS
177	176	5	9	6.4	4092	PASS

x147608.D MX6381.M Thu Jun 19 09:15:22 2014 GCMSX

Average of 17.116 to 17.126 min.: x147608.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	680	50.00	11809	67.05	175	78.90	1317
37.05	3256	51.05	3711	68.00	5815	79.85	435
38.05	2708	52.00	165	69.00	5739	80.10	116
39.10	1128	55.05	314	70.05	443	80.90	1327
40.00	100	56.05	839	72.05	398	81.95	273
41.90	44	57.00	1570	73.00	2714	86.00	36
44.00	340	60.05	575	74.00	9738	86.95	3028
45.05	571	61.00	2707	75.00	29144	87.90	2777
47.05	875	62.00	2705	76.00	2535	90.95	221
47.95	409	63.00	1894	76.95	358	92.00	1606
49.05	2559	64.10	185	78.00	312	93.00	2479

Average of 17.116 to 17.126 min.: x147608.D
bfb
Modified:subtracted

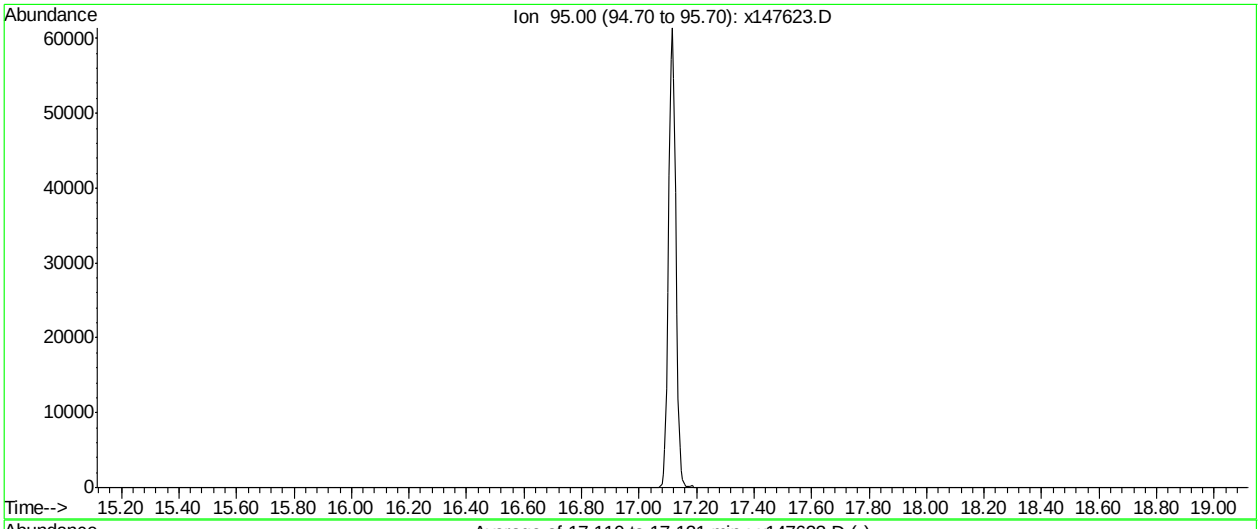
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	7288	117.95	223	145.80	33	176.90	4092
95.00	61912	118.85	293	147.95	155	177.90	85
96.00	4071	127.95	191	154.85	200	206.80	55
97.10	37	128.95	126	156.70	54		
98.10	34	129.85	213	156.95	82		
103.90	236	130.90	45	160.80	41		
105.00	77	134.95	121	171.45	83		
105.85	244	136.85	85	171.90	51		
115.10	39	139.70	39	173.90	64968		
115.90	197	140.85	519	174.95	5515		
116.90	311	142.90	522	175.90	63733		

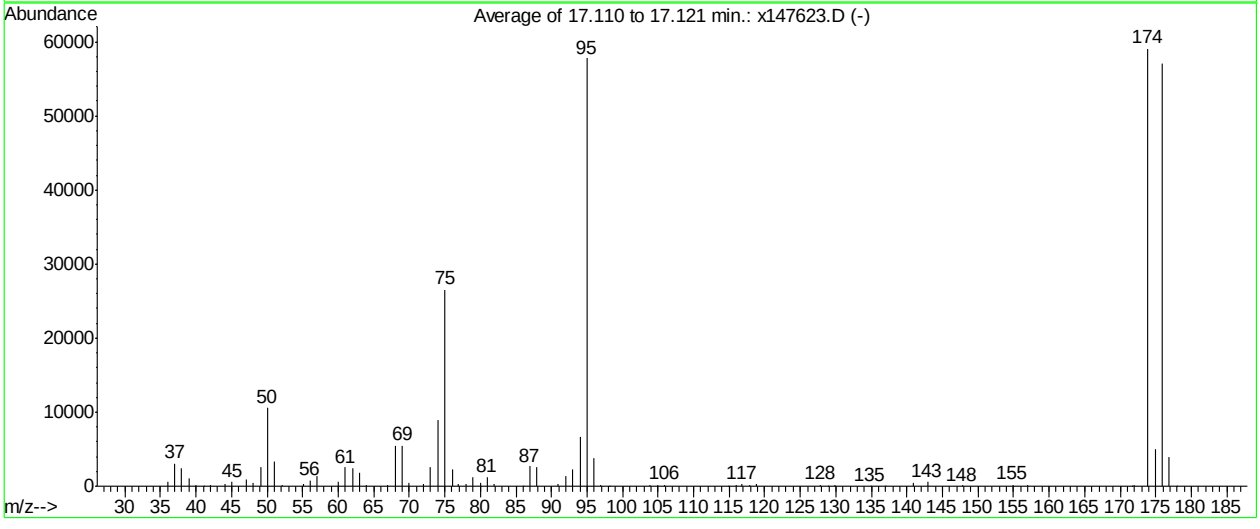
BFB

Data File : C:\msdchem\1\data\x147623.D
Acq On : 19 Jun 2014 9:10 am
Sample : bfb
Misc : MS68701,VX6381,5,,,,1
MS Integration Params: rteint.p

Vial: 16
Operator: KingC
Inst : ACC-VOA-M
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2587, 2588, 2589; Background Corrected with Scan 2577

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	10593	PASS
75	95	30	60	45.9	26509	PASS
95	95	100	100	100.0	57752	PASS
96	95	5	9	6.5	3764	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	102.3	59101	PASS
175	174	5	9	8.5	5035	PASS
176	174	95	101	96.5	57010	PASS
177	176	5	9	6.8	3867	PASS

x147623.D MX6381.M Thu Jun 19 10:09:27 2014 GCMSX

Average of 17.110 to 17.121 min.: x147623.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	607	49.05	2530	64.00	178	78.05	303
37.05	3092	50.00	10593	67.00	98	78.90	1226
38.00	2501	51.05	3305	68.00	5436	79.95	397
39.10	1104	52.05	135	69.00	5504	80.90	1253
40.00	97	55.05	312	70.00	462	81.90	284
41.00	40	56.05	767	72.00	332	86.00	46
42.05	162	57.00	1413	73.00	2591	86.95	2660
44.00	249	59.95	570	74.00	8890	87.95	2573
45.05	570	61.00	2517	75.00	26509	90.95	240
47.05	842	62.00	2431	76.05	2202	92.00	1391
48.05	394	63.00	1887	76.95	370	93.00	2245

Average of 17.110 to 17.121 min.: x147623.D
bfb
Modified:subtracted

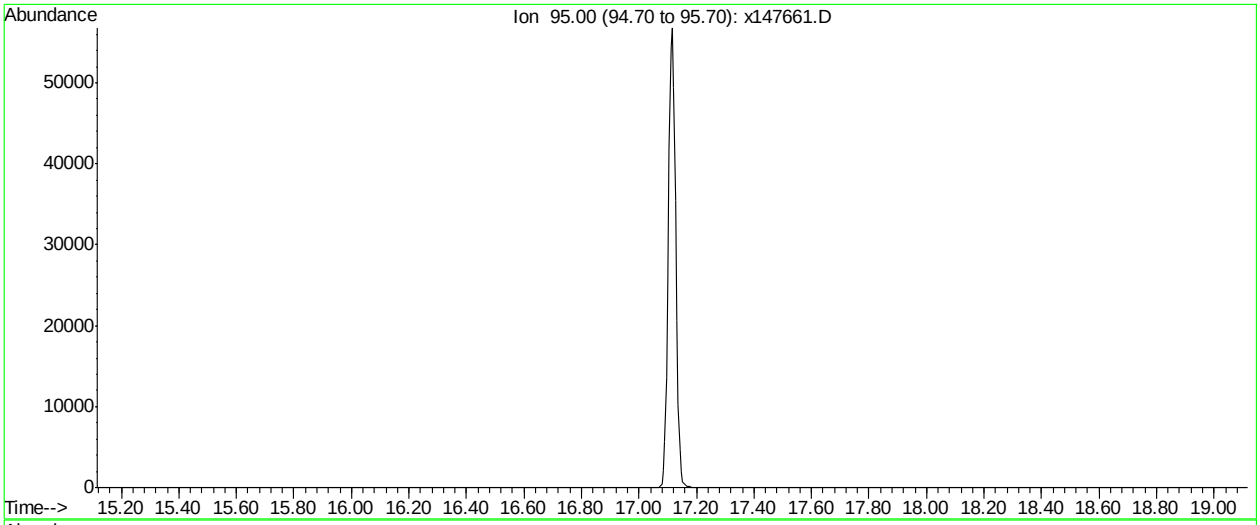
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.05	6691	117.85	184	156.95	82		
95.00	57752	118.90	240	171.70	42		
96.00	3764	127.85	199	171.95	146		
96.95	122	128.90	47	173.90	59101		
98.10	51	129.85	194	174.95	5035		
103.90	217	134.90	79	175.90	57010		
104.95	106	136.95	73	176.90	3867		
105.95	219	140.90	528	177.90	43		
114.90	34	142.90	539				
115.95	169	147.80	125				
116.85	281	154.90	163				

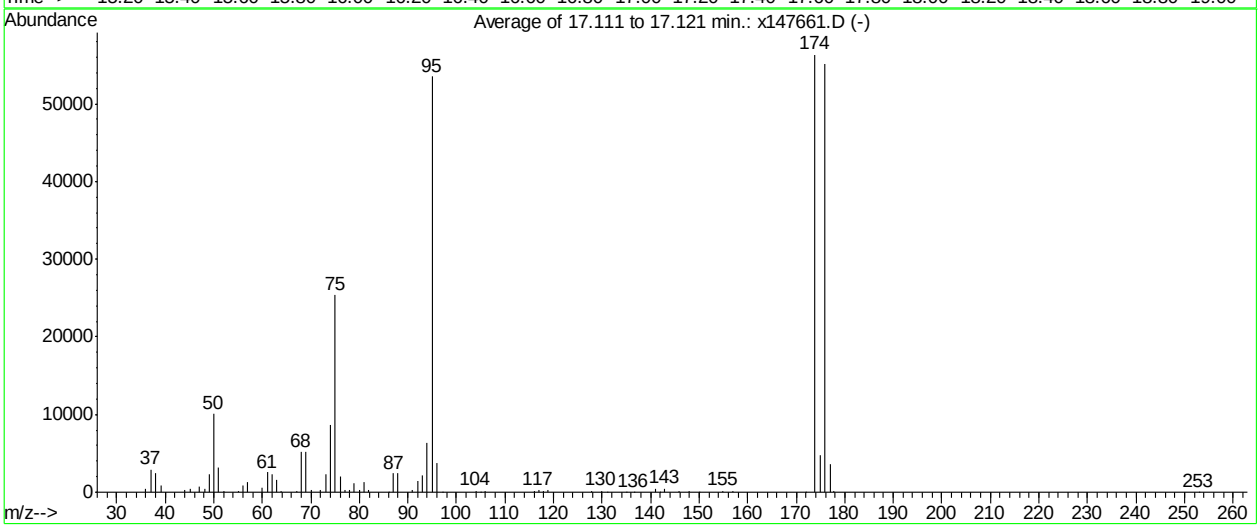
BFB

Data File : C:\MSDCHEM\1\DATA\x147661.D
Acq On : 20 Jun 2014 8:04 am
Sample : bfb
Misc : MS69334,VX6383,5,,,,1
MS Integration Params: rteint.p

Vial: 1
Operator: KingC
Inst : ACC-VOA-M
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2587, 2588, 2589; Background Corrected with Scan 2577

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	10098	PASS
75	95	30	60	47.4	25368	PASS
95	95	100	100	100.0	53530	PASS
96	95	5	9	6.9	3688	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	105.3	56349	PASS
175	174	5	9	8.4	4713	PASS
176	174	95	101	97.9	55138	PASS
177	176	5	9	6.5	3558	PASS

x147661.D MX6381.M Fri Jun 20 16:52:47 2014 GCMSX

Average of 17.111 to 17.121 min.: x147661.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	496	52.00	173	69.00	5156	80.90	1268
37.05	2906	55.00	187	70.00	361	81.95	306
38.10	2406	56.00	850	72.05	338	86.00	64
39.05	939	57.00	1287	73.00	2333	87.00	2453
44.00	279	60.00	518	74.00	8679	87.95	2398
45.05	430	61.00	2573	75.00	25368	90.95	256
47.05	742	62.00	2329	76.05	1997	92.00	1440
48.05	406	63.00	1608	77.00	336	93.00	2169
49.00	2276	63.95	143	78.00	288	94.00	6300
50.00	10098	67.00	167	78.90	1169	95.00	53530
51.00	3171	68.00	5139	79.95	346	96.00	3688

Average of 17.111 to 17.121 min.: x147661.D
bfb
Modified:subtracted

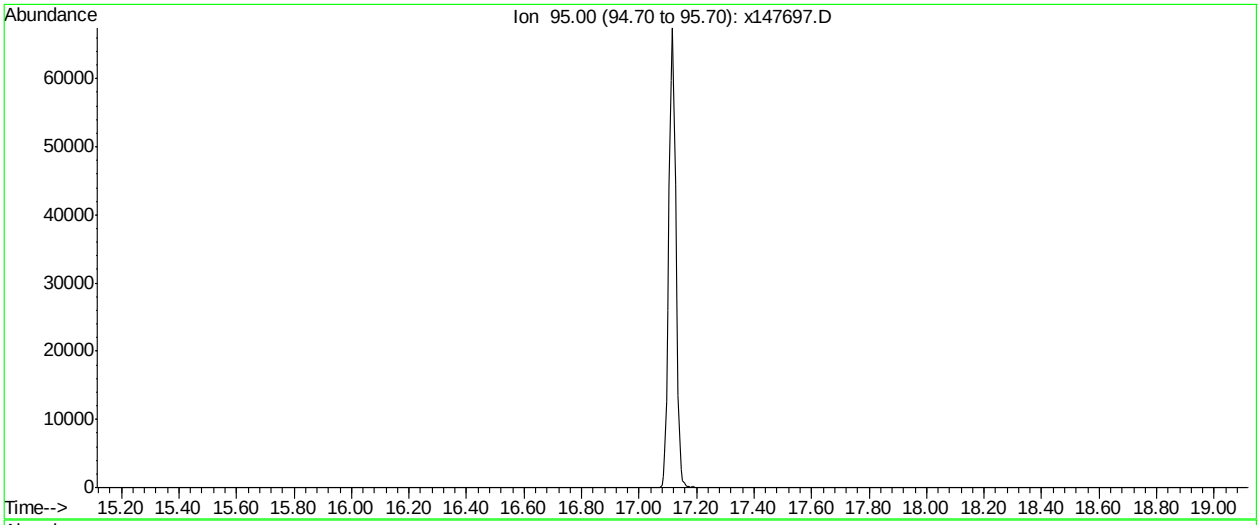
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.05	77	135.00	53	173.90	56349		
103.95	205	136.60	36	174.95	4713		
104.90	36	140.90	485	175.90	55138		
105.95	186	142.00	48	176.95	3558		
115.95	175	142.90	504	177.75	99		
116.90	282	145.85	78	252.95	14		
117.95	152	147.90	85				
118.90	266	149.90	36				
127.85	219	154.90	174				
129.85	220	156.85	107				
131.00	33	171.90	51				

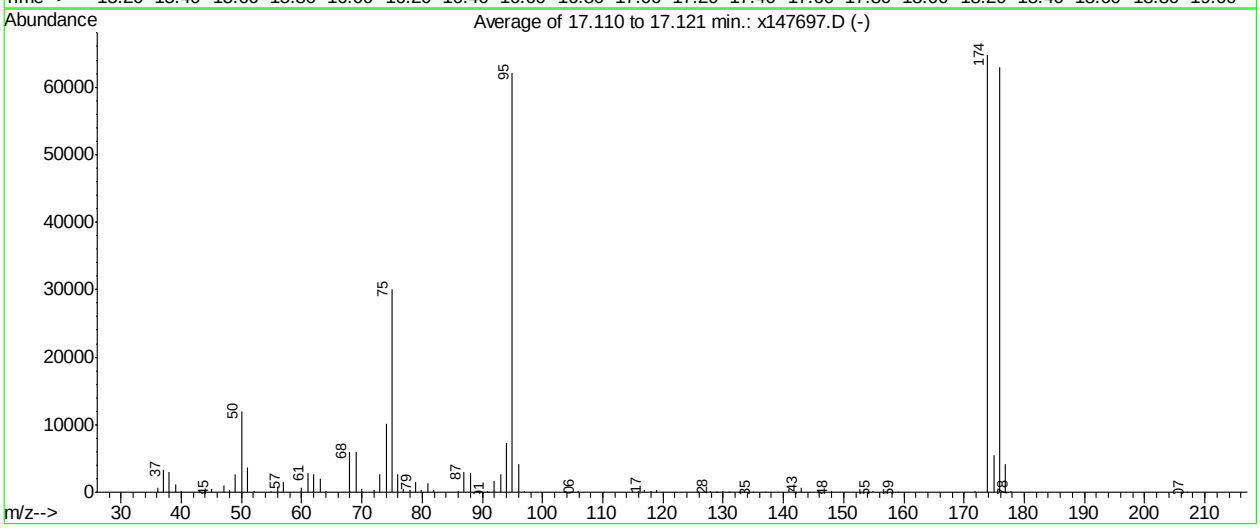
BFB

Data File : C:\msdchem\1\data\x147697.D
Acq On : 21 Jun 2014 9:02 am
Sample : bfb
Misc : MS69379,VX6383,5,,,,1
MS Integration Params: rteint.p

Vial: 1
Operator: KingC
Inst : ACC-VOA-M
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\MX6381.M (RTE Integrator)
Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2587, 2588, 2589; Background Corrected with Scan 2578

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	11916	PASS
75	95	30	60	48.3	30018	PASS
95	95	100	100	100.0	62136	PASS
96	95	5	9	6.6	4104	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	104.3	64824	PASS
175	174	5	9	8.6	5559	PASS
176	174	95	101	97.1	62960	PASS
177	176	5	9	6.6	4163	PASS

x147697.D MX6381.M Mon Jun 23 09:39:55 2014 GCMSX

Average of 17.110 to 17.121 min.: x147697.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	645	51.00	3723	69.00	5927	80.90	1394
37.05	3409	52.05	166	70.05	509	81.95	314
38.05	3030	54.95	227	72.00	415	85.95	95
39.05	1137	56.00	880	73.00	2606	86.95	2984
40.00	94	57.00	1575	74.00	10105	87.95	2800
44.00	321	60.00	646	75.00	30018	90.90	190
45.05	559	61.00	2775	76.00	2668	91.10	90
47.05	922	62.00	2713	76.95	448	92.00	1643
47.95	414	63.05	1977	77.95	338	93.00	2595
49.00	2731	64.00	190	78.90	1458	94.00	7296
50.00	11916	68.00	6039	79.90	387	95.00	62136

Average of 17.110 to 17.121 min.: x147697.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	4104	128.80	43	145.85	89	207.05	89
97.05	99	128.95	90	147.95	154		
103.85	211	129.90	198	154.90	167		
104.85	74	130.90	34	156.95	162		
105.85	246	131.10	43	158.90	40		
114.80	48	133.00	38	171.90	116		
115.90	187	135.00	71	173.90	64824		
116.90	349	136.95	68	175.00	5559		
117.95	227	140.85	541	175.90	62960		
118.90	290	141.95	74	176.90	4163		
127.90	203	142.90	592	177.85	154		

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
06/16/14 09:30

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3a131737.D
Acq On : 12 Jun 2014 1:45 pm
Operator : HeeEunA
Sample : ic5699-0.5
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 13 08:22:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 09:17:38 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.39	65	125925	500.00	ug/L	-0.02
5) pentafluorobenzene	10.80	168	319807	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	369457	50.00	ug/L	0.00
87) chlorobenzene-d5	15.09	117	322841	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	192723	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 79 - 120		Recovery	=	0.00%#	
50) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery	=	0.00%#	
79) toluene-d8 (s)	13.47	98	4260	0.48	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery	=	0.96%#	
104) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery	=	0.00%#	

Target Compounds							Qvalue
31) methyl tert butyl ether	8.72	73	3140	0.43	ug/L		91
32) trans-1,2-dichloroethene	8.80	61	1338	0.38	ug/L		84
33) di-isopropyl ether	9.38	45	3121	0.37	ug/L		94
35) 1,1-dichloroethane	9.46	63	1846	0.41	ug/L		85
36) chloroprene	9.55	53	1137	0.35	ug/L		78
37) acrylonitrile	8.87	53	1749	2.07	ug/L		90
39) ethyl tert-butyl ether	9.88	59	3131	0.40	ug/L		92
41) 2,2-dichloropropane	10.24	77	1276	0.48	ug/L		76
42) cis-1,2-dichloroethene	10.27	96	1286m	0.45	ug/L		
45) bromochloromethane	10.60	128	494	0.37	ug/L	#	59
47) chloroform	10.67	85	1231	0.42	ug/L		92
53) 1,1,1-trichloroethane	10.88	97	1437m	0.38	ug/L		
58) carbon tetrachloride	11.09	117	1195	0.35	ug/L		86
59) 1,1-dichloropropene	11.08	75	1171	0.36	ug/L		91
63) benzene	11.37	78	4177	0.42	ug/L		89
67) 1,2-dichloroethane	11.43	62	1184	0.36	ug/L		87
69) trichloroethene	12.11	95	940	0.37	ug/L	#	78
73) 2-chloroethyl vinyl ether	12.96	63	3140	2.33	ug/L		95
74) 1,2-dichloropropane	12.41	63	938	0.35	ug/L	#	48
75) dibromomethane	12.59	93	598	0.36	ug/L		90
77) bromodichloromethane	12.72	83	1289	0.36	ug/L		90
78) cis-1,3-dichloropropene	13.18	75	1529	0.37	ug/L		96
81) toluene	13.54	92	2232	0.36	ug/L	#	78
82) 3-methyl-1-butanol	13.33	55	426	5.54	ug/L		92
83) trans-1,3-dichloropropene	13.79	75	1481	0.38	ug/L		95
85) 1,1,2-trichloroethane	14.03	83	730	0.36	ug/L		95
88) tetrachloroethene	14.14	164	851	0.37	ug/L		87
90) 1,3-dichloropropane	14.22	76	1506	0.41	ug/L		94
92) 3,3-dimethyl-1-butanol	14.37	57	827	6.35	ug/L	#	73
93) dibromochloromethane	14.50	129	1048	0.37	ug/L		93
94) 1,2-dibromoethane	14.66	107	857	0.36	ug/L		85
95) chlorobenzene	15.12	112	2744	0.40	ug/L		83
96) 1,1,1,2-tetrachloroethane	15.19	131	1001	0.38	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3a131737.D
Acq On : 12 Jun 2014 1:45 pm
Operator : HeeEunA
Sample : ic5699-0.5
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 13 08:22:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 09:17:38 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
97) ethylbenzene	15.16	91	4552	0.40 ug/L	95
98) m,p-xylene	15.27	106	3318	0.76 ug/L	97
99) o-xylene	15.72	106	1747	0.40 ug/L #	79
100) styrene	15.74	104	2729	0.37 ug/L	98
101) bromoform	16.07	173	820	0.37 ug/L	83
103) isopropylbenzene	16.07	105	4658	0.41 ug/L	95
105) cyclohexanone	16.34	98	595	20.01 ug/L	79
106) bromobenzene	16.55	156	1294	0.38 ug/L	87
107) 1,1,2,2-tetrachloroethane	16.46	83	1447	0.43 ug/L	86
110) n-propylbenzene	16.51	120	1000	0.34 ug/L #	76
111) 2-chlorotoluene	16.69	126	1146	0.39 ug/L	78
112) 4-chlorotoluene	16.80	126	1093	0.37 ug/L	87
113) 1,3,5-trimethylbenzene	16.66	105	3902	0.40 ug/L	96
114) tert-butylbenzene	17.04	119	3353	0.39 ug/L	98
115) pentachloroethane	17.16	167	759	0.37 ug/L #	82
116) 1,2,4-trimethylbenzene	17.09	105	3857	0.40 ug/L	94
117) sec-butylbenzene	17.27	105	5180	0.40 ug/L	97
118) 1,3-dichlorobenzene	17.51	146	2678	0.41 ug/L	93
119) p-isopropyltoluene	17.39	119	4427	0.40 ug/L	96
120) 1,4-dichlorobenzene	17.60	146	2884	0.43 ug/L	93
121) 1,2-dichlorobenzene	18.04	146	2677	0.42 ug/L	96
122) benzyl chloride	17.74	91	3014	0.68 ug/L #	91
123) n-butylbenzene	17.85	92	2183	0.40 ug/L	94
125) 1,3,5-TRICHLOROBENZENE	19.06	180	2507	0.47 ug/L	99
126) 1,2,4-trichlorobenzene	19.77	180	2260	0.48 ug/L	97
127) hexachlorobutadiene	19.85	225	1229	0.48 ug/L	94
128) naphthalene	20.11	128	5077	0.56 ug/L	97
129) 1,2,3-trichlorobenzene	20.37	180	2074	0.51 ug/L	92
130) hexachloroethane	18.30	201	775	0.41 ug/L	83

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

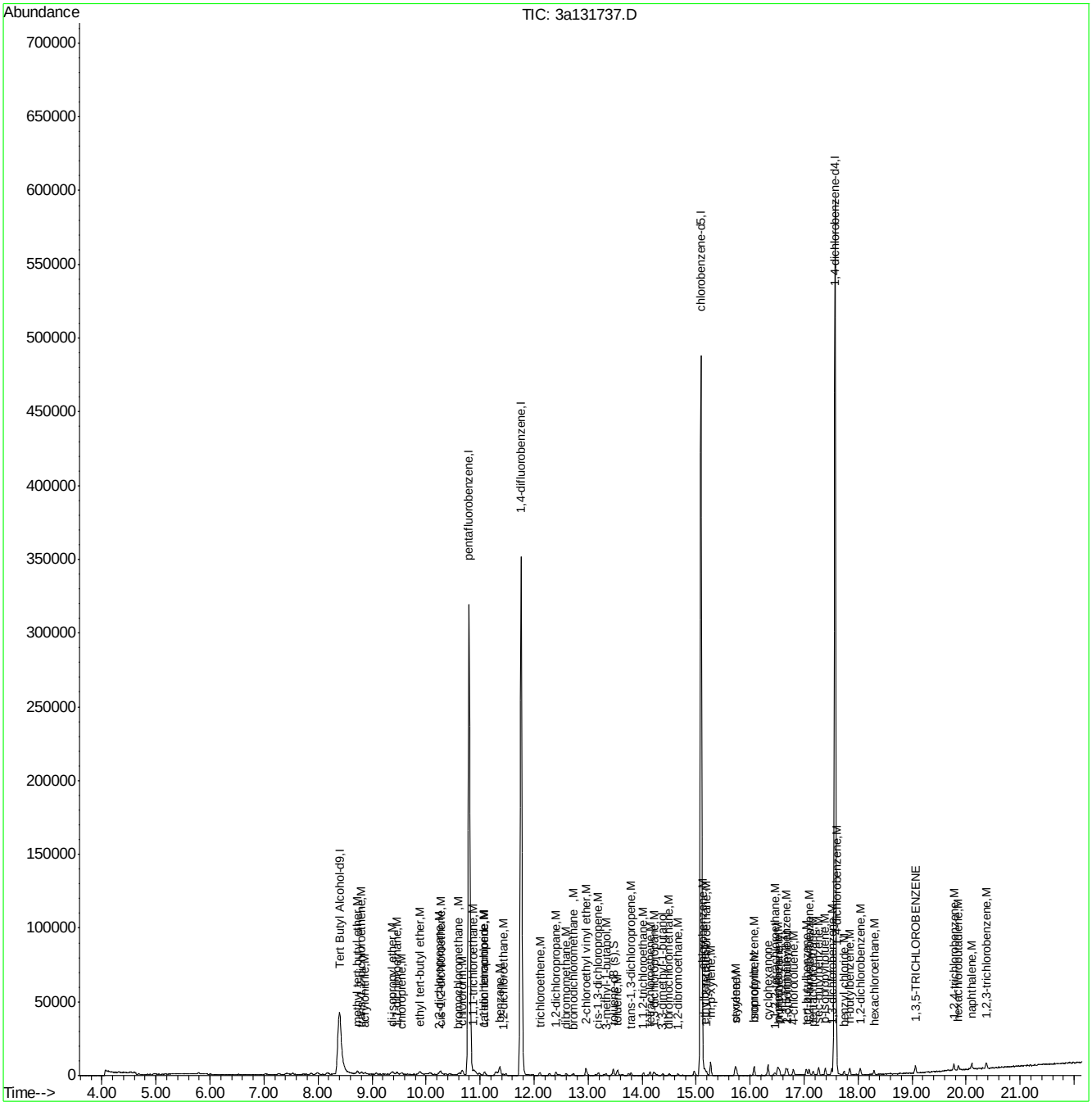
7.7.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3a131737.D
Acq On : 12 Jun 2014 1:45 pm
Operator : HeeEunA
Sample : ic5699-0.5
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 13 08:22:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 09:17:38 2014
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number:	V3A5699-IC5699	**Method:**	SW846 8260B
Lab FileID:	3A131737.D	**Analyst approved:**	06/16/14 09:11 Ying Li
Injection Time:	06/12/14 13:45	**Supervisor approved:**	06/16/14 09:30 Jessica Reitan-Chu

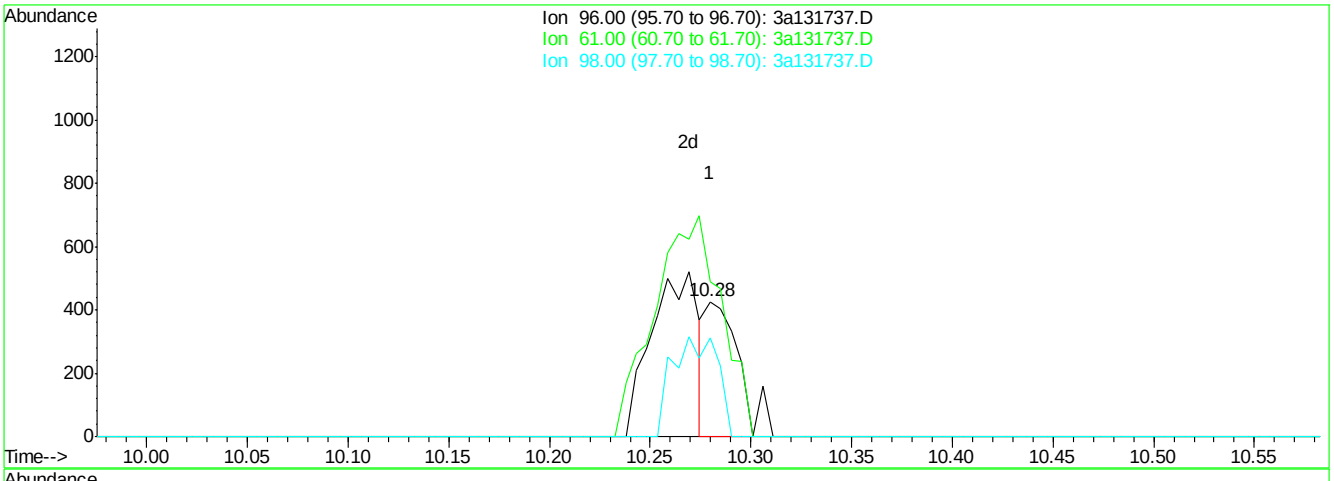
Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		10.27	Split peak
1,1,1-Trichloroethane	71-55-6		10.88	Split peak

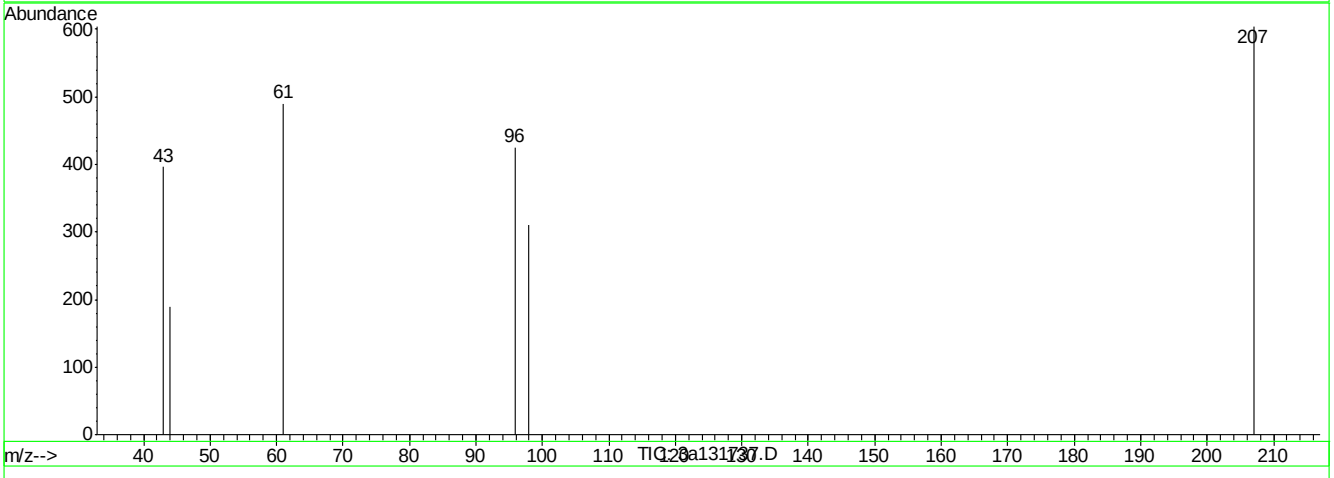
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131737.D Vial: 3
Acq On : 12 Jun 2014 1:45 pm Operator: HeeEunA
Sample : ic5699-0.5 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:10:17 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(42) cis-1,2-dichloroethene (M)

10.28min 0.15ug/L

response 439

Ion	Exp%	Act%
96.00	100	100
61.00	145.20	115.29
98.00	65.20	72.94
0.00	0.00	0.00

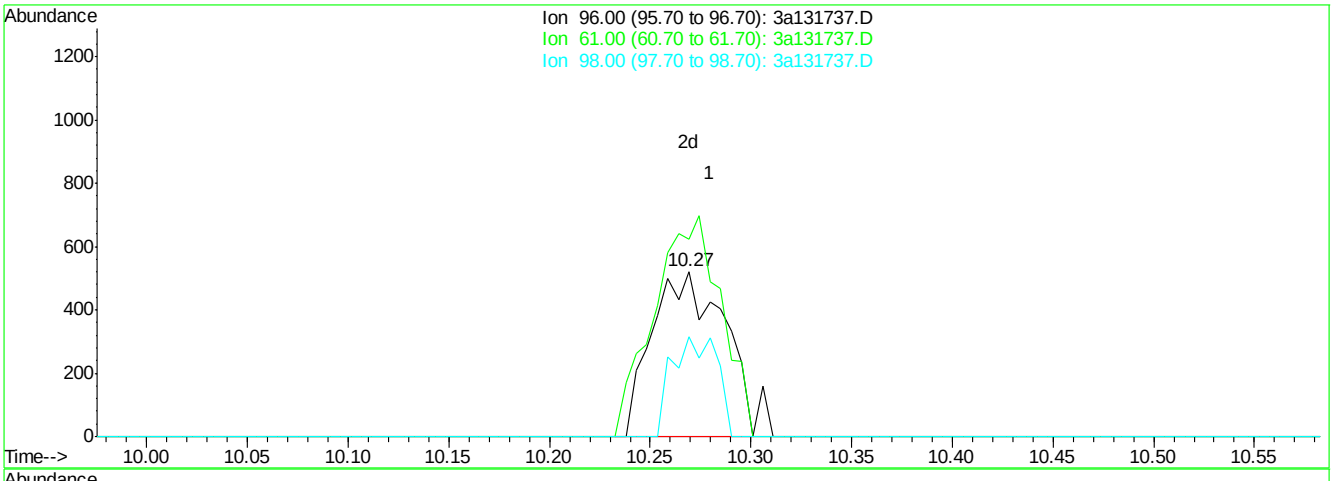
3a131737.D M3A5699.M Thu Jun 12 15:13:38 2014 ACCUNJ

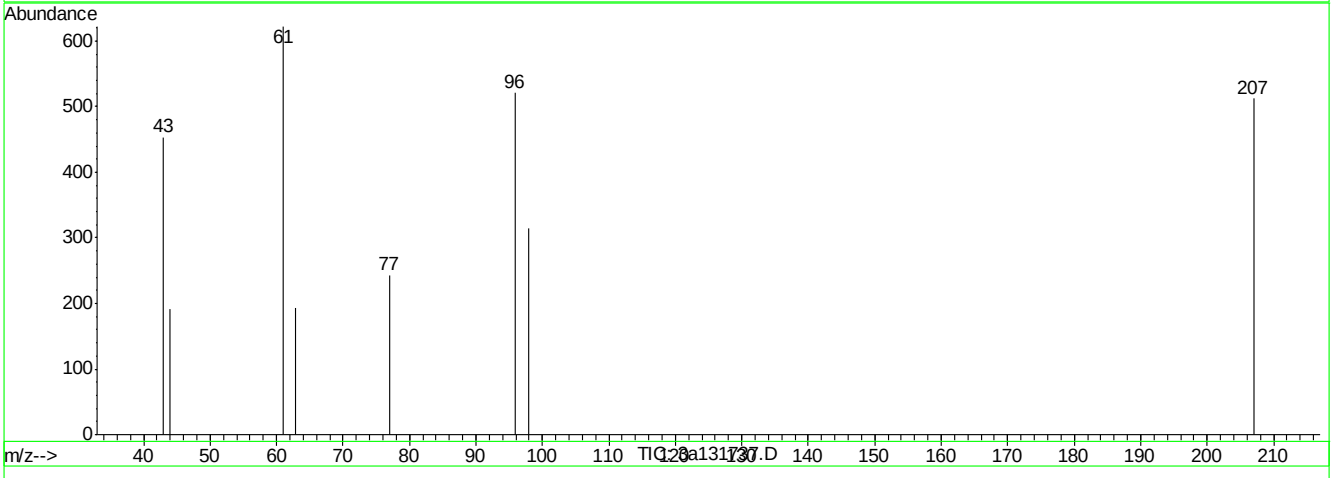
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131737.D Vial: 3
Acq On : 12 Jun 2014 1:45 pm Operator: HeeEunA
Sample : ic5699-0.5 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:10:17 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(42) cis-1,2-dichloroethene (M)

10.27min 0.45ug/L m

response 1286

Ion	Exp%	Act%
96.00	100	100
61.00	145.20	119.39
98.00	65.20	60.46
0.00	0.00	0.00

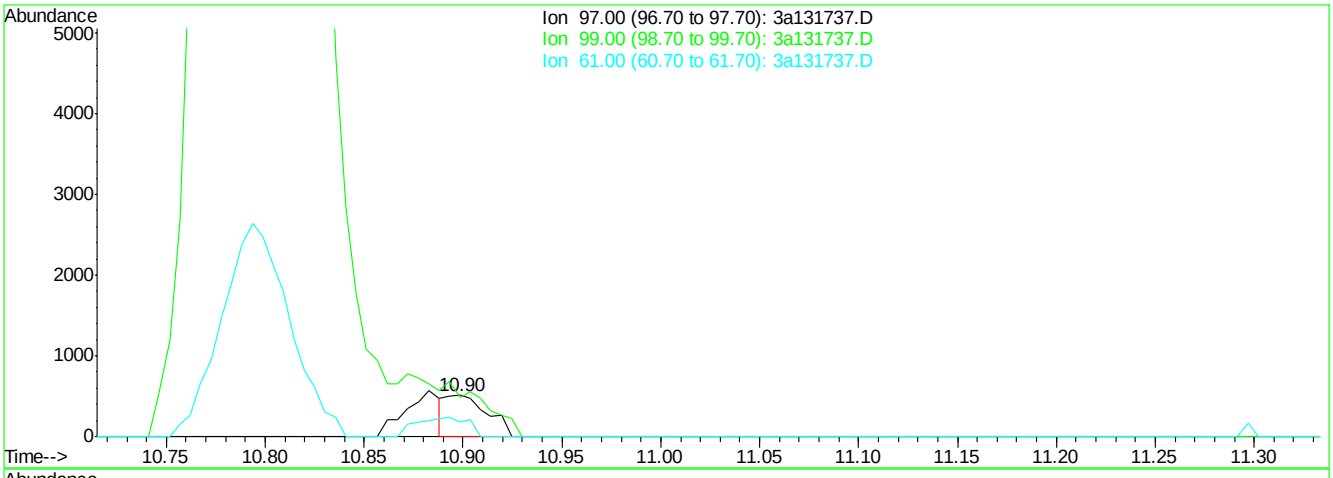
3a131737.D M3A5699.M Thu Jun 12 15:13:58 2014 ACCUNJ

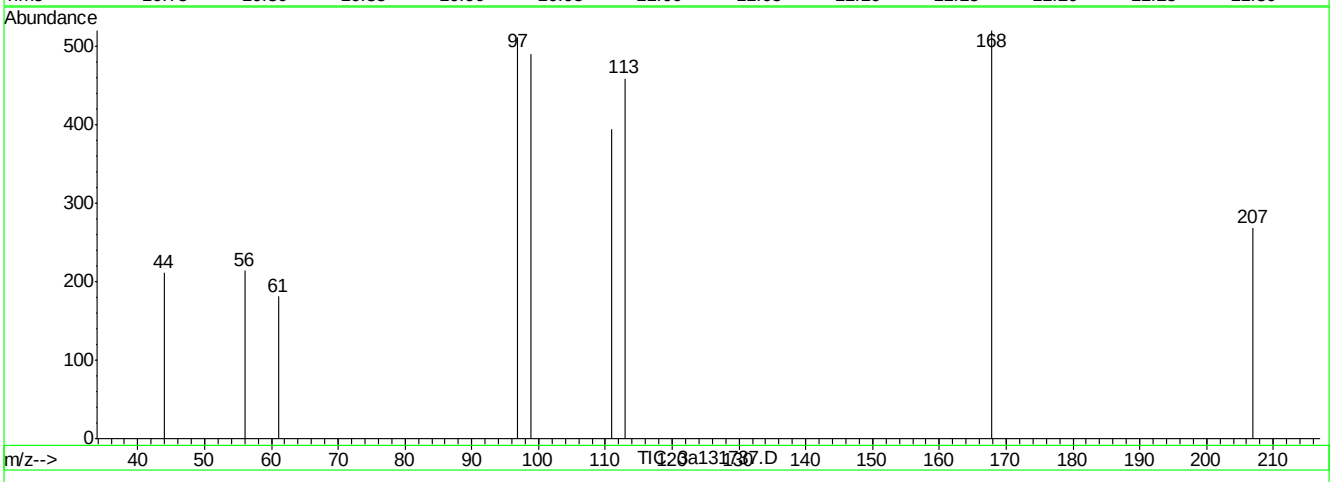
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131737.D Vial: 3
Acq On : 12 Jun 2014 1:45 pm Operator: HeeEunA
Sample : ic5699-0.5 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:10:17 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(53) 1,1,1-trichloroethane (M)

10.90min 0.19ug/L

response 735

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	51.95
61.00	40.10	35.35
0.00	0.00	0.00

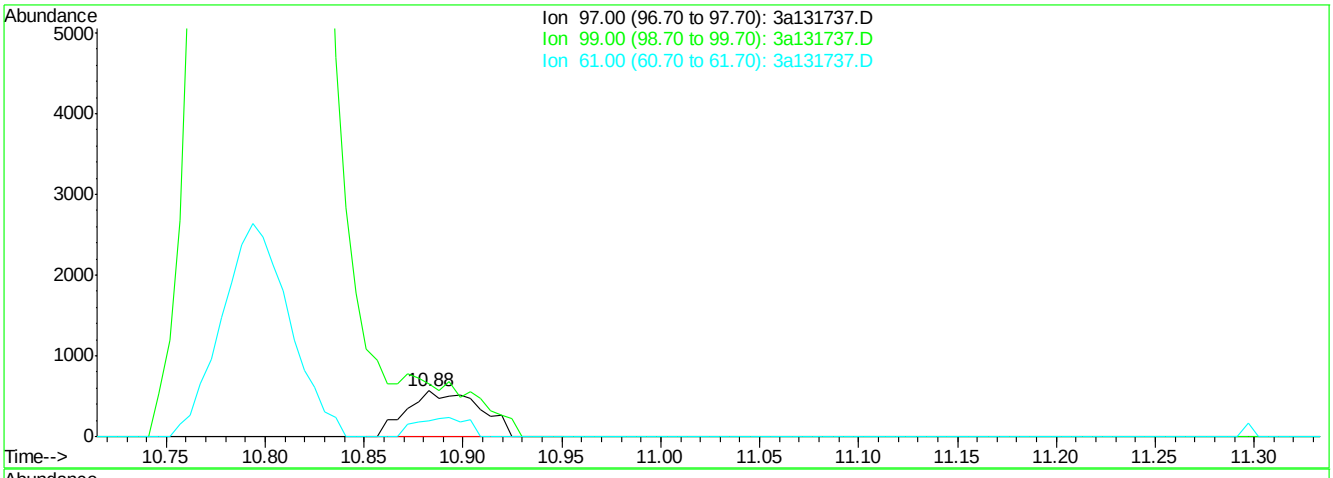
3a131737.D M3A5699.M Thu Jun 12 15:14:35 2014 ACCUNJ

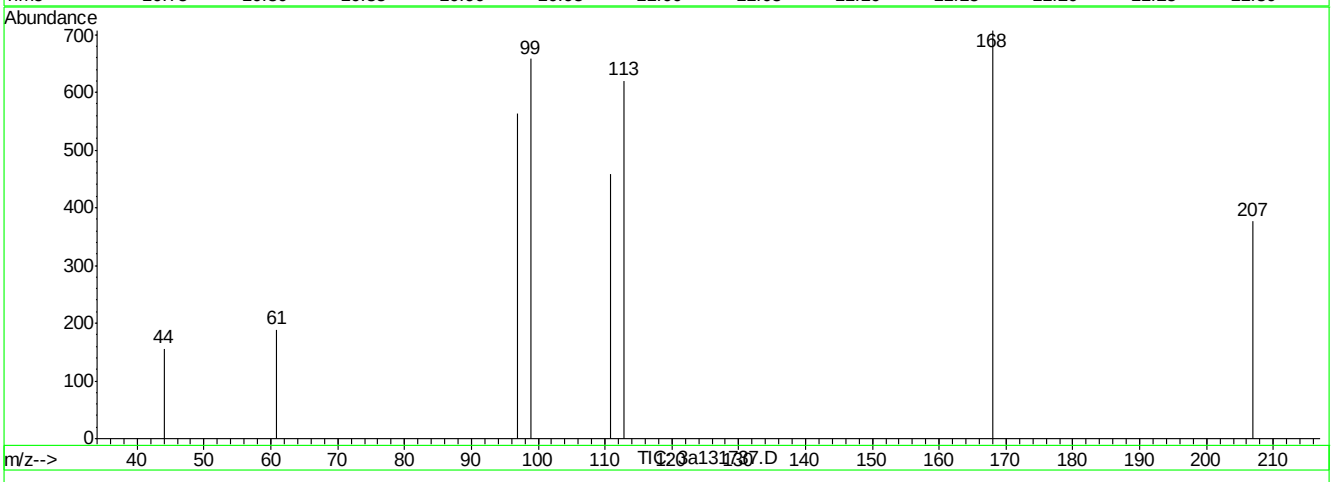
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131737.D Vial: 3
Acq On : 12 Jun 2014 1:45 pm Operator: HeeEunA
Sample : ic5699-0.5 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:10:17 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(53) 1,1,1-trichloroethane (M)

10.88min 0.38ug/L m

response 1437

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	116.87#
61.00	40.10	33.57
0.00	0.00	0.00

3a131737.D M3A5699.M Thu Jun 12 15:14:39 2014 ACCUNJ

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
06/16/14 09:30

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131738.D
Acq On : 12 Jun 2014 2:16 pm
Operator : HeeEunA
Sample : ic5699-1
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 08:27:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 09:17:38 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.39	65	121560	500.00	ug/L	-0.02
5) pentafluorobenzene	10.79	168	312177	50.00	ug/L	-0.01
55) 1,4-difluorobenzene	11.76	114	363728	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	323172	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	190962	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.88	113	2328	0.97	ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 1.94%#			
50) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery = 0.00%#			
79) toluene-d8 (s)	13.46	98	7836	0.90	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 1.80%#			
104) 4-bromofluorobenzene (s)	16.32	95	3617	1.09	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 2.18%#			

Target Compounds						Qvalue
10) chloromethane	4.67	50	2920	0.86	ug/L	87
11) vinyl chloride	4.97	62	2495	0.78	ug/L	91
12) bromomethane	5.78	94	2009m	1.05	ug/L	
15) 2-CHLOROPROPANE	7.27	43	3048	0.74	ug/L #	93
16) chloroethane	5.99	64	1174	0.81	ug/L #	45
20) ethyl ether	7.03	74	1019m	0.80	ug/L	
21) acrolein	7.41	56	3696	8.40	ug/L	83
22) 1,1-dichloroethene	7.52	96	1766	0.81	ug/L #	74
24) allyl chloride	8.17	76	779	0.74	ug/L #	66
26) iodomethane	7.87	142	3631	0.83	ug/L	92
28) carbon disulfide	7.98	76	6691	0.80	ug/L	99
29) methylene chloride	8.41	84	2463	0.84	ug/L	91
31) methyl tert butyl ether	8.74	73	6009m	0.84	ug/L	
32) trans-1,2-dichloroethene	8.81	61	2894	0.84	ug/L	94
33) di-isopropyl ether	9.38	45	6351	0.78	ug/L	96
35) 1,1-dichloroethane	9.45	63	3493	0.79	ug/L	99
36) chloroprene	9.55	53	2353	0.73	ug/L	81
37) acrylonitrile	8.86	53	3467	4.21	ug/L	91
39) ethyl tert-butyl ether	9.89	59	6149m	0.80	ug/L	
41) 2,2-dichloropropane	10.23	77	2772	1.07	ug/L	93
42) cis-1,2-dichloroethene	10.27	96	2413	0.87	ug/L	94
44) propionitrile	10.44	54	2443	7.77	ug/L	68
45) bromochloromethane	10.61	128	1006	0.78	ug/L	82
47) chloroform	10.67	85	2347	0.81	ug/L	98
48) t-butyl formate	10.67	59	1716	0.87	ug/L #	62
53) 1,1,1-trichloroethane	10.88	97	2786	0.75	ug/L	89
54) Cyclohexane	10.92	84	2101	0.62	ug/L	96
58) carbon tetrachloride	11.08	117	2389	0.71	ug/L	97
59) 1,1-dichloropropene	11.08	75	2455	0.76	ug/L	94
63) benzene	11.36	78	8224	0.84	ug/L	99
64) tert-amyl methyl ether	11.37	87	1291	0.77	ug/L #	76
66) isopropyl acetate	11.29	43	4574	0.74	ug/L	95
67) 1,2-dichloroethane	11.42	62	2536	0.79	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131738.D
Acq On : 12 Jun 2014 2:16 pm
Operator : HeeEunA
Sample : ic5699-1
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 08:27:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 09:17:38 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
69) trichloroethene	12.10	95	1948	0.78	ug/L		89
73) 2-chloroethyl vinyl ether	12.96	63	6084	4.58	ug/L		97
74) 1,2-dichloropropane	12.41	63	2033	0.78	ug/L		93
75) dibromomethane	12.59	93	1319	0.80	ug/L		98
77) bromodichloromethane	12.72	83	2777	0.79	ug/L		93
78) cis-1,3-dichloropropene	13.19	75	3379	0.82	ug/L		93
81) toluene	13.55	92	4543	0.74	ug/L		94
83) trans-1,3-dichloropropene	13.79	75	2913	0.77	ug/L		91
85) 1,1,2-trichloroethane	14.02	83	1587	0.79	ug/L		98
88) tetrachloroethene	14.15	164	1794	0.79	ug/L		91
90) 1,3-dichloropropane	14.22	76	2979	0.81	ug/L		86
92) 3,3-dimethyl-1-butanol	14.37	57	1654	12.70	ug/L		94
93) dibromochloromethane	14.50	129	2268	0.81	ug/L		96
94) 1,2-dibromoethane	14.66	107	1969	0.83	ug/L		83
95) chlorobenzene	15.12	112	5557	0.81	ug/L		92
96) 1,1,1,2-tetrachloroethane	15.19	131	2309	0.87	ug/L		85
97) ethylbenzene	15.16	91	9203	0.80	ug/L		99
98) m,p-xylene	15.27	106	6763	1.55	ug/L		100
99) o-xylene	15.73	106	3523	0.81	ug/L		96
100) styrene	15.74	104	5452	0.74	ug/L		93
101) bromoform	16.07	173	1632	0.74	ug/L		86
103) isopropylbenzene	16.07	105	9162	0.81	ug/L		97
105) cyclohexanone	16.34	98	900	30.55	ug/L		81
106) bromobenzene	16.54	156	2552	0.76	ug/L		92
107) 1,1,2,2-tetrachloroethane	16.46	83	2771	0.84	ug/L		94
108) trans-1,4-dichloro-2-buten	16.50	53	606	1.05	ug/L		84
109) 1,2,3-trichloropropane	16.55	110	714	0.84	ug/L		75
110) n-propylbenzene	16.51	120	2364	0.82	ug/L	#	86
111) 2-chlorotoluene	16.69	126	2271	0.79	ug/L		83
112) 4-chlorotoluene	16.80	126	2263	0.76	ug/L	#	80
113) 1,3,5-trimethylbenzene	16.66	105	7932	0.81	ug/L		98
114) tert-butylbenzene	17.04	119	6727	0.80	ug/L		96
115) pentachloroethane	17.17	167	1636	0.82	ug/L		94
116) 1,2,4-trimethylbenzene	17.10	105	7623	0.79	ug/L		98
117) sec-butylbenzene	17.27	105	10368	0.81	ug/L		94
118) 1,3-dichlorobenzene	17.51	146	5348	0.83	ug/L		97
119) p-isopropyltoluene	17.39	119	8719	0.80	ug/L		99
120) 1,4-dichlorobenzene	17.60	146	5451	0.82	ug/L		91
121) 1,2-dichlorobenzene	18.04	146	5202	0.82	ug/L		97
122) benzyl chloride	17.74	91	5509	1.26	ug/L		95
123) n-butylbenzene	17.85	92	4466	0.82	ug/L		96
124) 1,2-dibromo-3-chloropropan	18.91	75	532	0.94	ug/L		93
125) 1,3,5-TRICHLOROBENZENE	19.06	180	4879	0.93	ug/L		97
126) 1,2,4-trichlorobenzene	19.77	180	4607	1.00	ug/L		95
127) hexachlorobutadiene	19.85	225	2284	0.90	ug/L		96
128) naphthalene	20.10	128	9568	1.06	ug/L		96
129) 1,2,3-trichlorobenzene	20.37	180	4120	1.03	ug/L		96
130) hexachloroethane	18.30	201	1618	0.87	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131738.D
Acq On : 12 Jun 2014 2:16 pm
Operator : HeeEunA
Sample : ic5699-1
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 08:27:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 09:17:38 2014
Response via : Initial Calibration

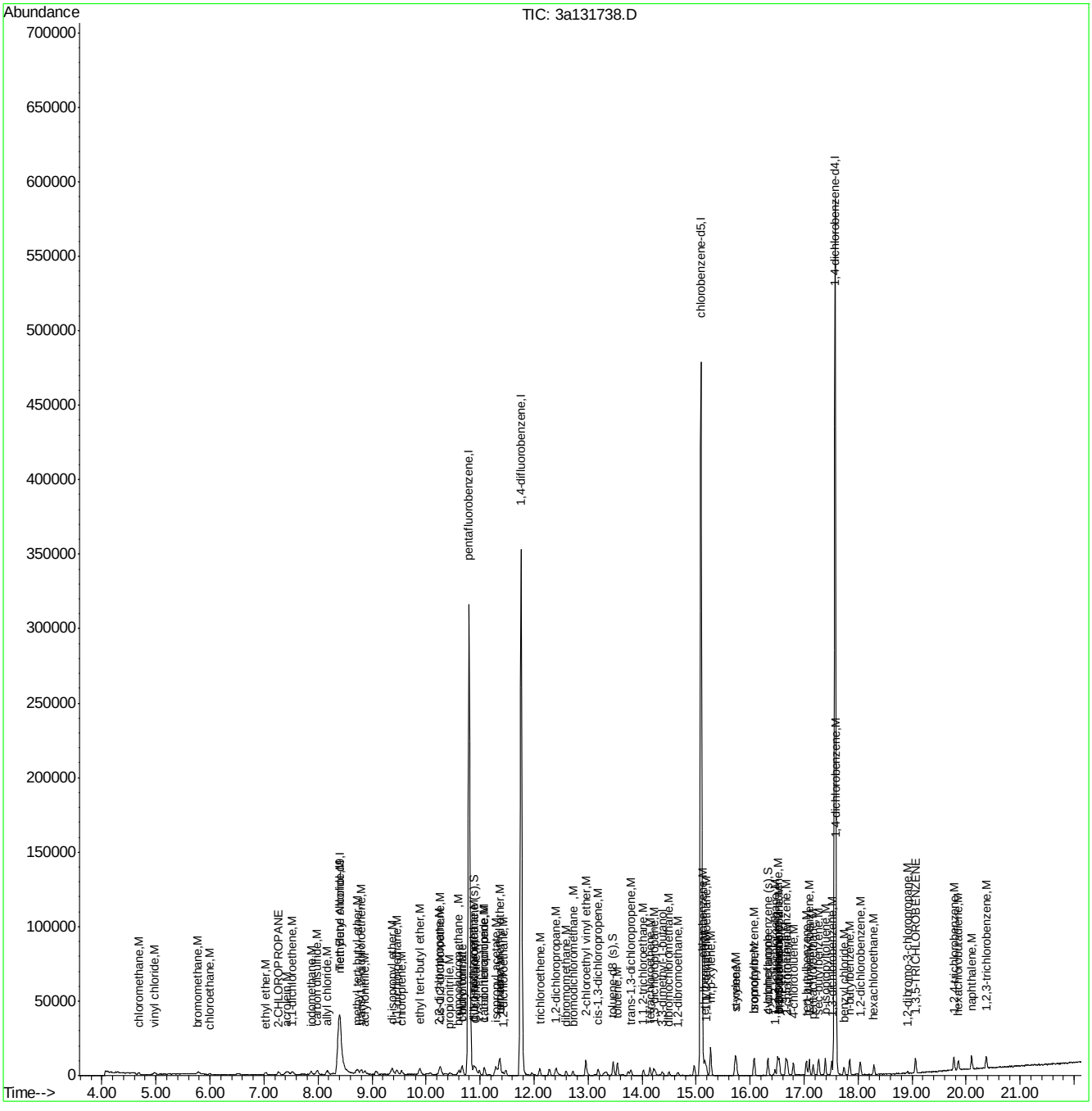
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131738.D
Acq On : 12 Jun 2014 2:16 pm
Operator : HeeEunA
Sample : ic5699-1
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 08:27:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 09:17:38 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Manual Integration Approval Summary

Sample Number:	V3A5699-IC5699	**Method:**	SW846 8260B
Lab FileID:	3A131738.D	**Analyst approved:**	06/13/14 08:46 Ying Li
Injection Time:	06/12/14 14:16	**Supervisor approved:**	06/16/14 09:30 Jessica Reitan-Chu

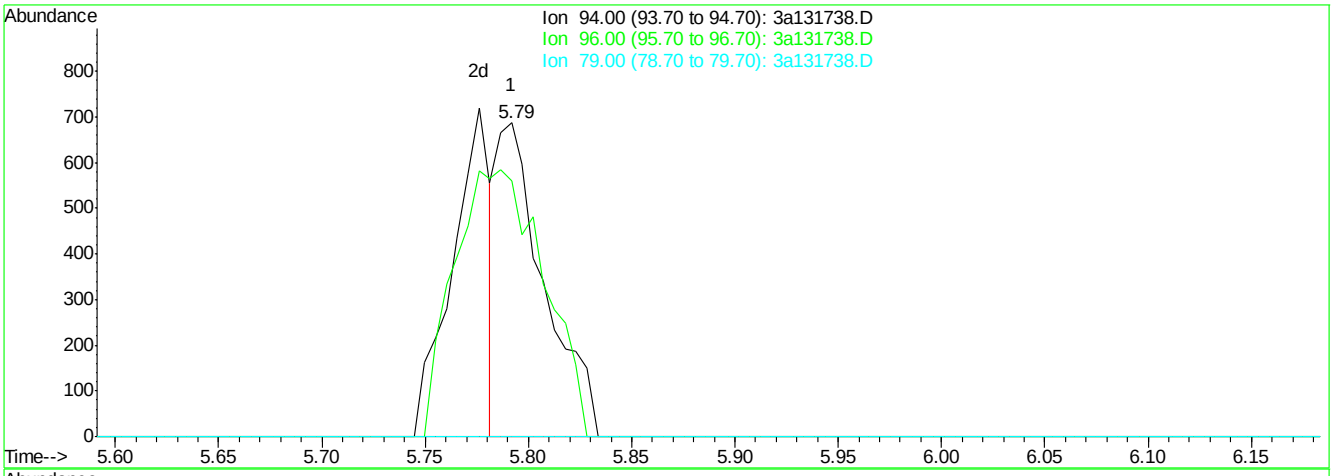
Parameter	CAS	Sig#	R.T. (min.)	Reason
Bromomethane	74-83-9		5.78	Split peak
Ethyl Ether	60-29-7		7.03	Split peak
Methyl Tert Butyl Ether	1634-04-4		8.74	Split peak
tert-Butyl Ethyl Ether	637-92-3		9.89	Split peak

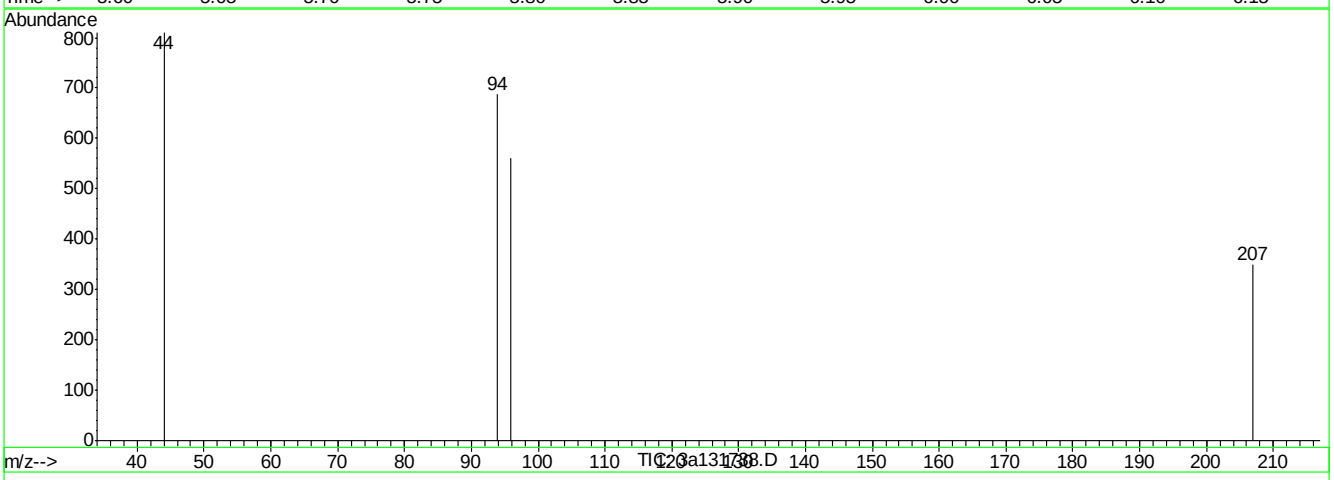
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131738.D Vial: 4
Acq On : 12 Jun 2014 2:16 pm Operator: HeeEunA
Sample : ic5699-1 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:11:03 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(12) bromomethane (M)

5.79min 0.57ug/L

response 1083

Ion	Exp%	Act%
94.00	100	100
96.00	93.40	81.51
79.00	13.00	0.00
0.00	0.00	0.00

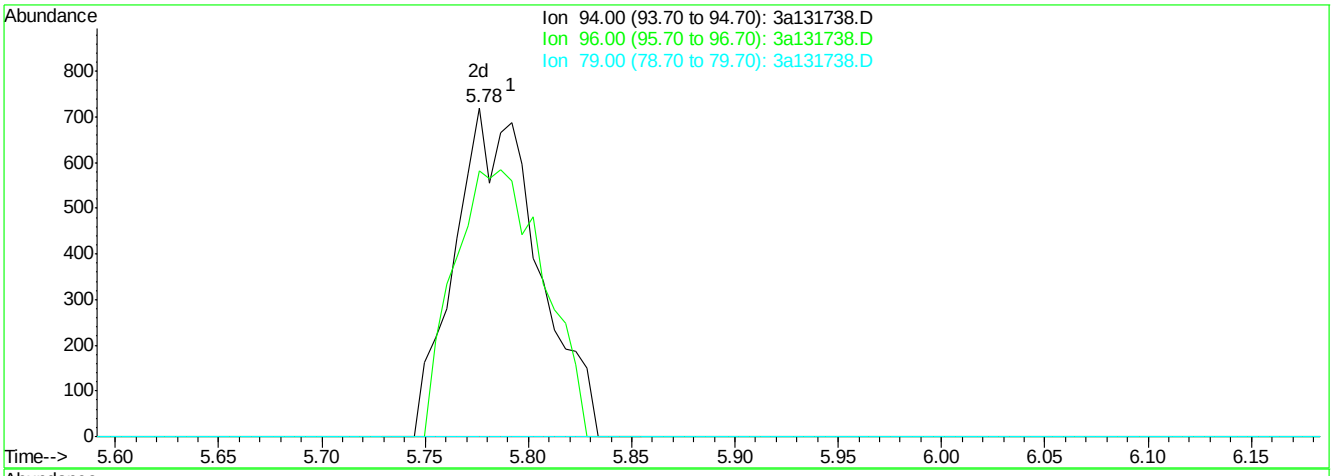
3a131738.D M3A5699.M Thu Jun 12 15:17:19 2014 ACCUNJ

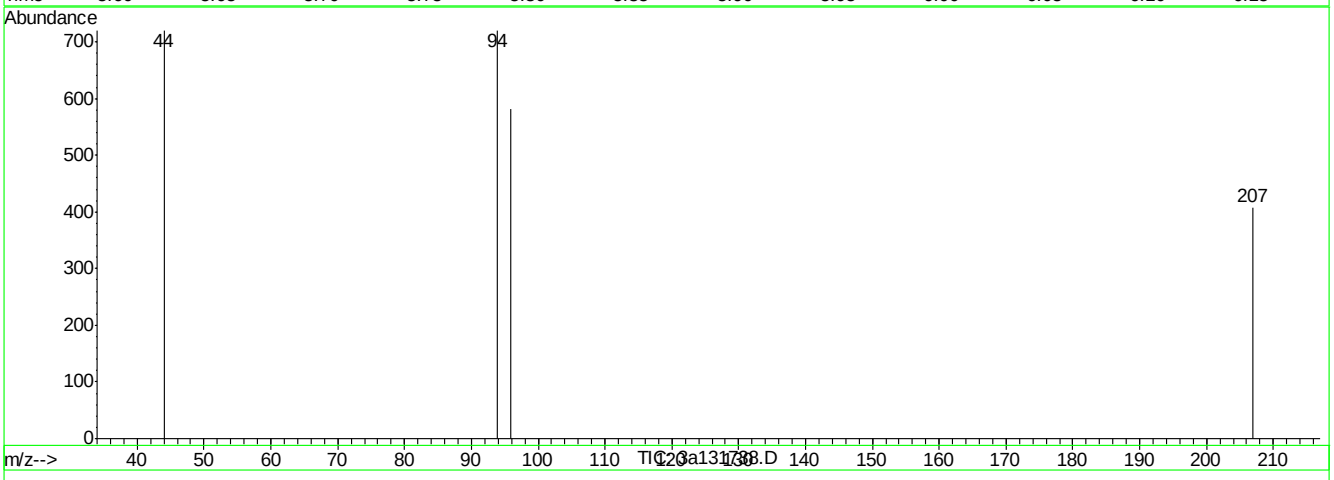
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131738.D Vial: 4
Acq On : 12 Jun 2014 2:16 pm Operator: HeeEunA
Sample : ic5699-1 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:11:03 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(12) bromomethane (M)

5.78min 1.05ug/L m

response 2009

Ion	Exp%	Act%
94.00	100	100
96.00	93.40	80.69
79.00	13.00	0.00
0.00	0.00	0.00

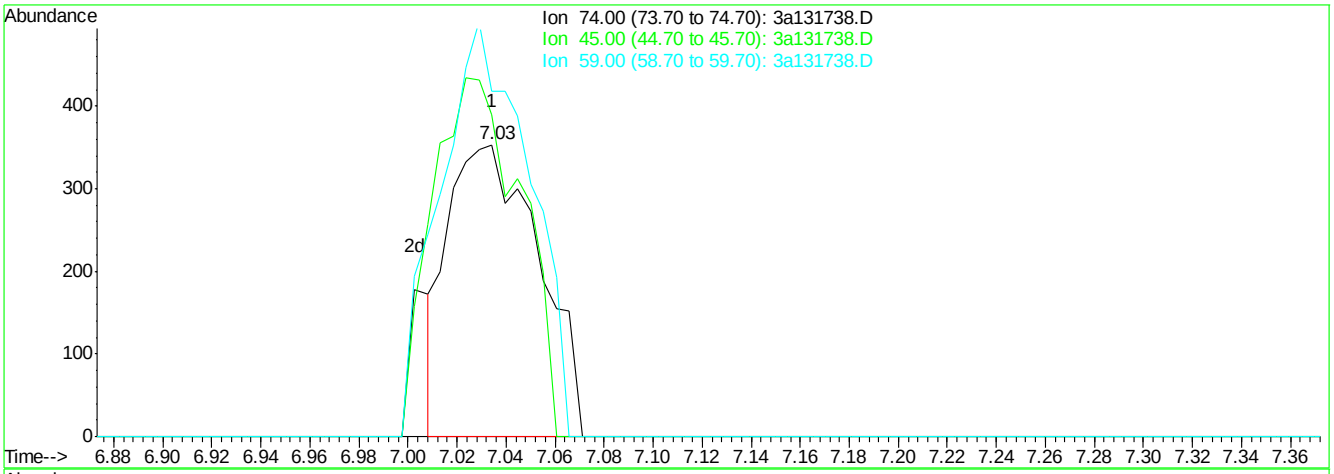
3a131738.D M3A5699.M Thu Jun 12 15:17:23 2014 ACCUNJ

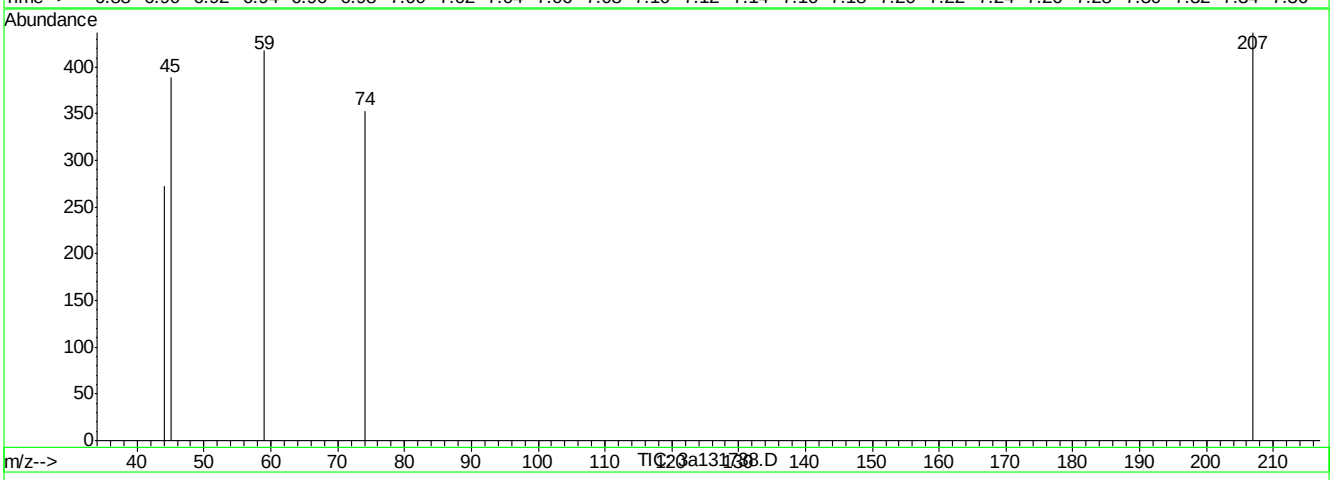
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131738.D Vial: 4
Acq On : 12 Jun 2014 2:16 pm Operator: HeeEunA
Sample : ic5699-1 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:11:03 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(20) ethyl ether (M)

7.03min 0.72ug/L

response 908

Ion	Exp%	Act%
74.00	100	100
45.00	109.50	110.20
59.00	143.30	118.41
0.00	0.00	0.00

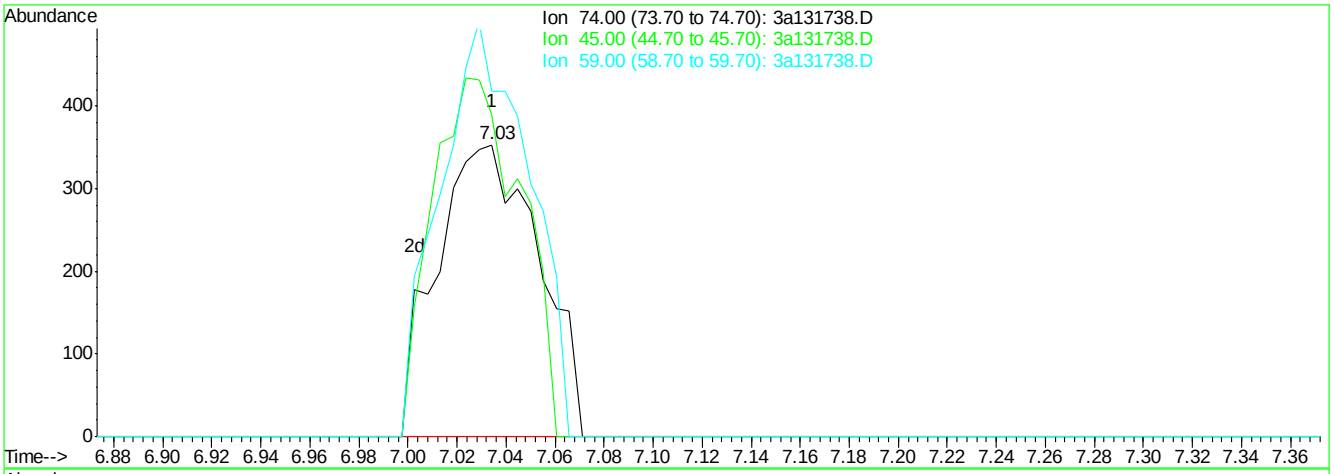
3a131738.D M3A5699.M Thu Jun 12 15:18:07 2014 ACCUNJ

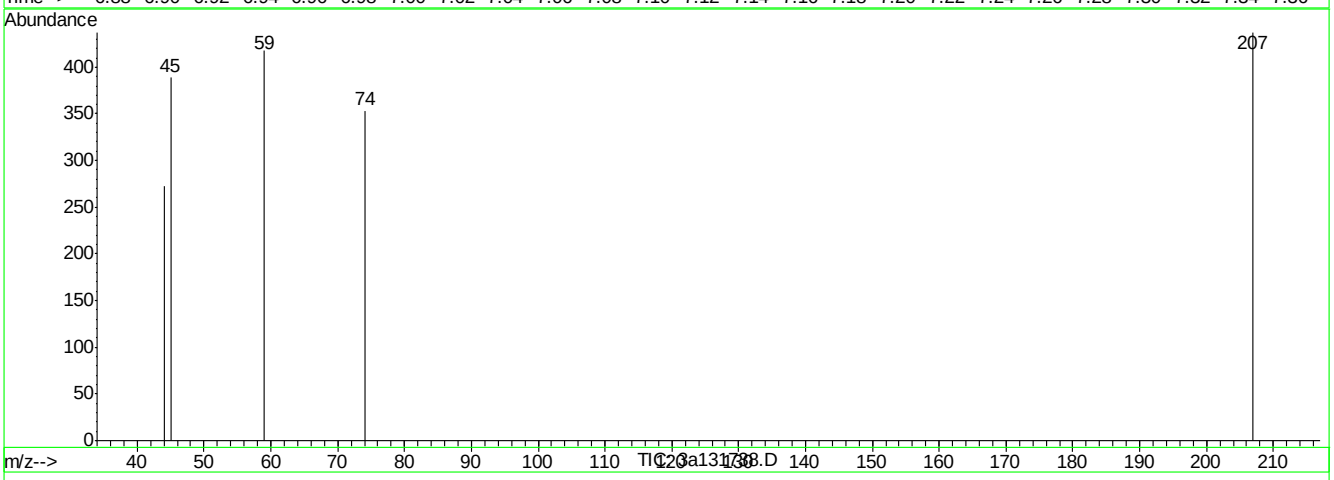
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131738.D Vial: 4
Acq On : 12 Jun 2014 2:16 pm Operator: HeeEunA
Sample : ic5699-1 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:11:03 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(20) ethyl ether (M)

7.03min 0.80ug/L m

response 1019

Ion	Exp%	Act%
74.00	100	100
45.00	109.50	110.20
59.00	143.30	118.41
0.00	0.00	0.00

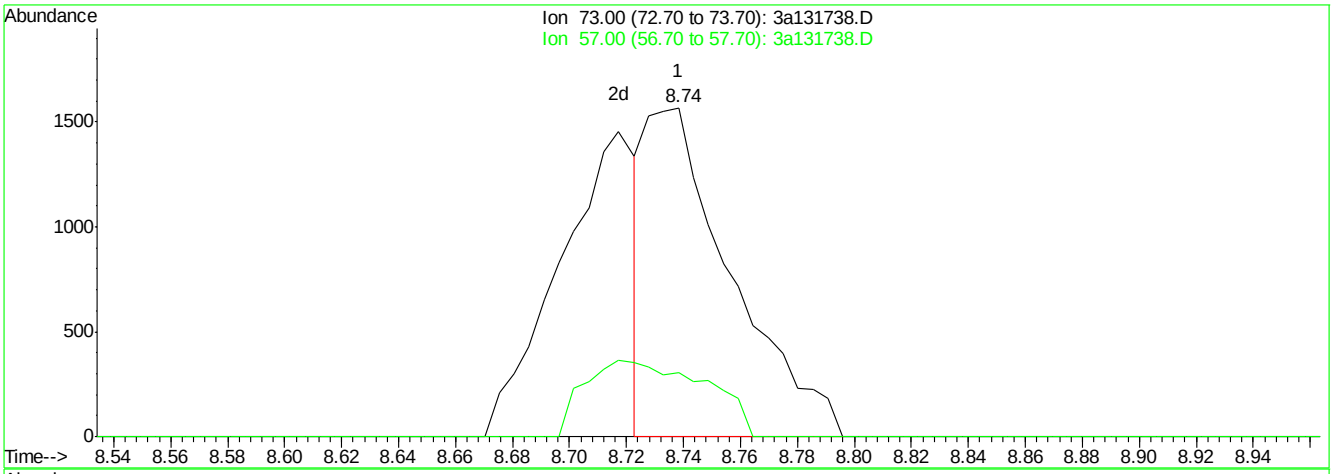
3a131738.D M3A5699.M Thu Jun 12 15:18:10 2014 ACCUNJ

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131738.D Vial: 4
Acq On : 12 Jun 2014 2:16 pm Operator: HeeEunA
Sample : ic5699-1 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:11:03 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration



(31) methyl tert butyl ether (M)

8.74min 0.46ug/L

response 3291

Ion	Exp%	Act%
73.00	100	100
57.00	22.10	19.34
0.00	0.00	0.00
0.00	0.00	0.00

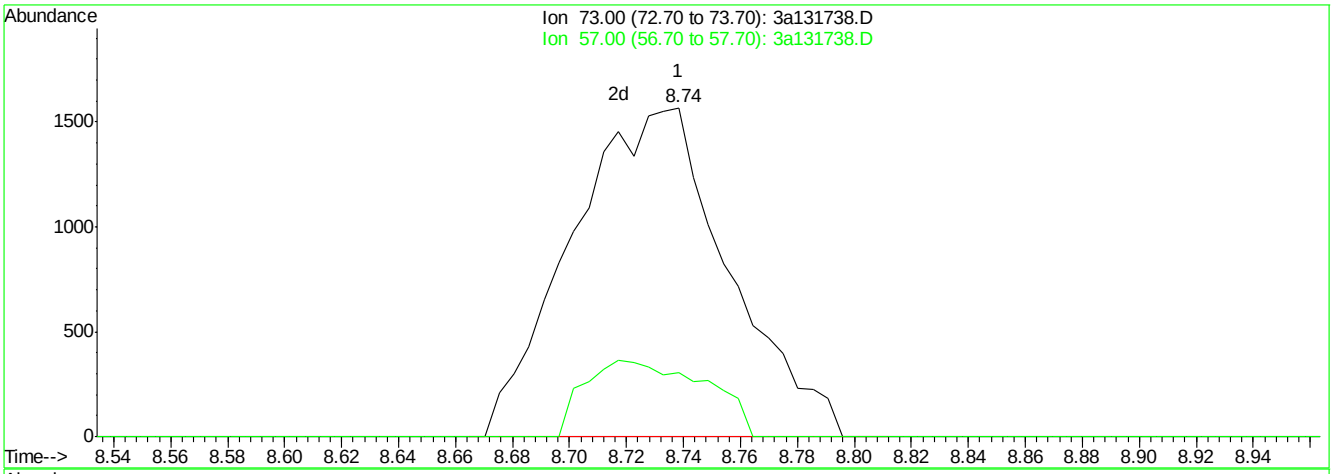
3a131738.D M3A5699.M Thu Jun 12 15:18:50 2014 ACCUNJ

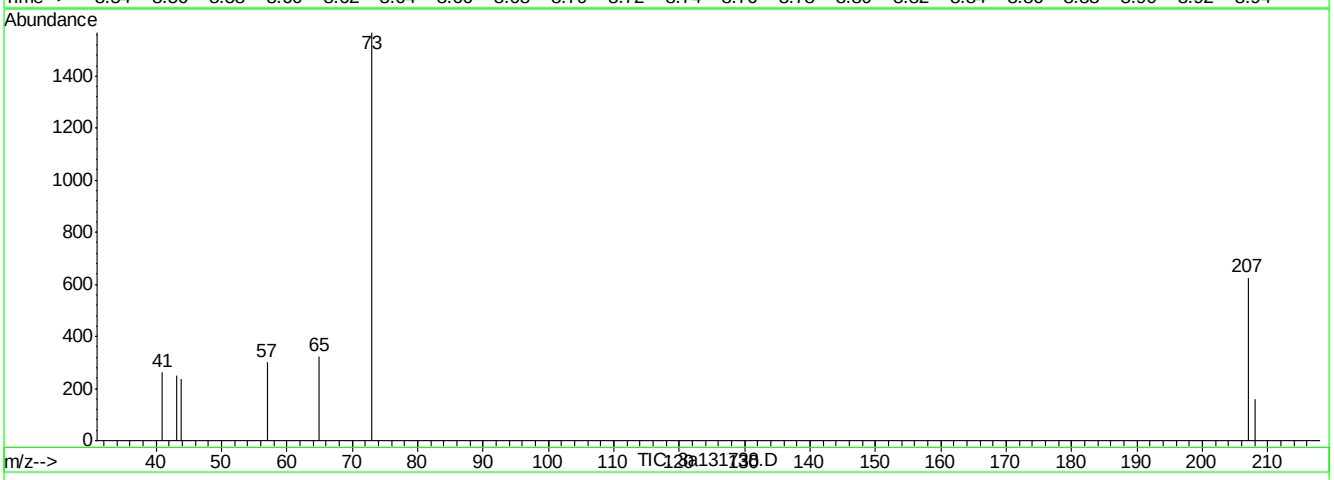
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131738.D Vial: 4
Acq On : 12 Jun 2014 2:16 pm Operator: HeeEunA
Sample : ic5699-1 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:11:03 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(31) methyl tert butyl ether (M)

8.74min 0.84ug/L m

response 6009

Ion	Exp%	Act%
73.00	100	100
57.00	22.10	19.34
0.00	0.00	0.00
0.00	0.00	0.00

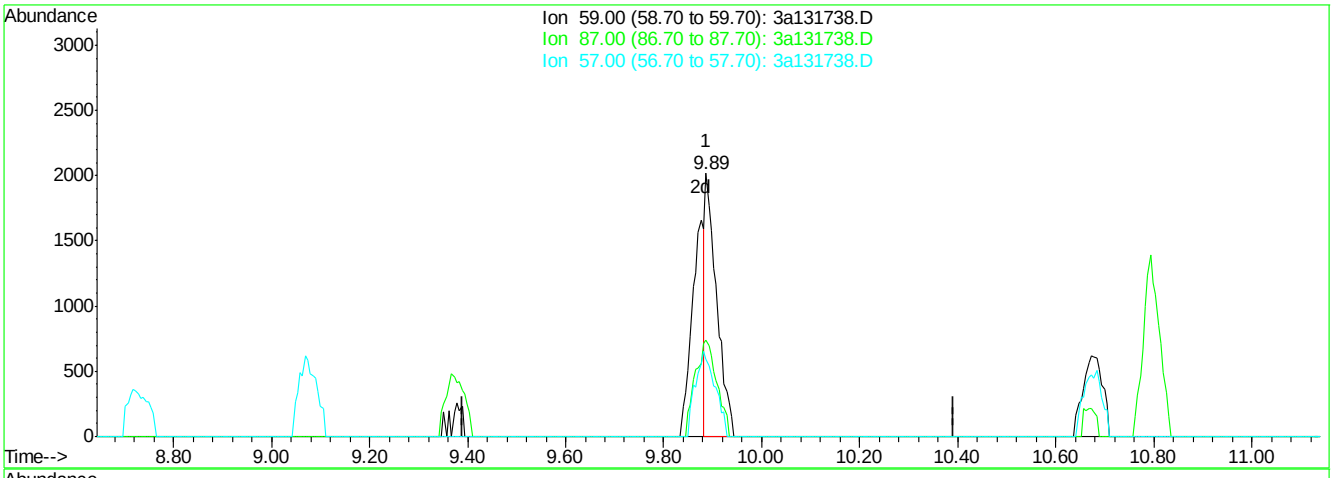
3a131738.D M3A5699.M Thu Jun 12 15:18:53 2014 ACCUNJ

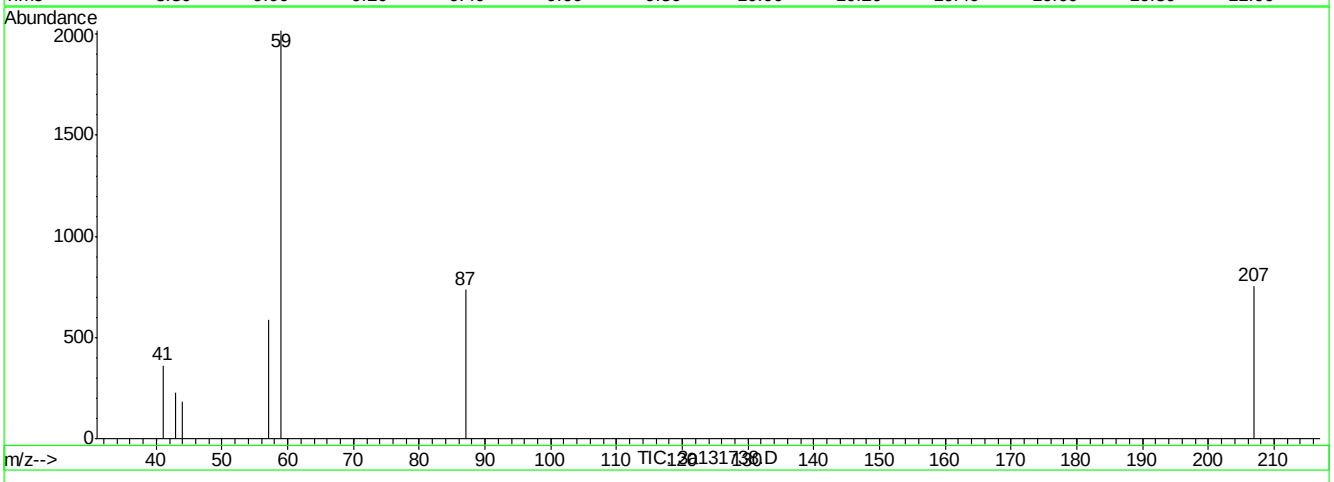
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131738.D Vial: 4
Acq On : 12 Jun 2014 2:16 pm Operator: HeeEunA
Sample : ic5699-1 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:11:03 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(39) ethyl tert-butyl ether (M)

9.89min 0.43ug/L

response 3295

Ion	Exp%	Act%
59.00	100	100
87.00	38.60	36.52
57.00	31.00	29.24
0.00	0.00	0.00

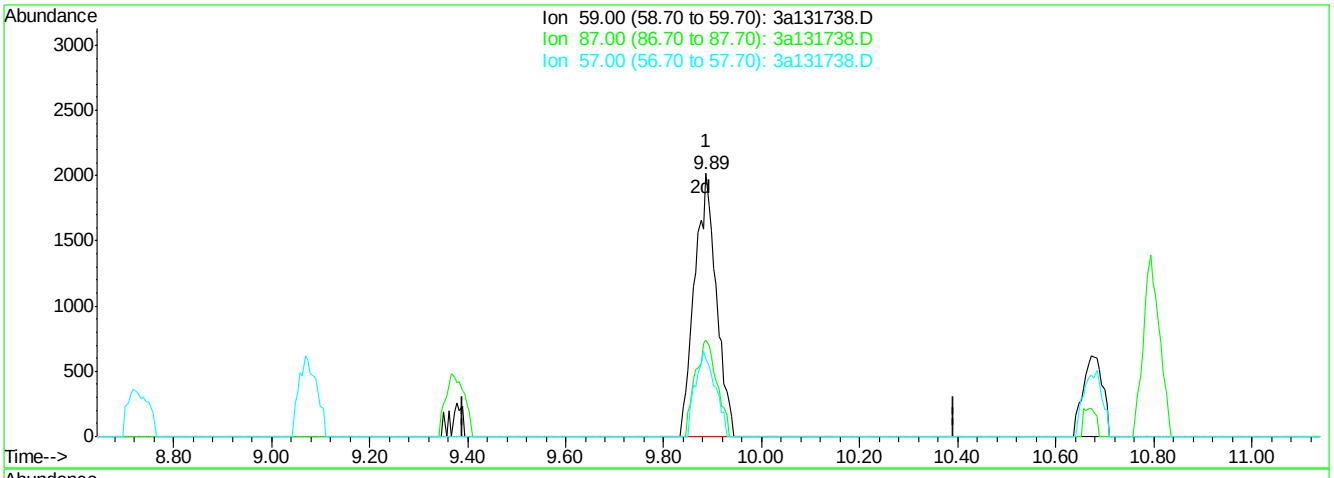
3a131738.D M3A5699.M Thu Jun 12 15:19:09 2014 ACCUNJ

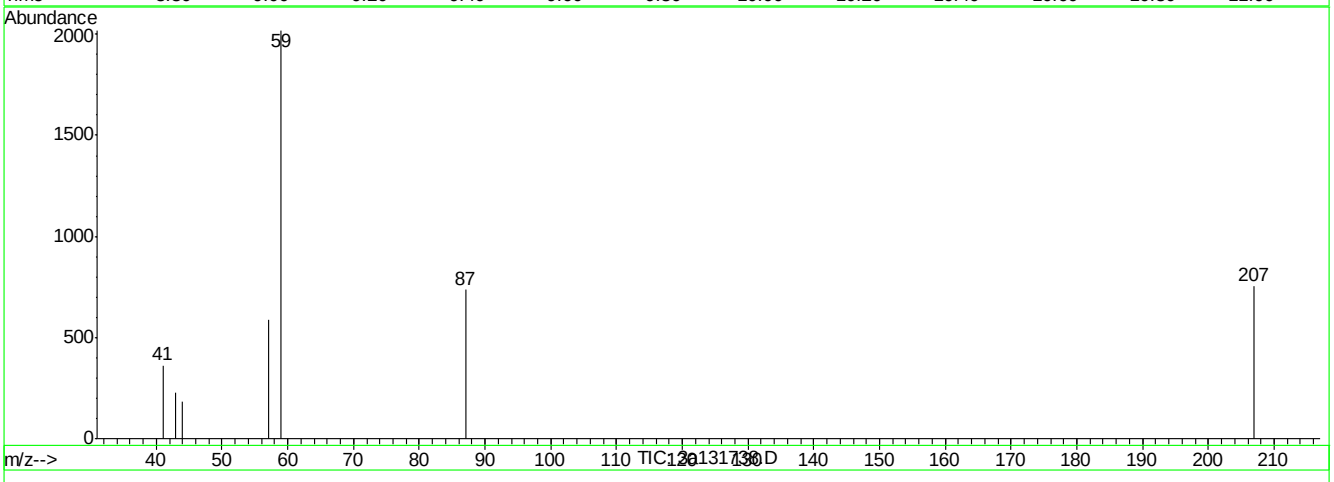
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131738.D Vial: 4
Acq On : 12 Jun 2014 2:16 pm Operator: HeeEunA
Sample : ic5699-1 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: Jun 12 15:11:03 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Jun 12 09:17:38 2014
Response via : Multiple Level Calibration





(39) ethyl tert-butyl ether (M)

9.89min 0.80ug/L m

response 6149

Ion	Exp%	Act%
59.00	100	100
87.00	38.60	36.52
57.00	31.00	29.24
0.00	0.00	0.00

3a131738.D M3A5699.M Thu Jun 12 15:19:14 2014 ACCUNJ

7.7.2.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131739.D
Acq On : 12 Jun 2014 2:46 pm
Operator : HeeEunA
Sample : ic5699-2
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 08:30:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 15:25:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.40	65	123921	500.00	ug/L	-0.01
5) pentafluorobenzene	10.80	168	314454	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	365724	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	323427	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	191122	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.89	113	3864	1.59	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 3.18%#			
50) 1,2-dichloroethane-d4 (s)	11.33	65	4816	1.76	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 3.52%#			
79) toluene-d8 (s)	13.47	98	13043	1.50	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 3.00%#			
104) 4-bromofluorobenzene (s)	16.32	95	5592	1.69	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 3.38%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.54	59	1800	6.06	ug/L #	100
8) chlorodifluoromethane	4.31	51	3360	1.29	ug/L	84
9) dichlorodifluoromethane	4.26	85	4071	1.46	ug/L	91
10) chloromethane	4.69	50	6132	1.79	ug/L	97
11) vinyl chloride	4.98	62	5623	1.75	ug/L	92
12) bromomethane	5.78	94	4163	2.17	ug/L	96
15) 2-CHLOROPROPANE	7.27	43	6231	1.50	ug/L #	88
16) chloroethane	6.00	64	2560	1.75	ug/L	96
17) trichlorofluoromethane	6.53	101	5367	1.42	ug/L	83
20) ethyl ether	7.04	74	1833	1.43	ug/L	92
21) acrolein	7.41	56	7466	16.85	ug/L	99
22) 1,1-dichloroethene	7.53	96	3547	1.61	ug/L	90
24) allyl chloride	8.17	76	1696	1.60	ug/L #	81
26) iodomethane	7.87	142	7141	1.63	ug/L	95
27) iso-butyl alcohol	11.37	74	1048	13.62	ug/L #	66
28) carbon disulfide	7.98	76	12530	1.49	ug/L	99
29) methylene chloride	8.42	84	4545	1.54	ug/L #	79
30) methyl acetate	8.19	43	2782	1.51	ug/L	57
31) methyl tert butyl ether	8.73	73	11869	1.64	ug/L	99
32) trans-1,2-dichloroethene	8.80	61	5611	1.61	ug/L	91
33) di-isopropyl ether	9.38	45	12084	1.47	ug/L	96
35) 1,1-dichloroethane	9.46	63	7057	1.58	ug/L	98
36) chloroprene	9.55	53	4692	1.45	ug/L	95
37) acrylonitrile	8.85	53	7208	8.69	ug/L	92
39) ethyl tert-butyl ether	9.88	59	11784	1.52	ug/L	99
41) 2,2-dichloropropane	10.24	77	5598	2.14	ug/L	98
42) cis-1,2-dichloroethene	10.27	96	4448	1.58	ug/L	88
44) propionitrile	10.43	54	5530	17.47	ug/L	95
45) bromochloromethane	10.62	128	2136	1.65	ug/L	87
46) tetrahydrofuran	10.65	42	1841	2.02	ug/L	81
47) chloroform	10.66	85	4593	1.58	ug/L	93
48) t-butyl formate	10.68	59	3288	1.65	ug/L	91
51) freon 113	7.46	151	2158	1.28	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131739.D
Acq On : 12 Jun 2014 2:46 pm
Operator : HeeEunA
Sample : ic5699-2
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 08:30:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 15:25:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) methacrylonitrile	10.59	41	2375	1.58	ug/L		92
53) 1,1,1-trichloroethane	10.89	97	5679	1.52	ug/L		88
54) Cyclohexane	10.92	84	4533	1.32	ug/L		96
57) n-butyl alcohol	11.95	56	4205	72.19	ug/L		97
58) carbon tetrachloride	11.09	117	4929	1.46	ug/L		93
59) 1,1-dichloropropene	11.08	75	5033	1.55	ug/L		94
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	10314	1.34	ug/L		96
63) benzene	11.37	78	15540	1.58	ug/L		97
64) tert-amyl methyl ether	11.37	87	2544	1.52	ug/L	#	84
66) isopropyl acetate	11.29	43	9057	1.47	ug/L		95
67) 1,2-dichloroethane	11.43	62	5108	1.58	ug/L		90
69) trichloroethene	12.10	95	3962	1.57	ug/L		97
71) methyl methacrylate	12.40	69	2290	1.45	ug/L		85
73) 2-chloroethyl vinyl ether	12.96	63	12121	9.07	ug/L		97
74) 1,2-dichloropropane	12.41	63	4103	1.56	ug/L		94
75) dibromomethane	12.59	93	2687	1.62	ug/L		95
77) bromodichloromethane	12.72	83	5418	1.53	ug/L		95
78) cis-1,3-dichloropropene	13.19	75	6599	1.59	ug/L		98
80) 4-methyl-2-pentanone	13.28	58	1389	1.38	ug/L	#	59
81) toluene	13.54	92	9169	1.49	ug/L		95
82) 3-methyl-1-butanol	13.33	55	2866	37.62	ug/L		98
83) trans-1,3-dichloropropene	13.79	75	5849	1.53	ug/L		91
84) ethyl methacrylate	13.74	69	4527	1.41	ug/L		98
85) 1,1,2-trichloroethane	14.02	83	3006	1.49	ug/L		91
86) 2-hexanone	14.20	58	1160	1.16	ug/L	#	55
88) tetrachloroethene	14.15	164	3336	1.46	ug/L		99
90) 1,3-dichloropropane	14.21	76	5995	1.62	ug/L		95
91) butyl acetate	14.24	56	2037	1.29	ug/L		97
92) 3,3-dimethyl-1-butanol	14.37	57	3345	25.66	ug/L		95
93) dibromochloromethane	14.50	129	4350	1.55	ug/L		97
94) 1,2-dibromoethane	14.66	107	3869	1.62	ug/L		98
95) chlorobenzene	15.12	112	10981	1.60	ug/L		82
96) 1,1,1,2-tetrachloroethane	15.19	131	4453	1.68	ug/L		86
97) ethylbenzene	15.16	91	17789	1.55	ug/L		98
98) m,p-xylene	15.27	106	13495	3.09	ug/L		98
99) o-xylene	15.72	106	6799	1.56	ug/L		98
100) styrene	15.74	104	10810	1.47	ug/L		95
101) bromoform	16.07	173	3369	1.53	ug/L		97
103) isopropylbenzene	16.07	105	17972	1.59	ug/L		98
105) cyclohexanone	16.33	98	2346	79.57	ug/L		96
106) bromobenzene	16.54	156	5284	1.58	ug/L		94
107) 1,1,2,2-tetrachloroethane	16.46	83	5602	1.69	ug/L		99
108) trans-1,4-dichloro-2-buten	16.50	53	1386	2.40	ug/L		93
109) 1,2,3-trichloropropane	16.55	110	1412	1.66	ug/L		92
110) n-propylbenzene	16.51	120	4392	1.52	ug/L		94
111) 2-chlorotoluene	16.69	126	4631	1.61	ug/L		89
112) 4-chlorotoluene	16.80	126	4779	1.61	ug/L		93
113) 1,3,5-trimethylbenzene	16.66	105	15288	1.57	ug/L		99
114) tert-butylbenzene	17.04	119	13330	1.58	ug/L		99
115) pentachloroethane	17.17	167	3290	1.64	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131739.D
Acq On : 12 Jun 2014 2:46 pm
Operator : HeeEunA
Sample : ic5699-2
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 08:30:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 15:25:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
116) 1,2,4-trimethylbenzene	17.09	105	15192	1.57 ug/L	98
117) sec-butylbenzene	17.27	105	19390	1.52 ug/L	98
118) 1,3-dichlorobenzene	17.51	146	10416	1.62 ug/L	99
119) p-isopropyltoluene	17.39	119	16654	1.53 ug/L	97
120) 1,4-dichlorobenzene	17.60	146	10690	1.61 ug/L	97
121) 1,2-dichlorobenzene	18.04	146	10210	1.60 ug/L	97
122) benzyl chloride	17.74	91	10779	2.46 ug/L	96
123) n-butylbenzene	17.84	92	8556	1.57 ug/L	95
124) 1,2-dibromo-3-chloropropan	18.91	75	998	1.75 ug/L	88
125) 1,3,5-TRICHLOROBENZENE	19.06	180	9564	1.82 ug/L	98
126) 1,2,4-trichlorobenzene	19.77	180	8416	1.82 ug/L	99
127) hexachlorobutadiene	19.85	225	4292	1.70 ug/L	93
128) naphthalene	20.10	128	18442	2.05 ug/L	97
129) 1,2,3-trichlorobenzene	20.37	180	7848	1.96 ug/L	98
130) hexachloroethane	18.30	201	3234	1.74 ug/L	95

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

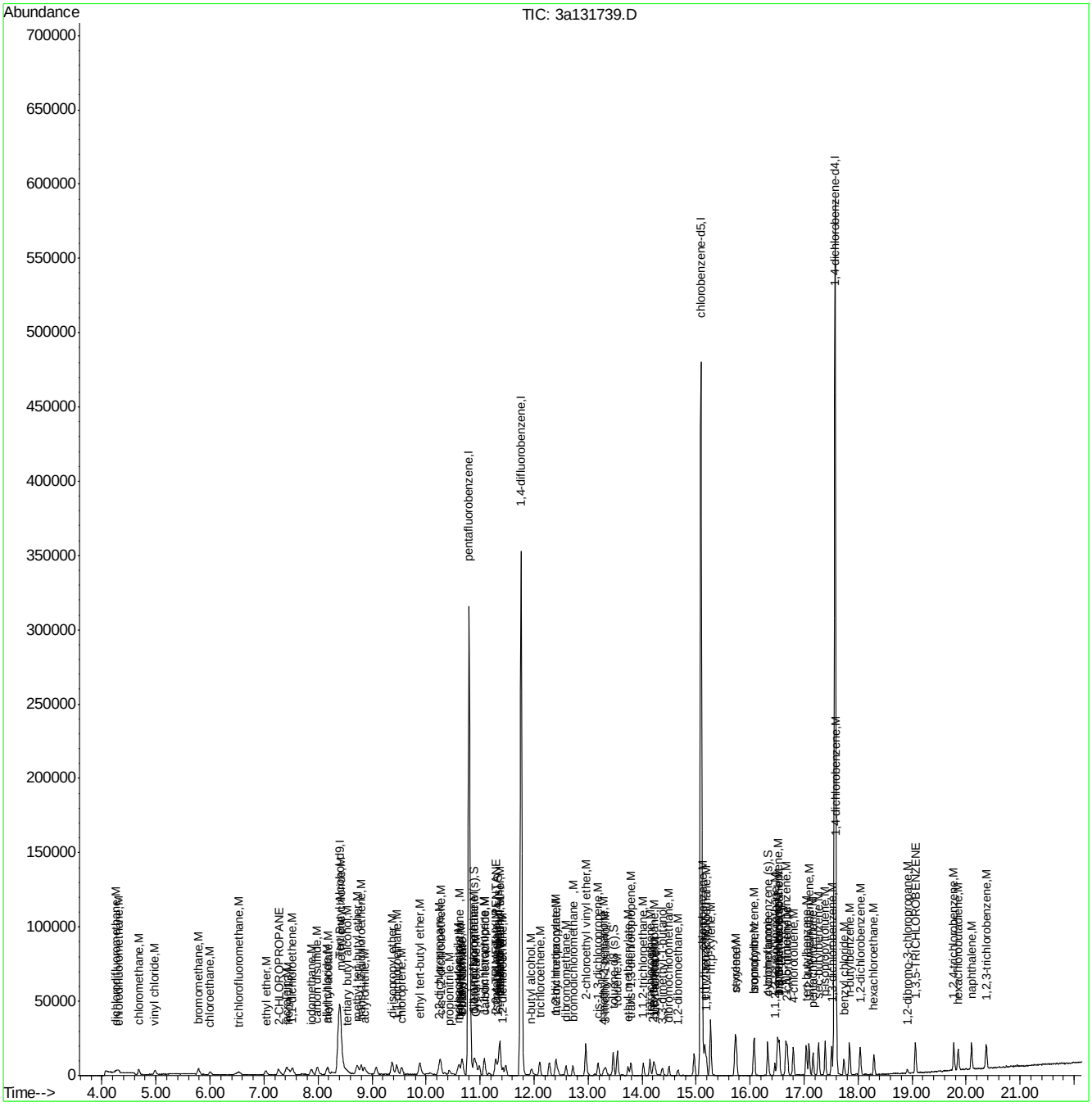
7.7.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131739.D
Acq On : 12 Jun 2014 2:46 pm
Operator : HeeEunA
Sample : ic5699-2
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 13 08:30:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 15:25:43 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131741.D
Acq On : 12 Jun 2014 3:47 pm
Operator : HeeEunA
Sample : ic5699-10
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 12 16:15:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:13:47 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.39	65	125110	500.00	ug/L	-0.02
5) pentafluorobenzene	10.79	168	317331	50.00	ug/L	-0.01
55) 1,4-difluorobenzene	11.76	114	367437	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	329023	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	193116	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.89	113	19862	8.12	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 16.24%#			
50) 1,2-dichloroethane-d4 (s)	11.33	65	22885	8.27	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 16.54%#			
79) toluene-d8 (s)	13.46	98	67045	7.66	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 15.32%#			
104) 4-bromofluorobenzene (s)	16.33	95	26869	8.03	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 16.06%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.53	59	10843	36.18	ug/L	100
4) 1,4-dioxane	12.54	88	5519	251.59	ug/L	90
8) chlorodifluoromethane	4.30	51	18199	6.95	ug/L	98
9) dichlorodifluoromethane	4.26	85	22878	8.12	ug/L	95
10) chloromethane	4.68	50	26815	7.75	ug/L	96
11) vinyl chloride	4.98	62	25046	7.71	ug/L	97
12) bromomethane	5.78	94	17551	9.06	ug/L	95
15) 2-CHLOROPROPANE	7.28	43	32854	7.86	ug/L	99
16) chloroethane	6.00	64	11476	7.79	ug/L	98
17) trichlorofluoromethane	6.53	101	27030	7.07	ug/L	99
19) 1-CHLOROPROPANE	8.42	42	42578	8.65	ug/L	97
20) ethyl ether	7.02	74	10764	8.35	ug/L	94
21) acrolein	7.40	56	45306	101.35	ug/L	98
22) 1,1-dichloroethene	7.52	96	18213	8.17	ug/L	96
23) acetone	7.69	43	6861	8.34	ug/L	97
24) allyl chloride	8.16	76	9879	9.24	ug/L	90
25) acetonitrile	8.24	40	10053	82.22	ug/L	90
26) iodomethane	7.87	142	35996	8.13	ug/L	97
27) iso-butyl alcohol	11.37	74	6384	82.23	ug/L #	65
28) carbon disulfide	7.98	76	64891	7.65	ug/L	99
29) methylene chloride	8.41	84	21494	7.20	ug/L	92
30) methyl acetate	8.18	43	17030	9.17	ug/L	100
31) methyl tert butyl ether	8.72	73	59816	8.18	ug/L	98
32) trans-1,2-dichloroethene	8.80	61	28448	8.09	ug/L	99
33) di-isopropyl ether	9.37	45	64490	7.80	ug/L	99
34) 2-butanone	10.25	72	2096	7.48	ug/L #	41
35) 1,1-dichloroethane	9.46	63	36502	8.12	ug/L	98
36) chloroprene	9.55	53	26299	8.06	ug/L	98
37) acrylonitrile	8.85	53	41836	49.98	ug/L	97
38) vinyl acetate	9.45	86	3090	8.07	ug/L	78
39) ethyl tert-butyl ether	9.88	59	63254	8.10	ug/L	97
40) ethyl acetate	10.24	45	2649	7.56	ug/L	67
41) 2,2-dichloropropane	10.24	77	27815	10.54	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131741.D
Acq On : 12 Jun 2014 3:47 pm
Operator : HeeEunA
Sample : ic5699-10
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 12 16:15:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:13:47 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) cis-1,2-dichloroethene	10.26	96	22721	8.02	ug/L	93
43) methylacrylate	10.34	85	2839	7.50	ug/L #	83
44) propionitrile	10.42	54	30751	96.27	ug/L	98
45) bromochloromethane	10.61	128	11610	8.87	ug/L	97
46) tetrahydrofuran	10.64	42	7969	8.67	ug/L	98
47) chloroform	10.67	85	23093	7.87	ug/L	99
48) t-butyl formate	10.67	59	18233	9.09	ug/L	99
51) freon 113	7.45	151	13908	8.16	ug/L	97
52) methacrylonitrile	10.58	41	12983	8.55	ug/L	97
53) 1,1,1-trichloroethane	10.89	97	30268	8.03	ug/L	96
54) Cyclohexane	10.93	84	28546	8.26	ug/L	99
56) epichlorohydrin	13.12	57	11113	46.96	ug/L	98
57) n-butyl alcohol	11.94	56	28269	483.07	ug/L	97
58) carbon tetrachloride	11.09	117	27963	8.22	ug/L	99
59) 1,1-dichloropropene	11.07	75	26512	8.11	ug/L	97
61) hexane	9.07	57	22163	8.75	ug/L	97
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	68460	8.82	ug/L	99
63) benzene	11.37	78	77807	7.88	ug/L	99
64) tert-amyl methyl ether	11.37	87	14534	8.64	ug/L #	82
65) heptane	11.47	57	13242	8.94	ug/L	97
66) isopropyl acetate	11.29	43	50244	8.09	ug/L	99
67) 1,2-dichloroethane	11.42	62	26671	8.19	ug/L	99
69) trichloroethene	12.10	95	20276	8.01	ug/L	99
71) methyl methacrylate	12.39	69	13486	8.48	ug/L	96
72) 2-nitropropane	12.99	41	8252	8.63	ug/L	93
73) 2-chloroethyl vinyl ether	12.95	63	69514	51.80	ug/L	99
74) 1,2-dichloropropane	12.41	63	20743	7.87	ug/L	97
75) dibromomethane	12.59	93	13769	8.28	ug/L	96
76) methylcyclohexane	12.28	83	30222	8.04	ug/L	97
77) bromodichloromethane	12.72	83	28115	7.92	ug/L	98
78) cis-1,3-dichloropropene	13.18	75	34035	8.17	ug/L	98
80) 4-methyl-2-pentanone	13.28	58	8140	8.05	ug/L	93
81) toluene	13.54	92	45996	7.46	ug/L	97
82) 3-methyl-1-butanol	13.32	55	17694	231.16	ug/L	98
83) trans-1,3-dichloropropene	13.79	75	31531	8.20	ug/L	99
84) ethyl methacrylate	13.74	69	25227	7.84	ug/L	98
85) 1,1,2-trichloroethane	14.02	83	15986	7.91	ug/L	98
86) 2-hexanone	14.19	58	7798	7.77	ug/L	94
88) tetrachloroethene	14.15	164	18138	7.82	ug/L	97
90) 1,3-dichloropropane	14.22	76	30840	8.19	ug/L	98
91) butyl acetate	14.24	56	12872	8.04	ug/L	88
92) 3,3-dimethyl-1-butanol	14.37	57	19579	147.62	ug/L	100
93) dibromochloromethane	14.50	129	23557	8.26	ug/L	98
94) 1,2-dibromoethane	14.66	107	20569	8.47	ug/L	95
95) chlorobenzene	15.12	112	55138	7.90	ug/L	94
96) 1,1,1,2-tetrachloroethane	15.19	131	22570	8.37	ug/L	97
97) ethylbenzene	15.16	91	90488	7.76	ug/L	98
98) m,p-xylene	15.27	106	69845	15.73	ug/L	97
99) o-xylene	15.72	106	35546	8.04	ug/L	99
100) styrene	15.74	104	58167	7.78	ug/L	99

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131741.D
Acq On : 12 Jun 2014 3:47 pm
Operator : HeeEunA
Sample : ic5699-10
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 12 16:15:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:13:47 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) bromoform	16.07	173	18491	8.24	ug/L	98
103) isopropylbenzene	16.07	105	93465	8.19	ug/L	99
105) cyclohexanone	16.34	98	10027	336.56	ug/L	97
106) bromobenzene	16.54	156	26750	7.92	ug/L	98
107) 1,1,2,2-tetrachloroethane	16.46	83	28785	8.62	ug/L	98
108) trans-1,4-dichloro-2-buten	16.50	53	7650	13.08	ug/L	96
109) 1,2,3-trichloropropane	16.54	110	7540	8.76	ug/L	99
110) n-propylbenzene	16.51	120	23407	8.02	ug/L	93
111) 2-chlorotoluene	16.69	126	23859	8.20	ug/L	94
112) 4-chlorotoluene	16.80	126	24000	8.02	ug/L	98
113) 1,3,5-trimethylbenzene	16.66	105	79471	8.07	ug/L	98
114) tert-butylbenzene	17.04	119	69856	8.17	ug/L	99
115) pentachloroethane	17.17	167	17549	8.65	ug/L	99
116) 1,2,4-trimethylbenzene	17.09	105	79592	8.14	ug/L	99
117) sec-butylbenzene	17.27	105	106710	8.25	ug/L	99
118) 1,3-dichlorobenzene	17.51	146	52056	8.01	ug/L	97
119) p-isopropyltoluene	17.39	119	89369	8.14	ug/L	98
120) 1,4-dichlorobenzene	17.60	146	53048	7.91	ug/L	100
121) 1,2-dichlorobenzene	18.04	146	52552	8.17	ug/L	97
122) benzyl chloride	17.74	91	56777	12.83	ug/L	100
123) n-butylbenzene	17.84	92	45606	8.29	ug/L	98
124) 1,2-dibromo-3-chloropropan	18.91	75	5742	9.99	ug/L	97
125) 1,3,5-TRICHLOROBENZENE	19.06	180	48070	9.06	ug/L	99
126) 1,2,4-trichlorobenzene	19.77	180	44727	9.57	ug/L	99
127) hexachlorobutadiene	19.85	225	23981	9.38	ug/L	98
128) naphthalene	20.10	128	96835	10.63	ug/L	99
129) 1,2,3-trichlorobenzene	20.37	180	41840	10.32	ug/L	97
130) hexachloroethane	18.29	201	17895	9.53	ug/L	96

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

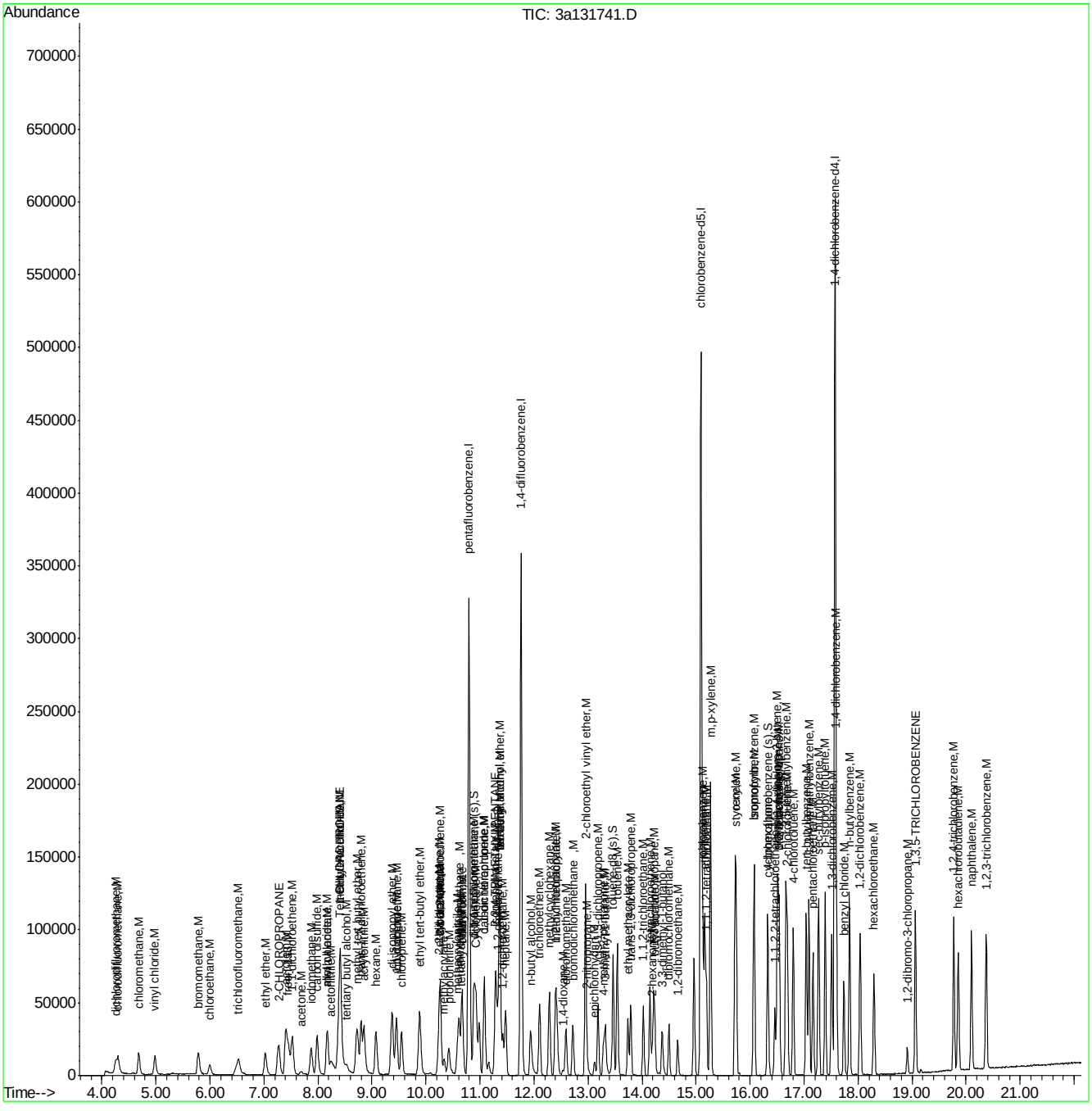
7.7.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131741.D
Acq On : 12 Jun 2014 3:47 pm
Operator : HeeEunA
Sample : ic5699-10
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 12 16:15:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:13:47 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131742.D
Acq On : 12 Jun 2014 4:18 pm
Operator : HeeEunA
Sample : ic5699-20
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 16:42:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:41:23 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.40	65	120874	500.00	ug/L	-0.01
5) pentafluorobenzene	10.80	168	312148	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	363566	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	326837	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	194186	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.88	113	110132	55.04	ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 110.08%			
50) 1,2-dichloroethane-d4 (s)	11.33	65	123946	54.79	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 109.58%			
79) toluene-d8 (s)	13.46	98	386887	54.04	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 108.08%			
104) 4-bromofluorobenzene (s)	16.33	95	150232	55.27	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 110.54%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.53	59	23206	121.41	ug/L	100
4) 1,4-dioxane	12.53	88	12100	690.21	ug/L	92
8) chlorodifluoromethane	4.30	51	41329	24.40	ug/L	97
9) dichlorodifluoromethane	4.27	85	55449	26.86	ug/L	98
10) chloromethane	4.69	50	61881	22.01	ug/L	99
11) vinyl chloride	4.99	62	59467	23.36	ug/L	98
12) bromomethane	5.79	94	39129	20.72	ug/L	100
15) 2-CHLOROPROPANE	7.27	43	72050	23.43	ug/L	99
16) chloroethane	6.00	64	27048	22.99	ug/L	98
17) trichlorofluoromethane	6.53	101	66004	26.76	ug/L	99
19) 1-CHLOROPROPANE	8.42	42	80238	14.33	ug/L	98
20) ethyl ether	7.02	74	23306	23.77	ug/L	95
21) acrolein	7.41	56	97627	246.44	ug/L	99
22) 1,1-dichloroethene	7.53	96	39747	22.81	ug/L	99
23) acetone	7.68	43	13217	19.87	ug/L	94
24) allyl chloride	8.17	76	19749	22.82	ug/L	97
25) acetonitrile	8.25	40	22817	200.00	ug/L	97
26) iodomethane	7.87	142	80386	22.75	ug/L	98
27) iso-butyl alcohol	11.37	74	14210	245.91	ug/L #	52
28) carbon disulfide	7.98	76	143717	22.85	ug/L	99
29) methylene chloride	8.41	84	46303	20.83	ug/L	98
30) methyl acetate	8.18	43	36488	23.99	ug/L	100
31) methyl tert butyl ether	8.72	73	128886	21.91	ug/L	97
32) trans-1,2-dichloroethene	8.80	61	61915	22.60	ug/L	97
33) di-isopropyl ether	9.37	45	138353	22.45	ug/L	99
34) 2-butanone	10.26	72	5434	28.62	ug/L #	90
35) 1,1-dichloroethane	9.46	63	79173	22.59	ug/L	99
36) chloroprene	9.55	53	58172	24.56	ug/L	97
37) acrylonitrile	8.85	53	88641	121.92	ug/L	98
38) vinyl acetate	9.45	86	6953	25.58	ug/L	85
39) ethyl tert-butyl ether	9.88	59	136151	22.63	ug/L	99
40) ethyl acetate	10.24	45	6082	33.75	ug/L	89
41) 2,2-dichloropropane	10.24	77	63090	23.64	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131742.D
Acq On : 12 Jun 2014 4:18 pm
Operator : HeeEunA
Sample : ic5699-20
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 16:42:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:41:23 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.27	96	48211	21.10 ug/L	95
43) methylacrylate	10.33	85	6763	27.96 ug/L #	99
44) propionitrile	10.42	54	68860	249.56 ug/L	98
45) bromochloromethane	10.61	128	24970	23.83 ug/L	98
46) tetrahydrofuran	10.63	42	16641	20.50 ug/L	95
47) chloroform	10.67	85	50100	21.84 ug/L	99
48) t-butyl formate	10.67	59	39750	23.30 ug/L	98
51) freon 113	7.46	151	32317	27.58 ug/L	99
52) methacrylonitrile	10.58	41	28083	23.02 ug/L	97
53) 1,1,1-trichloroethane	10.89	97	66000	23.39 ug/L	96
54) Cyclohexane	10.92	84	63678	26.81 ug/L	98
56) epichlorohydrin	13.12	57	24406	121.90 ug/L	96
57) n-butyl alcohol	11.93	56	64204	1301.73 ug/L	98
58) carbon tetrachloride	11.09	117	61710	24.91 ug/L	97
59) 1,1-dichloropropene	11.08	75	57903	23.59 ug/L	98
61) hexane	9.07	57	50031	27.53 ug/L	99
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	160514	28.69 ug/L	99
63) benzene	11.37	78	170218	21.71 ug/L	99
64) tert-amyl methyl ether	11.37	87	30970	23.35 ug/L	98
65) heptane	11.47	57	30804	28.36 ug/L	96
66) isopropyl acetate	11.29	43	109240	23.59 ug/L	98
67) 1,2-dichloroethane	11.42	62	58074	23.13 ug/L	99
69) trichloroethene	12.10	95	44293	22.96 ug/L	98
71) methyl methacrylate	12.39	69	30197	26.02 ug/L	99
72) 2-nitropropane	12.99	41	18356	23.44 ug/L	100
73) 2-chloroethyl vinyl ether	12.95	63	155037	122.95 ug/L	99
74) 1,2-dichloropropane	12.40	63	45036	22.81 ug/L	98
75) dibromomethane	12.59	93	30088	23.33 ug/L	98
76) methylcyclohexane	12.28	83	69230	27.23 ug/L	97
77) bromodichloromethane	12.72	83	62032	23.23 ug/L	98
78) cis-1,3-dichloropropene	13.18	75	74131	22.86 ug/L	100
80) 4-methyl-2-pentanone	13.28	58	17911	24.57 ug/L	94
81) toluene	13.54	92	102582	22.89 ug/L	99
82) 3-methyl-1-butanol	13.32	55	39407	510.50 ug/L	99
83) trans-1,3-dichloropropene	13.79	75	69928	23.73 ug/L	99
84) ethyl methacrylate	13.74	69	55936	25.73 ug/L	98
85) 1,1,2-trichloroethane	14.02	83	34801	23.03 ug/L	97
86) 2-hexanone	14.19	58	18156	26.75 ug/L	91
88) tetrachloroethene	14.14	164	40257	23.10 ug/L	98
90) 1,3-dichloropropane	14.21	76	67420	22.42 ug/L	100
91) butyl acetate	14.23	56	28779	24.72 ug/L	98
92) 3,3-dimethyl-1-butanol	14.37	57	43959	250.75 ug/L	99
93) dibromochloromethane	14.50	129	52289	23.58 ug/L	99
94) 1,2-dibromoethane	14.66	107	44308	23.09 ug/L	99
95) chlorobenzene	15.12	112	119872	21.94 ug/L	98
96) 1,1,1,2-tetrachloroethane	15.19	131	50265	22.89 ug/L	95
97) ethylbenzene	15.16	91	201369	22.41 ug/L	98
98) m,p-xylene	15.27	106	154983	45.84 ug/L	99
99) o-xylene	15.72	106	78227	22.49 ug/L	98
100) styrene	15.74	104	131133	23.69 ug/L	97

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131742.D
Acq On : 12 Jun 2014 4:18 pm
Operator : HeeEunA
Sample : ic5699-20
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 16:42:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:41:23 2014
Response via : Initial Calibration

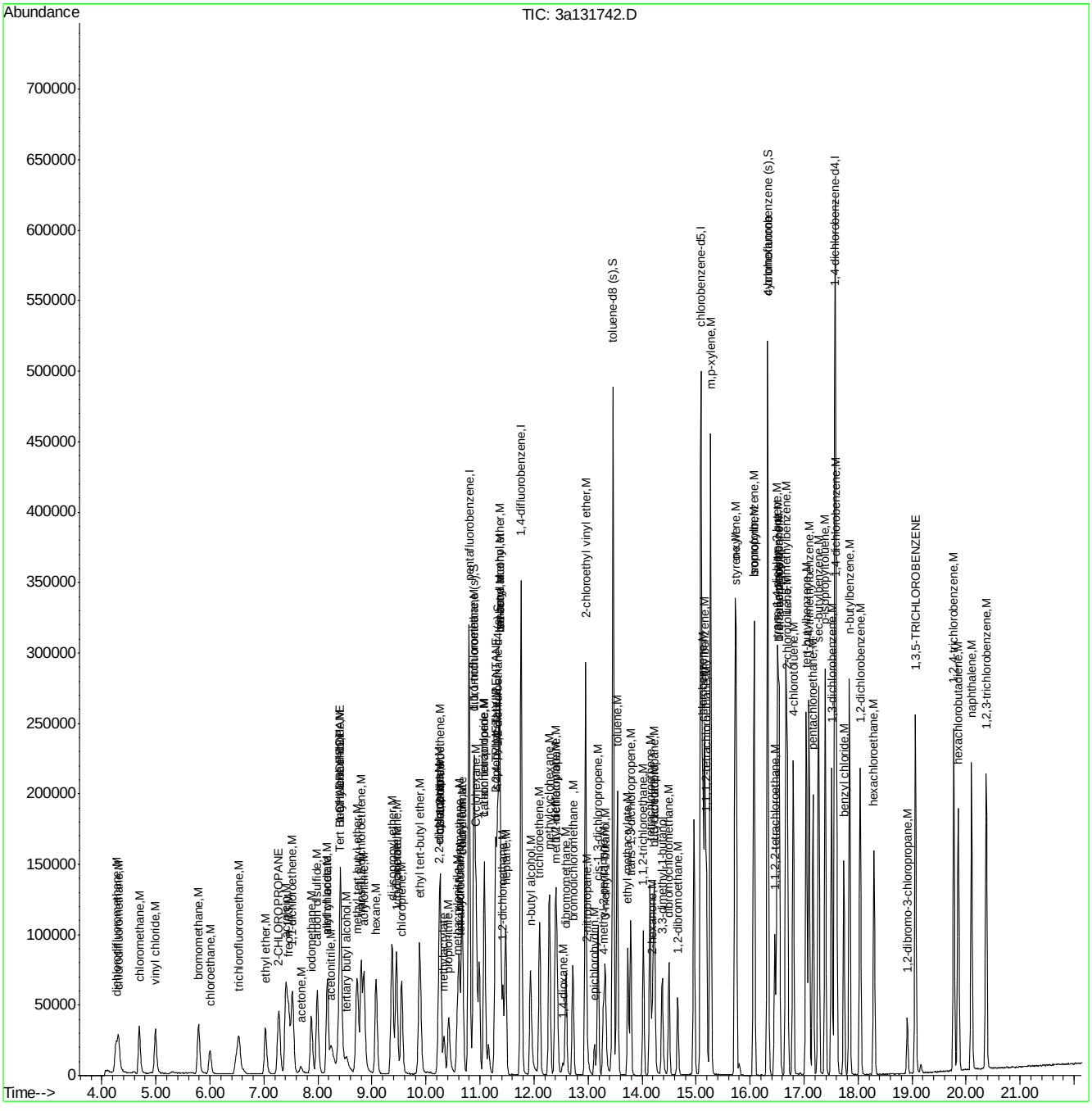
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	16.07	173	41137	24.19 ug/L	99
103) isopropylbenzene	16.07	105	209071	22.79 ug/L	99
105) cyclohexanone	16.33	98	29357	272.87 ug/L	97
106) bromobenzene	16.54	156	58914	22.43 ug/L	98
107) 1,1,2,2-tetrachloroethane	16.46	83	62489	22.04 ug/L	99
108) trans-1,4-dichloro-2-buten	16.50	53	17148	24.49 ug/L	99
109) 1,2,3-trichloropropane	16.54	110	16153	22.56 ug/L	96
110) n-propylbenzene	16.51	120	53154	23.66 ug/L	94
111) 2-chlorotoluene	16.69	126	52561	22.62 ug/L	99
112) 4-chlorotoluene	16.80	126	52675	22.70 ug/L	95
113) 1,3,5-trimethylbenzene	16.66	105	179476	23.00 ug/L	100
114) tert-butylbenzene	17.04	119	159021	23.52 ug/L	98
115) pentachloroethane	17.17	167	39630	24.06 ug/L	98
116) 1,2,4-trimethylbenzene	17.09	105	178619	23.10 ug/L	99
117) sec-butylbenzene	17.27	105	240827	23.60 ug/L	99
118) 1,3-dichlorobenzene	17.51	146	112792	21.44 ug/L	100
119) p-isopropyltoluene	17.39	119	207049	23.91 ug/L	98
120) 1,4-dichlorobenzene	17.60	146	116579	21.40 ug/L	99
121) 1,2-dichlorobenzene	18.04	146	114961	22.09 ug/L	99
122) benzyl chloride	17.74	91	131941	23.33 ug/L	100
123) n-butylbenzene	17.84	92	104005	23.60 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.91	75	12175	22.53 ug/L	97
125) 1,3,5-TRICHLOROBENZENE	19.06	180	107746	22.32 ug/L	100
126) 1,2,4-trichlorobenzene	19.77	180	101513	22.88 ug/L	99
127) hexachlorobutadiene	19.85	225	55373	24.06 ug/L	97
128) naphthalene	20.10	128	219638	23.02 ug/L	100
129) 1,2,3-trichlorobenzene	20.37	180	93742	22.99 ug/L	99
130) hexachloroethane	18.30	201	41043	24.65 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131742.D
Acq On : 12 Jun 2014 4:18 pm
Operator : HeeEunA
Sample : ic5699-20
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 16:42:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:41:23 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131743.D
Acq On : 12 Jun 2014 4:47 pm
Operator : HeeEunA
Sample : icc5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 12 17:31:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:53:34 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.39	65	125659	500.00	ug/L	-0.02
5) pentafluorobenzene	10.80	168	319255	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	370233	50.00	ug/L	0.00
87) chlorobenzene-d5	15.09	117	341548	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	201429	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.88	113	110165	52.77	ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 105.54%			
50) 1,2-dichloroethane-d4 (s)	11.33	65	122696	51.79	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 103.58%			
79) toluene-d8 (s)	13.46	98	395836	53.58	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 107.16%			
104) 4-bromofluorobenzene (s)	16.32	95	153875	53.17	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 106.34%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.53	59	59933	286.30	ug/L	100
4) 1,4-dioxane	12.53	88	32140	1455.07	ug/L	96
8) chlorodifluoromethane	4.30	51	101788	55.69	ug/L	97
9) dichlorodifluoromethane	4.26	85	143224	62.48	ug/L	99
10) chloromethane	4.70	50	158528	54.04	ug/L	99
11) vinyl chloride	4.99	62	152244	56.57	ug/L	100
12) bromomethane	5.79	94	97755	50.25	ug/L	99
15) 2-CHLOROPROPANE	7.27	43	180559	55.50	ug/L	99
16) chloroethane	6.00	64	68733	55.46	ug/L	98
17) trichlorofluoromethane	6.53	101	171309	60.76	ug/L	98
19) 1-CHLOROPROPANE	8.42	42	189386	41.99	ug/L	92
20) ethyl ether	7.02	74	59856	57.52	ug/L	97
21) acrolein	7.40	56	256438	604.83	ug/L	98
22) 1,1-dichloroethene	7.53	96	99074	54.08	ug/L	96
23) acetone	7.67	43	36270	53.44	ug/L	97
24) allyl chloride	8.17	76	53609	58.90	ug/L	97
25) acetonitrile	8.24	40	54756	516.99	ug/L	89
26) iodomethane	7.87	142	205948	55.47	ug/L	100
27) iso-butyl alcohol	11.36	74	35453	567.32	ug/L #	46
28) carbon disulfide	7.98	76	361613	54.65	ug/L	100
29) methylene chloride	8.41	84	115723	50.48	ug/L	98
30) methyl acetate	8.17	43	92305	56.52	ug/L	98
31) methyl tert butyl ether	8.72	73	334197	54.67	ug/L	99
32) trans-1,2-dichloroethene	8.80	61	154932	54.12	ug/L	98
33) di-isopropyl ether	9.37	45	352532	54.81	ug/L	99
34) 2-butanone	10.25	72	13994	63.01	ug/L #	17
35) 1,1-dichloroethane	9.46	63	197676	53.98	ug/L	98
36) chloroprene	9.55	53	145226	57.76	ug/L	97
37) acrylonitrile	8.84	53	229212	297.39	ug/L	98
38) vinyl acetate	9.44	86	19351	63.68	ug/L	95
39) ethyl tert-butyl ether	9.88	59	354264	56.34	ug/L	99
40) ethyl acetate	10.24	45	15737	58.53	ug/L	94
41) 2,2-dichloropropane	10.24	77	155584	55.32	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131743.D
Acq On : 12 Jun 2014 4:47 pm
Operator : HeeEunA
Sample : icc5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 12 17:31:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:53:34 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) cis-1,2-dichloroethene	10.26	96	120806	51.23	ug/L	99
43) methylacrylate	10.33	85	18291	65.27	ug/L	96
44) propionitrile	10.42	54	177227	598.34	ug/L	98
45) bromochloromethane	10.61	128	64178	58.04	ug/L	99
46) tetrahydrofuran	10.63	42	41648	49.85	ug/L	98
47) chloroform	10.67	85	126473	53.09	ug/L	100
48) t-butyl formate	10.67	59	100866	55.96	ug/L	96
51) freon 113	7.45	151	80103	61.06	ug/L	99
52) methacrylonitrile	10.57	41	74396	57.46	ug/L	98
53) 1,1,1-trichloroethane	10.89	97	167982	56.61	ug/L	99
54) Cyclohexane	10.93	84	160258	61.76	ug/L	98
56) epichlorohydrin	13.12	57	64392	299.42	ug/L	98
57) n-butyl alcohol	11.93	56	173452	3211.18	ug/L	99
58) carbon tetrachloride	11.09	117	158506	60.37	ug/L	99
59) 1,1-dichloropropene	11.08	75	149219	57.96	ug/L	99
61) hexane	9.07	57	124100	62.36	ug/L	99
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	399592	65.39	ug/L	100
63) benzene	11.36	78	437164	53.98	ug/L	100
64) tert-amyl methyl ether	11.36	87	79881	57.23	ug/L	98
65) heptane	11.47	57	74862	62.46	ug/L	98
66) isopropyl acetate	11.29	43	278370	56.98	ug/L	100
67) 1,2-dichloroethane	11.42	62	147938	56.39	ug/L	100
69) trichloroethene	12.10	95	113172	56.22	ug/L	99
71) methyl methacrylate	12.39	69	79500	64.06	ug/L	97
72) 2-nitropropane	12.99	41	46173	54.77	ug/L	97
73) 2-chloroethyl vinyl ether	12.95	63	409856	307.43	ug/L	100
74) 1,2-dichloropropane	12.41	63	116299	56.51	ug/L	99
75) dibromomethane	12.59	93	77398	57.35	ug/L	98
76) methylcyclohexane	12.28	83	173788	62.59	ug/L	99
77) bromodichloromethane	12.72	83	160105	57.33	ug/L	99
78) cis-1,3-dichloropropene	13.18	75	196602	58.15	ug/L	99
80) 4-methyl-2-pentanone	13.28	58	47914	61.05	ug/L	94
81) toluene	13.54	92	269761	57.72	ug/L	99
82) 3-methyl-1-butanol	13.32	55	105053	1250.08	ug/L	98
83) trans-1,3-dichloropropene	13.79	75	183512	59.30	ug/L	99
84) ethyl methacrylate	13.73	69	152976	65.95	ug/L	99
85) 1,1,2-trichloroethane	14.02	83	90686	57.48	ug/L	98
86) 2-hexanone	14.19	58	47011	62.72	ug/L	99
88) tetrachloroethene	14.14	164	104211	55.79	ug/L	97
90) 1,3-dichloropropane	14.21	76	177900	55.48	ug/L	100
91) butyl acetate	14.23	56	75179	58.35	ug/L	99
92) 3,3-dimethyl-1-butanol	14.37	57	119905	627.95	ug/L	99
93) dibromochloromethane	14.50	129	138088	57.87	ug/L	99
94) 1,2-dibromoethane	14.66	107	116475	56.62	ug/L	99
95) chlorobenzene	15.12	112	315698	54.41	ug/L	99
96) 1,1,1,2-tetrachloroethane	15.19	131	130979	55.74	ug/L	99
97) ethylbenzene	15.16	91	531140	55.45	ug/L	99
98) m,p-xylene	15.27	106	409742	113.21	ug/L	100
99) o-xylene	15.72	106	209773	56.54	ug/L	98
100) styrene	15.74	104	348638	58.47	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131743.D
Acq On : 12 Jun 2014 4:47 pm
Operator : HeeEunA
Sample : icc5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 12 17:31:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:53:34 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	16.07	173	110447	60.06 ug/L	98
103) isopropylbenzene	16.07	105	552258	56.72 ug/L	100
105) cyclohexanone	16.33	98	71434	603.46 ug/L	97
106) bromobenzene	16.54	156	157803	56.77 ug/L	99
107) 1,1,2,2-tetrachloroethane	16.46	83	163732	54.75 ug/L	97
108) trans-1,4-dichloro-2-buten	16.50	53	44666	58.86 ug/L	98
109) 1,2,3-trichloropropane	16.54	110	42287	55.51 ug/L	100
110) n-propylbenzene	16.51	120	140913	58.69 ug/L	96
111) 2-chlorotoluene	16.69	126	137907	55.99 ug/L	99
112) 4-chlorotoluene	16.80	126	139562	56.71 ug/L	97
113) 1,3,5-trimethylbenzene	16.66	105	476305	57.41 ug/L	100
114) tert-butylbenzene	17.04	119	421407	58.37 ug/L	99
115) pentachloroethane	17.16	167	105331	59.63 ug/L	99
116) 1,2,4-trimethylbenzene	17.09	105	470012	57.13 ug/L	99
117) sec-butylbenzene	17.27	105	639495	58.65 ug/L	100
118) 1,3-dichlorobenzene	17.51	146	298666	54.08 ug/L	100
119) p-isopropyltoluene	17.39	119	542318	58.47 ug/L	100
120) 1,4-dichlorobenzene	17.60	146	305910	53.52 ug/L	99
121) 1,2-dichlorobenzene	18.04	146	302374	55.05 ug/L	98
122) benzyl chloride	17.74	91	343618	57.00 ug/L	100
123) n-butylbenzene	17.84	92	274963	58.40 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.91	75	31477	54.76 ug/L	99
125) 1,3,5-TRICHLOROBENZENE	19.06	180	284559	55.75 ug/L	100
126) 1,2,4-trichlorobenzene	19.77	180	265057	56.24 ug/L	99
127) hexachlorobutadiene	19.85	225	143858	58.29 ug/L	99
128) naphthalene	20.10	128	583127	57.19 ug/L	99
129) 1,2,3-trichlorobenzene	20.37	180	246862	56.95 ug/L	99
130) hexachloroethane	18.30	201	110628	61.67 ug/L	99

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

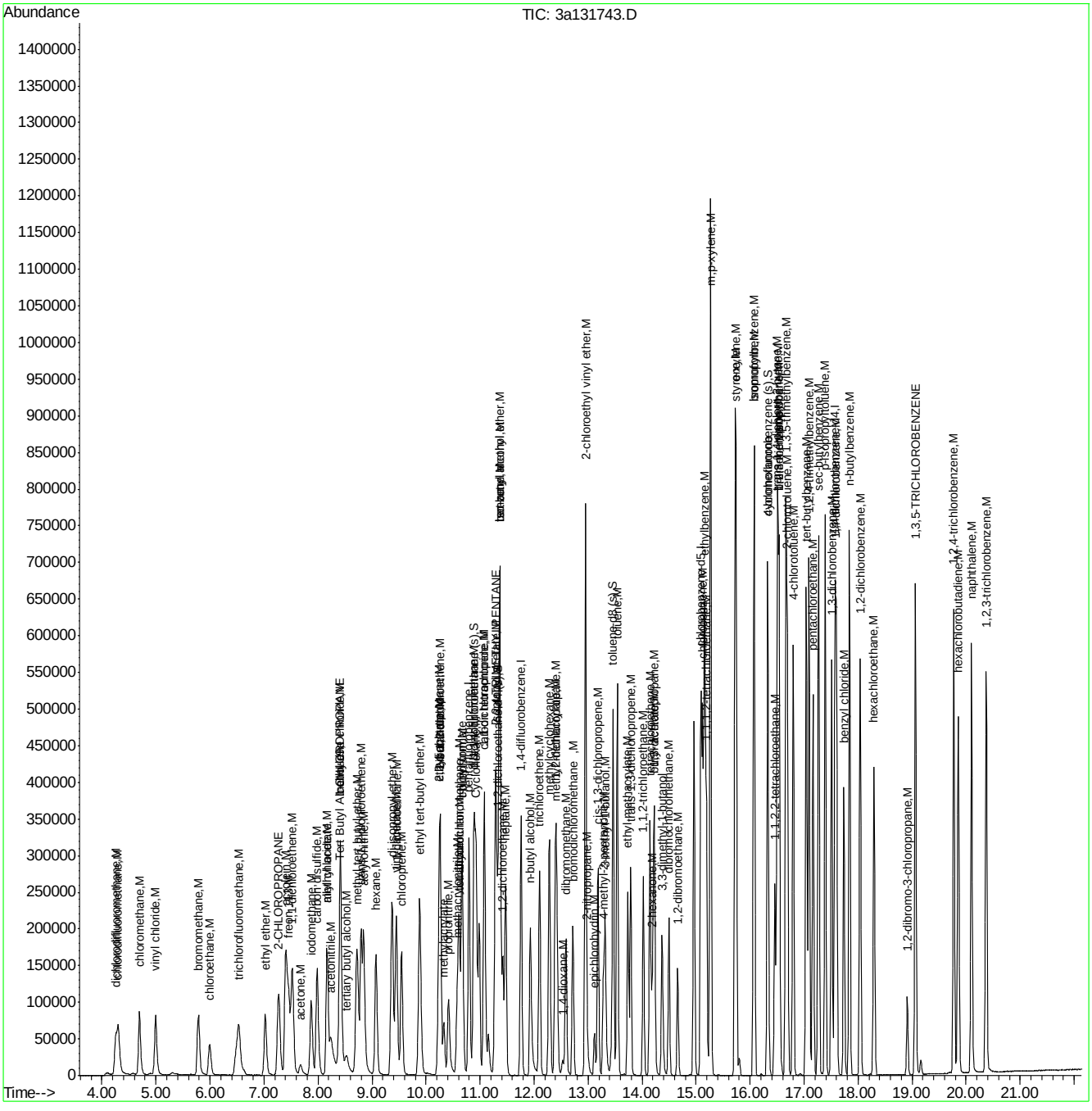
7.7.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131743.D
Acq On : 12 Jun 2014 4:47 pm
Operator : HeeEunA
Sample : icc5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 12 17:31:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 16:53:34 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131744.D
Acq On : 12 Jun 2014 5:18 pm
Operator : HeeEunA
Sample : ic5699-100
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:44:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 17:43:42 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.40	65	131652	500.00	ug/L	0.00
5) pentafluorobenzene	10.79	168	335623	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	392182	50.00	ug/L	0.00
87) chlorobenzene-d5	15.09	117	358934	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	212062	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.88	113	225405	101.77	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 203.54%#			
50) 1,2-dichloroethane-d4 (s)	11.33	65	252625	100.71	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 201.42%#			
79) toluene-d8 (s)	13.46	98	798350	100.98	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 201.96%#			
104) 4-bromofluorobenzene (s)	16.32	95	315947	102.41	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 204.82%#			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.53	59	123992	549.39	ug/L	100
4) 1,4-dioxane	12.53	88	61038	2533.66	ug/L	99
8) chlorodifluoromethane	4.30	51	207267	105.46	ug/L	98
9) dichlorodifluoromethane	4.25	85	289196	114.30	ug/L	98
10) chloromethane	4.70	50	320490	102.55	ug/L	99
11) vinyl chloride	4.99	62	306672	106.07	ug/L	99
12) bromomethane	5.78	94	182232	89.04	ug/L	99
15) 2-CHLOROPROPANE	7.26	43	370004	106.24	ug/L	99
16) chloroethane	5.99	64	136092	102.59	ug/L	98
17) trichlorofluoromethane	6.52	101	355668	115.04	ug/L	98
19) 1-CHLOROPROPANE	8.41	42	385184	84.63	ug/L	98
20) ethyl ether	7.02	74	121975	108.77	ug/L	99
21) acrolein	7.40	56	524775	1137.61	ug/L	97
22) 1,1-dichloroethene	7.52	96	204685	104.85	ug/L	97
23) acetone	7.67	43	68527	94.41	ug/L	98
24) allyl chloride	8.17	76	111505	113.17	ug/L	97
25) acetonitrile	8.23	40	110194	981.35	ug/L	81
26) iodomethane	7.87	142	421475	106.05	ug/L	100
27) iso-butyl alcohol	11.36	74	75066	1112.67	ug/L #	1
28) carbon disulfide	7.98	76	731763	103.59	ug/L	100
29) methylene chloride	8.41	84	235751	97.67	ug/L	99
30) methyl acetate	8.17	43	189667	107.67	ug/L	100
31) methyl tert butyl ether	8.72	73	676365	103.86	ug/L	98
32) trans-1,2-dichloroethene	8.80	61	323196	106.14	ug/L	99
33) di-isopropyl ether	9.37	45	717991	104.75	ug/L	99
34) 2-butanone	10.26	72	28367	114.08	ug/L #	34
35) 1,1-dichloroethane	9.46	63	411165	105.61	ug/L	99
36) chloroprene	9.55	53	312173	115.54	ug/L	98
37) acrylonitrile	8.84	53	469700	564.40	ug/L	100
38) vinyl acetate	9.44	86	39931	116.99	ug/L	92
39) ethyl tert-butyl ether	9.88	59	726950	108.01	ug/L	99
40) ethyl acetate	10.24	45	32308	109.63	ug/L	85
41) 2,2-dichloropropane	10.24	77	317234	105.69	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131744.D
Acq On : 12 Jun 2014 5:18 pm
Operator : HeeEunA
Sample : ic5699-100
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:44:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 17:43:42 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.26	96	251342	101.04 ug/L	98
43) methylacrylate	10.33	85	37633	118.68 ug/L	97
44) propionitrile	10.42	54	367684	1143.33 ug/L	98
45) bromochloromethane	10.61	128	134490	113.10 ug/L	95
46) tetrahydrofuran	10.63	42	85350	97.23 ug/L	98
47) chloroform	10.66	85	261819	103.63 ug/L	98
48) t-butyl formate	10.67	59	208200	107.73 ug/L	98
51) freon 113	7.45	151	168832	117.23 ug/L	100
52) methacrylonitrile	10.57	41	155273	110.78 ug/L	98
53) 1,1,1-trichloroethane	10.89	97	348957	109.80 ug/L	99
54) Cyclohexane	10.92	84	337029	109.34 ug/L	99
56) epichlorohydrin	13.12	57	132263	535.93 ug/L	99
57) n-butyl alcohol	11.93	56	353864	5851.64 ug/L	98
58) carbon tetrachloride	11.09	117	332997	116.29 ug/L	99
59) 1,1-dichloropropene	11.07	75	314682	112.83 ug/L	99
61) hexane	9.07	57	264512	109.85 ug/L	99
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	857953	123.16 ug/L	100
63) benzene	11.37	78	905223	104.34 ug/L	100
64) tert-amyl methyl ether	11.37	87	166943	110.25 ug/L	96
65) heptane	11.47	57	163669	112.46 ug/L	99
66) isopropyl acetate	11.29	43	585786	110.62 ug/L	100
67) 1,2-dichloroethane	11.42	62	300743	106.28 ug/L	99
69) trichloroethene	12.10	95	235481	108.51 ug/L	98
71) methyl methacrylate	12.39	69	165854	113.84 ug/L	98
72) 2-nitropropane	12.98	41	93716	102.49 ug/L	98
73) 2-chloroethyl vinyl ether	12.95	63	847748	581.22 ug/L	99
74) 1,2-dichloropropane	12.41	63	240130	108.14 ug/L	99
75) dibromomethane	12.59	93	158999	108.94 ug/L	99
76) methylcyclohexane	12.28	83	377331	113.72 ug/L	98
77) bromodichloromethane	12.72	83	332267	110.02 ug/L	98
78) cis-1,3-dichloropropene	13.18	75	404499	110.37 ug/L	99
80) 4-methyl-2-pentanone	13.28	58	97472	112.28 ug/L	96
81) toluene	13.54	92	562773	111.23 ug/L	99
82) 3-methyl-1-butanol	13.32	55	213890	2288.28 ug/L	97
83) trans-1,3-dichloropropene	13.79	75	378041	112.34 ug/L	98
84) ethyl methacrylate	13.73	69	314914	117.28 ug/L	99
85) 1,1,2-trichloroethane	14.02	83	186761	109.41 ug/L	99
86) 2-hexanone	14.18	58	96633	108.88 ug/L	96
88) tetrachloroethene	14.14	164	220134	110.31 ug/L	98
90) 1,3-dichloropropane	14.21	76	366663	107.14 ug/L	100
91) butyl acetate	14.23	56	160251	114.53 ug/L	95
92) 3,3-dimethyl-1-butanol	14.37	57	247882	1191.72 ug/L	100
93) dibromochloromethane	14.50	129	289151	112.77 ug/L	99
94) 1,2-dibromoethane	14.66	107	242619	110.14 ug/L	99
95) chlorobenzene	15.12	112	657299	106.46 ug/L	100
96) 1,1,1,2-tetrachloroethane	15.19	131	272857	108.71 ug/L	99
97) ethylbenzene	15.16	91	1112335	108.81 ug/L	100
98) m,p-xylene	15.27	106	868059	224.00 ug/L	98
99) o-xylene	15.72	106	434756	109.45 ug/L	100
100) styrene	15.74	104	727951	113.43 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131744.D
Acq On : 12 Jun 2014 5:18 pm
Operator : HeeEunA
Sample : ic5699-100
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:44:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 17:43:42 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	16.07	173	234352	117.87 ug/L	98
103) isopropylbenzene	16.07	105	1169934	111.99 ug/L	100
105) cyclohexanone	16.33	98	123847	965.24 ug/L	98
106) bromobenzene	16.54	156	329243	110.37 ug/L	99
107) 1,1,2,2-tetrachloroethane	16.46	83	337087	105.63 ug/L	99
108) trans-1,4-dichloro-2-buten	16.50	53	91645	111.42 ug/L	98
109) 1,2,3-trichloropropane	16.54	110	88294	108.11 ug/L	99
110) n-propylbenzene	16.51	120	300910	116.15 ug/L	95
111) 2-chlorotoluene	16.69	126	291474	110.51 ug/L	99
112) 4-chlorotoluene	16.80	126	295787	112.03 ug/L	99
113) 1,3,5-trimethylbenzene	16.67	105	1001031	112.23 ug/L	100
114) tert-butylbenzene	17.04	119	877218	112.71 ug/L	100
115) pentachloroethane	17.17	167	220288	115.28 ug/L	99
116) 1,2,4-trimethylbenzene	17.09	105	981644	111.08 ug/L	100
117) sec-butylbenzene	17.27	105	1340720	113.97 ug/L	100
118) 1,3-dichlorobenzene	17.51	146	624587	106.18 ug/L	99
119) p-isopropyltoluene	17.39	119	1149012	114.90 ug/L	99
120) 1,4-dichlorobenzene	17.60	146	635322	104.53 ug/L	99
121) 1,2-dichlorobenzene	18.04	146	619127	105.54 ug/L	98
122) benzyl chloride	17.74	91	707329	109.27 ug/L	100
123) n-butylbenzene	17.84	92	569628	112.22 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.91	75	65341	106.29 ug/L	100
125) 1,3,5-TRICHLOROBENZENE	19.06	180	581108	106.39 ug/L	99
126) 1,2,4-trichlorobenzene	19.77	180	551497	109.21 ug/L	99
127) hexachlorobutadiene	19.85	225	300915	113.13 ug/L	99
128) naphthalene	20.10	128	1200173	109.19 ug/L	99
129) 1,2,3-trichlorobenzene	20.37	180	507501	109.05 ug/L	100
130) hexachloroethane	18.30	201	233797	119.80 ug/L	98

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

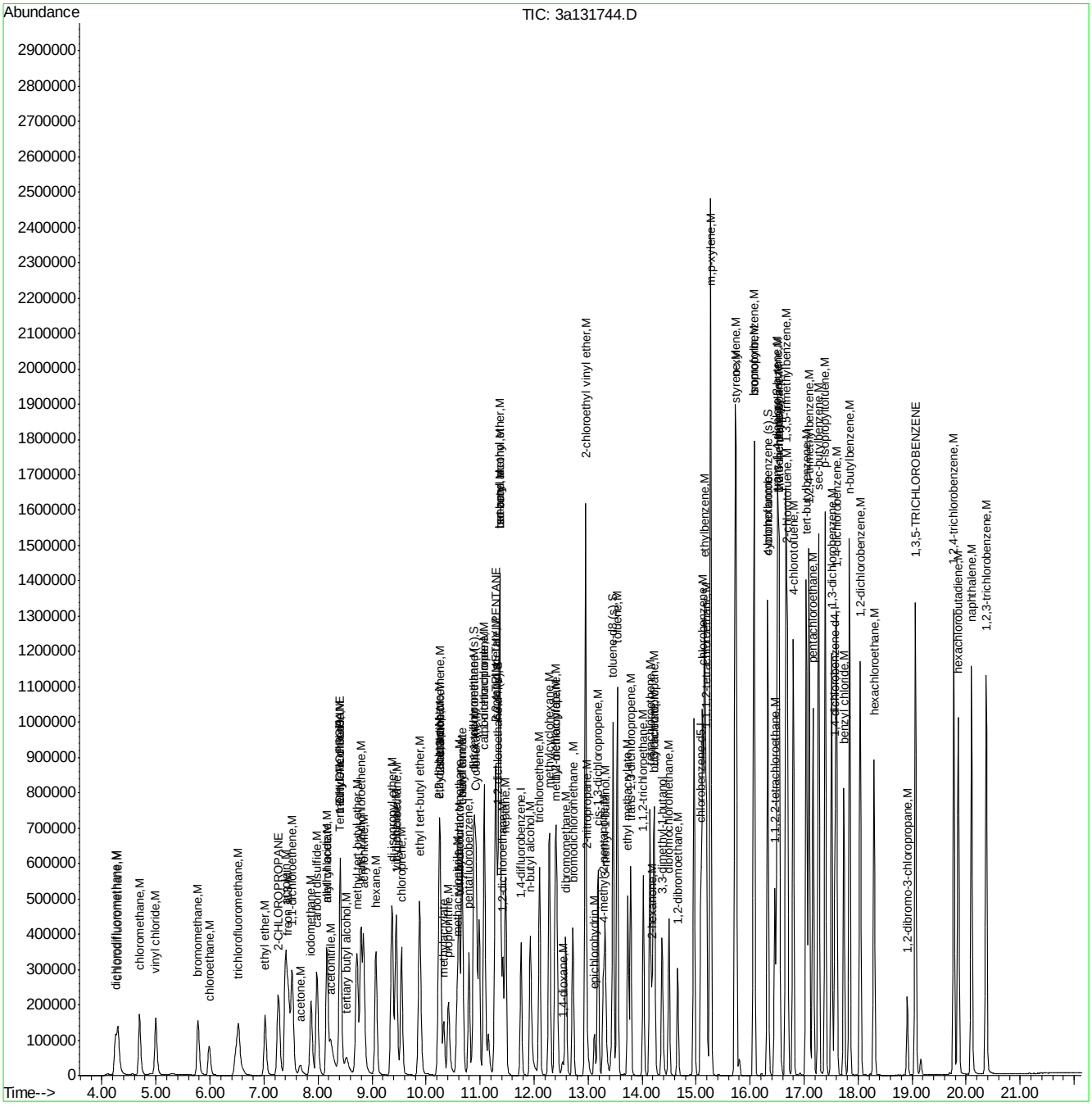
7.2.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131744.D
Acq On : 12 Jun 2014 5:18 pm
Operator : HeeEunA
Sample : ic5699-100
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:44:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 17:43:42 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131745.D
Acq On : 12 Jun 2014 5:48 pm
Operator : HeeEunA
Sample : ic5699-200
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 08:32:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 17:44:20 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.41	65	146177	500.00	ug/L	0.02
5) pentafluorobenzene	10.80	168	355231	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	415942	50.00	ug/L	0.00
87) chlorobenzene-d5	15.09	117	386201	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	232053	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.88	113	511319	217.56	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 435.12%#			
50) 1,2-dichloroethane-d4 (s)	11.33	65	563852	212.12	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 424.24%#			
79) toluene-d8 (s)	13.46	98	1835031	218.57	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 437.14%#			
104) 4-bromofluorobenzene (s)	16.33	95	740961	218.60	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 437.20%#			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.54	59	272243	1068.81	ug/L	100
4) 1,4-dioxane	12.53	88	139459	5199.66	ug/L	97
8) chlorodifluoromethane	4.31	51	432049	205.83	ug/L	98
9) dichlorodifluoromethane	4.26	85	566356	206.56	ug/L	100
10) chloromethane	4.71	50	650971	196.08	ug/L	100
11) vinyl chloride	5.01	62	627323	203.23	ug/L	99
15) 2-CHLOROPROPANE	7.27	43	779739	209.65	ug/L	99
16) chloroethane	5.98	64	226115	160.45	ug/L	98
17) trichlorofluoromethane	6.52	101	721311	215.04	ug/L	99
19) 1-CHLOROPROPANE	8.41	42	801628	171.69	ug/L	98
20) ethyl ether	7.02	74	266835	222.03	ug/L	99
21) acrolein	7.40	56	1110626	2230.86	ug/L	98
22) 1,1-dichloroethene	7.53	96	439790	211.39	ug/L	99
23) acetone	7.67	43	146330	192.63	ug/L	99
24) allyl chloride	8.17	76	240442	226.31	ug/L	94
25) acetonitrile	8.25	40	243479	2056.32	ug/L #	66
26) iodomethane	7.87	142	918698	216.53	ug/L	100
27) iso-butyl alcohol	11.37	74	161352	2217.98	ug/L #	1
28) carbon disulfide	7.98	76	1570104	208.93	ug/L	100
29) methylene chloride	8.41	84	508778	199.81	ug/L	98
30) methyl acetate	8.18	43	408323	216.23	ug/L	99
31) methyl tert butyl ether	8.72	73	1436537	207.41	ug/L	98
32) trans-1,2-dichloroethene	8.80	61	694842	213.95	ug/L	98
33) di-isopropyl ether	9.38	45	1545209	211.74	ug/L	99
34) 2-butanone	10.26	72	62876	232.36	ug/L #	52
35) 1,1-dichloroethane	9.46	63	884420	213.13	ug/L	99
36) chloroprene	9.55	53	665179	228.17	ug/L	98
37) acrylonitrile	8.85	53	1014799	1133.84	ug/L	99
38) vinyl acetate	9.44	86	87473	234.18	ug/L	97
39) ethyl tert-butyl ether	9.88	59	1559718	216.78	ug/L	100
40) ethyl acetate	10.24	45	70496	221.74	ug/L	79
41) 2,2-dichloropropane	10.24	77	671201	209.79	ug/L	98
42) cis-1,2-dichloroethene	10.26	96	546089	207.14	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131745.D
Acq On : 12 Jun 2014 5:48 pm
Operator : HeeEunA
Sample : ic5699-200
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 08:32:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 17:44:20 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
43) methylacrylate	10.33	85	83971	241.19 ug/L	100
44) propionitrile	10.42	54	786332	2263.81 ug/L	96
45) bromochloromethane	10.61	128	291013	227.49 ug/L	96
46) tetrahydrofuran	10.63	42	190066	205.53 ug/L	99
47) chloroform	10.67	85	569538	212.03 ug/L	99
48) t-butyl formate	10.67	59	443336	214.37 ug/L	96
51) freon 113	7.45	151	353455	225.41 ug/L	98
52) methacrylonitrile	10.58	41	330506	218.85 ug/L	97
53) 1,1,1-trichloroethane	10.89	97	756253	222.10 ug/L	99
54) Cyclohexane	10.92	84	720435	216.77 ug/L	98
56) epichlorohydrin	13.12	57	293302	1104.70 ug/L	99
57) n-butyl alcohol	11.94	56	797918	12097.54 ug/L	98
58) carbon tetrachloride	11.09	117	715671	230.94 ug/L	100
59) 1,1-dichloropropene	11.08	75	683727	227.49 ug/L	99
61) hexane	9.07	57	539336	207.11 ug/L	100
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	1764850	231.23 ug/L	100
63) benzene	11.37	78	1983481	214.40 ug/L	99
64) tert-amyl methyl ether	11.37	87	365763	224.47 ug/L	96
65) heptane	11.48	57	335817	212.27 ug/L	98
66) isopropyl acetate	11.29	43	1260514	221.08 ug/L	98
67) 1,2-dichloroethane	11.42	62	660840	218.47 ug/L	100
69) trichloroethene	12.10	95	518348	222.84 ug/L	98
71) methyl methacrylate	12.39	69	368916	233.36 ug/L	95
72) 2-nitropropane	12.98	41	201928	207.19 ug/L	100
73) 2-chloroethyl vinyl ether	12.95	63	1842253	1167.21 ug/L	99
74) 1,2-dichloropropane	12.41	63	523270	219.95 ug/L	100
75) dibromomethane	12.59	93	347996	222.32 ug/L	94
76) methylcyclohexane	12.28	83	788104	217.97 ug/L	98
77) bromodichloromethane	12.72	83	732665	225.91 ug/L	99
78) cis-1,3-dichloropropene	13.18	75	900243	228.64 ug/L	99
80) 4-methyl-2-pentanone	13.28	58	213442	227.18 ug/L	98
81) toluene	13.54	92	1239299	227.75 ug/L	99
82) 3-methyl-1-butanol	13.32	55	485411	4781.61 ug/L	98
83) trans-1,3-dichloropropene	13.79	75	841082	232.09 ug/L	97
84) ethyl methacrylate	13.74	69	711497	243.83 ug/L	98
85) 1,1,2-trichloroethane	14.02	83	414004	226.02 ug/L	99
86) 2-hexanone	14.19	58	216915	226.42 ug/L	93
88) tetrachloroethene	14.15	164	493884	227.09 ug/L	98
90) 1,3-dichloropropane	14.22	76	804412	216.52 ug/L	99
91) butyl acetate	14.23	56	364107	236.13 ug/L	95
92) 3,3-dimethyl-1-butanol	14.37	57	572280	2497.21 ug/L	99
93) dibromochloromethane	14.50	129	647673	231.07 ug/L	99
94) 1,2-dibromoethane	14.66	107	536719	223.62 ug/L	99
95) chlorobenzene	15.12	112	1484540	221.68 ug/L	100
96) 1,1,1,2-tetrachloroethane	15.19	131	608684	222.95 ug/L	99
97) ethylbenzene	15.16	91	2497616	224.60 ug/L	99
98) m,p-xylene	15.27	106	1972333	466.04 ug/L	97
99) o-xylene	15.72	106	975379	225.56 ug/L	100
100) styrene	15.74	104	1662902	236.85 ug/L	99
101) bromoform	16.07	173	530833	242.72 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131745.D
Acq On : 12 Jun 2014 5:48 pm
Operator : HeeEunA
Sample : ic5699-200
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 08:32:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 17:44:20 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
103) isopropylbenzene	16.07	105	2614188	225.30	ug/L	100
105) cyclohexanone	16.33	98	247826	1772.81	ug/L	93
106) bromobenzene	16.54	156	750529	226.98	ug/L	94
107) 1,1,2,2-tetrachloroethane	16.46	83	737789	209.80	ug/L	99
108) trans-1,4-dichloro-2-buten	16.50	53	201577	220.36	ug/L	97
109) 1,2,3-trichloropropane	16.54	110	194117	214.71	ug/L	99
110) n-propylbenzene	16.51	120	684472	236.67	ug/L	93
111) 2-chlorotoluene	16.69	126	660612	225.92	ug/L	98
112) 4-chlorotoluene	16.80	126	674981	230.16	ug/L	99
113) 1,3,5-trimethylbenzene	16.67	105	2265696	228.63	ug/L	99
114) tert-butylbenzene	17.04	119	1948062	225.16	ug/L	98
115) pentachloroethane	17.17	167	496179	232.84	ug/L	98
116) 1,2,4-trimethylbenzene	17.10	105	2207727	225.17	ug/L	99
117) sec-butylbenzene	17.27	105	2976765	227.28	ug/L	100
118) 1,3-dichlorobenzene	17.51	146	1419457	218.84	ug/L	99
119) p-isopropyltoluene	17.39	119	2558715	229.54	ug/L	100
120) 1,4-dichlorobenzene	17.60	146	1450389	216.84	ug/L	99
121) 1,2-dichlorobenzene	18.04	146	1391081	215.21	ug/L	98
122) benzyl chloride	17.74	91	1540665	215.00	ug/L	99
123) n-butylbenzene	17.84	92	1266678	224.61	ug/L	97
124) 1,2-dibromo-3-chloropropan	18.91	75	139810	205.99	ug/L	97
125) 1,3,5-TRICHLOROBENZENE	19.06	180	1272702	211.25	ug/L	99
126) 1,2,4-trichlorobenzene	19.77	180	1190064	212.90	ug/L	99
127) hexachlorobutadiene	19.85	225	644333	217.79	ug/L	99
128) naphthalene	20.10	128	2552436	209.47	ug/L	99
129) 1,2,3-trichlorobenzene	20.37	180	1099915	213.57	ug/L	99
130) hexachloroethane	18.30	201	522344	238.69	ug/L	99

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

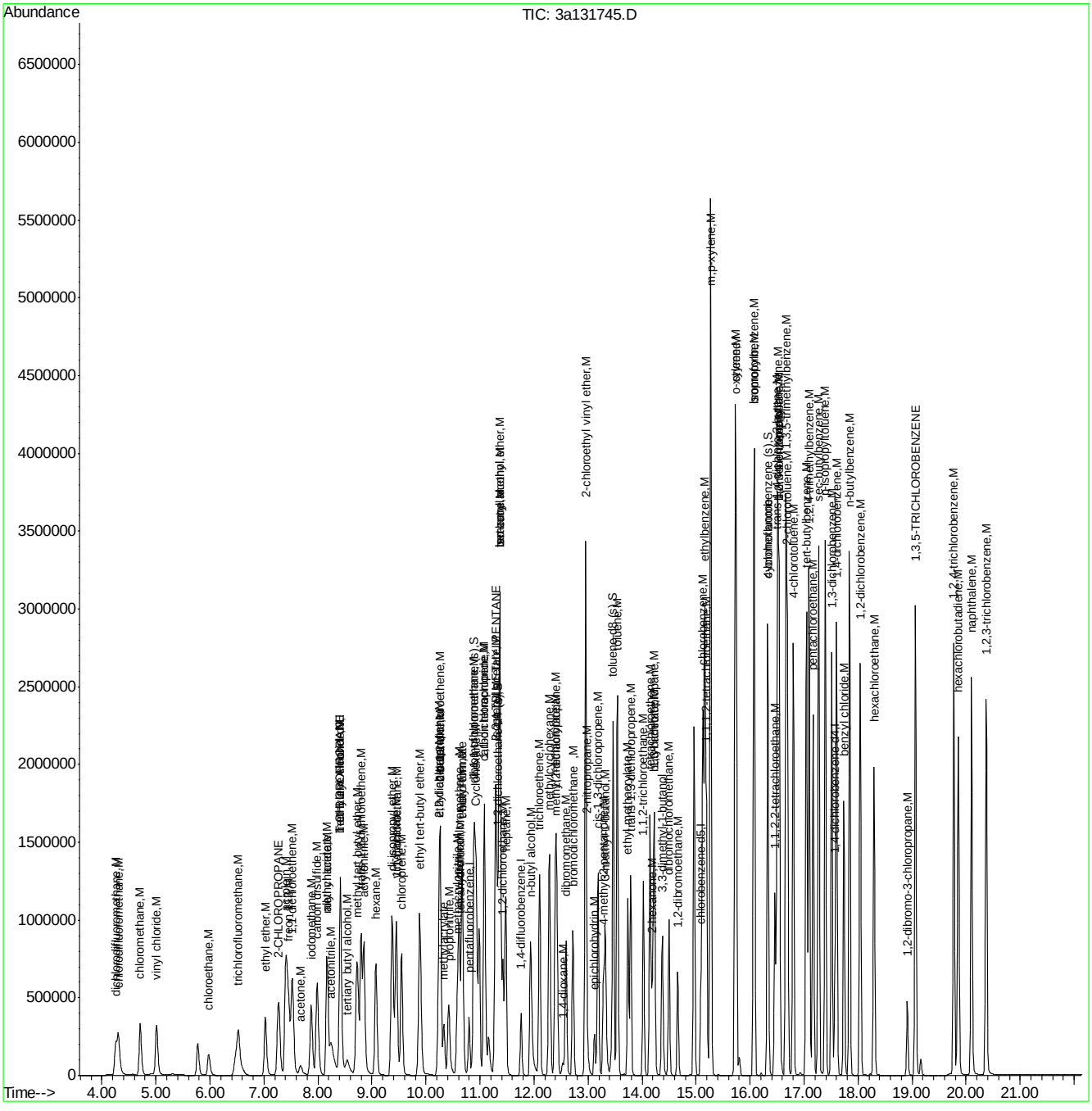
7.7.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131745.D
Acq On : 12 Jun 2014 5:48 pm
Operator : HeeEunA
Sample : ic5699-200
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 08:32:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Jun 12 17:44:20 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131749.D
Acq On : 12 Jun 2014 7:49 pm
Operator : HeeEunA
Sample : ic5699-5
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 13 08:37:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 07:48:36 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.40	65	126462	500.00	ug/L	0.00
5) pentafluorobenzene	10.80	168	337989	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	390592	50.00	ug/L	0.00
87) chlorobenzene-d5	15.09	117	347071	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	205037	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.88	113	10470	4.63	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 9.26%#			
50) 1,2-dichloroethane-d4 (s)	11.33	65	12320	4.83	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 9.66%#			
79) toluene-d8 (s)	13.47	98	35803	4.49	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 8.98%#			
104) 4-bromofluorobenzene (s)	16.33	95	14837	4.89	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 9.78%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.52	59	5873	26.39	ug/L #	100
4) 1,4-dioxane	12.53	88	2842	121.67	ug/L	87
8) chlorodifluoromethane	4.30	51	9853	4.91	ug/L	99
9) dichlorodifluoromethane	4.26	85	10969	4.19	ug/L	95
10) chloromethane	4.68	50	14740	4.68	ug/L	98
11) vinyl chloride	4.97	62	13663	4.64	ug/L	99
12) bromomethane	5.79	94	9987	5.23	ug/L	98
15) 2-CHLOROPROPANE	7.27	43	17159	4.82	ug/L	99
16) chloroethane	6.00	64	6636	5.07	ug/L	98
17) trichlorofluoromethane	6.53	101	13777	4.27	ug/L	98
19) 1-CHLOROPROPANE	8.42	42	27204	6.27	ug/L #	84
20) ethyl ether	7.03	74	5763	4.97	ug/L	96
21) acrolein	7.41	56	23405	48.71	ug/L	99
22) 1,1-dichloroethene	7.52	96	9711	4.87	ug/L	93
23) acetone	7.68	43	4019	5.59	ug/L	95
24) allyl chloride	8.17	76	5165	5.03	ug/L	89
25) acetonitrile	8.26	40	5659	50.00	ug/L #	80
26) iodomethane	7.87	142	20585	5.05	ug/L	98
27) iso-butyl alcohol	11.37	74	3560	50.64	ug/L #	85
28) carbon disulfide	7.98	76	35697	4.96	ug/L	99
29) methylene chloride	8.41	84	12725	5.25	ug/L	97
30) methyl acetate	8.18	43	8669	4.77	ug/L	98
31) methyl tert butyl ether	8.73	73	32398	4.90	ug/L	99
32) trans-1,2-dichloroethene	8.80	61	15648	5.03	ug/L	98
33) di-isopropyl ether	9.37	45	34059	4.87	ug/L	99
34) 2-butanone	10.27	72	1203	4.55	ug/L #	29
35) 1,1-dichloroethane	9.46	63	20183	5.07	ug/L	98
36) chloroprene	9.55	53	14118	5.01	ug/L	98
37) acrylonitrile	8.85	53	21903	25.34	ug/L	97
39) ethyl tert-butyl ether	9.88	59	33871	4.90	ug/L	98
40) ethyl acetate	10.25	45	1227	3.98	ug/L #	42
41) 2,2-dichloropropane	10.24	77	15399	5.03	ug/L	99
42) cis-1,2-dichloroethene	10.26	96	12791	5.08	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131749.D
Acq On : 12 Jun 2014 7:49 pm
Operator : HeeEunA
Sample : ic5699-5
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 13 08:37:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 07:48:36 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
43) methylacrylate	10.34	85	1261	3.68 ug/L #	57
44) propionitrile	10.43	54	16414	48.86 ug/L	99
45) bromochloromethane	10.61	128	6317	5.11 ug/L	96
46) tetrahydrofuran	10.64	42	4066	4.60 ug/L	93
47) chloroform	10.67	85	12853	5.00 ug/L	98
48) t-butyl formate	10.67	59	9716	4.89 ug/L	96
51) freon 113	7.44	151	7451	4.91 ug/L	93
52) methacrylonitrile	10.58	41	6453	4.43 ug/L	97
53) 1,1,1-trichloroethane	10.89	97	16309	4.97 ug/L	95
54) Cyclohexane	10.92	84	13744	4.29 ug/L	94
56) epichlorohydrin	13.12	57	5642	22.24 ug/L	93
57) n-butyl alcohol	11.94	56	13566	212.66 ug/L	98
58) carbon tetrachloride	11.09	117	14494	4.90 ug/L	100
59) 1,1-dichloropropene	11.08	75	14174	4.95 ug/L	98
61) hexane	9.07	57	11423	4.64 ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	35471	4.85 ug/L	98
63) benzene	11.37	78	43178	4.93 ug/L	99
64) tert-amyl methyl ether	11.37	87	7713	4.96 ug/L #	85
65) heptane	11.48	57	6554	4.37 ug/L	92
66) isopropyl acetate	11.29	43	25728	4.74 ug/L	98
67) 1,2-dichloroethane	11.42	62	14355	5.00 ug/L	98
69) trichloroethene	12.10	95	11180	5.05 ug/L	99
71) methyl methacrylate	12.39	69	6944	4.57 ug/L	93
72) 2-nitropropane	12.98	41	4385	4.76 ug/L	96
73) 2-chloroethyl vinyl ether	12.95	63	36584	24.23 ug/L	98
74) 1,2-dichloropropane	12.41	63	11528	5.10 ug/L	99
75) dibromomethane	12.59	93	7548	5.07 ug/L	98
76) methylcyclohexane	12.28	83	15990	4.64 ug/L	96
77) bromodichloromethane	12.72	83	15493	5.02 ug/L	98
78) cis-1,3-dichloropropene	13.19	75	18549	4.94 ug/L	98
80) 4-methyl-2-pentanone	13.29	58	4166	4.63 ug/L #	85
81) toluene	13.54	92	26409	5.09 ug/L	100
82) 3-methyl-1-butanol	13.32	55	8955	91.39 ug/L	94
83) trans-1,3-dichloropropene	13.79	75	17125	4.94 ug/L	96
84) ethyl methacrylate	13.74	69	13228	4.70 ug/L	99
85) 1,1,2-trichloroethane	14.02	83	8675	4.97 ug/L	97
86) 2-hexanone	14.19	58	4198	4.57 ug/L #	82
88) tetrachloroethene	14.14	164	10106	5.09 ug/L	98
90) 1,3-dichloropropane	14.22	76	17080	5.07 ug/L	92
91) butyl acetate	14.24	56	6638	4.67 ug/L	94
92) 3,3-dimethyl-1-butanol	14.38	57	10571	49.95 ug/L	97
93) dibromochloromethane	14.50	129	12923	5.04 ug/L	96
94) 1,2-dibromoethane	14.66	107	10961	5.02 ug/L	98
95) chlorobenzene	15.12	112	30865	5.07 ug/L	93
96) 1,1,1,2-tetrachloroethane	15.19	131	12561	5.06 ug/L	98
97) ethylbenzene	15.16	91	51231	5.06 ug/L	99
98) m,p-xylene	15.27	106	38845	10.03 ug/L	100
99) o-xylene	15.72	106	19774	5.02 ug/L	96
100) styrene	15.74	104	31873	4.95 ug/L	99
101) bromoform	16.07	173	10106	5.02 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131749.D
Acq On : 12 Jun 2014 7:49 pm
Operator : HeeEunA
Sample : ic5699-5
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 13 08:37:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 07:48:36 2014
Response via : Initial Calibration

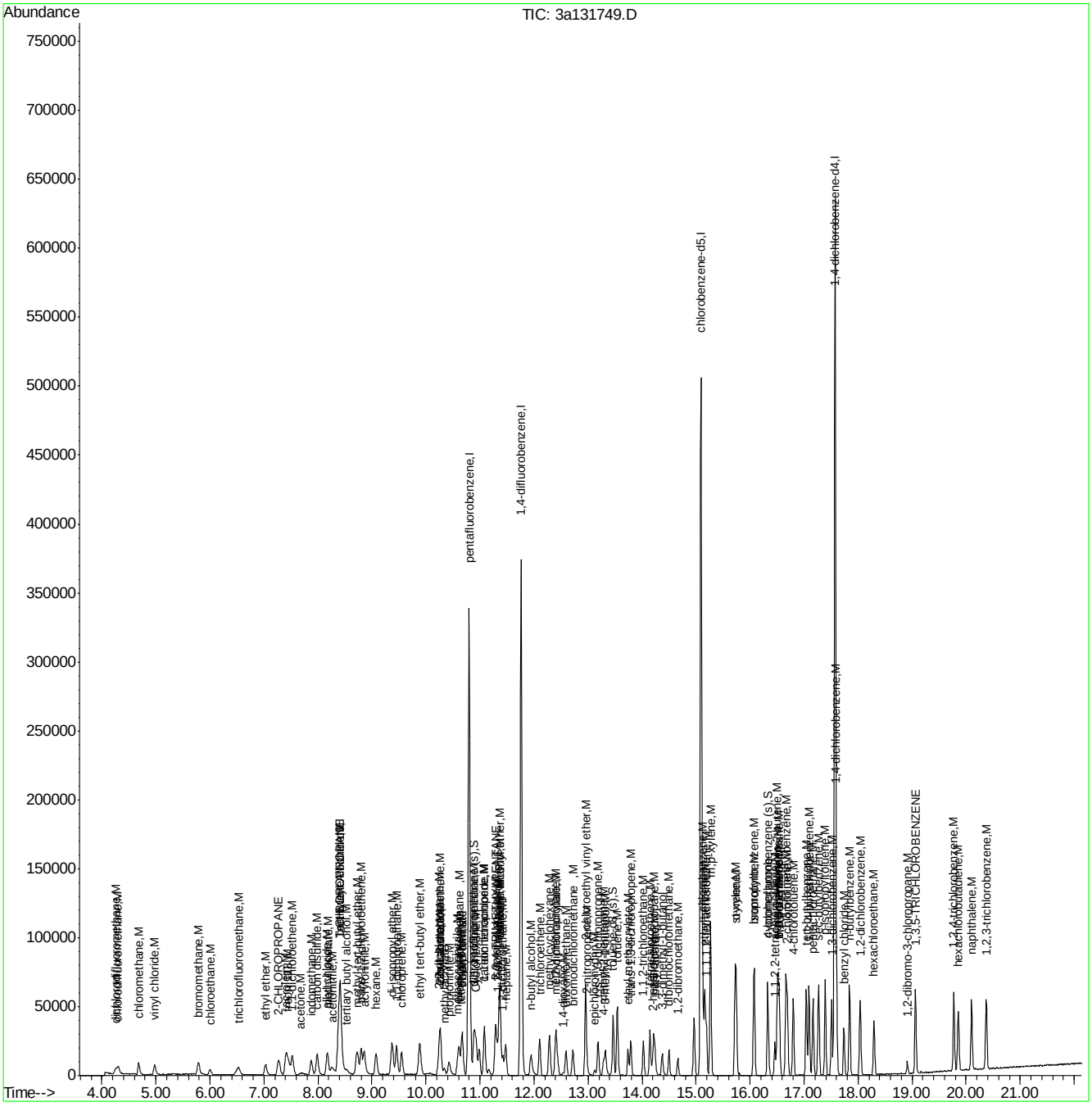
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
103) isopropylbenzene	16.07	105	52345	5.03	ug/L	98
105) cyclohexanone	16.33	98	7474	61.28	ug/L	99
106) bromobenzene	16.54	156	15211	5.13	ug/L	98
107) 1,1,2,2-tetrachloroethane	16.46	83	15645	5.01	ug/L	99
108) trans-1,4-dichloro-2-buten	16.50	53	4034	4.93	ug/L	96
109) 1,2,3-trichloropropane	16.54	110	4022	4.99	ug/L	98
110) n-propylbenzene	16.51	120	13398	5.14	ug/L	90
111) 2-chlorotoluene	16.69	126	13258	5.06	ug/L	99
112) 4-chlorotoluene	16.80	126	13981	5.31	ug/L	96
113) 1,3,5-trimethylbenzene	16.66	105	44068	4.95	ug/L	99
114) tert-butylbenzene	17.04	119	38700	4.99	ug/L	99
115) pentachloroethane	17.17	167	9406	4.91	ug/L	95
116) 1,2,4-trimethylbenzene	17.09	105	43765	4.98	ug/L	99
117) sec-butylbenzene	17.27	105	57649	4.91	ug/L	99
118) 1,3-dichlorobenzene	17.51	146	29278	5.06	ug/L	97
119) p-isopropyltoluene	17.39	119	49692	4.96	ug/L	99
120) 1,4-dichlorobenzene	17.60	146	29949	5.02	ug/L	99
121) 1,2-dichlorobenzene	18.04	146	28948	5.03	ug/L	97
122) benzyl chloride	17.74	91	31312	4.90	ug/L	99
123) n-butylbenzene	17.84	92	24889	4.93	ug/L	96
124) 1,2-dibromo-3-chloropropan	18.91	75	2926	4.86	ug/L	92
125) 1,3,5-TRICHLOROBENZENE	19.06	180	27151	5.07	ug/L	100
126) 1,2,4-trichlorobenzene	19.77	180	24815	4.99	ug/L	99
127) hexachlorobutadiene	19.86	225	13553	5.13	ug/L	97
128) naphthalene	20.10	128	52053	4.81	ug/L	99
129) 1,2,3-trichlorobenzene	20.37	180	23024	5.02	ug/L	97
130) hexachloroethane	18.30	201	9880	5.00	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131749.D
Acq On : 12 Jun 2014 7:49 pm
Operator : HeeEunA
Sample : ic5699-5
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 13 08:37:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 07:48:36 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
06/16/14 09:30

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131750.D
Acq On : 12 Jun 2014 8:20 pm
Operator : HeeEunA
Sample : ic5699-0.2
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 13 08:38:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 07:50:23 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.40	65	127945	500.00	ug/L	0.00
5) pentafluorobenzene	10.79	168	331075	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	383029	50.00	ug/L	0.00
87) chlorobenzene-d5	15.09	117	337464	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	201547	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.88	113	492	0.22	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 0.44%#			
50) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery = 0.00%#			
79) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 119		Recovery = 0.00%#			
104) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery = 0.00%#			

Target Compounds						Qvalue
42) cis-1,2-dichloroethene	10.27	96	391	0.16	ug/L #	44
63) benzene	11.37	78	1356	0.16	ug/L	52
81) toluene	13.55	92	746	0.14	ug/L #	54
83) trans-1,3-dichloropropene	13.79	75	488	0.14	ug/L #	37
90) 1,3-dichloropropane	14.21	76	512	0.15	ug/L #	76
95) chlorobenzene	15.12	112	1087	0.18	ug/L	89
97) ethylbenzene	15.17	91	1660	0.17	ug/L	87
98) m,p-xylene	15.27	106	1081m	0.28	ug/L	
103) isopropylbenzene	16.08	105	1522	0.15	ug/L	81
107) 1,1,2,2-tetrachloroethane	16.46	83	450	0.15	ug/L	93
114) tert-butylbenzene	17.05	119	1242	0.16	ug/L	86
116) 1,2,4-trimethylbenzene	17.10	105	1415	0.16	ug/L	79
117) sec-butylbenzene	17.27	105	1865	0.16	ug/L	81
118) 1,3-dichlorobenzene	17.51	146	1026	0.18	ug/L	92
120) 1,4-dichlorobenzene	17.60	146	1116	0.19	ug/L	78
121) 1,2-dichlorobenzene	18.04	146	975	0.17	ug/L	94
123) n-butylbenzene	17.85	92	775	0.15	ug/L #	67
125) 1,3,5-TRICHLOROBENZENE	19.07	180	1093	0.20	ug/L	93
126) 1,2,4-trichlorobenzene	19.77	180	1174	0.24	ug/L	79

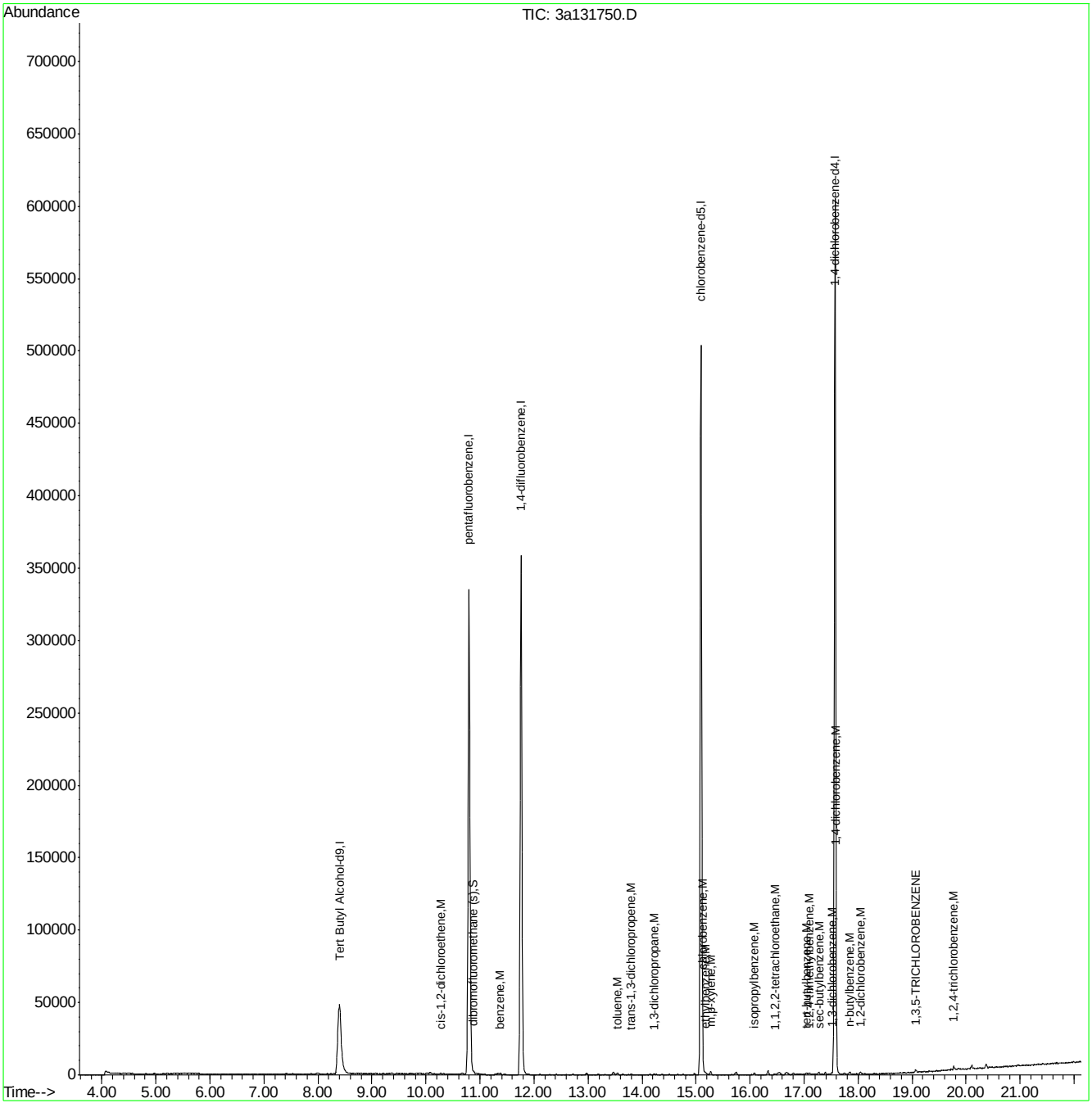
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.10
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131750.D
Acq On : 12 Jun 2014 8:20 pm
Operator : HeeEunA
Sample : ic5699-0.2
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 13 08:38:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 07:50:23 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Manual Integration Approval Summary

Sample Number:	V3A5699-IC5699	**Method:**	SW846 8260B
Lab FileID:	3A131750.D	**Analyst approved:**	06/13/14 08:46 Ying Li
Injection Time:	06/12/14 20:20	**Supervisor approved:**	06/16/14 09:30 Jessica Reitan-Chu

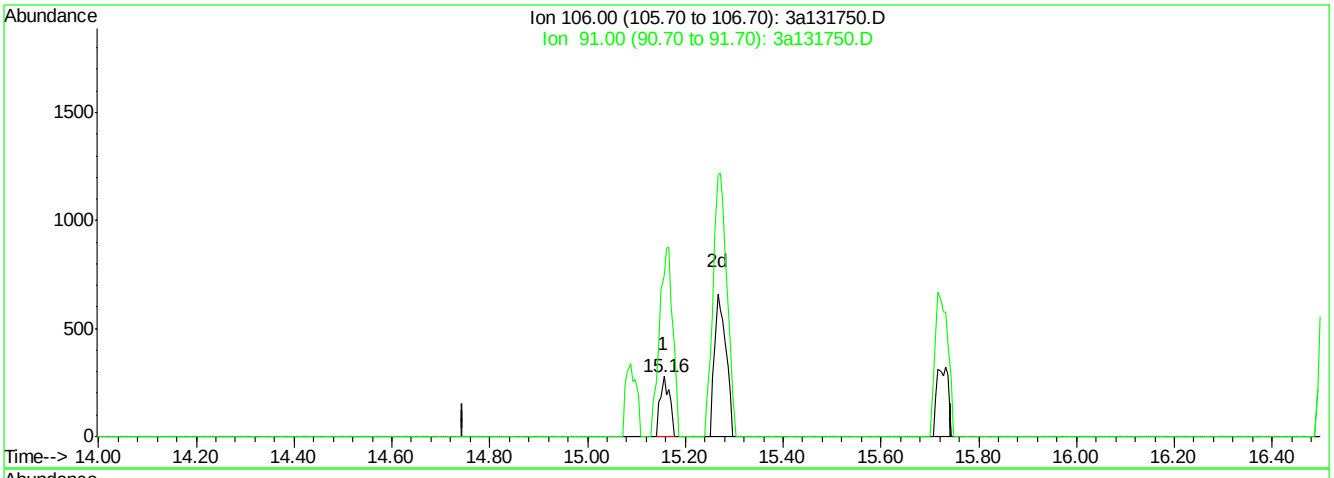
Parameter	CAS	Sig#	R.T. (min.)	Reason
m,p-Xylene			15.27	Split peak

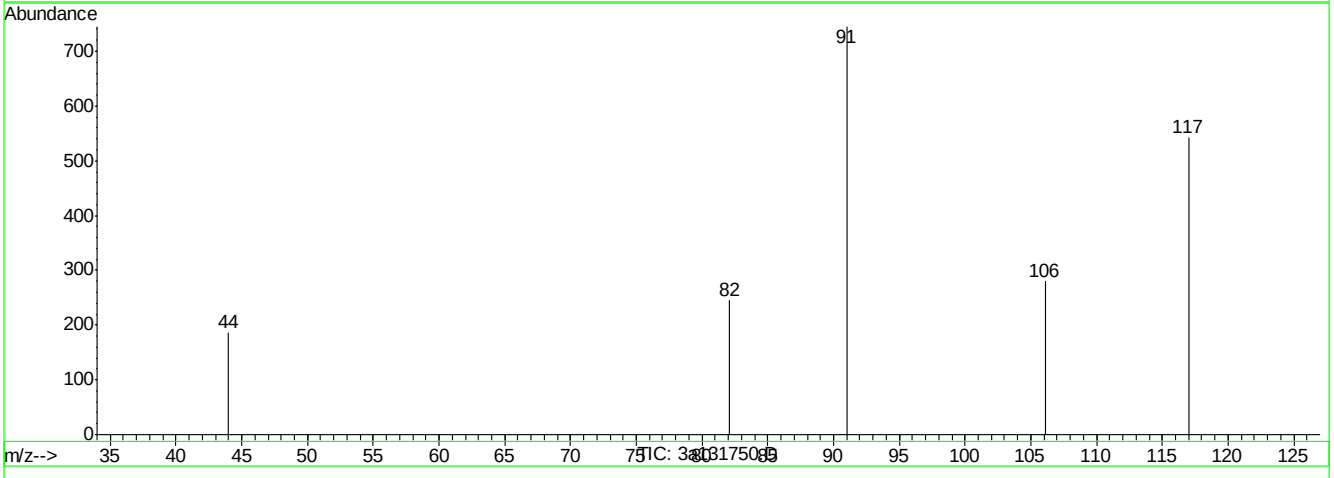
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131750.D Vial: 16
Acq On : 12 Jun 2014 8:20 pm Operator: HeeEunA
Sample : ic5699-0.2 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Jun 13 07:51:57 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Fri Jun 13 07:50:23 2014
Response via : Multiple Level Calibration





(98) m,p-xylene (M)

15.16min 0.10ug/L

response 376

Ion	Exp%	Act%
106.00	100	100
91.00	200.70	176.07
0.00	0.00	0.00
0.00	0.00	0.00

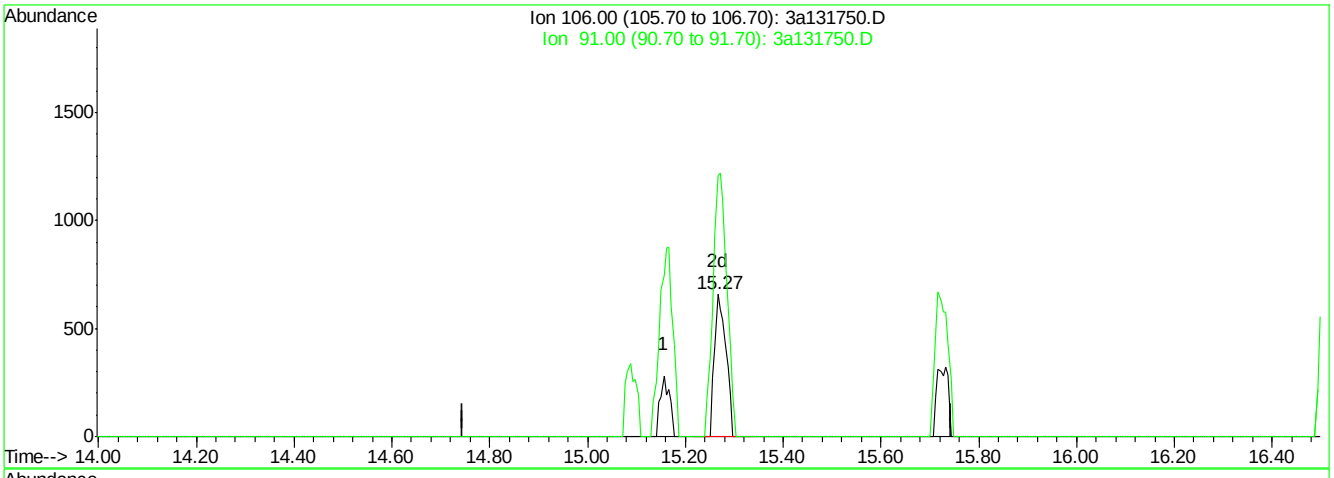
3a131750.D M3A5699.M Fri Jun 13 07:54:04 2014 ACCUNJ

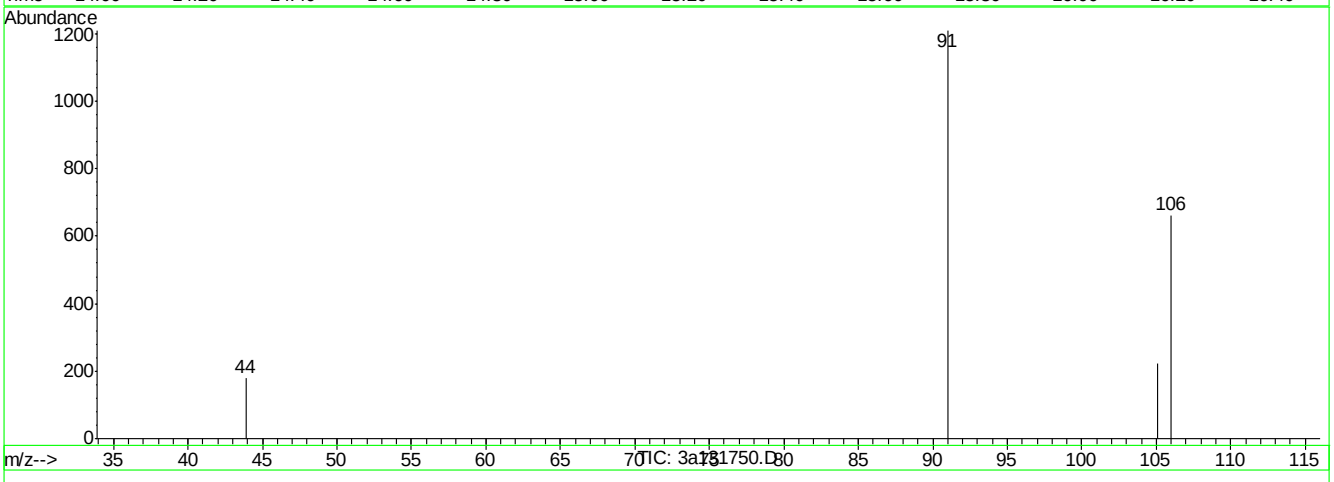
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a131750.D Vial: 16
Acq On : 12 Jun 2014 8:20 pm Operator: HeeEunA
Sample : ic5699-0.2 Inst : MS3A
Misc : MS68683,V3A5699,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Jun 13 07:51:57 2014 Results File: M3A5699.RES

Method : C:\MSDCHEM\1\METHODS\M3A5699.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Fri Jun 13 07:50:23 2014
Response via : Multiple Level Calibration





(98) m,p-xylene (M)

15.27min 0.28ug/L m

response 1081

Ion	Exp%	Act%
106.00	100	100
91.00	200.70	182.90
0.00	0.00	0.00
0.00	0.00	0.00

3a131750.D M3A5699.M Fri Jun 13 07:54:10 2014 ACCUNJ

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131751.D
Acq On : 12 Jun 2014 8:50 pm
Operator : HeeEunA
Sample : icv5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 13 08:39:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 08:36:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.40	65	120828	500.00	ug/L	0.00
5) pentafluorobenzene	10.80	168	331202	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	384316	50.00	ug/L	0.00
87) chlorobenzene-d5	15.09	117	351245	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	207367	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.89	113	112295	50.30	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 100.60%			
50) 1,2-dichloroethane-d4 (s)	11.33	65	124774	49.52	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 99.04%			
79) toluene-d8 (s)	13.46	98	401633	51.09	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 102.18%			
104) 4-bromofluorobenzene (s)	16.33	95	154707	49.91	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 99.82%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.53	59	61147	280.76	ug/L	100
4) 1,4-dioxane	12.53	88	31591	1379.31	ug/L	98
8) chlorodifluoromethane	4.30	51	71737	35.96	ug/L	99
9) dichlorodifluoromethane	4.26	85	88883	34.40	ug/L	99
10) chloromethane	4.70	50	124523	40.19	ug/L	99
11) vinyl chloride	4.99	62	124514	43.00	ug/L	99
12) bromomethane	5.79	94	81506	40.71	ug/L	97
15) 2-CHLOROPROPANE	7.28	43	181454	51.55	ug/L	100
16) chloroethane	6.00	64	71450	55.23	ug/L	98
17) trichlorofluoromethane	6.53	101	148806	46.76	ug/L	98
19) 1-CHLOROPROPANE	8.42	42	183685	43.22	ug/L	99
20) ethyl ether	7.03	74	60954	52.86	ug/L	99
21) acrolein	7.41	56	241002	507.04	ug/L	99
22) 1,1-dichloroethene	7.53	96	98904	50.14	ug/L	94
23) acetone	7.68	43	33541	46.63	ug/L	96
24) allyl chloride	8.17	76	62257	61.15	ug/L	100
25) acetonitrile	8.25	40	57286	510.92	ug/L #	65
26) iodomethane	7.87	142	202064	49.92	ug/L	99
27) iso-butyl alcohol	11.36	74	36075	515.53	ug/L	93
28) carbon disulfide	7.98	76	358940	50.26	ug/L	99
29) methylene chloride	8.41	84	115837	48.02	ug/L	99
30) methyl acetate	8.18	43	81670	45.49	ug/L	100
31) methyl tert butyl ether	8.72	73	643730	98.42	ug/L	100
32) trans-1,2-dichloroethene	8.80	61	153354	49.72	ug/L	99
33) di-isopropyl ether	9.37	45	347755	50.55	ug/L	99
34) 2-butanone	10.26	72	13973	52.20	ug/L #	40
35) 1,1-dichloroethane	9.46	63	202770	51.42	ug/L	99
36) chloroprene	9.55	53	130360	46.71	ug/L	99
37) acrylonitrile	8.84	53	227138	264.93	ug/L	99
38) vinyl acetate	9.44	86	20721	54.68	ug/L	88
39) ethyl tert-butyl ether	9.89	59	336986	49.34	ug/L	99
40) ethyl acetate	10.24	45	15317	50.67	ug/L #	69
41) 2,2-dichloropropane	10.24	77	139920	46.15	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131751.D
Acq On : 12 Jun 2014 8:50 pm
Operator : HeeEunA
Sample : icv5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 13 08:39:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 08:36:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) cis-1,2-dichloroethene	10.27	96	121640	49.67	ug/L	97
43) methylacrylate	10.33	85	17895	47.90	ug/L	99
44) propionitrile	10.42	54	180075	542.50	ug/L	99
45) bromochloromethane	10.61	128	63458	51.90	ug/L	96
46) tetrahydrofuran	10.63	42	43015	49.58	ug/L	98
47) chloroform	10.67	85	126489	49.69	ug/L	99
48) t-butyl formate	10.68	59	102021	52.04	ug/L	99
51) freon 113	7.46	151	76721	50.01	ug/L	100
52) methacrylonitrile	10.58	41	71444	50.13	ug/L	99
53) 1,1,1-trichloroethane	10.89	97	167820	51.66	ug/L	99
54) Cyclohexane	10.93	84	159200	50.11	ug/L	97
56) epichlorohydrin	13.12	57	64872	257.75	ug/L	99
57) n-butyl alcohol	11.93	56	175850	2667.80	ug/L	99
58) carbon tetrachloride	11.09	117	158136	53.71	ug/L	99
59) 1,1-dichloropropene	11.08	75	143980	50.54	ug/L	99
61) hexane	9.07	57	138841	56.02	ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	344355	45.57	ug/L	98
63) benzene	11.37	78	440591	51.78	ug/L	100
64) tert-amyl methyl ether	11.37	87	77884	50.41	ug/L	99
65) heptane	11.48	57	65590	43.67	ug/L	99
66) isopropyl acetate	11.29	43	283178	52.65	ug/L	99
67) 1,2-dichloroethane	11.42	62	146144	51.42	ug/L	99
69) trichloroethene	12.10	95	113452	51.55	ug/L	99
71) methyl methacrylate	12.39	69	79256	52.56	ug/L	99
72) 2-nitropropane	12.98	41	45512	49.60	ug/L	99
73) 2-chloroethyl vinyl ether	12.95	63	402400	268.98	ug/L	99
74) 1,2-dichloropropane	12.41	63	117351	52.13	ug/L	99
75) dibromomethane	12.59	93	76113	51.36	ug/L	95
76) methylcyclohexane	12.28	83	158328	45.42	ug/L	96
77) bromodichloromethane	12.72	83	162678	52.86	ug/L	98
78) cis-1,3-dichloropropene	13.18	75	189697	50.89	ug/L	99
80) 4-methyl-2-pentanone	13.28	58	47535	52.95	ug/L	96
81) toluene	13.54	92	269475	53.60	ug/L	99
82) 3-methyl-1-butanol	13.32	55	105719	1078.68	ug/L	99
83) trans-1,3-dichloropropene	13.79	75	172469	51.57	ug/L	99
84) ethyl methacrylate	13.74	69	148941	51.80	ug/L	98
85) 1,1,2-trichloroethane	14.02	83	90593	52.20	ug/L	100
86) 2-hexanone	14.19	58	46291	50.26	ug/L	92
88) tetrachloroethene	14.15	164	106722	52.48	ug/L	98
90) 1,3-dichloropropane	14.21	76	176710	52.42	ug/L	99
91) butyl acetate	14.23	56	73448	50.70	ug/L	97
92) 3,3-dimethyl-1-butanol	14.37	57	114481	528.38	ug/L	99
93) dibromochloromethane	14.50	129	136511	51.92	ug/L	98
94) 1,2-dibromoethane	14.66	107	115107	51.51	ug/L	99
95) chlorobenzene	15.12	112	319600	51.65	ug/L	100
96) 1,1,1,2-tetrachloroethane	15.19	131	129494	50.91	ug/L	100
97) ethylbenzene	15.16	91	531126	51.96	ug/L	99
98) m,p-xylene	15.27	106	414689	107.63	ug/L	100
99) o-xylene	15.72	106	206367	51.13	ug/L	98
100) styrene	15.74	104	349012	52.97	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131751.D
Acq On : 12 Jun 2014 8:50 pm
Operator : HeeEunA
Sample : icv5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 13 08:39:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 08:36:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	16.07	173	109484	52.99 ug/L	99
103) isopropylbenzene	16.07	105	551661	53.13 ug/L	99
105) cyclohexanone	16.33	98	42271	342.79 ug/L	99
106) bromobenzene	16.54	156	159144	52.39 ug/L	98
107) 1,1,2,2-tetrachloroethane	16.46	83	155418	50.08 ug/L	99
108) trans-1,4-dichloro-2-buten	16.50	53	41841	50.11 ug/L	99
109) 1,2,3-trichloropropane	16.54	110	41700	50.33 ug/L	100
110) n-propylbenzene	16.51	120	150894	56.43 ug/L	96
111) 2-chlorotoluene	16.69	126	138851	51.78 ug/L	98
112) 4-chlorotoluene	16.80	126	140716	51.90 ug/L	98
113) 1,3,5-trimethylbenzene	16.66	105	475220	52.12 ug/L	99
114) tert-butylbenzene	17.04	119	420983	54.03 ug/L	98
115) pentachloroethane	17.17	167	103679	52.90 ug/L	99
116) 1,2,4-trimethylbenzene	17.09	105	487462	55.28 ug/L	100
117) sec-butylbenzene	17.27	105	631570	53.49 ug/L	100
118) 1,3-dichlorobenzene	17.51	146	297464	50.73 ug/L	100
119) p-isopropyltoluene	17.39	119	543042	52.80 ug/L	99
120) 1,4-dichlorobenzene	17.60	146	304018	50.14 ug/L	100
121) 1,2-dichlorobenzene	18.04	146	297118	51.14 ug/L	99
122) benzyl chloride	17.74	91	324299	49.75 ug/L	100
123) n-butylbenzene	17.84	92	276156	54.63 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.91	75	31111	50.90 ug/L	99
125) 1,3,5-TRICHLOROBENZENE	19.06	180	287890	52.21 ug/L	99
126) 1,2,4-trichlorobenzene	19.77	180	261057	50.32 ug/L	99
127) hexachlorobutadiene	19.85	225	140640	51.64 ug/L	99
128) naphthalene	20.10	128	561566	50.99 ug/L	100
129) 1,2,3-trichlorobenzene	20.37	180	243248	51.74 ug/L	99
130) hexachloroethane	18.30	201	111436	55.14 ug/L	100

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

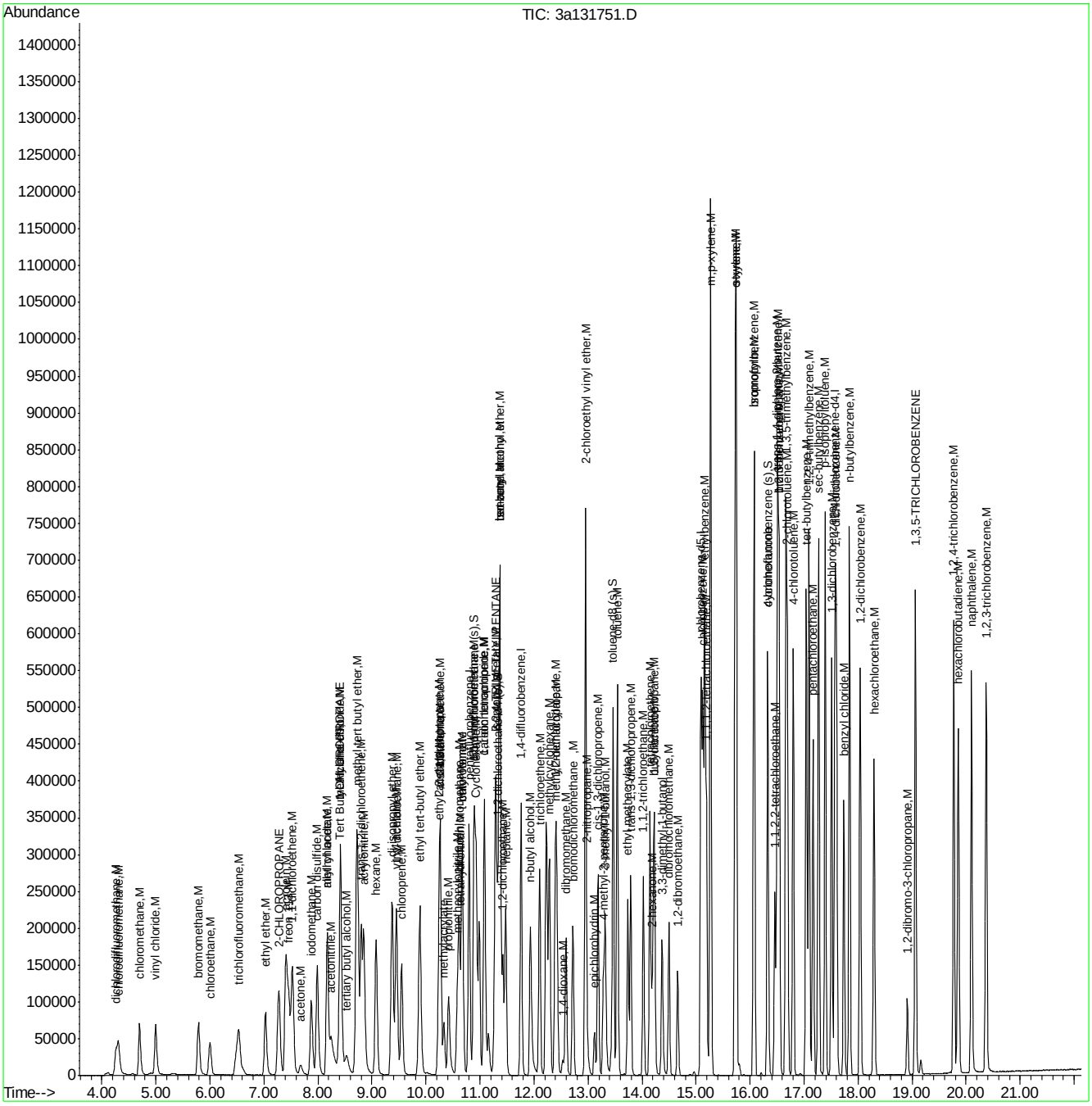
7.7.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131751.D
Acq On : 12 Jun 2014 8:50 pm
Operator : HeeEunA
Sample : icv5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 13 08:39:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 08:36:27 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131753.D
Acq On : 13 Jun 2014 9:13 am
Operator : HeeEunA
Sample : icv5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 13 10:09:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 08:36:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.40	65	125092	500.00	ug/L	0.00
5) pentafluorobenzene	10.80	168	335770	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.76	114	389652	50.00	ug/L	0.00
87) chlorobenzene-d5	15.09	117	345257	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.57	152	200815	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.89	113	118690	52.44	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 104.88%			
50) 1,2-dichloroethane-d4 (s)	11.33	65	131667	51.55	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 103.10%			
79) toluene-d8 (s)	13.47	98	415310	52.11	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 104.22%			
104) 4-bromofluorobenzene (s)	16.33	95	161973	53.96	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 107.92%			

Target Compounds						Qvalue
9) dichlorodifluoromethane	4.27	85	111928	42.72	ug/L	100
10) chloromethane	4.70	50	144863	46.12	ug/L	99
11) vinyl chloride	4.99	62	141565	48.23	ug/L	99
12) bromomethane	5.80	94	94830	46.72	ug/L	100
16) chloroethane	6.00	64	81292	61.98	ug/L	98
17) trichlorofluoromethane	6.54	101	170888	52.97	ug/L	100

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

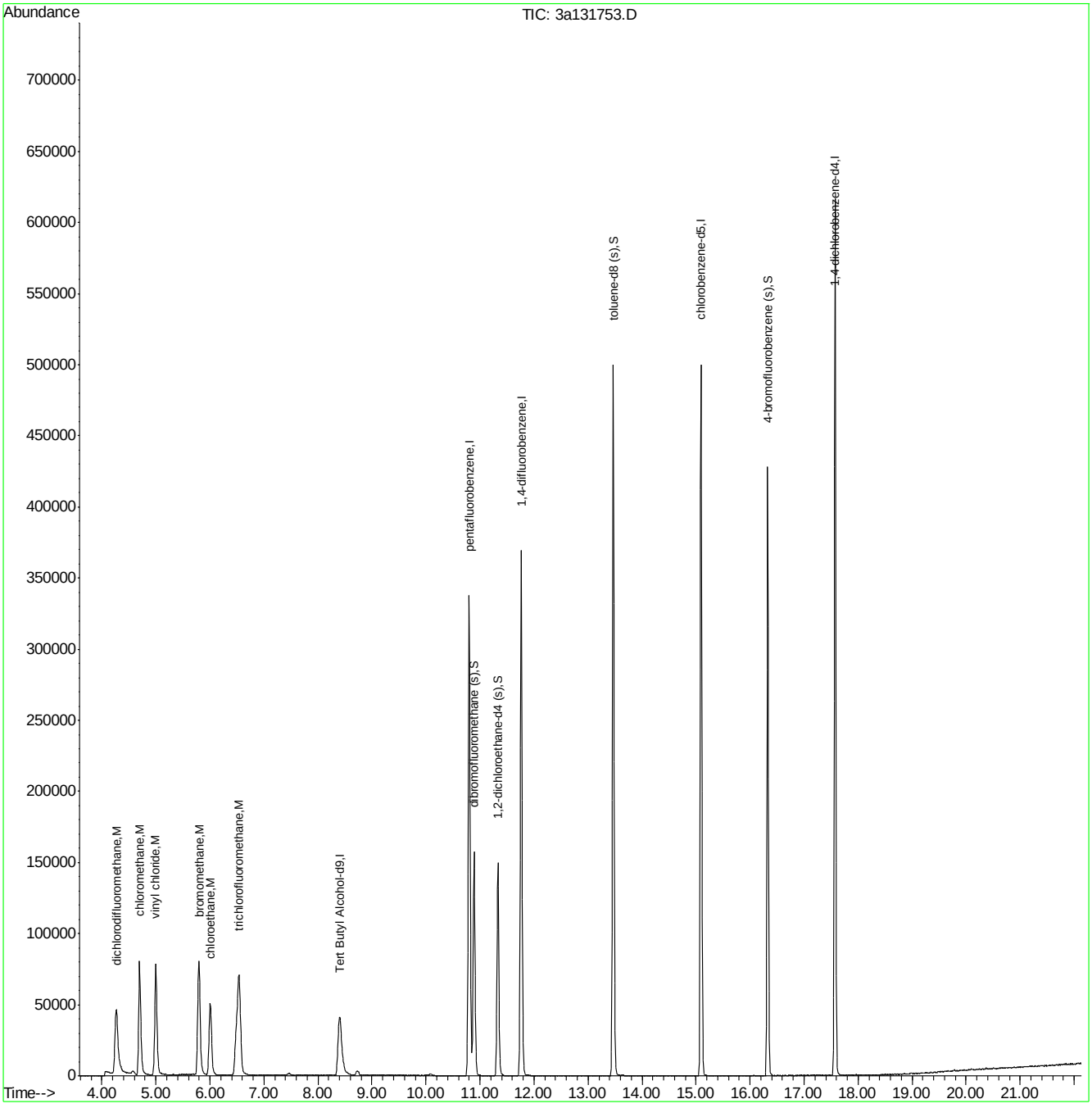
7.7.12

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a131753.D
Acq On : 13 Jun 2014 9:13 am
Operator : HeeEunA
Sample : icv5699-50
Misc : MS68683,V3A5699,5.0,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 13 10:09:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Jun 13 08:36:27 2014
Response via : Initial Calibration



M3A5699.M Fri Jun 13 10:09:33 2014 ACCUNJ

Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A132082.D
Acq On : 21 Jun 2014 10:49 pm
Operator : HeeEunA
Sample : cc5699-50
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 23 11:39:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.38	65	104682	500.00	ug/L	-0.01
5) pentafluorobenzene	10.79	168	251005	50.00	ug/L	-0.01
55) 1,4-difluorobenzene	11.75	114	284398	50.00	ug/L	-0.01
87) chlorobenzene-d5	15.09	117	255909	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.58	152	150047	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.87	113	80388	47.51	ug/L	-0.01
Spiked Amount 50.000	Range 79 - 120		Recovery = 95.02%			
50) 1,2-dichloroethane-d4 (s)	11.32	65	84958	44.49	ug/L	-0.01
Spiked Amount 50.000	Range 72 - 123		Recovery = 88.98%			
79) toluene-d8 (s)	13.46	98	288227	49.55	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 99.10%			
104) 4-bromofluorobenzene (s)	16.33	95	107805	48.07	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 96.14%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.51	59	49679	263.29	ug/L	100
4) 1,4-dioxane	12.52	88	21943	1105.84	ug/L	99
8) chlorodifluoromethane	4.28	51	68721	45.46	ug/L	99
9) dichlorodifluoromethane	4.24	85	97632	49.85	ug/L	98
10) chloromethane	4.67	50	105083	44.76	ug/L	99
11) vinyl chloride	4.97	62	107773	49.11	ug/L	100
12) bromomethane	5.77	94	72061	47.49	ug/L	97
15) 2-CHLOROPROPANE	7.25	43	125230	46.94	ug/L	99
16) chloroethane	5.98	64	47316	48.26	ug/L	97
17) trichlorofluoromethane	6.51	101	123278	51.12	ug/L	97
19) 1-CHLOROPROPANE	8.40	42	134473	41.75	ug/L	95
20) ethyl ether	7.00	74	44956	51.44	ug/L	97
21) acrolein	7.38	56	161622	448.68	ug/L	99
22) 1,1-dichloroethene	7.51	96	75224	50.32	ug/L	98
23) acetone	7.65	43	27715	50.84	ug/L	97
24) allyl chloride	8.16	76	37474	48.57	ug/L #	86
25) acetonitrile	8.22	40	51838	610.05	ug/L	93
26) iodomethane	7.86	142	158160	51.55	ug/L	99
27) iso-butyl alcohol	11.35	74	26878	506.82	ug/L	94
28) carbon disulfide	7.97	76	265356	49.03	ug/L	98
29) methylene chloride	8.40	84	85568	46.80	ug/L	96
30) methyl acetate	8.16	43	68548	50.38	ug/L	97
31) methyl tert butyl ether	8.70	73	250272	50.49	ug/L	99
32) trans-1,2-dichloroethene	8.78	61	113410	48.52	ug/L	97
33) di-isopropyl ether	9.36	45	248931	47.75	ug/L	99
34) 2-butanone	10.25	72	10628	52.39	ug/L #	33
35) 1,1-dichloroethane	9.44	63	146757	49.10	ug/L	98
36) chloroprene	9.54	53	105222	49.75	ug/L	96
37) acrylonitrile	8.83	53	174911	269.20	ug/L	98
38) vinyl acetate	9.43	86	14072	49.00	ug/L	59
39) ethyl tert-butyl ether	9.87	59	254862	49.23	ug/L	99
40) ethyl acetate	10.23	45	11871	51.82	ug/L	98
41) 2,2-dichloropropane	10.23	77	81140	35.31	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A132082.D
Acq On : 21 Jun 2014 10:49 pm
Operator : HeeEunA
Sample : cc5699-50
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 23 11:39:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.25	96	91931	49.53 ug/L	93
43) methylacrylate	10.32	85	14336	50.50 ug/L	90
44) propionitrile	10.41	54	132665	527.36 ug/L	98
45) bromochloromethane	10.60	128	50089	54.05 ug/L	92
46) tetrahydrofuran	10.63	42	32439	49.33 ug/L	98
47) chloroform	10.66	85	95148	49.32 ug/L	98
48) t-butyl formate	10.66	59	75529	50.84 ug/L	98
51) freon 113	7.44	151	62804	54.02 ug/L	98
52) methacrylonitrile	10.56	41	54067	50.05 ug/L	97
53) 1,1,1-trichloroethane	10.88	97	127808	51.92 ug/L	97
54) Cyclohexane	10.91	84	120828	50.19 ug/L	97
56) epichlorohydrin	13.12	57	44630	239.63 ug/L	98
57) n-butyl alcohol	11.93	56	138761	2844.73 ug/L	96
58) carbon tetrachloride	11.08	117	119786	54.98 ug/L	99
59) 1,1-dichloropropene	11.07	75	109246	51.82 ug/L	99
61) hexane	9.06	57	78455	42.78 ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.29	57	267362	47.81 ug/L	100
63) benzene	11.35	78	325530	51.70 ug/L	100
64) tert-amyl methyl ether	11.35	87	60673	53.07 ug/L	97
65) heptane	11.46	57	43637	39.26 ug/L	98
66) isopropyl acetate	11.28	43	201258	50.57 ug/L	97
67) 1,2-dichloroethane	11.41	62	107323	51.02 ug/L	99
69) trichloroethene	12.09	95	84379	51.80 ug/L	97
71) methyl methacrylate	12.38	69	60053	53.81 ug/L	92
72) 2-nitropropane	12.97	41	32930	48.49 ug/L	100
73) 2-chloroethyl vinyl ether	12.95	63	294661	266.16 ug/L	99
74) 1,2-dichloropropane	12.40	63	83228	49.96 ug/L	99
75) dibromomethane	12.58	93	58146	53.02 ug/L	93
76) methylcyclohexane	12.28	83	129687	50.28 ug/L	97
77) bromodichloromethane	12.71	83	118213	51.91 ug/L	99
78) cis-1,3-dichloropropene	13.18	75	133392	48.35 ug/L	97
80) 4-methyl-2-pentanone	13.28	58	36878	55.52 ug/L	96
81) toluene	13.54	92	200671	53.94 ug/L	99
82) 3-methyl-1-butanol	13.32	55	84865	1170.12 ug/L	95
83) trans-1,3-dichloropropene	13.79	75	124019	50.11 ug/L	96
84) ethyl methacrylate	13.73	69	114581	53.85 ug/L	95
85) 1,1,2-trichloroethane	14.02	83	67383	52.47 ug/L	99
86) 2-hexanone	14.19	58	36379	53.37 ug/L	92
88) tetrachloroethene	14.14	164	83189	56.15 ug/L	95
90) 1,3-dichloropropane	14.21	76	129941	52.90 ug/L	97
91) butyl acetate	14.23	56	56214	53.26 ug/L	96
92) 3,3-dimethyl-1-butanol	14.37	57	99254	628.76 ug/L	98
93) dibromochloromethane	14.50	129	104838	54.73 ug/L	98
94) 1,2-dibromoethane	14.66	107	88223	54.19 ug/L	100
95) chlorobenzene	15.12	112	236326	52.42 ug/L	99
96) 1,1,1,2-tetrachloroethane	15.19	131	99661	53.78 ug/L	98
97) ethylbenzene	15.16	91	390492	52.43 ug/L	99
98) m,p-xylene	15.27	106	304709	108.54 ug/L	98
99) o-xylene	15.73	106	154943	52.69 ug/L	100
100) styrene	15.74	104	258747	53.90 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A132082.D
Acq On : 21 Jun 2014 10:49 pm
Operator : HeeEunA
Sample : cc5699-50
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 23 11:39:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	16.07	173	85355	56.70 ug/L	100
103) isopropylbenzene	16.08	105	411055	54.71 ug/L	99
105) cyclohexanone	16.34	98	17658	183.11 ug/L	91
106) bromobenzene	16.55	156	119457	54.35 ug/L	96
107) 1,1,2,2-tetrachloroethane	16.46	83	123858	55.16 ug/L	98
108) trans-1,4-dichloro-2-buten	16.50	53	21907	36.26 ug/L	98
109) 1,2,3-trichloropropane	16.55	110	33273	55.50 ug/L	98
110) n-propylbenzene	16.51	120	104913	54.22 ug/L	95
111) 2-chlorotoluene	16.70	126	103648	53.41 ug/L	94
112) 4-chlorotoluene	16.80	126	103860	52.94 ug/L	99
113) 1,3,5-trimethylbenzene	16.67	105	348648	52.85 ug/L	98
114) tert-butylbenzene	17.04	119	316350	56.11 ug/L	98
115) pentachloroethane	17.17	167	75020	52.90 ug/L	97
116) 1,2,4-trimethylbenzene	17.10	105	345194	54.10 ug/L	99
117) sec-butylbenzene	17.27	105	469240	54.92 ug/L	99
118) 1,3-dichlorobenzene	17.52	146	221159	52.13 ug/L	99
119) p-isopropyltoluene	17.40	119	398161	53.50 ug/L	98
120) 1,4-dichlorobenzene	17.60	146	226421	51.61 ug/L	99
121) 1,2-dichlorobenzene	18.04	146	225484	53.64 ug/L	98
122) benzyl chloride	17.75	91	136475	28.93 ug/L	99
123) n-butylbenzene	17.85	92	192461	52.62 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.92	75	24399	55.17 ug/L	91
125) 1,3,5-TRICHLOROBENZENE	19.07	180	211730	53.07 ug/L	100
126) 1,2,4-trichlorobenzene	19.78	180	205300	54.69 ug/L	99
127) hexachlorobutadiene	19.86	225	109637	55.64 ug/L	99
128) naphthalene	20.11	128	467799	58.70 ug/L	100
129) 1,2,3-trichlorobenzene	20.38	180	194592	57.21 ug/L	99
130) hexachloroethane	18.30	201	84820	58.00 ug/L	98

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

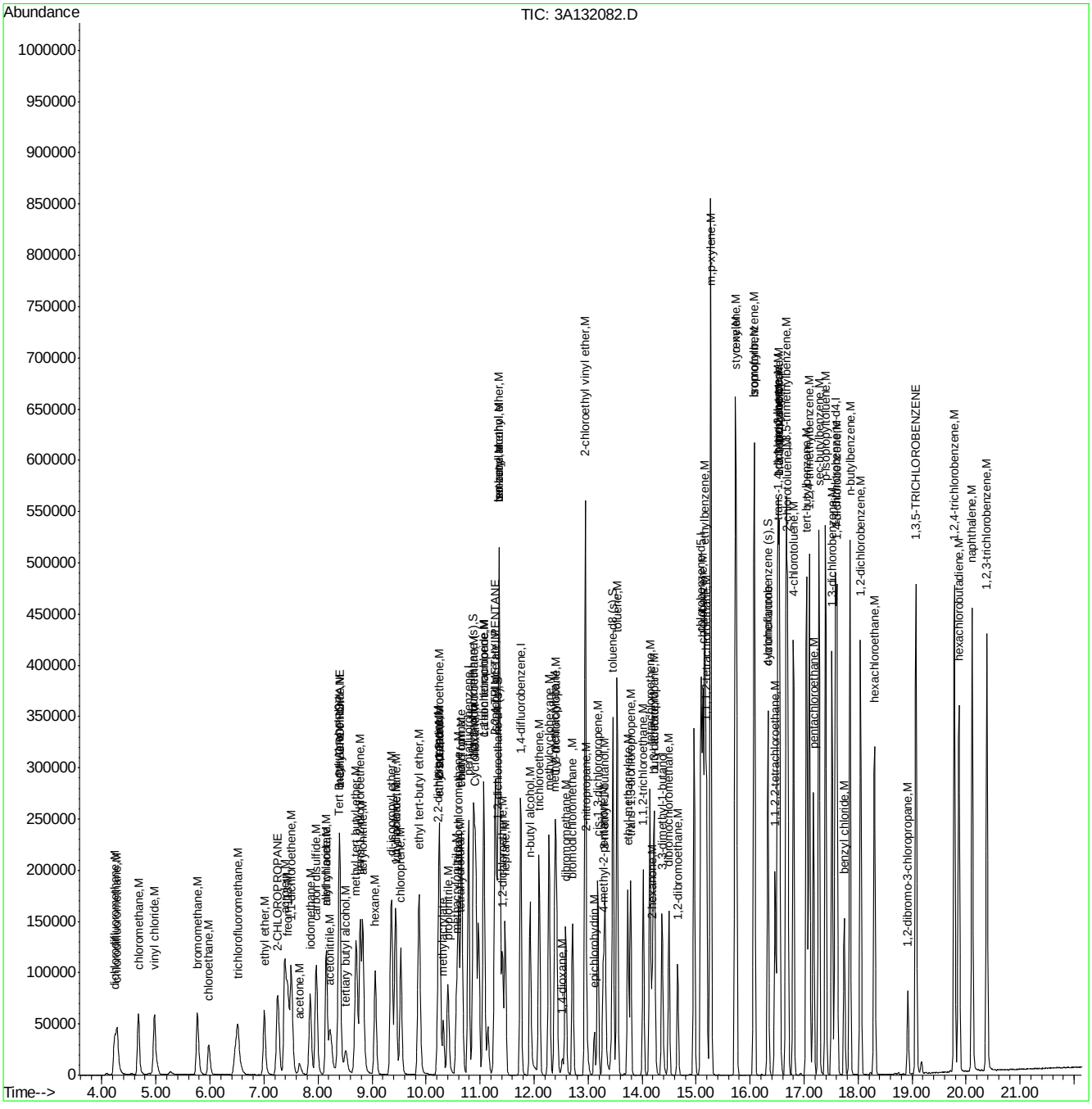
7.7.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A132082.D
Acq On : 21 Jun 2014 10:49 pm
Operator : HeeEunA
Sample : cc5699-50
Misc : MS69352,V3A5714,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 23 11:39:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M3A5699.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jun 18 09:52:58 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205523.D
Acq On : 13 May 2014 9:57 am
Operator : OksanaT
Sample : ic7751-0.2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 14 10:23:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.475	65	75673	500.00	ug/L	-0.05
4) pentafluorobenzene	9.817	168	198113	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.774	114	275683	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.225	117	259463	50.00	ug/L	-0.03
98) 1,4-dichlorobenzene-d4	16.854	152	150673	50.00	ug/L	-0.03

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.875	113	752	0.37	ug/L	-0.05
Spiked Amount 50.000	Range 59 - 130		Recovery = 0.74%#			
47) 1,2-dichloroethane-d4 (s)	10.319	65	964	0.43	ug/L	-0.04
Spiked Amount 50.000	Range 65 - 123		Recovery = 0.86%#			
75) toluene-d8 (s)	12.541	98	2780	0.41	ug/L	-0.03
Spiked Amount 50.000	Range 77 - 125		Recovery = 0.82%#			
101) 4-bromofluorobenzene (s)	15.542	95	1342	0.43	ug/L	-0.03
Spiked Amount 50.000	Range 71 - 132		Recovery = 0.86%#			

Target Compounds						Qvalue
8) chloromethane	4.239	50	504	0.19	ug/L	62
30) di-isopropyl ether	8.479	45	1197	0.19	ug/L	97
32) ethyl tert-butyl ether	8.965	59	972	0.18	ug/L	85
35) chloroprene	8.605	53	369	0.16	ug/L #	35
52) tert-amyl methyl ether	10.413	73	1108	0.21	ug/L #	44
59) benzene	10.387	78	1003	0.16	ug/L	80
60) Iso-octane	10.361	57	1184	0.20	ug/L	94
67) tert-amyl ethyl ether	11.302	59	853	0.19	ug/L #	68
69) 2-chloroethyl vinyl ether	12.003	63	802	0.80	ug/L	79
74) cis-1,3-dichloropropene	12.233	75	416	0.15	ug/L	80
77) toluene	12.614	92	849	0.22	ug/L #	66
78) 3-methyl-1-butanol	12.374	55	432	5.40	ug/L #	46
79) trans-1,3-dichloropropene	12.855	75	346	0.14	ug/L #	45
80) ethyl methacrylate	12.834	69	434	0.22	ug/L	86
85) 1,3-dichloropropane	13.278	76	340	0.15	ug/L #	49
87) 3,3-dimethyl-1-butanol	13.482	57	430	2.43	ug/L #	66
91) chlorobenzene	14.251	112	703	0.15	ug/L #	65
93) ethylbenzene	14.313	91	1279	0.17	ug/L	81
94) m,p-xylene	14.434	106	913	0.32	ug/L	97
95) o-xylene	14.920	106	483	0.16	ug/L #	74
96) styrene	14.925	104	907	0.18	ug/L	93
99) isopropylbenzene	15.296	105	1470	0.18	ug/L	84
103) 1,1,2,2-tetrachloroethane	15.657	83	378	0.18	ug/L	79
108) 4-chlorotoluene	16.044	91	1136	0.18	ug/L	84
111) tert-butylbenzene	16.326	119	1011	0.17	ug/L	90
113) 1,2,4-trimethylbenzene	16.379	105	1336	0.19	ug/L	75
114) sec-butylbenzene	16.562	105	1560	0.17	ug/L	85
115) 1,3-dichlorobenzene	16.797	146	819	0.18	ug/L	88
116) p-isopropyltoluene	16.697	119	1355	0.17	ug/L	92
118) 1,4-dichlorobenzene	16.886	146	922	0.21	ug/L	94
119) p-diethylbenzene	17.137	119	819	0.15	ug/L	95
120) 1,2-dichlorobenzene	17.325	146	846	0.20	ug/L	84
121) n-butylbenzene	17.163	92	743	0.17	ug/L #	44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205523.D
Acq On : 13 May 2014 9:57 am
Operator : OksanaT
Sample : ic7751-0.2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 14 10:23:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
122) 1,2,4,5-tetramethylben...	18.015	119	1469	0.18 ug/L #	95
124) 1,3,5-trichlorobenzene	18.386	180	638	0.17 ug/L	89
125) 1,2,4-trichlorobenzene	19.113	180	595	0.19 ug/L	94
126) hexachlorobutadiene	19.223	225	393	0.20 ug/L #	41
127) naphthalene	19.442	128	1212	0.20 ug/L	72
128) 1,2,3-trichlorobenzene	19.719	180	579	0.21 ug/L	74

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

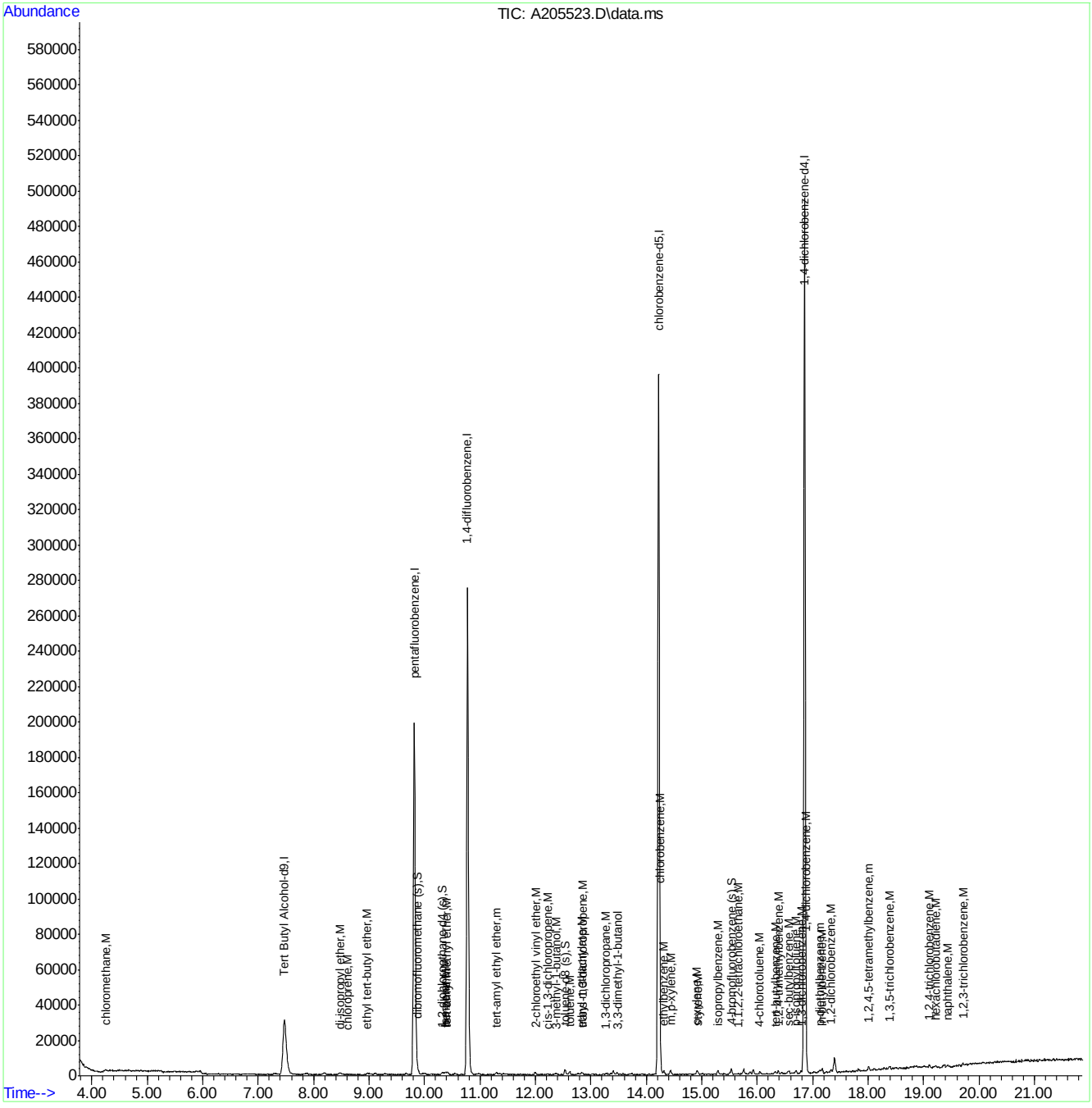
7.7.14

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205523.D
Acq On : 13 May 2014 9:57 am
Operator : OksanaT
Sample : ic7751-0.2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 14 10:23:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
05/14/14 10:58

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205524.D
Acq On : 13 May 2014 10:28 am
Operator : OksanaT
Sample : ic7751-0.5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 14 08:08:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.472	65	73209	500.00	ug/L	-0.05
4) pentafluorobenzene	9.825	168	216192	50.00	ug/L	-0.03
53) 1,4-difluorobenzene	10.782	114	296768	50.00	ug/L	-0.03
83) chlorobenzene-d5	14.227	117	284982	50.00	ug/L	-0.03
98) 1,4-dichlorobenzene-d4	16.857	152	161243	50.00	ug/L	-0.03

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.882	113	1125	0.51	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 1.02%#			
47) 1,2-dichloroethane-d4 (s)	10.332	65	1339	0.55	ug/L	-0.03
Spiked Amount 50.000	Range 65 - 123		Recovery = 1.10%#			
75) toluene-d8 (s)	12.533	98	4471	0.61	ug/L	-0.03
Spiked Amount 50.000	Range 77 - 125		Recovery = 1.22%#			
101) 4-bromofluorobenzene (s)	15.534	95	2047	0.62	ug/L	-0.04
Spiked Amount 50.000	Range 71 - 132		Recovery = 1.24%#			

Target Compounds						Qvalue
6) chlorodifluoromethane	3.949	51	538	0.40	ug/L	64
8) chloromethane	4.247	50	1039	0.36	ug/L	92
9) vinyl chloride	4.508	62	820	0.35	ug/L #	49
27) methyl tert butyl ether	7.838	73	2254m	0.44	ug/L	
28) trans-1,2-dichloroethene	7.896	96	670	0.36	ug/L	72
30) di-isopropyl ether	8.471	45	3071	0.46	ug/L	71
31) t-butyl formate	9.705	59	617	0.40	ug/L #	61
32) ethyl tert-butyl ether	8.957	59	2690	0.44	ug/L	91
35) chloroprene	8.612	53	1000	0.40	ug/L	76
36) acrylonitrile	7.891	53	1051	1.83	ug/L	95
39) ethyl acrylate	11.163	55	955	0.44	ug/L #	67
40) 2,2-dichloropropane	9.281	77	936	0.38	ug/L	79
41) cis-1,2-dichloroethene	9.281	96	680	0.33	ug/L	88
42) propionitrile	9.386	54	896	3.68	ug/L	52
43) bromochloromethane	9.626	128	348	0.34	ug/L #	65
45) chloroform	9.668	83	1404	0.44	ug/L	93
52) tert-amyl methyl ether	10.416	73	2721	0.46	ug/L	86
59) benzene	10.390	78	2676	0.39	ug/L	88
60) Iso-octane	10.374	57	2753	0.44	ug/L	97
61) heptane	10.557	71	540	0.44	ug/L #	76
64) 1,2-dichloroethane	10.416	62	876	0.43	ug/L	87
65) trichloroethene	11.142	95	586	0.37	ug/L	98
67) tert-amyl ethyl ether	11.299	59	1986	0.42	ug/L #	90
68) methylcyclohexane	11.346	83	1014	0.41	ug/L #	72
69) 2-chloroethyl vinyl ether	12.000	63	2194	2.03	ug/L	93
70) methyl methacrylate	11.435	69	472	0.46	ug/L #	52
71) 1,2-dichloropropane	11.419	63	698	0.37	ug/L	93
72) dibromomethane	11.602	93	379	0.36	ug/L #	64
73) bromodichloromethane	11.738	83	922	0.41	ug/L	86
74) cis-1,3-dichloropropene	12.225	75	1263	0.43	ug/L	96
77) toluene	12.617	92	1971	0.47	ug/L	98
78) 3-methyl-1-butanol	12.371	55	922	10.71	ug/L	90
79) trans-1,3-dichloropropene	12.857	75	1266	0.48	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205524.D
Acq On : 13 May 2014 10:28 am
Operator : OksanaT
Sample : ic7751-0.5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 14 08:08:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

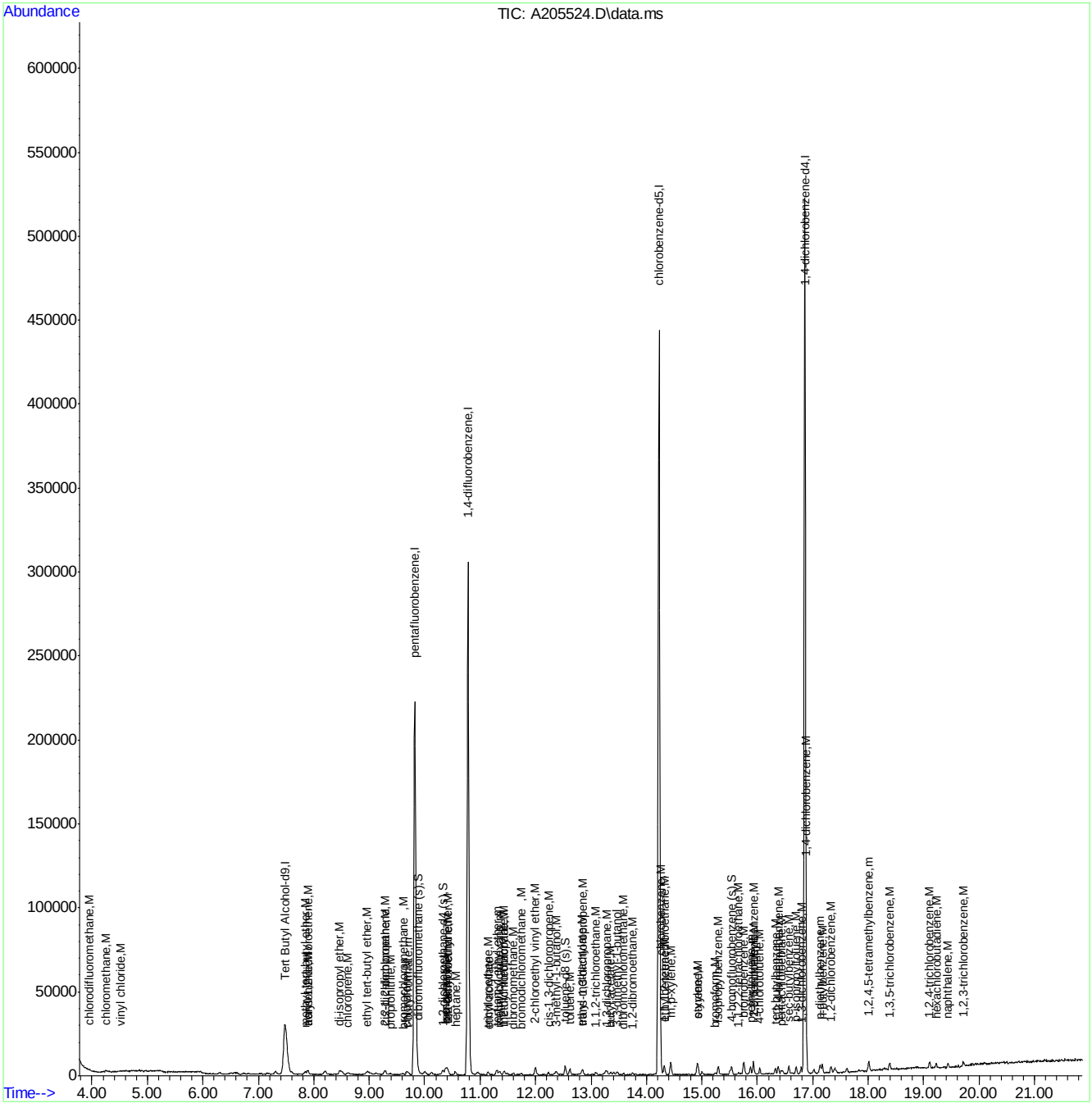
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) ethyl methacrylate	12.836	69	1112	0.51 ug/L	79
81) 1,1,2-trichloroethane	13.082	83	561	0.46 ug/L	91
85) 1,3-dichloropropane	13.286	76	1148	0.45 ug/L	91
86) butyl acetate	13.354	56	551	0.37 ug/L #	57
87) 3,3-dimethyl-1-butanol	13.469	57	970	4.99 ug/L	87
88) dibromochloromethane	13.584	129	835	0.43 ug/L	75
89) 1,2-dibromoethane	13.756	107	795	0.53 ug/L #	67
91) chlorobenzene	14.258	112	1926	0.38 ug/L	87
92) 1,1,1,2-tetrachloroethane	14.332	131	790	0.42 ug/L	83
93) ethylbenzene	14.316	91	3497	0.42 ug/L	94
94) m,p-xylene	14.441	106	2467	0.78 ug/L	98
95) o-xylene	14.917	106	1264	0.38 ug/L #	74
96) styrene	14.922	104	2439	0.43 ug/L	94
97) bromoform	15.241	173	592	0.43 ug/L	76
99) isopropylbenzene	15.288	105	3465	0.40 ug/L	96
102) bromobenzene	15.764	156	987	0.43 ug/L #	67
103) 1,1,2,2-tetrachloroethane	15.665	83	1095	0.47 ug/L	90
107) 2-chlorotoluene	15.931	126	858	0.40 ug/L #	82
108) 4-chlorotoluene	16.046	91	2733	0.41 ug/L	91
109) p-ethyltoluene	15.874	105	3830	0.42 ug/L	99
110) 1,3,5-trimethylbenzene	15.926	105	3034	0.41 ug/L	93
111) tert-butylbenzene	16.323	119	2290	0.35 ug/L	91
112) pentachloroethane	16.428	167	602	0.38 ug/L	94
113) 1,2,4-trimethylbenzene	16.381	105	3101	0.41 ug/L	94
114) sec-butylbenzene	16.569	105	3879	0.40 ug/L	95
115) 1,3-dichlorobenzene	16.794	146	1890	0.40 ug/L	91
116) p-isopropyltoluene	16.700	119	3384	0.40 ug/L	88
118) 1,4-dichlorobenzene	16.883	146	2237	0.47 ug/L	88
119) p-diethylbenzene	17.134	119	2225	0.39 ug/L	96
120) 1,2-dichlorobenzene	17.332	146	2051	0.45 ug/L	95
121) n-butylbenzene	17.170	92	1799	0.39 ug/L #	75
122) 1,2,4,5-tetramethylben...	18.012	119	3695	0.42 ug/L #	95
124) 1,3,5-trichlorobenzene	18.388	180	1719	0.44 ug/L	98
125) 1,2,4-trichlorobenzene	19.105	180	1388	0.41 ug/L	95
126) hexachlorobutadiene	19.230	225	933	0.45 ug/L	93
127) naphthalene	19.434	128	2692	0.41 ug/L	94
128) 1,2,3-trichlorobenzene	19.711	180	1294	0.44 ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205524.D
Acq On : 13 May 2014 10:28 am
Operator : OksanaT
Sample : ic7751-0.5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 14 08:08:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



Manual Integration Approval Summary

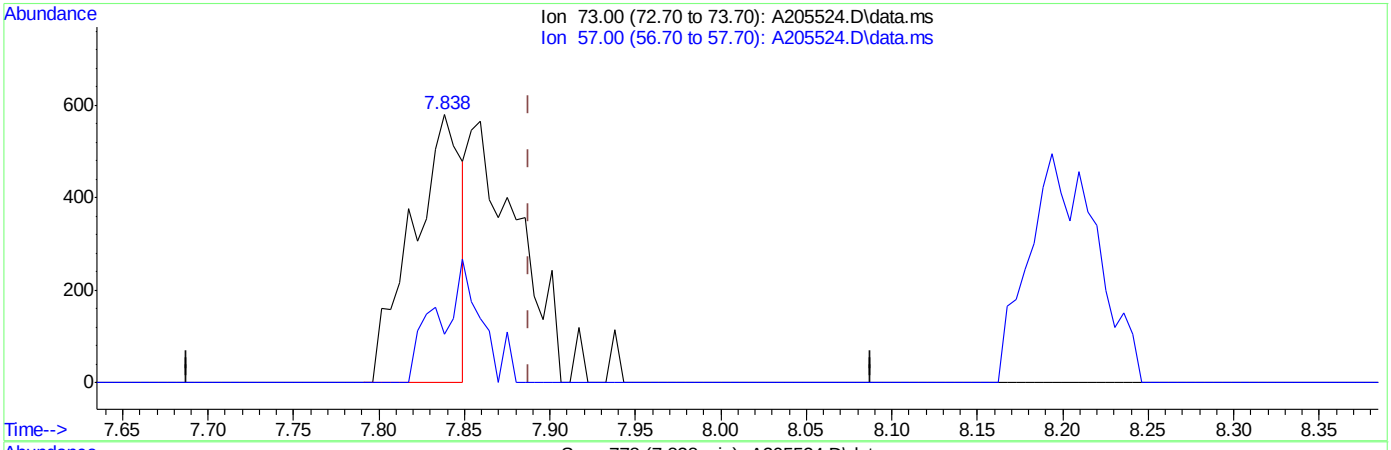
Sample Number:	VA7751-IC7751	**Method:**	SW846 8260B
Lab FileID:	A205524.D	**Analyst approved:**	05/14/14 08:14 Henny Salim
Injection Time:	05/13/14 10:28	**Supervisor approved:**	05/14/14 10:58 Jessica Reitan-Chu

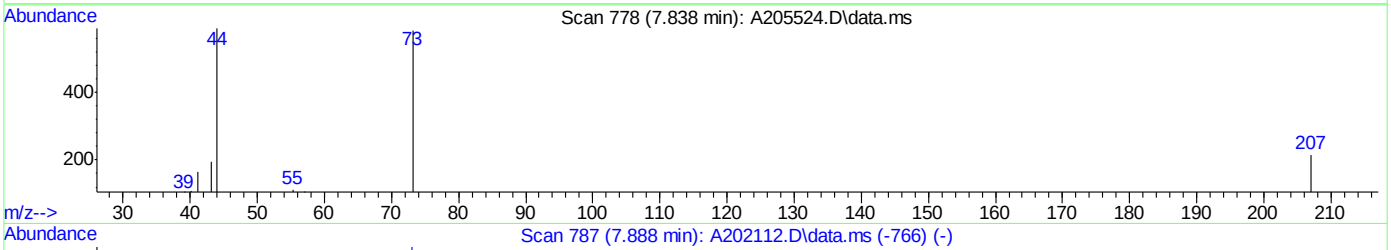
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methyl Tert Butyl Ether	1634-04-4		7.84	Poor instrument integration

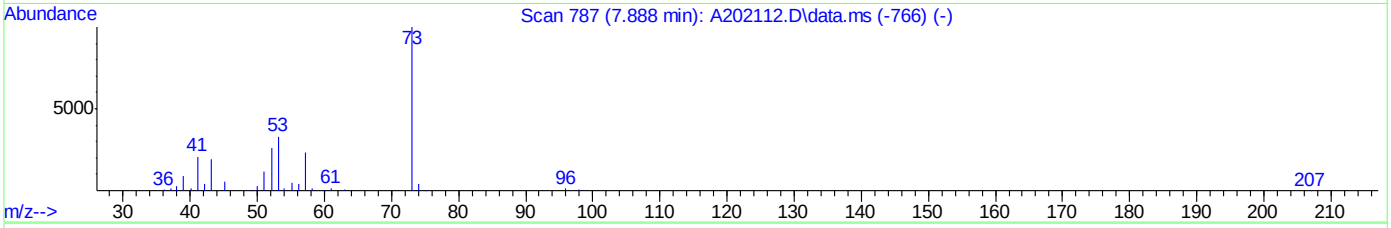
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205524.D
Acq On : 13 May 2014 10:28 am
Operator : OksanaT
Sample : ic7751-0.5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 15:05:14 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205524.D\data.ms

(27) methyl tert butyl ether (M)

7.838min (-0.049) 0.22ug/L

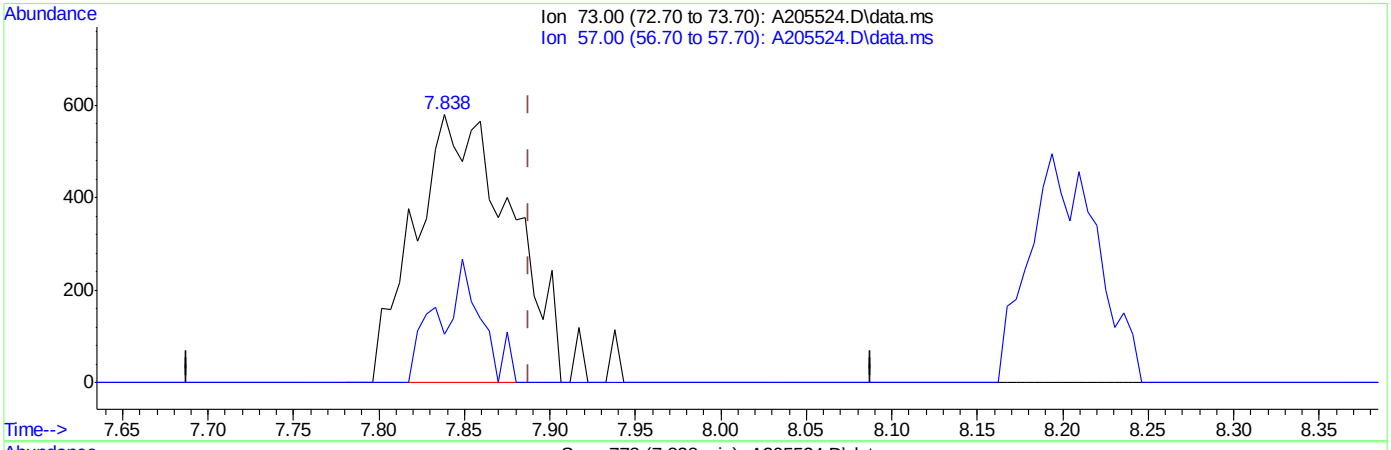
response 1144

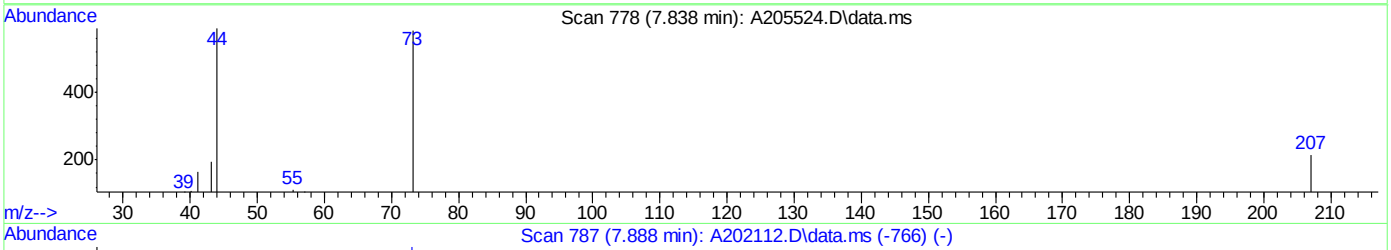
Ion	Exp%	Act%
73.00	100	100
57.00	23.10	14.51
0.00	0.00	0.00
0.00	0.00	0.00

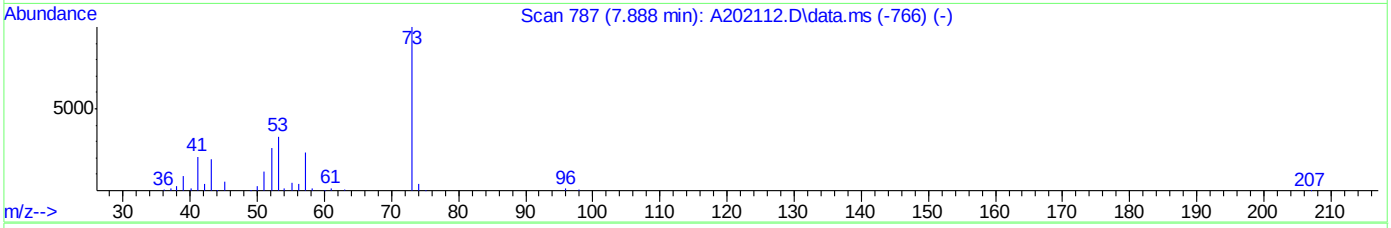
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205524.D
Acq On : 13 May 2014 10:28 am
Operator : OksanaT
Sample : ic7751-0.5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 15:05:14 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205524.D\data.ms

(27) methyl tert butyl ether (M)

7.838min (-0.049) 0.44ug/L m

response 2254

Ion	Exp%	Act%
73.00	100	100
57.00	23.10	7.36
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
05/14/14 10:58

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 14 08:03:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.473	65	77503	500.00	ug/L	-0.05
4) pentafluorobenzene	9.820	168	204976	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.777	114	290565	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.222	117	269862	50.00	ug/L	-0.04
98) 1,4-dichlorobenzene-d4	16.852	152	158225	50.00	ug/L	-0.04

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.883	113	2079	1.00	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 2.00%#			
47) 1,2-dichloroethane-d4 (s)	10.327	65	2355	1.03	ug/L	-0.03
Spiked Amount 50.000	Range 65 - 123		Recovery = 2.06%#			
75) toluene-d8 (s)	12.533	98	7580	1.06	ug/L	-0.03
Spiked Amount 50.000	Range 77 - 125		Recovery = 2.12%#			
101) 4-bromofluorobenzene (s)	15.534	95	3329	1.03	ug/L	-0.04
Spiked Amount 50.000	Range 71 - 132		Recovery = 2.06%#			

Target Compounds						Qvalue
3) tertiary butyl alcohol	7.614	59	1142m	6.24	ug/L	
6) chlorodifluoromethane	3.959	51	1527	1.20	ug/L	64
7) dichlorodifluoromethane	3.954	85	1732m	1.04	ug/L	
8) chloromethane	4.252	50	2505	0.92	ug/L	93
9) vinyl chloride	4.503	62	2017	0.90	ug/L	93
10) bromomethane	5.193	94	1578	1.03	ug/L	95
11) chloroethane	5.392	64	873m	0.80	ug/L	
13) trichlorofluoromethane	5.873	101	1787	0.79	ug/L	83
15) ethyl ether	6.291	74	947	1.02	ug/L #	73
17) acrolein	6.568	56	303640	875.96	ug/L	97
19) 1,1-dichloroethene	6.746	96	1617	1.11	ug/L #	62
21) allyl chloride	7.300	76	747	0.63	ug/L #	61
23) iodomethane	7.023	142	3012	1.08	ug/L	79
24) carbon disulfide	7.159	76	5461	1.04	ug/L	96
27) methyl tert butyl ether	7.859	73	4701m	0.96	ug/L	
28) trans-1,2-dichloroethene	7.891	96	1680	0.96	ug/L	71
30) di-isopropyl ether	8.471	45	7268	1.14	ug/L	82
31) t-butyl formate	9.705	59	1595	1.08	ug/L #	37
32) ethyl tert-butyl ether	8.968	59	6395	1.11	ug/L	89
34) 1,1-dichloroethane	8.497	63	2915	0.94	ug/L	89
35) chloroprene	8.602	53	2600	1.11	ug/L	94
36) acrylonitrile	7.875	53	2353	4.33	ug/L	90
39) ethyl acrylate	11.153	55	2299	1.12	ug/L #	85
40) 2,2-dichloropropane	9.276	77	2692	1.16	ug/L	91
41) cis-1,2-dichloroethene	9.281	96	1774	0.90	ug/L	92
42) propionitrile	9.376	54	1778	7.71	ug/L	100
43) bromochloromethane	9.606	128	853	0.89	ug/L #	68
45) chloroform	9.668	83	3253	1.07	ug/L	96
49) cyclohexane	9.982	84	2353	1.11	ug/L	91
50) 1,1,1-trichloroethane	9.924	97	2390	1.04	ug/L	85
52) tert-amyl methyl ether	10.416	73	6434	1.15	ug/L	91
56) n-butyl alcohol	10.944	56	2789	59.21	ug/L	96
57) carbon tetrachloride	10.139	117	2100	0.97	ug/L	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 14 08:03:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
58) 1,1-dichloropropene	10.118	75	2245	1.02 ug/L	92
59) benzene	10.379	78	6958	1.05 ug/L	90
60) Iso-octane	10.364	57	7048	1.14 ug/L	91
61) heptane	10.547	71	1524	1.27 ug/L	84
62) tert amyl alcohol	10.285	59	994	4.62 ug/L	97
64) 1,2-dichloroethane	10.416	62	2036	1.01 ug/L	88
65) trichloroethene	11.143	95	1791	1.17 ug/L	81
67) tert-amyl ethyl ether	11.299	59	5020	1.08 ug/L #	97
68) methylcyclohexane	11.352	83	3093	1.27 ug/L #	89
69) 2-chloroethyl vinyl ether	11.995	63	5493	5.19 ug/L	94
70) methyl methacrylate	11.435	69	937	0.93 ug/L	76
71) 1,2-dichloropropane	11.425	63	1764	0.94 ug/L	98
72) dibromomethane	11.597	93	934	0.92 ug/L	92
73) bromodichloromethane	11.739	83	2290	1.04 ug/L	78
74) cis-1,3-dichloropropene	12.230	75	2753	0.97 ug/L	98
76) 4-methyl-2-pentanone	12.329	58	495	0.77 ug/L #	84
77) toluene	12.617	92	4753	1.16 ug/L	94
78) 3-methyl-1-butanol	12.366	55	1971	23.39 ug/L	91
79) trans-1,3-dichloropropene	12.847	75	2702	1.05 ug/L	94
80) ethyl methacrylate	12.831	69	2069	0.98 ug/L	86
81) 1,1,2-trichloroethane	13.082	83	1235	1.04 ug/L	97
82) 2-hexanone	13.281	58	566	0.89 ug/L #	66
84) tetrachloroethene	13.260	164	1683	1.19 ug/L	80
85) 1,3-dichloropropane	13.286	76	2420	1.01 ug/L	99
86) butyl acetate	13.354	56	1175	0.83 ug/L	76
87) 3,3-dimethyl-1-butanol	13.464	57	2291	12.45 ug/L	88
88) dibromochloromethane	13.579	129	1854	1.00 ug/L	96
89) 1,2-dibromoethane	13.751	107	1482	1.04 ug/L	82
91) chlorobenzene	14.259	112	5220	1.10 ug/L	89
92) 1,1,1,2-tetrachloroethane	14.326	131	1846	1.03 ug/L	97
93) ethylbenzene	14.316	91	8714	1.10 ug/L	98
94) m,p-xylene	14.436	106	6794	2.25 ug/L	87
95) o-xylene	14.912	106	3426	1.08 ug/L	82
96) styrene	14.922	104	5613	1.04 ug/L	99
97) bromoform	15.241	173	1385	1.06 ug/L	90
99) isopropylbenzene	15.294	105	9081	1.06 ug/L	98
102) bromobenzene	15.754	156	2567	1.14 ug/L	98
103) 1,1,2,2-tetrachloroethane	15.660	83	2097	0.92 ug/L	88
104) trans-1,4-dichloro-2-b...	15.701	53	539	0.85 ug/L	96
105) 1,2,3-trichloropropane	15.733	110	462	0.84 ug/L	95
106) n-propylbenzene	15.754	91	10640	1.08 ug/L	98
107) 2-chlorotoluene	15.926	126	2228	1.07 ug/L	90
108) 4-chlorotoluene	16.046	91	6989	1.08 ug/L	93
109) p-ethyltoluene	15.869	105	9631	1.08 ug/L	98
110) 1,3,5-trimethylbenzene	15.926	105	7809	1.06 ug/L	93
111) tert-butylbenzene	16.318	119	6576	1.03 ug/L	99
112) pentachloroethane	16.433	167	1635	1.06 ug/L	92
113) 1,2,4-trimethylbenzene	16.376	105	7745	1.04 ug/L	90
114) sec-butylbenzene	16.564	105	10823	1.13 ug/L	99
115) 1,3-dichlorobenzene	16.794	146	5071	1.09 ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 14 08:03:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

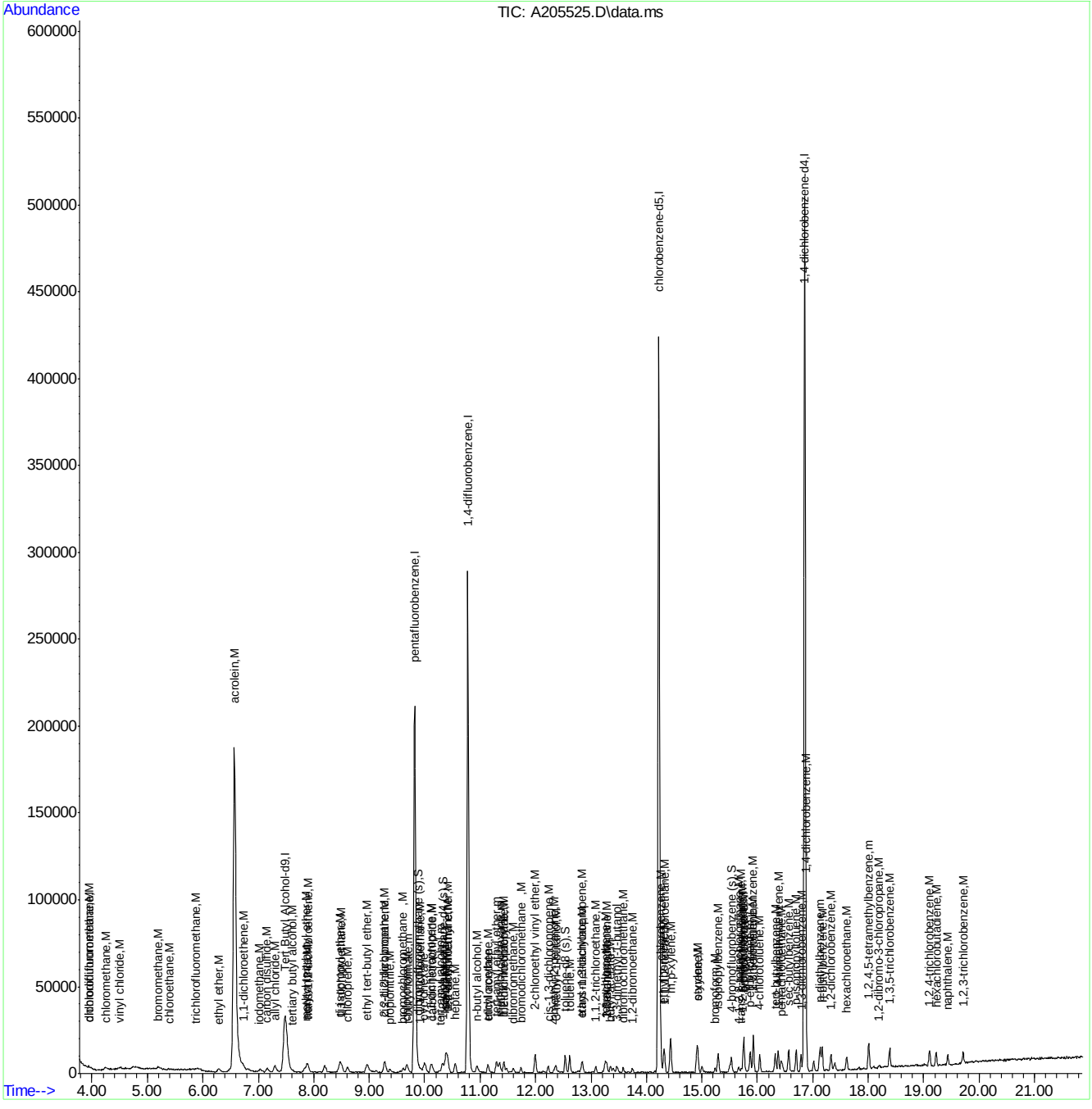
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
116) p-isopropyltoluene	16.700	119	9009	1.09 ug/L	100
118) 1,4-dichlorobenzene	16.883	146	5235	1.11 ug/L	86
119) p-diethylbenzene	17.129	119	6009	1.07 ug/L	96
120) 1,2-dichlorobenzene	17.327	146	4773	1.07 ug/L	94
121) n-butylbenzene	17.170	92	4744	1.04 ug/L	86
122) 1,2,4,5-tetramethylben...	18.007	119	9448	1.09 ug/L #	97
123) 1,2-dibromo-3-chloropr...	18.195	75	483	1.13 ug/L #	63
124) 1,3,5-trichlorobenzene	18.383	180	4587	1.19 ug/L	96
125) 1,2,4-trichlorobenzene	19.110	180	3711	1.13 ug/L	91
126) hexachlorobutadiene	19.225	225	2514	1.23 ug/L #	41
127) naphthalene	19.434	128	6073	0.94 ug/L	96
128) 1,2,3-trichlorobenzene	19.711	180	3264	1.12 ug/L	95
129) hexachloroethane	17.610	201	1792	1.25 ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 14 08:03:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



MA7751.M Wed May 14 10:26:25 2014 RPT1 Page: 4

ACCUTEST LABORATORIES JB69587

Manual Integration Approval Summary

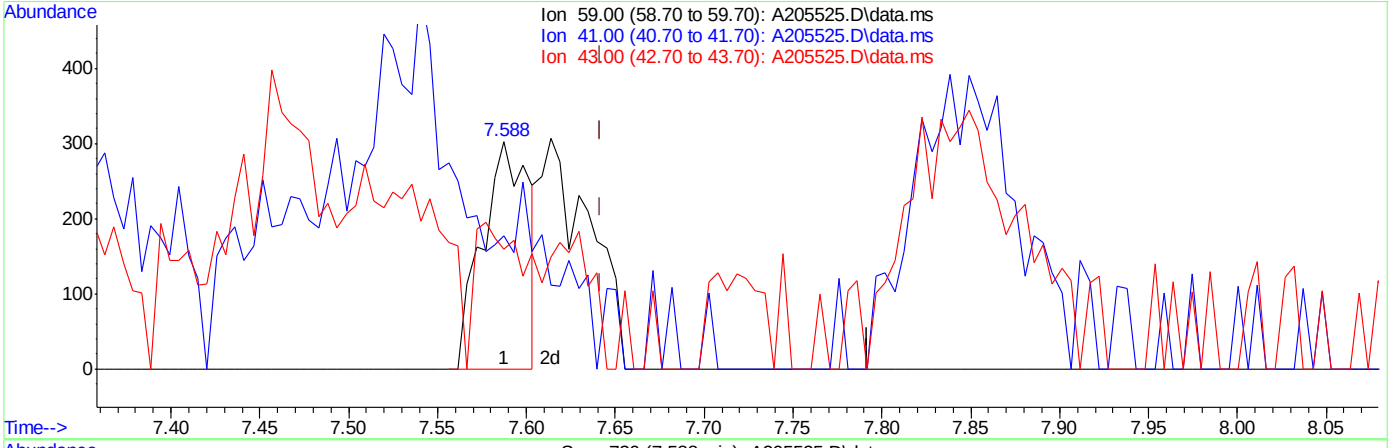
Sample Number:	VA7751-IC7751	**Method:**	SW846 8260B
Lab FileID:	A205525.D	**Analyst approved:**	05/14/14 08:14 Henny Salim
Injection Time:	05/13/14 11:01	**Supervisor approved:**	05/14/14 10:58 Jessica Reitan-Chu

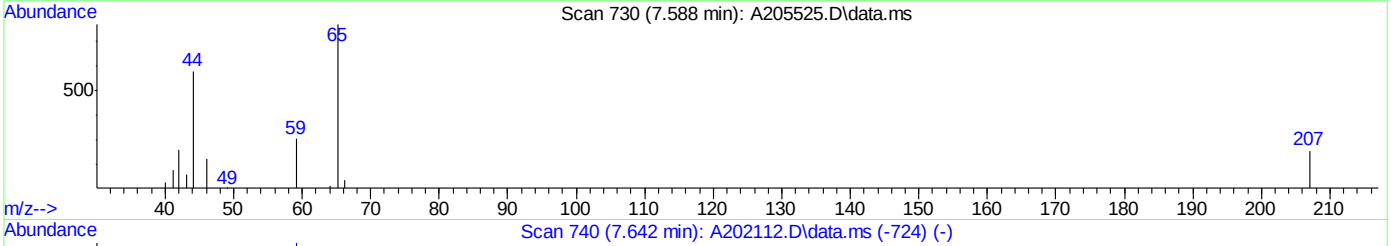
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		3.95	Poor instrument integration
Chloroethane	75-00-3		5.39	Poor instrument integration
Tert Butyl Alcohol	75-65-0		7.61	Poor instrument integration
Methyl Tert Butyl Ether	1634-04-4		7.86	Poor instrument integration

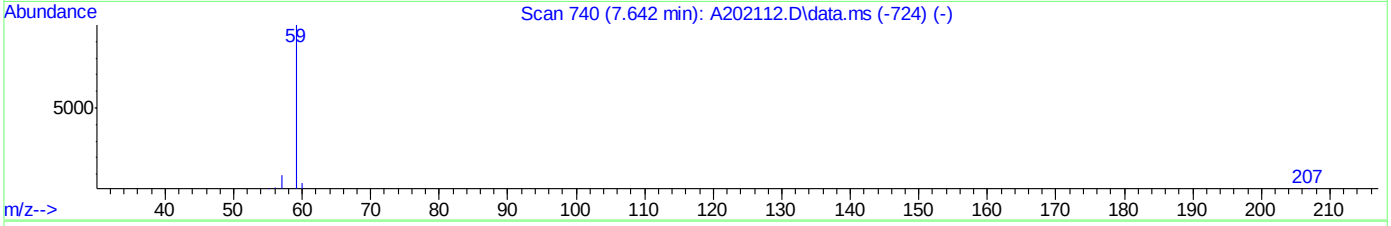
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 15:05:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205525.D\data.ms

(3) tertiary butyl alcohol (M)

7.588min (-0.054) 3.00ug/L

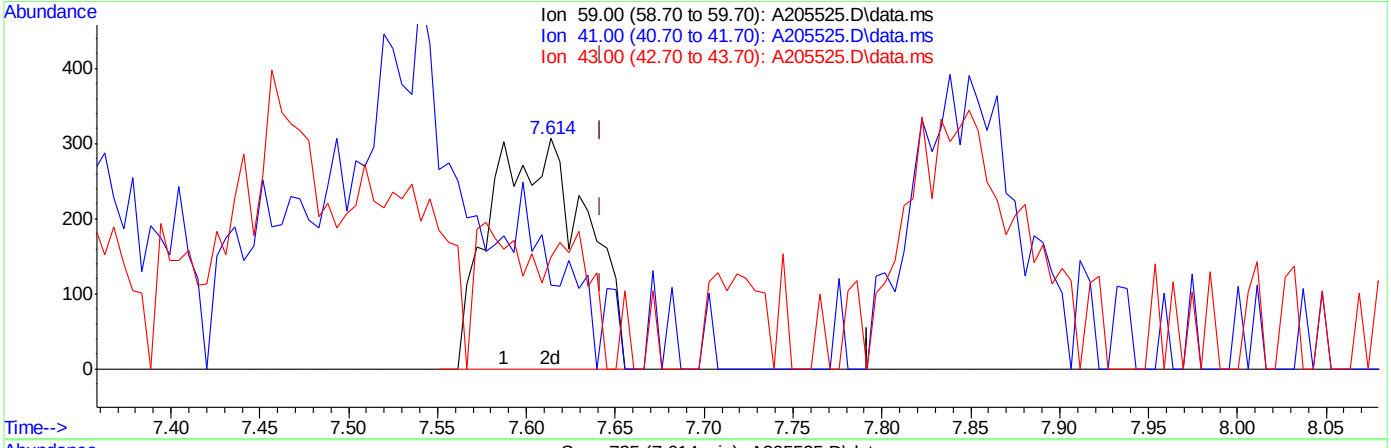
response 549

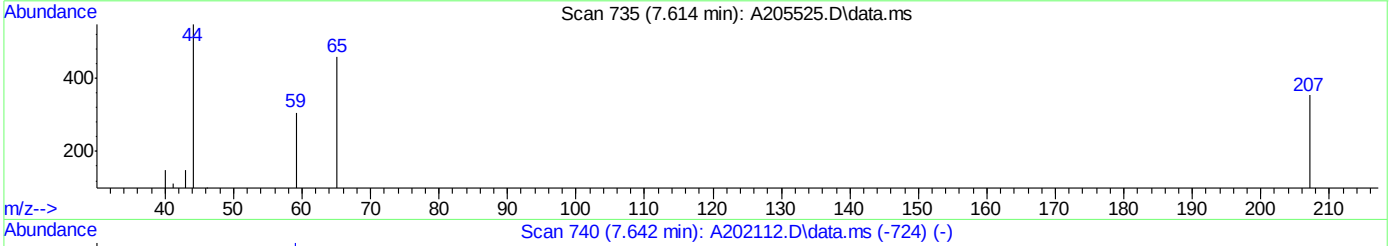
Ion	Exp%	Act%
59.00	100	100
41.00	0.00	0.00
43.00	0.00	0.00
0.00	0.00	0.00

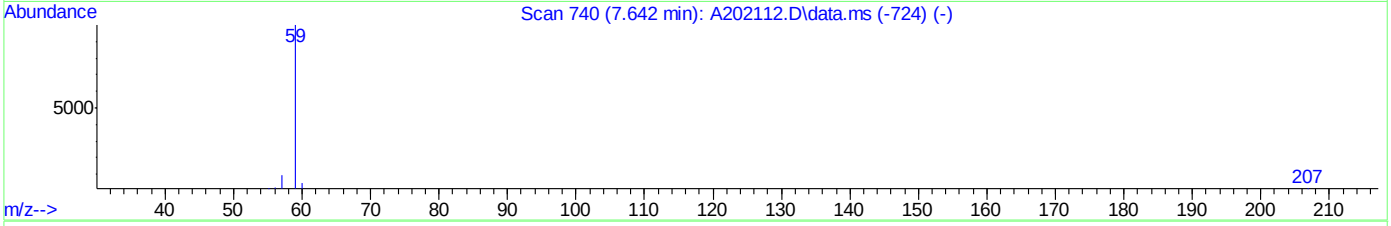
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 15:05:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205525.D\data.ms

(3) tertiary butyl alcohol (M)

7.614min (-0.028) 6.24ug/L m

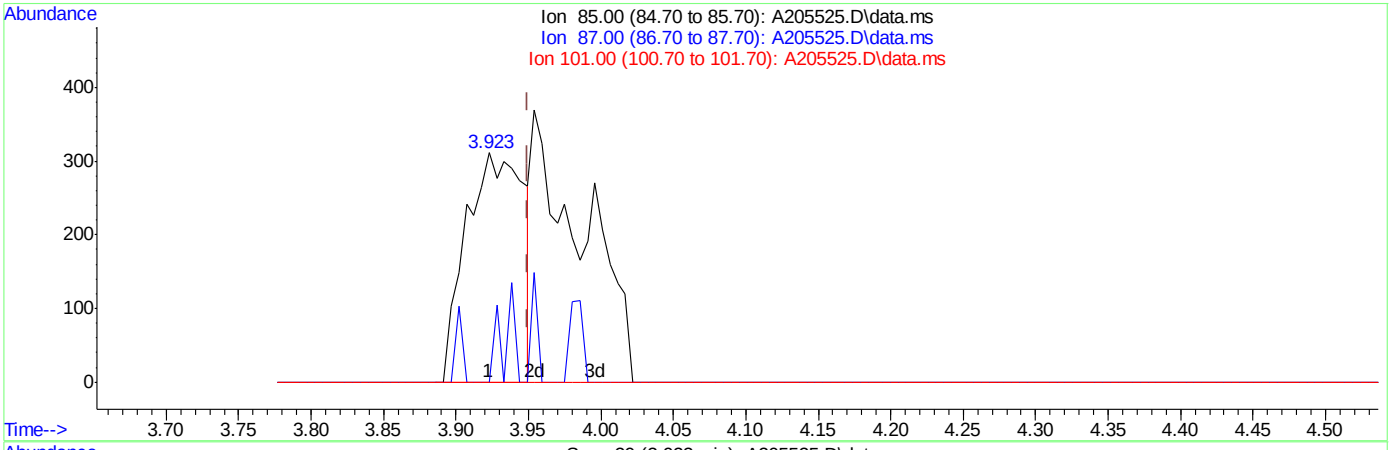
response 1142

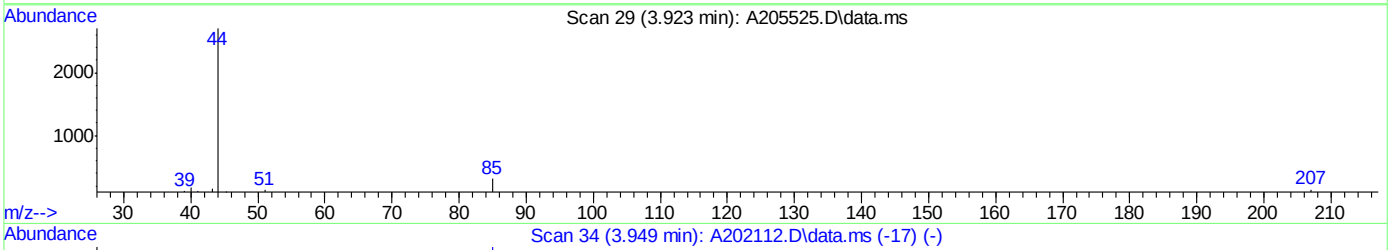
Ion	Exp%	Act%
59.00	100	100
41.00	0.00	36.48#
43.00	0.00	48.53#
0.00	0.00	0.00

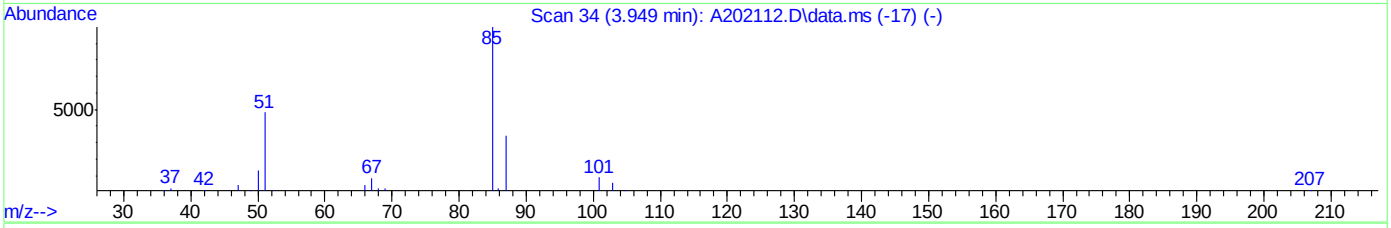
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 15:05:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205525.D\data.ms

(7) dichlorodifluoromethane (M)

3.923min (-0.027) 0.51ug/L

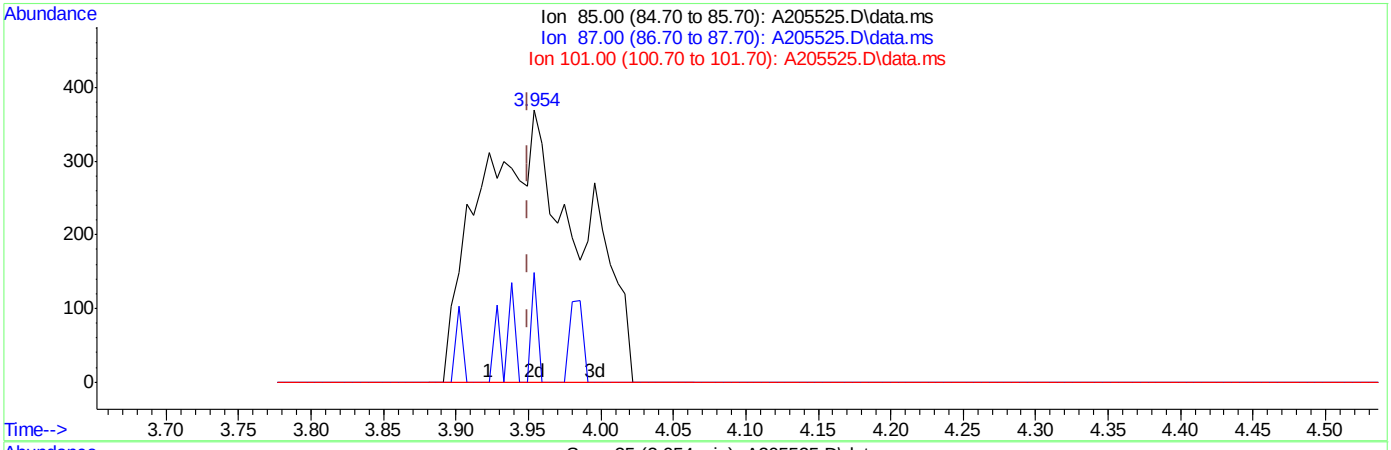
response 848

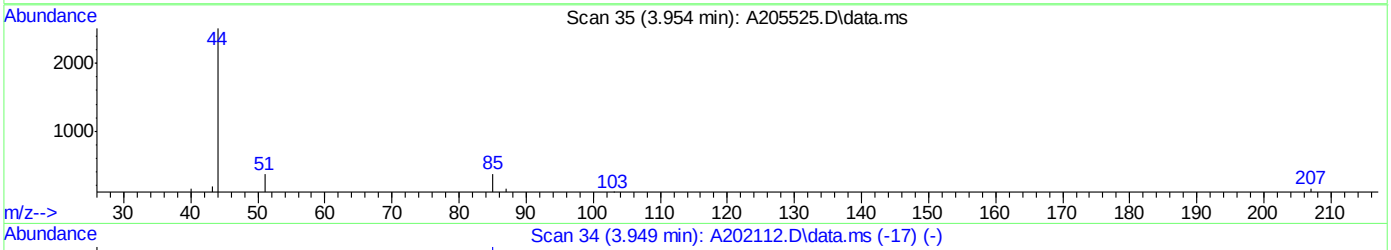
Ion	Exp%	Act%
85.00	100	100
87.00	34.10	0.00#
101.00	8.80	0.00
0.00	0.00	0.00

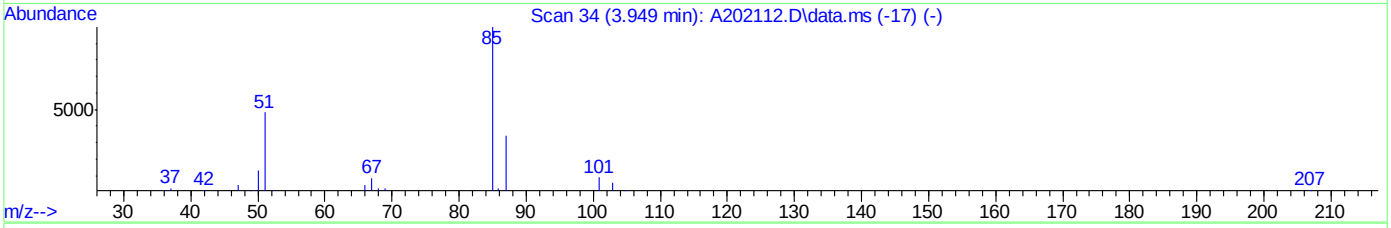
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 15:05:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205525.D\data.ms

(7) dichlorodifluoromethane (M)

3.954min (+0.005) 1.04ug/L m

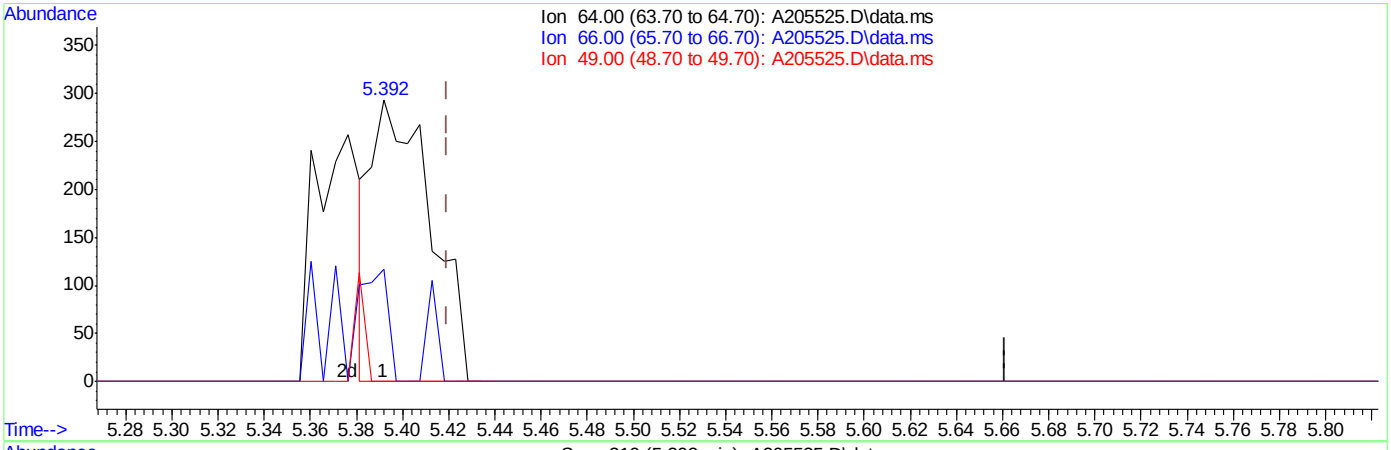
response 1732

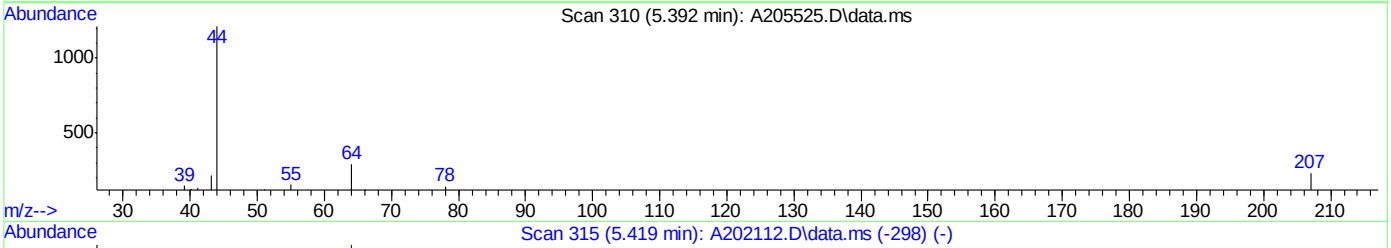
Ion	Exp%	Act%
85.00	100	100
87.00	34.10	40.11
101.00	8.80	0.00
0.00	0.00	0.00

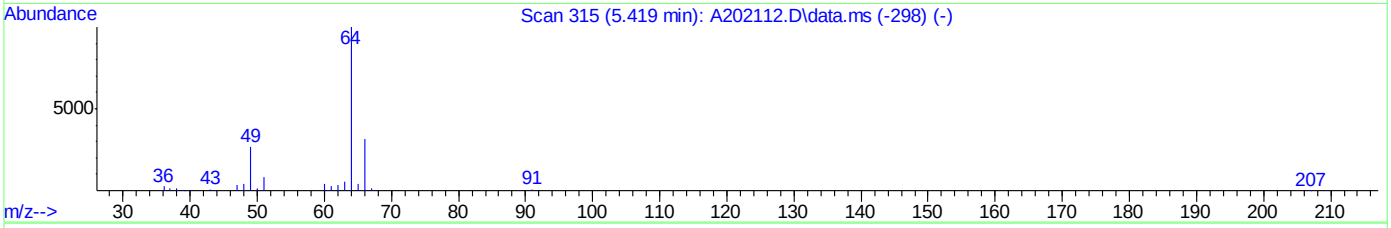
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 15:05:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205525.D\data.ms

(11) chloroethane (M)

5.392min (-0.027) 0.48ug/L

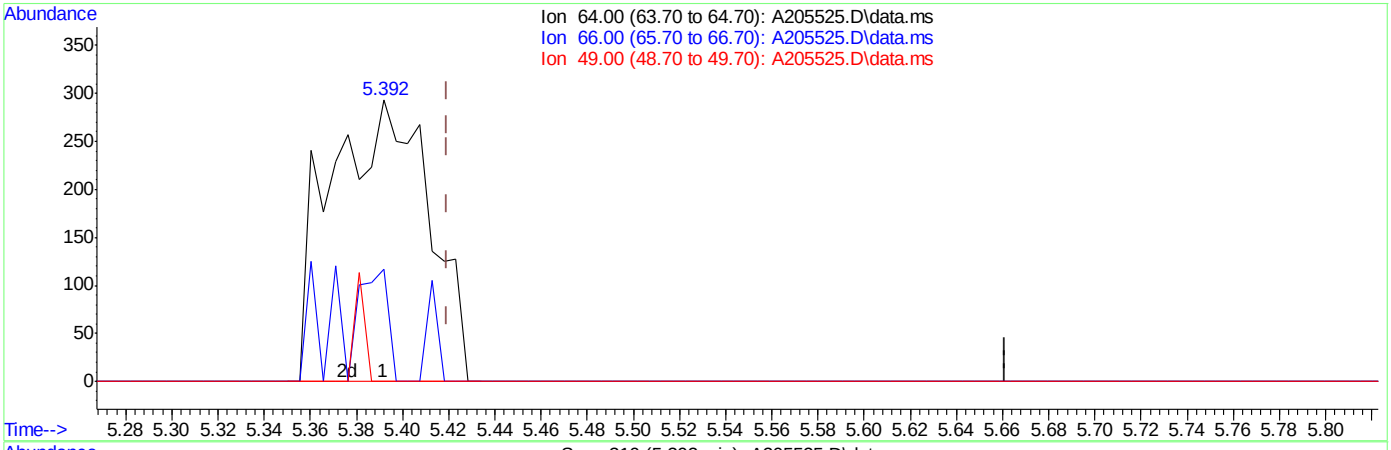
response 524

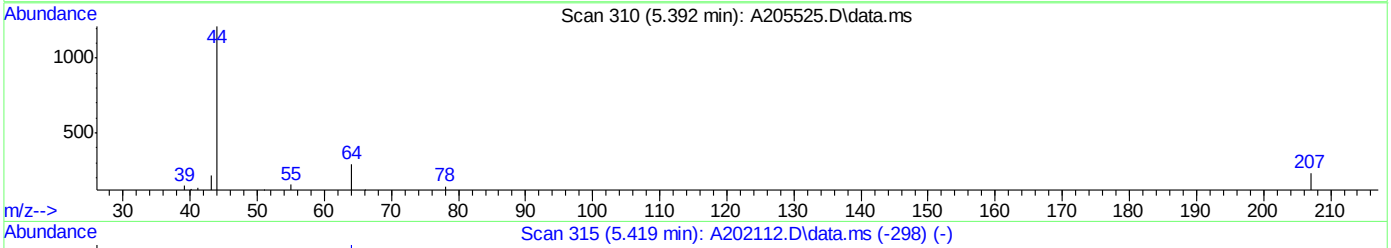
Ion	Exp%	Act%
64.00	100	100
66.00	31.40	39.93
49.00	26.90	0.00
0.00	0.00	0.00

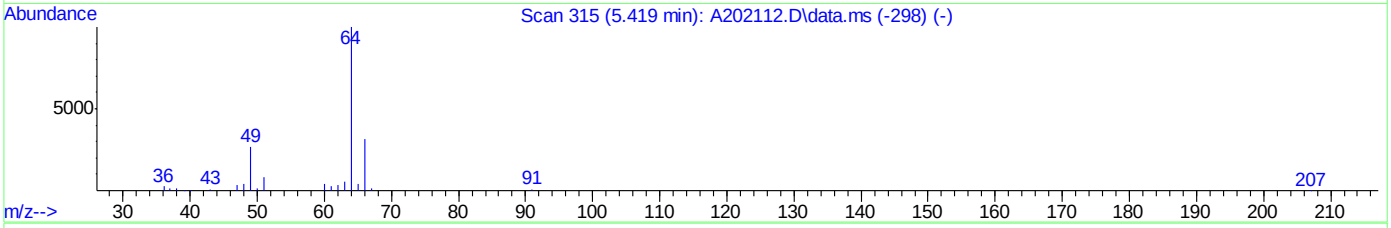
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 15:05:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205525.D\data.ms

(11) chloroethane (M)

5.392min (-0.027) 0.80ug/L m

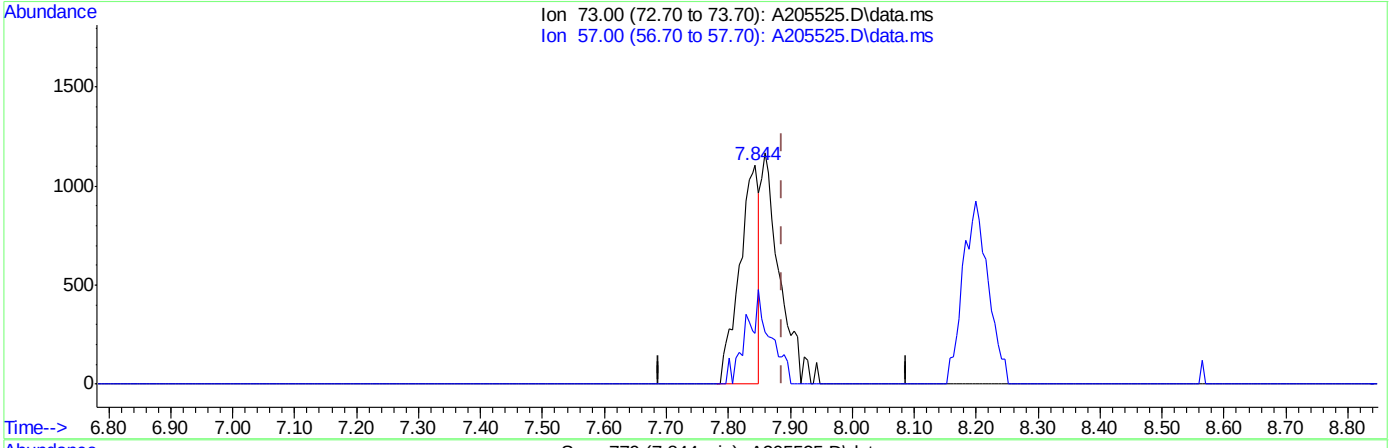
response 873

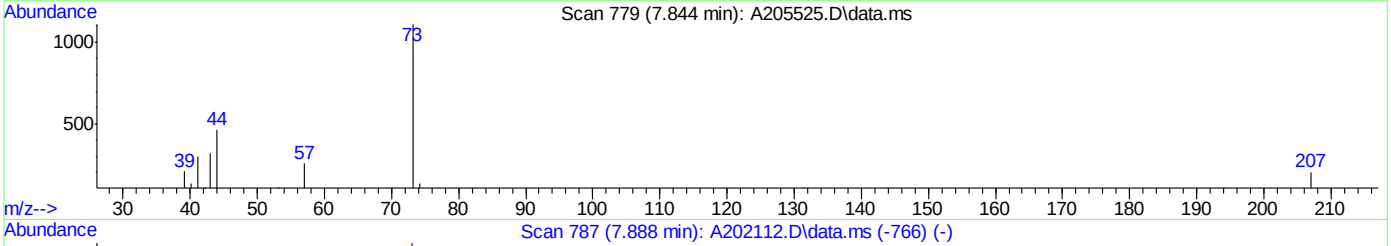
Ion	Exp%	Act%
64.00	100	100
66.00	31.40	39.93
49.00	26.90	0.00
0.00	0.00	0.00

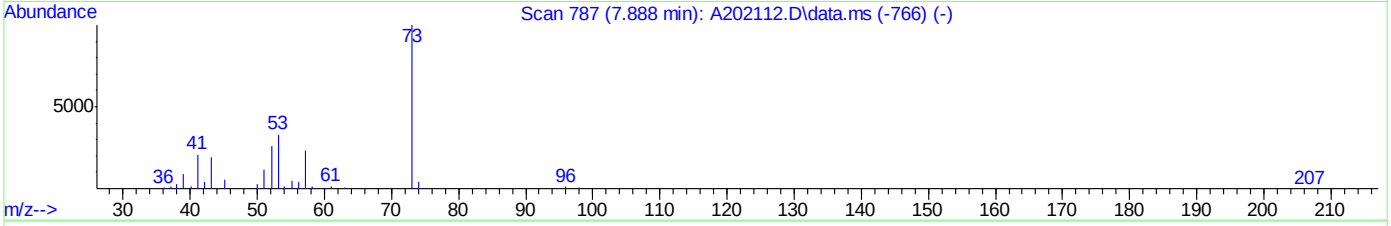
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 15:05:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205525.D\data.ms

(27) methyl tert butyl ether (M)

7.844min (-0.044) 0.49ug/L

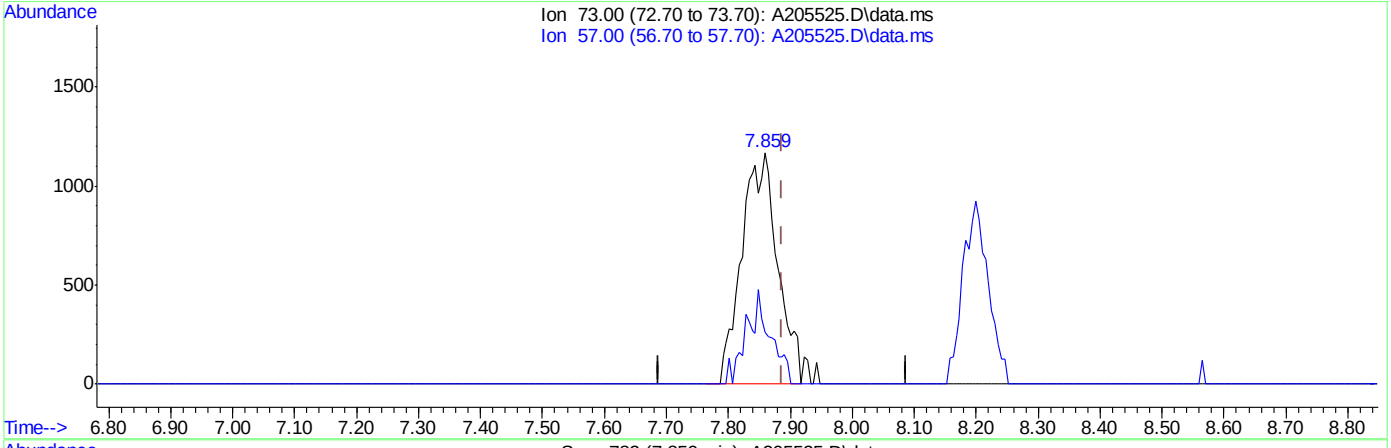
response 2415

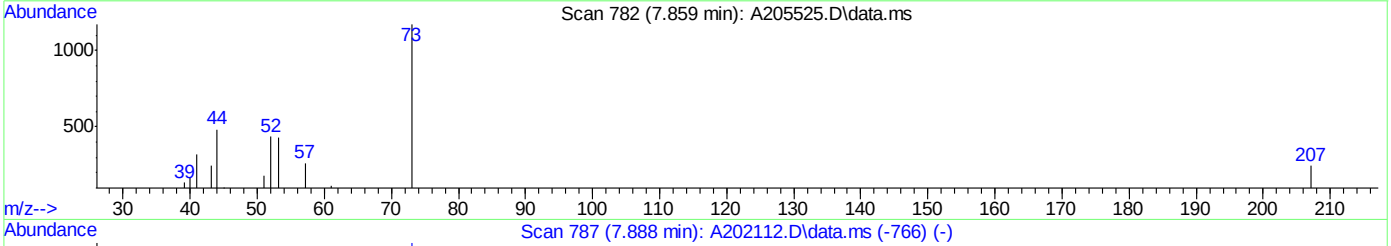
Ion	Exp%	Act%
73.00	100	100
57.00	23.10	30.10
0.00	0.00	0.00
0.00	0.00	0.00

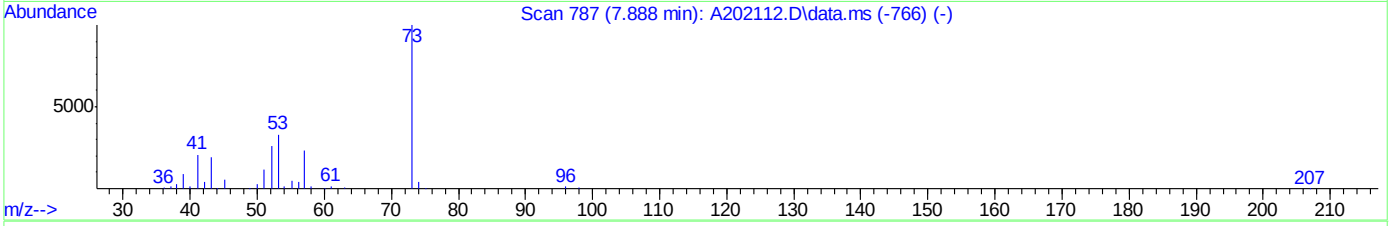
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205525.D
Acq On : 13 May 2014 11:01 am
Operator : OksanaT
Sample : ic7751-1
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 15:05:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205525.D\data.ms

(27) methyl tert butyl ether (M)

7.859min (-0.028) 0.96ug/L m

response 4701

Ion	Exp%	Act%
73.00	100	100
57.00	23.10	15.46
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 05/14/14 10:58

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205526.D
Acq On : 13 May 2014 11:33 am
Operator : OksanaT
Sample : ic7751-2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 16:32:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.478	65	75164	500.00	ug/L	-0.04
4) pentafluorobenzene	9.820	168	205933	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.777	114	287133	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.222	117	277300	50.00	ug/L	-0.04
98) 1,4-dichlorobenzene-d4	16.852	152	161052	50.00	ug/L	-0.04

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.883	113	3492	1.67	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 3.34%#			
47) 1,2-dichloroethane-d4 (s)	10.317	65	3912	1.70	ug/L	-0.04
Spiked Amount 50.000	Range 65 - 123		Recovery = 3.40%#			
75) toluene-d8 (s)	12.534	98	12679	1.79	ug/L	-0.03
Spiked Amount 50.000	Range 77 - 125		Recovery = 3.58%#			
101) 4-bromofluorobenzene (s)	15.535	95	5760	1.74	ug/L	-0.04
Spiked Amount 50.000	Range 71 - 132		Recovery = 3.48%#			

Target Compounds						Qvalue
3) tertiary butyl alcohol	7.604	59	1953m	10.99	ug/L	
6) chlorodifluoromethane	3.965	51	2864	2.23	ug/L	91
7) dichlorodifluoromethane	3.949	85	3603m	2.16	ug/L	
8) chloromethane	4.242	50	5095	1.87	ug/L	97
9) vinyl chloride	4.498	62	4091	1.81	ug/L	97
10) bromomethane	5.199	94	2688	1.74	ug/L	90
11) chloroethane	5.398	64	1783	1.63	ug/L	70
13) trichlorofluoromethane	5.868	101	3701	1.63	ug/L	95
15) ethyl ether	6.286	74	1711	1.83	ug/L #	79
17) acrolein	6.569	56	590627	1695.97	ug/L	97
18) freon 113	6.694	151	2266	2.12	ug/L #	47
19) 1,1-dichloroethene	6.731	96	2719	1.85	ug/L	82
21) allyl chloride	7.295	76	1524	1.29	ug/L #	77
23) iodomethane	7.029	142	5899	2.10	ug/L	98
24) carbon disulfide	7.159	76	10248	1.95	ug/L	97
26) methyl acetate	7.306	43	2900	2.05	ug/L #	79
27) methyl tert butyl ether	7.849	73	9728	1.98	ug/L	99
28) trans-1,2-dichloroethene	7.902	96	3055	1.74	ug/L	87
29) hexane	8.200	57	4085	1.99	ug/L	87
30) di-isopropyl ether	8.466	45	12809	1.99	ug/L	74
31) t-butyl formate	9.700	59	2883	1.94	ug/L #	81
32) ethyl tert-butyl ether	8.963	59	12163	2.11	ug/L	99
34) 1,1-dichloroethane	8.503	63	6039	1.95	ug/L	97
35) chloroprene	8.602	53	4712	2.00	ug/L	91
36) acrylonitrile	7.870	53	4926	9.02	ug/L	95
38) ethyl acetate	9.271	45	415	1.78	ug/L #	17
39) ethyl acrylate	11.154	55	4005	1.94	ug/L #	74
40) 2,2-dichloropropane	9.282	77	4814	2.07	ug/L	86
41) cis-1,2-dichloroethene	9.277	96	3496	1.77	ug/L	94
42) propionitrile	9.376	54	3668	15.84	ug/L	56
43) bromochloromethane	9.606	128	1601	1.65	ug/L	85
44) tetrahydrofuran	9.658	42	1418	2.26	ug/L	75
45) chloroform	9.669	83	5792	1.90	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205526.D
Acq On : 13 May 2014 11:33 am
Operator : OksanaT
Sample : ic7751-2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 16:32:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
48) methacrylonitrile	9.559	67	986	1.47 ug/L #	78
49) cyclohexane	9.993	84	4502	2.12 ug/L	93
50) 1,1,1-trichloroethane	9.925	97	4675	2.03 ug/L	91
52) tert-amyl methyl ether	10.416	73	11424	2.04 ug/L	92
56) n-butyl alcohol	10.934	56	4887	104.99 ug/L	96
57) carbon tetrachloride	10.134	117	4136	1.93 ug/L	82
58) 1,1-dichloropropene	10.108	75	3993	1.84 ug/L	83
59) benzene	10.390	78	12693	1.93 ug/L	98
60) Iso-octane	10.369	57	13005	2.13 ug/L	93
61) heptane	10.552	71	2573	2.17 ug/L	96
62) tert amyl alcohol	10.275	59	2276	10.72 ug/L	98
63) isopropyl acetate	10.312	43	9318	2.32 ug/L	96
64) 1,2-dichloroethane	10.416	62	4199	2.11 ug/L	100
65) trichloroethene	11.138	95	3268	2.16 ug/L	91
66) 2-nitropropane	11.980	41	1309	2.12 ug/L #	24
67) tert-amyl ethyl ether	11.300	59	9222	2.01 ug/L #	97
68) methylcyclohexane	11.347	83	5413	2.25 ug/L #	97
69) 2-chloroethyl vinyl ether	11.990	63	9656	9.23 ug/L	95
70) methyl methacrylate	11.425	69	1891	1.89 ug/L	85
71) 1,2-dichloropropane	11.420	63	3395	1.84 ug/L	93
72) dibromomethane	11.593	93	1898	1.88 ug/L	84
73) bromodichloromethane	11.739	83	4408	2.02 ug/L	98
74) cis-1,3-dichloropropene	12.225	75	5640	2.00 ug/L	92
76) 4-methyl-2-pentanone	12.335	58	1109	1.75 ug/L #	15
77) toluene	12.612	92	8339	2.05 ug/L	98
78) 3-methyl-1-butanol	12.366	55	3520	42.27 ug/L	95
79) trans-1,3-dichloropropene	12.847	75	5118	2.01 ug/L	85
80) ethyl methacrylate	12.832	69	4169	1.99 ug/L	92
81) 1,1,2-trichloroethane	13.083	83	2621	2.24 ug/L	98
82) 2-hexanone	13.276	58	1032	1.64 ug/L	96
84) tetrachloroethene	13.260	164	2998	2.06 ug/L	96
85) 1,3-dichloropropane	13.287	76	4693	1.91 ug/L	97
86) butyl acetate	13.355	56	2423	1.66 ug/L	80
87) 3,3-dimethyl-1-butanol	13.470	57	3645	19.28 ug/L	90
88) dibromochloromethane	13.579	129	3631	1.91 ug/L	99
89) 1,2-dibromoethane	13.747	107	2970	2.03 ug/L	83
91) chlorobenzene	14.259	112	10070	2.06 ug/L	88
92) 1,1,1,2-tetrachloroethane	14.327	131	3595	1.96 ug/L	91
93) ethylbenzene	14.317	91	16361	2.00 ug/L	99
94) m,p-xylene	14.432	106	12822	4.14 ug/L	95
95) o-xylene	14.913	106	6631	2.03 ug/L	94
96) styrene	14.923	104	11491	2.08 ug/L	96
97) bromoform	15.237	173	2795	2.08 ug/L	89
99) isopropylbenzene	15.294	105	16495	1.89 ug/L	98
100) cyclohexanone	15.498	55	2916	25.15 ug/L	97
102) bromobenzene	15.754	156	4808	2.09 ug/L	95
103) 1,1,2,2-tetrachloroethane	15.660	83	4251	1.84 ug/L	96
104) trans-1,4-dichloro-2-b...	15.707	53	1095	1.69 ug/L	99
105) 1,2,3-trichloropropane	15.744	110	933	1.66 ug/L	94
106) n-propylbenzene	15.759	91	19383	1.94 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205526.D
Acq On : 13 May 2014 11:33 am
Operator : OksanaT
Sample : ic7751-2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 16:32:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
107) 2-chlorotoluene	15.932	126	4326	2.04 ug/L	97
108) 4-chlorotoluene	16.042	91	13004	1.97 ug/L	96
109) p-ethyltoluene	15.869	105	17020	1.87 ug/L	99
110) 1,3,5-trimethylbenzene	15.927	105	15460	2.07 ug/L	98
111) tert-butylbenzene	16.324	119	12528	1.93 ug/L	95
112) pentachloroethane	16.429	167	3253	2.06 ug/L	91
113) 1,2,4-trimethylbenzene	16.376	105	14936	1.96 ug/L	93
114) sec-butylbenzene	16.565	105	19678	2.02 ug/L	99
115) 1,3-dichlorobenzene	16.789	146	9576	2.02 ug/L	96
116) p-isopropyltoluene	16.695	119	16906	2.02 ug/L	95
118) 1,4-dichlorobenzene	16.883	146	9710	2.02 ug/L	99
119) p-diethylbenzene	17.129	119	10262	1.79 ug/L	95
120) 1,2-dichlorobenzene	17.328	146	9106	2.00 ug/L	100
121) n-butylbenzene	17.166	92	9372	2.03 ug/L	84
122) 1,2,4,5-tetramethylben...	18.007	119	16845	1.91 ug/L #	98
123) 1,2-dibromo-3-chloropr...	18.201	75	829	1.90 ug/L	72
124) 1,3,5-trichlorobenzene	18.384	180	8759	2.23 ug/L	93
125) 1,2,4-trichlorobenzene	19.105	180	7471	2.23 ug/L	98
126) hexachlorobutadiene	19.226	225	5060	2.44 ug/L	95
127) naphthalene	19.435	128	11823	1.80 ug/L	99
128) 1,2,3-trichlorobenzene	19.712	180	6246	2.11 ug/L	98
129) hexachloroethane	17.615	201	3047	2.09 ug/L	96

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

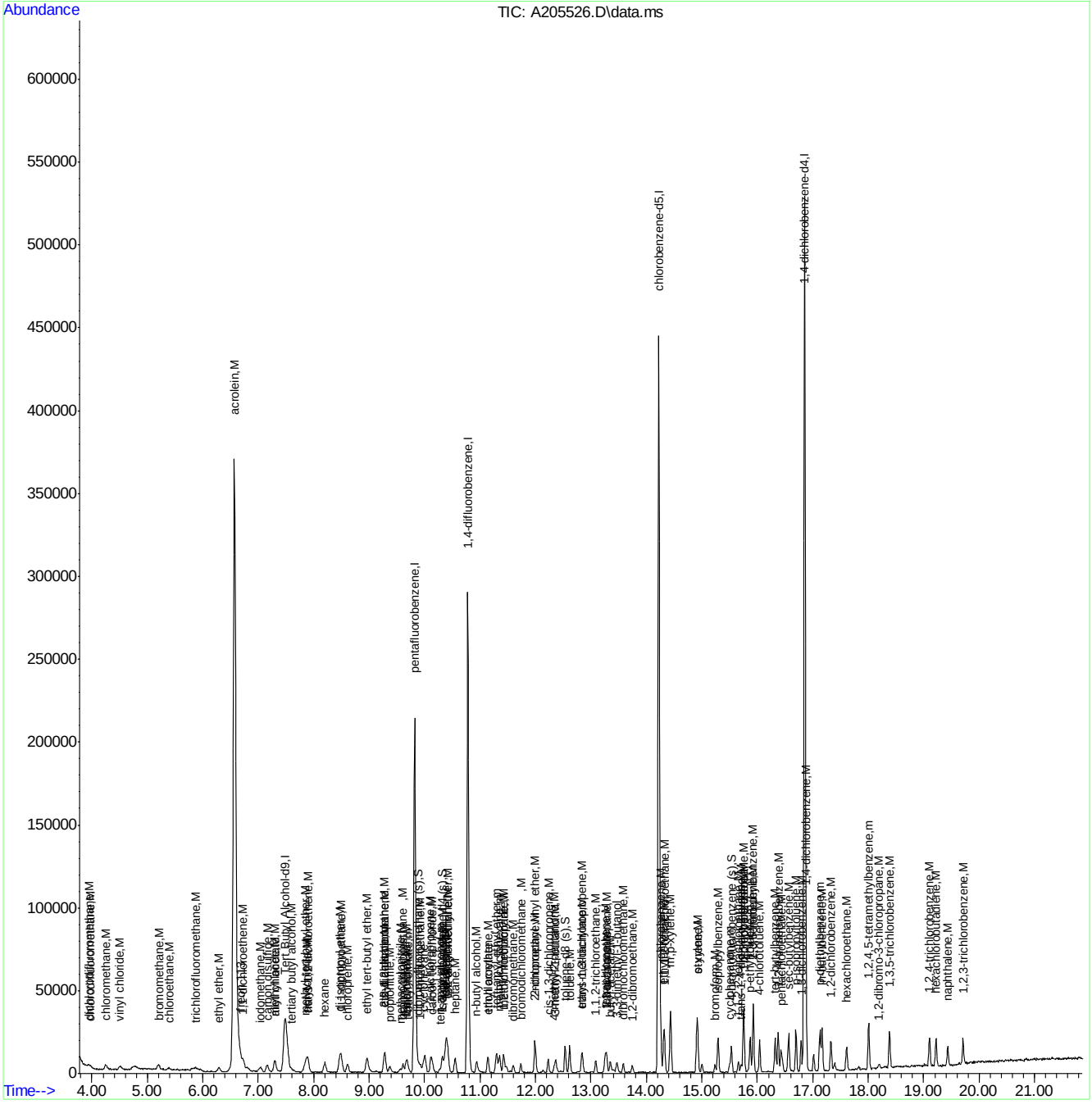
7.7.17

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205526.D
Acq On : 13 May 2014 11:33 am
Operator : OksanaT
Sample : ic7751-2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 16:32:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



Manual Integration Approval Summary

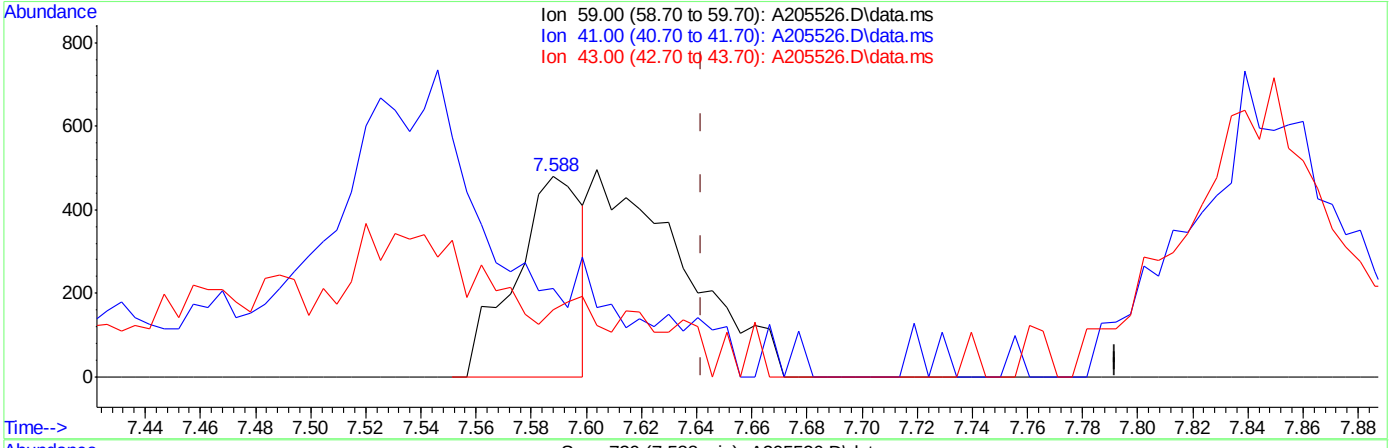
Sample Number:	VA7751-IC7751	**Method:**	SW846 8260B
Lab FileID:	A205526.D	**Analyst approved:**	05/14/14 08:14 Henny Salim
Injection Time:	05/13/14 11:33	**Supervisor approved:**	05/14/14 10:58 Jessica Reitan-Chu

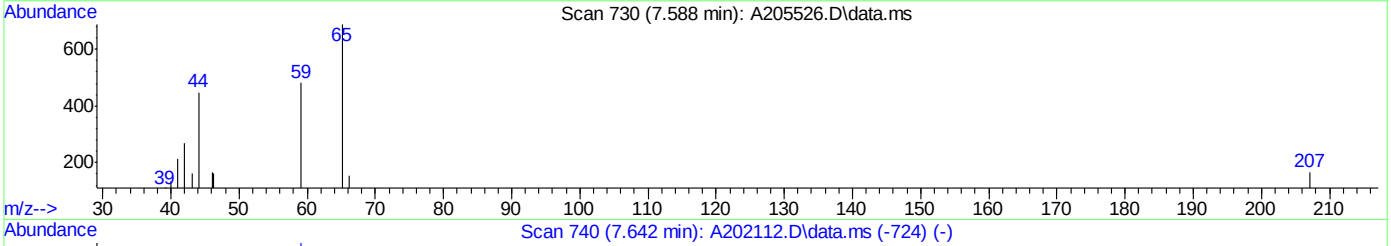
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		3.95	Poor instrument integration
Tert Butyl Alcohol	75-65-0		7.60	Poor instrument integration

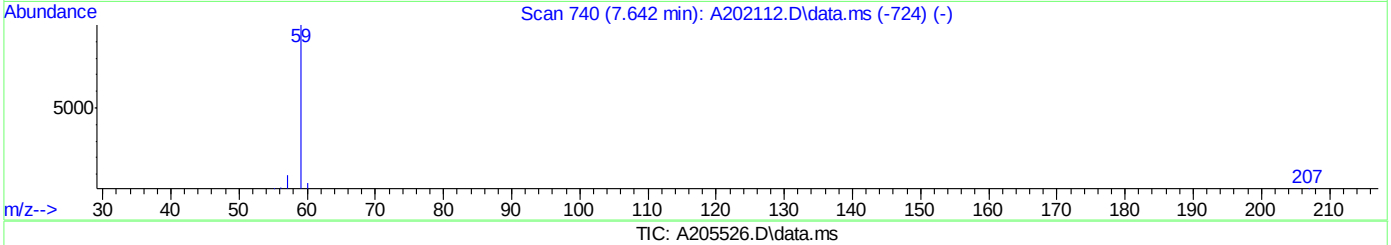
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205526.D
Acq On : 13 May 2014 11:33 am
Operator : OksanaT
Sample : ic7751-2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 15:05:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205526.D\data.ms

(3) tertiary butyl alcohol (M)

7.588min (-0.054) 4.58ug/L

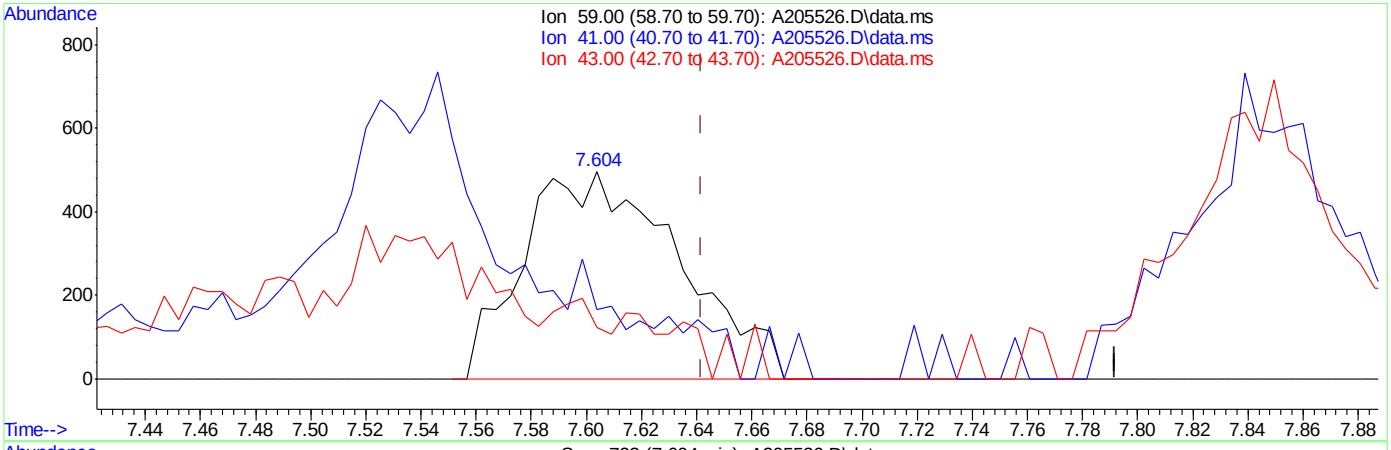
response 813

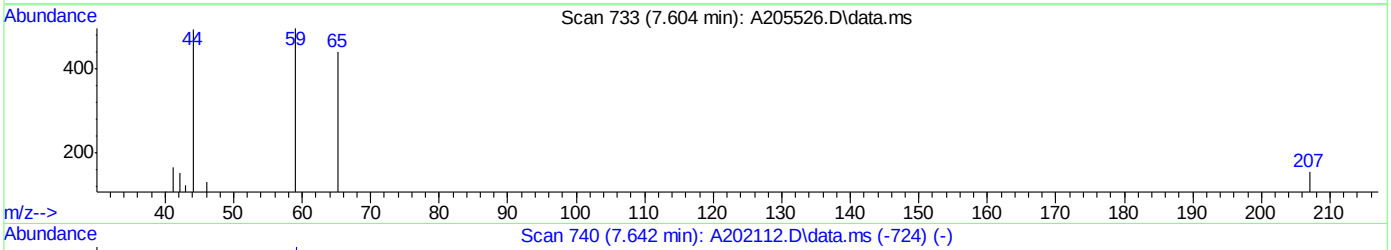
Ion	Exp%	Act%
59.00	100	100
41.00	0.00	0.00
43.00	0.00	0.00
0.00	0.00	0.00

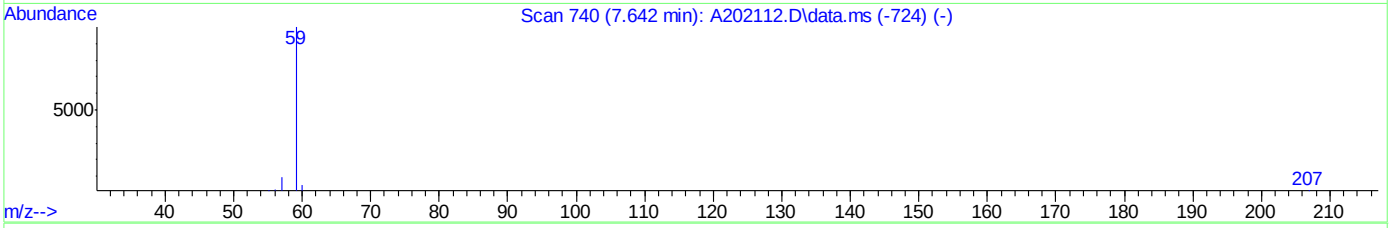
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205526.D
Acq On : 13 May 2014 11:33 am
Operator : OksanaT
Sample : ic7751-2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 15:05:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205526.D\data.ms

(3) tertiary butyl alcohol (M)

7.604min (-0.038) 10.99ug/L m

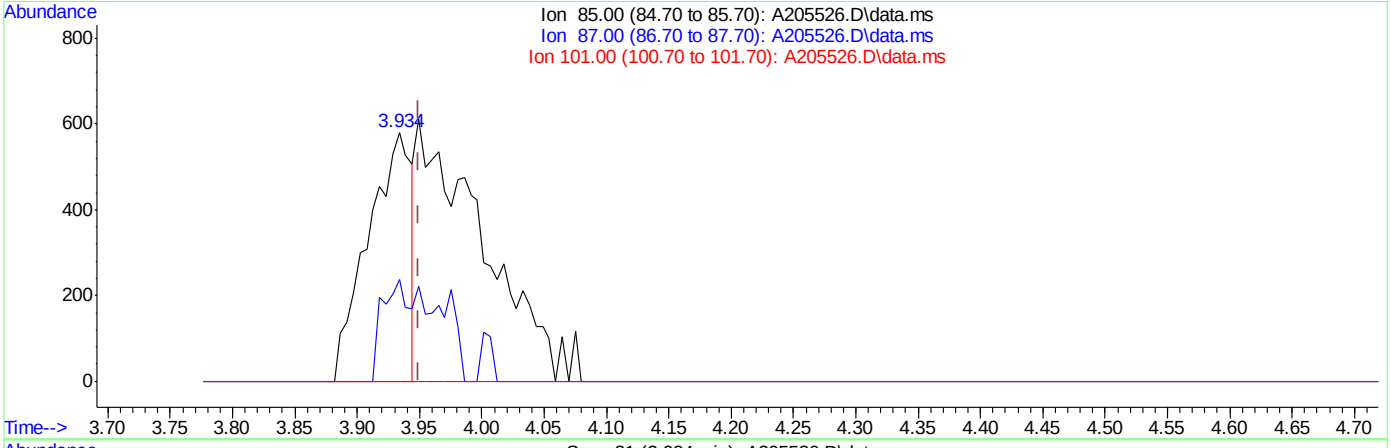
response 1953

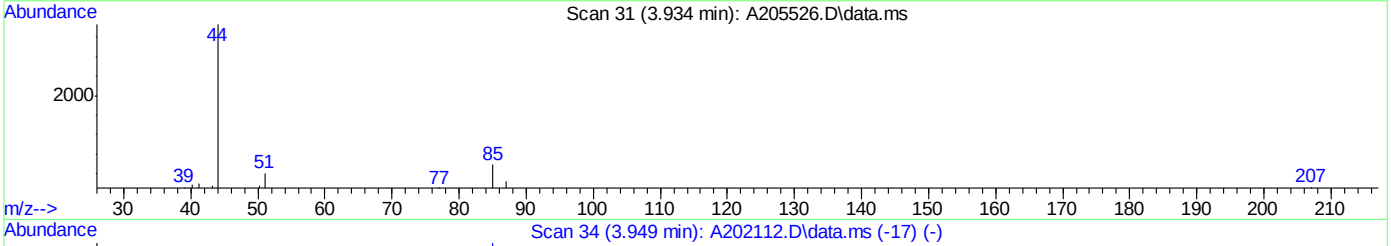
Ion	Exp%	Act%
59.00	100	100
41.00	0.00	33.27#
43.00	0.00	24.60
0.00	0.00	0.00

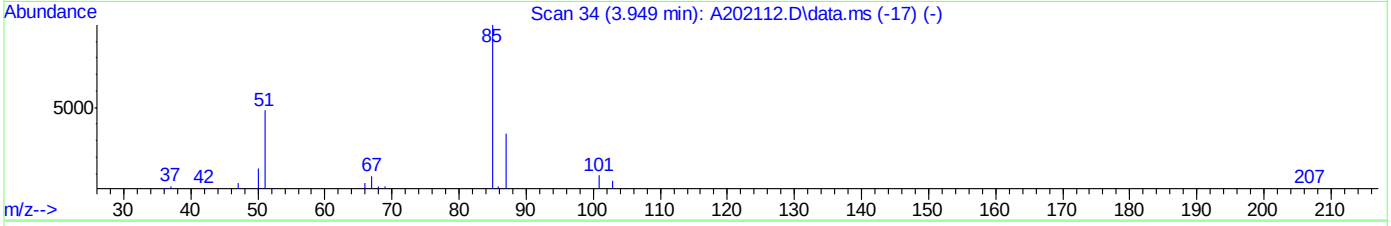
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205526.D
Acq On : 13 May 2014 11:33 am
Operator : OksanaT
Sample : ic7751-2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 15:05:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205526.D\data.ms

(7) dichlorodifluoromethane (M)

3.934min (-0.016) 0.85ug/L

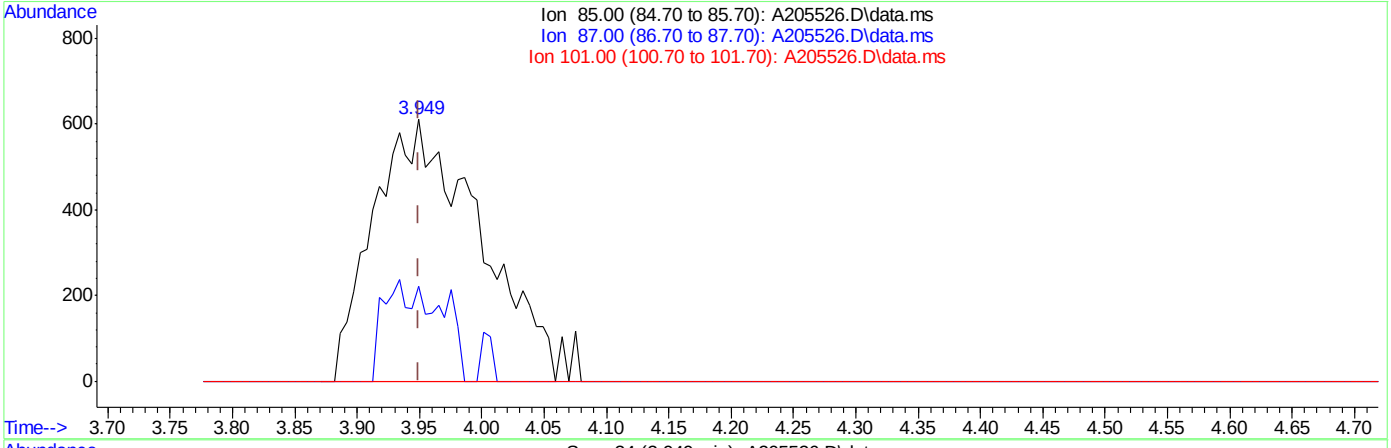
response 1410

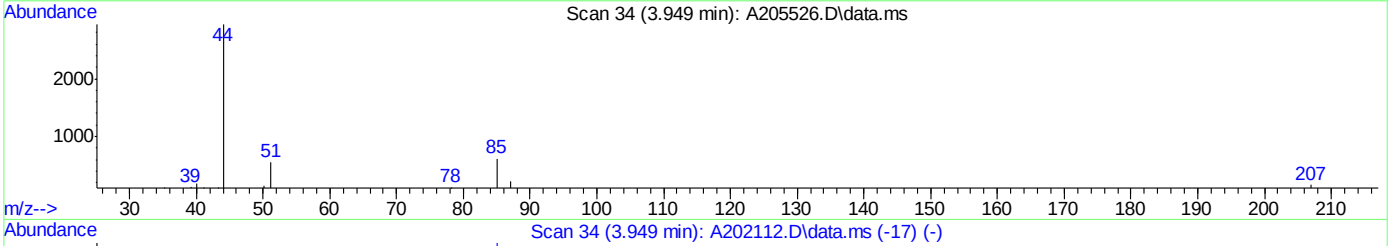
Ion	Exp%	Act%
85.00	100	100
87.00	34.10	40.96
101.00	8.80	0.00
0.00	0.00	0.00

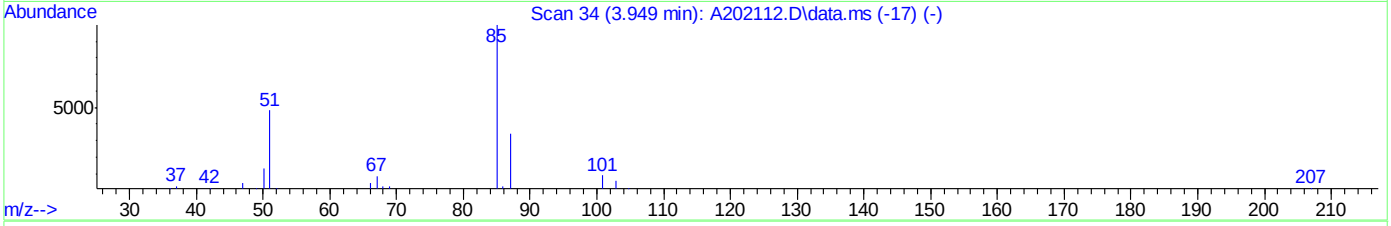
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205526.D
Acq On : 13 May 2014 11:33 am
Operator : OksanaT
Sample : ic7751-2
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 15:05:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration







TIC: A205526.D\data.ms

(7) dichlorodifluoromethane (M)

3.949min (-0.000) 2.16ug/L m

response 3603

Ion	Exp%	Act%
85.00	100	100
87.00	34.10	36.27
101.00	8.80	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES JB69587

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 05/14/14 10:58

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205527.D
Acq On : 13 May 2014 12:04 pm
Operator : OksanaT
Sample : ic7751-5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 13 16:35:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.477	65	76121	500.00	ug/L	-0.04
4) pentafluorobenzene	9.820	168	214271	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.782	114	298459	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.222	117	279991	50.00	ug/L	-0.04
98) 1,4-dichlorobenzene-d4	16.857	152	160643	50.00	ug/L	-0.03

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.882	113	7914	3.64	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 7.28%#			
47) 1,2-dichloroethane-d4 (s)	10.322	65	8636	3.60	ug/L	-0.04
Spiked Amount 50.000	Range 65 - 123		Recovery = 7.20%#			
75) toluene-d8 (s)	12.533	98	28689	3.90	ug/L	-0.04
Spiked Amount 50.000	Range 77 - 125		Recovery = 7.80%#			
101) 4-bromofluorobenzene (s)	15.534	95	11549	3.51	ug/L	-0.04
Spiked Amount 50.000	Range 71 - 132		Recovery = 7.02%#			

Target Compounds						Qvalue
2) 1,4-dioxane	11.540	88	1829	116.21	ug/L	81
3) tertiary butyl alcohol	7.598	59	4509	25.06	ug/L	100
6) chlorodifluoromethane	3.964	51	6599	4.95	ug/L	99
7) dichlorodifluoromethane	3.943	85	8863m	5.11	ug/L	
8) chloromethane	4.252	50	11747	4.14	ug/L	92
9) vinyl chloride	4.508	62	10100	4.30	ug/L	96
10) bromomethane	5.198	94	6878	4.28	ug/L	97
11) chloroethane	5.386	64	4510	3.97	ug/L	94
13) trichlorofluoromethane	5.878	101	9290	3.93	ug/L	95
15) ethyl ether	6.296	74	3776	3.88	ug/L	92
17) acrolein	6.573	56	27392	75.59	ug/L	95
18) freon 113	6.693	151	5828	5.23	ug/L #	90
19) 1,1-dichloroethene	6.740	96	5963	3.91	ug/L	90
21) allyl chloride	7.300	76	3438	2.79	ug/L	92
22) acetonitrile	7.289	40	7321	44.71	ug/L #	61
23) iodomethane	7.033	142	12369	4.24	ug/L	98
24) carbon disulfide	7.159	76	21567	3.94	ug/L	99
25) methylene chloride	7.509	84	10530	3.43	ug/L	94
26) methyl acetate	7.289	43	5992	4.08	ug/L	89
27) methyl tert butyl ether	7.849	73	21216	4.16	ug/L	99
28) trans-1,2-dichloroethene	7.896	96	6647	3.63	ug/L	89
29) hexane	8.199	57	11152	5.23	ug/L	97
30) di-isopropyl ether	8.476	45	31504	4.71	ug/L	97
31) t-butyl formate	9.699	59	6976	4.52	ug/L	89
32) ethyl tert-butyl ether	8.962	59	29167	4.86	ug/L	96
34) 1,1-dichloroethane	8.497	63	12685	3.93	ug/L	96
35) chloroprene	8.607	53	11594	4.73	ug/L	99
36) acrylonitrile	7.875	53	11075	19.49	ug/L	99
37) vinyl acetate	8.486	86	1116	4.17	ug/L	54
38) ethyl acetate	9.276	45	1183	4.87	ug/L	69
39) ethyl acrylate	11.148	55	8546	3.98	ug/L	97
40) 2,2-dichloropropane	9.265	77	9998	4.13	ug/L	94
41) cis-1,2-dichloroethene	9.281	96	7755	3.77	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205527.D
Acq On : 13 May 2014 12:04 pm
Operator : OksanaT
Sample : ic7751-5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 13 16:35:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) propionitrile	9.370	54	8228	34.14	ug/L		57
43) bromochloromethane	9.611	128	3616	3.59	ug/L		94
44) tetrahydrofuran	9.647	42	2801	4.28	ug/L		77
45) chloroform	9.673	83	12591	3.96	ug/L		93
48) methacrylonitrile	9.558	67	2456	3.52	ug/L		91
49) cyclohexane	9.987	84	9509	4.30	ug/L		94
50) 1,1,1-trichloroethane	9.924	97	9845	4.11	ug/L		98
52) tert-amyl methyl ether	10.416	73	27454	4.71	ug/L		93
55) epichlorohydrin	12.130	57	3948	25.24	ug/L		92
56) n-butyl alcohol	10.938	56	12413	256.54	ug/L		93
57) carbon tetrachloride	10.128	117	9322	4.18	ug/L		99
58) 1,1-dichloropropene	10.107	75	8662	3.85	ug/L		96
59) benzene	10.384	78	27777	4.07	ug/L		97
60) Iso-octane	10.369	57	32323	5.10	ug/L		98
61) heptane	10.546	71	6675	5.43	ug/L		92
62) tert amyl alcohol	10.269	59	5090	23.05	ug/L		99
63) isopropyl acetate	10.311	43	18920	4.52	ug/L		98
64) 1,2-dichloroethane	10.416	62	9175	4.44	ug/L		99
65) trichloroethene	11.137	95	6743	4.29	ug/L		96
66) 2-nitropropane	11.984	41	2798	4.36	ug/L	#	63
67) tert-amyl ethyl ether	11.299	59	20975	4.41	ug/L	#	99
68) methylcyclohexane	11.346	83	13890	5.56	ug/L	#	98
69) 2-chloroethyl vinyl ether	11.994	63	23369	21.49	ug/L		97
70) methyl methacrylate	11.430	69	4412	4.24	ug/L		90
71) 1,2-dichloropropane	11.425	63	7717	4.02	ug/L		98
72) dibromomethane	11.602	93	4308	4.11	ug/L		94
73) bromodichloromethane	11.738	83	9932	4.37	ug/L		99
74) cis-1,3-dichloropropene	12.230	75	12833	4.38	ug/L		96
76) 4-methyl-2-pentanone	12.334	58	2635	4.01	ug/L	#	78
77) toluene	12.617	92	17805	4.22	ug/L		99
78) 3-methyl-1-butanol	12.360	55	8033	92.80	ug/L		96
79) trans-1,3-dichloropropene	12.847	75	11355	4.29	ug/L		89
80) ethyl methacrylate	12.831	69	8927	4.11	ug/L		96
81) 1,1,2-trichloroethane	13.087	83	5224	4.29	ug/L		99
82) 2-hexanone	13.270	58	2650	4.06	ug/L		96
84) tetrachloroethene	13.260	164	6475	4.40	ug/L		95
85) 1,3-dichloropropane	13.286	76	10640	4.28	ug/L		95
86) butyl acetate	13.349	56	5657	3.84	ug/L		95
87) 3,3-dimethyl-1-butanol	13.464	57	8830	46.27	ug/L		96
88) dibromochloromethane	13.584	129	8313	4.34	ug/L		96
89) 1,2-dibromoethane	13.746	107	6545	4.43	ug/L		93
91) chlorobenzene	14.258	112	20895	4.24	ug/L		93
92) 1,1,1,2-tetrachloroethane	14.326	131	8350	4.50	ug/L		98
93) ethylbenzene	14.316	91	34581	4.19	ug/L		99
94) m,p-xylene	14.436	106	26957	8.62	ug/L		98
95) o-xylene	14.912	106	14088	4.27	ug/L		99
96) styrene	14.922	104	23687	4.25	ug/L		97
97) bromoform	15.236	173	5965	4.40	ug/L		97
99) isopropylbenzene	15.293	105	35178	4.04	ug/L		96
100) cyclohexanone	15.508	55	7903	68.34	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205527.D
Acq On : 13 May 2014 12:04 pm
Operator : OksanaT
Sample : ic7751-5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 13 16:35:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) bromobenzene	15.753	156	10417	4.54	ug/L		92
103) 1,1,2,2-tetrachloroethane	15.659	83	9387	4.08	ug/L		98
104) trans-1,4-dichloro-2-b...	15.706	53	2479	3.84	ug/L		99
105) 1,2,3-trichloropropane	15.748	110	2175	3.87	ug/L		97
106) n-propylbenzene	15.759	91	41312	4.15	ug/L		96
107) 2-chlorotoluene	15.931	126	9196	4.35	ug/L		99
108) 4-chlorotoluene	16.041	91	27124	4.13	ug/L		98
109) p-ethyltoluene	15.874	105	39523	4.36	ug/L		99
110) 1,3,5-trimethylbenzene	15.926	105	30737	4.13	ug/L		96
111) tert-butylbenzene	16.323	119	26804	4.14	ug/L		97
112) pentachloroethane	16.428	167	6619	4.21	ug/L		92
113) 1,2,4-trimethylbenzene	16.376	105	31442	4.14	ug/L		93
114) sec-butylbenzene	16.564	105	41119	4.24	ug/L		99
115) 1,3-dichlorobenzene	16.789	146	20453	4.32	ug/L		98
116) p-isopropyltoluene	16.700	119	35518	4.25	ug/L		98
118) 1,4-dichlorobenzene	16.883	146	19913	4.16	ug/L		99
119) p-diethylbenzene	17.128	119	24229	4.24	ug/L		95
120) 1,2-dichlorobenzene	17.327	146	19255	4.24	ug/L		97
121) n-butylbenzene	17.165	92	18711	4.05	ug/L		89
122) 1,2,4,5-tetramethylben...	18.007	119	40318	4.57	ug/L	#	99
123) 1,2-dibromo-3-chloropr...	18.200	75	1683	3.87	ug/L		87
124) 1,3,5-trichlorobenzene	18.388	180	17433	4.45	ug/L		96
125) 1,2,4-trichlorobenzene	19.105	180	14933	4.46	ug/L		98
126) hexachlorobutadiene	19.225	225	9971	4.81	ug/L		87
127) naphthalene	19.434	128	25648	3.92	ug/L		100
128) 1,2,3-trichlorobenzene	19.711	180	12830	4.35	ug/L		99
129) hexachloroethane	17.609	201	6775	4.66	ug/L		99

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

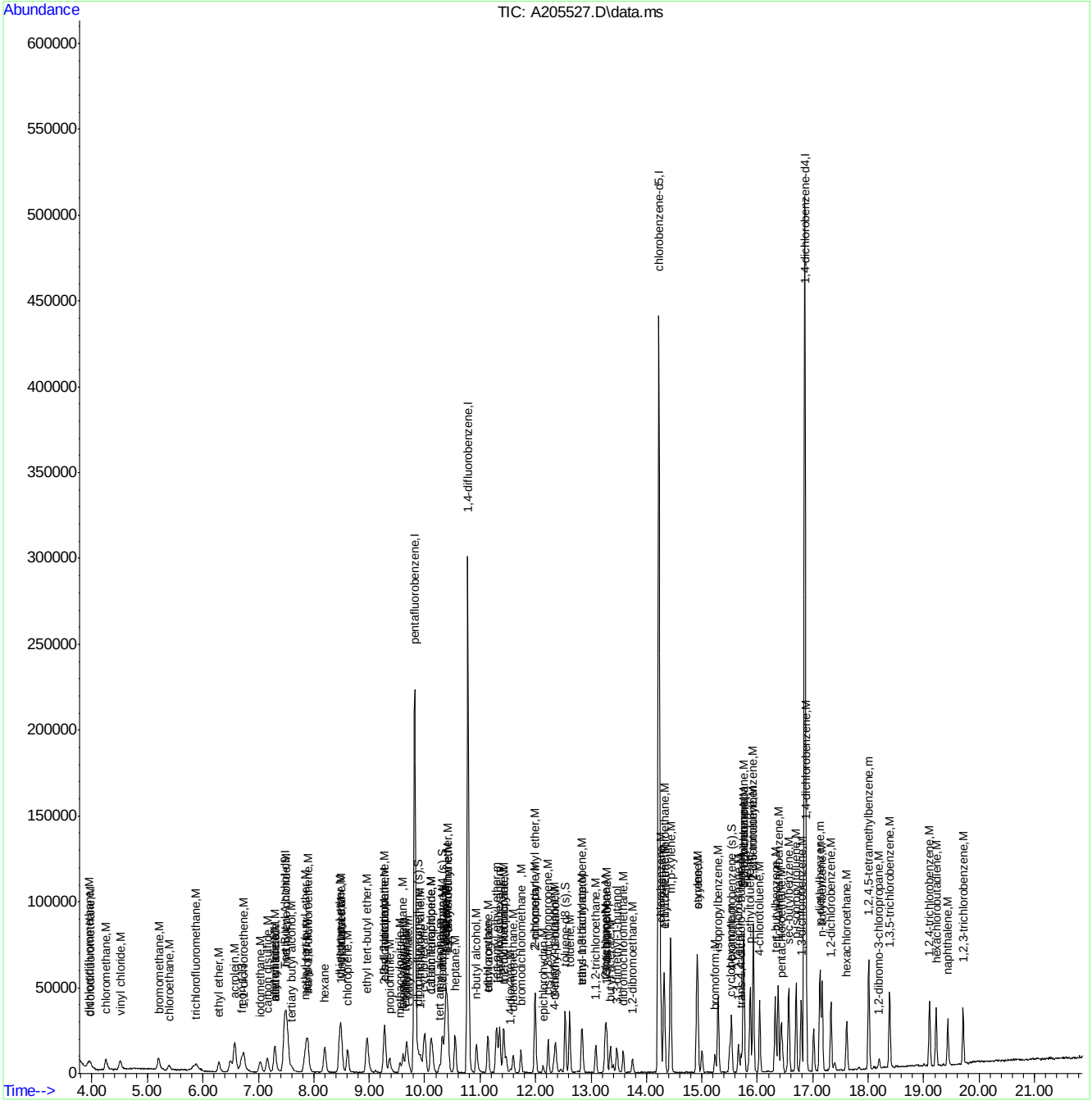
7.7.18

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205527.D
Acq On : 13 May 2014 12:04 pm
Operator : OksanaT
Sample : ic7751-5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 13 16:35:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Manual Integration Approval Summary

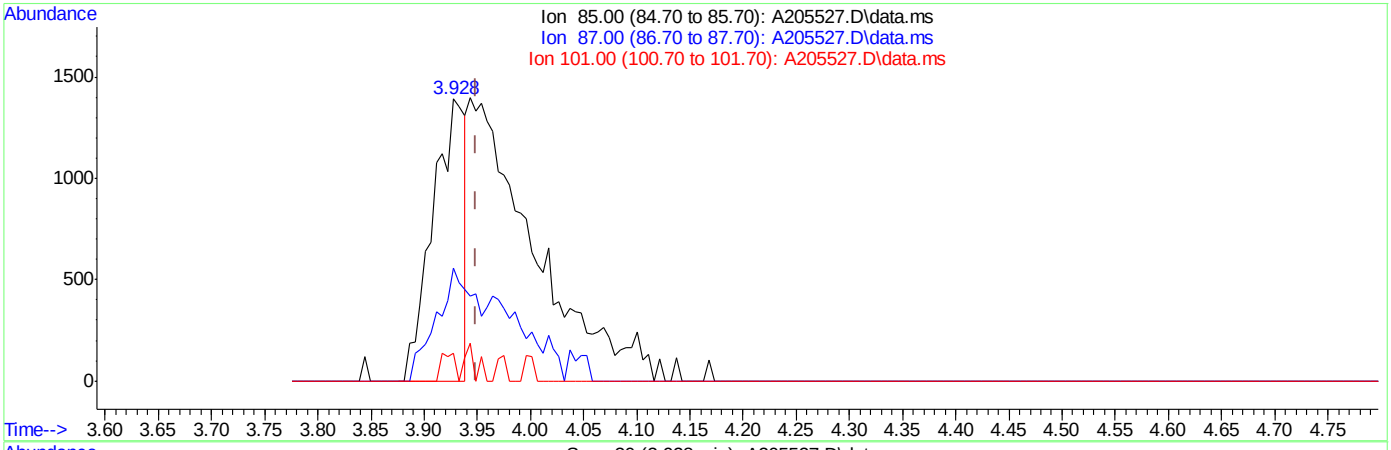
Sample Number:	VA7751-IC7751	**Method:**	SW846 8260B
Lab FileID:	A205527.D	**Analyst approved:**	05/14/14 08:14 Henny Salim
Injection Time:	05/13/14 12:04	**Supervisor approved:**	05/14/14 10:58 Jessica Reitan-Chu

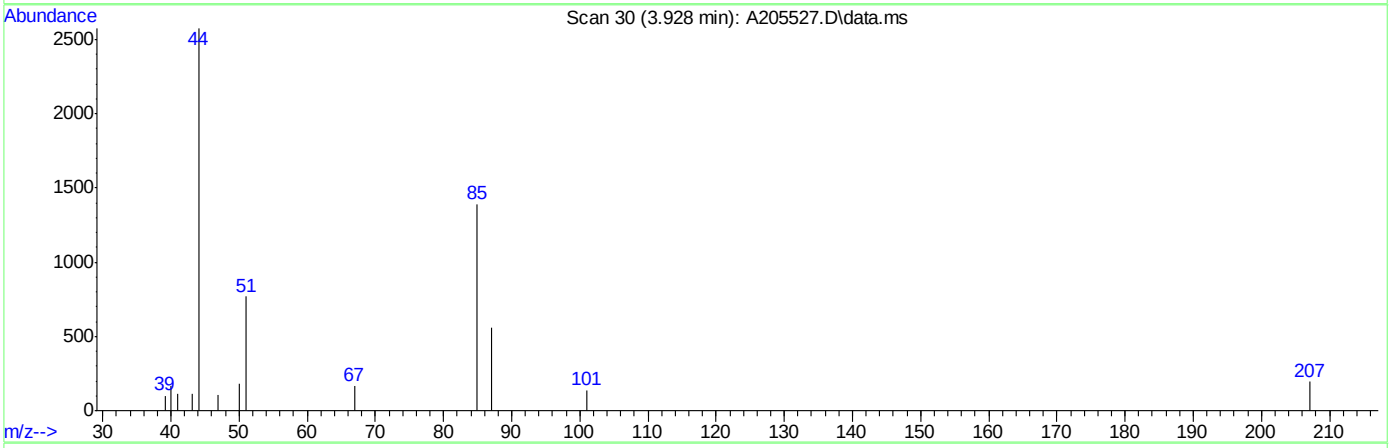
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		3.94	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205527.D
Acq On : 13 May 2014 12:04 pm
Operator : OksanaT
Sample : ic7751-5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 13 16:35:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration





TIC: A205527.D\data.ms

(7) dichlorodifluoromethane (M)

3.928min (-0.022) 1.69ug/L

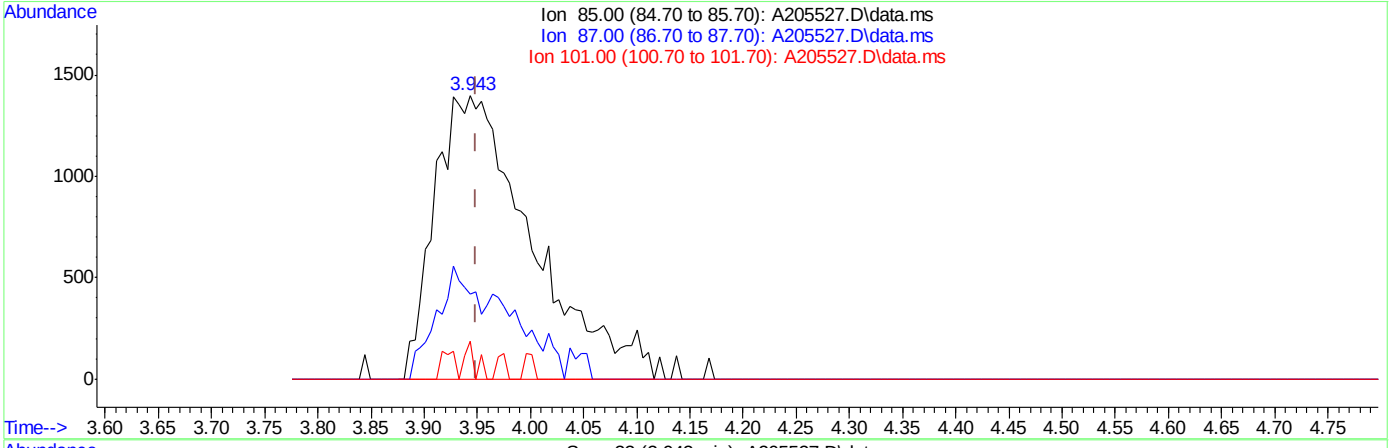
response 2937

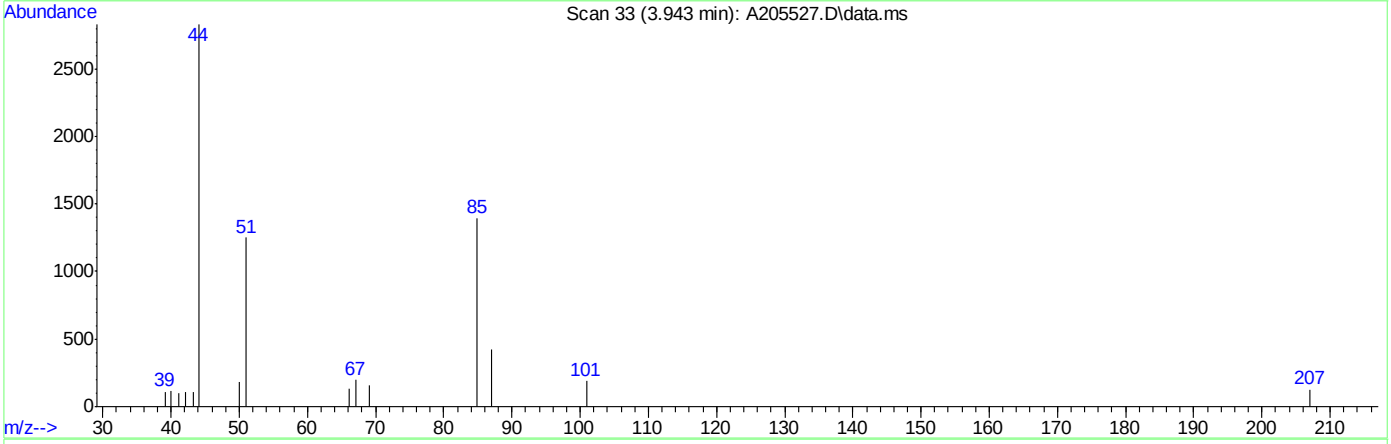
Ion	Exp%	Act%
85.00	100	100
87.00	34.10	40.22
101.00	8.80	9.86
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A205527.D
Acq On : 13 May 2014 12:04 pm
Operator : OksanaT
Sample : ic7751-5
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 13 16:35:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration





TIC: A205527.D\data.ms

(7) dichlorodifluoromethane (M)

3.943min (-0.006) 5.11ug/L m

response 8863

Ion	Exp%	Act%
85.00	100	100
87.00	34.10	30.11
101.00	8.80	13.52
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205528.D
Acq On : 13 May 2014 12:36 pm
Operator : OksanaT
Sample : ic7751-10
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 13 16:38:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.479	65	77568	500.00	ug/L	-0.04
4) pentafluorobenzene	9.821	168	214266	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.778	114	299462	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.223	117	281529	50.00	ug/L	-0.03
98) 1,4-dichlorobenzene-d4	16.853	152	164773	50.00	ug/L	-0.04

System Monitoring Compounds

46) dibromofluoromethane (s)	9.879	113	16173	7.44	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 14.88%#			
47) 1,2-dichloroethane-d4 (s)	10.318	65	17484	7.29	ug/L	-0.04
Spiked Amount 50.000	Range 65 - 123		Recovery = 14.58%#			
75) toluene-d8 (s)	12.534	98	56930	7.71	ug/L	-0.03
Spiked Amount 50.000	Range 77 - 125		Recovery = 15.42%#			
101) 4-bromofluorobenzene (s)	15.530	95	24744	7.32	ug/L	-0.04
Spiked Amount 50.000	Range 71 - 132		Recovery = 14.64%#			

Target Compounds

						Qvalue
2) 1,4-dioxane	11.552	88	4062	253.26	ug/L	92
3) tertiary butyl alcohol	7.604	59	9841	53.68	ug/L	100
6) chlorodifluoromethane	3.955	51	13458	10.09	ug/L	87
7) dichlorodifluoromethane	3.940	85	19316	11.15	ug/L	95
8) chloromethane	4.253	50	25219	8.88	ug/L	100
9) vinyl chloride	4.509	62	21322	9.07	ug/L	98
10) bromomethane	5.200	94	14810	9.21	ug/L	95
11) chloroethane	5.388	64	9961	8.77	ug/L	92
13) trichlorofluoromethane	5.869	101	21321	9.03	ug/L	95
15) ethyl ether	6.287	74	8634	8.88	ug/L	92
17) acrolein	6.575	56	31089	85.80	ug/L	96
18) freon 113	6.700	151	11326	10.16	ug/L	91
19) 1,1-dichloroethene	6.742	96	13423	8.79	ug/L	99
20) acetone	6.810	58	1471	10.15	ug/L #	57
21) allyl chloride	7.301	76	8360	6.78	ug/L	94
22) acetonitrile	7.280	40	13522	82.58	ug/L #	55
23) iodomethane	7.029	142	29738	10.19	ug/L	96
24) carbon disulfide	7.160	76	49190	8.99	ug/L	97
25) methylene chloride	7.510	84	20189	6.58	ug/L	100
26) methyl acetate	7.296	43	12129	8.26	ug/L	95
27) methyl tert butyl ether	7.845	73	49858	9.77	ug/L	100
28) trans-1,2-dichloroethene	7.897	96	15418	8.42	ug/L	99
29) hexane	8.195	57	19809	9.29	ug/L	97
30) di-isopropyl ether	8.472	45	64119	9.60	ug/L	99
31) t-butyl formate	9.701	59	14750	9.56	ug/L	96
32) ethyl tert-butyl ether	8.959	59	59189	9.86	ug/L	98
33) 2-butanone	9.262	72	1630	8.85	ug/L #	63
34) 1,1-dichloroethane	8.504	63	29988	9.30	ug/L	98
35) chloroprene	8.608	53	22986	9.37	ug/L	97
36) acrylonitrile	7.871	53	25910	45.59	ug/L	95
37) vinyl acetate	8.488	86	2263	8.47	ug/L	88
38) ethyl acetate	9.262	45	2412	9.92	ug/L	69
39) ethyl acrylate	11.144	55	19958	9.30	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205528.D
Acq On : 13 May 2014 12:36 pm
Operator : OksanaT
Sample : ic7751-10
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 13 16:38:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 2,2-dichloropropane	9.277	77	22816	9.42	ug/L		100
41) cis-1,2-dichloroethene	9.283	96	17515	8.51	ug/L		99
42) propionitrile	9.372	54	21045	87.32	ug/L		86
43) bromochloromethane	9.607	128	8934	8.88	ug/L		96
44) tetrahydrofuran	9.643	42	6116	9.35	ug/L		94
45) chloroform	9.669	83	29244	9.20	ug/L		93
48) methacrylonitrile	9.554	67	5660	8.11	ug/L		90
49) cyclohexane	9.988	84	21357	9.65	ug/L		97
50) 1,1,1-trichloroethane	9.920	97	23039	9.63	ug/L		98
52) tert-amyl methyl ether	10.412	73	56303	9.67	ug/L		96
55) epichlorohydrin	12.137	57	7865	50.11	ug/L		98
56) n-butyl alcohol	10.929	56	24701	508.79	ug/L		97
57) carbon tetrachloride	10.130	117	20934	9.34	ug/L		100
58) 1,1-dichloropropene	10.109	75	20204	8.94	ug/L		97
59) benzene	10.386	78	63302	9.25	ug/L		99
60) Iso-octane	10.370	57	61338	9.65	ug/L		97
61) heptane	10.553	71	12281	9.95	ug/L		95
62) tert amyl alcohol	10.265	59	10938	49.38	ug/L		97
63) isopropyl acetate	10.313	43	34658	8.26	ug/L		93
64) 1,2-dichloroethane	10.412	62	21537	10.39	ug/L		97
65) trichloroethene	11.139	95	15486	9.81	ug/L		97
66) 2-nitropropane	11.980	41	6207	9.64	ug/L	#	53
67) tert-amyl ethyl ether	11.301	59	45429	9.51	ug/L	#	99
68) methylcyclohexane	11.348	83	24788	9.89	ug/L	#	93
69) 2-chloroethyl vinyl ether	11.991	63	48855	44.78	ug/L		98
70) methyl methacrylate	11.426	69	10377	9.94	ug/L		93
71) 1,2-dichloropropane	11.421	63	18102	9.40	ug/L		99
72) dibromomethane	11.599	93	10186	9.68	ug/L		93
73) bromodichloromethane	11.735	83	23136	10.16	ug/L		98
74) cis-1,3-dichloropropene	12.226	75	29488	10.04	ug/L		96
76) 4-methyl-2-pentanone	12.331	58	6378	9.68	ug/L		89
77) toluene	12.613	92	41225	9.73	ug/L		96
78) 3-methyl-1-butanol	12.362	55	17160	197.57	ug/L		96
79) trans-1,3-dichloropropene	12.848	75	27430	10.33	ug/L		97
80) ethyl methacrylate	12.827	69	21658	9.93	ug/L		97
81) 1,1,2-trichloroethane	13.083	83	12817	10.49	ug/L		98
82) 2-hexanone	13.272	58	5965	9.10	ug/L		94
84) tetrachloroethene	13.256	164	14606	9.86	ug/L		96
85) 1,3-dichloropropane	13.282	76	24752	9.91	ug/L		99
86) butyl acetate	13.345	56	12019	8.12	ug/L		89
87) 3,3-dimethyl-1-butanol	13.465	57	18461	96.20	ug/L		95
88) dibromochloromethane	13.585	129	19481	10.12	ug/L		98
89) 1,2-dibromoethane	13.747	107	15554	10.46	ug/L		98
91) chlorobenzene	14.260	112	49261	9.94	ug/L		98
92) 1,1,1,2-tetrachloroethane	14.328	131	18924	10.15	ug/L		90
93) ethylbenzene	14.312	91	80494	9.70	ug/L		99
94) m,p-xylene	14.432	106	62178	19.77	ug/L		100
95) o-xylene	14.908	106	32310	9.73	ug/L		97
96) styrene	14.924	104	56402	10.06	ug/L		99
97) bromoform	15.237	173	14596	10.70	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205528.D
Acq On : 13 May 2014 12:36 pm
Operator : OksanaT
Sample : ic7751-10
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 13 16:38:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
99) isopropylbenzene	15.290	105	80946	9.07	ug/L		99
100) cyclohexanone	15.504	55	16580	139.79	ug/L		95
102) bromobenzene	15.755	156	24531	10.43	ug/L		93
103) 1,1,2,2-tetrachloroethane	15.661	83	21907	9.28	ug/L		98
104) trans-1,4-dichloro-2-b...	15.708	53	6205	9.36	ug/L		87
105) 1,2,3-trichloropropane	15.750	110	5392	9.36	ug/L		90
106) n-propylbenzene	15.755	91	96771	9.47	ug/L		98
107) 2-chlorotoluene	15.933	126	21580	9.95	ug/L		96
108) 4-chlorotoluene	16.042	91	64338	9.54	ug/L		99
109) p-ethyltoluene	15.870	105	85291	9.17	ug/L		99
110) 1,3,5-trimethylbenzene	15.927	105	71585	9.37	ug/L		100
111) tert-butylbenzene	16.320	119	61775	9.30	ug/L		96
112) pentachloroethane	16.429	167	15524	9.63	ug/L		98
113) 1,2,4-trimethylbenzene	16.377	105	73125	9.39	ug/L		95
114) sec-butylbenzene	16.565	105	94360	9.48	ug/L		100
115) 1,3-dichlorobenzene	16.790	146	47892	9.87	ug/L		97
116) p-isopropyltoluene	16.701	119	82045	9.57	ug/L		98
118) 1,4-dichlorobenzene	16.884	146	47459	9.66	ug/L		99
119) p-diethylbenzene	17.130	119	50320	8.59	ug/L		92
120) 1,2-dichlorobenzene	17.329	146	45587	9.78	ug/L		96
121) n-butylbenzene	17.166	92	43784	9.25	ug/L		90
122) 1,2,4,5-tetramethylben...	18.008	119	85845	9.49	ug/L	#	99
123) 1,2-dibromo-3-chloropr...	18.196	75	3876	8.68	ug/L		97
124) 1,3,5-trichlorobenzene	18.385	180	41454	10.32	ug/L		98
125) 1,2,4-trichlorobenzene	19.106	180	35321	10.29	ug/L		97
126) hexachlorobutadiene	19.226	225	23255	10.94	ug/L		92
127) naphthalene	19.435	128	63622	9.49	ug/L		98
128) 1,2,3-trichlorobenzene	19.712	180	31473	10.39	ug/L		97
129) hexachloroethane	17.611	201	16220	10.88	ug/L		100

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

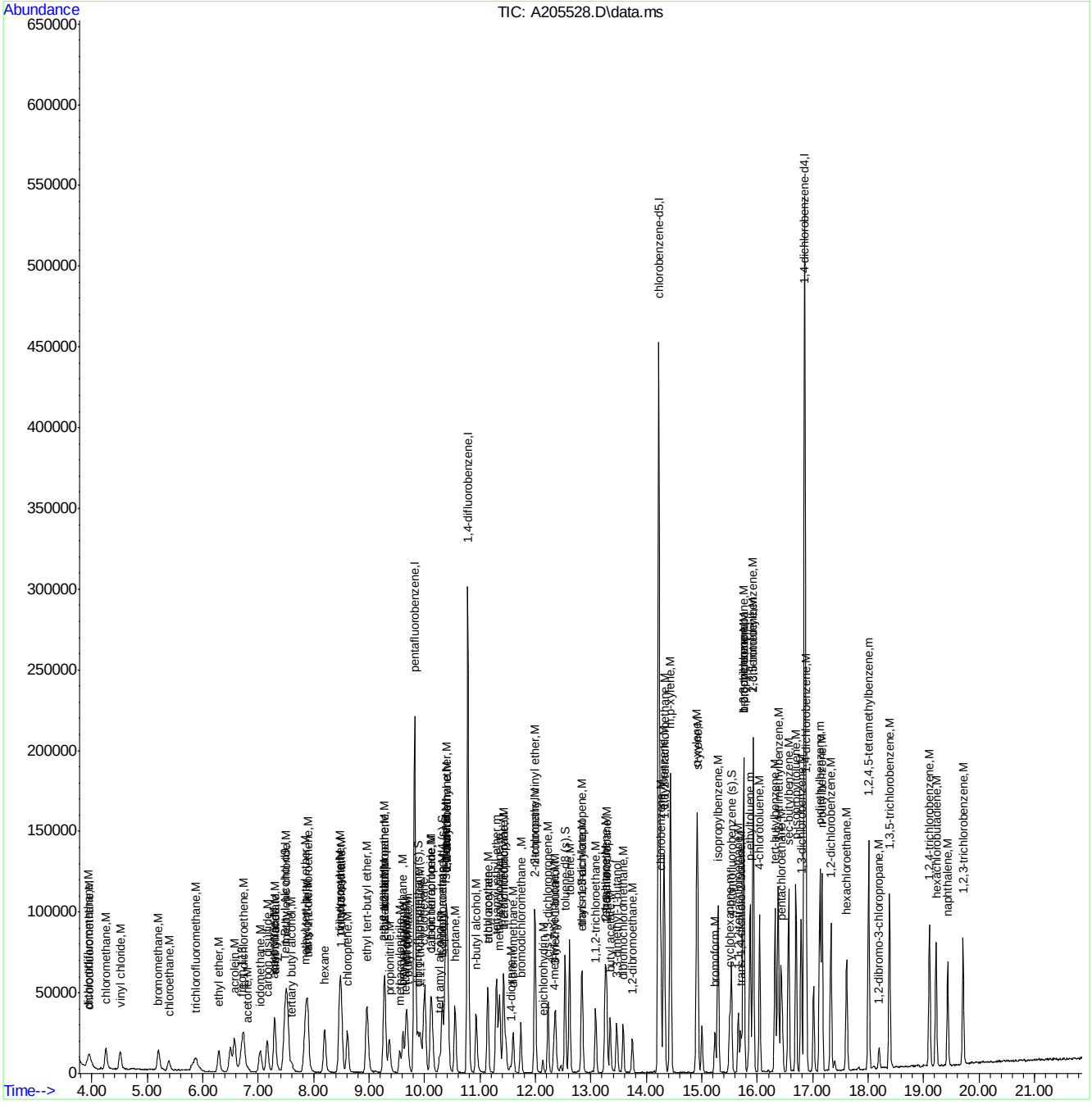
7.7.19

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205528.D
Acq On : 13 May 2014 12:36 pm
Operator : OksanaT
Sample : ic7751-10
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 13 16:38:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205529.D
Acq On : 13 May 2014 1:09 pm
Operator : OksanaT
Sample : ic7751-20
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 13 16:46:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.473	65	77704	500.00	ug/L	-0.05
4) pentafluorobenzene	9.821	168	214643	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.778	114	301410	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.223	117	282561	50.00	ug/L	-0.04
98) 1,4-dichlorobenzene-d4	16.852	152	164914	50.00	ug/L	-0.04

System Monitoring Compounds

46) dibromofluoromethane (s)	9.884	113	34360	15.77	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 31.54%#			
47) 1,2-dichloroethane-d4 (s)	10.318	65	36849	15.34	ug/L	-0.04
Spiked Amount 50.000	Range 65 - 123		Recovery = 30.68%#			
75) toluene-d8 (s)	12.534	98	124632	16.78	ug/L	-0.03
Spiked Amount 50.000	Range 77 - 125		Recovery = 33.56%#			
101) 4-bromofluorobenzene (s)	15.535	95	51701	15.29	ug/L	-0.03
Spiked Amount 50.000	Range 71 - 132		Recovery = 30.58%#			

Target Compounds

						Qvalue
2) 1,4-dioxane	11.546	88	8292	516.10	ug/L	93
3) tertiary butyl alcohol	7.604	59	19058	103.78	ug/L	100
6) chlorodifluoromethane	3.960	51	23670	17.71	ug/L	99
7) dichlorodifluoromethane	3.945	85	36097	20.79	ug/L	96
8) chloromethane	4.253	50	47273	16.62	ug/L	96
9) vinyl chloride	4.514	62	41568	17.65	ug/L	98
10) bromomethane	5.199	94	28243	17.54	ug/L	98
11) chloroethane	5.393	64	18593	16.34	ug/L	99
13) trichlorofluoromethane	5.874	101	41609	17.58	ug/L	97
15) ethyl ether	6.292	74	18489	18.98	ug/L	93
17) acrolein	6.569	56	58691	161.69	ug/L	93
18) freon 113	6.705	151	22374	20.04	ug/L #	95
19) 1,1-dichloroethene	6.742	96	29113	19.04	ug/L	97
20) acetone	6.810	58	3133	21.57	ug/L #	84
21) allyl chloride	7.301	76	18560	15.02	ug/L #	85
22) acetonitrile	7.280	40	25593	156.03	ug/L #	62
23) iodomethane	7.034	142	63973	21.88	ug/L	95
24) carbon disulfide	7.160	76	106252	19.39	ug/L	98
25) methylene chloride	7.510	84	39236	12.76	ug/L	97
26) methyl acetate	7.296	43	24067	16.36	ug/L	97
27) methyl tert butyl ether	7.845	73	103718	20.28	ug/L	100
28) trans-1,2-dichloroethene	7.897	96	33555	18.30	ug/L	98
29) hexane	8.195	57	39889	18.68	ug/L	97
30) di-isopropyl ether	8.467	45	131367	19.62	ug/L	92
31) t-butyl formate	9.695	59	30393	19.65	ug/L	98
32) ethyl tert-butyl ether	8.963	59	121738	20.24	ug/L	99
33) 2-butanone	9.256	72	3708	20.10	ug/L #	94
34) 1,1-dichloroethane	8.498	63	65019	20.13	ug/L	99
35) chloroprene	8.608	53	47276	19.24	ug/L	98
36) acrylonitrile	7.866	53	53635	94.21	ug/L	96
37) vinyl acetate	8.482	86	5015	18.73	ug/L	73
38) ethyl acetate	9.267	45	4539	18.63	ug/L	99
39) ethyl acrylate	11.144	55	40231	18.72	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205529.D
Acq On : 13 May 2014 1:09 pm
Operator : OksanaT
Sample : ic7751-20
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 13 16:46:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 2,2-dichloropropane	9.277	77	49650	20.46	ug/L		96
41) cis-1,2-dichloroethene	9.282	96	37985	18.42	ug/L		97
42) propionitrile	9.366	54	42217	174.86	ug/L		71
43) bromochloromethane	9.612	128	19204	19.05	ug/L		92
44) tetrahydrofuran	9.648	42	12101	18.47	ug/L		96
45) chloroform	9.669	83	62872	19.75	ug/L		95
48) methacrylonitrile	9.554	67	12250	17.53	ug/L		91
49) cyclohexane	9.988	84	46901	21.16	ug/L		97
50) 1,1,1-trichloroethane	9.920	97	49642	20.71	ug/L		99
52) tert-amyl methyl ether	10.417	73	112861	19.34	ug/L		99
55) epichlorohydrin	12.132	57	16277	103.03	ug/L		99
56) n-butyl alcohol	10.929	56	50894	1041.54	ug/L		97
57) carbon tetrachloride	10.129	117	45233	20.06	ug/L		97
58) 1,1-dichloropropene	10.108	75	44698	19.66	ug/L		97
59) benzene	10.385	78	136954	19.89	ug/L		99
60) Iso-octane	10.370	57	124296	19.42	ug/L		100
61) heptane	10.553	71	25262	20.34	ug/L		96
62) tert amyl alcohol	10.265	59	21942	98.41	ug/L		100
63) isopropyl acetate	10.312	43	75658	17.91	ug/L		96
64) 1,2-dichloroethane	10.412	62	46129	22.11	ug/L		97
65) trichloroethene	11.133	95	34553	21.75	ug/L		99
66) 2-nitropropane	11.980	41	12438	19.18	ug/L	#	51
67) tert-amyl ethyl ether	11.295	59	94333	19.62	ug/L	#	100
68) methylcyclohexane	11.353	83	51675	20.49	ug/L	#	95
69) 2-chloroethyl vinyl ether	11.990	63	97924	89.18	ug/L		100
70) methyl methacrylate	11.426	69	21395	20.36	ug/L		91
71) 1,2-dichloropropane	11.426	63	39357	20.30	ug/L		96
72) dibromomethane	11.598	93	21570	20.37	ug/L		97
73) bromodichloromethane	11.734	83	50313	21.94	ug/L		100
74) cis-1,3-dichloropropene	12.226	75	64686	21.88	ug/L		97
76) 4-methyl-2-pentanone	12.330	58	13306	20.06	ug/L		95
77) toluene	12.613	92	87944	20.62	ug/L		96
78) 3-methyl-1-butanol	12.356	55	33976	388.65	ug/L		97
79) trans-1,3-dichloropropene	12.843	75	58183	21.77	ug/L		88
80) ethyl methacrylate	12.827	69	44123	20.09	ug/L		90
81) 1,1,2-trichloroethane	13.083	83	27292	22.20	ug/L		97
82) 2-hexanone	13.271	58	12548	19.03	ug/L		97
84) tetrachloroethene	13.256	164	32465	21.84	ug/L		95
85) 1,3-dichloropropane	13.287	76	52727	21.03	ug/L		99
86) butyl acetate	13.345	56	23819	16.03	ug/L		96
87) 3,3-dimethyl-1-butanol	13.465	57	37017	192.19	ug/L		97
88) dibromochloromethane	13.580	129	41583	21.52	ug/L		99
89) 1,2-dibromoethane	13.747	107	32329	21.67	ug/L		97
91) chlorobenzene	14.259	112	106166	21.35	ug/L		98
92) 1,1,1,2-tetrachloroethane	14.327	131	40884	21.84	ug/L		96
93) ethylbenzene	14.312	91	171870	20.63	ug/L		99
94) m,p-xylene	14.432	106	132357	41.94	ug/L		98
95) o-xylene	14.908	106	68763	20.64	ug/L		94
96) styrene	14.923	104	119874	21.31	ug/L		100
97) bromoform	15.237	173	30535	22.31	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205529.D
Acq On : 13 May 2014 1:09 pm
Operator : OksanaT
Sample : ic7751-20
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 13 16:46:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

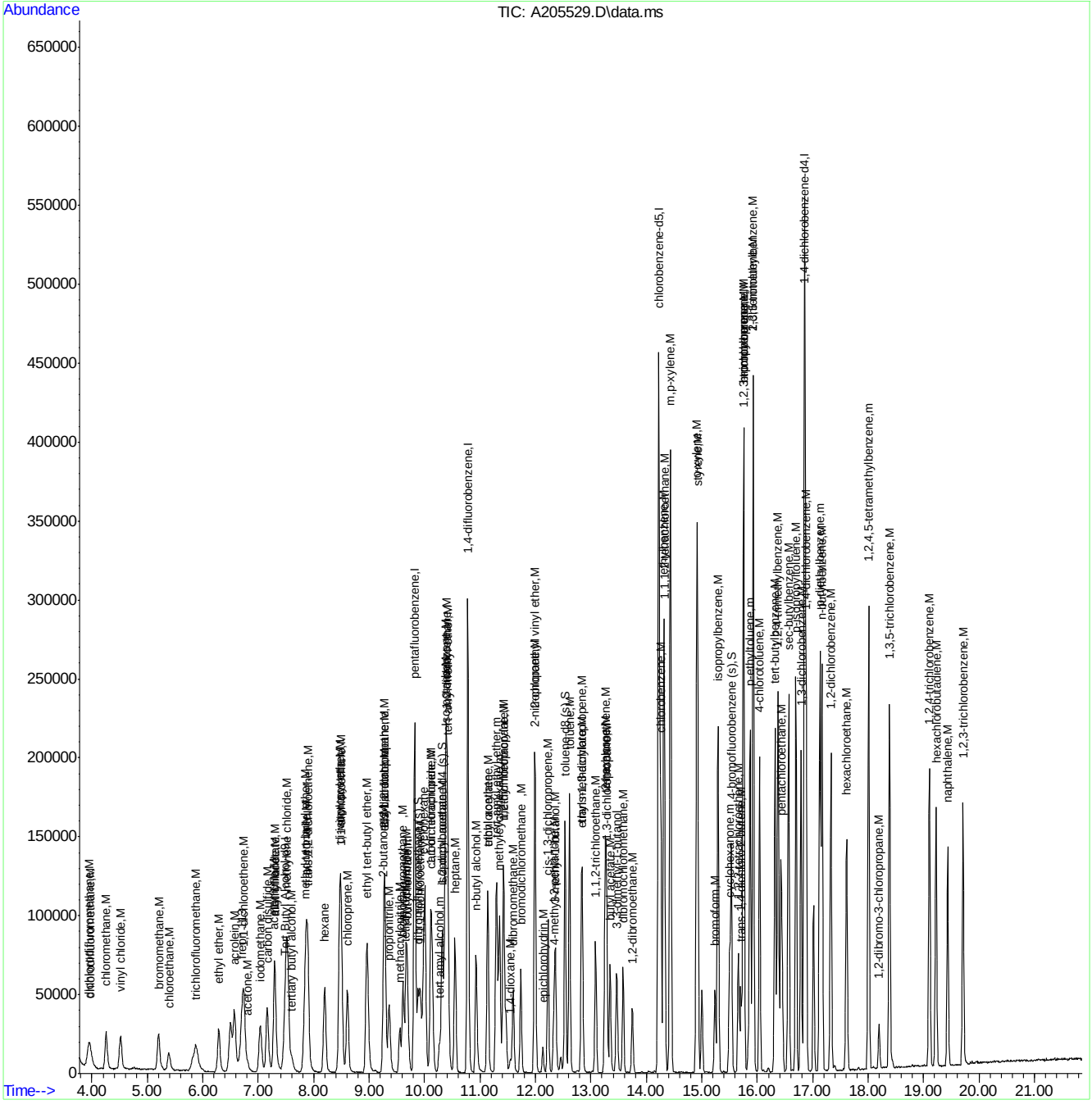
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
99) isopropylbenzene	15.295	105	175769	19.67	ug/L		99
100) cyclohexanone	15.498	55	37829	318.67	ug/L		96
102) bromobenzene	15.755	156	52322	22.24	ug/L		93
103) 1,1,2,2-tetrachloroethane	15.661	83	45207	19.13	ug/L		99
104) trans-1,4-dichloro-2-b...	15.708	53	12230	18.44	ug/L		92
105) 1,2,3-trichloropropane	15.744	110	10940	18.98	ug/L		92
106) n-propylbenzene	15.755	91	203476	19.89	ug/L		99
107) 2-chlorotoluene	15.927	126	45979	21.18	ug/L		99
108) 4-chlorotoluene	16.042	91	133772	19.82	ug/L		97
109) p-ethyltoluene	15.870	105	170841	18.36	ug/L		99
110) 1,3,5-trimethylbenzene	15.927	105	156607	20.49	ug/L		99
111) tert-butylbenzene	16.319	119	133807	20.13	ug/L		99
112) pentachloroethane	16.424	167	33622	20.83	ug/L		99
113) 1,2,4-trimethylbenzene	16.377	105	155314	19.94	ug/L		100
114) sec-butylbenzene	16.565	105	203110	20.39	ug/L		99
115) 1,3-dichlorobenzene	16.790	146	101193	20.83	ug/L		98
116) p-isopropyltoluene	16.696	119	176004	20.51	ug/L		99
118) 1,4-dichlorobenzene	16.884	146	100504	20.44	ug/L		98
119) p-diethylbenzene	17.130	119	107167	18.27	ug/L		92
120) 1,2-dichlorobenzene	17.328	146	97786	20.96	ug/L		98
121) n-butylbenzene	17.166	92	92602	19.54	ug/L		91
122) 1,2,4,5-tetramethylben...	18.008	119	181495	20.05	ug/L	#	99
123) 1,2-dibromo-3-chloropr...	18.196	75	8186	18.33	ug/L		98
124) 1,3,5-trichlorobenzene	18.384	180	90231	22.45	ug/L		99
125) 1,2,4-trichlorobenzene	19.106	180	78570	22.88	ug/L		100
126) hexachlorobutadiene	19.226	225	49100	23.07	ug/L		95
127) naphthalene	19.435	128	134728	20.07	ug/L		100
128) 1,2,3-trichlorobenzene	19.712	180	68191	22.50	ug/L		97
129) hexachloroethane	17.611	201	34983	23.45	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205529.D
Acq On : 13 May 2014 1:09 pm
Operator : OksanaT
Sample : ic7751-20
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 13 16:46:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205530.D
Acq On : 13 May 2014 1:41 pm
Operator : OksanaT
Sample : icc7751-50
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 13 16:49:36 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.479	65	88460	500.00	ug/L	-0.04
4) pentafluorobenzene	9.821	168	214982	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.777	114	300456	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.223	117	287111	50.00	ug/L	-0.04
98) 1,4-dichlorobenzene-d4	16.852	152	172383	50.00	ug/L	-0.04

System Monitoring Compounds

46) dibromofluoromethane (s)	9.878	113	84895	38.90	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 77.80%			
47) 1,2-dichloroethane-d4 (s)	10.317	65	93807	39.00	ug/L	-0.04
Spiked Amount 50.000	Range 65 - 123		Recovery = 78.00%			
75) toluene-d8 (s)	12.534	98	307644	41.55	ug/L	-0.03
Spiked Amount 50.000	Range 77 - 125		Recovery = 83.10%			
101) 4-bromofluorobenzene (s)	15.535	95	133056	37.65	ug/L	-0.04
Spiked Amount 50.000	Range 71 - 132		Recovery = 75.30%			

Target Compounds

						Qvalue
2) 1,4-dioxane	11.546	88	21689	1185.79	ug/L	98
3) tertiary butyl alcohol	7.604	59	53667	256.71	ug/L	100
6) chlorodifluoromethane	3.960	51	65828	49.18	ug/L	96
7) dichlorodifluoromethane	3.960	85	96117	55.28	ug/L	93
8) chloromethane	4.258	50	125429	44.02	ug/L	98
9) vinyl chloride	4.520	62	109109	46.25	ug/L	98
10) bromomethane	5.194	94	70477	43.71	ug/L	98
11) chloroethane	5.387	64	48357	42.44	ug/L	95
13) trichlorofluoromethane	5.874	101	114960	48.50	ug/L	96
15) ethyl ether	6.292	74	49795	51.03	ug/L	91
17) acrolein	6.569	56	157598	433.49	ug/L	96
18) freon 113	6.694	151	57664	51.56	ug/L	94
19) 1,1-dichloroethene	6.736	96	76419	49.90	ug/L	98
20) acetone	6.809	58	8843	60.80	ug/L	98
21) allyl chloride	7.296	76	47350	38.26	ug/L	96
22) acetonitrile	7.285	40	71858	437.41	ug/L #	85
23) iodomethane	7.034	142	169253	57.81	ug/L	98
24) carbon disulfide	7.160	76	285306	51.99	ug/L	98
25) methylene chloride	7.505	84	99559	32.33	ug/L	96
26) methyl acetate	7.290	43	63044	42.78	ug/L	98
27) methyl tert butyl ether	7.845	73	280294	54.73	ug/L	100
28) trans-1,2-dichloroethene	7.897	96	85638	46.63	ug/L	95
29) hexane	8.195	57	100445	46.97	ug/L	100
30) di-isopropyl ether	8.467	45	330080	49.23	ug/L	99
31) t-butyl formate	9.690	59	79548	51.36	ug/L	98
32) ethyl tert-butyl ether	8.963	59	308383	51.20	ug/L	99
33) 2-butanone	9.251	72	10440	56.50	ug/L #	89
34) 1,1-dichloroethane	8.498	63	168404	52.05	ug/L	99
35) chloroprene	8.608	53	119875	48.72	ug/L	96
36) acrylonitrile	7.860	53	149245	261.72	ug/L	95
37) vinyl acetate	8.488	86	13054	48.67	ug/L	76
38) ethyl acetate	9.267	45	12009	49.23	ug/L	93
39) ethyl acrylate	11.143	55	104808	48.70	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205530.D
Acq On : 13 May 2014 1:41 pm
Operator : OksanaT
Sample : icc7751-50
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 13 16:49:36 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 2,2-dichloropropane	9.277	77	126931	52.21	ug/L		99
41) cis-1,2-dichloroethene	9.277	96	98620	47.76	ug/L		98
42) propionitrile	9.366	54	120220	497.15	ug/L		78
43) bromochloromethane	9.606	128	51096	50.59	ug/L		99
44) tetrahydrofuran	9.643	42	32926	50.17	ug/L		98
45) chloroform	9.669	83	161188	50.56	ug/L		96
48) methacrylonitrile	9.549	67	33630	48.05	ug/L		91
49) cyclohexane	9.988	84	123183	55.49	ug/L		97
50) 1,1,1-trichloroethane	9.925	97	129717	54.04	ug/L		100
52) tert-amyl methyl ether	10.417	73	288733	49.40	ug/L		98
55) epichlorohydrin	12.132	57	42516	269.98	ug/L		98
56) n-butyl alcohol	10.929	56	144071	2957.77	ug/L		98
57) carbon tetrachloride	10.129	117	118785	52.85	ug/L		97
58) 1,1-dichloropropene	10.108	75	114535	50.54	ug/L		99
59) benzene	10.385	78	352297	51.32	ug/L		99
60) Iso-octane	10.370	57	317643	49.78	ug/L		99
61) heptane	10.547	71	62431	50.42	ug/L		94
62) tert amyl alcohol	10.270	59	62135	279.56	ug/L		99
63) isopropyl acetate	10.307	43	196325	46.63	ug/L		95
64) 1,2-dichloroethane	10.412	62	119816	57.60	ug/L		99
65) trichloroethene	11.133	95	88740	56.05	ug/L		99
66) 2-nitropropane	11.980	41	33873	52.41	ug/L	#	48
67) tert-amyl ethyl ether	11.295	59	236198	49.28	ug/L	#	99
68) methylcyclohexane	11.353	83	130360	51.86	ug/L	#	96
69) 2-chloroethyl vinyl ether	11.990	63	255969	233.85	ug/L		99
70) methyl methacrylate	11.421	69	58167	55.53	ug/L		90
71) 1,2-dichloropropane	11.421	63	100812	52.15	ug/L		98
72) dibromomethane	11.598	93	57398	54.38	ug/L		94
73) bromodichloromethane	11.734	83	132250	57.86	ug/L		100
74) cis-1,3-dichloropropene	12.226	75	166865	56.63	ug/L		96
76) 4-methyl-2-pentanone	12.330	58	36840	55.71	ug/L		95
77) toluene	12.612	92	226791	53.34	ug/L		100
78) 3-methyl-1-butanol	12.356	55	95277	1093.33	ug/L		97
79) trans-1,3-dichloropropene	12.843	75	153883	57.76	ug/L		90
80) ethyl methacrylate	12.827	69	123713	56.51	ug/L		96
81) 1,1,2-trichloroethane	13.083	83	71390	58.24	ug/L		97
82) 2-hexanone	13.266	58	36598	55.67	ug/L		99
84) tetrachloroethene	13.256	164	86186	57.07	ug/L		97
85) 1,3-dichloropropane	13.282	76	140622	55.20	ug/L		99
86) butyl acetate	13.344	56	63119	41.82	ug/L		97
87) 3,3-dimethyl-1-butanol	13.465	57	105902	541.13	ug/L		98
88) dibromochloromethane	13.580	129	112421	57.25	ug/L		99
89) 1,2-dibromoethane	13.747	107	87068	57.44	ug/L		97
91) chlorobenzene	14.259	112	275087	54.44	ug/L		99
92) 1,1,1,2-tetrachloroethane	14.327	131	107123	56.32	ug/L		97
93) ethylbenzene	14.312	91	447971	52.91	ug/L		100
94) m,p-xylene	14.432	106	345860	107.85	ug/L		100
95) o-xylene	14.908	106	180456	53.30	ug/L		100
96) styrene	14.923	104	317931	55.63	ug/L		100
97) bromoform	15.237	173	84405	60.68	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205530.D
Acq On : 13 May 2014 1:41 pm
Operator : OksanaT
Sample : icc7751-50
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 13 16:49:36 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

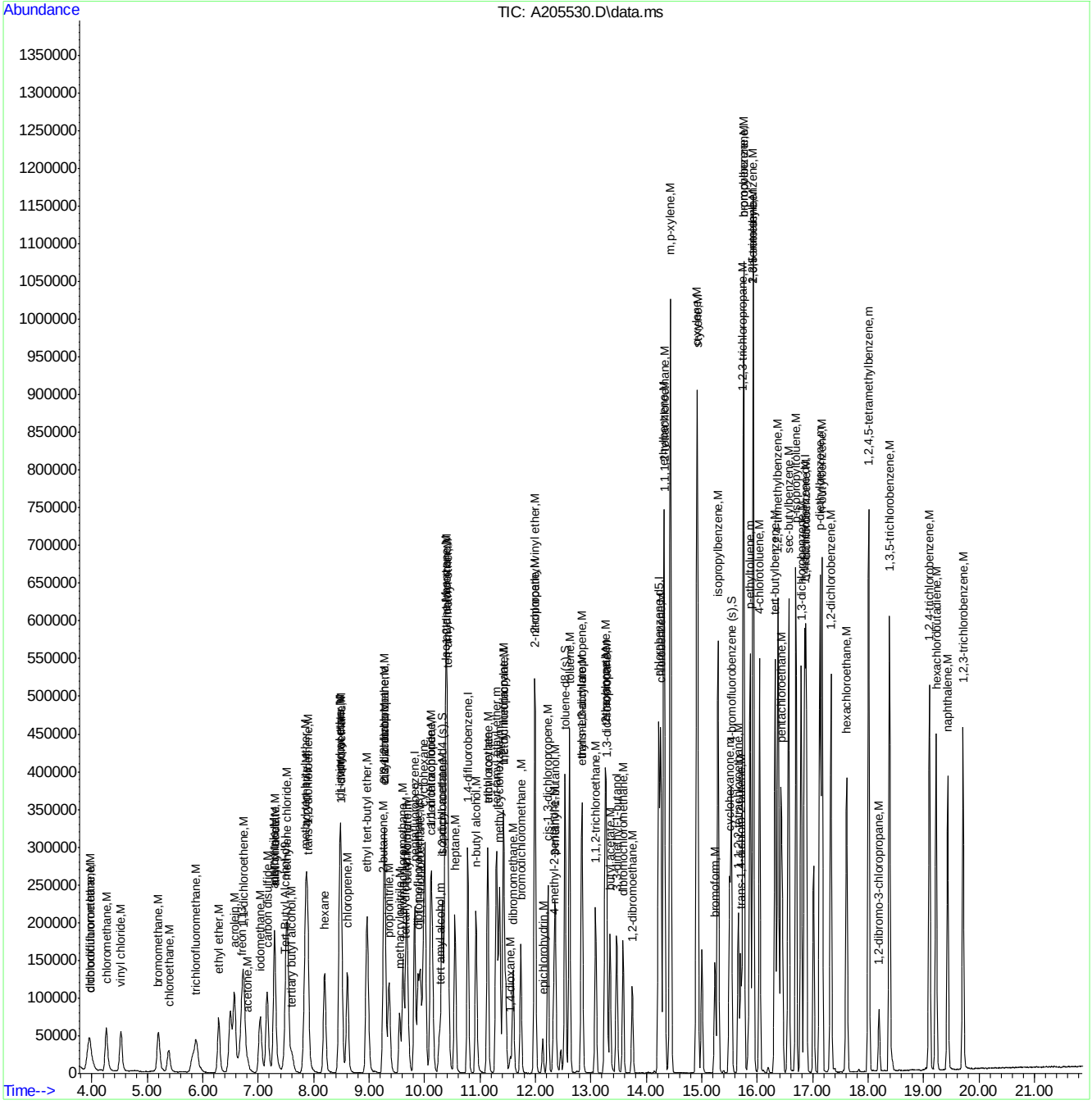
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
99) isopropylbenzene	15.289	105	456858	48.91 ug/L	100
100) cyclohexanone	15.504	55	122131	984.24 ug/L	97
102) bromobenzene	15.755	156	136933	55.67 ug/L	93
103) 1,1,2,2-tetrachloroethane	15.660	83	125097	50.64 ug/L	99
104) trans-1,4-dichloro-2-b...	15.702	53	35064	50.56 ug/L	99
105) 1,2,3-trichloropropane	15.739	110	30282	50.26 ug/L	96
106) n-propylbenzene	15.755	91	529730	49.54 ug/L	99
107) 2-chlorotoluene	15.927	126	118948	52.41 ug/L	90
108) 4-chlorotoluene	16.042	91	355327	50.37 ug/L	98
109) p-ethyltoluene	15.870	105	430713	44.27 ug/L	99
110) 1,3,5-trimethylbenzene	15.927	105	406038	50.82 ug/L	98
111) tert-butylbenzene	16.319	119	346419	49.85 ug/L	100
112) pentachloroethane	16.429	167	88437	52.42 ug/L	98
113) 1,2,4-trimethylbenzene	16.371	105	410051	50.35 ug/L	99
114) sec-butylbenzene	16.565	105	535435	51.43 ug/L	100
115) 1,3-dichlorobenzene	16.790	146	267543	52.68 ug/L	98
116) p-isopropyltoluene	16.696	119	459903	51.27 ug/L	97
118) 1,4-dichlorobenzene	16.884	146	266356	51.82 ug/L	99
119) p-diethylbenzene	17.129	119	270756	44.16 ug/L	92
120) 1,2-dichlorobenzene	17.328	146	259047	53.12 ug/L	99
121) n-butylbenzene	17.166	92	246037	49.67 ug/L	87
122) 1,2,4,5-tetramethylben...	18.008	119	461384	48.76 ug/L #	100
123) 1,2-dibromo-3-chloropr...	18.196	75	22938	49.13 ug/L	96
124) 1,3,5-trichlorobenzene	18.384	180	233653	55.62 ug/L	99
125) 1,2,4-trichlorobenzene	19.106	180	208391	58.04 ug/L	99
126) hexachlorobutadiene	19.226	225	131880	59.29 ug/L	96
127) naphthalene	19.435	128	380933	54.30 ug/L	99
128) 1,2,3-trichlorobenzene	19.712	180	184794	58.32 ug/L	98
129) hexachloroethane	17.616	201	94215	60.41 ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205530.D
Acq On : 13 May 2014 1:41 pm
Operator : OksanaT
Sample : icc7751-50
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 13 16:49:36 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205531.D
Acq On : 13 May 2014 2:10 pm
Operator : OksanaT
Sample : ic7751-100
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 13 16:51:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.488	65	86434	500.00	ug/L	-0.03
4) pentafluorobenzene	9.820	168	216709	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.781	114	297248	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.221	117	283421	50.00	ug/L	-0.04
98) 1,4-dichlorobenzene-d4	16.856	152	167403	50.00	ug/L	-0.03

System Monitoring Compounds

46) dibromofluoromethane (s)	9.882	113	171228	77.84	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 155.68%#			
47) 1,2-dichloroethane-d4 (s)	10.316	65	182873	75.41	ug/L	-0.04
Spiked Amount 50.000	Range 65 - 123		Recovery = 150.82%#			
75) toluene-d8 (s)	12.533	98	606771	82.83	ug/L	-0.04
Spiked Amount 50.000	Range 77 - 125		Recovery = 165.66%#			
101) 4-bromofluorobenzene (s)	15.534	95	264422	77.04	ug/L	-0.04
Spiked Amount 50.000	Range 71 - 132		Recovery = 154.08%#			

Target Compounds

						Qvalue
2) 1,4-dioxane	11.545	88	43332	2424.60	ug/L	97
3) tertiary butyl alcohol	7.603	59	102396	501.29	ug/L	100
6) chlorodifluoromethane	3.964	51	133160	98.68	ug/L	98
7) dichlorodifluoromethane	3.943	85	182875	104.34	ug/L	97
8) chloromethane	4.267	50	240852	83.85	ug/L	99
9) vinyl chloride	4.534	62	210330	88.45	ug/L	99
10) bromomethane	5.198	94	129050	79.39	ug/L	99
11) chloroethane	5.376	64	90150	78.49	ug/L	97
13) trichlorofluoromethane	5.878	101	218823	91.59	ug/L	100
15) ethyl ether	6.291	74	93786	95.35	ug/L	92
18) freon 113	6.704	151	111913	99.26	ug/L	95
19) 1,1-dichloroethene	6.735	96	144665	93.71	ug/L	98
20) acetone	6.803	58	14656	99.96	ug/L	94
21) allyl chloride	7.300	76	91676	73.48	ug/L	93
22) acetonitrile	7.284	40	135870	820.46	ug/L #	85
23) iodomethane	7.033	142	327998	111.13	ug/L	99
24) carbon disulfide	7.153	76	544092	98.36	ug/L	97
25) methylene chloride	7.509	84	189611	61.08	ug/L	100
26) methyl acetate	7.289	43	121942	82.08	ug/L	99
27) methyl tert butyl ether	7.849	73	527635	102.21	ug/L	100
28) trans-1,2-dichloroethene	7.896	96	165257	89.26	ug/L	95
29) hexane	8.199	57	189551	87.94	ug/L	98
30) di-isopropyl ether	8.471	45	639932	94.68	ug/L	91
31) t-butyl formate	9.694	59	154132	98.73	ug/L	99
32) ethyl tert-butyl ether	8.962	59	605309	99.69	ug/L	99
33) 2-butanone	9.250	72	18759	100.72	ug/L	96
34) 1,1-dichloroethane	8.502	63	319791	98.06	ug/L	99
35) chloroprene	8.607	53	230926	93.11	ug/L	96
36) acrylonitrile	7.864	53	273050	475.02	ug/L	95
37) vinyl acetate	8.486	86	24950	92.29	ug/L	59
38) ethyl acetate	9.260	45	23038	93.68	ug/L	93
39) ethyl acrylate	11.142	55	203781	93.93	ug/L	99
40) 2,2-dichloropropane	9.276	77	243941	99.55	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205531.D
Acq On : 13 May 2014 2:10 pm
Operator : OksanaT
Sample : ic7751-100
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 13 16:51:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) cis-1,2-dichloroethene	9.276	96	192305	92.38	ug/L		100
42) propionitrile	9.365	54	222494	912.76	ug/L		72
43) bromochloromethane	9.610	128	97865	96.13	ug/L		98
44) tetrahydrofuran	9.647	42	59298	89.63	ug/L		100
45) chloroform	9.668	83	309724	96.39	ug/L		97
48) methacrylonitrile	9.548	67	61793	87.58	ug/L		92
49) cyclohexane	9.992	84	232460	103.88	ug/L		97
50) 1,1,1-trichloroethane	9.924	97	247925	102.46	ug/L		100
52) tert-amyl methyl ether	10.416	73	555751	94.33	ug/L		98
55) epichlorohydrin	12.130	57	81407	522.51	ug/L		99
56) n-butyl alcohol	10.928	56	274602	5698.40	ug/L		96
57) carbon tetrachloride	10.128	117	226871	102.03	ug/L		98
58) 1,1-dichloropropene	10.107	75	219992	98.12	ug/L		96
59) benzene	10.384	78	673695	99.20	ug/L		99
60) Iso-octane	10.374	57	618333	97.96	ug/L		99
61) heptane	10.546	71	118776	96.96	ug/L		98
62) tert amyl alcohol	10.269	59	119529	543.58	ug/L		100
63) isopropyl acetate	10.311	43	355607	85.37	ug/L		93
64) 1,2-dichloroethane	10.410	62	224774	109.22	ug/L		98
65) trichloroethene	11.137	95	170291	108.72	ug/L		98
66) 2-nitropropane	11.984	41	62298	97.43	ug/L	#	78
67) tert-amyl ethyl ether	11.299	59	479384	101.10	ug/L	#	99
68) methylcyclohexane	11.351	83	250364	100.68	ug/L		99
69) 2-chloroethyl vinyl ether	11.989	63	483559	446.55	ug/L		99
70) methyl methacrylate	11.425	69	109579	105.75	ug/L		92
71) 1,2-dichloropropane	11.419	63	192508	100.66	ug/L		99
72) dibromomethane	11.597	93	108253	103.67	ug/L		97
73) bromodichloromethane	11.733	83	253369	112.05	ug/L		99
74) cis-1,3-dichloropropene	12.224	75	316962	108.73	ug/L		96
76) 4-methyl-2-pentanone	12.329	58	68011	103.95	ug/L		95
77) toluene	12.611	92	432501	102.82	ug/L		99
78) 3-methyl-1-butanol	12.355	55	178941	2075.56	ug/L		97
79) trans-1,3-dichloropropene	12.847	75	286658	108.75	ug/L		94
80) ethyl methacrylate	12.826	69	226173	104.43	ug/L		93
81) 1,1,2-trichloroethane	13.087	83	134833	111.19	ug/L		97
82) 2-hexanone	13.270	58	63905	98.26	ug/L		99
84) tetrachloroethene	13.260	164	163207	109.47	ug/L		95
85) 1,3-dichloropropane	13.286	76	264000	104.99	ug/L		100
86) butyl acetate	13.343	56	116570	78.23	ug/L		97
87) 3,3-dimethyl-1-butanol	13.463	57	202140	1046.32	ug/L		98
88) dibromochloromethane	13.584	129	212579	109.66	ug/L		99
89) 1,2-dibromoethane	13.746	107	163178	109.05	ug/L		98
91) chlorobenzene	14.258	112	527680	105.78	ug/L		99
92) 1,1,1,2-tetrachloroethane	14.331	131	205981	109.70	ug/L		98
93) ethylbenzene	14.316	91	848839	101.57	ug/L		99
94) m,p-xylene	14.431	106	660332	208.59	ug/L		99
95) o-xylene	14.906	106	346606	103.70	ug/L		100
96) styrene	14.922	104	598889	106.15	ug/L		99
97) bromoform	15.236	173	157242	114.52	ug/L		98
99) isopropylbenzene	15.293	105	869713	95.88	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205531.D
Acq On : 13 May 2014 2:10 pm
Operator : OksanaT
Sample : ic7751-100
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 13 16:51:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) cyclohexanone	15.502	55	200566	1664.42	ug/L	96
102) bromobenzene	15.753	156	259133	108.49	ug/L	93
103) 1,1,2,2-tetrachloroethane	15.659	83	227577	94.86	ug/L	99
104) trans-1,4-dichloro-2-b...	15.706	53	63272	93.96	ug/L	92
105) 1,2,3-trichloropropane	15.743	110	54621	93.36	ug/L	97
106) n-propylbenzene	15.759	91	1005948	96.87	ug/L	97
107) 2-chlorotoluene	15.931	126	228681	103.75	ug/L	95
108) 4-chlorotoluene	16.041	91	680988	99.40	ug/L	98
109) p-ethyltoluene	15.874	105	873180	92.42	ug/L	99
110) 1,3,5-trimethylbenzene	15.926	105	770658	99.33	ug/L	99
111) tert-butylbenzene	16.323	119	668509	99.07	ug/L	99
112) pentachloroethane	16.428	167	174013	106.21	ug/L	98
113) 1,2,4-trimethylbenzene	16.375	105	795608	100.60	ug/L	99
114) sec-butylbenzene	16.564	105	1018584	100.75	ug/L	100
115) 1,3-dichlorobenzene	16.788	146	506658	102.73	ug/L	99
116) p-isopropyltoluene	16.700	119	889966	102.16	ug/L	99
118) 1,4-dichlorobenzene	16.883	146	508809	101.94	ug/L	99
119) p-diethylbenzene	17.128	119	550407	92.45	ug/L	94
120) 1,2-dichlorobenzene	17.327	146	496478	104.83	ug/L	98
121) n-butylbenzene	17.165	92	470836	97.88	ug/L	89
122) 1,2,4,5-tetramethylben...	18.012	119	936902	101.96	ug/L #	99
123) 1,2-dibromo-3-chloropr...	18.200	75	42747	94.28	ug/L	93
124) 1,3,5-trichlorobenzene	18.388	180	467910	114.69	ug/L	99
125) 1,2,4-trichlorobenzene	19.104	180	414107	118.77	ug/L	99
126) hexachlorobutadiene	19.225	225	260508	120.61	ug/L	96
127) naphthalene	19.434	128	734655	107.83	ug/L	99
128) 1,2,3-trichlorobenzene	19.711	180	367277	119.36	ug/L	97
129) hexachloroethane	17.614	201	186497	123.15	ug/L	98

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

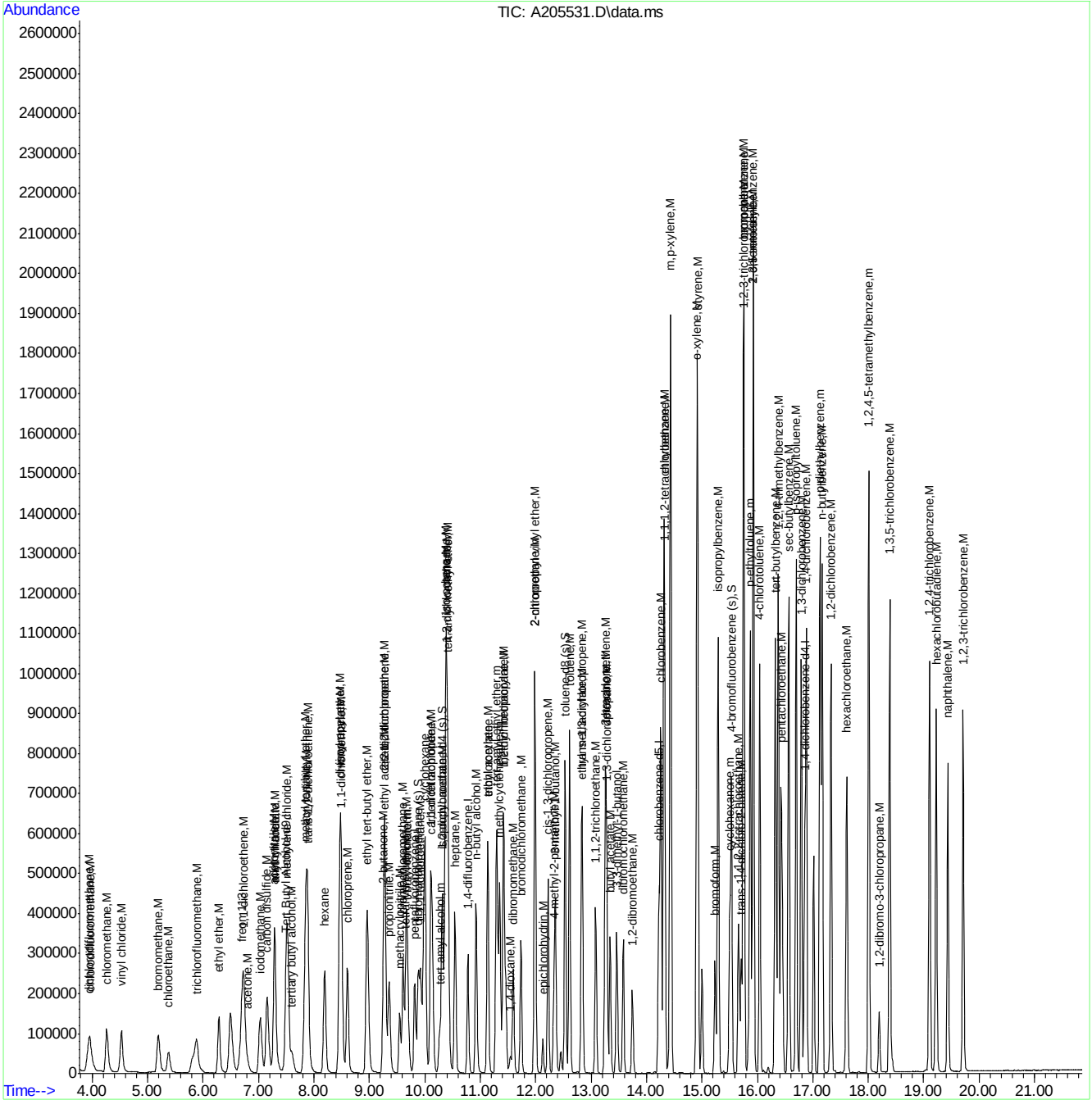
7.7.22

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205531.D
Acq On : 13 May 2014 2:10 pm
Operator : OksanaT
Sample : ic7751-100
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 13 16:51:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205532.D
Acq On : 13 May 2014 2:42 pm
Operator : OksanaT
Sample : ic7751-200
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 13 16:54:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.494	65	92800	500.00	ug/L	-0.03
4) pentafluorobenzene	9.821	168	220685	50.00	ug/L	-0.04
53) 1,4-difluorobenzene	10.777	114	309233	50.00	ug/L	-0.04
83) chlorobenzene-d5	14.223	117	292039	50.00	ug/L	-0.04
98) 1,4-dichlorobenzene-d4	16.852	152	171848	50.00	ug/L	-0.04

System Monitoring Compounds

46) dibromofluoromethane (s)	9.878	113	336117	150.05	ug/L	-0.04
Spiked Amount 50.000	Range 59 - 130		Recovery = 300.10%#			
47) 1,2-dichloroethane-d4 (s)	10.317	65	357214	144.66	ug/L	-0.04
Spiked Amount 50.000	Range 65 - 123		Recovery = 289.32%#			
75) toluene-d8 (s)	12.534	98	1187010	155.76	ug/L	-0.03
Spiked Amount 50.000	Range 77 - 125		Recovery = 311.52%#			
101) 4-bromofluorobenzene (s)	15.535	95	512127	145.35	ug/L	-0.04
Spiked Amount 50.000	Range 71 - 132		Recovery = 290.70%#			

Target Compounds

						Qvalue
2) 1,4-dioxane	11.546	88	90376	4710.00	ug/L	96
3) tertiary butyl alcohol	7.614	59	207240	944.96	ug/L	100
6) chlorodifluoromethane	3.965	51	269858	196.39	ug/L	99
7) dichlorodifluoromethane	3.944	85	365344	204.70	ug/L	98
8) chloromethane	4.274	50	485022	165.81	ug/L	99
9) vinyl chloride	4.540	62	417654	172.48	ug/L	99
11) chloroethane	5.372	64	159576	136.43	ug/L	97
13) trichlorofluoromethane	5.879	101	427619	175.75	ug/L	99
15) ethyl ether	6.286	74	179773	179.48	ug/L	90
18) freon 113	6.699	151	228314	198.86	ug/L	95
19) 1,1-dichloroethene	6.736	96	288448	183.47	ug/L	98
20) acetone	6.809	58	27183	182.06	ug/L	93
21) allyl chloride	7.295	76	173568	136.61	ug/L	97
22) acetonitrile	7.285	40	269077	1595.57	ug/L	93
23) iodomethane	7.034	142	638623	212.48	ug/L	98
24) carbon disulfide	7.149	76	1063780	188.84	ug/L	98
25) methylene chloride	7.510	84	369282	116.81	ug/L	98
26) methyl acetate	7.285	43	240168	158.75	ug/L	99
27) methyl tert butyl ether	7.850	73	1024831	194.94	ug/L	99
28) trans-1,2-dichloroethene	7.891	96	321974	170.77	ug/L	95
29) hexane	8.195	57	385495	175.62	ug/L	99
30) di-isopropyl ether	8.472	45	1261796	183.33	ug/L	82
31) t-butyl formate	9.695	59	303107	190.65	ug/L	99
32) ethyl tert-butyl ether	8.963	59	1199197	193.94	ug/L	99
33) 2-butanone	9.251	72	36897	194.54	ug/L	97
34) 1,1-dichloroethane	8.498	63	621422	187.11	ug/L	99
35) chloroprene	8.602	53	462267	183.02	ug/L	97
36) acrylonitrile	7.865	53	537894	918.90	ug/L	95
37) vinyl acetate	8.487	86	49633	180.28	ug/L	48
38) ethyl acetate	9.261	45	46021	183.77	ug/L	93
39) ethyl acrylate	11.143	55	403805	182.78	ug/L	99
40) 2,2-dichloropropane	9.272	77	467998	187.54	ug/L	98
41) cis-1,2-dichloroethene	9.277	96	370867	174.95	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205532.D
Acq On : 13 May 2014 2:42 pm
Operator : OksanaT
Sample : ic7751-200
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 13 16:54:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) propionitrile	9.366	54	436266	1757.49 ug/L	82
43) bromochloromethane	9.606	128	190094	183.36 ug/L	99
44) tetrahydrofuran	9.643	42	116628	173.11 ug/L	99
45) chloroform	9.669	83	600832	183.61 ug/L	96
48) methacrylonitrile	9.549	67	125443	174.60 ug/L	96
49) cyclohexane	9.988	84	454904	199.62 ug/L	96
50) 1,1,1-trichloroethane	9.920	97	484857	196.77 ug/L	98
52) tert-amyl methyl ether	10.417	73	1090312	181.72 ug/L	98
55) epichlorohydrin	12.131	57	164130	1012.65 ug/L	99
56) n-butyl alcohol	10.929	56	560694	11184.29 ug/L	96
57) carbon tetrachloride	10.129	117	444566	192.18 ug/L	97
58) 1,1-dichloropropene	10.103	75	431080	184.82 ug/L	98
59) benzene	10.385	78	1299550	183.93 ug/L	100
60) Iso-octane	10.370	57	1247394	189.95 ug/L	98
61) heptane	10.547	71	241804	189.74 ug/L	98
62) tert amyl alcohol	10.270	59	243467	1064.31 ug/L	100
63) isopropyl acetate	10.312	43	717358	165.53 ug/L	94
64) 1,2-dichloroethane	10.411	62	435459	203.40 ug/L	100
65) trichloroethene	11.133	95	330369	202.74 ug/L	99
66) 2-nitropropane	11.980	41	122286	183.84 ug/L #	55
67) tert-amyl ethyl ether	11.300	59	932125	188.96 ug/L #	100
68) methylcyclohexane	11.352	83	513467	198.48 ug/L	97
69) 2-chloroethyl vinyl ether	11.990	63	947425	841.01 ug/L	98
70) methyl methacrylate	11.420	69	215184	199.61 ug/L	91
71) 1,2-dichloropropane	11.420	63	371963	186.97 ug/L	99
72) dibromomethane	11.593	93	210934	194.17 ug/L	97
73) bromodichloromethane	11.734	83	495352	210.57 ug/L	99
74) cis-1,3-dichloropropene	12.225	75	619355	204.22 ug/L	96
76) 4-methyl-2-pentanone	12.330	58	135792	199.50 ug/L	94
77) toluene	12.612	92	842384	192.51 ug/L	98
78) 3-methyl-1-butanol	12.356	55	365889	4079.51 ug/L	97
79) trans-1,3-dichloropropene	12.842	75	559351	203.98 ug/L	89
80) ethyl methacrylate	12.827	69	450558	199.98 ug/L	95
81) 1,1,2-trichloroethane	13.083	83	265174	210.21 ug/L	97
82) 2-hexanone	13.266	58	128081	189.30 ug/L	99
84) tetrachloroethene	13.255	164	317041	206.38 ug/L	96
85) 1,3-dichloropropane	13.282	76	512238	197.70 ug/L	99
86) butyl acetate	13.344	56	231729	150.93 ug/L	94
87) 3,3-dimethyl-1-butanol	13.465	57	406877	2043.94 ug/L	97
88) dibromochloromethane	13.580	129	417817	209.18 ug/L	100
89) 1,2-dibromoethane	13.747	107	322561	209.21 ug/L	99
91) chlorobenzene	14.259	112	1018618	198.18 ug/L	98
92) 1,1,1,2-tetrachloroethane	14.327	131	403635	208.62 ug/L	98
93) ethylbenzene	14.311	91	1635036	189.87 ug/L	98
94) m,p-xylene	14.437	106	1271659	389.85 ug/L	96
95) o-xylene	14.907	106	673397	195.54 ug/L	98
96) styrene	14.923	104	1162407	199.96 ug/L	99
97) bromoform	15.237	173	316953	224.03 ug/L	98
99) isopropylbenzene	15.294	105	1680559	180.49 ug/L	98
100) cyclohexanone	15.503	55	313775	2536.55 ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205532.D
Acq On : 13 May 2014 2:42 pm
Operator : OksanaT
Sample : ic7751-200
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 13 16:54:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration

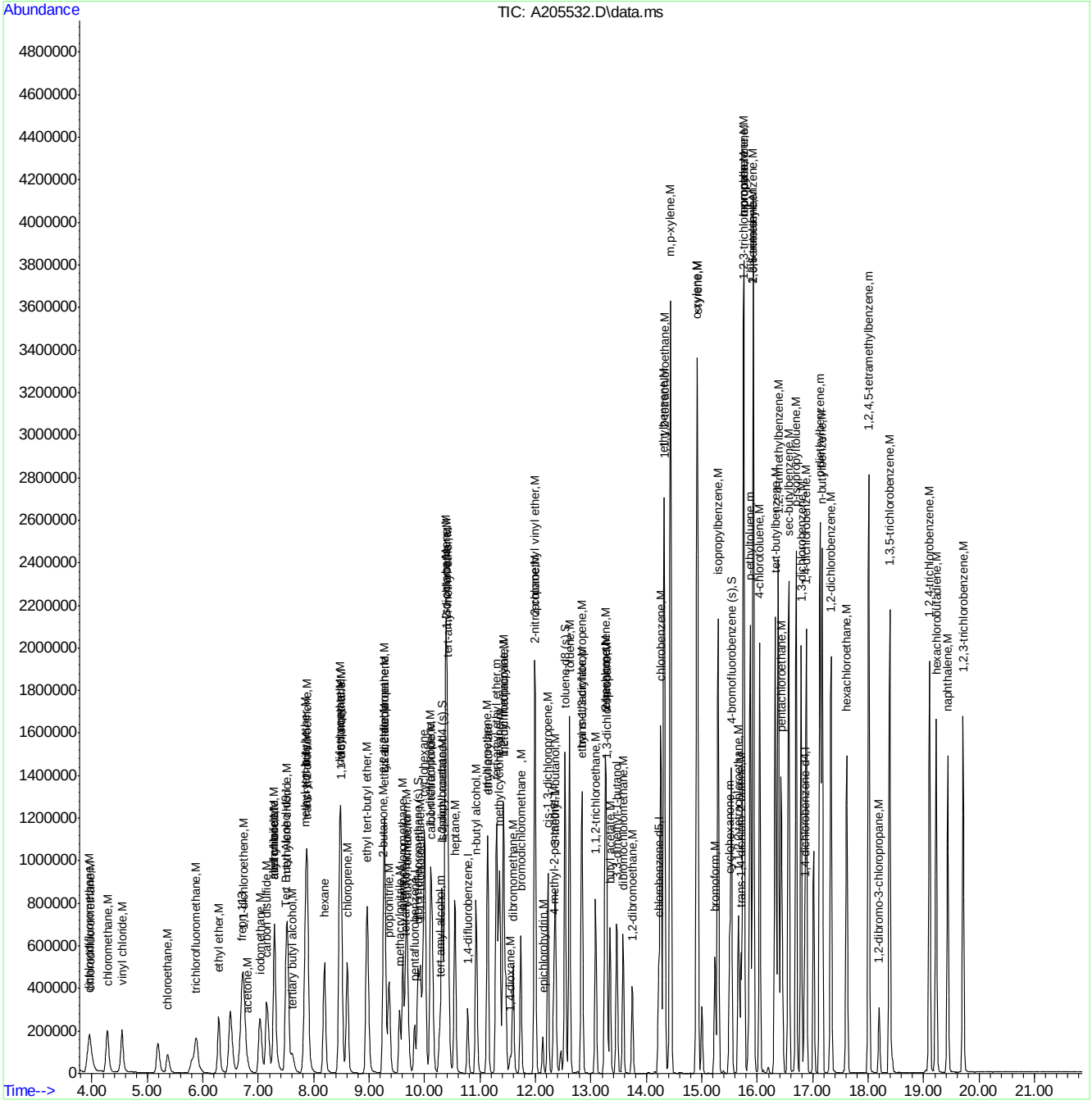
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) bromobenzene	15.754	156	502870	205.09	ug/L	91
103) 1,1,2,2-tetrachloroethane	15.660	83	454137	184.40	ug/L	99
104) trans-1,4-dichloro-2-b...	15.707	53	125306	181.26	ug/L	96
105) 1,2,3-trichloropropane	15.744	110	107281	178.62	ug/L	97
106) n-propylbenzene	15.760	91	1916085	179.74	ug/L	96
107) 2-chlorotoluene	15.932	126	441758	195.24	ug/L	99
108) 4-chlorotoluene	16.042	91	1306044	185.71	ug/L	98
109) p-ethyltoluene	15.875	105	1697191	175.00	ug/L	99
110) 1,3,5-trimethylbenzene	15.927	105	1460132	183.33	ug/L	98
111) tert-butylbenzene	16.324	119	1308392	188.87	ug/L	100
112) pentachloroethane	16.429	167	348690	207.33	ug/L	98
113) 1,2,4-trimethylbenzene	16.377	105	1517214	186.88	ug/L	98
114) sec-butylbenzene	16.565	105	1969492	189.76	ug/L	98
115) 1,3-dichlorobenzene	16.790	146	986406	194.82	ug/L	99
116) p-isopropyltoluene	16.701	119	1699219	190.02	ug/L	99
118) 1,4-dichlorobenzene	16.884	146	975575	190.41	ug/L	99
119) p-diethylbenzene	17.129	119	1057880	173.09	ug/L	93
120) 1,2-dichlorobenzene	17.328	146	961475	197.76	ug/L	98
121) n-butylbenzene	17.166	92	899287	182.11	ug/L	87
122) 1,2,4,5-tetramethylben...	18.008	119	1777862	188.48	ug/L #	98
123) 1,2-dibromo-3-chloropr...	18.196	75	85167	182.97	ug/L	95
124) 1,3,5-trichlorobenzene	18.389	180	878775	209.83	ug/L	99
125) 1,2,4-trichlorobenzene	19.106	180	777508	217.24	ug/L	98
126) hexachlorobutadiene	19.226	225	491680	221.74	ug/L	95
127) naphthalene	19.435	128	1419030	202.89	ug/L	99
128) 1,2,3-trichlorobenzene	19.712	180	695783	220.27	ug/L	98
129) hexachloroethane	17.616	201	367367	236.30	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205532.D
Acq On : 13 May 2014 2:42 pm
Operator : OksanaT
Sample : ic7751-200
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 13 16:54:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 13 14:22:27 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205535.D
Acq On : 13 May 2014 3:43 pm
Operator : OksanaT
Sample : icv7751-50
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 14 10:25:25 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.484	65	95510	500.00	ug/L	0.00
4) pentafluorobenzene	9.821	168	227230	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.777	114	316900	50.00	ug/L	0.00
83) chlorobenzene-d5	14.223	117	291524	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.852	152	175536	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.878	113	90256	48.91	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 97.82%			
47) 1,2-dichloroethane-d4 (s)	10.317	65	97730	48.43	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 96.86%			
75) toluene-d8 (s)	12.534	98	318129	48.04	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 96.08%			
101) 4-bromofluorobenzene (s)	15.535	95	136598	47.84	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 95.68%			

Target Compounds						Qvalue
2) 1,4-dioxane	11.546	88	25425	1323.77	ug/L	98
3) tertiary butyl alcohol	7.604	59	61955	260.33	ug/L	100
6) chlorodifluoromethane	3.955	51	60084	42.71	ug/L	98
7) dichlorodifluoromethane	3.939	85	90329	46.39	ug/L	93
8) chloromethane	4.258	50	128202	49.30	ug/L	99
9) vinyl chloride	4.525	62	108691	50.21	ug/L	99
10) bromomethane	5.194	94	67896	44.84	ug/L	100
11) chloroethane	5.382	64	47508	49.12	ug/L	95
13) trichlorofluoromethane	5.879	101	109579	50.43	ug/L	95
15) ethyl ether	6.287	74	52068	54.45	ug/L	94
17) acrolein	6.569	56	153814	458.89	ug/L	98
18) freon 113	6.694	151	58422	48.46	ug/L	100
19) 1,1-dichloroethene	6.741	96	74756	49.27	ug/L	98
20) acetone	6.804	58	8309	51.78	ug/L	99
21) allyl chloride	7.301	76	53529	60.12	ug/L	94
22) acetonitrile	7.285	40	79660	551.25	ug/L	97
23) iodomethane	7.029	142	169358	51.99	ug/L	98
24) carbon disulfide	7.154	76	285346	51.49	ug/L	99
25) methylene chloride	7.505	84	101245	48.81	ug/L	98
26) methyl acetate	7.290	43	65924	49.73	ug/L	100
27) methyl tert butyl ether	7.845	73	534564	101.65	ug/L	99
28) trans-1,2-dichloroethene	7.897	96	83071	49.92	ug/L	99
29) hexane	8.195	57	110992	52.05	ug/L	99
30) di-isopropyl ether	8.467	45	349715	50.64	ug/L	100
31) t-butyl formate	9.695	59	86942	55.23	ug/L	98
32) ethyl tert-butyl ether	8.958	59	322438	51.20	ug/L	99
33) 2-butanone	9.256	72	10594	54.25	ug/L #	92
34) 1,1-dichloroethane	8.498	63	168980	52.02	ug/L	100
35) chloroprene	8.608	53	114236	46.75	ug/L	98
36) acrylonitrile	7.865	53	155948	289.29	ug/L	99
37) vinyl acetate	8.482	86	14886	58.18	ug/L	89
38) ethyl acetate	9.267	45	12815	52.51	ug/L	93
39) ethyl acrylate	11.143	55	111950	52.33	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205535.D
Acq On : 13 May 2014 3:43 pm
Operator : OksanaT
Sample : icv7751-50
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 14 10:25:25 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 2,2-dichloropropane	9.272	77	122937	49.34	ug/L		99
41) cis-1,2-dichloroethene	9.282	96	98703	52.73	ug/L		99
42) propionitrile	9.366	54	128514	602.09	ug/L		98
43) bromochloromethane	9.612	128	51141	54.95	ug/L		97
44) tetrahydrofuran	9.643	42	35570	54.32	ug/L		98
45) chloroform	9.669	83	162386	51.10	ug/L		99
48) methacrylonitrile	9.554	67	34864	56.52	ug/L		93
49) cyclohexane	9.983	84	113044	47.00	ug/L		95
50) 1,1,1-trichloroethane	9.925	97	125336	49.57	ug/L		99
52) tert-amyl methyl ether	10.417	73	301271	49.53	ug/L		99
55) epichlorohydrin	12.131	57	45775	267.58	ug/L		98
56) n-butyl alcohol	10.929	56	164894	2930.97	ug/L		97
57) carbon tetrachloride	10.129	117	113084	49.31	ug/L		96
58) 1,1-dichloropropene	10.108	75	105787	47.15	ug/L		96
59) benzene	10.385	78	352847	52.55	ug/L		99
60) Iso-octane	10.370	57	291197	43.38	ug/L		99
61) heptane	10.547	71	70478	52.41	ug/L		99
62) tert amyl alcohol	10.270	59	120168	502.56	ug/L		92
63) isopropyl acetate	10.307	43	217228	53.52	ug/L		98
64) 1,2-dichloroethane	10.411	62	120858	53.80	ug/L		100
65) trichloroethene	11.133	95	86348	50.87	ug/L		98
66) 2-nitropropane	11.985	41	35999	54.40	ug/L	#	48
67) tert-amyl ethyl ether	11.295	59	489668	100.35	ug/L	#	100
68) methylcyclohexane	11.352	83	126902	45.93	ug/L		98
69) 2-chloroethyl vinyl ether	11.990	63	299656	292.04	ug/L		99
70) methyl methacrylate	11.426	69	60384	55.85	ug/L		96
71) 1,2-dichloropropane	11.420	63	101917	53.97	ug/L		100
72) dibromomethane	11.598	93	57512	54.79	ug/L		99
73) bromodichloromethane	11.734	83	132266	53.79	ug/L		99
74) cis-1,3-dichloropropene	12.226	75	160453	52.57	ug/L		98
76) 4-methyl-2-pentanone	12.330	58	37750	57.16	ug/L		95
77) toluene	12.612	92	218399	48.16	ug/L		98
78) 3-methyl-1-butanol	12.356	55	105939	1078.57	ug/L		100
79) trans-1,3-dichloropropene	12.842	75	143906	51.39	ug/L		100
80) ethyl methacrylate	12.827	69	120292	51.71	ug/L		98
81) 1,1,2-trichloroethane	13.083	83	69865	51.57	ug/L		98
82) 2-hexanone	13.266	58	35903	55.77	ug/L		96
84) tetrachloroethene	13.256	164	81619	50.46	ug/L		96
85) 1,3-dichloropropane	13.282	76	138083	55.31	ug/L		99
86) butyl acetate	13.344	56	65166	53.52	ug/L		99
87) 3,3-dimethyl-1-butanol	13.465	57	122180	589.91	ug/L		99
88) dibromochloromethane	13.580	129	108511	54.05	ug/L		97
89) 1,2-dibromoethane	13.747	107	86080	53.48	ug/L		100
91) chlorobenzene	14.259	112	266828	53.53	ug/L		100
92) 1,1,1,2-tetrachloroethane	14.327	131	103778	53.02	ug/L		98
93) ethylbenzene	14.312	91	427412	51.65	ug/L		99
94) m,p-xylene	14.432	106	331392	104.71	ug/L		100
95) o-xylene	14.908	106	171743	52.20	ug/L		98
96) styrene	14.923	104	304780	52.95	ug/L		99
97) bromoform	15.237	173	83295	55.87	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205535.D
Acq On : 13 May 2014 3:43 pm
Operator : OksanaT
Sample : icv7751-50
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 14 10:25:25 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
99) isopropylbenzene	15.294	105	436039	49.64 ug/L	98
100) cyclohexanone	15.498	55	50024	230.91 ug/L	99
102) bromobenzene	15.754	156	132683	51.11 ug/L	99
103) 1,1,2,2-tetrachloroethane	15.660	83	119899	51.52 ug/L	98
104) trans-1,4-dichloro-2-b...	15.702	53	33914	53.56 ug/L	97
105) 1,2,3-trichloropropane	15.744	110	29795	54.29 ug/L	98
106) n-propylbenzene	15.754	91	533162	50.99 ug/L	100
107) 2-chlorotoluene	15.927	126	114605	50.24 ug/L	97
108) 4-chlorotoluene	16.042	91	338248	49.48 ug/L	99
109) p-ethyltoluene	15.870	105	444816	48.99 ug/L	99
110) 1,3,5-trimethylbenzene	15.927	105	375968	48.21 ug/L	100
111) tert-butylbenzene	16.324	119	333553	51.08 ug/L	99
112) pentachloroethane	16.429	167	88386	52.36 ug/L	98
113) 1,2,4-trimethylbenzene	16.377	105	413202	52.55 ug/L	100
114) sec-butylbenzene	16.565	105	503238	49.46 ug/L	100
115) 1,3-dichlorobenzene	16.790	146	255580	50.62 ug/L	99
116) p-isopropyltoluene	16.701	119	434984	49.59 ug/L	98
118) 1,4-dichlorobenzene	16.884	146	255212	49.23 ug/L	100
119) p-diethylbenzene	17.129	119	272042	49.53 ug/L	100
120) 1,2-dichlorobenzene	17.328	146	250281	50.75 ug/L	98
121) n-butylbenzene	17.166	92	234834	50.14 ug/L	96
122) 1,2,4,5-tetramethylben...	18.008	119	473047	51.32 ug/L #	99
123) 1,2-dibromo-3-chloropr...	18.196	75	23271	52.38 ug/L	96
124) 1,3,5-trichlorobenzene	18.389	180	229155	51.49 ug/L	99
125) 1,2,4-trichlorobenzene	19.106	180	206183	53.64 ug/L	98
126) hexachlorobutadiene	19.226	225	127706	50.95 ug/L	100
127) naphthalene	19.435	128	393787	57.60 ug/L	99
128) 1,2,3-trichlorobenzene	19.712	180	186668	54.63 ug/L	99
129) hexachloroethane	17.616	201	92691	51.25 ug/L	99

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

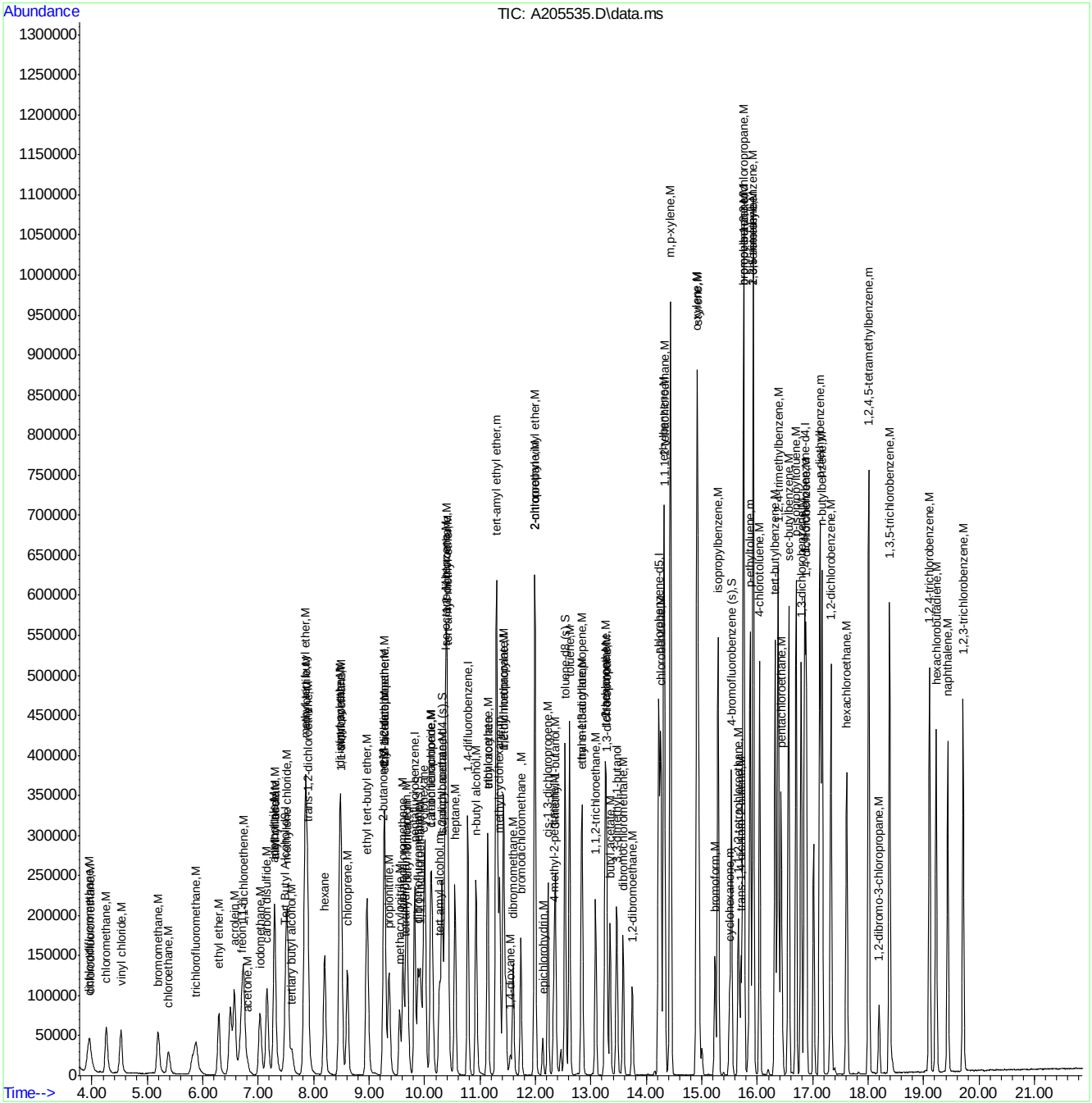
7.7.24

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\va7751-7760\
Data File : A205535.D
Acq On : 13 May 2014 3:43 pm
Operator : OksanaT
Sample : icv7751-50
Misc : MS66736,VA7751,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 14 10:25:25 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206656.D
Acq On : 22 Jun 2014 3:15 pm
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7793,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 15:27:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.485	65	89240	500.00	ug/L	0.00
4) pentafluorobenzene	9.828	168	195146	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.785	114	264009	50.00	ug/L	0.00
83) chlorobenzene-d5	14.232	117	255315	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.862	152	144754	50.00	ug/L	0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.885	113	84084	53.05	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.10%			
47) 1,2-dichloroethane-d4 (s)	10.325	65	93950	54.21	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 108.42%			
75) toluene-d8 (s)	12.542	98	306263	55.52	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 111.04%			
101) 4-bromofluorobenzene (s)	15.539	95	123342	52.38	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 104.76%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.549	88	8106	451.70	ug/L	93
3) tertiary butyl alcohol	7.610	59	22685	102.02	ug/L	100
6) chlorodifluoromethane	3.981	51	34724	28.74	ug/L	89
7) dichlorodifluoromethane	3.954	85	36208	21.65	ug/L	93
8) chloromethane	4.263	50	48936	21.91	ug/L	96
9) vinyl chloride	4.535	62	39620	21.31	ug/L	98
10) bromomethane	5.210	94	26128	20.09	ug/L	93
11) chloroethane	5.393	64	16963	20.42	ug/L	95
13) trichlorofluoromethane	5.895	101	46767	25.06	ug/L	97
15) ethyl ether	6.287	74	16793	20.45	ug/L	96
17) acrolein	6.580	56	68865	232.18	ug/L	96
18) freon 113	6.721	151	21963	21.21	ug/L	99
19) 1,1-dichloroethene	6.753	96	25849	19.84	ug/L	94
20) acetone	6.815	58	2696	19.56	ug/L #	56
21) allyl chloride	7.307	76	15558	20.35	ug/L #	81
22) acetonitrile	7.297	40	31954	257.48	ug/L #	86
23) iodomethane	7.040	142	58298	20.84	ug/L	97
24) carbon disulfide	7.171	76	97354	20.45	ug/L	98
25) methylene chloride	7.516	84	34164	19.18	ug/L	85
26) methyl acetate	7.297	43	27491	24.15	ug/L	95
27) methyl tert butyl ether	7.856	73	101864	22.56	ug/L	99
28) trans-1,2-dichloroethene	7.903	96	30051	21.03	ug/L	97
29) hexane	8.207	57	36870	20.13	ug/L	95
30) di-isopropyl ether	8.473	45	129250	21.79	ug/L	89
31) t-butyl formate	9.702	59	31313	23.16	ug/L	94
32) ethyl tert-butyl ether	8.975	59	120247	22.23	ug/L	97
33) 2-butanone	9.263	72	3361	20.04	ug/L #	33
34) 1,1-dichloroethane	8.510	63	62442	22.38	ug/L	96
35) chloroprene	8.620	53	46209	22.02	ug/L	94
36) acrylonitrile	7.872	53	58348	126.03	ug/L	96
37) vinyl acetate	8.499	86	4445	20.23	ug/L	90
38) ethyl acetate	9.274	45	5048	24.09	ug/L	66

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206656.D
Acq On : 22 Jun 2014 3:15 pm
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7793,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 15:27:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	2,2-dichloropropane	9.284	77	48285	22.56	ug/L		95
41)	cis-1,2-dichloroethene	9.284	96	34320	21.35	ug/L		93
42)	propionitrile	9.368	54	47546	259.38	ug/L		81
43)	bromochloromethane	9.613	128	17914	22.41	ug/L		89
44)	tetrahydrofuran	9.650	42	13457	23.93	ug/L		93
45)	chloroform	9.676	83	60800	22.28	ug/L		97
48)	methacrylonitrile	9.556	67	12130	22.90	ug/L		92
49)	cyclohexane	10.001	84	39292	19.02	ug/L		84
50)	1,1,1-trichloroethane	9.933	97	47442	21.85	ug/L		98
52)	tert-amyl methyl ether	10.419	73	106933	20.47	ug/L		98
55)	epichlorohydrin	12.140	57	16504	115.80	ug/L		95
56)	n-butyl alcohol	10.931	56	56135	1197.69	ug/L		92
57)	carbon tetrachloride	10.142	117	44078	23.07	ug/L		95
58)	1,1-dichloropropene	10.116	75	40705	21.78	ug/L		97
59)	benzene	10.393	78	121190	21.67	ug/L		97
60)	Iso-octane	10.382	57	115207	20.60	ug/L		96
61)	heptane	10.555	71	20907	18.66	ug/L		95
63)	isopropyl acetate	10.314	43	69995	20.70	ug/L		97
64)	1,2-dichloroethane	10.419	62	47544	25.41	ug/L		98
65)	trichloroethene	11.141	95	30310	21.44	ug/L		96
66)	2-nitropropane	11.988	41	14625	26.53	ug/L		94
68)	methylcyclohexane	11.366	83	45250	19.66	ug/L	#	97
69)	2-chloroethyl vinyl ether	11.998	63	106941	125.10	ug/L		98
70)	methyl methacrylate	11.434	69	21463	23.83	ug/L		98
71)	1,2-dichloropropane	11.428	63	35805	22.76	ug/L		100
72)	dibromomethane	11.601	93	21401	24.47	ug/L		93
73)	bromodichloromethane	11.742	83	48610	23.73	ug/L		99
74)	cis-1,3-dichloropropene	12.234	75	58173	22.88	ug/L		94
76)	4-methyl-2-pentanone	12.338	58	13526	24.58	ug/L	#	87
77)	toluene	12.621	92	74130	19.62	ug/L		97
78)	3-methyl-1-butanol	12.365	55	35177	429.89	ug/L		95
79)	trans-1,3-dichloropropene	12.851	75	54903	23.53	ug/L		95
80)	ethyl methacrylate	12.835	69	41092	21.20	ug/L		88
81)	1,1,2-trichloroethane	13.092	83	25405	22.51	ug/L		98
82)	2-hexanone	13.275	58	12843	23.95	ug/L		97
84)	tetrachloroethene	13.264	164	27222	19.22	ug/L		97
85)	1,3-dichloropropane	13.290	76	50399	23.05	ug/L		97
86)	butyl acetate	13.353	56	24068	22.57	ug/L		96
87)	3,3-dimethyl-1-butanol	13.473	57	39910	220.02	ug/L		93
88)	dibromochloromethane	13.588	129	38770	22.05	ug/L		100
89)	1,2-dibromoethane	13.761	107	30635	21.73	ug/L		99
91)	chlorobenzene	14.268	112	90628	20.76	ug/L		99
92)	1,1,1,2-tetrachloroethane	14.336	131	38158	22.26	ug/L		97
93)	ethylbenzene	14.321	91	151181	20.86	ug/L		98
94)	m,p-xylene	14.441	106	111335	40.17	ug/L		92
95)	o-xylene	14.917	106	58704	20.37	ug/L		94
96)	styrene	14.933	104	100424	19.92	ug/L		97
97)	bromoform	15.241	173	29243	22.40	ug/L		99
99)	isopropylbenzene	15.299	105	148510	20.50	ug/L		100
100)	cyclohexanone	15.508	55	35258	197.46	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206656.D
Acq On : 22 Jun 2014 3:15 pm
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7793,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 15:27:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

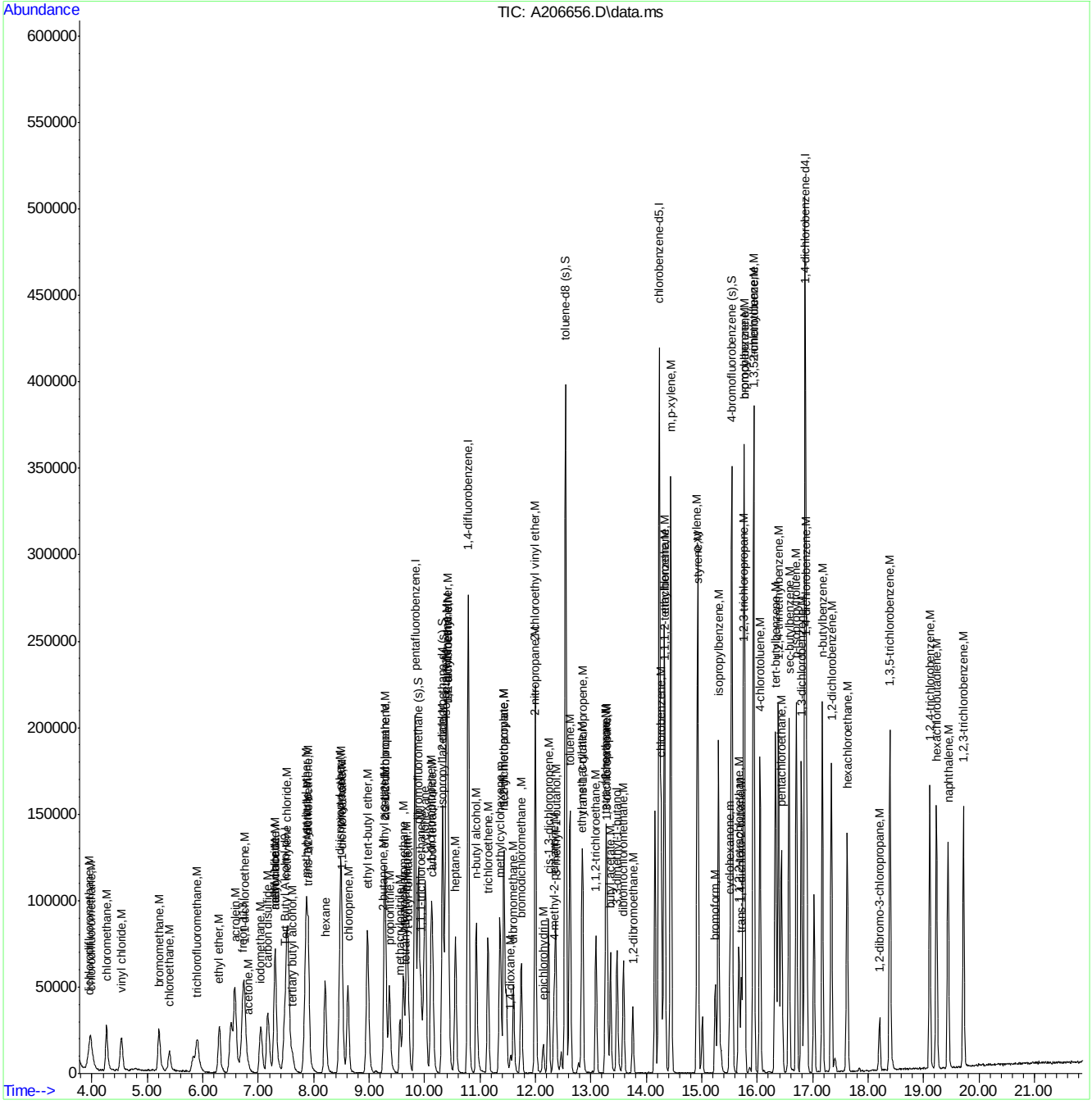
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) bromobenzene	15.764	156	47501	22.19	ug/L	95
103) 1,1,2,2-tetrachloroethane	15.670	83	44626	23.25	ug/L	97
104) trans-1,4-dichloro-2-b...	15.712	53	13316	25.50	ug/L	87
105) 1,2,3-trichloropropane	15.748	110	11513	25.44	ug/L	98
106) n-propylbenzene	15.764	91	172419	19.99	ug/L	99
107) 2-chlorotoluene	15.937	126	39067	20.77	ug/L	96
108) 4-chlorotoluene	16.052	91	118282	20.98	ug/L	100
110) 1,3,5-trimethylbenzene	15.931	105	132257	20.57	ug/L	97
111) tert-butylbenzene	16.329	119	111667	20.74	ug/L	99
112) pentachloroethane	16.434	167	31822	22.86	ug/L	96
113) 1,2,4-trimethylbenzene	16.381	105	133245	20.55	ug/L	100
114) sec-butylbenzene	16.575	105	168776	20.11	ug/L	98
115) 1,3-dichlorobenzene	16.794	146	85479	20.53	ug/L	99
116) p-isopropyltoluene	16.706	119	143515	19.84	ug/L	98
118) 1,4-dichlorobenzene	16.889	146	86375	20.21	ug/L	98
120) 1,2-dichlorobenzene	17.338	146	86094	21.17	ug/L	99
121) n-butylbenzene	17.176	92	74223	19.22	ug/L	98
123) 1,2-dibromo-3-chloropr...	18.207	75	8822	24.08	ug/L	89
124) 1,3,5-trichlorobenzene	18.395	180	75531	20.58	ug/L	98
125) 1,2,4-trichlorobenzene	19.111	180	65338	20.61	ug/L	98
126) hexachlorobutadiene	19.232	225	44787	21.67	ug/L	98
127) naphthalene	19.446	128	124624	22.11	ug/L	99
128) 1,2,3-trichlorobenzene	19.718	180	59986	21.29	ug/L	99
129) hexachloroethane	17.621	201	31365	21.03	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206656.D
Acq On : 22 Jun 2014 3:15 pm
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7793,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 15:27:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206679.D
Acq On : 23 Jun 2014 4:19 am
Operator : CourtneM
Sample : cc7751-50
Misc : MS69394,VA7793,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 24 08:09:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.500	65	102222	500.00	ug/L	0.02
4) pentafluorobenzene	9.828	168	208553	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.785	114	281913	50.00	ug/L	0.00
83) chlorobenzene-d5	14.226	117	272212	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.857	152	156790	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.880	113	88177	52.06	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 104.12%			
47) 1,2-dichloroethane-d4 (s)	10.319	65	99014	53.46	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 106.92%			
75) toluene-d8 (s)	12.537	98	323154	54.86	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 109.72%			
101) 4-bromofluorobenzene (s)	15.534	95	133630	52.40	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 104.80%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.554	88	24983	1215.34	ug/L	97
3) tertiary butyl alcohol	7.610	59	63657	249.92	ug/L	100
6) chlorodifluoromethane	3.965	51	80370	62.25	ug/L	93
7) dichlorodifluoromethane	3.949	85	91954	51.45	ug/L	98
8) chloromethane	4.258	50	115169	48.25	ug/L	99
9) vinyl chloride	4.530	62	97627	49.14	ug/L	100
10) bromomethane	5.199	94	65627	47.22	ug/L	97
11) chloroethane	5.387	64	43213	48.68	ug/L	99
13) trichlorofluoromethane	5.900	101	106847	53.58	ug/L	93
15) ethyl ether	6.297	74	45136	51.42	ug/L	95
17) acrolein	6.580	56	161560	527.29	ug/L	97
18) freon 113	6.721	151	56492	51.05	ug/L	98
19) 1,1-dichloroethene	6.763	96	66633	47.84	ug/L	95
20) acetone	6.810	58	7886	53.54	ug/L #	74
21) allyl chloride	7.307	76	38772	47.45	ug/L	98
22) acetonitrile	7.296	40	78921	595.05	ug/L	89
23) iodomethane	7.045	142	148938	49.81	ug/L	94
24) carbon disulfide	7.197	76	245345	48.23	ug/L	96
25) methylene chloride	7.521	84	88145	46.30	ug/L	89
26) methyl acetate	7.302	43	77709	63.87	ug/L	97
27) methyl tert butyl ether	7.856	73	266621	55.24	ug/L	100
28) trans-1,2-dichloroethene	7.903	96	76573	50.13	ug/L	90
29) hexane	8.201	57	90930	46.46	ug/L	93
30) di-isopropyl ether	8.473	45	333738	52.65	ug/L	97
31) t-butyl formate	9.697	59	81927	56.71	ug/L	92
32) ethyl tert-butyl ether	8.970	59	310764	53.77	ug/L	98
33) 2-butanone	9.258	72	9803	54.69	ug/L #	42
34) 1,1-dichloroethane	8.505	63	158133	53.04	ug/L	96
35) chloroprene	8.614	53	123494	55.07	ug/L	96
36) acrylonitrile	7.872	53	161775	326.97	ug/L	98
37) vinyl acetate	8.499	86	12695	54.06	ug/L	88
38) ethyl acetate	9.268	45	14317	63.92	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206679.D
Acq On : 23 Jun 2014 4:19 am
Operator : CourtneM
Sample : cc7751-50
Misc : MS69394,VA7793,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 24 08:09:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	2,2-dichloropropane	9.279	77	91092	39.83	ug/L		98
41)	cis-1,2-dichloroethene	9.289	96	90090	52.43	ug/L		96
42)	propionitrile	9.368	54	129307	660.06	ug/L		88
43)	bromochloromethane	9.613	128	46480	54.41	ug/L		91
44)	tetrahydrofuran	9.650	42	36692	61.05	ug/L		96
45)	chloroform	9.676	83	154783	53.07	ug/L		98
48)	methacrylonitrile	9.556	67	33405	59.00	ug/L		100
49)	cyclohexane	9.990	84	100000	45.30	ug/L		82
50)	1,1,1-trichloroethane	9.927	97	119869	51.66	ug/L		97
52)	tert-amyl methyl ether	10.419	73	280599	50.27	ug/L		96
55)	epichlorohydrin	12.134	57	44261	290.84	ug/L		94
56)	n-butyl alcohol	10.931	56	166580	3328.41	ug/L		92
57)	carbon tetrachloride	10.131	117	111684	54.74	ug/L		98
58)	1,1-dichloropropene	10.110	75	104767	52.49	ug/L		97
59)	benzene	10.393	78	318633	53.35	ug/L		99
60)	Iso-octane	10.377	57	283785	47.53	ug/L		98
61)	heptane	10.550	71	49567	41.43	ug/L		92
63)	isopropyl acetate	10.314	43	193707	53.65	ug/L		98
64)	1,2-dichloroethane	10.419	62	125145	62.63	ug/L		99
65)	trichloroethene	11.135	95	79562	52.69	ug/L		95
66)	2-nitropropane	11.988	41	39517	67.12	ug/L	#	50
68)	methylcyclohexane	11.355	83	115303	46.91	ug/L	#	98
69)	2-chloroethyl vinyl ether	11.993	63	298187	326.67	ug/L		100
70)	methyl methacrylate	11.428	69	59046	61.39	ug/L		92
71)	1,2-dichloropropane	11.428	63	92879	55.29	ug/L		100
72)	dibromomethane	11.601	93	55516	59.45	ug/L		96
73)	bromodichloromethane	11.742	83	130853	59.82	ug/L		99
74)	cis-1,3-dichloropropene	12.228	75	142952	52.65	ug/L		92
76)	4-methyl-2-pentanone	12.333	58	37453	63.74	ug/L	#	83
77)	toluene	12.615	92	193750	48.02	ug/L		98
78)	3-methyl-1-butanol	12.364	55	107370	1228.80	ug/L		96
79)	trans-1,3-dichloropropene	12.846	75	137069	55.02	ug/L		90
80)	ethyl methacrylate	12.830	69	117774	56.91	ug/L		93
81)	1,1,2-trichloroethane	13.086	83	68637	56.95	ug/L		95
82)	2-hexanone	13.274	58	36413	63.58	ug/L		100
84)	tetrachloroethene	13.264	164	73836	48.88	ug/L		97
85)	1,3-dichloropropane	13.285	76	135241	58.01	ug/L		99
86)	butyl acetate	13.348	56	63873	56.18	ug/L		87
87)	3,3-dimethyl-1-butanol	13.468	57	122490	633.36	ug/L		95
88)	dibromochloromethane	13.583	129	105328	56.19	ug/L		97
89)	1,2-dibromoethane	13.750	107	83472	55.54	ug/L		96
91)	chlorobenzene	14.263	112	237305	50.98	ug/L		98
92)	1,1,1,2-tetrachloroethane	14.331	131	99956	54.69	ug/L		95
93)	ethylbenzene	14.320	91	384044	49.71	ug/L		98
94)	m,p-xylene	14.436	106	282859	95.71	ug/L		96
95)	o-xylene	14.911	106	148500	48.33	ug/L		92
96)	styrene	14.927	104	266743	49.63	ug/L		98
97)	bromoform	15.241	173	84203	60.48	ug/L		97
99)	isopropylbenzene	15.293	105	376307	47.96	ug/L		99
100)	cyclohexanone	15.502	55	43351	224.05	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206679.D
Acq On : 23 Jun 2014 4:19 am
Operator : CourtneM
Sample : cc7751-50
Misc : MS69394,VA7793,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 24 08:09:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

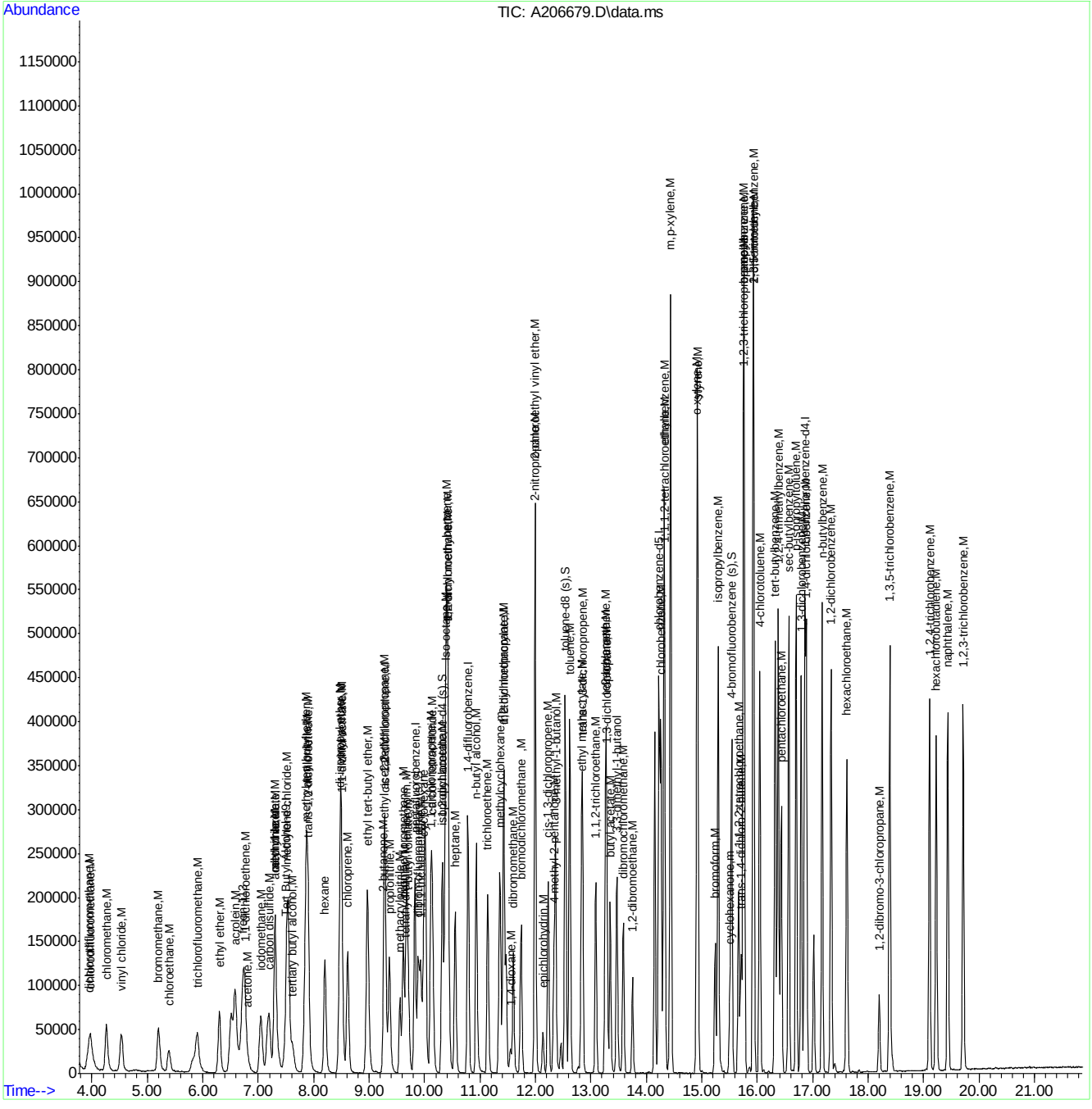
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.759	156	121058	52.20 ug/L	97
103) 1,1,2,2-tetrachloroethane	15.665	83	120915	58.17 ug/L	98
104) trans-1,4-dichloro-2-b...	15.706	53	30821	54.49 ug/L	95
105) 1,2,3-trichloropropane	15.748	110	29941	61.08 ug/L	98
106) n-propylbenzene	15.759	91	433755	46.44 ug/L	100
107) 2-chlorotoluene	15.931	126	101506	49.82 ug/L	98
108) 4-chlorotoluene	16.046	91	297559	48.73 ug/L	98
110) 1,3,5-trimethylbenzene	15.931	105	333387	47.87 ug/L	98
111) tert-butylbenzene	16.324	119	284129	48.71 ug/L	95
112) pentachloroethane	16.433	167	75918	50.35 ug/L	96
113) 1,2,4-trimethylbenzene	16.376	105	335689	47.79 ug/L	98
114) sec-butylbenzene	16.569	105	431391	47.46 ug/L	99
115) 1,3-dichlorobenzene	16.794	146	219559	48.69 ug/L	99
116) p-isopropyltoluene	16.700	119	357213	45.59 ug/L	98
118) 1,4-dichlorobenzene	16.888	146	218571	47.20 ug/L	100
120) 1,2-dichlorobenzene	17.333	146	220593	50.08 ug/L	98
121) n-butylbenzene	17.171	92	184764	44.16 ug/L	95
123) 1,2-dibromo-3-chloropr...	18.201	75	24679	62.19 ug/L	97
124) 1,3,5-trichlorobenzene	18.390	180	186864	47.01 ug/L	99
125) 1,2,4-trichlorobenzene	19.111	180	172811	50.33 ug/L	98
126) hexachlorobutadiene	19.226	225	112657	50.32 ug/L	99
127) naphthalene	19.436	128	384091	62.90 ug/L	99
128) 1,2,3-trichlorobenzene	19.718	180	171493	56.19 ug/L	100
129) hexachloroethane	17.615	201	84098	52.06 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7793\
Data File : A206679.D
Acq On : 23 Jun 2014 4:19 am
Operator : CourtneM
Sample : cc7751-50
Misc : MS69394,VA7793,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 24 08:09:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
06/24/14 13:07

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:46:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.472	65	90592	500.00	ug/L	0.00
4) pentafluorobenzene	9.820	168	200950	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.777	114	272874	50.00	ug/L	0.00
83) chlorobenzene-d5	14.224	117	257007	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.855	152	152874	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.878	113	85987	52.69	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 105.38%			
47) 1,2-dichloroethane-d4 (s)	10.317	65	94671	53.05	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 106.10%			
75) toluene-d8 (s)	12.529	98	307306	53.90	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 107.80%			
101) 4-bromofluorobenzene (s)	15.531	95	129091	51.91	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 103.82%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.546	88	8090	444.08	ug/L	87
3) tertiary butyl alcohol	7.603	59	20209	89.53	ug/L	100
6) chlorodifluoromethane	3.962	51	29250	23.51	ug/L	93
7) dichlorodifluoromethane	3.952	85	35564m	20.65	ug/L	
8) chloromethane	4.255	50	45393	19.74	ug/L	98
9) vinyl chloride	4.517	62	37427	19.55	ug/L	99
10) bromomethane	5.197	94	25303	18.90	ug/L	96
11) chloroethane	5.385	64	16469	19.25	ug/L	93
13) trichlorofluoromethane	5.892	101	45830	23.85	ug/L	91
15) ethyl ether	6.290	74	15012	17.75	ug/L	91
17) acrolein	6.572	56	38029	117.69	ug/L	94
18) freon 113	6.713	151	19745	18.52	ug/L	99
19) 1,1-dichloroethene	6.750	96	23992	17.88	ug/L	94
20) acetone	6.813	58	2771	19.53	ug/L #	63
21) allyl chloride	7.294	76	13975	17.75	ug/L #	67
22) acetonitrile	7.283	40	28329	221.68	ug/L	91
23) iodomethane	7.038	142	53368	18.52	ug/L	95
24) carbon disulfide	7.158	76	88156	17.99	ug/L	99
25) methylene chloride	7.508	84	33720	18.38	ug/L	96
26) methyl acetate	7.283	43	23419	19.98	ug/L	97
27) methyl tert butyl ether	7.838	73	96343	20.72	ug/L	98
28) trans-1,2-dichloroethene	7.895	96	29028	19.72	ug/L	94
29) hexane	8.199	57	33146	17.58	ug/L	92
30) di-isopropyl ether	8.465	45	115315	18.88	ug/L	95
31) t-butyl formate	9.689	59	27381	19.67	ug/L	93
32) ethyl tert-butyl ether	8.957	59	104835	18.82	ug/L	97
33) 2-butanone	9.250	72	3323	19.24	ug/L #	44
34) 1,1-dichloroethane	8.497	63	59735	20.79	ug/L	99
35) chloroprene	8.607	53	42772	19.79	ug/L	95
36) acrylonitrile	7.864	53	55038	115.45	ug/L	97
37) vinyl acetate	8.486	86	3899	17.23	ug/L	32
38) ethyl acetate	9.266	45	4236	19.63	ug/L	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:46:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	2,2-dichloropropane	9.271	77	48030	21.80	ug/L		93
41)	cis-1,2-dichloroethene	9.276	96	33644	20.32	ug/L		97
42)	propionitrile	9.365	54	44143	233.86	ug/L		99
43)	bromochloromethane	9.611	128	16938	20.58	ug/L		93
44)	tetrahydrofuran	9.647	42	13024	22.49	ug/L		92
45)	chloroform	9.668	83	59281	21.09	ug/L		98
48)	methacrylonitrile	9.548	67	11474	21.03	ug/L		90
49)	cyclohexane	9.993	84	38094	17.91	ug/L		83
50)	1,1,1-trichloroethane	9.919	97	47838	21.40	ug/L		98
52)	tert-amyl methyl ether	10.416	73	96709	17.98	ug/L		83
55)	epichlorohydrin	12.127	57	14776	100.31	ug/L		89
56)	n-butyl alcohol	10.924	56	48930	1010.05	ug/L		86
57)	carbon tetrachloride	10.134	117	42703	21.62	ug/L		96
58)	1,1-dichloropropene	10.103	75	39509	20.45	ug/L		99
59)	benzene	10.385	78	120376	20.82	ug/L		97
60)	Iso-octane	10.369	57	129161	22.35	ug/L		99
61)	heptane	10.547	71	20948	18.09	ug/L		92
63)	isopropyl acetate	10.312	43	63537	18.18	ug/L		97
64)	1,2-dichloroethane	10.406	62	46712	24.15	ug/L		95
65)	trichloroethene	11.133	95	30410	20.81	ug/L		97
66)	2-nitropropane	11.980	41	13685	24.02	ug/L	#	85
68)	methylcyclohexane	11.353	83	42028	17.67	ug/L	#	99
69)	2-chloroethyl vinyl ether	11.985	63	94904	107.41	ug/L		98
70)	methyl methacrylate	11.421	69	19689	21.15	ug/L		82
71)	1,2-dichloropropane	11.421	63	35088	21.58	ug/L		98
72)	dibromomethane	11.593	93	19886	22.00	ug/L		98
73)	bromodichloromethane	11.734	83	49366	23.32	ug/L		97
74)	cis-1,3-dichloropropene	12.226	75	56785	21.61	ug/L		92
76)	4-methyl-2-pentanone	12.325	58	13193	23.20	ug/L		90
77)	toluene	12.613	92	73405	18.80	ug/L		98
78)	3-methyl-1-butanol	12.357	55	32572	385.12	ug/L		95
79)	trans-1,3-dichloropropene	12.843	75	54150	22.46	ug/L		97
80)	ethyl methacrylate	12.822	69	41504	20.72	ug/L		94
81)	1,1,2-trichloroethane	13.084	83	24753	21.22	ug/L		99
82)	2-hexanone	13.267	58	12325	22.23	ug/L		91
84)	tetrachloroethene	13.256	164	27069	18.98	ug/L		97
85)	1,3-dichloropropane	13.288	76	49060	22.29	ug/L		95
86)	butyl acetate	13.345	56	21366	19.90	ug/L		86
87)	3,3-dimethyl-1-butanol	13.465	57	37859	207.34	ug/L		94
88)	dibromochloromethane	13.575	129	38608	21.81	ug/L		99
89)	1,2-dibromoethane	13.743	107	30206	21.29	ug/L		100
91)	chlorobenzene	14.255	112	90077	20.50	ug/L		99
92)	1,1,1,2-tetrachloroethane	14.323	131	36372	21.08	ug/L		98
93)	ethylbenzene	14.313	91	150288	20.60	ug/L		99
94)	m,p-xylene	14.433	106	110949	39.76	ug/L		92
95)	o-xylene	14.909	106	56915	19.62	ug/L		91
96)	styrene	14.925	104	99572	19.62	ug/L		97
97)	bromoform	15.233	173	28984	22.05	ug/L		98
99)	isopropylbenzene	15.291	105	149605	19.56	ug/L		99
100)	cyclohexanone	15.495	55	47227	250.25	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:46:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

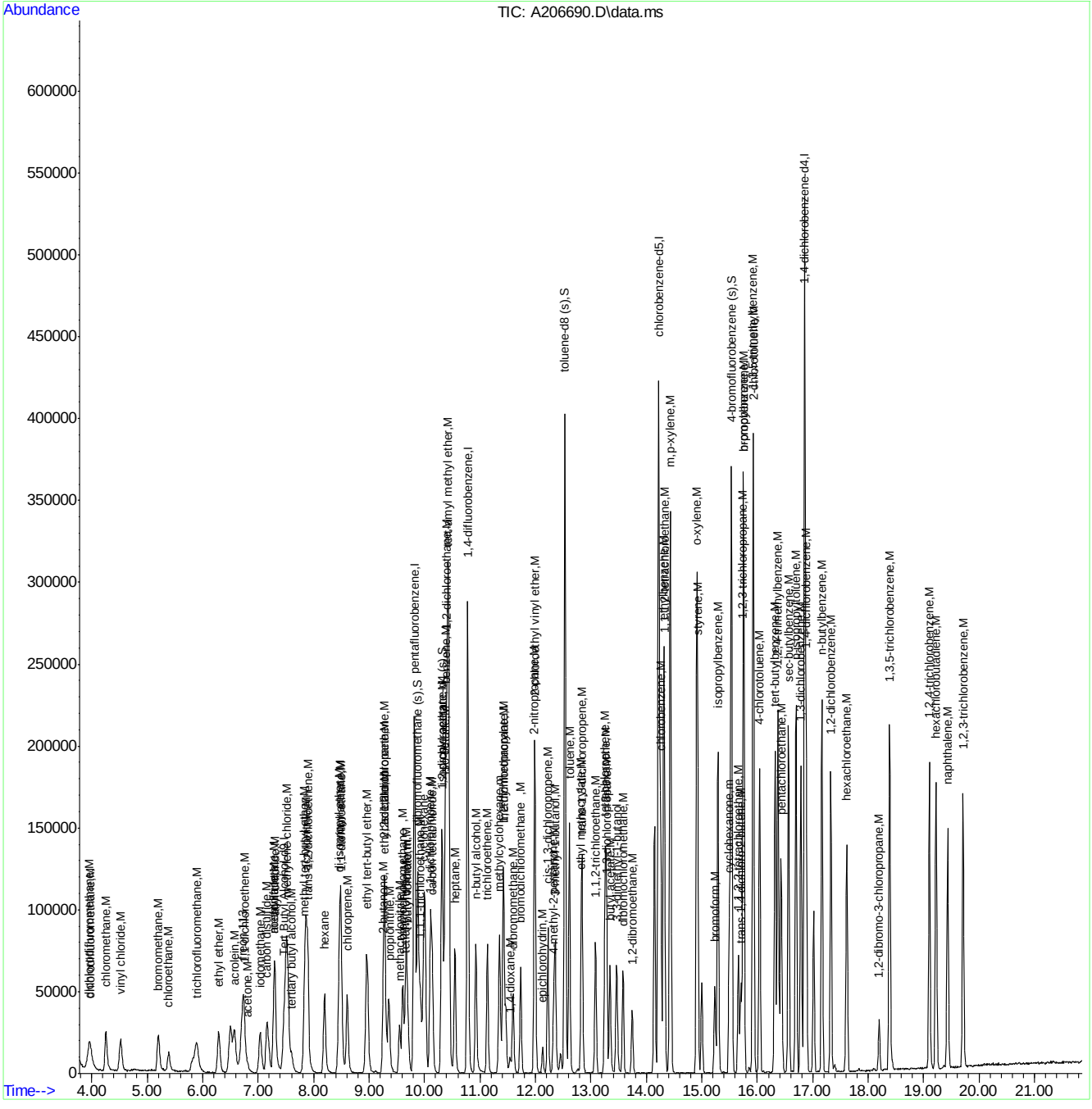
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.756	156	45874	20.29 ug/L	90
103) 1,1,2,2-tetrachloroethane	15.657	83	42879	21.15 ug/L	97
104) trans-1,4-dichloro-2-b...	15.699	53	12781	23.18 ug/L	86
105) 1,2,3-trichloropropane	15.741	110	10941	22.89 ug/L	99
106) n-propylbenzene	15.756	91	177423	19.48 ug/L	98
107) 2-chlorotoluene	15.929	126	40172	20.22 ug/L	93
108) 4-chlorotoluene	16.039	91	120838	20.30 ug/L	97
110) 1,3,5-trimethylbenzene	15.924	105	134450	19.80 ug/L	97
111) tert-butylbenzene	16.321	119	113077	19.88 ug/L	94
112) pentachloroethane	16.426	167	31031	21.11 ug/L	95
113) 1,2,4-trimethylbenzene	16.373	105	136220	19.89 ug/L	96
114) sec-butylbenzene	16.567	105	177092	19.98 ug/L	100
115) 1,3-dichlorobenzene	16.787	146	89063	20.26 ug/L	99
116) p-isopropyltoluene	16.698	119	152135	19.92 ug/L	97
118) 1,4-dichlorobenzene	16.881	146	88645	19.63 ug/L	98
120) 1,2-dichlorobenzene	17.331	146	87614	20.40 ug/L	99
121) n-butylbenzene	17.168	92	80538	19.74 ug/L	96
123) 1,2-dibromo-3-chloropr...	18.194	75	8642	22.33 ug/L	91
124) 1,3,5-trichlorobenzene	18.387	180	82253	21.22 ug/L	99
125) 1,2,4-trichlorobenzene	19.104	180	72600	21.69 ug/L	97
126) hexachlorobutadiene	19.224	225	49028	22.46 ug/L	98
127) naphthalene	19.433	128	132751	22.30 ug/L	99
128) 1,2,3-trichlorobenzene	19.710	180	66357	22.30 ug/L	99
129) hexachloroethane	17.613	201	32827	20.84 ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:46:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



Manual Integration Approval Summary

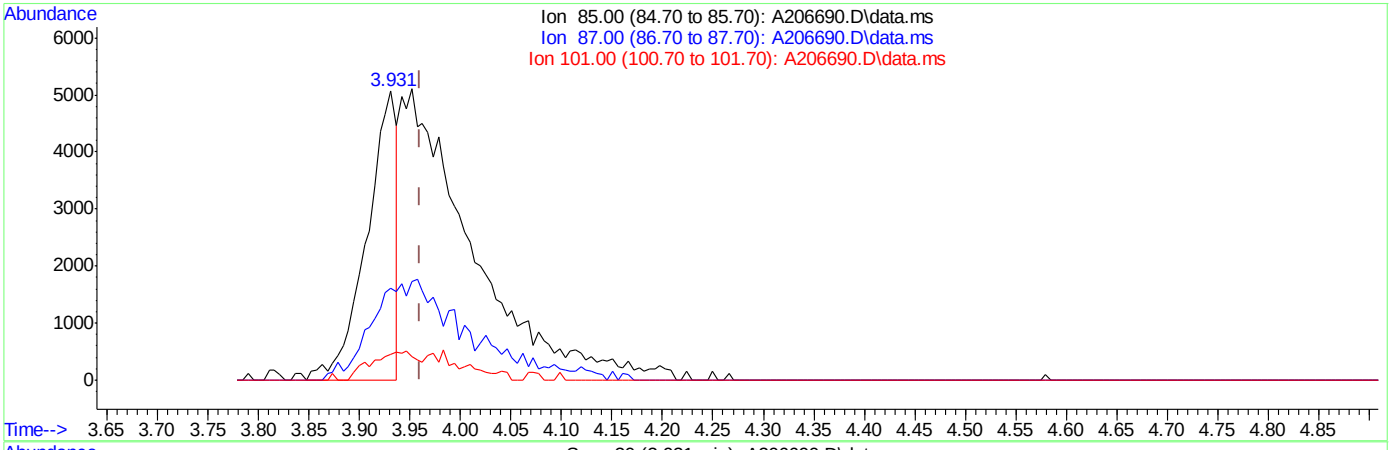
Sample Number:	VA7794-CC7751	**Method:**	SW846 8260B
Lab FileID:	A206690.D	**Analyst approved:**	06/24/14 10:03 Henny Salim
Injection Time:	06/23/14 10:47	**Supervisor approved:**	06/24/14 13:07 Kanya Veerawat

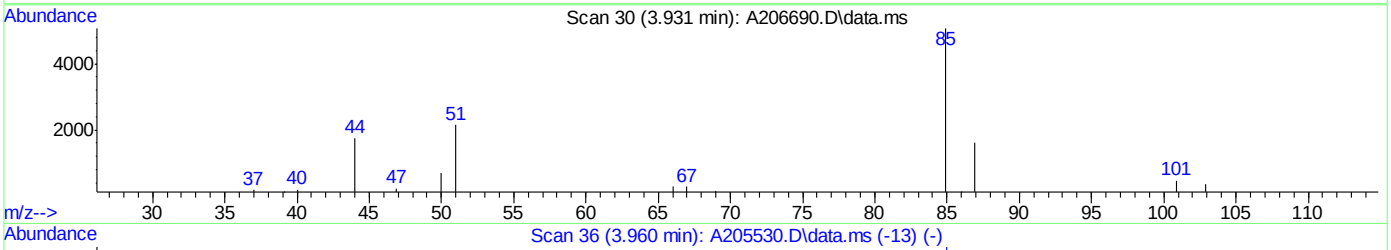
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		3.95	Poor instrument integration

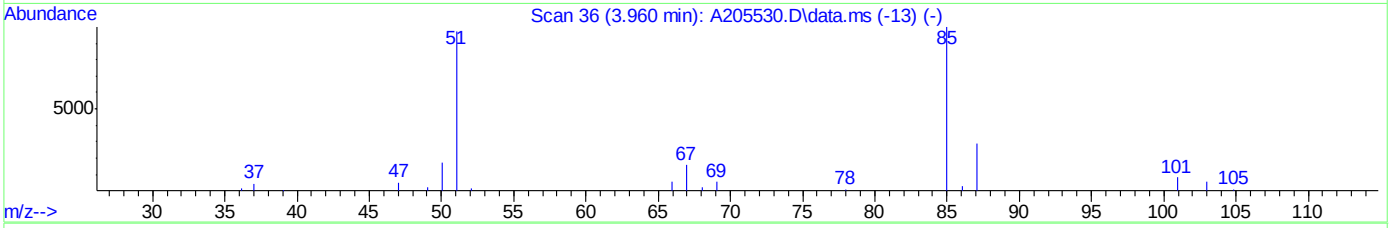
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:45:34 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration







TIC: A206690.D\data.ms

(7) dichlorodifluoromethane (M)

3.931min (-0.029) 6.05ug/L

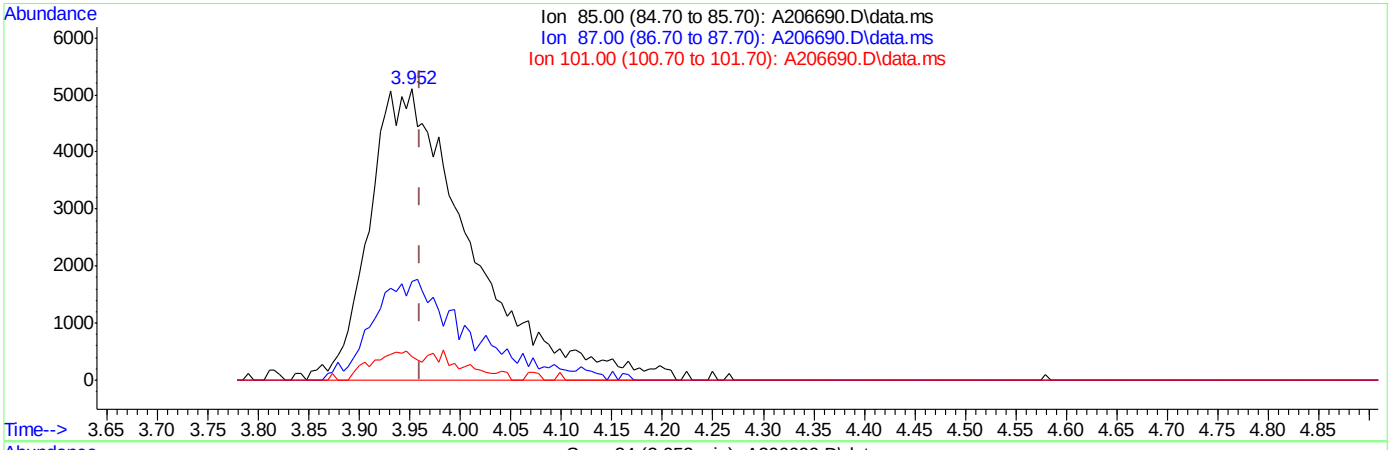
response 10413

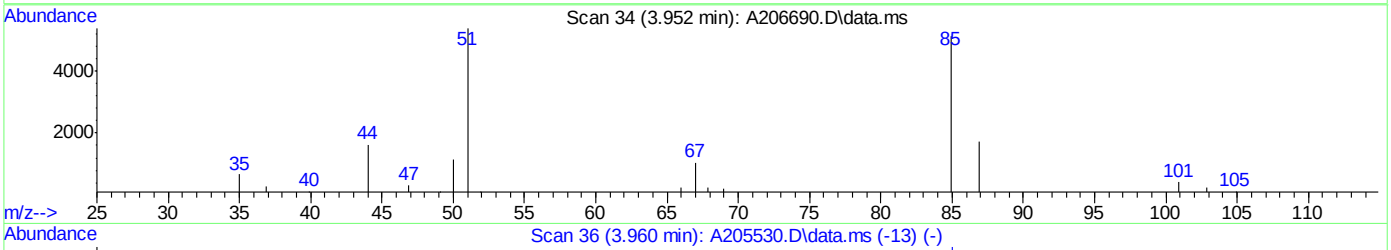
Ion	Exp%	Act%
85.00	100	100
87.00	29.00	31.80
101.00	8.10	9.11
0.00	0.00	0.00

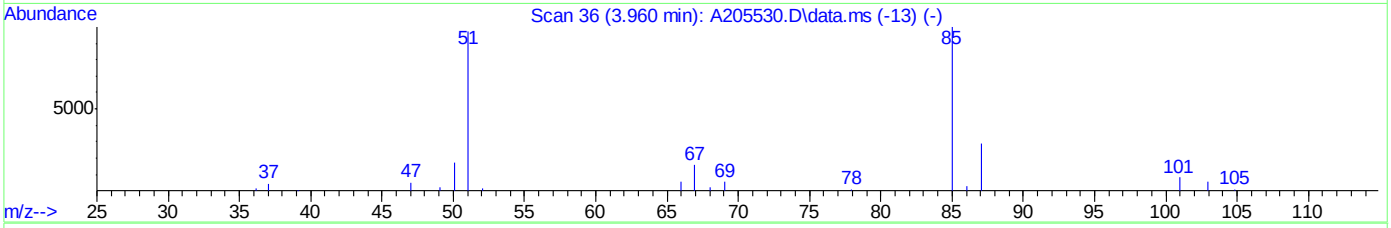
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69379,VA7794,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:45:34 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration







TIC: A206690.D\data.ms

(7) dichlorodifluoromethane (M)

3.952min (-0.008) 20.65ug/L m

response 35564

Ion	Exp%	Act%
85.00	100	100
87.00	29.00	33.95
101.00	8.10	8.05
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
06/26/14 17:08

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690a.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69545,VA7795,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:46:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.472	65	90592	500.00	ug/L	0.00
4) pentafluorobenzene	9.820	168	200950	50.00	ug/L	0.00
53) 1,4-difluorobenzene	10.777	114	272874	50.00	ug/L	0.00
83) chlorobenzene-d5	14.224	117	257007	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.855	152	152874	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.878	113	85987	52.69	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 105.38%			
47) 1,2-dichloroethane-d4 (s)	10.317	65	94671	53.05	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 106.10%			
75) toluene-d8 (s)	12.529	98	307306	53.90	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 107.80%			
101) 4-bromofluorobenzene (s)	15.531	95	129091	51.91	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 103.82%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.546	88	8090	444.08	ug/L	87
3) tertiary butyl alcohol	7.603	59	20209	89.53	ug/L	100
6) chlorodifluoromethane	3.962	51	29250	23.51	ug/L	93
7) dichlorodifluoromethane	3.952	85	35564m	20.65	ug/L	
8) chloromethane	4.255	50	45393	19.74	ug/L	98
9) vinyl chloride	4.517	62	37427	19.55	ug/L	99
10) bromomethane	5.197	94	25303	18.90	ug/L	96
11) chloroethane	5.385	64	16469	19.25	ug/L	93
13) trichlorofluoromethane	5.892	101	45830	23.85	ug/L	91
15) ethyl ether	6.290	74	15012	17.75	ug/L	91
17) acrolein	6.572	56	38029	117.69	ug/L	94
18) freon 113	6.713	151	19745	18.52	ug/L	99
19) 1,1-dichloroethene	6.750	96	23992	17.88	ug/L	94
20) acetone	6.813	58	2771	19.53	ug/L #	63
21) allyl chloride	7.294	76	13975	17.75	ug/L #	67
22) acetonitrile	7.283	40	28329	221.68	ug/L	91
23) iodomethane	7.038	142	53368	18.52	ug/L	95
24) carbon disulfide	7.158	76	88156	17.99	ug/L	99
25) methylene chloride	7.508	84	33720	18.38	ug/L	96
26) methyl acetate	7.283	43	23419	19.98	ug/L	97
27) methyl tert butyl ether	7.838	73	96343	20.72	ug/L	98
28) trans-1,2-dichloroethene	7.895	96	29028	19.72	ug/L	94
29) hexane	8.199	57	33146	17.58	ug/L	92
30) di-isopropyl ether	8.465	45	115315	18.88	ug/L	95
31) t-butyl formate	9.689	59	27381	19.67	ug/L	93
32) ethyl tert-butyl ether	8.957	59	104835	18.82	ug/L	97
33) 2-butanone	9.250	72	3323	19.24	ug/L #	44
34) 1,1-dichloroethane	8.497	63	59735	20.79	ug/L	99
35) chloroprene	8.607	53	42772	19.79	ug/L	95
36) acrylonitrile	7.864	53	55038	115.45	ug/L	97
37) vinyl acetate	8.486	86	3899	17.23	ug/L	32
38) ethyl acetate	9.266	45	4236	19.63	ug/L	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690a.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69545,VA7795,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:46:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	2,2-dichloropropane	9.271	77	48030	21.80	ug/L		93
41)	cis-1,2-dichloroethene	9.276	96	33644	20.32	ug/L		97
42)	propionitrile	9.365	54	44143	233.86	ug/L		99
43)	bromochloromethane	9.611	128	16938	20.58	ug/L		93
44)	tetrahydrofuran	9.647	42	13024	22.49	ug/L		92
45)	chloroform	9.668	83	59281	21.09	ug/L		98
48)	methacrylonitrile	9.548	67	11474	21.03	ug/L		90
49)	cyclohexane	9.993	84	38094	17.91	ug/L		83
50)	1,1,1-trichloroethane	9.919	97	47838	21.40	ug/L		98
52)	tert-amyl methyl ether	10.416	73	96709	17.98	ug/L		83
55)	epichlorohydrin	12.127	57	14776	100.31	ug/L		89
56)	n-butyl alcohol	10.924	56	48930	1010.05	ug/L		86
57)	carbon tetrachloride	10.134	117	42703	21.62	ug/L		96
58)	1,1-dichloropropene	10.103	75	39509	20.45	ug/L		99
59)	benzene	10.385	78	120376	20.82	ug/L		97
60)	Iso-octane	10.369	57	129161	22.35	ug/L		99
61)	heptane	10.547	71	20948	18.09	ug/L		92
63)	isopropyl acetate	10.312	43	63537	18.18	ug/L		97
64)	1,2-dichloroethane	10.406	62	46712	24.15	ug/L		95
65)	trichloroethene	11.133	95	30410	20.81	ug/L		97
66)	2-nitropropane	11.980	41	13685	24.02	ug/L	#	85
68)	methylcyclohexane	11.353	83	42028	17.67	ug/L	#	99
69)	2-chloroethyl vinyl ether	11.985	63	94904	107.41	ug/L		98
70)	methyl methacrylate	11.421	69	19689	21.15	ug/L		82
71)	1,2-dichloropropane	11.421	63	35088	21.58	ug/L		98
72)	dibromomethane	11.593	93	19886	22.00	ug/L		98
73)	bromodichloromethane	11.734	83	49366	23.32	ug/L		97
74)	cis-1,3-dichloropropene	12.226	75	56785	21.61	ug/L		92
76)	4-methyl-2-pentanone	12.325	58	13193	23.20	ug/L		90
77)	toluene	12.613	92	73405	18.80	ug/L		98
78)	3-methyl-1-butanol	12.357	55	32572	385.12	ug/L		95
79)	trans-1,3-dichloropropene	12.843	75	54150	22.46	ug/L		97
80)	ethyl methacrylate	12.822	69	41504	20.72	ug/L		94
81)	1,1,2-trichloroethane	13.084	83	24753	21.22	ug/L		99
82)	2-hexanone	13.267	58	12325	22.23	ug/L		91
84)	tetrachloroethene	13.256	164	27069	18.98	ug/L		97
85)	1,3-dichloropropane	13.288	76	49060	22.29	ug/L		95
86)	butyl acetate	13.345	56	21366	19.90	ug/L		86
87)	3,3-dimethyl-1-butanol	13.465	57	37859	207.34	ug/L		94
88)	dibromochloromethane	13.575	129	38608	21.81	ug/L		99
89)	1,2-dibromoethane	13.743	107	30206	21.29	ug/L		100
91)	chlorobenzene	14.255	112	90077	20.50	ug/L		99
92)	1,1,1,2-tetrachloroethane	14.323	131	36372	21.08	ug/L		98
93)	ethylbenzene	14.313	91	150288	20.60	ug/L		99
94)	m,p-xylene	14.433	106	110949	39.76	ug/L		92
95)	o-xylene	14.909	106	56915	19.62	ug/L		91
96)	styrene	14.925	104	99572	19.62	ug/L		97
97)	bromoform	15.233	173	28984	22.05	ug/L		98
99)	isopropylbenzene	15.291	105	149605	19.56	ug/L		99
100)	cyclohexanone	15.495	55	47227	250.25	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690a.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69545,VA7795,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:46:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration

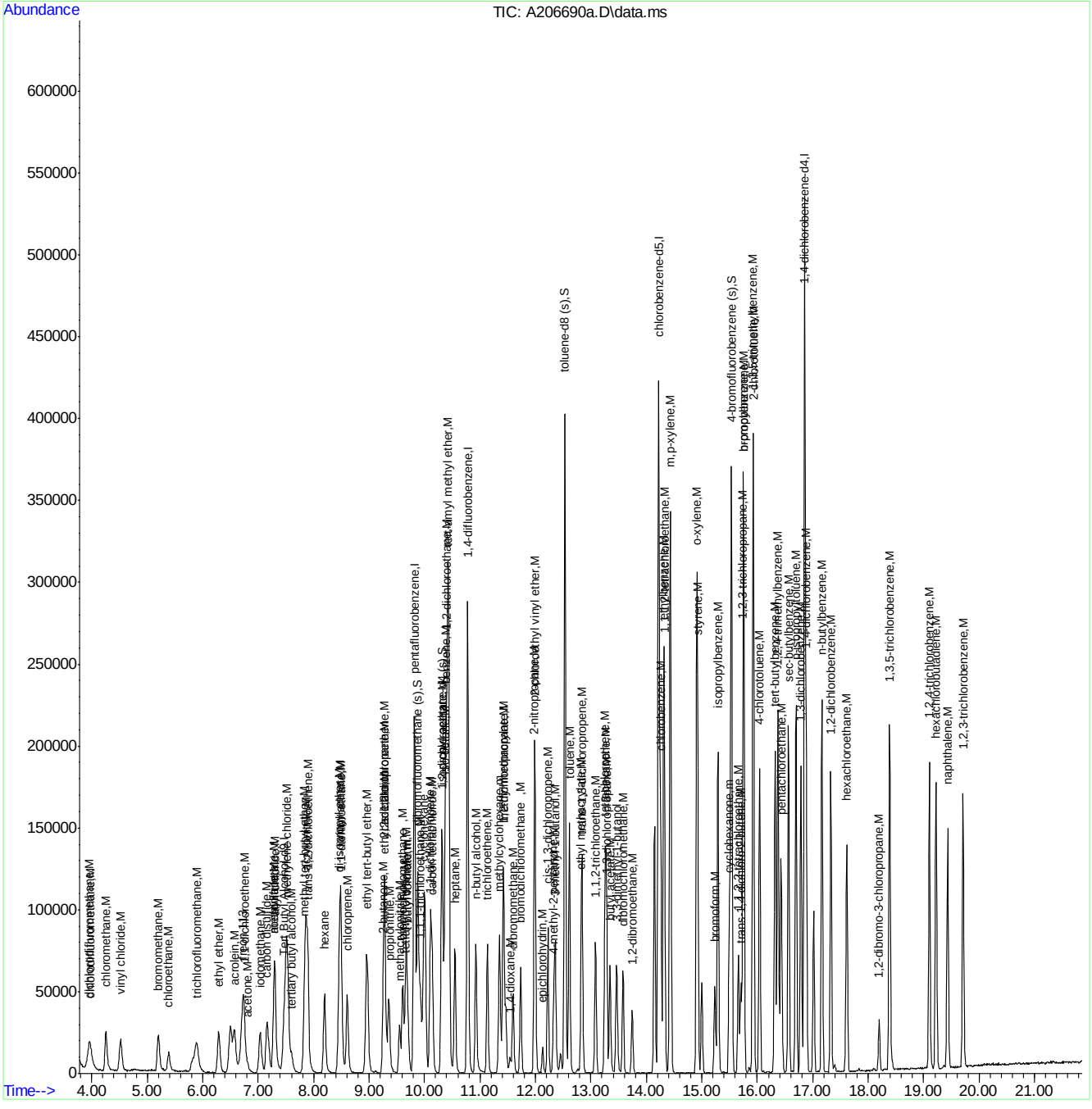
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) bromobenzene	15.756	156	45874	20.29	ug/L	90
103) 1,1,2,2-tetrachloroethane	15.657	83	42879	21.15	ug/L	97
104) trans-1,4-dichloro-2-b...	15.699	53	12781	23.18	ug/L	86
105) 1,2,3-trichloropropane	15.741	110	10941	22.89	ug/L	99
106) n-propylbenzene	15.756	91	177423	19.48	ug/L	98
107) 2-chlorotoluene	15.929	126	40172	20.22	ug/L	93
108) 4-chlorotoluene	16.039	91	120838	20.30	ug/L	97
110) 1,3,5-trimethylbenzene	15.924	105	134450	19.80	ug/L	97
111) tert-butylbenzene	16.321	119	113077	19.88	ug/L	94
112) pentachloroethane	16.426	167	31031	21.11	ug/L	95
113) 1,2,4-trimethylbenzene	16.373	105	136220	19.89	ug/L	96
114) sec-butylbenzene	16.567	105	177092	19.98	ug/L	100
115) 1,3-dichlorobenzene	16.787	146	89063	20.26	ug/L	99
116) p-isopropyltoluene	16.698	119	152135	19.92	ug/L	97
118) 1,4-dichlorobenzene	16.881	146	88645	19.63	ug/L	98
120) 1,2-dichlorobenzene	17.331	146	87614	20.40	ug/L	99
121) n-butylbenzene	17.168	92	80538	19.74	ug/L	96
123) 1,2-dibromo-3-chloropr...	18.194	75	8642	22.33	ug/L	91
124) 1,3,5-trichlorobenzene	18.387	180	82253	21.22	ug/L	99
125) 1,2,4-trichlorobenzene	19.104	180	72600	21.69	ug/L	97
126) hexachlorobutadiene	19.224	225	49028	22.46	ug/L	98
127) naphthalene	19.433	128	132751	22.30	ug/L	99
128) 1,2,3-trichlorobenzene	19.710	180	66357	22.30	ug/L	99
129) hexachloroethane	17.613	201	32827	20.84	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690a.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69545,VA7795,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:46:54 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration



Manual Integration Approval Summary

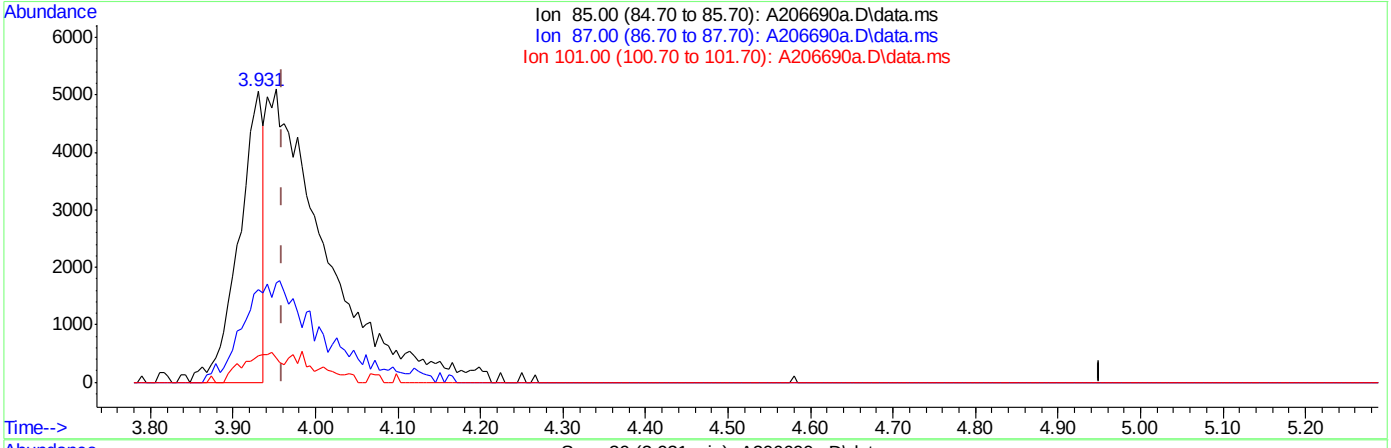
Sample Number:	VA7795-CC7751	**Method:**	SW846 8260C
Lab FileID:	A206690A.D	**Analyst approved:**	06/24/14 10:05 Henny Salim
Injection Time:	06/23/14 10:47	**Supervisor approved:**	06/26/14 17:08 Kanya Veerawat

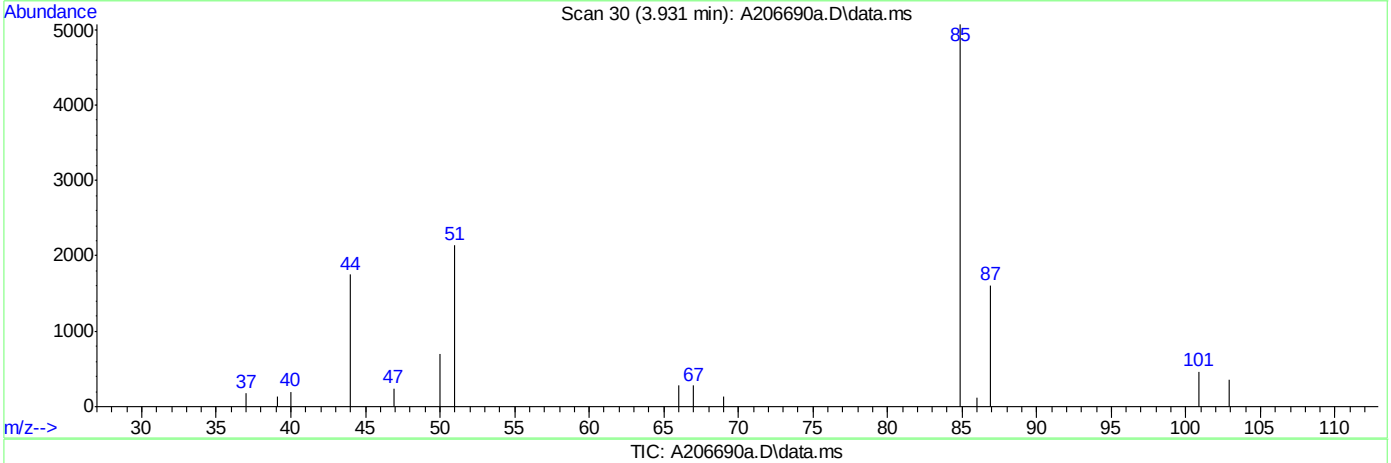
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		3.95	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690a.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69545,VA7795,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 11:11:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration





TIC: A206690a.D\data.ms

(7) dichlorodifluoromethane (M)

3.931min (-0.029) 6.05ug/L

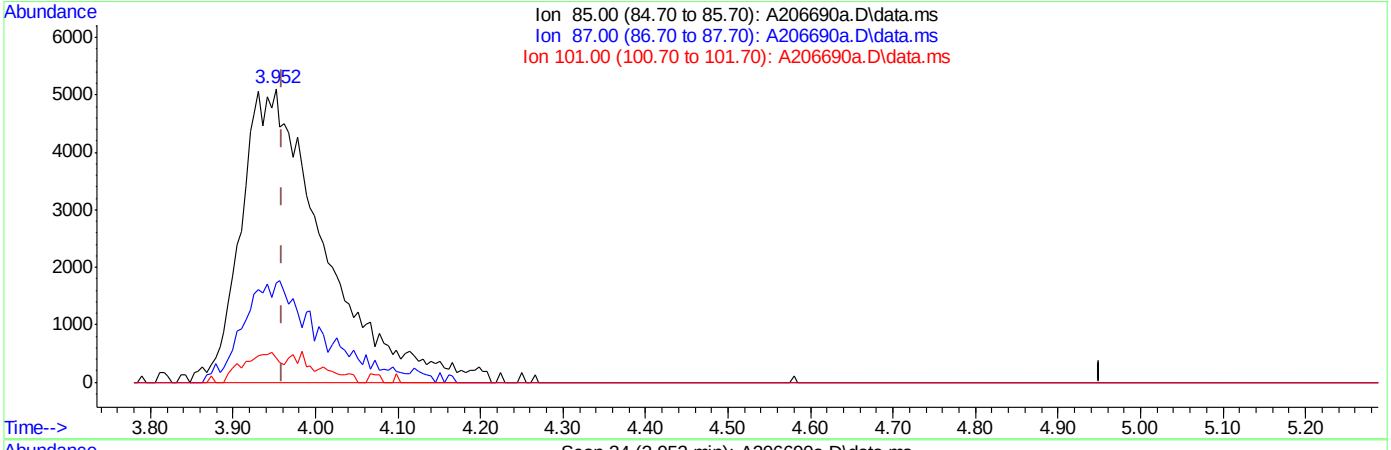
response 10413

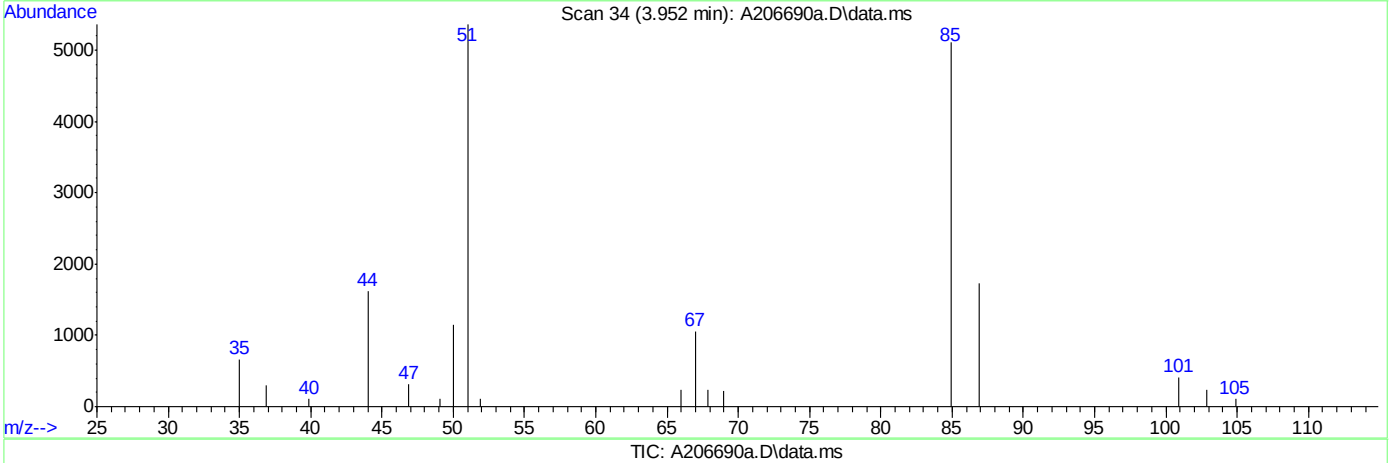
Ion	Exp%	Act%
85.00	100	100
87.00	29.00	31.80
101.00	8.10	9.11
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\A\va7794-7795\
Data File : A206690a.D
Acq On : 23 Jun 2014 10:47 am
Operator : CourtneM
Sample : cc7751-20
Misc : MS69545,VA7795,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 11:11:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\MA7751.M
Quant Title : SW 846 8260bB ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed May 14 10:24:05 2014
Response via : Initial Calibration





TIC: A206690a.D\data.ms

(7) dichlorodifluoromethane (M)

3.952min (-0.008) 20.65ug/L m

response 35564

Ion	Exp%	Act%
85.00	100	100
87.00	29.00	33.95
101.00	8.10	8.05
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145208.D
Acq On : 11 Jun 2014 10:34 am
Operator : KingC
Sample : ic6196-0.2
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 12 09:09:36 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.21	65	85434	500.00 ug/L	-0.01
4) pentafluorobenzene	9.45	168	195805	50.00 ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	253094	50.00 ug/L	0.00
79) chlorobenzene-d5	13.80	117	226648	50.00 ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.42	152	119267	50.00 ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	0.00	113	0d	0.00 ug/L	
Spiked Amount 50.000	Range	59 - 130	Recovery	=	0.00%#
47) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00 ug/L	
Spiked Amount 50.000	Range	65 - 123	Recovery	=	0.00%#
71) toluene-d8 (s)	0.00	98	0d	0.00 ug/L	
Spiked Amount 50.000	Range	77 - 125	Recovery	=	0.00%#
94) 4-bromofluorobenzene (s)	0.00	95	0d	0.00 ug/L	
Spiked Amount 50.000	Range	71 - 132	Recovery	=	0.00%#

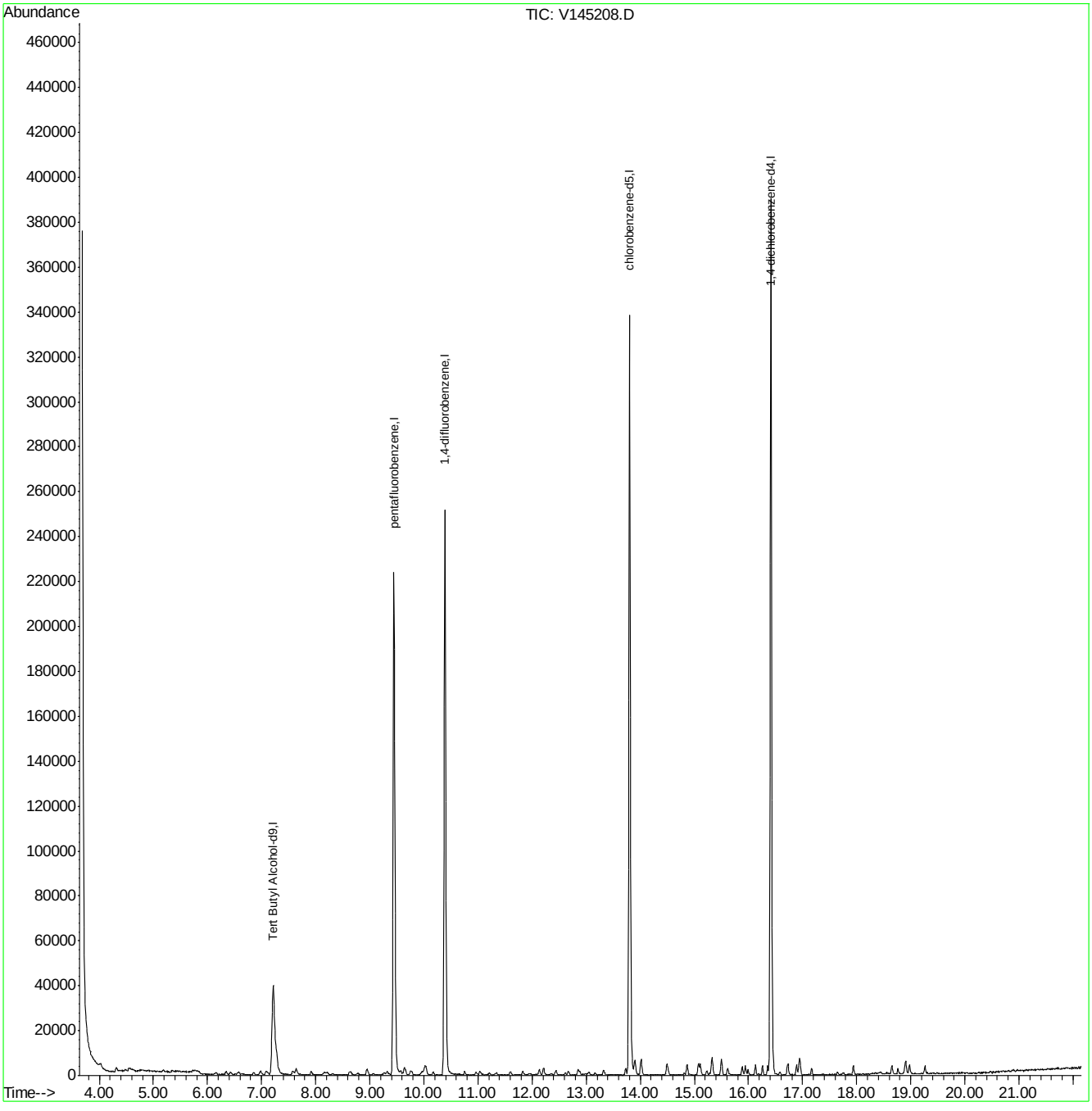
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145208.D
Acq On : 11 Jun 2014 10:34 am
Operator : KingC
Sample : ic6196-0.2
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 12 09:09:36 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145209.D
Acq On : 11 Jun 2014 11:04 am
Operator : KingC
Sample : ic6196-0.5
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 12 09:17:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	66323	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	189256	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	248974	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	219752	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	114549	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 59 - 130		Recovery	=	0.00%#	
47) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 65 - 123		Recovery	=	0.00%#	
71) toluene-d8 (s)	12.13	98	3080	0.62	ug/L	0.01
Spiked Amount 50.000	Range 77 - 125		Recovery	=	1.24%#	
94) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 132		Recovery	=	0.00%#	

Target Compounds

						Qvalue
13) ethyl ether	6.16	74	379	0.50	ug/L #	64
15) acrolein	6.43	56	1368	5.63	ug/L	70
17) 1,1-dichloroethene	6.57	96	763	0.59	ug/L	78
20) allyl chloride	7.08	76	397	0.51	ug/L #	70
21) acetonitrile	7.09	41	2268	6.31	ug/L	93
22) iodomethane	6.86	142	1574	0.63	ug/L	78
27) methyl tert butyl ether	7.59	73	2392	0.60	ug/L	85
28) trans-1,2-dichloroethene	7.65	96	932	0.63	ug/L	82
29) di-isopropyl ether	8.16	45	2556	0.51	ug/L	78
32) chloroprene	8.31	53	1098	0.55	ug/L	72
33) acrylonitrile	7.64	53	1125	2.70	ug/L	89
35) ethyl tert-butyl ether	8.62	59	2336	0.49	ug/L	92
38) cis-1,2-dichloroethene	8.95	96	871	0.54	ug/L	97
39) propionitrile	9.06	54	629	3.92	ug/L #	41
42) bromochloromethane	9.27	128	352	0.48	ug/L	80
55) 1,1-dichloropropene	9.74	75	1170	0.61	ug/L	85
56) hexane	7.92	57	1103	0.66	ug/L	97
58) benzene	10.02	78	3519	0.61	ug/L	93
59) tert-amyl methyl ether	10.04	73	2266	0.51	ug/L	95
62) 1,2-dichloroethane	10.05	62	870	0.51	ug/L	88
63) trichloroethene	10.76	95	819	0.58	ug/L	90
64) 2-chloroethyl vinyl ether	11.60	63	1170	1.91	ug/L	84
70) cis-1,3-dichloropropene	11.83	75	1143	0.48	ug/L	88
73) toluene	12.21	92	2077	0.59	ug/L #	96
77) 1,1,2-trichloroethane	12.67	83	507	0.51	ug/L #	73
80) tetrachloroethene	12.85	166	787	0.54	ug/L	90
81) 1,3-dichloropropane	12.88	76	958	0.48	ug/L	83
83) 3,3-Dimethyl-1-Butanol	13.05	69	448	4.72	ug/L #	60
84) dibromochloromethane	13.16	129	711	0.51	ug/L	78
86) chlorobenzene	13.84	112	2380	0.60	ug/L	90
89) m,p-xylene	14.01	106	2965	1.14	ug/L	87
90) o-xylene	14.49	106	1416	0.53	ug/L	73
103) 4-chlorotoluene	15.61	91	2849	0.59	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145209.D
Acq On : 11 Jun 2014 11:04 am
Operator : KingC
Sample : ic6196-0.5
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 12 09:17:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
106) pentachloroethane	15.99	167	497	0.44 ug/L	85
110) 1,3-dichlorobenzene	16.36	146	2112	0.61 ug/L	97
112) 1,2-dichlorobenzene	16.88	146	1971	0.59 ug/L	93
116) hexachloroethane	17.17	201	576	0.55 ug/L #	79
118) 1,3,5-trichlorobenzene	17.94	180	1715	0.58 ug/L	95
119) 1,2,4-trichlorobenzene	18.65	180	1466	0.54 ug/L	98

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

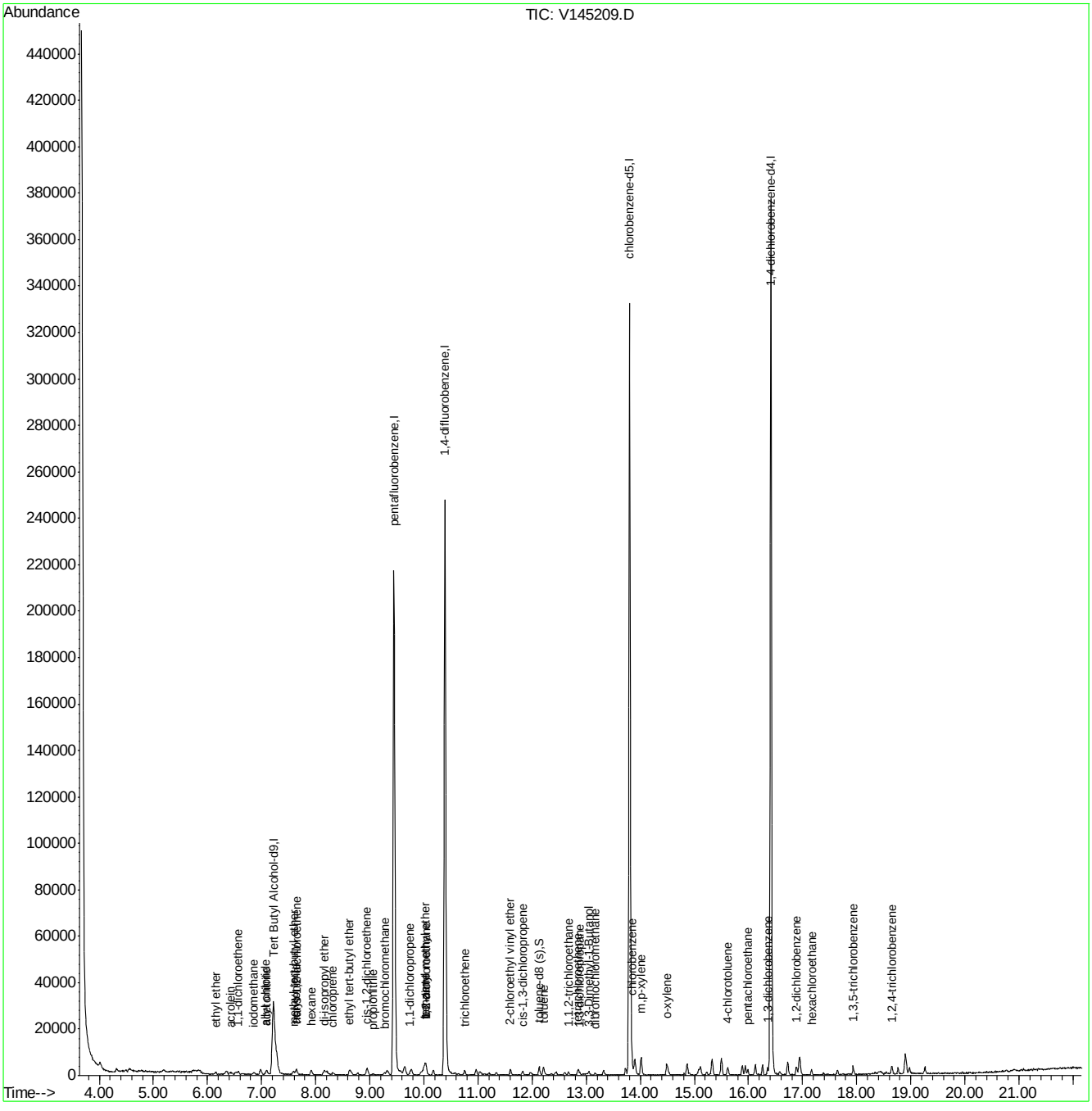
7.7.30

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145209.D
Acq On : 11 Jun 2014 11:04 am
Operator : KingC
Sample : ic6196-0.5
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 12 09:17:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 06/13/14 11:06

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145210.D
Acq On : 11 Jun 2014 11:33 am
Operator : KingC
Sample : ic6196-1
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 09:44:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.21	65	79269	500.00	ug/L	-0.01
4) pentafluorobenzene	9.45	168	191161	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	247699	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	218186	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.42	152	118652	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.52	113	1150	0.85	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 1.70%#			
47) 1,2-dichloroethane-d4 (s)	9.95	65	1297	0.96	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 1.92%#			
71) toluene-d8 (s)	12.13	98	4147	0.84	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 1.68%#			
94) 4-bromofluorobenzene (s)	15.12	95	2113	1.11	ug/L	0.01
Spiked Amount 50.000	Range 71 - 132		Recovery = 2.22%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.34	59	776	4.11	ug/L	58
8) chloromethane	4.31	50	2360	0.98	ug/L	93
10) bromomethane	5.17	96	1180	0.92	ug/L	83
11) chloroethane	5.33	64	846	0.84	ug/L	98
13) ethyl ether	6.15	74	514	0.67	ug/L #	59
14) 2-chloropropane	6.34	43	2391	0.94	ug/L	74
15) acrolein	6.41	56	315330	1284.77	ug/L	99
17) 1,1-dichloroethene	6.57	96	1076	0.83	ug/L #	74
19) iso-butyl alcohol	10.03	74	375	8.11	ug/L #	61
20) allyl chloride	7.08	76	570	0.72	ug/L #	59
21) acetonitrile	7.08	41	3150	8.68	ug/L	98
22) iodomethane	6.86	142	2168	0.86	ug/L	90
23) carbon disulfide	6.98	76	4697	0.95	ug/L	97
25) 1-chloropropane	7.31	42	2450	0.96	ug/L	96
26) methyl acetate	7.09	43	601	0.68	ug/L #	61
27) methyl tert butyl ether	7.57	73	3155	0.79	ug/L	91
28) trans-1,2-dichloroethene	7.64	96	1278	0.86	ug/L #	73
29) di-isopropyl ether	8.16	45	3614	0.71	ug/L	86
31) 1,1-dichloroethane	8.21	63	2195	0.81	ug/L	89
32) chloroprene	8.32	53	1316	0.66	ug/L	87
33) acrylonitrile	7.64	53	1582	3.75	ug/L	91
35) ethyl tert-butyl ether	8.63	59	3278	0.69	ug/L	96
37) 2,2-dichloropropane	8.95	77	1755	0.79	ug/L	90
38) cis-1,2-dichloroethene	8.95	96	1191	0.73	ug/L	91
39) propionitrile	9.06	54	1160	7.16	ug/L	83
42) bromochloromethane	9.26	128	486	0.66	ug/L	83
44) chloroform	9.32	83	2054	0.80	ug/L	88
48) 1,1,1-trichloroethane	9.58	97	1780	0.84	ug/L	87
49) Cyclohexane	9.63	84	1555	0.75	ug/L #	58
54) carbon tetrachloride	9.78	117	1499	0.80	ug/L	79
55) 1,1-dichloropropene	9.75	75	1610	0.84	ug/L	74
56) hexane	7.91	57	1315	0.79	ug/L	95
58) benzene	10.02	78	4719	0.83	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145210.D
Acq On : 11 Jun 2014 11:33 am
Operator : KingC
Sample : ic6196-1
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 09:44:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

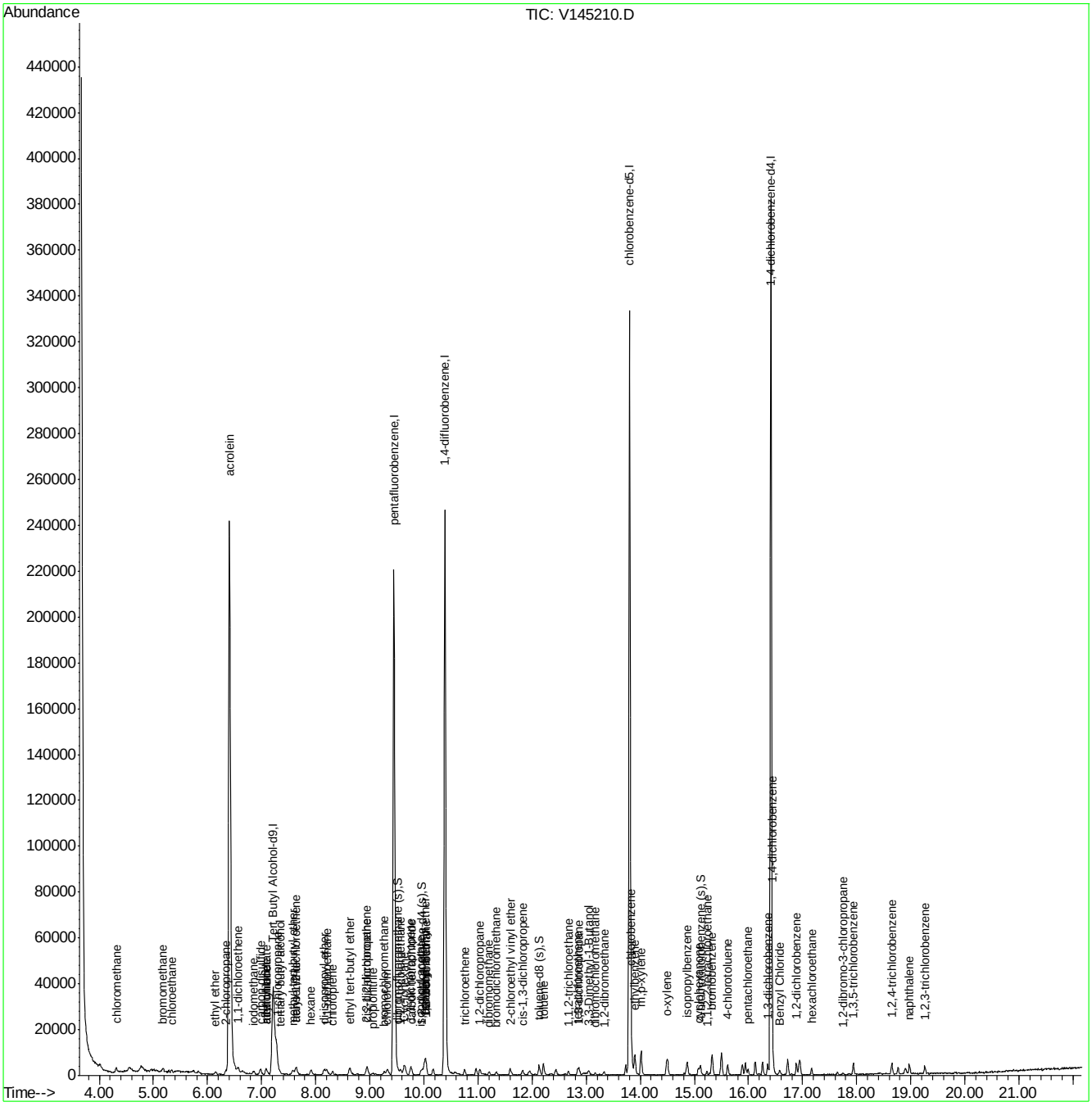
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
59) tert-amyl methyl ether	10.04	73	3304	0.75 ug/L	89
61) isopropyl acetate	9.94	61	195	0.81 ug/L #	35
62) 1,2-dichloroethane	10.05	62	1228	0.73 ug/L	78
63) trichloroethene	10.75	95	1163	0.83 ug/L	89
64) 2-chloroethyl vinyl ether	11.60	63	1659	2.73 ug/L	92
66) 1,2-dichloropropane	11.04	63	1097	0.73 ug/L	95
67) dibromomethane	11.20	93	614	0.76 ug/L	82
68) bromodichloromethane	11.33	83	1366	0.72 ug/L	82
70) cis-1,3-dichloropropene	11.82	75	1754	0.74 ug/L	95
73) toluene	12.21	92	3033	0.87 ug/L	90
77) 1,1,2-trichloroethane	12.67	83	735	0.75 ug/L #	68
80) tetrachloroethene	12.85	166	1029	0.71 ug/L	97
81) 1,3-dichloropropane	12.87	76	1406	0.71 ug/L	96
83) 3,3-Dimethyl-1-Butanol	13.05	69	765	8.12 ug/L #	98
84) dibromochloromethane	13.16	129	1019	0.73 ug/L	73
85) 1,2-dibromoethane	13.34	107	683m	0.59 ug/L	
86) chlorobenzene	13.84	112	3199	0.81 ug/L	93
88) ethylbenzene	13.90	91	5241	0.78 ug/L	97
89) m,p-xylene	14.02	106	3812	1.48 ug/L	88
90) o-xylene	14.48	106	1917	0.73 ug/L	89
93) cyclohexanone	15.07	55	1824	10.71 ug/L	92
96) isopropylbenzene	14.87	105	4923	0.73 ug/L	96
97) 1,1,2,2-tetrachloroethane	15.23	83	1579	0.97 ug/L	85
100) bromobenzene	15.32	156	1282	0.71 ug/L	74
103) 4-chlorotoluene	15.61	91	3736	0.74 ug/L	99
106) pentachloroethane	15.99	167	826	0.71 ug/L	91
110) 1,3-dichlorobenzene	16.35	146	2810	0.79 ug/L	94
111) 1,4-dichlorobenzene	16.44	146	2995	0.83 ug/L	89
112) 1,2-dichlorobenzene	16.89	146	2669	0.77 ug/L	93
113) Benzyl Chloride	16.57	91	2472	0.76 ug/L	95
116) hexachloroethane	17.17	201	553m	0.51 ug/L	
117) 1,2-dibromo-3-chloropropan	17.75	157	213	0.61 ug/L	81
118) 1,3,5-trichlorobenzene	17.94	180	2372	0.77 ug/L	97
119) 1,2,4-trichlorobenzene	18.65	180	2214	0.78 ug/L	97
121) naphthalene	18.98	128	4575	0.77 ug/L	92
122) 1,2,3-trichlorobenzene	19.26	180	1973	0.75 ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145210.D
Acq On : 11 Jun 2014 11:33 am
Operator : KingC
Sample : ic6196-1
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 09:44:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number:	VV6196-IC6196	**Method:**	SW846 8260B
Lab FileID:	V145210.D	**Analyst approved:**	06/13/14 09:53 Juntae Park
Injection Time:	06/11/14 11:33	**Supervisor approved:**	06/13/14 11:06 Jessica Reitan-Chu

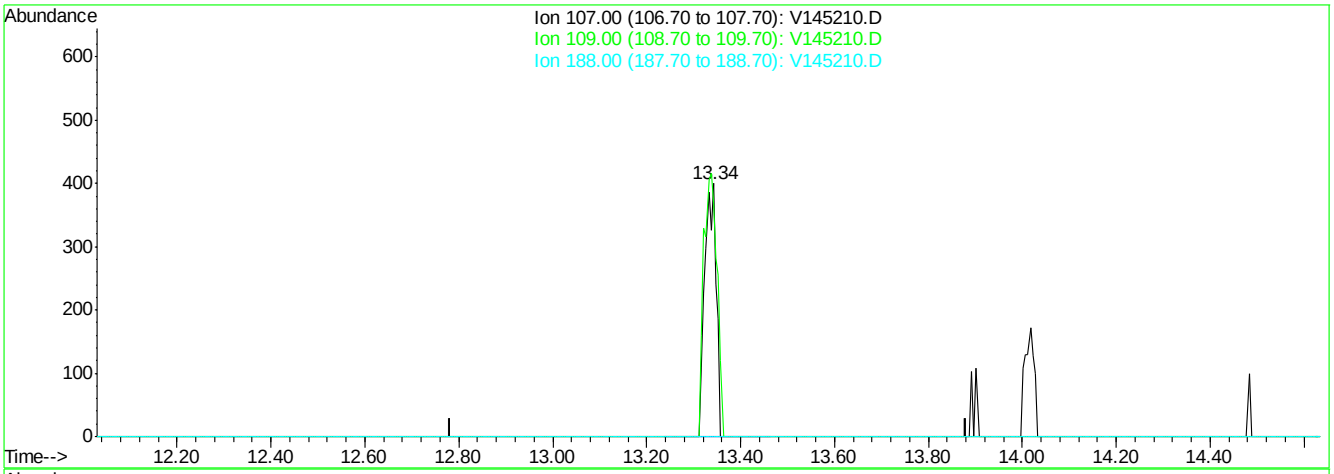
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,2-Dibromoethane	106-93-4		13.34	Missed peak
Hexachloroethane	67-72-1		17.17	Missed peak

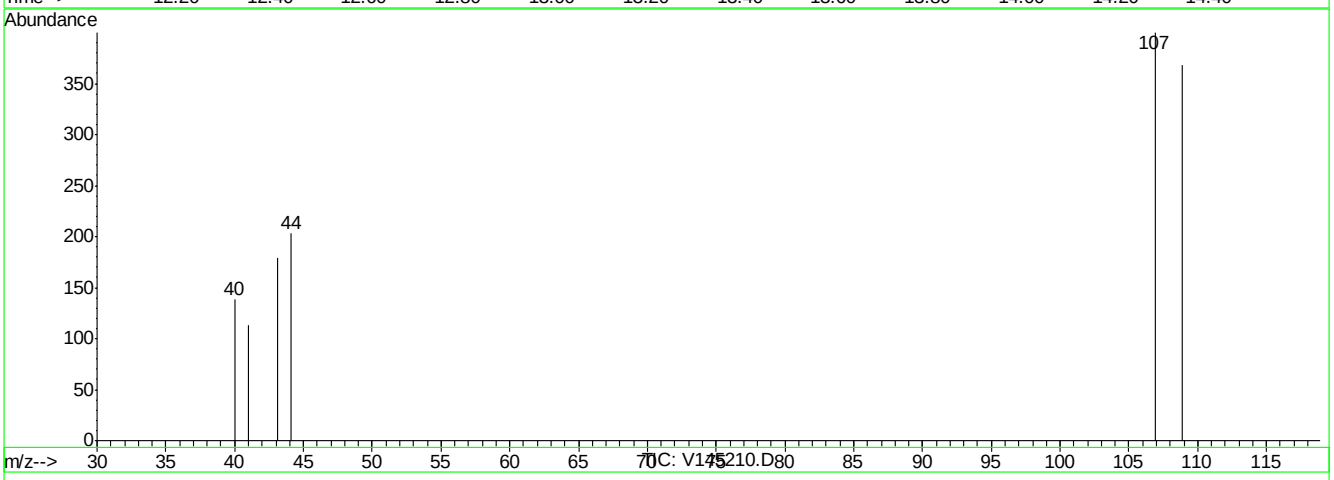
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\V145210.D Vial: 4
Acq On : 11 Jun 2014 11:33 am Operator: KingC
Sample : ic6196-1 Inst : MSV
Misc : MS68813,VV6196,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint4.p

Quant Time: Jun 13 09:44:55 2014 Results File: MVS6196.RES

Method : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri Jun 13 09:47:46 2014
Response via : Multiple Level Calibration





(85) 1,2-dibromoethane

13.34min 0.59ug/L m

response 683

Ion	Exp%	Act%
107.00	100	100
109.00	90.50	92.00
188.00	2.90	0.00
0.00	0.00	0.00

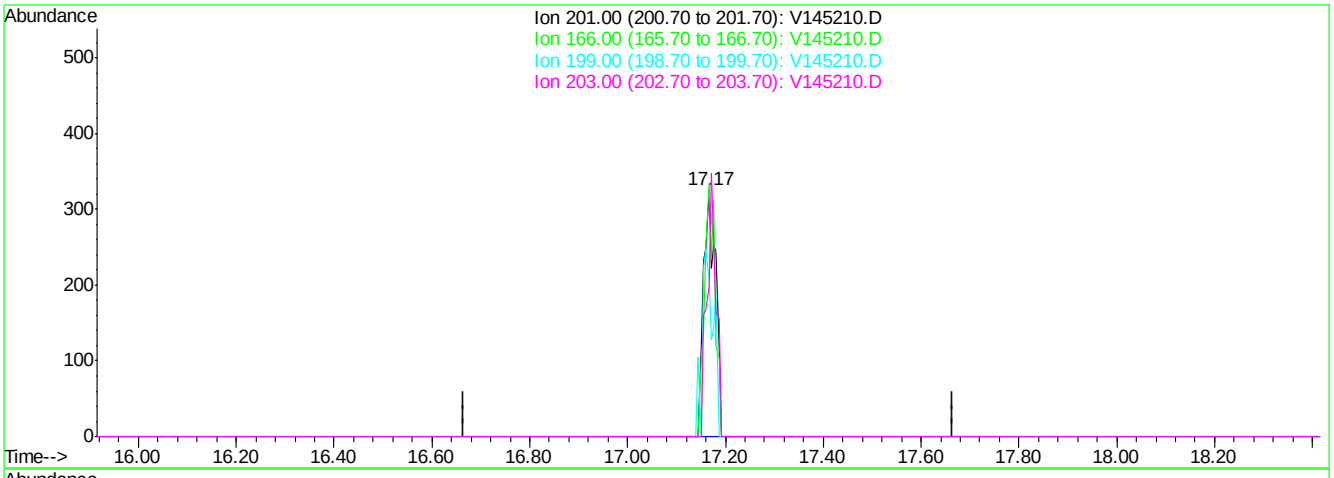
V145210.D MVS6196.M Fri Jun 13 09:56:20 2014 MSV

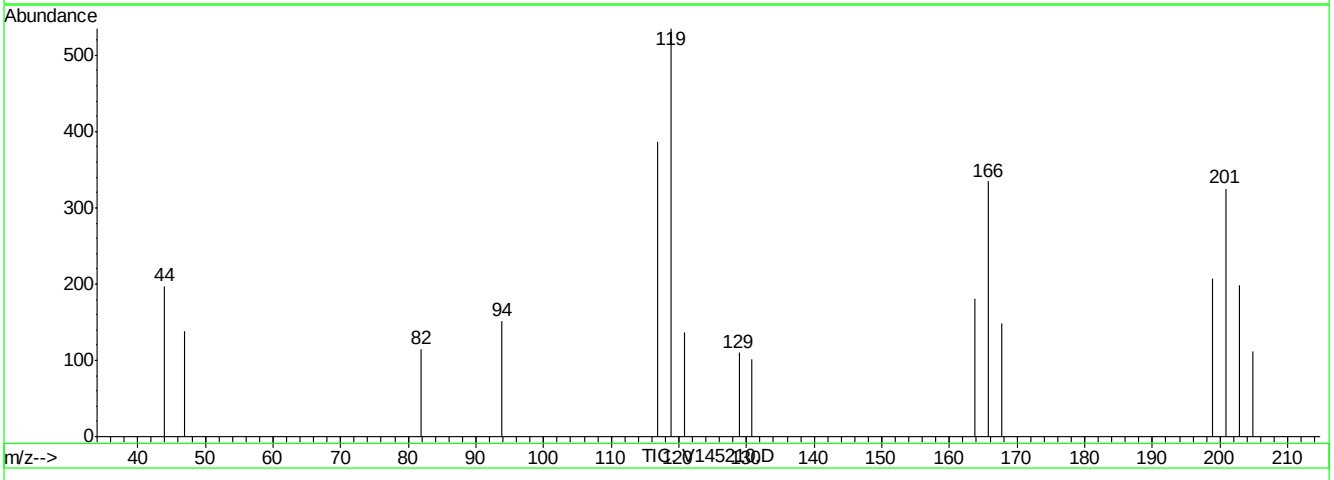
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\V145210.D Vial: 4
Acq On : 11 Jun 2014 11:33 am Operator: KingC
Sample : ic6196-1 Inst : MSV
Misc : MS68813,VV6196,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint4.p

Quant Time: Jun 13 09:44:55 2014 Results File: MVS6196.RES

Method : C:\MSDCHEM\1\METHODS\MVS6196.M (RTE Integrator)
Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri Jun 13 09:47:46 2014
Response via : Multiple Level Calibration





(116) hexachloroethane

17.17min 0.51ug/L m

response 553

Ion	Exp%	Act%
201.00	100	100
166.00	59.50	0.00#
199.00	62.40	0.00#
203.00	63.40	0.00#

V145210.D MVS6196.M Fri Jun 13 09:56:27 2014 MSV

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145211.D
Acq On : 11 Jun 2014 12:02 pm
Operator : KingC
Sample : ic6196-2
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 09:23:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.21	65	66658	500.00	ug/L	-0.01
4) pentafluorobenzene	9.45	168	188859	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	245633	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	220926	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	116429	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.52	113	2703	2.02	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 4.04%#			
47) 1,2-dichloroethane-d4 (s)	9.95	65	2932	2.19	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 4.38%#			
71) toluene-d8 (s)	12.13	98	9991	2.04	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 4.08%#			
94) 4-bromofluorobenzene (s)	15.11	95	4792	2.49	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 4.98%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.35	59	1638	10.31	ug/L	58
3) 1,4-dioxane	11.16	88	551	40.54	ug/L #	62
8) chloromethane	4.30	50	3964	1.66	ug/L	95
9) vinyl chloride	4.55	62	3250	1.46	ug/L	87
10) bromomethane	5.17	96	2117	1.67	ug/L	91
11) chloroethane	5.32	64	1645	1.65	ug/L	86
13) ethyl ether	6.13	74	1542	2.03	ug/L #	74
14) 2-chloropropane	6.33	43	6364	2.53	ug/L	93
15) acrolein	6.40	56	562005	2317.72	ug/L	97
16) freon 113	6.52	151	1936	1.90	ug/L	96
17) 1,1-dichloroethene	6.56	96	3001	2.34	ug/L	92
19) iso-butyl alcohol	10.02	74	918	20.10	ug/L #	73
20) allyl chloride	7.09	76	1634	2.09	ug/L	91
21) acetonitrile	7.08	41	8180	22.81	ug/L	99
22) iodomethane	6.85	142	5524	2.21	ug/L	85
23) carbon disulfide	6.97	76	11659	2.37	ug/L	98
25) 1-chloropropane	7.30	42	6417	2.54	ug/L	91
26) methyl acetate	7.07	43	1641	1.89	ug/L #	61
27) methyl tert butyl ether	7.58	73	8678	2.19	ug/L	96
28) trans-1,2-dichloroethene	7.64	96	3457	2.35	ug/L	86
29) di-isopropyl ether	8.15	45	9060	1.81	ug/L	84
31) 1,1-dichloroethane	8.20	63	6112	2.29	ug/L	98
32) chloroprene	8.31	53	3601	1.82	ug/L	87
33) acrylonitrile	7.62	53	4319	10.37	ug/L	96
35) ethyl tert-butyl ether	8.64	59	8236	1.74	ug/L	97
37) 2,2-dichloropropane	8.94	77	4896	2.22	ug/L	98
38) cis-1,2-dichloroethene	8.95	96	3516	2.18	ug/L	94
39) propionitrile	9.04	54	3163	19.77	ug/L	99
41) methacrylonitrile	9.23	67	822	1.84	ug/L	83
42) bromochloromethane	9.26	128	1560	2.14	ug/L	91
43) tetrahydrofuran	9.33	42	938	2.32	ug/L	76
44) chloroform	9.31	83	5863	2.32	ug/L	87
45) tert-Butyl Formate	9.35	59	1852	1.75	ug/L #	83

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145211.D
Acq On : 11 Jun 2014 12:02 pm
Operator : KingC
Sample : ic6196-2
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 09:23:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
48) 1,1,1-trichloroethane	9.56	97	4697	2.23	ug/L		94
49) Cyclohexane	9.63	84	4542	2.21	ug/L		65
51) methylcyclohexane	10.96	83	4241	1.85	ug/L		100
52) epichlorohydrin	11.74	57	977	8.76	ug/L		82
54) carbon tetrachloride	9.77	117	4307	2.32	ug/L		82
55) 1,1-dichloropropene	9.75	75	4194	2.22	ug/L		96
56) hexane	7.91	57	3422	2.06	ug/L		87
58) benzene	10.02	78	12880	2.27	ug/L		95
59) tert-amyl methyl ether	10.04	73	7820	1.78	ug/L		96
61) isopropyl acetate	10.05	61	469	1.96	ug/L	#	49
62) 1,2-dichloroethane	10.04	62	3925	2.34	ug/L		86
63) trichloroethene	10.75	95	3038	2.18	ug/L		98
64) 2-chloroethyl vinyl ether	11.59	63	4909	8.13	ug/L		93
66) 1,2-dichloropropane	11.03	63	3336	2.23	ug/L		90
67) dibromomethane	11.20	93	1813	2.26	ug/L		94
68) bromodichloromethane	11.33	83	4239	2.24	ug/L		92
69) 2-nitropropane	11.59	41	718	1.88	ug/L	#	78
70) cis-1,3-dichloropropene	11.82	75	4977	2.12	ug/L		95
72) 4-methyl-2-pentanone	11.93	58	815	1.82	ug/L	#	65
73) toluene	12.21	92	7721	2.23	ug/L		99
74) isoamyl alcohol	11.96	55	2094	37.30	ug/L		91
75) trans-1,3-dichloropropene	12.44	75	4093	1.97	ug/L		94
77) 1,1,2-trichloroethane	12.67	83	2262	2.31	ug/L		90
80) tetrachloroethene	12.85	166	3286	2.25	ug/L		98
81) 1,3-dichloropropane	12.87	76	4316	2.15	ug/L		94
83) 3,3-Dimethyl-1-Butanol	13.04	69	1587	16.64	ug/L	#	73
84) dibromochloromethane	13.17	129	2944	2.09	ug/L		87
85) 1,2-dibromoethane	13.34	107	2517	2.16	ug/L		93
86) chlorobenzene	13.84	112	8977	2.23	ug/L		93
87) 1,1,1,2-tetrachloroethane	13.91	131	3278	2.17	ug/L		85
88) ethylbenzene	13.90	91	14681	2.17	ug/L		96
89) m,p-xylene	14.02	106	11117	4.27	ug/L		87
90) o-xylene	14.48	106	5617	2.11	ug/L		92
91) styrene	14.50	104	8293	1.83	ug/L		97
92) bromoform	14.81	173	1886	1.94	ug/L		96
93) cyclohexanone	15.08	55	4174	24.20	ug/L		85
96) isopropylbenzene	14.87	105	13796	2.07	ug/L		98
97) 1,1,2,2-tetrachloroethane	15.23	83	4004	2.50	ug/L		84
98) trans-1,4-dichloro-2-buten	15.28	53	876	2.14	ug/L	#	73
99) 1,2,3-trichloropropane	15.31	110	905	2.29	ug/L	#	70
100) bromobenzene	15.33	156	3802	2.16	ug/L		97
101) n-propylbenzene	15.33	91	16802	2.16	ug/L		98
102) 2-chlorotoluene	15.50	126	3488	2.10	ug/L	#	80
103) 4-chlorotoluene	15.61	91	11050	2.24	ug/L		93
104) 1,3,5-trimethylbenzene	15.49	105	11949	2.09	ug/L		96
105) tert-butylbenzene	15.88	119	9771	2.00	ug/L		92
106) pentachloroethane	15.99	167	2370	2.08	ug/L		92
107) 1,2,4-trimethylbenzene	15.94	105	11895	2.07	ug/L		97
108) sec-butylbenzene	16.13	105	15870	2.05	ug/L		96
109) p-isopropyltoluene	16.26	119	12840	1.99	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145211.D
Acq On : 11 Jun 2014 12:02 pm
Operator : KingC
Sample : ic6196-2
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 09:23:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) 1,3-dichlorobenzene	16.36	146	7975	2.28	ug/L	93
111) 1,4-dichlorobenzene	16.44	146	8291	2.34	ug/L	98
112) 1,2-dichlorobenzene	16.89	146	7686	2.27	ug/L	95
113) Benzyl Chloride	16.57	91	5777	1.82	ug/L #	84
115) n-butylbenzene	16.72	92	7031	2.09	ug/L	99
116) hexachloroethane	17.17	201	2322	2.18	ug/L	95
117) 1,2-dibromo-3-chloropropan	17.75	157	764	2.23	ug/L	88
118) 1,3,5-trichlorobenzene	17.94	180	6820	2.26	ug/L	91
119) 1,2,4-trichlorobenzene	18.65	180	6214	2.24	ug/L	99
120) hexachlorobutadiene	18.77	225	3101	2.31	ug/L	99
121) naphthalene	18.98	128	12973	2.22	ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	5745	2.22	ug/L	87

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

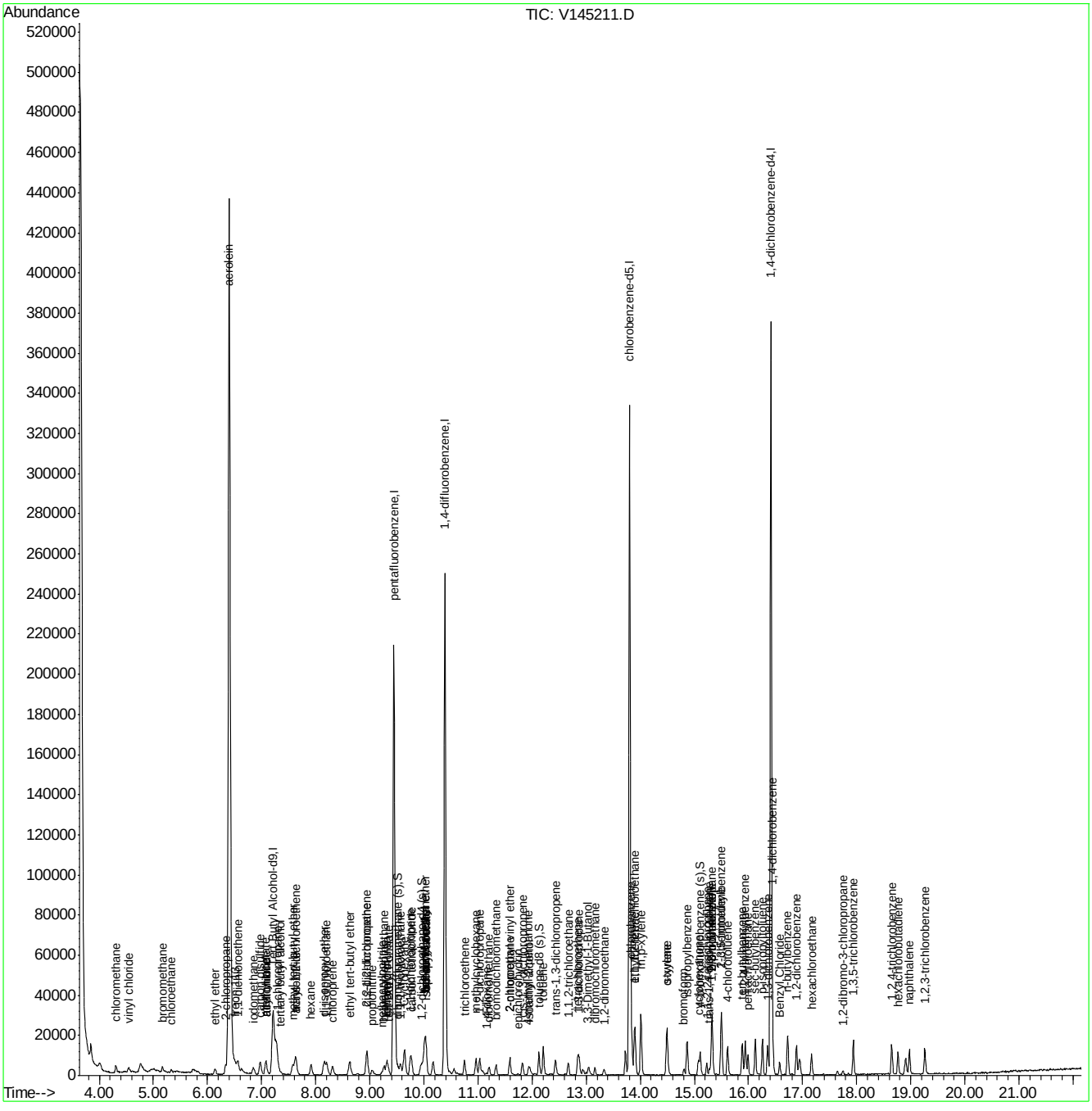
7.7.32

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145211.D
Acq On : 11 Jun 2014 12:02 pm
Operator : KingC
Sample : ic6196-2
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 09:23:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 06/13/14 11:06

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145212.D
Acq On : 11 Jun 2014 12:30 pm
Operator : KingC
Sample : ic6196-5
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:25:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 17:52:05 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	66825	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	187322	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	238971	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	217287	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	116696	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.52	113	5644	4.44	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 8.88%#			
47) 1,2-dichloroethane-d4 (s)	9.95	65	5936	4.49	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 8.98%#			
71) toluene-d8 (s)	12.13	98	20705	4.35	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 8.70%#			
94) 4-bromofluorobenzene (s)	15.11	95	8868	4.49	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 8.98%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.34	59	3299	22.59	ug/L	81
3) 1,4-dioxane	11.16	88	1175	146.42	ug/L #	81
6) chlorodifluoromethane	4.02	51	7979	5.24	ug/L	93
7) dichlorodifluoromethane	4.01	85	9361	4.76	ug/L	96
8) chloromethane	4.32	50	11708	5.16	ug/L	94
9) vinyl chloride	4.55	62	10051	6.86	ug/L	95
10) bromomethane	5.18	96	6295	5.21	ug/L	98
11) chloroethane	5.34	64	4882	5.23	ug/L	93
12) trichlorofluoromethane	5.75	101	10714	5.00	ug/L	98
13) ethyl ether	6.15	74	3352	4.72	ug/L	93
14) 2-chloropropane	6.34	43	12381	4.90	ug/L	100
15) acrolein	6.42	56	14150	54.65	ug/L	98
16) freon 113	6.51	151	4277	4.57	ug/L	97
17) 1,1-dichloroethene	6.57	96	6123	4.79	ug/L	97
18) acetone	6.65	43	2124	5.90	ug/L #	94
19) iso-butyl alcohol	10.03	74	2042	46.96	ug/L #	91
20) allyl chloride	7.08	76	3723	5.06	ug/L	94
21) acetonitrile	7.08	41	16443	46.04	ug/L	97
22) iodomethane	6.86	142	11523	4.61	ug/L	99
23) carbon disulfide	6.99	76	23244	4.77	ug/L	98
24) methylene chloride	7.28	84	11729	6.70	ug/L	95
25) 1-chloropropane	7.31	42	12599	4.91	ug/L	94
26) methyl acetate	7.08	43	3543	4.59	ug/L #	90
27) methyl tert butyl ether	7.58	73	18142	4.64	ug/L	99
28) trans-1,2-dichloroethene	7.64	96	6986	4.68	ug/L	97
29) di-isopropyl ether	8.16	45	20854	4.62	ug/L	81
30) 2-butanone	8.94	72	506	6.92	ug/L #	96
31) 1,1-dichloroethane	8.21	63	12476	4.81	ug/L	98
32) chloroprene	8.31	53	7982	5.66	ug/L	95
33) acrylonitrile	7.62	53	9715	24.23	ug/L	94
35) ethyl tert-butyl ether	8.63	59	19476	4.62	ug/L	99
36) ethyl acetate	8.93	45	434m	2.97	ug/L	
37) 2,2-dichloropropane	8.94	77	10093	4.78	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145212.D
Acq On : 11 Jun 2014 12:30 pm
Operator : KingC
Sample : ic6196-5
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:25:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 17:52:05 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) cis-1,2-dichloroethene	8.95	96	7105	4.60	ug/L		98
39) propionitrile	9.04	54	7427	50.69	ug/L		92
40) methyl acrylate	9.02	85	395	5.47	ug/L	#	33
41) methacrylonitrile	9.21	67	1984	4.72	ug/L		90
42) bromochloromethane	9.26	128	3268	4.78	ug/L		97
43) tetrahydrofuran	9.33	42	1721	4.39	ug/L		80
44) chloroform	9.32	83	11930	4.85	ug/L		91
45) tert-Butyl Formate	9.34	59	4118	4.29	ug/L	#	89
48) 1,1,1-trichloroethane	9.58	97	9880	4.82	ug/L		92
49) Cyclohexane	9.63	84	9251	4.69	ug/L		76
51) methylcyclohexane	10.97	83	9326	6.96	ug/L		99
52) epichlorohydrin	11.73	57	2559	25.24	ug/L		94
53) n-butyl alcohol	10.54	56	5969	248.71	ug/L		92
54) carbon tetrachloride	9.78	117	8627	4.83	ug/L		98
55) 1,1-dichloropropene	9.75	75	8276	4.49	ug/L		92
56) hexane	7.92	57	6819	5.76	ug/L		98
57) 2,2,4-Trimethylpentane	10.00	57	20634	8.21	ug/L		94
58) benzene	10.02	78	26424	4.69	ug/L		96
59) tert-amyl methyl ether	10.04	73	18068	4.59	ug/L		97
60) heptane	10.17	57	4075	8.13	ug/L		94
61) isopropyl acetate	10.04	61	1213	5.37	ug/L	#	72
62) 1,2-dichloroethane	10.05	62	7776	4.84	ug/L		91
63) trichloroethene	10.75	95	6296	4.66	ug/L		87
64) 2-chloroethyl vinyl ether	11.59	63	12091	22.88	ug/L		92
66) 1,2-dichloropropane	11.03	63	6888	4.87	ug/L		88
67) dibromomethane	11.20	93	3696	4.85	ug/L		94
68) bromodichloromethane	11.33	83	8657	4.85	ug/L		99
69) 2-nitropropane	11.58	41	1744	4.90	ug/L	#	94
70) cis-1,3-dichloropropene	11.82	75	9994	4.57	ug/L		97
72) 4-methyl-2-pentanone	11.92	58	1952	4.66	ug/L		96
73) toluene	12.20	92	15449	4.56	ug/L		94
74) isoamyl alcohol	11.95	55	4322	85.41	ug/L		97
75) trans-1,3-dichloropropene	12.43	75	8964	4.56	ug/L		90
77) 1,1,2-trichloroethane	12.67	83	4575	4.87	ug/L		94
78) 2-hexanone	12.88	58	1944	6.72	ug/L	#	71
80) tetrachloroethene	12.85	166	6706	4.74	ug/L		96
81) 1,3-dichloropropane	12.87	76	8855	4.70	ug/L		94
82) butyl acetate	12.93	73	1138	4.57	ug/L		88
83) 3,3-Dimethyl-1-Butanol	13.04	69	3649	53.73	ug/L	#	96
84) dibromochloromethane	13.16	129	6314	4.72	ug/L		89
85) 1,2-dibromoethane	13.33	107	5206	4.59	ug/L		92
86) chlorobenzene	13.83	112	18249	4.61	ug/L		90
87) 1,1,1,2-tetrachloroethane	13.91	131	6589	4.47	ug/L		100
88) ethylbenzene	13.90	91	30490	4.72	ug/L		98
89) m,p-xylene	14.01	106	23074	9.20	ug/L		98
90) o-xylene	14.49	106	11524	4.56	ug/L		89
91) styrene	14.50	104	18130	4.33	ug/L		93
92) bromoform	14.81	173	4064	4.46	ug/L		93
93) cyclohexanone	15.07	55	8022	43.27	ug/L		90
96) isopropylbenzene	14.86	105	29261	4.64	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145212.D
Acq On : 11 Jun 2014 12:30 pm
Operator : KingC
Sample : ic6196-5
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:25:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 17:52:05 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) 1,1,2,2-tetrachloroethane	15.23	83	7561	4.65	ug/L	99
98) trans-1,4-dichloro-2-buten	15.28	53	1720	4.35	ug/L	94
99) 1,2,3-trichloropropane	15.31	110	1878	4.74	ug/L #	70
100) bromobenzene	15.33	156	7654	4.58	ug/L	93
101) n-propylbenzene	15.32	91	34929	4.54	ug/L	97
102) 2-chlorotoluene	15.50	126	7557	4.56	ug/L	98
103) 4-chlorotoluene	15.61	91	22791	4.69	ug/L	99
104) 1,3,5-trimethylbenzene	15.50	105	25462	4.52	ug/L	96
105) tert-butylbenzene	15.88	119	20621	4.37	ug/L	97
106) pentachloroethane	15.99	167	4907	4.60	ug/L	91
107) 1,2,4-trimethylbenzene	15.94	105	25300	4.50	ug/L	96
108) sec-butylbenzene	16.13	105	33894	4.51	ug/L	99
109) p-isopropyltoluene	16.26	119	27779	4.46	ug/L	99
110) 1,3-dichlorobenzene	16.35	146	16296	4.63	ug/L	94
111) 1,4-dichlorobenzene	16.44	146	17144	4.89	ug/L	97
112) 1,2-dichlorobenzene	16.89	146	15507	4.61	ug/L	98
113) Benzyl Chloride	16.57	91	13497	4.68	ug/L	90
115) n-butylbenzene	16.73	92	14785	4.47	ug/L	93
116) hexachloroethane	17.17	201	4470	3.82	ug/L	97
117) 1,2-dibromo-3-chloropropan	17.75	157	1548	5.59	ug/L	81
118) 1,3,5-trichlorobenzene	17.93	180	13506	4.53	ug/L	98
119) 1,2,4-trichlorobenzene	18.65	180	12281	4.56	ug/L	98
120) hexachlorobutadiene	18.77	225	6246	4.66	ug/L	96
121) naphthalene	18.98	128	25288	4.55	ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	11373	4.63	ug/L	95

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

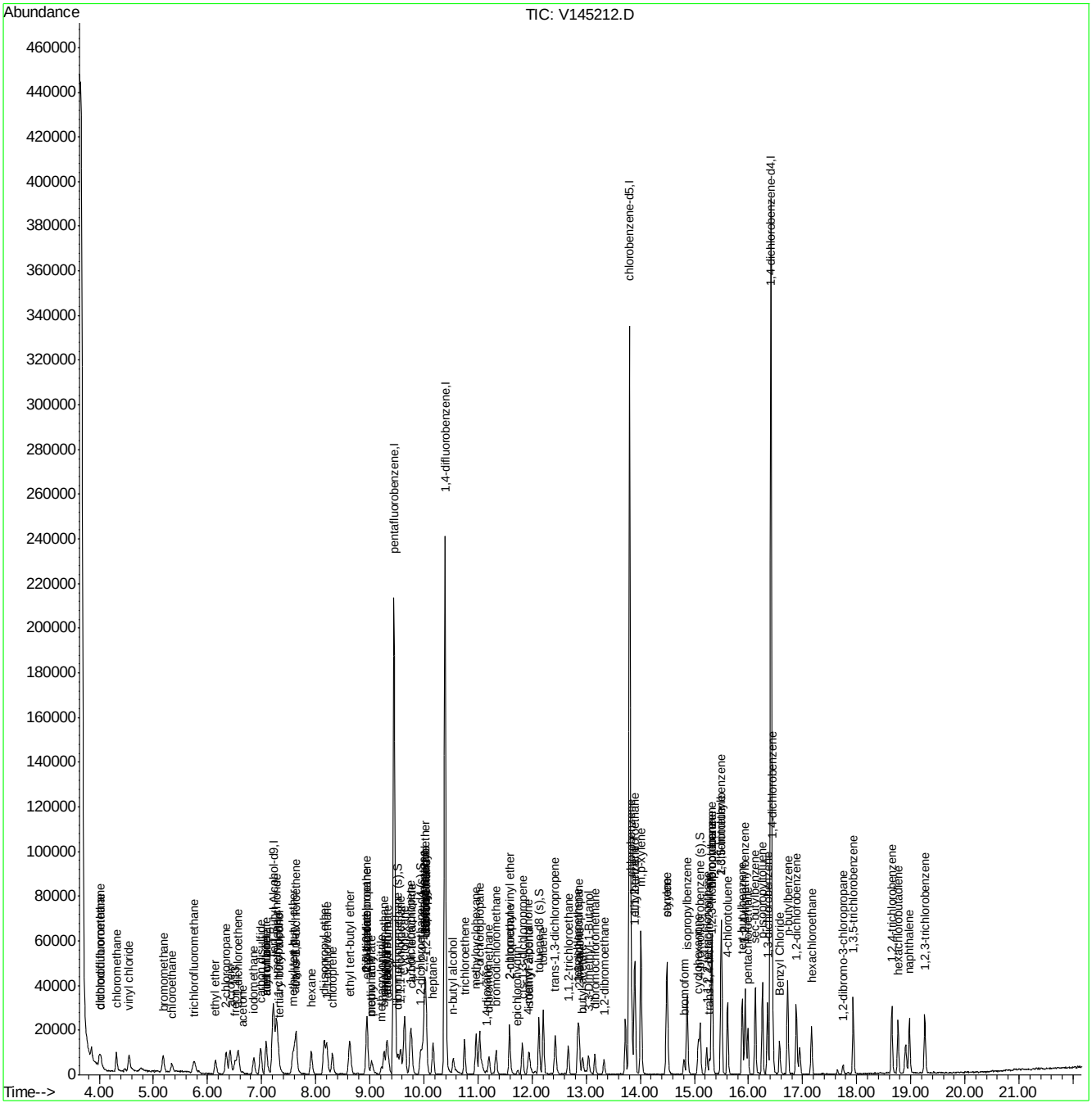
7.7.33

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145212.D
Acq On : 11 Jun 2014 12:30 pm
Operator : KingC
Sample : ic6196-5
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:25:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 17:52:05 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Manual Integration Approval Summary

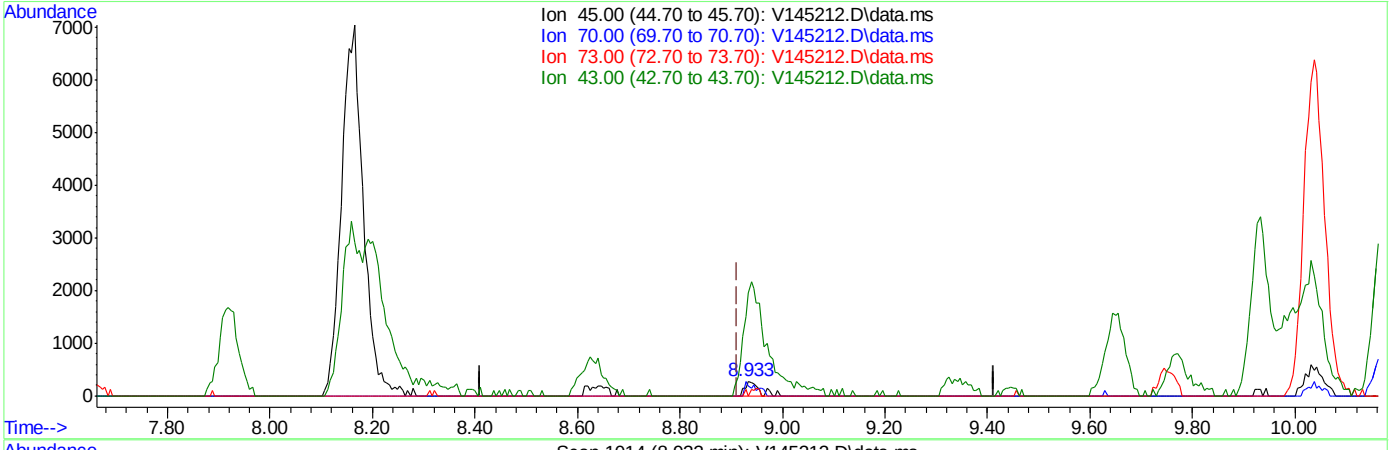
Sample Number:	VV6196-IC6196	**Method:**	SW846 8260B
Lab FileID:	V145212.D	**Analyst approved:**	06/12/14 09:48 Juntae Park
Injection Time:	06/11/14 12:30	**Supervisor approved:**	06/13/14 11:06 Jessica Reitan-Chu

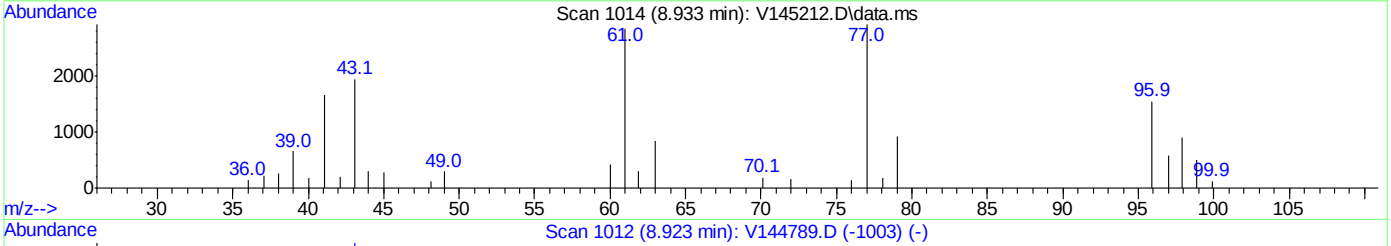
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		8.93	Poorly defined baseline

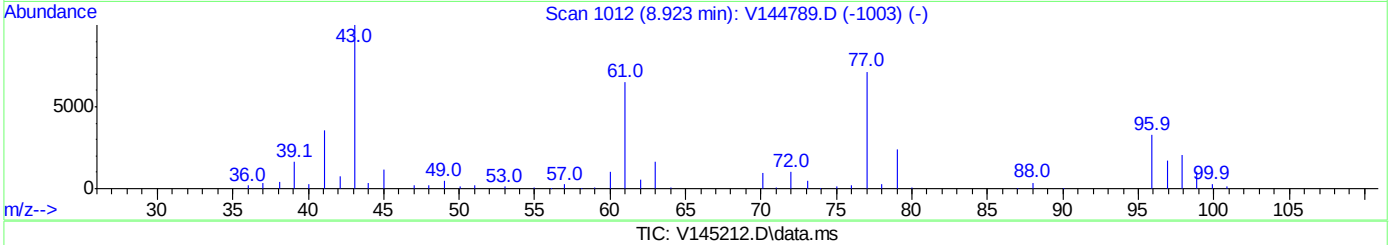
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\v\vv6196\
Data File : V145212.D
Acq On : 11 Jun 2014 12:30 pm
Operator : KingC
Sample : ic6196-5
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:25:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 17:52:05 2014
Response via : Initial Calibration







TIC: V145212.D\data.ms

(36) ethyl acetate

8.933min (+0.021) 2.97ug/L m

response 434

Ion	Exp%	Act%
45.00	100	100
70.00	59.20	67.99
73.00	30.40	0.00#
43.00	859.00	700.36

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145213.D
Acq On : 11 Jun 2014 12:58 pm
Operator : KingC
Sample : ic6196-10
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 11 16:18:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.21	65	56302	500.00	ug/L	-0.01
4) pentafluorobenzene	9.45	168	186380	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	239767	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	215202	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	115664	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.52	113	11622	8.82	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 17.64%#			
47) 1,2-dichloroethane-d4 (s)	9.95	65	11625	8.81	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 17.62%#			
71) toluene-d8 (s)	12.13	98	42447	8.89	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 17.78%#			
94) 4-bromofluorobenzene (s)	15.11	95	17007	9.08	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 18.16%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.34	59	5502	41.01	ug/L	84
3) 1,4-dioxane	11.16	88	2209	192.43	ug/L #	83
6) chlorodifluoromethane	4.01	51	13472	8.69	ug/L	95
7) dichlorodifluoromethane	4.00	85	16387	8.15	ug/L	94
8) chloromethane	4.32	50	19427	8.25	ug/L	94
9) vinyl chloride	4.55	62	17530	7.99	ug/L	94
10) bromomethane	5.18	96	10503	8.37	ug/L	98
11) chloroethane	5.35	64	8130	8.24	ug/L	95
12) trichlorofluoromethane	5.74	101	17931	8.19	ug/L	92
13) ethyl ether	6.15	74	6072	8.10	ug/L	94
14) 2-chloropropane	6.34	43	21245	8.54	ug/L	97
15) acrolein	6.41	56	19526	81.60	ug/L	98
16) freon 113	6.52	151	7575	7.53	ug/L	97
17) 1,1-dichloroethene	6.56	96	11027	8.71	ug/L	93
18) acetone	6.64	43	3470	11.09	ug/L #	92
19) iso-butyl alcohol	10.02	74	3703	82.14	ug/L	99
20) allyl chloride	7.09	76	6131	7.95	ug/L	94
21) acetonitrile	7.08	41	28898	81.66	ug/L	96
22) iodomethane	6.85	142	20919	8.47	ug/L	98
23) carbon disulfide	6.98	76	42237	8.72	ug/L	97
24) methylene chloride	7.28	84	18511	11.67	ug/L	96
25) 1-chloropropane	7.30	42	22492	9.04	ug/L	97
26) methyl acetate	7.08	43	6396	7.48	ug/L	94
27) methyl tert butyl ether	7.58	73	32140	8.21	ug/L	98
28) trans-1,2-dichloroethene	7.64	96	12646	8.73	ug/L	98
29) di-isopropyl ether	8.16	45	37487	7.59	ug/L	89
30) 2-butanone	8.93	72	816	6.41	ug/L #	70
31) 1,1-dichloroethane	8.21	63	22736	8.64	ug/L	98
32) chloroprene	8.31	53	14370	7.36	ug/L	98
33) acrylonitrile	7.62	53	16553	40.27	ug/L	97
34) vinyl acetate	8.19	86	1100	5.77	ug/L	65
35) ethyl tert-butyl ether	8.62	59	35141	7.54	ug/L	98
36) ethyl acetate	8.93	45	1185	7.77	ug/L #	40

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145213.D
Acq On : 11 Jun 2014 12:58 pm
Operator : KingC
Sample : ic6196-10
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 11 16:18:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.94	77	18500	8.51	ug/L		98
38) cis-1,2-dichloroethene	8.95	96	13137	8.27	ug/L		98
39) propionitrile	9.03	54	12625	79.95	ug/L		88
40) methyl acrylate	9.02	85	965	6.08	ug/L	#	91
41) methacrylonitrile	9.21	67	3192	7.25	ug/L		88
42) bromochloromethane	9.26	128	5963	8.28	ug/L		98
43) tetrahydrofuran	9.32	42	2964	7.44	ug/L		99
44) chloroform	9.32	83	21209	8.52	ug/L		96
45) tert-Butyl Formate	9.34	59	7677	7.35	ug/L	#	82
48) 1,1,1-trichloroethane	9.57	97	17663	8.51	ug/L		100
49) Cyclohexane	9.63	84	16973	8.37	ug/L		77
51) methylcyclohexane	10.97	83	16474	7.34	ug/L		96
52) epichlorohydrin	11.73	57	4041	37.13	ug/L		99
53) n-butyl alcohol	10.53	56	11452	326.39	ug/L		97
54) carbon tetrachloride	9.77	117	15586	8.61	ug/L		98
55) 1,1-dichloropropene	9.75	75	15420	8.35	ug/L		88
56) hexane	7.91	57	12515	7.73	ug/L		93
57) 2,2,4-Trimethylpentane	10.00	57	36748	7.23	ug/L		97
58) benzene	10.02	78	48146	8.71	ug/L		99
59) tert-amyl methyl ether	10.04	73	32426	7.58	ug/L		97
60) heptane	10.17	57	7373	7.63	ug/L		92
61) isopropyl acetate	10.04	61	2022	8.64	ug/L	#	83
62) 1,2-dichloroethane	10.04	62	14030	8.56	ug/L		96
63) trichloroethene	10.75	95	11450	8.41	ug/L		93
64) 2-chloroethyl vinyl ether	11.59	63	21328	36.21	ug/L		97
65) methyl methacrylate	11.03	100	1970	7.02	ug/L	#	78
66) 1,2-dichloropropane	11.03	63	12240	8.37	ug/L		97
67) dibromomethane	11.20	93	6545	8.35	ug/L		89
68) bromodichloromethane	11.33	83	15503	8.40	ug/L		94
69) 2-nitropropane	11.57	41	2803	7.53	ug/L	#	96
70) cis-1,3-dichloropropene	11.82	75	19084	8.34	ug/L		95
72) 4-methyl-2-pentanone	11.92	58	3346	7.67	ug/L		98
73) toluene	12.21	92	28568	8.47	ug/L		92
74) isoamyl alcohol	11.95	55	7958	145.21	ug/L		96
75) trans-1,3-dichloropropene	12.43	75	16106	7.95	ug/L		96
76) ethyl methacrylate	12.41	69	11073	7.47	ug/L		94
77) 1,1,2-trichloroethane	12.67	83	8038	8.42	ug/L		100
78) 2-hexanone	12.87	58	2515	6.28	ug/L		97
80) tetrachloroethene	12.85	166	12438	8.74	ug/L		97
81) 1,3-dichloropropane	12.87	76	16035	8.20	ug/L		96
82) butyl acetate	12.93	73	1790	6.35	ug/L		83
83) 3,3-Dimethyl-1-Butanol	13.04	69	5917	63.70	ug/L	#	87
84) dibromochloromethane	13.16	129	11174	8.16	ug/L		97
85) 1,2-dibromoethane	13.33	107	9277	8.19	ug/L		90
86) chlorobenzene	13.84	112	33709	8.62	ug/L		96
87) 1,1,1,2-tetrachloroethane	13.90	131	12059	8.18	ug/L		93
88) ethylbenzene	13.89	91	55953	8.49	ug/L		97
89) m,p-xylene	14.01	106	42448	16.74	ug/L		98
90) o-xylene	14.48	106	21474	8.27	ug/L		95
91) styrene	14.50	104	33917	7.70	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145213.D
Acq On : 11 Jun 2014 12:58 pm
Operator : KingC
Sample : ic6196-10
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 11 16:18:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
92) bromoform	14.81	173	7312	7.73 ug/L	95
93) cyclohexanone	15.07	55	15457	92.00 ug/L	95
96) isopropylbenzene	14.86	105	53914	8.16 ug/L	98
97) 1,1,2,2-tetrachloroethane	15.23	83	13140	8.24 ug/L	97
98) trans-1,4-dichloro-2-buten	15.28	53	3297	8.09 ug/L	94
99) 1,2,3-trichloropropane	15.31	110	3168	8.05 ug/L #	80
100) bromobenzene	15.33	156	14632	8.36 ug/L	95
101) n-propylbenzene	15.33	91	64265	8.33 ug/L	99
102) 2-chlorotoluene	15.50	126	14170	8.57 ug/L	92
103) 4-chlorotoluene	15.61	91	41210	8.41 ug/L	99
104) 1,3,5-trimethylbenzene	15.49	105	46259	8.16 ug/L	98
105) tert-butylbenzene	15.88	119	38666	7.98 ug/L	98
106) pentachloroethane	15.99	167	8926	7.90 ug/L	93
107) 1,2,4-trimethylbenzene	15.94	105	46550	8.15 ug/L	99
108) sec-butylbenzene	16.13	105	61493	8.01 ug/L	98
109) p-isopropyltoluene	16.26	119	51079	7.98 ug/L	98
110) 1,3-dichlorobenzene	16.35	146	29835	8.58 ug/L	98
111) 1,4-dichlorobenzene	16.44	146	30526	8.67 ug/L	97
112) 1,2-dichlorobenzene	16.89	146	27939	8.29 ug/L	99
113) Benzyl Chloride	16.57	91	22915	7.26 ug/L	96
115) n-butylbenzene	16.73	92	27605	8.25 ug/L	96
116) hexachloroethane	17.17	201	8551	8.09 ug/L	97
117) 1,2-dibromo-3-chloropropan	17.75	157	2406	7.08 ug/L	97
118) 1,3,5-trichlorobenzene	17.94	180	25379	8.48 ug/L	97
119) 1,2,4-trichlorobenzene	18.65	180	21720	7.89 ug/L	97
120) hexachlorobutadiene	18.77	225	10812	8.12 ug/L	93
121) naphthalene	18.98	128	45639	7.86 ug/L	97
122) 1,2,3-trichlorobenzene	19.26	180	20675	8.06 ug/L	92

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

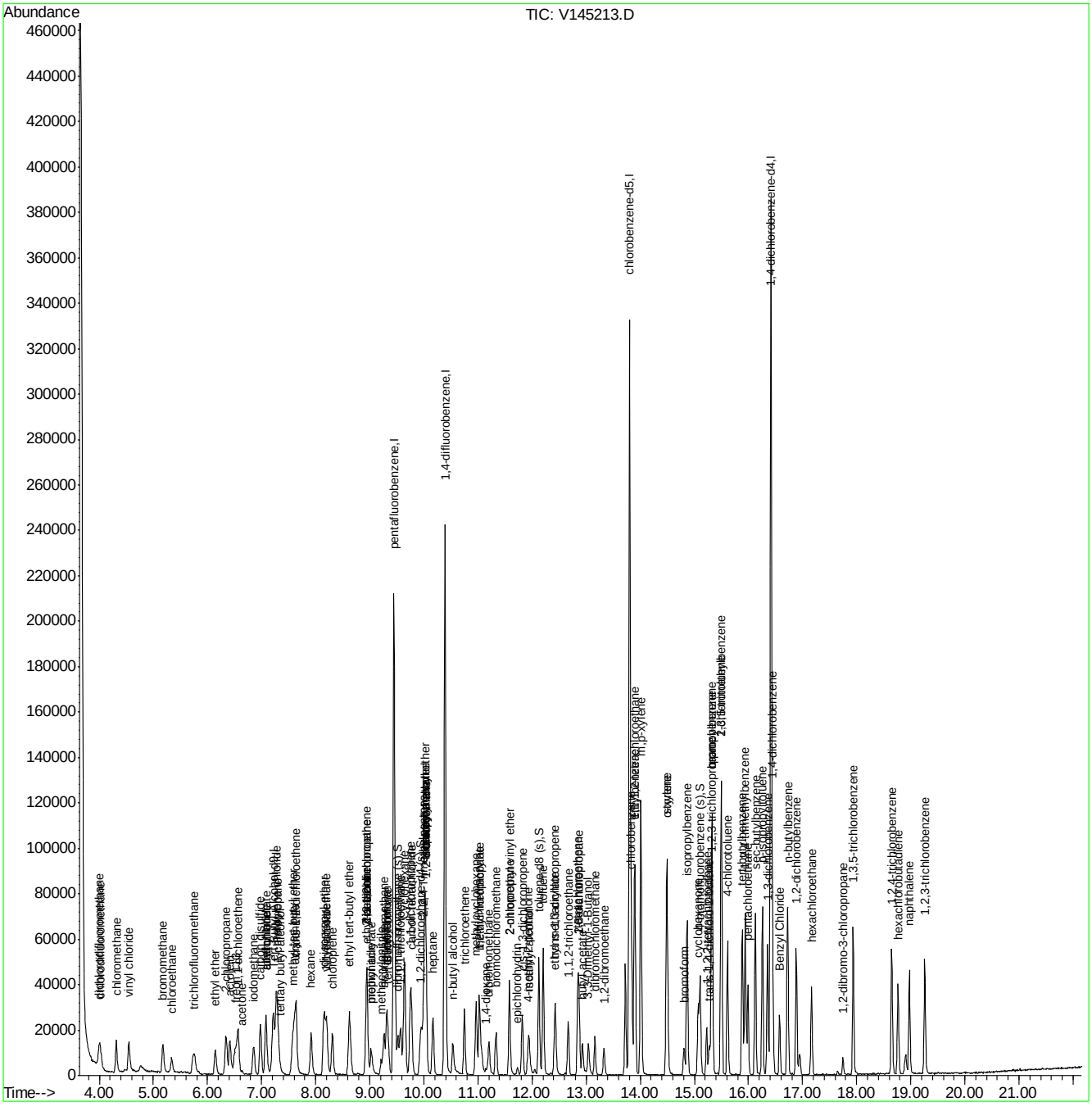
7.7.34

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145213.D
Acq On : 11 Jun 2014 12:58 pm
Operator : KingC
Sample : ic6196-10
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 11 16:18:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145214.D
Acq On : 11 Jun 2014 1:27 pm
Operator : KingC
Sample : ic6196-20
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 11 16:18:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	64686	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	187589	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	243531	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	218018	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	118491	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	64174	48.38	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 96.76%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	66064	49.75	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 99.50%			
71) toluene-d8 (s)	12.12	98	235063	48.48	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 96.96%			
94) 4-bromofluorobenzene (s)	15.11	95	92444	48.70	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 97.40%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.33	59	13605	88.26	ug/L	79
3) 1,4-dioxane	11.15	88	5967	452.43	ug/L	91
6) chlorodifluoromethane	4.02	51	27993	17.93	ug/L	98
7) dichlorodifluoromethane	4.01	85	38663	19.11	ug/L	95
8) chloromethane	4.32	50	44129	18.62	ug/L	97
9) vinyl chloride	4.56	62	40319	18.26	ug/L	98
10) bromomethane	5.18	96	23791	18.85	ug/L	96
11) chloroethane	5.34	64	18550	18.68	ug/L	95
12) trichlorofluoromethane	5.75	101	41328	18.75	ug/L	98
13) ethyl ether	6.15	74	14565	19.31	ug/L	94
14) 2-chloropropane	6.35	43	47856	19.12	ug/L	97
15) acrolein	6.42	56	46870	194.60	ug/L	98
16) freon 113	6.52	151	17835	17.63	ug/L	99
17) 1,1-dichloroethene	6.57	96	23745	18.64	ug/L	94
18) acetone	6.63	43	7462	23.70	ug/L	91
19) iso-butyl alcohol	10.03	74	8657	190.79	ug/L #	94
20) allyl chloride	7.09	76	15171	19.55	ug/L	99
21) acetonitrile	7.08	41	67192	188.64	ug/L	96
22) iodomethane	6.85	142	47651	19.18	ug/L	98
23) carbon disulfide	6.98	76	94157	19.31	ug/L	100
24) methylene chloride	7.28	84	34592	21.66	ug/L	99
25) 1-chloropropane	7.31	42	48473	19.35	ug/L	98
26) methyl acetate	7.07	43	16036	18.62	ug/L	97
27) methyl tert butyl ether	7.58	73	76869	19.52	ug/L	99
28) trans-1,2-dichloroethene	7.64	96	28398	19.47	ug/L	98
29) di-isopropyl ether	8.16	45	86993	17.50	ug/L	89
30) 2-butanone	8.93	72	2416	18.86	ug/L	94
31) 1,1-dichloroethane	8.21	63	50965	19.25	ug/L	97
32) chloroprene	8.31	53	33124	16.85	ug/L	97
33) acrylonitrile	7.61	53	41524	100.36	ug/L	98
34) vinyl acetate	8.19	86	3281	17.11	ug/L	82
35) ethyl tert-butyl ether	8.62	59	82850	17.67	ug/L	99
36) ethyl acetate	8.92	45	2780	18.12	ug/L #	69

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145214.D
Acq On : 11 Jun 2014 1:27 pm
Operator : KingC
Sample : ic6196-20
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 11 16:18:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.94	77	40904	18.68	ug/L		98
38) cis-1,2-dichloroethene	8.94	96	30882	19.32	ug/L		96
39) propionitrile	9.02	54	31444	197.84	ug/L		88
40) methyl acrylate	9.01	85	3004	18.81	ug/L	#	86
41) methacrylonitrile	9.21	67	8402	18.95	ug/L		97
42) bromochloromethane	9.26	128	14075	19.42	ug/L		95
43) tetrahydrofuran	9.31	42	7920	19.75	ug/L		99
44) chloroform	9.32	83	48742	19.45	ug/L		98
45) tert-Butyl Formate	9.34	59	18469	17.57	ug/L		98
48) 1,1,1-trichloroethane	9.57	97	39946	19.13	ug/L		94
49) Cyclohexane	9.64	84	39317	19.27	ug/L		94
51) methylcyclohexane	10.97	83	39115	17.17	ug/L		99
52) epichlorohydrin	11.73	57	9989	90.36	ug/L		96
53) n-butyl alcohol	10.52	56	32464	910.93	ug/L		99
54) carbon tetrachloride	9.77	117	35411	19.26	ug/L		98
55) 1,1-dichloropropene	9.75	75	35233	18.78	ug/L		98
56) hexane	7.92	57	28197	17.15	ug/L		97
57) 2,2,4-Trimethylpentane	10.00	57	87602	16.97	ug/L		98
58) benzene	10.02	78	109736	19.54	ug/L		98
59) tert-amyl methyl ether	10.03	73	79036	18.18	ug/L		99
60) heptane	10.17	57	16821	17.14	ug/L		98
61) isopropyl acetate	10.04	61	4640	19.52	ug/L	#	86
62) 1,2-dichloroethane	10.04	62	32503	19.53	ug/L		100
63) trichloroethene	10.74	95	26107	18.88	ug/L		94
64) 2-chloroethyl vinyl ether	11.58	63	52404	87.59	ug/L		98
65) methyl methacrylate	11.03	100	5255	18.43	ug/L	#	88
66) 1,2-dichloropropane	11.03	63	28615	19.26	ug/L		96
67) dibromomethane	11.20	93	15725	19.74	ug/L		97
68) bromodichloromethane	11.33	83	36359	19.40	ug/L		98
69) 2-nitropropane	11.57	41	7183	18.99	ug/L		99
70) cis-1,3-dichloropropene	11.82	75	44562	19.18	ug/L		98
72) 4-methyl-2-pentanone	11.91	58	8599	19.40	ug/L		100
73) toluene	12.21	92	65522	19.13	ug/L		99
74) isoamyl alcohol	11.94	55	20291	364.54	ug/L		99
75) trans-1,3-dichloropropene	12.43	75	39548	19.22	ug/L		98
76) ethyl methacrylate	12.41	69	28421	18.86	ug/L		98
77) 1,1,2-trichloroethane	12.66	83	19296	19.90	ug/L		96
78) 2-hexanone	12.86	58	7542	18.55	ug/L		91
80) tetrachloroethene	12.85	166	27450	19.03	ug/L		96
81) 1,3-dichloropropane	12.87	76	38341	19.36	ug/L		95
82) butyl acetate	12.93	73	4700	16.46	ug/L		95
83) 3,3-Dimethyl-1-Butanol	13.04	69	16817	178.70	ug/L	#	95
84) dibromochloromethane	13.16	129	26779	19.29	ug/L		98
85) 1,2-dibromoethane	13.33	107	22312	19.45	ug/L		98
86) chlorobenzene	13.84	112	76178	19.22	ug/L		99
87) 1,1,1,2-tetrachloroethane	13.91	131	28345	18.99	ug/L		99
88) ethylbenzene	13.89	91	125367	18.78	ug/L		97
89) m,p-xylene	14.01	106	95397	37.13	ug/L		100
90) o-xylene	14.48	106	48824	18.57	ug/L		97
91) styrene	14.50	104	80774	18.11	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145214.D
Acq On : 11 Jun 2014 1:27 pm
Operator : KingC
Sample : ic6196-20
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 11 16:18:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) bromoform	14.81	173	17659	18.43	ug/L	96
93) cyclohexanone	15.07	55	36316	213.37	ug/L	93
96) isopropylbenzene	14.86	105	126399	18.68	ug/L	99
97) 1,1,2,2-tetrachloroethane	15.23	83	32476	19.89	ug/L	96
98) trans-1,4-dichloro-2-buten	15.27	53	7747	18.56	ug/L	92
99) 1,2,3-trichloropropane	15.31	110	8013	19.88	ug/L #	79
100) bromobenzene	15.33	156	33887	18.90	ug/L	94
101) n-propylbenzene	15.32	91	149015	18.86	ug/L	98
102) 2-chlorotoluene	15.50	126	32157	18.99	ug/L	94
103) 4-chlorotoluene	15.61	91	92293	18.38	ug/L	99
104) 1,3,5-trimethylbenzene	15.49	105	109083	18.77	ug/L	98
105) tert-butylbenzene	15.89	119	90432	18.23	ug/L	97
106) pentachloroethane	15.99	167	21535	18.60	ug/L	97
107) 1,2,4-trimethylbenzene	15.94	105	110228	18.84	ug/L	99
108) sec-butylbenzene	16.13	105	146077	18.57	ug/L	99
109) p-isopropyltoluene	16.26	119	121267	18.49	ug/L	98
110) 1,3-dichlorobenzene	16.35	146	68231	19.16	ug/L	98
111) 1,4-dichlorobenzene	16.44	146	68719	19.05	ug/L	97
112) 1,2-dichlorobenzene	16.88	146	65226	18.89	ug/L	98
113) Benzyl Chloride	16.57	91	57023	17.63	ug/L	100
115) n-butylbenzene	16.72	92	63546	18.55	ug/L	96
116) hexachloroethane	17.17	201	19375	17.89	ug/L	98
117) 1,2-dibromo-3-chloropropan	17.75	157	6627	19.03	ug/L	97
118) 1,3,5-trichlorobenzene	17.93	180	57123	18.63	ug/L	97
119) 1,2,4-trichlorobenzene	18.65	180	52584	18.65	ug/L	98
120) hexachlorobutadiene	18.77	225	25243	18.51	ug/L	94
121) naphthalene	18.98	128	111996	18.83	ug/L	100
122) 1,2,3-trichlorobenzene	19.26	180	49103	18.68	ug/L	96

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

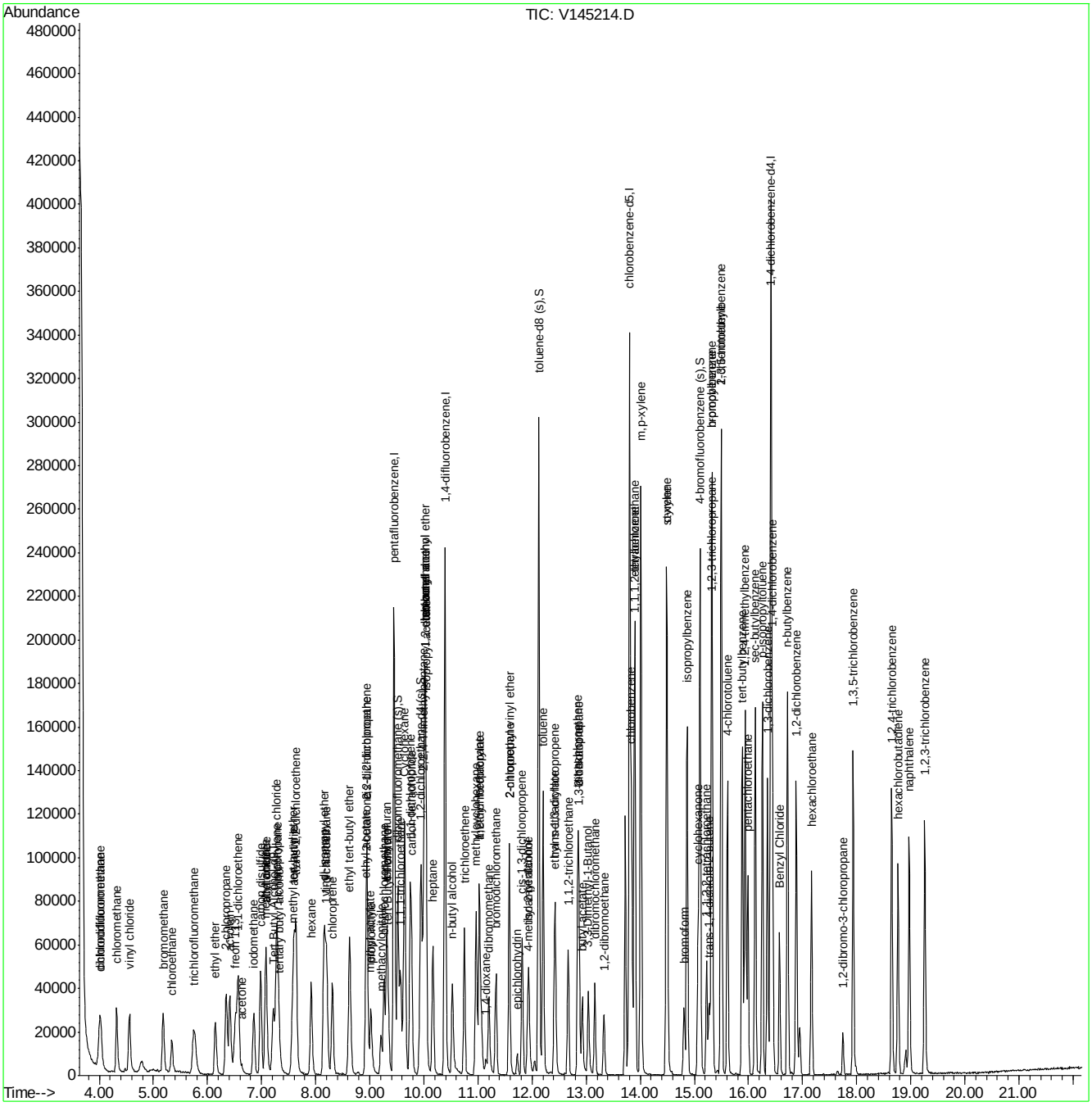
7.7.35

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145214.D
Acq On : 11 Jun 2014 1:27 pm
Operator : KingC
Sample : ic6196-20
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 11 16:18:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145215.D
Acq On : 11 Jun 2014 1:55 pm
Operator : KingC
Sample : icc6196-50
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 11 16:02:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 03 11:59:17 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	63501	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	194352	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	254690	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	226991	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	123421	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.52	113	68715	40.56	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 81.12%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	68796	39.99	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 79.98%			
71) toluene-d8 (s)	12.12	98	253551	47.11	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 94.22%			
94) 4-bromofluorobenzene (s)	15.10	95	98816	44.33	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 88.66%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.34	59	37829	240.94	ug/L	98
3) 1,4-dioxane	11.15	88	16184	1274.45	ug/L	99
6) chlorodifluoromethane	4.03	51	80860	39.23	ug/L	97
7) dichlorodifluoromethane	4.01	85	104801	37.81	ug/L	98
8) chloromethane	4.33	50	122796	36.44	ug/L	98
9) vinyl chloride	4.57	62	114358	37.21	ug/L	98
10) bromomethane	5.18	96	65396	36.88	ug/L	98
11) chloroethane	5.35	64	51433	37.61	ug/L	98
12) trichlorofluoromethane	5.75	101	114171	36.05	ug/L	98
13) ethyl ether	6.15	74	39070	36.69	ug/L	99
14) 2-chloropropane	6.35	43	129651	38.05	ug/L	97
15) acrolein	6.41	56	124767	381.27	ug/L	99
16) freon 113	6.52	151	52416	38.69	ug/L	99
17) 1,1-dichloroethene	6.57	96	65988	38.11	ug/L	99
18) acetone	6.63	43	16307	33.72	ug/L	89
19) iso-butyl alcohol	10.02	74	23505	364.15	ug/L	95
20) allyl chloride	7.09	76	40194	37.09	ug/L	98
21) acetonitrile	7.08	41	184517	373.83	ug/L	96
22) iodomethane	6.86	142	128720	37.72	ug/L	97
23) carbon disulfide	6.98	76	252656	36.21	ug/L	100
24) methylene chloride	7.28	84	82737	36.40	ug/L	99
25) 1-chloropropane	7.31	42	129770	38.18	ug/L	96
26) methyl acetate	7.07	43	44607	37.03	ug/L	99
27) methyl tert butyl ether	7.58	73	204024	37.22	ug/L	99
28) trans-1,2-dichloroethene	7.64	96	75542	35.78	ug/L	99
29) di-isopropyl ether	8.16	45	257533	38.67	ug/L	98
30) 2-butanone	8.91	72	6635	37.30	ug/L	87
31) 1,1-dichloroethane	8.21	63	137158	37.85	ug/L	98
32) chloroprene	8.31	53	101851	39.13	ug/L	97
33) acrylonitrile	7.60	53	107162	181.19	ug/L	100
34) vinyl acetate	8.19	86	9934	40.90	ug/L	89
35) ethyl tert-butyl ether	8.62	59	242868	37.79	ug/L	99
36) ethyl acetate	8.91	45	7948	41.20	ug/L	84

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145215.D
Acq On : 11 Jun 2014 1:55 pm
Operator : KingC
Sample : icc6196-50
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 11 16:02:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 03 11:59:17 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.94	77	113411	37.10	ug/L		96
38) cis-1,2-dichloroethene	8.94	96	82808	38.33	ug/L		96
39) propionitrile	9.02	54	82334	371.47	ug/L		89
40) methyl acrylate	9.01	85	8271	41.47	ug/L	#	91
41) methacrylonitrile	9.21	67	22963	37.59	ug/L		98
42) bromochloromethane	9.26	128	37554	37.10	ug/L		95
43) tetrahydrofuran	9.31	42	20775	37.08	ug/L		99
44) chloroform	9.31	83	129829	37.40	ug/L		97
45) tert-Butyl Formate	9.34	59	54455	40.20	ug/L		98
48) 1,1,1-trichloroethane	9.57	97	108199	37.32	ug/L		98
49) Cyclohexane	9.64	84	105719	36.84	ug/L		96
51) methylcyclohexane	10.97	83	119155	42.95	ug/L		100
52) epichlorohydrin	11.72	57	28902	228.76	ug/L		95
53) n-butyl alcohol	10.52	56	93178	2354.59	ug/L		94
54) carbon tetrachloride	9.78	117	96146	43.95	ug/L		99
55) 1,1-dichloropropene	9.75	75	98098	43.73	ug/L		99
56) hexane	7.92	57	85975	39.93	ug/L		97
57) 2,2,4-Trimethylpentane	9.99	57	269937	41.31	ug/L		99
58) benzene	10.02	78	293605	43.73	ug/L		100
59) tert-amyl methyl ether	10.04	73	227302	44.56	ug/L		99
60) heptane	10.17	57	51303	41.28	ug/L		97
61) isopropyl acetate	10.04	61	12433	45.66	ug/L		98
62) 1,2-dichloroethane	10.04	62	87009	44.80	ug/L		99
63) trichloroethene	10.75	95	72311	43.10	ug/L		97
64) 2-chloroethyl vinyl ether	11.57	63	156431	300.47	ug/L		100
65) methyl methacrylate	11.02	100	14909	44.93	ug/L	#	78
66) 1,2-dichloropropane	11.03	63	77672	45.23	ug/L		97
67) dibromomethane	11.20	93	41655	44.59	ug/L		96
68) bromodichloromethane	11.33	83	97980	46.98	ug/L		98
69) 2-nitropropane	11.57	41	19778	50.56	ug/L		97
70) cis-1,3-dichloropropene	11.81	75	121481	45.89	ug/L		99
72) 4-methyl-2-pentanone	11.91	58	23179	44.97	ug/L		98
73) toluene	12.20	92	179123	42.30	ug/L		97
74) isoamyl alcohol	11.94	55	58213	888.94	ug/L		98
75) trans-1,3-dichloropropene	12.43	75	107586	46.49	ug/L		98
76) ethyl methacrylate	12.41	69	78781	44.47	ug/L		98
77) 1,1,2-trichloroethane	12.67	83	50713	45.40	ug/L		96
78) 2-hexanone	12.85	58	21258	44.69	ug/L		84
80) tetrachloroethene	12.85	166	75073	44.29	ug/L		98
81) 1,3-dichloropropane	12.87	76	103120	45.40	ug/L		99
82) butyl acetate	12.92	73	14862	45.74	ug/L		92
83) 3,3-Dimethyl-1-Butanol	13.04	69	48990	423.23	ug/L		97
84) dibromochloromethane	13.16	129	72260	46.21	ug/L		98
85) 1,2-dibromoethane	13.33	107	59728	44.35	ug/L		92
86) chlorobenzene	13.84	112	206347	44.13	ug/L		98
87) 1,1,1,2-tetrachloroethane	13.91	131	77702	44.83	ug/L		99
88) ethylbenzene	13.89	91	347566	43.50	ug/L		100
89) m,p-xylene	14.01	106	267498	87.23	ug/L		99
90) o-xylene	14.48	106	136881	45.51	ug/L		100
91) styrene	14.50	104	232248	45.42	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145215.D
Acq On : 11 Jun 2014 1:55 pm
Operator : KingC
Sample : icc6196-50
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 11 16:02:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 03 11:59:17 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
92) bromoform	14.81	173	49878	46.89 ug/L	95
93) cyclohexanone	15.07	55	88604	489.81 ug/L	97
96) isopropylbenzene	14.86	105	352492	43.52 ug/L	100
97) 1,1,2,2-tetrachloroethane	15.23	83	85051	43.73 ug/L	99
98) trans-1,4-dichloro-2-buten	15.27	53	21739	45.74 ug/L	94
99) 1,2,3-trichloropropane	15.31	110	20988	47.93 ug/L	98
100) bromobenzene	15.32	156	93390	44.87 ug/L	97
101) n-propylbenzene	15.32	91	411588	43.62 ug/L	99
102) 2-chlorotoluene	15.50	126	88195	43.67 ug/L	92
103) 4-chlorotoluene	15.61	91	261502	43.95 ug/L	99
104) 1,3,5-trimethylbenzene	15.49	105	302610	44.24 ug/L	99
105) tert-butylbenzene	15.88	119	258375	45.43 ug/L	99
106) pentachloroethane	15.99	167	60292	47.06 ug/L	98
107) 1,2,4-trimethylbenzene	15.94	105	304646	45.07 ug/L	98
108) sec-butylbenzene	16.12	105	409711	44.95 ug/L	99
109) p-isopropyltoluene	16.26	119	341547	44.76 ug/L	98
110) 1,3-dichlorobenzene	16.35	146	185495	44.32 ug/L	98
111) 1,4-dichlorobenzene	16.44	146	187854	47.29 ug/L	98
112) 1,2-dichlorobenzene	16.88	146	179819	44.81 ug/L	98
113) Benzyl Chloride	16.57	91	168436	45.14 ug/L	99
115) n-butylbenzene	16.72	92	178439	44.09 ug/L	99
116) hexachloroethane	17.17	201	56389	44.85 ug/L	98
117) 1,2-dibromo-3-chloropropan	17.75	157	18137	43.82 ug/L	88
118) 1,3,5-trichlorobenzene	17.93	180	159680	47.09 ug/L	99
119) 1,2,4-trichlorobenzene	18.65	180	146832	43.60 ug/L	99
120) hexachlorobutadiene	18.77	225	71031	45.37 ug/L	97
121) naphthalene	18.98	128	309766	47.14 ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	136902	43.93 ug/L	96

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

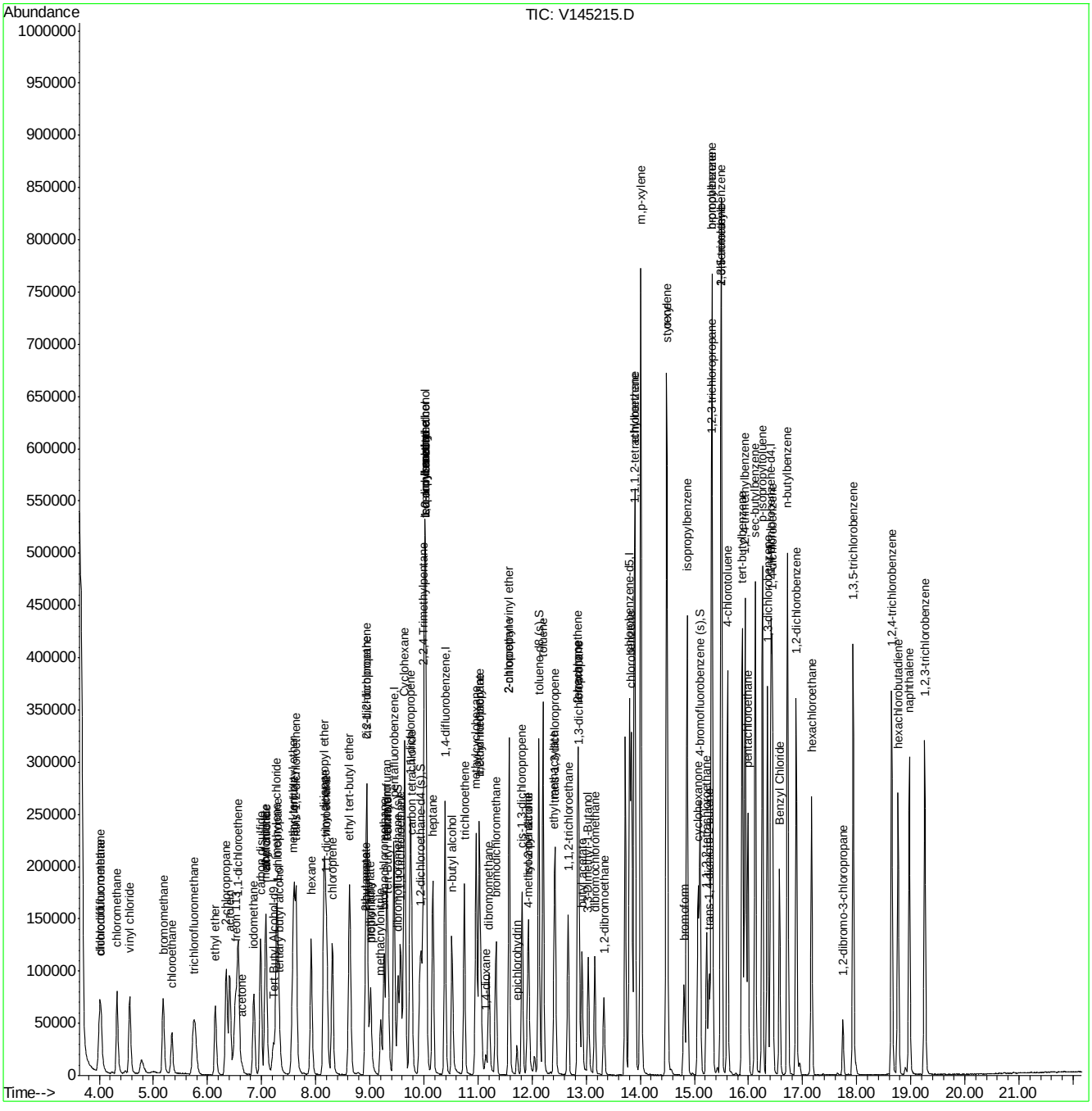
7.7.36

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145215.D
Acq On : 11 Jun 2014 1:55 pm
Operator : KingC
Sample : icc6196-50
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 11 16:02:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 03 11:59:17 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145216.D
Acq On : 11 Jun 2014 2:24 pm
Operator : KingC
Sample : ic6196-100
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 11 16:19:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	59315	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	187324	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	239219	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	213859	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	116732	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.52	113	151003	114.00	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 228.00%#			
47) 1,2-dichloroethane-d4 (s)	9.95	65	151725	114.41	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 228.82%#			
71) toluene-d8 (s)	12.12	98	564145	118.44	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 236.88%#			
94) 4-bromofluorobenzene (s)	15.10	95	216825	116.45	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 232.90%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.33	59	76250	539.47	ug/L	80
3) 1,4-dioxane	11.15	88	34080	2817.99	ug/L	98
6) chlorodifluoromethane	4.02	51	180168	115.59	ug/L	97
7) dichlorodifluoromethane	4.00	85	244302	120.93	ug/L	99
8) chloromethane	4.33	50	281961	119.12	ug/L	98
9) vinyl chloride	4.56	62	261221	118.50	ug/L	98
10) bromomethane	5.17	96	150414	119.32	ug/L	98
11) chloroethane	5.33	64	118246	119.26	ug/L	99
12) trichlorofluoromethane	5.75	101	258185	117.31	ug/L	96
13) ethyl ether	6.14	74	84651	112.40	ug/L	97
14) 2-chloropropane	6.34	43	287448	115.01	ug/L	100
16) freon 113	6.52	151	114882	113.70	ug/L	99
17) 1,1-dichloroethene	6.56	96	145517	114.40	ug/L	97
18) acetone	6.62	43	36659	116.62	ug/L	89
19) iso-butyl alcohol	10.02	74	52847	1166.34	ug/L	97
20) allyl chloride	7.08	76	86466	111.60	ug/L	96
21) acetonitrile	7.07	41	400573	1126.19	ug/L	98
22) iodomethane	6.85	142	282898	114.01	ug/L	99
23) carbon disulfide	6.98	76	557628	114.49	ug/L	99
24) methylene chloride	7.28	84	177241	111.13	ug/L	97
25) 1-chloropropane	7.30	42	288440	115.30	ug/L	99
26) methyl acetate	7.06	43	92902	108.04	ug/L	98
27) methyl tert butyl ether	7.58	73	441044	112.14	ug/L	99
28) trans-1,2-dichloroethene	7.64	96	167463	115.00	ug/L	97
29) di-isopropyl ether	8.15	45	553553	111.50	ug/L	98
30) 2-butanone	8.91	72	14301	111.81	ug/L	92
31) 1,1-dichloroethane	8.20	63	302905	114.56	ug/L	99
32) chloroprene	8.31	53	227325	115.78	ug/L	99
33) acrylonitrile	7.60	53	228277	552.53	ug/L	100
34) vinyl acetate	8.17	86	21728	113.46	ug/L	82
35) ethyl tert-butyl ether	8.62	59	522890	111.69	ug/L	99
36) ethyl acetate	8.91	45	16764	109.42	ug/L	78
37) 2,2-dichloropropane	8.94	77	252569	115.53	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145216.D
Acq On : 11 Jun 2014 2:24 pm
Operator : KingC
Sample : ic6196-100
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 11 16:19:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) cis-1,2-dichloroethene	8.94	96	181890	113.95	ug/L		96
39) propionitrile	9.02	54	171630	1081.38	ug/L		99
40) methyl acrylate	9.00	85	18151	113.84	ug/L	#	92
41) methacrylonitrile	9.19	67	49255	111.27	ug/L		99
42) bromochloromethane	9.26	128	81002	111.89	ug/L		97
43) tetrahydrofuran	9.30	42	43824	109.43	ug/L		99
44) chloroform	9.31	83	284121	113.53	ug/L		98
45) tert-Butyl Formate	9.34	59	117432	111.87	ug/L		99
48) 1,1,1-trichloroethane	9.57	97	243687	116.84	ug/L		99
49) Cyclohexane	9.63	84	241995	118.75	ug/L		87
51) methylcyclohexane	10.97	83	269844	120.56	ug/L		99
52) epichlorohydrin	11.72	57	59950	552.10	ug/L		98
53) n-butyl alcohol	10.52	56	204336	5836.97	ug/L		96
54) carbon tetrachloride	9.77	117	215952	119.57	ug/L		99
55) 1,1-dichloropropene	9.74	75	219394	119.06	ug/L		99
56) hexane	7.91	57	194546	120.46	ug/L		97
57) 2,2,4-Trimethylpentane	9.99	57	618752	122.02	ug/L		99
58) benzene	10.02	78	661862	120.00	ug/L		100
59) tert-amyl methyl ether	10.03	73	489399	114.62	ug/L		99
60) heptane	10.17	57	117454	121.87	ug/L		98
61) isopropyl acetate	10.03	61	26140	111.92	ug/L	#	92
62) 1,2-dichloroethane	10.04	62	187278	114.58	ug/L		100
63) trichloroethene	10.74	95	162328	119.50	ug/L		100
64) 2-chloroethyl vinyl ether	11.57	63	331952	564.82	ug/L		100
65) methyl methacrylate	11.01	100	31921	113.98	ug/L		95
66) 1,2-dichloropropane	11.03	63	172138	117.98	ug/L		97
67) dibromomethane	11.20	93	89201	114.00	ug/L		97
68) bromodichloromethane	11.33	83	215187	116.91	ug/L		98
69) 2-nitropropane	11.57	41	41883	112.73	ug/L		98
70) cis-1,3-dichloropropene	11.81	75	267287	117.13	ug/L		97
72) 4-methyl-2-pentanone	11.91	58	50177	115.24	ug/L		97
73) toluene	12.20	92	397736	118.20	ug/L		99
74) isoamyl alcohol	11.94	55	120085	2196.27	ug/L		99
75) trans-1,3-dichloropropene	12.43	75	234777	116.17	ug/L		98
76) ethyl methacrylate	12.41	69	173456	117.21	ug/L		99
77) 1,1,2-trichloroethane	12.66	83	109061	114.48	ug/L		96
78) 2-hexanone	12.85	58	44243	110.79	ug/L		92
80) tetrachloroethene	12.85	166	168052	118.80	ug/L		100
81) 1,3-dichloropropane	12.87	76	221006	113.74	ug/L		98
82) butyl acetate	12.92	73	30009	107.16	ug/L		89
83) 3,3-Dimethyl-1-Butanol	13.04	69	105901	1147.21	ug/L		98
84) dibromochloromethane	13.16	129	158974	116.76	ug/L		98
85) 1,2-dibromoethane	13.33	107	127979	113.71	ug/L		95
86) chlorobenzene	13.84	112	448650	115.39	ug/L		99
87) 1,1,1,2-tetrachloroethane	13.91	131	171353	117.03	ug/L		99
88) ethylbenzene	13.89	91	775809	118.46	ug/L		100
89) m,p-xylene	14.01	106	595972	236.48	ug/L		99
90) o-xylene	14.48	106	304037	117.88	ug/L		100
91) styrene	14.50	104	508637	116.23	ug/L		99
92) bromoform	14.81	173	105932	112.71	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145216.D
Acq On : 11 Jun 2014 2:24 pm
Operator : KingC
Sample : ic6196-100
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 11 16:19:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) cyclohexanone	15.07	55	197923	1185.48 ug/L	96
96) isopropylbenzene	14.86	105	781976	117.28 ug/L	100
97) 1,1,2,2-tetrachloroethane	15.23	83	177791	110.51 ug/L	98
98) trans-1,4-dichloro-2-buten	15.27	53	45147	109.79 ug/L	97
99) 1,2,3-trichloropropane	15.31	110	43191	108.79 ug/L #	91
100) bromobenzene	15.32	156	200458	113.47 ug/L	99
101) n-propylbenzene	15.32	91	908081	116.64 ug/L	100
102) 2-chlorotoluene	15.50	126	196705	117.91 ug/L	99
103) 4-chlorotoluene	15.61	91	566776	114.58 ug/L	100
104) 1,3,5-trimethylbenzene	15.49	105	670901	117.20 ug/L	99
105) tert-butylbenzene	15.88	119	581736	119.03 ug/L	99
106) pentachloroethane	15.99	167	132035	115.77 ug/L	98
107) 1,2,4-trimethylbenzene	15.94	105	664393	115.29 ug/L	99
108) sec-butylbenzene	16.13	105	903444	116.57 ug/L	100
109) p-isopropyltoluene	16.26	119	747754	115.74 ug/L	99
110) 1,3-dichlorobenzene	16.35	146	397804	113.37 ug/L	99
111) 1,4-dichlorobenzene	16.44	146	400354	112.67 ug/L	98
112) 1,2-dichlorobenzene	16.88	146	384632	113.08 ug/L	100
113) Benzyl Chloride	16.57	91	357052	112.06 ug/L	99
115) n-butylbenzene	16.72	92	395935	117.30 ug/L	100
116) hexachloroethane	17.17	201	129880	121.76 ug/L	98
117) 1,2-dibromo-3-chloropropan	17.75	157	39102	113.97 ug/L	95
118) 1,3,5-trichlorobenzene	17.94	180	343694	113.79 ug/L	99
119) 1,2,4-trichlorobenzene	18.65	180	317081	114.16 ug/L	99
120) hexachlorobutadiene	18.77	225	157311	117.08 ug/L	98
121) naphthalene	18.98	128	649524	110.85 ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	289800	111.91 ug/L	99

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

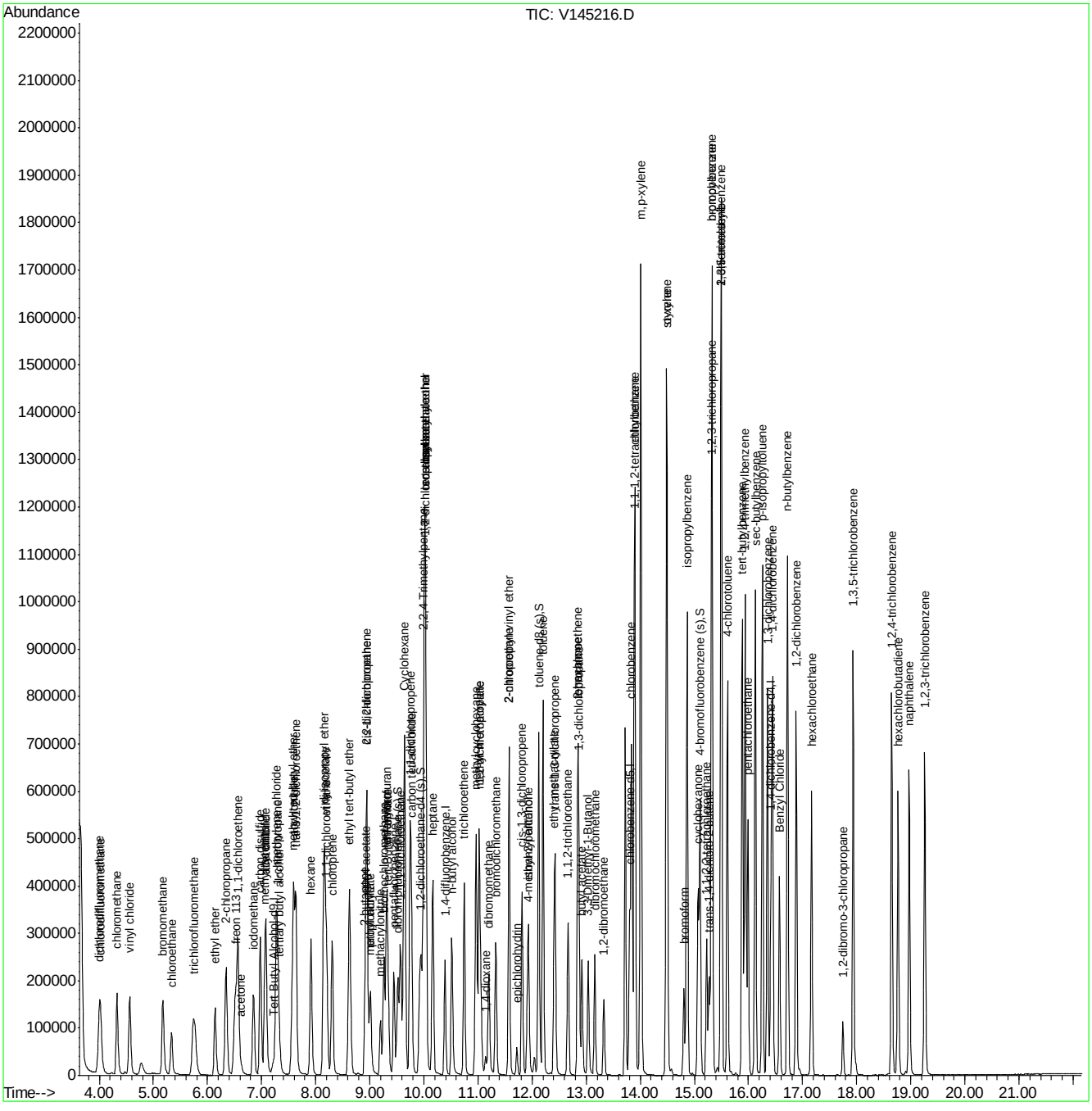
7.7.37

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145216.D
Acq On : 11 Jun 2014 2:24 pm
Operator : KingC
Sample : ic6196-100
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 11 16:19:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145217.D
Acq On : 11 Jun 2014 2:52 pm
Operator : KingC
Sample : ic6196-200
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 12 09:30:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	78819	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	213914	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	281441	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	248506	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	136318	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	9.52	113	294674	194.81	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 389.62%#			
47) 1,2-dichloroethane-d4 (s)	9.95	65	304697	201.20	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 402.40%#			
71) toluene-d8 (s)	12.12	98	1101082	196.49	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 392.98%#			
94) 4-bromofluorobenzene (s)	15.11	95	434528	200.83	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 401.66%#			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.34	59	164251	874.53	ug/L	92
6) chlorodifluoromethane	4.02	51	327085	183.76	ug/L	97
7) dichlorodifluoromethane	4.00	85	431294	186.95	ug/L	97
8) chloromethane	4.34	50	502175	185.78	ug/L	98
10) bromomethane	5.17	96	271588	188.66	ug/L	99
11) chloroethane	5.33	64	211539	186.84	ug/L	99
12) trichlorofluoromethane	5.76	101	473046	188.22	ug/L	98
13) ethyl ether	6.14	74	173674	201.93	ug/L	97
14) 2-chloropropane	6.34	43	536788	188.08	ug/L	98
16) freon 113	6.52	151	210705	182.61	ug/L	99
17) 1,1-dichloroethene	6.56	96	275741	189.83	ug/L	99
18) acetone	6.62	43	76064	211.90	ug/L	88
19) iso-butyl alcohol	10.02	74	105505	2039.07	ug/L	98
20) allyl chloride	7.08	76	163448	184.73	ug/L	99
21) acetonitrile	7.08	41	777068	1913.12	ug/L	93
22) iodomethane	6.85	142	556022	196.23	ug/L	98
23) carbon disulfide	6.98	76	1046233	188.11	ug/L	99
25) 1-chloropropane	7.30	42	537954	188.32	ug/L	99
26) methyl acetate	7.06	43	189493	192.98	ug/L	98
27) methyl tert butyl ether	7.58	73	914526	203.63	ug/L	99
28) trans-1,2-dichloroethene	7.64	96	319557	192.17	ug/L	97
29) di-isopropyl ether	8.15	45	1075306	189.68	ug/L	94
31) 1,1-dichloroethane	8.21	63	585186	193.82	ug/L	99
33) acrylonitrile	7.60	53	478646	1014.53	ug/L	99
34) vinyl acetate	8.18	86	45380	207.52	ug/L	74
35) ethyl tert-butyl ether	8.62	59	1040236	194.57	ug/L	99
36) ethyl acetate	8.91	45	34596	197.74	ug/L	85
37) 2,2-dichloropropane	8.94	77	485883	194.62	ug/L	98
38) cis-1,2-dichloroethene	8.94	96	360321	197.67	ug/L	97
39) propionitrile	9.02	54	367434	2027.31	ug/L	99
40) methyl acrylate	9.00	85	39805	218.62	ug/L	99
41) methacrylonitrile	9.19	67	105615	208.94	ug/L	97
42) bromochloromethane	9.26	128	163730	198.06	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145217.D
Acq On : 11 Jun 2014 2:52 pm
Operator : KingC
Sample : ic6196-200
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 12 09:30:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
43) tetrahydrofuran	9.30	42	92535	202.34 ug/L	98
44) chloroform	9.32	83	560156	196.00 ug/L	98
45) tert-Butyl Formate	9.34	59	240489	200.62 ug/L	99
48) 1,1,1-trichloroethane	9.57	97	466607	195.91 ug/L	98
49) Cyclohexane	9.64	84	466522	200.47 ug/L	95
52) epichlorohydrin	11.72	57	124132	971.67 ug/L	99
53) n-butyl alcohol	10.52	56	433133	10516.53 ug/L	95
54) carbon tetrachloride	9.77	117	415394	195.49 ug/L	99
55) 1,1-dichloropropene	9.74	75	422004	194.65 ug/L	99
58) benzene	10.02	78	1304699	201.07 ug/L	99
59) tert-amyl methyl ether	10.03	73	993725	197.81 ug/L	98
61) isopropyl acetate	10.04	61	52826	192.25 ug/L #	92
62) 1,2-dichloroethane	10.04	62	386543	201.01 ug/L	99
63) trichloroethene	10.74	95	315388	197.35 ug/L	98
64) 2-chloroethyl vinyl ether	11.57	63	697145	1008.24 ug/L	99
65) methyl methacrylate	11.02	100	69930	212.23 ug/L #	88
66) 1,2-dichloropropane	11.03	63	341923	199.19 ug/L	97
67) dibromomethane	11.20	93	185236	201.21 ug/L	99
68) bromodichloromethane	11.33	83	438337	202.43 ug/L	99
69) 2-nitropropane	11.57	41	87494	200.17 ug/L	99
70) cis-1,3-dichloropropene	11.82	75	548398	204.26 ug/L	99
72) 4-methyl-2-pentanone	11.91	58	107603	210.05 ug/L	98
73) toluene	12.20	92	784859	198.26 ug/L	100
74) isoamyl alcohol	11.94	55	263959	4103.37 ug/L	99
75) trans-1,3-dichloropropene	12.43	75	486532	204.62 ug/L	96
76) ethyl methacrylate	12.41	69	373240	214.37 ug/L	99
77) 1,1,2-trichloroethane	12.66	83	226070	201.71 ug/L	96
78) 2-hexanone	12.85	58	100098	213.06 ug/L	86
80) tetrachloroethene	12.85	166	328772	200.01 ug/L	99
81) 1,3-dichloropropane	12.87	76	459210	203.38 ug/L	98
82) butyl acetate	12.92	73	62315	191.49 ug/L	93
83) 3,3-Dimethyl-1-Butanol	13.04	69	238647	2224.80 ug/L	99
84) dibromochloromethane	13.16	129	332940	210.43 ug/L	99
85) 1,2-dibromoethane	13.33	107	268388	205.22 ug/L	95
86) chlorobenzene	13.83	112	903649	200.01 ug/L	98
87) 1,1,1,2-tetrachloroethane	13.90	131	352007	206.90 ug/L	99
88) ethylbenzene	13.89	91	1535811	201.81 ug/L	99
89) m,p-xylene	14.01	106	1183803	404.23 ug/L	99
90) o-xylene	14.48	106	609771	203.45 ug/L	98
91) styrene	14.50	104	1037890	204.10 ug/L	100
92) bromoform	14.81	173	225603	206.57 ug/L	95
93) cyclohexanone	15.07	55	521321	2687.16 ug/L	98
96) isopropylbenzene	14.86	105	1553907	199.56 ug/L	99
97) 1,1,2,2-tetrachloroethane	15.23	83	376791	200.55 ug/L	99
98) trans-1,4-dichloro-2-buten	15.27	53	95879	199.66 ug/L	93
99) 1,2,3-trichloropropane	15.31	110	93618	201.93 ug/L #	89
100) bromobenzene	15.32	156	410675	199.07 ug/L	98
101) n-propylbenzene	15.32	91	1804787	198.50 ug/L	100
102) 2-chlorotoluene	15.50	126	393558	202.01 ug/L	98
103) 4-chlorotoluene	15.61	91	1134893	196.47 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145217.D
Acq On : 11 Jun 2014 2:52 pm
Operator : KingC
Sample : ic6196-200
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 12 09:30:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
104) 1,3,5-trimethylbenzene	15.49	105	1376294	205.89 ug/L	99
105) tert-butylbenzene	15.88	119	1159421	203.14 ug/L	99
106) pentachloroethane	15.99	167	275715	207.02 ug/L	99
107) 1,2,4-trimethylbenzene	15.94	105	1353390	201.11 ug/L	99
108) sec-butylbenzene	16.13	105	1792881	198.10 ug/L	99
109) p-isopropyltoluene	16.26	119	1520001	201.46 ug/L	100
110) 1,3-dichlorobenzene	16.35	146	812700	198.34 ug/L	98
111) 1,4-dichlorobenzene	16.44	146	816222	196.70 ug/L	99
112) 1,2-dichlorobenzene	16.88	146	800218	201.46 ug/L	99
113) Benzyl Chloride	16.57	91	736927	198.06 ug/L	99
115) n-butylbenzene	16.72	92	796176	201.99 ug/L	100
116) hexachloroethane	17.17	201	265015	212.76 ug/L	98
117) 1,2-dibromo-3-chloropropan	17.75	157	87170	217.57 ug/L	100
118) 1,3,5-trichlorobenzene	17.93	180	713709	202.34 ug/L	99
119) 1,2,4-trichlorobenzene	18.65	180	653975	201.63 ug/L	99
120) hexachlorobutadiene	18.77	225	310590	197.95 ug/L	99
121) naphthalene	18.98	128	1392658	203.52 ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	601020	198.74 ug/L	97

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

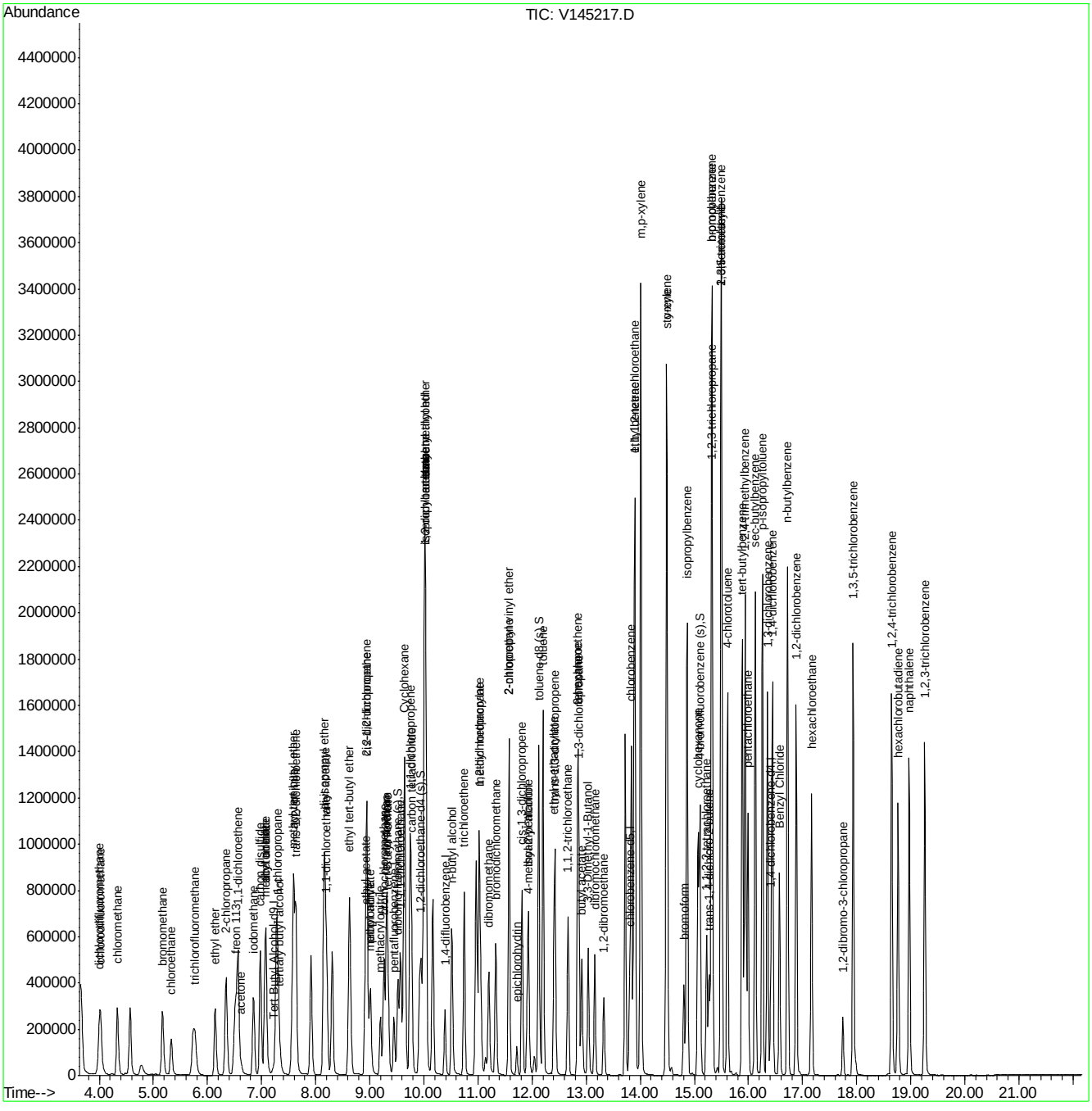
7.7.38

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145217.D
Acq On : 11 Jun 2014 2:52 pm
Operator : KingC
Sample : ic6196-200
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 12 09:30:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Jun 11 16:05:43 2014
Response via : Initial Calibration



MVS6196.M Fri Jun 13 09:56:58 2014 MSV

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145220.D
Acq On : 11 Jun 2014 6:06 pm
Operator : KingC
Sample : icv6196-50
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 09:48:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	80573	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	226741	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	288215	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	248177	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	130192	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.52	113	83364	54.17	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 108.34%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	81403	50.86	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 101.72%			
71) toluene-d8 (s)	12.12	98	306757	53.45	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 106.90%			
94) 4-bromofluorobenzene (s)	15.10	95	113427	50.32	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 100.64%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.33	59	45113	256.17	ug/L	84
3) 1,4-dioxane	11.15	88	18935	1083.08	ug/L	99
6) chlorodifluoromethane	4.02	51	87192	47.29	ug/L	97
7) dichlorodifluoromethane	4.00	85	122904	51.62	ug/L	99
8) chloromethane	4.33	50	152755	55.59	ug/L	98
9) vinyl chloride	4.56	62	140741	47.38	ug/L	98
10) bromomethane	5.18	96	79707	54.52	ug/L	98
11) chloroethane	5.34	64	76737	67.94	ug/L	98
12) trichlorofluoromethane	5.76	101	142476	54.91	ug/L	99
13) ethyl ether	6.14	74	49559	57.70	ug/L	98
14) 2-chloropropane	6.34	43	174377	56.99	ug/L	99
15) acrolein	6.41	56	152395	486.30	ug/L	97
16) freon 113	6.52	151	63706	56.25	ug/L	99
17) 1,1-dichloroethene	6.57	96	86489	55.89	ug/L	97
18) acetone	6.63	43	21906	50.27	ug/L	91
19) iso-butyl alcohol	10.02	74	28780	546.74	ug/L	89
20) allyl chloride	7.08	76	56707	63.61	ug/L	96
21) acetonitrile	7.08	41	250537	579.49	ug/L	90
22) iodomethane	6.85	142	165189	54.56	ug/L	99
23) carbon disulfide	6.98	76	335501	56.85	ug/L	100
24) methylene chloride	7.28	84	106432	50.56	ug/L	98
25) 1-chloropropane	7.31	42	160939	51.82	ug/L	98
26) methyl acetate	7.06	43	47344	50.69	ug/L	98
27) methyl tert butyl ether	7.58	73	483943	102.30	ug/L	100
28) trans-1,2-dichloroethene	7.64	96	94783	52.48	ug/L	99
29) di-isopropyl ether	8.15	45	299629	54.89	ug/L	97
30) 2-butanone	8.91	72	8076	49.19	ug/L	86
31) 1,1-dichloroethane	8.20	63	171999	54.81	ug/L	99
32) chloroprene	8.31	53	109767	42.32	ug/L	99
33) acrylonitrile	7.60	53	134314	276.74	ug/L	99
34) vinyl acetate	8.17	86	13178	55.52	ug/L	74
35) ethyl tert-butyl ether	8.62	59	272470	53.38	ug/L	99
36) ethyl acetate	8.92	45	9116	49.20	ug/L #	66

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145220.D
Acq On : 11 Jun 2014 6:06 pm
Operator : KingC
Sample : icv6196-50
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 09:48:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
37) 2,2-dichloropropane	8.94	77	137731	53.84 ug/L	100
38) cis-1,2-dichloroethene	8.94	96	100427	53.68 ug/L	97
39) propionitrile	9.02	54	99175	559.19 ug/L	91
40) methyl acrylate	9.00	85	10110	49.97 ug/L #	89
41) methacrylonitrile	9.20	67	26709	52.49 ug/L	100
42) bromochloromethane	9.26	128	44635	53.94 ug/L	99
43) tetrahydrofuran	9.31	42	23615	49.72 ug/L	97
44) chloroform	9.31	83	156704	52.66 ug/L	96
45) tert-Butyl Formate	9.34	59	64389	55.47 ug/L	99
48) 1,1,1-trichloroethane	9.57	97	136485	55.05 ug/L	98
49) Cyclohexane	9.63	84	136275	57.02 ug/L	86
51) methylcyclohexane	10.96	83	130900	43.56 ug/L	99
52) epichlorohydrin	11.72	57	33161	271.22 ug/L	96
53) n-butyl alcohol	10.52	56	107978	2454.44 ug/L	96
54) carbon tetrachloride	9.78	117	119073	55.30 ug/L	99
55) 1,1-dichloropropene	9.74	75	115926	52.16 ug/L	99
56) hexane	7.91	57	109263	49.45 ug/L	98
57) 2,2,4-Trimethylpentane	9.99	57	286942	42.53 ug/L	100
58) benzene	10.02	78	359185	52.87 ug/L	99
59) tert-amyl methyl ether	10.03	73	254531	53.60 ug/L	98
60) heptane	10.16	57	56609	43.89 ug/L	94
61) isopropyl acetate	10.04	61	14977	54.98 ug/L #	83
62) 1,2-dichloroethane	10.04	62	102070	52.69 ug/L	100
63) trichloroethene	10.74	95	88725	54.40 ug/L	98
64) 2-chloroethyl vinyl ether	11.57	63	166583	230.57 ug/L	99
65) methyl methacrylate	11.01	100	17535	49.94 ug/L #	81
66) 1,2-dichloropropane	11.03	63	92520	54.25 ug/L	94
67) dibromomethane	11.20	93	48190	52.43 ug/L	97
68) bromodichloromethane	11.33	83	116280	53.98 ug/L	98
69) 2-nitropropane	11.57	41	22570	52.59 ug/L	98
70) cis-1,3-dichloropropene	11.82	75	138267	52.45 ug/L	99
72) 4-methyl-2-pentanone	11.91	58	27515	54.41 ug/L	97
73) toluene	12.20	92	212880	52.11 ug/L	98
74) isoamyl alcohol	11.94	55	66845	1095.28 ug/L	99
75) trans-1,3-dichloropropene	12.43	75	116749	49.25 ug/L	96
76) ethyl methacrylate	12.41	69	88724	47.09 ug/L	99
77) 1,1,2-trichloroethane	12.67	83	57319	50.64 ug/L	95
78) 2-hexanone	12.85	58	22861	45.98 ug/L	92
80) tetrachloroethene	12.85	166	90326	55.85 ug/L	99
81) 1,3-dichloropropane	12.87	76	114143	53.08 ug/L	99
82) butyl acetate	12.92	73	15735	49.76 ug/L	93
83) 3,3-Dimethyl-1-Butanol	13.04	69	53756	464.55 ug/L	98
84) dibromochloromethane	13.16	129	81162	53.08 ug/L	99
85) 1,2-dibromoethane	13.33	107	66450	48.84 ug/L	94
86) chlorobenzene	13.83	112	236134	52.24 ug/L	99
87) 1,1,1,2-tetrachloroethane	13.90	131	87807	52.11 ug/L	97
88) ethylbenzene	13.89	91	403605	54.70 ug/L	100
89) m,p-xylene	14.01	106	305895	106.81 ug/L	100
90) o-xylene	14.48	106	155042	53.69 ug/L	99
91) styrene	14.50	104	256346	53.61 ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145220.D
Acq On : 11 Jun 2014 6:06 pm
Operator : KingC
Sample : icv6196-50
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 09:48:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) bromoform	14.81	173	53352	51.28	ug/L	94
93) cyclohexanone	15.07	55	68201	322.11	ug/L	97
96) isopropylbenzene	14.86	105	408257	58.08	ug/L	100
97) 1,1,2,2-tetrachloroethane	15.23	83	89042	49.13	ug/L	97
98) trans-1,4-dichloro-2-buten	15.27	53	22880	51.83	ug/L	97
99) 1,2,3-trichloropropane	15.31	110	22275	50.41	ug/L #	55
100) bromobenzene	15.32	156	102105	54.76	ug/L	97
101) n-propylbenzene	15.32	91	490591	57.20	ug/L	100
102) 2-chlorotoluene	15.50	126	100483	54.39	ug/L	99
103) 4-chlorotoluene	15.61	91	287693	53.05	ug/L	99
104) 1,3,5-trimethylbenzene	15.50	105	340208	54.12	ug/L	99
105) tert-butylbenzene	15.88	119	293447	55.73	ug/L	99
106) pentachloroethane	15.99	167	67311	56.59	ug/L	99
107) 1,2,4-trimethylbenzene	15.94	105	352885	56.28	ug/L	99
108) sec-butylbenzene	16.12	105	456307	54.45	ug/L	100
109) p-isopropyltoluene	16.26	119	380342	54.79	ug/L	99
110) 1,3-dichlorobenzene	16.35	146	200356	51.06	ug/L	99
111) 1,4-dichlorobenzene	16.44	146	201121	51.43	ug/L	98
112) 1,2-dichlorobenzene	16.88	146	192716	51.32	ug/L	100
113) Benzyl Chloride	16.57	91	191768	59.65	ug/L	100
115) n-butylbenzene	16.72	92	201662	54.69	ug/L	99
116) hexachloroethane	17.17	201	63984	49.88	ug/L	99
117) 1,2-dibromo-3-chloropropan	17.75	157	19916	48.66	ug/L	92
118) 1,3,5-trichlorobenzene	17.93	180	176330	53.02	ug/L	99
119) 1,2,4-trichlorobenzene	18.65	180	155779	51.80	ug/L	100
120) hexachlorobutadiene	18.77	225	81580	54.56	ug/L	97
121) naphthalene	18.98	128	323250	52.10	ug/L	100
122) 1,2,3-trichlorobenzene	19.26	180	145871	53.21	ug/L	96

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

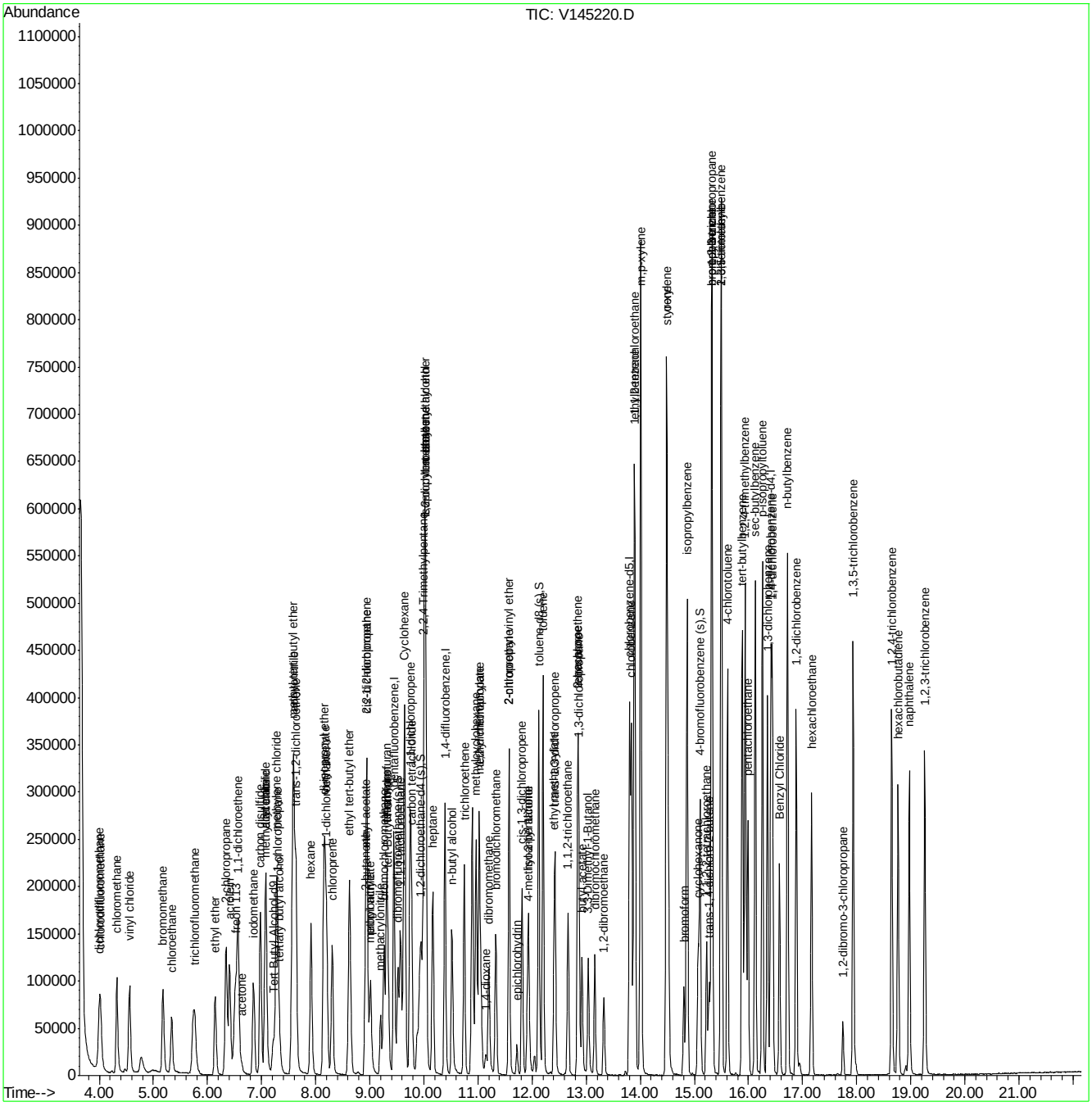
7.7.39

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145220.D
Acq On : 11 Jun 2014 6:06 pm
Operator : KingC
Sample : icv6196-50
Misc : MS68813,VV6196,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 09:48:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145533.D
Acq On : 20 Jun 2014 8:41 am
Operator : KingC
Sample : cc6196-20
Misc : MS69292,VV6205,6.2,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 12:25:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.22	65	75948	500.00	ug/L	0.00
4) pentafluorobenzene	9.45	168	203029	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	261974	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	236806	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	124871	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.51	113	71628	51.98	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 103.96%			
47) 1,2-dichloroethane-d4 (s)	9.94	65	71409	49.83	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 99.66%			
71) toluene-d8 (s)	12.12	98	272803	52.30	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 104.60%			
94) 4-bromofluorobenzene (s)	15.11	95	101948	47.40	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 94.80%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.33	59	19035	114.67	ug/L	91
3) 1,4-dioxane	11.15	88	7852	516.06	ug/L	95
6) chlorodifluoromethane	4.01	51	29019	17.58	ug/L	92
7) dichlorodifluoromethane	4.00	85	47038	22.07	ug/L	98
8) chloromethane	4.31	50	49293	20.03	ug/L	99
9) vinyl chloride	4.54	62	48127	19.97	ug/L	99
10) bromomethane	5.17	96	29337	22.41	ug/L	98
11) chloroethane	5.33	64	21274	21.04	ug/L	98
12) trichlorofluoromethane	5.76	101	51953	22.36	ug/L	98
13) ethyl ether	6.14	74	16874	21.94	ug/L	90
14) 2-chloropropane	6.34	43	53158	19.40	ug/L	99
15) acrolein	6.41	56	50198	178.89	ug/L	93
16) freon 113	6.51	151	21556	21.26	ug/L	98
17) 1,1-dichloroethene	6.56	96	28593	20.64	ug/L	98
18) acetone	6.63	43	9255	23.72	ug/L	87
19) iso-butyl alcohol	10.02	74	10733	227.71	ug/L #	96
20) allyl chloride	7.08	76	16331	20.46	ug/L	96
21) acetonitrile	7.08	41	74695	192.95	ug/L	92
22) iodomethane	6.85	142	55754	20.57	ug/L	99
23) carbon disulfide	6.97	76	104100	19.70	ug/L	99
24) methylene chloride	7.27	84	35267	18.68	ug/L	99
25) 1-chloropropane	7.30	42	55845	20.08	ug/L	99
26) methyl acetate	7.07	43	19410	23.21	ug/L	99
27) methyl tert butyl ether	7.57	73	90468	21.36	ug/L	99
28) trans-1,2-dichloroethene	7.64	96	32941	20.37	ug/L	99
29) di-isopropyl ether	8.15	45	99664	20.39	ug/L	92
30) 2-butanone	8.93	72	3063	22.92	ug/L	89
31) 1,1-dichloroethane	8.20	63	59984	21.35	ug/L	99
32) chloroprene	8.30	53	41612	19.14	ug/L	94
33) acrylonitrile	7.60	53	47774	109.93	ug/L	99
34) vinyl acetate	8.19	86	3870	19.82	ug/L	47
35) ethyl tert-butyl ether	8.62	59	97882	21.42	ug/L	99
36) ethyl acetate	8.92	45	3783	23.16	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145533.D
Acq On : 20 Jun 2014 8:41 am
Operator : KingC
Sample : cc6196-20
Misc : MS69292,VV6205,6.2,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 12:25:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.94	77	37461	16.35	ug/L		96
38) cis-1,2-dichloroethene	8.94	96	36062	21.53	ug/L		94
39) propionitrile	9.02	54	37987	239.20	ug/L		86
40) methyl acrylate	9.00	85	3785	22.79	ug/L	#	82
41) methacrylonitrile	9.20	67	10215	22.42	ug/L		98
42) bromochloromethane	9.26	128	16420	22.16	ug/L		93
43) tetrahydrofuran	9.30	42	9547	22.45	ug/L		99
44) chloroform	9.31	83	57217	21.47	ug/L		97
45) tert-Butyl Formate	9.34	59	21924	21.09	ug/L	#	84
48) 1,1,1-trichloroethane	9.56	97	49010	22.08	ug/L		95
49) Cyclohexane	9.63	84	46583	21.77	ug/L		72
51) methylcyclohexane	10.96	83	48345	19.79	ug/L		99
52) epichlorohydrin	11.72	57	11890	106.99	ug/L		97
53) n-butyl alcohol	10.52	56	43357	1135.37	ug/L		97
54) carbon tetrachloride	9.77	117	43291	22.12	ug/L		97
55) 1,1-dichloropropene	9.74	75	41744	20.66	ug/L		96
56) hexane	7.91	57	29699	16.33	ug/L		97
57) 2,2,4-Trimethylpentane	10.00	57	103843	19.91	ug/L		97
58) benzene	10.02	78	127381	20.63	ug/L		98
59) tert-amyl methyl ether	10.03	73	94269	21.84	ug/L		99
60) heptane	10.17	57	18827	19.06	ug/L		98
61) isopropyl acetate	10.04	61	5648	22.81	ug/L	#	82
62) 1,2-dichloroethane	10.04	62	38655	21.95	ug/L		97
63) trichloroethene	10.74	95	32125	21.67	ug/L		97
64) 2-chloroethyl vinyl ether	11.57	63	80016	123.24	ug/L		98
65) methyl methacrylate	11.02	100	6476	21.60	ug/L	#	88
66) 1,2-dichloropropane	11.03	63	32534	20.99	ug/L		97
67) dibromomethane	11.20	93	18295	21.90	ug/L		97
68) bromodichloromethane	11.33	83	42615	21.76	ug/L		97
69) 2-nitropropane	11.57	41	10248	26.27	ug/L		99
70) cis-1,3-dichloropropene	11.82	75	48764	20.35	ug/L		96
72) 4-methyl-2-pentanone	11.91	58	10725	23.33	ug/L		97
73) toluene	12.20	92	79484	21.40	ug/L		99
74) isoamyl alcohol	11.94	55	25908	467.03	ug/L		98
75) trans-1,3-dichloropropene	12.43	75	45338	21.04	ug/L		96
76) ethyl methacrylate	12.41	69	34830	21.40	ug/L		99
77) 1,1,2-trichloroethane	12.66	83	21808	21.20	ug/L		92
78) 2-hexanone	12.86	58	9393	22.01	ug/L		90
80) tetrachloroethene	12.85	166	34704	22.49	ug/L		95
81) 1,3-dichloropropane	12.87	76	44459	21.67	ug/L		97
82) butyl acetate	12.92	73	6334	21.28	ug/L		90
83) 3,3-Dimethyl-1-Butanol	13.03	69	22264	212.51	ug/L		98
84) dibromochloromethane	13.16	129	32119	22.02	ug/L		97
85) 1,2-dibromoethane	13.33	107	26159	20.29	ug/L		96
86) chlorobenzene	13.83	112	90036	20.88	ug/L		98
87) 1,1,1,2-tetrachloroethane	13.90	131	33365	20.75	ug/L		98
88) ethylbenzene	13.89	91	152281	21.63	ug/L		100
89) m,p-xylene	14.01	106	117676	43.06	ug/L		99
90) o-xylene	14.48	106	58014	21.06	ug/L		95
91) styrene	14.50	104	97198	21.30	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145533.D
Acq On : 20 Jun 2014 8:41 am
Operator : KingC
Sample : cc6196-20
Misc : MS69292,VV6205,6.2,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 12:25:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
92) bromoform	14.81	173	21870	22.03 ug/L	93
93) cyclohexanone	15.07	55	10799	53.45 ug/L	96
96) isopropylbenzene	14.86	105	151826	22.52 ug/L	98
97) 1,1,2,2-tetrachloroethane	15.23	83	37837	21.77 ug/L	97
98) trans-1,4-dichloro-2-buten	15.27	53	8856	20.92 ug/L	91
99) 1,2,3-trichloropropane	15.31	110	10023	23.65 ug/L #	80
100) bromobenzene	15.32	156	39999	22.37 ug/L	98
101) n-propylbenzene	15.32	91	175887	21.38 ug/L	99
102) 2-chlorotoluene	15.50	126	38283	21.61 ug/L	95
103) 4-chlorotoluene	15.61	91	110601	21.26 ug/L	100
104) 1,3,5-trimethylbenzene	15.49	105	128868	21.37 ug/L	100
105) tert-butylbenzene	15.88	119	109722	21.72 ug/L	99
106) pentachloroethane	15.99	167	25097	22.00 ug/L	98
107) 1,2,4-trimethylbenzene	15.94	105	127853	21.26 ug/L	100
108) sec-butylbenzene	16.12	105	173179	21.54 ug/L	100
109) p-isopropyltoluene	16.26	119	144168	21.65 ug/L	98
110) 1,3-dichlorobenzene	16.35	146	78103	20.75 ug/L	99
111) 1,4-dichlorobenzene	16.44	146	79822	21.28 ug/L	99
112) 1,2-dichlorobenzene	16.88	146	75632	21.00 ug/L	99
113) Benzyl Chloride	16.57	91	43270	14.03 ug/L	100
115) n-butylbenzene	16.72	92	73544	20.80 ug/L	95
116) hexachloroethane	17.17	201	23765	19.75 ug/L	99
117) 1,2-dibromo-3-chloropropan	17.75	157	7837	20.85 ug/L	94
118) 1,3,5-trichlorobenzene	17.93	180	65918	20.66 ug/L	98
119) 1,2,4-trichlorobenzene	18.65	180	59724	20.70 ug/L	98
120) hexachlorobutadiene	18.77	225	30173	21.04 ug/L	98
121) naphthalene	18.98	128	129525	21.77 ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	56330	21.42 ug/L	94

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

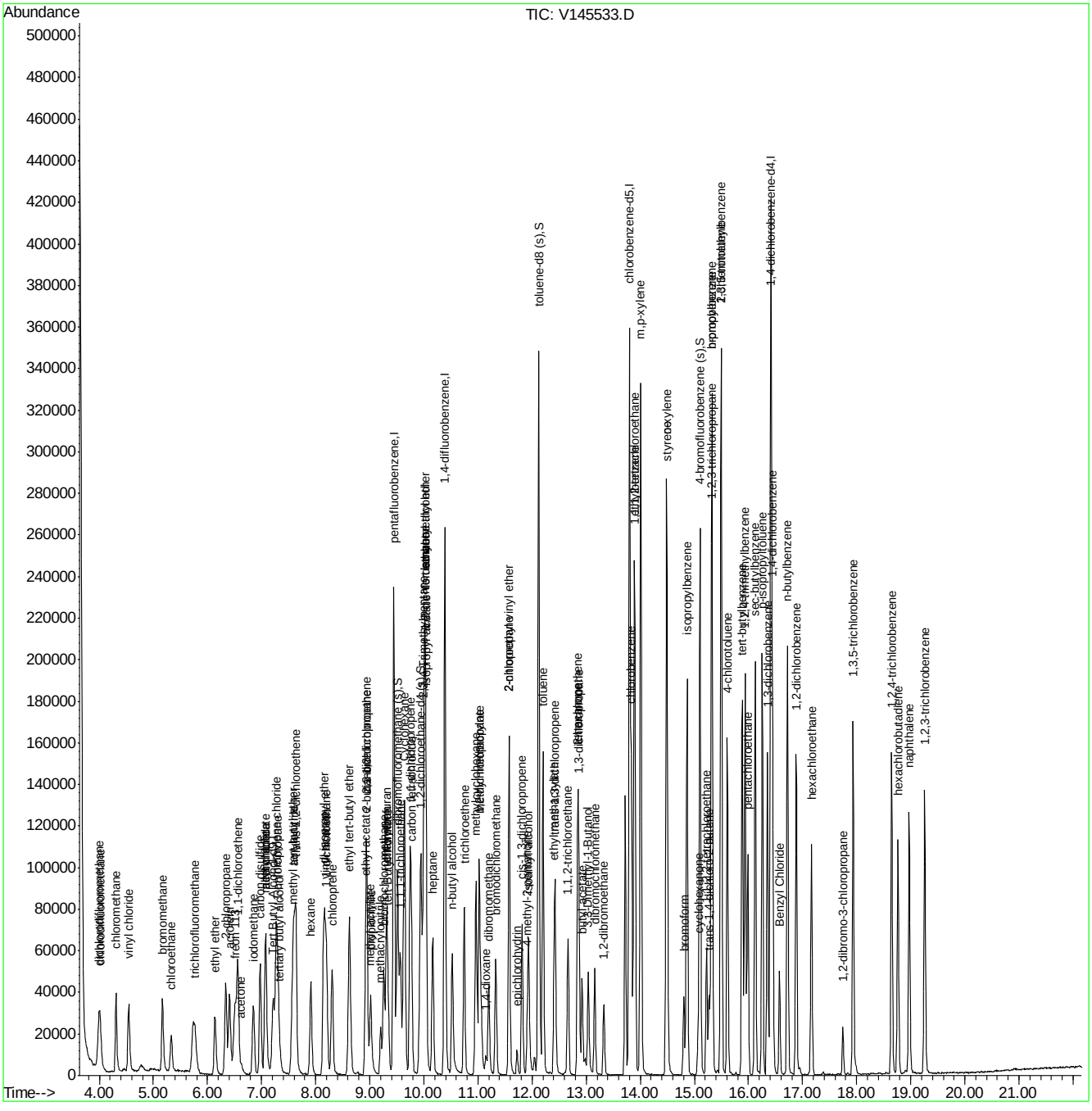
7.7.40

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145533.D
Acq On : 20 Jun 2014 8:41 am
Operator : KingC
Sample : cc6196-20
Misc : MS69292,VV6205,6.2,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 12:25:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



MVS6196.M Mon Jun 23 12:25:57 2014 MSV

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145597.D
Acq On : 23 Jun 2014 10:17 am
Operator : KingC
Sample : cc6196-20
Misc : MS69467,VV6207,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:45:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.21	65	60133	500.00	ug/L	-0.01
4) pentafluorobenzene	9.45	168	190893	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.39	114	248914	50.00	ug/L	0.00
79) chlorobenzene-d5	13.80	117	224964	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.41	152	119581	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	9.51	113	66689	51.47	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 102.94%			
47) 1,2-dichloroethane-d4 (s)	9.95	65	63528	47.15	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 94.30%			
71) toluene-d8 (s)	12.12	98	257686	51.99	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 103.98%			
94) 4-bromofluorobenzene (s)	15.10	95	95522	46.75	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 93.50%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.33	59	14647	111.44	ug/L	82
3) 1,4-dioxane	11.15	88	6384	528.03	ug/L	93
6) chlorodifluoromethane	4.01	51	28966	18.66	ug/L	93
7) dichlorodifluoromethane	4.00	85	41751	20.83	ug/L	99
8) chloromethane	4.31	50	42918	18.55	ug/L	97
9) vinyl chloride	4.55	62	42462	18.92	ug/L	98
10) bromomethane	5.17	96	27076	22.00	ug/L	97
11) chloroethane	5.33	64	20761	21.83	ug/L	98
12) trichlorofluoromethane	5.75	101	48383	22.15	ug/L	99
13) ethyl ether	6.14	74	14146	19.56	ug/L	89
14) 2-chloropropane	6.34	43	47050	18.26	ug/L	94
15) acrolein	6.41	56	39077	148.11	ug/L	98
16) freon 113	6.51	151	19938	20.91	ug/L	97
17) 1,1-dichloroethene	6.56	96	25082	19.25	ug/L	94
18) acetone	6.62	43	8813	24.02	ug/L #	83
19) iso-butyl alcohol	10.02	74	9201	207.62	ug/L	95
20) allyl chloride	7.08	76	13903	18.52	ug/L #	80
21) acetonitrile	7.08	41	62720	172.31	ug/L	89
22) iodomethane	6.85	142	49996	19.61	ug/L	95
23) carbon disulfide	6.97	76	93617	18.84	ug/L	99
24) methylene chloride	7.27	84	32239	18.16	ug/L	99
25) 1-chloropropane	7.30	42	47716	18.25	ug/L	98
26) methyl acetate	7.07	43	14999	19.07	ug/L	97
27) methyl tert butyl ether	7.57	73	77925	19.57	ug/L	98
28) trans-1,2-dichloroethene	7.63	96	30281	19.92	ug/L	95
29) di-isopropyl ether	8.15	45	85368	18.58	ug/L	90
30) 2-butanone	8.92	72	2618	21.17	ug/L	80
31) 1,1-dichloroethane	8.20	63	52923	20.03	ug/L	99
32) chloroprene	8.30	53	36048	17.80	ug/L	99
33) acrylonitrile	7.60	53	39134	95.77	ug/L	98
34) vinyl acetate	8.18	86	3487	19.10	ug/L	63
35) ethyl tert-butyl ether	8.62	59	85413	19.88	ug/L	99
36) ethyl acetate	8.93	45	3081	20.15	ug/L	85

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145597.D
Acq On : 23 Jun 2014 10:17 am
Operator : KingC
Sample : cc6196-20
Misc : MS69467,VV6207,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:45:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.93	77	45351	21.06	ug/L		99
38) cis-1,2-dichloroethene	8.94	96	32629	20.72	ug/L		96
39) propionitrile	9.02	54	30599	204.93	ug/L		88
40) methyl acrylate	9.00	85	3111	20.33	ug/L	#	68
41) methacrylonitrile	9.21	67	8464	19.76	ug/L		98
42) bromochloromethane	9.26	128	15043	21.59	ug/L		85
43) tetrahydrofuran	9.31	42	7132	17.84	ug/L		94
44) chloroform	9.31	83	52564	20.98	ug/L		98
45) tert-Butyl Formate	9.34	59	19262	19.71	ug/L	#	84
48) 1,1,1-trichloroethane	9.57	97	44537	21.34	ug/L		97
49) Cyclohexane	9.63	84	41791	20.77	ug/L		85
51) methylcyclohexane	10.96	83	46150	19.87	ug/L		96
52) epichlorohydrin	11.72	57	10528	99.70	ug/L		96
53) n-butyl alcohol	10.52	56	33346	936.47	ug/L		93
54) carbon tetrachloride	9.77	117	39357	21.16	ug/L		97
55) 1,1-dichloropropene	9.74	75	38300	19.95	ug/L		99
56) hexane	7.91	57	30545	17.50	ug/L		95
57) 2,2,4-Trimethylpentane	9.99	57	101571	20.35	ug/L		100
58) benzene	10.02	78	115383	19.66	ug/L		99
59) tert-amyl methyl ether	10.03	73	81845	19.96	ug/L		99
60) heptane	10.16	57	19957	20.72	ug/L		95
61) isopropyl acetate	10.04	61	4998	21.25	ug/L	#	83
62) 1,2-dichloroethane	10.04	62	34566	20.66	ug/L		97
63) trichloroethene	10.74	95	29418	20.88	ug/L		97
64) 2-chloroethyl vinyl ether	11.57	63	76295	123.66	ug/L		98
65) methyl methacrylate	11.03	100	5124	18.36	ug/L	#	91
66) 1,2-dichloropropane	11.03	63	29182	19.81	ug/L		100
67) dibromomethane	11.20	93	16232	20.45	ug/L		96
68) bromodichloromethane	11.33	83	38999	20.96	ug/L		97
69) 2-nitropropane	11.57	41	8685	23.43	ug/L		99
70) cis-1,3-dichloropropene	11.82	75	46681	20.50	ug/L		97
72) 4-methyl-2-pentanone	11.92	58	8581	19.65	ug/L		93
73) toluene	12.20	92	71574	20.28	ug/L		99
74) isoamyl alcohol	11.94	55	21398	405.97	ug/L		97
75) trans-1,3-dichloropropene	12.43	75	42178	20.60	ug/L		100
76) ethyl methacrylate	12.41	69	28753	18.84	ug/L		99
77) 1,1,2-trichloroethane	12.67	83	19634	20.08	ug/L		92
78) 2-hexanone	12.86	58	8044	20.06	ug/L		83
80) tetrachloroethene	12.85	166	31418	21.43	ug/L		99
81) 1,3-dichloropropane	12.87	76	39726	20.38	ug/L		99
82) butyl acetate	12.92	73	5604	19.85	ug/L		81
83) 3,3-Dimethyl-1-Butanol	13.04	69	17495	179.10	ug/L		99
84) dibromochloromethane	13.16	129	28717	20.72	ug/L		98
85) 1,2-dibromoethane	13.33	107	23731	19.38	ug/L		96
86) chlorobenzene	13.83	112	82951	20.25	ug/L		98
87) 1,1,1,2-tetrachloroethane	13.90	131	30806	20.17	ug/L		98
88) ethylbenzene	13.89	91	139743	20.89	ug/L		100
89) m,p-xylene	14.01	106	107758	41.51	ug/L		99
90) o-xylene	14.48	106	53333	20.38	ug/L		99
91) styrene	14.50	104	88224	20.35	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145597.D
Acq On : 23 Jun 2014 10:17 am
Operator : KingC
Sample : cc6196-20
Misc : MS69467,VV6207,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:45:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
92) bromoform	14.81	173	19105	20.26 ug/L	97
93) cyclohexanone	15.07	55	41831	217.95 ug/L	97
96) isopropylbenzene	14.86	105	140218	21.72 ug/L	99
97) 1,1,2,2-tetrachloroethane	15.23	83	32825	19.72 ug/L	97
98) trans-1,4-dichloro-2-buten	15.27	53	8445	20.83 ug/L	84
99) 1,2,3-trichloropropane	15.31	110	8215	20.24 ug/L	94
100) bromobenzene	15.32	156	36720	21.44 ug/L	95
101) n-propylbenzene	15.32	91	164898	20.93 ug/L	99
102) 2-chlorotoluene	15.50	126	36331	21.41 ug/L	97
103) 4-chlorotoluene	15.61	91	103844	20.85 ug/L	100
104) 1,3,5-trimethylbenzene	15.49	105	119324	20.67 ug/L	99
105) tert-butylbenzene	15.88	119	101359	20.96 ug/L	99
106) pentachloroethane	15.99	167	23369	21.39 ug/L	98
107) 1,2,4-trimethylbenzene	15.94	105	118804	20.63 ug/L	99
108) sec-butylbenzene	16.12	105	161308	20.96 ug/L	100
109) p-isopropyltoluene	16.26	119	134910	21.16 ug/L	98
110) 1,3-dichlorobenzene	16.35	146	73583	20.42 ug/L	98
111) 1,4-dichlorobenzene	16.44	146	75256	20.95 ug/L	97
112) 1,2-dichlorobenzene	16.88	146	71211	20.64 ug/L	97
113) Benzyl Chloride	16.57	91	65482	22.17 ug/L	98
115) n-butylbenzene	16.72	92	70999	20.96 ug/L	99
116) hexachloroethane	17.17	201	21799	18.94 ug/L	99
117) 1,2-dibromo-3-chloropropan	17.75	157	6691	18.75 ug/L	80
118) 1,3,5-trichlorobenzene	17.93	180	61261	20.05 ug/L	97
119) 1,2,4-trichlorobenzene	18.65	180	54301	19.66 ug/L	97
120) hexachlorobutadiene	18.77	225	29270	21.31 ug/L	95
121) naphthalene	18.98	128	113185	19.86 ug/L	99
122) 1,2,3-trichlorobenzene	19.26	180	51735	20.55 ug/L	99

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

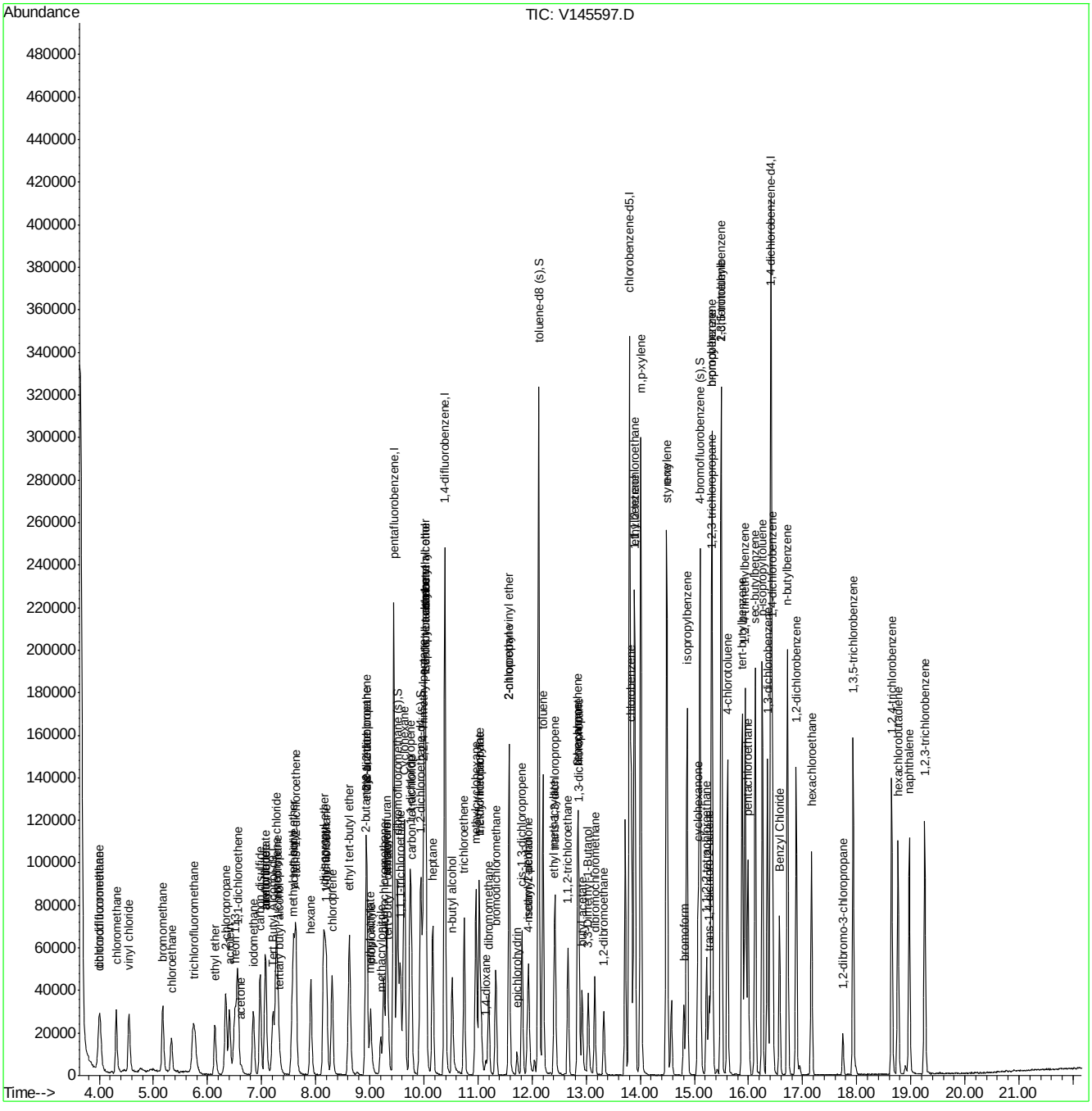
7.7.41

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : V145597.D
Acq On : 23 Jun 2014 10:17 am
Operator : KingC
Sample : cc6196-20
Misc : MS69467,VV6207,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 24 09:45:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\MVS6196.M
Quant Title : SW846 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 13 09:47:46 2014
Response via : Initial Calibration



MVS6196.M Tue Jun 24 10:30:28 2014 MSV

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147609.D
Acq On : 18 Jun 2014 4:50 pm
Operator : KingC
Sample : ic6381-4
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 09:13:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:09:55 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.56	65	64840	500.00	ug/L	0.01
5) pentafluorobenzene	10.26	168	214675	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.45	114	257683	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	249805	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	140669	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.35	113	5664	4.35	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 8.70%#			
56) 1,2-dichloroethane-d4 (s)	10.88	65	6142	4.17	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 8.34%#			
86) toluene-d8 (s)	13.62	98	23060	4.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 9.00%#			
112) 4-bromofluorobenzene (s)	17.12	95	13326	4.46	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 8.92%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	3479	20.89	ug/L	100
4) 1,4-dioxane	12.41	88	1282	100.88	ug/L #	64
11) chlorodifluoromethane	3.88	51	11617	4.58	ug/L	95
12) dichlorodifluoromethane	3.85	85	7884	4.12	ug/L	98
15) chloromethane	4.19	50	9969	4.14	ug/L	96
16) vinyl chloride	4.46	62	9088	4.22	ug/L	94
18) bromomethane	5.16	94	6429	4.18	ug/L	85
19) chloroethane	5.35	64	3615	4.22	ug/L	92
21) trichlorofluoromethane	5.81	101	9512	4.35	ug/L	89
23) ethyl ether	6.27	74	2437	3.71	ug/L	84
27) acrolein	6.60	56	8829	37.16	ug/L #	99
28) 1,1-dichloroethene	6.73	96	4395	4.08	ug/L	85
30) allyl chloride	7.35	76	2422	3.95	ug/L #	81
31) acetonitrile	7.39	40	5380	44.51	ug/L #	80
32) iodomethane	7.06	142	9717	3.99	ug/L	98
33) iso-butyl alcohol	10.69	43	2946	40.10	ug/L	96
34) carbon disulfide	7.18	76	16533	3.88	ug/L	98
35) methylene chloride	7.59	84	8787	1.68	ug/L	97
36) methyl acetate	7.36	43	3716	3.80	ug/L	82
37) methyl tert butyl ether	7.93	73	14929	3.62	ug/L	99
38) trans-1,2-dichloroethene	8.00	96	5177	4.07	ug/L	86
39) di-isopropyl ether	8.63	45	20755	4.09	ug/L	99
41) 1,1-dichloroethane	8.69	63	9523	3.94	ug/L	93
42) chloroprene	8.81	53	7818	4.32	ug/L	94
43) acrylonitrile	8.02	53	7475	17.86	ug/L	93
44) vinyl acetate	8.69	86	604	3.45	ug/L #	15
45) ethyl tert-butyl ether	9.20	59	18747	3.94	ug/L	98
46) ethyl acetate	9.60	70	487	3.76	ug/L #	19
47) 2,2-dichloropropane	9.60	77	8323	4.09	ug/L	91
48) cis-1,2-dichloroethene	9.62	96	5765	3.87	ug/L	92
49) methyl acrylate	9.71	55	3088	3.10	ug/L #	92
50) propionitrile	9.78	54	6179	34.97	ug/L	98
51) tert-Butyl Formate	10.11	59	4518	3.79	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147609.D
Acq On : 18 Jun 2014 4:50 pm
Operator : KingC
Sample : ic6381-4
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 09:13:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:09:55 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) bromochloromethane	10.01	128	2807	3.82	ug/L		81
53) tetrahydrofuran	10.03	72	499	3.20	ug/L		90
54) chloroform	10.09	83	9440	3.83	ug/L		96
57) freon 113	6.68	151	4607	4.23	ug/L		84
58) methacrylonitrile	9.97	41	2780	3.76	ug/L		93
59) 1,1,1-trichloroethane	10.36	97	7998	3.99	ug/L		95
60) cyclohexane	10.42	84	7433	4.18	ug/L		90
62) iso-octane	10.88	57	21485	4.33	ug/L		91
65) epichlorohydrin	13.17	57	2429	19.93	ug/L		91
66) n-butyl alcohol	11.68	56	8313	185.98	ug/L		98
67) carbon tetrachloride	10.60	117	7166	4.01	ug/L		99
68) 1,1-dichloropropene	10.59	75	6664	3.91	ug/L		96
69) hexane	8.31	57	7031	4.38	ug/L		92
70) benzene	10.93	78	21527	3.87	ug/L		97
71) tert-amyl methyl ether	10.96	73	18360	3.98	ug/L		99
72) heptane	11.12	57	4178	4.30	ug/L		90
73) isopropyl acetate	10.88	43	13731	3.81	ug/L		97
74) 1,2-dichloroethane	11.00	62	6473	3.69	ug/L		100
75) trichloroethene	11.87	130	5459	3.96	ug/L		96
79) 2-chloroethyl vinyl ether	12.98	63	13141	18.93	ug/L		94
80) methyl methacrylate	12.27	69	2905	3.41	ug/L	#	71
81) 1,2-dichloropropane	12.25	63	5082	3.58	ug/L		96
82) dibromomethane	12.47	93	3047	3.75	ug/L		84
83) methylcyclohexane	12.12	83	9238	4.24	ug/L		96
84) bromodichloromethane	12.65	83	6963	3.55	ug/L		99
85) cis-1,3-dichloropropene	13.27	75	8612	3.45	ug/L		100
87) 4-methyl-2-pentanone	13.41	58	1833	3.43	ug/L		88
88) toluene	13.71	92	13319	3.71	ug/L		86
89) 3-methyl-1-butanol	13.46	55	5429	72.55	ug/L		98
90) trans-1,3-dichloropropene	14.04	75	8069	3.51	ug/L		99
91) ethyl methacrylate	14.02	69	6125	3.46	ug/L		98
92) 1,1,2-trichloroethane	14.32	83	3682	3.47	ug/L		92
93) 2-hexanone	14.57	58	1853	3.40	ug/L		91
95) 3,3-Dimethyl-1-butanol	14.80	57	6174	38.53	ug/L	#	98
96) tetrachloroethene	14.48	164	4970	3.82	ug/L		96
97) 1,3-dichloropropane	14.56	76	7163	3.53	ug/L		98
98) butyl acetate	14.65	56	4549	4.29	ug/L		90
99) dibromochloromethane	14.90	129	5805	3.67	ug/L		92
100) 1,2-dibromoethane	15.09	107	4726	3.67	ug/L		89
102) chlorobenzene	15.68	112	15991	3.67	ug/L		87
103) 1,1,1,2-tetrachloroethane	15.78	131	5873	3.61	ug/L		91
104) ethylbenzene	15.76	91	26897	3.90	ug/L		100
105) m,p-xylene	15.90	106	20770	7.83	ug/L		98
106) o-xylene	16.44	106	10554	3.74	ug/L		89
107) styrene	16.47	104	17567	3.72	ug/L		96
108) bromoform	16.81	173	4669	3.69	ug/L		86
110) isopropylbenzene	16.86	105	27783	3.96	ug/L		99
113) bromobenzene	17.34	156	8144	3.70	ug/L		93
114) 1,1,2,2-tetrachloroethane	17.28	83	7044	3.66	ug/L		98
115) trans-1,4-dichloro-2-buten	17.33	53	1910	3.67	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147609.D
Acq On : 18 Jun 2014 4:50 pm
Operator : KingC
Sample : ic6381-4
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 09:13:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:09:55 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
116) 1,2,3-trichloropropane	17.36	110	1739	3.90 ug/L #	89
117) n-propylbenzene	17.35	91	32016	3.90 ug/L	98
119) 2-chlorotoluene	17.51	126	7319	3.89 ug/L	98
120) 4-chlorotoluene	17.62	91	20985	3.82 ug/L	97
121) 1,3,5-trimethylbenzene	17.52	105	24060	3.85 ug/L	97
122) tert-butylbenzene	17.89	119	21199	3.90 ug/L	97
123) pentachloroethane	17.99	167	5206	3.90 ug/L	96
124) 1,2,4-trimethylbenzene	17.95	105	25318	3.97 ug/L	97
126) sec-butylbenzene	18.12	105	32668	4.00 ug/L	98
127) 1,3-dichlorobenzene	18.32	146	16016	3.75 ug/L	97
128) p-isopropyltoluene	18.25	119	28386	3.98 ug/L	97
129) 1,4-dichlorobenzene	18.41	146	16181	3.72 ug/L	98
130) 1,2-dichlorobenzene	18.80	146	15393	3.73 ug/L	95
131) benzyl chloride	18.54	91	16449	4.34 ug/L	98
133) n-butylbenzene	18.66	92	13459	3.91 ug/L	96
135) 1,2-dibromo-3-chloropropan	19.57	75	1389	3.95 ug/L	89
136) 1,3,5-trichlorobenzene	19.72	180	12551	3.83 ug/L	96
137) hexachlorobutadiene	20.43	225	6880	3.96 ug/L	92
138) naphthalene	20.63	128	12149	3.78 ug/L	98
139) 1,2,4-trichlorobenzene	20.34	180	7796	3.08 ug/L	95
140) 1,2,3-trichlorobenzene	20.87	180	5926	3.62 ug/L	98
141) hexachloroethane	19.03	201	5667	3.88 ug/L	97

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

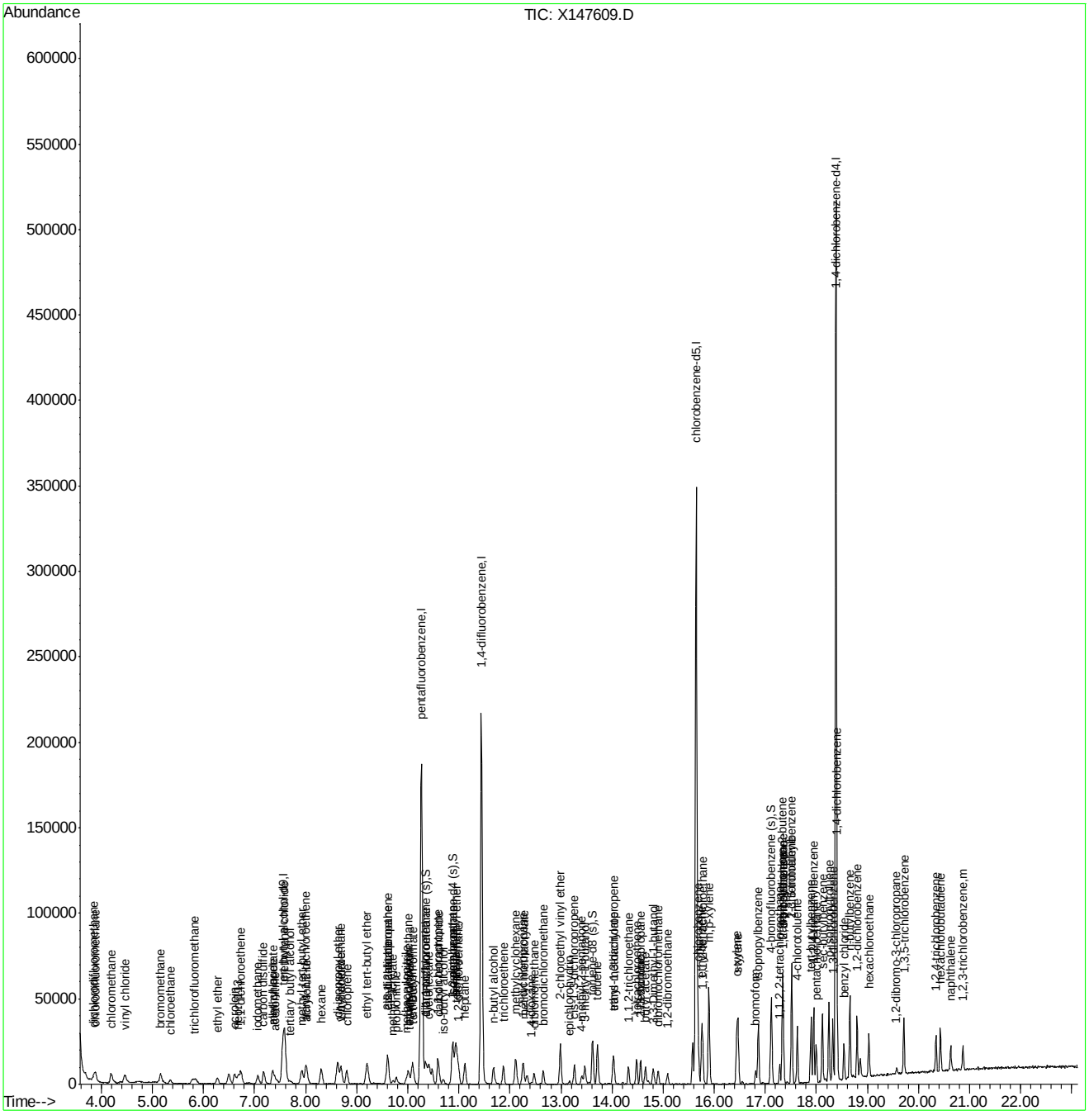
7.7.42

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147609.D
Acq On : 18 Jun 2014 4:50 pm
Operator : KingC
Sample : ic6381-4
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 09:13:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:09:55 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147610.D
Acq On : 18 Jun 2014 5:19 pm
Operator : KingC
Sample : ic6381-2
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 19 09:21:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:25:02 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.56	65	70091	500.00	ug/L	0.01
5) pentafluorobenzene	10.27	168	215940	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.45	114	258867	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	258903	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	144543	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	2576	1.58	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 3.16%#			
56) 1,2-dichloroethane-d4 (s)	10.90	65	3110	1.74	ug/L	0.02
Spiked Amount 50.000	Range 65 - 123		Recovery = 3.48%#			
86) toluene-d8 (s)	13.62	98	12089	1.95	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 3.90%#			
112) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 132		Recovery = 0.00%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	1884	10.83	ug/L	100
4) 1,4-dioxane	12.42	88	520	36.38	ug/L #	64
12) dichlorodifluoromethane	3.86	85	4053	2.18	ug/L	77
15) chloromethane	4.19	50	4840	2.04	ug/L	96
16) vinyl chloride	4.45	62	4506	2.13	ug/L	98
18) bromomethane	5.15	94	3349	2.22	ug/L	92
19) chloroethane	5.34	64	1781	2.05	ug/L	95
21) trichlorofluoromethane	5.81	101	4911	2.27	ug/L	95
23) ethyl ether	6.27	74	1266	1.89	ug/L	95
27) acrolein	6.60	56	483378	2979.16	ug/L #	99
28) 1,1-dichloroethene	6.73	96	2235	2.08	ug/L #	78
30) allyl chloride	7.35	76	1288	2.05	ug/L #	57
32) iodomethane	7.06	142	4982	2.01	ug/L	99
33) iso-butyl alcohol	10.69	43	1568	21.44	ug/L	81
34) carbon disulfide	7.17	76	8828	2.18	ug/L	97
36) methyl acetate	7.36	43	2102	2.16	ug/L	76
37) methyl tert butyl ether	7.92	73	8286	2.00	ug/L	100
38) trans-1,2-dichloroethene	8.00	96	2919	2.31	ug/L #	69
39) di-isopropyl ether	8.63	45	10793	2.09	ug/L	98
41) 1,1-dichloroethane	8.70	63	5077	2.10	ug/L	95
42) chloroprene	8.80	53	3853	2.09	ug/L	89
43) acrylonitrile	8.02	53	4279	10.06	ug/L	86
45) ethyl tert-butyl ether	9.20	59	10013	2.06	ug/L	99
47) 2,2-dichloropropane	9.58	77	4381	2.20	ug/L	94
48) cis-1,2-dichloroethene	9.62	96	3004	2.04	ug/L	89
49) methyl acrylate	9.72	55	1880	1.85	ug/L #	66
50) propionitrile	9.78	54	3456	19.72	ug/L	93
51) tert-Butyl Formate	10.11	59	2485	2.03	ug/L	97
52) bromochloromethane	10.01	128	1432	1.90	ug/L	97
54) chloroform	10.09	83	5378	2.25	ug/L	93
57) freon 113	6.69	151	2509	2.36	ug/L	89
58) methacrylonitrile	9.98	41	1526	1.98	ug/L	85
59) 1,1,1-trichloroethane	10.37	97	4324	2.19	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147610.D
Acq On : 18 Jun 2014 5:19 pm
Operator : KingC
Sample : ic6381-2
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 19 09:21:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:25:02 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
60) cyclohexane	10.42	84	3912	2.21	ug/L		92
62) iso-octane	10.88	57	10947	2.21	ug/L		92
65) epichlorohydrin	13.17	57	1332	10.39	ug/L		85
66) n-butyl alcohol	11.68	56	4290	95.22	ug/L		90
67) carbon tetrachloride	10.60	117	3695	2.04	ug/L		90
68) 1,1-dichloropropene	10.58	75	3433	2.03	ug/L		91
69) hexane	8.30	57	3621	2.25	ug/L		85
70) benzene	10.94	78	11193	2.10	ug/L		100
71) tert-amyl methyl ether	10.97	73	9456	2.02	ug/L		97
72) heptane	11.12	57	2085	2.22	ug/L		98
73) isopropyl acetate	10.87	43	7841	2.17	ug/L		98
74) 1,2-dichloroethane	11.00	62	3563	1.97	ug/L		98
75) trichloroethene	11.88	130	2785	1.98	ug/L		93
79) 2-chloroethyl vinyl ether	12.99	63	7377	10.20	ug/L		93
80) methyl methacrylate	12.27	69	1640	1.91	ug/L		85
81) 1,2-dichloropropane	12.25	63	2982	2.04	ug/L		98
82) dibromomethane	12.47	93	1653	1.93	ug/L		93
83) methylcyclohexane	12.11	83	4721	2.20	ug/L		90
84) bromodichloromethane	12.66	83	3824	1.95	ug/L		87
85) cis-1,3-dichloropropene	13.26	75	4967	2.03	ug/L		93
87) 4-methyl-2-pentanone	13.41	58	1035	1.88	ug/L	#	82
88) toluene	13.72	92	7517	2.17	ug/L		94
89) 3-methyl-1-butanol	13.47	55	2888	39.69	ug/L		99
90) trans-1,3-dichloropropene	14.03	75	4688	2.05	ug/L		97
91) ethyl methacrylate	14.01	69	3595	1.98	ug/L		94
92) 1,1,2-trichloroethane	14.32	83	2193	2.04	ug/L		96
93) 2-hexanone	14.56	58	1066	1.98	ug/L		91
95) 3,3-Dimethyl-1-butanol	14.80	57	3308	20.08	ug/L	#	95
96) tetrachloroethene	14.49	164	2800	2.14	ug/L		82
97) 1,3-dichloropropane	14.56	76	4154	1.99	ug/L		97
98) butyl acetate	14.65	56	2739	2.56	ug/L	#	82
99) dibromochloromethane	14.91	129	3150	1.89	ug/L		99
100) 1,2-dibromoethane	15.09	107	2726	2.02	ug/L		96
102) chlorobenzene	15.68	112	9067	2.11	ug/L		93
103) 1,1,1,2-tetrachloroethane	15.77	131	3404	2.02	ug/L		90
104) ethylbenzene	15.76	91	14702	2.13	ug/L		96
105) m,p-xylene	15.90	106	11578	4.32	ug/L		100
106) o-xylene	16.44	106	5636	2.02	ug/L		95
107) styrene	16.46	104	9587	1.98	ug/L		99
108) bromoform	16.81	173	2641	1.99	ug/L		92
110) isopropylbenzene	16.86	105	15537	2.25	ug/L		96
113) bromobenzene	17.34	156	4560	2.11	ug/L		92
114) 1,1,2,2-tetrachloroethane	17.28	83	3894	2.04	ug/L		96
115) trans-1,4-dichloro-2-buten	17.33	53	1057	1.97	ug/L		95
116) 1,2,3-trichloropropane	17.36	110	859	1.87	ug/L	#	75
117) n-propylbenzene	17.35	91	17816	2.22	ug/L		96
119) 2-chlorotoluene	17.51	126	3995	2.14	ug/L		92
120) 4-chlorotoluene	17.63	91	11783	2.24	ug/L		98
121) 1,3,5-trimethylbenzene	17.52	105	13378	2.18	ug/L		98
122) tert-butylbenzene	17.90	119	11874	2.25	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147610.D
Acq On : 18 Jun 2014 5:19 pm
Operator : KingC
Sample : ic6381-2
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 19 09:21:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:25:02 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) pentachloroethane	18.00	167	2770	2.05 ug/L	93
124) 1,2,4-trimethylbenzene	17.95	105	13582	2.17 ug/L	97
126) sec-butylbenzene	18.12	105	17811	2.22 ug/L	97
127) 1,3-dichlorobenzene	18.32	146	9018	2.19 ug/L	96
128) p-isopropyltoluene	18.24	119	15562	2.22 ug/L	96
129) 1,4-dichlorobenzene	18.41	146	9610	2.32 ug/L	96
130) 1,2-dichlorobenzene	18.79	146	8432	2.08 ug/L	95
131) benzyl chloride	18.54	91	8763	2.36 ug/L	98
133) n-butylbenzene	18.65	92	7370	2.15 ug/L	96
135) 1,2-dibromo-3-chloropropan	19.57	75	886	2.54 ug/L #	59
136) 1,3,5-trichlorobenzene	19.72	180	6862	2.03 ug/L	97
137) hexachlorobutadiene	20.43	225	3593	2.07 ug/L	96
141) hexachloroethane	19.02	201	2811	1.94 ug/L	94

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

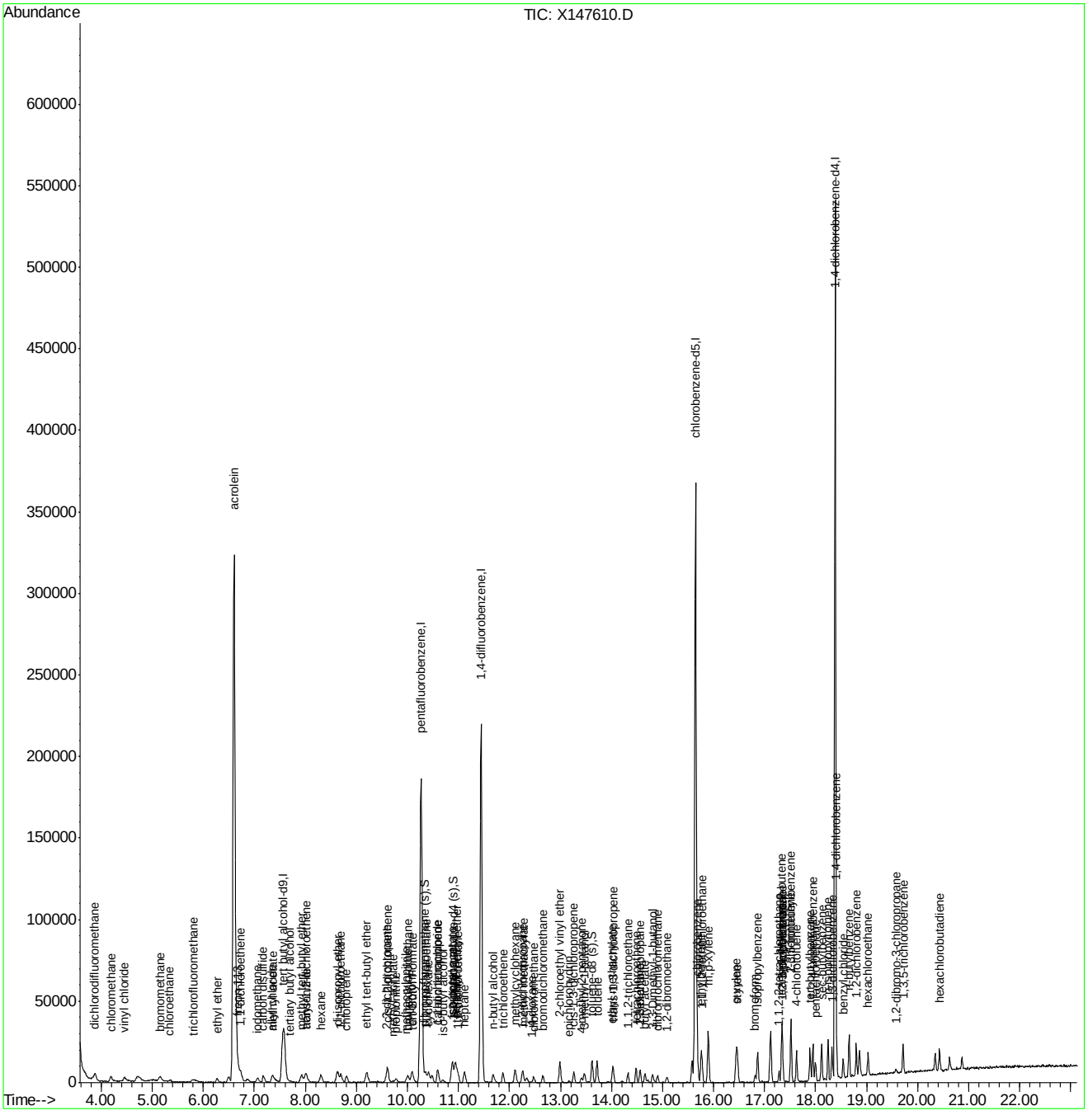
7.7.43

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147610.D
Acq On : 18 Jun 2014 5:19 pm
Operator : KingC
Sample : ic6381-2
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 19 09:21:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:25:02 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 11:02:55 2014 GCMSX Page: 4

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147611.D
Acq On : 18 Jun 2014 5:49 pm
Operator : KingC
Sample : ic6381-1
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 19 09:32:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:25:55 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	65183	500.00	ug/L	0.00
5) pentafluorobenzene	10.27	168	216151	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.45	114	261197	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	252995	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	139746	50.00	ug/L	0.00

System Monitoring Compounds

55) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 59 - 130		Recovery	=	0.00%#	
56) 1,2-dichloroethane-d4 (s)	10.89	65	1674	0.95	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery	=	1.90%#	
86) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 80 - 124		Recovery	=	0.00%#	
112) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 132		Recovery	=	0.00%#	

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.70	59	994	6.07	ug/L	100
12) dichlorodifluoromethane	3.86	85	2132	1.13	ug/L	94
15) chloromethane	4.19	50	2701	1.13	ug/L	89
16) vinyl chloride	4.45	62	2216	1.04	ug/L	90
18) bromomethane	5.15	94	1681	1.10	ug/L	86
19) chloroethane	5.35	64	815	0.93	ug/L #	68
21) trichlorofluoromethane	5.79	101	2427	1.10	ug/L	77
23) ethyl ether	6.28	74	625	0.94	ug/L	85
27) acrolein	6.60	56	228245	470.79	ug/L #	100
28) 1,1-dichloroethene	6.73	96	1201	1.11	ug/L #	72
30) allyl chloride	7.37	76	523	0.83	ug/L #	1
32) iodomethane	7.06	142	2446	0.98	ug/L	93
34) carbon disulfide	7.18	76	4523	1.10	ug/L	95
37) methyl tert butyl ether	7.92	73	4208	1.01	ug/L	93
38) trans-1,2-dichloroethene	7.99	96	1446	1.12	ug/L	81
39) di-isopropyl ether	8.63	45	5432	1.04	ug/L	98
41) 1,1-dichloroethane	8.70	63	2564	1.05	ug/L	67
42) chloroprene	8.80	53	2022	1.09	ug/L	86
43) acrylonitrile	8.04	53	1946	4.57	ug/L	96
45) ethyl tert-butyl ether	9.20	59	5072	1.04	ug/L	96
47) 2,2-dichloropropane	9.59	77	2225	1.10	ug/L	82
48) cis-1,2-dichloroethene	9.62	96	1546	1.04	ug/L	89
50) propionitrile	9.79	54	1974	11.27	ug/L	94
51) tert-Butyl Formate	10.11	59	1021	0.83	ug/L #	79
52) bromochloromethane	10.01	128	686	0.92	ug/L	79
54) chloroform	10.10	83	2620	1.08	ug/L	80
57) freon 113	6.68	151	1137	1.04	ug/L #	82
58) methacrylonitrile	9.98	41	727	0.95	ug/L	75
59) 1,1,1-trichloroethane	10.36	97	2157	1.08	ug/L	78
60) cyclohexane	10.41	84	2008	1.12	ug/L	89
62) iso-octane	10.89	57	5354	1.07	ug/L	97
65) epichlorohydrin	13.17	57	564	4.34	ug/L	55
66) n-butyl alcohol	11.69	56	2321	51.41	ug/L	81

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147611.D
Acq On : 18 Jun 2014 5:49 pm
Operator : KingC
Sample : ic6381-1
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 19 09:32:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:25:55 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
67) carbon tetrachloride	10.61	117	1938	1.06 ug/L	82
68) 1,1-dichloropropene	10.60	75	1846	1.08 ug/L	87
69) hexane	8.30	57	1929	1.17 ug/L	89
70) benzene	10.93	78	5751	1.06 ug/L	92
71) tert-amyl methyl ether	10.97	73	4760	1.01 ug/L	97
72) heptane	11.11	57	1127	1.17 ug/L	87
73) isopropyl acetate	10.89	43	3864	1.05 ug/L #	82
74) 1,2-dichloroethane	11.00	62	1726	0.95 ug/L	82
75) trichloroethene	11.88	130	1332	0.94 ug/L	93
79) 2-chloroethyl vinyl ether	12.99	63	3356	4.58 ug/L	98
80) methyl methacrylate	12.27	69	880	1.02 ug/L #	70
81) 1,2-dichloropropane	12.26	63	1470	1.00 ug/L	97
82) dibromomethane	12.47	93	778	0.90 ug/L	91
83) methylcyclohexane	12.11	83	2270	1.03 ug/L	98
84) bromodichloromethane	12.66	83	2069	1.05 ug/L	89
85) cis-1,3-dichloropropene	13.26	75	2529	1.02 ug/L	94
87) 4-methyl-2-pentanone	13.41	58	483	0.88 ug/L #	46
88) toluene	13.72	92	3994	1.13 ug/L	97
89) 3-methyl-1-butanol	13.47	55	1528	20.83 ug/L	94
90) trans-1,3-dichloropropene	14.04	75	2545	1.10 ug/L	97
91) ethyl methacrylate	14.01	69	1889	1.03 ug/L	97
92) 1,1,2-trichloroethane	14.31	83	1146	1.05 ug/L	78
93) 2-hexanone	14.56	58	623	1.15 ug/L	91
95) 3,3-Dimethyl-1-butanol	14.81	57	1709	10.61 ug/L #	96
96) tetrachloroethene	14.47	164	1441	1.12 ug/L	89
97) 1,3-dichloropropane	14.56	76	2184	1.07 ug/L	93
99) dibromochloromethane	14.90	129	1857	1.15 ug/L	98
100) 1,2-dibromoethane	15.09	107	1484	1.12 ug/L	94
102) chlorobenzene	15.68	112	4798	1.13 ug/L	94
103) 1,1,1,2-tetrachloroethane	15.78	131	1860	1.13 ug/L	96
104) ethylbenzene	15.76	91	7766	1.14 ug/L	95
105) m,p-xylene	15.90	106	5883	2.22 ug/L	97
106) o-xylene	16.44	106	3122	1.14 ug/L	83
107) styrene	16.47	104	5274	1.12 ug/L	94
108) bromoform	16.81	173	1451	1.12 ug/L	91
110) isopropylbenzene	16.86	105	8099	1.19 ug/L	99
113) bromobenzene	17.34	156	2554	1.21 ug/L	89
114) 1,1,2,2-tetrachloroethane	17.28	83	2432	1.31 ug/L	91
116) 1,2,3-trichloropropane	17.36	110	471	1.07 ug/L #	62
117) n-propylbenzene	17.35	91	9487	1.20 ug/L	99
119) 2-chlorotoluene	17.51	126	2216	1.22 ug/L	90
120) 4-chlorotoluene	17.62	91	6460	1.25 ug/L	95
121) 1,3,5-trimethylbenzene	17.52	105	7130	1.19 ug/L	95
122) tert-butylbenzene	17.90	119	6322	1.22 ug/L	91
123) pentachloroethane	18.00	167	1564	1.20 ug/L	83
124) 1,2,4-trimethylbenzene	17.95	105	7470	1.22 ug/L	99
126) sec-butylbenzene	18.12	105	9214	1.17 ug/L	97
127) 1,3-dichlorobenzene	18.32	146	5104	1.26 ug/L	97
128) p-isopropyltoluene	18.25	119	8268	1.20 ug/L	95
129) 1,4-dichlorobenzene	18.41	146	5264	1.29 ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147611.D
Acq On : 18 Jun 2014 5:49 pm
Operator : KingC
Sample : ic6381-1
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 19 09:32:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:25:55 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
130) 1,2-dichlorobenzene	18.79	146	4790	1.21 ug/L	97
131) benzyl chloride	18.54	91	4316	1.17 ug/L	99
133) n-butylbenzene	18.66	92	3842	1.15 ug/L	93
136) 1,3,5-trichlorobenzene	19.72	180	3437	1.05 ug/L	97
137) hexachlorobutadiene	20.43	225	1889	1.12 ug/L	93
141) hexachloroethane	19.02	201	1725	1.23 ug/L	94

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

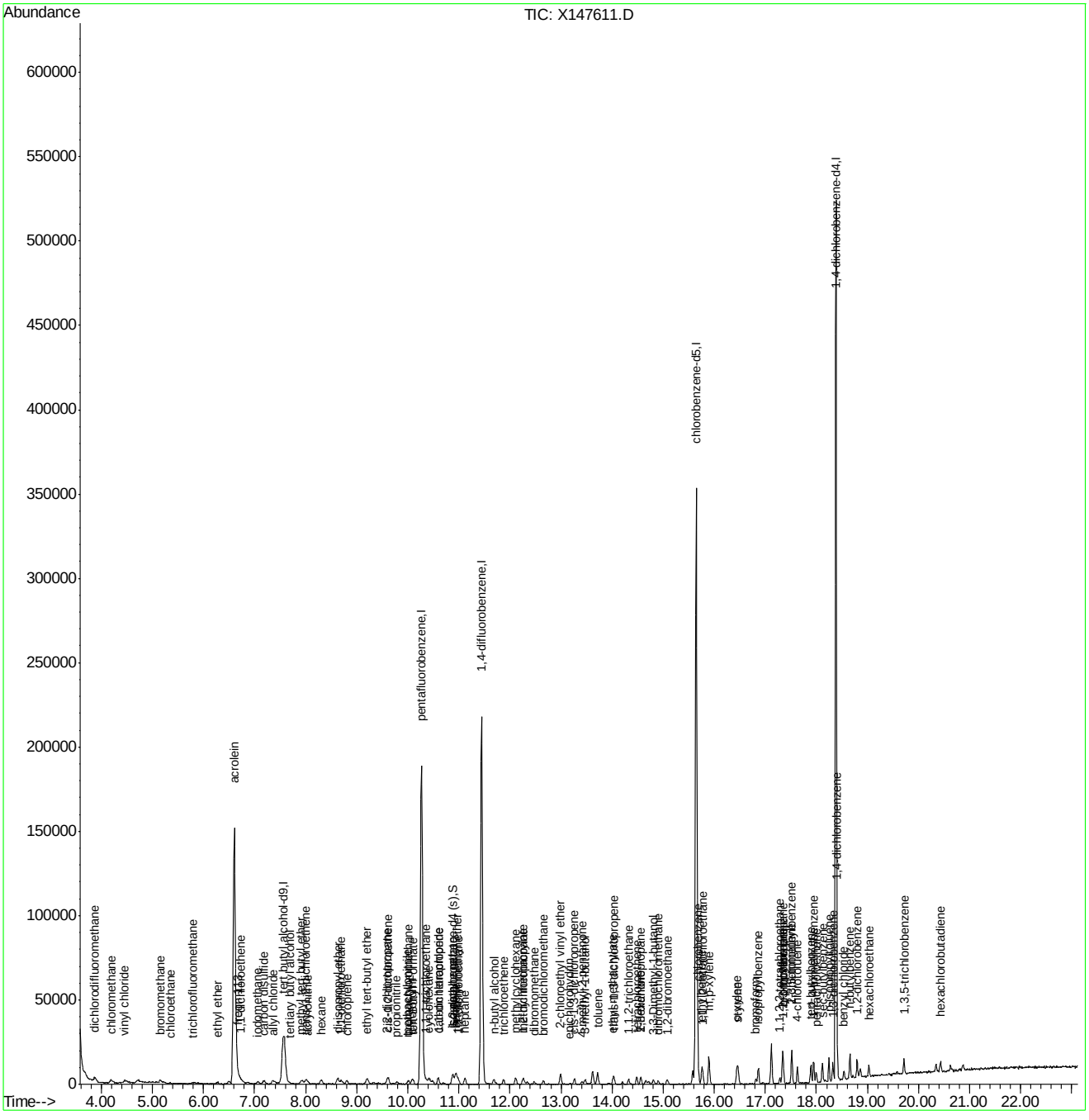
7.7.44

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147611.D
Acq On : 18 Jun 2014 5:49 pm
Operator : KingC
Sample : ic6381-1
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 19 09:32:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:25:55 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 11:02:57 2014 GCMSX Page: 4

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147612.D
Acq On : 18 Jun 2014 6:18 pm
Operator : KingC
Sample : ic6381-0.5
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 19 09:37:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:26:51 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.56	65	61009	500.00	ug/L	0.01
5) pentafluorobenzene	10.26	168	216184	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.45	114	261282	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	256483	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	135402	50.00	ug/L	0.00

System Monitoring Compounds

55) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 59 - 130		Recovery	=	0.00%#	
56) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 65 - 123		Recovery	=	0.00%#	
86) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 80 - 124		Recovery	=	0.00%#	
112) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 132		Recovery	=	0.00%#	

Target Compounds

							Qvalue
12) dichlorodifluoromethane	3.86	85	998	0.52	ug/L	#	49
16) vinyl chloride	4.44	62	1183	0.55	ug/L		92
19) chloroethane	5.35	64	414	0.48	ug/L	#	43
21) trichlorofluoromethane	5.79	101	981	0.44	ug/L	#	24
28) 1,1-dichloroethene	6.72	96	489	0.45	ug/L		98
32) iodomethane	7.05	142	1094	0.44	ug/L		81
34) carbon disulfide	7.18	76	2203	0.53	ug/L		71
37) methyl tert butyl ether	7.93	73	2067	0.50	ug/L		68
38) trans-1,2-dichloroethene	8.00	96	558	0.42	ug/L	#	47
39) di-isopropyl ether	8.62	45	1976	0.38	ug/L		74
41) 1,1-dichloroethane	8.70	63	1124	0.46	ug/L	#	51
42) chloroprene	8.79	53	675	0.36	ug/L		75
45) ethyl tert-butyl ether	9.20	59	1894	0.39	ug/L		84
47) 2,2-dichloropropane	9.60	77	1032	0.50	ug/L		78
48) cis-1,2-dichloroethene	9.61	96	667	0.45	ug/L	#	69
54) chloroform	10.09	83	1327	0.54	ug/L		96
59) 1,1,1-trichloroethane	10.36	97	957	0.47	ug/L		76
60) cyclohexane	10.41	84	859	0.47	ug/L	#	73
62) iso-octane	10.88	57	1946	0.38	ug/L		88
67) carbon tetrachloride	10.60	117	769	0.42	ug/L		95
70) benzene	10.93	78	2801	0.51	ug/L		86
71) tert-amyl methyl ether	10.96	73	1904	0.40	ug/L	#	60
73) isopropyl acetate	10.87	43	1542	0.42	ug/L	#	68
74) 1,2-dichloroethane	11.00	62	869	0.48	ug/L	#	49
75) trichloroethene	11.88	130	668	0.48	ug/L		91
79) 2-chloroethyl vinyl ether	12.99	63	1343	1.85	ug/L		90
81) 1,2-dichloropropane	12.25	63	601	0.41	ug/L		88
82) dibromomethane	12.47	93	308	0.36	ug/L		94
84) bromodichloromethane	12.65	83	890	0.45	ug/L		80
85) cis-1,3-dichloropropene	13.27	75	1215	0.49	ug/L		94
88) toluene	13.72	92	2010	0.56	ug/L	#	79
89) 3-methyl-1-butanol	13.48	55	929	12.60	ug/L		94
90) trans-1,3-dichloropropene	14.04	75	1081	0.46	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147612.D
Acq On : 18 Jun 2014 6:18 pm
Operator : KingC
Sample : ic6381-0.5
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 19 09:37:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:26:51 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
91) ethyl methacrylate	14.02	69	723	0.39 ug/L	83
92) 1,1,2-trichloroethane	14.31	83	461	0.42 ug/L	86
96) tetrachloroethene	14.48	164	671	0.51 ug/L	74
97) 1,3-dichloropropane	14.57	76	901	0.43 ug/L	95
99) dibromochloromethane	14.90	129	667	0.40 ug/L	81
100) 1,2-dibromoethane	15.09	107	582	0.43 ug/L	85
102) chlorobenzene	15.69	112	2394	0.55 ug/L	91
103) 1,1,1,2-tetrachloroethane	15.78	131	698	0.41 ug/L	95
104) ethylbenzene	15.76	91	3729	0.53 ug/L	98
105) m,p-xylene	15.90	106	2739	1.01 ug/L	97
106) o-xylene	16.44	106	1406	0.50 ug/L	93
107) styrene	16.47	104	2374	0.49 ug/L	90
108) bromoform	16.81	173	616	0.46 ug/L	80
113) bromobenzene	17.34	156	1163	0.55 ug/L	92
114) 1,1,2,2-tetrachloroethane	17.28	83	868	0.47 ug/L	91
117) n-propylbenzene	17.35	91	4261	0.54 ug/L	93
119) 2-chlorotoluene	17.51	126	890	0.49 ug/L	94
120) 4-chlorotoluene	17.63	91	3095	0.60 ug/L	96
121) 1,3,5-trimethylbenzene	17.52	105	3238	0.54 ug/L	95
122) tert-butylbenzene	17.89	119	2902	0.56 ug/L	93
123) pentachloroethane	18.00	167	582	0.45 ug/L	81
124) 1,2,4-trimethylbenzene	17.95	105	3263	0.54 ug/L	94
126) sec-butylbenzene	18.12	105	4131	0.53 ug/L	84
127) 1,3-dichlorobenzene	18.32	146	2349	0.58 ug/L	99
128) p-isopropyltoluene	18.25	119	3560	0.52 ug/L	93
129) 1,4-dichlorobenzene	18.41	146	2402	0.58 ug/L	93
130) 1,2-dichlorobenzene	18.79	146	2155	0.55 ug/L	93
133) n-butylbenzene	18.66	92	1690	0.51 ug/L	83
136) 1,3,5-trichlorobenzene	19.72	180	1430	0.45 ug/L	89
137) hexachlorobutadiene	20.42	225	780	0.47 ug/L	98
141) hexachloroethane	19.04	201	757	0.54 ug/L	76

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

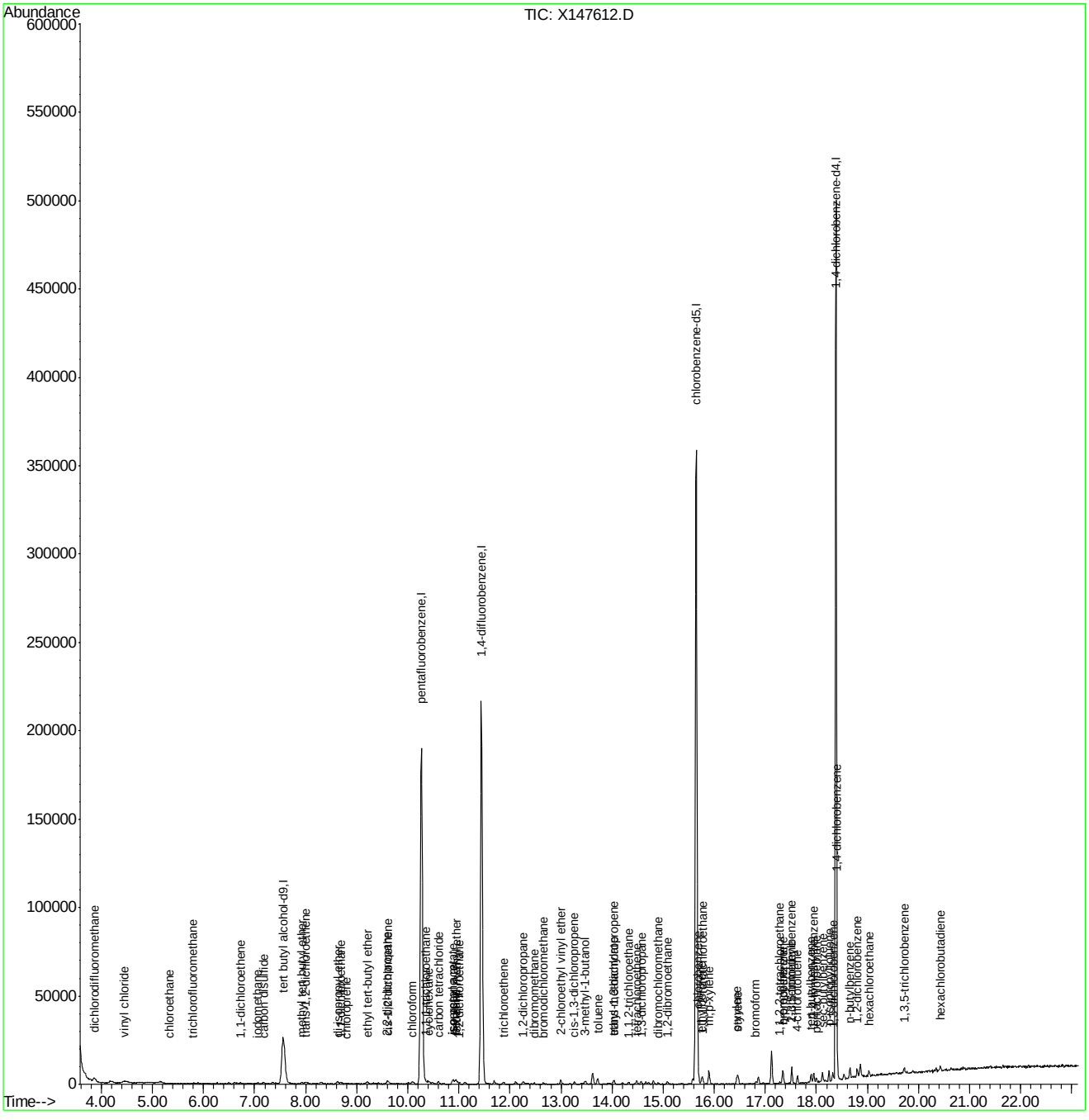
7.7.45

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147612.D
Acq On : 18 Jun 2014 6:18 pm
Operator : KingC
Sample : ic6381-0.5
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 19 09:37:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:26:51 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 11:02:58 2014 GCMSX Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147613.D
Acq On : 18 Jun 2014 6:48 pm
Operator : KingC
Sample : ic6381-0.2
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 19 09:44:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:27:41 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	61388	500.00	ug/L	0.00
5) pentafluorobenzene	10.27	168	211022	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	248385	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	248513	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	133569	50.00	ug/L	0.00

System Monitoring Compounds

55) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 59 - 130		Recovery = 0.00%#			
56) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 65 - 123		Recovery = 0.00%#			
86) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 80 - 124		Recovery = 0.00%#			
112) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 132		Recovery = 0.00%#			

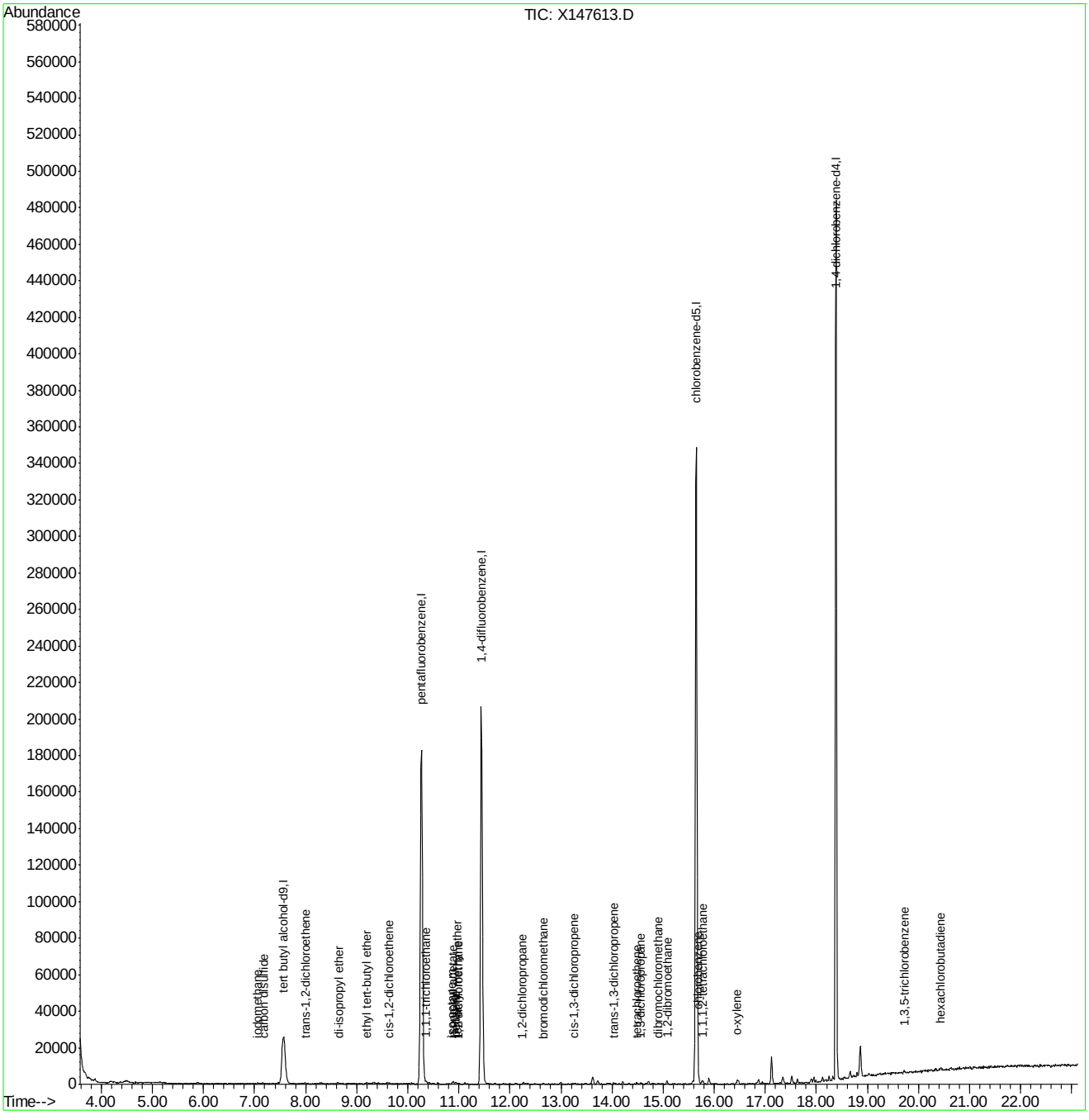
Target Compounds						Qvalue
32) iodomethane	7.06	142	486	0.20	ug/L	69
34) carbon disulfide	7.18	76	1028	0.25	ug/L	74
38) trans-1,2-dichloroethene	8.00	96	233	0.18	ug/L #	22
39) di-isopropyl ether	8.65	45	1029	0.21	ug/L	82
45) ethyl tert-butyl ether	9.20	59	953	0.20	ug/L #	60
48) cis-1,2-dichloroethene	9.62	96	344	0.24	ug/L #	65
59) 1,1,1-trichloroethane	10.36	97	409	0.21	ug/L #	43
62) iso-octane	10.86	57	1080	0.22	ug/L #	34
70) benzene	10.93	78	1344	0.26	ug/L	51
71) tert-amyl methyl ether	10.97	73	970	0.22	ug/L #	53
73) isopropyl acetate	10.89	43	716	0.21	ug/L #	68
74) 1,2-dichloroethane	11.00	62	298	0.17	ug/L #	49
81) 1,2-dichloropropane	12.24	63	263	0.19	ug/L #	48
84) bromodichloromethane	12.66	83	424	0.23	ug/L	90
85) cis-1,3-dichloropropene	13.26	75	569	0.24	ug/L	79
90) trans-1,3-dichloropropene	14.03	75	452	0.20	ug/L	65
96) tetrachloroethene	14.48	164	268	0.21	ug/L #	50
97) 1,3-dichloropropane	14.57	76	465	0.23	ug/L #	70
99) dibromochloromethane	14.90	129	297	0.19	ug/L	71
100) 1,2-dibromoethane	15.09	107	232	0.18	ug/L	86
102) chlorobenzene	15.69	112	985	0.23	ug/L	94
103) 1,1,1,2-tetrachloroethane	15.78	131	332	0.21	ug/L	92
106) o-xylene	16.45	106	689	0.25	ug/L	84
136) 1,3,5-trichlorobenzene	19.72	180	611	0.20	ug/L	82
137) hexachlorobutadiene	20.44	225	373	0.23	ug/L #	62

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147613.D
Acq On : 18 Jun 2014 6:48 pm
Operator : KingC
Sample : ic6381-0.2
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 19 09:44:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:27:41 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147614.D
Acq On : 18 Jun 2014 7:18 pm
Operator : KingC
Sample : ic6381-8
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 19 09:09:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:08:57 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	71356	500.00	ug/L	0.00
5) pentafluorobenzene	10.27	168	199154	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.45	114	232802	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	234635	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	134843	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	10320	8.55	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 17.10%#			
56) 1,2-dichloroethane-d4 (s)	10.89	65	11467	8.40	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 16.80%#			
86) toluene-d8 (s)	13.62	98	38466	8.31	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 16.62%#			
112) 4-bromofluorobenzene (s)	17.12	95	19127	8.06	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 16.12%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.70	59	7109	38.79	ug/L	100
4) 1,4-dioxane	12.42	88	2621	187.41	ug/L	93
11) chlorodifluoromethane	3.87	51	15256	8.04	ug/L	97
12) dichlorodifluoromethane	3.84	85	14301	8.06	ug/L	98
15) chloromethane	4.19	50	17205	7.70	ug/L	96
16) vinyl chloride	4.45	62	15773	7.89	ug/L	95
18) bromomethane	5.15	94	11232	7.86	ug/L	95
19) chloroethane	5.35	64	6591	8.30	ug/L	95
21) trichlorofluoromethane	5.82	101	16610	8.18	ug/L	98
23) ethyl ether	6.27	74	5302	8.71	ug/L	94
27) acrolein	6.60	56	18561	84.20	ug/L #	99
28) 1,1-dichloroethene	6.74	96	8514	8.52	ug/L	96
29) acetone	6.85	58	818	8.09	ug/L #	74
30) allyl chloride	7.36	76	4792	8.42	ug/L	94
31) acetonitrile	7.39	40	10073	89.83	ug/L #	78
32) iodomethane	7.06	142	19418	8.59	ug/L	95
33) iso-butyl alcohol	10.69	43	5803	85.15	ug/L	93
34) carbon disulfide	7.18	76	31942	8.08	ug/L	99
35) methylene chloride	7.59	84	16629	8.55	ug/L	98
36) methyl acetate	7.36	43	7671	8.45	ug/L #	96
37) methyl tert butyl ether	7.92	73	33098	8.65	ug/L	99
38) trans-1,2-dichloroethene	7.99	96	9930	8.41	ug/L	93
39) di-isopropyl ether	8.62	45	39235	8.34	ug/L	99
40) 2-butanone	9.61	72	1070	8.19	ug/L	52
41) 1,1-dichloroethane	8.69	63	18943	8.45	ug/L	98
42) chloroprene	8.80	53	14168	8.44	ug/L	93
43) acrylonitrile	8.02	53	17113	44.08	ug/L	94
44) vinyl acetate	8.70	86	1221	7.51	ug/L #	14
45) ethyl tert-butyl ether	9.20	59	37021	8.38	ug/L	100
46) ethyl acetate	9.61	70	930	7.74	ug/L	52
47) 2,2-dichloropropane	9.59	77	15784	8.37	ug/L	93
48) cis-1,2-dichloroethene	9.61	96	11623	8.41	ug/L	91
49) methyl acrylate	9.70	55	7869	8.51	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147614.D
Acq On : 18 Jun 2014 7:18 pm
Operator : KingC
Sample : ic6381-8
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 19 09:09:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:08:57 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.78	54	13965	85.21 ug/L	98
51) tert-Butyl Formate	10.11	59	9238	8.35 ug/L	99
52) bromochloromethane	10.01	128	5735	8.41 ug/L	95
53) tetrahydrofuran	10.04	72	1242	8.58 ug/L	92
54) chloroform	10.09	83	18553	8.12 ug/L	98
57) freon 113	6.68	151	8416	8.32 ug/L	87
58) methacrylonitrile	9.97	41	6368	9.34 ug/L	92
59) 1,1,1-trichloroethane	10.36	97	15336	8.25 ug/L	97
60) cyclohexane	10.41	84	13872	8.41 ug/L	93
62) iso-octane	10.88	57	38846	8.44 ug/L	91
65) epichlorohydrin	13.17	57	4795	43.54 ug/L	97
66) n-butyl alcohol	11.67	56	17202	425.97 ug/L	90
67) carbon tetrachloride	10.61	117	13978	8.65 ug/L	97
68) 1,1-dichloropropene	10.59	75	12994	8.45 ug/L	98
69) hexane	8.30	57	12376	8.53 ug/L	94
70) benzene	10.94	78	40197	8.00 ug/L	99
71) tert-amyl methyl ether	10.96	73	34764	8.34 ug/L	99
72) heptane	11.11	57	7364	8.39 ug/L	94
73) isopropyl acetate	10.88	43	27872	8.57 ug/L	100
74) 1,2-dichloroethane	11.00	62	13944	8.79 ug/L	100
75) trichloroethene	11.87	130	10590	8.50 ug/L	96
79) 2-chloroethyl vinyl ether	12.99	63	27181	43.35 ug/L	99
80) methyl methacrylate	12.27	69	6592	8.55 ug/L	85
81) 1,2-dichloropropane	12.25	63	11122	8.67 ug/L	97
82) dibromomethane	12.48	93	6483	8.83 ug/L	91
83) methylcyclohexane	12.12	83	16488	8.38 ug/L	96
84) bromodichloromethane	12.65	83	14865	8.39 ug/L	98
85) cis-1,3-dichloropropene	13.26	75	18467	8.19 ug/L	99
87) 4-methyl-2-pentanone	13.41	58	4147	8.59 ug/L	89
88) toluene	13.72	92	27156	8.37 ug/L	100
89) 3-methyl-1-butanol	13.46	55	11157	165.03 ug/L	93
90) trans-1,3-dichloropropene	14.04	75	17284	8.32 ug/L	99
91) ethyl methacrylate	14.02	69	13622	8.52 ug/L	95
92) 1,1,2-trichloroethane	14.32	83	8337	8.69 ug/L	97
93) 2-hexanone	14.56	58	4047	8.23 ug/L	85
95) 3,3-Dimethyl-1-butanol	14.80	57	11986	79.63 ug/L #	99
96) tetrachloroethene	14.48	164	9868	8.08 ug/L	96
97) 1,3-dichloropropane	14.56	76	16158	8.47 ug/L	99
98) butyl acetate	14.65	56	8846	8.89 ug/L	99
99) dibromochloromethane	14.90	129	12737	8.58 ug/L	98
100) 1,2-dibromoethane	15.09	107	10266	8.48 ug/L	99
102) chlorobenzene	15.69	112	32818	8.02 ug/L	92
103) 1,1,1,2-tetrachloroethane	15.77	131	12972	8.50 ug/L	91
104) ethylbenzene	15.76	91	52475	8.10 ug/L	98
105) m,p-xylene	15.90	106	41019	16.46 ug/L	98
106) o-xylene	16.45	106	21225	8.02 ug/L	98
107) styrene	16.47	104	35886	8.10 ug/L	95
108) bromoform	16.81	173	9759	8.21 ug/L	96
110) isopropylbenzene	16.86	105	55258	8.22 ug/L	98
113) bromobenzene	17.34	156	16816	7.96 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147614.D
Acq On : 18 Jun 2014 7:18 pm
Operator : KingC
Sample : ic6381-8
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 19 09:09:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:08:57 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	15302	8.30 ug/L	97
115) trans-1,4-dichloro-2-buten	17.33	53	4375	8.77 ug/L	93
116) 1,2,3-trichloropropane	17.36	110	3676	8.60 ug/L	91
117) n-propylbenzene	17.35	91	63291	8.03 ug/L	99
119) 2-chlorotoluene	17.51	126	14483	8.03 ug/L	92
120) 4-chlorotoluene	17.63	91	40557	7.70 ug/L	95
121) 1,3,5-trimethylbenzene	17.52	105	48157	8.03 ug/L	97
122) tert-butylbenzene	17.89	119	41199	7.90 ug/L	97
123) pentachloroethane	18.00	167	10601	8.29 ug/L	97
124) 1,2,4-trimethylbenzene	17.95	105	47862	7.83 ug/L	99
126) sec-butylbenzene	18.12	105	63600	8.13 ug/L	98
127) 1,3-dichlorobenzene	18.32	146	32039	7.82 ug/L	97
128) p-isopropyltoluene	18.25	119	54046	7.91 ug/L	98
129) 1,4-dichlorobenzene	18.41	146	32303	7.75 ug/L	98
130) 1,2-dichlorobenzene	18.80	146	31154	7.88 ug/L	98
131) benzyl chloride	18.54	91	28186	7.76 ug/L	100
133) n-butylbenzene	18.66	92	26356	7.99 ug/L	100
135) 1,2-dibromo-3-chloropropan	19.57	75	2832	8.39 ug/L	79
136) 1,3,5-trichlorobenzene	19.72	180	24619	7.84 ug/L	99
137) hexachlorobutadiene	20.43	225	13349	8.02 ug/L	94
138) naphthalene	20.63	128	28293	7.20 ug/L	98
139) 1,2,4-trichlorobenzene	20.34	180	16982	7.00 ug/L	93
140) 1,2,3-trichlorobenzene	20.87	180	13598	7.08 ug/L	99
141) hexachloroethane	19.03	201	11058	7.89 ug/L	98

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

7.7.47

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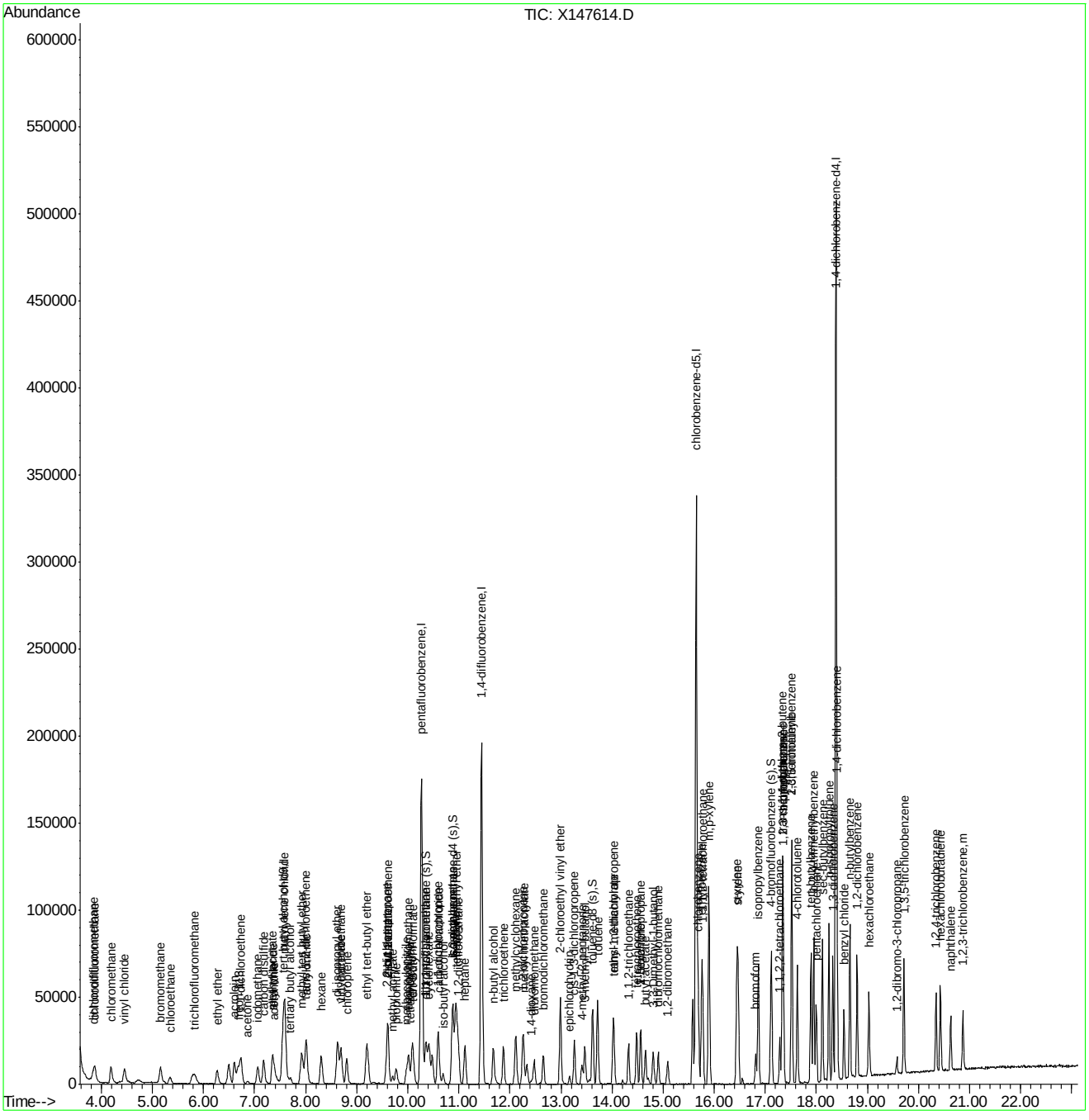
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147614.D
Acq On : 18 Jun 2014 7:18 pm
Operator : KingC
Sample : ic6381-8
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 19 09:09:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:08:57 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147615.D
Acq On : 18 Jun 2014 7:47 pm
Operator : KingC
Sample : ic6381-20
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 19 08:23:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:23:06 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.56	65	68221	500.00	ug/L	0.01
5) pentafluorobenzene	10.26	168	202592	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	233956	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	232991	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	136776	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	60502	51.44	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 102.88%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	66406	51.78	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 103.56%			
86) toluene-d8 (s)	13.62	98	215047	50.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 101.26%			
112) 4-bromofluorobenzene (s)	17.12	95	92762	50.15	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 100.30%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.70	59	17737	109.50	ug/L	100
4) 1,4-dioxane	12.42	88	7176	499.44	ug/L #	83
11) chlorodifluoromethane	3.87	51	29702	21.67	ug/L	98
12) dichlorodifluoromethane	3.84	85	36305	21.86	ug/L	97
15) chloromethane	4.19	50	45350	20.68	ug/L	99
16) vinyl chloride	4.45	62	39743	20.72	ug/L	97
18) bromomethane	5.15	94	29097	21.41	ug/L	97
19) chloroethane	5.34	64	16922	21.53	ug/L	98
21) trichlorofluoromethane	5.80	101	41372	21.61	ug/L	93
23) ethyl ether	6.26	74	13312	21.47	ug/L	97
27) acrolein	6.60	56	47876	625.44	ug/L #	100
28) 1,1-dichloroethene	6.73	96	20538	21.13	ug/L	92
29) acetone	6.85	58	2315	23.59	ug/L	98
30) allyl chloride	7.35	76	12435	21.53	ug/L #	83
31) acetonitrile	7.39	40	23468	225.63	ug/L #	77
32) iodomethane	7.06	142	47540	20.85	ug/L	94
33) iso-butyl alcohol	10.68	43	14749	227.27	ug/L	98
34) carbon disulfide	7.17	76	76598	20.89	ug/L	99
35) methylene chloride	7.59	84	31969	23.88	ug/L	98
36) methyl acetate	7.35	43	19868	22.63	ug/L	99
37) methyl tert butyl ether	7.92	73	83170	21.78	ug/L	100
38) trans-1,2-dichloroethene	7.99	96	24449	21.46	ug/L	97
39) di-isopropyl ether	8.63	45	99624	21.06	ug/L	95
40) 2-butanone	9.59	72	2769	21.30	ug/L	93
41) 1,1-dichloroethane	8.70	63	46550	21.04	ug/L	99
42) chloroprene	8.80	53	34117	20.29	ug/L	100
43) acrylonitrile	8.02	53	44026	113.34	ug/L	99
44) vinyl acetate	8.68	86	3567	20.72	ug/L	85
45) ethyl tert-butyl ether	9.20	59	94512	21.03	ug/L	99
46) ethyl acetate	9.61	70	2652	21.63	ug/L	78
47) 2,2-dichloropropane	9.59	77	37444	20.97	ug/L	97
48) cis-1,2-dichloroethene	9.61	96	28104	20.75	ug/L	95
49) methyl acrylate	9.69	55	20836	21.30	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147615.D
Acq On : 18 Jun 2014 7:47 pm
Operator : KingC
Sample : ic6381-20
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 19 08:23:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:23:06 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) propionitrile	9.77	54	36616	228.74	ug/L	99
51) tert-Butyl Formate	10.10	59	24747	21.82	ug/L	98
52) bromochloromethane	10.01	128	14975	21.46	ug/L	97
53) tetrahydrofuran	10.04	72	3176	21.22	ug/L	92
54) chloroform	10.09	83	46283	21.21	ug/L	98
57) freon 113	6.68	151	18707	19.39	ug/L	97
58) methacrylonitrile	9.97	41	15549	21.66	ug/L	96
59) 1,1,1-trichloroethane	10.36	97	37614	20.96	ug/L	99
60) cyclohexane	10.41	84	33086	20.72	ug/L	97
62) iso-octane	10.88	57	86279	19.14	ug/L	91
65) epichlorohydrin	13.17	57	12676	112.63	ug/L	100
66) n-butyl alcohol	11.67	56	44843	1135.10	ug/L	96
67) carbon tetrachloride	10.60	117	33385	20.95	ug/L	100
68) 1,1-dichloropropene	10.58	75	30989	20.80	ug/L	96
69) hexane	8.30	57	27972	20.14	ug/L	95
70) benzene	10.93	78	98533	21.02	ug/L	98
71) tert-amyl methyl ether	10.97	73	89004	21.54	ug/L	99
72) heptane	11.12	57	16061	19.86	ug/L	95
73) isopropyl acetate	10.87	43	67641	21.23	ug/L	97
74) 1,2-dichloroethane	11.00	62	35248	21.86	ug/L	98
75) trichloroethene	11.87	130	25593	20.35	ug/L	96
79) 2-chloroethyl vinyl ether	12.98	63	68140	104.19	ug/L	99
80) methyl methacrylate	12.27	69	16812	21.57	ug/L	90
81) 1,2-dichloropropane	12.25	63	27710	20.89	ug/L	100
82) dibromomethane	12.47	93	16412	21.24	ug/L	95
83) methylcyclohexane	12.11	83	36942	19.67	ug/L	99
84) bromodichloromethane	12.65	83	36886	20.68	ug/L	98
85) cis-1,3-dichloropropene	13.26	75	46396	20.77	ug/L	99
87) 4-methyl-2-pentanone	13.41	58	11086	22.32	ug/L	98
88) toluene	13.72	92	62955	20.56	ug/L	98
89) 3-methyl-1-butanol	13.46	55	28902	454.76	ug/L	100
90) trans-1,3-dichloropropene	14.03	75	43658	21.04	ug/L	99
91) ethyl methacrylate	14.01	69	34404	20.54	ug/L	98
92) 1,1,2-trichloroethane	14.32	83	20280	20.72	ug/L	95
93) 2-hexanone	14.56	58	10548	21.68	ug/L	97
95) 3,3-Dimethyl-1-butanol	14.80	57	32716	226.59	ug/L	98
96) tetrachloroethene	14.47	164	23133	19.67	ug/L	97
97) 1,3-dichloropropane	14.56	76	39946	21.47	ug/L	98
98) butyl acetate	14.65	56	19592	22.26	ug/L	96
99) dibromochloromethane	14.90	129	30994	20.53	ug/L	97
100) 1,2-dibromoethane	15.09	107	25428	20.98	ug/L	100
102) chlorobenzene	15.68	112	78558	20.57	ug/L	98
103) 1,1,1,2-tetrachloroethane	15.78	131	31646	20.98	ug/L	97
104) ethylbenzene	15.76	91	126005	20.71	ug/L	99
105) m,p-xylene	15.90	106	96974	41.07	ug/L	96
106) o-xylene	16.44	106	50793	20.41	ug/L	98
107) styrene	16.47	104	88269	20.13	ug/L	97
108) bromoform	16.81	173	24979	20.66	ug/L	95
110) isopropylbenzene	16.86	105	129292	20.37	ug/L	99
113) bromobenzene	17.34	156	41406	20.38	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147615.D
Acq On : 18 Jun 2014 7:47 pm
Operator : KingC
Sample : ic6381-20
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 19 08:23:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:23:06 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	38445	21.89 ug/L	95
115) trans-1,4-dichloro-2-buten	17.33	53	10926	22.19 ug/L #	80
116) 1,2,3-trichloropropane	17.36	110	9190	22.00 ug/L	87
117) n-propylbenzene	17.35	91	151252	20.41 ug/L	100
119) 2-chlorotoluene	17.51	126	35180	20.20 ug/L	99
120) 4-chlorotoluene	17.62	91	101268	20.78 ug/L	100
121) 1,3,5-trimethylbenzene	17.52	105	116877	20.55 ug/L	99
122) tert-butylbenzene	17.90	119	98658	20.25 ug/L	97
123) pentachloroethane	17.99	167	26849	21.75 ug/L	98
124) 1,2,4-trimethylbenzene	17.95	105	118256	20.47 ug/L	97
126) sec-butylbenzene	18.12	105	150870	20.49 ug/L	99
127) 1,3-dichlorobenzene	18.32	146	79453	20.81 ug/L	99
128) p-isopropyltoluene	18.25	119	132560	20.54 ug/L	99
129) 1,4-dichlorobenzene	18.41	146	79369	20.68 ug/L	99
130) 1,2-dichlorobenzene	18.79	146	79671	20.99 ug/L	98
131) benzyl chloride	18.54	91	73717	22.50 ug/L	99
133) n-butylbenzene	18.66	92	65398	20.54 ug/L	100
135) 1,2-dibromo-3-chloropropan	19.57	75	6700	21.27 ug/L	90
136) 1,3,5-trichlorobenzene	19.72	180	66773	20.65 ug/L	98
137) hexachlorobutadiene	20.43	225	33498	20.93 ug/L	99
138) naphthalene	20.63	128	90034	18.42 ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	51364	18.91 ug/L	98
140) 1,2,3-trichlorobenzene	20.87	180	42306	18.32 ug/L	99
141) hexachloroethane	19.03	201	27016	19.69 ug/L	99

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

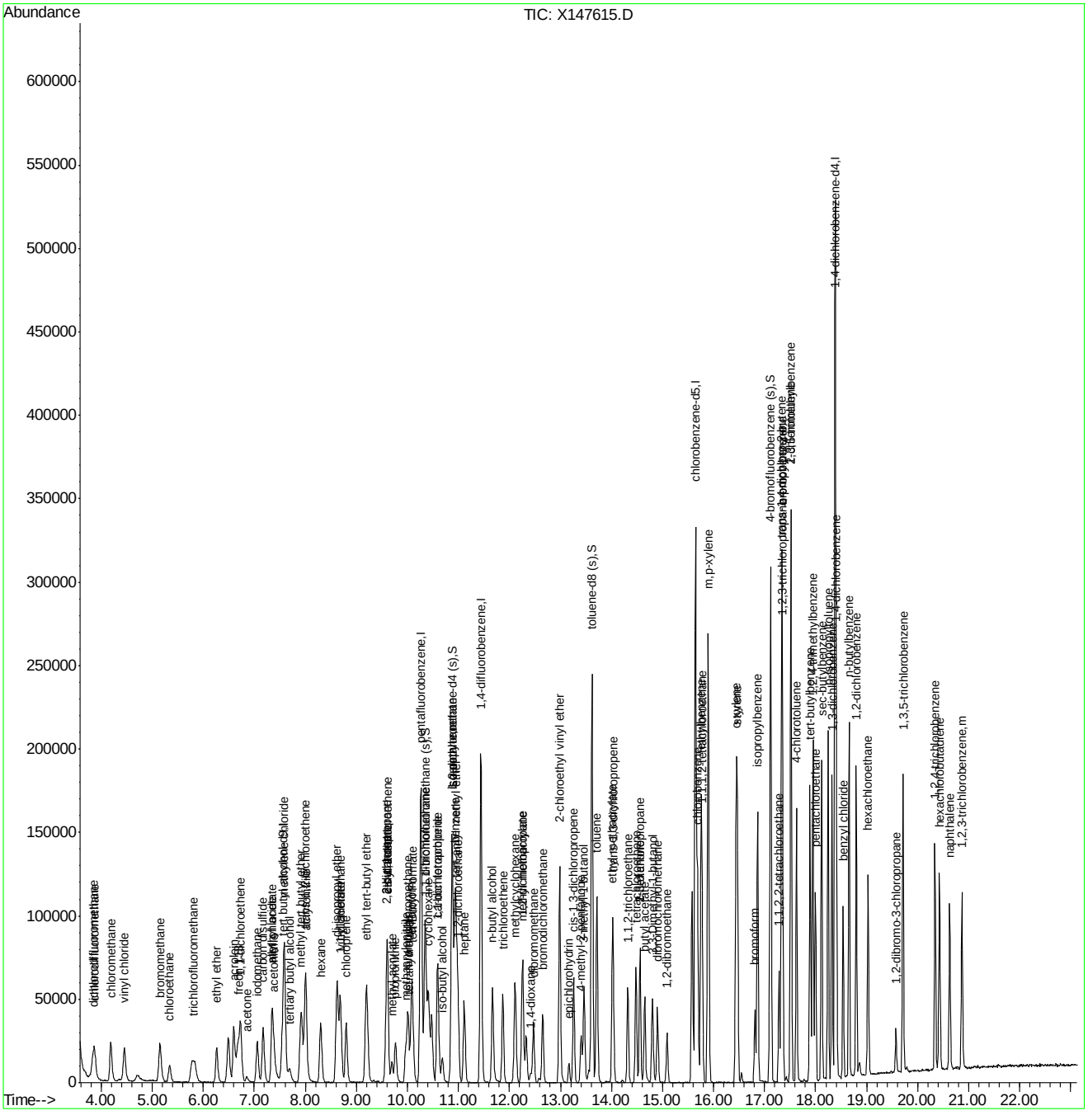
7.7.48

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147615.D
Acq On : 18 Jun 2014 7:47 pm
Operator : KingC
Sample : ic6381-20
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 19 08:23:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:23:06 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 11:03:02 2014 GCMSX Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147616.D
Acq On : 18 Jun 2014 8:17 pm
Operator : KingC
Sample : icc6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 19 08:17:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:16:41 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	65743	500.00	ug/L	-0.01
5) pentafluorobenzene	10.26	168	205059	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	241010	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	243883	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	140760	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	60992	49.54	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 99.08%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	67877	48.75	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 97.50%			
86) toluene-d8 (s)	13.62	98	220482	48.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 97.38%			
112) 4-bromofluorobenzene (s)	17.12	95	97559	53.56	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 107.12%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	40565	296.86	ug/L	100
4) 1,4-dioxane	12.42	88	18302	1642.68	ug/L #	97
11) chlorodifluoromethane	3.87	51	69365	44.95	ug/L	95
12) dichlorodifluoromethane	3.84	85	85719	77.74	ug/L	95
15) chloromethane	4.19	50	109927	71.96	ug/L	99
16) vinyl chloride	4.46	62	97054	72.42	ug/L	97
18) bromomethane	5.15	94	69258	65.58	ug/L	99
19) chloroethane	5.34	64	40296	64.29	ug/L	91
21) trichlorofluoromethane	5.82	101	98413	65.05	ug/L	98
23) ethyl ether	6.26	74	32014	55.04	ug/L	91
27) acrolein	6.59	56	111858	126.70	ug/L #	100
28) 1,1-dichloroethene	6.73	96	50370	53.11	ug/L	98
29) acetone	6.84	58	5202	48.65	ug/L #	85
30) allyl chloride	7.35	76	29477	51.74	ug/L	95
31) acetonitrile	7.38	40	55030	485.81	ug/L	89
32) iodomethane	7.06	142	117190	51.60	ug/L	98
33) iso-butyl alcohol	10.68	43	35023	515.13	ug/L	99
34) carbon disulfide	7.17	76	187877	52.05	ug/L	100
35) methylene chloride	7.58	84	70959	41.01	ug/L	99
36) methyl acetate	7.35	43	46432	51.01	ug/L	99
37) methyl tert butyl ether	7.92	73	200345	53.52	ug/L	99
38) trans-1,2-dichloroethene	7.99	96	58784	52.01	ug/L	96
39) di-isopropyl ether	8.62	45	241287	54.26	ug/L	99
40) 2-butanone	9.60	72	6890	52.95	ug/L	93
41) 1,1-dichloroethane	8.69	63	114154	52.51	ug/L	99
42) chloroprene	8.80	53	84399	52.52	ug/L	97
43) acrylonitrile	8.01	53	104649	261.08	ug/L	100
44) vinyl acetate	8.68	86	9044	50.92	ug/L	88
45) ethyl tert-butyl ether	9.20	59	230207	54.35	ug/L	99
46) ethyl acetate	9.60	70	6479	55.44	ug/L	95
47) 2,2-dichloropropane	9.59	77	92621	55.88	ug/L	99
48) cis-1,2-dichloroethene	9.61	96	70413	54.40	ug/L	99
49) methyl acrylate	9.70	55	52315	53.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147616.D
Acq On : 18 Jun 2014 8:17 pm
Operator : KingC
Sample : icc6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 19 08:17:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:16:41 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.77	54	85810	518.33 ug/L	100
51) tert-Butyl Formate	10.11	59	58478	52.27 ug/L	99
52) bromochloromethane	10.01	128	36264	51.88 ug/L	97
53) tetrahydrofuran	10.04	72	8020	51.76 ug/L	98
54) chloroform	10.09	83	113453	52.17 ug/L	99
57) freon 113	6.68	151	48603	54.92 ug/L	98
58) methacrylonitrile	9.96	41	37502	50.84 ug/L	95
59) 1,1,1-trichloroethane	10.36	97	92563	54.57 ug/L	98
60) cyclohexane	10.41	84	82104	57.74 ug/L	96
62) iso-octane	10.88	57	224233	54.74 ug/L	100
65) epichlorohydrin	13.17	57	30238	273.49 ug/L	98
66) n-butyl alcohol	11.67	56	107218	2549.02 ug/L	98
67) carbon tetrachloride	10.60	117	83446	58.52 ug/L	97
68) 1,1-dichloropropene	10.59	75	77136	56.41 ug/L	97
69) hexane	8.30	57	70958	58.10 ug/L	98
70) benzene	10.93	78	244197	54.64 ug/L	99
71) tert-amyl methyl ether	10.96	73	216232	56.88 ug/L	100
72) heptane	11.11	57	41471	57.86 ug/L	96
73) isopropyl acetate	10.87	43	169342	57.89 ug/L	100
74) 1,2-dichloroethane	11.00	62	85870	57.10 ug/L	98
75) trichloroethene	11.86	130	65446	57.06 ug/L	97
79) 2-chloroethyl vinyl ether	12.98	63	169994	285.10 ug/L	99
80) methyl methacrylate	12.27	69	41571	54.58 ug/L	96
81) 1,2-dichloropropane	12.25	63	69321	57.27 ug/L	99
82) dibromomethane	12.47	93	40545	55.98 ug/L	94
83) methylcyclohexane	12.11	83	94488	60.77 ug/L	98
84) bromodichloromethane	12.65	83	92840	54.40 ug/L	99
85) cis-1,3-dichloropropene	13.26	75	116919	57.01 ug/L	96
87) 4-methyl-2-pentanone	13.40	58	27287	55.59 ug/L	96
88) toluene	13.72	92	161283	53.21 ug/L	100
89) 3-methyl-1-butanol	13.46	55	69069	1083.23 ug/L	99
90) trans-1,3-dichloropropene	14.04	75	109502	57.34 ug/L	98
91) ethyl methacrylate	14.01	69	89248	55.74 ug/L	97
92) 1,1,2-trichloroethane	14.32	83	51546	57.26 ug/L	96
93) 2-hexanone	14.55	58	26540	56.10 ug/L	94
95) 3,3-Dimethyl-1-butanol	14.80	57	78181	575.66 ug/L	99
96) tetrachloroethene	14.48	164	61267	58.78 ug/L	99
97) 1,3-dichloropropane	14.56	76	99590	60.38 ug/L	98
98) butyl acetate	14.65	56	48438	59.87 ug/L	98
99) dibromochloromethane	14.90	129	79537	61.56 ug/L	99
100) 1,2-dibromoethane	15.09	107	65092	62.03 ug/L	99
102) chlorobenzene	15.68	112	201387	59.84 ug/L	97
103) 1,1,1,2-tetrachloroethane	15.78	131	80408	62.85 ug/L	99
104) ethylbenzene	15.76	91	322551	59.09 ug/L	99
105) m,p-xylene	15.90	106	249189	115.90 ug/L	98
106) o-xylene	16.44	106	131181	59.90 ug/L	99
107) styrene	16.47	104	231319	63.03 ug/L	96
108) bromoform	16.81	173	64617	59.96 ug/L	99
110) isopropylbenzene	16.86	105	335156	61.16 ug/L	98
113) bromobenzene	17.34	156	105211	58.83 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147616.D
Acq On : 18 Jun 2014 8:17 pm
Operator : KingC
Sample : icc6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 19 08:17:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:16:41 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	93564	60.43 ug/L	100
115) trans-1,4-dichloro-2-buten	17.32	53	26538	60.20 ug/L	96
116) 1,2,3-trichloropropane	17.36	110	22571	60.91 ug/L #	79
117) n-propylbenzene	17.35	91	386974	59.55 ug/L	99
119) 2-chlorotoluene	17.51	126	90378	61.85 ug/L	96
120) 4-chlorotoluene	17.62	91	253750	58.53 ug/L	98
121) 1,3,5-trimethylbenzene	17.52	105	295701	58.90 ug/L	98
122) tert-butylbenzene	17.90	119	253371	59.49 ug/L	98
123) pentachloroethane	17.99	167	65151	63.16 ug/L	99
124) 1,2,4-trimethylbenzene	17.95	105	302197	60.70 ug/L	99
126) sec-butylbenzene	18.11	105	385609	60.91 ug/L	100
127) 1,3-dichlorobenzene	18.32	146	199532	58.49 ug/L	100
128) p-isopropyltoluene	18.25	119	335519	60.00 ug/L	99
129) 1,4-dichlorobenzene	18.41	146	200280	59.05 ug/L	100
130) 1,2-dichlorobenzene	18.79	146	197951	61.54 ug/L	99
131) benzyl chloride	18.54	91	173879	59.25 ug/L	99
133) n-butylbenzene	18.66	92	166486	62.57 ug/L	98
135) 1,2-dibromo-3-chloropropan	19.57	75	16968	59.22 ug/L	94
136) 1,3,5-trichlorobenzene	19.72	180	168277	61.57 ug/L	99
137) hexachlorobutadiene	20.43	225	84879	61.20 ug/L	99
138) naphthalene	20.63	128	248546	66.55 ug/L	100
139) 1,2,4-trichlorobenzene	20.34	180	137899	65.11 ug/L	98
140) 1,2,3-trichlorobenzene	20.87	180	116462	65.89 ug/L	98
141) hexachloroethane	19.03	201	70452	66.82 ug/L	99

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

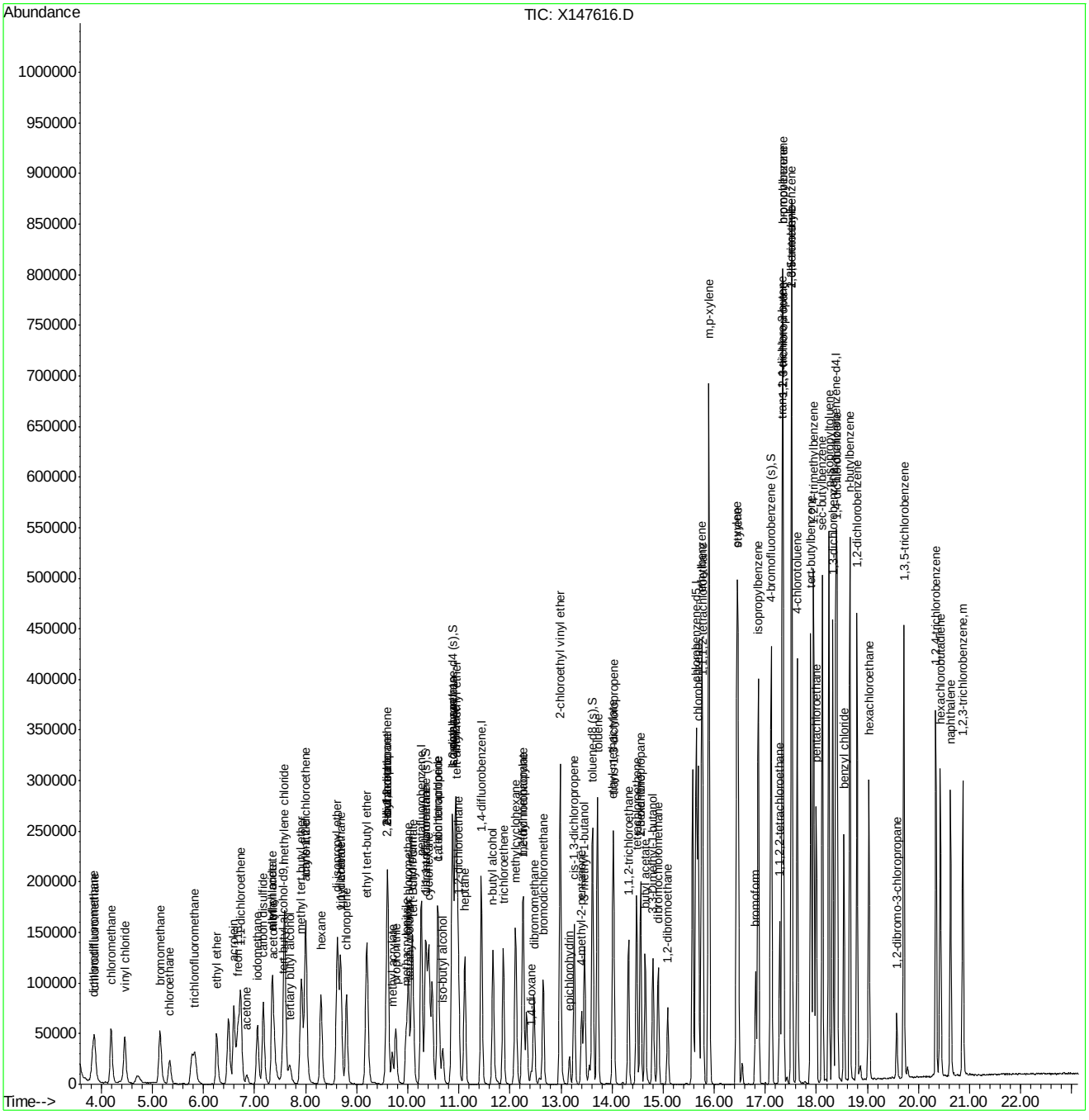
7.7.49

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147616.D
Acq On : 18 Jun 2014 8:17 pm
Operator : KingC
Sample : icc6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 19 08:17:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:16:41 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147617.D
Acq On : 18 Jun 2014 8:47 pm
Operator : KingC
Sample : ic6381-100
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 19 09:02:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:21:47 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	63741	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	218191	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	248654	50.00	ug/L	0.00
94) chlorobenzene-d5	15.65	117	249941	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	144166	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	124780	96.14	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 192.28%#			
56) 1,2-dichloroethane-d4 (s)	10.88	65	134641	93.21	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 186.42%#			
86) toluene-d8 (s)	13.62	98	454568	99.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 199.84%#			
112) 4-bromofluorobenzene (s)	17.12	95	193802	96.98	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 193.96%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	76485	486.18	ug/L	100
4) 1,4-dioxane	12.41	88	34833	2453.77	ug/L	98
11) chlorodifluoromethane	3.87	51	151825	102.85	ug/L	97
12) dichlorodifluoromethane	3.85	85	180889	99.16	ug/L	99
15) chloromethane	4.20	50	239908	102.55	ug/L	97
16) vinyl chloride	4.47	62	211327	102.32	ug/L	99
18) bromomethane	5.15	94	148693	100.89	ug/L	99
19) chloroethane	5.34	64	86142	100.45	ug/L	96
21) trichlorofluoromethane	5.83	101	210202	100.37	ug/L	95
23) ethyl ether	6.26	74	66073	96.98	ug/L	97
28) 1,1-dichloroethene	6.73	96	105195	98.14	ug/L	96
29) acetone	6.84	58	10612	95.86	ug/L	99
30) allyl chloride	7.35	76	62527	99.68	ug/L	96
31) acetonitrile	7.38	40	110154	940.62	ug/L	94
32) iodomethane	7.06	142	246386	98.80	ug/L	98
33) iso-butyl alcohol	10.68	43	66791	896.14	ug/L	97
34) carbon disulfide	7.17	76	399648	99.96	ug/L	99
35) methylene chloride	7.59	84	143472	95.01	ug/L	99
36) methyl acetate	7.35	43	91292	92.39	ug/L	99
37) methyl tert butyl ether	7.92	73	404085	94.78	ug/L	100
38) trans-1,2-dichloroethene	7.99	96	123653	98.85	ug/L	99
39) di-isopropyl ether	8.62	45	511985	99.71	ug/L	99
40) 2-butanone	9.59	72	13781	93.99	ug/L	69
41) 1,1-dichloroethane	8.69	63	242145	99.68	ug/L	99
42) chloroprene	8.80	53	186023	103.57	ug/L	98
43) acrylonitrile	8.02	53	202988	455.74	ug/L	99
44) vinyl acetate	8.68	86	18140	94.25	ug/L	93
45) ethyl tert-butyl ether	9.20	59	482997	98.59	ug/L	99
46) ethyl acetate	9.61	70	12786	92.73	ug/L	67
47) 2,2-dichloropropane	9.58	77	195332	99.10	ug/L	99
48) cis-1,2-dichloroethene	9.61	96	146136	97.53	ug/L	98
49) methyl acrylate	9.69	55	100597	90.36	ug/L	99
50) propionitrile	9.77	54	166466	911.59	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147617.D
Acq On : 18 Jun 2014 8:47 pm
Operator : KingC
Sample : ic6381-100
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 19 09:02:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:21:47 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) tert-Butyl Formate	10.10	59	120680	96.97	ug/L	99
52) bromochloromethane	10.01	128	74730	96.83	ug/L	96
53) tetrahydrofuran	10.04	72	15517	90.92	ug/L	97
54) chloroform	10.08	83	235538	97.56	ug/L	97
57) freon 113	6.69	151	105768	102.26	ug/L	95
58) methacrylonitrile	9.97	41	74839	93.77	ug/L	95
59) 1,1,1-trichloroethane	10.36	97	195963	99.48	ug/L	99
60) cyclohexane	10.42	84	174164	99.68	ug/L	97
62) iso-octane	10.88	57	493261	103.37	ug/L	98
65) epichlorohydrin	13.17	57	57802	463.20	ug/L	98
66) n-butyl alcohol	11.67	56	204293	4617.06	ug/L	98
67) carbon tetrachloride	10.60	117	174234	101.19	ug/L	97
68) 1,1-dichloropropene	10.59	75	163028	102.43	ug/L	99
69) hexane	8.30	57	152171	103.93	ug/L	98
70) benzene	10.93	78	510519	101.32	ug/L	100
71) tert-amyl methyl ether	10.97	73	443859	99.48	ug/L	100
72) heptane	11.12	57	88735	103.70	ug/L	97
73) isopropyl acetate	10.87	43	335337	95.97	ug/L	100
74) 1,2-dichloroethane	11.00	62	173455	97.89	ug/L	98
75) trichloroethene	11.86	130	136845	101.33	ug/L	99
79) 2-chloroethyl vinyl ether	12.98	63	345692	492.76	ug/L	100
80) methyl methacrylate	12.26	69	81220	94.69	ug/L	93
81) 1,2-dichloropropane	12.25	63	142734	99.79	ug/L	100
82) dibromomethane	12.47	93	82625	98.76	ug/L	95
83) methylcyclohexane	12.11	83	208163	106.77	ug/L	99
84) bromodichloromethane	12.65	83	192676	100.58	ug/L	99
85) cis-1,3-dichloropropene	13.26	75	239377	99.22	ug/L	99
87) 4-methyl-2-pentanone	13.40	58	50746	90.13	ug/L	94
88) toluene	13.71	92	330003	99.16	ug/L	98
89) 3-methyl-1-butanol	13.46	55	130887	1836.76	ug/L	100
90) trans-1,3-dichloropropene	14.03	75	221140	97.87	ug/L	99
91) ethyl methacrylate	14.01	69	175043	95.05	ug/L	99
92) 1,1,2-trichloroethane	14.32	83	104370	98.13	ug/L	96
93) 2-hexanone	14.55	58	49520	90.43	ug/L	97
95) 3,3-Dimethyl-1-butanol	14.80	57	152679	952.78	ug/L	98
96) tetrachloroethene	14.48	164	133756	106.51	ug/L	99
97) 1,3-dichloropropane	14.56	76	201042	98.49	ug/L	99
98) butyl acetate	14.65	56	91195	91.85	ug/L	99
99) dibromochloromethane	14.90	129	164045	100.63	ug/L	99
100) 1,2-dibromoethane	15.09	107	129643	97.17	ug/L	98
102) chlorobenzene	15.68	112	418235	101.32	ug/L	98
103) 1,1,1,2-tetrachloroethane	15.78	131	164185	99.62	ug/L	98
104) ethylbenzene	15.76	91	670152	101.37	ug/L	99
105) m,p-xylene	15.90	106	519215	203.31	ug/L	99
106) o-xylene	16.44	106	272358	101.29	ug/L	100
107) styrene	16.47	104	477788	100.77	ug/L	98
108) bromoform	16.81	173	128979	97.38	ug/L	98
110) isopropylbenzene	16.86	105	683269	99.52	ug/L	99
113) bromobenzene	17.34	156	216988	100.68	ug/L	100
114) 1,1,2,2-tetrachloroethane	17.28	83	183768	95.88	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147617.D
Acq On : 18 Jun 2014 8:47 pm
Operator : KingC
Sample : ic6381-100
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 19 09:02:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:21:47 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) trans-1,4-dichloro-2-buten	17.32	53	51185	94.16	ug/L	96
116) 1,2,3-trichloropropane	17.36	110	43521	94.13	ug/L	97
117) n-propylbenzene	17.35	91	799416	100.85	ug/L	99
119) 2-chlorotoluene	17.51	126	187519	101.29	ug/L	97
120) 4-chlorotoluene	17.62	91	522293	100.48	ug/L	100
121) 1,3,5-trimethylbenzene	17.52	105	615654	101.64	ug/L	99
122) tert-butylbenzene	17.89	119	525186	101.19	ug/L	98
123) pentachloroethane	17.99	167	128416	96.22	ug/L	98
124) 1,2,4-trimethylbenzene	17.94	105	622842	100.62	ug/L	100
126) sec-butylbenzene	18.11	105	798676	101.11	ug/L	100
127) 1,3-dichlorobenzene	18.32	146	407932	99.81	ug/L	99
128) p-isopropyltoluene	18.24	119	698469	101.63	ug/L	99
129) 1,4-dichlorobenzene	18.41	146	409638	99.85	ug/L	99
130) 1,2-dichlorobenzene	18.79	146	405895	100.10	ug/L	99
131) benzyl chloride	18.54	91	343770	96.52	ug/L	99
133) n-butylbenzene	18.65	92	343806	100.81	ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	75	33066	95.13	ug/L	100
136) 1,3,5-trichlorobenzene	19.72	180	352430	102.24	ug/L	99
137) hexachlorobutadiene	20.43	225	175238	100.79	ug/L	100
138) naphthalene	20.63	128	523262	102.78	ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	295300	104.54	ug/L	98
140) 1,2,3-trichlorobenzene	20.87	180	250795	105.13	ug/L	99
141) hexachloroethane	19.03	201	149199	103.39	ug/L	99

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

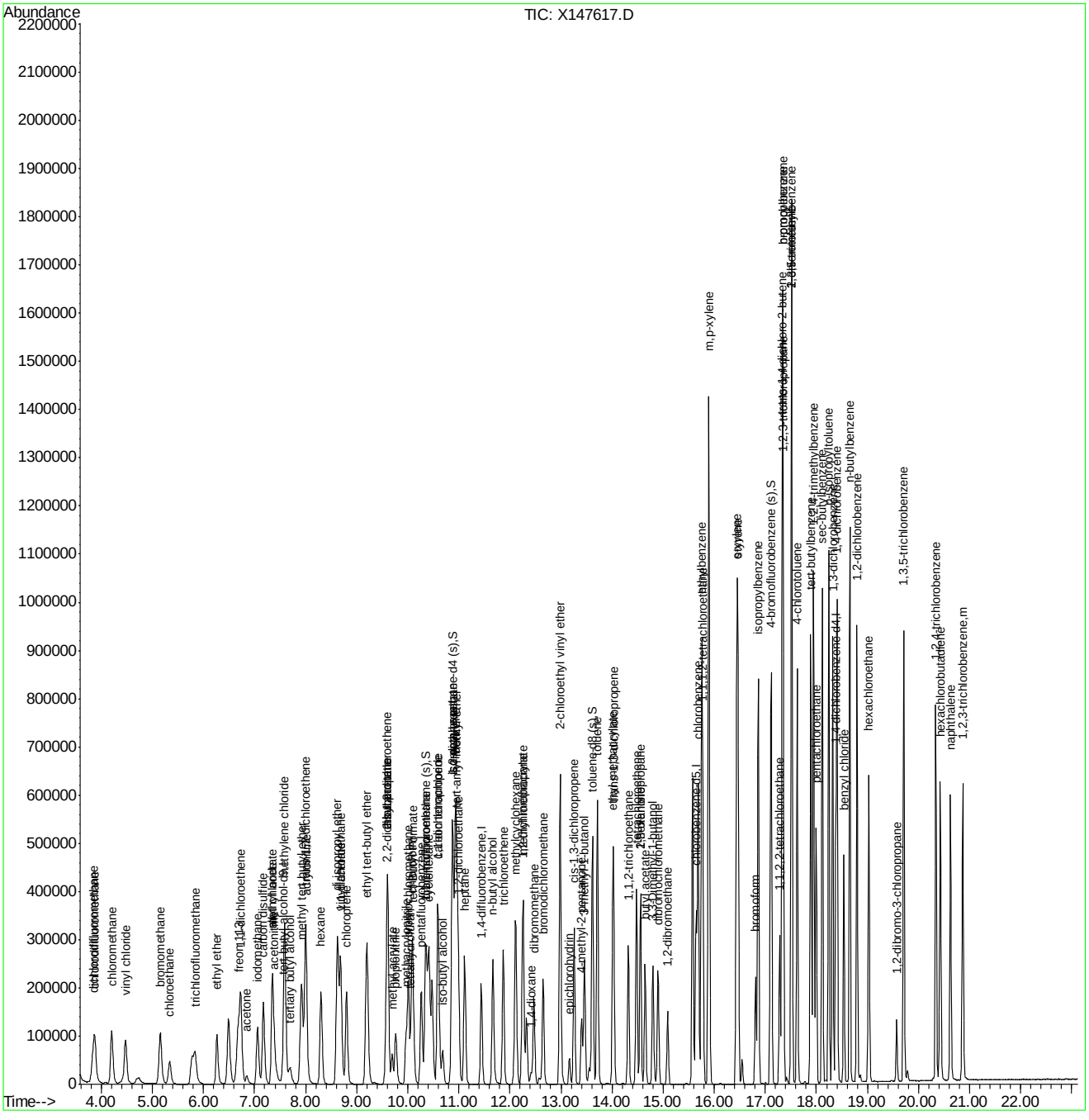
7.7.50

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147617.D
Acq On : 18 Jun 2014 8:47 pm
Operator : KingC
Sample : ic6381-100
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 19 09:02:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:21:47 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 11:03:05 2014 GCMSX

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147618.D
Acq On : 18 Jun 2014 9:16 pm
Operator : KingC
Sample : ic6381-200
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 19 09:04:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:22:32 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.57	65	72745	500.00	ug/L	0.02
5) pentafluorobenzene	10.26	168	224990	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	263882	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	268147	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	154564	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	258673	197.08	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 394.16%#			
56) 1,2-dichloroethane-d4 (s)	10.88	65	278965	193.87	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 387.74%#			
86) toluene-d8 (s)	13.62	98	943998	195.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 391.20%#			
112) 4-bromofluorobenzene (s)	17.12	95	410190	194.39	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 388.78%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.70	59	164053	926.54	ug/L	100
4) 1,4-dioxane	12.41	88	69300	4317.43	ug/L	98
11) chlorodifluoromethane	3.87	51	295977	191.71	ug/L	98
12) dichlorodifluoromethane	3.84	85	357526	190.87	ug/L	99
15) chloromethane	4.21	50	483709	198.00	ug/L	97
16) vinyl chloride	4.48	62	416140	193.16	ug/L	98
18) bromomethane	5.14	94	294978	193.23	ug/L	99
19) chloroethane	5.33	64	169312	191.04	ug/L	97
21) trichlorofluoromethane	5.83	101	410556	189.76	ug/L	97
23) ethyl ether	6.26	74	136319	197.02	ug/L	99
28) 1,1-dichloroethene	6.72	96	209792	191.59	ug/L	98
29) acetone	6.85	58	20678	184.97	ug/L	93
30) allyl chloride	7.35	76	126521	195.91	ug/L	95
31) acetonitrile	7.38	40	224378	1914.95	ug/L	97
32) iodomethane	7.05	142	496704	194.32	ug/L	98
33) iso-butyl alcohol	10.69	43	140970	1934.72	ug/L	98
34) carbon disulfide	7.17	76	794991	192.87	ug/L	100
35) methylene chloride	7.58	84	284607	187.45	ug/L	99
36) methyl acetate	7.34	43	193079	196.99	ug/L	98
37) methyl tert butyl ether	7.92	73	831771	194.27	ug/L	100
38) trans-1,2-dichloroethene	7.99	96	246029	191.83	ug/L	99
39) di-isopropyl ether	8.62	45	1036738	196.09	ug/L	98
40) 2-butanone	9.59	72	27953	190.61	ug/L	65
41) 1,1-dichloroethane	8.69	63	474178	189.60	ug/L	99
42) chloroprene	8.80	53	366288	194.30	ug/L	97
43) acrylonitrile	8.01	53	416291	948.37	ug/L	99
44) vinyl acetate	8.68	86	37612	195.13	ug/L	89
45) ethyl tert-butyl ether	9.20	59	988315	197.03	ug/L	99
46) ethyl acetate	9.59	70	26909	196.40	ug/L	84
47) 2,2-dichloropropane	9.59	77	380424	188.02	ug/L	99
48) cis-1,2-dichloroethene	9.61	96	292278	191.53	ug/L	99
49) methyl acrylate	9.69	55	214882	196.66	ug/L	99
50) propionitrile	9.76	54	346747	1926.62	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147618.D
Acq On : 18 Jun 2014 9:16 pm
Operator : KingC
Sample : ic6381-200
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 19 09:04:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:22:32 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) tert-Butyl Formate	10.10	59	250177	197.95 ug/L	99
52) bromochloromethane	10.01	128	151628	193.61 ug/L	97
53) tetrahydrofuran	10.03	72	32517	193.56 ug/L	96
54) chloroform	10.08	83	470040	191.14 ug/L	99
57) freon 113	6.68	151	211561	196.15 ug/L	98
58) methacrylonitrile	9.97	41	159416	199.94 ug/L	96
59) 1,1,1-trichloroethane	10.36	97	385244	190.16 ug/L	98
60) cyclohexane	10.41	84	344540	191.54 ug/L	99
62) iso-octane	10.88	57	1001946	200.25 ug/L	98
65) epichlorohydrin	13.16	57	125708	985.50 ug/L	96
66) n-butyl alcohol	11.67	56	433587	9601.33 ug/L	100
67) carbon tetrachloride	10.60	117	343241	186.73 ug/L	99
68) 1,1-dichloropropene	10.58	75	324401	189.75 ug/L	98
69) hexane	8.29	57	306202	193.26 ug/L	98
70) benzene	10.93	78	1019731	189.45 ug/L	100
71) tert-amyl methyl ether	10.96	73	907164	192.08 ug/L	100
72) heptane	11.11	57	177331	191.73 ug/L	99
73) isopropyl acetate	10.87	43	702583	193.36 ug/L	100
74) 1,2-dichloroethane	11.00	62	347069	186.54 ug/L	100
75) trichloroethene	11.87	130	274020	189.94 ug/L	97
79) 2-chloroethyl vinyl ether	12.98	63	734645	993.95 ug/L	100
80) methyl methacrylate	12.26	69	172902	195.12 ug/L	96
81) 1,2-dichloropropane	12.25	63	291004	191.91 ug/L	98
82) dibromomethane	12.47	93	169887	192.54 ug/L	95
83) methylcyclohexane	12.11	83	415053	194.03 ug/L	99
84) bromodichloromethane	12.65	83	391603	192.07 ug/L	98
85) cis-1,3-dichloropropene	13.26	75	491637	192.77 ug/L	97
87) 4-methyl-2-pentanone	13.40	58	108902	191.72 ug/L	95
88) toluene	13.71	92	665854	189.33 ug/L	99
89) 3-methyl-1-butanol	13.46	55	279908	3858.80 ug/L	98
90) trans-1,3-dichloropropene	14.03	75	455514	192.01 ug/L	99
91) ethyl methacrylate	14.01	69	371226	194.77 ug/L	99
92) 1,1,2-trichloroethane	14.32	83	215152	192.41 ug/L	99
93) 2-hexanone	14.55	58	107932	195.05 ug/L	100
95) 3,3-Dimethyl-1-butanol	14.80	57	325569	1939.53 ug/L	99
96) tetrachloroethene	14.48	164	255627	183.76 ug/L	98
97) 1,3-dichloropropane	14.56	76	415201	191.04 ug/L	100
98) butyl acetate	14.65	56	198999	194.76 ug/L	99
99) dibromochloromethane	14.90	129	340685	194.18 ug/L	99
100) 1,2-dibromoethane	15.09	107	272411	193.05 ug/L	99
102) chlorobenzene	15.68	112	854060	191.59 ug/L	99
103) 1,1,1,2-tetrachloroethane	15.78	131	335772	190.26 ug/L	99
104) ethylbenzene	15.76	91	1345499	188.41 ug/L	99
105) m,p-xylene	15.90	106	1051175	380.52 ug/L	97
106) o-xylene	16.44	106	557072	191.88 ug/L	100
107) styrene	16.46	104	985350	192.97 ug/L	96
108) bromoform	16.81	173	273877	195.30 ug/L	97
110) isopropylbenzene	16.86	105	1366913	186.15 ug/L	100
113) bromobenzene	17.34	156	450254	194.20 ug/L	98
114) 1,1,2,2-tetrachloroethane	17.28	83	386019	191.81 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147618.D
Acq On : 18 Jun 2014 9:16 pm
Operator : KingC
Sample : ic6381-200
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 19 09:04:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:22:32 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
115) trans-1,4-dichloro-2-buten	17.32	53	107592	190.16 ug/L	96
116) 1,2,3-trichloropropane	17.36	110	90830	188.78 ug/L	96
117) n-propylbenzene	17.35	91	1609632	188.60 ug/L	99
119) 2-chlorotoluene	17.51	126	381611	191.03 ug/L	98
120) 4-chlorotoluene	17.62	91	1070379	191.61 ug/L	100
121) 1,3,5-trimethylbenzene	17.52	105	1238259	189.13 ug/L	100
122) tert-butylbenzene	17.89	119	1064950	190.25 ug/L	99
123) pentachloroethane	17.99	167	275434	196.21 ug/L	98
124) 1,2,4-trimethylbenzene	17.95	105	1254556	188.45 ug/L	98
126) sec-butylbenzene	18.11	105	1586965	186.36 ug/L	99
127) 1,3-dichlorobenzene	18.32	146	837472	191.30 ug/L	99
128) p-isopropyltoluene	18.24	119	1404140	189.02 ug/L	99
129) 1,4-dichlorobenzene	18.41	146	844051	192.04 ug/L	100
130) 1,2-dichlorobenzene	18.79	146	833359	191.60 ug/L	99
131) benzyl chloride	18.53	91	720554	192.04 ug/L	100
133) n-butylbenzene	18.65	92	690656	188.13 ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	75	68159	187.47 ug/L	90
136) 1,3,5-trichlorobenzene	19.71	180	697452	186.63 ug/L	99
137) hexachlorobutadiene	20.43	225	336501	179.81 ug/L	100
138) naphthalene	20.63	128	1100758	198.90 ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	603027	194.70 ug/L	100
140) 1,2,3-trichlorobenzene	20.87	180	516539	196.91 ug/L	99
141) hexachloroethane	19.03	201	300835	191.20 ug/L	99

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

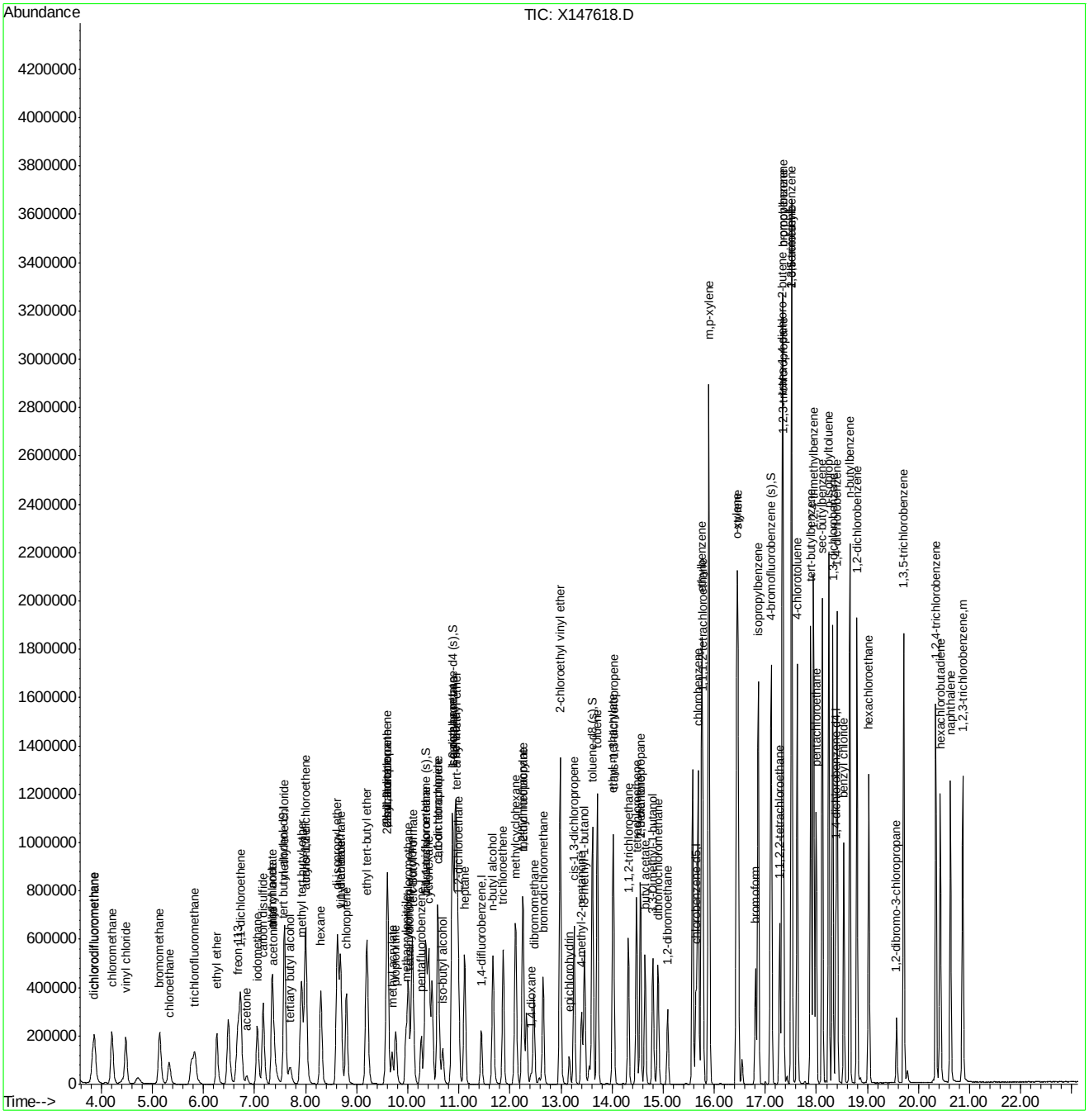
7.7.51

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147618.D
Acq On : 18 Jun 2014 9:16 pm
Operator : KingC
Sample : ic6381-200
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 19 09:04:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 08:22:32 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147621.D
Acq On : 18 Jun 2014 10:44 pm
Operator : KingC
Sample : icv6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 19 09:46:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	64433	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	222710	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	255892	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	255740	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	145531	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	60969	45.17	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 90.34%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	65973	43.21	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 86.42%			
86) toluene-d8 (s)	13.62	98	227868	44.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 89.54%			
112) 4-bromofluorobenzene (s)	17.12	95	97247	48.32	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 96.64%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	40015	240.78	ug/L	100
4) 1,4-dioxane	12.41	88	17610	1394.47	ug/L #	83
11) chlorodifluoromethane	3.87	51	56388	35.23	ug/L	96
12) dichlorodifluoromethane	3.84	85	87333	44.01	ug/L	98
15) chloromethane	4.20	50	112926	45.19	ug/L	98
16) vinyl chloride	4.46	62	100957	45.17	ug/L	96
18) bromomethane	5.15	94	71224	44.59	ug/L	98
19) chloroethane	5.34	64	42094	47.40	ug/L	95
21) trichlorofluoromethane	5.82	101	102011	44.93	ug/L	95
23) ethyl ether	6.27	74	32671	47.99	ug/L	99
27) acrolein	6.60	56	110249	447.26	ug/L #	99
28) 1,1-dichloroethene	6.73	96	53913	48.22	ug/L	97
29) acetone	6.85	58	4813	42.57	ug/L	95
30) allyl chloride	7.35	76	30751	48.34	ug/L	99
31) acetonitrile	7.38	40	58068	463.09	ug/L	94
32) iodomethane	7.06	142	121489	48.07	ug/L	99
33) iso-butyl alcohol	10.68	43	34823	456.93	ug/L	97
34) carbon disulfide	7.17	76	199048	45.00	ug/L	100
35) methylene chloride	7.58	84	72996	47.96	ug/L	99
36) methyl acetate	7.35	43	44045	43.38	ug/L	99
37) methyl tert butyl ether	7.92	73	400045	93.44	ug/L	100
38) trans-1,2-dichloroethene	7.99	96	61590	46.64	ug/L	97
39) di-isopropyl ether	8.62	45	257937	49.03	ug/L	99
40) 2-butanone	9.60	72	6192	42.39	ug/L	53
41) 1,1-dichloroethane	8.70	63	119871	47.84	ug/L	99
42) chloroprene	8.80	53	87372	46.56	ug/L	99
43) acrylonitrile	8.02	53	101618	234.04	ug/L	99
44) vinyl acetate	8.68	86	10535	57.93	ug/L	99
45) ethyl tert-butyl ether	9.20	59	236375	47.87	ug/L	99
46) ethyl acetate	9.61	70	6352	47.26	ug/L	79
47) 2,2-dichloropropane	9.59	77	92211	43.70	ug/L	100
48) cis-1,2-dichloroethene	9.61	96	72138	46.65	ug/L	96
49) methyl acrylate	9.70	55	49434	47.78	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147621.D
Acq On : 18 Jun 2014 10:44 pm
Operator : KingC
Sample : icv6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 19 09:46:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.77	54	82398	449.57 ug/L	99
51) tert-Butyl Formate	10.10	59	61022	49.33 ug/L	100
52) bromochloromethane	10.01	128	36405	47.75 ug/L	97
53) tetrahydrofuran	10.04	72	7422	45.86 ug/L	98
54) chloroform	10.08	83	116893	45.77 ug/L	98
57) freon 113	6.69	151	54532	48.22 ug/L	97
58) methacrylonitrile	9.96	41	37642	47.28 ug/L	95
59) 1,1,1-trichloroethane	10.36	97	96977	46.66 ug/L	98
60) cyclohexane	10.41	84	88345	47.31 ug/L	98
62) iso-octane	10.88	57	238438	46.32 ug/L	99
65) epichlorohydrin	13.16	57	30632	244.45 ug/L	99
66) n-butyl alcohol	11.67	56	104106	2345.34 ug/L	99
67) carbon tetrachloride	10.60	117	86949	48.95 ug/L	98
68) 1,1-dichloropropene	10.59	75	81024	47.91 ug/L	98
70) benzene	10.93	78	253353	45.88 ug/L	98
71) tert-amyl methyl ether	10.97	73	221677	48.38 ug/L	100
72) heptane	11.11	57	47991	49.76 ug/L	97
73) isopropyl acetate	10.87	43	185133	51.77 ug/L	98
74) 1,2-dichloroethane	10.99	62	85641	49.13 ug/L	97
75) trichloroethene	11.87	130	67370	49.19 ug/L	97
79) 2-chloroethyl vinyl ether	12.98	63	172385	250.10 ug/L	99
80) methyl methacrylate	12.27	69	40294	47.57 ug/L	93
81) 1,2-dichloropropane	12.25	63	70481	49.98 ug/L	98
82) dibromomethane	12.47	93	40888	50.67 ug/L	94
83) methylcyclohexane	12.11	83	105633	48.85 ug/L	96
84) bromodichloromethane	12.65	83	93787	48.13 ug/L	97
85) cis-1,3-dichloropropene	13.26	75	117065	47.23 ug/L	98
87) 4-methyl-2-pentanone	13.40	58	25041	47.19 ug/L	94
88) toluene	13.71	92	166792	46.77 ug/L	99
89) 3-methyl-1-butanol	13.45	55	68130	916.81 ug/L	98
90) trans-1,3-dichloropropene	14.03	75	108252	47.41 ug/L	100
91) ethyl methacrylate	14.01	69	85533	48.68 ug/L	100
92) 1,1,2-trichloroethane	14.32	83	51094	48.46 ug/L	97
93) 2-hexanone	14.55	58	24324	44.98 ug/L	99
95) 3,3-Dimethyl-1-butanol	14.80	57	74183	452.18 ug/L	99
96) tetrachloroethene	14.48	164	61569	46.24 ug/L	99
97) 1,3-dichloropropane	14.56	76	99479	47.82 ug/L	100
98) butyl acetate	14.65	56	48664	44.27 ug/L	94
99) dibromochloromethane	14.90	129	80581	49.79 ug/L	96
100) 1,2-dibromoethane	15.09	107	64150	48.62 ug/L	99
102) chlorobenzene	15.68	112	205832	46.13 ug/L	98
103) 1,1,1,2-tetrachloroethane	15.77	131	80456	48.36 ug/L	99
104) ethylbenzene	15.75	91	333263	47.21 ug/L	99
105) m,p-xylene	15.90	106	257538	94.79 ug/L	95
106) o-xylene	16.44	106	133903	46.39 ug/L	99
107) styrene	16.47	104	233282	48.30 ug/L	100
108) bromoform	16.81	173	61971	46.96 ug/L	98
110) isopropylbenzene	16.86	105	341937	47.13 ug/L	99
113) bromobenzene	17.34	156	105732	46.38 ug/L	97
114) 1,1,2,2-tetrachloroethane	17.28	83	90886	45.70 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147621.D
Acq On : 18 Jun 2014 10:44 pm
Operator : KingC
Sample : icv6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 19 09:46:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
115) trans-1,4-dichloro-2-buten	17.33	53	24880	46.20 ug/L	92
116) 1,2,3-trichloropropane	17.35	110	21594	46.80 ug/L #	70
117) n-propylbenzene	17.34	91	395173	46.48 ug/L	100
119) 2-chlorotoluene	17.51	126	91619	47.09 ug/L	99
120) 4-chlorotoluene	17.62	91	252648	44.45 ug/L	98
121) 1,3,5-trimethylbenzene	17.52	105	302388	46.75 ug/L	99
122) tert-butylbenzene	17.89	119	261914	46.55 ug/L	98
123) pentachloroethane	17.99	167	67198	48.70 ug/L	99
124) 1,2,4-trimethylbenzene	17.94	105	302501	45.86 ug/L	99
126) sec-butylbenzene	18.11	105	396263	46.92 ug/L	99
127) 1,3-dichlorobenzene	18.32	146	196746	44.51 ug/L	99
128) p-isopropyltoluene	18.24	119	343263	46.54 ug/L	99
129) 1,4-dichlorobenzene	18.41	146	196853	43.75 ug/L	98
130) 1,2-dichlorobenzene	18.79	146	194223	45.52 ug/L	99
131) benzyl chloride	18.54	91	162111	41.38 ug/L	100
133) n-butylbenzene	18.65	92	169441	47.62 ug/L	98
135) 1,2-dibromo-3-chloropropan	19.57	75	15441	42.40 ug/L	95
136) 1,3,5-trichlorobenzene	19.71	180	166074	49.02 ug/L	100
137) hexachlorobutadiene	20.43	225	85154	47.43 ug/L	99
138) naphthalene	20.63	128	230403	45.30 ug/L	100
139) 1,2,4-trichlorobenzene	20.34	180	131663	50.28 ug/L	98
140) 1,2,3-trichlorobenzene	20.87	180	110933	46.09 ug/L	100
141) hexachloroethane	19.02	201	71135	47.03 ug/L	99

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

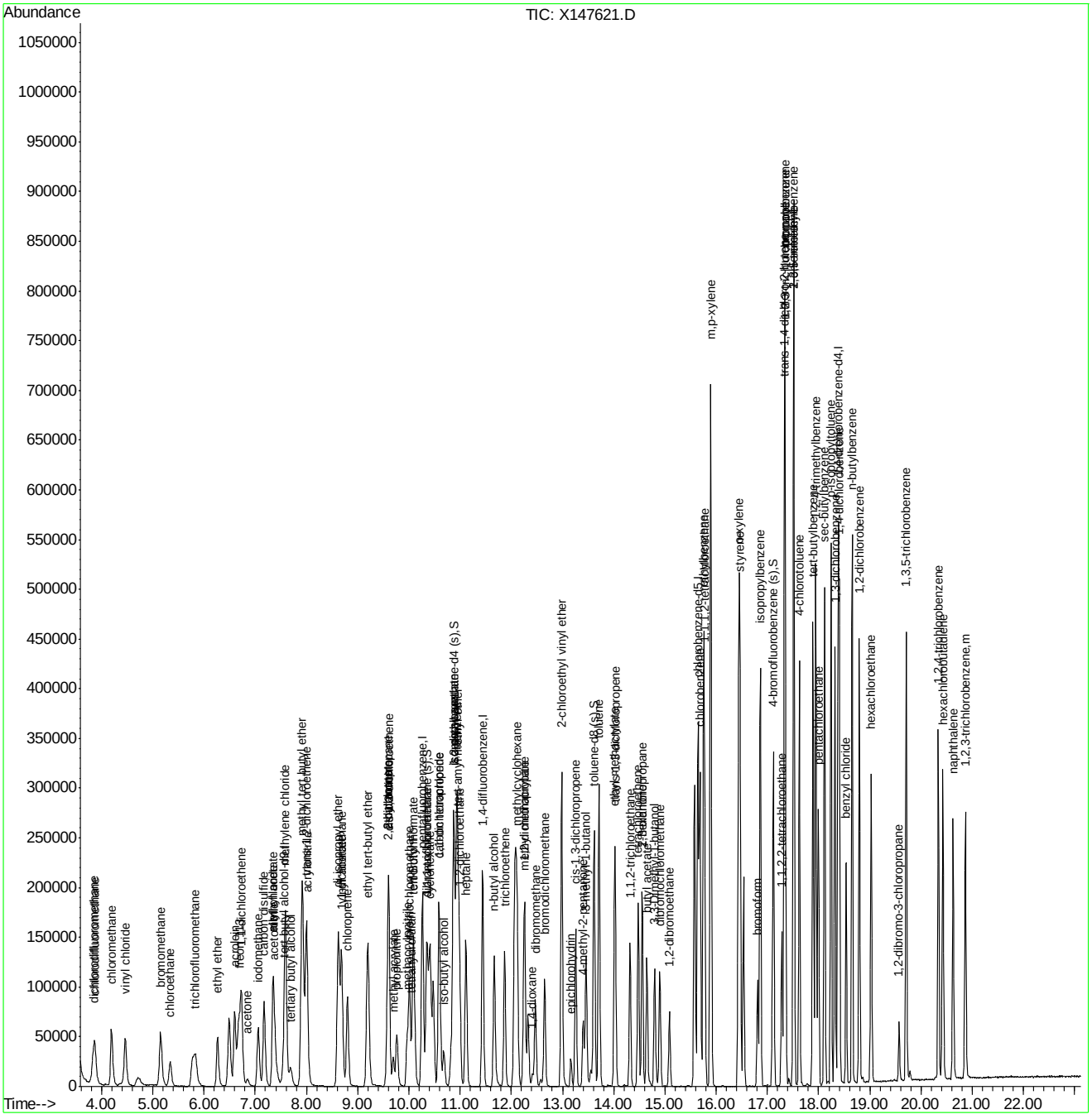
7.7.52

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147621.D
Acq On : 18 Jun 2014 10:44 pm
Operator : KingC
Sample : icv6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 19 09:46:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147624.D
Acq On : 19 Jun 2014 9:49 am
Operator : KingC
Sample : icv6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 19 10:48:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	90477	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	223377	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	265400	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	263316	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	148871	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.33	113	72167	53.30	ug/L	-0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.60%			
56) 1,2-dichloroethane-d4 (s)	10.87	65	76350	49.86	ug/L	-0.01
Spiked Amount 50.000	Range 65 - 123		Recovery = 99.72%			
86) toluene-d8 (s)	13.61	98	282647	53.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 107.10%			
112) 4-bromofluorobenzene (s)	17.12	95	112582	55.05	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 110.10%			

Target Compounds						Qvalue
69) hexane	8.30	57	87924	51.33	ug/L	99

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

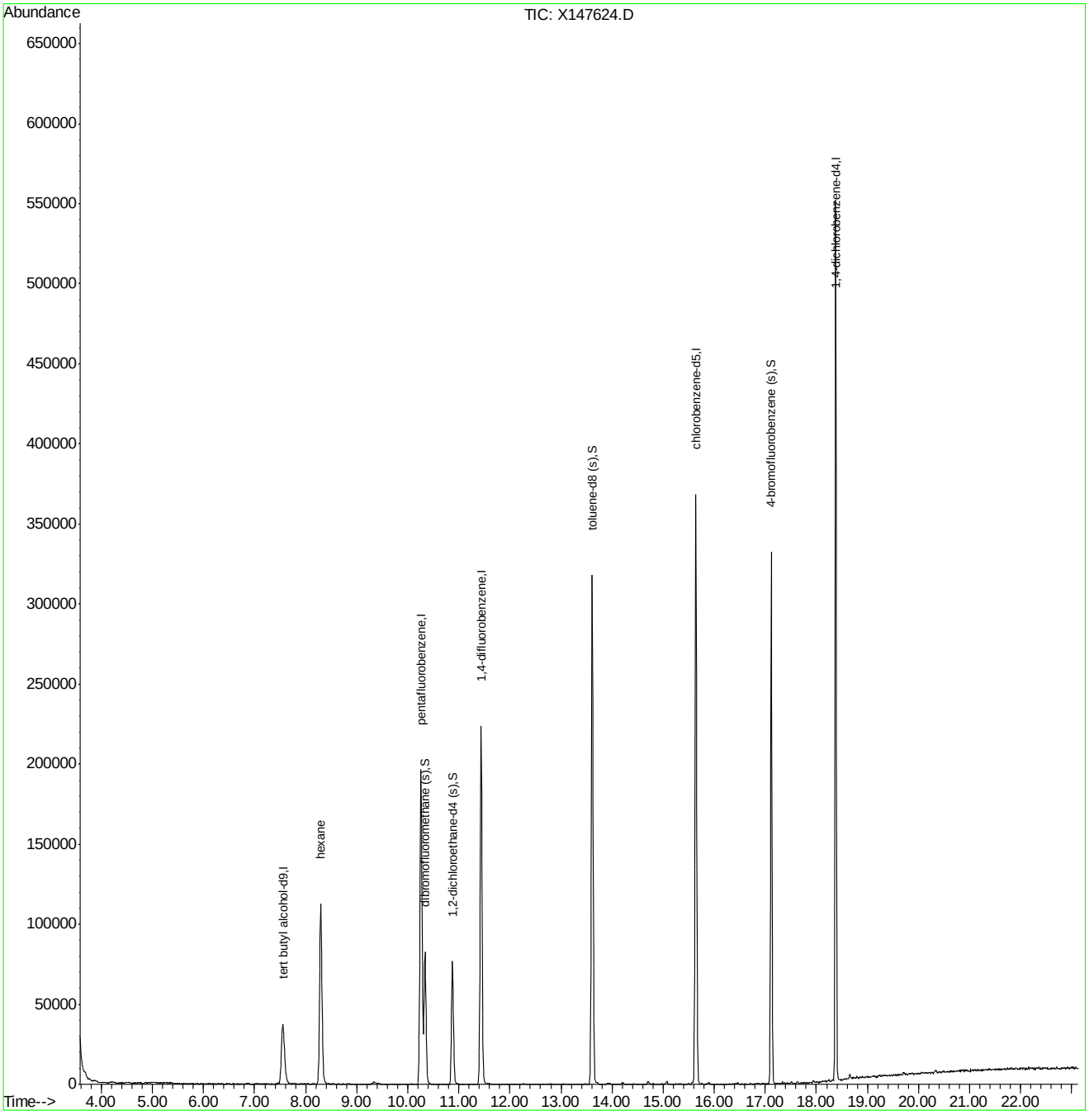
7.7.53

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147624.D
Acq On : 19 Jun 2014 9:49 am
Operator : KingC
Sample : icv6381-50
Misc : MS68701,VX6381,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 19 10:48:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 11:03:10 2014 GCMSX

Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147662.D
Acq On : 20 Jun 2014 8:37 am
Operator : KingC
Sample : cc6381-20
Misc : MS69334,VX6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 20 16:53:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	79162	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	205024	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	234720	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	239876	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	140785	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	70228	56.51	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 113.02%			
56) 1,2-dichloroethane-d4 (s)	10.87	65	72026	51.25	ug/L	-0.01
Spiked Amount 50.000	Range 65 - 123		Recovery = 102.50%			
86) toluene-d8 (s)	13.61	98	274292	58.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 117.52%			
112) 4-bromofluorobenzene (s)	17.12	95	109089	56.47	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 112.94%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	18284	89.55	ug/L	100
4) 1,4-dioxane	12.41	88	6967	449.04	ug/L #	83
11) chlorodifluoromethane	3.87	51	22405	13.07	ug/L	96
12) dichlorodifluoromethane	3.84	85	31401	17.19	ug/L	99
15) chloromethane	4.18	50	41026	17.83	ug/L	98
16) vinyl chloride	4.45	62	36980	17.97	ug/L	96
18) bromomethane	5.15	94	26943	18.32	ug/L	96
19) chloroethane	5.33	64	16045	19.63	ug/L	96
21) trichlorofluoromethane	5.82	101	38915	18.62	ug/L	92
23) ethyl ether	6.26	74	12968	20.69	ug/L	94
27) acrolein	6.59	56	43394	191.23	ug/L #	100
28) 1,1-dichloroethene	6.73	96	21609	20.99	ug/L	100
29) acetone	6.85	58	2279	21.90	ug/L #	85
30) allyl chloride	7.35	76	11905	20.33	ug/L	96
31) acetonitrile	7.38	40	23285	201.72	ug/L #	80
32) iodomethane	7.06	142	48274	20.75	ug/L	99
33) iso-butyl alcohol	10.68	43	15161	216.10	ug/L	96
34) carbon disulfide	7.17	76	78925	19.38	ug/L	98
35) methylene chloride	7.58	84	28402	17.43	ug/L	97
36) methyl acetate	7.35	43	19338	20.69	ug/L	99
37) methyl tert butyl ether	7.92	73	80412	20.40	ug/L	100
38) trans-1,2-dichloroethene	7.98	96	24654	20.28	ug/L	94
39) di-isopropyl ether	8.62	45	91687	18.93	ug/L	98
40) 2-butanone	9.59	72	2928	21.77	ug/L #	90
41) 1,1-dichloroethane	8.68	63	47464	20.58	ug/L	99
42) chloroprene	8.79	53	33259	19.25	ug/L	98
43) acrylonitrile	8.01	53	44705	111.84	ug/L	96
44) vinyl acetate	8.67	86	3381	20.20	ug/L	86
45) ethyl tert-butyl ether	9.19	59	87756	19.31	ug/L	99
46) ethyl acetate	9.60	70	2552	20.62	ug/L	94
47) 2,2-dichloropropane	9.58	77	28844	14.85	ug/L	93
48) cis-1,2-dichloroethene	9.60	96	28418	19.96	ug/L	98
49) methyl acrylate	9.69	55	21947	23.04	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147662.D
Acq On : 20 Jun 2014 8:37 am
Operator : KingC
Sample : cc6381-20
Misc : MS69334,VX6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 20 16:53:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) propionitrile	9.76	54	36973	219.13	ug/L	97
51) tert-Butyl Formate	10.10	59	22530	19.78	ug/L	99
52) bromochloromethane	10.00	128	14313	20.39	ug/L	96
53) tetrahydrofuran	10.03	72	3383	22.70	ug/L	97
54) chloroform	10.08	83	45732	19.45	ug/L	99
57) freon 113	6.68	151	17993	17.28	ug/L	99
58) methacrylonitrile	9.96	41	16194	22.09	ug/L	98
59) 1,1,1-trichloroethane	10.35	97	38662	20.21	ug/L	99
60) cyclohexane	10.41	84	33730	19.62	ug/L	99
62) iso-octane	10.87	57	81364	17.17	ug/L	97
65) epichlorohydrin	13.16	57	12269	106.74	ug/L	98
66) n-butyl alcohol	11.66	56	44332	1088.82	ug/L	92
67) carbon tetrachloride	10.59	117	34797	21.36	ug/L	100
68) 1,1-dichloropropene	10.58	75	31600	20.37	ug/L	97
69) hexane	8.29	57	22384	14.78	ug/L	99
70) benzene	10.93	78	99719	19.69	ug/L	99
71) tert-amyl methyl ether	10.95	73	83902	19.96	ug/L	100
72) heptane	11.11	57	13840	15.64	ug/L	95
73) isopropyl acetate	10.87	43	68419	20.86	ug/L	98
74) 1,2-dichloroethane	10.99	62	33611	21.02	ug/L	97
75) trichloroethene	11.86	130	26853	21.37	ug/L	98
79) 2-chloroethyl vinyl ether	12.98	63	70874	112.10	ug/L	100
80) methyl methacrylate	12.26	69	17233	22.18	ug/L	93
81) 1,2-dichloropropane	12.24	63	27231	21.05	ug/L	96
82) dibromomethane	12.47	93	16432	22.20	ug/L	94
83) methylcyclohexane	12.10	83	36908	18.61	ug/L	99
84) bromodichloromethane	12.64	83	36110	20.20	ug/L	99
85) cis-1,3-dichloropropene	13.26	75	44376	19.52	ug/L	95
87) 4-methyl-2-pentanone	13.40	58	11247	23.10	ug/L	96
88) toluene	13.71	92	65087	19.90	ug/L	98
89) 3-methyl-1-butanol	13.45	55	29297	429.80	ug/L	98
90) trans-1,3-dichloropropene	14.02	75	40876	19.52	ug/L	97
91) ethyl methacrylate	14.01	69	35764	22.19	ug/L	97
92) 1,1,2-trichloroethane	14.31	83	20720	21.42	ug/L	95
93) 2-hexanone	14.55	58	11102	22.38	ug/L	97
95) 3,3-Dimethyl-1-butanol	14.79	57	33711	219.08	ug/L	97
96) tetrachloroethene	14.47	164	24790	19.85	ug/L	97
97) 1,3-dichloropropane	14.55	76	40114	20.56	ug/L	100
98) butyl acetate	14.65	56	19638	19.04	ug/L	93
99) dibromochloromethane	14.89	129	31462	20.73	ug/L	97
100) 1,2-dibromoethane	15.08	107	25962	20.98	ug/L	96
102) chlorobenzene	15.68	112	79953	19.10	ug/L	98
103) 1,1,1,2-tetrachloroethane	15.77	131	31544	20.21	ug/L	99
104) ethylbenzene	15.75	91	132553	20.02	ug/L	99
105) m,p-xylene	15.89	106	101413	39.79	ug/L	98
106) o-xylene	16.44	106	52147	19.26	ug/L	98
107) styrene	16.46	104	89851	19.83	ug/L	97
108) bromoform	16.81	173	25693	20.76	ug/L	98
110) isopropylbenzene	16.86	105	133283	18.99	ug/L	99
113) bromobenzene	17.33	156	41289	18.72	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147662.D
Acq On : 20 Jun 2014 8:37 am
Operator : KingC
Sample : cc6381-20
Misc : MS69334,VX6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 20 16:53:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

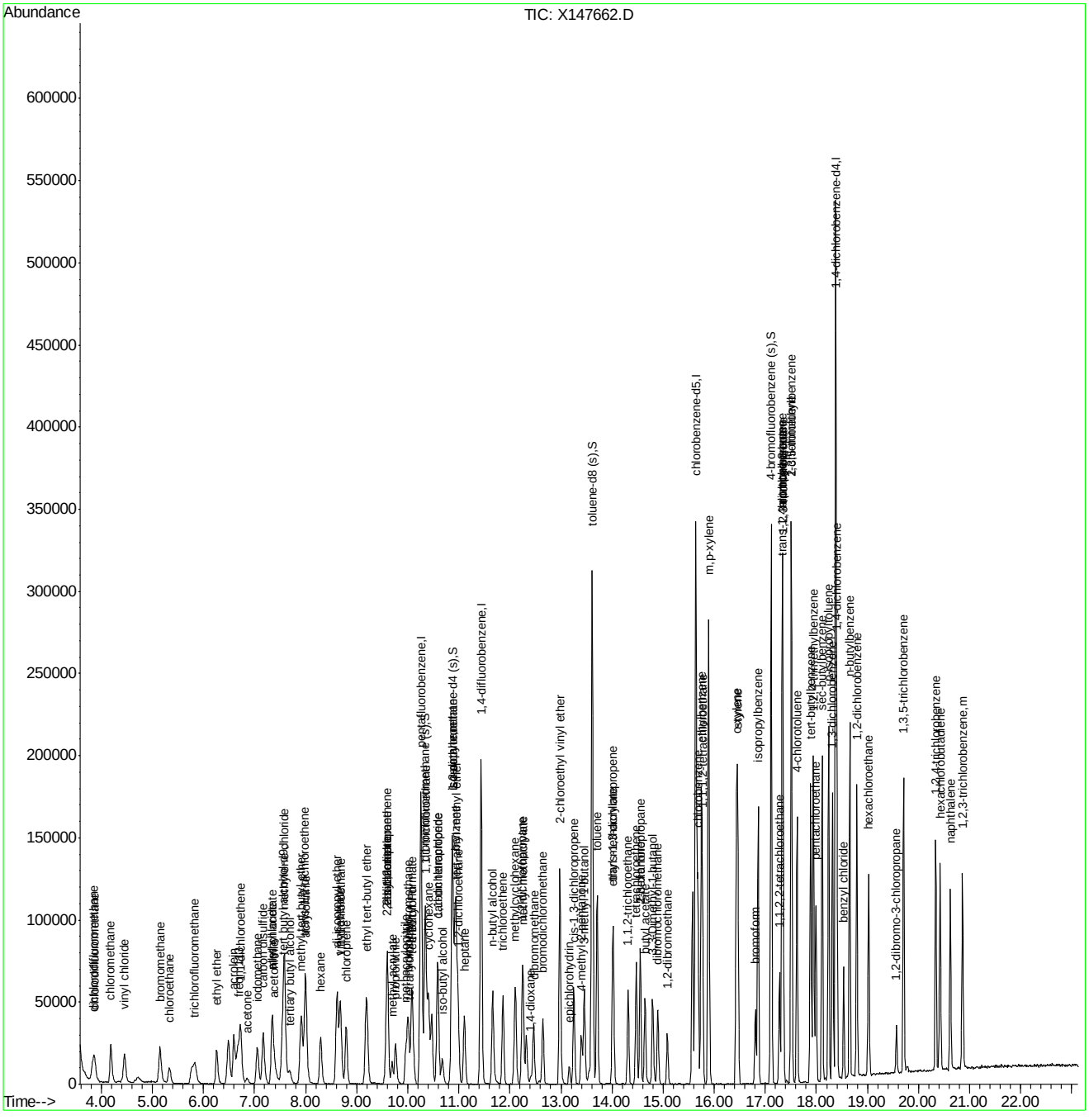
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	38091	19.80 ug/L	99
115) trans-1,4-dichloro-2-buten	17.33	53	10085	19.36 ug/L	88
116) 1,2,3-trichloropropane	17.35	110	9392	21.04 ug/L #	61
117) n-propylbenzene	17.34	91	155359	18.89 ug/L	100
119) 2-chlorotoluene	17.51	126	35791	19.02 ug/L	96
120) 4-chlorotoluene	17.62	91	101021	18.37 ug/L	99
121) 1,3,5-trimethylbenzene	17.51	105	117857	18.83 ug/L	99
122) tert-butylbenzene	17.89	119	101602	18.66 ug/L	98
123) pentachloroethane	17.99	167	26204	19.63 ug/L	97
124) 1,2,4-trimethylbenzene	17.94	105	118845	18.62 ug/L	98
126) sec-butylbenzene	18.11	105	154501	18.91 ug/L	99
127) 1,3-dichlorobenzene	18.32	146	78144	18.27 ug/L	99
128) p-isopropyltoluene	18.24	119	133779	18.75 ug/L	99
129) 1,4-dichlorobenzene	18.40	146	79554	18.28 ug/L	97
130) 1,2-dichlorobenzene	18.79	146	76791	18.60 ug/L	99
131) benzyl chloride	18.53	91	47272	12.47 ug/L	98
133) n-butylbenzene	18.65	92	64382	18.70 ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	75	7515	21.33 ug/L	91
136) 1,3,5-trichlorobenzene	19.71	180	66581	20.32 ug/L	99
137) hexachlorobutadiene	20.42	225	33828	19.48 ug/L	97
138) naphthalene	20.62	128	98691	20.83 ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	54531	21.53 ug/L	97
140) 1,2,3-trichlorobenzene	20.86	180	46563	20.64 ug/L	98
141) hexachloroethane	19.02	201	27380	18.71 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : X147662.D
Acq On : 20 Jun 2014 8:37 am
Operator : KingC
Sample : cc6381-20
Misc : MS69334,VX6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 20 16:53:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



MX6381.M Fri Jun 20 17:02:06 2014 GCMSX

ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : x147698a.D
Acq On : 21 Jun 2014 10:34 am
Operator : KingC
Sample : cc6381-20
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 09:41:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	81913	500.00	ug/L	0.00
5) pentafluorobenzene	10.26	168	207962	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.44	114	247365	50.00	ug/L	0.00
94) chlorobenzene-d5	15.64	117	255638	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.38	152	147470	50.00	ug/L	0.00

System Monitoring Compounds						
55) dibromofluoromethane (s)	10.34	113	73548	58.35	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 116.70%			
56) 1,2-dichloroethane-d4 (s)	10.88	65	75523	52.98	ug/L	0.00
Spiked Amount 50.000	Range 65 - 123		Recovery = 105.96%			
86) toluene-d8 (s)	13.61	98	290669	59.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 124		Recovery = 118.16%			
112) 4-bromofluorobenzene (s)	17.12	95	115407	57.06	ug/L	0.00
Spiked Amount 50.000	Range 71 - 132		Recovery = 114.12%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.69	59	17817	84.33	ug/L	100
4) 1,4-dioxane	12.42	88	7371	459.13	ug/L #	82
11) chlorodifluoromethane	3.87	51	22867	13.18	ug/L	93
12) dichlorodifluoromethane	3.85	85	29649	16.00	ug/L	97
15) chloromethane	4.19	50	40902	17.53	ug/L	98
16) vinyl chloride	4.46	62	36210	17.35	ug/L	97
18) bromomethane	5.15	94	26710	17.91	ug/L	98
19) chloroethane	5.34	64	15440	18.62	ug/L	96
21) trichlorofluoromethane	5.83	101	36220	17.09	ug/L	98
23) ethyl ether	6.26	74	12490	19.65	ug/L	99
27) acrolein	6.59	56	52869	229.69	ug/L #	99
28) 1,1-dichloroethene	6.73	96	19998	19.15	ug/L	97
29) acetone	6.85	58	2221	21.04	ug/L	99
30) allyl chloride	7.35	76	11828	19.91	ug/L #	87
31) acetonitrile	7.38	40	22541	192.51	ug/L	85
32) iodomethane	7.06	142	46797	19.83	ug/L	98
33) iso-butyl alcohol	10.67	43	15558	218.62	ug/L	89
34) carbon disulfide	7.17	76	77194	18.69	ug/L	99
35) methylene chloride	7.58	84	26734	15.82	ug/L	94
36) methyl acetate	7.34	43	19015	20.05	ug/L	97
37) methyl tert butyl ether	7.92	73	78717	19.69	ug/L	99
38) trans-1,2-dichloroethene	7.99	96	23205	18.82	ug/L	97
39) di-isopropyl ether	8.62	45	91547	18.64	ug/L	98
40) 2-butanone	9.59	72	2919	21.40	ug/L	91
41) 1,1-dichloroethane	8.68	63	45009	19.24	ug/L	98
42) chloroprene	8.79	53	33190	18.94	ug/L	97
43) acrylonitrile	8.02	53	42834	105.65	ug/L	98
44) vinyl acetate	8.68	86	3447	20.30	ug/L	89
45) ethyl tert-butyl ether	9.20	59	86928	18.85	ug/L	99
46) ethyl acetate	9.59	70	2628	20.94	ug/L	65
47) 2,2-dichloropropane	9.58	77	36401	18.48	ug/L	98
48) cis-1,2-dichloroethene	9.61	96	27330	18.93	ug/L	94
49) methyl acrylate	9.70	55	19974	20.67	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : x147698a.D
Acq On : 21 Jun 2014 10:34 am
Operator : KingC
Sample : cc6381-20
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 09:41:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.76	54	35985	210.26 ug/L	99
51) tert-Butyl Formate	10.10	59	22910	19.83 ug/L	99
52) bromochloromethane	10.00	128	14255	20.02 ug/L	94
53) tetrahydrofuran	10.03	72	3288	21.76 ug/L	94
54) chloroform	10.08	83	43732	18.34 ug/L	99
57) freon 113	6.69	151	18320	17.35 ug/L	97
58) methacrylonitrile	9.97	41	15484	20.83 ug/L	97
59) 1,1,1-trichloroethane	10.35	97	36152	18.63 ug/L	98
60) cyclohexane	10.41	84	32267	18.50 ug/L	94
62) iso-octane	10.88	57	86774	18.05 ug/L	99
65) epichlorohydrin	13.16	57	12707	104.90 ug/L	98
66) n-butyl alcohol	11.67	56	46587	1085.71 ug/L	99
67) carbon tetrachloride	10.59	117	32403	18.87 ug/L	97
68) 1,1-dichloropropene	10.58	75	30202	18.48 ug/L	99
69) hexane	8.29	57	26973	16.89 ug/L	97
70) benzene	10.93	78	95288	17.85 ug/L	100
71) tert-amyl methyl ether	10.96	73	83742	18.91 ug/L	100
72) heptane	11.11	57	16310	17.49 ug/L	96
73) isopropyl acetate	10.86	43	68050	19.69 ug/L	97
74) 1,2-dichloroethane	10.99	62	32978	19.57 ug/L	97
75) trichloroethene	11.86	130	25556	19.30 ug/L	94
79) 2-chloroethyl vinyl ether	12.98	63	70725	106.14 ug/L	99
80) methyl methacrylate	12.26	69	16961	20.72 ug/L	88
81) 1,2-dichloropropane	12.24	63	26644	19.54 ug/L	95
82) dibromomethane	12.47	93	16189	20.75 ug/L	92
83) methylcyclohexane	12.11	83	36224	17.33 ug/L	100
84) bromodichloromethane	12.64	83	36117	19.17 ug/L	97
85) cis-1,3-dichloropropene	13.26	75	45089	18.82 ug/L	97
87) 4-methyl-2-pentanone	13.40	58	11378	22.18 ug/L	95
88) toluene	13.71	92	62986	18.27 ug/L	99
89) 3-methyl-1-butanol	13.45	55	29887	416.04 ug/L	100
90) trans-1,3-dichloropropene	14.03	75	43661	19.78 ug/L	98
91) ethyl methacrylate	14.01	69	34943	20.57 ug/L	98
92) 1,1,2-trichloroethane	14.31	83	20582	20.19 ug/L	98
93) 2-hexanone	14.55	58	10993	21.03 ug/L	96
95) 3,3-Dimethyl-1-butanol	14.80	57	32826	200.17 ug/L	99
96) tetrachloroethene	14.47	164	23737	17.83 ug/L	99
97) 1,3-dichloropropane	14.55	76	39503	19.00 ug/L	98
98) butyl acetate	14.65	56	19008	17.30 ug/L	94
99) dibromochloromethane	14.90	129	31431	19.43 ug/L	96
100) 1,2-dibromoethane	15.09	107	25674	19.46 ug/L	100
102) chlorobenzene	15.68	112	78174	17.53 ug/L	97
103) 1,1,1,2-tetrachloroethane	15.77	131	30676	18.45 ug/L	98
104) ethylbenzene	15.75	91	124927	17.70 ug/L	99
105) m,p-xylene	15.89	106	97667	35.96 ug/L	99
106) o-xylene	16.44	106	50240	17.41 ug/L	97
107) styrene	16.46	104	86871	17.99 ug/L	99
108) bromoform	16.81	173	25203	19.11 ug/L	96
110) isopropylbenzene	16.86	105	127381	17.33 ug/L	99
113) bromobenzene	17.34	156	39628	17.15 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : x147698a.D
Acq On : 21 Jun 2014 10:34 am
Operator : KingC
Sample : cc6381-20
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 09:41:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration

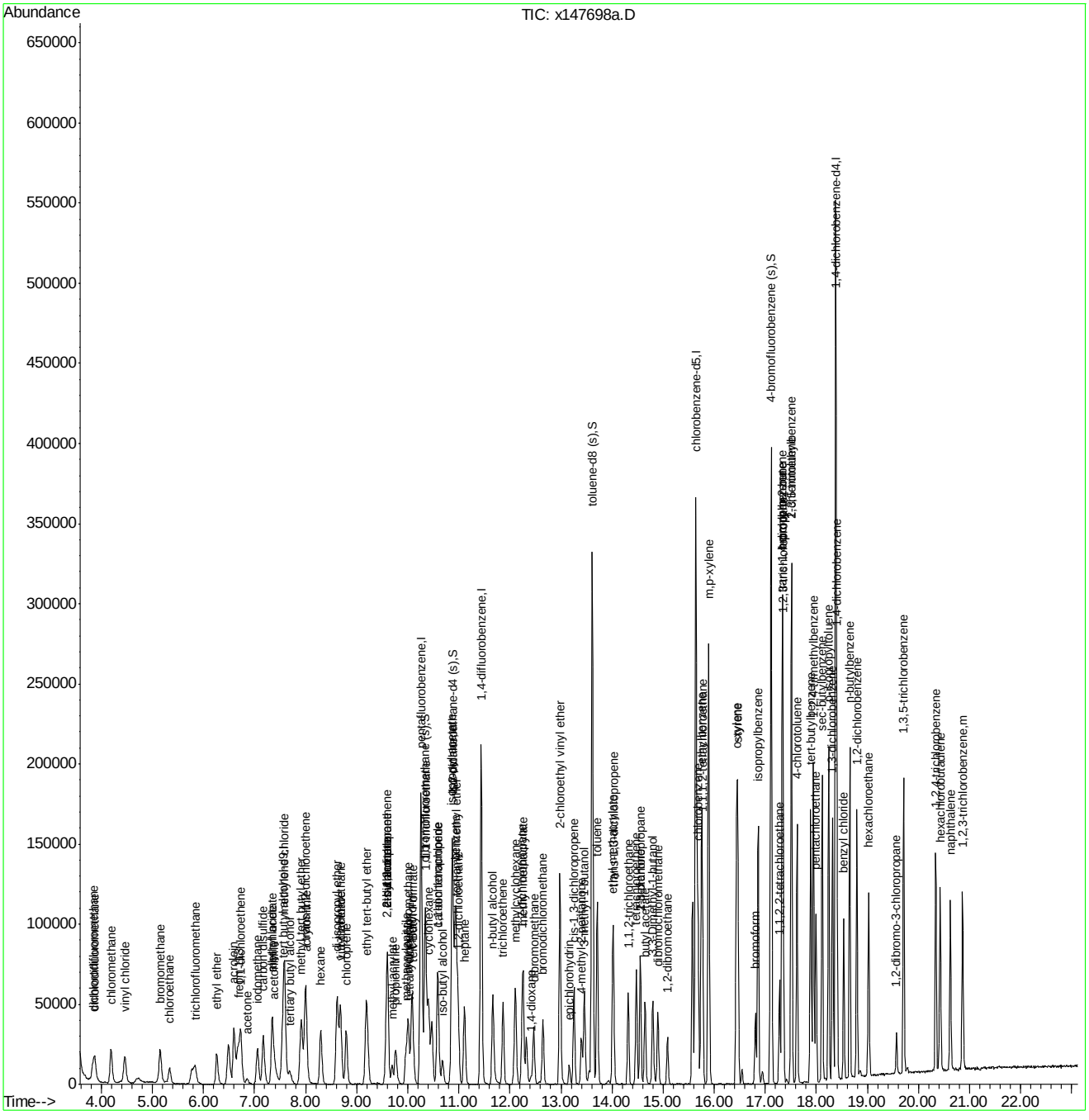
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	37201	18.46 ug/L	99
115) trans-1,4-dichloro-2-buten	17.32	53	10619	19.46 ug/L	92
116) 1,2,3-trichloropropane	17.35	110	9117	19.50 ug/L	91
117) n-propylbenzene	17.34	91	148858	17.28 ug/L	98
119) 2-chlorotoluene	17.51	126	34255	17.38 ug/L	98
120) 4-chlorotoluene	17.62	91	97529	16.93 ug/L	99
121) 1,3,5-trimethylbenzene	17.51	105	113435	17.31 ug/L	100
122) tert-butylbenzene	17.89	119	96430	16.91 ug/L	99
123) pentachloroethane	17.99	167	25067	17.93 ug/L	96
124) 1,2,4-trimethylbenzene	17.94	105	113973	17.05 ug/L	99
126) sec-butylbenzene	18.11	105	146740	17.15 ug/L	98
127) 1,3-dichlorobenzene	18.32	146	76291	17.03 ug/L	99
128) p-isopropyltoluene	18.24	119	127855	17.11 ug/L	98
129) 1,4-dichlorobenzene	18.40	146	76187	16.71 ug/L	99
130) 1,2-dichlorobenzene	18.79	146	74764	17.29 ug/L	99
131) benzyl chloride	18.53	91	72628	18.29 ug/L	99
133) n-butylbenzene	18.65	92	63090	17.50 ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	75	6901	18.70 ug/L	95
136) 1,3,5-trichlorobenzene	19.71	180	66887	19.48 ug/L	98
137) hexachlorobutadiene	20.43	225	32583	17.91 ug/L	97
138) naphthalene	20.63	128	94441	19.15 ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	52753	19.88 ug/L	99
140) 1,2,3-trichlorobenzene	20.87	180	44954	19.11 ug/L	98
141) hexachloroethane	19.02	201	26157	17.07 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : x147698a.D
Acq On : 21 Jun 2014 10:34 am
Operator : KingC
Sample : cc6381-20
Misc : MS69379,VX6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 23 09:41:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\MX6381.M
Quant Title : Method 8260B/8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Jun 19 09:44:28 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB69587

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A5699

Date: 6/12/14

Print Analyst Name: HeeEun Ahn

Analyst Signature: Ahn

Columns: ZB624

Method V8260B

Initial Cal. Method M3A5699

Standard Data

Lot #	Description	Conc.
014-1861-20	Ext A	1000ppm
-19	Ext B	↓
-37	Ext C	↓
-39	Ext hexane	↓
-35	Surrogate	↓

Standard Data

Lot #	Description	Conc.
014-1861-42	Acrolein	1000ppm
-05	Ext Acrolein	↓
-27	STD A	1000ppm
-34	STD B	↓
-38	STD C	↓
-40	Int	↓

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/13/2014

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
	3A131735	BFB				1							ok		
	131736	IC5699-0.2	8260B		AQ	2	5						ng	2ul of A,B,C, Acrolein, Surrogate/ 50ml DI	
	131737	IC5699-0.5	↓		↓	3	5						ok	5ul of ↓	
	131738	IC5699-1				4	5						ok	10ul of ↓	
	131739	IC5699-2				5	5						ok	10ul of A,B,C, Acrolein, surrogate/ 500ml DI	
	131740	IC5699-5				6	5						ng	5ul of A,B,C, Acrolein, surrogate /100ml DI	
	131741	IC5699-10				7	5						ok	5ul of A,B,C, Acrolein, Surrogate /50ml DI	
	131742	IC5699-20				8	5						ok	10ul of A,B,C, Acrolein, 25ul of surrogate /50ml DI	
	131743	IC5699-50				9	5						ok	25ul of A,B,C, Acrolein, Surrogate/ 50ml DI	
	131744	IC5699-100				10	5						ok	50ul of ↓	
	131745	IC5699-200				11	5						ok	100ul of ↓	
	131746	IB				12				✓			clg		
	131747	IB				13				✓			↓		
	131748	~~IC5699-50~~ ZB	↓		↓	14	5			✓			↓	25ul of ext A,B,C, ext hexane, acrolein, surrogate/ 50ml DI	
	131749	IC5699-5				14	5			✓			ok	5ul of A,B,C, Acrolein, Surrogate /100ml DI	
	131750	IC5699-0.2				15	5			✓			ok	2ul of A,B,C, Acrolein, Surrogate /1000ml DI	
	131751	ICV5699-50	↓		↓	16	5			✓			ok	RR for GCS dichlorodifluoromethane low	

HA 6/13/2014

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 = [illegible]

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A5699

Date: 6/13/14

Print Analyst Name: Lee Ann Ahr

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.
	see pg 275	

Standard Data

Lot #	Description	Conc.
	see pg 275	

Columns: ZB624

Method V8260B

Initial Cal. Method M3A5699

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/13/2014

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
	3A131752	BFB2	8260B										ok		
	131753	ICV5699-50	↓		AQ		5						ok	25 ul of ext A, B, C, ethanol, Acetone, surrogate	
														↓ New vial of same lot # of Ext-C used DP 6/16/14 V014-1861-57	
														TL 6/13/2014	

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 integration error; 4 = analytic correction error

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A5714

Date: 6/21/14

Print Analyst Name: HeeEun Ahn

Analyst Signature:

Columns: ZB624

Method V8260B

Initial Cal. Method M3A5899

Standard Data

Lot #	Description	Conc.
0114-1861-62	Ext IA	1000ppm
-61	Ext B	
-68	Ext C	
-69	Ext hexane	
-81	IS	2501250
202513	methanol	

Standard Data

Lot #	Description	Conc.
0114-1861-42	Acrolein	1000ppm
-43	Ext Acrolein	
-27	STD A	1000ppm
-34	STD B	
-67	STD C	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 6/23/2014

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
	3A 132081	BFB				23							ok	10:19 pm	
	132082	CC5699-50				24					✓		ok	25ul of A1B1C1Acrolein in 5ml VF	
	132083	IB				25					✓		clip		
	132084	MB1				26				✓	✓		ok		
	132085	BS				27					✓		ok	25ul of ext A1B1C1Acrolein in 5ml VF.	
	132086	JB69552-11	69352 PPL+10,NAP	GW	1	28	10/50		5X	✓	✓		ok		✓
	132087	JB69552-11 MS	↓		1	29	10/50		5X		✓		ok		✓
	132088	JB69552-11 MSD	↓	↓	1	30	10/50		5X		✓		ok		✓
	132089	IB				31					✓		clip		
	132090	JB69587-10	69380 BTX,ACE,	SEB	1	32	5		1X	✓	✓		ok		✓
	132091	JB69587-18	MIBK	SEB	1	33	5		1X	✓	✓		ok		✓
	132092	JB69587-20	↓	SEB	1	34	5		1X	✓	✓		ok		✓
	132093	JB69657-9	69395 TCLH+	SEB	2	35	5		1X	✓	✓		ok		✓
	132094	JB69552-1	69352 PPL+10,NAP	GW	1	36	5		1X	✓	✓	✓	ok		✓
	132095	JB69552-2	69352 PPL+10		1	37	5		1X	✓	✓	✓	ok		✓
	132096	JB69552-3	↓		3	38	5		1X	✓	✓	✓	ok		✓
	132097	JB69552-4	↓	↓	1	39	5		1X	✓	✓	✓	ok		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.

All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A5714

Date: 6/21/14

Print Analyst Name: HeeEun Ahn

Analyst Signature: [signature]

Columns: ZB624

Method V8260B

Initial Cal. Method M3A5699

Standard Data

Lot #	Description	Conc.
	see p33	

Standard Data

Lot #	Description	Conc.
	see p33	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/23/2014

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
	3A 132098	JB69552-5	69352 PPL+10, NAP	GW	1	40	5		1x	✓	✓	✓	ok		✓
	132099	JB69552-6	↓		1	41	5		1x	✓	✓	✓	ok		✓
	132100	JB69552-7	69352 PPL+10		1	42	5		1x		✓	✓	MG	C/O RR 1X	✓
	132101	JB69552-8	69352 PPL+10, NAP	↓	2	43	5		1x	✓	✓	✓	ok	8:27AM	✓

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: VA 7751

Date: 5/13/2014 (05/14/13)

Print Analyst Name: Ousama

Analyst Signature: O. Paracsuerova

Columns: ZB-624 (60m x 0.18mm x 1.4µm)

Method 8260B

Initial Cal. Method ~~VA 7612~~ 7751 (05/12)

Standard Data

Lot #	Description	Conc.
2014.1822.129	Ext A	100ppm
2014.1822.128	Ext B	
2014.1822.141	Ext C	
2014.1822.86	Extra	1000ppm
2014.1822.89	acrolein	
2014.1822.144	heptane	100ppm
2014.1822.142	isopentane	100ppm

Standard Data

Lot #	Description	Conc.
2014.1822.124	123 I std only	250/500ppm
2014.1822.118	A std	100ppm
2014.1822.119	B	
2014.1822.119	C	
2014.1822.146	Hexane	
2014.1822.126	Styrene	100ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: KM **Date:** 5/14/14

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
7A	205522	BPB	8260			1	5ml						OK	A B C S P N ACR	
	205523	IC7751-0.2 ~~CC7612-0.2~~				2					✓		OK	~~A B C ACR 10ul~~ 2ml 2ml 2ml 2ml 2ml 2ml 2ml	1000ml
	205524	IC7751-0.5				3					✓		OK	5ml 5ml 5ml 5ml 5ml 5ml 5ml	
	205525	IC7751-1				4					✓		OK	1ml 1ml 1ml 1ml 1ml 1ml 1ml	100ml
	205526	IC7751-2				5					✓		OK	2ml 2ml 2ml 2ml ~~2ml 2ml~~	~~200ml~~
	205527	IC7751-5				6					✓		OK	5ml 5ml 5ml 5ml 5ml 5ml 5ml	100 ml
	205528	IC7751-10				7					✓		OK	10ml 10ml 10ml 10ml 10ml 10ml 10ml	10ml
	205529	IC7751-20				8					✓		OK	20ml 20ml 20ml 20ml 20ml 20ml 20ml	20ml
	205530	IC7751-50				9					✓		OK	50ml 50ml 50ml 50ml 50ml 50ml 50ml	50ml
	205531	IC7751-100				10					✓		OK	100ml 100ml 100ml 100ml 100ml 100ml 100ml	— 100ml
	205532	IC7751-200				11					✓		OK	200ml 200ml 200ml 200ml 200ml 200ml 200ml	—
	205533	IB				12									
	205534	IB				13							NOT LOAD		
	205535	ICV7751-50				14	✓				✓		OK	Extra std	
						15									4:40
						16									
														KM 5/13/14	

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VA 7793

Print Analyst Name: Prashant B Shah

Analyst Signature:

Columns: 2B 62h

Method V8260B

Initial Cal. Method MA 7751

Date: 6/22/14

Standard Data

Lot #	Description	Conc.
am-1861-62	Acrolein	1000ppm
63	Ext Acrolein	↓
61	Int Surr.	2600/2500ppm
65	Ext Acrolein	1000ppm

Standard Data

Lot #	Description	Conc.
am-1861-27	Std A	1000ppm
34	B	
64	C	
62	Ext A	
61	D	

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: M **Date:** 6/24/14

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
	A														
	206655	BFB				1							OK	2.42 PM.	
	206656	CC 7751-20				2						✓	OK	#13, 22, 26↑64, 72, 76 10µl Std A+B+C+Ac / 50 ml	
	206657	IB				3							OK		
	206658	MB				4						✓	OK		
	206659	BS				5						✓	OK	25µl Ext A+B+C+Ac+Mon / 50 ml	
	206660	IB				6							OK		
	206661	JB69587-3	MS69379 BTX ACE MeOH	SOIL	6	7	4.4					✓	OK		
	206662	JB69587-4			6	8	5.7					✓	OK		
	206663	JB69587-5			6	9	4.9					✓	OK		
	206664	JB69587-6			6	10	4.7					✓	OK		
	206665	JB69587-3 DUP			7	11	4.3					✓	OK		
	206666	JB69681-2	MS69460 TCL 20+		5	12	7.0					✓	OK		
	206667	JB69587-4 MS	MS69379		7	13	3.0					✓	OK	25µl ABC+Acro / 50 ml	
	206668	IB				14						✓			
	206669	~~JB69657-5~~ JB69587-19			5 1 +	15	5.0 5.0					✓	NG	RR 1x 40 JB69587-19	
	206670	JB69657-5 ~~JB69587-7~~	MS69394 TCL 11+		5 6	16	5.1 ~~4.8~~					✓	OK		
	206671	JB69657-6 ~~JB69587-14~~			5 6	17	5.4 ~~4.9~~					✓	OK		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

3

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

7.8.4

7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VA7793

Print Analyst Name: Prashant B Shukla

Analyst Signature:

Date: 6/22/14

Columns: ZB624 (60m x 0.25mm x 1.4µm)

Method V8260B

Initial Cal. Method MA7751

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Refer to page 3	

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: M **Date:** 6/24/14

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
	A														
	206672	~~JB69657-15~~	~~MS 69379 BTX, ACE MTBE~~	S	5	18	~~5.7~~ 4.4					W	OK	JB69657-7	
	206673	JB69657-1	MS 69394 TCL 11+		5	19	4.7					W	OK		
	206674	JB69657-2			5	20	5.0					W	OK		
	206675	JB69657-3			5	21	5.2					W	OK		
	206676	JB69657-4			5	22	4.8					W	NG	2:33 AM RR 1x #76 hit	
	206677	IB				23									
	206678	BFB 2				24							OK	3:44AM	
	206679	CC 7751-50				25							OK	26,64,76,82,97,123,127+	
	206680	IB				26						W			
	206681	MB2				27						W	OK		
	206682	JB69657-8	MS 69394 TCL 11+	S	5	28	4.8					W	OK		
	206683	JB69587-7	MS 69379 BTX, ACE MTBE		6	29	4.8					W	OK		
	206684	JB69587-14			6	30	4.9					W	OK		
	206685	JB69587-15			6	31	4.9					W	OK	7:46AM	
														KM 6/24/14	

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: VA7794/7795

Print Analyst Name: Courtney McKenna

Analyst Signature: Courtney P. McKenna

Columns: ZB624 (60m x 0.25mm x 1.4µm)

Method V8260B/C

Initial Cal. Method MA7751

ate: 6/23/14

Standard Data

Lot #	Description	Conc.
4-1861-41	Int/Surr	250/2500ppm
27	STD A	100ppm
34	B	
64	C	
42	Acrolein	1000ppm

Standard Data

Lot #	Description	Conc.
V014-1861-62	Ext A	100ppm
61	B	
68	C	
63	Acrolein	1000ppm

anually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest OP EQA044.

Supervisor Signature: HM **Date:** 6/24/14

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
	A206689	BFB				1							OK	10:12AM	
	206690	CC7751-20				2							OK	20µL STD ABCAcro/100mLDI #64↑	
	206691	MB				3						W	OK		
	206692	BS				4						W	OK	25µL Ext ABCAcro/50mLDI	
	206693	IB				5						W			
R	206694	JB69587-19	69379 BTX ACE MIBK	SST B	2	6	5					W	OK		
2	206695	JB69906-2	69545 STAR	SO	1	7	5.0					W	OK		
R	206696	JB69657-4	69394 TCLIIT	SLC	6	8	4.9					W	OK		
	206697	JB69700-3	69423 PALGTMB		5	9	5.8					W	OK		
R	206698	JB69906-1	69545 STAR	SO	1	10	5.1					W	OK		
	206699	JB69906-2MS			1	11	5.3					W	OK	25µL STD ABCAcro/50mL	
	206700	JB69906-2MSD			1	12	5.5				↓	V	NG		
	206701	JB69700-3MS	69423 PALGTMB	SLC	6	13	6.1					W	OK	25µL STD ABCAcro/50mL	
	206701A	JB69906-2MSD	69570		1		5.0					W	OK	69545 STAR	
	206702	JB69959-2DUP	PALGTMB		4	14	5.2					W	OK		
	206703	JB69959-2	MTBE		5	15	5.2					W	OK		
	206704	JB56900C-25	61181			16						W	NG	RR1x c/o Ref Blank 6/16 #28	
	206705	JB56900D-25				17						W	NG	RR1x c/o ↓ #40	

TX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
mple Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
l strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer scalculation; 4 = analyst's correction error

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rm: OR001-9
v. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VA7794

Print Analyst Name: Courtney McKenna

Analyst Signature: Courtney R. McKenna

Columns: ZB624 (60m x 0.25mm x 1.4µm)

Method V8260B

Initial Cal. Method MA7751

Date: 6/23/14

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Refer to page 9	

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: KU **Date:** 6/24/14

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
	A206706	JB56900F-25	61181			18						✓✓	NG	RR1x c/o Ref. Blank 6/16 #49	
	206707	JB56900A-25				19						✓✓	OK/RR	↓ RR1x #25 hit #63	
R	206708	JB69466-1	69292 TCL20+	SLL	5	20	6.2				✓	↓	OK	+ V-core CFS.	
	206709	JB69577-1	69342 TCL20		4	21	2.9				✓✓		OK	+ E Core	
	206710	JB69577-2			4	22	3.6				✓✓		OK	10:10pm + E Core	
	206711	JB69577-3			4	23	3.6						NOT RUN		
	206712	IB				24									
	206713	BFB				25							OK	11:14pm KU 6/24/14	
	206714	CC7751-50				26							NG	25µl STOABC Acro/50mL DI compound ST	
	206715	IB				27					✓✓		RR		
	206716	MB2				28						✓✓			
	206717	JB69959-4	69570 PALGTMB MTBE	SLL	4	29	5.8					✓✓			
	206718	JB69959-5			4	30	5.3					✓✓			
	206719	JB69911-3A	69574 TCL20+		8	31	4.7					✓✓			
	206720	JB69647-2	69448 TCL20+		6	32	5.2					✓✓			
	206721	IB				33									
														KU 6/24/14	

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: VA7794/7795

Print Analyst Name: Courtney McKenna

Analyst Signature: Courtney P. McKenna

Columns: ZB624 (60m x 0.25mm x 1.4µm)

Method V8260B/C

Initial Cal. Method MA7751

Date: 6/23/14

Standard Data

Lot #	Description	Conc.
14-1861-41	Int/Surr	250/2500ppm
27	STD A	100ppm
34	B	
64	C	
42	Acrolein	1000ppm

Standard Data

Lot #	Description	Conc.
V014-1861-62	Ext A	100ppm
61	B	
68	C	
63	Acrolein	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest OP EQA044.

Supervisor Signature: [illegible] **Date:** 6/24/14

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
	A206689	BFB				1							OK	10:12AM	
	206690	CC7751-20				2							OK	20µL STD ABCAcro/100mLDI #64↑	
	206691	MB				3						W	OK		
	206692	BS				4						W	OK	25µL Ext ABCAcro/50mLDI	
	206693	IB				5						W			
R	206694	JB69587-19	69379 BTX ACE MTBE	SSTB	2	6	5					W	OK		
R	206695	JB69906-2	69545 STAR	SO	1	7	5.0					W	OK		
R	206696	JB69657-4	69394 TCL11+	SLL	6	8	4.9					W	OK		
	206697	JB69700-3	69423 PALGTMB		5	9	5.8					W	OK		
R	206698	JB69906-1	69545 STAR	SO	1	10	5.1					W	OK		
	206699	JB69906-2MS			1	11	5.3					W	OK	25µL STD ABCAcro/50mL	
	206700	JB69906-2MSD			1	12	5.5					W	NG		
	206701	JB69700-3MS	69423 PALGTMB	SLL	6	13	6.1					W	OK	25µL STD ABCAcro/50mL	
	206701A	JB69906-2MSD	69570		1		5.0					W	OK	69545 STAR	
	206702	JB69959-2DUP	PALGTMB		4	14	5.2					W	OK		
	206703	JB69959-2	MTBE		5	15	5.2					W	OK		
	206704	JB56900C-25	61181			16						W	NG	RR1x c/o Ref Blank 6/16 #28	
	206705	JB56900D-25				17						W	NG	RR1x c/o #40	

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VV6196

Date: 6/11/2014

Print Analyst Name: King Cheng

Analyst Signature:

Columns: ZB624 (60mX0.25mmX1.4um)

Method V8260B

Initial Cal. Method MUS6196

Standard Data

Lot #	Description	Conc.
VOL4-1861-27	STD A	100ppm
34	B	
56	C	
42	ACRO	1000ppm
40	Internal	
VOL4-1861-35	SURR	

Standard Data

Lot #	Description	Conc.
VOL4-1861-29	Ext Ap	100ppm
19	B	
43	C	
05	ACROLEIN	1000ppm
39	Hexane	100ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 6/12/2014

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
	V145207	BFB				1							OK	9.540-m	
	145208	IC6196-0.X2				2	5						OK	2ul ABC ACRO SURR L→1000ml DI	
	145209	IC6196-0.5				3	5						OK	5ul ABC ACRO SURR L→1000ml DI	
	145210	IC6196-1				4	5						OK	1ul ABC SURR 100ul ACRO L→100ml DI	
	145211	IC6196-2				5	5						OK	2ul ABC SURR 250ul ACRO L→100ml DI	
	145212	IC6196-5				6	5						OK	5ul ABC SURR ACRO L→100ml DI	
	145213	IC6196-10				7	5						OK	5ul ABC ACRO SURR L→50ml DI	
	145214	IC6196-20				8	5						OK	10ul ABC ACRO ~~SURR~~ 25ul ABC SURR L→50ml DI	
	145215	IC6196-50				9	5						OK	25ul ABC ACRO SURR L→50ml DI	
	145216	IC6196-100				10	5						OK	50ul ABC SURR L→50ml DI	
	145217	IC6196-200				11	5						OK	100ul ABC SURR L→50ml DI	
	145218	IB				12							C/O		
	145219	IB				13							C/O		
	145220	IC6196-50				14	5						OK	50ul Ext ABC ACRO, SURR, Hexane L→100ml DI	

6/12/2014

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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7.8.7

7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VV6205

Print Analyst Name: Ring Cheng

Analyst Signature: [signature]

Date: 6/19/2014

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 117	

Columns: ZB624 (60mx0.25mmx1.4um)

Method V8260B

Initial Cal. Method MV86196

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/20/2014

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
	V145530	JB69466 -2 g/s	8260B 7/1/2014	S	4	44	5.6					↓	OR ~~NA~~	MBX QR	
	145531	JB69466 -1 g/s	↓	↓	4	45	6.2					↓	~~X~~ OR	↓	

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: VV6205

Date: 6/20/2014

Print Analyst Name: King Cheng

Analyst Signature:

Standard Data

Lot #	Description	Conc.
VOA-1861-27	STD A	100ppm
34	B	
64	C	
42	ACRO	1000ppm
60	I/S	250/250ppm

Standard Data

Lot #	Description	Conc.
VOA-1861-60	Ext A	100ppm
61	B	
57 68	C	
63	ACRO	1000ppm

Columns: ZB624 60mx 0.25mmx1.4um

Method V8260B

Initial Cal. Method MVS6196

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: **Date:** 6/23/2014

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
	V145532	BFB											ok	8:05 a.m.	
	145533	CC6196-20											ok	10ul ARC ACRO 150ml DI2	
	145534	IB											clip		
	145535	MB											ok		
	145536	BS											ok	25ul Ext ARC ~~ACRO~~ 150ml DI2	
	145537	IB											clip		
R	145538	JB69084-2	69018 TCL201, TBA	S E	6		3.6						ok		
	145539	JB69084-3			5		5.6						ok		
	145540	JB69084-4			5		6.3						ok		
	145541	JB69084-5			5		5.1						ok		TR
	145542	JB69587-16	69374 BTX, ACE, MBK	E	6		5.0						ok		
	145543	JB69587-17			6		5.2						ok		
	145544	JB69587-21			6		4.0						ok		
	145545	JB69587-16MS	69374 BTX, ACE, MBK		7		4.9						ok	25ul ARC ACRO 150ml DI2	
	145546	JB69587-17DUP			7		4.9						ok		
R	145547	JB69084-6	69018 TCL201, TBA	S E	6		5.6						ok		
	145548	JB69084-7			6		5.5						ok		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.

All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VV6205

Print Analyst Name: King Cheng

Analyst Signature: [signature]

Date: 6/20/2014

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 125	

Columns: ZB624 (60mx0.25mmx1.40um)

Method V82603

Initial Cal. Method MVS6196

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/23/2014

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
R	V145549	JB69084-8	G9018 KL204, TBA	S	6		~~5.3~~ 5.3				✓		ok		
	145550	JB69086-1	↓	↓	6		4.7				✓		ok		
	145551	JB69377-3	G9193 DDTCLLN2+, TBA	S	5		5.1				✓		ok		
	145552	JB69377-2	↓	↓	5		5.3				✓		ok		
	145553	JB69377-1			5		5.2				✓		ok		
	145554	JB69401-3	G9194 8010L	S	5		5.7				✓		ok	7:00 p.m.	
	145555	18													
	145556	18													
														KC 6/20/2014	

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: VV6205

Print Analyst Name: King Cheng

Analyst Signature: [signature]

Date: 6/20/2014

Columns: ZB624 (60mx0.25mmx1.4um

Method V8260B

Initial Cal. Method MUS6196

Standard Data

Lot #	Description	Conc.
V04-1861-59	8270 A	100ppm
34	B	
64	C	
42	ACRO	1000ppm
60	7/8	250/2500ppm

Standard Data

Lot #	Description	Conc.
V04-1861-60	Ext A	100ppm
61	B	
~~57~~ 62	C	
63	ACRO	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/24/2014

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
	V145557	BFB											OK	8.82 p.m.	
	145558	CC6196-50									✓	✓	OK	25ul ARL ACRO/50ml	12
	145559	IB											O/O		
	145560	MB2									✓	✓	OK		
	145561	JB69566-1	6022B SC	S	4		6				✓	✓	OK		
	145562	JB69566-3			4		4.2				✓	✓	OK		
	145563	JB69566-5			4		4.3				✓	✓	OK		
	145564	JB69566-7			4		5.1				✓	✓	~~OK~~ RR	RR ix surrogate out.	
	145565	JB69566-8			4		5.4				✓	✓	OK		
	145566	IB											O/O		
	145567	IB											O/O		
														KC 6/20/2014	

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: VV6207

Print Analyst Name: King Cheng

Analyst Signature:

Date: 6/23/2014

Columns: EB624 (60m x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method MVS6196

Standard Data

Lot #	Description	Conc.
VOH-1861-27	STD A	100ppm
34	B	
84	C	
42	ACRO	100ppm
60	7/S	200/25 100ppm

Standard Data

Lot #	Description	Conc.
VOH-1861-62	Ext A	100ppm
61	B	
70	C	
63	ACRO	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: **Date:** 6/24/2014

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
	V145596	BFB											OK	9:41 a.m.	
	145597	CCG196-20									✓		OK	#64 ↑ 10-ul ABC ACRO/50mL DZ	
	145598	IB											c/o		
	145599	MB									✓		OK		
	145600	BS									✓		OK	25ul Ext ABC ACRO/50mL DZ	
	145601	~~BS~~ KCG142 IB											c/o		
R	145602	JB69623-2	G9382 TCL24	S	1		5.2			✓	✓		OK	diluted from initial	
	145603	JB69656-6A	TBA G9393 ACRC TCL24, 1142, ACRO	S	8		6.0			✓	✓		OK		
	145604	JB69656-3A			8		5.9			✓	✓		OK		
	145605	JB69656-1A			8		5.8			✓	✓		OK		TR
	145606	JB69587-1	G9379 BTX, ACR, MBK	S	6		4.5				✓		OK		
	145607	JB69587-2			6		4.8				✓		OK		
	145608	JB69587-1MS			7		4.8				✓		OK	25ul ABC ACRO/50mL DZ	
	145609	JB69587-2MSD			7		4.8				✓		OK		
R	145610	JB69184-4	G9098 PDL4	S	3		4.9			✓	✓		OK		
	145610A	JB69190-7	G9099 BDIOL	S	1		5.6				✓		OK	diluted from initial	
	145611	JB69587-4	G9379 BTX, ACR, MBK	S	7		3.7				✓		OK		
	145612	JB69587-13			7		4.1				✓		OK		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.

All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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

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ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VV6207

Print Analyst Name: King cheng

Analyst Signature:

Date: 6/23/2014

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 135	

Columns: ZB624 (60mx0.25mmx1.4um

Method V8260B

Initial Cal. Method MUS6196

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 6/24/2014

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
R	V145613	JB69377-5 ~~JB69493-1A~~	69493 ~~[illegible]~~	S	5 ~~7~~		5.7 ~~6.3~~			✓	✓	✓	OK	TE	
	145614	1B ~~5.4~~	~~[illegible]~~		~~7~~		~~5.6~~						c/o		
	145615	JB69793-6A	69503 [illegible]	S	7		5.6			✓	✓	✓	OK		
	145616	JB69763-1	69467 [illegible]	S	5		6.0			✓	✓	✓	OK		
	145617	JB69763-2			5		6.1			✓	✓	✓	OK		
	145618	JB69763-3			5		5.9			✓	✓	✓	OK	9:12 p.m.	
	145619	JB69763-4			5		5.9						Not Load		
	145620	1B											c/o		
	145621	1B													

~~[illegible] 6/24/2014~~

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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Rev. Date: 2/14/2007

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7.8.9

7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VX6381

Date: 6/18/2014

Print Analyst Name: King Cheng

Analyst Signature:

Columns: ZB624 (60m×0.25mm×1.40um)

Method V82603

Initial Cal. Method MX6381

Standard Data

Lot #	Description	Conc.
VX4-186127	STD A	1000ppm
34	B	
64	C	
42	ACRO	1000ppm
40	~~IS~~ Internal SURR	~~250~~ 250ppm 100ppm

Standard Data

Lot #	Description	Conc.
VX4-186-62	Std A	1000ppm
61	B	
57	C	
63	ACRO	1000ppm
65	Hexane	100ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comp with the criteria of Accutest SOP EQA044.

Supervisor Signature: **Date:** 6/19/14

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
	X147608	BF3											OK		
	147609	IC6381-0.2 4	V82603 IC				5mL				✓		OK	4ul ABC SURR ACRO ↳100mL DI	
	147610	IC6381-0.5 2 TP 6/18									✓		OK	200ul ACROLEIN	/100mL
	147611	IC6381-1 TP 6/18									✓		OK	100ul ACROLEIN	/100mL
	147612	IC6381-2 0.5 TP 6/18									✓		OK	5ul ABC SURR ACRO ↳1000mL DI	
	147613	IC6381-4 0.2 TP 6/18									✓		OK	2ul ABC ACRO SURR ↳1000mL DI	
	147614	IC6381-8 TP 6/18									✓		OK	8ul ABC ACRO SURR ↳100mL DI	
	147615	IC6381-20									✓		OK	~~75~~ 50 ul surrogate	/100mL
	147616	IC6381-50									✓		OK	TP 6/18 20ul ABC SURR ACRO ↳50mL DI	
	147617	IC6381-100									✓		OK	50ul ABC ACRO SURR ↳50mL DI NO ACROLEIN	
	147618	IC6381-200									✓		OK	100mL DI ABC SURR ↳100mL DI	
	147619	IB													
	147620	IB													
	147621	IC6381-50									✓		OK	25ul ABC ACRO, SURR ↳50mL DI	
	147622	IB													
	147623	IB											NR		
	~~147~~ IC6381														

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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KC 6/19/2014

7.8.10

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ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: VX6381/VX6382

Print Analyst Name: King Cheng

Analyst Signature:

Date: 6/19/2014

Standard Data

Lot #	Description	Conc.
VO14-1861-28	STD A	100ppm
34	B	
44	C	
42	ACRO	1000ppm
60	2/S	250/2500ppm

Standard Data

Lot #	Description	Conc.
VO14-1861-62	Ext A	100ppm
61	B	
57	C	
63	ACRO	1000 ppm
66	Hexane	100 ppm

Columns: 836xt (60mx0.25mmx1.40um)

Method V8260B

Initial Cal. Method MX6381

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comp with the criteria of Accutest SOP EQA044.

Supervisor Signature: **Date:** 6/19/14

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
	~~X167621~~ 3 KC 6/19	BF13											OK		
	~~1476~~ 4	ICV6381-50									✓		OK	25ul Hexane → 50 ml DI	
	~~1476~~ KC 6/19														

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate. KC 6/19/2014

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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ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VX6383

Print Analyst Name: King Cheng

Date: 6/20/2014

Analyst Signature:

Columns: ~~V~~ ZB624(60mx0.25mmx1.4

Method V8260D

Initial Cal. Method MX6381

Standard Data

Lot #	Description	Conc.
VP4-1861-59	5/12 A	1000ppm
34	B	
64	C	
42	ACQ	1000ppm
60	2/3	2500ppm

Standard Data

Lot #	Description	Conc.
VP4-1861-60	Ext A	1000ppm
61	B	
~~54~~ 68	C	
63	ACQ	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: **Date:** 6/23/2014

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
	X147661	BFB											OK	8:04 a.m	
	147662	CCG381-20											OK	10uL ARC ACQ/50mL DI	
	147663	MB									✓		OK		
	147664	BS									✓		OK	25uL Ext ARC ACQ/50mL DI	
	147665	IB											OK		
R	147666	JB69404-1	69248 8010C	S	4		5.1				✓		OK		
	147667	JB69404-2			4		5.5				✓		OK		
	147668	JB69468-10	69285 TCL204		5		5.8				✓		OK		
	147669	JB69468-9			5		5.1				✓		OK		
	147670	JB69468-8			5		5.3				✓		OK		
	147671	JB69587-12	69249 BTX, ACG, MBIC		~~14~~ 15		~~4~~ 6.3				✓		OK		
	147672	JB69587-12 MS			16		4.7				✓		OK	25 uL ARC ACQ/50mL DI	
	147673	JB69587-12 MSD			18		4.5				✓		OK	OK per JEC	
	147674	IB											OK		
R	147675	JB69404-3	69248 8010C	S	~~4~~ 8		5.5				✓		OK		
	147676	JB69404-4			4		5.7				✓		OK		
	147677	JB69404-5			4		5.4				✓		OK		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VX6383 YC 6/23/2014

Print Analyst Name: King Cheng

Date: 6/21/2014

Analyst Signature:

Columns: ZB624 (60 m x 0.25 mm x 1.4 um)

Method V8260B

Initial Cal. Method mx6387

Standard Data

Lot #	Description	Conc.
1014-1861-27	STD A	1000ppm
34	B	
64	C	
42	ACB	1000ppm
6	ZLS	250/250ppm

Standard Data

Lot #	Description	Conc.
1014-1861-60	Ext A	1000ppm
61	B	
~~57~~ 68	C	
63	ACB	1000ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: **Date:** 6/23/2014

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
	V147691	BFB				1							ok	9:02AM	
	147698A	CC6381-20				2							ok	10 ml ABC ACB 1/50 ml b2	
	147699	IB				3							clip		
	147700	MB2				4					✓		ok		
	147701	B52				5					✓		ok	250ul EXT ABC ACB 1/50 ml b2	
	147702	IB				6							clip		
	147703	JB69587-8	8260 BTX, ACE, MTBE	SE	6	7	4.2				✓		ok		
	147704	JB69587-9			6	8	3.9				✓		ok		
	147705	JB69587-11			6	9	4.5							Sample purged but no data	
	147706	JB69587-13			6	10	4.6								
	147707	JB69587-8 MS			7	11	4.4							Not run	
	147708	JB69587-9 DUP			6	12	3.9								
IB	147709	JB69587-19 ~~14~~			1	13	5								
	147710	JB69587-14 ~~15~~			6	14	4.9								
	147711	JB69587-15			6	15	4.9								
	147712	JB69657-1	8260 TCLP	SE	5	~~47~~ 16	4.7								
	147713	JB69657-2			5	~~50~~ 17	5.0								

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

New Jersey

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: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH4595-MB3	GH97016.D	1	06/19/14	XPL	n/a	n/a	GGH4595

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-1, JB69587-2, JB69587-3, JB69587-4, JB69587-5, JB69587-6, JB69587-7, JB69587-8

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	48	ug/kg	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	86%	58-133%
111-27-3	Hexanol	85%	58-133%

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH4596-MB1	GH97026.D	1	06/19/14	XPL	n/a	n/a	GGH4596

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-9, JB69587-11, JB69587-12, JB69587-13, JB69587-14

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	48	ug/kg	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	84%	58-133%
111-27-3	Hexanol	84%	58-133%

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH4596-MB2	GH97036.D	1	06/19/14	XPL	n/a	n/a	GGH4596

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-15, JB69587-16, JB69587-17, JB69587-21

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	48	ug/kg	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	80%	58-133%
111-27-3	Hexanol	81%	58-133%

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH4598-MB1	GH97047.D	1	06/20/14	XPL	n/a	n/a	GGH4598

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-10, JB69587-18

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	45	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	101%	48-150%
111-27-3	Hexanol	100%	48-150%

Method Blank Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH4595-MB1	GH96997.D	1	06/19/14	XPL	n/a	n/a	GGH4595

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

GGH4595-BS, JB68943-89AMS, JB68943-89AMSD

CAS No.	Compound	Result	RL	MDL	Units	Q
67-56-1	Methanol	ND	200	48	ug/kg	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	88%	58-133%
111-27-3	Hexanol	90%	58-133%

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH4595-BS	GH96998.D	1	06/19/14	XPL	n/a	n/a	GGH4595

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-1, JB69587-2, JB69587-3, JB69587-4, JB69587-5, JB69587-6, JB69587-7, JB69587-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-56-1	Methanol	5000	5730	115	74-122

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	81%	58-133%
111-27-3	Hexanol	82%	58-133%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH4596-BS	GH97027.D	1	06/19/14	XPL	n/a	n/a	GGH4596

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-9, JB69587-11, JB69587-12, JB69587-13, JB69587-14, JB69587-15, JB69587-16, JB69587-17, JB69587-21

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-56-1	Methanol	5000	5490	110	74-122

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	94%	58-133%
111-27-3	Hexanol	94%	58-133%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH4598-BS2	GH97051.D	1	06/20/14	XPL	n/a	n/a	GGH4598

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-10, JB69587-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-56-1	Methanol	5000	4480	90	65-130

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	89%	48-150%
111-27-3	Hexanol	90%	48-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB68943-89AMS	GH97000.D	1	06/19/14	XPL	n/a	n/a	GGH4595
JB68943-89AMSD	GH97001.D	1	06/19/14	XPL	n/a	n/a	GGH4595
JB68943-89A	GH96999.D	1	06/19/14	XPL	n/a	n/a	GGH4595

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-1, JB69587-2, JB69587-3, JB69587-4, JB69587-5, JB69587-6, JB69587-7, JB69587-8

CAS No.	Compound	JB68943-89A ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-56-1	Methanol	ND		6140	6130	100	6140	7270	118	17	44-146/19

CAS No.	Surrogate Recoveries	MS	MSD	JB68943-89A	Limits
111-27-3	Hexanol	90%	99%	96%	58-133%
111-27-3	Hexanol	92%	97%	95%	58-133%

8.3.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB69587-12MS	GH97029.D	1	06/19/14	XPL	n/a	n/a	GGH4596
JB69587-12MSD	GH97030.D	1	06/19/14	XPL	n/a	n/a	GGH4596
JB69587-12	GH97028.D	1	06/19/14	XPL	n/a	n/a	GGH4596

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JB69587-9, JB69587-11, JB69587-12, JB69587-13, JB69587-14, JB69587-15, JB69587-16, JB69587-17, JB69587-21

CAS No.	Compound	JB69587-12 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-56-1	Methanol	ND		5210	4900	94	5210	5240	101	7	44-146/19

CAS No.	Surrogate Recoveries	MS	MSD	JB69587-12	Limits
111-27-3	Hexanol	94%	102%	78%	58-133%
111-27-3	Hexanol	94%	97%	77%	58-133%

* = Outside of Control Limits.

GC Identification Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH96996.D	**Injection Time:**	08:35
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH4595-BS	**Injection Date:**	06/19/14
Lab File ID:	GH96998.D	**Injection Time:**	09:05
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Methanol	1	1.06	1.06	5760		ug/kg	0.5
Methanol	2 [a]	0.65	0.65	5730		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH97025.D	**Injection Time:**	15:49
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH4596-BS	**Injection Date:**	06/19/14
Lab File ID:	GH97027.D	**Injection Time:**	16:13
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Methanol	1 [a]	1.06	1.06	5490		ug/kg	6.0
Methanol	2	0.65	0.64	5830		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4598-CC4491	**Injection Date:**	06/20/14
Lab File ID:	GH97046.D	**Injection Time:**	09:56
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH4598-BS2	**Injection Date:**	06/20/14
Lab File ID:	GH97051.D	**Injection Time:**	11:42
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Methanol	1 [a]	1.04	1.04	4480		ug/l	12.0
Methanol	2	0.65	0.65	5050		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH96996.D	**Injection Time:**	08:35
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JB68943-89AMS	**Injection Date:**	06/19/14
Lab File ID:	GH97000.D	**Injection Time:**	09:38
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Methanol	1	1.06	1.06	5400		ug/kg	12.7
Methanol	2 [a]	0.65	0.65	6130		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH97025.D	**Injection Time:**	15:49
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JB69587-12MS	**Injection Date:**	06/19/14
Lab File ID:	GH97029.D	**Injection Time:**	16:49
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Methanol	1	1.06	1.06	5610		ug/kg	13.5
Methanol	2 [a]	0.65	0.64	4900		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH96996.D	**Injection Time:**	08:35
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JB68943-89AMSD	**Injection Date:**	06/19/14
Lab File ID:	GH97001.D	**Injection Time:**	09:53
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Methanol	1	1.06	1.06	6670		ug/kg	8.6
Methanol	2 [a]	0.65	0.65	7270		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH97025.D	**Injection Time:**	15:49
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JB69587-12MSD	**Injection Date:**	06/19/14
Lab File ID:	GH97030.D	**Injection Time:**	17:04
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Methanol	1	1.06	1.06	3190		ug/kg	48.6
Methanol	2 [a]	0.65	0.64	5240		ug/kg	

(a) QC results reported from this column.

Volatile Surrogate Recovery Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, 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]
JB69587-10	GH97052.D	71	78
JB69587-18	GH97053.D	98	94
GGH4598-BS2	GH97051.D	89	90
GGH4598-MB1	GH97047.D	101	100

Surrogate Compounds	Recovery Limits
S1 = Hexanol	48-150%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

Volatile Surrogate Recovery Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Method: SW846-8015C (DAI) **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
JB69587-1	GH97017.D	82	81
JB69587-2	GH97018.D	89	87
JB69587-3	GH97019.D	90	90
JB69587-4	GH97020.D	106	101
JB69587-5	GH97021.D	102	98
JB69587-6	GH97022.D	104	101
JB69587-7	GH97023.D	103	102
JB69587-8	GH97024.D	103	100
JB69587-9	GH97032.D	94	94
JB69587-11	GH97031.D	97	105
JB69587-12	GH97028.D	78	77
JB69587-13	GH97033.D	105	102
JB69587-14	GH97034.D	99	102
JB69587-15	GH97037.D	102	101
JB69587-16	GH97038.D	105	101
JB69587-17	GH97039.D	99	95
JB69587-21	GH97040.D	101	100
GGH4595-BS	GH96998.D	81	82
GGH4595-MB3	GH97016.D	86	85
GGH4596-BS	GH97027.D	94	94
GGH4596-MB1	GH97026.D	84	84
GGH4596-MB2	GH97036.D	80	81
JB68943-89AMS	GH97000.D	90	92
JB68943-89AMSD	GH97001.D	99	97
JB69587-12MS	GH97029.D	94	94
JB69587-12MSD	GH97030.D	102	97
GGH4595-MB1	GH96997.D	88	90

Surrogate Compounds	Recovery Limits
S1 = Hexanol	58-133%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.5.2

8

GC Surrogate Retention Time Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH96996.D	**Injection Time:**	08:35
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.05	5.55

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH4595-MB1	GH96997.D	06/19/14	08:51	5.05	5.55
GGH4595-BS	GH96998.D	06/19/14	09:05	5.06	5.55
JB68943-89A	GH96999.D	06/19/14	09:18	5.06	5.55
JB68943-89AMS	GH97000.D	06/19/14	09:38	5.06	5.55
JB68943-89AMSD	GH97001.D	06/19/14	09:53	5.06	5.55
ZZZZZZ	GH97002.D	06/19/14	10:04	5.06	5.55
ZZZZZZ	GH97003.D	06/19/14	10:15	5.06	5.55
ZZZZZZ	GH97004.D	06/19/14	10:37	5.05	5.55
ZZZZZZ	GH97005.D	06/19/14	10:46	5.06	5.55
ZZZZZZ	GH97006.D	06/19/14	11:01	5.05	5.55

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: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH97015.D	**Injection Time:**	13:20
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.06	5.55

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH4595-MB3	GH97016.D	06/19/14	13:32	5.06	5.55
JB69587-1	GH97017.D	06/19/14	13:47	5.05	5.55
JB69587-2	GH97018.D	06/19/14	14:01	5.06	5.55
JB69587-3	GH97019.D	06/19/14	14:15	5.06	5.55
JB69587-4	GH97020.D	06/19/14	14:30	5.06	5.55
JB69587-5	GH97021.D	06/19/14	14:44	5.06	5.55
JB69587-6	GH97022.D	06/19/14	15:04	5.06	5.55
JB69587-7	GH97023.D	06/19/14	15:17	5.06	5.55
JB69587-8	GH97024.D	06/19/14	15:32	5.06	5.55

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: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4595-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH97025.D	**Injection Time:**	15:49
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.06	5.55

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH4596-MB1	GH97026.D	06/19/14	15:59	5.06	5.55
GGH4596-BS	GH97027.D	06/19/14	16:13	5.06	5.55
JB69587-12	GH97028.D	06/19/14	16:28	5.06	5.55
JB69587-12MS	GH97029.D	06/19/14	16:49	5.06	5.55
JB69587-12MSD	GH97030.D	06/19/14	17:04	5.06	5.55
JB69587-11	GH97031.D	06/19/14	17:18	5.06	5.55
JB69587-9	GH97032.D	06/19/14	17:32	5.06	5.55
JB69587-13	GH97033.D	06/19/14	17:47	5.06	5.55
JB69587-14	GH97034.D	06/19/14	18:01	5.06	5.55

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: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4596-CC4491	**Injection Date:**	06/19/14
Lab File ID:	GH97035.D	**Injection Time:**	18:16
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.06	5.55

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH4596-MB2	GH97036.D	06/19/14	18:30	5.06	5.55
JB69587-15	GH97037.D	06/19/14	18:45	5.06	5.55
JB69587-16	GH97038.D	06/19/14	18:59	5.06	5.55
JB69587-17	GH97039.D	06/19/14	19:14	5.06	5.55
JB69587-21	GH97040.D	06/19/14	19:28	5.06	5.55

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: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Check Std:	GGH4598-CC4491	**Injection Date:**	06/20/14
Lab File ID:	GH97046.D	**Injection Time:**	09:56
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.05	5.54

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH4598-MB1	GH97047.D	06/20/14	10:29	5.05	5.54
GGH4598-BS1	GH97048.D	06/20/14	10:43	5.06	5.54
GGH4598-BS2	GH97051.D	06/20/14	11:42	5.05	5.54
JB69587-10	GH97052.D	06/20/14	12:10	5.06	5.54
JB69587-18	GH97053.D	06/20/14	12:24	5.06	5.54

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

Initial Calibration Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR
Sample: GGH4491-ICC4491
Lab FileID: GH95657.D

Response Factor Report GCGH

Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Tue Jan 28 09:08:12 2014
Response via : Initial Calibration

Calibration Files
0.5 =GH95655.D 1 =GH95656.D 5 =GH95657.D 10 =GH95658.D
50 =GH95659.D 100 =GH95660.D 0.1 =GH95661.D =

Compound	0.5	1	5	10	50	100	0.1	Avg	%RSD
1) Methanol	1.727	1.519	1.619	1.576	1.553	1.503	1.528	1.575 E1	4.92
2) Ethanol	1.815	1.948	2.145	2.121	2.069	1.999	1.902	2.000 E1	6.02
3) Tert-Butyl A	2.469	2.578	3.150	3.116	3.002	3.001	2.679	2.856 E1	9.64
4) 1-Propanol	2.207	2.485	2.672	2.705	2.597	2.553	2.180	2.486 E1	8.55
5) 2-Propanol	1.972	1.885	2.283	2.257	2.179	2.121	2.116	2.116 E1	6.85
6) Propionitril									
7) Isobutanol	2.764	2.825	3.011	3.073	2.941	2.893	2.851	2.908 E1	3.72
8) 1-Butanol	2.802	2.819	2.969	2.985	2.818	2.815	3.220	2.918 E1	5.27
9) 2-Butanol	2.619	2.642	2.752	2.739	2.630	2.607	2.816	2.686 E1	3.04
10) Hexanol	8.003	8.616	8.575	8.708	8.711	7.162	7.227	8.143 E1	8.50

Signal #2

1) Methanol	1.722	1.522	1.715	1.777	1.639	1.480	1.619	1.639 E1	6.63
2) Ethanol	2.337	2.238	2.652	2.598	2.619	2.334	2.184	2.423 E1	8.04
3) Tert-Butyl A	3.638	3.630	3.923	3.813	3.725	3.713	3.499	3.706 E1	3.69
4) 1-Propanol	3.025	3.050	3.176	3.336	3.199	3.201	2.555	3.077 E1	8.21
5) 2-Propanol	2.668	2.527	2.638	2.747	2.749	2.550	2.288	2.595 E1	6.18
6) Propionitril									
7) Isobutanol	3.452	3.474	3.530	3.550	3.464	3.476	3.344	3.470 E1	1.91
8) 1-Butanol	3.474	3.821	3.500	3.494	3.405	3.415	3.729	3.548 E1	4.54
9) 2-Butanol	3.060	3.120	3.153	3.166	3.097	3.073	3.118	3.112 E1	1.25
10) Hexanol	1.080	1.072	1.070	1.074	1.066	0.871	0.944	1.025 E2	8.11

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

MGH4491.M Tue Jan 28 09:24:10 2014 GCGH

Initial Calibration Verification

Job Number: JB69587 **Sample:** GGH4491-ICV4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH95662.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH95662.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   4:08 pm                    Operator: XULIU
Sample    : ICV4491-5000                             Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95662.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   4:23 pm                    Operator: XULIU
Sample    : ICV4491-5000                             Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Tue Jan 28 09:08:12 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	16.301	-3.5	101	0.00	1.00- 1.06
2	Ethanol	19.998	21.176	-5.9	99	0.00	1.31- 1.37
3	Tert-Butyl Alcohol	28.565	30.829	-7.9	98	0.00	1.84- 1.90
4	1-Propanol	24.857	26.736	-7.6	100	0.00	2.33- 2.39
5	2-Propanol	21.162	22.319	-5.5	98	0.00	1.59- 1.65
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	30.377	-4.4	101	0.00	3.17- 3.23
8	1-Butanol	29.185	29.934	-2.6	101	0.00	3.65- 3.71
9	2-Butanol	26.864	27.006	-0.5	98	0.00	2.78- 2.84
10 S	Hexanol	81.431	87.482	-7.4	102	0.00	5.45- 5.51
*****	Signal #2 *****						
1	Methanol	16.392	17.195	-4.9	100	0.00	0.64- 0.70
2	Ethanol	24.232	25.702	-6.1	97	0.00	0.81- 0.87
3	Tert-Butyl Alcohol	37.058	37.228	-0.5	95	0.00	1.16- 1.23
4	1-Propanol	30.775	31.705	-3.0	100	0.00	1.42- 1.49
5	2-Propanol	25.954	27.135	-4.6	103	0.00	0.99- 1.06
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	35.404	-2.0	100	0.00	2.23- 2.39
8	1-Butanol	35.483	35.200	0.8	101	0.00	2.75- 2.89
9	2-Butanol	31.125	31.323	-0.6	99	0.00	1.85- 1.99
10 S	Hexanol	102.526	107.700	-5.0	101	0.00	5.04- 5.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95657.D MGH4491.M Tue Jan 28 09:26:34 2014 GCGH

Continuing Calibration Summary

Job Number: JB69587 **Sample:** GGH4595-CC4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH96996.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH96996.D\FID1A.CH          Vial: 92
Acq On    : 19 Jun 2014   8:35 am                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH96996.D\FID2B.CH          Vial: 92
Acq On    : 19 Jun 2014   8:51 am                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Sun Feb 02 07:46:10 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	16.582	-5.3	102	0.00	1.03- 1.09
2	Ethanol	19.998	21.973	-9.9	102	0.00	1.34- 1.40
3	Tert-Butyl Alcohol	28.565	30.851	-8.0	98	0.00	1.88- 1.94
4	1-Propanol	24.857	25.981	-4.5	97	0.00	2.37- 2.43
5	2-Propanol	21.162	22.745	-7.5	100	0.00	1.63- 1.69
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	29.772	-2.4	99	0.00	3.22- 3.28
8	1-Butanol	29.185	28.272	3.1	95	0.00	3.68- 3.74
9	2-Butanol	26.864	28.284	-5.3	103	0.00	2.82- 2.88
10 S	Hexanol	81.431	88.459	-8.6	103	0.00	5.52- 5.58

***** Signal #2 *****

1	Methanol	16.392	16.854	-2.8	98	0.00	0.62- 0.68
2	Ethanol	24.232	24.061	0.7	91	0.00	0.80- 0.86
3	Tert-Butyl Alcohol	37.058	36.578	1.3	93	0.00	1.16- 1.23
4	1-Propanol	30.775	30.378	1.3	96	0.00	1.41- 1.48
5	2-Propanol	25.954	26.137	-0.7	99	0.00	0.98- 1.05
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	38.136	-9.9	108	0.00	2.21- 2.37
8	1-Butanol	35.483	33.880	4.5	97	0.00	2.73- 2.86
9	2-Butanol	31.125	30.231	2.9	96	0.00	1.84- 1.98
10 S	Hexanol	102.526	108.595	-5.9	102	0.00	5.02- 5.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95657.D MGH4491.M Thu Jun 19 10:12:53 2014 GCGH

Continuing Calibration Summary

Job Number: JB69587 **Sample:** GGH4595-CC4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH97007.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH97007.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014  11:17 am                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97007.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014  11:31 am                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Sun Feb 02 07:46:10 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	15.155	3.8	96	0.00	1.03- 1.09
2	Ethanol	19.998	20.476	-2.4	97	0.00	1.33- 1.39
3	Tert-Butyl Alcohol	28.565	30.417	-6.5	98	0.00	1.86- 1.92
4	1-Propanol	24.857	25.836	-3.9	95	0.00	2.36- 2.42
5	2-Propanol	21.162	21.875	-3.4	97	0.00	1.62- 1.68
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	29.392	-1.1	96	0.00	3.21- 3.27
8	1-Butanol	29.185	27.420	6.0	92	0.00	3.67- 3.73
9	2-Butanol	26.864	26.005	3.2	95	0.00	2.81- 2.87
10 S	Hexanol	81.431	81.932	-0.6	94	0.00	5.52- 5.58

***** Signal #2 *****

1	Methanol	16.392	15.977	2.5	90	0.00	0.62- 0.68
2	Ethanol	24.232	24.711	-2.0	95	0.00	0.80- 0.86
3	Tert-Butyl Alcohol	37.058	37.650	-1.6	99	0.00	1.16- 1.23
4	1-Propanol	30.775	29.168	5.2	87	0.00	1.42- 1.49
5	2-Propanol	25.954	26.727	-3.0	97	0.00	0.99- 1.06
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	35.004	-0.9	99	0.00	2.22- 2.38
8	1-Butanol	35.483	32.825	7.5	94	0.00	2.73- 2.87
9	2-Butanol	31.125	30.639	1.6	97	0.00	1.85- 1.99
10 S	Hexanol	102.526	103.629	-1.1	97	0.00	5.02- 5.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95658.D MGH4491.M Thu Jun 19 15:43:38 2014 GCGH

Continuing Calibration Summary

Job Number: JB69587 **Sample:** GGH4595-CC4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH97015.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH97015.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014   1:20 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43930,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97015.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014   1:32 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43930,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Sun Feb 02 07:46:10 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	15.939	-1.2	98	0.00	1.03- 1.09
2	Ethanol	19.998	21.192	-6.0	99	0.00	1.34- 1.40
3	Tert-Butyl Alcohol	28.565	32.667	-14.4	104	0.00	1.87- 1.93
4	1-Propanol	24.857	26.605	-7.0	100	0.00	2.37- 2.43
5	2-Propanol	21.162	22.313	-5.4	98	0.00	1.62- 1.68
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	31.063	-6.8	103	0.00	3.22- 3.27
8	1-Butanol	29.185	29.317	-0.5	99	0.00	3.68- 3.74
9	2-Butanol	26.864	27.423	-2.1	100	0.00	2.82- 2.88
10 S	Hexanol	81.431	85.116	-4.5	99	0.00	5.52- 5.58
*****	Signal #2 *****						
1	Methanol	16.392	16.936	-3.3	99	0.00	0.61- 0.67
2	Ethanol	24.232	25.440	-5.0	96	0.00	0.80- 0.86
3	Tert-Butyl Alcohol	37.058	38.203	-3.1	97	0.00	1.16- 1.23
4	1-Propanol	30.775	32.588	-5.9	103	0.00	1.42- 1.49
5	2-Propanol	25.954	27.565	-6.2	104	0.00	0.98- 1.05
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	36.638	-5.6	104	0.00	2.22- 2.38
8	1-Butanol	35.483	35.016	1.3	100	0.00	2.73- 2.87
9	2-Butanol	31.125	32.050	-3.0	102	0.00	1.85- 1.99
10 S	Hexanol	102.526	107.158	-4.5	100	0.00	5.02- 5.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95657.D MGH4491.M Thu Jun 19 15:42:26 2014 GCGH

Continuing Calibration Summary

Job Number: JB69587 **Sample:** GGH4595-CC4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH97025.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH97025.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014   3:49 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97025.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014   3:59 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Sun Feb 02 07:46:10 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	14.730	6.5	93	0.00	1.03- 1.09
2	Ethanol	19.998	20.202	-1.0	95	0.00	1.34- 1.40
3	Tert-Butyl Alcohol	28.565	31.408	-10.0	101	0.00	1.87- 1.93
4	1-Propanol	24.857	28.039	-12.8	104	0.00	2.36- 2.42
5	2-Propanol	21.162	21.815	-3.1	97	0.00	1.62- 1.68
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	29.704	-2.1	97	0.00	3.21- 3.27
8	1-Butanol	29.185	27.320	6.4	92	0.00	3.68- 3.74
9	2-Butanol	26.864	26.806	0.2	98	0.00	2.81- 2.87
10 S	Hexanol	81.431	80.721	0.9	93	0.00	5.52- 5.58
*****	Signal #2 *****						
1	Methanol	16.392	15.196	7.3	86	0.00	0.61- 0.67
2	Ethanol	24.232	23.824	1.7	92	0.00	0.80- 0.86
3	Tert-Butyl Alcohol	37.058	36.144	2.5	95	0.00	1.16- 1.23
4	1-Propanol	30.775	29.607	3.8	89	0.00	1.42- 1.49
5	2-Propanol	25.954	25.627	1.3	93	0.00	0.98- 1.05
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	37.685	-8.6	106	0.00	2.22- 2.38
8	1-Butanol	35.483	33.524	5.5	96	0.00	2.74- 2.87
9	2-Butanol	31.125	32.062	-3.0	101	0.00	1.85- 1.99
10 S	Hexanol	102.526	99.664	2.8	93	0.00	5.02- 5.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95658.D MGH4491.M Fri Jun 20 08:06:58 2014 GCGH

Continuing Calibration Summary

Job Number: JB69587 **Sample:** GGH4596-CC4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH97035.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH97035.D\FID1A.CH          Vial: 90
Acq On    : 19 Jun 2014   6:16 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97035.D\FID2B.CH          Vial: 90
Acq On    : 19 Jun 2014   6:30 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Sun Feb 02 07:46:10 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	14.991	4.8	93	0.00	1.03- 1.09
2	Ethanol	19.998	19.331	3.3	90	0.00	1.34- 1.40
3	Tert-Butyl Alcohol	28.565	28.358	0.7	90	0.00	1.87- 1.93
4	1-Propanol	24.857	28.860	-16.1	108	0.00	2.37- 2.43
5	2-Propanol	21.162	19.763	6.6	87	0.00	1.62- 1.68
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	34.319	-18.0	114	0.00	3.22- 3.28
8	1-Butanol	29.185	31.380	-7.5	106	0.00	3.68- 3.74
9	2-Butanol	26.864	33.583	-25.0#	122	0.00	2.82- 2.88
10 S	Hexanol	81.431	82.557	-1.4	96	0.00	5.52- 5.58

***** Signal #2 *****

1	Methanol	16.392	17.283	-5.4	101	0.00	0.62- 0.68
2	Ethanol	24.232	26.832	-10.7	101	0.00	0.80- 0.86
3	Tert-Butyl Alcohol	37.058	38.851	-4.8	99	0.00	1.16- 1.23
4	1-Propanol	30.775	29.556	4.0	93	0.00	1.42- 1.49
5	2-Propanol	25.954	28.630	-10.3	109	0.00	0.98- 1.05
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	36.756	-5.9	104	0.00	2.22- 2.38
8	1-Butanol	35.483	33.927	4.4	97	0.00	2.74- 2.88
9	2-Butanol	31.125	30.133	3.2	96	0.00	1.85- 1.98
10 S	Hexanol	102.526	105.250	-2.7	98	0.00	5.02- 5.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95657.D MGH4491.M Fri Jun 20 08:58:07 2014 GCGH

Continuing Calibration Summary

Job Number: JB69587 **Sample:** GGH4596-CC4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH97041.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH97041.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014   7:42 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97041.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014   7:57 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Sun Feb 02 07:46:10 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	13.600	13.7	86	0.00	1.03- 1.09
2	Ethanol	19.998	18.735	6.3	88	0.00	1.34- 1.40
3	Tert-Butyl Alcohol	28.565	30.194	-5.7	97	0.00	1.87- 1.93
4	1-Propanol	24.857	26.021	-4.7	96	0.00	2.36- 2.42
5	2-Propanol	21.162	20.047	5.3	89	0.00	1.62- 1.68
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	28.765	1.1	94	0.00	3.21- 3.27
8	1-Butanol	29.185	27.197	6.8	91	0.00	3.68- 3.74
9	2-Butanol	26.864	25.769	4.1	94	0.00	2.82- 2.88
10 S	Hexanol	81.431	78.278	3.9	90	0.00	5.52- 5.58

***** Signal #2 *****

1	Methanol	16.392	15.265	6.9	86	0.00	0.61- 0.67
2	Ethanol	24.232	24.271	-0.2	93	0.00	0.80- 0.86
3	Tert-Butyl Alcohol	37.058	38.418	-3.7	101	0.00	1.16- 1.23
4	1-Propanol	30.775	28.905	6.1	87	0.00	1.41- 1.48
5	2-Propanol	25.954	26.586	-2.4	97	0.00	0.98- 1.05
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	33.482	3.5	94	0.00	2.22- 2.38
8	1-Butanol	35.483	32.043	9.7	92	0.00	2.73- 2.87
9	2-Butanol	31.125	29.765	4.4	94	0.00	1.85- 1.99
10 S	Hexanol	102.526	96.297	6.1	90	0.00	5.02- 5.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95658.D MGH4491.M Fri Jun 20 08:47:20 2014 GCGH

Continuing Calibration Summary

Job Number: JB69587 **Sample:** GGH4598-CC4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH97046.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH97046.D\FID1A.CH          Vial: 92
Acq On    : 20 Jun 2014   9:56 am                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97046.D\FID2B.CH          Vial: 92
Acq On    : 20 Jun 2014  10:11 am                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Sun Feb 02 07:46:10 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	14.799	6.0	91	0.00	1.01- 1.07
2	Ethanol	19.998	20.093	-0.5	94	0.00	1.32- 1.38
3	Tert-Butyl Alcohol	28.565	30.472	-6.7	97	0.00	1.84- 1.90
4	1-Propanol	24.857	26.358	-6.0	99	0.00	2.34- 2.40
5	2-Propanol	21.162	21.759	-2.8	95	0.00	1.60- 1.66
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	31.391	-7.9	104	0.00	3.19- 3.25
8	1-Butanol	29.185	28.984	0.7	98	0.00	3.65- 3.71
9	2-Butanol	26.864	26.776	0.3	97	0.00	2.79- 2.85
10 S	Hexanol	81.431	75.703	7.0	88	0.00	5.51- 5.57

***** Signal #2 *****

1	Methanol	16.392	16.974	-3.6	99	0.00	0.62- 0.68
2	Ethanol	24.232	24.335	-0.4	92	0.00	0.80- 0.86
3	Tert-Butyl Alcohol	37.058	36.695	1.0	94	0.00	1.16- 1.23
4	1-Propanol	30.775	30.644	0.4	96	0.00	1.41- 1.48
5	2-Propanol	25.954	26.300	-1.3	100	0.00	0.98- 1.05
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	36.657	-5.6	104	0.00	2.22- 2.38
8	1-Butanol	35.483	34.120	3.8	97	0.00	2.73- 2.87
9	2-Butanol	31.125	32.362	-4.0	103	0.00	1.84- 1.98
10 S	Hexanol	102.526	96.601	5.8	90	0.00	5.02- 5.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95657.D MGH4491.M Fri Jun 20 10:56:05 2014 GCGH

Continuing Calibration Summary

Job Number: JB69587 **Sample:** GGH4598-CC4491
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH97055.D
Project: BMS-ICM, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH97055.D\FID1A.CH          Vial: 95
Acq On    : 20 Jun 2014   1:46 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97055.D\FID2B.CH          Vial: 95
Acq On    : 20 Jun 2014   2:01 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Sun Feb 02 07:46:10 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	15.750	14.876	5.5	94	0.00	1.03- 1.09
2	Ethanol	19.998	23.137	-15.7	109	0.00	1.33- 1.39
3	Tert-Butyl Alcohol	28.565	33.497	-17.3	107	0.00	1.86- 1.92
4	1-Propanol	24.857	26.868	-8.1	99	0.00	2.35- 2.41
5	2-Propanol	21.162	24.138	-14.1	107	0.00	1.61- 1.67
6	Propionitrile		----------NA----------				
7	Isobutanol	29.083	31.611	-8.7	103	0.00	3.20- 3.26
8	1-Butanol	29.185	29.639	-1.6	99	0.00	3.67- 3.73
9	2-Butanol	26.864	27.468	-2.2	100	0.00	2.81- 2.87
10 S	Hexanol	81.431	76.256	6.4	88	0.00	5.52- 5.58
*****	Signal #2 *****						
1	Methanol	16.392	17.110	-4.4	96	0.00	0.61- 0.67
2	Ethanol	24.232	25.252	-4.2	97	0.00	0.80- 0.86
3	Tert-Butyl Alcohol	37.058	38.073	-2.7	100	0.00	1.16- 1.23
4	1-Propanol	30.775	31.718	-3.1	95	0.00	1.41- 1.48
5	2-Propanol	25.954	27.506	-6.0	100	0.00	0.98- 1.05
6	Propionitrile		----------NA----------				
7	Isobutanol	34.702	37.248	-7.3	105	0.00	2.22- 2.38
8	1-Butanol	35.483	34.395	3.1	98	0.00	2.74- 2.88
9	2-Butanol	31.125	32.708	-5.1	103	0.00	1.84- 1.98
10 S	Hexanol	102.526	89.447	12.8	83	0.00	5.02- 5.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH95658.D MGH4491.M Fri Jun 20 15:53:06 2014 GCGH

New Jersey

ACCUTEST LABORATORIES

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97017.D\FID1A.CH          Vial: 36
Acq On    : 19 Jun 2014   1:47 pm                    Operator: XULIU
Sample    : JB69587-1                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.2,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97017.D\FID2B.CH          Vial: 36
Acq On    : 19 Jun 2014   2:01 pm                    Operator: XULIU
Sample    : JB69587-1                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.2,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:55 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.05    328199   420623 4030.392  4102.605
  Spiked Amount   5000.000                  Recovery     =   80.61%    82.05%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97017.D  MGH4491.M      Fri Jun 20 07:55:11 2014      GCGH
```

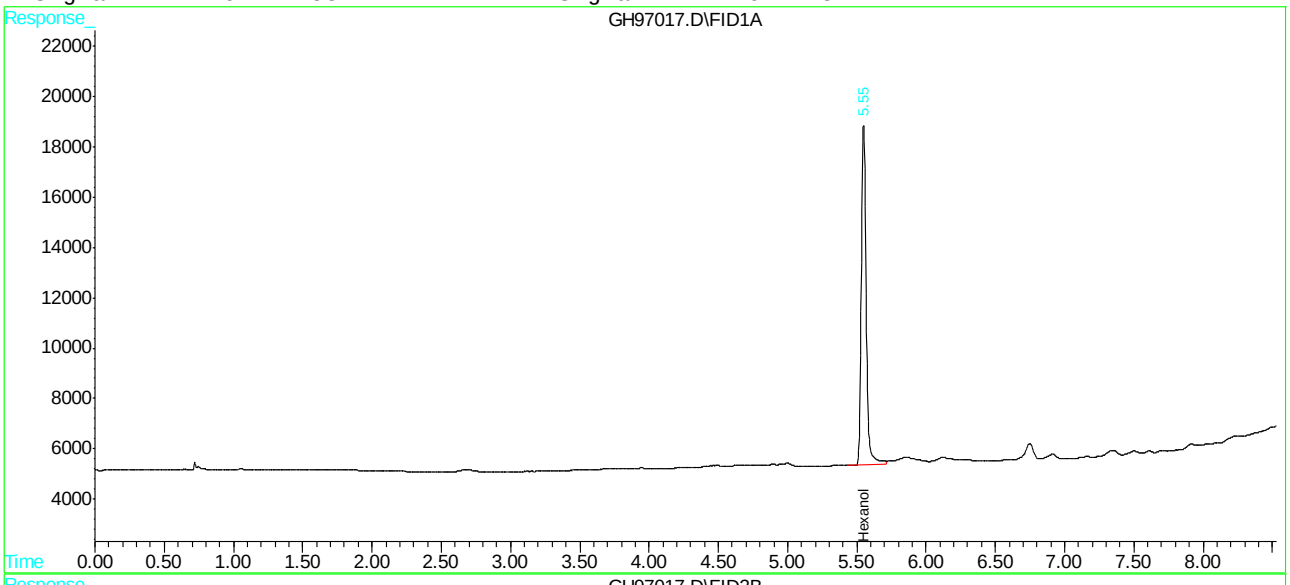
Quantitation Report (QT Reviewed)

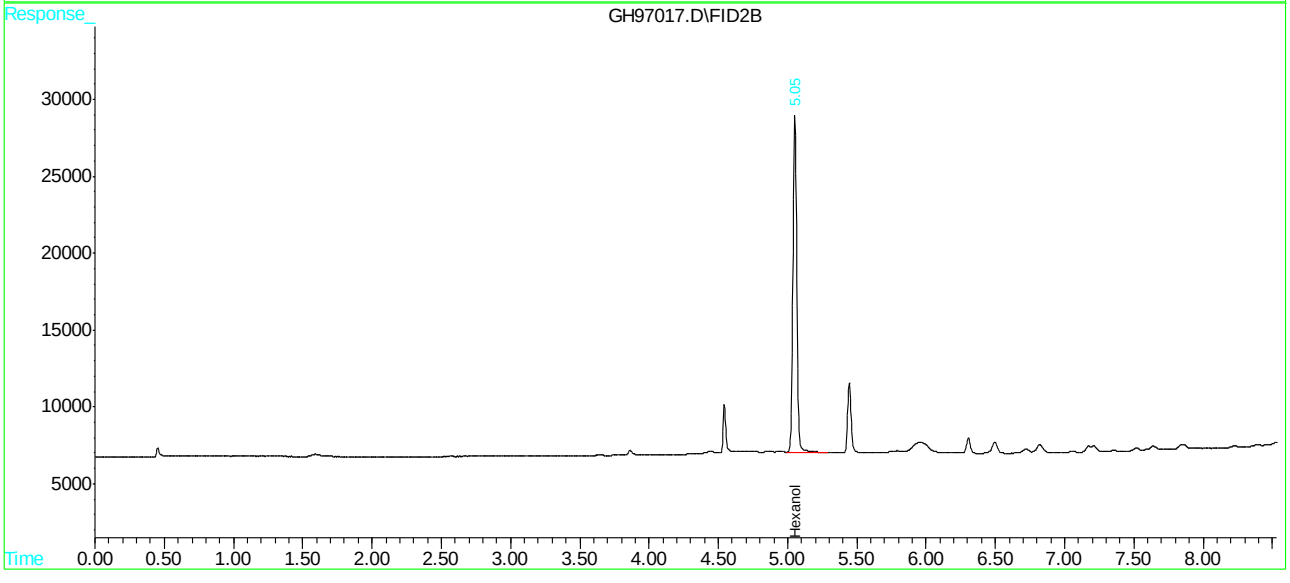
```
Data File : C:\HPCHEM\1\DATA\GH97017.D\FID1A.CH          Vial: 36
Acq On    : 19 Jun 2014   1:47 pm                    Operator: XULIU
Sample    : JB69587-1                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.2,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97017.D\FID2B.CH          Vial: 36
Acq On    : 19 Jun 2014   2:01 pm                    Operator: XULIU
Sample    : JB69587-1                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.2,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:55 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97018.D\FID1A.CH          Vial: 37
Acq On    : 19 Jun 2014   2:01 pm                    Operator: XULIU
Sample    : JB69587-2                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97018.D\FID2B.CH          Vial: 37
Acq On    : 19 Jun 2014   2:15 pm                    Operator: XULIU
Sample    : JB69587-2                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:55 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    355309   455861 4363.312  4446.301
  Spiked Amount   5000.000                  Recovery     =   87.27%    88.93%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97018.D  MGH4491.M      Fri Jun 20 07:55:26 2014      GCGH
```

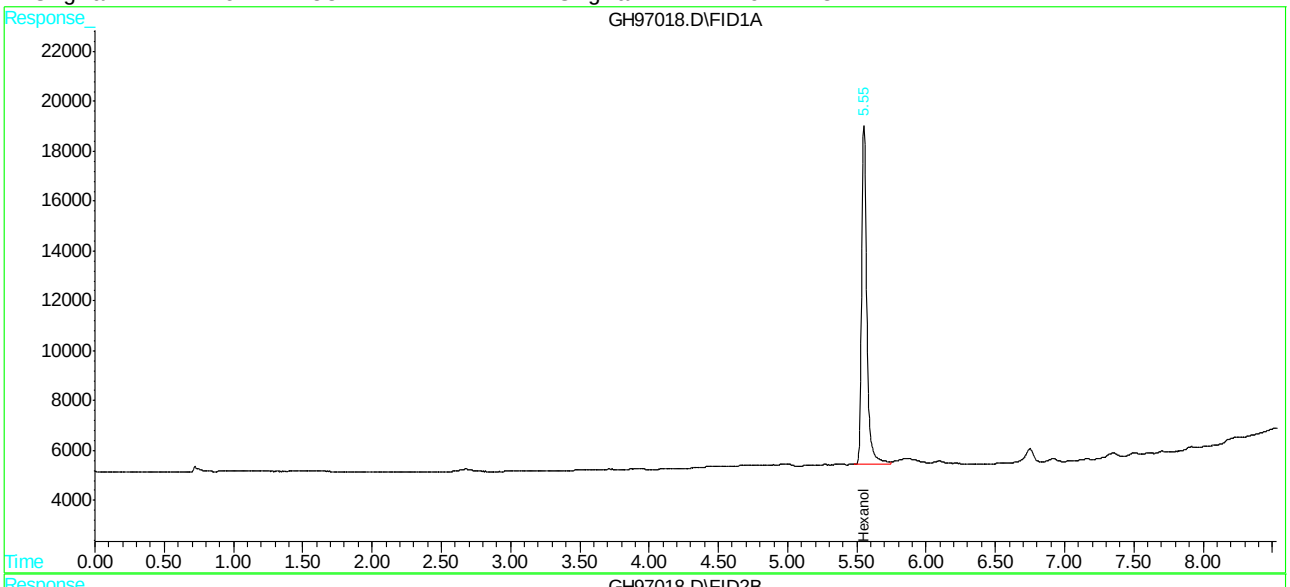
Quantitation Report (QT Reviewed)

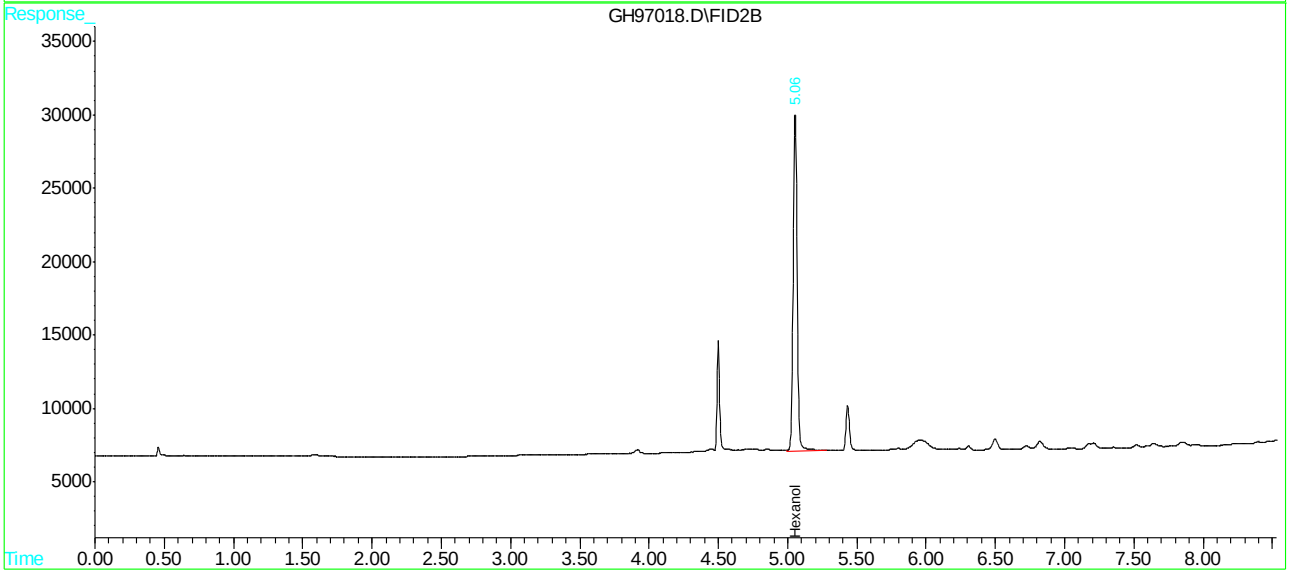
```
Data File : C:\HPCHEM\1\DATA\GH97018.D\FID1A.CH          Vial: 37
Acq On    : 19 Jun 2014   2:01 pm                    Operator: XULIU
Sample    : JB69587-2                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97018.D\FID2B.CH          Vial: 37
Acq On    : 19 Jun 2014   2:15 pm                    Operator: XULIU
Sample    : JB69587-2                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:55 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97019.D\FID1A.CH          Vial: 38
Acq On    : 19 Jun 2014   2:15 pm                    Operator: XULIU
Sample    : JB69587-3                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.3,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97019.D\FID2B.CH          Vial: 38
Acq On    : 19 Jun 2014   2:30 pm                    Operator: XULIU
Sample    : JB69587-3                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.3,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:55 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    367915   460340 4518.120  4489.986
  Spiked Amount   5000.000                  Recovery     =   90.36%    89.80%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97019.D  MGH4491.M      Fri Jun 20 07:56:27 2014      GCGH
```

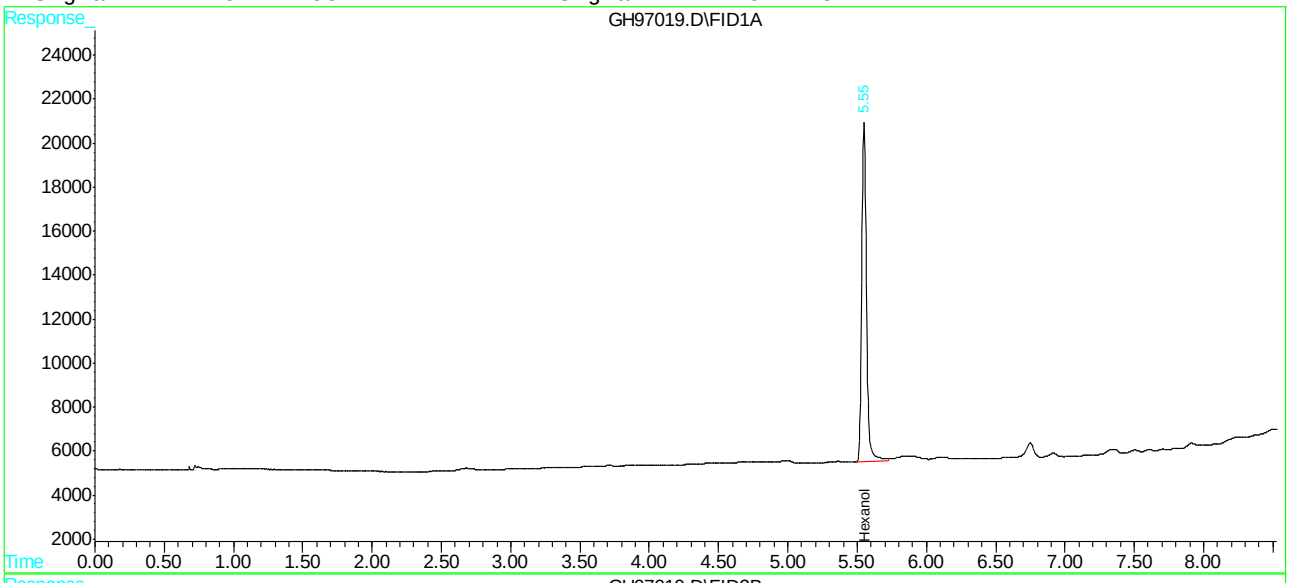
Quantitation Report (QT Reviewed)

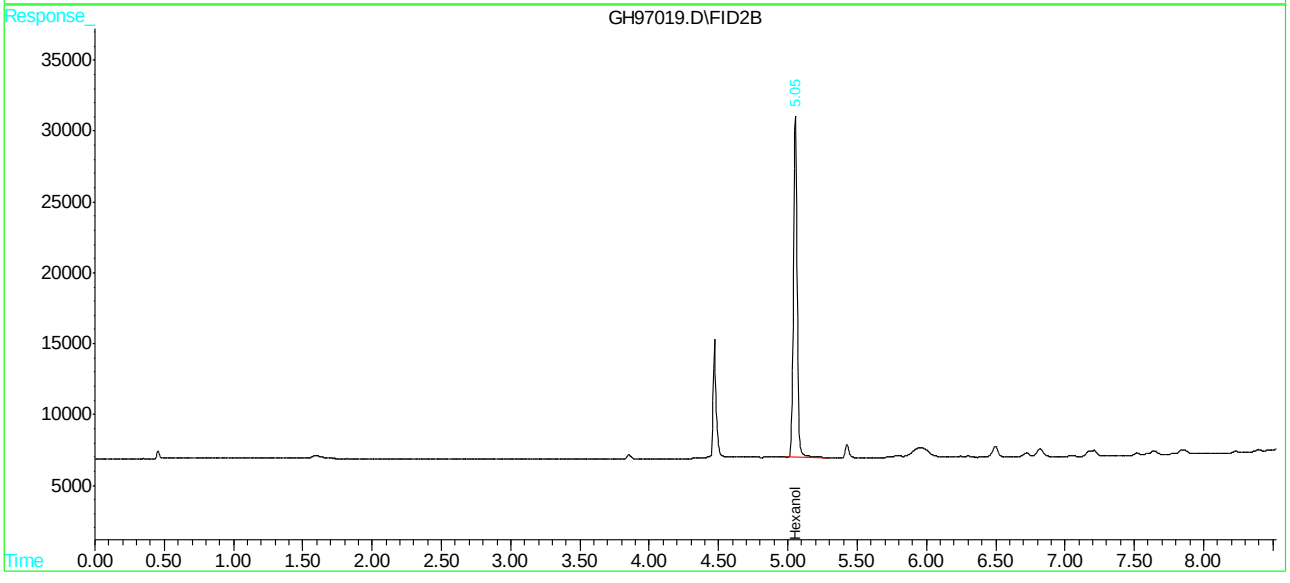
```
Data File : C:\HPCHEM\1\DATA\GH97019.D\FID1A.CH          Vial: 38
Acq On    : 19 Jun 2014   2:15 pm                    Operator: XULIU
Sample    : JB69587-3                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.3,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97019.D\FID2B.CH          Vial: 38
Acq On    : 19 Jun 2014   2:30 pm                    Operator: XULIU
Sample    : JB69587-3                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.3,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:55 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97020.D\FID1A.CH          Vial: 39
Acq On    : 19 Jun 2014   2:30 pm                    Operator: XULIU
Sample    : JB69587-4                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97020.D\FID2B.CH          Vial: 39
Acq On    : 19 Jun 2014   2:44 pm                    Operator: XULIU
Sample    : JB69587-4                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:56 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
-----------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    409939   542469 5034.182  5291.043
  Spiked Amount   5000.000                  Recovery     =  100.68%   105.82%

Target Compounds
```

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97020.D  MGH4491.M      Fri Jun 20 07:56:42 2014      GCGH
```

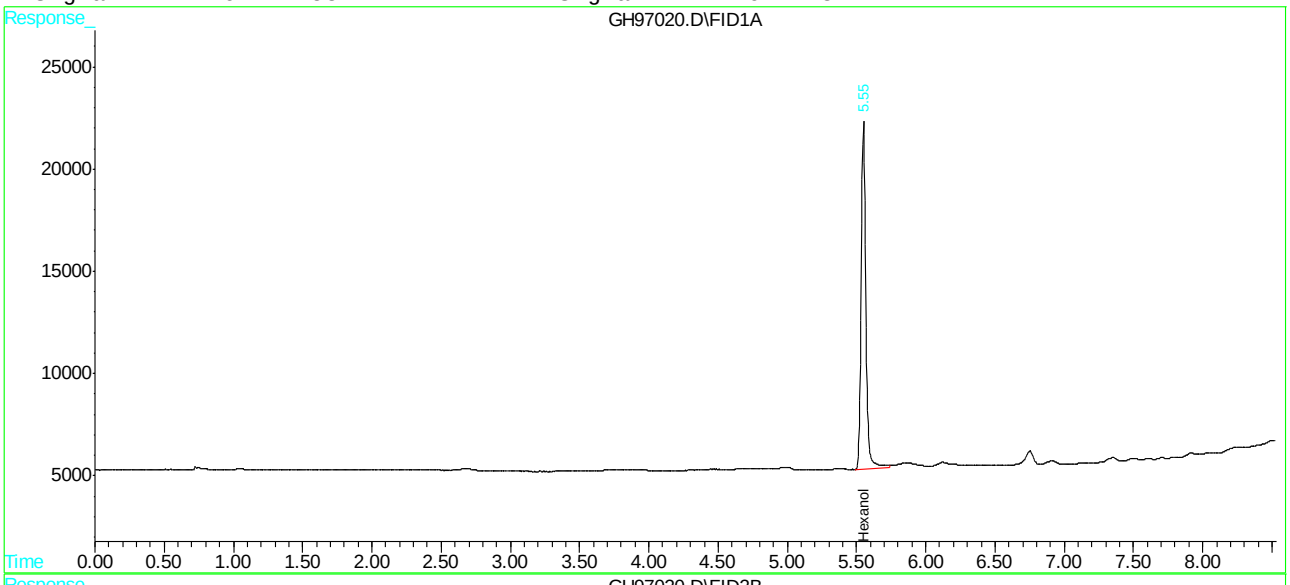
Quantitation Report (QT Reviewed)

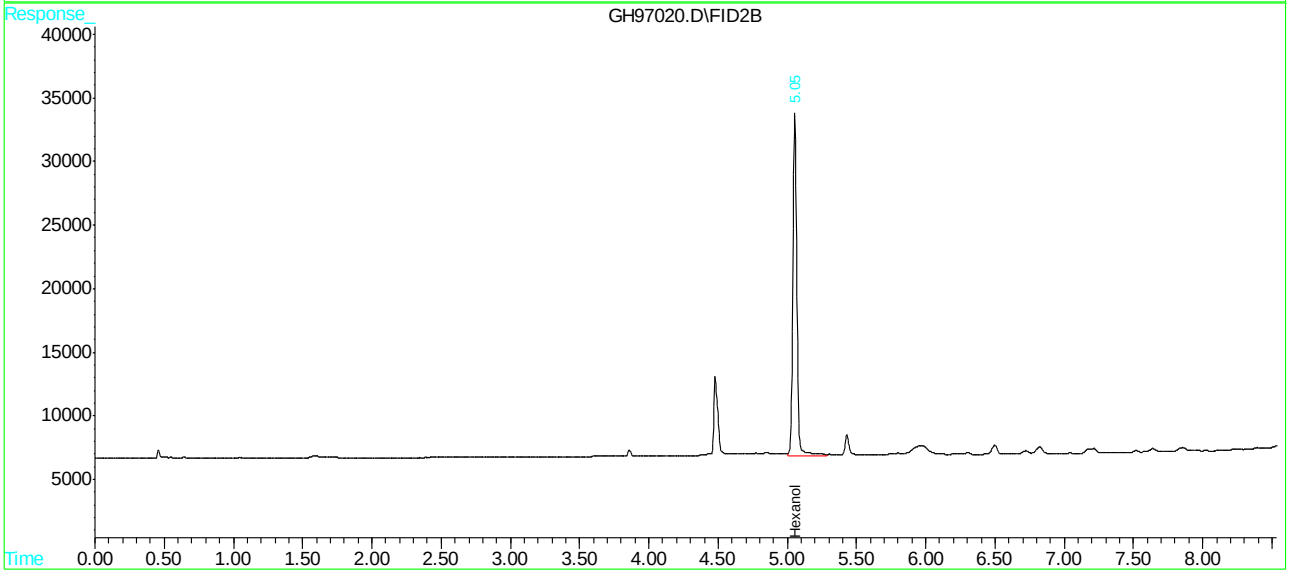
```
Data File : C:\HPCHEM\1\DATA\GH97020.D\FID1A.CH          Vial: 39
Acq On    : 19 Jun 2014   2:30 pm                    Operator: XULIU
Sample    : JB69587-4                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97020.D\FID2B.CH          Vial: 39
Acq On    : 19 Jun 2014   2:44 pm                    Operator: XULIU
Sample    : JB69587-4                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:56 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97021.D\FID1A.CH          Vial: 40
Acq On    : 19 Jun 2014   2:44 pm                    Operator: XULIU
Sample    : JB69587-5                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97021.D\FID2B.CH          Vial: 40
Acq On    : 19 Jun 2014   3:04 pm                    Operator: XULIU
Sample    : JB69587-5                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:56 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.55	5.06	397425	521362	4880.508	5085.179
Spiked Amount 5000.000			Recovery	=	97.61%	101.70%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH97021.D MGH4491.M Fri Jun 20 07:56:57 2014 GCGH

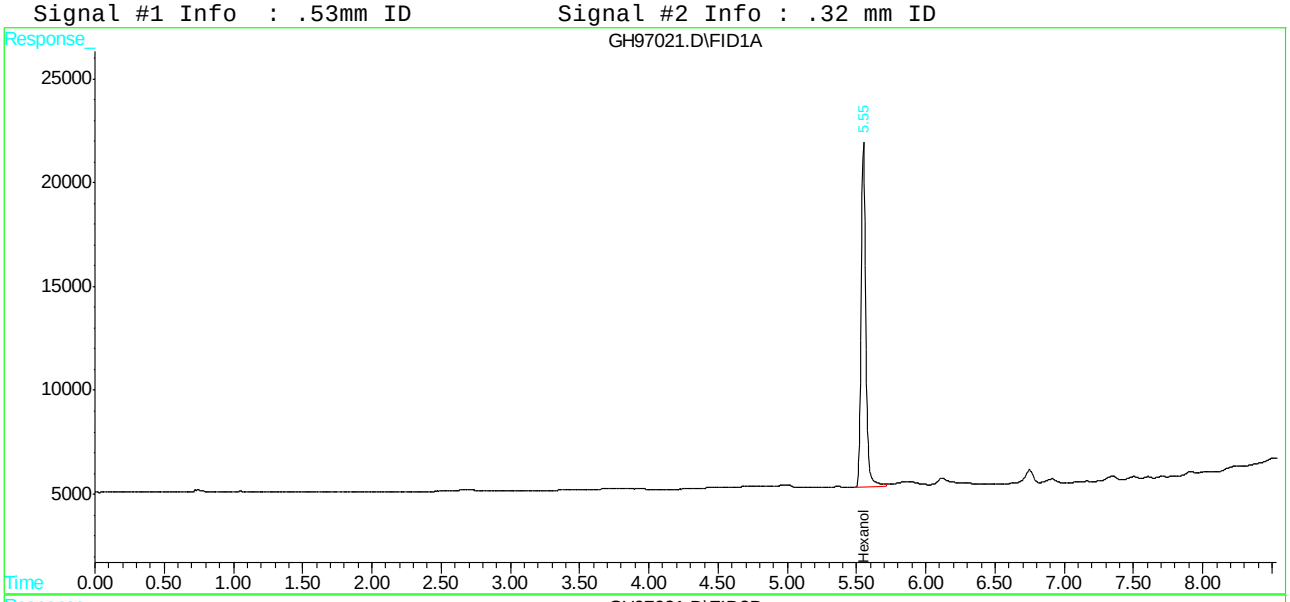
Quantitation Report (QT Reviewed)

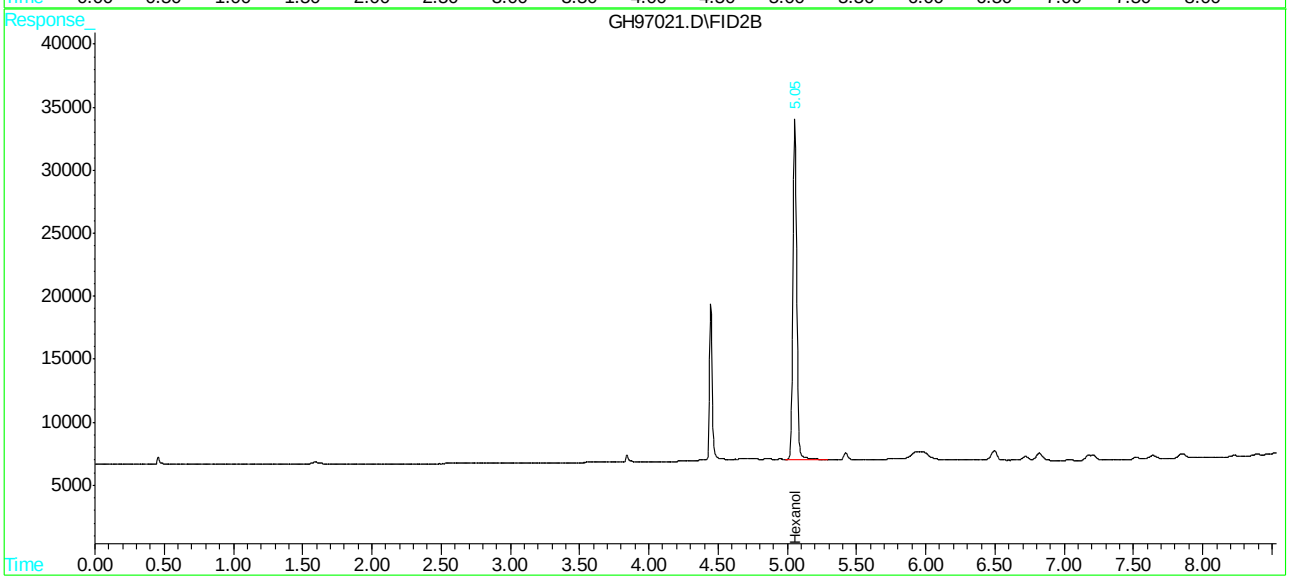
```
Data File : C:\HPCHEM\1\DATA\GH97021.D\FID1A.CH          Vial: 40
Acq On    : 19 Jun 2014   2:44 pm                    Operator: XULIU
Sample    : JB69587-5                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97021.D\FID2B.CH          Vial: 40
Acq On    : 19 Jun 2014   3:04 pm                    Operator: XULIU
Sample    : JB69587-5                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:56 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97022.D\FID1A.CH          Vial: 41
Acq On    : 19 Jun 2014   3:04 pm                    Operator: XULIU
Sample    : JB69587-6                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97022.D\FID2B.CH          Vial: 41
Acq On    : 19 Jun 2014   3:17 pm                    Operator: XULIU
Sample    : JB69587-6                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:57 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
-----------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    412597   534567 5066.829  5213.968
  Spiked Amount   5000.000                  Recovery     =  101.34%   104.28%

Target Compounds
```

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97022.D  MGH4491.M      Fri Jun 20 07:57:13 2014      GCGH
```

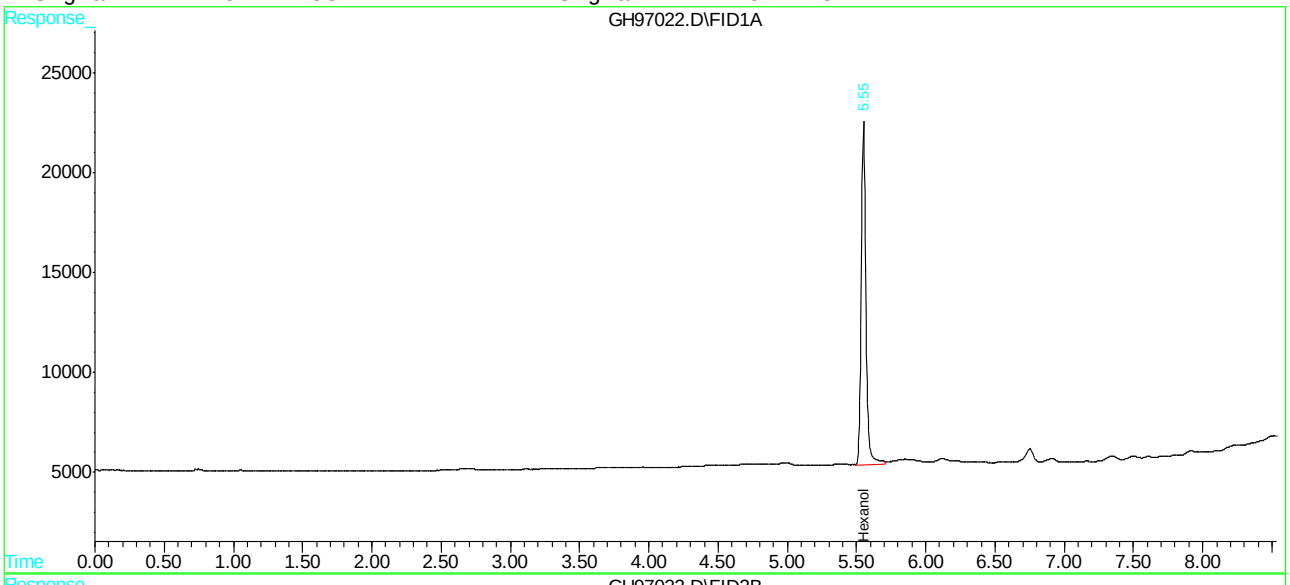
Quantitation Report (QT Reviewed)

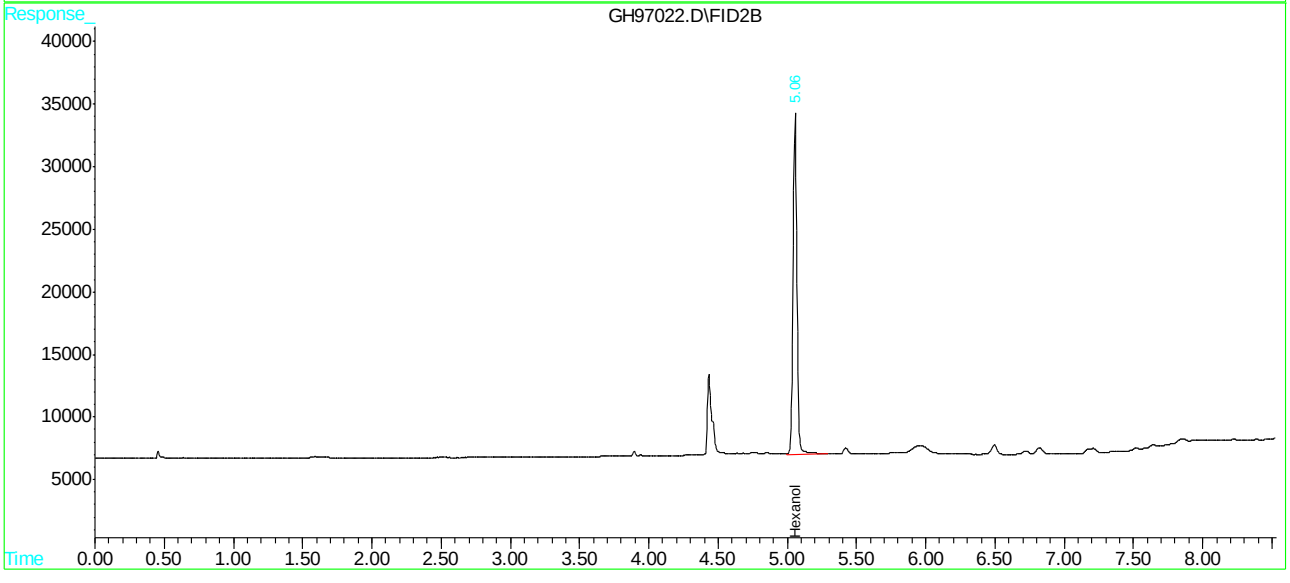
```
Data File : C:\HPCHEM\1\DATA\GH97022.D\FID1A.CH          Vial: 41
Acq On    : 19 Jun 2014   3:04 pm                    Operator: XULIU
Sample    : JB69587-6                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97022.D\FID2B.CH          Vial: 41
Acq On    : 19 Jun 2014   3:17 pm                    Operator: XULIU
Sample    : JB69587-6                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:57 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97023.D\FID1A.CH          Vial: 42
Acq On    : 19 Jun 2014   3:17 pm                    Operator: XULIU
Sample    : JB69587-7                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97023.D\FID2B.CH          Vial: 42
Acq On    : 19 Jun 2014   3:32 pm                    Operator: XULIU
Sample    : JB69587-7                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:57 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    416146   527608 5110.413  5146.094
  Spiked Amount   5000.000                  Recovery     =  102.21%   102.92%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97023.D  MGH4491.M      Fri Jun 20 07:57:28 2014      GCGH
```

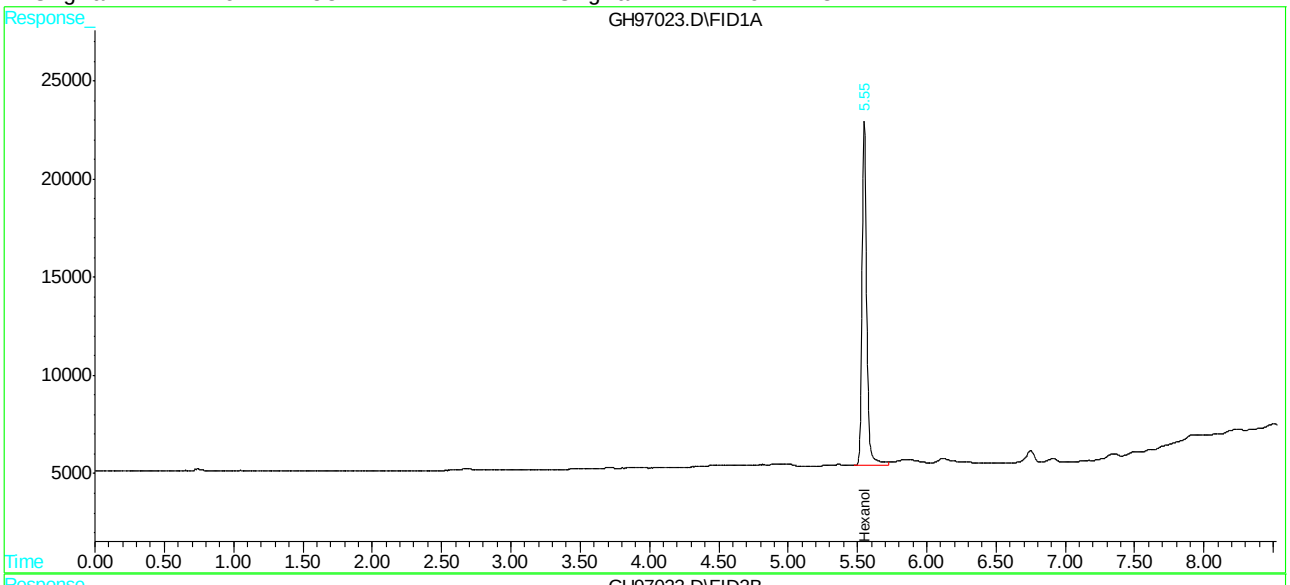
Quantitation Report (QT Reviewed)

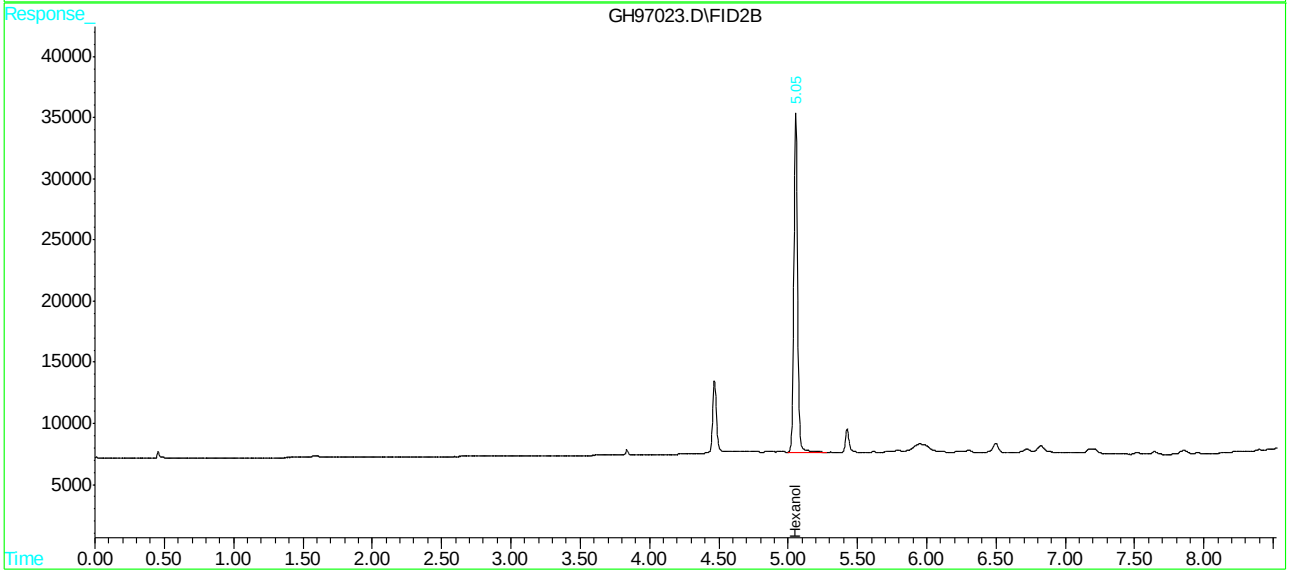
Data File : C:\HPCHEM\1\DATA\GH97023.D\FID1A.CH Vial: 42
Acq On : 19 Jun 2014 3:17 pm Operator: XULIU
Sample : JB69587-7 Inst : GCGH
Misc : GC43934,GGH4595,5.1,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97023.D\FID2B.CH Vial: 42
Acq On : 19 Jun 2014 3:32 pm Operator: XULIU
Sample : JB69587-7 Inst : GCGH
Misc : GC43934,GGH4595,5.1,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 7:57 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97024.D\FID1A.CH          Vial: 43
Acq On    : 19 Jun 2014   3:32 pm                    Operator: XULIU
Sample    : JB69587-8                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97024.D\FID2B.CH          Vial: 43
Acq On    : 19 Jun 2014   3:49 pm                    Operator: XULIU
Sample    : JB69587-8                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:57 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    407428   526151 5003.356  5131.883
  Spiked Amount   5000.000                  Recovery     =  100.07%   102.64%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97024.D  MGH4491.M      Fri Jun 20 07:57:45 2014      GCGH
```

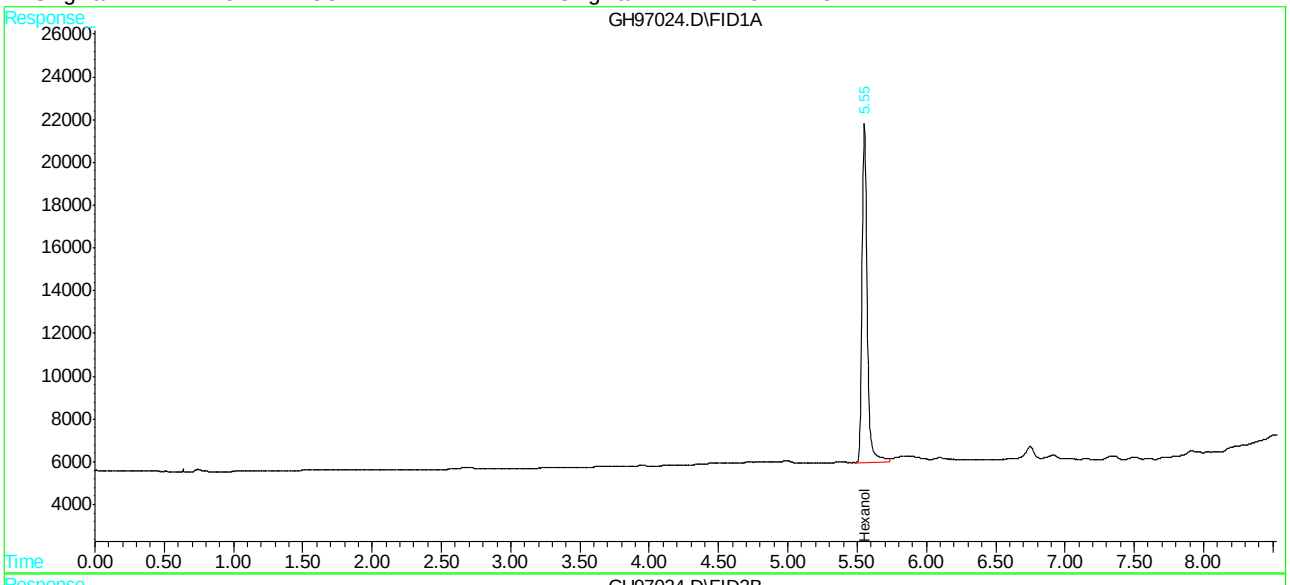
Quantitation Report (QT Reviewed)

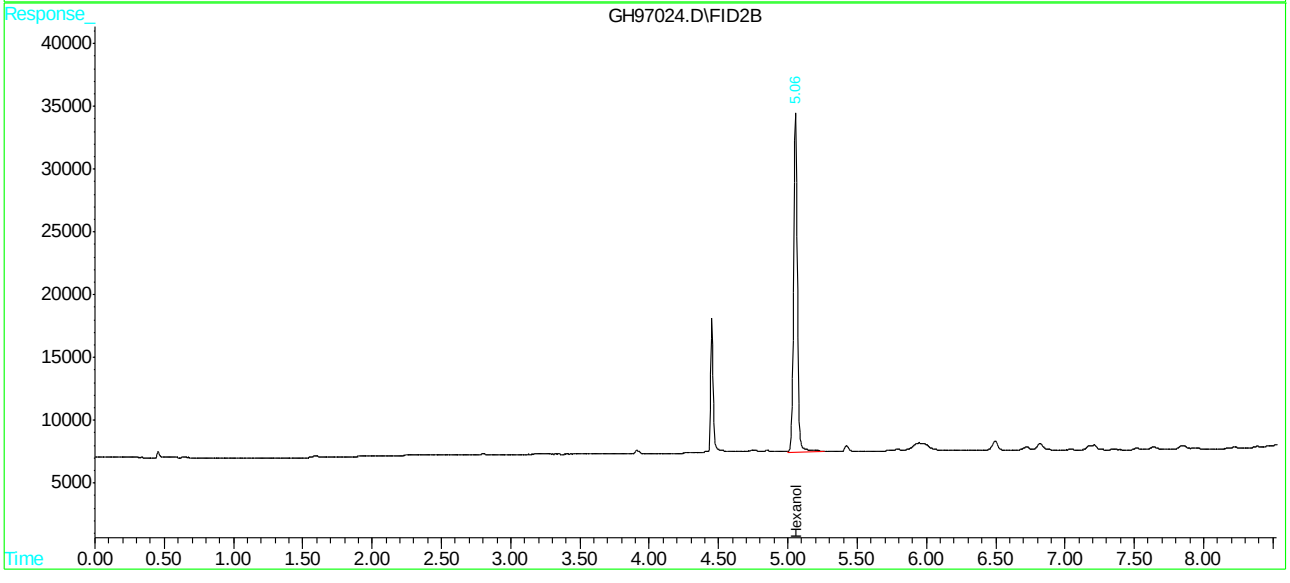
```
Data File : C:\HPCHEM\1\DATA\GH97024.D\FID1A.CH          Vial: 43
Acq On    : 19 Jun 2014   3:32 pm                    Operator: XULIU
Sample    : JB69587-8                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97024.D\FID2B.CH          Vial: 43
Acq On    : 19 Jun 2014   3:49 pm                    Operator: XULIU
Sample    : JB69587-8                                Inst    : GCGH
Misc      : GC43934,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  7:57 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97032.D\FID1A.CH          Vial: 5
Acq On    : 19 Jun 2014   5:32 pm                    Operator: XULIU
Sample    : JB69587-9                                Inst    : GCGH
Misc      : GC43934,GGH4596,5.3,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97032.D\FID2B.CH          Vial: 5
Acq On    : 19 Jun 2014   5:47 pm                    Operator: XULIU
Sample    : JB69587-9                                Inst    : GCGH
Misc      : GC43934,GGH4596,5.3,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:14 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.55	5.06	382046	484316	4691.652	4723.845
Spiked Amount 5000.000			Recovery	=	93.83%	94.48%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

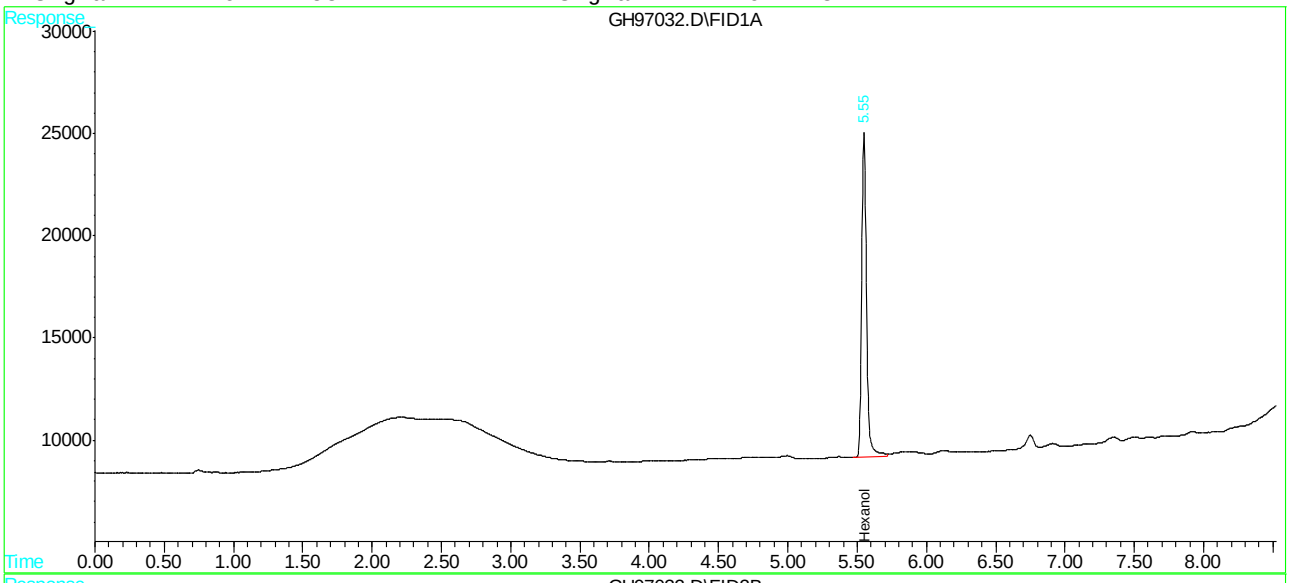
Quantitation Report (QT Reviewed)

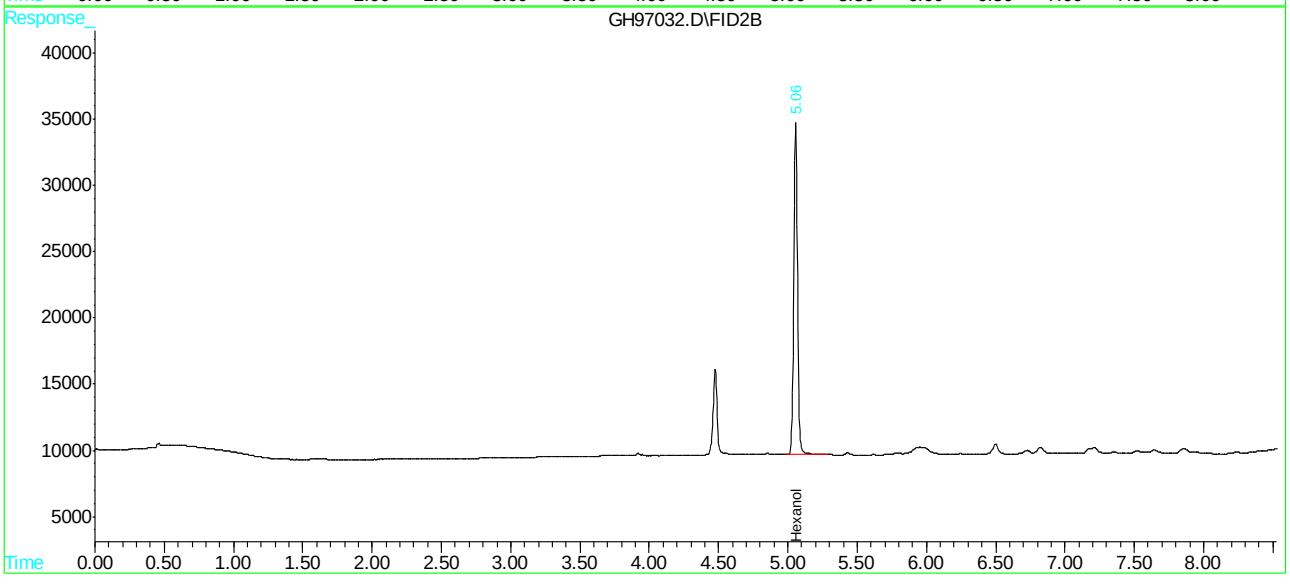
Data File : C:\HPCHEM\1\DATA\GH97032.D\FID1A.CH Vial: 5
Acq On : 19 Jun 2014 5:32 pm Operator: XULIU
Sample : JB69587-9 Inst : GCGH
Misc : GC43934,GGH4596,5.3,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97032.D\FID2B.CH Vial: 5
Acq On : 19 Jun 2014 5:47 pm Operator: XULIU
Sample : JB69587-9 Inst : GCGH
Misc : GC43934,GGH4596,5.3,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:14 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97052.D\FID1A.CH          Vial: 24
Acq On    : 20 Jun 2014  12:10 pm                    Operator: XULIU
Sample    : JB69587-10                               Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97052.D\FID2B.CH          Vial: 24
Acq On    : 20 Jun 2014  12:24 pm                    Operator: XULIU
Sample    : JB69587-10                               Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20 15:46 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Fri Jun 20 10:20:50 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.54   5.06    318933   366289 3916.600  3572.648
  Spiked Amount   5000.000                  Recovery     =   78.33%    71.45%

Target Compounds
```

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH97052.D MGH4491.M Fri Jun 20 15:46:07 2014 GCGH

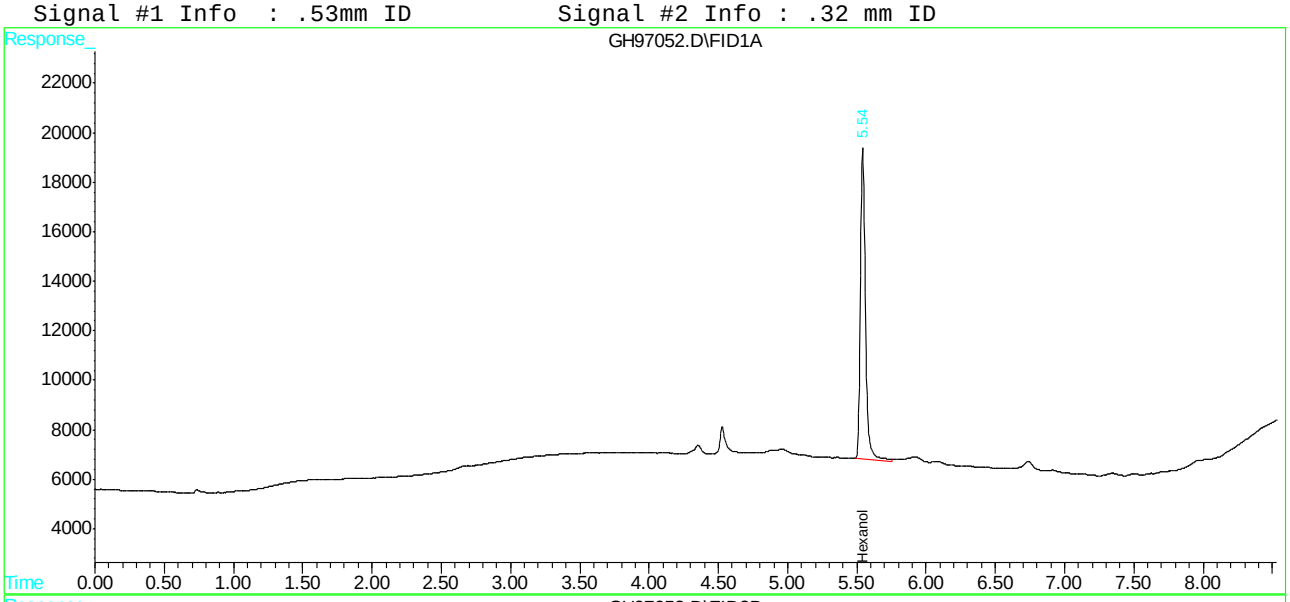
Quantitation Report (QT Reviewed)

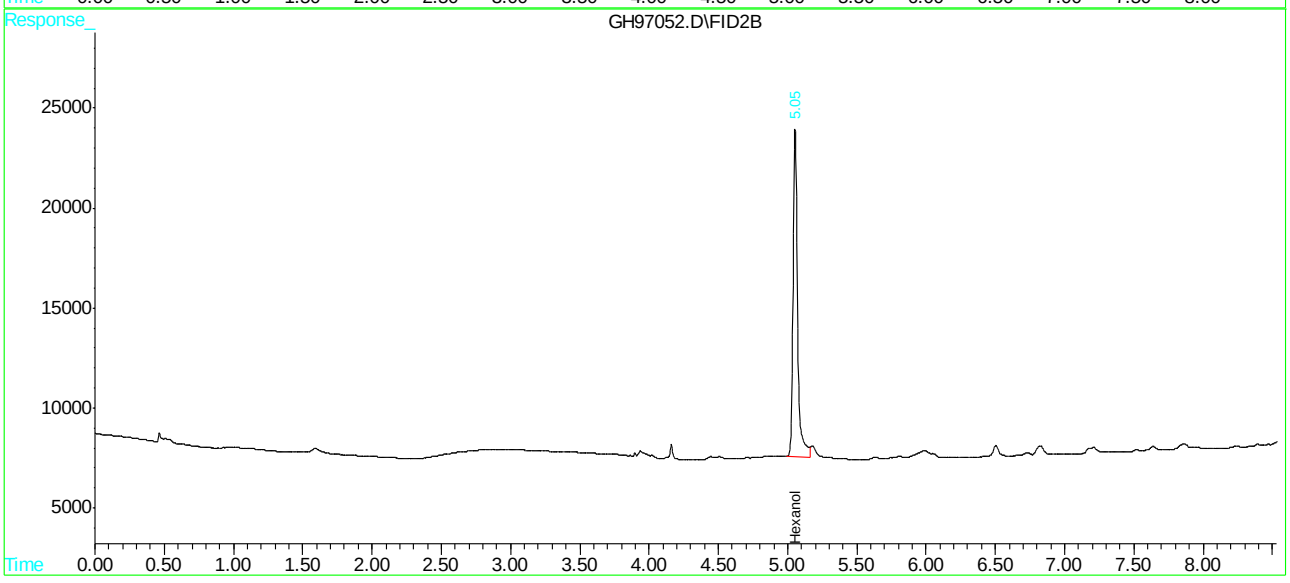
```
Data File : C:\HPCHEM\1\DATA\GH97052.D\FID1A.CH          Vial: 24
Acq On    : 20 Jun 2014  12:10 pm                    Operator: XULIU
Sample    : JB69587-10                               Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97052.D\FID2B.CH          Vial: 24
Acq On    : 20 Jun 2014  12:24 pm                    Operator: XULIU
Sample    : JB69587-10                               Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20 15:46 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Fri Jun 20 10:20:50 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97031.D\FID1A.CH          Vial: 4
Acq On    : 19 Jun 2014   5:18 pm                    Operator: XULIU
Sample    : JB69587-11                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97031.D\FID2B.CH          Vial: 4
Acq On    : 19 Jun 2014   5:32 pm                    Operator: XULIU
Sample    : JB69587-11                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:13 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.55	5.06	428197	495688	5258.397	4834.762
Spiked Amount 5000.000			Recovery	=	105.17%	96.70%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH97031.D MGH4491.M Fri Jun 20 08:26:17 2014 GCGH

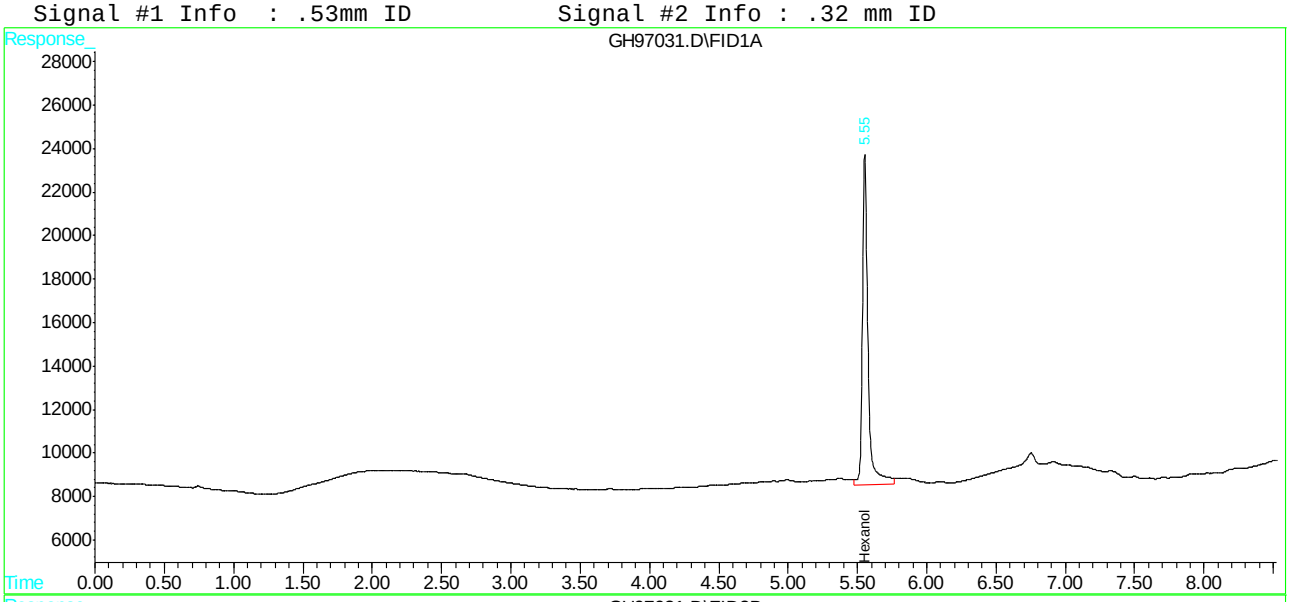
Quantitation Report (QT Reviewed)

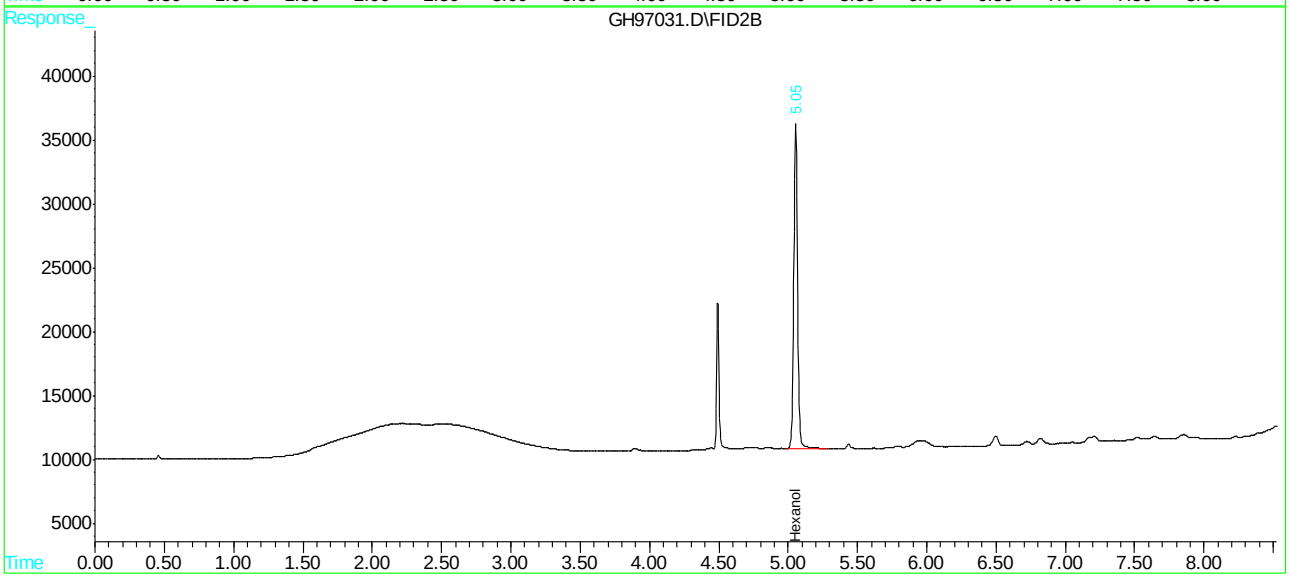
Data File : C:\HPCHEM\1\DATA\GH97031.D\FID1A.CH Vial: 4
Acq On : 19 Jun 2014 5:18 pm Operator: XULIU
Sample : JB69587-11 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97031.D\FID2B.CH Vial: 4
Acq On : 19 Jun 2014 5:32 pm Operator: XULIU
Sample : JB69587-11 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:13 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97028.D\FID1A.CH          Vial: 1
Acq On    : 19 Jun 2014   4:28 pm                    Operator: XULIU
Sample    : JB69587-12                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97028.D\FID2B.CH          Vial: 1
Acq On    : 19 Jun 2014   4:49 pm                    Operator: XULIU
Sample    : JB69587-12                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:25 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    312745   398791 3840.607  3889.663
  Spiked Amount   5000.000                  Recovery     =   76.81%    77.79%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97028.D  MGH4491.M      Fri Jun 20 08:25:26 2014      GCGH
```

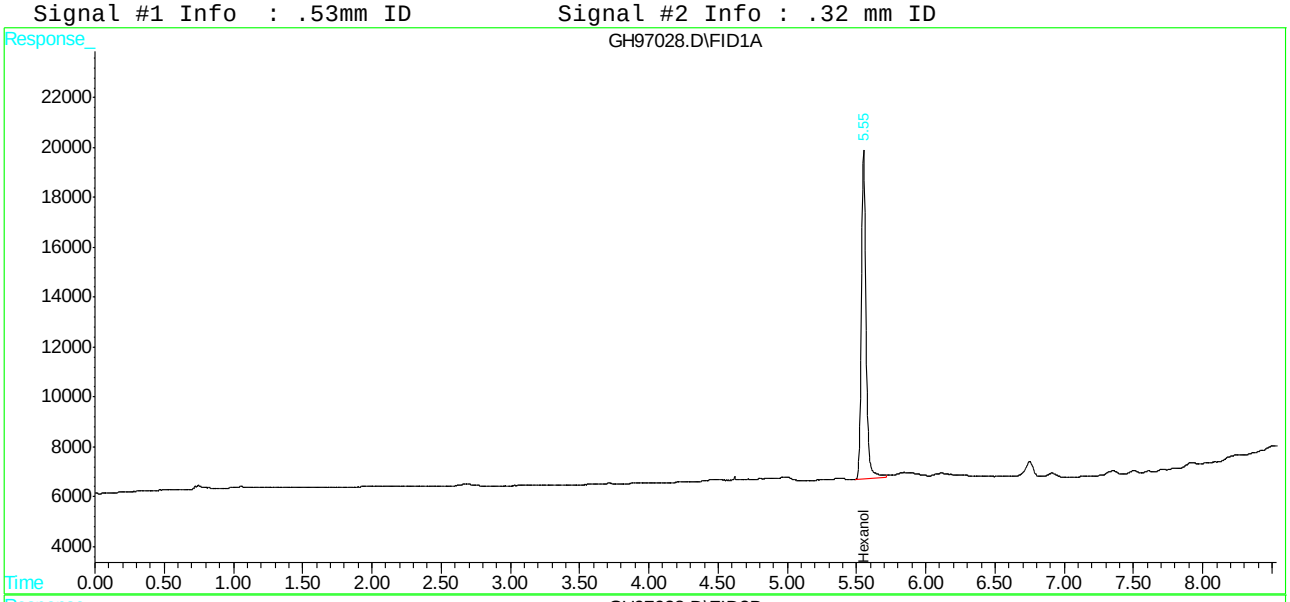
Quantitation Report (QT Reviewed)

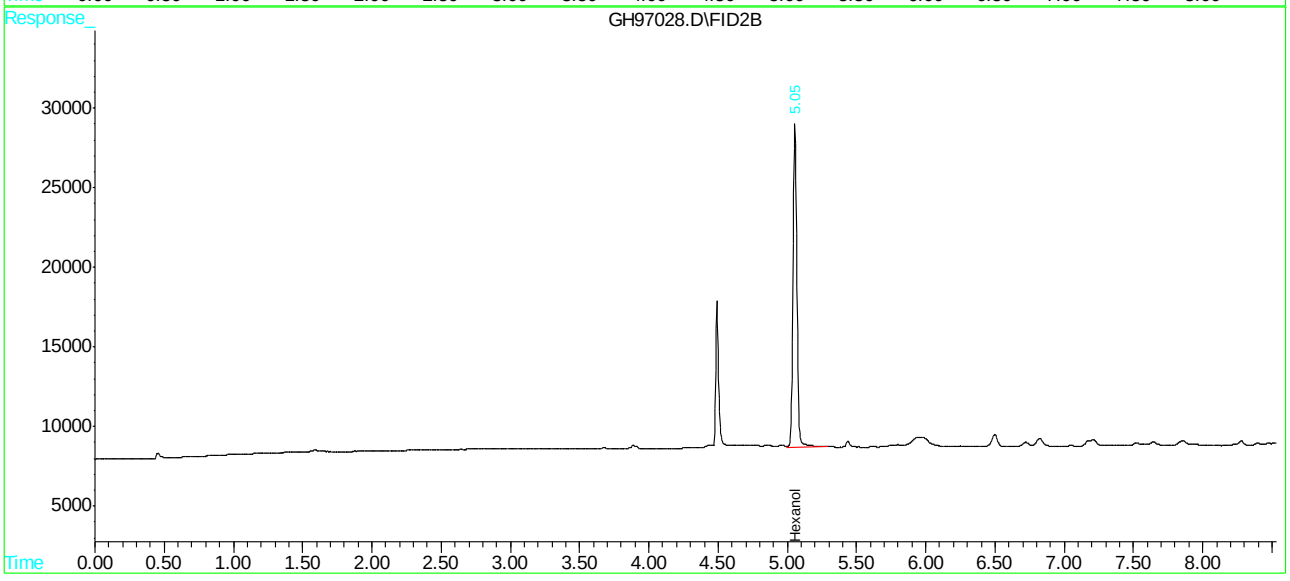
Data File : C:\HPCHEM\1\DATA\GH97028.D\FID1A.CH Vial: 1
Acq On : 19 Jun 2014 4:28 pm Operator: XULIU
Sample : JB69587-12 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97028.D\FID2B.CH Vial: 1
Acq On : 19 Jun 2014 4:49 pm Operator: XULIU
Sample : JB69587-12 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:25 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97033.D\FID1A.CH          Vial: 6
Acq On    : 19 Jun 2014   5:47 pm                    Operator: XULIU
Sample    : JB69587-13                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97033.D\FID2B.CH          Vial: 6
Acq On    : 19 Jun 2014   6:01 pm                    Operator: XULIU
Sample    : JB69587-13                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:26 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    413810   535974 5081.729  5227.698
  Spiked Amount   5000.000                  Recovery     =  101.63%   104.55%

Target Compounds
```

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH97033.D MGH4491.M Fri Jun 20 08:30:01 2014 GCGH

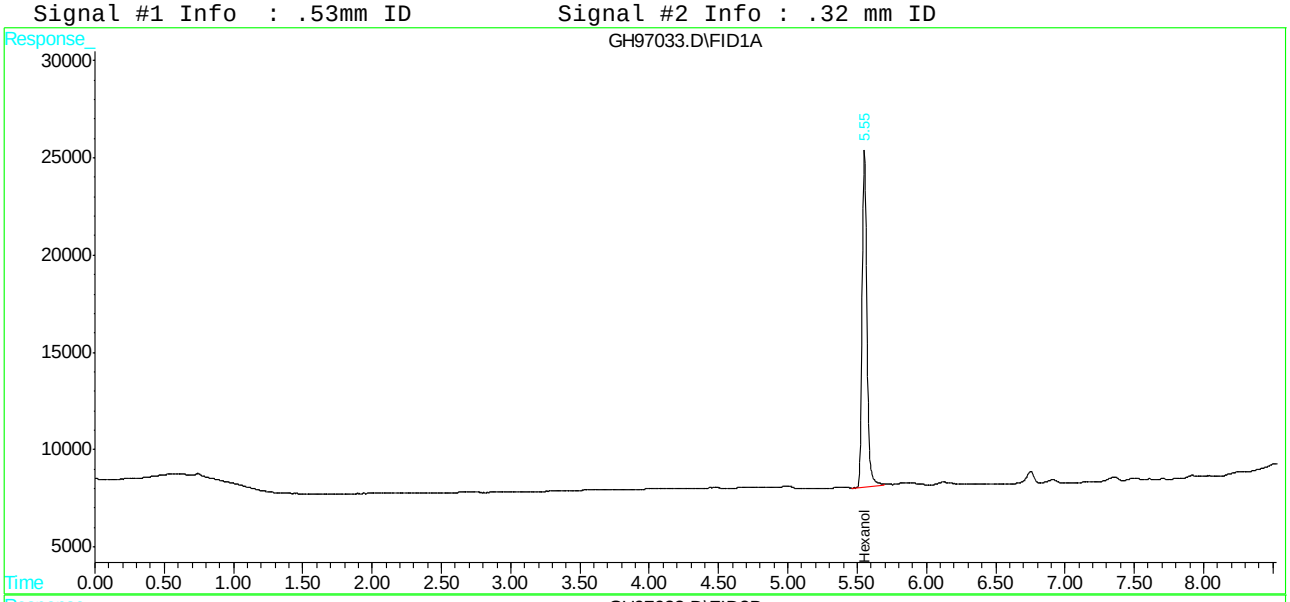
Quantitation Report (QT Reviewed)

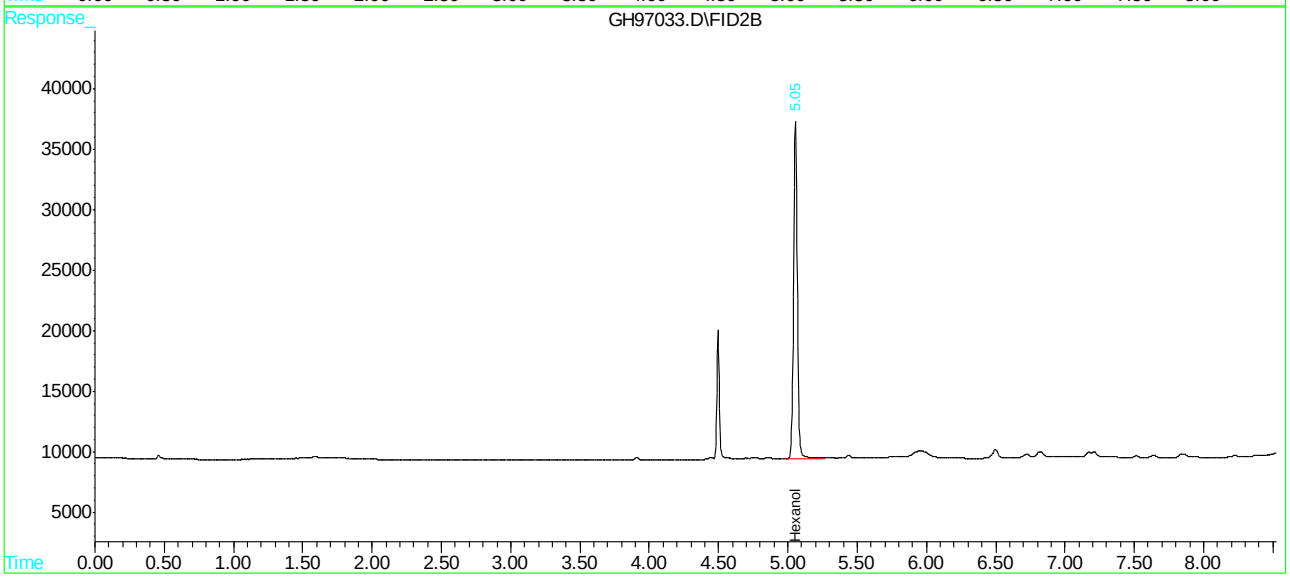
Data File : C:\HPCHEM\1\DATA\GH97033.D\FID1A.CH Vial: 6
Acq On : 19 Jun 2014 5:47 pm Operator: XULIU
Sample : JB69587-13 Inst : GCGH
Misc : GC43934,GGH4596,5.1,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97033.D\FID2B.CH Vial: 6
Acq On : 19 Jun 2014 6:01 pm Operator: XULIU
Sample : JB69587-13 Inst : GCGH
Misc : GC43934,GGH4596,5.1,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:26 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97034.D\FID1A.CH          Vial: 7
Acq On    : 19 Jun 2014   6:01 pm                    Operator: XULIU
Sample    : JB69587-14                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.2,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97034.D\FID2B.CH          Vial: 7
Acq On    : 19 Jun 2014   6:16 pm                    Operator: XULIU
Sample    : JB69587-14                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.2,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:26 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.55	5.06	415721	509833	5105.193	4972.728
Spiked Amount 5000.000			Recovery	=	102.10%	99.45%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH97034.D MGH4491.M Fri Jun 20 08:30:10 2014 GCGH

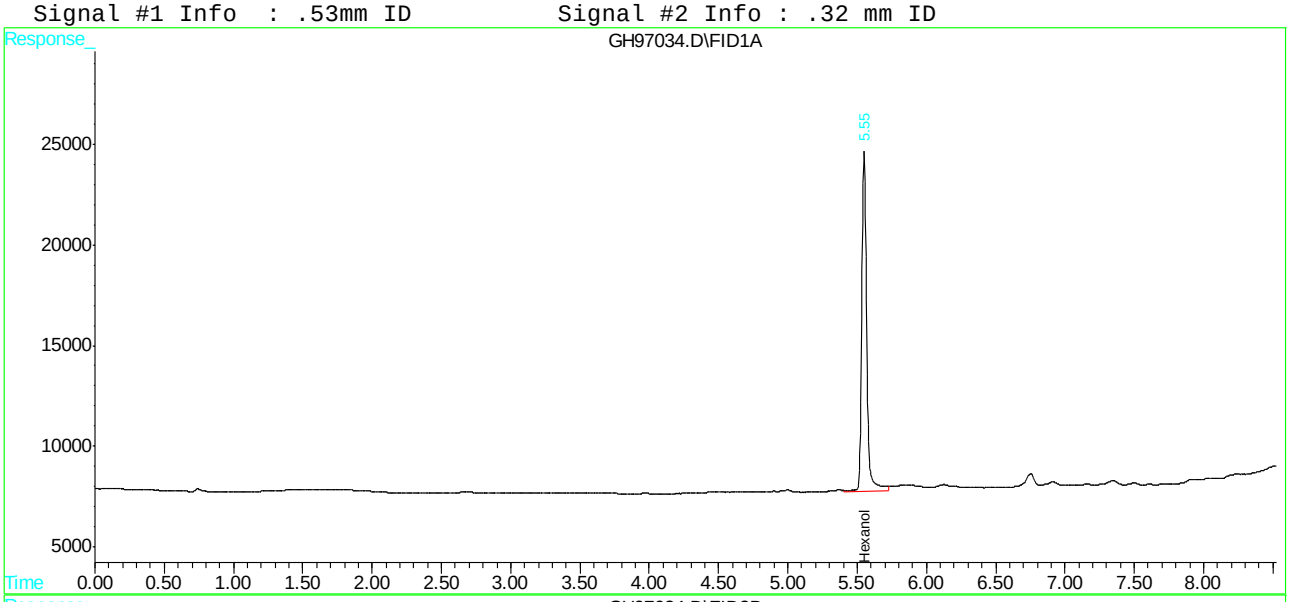
Quantitation Report (QT Reviewed)

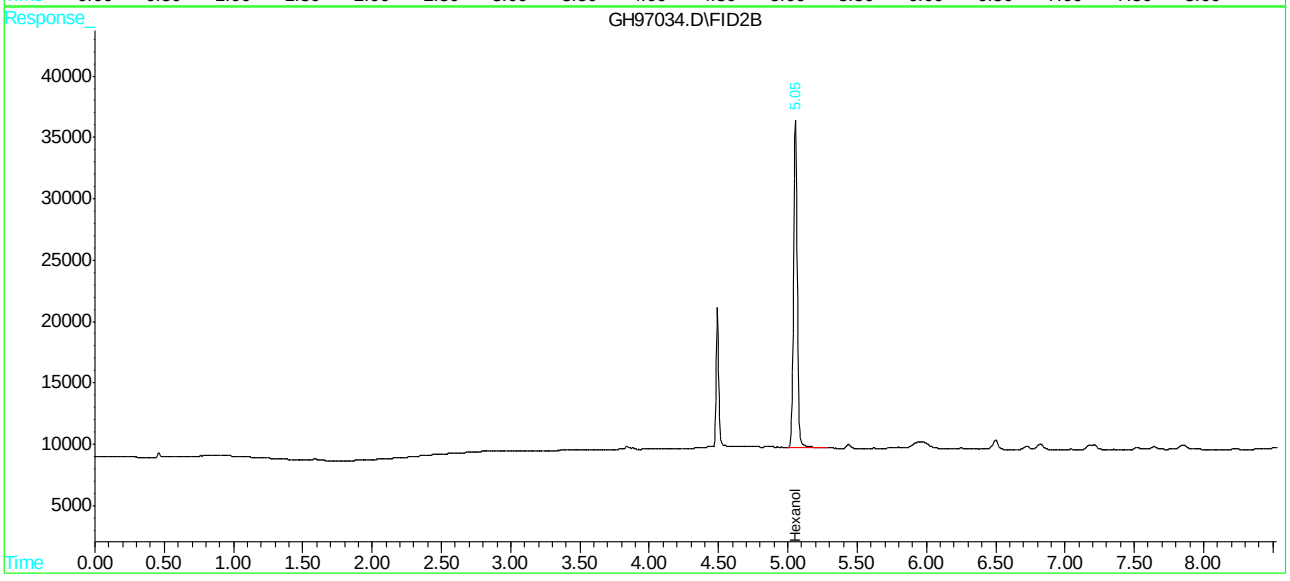
Data File : C:\HPCHEM\1\DATA\GH97034.D\FID1A.CH Vial: 7
Acq On : 19 Jun 2014 6:01 pm Operator: XULIU
Sample : JB69587-14 Inst : GCGH
Misc : GC43934,GGH4596,5.2,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97034.D\FID2B.CH Vial: 7
Acq On : 19 Jun 2014 6:16 pm Operator: XULIU
Sample : JB69587-14 Inst : GCGH
Misc : GC43934,GGH4596,5.2,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:26 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97037.D\FID1A.CH          Vial: 9
Acq On    : 19 Jun 2014   6:45 pm                    Operator: XULIU
Sample    : JB69587-15                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.5,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97037.D\FID2B.CH          Vial: 9
Acq On    : 19 Jun 2014   6:59 pm                    Operator: XULIU
Sample    : JB69587-15                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.5,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:30 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
-----------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    412427   523562 5064.740  5106.634
  Spiked Amount   5000.000                  Recovery     =  101.29%   102.13%

Target Compounds
```

9.1.15

9

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97037.D  MGH4491.M      Fri Jun 20 08:30:59 2014      GCGH
```

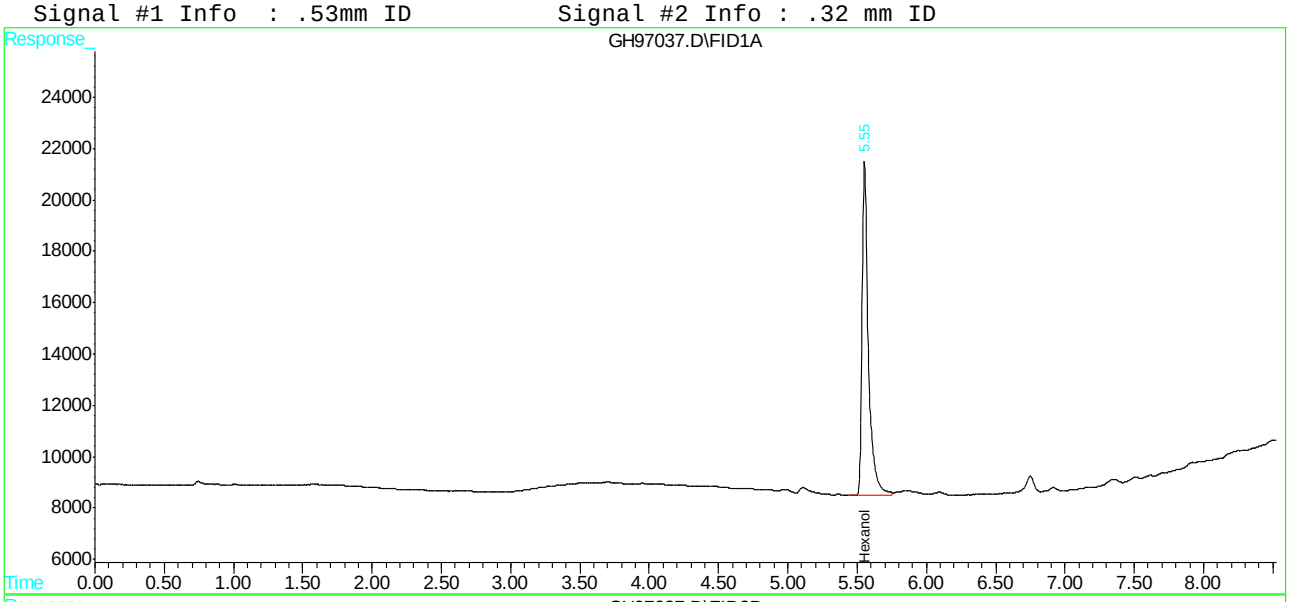
Quantitation Report (QT Reviewed)

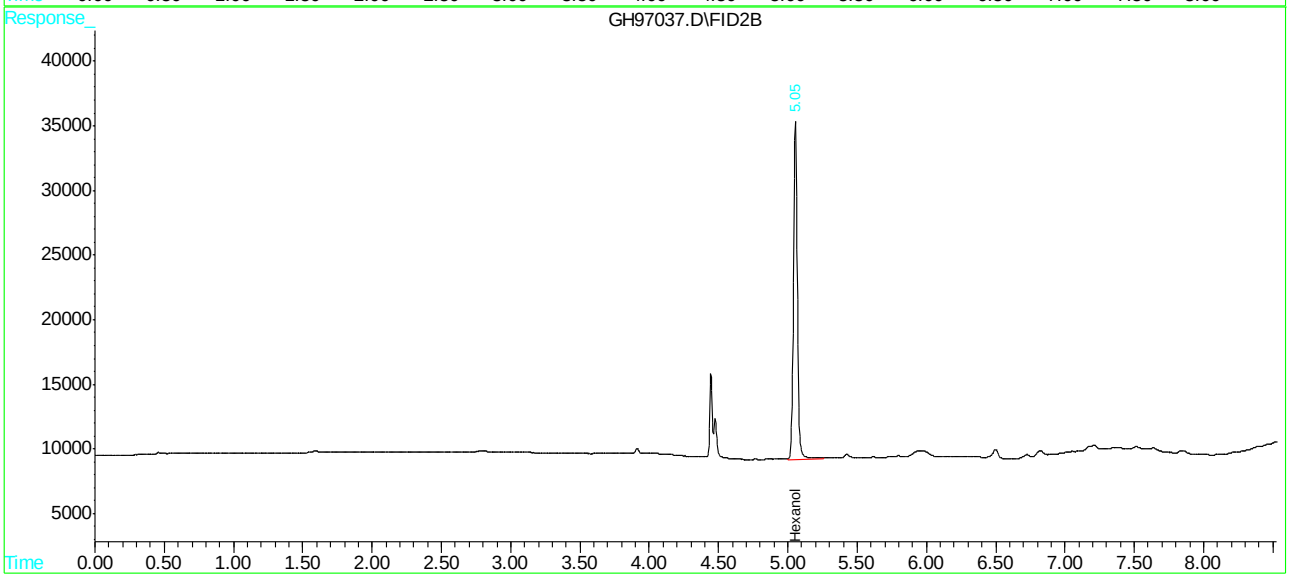
Data File : C:\HPCHEM\1\DATA\GH97037.D\FID1A.CH Vial: 9
Acq On : 19 Jun 2014 6:45 pm Operator: XULIU
Sample : JB69587-15 Inst : GCGH
Misc : GC43934,GGH4596,5.5,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97037.D\FID2B.CH Vial: 9
Acq On : 19 Jun 2014 6:59 pm Operator: XULIU
Sample : JB69587-15 Inst : GCGH
Misc : GC43934,GGH4596,5.5,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:30 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97038.D\FID1A.CH          Vial: 10
Acq On    : 19 Jun 2014   6:59 pm                    Operator: XULIU
Sample    : JB69587-16                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97038.D\FID2B.CH          Vial: 10
Acq On    : 19 Jun 2014   7:14 pm                    Operator: XULIU
Sample    : JB69587-16                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:31 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.55	5.06	412013	537681	5059.656	5244.343
Spiked Amount 5000.000			Recovery	=	101.19%	104.89%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH97038.D MGH4491.M Fri Jun 20 08:31:13 2014 GCGH

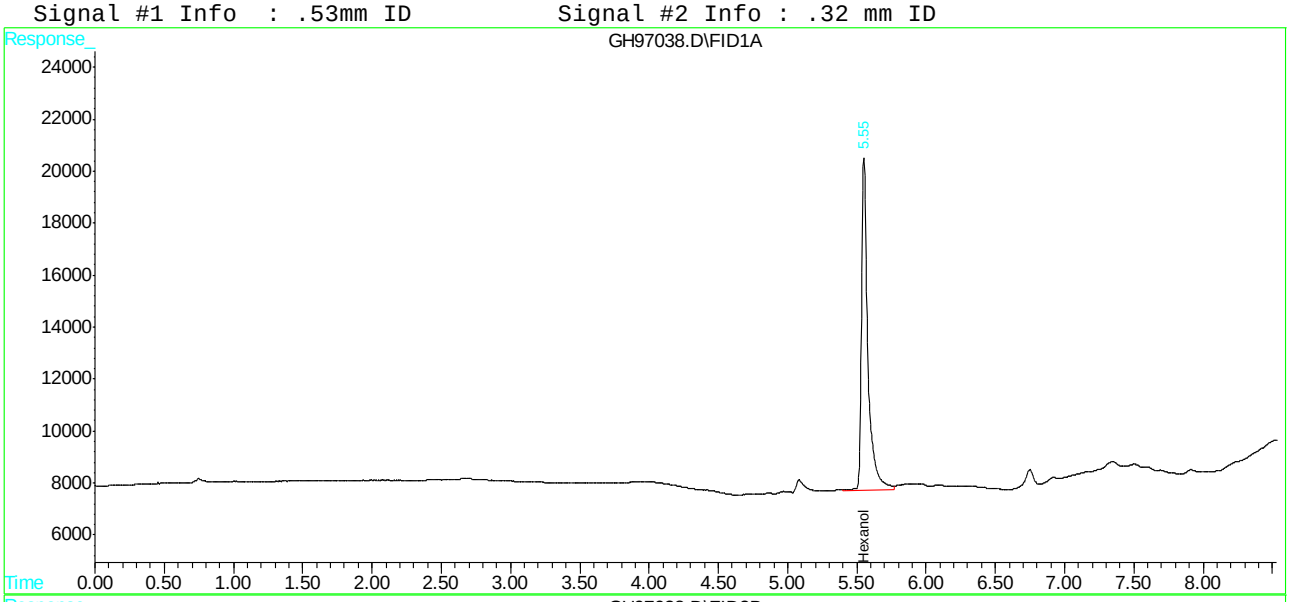
Quantitation Report (QT Reviewed)

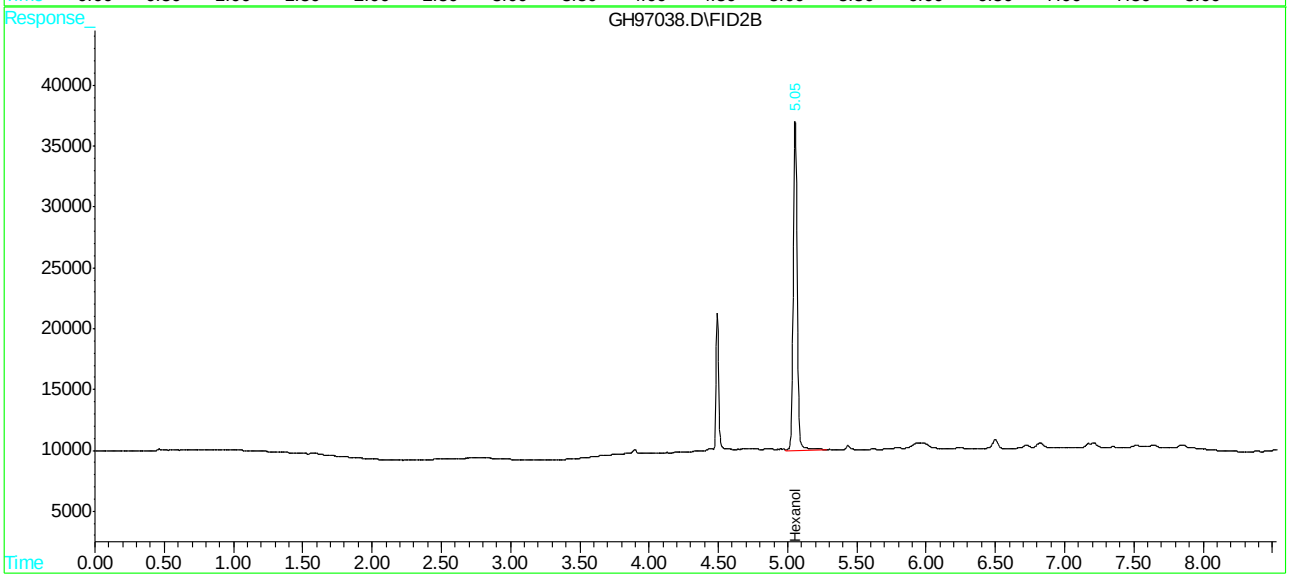
Data File : C:\HPCHEM\1\DATA\GH97038.D\FID1A.CH Vial: 10
Acq On : 19 Jun 2014 6:59 pm Operator: XULIU
Sample : JB69587-16 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97038.D\FID2B.CH Vial: 10
Acq On : 19 Jun 2014 7:14 pm Operator: XULIU
Sample : JB69587-16 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:31 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97039.D\FID1A.CH          Vial: 11
Acq On    : 19 Jun 2014   7:14 pm                    Operator: XULIU
Sample    : JB69587-17                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97039.D\FID2B.CH          Vial: 11
Acq On    : 19 Jun 2014   7:28 pm                    Operator: XULIU
Sample    : JB69587-17                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:17 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
-----------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    387451   505490 4758.031  4930.367
  Spiked Amount   5000.000                 Recovery     =   95.16%    98.61%

Target Compounds
```

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97039.D  MGH4491.M      Fri Jun 20 08:31:22 2014      GCGH
```

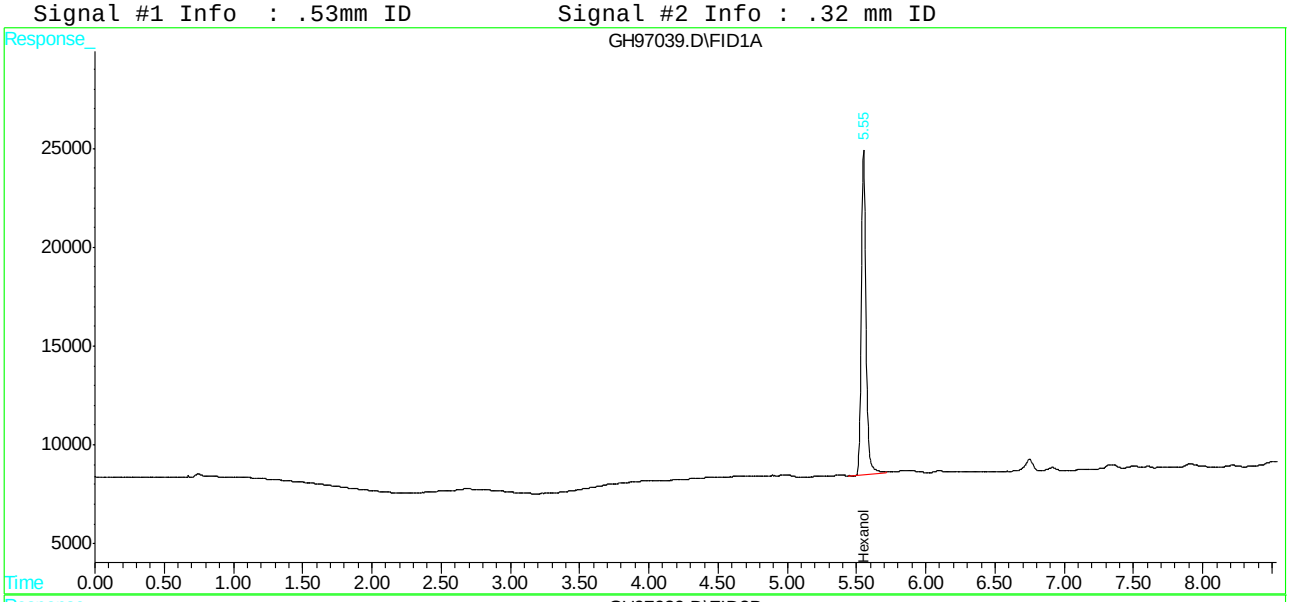
Quantitation Report (QT Reviewed)

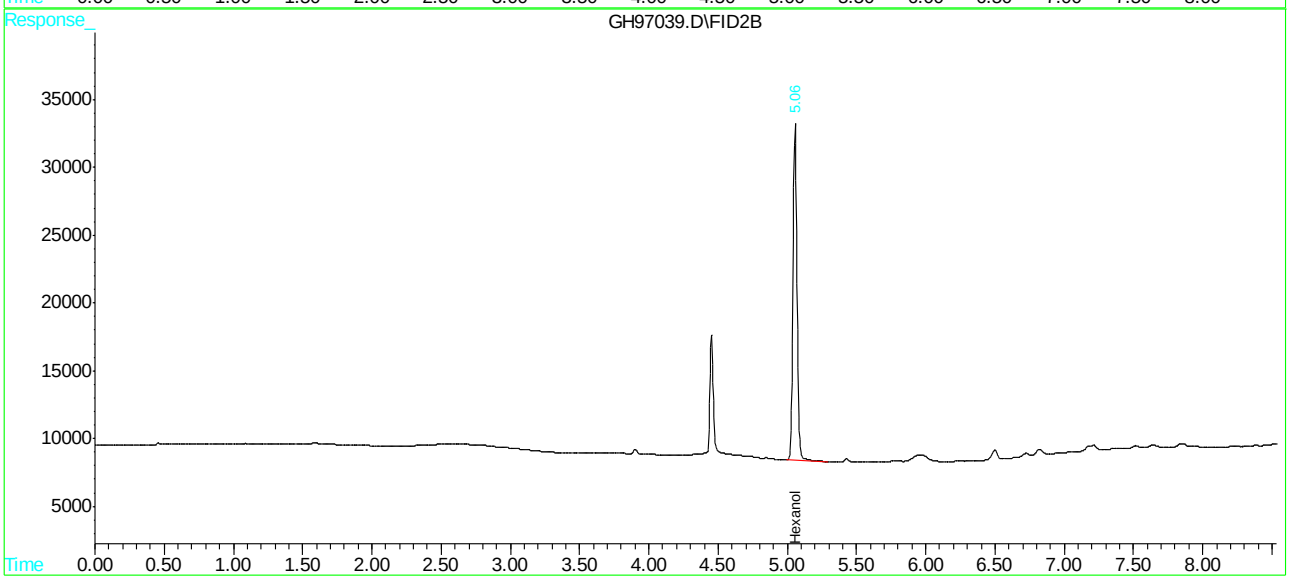
Data File : C:\HPCHEM\1\DATA\GH97039.D\FID1A.CH Vial: 11
Acq On : 19 Jun 2014 7:14 pm Operator: XULIU
Sample : JB69587-17 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97039.D\FID2B.CH Vial: 11
Acq On : 19 Jun 2014 7:28 pm Operator: XULIU
Sample : JB69587-17 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:17 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97053.D\FID1A.CH          Vial: 25
Acq On    : 20 Jun 2014  12:24 pm                    Operator: XULIU
Sample    : JB69587-18                               Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97053.D\FID2B.CH          Vial: 25
Acq On    : 20 Jun 2014  12:39 pm                    Operator: XULIU
Sample    : JB69587-18                               Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20 15:46 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Fri Jun 20 10:20:50 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
-----------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.54   5.06    384113   504657 4717.034  4922.242
  Spiked Amount   5000.000                  Recovery     =   94.34%    98.44%

Target Compounds
```

```
-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97053.D  MGH4491.M      Fri Jun 20 15:46:32 2014      GCGH
```

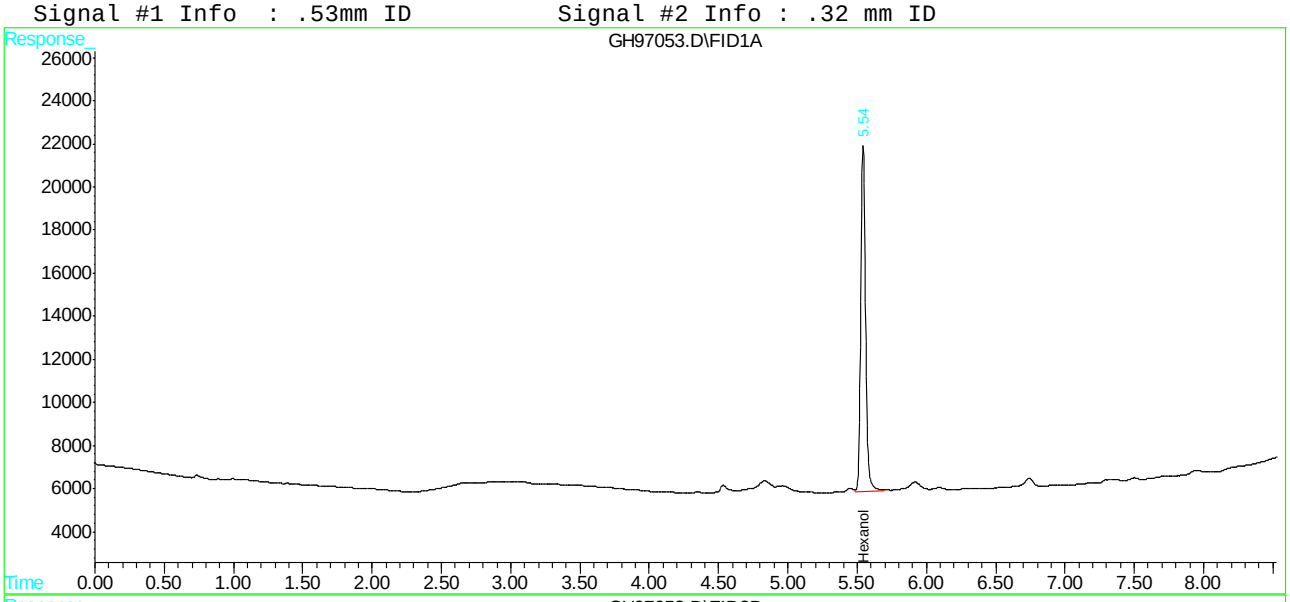
Quantitation Report (QT Reviewed)

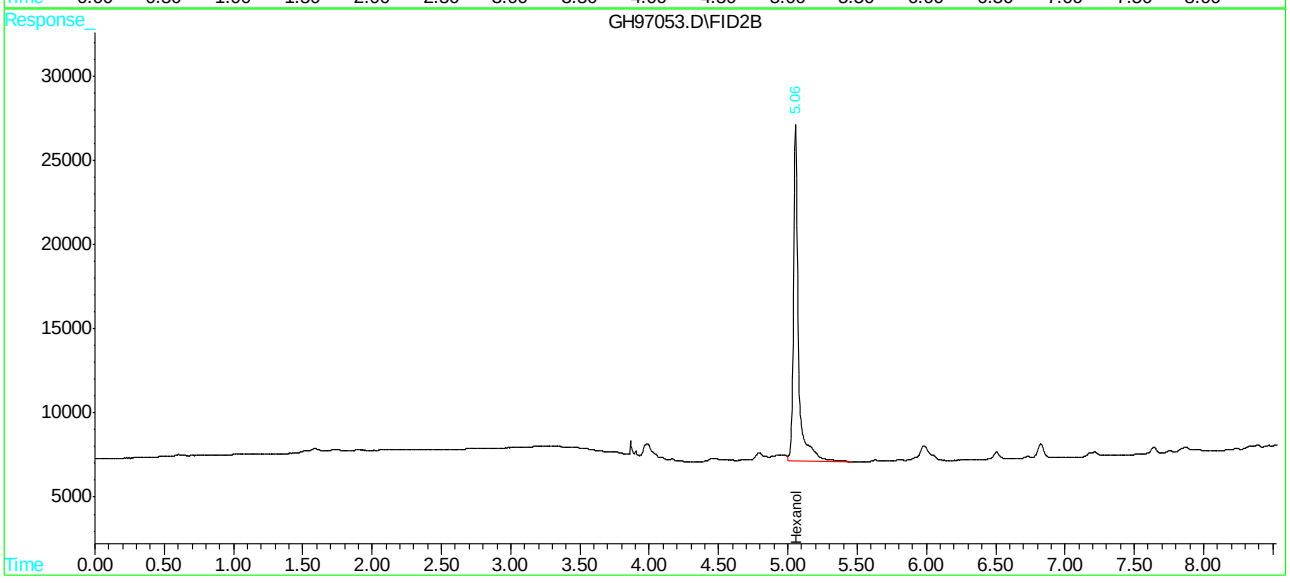
```
Data File : C:\HPCHEM\1\DATA\GH97053.D\FID1A.CH          Vial: 25
Acq On    : 20 Jun 2014  12:24 pm                    Operator: XULIU
Sample    : JB69587-18                               Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97053.D\FID2B.CH          Vial: 25
Acq On    : 20 Jun 2014  12:39 pm                    Operator: XULIU
Sample    : JB69587-18                               Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20 15:46 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Fri Jun 20 10:20:50 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97040.D\FID1A.CH          Vial: 12
Acq On    : 19 Jun 2014   7:28 pm                    Operator: XULIU
Sample    : JB69587-21                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97040.D\FID2B.CH          Vial: 12
Acq On    : 19 Jun 2014   7:42 pm                    Operator: XULIU
Sample    : JB69587-21                               Inst    : GCGH
Misc      : GC43934,GGH4596,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:31 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    408443   515377 5015.809  5026.799
  Spiked Amount   5000.000                  Recovery     =  100.32%   100.54%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97040.D  MGH4491.M      Fri Jun 20 08:31:41 2014      GCGH
```

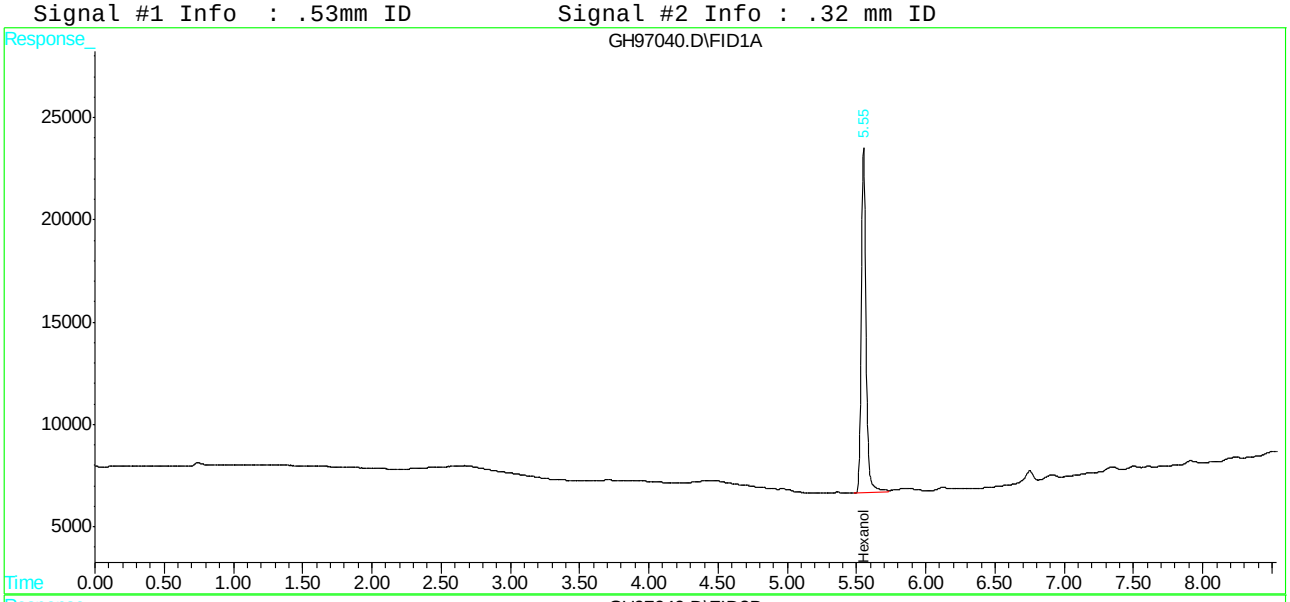
Quantitation Report (QT Reviewed)

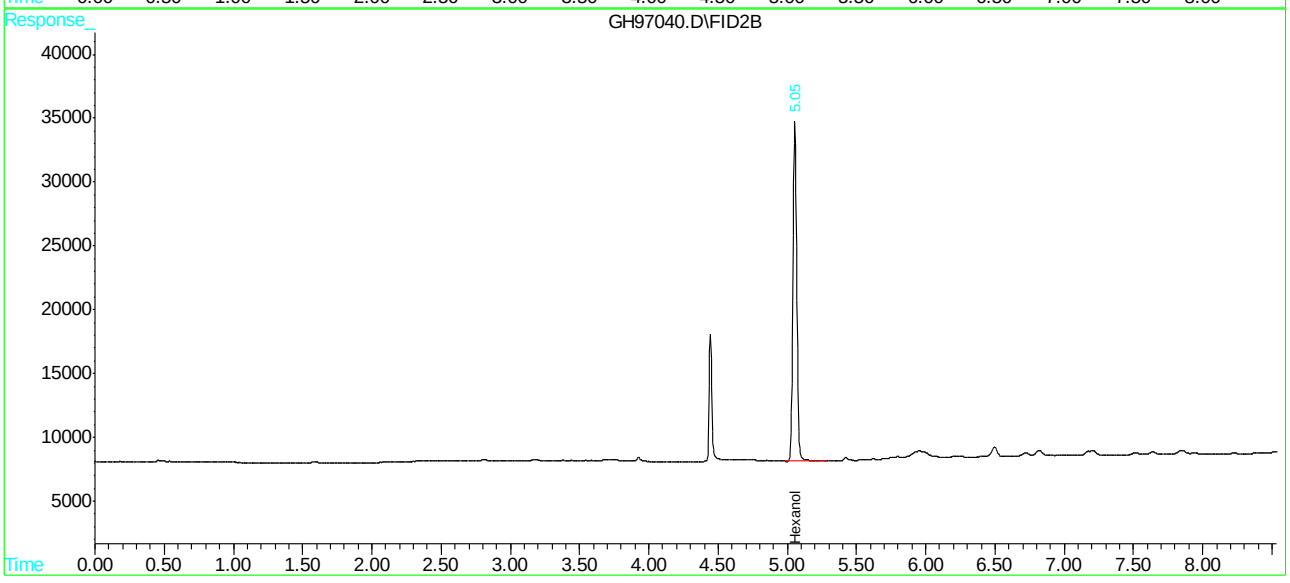
Data File : C:\HPCHEM\1\DATA\GH97040.D\FID1A.CH Vial: 12
Acq On : 19 Jun 2014 7:28 pm Operator: XULIU
Sample : JB69587-21 Inst : GCGH
Misc : GC43934,GGH4596,5.1,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97040.D\FID2B.CH Vial: 12
Acq On : 19 Jun 2014 7:42 pm Operator: XULIU
Sample : JB69587-21 Inst : GCGH
Misc : GC43934,GGH4596,5.1,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:31 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97016.D\FID1A.CH          Vial: 91
Acq On    : 19 Jun 2014   1:32 pm                    Operator: XULIU
Sample    : MB3                                      Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97016.D\FID2B.CH          Vial: 91
Acq On    : 19 Jun 2014   1:47 pm                    Operator: XULIU
Sample    : MB3                                      Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 14:50 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    345318   438752 4240.623  4279.424
  Spiked Amount   5000.000                 Recovery     =   84.81%    85.59%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97016.D  MGH4491.M      Fri Jun 20 07:54:55 2014      GCGH
```

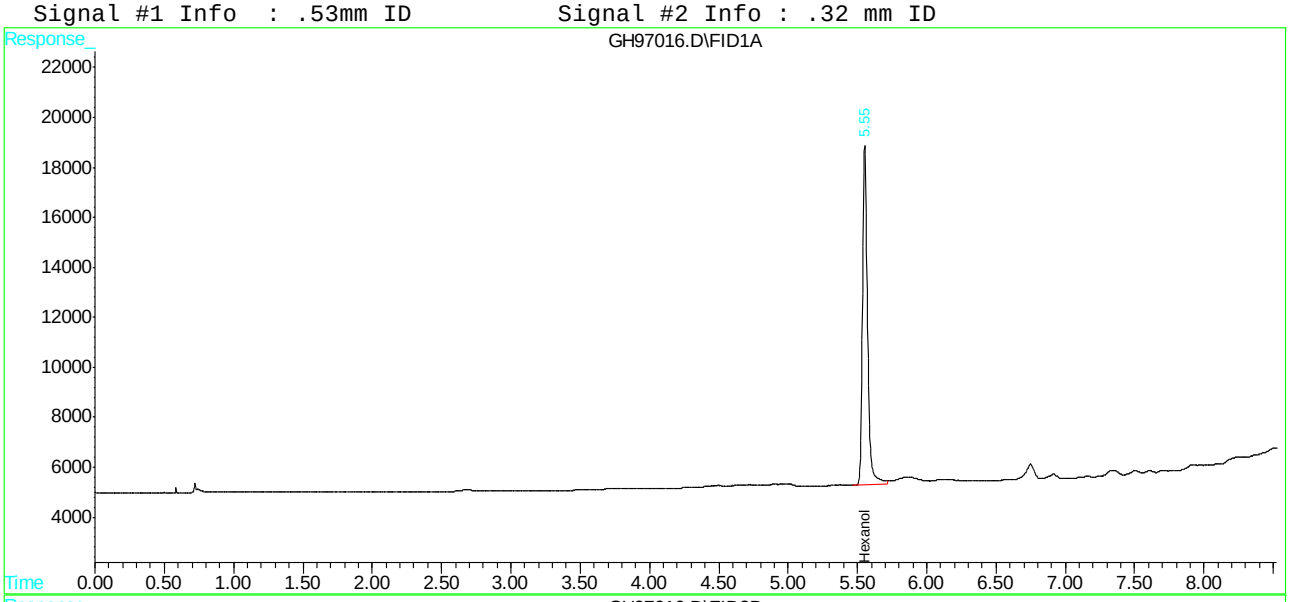
Quantitation Report (QT Reviewed)

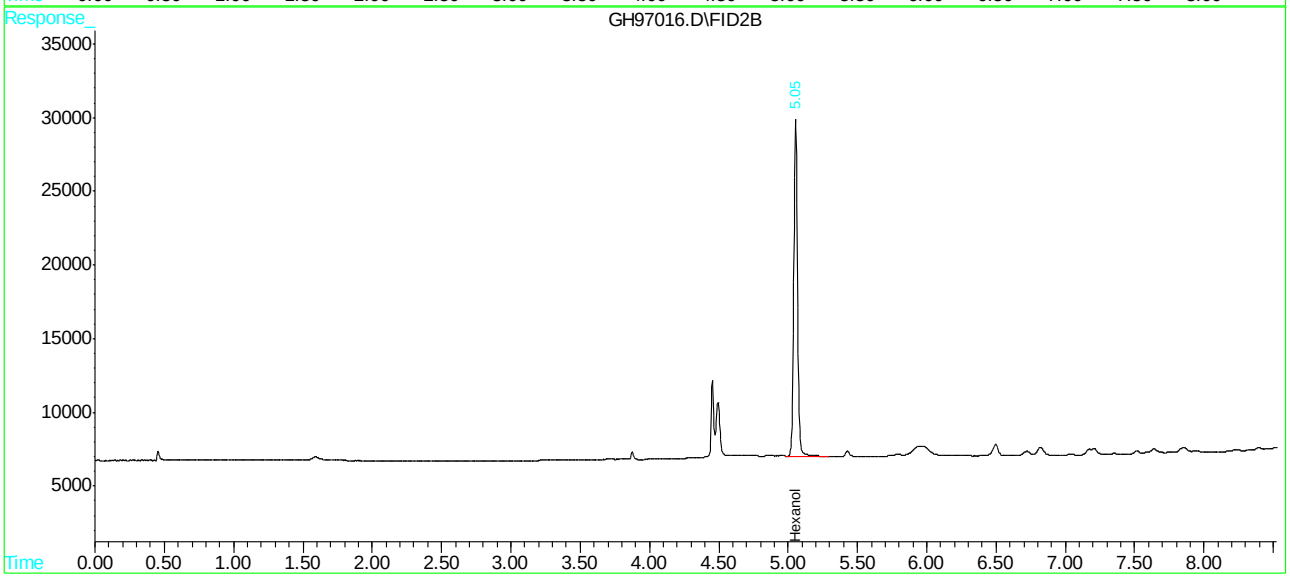
```
Data File : C:\HPCHEM\1\DATA\GH97016.D\FID1A.CH          Vial: 91
Acq On    : 19 Jun 2014   1:32 pm                    Operator: XULIU
Sample    : MB3                                      Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97016.D\FID2B.CH          Vial: 91
Acq On    : 19 Jun 2014   1:47 pm                    Operator: XULIU
Sample    : MB3                                      Inst    : GCGH
Misc      : GC43934,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 14:50 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97026.D\FID1A.CH          Vial: 91
Acq On    : 19 Jun 2014   3:59 pm                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97026.D\FID2B.CH          Vial: 91
Acq On    : 19 Jun 2014   4:13 pm                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:08 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    341366   429341 4192.087  4187.632
  Spiked Amount   5000.000                 Recovery     =   83.84%    83.75%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH97026.D  MGH4491.M      Fri Jun 20 08:24:52 2014      GCGH
```

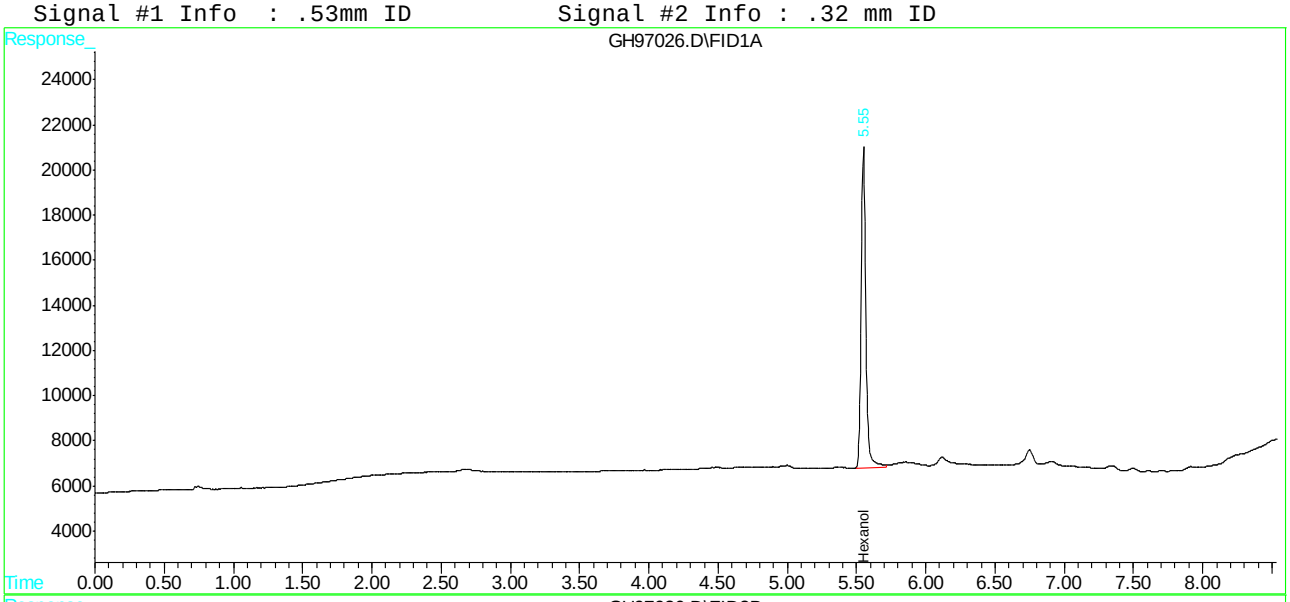
Quantitation Report (QT Reviewed)

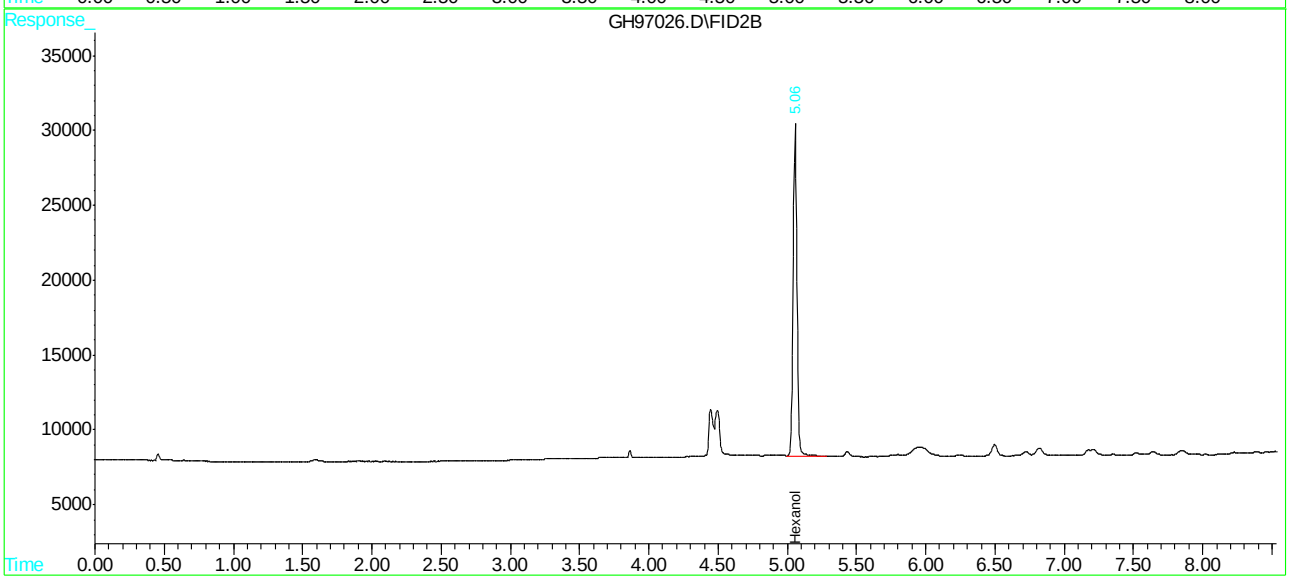
```
Data File : C:\HPCHEM\1\DATA\GH97026.D\FID1A.CH          Vial: 91
Acq On    : 19 Jun 2014   3:59 pm                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97026.D\FID2B.CH          Vial: 91
Acq On    : 19 Jun 2014   4:13 pm                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:08 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97036.D\FID1A.CH          Vial: 91
Acq On    : 19 Jun 2014   6:30 pm                    Operator: XULIU
Sample    : MB2                                      Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97036.D\FID2B.CH          Vial: 91
Acq On    : 19 Jun 2014   6:45 pm                    Operator: XULIU
Sample    : MB2                                      Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:09 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
-----------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.06    331017   412357 4065.001  4021.984
  Spiked Amount   5000.000                  Recovery     =   81.30%    80.44%

Target Compounds
```

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH97036.D MGH4491.M Fri Jun 20 08:30:43 2014 GCGH

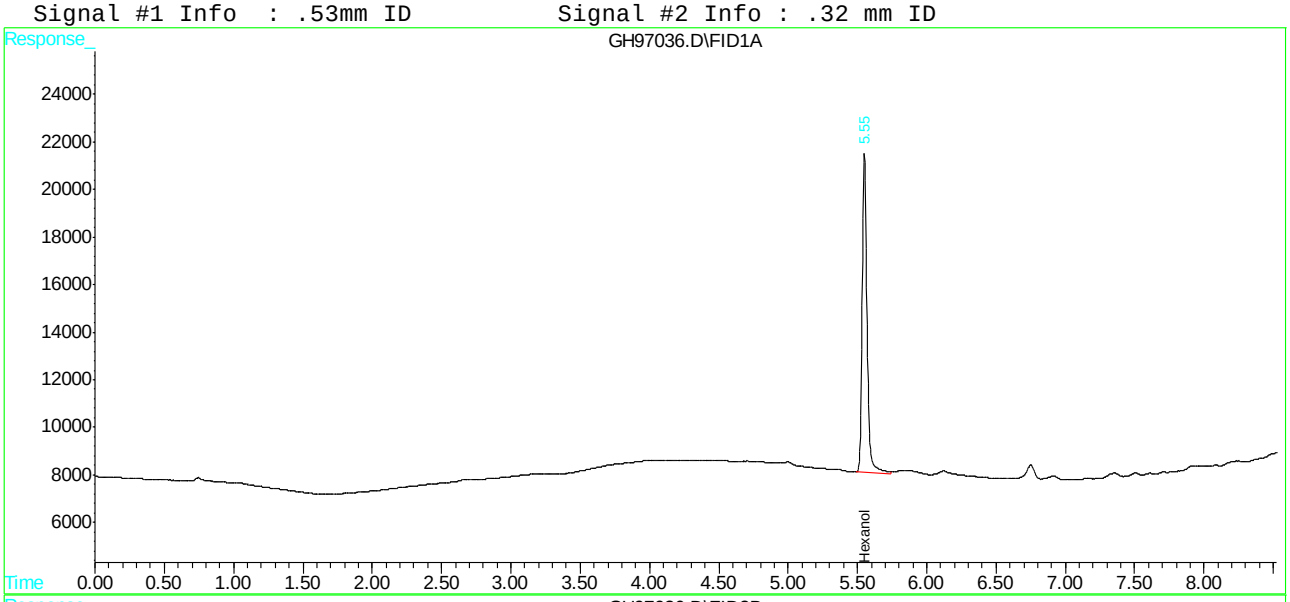
Quantitation Report (QT Reviewed)

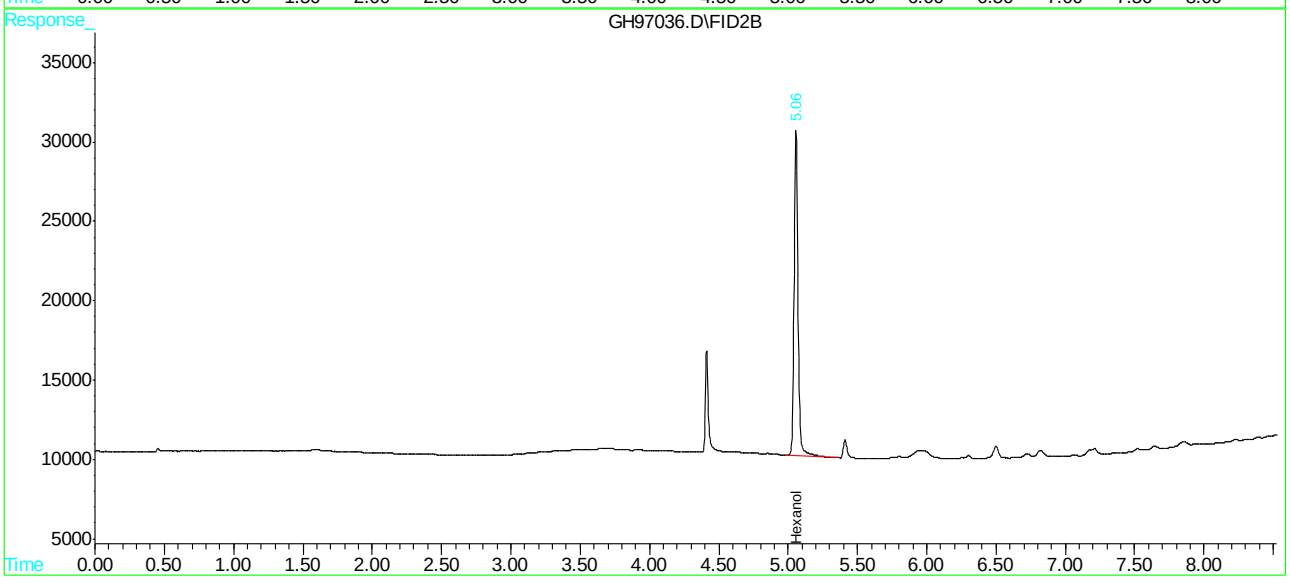
Data File : C:\HPCHEM\1\DATA\GH97036.D\FID1A.CH Vial: 91
Acq On : 19 Jun 2014 6:30 pm Operator: XULIU
Sample : MB2 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97036.D\FID2B.CH Vial: 91
Acq On : 19 Jun 2014 6:45 pm Operator: XULIU
Sample : MB2 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:09 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97047.D\FID1A.CH          Vial: 93
Acq On    : 20 Jun 2014  10:29 am                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97047.D\FID2B.CH          Vial: 93
Acq On    : 20 Jun 2014  10:43 am                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20 10:49 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Fri Jun 20 10:20:50 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.54   5.05    407527   518146 5004.566  5053.803
  Spiked Amount   5000.000                  Recovery     =  100.09%   101.08%

Target Compounds
```

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH97047.D MGH4491.M Fri Jun 20 10:57:10 2014 GCGH

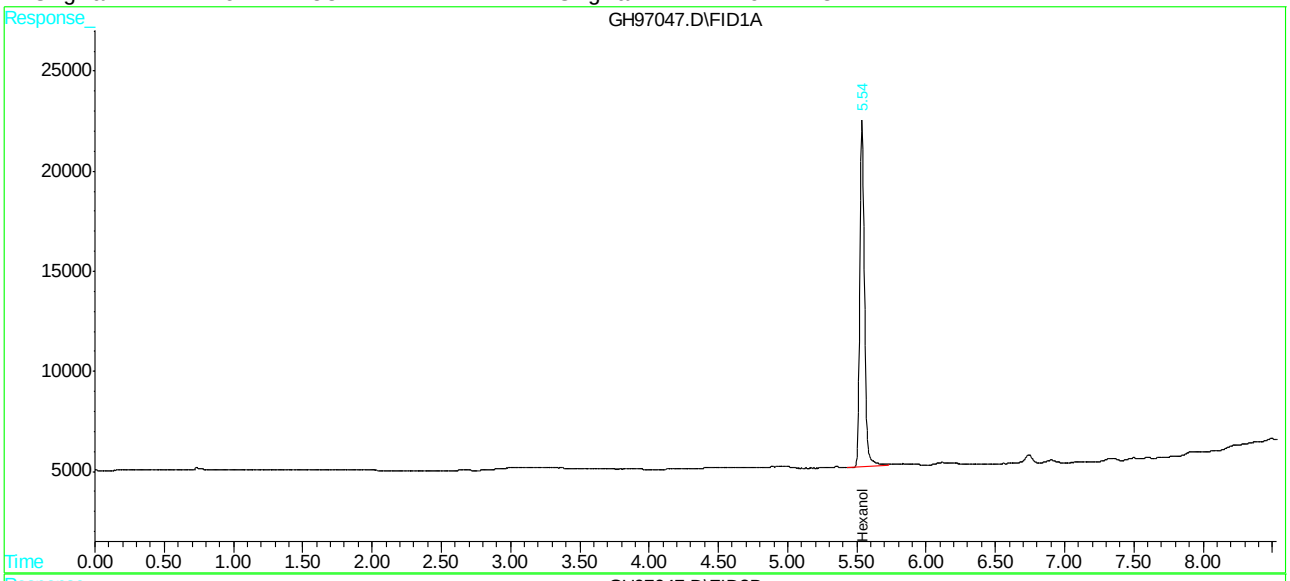
Quantitation Report (QT Reviewed)

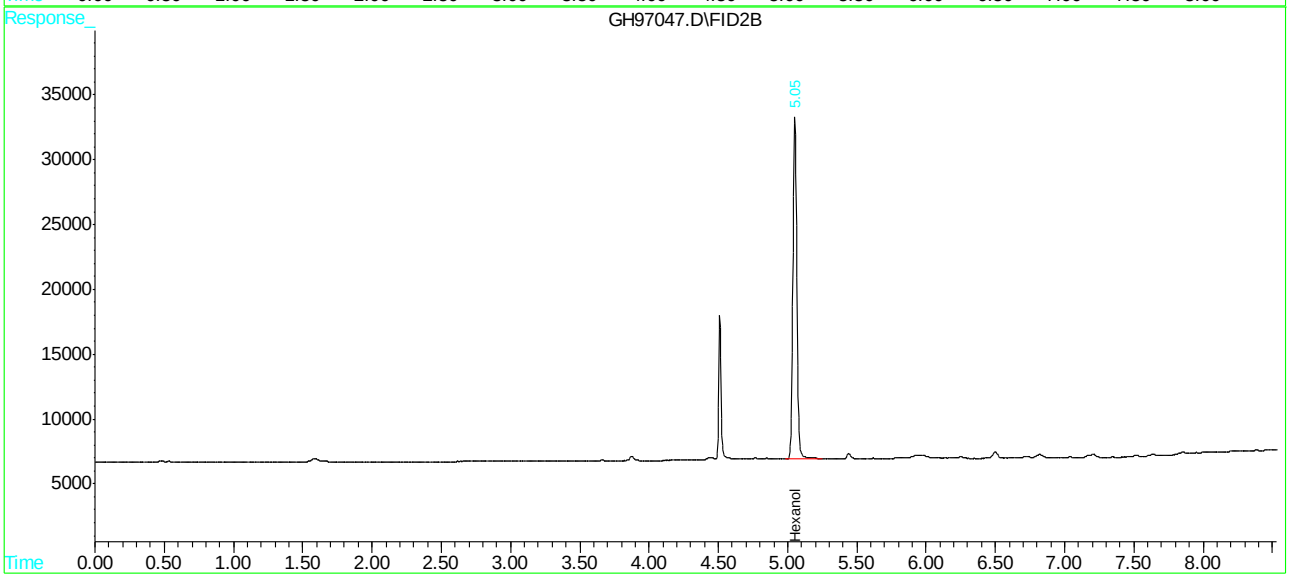
```
Data File : C:\HPCHEM\1\DATA\GH97047.D\FID1A.CH          Vial: 93
Acq On    : 20 Jun 2014  10:29 am                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97047.D\FID2B.CH          Vial: 93
Acq On    : 20 Jun 2014  10:43 am                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20 10:49 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Fri Jun 20 10:20:50 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH96997.D\FID1A.CH          Vial: 93
Acq On    : 19 Jun 2014   8:51 am                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH96997.D\FID2B.CH          Vial: 93
Acq On    : 19 Jun 2014   9:05 am                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 10:05 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.55   5.05    365193   450083 4484.692  4389.945
  Spiked Amount   5000.000                  Recovery     =   89.69%    87.80%

Target Compounds
```

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH96997.D  MGH4491.M      Thu Jun 19 10:05:38 2014      GCGH
```

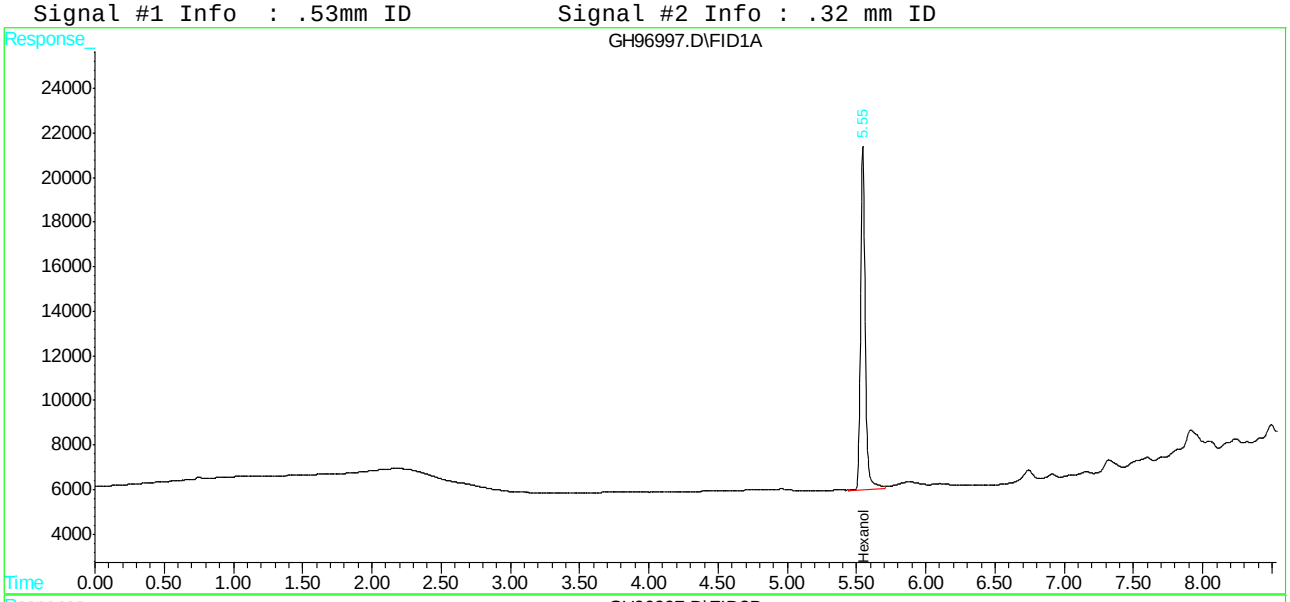
Quantitation Report (QT Reviewed)

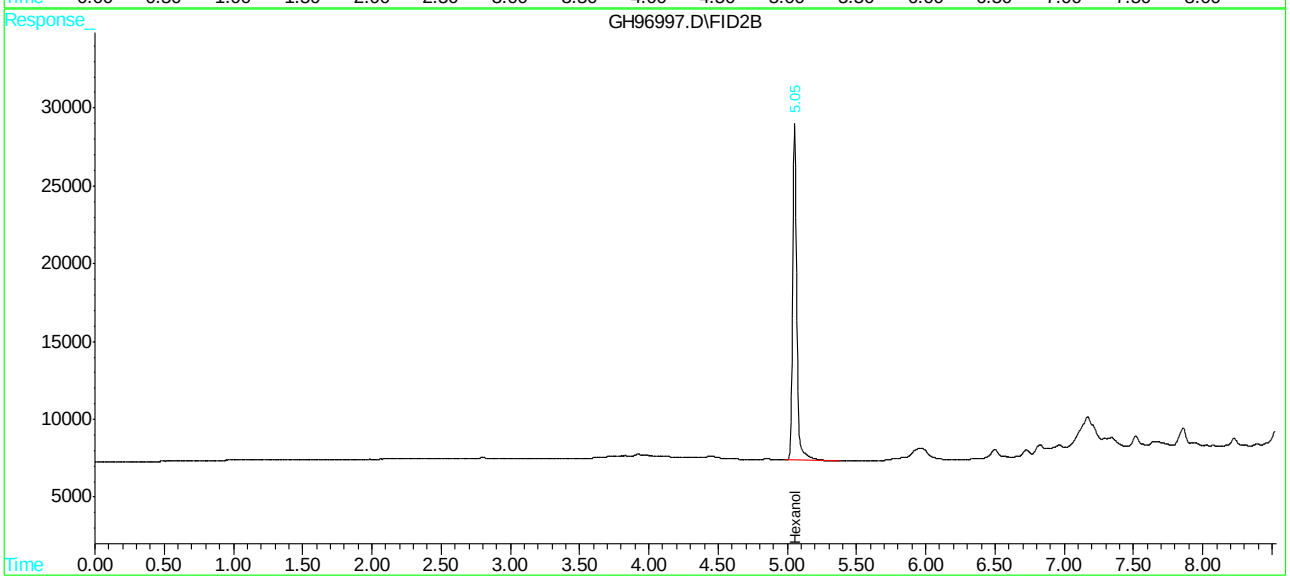
```
Data File : C:\HPCHEM\1\DATA\GH96997.D\FID1A.CH          Vial: 93
Acq On    : 19 Jun 2014   8:51 am                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH96997.D\FID2B.CH          Vial: 93
Acq On    : 19 Jun 2014   9:05 am                    Operator: XULIU
Sample    : MB1                                      Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 10:05 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH96998.D\FID1A.CH          Vial: 94
Acq On    : 19 Jun 2014   9:05 am                    Operator: XULIU
Sample    : BS                                       Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH96998.D\FID2B.CH          Vial: 94
Acq On    : 19 Jun 2014   9:18 am                    Operator: XULIU
Sample    : BS                                       Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 10:05 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	332844	413126	4087.429	4029.482
	Spiked Amount 5000.000			Recovery	=	81.75%	80.59%
	Target Compounds						
1)	Methanol	1.06	0.65	90760	93974	5762.608	5732.857
2)	Ethanol	1.37	0.83	104477	114504	5224.357	4725.288
3)	Tert-Butyl Alcoh	1.90	1.19	152243	176983	5329.745	4775.777
4)	1-Propanol	2.40	1.45	128321	146714	5162.396	4767.309
5)	2-Propanol	1.65	1.02	110432	125172	5218.312	4822.897
7)	Isobutanol	3.24	2.30	142304	162347	4893.102	4678.327
8)	1-Butanol	3.71	2.80	125068	155590	4285.412	4384.911
9)	2-Butanol	2.84	1.91	127568	146918	4748.663	4720.290

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

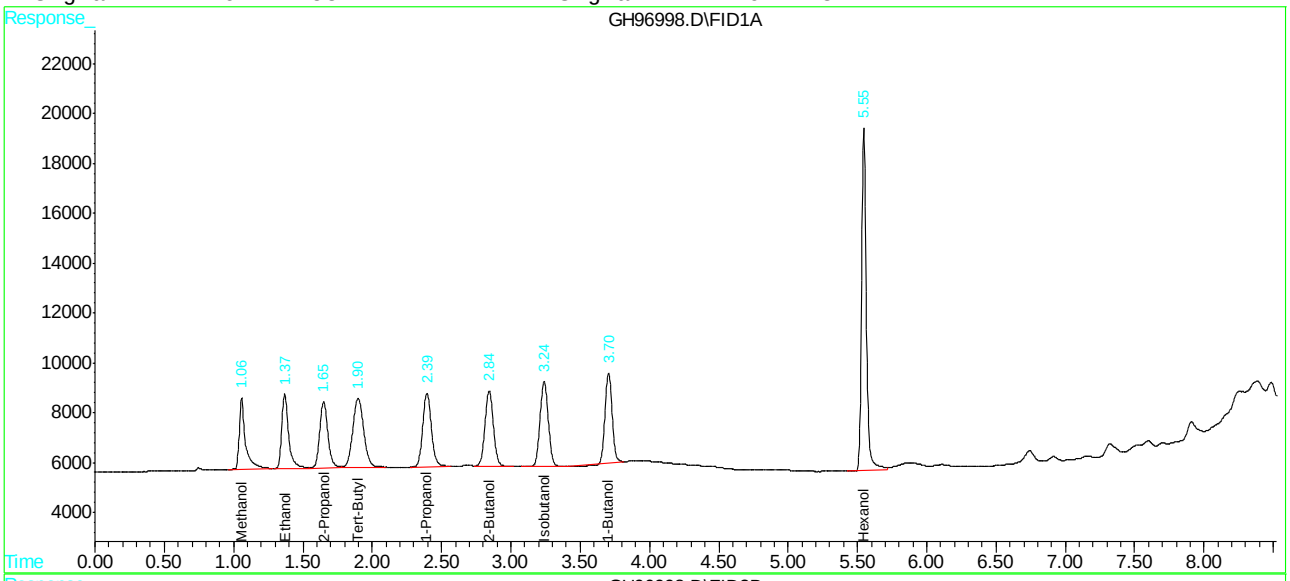
Quantitation Report (QT Reviewed)

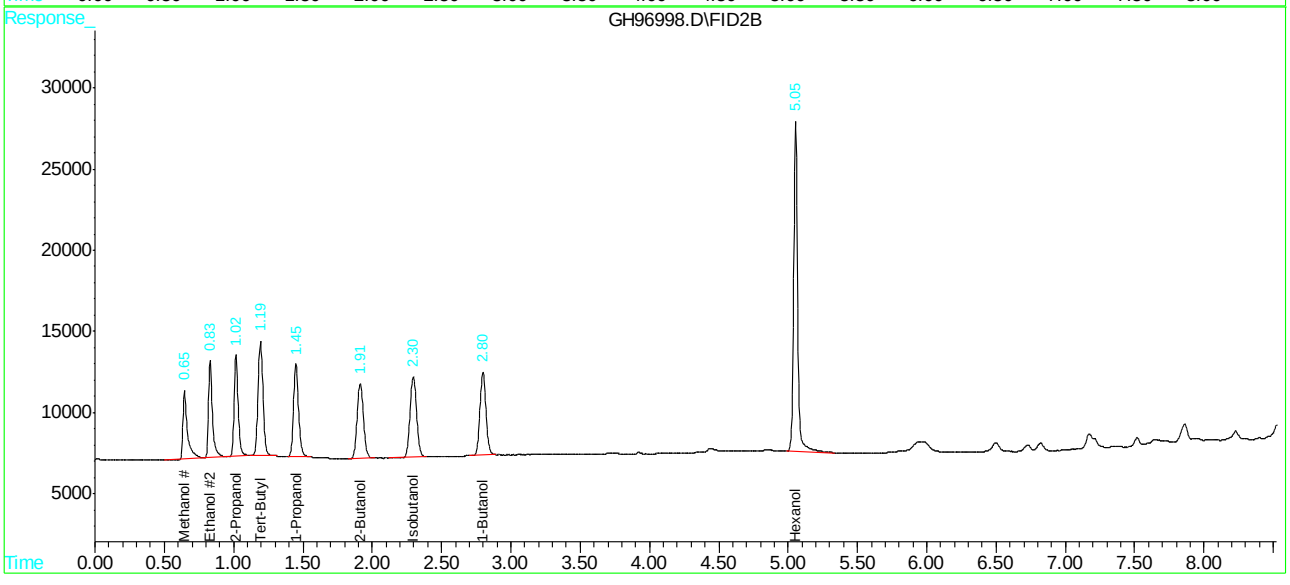
Data File : C:\HPCHEM\1\DATA\GH96998.D\FID1A.CH Vial: 94
Acq On : 19 Jun 2014 9:05 am Operator: XULIU
Sample : BS Inst : GCGH
Misc : GC43919,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH96998.D\FID2B.CH Vial: 94
Acq On : 19 Jun 2014 9:18 am Operator: XULIU
Sample : BS Inst : GCGH
Misc : GC43919,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 19 10:05 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97027.D\FID1A.CH          Vial: 92
Acq On    : 19 Jun 2014   4:13 pm                    Operator: XULIU
Sample    : BS                                       Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97027.D\FID2B.CH          Vial: 92
Acq On    : 19 Jun 2014   4:28 pm                    Operator: XULIU
Sample    : BS                                       Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:25 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	381108	480508	4680.137	4686.701
	Spiked Amount 5000.000			Recovery	=	93.60%	93.73%
	Target Compounds						
1)	Methanol	1.06	0.65	86505	95545	5492.467	5828.700
2)	Ethanol	1.37	0.83	100552	126492	5028.051	5219.977
3)	Tert-Butyl Alcoh	1.90	1.19	150205	189009	5258.401	5100.296
4)	1-Propanol	2.39	1.45	125583	140900	5052.233	4578.408
5)	2-Propanol	1.65	1.02	108510	134985	5127.500	5201.002
7)	Isobutanol	3.24	2.30	144373	167939	4964.252	4839.459
8)	1-Butanol	3.71	2.80	138824	159929	4756.736	4507.189
9)	2-Butanol	2.84	1.92	124527	149977	4635.469	4818.596

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH97027.D MGH4491.M Fri Jun 20 08:25:08 2014 GCGH

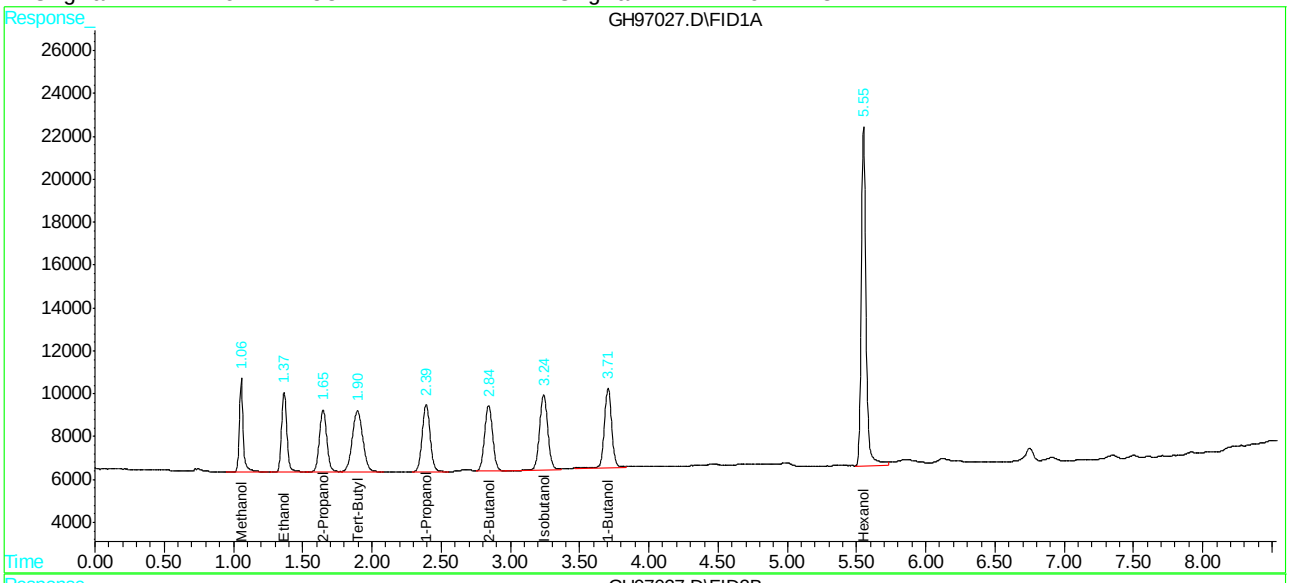
Quantitation Report (QT Reviewed)

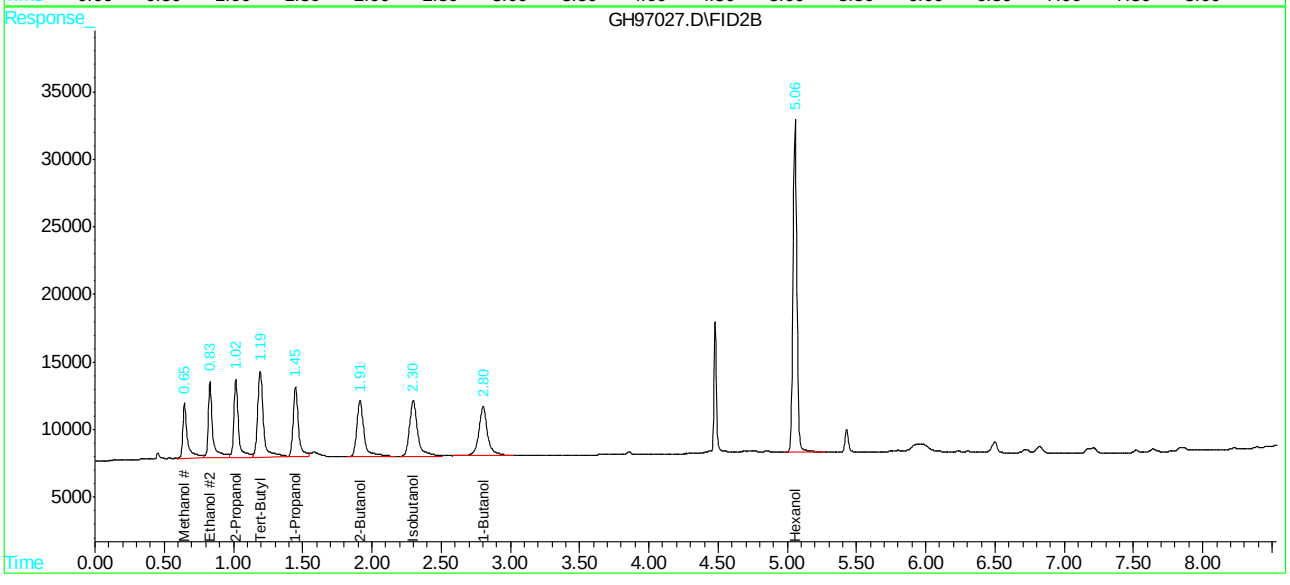
```
Data File : C:\HPCHEM\1\DATA\GH97027.D\FID1A.CH          Vial: 92
Acq On    : 19 Jun 2014   4:13 pm                    Operator: XULIU
Sample    : BS                                       Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97027.D\FID2B.CH          Vial: 92
Acq On    : 19 Jun 2014   4:28 pm                    Operator: XULIU
Sample    : BS                                       Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:25 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97051.D\FID1A.CH          Vial: 22
Acq On    : 20 Jun 2014  11:42 am                    Operator: XULIU
Sample    : BS2                                      Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97051.D\FID2B.CH          Vial: 22
Acq On    : 20 Jun 2014  11:56 am                    Operator: XULIU
Sample    : BS2                                      Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20 15:44 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Fri Jun 20 10:20:50 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.54	5.05	364977	456629	4482.033	4453.793
	Spiked Amount 5000.000			Recovery	=	89.64%	89.08%
	Target Compounds						
1)	Methanol	1.04	0.65	70534	82836	4478.412	5053.379
2)	Ethanol	1.35	0.83	104491	122780	5225.040	5066.800
3)	Tert-Butyl Alcoh	1.88	1.19	185579	190235	6496.814	5133.382
4)	1-Propanol	2.38	1.45	134018	161398	5391.585	5244.460
5)	2-Propanol	1.64	1.02	122601	133719	5793.339	5152.226
7)	Isobutanol	3.23	2.29	163164	191063	5610.354	5505.841
8)	1-Butanol	3.69	2.80	155642	182136	5332.993	5133.024
9)	2-Butanol	2.83	1.91	140460	165390	5228.578	5313.802

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

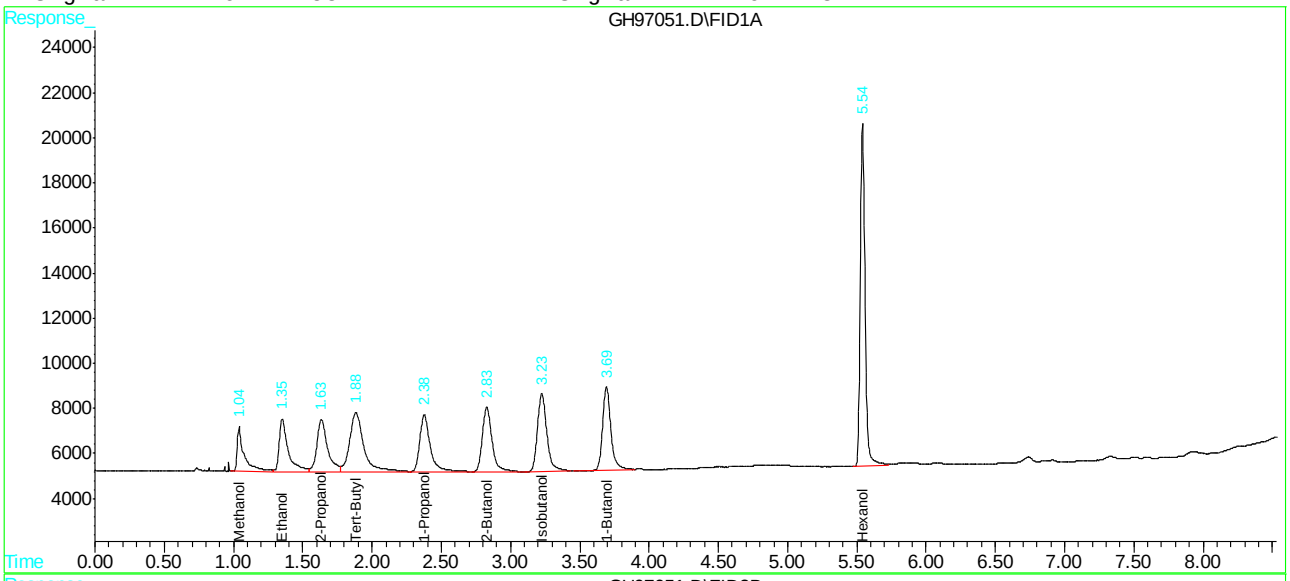
Quantitation Report (QT Reviewed)

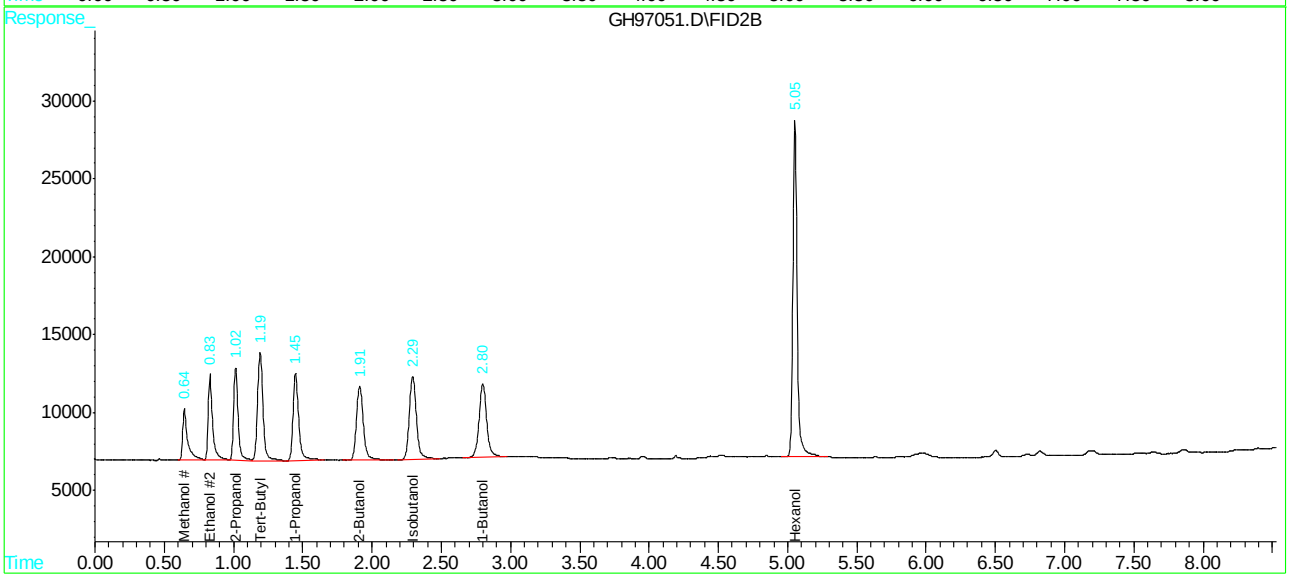
Data File : C:\HPCHEM\1\DATA\GH97051.D\FID1A.CH Vial: 22
Acq On : 20 Jun 2014 11:42 am Operator: XULIU
Sample : BS2 Inst : GCGH
Misc : GC43935,GGH4598,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97051.D\FID2B.CH Vial: 22
Acq On : 20 Jun 2014 11:56 am Operator: XULIU
Sample : BS2 Inst : GCGH
Misc : GC43935,GGH4598,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 15:44 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Fri Jun 20 10:20:50 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97000.D\FID1A.CH          Vial: 21
Acq On    : 19 Jun 2014   9:38 am                    Operator: XULIU
Sample    : JB68943-89AMS                            Inst    : GCGH
Misc      : GC43919,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97000.D\FID2B.CH          Vial: 21
Acq On    : 19 Jun 2014   9:53 am                    Operator: XULIU
Sample    : JB68943-89AMS                            Inst    : GCGH
Misc      : GC43919,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 10:06 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.55	5.06	372898	459079	4579.316	4477.685
Spiked Amount 5000.000			Recovery	=	91.59%	89.55%
Target Compounds						
1) Methanol	1.06	0.65	69377	81831	4404.945	4992.086
2) Ethanol	1.37	0.83	87036	123915	4352.227	5113.657
3) Tert-Butyl Alcoh	1.90	1.20	149979	188109	5250.508	5076.014
4) 1-Propanol	2.40	1.45	127155	131503	5115.494	4273.037
5) 2-Propanol	1.65	1.02	96850	134051	4576.496	5164.986
7) Isobutanol	3.24	2.30	150558	171957	5176.920	4955.270
8) 1-Butanol	3.71	2.80	142882	162970	4895.802	4592.903
9) 2-Butanol	2.85	1.92	132670	155578	4938.570	4998.529

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

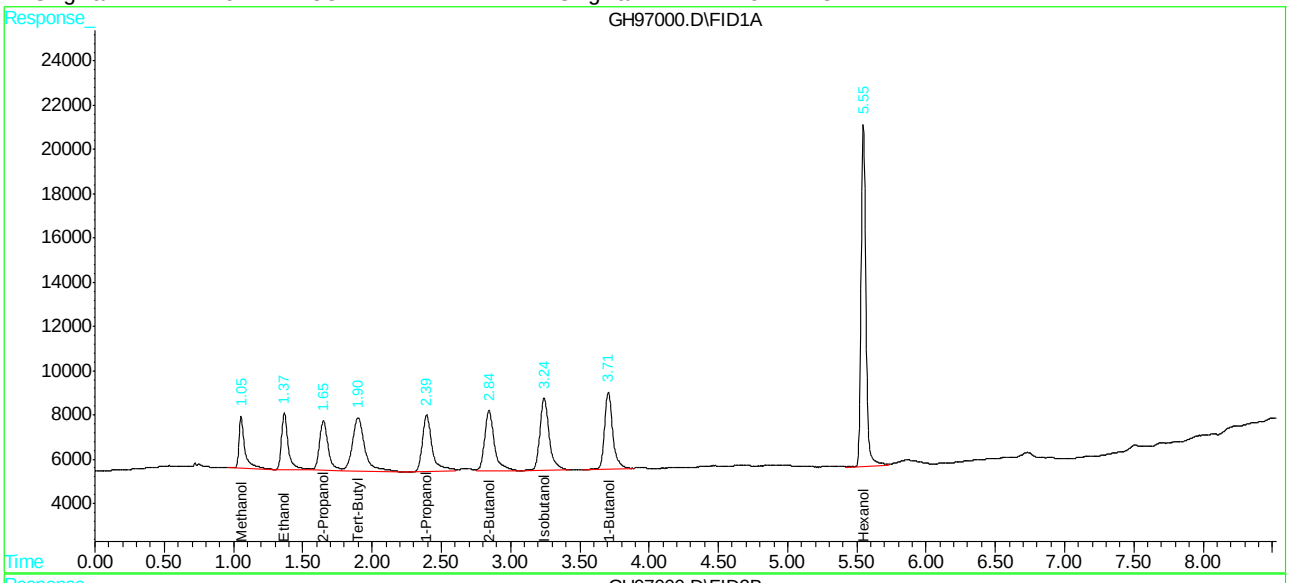
Quantitation Report (QT Reviewed)

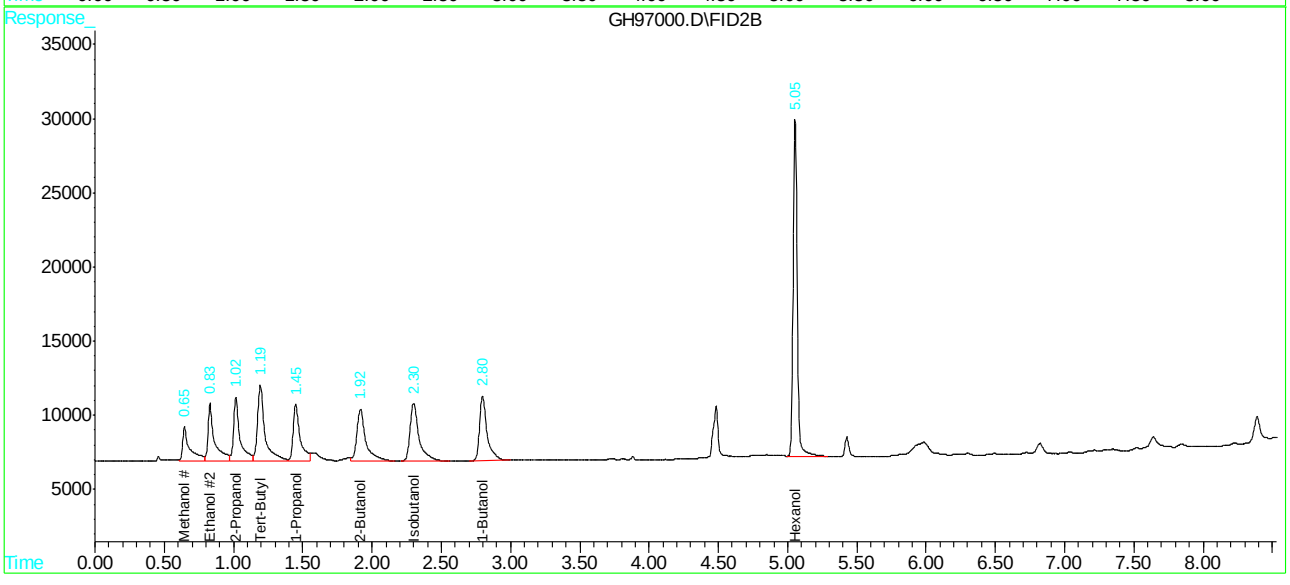
```
Data File : C:\HPCHEM\1\DATA\GH97000.D\FID1A.CH          Vial: 21
Acq On    : 19 Jun 2014   9:38 am                    Operator: XULIU
Sample    : JB68943-89AMS                            Inst    : GCGH
Misc      : GC43919,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97000.D\FID2B.CH          Vial: 21
Acq On    : 19 Jun 2014   9:53 am                    Operator: XULIU
Sample    : JB68943-89AMS                            Inst    : GCGH
Misc      : GC43919,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 10:06 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97001.D\FID1A.CH          Vial: 22
Acq On    : 19 Jun 2014   9:53 am                    Operator: XULIU
Sample    : JB68943-89AMSD                           Inst    : GCGH
Misc      : GC43919,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97001.D\FID2B.CH          Vial: 22
Acq On    : 19 Jun 2014  10:04 am                    Operator: XULIU
Sample    : JB68943-89AMSD                           Inst    : GCGH
Misc      : GC43919,GGH4595,5.1,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 10:22 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	393476	506642	4832.018	4941.600
	Spiked Amount 5000.000			Recovery	=	96.64%	98.83%
	Target Compounds						
1)	Methanol	1.06	0.65	85623	97173	5436.452	5928.039
2)	Ethanol	1.37	0.83	107087	129589	5354.832	5347.805
3)	Tert-Butyl Alcoh	1.90	1.19	161620	196887	5658.017	5312.873
4)	1-Propanol	2.40	1.45	135668	164780	5457.978	5354.356
5)	2-Propanol	1.65	1.02	113786	142637	5376.803	5495.808
7)	Isobutanol	3.25	2.30	160704	195056	5525.776	5620.890
8)	1-Butanol	3.71	2.80	154576	182169	5296.490	5133.956
9)	2-Butanol	2.85	1.92	138906	168879	5170.722	5425.878

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

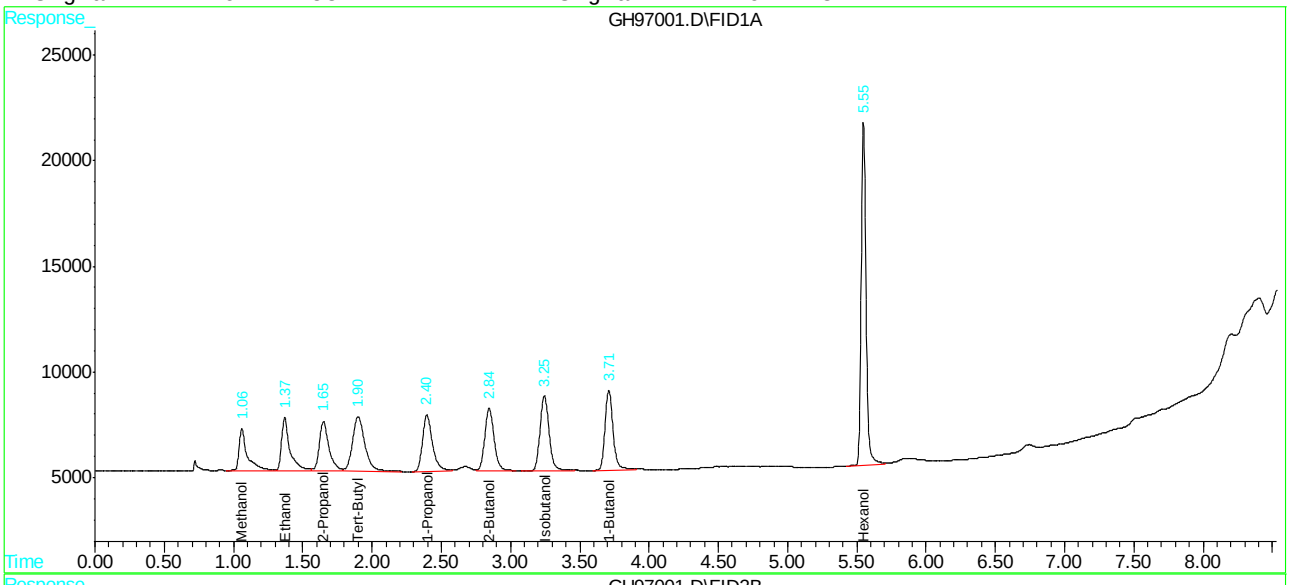
Quantitation Report (QT Reviewed)

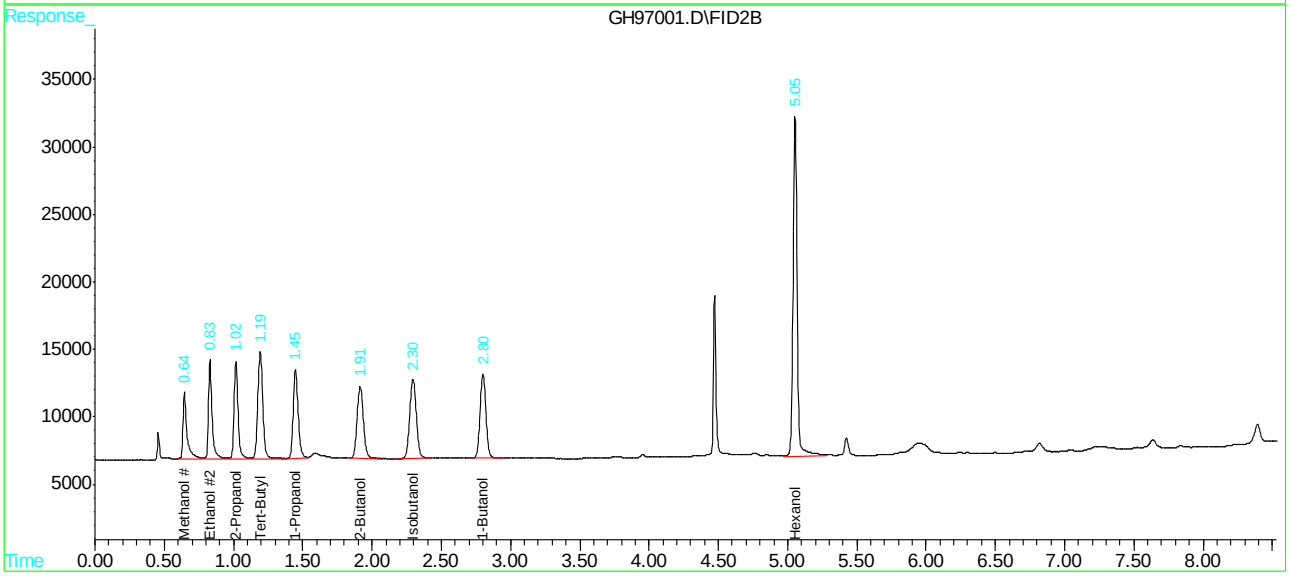
Data File : C:\HPCHEM\1\DATA\GH97001.D\FID1A.CH Vial: 22
Acq On : 19 Jun 2014 9:53 am Operator: XULIU
Sample : JB68943-89AMSD Inst : GCGH
Misc : GC43919,GGH4595,5.1,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97001.D\FID2B.CH Vial: 22
Acq On : 19 Jun 2014 10:04 am Operator: XULIU
Sample : JB68943-89AMSD Inst : GCGH
Misc : GC43919,GGH4595,5.1,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 19 10:22 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97029.D\FID1A.CH          Vial: 2
Acq On    : 19 Jun 2014   4:49 pm                    Operator: XULIU
Sample    : JB69587-12MS                             Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97029.D\FID2B.CH          Vial: 2
Acq On    : 19 Jun 2014   5:04 pm                    Operator: XULIU
Sample    : JB69587-12MS                             Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:25 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	382349	479612	4695.374	4677.958
	Spiked Amount 5000.000			Recovery	=	93.91%	93.56%
	Target Compounds						
1)	Methanol	1.06	0.65	84765	77078	5381.966	4702.115
2)	Ethanol	1.37	0.84	118950	124894	5948.046	5154.061
3)	Tert-Butyl Alcoh	1.90	1.20	165692	195687	5800.573	5280.502
4)	1-Propanol	2.40	1.46	137953	165866	5549.906	5389.643
5)	2-Propanol	1.65	1.02	119536	138169	5648.518	5323.664
7)	Isobutanol	3.24	2.31	159370	184283	5479.909	5310.453
8)	1-Butanol	3.71	2.81	147704	178911	5061.010	5042.141
9)	2-Butanol	2.85	1.92	140355	162600	5224.668	5224.152

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

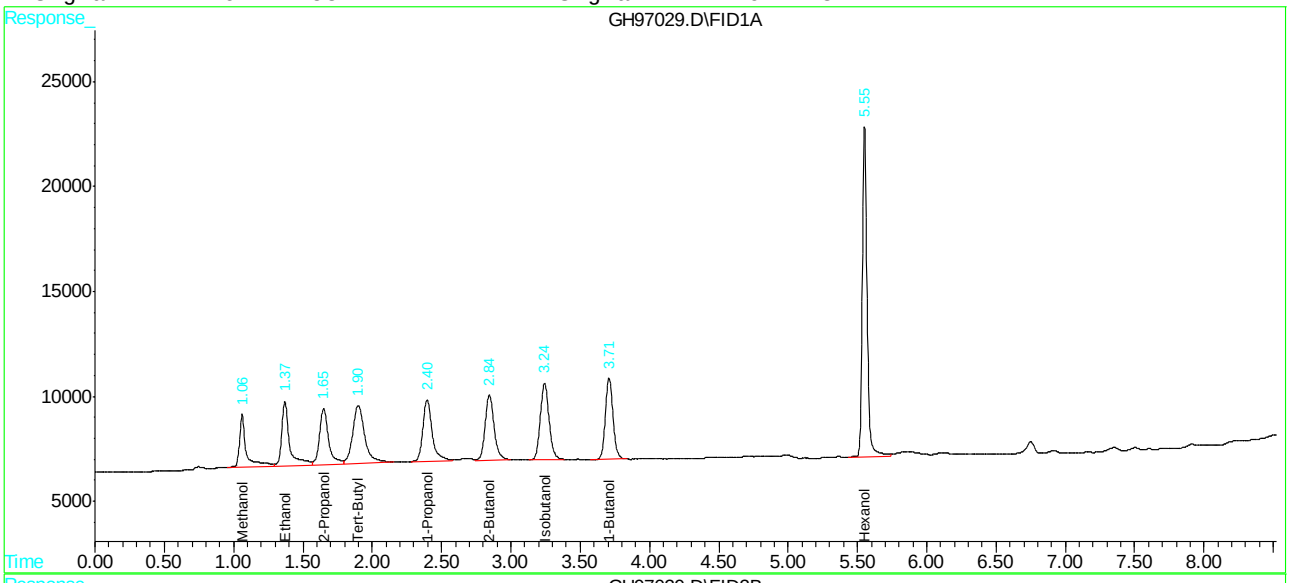
Quantitation Report (QT Reviewed)

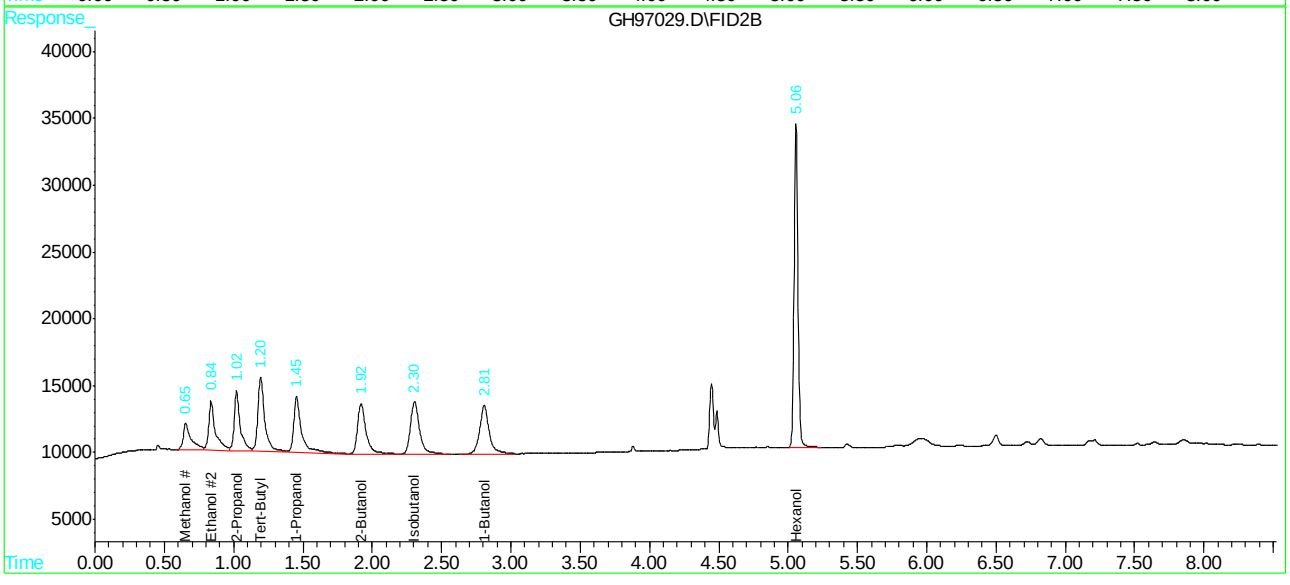
Data File : C:\HPCHEM\1\DATA\GH97029.D\FID1A.CH Vial: 2
Acq On : 19 Jun 2014 4:49 pm Operator: XULIU
Sample : JB69587-12MS Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97029.D\FID2B.CH Vial: 2
Acq On : 19 Jun 2014 5:04 pm Operator: XULIU
Sample : JB69587-12MS Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:25 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97030.D\FID1A.CH          Vial: 3
Acq On    : 19 Jun 2014   5:04 pm                    Operator: XULIU
Sample    : JB69587-12MSD                            Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97030.D\FID2B.CH          Vial: 3
Acq On    : 19 Jun 2014   5:18 pm                    Operator: XULIU
Sample    : JB69587-12MSD                            Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:25 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	395106	522255	4852.027	5093.887
	Spiked Amount 5000.000			Recovery	=	97.04%	101.88%
	Target Compounds						
1)	Methanol	1.06	0.65	48268	82404	3064.667	5027.074 #
2)	Ethanol	1.37	0.83	73438	124383	3672.263	5132.952
3)	Tert-Butyl Alcoh	1.90	1.19	160067	182183	5603.656	4916.087
4)	1-Propanol	2.40	1.45	88474	144606	3559.331	4698.812
5)	2-Propanol	1.65	1.02	86206	132696	4073.544	5112.781
7)	Isobutanol	3.25	2.30	146525	236386	5038.228	6811.912
8)	1-Butanol	3.71	2.80	139783	175400	4789.609	4943.201
9)	2-Butanol	2.85	1.92	117923	231850	4389.647	7449.063 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

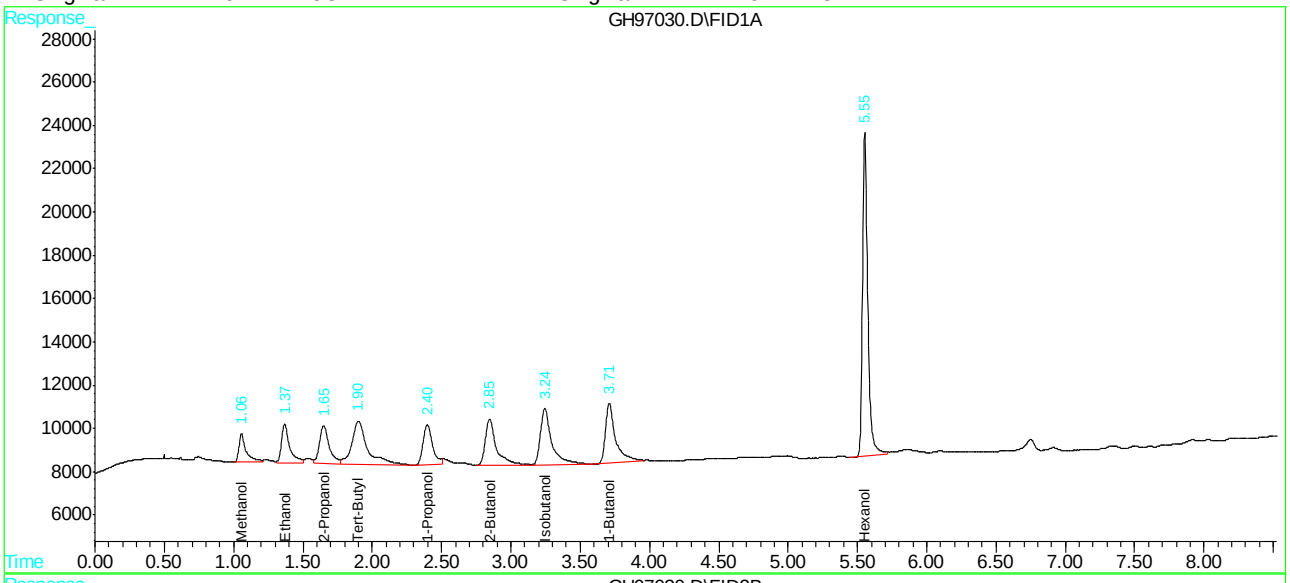
Quantitation Report (QT Reviewed)

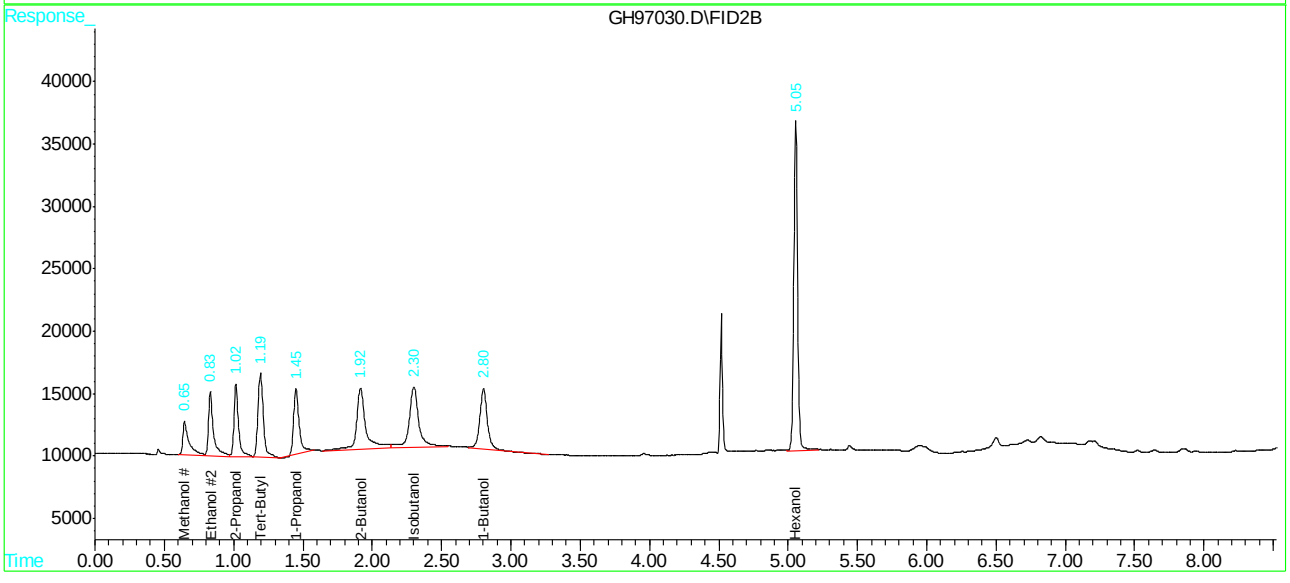
```
Data File : C:\HPCHEM\1\DATA\GH97030.D\FID1A.CH          Vial: 3
Acq On    : 19 Jun 2014   5:04 pm                    Operator: XULIU
Sample    : JB69587-12MSD                            Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97030.D\FID2B.CH          Vial: 3
Acq On    : 19 Jun 2014   5:18 pm                    Operator: XULIU
Sample    : JB69587-12MSD                            Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:25 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 01/28/14 11:38

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH95655.D\FID1A.CH          Vial: 26
Acq On    : 27 Jan 2014  11:20 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95655.D\FID2B.CH          Vial: 26
Acq On    : 27 Jan 2014  11:41 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:35 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.48	5.07	160050	216053	1968.783	2107.303
	Spiked Amount 5000.000			Recovery	=	39.38%	42.15%
	Target Compounds						
1)	Methanol	1.02	0.65	8634	8611	484.535m	523.606m
2)	Ethanol	1.34	0.83	9077	11684	453.898	482.719m
3)	Tert-Butyl Alcoh	1.86	1.20	12343	18190	435.114	491.202m
4)	1-Propanol	2.35	1.45	11037	15123	436.053	485.382
5)	2-Propanol	1.61	1.02	9858	13338	466.443	512.055
7)	Isobutanol	3.19	2.30	13818	17260	474.922	497.378
8)	1-Butanol	3.67	2.81	14011	17370	478.991	489.520
9)	2-Butanol	2.80	1.92	13093	15301	482.284	491.605

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH95655.D MGH4491.M Tue Jan 28 08:35:43 2014 GCGH

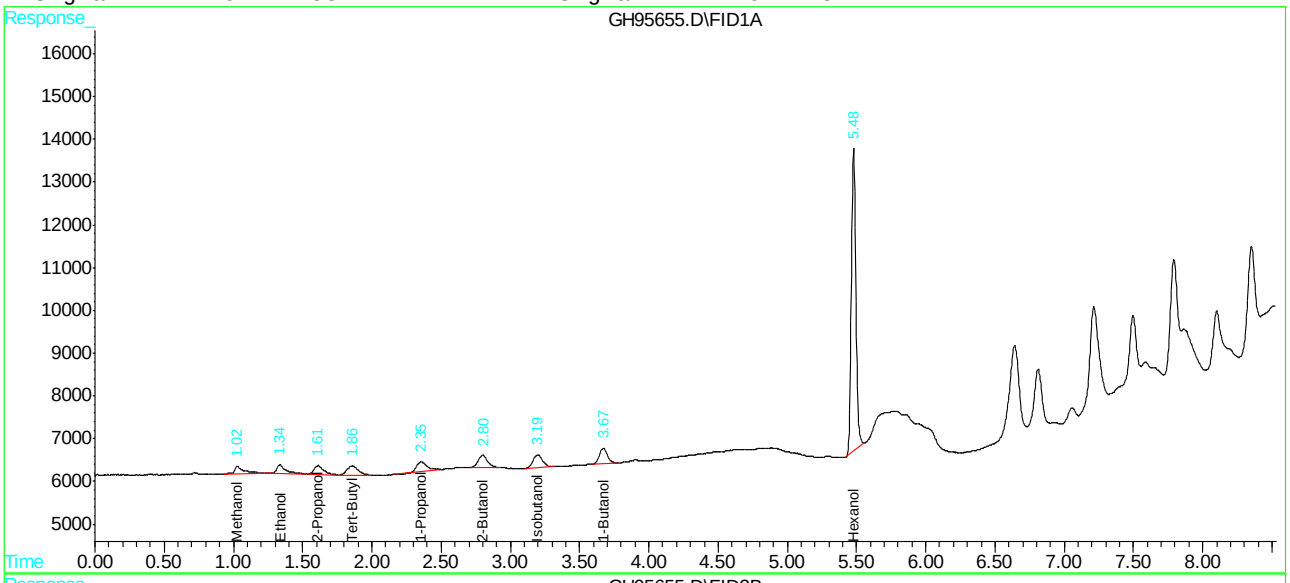
Quantitation Report (QT Reviewed)

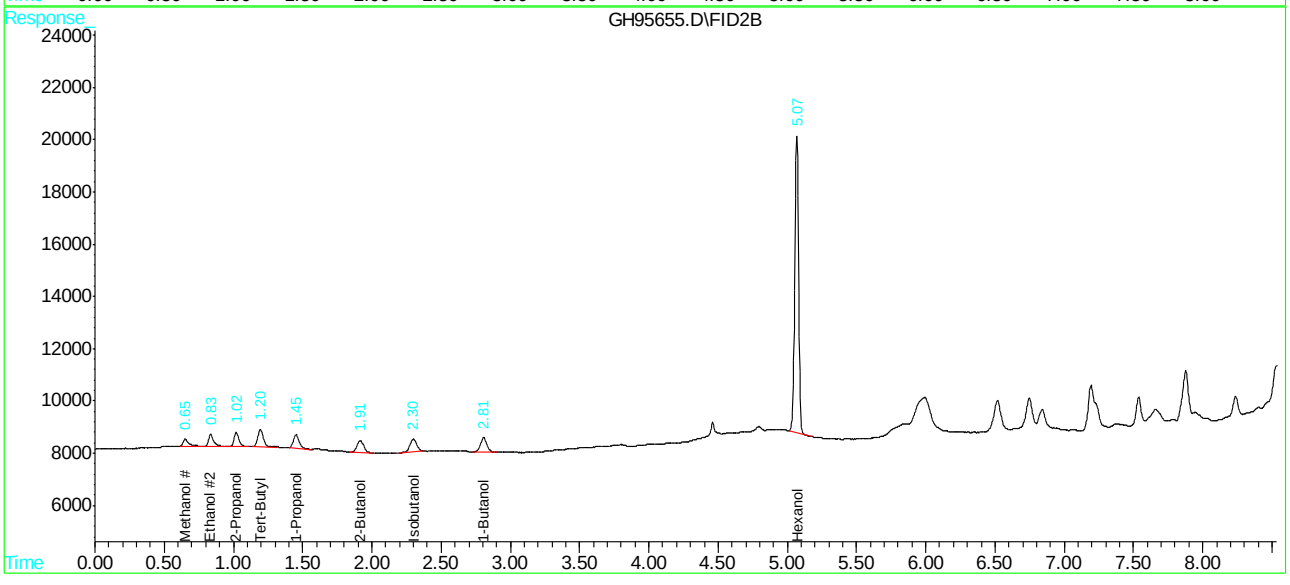
Data File : C:\HPCHEM\1\DATA\GH95655.D\FID1A.CH Vial: 26
Acq On : 27 Jan 2014 11:20 am Operator: XULIU
Sample : IC4491-500 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95655.D\FID2B.CH Vial: 26
Acq On : 27 Jan 2014 11:41 am Operator: XULIU
Sample : IC4491-500 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 8:35 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Manual Integration Approval Summary

Sample Number:	GGH4491-IC4491	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH95655.D	**Analyst approved:**	01/28/14 09:32 Xu Liu
Injection Time:	01/27/14 11:20	**Supervisor approved:**	01/28/14 11:38 Jessica Reitan-Chu

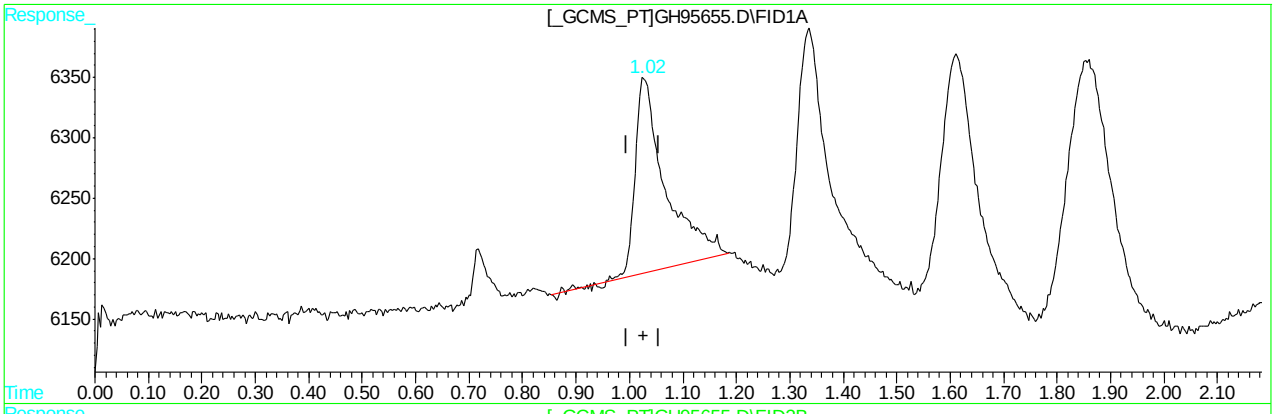
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	0.65	Poor instrument integration
Ethanol	64-17-5	2	0.83	Poor instrument integration
Methanol	67-56-1	1	1.02	Poor instrument integration
Tertiary Butyl Alcohol	75-65-0	2	1.20	Poor instrument integration

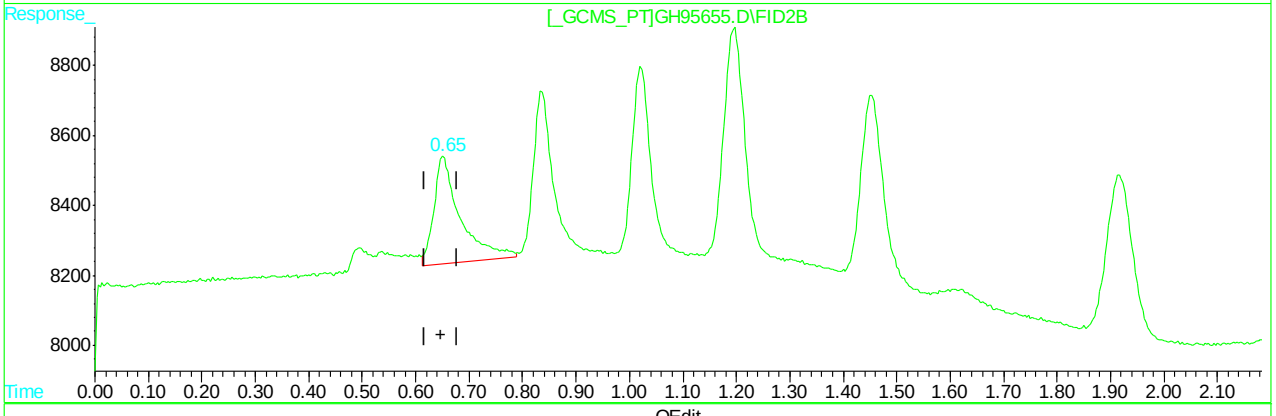
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95655.D\FID1A.CH          Vial: 26
Acq On    : 27 Jan 2014  11:20 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95655.D\FID2B.CH          Vial: 26
Acq On    : 27 Jan 2014  11:41 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:09 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.03min 360.856PPB

response 6430

(1) Methanol #2

0.65min 637.131PPB

response 10478

(+) = Expected Retention Time

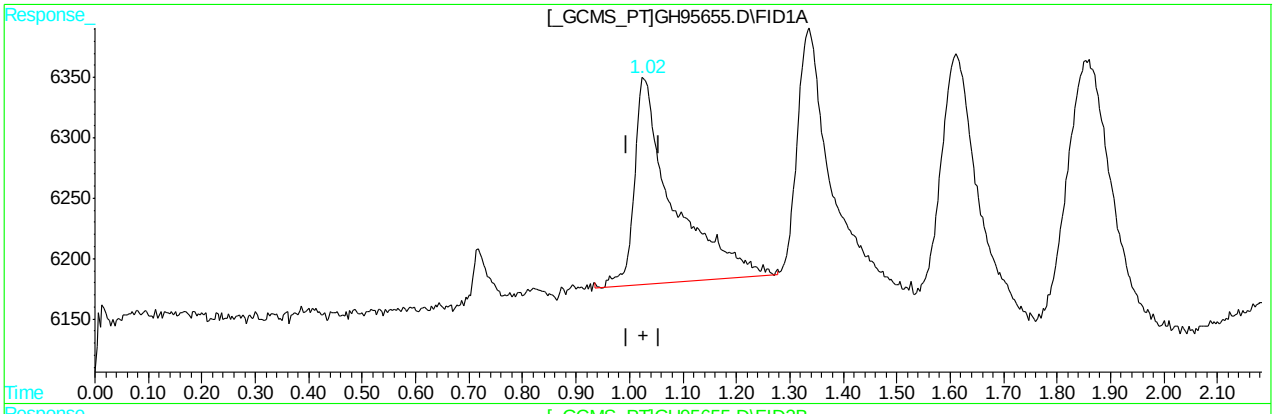
GH95655.D MGH4491.M Tue Jan 28 08:18:19 2014 GCGH

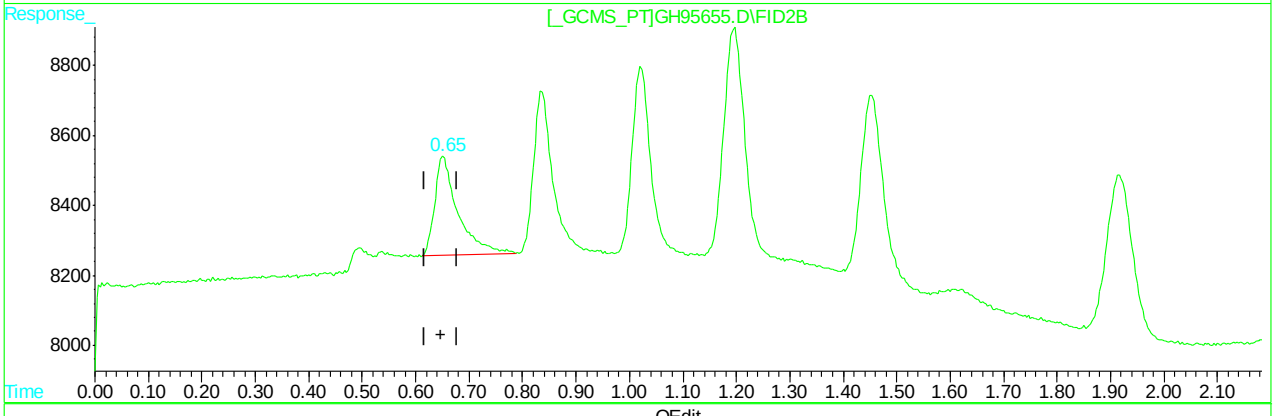
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95655.D\FID1A.CH          Vial: 26
Acq On    : 27 Jan 2014  11:20 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95655.D\FID2B.CH          Vial: 26
Acq On    : 27 Jan 2014  11:41 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:09 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.02min 484.535PPB m

response 8634

(1) Methanol #2

0.65min 523.606PPB m

response 8611

(+) = Expected Retention Time

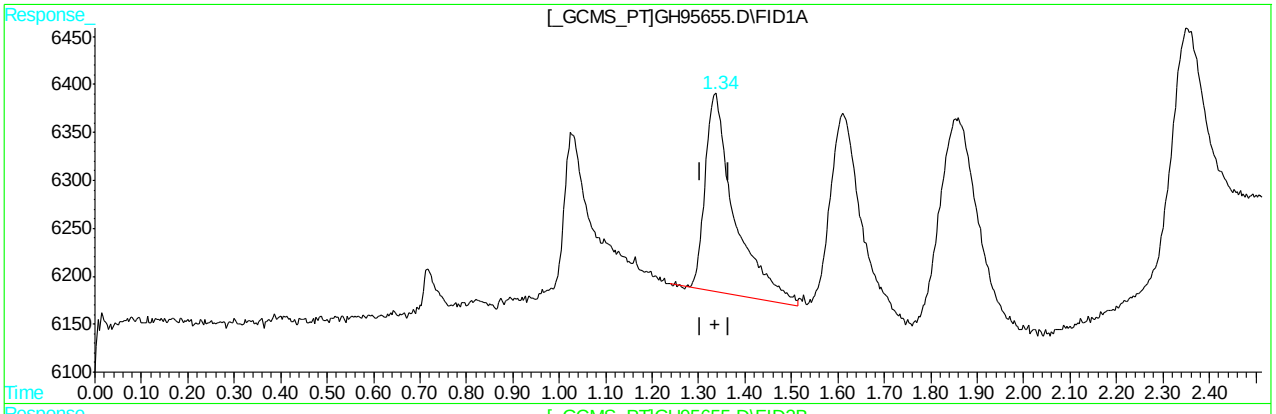
GH95655.D MGH4491.M Tue Jan 28 08:19:03 2014 GCGH

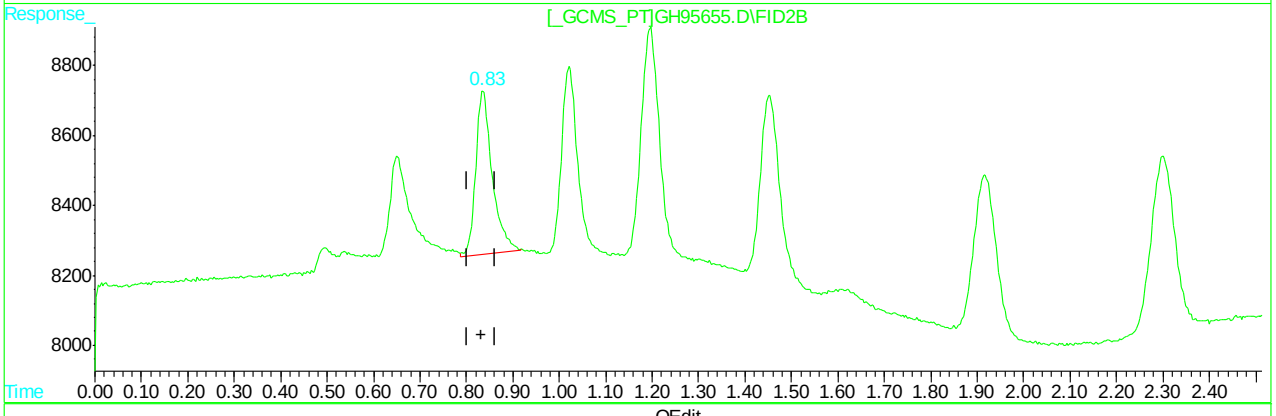
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95655.D\FID1A.CH          Vial: 26
Acq On    : 27 Jan 2014  11:20 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95655.D\FID2B.CH          Vial: 26
Acq On    : 27 Jan 2014  11:41 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:09 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.34min 453.898PPB

response 9077

(2) Ethanol #2

0.84min 473.106PPB

response 11451

(+) = Expected Retention Time

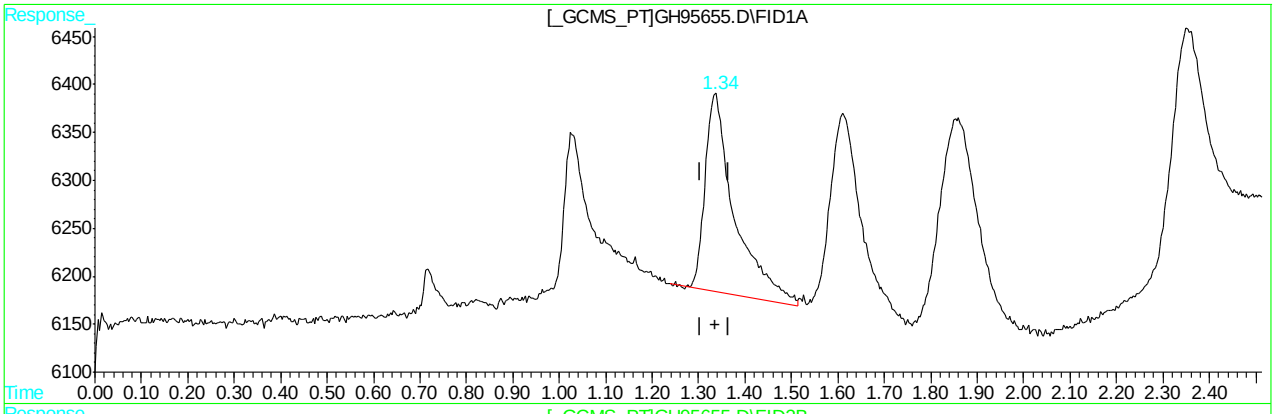
GH95655.D MGH4491.M Tue Jan 28 08:20:06 2014 GCGH

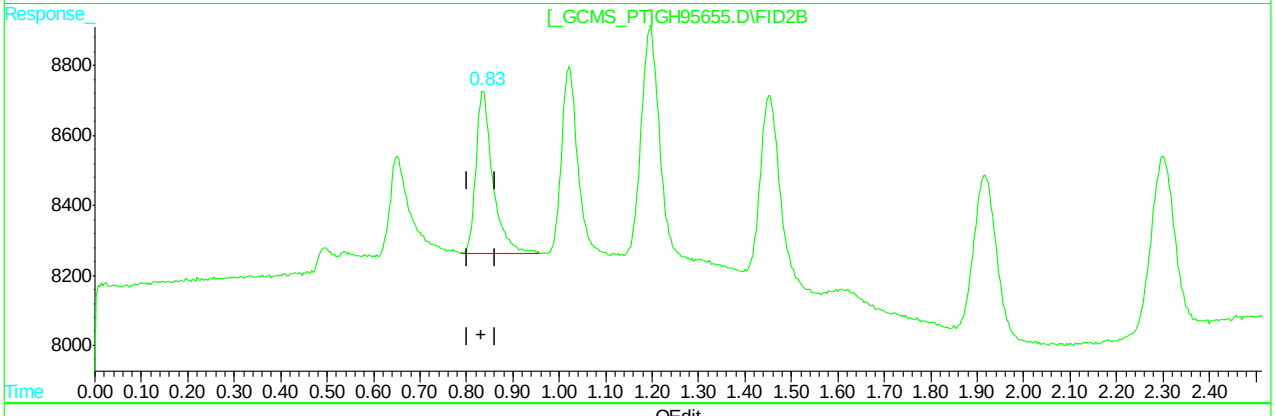
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95655.D\FID1A.CH          Vial: 26
Acq On    : 27 Jan 2014  11:20 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95655.D\FID2B.CH          Vial: 26
Acq On    : 27 Jan 2014  11:41 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:09 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.34min 453.898PPB

response 9077

(2) Ethanol #2

0.83min 482.719PPB m

response 11684

(+) = Expected Retention Time

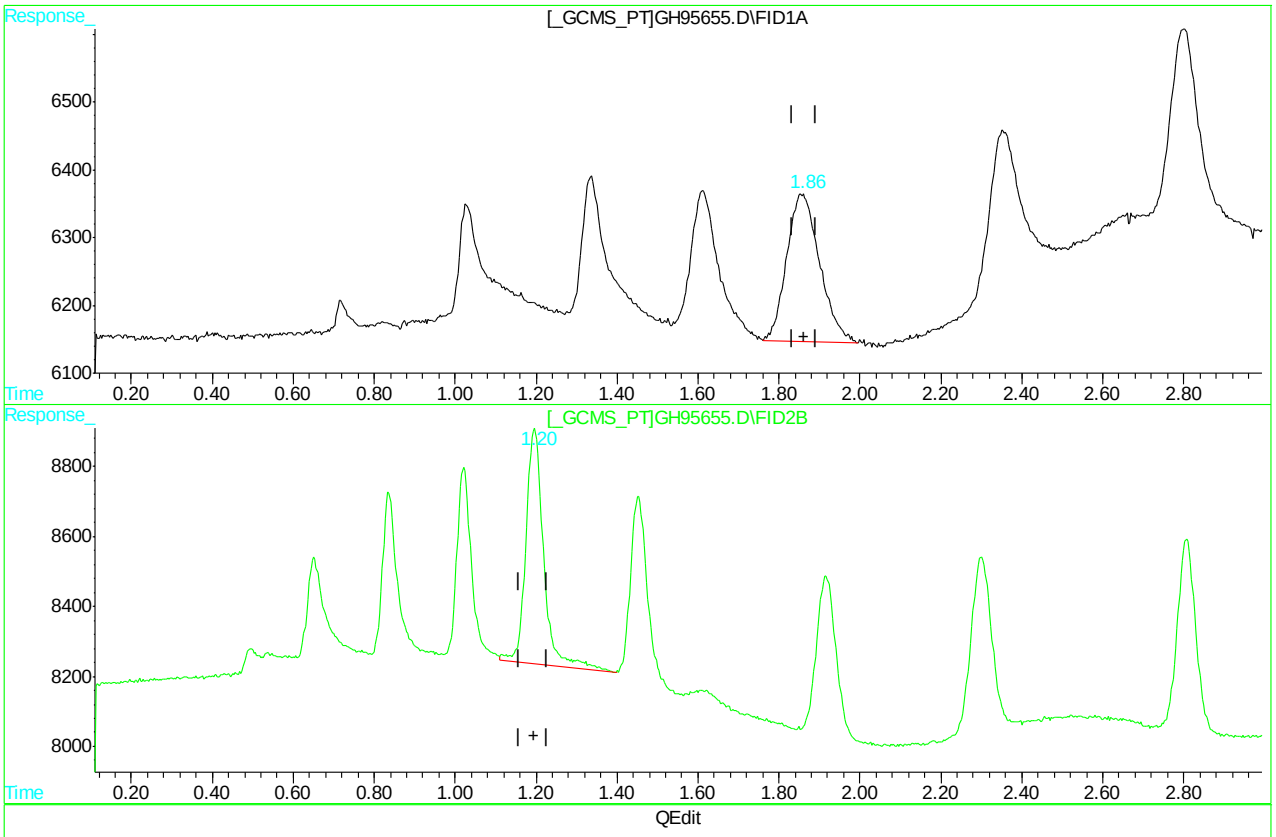
GH95655.D MGH4491.M Tue Jan 28 08:20:24 2014 GCGH

Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95655.D\FID1A.CH          Vial: 26
Acq On    : 27 Jan 2014  11:20 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95655.D\FID2B.CH          Vial: 26
Acq On    : 27 Jan 2014  11:41 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:09 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```



(3) Tert-Butyl Alcohol

1.86min 435.114PPB

response 12343

(3) Tert-Butyl Alcohol #2

1.20min 555.118PPB

response 20557

(+) = Expected Retention Time

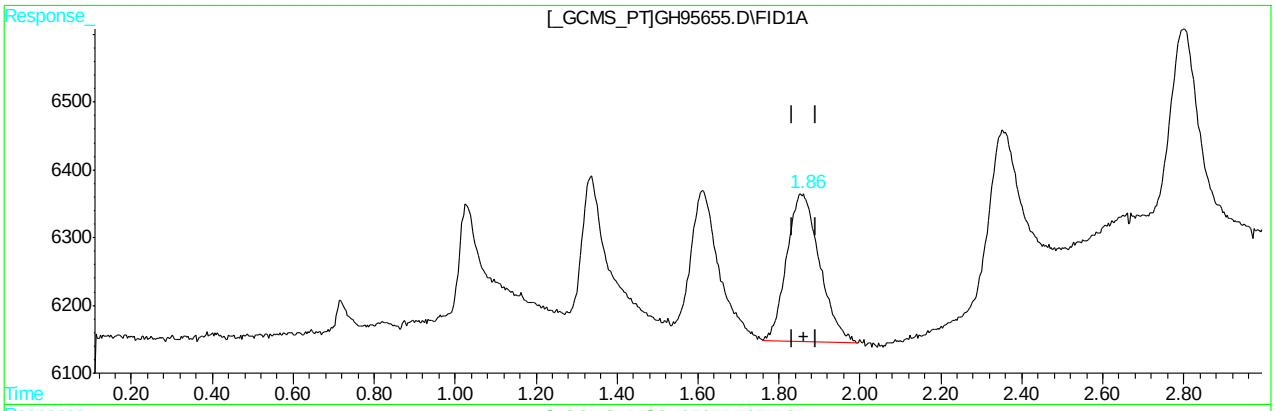
GH95655.D MGH4491.M Tue Jan 28 08:21:55 2014 GCGH

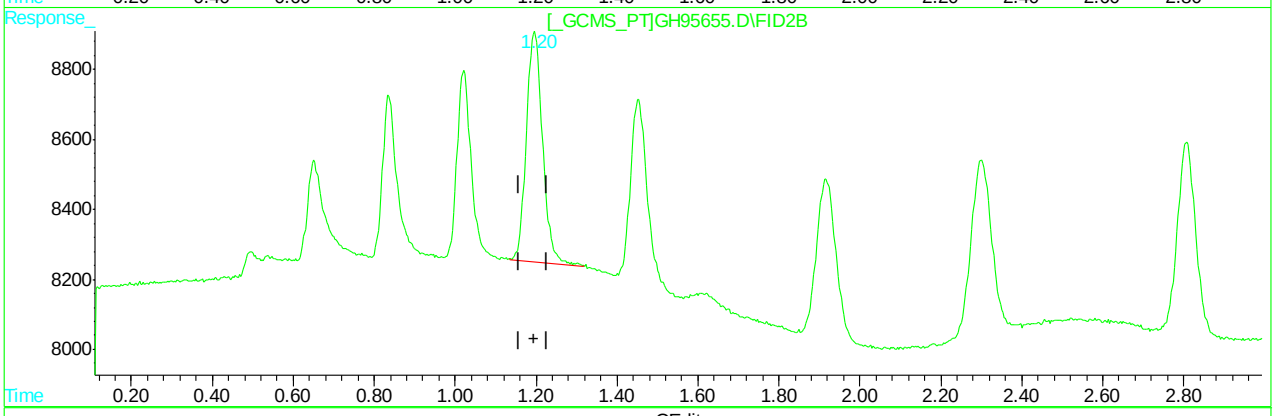
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95655.D\FID1A.CH          Vial: 26
Acq On    : 27 Jan 2014  11:20 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95655.D\FID2B.CH          Vial: 26
Acq On    : 27 Jan 2014  11:41 am                    Operator: XULIU
Sample    : IC4491-500                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:09 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

1.86min 435.114PPB

response 12343

(3) Tert-Butyl Alcohol #2

1.20min 491.202PPB m

response 18190

(+) = Expected Retention Time

GH95655.D MGH4491.M Tue Jan 28 08:22:38 2014 GCGH

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 01/28/14 11:38

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH95656.D\FID1A.CH          Vial: 1
Acq On    : 27 Jan 2014  11:56 am                    Operator: XULIU
Sample    : IC4491-1000                              Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95656.D\FID2B.CH          Vial: 1
Acq On    : 27 Jan 2014  12:10 pm                    Operator: XULIU
Sample    : IC4491-1000                              Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:35 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 14:17:55 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.48	5.07	344623	428843	3982.883	4006.706
	Spiked Amount 5000.000			Recovery	=	79.66%	80.13%
	Target Compounds						
1)	Methanol	1.02	0.65	15190	15219	969.471m	915.014
2)	Ethanol	1.34	0.84	19480	22381	940.726	885.763
3)	Tert-Butyl Alcoh	1.86	1.20	25780	36297	870.454	962.118
4)	1-Propanol	2.35	1.46	24848	30498	950.281	955.957
5)	2-Propanol	1.62	1.02	18851	25274	876.268	948.226
7)	Isobutanol	3.20	2.30	28249	34740	953.576	991.229
8)	1-Butanol	3.67	2.81	28191	38208	972.807	1074.731
9)	2-Butanol	2.80	1.92	26422	31203	981.908	995.675

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

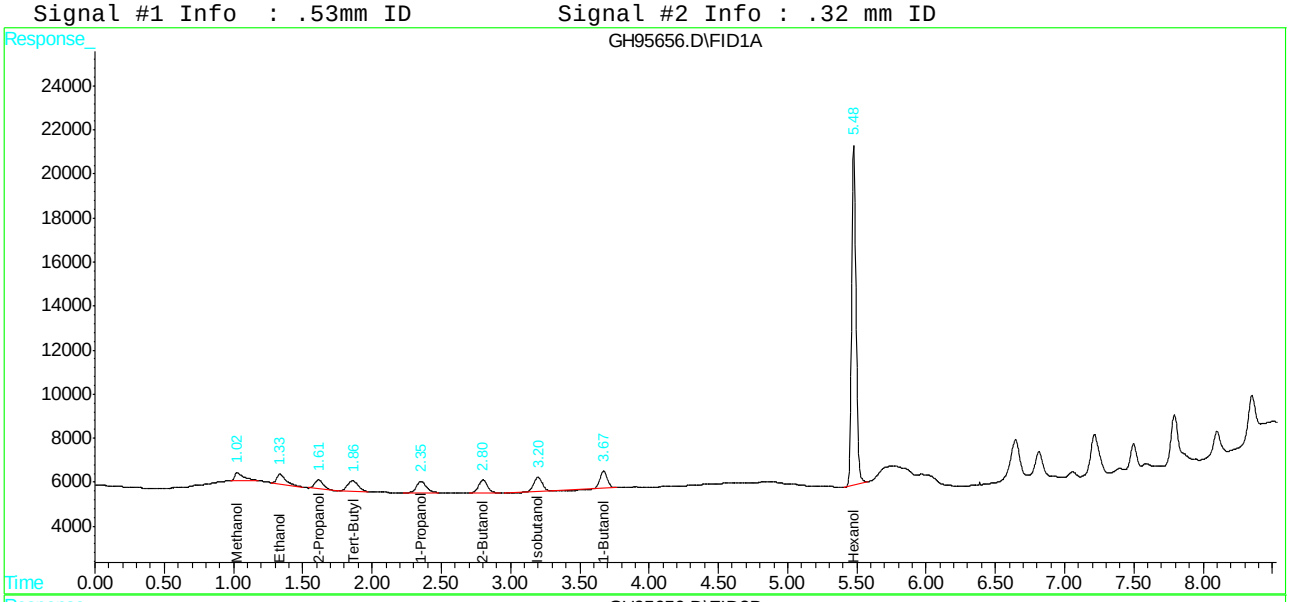
Quantitation Report (QT Reviewed)

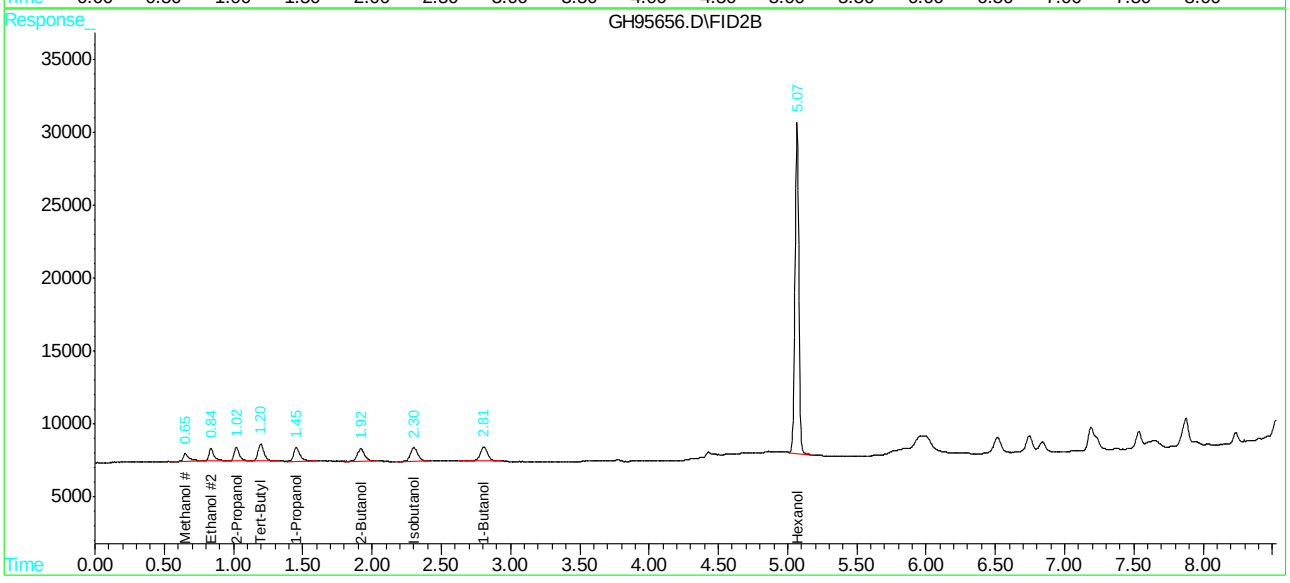
Data File : C:\HPCHEM\1\DATA\GH95656.D\FID1A.CH Vial: 1
Acq On : 27 Jan 2014 11:56 am Operator: XULIU
Sample : IC4491-1000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95656.D\FID2B.CH Vial: 1
Acq On : 27 Jan 2014 12:10 pm Operator: XULIU
Sample : IC4491-1000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 8:35 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Mon Jan 27 14:17:55 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Manual Integration Approval Summary

Sample Number:	GGH4491-IC4491	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH95656.D	**Analyst approved:**	01/28/14 09:32 Xu Liu
Injection Time:	01/27/14 11:56	**Supervisor approved:**	01/28/14 11:38 Jessica Reitan-Chu

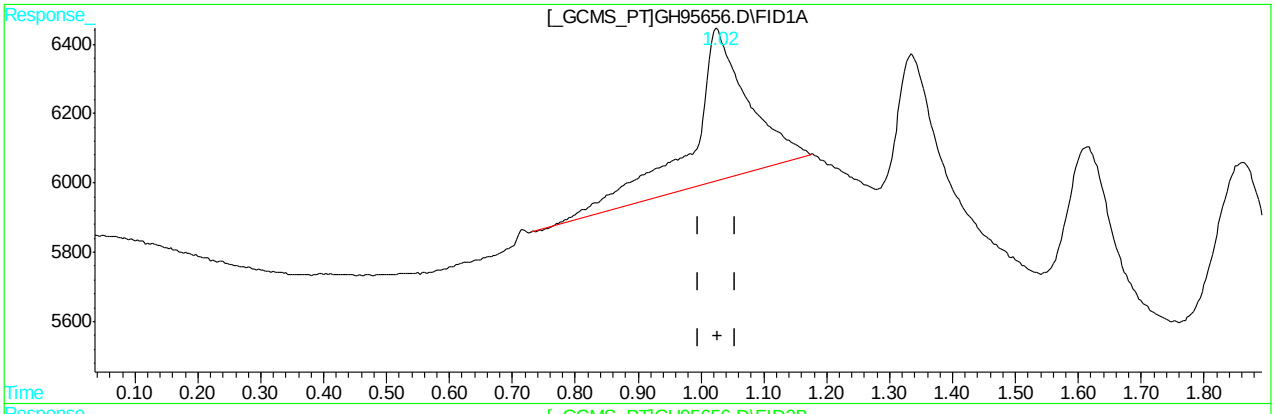
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	1	1.02	Poor instrument integration

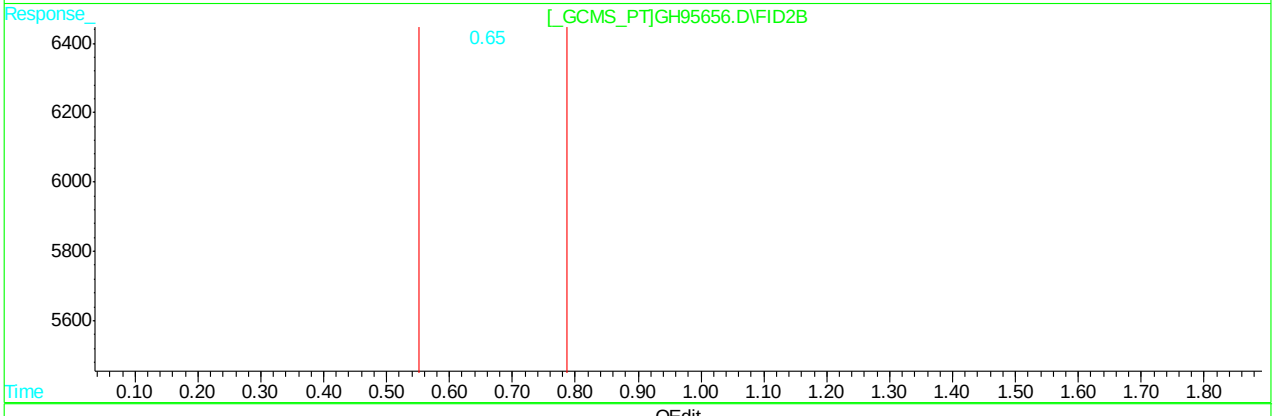
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95656.D\FID1A.CH          Vial: 1
Acq On    : 27 Jan 2014  11:56 am                    Operator: XULIU
Sample    : IC4491-1000                              Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95656.D\FID2B.CH          Vial: 1
Acq On    : 27 Jan 2014  12:10 pm                    Operator: XULIU
Sample    : IC4491-1000                              Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 27 14:18 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.03min 1751.132PPB

response 27437

(1) Methanol #2

0.65min 915.014PPB

response 15219

(+) = Expected Retention Time

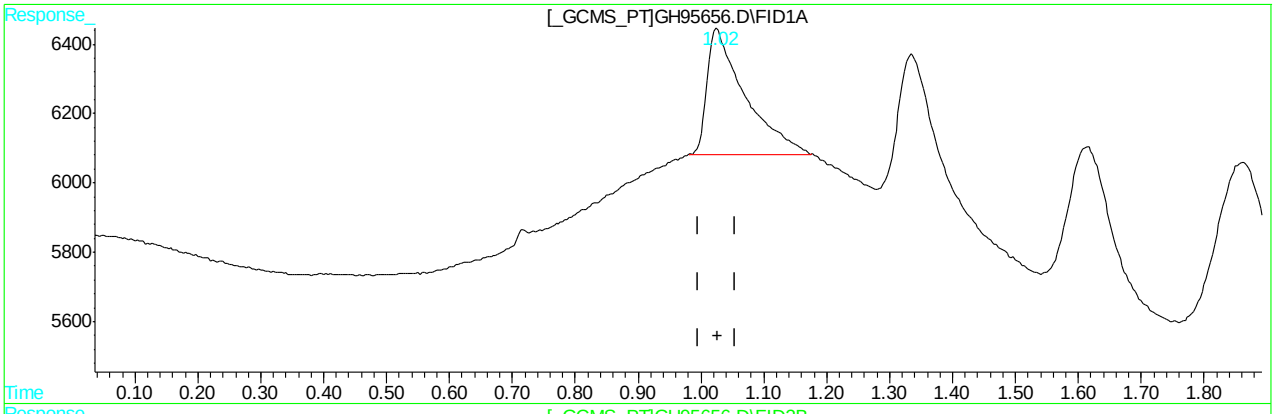
GH95656.D MGH4491.M Tue Jan 28 08:32:03 2014 GCGH

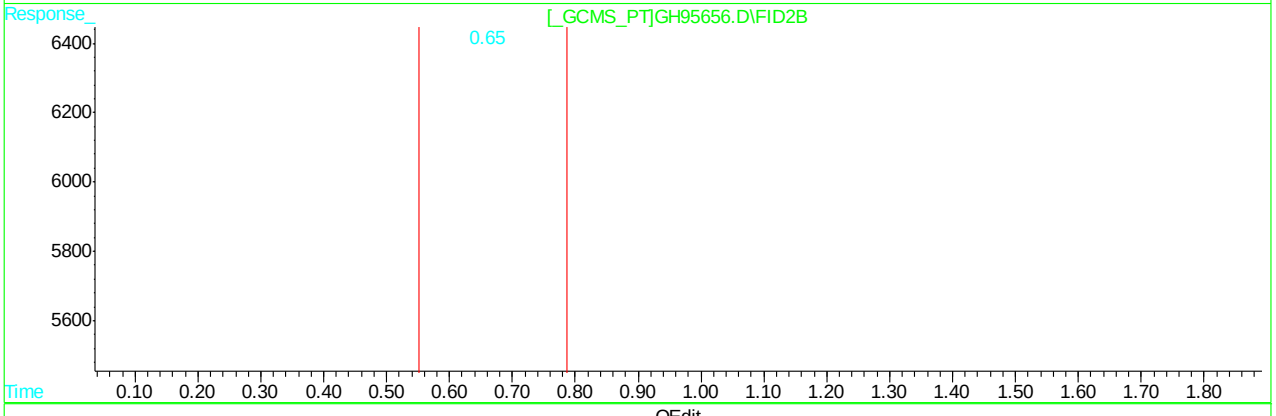
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95656.D\FID1A.CH          Vial: 1
Acq On    : 27 Jan 2014  11:56 am                    Operator: XULIU
Sample    : IC4491-1000                              Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95656.D\FID2B.CH          Vial: 1
Acq On    : 27 Jan 2014  12:10 pm                    Operator: XULIU
Sample    : IC4491-1000                              Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 27 14:18 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.02min 969.471PPB m

response 15190

(1) Methanol #2

0.65min 915.014PPB

response 15219

(+) = Expected Retention Time

GH95656.D MGH4491.M Tue Jan 28 08:32:32 2014 GCGH

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH95657.D\FID1A.CH Vial: 5
Acq On : 27 Jan 2014 12:10 pm Operator: XULIU
Sample : ICC4491-5000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95657.D\FID2B.CH Vial: 5
Acq On : 27 Jan 2014 12:25 pm Operator: XULIU
Sample : ICC4491-5000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 8:34 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Mon Jan 27 13:52:11 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.48	5.07	428746	534847	5944.593	5690.191
	Spiked Amount 5000.000			Recovery	=	118.89%	113.80%
	Target Compounds						
1)	Methanol	1.03	0.65	80975	85751	7619.074	9014.887
2)	Ethanol	1.34	0.83	107226	132576	7295.148	8318.174
3)	Tert-Butyl Alcoh	1.86	1.19	157497	196141	6634.072	6790.620
4)	1-Propanol	2.36	1.45	133602	158805	7082.010	6257.219
5)	2-Propanol	1.62	1.02	114174	131915	7109.832	6934.147
7)	Isobutanol	3.20	2.30	150562	176522	6763.772	6084.249
8)	1-Butanol	3.67	2.81	148468	175001	7069.531	6185.926
9)	2-Butanol	2.80	1.91	137622	157641	7023.912	6639.799

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH95657.D MGH4491.M Tue Jan 28 08:34:05 2014 GCGH

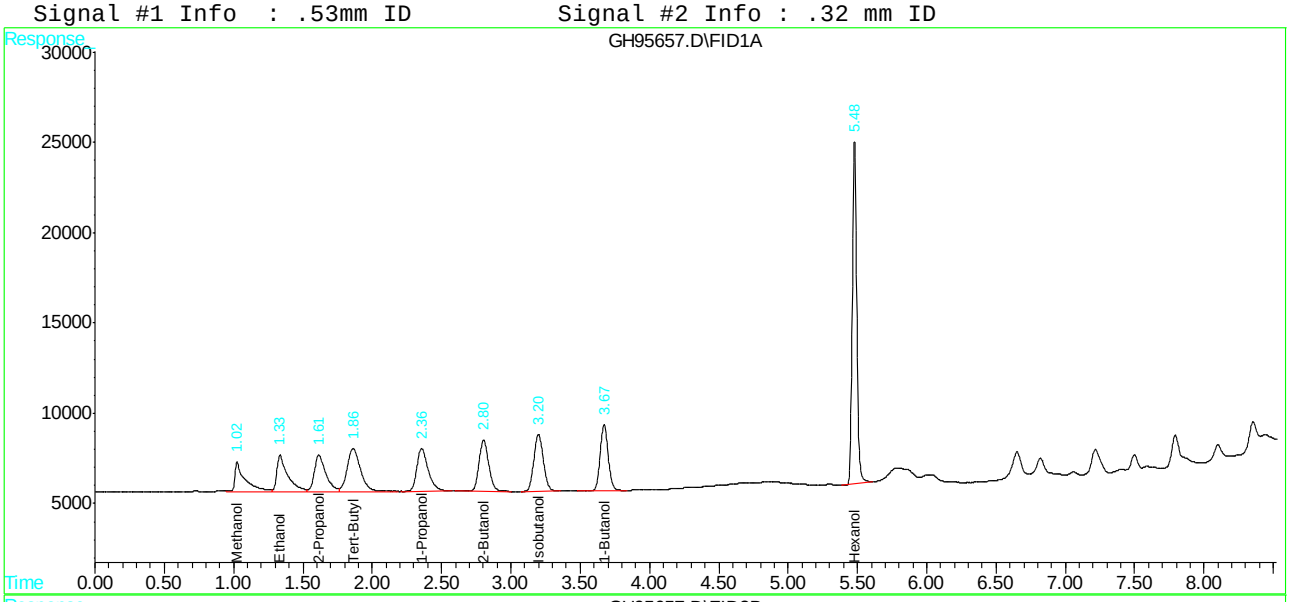
Quantitation Report (QT Reviewed)

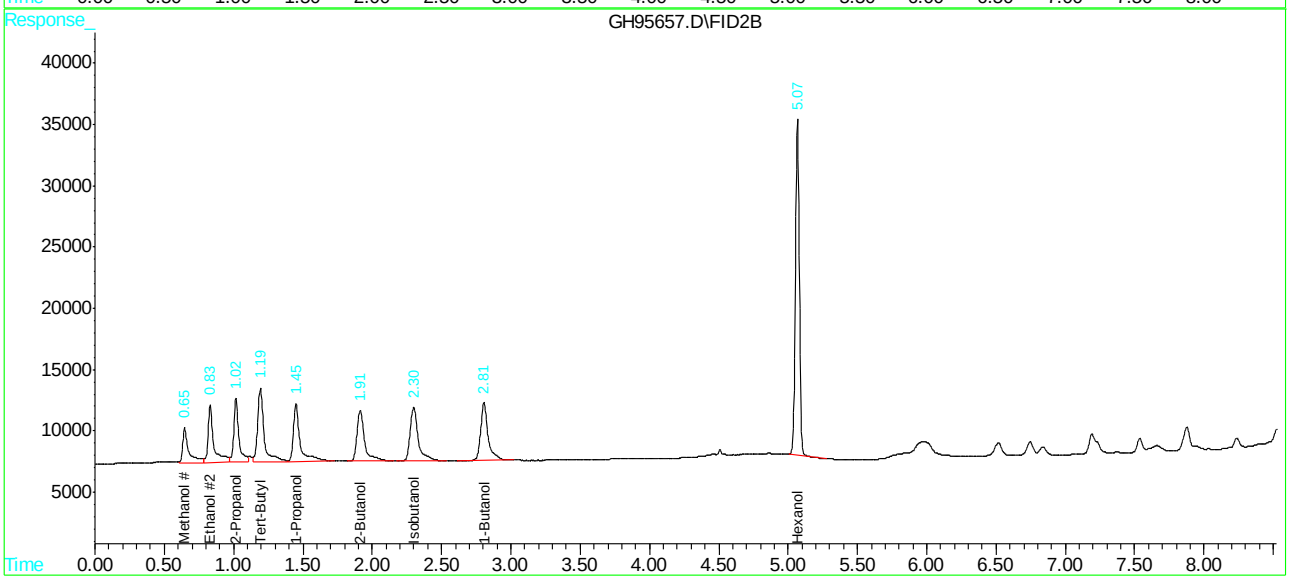
```
Data File : C:\HPCHEM\1\DATA\GH95657.D\FID1A.CH          Vial: 5
Acq On    : 27 Jan 2014  12:10 pm                    Operator: XULIU
Sample    : ICC4491-5000                             Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95657.D\FID2B.CH          Vial: 5
Acq On    : 27 Jan 2014  12:25 pm                    Operator: XULIU
Sample    : ICC4491-5000                             Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:34 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 13:52:11 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH95658.D\FID1A.CH Vial: 6
Acq On : 27 Jan 2014 12:25 pm Operator: XULIU
Sample : IC4491-10000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95658.D\FID2B.CH Vial: 6
Acq On : 27 Jan 2014 12:39 pm Operator: XULIU
Sample : IC4491-10000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 8:34 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Mon Jan 27 13:52:11 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.48	5.07	435423	536787	6037.169	5710.822
	Spiked Amount 5000.000			Recovery	=	120.74%	114.22%
	Target Compounds						
1)	Methanol	1.03	0.65	157581	177664	14827.093	18677.631
2)	Ethanol	1.34	0.84	212149	259816	14433.621	16301.522
3)	Tert-Butyl Alcoh	1.86	1.20	311647	381334	13127.177	13202.208
4)	1-Propanol	2.36	1.45	270546	333627	14341.196	13145.556
5)	2-Propanol	1.62	1.02	225743	274731	14057.496	14441.362
7)	Isobutanol	3.20	2.30	307289	355019	13804.539	12236.592
8)	1-Butanol	3.67	2.81	298505	349439	14213.798	12351.973
9)	2-Butanol	2.80	1.92	273910	316566	13979.709	13333.684

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH95658.D MGH4491.M Tue Jan 28 08:34:22 2014 GCGH

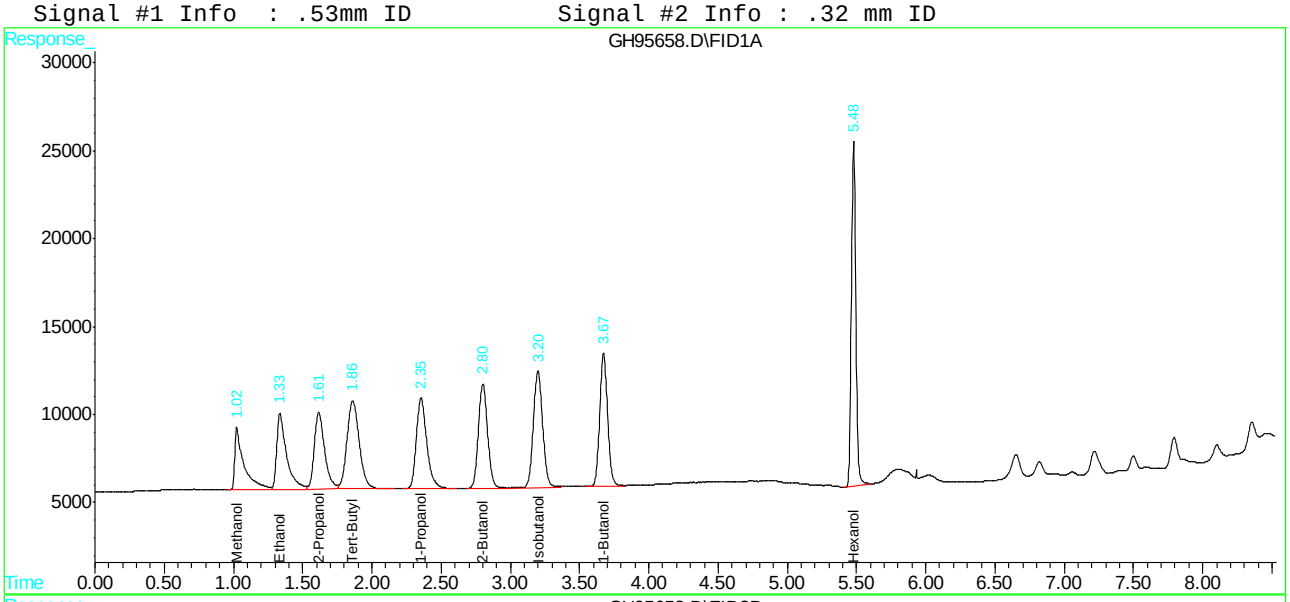
Quantitation Report (QT Reviewed)

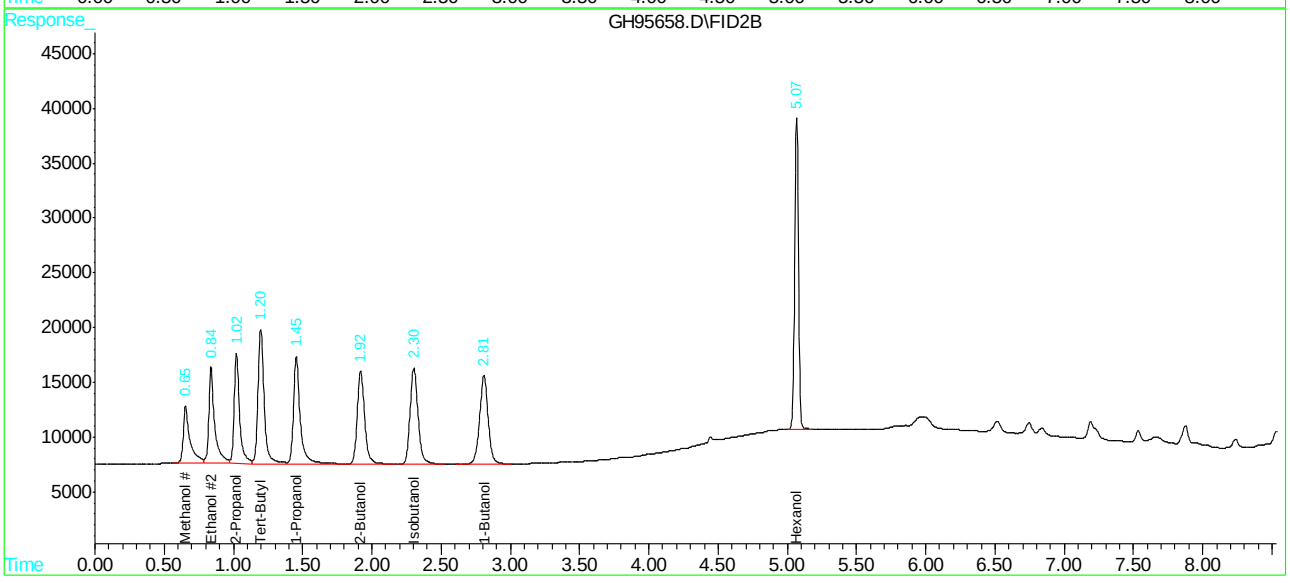
Data File : C:\HPCHEM\1\DATA\GH95658.D\FID1A.CH Vial: 6
Acq On : 27 Jan 2014 12:25 pm Operator: XULIU
Sample : IC4491-10000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95658.D\FID2B.CH Vial: 6
Acq On : 27 Jan 2014 12:39 pm Operator: XULIU
Sample : IC4491-10000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 8:34 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Mon Jan 27 13:52:11 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH95659.D\FID1A.CH          Vial: 10
Acq On    : 27 Jan 2014  12:39 pm                    Operator: XULIU
Sample    : IC4491-50000                             Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95659.D\FID2B.CH          Vial: 10
Acq On    : 27 Jan 2014  12:54 pm                    Operator: XULIU
Sample    : IC4491-50000                             Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:35 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 13:52:11 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.48	5.07	522689	639527	7247.118	6803.871
	Spiked Amount 5000.000			Recovery	=	144.94%	136.08%
	Target Compounds						
1)	Methanol	1.02	0.66	776348	819708	73048.084	86175.078
2)	Ethanol	1.34	0.84	1034504	1309512	70382.697	82162.047
3)	Tert-Butyl Alcoh	1.86	1.20	1501219	1862373	63234.321	64477.398
4)	1-Propanol	2.36	1.46	1298541	1599603	68833.595	63027.560
5)	2-Propanol	1.62	1.02	1089558	1374284	67849.028	72239.773
7)	Isobutanol	3.20	2.31	1470382	1732208	66054.793	59704.669
8)	1-Butanol	3.67	2.81	1409103	1702708	67096.756	60187.330
9)	2-Butanol	2.80	1.92	1314875	1548348	67108.021	65215.977

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

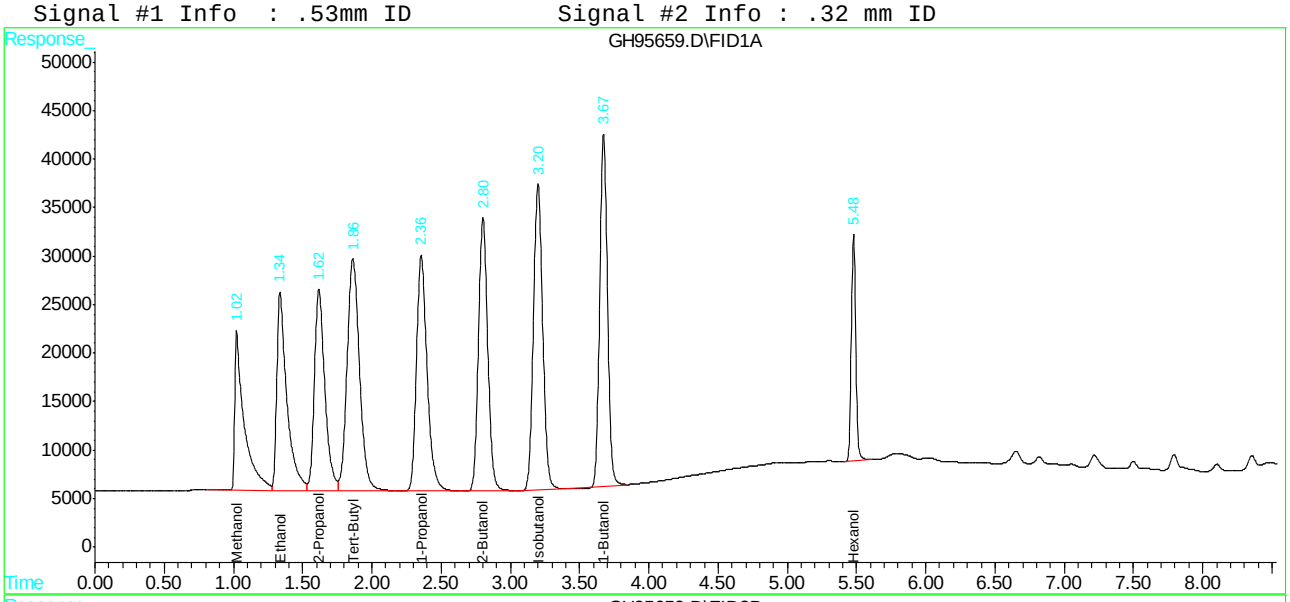
Quantitation Report (QT Reviewed)

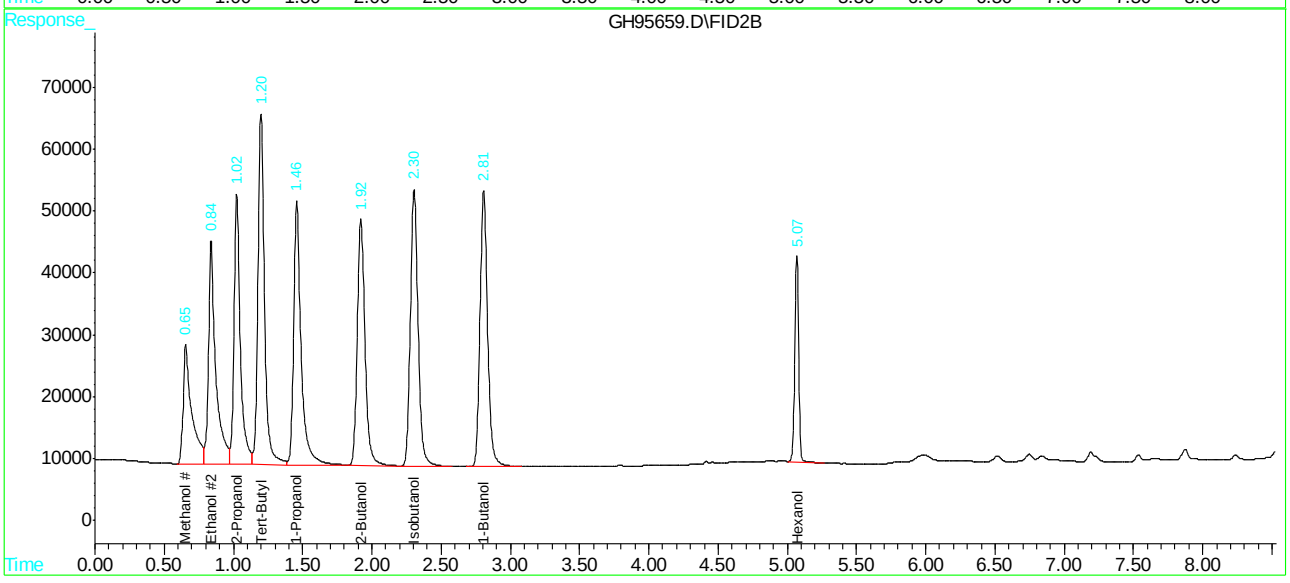
```
Data File : C:\HPCHEM\1\DATA\GH95659.D\FID1A.CH          Vial: 10
Acq On    : 27 Jan 2014  12:39 pm                    Operator: XULIU
Sample    : IC4491-50000                             Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95659.D\FID2B.CH          Vial: 10
Acq On    : 27 Jan 2014  12:54 pm                    Operator: XULIU
Sample    : IC4491-50000                             Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:35 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 13:52:11 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH95660.D\FID1A.CH Vial: 11
Acq On : 27 Jan 2014 2:16 pm Operator: XULIU
Sample : IC4491-100000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95660.D\FID2B.CH Vial: 11
Acq On : 27 Jan 2014 2:29 pm Operator: XULIU
Sample : IC4491-100000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 8:35 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Mon Jan 27 13:52:11 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.48	5.07	572969	697054	7944.249	7415.891
Spiked Amount	5000.000			Recovery	=	158.88%	148.32%
	Target Compounds						
1)	Methanol	1.03	0.65	1503073	1480332	141427.028	155625.839
2)	Ethanol	1.34	0.83	1998539	2334448	135971.049	146469.142
3)	Tert-Butyl Alcoh	1.86	1.19	3000798	3713250	126399.585	128556.822
4)	1-Propanol	2.35	1.45	2553084	3201308	135334.864	126137.961
5)	2-Propanol	1.61	1.02	2121301	2550011	132097.866	134042.264
7)	Isobutanol	3.20	2.30	2893172	3476325	129971.622	119819.838
8)	1-Butanol	3.67	2.81	2815363	3414871	134058.172	120708.877
9)	2-Butanol	2.80	1.92	2607109	3073166	133060.486	129440.906

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH95660.D MGH4491.M Tue Jan 28 08:35:25 2014 GCGH

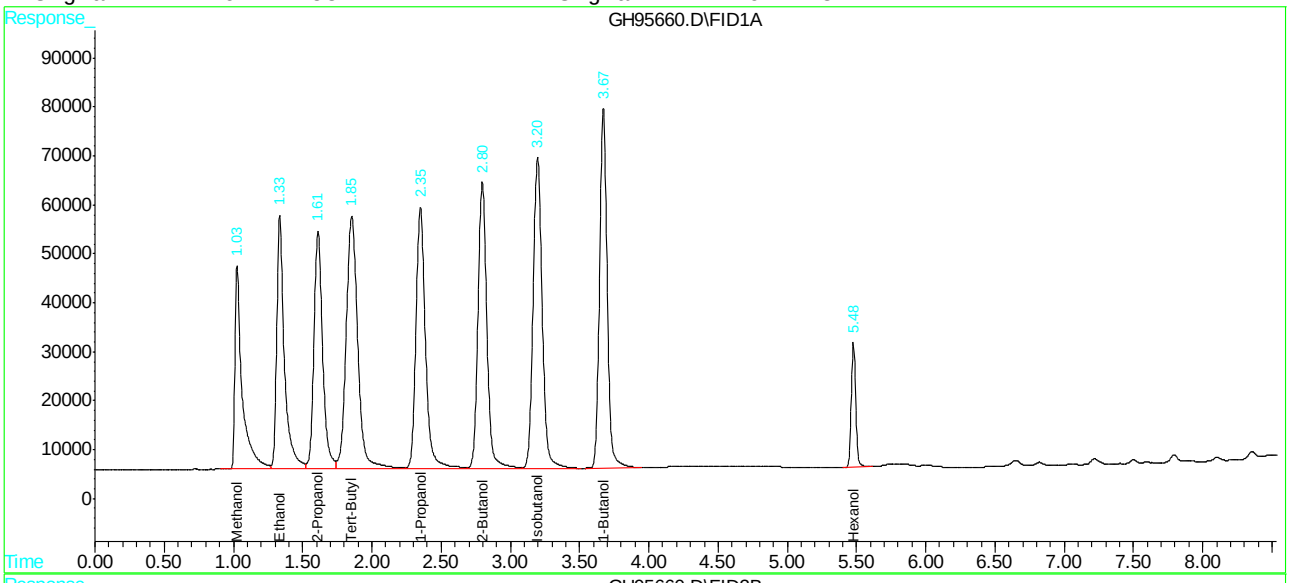
Quantitation Report (QT Reviewed)

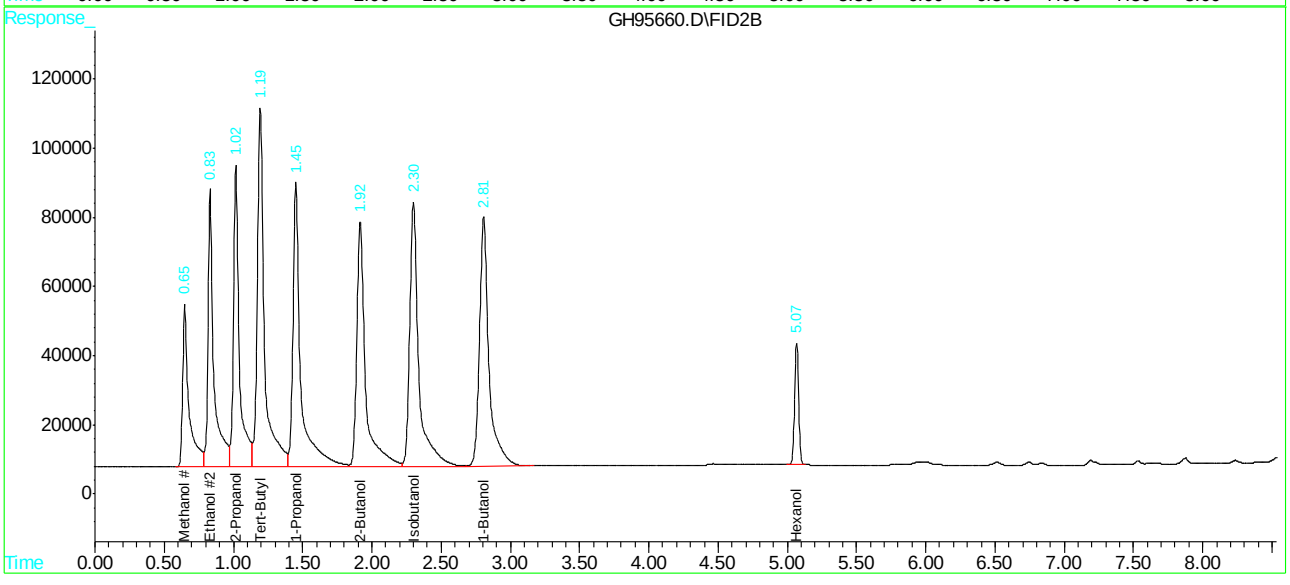
Data File : C:\HPCHEM\1\DATA\GH95660.D\FID1A.CH Vial: 11
Acq On : 27 Jan 2014 2:16 pm Operator: XULIU
Sample : IC4491-100000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95660.D\FID2B.CH Vial: 11
Acq On : 27 Jan 2014 2:29 pm Operator: XULIU
Sample : IC4491-100000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 8:35 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Mon Jan 27 13:52:11 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





GH95661.D

Manual Integrations APPROVED (compounds with "m" flag)

Jessica Reitan-Chu 01/28/14 11:38

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  9:03 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.49	5.07	57813	75518	711.162	736.575
Spiked Amount 5000.000			Recovery	=	14.22%	14.73%
Target Compounds						
1) Methanol	1.03	0.65	1528	1619	85.756m	98.436m
2) Ethanol	1.34	0.84	1902	2184	95.093	90.250
3) Tert-Butyl Alcoh	1.86	1.20	2679	3499	94.447	94.484
4) 1-Propanol	2.37	1.45	2180	2555	86.127m	82.005
5) 2-Propanol	1.62	1.02	2116	2288	100.108	87.849m
7) Isobutanol	3.21	2.31	2851	3344	97.990	96.362
8) 1-Butanol	3.68	2.81	3220	3729	110.077m	105.084
9) 2-Butanol	2.81	1.92	2816	3118	103.716	100.191

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH95661.D MGH4491.M Tue Jan 28 09:03:57 2014 GCGH

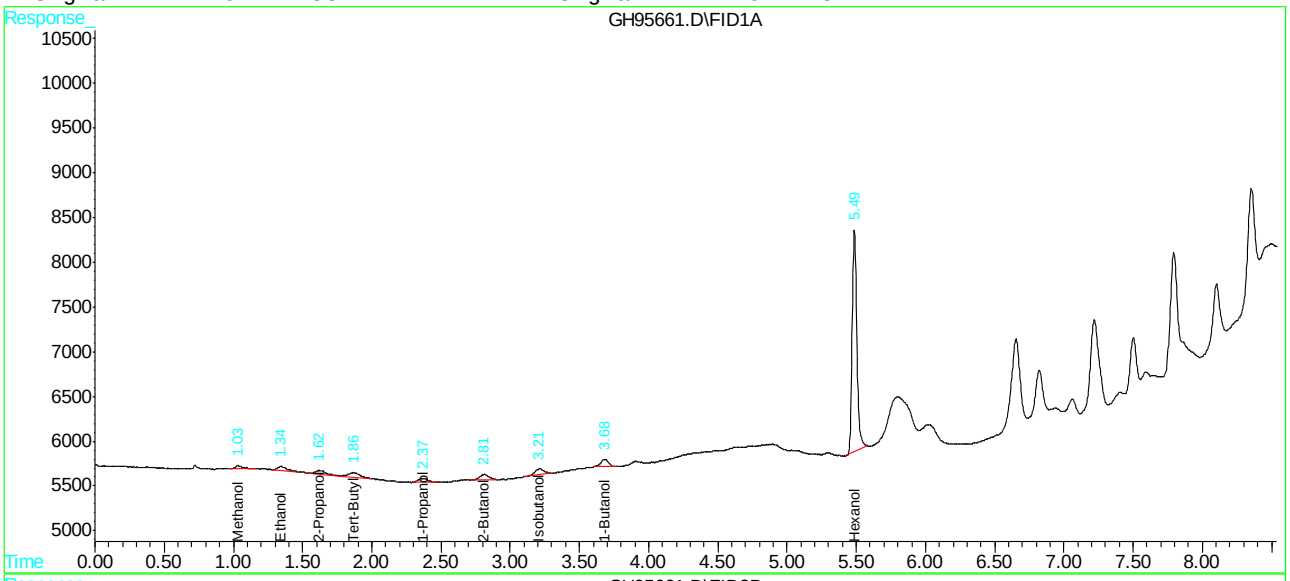
Quantitation Report (QT Reviewed)

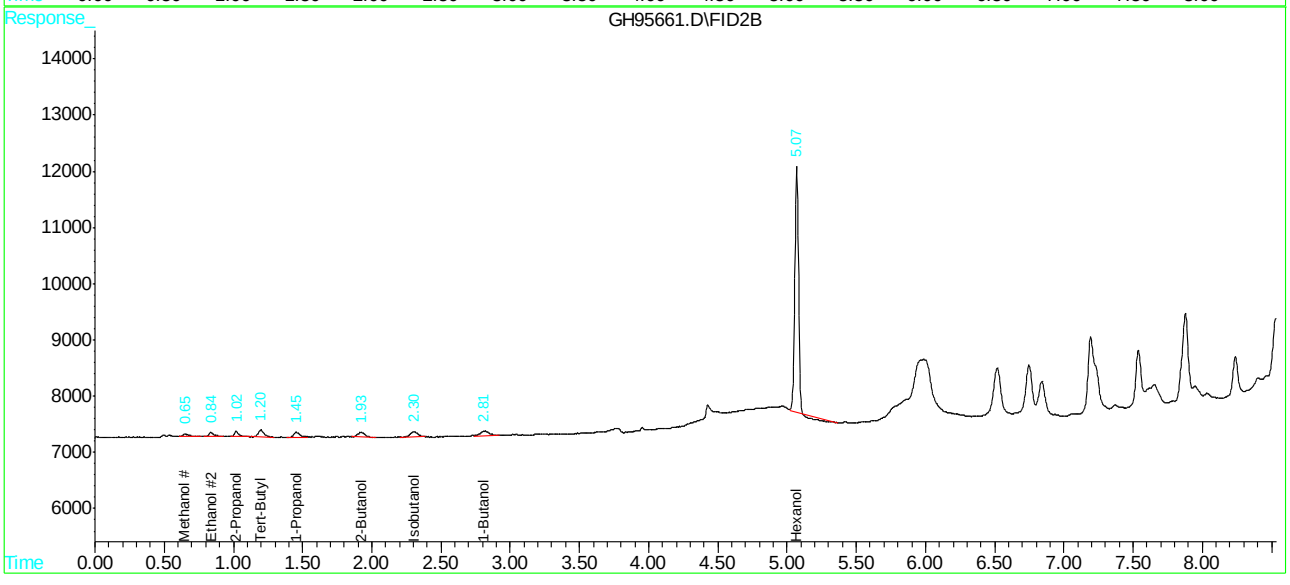
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH Vial: 25
Acq On : 27 Jan 2014 3:19 pm Operator: XULIU
Sample : IC4491-100 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH Vial: 25
Acq On : 27 Jan 2014 3:33 pm Operator: XULIU
Sample : IC4491-100 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 9:03 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Manual Integration Approval Summary

Sample Number:	GGH4491-IC4491	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH95661.D	**Analyst approved:**	01/28/14 09:32 Xu Liu
Injection Time:	01/27/14 15:19	**Supervisor approved:**	01/28/14 11:38 Jessica Reitan-Chu

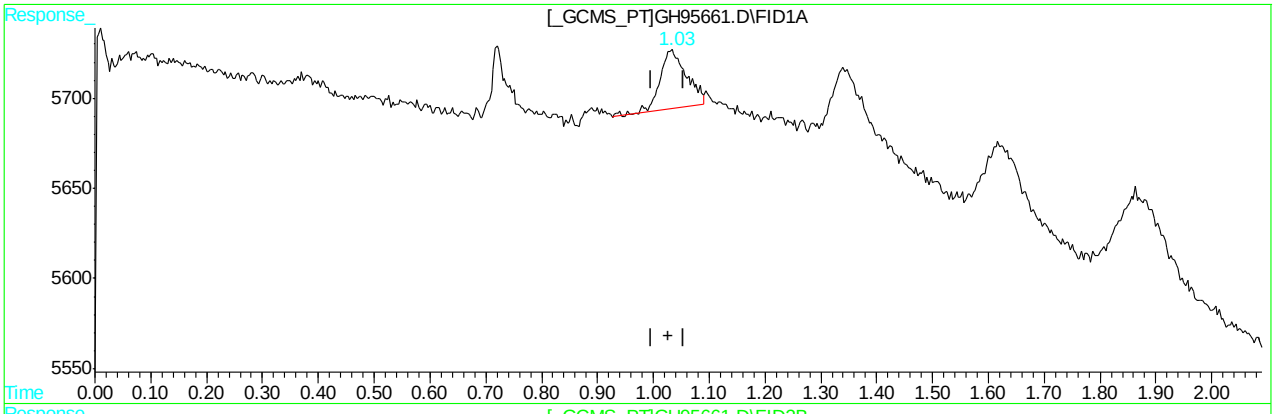
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	0.65	Poor instrument integration
Isopropyl Alcohol	67-63-0	2	1.02	Poor instrument integration
Methanol	67-56-1	1	1.03	Poor instrument integration
n-Propyl Alcohol	71-23-8	1	2.37	Poor instrument integration
n-Butyl Alcohol	71-36-3	1	3.68	Poor instrument integration

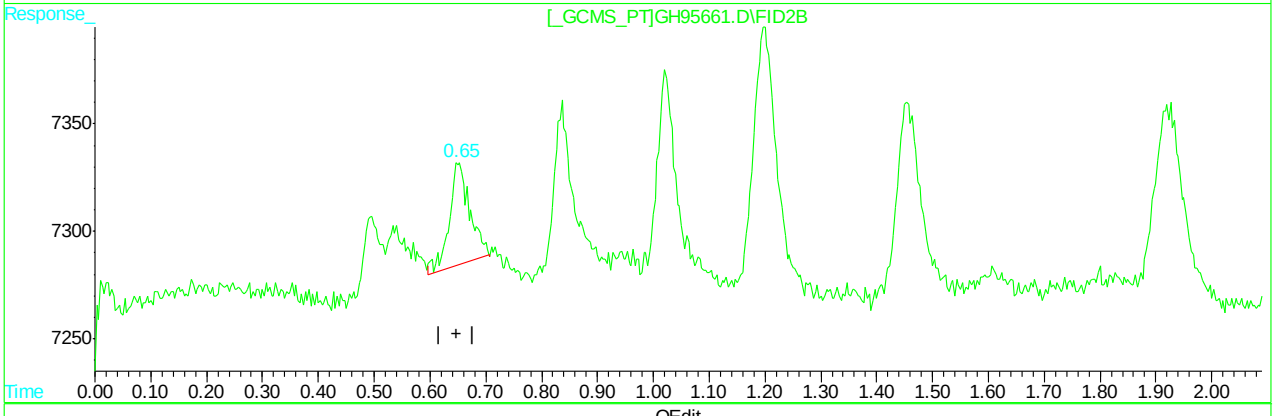
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:46 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.03min 59.976PPB

response 1069

(1) Methanol #2

0.65min 73.162PPB

response 1203

(+) = Expected Retention Time

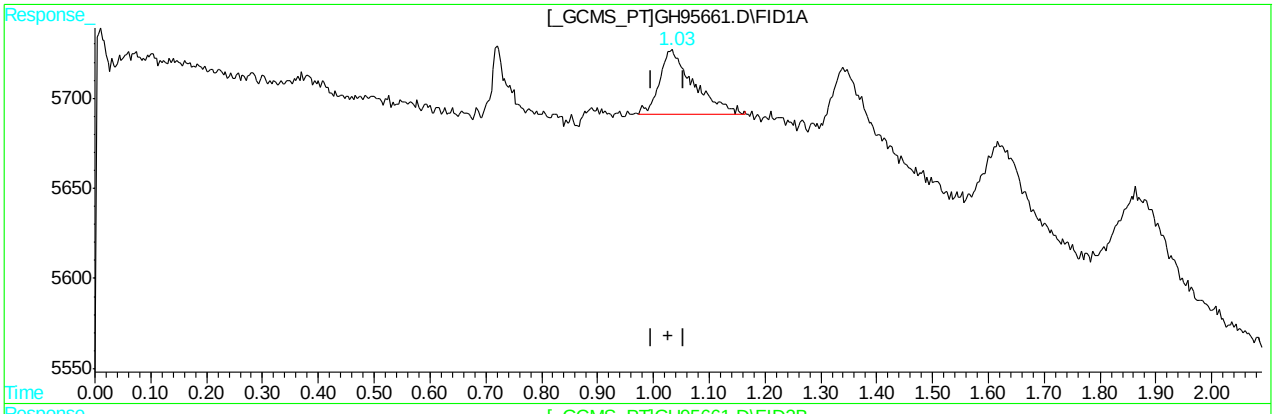
GH95661.D MGH4491.M Tue Jan 28 08:57:37 2014 GCGH

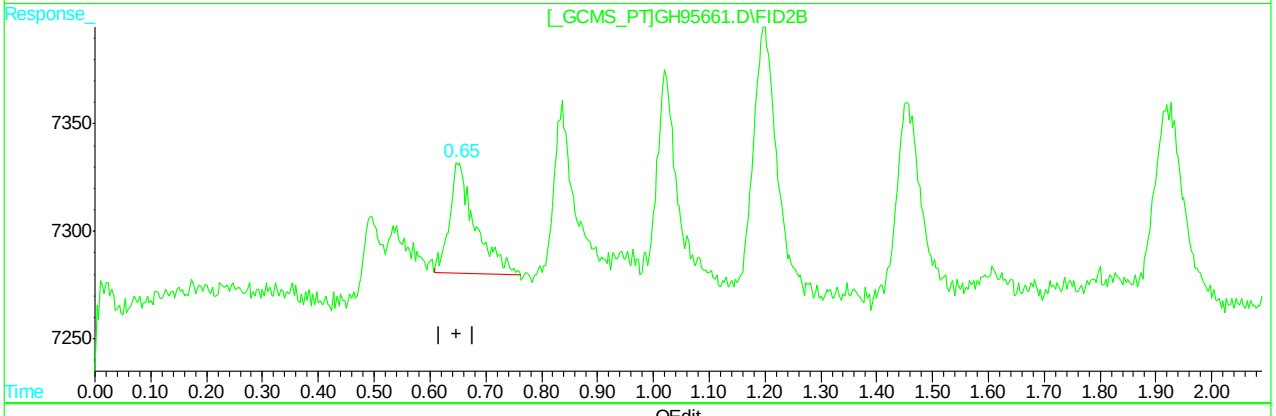
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:46 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.03min 85.756PPB m

response 1528

(1) Methanol #2

0.65min 98.436PPB m

response 1619

(+) = Expected Retention Time

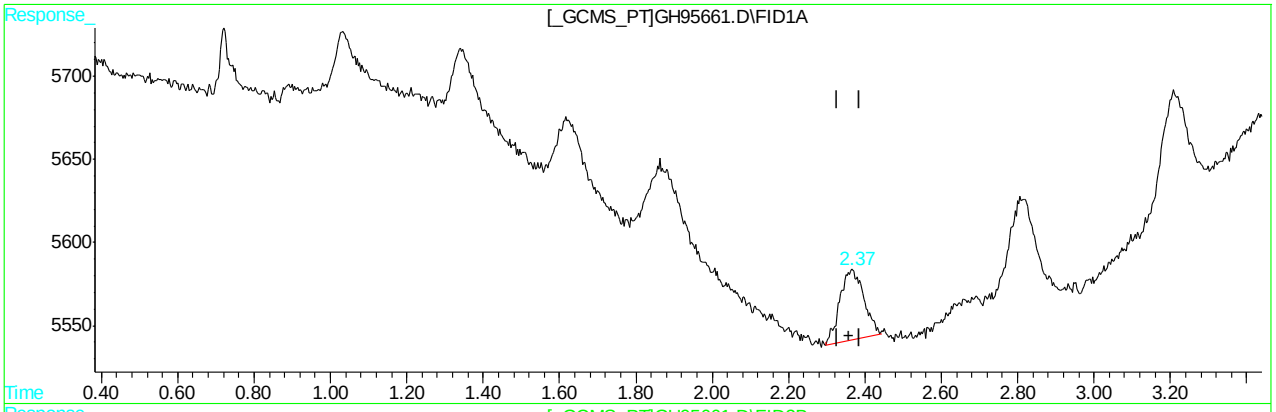
GH95661.D MGH4491.M Tue Jan 28 08:59:54 2014 GCGH

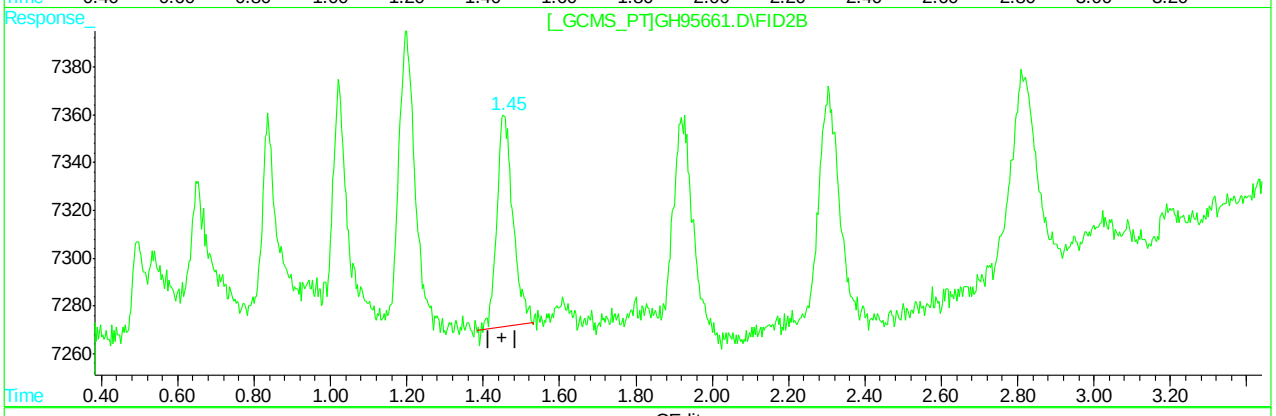
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:46 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

2.37min 71.325PPB

response 1805

(4) 1-Propanol #2

1.45min 82.005PPB

response 2555

(+) = Expected Retention Time

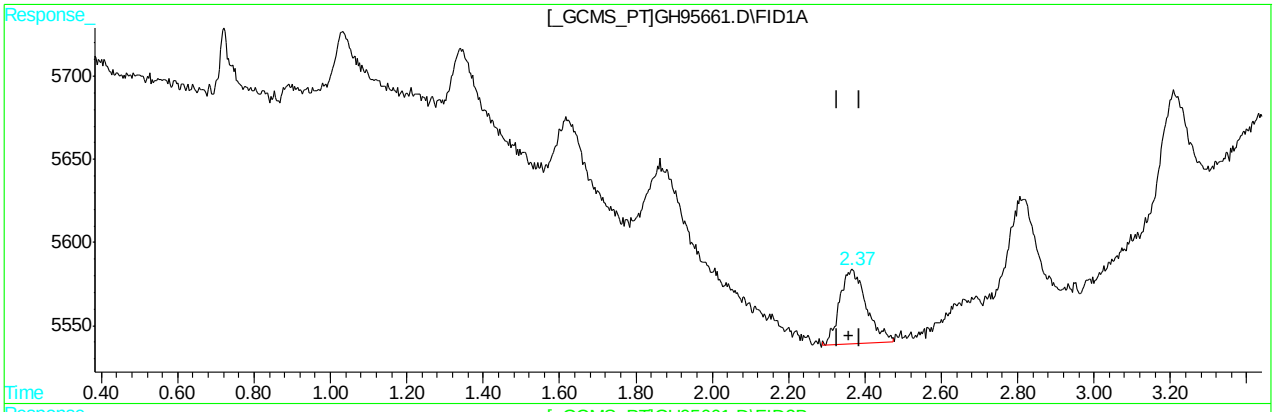
GH95661.D MGH4491.M Tue Jan 28 09:00:51 2014 GCGH

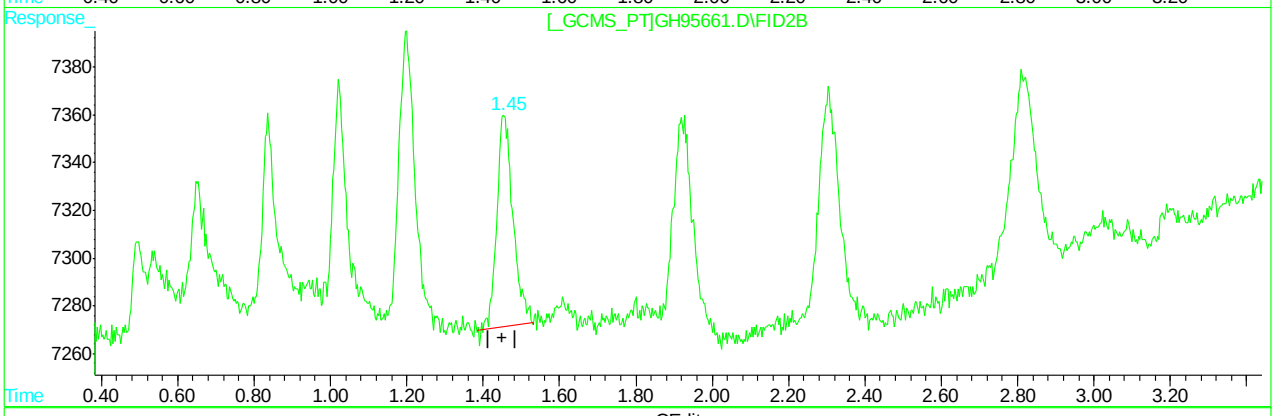
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:46 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

2.37min 86.127PPB m

response 2180

(4) 1-Propanol #2

1.45min 82.005PPB

response 2555

(+) = Expected Retention Time

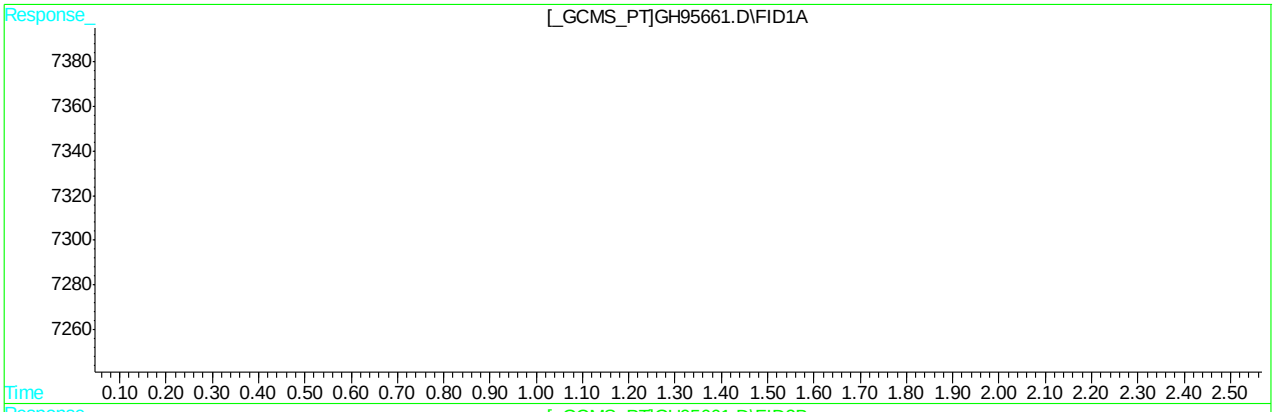
GH95661.D MGH4491.M Tue Jan 28 09:01:05 2014 GCGH

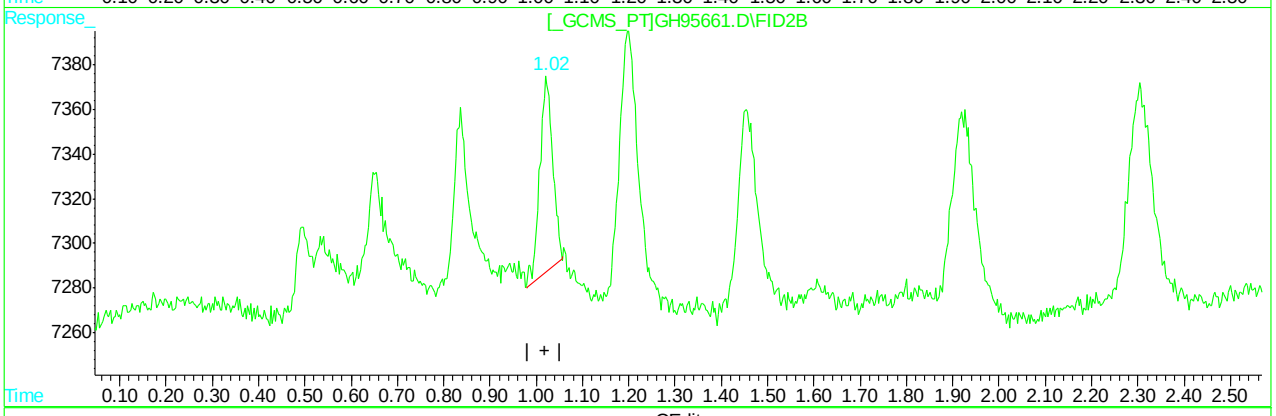
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:46 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

1.62min 100.108PPB

response 2116

(5) 2-Propanol #2

1.02min 65.076PPB

response 1695

(+) = Expected Retention Time

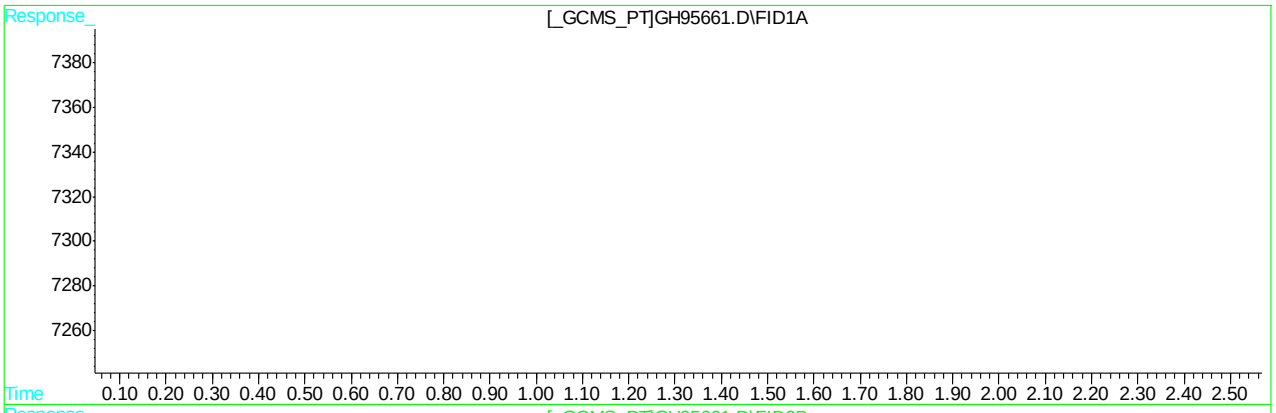
GH95661.D MGH4491.M Tue Jan 28 09:01:34 2014 GCGH

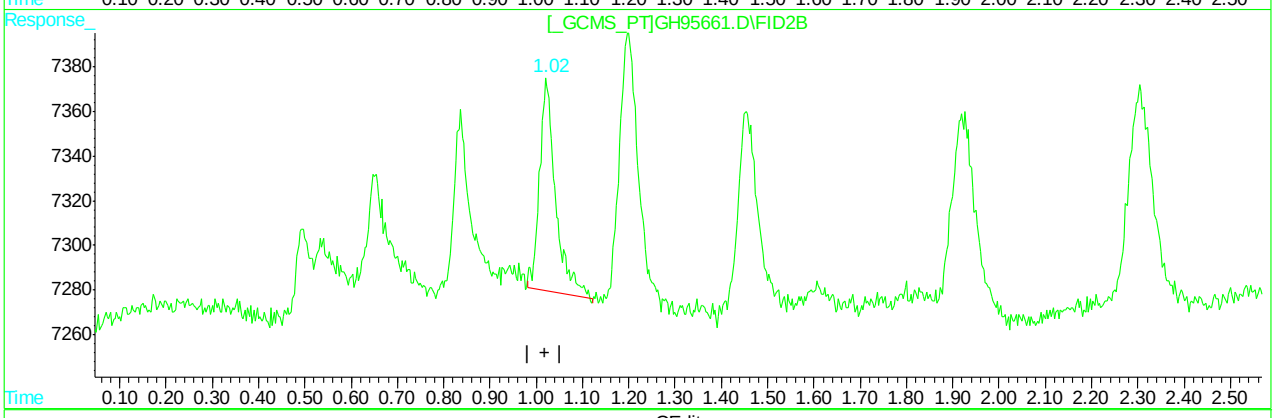
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:46 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

1.62min 100.108PPB

response 2116

(5) 2-Propanol #2

1.02min 87.849PPB m

response 2288

(+) = Expected Retention Time

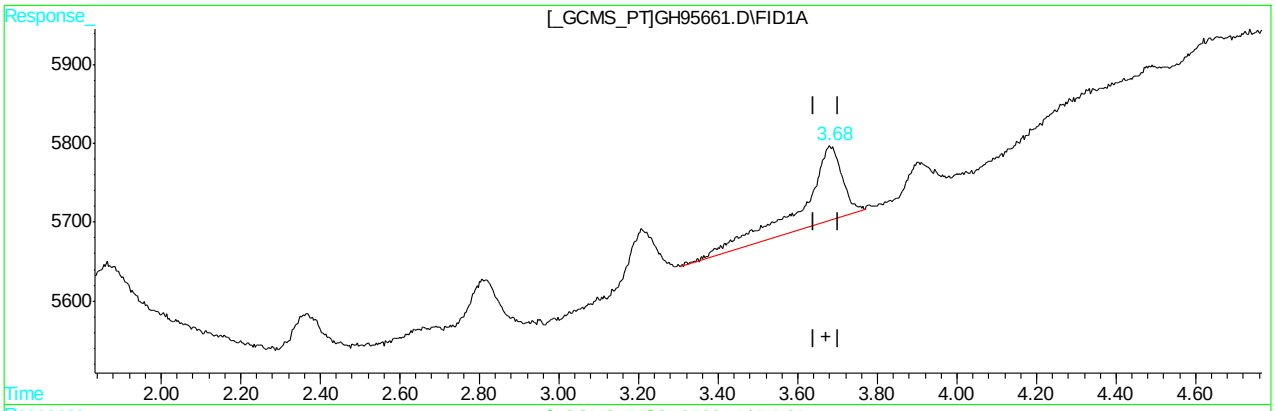
GH95661.D MGH4491.M Tue Jan 28 09:02:28 2014 GCGH

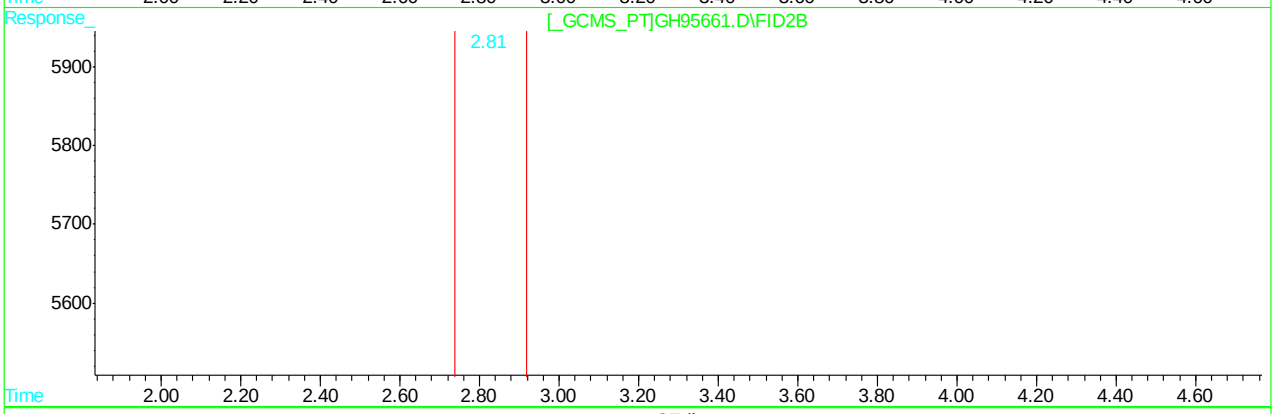
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:46 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(8) 1-Butanol

3.68min 223.054PPB

response 6525

(8) 1-Butanol #2

2.81min 105.084PPB

response 3729

(+) = Expected Retention Time

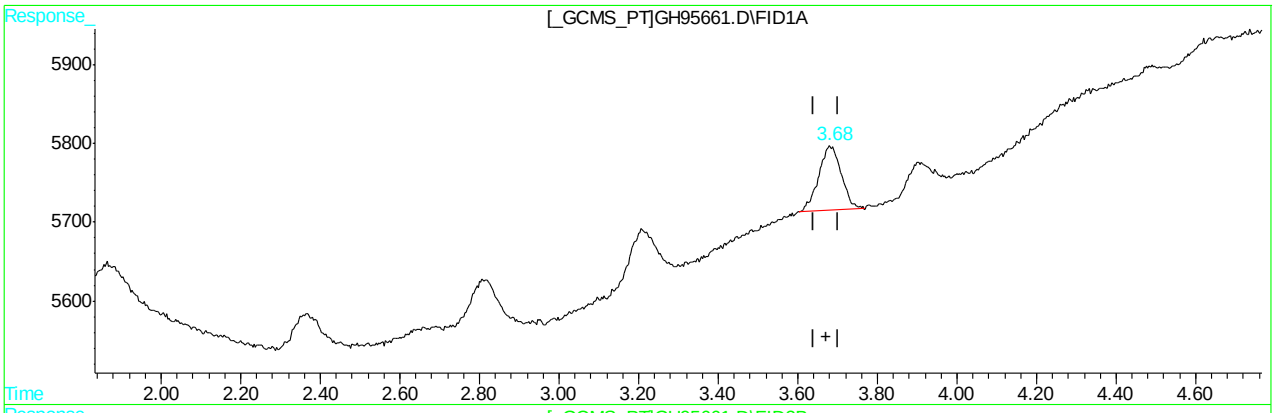
GH95661.D MGH4491.M Tue Jan 28 09:03:04 2014 GCGH

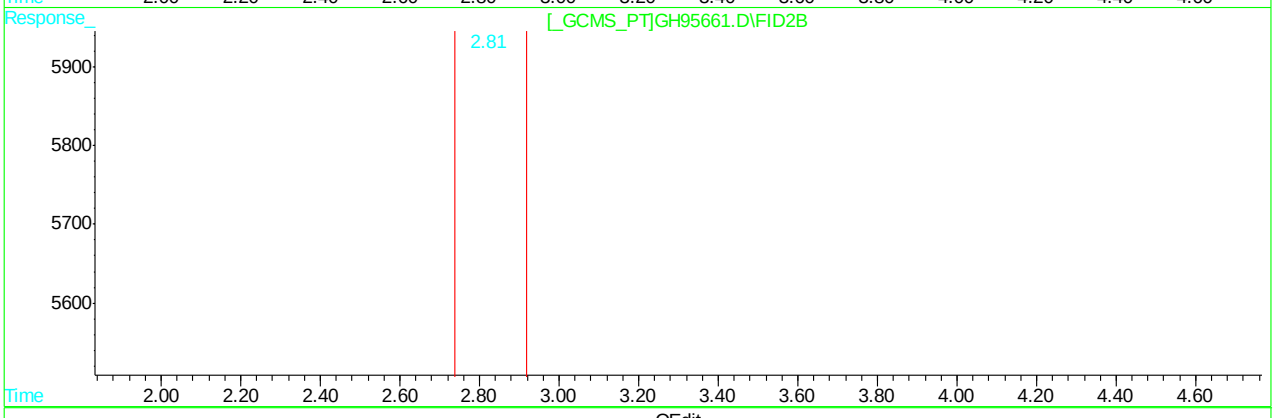
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH95661.D\FID1A.CH          Vial: 25
Acq On    : 27 Jan 2014   3:19 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95661.D\FID2B.CH          Vial: 25
Acq On    : 27 Jan 2014   3:33 pm                    Operator: XULIU
Sample    : IC4491-100                               Inst    : GCGH
Misc      : GC42997,GGH4491,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jan 28  8:46 2014  Quant Results File: MGH4491.RES


Method       : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Mon Jan 27 15:46:53 2014
Response via : Multiple Level Calibration
```





QEdit

(8) 1-Butanol

3.68min 110.077PPB m

response 3220

(8) 1-Butanol #2

2.81min 105.084PPB

response 3729

(+) = Expected Retention Time

GH95661.D MGH4491.M Tue Jan 28 09:03:38 2014 GCGH

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH95662.D\FID1A.CH Vial: 25
Acq On : 27 Jan 2014 4:08 pm Operator: XULIU
Sample : ICV4491-5000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95662.D\FID2B.CH Vial: 25
Acq On : 27 Jan 2014 4:23 pm Operator: XULIU
Sample : ICV4491-5000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 9:24 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Tue Jan 28 09:14:33 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.48	5.07	437412	538502	5371.569	5252.353
Spiked Amount 5000.000			Recovery	=	107.43%	105.05%
Target Compounds						
1) Methanol	1.03	0.67	81505	85976	5174.978	5244.973
2) Ethanol	1.34	0.84	105881	128511	5294.540	5303.333
3) Tert-Butyl Alcoh	1.87	1.20	154143	186138	5396.266	5022.829
4) 1-Propanol	2.36	1.46	133681	158527	5378.036	5151.166
5) 2-Propanol	1.62	1.02	111597	135674	5273.385	5227.523
7) Isobutanol	3.20	2.31	151883	177018	5222.480	5101.102
8) 1-Butanol	3.68	2.82	149668	175998	5128.305	4960.044
9) 2-Butanol	2.81	1.92	135031	156614	5026.479	5031.814

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH95662.D MGH4491.M Tue Jan 28 09:24:38 2014 GCGH

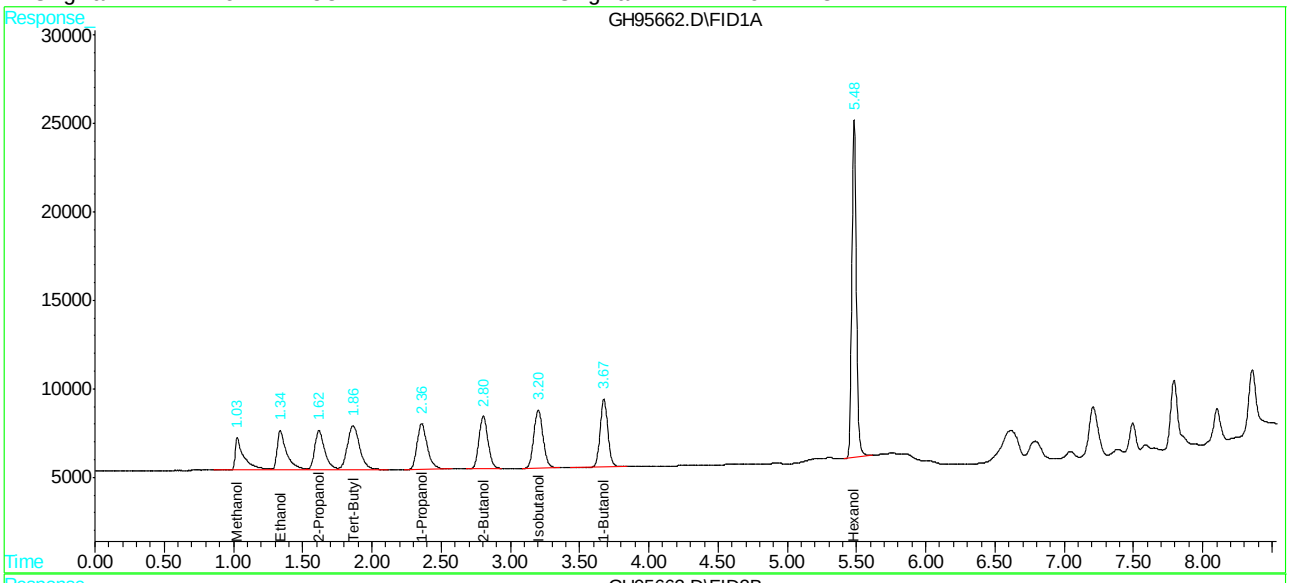
Quantitation Report (QT Reviewed)

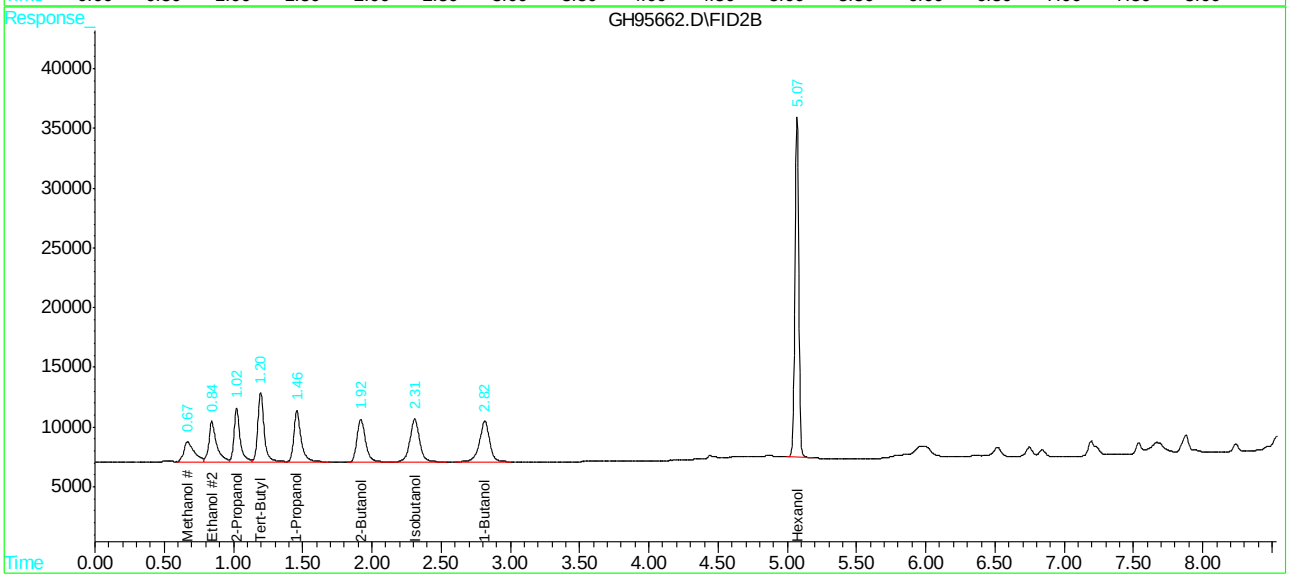
Data File : C:\HPCHEM\1\DATA\GH95662.D\FID1A.CH Vial: 25
Acq On : 27 Jan 2014 4:08 pm Operator: XULIU
Sample : ICV4491-5000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH95662.D\FID2B.CH Vial: 25
Acq On : 27 Jan 2014 4:23 pm Operator: XULIU
Sample : ICV4491-5000 Inst : GCGH
Misc : GC42997,GGH4491,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jan 28 9:24 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Tue Jan 28 09:14:33 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





ACCUTEST LABORATORIES JB69587

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH96996.D\FID1A.CH Vial: 92
Acq On : 19 Jun 2014 8:35 am Operator: XULIU
Sample : CC4491-5000 Inst : GCGH
Misc : GC43919,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH96996.D\FID2B.CH Vial: 92
Acq On : 19 Jun 2014 8:51 am Operator: XULIU
Sample : CC4491-5000 Inst : GCGH
Misc : GC43919,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 19 10:05 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.05	442297	542973	5431.556	5295.960
Spiked Amount	5000.000			Recovery	=	108.63%	105.92%
	Target Compounds						
1)	Methanol	1.06	0.65	82908	84269	5264.094	5140.833
2)	Ethanol	1.37	0.83	109864	120306	5493.717	4964.719
3)	Tert-Butyl Alcoh	1.91	1.19	154254	182889	5400.161	4935.154
4)	1-Propanol	2.40	1.45	129903	151891	5226.030	4935.522
5)	2-Propanol	1.66	1.02	113726	130684	5373.975	5035.264
7)	Isobutanol	3.25	2.29	148862	190682	5118.583	5494.852
8)	1-Butanol	3.71	2.80	141359	169400	4843.588	4774.118
9)	2-Butanol	2.85	1.91	141421	151157	5264.332	4856.482

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH96996.D MGH4491.M Thu Jun 19 10:05:25 2014 GCGH

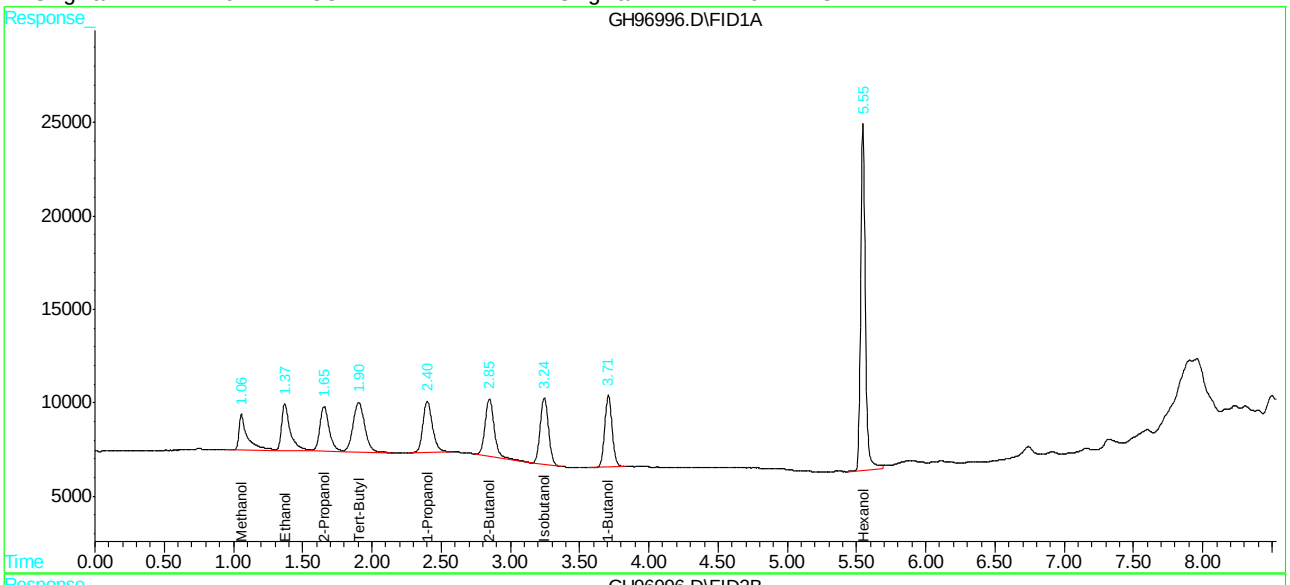
Quantitation Report (QT Reviewed)

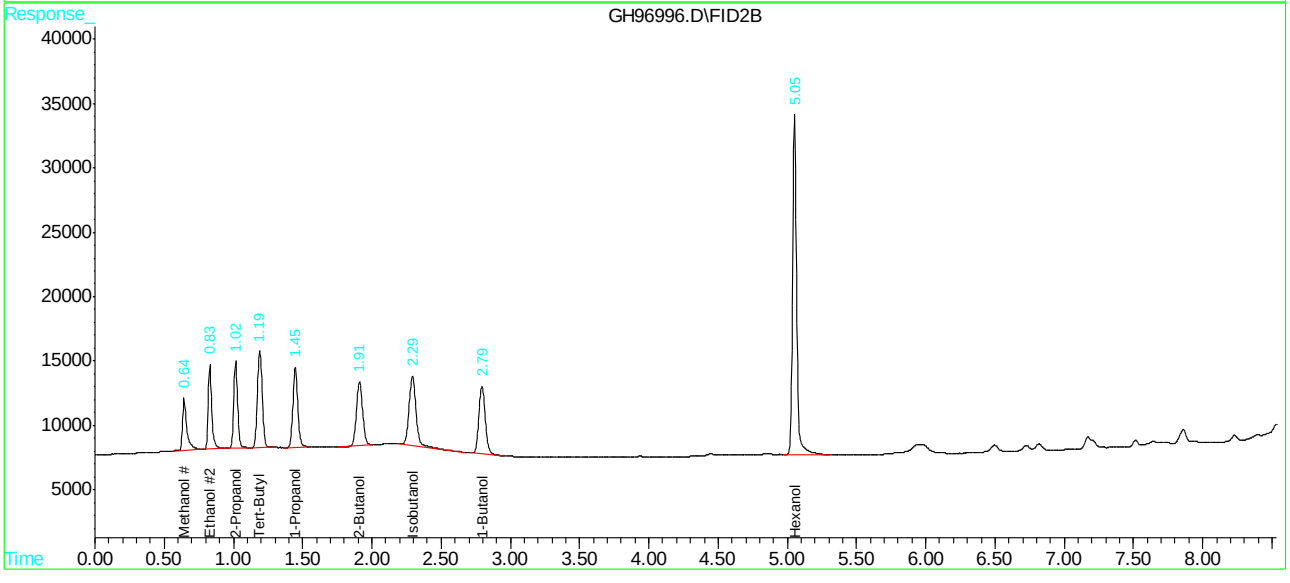
Data File : C:\HPCHEM\1\DATA\GH96996.D\FID1A.CH Vial: 92
Acq On : 19 Jun 2014 8:35 am Operator: XULIU
Sample : CC4491-5000 Inst : GCGH
Misc : GC43919,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH96996.D\FID2B.CH Vial: 92
Acq On : 19 Jun 2014 8:51 am Operator: XULIU
Sample : CC4491-5000 Inst : GCGH
Misc : GC43919,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 19 10:05 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97007.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014  11:17 am                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97007.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014  11:31 am                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 15:09 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	409662	518146	5030.784	5053.803
	Spiked Amount 5000.000			Recovery	=	100.62%	101.08%
	Target Compounds						
1)	Methanol	1.06	0.65	151552	159766	9622.485	9746.487
2)	Ethanol	1.36	0.83	204765	247107	10239.199	10197.475
3)	Tert-Butyl Alcoh	1.89	1.19	304174	376501	10648.602	10159.646
4)	1-Propanol	2.39	1.45	258359	291680	10393.895	9477.820
5)	2-Propanol	1.65	1.02	218752	267267	10336.849	10297.814
7)	Isobutanol	3.24	2.30	293919	350045	10106.354	10087.183
8)	1-Butanol	3.70	2.80	274203	328252	9395.431	9250.947
9)	2-Butanol	2.84	1.92	260053	306392	9680.376	9844.029

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH97007.D MGH4491.M Thu Jun 19 15:09:41 2014 GCGH

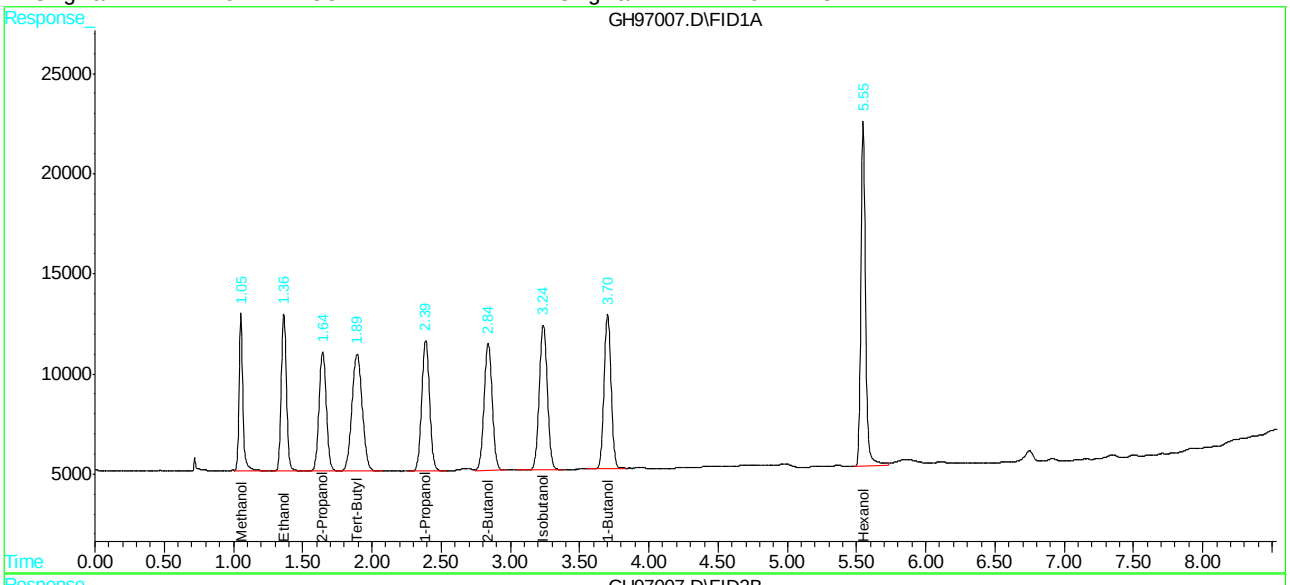
Quantitation Report (QT Reviewed)

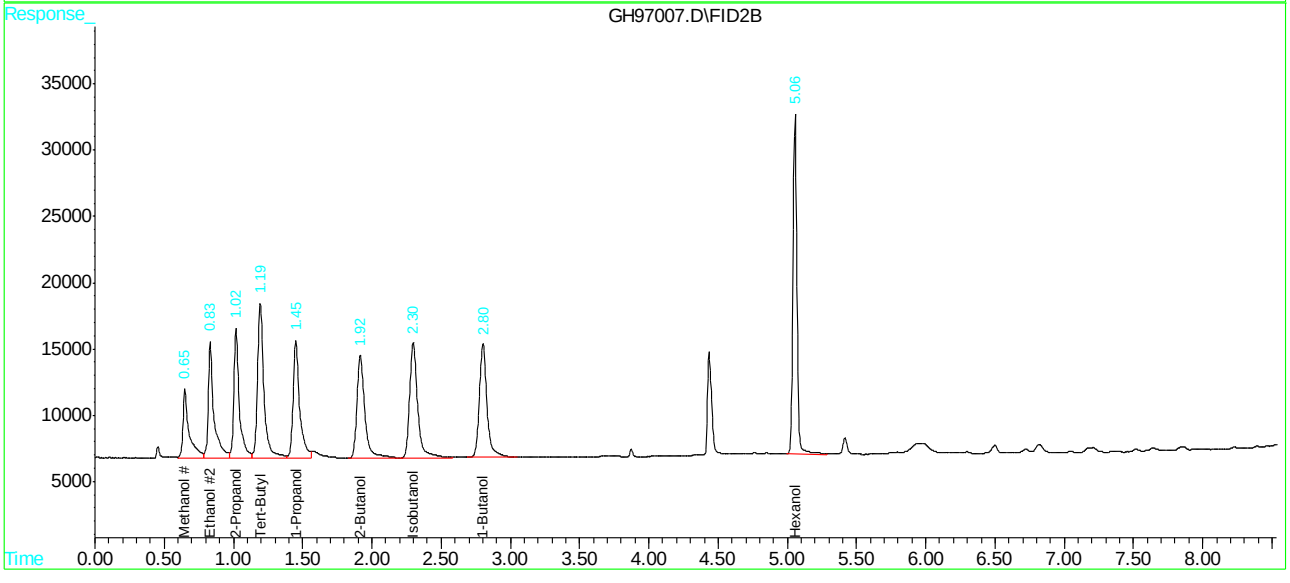
```
Data File : C:\HPCHEM\1\DATA\GH97007.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014  11:17 am                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97007.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014  11:31 am                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43919,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 15:09 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97015.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014   1:20 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43930,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97015.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014   1:32 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43930,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 15:13 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	425582	535788	5226.290	5225.876
	Spiked Amount 5000.000			Recovery	=	104.53%	104.52%
	Target Compounds						
1)	Methanol	1.06	0.64	79697	84678	5060.179	5165.749
2)	Ethanol	1.37	0.83	105962	127200	5298.596	5249.219
3)	Tert-Butyl Alcoh	1.90	1.19	163334	191014	5718.044	5154.391
4)	1-Propanol	2.40	1.45	133024	162942	5351.610	5294.622
5)	2-Propanol	1.65	1.02	111567	137825	5271.933	5310.409
7)	Isobutanol	3.25	2.30	155315	183191	5340.482	5279.000
8)	1-Butanol	3.71	2.80	146587	175080	5022.746	4934.184
9)	2-Butanol	2.85	1.92	137115	160252	5104.051	5148.722

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

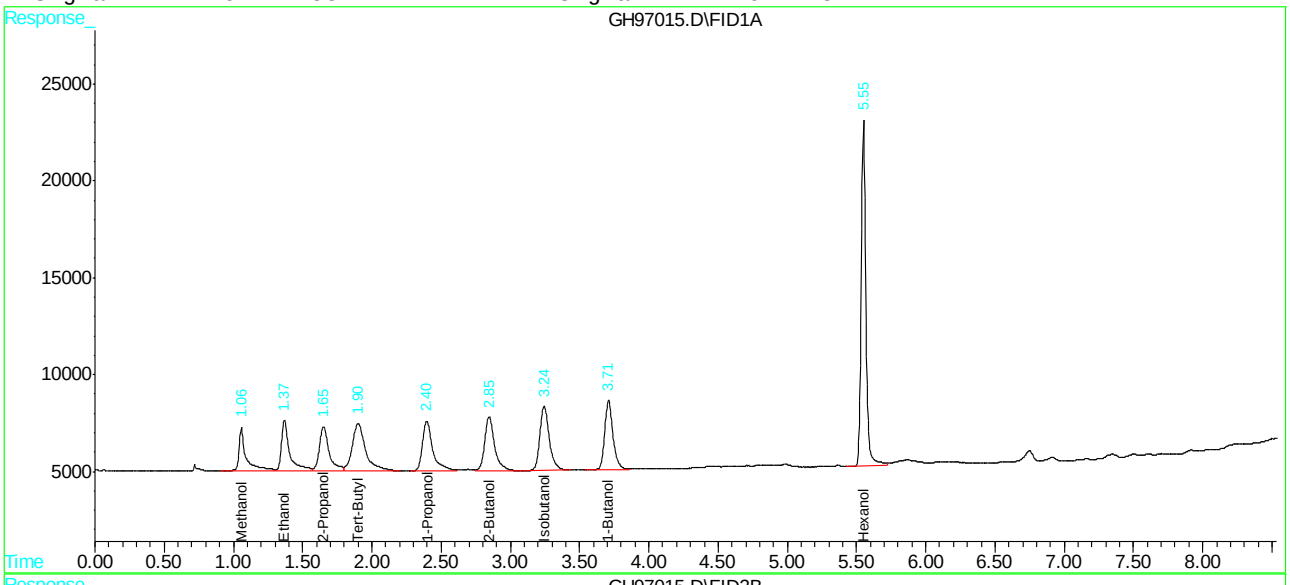
Quantitation Report (QT Reviewed)

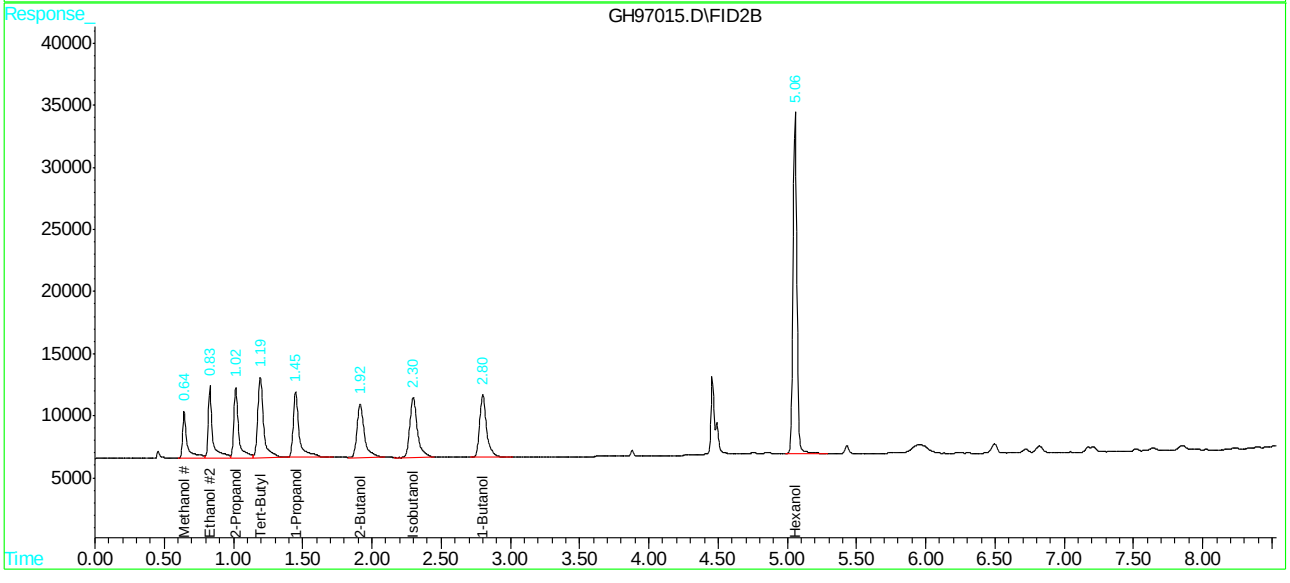
```
Data File : C:\HPCHEM\1\DATA\GH97015.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014   1:20 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43930,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97015.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014   1:32 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43930,GGH4595,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 19 15:13 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH97025.D\FID1A.CH Vial: 95
Acq On : 19 Jun 2014 3:49 pm Operator: XULIU
Sample : CC4491-10000 Inst : GCGH
Misc : GC43934,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97025.D\FID2B.CH Vial: 95
Acq On : 19 Jun 2014 3:59 pm Operator: XULIU
Sample : CC4491-10000 Inst : GCGH
Misc : GC43934,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 7:57 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	403603	498321	4956.375	4860.440
Spiked Amount	5000.000			Recovery	=	99.13%	97.21%
	Target Compounds						
1)	Methanol	1.06	0.64	147303	151962	9352.709	9270.429
2)	Ethanol	1.37	0.83	202016	238236	10101.765	9831.401
3)	Tert-Butyl Alcoh	1.90	1.20	314076	361440	10995.251	9753.237
4)	1-Propanol	2.39	1.45	280385	296065	11279.993	9620.318
5)	2-Propanol	1.65	1.02	218145	256272	10308.162	9874.183
7)	Isobutanol	3.24	2.30	297045	376847	10213.836	10859.552
8)	1-Butanol	3.71	2.81	273198	335240	9361.002	9447.873
9)	2-Butanol	2.84	1.92	268058	320619	9978.353	10301.122

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH97025.D MGH4491.M Fri Jun 20 07:58:01 2014 GCGH

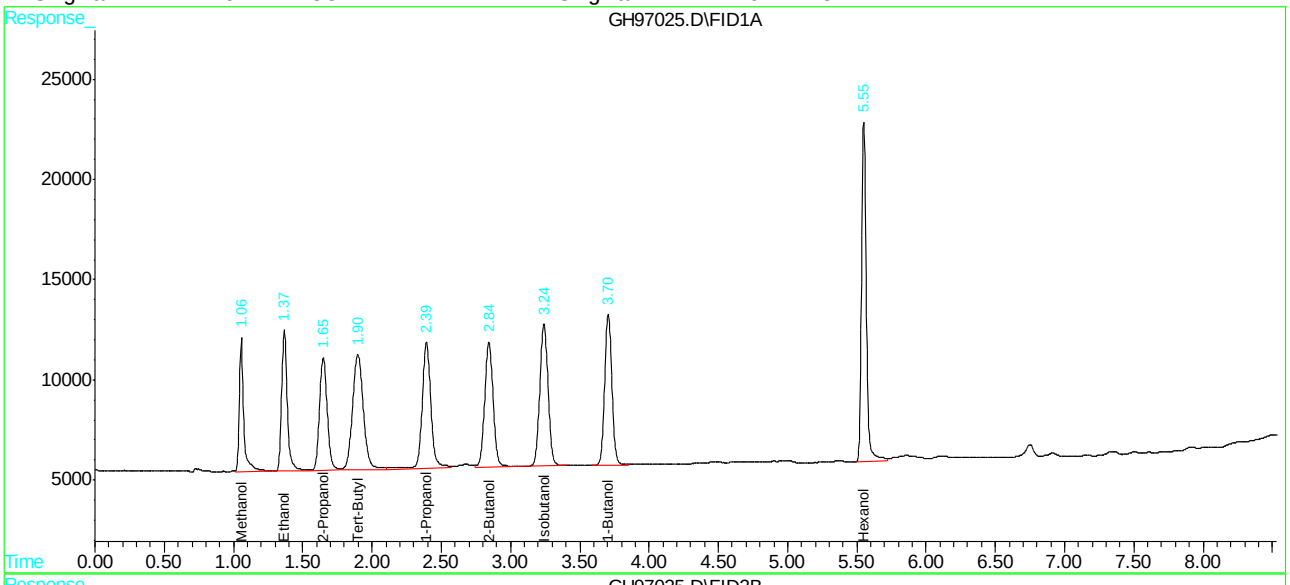
Quantitation Report (QT Reviewed)

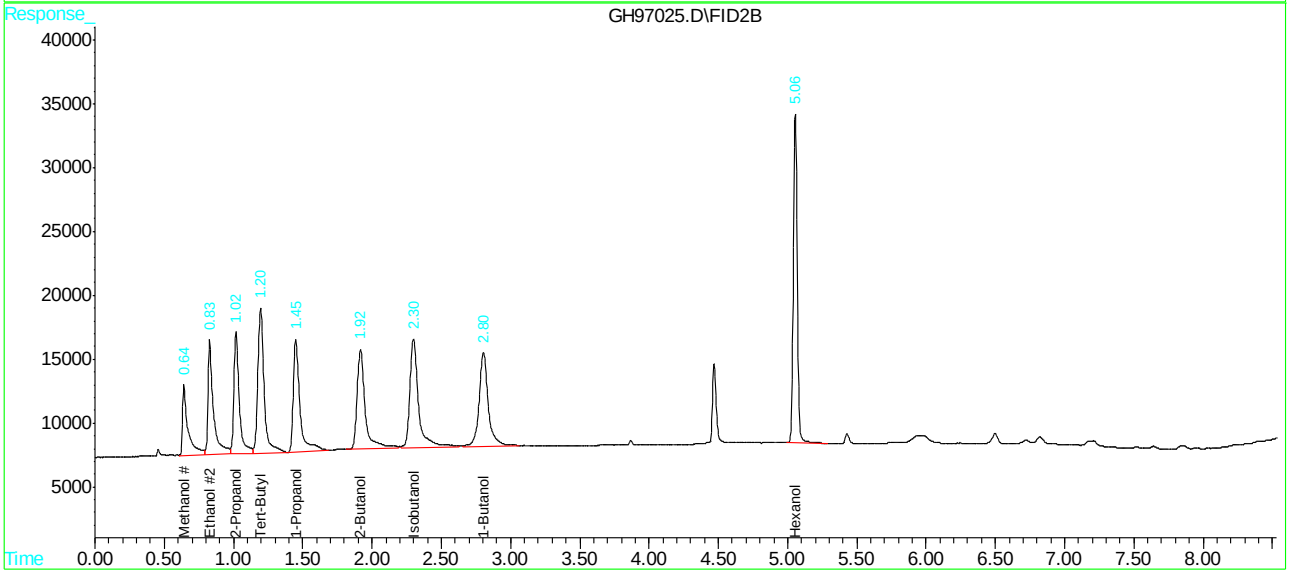
Data File : C:\HPCHEM\1\DATA\GH97025.D\FID1A.CH Vial: 95
Acq On : 19 Jun 2014 3:49 pm Operator: XULIU
Sample : CC4491-10000 Inst : GCGH
Misc : GC43934,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97025.D\FID2B.CH Vial: 95
Acq On : 19 Jun 2014 3:59 pm Operator: XULIU
Sample : CC4491-10000 Inst : GCGH
Misc : GC43934,GGH4595,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 7:57 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH97035.D\FID1A.CH          Vial: 90
Acq On    : 19 Jun 2014   6:16 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97035.D\FID2B.CH          Vial: 90
Acq On    : 19 Jun 2014   6:30 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:30 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
10) S Hexanol	5.55	5.06	412785	526249	5069.138	5132.841
Spiked Amount 5000.000			Recovery	=	101.38%	102.66%
Target Compounds						
1) Methanol	1.06	0.65	74956	86414	4759.179	5271.668
2) Ethanol	1.37	0.83	96655	134162	4833.190	5536.526
3) Tert-Butyl Alcoh	1.90	1.20	141790	194253	4963.832	5241.807
4) 1-Propanol	2.40	1.45	144302	147779	5805.303	4801.912
5) 2-Propanol	1.65	1.02	98817	143149	4669.478	5515.546
7) Isobutanol	3.25	2.30	171596	183778	5900.291	5295.896
8) 1-Butanol	3.71	2.81	156900	169637	5376.106	4780.772
9) 2-Butanol	2.85	1.92	167913	150664	6250.475	4840.644

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

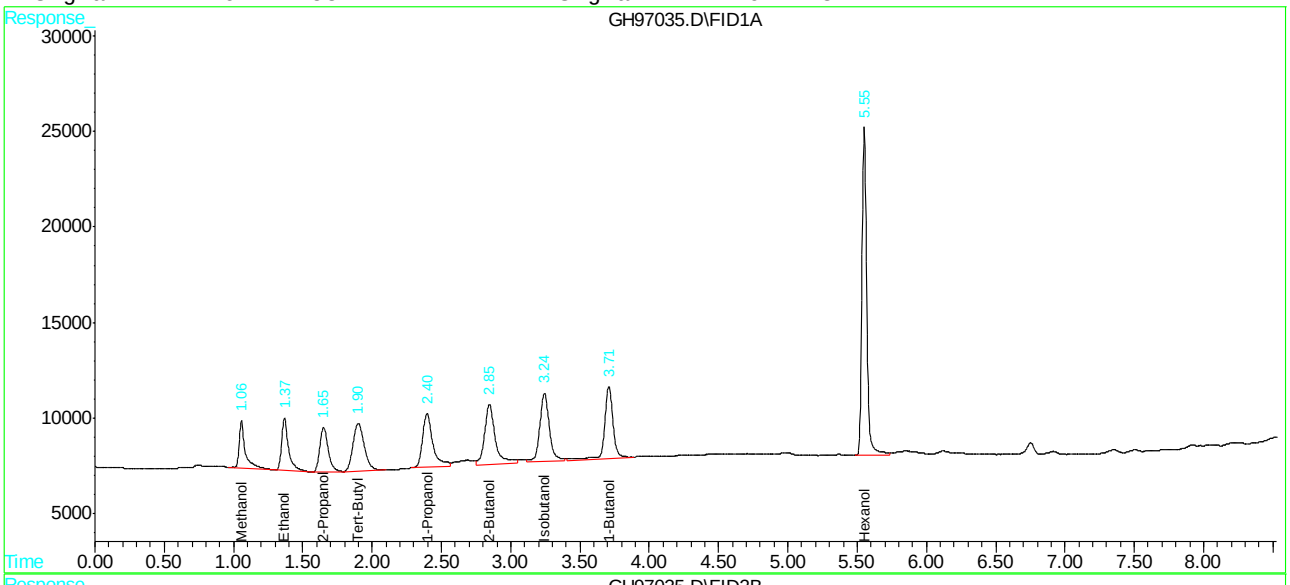
Quantitation Report (QT Reviewed)

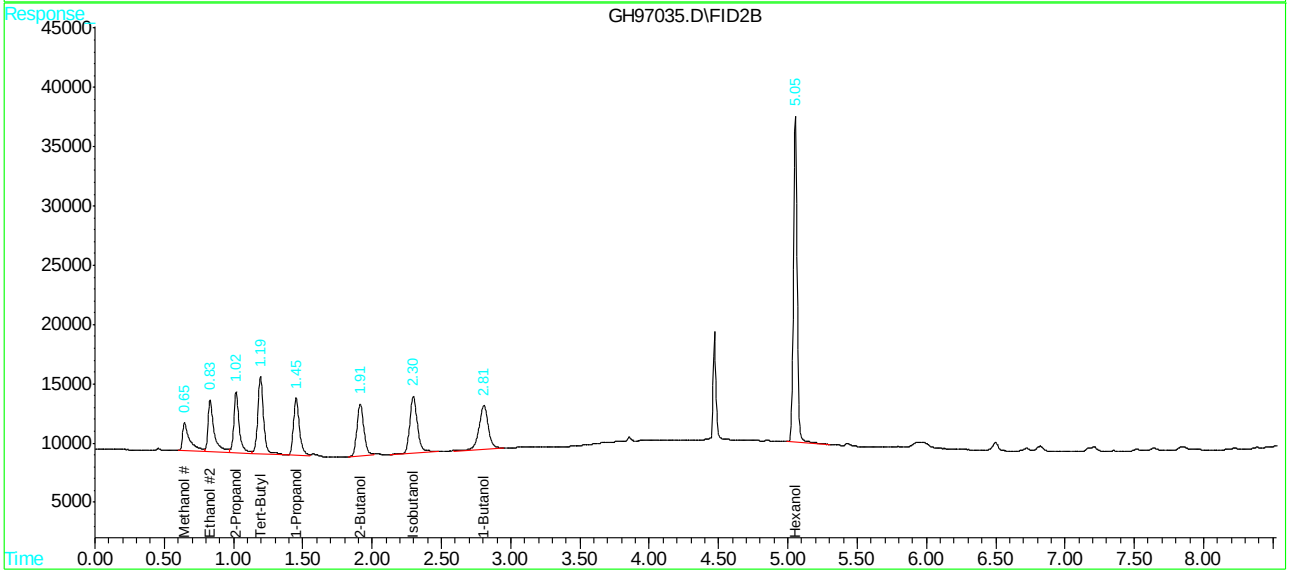
```
Data File : C:\HPCHEM\1\DATA\GH97035.D\FID1A.CH          Vial: 90
Acq On    : 19 Jun 2014   6:16 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97035.D\FID2B.CH          Vial: 90
Acq On    : 19 Jun 2014   6:30 pm                    Operator: XULIU
Sample    : CC4491-5000                              Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:30 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH97041.D\FID1A.CH Vial: 95
Acq On : 19 Jun 2014 7:42 pm Operator: XULIU
Sample : CC4491-10000 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97041.D\FID2B.CH Vial: 95
Acq On : 19 Jun 2014 7:57 pm Operator: XULIU
Sample : CC4491-10000 Inst : GCGH
Misc : GC43934,GGH4596,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 8:31 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Thu Jun 19 09:43:15 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	391389	481483	4806.389	4696.208
Spiked Amount	5000.000			Recovery	=	96.13%	93.92%
	Target Compounds						
1)	Methanol	1.06	0.64	135999	152647	8634.982	9312.209
2)	Ethanol	1.37	0.83	187354	242711	9368.569	10016.035
3)	Tert-Butyl Alcoh	1.90	1.20	301944	384182	10570.528	10366.914
4)	1-Propanol	2.39	1.45	260207	289053	10468.237	9392.476
5)	2-Propanol	1.65	1.02	200466	265857	9472.777	10243.492
7)	Isobutanol	3.24	2.30	287652	334819	9890.886	9648.432
8)	1-Butanol	3.71	2.80	271972	320431	9318.983	9030.537
9)	2-Butanol	2.85	1.92	257695	297654	9592.581	9563.259

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH97041.D MGH4491.M Fri Jun 20 08:31:59 2014 GCGH

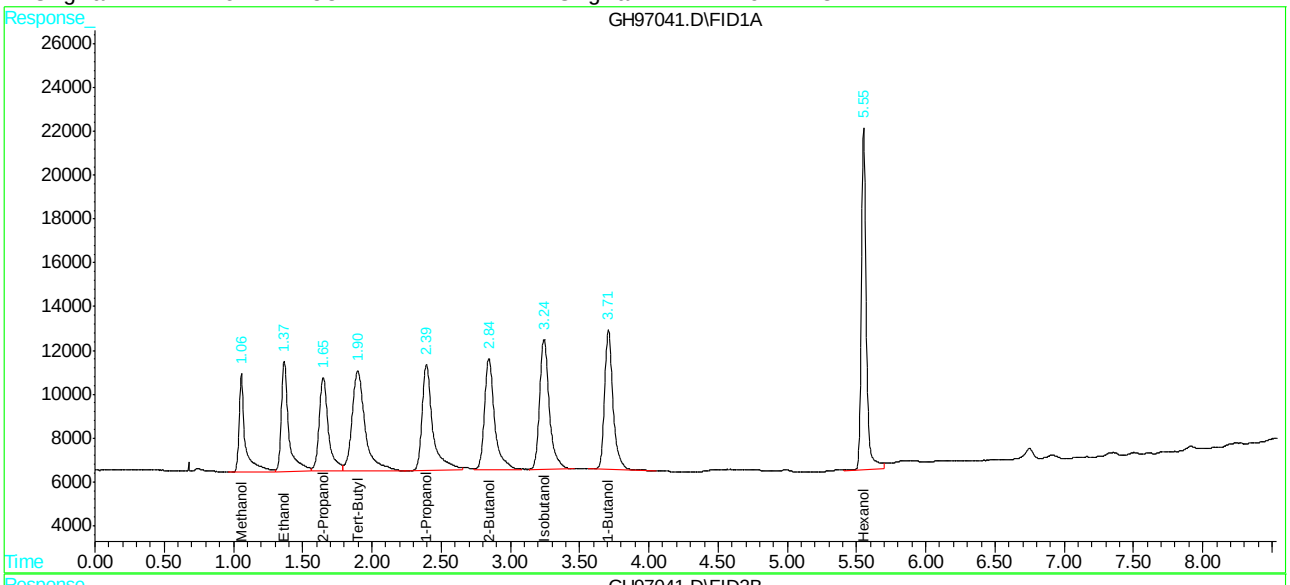
Quantitation Report (QT Reviewed)

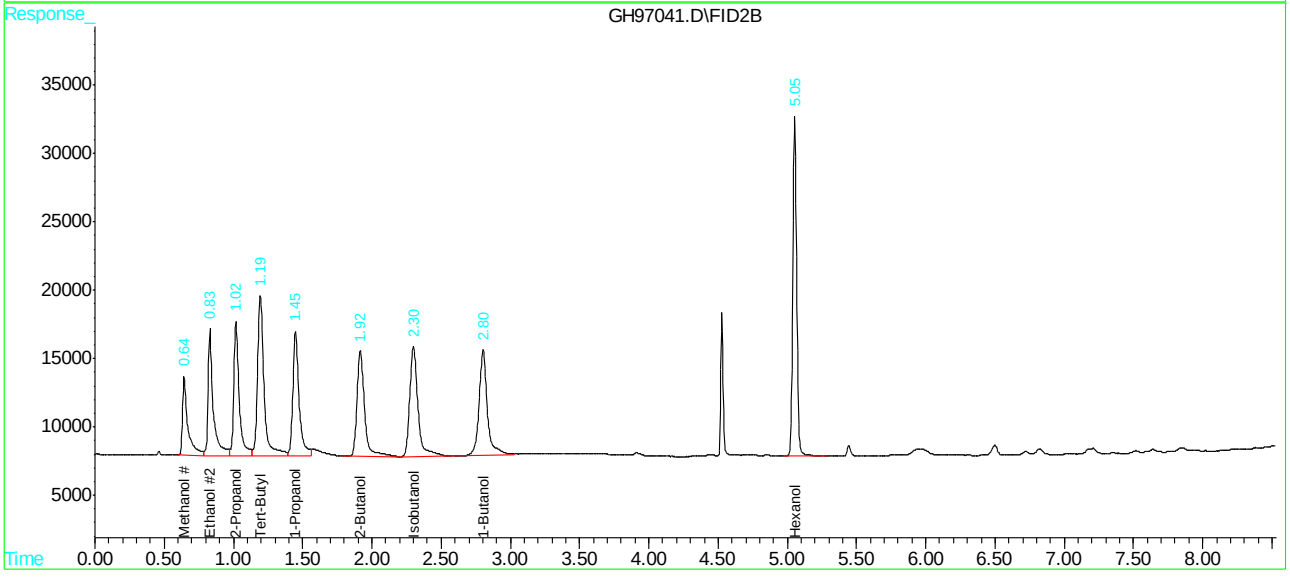
```
Data File : C:\HPCHEM\1\DATA\GH97041.D\FID1A.CH          Vial: 95
Acq On    : 19 Jun 2014   7:42 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97041.D\FID2B.CH          Vial: 95
Acq On    : 19 Jun 2014   7:57 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43934,GGH4596,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20  8:31 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Thu Jun 19 09:43:15 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH97046.D\FID1A.CH Vial: 92
Acq On : 20 Jun 2014 9:56 am Operator: XULIU
Sample : CC4491-5000 Inst : GCGH
Misc : GC43935,GGH4598,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97046.D\FID2B.CH Vial: 92
Acq On : 20 Jun 2014 10:11 am Operator: XULIU
Sample : CC4491-5000 Inst : GCGH
Misc : GC43935,GGH4598,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 10:54 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Fri Jun 20 10:20:50 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.54	5.05	378517	483005	4648.318	4711.050
	Spiked Amount 5000.000			Recovery	=	92.97%	94.22%
	Target Compounds						
1)	Methanol	1.04	0.65	73996	84868	4698.204	5177.360
2)	Ethanol	1.35	0.83	100465	121677	5023.727	5021.305
3)	Tert-Butyl Alcoh	1.87	1.19	152362	183473	5333.919	4950.898
4)	1-Propanol	2.37	1.45	131790	153222	5301.966	4978.795
5)	2-Propanol	1.63	1.02	108796	131498	5140.998	5066.618
7)	Isobutanol	3.22	2.30	156953	183285	5396.793	5281.696
8)	1-Butanol	3.68	2.80	144921	170601	4965.664	4807.953
9)	2-Butanol	2.82	1.91	133881	161811	4983.658	5198.795

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH97046.D MGH4491.M Fri Jun 20 10:54:16 2014 GCGH

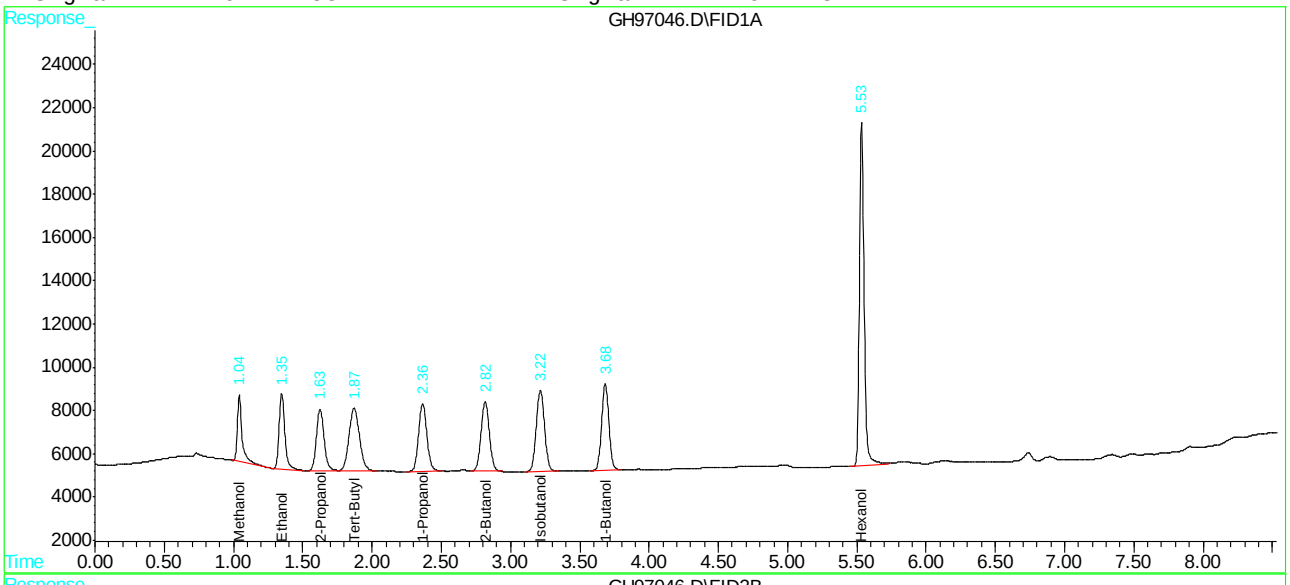
Quantitation Report (QT Reviewed)

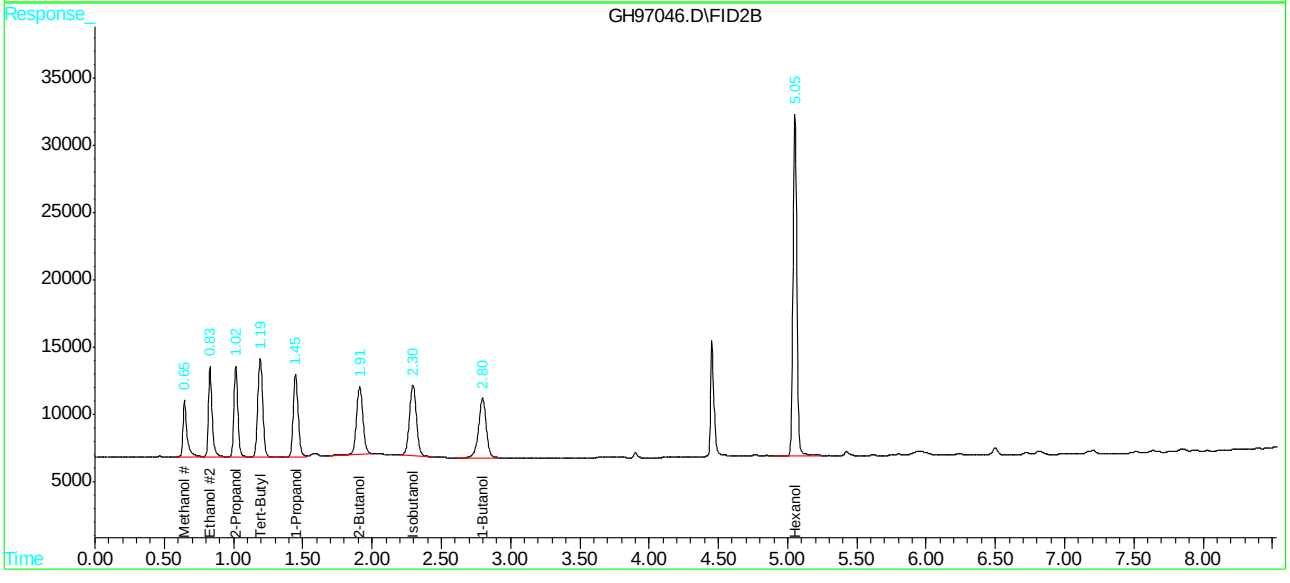
Data File : C:\HPCHEM\1\DATA\GH97046.D\FID1A.CH Vial: 92
Acq On : 20 Jun 2014 9:56 am Operator: XULIU
Sample : CC4491-5000 Inst : GCGH
Misc : GC43935,GGH4598,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97046.D\FID2B.CH Vial: 92
Acq On : 20 Jun 2014 10:11 am Operator: XULIU
Sample : CC4491-5000 Inst : GCGH
Misc : GC43935,GGH4598,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 10:54 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Fri Jun 20 10:20:50 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH97055.D\FID1A.CH Vial: 95
Acq On : 20 Jun 2014 1:46 pm Operator: XULIU
Sample : CC4491-10000 Inst : GCGH
Misc : GC43935,GGH4598,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97055.D\FID2B.CH Vial: 95
Acq On : 20 Jun 2014 2:01 pm Operator: XULIU
Sample : CC4491-10000 Inst : GCGH
Misc : GC43935,GGH4598,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Jun 20 15:46 2014 Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title : METHOD SW846-8015B (DAI)
Last Update : Fri Jun 20 15:34:30 2014
Response via : Initial Calibration
DataAcq Meth : MGH4491.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : .53mm ID Signal #2 Info : .32 mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.55	5.06	381280	447233	4682.238	4362.151
	Spiked Amount 5000.000			Recovery	=	93.64%	87.24%
	Target Compounds						
1)	Methanol	1.06	0.64	148760	171102	9445.216	10438.042
2)	Ethanol	1.36	0.83	231372	252520	11569.676	10420.841
3)	Tert-Butyl Alcoh	1.89	1.19	334975	380728	11726.875	10273.709
4)	1-Propanol	2.38	1.45	268676	317184	10808.921	10306.551
5)	2-Propanol	1.64	1.02	241378	275061	11405.982	10598.146
7)	Isobutanol	3.23	2.30	316110	372479	10869.377	10733.676
8)	1-Butanol	3.70	2.81	296391	343945	10155.701	9693.223
9)	2-Butanol	2.84	1.91	274677	327077	10224.749	10508.613

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH97055.D MGH4491.M Fri Jun 20 15:46:58 2014 GCGH

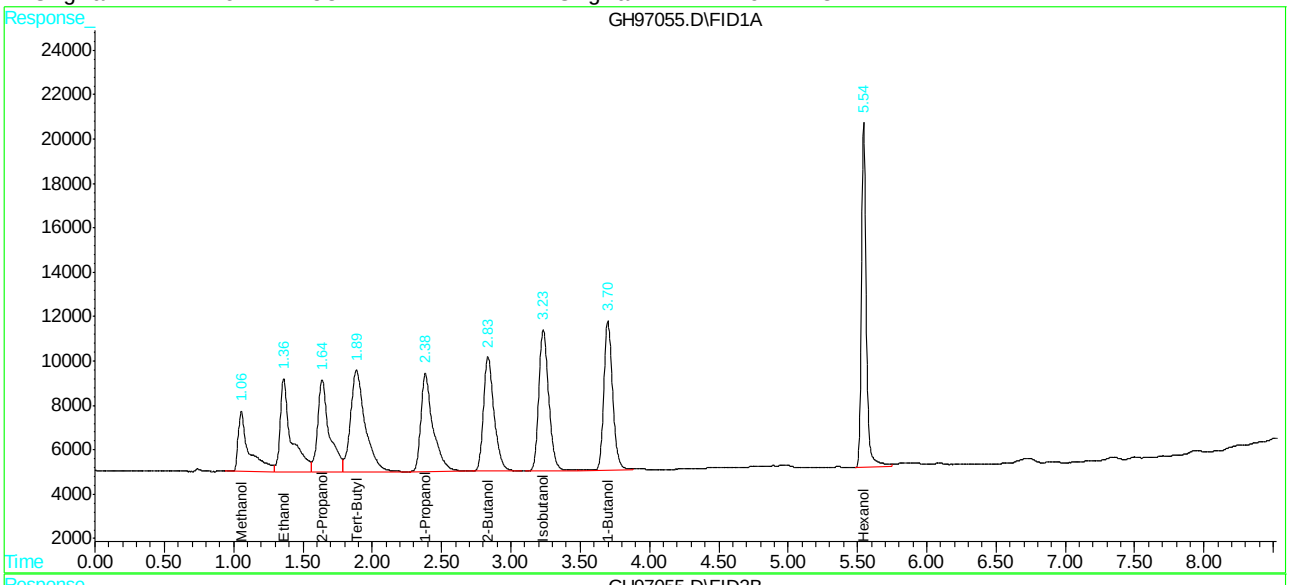
Quantitation Report (QT Reviewed)

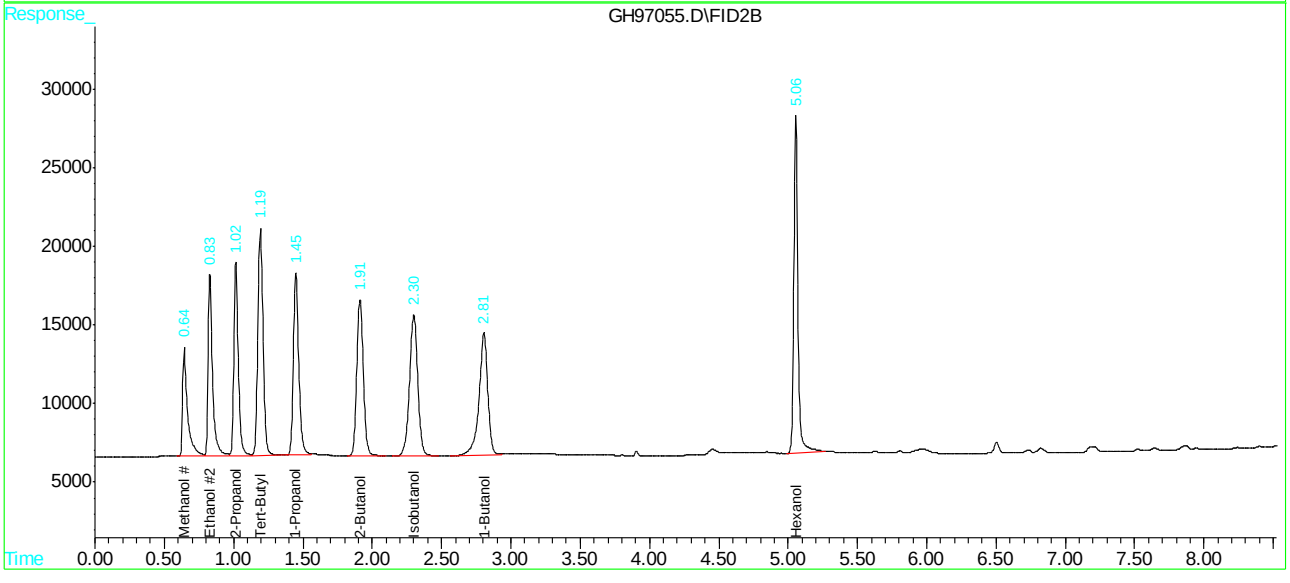
```
Data File : C:\HPCHEM\1\DATA\GH97055.D\FID1A.CH          Vial: 95
Acq On    : 20 Jun 2014   1:46 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH97055.D\FID2B.CH          Vial: 95
Acq On    : 20 Jun 2014   2:01 pm                    Operator: XULIU
Sample    : CC4491-10000                             Inst    : GCGH
Misc      : GC43935,GGH4598,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Jun 20 15:46 2014  Quant Results File: MGH4491.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH4491.M (Chemstation Integrator)
Title        : METHOD SW846-8015B (DAI)
Last Update  : Fri Jun 20 15:34:30 2014
Response via : Multiple Level Calibration
DataAcq Meth : MGH4491.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : .53mm ID          Signal #2 Info : .32 mm ID
```





ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH4491

Print Analyst Name: Xia Lin

Analyst Signature: [signature]

Date: 1/27/14

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
0514283	ALC Surr (2/14)	2000 ppm
↓ -84	↓ STD	↓ 100 ppm
↓ -85	↓ 8002	↓ 100 ppm

Columns: 2B/IV /RTX-1 (30m x 0.53mm x 3μm) (30m x 0.53mm x 3μm)

Method: 8015c ALC

Initial Cal. Method: MGH4491

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: 1/28/14

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
	GH95653	2B										✓	MR		
	95654	2C4491-100											RK	1st baseline Not 4 pass. 100ppb/10ml H2O	
	95655	2C4491-500										✓	MR	1 pass. 500ppb/1ml H2O	
	95656	2C4491-1000										✓	MR	2 pass. 1000ppb/1ml H2O	
	95657	2C4491-5000										✓	MR	2. 5ppb/ml. 5000ppb/1ml H2O	
	95658	2C4491-10,000										✓	MR	2. 5ppb/ml. 10000ppb/1ml H2O	
	95659	2C4491-50,000										✓	MR	3 pass. 50000ppb/1ml H2O	
	95660	2C4491-100,000										✓	MR	4 pass. 100000ppb/1ml H2O	
	95661	2C4491-100										✓	MR	4 pass. 100ppb/10ml H2O	
	95662	2C4491-5000										✓	MR	2. 5ppb/ml. 5000ppb/1ml H2O	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.

All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9

Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH4595

Print Analyst Name: Xu Liu

Analyst Signature:

Date: 6/19/14

Columns: 7B624 (30m x 0.53mm x 3μm) / RTX-1 (30m x 0.53mm x 3μm)

Method SW15C AIC

Initial Cal. Method MGH4491

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
014808-1	All Gas (7/4)	2000 ppm
↓ -2	↓ MD	200 ppm
↓ -3	↓ 90(12) ↓	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:** 6/19/14

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
	GGH1995	2B											✓ok		
	969 96	CC4491-1000											✓ok	contamination/method	
	969 97	MB1											✓ok		
	969 98	BS											✓ok	contamination/method	
	969 99	JB68943-89A	43919 Meth	S	2		5.1/5						✓ok		
	97000	JB68943-89AMS	21ML 2PA		2		5.1/5						✓ok	contamination/matrix	
	97001	JB68943-89AMSD			2		5.1/5						✓ok	↓	
	97002	JB68943-90A			2		5.1/5						✓ok	3.9	
	97003	JB68943-91A			2		5.0/5						✓ok	4.9	
	97004	JB68943-92A			2		5.0/5						✓ok		
	97005	JB68943-93A			2		5.1/5						✓ok	2.1	
	97006	JB68943-94A		↓	2		5.2/5						✓ok		
	97007	CC4491-10,000											✓ok	contamination/method.	
	97008	MB2											✓ok		
	97009	JB68943-95A		S	2		5.0/5						✓ok	36.2	
	97010	JB68943-96A		↓	2		5.2/5						✓ok	23.6	
	97011	JB68943-103A	43930 Meth		2		5.0/5						✓ok		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH4595

Print Analyst Name: Xu Lu

Date: 6/19/1X

Analyst Signature:

Columns: 7B/MX / RTX-1 (30m x 0.53mm x 3μm) (30m x 0.53mm x 3μm)

Method 8015C ALC

Initial Cal. Method MGH4491

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Pg 39	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/19/1X

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
	GH970 12	JB68943-104A	43930 MeOH	S	2		5.1/5					✓	ok		
	970 13	JB68943-105A	8ML 2DB		1		5.1/5					✓	ok	234	
	970 14	JB68943-106A			2		5.0/5					✓	ok		
	970 15	CC4491-50000										✓	ok	coelution/method	
	970 16	MB3										✓	ok		
	970 17	JB69587-1	43934 MeOH	S	3		5.2/5					✓	ok		
	970 18	JB69587-2			1		5.0/5					✓	ok		
	970 19	JB69587-3			2		5.3/5					✓	ok		
	970 20	JB69587-4			1		5.1/5					✓	ok		
	970 21	JB69587-5			3		5.0/5					✓	ok		
	970 22	JB69587-6			3		5.0/5					✓	ok		
	970 23	JB69587-7			1		5.1/5					✓	ok		
	970 24	JB69587-8			2		5.1/5					✓	ok		
	970 25	CC4491-10,000 (6/19)										✓	ok	coelution/method	
	~~970 26~~														
														(X) 6/19	

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

9.6.2

9

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH4596

Print Analyst Name: Xu Lin

Analyst Signature:

Date: 6/19/14

Columns: ZB624 / RTX-1 (30m x 0.53mm x 3μm) (30m x 0.53mm x 3μm)

Method 8015C ALC

Initial Cal. Method May 4 & 91

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
014-1868-1	ALC Surr (3/4)	2000 ppm
↓ -2	↓ (MD)	100 ppm
↓ -3	↓ (MDL) ↓	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: Alan Long **Date:** 6/19/14

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
	6/19 70 26	MB1											✓ OK		
	970 27	BS											✓ OK	50ul 5ppm/methanol	
	970 28	JB69587-12	8934C Meth	S	1		5.0/5						✓ OK		
	970 29	JB69587-12MS			1		5.0/5						✓ OK	50ul 5ppm/methanol	
	970 30	JB69587-12MSD			1		5.0/5						✓ OK	↓	
	970 31	JB69587-11			3		5.0/5						✓ OK		
	~~JB69587-10~~				~~2~~									(x) 6/19	
	970 32	JB69587-9			2		5.3/5						✓ OK		
	970 33	JB69587-13			1		5.1/5						✓ OK		
	970 34	JB69587-14			3		5.2/5						✓ OK		
	970 35	CC4491-5000											✓ OK	50ul 5ppm/methanol	
	970 36	MB2											✓ OK		
	970 37	JB69587-15		S	3		5.5/5						✓ OK		
	970 38	JB69587-16			1		5.0/5						✓ OK		
	970 39	JB69587-17			3		5.0/5						✓ OK		
	970 40	JB69587-21	↓	↓	3		5.1/5						✓ OK		
	970 41	CC4491-10,000											✓ OK	50ul 10ppm/methanol	

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: GGH4598

Print Analyst Name: Xu Liu

Analyst Signature:

Date: 6/20/14

Columns: ZB624 / RTX-1 (30m x 0.53mm x 3μm) (30m x 0.53mm x 3μm)

Method 8015ALL

Initial Cal. Method MGH4491

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
014-1868-1	ALL SUR (7/14)	2000 ppm
↓ -2	↓ SID	1000 ppm
↓ -3	↓ SIDIU	1000 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: Dan Yu **Date:** 6/24/14

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
	9670 44	ZB					1					✓	OK		
	9670 45	CC4491-5000					1					✓	RR	1st Baseline NG 50ul570/methanol	
G20	9670 46	~~MB1~~ JB6140 CC4491-5000					1					✓	OK	↓	
	9670 47	~~BS~~ JB6140 MB1					1					✓	OK	50ul570/methanol	
	9670 48	BS1					1					✓	OK	↓	
	9670 49	JB69587-10	63935 MeOH	SEB	3		1					✓	RR	surr not spiked	✓
	9670 50	JB69587-18	↓	SEB	3		1					✓	RR	↓	✓
	9670 51	BS2					1					✓	OK	50ul570(2)/methanol	
	9670 52	JB69587-10	63935 MeOH	SEB	3		1					✓	OK		✓
	9670 53	JB69587-18	↓	SEB	3		1					✓	OK		✓
	9670 54	CC4491-10,000					1					✓	RR	1st baseline NG 100ul/methanol	
	9670 55	CC4491-10,000					1					✓	OK	↓	

6/20

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: GGH4598

Print Analyst Name: Xu Liu

Analyst Signature:

Columns: ZB624 / RTX-1 (30m x 0.53mm x 3μm) (30m x 0.53mm x 3μm)

Method 8015ALL

Initial Cal. Method MGH4691

ate: 6/20/14

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
014-1868-1	ALL SUR (7/14)	2000 ppm
↓ -2	↓ SID	1000 ppm
↓ -3	↓ SID(2) ↓	1000 ppm

anually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest P EQA044.

Supervisor Signature: Dan Sm **Date:** 6/24/14

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
	6/20 670044	ZB					1					✓	OK		
	9670 45	CC4691-5000					1					✓	RR	1st Baseline NG 50ul570/mel20	
	9670 46	~~MB1~~ BS/MS CC4691-5000					1					✓	OK	↓	
	9670 47	~~BS~~ BS/MS MB1					1					✓	OK	50ul570(2)/mel20	
	9670 48	BS1					1					✓	OK	↓	
	9670 49	JB69587-10	43935 meth	SEB	3		1					✓	RR	surr not spiked	✓
	9670 50	JB69587-18	↓	SEB	3		1					✓	RR	↓	✓
	9670 51	BS2					1					✓	OK	50ul570(2)/mel20	
	9670 52	JB69587-10	63935 meth	SEB	3		1					✓	OK		✓
	9670 53	JB69587-18	↓	SEB	3		1					✓	OK		✓
	9670 54	CC4691-10,000					1					✓	RR	1st baseline NG 100ul/mel20	
	9670 55	CC4691-10,000					1					✓	OK	↓	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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

New Jersey

ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: JB69587-1 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-2 (0-0.5)

Wet Weight (Total)	31.47	g
Tare Weight	23.52	g
Dry Weight (Total)	31.01	g
Moisture, Percent	5.8	%

Sample: JB69587-2 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-1 (0-0.5)

Wet Weight (Total)	29.54	g
Tare Weight	23.19	g
Dry Weight (Total)	29.16	g
Moisture, Percent	6	%

Sample: JB69587-3 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-3 (0-0.5)

Wet Weight (Total)	35.11	g
Tare Weight	28.92	g
Dry Weight (Total)	34.71	g
Moisture, Percent	6.5	%

Sample: JB69587-4 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-4 (0-0.5)

Wet Weight (Total)	33.42	g
Tare Weight	26.24	g
Dry Weight (Total)	33.11	g
Moisture, Percent	4.3	%

Sample: JB69587-5 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-12 (0-0.5)

Wet Weight (Total)	29.24	g
Tare Weight	20.19	g
Dry Weight (Total)	28.45	g
Moisture, Percent	8.7	%

Sample: JB69587-6 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-5 (0-0.5)

Wet Weight (Total)	34.61	g
Tare Weight	26.02	g
Dry Weight (Total)	34.2	g
Moisture, Percent	4.8	%

Percent Solids Raw Data Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: JB69587-7 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-6 (0-0.5)

Wet Weight (Total)	30.32	g
Tare Weight	24.43	g
Dry Weight (Total)	30.01	g
Moisture, Percent	5.3	%

Sample: JB69587-8 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-7 (0-0.5)

Wet Weight (Total)	34.82	g
Tare Weight	26.37	g
Dry Weight (Total)	34.54	g
Moisture, Percent	3.3	%

Sample: JB69587-9 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-7D (0-0.5)

Wet Weight (Total)	30.85	g
Tare Weight	23.68	g
Dry Weight (Total)	30.59	g
Moisture, Percent	3.6	%

Sample: JB69587-11 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-10 (0-0.5)

Wet Weight (Total)	31.22	g
Tare Weight	23.25	g
Dry Weight (Total)	30.97	g
Moisture, Percent	3.1	%

Sample: JB69587-12 **Analyzed:** 19-JUN-14 by NR **Method:** SM2540 G-97
ClientID: R-9 (0-0.5)

Wet Weight (Total)	28.94	g
Tare Weight	20.12	g
Dry Weight (Total)	28.59	g
Moisture, Percent	4	%

Sample: JB69587-13 **Analyzed:** 20-JUN-14 by AC **Method:** SM2540 G-97
ClientID: R-11 (0-0.5)

Wet Weight (Total)	26.4	g
Tare Weight	18.93	g
Dry Weight (Total)	26.03	g
Moisture, Percent	5	%

Percent Solids Raw Data Summary

Job Number: JB69587
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMS-ICM, Humacao, PR

Sample: JB69587-14 **Analyzed:** 20-JUN-14 by AC **Method:** SM2540 G-97
ClientID: Q1 (0-0.5)

Wet Weight (Total)	29.61	g
Tare Weight	24.21	g
Dry Weight (Total)	29.33	g
Moisture, Percent	5.2	%

Sample: JB69587-15 **Analyzed:** 20-JUN-14 by AC **Method:** SM2540 G-97
ClientID: Q2 (0-0.5)

Wet Weight (Total)	29.78	g
Tare Weight	22.59	g
Dry Weight (Total)	29.4	g
Moisture, Percent	5.3	%

Sample: JB69587-16 **Analyzed:** 20-JUN-14 by AC **Method:** SM2540 G-97
ClientID: Q3 (0-0.5)

Wet Weight (Total)	25.14	g
Tare Weight	18.01	g
Dry Weight (Total)	24.54	g
Moisture, Percent	8.4	%

Sample: JB69587-17 **Analyzed:** 20-JUN-14 by AC **Method:** SM2540 G-97
ClientID: Q4 (0-0.5)

Wet Weight (Total)	28.9	g
Tare Weight	21.13	g
Dry Weight (Total)	28.23	g
Moisture, Percent	8.6	%

Sample: JB69587-21 **Analyzed:** 20-JUN-14 by AC **Method:** SM2540 G-97
ClientID: R-8 (0-0.5)

Wet Weight (Total)	29.7	g
Tare Weight	23.14	g
Dry Weight (Total)	29.48	g
Moisture, Percent	3.4	%