Atmospheric Analysis & Consulting, Inc.

CLIENT	: Soil Water Air Protection Enterprise
PROJECT NAME	: Bridgeton Sanitary Landfill Air Quality Assessment
AAC PROJECT NO.	: 130502
REPORT DATE	: 04/29/2013

On April 25, 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 W5N-Canister	130502-62624	579.3
U-2 W5S-Canister	130502-62625	521.3
D-1 W1-Canister	130502-62626	557.9
D-2 W2-Canister	130502-62627	762.0

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.

Sample 130502-62627 was received at the laboratory at ambient pressure. This may indicate a leak during sampling or the return shipment, therefore all results should be considered estimated.

No other 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.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

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Atmospheric Analysis & Consulting, Inc.

SAMPLE RECEIPT / LOG-IN REPORT

AAC Project **130502**

Received By: **J. Zachman**

Sample Receipt Date	Project Desc	Clients ID	Matrix	Sampling Date/Time	Sampled By	Sample #	Analysis Requested
4/25/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 W5N-Canister	Summa Canister	4/22/2013	Client	62624	TO15 ASTM D5504
4/25/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-2 W5S-Canister	Summa Canister	4/22/2013	Client	62625	TO15 ASTM D5504
4/25/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W1-Canister	Summa Canister	4/22/2013	Client	62626	TO15 ASTM D5504
4/25/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 W2-Canister	Summa Canister	4/22/2013	Client	62627	TO15 ASTM D5504

TURN AROUND TIME: Normal (10days)

Lab Due Date: 5/2/2013

Total Samples: 4

REMARKS:

Client returned 4 x Summa canisters + 4 x Flows. "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.: 130502

Date: 4/25/2013

Canister #	Sample #	Initial Pressure	Final Pressure
734	62624	579.3	1025.2
730	62625	521.3	1023.4
723	62626	557.9	1026.3
669	62627	762.0	1020.5

1

AAC# 130494 (62608-62611) AAC# 130502 (62624-62627)

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: April 23rd — Page 1 of 1
Project Manager: PAUL ROSENFELD, PH.D.		
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: 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	Special Instructions / Conditions of Receipt
62608	U-1 W5N- DNPH	Tube	22-Apr	10:09									X					4363701292
62609	U-2 W5S- DNPH	Tube	22-Apr	10:25									X					4363701290
62610	D-1 W1- DNPH	Tube	22-Apr	10:47									X					4363701294
62611	D-2 W2- DNPH	Tube	22-Apr	11:34									X					4363701293
62624	U-1 W5N- Canister		22-Apr	4 Hr	X	X												Canister # 12977
62625	U-2 W5S- Canister		22-Apr	4 Hr	X	X												Canister # 16094
62626	D-1 W1- Canister		22-Apr	4 Hr	X	X												Canister # 13092
62627	D-2 W2- Canister		22-Apr	4 Hr	X	X												Canister # 4386

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: Apr 23nd	12 Noon 4 PM	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: JJ	Date: 4/24/2013	Time: 0800

0.3°C

- Fed Ex

Somma Cans Received: JJ 4/25/2013 1100

TO-15 REPORTS

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130502
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 04/25/2013
DATE REPORTED : 04/29/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 W5N-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U-2 W5S-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130502-62624				130502-62625				
Date Sampled	04/22/2013				04/22/2013				
Date Analyzed	04/29/2013				04/29/2013				
Can Dilution Factor	1.77				1.96				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.32	J	1.0	0.88	0.31	J	1.0	0.98	0.5
Propene	2.94		1.0	1.77	1.53	J	1.0	1.96	1.0
Dichlorodifluoromethane	0.60	J	1.0	0.88	0.59	J	1.0	0.98	0.5
Chloromethane	0.60	J	1.0	0.88	0.65	J	1.0	0.98	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Vinyl Chloride	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Methanol	8.69	J	1.0	8.85	8.62	J	1.0	9.82	5.0
1,3-Butadiene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Bromomethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Chloroethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Ethanol	4.34		1.0	3.54	3.77	J	1.0	3.93	2.0
Vinyl Bromide	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Acetone	4.37		1.0	3.54	6.32		1.0	3.93	2.0
Trichlorofluoromethane	0.28	J	1.0	0.88	0.29	J	1.0	0.98	0.5
2-Propanol (IPA)	<SRL	U	1.0	3.54	<SRL	U	1.0	3.93	2.0
Acrylonitrile	<SRL	U	1.0	1.77	<SRL	U	1.0	1.96	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	1.77	<SRL	U	1.0	1.96	1.0
Allyl Chloride	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Carbon Disulfide	NR	U	1.0	0.88	NR	U	1.0	0.98	0.5
Trichlorotrifluoroethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Vinyl Acetate	<SRL	U	1.0	1.77	<SRL	U	1.0	1.96	1.0
2-Butanone (MEK)	<SRL	U	1.0	1.77	<SRL	U	1.0	1.96	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Hexane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Chloroform	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Ethyl Acetate	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Tetrahydrofuran	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130502
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 04/25/2013
DATE REPORTED : 04/29/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 W5N-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U-2 W5S-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130502-62624				130502-62625				
Date Sampled	04/22/2013				04/22/2013				
Date Analyzed	04/29/2013				04/29/2013				
Can Dilution Factor	1.77				1.96				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Carbon Tetrachloride	0.11	J	1.0	0.88	0.10	J	1.0	0.98	0.5
Cyclohexane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Bromodichloromethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,4-Dioxane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
2,2,4-Trimethylpentane	0.21	J	1.0	0.88	0.22	J	1.0	0.98	0.5
Heptane	0.21	J	1.0	0.88	0.22	J	1.0	0.98	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Toluene	0.83	J	1.0	0.88	0.59	J	1.0	0.98	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Dibromochloromethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Chlorobenzene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Ethylbenzene	0.18	J	1.0	0.88	0.12	J	1.0	0.98	0.5
m & p-Xylenes	0.65	J	1.0	1.77	0.41	J	1.0	1.96	1.0
Bromoform	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Styrene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
o-Xylene	0.32	J	1.0	0.88	0.18	J	1.0	0.98	0.5
4-Ethyltoluene	0.12	J	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,3,5-Trimethylbenzene	0.12	J	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,2,4-Trimethylbenzene	0.48	J	1.0	0.88	0.27	J	1.0	0.98	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.88	<SRL	U	1.0	0.98	0.5
BFB-Surrogate Std. % Recovery	104%				107%				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 : 130502
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 04/25/2013
DATE REPORTED : 04/29/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 W2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130502-62626				130502-62627				
Date Sampled	04/22/2013				04/22/2013				
Date Analyzed	04/29/2013				04/29/2013				
Can Dilution Factor	1.84				1.34				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.33	J	1.0	0.92	0.35	J	1.0	0.67	0.5
Propene	0.64	J	1.0	1.84	1.02	J	1.0	1.34	1.0
Dichlorodifluoromethane	0.61	J	1.0	0.92	0.58	J	1.0	0.67	0.5
Chloromethane	0.64	J	1.0	0.92	0.63	J	1.0	0.67	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Vinyl Chloride	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Methanol	10.4		1.0	9.20	74.6		5.0	33.5	5.0
1,3-Butadiene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Bromomethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Chloroethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Ethanol	3.18	J	1.0	3.68	26.2		1.0	2.68	2.0
Vinyl Bromide	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Acetone	4.54		1.0	3.68	8.57		1.0	2.68	2.0
Trichlorofluoromethane	0.28	J	1.0	0.92	0.27	J	1.0	0.67	0.5
2-Propanol (IPA)	<SRL	U	1.0	3.68	6.43		1.0	2.68	2.0
Acrylonitrile	<SRL	U	1.0	1.84	<SRL	U	1.0	1.34	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	1.84	10.3		1.0	1.34	1.0
Allyl Chloride	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Carbon Disulfide	NR	U	1.0	0.92	NR	U	1.0	0.67	0.5
Trichlorotrifluoroethane	<SRL	U	1.0	0.92	0.09	J	1.0	0.67	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Vinyl Acetate	<SRL	U	1.0	1.84	<SRL	U	1.0	1.34	1.0
2-Butanone (MEK)	0.44	J	1.0	1.84	2.69		1.0	1.34	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Hexane	<SRL	U	1.0	0.92	0.86		1.0	0.67	0.5
Chloroform	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Ethyl Acetate	<SRL	U	1.0	0.92	5.91		1.0	0.67	0.5
Tetrahydrofuran	<SRL	U	1.0	0.92	0.48	J	1.0	0.67	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.92	0.20	J	1.0	0.67	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130502
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 04/25/2013
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VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 W2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130502-62626				130502-62627				
Date Sampled	04/22/2013				04/22/2013				
Date Analyzed	04/29/2013				04/29/2013				
Can Dilution Factor	1.84				1.34				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	<SRL	U	1.0	0.92	0.58	J	1.0	0.67	0.5
Carbon Tetrachloride	0.09	J	1.0	0.92	0.08	J	1.0	0.67	0.5
Cyclohexane	<SRL	U	1.0	0.92	1.14		1.0	0.67	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.92	0.07	J	1.0	0.67	0.5
Bromodichloromethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
1,4-Dioxane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
2,2,4-Trimethylpentane	0.22	J	1.0	0.92	0.33	J	1.0	0.67	0.5
Heptane	0.22	J	1.0	0.92	0.51	J	1.0	0.67	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	0.92	0.23	J	1.0	0.67	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Toluene	0.79	J	1.0	0.92	12.2		1.0	0.67	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Dibromochloromethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.92	0.62	J	1.0	0.67	0.5
Chlorobenzene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Ethylbenzene	0.24	J	1.0	0.92	0.95		1.0	0.67	0.5
m & p-Xylenes	0.85	J	1.0	1.84	2.36		1.0	1.34	1.0
Bromoform	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Styrene	<SRL	U	1.0	0.92	0.90		1.0	0.67	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
o-Xylene	0.39	J	1.0	0.92	1.08		1.0	0.67	0.5
4-Ethyltoluene	0.18	J	1.0	0.92	0.29	J	1.0	0.67	0.5
1,3,5-Trimethylbenzene	0.17	J	1.0	0.92	0.29	J	1.0	0.67	0.5
1,2,4-Trimethylbenzene	0.61	J	1.0	0.92	1.07		1.0	0.67	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.92	<SRL	U	1.0	0.67	0.5
BFB-Surrogate Std. % Recovery	106%				105%				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 : 04/29/2013
ANALYST : JJG

INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS040413-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 04/18/2013 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC**
4-BFB (surrogate standard)	10.00	10.34	103
Chlorodifluoromethane	10.10	9.69	96
Propene	11.00	10.38	94
Dichlorodifluoromethane	9.80	10.42	106
Chloromethane	10.10	9.68	96
Dichlorotetrafluoroethane	10.10	10.36	103
Vinyl Chloride	10.20	9.51	93
Methanol	4.90	4.57	93
1,3-Butadiene	10.50	9.25	88
Bromomethane	10.20	8.39	82
Chloroethane	10.00	8.74	87
Dichlorofluoromethane	10.00	10.27	103
Ethanol	9.80	9.14	93
Vinyl Bromide	10.20	10.15	100
Acetone	10.80	8.36	77
Trichlorofluoromethane	10.10	10.83	107
2-Propanol (IPA)	11.00	9.14	83
Acrylonitrile	10.50	9.78	93
1,1-Dichloroethene	10.50	9.74	93
Methylene Chloride (DCM)	10.40	9.14	88
Allyl Chloride	11.00	10.78	98
Carbon Disulfide	10.50	8.80	84
Trichlorotrifluoroethane	10.40	10.28	99
trans-1,2-Dichloroethene	10.40	10.02	96
1,1-Dichloroethane	10.40	9.81	94
Methyl Tert Butyl Ether (MTBE)	10.60	10.92	103
Vinyl Acetate	9.70	9.82	101
2-Butanone (MEK)	10.60	10.20	96
cis-1,2-Dichloroethene	10.60	9.76	92
Hexane	10.70	9.93	93
Chloroform	10.60	10.92	103
Ethyl Acetate	11.00	10.61	96
Tetrahydrofuran	10.80	9.93	92
1,2-Dichloroethane	10.40	11.12	107
1,1,1-Trichloroethane	10.50	11.44	109

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ANALYSIS DATE : 04/29/2013
ANALYST : JJG

INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS040413-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 04/18/2013 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC**
Benzene	10.50	9.63	92
Carbon Tetrachloride	10.10	11.03	109
Cyclohexane	10.50	9.84	94
1,2-Dichloropropane	10.50	9.55	91
Bromodichloromethane	10.30	10.92	106
1,4-Dioxane	10.30	9.67	94
Trichloroethene (TCE)	10.30	10.25	100
2,2,4-Trimethylpentane	10.90	10.08	92
Heptane	10.70	9.98	93
cis-1,3-Dichloropropene	11.00	11.05	100
4-Methyl-2-pentanone (MiBK)	10.30	9.89	96
trans-1,3-Dichloropropene	9.80	10.34	106
1,1,2-Trichloroethane	10.60	10.21	96
Toluene	10.60	10.42	98
2-Hexanone (MBK)	10.80	10.37	96
Dibromochloromethane	11.00	11.83	108
1,2-Dibromoethane	10.40	10.36	100
Tetrachloroethene (PCE)	10.40	10.71	103
Chlorobenzene	10.60	10.04	95
Ethylbenzene	10.50	10.07	96
m & p-Xylenes	20.60	19.32	94
Bromoform	10.30	10.36	101
Styrene	10.40	9.73	94
1,1,2,2-Tetrachloroethane	10.60	9.68	91
o-Xylene	10.60	10.09	95
4-Ethyltoluene	10.40	10.07	97
1,3,5-Trimethylbenzene	10.20	9.63	94
1,2,4-Trimethylbenzene	10.20	9.88	97
Benzyl Chloride (a-Chlorotoluene)	10.00	11.36	114
1,3-Dichlorobenzene	10.00	10.28	103
1,4-Dichlorobenzene	10.00	9.72	97
1,2-Dichlorobenzene	10.00	9.68	97
1,2,4-Trichlorobenzene	9.30	9.36	101
Hexachlorobutadiene	9.80	10.27	105

* - %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**	**: 04/29/2013**
AAC ID	**: LCS/LCSD**	**DATE REPORTED**	**: 04/29/2013**
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	9.74	9.89	93	94	1.5
Methylene Chloride (DCM)	0.0	10.40	9.14	9.50	88	91	3.9
Benzene	0.0	10.50	9.63	9.52	92	91	1.1
Trichloroethene (TCE)	0.0	10.30	10.25	10.06	100	98	1.9
Toluene	0.0	10.60	10.42	10.22	98	96	1.9
Tetrachloroethene (PCE)	0.0	10.40	10.71	10.12	103	97	5.7
Chlorobenzene	0.0	10.60	10.04	10.06	95	95	0.2
Ethylbenzene	0.0	10.50	10.07	10.07	96	96	0.0
m & p-Xylenes	0.0	20.60	19.32	19.04	94	92	1.5
o-Xylene	0.0	10.60	10.09	10.01	95	94	0.8

* Must be 70-130%

** Must be < 25%

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Method Blank Analysis Report

MATRIX	**: AIR**	**ANALYSIS DATE**	**: 04/29/2013**
UNITS	**: ppbv**	**REPORT DATE**	**: 04/29/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Method Blank	RL
AAC ID	MB 042913	
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**	**: 04/29/2013**
UNITS	**: ppbv**	**REPORT DATE**	**: 04/29/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 042913	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	107%	--

RL - Reporting Limit

Marcus Hueppe
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Quality Control/Quality Assurance Report

AAC ID	**: 130502-62624**	**DATE ANALYZED**	**: 04/29/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 04/29/2013**
		UNITS	**: ppbv**

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Chlorodifluoromethane	<SRL	<SRL	0.0
Propene	2.94	2.83	3.8
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	4.34	4.21	3.0
Vinyl Bromide	<SRL	<SRL	0.0
Acetone	4.37	4.53	3.6
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	**: 130502-62624**	**DATE ANALYZED**	**: 04/29/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 04/29/2013**
		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%	108%	3.6

SRL - Sample Reporting Limit

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Laboratory Director

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TO-15 RAW DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291305.D
Acq On : 29 Apr 2013 11:45
Operator : JJG
Sample : 130502-62624 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:28:03 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	164792	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	889735	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	854028	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	525487	10.43 ppbv	0.00
Spiked Amount 10.000			Recovery = 104.30%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	6087	0.18 ppbv #	94
3) Propene	4.799	42	15674	1.66 ppbv #	82
4) Dichlorodifluoromethane	4.908	85	17937	0.34 ppbv	98
5) Chloromethane	5.306	52	2042	0.34 ppbv #	40
6) Dichlorotetrafluoroethane	5.324	135	261	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.885	31	29523m2	4.91 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	7.134	45	20075m2	2.45 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.002	58	25378m2	2.47 ppbv	
16) Trichlorofluoromethane	7.658	103	4893	0.16 ppbv #	93
17) 2-Propanol(IPA)	0.000		0	N.D. 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. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	0.000		0	N.D. 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	1331	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	12.510	83	639	N.D.	
32) EthylAcetate	0.000		0	N.D. d	

04/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291305.D
Acq On : 29 Apr 2013 11:45
Operator : JJG
Sample : 130502-62624 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:28:03 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 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	232	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	3190	0.06 ppbv	94
39) Cyclohexane	14.026	69	131	N.D.	
40) 1,2-Dichloropropane	15.399	63	111	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	14.775	57	14971	0.12 ppbv #	94
45) Heptane	15.114	71	2729	0.12 ppbv	95
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.594	58	260	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	275	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	40340m	0.47 ppbv	
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	302	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	494	N.D.	
56) Chlorobenzene	20.285	114	116	N.D.	
57) Ethylbenzene	20.713	91	11910	0.10 ppbv	95
58) m&p-Xylene	20.945	106	16942	0.37 ppbv #	84
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	1521	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	15550	0.18 ppbv	96
64) 4-Ethyltoluene	23.691	120	2503	0.07 ppbv #	92
65) 1,3,5-Trimethylbenzene	23.780	120	3926	0.07 ppbv #	87
66) 1,2,4-Trimethylbenzene	24.529	120	14251	0.27 ppbv	94
67) BenzylChloride(a-Chlor...	25.189	91	538	N.D.	
68) 1,3-Dichlorobenzene	25.046	146	621	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	1079	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	721	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	2439	N.D.	
72) Hexachlorobutadiene	30.075	225	699	N.D.	

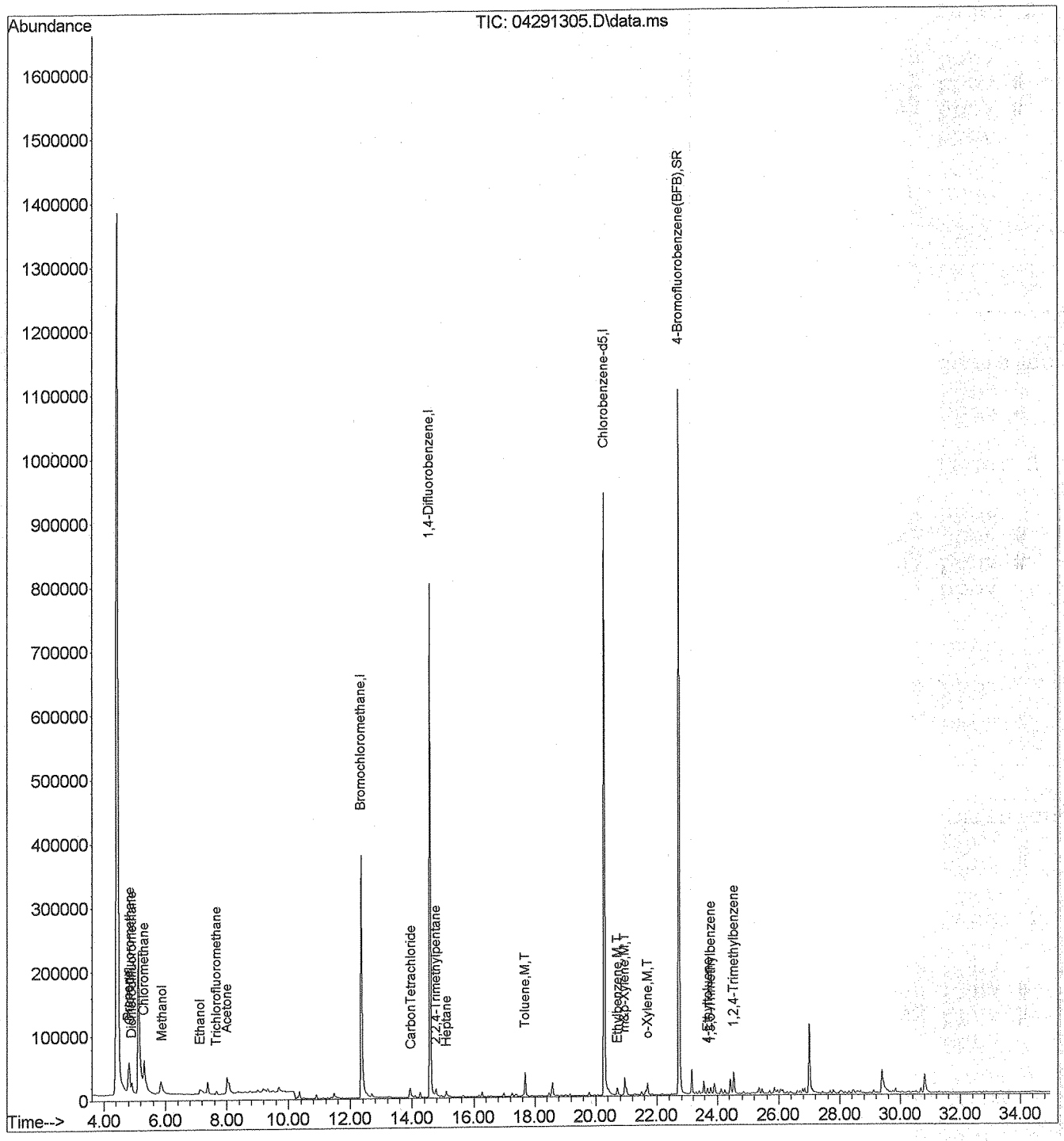
(#) = qualifier out of range (m) = manual integration (+) = signals summed

4/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291305.D
Acq On : 29 Apr 2013 11:45
Operator : JJG
Sample : 130502-62624 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:28:03 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



4/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291307.D
Acq On : 29 Apr 2013 13:21
Operator : JJG
Sample : 130502-62625 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 13:59:52 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	162750	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	898177	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	853570	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	537591	10.67 ppbv	0.00
Spiked Amount 10.000			Recovery = 106.70%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	5539	0.16 ppbv #	95
3) Propene	4.799	42	7314	0.78 ppbv #	80
4) Dichlorodifluoromethane	4.908	85	15927	0.30 ppbv	99
5) Chloromethane	5.288	52	1961	0.33 ppbv #	55
6) Dichlorotetrafluoroethane	5.324	135	309	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	26174m	4.39 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	7.134	45	15570m	1.92 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	32625m	3.22 ppbv	
16) Trichlorofluoromethane	7.659	103	4511	0.15 ppbv	96
17) 2-Propanol(IPA)	0.000		0	N.D. 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. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	8.998	103	1059	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	1199	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	12.511	83	473	N.D.	
32) EthylAcetate	0.000		0	N.D. d	

4/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291307.D
Acq On : 29 Apr 2013 13:21
Operator : JJG
Sample : 130502-62625 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 13:59:52 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

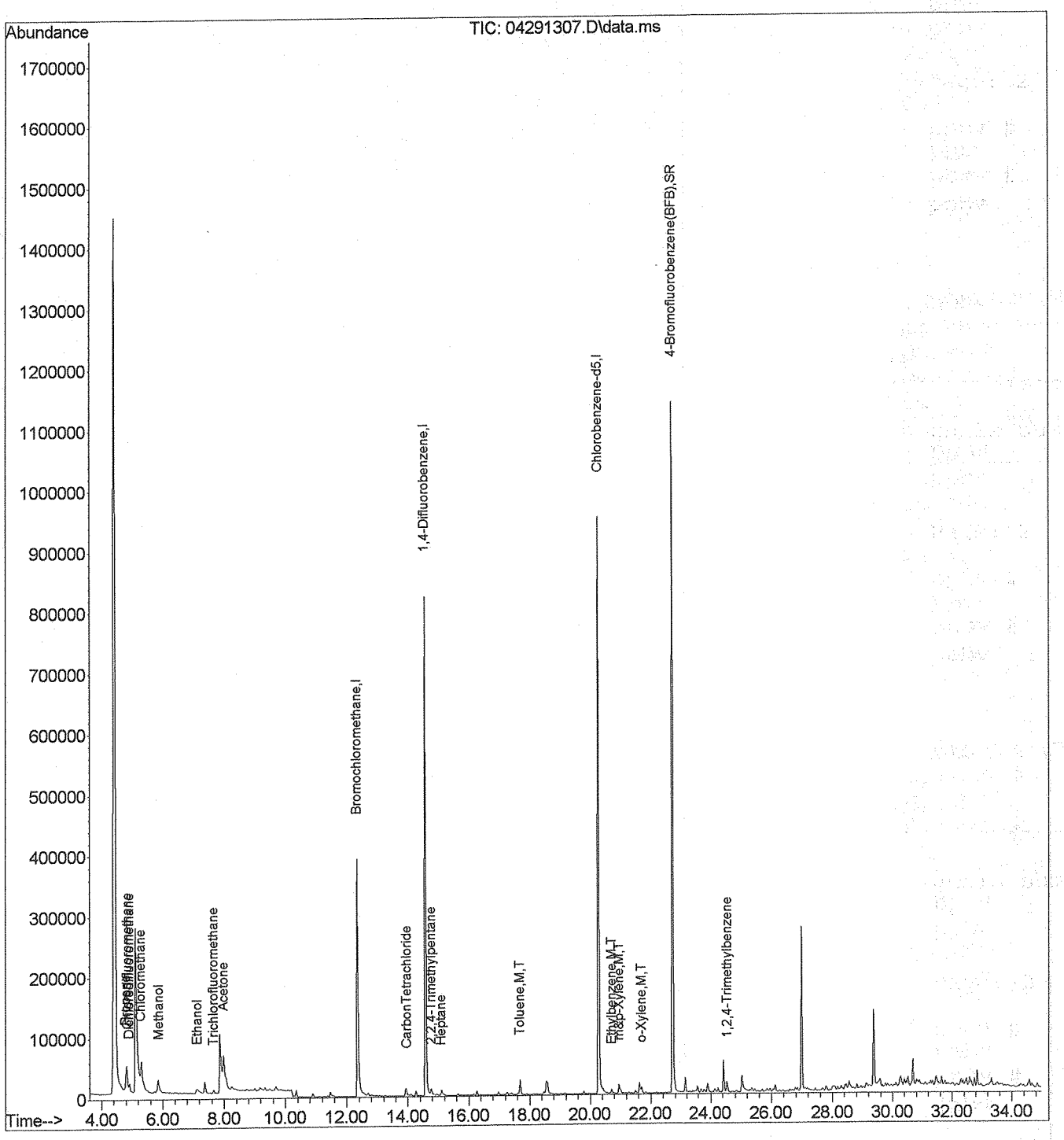
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	13.616	62	122	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	2408	0.05 ppbv	92
39) Cyclohexane	14.026	69	122	N.D.	
40) 1,2-Dichloropropane	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	14.775	57	13856	0.11 ppbv	98
45) Heptane	15.096	71	2418	0.11 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	123	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	26021	0.30 ppbv	96
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	169	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	420	N.D.	
56) Chlorobenzene	0.000		0	N.D.	
57) Ethylbenzene	20.713	91	7064	0.06 ppbv	99
58) m&p-Xylene	20.963	106	9665	0.21 ppbv	96
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	617	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	7815	0.09 ppbv #	95
64) 4-Ethyltoluene	23.691	120	1446	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	1982	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	7149	0.14 ppbv	98
67) BenzylChloride(a-Chlor...	25.296	91	141	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	255	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	456	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	143	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	988	N.D.	
72) Hexachlorobutadiene	30.093	225	219	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291307.D
Acq On : 29 Apr 2013 13:21
Operator : JJG
Sample : 130502-62625 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 13:59:52 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



041813.M Mon Apr 29 14:00:23 2013

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291308.D
Acq On : 29 Apr 2013 14:09
Operator : JJG
Sample : 130502-62626 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 15:00:28 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	166074	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	902698	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	862839	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	540290	10.61 ppbv	0.00
Spiked Amount 10.000			Recovery = 106.10%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.836	51	6140	0.18 ppbv #	99
3) Propene	4.799	42	3331	0.35 ppbv #	31
4) Dichlorodifluoromethane	4.908	85	17872	0.33 ppbv	98
5) Chloromethane	5.288	52	2076	0.35 ppbv #	43
6) Dichlorotetrafluoroethane	5.342	135	306	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	34118m	5.68 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	7.134	45	14279m	1.73 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	25608m	2.47 ppbv	
16) Trichlorofluoromethane	7.659	103	4723	0.15 ppbv #	99
17) 2-Propanol(IPA)	0.000		0	N.D. 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. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	0.000		0	N.D. 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	1159	N.D.	
28) 2-Butanone(MEK)	11.530	72	2464	0.24 ppbv #	81
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	0.000		0	N.D. d	
31) Chloroform	12.511	83	661	N.D.	
32) EthylAcetate	0.000		0	N.D. d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291308.D
Acq On : 29 Apr 2013 14:09
Operator : JJG
Sample : 130502-62626 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 15:00:28 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

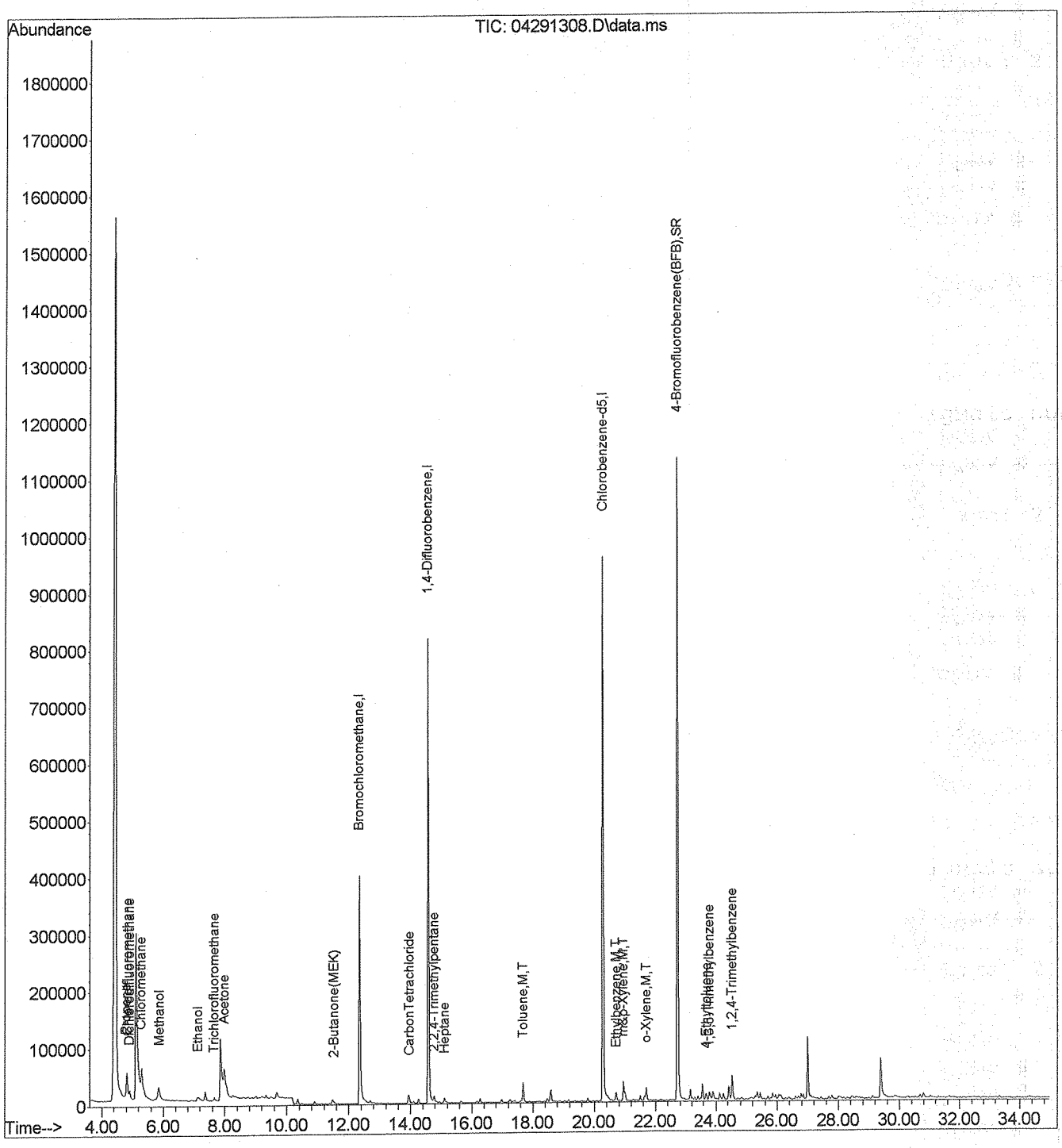
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.796	72	109	N.D.	
34) 1,2-Dichloroethane	13.616	62	262	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	2614	0.05 ppbv #	98
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	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	14.775	57	15290	0.12 ppbv	97
45) Heptane	15.114	71	2729	0.12 ppbv	98
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	17.700	75	118	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	37616m	0.43 ppbv	
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	209	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	551	N.D.	
56) Chlorobenzene	20.285	114	248	N.D.	
57) Ethylbenzene	20.713	91	15149	0.13 ppbv	99
58) m&p-Xylene	20.945	106	21088	0.46 ppbv #	91
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.676	104	1103	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	19064	0.21 ppbv	98
64) 4-Ethyltoluene	23.691	120	3657	0.10 ppbv	92
65) 1,3,5-Trimethylbenzene	23.780	120	4773	0.09 ppbv #	83
66) 1,2,4-Trimethylbenzene	24.529	120	17566	0.33 ppbv #	93
67) BenzylChloride(a-Chlor...	25.118	91	622	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	118	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	1266	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	810	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\042913\
Data File : 04291308.D
Acq On : 29 Apr 2013 14:09
Operator : JJG
Sample : 130502-62626 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 15:00:28 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



041813.M Mon Apr 29 15:01:03 2013

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291309.D
Acq On : 29 Apr 2013 14:57
Operator : JJG
Sample : 130502-62627 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 15:33:39 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	166362	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	924135	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	874222	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	543383	10.53 ppbv	0.00
Spiked Amount 10.000			Recovery = 105.30%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.817	51	8989	0.26 ppbv #	98
3) Propene	4.799	42	7225	0.76 ppbv #	56
4) Dichlorodifluoromethane	4.908	85	22982	0.43 ppbv	99
5) Chloromethane	5.288	52	2854	0.47 ppbv #	72
6) Dichlorotetrafluoroethane	5.324	135	325	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.776	31	307015m	Below Cal	
9) 1,3-Butadiene	5.867	54	115	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	7.043	45	162106m	19.57 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.966	58	66318m	6.40 ppbv	
16) Trichlorofluoromethane	7.695	103	6030	0.20 ppbv #	97
17) 2-Propanol(IPA)	8.183	45	169783m	4.80 ppbv	
18) Acrylonitrile	8.980	52	119	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.323	84	144309m	7.69 ppbv	
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	9.016	103	1811	0.07 ppbv #	95
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	10.496	73	531	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	11.441	72	20474	2.01 ppbv #	82
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.476	86	2993	0.64 ppbv	95
31) Chloroform	0.000		0	N.D. d	
32) EthylAcetate	12.029	43	220454m	4.41 ppbv	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291309.D
Acq On : 29 Apr 2013 14:57
Operator : JJG
Sample : 130502-62627 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 15:33:39 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

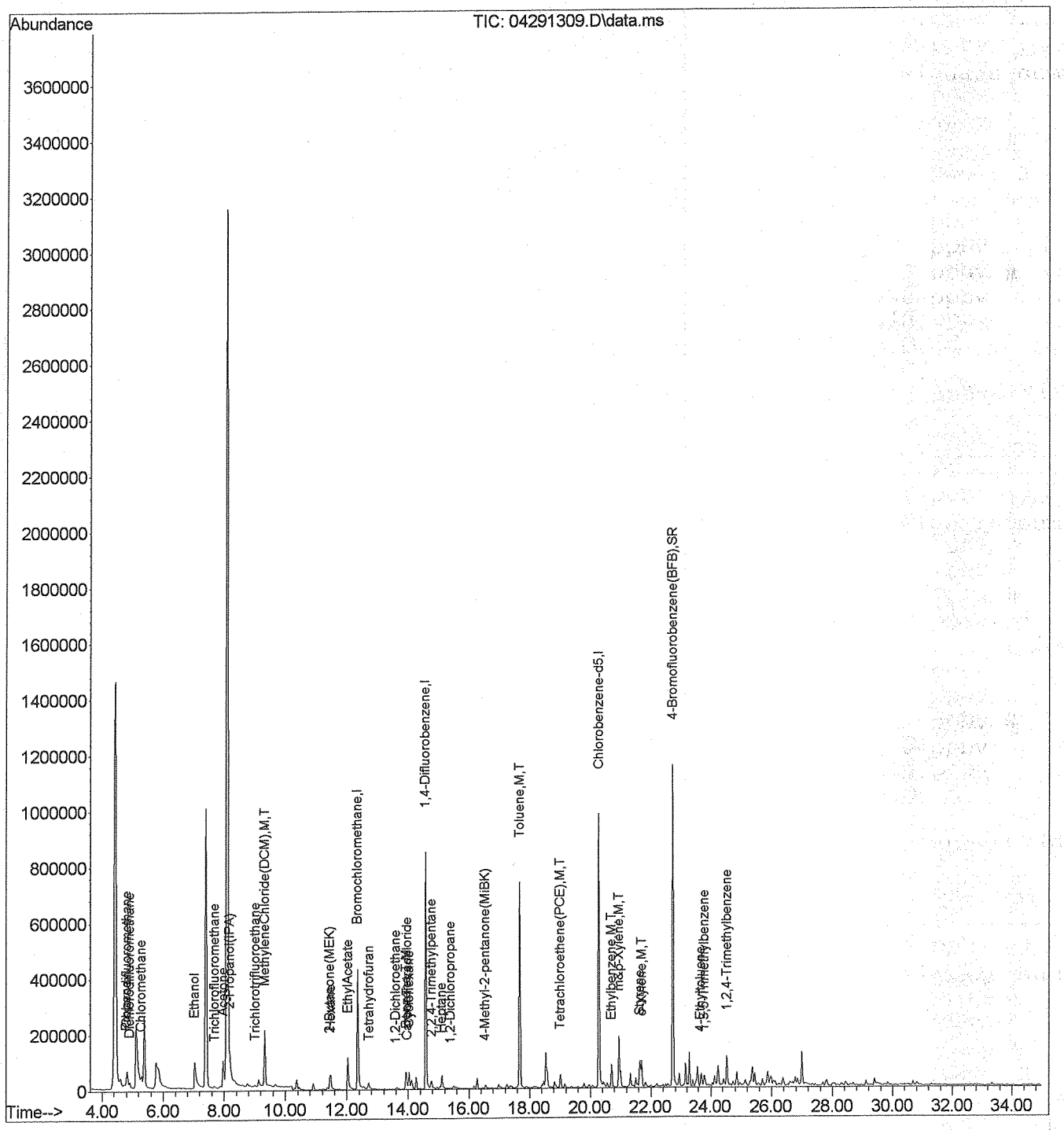
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.725	72	3796	0.36 ppbv #	55
34) 1,2-Dichloroethane	13.598	62	5046	0.15 ppbv #	97
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	31681	0.43 ppbv #	95
38) CarbonTetrachloride	13.973	117	2875	0.06 ppbv #	96
39) Cyclohexane	14.026	69	9220	0.85 ppbv #	82
40) 1,2-Dichloropropane	15.399	63	1554	0.05 ppbv #	84
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.292	130	665	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	33009	0.25 ppbv	97
45) Heptane	15.096	71	8957	0.38 ppbv #	64
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.541	58	4558	0.17 ppbv	87
48) trans-1,3-Dichloropropene	0.000		0	N.D. d	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	806734m	9.09 ppbv	
51) 2-Hexanone(MBK)	18.199	58	412	N.D.	
52) Dibromochloromethane	0.000		0	N.D. d	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	21119	0.46 ppbv	98
56) Chlorobenzene	20.357	114	549	N.D.	
57) Ethylbenzene	20.695	91	82659	0.71 ppbv	99
58) m&p-Xylene	20.945	106	81581	1.76 ppbv	92
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.641	104	50671	0.67 ppbv	95
61) 1,1,2,2-Tetrachloroethane	22.390	83	137	N.D.	
62) o-Xylene	21.694	91	72897	0.81 ppbv	99
64) 4-Ethyltoluene	23.673	120	8309	0.22 ppbv	95
65) 1,3,5-Trimethylbenzene	23.780	120	12028	0.22 ppbv #	91
66) 1,2,4-Trimethylbenzene	24.529	120	43110	0.80 ppbv	96
67) BenzylChloride(a-Chlor...	25.118	91	1929	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	1480	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	139	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	566	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\042913\
Data File : 04291309.D
Acq On : 29 Apr 2013 14:57
Operator : JJG
Sample : 130502-62627 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 15:33:39 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291310.D
Acq On : 29 Apr 2013 15:42
Operator : JJG
Sample : 130502-62627 x5
Misc : IS/Surr: PS082712-02 + 100mL
ALS Vial : 5 Sample Multiplier: 5

Quant Time: Apr 29 16:21:10 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	172036	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	917262	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	866351	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	545608	10.67	ppbv	0.00
Spiked Amount 10.000			Recovery = 106.70%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.835	51	1948	N.D.		
3) Propene	4.799	42	1169	N.D.		
4) Dichlorodifluoromethane	4.908	85	4321	N.D.		
5) Chloromethane	5.306	52	597	N.D.		
6) Dichlorotetrafluoroethane	0.000		0	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.849	31	65688m	55.74	ppbv	
9) 1,3-Butadiene	0.000		0	N.D.		
10) Bromomethane	6.428	96	378	N.D.		
11) Chloroethane	0.000		0	N.D.		
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	7.079	45	32674m	19.07	ppbv	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	0.000		0	N.D.	d	
16) Trichlorofluoromethane	7.659	103	1156	N.D.		
17) 2-Propanol(IPA)	0.000		0	N.D.	d	
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	9.323	84	28318m	7.30	ppbv	
21) AllylChloride	9.179	39	1178	N.D.		
22) CarbonDisulfide	9.504	76	5579	N.D.		
23) Trichlorotrifluoroethane	8.998	103	261	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	10.906	43	2313	N.D.		
28) 2-Butanone(MEK)	11.494	72	3286	N.D.		
29) cis-1,2-Dichloroethene	0.000		0	N.D.		
30) Hexane	11.458	86	501	N.D.		
31) Chloroform	12.493	83	320	N.D.		
32) EthylAcetate	12.065	43	40623	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291310.D
Acq On : 29 Apr 2013 15:42
Operator : JJG
Sample : 130502-62627 x5
Misc : IS/Surr: PS082712-02 + 100mL
ALS Vial : 5 Sample Multiplier: 5

Quant Time: Apr 29 16:21:10 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

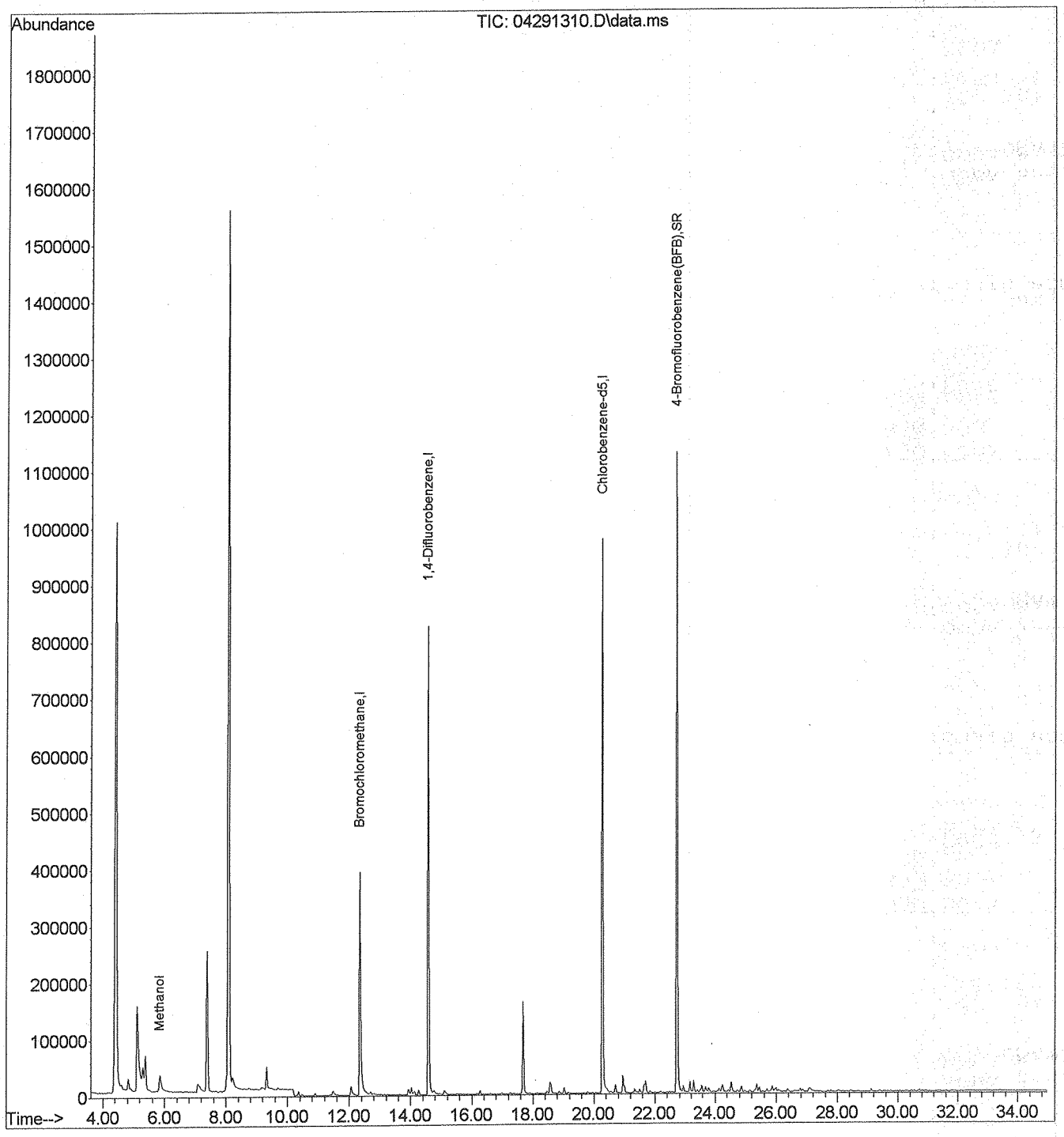
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.796	72	511	N.D.	
34) 1,2-Dichloroethane	13.616	62	827	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	8142	N.D.	
38) CarbonTetrachloride	13.973	117	508	N.D.	
39) Cyclohexane	14.026	69	1670	N.D.	
40) 1,2-Dichloropropane	15.399	63	357	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	14.775	57	7994	N.D.	
45) Heptane	15.114	71	1727	N.D.	
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.576	58	497	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	942	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	170701	9.69 ppbv	99
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	3093	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	4136	N.D.	
56) Chlorobenzene	20.285	114	117	N.D.	
57) Ethylbenzene	20.713	91	16609	N.D.	
58) m&p-Xylene	20.945	106	16139	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	9053	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	14688	N.D.	
64) 4-Ethyltoluene	23.691	120	1534	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	2420	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	8174	N.D.	
67) BenzylChloride(a-Chlor...	25.118	91	125	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	322	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	107	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\042913\
Data File : 04291310.D
Acq On : 29 Apr 2013 15:42
Operator : JJG
Sample : 130502-62627 x5
Misc : IS/Surr: PS082712-02 + 100mL
ALS Vial : 5 Sample Multiplier: 5

Quant Time: Apr 29 16:21:10 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



TO-15 RAW QC & ICAL SUMMARY

MS #3 Instrument Logbook

Sequence Name: C:\msdchem\1\sequence\2013\042913.S
Comment: GCMS-03
Operator: JJG
Data Path: C:\MSDCHEM\1\MS03\2013\042913\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

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

Line			Sample Name/Misc Info
1)	Sample	1	04291301 TO15-5MS TO15 BFB 042913
2)	Sample	1	04291302 TO15-5MS TO15 CCV 042913
3)	Sample	1	04291303 TO15-5MS TO15 LCSD 042913
4)	Sample	1	04291304 TO15-5MS TO15 MB 042913
5)	Sample	2	04291305 TO15-5MS 130502-62624 x1
6)	Sample	2	04291306 TO15-5MS 130502-62624 x1 dp
7)	Sample	3	04291307 TO15-5MS 130502-62625 x1
8)	Sample	4	04291308 TO15-5MS 130502-62626 x1
9)	Sample	5	04291309 TO15-5MS 130502-62627 x1
10)	Sample	5	04291310 TO15-5MS 130502-62627 x5
11)	Sample	6	04291311 TO15-5MS Can Check#000753
12)	Sample	7	04291312 TO15-5MS Can Check#000796
13)	Sample	8	04291313 TO15-5MS Can Check#000743
14)	Sample	9	04291314 TO15-5MS Can Check#000742
15)	Sample	10	04291315 TO15-5MS Can Check#000299
16)	Sample	11	04291316 TO15-5MS Can Check#000681
17)	Sample	12	04291317 TO15-5MS Can Check#000652
18)	Sample	13	04291318 TO15-5MS Can Check#000294
19)	Sample	14	04291319 TO15-5MS Can Check#000675
20)	Sample	15	04291320 TO15-5MS Can Check#000679
21)	Sample	16	04291321 TO15-5MS Can Check#000677
22)	Sample	1	04291322 TO15-5MS Can Check#000309
23)	Sample	2	04291323 TO15-5MS Can Check#000308
24)	Sample	3	04291324 TO15-5MS Can Check#000289
25)	Sample	4	04291325 TO15-5MS Can Check#000312
26)	Sample	5	04291326 TO15-5MS Can Check#000307
27)	Sample	6	04291327 TO15-5MS Can Check#000316
28)	Sample	7	04291328 TO15-5MS Can Check#000367
29)	Sample	8	04291329 TO15-5MS Can Check#000320
30)	Sample	9	04291330 TO15-5MS Can Check#000322

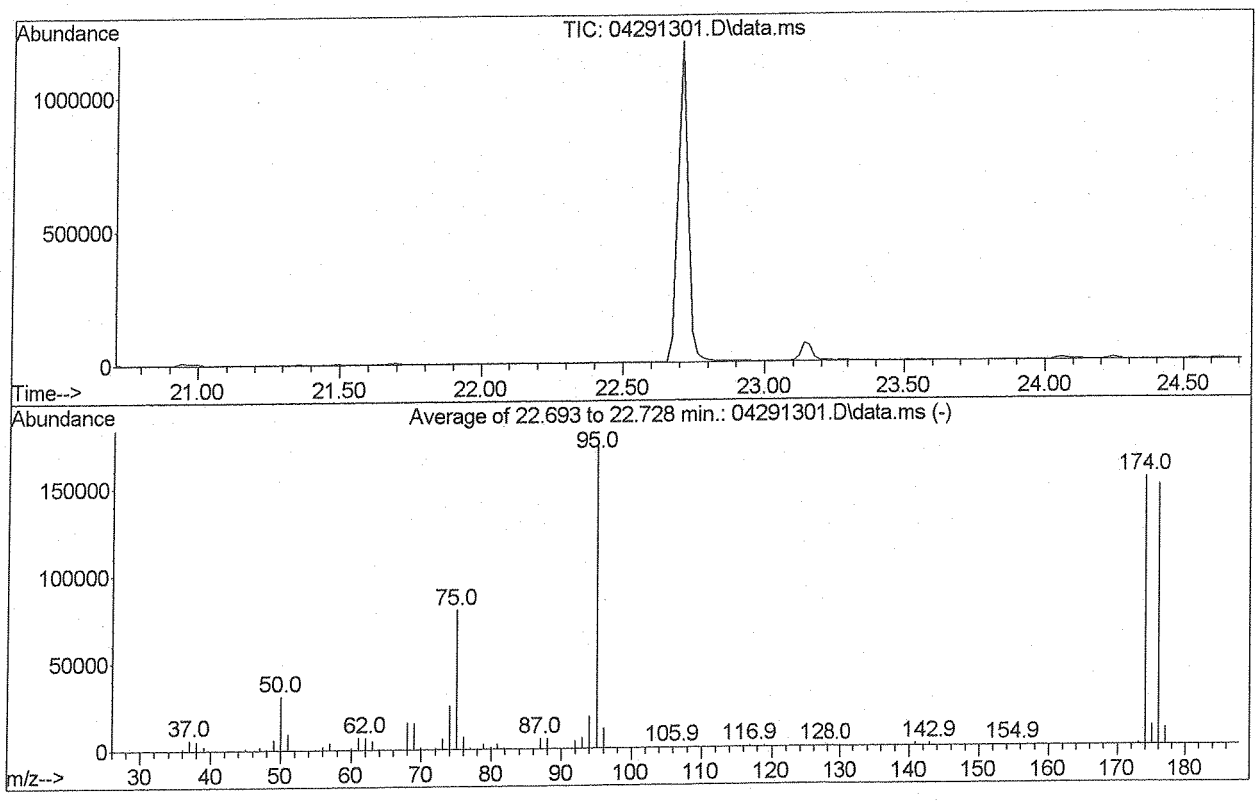
Comments: _____

Analyst: _____ **Date:** 04/29/13

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291301.D
Acq On : 29 Apr 2013 8:37 am
Operator : JJG
Sample : TO15 BFB 042913
Misc : IS/Surr: PS082712-02 + 500mL cc#000745
ALS Vial : 1 Sample Multiplier: 1

Integration File: PAMS.P

Method : C:\msdchem\1\METHODS\2013\041813.M
Title : TO-15/TO-14
Last Update : Thu Apr 18 19:34:22 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	17.7	31059	PASS
75	95	30	60	45.7	80043	PASS
95	95	100	100	100.0	175083	PASS
96	95	5	9	6.6	11629	PASS
173	174	0.00	2	0.8	1255	PASS
174	95	50	100	87.8	153765	PASS
175	174	5	9	7.4	11359	PASS
176	174	95	101	97.4	149779	PASS
177	176	5	9	6.8	10132	PASS

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291302.D
Acq On : 29 Apr 2013 9:24
Operator : JJG
Sample : TO15 CCV 042913
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:15:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	167053	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	866661	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	847013	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	517088	10.34	ppbv	0.00
Spiked Amount 10.000			Recovery = 103.40%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	339277m	9.69	ppbv	
3) Propene	4.781	42	99327m	10.38	ppbv	
4) Dichlorodifluoromethane	4.908	85	560513	10.42	ppbv	100
5) Chloromethane	5.288	52	584690m	9.68	ppbv	
6) Dichlorotetrafluoroethane	5.324	135	374714	10.36	ppbv	96
7) VinylChloride	5.668	62	192015m	9.51	ppbv	
8) Methanol	5.849	31	27926m	4.57	ppbv	
9) 1,3-Butadiene	5.849	54	122721m	9.25	ppbv	
10) Bromomethane	6.446	96	115004m	8.39	ppbv	
11) Chloroethane	6.736	66	30391	8.74	ppbv	96
12) Dichlorofluoromethane	7.007	67	410584m	10.27	ppbv	
13) Ethanol	7.043	45	75991m	9.14	ppbv	
14) VinylBromide	7.260	108	159597m	10.15	ppbv	
15) Acetone	7.966	58	87031m	8.36	ppbv	
16) Trichlorofluoromethane	7.677	103	336172	10.83	ppbv	97
17) 2-Propanol(IPA)	8.165	45	324488m	9.14	ppbv	
18) Acrylonitrile	8.961	52	149290m	9.78	ppbv	
19) 1,1-Dichloroethene	8.726	96	193357	9.74	ppbv	98
20) MethyleneChloride(DCM)	9.323	84	172216m	9.14	ppbv	
21) AllylChloride	9.305	39	173594m	10.78	ppbv	
22) CarbonDisulfide	9.486	76	570482m	8.80	ppbv	
23) Trichlorotrifluoroethane	8.998	103	279771	10.28	ppbv	97
24) trans-1,2-Dichloroethene	10.424	96	212375m	10.02	ppbv	
25) 1,1-Dichloroethane	10.906	63	431904	9.81	ppbv	100
26) MethylTertButylEther(M...	10.460	73	597857	10.92	ppbv	99
27) VinylAcetate	10.888	43	532216m	9.82	ppbv	
28) 2-Butanone(MEK)	11.423	72	104459	10.20	ppbv	91
29) cis-1,2-Dichloroethene	11.904	96	229095	9.76	ppbv	98
30) Hexane	11.476	86	46519	9.93	ppbv	96
31) Chloroform	12.493	83	494211	10.92	ppbv	99
32) EthylAcetate	12.011	43	532467	10.61	ppbv	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291302.D
Acq On : 29 Apr 2013 9:24
Operator : JJG
Sample : TO15 CCV 042913
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:15:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

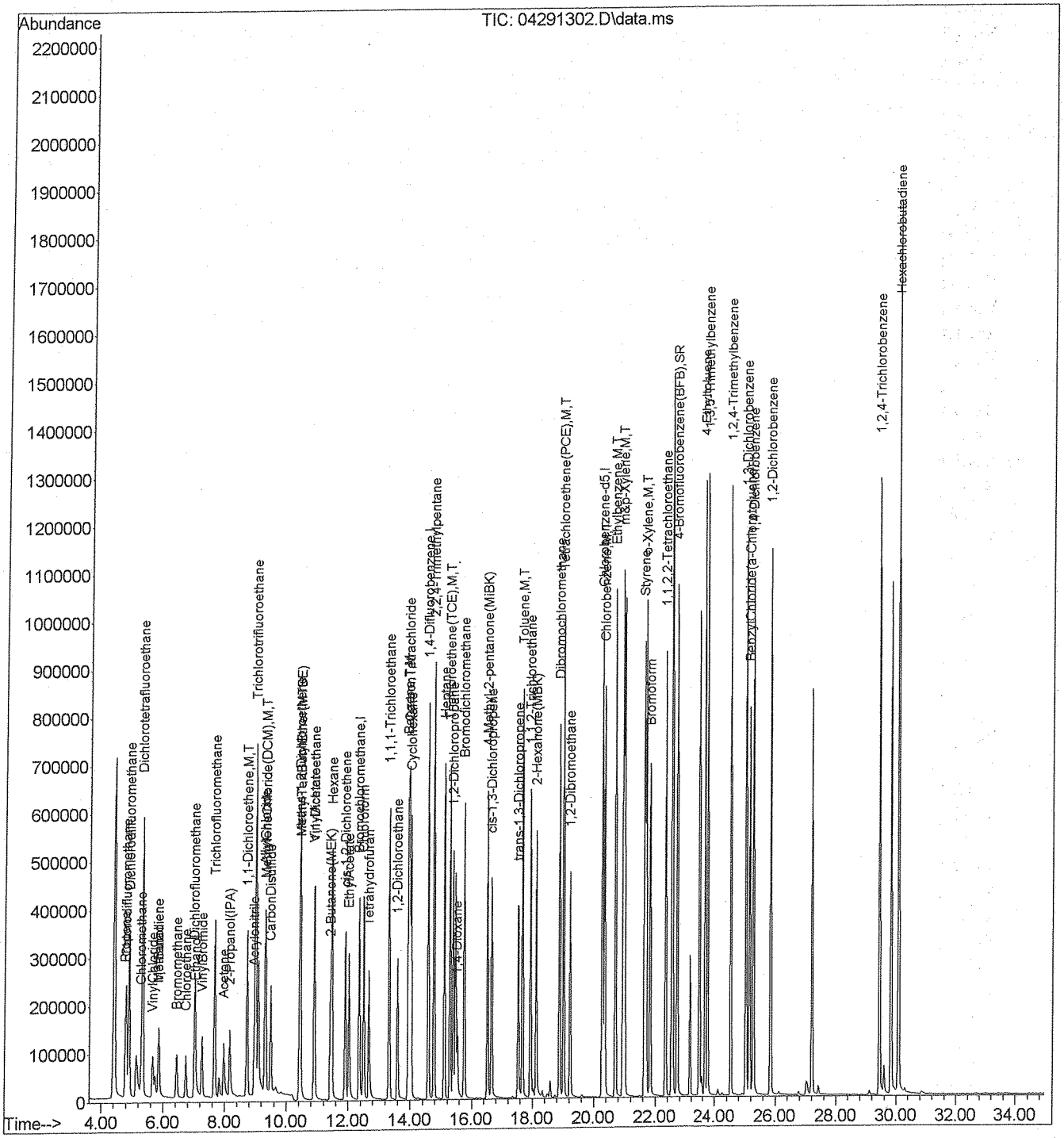
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	12.671	72	105563m	9.93	ppbv	
34) 1,2-Dichloroethane	13.598	62	365950	11.12	ppbv	97
35) 1,1,1-Trichloroethane	13.331	97	543484	11.44	ppbv	99
37) Benzene	13.937	78	661213	9.63	ppbv	99
38) CarbonTetrachloride	13.973	117	532372	11.03	ppbv	98
39) Cyclohexane	14.026	69	99618	9.84	ppbv	97
40) 1,2-Dichloropropane	15.399	63	270274	9.55	ppbv	94
41) Bromodichloromethane	15.756	85	351447	10.92	ppbv	98
42) 1,4-Dioxane	15.524	88	162491m	9.67	ppbv	
43) Trichloroethene(TCE)	15.292	130	315623	10.25	ppbv	99
44) 2,2,4-Trimethylpentane	14.775	57	1229987	10.08	ppbv	98
45) Heptane	15.114	71	218989	9.98	ppbv	98
46) cis-1,3-Dichloropropene	16.648	75	414535	11.05	ppbv	95
47) 4-Methyl-2-pentanone(M...	16.523	58	254124	9.89	ppbv	97
48) trans-1,3-Dichloropropene	17.539	75	380528	10.34	ppbv	99
49) 1,1,2-Trichloroethane	17.932	97	303870	10.21	ppbv	97
50) Toluene	17.682	91	867311	10.42	ppbv	100
51) 2-Hexanone(MBK)	18.128	58	328514	10.37	ppbv	98
52) Dibromochloromethane	18.877	129	618039	11.83	ppbv	99
53) 1,2-Dibromoethane	19.233	107	488690	10.36	ppbv	100
54) Tetrachloroethene(PCE)	19.019	166	462401	10.71	ppbv	99
56) Chlorobenzene	20.357	114	228707	10.04	ppbv	99
57) Ethylbenzene	20.695	91	1138150	10.07	ppbv	99
58) m&p-Xylene	20.945	106	870259	19.32	ppbv	94
59) Bromoform	21.837	173	582090	10.36	ppbv	99
60) Styrene	21.641	104	708074	9.73	ppbv	98
61) 1,1,2,2-Tetrachloroethane	22.336	83	663347	9.68	ppbv	99
62) o-Xylene	21.694	91	883092	10.09	ppbv	99
64) 4-Ethyltoluene	23.673	120	374935	10.07	ppbv	99
65) 1,3,5-Trimethylbenzene	23.780	120	512136	9.63	ppbv	95
66) 1,2,4-Trimethylbenzene	24.529	120	516740	9.88	ppbv	99
67) BenzylChloride(a-Chlor...	25.153	91	896853	11.36	ppbv	99
68) 1,3-Dichlorobenzene	25.046	146	821271	10.28	ppbv	100
69) 1,4-Dichlorobenzene	25.260	146	789504m	9.72	ppbv	
70) 1,2-Dichlorobenzene	25.831	146	826464m	9.68	ppbv	
71) 1,2,4-Trichlorobenzene	29.433	180	753445m	9.36	ppbv	
72) Hexachlorobutadiene	30.075	225	623711m	10.27	ppbv	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291302.D
Acq On : 29 Apr 2013 9:24
Operator : JJG
Sample : TO15 CCV 042913
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:15:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291303.D
Acq On : 29 Apr 2013 10:10
Operator : JJG
Sample : TO15 LCSD 042913
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:17:42 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	170763	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	884575	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	847418	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.728	174	516088	10.32	ppbv	0.02
Spiked Amount 10.000			Recovery = 103.20%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	339937	9.50	ppbv	97
3) Propene	4.781	42	103568m	10.58	ppbv	
4) Dichlorodifluoromethane	4.908	85	556649	10.12	ppbv	100
5) Chloromethane	5.288	52	60842m	9.85	ppbv	
6) Dichlorotetrafluoroethane	5.324	135	396172	10.71	ppbv	95
7) VinylChloride	5.650	62	20475m	9.92	ppbv	
8) Methanol	5.849	31	28204m	4.51	ppbv	
9) 1,3-Butadiene	5.849	54	133510m	9.85	ppbv	
10) Bromomethane	6.446	96	128407m	9.16	ppbv	
11) Chloroethane	6.736	66	30632	8.62	ppbv	93
12) Dichlorofluoromethane	7.007	67	406505	9.95	ppbv	100
13) Ethanol	7.043	45	72348m	8.51	ppbv	
14) VinylBromide	7.260	108	165491m	10.29	ppbv	
15) Acetone	7.966	58	88209m	8.29	ppbv	
16) Trichlorofluoromethane	7.677	103	338382	10.67	ppbv	98
17) 2-Propanol(IPA)	8.165	45	318698m	8.78	ppbv	
18) Acrylonitrile	8.961	52	155270m	9.95	ppbv	
19) 1,1-Dichloroethene	8.726	96	200801	9.89	ppbv	96
20) MethyleneChloride(DCM)	9.323	84	182786m	9.50	ppbv	
21) AllylChloride	9.305	39	175698m	10.67	ppbv	
22) CarbonDisulfide	9.486	76	578210m	8.72	ppbv	
23) Trichlorotrifluoroethane	8.998	103	278410	10.00	ppbv	97
24) trans-1,2-Dichloroethene	10.424	96	217112m	10.03	ppbv	
25) 1,1-Dichloroethane	10.906	63	439157	9.76	ppbv	99
26) MethylTertButylEther(M...	10.460	73	608144	10.87	ppbv	98
27) VinylAcetate	10.888	43	547035m	9.88	ppbv	
28) 2-Butanone(MEK)	11.423	72	108783m	10.39	ppbv	
29) cis-1,2-Dichloroethene	11.904	96	234627	9.78	ppbv	98
30) Hexane	11.476	86	48788	10.19	ppbv	92
31) Chloroform	12.510	83	497086	10.74	ppbv	98
32) EthylAcetate	12.011	43	544225	10.61	ppbv	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291303.D
Acq On : 29 Apr 2013 10:10
Operator : JJG
Sample : TO15 LCSD 042913
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:17:42 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

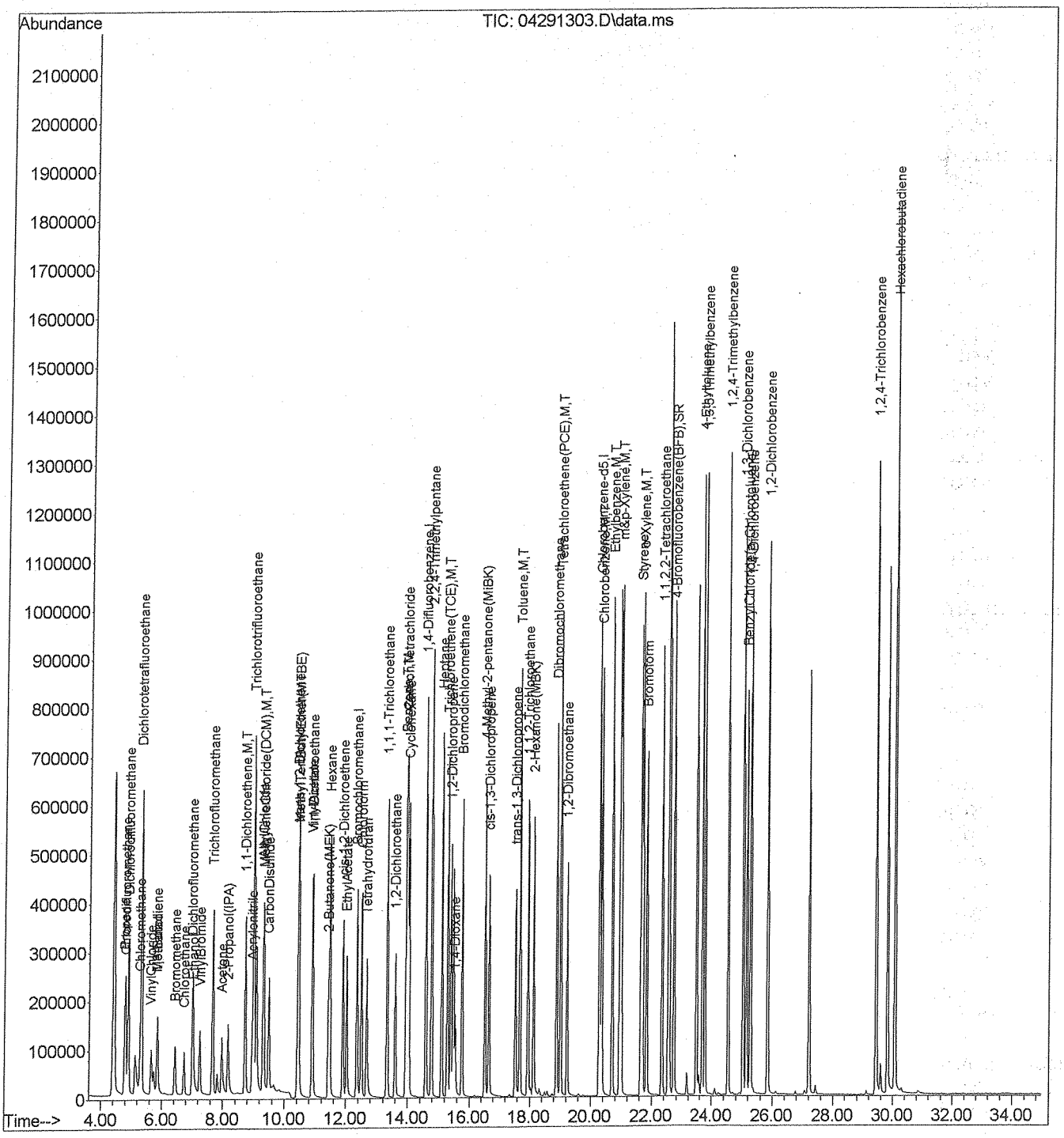
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	12.671	72	105432m	9.70	ppbv	
34) 1,2-Dichloroethane	13.598	62	362084	10.76	ppbv	97
35) 1,1,1-Trichloroethane	13.331	97	543196	11.18	ppbv	98
37) Benzene	13.937	78	667543	9.52	ppbv	99
38) CarbonTetrachloride	13.973	117	541435	10.99	ppbv	99
39) Cyclohexane	14.026	69	100469	9.72	ppbv	98
40) 1,2-Dichloropropane	15.399	63	270204	9.35	ppbv	95
41) Bromodichloromethane	15.756	85	347753	10.58	ppbv	99
42) 1,4-Dioxane	15.524	88	160828m	9.38	ppbv	
43) Trichloroethene(TCE)	15.292	130	315939	10.06	ppbv	99
44) 2,2,4-Trimethylpentane	14.775	57	1209064	9.71	ppbv	98
45) Heptane	15.114	71	219601	9.80	ppbv	99
46) cis-1,3-Dichloropropene	16.647	75	424103	11.08	ppbv	94
47) 4-Methyl-2-pentanone(M...	16.523	58	251409	9.59	ppbv	95
48) trans-1,3-Dichloropropene	17.539	75	387570	10.32	ppbv	99
49) 1,1,2-Trichloroethane	17.931	97	302105	9.95	ppbv	97
50) Toluene	17.682	91	867763	10.22	ppbv	99
51) 2-Hexanone(MBK)	18.127	58	336758m	10.42	ppbv	
52) Dibromochloromethane	18.876	129	618224	11.59	ppbv	99
53) 1,2-Dibromoethane	19.233	107	486883	10.12	ppbv	100
54) Tetrachloroethene(PCE)	19.019	166	445873	10.12	ppbv	99
56) Chlorobenzene	20.356	114	229233	10.06	ppbv	99
57) Ethylbenzene	20.695	91	1138265	10.07	ppbv	99
58) m&p-Xylene	20.998	106	857821	19.04	ppbv	95
59) Bromoform	21.836	173	580036	10.32	ppbv	100
60) Styrene	21.640	104	713761	9.80	ppbv	98
61) 1,1,2,2-Tetrachloroethane	22.336	83	653154	9.52	ppbv	98
62) o-Xylene	21.694	91	876662	10.01	ppbv	98
64) 4-Ethyltoluene	23.673	120	375405	10.07	ppbv	99
65) 1,3,5-Trimethylbenzene	23.780	120	506402	9.52	ppbv	93
66) 1,2,4-Trimethylbenzene	24.529	120	533376	10.19	ppbv	97
67) BenzylChloride(a-Chlor...	25.153	91	915485	11.59	ppbv	100
68) 1,3-Dichlorobenzene	25.046	146	831495	10.40	ppbv	99
69) 1,4-Dichlorobenzene	25.278	146	787456m	9.69	ppbv	
70) 1,2-Dichlorobenzene	25.831	146	836657m	9.80	ppbv	
71) 1,2,4-Trichlorobenzene	29.433	180	782103m	9.71	ppbv	
72) Hexachlorobutadiene	30.075	225	620321m	10.21	ppbv	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291303.D
Acq On : 29 Apr 2013 10:10
Operator : JJG
Sample : TO15 LCSD 042913
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:17:42 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291304.D
Acq On : 29 Apr 2013 10:58
Operator : JJG
Sample : TO15 MB 042913
Misc : IS/Surr: PS082712-02 + 500mL cc#000745
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:33:04 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	170145	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	911940	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	844979	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.711	174	531332	10.66	ppbv	0.00
Spiked Amount 10.000			Recovery = 106.60%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.		
3) Propene	4.817	42	495	N.D.		
4) Dichlorodifluoromethane	0.000		0	N.D.		
5) Chloromethane	5.306	52	269	N.D.		
6) Dichlorotetrafluoroethane	0.000		0	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.903	31	2614	N.D.		
9) 1,3-Butadiene	0.000		0	N.D.		
10) Bromomethane	6.446	96	1365	N.D.		
11) Chloroethane	0.000		0	N.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	8.093	58	2737	N.D.		
16) Trichlorofluoromethane	0.000		0	N.D.		
17) 2-Propanol(IPA)	8.292	45	1869	N.D.		
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	9.323	84	2121	N.D.		
21) AllylChloride	0.000		0	N.D.		
22) CarbonDisulfide	9.504	76	4033	N.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)	11.530	72	1414	N.D.		
29) cis-1,2-Dichloroethene	11.904	96	535	N.D.		
30) Hexane	0.000		0	N.D.		
31) Chloroform	0.000		0	N.D.		
32) EthylAcetate	12.118	43	1600	N.D.		

4/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291304.D
Acq On : 29 Apr 2013 10:58
Operator : JJG
Sample : TO15 MB 042913
Misc : IS/Surr: PS082712-02 + 500mL cc#000745
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:33:04 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

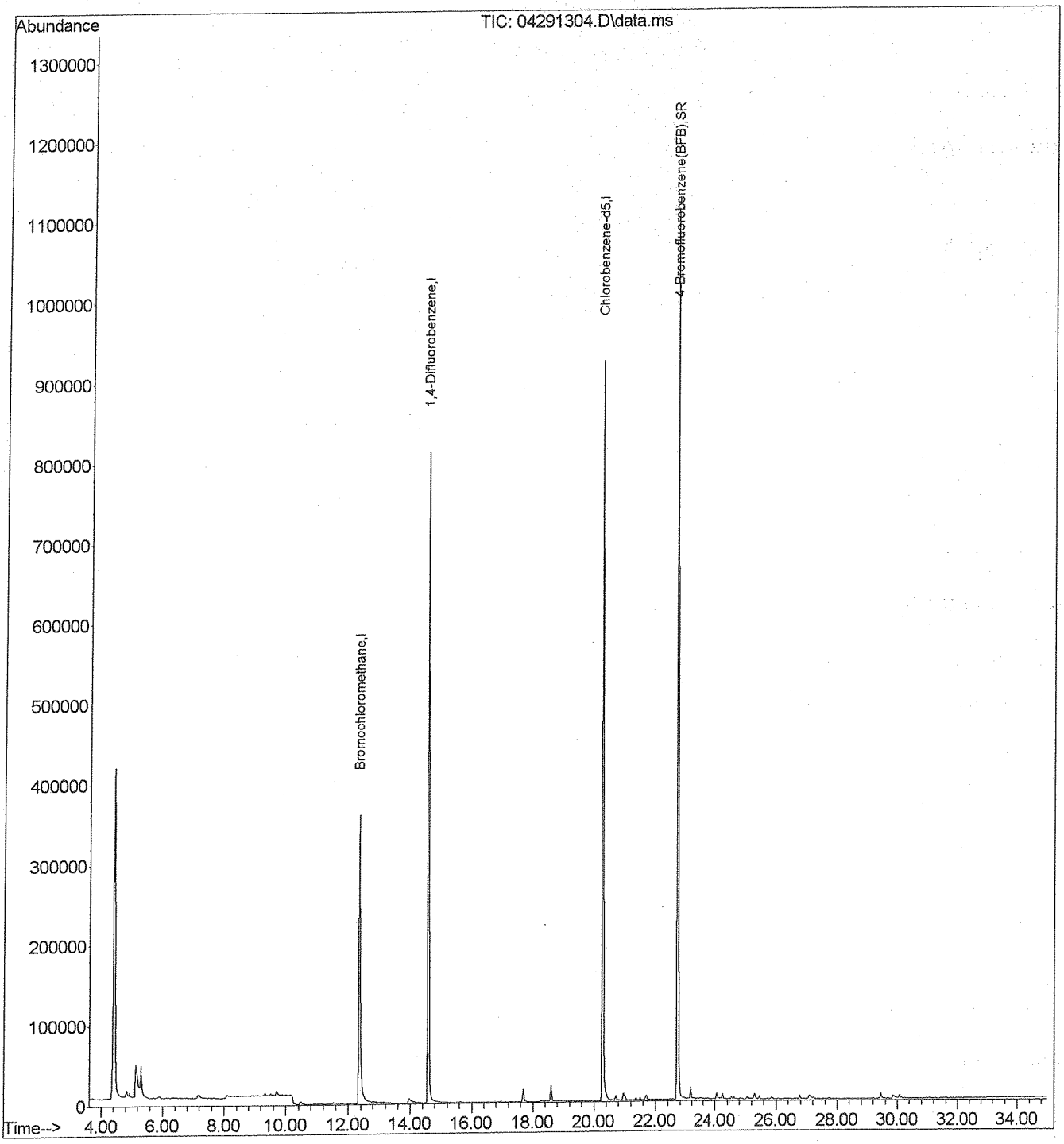
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	3795	N.D.	
38) CarbonTetrachloride	0.000		0	N.D.	
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	0.000		0	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.310	130	255	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	17945	N.D.	
51) 2-Hexanone(MBK)	18.253	58	123	N.D.	
52) Dibromochloromethane	19.019	129	448	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	560	N.D.	
56) Chlorobenzene	20.357	114	128	N.D.	
57) Ethylbenzene	20.713	91	6900	N.D.	
58) m&p-Xylene	20.963	106	6964	N.D.	
59) Bromoform	21.837	173	125	N.D.	
60) Styrene	21.659	104	1662	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.354	83	340	N.D.	
62) o-Xylene	21.694	91	3181	N.D.	
64) 4-Ethyltoluene	23.691	120	554	N.D.	
65) 1,3,5-Trimethylbenzene	23.798	120	525	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	1292	N.D.	
67) BenzylChloride(a-Chlor...	25.189	91	1313	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	2377	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	3863	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	1885	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	5197	N.D.	
72) Hexachlorobutadiene	30.075	225	1589	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291304.D
Acq On : 29 Apr 2013 10:58
Operator : JJG
Sample : TO15 MB 042913
Misc : IS/Surr: PS082712-02 + 500mL cc#000745
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 29 11:33:04 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



4/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291305.D
Acq On : 29 Apr 2013 11:45
Operator : JJG
Sample : 130502-62624 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:28:03 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	164792	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	889735	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	854028	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	525487	10.43 ppbv	0.00
Spiked Amount 10.000				Recovery = 104.30%	
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	6087	0.18 ppbv #	94
3) Propene	4.799	42	15674	1.66 ppbv #	82
4) Dichlorodifluoromethane	4.908	85	17937	0.34 ppbv	98
5) Chloromethane	5.306	52	2042	0.34 ppbv #	40
6) Dichlorotetrafluoroethane	5.324	135	261	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.885	31	29523m	4.91 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	7.134	45	20075m	2.45 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.002	58	25378m	2.47 ppbv	
16) Trichlorofluoromethane	7.658	103	4893	0.16 ppbv #	93
17) 2-Propanol(IPA)	0.000		0	N.D. 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. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	0.000		0	N.D. 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	1331	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	12.510	83	639	N.D.	
32) EthylAcetate	0.000		0	N.D. d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291305.D
Acq On : 29 Apr 2013 11:45
Operator : JJG
Sample : 130502-62624 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:28:03 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

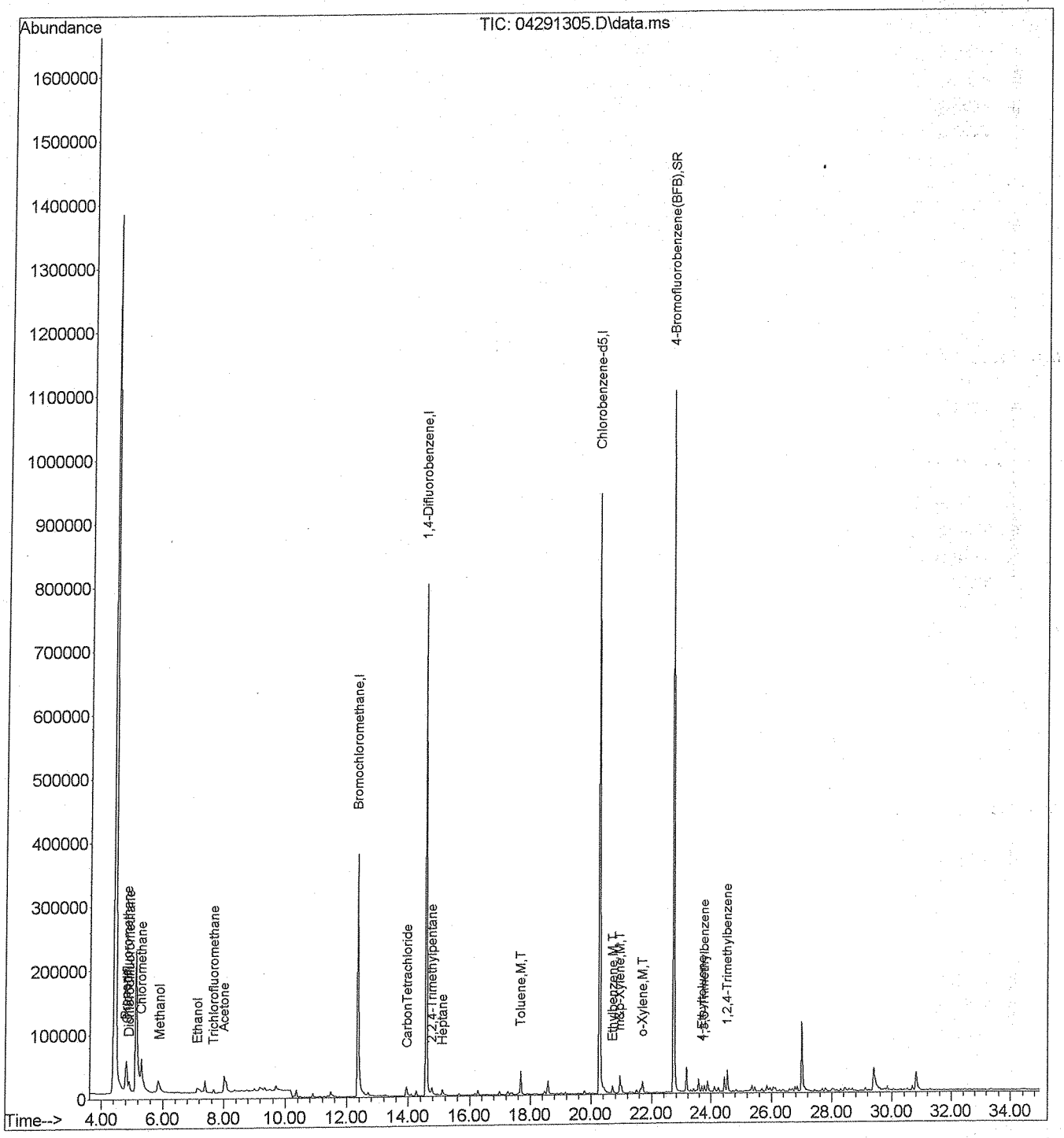
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	13.616	62	232	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	3190	0.06 ppbv	94
39) Cyclohexane	14.026	69	131	N.D.	
40) 1,2-Dichloropropane	15.399	63	111	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	14.775	57	14971	0.12 ppbv #	94
45) Heptane	15.114	71	2729	0.12 ppbv	95
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.594	58	260	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	275	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	40340	0.47 ppbv	
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	302	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	494	N.D.	
56) Chlorobenzene	20.285	114	116	N.D.	
57) Ethylbenzene	20.713	91	11910	0.10 ppbv	95
58) m&p-Xylene	20.945	106	16942	0.37 ppbv #	84
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	1521	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	15550	0.18 ppbv	96
64) 4-Ethyltoluene	23.691	120	2503	0.07 ppbv #	92
65) 1,3,5-Trimethylbenzene	23.780	120	3926	0.07 ppbv #	87
66) 1,2,4-Trimethylbenzene	24.529	120	14251	0.27 ppbv	94
67) BenzylChloride(a-Chlor...	25.189	91	538	N.D.	
68) 1,3-Dichlorobenzene	25.046	146	621	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	1079	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	721	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	2439	N.D.	
72) Hexachlorobutadiene	30.075	225	699	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291305.D
Acq On : 29 Apr 2013 11:45
Operator : JJG
Sample : 130502-62624 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:28:03 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



04/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291306.D
Acq On : 29 Apr 2013 12:33
Operator : JJG
Sample : 130502-62624 x1 dp
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:29:59 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	160360	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	879270	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	829494	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	529040	10.81	ppbv	0.00
Spiked Amount 10.000				Recovery = 108.10%		
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.835	51	6305	0.19	ppbv #	95
3) Propene	4.781	42	14740	1.60	ppbv	
4) Dichlorodifluoromethane	4.908	85	17768	0.34	ppbv	99
5) Chloromethane	5.288	52	2003	0.35	ppbv #	57
6) Dichlorotetrafluoroethane	5.342	135	327	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.867	31	27691	4.73	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	7.116	45	18984	2.38	ppbv	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.002	58	25590	2.56	ppbv	
16) Trichlorofluoromethane	7.659	103	4599	0.15	ppbv #	97
17) 2-Propanol(IPA)	0.000		0	N.D.	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.	d	
22) CarbonDisulfide	0.000		0	N.D.	d	
23) Trichlorotrifluoroethane	0.000		0	N.D.	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	1472	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	582	N.D.		
32) EthylAcetate	0.000		0	N.D.	d	

04/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291306.D
Acq On : 29 Apr 2013 12:33
Operator : JJG
Sample : 130502-62624 x1 dp
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:29:59 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

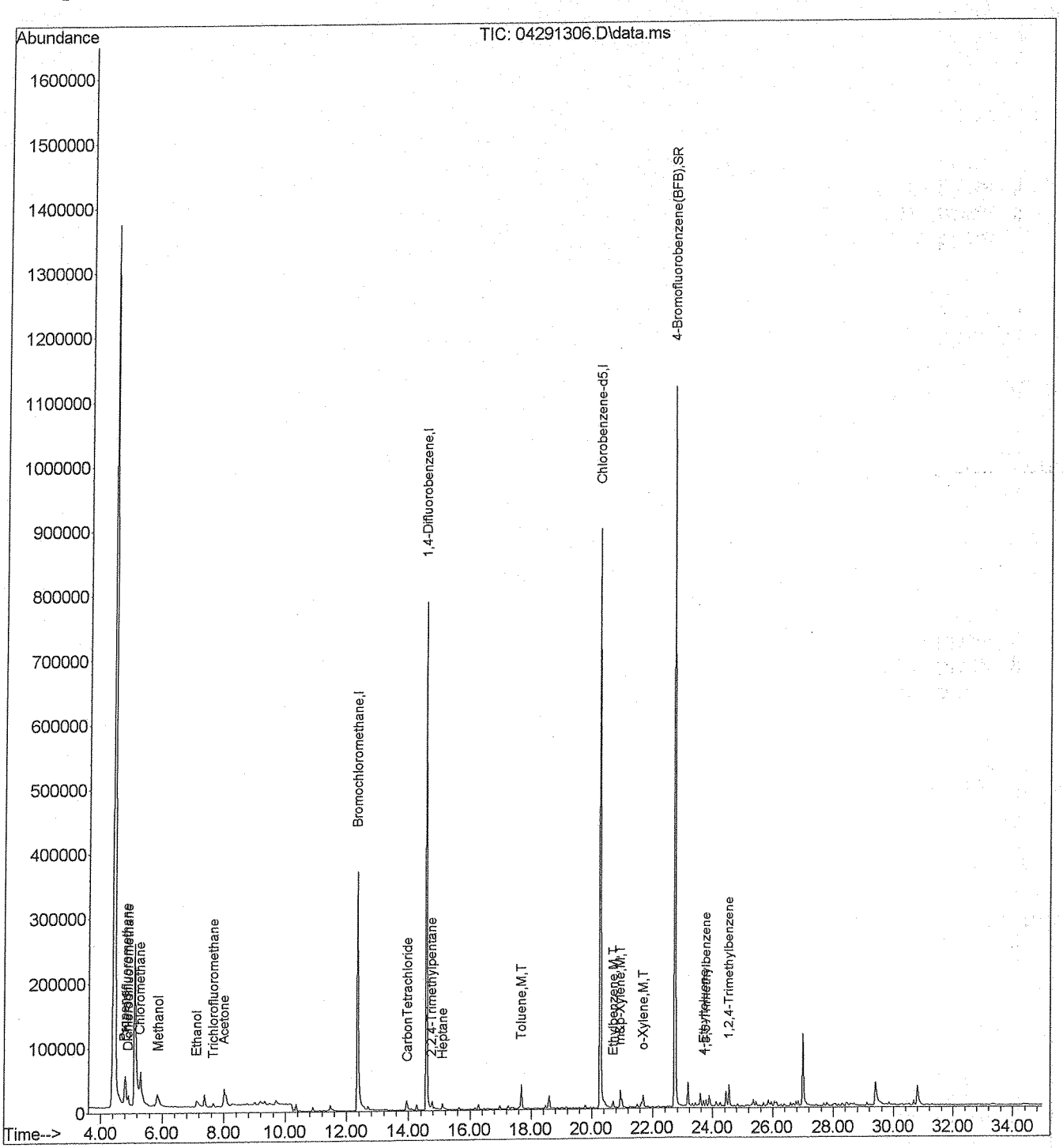
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	13.616	62	256	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	3223	0.07 ppbv	95
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	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	14962	0.12 ppbv	95
45) Heptane	15.114	71	2532	0.11 ppbv #	80
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.576	58	119	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	120	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	39329	0.47 ppbv #	98
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	266	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	466	N.D.	
56) Chlorobenzene	20.285	114	148	N.D.	
57) Ethylbenzene	20.713	91	11369	0.10 ppbv #	95
58) m&p-Xylene	20.945	106	16917	0.38 ppbv #	88
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	1291	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	15859	0.19 ppbv	96
64) 4-Ethyltoluene	23.691	120	2958	0.08 ppbv #	90
65) 1,3,5-Trimethylbenzene	23.780	120	4028	0.08 ppbv #	93
66) 1,2,4-Trimethylbenzene	24.529	120	13533	0.26 ppbv	86
67) BenzylChloride(a-Chlor...	25.189	91	259	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	307	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	673	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	396	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	1318	N.D.	
72) Hexachlorobutadiene	30.075	225	272	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042913\
Data File : 04291306.D
Acq On : 29 Apr 2013 12:33
Operator : JJG
Sample : 130502-62624 x1 dp
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 13:29:59 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



041813.M Mon Apr 29 13:30:47 2013

Calibration Status Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 041813.M
Title : TO-15/TO-14
Last Update : Thu Apr 18 19:34:22 2013
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.5	1	10	C:\msdchem\1\MS03\2013\041813\04181312.D
2	1.0	1	10	C:\msdchem\1\MS03\2013\041813\04181311.D
3	2.0	2	10	C:\msdchem\1\MS03\2013\041813\04181310.D
4	5.0	5	10	C:\msdchem\1\MS03\2013\041813\04181309.D
5	10	10	10	C:\msdchem\1\MS03\2013\041813\04181308.D
6	20	20	10	C:\msdchem\1\MS03\2013\041813\04181307.D
7	50	51	10	C:\msdchem\1\MS03\2013\041813\04181306.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.5	Apr 18 19:27 2013	Apr 18 18:22 2013	18 Apr 2013 17:14
2	1.0	Apr 18 19:27 2013	Apr 18 18:19 2013	18 Apr 2013 16:27
3	2.0	Apr 18 19:27 2013	Apr 18 18:16 2013	18 Apr 2013 15:41
4	5.0	Apr 18 19:27 2013	Apr 18 18:12 2013	18 Apr 2013 14:56
5	10	Apr 18 19:26 2013	Apr 18 18:09 2013	18 Apr 2013 14:10
6	20	Apr 18 19:26 2013	Apr 18 17:51 2013	18 Apr 2013 13:24
7	50	Apr 18 19:26 2013	Apr 18 17:48 2013	18 Apr 2013 12:37

041813.M Thu Apr 18 19:35:59 2013

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 041813.M
Title : TO-15/TO-14
Last Update : Thu Apr 18 19:34:22 2013
Response Via : Initial Calibration

Calibration Files
0.5 =04181312.D 1.0 =04181311.D 2.0 =04181310.D 5.0 =04181309.D 10 =04181308.D 20 =04181307.D
50 =04181306.D

		Compound	0.5	1.0	2.0	5.0	10	20	50	Avg	%RSD
1)	I	Bromochloromethane	----------	----------	ISTD	----------	----------	----------	----------		
2)		Chlorodifluoro...	2.331	2.349	2.207	2.147	2.057	1.841	1.744	2.097	11.10
3)		Propene	0.617	0.618	0.586	0.590	0.574	0.526	0.500	0.573	7.75
4)		Dichlorodifluo...	3.497	3.598	3.458	3.260	3.167	2.826	2.740	3.221	10.35
5)		Chloromethane	0.384	0.420	0.409	0.387	0.367	0.310	0.255	0.362	16.23
6)		Dichlorotetraf...	2.316	2.434	2.322	2.237	2.162	1.950	1.738	2.166	11.22
7)		VinylChloride	1.221	1.283	1.246	1.234	1.252	1.112	1.115	1.209	5.61
8)		Methanol		0.506	0.439	0.384	0.370	0.343	0.295	0.390	19.02
9)		1,3-Butadiene	0.811	0.840	0.838	0.830	0.839	0.732	0.668	0.794	8.53
10)		Bromomethane	0.946	0.912	0.866	0.821	0.822	0.753	0.624	0.821	13.08
11)		Chloroethane	0.279	0.228	0.209	0.199	0.194	0.177	0.171	0.208	17.60
12)		Dichlorofluoro...	2.483	2.601	2.534	2.439	2.432	2.227	2.030	2.392	8.26
13)		Ethanol	0.598	0.564	0.525	0.519	0.488	0.425	0.367	0.498	16.01
14)		VinylBromide	0.923	0.971	0.977	0.980	0.982	0.904	0.853	0.941	5.29
15)		Acetone	0.841	0.776	0.679	0.550	0.538	0.506	0.472	0.623	22.99
16)		Trichlorofluor...	2.065	2.035	1.955	1.894	1.840	1.682	1.535	1.858	10.31
17)		2-Propanol(IPA)	2.559	2.647	2.472	2.287	1.909	1.581	1.417	2.125	23.14
18)		Acrylonitrile	0.926	0.982	0.941	0.996	0.940	0.868	0.743	0.914	9.42
19)	M,T	1,1-Dichloroet...	1.261	1.279	1.259	1.226	1.218	1.090	0.987	1.189	9.16
20)	M,T	MethyleneChlor...	1.365	1.275	1.133	1.126	1.117	1.011	0.864	1.127	14.57
21)		AllylChloride	1.095	1.091	1.066	1.027	0.943	0.818	0.708	0.964	15.54
22)		CarbonDisulfide	4.932	4.577	4.018	3.753	3.606	3.306	2.987	3.883	17.69
23)		Trichlorotrifl...	1.880	1.895	1.802	1.692	1.596	1.384	1.160	1.630	16.77
24)		trans-1,2-Dich...	1.311	1.399	1.360	1.306	1.288	1.150	1.063	1.268	9.40
25)		1,1-Dichloroet...	2.932	3.039	2.856	2.799	2.618	2.287	1.921	2.636	15.16
26)		MethylTertButy...	3.644	3.688	3.616	3.428	3.208	2.859	2.494	3.277	13.84
27)		VinylAcetate	3.406	3.442	3.484	3.480	3.358	3.064	2.466	3.243	11.47
28)		2-Butanone(MEK)	0.568	0.661	0.641	0.649	0.655	0.577	0.540	0.613	8.08

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 041813.M
Title : TO-15/TO-14

29)		cis-1,2-Dichlo...	1.433	1.567	1.545	1.445	1.431	1.265	1.151	1.405	10.60
30)		Hexane	0.317	0.318	0.291	0.300	0.284	0.253	0.199	0.280	14.96
31)		Chloroform	2.984	3.039	2.875	2.783	2.641	2.472	2.177	2.710	11.28
32)		EthylAcetate	3.170	3.291	3.249	3.194	3.055	2.719	2.355	3.005	11.45
33)		Tetrahydrofuran	0.684	0.697	0.680	0.661	0.632	0.586	0.514	0.636	10.34
34)		1,2-Dichloroet...	2.152	2.177	2.147	1.955	1.914	1.800	1.647	1.970	10.24
35)		1,1,1-Trichlor...	3.142	3.189	3.018	2.881	2.849	2.549	2.286	2.845	11.46
36)	I	1,4-Difluorobenzene	----------ISTD----------								
37)	T,M	Benzene	0.966	0.934	0.847	0.796	0.769	0.690	0.544	0.792	18.29
38)		CarbonTetrachl...	0.629	0.646	0.607	0.570	0.549	0.496	0.403	0.557	15.22
39)		Cyclohexane	0.134	0.136	0.129	0.118	0.115	0.102	0.085	0.117	15.65
40)		1,2-Dichloropr...	0.382	0.380	0.355	0.325	0.317	0.292	0.234	0.327	16.06
41)		Bromodichlorom...	0.405	0.421	0.405	0.385	0.364	0.336	0.283	0.371	13.03
42)		1,4-Dioxane	0.215	0.222	0.204	0.192	0.192	0.176	0.156	0.194	11.78
43)	M,T	Trichloroethen...	0.397	0.402	0.377	0.362	0.359	0.321	0.267	0.355	13.30
44)		2,2,4-Trimethy...	1.651	1.655	1.571	1.460	1.399	1.213	0.907	1.408	19.18
45)		Heptane	0.272	0.289	0.280	0.263	0.254	0.232	0.185	0.253	14.04
46)		cis-1,3-Dichlo...	0.452	0.483	0.460	0.441	0.441	0.405	0.347	0.433	10.27
47)		4-Methyl-2-pen...	0.313	0.343	0.328	0.307	0.299	0.270	0.215	0.296	14.32
48)		trans-1,3-Dich...	0.424	0.456	0.456	0.437	0.425	0.416	0.357	0.425	7.88
49)		1,1,2-Trichlor...	0.390	0.396	0.376	0.351	0.338	0.303	0.249	0.343	15.30
50)	M,T	Toluene	1.105	1.101	1.058	0.989	0.932	0.845	0.690	0.960	15.80
51)		2-Hexanone(MBK)	0.378	0.405	0.410	0.375	0.372	0.340	0.277	0.365	12.45
52)		Dibromochlorom...	0.672	0.670	0.658	0.625	0.607	0.552	0.437	0.603	14.04
53)		1,2-Dibromoethane	0.594	0.624	0.603	0.548	0.544	0.492	0.403	0.544	14.01
54)	M,T	Tetrachloroeth...	0.586	0.594	0.551	0.503	0.488	0.426	0.341	0.498	18.27
55)	I	Chlorobenzene-d5	----------ISTD----------								
56)	M,T	Chlorobenzene	0.318	0.304	0.286	0.275	0.262	0.240	0.198	0.269	15.10
57)	M,T	Ethylbenzene	1.561	1.539	1.472	1.401	1.311	1.135	0.917	1.334	17.61
58)	M,T	m&p-Xylene	0.634	0.632	0.597	0.551	0.508	0.442	0.359	0.532	19.32
59)		Bromoform	0.759	0.771	0.740	0.686	0.656	0.577	0.454	0.663	17.24
60)		Styrene	0.958	0.975	0.946	0.881	0.859	0.759	0.638	0.860	14.28
61)		1,1,2,2-Tetrac...	0.933	0.957	0.925	0.862	0.784	0.678	0.526	0.809	19.64
62)	M,T	o-Xylene	1.247	1.208	1.163	1.075	0.994	0.848	0.698	1.033	19.47
63)	SR	4-Bromofluorob...	0.586	0.590	0.595	0.589	0.597	0.585	0.589	0.590	0.76
64)		4-Ethyltoluene	0.489	0.504	0.490	0.465	0.438	0.392	0.301	0.440	16.45

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
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65)	1,3,5-Trimethy...	0.732	0.727	0.693	0.670	0.623	0.525	0.425	0.628	18.23
66)	1,2,4-Trimethy...	0.688	0.714	0.683	0.653	0.613	0.545	0.427	0.618	16.41
67)	BenzylChloride...	0.903	0.848	0.935	1.003	1.018	0.953	0.863	0.932	7.01
68)	1,3-Dichlorobe...	1.025	1.051	1.060	1.015	0.956	0.828	0.670	0.944	15.30
69)	1,4-Dichlorobe...	1.121	1.134	1.072	0.993	0.920	0.814	0.657	0.959	18.28
70)	1,2-Dichlorobe...	1.220	1.211	1.112	1.034	0.964	0.841	0.671	1.008	19.89
71)	1,2,4-Trichlor...	1.059	1.130	1.066	0.991	0.936	0.826	0.645	0.950	17.61
72)	Hexachlorobuta...	0.887	0.876	0.817	0.749	0.680	0.579	0.432	0.717	23.26

(#) = Out of Range