Atmospheric Analysis & Consulting, Inc.

CLIENT : Soil Water Air Protection Enterprise
PROJECT NAME : Bridgeton Sanitary Landfill Air Quality Assessment
AAC PROJECT NO. : 131119
REPORT DATE : 08/22/2013

On August 21, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) Six-Liter Summa Canisters for Volatile Organic Compounds analysis by EPA method TO-15. Upon receipt each sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab ID	Return Pressure (mmHga)
U-1 K-Canister	131119-65684	704.5
U-2 W2-Canister	131119-65685	691.3
D-1 W6E-Canister	131119-65686	722.5
D-2 W6W-Canister	131119-65687	713.2

An initial reading of each canister's vacuum was taken and recorded. Subsequently, each canister was brought to positive pressure using UHP-He and the final pressure was recorded.

TO-15 Analysis - Up to a 500 mL aliquot of sample is concentrated, put through a water and CO_2 management system, cryofocused and injected into the GC/MS (full scan mode) for analysis following EPA Method TO-15 as specified in the SOW.

No problems were encountered during receiving, preparation and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# TO.15.10.

I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.

Marcus Hueppe
Laboratory Director

This report consists of 61 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

SAMPLE RECEIPT / LOG-IN REPORT

AAC Project **131119** **Received By: J. Zachman**

Sample Receipt Date	Project Desc	Clients ID	Matrix	Sampling Date/Time	Sampled By	Sample #	Analysis Requested
8/21/2013 1145	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 K Canister	Summa Canister	8/14/2013	Client	65684	TO15 ASTM D5504
8/21/2013 1145	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-2 W2 Canister	Summa Canister	8/14/2013	Client	65685	TO15 ASTM D5504
8/21/2013 1145	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W6E Canister	Summa Canister	8/14/2013	Client	65686	TO15 ASTM D5504
8/21/2013 1145	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 W6W Canister	Summa Canister	8/14/2013	Client	65687	TO15 ASTM D5504

TURN AROUND TIME: Normal (10days)

Lab Due Date: 8/28/2013

Total Samples: 4

REMARKS:

Client returned 4 x Summa canisters + 4 x Flows. Sample 65687 was identified to be D-2 and canister 000741, not D-1 and canister 000744 that is documented on the COC and field data sheets. "Standard TAT for all analyses. If possible deliver report within 2 weeks. Provide Level IV QC package for all analyses."

CANISTER PRESSURE LOG

Client: Soil Water Air Protection Ent Project No.: 131119

Date: 8/21/2013

Canister #	Sample #	Initial Pressure	Final Pressure
577	65684	704.5	1014.1
700	65685	691.3	1020.7
730	65686	722.5	1018.8
741	65687	713.2	1018.9

1

AAC# 131119

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE	Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011
Project Manager: PAUL ROSENFELD, PH.D.	Date: **August 14th**
Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401	Page 1 of 1
Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT	
Sampled By: John Blank	Sampler Signature: John Blank

LAB ID	SAMPLE ID NUMBER	Type		Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxlyic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	REQUESTED TESTS / ANALYSES
65684	**U-1 K**	**Canister**		**August 14th**	**261 min**	x	x												**Canister # 577**
65685	**U-2 W2**	**Canister**		**August 14th**	**290 min**	x	x												**Canister # 700**
65686	**D-1 W6E**	**Canister**		**August 14th**	**280 min**	x	x												**Canister # 730**
65687	**D-1 W6W**	**Canister**		**August 14th**	**313 min**	x	x												**Canister # 744**
	MW 8/21/13																		

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.

QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
John Blank	**August 14th**	12 Noon	John Zachman	8/21/13	1145

SOIL / WATER / AIR PROTECTION ENTERPRISE

Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **U- 1 K** **Canister #577** **Flow Control #711**

AAC Batch ID: 131119 AAC Sample ID: 65684

SAMPLING INFORMATION

Start Date/Time: **Aug 14th, 2013 – 16:54 AM** Stop Date/Time: **Aug 14th, 2013 – 21:15 PM**

Start Temp/Pressure*: **24 C / 30.17 inHg** Stop Temp/Pressure*: **18 C / 30.16 inHg**

Initial Can Pressure**: **- 30 inHg** Final Can Pressure**: **- 5 inHg**

Ambient Barometric Reading where sample is being taken (C / inHg) ** Flow Controller Gauge Reading (inHg)

Comments: _____

John A Blank

John Blank **August 14th, 2013**

Sampler Name (Print) ***Sampler Signature/Date***

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: **261 Minutes**

Canister Serial No.: **577** Flow Controller Serial No: **711**

Initial Pressure: 3.6 Certified Flow Rate: 18.0

Return Pressure: 704.5 Certified By/Date: FJ 8/6/13

Final Pressure: 1014.1 Flow Rate upon Return: 14.3

Date Shipped From Lab: 8/6/13 Shipped By: FJ

Date Returned to Lab: 8/21/13 Received By: FJ

Flow Controller Certification File ID: M503/07171310

Canister Certification File ID: M503/08051305

Certification Type: SIM ____ SCAN ✓ NJLL ____ PAMS ____ Other ____

08/21/13 MV 8/22/13

Chemist Signature/Date ***Lab Manager Signature/Date***

Sampler is required to fill out all highlighted sections during sampling.
All remaining sections will be completed upon return by the laboratory.

Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **U- 2 W2** **Canister # 700** **Flow Control # 803**

AAC Batch ID: 131119 AAC Sample ID: 65685

SAMPLING INFORMATION

Start Date/Time: **Aug 14th, 2013 – 17:55 AM** Stop Date/Time: **Aug 14th, 2013 – 22:45 PM**

Start Temp/Pressure*: **24 C / 30.17 inHg** Stop Temp/Pressure*: **18 C / 30.16 inHg**

Initial Can Pressure**: **- 30 inHg** Final Can Pressure**: **- 5 inHg**

Ambient Barometric Reading where sample is being taken (C / inHg)** ****Flow Controller Gauge Reading (inHg)

Comments: _____

John A. Blank

John Blank
Sampler Name (Print)

August 14th, 2013
Sampler Signature/Date

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: **290 Minutes**

Canister Serial No: **700** Flow Controller Serial No: **803**

Initial Pressure: 3.8 Certified Flow Rate: 18.0

Return Pressure: 691.3 Certified By/Date: JJ 8/6/13

Final Pressure: 1020.7 Flow Rate upon Return: 19.6

Date Shipped From Lab: 8/6/13 Shipped By: JJ

Date Returned to Lab: 8/21/13 Received By: JJ

Flow Controller Certification File ID: M502/073/13/8

Canister Certification File ID: M503/080513O5

Certification Type: SIM ____ SCAN ✓ NJLL ____ PAMS ____ Other ____

08/21/13
Chemist Signature/Date

MM 8/22/13
Lab Manager Signature/Date

Sampler is required to fill out all highlighted sections during sampling.
All remaining sections will be completed upon return by the laboratory.

Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **D-1 W6E** **Canister # 730** **Flow Control # 813**

AAC Batch ID: 131119 AAC Sample ID: 605686

SAMPLING INFORMATION

Start Date/Time: **Aug 14th, 2013 – 17:20 AM** Stop Date/Time: **Aug 14th, 2013 – 22:00 PM**

Start Temp/Pressure*: **24 C / 30.17 inHg** Stop Temp/Pressure*: **18 C / 30.16 inHg**

Initial Can Pressure**: **- 30 inHg** Final Can Pressure**: **- 3 inHg**

Ambient Barometric Reading where sample is being taken (C / inHg)** ****Flow Controller Gauge Reading (inHg)

Comments: _____

John A Blank

John Blank **August 14th, 2013**

Sampler Name (Print) ***Sampler Signature/Date***

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: 280 Minutes

Canister Serial No.: **730** Flow Controller Serial No: **813**

Initial Pressure: 3.6 Certified Flow Rate: 18.0

Return Pressure: 722.5 Certified By/Date: 8/6/13

Final Pressure: 1018.8 Flow Rate upon Return: 30.3

Date Shipped From Lab: 8/6/13 Shipped By: _____

Date Returned to Lab: 8/21/13 Received By: _____

Flow Controller Certification File ID: MFC/073118

Canister Certification File ID: CAN03/080513D5

Certification Type: SIM ____ SCAN ✓ NJLL ____ PAMS ____ Other ____

08/21/13 8/22/13

Chemist Signature/Date ***Lab Manager Signature/Date***

Sampler is required to fill out all highlighted sections during sampling.
All remaining sections will be completed upon return by the laboratory.

Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **D- 2 W6W** **Canister # 744** **Flow Control # 718**

AAC Batch ID: 131119 AAC Sample ID: 65687

SAMPLING INFORMATION

Start Date/Time: **Aug 14th, 2013 – 17:30 AM** Stop Date/Time: **Aug 14th, 2013 – 22:43 PM**

Start Temp/Pressure*: **24 C / 30.17 inHg** Stop Temp/Pressure*: **18 C / 30.16 inHg**

Initial Can Pressure**: **- 30 inHg** Final Can Pressure**: **- 3 inHg**

Ambient Barometric Reading where sample is being taken (C / inHg) ** Flow Controller Gauge Reading (inHg)

Comments: _____

John Blank
Sampler Name (Print)

August 14th, 2013
Sampler Signature/Date

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: 313 Minutes

Canister Serial No.: ~~744~~ 741 Flow Controller Serial No: **718**

Initial Pressure: 3.6 Certified Flow Rate: 18.0

Return Pressure: 713.2 Certified By/Date: 8/6/13

Final Pressure: 1018.9 Flow Rate upon Return: 18.7

Date Shipped From Lab: 8/6/13 Shipped By:

Date Returned to Lab: 8/21/13 Received By:

Flow Controller Certification File ID: M602/073/1318

Canister Certification File ID: M603/080/1305

Certification Type: SIM ____ SCAN ✓ NJLL ____ PAMS ____ Other ____

08/21/13
Chemist Signature/Date

8/22/13
Lab Manager Signature/Date

Sampler is required to fill out all highlighted sections during sampling.
All remaining sections will be completed upon return by the laboratory.

American Environmental Laboratories

ISO 9001:2000 Certification #A1836US

MDNR **Bridgeton Landfill** **Date: August 14th**

Chain of Custody Weekly Sampling Event

Air Sampler calibrated for 1 Liter per Minute Flow Rate
Flow Rate calibrated with BIOS - Defender 510M - S/N 131756
SUMMA Canister with a 4 hour flow valve

Temperature	
Start	24 C
Stop	18 C

Barometric Pressure		
Start	30.17	InHg
Stop	30.16	InHg

Sample Point ID	U-1 K		Start		Stop		Total Time	
Canister Serial #	577	Canister Time	16:54		21:15		261	min
Flow Control #	711	Vacuum	-30	InHg	-5	InHg		
Sample Pump #	67992	Flow Rate	1.01	L/M	0.9958	L/M	1.0029	Average L/M
Sample Tube	226-20	Tube Time	16:54		20:54		240	min
Sample Tube #	44400600652				Total Liters Sampled / Tube		240.696	

Sample Point ID	U-2 W2		Start		Stop		Total Time	
Canister Serial #	700	Time	17:55		22:45		290	min
Flow Control #	803	Vacuum	-30	InHg	-5	InHg		
Sample Pump #	67385	Flow Rate	1.028	L/M	0.962	L/M	0.995	Average L/M
Sample Tube	226-20	Tube Time	17:55		21:55		240	min
Sample Tube #	44400600649				Total Liters Sampled / Tube		238.8	

Sample Point ID	D-1 W6E		Start		Stop		Total Time	
Canister Serial #	730	Time	17:20		22:00		280	min
Flow Control #	813	Vacuum	-30	InHg	-3	InHg		
Sample Pump #	71526	Flow Rate	1.129	L/M	1.072	L/M	1.1005	Average L/M
Sample Tube	226-20	Time	17:20		21:25		245	min
Sample Tube #	44400600651				Total Liters Sampled / Tube		269.62	

Sample Point ID	D-2 W6W		Start		Stop		Total Time	
Canister Serial #	744	Time	17:30		22:43		313	min
Flow Control #	718	Vacuum	-30	InHg	-3	InHg		
Sample Pump #	59912	Flow Rate	1.082	L/M	0.962	L/M	1.022	Average L/M
Sample Tube	226-20	Time	17:30		21:30		240	min
Sample Tube #	44400600648				Total Liters Sampled / Tube		245.28	

Possible Sample Point ID **W1 - W2 - W3 - W4 - W5 - W6 - W7**

Prepared by:

3441 Morgan Ford Rd. St. Louis, MO 63116 Tel: 314-664-2800 Fax: 314-664-2442

TO-15 REPORTS

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 131119
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 08/21/2013
DATE REPORTED : 08/22/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 K-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U-2 W2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	131119-65684				131119-65685				
Date Sampled	08/14/2013				08/14/2013				
Date Analyzed	08/21/2013				08/21/2013				
Can Dilution Factor	1.44				1.47				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.32	J	1.0	0.72	0.38	J	1.0	0.74	0.5
Propene	0.72	J	1.0	1.44	1.53		1.0	1.47	1.0
Dichlorodifluoromethane	0.60	J	1.0	0.72	0.62	J	1.0	0.74	0.5
Chloromethane	0.46	J	1.0	0.72	0.47	J	1.0	0.74	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Vinyl Chloride	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Methanol	6.54	J	1.0	7.20	9.46		1.0	7.37	5.0
1,3-Butadiene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Bromomethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Chloroethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Ethanol	5.23		1.0	2.88	19.2		1.0	2.95	2.0
Vinyl Bromide	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Acetone	6.22		1.0	2.88	7.49		1.0	2.95	2.0
Trichlorofluoromethane	0.30	J	1.0	0.72	0.29	J	1.0	0.74	0.5
2-Propanol (IPA)	2.29	J	1.0	2.88	9.23		1.0	2.95	2.0
Acrylonitrile	<SRL	U	1.0	1.44	<SRL	U	1.0	1.47	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	1.44	<SRL	U	1.0	1.47	1.0
Allyl Chloride	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Carbon Disulfide	NR	U	1.0	0.72	NR	U	1.0	0.74	0.5
Trichlorotrifluoroethane	0.09	J	1.0	0.72	0.10	J	1.0	0.74	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Vinyl Acetate	<SRL	U	1.0	1.44	<SRL	U	1.0	1.47	1.0
2-Butanone (MEK)	<SRL	U	1.0	1.44	1.09	J	1.0	1.47	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Hexane	0.48	J	1.0	0.72	2.46		1.0	0.74	0.5
Chloroform	<SRL	U	1.0	0.72	0.18	J	1.0	0.74	0.5
Ethyl Acetate	<SRL	U	1.0	0.72	0.85		1.0	0.74	0.5
Tetrahydrofuran	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.72	0.07	J	1.0	0.74	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 131119
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 08/21/2013
DATE REPORTED : 08/22/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 K-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U-2 W2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	131119-65684				131119-65685				
Date Sampled	08/14/2013				08/14/2013				
Date Analyzed	08/21/2013				08/21/2013				
Can Dilution Factor	1.44				1.47				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	0.29	J	1.0	0.72	0.59	J	1.0	0.74	0.5
Carbon Tetrachloride	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Cyclohexane	<SRL	U	1.0	0.72	0.47	J	1.0	0.74	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Bromodichloromethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
1,4-Dioxane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
2,2,4-Trimethylpentane	0.32	J	1.0	0.72	1.53		1.0	0.74	0.5
Heptane	0.14	J	1.0	0.72	0.83		1.0	0.74	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Toluene	0.75		1.0	0.72	2.76		1.0	0.74	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Dibromochloromethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Chlorobenzene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Ethylbenzene	0.14	J	1.0	0.72	0.44	J	1.0	0.74	0.5
m & p-Xylenes	0.48	J	1.0	1.44	1.28	J	1.0	1.47	1.0
Bromoform	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Styrene	<SRL	U	1.0	0.72	0.21	J	1.0	0.74	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
o-Xylene	0.20	J	1.0	0.72	0.53	J	1.0	0.74	0.5
4-Ethyltoluene	<SRL	U	1.0	0.72	0.15	J	1.0	0.74	0.5
1,3,5-Trimethylbenzene	<SRL	U	1.0	0.72	0.13	J	1.0	0.74	0.5
1,2,4-Trimethylbenzene	0.17	J	1.0	0.72	0.43	J	1.0	0.74	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	0.72	0.07	J	1.0	0.74	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.72	<SRL	U	1.0	0.74	0.5
BFB-Surrogate Std. % Recovery	105%				102%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratoy Director

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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 131119
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 08/21/2013
DATE REPORTED : 08/22/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 K-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U-2 W2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	131119-65684				131119-65685				
Date Sampled	08/14/2013				08/14/2013				
Date Analyzed	08/21/2013				08/21/2013				
Can Dilution Factor	1.44				1.47				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	1.1	J	1.0	2.5	1.4	J	1.0	2.6	1.8
Propene	1.2	J	1.0	2.5	2.6		1.0	2.5	1.7
Dichlorodifluoromethane	3.0	J	1.0	3.6	3.1	J	1.0	3.6	2.5
Chloromethane	1.0	J	1.0	1.5	1.0	J	1.0	1.5	1.0
Dichlorotetrafluoroethane	<SRL	U	1.0	5.0	<SRL	U	1.0	5.2	3.5
Vinyl Chloride	<SRL	U	1.0	1.8	<SRL	U	1.0	1.9	1.3
Methanol	8.6	J	1.0	9.4	12.4		1.0	9.7	6.6
1,3-Butadiene	<SRL	U	1.0	1.6	<SRL	U	1.0	1.6	1.1
Bromomethane	<SRL	U	1.0	2.8	<SRL	U	1.0	2.9	1.9
Chloroethane	<SRL	U	1.0	1.9	<SRL	U	1.0	1.9	1.3
Dichlorofluoromethane	<SRL	U	1.0	3.0	<SRL	U	1.0	3.1	2.1
Ethanol	9.9		1.0	5.4	36.3		1.0	5.6	3.8
Vinyl Bromide	<SRL	U	1.0	3.1	<SRL	U	1.0	3.2	2.2
Acetone	14.8		1.0	6.8	17.8		1.0	7.0	4.8
Trichlorofluoromethane	1.7	J	1.0	4.0	1.7	J	1.0	4.1	2.8
2-Propanol (IPA)	5.6	J	1.0	7.1	22.7		1.0	7.2	4.9
Acrylonitrile	<SRL	U	1.0	3.1	<SRL	U	1.0	3.2	2.2
1,1-Dichloroethene	<SRL	U	1.0	2.9	<SRL	U	1.0	2.9	2.0
Methylene Chloride (DCM)	<SRL	U	1.0	5.0	<SRL	U	1.0	5.1	3.5
Allyl Chloride	<SRL	U	1.0	2.3	<SRL	U	1.0	2.3	1.6
Carbon Disulfide	NR	U	1.0	2.2	NR	U	1.0	2.3	1.6
Trichlorotrifluoroethane	0.7	J	1.0	5.5	0.8	J	1.0	5.6	3.8
trans-1,2-Dichloroethene	<SRL	U	1.0	2.9	<SRL	U	1.0	2.9	2.0
1,1-Dichloroethane	<SRL	U	1.0	2.9	<SRL	U	1.0	3.0	2.0
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	2.6	<SRL	U	1.0	2.7	1.8
Vinyl Acetate	<SRL	U	1.0	5.1	<SRL	U	1.0	5.2	3.5
2-Butanone (MEK)	<SRL	U	1.0	4.2	3.2	J	1.0	4.3	2.9
cis-1,2-Dichloroethene	<SRL	U	1.0	2.9	<SRL	U	1.0	2.9	2.0
Hexane	1.7	J	1.0	2.5	8.7		1.0	2.6	1.8
Chloroform	<SRL	U	1.0	3.5	0.9	J	1.0	3.6	2.4
Ethyl Acetate	<SRL	U	1.0	2.6	3.1		1.0	2.7	1.8
Tetrahydrofuran	<SRL	U	1.0	2.1	<SRL	U	1.0	2.2	1.5
1,2-Dichloroethane	<SRL	U	1.0	2.9	0.3	J	1.0	3.0	2.0
1,1,1-Trichloroethane	<SRL	U	1.0	3.9	<SRL	U	1.0	4.0	2.7

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 131119
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 08/21/2013
DATE REPORTED : 08/22/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 K-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U-2 W2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	131119-65684				131119-65685				
Date Sampled	08/14/2013				08/14/2013				
Date Analyzed	08/21/2013				08/21/2013				
Can Dilution Factor	1.44				1.47				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	0.9	J	1.0	2.3	1.9	J	1.0	2.4	1.6
Carbon Tetrachloride	<SRL	U	1.0	4.5	<SRL	U	1.0	4.6	3.1
Cyclohexane	<SRL	U	1.0	2.5	1.6	J	1.0	2.5	1.7
1,2-Dichloropropane	<SRL	U	1.0	3.3	<SRL	U	1.0	3.4	2.3
Bromodichloromethane	<SRL	U	1.0	4.8	<SRL	U	1.0	4.9	3.4
1,4-Dioxane	<SRL	U	1.0	2.6	<SRL	U	1.0	2.7	1.8
Trichloroethene (TCE)	<SRL	U	1.0	3.9	<SRL	U	1.0	4.0	2.7
2,2,4-Trimethylpentane	1.5	J	1.0	3.4	7.2		1.0	3.4	2.3
Heptane	0.6	J	1.0	2.9	3.4		1.0	3.0	2.0
cis-1,3-Dichloropropene	<SRL	U	1.0	3.3	<SRL	U	1.0	3.3	2.3
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	2.9	<SRL	U	1.0	3.0	2.0
trans-1,3-Dichloropropene	<SRL	U	1.0	3.3	<SRL	U	1.0	3.3	2.3
1,1,2-Trichloroethane	<SRL	U	1.0	3.9	<SRL	U	1.0	4.0	2.7
Toluene	2.8		1.0	2.7	10.4		1.0	2.8	1.9
2-Hexanone (MBK)	<SRL	U	1.0	2.9	<SRL	U	1.0	3.0	2.0
Dibromochloromethane	<SRL	U	1.0	6.1	<SRL	U	1.0	6.3	4.3
1,2-Dibromoethane	<SRL	U	1.0	5.5	<SRL	U	1.0	5.7	3.8
Tetrachloroethene (PCE)	<SRL	U	1.0	4.9	<SRL	U	1.0	5.0	3.4
Chlorobenzene	<SRL	U	1.0	3.3	<SRL	U	1.0	3.4	2.3
Ethylbenzene	0.6	J	1.0	3.1	1.9	J	1.0	3.2	2.2
m & p-Xylenes	2.1	J	1.0	6.3	5.6	J	1.0	6.4	4.3
Bromoform	<SRL	U	1.0	7.4	<SRL	U	1.0	7.6	5.2
Styrene	<SRL	U	1.0	3.1	0.9	J	1.0	3.1	2.1
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	4.9	<SRL	U	1.0	5.1	3.4
o-Xylene	0.9	J	1.0	3.1	2.3	J	1.0	3.2	2.2
4-Ethyltoluene	<SRL	U	1.0	3.5	0.7	J	1.0	3.6	2.5
1,3,5-Trimethylbenzene	<SRL	U	1.0	3.5	0.7	J	1.0	3.6	2.5
1,2,4-Trimethylbenzene	0.9	J	1.0	3.5	2.1	J	1.0	3.6	2.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	3.7	<SRL	U	1.0	3.8	2.6
1,3-Dichlorobenzene	<SRL	U	1.0	4.3	<SRL	U	1.0	4.4	3.0
1,4-Dichlorobenzene	<SRL	U	1.0	4.3	0.4	J	1.0	4.4	3.0
1,2-Dichlorobenzene	<SRL	U	1.0	4.3	<SRL	U	1.0	4.4	3.0
1,2,4-Trichlorobenzene	<SRL	U	1.0	5.3	<SRL	U	1.0	5.5	3.7
Hexachlorobutadiene	<SRL	U	1.0	7.7	<SRL	U	1.0	7.9	5.3
BFB-Surrogate Std. % Recovery	105%				102%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratoy Director

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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 131119
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 08/21/2013
DATE REPORTED : 08/22/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W6E-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 W6W-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	131119-65686				131119-65687				
Date Sampled	08/14/2013				08/14/2013				
Date Analyzed	08/21/2013				08/21/2013				
Can Dilution Factor	1.41				1.43				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.31	J	1.0	0.71	0.36	J	1.0	0.71	0.5
Propene	0.90	J	1.0	1.41	1.20	J	1.0	1.43	1.0
Dichlorodifluoromethane	0.62	J	1.0	0.71	0.63	J	1.0	0.71	0.5
Chloromethane	0.44	J	1.0	0.71	0.47	J	1.0	0.71	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Vinyl Chloride	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Methanol	5.87	J	1.0	7.05	13.5		1.0	7.14	5.0
1,3-Butadiene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Bromomethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Chloroethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Ethanol	3.40		1.0	2.82	5.56		1.0	2.86	2.0
Vinyl Bromide	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Acetone	4.99		1.0	2.82	6.50		1.0	2.86	2.0
Trichlorofluoromethane	0.28	J	1.0	0.71	0.31	J	1.0	0.71	0.5
2-Propanol (IPA)	0.38	J	1.0	2.82	0.93	J	1.0	2.86	2.0
Acrylonitrile	<SRL	U	1.0	1.41	<SRL	U	1.0	1.43	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	1.41	<SRL	U	1.0	1.43	1.0
Allyl Chloride	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Carbon Disulfide	NR	U	1.0	0.71	NR	U	1.0	0.71	0.5
Trichlorotrifluoroethane	0.08	J	1.0	0.71	0.09	J	1.0	0.71	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Vinyl Acetate	<SRL	U	1.0	1.41	<SRL	U	1.0	1.43	1.0
2-Butanone (MEK)	<SRL	U	1.0	1.41	0.80	J	1.0	1.43	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Hexane	0.39	J	1.0	0.71	0.47	J	1.0	0.71	0.5
Chloroform	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Ethyl Acetate	0.10	J	1.0	0.71	0.16	J	1.0	0.71	0.5
Tetrahydrofuran	<SRL	U	1.0	0.71	0.37	J	1.0	0.71	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5

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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 131119
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 08/21/2013
DATE REPORTED : 08/22/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W6E-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 W6W-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	131119-65686				131119-65687				
Date Sampled	08/14/2013				08/14/2013				
Date Analyzed	08/21/2013				08/21/2013				
Can Dilution Factor	1.41				1.43				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	0.27	J	1.0	0.71	0.57	J	1.0	0.71	0.5
Carbon Tetrachloride	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Cyclohexane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Bromodichloromethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,4-Dioxane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
2,2,4-Trimethylpentane	0.25	J	1.0	0.71	0.29	J	1.0	0.71	0.5
Heptane	0.11	J	1.0	0.71	0.14	J	1.0	0.71	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Toluene	0.66	J	1.0	0.71	0.89		1.0	0.71	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Dibromochloromethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Chlorobenzene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Ethylbenzene	0.13	J	1.0	0.71	0.19	J	1.0	0.71	0.5
m & p-Xylenes	0.31	J	1.0	1.41	0.71	J	1.0	1.43	1.0
Bromoform	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Styrene	<SRL	U	1.0	0.71	0.11	J	1.0	0.71	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
o-Xylene	0.11	J	1.0	0.71	0.21	J	1.0	0.71	0.5
4-Ethyltoluene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,3,5-Trimethylbenzene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,2,4-Trimethylbenzene	0.07	J	1.0	0.71	0.16	J	1.0	0.71	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.71	0.5
BFB-Surrogate Std. % Recovery	102%				101%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 131119
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 08/21/2013
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VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W6E-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 W6W-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	131119-65686				131119-65687				
Date Sampled	08/14/2013				08/14/2013				
Date Analyzed	08/21/2013				08/21/2013				
Can Dilution Factor	1.41				1.43				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	1.1	J	1.0	2.5	1.3	J	1.0	2.5	1.8
Propene	1.6	J	1.0	2.4	2.1	J	1.0	2.5	1.7
Dichlorodifluoromethane	3.1	J	1.0	3.5	3.1	J	1.0	3.5	2.5
Chloromethane	0.9	J	1.0	1.5	1.0	J	1.0	1.5	1.0
Dichlorotetrafluoroethane	<SRL	U	1.0	4.9	<SRL	U	1.0	5.0	3.5
Vinyl Chloride	<SRL	U	1.0	1.8	<SRL	U	1.0	1.8	1.3
Methanol	7.7	J	1.0	9.2	17.7		1.0	9.4	6.6
1,3-Butadiene	<SRL	U	1.0	1.6	<SRL	U	1.0	1.6	1.1
Bromomethane	<SRL	U	1.0	2.7	<SRL	U	1.0	2.8	1.9
Chloroethane	<SRL	U	1.0	1.9	<SRL	U	1.0	1.9	1.3
Dichlorofluoromethane	<SRL	U	1.0	3.0	<SRL	U	1.0	3.0	2.1
Ethanol	6.4		1.0	5.3	10.5		1.0	5.4	3.8
Vinyl Bromide	<SRL	U	1.0	3.1	<SRL	U	1.0	3.1	2.2
Acetone	11.9		1.0	6.7	15.4		1.0	6.8	4.8
Trichlorofluoromethane	1.6	J	1.0	4.0	1.8	J	1.0	4.0	2.8
2-Propanol (IPA)	0.9	J	1.0	6.9	2.3	J	1.0	7.0	4.9
Acrylonitrile	<SRL	U	1.0	3.1	<SRL	U	1.0	3.1	2.2
1,1-Dichloroethene	<SRL	U	1.0	2.8	<SRL	U	1.0	2.8	2.0
Methylene Chloride (DCM)	<SRL	U	1.0	4.9	<SRL	U	1.0	5.0	3.5
Allyl Chloride	<SRL	U	1.0	2.2	<SRL	U	1.0	2.2	1.6
Carbon Disulfide	NR	U	1.0	2.2	NR	U	1.0	2.2	1.6
Trichlorotrifluoroethane	0.7	J	1.0	5.4	0.7	J	1.0	5.5	3.8
trans-1,2-Dichloroethene	<SRL	U	1.0	2.8	<SRL	U	1.0	2.8	2.0
1,1-Dichloroethane	<SRL	U	1.0	2.9	<SRL	U	1.0	2.9	2.0
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	2.5	<SRL	U	1.0	2.6	1.8
Vinyl Acetate	<SRL	U	1.0	5.0	<SRL	U	1.0	5.0	3.5
2-Butanone (MEK)	<SRL	U	1.0	4.2	2.4	J	1.0	4.2	2.9
cis-1,2-Dichloroethene	<SRL	U	1.0	2.8	<SRL	U	1.0	2.8	2.0
Hexane	1.4	J	1.0	2.5	1.7	J	1.0	2.5	1.8
Chloroform	<SRL	U	1.0	3.4	<SRL	U	1.0	3.5	2.4
Ethyl Acetate	0.4	J	1.0	2.5	0.6	J	1.0	2.6	1.8
Tetrahydrofuran	<SRL	U	1.0	2.1	1.1	J	1.0	2.1	1.5
1,2-Dichloroethane	<SRL	U	1.0	2.9	<SRL	U	1.0	2.9	2.0
1,1,1-Trichloroethane	<SRL	U	1.0	3.8	<SRL	U	1.0	3.9	2.7

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 131119
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 08/21/2013
DATE REPORTED : 08/22/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W6E-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 W6W-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	131119-65686				131119-65687				
Date Sampled	08/14/2013				08/14/2013				
Date Analyzed	08/21/2013				08/21/2013				
Can Dilution Factor	1.41				1.43				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	0.9	J	1.0	2.3	1.8	J	1.0	2.3	1.6
Carbon Tetrachloride	<SRL	U	1.0	4.4	<SRL	U	1.0	4.5	3.1
Cyclohexane	<SRL	U	1.0	2.4	<SRL	U	1.0	2.5	1.7
1,2-Dichloropropane	<SRL	U	1.0	3.3	<SRL	U	1.0	3.3	2.3
Bromodichloromethane	<SRL	U	1.0	4.7	<SRL	U	1.0	4.8	3.4
1,4-Dioxane	<SRL	U	1.0	2.5	<SRL	U	1.0	2.6	1.8
Trichloroethene (TCE)	<SRL	U	1.0	3.8	<SRL	U	1.0	3.8	2.7
2,2,4-Trimethylpentane	1.2	J	1.0	3.3	1.3	J	1.0	3.3	2.3
Heptane	0.5	J	1.0	2.9	0.6	J	1.0	2.9	2.0
cis-1,3-Dichloropropene	<SRL	U	1.0	3.2	<SRL	U	1.0	3.2	2.3
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	2.9	<SRL	U	1.0	2.9	2.0
trans-1,3-Dichloropropene	<SRL	U	1.0	3.2	<SRL	U	1.0	3.2	2.3
1,1,2-Trichloroethane	<SRL	U	1.0	3.8	<SRL	U	1.0	3.9	2.7
Toluene	2.5	J	1.0	2.7	3.3		1.0	2.7	1.9
2-Hexanone (MBK)	<SRL	U	1.0	2.9	<SRL	U	1.0	2.9	2.0
Dibromochloromethane	<SRL	U	1.0	6.0	<SRL	U	1.0	6.1	4.3
1,2-Dibromoethane	<SRL	U	1.0	5.4	<SRL	U	1.0	5.5	3.8
Tetrachloroethene (PCE)	<SRL	U	1.0	4.8	<SRL	U	1.0	4.8	3.4
Chlorobenzene	<SRL	U	1.0	3.2	<SRL	U	1.0	3.3	2.3
Ethylbenzene	0.6	J	1.0	3.1	0.8	J	1.0	3.1	2.2
m & p-Xylenes	1.4	J	1.0	6.1	3.1	J	1.0	6.2	4.3
Bromoform	<SRL	U	1.0	7.3	<SRL	U	1.0	7.4	5.2
Styrene	<SRL	U	1.0	3.0	0.5	J	1.0	3.0	2.1
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	4.8	<SRL	U	1.0	4.9	3.4
o-Xylene	0.5	J	1.0	3.1	0.9	J	1.0	3.1	2.2
4-Ethyltoluene	<SRL	U	1.0	3.5	<SRL	U	1.0	3.5	2.5
1,3,5-Trimethylbenzene	<SRL	U	1.0	3.5	<SRL	U	1.0	3.5	2.5
1,2,4-Trimethylbenzene	0.4	J	1.0	3.5	0.8	J	1.0	3.5	2.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	3.7	<SRL	U	1.0	3.7	2.6
1,3-Dichlorobenzene	<SRL	U	1.0	4.2	<SRL	U	1.0	4.3	3.0
1,4-Dichlorobenzene	<SRL	U	1.0	4.2	<SRL	U	1.0	4.3	3.0
1,2-Dichlorobenzene	<SRL	U	1.0	4.2	<SRL	U	1.0	4.3	3.0
1,2,4-Trichlorobenzene	<SRL	U	1.0	5.2	<SRL	U	1.0	5.3	3.7
Hexachlorobutadiene	<SRL	U	1.0	7.5	<SRL	U	1.0	7.6	5.3
BFB-Surrogate Std. % Recovery	102%				101%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratoy Director

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TO-15 QC REPORT

ANALYSIS DATE : 08/21/2013
ANALYST : JJG

INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS071613-02

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 07/22/2013 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC**
4-BFB (surrogate standard)	10.00	9.97	100
Chlorodifluoromethane	10.10	10.05	100
Propene	11.00	10.92	99
Dichlorodifluoromethane	9.80	10.10	103
Chloromethane	10.10	9.45	94
Dichlorotetrafluoroethane	10.10	9.97	99
Vinyl Chloride	10.20	9.81	96
Methanol	4.90	4.90	100
1,3-Butadiene	10.50	9.91	94
Bromomethane	10.20	8.52	84
Chloroethane	10.00	10.72	107
Dichlorofluoromethane	10.00	10.25	103
Ethanol	9.80	10.60	108
Vinyl Bromide	10.20	10.39	102
Acetone	10.80	9.95	92
Trichlorofluoromethane	10.10	11.18	111
2-Propanol (IPA)	11.00	10.77	98
Acrylonitrile	10.50	10.90	104
1,1-Dichloroethene	10.50	10.32	98
Methylene Chloride (DCM)	10.40	9.76	94
Allyl Chloride	11.00	10.30	94
Carbon Disulfide	10.50	9.62	92
Trichlorotrifluoroethane	10.40	10.46	101
trans-1,2-Dichloroethene	10.40	10.46	101
1,1-Dichloroethane	10.40	10.44	100
Methyl Tert Butyl Ether (MTBE)	10.60	11.97	113
Vinyl Acetate	9.70	9.79	101
2-Butanone (MEK)	10.60	10.75	101
cis-1,2-Dichloroethene	10.60	10.51	99
Hexane	10.70	10.62	99
Chloroform	10.60	11.02	104
Ethyl Acetate	11.00	11.35	103
Tetrahydrofuran	10.80	10.61	98
1,2-Dichloroethane	10.40	11.20	108
1,1,1-Trichloroethane	10.50	11.16	106

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ANALYSIS DATE : 08/21/2013
ANALYST : JJG
INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS071613-02

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 07/22/2013 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC**
Benzene	10.50	10.00	95
Carbon Tetrachloride	10.10	10.47	104
Cyclohexane	10.50	9.84	94
1,2-Dichloropropane	10.50	9.95	95
Bromodichloromethane	10.30	10.18	99
1,4-Dioxane	10.30	9.50	92
Trichloroethene (TCE)	10.30	10.07	98
2,2,4-Trimethylpentane	10.90	10.95	100
Heptane	10.70	10.65	100
cis-1,3-Dichloropropene	11.00	10.83	98
4-Methyl-2-pentanone (MiBK)	10.30	10.41	101
trans-1,3-Dichloropropene	9.80	9.57	98
1,1,2-Trichloroethane	10.60	10.33	97
Toluene	10.60	10.97	103
2-Hexanone (MBK)	10.80	10.98	102
Dibromochloromethane	11.00	11.57	105
1,2-Dibromoethane	10.40	10.27	99
Tetrachloroethene (PCE)	10.40	10.58	102
Chlorobenzene	10.60	10.34	98
Ethylbenzene	10.50	10.38	99
m & p-Xylenes	20.60	19.94	97
Bromoform	10.30	9.97	97
Styrene	10.40	10.23	98
1,1,2,2-Tetrachloroethane	10.60	10.16	96
o-Xylene	10.60	10.18	96
4-Ethyltoluene	10.40	10.12	97
1,3,5-Trimethylbenzene	10.20	9.71	95
1,2,4-Trimethylbenzene	10.20	10.08	99
Benzyl Chloride (a-Chlorotoluene)	10.00	10.03	100
1,3-Dichlorobenzene	10.00	9.90	99
1,4-Dichlorobenzene	10.00	9.68	97
1,2-Dichlorobenzene	10.00	9.59	96
1,2,4-Trichlorobenzene	9.30	9.20	99
Hexachlorobutadiene	9.80	10.08	103

* - %REC should be 70-130%

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

CLIENT ID	**: Laboratory Control Spike**	**DATE ANALYZED**	**: 08/21/2013**
AAC ID	**: LCS/LCSD**	**DATE REPORTED**	**: 08/21/2013**
MEDIA	**: Air**	**UNITS**	**: ppbv**

TO-15 Laboratory Control Spike Recovery

Compound	Sample Conc.	Spike Added	Spike Res	Dup Spike Res	Spike % Rec *	Spike Dup % Rec *	RPD** %
1,1-Dichloroethene	0.0	10.50	10.32	9.88	98	94	4.4
Methylene Chloride (DCM)	0.0	10.40	9.76	9.47	94	91	3.0
Benzene	0.0	10.50	10.00	10.19	95	97	1.9
Trichloroethene (TCE)	0.0	10.30	10.07	10.22	98	99	1.5
Toluene	0.0	10.60	10.97	10.41	103	98	5.2
Tetrachloroethene (PCE)	0.0	10.40	10.58	10.28	102	99	2.9
Chlorobenzene	0.0	10.60	10.34	10.46	98	99	1.2
Ethylbenzene	0.0	10.50	10.38	10.17	99	97	2.0
m & p-Xylenes	0.0	20.60	19.94	20.28	97	98	1.7
o-Xylene	0.0	10.60	10.18	10.51	96	99	3.2

* Must be 70-130%

** Must be < 25%

Marcus Hueppe
Laboratory Director

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Method Blank Analysis Report

MATRIX	**: AIR**	**ANALYSIS DATE**	**: 08/21/2013**
UNITS	**: ppbv**	**REPORT DATE**	**: 08/21/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 082113	RL
Chlorodifluoromethane	<RL	0.5
Propene	<RL	1.0
Dichlorodifluoromethane	<RL	0.5
Chloromethane	<RL	0.5
Dichlorotetrafluoroethane	<RL	0.5
Vinyl Chloride	<RL	0.5
Methanol	<RL	5.0
1,3-Butadiene	<RL	0.5
Bromomethane	<RL	0.5
Chloroethane	<RL	0.5
Dichlorofluoromethane	<RL	0.5
Ethanol	<RL	2.0
Vinyl Bromide	<RL	0.5
Acetone	<RL	2.0
Trichlorofluoromethane	<RL	0.5
2-Propanol (IPA)	<RL	2.0
Acrylonitrile	<RL	1.0
1,1-Dichloroethene	<RL	0.5
Methylene Chloride (DCM)	<RL	1.0
Allyl Chloride	<RL	0.5
Carbon Disulfide	<RL	0.5
Trichlorotrifluoroethane	<RL	0.5
trans-1,2-Dichloroethene	<RL	0.5
1,1-Dichloroethane	<RL	0.5
Methyl Tert Butyl Ether (MTBE)	<RL	0.5
Vinyl Acetate	<RL	1.0
2-Butanone (MEK)	<RL	1.0
cis-1,2-Dichloroethene	<RL	0.5
Hexane	<RL	0.5
Chloroform	<RL	0.5
Ethyl Acetate	<RL	0.5
Tetrahydrofuran	<RL	0.5
1,2-Dichloroethane	<RL	0.5
1,1,1-Trichloroethane	<RL	0.5
Benzene	<RL	0.5
Carbon Tetrachloride	<RL	0.5
Cyclohexane	<RL	0.5
1,2-Dichloropropane	<RL	0.5
Bromodichloromethane	<RL	0.5
1,4-Dioxane	<RL	0.5
Trichloroethene (TCE)	<RL	0.5
2,2,4-Trimethylpentane	<RL	0.5
Heptane	<RL	0.5

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Method Blank Analysis Report

MATRIX	**: AIR**	**ANALYSIS DATE**	**: 08/21/2013**
UNITS	**: ppbv**	**REPORT DATE**	**: 08/21/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 082113	RL
cis-1,3-Dichloropropene	<RL	0.5
4-Methyl-2-pentanone (MiBK)	<RL	0.5
trans-1,3-Dichloropropene	<RL	0.5
1,1,2-Trichloroethane	<RL	0.5
Toluene	<RL	0.5
2-Hexanone (MBK)	<RL	0.5
Dibromochloromethane	<RL	0.5
1,2-Dibromoethane	<RL	0.5
Tetrachloroethene (PCE)	<RL	0.5
Chlorobenzene	<RL	0.5
Ethylbenzene	<RL	0.5
m & p-Xylenes	<RL	1.0
Bromoform	<RL	0.5
Styrene	<RL	0.5
1,1,2,2-Tetrachloroethane	<RL	0.5
o-Xylene	<RL	0.5
4-Ethyltoluene	<RL	0.5
1,3,5-Trimethylbenzene	<RL	0.5
1,2,4-Trimethylbenzene	<RL	0.5
Benzyl Chloride (a-Chlorotoluene)	<RL	0.5
1,3-Dichlorobenzene	<RL	0.5
1,4-Dichlorobenzene	<RL	0.5
1,2-Dichlorobenzene	<RL	0.5
1,2,4-Trichlorobenzene	<RL	0.5
Hexachlorobutadiene	<RL	0.5
System Monitoring Compounds		
BFB-Surrogate Std. % Recovery	101%	--

RL - Reporting Limit

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

AAC ID	**: 131115-65649**	**DATE ANALYZED**	**: 08/21/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 08/21/2013**
		UNITS	**: ppbv**

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Chlorodifluoromethane	<SRL	<SRL	0.0
Propene	<SRL	<SRL	0.0
Dichlorodifluoromethane	<SRL	<SRL	0.0
Chloromethane	<SRL	<SRL	0.0
Dichlorotetrafluoroethane	<SRL	<SRL	0.0
Vinyl Chloride	<SRL	<SRL	0.0
Methanol	<SRL	<SRL	0.0
1,3-Butadiene	<SRL	<SRL	0.0
Bromomethane	<SRL	<SRL	0.0
Chloroethane	<SRL	<SRL	0.0
Dichlorofluoromethane	<SRL	<SRL	0.0
Ethanol	4.52	4.47	1.1
Vinyl Bromide	<SRL	<SRL	0.0
Acetone	3.39	3.39	0.0
Trichlorofluoromethane	<SRL	<SRL	0.0
2-Propanol (IPA)	<SRL	<SRL	0.0
Acrylonitrile	<SRL	<SRL	0.0
1,1-Dichloroethene	<SRL	<SRL	0.0
Methylene Chloride (DCM)	<SRL	<SRL	0.0
Allyl Chloride	<SRL	<SRL	0.0
Carbon Disulfide	<SRL	<SRL	0.0
Trichlorotrifluoroethane	<SRL	<SRL	0.0
trans-1,2-Dichloroethene	<SRL	<SRL	0.0
1,1-Dichloroethane	<SRL	<SRL	0.0
Methyl Tert Butyl Ether (MTBE)	<SRL	<SRL	0.0
Vinyl Acetate	<SRL	<SRL	0.0
2-Butanone (MEK)	<SRL	<SRL	0.0
cis-1,2-Dichloroethene	<SRL	<SRL	0.0
Hexane	<SRL	<SRL	0.0
Chloroform	<SRL	<SRL	0.0
Ethyl Acetate	<SRL	<SRL	0.0
Tetrahydrofuran	<SRL	<SRL	0.0
1,2-Dichloroethane	<SRL	<SRL	0.0
1,1,1-Trichloroethane	<SRL	<SRL	0.0
Benzene	<SRL	<SRL	0.0
Carbon Tetrachloride	<SRL	<SRL	0.0

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Quality Control/Quality Assurance Report

AAC ID	**: 131115-65649**	**DATE ANALYZED**	**: 08/21/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 08/21/2013**
		UNITS	**: ppbv**

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Cyclohexane	<SRL	<SRL	0.0
1,2-Dichloropropane	<SRL	<SRL	0.0
Bromodichloromethane	<SRL	<SRL	0.0
1,4-Dioxane	<SRL	<SRL	0.0
Trichloroethene (TCE)	<SRL	<SRL	0.0
2,2,4-Trimethylpentane	<SRL	<SRL	0.0
Heptane	<SRL	<SRL	0.0
cis-1,3-Dichloropropene	<SRL	<SRL	0.0
4-Methyl-2-pentanone (MiBK)	<SRL	<SRL	0.0
trans-1,3-Dichloropropene	<SRL	<SRL	0.0
1,1,2-Trichloroethane	<SRL	<SRL	0.0
Toluene	<SRL	<SRL	0.0
2-Hexanone (MBK)	<SRL	<SRL	0.0
Dibromochloromethane	<SRL	<SRL	0.0
1,2-Dibromoethane	<SRL	<SRL	0.0
Tetrachloroethene (PCE)	<SRL	<SRL	0.0
Chlorobenzene	<SRL	<SRL	0.0
Ethylbenzene	<SRL	<SRL	0.0
m & p-Xylenes	<SRL	<SRL	0.0
Bromoform	<SRL	<SRL	0.0
Styrene	<SRL	<SRL	0.0
1,1,2,2-Tetrachloroethane	<SRL	<SRL	0.0
o-Xylene	<SRL	<SRL	0.0
4-Ethyltoluene	<SRL	<SRL	0.0
1,3,5-Trimethylbenzene	<SRL	<SRL	0.0
1,2,4-Trimethylbenzene	<SRL	<SRL	0.0
Benzyl Chloride (a-Chlorotoluene)	<SRL	<SRL	0.0
1,3-Dichlorobenzene	<SRL	<SRL	0.0
1,4-Dichlorobenzene	<SRL	<SRL	0.0
1,2-Dichlorobenzene	<SRL	<SRL	0.0
1,2,4-Trichlorobenzene	<SRL	<SRL	0.0
Hexachlorobutadiene	<SRL	<SRL	0.0
System Monitoring Compounds			
BFB-Surrogate Std. % Recovery	104%	101%	2.1

SRL - Sample Reporting Limit

Marcus Hueppe
Laboratory Director

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TO-15 RAW DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211309.D
Acq On : 21 Aug 2013 15:27
Operator : JJG
Sample : 131119-65684 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 21 16:37:02 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	156083	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	882684	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.267	117	814312	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	491216	10.49 ppbv	0.00
Spiked Amount 10.000			Recovery = 104.90%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	8911	0.22 ppbv #	96
3) Propene	4.799	42	6004	0.50 ppbv #	83
4) Dichlorodifluoromethane	4.908	85	23669	0.42 ppbv	99
5) Chloromethane	5.288	52	2489	0.32 ppbv #	55
6) Dichlorotetrafluoroethane	5.324	135	318	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.903	31	43013m	4.54 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	6.718	66	124	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.134	45	37947m	3.63 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	51161m	4.32 ppbv	
16) Trichlorofluoromethane	7.659	103	6680	0.21 ppbv #	97
17) 2-Propanol(IPA)	8.220	45	60754m	1.59 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	8.998	103	1661	0.06 ppbv #	88
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	0.000		0	N.D. d	
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.458	86	1569	0.33 ppbv	85
31) Chloroform	12.493	83	1583	N.D.	
32) EthylAcetate	12.100	43	2482	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211309.D
Acq On : 21 Aug 2013 15:27
Operator : JJG
Sample : 131119-65684 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 21 16:37:02 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

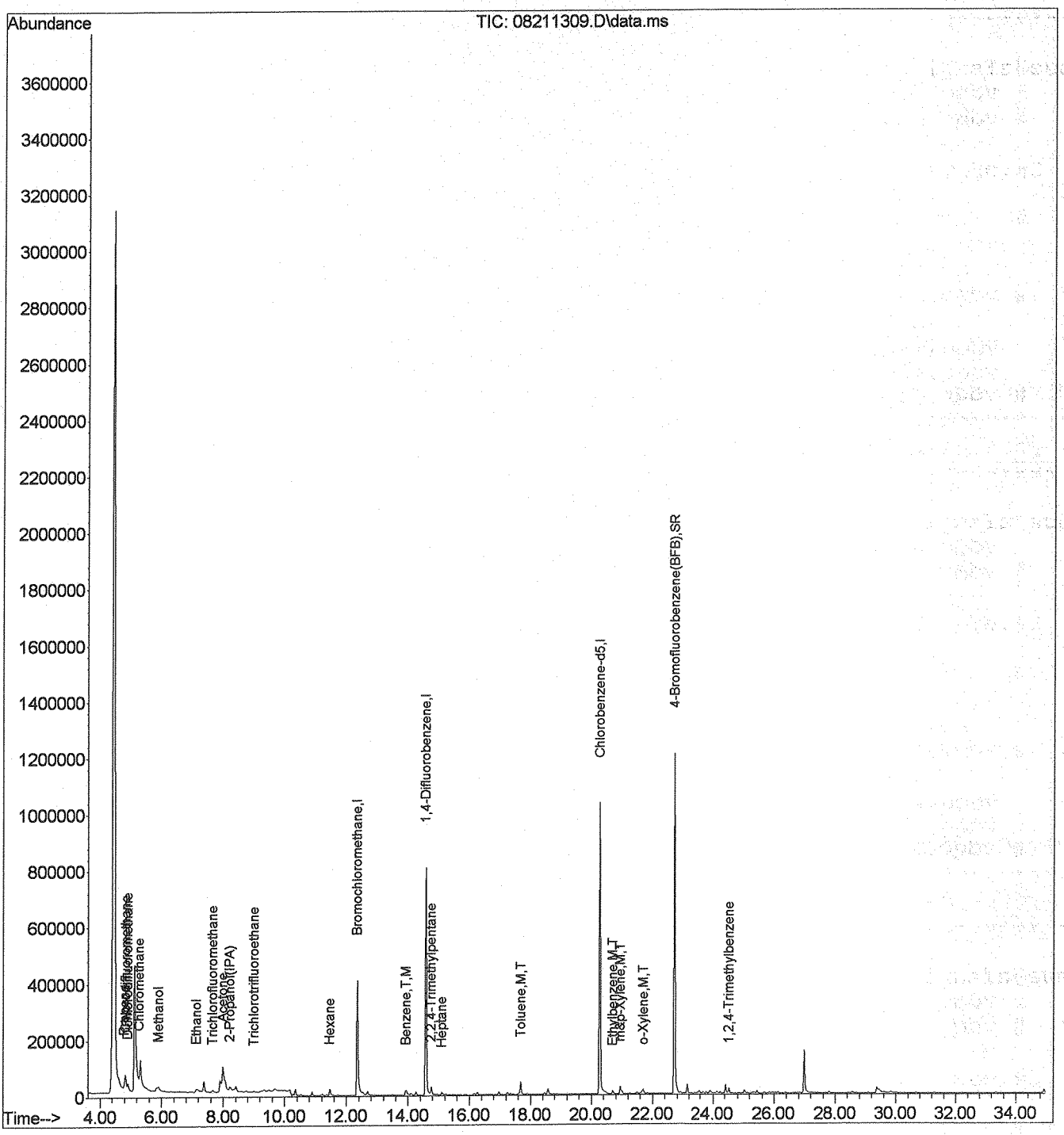
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.796	72	128	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	15403	0.20 ppbv #	90
38) CarbonTetrachloride	0.000		0	N.D. d	
39) Cyclohexane	0.000		0	N.D. d	
40) 1,2-Dichloropropane	0.000		0	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.757	57	32807	0.22 ppbv	96
45) Heptane	15.096	71	2388	0.10 ppbv	82
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.576	58	183	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	256	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	47724	0.52 ppbv #	98
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	20.285	114	355	N.D.	
57) Ethylbenzene	20.695	91	11876	0.10 ppbv	94
58) m&p-Xylene	20.945	106	14360	0.33 ppbv #	90
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	1476	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	12634	0.14 ppbv #	92
64) 4-Ethyltoluene	23.691	120	1335	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	1898	N.D.	
66) 1,2,4-Trimethylbenzene	24.529	120	6039	0.12 ppbv #	91
67) BenzylChloride(a-Chlor...	25.296	91	1235	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	267	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	367	N.D.	
72) Hexachlorobutadiene	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211309.D
Acq On : 21 Aug 2013 15:27
Operator : JJG
Sample : 131119-65684 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 21 16:37:02 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



08/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211310.D
Acq On : 21 Aug 2013 16:15
Operator : JJG
Sample : 131119-65685 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 16:53:24 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	157915	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	866912	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.267	117	837686	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	488920	10.15 ppbv	0.00
Spiked Amount 10.000				Recovery = 101.50%	
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	10400	0.26 ppbv #	98
3) Propene	4.799	42	12715	1.04 ppbv #	80
4) Dichlorodifluoromethane	4.908	85	23804	0.42 ppbv	99
5) Chloromethane	5.306	52	2512	0.32 ppbv #	20
6) Dichlorotetrafluoroethane	5.324	135	353	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	61527m	6.42 ppbv	
9) 1,3-Butadiene	5.885	54	115	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D. d	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.061	45	138151m	13.06 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	60850m	5.08 ppbv	
16) Trichlorofluoromethane	7.659	103	6606	0.20 ppbv #	97
17) 2-Propanol(IPA)	8.165	45	241255m	6.26 ppbv	
18) Acrylonitrile	8.980	52	655	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	8.998	103	1809	0.07 ppbv #	80
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	10.888	63	133	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	11.458	72	8168	0.74 ppbv #	1
29) cis-1,2-Dichloroethene	11.904	96	258	N.D.	
30) Hexane	11.458	86	8150	1.67 ppbv	85
31) Chloroform	12.493	83	5743	0.12 ppbv #	91
32) EthylAcetate	12.047	43	36699	0.58 ppbv #	93

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211310.D
Acq On : 21 Aug 2013 16:15
Operator : JJG
Sample : 131119-65685 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 16:53:24 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D. d	
34) 1,2-Dichloroethane	13.616	62	1672	0.05 ppbv #	69
35) 1,1,1-Trichloroethane	13.313	97	111	N.D.	
37) Benzene	13.937	78	30602	0.40 ppbv	96
38) CarbonTetrachloride	0.000		0	N.D. d	
39) Cyclohexane	14.026	69	3716	0.32 ppbv #	81
40) 1,2-Dichloropropane	15.381	63	1088	N.D.	
41) Bromodichloromethane	15.756	85	307	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.292	130	683	N.D.	
44) 2,2,4-Trimethylpentane	14.757	57	152461	1.04 ppbv	96
45) Heptane	15.096	71	13673	0.56 ppbv	83
46) cis-1,3-Dichloropropene	16.665	75	1186	N.D.	
47) 4-Methyl-2-pentanone(M...	0.000		0	N.D. d	
48) trans-1,3-Dichloropropene	17.593	75	1119	N.D.	
49) 1,1,2-Trichloroethane	17.949	97	563	N.D.	
50) Toluene	17.664	91	168283m	1.87 ppbv	
51) 2-Hexanone(MBK)	18.217	58	1074	N.D.	
52) Dibromochloromethane	18.894	129	1116	N.D.	
53) 1,2-Dibromoethane	19.251	107	1940	N.D.	
54) Tetrachloroethene(PCE)	19.001	166	1135	N.D.	
56) Chlorobenzene	20.356	114	810	N.D.	
57) Ethylbenzene	20.695	91	35462	0.30 ppbv	96
58) m&p-Xylene	20.945	106	38720	0.87 ppbv	95
59) Bromoform	21.836	173	1503	N.D.	
60) Styrene	21.640	104	9727	0.14 ppbv #	92
61) 1,1,2,2-Tetrachloroethane	22.336	83	882	N.D.	
62) o-Xylene	21.694	91	32792	0.36 ppbv	99
64) 4-Ethyltoluene	23.673	120	3784	0.10 ppbv #	92
65) 1,3,5-Trimethylbenzene	23.780	120	4830	0.09 ppbv #	87
66) 1,2,4-Trimethylbenzene	24.529	120	14834	0.29 ppbv #	90
67) BenzylChloride(a-Chlor...	25.171	91	2957	N.D.	
68) 1,3-Dichlorobenzene	25.046	146	2236	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	3388	0.05 ppbv #	89
70) 1,2-Dichlorobenzene	25.849	146	2636	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	1223	N.D.	
72) Hexachlorobutadiene	30.075	225	369	N.D.	

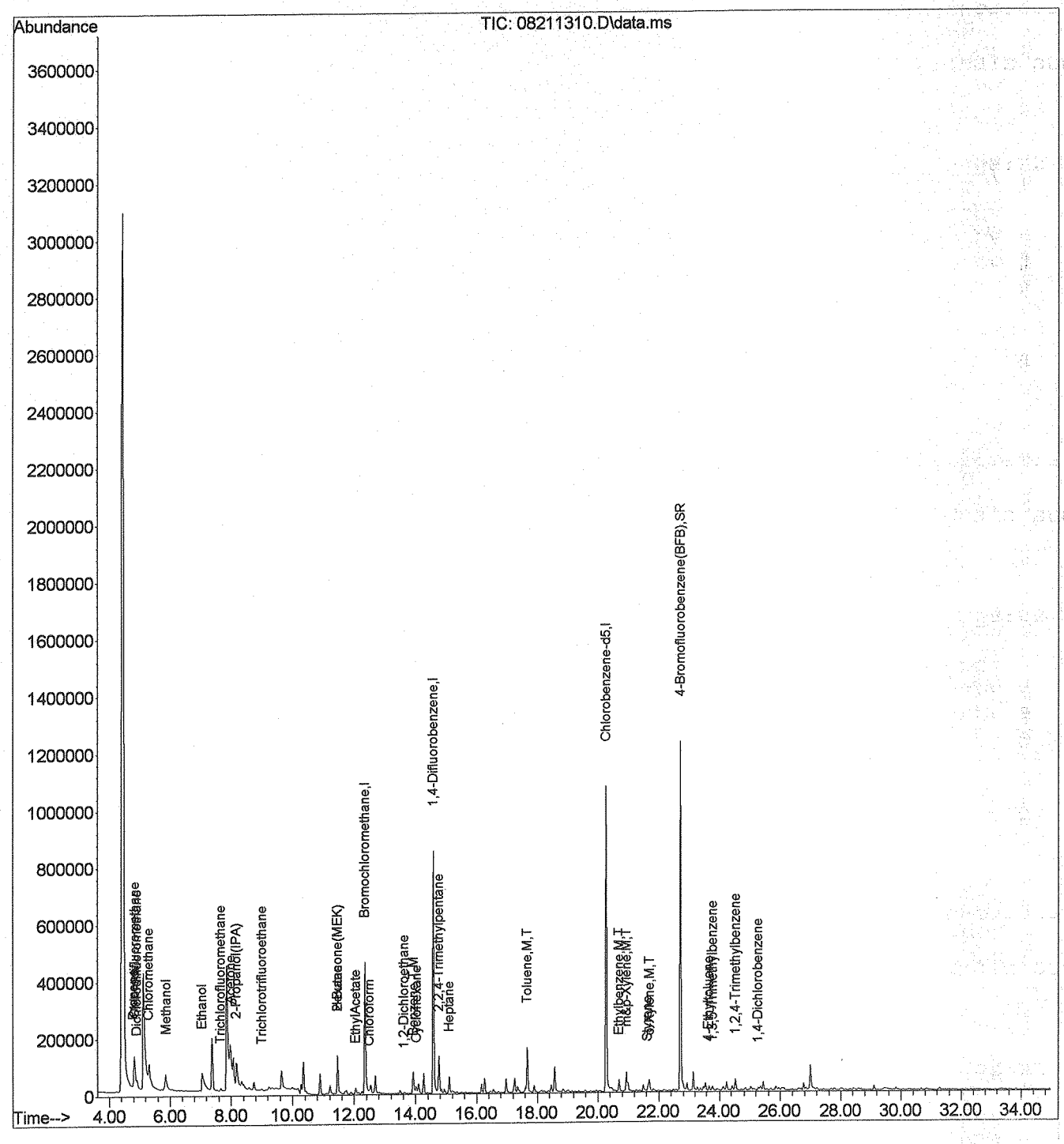
(#) = qualifier out of range (m) = manual integration (+) = signals summed

8/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211310.D
Acq On : 21 Aug 2013 16:15
Operator : JJG
Sample : 131119-65685 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 16:53:24 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211311.D
Acq On : 21 Aug 2013 17:03
Operator : JJG
Sample : 131119-65686 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 21 19:48:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	150891	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	868097	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.267	117	818550	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	480733	10.22 ppbv	0.00
Spiked Amount 10.000			Recovery = 102.20%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	8576	0.22 ppbv #	97
3) Propene	4.799	42	7491	0.64 ppbv #	86
4) Dichlorodifluoromethane	4.908	85	24151	0.44 ppbv	97
5) Chloromethane	5.306	52	2325	0.31 ppbv #	1
6) Dichlorotetrafluoroethane	5.324	135	321	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.885	31	38085m	4.16 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D. d	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.170	45	24354m	2.41 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.039	58	40511m	3.54 ppbv	
16) Trichlorofluoromethane	7.659	103	6264	0.20 ppbv #	89
17) 2-Propanol(IPA)	8.256	45	10078m	0.27 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	8.998	103	1525	0.06 ppbv #	88
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	0.000		0	N.D. d	
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.458	86	1309	0.28 ppbv	82
31) Chloroform	12.493	83	1567	N.D.	
32) EthylAcetate	12.082	43	3957	0.07 ppbv #	68

08/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211311.D
Acq On : 21 Aug 2013 17:03
Operator : JJG
Sample : 131119-65686 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 21 19:48:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

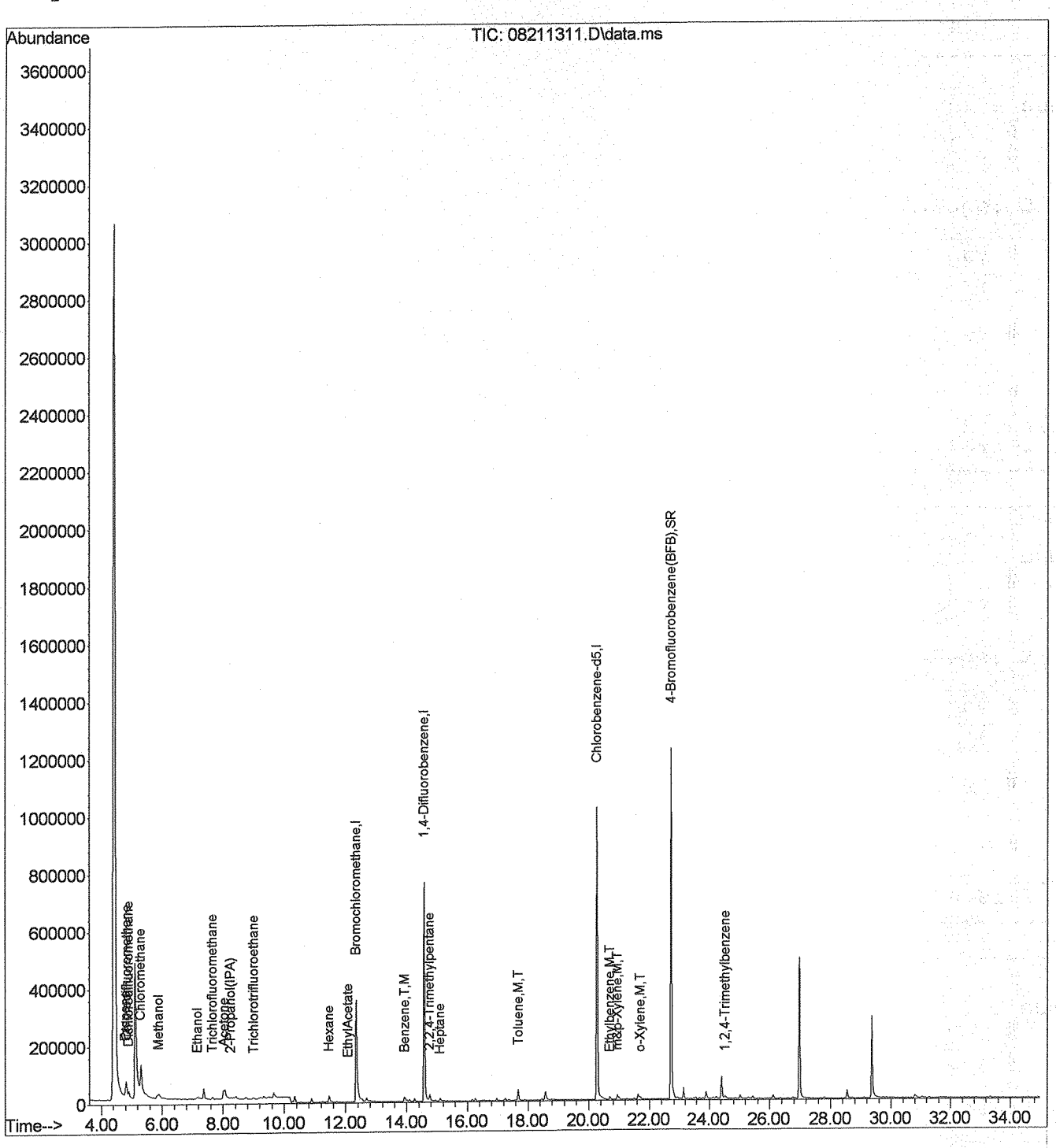
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D. d	
34) 1,2-Dichloroethane	13.616	62	277	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	14439	0.19 ppbv	97
38) CarbonTetrachloride	0.000		0	N.D. d	
39) Cyclohexane	0.000		0	N.D. d	
40) 1,2-Dichloropropane	0.000		0	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.757	57	26842	0.18 ppbv	96
45) Heptane	15.096	71	2034	0.08 ppbv	83
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	0.000		0	N.D.	
48) trans-1,3-Dichloropropene	17.664	75	364	N.D.	
49) 1,1,2-Trichloroethane	17.860	97	141	N.D.	
50) Toluene	17.682	91	42443m	0.47 ppbv	
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	20.267	114	240	N.D.	
57) Ethylbenzene	20.695	91	10292	0.09 ppbv #	91
58) m&p-Xylene	20.945	106	9505	0.22 ppbv #	85
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.694	104	751	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	7071	0.08 ppbv #	94
64) 4-Ethyltoluene	23.691	120	832	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	840	N.D.	
66) 1,2,4-Trimethylbenzene	24.529	120	2719	0.05 ppbv #	82
67) BenzylChloride(a-Chlor...	25.296	91	934	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	827	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	275	N.D.	
72) Hexachlorobutadiene	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211311.D
Acq On : 21 Aug 2013 17:03
Operator : JJG
Sample : 131119-65686 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 21 19:48:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211312.D
Acq On : 21 Aug 2013 17:51
Operator : JJG
Sample : 131119-65687 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 21 19:50:56 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	148964	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	882955	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.267	117	831792	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	483541	10.11	ppbv	0.00
Spiked Amount 10.000			Recovery = 101.10%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.835	51	9699	0.25	ppbv #	94
3) Propene	4.799	42	9710	0.84	ppbv #	63
4) Dichlorodifluoromethane	4.908	85	23877	0.44	ppbv	100
5) Chloromethane	5.306	52	2413	0.33	ppbv #	1
6) Dichlorotetrafluoroethane	5.324	135	314	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.867	31	85270m	9.43	ppbv	
9) 1,3-Butadiene	0.000		0	N.D.		
10) Bromomethane	0.000		0	N.D.	d	
11) Chloroethane	0.000		0	N.D.	d	
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	7.134	45	38877m	3.89	ppbv	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.002	58	51506m	4.55	ppbv	
16) Trichlorofluoromethane	7.658	103	6705	0.22	ppbv	94
17) 2-Propanol(IPA)	8.219	45	23558m	0.65	ppbv	
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	0.000		0	N.D.	d	
21) AllylChloride	0.000		0	N.D.	d	
22) CarbonDisulfide	0.000		0	N.D.	d	
23) Trichlorotrifluoroethane	8.998	103	1586	0.06	ppbv	86
24) trans-1,2-Dichloroethene	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
26) MethylTertButylEther(M...	0.000		0	N.D.		
27) VinylAcetate	0.000		0	N.D.	d	
28) 2-Butanone(MEK)	11.476	72	5900	0.56	ppbv #	1
29) cis-1,2-Dichloroethene	0.000		0	N.D.		
30) Hexane	11.458	86	1500	0.33	ppbv #	77
31) Chloroform	0.000		0	N.D.	d	
32) EthylAcetate	12.065	43	6259	0.11	ppbv #	91

8/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211312.D
Acq On : 21 Aug 2013 17:51
Operator : JJG
Sample : 131119-65687 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 21 19:50:56 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.742	72	2783	0.26 ppbv #	80
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	13.313	97	114	N.D.	
37) Benzene	13.937	78	30976	0.40 ppbv	96
38) CarbonTetrachloride	0.000		0	N.D. d	
39) Cyclohexane	0.000		0	N.D. d	
40) 1,2-Dichloropropane	15.381	63	541	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.292	130	279	N.D.	
44) 2,2,4-Trimethylpentane	14.757	57	29360	0.20 ppbv #	92
45) Heptane	15.096	71	2617	0.10 ppbv #	81
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.594	58	458	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	571	N.D.	
49) 1,1,2-Trichloroethane	17.860	97	813	N.D.	
50) Toluene	17.682	91	56705m	0.62 ppbv	
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	355	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	353	N.D.	
56) Chlorobenzene	20.356	114	134	N.D.	
57) Ethylbenzene	20.695	91	15786	0.13 ppbv	95
58) m&p-Xylene	20.945	106	22098	0.50 ppbv	99
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	5615	0.08 ppbv #	94
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	14081	0.15 ppbv #	95
64) 4-Ethyltoluene	23.691	120	1262	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	1872	N.D.	
66) 1,2,4-Trimethylbenzene	24.529	120	5666	0.11 ppbv #	83
67) BenzylChloride(a-Chlor...	25.100	91	120	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	2419	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	250	N.D.	
72) Hexachlorobutadiene	0.000		0	N.D.	

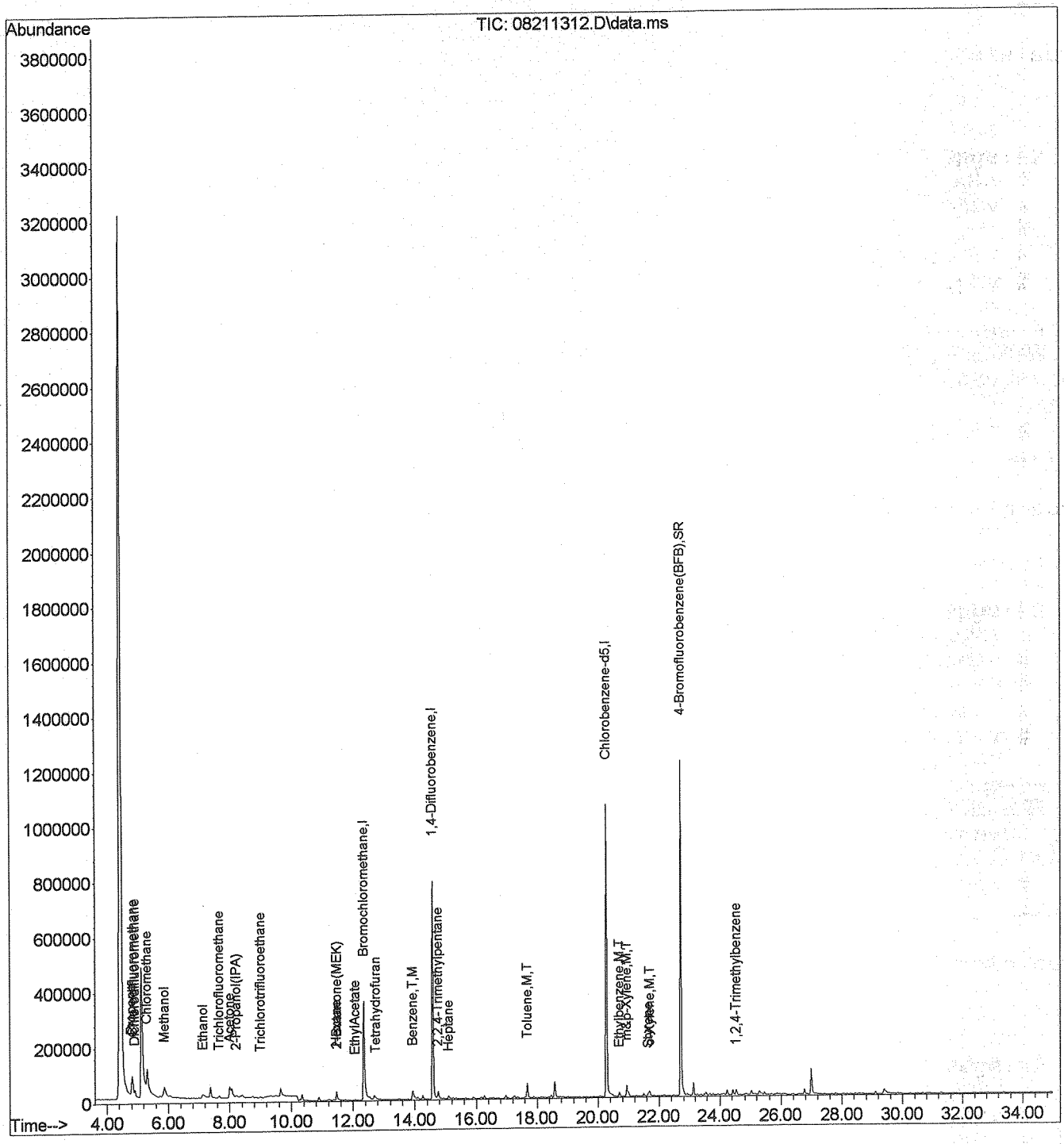
(#) = qualifier out of range (m) = manual integration (+) = signals summed

08/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211312.D
Acq On : 21 Aug 2013 17:51
Operator : JJG
Sample : 131119-65687 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 21 19:50:56 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



072213.M Wed Aug 21 19:51:13 2013

08/21/13

TO-15 RAW QC & ICAL SUMMARY

MS #3 Instrument Logbook

Sequence Name: C:\msdchem\1\sequence\2013\082113.S
Comment: GCMS-03
Operator: JJG
Data Path: C:\MSDCHEM\1\MS03\2013\082113\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info
1)	Sample	1	08211301 TO15-5MS TO15 BFB 082113
2)	Sample	1	08211302 TO15-5MS TO15 CCV 082113
3)	Sample	1	08211303 TO15-5MS TO15 LCSD 082113
4)	Sample	1	08211304 TO15-5MS TO15 MB 082113
5)	Sample	2	08211305 TO15-5MS 131115-65648 x2
6)	Sample	3	08211306 TO15-5MS 131115-65649 x1
7)	Sample	3	08211307 TO15-5MS 131115-65649 x1 dp
8)	Sample	2	08211308 TO15-5MS 131115-65648 x1
9)	Sample	4	08211309 TO15-5MS 131119-65684 x1
10)	Sample	5	08211310 TO15-5MS 131119-65685 x1
11)	Sample	6	08211311 TO15-5MS 131119-65686 x1
12)	Sample	7	08211312 TO15-5MS 131119-65687 x1

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8/21/13

Comments:

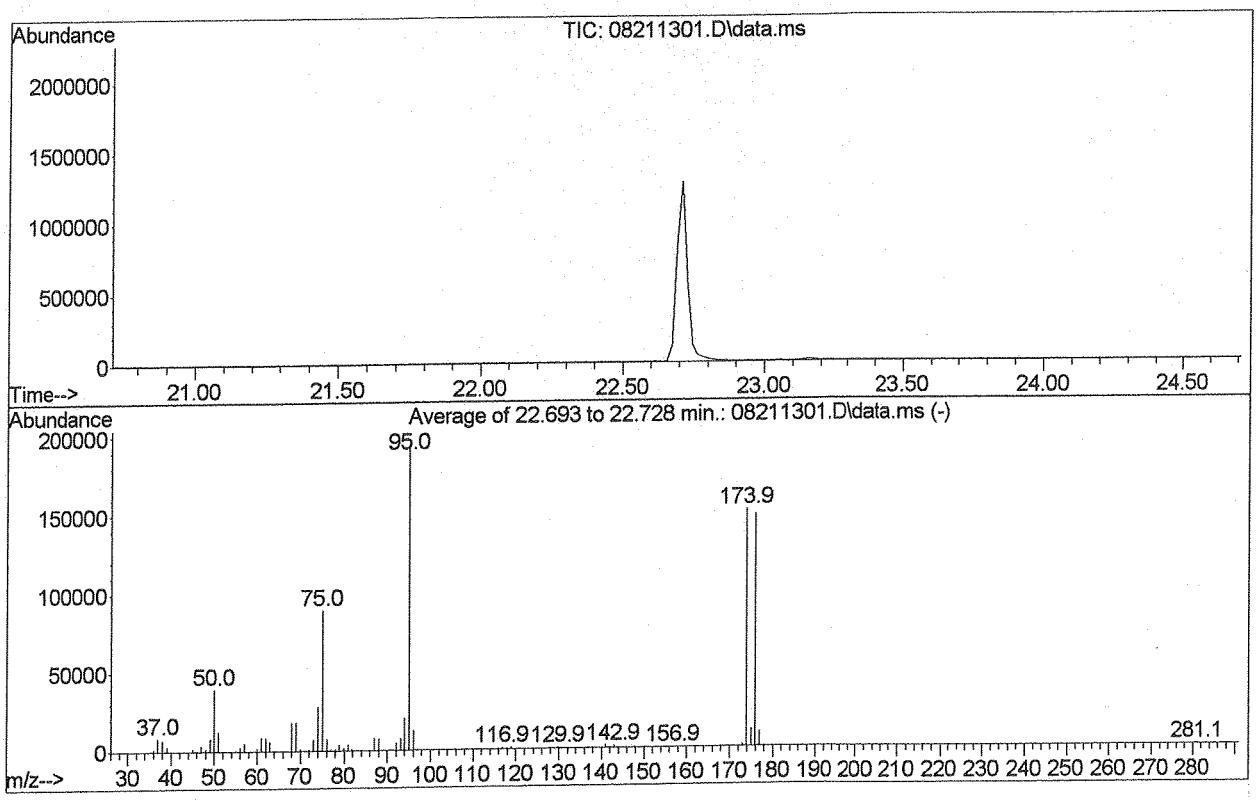
Analyst: JJG **Date:** 8/21/13

Page: 37 of ____

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211301.D
Acq On : 21 Aug 2013 9:06 am
Operator : JJG
Sample : TO15 BFB 082113
Misc : IS/Surr: PS082212-01 + 500mL cc#000067
ALS Vial : 1 Sample Multiplier: 1

Integration File: PAMS.P

Method : C:\msdchem\1\METHODS\2013\072213.M
Title : TO-15/TO-14
Last Update : Tue Jul 23 12:50:49 2013



AutoFind: Scans 1064, 1065, 1066; Background Corrected with Scan 1059

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.3	39488	PASS
75	95	30	60	45.8	89285	PASS
95	95	100	100	100.0	194925	PASS
96	95	5	9	6.6	12867	PASS
173	174	0.00	2	0.8	1249	PASS
174	95	50	100	77.6	151235	PASS
175	174	5	9	7.3	11106	PASS
176	174	95	101	98.0	148171	PASS
177	176	5	9	6.6	9735	PASS

08/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211302.D
Acq On : 21 Aug 2013 9:52
Operator : JJG
Sample : TO15 CCV 082113
Misc : IS/Surr: PS082212-01 + Cal: PS071613-02
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 11:09:29 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	182903	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	1000711	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.267	117	990130	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	567496	9.97	ppbv	0.00
Spiked Amount 10.000			Recovery = 99.70%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	470819	10.05	ppbv	98
3) Propene	4.781	42	154685m	10.92	ppbv	
4) Dichlorodifluoromethane	4.908	85	666174	10.10	ppbv	99
5) Chloromethane	5.288	52	85907m	9.45	ppbv	
6) Dichlorotetrafluoroethane	5.324	135	390667	9.97	ppbv	97
7) VinylChloride	5.668	62	273189m	9.81	ppbv	
8) Methanol	5.867	31	54380m	4.90	ppbv	
9) 1,3-Butadiene	5.867	54	183921m	9.91	ppbv	
10) Bromomethane	6.446	96	158553m	8.52	ppbv	
11) Chloroethane	6.736	66	43684	10.72	ppbv	97
12) Dichlorofluoromethane	7.007	67	551983	10.25	ppbv	99
13) Ethanol	7.061	45	129857m	10.60	ppbv	
14) VinylBromide	7.260	108	201892m	10.39	ppbv	
15) Acetone	7.966	58	138120m	9.95	ppbv	
16) Trichlorofluoromethane	7.677	103	420079	11.18	ppbv	98
17) 2-Propanol(IPA)	8.165	45	480899	10.77	ppbv	98
18) Acrylonitrile	8.961	52	222912m	10.90	ppbv	
19) 1,1-Dichloroethene	8.726	96	225330m	10.32	ppbv	
20) MethyleneChloride(DCM)	9.323	84	219736m	9.76	ppbv	
21) AllylChloride	9.305	39	236541m	10.30	ppbv	
22) CarbonDisulfide	9.486	76	729265m	9.62	ppbv	
23) Trichlorotrifluoroethane	8.998	103	325220	10.46	ppbv	97
24) trans-1,2-Dichloroethene	10.424	96	258913	10.46	ppbv	97
25) 1,1-Dichloroethane	10.906	63	588686	10.44	ppbv	100
26) MethylTertButylEther(M...	10.442	73	731694	11.97	ppbv	99
27) VinylAcetate	10.888	43	830194m	9.79	ppbv	
28) 2-Butanone(MEK)	11.423	72	137952	10.75	ppbv #	98
29) cis-1,2-Dichloroethene	11.904	96	285789	10.51	ppbv	96
30) Hexane	11.458	86	59961	10.62	ppbv	89
31) Chloroform	12.493	83	611619	11.02	ppbv	99
32) EthylAcetate	12.011	43	827976	11.35	ppbv	99

08/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211302.D
Acq On : 21 Aug 2013 9:52
Operator : JJG
Sample : TO15 CCV 082113
Misc : IS/Surr: PS082212-01 + Cal: PS071613-02
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 11:09:29 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

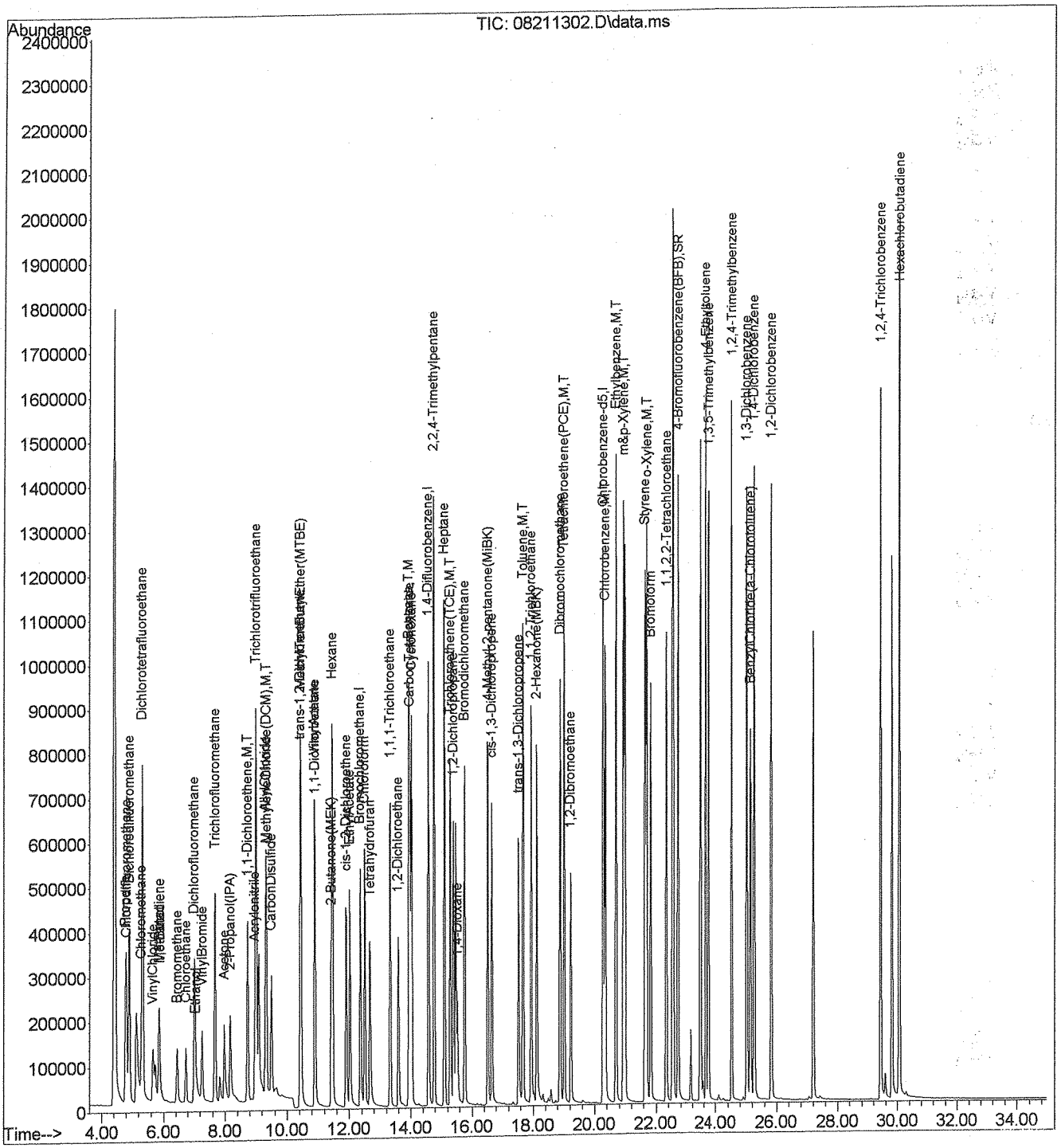
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) Tetrahydrofuran	12.671	72	137790	10.61	ppbv		99
34) 1,2-Dichloroethane	13.580	62	454131	11.20	ppbv		99
35) 1,1,1-Trichloroethane	13.331	97	644388	11.16	ppbv		99
37) Benzene	13.937	78	876098	10.00	ppbv		98
38) CarbonTetrachloride	13.973	117	616877	10.47	ppbv		99
39) Cyclohexane	14.026	69	132134	9.84	ppbv		92
40) 1,2-Dichloropropane	15.399	63	381096	9.95	ppbv		98
41) Bromodichloromethane	15.756	85	430156	10.18	ppbv		99
42) 1,4-Dioxane	15.524	88	197903m	9.50	ppbv		
43) Trichloroethene(TCE)	15.292	130	359819	10.07	ppbv		99
44) 2,2,4-Trimethylpentane	14.757	57	1847499	10.95	ppbv		99
45) Heptane	15.096	71	301730	10.65	ppbv		95
46) cis-1,3-Dichloropropene	16.647	75	534354	10.83	ppbv		99
47) 4-Methyl-2-pentanone(M...	16.523	58	358418	10.41	ppbv		97
48) trans-1,3-Dichloropropene	17.521	75	470851	9.57	ppbv		99
49) 1,1,2-Trichloroethane	17.931	97	382705	10.33	ppbv		99
50) Toluene	17.664	91	1139557	10.97	ppbv	#	99
51) 2-Hexanone(MBK)	18.110	58	470685	10.98	ppbv		97
52) Dibromochloromethane	18.876	129	711042	11.57	ppbv		100
53) 1,2-Dibromoethane	19.215	107	585207	10.27	ppbv		100
54) Tetrachloroethene(PCE)	19.001	166	502233	10.58	ppbv	#	91
56) Chlorobenzene	20.339	114	271690	10.34	ppbv	#	90
57) Ethylbenzene	20.695	91	1456598	10.38	ppbv		99
58) m&p-Xylene	20.945	106	1054289	19.94	ppbv		99
59) Bromoform	21.819	173	670121	9.97	ppbv		99
60) Styrene	21.640	104	867523	10.23	ppbv		99
61) 1,1,2,2-Tetrachloroethane	22.336	83	897246	10.16	ppbv		99
62) o-Xylene	21.694	91	1110926	10.18	ppbv		100
64) 4-Ethyltoluene	23.673	120	435100	10.12	ppbv		99
65) 1,3,5-Trimethylbenzene	23.780	120	593468	9.71	ppbv		99
66) 1,2,4-Trimethylbenzene	24.529	120	607438	10.08	ppbv		99
67) BenzylChloride(a-Chlor...	25.153	91	990916	10.03	ppbv		99
68) 1,3-Dichlorobenzene	25.028	146	870896	9.90	ppbv		99
69) 1,4-Dichlorobenzene	25.260	146	857470m	9.68	ppbv		
70) 1,2-Dichlorobenzene	25.831	146	884812m	9.59	ppbv		
71) 1,2,4-Trichlorobenzene	29.433	180	803252m	9.20	ppbv		
72) Hexachlorobutadiene	30.075	225	684518m	10.08	ppbv		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211302.D
Acq On : 21 Aug 2013 9:52
Operator : JJG
Sample : TO15 CCV 082113
Misc : IS/Surr: PS082212-01 + Cal: PS071613-02
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 11:09:29 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211303.D
Acq On : 21 Aug 2013 10:40
Operator : JJG
Sample : TO15 LCSD 082113
Misc : IS/Surr: PS082212-01 + Cal: PS071613-02
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 11:15:53 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	191412	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	1014483	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.267	117	981281	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	574301	10.18	ppbv	0.00
Spiked Amount 10.000			Recovery = 101.80%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	485956	9.91	ppbv	100
3) Propene	4.781	42	163246m	11.01	ppbv	
4) Dichlorodifluoromethane	4.908	85	685547	9.94	ppbv	99
5) Chloromethane	5.288	52	91798m	9.65	ppbv	
6) Dichlorotetrafluoroethane	5.342	135	422431	10.30	ppbv	89
7) VinylChloride	5.668	62	293808m	10.08	ppbv	
8) Methanol	5.867	31	58628m	5.05	ppbv	
9) 1,3-Butadiene	5.867	54	200032m	10.30	ppbv	
10) Bromomethane	6.446	96	174444m	8.95	ppbv	
11) Chloroethane	6.736	66	45428	10.65	ppbv	99
12) Dichlorofluoromethane	7.007	67	575948	10.22	ppbv	100
13) Ethanol	7.061	45	132492m	10.33	ppbv	
14) VinylBromide	7.260	108	209585m	10.31	ppbv	
15) Acetone	7.966	58	143234m	9.86	ppbv	
16) Trichlorofluoromethane	7.677	103	416104	10.59	ppbv	99
17) 2-Propanol(IPA)	8.165	45	499587	10.69	ppbv	99
18) Acrylonitrile	8.962	52	226819m	10.60	ppbv	
19) 1,1-Dichloroethene	8.726	96	225696	9.88	ppbv	97
20) MethyleneChloride(DCM)	9.323	84	223089m	9.47	ppbv	
21) AllylChloride	9.305	39	241442m	10.05	ppbv	
22) CarbonDisulfide	9.486	76	760517m	9.59	ppbv	
23) Trichlorotrifluoroethane	8.998	103	329513	10.13	ppbv	99
24) trans-1,2-Dichloroethene	10.424	96	276948m	10.69	ppbv	
25) 1,1-Dichloroethane	10.906	63	611950	10.37	ppbv	100
26) MethylTertButylEther(M...	10.442	73	751425	11.75	ppbv	99
27) VinylAcetate	10.888	43	870394m	9.81	ppbv	
28) 2-Butanone(MEK)	11.423	72	143375	10.68	ppbv #	96
29) cis-1,2-Dichloroethene	11.904	96	292723	10.29	ppbv	97
30) Hexane	11.458	86	63023	10.67	ppbv	96
31) Chloroform	12.493	83	617956	10.64	ppbv	99
32) EthylAcetate	12.011	43	862645	11.30	ppbv	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211303.D
Acq On : 21 Aug 2013 10:40
Operator : JJG
Sample : TO15 LCSD 082113
Misc : IS/Surr: PS082212-01 + Cal: PS071613-02
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 11:15:53 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

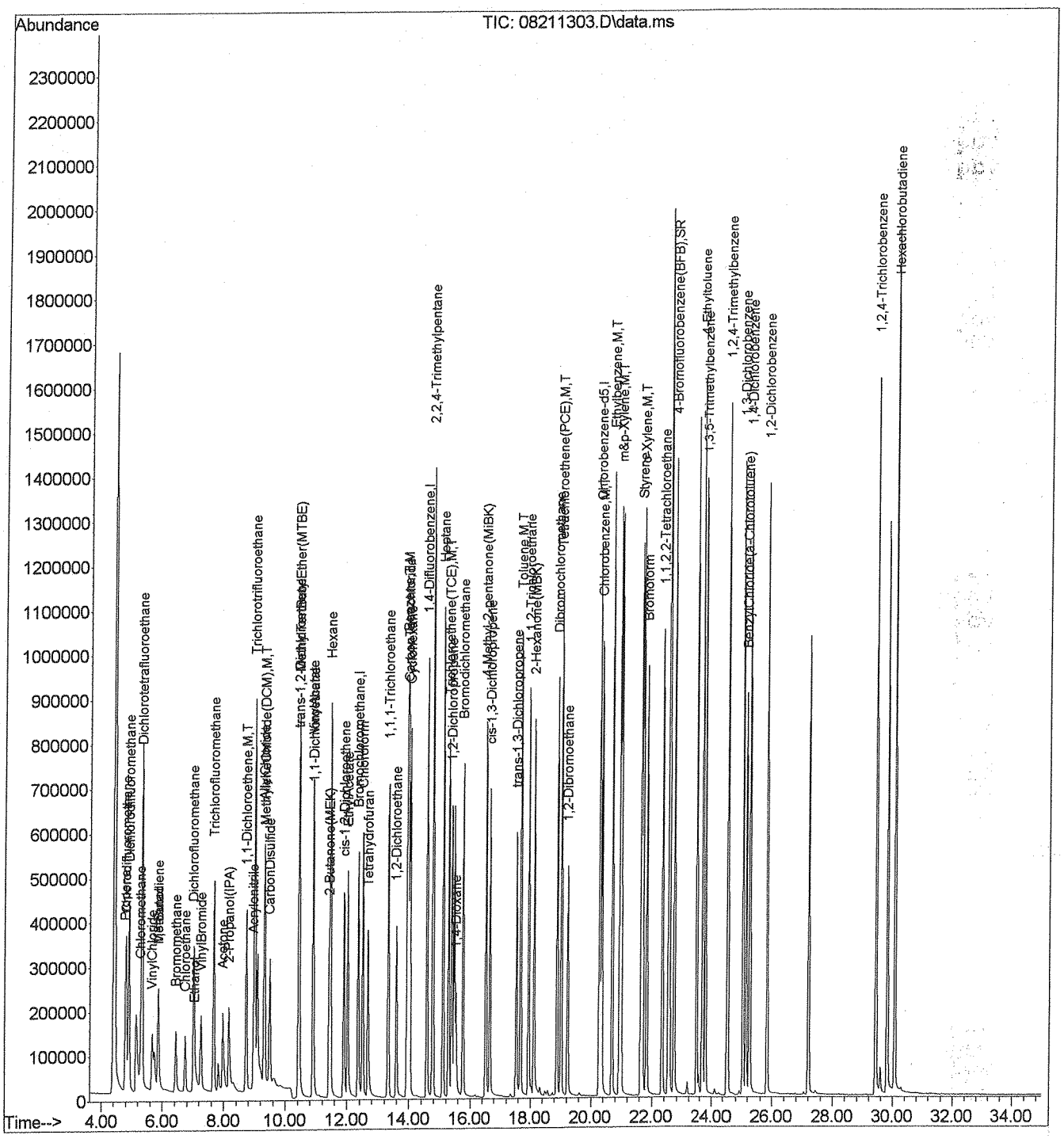
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) Tetrahydrofuran	12.671	72	142408	10.48	ppbv		94
34) 1,2-Dichloroethane	13.580	62	451085	10.63	ppbv		100
35) 1,1,1-Trichloroethane	13.331	97	652954	10.80	ppbv		99
37) Benzene	13.937	78	905189	10.19	ppbv		99
38) CarbonTetrachloride	13.973	117	642058	10.75	ppbv		98
39) Cyclohexane	14.026	69	129910	9.54	ppbv		93
40) 1,2-Dichloropropane	15.381	63	393153	10.13	ppbv		97
41) Bromodichloromethane	15.756	85	440026	10.28	ppbv		100
42) 1,4-Dioxane	15.524	88	206971m	9.80	ppbv		
43) Trichloroethene(TCE)	15.292	130	370205	10.22	ppbv		99
44) 2,2,4-Trimethylpentane	14.757	57	1868341	10.92	ppbv		99
45) Heptane	15.096	71	296207	10.31	ppbv		95
46) cis-1,3-Dichloropropene	16.647	75	547123	10.93	ppbv		100
47) 4-Methyl-2-pentanone(M...	16.505	58	366535	10.50	ppbv		93
48) trans-1,3-Dichloropropene	17.521	75	479841	9.62	ppbv		99
49) 1,1,2-Trichloroethane	17.931	97	392042	10.44	ppbv		98
50) Toluene	17.664	91	1096828	10.41	ppbv	#	98
51) 2-Hexanone(MBK)	18.110	58	485831	11.18	ppbv		100
52) Dibromochloromethane	18.876	129	712545	11.43	ppbv		99
53) 1,2-Dibromoethane	19.215	107	585586	10.14	ppbv		100
54) Tetrachloroethene(PCE)	19.001	166	494924	10.28	ppbv	#	90
56) Chlorobenzene	20.339	114	272224	10.46	ppbv	#	90
57) Ethylbenzene	20.695	91	1414320	10.17	ppbv		99
58) m&p-Xylene	20.945	106	1062414	20.28	ppbv		98
59) Bromoform	21.819	173	685072	10.29	ppbv		100
60) Styrene	21.640	104	896327	10.67	ppbv		100
61) 1,1,2,2-Tetrachloroethane	22.336	83	901520	10.30	ppbv		100
62) o-Xylene	21.694	91	1137508	10.51	ppbv		99
64) 4-Ethyltoluene	23.673	120	445680	10.46	ppbv		97
65) 1,3,5-Trimethylbenzene	23.780	120	617395	10.19	ppbv		100
66) 1,2,4-Trimethylbenzene	24.529	120	600192	10.05	ppbv		98
67) BenzylChloride(a-Chlor...	25.153	91	1030786	10.52	ppbv		99
68) 1,3-Dichlorobenzene	25.028	146	897232	10.29	ppbv		99
69) 1,4-Dichlorobenzene	25.260	146	869609m	9.91	ppbv		
70) 1,2-Dichlorobenzene	25.831	146	906028m	9.91	ppbv		
71) 1,2,4-Trichlorobenzene	29.433	180	825095m	9.54	ppbv		
72) Hexachlorobutadiene	30.075	225	689760m	10.25	ppbv		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211303.D
Acq On : 21 Aug 2013 10:40
Operator : JJG
Sample : TO15 LCSD 082113
Misc : IS/Surr: PS082212-01 + Cal: PS071613-02
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 11:15:53 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211304.D
Acq On : 21 Aug 2013 11:28
Operator : JJG
Sample : TO15 MB 082113
Misc : IS/Surr: PS082212-01 + 500mL cc#000067
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 12:01:18 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	182875	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	1043349	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.267	117	954689	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	553603	10.09	ppbv	0.00
Spiked Amount 10.000			Recovery = 100.90%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.		
3) Propene	0.000		0	N.D.	d	
4) Dichlorodifluoromethane	0.000		0	N.D.		
5) Chloromethane	0.000		0	N.D.		
6) Dichlorotetrafluoroethane	0.000		0	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	0.000		0	N.D.	d	
9) 1,3-Butadiene	0.000		0	N.D.		
10) Bromomethane	0.000		0	N.D.	d	
11) Chloroethane	0.000		0	N.D.	d	
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	0.000		0	N.D.	d	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	0.000		0	N.D.	d	
16) Trichlorofluoromethane	0.000		0	N.D.		
17) 2-Propanol(IPA)	8.201	45	145	N.D.		
18) Acrylonitrile	9.088	52	416	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	0.000		0	N.D.	d	
21) AllylChloride	9.287	39	526	N.D.		
22) CarbonDisulfide	0.000		0	N.D.	d	
23) Trichlorotrifluoroethane	0.000		0	N.D.		
24) trans-1,2-Dichloroethene	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
26) MethylTertButylEther(M...	0.000		0	N.D.		
27) VinylAcetate	0.000		0	N.D.		
28) 2-Butanone(MEK)	11.547	72	147	N.D.		
29) cis-1,2-Dichloroethene	0.000		0	N.D.		
30) Hexane	0.000		0	N.D.		
31) Chloroform	0.000		0	N.D.		
32) EthylAcetate	12.029	43	219	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211304.D
Acq On : 21 Aug 2013 11:28
Operator : JJG
Sample : TO15 MB 082113
Misc : IS/Surr: PS082212-01 + 500mL cc#000067
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 12:01:18 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
33) Tetrahydrofuran	12.813	72	230	N.D.
34) 1,2-Dichloroethane	0.000		0	N.D.
35) 1,1,1-Trichloroethane	0.000		0	N.D.
37) Benzene	0.000		0	N.D. d
38) CarbonTetrachloride	0.000		0	N.D.
39) Cyclohexane	0.000		0	N.D.
40) 1,2-Dichloropropane	15.399	63	262	N.D.
41) Bromodichloromethane	0.000		0	N.D.
42) 1,4-Dioxane	0.000		0	N.D.
43) Trichloroethene(TCE)	0.000		0	N.D.
44) 2,2,4-Trimethylpentane	0.000		0	N.D.
45) Heptane	0.000		0	N.D.
46) cis-1,3-Dichloropropene	0.000		0	N.D.
47) 4-Methyl-2-pentanone(M...	0.000		0	N.D.
48) trans-1,3-Dichloropropene	0.000		0	N.D.
49) 1,1,2-Trichloroethane	0.000		0	N.D.
50) Toluene	17.682	91	2037	N.D.
51) 2-Hexanone(MBK)	18.252	58	817	N.D.
52) Dibromochloromethane	0.000		0	N.D.
53) 1,2-Dibromoethane	0.000		0	N.D.
54) Tetrachloroethene(PCE)	0.000		0	N.D.
56) Chlorobenzene	20.339	114	647	N.D.
57) Ethylbenzene	20.713	91	1809	N.D.
58) m&p-Xylene	20.963	106	1727	N.D.
59) Bromoform	0.000		0	N.D.
60) Styrene	21.676	104	1047	N.D.
61) 1,1,2,2-Tetrachloroethane	22.336	83	526	N.D.
62) o-Xylene	21.694	91	1574	N.D.
64) 4-Ethyltoluene	23.691	120	463	N.D.
65) 1,3,5-Trimethylbenzene	23.798	120	369	N.D.
66) 1,2,4-Trimethylbenzene	24.547	120	532	N.D.
67) BenzylChloride(a-Chlor...	25.207	91	1500	N.D.
68) 1,3-Dichlorobenzene	25.064	146	2927	N.D.
69) 1,4-Dichlorobenzene	25.278	146	3305	N.D.
70) 1,2-Dichlorobenzene	25.849	146	1957	N.D.
71) 1,2,4-Trichlorobenzene	0.000		0	N.D. d
72) Hexachlorobutadiene	30.075	225	1037	N.D.

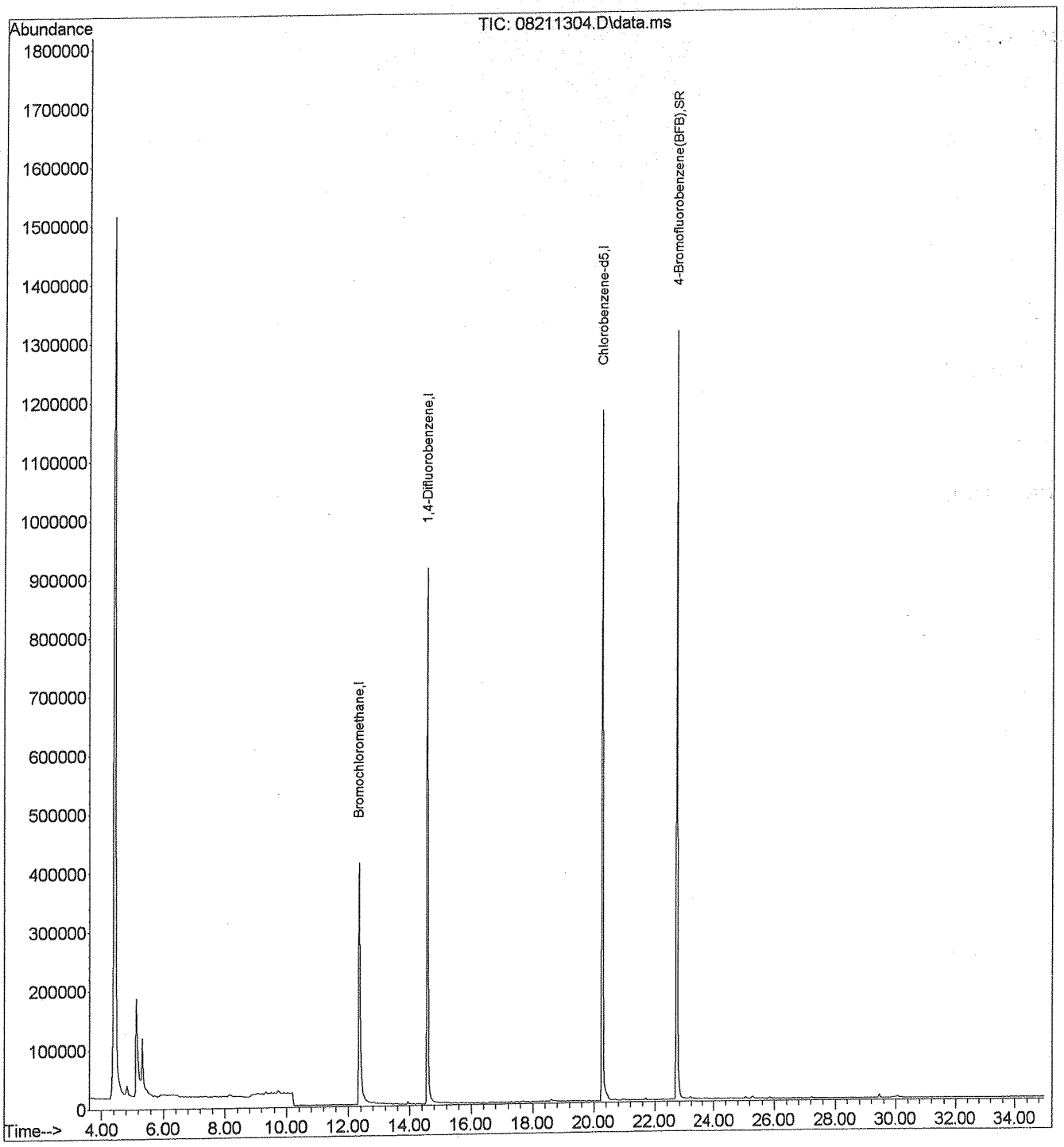
(#) = qualifier out of range (m) = manual integration (+) = signals summed

8/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211304.D
Acq On : 21 Aug 2013 11:28
Operator : JJG
Sample : TO15 MB 082113
Misc : IS/Surr: PS082212-01 + 500mL cc#000067
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 21 12:01:18 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



8/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211306.D
Acq On : 21 Aug 2013 13:03
Operator : JJG
Sample : 131115-65649 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 21 14:28:47 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	172764	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	1007382	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.267	117	923143	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	549841	10.36 ppbv	0.00
Spiked Amount 10.000			Recovery = 103.60%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	14812	0.33 ppbv #	97
3) Propene	0.000		0	N.D. d	
4) Dichlorodifluoromethane	4.908	85	25554	0.41 ppbv	98
5) Chloromethane	5.306	52	2978	0.35 ppbv #	1
6) Dichlorotetrafluoroethane	5.324	135	374	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.903	31	38747	3.70 ppbv	
9) 1,3-Butadiene	5.867	54	423	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D. d	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.170	45	39290	3.39 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.020	58	33333	2.54 ppbv	
16) Trichlorofluoromethane	7.659	103	7339	0.21 ppbv #	93
17) 2-Propanol(IPA)	8.238	45	39727	0.94 ppbv	
18) Acrylonitrile	9.052	52	228	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	8.998	103	1623	0.06 ppbv #	97
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	0.000		0	N.D. d	
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.458	86	1239	0.23 ppbv	86
31) Chloroform	12.493	83	1067	N.D.	
32) EthylAcetate	12.082	43	5716	0.08 ppbv #	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211306.D
Acq On : 21 Aug 2013 13:03
Operator : JJG
Sample : 131115-65649 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 21 14:28:47 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D. d	
34) 1,2-Dichloroethane	13.598	62	111	N.D.	
35) 1,1,1-Trichloroethane	13.313	97	108	N.D.	
37) Benzene	13.937	78	20265	0.23 ppbv	99
38) CarbonTetrachloride	0.000		0	N.D. d	
39) Cyclohexane	14.026	69	1727	0.13 ppbv	84
40) 1,2-Dichloropropane	15.381	63	679	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.757	57	19726m	0.12 ppbv	
45) Heptane	15.096	71	2492	0.09 ppbv	84
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	0.000		0	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	263	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	36683m	0.35 ppbv	
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	341	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	372	N.D.	
56) Chlorobenzene	20.356	114	238	N.D.	
57) Ethylbenzene	20.695	91	7628	0.06 ppbv #	92
58) m&p-Xylene	20.945	106	9241	0.19 ppbv	90
59) Bromoform	21.836	173	172	N.D.	
60) Styrene	21.658	104	3912	0.05 ppbv #	82
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	7789	0.08 ppbv #	96
64) 4-Ethyltoluene	23.673	120	723	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	967	N.D.	
66) 1,2,4-Trimethylbenzene	24.529	120	3129	0.06 ppbv #	96
67) BenzylChloride(a-Chlor...	25.296	91	785	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	504	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	1406	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	416	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	1073	N.D.	
72) Hexachlorobutadiene	30.057	225	251	N.D.	

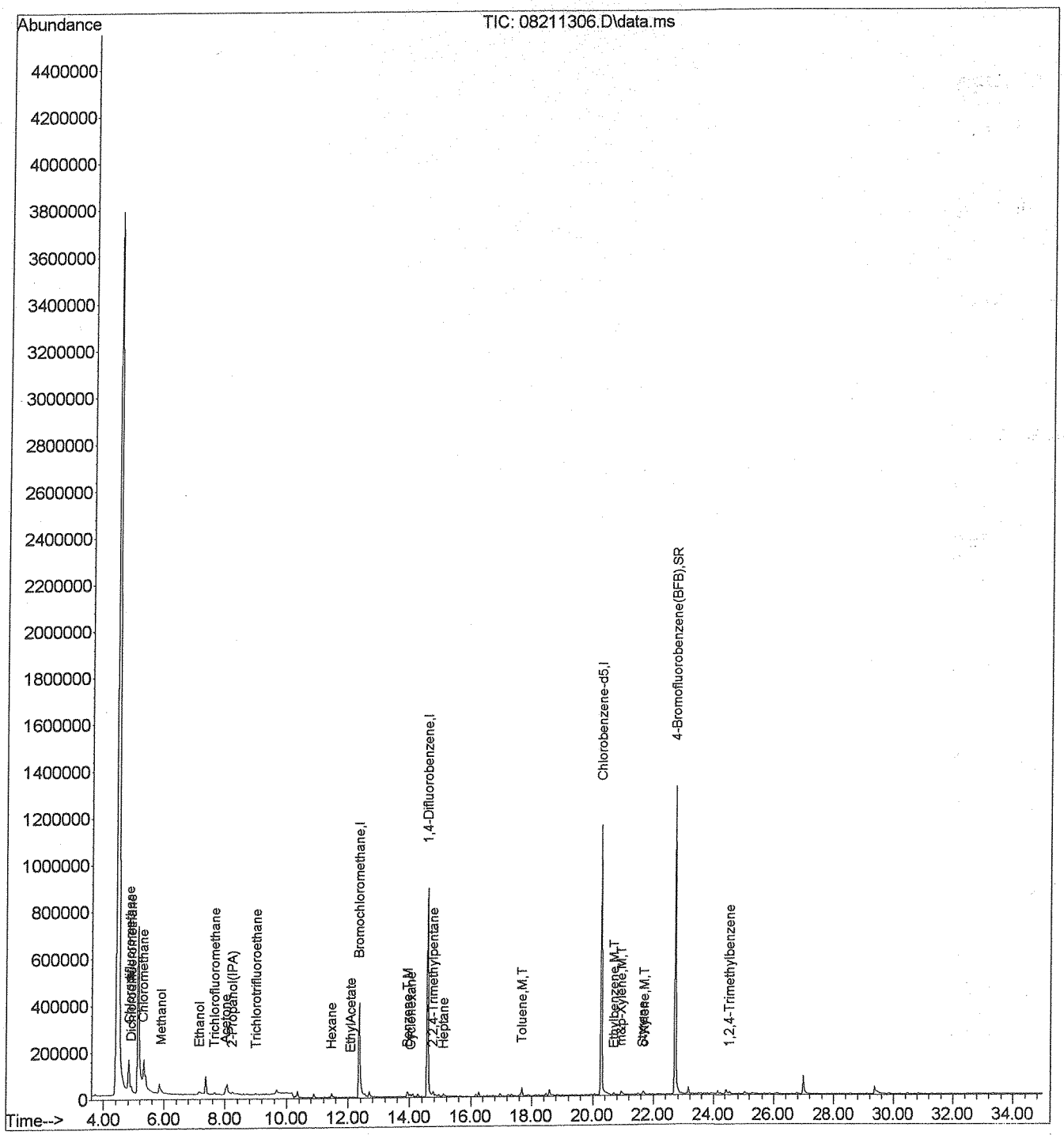
(#) = qualifier out of range (m) = manual integration (+) = signals summed

8/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211306.D
Acq On : 21 Aug 2013 13:03
Operator : JJG
Sample : 131115-65649 x1
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 21 14:28:47 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



08/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211307.D
Acq On : 21 Aug 2013 13:51
Operator : JJG
Sample : 131115-65649 x1 dp
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 21 14:38:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	155482	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	877706	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.267	117	825989	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	481473	10.14 ppbv	0.00
Spiked Amount 10.000			Recovery = 101.40%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.836	51	12953	0.33 ppbv #	97
3) Propene	0.000		0	N.D. d	
4) Dichlorodifluoromethane	4.908	85	24508	0.44 ppbv	99
5) Chloromethane	5.288	52	2706	0.35 ppbv #	43
6) Dichlorotetrafluoroethane	5.324	135	321	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.903	31	33926m	3.60 ppbv	
9) 1,3-Butadiene	5.867	54	121	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D. d	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.170	45	34892m	3.35 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.021	58	30019m	2.54 ppbv	
16) Trichlorofluoromethane	7.659	103	6785	0.21 ppbv	91
17) 2-Propanol(IPA)	8.238	45	35692m	0.94 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	9.324	39	237	N.D.	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	8.998	103	1489	0.06 ppbv	91
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	0.000		0	N.D. d	
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.458	86	932	0.19 ppbv	89
31) Chloroform	12.493	83	1059	N.D.	
32) EthylAcetate	12.083	43	5413m	0.09 ppbv	

8/21/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211307.D
Acq On : 21 Aug 2013 13:51
Operator : JJG
Sample : 131115-65649 x1 dp
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 21 14:38:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration

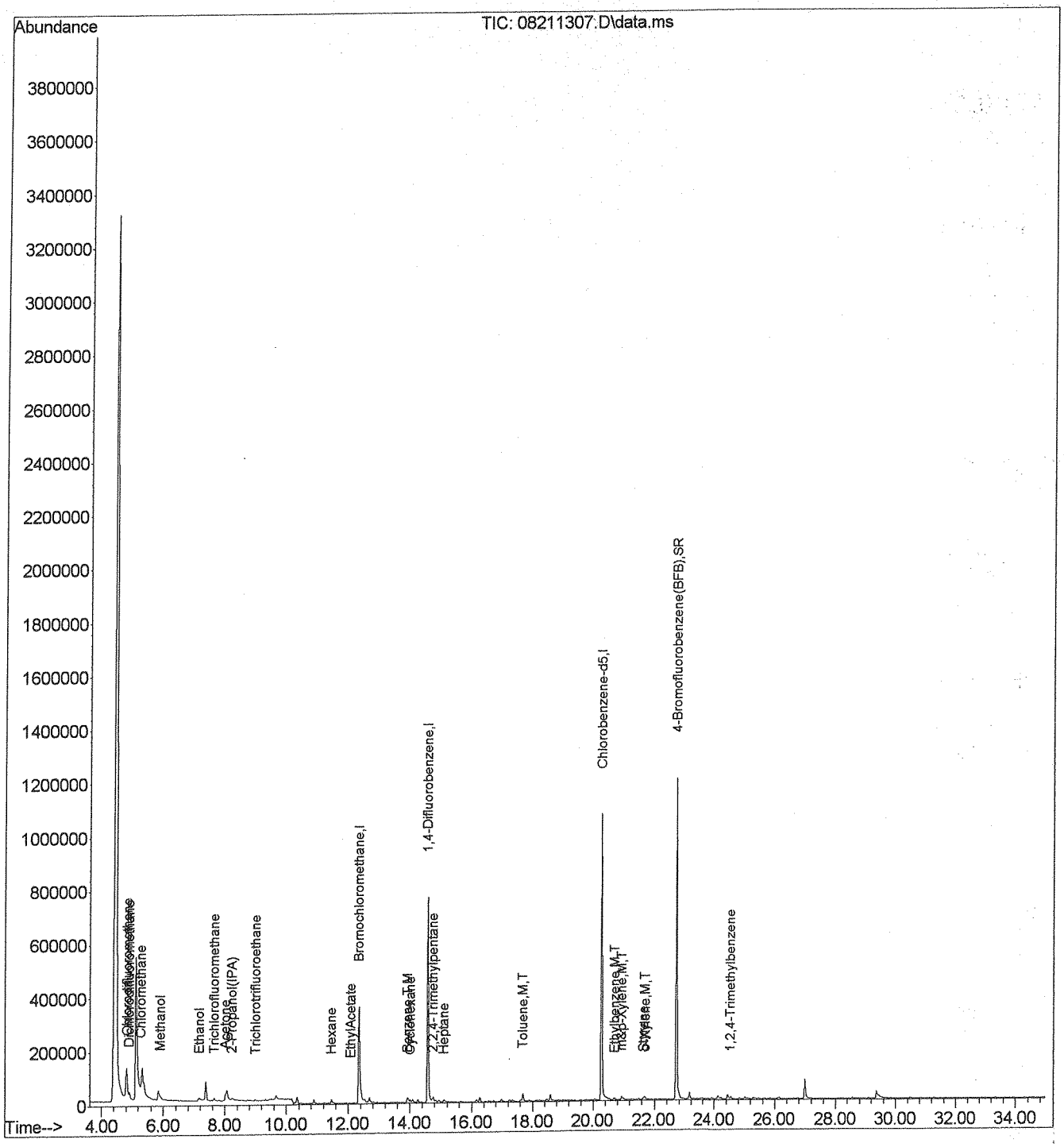
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.760	72	378	N.D.	
34) 1,2-Dichloroethane	13.598	62	220	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	17177	0.22 ppbv	97
38) CarbonTetrachloride	0.000		0	N.D. d	
39) Cyclohexane	14.008	69	1536	0.13 ppbv #	84
40) 1,2-Dichloropropane	15.417	63	1040	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.757	57	17942m	0.12 ppbv	
45) Heptane	15.096	71	2367	0.10 ppbv	80
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	0.000		0	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	122	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	31812	0.35 ppbv #	98
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	337	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.001	166	325	N.D.	
56) Chlorobenzene	20.267	114	262	N.D.	
57) Ethylbenzene	20.713	91	6875	0.06 ppbv #	91
58) m&p-Xylene	20.945	106	8023	0.18 ppbv	99
59) Bromoform	21.837	173	111	N.D.	
60) Styrene	21.658	104	3626	0.05 ppbv #	88
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	6790m	0.07 ppbv	
64) 4-Ethyltoluene	23.691	120	561	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	877	N.D.	
66) 1,2,4-Trimethylbenzene	24.529	120	2743	0.05 ppbv #	83
67) BenzylChloride(a-Chlor...	25.189	91	122	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	1380	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	608	N.D.	
72) Hexachlorobutadiene	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\082113\
Data File : 08211307.D
Acq On : 21 Aug 2013 13:51
Operator : JJG
Sample : 131115-65649 x1 dp
Misc : IS/Surr: PS082212-01 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 21 14:38:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\072213.M
Quant Title : TO-15/TO-14
QLast Update : Tue Jul 23 12:50:49 2013
Response via : Initial Calibration



Calibration Status Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 072213.M
Title : TO-15/TO-14
Last Update : Tue Jul 23 12:38:41 2013
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.5	1	10	C:\msdchem\1\MS03\2013\072213\07221327.D
2	1.0	1	10	C:\msdchem\1\MS03\2013\072213\07221326.D
3	2.0	2	10	C:\msdchem\1\MS03\2013\072213\07221325.D
4	5.0	5	10	C:\msdchem\1\MS03\2013\072213\07221324.D
5	10	10	10	C:\msdchem\1\MS03\2013\072213\07221323.D
6	20	20	10	C:\msdchem\1\MS03\2013\072213\07221322.D
7	50	51	10	C:\msdchem\1\MS03\2013\072213\07221321.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.5	Jul 23 09:46 2013	Jul 23 09:05 2013	23 Jul 2013 6:08
2	1.0	Jul 23 09:46 2013	Jul 23 09:02 2013	23 Jul 2013 5:21
3	2.0	Jul 23 09:46 2013	Jul 23 08:56 2013	23 Jul 2013 4:33
4	5.0	Jul 23 09:45 2013	Jul 23 08:53 2013	23 Jul 2013 3:45
5	10	Jul 23 09:45 2013	Jul 23 08:51 2013	23 Jul 2013 2:57
6	20	Jul 23 09:45 2013	Jul 23 08:48 2013	23 Jul 2013 2:09
7	50	Jul 23 09:44 2013	Jul 23 08:45 2013	23 Jul 2013 1:21

072213.M Tue Jul 23 12:40:08 2013

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 072213.M
Title : TO-15/TO-14
Last Update : Tue Jul 23 12:50:49 2013
Response Via : Initial Calibration

Calibration Files
0.5 =07221327.D 1.0 =07221326.D 2.0 =07221325.D 5.0 =07221324.D 10 =07221323.D 20 =07221322.D
50 =07221321.D

		Compound	0.5	1.0	2.0	5.0	10	20	50	Avg	%RSD
1)	I	Bromochloromethane	ISTD								
2)		Chlorodifluoro...	2.952	2.719	2.720	2.599	2.471	2.310	2.156	2.561	10.57
3)		Propene	0.814	0.743	0.820	0.802	0.755	0.763	0.727	0.775	4.74
4)		Dichlorodifluo...	4.148	3.728	3.871	3.688	3.495	3.251	3.053	3.605	10.31
5)		Chloromethane	0.674	0.529	0.574	0.494	0.458	0.415	0.334	0.497	22.24
6)		Dichlorotetraf...	2.427	2.214	2.351	2.209	2.106	1.936	1.751	2.142	10.98
7)		VinylChloride	1.683	1.535	1.640	1.564	1.507	1.399	1.332	1.523	8.19
8)		Methanol		1.022	0.934	0.765	0.706	0.628	0.597	0.775	21.89
9)		1,3-Butadiene	1.114	1.036	1.097	1.063	1.045	0.935	0.813	1.015	10.44
10)		Bromomethane	1.291	1.082	1.098	1.045	0.973	0.880	0.756	1.018	16.80
11)		Chloroethane	0.227	0.230	0.232	0.229	0.222	0.210	0.209	0.223	4.38
12)		Dichlorofluoro...	3.326	3.078	3.179	2.973	2.867	2.682	2.505	2.944	9.68
13)		Ethanol	0.733	0.689	0.652	0.772	0.690	0.612	0.543	0.670	11.40
14)		VinylBromide	1.079	1.057	1.127	1.110	1.080	1.015	0.965	1.062	5.28
15)		Acetone	1.060	0.846	0.781	0.699	0.679	0.640	0.608	0.759	20.53
16)		Trichlorofluor...	2.286	2.161	2.184	2.085	2.036	1.886	1.737	2.054	9.16
17)		2-Propanol(IPA)	3.119	2.473	2.598	2.550	2.369	2.106	1.869	2.440	16.23
18)		Acrylonitrile	1.219	1.170	1.268	1.135	1.125	1.039	0.868	1.118	11.81
19)	M,T	1,1-Dichloroet...	1.345	1.306	1.308	1.264	1.165	1.021	0.947	1.194	13.02
20)	M,T	MethyleneChlor...	1.534	1.330	1.307	1.223	1.173	1.061	0.987	1.231	14.82
21)		AllylChloride	1.657	1.353	1.313	1.281	1.157	1.017	1.011	1.256	17.84
22)		CarbonDisulfide	5.264	4.508	4.405	4.060	3.861	3.478	3.439	4.145	15.52
23)		Trichlorotrifl...	1.998	1.892	1.886	1.743	1.645	1.491	1.242	1.699	15.54
24)		trans-1,2-Dich...	1.471	1.451	1.461	1.391	1.320	1.241	1.135	1.353	9.43
25)		1,1-Dichloroet...	3.654	3.319	3.417	3.155	2.942	2.692	2.400	3.083	14.13
26)		MethylTertButy...	3.919	3.680	3.710	3.558	3.256	2.857	2.405	3.341	16.17
27)		VinylAcetate	5.168	4.915	5.159	4.848	4.602	4.189	3.580	4.637	12.43
28)		2-Butanone(MEK)	0.710	0.699	0.735	0.741	0.714	0.678	0.631	0.701	5.34

7/24/13

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 072213.M
Title : TO-15/TO-14

29)		cis-1,2-Dichlo...	1.634	1.584	1.572	1.509	1.454	1.363	1.289	1.486	8.44
30)		Hexane	0.370	0.338	0.332	0.315	0.303	0.261	0.240	0.309	14.59
31)		Chloroform	3.448	3.182	3.244	3.085	3.007	2.759	2.509	3.034	10.36
32)		EthylAcetate	4.276	4.147	4.376	4.275	3.968	3.679	3.189	3.987	10.62
33)		Tetrahydrofuran	0.825	0.736	0.758	0.723	0.690	0.651	0.587	0.710	10.81
34)		1,2-Dichloroet...	2.326	2.253	2.430	2.291	2.177	2.077	1.963	2.217	7.13
35)		1,1,1-Trichlor...	3.599	3.382	3.447	3.239	3.063	2.801	2.576	3.158	11.63
36)	I	1,4-Difluorobenzene	----------	ISTD	----------						
37)	T,M	Benzene	1.065	0.986	0.941	0.901	0.833	0.755	0.647	0.875	16.28
38)		CarbonTetrachl...	0.677	0.646	0.646	0.609	0.568	0.523	0.453	0.589	13.49
39)		Cyclohexane	0.161	0.151	0.147	0.135	0.127	0.116	0.103	0.134	15.23
40)		1,2-Dichloropr...	0.469	0.427	0.398	0.388	0.361	0.335	0.300	0.383	14.81
41)		Bromodichlorom...	0.472	0.453	0.457	0.436	0.413	0.380	0.343	0.422	11.00
42)		1,4-Dioxane	0.235	0.225	0.221	0.211	0.200	0.190	0.176	0.208	9.97
43)	M,T	Trichloroethen...	0.410	0.384	0.375	0.367	0.344	0.331	0.289	0.357	11.09
44)		2,2,4-Trimethy...	2.025	1.899	1.819	1.732	1.628	1.485	1.217	1.686	16.14
45)		Heptane	0.331	0.309	0.298	0.286	0.275	0.258	0.226	0.283	12.22
46)		cis-1,3-Dichlo...	0.538	0.531	0.513	0.508	0.490	0.455	0.417	0.493	8.81
47)		4-Methyl-2-pen...	0.365	0.363	0.369	0.359	0.349	0.321	0.284	0.344	8.99
48)		trans-1,3-Dich...	0.538	0.527	0.521	0.493	0.471	0.463	0.430	0.492	7.97
49)		1,1,2-Trichlor...	0.434	0.410	0.399	0.373	0.354	0.328	0.293	0.370	13.26
50)	M,T	Toluene	1.219	1.151	1.141	1.056	0.996	0.904	0.802	1.038	14.28
51)		2-Hexanone(MBK)	0.439	0.458	0.470	0.446	0.429	0.400	0.357	0.428	9.03
52)		Dibromochlorom...	0.667	0.662	0.659	0.642	0.606	0.575	0.489	0.614	10.55
53)		1,2-Dibromoethane	0.619	0.623	0.619	0.586	0.558	0.519	0.461	0.569	10.77
54)	M,T	Tetrachloroeth...	0.554	0.525	0.513	0.482	0.456	0.421	0.370	0.474	13.45
55)	I	Chlorobenzene-d5	----------	ISTD	----------						
56)	M,T	Chlorobenzene	0.296	0.300	0.279	0.262	0.261	0.246	0.215	0.265	11.14
57)	M,T	Ethylbenzene	1.632	1.611	1.568	1.425	1.409	1.223	1.054	1.418	15.13
58)	M,T	m&p-Xylene	0.633	0.598	0.574	0.540	0.512	0.474	0.406	0.534	14.48
59)		Bromoform	0.749	0.738	0.739	0.693	0.687	0.618	0.527	0.679	11.88
60)		Styrene	0.925	0.921	0.903	0.869	0.866	0.789	0.720	0.856	8.86
61)		1,1,2,2-Tetrac...	1.044	1.040	0.970	0.903	0.876	0.782	0.627	0.892	16.75
62)	M,T	o-Xylene	1.340	1.255	1.190	1.103	1.066	0.948	0.817	1.103	16.29
63)	SR	4-Bromofluorob...	0.577	0.582	0.569	0.554	0.582	0.571	0.588	0.575	1.94
64)		4-Ethyltoluene	0.458	0.492	0.467	0.443	0.444	0.398	0.337	0.434	11.81

Method Path : C:\msdchem\1\METHODS\2013\
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65)	1,3,5-Trimethy...	0.684	0.705	0.681	0.623	0.612	0.544	0.471	0.617	13.72
66)	1,2,4-Trimethy...	0.658	0.673	0.669	0.623	0.606	0.566	0.464	0.609	12.23
67)	BenzylChloride...	0.807	0.959	0.986	1.063	1.081	1.090	0.999	0.998	9.82
68)	1,3-Dichlorobe...	0.934	0.964	0.956	0.916	0.912	0.825	0.715	0.889	10.05
69)	1,4-Dichlorobe...	1.028	1.004	0.965	0.900	0.871	0.796	0.698	0.895	13.19
70)	1,2-Dichlorobe...	1.100	1.065	1.010	0.920	0.894	0.828	0.706	0.932	14.85
71)	1,2,4-Trichlor...	0.899	0.951	0.942	0.935	0.909	0.843	0.691	0.881	10.39
72)	Hexachlorobuta...	0.762	0.771	0.750	0.699	0.696	0.622	0.500	0.686	14.06

(#) = Out of Range