

## Atmospheric Analysis & Consulting, Inc.

CLIENT : Soil Water Air Protection Enterprise  
PROJECT NAME : Bridgeton Sanitary Landfill Air Quality Assessment  
AAC PROJECT NO. : 130679  
REPORT DATE : 06/07/2013

On June 6, 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 W2-Canister	130679-63353	433.5
D-1 W5-Canister	130679-63354	486.6
D-2 F/S-Canister	130679-63355	662.2
D-3 SVP-Canister	130679-63356	518.8


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<sub>2</sub> 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.

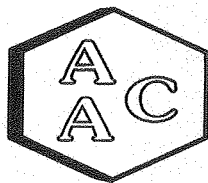
I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.

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

  
Marcus Hueppe  
Laboratory Director

This report consists of 55 pages.





**CANISTER PRESSURE LOG**

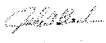
Client: Soil Water Air Protection Ent      Project No.: 130679  
Date: 6/6/2013

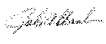
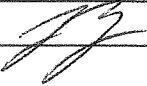
Canister #	Sample #	Initial Pressure	Final Pressure
577	63353	433.5	1024.2
700	63354	486.6	1016.4
703	63355	662.2	1016.5
578	63356	518.8	1025.0

AAC # 130679

**CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM**

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE					Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011					Date: June 3rd, 2013		Page 1 of 1							
Project Manager: PAUL ROSENFELD, PH.D.					REQUESTED TESTS / ANALYSES										Special Instructions / Conditions of Receipt				
Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401																			
Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT																			
Sampled By: John Blank		Sampler Signature: 																	
LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCs - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic 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
103353	U-1 W2	Canister	June 3rd	4 Hr	X	X												Canister # 577	Flow # 711
103354	D-1 W5	Canister	June 3rd	4 Hr	X	X												Canister # 700	Flow # 808
103355	D-2 F/S	Canister	June 3rd	4 Hr	X	X												Canister # 703	Flow # 693
103356	D-3 SVP	Canister	June 3rd	4 Hr	X	X												Canister # 578	Flow # 692

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: 	John Blank	Date: June 3rd, 2013	Time: 12 Noon	Received By:	Date:	Time:	
Relinquished By:		Date:	Time:	Received By:	Date:	Time:	
Relinquished By:		Date:	Time:	Received By: 	Date: 6/6/2013	Time: 1230	

# 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.: \_\_\_\_\_

Sample Name and/or ID No.: U-1 W2

AAC Batch ID: 130679 AAC Sample ID: 63353

## SAMPLING INFORMATION

Start Date/Time: 6/3 - 8:30 AM Stop Date/Time: 6/3 12:30 PM

Start Temp/Pressure\*: 16°C 30.06 Stop Temp/Pressure\*: 18°C - 30.09

Initial Can Pressure\*\*: -31 Final Can Pressure\*\*: -15

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

Comments: \_\_\_\_\_

John Blank  
Sampler Name (Print)

John Blank  
Sampler Signature/Date

## LABORATORY INFORMATION

Canister Size: 6 - Liter

Sampling Period: 4 - Hour

Canister Serial No.: 577

Flow Controller Serial No.: 711

Initial Pressure: 7.2

Certified Flow Rate: 17.9 18.0

Return Pressure: 433.4

Certified By/Date: JJ 5/22/2013 22 6/7/13

Final Pressure: 1024.2

Flow Rate upon Return: 17.9

Date Shipped From Lab: 5/22/2013

Shipped By: JJ

Date Returned to Lab: 6/6/2013

Received By: JJ

Flow Controller Certification File ID: M503/05291305

Canister Certification File ID: M503/05211316

Certification Type: SIM \_\_\_\_\_ SCAN  NJLL \_\_\_\_\_ PAMS \_\_\_\_\_ Other \_\_\_\_\_

John Blank  
Chemist Signature/Date

John Blank  
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.: BRIGHTON SANITARY LANDFILL

Site Address and/or ID No.: \_\_\_\_\_

Sample Name and/or ID No.: D-1 WS

AAC Batch ID: 130679 AAC Sample ID: 63354

## SAMPLING INFORMATION

Start Date/Time: 8:55 AM Stop Date/Time: 12:55 AM

Start Temp/Pressure\*: 16 / 30.03 Stop Temp/Pressure\*: 18°C / 30.09

Initial Can Pressure\*\*: -31 Final Can Pressure\*\*: -13

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

Comments: \_\_\_\_\_

JOHN BLANK  
Sampler Name (Print)

John Blank  
Sampler Signature/Date

## LABORATORY INFORMATION

Canister Size: 6 - Liter

Sampling Period: 4 - Hour

Canister Serial No.: 700

Flow Controller Serial No.: 808

Initial Pressure: 7.1

Certified Flow Rate: 18.0

Return Pressure: 486.6

Certified By/Date: JJ 5/13/2013 <sup>5/24/2013</sup>

Final Pressure: 1016.4

Flow Rate upon Return: 18.7

Date Shipped From Lab: 5/22/2013

Shipped By: JJ

Date Returned to Lab: 6/6/2013

Received By: JJ

Flow Controller Certification File ID: M503/05291305

Canister Certification File ID: M503/05211315

Certification Type: SIM  SCAN  NJLL  PAMS  Other

John Blank 06/07/13  
Chemist Signature/Date

MW 6/13/13  
Lab Manager Signature/Date

**Sampler is required to fill out all highlighted sections during sampling.  
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# 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.: \_\_\_\_\_  
Sample Name and/or ID No.: D-2 F/S   
AAC Batch ID: 130679 AAC Sample ID: 63355

### SAMPLING INFORMATION

Start Date/Time: 6/3 9:30 Stop Date/Time: 6/3 1:30  
Start Temp/Pressure\*: 16°C 30.03 Stop Temp/Pressure\*: 18°C 30.08  
Initial Can Pressure\*\*: -27 Final Can Pressure\*\*: -4

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

Comments: \_\_\_\_\_

JOHN BLANK  
Sampler Name (Print)

John Blank  
Sampler Signature/Date

### LABORATORY INFORMATION

Canister Size: 6 - Liter Sampling Period: 4 - Hour  
Canister Serial No.: 703 Flow Controller Serial No.: 693  
Initial Pressure: 7.6 Certified Flow Rate: 18.0  
Return Pressure: 622.2 Certified By/Date: JJ 5/13/2013  
Final Pressure: 1016.5 Flow Rate upon Return: 21.3

Date Shipped From Lab: 5/22/2013 Shipped By: JJ

Date Returned to Lab: 6/3/2013 Received By: JJ

Flow Controller Certification File ID: 11603/05211305

Canister Certification File ID: 11603/05211318

Certification Type: SIM  SCAN  NJLL  PAMS  Other

John Blank 06/07/13  
Chemist Signature/Date

                    6/13/13  
Lab Manager Signature/Date

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All remaining sections will be completed upon return by the laboratory.**

12  
6/7/13

# 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.: \_\_\_\_\_  
Sample Name and/or ID No.: D-3 SVP  
AAC Batch ID: 130679 AAC Sample ID: 63356

### SAMPLING INFORMATION

Start Date/Time: 6/3 9:45 Stop Date/Time: 6/3 13:45  
Start Temp/Pressure\*: 16°C - 30.03 Stop Temp/Pressure\*: 19°C - 30.07  
Initial Can Pressure\*\*: -29 Final Can Pressure\*\*: -4

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

Comments: \_\_\_\_\_  
\_\_\_\_\_

JOHN BLANK  
Sampler Name (Print)

John Blank  
Sampler Signature/Date

### LABORATORY INFORMATION

Canister Size: 6 - Liter Sampling Period: 4 - Hour  
Canister Serial No.: 578 Flow Controller Serial No.: 692  
Initial Pressure: 7.2 Certified Flow Rate: 18.1 18.0  
Return Pressure: 518.8 Certified By/Date: JJ 5/24/2013  
Final Pressure: 1015.0 Flow Rate upon Return: 18.1

Date Shipped From Lab: 5/22/2013 Shipped By: JJ

Date Returned to Lab: 6/6/2013 Received By: JJ

Flow Controller Certification File ID: 1403/0529305

Canister Certification File ID: 1403/05211317

Certification Type: SIM \_\_\_\_\_ SCAN  NJLL \_\_\_\_\_ PAMS \_\_\_\_\_ Other \_\_\_\_\_

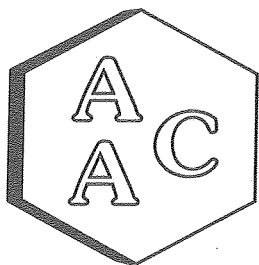
John Blank  
Chemist Signature/Date

JJ 6/13/13  
Lab Manager Signature/Date

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All remaining sections will be completed upon return by the laboratory.*

# TO-15 REPORTS





# Atmospheric Analysis & Consulting, Inc.

## Laboratory Analysis Report

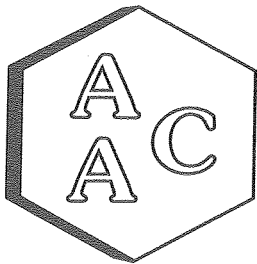
**CLIENT** : Soil Water Air Protection Enterprise  
**PROJECT NO** : 130679  
**MATRIX** : AIR  
**UNITS** : PPB (v/v)

**DATE RECEIVED** : 06/06/2013  
**DATE REPORTED** : 06/07/2013

### VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 W2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-1 W5-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
	AAC ID	Result	Qualifier		Analysis DF	Result	Qualifier		
	130679-63353				130679-63354				
Date Sampled	06/03/2013				06/03/2013				
Date Analyzed	06/07/2013				06/07/2013				
Can Dilution Factor	2.36				2.09				
Chlorodifluoromethane	0.26	J	1.0	1.18	0.27	J	1.0	1.04	0.5
Propene	0.95	J	1.0	2.36	1.07	J	1.0	2.09	1.0
Dichlorodifluoromethane	0.57	J	1.0	1.18	0.56	J	1.0	1.04	0.5
Chloromethane	0.54	J	1.0	1.18	0.40	J	1.0	1.04	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Vinyl Chloride	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Methanol	10.6	J	1.0	11.8	20.6		1.0	10.4	5.0
1,3-Butadiene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Bromomethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Chloroethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Dichlorofluoromethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Ethanol	3.43	J	1.0	4.73	4.41		1.0	4.18	2.0
Vinyl Bromide	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Acetone	3.85	J	1.0	4.73	5.64		1.0	4.18	2.0
Trichlorofluoromethane	0.28	J	1.0	1.18	0.27	J	1.0	1.04	0.5
2-Propanol (IPA)	1.35	J	1.0	4.73	6.60		1.0	4.18	2.0
Acrylonitrile	<SRL	U	1.0	2.36	<SRL	U	1.0	2.09	1.0
1,1-Dichloroethene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Methylene Chloride (DCM)	1.75	J	1.0	2.36	<SRL	U	1.0	2.09	1.0
Allyl Chloride	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Carbon Disulfide	NR	U	1.0	1.18	NR	U	1.0	1.04	0.5
Trichlorotrifluoroethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,1-Dichloroethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Vinyl Acetate	<SRL	U	1.0	2.36	<SRL	U	1.0	2.09	1.0
2-Butanone (MEK)	<SRL	U	1.0	2.36	0.65	J	1.0	2.09	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Hexane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Chloroform	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Ethyl Acetate	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Tetrahydrofuran	<SRL	U	1.0	1.18	0.44	J	1.0	1.04	0.5
1,2-Dichloroethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5





# Atmospheric Analysis & Consulting, Inc.

## Laboratory Analysis Report

**CLIENT** : Soil Water Air Protection Enterprise  
**PROJECT NO** : 130679  
**MATRIX** : AIR  
**UNITS** : PPB (v/v)

**DATE RECEIVED** : 06/06/2013  
**DATE REPORTED** : 06/07/2013

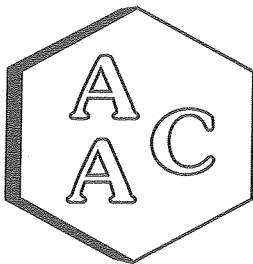
### VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 W2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-1 W5-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
	AAC ID	Result	Qualifier		AAC ID	Result	Qualifier		
Date Sampled	130679-63353			06/03/2013	130679-63354			06/03/2013	
Date Analyzed	06/03/2013			06/07/2013	06/07/2013			06/07/2013	
Can Dilution Factor	2.36			2.09	2.09				
	Result	Qualifier	Analysis DF	Result	Qualifier	Analysis DF			
Benzene	<SRL	U	1.0	1.18	0.75	J	1.0	1.04	0.5
Carbon Tetrachloride	0.12	J	1.0	1.18	0.10	J	1.0	1.04	0.5
Cyclohexane	0.28	J	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,2-Dichloropropane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Bromodichloromethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,4-Dioxane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Trichloroethene (TCE)	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
2,2,4-Trimethylpentane	0.19	J	1.0	1.18	0.17	J	1.0	1.04	0.5
Heptane	0.14	J	1.0	1.18	<SRL	U	1.0	1.04	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Toluene	1.58		1.0	1.18	1.25		1.0	1.04	0.5
2-Hexanone (MBK)	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Dibromochloromethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,2-Dibromoethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Chlorobenzene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Ethylbenzene	0.12	J	1.0	1.18	0.15	J	1.0	1.04	0.5
m & p-Xylenes	0.43	J	1.0	2.36	0.38	J	1.0	2.09	1.0
Bromoform	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Styrene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
o-Xylene	0.19	J	1.0	1.18	0.17	J	1.0	1.04	0.5
4-Ethyltoluene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,3,5-Trimethylbenzene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,2,4-Trimethylbenzene	0.24	J	1.0	1.18	0.19	J	1.0	1.04	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
Hexachlorobutadiene	<SRL	U	1.0	1.18	<SRL	U	1.0	1.04	0.5
BFB-Surrogate Std. % Recovery	102%				104%				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  
 Laboratory Director





# Atmospheric Analysis & Consulting, Inc.

## Laboratory Analysis Report

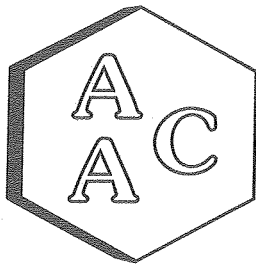
**CLIENT** : Soil Water Air Protection Enterprise  
**PROJECT NO** : 130679  
**MATRIX** : AIR  
**UNITS** : PPB (v/v)

**DATE RECEIVED** : 06/06/2013  
**DATE REPORTED** : 06/07/2013

### VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID AAC ID	D-2 F/S-Canister 130679-63355			Sample Reporting Limit (SRL) (MRLxDF's)	D-3 SVP-Canister 130679-63356			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
	Date Sampled	Date Analyzed	Can Dilution Factor		Date Sampled	Date Analyzed	Can Dilution Factor		
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.28	J	1.0	0.77	0.34	J	1.0	0.99	0.5
Propene	0.83	J	1.0	1.54	0.67	J	1.0	1.98	1.0
Dichlorodifluoromethane	0.54	J	1.0	0.77	0.55	J	1.0	0.99	0.5
Chloromethane	0.46	J	1.0	0.77	0.53	J	1.0	0.99	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Vinyl Chloride	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Methanol	14.7		1.0	7.68	9.76	J	1.0	9.88	5.0
1,3-Butadiene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Bromomethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Chloroethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Ethanol	2.69	J	1.0	3.07	2.65	J	1.0	3.95	2.0
Vinyl Bromide	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Acetone	3.56		1.0	3.07	3.28	J	1.0	3.95	2.0
Trichlorofluoromethane	0.28	J	1.0	0.77	0.30	J	1.0	0.99	0.5
2-Propanol (IPA)	0.87	J	1.0	3.07	1.01	J	1.0	3.95	2.0
Acrylonitrile	<SRL	U	1.0	1.54	<SRL	U	1.0	1.98	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	1.54	<SRL	U	1.0	1.98	1.0
Allyl Chloride	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Carbon Disulfide	NR		1.0	0.77	NR	U	1.0	0.99	0.5
Trichlorotrifluoroethane	0.09	J	1.0	0.77	<SRL	U	1.0	0.99	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Vinyl Acetate	<SRL	U	1.0	1.54	<SRL	U	1.0	1.98	1.0
2-Butanone (MEK)	0.43	J	1.0	1.54	<SRL	U	1.0	1.98	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Hexane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Chloroform	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Ethyl Acetate	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Tetrahydrofuran	0.21	J	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5





# Atmospheric Analysis & Consulting, Inc.

## Laboratory Analysis Report

**CLIENT** : Soil Water Air Protection Enterprise  
**PROJECT NO** : 130679  
**MATRIX** : AIR  
**UNITS** : PPB (v/v)

**DATE RECEIVED** : 06/06/2013  
**DATE REPORTED** : 06/07/2013

### VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

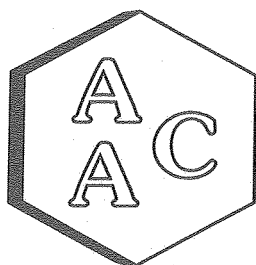
Client ID AAC ID	D-2 F/S-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-3 SVP-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
130679-63355	130679-63355			130679-63356	130679-63356				
06/03/2013	06/03/2013			06/03/2013	06/03/2013				
06/07/2013	06/07/2013			06/07/2013	06/07/2013				
1.54	1.54			1.98	1.98				
Benzene	0.58	J	1.0	0.77	<SRL	U	1.0	0.99	0.5
Carbon Tetrachloride	0.09	J	1.0	0.77	0.10	J	1.0	0.99	0.5
Cyclohexane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Bromodichloromethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,4-Dioxane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
2,2,4-Trimethylpentane	0.09	J	1.0	0.77	0.12	J	1.0	0.99	0.5
Heptane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Toluene	0.63	J	1.0	0.77	1.03	J	1.0	0.99	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Dibromochloromethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Chlorobenzene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Ethylbenzene	0.08	J	1.0	0.77	0.10	J	1.0	0.99	0.5
m & p-Xylenes	0.23	J	1.0	1.54	0.28	J	1.0	1.98	1.0
Bromoform	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Styrene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
o-Xylene	0.11	J	1.0	0.77	0.12	J	1.0	0.99	0.5
4-Ethyltoluene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,3,5-Trimethylbenzene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,2,4-Trimethylbenzene	0.15	J	1.0	0.77	0.18	J	1.0	0.99	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.99	0.5
BFB-Surrogate Std. % Recovery	101%				103%				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  
 Laboratory Director



TO-15  
QC  
REPORT



# Atmospheric Analysis & Consulting, Inc.

ANALYSIS DATE : 06/07/2013

INSTRUMENT ID : GC/MS-03

ANALYST : JJG

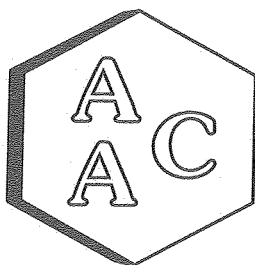
CALIBRATION STD ID : PS040413-01

## VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 05/15/2013 Calibration

<i>Compounds</i>	<i>Conc</i>	<i>Daily Conc</i>	<i>%REC*</i>
4-BFB (surrogate standard)	10.00	9.69	97
Chlorodifluoromethane	10.10	9.47	94
Propene	11.00	10.28	93
Dichlorodifluoromethane	9.80	9.51	97
Chloromethane	10.10	9.94	98
Dichlorotetrafluoroethane	10.10	10.00	99
Vinyl Chloride	10.20	10.13	99
Methanol	4.90	5.12	104
1,3-Butadiene	10.50	9.32	89
Bromomethane	10.20	8.35	82
Chloroethane	10.00	9.19	92
Dichlorofluoromethane	10.00	10.28	103
Ethanol	9.80	10.12	103
Vinyl Bromide	10.20	10.56	104
Acetone	10.80	9.86	91
Trichlorofluoromethane	10.10	10.70	106
2-Propanol (IPA)	11.00	10.42	95
Acrylonitrile	10.50	10.54	100
1,1-Dichloroethene	10.50	10.22	97
Methylene Chloride (DCM)	10.40	9.80	94
Allyl Chloride	11.00	11.44	104
Carbon Disulfide	10.50	9.90	94
Trichlorotrifluoroethane	10.40	10.13	97
trans-1,2-Dichloroethene	10.40	10.72	103
1,1-Dichloroethane	10.40	10.17	98
Methyl Tert Butyl Ether (MTBE)	10.60	10.20	96
Vinyl Acetate	9.70	10.01	103
2-Butanone (MEK)	10.60	10.57	100
cis-1,2-Dichloroethene	10.60	10.43	98
Hexane	10.70	10.33	97
Chloroform	10.60	10.65	100
Ethyl Acetate	11.00	11.36	103
Tetrahydrofuran	10.80	10.54	98
1,2-Dichloroethane	10.40	10.98	106
1,1,1-Trichloroethane	10.50	10.84	103





# Atmospheric Analysis & Consulting, Inc.

ANALYSIS DATE : 06/07/2013

INSTRUMENT ID : GC/MS-03

ANALYST : JYG

CALIBRATION STD ID : PS040413-01

## VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

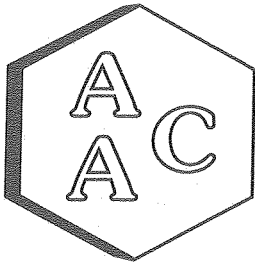
Continuing Calibration Verification of the 05/15/2013 Calibration

Compounds	Conc	Daily Conc	%REC*
Benzene	10.50	9.93	95
Carbon Tetrachloride	10.10	10.43	103
Cyclohexane	10.50	10.35	99
1,2-Dichloropropane	10.50	10.17	97
Bromodichloromethane	10.30	10.59	103
1,4-Dioxane	10.30	10.08	98
Trichloroethene (TCE)	10.30	10.25	100
2,2,4-Trimethylpentane	10.90	10.81	99
Heptane	10.70	10.69	100
cis-1,3-Dichloropropene	11.00	10.89	99
4-Methyl-2-pentanone (MiBK)	10.30	10.53	102
trans-1,3-Dichloropropene	9.80	10.31	105
1,1,2-Trichloroethane	10.60	10.76	102
Toluene	10.60	10.19	96
2-Hexanone (MBK)	10.80	10.90	101
Dibromochloromethane	11.00	11.32	103
1,2-Dibromoethane	10.40	10.26	99
Tetrachloroethene (PCE)	10.40	10.31	99
Chlorobenzene	10.60	10.28	97
Ethylbenzene	10.50	10.18	97
m & p-Xylenes	20.60	19.40	94
Bromoform	10.30	9.95	97
Styrene	10.40	9.62	93
1,1,2,2-Tetrachloroethane	10.60	9.52	90
o-Xylene	10.60	9.55	90
4-Ethyltoluene	10.40	9.76	94
1,3,5-Trimethylbenzene	10.20	9.26	91
1,2,4-Trimethylbenzene	10.20	9.61	94
Benzyl Chloride (a-Chlorotoluene)	10.00	10.10	101
1,3-Dichlorobenzene	10.00	9.50	95
1,4-Dichlorobenzene	10.00	9.05	91
1,2-Dichlorobenzene	10.00	9.27	93
1,2,4-Trichlorobenzene	9.30	8.42	91
Hexachlorobutadiene	9.80	9.11	93

\* - %REC should be 70-130%

Marcus Hueppe  
Laboratory Director





# Atmospheric Analysis & Consulting, Inc.

## Quality Control/Quality Assurance Report

CLIENT ID : Laboratory Control Spike      DATE ANALYZED : 06/07/2013  
AAC ID : LCS/LCSD      DATE REPORTED : 06/07/2013  
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	10.22	10.03	97	96	1.9
Methylene Chloride (DCM)	0.0	10.40	9.80	9.77	94	94	0.3
Benzene	0.0	10.50	9.93	9.81	95	93	1.2
Trichloroethene (TCE)	0.0	10.30	10.25	10.15	100	99	1.0
Toluene	0.0	10.60	10.19	10.45	96	99	2.5
Tetrachloroethene (PCE)	0.0	10.40	10.31	10.27	99	99	0.4
Chlorobenzene	0.0	10.60	10.28	10.46	97	99	1.7
Ethylbenzene	0.0	10.50	10.18	10.36	97	99	1.8
m & p-Xylenes	0.0	20.60	19.40	19.60	94	95	1.0
o-Xylene	0.0	10.60	9.55	9.74	90	92	2.0

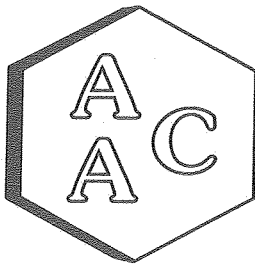
\* Must be 70-130%

\*\* Must be < 25%

Marcus Hueppe  
Laboratory Director







# Atmospheric Analysis & Consulting, Inc.

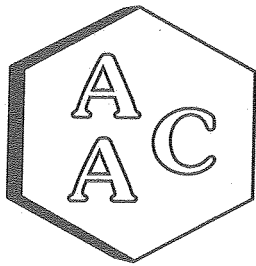
## Method Blank Analysis Report

MATRIX : AIR                      ANALYSIS DATE : 06/07/2013  
 UNITS : ppbv                      REPORT DATE : 06/07/2013

### VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID AAC ID	Method Blank MB 060713	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





# Atmospheric Analysis & Consulting, Inc.

## Method Blank Analysis Report

MATRIX : AIR ANALYSIS DATE : 06/07/2013  
UNITS : ppbv REPORT DATE : 06/07/2013

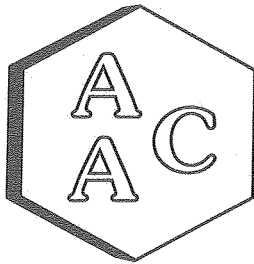
### VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Method Blank	RL
AAC ID	MB 060713	
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
<b>System Monitoring Compounds</b>		
BFB-Surrogate Std. % Recovery	101%	--

RL - Reporting Limit

  
Marcus Hueppe  
Laboratory Director





# Atmospheric Analysis & Consulting, Inc.

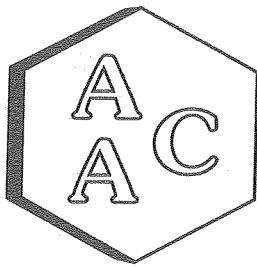
## Quality Control/Quality Assurance Report

**AAC ID** : 130679-63353      **DATE ANALYZED** : 06/07/2013  
**MATRIX** : Air                      **DATE REPORTED** : 06/07/2013  
**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	<SRL	<SRL	0.0
Vinyl Bromide	<SRL	<SRL	0.0
Acetone	<SRL	<SRL	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





# Atmospheric Analysis & Consulting, Inc.

## Quality Control/Quality Assurance Report

AAC ID	: 130679-63353	DATE ANALYZED	: 06/07/2013
MATRIX	: Air	DATE REPORTED	: 06/07/2013
		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	1.58	1.46	7.9
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
<b>System Monitoring Compounds</b>			
BFB-Surrogate Std. % Recovery	102%	103%	0.8

SRL - Sample Reporting Limit

Marcus Hueppe  
 Laboratory Director



**TO-15  
RAW  
DATA**

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071305.D  
 Acq On : 7 Jun 2013 11:51  
 Operator : JJG  
 Sample : 130679-63353 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 13:10:37 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
-----						
Internal Standards						
1) Bromochloromethane	12.350	128	145883	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	792056	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	758301	10.00	ppbv	0.00

System Monitoring Compounds						
63) 4-Bromofluorobenzene (BFB)	22.710	174	485226	10.23	ppbv	0.00

Spiked Amount 10.000 Recovery = 102.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue	Dev (min)
2) Chlorodifluoromethane	4.835	51	3295	0.11	ppbv	# 94	
3) Propene	4.799	42	3038	0.40	ppbv	# 73	
4) Dichlorodifluoromethane	4.908	85	12064	0.24	ppbv	# 96	
5) Chloromethane	5.306	52	1088	0.23	ppbv	# 1	
6) Dichlorotetrafluoroethane	0.000		0	N.D.			
7) VinylChloride	0.000		0	N.D.			
8) Methanol	5.867	31	21251	4.50	ppbv		
9) 1,3-Butadiene	0.000		0	N.D.			
10) Bromomethane	0.000		0	N.D.			0.00
11) Chloroethane	0.000		0	N.D.			0.00
12) Dichlorofluoromethane	0.000		0	N.D.			0.00
13) Ethanol	7.152	45	9043	1.45	ppbv		
14) VinylBromide	0.000		0	N.D.			
15) Acetone	8.002	58	12853	1.63	ppbv	# 83	
16) Trichlorofluoromethane	7.658	103	3356	0.12	ppbv	# 96	
17) 2-Propanol (IPA)	8.238	45	15532	0.57	ppbv	30%	
18) Acrylonitrile	0.000		0	N.D.			
19) 1,1-Dichloroethene	0.000		0	N.D.			
20) MethyleneChloride (DCM)	9.323	84	11356	0.74	ppbv	# 94	
21) AllylChloride	0.000		0	N.D.		# 73	
22) CarbonDisulfide	0.000		0	N.D.		# 96	
23) Trichlorotrifluoroethane	8.998	103	898	N.D.		# 1	
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	10.888	43	568	N.D.			
28) 2-Butanone (MEK)	0.000		0	N.D.			0.00
29) cis-1,2-Dichloroethene	0.000		0	N.D.			0.00
30) Hexane	0.000		0	N.D.			0.00
31) Chloroform	12.493	83	107	N.D.			
32) EthylAcetate	0.000		0	N.D.			

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Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071305.D  
 Acq On : 7 Jun 2013 11:51  
 Operator : JJG  
 Sample : 130679-63353 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 2 Sample Multiplier: 1

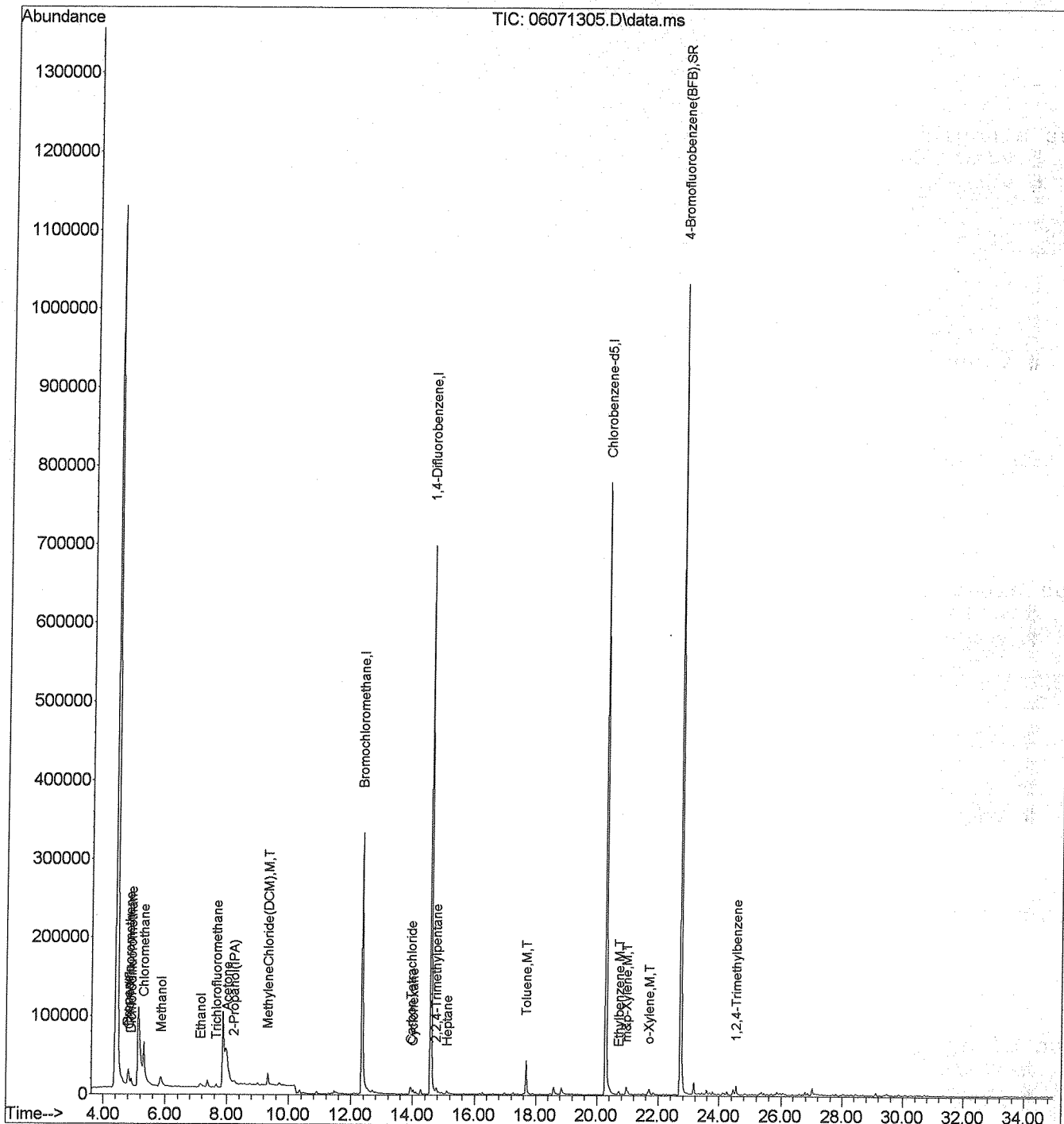
Quant Time: Jun 07 13:10:37 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) Tetrahydrofuran	0.000		0		N.D.	
34) 1,2-Dichloroethane	13.616	62	140		N.D.	
35) 1,1,1-Trichloroethane	0.000		0		N.D.	
37) Benzene	0.000		0		N.D. d	
38) CarbonTetrachloride	13.955	117	22870	0.05	ppbv	
39) Cyclohexane	14.008	69	1009	0.12	ppbv #	67
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	8022	0.08	ppbv #	89
45) Heptane	15.114	71	1118	0.06	ppbv #	91
46) cis-1,3-Dichloropropene	0.000		0		N.D.	
47) 4-Methyl-2-pentanone (M...)	16.594	58	303		N.D.	
48) trans-1,3-Dichloropropene	17.682	75	138		N.D.	
49) 1,1,2-Trichloroethane	0.000		0		N.D.	
50) Toluene	17.682	91	492880	0.67	ppbv	
51) 2-Hexanone (MBK)	0.000		0		N.D.	
52) Dibromochloromethane	19.019	129	118		N.D.	
53) 1,2-Dibromoethane	0.000		0		N.D.	
54) Tetrachloroethene (PCE)	19.019	166	107		N.D.	
56) Chlorobenzene	20.285	114	361		N.D.	
57) Ethylbenzene	20.713	91	5107	0.05	ppbv #	92
58) m&p-Xylene	20.963	106	7197	0.18	ppbv #	90
59) Bromoform	0.000		0		N.D.	
60) Styrene	21.694	104	1023		N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
62) o-Xylene	21.694	91	6224	0.08	ppbv #	91
64) 4-Ethyltoluene	23.691	120	912		N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	1575		N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	4909	0.10	ppbv #	97
67) BenzylChloride (a-Chlor...)	25.207	91	395		N.D.	
68) 1,3-Dichlorobenzene	25.064	146	427		N.D.	
69) 1,4-Dichlorobenzene	25.296	146	745		N.D.	
70) 1,2-Dichlorobenzene	25.867	146	539		N.D.	
71) 1,2,4-Trichlorobenzene	29.469	180	1844		N.D.	
72) Hexachlorobutadiene	30.075	225	575		N.D.	

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

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071305.D  
 Acq On : 7 Jun 2013 11:51  
 Operator : JJG  
 Sample : 130679-63353 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 13:10:37 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration



*JJG*



Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071307.D  
 Acq On : 7 Jun 2013 13:26  
 Operator : JJG  
 Sample : 130679-63354 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 07 15:23:03 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	144994	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	816418	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	746769	10.00	ppbv	0.00

System Monitoring Compounds						
63) 4-Bromofluorobenzene (BFB)	22.711	174	486645	10.41	ppbv	0.00

Spiked Amount 10.000 Recovery = 104.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
2) Chlorodifluoromethane	4.836	51	3857	0.13	ppbv		# 92
3) Propene	4.799	42	3815	0.51	ppbv		94
4) Dichlorodifluoromethane	4.908	85	13596	0.27	ppbv		100
5) Chloromethane	5.306	52	877	0.19	ppbv		# 1
6) Dichlorotetrafluoroethane	5.324	135	228	N.D.			
7) VinylChloride	0.000		0	N.D.			
8) Methanol	5.867	31	454310	9.86	ppbv		
9) 1,3-Butadiene	0.000		0	N.D.			
10) Bromomethane	0.000		0	N.D.	d		0.00
11) Chloroethane	0.000		0	N.D.			0.00
12) Dichlorofluoromethane	0.000		0	N.D.			0.00
13) Ethanol	7.116	45	130330	2.11	ppbv		
14) VinylBromide	0.000		0	N.D.			
15) Acetone	8.002	58	211980	2.70	ppbv		0.00
16) Trichlorofluoromethane	7.659	103	3780	0.13	ppbv		# 89
17) 2-Propanol (IPA)	8.201	45	848580	3.16	ppbv		100
18) Acrylonitrile	0.000		0	N.D.			
19) 1,1-Dichloroethene	0.000		0	N.D.			Qvalue
20) MethyleneChloride (DCM)	0.000		0	N.D.	d		# 92
21) AllylChloride	0.000		0	N.D.			94
22) CarbonDisulfide	0.000		0	N.D.	d		100
23) Trichlorotrifluoroethane	8.998	103	938	N.D.			# 1
24) trans-1,2-Dichloroethene	10.442	96	121	N.D.			
25) 1,1-Dichloroethane	0.000		0	N.D.			Dev(Min)
26) MethylTertButylether (M...)	0.000		0	N.D.			
27) VinylAcetate	10.888	43	600	N.D.			
28) 2-Butanone (MEK)	11.512	72	2527	0.31	ppbv		# 96
29) cis-1,2-Dichloroethene	0.000		0	N.D.			0.00
30) Hexane	0.000		0	N.D.	d		0.00
31) Chloroform	12.493	83	363	N.D.			
32) EthylAcetate	0.000		0	N.D.	d		0.00

*Handwritten signature and date:* 06/07/13  
 Qvalue

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071307.D  
 Acq On : 7 Jun 2013 13:26  
 Operator : JJG  
 Sample : 130679-63354 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 3 Sample Multiplier: 1

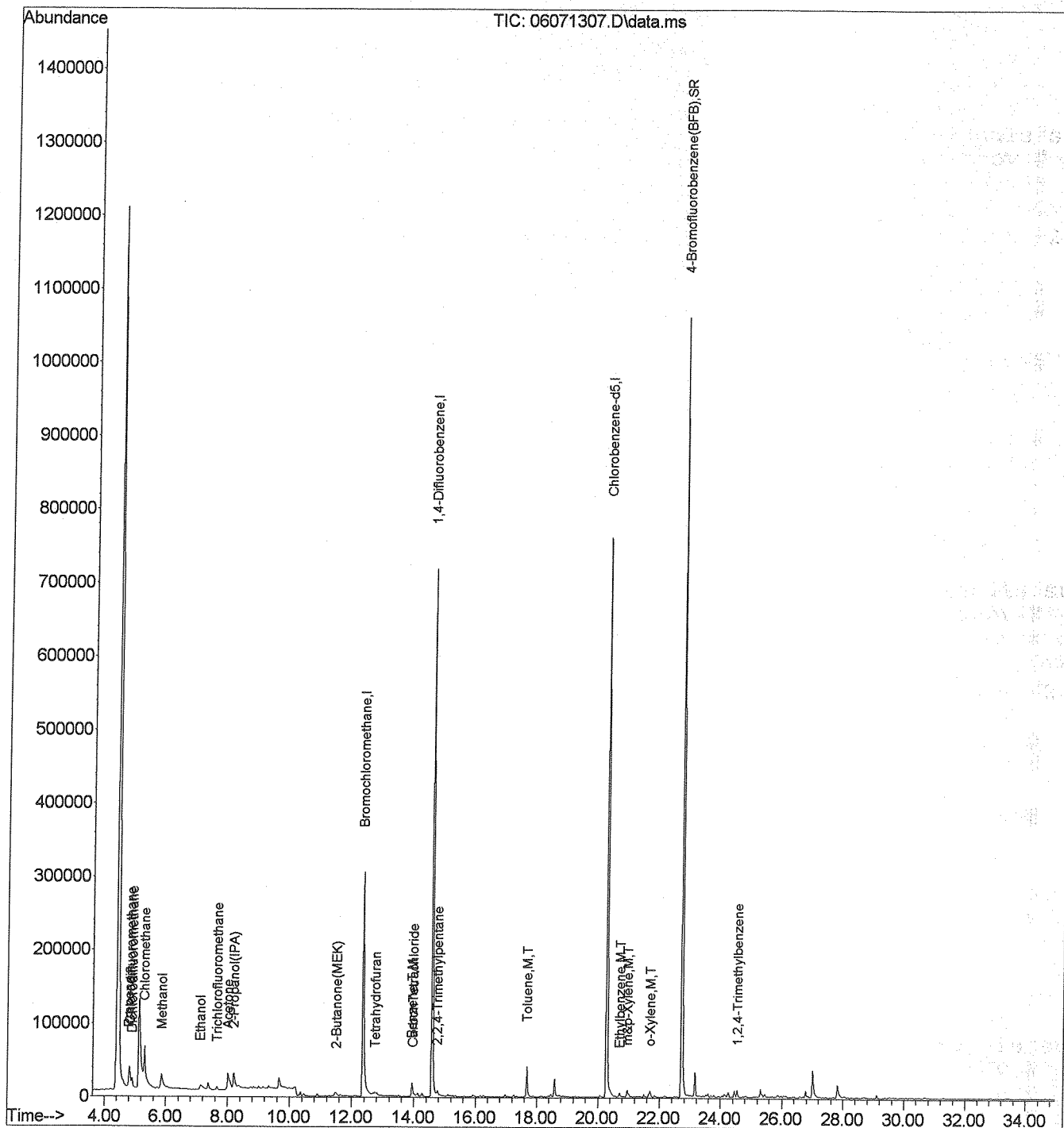
Quant Time: Jun 07 15:23:03 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) Tetrahydrofuran	12.760	72	1675	0.21	ppbv #	89
34) 1,2-Dichloroethane	13.616	62	126	N.D.		
35) 1,1,1-Trichloroethane	0.000		0	N.D.		
37) Benzene	13.937	78	21798	0.36	ppbv	96
38) CarbonTetrachloride	13.973	117	2280	0.05	ppbv #	95
39) Cyclohexane	0.000		0	N.D.		
40) 1,2-Dichloropropane	15.399	63	400	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	14.758	57	8405	0.08	ppbv #	91
45) Heptane	15.096	71	423	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	17.682	75	134	N.D.		
49) 1,1,2-Trichloroethane	17.860	97	562	N.D.		
50) Toluene	17.682	91	45601(m)	0.60	ppbv	(#)
51) 2-Hexanone (MBK)	0.000		0	N.D.		
52) Dibromochloromethane	19.019	129	111	N.D.		
53) 1,2-Dibromoethane	0.000		0	N.D.		
54) Tetrachloroethene (PCE)	19.019	166	290	N.D.		
56) Chlorobenzene	20.285	114	381	N.D.		
57) Ethylbenzene	20.713	91	6692	0.07	ppbv #	96
58) m&p-Xylene	20.963	106	7077	0.18	ppbv #	92
59) Bromoform	0.000		0	N.D.		
60) Styrene	21.676	104	2290	N.D.		
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
62) o-Xylene	21.694	91	5935	0.08	ppbv #	91
64) 4-Ethyltoluene	23.691	120	671	N.D.		
65) 1,3,5-Trimethylbenzene	23.798	120	1130	N.D.		
66) 1,2,4-Trimethylbenzene	24.547	120	3953	0.09	ppbv #	87
67) BenzylChloride (a-Chlor...)	25.296	91	2421	N.D.		
68) 1,3-Dichlorobenzene	25.064	146	279	N.D.		
69) 1,4-Dichlorobenzene	25.296	146	756	N.D.		
70) 1,2-Dichlorobenzene	25.849	146	240	N.D.		
71) 1,2,4-Trichlorobenzene	29.469	180	700	N.D.		
72) Hexachlorobutadiene	30.075	225	145	N.D.		

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

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071307.D  
 Acq On : 7 Jun 2013 13:26  
 Operator : JJG  
 Sample : 130679-63354 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 07 15:23:03 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration



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Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071308.D  
 Acq On : 7 Jun 2013 14:14  
 Operator : JJG  
 Sample : 130679-63355 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 07 15:24:32 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Bromochloromethane	12.350	128	143817	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	800694	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	764239	10.00	ppbv	0.00

System Monitoring Compounds						
63) 4-Bromofluorobenzene (BFB)	22.710	174	485026	10.14	ppbv	0.00

Spiked Amount 10.000 Recovery = 101.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorodifluoromethane	4.835	51	5002	0.18	ppbv #	95
3) Propene	4.799	42	4038	0.54	ppbv #	78
4) Dichlorodifluoromethane	4.908	85	17371	0.35	ppbv	98
5) Chloromethane	5.306	52	1389	0.30	ppbv #	1
6) Dichlorotetrafluoroethane	5.342	135	287	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.885	31	43694	9.55	ppbv	
9) 1,3-Butadiene	0.000		0	N.D.		
10) Bromomethane	0.000		0	N.D.		0.00
11) Chloroethane	0.000		0	N.D.		0.00
12) Dichlorofluoromethane	0.000		0	N.D.		0.00
13) Ethanol	7.134	45	10727	1.75	ppbv	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.020	58	18061	2.32	ppbv	0.00
16) Trichlorofluoromethane	7.658	103	5146	0.18	ppbv #	95
17) 2-Propanol (IPA)	8.238	45	15186	0.57	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.		95
21) AllylChloride	9.414	39	129	N.D.		78
22) CarbonDisulfide	0.000		0	N.D.		98
23) Trichlorotrifluoroethane	8.998	103	1510	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	10.888	43	346	N.D.		
28) 2-Butanone (MEK)	11.494	72	2215	0.28	ppbv #	57
29) cis-1,2-Dichloroethene	0.000		0	N.D.		0.00
30) Hexane	11.476	86	132	N.D.		0.00
31) Chloroform	12.493	83	396	N.D.		
32) EthylAcetate	0.000		0	N.D.		0.00

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Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071308.D  
 Acq On : 7 Jun 2013 14:14  
 Operator : JJG  
 Sample : 130679-63355 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 4 Sample Multiplier: 1

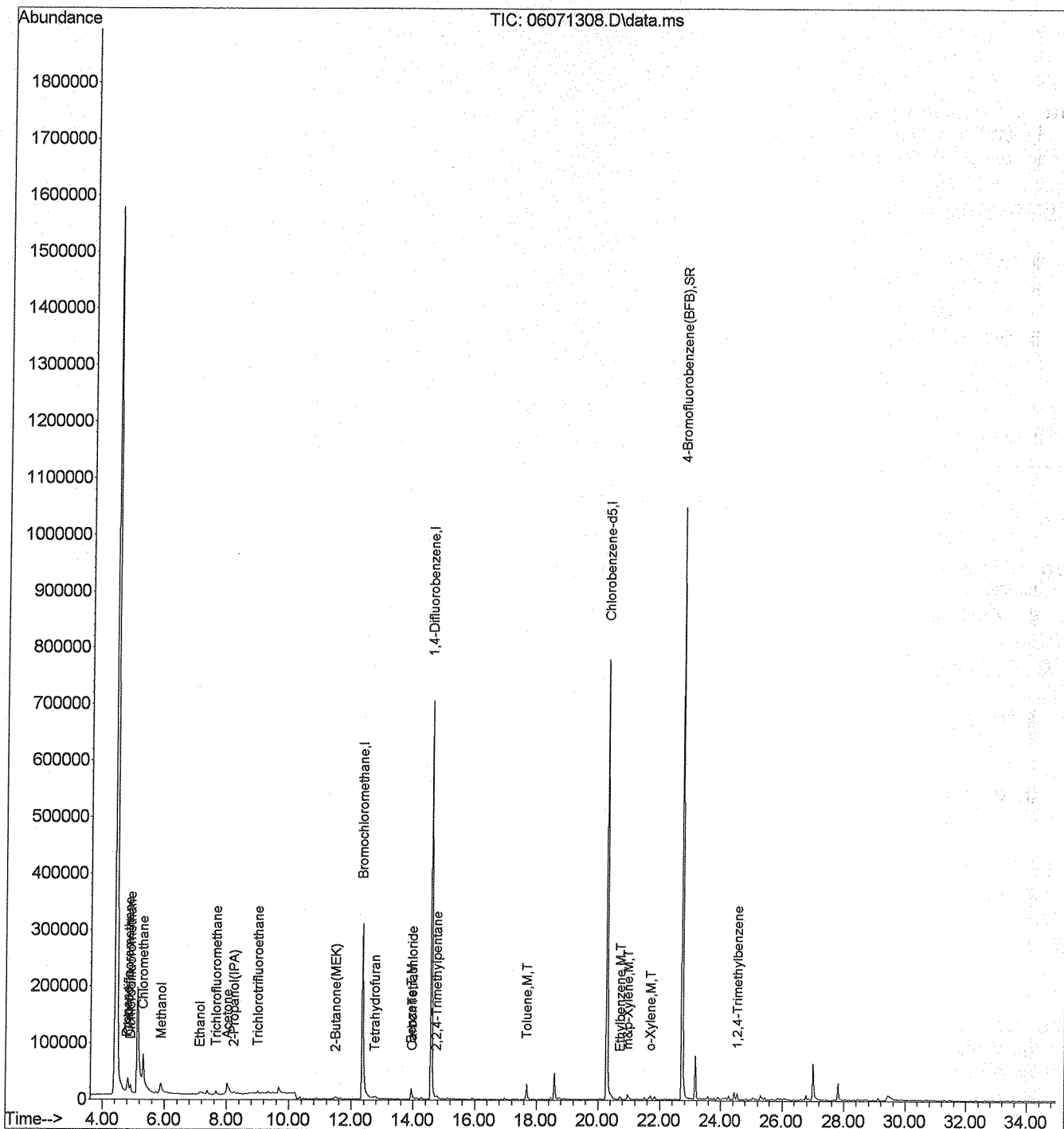
Quant Time: Jun 07 15:24:32 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) Tetrahydrofuran	12.760	72	1118	0.14	ppbv #	51
34) 1,2-Dichloroethane	13.616	62	270	N.D.		
35) 1,1,1-Trichloroethane	0.000		0	N.D.		
37) Benzene	13.937	78	22349	0.38	ppbv	96
38) CarbonTetrachloride	13.973	117	2778	0.06	ppbv	93
39) Cyclohexane	0.000		0	N.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	6073	0.06	ppbv #	92
45) Heptane	15.114	71	425	N.D.		
46) cis-1,3-Dichloropropene	0.000		0	N.D.		
47) 4-Methyl-2-pentanone (M...)	16.576	58	117	N.D.		
48) trans-1,3-Dichloropropene	17.682	75	108	N.D.		
49) 1,1,2-Trichloroethane	17.860	97	990	N.D.		
50) Toluene	17.682	91	31051	0.41	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)	19.019	166	118	N.D.		
56) Chlorobenzene	20.357	114	125	N.D.		
57) Ethylbenzene	20.713	91	5427	0.05	ppbv #	96
58) m&p-Xylene	20.963	106	5912	0.15	ppbv #	96
59) Bromoform	0.000		0	N.D.		
60) Styrene	21.676	104	361	N.D.		
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
62) o-Xylene	21.694	91	5584	0.07	ppbv #	96
64) 4-Ethyltoluene	23.691	120	1004	N.D.		
65) 1,3,5-Trimethylbenzene	23.780	120	1202	N.D.		
66) 1,2,4-Trimethylbenzene	24.547	120	4756	0.10	ppbv #	96
67) BenzylChloride (a-Chlor...)	25.296	91	1872	N.D.		
68) 1,3-Dichlorobenzene	0.000		0	N.D.		
69) 1,4-Dichlorobenzene	25.296	146	1015	N.D.		
70) 1,2-Dichlorobenzene	0.000		0	N.D.		
71) 1,2,4-Trichlorobenzene	29.451	180	663	N.D.		
72) Hexachlorobutadiene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071308.D  
 Acq On : 7 Jun 2013 14:14  
 Operator : JJG  
 Sample : 130679-63355 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 07 15:24:32 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration



*JJG*

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071309.D  
 Acq On : 7 Jun 2013 15:02  
 Operator : JJG  
 Sample : 130679-63356 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 16:00:20 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	144246	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	804612	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	753034	10.00	ppbv	0.00

System Monitoring Compounds						
63) 4-Bromofluorobenzene (BFB)	22.710	174	486400	10.32	ppbv	0.00

Spiked Amount 10.000 Recovery = 103.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue	Dev(Min)
2) Chlorodifluoromethane	4.835	51	4799	0.17	ppbv	# 92	
3) Propene	4.799	42	2559	0.34	ppbv	# 80	
4) Dichlorodifluoromethane	4.908	85	13809	0.28	ppbv	100	
5) Chloromethane	5.306	52	1252	0.27	ppbv	# 1	
6) Dichlorotetrafluoroethane	5.342	135	252	N.D.			
7) VinylChloride	0.000		0	N.D.			
8) Methanol	5.885	31	23006	4.94	ppbv		
9) 1,3-Butadiene	0.000		0	N.D.			
10) Bromomethane	0.000		0	N.D.	d		0.00
11) Chloroethane	0.000		0	N.D.			0.00
12) Dichlorofluoromethane	0.000		0	N.D.			0.00
13) Ethanol	7.152	45	8238	1.34	ppbv		
14) VinylBromide	0.000		0	N.D.			
15) Acetone	8.020	58	12997	1.66	ppbv		0.00
16) Trichlorofluoromethane	7.658	103	4309	0.15	ppbv	95	
17) 2-Propanol (IPA)	8.256	45	13651	0.51	ppbv	20%	
18) Acrylonitrile	0.000		0	N.D.			
19) 1,1-Dichloroethene	0.000		0	N.D.		Qvalue	
20) MethyleneChloride (DCM)	0.000		0	N.D.	d	# 92	
21) AllylChloride	0.000		0	N.D.		# 80	
22) CarbonDisulfide	0.000		0	N.D.	d	100	
23) Trichlorotrifluoroethane	0.000		0	N.D.	d	# 1	
24) trans-1,2-Dichloroethene	0.000		0	N.D.			
25) 1,1-Dichloroethane	0.000		0	N.D.		Dev(Min)	
26) MethylTertButylether (M...)	0.000		0	N.D.			
27) VinylAcetate	10.888	43	363	N.D.			
28) 2-Butanone (MEK)	0.000		0	N.D.	d	0.00	
29) cis-1,2-Dichloroethene	0.000		0	N.D.		0.00	
30) Hexane	0.000		0	N.D.		0.00	
31) Chloroform	12.511	83	244	N.D.			
32) EthylAcetate	0.000		0	N.D.	d		0.00

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071309.D  
 Acq On : 7 Jun 2013 15:02  
 Operator : JJG  
 Sample : 130679-63356 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 16:00:20 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

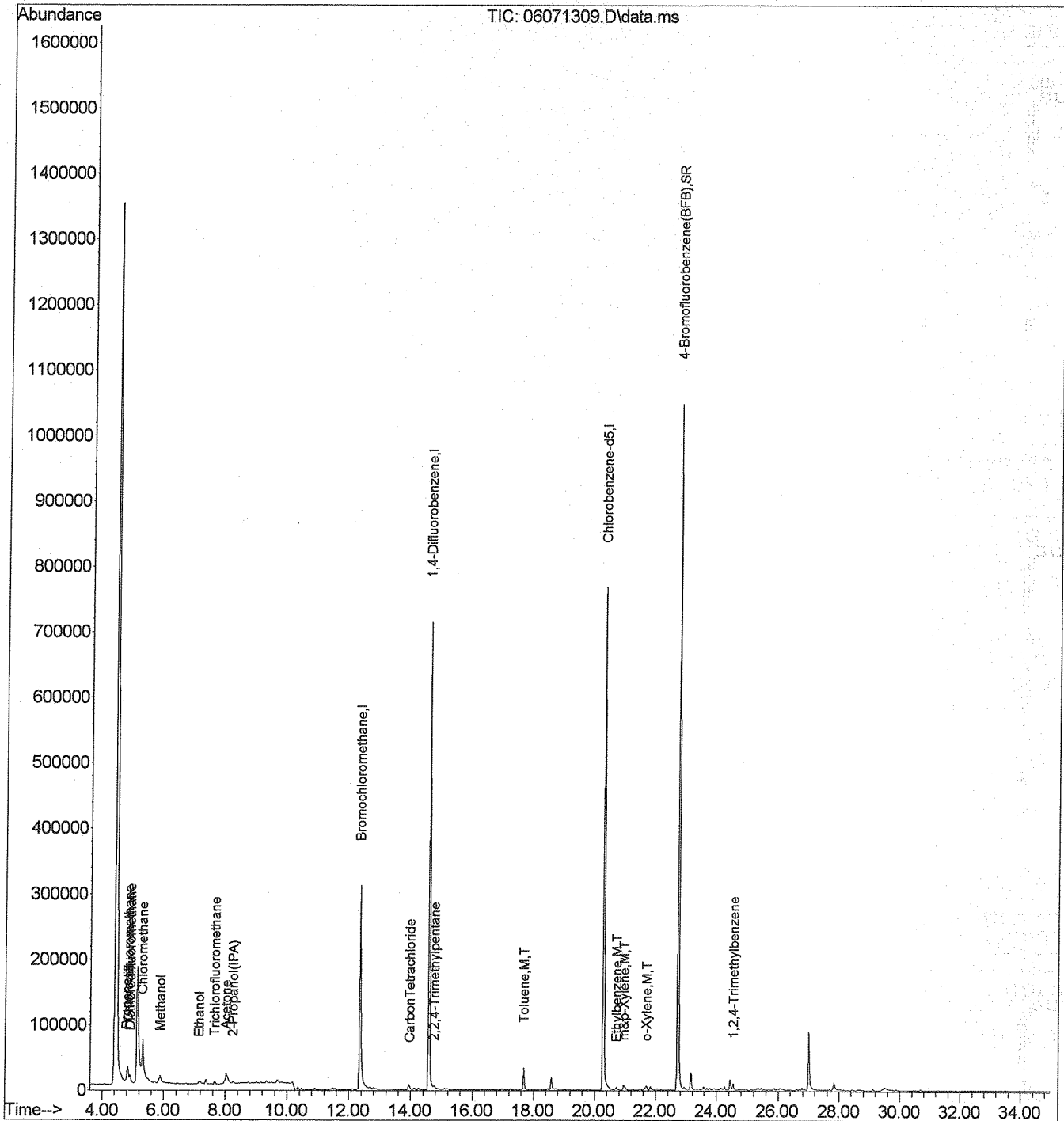
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	12.796	72	221	N.D.		
34) 1,2-Dichloroethane	13.616	62	316	N.D.		
35) 1,1,1-Trichloroethane	0.000		0	N.D.		
37) Benzene	0.000		0	N.D.	d	
38) CarbonTetrachloride	13.973	117	2329	0.05	ppbv	97
39) Cyclohexane	0.000		0	N.D.		
40) 1,2-Dichloropropane	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	6284	0.06	ppbv #	95
45) Heptane	15.096	71	362	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	17.682	75	136	N.D.		
49) 1,1,2-Trichloroethane	0.000		0	N.D.		
50) Toluene	17.682	91	39369	0.52	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	119	N.D.		
57) Ethylbenzene	20.713	91	4992	0.05	ppbv #	97
58) m&p-Xylene	20.963	106	5454	0.14	ppbv #	98
59) Bromoform	0.000		0	N.D.		
60) Styrene	21.676	104	478	N.D.		
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
62) o-Xylene	21.694	91	5046	0.06	ppbv #	97
64) 4-Ethyltoluene	23.691	120	890	N.D.		
65) 1,3,5-Trimethylbenzene	23.780	120	1280	N.D.		
66) 1,2,4-Trimethylbenzene	24.547	120	4243	0.09	ppbv #	87
67) BenzylChloride (a-Chlor...	25.296	91	208	N.D.		
68) 1,3-Dichlorobenzene	0.000		0	N.D.		
69) 1,4-Dichlorobenzene	25.296	146	447	N.D.		
70) 1,2-Dichlorobenzene	0.000		0	N.D.		
71) 1,2,4-Trichlorobenzene	29.469	180	324	N.D.		
72) Hexachlorobutadiene	0.000		0	N.D.		

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



Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071309.D  
 Acq On : 7 Jun 2013 15:02  
 Operator : JJG  
 Sample : 130679-63356 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 16:00:20 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration



*JJG 6/7/13*

TO-15  
RAW QC  
& ICAL  
SUMMARY



# MS #3 Instrument Logbook

Sequence Name: C:\msdchem\1\sequence\2013\060713.S

Comment: GCMS-03

Operator: JJG

Data Path: C:\MSDCHEM\1\MS03\2013\060713\

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

*06/07/13*

Line	Sample Name/Misc Info
1) Sample	1 06071301 TO15-5MS TO15 BFB 060713
2) Sample	1 06071302 TO15-5MS TO15 CCV 060713
3) Sample	1 06071303 TO15-5MS TO15 LCSD 060713
4) Sample	1 06071304 TO15-5MS TO15 MB 060713
5) Sample	2 06071305 TO15-5MS 130679-63353 x1
6) Sample	2 06071306 TO15-5MS 130679-63353 x1 dp
7) Sample	3 06071307 TO15-5MS 130679-63354 x1
8) Sample	4 06071308 TO15-5MS 130679-63355 x1
9) Sample	5 06071309 TO15-5MS 130679-63356 x1
10) Sample	5 06071310 TO15-5MS 130679-63356 x1 dp

Comments: \_\_\_\_\_

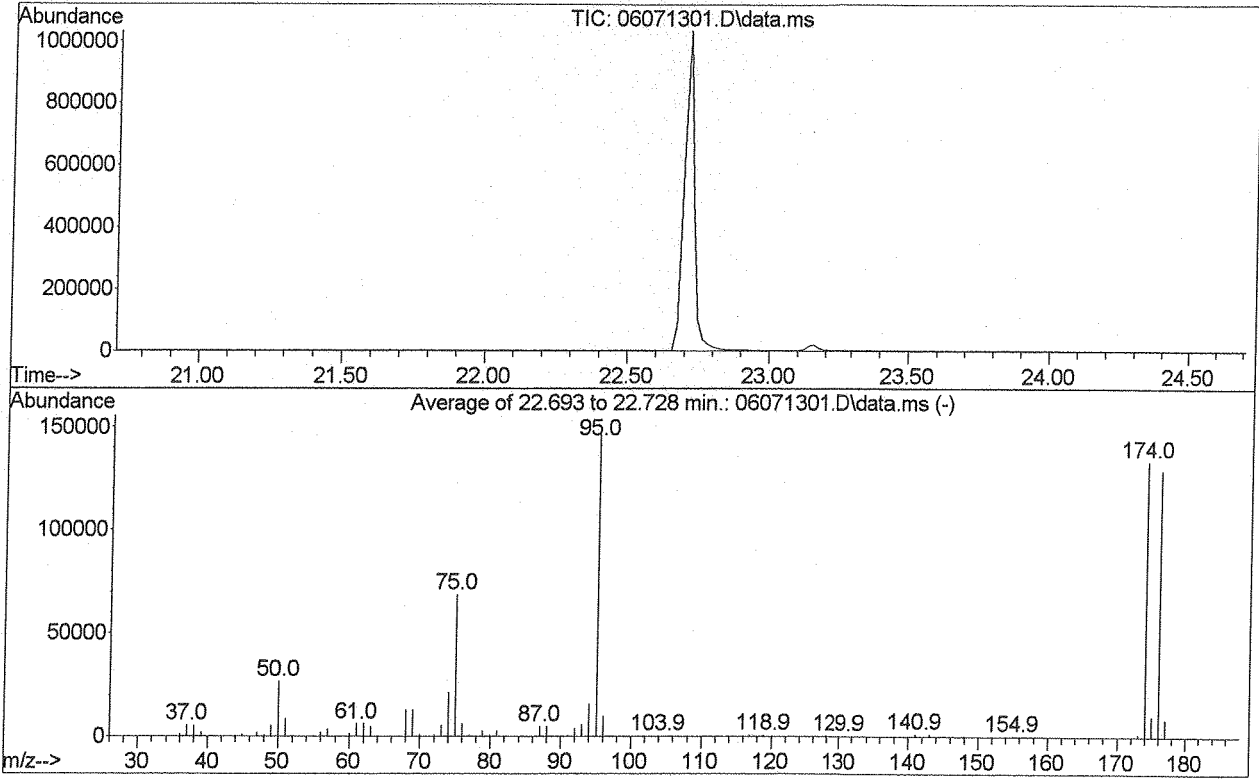
Analyst: *JJG*

Date: *06/07/13*

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071301.D  
 Acq On : 7 Jun 2013 8:43 am  
 Operator : JJG  
 Sample : TO15 BFB 060713  
 Misc : IS/Surr: PS082712-02 + 500mL cc#000210  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: PAMS.P

Method : C:\msdchem\1\METHODS\2013\051513.M  
 Title : TO-15/TO-14  
 Last Update : Thu May 16 10:13:39 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	18.0	26611	PASS
75	95	30	60	46.2	68467	PASS
95	95	100	100	100.0	148056	PASS
96	95	5	9	6.6	9710	PASS
173	174	0.00	2	0.9	1236	PASS
174	95	50	100	89.9	133091	PASS
175	174	5	9	7.5	9949	PASS
176	174	95	101	96.7	128749	PASS
177	176	5	9	6.6	8451	PASS

*Handwritten signature/initials*

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071302.D  
 Acq On : 7 Jun 2013 9:29  
 Operator : JJG  
 Sample : TO15 CCV 060713  
 Misc : IS/Surr: PS082712-02 + Cal: PS040413-01  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 10:06:55 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	149916	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	778274	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	748537	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene (BFB)	22.710	174	453879	9.69	ppbv	0.00
Spiked Amount	10.000		Recovery	=	96.90%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorodifluoromethane	4.817	51	281254	9.47	ppbv	99
3) Propene	4.781	42	802010	10.28	ppbv	
4) Dichlorodifluoromethane	4.908	85	487532	9.51	ppbv	100
5) Chloromethane	5.288	52	478300	9.94	ppbv	
6) Dichlorotetrafluoroethane	5.324	135	349329	10.00	ppbv	89
7) VinylChloride	5.668	62	172767	10.13	ppbv	
8) Methanol	5.849	31	24803	5.12	ppbv	96
9) 1,3-Butadiene	5.867	54	100889	9.32	ppbv	
10) Bromomethane	6.446	96	102474	8.35	ppbv	
11) Chloroethane	6.736	66	25504	9.19	ppbv	97
12) Dichlorofluoromethane	7.007	67	376987	10.28	ppbv	99
13) Ethanol	7.043	45	64722	10.12	ppbv	
14) VinylBromide	7.260	108	152246	10.56	ppbv	
15) Acetone	7.966	58	80068	9.86	ppbv	
16) Trichlorofluoromethane	7.677	103	320428	10.70	ppbv	99
17) 2-Propanol (IPA)	8.165	45	289630	10.42	ppbv	
18) Acrylonitrile	8.961	52	128140	10.54	ppbv	
19) 1,1-Dichloroethene	8.726	96	174442	10.22	ppbv	96
20) MethyleneChloride (DCM)	9.323	84	153541	9.80	ppbv	
21) AllylChloride	9.305	39	157124	11.44	ppbv	
22) CarbonDisulfide	9.486	76	501840	9.90	ppbv	
23) Trichlorotrifluoroethane	8.998	103	248891	10.13	ppbv	97
24) trans-1,2-Dichloroethene	10.424	96	196770	10.72	ppbv	
25) 1,1-Dichloroethane	10.906	63	380810	10.17	ppbv	99
26) MethylTertButylEther (M...)	10.442	73	507233	10.20	ppbv	97
27) VinylAcetate	10.888	43	462993	10.01	ppbv	99
28) 2-Butanone (MEK)	11.423	72	87836	10.57	ppbv	89
29) cis-1,2-Dichloroethene	11.904	96	206218	10.43	ppbv	99
30) Hexane	11.459	86	40920	10.33	ppbv #	68
31) Chloroform	12.493	83	443171	10.65	ppbv	97
32) EthylAcetate	12.011	43	475608	11.36	ppbv	96

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071302.D  
 Acq On : 7 Jun 2013 9:29  
 Operator : JJG  
 Sample : TO15 CCV 060713  
 Misc : IS/Surr: PS082712-02 + Cal: PS040413-01  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 10:06:55 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

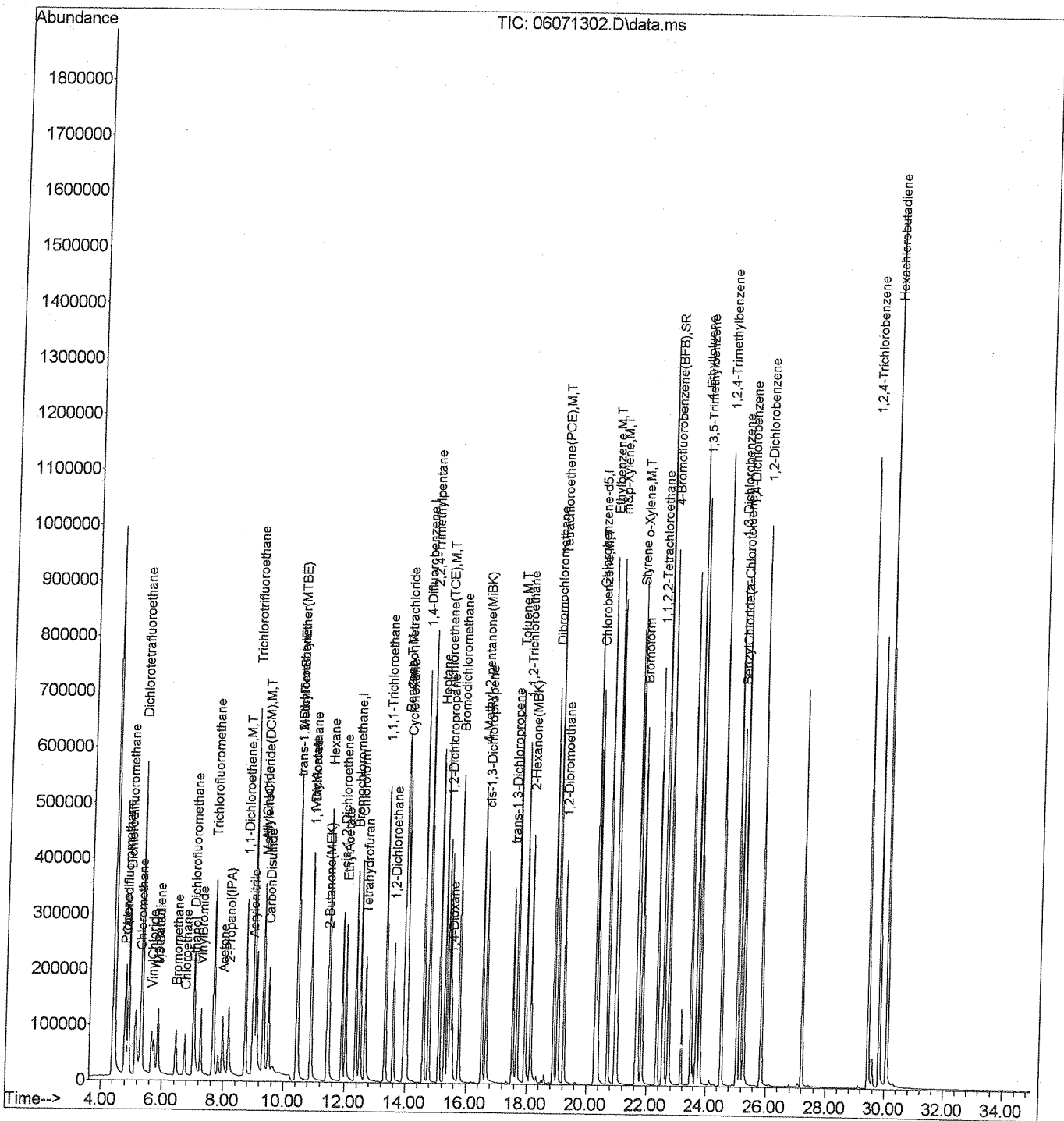
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	12.671	72	88195	10.54	ppbv	90
34) 1,2-Dichloroethane	13.598	62	331376	10.98	ppbv	98
35) 1,1,1-Trichloroethane	13.331	97	499227	10.84	ppbv	100
37) Benzene	13.937	78	569576	9.93	ppbv	99
38) CarbonTetrachloride	13.973	117	494472	10.43	ppbv	100
39) Cyclohexane	14.026	69	87947	10.35	ppbv	97
40) 1,2-Dichloropropane	15.399	63	234437	10.17	ppbv	97
41) Bromodichloromethane	15.756	85	313270	10.59	ppbv	99
42) 1,4-Dioxane	15.524	88	136349m	10.08	ppbv	
43) Trichloroethene (TCE)	15.292	130	284835	10.25	ppbv	99
44) 2,2,4-Trimethylpentane	14.775	57	1103480	10.81	ppbv	99
45) Heptane	15.114	71	194741	10.69	ppbv	97
46) cis-1,3-Dichloropropene	16.648	75	357388	10.89	ppbv	99
47) 4-Methyl-2-pentanone (M...	16.523	58	220058	10.53	ppbv	97
48) trans-1,3-Dichloropropene	17.521	75	344596	10.31	ppbv	94
49) 1,1,2-Trichloroethane	17.932	97	275405	10.76	ppbv	98
50) Toluene	17.682	91	741485	10.19	ppbv	100
51) 2-Hexanone (MBK)	18.128	58	282514	10.90	ppbv	97
52) Dibromochloromethane	18.877	129	556339	11.32	ppbv	100
53) 1,2-Dibromoethane	19.233	107	430182	10.26	ppbv	99
54) Tetrachloroethene (PCE)	19.019	166	420070	10.31	ppbv	99
56) Chlorobenzene	20.357	114	200107	10.28	ppbv	98
57) Ethylbenzene	20.695	91	1006054	10.18	ppbv	100
58) m&p-Xylene	20.945	106	754013	19.40	ppbv	96
59) Bromoform	21.819	173	518874	9.95	ppbv #	97
60) Styrene	21.641	104	605167	9.62	ppbv	99
61) 1,1,2,2-Tetrachloroethane	22.336	83	536205	9.52	ppbv	99
62) o-Xylene	21.694	91	754846	9.55	ppbv	100
64) 4-Ethyltoluene	23.673	120	316650	9.76	ppbv	99
65) 1,3,5-Trimethylbenzene	23.780	120	438813	9.26	ppbv	99
66) 1,2,4-Trimethylbenzene	24.529	120	444049	9.61	ppbv	100
67) BenzylChloride (a-Chlor...	25.153	91	702285	10.10	ppbv	99
68) 1,3-Dichlorobenzene	25.046	146	690451	9.50	ppbv	99
69) 1,4-Dichlorobenzene	25.260	146	661503m	9.05	ppbv	98
70) 1,2-Dichlorobenzene	25.831	146	704657m	9.27	ppbv	98
71) 1,2,4-Trichlorobenzene	29.433	180	633195m	8.42	ppbv	97
72) Hexachlorobutadiene	30.075	225	554333m	9.11	ppbv	98

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

*Handwritten signature*

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071302.D  
 Acq On : 7 Jun 2013 9:29  
 Operator : JJG  
 Sample : TO15 CCV 060713  
 Misc : IS/Surr: PS082712-02 + Cal: PS040413-01  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 10:06:55 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071303.D  
 Acq On : 7 Jun 2013 10:15  
 Operator : JJG  
 Sample : TO15 LCSD 060713  
 Misc : IS/Surr: PS082712-02 + Cal: PS040413-01  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 11:03:34 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	148393	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	771529	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	740711	10.00	ppbv	0.00

System Monitoring Compounds						
63) 4-Bromofluorobenzene (BFB)	22.711	174	449933	9.71	ppbv	0.00

Spiked Amount 10.000 Recovery = 97.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorodifluoromethane	4.817	51	261563m	8.90	ppbv	
3) Propene	4.781	42	74178m	9.61	ppbv	
4) Dichlorodifluoromethane	4.908	85	458184	9.03	ppbv	100
5) Chloromethane	5.288	52	43697m	9.18	ppbv	
6) Dichlorotetrafluoroethane	5.342	135	328221m	9.49	ppbv	
7) VinylChloride	5.668	62	161153m	9.55	ppbv	
8) Methanol	5.867	31	24214m	5.05	ppbv	
9) 1,3-Butadiene	5.867	54	97493m	9.10	ppbv	
10) Bromomethane	6.446	96	105999m	8.72	ppbv	
11) Chloroethane	6.736	66	25678	9.35	ppbv	96
12) Dichlorofluoromethane	7.025	67	362027m	9.97	ppbv	
13) Ethanol	7.061	45	59486m	9.40	ppbv	
14) VinylBromide	7.261	108	148092m	10.37	ppbv	
15) Acetone	7.966	58	75360m	9.38	ppbv	
16) Trichlorofluoromethane	7.677	103	306397	10.34	ppbv	99
17) 2-Propanol (IPA)	8.165	45	284790m	10.35	ppbv	
18) Acrylonitrile	8.962	52	128150m	10.65	ppbv	
19) 1,1-Dichloroethene	8.726	96	169502	10.03	ppbv	96
20) MethyleneChloride (DCM)	9.323	84	151640m	9.77	ppbv	
21) AllylChloride	9.305	39	147385m	10.84	ppbv	
22) CarbonDisulfide	9.486	76	490811m	9.78	ppbv	100
23) Trichlorotrifluoroethane	8.998	103	247193	10.16	ppbv	99
24) trans-1,2-Dichloroethene	10.424	96	186274m	10.25	ppbv	
25) 1,1-Dichloroethane	10.906	63	375273	10.12	ppbv	99
26) MethylTertButylEther (M...)	10.442	73	500146	10.16	ppbv	98
27) VinylAcetate	10.888	43	454320	9.92	ppbv	99
28) 2-Butanone (MEK)	11.423	72	88228	10.73	ppbv	94
29) cis-1,2-Dichloroethene	11.905	96	205516	10.50	ppbv	99
30) Hexane	11.477	86	39303	10.02	ppbv	90
31) Chloroform	12.493	83	450268	10.93	ppbv	97
32) EthylAcetate	12.011	43	466106	11.25	ppbv	97



Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071303.D  
 Acq On : 7 Jun 2013 10:15  
 Operator : JJG  
 Sample : TO15 LCSD 060713  
 Misc : IS/Surr: PS082712-02 + Cal: PS040413-01  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 11:03:34 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

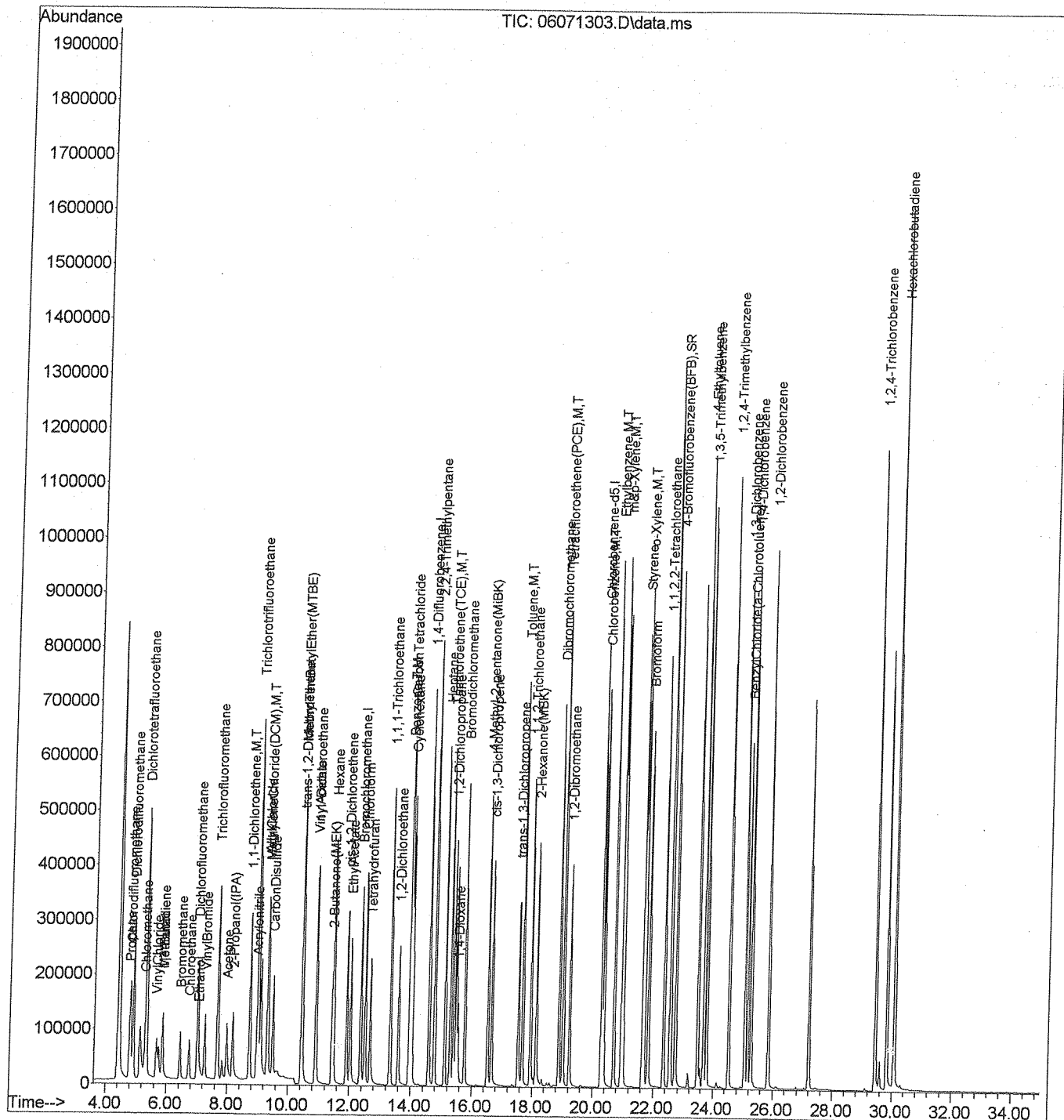
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	12.671	72	88812	10.72	ppbv	93
34) 1,2-Dichloroethane	13.599	62	323427	10.83	ppbv	98
35) 1,1,1-Trichloroethane	13.331	97	493412	10.82	ppbv	100
37) Benzene	13.937	78	557698	9.81	ppbv	99
38) CarbonTetrachloride	13.973	117	493348	10.50	ppbv	99
39) Cyclohexane	14.026	69	86051	10.21	ppbv	95
40) 1,2-Dichloropropane	15.400	63	234571	10.26	ppbv	98
41) Bromodichloromethane	15.756	85	312375	10.65	ppbv	98
42) 1,4-Dioxane	15.524	88	136446m	10.18	ppbv	
43) Trichloroethene (TCE)	15.293	130	279458	10.15	ppbv	99
44) 2,2,4-Trimethylpentane	14.775	57	1078838	10.66	ppbv	99
45) Heptane	15.114	71	192140	10.64	ppbv	98
46) cis-1,3-Dichloropropene	16.648	75	355711	10.93	ppbv	98
47) 4-Methyl-2-pentanone (M...)	16.523	58	212982	10.28	ppbv	96
48) trans-1,3-Dichloropropene	17.539	75	326022	9.84	ppbv	99
49) 1,1,2-Trichloroethane	17.932	97	263667	10.39	ppbv	98
50) Toluene	17.682	91	753873	10.45	ppbv	100
51) 2-Hexanone (MBK)	18.128	58	275925	10.74	ppbv	98
52) Dibromochloromethane	18.877	129	552344	11.34	ppbv	99
53) 1,2-Dibromoethane	19.233	107	425599	10.24	ppbv	100
54) Tetrachloroethene (PCE)	19.019	166	414859	10.27	ppbv	99
56) Chlorobenzene	20.357	114	201384	10.46	ppbv	99
57) Ethylbenzene	20.696	91	1013272	10.36	ppbv	100
58) m&p-Xylene	20.945	106	753985	19.60	ppbv	97
59) Bromoform	21.819	173	520888	10.09	ppbv #	97
60) Styrene	21.641	104	611085	9.82	ppbv	100
61) 1,1,2,2-Tetrachloroethane	22.336	83	546627	9.81	ppbv	99
62) o-Xylene	21.694	91	761839	9.74	ppbv	99
64) 4-Ethyltoluene	23.674	120	321010	10.00	ppbv	100
65) 1,3,5-Trimethylbenzene	23.781	120	438042	9.34	ppbv	99
66) 1,2,4-Trimethylbenzene	24.529	120	437071	9.56	ppbv	98
67) BenzylChloride (a-Chlor...)	25.154	91	702533	10.22	ppbv	99
68) 1,3-Dichlorobenzene	25.047	146	690366	9.60	ppbv	99
69) 1,4-Dichlorobenzene	25.261	146	668971m	9.25	ppbv	98
70) 1,2-Dichlorobenzene	25.831	146	696973m	9.27	ppbv	100
71) 1,2,4-Trichlorobenzene	29.433	180	661724m	8.90	ppbv	98
72) Hexachlorobutadiene	30.075	225	559827m	9.29	ppbv	99

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

*Handwritten signature*

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071303.D  
 Acq On : 7 Jun 2013 10:15  
 Operator : JJG  
 Sample : TO15 LCSD 060713  
 Misc : IS/Surr: PS082712-02 + Cal: PS040413-01  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 11:03:34 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration



*[Handwritten signature]*

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071304.D  
 Acq On : 7 Jun 2013 11:03  
 Operator : JJG  
 Sample : TO15 MB 060713  
 Misc : IS/Surr: PS082712-02 + 500mL cc#000210  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 11:35:33 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	144929	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	781309	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	736431	10.00	ppbv	0.00

System Monitoring Compounds						
63) 4-Bromofluorobenzene (BFB)	22.710	174	467474	10.14	ppbv	0.00

Spiked Amount 10.000 Recovery = 101.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.		
3) Propene	0.000		0	N.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.		
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	0.000		0	N.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)	8.310	45	370	N.D.		
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.		
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)	0.000		0	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	12.136	43	232	N.D.		

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071304.D  
 Acq On : 7 Jun 2013 11:03  
 Operator : JJG  
 Sample : TO15 MB 060713  
 Misc : IS/Surr: PS082712-02 + 500mL cc#000210  
 ALS Vial : 1 Sample Multiplier: 1

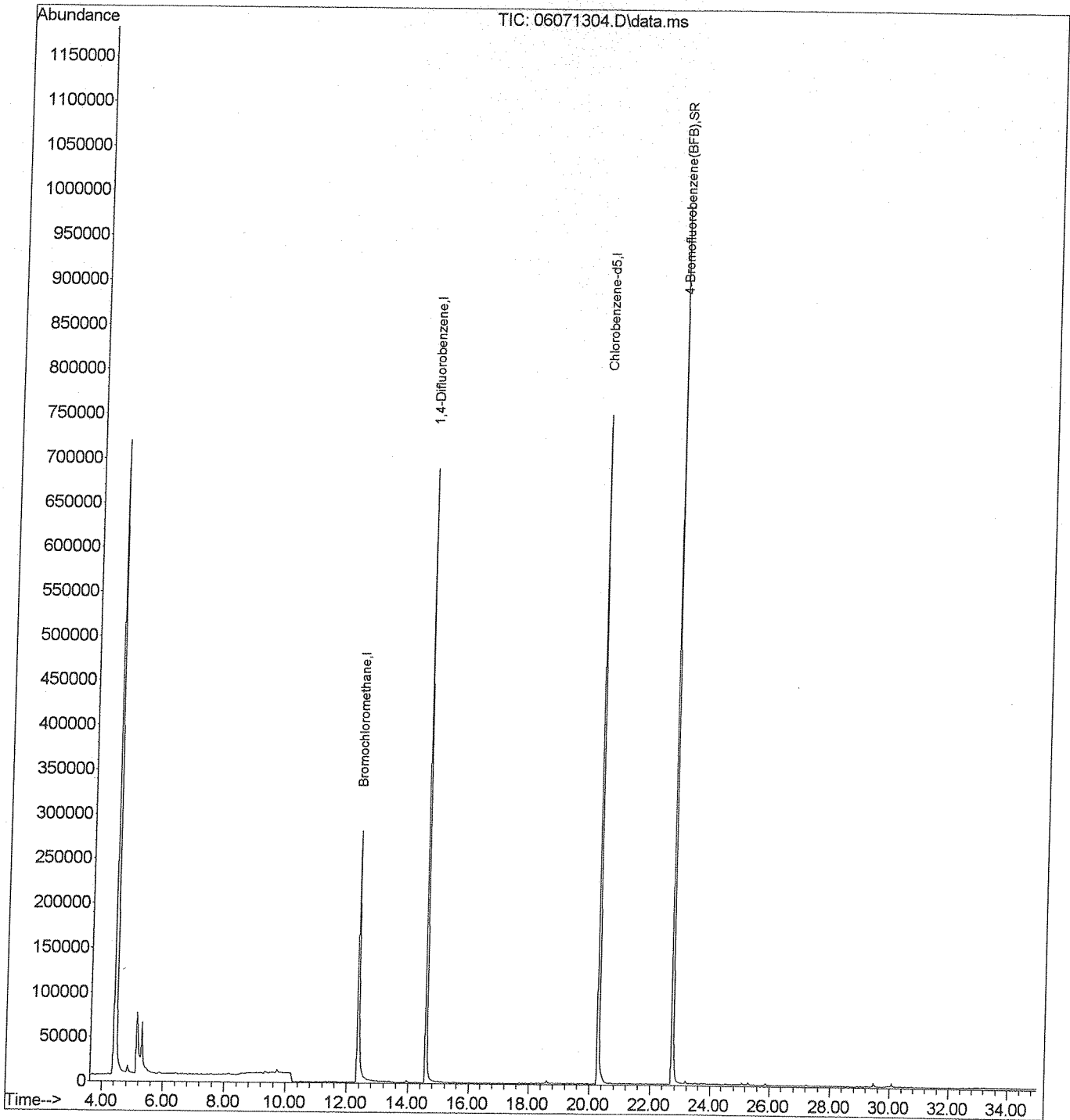
Quant Time: Jun 07 11:35:33 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	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	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	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	17.700	91	937	N.D.		
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	20.357	114	246	N.D.		
57) Ethylbenzene	20.713	91	614	N.D.		
58) m&p-Xylene	21.016	106	147	N.D.		
59) Bromoform	0.000		0	N.D.		
60) Styrene	21.694	104	678	N.D.		
61) 1,1,2,2-Tetrachloroethane	22.354	83	325	N.D.		
62) o-Xylene	21.712	91	500	N.D.		
64) 4-Ethyltoluene	23.798	120	311	N.D.		
65) 1,3,5-Trimethylbenzene	23.798	120	311	N.D.		
66) 1,2,4-Trimethylbenzene	24.547	120	350	N.D.		
67) BenzylChloride (a-Chlor...)	25.207	91	1302	N.D.		
68) 1,3-Dichlorobenzene	25.082	146	2184	N.D.		
69) 1,4-Dichlorobenzene	25.296	146	2845	N.D.		
70) 1,2-Dichlorobenzene	25.867	146	1765	N.D.		
71) 1,2,4-Trichlorobenzene	0.000		0	N.D.	d	
72) Hexachlorobutadiene	30.075	225	1225	N.D.		

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

Data Path : C:\msdchem\1\MS03\2013\060713\  
Data File : 06071304.D  
Acq On : 7 Jun 2013 11:03  
Operator : JJG  
Sample : TO15 MB 060713  
Misc : IS/Surr: PS082712-02 + 500mL cc#000210  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 07 11:35:33 2013  
Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
Quant Title : TO-15/TO-14  
QLast Update : Thu May 16 10:13:39 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071305.D  
 Acq On : 7 Jun 2013 11:51  
 Operator : JJG  
 Sample : 130679-63353 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 13:10:37 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	145883	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	792056	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	758301	10.00	ppbv	0.00

System Monitoring Compounds						
63) 4-Bromofluorobenzene (BFB)	22.710	174	485226	10.23	ppbv	0.00

Spiked Amount 10.000 Recovery = 102.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorodifluoromethane	4.835	51	3295	0.11	ppbv #	94
3) Propene	4.799	42	3038	0.40	ppbv #	73
4) Dichlorodifluoromethane	4.908	85	12064	0.24	ppbv #	96
5) Chloromethane	5.306	52	1088	0.23	ppbv #	1
6) Dichlorotetrafluoroethane	0.000		0	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.867	31	21251	4.50	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.		
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	7.152	45	9043	1.45	ppbv	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.002	58	12853	1.63	ppbv #	83
16) Trichlorofluoromethane	7.658	103	3356	0.12	ppbv #	96
17) 2-Propanol (IPA)	8.238	45	15532	0.57	ppbv	
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride (DCM)	9.323	84	11356	0.74	ppbv	94
21) AllylChloride	0.000		0	N.D.		
22) CarbonDisulfide	0.000		0	N.D.	d	
23) Trichlorotrifluoroethane	8.998	103	898	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	10.888	43	568	N.D.		
28) 2-Butanone (MEK)	0.000		0	N.D.	d	
29) cis-1,2-Dichloroethene	0.000		0	N.D.		
30) Hexane	0.000		0	N.D.	d	
31) Chloroform	12.493	83	107	N.D.		
32) EthylAcetate	0.000		0	N.D.	d	

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Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071305.D  
 Acq On : 7 Jun 2013 11:51  
 Operator : JJG  
 Sample : 130679-63353 x1  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 2 Sample Multiplier: 1

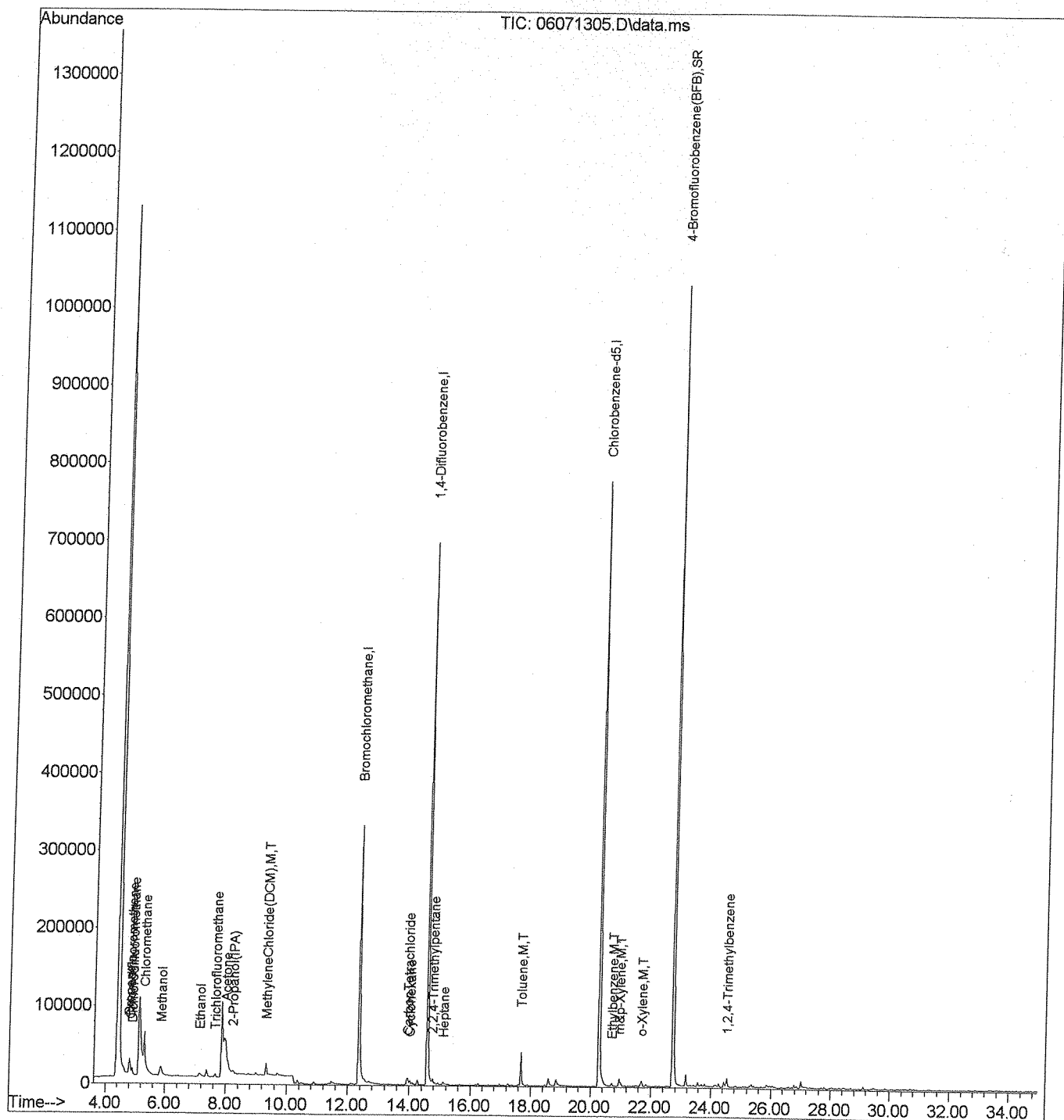
Quant Time: Jun 07 13:10:37 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.		
34) 1,2-Dichloroethane	13.616	62	140	N.D.		
35) 1,1,1-Trichloroethane	0.000		0	N.D.		
37) Benzene	0.000		0	N.D.	d	
38) CarbonTetrachloride	13.955	117	22870	0.05	ppbv	
39) Cyclohexane	14.008	69	1009	0.12	ppbv #	67
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	8022	0.08	ppbv #	89
45) Heptane	15.114	71	1118	0.06	ppbv #	91
46) cis-1,3-Dichloropropene	0.000		0	N.D.		
47) 4-Methyl-2-pentanone (M...)	16.594	58	303	N.D.		
48) trans-1,3-Dichloropropene	17.682	75	138	N.D.		
49) 1,1,2-Trichloroethane	0.000		0	N.D.		
50) Toluene	17.682	91	49288	0.67	ppbv	
51) 2-Hexanone (MBK)	0.000		0	N.D.		
52) Dibromochloromethane	19.019	129	118	N.D.		
53) 1,2-Dibromoethane	0.000		0	N.D.		
54) Tetrachloroethene (PCE)	19.019	166	107	N.D.		
56) Chlorobenzene	20.285	114	361	N.D.		
57) Ethylbenzene	20.713	91	5107	0.05	ppbv #	92
58) m&p-Xylene	20.963	106	7197	0.18	ppbv #	90
59) Bromoform	0.000		0	N.D.		
60) Styrene	21.694	104	1023	N.D.		
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
62) o-Xylene	21.694	91	6224	0.08	ppbv #	91
64) 4-Ethyltoluene	23.691	120	912	N.D.		
65) 1,3,5-Trimethylbenzene	23.780	120	1575	N.D.		
66) 1,2,4-Trimethylbenzene	24.547	120	4909	0.10	ppbv #	97
67) BenzylChloride (a-Chlor...)	25.207	91	395	N.D.		
68) 1,3-Dichlorobenzene	25.064	146	427	N.D.		
69) 1,4-Dichlorobenzene	25.296	146	745	N.D.		
70) 1,2-Dichlorobenzene	25.867	146	539	N.D.		
71) 1,2,4-Trichlorobenzene	29.469	180	1844	N.D.		
72) Hexachlorobutadiene	30.075	225	575	N.D.		

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

Data Path : C:\msdchem\1\MS03\2013\060713\  
Data File : 06071305.D  
Acq On : 7 Jun 2013 11:51  
Operator : JJG  
Sample : 130679-63353 x1  
Misc : IS/Surr: PS082712-02 + 500mL  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 13:10:37 2013  
Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
Quant Title : TO-15/TO-14  
QLast Update : Thu May 16 10:13:39 2013  
Response via : Initial Calibration





Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071306.D  
 Acq On : 7 Jun 2013 12:39  
 Operator : JJG  
 Sample : 130679-63353 x1 dp  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 13:12:36 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	147083	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	804447	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	749242	10.00	ppbv	0.00

System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.711	174	483491	10.31	ppbv	0.00

Spiked Amount 10.000 Recovery = 103.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorodifluoromethane	4.836	51	3818	0.13	ppbv	# 93
3) Propene	4.799	42	2992	0.39	ppbv	# 77
4) Dichlorodifluoromethane	4.908	85	11971	0.24	ppbv	# 97
5) Chloromethane	5.306	52	1063	0.23	ppbv	# 1
6) Dichlorotetrafluoroethane	0.000		0	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.885	31	218220	4.59	ppbv	
9) 1,3-Butadiene	0.000		0	N.D.		
10) Bromomethane	0.000		0	N.D.	d	0.00
11) Chloroethane	0.000		0	N.D.		0.00
12) Dichlorofluoromethane	0.000		0	N.D.		0.00
13) Ethanol	7.152	45	87700	1.40	ppbv	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.002	58	12115	1.52	ppbv	# 0.78
16) Trichlorofluoromethane	7.659	103	3183	0.11	ppbv	# 96
17) 2-Propanol(IPA)	8.238	45	156500	0.57	ppbv	
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	9.323	84	11615	0.76	ppbv	# 93
21) AllylChloride	9.215	39	275	N.D.		# 77
22) CarbonDisulfide	0.000		0	N.D.	d	0.57
23) Trichlorotrifluoroethane	8.998	103	913	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	10.888	43	476	N.D.		
28) 2-Butanone(MEK)	0.000		0	N.D.	d	0.00
29) cis-1,2-Dichloroethene	0.000		0	N.D.		
30) Hexane	11.476	86	121	N.D.		
31) Chloroform	12.511	83	114	N.D.		
32) EthylAcetate	0.000		0	N.D.	d	

Data Path : C:\msdchem\1\MS03\2013\060713\  
 Data File : 06071306.D  
 Acq On : 7 Jun 2013 12:39  
 Operator : JJG  
 Sample : 130679-63353 x1 dp  
 Misc : IS/Surr: PS082712-02 + 500mL  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 13:12:36 2013  
 Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
 Quant Title : TO-15/TO-14  
 QLast Update : Thu May 16 10:13:39 2013  
 Response via : Initial Calibration

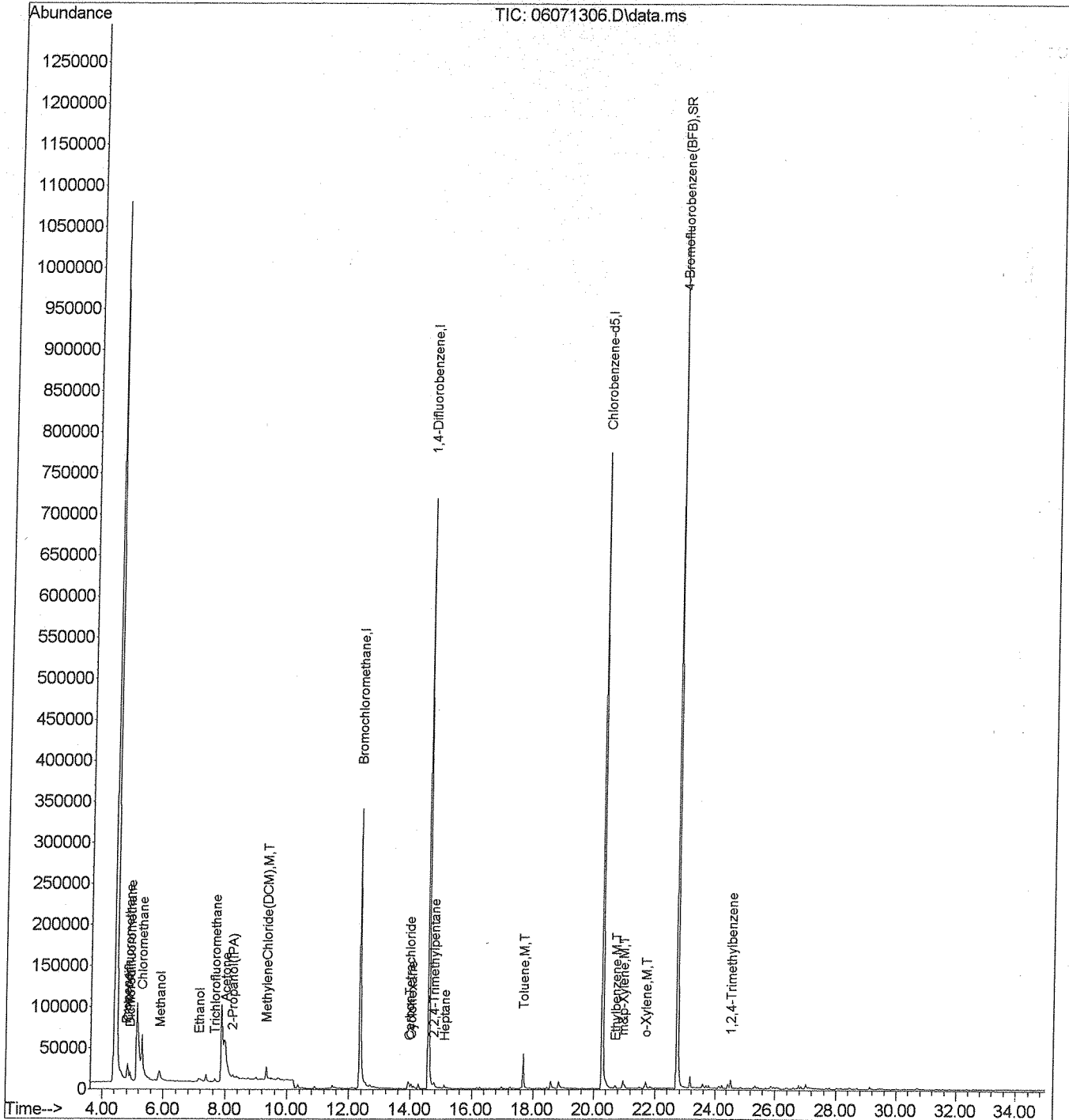
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) Tetrahydrofuran	12.814	72	107	N.D.		
34) 1,2-Dichloroethane	13.634	62	269	N.D.		
35) 1,1,1-Trichloroethane	0.000		0	N.D.		
37) Benzene	0.000		0	N.D.	d	
38) CarbonTetrachloride	13.973	117	2126	0.04	ppbv	98
39) Cyclohexane	14.026	69	930	0.11	ppbv	86
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	14.758	57	8236	0.08	ppbv #	91
45) Heptane	15.114	71	982	0.05	ppbv #	92
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	144	N.D.		
49) 1,1,2-Trichloroethane	0.000		0	N.D.		
50) Toluene	17.682	91	46392m	0.62	ppbv	92
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	20.357	114	113	N.D.		
57) Ethylbenzene	20.713	91	5052	0.05	ppbv #	92
58) m&p-Xylene	20.963	106	6835	0.18	ppbv #	92
59) Bromoform	0.000		0	N.D.		
60) Styrene	21.694	104	903	N.D.		
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
62) o-Xylene	21.694	91	6720	0.08	ppbv #	95
64) 4-Ethyltoluene	23.691	120	903	N.D.		
65) 1,3,5-Trimethylbenzene	23.798	120	1454	N.D.		
66) 1,2,4-Trimethylbenzene	24.547	120	4576	0.10	ppbv #	96
67) BenzylChloride (a-Chlor...)	0.000		0	N.D.		
68) 1,3-Dichlorobenzene	25.082	146	252	N.D.		
69) 1,4-Dichlorobenzene	25.296	146	520	N.D.		
70) 1,2-Dichlorobenzene	25.867	146	119	N.D.		
71) 1,2,4-Trichlorobenzene	29.469	180	807	N.D.		
72) Hexachlorobutadiene	30.075	225	168	N.D.		

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

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Data Path : C:\msdchem\1\MS03\2013\060713\  
Data File : 06071306.D  
Acq On : 7 Jun 2013 12:39  
Operator : JJG  
Sample : 130679-63353 x1 dp  
Misc : IS/Surr: PS082712-02 + 500mL  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 13:12:36 2013  
Quant Method : C:\msdchem\1\METHODS\2013\051513.M  
Quant Title : TO-15/TO-14  
QLast Update : Thu May 16 10:13:39 2013  
Response via : Initial Calibration



Method Path : C:\msdchem\1\METHODS\2013\  
Method File : 051513.M  
Title : TO-15/TO-14  
Last Update : Thu May 16 10:13:39 2013  
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.5	1	10	C:\msdchem\1\MS03\2013\051513\05151311.D
2	1.0	1	10	C:\msdchem\1\MS03\2013\051513\05151310.D
3	2.0	2	10	C:\msdchem\1\MS03\2013\051513\05151309.D
4	5.0	5	10	C:\msdchem\1\MS03\2013\051513\05151308.D
5	10	10	10	C:\msdchem\1\MS03\2013\051513\05151307.D
6	20	20	10	C:\msdchem\1\MS03\2013\051513\05151306.D
7	50	51	10	C:\msdchem\1\MS03\2013\051513\05151305.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.5	May 16 10:04 2013	May 15 17:01 2013	15 May 2013 16:25
2	1.0	May 16 10:04 2013	May 15 16:55 2013	15 May 2013 15:40
3	2.0	May 16 10:04 2013	May 15 16:52 2013	15 May 2013 14:53
4	5.0	May 16 10:03 2013	May 15 15:19 2013	15 May 2013 14:07
5	10	May 16 10:03 2013	May 15 13:55 2013	15 May 2013 13:21
6	20	May 16 10:03 2013	May 15 13:53 2013	15 May 2013 12:35
7	50	May 16 10:03 2013	May 15 13:50 2013	15 May 2013 11:48

051513.M Thu May 16 10:15:15 2013



Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\  
 Method File : 051513.M  
 Title : TO-15/TO-14  
 Last Update : Thu May 16 10:13:39 2013  
 Response Via : Initial Calibration

Calibration Files  
 0.5 =05151311.D 1.0 =05151310.D 2.0 =05151309.D 5.0 =05151308.D 10 =05151307.D 20 =05151306.D  
 50 =05151305.D

Compound	0.5	1.0	2.0	5.0	10	20	50	Avg	%RSD
1) I Bromochloromethane									
2) Chlorodifluoro...	2.089	2.153	2.101	2.025	1.904	1.810	1.786	1.981	7.44
3) Propene	0.516	0.538	0.543	0.530	0.511	0.503	0.502	0.520	3.16
4) Dichlorodifluo...	3.667	3.778	3.625	3.449	3.255	3.109	3.048	3.419	8.40
5) Chloromethane	0.306	0.351	0.359	0.346	0.335	0.307	0.243	0.321	12.54
6) Dichlorotetra...	2.437	2.578	2.525	2.366	2.249	2.146	2.008	2.330	8.87
7) Vinylchloride	1.119	1.165	1.194	1.159	1.138	1.103	1.085	1.138	3.35
8) Methanol		0.467	0.401	0.345	0.325	0.314	0.302	0.359	17.59
9) 1,3-Butadiene	0.661	0.757	0.783	0.769	0.750	0.696	0.638	0.722	7.88
10) Bromomethane	0.912	0.907	0.885	0.831	0.790	0.768	0.638	0.819	11.91
11) Chloroethane	0.201	0.195	0.200	0.184	0.171	0.177	0.167	0.185	7.45
12) Dichlorofluoro...	2.569	2.604	2.585	2.470	2.365	2.317	2.217	2.447	6.14
13) Ethanol	0.438	0.486	0.443	0.421	0.414	0.410	0.372	0.426	8.19
14) VinylBromide	0.913	0.985	1.013	1.000	0.954	0.955	0.914	0.962	4.10
15) Acetone	0.717	0.643	0.532	0.487	0.468	0.473	0.472	0.542	18.30
16) Trichlorofluor...	2.166	2.190	2.089	1.956	1.896	1.864	1.820	1.997	7.53
17) 2-Propanol (IPA)	2.202	2.238	2.186	1.792	1.640	1.508	1.412	1.854	18.98
18) Acrylonitrile	0.759	0.846	0.865	0.860	0.819	0.805	0.720	0.811	6.70
19) M,T 1,1-Dichloroet...	1.126	1.244	1.222	1.158	1.131	1.093	1.000	1.139	7.17
20) M,T Methylenechlor...	1.192	1.150	1.088	1.078	1.000	0.935	0.876	1.046	10.90
21) Allylchloride	1.018	0.993	0.990	0.947	0.912	0.791	0.764	0.917	11.04
22) Carbondisulfide	3.799	3.684	3.581	3.365	3.184	3.094	2.965	3.382	9.36
23) Trichlorotriflu...	1.791	1.899	1.777	1.674	1.586	1.456	1.291	1.639	12.89
24) trans-1,2-Dich...	1.186	1.375	1.235	1.308	1.238	1.156	1.076	1.225	8.05
25) 1,1-Dichloroet...	2.829	2.839	2.719	2.571	2.383	2.197	1.949	2.498	13.53
26) MethylTertButy...	3.471	3.740	3.529	3.441	3.284	3.047	2.705	3.317	10.38
27) Vinylacetate	3.239	3.305	3.371	3.266	3.089	2.850	2.479	3.086	10.33
28) 2-Butanone (MEK)	0.480	0.548	0.589	0.592	0.595	0.548	0.526	0.554	7.60

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Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\  
 Method File : 051513.M

Title : TO-15/TO-14

Method	Path	File	Title	29)	30)	31)	32)	33)	34)	35)		
			cis-1,2-Dichlo...	1.339	1.387	1.385	1.382	1.308	1.264	1.167	1.319	6.17
			Hexane	0.270	0.298	0.295	0.272	0.256	0.239	0.219	0.264	10.89
			Chloroform	2.980	3.005	2.926	2.844	2.659	2.617	2.396	2.775	8.12
			Ethylacetate	2.836	3.052	2.959	2.914	2.819	2.582	2.380	2.792	8.36
			Tetrahydrofuran	0.574	0.569	0.601	0.585	0.559	0.535	0.483	0.558	7.01
			1,2-Dichloroet...	2.043	2.248	2.117	2.034	1.930	1.874	1.847	2.013	7.07
			1,1,1-Trichlor...	3.350	3.382	3.301	3.075	2.948	2.834	2.618	3.073	9.43
36)	I		1,4-Difluorobenzene	0.840	0.830	0.802	0.758	0.721	0.648	0.558	0.737	14.02
37)	T,M		Benzene	0.664	0.694	0.674	0.620	0.600	0.541	0.469	0.609	13.26
38)			CarbonTetrachl...	0.121	0.121	0.117	0.111	0.109	0.098	0.087	0.109	11.74
39)			Cyclohexane	0.324	0.333	0.328	0.306	0.291	0.265	0.226	0.296	13.14
40)			1,2-Dichloropr...	0.411	0.420	0.409	0.393	0.371	0.346	0.311	0.380	10.47
41)			Bromodichlorom...	0.175	0.182	0.184	0.183	0.179	0.165	0.147	0.174	7.67
42)	M,T		1,4-Dioxane	0.378	0.389	0.390	0.369	0.352	0.328	0.293	0.357	10.02
43)			Trichloroethen...	1.494	1.513	1.438	1.352	1.312	1.136	0.935	1.312	16.01
44)			2,2,4-Trimethyl...	0.250	0.247	0.252	0.241	0.240	0.218	0.189	0.234	9.72
45)			Heptane	0.443	0.456	0.446	0.443	0.425	0.389	0.351	0.422	9.07
46)			cis-1,3-Dichlo...	0.264	0.293	0.298	0.287	0.277	0.248	0.212	0.269	11.25
47)			4-Methyl-2-pen...	0.406	0.438	0.451	0.457	0.441	0.423	0.391	0.430	5.59
48)			trans-1,3-Dich...	0.350	0.366	0.351	0.346	0.330	0.297	0.262	0.329	11.16
49)	M,T		1,1,2-Trichlor...	1.036	1.035	1.017	0.944	0.952	0.835	0.723	0.935	12.54
50)			Toluene	0.339	0.353	0.364	0.351	0.351	0.307	0.266	0.333	10.43
51)			2-Hexanone (MBK)	0.667	0.684	0.678	0.663	0.647	0.577	0.504	0.632	10.56
52)			Dibromochlorom...	0.584	0.579	0.577	0.568	0.528	0.494	0.443	0.539	9.97
53)			1,2-Dibromoethane	0.591	0.589	0.566	0.551	0.517	0.458	0.394	0.524	14.01
54)	M,T		Tetrachloroeth...	0.280	0.286	0.275	0.270	0.258	0.243	0.208	0.260	10.37
55)	I		Chlorobenzene-d5	1.493	1.508	1.428	1.373	1.283	1.189	0.964	1.320	14.66
56)	M,T		Chlorobenzene	0.595	0.611	0.556	0.534	0.502	0.455	0.383	0.519	15.49
57)	M,T		Ethylbenzene	0.762	0.809	0.762	0.719	0.685	0.627	0.514	0.697	14.37
58)	M,T		m&p-Xylene	0.895	0.947	0.887	0.890	0.834	0.768	0.660	0.840	11.58
59)			Bromoform	0.834	0.866	0.828	0.795	0.730	0.671	0.544	0.753	15.13
60)			Styrene	1.255	1.276	1.150	1.089	0.982	0.893	0.746	1.056	18.39
61)	M,T		1,1,2,2-Tetrac...	0.633	0.653	0.621	0.628	0.618	0.610	0.617	0.626	2.29
62)	M,T		o-Xylene	0.453	0.499	0.463	0.465	0.439	0.394	0.321	0.433	13.60
63)	SR		4-Bromofluorob...									
64)			4-Ethyltoluene									

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Method Path : C:\msdchem\1\METHODS\2013\  
 Method File : 051513.M

Title : TO-15/TO-14

(#)	Method	Path	File	051513.M	TO-15/TO-14	0.738	0.738	0.689	0.655	0.614	0.551	0.450	0.633	16.58
65)	1,3,5-Trimethy				0.738	0.738	0.689	0.655	0.614	0.551	0.450	0.633	16.58	
66)	1,2,4-Trimethy				0.683	0.701	0.662	0.647	0.606	0.555	0.465	0.617	13.44	
67)	Benzylchloride				0.792	0.849	0.988	0.987	1.014	0.994	0.876	0.928	9.45	
68)	1,3-Dichlorobe				1.007	1.071	1.056	1.046	0.966	0.902	0.748	0.971	11.78	
69)	1,4-Dichlorobe				1.123	1.125	1.062	1.020	0.936	0.861	0.709	0.977	15.58	
70)	1,2-Dichlorobe				1.116	1.179	1.130	1.079	0.969	0.899	0.735	1.015	15.50	
71)	1,2,4-Trichlor				0.991	1.125	1.099	1.117	1.025	0.921	0.751	1.004	13.37	
72)	Hexachlorobuta				0.954	0.987	0.907	0.861	0.768	0.693	0.522	0.813	20.26	

(#) = Out Of Range

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