Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

JMC Environmental Consultants
2109 Bridge Avenue
Building B
Point Pleasant, NJ 08742

Project Name: **ARSYNCO**
IAL Case Number: **E15-06541**

These data have been reviewed and accepted by:

Michael H. Lefkin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
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IAL s a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402) and Pennsylvania (68-00773).

Integrated Analytical Laboratories - Table of Contents

Sample Summary **1**

Qualifiers Reference **2**

Case Narrative **3**

Results Summary Report **8**

Analytical Results **12**

Volatiles **83**

Volatile Organic QC Summary 84

Volatile Organic Sample Data 118

Semivolatiles **227**

Semivolatile Organic QC Summary 228

Semivolatile Organic Sample Data 257

NJ-EPH (C40) Cat 2 ..... **288**

NJ-EPH C40 QC Summary 289

NJ-EPH C40 Sample Data 296

NJ-EPH C40 Standards Data 317

NJ-EPH C40 Raw QC Data 338

Metals **352**

Metals QC Summary 353

Sample Tracking **368**

LAST PAGE OF DOCUMENT **376**

Sample Summary

IAL Case No.

E15-06541

Client JMC Environmental Consultants

Project ARSYNCO

Received On 7/24/2015@17:06

Lab ID	Client Sample ID	Depth Top/Bottom	Sampling Time	Matrix	# of Container
06541-001	MW-5S	n/a	7/24/2015@14:20	Aqueous	4
06541-002	MW-8S	n/a	7/24/2015@09:40	Aqueous	2
06541-003	MW-8D	n/a	7/24/2015@09:48	Aqueous	4
06541-004	MW-12S	n/a	7/24/2015@08:40	Aqueous	3
06541-005	MW-12D	n/a	7/24/2015@08:30	Aqueous	4
06541-006	MW-15D	n/a	7/24/2015@13:27	Aqueous	2
06541-007	MW-22S	n/a	7/24/2015@13:50	Aqueous	2
06541-008	MW-22D	n/a	7/24/2015@14:07	Aqueous	4
06541-009	MW-37D	n/a	7/24/2015@09:55	Aqueous	2
06541-010	MW-41D	n/a	7/24/2015@11:05	Aqueous	4
06541-011	MW-42D	n/a	7/24/2015@09:58	Aqueous	4
06541-012	MW-39D	n/a	7/24/2015@13:40	Aqueous	4
06541-013	MW-43D	n/a	7/24/2015@10:49	Aqueous	4
06541-014	MW-23S	n/a	7/24/2015@10:20	Aqueous	4
06541-015	MW-23D	n/a	7/24/2015@10:35	Aqueous	4
06541-016	FB-3	n/a	7/24/2015@14:40	Aqueous	7
06541-017	TB	n/a	7/24/2015	Aqueous	2

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicates analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL or for qualification of tentatively identified compounds.

N Presumptive evidence of a compound from the use of GC/MS library search.

X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.

Z Indicates internal standard failure. Sample results are either biased high or biased low.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E15-06541

Integrated Analytical Laboratories, LLC. received seventeen (17) samples** from JMC Environmental Consultants (IAL SDG# **E15-06541**, Project: ARSYNCO) on July 24, 2015 for the analysis of :

(17) TCL VO + 15
(2) TCL BN + SIMS + 15
(10) NJ-EPH (C40) Cat 2
(2) Nickel - Ni

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C	**Batch: 150806**	**Matrix: Aqueous**

QC
- Calibration curve met QC criteria.
- Internal standards recovery met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria.

E15-06541
- All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E15-06541-001	20:50	Target compound(s).
E15-06541-002	1	NA
E15-06541-003	1	NA
E15-06541-004	1	NA
E15-06541-005	2	Non-target compound(s).
E15-06541-006	1	NA
E15-06541-007	1	NA
E15-06541-008	2000	Target compound(s).
E15-06541-009	1	NA
E15-06541-010	1	NA
E15-06541-011	1	NA
E15-06541-012	5000	Target compound(s).
E15-06541-013	1	NA
E15-06541-014	1	NA
E15-06541-015	1	NA
E15-06541-016	1	NA
E15-06541-017	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E15-06541

Semivolatiles By 8270D SIM	Batch: 150728-01	Matrix: Aqueous

QC
- Calibration curve met QC criteria.
- Internal standard recovery me QC criteria.
- Surrogate recovery met QC criteria.
- Method blank met QC criteria.
- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
- MS/MSD RPD met QC criteria.
- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.

E15-06541
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- Sample(s) used for aqueous BNA analyses contained varying levels of sediment. Precautions were taken to take an aliquot representative of the sample. However, due to the nature of aqueous samples containing sediment, reproduction of results may prove difficult. The rough amount of sediment present in the samples is as follows: 06541-005:.5%.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E15-06541-005	1	NA
E15-06541-016	1	NA

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

NJ-EPH-C40 By Method 10.08 Rev 3	Batch: 150803-06	Matrix: Aqueous

QC
- Calibration curve met QC criteria.
- Surrogate percent recovery met QC criteria.
- Method blank met QC criteria.
- RPD between LCS/LCSD met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- MS Percent Recovery met QC criteria.
- RPD between the Sample/Duplicate met QC criteria.

E15-06541
- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E15-06541-001	1	NA
E15-06541-003	10	Target compound(s).
E15-06541-008	1	NA
E15-06541-010	1	NA
E15-06541-011	1	NA
E15-06541-012	10	Target compound(s).
E15-06541-013	1	NA
E15-06541-014	1	NA
E15-06541-015	1	NA
E15-06541-016	1	NA

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E15-06541

Metals By 6020A	Batch: A150729-01	Matrix: Aqueous

QC

- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- LCS Percent Recovery met criteria.
- MS Percent Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E15-06541

- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.
- Sample(s) used for aqueous metals analyses contained varying levels of sediment. Precautions were taken to take an aliquot representative of the sample. Additionally, as the remainder of the sample is stored under acidic conditions, some of the metals may continue to leach out into the water, making any reproduction of the original number impossible. The rough amount of sediment present in the samples is as follows: 06541-004: Trace;.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E15-06541-004	1	NA
E15-06541-016	1	NA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

8/11/2015
Date

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Integrated Analytical Laboratories
Client: JMC Environmental Consultants
Project Location: ARSYNCO
IAL Project #: E15-06541
IAL Sample ID(s): E15-06541-001 ~ -017
Sampling Date(s): 7/24/2015

List of DKQP Method Used:

TCL VO by 8260C
TCL BN + SIMS by 8270D SIM
NJ-EPH (C40) Cat 2 by Method 10.08 Rev 3
Nickel - Ni by 6020A

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "

		YES	NO	N/A
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP	X		
1A	Were the method specified handling, preservation, and holding time requirements met?	X		
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)	X		
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?		X	
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	X		
5B	Were these reporting limits met?		X	
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?		X	

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: JMC Environmental Consultants
Project: ARSYNCO
Lab Case No.: E15-06541

Lab ID:	06541-001			06541-002			06541-003			06541-004		
Client ID:	MW-5S			MW-8S			MW-8D			MW-12S		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	7/24/15			7/24/15			7/24/15			7/24/15		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Acetone	15.3		1.43	30.1		1.43	ND		28.6	17.4		1.43
Carbon disulfide	1.18		0.505	ND		0.505	ND		10.1	ND		0.505
1,1-Dichloroethane	1.13		0.358	ND		0.358	ND		7.16	ND		0.358
2-Butanone (MEK)	3.39		0.872	8.17		0.872	ND		17.4	11.5		0.872
Chloroform	ND		0.511	ND		0.511	21.6	D	10.2	ND		0.511
Benzene	ND		0.388	1.55		0.388	1760	D	7.76	7.49		0.388
Trichloroethene	ND		0.357	ND		0.357	21.6	D	7.14	ND		0.357
1,4-Dioxane	ND		82.7	ND		82.7	ND		1650	173	J	82.7
4-Methyl-2-pentanone (MIBK)	ND		0.867	ND		0.867	23.6	D	17.3	ND		0.867
Toluene	ND		0.370	ND		0.370	4170	D	18.5	ND		0.370
Chlorobenzene	ND		0.395	7.82		0.395	1070	D	7.90	1.88		0.395
Ethylbenzene	ND		0.420	ND		0.420	411	D	8.40	ND		0.420
Total Xylenes	ND		1.04	ND		1.04	509	D	20.9	ND		1.04
1,4-Dichlorobenzene	ND		0.409	ND		0.409	61.5	D	8.18	ND		0.409
1,2-Dichlorobenzene	ND		0.401	ND		0.401	56.5	D	8.02	ND		0.401
TOTAL VO's:	21.0			47.6			8100	D		211	J	
TOTAL TIC's:	92.7	JN		50.7	JN		40600	DJN		310	JN	
TOTAL VO's & TIC's:	114	JN		98.3	JN		48700	DJN		521	JN	
NJ-EPH-C40 (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
C9-C40	686		200	~		~	19300	D	2000	~		~
Metals (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Nickel	~		~	~		~	~		~	1810		1.00

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: JMC Environmental Consultants
Project: ARSYNCO
Lab Case No.: E15-06541

Lab ID:	06541-005			06541-006			06541-007			06541-008		
Client ID:	MW-12D			MW-15D			MW-22S			MW-22D		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	7/24/15			7/24/15			7/24/15			7/24/15		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Vinyl chloride	7.23	D	0.926	ND		0.463	ND		0.463	7570	D	926
trans-1,2-Dichloroethene	17.8	D	1.09	1.86		0.544	ND		0.544	ND		1090
cis-1,2-Dichloroethene	118	D	0.958	36.0		0.479	ND		0.479	229000	D	958
Trichloroethene	51.8	D	0.714	39.7		0.357	ND		0.357	ND		714
1,4-Dioxane	5040	D	165	89.9	J	82.7	ND		82.7	ND		165000
Tetrachloroethene	43.3	D	0.990	ND		0.495	ND		0.495	ND		990
TOTAL VO's:	5280	D		167	J		ND			237000	D	
TOTAL TIC's:	1410	DJN		27.1	JN		20.8	JN		ND		
TOTAL VO's & TIC's:	6690	DJN		194	JN		20.8	JN		237000	D	
Semivolatiles - BN (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Bis(2-chloroethyl) ether	2.16		0.373	~		~	~		~	~		~
Isophorone	4.43		0.233	~		~	~		~	~		~
TOTAL BN'S:	6.59			~		~	~		~	~		~
TOTAL TIC's:	2030	JN		~		~	~		~	~		~
TOTAL BN'S & TIC's:	2040	JN		~		~	~		~	~		~
NJ-EPH-C40 (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
C9-C40	~		~	~		~	~		~	4100		200

Lab ID:	06541-009			06541-010			06541-011			06541-012		
Client ID:	MW-37D			MW-41D			MW-42D			MW-39D		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	7/24/15			7/24/15			7/24/15			7/24/15		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Vinyl chloride	ND		0.463	2.97		0.463	ND		0.463	ND		2320
1,1-Dichloroethane	ND		0.358	ND		0.358	1.30		0.358	ND		1790
cis-1,2-Dichloroethene	ND		0.479	2.31		0.479	2.41		0.479	7150	D	2400
Benzene	ND		0.388	ND		0.388	0.895	J	0.388	ND		1940
Trichloroethene	ND		0.357	ND		0.357	4.11		0.357	944000	D	1790
Toluene	ND		0.370	ND		0.370	ND		0.370	75000	D	1850
TOTAL VO's:	ND			5.28			8.72	J		1030000	D	
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	ND			5.28			8.72	J		1030000	D	
NJ-EPH-C40 (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
C9-C40	~		~	ND		200	ND		200	31800	D	2000

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: JMC Environmental Consultants
Project: ARSYNCO
Lab Case No.: E15-06541

Lab ID:	06541-013			06541-014			06541-015			06541-016		
Client ID:	MW-43D			MW-23S			MW-23D			FB-3		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	7/24/15			7/24/15			7/24/15			7/24/15		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Vinyl chloride	ND		0.463	6.75		0.463	ND		0.463	ND		0.463
Chloroethane	ND		0.829	8.57		0.829	ND		0.829	ND		0.829
Acetone	ND		1.43	10.4		1.43	ND		1.43	ND		1.43
1,1-Dichloroethane	ND		0.358	89.6		0.358	ND		0.358	ND		0.358
cis-1,2-Dichloroethene	ND		0.479	28.5		0.479	ND		0.479	ND		0.479
2-Butanone (MEK)	ND		0.872	1.17		0.872	ND		0.872	ND		0.872
Ethylbenzene	ND		0.420	1.23		0.420	ND		0.420	ND		0.420
TOTAL VO's:	ND			146			ND			ND		
TOTAL TIC's:	ND			56.3	JN		ND			ND		
TOTAL VO's & TIC's:	ND			202	JN		ND			ND		
Semivolatiles - BN (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
TOTAL BN'S:	~		~	~		~	~		~	ND		
TOTAL TIC's:	~		~	~		~	~		~	10.1	CJN	
TOTAL BN'S & TIC's:	~		~	~		~	~		~	10.1	CJN	
NJ-EPH-C40 (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
C9-C40	ND		200	1130		200	ND		200	ND		200
Metals (Units)	*(ug/L)*			*(ug/L)*			*(ug/L)*			*(ug/L)*		
Nickel	~		~	~		~	~		~	ND		1.00

Lab ID:	06541-017		
Client ID:	TB		
Matrix:	Aqueous		
Sampled Date	7/24/15		
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)	*(ug/L)*		
TOTAL VO's:	ND		
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	ND		

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
N = Presumptive evidence of a compound from the use of GC/MS library search.

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-001
Client ID: MW-5S
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5709.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	15.3		5.00	1.43
Carbon disulfide	1.18		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	1.13		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	3.39		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-001
Client ID: MW-5S
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5709.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 21.0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-001
Client ID: MW-5S
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Date File: G5709.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000060-29-7	Ethyl ether	25.8	JN	3.26
	Unknown VOA	5.80	J	5.05
000873-94-9	Cyclohexanone, 3,3,5-trimethyl-	61.1	JN	13.99

Total TICs = 92.7 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-002
Client ID: MW-8S
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5710.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	30.1		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	8.17		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	1.55		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-002
Client ID: MW-8S
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5710.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	7.82		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 47.6

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-002
Client ID: MW-8S
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Date File: G5710.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000503-45-7	Cyclohexene, 3,3,5-trimethyl-	7.30	JN	9.63
069745-49-9	Cyclohexene, 1,6,6-trimethyl-	5.30	JN	9.78
	Unknown VOA	6.60	J	10.64
005161-78-4	trans-2,3-Dimethylthiophane	5.70	JN	11.46
	Unknown Aromatic	6.20	J	11.53
	Unknown VOA	9.10	J	12.70
	Unknown VOA	5.20	J	13.00
	Unknown VOA	5.30	J	13.04

Total TICs = 50.7 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-003
Client ID: MW-8D
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5711.D

GC/MS Column: DB-624
Sample wt/vol: 0.25mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 20
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		20.0	13.7
Chloromethane	ND		20.0	9.86
Vinyl chloride	ND		20.0	9.26
Bromomethane	ND		20.0	13.7
Chloroethane	ND		20.0	16.6
Trichlorofluoromethane	ND		20.0	16.3
1,1-Dichloroethene	ND		20.0	9.82
Acetone	ND		100	28.6
Carbon disulfide	ND		20.0	10.1
Methylene chloride	ND		40.0	39.8
trans-1,2-Dichloroethene	ND		20.0	10.9
Methyl tert-butyl ether (MTBE)	ND		20.0	9.82
1,1-Dichloroethane	ND		20.0	7.16
cis-1,2-Dichloroethene	ND		20.0	9.58
2-Butanone (MEK)	ND		20.0	17.4
Bromochloromethane	ND		20.0	12.7
Chloroform	21.6	D	20.0	10.2
1,1,1-Trichloroethane	ND		20.0	9.70
Carbon tetrachloride	ND		20.0	13.4
1,2-Dichloroethane (EDC)	ND		20.0	11.5
Benzene	1760	D	20.0	7.76
Trichloroethene	21.6	D	20.0	7.14
1,2-Dichloropropane	ND		20.0	11.1
1,4-Dioxane	ND		4000	1650
Bromodichloromethane	ND		20.0	10.5
cis-1,3-Dichloropropene	ND		20.0	8.82
4-Methyl-2-pentanone (MIBK)	23.6	D	20.0	17.3

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-003
Client ID: MW-8D
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5711.D

GC/MS Column: DB-624
Sample wt/vol: 0.25mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 20
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	4530	E	20.0	7.40
trans-1,3-Dichloropropene	ND		20.0	8.32
1,1,2-Trichloroethane	ND		20.0	12.7
Tetrachloroethene	ND		20.0	9.90
2-Hexanone	ND		20.0	13.9
Dibromochloromethane	ND		20.0	10.3
1,2-Dibromoethane (EDB)	ND		20.0	13.5
Chlorobenzene	1070	D	20.0	7.90
Ethylbenzene	411	D	20.0	8.40
Total Xylenes	509	D	40.0	20.9
Styrene	ND		20.0	7.40
Bromoform	ND		20.0	13.3
Isopropylbenzene	ND		20.0	11.6
1,1,2,2-Tetrachloroethane	ND		20.0	13.8
1,3-Dichlorobenzene	ND		20.0	8.32
1,4-Dichlorobenzene	61.5	D	20.0	8.18
1,2-Dichlorobenzene	56.5	D	20.0	8.02
1,2-Dibromo-3-chloropropane	ND		20.0	18.6
1,2,4-Trichlorobenzene	ND		20.0	9.66
1,2,3-Trichlorobenzene	ND		20.0	8.98
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20.0	19.4
Methyl acetate	ND		20.0	17.9
Cyclohexane	ND		40.0	16.4
Methylcyclohexane	ND		20.0	15.5
1,3-Dichloropropene (cis- and trans-)	ND		20.0	8.82
Total Target Compounds (52):	8460	DE		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-003
Client ID: MW-8D
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Date File: G5711.D

GC/MS Column: DB-624
Sample wt/vol: 0.25mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 20
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000095-49-8	Benzene, 1-chloro-2-methyl-	37400	DJN	12.22
000106-43-4	Benzene, 1-chloro-4-methyl-	3170	DJN	12.33

Total TICs = 40600 DJN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-3DL
Client ID: MW-8D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5827.D

GC/MS Column: DB-624
Sample wt/vol: 0.1mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 50
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		50.0	34.3
Chloromethane	ND		50.0	24.7
Vinyl chloride	ND		50.0	23.2
Bromomethane	ND		50.0	34.2
Chloroethane	ND		50.0	41.5
Trichlorofluoromethane	ND		50.0	40.7
1,1-Dichloroethene	ND		50.0	24.6
Acetone	ND		250	71.5
Carbon disulfide	ND		50.0	25.3
Methylene chloride	ND		100	99.5
trans-1,2-Dichloroethene	ND		50.0	27.2
Methyl tert-butyl ether (MTBE)	ND		50.0	24.6
1,1-Dichloroethane	ND		50.0	17.9
cis-1,2-Dichloroethene	ND		50.0	24.0
2-Butanone (MEK)	ND		50.0	43.6
Bromochloromethane	ND		50.0	31.8
Chloroform	ND		50.0	25.6
1,1,1-Trichloroethane	ND		50.0	24.3
Carbon tetrachloride	ND		50.0	33.4
1,2-Dichloroethane (EDC)	ND		50.0	28.7
Benzene	1560	D	50.0	19.4
Trichloroethene	ND		50.0	17.9
1,2-Dichloropropane	ND		50.0	27.8
1,4-Dioxane	ND		10000	4140
Bromodichloromethane	ND		50.0	26.3
cis-1,3-Dichloropropene	ND		50.0	22.1
4-Methyl-2-pentanone (MIBK)	ND		50.0	43.4

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-3DL
Client ID: MW-8D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5827.D

GC/MS Column: DB-624
Sample wt/vol: 0.1mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 50
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	4170	D	50.0	18.5
trans-1,3-Dichloropropene	ND		50.0	20.8
1,1,2-Trichloroethane	ND		50.0	31.7
Tetrachloroethene	ND		50.0	24.8
2-Hexanone	ND		50.0	34.7
Dibromochloromethane	ND		50.0	25.8
1,2-Dibromoethane (EDB)	ND		50.0	33.9
Chlorobenzene	968	D	50.0	19.8
Ethylbenzene	350	D	50.0	21.0
Total Xylenes	120	D	100	52.2
Styrene	ND		50.0	18.5
Bromoform	ND		50.0	33.2
Isopropylbenzene	ND		50.0	29.1
1,1,2,2-Tetrachloroethane	ND		50.0	34.6
1,3-Dichlorobenzene	ND		50.0	20.8
1,4-Dichlorobenzene	57.0	D	50.0	20.5
1,2-Dichlorobenzene	50.6	D	50.0	20.1
1,2-Dibromo-3-chloropropane	ND		50.0	46.5
1,2,4-Trichlorobenzene	ND		50.0	24.2
1,2,3-Trichlorobenzene	ND		50.0	22.5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	48.6
Methyl acetate	ND		50.0	44.9
Cyclohexane	ND		100	40.9
Methylcyclohexane	ND		50.0	38.7
1,3-Dichloropropene (cis- and trans-)	ND		50.0	22.1
Total Target Compounds (52):	7280	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-004
Client ID: MW-12S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5839.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	17.4		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	11.5		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	7.49		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	173	J	200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-004
Client ID: MW-12S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5839.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	1.88		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
Total Target Compounds (52):	211	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-004
Client ID: MW-12S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5839.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown VOA	14.8	J	2.23
000873-94-9	Cyclohexanone, 3,3,5-trimethyl-	295	JN	13.99

Total TICs = 310 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-005
Client ID: MW-12D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5828.D

GC/MS Column: DB-624
Sample wt/vol: 2.5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		2.00	1.37
Chloromethane	ND		2.00	0.986
Vinyl chloride	7.23	D	2.00	0.926
Bromomethane	ND		2.00	1.37
Chloroethane	ND		2.00	1.66
Trichlorofluoromethane	ND		2.00	1.63
1,1-Dichloroethene	ND		2.00	0.982
Acetone	ND		10.0	2.86
Carbon disulfide	ND		2.00	1.01
Methylene chloride	ND		4.00	3.98
trans-1,2-Dichloroethene	17.8	D	2.00	1.09
Methyl tert-butyl ether (MTBE)	ND		2.00	0.982
1,1-Dichloroethane	ND		2.00	0.716
cis-1,2-Dichloroethene	118	D	2.00	0.958
2-Butanone (MEK)	ND		2.00	1.74
Bromochloromethane	ND		2.00	1.27
Chloroform	ND		2.00	1.02
1,1,1-Trichloroethane	ND		2.00	0.970
Carbon tetrachloride	ND		2.00	1.34
1,2-Dichloroethane (EDC)	ND		2.00	1.15
Benzene	ND		2.00	0.776
Trichloroethene	51.8	D	2.00	0.714
1,2-Dichloropropane	ND		2.00	1.11
1,4-Dioxane	5040	D	400	165
Bromodichloromethane	ND		2.00	1.05
cis-1,3-Dichloropropene	ND		2.00	0.882
4-Methyl-2-pentanone (MIBK)	ND		2.00	1.73

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-005
Client ID: MW-12D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5828.D

GC/MS Column: DB-624
Sample wt/vol: 2.5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		2.00	0.740
trans-1,3-Dichloropropene	ND		2.00	0.832
1,1,2-Trichloroethane	ND		2.00	1.27
Tetrachloroethene	43.3	D	2.00	0.990
2-Hexanone	ND		2.00	1.39
Dibromochloromethane	ND		2.00	1.03
1,2-Dibromoethane (EDB)	ND		2.00	1.35
Chlorobenzene	ND		2.00	0.790
Ethylbenzene	ND		2.00	0.840
Total Xylenes	ND		4.00	2.09
Styrene	ND		2.00	0.740
Bromoform	ND		2.00	1.33
Isopropylbenzene	ND		2.00	1.16
1,1,2,2-Tetrachloroethane	ND		2.00	1.38
1,3-Dichlorobenzene	ND		2.00	0.832
1,4-Dichlorobenzene	ND		2.00	0.818
1,2-Dichlorobenzene	ND		2.00	0.802
1,2-Dibromo-3-chloropropane	ND		2.00	1.86
1,2,4-Trichlorobenzene	ND		2.00	0.966
1,2,3-Trichlorobenzene	ND		2.00	0.898
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.00	1.94
Methyl acetate	ND		2.00	1.79
Cyclohexane	ND		4.00	1.64
Methylcyclohexane	ND		2.00	1.55
1,3-Dichloropropene (cis- and trans-)	ND		2.00	0.882
Total Target Compounds (52):	5280	D		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-005
Client ID: MW-12D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5828.D

GC/MS Column: DB-624
Sample wt/vol: 2.5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000109-99-9	Furan, tetrahydro-	365	DJN	5.94
000873-94-9	Cyclohexanone, 3,3,5-trimethyl-	1040	DJN	13.99

Total TICs = 1410 DJN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-006
Client ID: MW-15D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5829.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	1.86		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	36.0		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	39.7		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	89.9	J	200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-006
Client ID: MW-15D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5829.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
Total Target Compounds (52):	167	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-006
Client ID: MW-15D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5829.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000933-48-2	Cyclohexanol, 3,3,5-trimethyl-, ci	27.1	JN	14.02

Total TICs = 27.1 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-007
Client ID: MW-22S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5830.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-007
Client ID: MW-22S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5830.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-007
Client ID: MW-22S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5830.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000060-29-7	Ethyl ether	20.8	JN	3.27

Total TICs = 20.8 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-008
Client ID: MW-22D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5831.D

GC/MS Column: DB-624
Sample wt/vol: 0.0025mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2000
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		2000	1370
Chloromethane	ND		2000	986
Vinyl chloride	7570	D	2000	926
Bromomethane	ND		2000	1370
Chloroethane	ND		2000	1660
Trichlorofluoromethane	ND		2000	1630
1,1-Dichloroethene	ND		2000	982
Acetone	ND		10000	2860
Carbon disulfide	ND		2000	1010
Methylene chloride	ND		4000	3980
trans-1,2-Dichloroethene	ND		2000	1090
Methyl tert-butyl ether (MTBE)	ND		2000	982
1,1-Dichloroethane	ND		2000	716
cis-1,2-Dichloroethene	229000	D	2000	958
2-Butanone (MEK)	ND		2000	1740
Bromochloromethane	ND		2000	1270
Chloroform	ND		2000	1020
1,1,1-Trichloroethane	ND		2000	970
Carbon tetrachloride	ND		2000	1340
1,2-Dichloroethane (EDC)	ND		2000	1150
Benzene	ND		2000	776
Trichloroethene	ND		2000	714
1,2-Dichloropropane	ND		2000	1110
1,4-Dioxane	ND		400000	165000
Bromodichloromethane	ND		2000	1050
cis-1,3-Dichloropropene	ND		2000	882
4-Methyl-2-pentanone (MIBK)	ND		2000	1730

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-008
Client ID: MW-22D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5831.D

GC/MS Column: DB-624
Sample wt/vol: 0.0025mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2000
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		2000	740
trans-1,3-Dichloropropene	ND		2000	832
1,1,2-Trichloroethane	ND		2000	1270
Tetrachloroethene	ND		2000	990
2-Hexanone	ND		2000	1390
Dibromochloromethane	ND		2000	1030
1,2-Dibromoethane (EDB)	ND		2000	1350
Chlorobenzene	ND		2000	790
Ethylbenzene	ND		2000	840
Total Xylenes	ND		4000	2090
Styrene	ND		2000	740
Bromoform	ND		2000	1330
Isopropylbenzene	ND		2000	1160
1,1,2,2-Tetrachloroethane	ND		2000	1380
1,3-Dichlorobenzene	ND		2000	832
1,4-Dichlorobenzene	ND		2000	818
1,2-Dichlorobenzene	ND		2000	802
1,2-Dibromo-3-chloropropane	ND		2000	1860
1,2,4-Trichlorobenzene	ND		2000	966
1,2,3-Trichlorobenzene	ND		2000	898
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	1940
Methyl acetate	ND		2000	1790
Cyclohexane	ND		4000	1640
Methylcyclohexane	ND		2000	1550
1,3-Dichloropropene (cis- and trans-)	ND		2000	882

Total Target Compounds (52): 237000 D

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-008
Client ID: MW-22D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5831.D

GC/MS Column: DB-624
Sample wt/vol: 0.0025mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 2000
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-009
Client ID: MW-37D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5832.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-009
Client ID: MW-37D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5832.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-009
Client ID: MW-37D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5832.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-010
Client ID: MW-41D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5833.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	2.97		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	2.31		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-010
Client ID: MW-41D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5833.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 5.28

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-010
Client ID: MW-41D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5833.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-011
Client ID: MW-42D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5834.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	1.30		1.00	0.358
cis-1,2-Dichloroethene	2.41		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	0.895	J	1.00	0.388
Trichloroethene	4.11		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-011
Client ID: MW-42D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5834.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
Total Target Compounds (52):	8.72	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-011
Client ID: MW-42D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5834.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-012
Client ID: MW-39D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5835.D

GC/MS Column: DB-624
Sample wt/vol: 0.001mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 5000
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		5000	3430
Chloromethane	ND		5000	2470
Vinyl chloride	ND		5000	2320
Bromomethane	ND		5000	3420
Chloroethane	ND		5000	4150
Trichlorofluoromethane	ND		5000	4070
1,1-Dichloroethene	ND		5000	2460
Acetone	ND		25000	7150
Carbon disulfide	ND		5000	2530
Methylene chloride	ND		10000	9950
trans-1,2-Dichloroethene	ND		5000	2720
Methyl tert-butyl ether (MTBE)	ND		5000	2460
1,1-Dichloroethane	ND		5000	1790
cis-1,2-Dichloroethene	7150	D	5000	2400
2-Butanone (MEK)	ND		5000	4360
Bromochloromethane	ND		5000	3180
Chloroform	ND		5000	2560
1,1,1-Trichloroethane	ND		5000	2430
Carbon tetrachloride	ND		5000	3340
1,2-Dichloroethane (EDC)	ND		5000	2870
Benzene	ND		5000	1940
Trichloroethene	944000	D	5000	1790
1,2-Dichloropropane	ND		5000	2780
1,4-Dioxane	ND		1000000	414000
Bromodichloromethane	ND		5000	2630
cis-1,3-Dichloropropene	ND		5000	2210
4-Methyl-2-pentanone (MIBK)	ND		5000	4340

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-012
Client ID: MW-39D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5835.D

GC/MS Column: DB-624
Sample wt/vol: 0.001mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 5000
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	75000	D	5000	1850
trans-1,3-Dichloropropene	ND		5000	2080
1,1,2-Trichloroethane	ND		5000	3170
Tetrachloroethene	ND		5000	2480
2-Hexanone	ND		5000	3470
Dibromochloromethane	ND		5000	2580
1,2-Dibromoethane (EDB)	ND		5000	3390
Chlorobenzene	ND		5000	1980
Ethylbenzene	ND		5000	2100
Total Xylenes	ND		10000	5220
Styrene	ND		5000	1850
Bromoform	ND		5000	3320
Isopropylbenzene	ND		5000	2910
1,1,2,2-Tetrachloroethane	ND		5000	3460
1,3-Dichlorobenzene	ND		5000	2080
1,4-Dichlorobenzene	ND		5000	2050
1,2-Dichlorobenzene	ND		5000	2010
1,2-Dibromo-3-chloropropane	ND		5000	4650
1,2,4-Trichlorobenzene	ND		5000	2420
1,2,3-Trichlorobenzene	ND		5000	2250
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5000	4860
Methyl acetate	ND		5000	4490
Cyclohexane	ND		10000	4090
Methylcyclohexane	ND		5000	3870
1,3-Dichloropropene (cis- and trans-)	ND		5000	2210

Total Target Compounds (52): 1030000 D

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-012
Client ID: MW-39D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5835.D

GC/MS Column: DB-624
Sample wt/vol: 0.001mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 5000
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-013
Client ID: MW-43D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5836.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-013
Client ID: MW-43D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5836.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-013
Client ID: MW-43D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5836.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-014
Client ID: MW-23S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5837.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	6.75		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	8.57		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	10.4		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	89.6		1.00	0.358
cis-1,2-Dichloroethene	28.5		1.00	0.479
2-Butanone (MEK)	1.17		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-014
Client ID: MW-23S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5837.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	1.23		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 146

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-014
Client ID: MW-23S
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5837.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000108-20-3	Diisopropyl ether	8.20	JN	5.05
000873-94-9	Cyclohexanone, 3,3,5-trimethyl-	33.3	JN	13.99
	Unknown Aromatic	14.8	J	14.51

Total TICs = 56.3 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-015
Client ID: MW-23D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5838.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-015
Client ID: MW-23D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Data file: G5838.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-015
Client ID: MW-23D
Date Received: 07/24/2015
Date Analyzed: 08/06/2015
Date File: G5838.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-016
Client ID: FB-3
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5707.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-016
Client ID: FB-3
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5707.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-016
Client ID: FB-3
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Date File: G5707.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-017
Client ID: TB
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5708.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06541-017
Client ID: TB
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Data file: G5708.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06541-017
Client ID: TB
Date Received: 07/24/2015
Date Analyzed: 08/03/2015
Date File: G5708.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E15-06541-005
Client ID: MW-12D
Date Received: 07/24/2015
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Data file: B1695.D
SIM Data file: B1650.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.276
Bis(2-chloroethyl) ether	2.16		1.00	0.373
Bis(2-chloroisopropyl) ether	ND		1.00	0.253
N-Nitrosodi-n-propylamine	ND		1.00	0.223
Acetophenone	ND		1.00	0.244
Hexachloroethane	ND		1.00	0.364
Nitrobenzene	ND		1.00	0.239
Isophorone	4.43		1.00	0.233
Bis(2-chloroethoxy) methane	ND		1.00	0.232
Naphthalene	ND		1.00	0.341
4-Chloroaniline	ND		1.00	0.337
Hexachlorobutadiene	ND		1.00	0.229
Caprolactam	ND		1.00	0.366
2-Methylnaphthalene	ND		1.00	0.224
Hexachlorocyclopentadiene	ND		1.00	0.362
1,1'-Biphenyl	ND		1.00	0.210
2-Chloronaphthalene	ND		1.00	0.256
2-Nitroaniline	ND		1.00	0.288
Dimethyl phthalate	ND		1.00	0.265

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E15-06541-005
Client ID: MW-12D
Date Received: 07/24/2015
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Data file: B1695.D
SIM Data file: B1650.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.235
Acenaphthylene	ND		1.00	0.246
3-Nitroaniline	ND		1.00	0.281
Acenaphthene	ND		1.00	0.251
2,4-Dinitrotoluene	ND		1.00	0.263
Dibenzofuran	ND		1.00	0.298
Diethyl phthalate	ND		1.00	0.264
Fluorene	ND		1.00	0.203
4-Chlorophenyl phenyl ether	ND		1.00	0.297
4-Nitroaniline	ND		1.00	0.318
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.226
N-Nitrosodiphenylamine	ND		1.00	0.260
4-Bromophenyl phenyl ether	ND		1.00	0.248
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.259
Phenanthrene	ND		1.00	0.225
Anthracene	ND		1.00	0.258
Carbazole	ND		1.00	0.248
Di-n-butyl phthalate	ND		1.00	0.262
Fluoranthene	ND		1.00	0.206
Pyrene	ND		1.00	0.256
Butyl benzyl phthalate	ND		1.00	0.391
3,3'-Dichlorobenzidine	ND		1.00	0.391
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.320
Bis(2-ethylhexyl) phthalate	ND		1.00	0.429
Di-n-octyl phthalate	ND		1.00	0.399
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.325
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.263

Total Target Compounds (53): 6.59

* - RL & MDL from SIM run

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E15-06541-005
Client ID: MW-12D
Date Received: 07/24/2015
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Date File: B1695.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000123-91-1	1,4-Dioxane	165	JN	1.45
000127-18-4	Tetrachloroethylene	29.3	JN	2.39
000583-59-5	Cyclohexanol, 2-methyl-	31.1	JN	3.23
000583-60-8	Cyclohexanone, 2-methyl-	12.9	JN	3.30
	Unknown SV	9.90	J	3.54
	Unknown SV	20.1	J	3.71
000873-94-9	Cyclohexanone, 3,3,5-trimethyl-	868	JN	3.80
000116-02-9	Cyclohexanol, 3,3,5-trimethyl-	884	JN	3.85
	Unknown SV	7.50	J	4.26

Total TICs = 2030 JN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E15-06541-016
Client ID: FB-3
Date Received: 07/24/2015
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Data file: B1696.D
SIM Data file: B1651.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.276
Bis(2-chloroethyl) ether	ND		1.00	0.373
Bis(2-chloroisopropyl) ether	ND		1.00	0.253
N-Nitrosodi-n-propylamine	ND		1.00	0.223
Acetophenone	ND		1.00	0.244
Hexachloroethane	ND		1.00	0.364
Nitrobenzene	ND		1.00	0.239
Isophorone	ND		1.00	0.233
Bis(2-chloroethoxy) methane	ND		1.00	0.232
Naphthalene	ND		1.00	0.341
4-Chloroaniline	ND		1.00	0.337
Hexachlorobutadiene	ND		1.00	0.229
Caprolactam	ND		1.00	0.366
2-Methylnaphthalene	ND		1.00	0.224
Hexachlorocyclopentadiene	ND		1.00	0.362
1,1'-Biphenyl	ND		1.00	0.210
2-Chloronaphthalene	ND		1.00	0.256
2-Nitroaniline	ND		1.00	0.288
Dimethyl phthalate	ND		1.00	0.265

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E15-06541-016
Client ID: FB-3
Date Received: 07/24/2015
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Data file: B1696.D
SIM Data file: B1651.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.235
Acenaphthylene	ND		1.00	0.246
3-Nitroaniline	ND		1.00	0.281
Acenaphthene	ND		1.00	0.251
2,4-Dinitrotoluene	ND		1.00	0.263
Dibenzofuran	ND		1.00	0.298
Diethyl phthalate	ND		1.00	0.264
Fluorene	ND		1.00	0.203
4-Chlorophenyl phenyl ether	ND		1.00	0.297
4-Nitroaniline	ND		1.00	0.318
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.226
N-Nitrosodiphenylamine	ND		1.00	0.260
4-Bromophenyl phenyl ether	ND		1.00	0.248
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.259
Phenanthrene	ND		1.00	0.225
Anthracene	ND		1.00	0.258
Carbazole	ND		1.00	0.248
Di-n-butyl phthalate	ND		1.00	0.262
Fluoranthene	ND		1.00	0.206
Pyrene	ND		1.00	0.256
Butyl benzyl phthalate	ND		1.00	0.391
3,3'-Dichlorobenzidine	ND		1.00	0.391
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.320
Bis(2-ethylhexyl) phthalate	ND		1.00	0.429
Di-n-octyl phthalate	ND		1.00	0.399
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.325
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.263

Total Target Compounds (53): 0

* - RL & MDL from SIM run

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E15-06541-016
Client ID: FB-3
Date Received: 07/24/2015
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Date File: B1696.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000540-97-6	Cyclohexasiloxane, dodecamethyl-	10.1	CJN	4.79

Total TICs = 10.1 CJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-001
Client ID: MW-5S
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0832.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	686		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-003
Client ID: MW-8D
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0833.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 10
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	19300	D	5000	2000

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-008
Client ID: MW-22D
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0834.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	4100		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-010
Client ID: MW-41D
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0835.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	ND		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-011
Client ID: MW-42D
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0836.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	ND		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-012
Client ID: MW-39D
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0837.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 10
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	31800	D	5000	2000

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-013
Client ID: MW-43D
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0838.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	ND		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-014
Client ID: MW-23S
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0839.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	1130		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-015
Client ID: MW-23D
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0840.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	ND		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: E15-06541-016
Client ID: FB-3
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0841.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	ND		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Nickel

Client/Project: JMCARSYNCO

Batch #: 371
Date Received: 07/24/15 17:06
Method: 6020A

Lab ID	Client ID	Result	Q	DF	Matrix-Unit	RL	MDL	% Moist	Date Collected	Date Analyzed
E15-06541-004	MW-12S	1810		1	Aqueous-ug/L	2.00	1.00	100	07/24/15 08:40	07/29/15 20:11
E15-06541-016	FB-3	ND		1	Aqueous-ug/L	2.00	1.00	100	07/24/15 14:40	07/29/15 18:35

ND = Analyzed for but Not Detected at the MDL

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/03/2015

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA150803a	AQUEOUS	G5696.D	98	98	97
06527-009	AQUEOUS	G5697.D	100	100	96
06527-010	AQUEOUS	G5698.D	101	99	97
06527-001	AQUEOUS	G5699.D	99	100	97
06527-002	AQUEOUS	G5700.D	99	98	94
06527-003	AQUEOUS	G5701.D	102	98	97
06527-004	AQUEOUS	G5702.D	101	98	97
06527-005	AQUEOUS	G5703.D	106	99	96
06527-006	AQUEOUS	G5704.D	99	100	98
06527-007	AQUEOUS	G5705.D	103	100	97
06527-008	AQUEOUS	G5706.D	101	99	96
06541-016	AQUEOUS	G5707.D	101	98	96
06541-017	AQUEOUS	G5708.D	101	99	97
06541-001	AQUEOUS	G5709.D	102	99	97
06541-002	AQUEOUS	G5710.D	101	99	98
06541-003	AQUEOUS	G5711.D	101	99	97
06447-2DL	AQUEOUS	G5712.D	107	98	97
06447-005	AQUEOUS	G5713.D	103	97	98
LCSA150803a	AQUEOUS	G5714.D	97	100	100
6527-001MS	AQUEOUS	G5715.D	100	101	101
6527-001MSD	AQUEOUS	G5716.D	98	101	99

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	59-138	43-133
SMC2 = Toluene-d8	50 ppb	70-130	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	70-130	42-152	45-145

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

D Surrogate diluted out

M Matrix interference

FORM 2

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/06/2015

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3
BLKA150806a	AQUEOUS	G5822.D	109	99	98
06701-006	AQUEOUS	G5823.D	112	98	99
06642-011	AQUEOUS	G5824.D	108	99	97
06526-006	AQUEOUS	G5825.D	112	99	99
06526-007	AQUEOUS	G5826.D	110	98	98
06541-3DL	AQUEOUS	G5827.D	110	99	98
06541-005	AQUEOUS	G5828.D	106	99	98
06541-006	AQUEOUS	G5829.D	110	99	98
06541-007	AQUEOUS	G5830.D	108	99	97
06541-008	AQUEOUS	G5831.D	106	98	98
06541-009	AQUEOUS	G5832.D	109	97	97
06541-010	AQUEOUS	G5833.D	110	99	98
06541-011	AQUEOUS	G5834.D	109	98	97
06541-012	AQUEOUS	G5835.D	108	99	98
06541-013	AQUEOUS	G5836.D	108	98	98
06541-014	AQUEOUS	G5837.D	106	98	98
06541-015	AQUEOUS	G5838.D	109	98	98
06541-004	AQUEOUS	G5839.D	108	97	97
06745-011	AQUEOUS	G5840.D	109	99	99
LCSA150806a	AQUEOUS	G5841.D	105	100	101
6541-007MS	AQUEOUS	G5842.D	105	100	100
6541-007MSD	AQUEOUS	G5843.D	105	100	101

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	59-138	43-133
SMC2 = Toluene-d8	50 ppb	70-130	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	70-130	42-152	45-145

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

FORM 2

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSA150803a
Date Received: NA
Date Analyzed: 08/03/2015
LCS Data file: G5714.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.	#
Dichlorodifluoromethane	50.0	0.0	39.9	80	
Chloromethane	50.0	0.0	36.7	73	
Vinyl chloride	50.0	0.0	39.5	79	
Bromomethane	50.0	0.0	45.4	91	
Chloroethane	50.0	0.0	47.4	95	
Trichlorofluoromethane	50.0	0.0	41.2	82	
Acrolein	150	0.0	159.2	106	
1,1-Dichloroethene	50.0	0.0	49.8	100	
Acetone	50.0	0.0	50.4	101	
Carbon disulfide	50.0	0.0	45.6	91	
Vinyl acetate	50.0	0.0	40.2	80	
Methylene chloride	50.0	0.0	46.6	93	
Acrylonitrile	150.0	0.0	157.7	105	
tert-Butyl alcohol (TBA)	100.0	0.0	109.0	109	
trans-1,2-Dichloroethene	50.0	0.0	47.7	95	
Methyl tert-butyl ether (MTBE)	50.0	0.0	53.8	108	
1,1-Dichloroethane	50.0	0.0	48.4	97	
Diisopropyl ether (DIPE)	50.0	0.0	53.4	107	
cis-1,2-Dichloroethene	50.0	0.0	51.2	102	
2,2-Dichloropropane	50.0	0.0	42.4	85	
2-Butanone (MEK)	50.0	0.0	54.9	110	
Bromochloromethane	50.0	0.0	51.1	102	
Chloroform	50.0	0.0	49.4	99	
1,1,1-Trichloroethane	50.0	0.0	47.6	95	
Carbon tetrachloride	50.0	0.0	45.0	90	
1,1-Dichloropropene	50.0	0.0	47.1	94	
1,2-Dichloroethane (EDC)	50.0	0.0	50.7	101	
Benzene	50.0	0.0	50.4	101	
Trichloroethene	50.0	0.0	49.6	99	
1,2-Dichloropropane	50.0	0.0	51.1	102	
Dibromomethane	50.0	0.0	52.1	104	
1,4-Dioxane	1500	0.0	1628	109	
Bromodichloromethane	50.0	0.0	52.2	104	
2-Chloroethyl vinyl ether	50.0	0.0	48.9	98	
cis-1,3-Dichloropropene	50.0	0.0	52.3	105	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	60.2	120	
Toluene	50.0	0.0	49.4	99	
trans-1,3-Dichloropropene	50.0	0.0	52.6	105	
1,1,2-Trichloroethane	50.0	0.0	53.2	106	
Tetrachloroethene	50.0	0.0	47.8	96	
1,3-Dichloropropane	50.0	0.0	53.7	107	

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150803a
Date Received: NA
Date Analyzed: 08/03/2015
LCS Data file: G5714.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#
2-Hexanone	50.0	0.0	59.8	120	
Dibromochloromethane	50.0	0.0	54.9	110	
1,2-Dibromoethane (EDB)	50.0	0.0	54.9	110	
Chlorobenzene	50.0	0.0	49.5	99	
1,1,1,2-Tetrachloroethane	50.0	0.0	51.0	102	
Ethylbenzene	50.0	0.0	51.0	102	
m,p-Xylene	100.0	0.0	102.1	102	
o-Xylene	50.0	0.0	51.2	102	
Styrene	50.0	0.0	54.3	109	
Bromoform	50.0	0.0	54.9	110	
Isopropylbenzene	50.0	0.0	52.8	106	
1,1,2,2-Tetrachloroethane	50.0	0.0	51.4	103	
Bromobenzene	50.0	0.0	50.4	101	
1,2,3-Trichloropropane	50.0	0.0	52.4	105	
n-Propylbenzene	50.0	0.0	50.3	101	
2-Chlorotoluene	50.0	0.0	50.5	101	
1,3,5-Trimethylbenzene	50.0	0.0	52.1	104	
4-Chlorotoluene	50.0	0.0	50.5	101	
tert-Butylbenzene	50.0	0.0	52.1	104	
1,2,4-Trimethylbenzene	50.0	0.0	54.3	109	
sec-Butylbenzene	50.0	0.0	51.1	102	
1,3-Dichlorobenzene	50.0	0.0	49.7	99	
4-Isopropyltoluene	50.0	0.0	52.0	104	
1,4-Dichlorobenzene	50.0	0.0	49.6	99	
n-Butylbenzene	50.0	0.0	52.6	105	
1,2-Dichlorobenzene	50.0	0.0	51.3	103	
1,2-Dibromo-3-chloropropane	50.0	0.0	56.7	113	
1,2,4-Trichlorobenzene	50.0	0.0	56.3	113	
Hexachlorobutadiene	50.0	0.0	46.7	93	
Naphthalene	50.0	0.0	60.8	122	
1,2,3-Trichlorobenzene	50.0	0.0	54.6	109	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	43.5	87	
Methyl acetate	50.0	0.0	55.2	110	
Cyclohexane	50.0	0.0	43.7	87	
Methylcyclohexane	50.0	0.0	47.0	94	

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150803a
Date Received: NA
Date Analyzed: 08/03/2015
LCS Data file: G5714.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSA150806a
Date Received: NA
Date Analyzed: 08/06/2015
LCS Data file: G5841.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.	#
Dichlorodifluoromethane	50.0	0.0	37.9	76	
Chloromethane	50.0	0.0	36.9	74	
Vinyl chloride	50.0	0.0	43.2	86	
Bromomethane	50.0	0.0	49.6	99	
Chloroethane	50.0	0.0	50.8	102	
Trichlorofluoromethane	50.0	0.0	51.7	103	
Acrolein	150	0.0	143.5	96	
1,1-Dichloroethene	50.0	0.0	51.5	103	
Acetone	50.0	0.0	52.6	105	
Carbon disulfide	50.0	0.0	47.6	95	
Vinyl acetate	50.0	0.0	47.2	94	
Methylene chloride	50.0	0.0	45.9	92	
Acrylonitrile	150.0	0.0	139.4	93	
tert-Butyl alcohol (TBA)	100.0	0.0	103.6	104	
trans-1,2-Dichloroethene	50.0	0.0	48.1	96	
Methyl tert-butyl ether (MTBE)	50.0	0.0	54.5	109	
1,1-Dichloroethane	50.0	0.0	49.3	99	
Diisopropyl ether (DIPE)	50.0	0.0	55.0	110	
cis-1,2-Dichloroethene	50.0	0.0	51.5	103	
2,2-Dichloropropane	50.0	0.0	39.8	80	
2-Butanone (MEK)	50.0	0.0	54.7	109	
Bromochloromethane	50.0	0.0	50.9	102	
Chloroform	50.0	0.0	51.8	104	
1,1,1-Trichloroethane	50.0	0.0	51.0	102	
Carbon tetrachloride	50.0	0.0	48.3	97	
1,1-Dichloropropene	50.0	0.0	49.6	99	
1,2-Dichloroethane (EDC)	50.0	0.0	55.2	110	
Benzene	50.0	0.0	50.4	101	
Trichloroethene	50.0	0.0	51.5	103	
1,2-Dichloropropane	50.0	0.0	50.8	102	
Dibromomethane	50.0	0.0	52.7	105	
1,4-Dioxane	1500	0.0	1727	115	
Bromodichloromethane	50.0	0.0	53.5	107	
2-Chloroethyl vinyl ether	50.0	0.0	40.3	81	
cis-1,3-Dichloropropene	50.0	0.0	52.2	104	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	57.3	115	
Toluene	50.0	0.0	49.5	99	
trans-1,3-Dichloropropene	50.0	0.0	52.1	104	
1,1,2-Trichloroethane	50.0	0.0	52.0	104	
Tetrachloroethene	50.0	0.0	48.2	96	
1,3-Dichloropropane	50.0	0.0	54.1	108	

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150806a
Date Received: NA
Date Analyzed: 08/06/2015
LCS Data file: G5841.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#
2-Hexanone	50.0	0.0	56.7	113	
Dibromochloromethane	50.0	0.0	55.0	110	
1,2-Dibromoethane (EDB)	50.0	0.0	54.5	109	
Chlorobenzene	50.0	0.0	49.2	98	
1,1,1,2-Tetrachloroethane	50.0	0.0	51.5	103	
Ethylbenzene	50.0	0.0	51.0	102	
m,p-Xylene	100.0	0.0	101.8	102	
o-Xylene	50.0	0.0	50.8	102	
Styrene	50.0	0.0	53.7	107	
Bromoform	50.0	0.0	54.3	109	
Isopropylbenzene	50.0	0.0	52.9	106	
1,1,2,2-Tetrachloroethane	50.0	0.0	48.0	96	
Bromobenzene	50.0	0.0	49.8	100	
1,2,3-Trichloropropane	50.0	0.0	52.1	104	
n-Propylbenzene	50.0	0.0	49.8	100	
2-Chlorotoluene	50.0	0.0	49.2	98	
1,3,5-Trimethylbenzene	50.0	0.0	51.7	103	
4-Chlorotoluene	50.0	0.0	49.2	98	
tert-Butylbenzene	50.0	0.0	52.2	104	
1,2,4-Trimethylbenzene	50.0	0.0	51.8	104	
sec-Butylbenzene	50.0	0.0	50.7	101	
1,3-Dichlorobenzene	50.0	0.0	47.7	95	
4-Isopropyltoluene	50.0	0.0	51.5	103	
1,4-Dichlorobenzene	50.0	0.0	48.1	96	
n-Butylbenzene	50.0	0.0	51.2	102	
1,2-Dichlorobenzene	50.0	0.0	49.7	99	
1,2-Dibromo-3-chloropropane	50.0	0.0	54.9	110	
1,2,4-Trichlorobenzene	50.0	0.0	52.5	105	
Hexachlorobutadiene	50.0	0.0	43.1	86	
Naphthalene	50.0	0.0	60.0	120	
1,2,3-Trichlorobenzene	50.0	0.0	50.0	100	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	44.8	90	
Methyl acetate	50.0	0.0	52.8	106	
Cyclohexane	50.0	0.0	45.8	92	
Methylcyclohexane	50.0	0.0	47.5	95	

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150806a
Date Received: NA
Date Analyzed: 08/06/2015
LCS Data file: G5841.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260

MS/MSD SPIKE REPORT

Lab ID: 06527-001
Client ID: STREAM-1
Date Received: NA
Date Analyzed: 08/03/2015
MS Data file: G5715.D
MSD Data file: G5716.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50.0	0.0	36.5	73		43.0	86		16	
Chloromethane	50.0	0.0	38.3	77		37.9	76		1	
Vinyl chloride	50.0	0.0	45.6	91		44.2	88		3	
Bromomethane	50.0	0.0	47.2	94		45.7	91		3	
Chloroethane	50.0	0.0	51.9	104		49.7	99		4	
Trichlorofluoromethane	50.0	0.0	42.7	85		42.8	86		0	
Acrolein	150	0.0	159	106		148	99		7	
1,1-Dichloroethene	50.0	0.0	56.4	113		55.2	110		2	
Acetone	50.0	0.0	53.2	106		50.5	101		5	
Carbon disulfide	50.0	0.0	50.7	101		49.8	100		2	
Vinyl acetate	50.0	0.0	42.5	85		34.9	70		20	
Methylene chloride	50.0	0.0	48.6	97		47.2	94		3	
Acrylonitrile	150	0.0	161	107		153	102		5	
tert-Butyl alcohol (TBA)	100	0.0	115.9	116		107.3	107		8	
trans-1,2-Dichloroethene	50.0	0.0	51.8	104		50.3	101		3	
Methyl tert-butyl ether (MTBE)	50.0	0.0	55.5	111		53.7	107		3	
1,1-Dichloroethane	50.0	0.0	52.0	104		50.2	100		4	
Diisopropyl ether (DIPE)	50.0	0.0	55.3	111		53.9	108		3	
cis-1,2-Dichloroethene	50.0	0.0	53.7	107		52.7	105		2	
2,2-Dichloropropane	50.0	0.0	46.0	92		44.5	89		3	
2-Butanone (MEK)	50.0	0.0	56.6	113		53.4	107		6	
Bromochloromethane	50.0	0.0	53.0	106		50.9	102		4	
Chloroform	50.0	0.0	52.6	105		50.9	102		3	
1,1,1-Trichloroethane	50.0	0.0	52.4	105		51.2	102		2	
Carbon tetrachloride	50.0	0.0	51.4	103		50.1	100		3	
1,1-Dichloropropene	50.0	0.0	52.7	105		51.1	102		3	
1,2-Dichloroethane (EDC)	50.0	0.0	53.0	106		51.0	102		4	
Benzene	50.0	0.0	53.8	108		52.3	105		3	
Trichloroethene	50.0	0.0	54.6	109		53.0	106		3	
1,2-Dichloropropane	50.0	0.0	53.2	106		52.1	104		2	
Dibromomethane	50.0	0.0	54.4	109		52.7	105		3	
1,4-Dioxane	1,500	0.0	1538	103		1401	93		9	
Bromodichloromethane	50.0	0.0	54.6	109		53.3	107		2	
2-Chloroethyl vinyl ether	50.0	0.0	0.0	0	*$	0.0	0	*$	NC	*$
cis-1,3-Dichloropropene	50.0	0.0	55.4	111		54.2	108		2	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	54.3	109		59.0	118		8	
Toluene	50.0	0.0	52.7	105		51.9	104		2	
trans-1,3-Dichloropropene	50.0	0.0	55.6	111		54.1	108		3	
1,1,2-Trichloroethane	50.0	0.0	54.7	109		52.6	105		4	
Tetrachloroethene	50.0	0.0	52.8	106		52.0	104		2	
1,3-Dichloropropane	50.0	0.0	55.0	110		53.9	108		2	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06527-001
Client ID: STREAM-1
Date Received: NA
Date Analyzed: 08/03/2015
MS Data file: G5715.D
MSD Data file: G5716.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50.0	0.0	58.5	117		59.4	119		2	
Dibromochloromethane	50.0	0.0	56.8	114		54.9	110		3	
1,2-Dibromoethane (EDB)	50.0	0.0	56.4	113		54.5	109		3	
Chlorobenzene	50.0	0.0	51.9	104		50.7	101		2	
1,1,1,2-Tetrachloroethane	50.0	0.0	53.8	108		52.8	106		2	
Ethylbenzene	50.0	0.0	54.7	109		53.6	107		2	
m,p-Xylene	100	0.0	110.0	110		107.2	107		3	
o-Xylene	50.0	0.0	54.0	108		52.7	105		2	
Styrene	50.0	0.0	56.6	113		55.2	110		3	
Bromoform	50.0	0.0	57.3	115		55.0	110		4	
Isopropylbenzene	50.0	0.0	57.9	116		56.6	113		2	
1,1,2,2-Tetrachloroethane	50.0	0.0	53.4	107		51.0	102		5	
Bromobenzene	50.0	0.0	52.7	105		51.5	103		2	
1,2,3-Trichloropropane	50.0	0.0	53.5	107		51.6	103		4	
n-Propylbenzene	50.0	0.0	55.2	110		53.5	107		3	
2-Chlorotoluene	50.0	0.0	54.2	108		52.3	105		4	
1,3,5-Trimethylbenzene	50.0	0.0	56.2	112		55.1	110		2	
4-Chlorotoluene	50.0	0.0	54.2	108		52.3	105		4	
tert-Butylbenzene	50.0	0.0	57.5	115		55.8	112		3	
1,2,4-Trimethylbenzene	50.0	0.0	57.1	114		55.0	110		4	
sec-Butylbenzene	50.0	0.0	57.1	114		55.8	112		2	
1,3-Dichlorobenzene	50.0	0.0	52.0	104		50.7	101		3	
4-Isopropyltoluene	50.0	0.0	57.4	115		56.0	112		2	
1,4-Dichlorobenzene	50.0	0.0	51.7	103		50.7	101		2	
n-Butylbenzene	50.0	0.0	58.7	117		56.6	113		4	
1,2-Dichlorobenzene	50.0	0.0	52.7	105		51.5	103		2	
1,2-Dibromo-3-chloropropane	50.0	0.0	59.3	119		56.4	113		5	
1,2,4-Trichlorobenzene	50.0	0.0	59.7	119		57.3	115		4	
Hexachlorobutadiene	50.0	0.0	54.4	109		52.7	105		3	
Naphthalene	50.0	0.0	65.0	130		62.4	125		4	
1,2,3-Trichlorobenzene	50.0	0.0	58.7	117		57.1	114		3	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	52.6	105		51.5	103		2	
Methyl acetate	50.0	0.0	56.4	113		52.9	106		6	
Cyclohexane	50.0	0.0	53.0	106		51.4	103		3	
Methylcyclohexane	50.0	0.0	56.1	112		54.3	109		3	

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06527-001
Client ID: STREAM-1
Date Received: NA
Date Analyzed: 08/03/2015
MS Data file: G5715.D
MSD Data file: G5716.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260

MS/MSD SPIKE REPORT

Lab ID: 06541-007
Client ID: MW-22S
Date Received: NA
Date Analyzed: 08/06/2015
MS Data file: G5842.D
MSD Data file: G5843.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50.0	0.0	34.9	70		37.2	74		6	
Chloromethane	50.0	0.0	37.2	74		39.3	79		5	
Vinyl chloride	50.0	0.0	42.7	85		43.0	86		1	
Bromomethane	50.0	0.0	48.3	97		49.4	99		2	
Chloroethane	50.0	0.0	51.0	102		50.5	101		1	
Trichlorofluoromethane	50.0	0.0	36.2	72		37.9	76		5	
Acrolein	150	0.0	151	101		155	103		3	
1,1-Dichloroethene	50.0	0.0	50.7	101		50.0	100		1	
Acetone	50.0	0.0	55.1	110		56.5	113		3	
Carbon disulfide	50.0	0.0	46.3	93		47.1	94		2	
Vinyl acetate	50.0	0.0	36.4	73		40.7	81		11	
Methylene chloride	50.0	0.0	45.0	90		45.1	90		0	
Acrylonitrile	150	0.0	168	112		169	113		1	
tert-Butyl alcohol (TBA)	100	0.0	112.7	113		111.0	111		2	
trans-1,2-Dichloroethene	50.0	0.0	46.9	94		47.4	95		1	
Methyl tert-butyl ether (MTBE)	50.0	0.0	54.2	108		54.3	109		0	
1,1-Dichloroethane	50.0	0.0	48.2	96		48.7	97		1	
Diisopropyl ether (DIPE)	50.0	0.0	53.5	107		53.6	107		0	
cis-1,2-Dichloroethene	50.0	0.0	50.4	101		50.5	101		0	
2,2-Dichloropropane	50.0	0.0	37.8	76		40.4	81		7	
2-Butanone (MEK)	50.0	0.0	55.8	112		56.6	113		1	
Bromochloromethane	50.0	0.0	50.3	101		50.4	101		0	
Chloroform	50.0	0.0	50.5	101		50.4	101		0	
1,1,1-Trichloroethane	50.0	0.0	49.2	98		49.9	100		1	
Carbon tetrachloride	50.0	0.0	46.3	93		46.5	93		0	
1,1-Dichloropropene	50.0	0.0	47.5	95		47.2	94		1	
1,2-Dichloroethane (EDC)	50.0	0.0	54.1	108		53.8	108		1	
Benzene	50.0	0.0	48.9	98		50.1	100		2	
Trichloroethene	50.0	0.0	50.1	100		51.9	104		4	
1,2-Dichloropropane	50.0	0.0	49.7	99		50.2	100		1	
Dibromomethane	50.0	0.0	52.2	104		53.3	107		2	
1,4-Dioxane	1,500	0.0	1398	93		1356	90		3	
Bromodichloromethane	50.0	0.0	52.8	106		53.9	108		2	
2-Chloroethyl vinyl ether	50.0	0.0	0.0	0	*$	0.0	0	*$	NC	*$
cis-1,3-Dichloropropene	50.0	0.0	51.3	103		53.6	107		4	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	61.4	123		63.7	127		4	
Toluene	50.0	0.0	48.5	97		49.4	99		2	
trans-1,3-Dichloropropene	50.0	0.0	52.0	104		54.3	109		4	
1,1,2-Trichloroethane	50.0	0.0	51.3	103		52.8	106		3	
Tetrachloroethene	50.0	0.0	46.6	93		46.8	94		0	
1,3-Dichloropropane	50.0	0.0	53.1	106		54.2	108		2	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06541-007
Client ID: MW-22S
Date Received: NA
Date Analyzed: 08/06/2015
MS Data file: G5842.D
MSD Data file: G5843.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50.0	0.0	62.5	125		63.7	127		2	
Dibromochloromethane	50.0	0.0	54.0	108		55.2	110		2	
1,2-Dibromoethane (EDB)	50.0	0.0	53.5	107		55.2	110		3	
Chlorobenzene	50.0	0.0	48.3	97		48.8	98		1	
1,1,1,2-Tetrachloroethane	50.0	0.0	50.6	101		51.6	103		2	
Ethylbenzene	50.0	0.0	49.9	100		50.6	101		1	
m,p-Xylene	100	0.0	99.9	100		101.5	102		2	
o-Xylene	50.0	0.0	49.9	100		50.8	102		2	
Styrene	50.0	0.0	53.2	106		53.6	107		1	
Bromoform	50.0	0.0	54.2	108		55.5	111		2	
Isopropylbenzene	50.0	0.0	51.9	104		52.6	105		1	
1,1,2,2-Tetrachloroethane	50.0	0.0	49.4	99		49.8	100		1	
Bromobenzene	50.0	0.0	48.6	97		49.9	100		3	
1,2,3-Trichloropropane	50.0	0.0	51.5	103		52.8	106		2	
n-Propylbenzene	50.0	0.0	48.8	98		49.6	99		2	
2-Chlorotoluene	50.0	0.0	48.4	97		50.2	100		4	
1,3,5-Trimethylbenzene	50.0	0.0	51.0	102		51.4	103		1	
4-Chlorotoluene	50.0	0.0	48.4	97		50.2	100		4	
tert-Butylbenzene	50.0	0.0	51.9	104		52.3	105		1	
1,2,4-Trimethylbenzene	50.0	0.0	51.1	102		52.1	104		2	
sec-Butylbenzene	50.0	0.0	49.5	99		50.2	100		1	
1,3-Dichlorobenzene	50.0	0.0	47.4	95		48.2	96		2	
4-Isopropyltoluene	50.0	0.0	50.3	101		51.0	102		1	
1,4-Dichlorobenzene	50.0	0.0	47.7	95		48.5	97		2	
n-Butylbenzene	50.0	0.0	51.2	102		51.7	103		1	
1,2-Dichlorobenzene	50.0	0.0	48.8	98		49.7	99		2	
1,2-Dibromo-3-chloropropane	50.0	0.0	56.6	113		58.0	116		2	
1,2,4-Trichlorobenzene	50.0	0.0	53.2	106		55.4	111		4	
Hexachlorobutadiene	50.0	0.0	42.7	85		44.7	89		5	
Naphthalene	50.0	0.0	58.6	117		60.1	120		3	
1,2,3-Trichlorobenzene	50.0	0.0	51.6	103		53.3	107		3	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	41.7	83		39.1	78		6	
Methyl acetate	50.0	0.0	52.7	105		53.8	108		2	
Cyclohexane	50.0	0.0	42.5	85		38.7	77		9	
Methylcyclohexane	50.0	0.0	43.2	86		40.7	81		6	

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06541-007
Client ID: MW-22S
Date Received: NA
Date Analyzed: 08/06/2015
MS Data file: G5842.D
MSD Data file: G5843.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G5696.D Instrument ID: MSD_G

Date Analyzed: 08/03/2015 Time Analyzed: 09:59

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
FB-2	06527-009	08/03/2015	10:27
TB-2	06527-010	08/03/2015	10:55
STREAM-1	06527-001	08/03/2015	11:23
STREAM-2	06527-002	08/03/2015	11:51
MW-21	06527-003	08/03/2015	12:20
MW-7	06527-004	08/03/2015	12:48
STREAM-1	06527-005	08/03/2015	13:17
MW-13	06527-006	08/03/2015	13:45
MW-20	06527-007	08/03/2015	14:13
DUP-1	06527-008	08/03/2015	14:41
FB-3	06541-016	08/03/2015	15:10
TB	06541-017	08/03/2015	15:38
MW-5S	06541-001	08/03/2015	16:07
MW-8S	06541-002	08/03/2015	16:35
MW-8D	06541-003	08/03/2015	17:04
MW-4S	06447-2DL	08/03/2015	17:32
MW-13SR	06447-005	08/03/2015	18:00
LCSA150803a	LCSA150803a	08/03/2015	18:28
6527-001MS	6527-001MS	08/03/2015	18:56
6527-001MSD	6527-001MSD	08/03/2015	19:24

FORM **4**

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G5822.D Instrument ID: MSD_G

Date Analyzed: 08/06/2015 Time Analyzed: 13:02

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TRIP_BLANK	06701-006	08/06/2015	13:30
WS-1/7.5-8	06642-011	08/06/2015	13:58
GPEC-FB07241	06526-006	08/06/2015	14:27
GPEC-TB	06526-007	08/06/2015	14:55
MW-8D	06541-3DL	08/06/2015	15:23
MW-12D	06541-005	08/06/2015	15:51
MW-15D	06541-006	08/06/2015	16:19
MW-22S	06541-007	08/06/2015	16:47
MW-22D	06541-008	08/06/2015	17:16
MW-37D	06541-009	08/06/2015	17:44
MW-41D	06541-010	08/06/2015	18:13
MW-42D	06541-011	08/06/2015	18:41
MW-39D	06541-012	08/06/2015	19:10
MW-43D	06541-013	08/06/2015	19:38
MW-23S	06541-014	08/06/2015	20:06
MW-23D	06541-015	08/06/2015	20:34
MW-12S	06541-004	08/06/2015	21:02
GP-2	06745-011	08/06/2015	21:30
LCSA150806a	LCSA150806a	08/06/2015	21:59
6541-007MS	6541-007MS	08/06/2015	22:27
6541-007MSD	6541-007MSD	08/06/2015	22:55

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G5560.D BFB Injection Date: 07/29/2015

Inst ID: MSD_G BFB Injection Time: 7:09

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	22.6	
75	30.0 - 60.0% of mass 95	48.1	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.6	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	Great than 50.0% of mass 95	70.6	
175	5.0 - 9.0% of mass 174	5.4	(7.6)1
176	95.0 - 101.0% of mass 174	67.6	(95.8)1
177	5.0 - 9.0% of mass 176	4.3	(6.4)2
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC100	ICC100	G5565.D	07/29/2015	10:04
ICC001	ICC001	G5561.D	07/29/2015	7:37
ICC002	ICC002	G5562.D	07/29/2015	8:05
ICC005	ICC005	G5563.D	07/29/2015	8:33
ICC020	ICC020	G5564.D	07/29/2015	9:36
ICC150	ICC150	G5566.D	07/29/2015	10:32
ICC200	ICC200	G5567.D	07/29/2015	11:01
ICV100	ICV100	G5569.D	07/29/2015	11:56
BLKA150729a	BLKA150729a	G5571.D	07/29/2015	12:53
BETWEEN	06264-1DL	G5572.D	07/29/2015	13:21
EFFLUENT	06264-2DL	G5573.D	07/29/2015	13:49
MW-12D	06454-7DL	G5574.D	07/29/2015	14:17
REP072315	06454-8DL	G5575.D	07/29/2015	14:45
MW-1	06487-001	G5576.D	07/29/2015	15:13
MW-2	06487-002	G5577.D	07/29/2015	15:41
MW-3	06487-003	G5578.D	07/29/2015	16:09
MW-4	06487-004	G5579.D	07/29/2015	16:38
MW-5	06487-005	G5580.D	07/29/2015	17:06
LCSA150729a	LCSA150729a	G5581.D	07/29/2015	17:34
6487-003MS	6487-003MS	G5582.D	07/29/2015	18:02

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G5560.D BFB Injection Date : 07/29/201

Inst ID: MSD_G BFB Injection Time: 7:09

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	22.6			
75	30.0 - 60.0% of mass 95	48.1			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	70.6			
175	5.0 - 9.0% of mass 174	5.4	(	7.6	)1
176	95.0 - 101.0% of mass 174	67.6	(	95.8	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.4	)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
6487-003MSD	6487-003MSD	G5583.D	07/29/2015	18:31

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G5693.D BFB Injection Date: 08/03/2015

Inst ID: MSD_G BFB Injection Time: 8:25

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.8			
75	30.0 - 60.0% of mass 95	47.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.4			
173	Less than 2.0% of mass 174	0.2	(	0.3	)1
174	Great than 50.0% of mass 95	69.5			
175	5.0 - 9.0% of mass 174	5.1	(	7.4	)1
176	95.0 - 101.0% of mass 174	66.7	(	95.9	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.5	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	G5694.D	08/03/2015	8:53
BLKA150803a	BLKA150803a	G5696.D	08/03/2015	9:59
FB-2	06527-009	G5697.D	08/03/2015	10:27
TB-2	06527-010	G5698.D	08/03/2015	10:55
STREAM-1	06527-001	G5699.D	08/03/2015	11:23
STREAM-2	06527-002	G5700.D	08/03/2015	11:51
MW-21	06527-003	G5701.D	08/03/2015	12:20
MW-7	06527-004	G5702.D	08/03/2015	12:48
STREAM-1	06527-005	G5703.D	08/03/2015	13:17
MW-13	06527-006	G5704.D	08/03/2015	13:45
MW-20	06527-007	G5705.D	08/03/2015	14:13
DUP-1	06527-008	G5706.D	08/03/2015	14:41
FB-3	06541-016	G5707.D	08/03/2015	15:10
TB	06541-017	G5708.D	08/03/2015	15:38
MW-5S	06541-001	G5709.D	08/03/2015	16:07
MW-8S	06541-002	G5710.D	08/03/2015	16:35
MW-8D	06541-003	G5711.D	08/03/2015	17:04
MW-4S	06447-2DL	G5712.D	08/03/2015	17:32
MW-13SR	06447-005	G5713.D	08/03/2015	18:00
LCSA150803a	LCSA150803a	G5714.D	08/03/2015	18:28

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G5693.D BFB Injection Date : 08/03/201

Inst ID: MSD_G BFB Injection Time: 8:25

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.8			
75	30.0 - 60.0% of mass 95	47.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.4			
173	Less than 2.0% of mass 174	0.2	(	0.3	)1
174	Great than 50.0% of mass 95	69.5			
175	5.0 - 9.0% of mass 174	5.1	(	7.4	)1
176	95.0 - 101.0% of mass 174	66.7	(	95.9	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.5	)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
6527-001MS	6527-001MS	G5715.D	08/03/2015	18:56
6527-001MSD	6527-001MSD	G5716.D	08/03/2015	19:24

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G5819.D BFB Injection Date: 08/06/2015

Inst ID: MSD_G BFB Injection Time: 11:36

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	25.1			
75	30.0 - 60.0% of mass 95	51.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.9			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	69.1			
175	5.0 - 9.0% of mass 174	5.1	(	7.4	)1
176	95.0 - 101.0% of mass 174	66.5	(	96.2	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.5	)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	G5820.D	08/06/2015	12:05
BLKA150806a	BLKA150806a	G5822.D	08/06/2015	13:02
TRIP_BLANK	06701-006	G5823.D	08/06/2015	13:30
WS-1/7.5-8	06642-011	G5824.D	08/06/2015	13:58
GPEC-FB07241	06526-006	G5825.D	08/06/2015	14:27
GPEC-TB	06526-007	G5826.D	08/06/2015	14:55
MW-8D	06541-3DL	G5827.D	08/06/2015	15:23
MW-12D	06541-005	G5828.D	08/06/2015	15:51
MW-15D	06541-006	G5829.D	08/06/2015	16:19
MW-22S	06541-007	G5830.D	08/06/2015	16:47
MW-22D	06541-008	G5831.D	08/06/2015	17:16
MW-37D	06541-009	G5832.D	08/06/2015	17:44
MW-41D	06541-010	G5833.D	08/06/2015	18:13
MW-42D	06541-011	G5834.D	08/06/2015	18:41
MW-39D	06541-012	G5835.D	08/06/2015	19:10
MW-43D	06541-013	G5836.D	08/06/2015	19:38
MW-23S	06541-014	G5837.D	08/06/2015	20:06
MW-23D	06541-015	G5838.D	08/06/2015	20:34
MW-12S	06541-004	G5839.D	08/06/2015	21:02
GP-2	06745-011	G5840.D	08/06/2015	21:30

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G5819.D BFB Injection Date : 08/06/201

Inst ID: MSD_G BFB Injection Time: 11:36

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	25.1			
75	30.0 - 60.0% of mass 95	51.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.9			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	69.1			
175	5.0 - 9.0% of mass 174	5.1	(	7.4	)1
176	95.0 - 101.0% of mass 174	66.5	(	96.2	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.5	)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
LCSA150806a	LCSA150806a	G5841.D	08/06/2015	21:59
6541-007MS	6541-007MS	G5842.D	08/06/2015	22:27
6541-007MSD	6541-007MSD	G5843.D	08/06/2015	22:55

Response Factor Report MSD_G

Method Path : C:\MSDCHEM\1\METHODS\
Method File : G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Wed Jul 29 14:56:12 2015
Response Via : Initial Calibration

07/29/15
BB
7 13a.l.s

Calibration Files
1 =G5561.D 2 =G5562.D 5 =G5563.D
20 =G5564.D 100 =G5565.D 150 =G5566.D 200 =G5567.D

		Compound	1	2	5	20	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.529	0.665	0.611	0.627	0.613	0.642	0.517	0.601	9.37
3)	P	Chloromethane	0.837	0.998	0.953	0.945	0.913	0.950	0.863	0.923	6.06
4)	C	Vinyl chloride	0.628	0.794	0.773	0.766	0.737	0.781	0.696	0.739	7.99
5)	T	Bromomethane	0.298	0.359	0.334	0.335	0.309	0.331	0.291	0.322	7.50
6)	T	Chloroethane	0.321	0.405	0.379	0.386	0.370	0.402	0.371	0.376	7.48
7)	T	Trichlorofluorome	0.385	0.560	0.536	0.582	0.495	0.540	0.445	0.506	13.78
8)	T	Acrolein	0.018	0.021	0.020	0.023	0.020	0.022	0.020	0.021	6.80
9)	MC	1,1-Dichloroethen	0.386	0.494	0.459	0.470	0.455	0.269	0.450	0.426	17.98
10)	T	Acetone			0.391	0.341	0.324	0.332	0.307	0.339	9.32
11)	T	Carbon disulfide	1.077	1.307	1.216	1.252	1.243	1.340	1.253	1.241	6.74
12)	T	Vinyl acetate	1.903	2.431	2.289	1.518	1.738	1.810	1.648	1.905	17.63
13)	T	Methylene chlorid		0.810	0.692	0.735	0.674	0.693	0.655	0.710	7.83
14)	T	Acrylonitrile	0.256	0.292	0.284	0.319	0.294	0.321	0.289	0.293	7.53
15)	T	tert-Butyl alcoho		0.098	0.064	0.064	0.071	0.077	0.072	0.074	16.98
16)	T	trans-1,2-Dichlor	0.488	0.614	0.594	0.598	0.588	0.615	0.573	0.581	7.50
17)	T	Methyl tert-butyl	1.372	1.772	1.732	1.819	1.828	1.950	1.844	1.760	10.44
18)	P	1,1-Dichloroethan	1.062	1.297	1.224	1.249	1.231	1.311	1.230	1.229	6.62
19)	T	Diisopropyl ether	1.777	2.414	2.375	2.745	2.670	2.804	2.688	2.496	14.28
20)	T	cis-1,2-Dichloroe	0.486	0.646	0.607	0.652	0.652	0.687	0.649	0.626	10.53
21)	T	2,2-Dichloropropa	0.445	0.561	0.516	0.502	0.469	0.478	0.449	0.489	8.44
22)	T	2-Butanone (MEK)	0.291	0.437	0.396	0.382	0.391	0.410	0.382	0.384	11.75
23)	T	Bromochloromethan	0.245	0.293	0.293	0.296	0.292	0.309	0.290	0.288	6.91
24)	T	Tetrahydrofuran								0.000	-1.00
25)	C	Chloroform	0.880	1.095	1.055	1.091	1.066	1.120	1.068	1.054	7.56
26)	T	1,1,1-Trichloroet	0.686	0.829	0.795	0.817	0.818	0.874	0.807	0.804	7.18
27)	T	Carbon tetrachlor	0.662	0.723	0.674	0.703	0.717	0.773	0.697	0.707	5.17
28)	T	1,1-Dichloroprope	0.684	0.807	0.771	0.793	0.795	0.853	0.788	0.784	6.51
29)	T	1,2-Dichloroethan	0.762	0.951	0.884	0.913	0.891	0.942	0.896	0.891	6.99
30)	S	1,2-Dichloroethan	0.667	0.679	0.679	0.663	0.669	0.661	0.659	0.668	1.21
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.184	1.502	1.422	1.508	1.465	1.566	1.484	1.447	8.57
33)	M	Trichloroethene	0.286	0.362	0.335	0.349	0.350	0.376	0.360	0.346	8.45
34)	C	1,2-Dichloropropa	0.344	0.429	0.411	0.435	0.427	0.454	0.438	0.420	8.56
35)	T	Dibromomethane	0.173	0.229	0.207	0.217	0.213	0.228	0.220	0.212	8.97
36)	T	1,4-Dioxane	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.003	11.68
37)	T	Bromodichlorometh	0.345	0.467	0.429	0.469	0.483	0.517	0.495	0.458	12.42
38)	T	2-Chloroethyl vin	0.073	0.062	0.063	0.096	0.138	0.128	0.108	0.095	32.14
39)	T	cis-1,3-Dichlorop	0.388	0.451	0.443	0.558	0.585	0.631	0.614	0.524	18.21
40)	T	4-Methyl-2-pentan	0.269	0.399	0.366	0.413	0.438	0.461	0.430	0.397	16.15
41)	S	Toluene-d8	1.224	1.245	1.252	1.250	1.244	1.229	1.240	1.241	0.86
42)	MC	Toluene	0.779	0.964	0.876	0.904	0.879	0.934	0.893	0.890	6.51
43)	T	trans-1,3-Dichlor	0.350	0.411	0.390	0.481	0.525	0.566	0.554	0.468	18.22
44)	T	1,1,2-Trichloroet	0.226	0.286	0.254	0.271	0.265	0.281	0.270	0.265	7.53
45)	T	Tetrachloroethene	0.266	0.330	0.316	0.313	0.303	0.321	0.299	0.307	6.80
46)	T	1,3-Dichloropropa	0.434	0.579	0.510	0.554	0.553	0.583	0.563	0.539	9.68
47)	T	2-Hexanone	0.204	0.303	0.272	0.316	0.351	0.376	0.347	0.310	18.72
48)	T	Dibromochlorometh	0.209	0.303	0.270	0.320	0.331	0.357	0.345	0.305	16.70
49)	T	1,2-Dibromoethane	0.231	0.301	0.276	0.303	0.307	0.325	0.313	0.294	10.63
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	0.835	1.090	0.990	1.003	0.969	1.034	0.992	0.988	7.91
52)	T	1,1,1,2-Tetrachlo	0.257	0.340	0.310	0.334	0.339	0.364	0.350	0.328	10.74
53)	C	Ethylbenzene	1.224	1.660	1.548	1.695	1.698	1.838	1.744	1.629	12.21

Response Factor Report MSD_G

Method Path : C:\MSDCHEM\1\METHODS\
Method File : G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Wed Jul 29 14:56:12 2015
Response Via : Initial Calibration

Calibration Files
1 =G5561.D 2 =G5562.D 5 =G5563.D
20 =G5564.D 100 =G5565.D 150 =G5566.D 200 =G5567.D

		Compound	1	2	5	20	100	150	200	Avg	%RSD
54)	T	m,p-Xylene	0.461	0.640	0.616	0.676	0.649	0.686	0.647	0.625	12.13
55)	T	o-Xylene		0.592	0.579	0.668	0.651	0.685	0.646	0.637	6.63
56)	T	Styrene	0.851	0.936	0.938	1.120	1.124	1.191	1.131	1.042	12.50
57)	P	Bromoform	0.138	0.159	0.136	0.160	0.183	0.202	0.198	0.168	16.16
58)	T	Isopropylbenzene	0.948	1.402	1.367	1.611	1.629	1.748	1.623	1.475	18.20
59)	S	Bromofluorobenzen	0.556	0.563	0.575	0.569	0.571	0.573	0.568	0.568	1.14
60)	P	1,1,2,2-Tetrachlo	0.337	0.518	0.423	0.428	0.431	0.457	0.430	0.432	12.37
61)	T	Bromobenzene	0.310	0.447	0.387	0.410	0.401	0.423	0.402	0.397	10.84
62)	T	1,2,3-Trichloropr	0.332	0.495	0.388	0.390	0.397	0.420	0.396	0.402	12.15
63)	T	n-Propylbenzene	1.451	1.990	1.830	2.015	2.022	2.140	1.990	1.920	11.76
64)	T	2-Chlorotoluene	0.937	1.333	1.154	1.268	1.254	1.340	1.265	1.221	11.44
65)	T	1,3,5-Trimethylbe	0.909	1.339	1.291	1.442	1.416	1.489	1.381	1.324	14.68
66)	T	4-Chlorotoluene	0.937	1.333	1.154	1.268	1.254	1.340	1.265	1.221	11.44
67)	T	tert-Butylbenzene	0.686	1.020	0.951	1.113	1.132	1.195	1.090	1.027	16.54
68)	T	1,2,4-Trimethylbe	0.845	1.354	1.302	1.446	1.429	1.498	1.392	1.324	16.65
69)	T	sec-Butylbenzene	1.070	1.533	1.450	1.653	1.653	1.735	1.574	1.524	14.48
70)	T	1,3-Dichlorobenze	0.606	0.894	0.749	0.772	0.760	0.802	0.747	0.761	11.23
71)	T	4-Isopropyltoluen	0.761	1.214	1.145	1.323	1.310	1.356	1.250	1.194	17.09
72)	T	1,4-Dichlorobenze	0.598	0.876	0.745	0.789	0.758	0.801	0.745	0.759	11.10
73)	T	n-Butylbenzene	0.767	1.074	1.064	1.247	1.248	1.300	1.167	1.124	16.09
74)	T	1,2-Dichlorobenze	0.577	0.841	0.725	0.766	0.722	0.749	0.694	0.725	11.07
75)	T	1,2-Dibromo-3-chl	0.051	0.080	0.063	0.064	0.071	0.077	0.071	0.068	14.60
76)	T	1,2,4-Trichlorobe	0.309	0.411	0.352	0.423	0.422	0.443	0.399	0.394	11.94
77)	T	Hexachlorobutadie	0.134	0.168	0.154	0.155	0.136	0.145	0.125	0.145	10.05
78)	T	Naphthalene	0.874	0.804	0.744	0.987	1.079	1.166	1.059	0.959	16.23
79)	T	1,2,3-Trichlorobe	0.269	0.385	0.335	0.365	0.359	0.385	0.344	0.349	11.48
80)	T	1,1,2-Trichloro-1	0.207	0.267	0.248	0.248	0.233	0.250	0.217	0.238	8.78
81)	T	Methyl acetate	0.336	0.426	0.400	0.386	0.394	0.419	0.394	0.394	7.42
82)	T	Cyclohexane		0.720	0.675	0.715	0.727	0.787	0.679	0.717	5.65
83)	T	Methylcyclohexane	0.412	0.478	0.459	0.517	0.529	0.569	0.487	0.493	10.40
84)		Pentane								0.000	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\07-29-15\
Data File : G5569.D
Acq On : 29 Jul 2015 11:56
Operator : Sylvia
Sample : ICV100,ICV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 29 14:56:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	100	0.00
2	T	Dichlorodifluoromethane	0.601	0.498	17.1	81	0.00
3	P	Chloromethane	0.923	0.799	13.4	88	0.00
4	C	Vinyl chloride	0.739	0.640	13.4	87	0.00
5	T	Bromomethane	0.322	0.294	8.7	96	0.05
6	T	Chloroethane	0.376	0.339	9.8	92	0.00
7	T	Trichlorofluoromethane	0.506	0.406	19.8	82	0.00
8	T	Acrolein	0.021	0.020	4.8	97	0.00
9	MC	1,1-Dichloroethene	0.426	0.406	4.7	89	0.00
10	T	Acetone	0.339	0.305	10.0	94	0.00
11	T	Carbon disulfide	1.241	1.113	10.3	90	0.00
12	T	Vinyl acetate	1.905	2.242	-17.7	129	0.00
13	T	Methylene chloride	0.710	0.652	8.2	97	0.00
14	T	Acrylonitrile	0.293	0.289	1.4	99	0.00
15	T	tert-Butyl alcohol (TBA)	0.074	0.070	5.4	99	0.00
16	T	trans-1,2-Dichloroethene	0.581	0.534	8.1	91	0.00
17	T	Methyl tert-butyl ether (MT	1.760	1.806	-2.6	99	0.00
18	P	1,1-Dichloroethane	1.229	1.147	6.7	93	0.00
19	T	Diisopropyl ether (DIPE)	2.496	2.575	-3.2	97	0.00
20	T	cis-1,2-Dichloroethene	0.626	0.615	1.8	95	0.00
21	T	2,2-Dichloropropane	0.489	0.405	17.2	87	0.00
22	T	2-Butanone (MEK)	0.384	0.376	2.1	96	0.00
23	T	Bromochloromethane	0.288	0.284	1.4	97	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	81	0.00
25	C	Chloroform	1.054	1.008	4.4	95	0.00
26	T	1,1,1-Trichloroethane	0.804	0.728	9.5	89	0.00
27	T	Carbon tetrachloride	0.707	0.621	12.2	87	0.00
28	T	1,1-Dichloropropene	0.784	0.699	10.8	88	0.00
29	T	1,2-Dichloroethane (EDC)	0.891	0.872	2.1	98	0.00
30	S	1,2-Dichloroethane-d4	0.668	0.659	1.3	99	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	99	0.00
32	M	Benzene	1.447	1.389	4.0	94	0.00
33	M	Trichloroethene	0.346	0.324	6.4	92	0.00
34	C	1,2-Dichloropropane	0.420	0.412	1.9	96	0.00
35	T	Dibromomethane	0.212	0.212	0.0	99	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	98	0.00
37	T	Bromodichloromethane	0.458	0.475	-3.7	97	0.00
38	T	2-Chloroethyl vinyl ether	0.095	0.131	-37.9#	94	0.00
39	T	cis-1,3-Dichloropropene	0.524	0.574	-9.5	97	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.397	0.428	-7.8	97	0.00
41	S	Toluene-d8	1.241	1.235	0.5	98	0.00
42	MC	Toluene	0.890	0.829	6.9	94	0.00
43	T	trans-1,3-Dichloropropene	0.468	0.519	-10.9	98	0.00
44	T	1,1,2-Trichloroethane	0.265	0.261	1.5	97	0.00
45	T	Tetrachloroethene	0.307	0.273	11.1	89	0.00
46	T	1,3-Dichloropropane	0.539	0.544	-0.9	98	0.00
47	T	2-Hexanone	0.310	0.339	-9.4	96	0.00

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\07-29-15\
Data File : G5569.D
Acq On : 29 Jul 2015 11:56
Operator : Sylvia
Sample : ICV100,ICV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 29 14:56:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	T	Dibromochloromethane	0.305	0.329	-7.9	98	0.00
49	T	1,2-Dibromoethane (EDB)	0.294	0.305	-3.7	99	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
51	MP	Chlorobenzene	0.988	0.942	4.7	95	0.00
52	T	1,1,1,2-Tetrachloroethane	0.328	0.333	-1.5	96	0.00
53	C	Ethylbenzene	1.629	1.590	2.4	92	0.00
54	T	m,p-Xylene	0.625	0.613	1.9	92	0.00
55	T	o-Xylene	0.637	0.628	1.4	95	0.00
56	T	Styrene	1.042	1.093	-4.9	95	0.00
57	P	Bromoform	0.168	0.185	-10.1	99	0.00
58	T	Isopropylbenzene	1.475	1.511	-2.4	91	0.00
59	S	Bromofluorobenzene	0.568	0.569	-0.2	98	0.00
60	P	1,1,2,2-Tetrachloroethane	0.432	0.424	1.9	96	0.00
61	T	Bromobenzene	0.397	0.390	1.8	95	0.00
62	T	1,2,3-Trichloropropane	0.402	0.391	2.7	96	0.00
63	T	n-Propylbenzene	1.920	1.861	3.1	90	0.00
64	T	2-Chlorotoluene	1.221	1.195	2.1	93	0.00
65	T	1,3,5-Trimethylbenzene	1.324	1.335	-0.8	92	0.00
66	T	4-Chlorotoluene	1.221	1.195	2.1	93	0.00
67	T	tert-Butylbenzene	1.027	1.026	0.1	89	0.00
68	T	1,2,4-Trimethylbenzene	1.324	1.336	-0.9	92	0.00
69	T	sec-Butylbenzene	1.524	1.496	1.8	89	0.00
70	T	1,3-Dichlorobenzene	0.761	0.730	4.1	94	0.00
71	T	4-Isopropyltoluene	1.194	1.199	-0.4	90	0.00
72	T	1,4-Dichlorobenzene	0.759	0.728	4.1	94	0.00
73	T	n-Butylbenzene	1.124	1.127	-0.3	89	0.00
74	T	1,2-Dichlorobenzene	0.725	0.701	3.3	95	0.00
75	T	1,2-Dibromo-3-chloropropane	0.068	0.069	-1.5	96	0.00
76	T	1,2,4-Trichlorobenzene	0.394	0.407	-3.3	94	0.00
77	T	Hexachlorobutadiene	0.145	0.123	15.2	88	0.00
78	T	Naphthalene	0.959	1.048	-9.3	95	0.00
79	T	1,2,3-Trichlorobenzene	0.349	0.352	-0.9	96	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.238	0.205	13.9	86	0.00
81	T	Methyl acetate	0.394	0.396	-0.5	98	0.00
82	T	Cyclohexane	0.717	0.622	13.2	84	0.00
83	T	Methylcyclohexane	0.493	0.451	8.5	84	0.00
84		Pentane	0.000	0.000	0.0	148	-0.02

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

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\08-03-15\
Data File : G5594.D
Acq On : 3 Aug 2015 8:53
Operator : Sylvia
Sample : CCV100,CCV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 03 14:55:12 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	116	0.00
2	T	Dichlorodifluoromethane	0.601	0.596	0.8	113	0.00
3	P	Chloromethane	0.923	0.804	12.9	102	0.00
4	C	Vinyl chloride	0.739	0.666	9.9	105	0.00
5	T	Bromomethane	0.322	0.296	8.1	111	0.05
6	T	Chloroethane	0.376	0.381	-1.3	119	0.01
7	T	Trichlorofluoromethane	0.506	0.453	10.5	106	0.00
8	T	Acrolein	0.021	0.021	0.0	119	0.00
9	MC	1,1-Dichloroethene	0.426	0.468	-9.9	119	0.00
10	T	Acetone	0.339	0.351	-3.5	126	0.00
11	T	Carbon disulfide	1.241	1.263	-1.8	118	0.00
12	T	Vinyl acetate	1.905	1.936	-1.6	129	0.00
13	T	Methylene chloride	0.710	0.661	6.9	114	0.00
14	T	Acrylonitrile	0.293	0.387	-32.1#	153	0.00
15	T	tert-Butyl alcohol (TBA)	0.074	0.079	-6.8	130	0.00
16	T	trans-1,2-Dichloroethene	0.581	0.575	1.0	113	0.00
17	T	Methyl tert-butyl ether (MT	1.760	1.897	-7.8	120	0.00
18	P	1,1-Dichloroethane	1.229	1.221	0.7	115	0.00
19	T	Diisopropyl ether (DIPE)	2.496	2.628	-5.3	114	0.00
20	T	cis-1,2-Dichloroethene	0.626	0.652	-4.2	116	0.00
21	T	2,2-Dichloropropane	0.489	0.486	0.6	120	0.00
22	T	2-Butanone (MEK)	0.384	0.428	-11.5	127	0.00
23	T	Bromochloromethane	0.288	0.292	-1.4	116	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	110	0.00
25	C	Chloroform	1.054	1.056	-0.2	115	0.00
26	T	1,1,1-Trichloroethane	0.804	0.816	-1.5	116	0.00
27	T	Carbon tetrachloride	0.707	0.710	-0.4	115	0.00
28	T	1,1-Dichloropropene	0.784	0.793	-1.1	116	0.00
29	T	1,2-Dichloroethane (EDC)	0.891	0.887	0.4	115	0.00
30	S	1,2-Dichloroethane-d4	0.668	0.645	3.4	112	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
32	M	Benzene	1.447	1.513	-4.6	116	0.00
33	M	Trichloroethene	0.346	0.361	-4.3	116	0.00
34	C	1,2-Dichloropropane	0.420	0.437	-4.0	115	0.00
35	T	Dibromomethane	0.212	0.228	-7.5	120	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	109	0.00
37	T	Bromodichloromethane	0.458	0.490	-7.0	114	0.00
38	T	2-Chloroethyl vinyl ether	0.095	0.213	-124.2#	174	0.00
39	T	cis-1,3-Dichloropropene	0.524	0.616	-17.6	119	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.397	0.458	-15.4	118	0.00
41	S	Toluene-d8	1.241	1.243	-0.2	112	0.00
42	MC	Toluene	0.890	0.924	-3.8	118	0.00
43	T	trans-1,3-Dichloropropene	0.468	0.525	-12.2	113	0.00
44	T	1,1,2-Trichloroethane	0.265	0.286	-7.9	121	0.00
45	T	Tetrachloroethene	0.307	0.318	-3.6	118	0.00
46	T	1,3-Dichloropropane	0.539	0.593	-10.0	121	0.00
47	T	2-Hexanone	0.310	0.305	1.6	98	0.00
48	T	Dibromochloromethane	0.305	0.356	-16.7	121	0.00
49	T	1,2-Dibromoethane (EDB)	0.294	0.336	-14.3	123	0.00

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\08-03-15\
Data File : G5594.D
Acq On : 3 Aug 2015 8:53
Operator : Sylvia
Sample : CCV100,CCV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 03 14:55:12 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
51	MP	Chlorobenzene	0.988	0.993	-0.5	116	0.00
52	T	1,1,1,2-Tetrachloroethane	0.328	0.344	-4.9	115	0.00
53	C	Ethylbenzene	1.629	1.772	-8.8	119	0.00
54	T	m,p-Xylene	0.625	0.665	-6.4	116	0.00
55	T	o-Xylene	0.637	0.663	-4.1	116	0.00
56	T	Styrene	1.042	1.157	-11.0	117	0.00
57	P	Bromoform	0.168	0.162	3.6	101	0.00
58	T	Isopropylbenzene	1.475	1.664	-12.8	116	0.00
59	S	Bromofluorobenzene	0.568	0.568	0.0	113	0.00
60	P	1,1,2,2-Tetrachloroethane	0.432	0.463	-7.2	122	0.00
61	T	Bromobenzene	0.397	0.406	-2.3	115	0.00
62	T	1,2,3-Trichloropropane	0.402	0.420	-4.5	120	0.00
63	T	n-Propylbenzene	1.920	2.049	-6.7	115	0.00
64	T	2-Chlorotoluene	1.221	1.267	-3.8	115	0.00
65	T	1,3,5-Trimethylbenzene	1.324	1.431	-8.1	115	0.00
66	T	4-Chlorotoluene	1.221	1.267	-3.8	115	0.00
67	T	tert-Butylbenzene	1.027	1.139	-10.9	114	0.00
68	T	1,2,4-Trimethylbenzene	1.324	1.421	-7.3	113	0.00
69	T	sec-Butylbenzene	1.524	1.661	-9.0	114	0.00
70	T	1,3-Dichlorobenzene	0.761	0.758	0.4	113	0.00
71	T	4-Isopropyltoluene	1.194	1.314	-10.1	114	0.00
72	T	1,4-Dichlorobenzene	0.759	0.761	-0.3	114	0.00
73	T	n-Butylbenzene	1.124	1.250	-11.2	114	0.00
74	T	1,2-Dichlorobenzene	0.725	0.721	0.6	114	0.00
75	T	1,2-Dibromo-3-chloropropane	0.068	0.079	-16.2	126	0.00
76	T	1,2,4-Trichlorobenzene	0.394	0.435	-10.4	117	0.00
77	T	Hexachlorobutadiene	0.145	0.142	2.1	118	0.00
78	T	Naphthalene	0.959	1.174	-22.4#	124	0.00
79	T	1,2,3-Trichlorobenzene	0.349	0.378	-8.3	120	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.238	0.243	-2.1	119	0.00
81	T	Methyl acetate	0.394	0.418	-6.1	121	0.00
82	T	Cyclohexane	0.717	0.730	-1.8	114	0.00
83	T	Methylcyclohexane	0.493	0.548	-11.2	118	0.00
84		Pentane	0.000	0.000	0.0	139	0.03

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

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\08-06-15\
Data File : G5820.D
Acq On : 6 Aug 2015 12:05
Operator : Sylvia
Sample : CCV100,CCV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 06 15:55:12 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	104	0.00
2	T	Dichlorodifluoromethane	0.601	0.488	18.8	83	0.00
3	P	Chloromethane	0.923	0.782	15.3	89	0.00
4	C	Vinyl chloride	0.739	0.648	12.3	92	0.00
5	T	Bromomethane	0.322	0.295	8.4	100	0.05
6	T	Chloroethane	0.376	0.355	5.6	100	0.00
7	T	Trichlorofluoromethane	0.506	0.412	18.6	87	0.00
8	T	Acrolein	0.021	0.012	42.9#	60	0.00
9	MC	1,1-Dichloroethene	0.426	0.437	-2.6	100	0.00
10	T	Acetone	0.339	0.358	-5.6	115	0.00
11	T	Carbon disulfide	1.241	1.199	3.4	100	0.01
12	T	Vinyl acetate	1.905	2.202	-15.6	132	0.00
13	T	Methylene chloride	0.710	0.636	10.4	98	0.01
14	T	Acrylonitrile	0.293	0.277	5.5	98	0.00
15	T	tert-Butyl alcohol (TBA)	0.074	0.072	2.7	105	0.00
16	T	trans-1,2-Dichloroethene	0.581	0.546	6.0	97	0.01
17	T	Methyl tert-butyl ether (MT	1.760	1.871	-6.3	107	0.00
18	P	1,1-Dichloroethane	1.229	1.178	4.1	100	0.00
19	T	Diisopropyl ether (DIPE)	2.496	2.689	-7.7	105	0.00
20	T	cis-1,2-Dichloroethene	0.626	0.627	-0.2	100	0.00
21	T	2,2-Dichloropropane	0.489	0.485	0.8	108	0.00
22	T	2-Butanone (MEK)	0.384	0.416	-8.3	111	0.00
23	T	Bromochloromethane	0.288	0.287	0.3	102	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	90	0.00
25	C	Chloroform	1.054	1.056	-0.2	103	0.00
26	T	1,1,1-Trichloroethane	0.804	0.802	0.2	102	0.00
27	T	Carbon tetrachloride	0.707	0.687	2.8	100	0.00
28	T	1,1-Dichloropropene	0.784	0.757	3.4	99	0.00
29	T	1,2-Dichloroethane (EDC)	0.891	0.962	-8.0	112	0.00
30	S	1,2-Dichloroethane-d4	0.668	0.710	-6.3	111	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	104	0.00
32	M	Benzene	1.447	1.415	2.2	100	0.00
33	M	Trichloroethene	0.346	0.338	2.3	100	0.00
34	C	1,2-Dichloropropane	0.420	0.418	0.5	102	0.00
35	T	Dibromomethane	0.212	0.221	-4.2	107	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	105	0.00
37	T	Bromodichloromethane	0.458	0.495	-8.1	106	0.00
38	T	2-Chloroethyl vinyl ether	0.095	0.147	-54.7#	110	0.00
39	T	cis-1,3-Dichloropropene	0.524	0.604	-15.3	107	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.397	0.467	-17.6	110	0.00
41	S	Toluene-d8	1.241	1.250	-0.7	104	0.00
42	MC	Toluene	0.890	0.871	2.1	103	0.00
43	T	trans-1,3-Dichloropropene	0.468	0.557	-19.0	110	0.00
44	T	1,1,2-Trichloroethane	0.265	0.270	-1.9	106	0.00
45	T	Tetrachloroethene	0.307	0.288	6.2	99	0.00
46	T	1,3-Dichloropropane	0.539	0.570	-5.8	107	0.00
47	T	2-Hexanone	0.310	0.340	-9.7	100	0.00
48	T	Dibromochloromethane	0.305	0.345	-13.1	108	0.00
49	T	1,2-Dibromoethane (EDB)	0.294	0.314	-6.8	106	0.00

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\08-06-15\
Data File : G5820.D
Acq On : 6 Aug 2015 12:05
Operator : Sylvia
Sample : CCV100,CCV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 06 15:55:12 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	I	Chlorobenzene-d5	1.000	1.000	0.0	105	0.00
51	MP	Chlorobenzene	0.988	0.943	4.6	102	0.00
52	T	1,1,1,2-Tetrachloroethane	0.328	0.333	-1.5	104	0.00
53	C	Ethylbenzene	1.629	1.639	-0.6	102	0.00
54	T	m,p-Xylene	0.625	0.628	-0.5	102	0.00
55	T	o-Xylene	0.637	0.636	0.2	103	0.00
56	T	Styrene	1.042	1.114	-6.9	104	0.00
57	P	Bromoform	0.168	0.196	-16.7	113	0.00
58	T	Isopropylbenzene	1.475	1.543	-4.6	100	0.00
59	S	Bromofluorobenzene	0.568	0.566	0.4	104	0.00
60	P	1,1,2,2-Tetrachloroethane	0.432	0.425	1.6	104	0.00
61	T	Bromobenzene	0.397	0.385	3.0	101	0.00
62	T	1,2,3-Trichloropropane	0.402	0.399	0.7	106	0.00
63	T	n-Propylbenzene	1.920	1.895	1.3	99	0.00
64	T	2-Chlorotoluene	1.221	1.204	1.4	101	0.00
65	T	1,3,5-Trimethylbenzene	1.324	1.347	-1.7	100	0.00
66	T	4-Chlorotoluene	1.221	1.204	1.4	101	0.00
67	T	tert-Butylbenzene	1.027	1.047	-1.9	97	0.00
68	T	1,2,4-Trimethylbenzene	1.324	1.349	-1.9	99	0.00
69	T	sec-Butylbenzene	1.524	1.520	0.3	97	0.00
70	T	1,3-Dichlorobenzene	0.761	0.720	5.4	100	0.00
71	T	4-Isopropyltoluene	1.194	1.211	-1.4	97	0.00
72	T	1,4-Dichlorobenzene	0.759	0.718	5.4	100	0.00
73	T	n-Butylbenzene	1.124	1.167	-3.8	99	0.00
74	T	1,2-Dichlorobenzene	0.725	0.695	4.1	101	0.00
75	T	1,2-Dibromo-3-chloropropane	0.068	0.072	-5.9	107	0.00
76	T	1,2,4-Trichlorobenzene	0.394	0.393	0.3	98	0.00
77	T	Hexachlorobutadiene	0.145	0.121	16.6	94	0.00
78	T	Naphthalene	0.959	0.976	-1.8	95	0.00
79	T	1,2,3-Trichlorobenzene	0.349	0.320	8.3	94	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.238	0.208	12.6	94	0.00
81	T	Methyl acetate	0.394	0.385	2.3	103	0.00
82	T	Cyclohexane	0.717	0.617	13.9	89	0.00
83	T	Methylcyclohexane	0.493	0.456	7.5	91	0.00
84		Pentane	0.000	0.000	0.0	55	0.00

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G5565.D

Date Analyzed: 07/29/2015

Instrument ID: MSD_G

Time Analyzed: 10:04

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	368728	6.21	623921	7.02	608460	10.37
	UPPER LIMIT	737456	6.71	1247842	7.52	1216920	10.87
	LOWER LIMIT	184364	5.71	311960.5	6.52	304230	9.87
	LAB SAMPLE ID						
01	ICC001	368999	6.21	623990	7.03	601377	10.37
02	ICC002	363236	6.21	617735	7.03	607097	10.37
03	ICC005	364625	6.21	615390	7.03	599857	10.37
04	ICC020	374804	6.20	630166	7.02	614461	10.37
05	ICC150	370241	6.20	623603	7.03	600404	10.37
06	ICC200	391111	6.20	654034	7.02	628040	10.37
07	ICV100	369471	6.21	618591	7.02	596224	10.37
08	BLKA150729a	348852	6.21	605474	7.03	598109	10.37
09	06264-1DL	360876	6.21	627658	7.03	604671	10.37
10	06264-2DL	365453	6.21	628236	7.03	616111	10.37
11	06454-7DL	347936	6.21	597943	7.03	587690	10.37
12	06454-8DL	363280	6.21	627076	7.03	619115	10.37
13	06487-001	343533	6.21	604805	7.03	585680	10.37
14	06487-002	348628	6.21	599031	7.03	605095	10.37
15	06487-003	341375	6.21	608237	7.03	591026	10.37
16	06487-004	350334	6.21	616814	7.03	596508	10.37
17	06487-005	340220	6.21	600250	7.03	580555	10.37
18	LCSA150729a	367091	6.21	613692	7.03	597997	10.37
19	6487-003MS	368860	6.21	620219	7.02	600179	10.37
20	6487-003MSD	359702	6.21	593183	7.03	591086	10.37
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G5694.D

Date Analyzed: 08/03/2015

Instrument ID: MSD_G

Time Analyzed: 8:53

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	427171	6.20	702013	7.02	691353	10.37
	UPPER LIMIT	854342	6.70	1404026	7.52	1382706	10.87
	LOWER LIMIT	213585.5	5.70	351006.5	6.52	345676.5	9.87
	LAB SAMPLE ID						
01	BLKA150803a	419587	6.21	723750	7.03	702541	10.37
02	06527-009	337674	6.21	578980	7.03	577974	10.37
03	06527-010	399257	6.21	691675	7.03	679294	10.37
04	06527-001	404864	6.21	691530	7.03	685798	10.37
05	06527-002	404101	6.21	687904	7.03	682781	10.37
06	06527-003	381559	6.21	663768	7.03	647169	10.37
07	06527-004	398141	6.21	688063	7.03	674882	10.37
08	06527-005	294641	6.21	521892	7.03	511202	10.37
09	06527-006	384979	6.21	646083	7.03	638058	10.37
10	06527-007	390271	6.21	663544	7.03	665604	10.37
11	06527-008	357586	6.21	608127	7.03	590899	10.37
12	06541-016	375775	6.21	642577	7.03	622512	10.37
13	06541-017	385227	6.21	660101	7.03	648569	10.37
14	06541-001	377246	6.21	656244	7.03	646679	10.37
15	06541-002	389853	6.21	665132	7.03	660567	10.37
16	06541-003	390335	6.21	672736	7.03	655893	10.37
17	06447-2DL	268576	6.21	479896	7.03	473196	10.37
18	06447-005	368103	6.21	644619	7.03	623123	10.37
19	LCSA150803a	401954	6.21	675880	7.03	661915	10.37
20	6527-001MS	397100	6.21	665774	7.03	654175	10.37
21	6527-001MSD	397146	6.21	665891	7.03	651038	10.37
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G5820.D

Date Analyzed: 08/06/2015

Instrument ID: MSD_G

Time Analyzed: 12:05

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	383951	6.21	647134	7.03	640737	10.37
	UPPER LIMIT	767902	6.71	1294268	7.53	1281474	10.87
	LOWER LIMIT	191975.5	5.71	323567	6.53	320368.5	9.87
	LAB SAMPLE ID						
01	BLKA150806a	369161	6.21	633399	7.03	622737	10.37
02	06701-006	361454	6.21	624070	7.03	621152	10.37
03	06642-011	368804	6.20	633396	7.03	626096	10.37
04	06526-006	360771	6.21	625590	7.03	620149	10.37
05	06526-007	363262	6.21	629022	7.03	622529	10.37
06	06541-3DL	366070	6.21	630735	7.03	632710	10.37
07	06541-005	378377	6.21	632582	7.03	616511	10.37
08	06541-006	363867	6.21	619353	7.03	614458	10.37
09	06541-007	352959	6.21	602836	7.03	599981	10.37
10	06541-008	376736	6.21	632460	7.03	620352	10.37
11	06541-009	371264	6.21	638208	7.03	625078	10.37
12	06541-010	359614	6.21	619933	7.03	612370	10.37
13	06541-011	370500	6.21	634712	7.03	627529	10.37
14	06541-012	359904	6.21	621191	7.03	608174	10.37
15	06541-013	374814	6.21	639060	7.03	628181	10.37
16	06541-014	380752	6.21	642515	7.03	629251	10.37
17	06541-015	361513	6.21	623789	7.03	613821	10.37
18	06541-004	379447	6.21	650287	7.03	630522	10.37
19	06745-011	372066	6.21	645144	7.03	638362	10.37
20	LCSA150806a	370419	6.21	628008	7.03	618552	10.37
21	6541-007MS	377485	6.21	641859	7.03	630280	10.37
22	6541-007MSD	387149	6.21	645335	7.03	637365	10.37

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5709.D
Acq On : 3 Aug 2015 16:07
Operator : Sylvia
Sample : MW-5S,06541-001,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 04 08:38:22 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

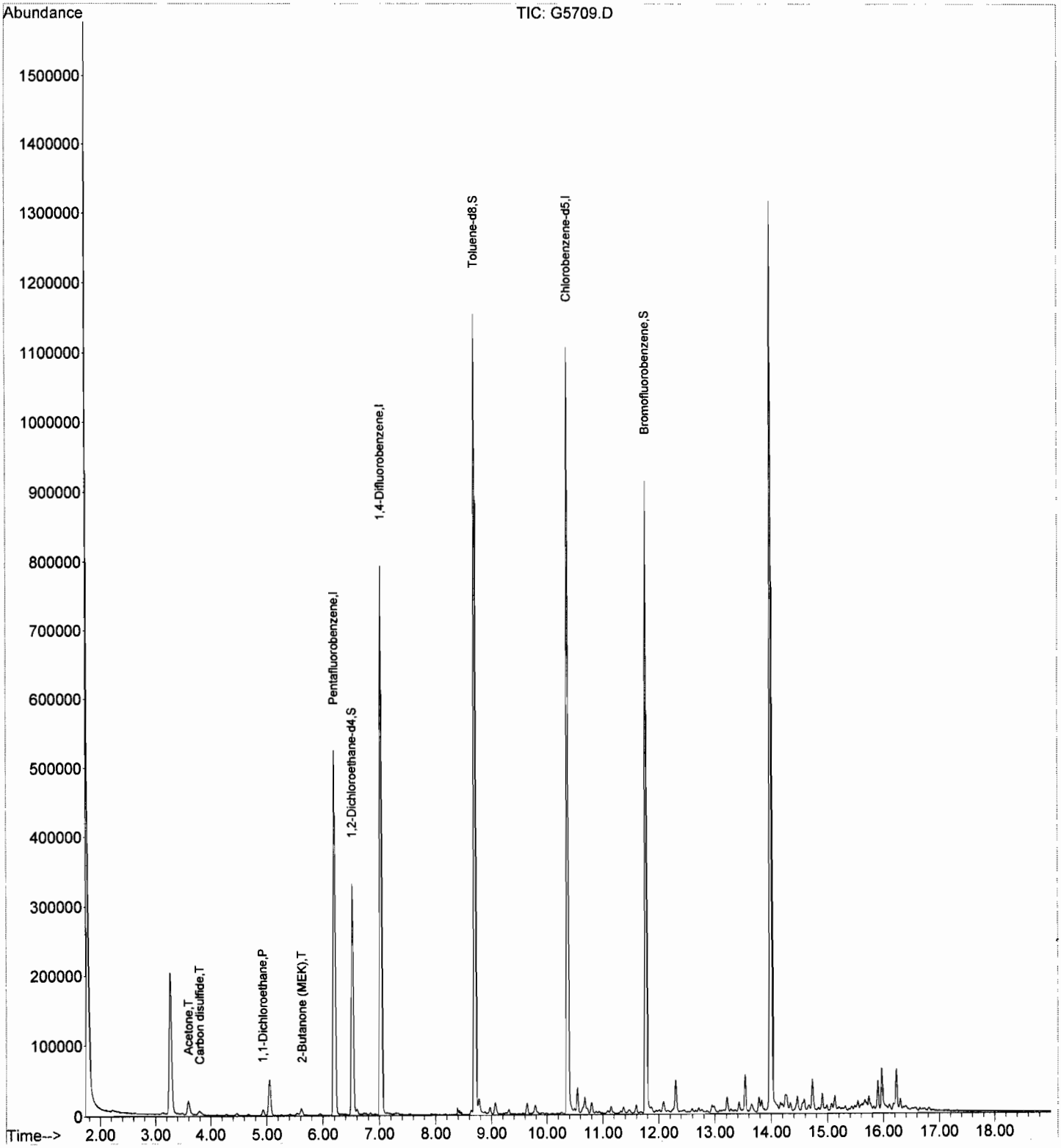
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	377246	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	656244	50.00	UG		0.00
50) Chlorobenzene-d5	10.37	117	646679	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.52	65	256866	50.95	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 101.90%				
41) Toluene-d8	8.70	98	807456	49.59	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%				
59) Bromofluorobenzene	11.77	95	357433	48.67	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.34%				
Target Compounds							Qvalue
10) Acetone	3.59	43	39211	15.34	UG		99
11) Carbon disulfide	3.80	76	11000	1.17	UG		100
18) 1,1-Dichloroethane	4.93	63	10473	1.13	UG		100
22) 2-Butanone (MEK)	5.63	43	9822	3.39	UG	#	86

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5709.D
Acq On : 3 Aug 2015 16:07
Operator : Sylvia
Sample : MW-5S,06541-001,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 04 08:38:22 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5709.D
Acq On : 3 Aug 2015 16:07
Operator : Sylvia
Sample : MW-5S,06541-001,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.216	90	93	138	rVB4	4145	26788	1.03%	0.186%
2	3.262	280	293	317	rBV	200807	604531	23.25%	4.192%
3	3.592	345	356	385	rVV2	18918	66670	2.56%	0.462%
4	3.796	385	395	422	rVB4	6291	31345	1.21%	0.217%
5	5.051	623	635	654	rVB	50520	136297	5.24%	0.945%
6	6.202	842	855	876	rBV	524201	1172632	45.10%	8.132%
7	6.521	902	916	928	rBV	330182	746063	28.69%	5.174%
8	7.028	1000	1013	1029	rBV	791625	1621307	62.35%	11.243%
9	8.702	1324	1333	1343	rVV	1152493	2213329	85.12%	15.349%
10	8.775	1343	1347	1362	rVB2	19962	46046	1.77%	0.319%
11	9.063	1393	1402	1415	rVB3	16148	39439	1.52%	0.273%
12	9.638	1503	1512	1521	rBV4	15585	34527	1.33%	0.239%
13	9.784	1528	1540	1555	rVB5	11986	34015	1.31%	0.236%
14	10.370	1639	1652	1670	rBV	1105071	2127861	81.84%	14.756%
15	10.543	1678	1685	1695	rVB	35154	66239	2.55%	0.459%
16	10.679	1695	1711	1725	rVB4	23282	76424	2.94%	0.530%
17	10.794	1725	1733	1744	rBV2	15041	33836	1.30%	0.235%
18	11.149	1795	1801	1816	rVB2	10425	26641	1.02%	0.185%
19	11.772	1910	1920	1935	rBV	912406	1692915	65.11%	11.740%
20	12.086	1971	1980	1990	rBV6	14092	34615	1.33%	0.240%
21	12.300	2005	2021	2034	rBV4	45451	105214	4.05%	0.730%
22	13.210	2188	2195	2203	rVB5	19787	40615	1.56%	0.282%
23	13.425	2229	2236	2246	rBV	12933	26830	1.03%	0.186%
24	13.534	2246	2257	2270	rVB	51210	95916	3.69%	0.665%
25	13.644	2270	2278	2296	rVB7	11664	39876	1.53%	0.277%
26	13.780	2296	2304	2308	rBV3	21145	40420	1.55%	0.280%
27	13.827	2309	2313	2327	rVB5	13727	27515	1.06%	0.191%
28	13.989	2327	2344	2372	rBV	1311435	2600125	100.00%	18.031%
29	14.251	2388	2394	2405	rVV4	18935	57904	2.23%	0.402%
30	14.460	2419	2434	2444	rBV2	20407	52011	2.00%	0.361%
31	14.727	2478	2485	2500	rVB3	43009	86525	3.33%	0.600%
32	14.900	2512	2518	2526	rBV3	21991	38927	1.50%	0.270%
33	15.124	2556	2561	2568	rVB3	19038	33741	1.30%	0.234%
34	15.736	2673	2678	2691	rVB8	18165	43469	1.67%	0.301%
35	15.898	2699	2709	2715	rBV3	40400	72907	2.80%	0.506%
36	15.966	2715	2722	2743	rVV4	57064	118543	4.56%	0.822%
37	16.228	2765	2772	2780	rVV3	56018	108121	4.16%	0.750%

LSC Area Percent Report

```
Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5709.D
Acq On    :  3 Aug 2015  16:07
Operator  : Sylvia
Sample    : MW-5S,06541-001,A,5mL,100
Misc      : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial  : 15   Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON                              Filtering: 5
Sampling  : 1                                Min Area: 1 % of largest Peak
Start Thrs: 0.1                             Max Peaks: 100
Stop Thrs : 0.1                          Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method    : C:\MSDCHEM\1\METHODS\G8072915.M
Title     : VOLATILE ORGANICS BY EPA METHOD 8260C
```

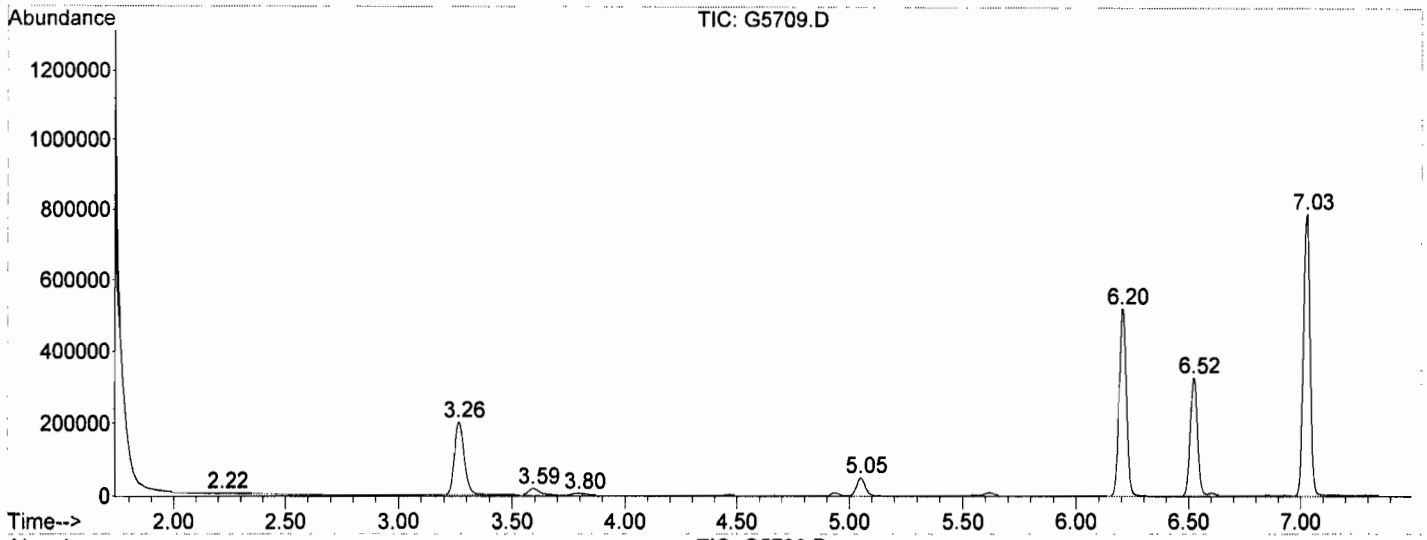
Sum of corrected areas: 14420179

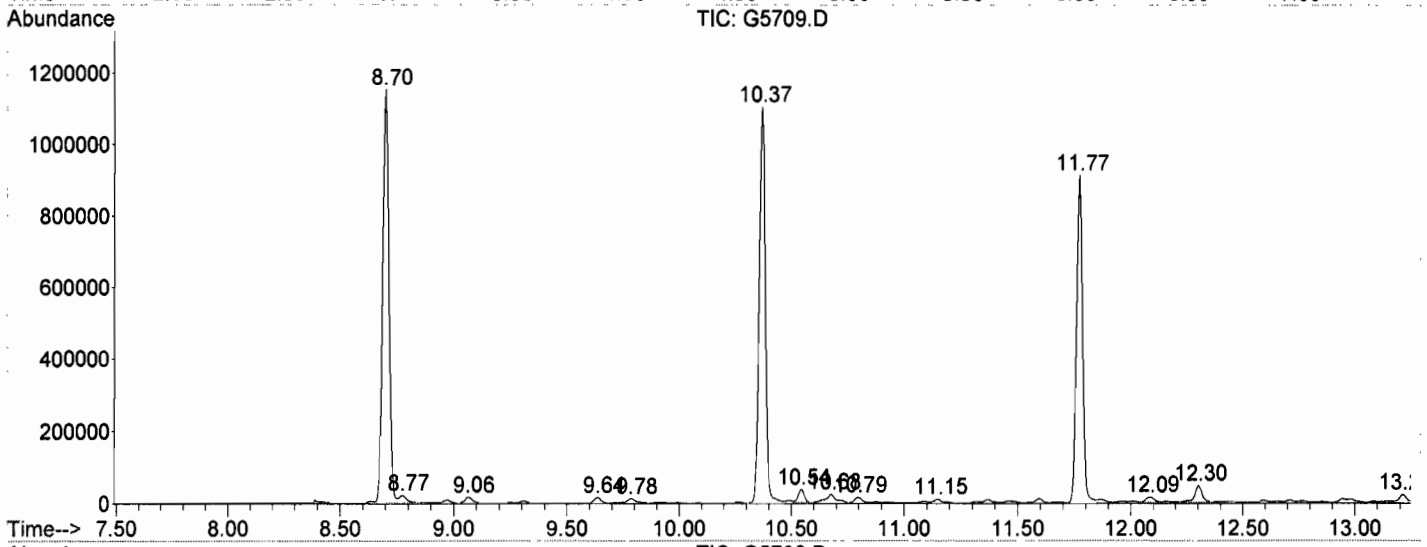
LSC Report - Integrated Chromatogram

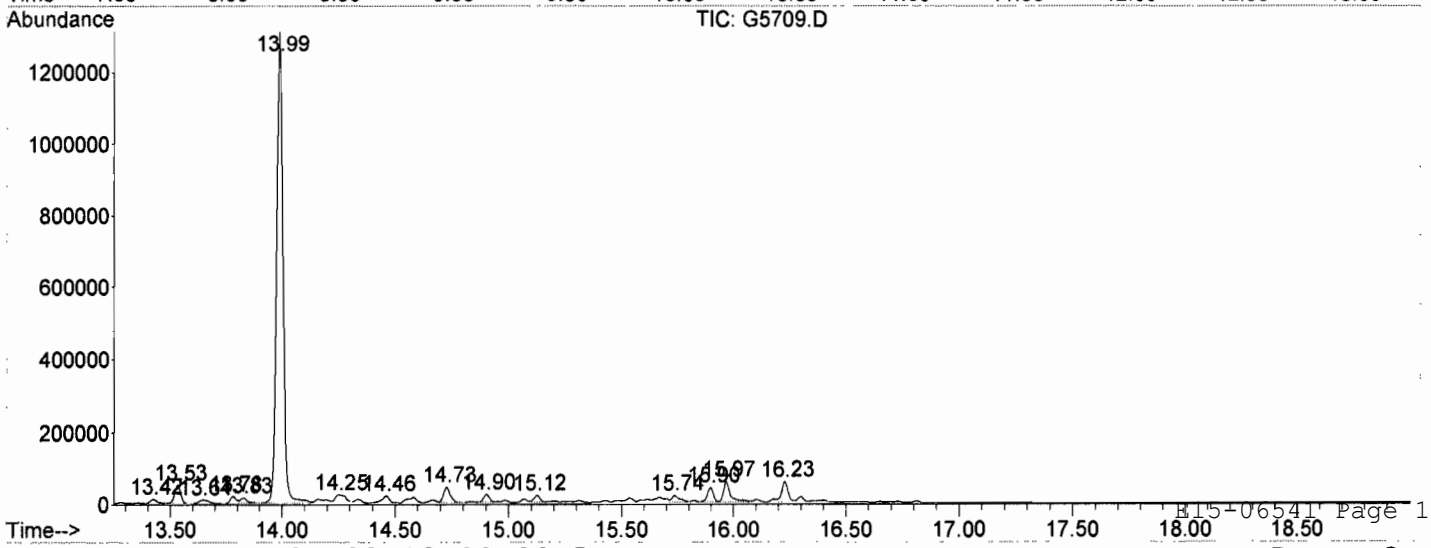
Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5709.D
Acq On : 3 Aug 2015 16:07
Operator : Sylvia
Sample : MW-5S,06541-001,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5709.D
Acq On : 3 Aug 2015 16:07
Operator : Sylvia
Sample : MW-5S,06541-001,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 15 Sample Multiplier: 1

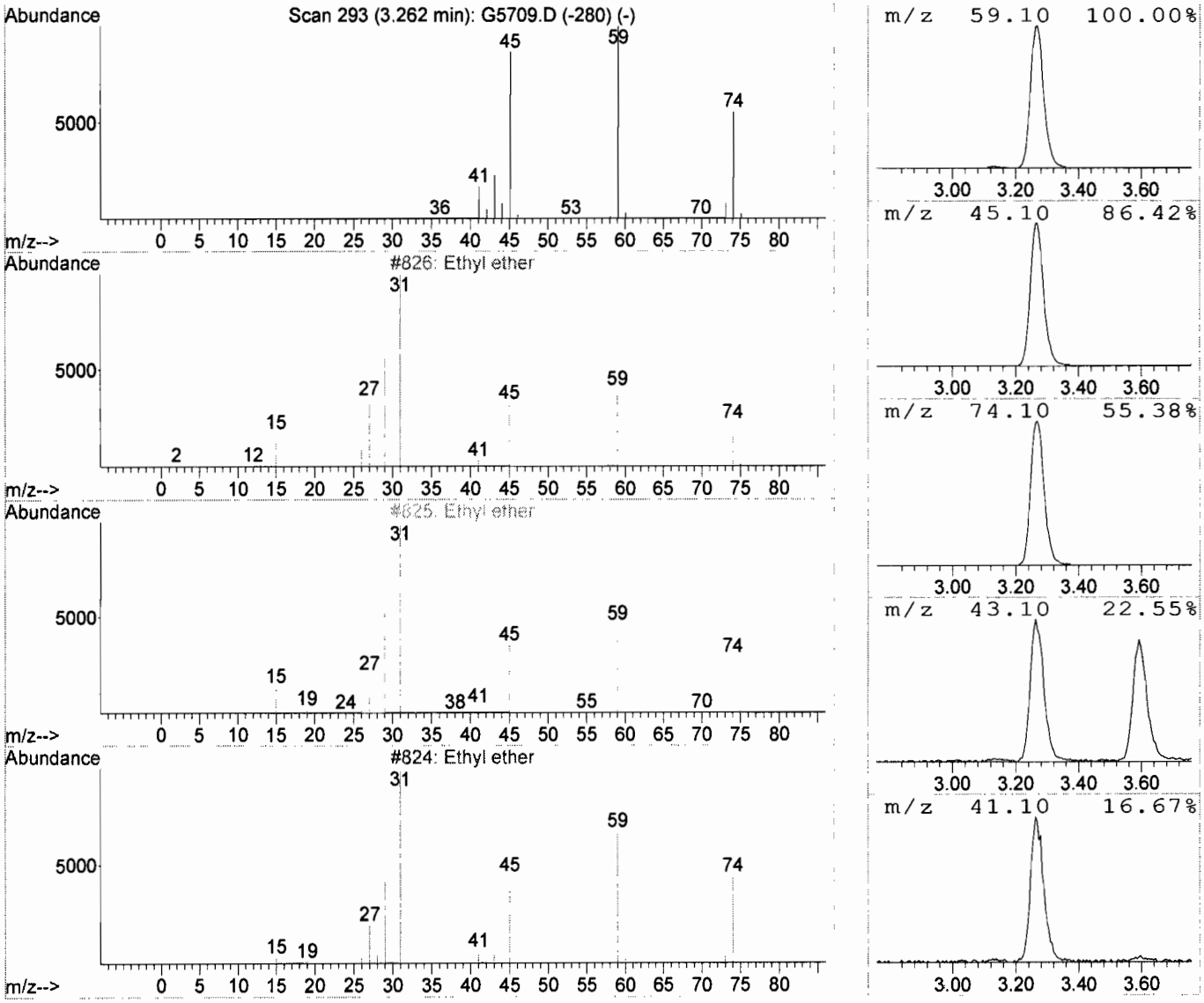
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Ethyl ether Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.26	25.78 UG	604531	Pentafluorobenzene	6.21

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethyl ether	74	C4H10O	000060-29-7	90
2	Ethyl ether	74	C4H10O	000060-29-7	90
3	Ethyl ether	74	C4H10O	000060-29-7	59
4	Hydrazine, trimethyl-	74	C3H10N2	001741-01-1	47
5	Ethane, 1,2-diethoxy-	118	C6H14O2	000629-14-1	43



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5709.D
Acq On : 3 Aug 2015 16:07
Operator : Sylvia
Sample : MW-5S,06541-001,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

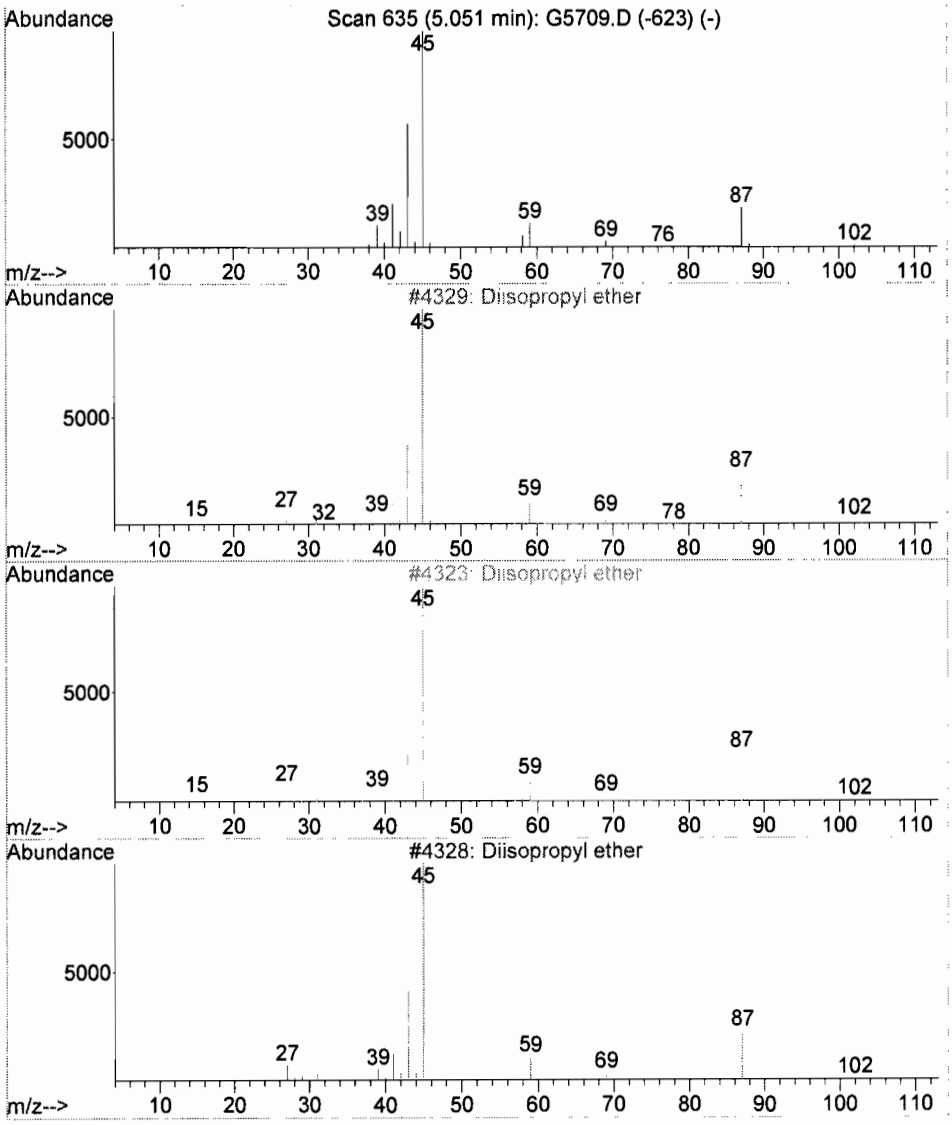
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

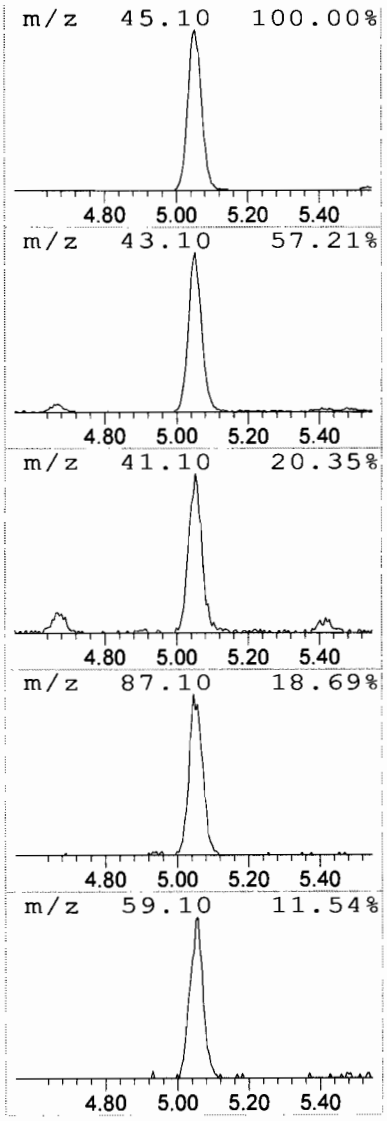
****

Peak Number 2 Unknown VOA Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.05	5.81 UG	136297	Pentafluorobenzene	6.21

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	80
2	Diisopropyl ether	102	C6H14O	000108-20-3	78
3	Diisopropyl ether	102	C6H14O	000108-20-3	64
4	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	59
5	2-Propanone, 1-methoxy-	88	C4H8O2	005878-19-3	59





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5709.D
Acq On : 3 Aug 2015 16:07
Operator : Sylvia
Sample : MW-5S,06541-001,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 15 Sample Multiplier: 1

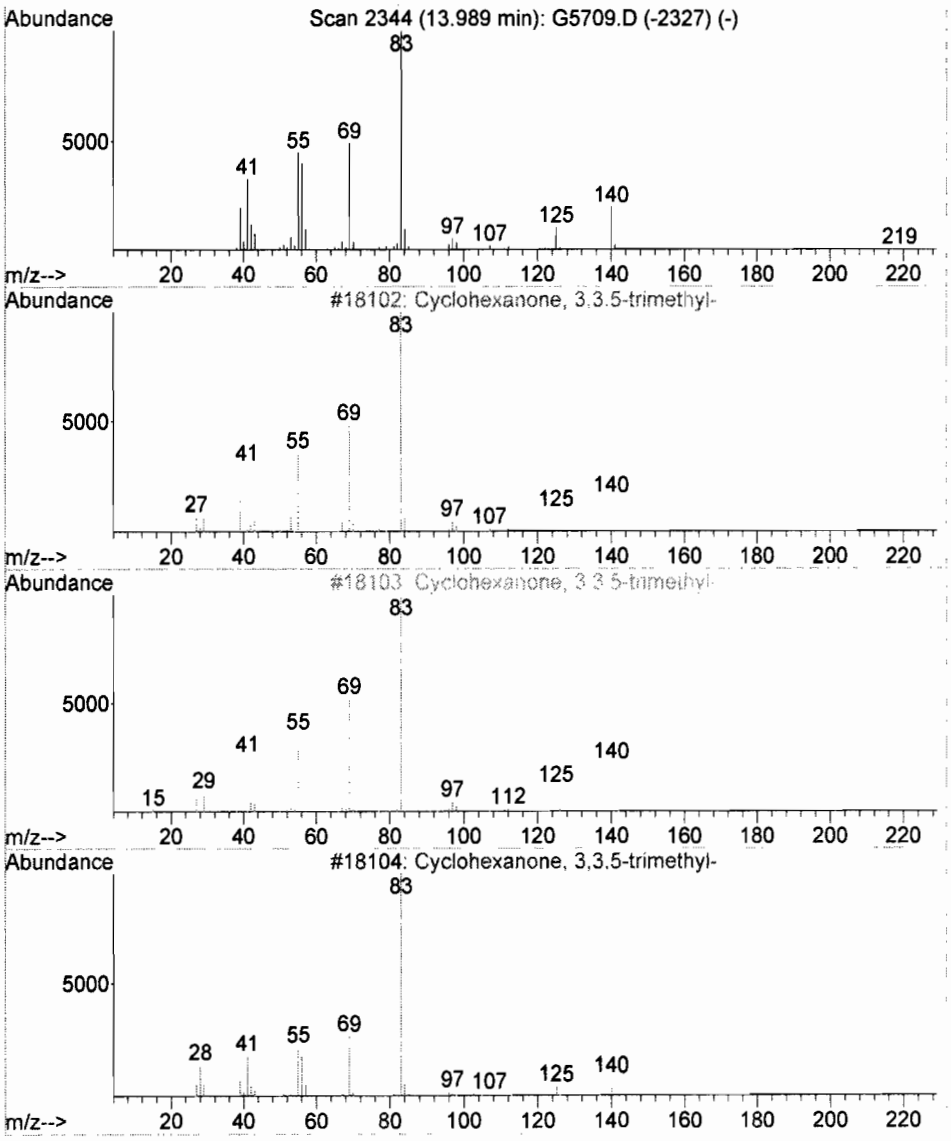
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

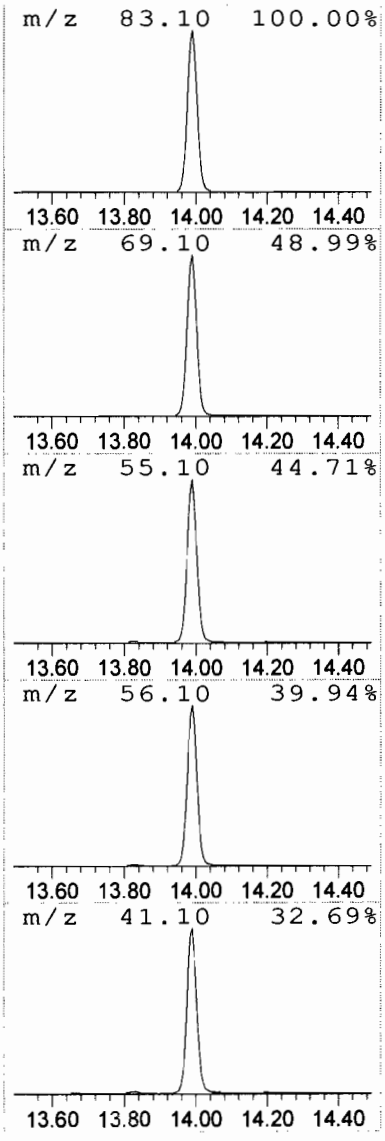
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 Cyclohexanone, 3,3,5-trimet... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.99	61.10 UG	2600130	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	95
2	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	95
3	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	91
4	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	91
5	Imidazole, 2-acetamido-	125	C5H7N3O	052737-49-2	58





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 04 10:22:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

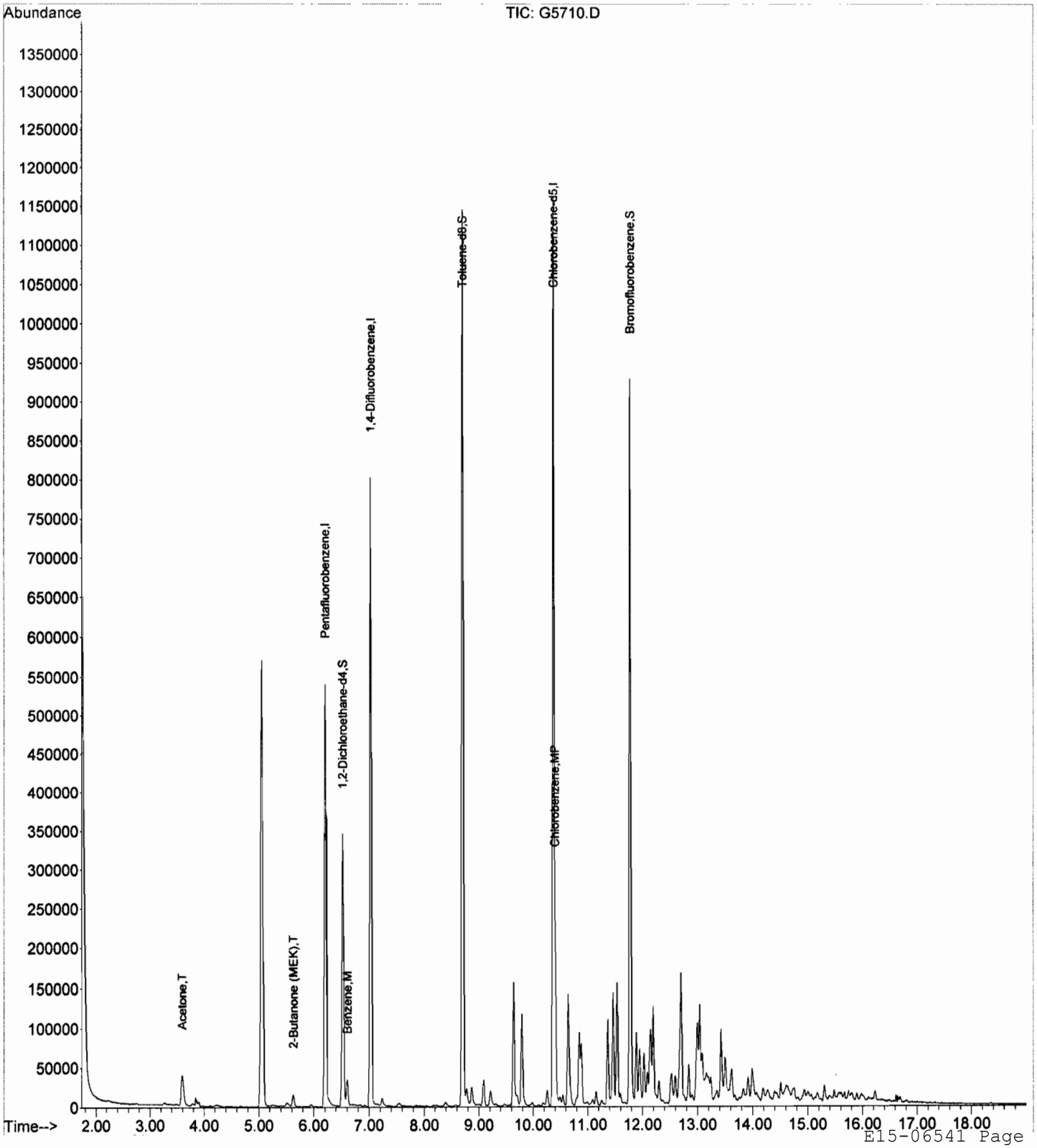
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	389853	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	665132	50.00	UG		0.00
50) Chlorobenzene-d5	10.37	117	660567	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.52	65	262811	50.44	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 100.88%				
41) Toluene-d8	8.70	98	814927	49.38	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.76%				
59) Bromofluorobenzene	11.77	95	369025	49.19	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 98.38%				
Target Compounds							Qvalue
10) Acetone	3.59	43	79424	30.06	UG		99
22) 2-Butanone (MEK)	5.63	43	24479	8.17	UG	#	95
32) Benzene	6.60	78	29865	1.55	UG		100
51) Chlorobenzene	10.40	112	102024	7.82	UG	#	73

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 04 10:22:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.592	345	356	385	rVB	38328	128393	5.09%	0.692%
2	5.051	622	635	658	rBV	570339	1507057	59.70%	8.117%
3	5.626	736	745	758	rVB	15233	39765	1.58%	0.214%
4	6.207	841	856	895	rBV	539467	1244213	49.29%	6.701%
5	6.521	904	916	926	rBV	345051	771934	30.58%	4.158%
6	6.604	926	932	942	rVB	32539	71926	2.85%	0.387%
7	7.028	1001	1013	1044	rBV	801530	1653709	65.51%	8.907%
8	7.237	1044	1053	1068	rVB2	9732	26634	1.06%	0.143%
9	8.697	1316	1332	1342	rBV	1144707	2252130	89.21%	12.130%
10	8.775	1343	1347	1357	rVV2	22121	52017	2.06%	0.280%
11	8.869	1357	1365	1380	rVB2	22986	59838	2.37%	0.322%
12	9.089	1397	1407	1418	rVB4	32344	72799	2.88%	0.392%
13	9.209	1418	1430	1444	rBV5	18593	51288	2.03%	0.276%
14	9.633	1502	1511	1531	rBV3	155063	367742	14.57%	1.981%
15	9.784	1531	1540	1564	rVV2	116306	268647	10.64%	1.447%
16	10.260	1623	1631	1640	rVB4	19685	42814	1.70%	0.231%
17	10.370	1640	1652	1671	rBV2	1160772	2524475	100.00%	13.596%
18	10.543	1680	1685	1694	rVB3	12856	27249	1.08%	0.147%
19	10.642	1694	1704	1724	rBV2	140304	334009	13.23%	1.799%
20	10.841	1724	1742	1746	rBV2	92188	211061	8.36%	1.137%
21	10.883	1746	1750	1761	rVB3	76055	151751	6.01%	0.817%
22	11.155	1795	1802	1813	rVB3	17494	40800	1.62%	0.220%
23	11.364	1833	1842	1852	rBV	107545	216872	8.59%	1.168%
24	11.463	1852	1861	1868	rVV	139405	288882	11.44%	1.556%
25	11.531	1868	1874	1883	rVV	151624	311417	12.34%	1.677%
26	11.772	1909	1920	1935	rBV	925174	1785999	70.75%	9.619%
27	11.887	1935	1942	1948	rVV	89705	182706	7.24%	0.984%
28	11.950	1948	1954	1962	rVV3	67665	160320	6.35%	0.863%
29	12.028	1962	1969	1975	rVV	62296	135141	5.35%	0.728%
30	12.091	1975	1981	1985	rVV3	37836	86571	3.43%	0.466%
31	12.143	1985	1991	1996	rVV5	91834	229475	9.09%	1.236%
32	12.196	1996	2001	2015	rVV2	120756	251906	9.98%	1.357%
33	12.300	2015	2021	2030	rVB7	25938	56048	2.22%	0.302%
34	12.530	2054	2065	2072	rBV5	38034	109775	4.35%	0.591%
35	12.593	2072	2077	2084	rVV5	34723	79216	3.14%	0.427%
36	12.698	2084	2097	2115	rVV3	164004	460881	18.26%	2.482%
37	12.839	2115	2124	2132	rVV3	48631	109303	4.33%	0.589%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

38	12.996	2143	2154	2158	rVV5	100787	263509	10.44%	1.419%
39	13.038	2158	2162	2168	rVV2	123181	267830	10.61%	1.442%
40	13.079	2168	2170	2181	rVV9	61322	166319	6.59%	0.896%
41	13.158	2181	2185	2197	rVV9	36824	156102	6.18%	0.841%
42	13.236	2197	2200	2209	rVV2	31283	63447	2.51%	0.342%
43	13.346	2209	2221	2228	rVV5	14180	49254	1.95%	0.265%
44	13.425	2228	2236	2244	rVV	91472	207252	8.21%	1.116%
45	13.498	2244	2250	2264	rVV6	54479	177922	7.05%	0.958%
46	13.613	2264	2272	2280	rVV4	40060	118773	4.70%	0.640%
47	13.838	2303	2315	2323	rBV7	12141	34967	1.39%	0.188%
48	13.916	2323	2330	2337	rVV8	26924	59470	2.36%	0.320%
49	13.990	2337	2344	2356	rVV3	37705	105609	4.18%	0.569%
50	14.063	2356	2358	2374	rVB3	10783	30432	1.21%	0.164%
51	14.194	2374	2383	2390	rBV7	15996	44858	1.78%	0.242%
52	14.272	2390	2398	2414	rVB7	12481	45330	1.80%	0.244%
53	14.398	2414	2422	2438	rBV7	11145	44607	1.77%	0.240%
54	14.507	2438	2443	2452	rBV2	20578	42750	1.69%	0.230%
55	14.612	2452	2463	2480	rVV2	17039	91588	3.63%	0.493%
56	14.753	2480	2490	2500	rVB2	13784	42015	1.66%	0.226%
57	14.936	2513	2525	2531	rBV5	12611	36603	1.45%	0.197%
58	15.172	2564	2570	2588	rVB5	11390	40077	1.59%	0.216%
59	15.302	2588	2595	2606	rBV6	20930	53481	2.12%	0.288%
60	15.982	2715	2725	2744	rVB6	8516	34069	1.35%	0.183%
61	16.228	2765	2772	2791	rVB6	11885	26162	1.04%	0.141%

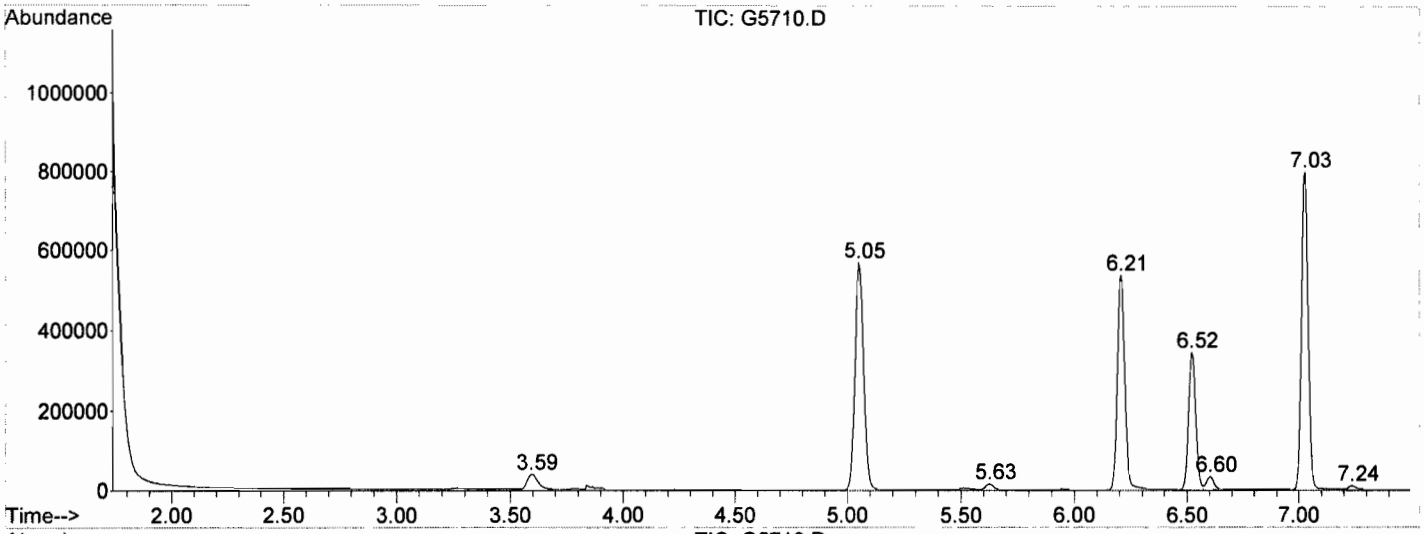
Sum of corrected areas: 18567189

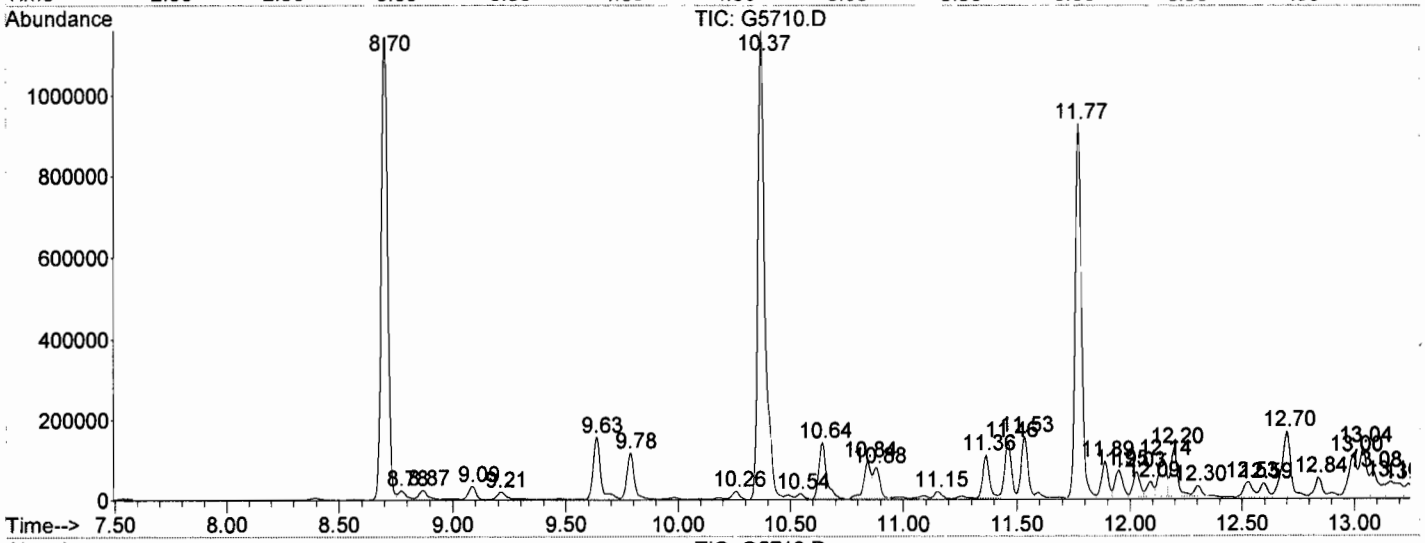
LSC Report - Integrated Chromatogram

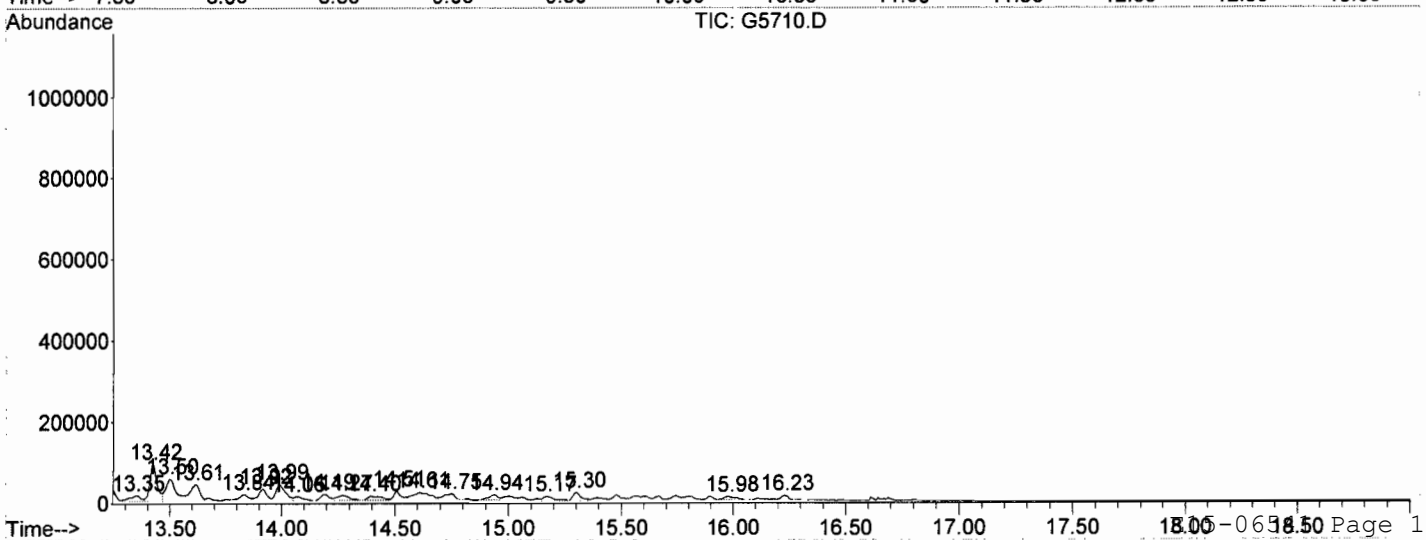
Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

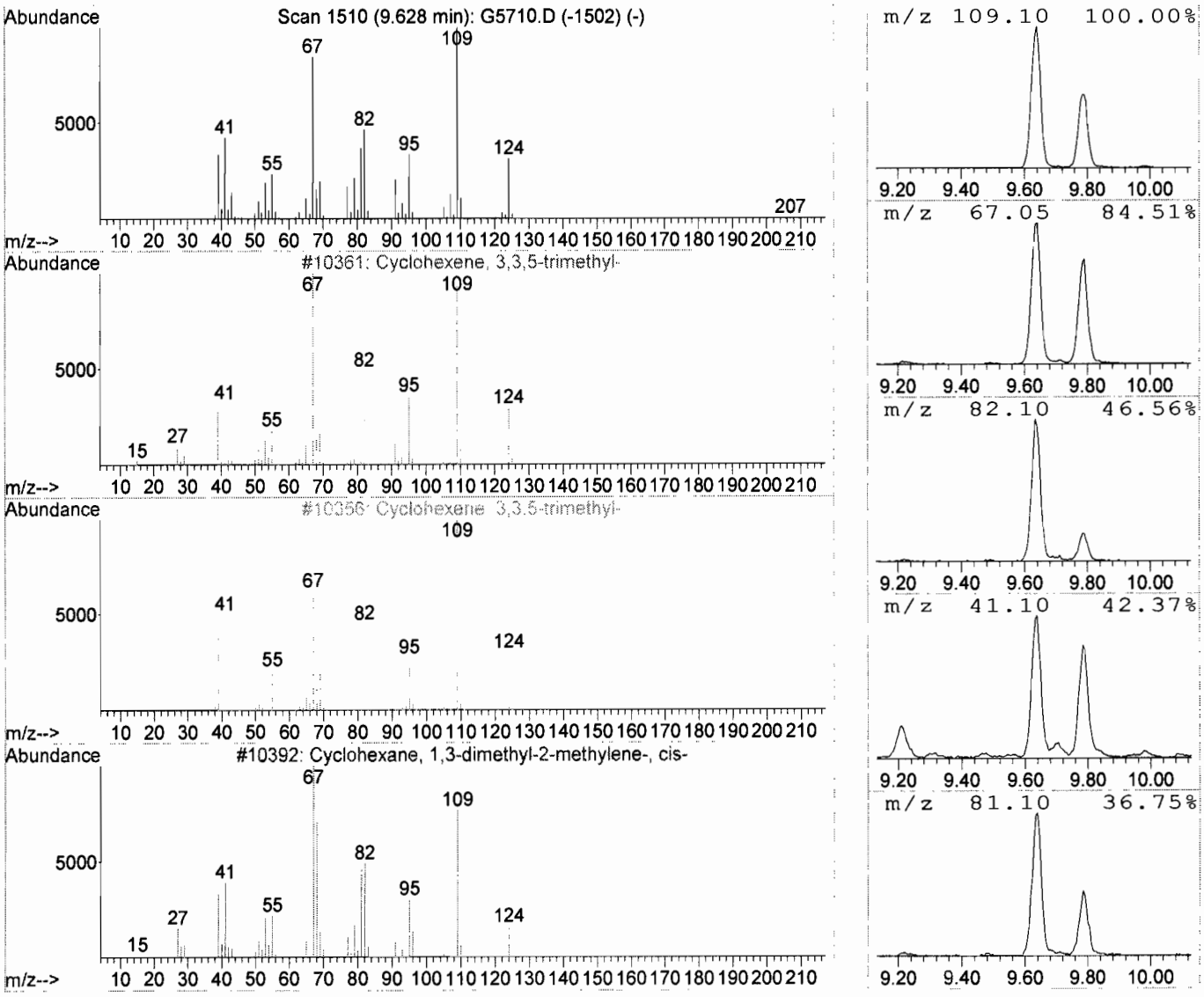
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Cyclohexene, 3,3,5-trimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.63	7.28 UG	367742	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 3,3,5-trimethyl-	124	C9H16	000503-45-7	96
2	Cyclohexene, 3,3,5-trimethyl-	124	C9H16	000503-45-7	94
3	Cyclohexane, 1,3-dimethyl-2-meth...	124	C9H16	019781-47-6	87
4	Cyclohexane, 1,3-dimethyl-2-meth...	124	C9H16	020348-74-7	76
5	cis-1,4-Dimethyl-2-methylenecycl...	124	C9H16	019781-46-5	64



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

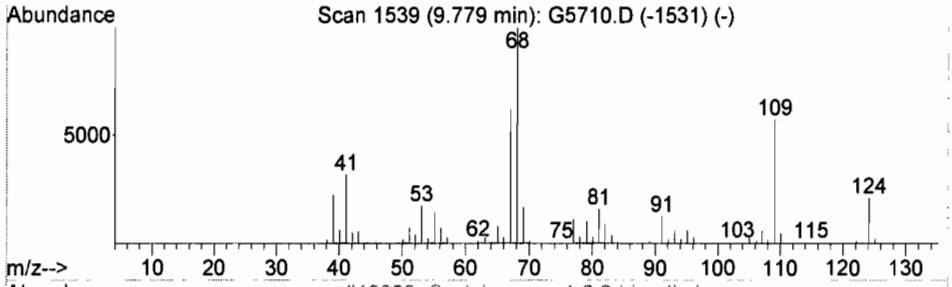
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

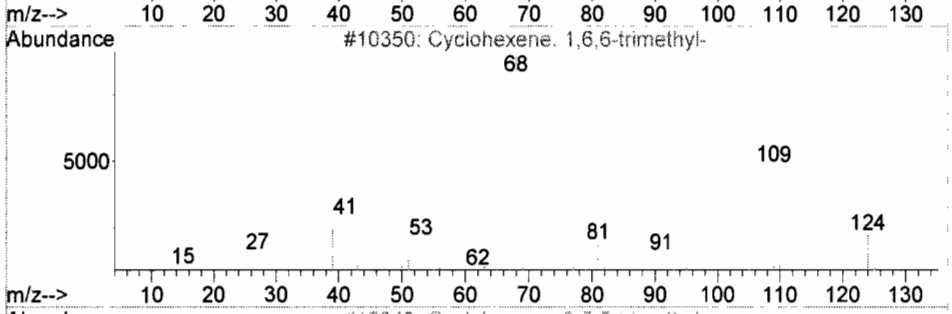
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

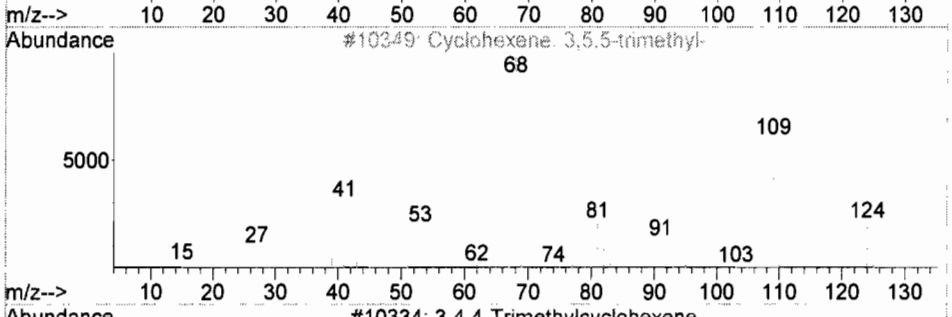
****
Peak Number 2 Cyclohexene, 1,6,6-trimethyl- Concentration Rank 6

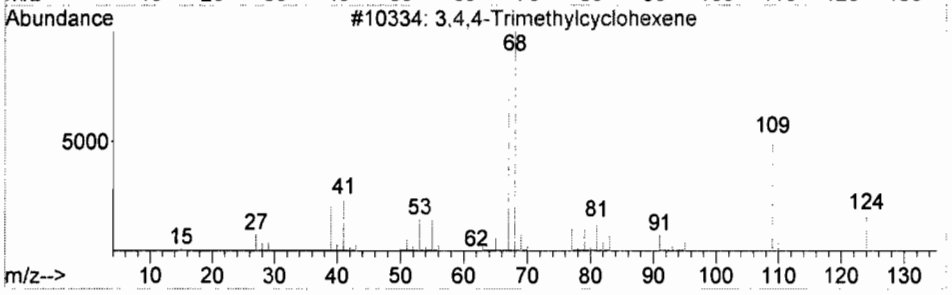
R.T.	EstConc	Area	Relative to ISTD	R.T.
9.78	5.32 UG	268647	Chlorobenzene-d5	10.37

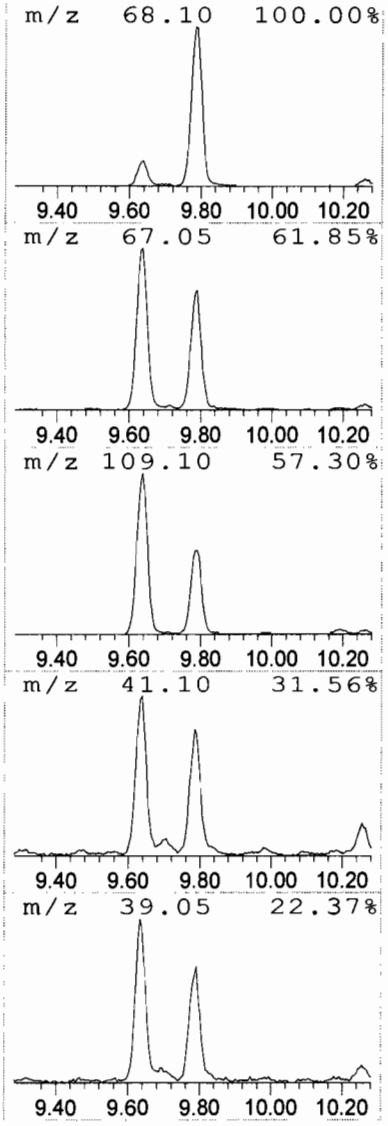
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1,6,6-trimethyl-	124	C9H16	069745-49-9	96
2	Cyclohexene, 3,5,5-trimethyl-	124	C9H16	000933-12-0	95
3	3,4,4-Trimethylcyclohexene	124	C9H16	1000113-50-1	95
4	Cyclohexene, 3,5,5-trimethyl-	124	C9H16	000933-12-0	90
5	2,4-Heptadiene, 2,6-dimethyl-	124	C9H16	004634-87-1	53











Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

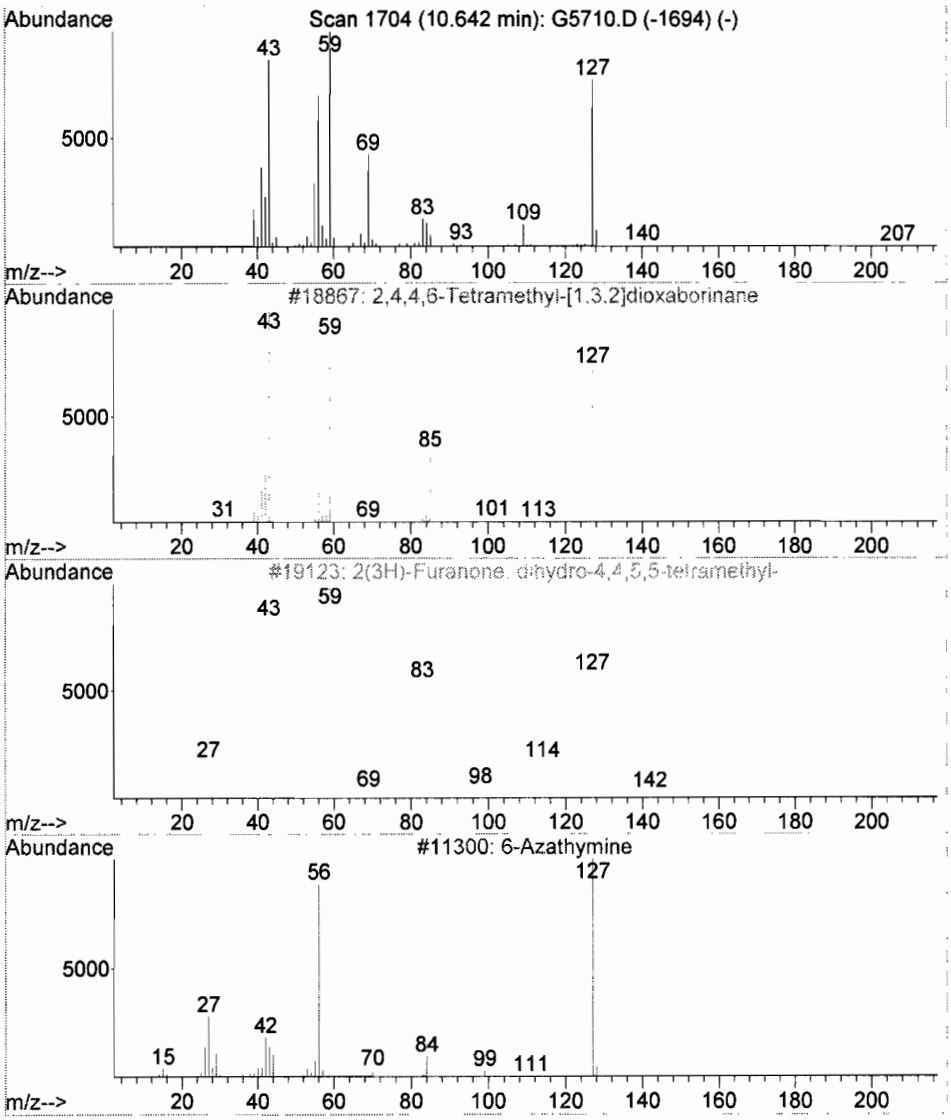
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

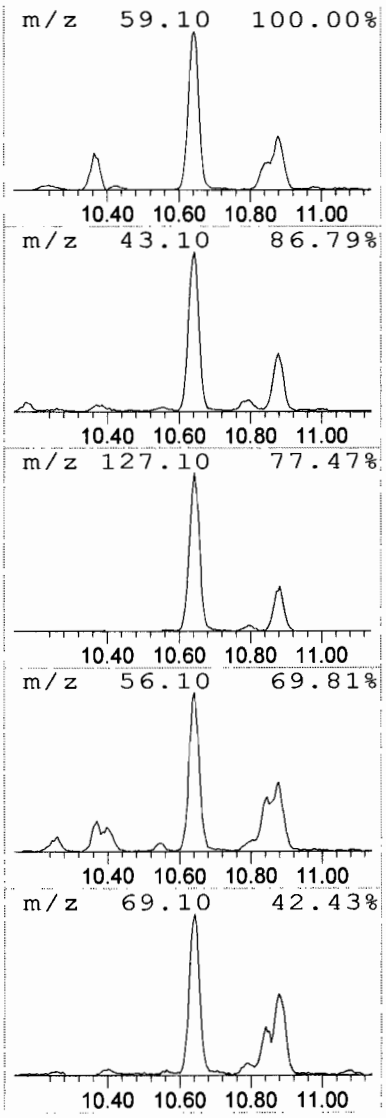
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 Unknown VOA Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.64	6.62 UG	334009	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,4,4,6-Tetramethyl-[1,3,2]dioxa...	142	C7H15BO2	211613-23-9	64
2	2(3H)-Furanone, dihydro-4,4,5,5-...	142	C8H14O2	016466-24-3	50
3	6-Azathymine	127	C4H5N3O2	000932-53-6	43
4	Oxetane, 2,2,4-trimethyl-	100	C6H12O	023120-44-7	43
5	6-Azathymine	127	C4H5N3O2	000932-53-6	43





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

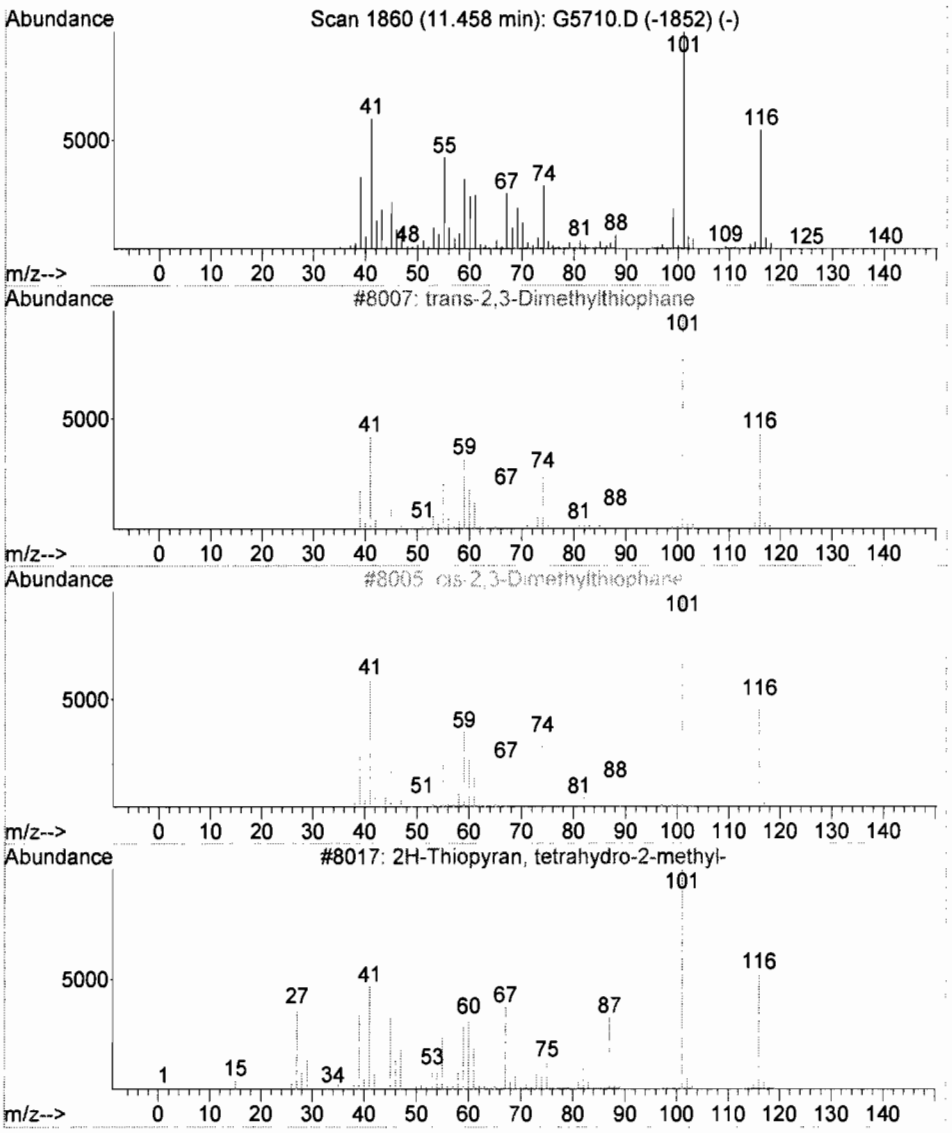
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

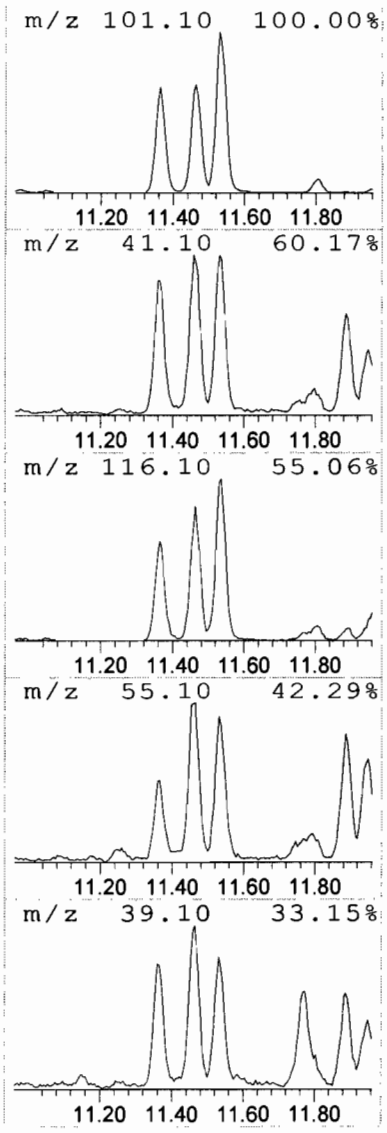
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 trans-2,3-Dimethylthiophane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.46	5.72 UG	288882	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-2,3-Dimethylthiophane	116	C6H12S	005161-78-4	93
2	cis-2,3-Dimethylthiophane	116	C6H12S	005161-77-3	93
3	2H-Thiopyran, tetrahydro-2-methyl-	116	C6H12S	005161-16-0	68
4	Thiophene, tetrahydro-2,5-dimeth...	116	C6H12S	005161-14-8	53
5	Thiophene, tetrahydro-2,5-dimeth...	116	C6H12S	005161-13-7	53





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

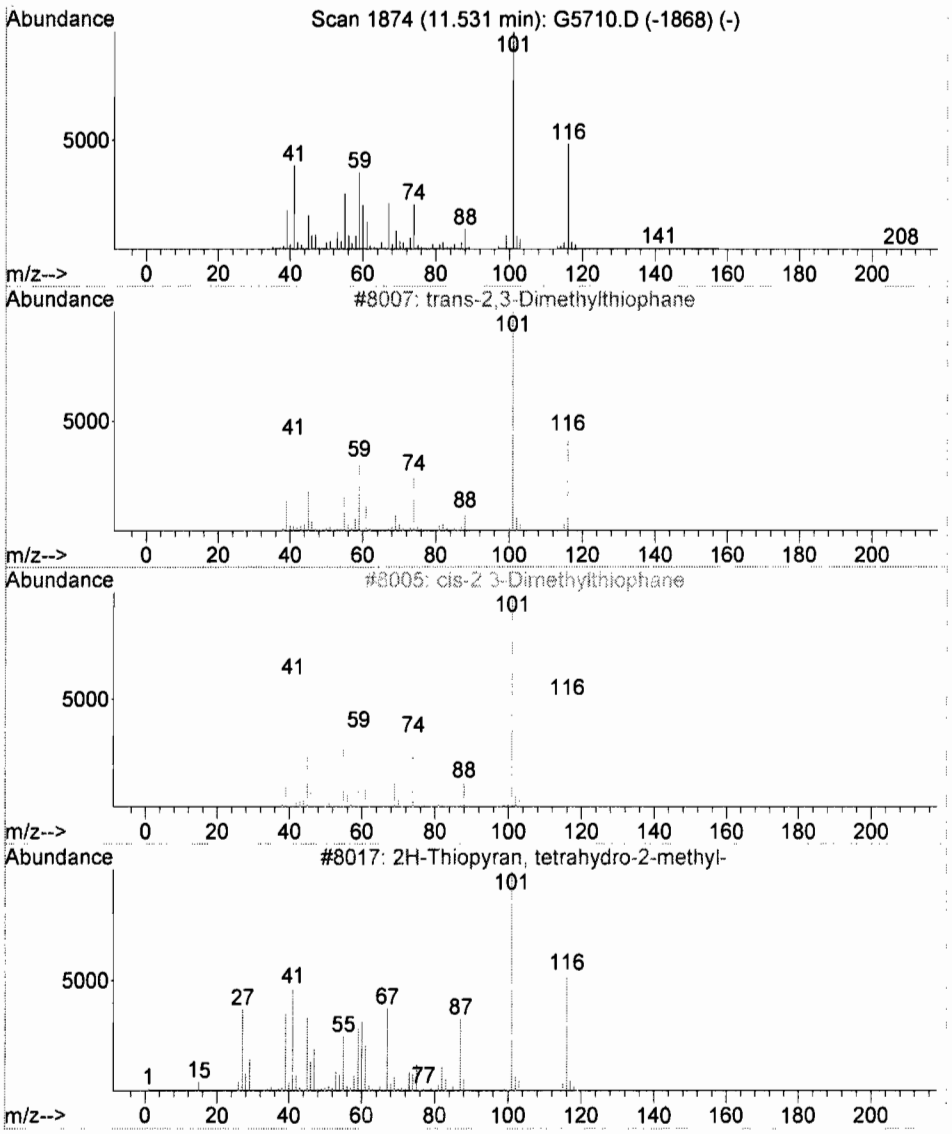
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

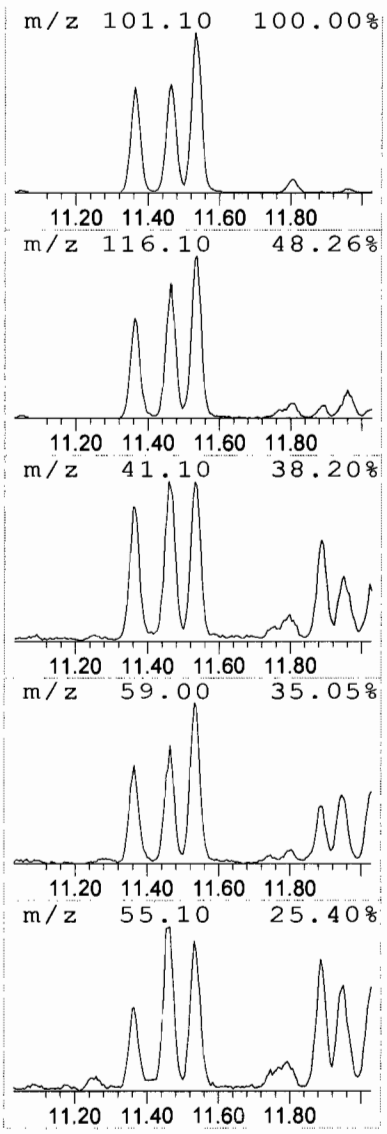
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 5 Unknown Aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.53	6.17 UG	311417	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-2,3-Dimethylthiophane	116	C6H12S	005161-78-4	98
2	cis-2,3-Dimethylthiophane	116	C6H12S	005161-77-3	96
3	2H-Thiopyran, tetrahydro-2-methyl-	116	C6H12S	005161-16-0	81
4	Thiophene, tetrahydro-2,5-dimeth...	116	C6H12S	005161-13-7	59
5	Thiophene, tetrahydro-2,5-dimeth...	116	C6H12S	005161-14-8	59





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

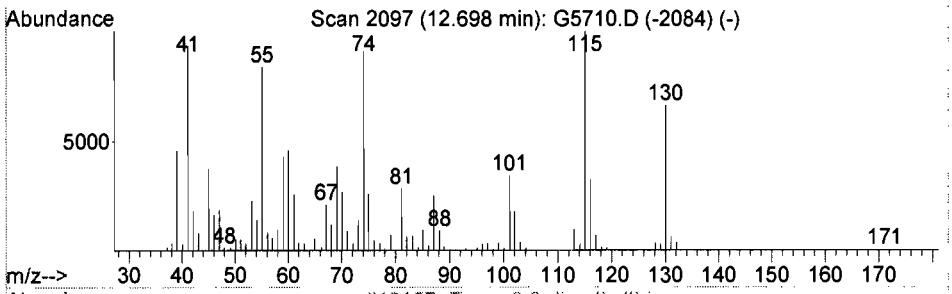
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

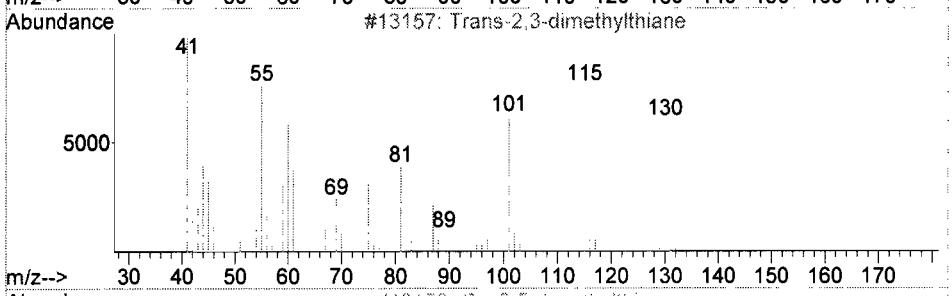
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

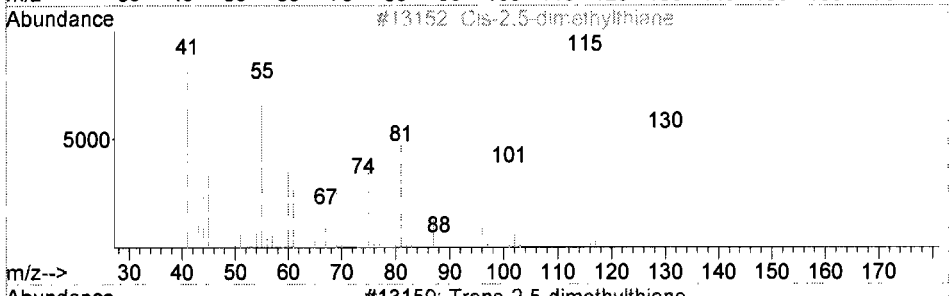
****
Peak Number 6 Unknown VOA Concentration Rank 1

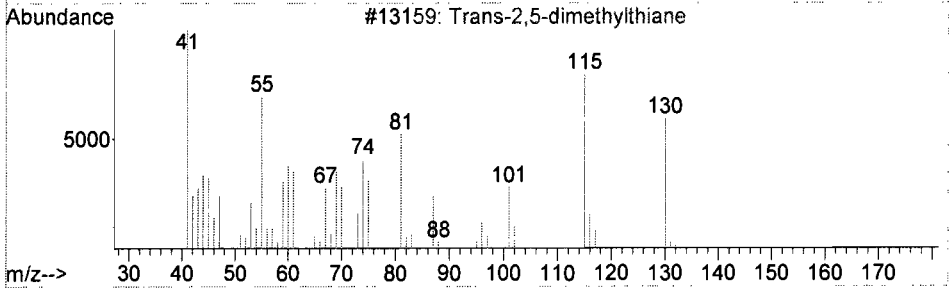
R.T.	EstConc	Area	Relative to ISTD	R.T.
12.70	9.13 UG	460881	Chlorobenzene-d5	10.37

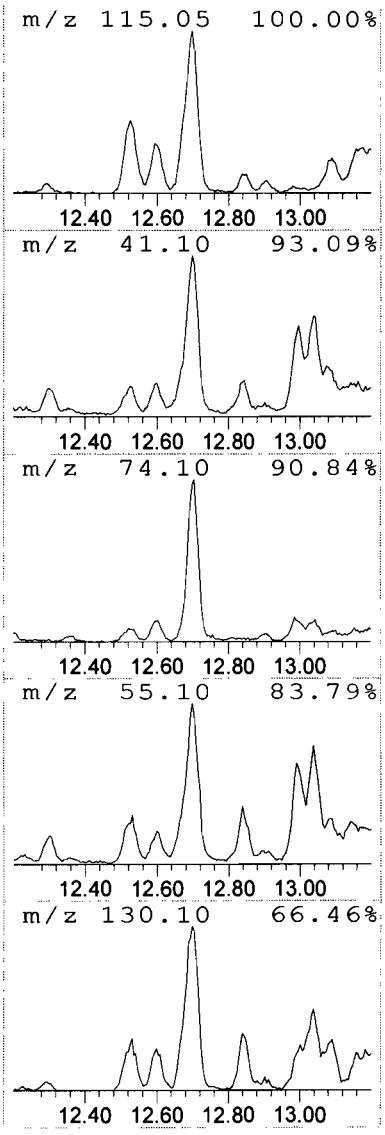
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Trans-2,3-dimethylthiane	130	C7H14S	1000215-06-9	70
2	Cis-2,5-dimethylthiane	130	C7H14S	1000215-06-6	70
3	Trans-2,5-dimethylthiane	130	C7H14S	1000215-06-8	64
4	1,3,4-Thiadiazol-2-amine, 5-methyl-	115	C3H5N3S	000108-33-8	47
5	trans-2,4-Dimethylthiane	130	C7H14S	061568-42-1	46











Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

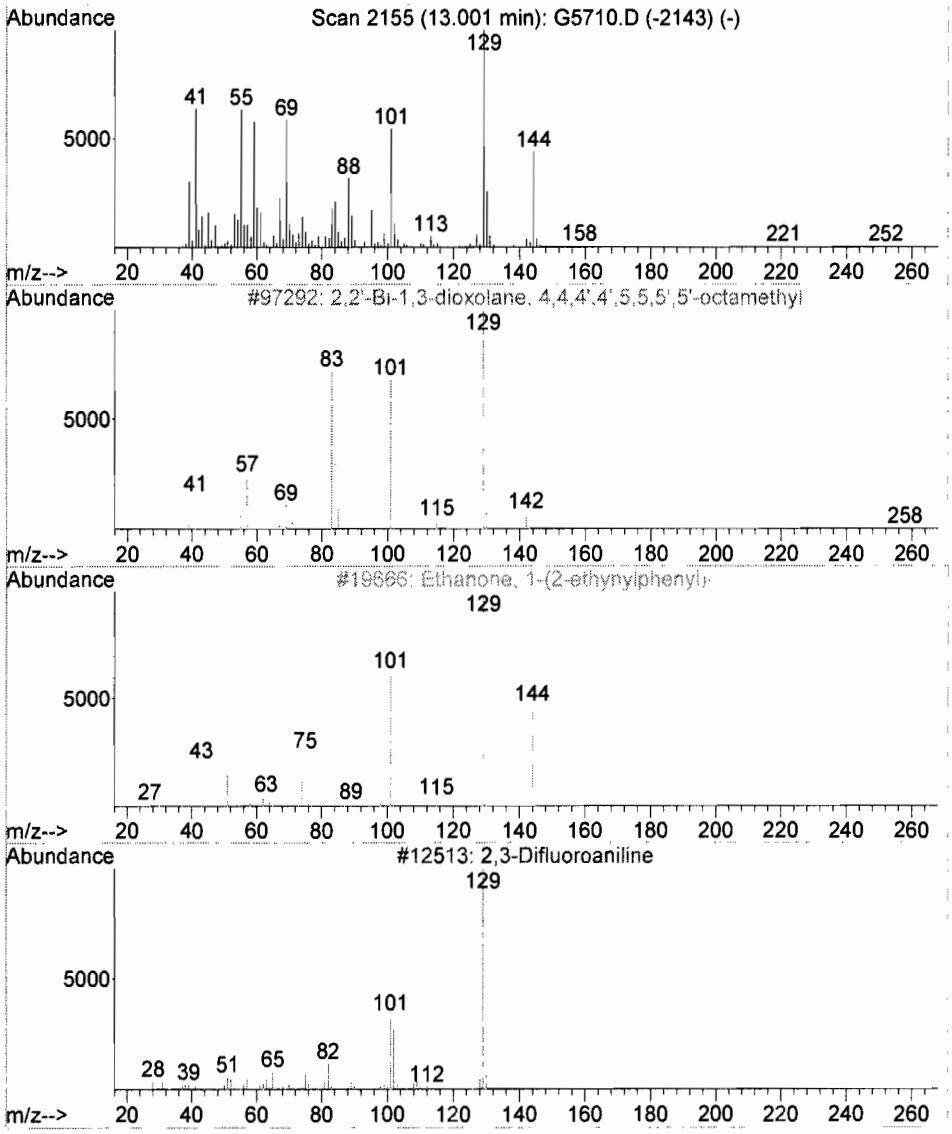
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

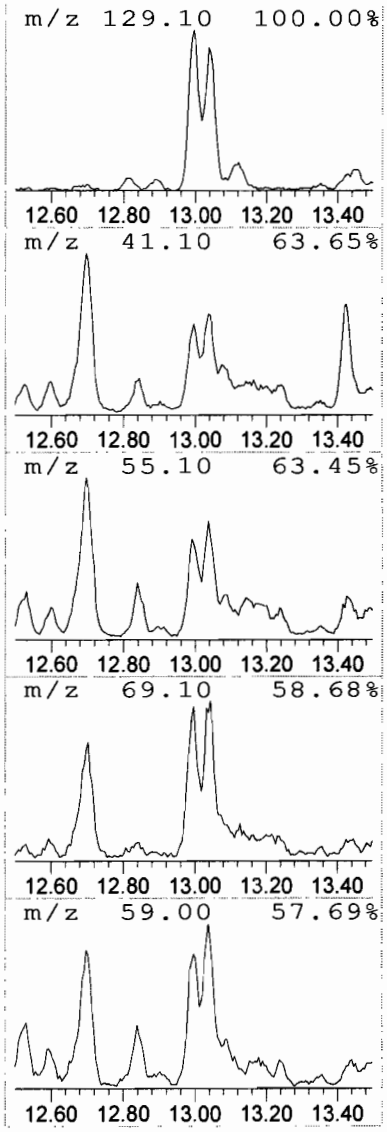
****

Peak Number 7 Unknown VOA Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.00	5.22 UG	263509	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,2'-Bi-1,3-dioxolane, 4,4,4',4'...	258	C14H26O4	035528-76-8	38
2	Ethanone, 1-(2-ethynylphenyl)-	144	C10H8O	104190-22-9	37
3	2,3-Difluoroaniline	129	C6H5F2N	004519-40-8	35
4	1-Ethyl-1-methoxy-1-silacyclohexane	158	C8H18OSi	1000279-45-1	27
5	2,4-Difluoroanisole	144	C7H6F2O	000452-10-8	27





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5710.D
Acq On : 3 Aug 2015 16:35
Operator : Sylvia
Sample : MW-8S,06541-002,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

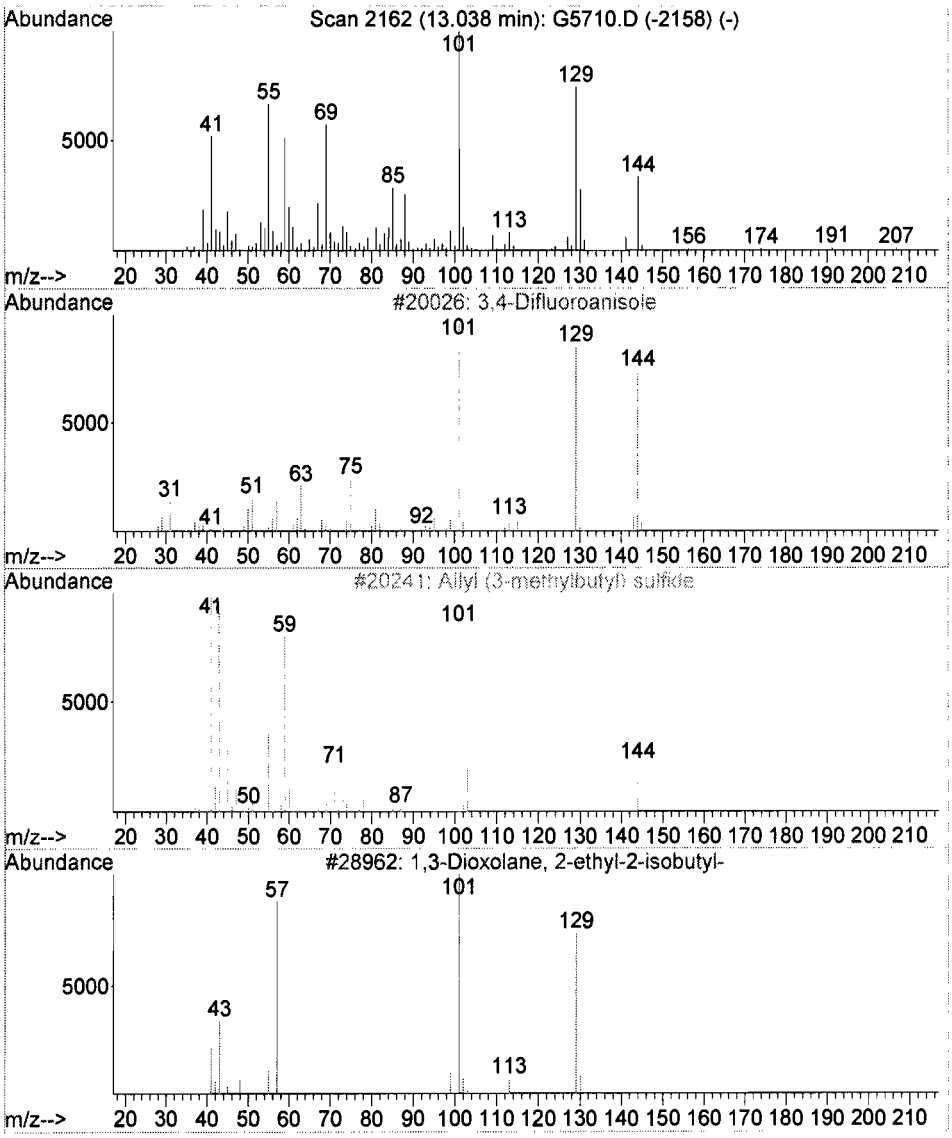
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

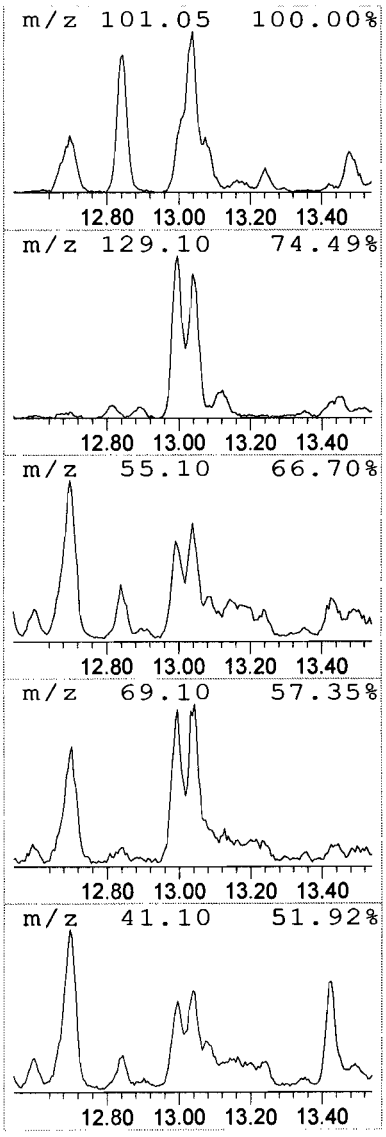
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 8 Unknown VOA Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.04	5.30 UG	267830	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,4-Difluoroanisole	144	C7H6F2O	115144-40-6	47
2	Allyl (3-methylbutyl) sulfide	144	C8H16S	118217-74-6	46
3	1,3-Dioxolane, 2-ethyl-2-isobutyl-	158	C9H18O2	000935-45-5	43
4	Butanedioic acid, diethyl ester	174	C8H14O4	000123-25-1	37
5	Butanedioic acid, diethyl ester	174	C8H14O4	000123-25-1	37





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5711.D
Acq On : 3 Aug 2015 17:04
Operator : Sylvia
Sample : MW-8D,06541-003,A,0.25mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,20
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 04 09:44:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

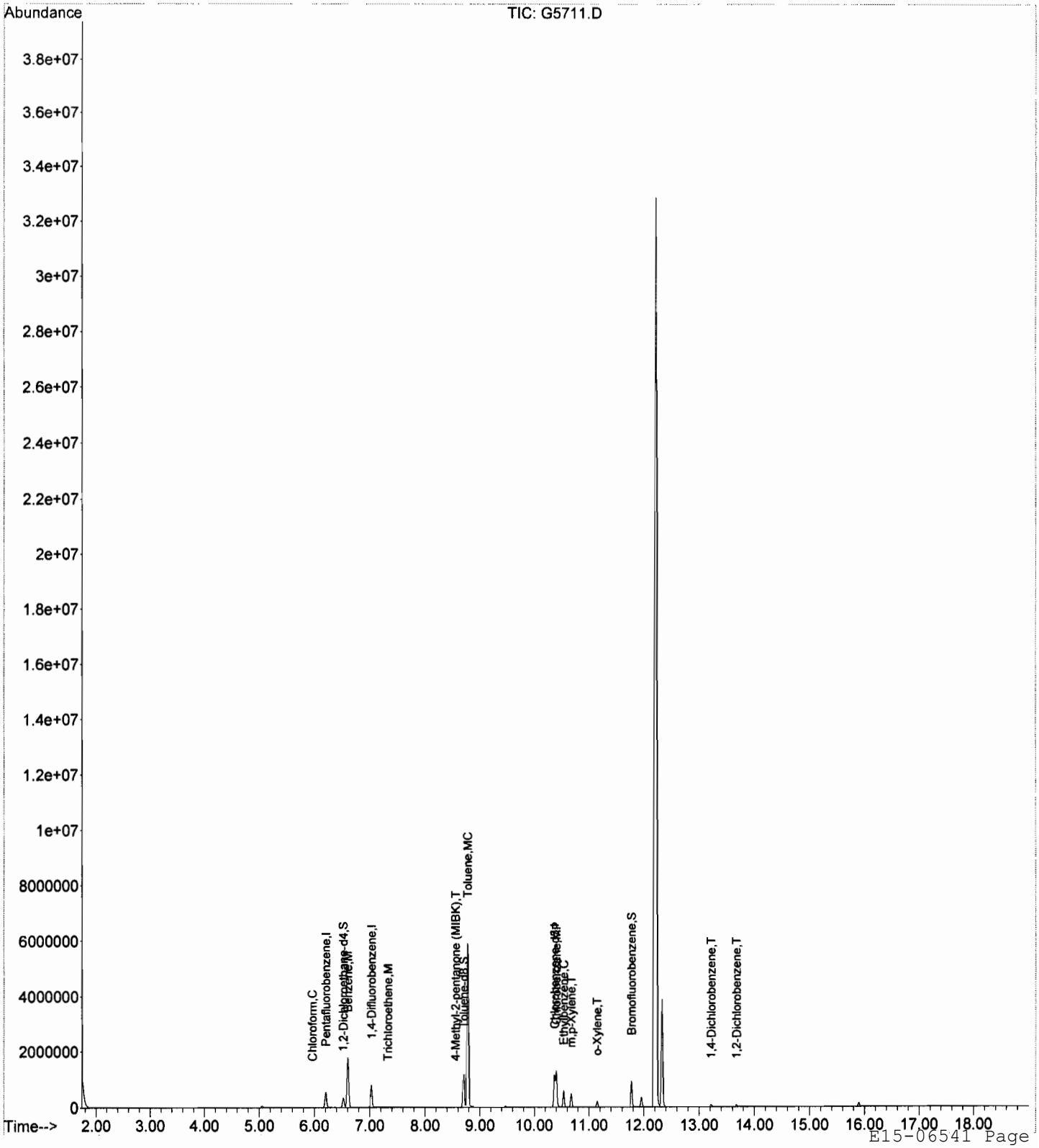
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	390335	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	672736	50.00	UG		0.00
50) Chlorobenzene-d5	10.37	117	655893	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.52	65	264327	50.67	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 101.34%				
41) Toluene-d8	8.70	98	827422	49.57	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.14%				
59) Bromofluorobenzene	11.77	95	359655	48.29	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 96.58%				
Target Compounds							Qvalue
25) Chloroform	5.97	83	8891	1.08	UG		100
32) Benzene	6.60	78	1718338	88.23	UG		100
33) Trichloroethene	7.33	95	5021	1.08	UG		96
40) 4-Methyl-2-pentanone (MIBK	8.56	43	6303	1.18	UG	#	95
42) Toluene	8.77	92	2712358	226.57	UG		100
51) Chlorobenzene	10.40	112	695938	53.72	UG	#	73
53) Ethylbenzene	10.54	91	439062	20.54	UG		99
54) m,p-Xylene	10.67	106	151815	18.52	UG		94
55) o-Xylene	11.15	106	57844	6.93	UG		93
72) 1,4-Dichlorobenzene	13.22	146	30622	3.08	UG		100
74) 1,2-Dichlorobenzene	13.68	146	26861	2.83	UG	#	81

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5711.D
Acq On : 3 Aug 2015 17:04
Operator : Sylvia
Sample : MW-8D,06541-003,A,0.25mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,20
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 04 09:44:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5827.D
Acq On : 6 Aug 2015 15:23
Operator : Sylvia
Sample : MW-8D,06541-3DL,A,0.1mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,50
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 07 08:23:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

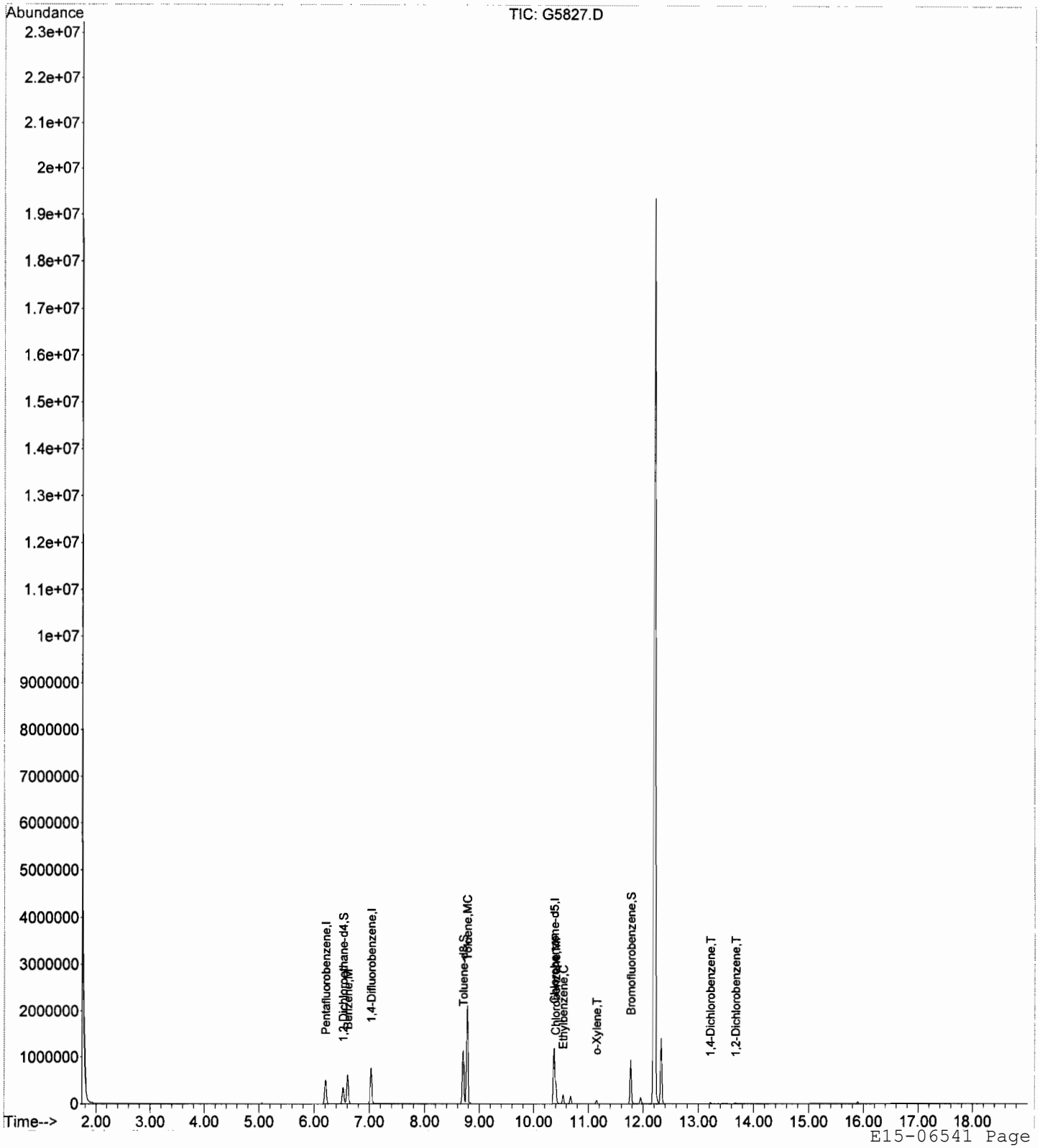
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	366070	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	630735	50.00	UG		0.00
50) Chlorobenzene-d5	10.37	117	632710	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.52	65	268557	54.89	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 109.78%				
41) Toluene-d8	8.70	98	773807	49.44	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.88%				
59) Bromofluorobenzene	11.77	95	353422	49.19	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 98.38%				
Target Compounds							Qvalue
32) Benzene	6.60	78	568150	31.12	UG		100
42) Toluene	8.77	92	936551	83.44	UG		99
51) Chlorobenzene	10.40	112	242004	19.37	UG	#	73
53) Ethylbenzene	10.54	91	144361	7.00	UG		99
55) o-Xylene	11.15	106	19373	2.40	UG		92
72) 1,4-Dichlorobenzene	13.22	146	10950	1.14	UG		99
74) 1,2-Dichlorobenzene	13.68	146	9275	1.01	UG	#	81

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5827.D
Acq On : 6 Aug 2015 15:23
Operator : Sylvia
Sample : MW-8D,06541-3DL,A,0.1mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,50
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 07 08:23:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5711.D
Acq On : 3 Aug 2015 17:04
Operator : Sylvia
Sample : MW-8D,06541-003,A,0.25mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,20
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	842	856	873	rBV	547306	1210248	1.48%	1.032%
2	6.599	923	931	948	rVB	1769056	3941310	4.83%	3.362%
3	7.028	1001	1013	1029	rBV	797009	1661878	2.04%	1.418%
4	8.702	1322	1333	1339	rBV	1178655	2255790	2.76%	1.924%
5	8.775	1339	1347	1391	rVB	5906912	11517782	14.11%	9.826%
6	10.370	1641	1652	1655	rBV	1151808	2184715	2.68%	1.864%
7	10.401	1655	1658	1675	rVV	1301852	2260082	2.77%	1.928%
8	10.537	1675	1684	1699	rVV	578272	1040517	1.28%	0.888%
9	10.673	1699	1710	1729	rVB	482998	927587	1.14%	0.791%
10	11.772	1909	1920	1939	rBV	928728	1686696	2.07%	1.439%
11	12.216	1989	2005	2019	rBV2	32857029	81601965	100.00%	69.614%
12	12.331	2019	2027	2048	rVB	3877243	6932720	8.50%	5.914%

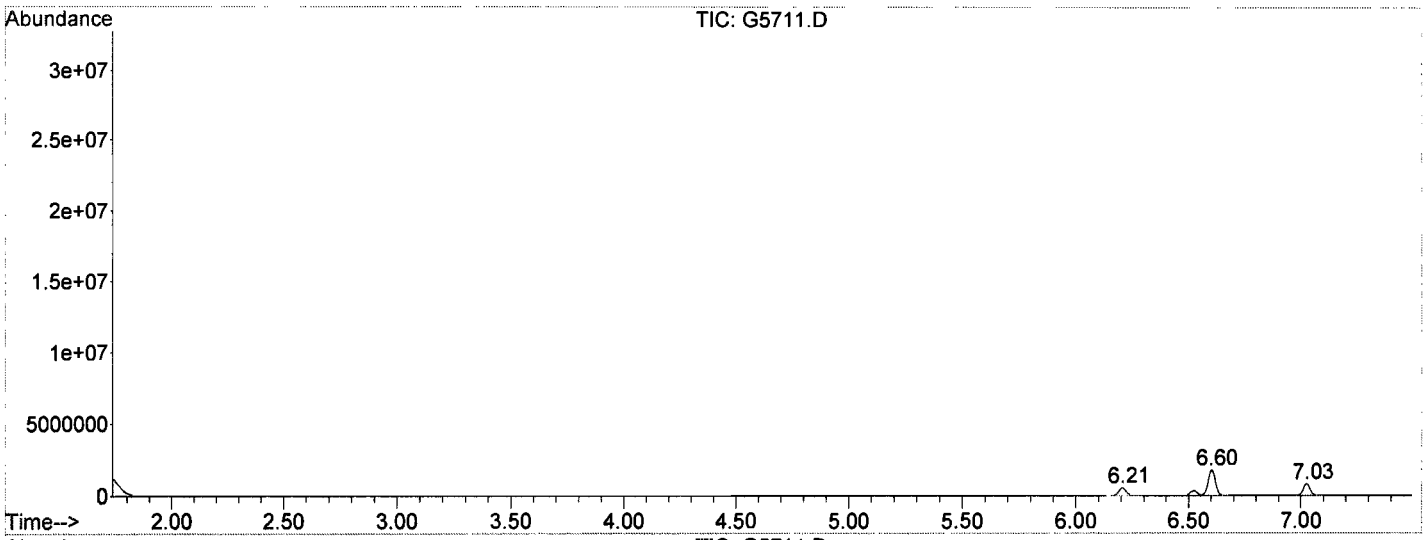
Sum of corrected areas: 117221290

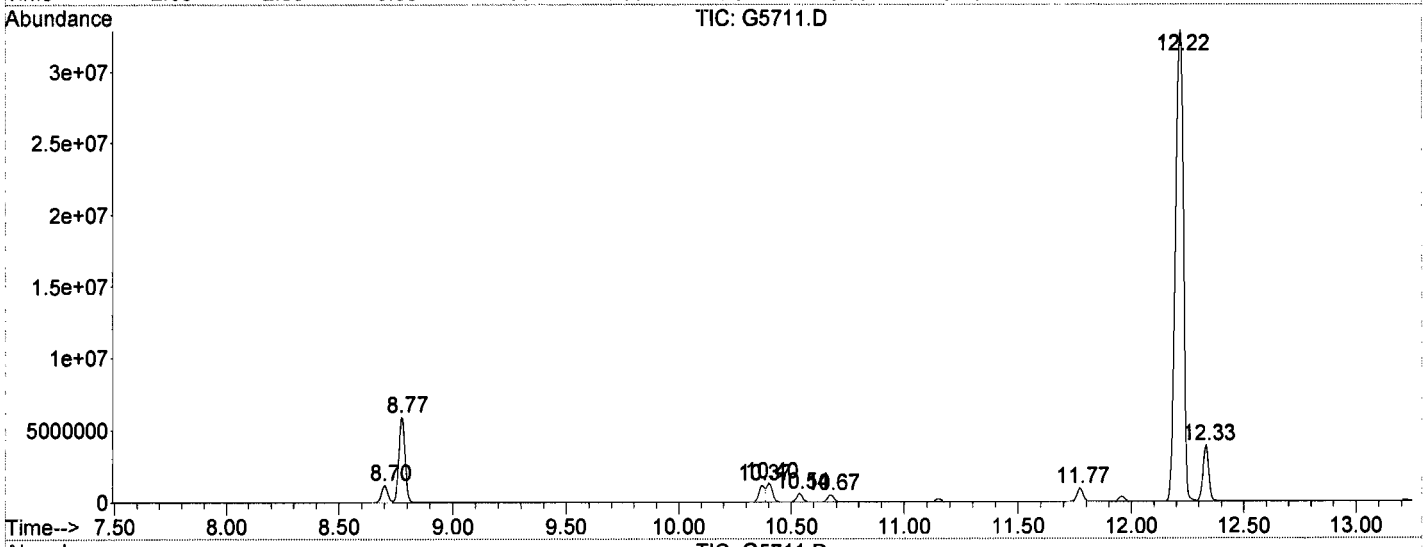
LSC Report - Integrated Chromatogram

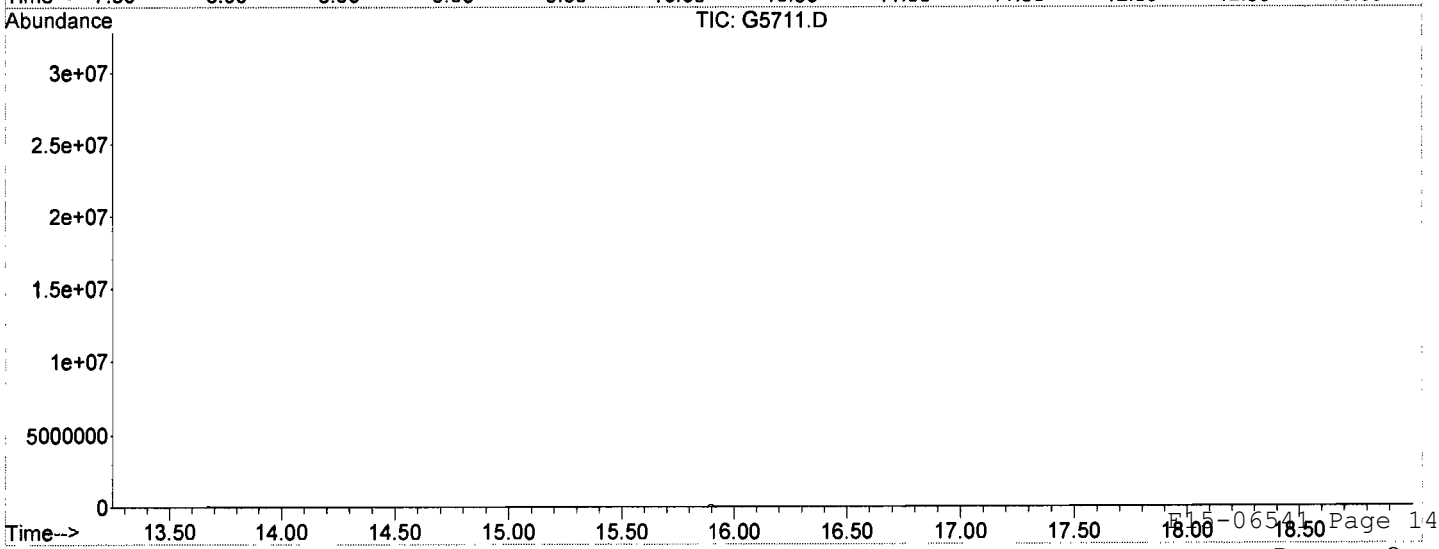
Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5711.D
Acq On : 3 Aug 2015 17:04
Operator : Sylvia
Sample : MW-8D,06541-003,A,0.25mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,20
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5711.D
Acq On : 3 Aug 2015 17:04
Operator : Sylvia
Sample : MW-8D,06541-003,A,0.25mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,20
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

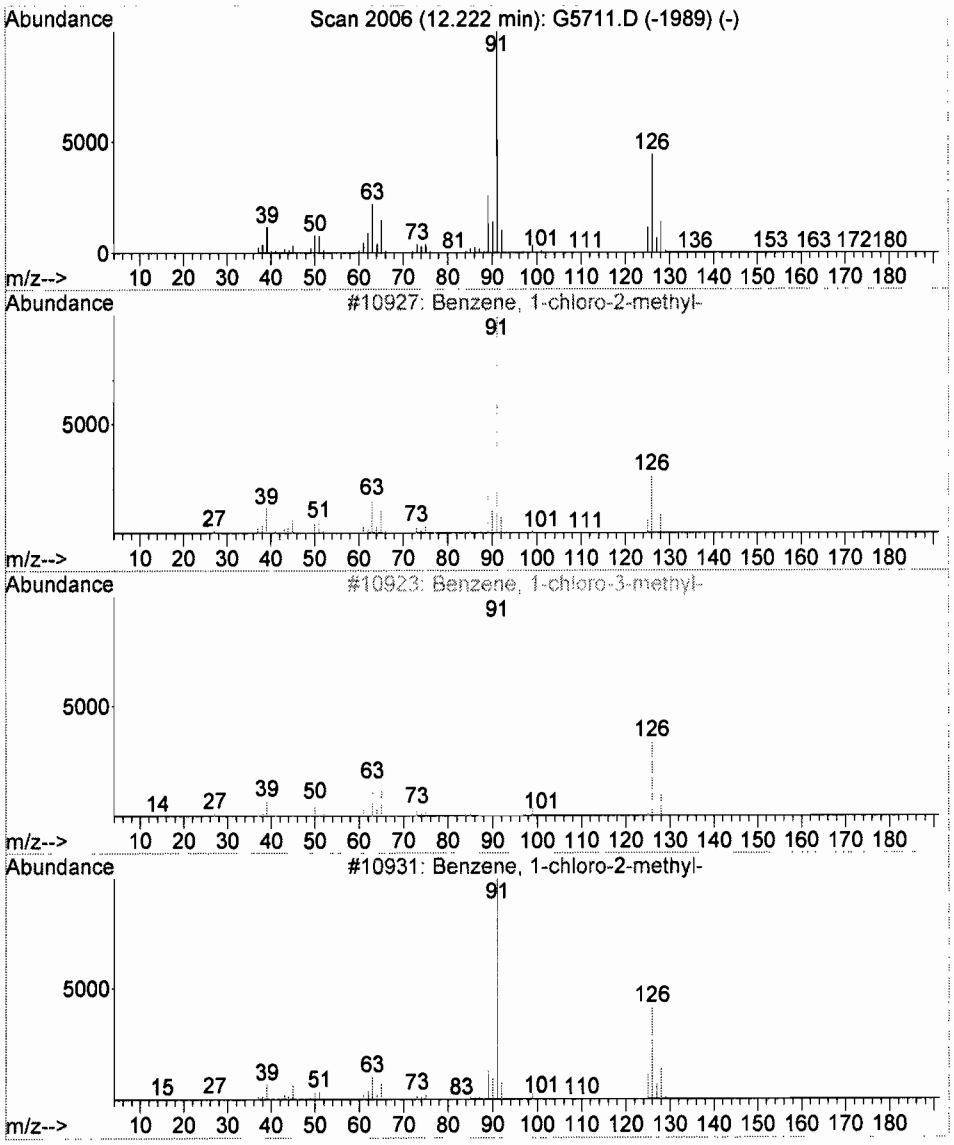
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

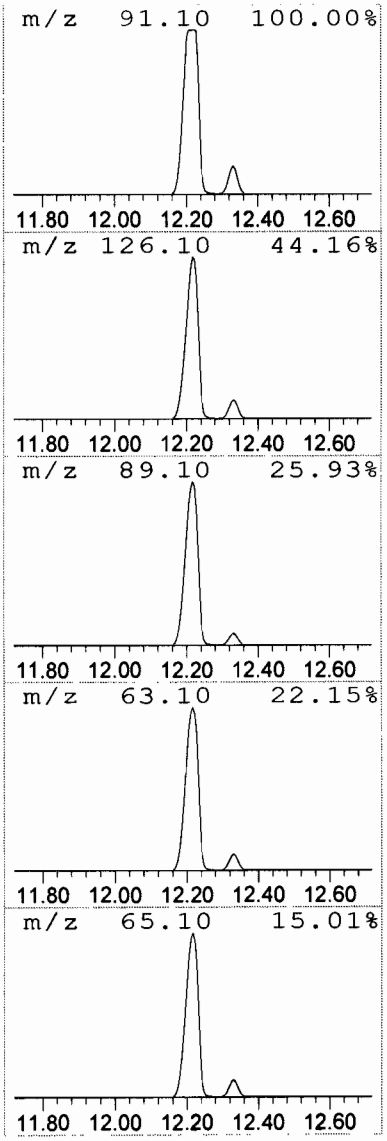
****

Peak Number 1 Benzene, 1-chloro-2-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.22	1867.57 UG	81602000	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	95
2	Benzene, 1-chloro-3-methyl-	126	C7H7Cl	000108-41-8	94
3	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	94
4	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	94
5	Benzene, 1-chloro-3-methyl-	126	C7H7Cl	000108-41-8	93





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5711.D
Acq On : 3 Aug 2015 17:04
Operator : Sylvia
Sample : MW-8D,06541-003,A,0.25mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,20
ALS Vial : 17 Sample Multiplier: 1

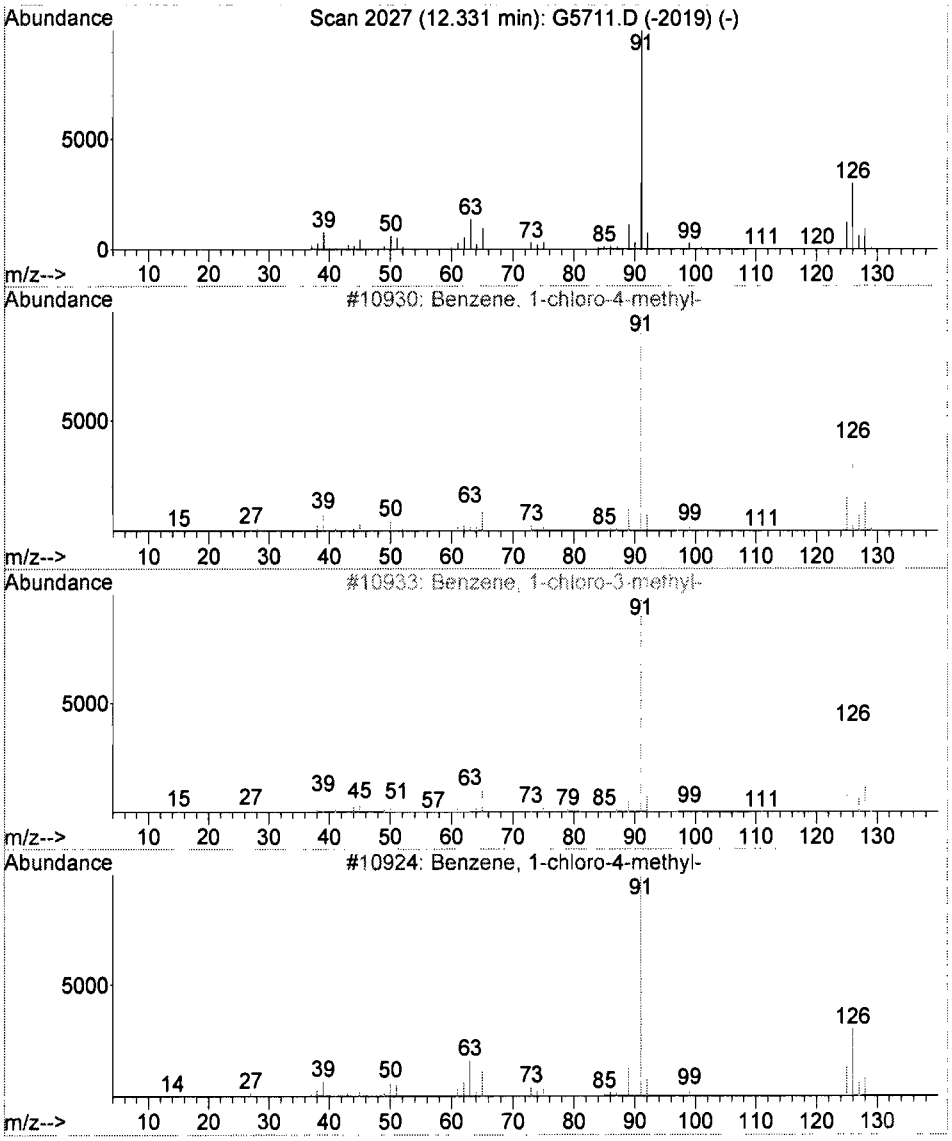
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

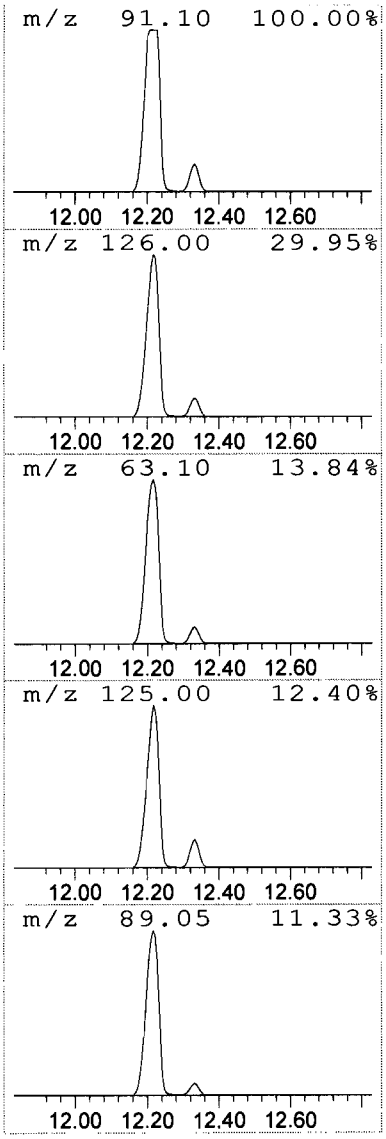
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Benzene, 1-chloro-4-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.33	158.66 UG	6932720	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-chloro-4-methyl-	126	C7H7Cl	000106-43-4	97
2	Benzene, 1-chloro-3-methyl-	126	C7H7Cl	000108-41-8	97
3	Benzene, 1-chloro-4-methyl-	126	C7H7Cl	000106-43-4	96
4	Benzene, 1-chloro-3-methyl-	126	C7H7Cl	000108-41-8	96
5	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	94





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5839.D
Acq On : 6 Aug 2015 21:02
Operator : Sylvia
Sample : MW-12S,06541-004,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 07 09:52:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

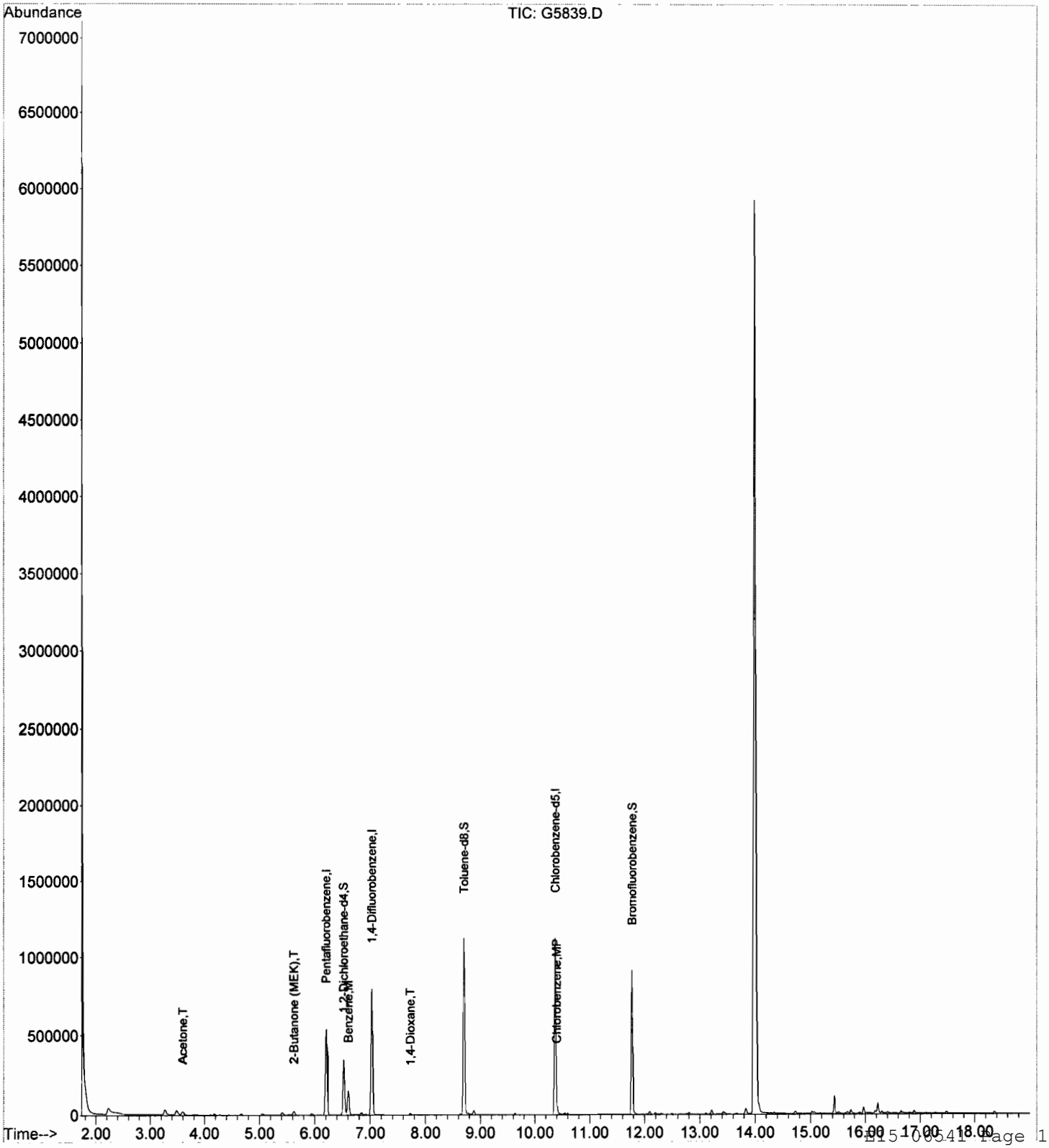
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	379447	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	650287	50.00	UG		0.00
50) Chlorobenzene-d5	10.37	117	630522	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.52	65	273832	54.00	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 108.00%				
41) Toluene-d8	8.70	98	779093	48.28	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.56%				
59) Bromofluorobenzene	11.77	95	349013	48.74	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.48%				
Target Compounds							Qvalue
10) Acetone	3.60	43	44670	17.37	UG		100
22) 2-Butanone (MEK)	5.63	43	33488	11.48	UG	#	95
32) Benzene	6.60	78	140909	7.49	UG		100
36) 1,4-Dioxane	7.72	88	6549m	173.27	UG		
51) Chlorobenzene	10.40	112	23445	1.88	UG	#	73

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5839.D
Acq On : 6 Aug 2015 21:02
Operator : Sylvia
Sample : MW-12S,06541-004,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 07 09:52:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5839.D
Acq On : 6 Aug 2015 21:02
Operator : Sylvia
Sample : MW-12S,06541-004,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.227	85	95	189	rVB3	42873	352495	2.70%	1.493%
2	6.207	844	856	873	rBV	535331	1193346	9.14%	5.056%
3	6.521	902	916	925	rBV	343949	780367	5.98%	3.306%
4	6.604	925	932	948	rVB	153607	343874	2.63%	1.457%
5	7.028	1002	1013	1045	rBV	793203	1633062	12.51%	6.918%
6	8.702	1323	1333	1345	rBV	1118343	2195294	16.81%	9.300%
7	10.370	1640	1652	1677	rBV	1123470	2210501	16.93%	9.365%
8	11.772	1903	1920	1946	rBV	911658	1660819	12.72%	7.036%
9	13.989	2329	2344	2391	rBV	5925992	13058704	100.00%	55.322%
10	15.433	2608	2620	2629	rBV	112156	176427	1.35%	0.747%

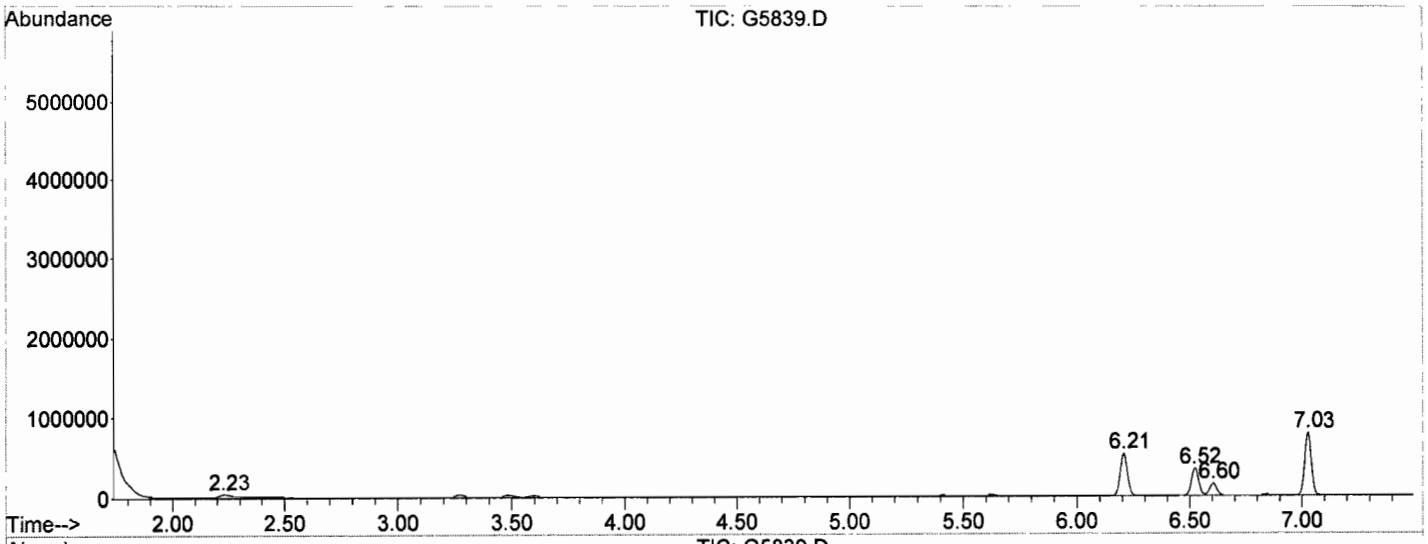
Sum of corrected areas: 23604889

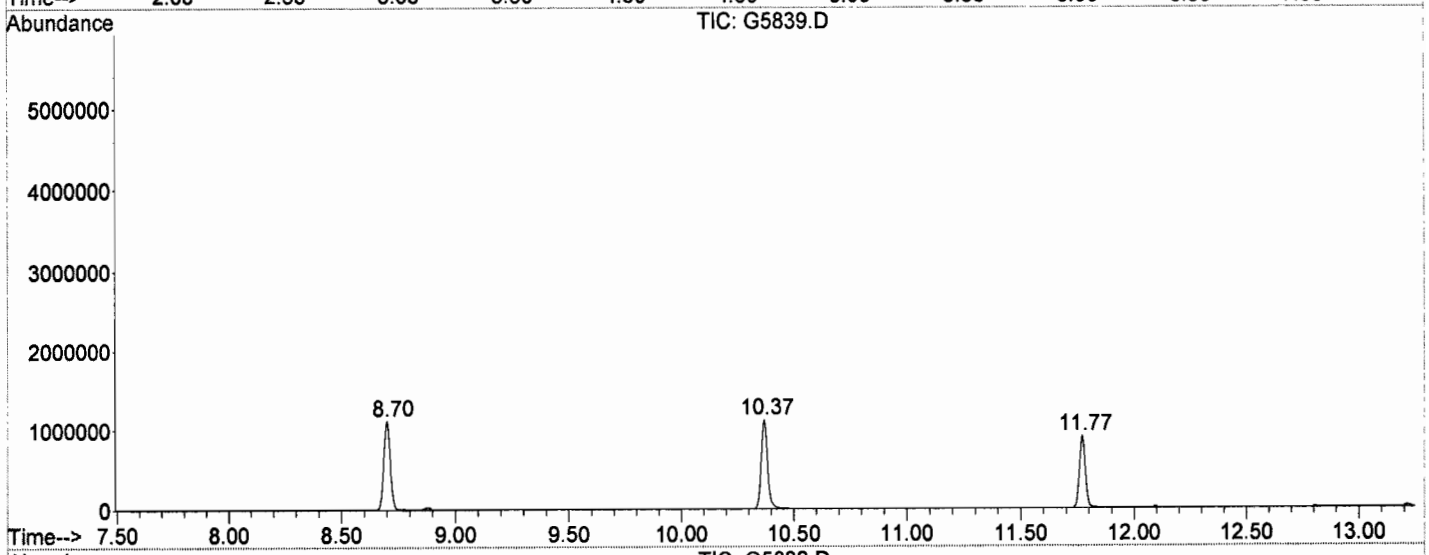
LSC Report - Integrated Chromatogram

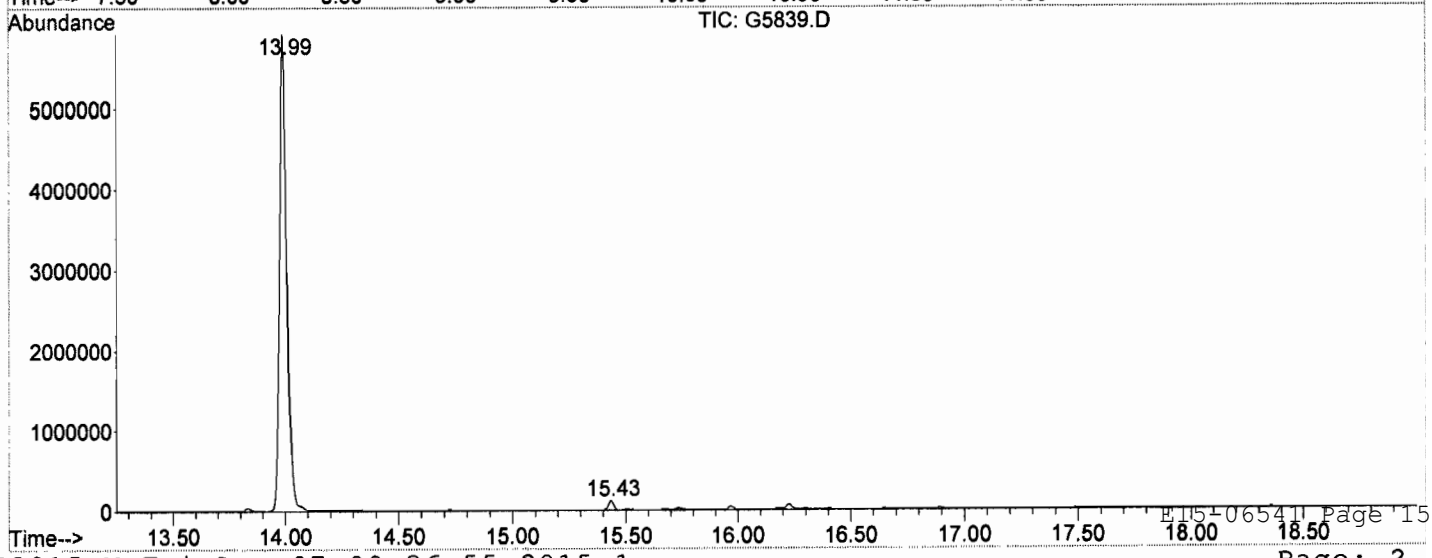
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5839.D
Acq On : 6 Aug 2015 21:02
Operator : Sylvia
Sample : MW-12S,06541-004,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5839.D
Acq On : 6 Aug 2015 21:02
Operator : Sylvia
Sample : MW-12S,06541-004,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 19 Sample Multiplier: 1

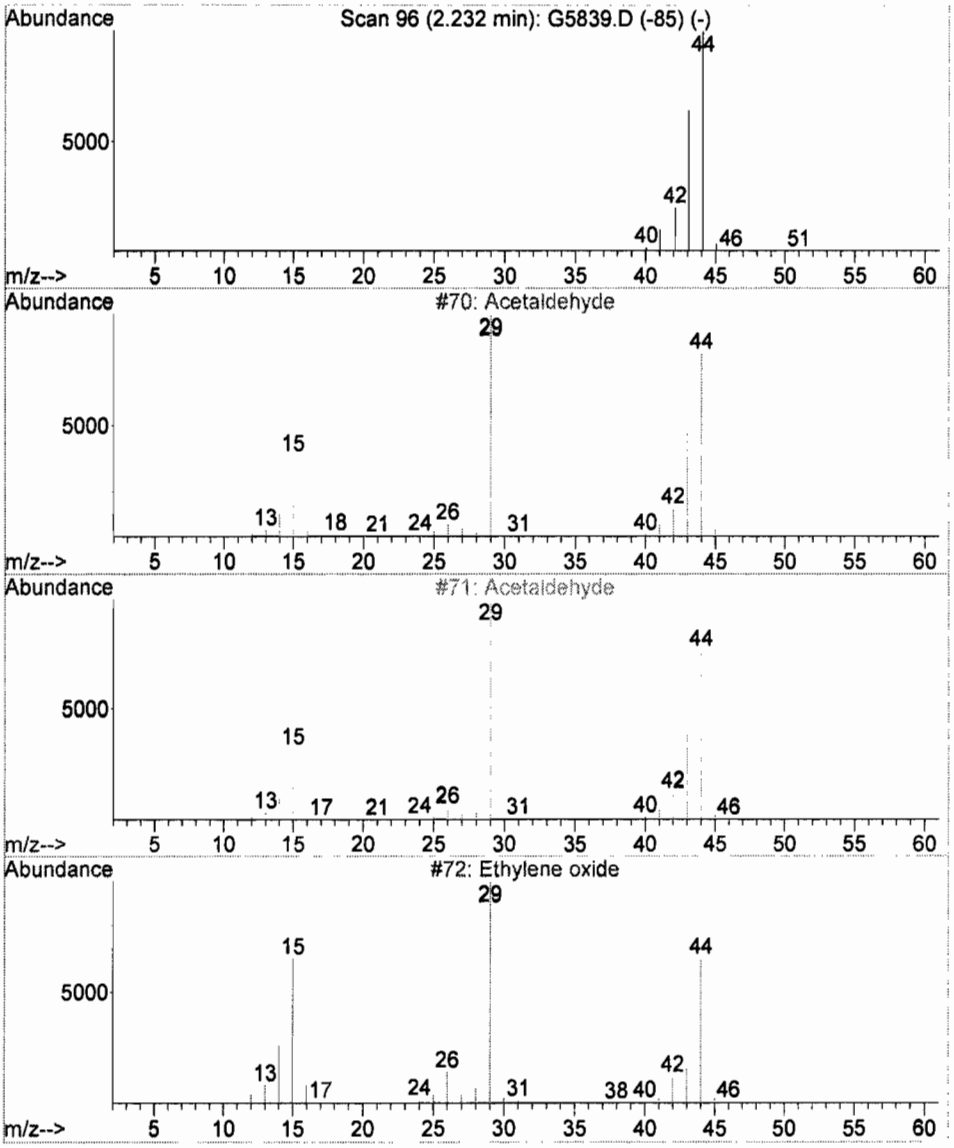
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

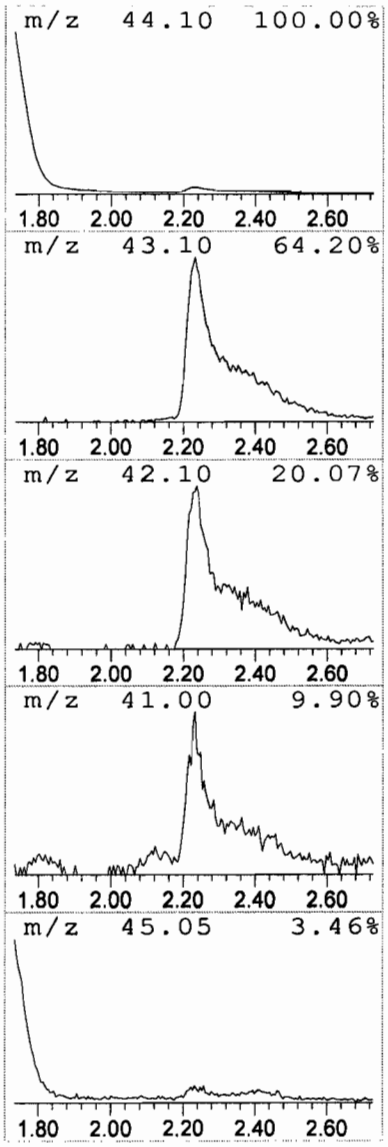
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Unknown VOA Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.23	14.77 UG	352495	Pentafluorobenzene	6.21

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	9
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Ethylene oxide	44	C2H4O	000075-21-8	7
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Propane	44	C3H8	000074-98-6	5





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5839.D
Acq On : 6 Aug 2015 21:02
Operator : Sylvia
Sample : MW-12S,06541-004,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 19 Sample Multiplier: 1

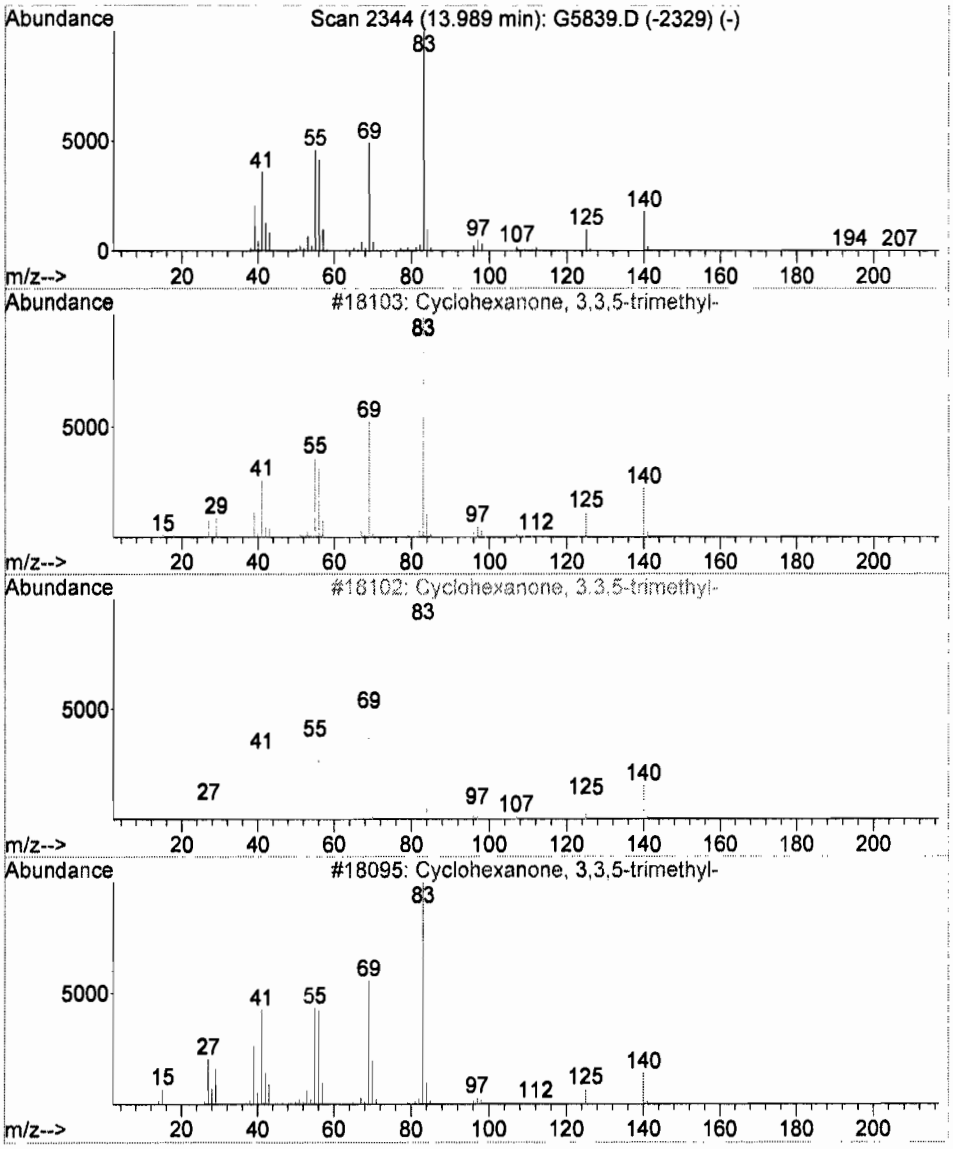
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

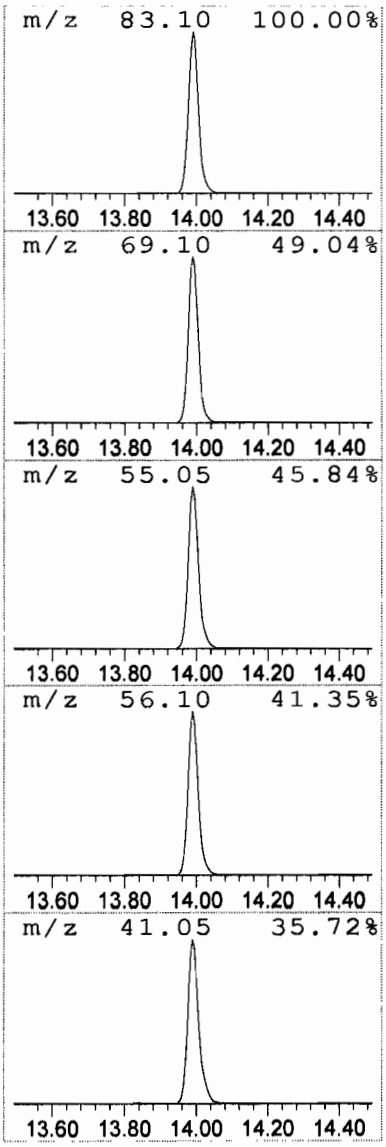
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Cyclohexanone, 3,3,5-trimet... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.99	295.38 UG	13058700	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	95
2	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	94
3	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	94
4	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	91
5	1-Methyl-1H-1,2,4-triazole	83	C3H5N3	006086-21-1	58





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5828.D
Acq On : 6 Aug 2015 15:51
Operator : Sylvia
Sample : MW-12D,06541-005,A,2.5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 07 09:42:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

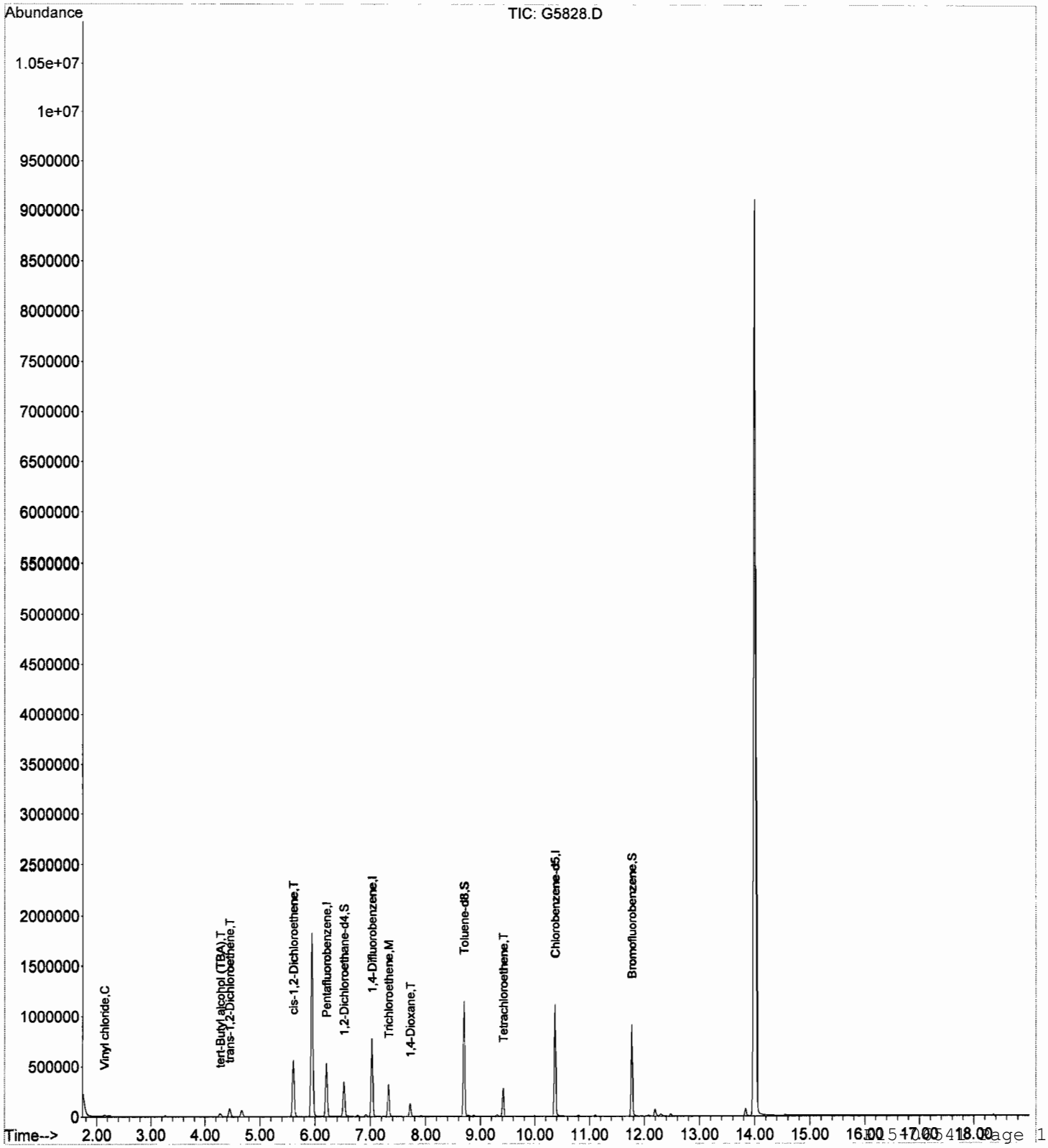
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	378377	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	632582	50.00	UG		0.00
50) Chlorobenzene-d5	10.37	117	616511	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.52	65	267164	52.83	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 105.66%				
41) Toluene-d8	8.70	98	774852	49.37	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.74%				
59) Bromofluorobenzene	11.77	95	343417	49.05	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 98.10%				
Target Compounds							Qvalue
4) Vinyl chloride	2.15	62	20243	3.62	UG		100
15) tert-Butyl alcohol (TBA)	4.28	59	50530	90.06	UG	#	100
16) trans-1,2-Dichloroethene	4.45	96	39095	8.89	UG	#	100
20) cis-1,2-Dichloroethene	5.61	96	278272	58.79	UG	#	100
33) Trichloroethene	7.33	95	113352	25.92	UG		95
36) 1,4-Dioxane	7.72	88	92578m	2517.91	UG		
45) Tetrachloroethene	9.42	166	84124	21.67	UG	#	100

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5828.D
Acq On : 6 Aug 2015 15:51
Operator : Sylvia
Sample : MW-12D,06541-005,A,2.5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 07 09:42:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5828.D
Acq On : 6 Aug 2015 15:51
Operator : Sylvia
Sample : MW-12D,06541-005,A,2.5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.449	509	520	545	rVB	80697	220839	1.01%	0.568%
2	5.605	723	741	760	rBV	562710	1358242	6.19%	3.494%
3	5.940	793	805	841	rBV	1825153	4354637	19.83%	11.202%
4	6.207	845	856	884	rVB	531557	1191607	5.43%	3.065%
5	6.521	902	916	927	rBV	346680	791941	3.61%	2.037%
6	7.028	1001	1013	1033	rBV	774512	1588782	7.24%	4.087%
7	7.326	1059	1070	1090	rVB	322691	664948	3.03%	1.711%
8	7.718	1134	1145	1161	rBV	130126	279209	1.27%	0.718%
9	8.702	1323	1333	1344	rBV	1145980	2148454	9.78%	5.527%
10	9.418	1460	1470	1479	rBV	279771	544686	2.48%	1.401%
11	10.370	1641	1652	1695	rBV	1116463	2118424	9.65%	5.450%
12	11.772	1906	1920	1945	rBV	913218	1651569	7.52%	4.249%
13	13.995	2331	2345	2406	rVV2	9113765	21958935	100.00%	56.490%

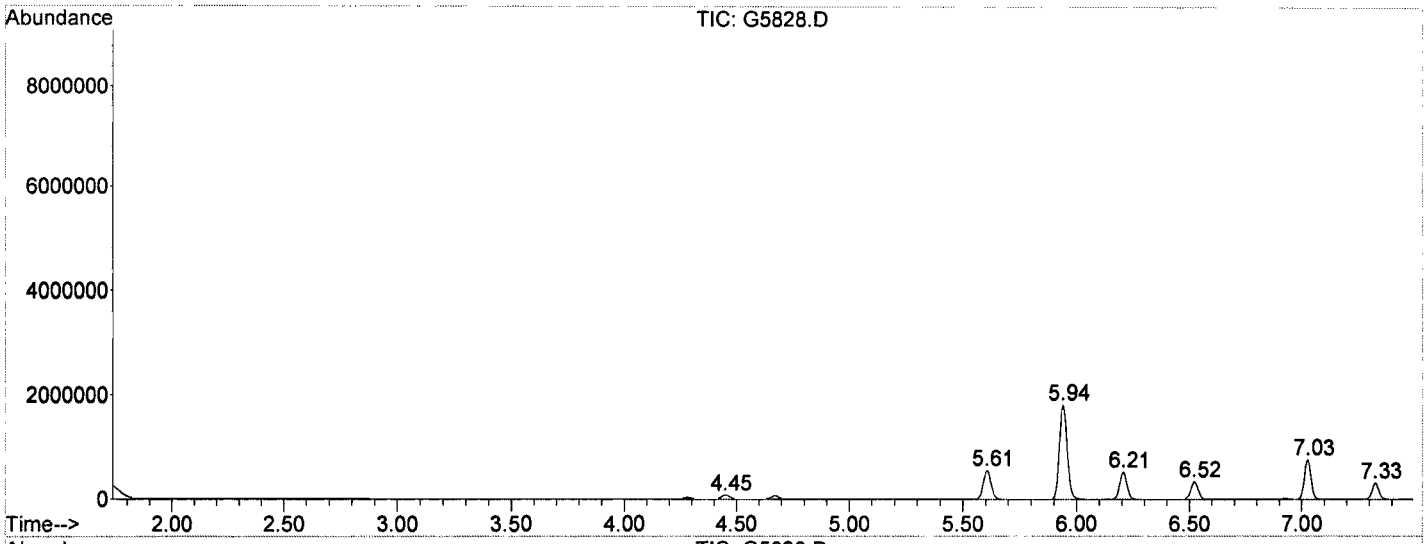
Sum of corrected areas: 38872273

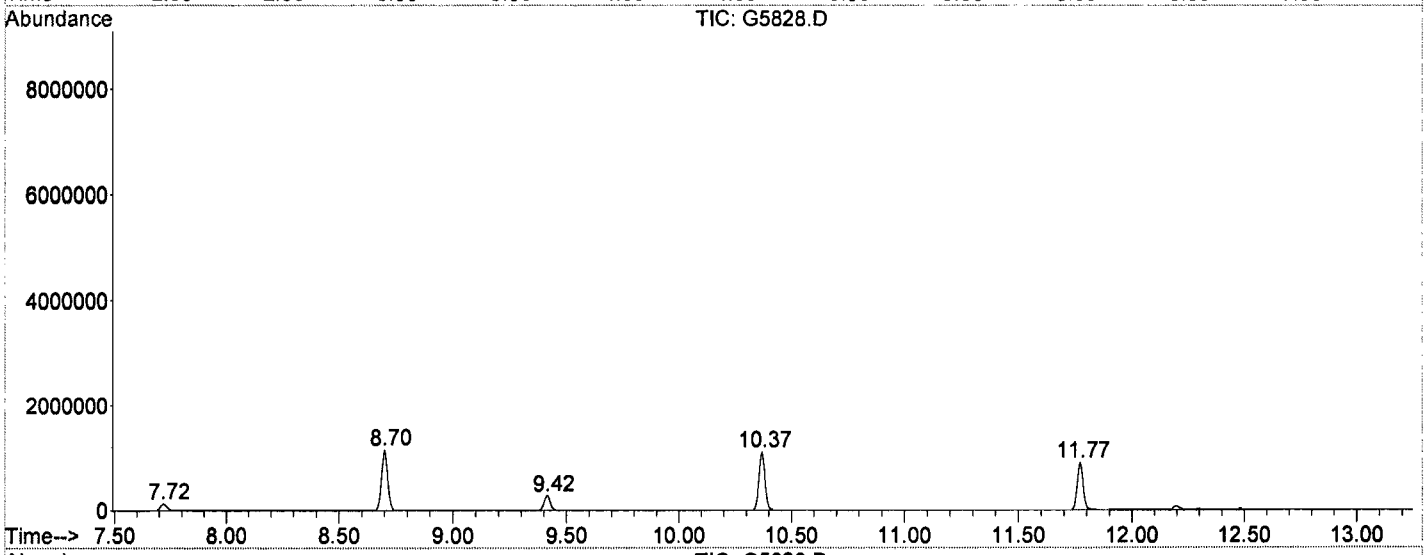
LSC Report - Integrated Chromatogram

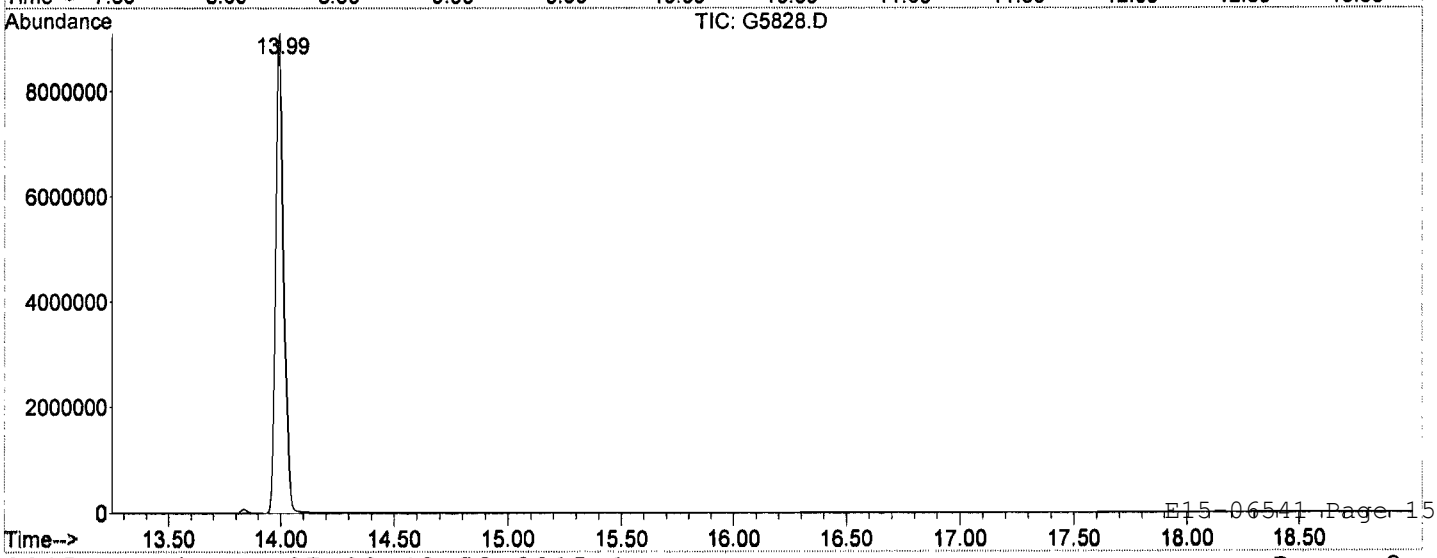
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5828.D
Acq On : 6 Aug 2015 15:51
Operator : Sylvia
Sample : MW-12D,06541-005,A,2.5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5828.D
Acq On : 6 Aug 2015 15:51
Operator : Sylvia
Sample : MW-12D,06541-005,A,2.5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2
ALS Vial : 8 Sample Multiplier: 1

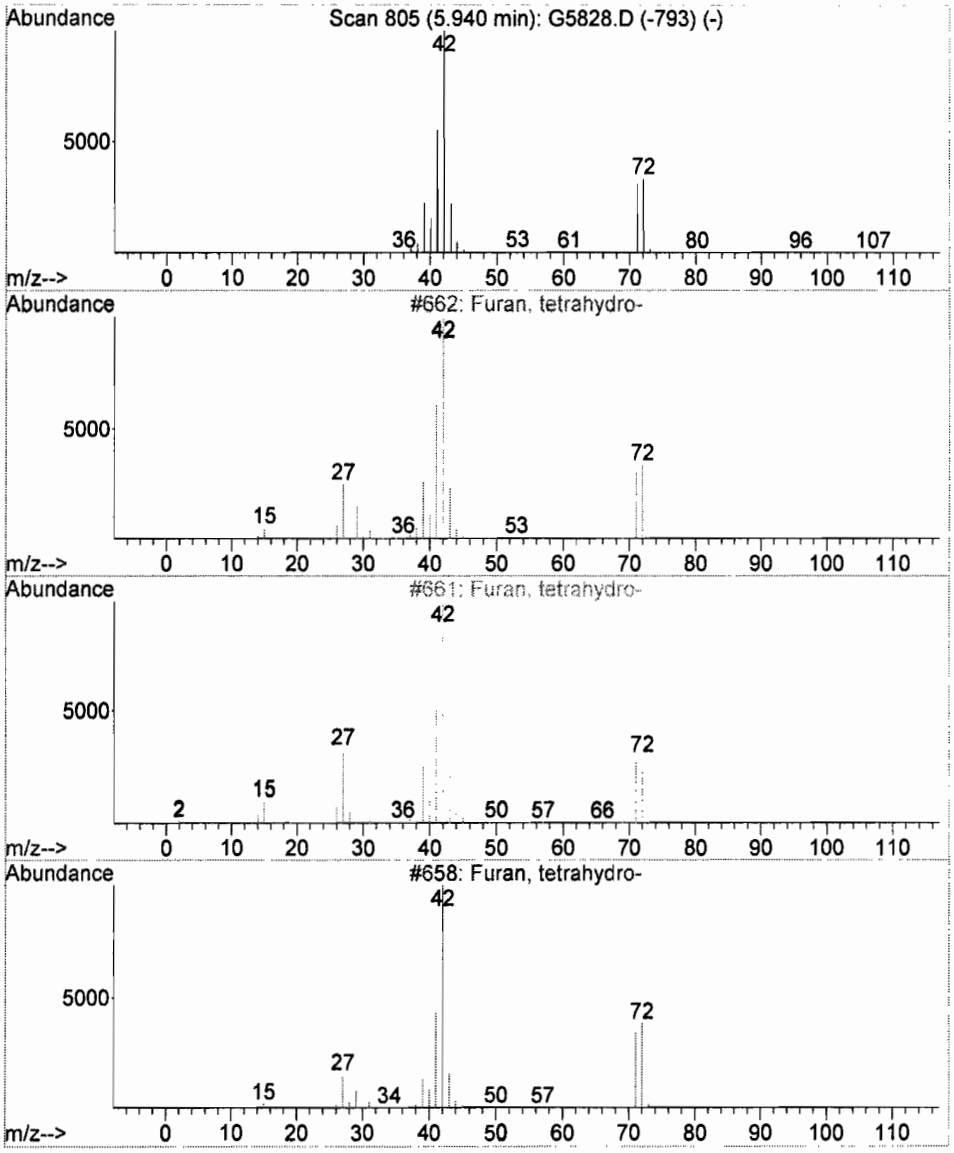
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

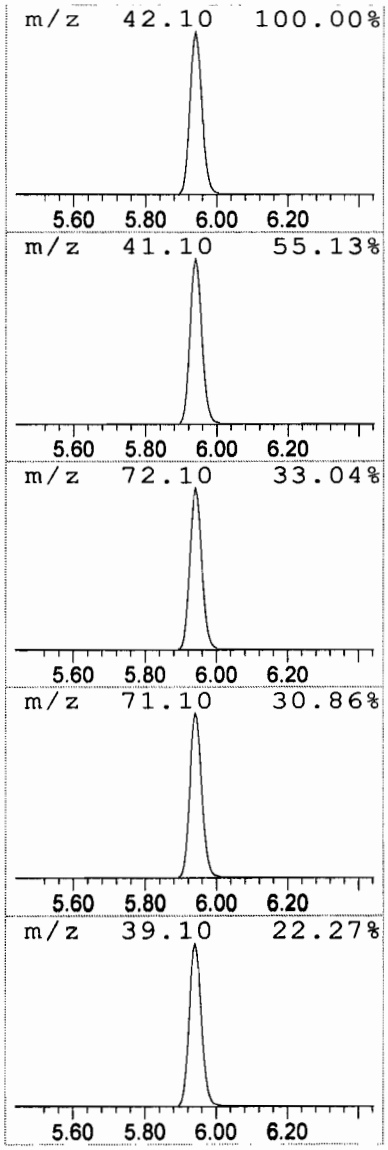
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Furan, tetrahydro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.94	182.72 UG	4354640	Pentafluorobenzene	6.21

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, tetrahydro-	72	C4H8O	000109-99-9	91
2	Furan, tetrahydro-	72	C4H8O	000109-99-9	83
3	Furan, tetrahydro-	72	C4H8O	000109-99-9	83
4	1-Propene, 2-methoxy-	72	C4H8O	000116-11-0	72
5	1-Propene, 2-methoxy-	72	C4H8O	000116-11-0	64





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5828.D
Acq On : 6 Aug 2015 15:51
Operator : Sylvia
Sample : MW-12D,06541-005,A,2.5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2
ALS Vial : 8 Sample Multiplier: 1

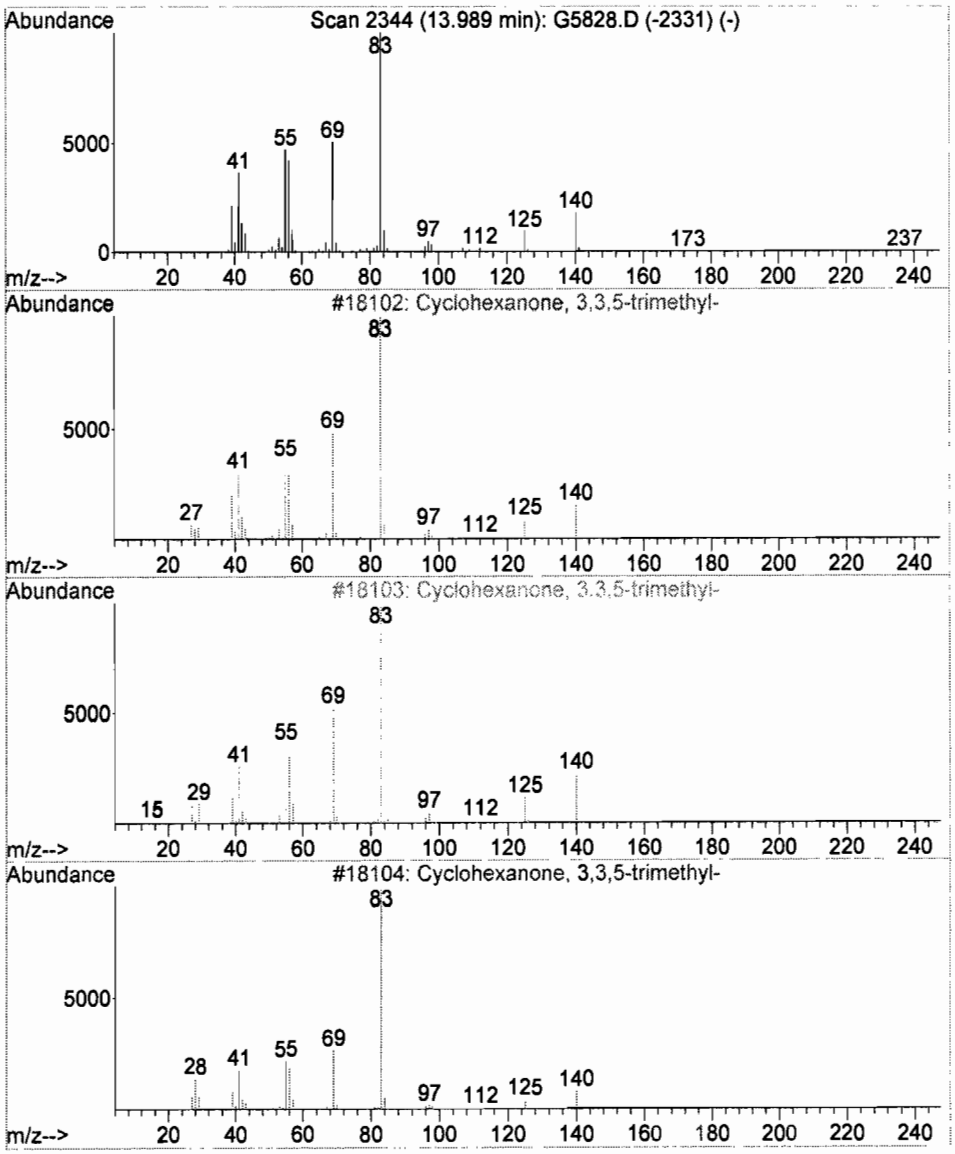
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

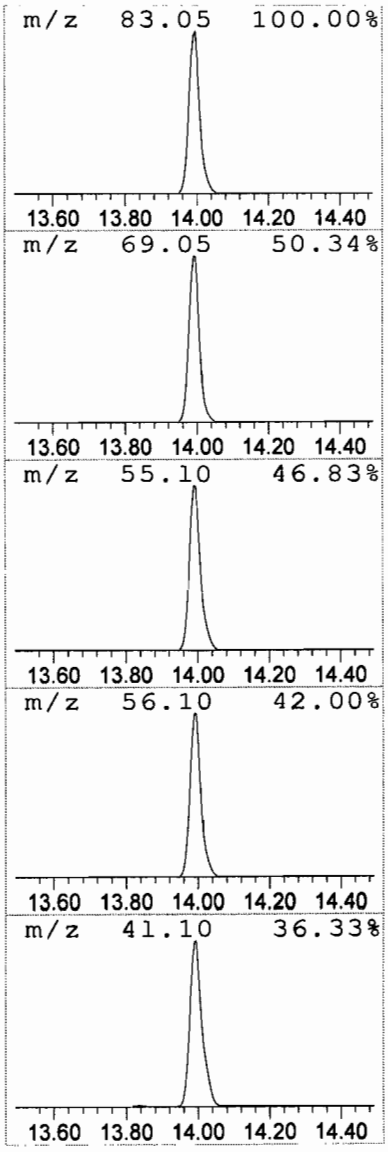
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Cyclohexanone, 3,3,5-trimet... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.99	518.29 UG	21958900	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	95
2	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	95
3	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	91
4	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	91
5	1H-1,2,4-Triazole, 3-methyl-	83	C3H5N3	007170-01-6	53





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5829.D
Acq On : 6 Aug 2015 16:19
Operator : Sylvia
Sample : MW-15D,06541-006,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 07 09:54:26 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

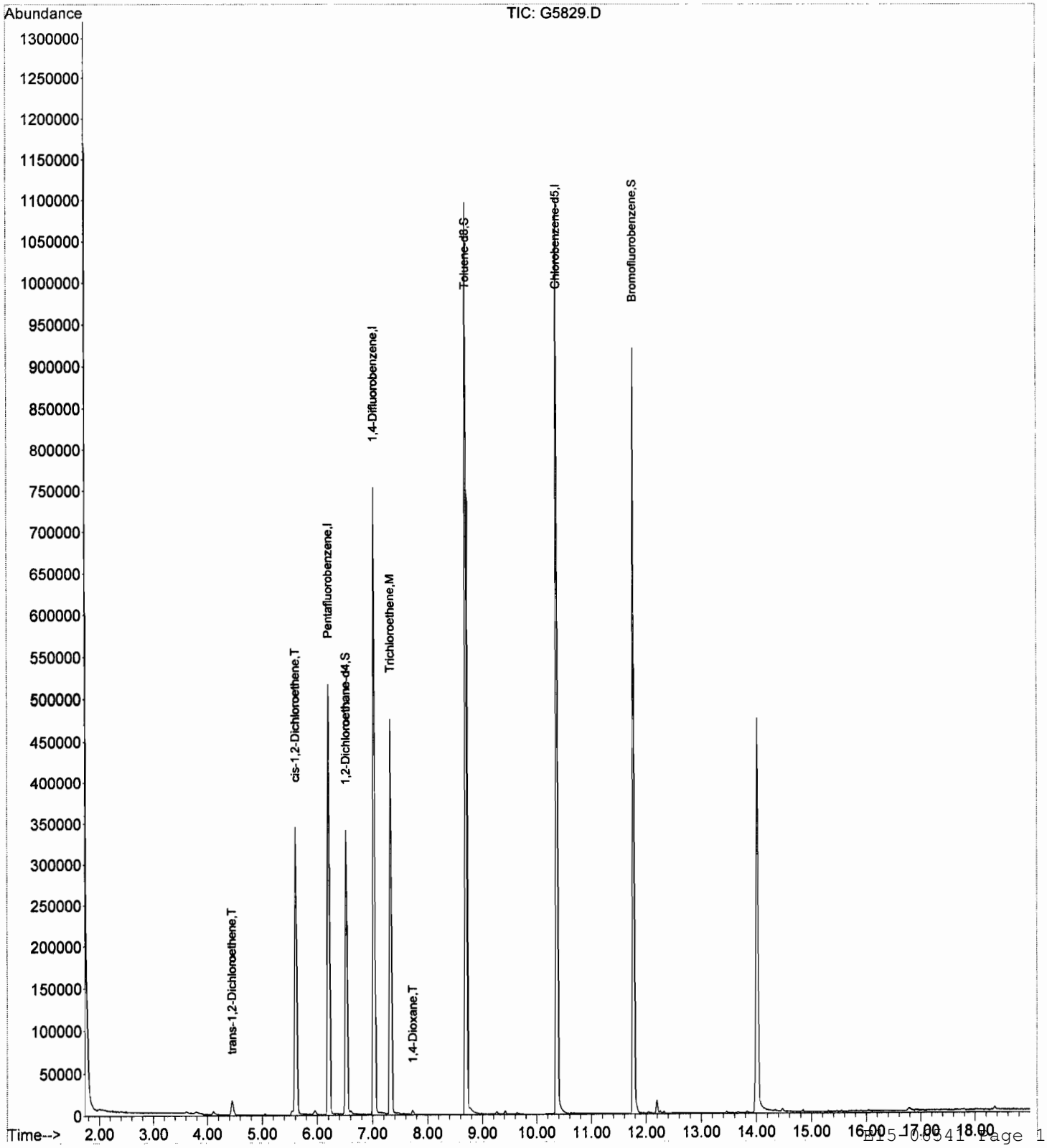
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	363867	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	619353	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	614458	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	266455	54.79	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 109.58%			
41) Toluene-d8	8.70	98	760807	49.51	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.02%			
59) Bromofluorobenzene	11.77	95	341707	48.97	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.94%			
Target Compounds						Qvalue
16) trans-1,2-Dichloroethene	4.45	96	7881	1.86	UG	# 68
20) cis-1,2-Dichloroethene	5.61	96	163933	36.01	UG	# 100
33) Trichloroethene	7.33	95	170165	39.74	UG	94
36) 1,4-Dioxane	7.72	88	3237m	89.92	UG	

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5829.D
Acq On : 6 Aug 2015 16:19
Operator : Sylvia
Sample : MW-15D,06541-006,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 07 09:54:26 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5829.D
Acq On : 6 Aug 2015 16:19
Operator : Sylvia
Sample : MW-15D,06541-006,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.449	510	520	538	rVB3	16999	50316	2.32%	0.407%
2	5.605	731	741	761	rVB	343808	803594	37.08%	6.504%
3	6.207	844	856	872	rBV	515991	1146344	52.89%	9.278%
4	6.521	905	916	930	rBV	340230	756906	34.92%	6.126%
5	7.028	1002	1013	1046	rBV	752285	1574125	72.63%	12.741%
6	7.326	1059	1070	1104	rVB	474172	977503	45.10%	7.912%
7	8.702	1320	1333	1382	rBV	1096230	2167367	100.00%	17.542%
8	10.370	1638	1652	1692	rBV	1100867	2089729	96.42%	16.914%
9	11.772	1909	1920	1941	rBV	919768	1625452	75.00%	13.156%
10	12.195	1992	2001	2009	rBV	15410	32524	1.50%	0.263%
11	14.021	2331	2350	2380	rBV	474179	1131417	52.20%	9.157%

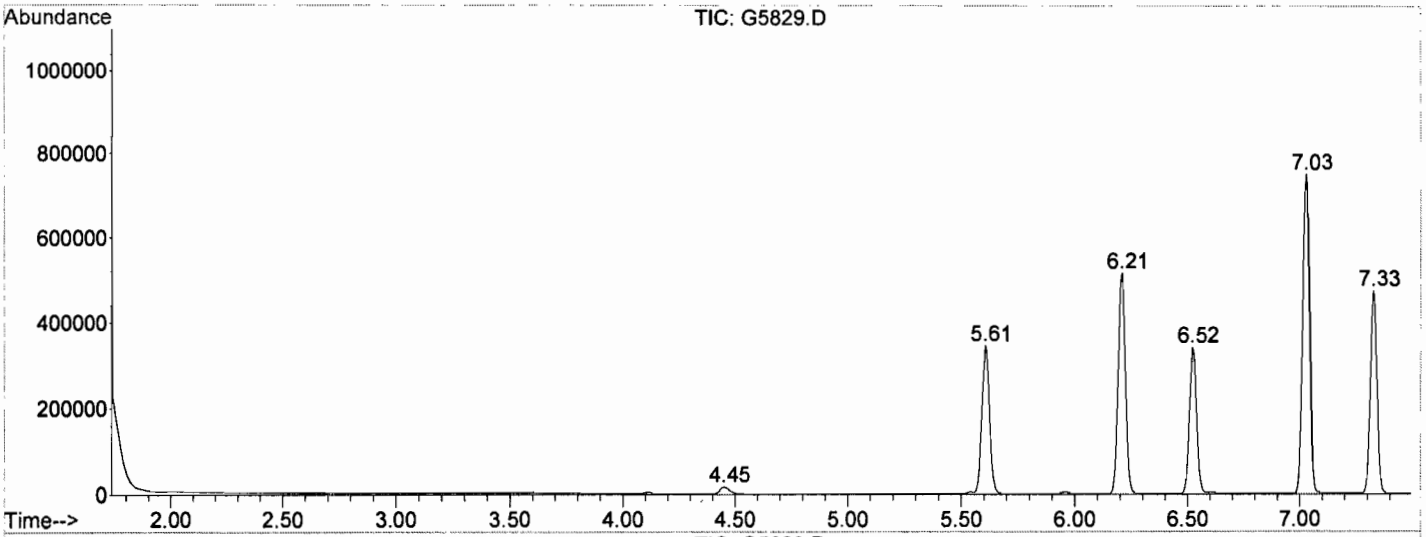
Sum of corrected areas: 12355277

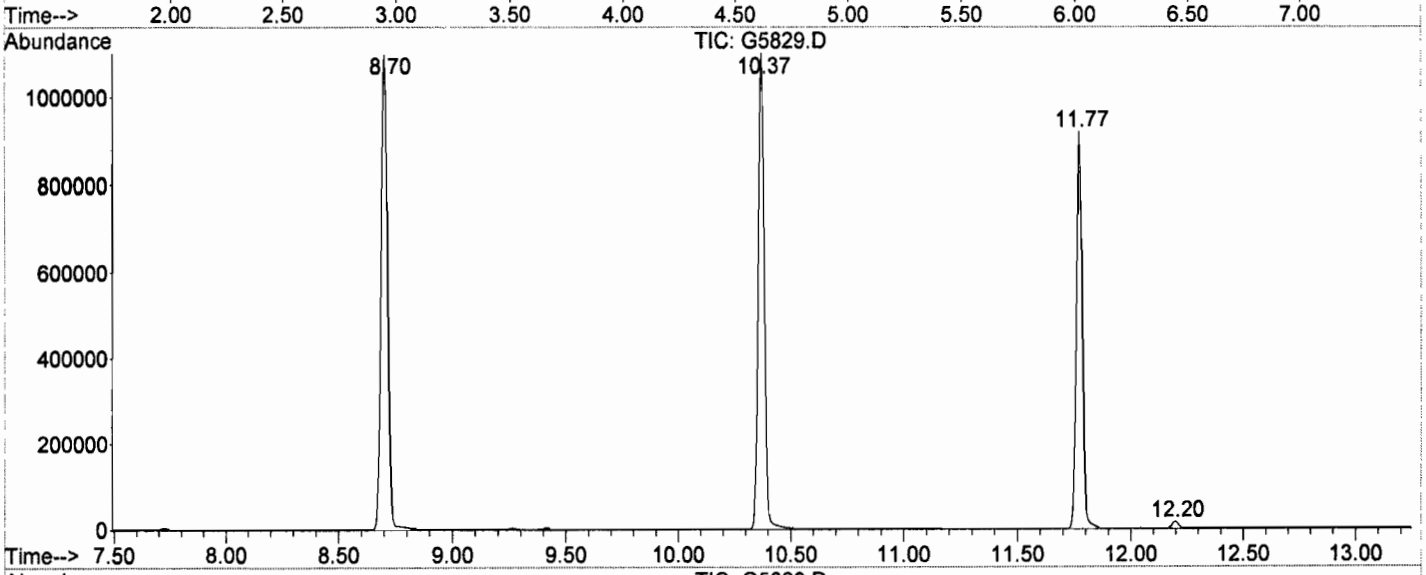
LSC Report - Integrated Chromatogram

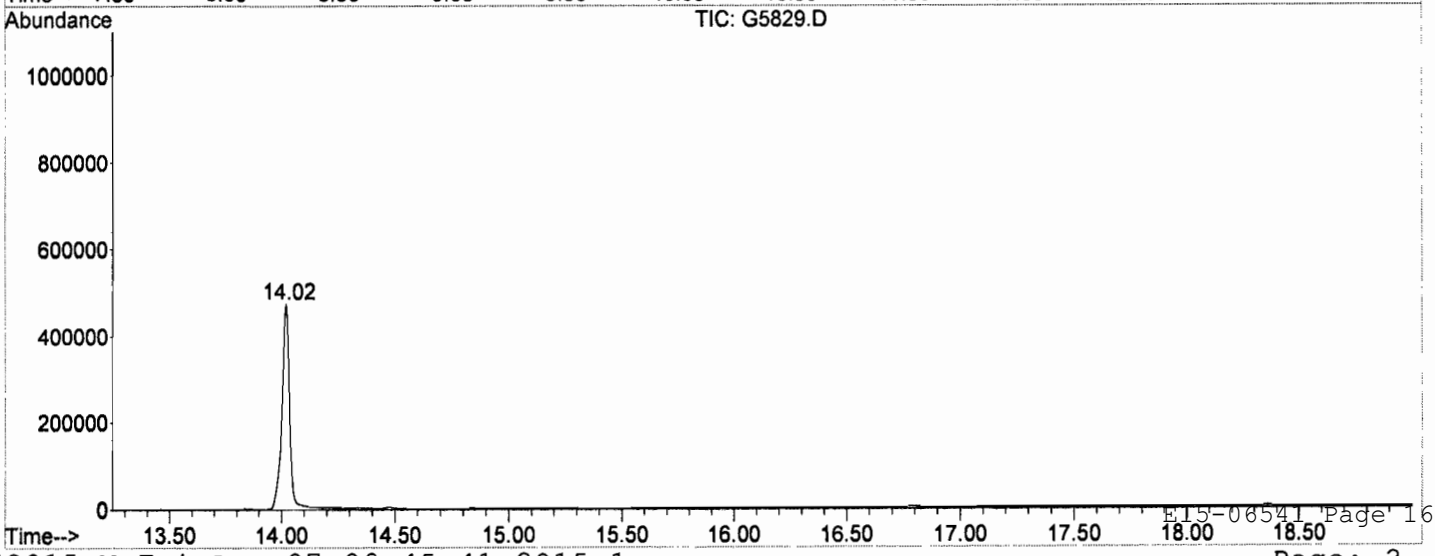
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5829.D
Acq On : 6 Aug 2015 16:19
Operator : Sylvia
Sample : MW-15D,06541-006,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5829.D
Acq On : 6 Aug 2015 16:19
Operator : Sylvia
Sample : MW-15D,06541-006,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 9 Sample Multiplier: 1

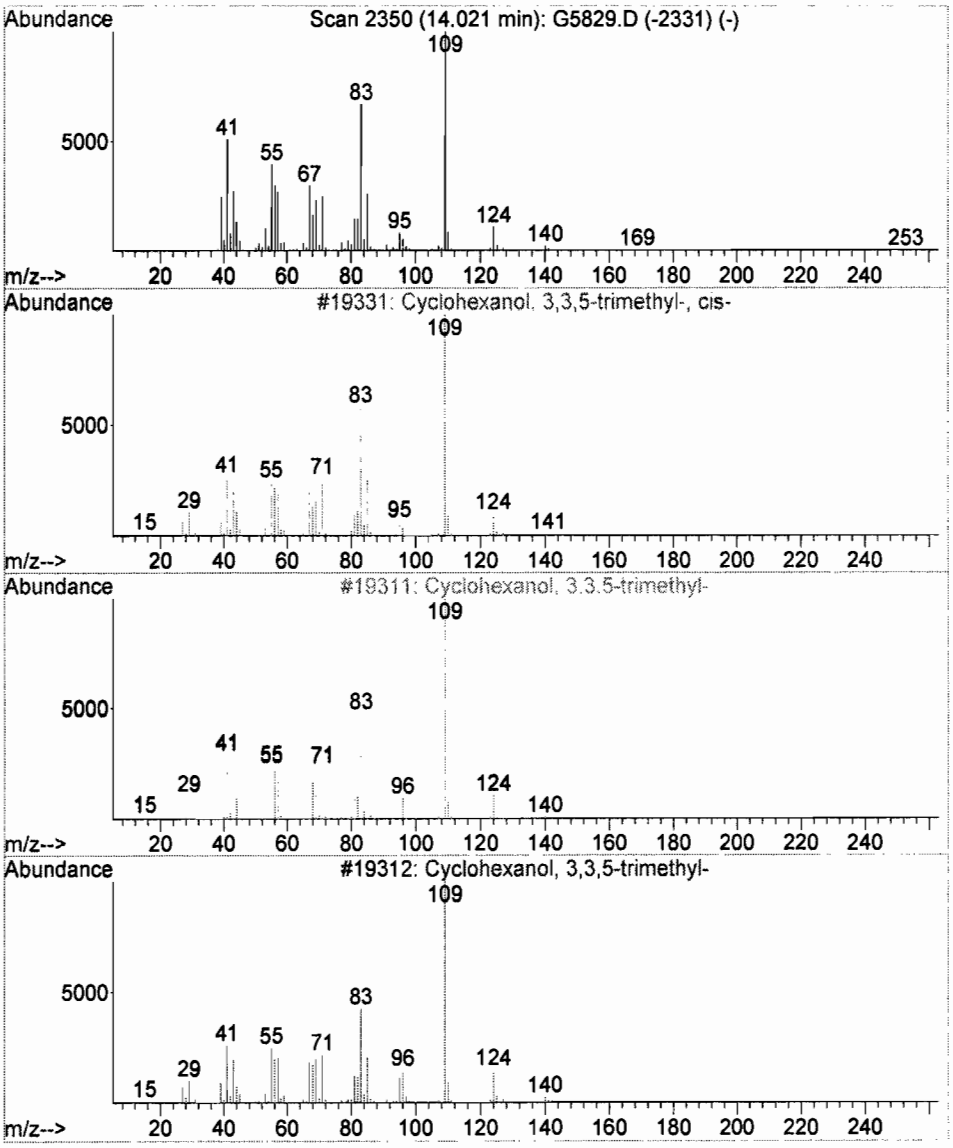
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

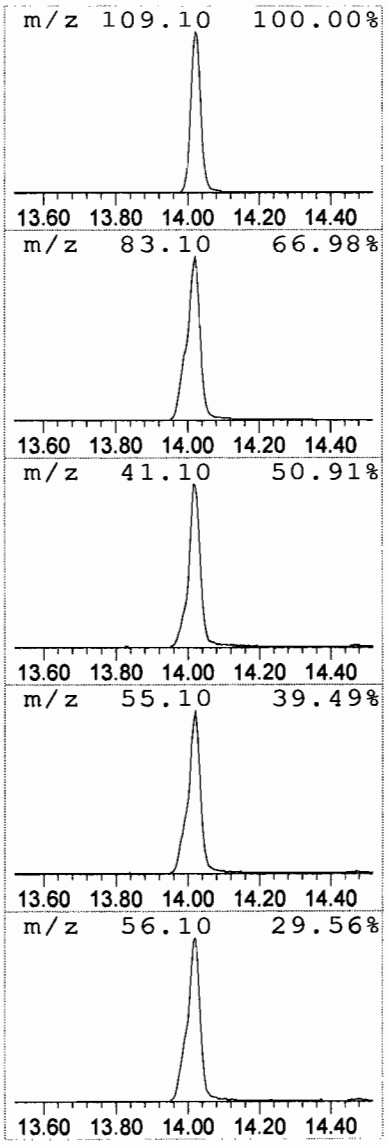
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Cyclohexanol, 3,3,5-trimeth... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	27.07 UG	1131420	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanol, 3,3,5-trimethyl-, ...	142	C9H18O	000933-48-2	91
2	Cyclohexanol, 3,3,5-trimethyl-	142	C9H18O	000116-02-9	83
3	Cyclohexanol, 3,3,5-trimethyl-	142	C9H18O	000116-02-9	72
4	6,6-Dimethylhepta-2,4-diene	124	C9H16	1000195-03-3	38
5	2-Cyclopenten-1-one, 3,4,4-trime...	124	C8H12O	030434-65-2	38





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5830.D
Acq On : 6 Aug 2015 16:47
Operator : Sylvia
Sample : MW-22S,06541-007,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 07 09:20:30 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	352959	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	602836	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	599981	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	255685	54.20	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 108.40%			
41) Toluene-d8	8.70	98	739731	49.45	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.90%			
59) Bromofluorobenzene	11.77	95	330765	48.55	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.10%			

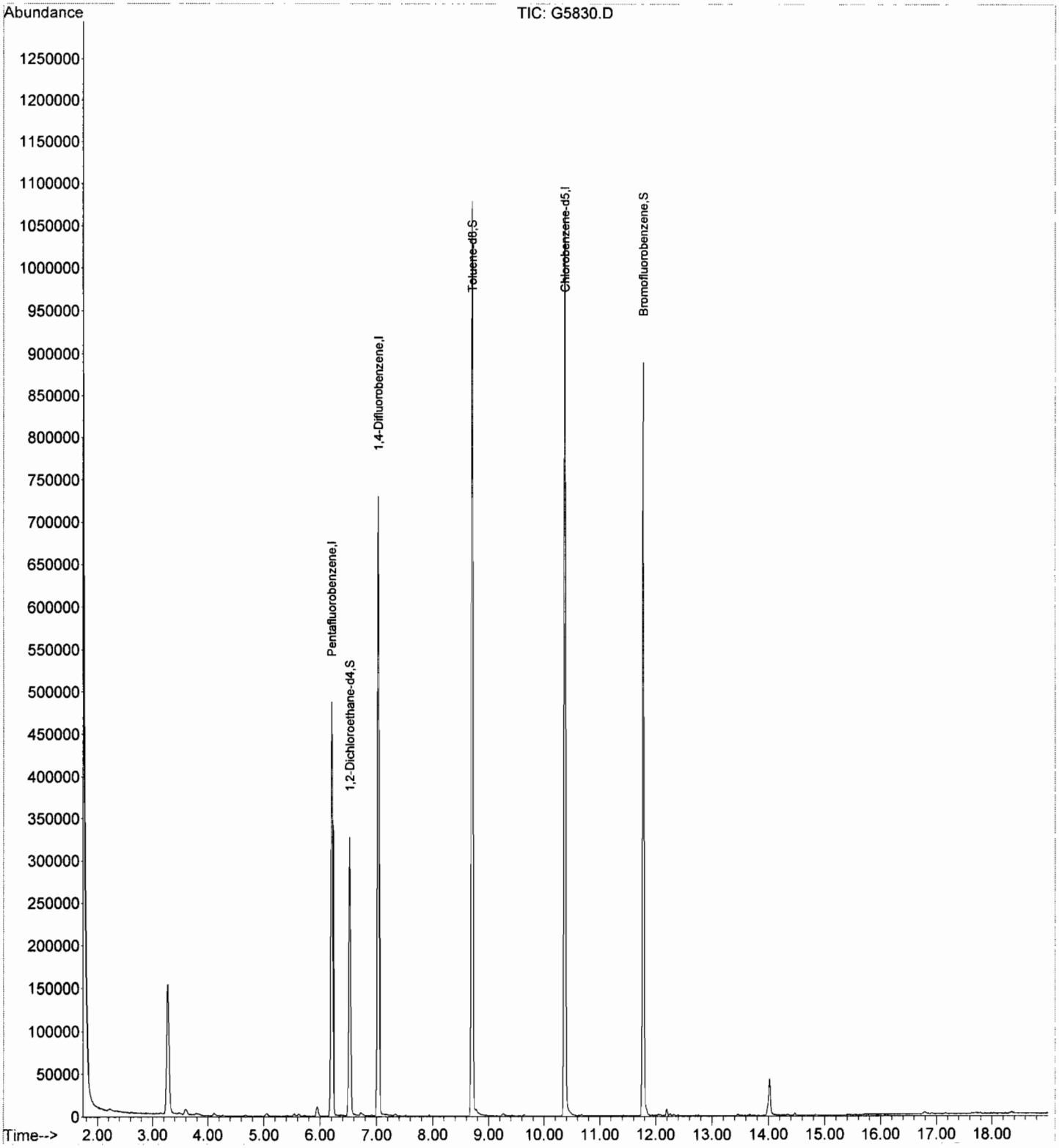
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5830.D
Acq On : 6 Aug 2015 16:47
Operator : Sylvia
Sample : MW-22S,06541-007,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 07 09:20:30 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5830.D
Acq On : 6 Aug 2015 16:47
Operator : Sylvia
Sample : MW-22S,06541-007,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.227	88	95	164	rVB2	5244	53196	2.51%	0.543%
2	3.267	283	294	326	rVB	150402	459793	21.70%	4.691%
3	3.592	347	356	386	rVV2	6654	27429	1.29%	0.280%
4	5.945	796	806	820	rBV	11550	30207	1.43%	0.308%
5	6.207	842	856	870	rBV	487139	1106554	52.23%	11.289%
6	6.526	902	917	931	rBV	327217	739049	34.89%	7.540%
7	7.028	1000	1013	1036	rBV	729364	1523968	71.94%	15.548%
8	8.702	1319	1333	1374	rBV	1079121	2118463	100.00%	21.613%
9	10.370	1640	1652	1690	rBV	1065302	2036665	96.14%	20.779%
10	11.772	1910	1920	1947	rBV	889539	1594303	75.26%	16.266%
11	14.021	2335	2350	2368	rBV3	43303	112005	5.29%	1.143%

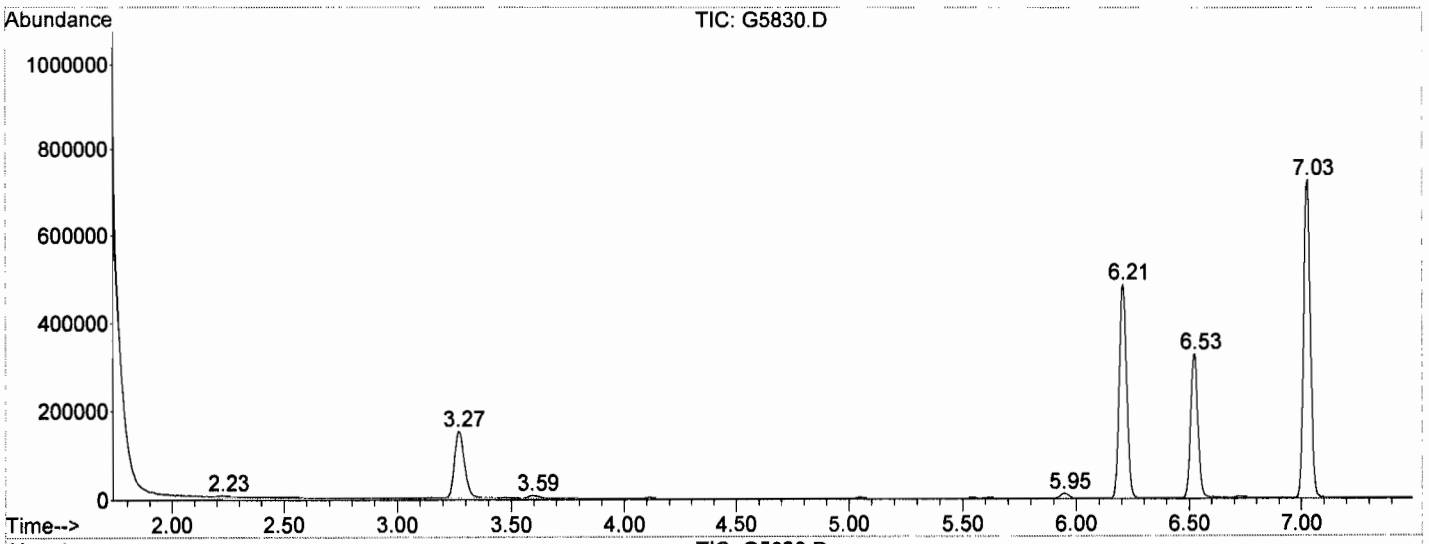
Sum of corrected areas: 9801632

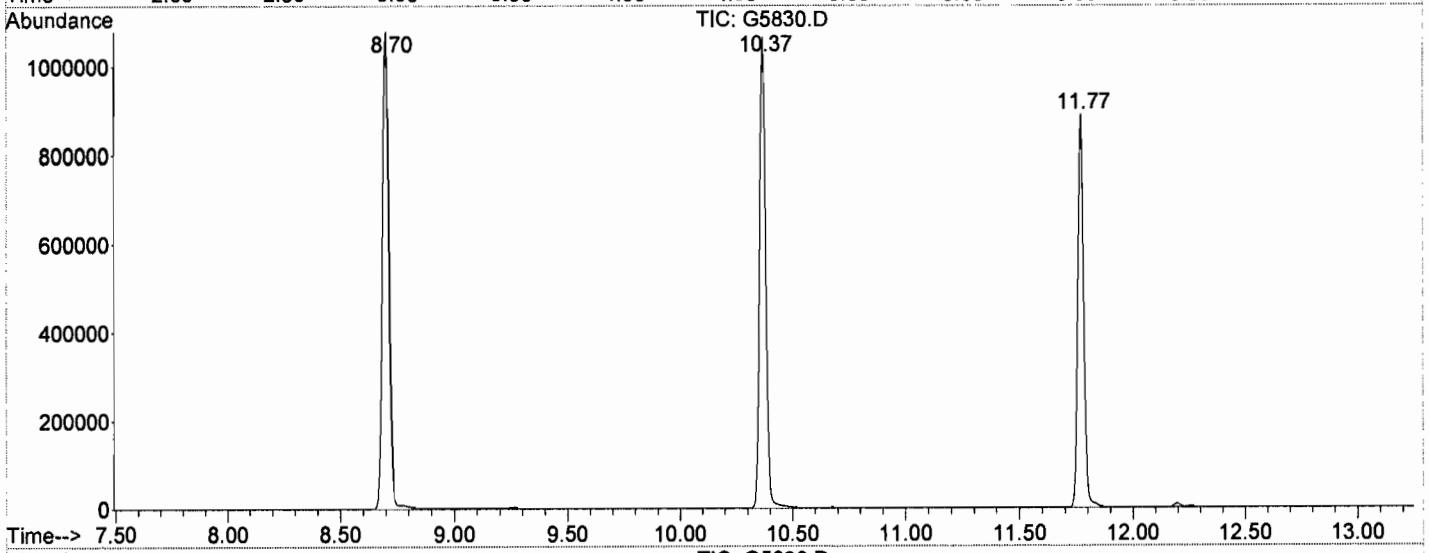
LSC Report - Integrated Chromatogram

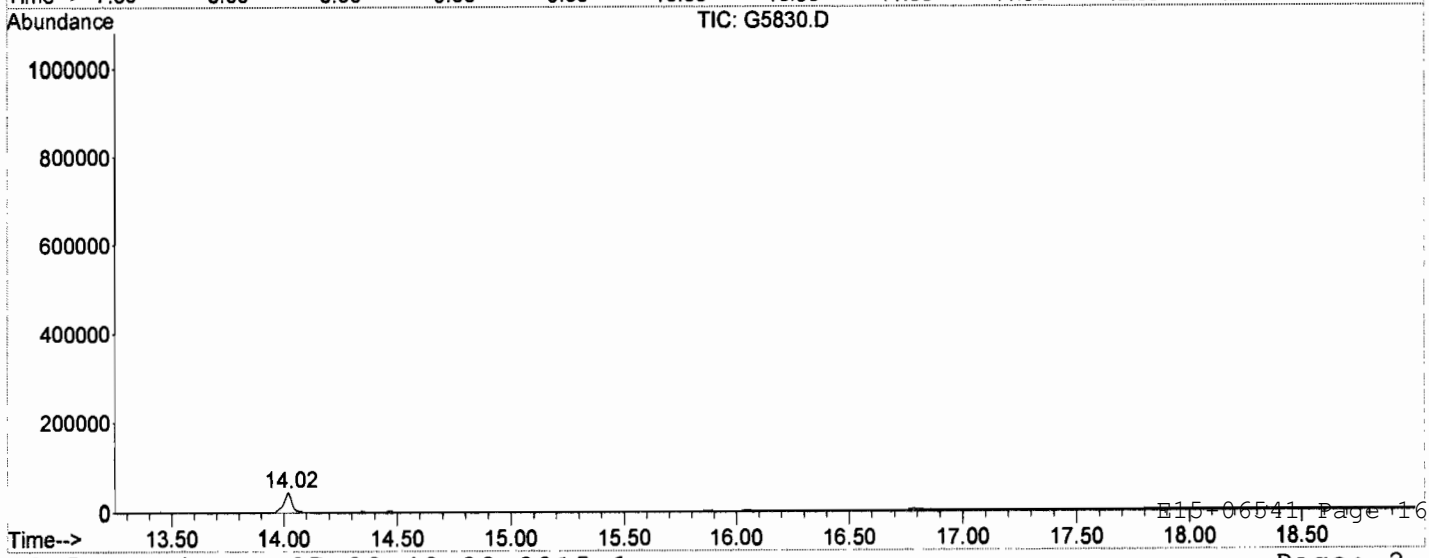
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5830.D
Acq On : 6 Aug 2015 16:47
Operator : Sylvia
Sample : MW-22S,06541-007,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5830.D
Acq On : 6 Aug 2015 16:47
Operator : Sylvia
Sample : MW-22S,06541-007,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

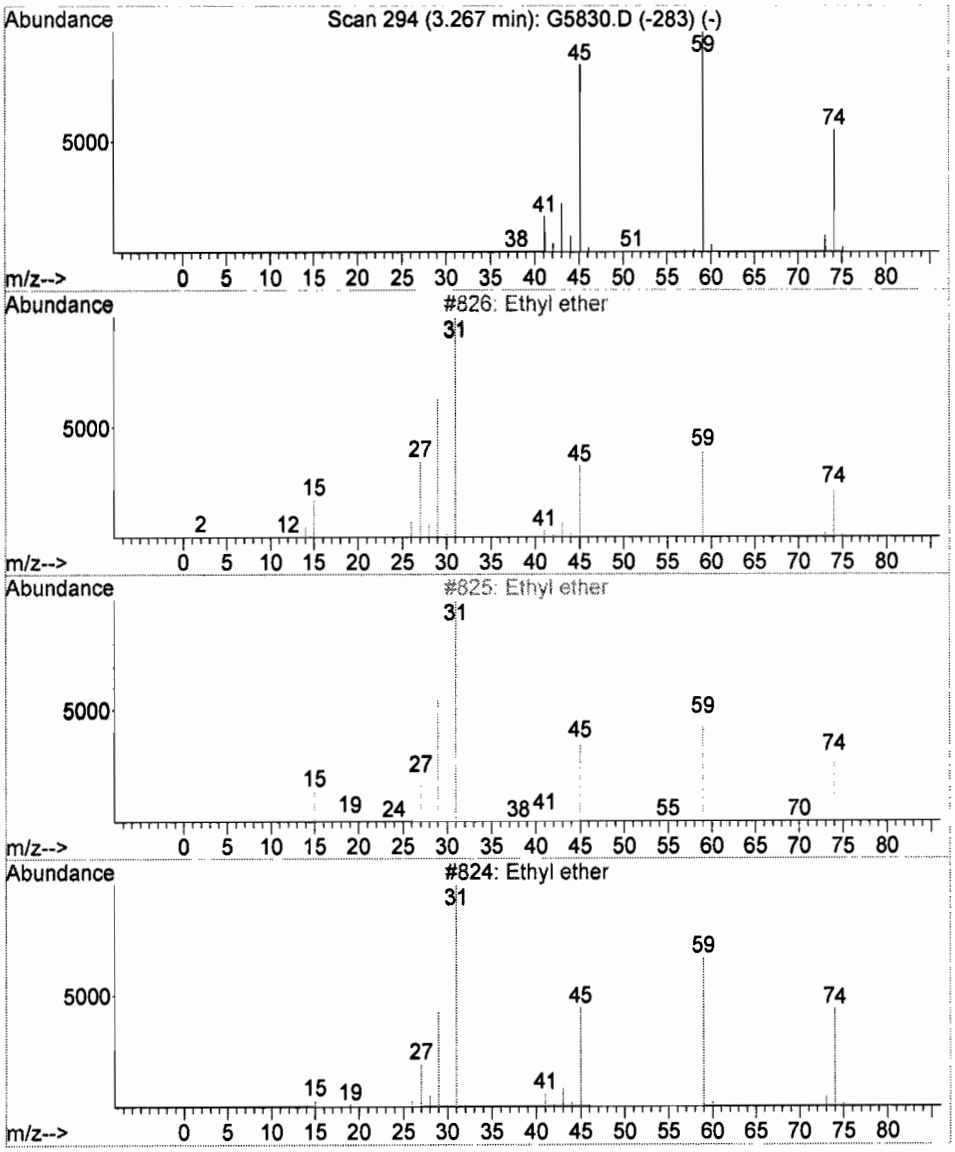
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

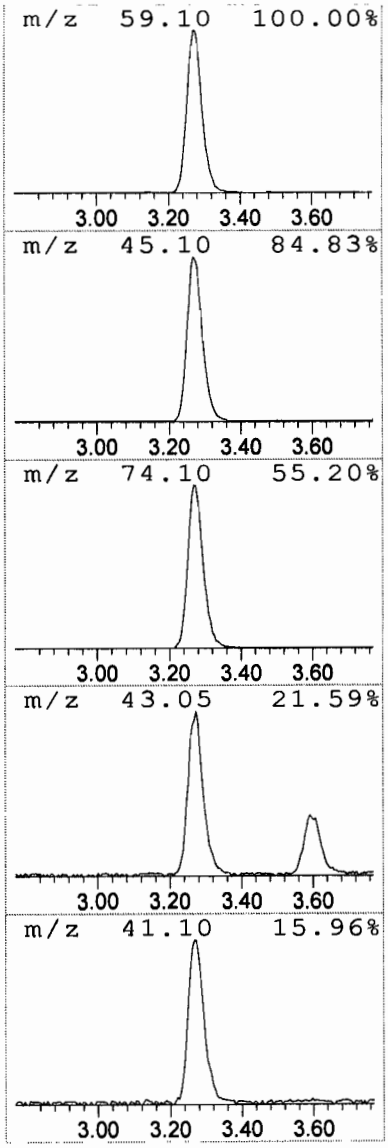
****

Peak Number 1 Ethyl ether Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.27	20.78 UG	459793	Pentafluorobenzene	6.21

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethyl ether	74	C4H10O	000060-29-7	90
2	Ethyl ether	74	C4H10O	000060-29-7	90
3	Ethyl ether	74	C4H10O	000060-29-7	59
4	Ethane, 1,2-diethoxy-	118	C6H14O2	000629-14-1	43
5	Ethane, 1,2-diethoxy-	118	C6H14O2	000629-14-1	38





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5831.D
Acq On : 6 Aug 2015 17:16
Operator : Sylvia
Sample : MW-22D,06541-008,A,0.0025mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2000
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 07 09:27:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

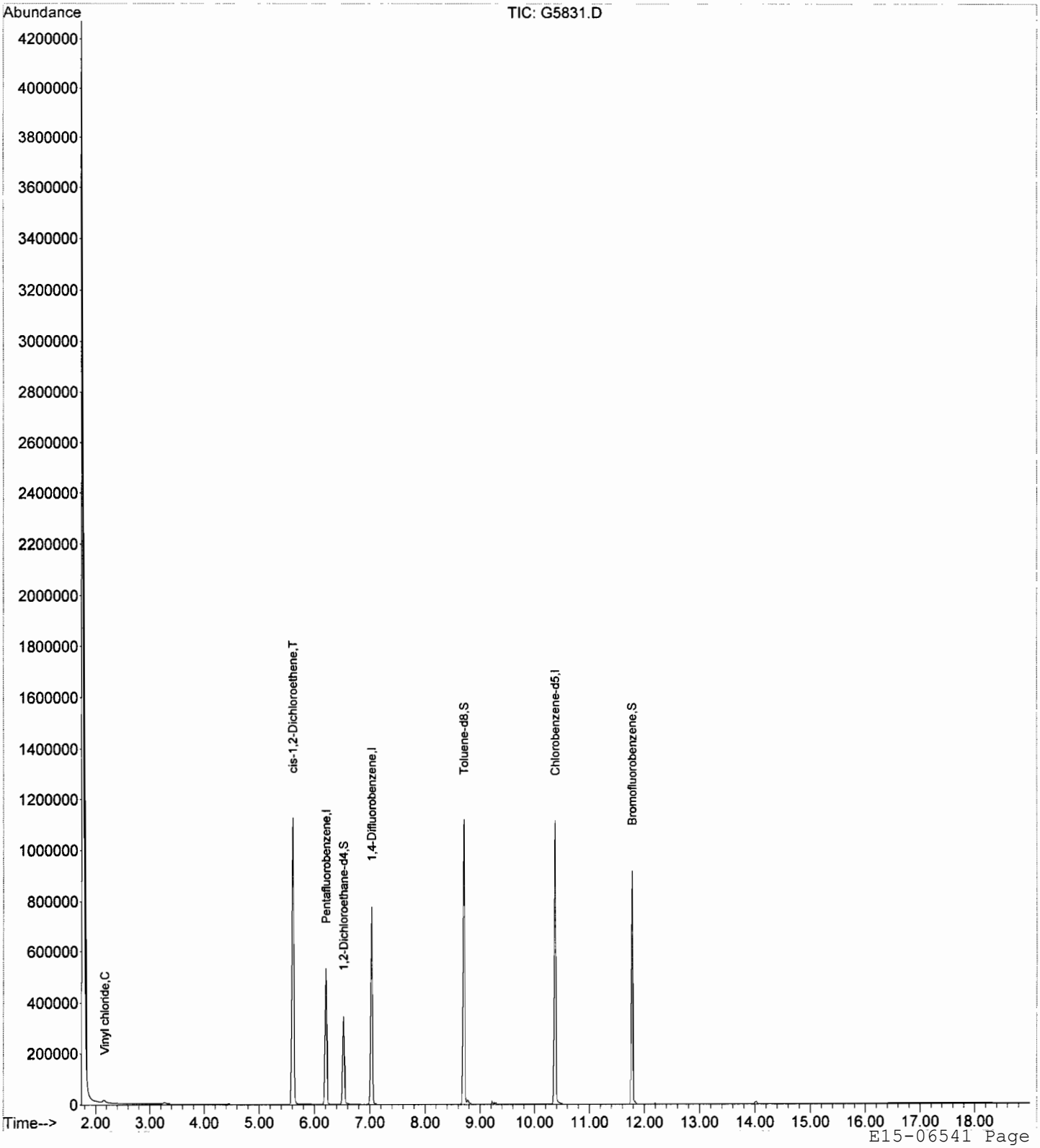
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	376736	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	632460	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	620352	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	267402	53.11	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 106.22%			
41) Toluene-d8	8.70	98	767150	48.88	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.76%			
59) Bromofluorobenzene	11.77	95	343780	48.80	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.60%			
Target Compounds						Qvalue
4) Vinyl chloride	2.16	62	21097	3.79	UG	100
20) cis-1,2-Dichloroethene	5.61	96	538513	114.26	UG #	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5831.D
Acq On : 6 Aug 2015 17:16
Operator : Sylvia
Sample : MW-22D,06541-008,A,0.0025mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2000
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 07 09:27:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5831.D
Acq On : 6 Aug 2015 17:16
Operator : Sylvia
Sample : MW-22D,06541-008,A,0.0025mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2000
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.164	73	83	110	rVB2	11921	57414	2.16%	0.469%
2	5.605	720	741	769	rBV	1126782	2655057	100.00%	21.708%
3	6.207	842	856	876	rBV	533297	1182633	44.54%	9.669%
4	6.521	906	916	943	rBV	345102	773911	29.15%	6.327%
5	7.028	1000	1013	1063	rBV	776775	1608445	60.58%	13.151%
6	8.702	1320	1333	1343	rBV	1119038	2159861	81.35%	17.659%
7	8.775	1343	1347	1368	rVB2	16137	42651	1.61%	0.349%
8	10.370	1641	1652	1679	rBV	1113559	2110289	79.48%	17.254%
9	11.772	1907	1920	1952	rBV	915396	1640718	61.80%	13.414%

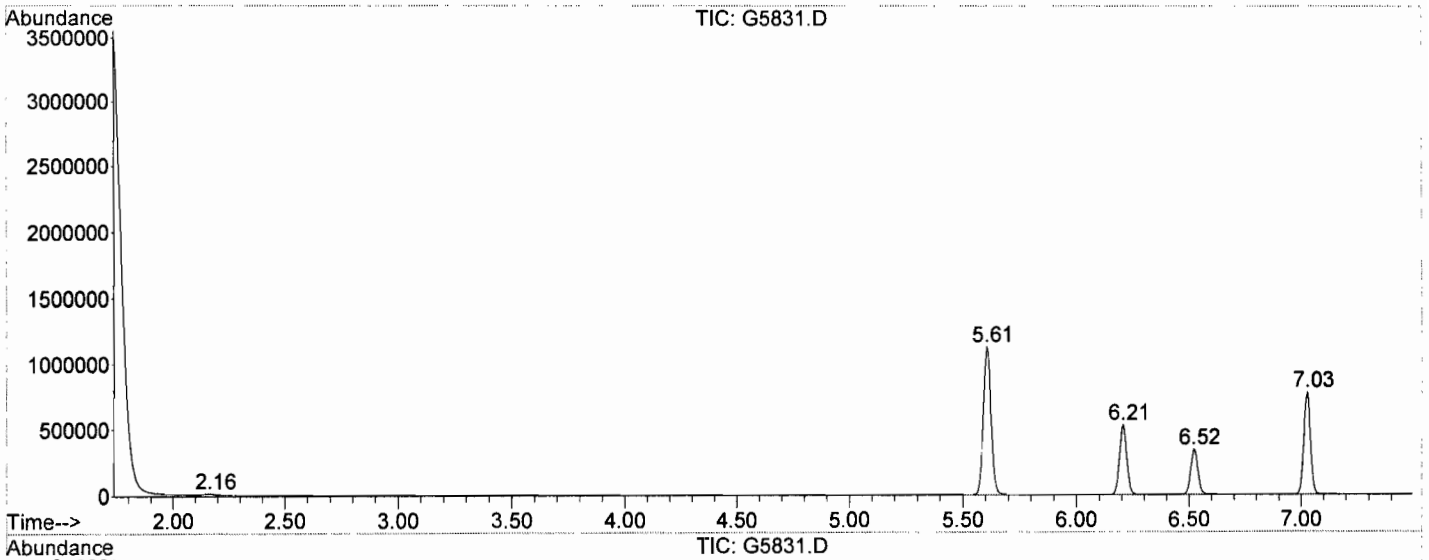
Sum of corrected areas: 12230979

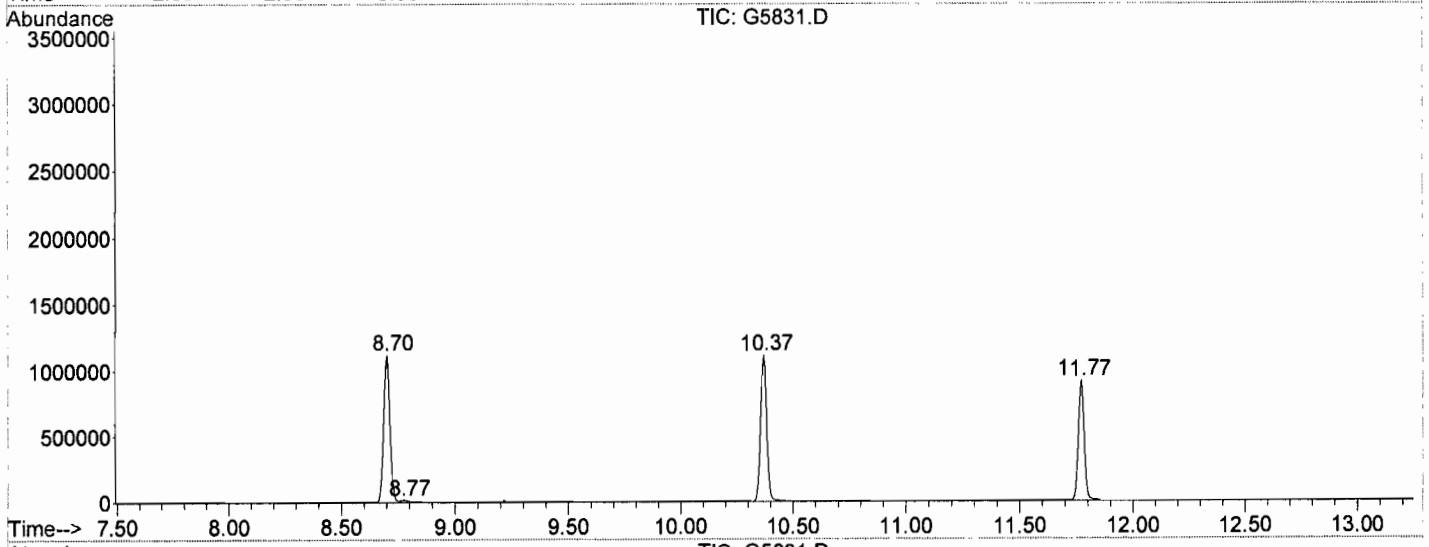
LSC Report - Integrated Chromatogram

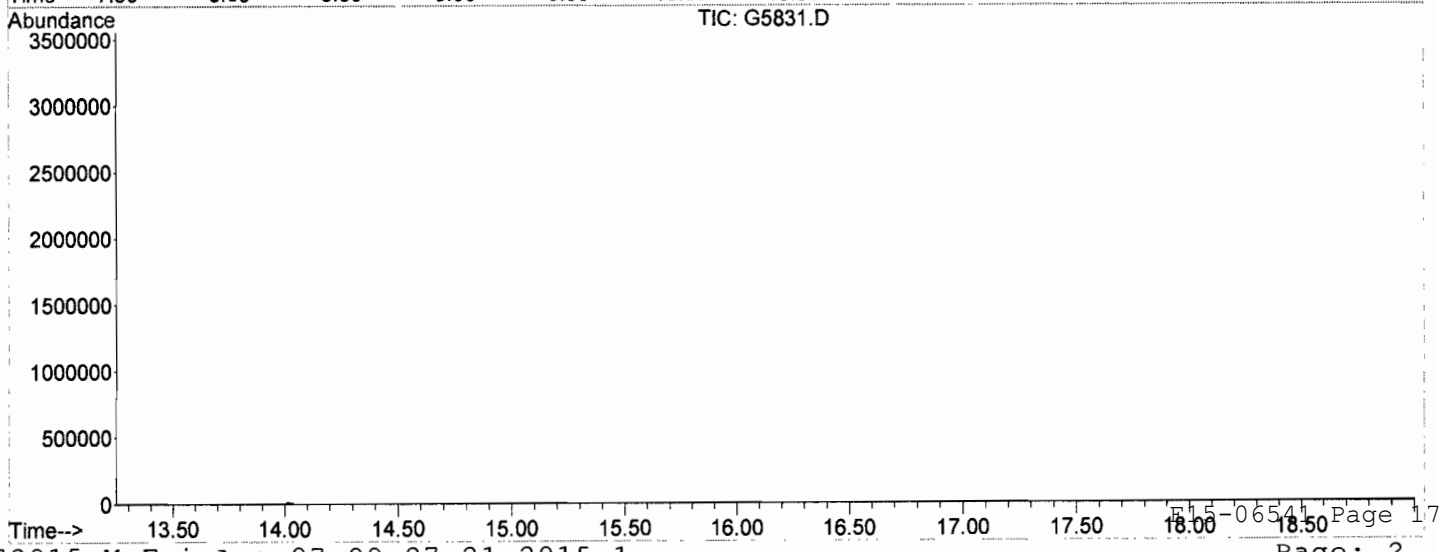
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5831.D
Acq On : 6 Aug 2015 17:16
Operator : Sylvia
Sample : MW-22D,06541-008,A,0.0025mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,2000
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5832.D
Acq On : 6 Aug 2015 17:44
Operator : Sylvia
Sample : MW-37D,06541-009,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 07 09:28:39 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	371264	50.00 UG	0.00
31) 1,4-Difluorobenzene	7.03	114	638208	50.00 UG	0.00
50) Chlorobenzene-d5	10.37	117	625078	50.00 UG	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d4	6.52	65	269229	54.26 UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 108.52%		
41) Toluene-d8	8.70	98	768795	48.55 UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.10%		
59) Bromofluorobenzene	11.77	95	345094	48.61 UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.22%		

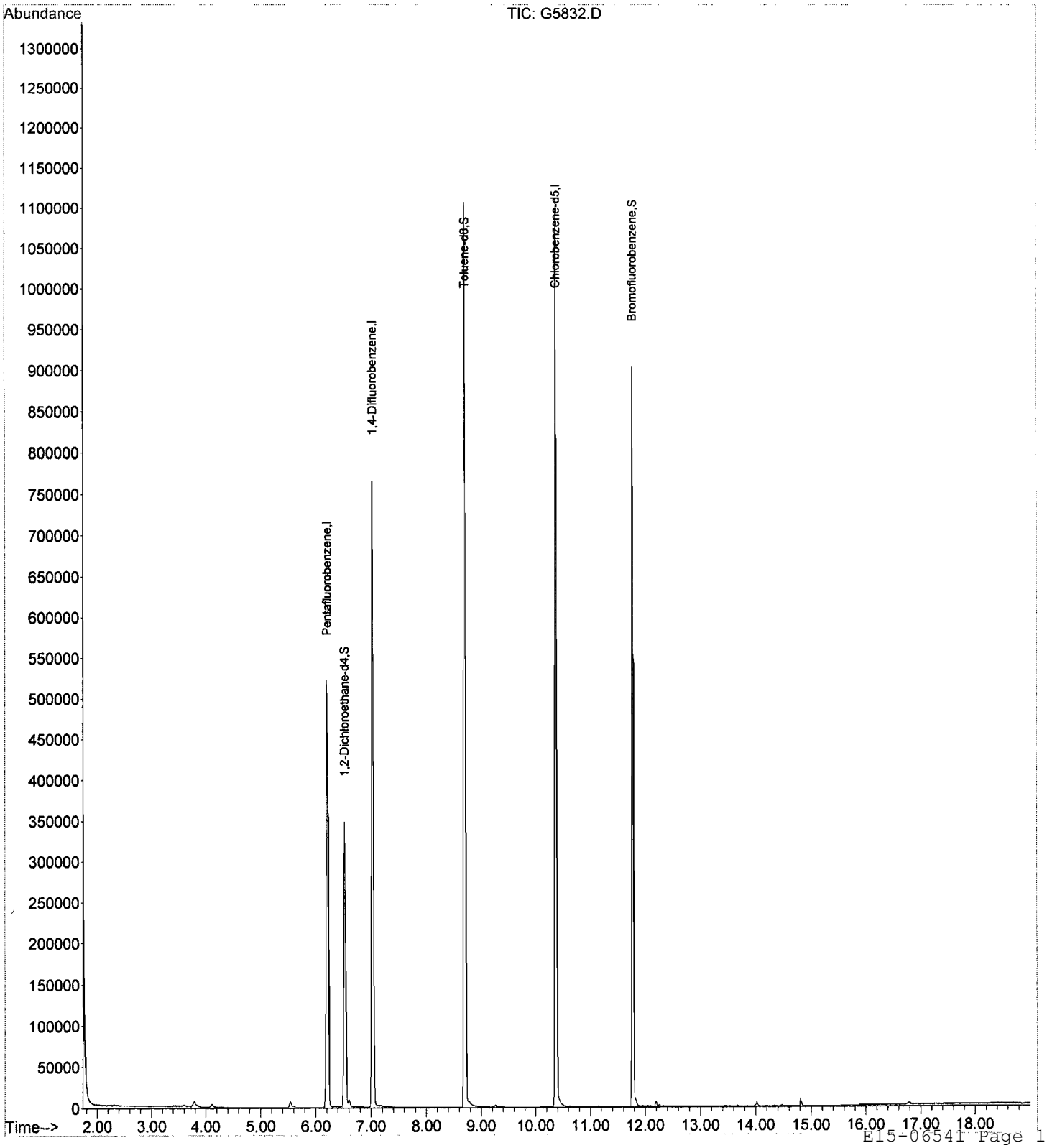
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5832.D
Acq On : 6 Aug 2015 17:44
Operator : Sylvia
Sample : MW-37D,06541-009,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 07 09:28:39 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5832.D
Acq On : 6 Aug 2015 17:44
Operator : Sylvia
Sample : MW-37D,06541-009,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.785	382	393	420	rVB3	6650	30747	1.40%	0.322%
2	6.207	844	856	877	rBV	521141	1169279	53.27%	12.259%
3	6.521	904	916	927	rBV	347707	766403	34.92%	8.035%
4	7.028	998	1013	1030	rBV	764569	1597786	72.80%	16.752%
5	8.702	1321	1333	1369	rBV	1105952	2194833	100.00%	23.012%
6	10.370	1640	1652	1691	rBV	1111174	2127579	96.94%	22.307%
7	11.772	1906	1920	1949	rBV	903116	1651289	75.24%	17.313%

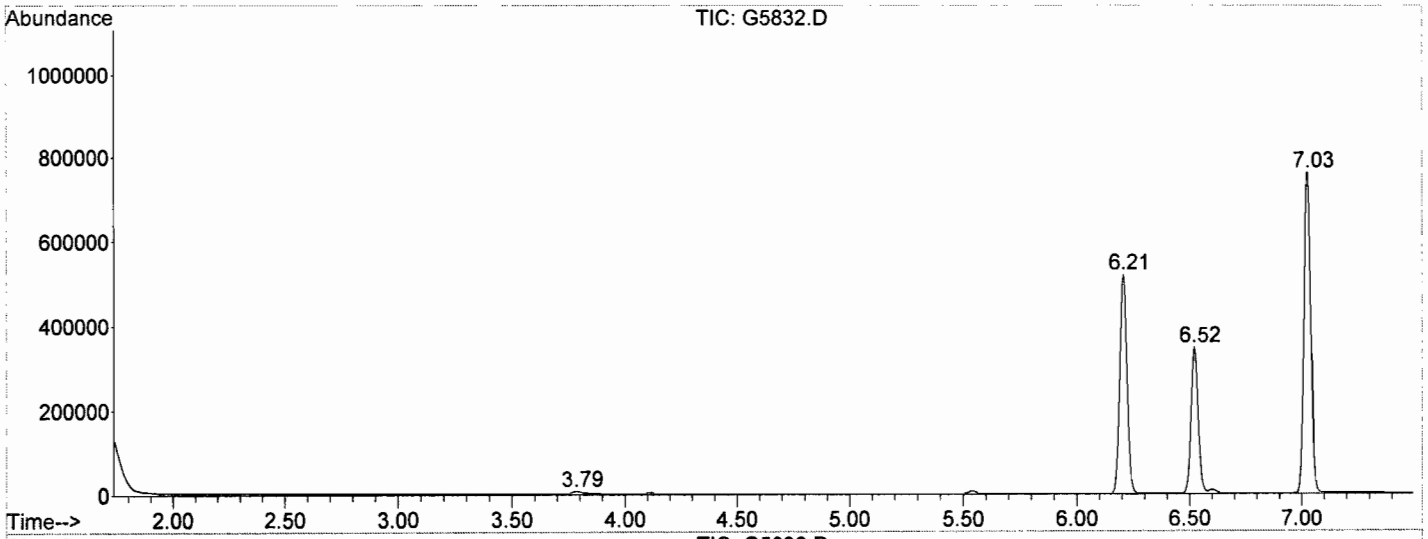
Sum of corrected areas: 9537916

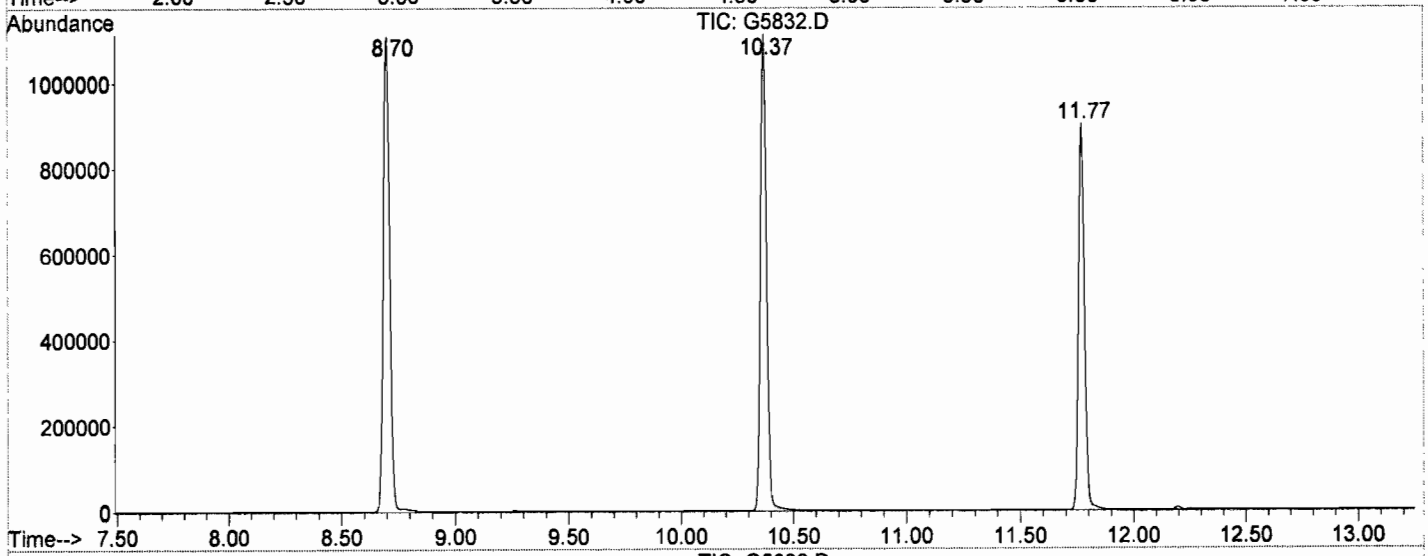
LSC Report - Integrated Chromatogram

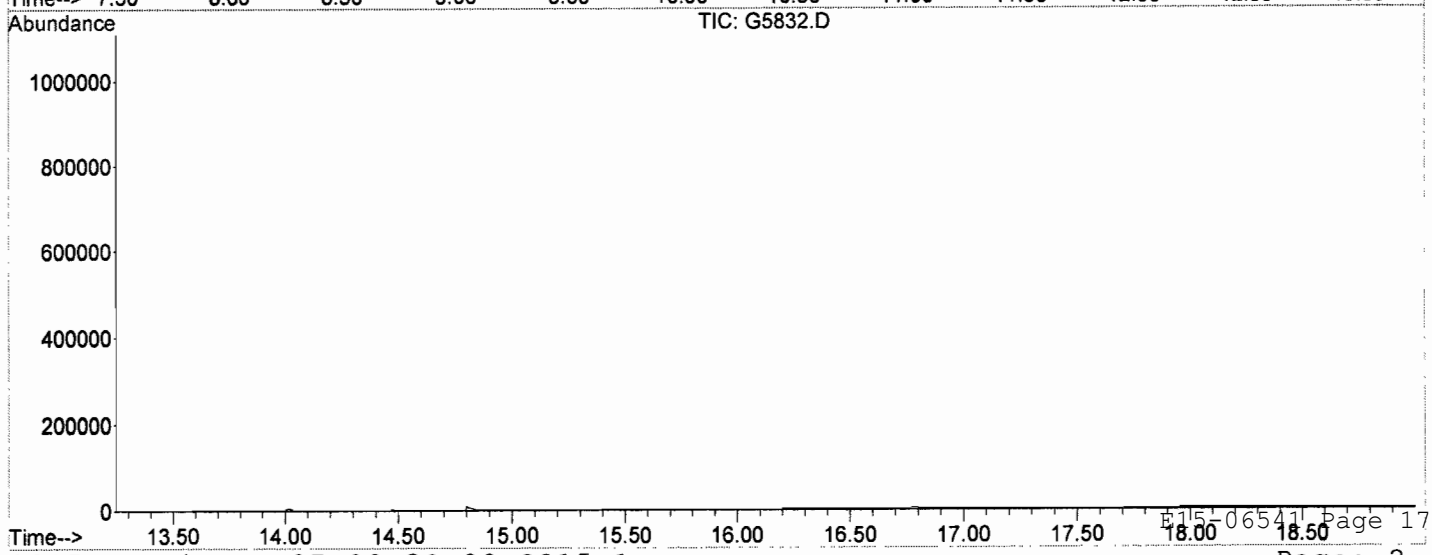
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5832.D
Acq On : 6 Aug 2015 17:44
Operator : Sylvia
Sample : MW-37D,06541-009,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5833.D
Acq On : 6 Aug 2015 18:13
Operator : Sylvia
Sample : MW-41D,06541-010,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 07 09:29:26 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

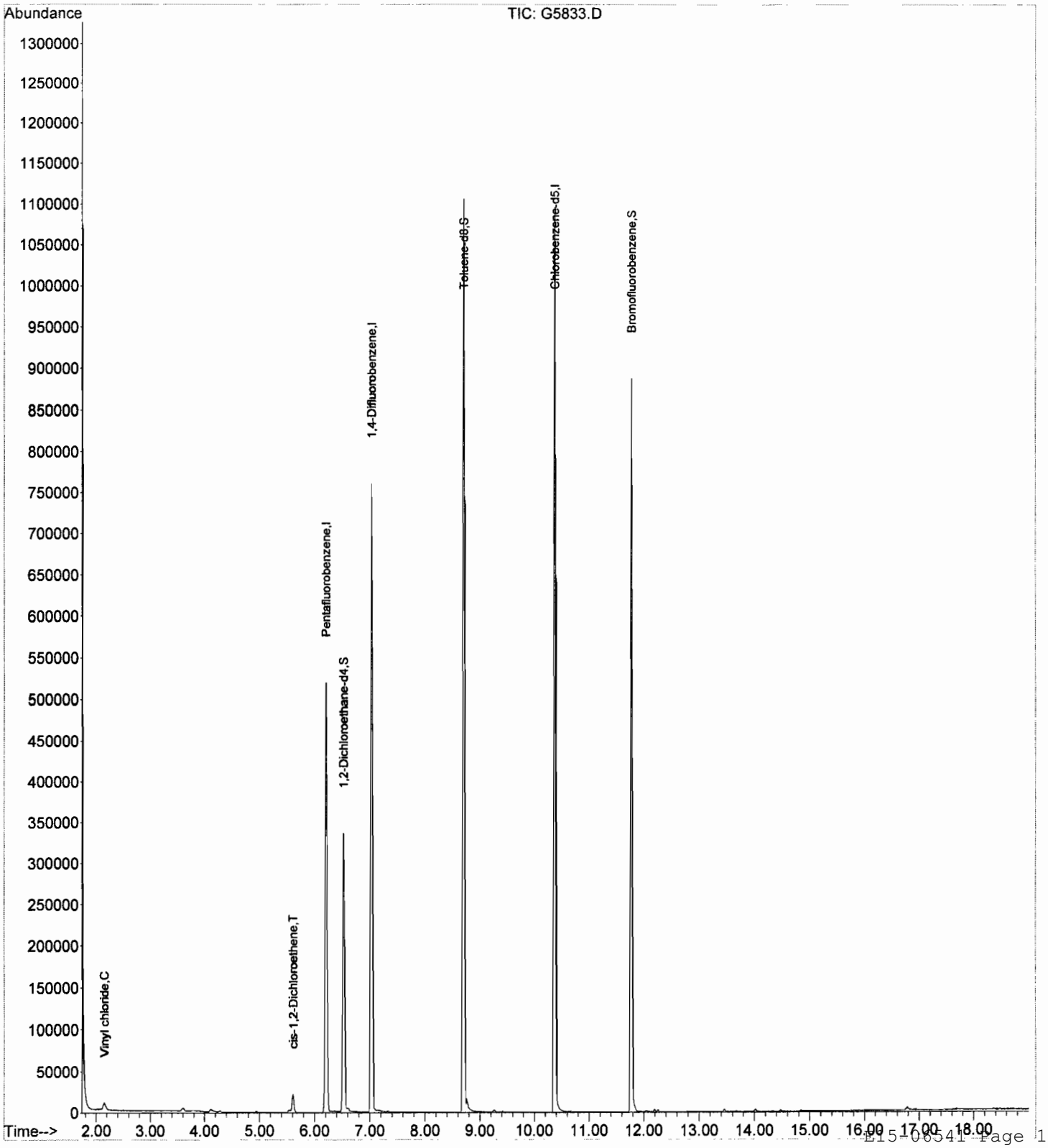
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	359614	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	619933	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	612370	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	264639	55.06	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 110.12%			
41) Toluene-d8	8.70	98	760307	49.43	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.86%			
59) Bromofluorobenzene	11.77	95	341382	49.09	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 98.18%			
Target Compounds						Qvalue
4) Vinyl chloride	2.15	62	15773	2.97	UG	99
20) cis-1,2-Dichloroethene	5.61	96	10378	2.31	UG #	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5833.D
Acq On : 6 Aug 2015 18:13
Operator : Sylvia
Sample : MW-41D,06541-010,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 07 09:29:26 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5833.D
Acq On : 6 Aug 2015 18:13
Operator : Sylvia
Sample : MW-41D,06541-010,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.148	72	80	105	rVB2	9470	33965	1.60%	0.360%
2	5.611	734	742	756	rVB	21673	52740	2.48%	0.559%
3	6.207	840	856	878	rBV	519134	1133886	53.30%	12.020%
4	6.521	904	916	929	rBV	335119	757104	35.59%	8.026%
5	7.028	997	1013	1031	rBV	759811	1565868	73.60%	16.599%
6	8.702	1321	1333	1342	rBV	1106007	2127493	100.00%	22.553%
7	8.754	1342	1343	1371	rVB	16387	39890	1.87%	0.423%
8	10.370	1640	1652	1690	rBV	1096365	2088796	98.18%	22.143%
9	11.772	1908	1920	1942	rBV	886821	1633603	76.79%	17.317%

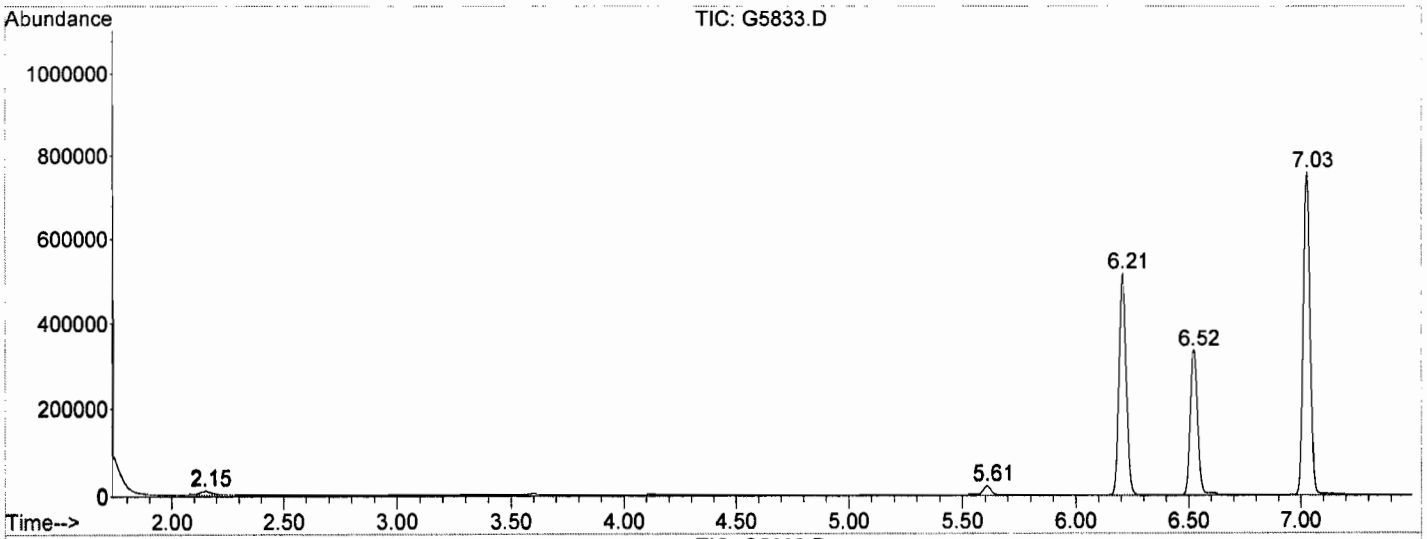
Sum of corrected areas: 9433345

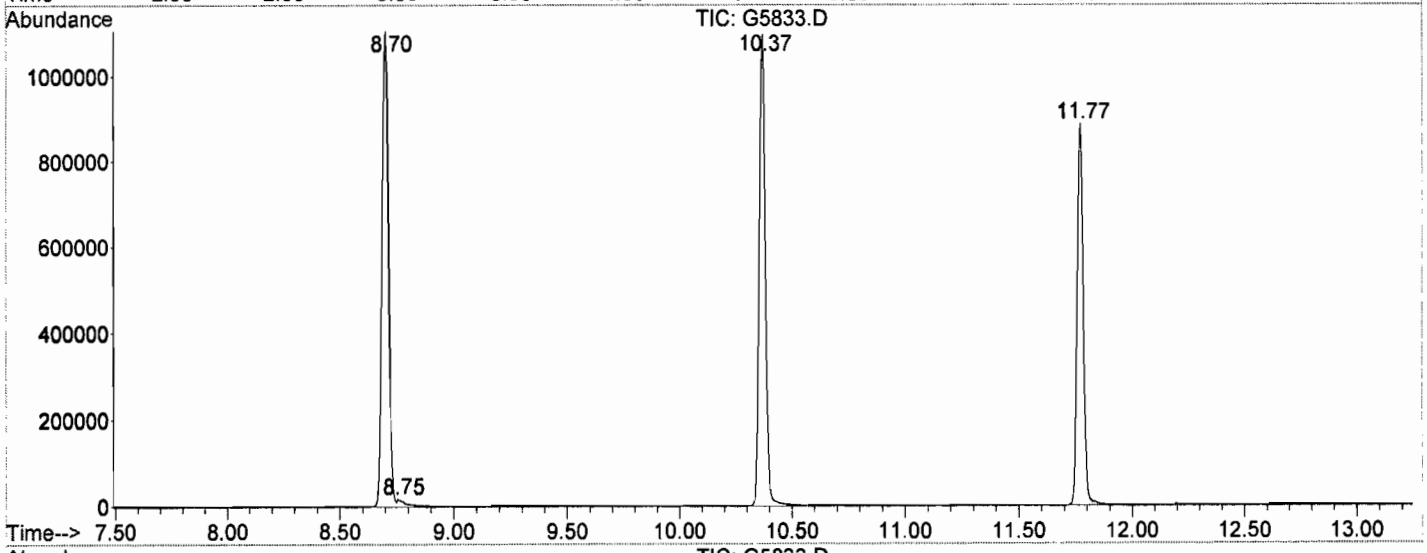
LSC Report - Integrated Chromatogram

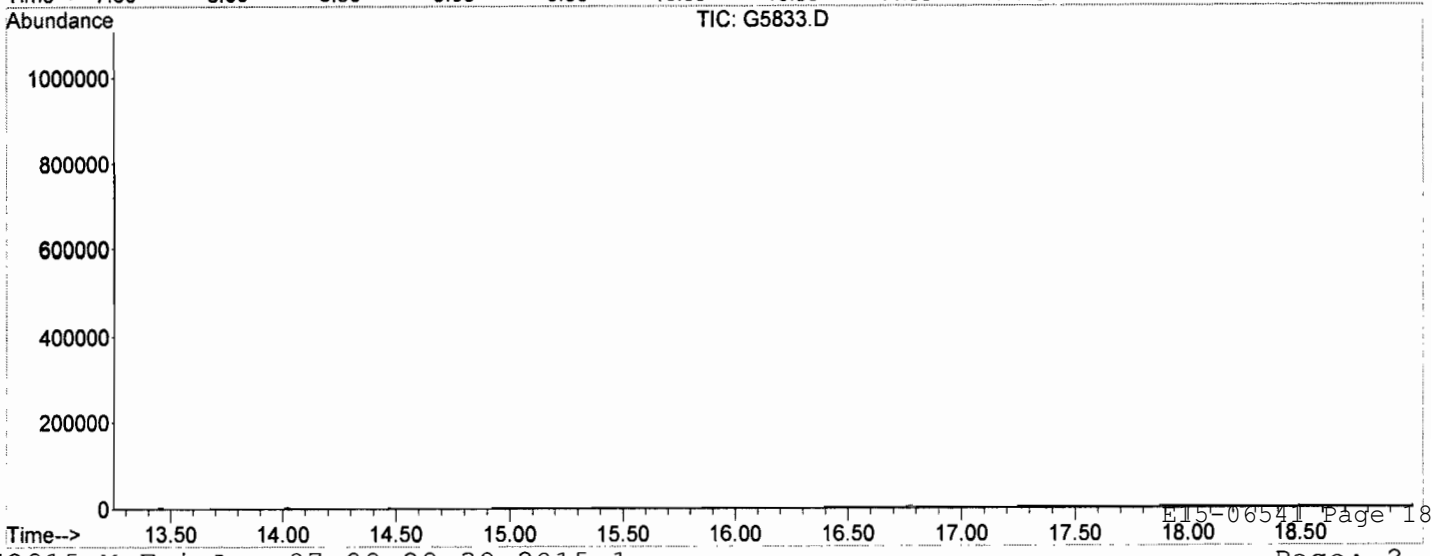
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5833.D
Acq On : 6 Aug 2015 18:13
Operator : Sylvia
Sample : MW-41D,06541-010,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5834.D
Acq On : 6 Aug 2015 18:41
Operator : Sylvia
Sample : MW-42D,06541-011,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 07 09:30:11 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	370500	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	634712	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	627529	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	268780	54.28	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 108.56%			
41) Toluene-d8	8.70	98	771190	48.97	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.94%			
59) Bromofluorobenzene	11.77	95	346215	48.58	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.16%			

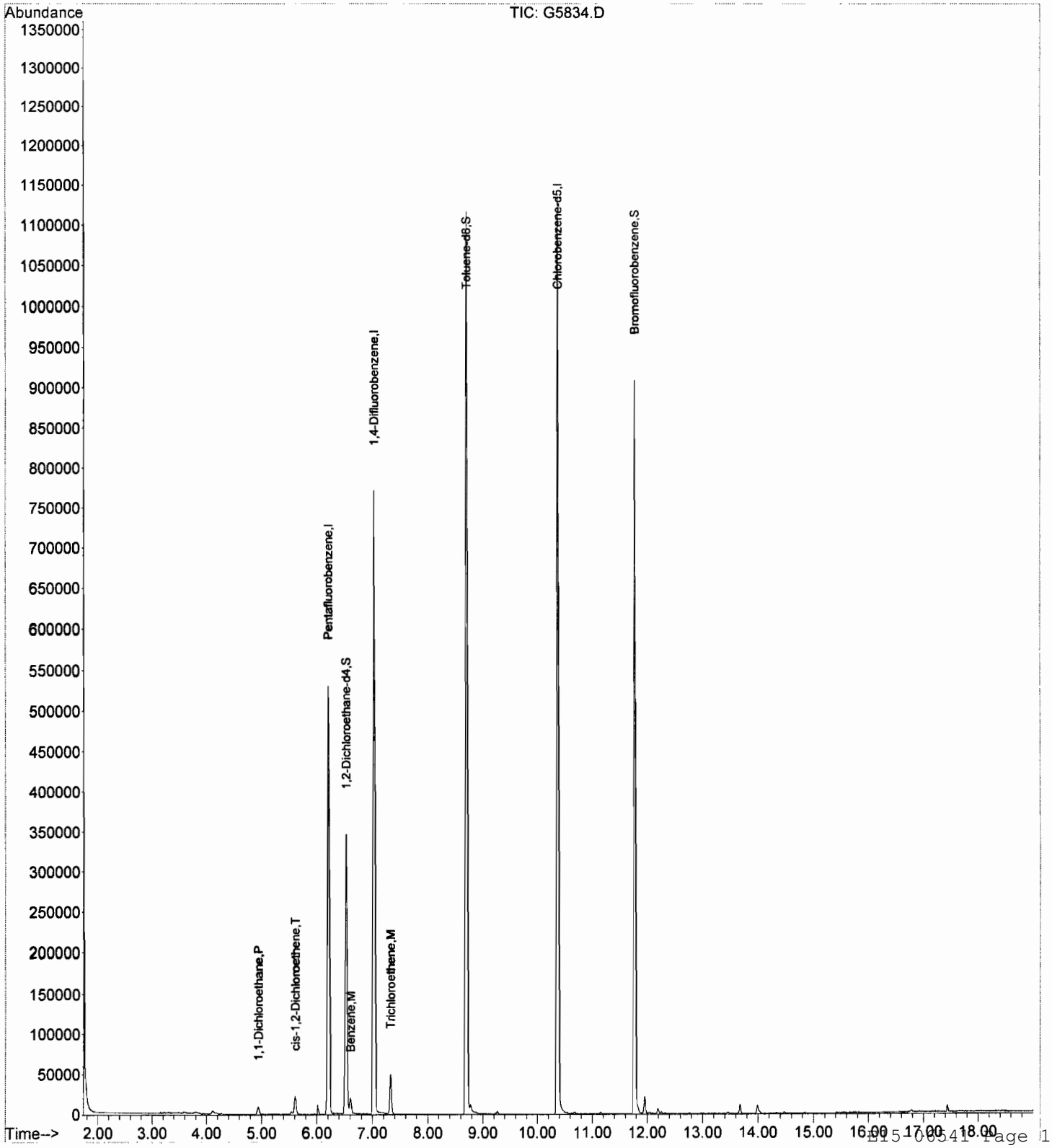
Target Compounds							Qvalue
18) 1,1-Dichloroethane	4.94	63	11829	1.30	UG		99
20) cis-1,2-Dichloroethene	5.61	96	11174	2.41	UG	#	100
32) Benzene	6.60	78	16447	0.90	UG		100
33) Trichloroethene	7.32	95	18015	4.11	UG		93

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5834.D
Acq On : 6 Aug 2015 18:41
Operator : Sylvia
Sample : MW-42D,06541-011,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 07 09:30:11 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5834.D
Acq On : 6 Aug 2015 18:41
Operator : Sylvia
Sample : MW-42D,06541-011,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.941	604	614	629	rVB2	9508	24843	1.14%	0.252%
2	5.611	733	742	754	rVB2	21869	54911	2.53%	0.557%
3	6.207	844	856	872	rBV	529581	1173306	54.01%	11.906%
4	6.526	902	917	927	rBV	345197	769871	35.44%	7.812%
5	6.604	927	932	955	rVB	19293	47036	2.17%	0.477%
6	7.028	1002	1013	1055	rBV	770000	1612191	74.21%	16.359%
7	7.326	1061	1070	1083	rVB	48659	103376	4.76%	1.049%
8	8.702	1316	1333	1344	rBV	1115962	2172334	100.00%	22.043%
9	8.775	1344	1347	1364	rVB3	10012	23480	1.08%	0.238%
10	10.370	1640	1652	1680	rBV	1133389	2130799	98.09%	21.622%
11	11.772	1909	1920	1945	rBV	908085	1654530	76.16%	16.789%
12	11.955	1945	1955	1966	rVV	20478	39018	1.80%	0.396%
13	13.670	2271	2283	2294	rBV2	11274	23351	1.07%	0.237%
14	13.989	2333	2344	2359	rBV5	10346	25908	1.19%	0.263%

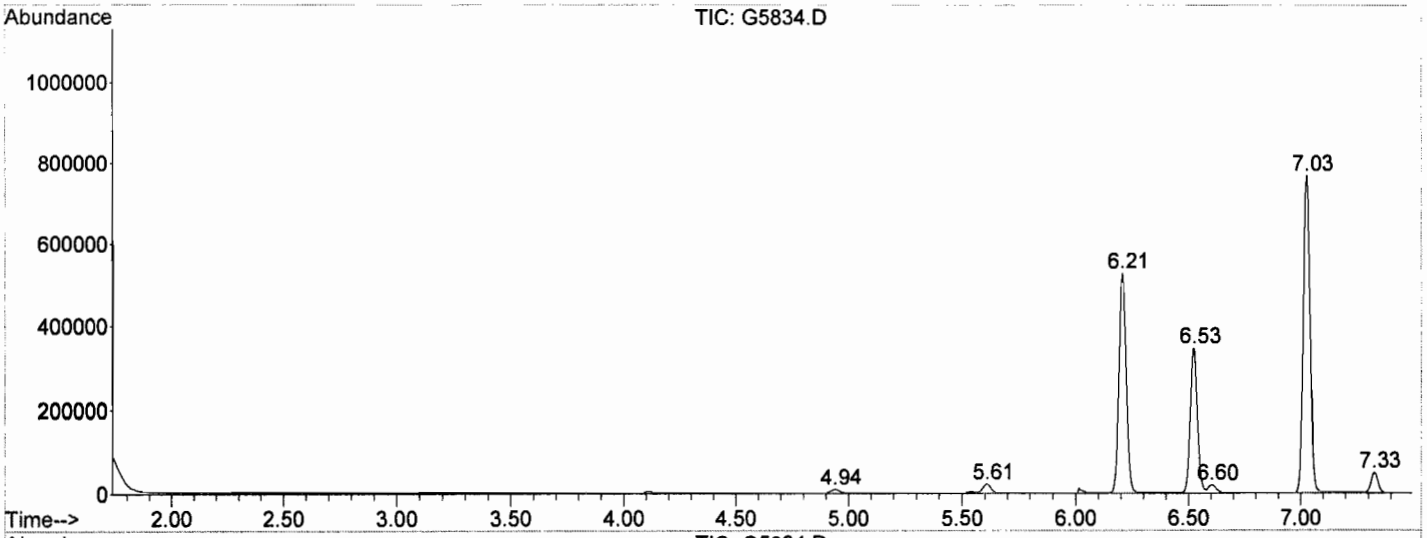
Sum of corrected areas: 9854954

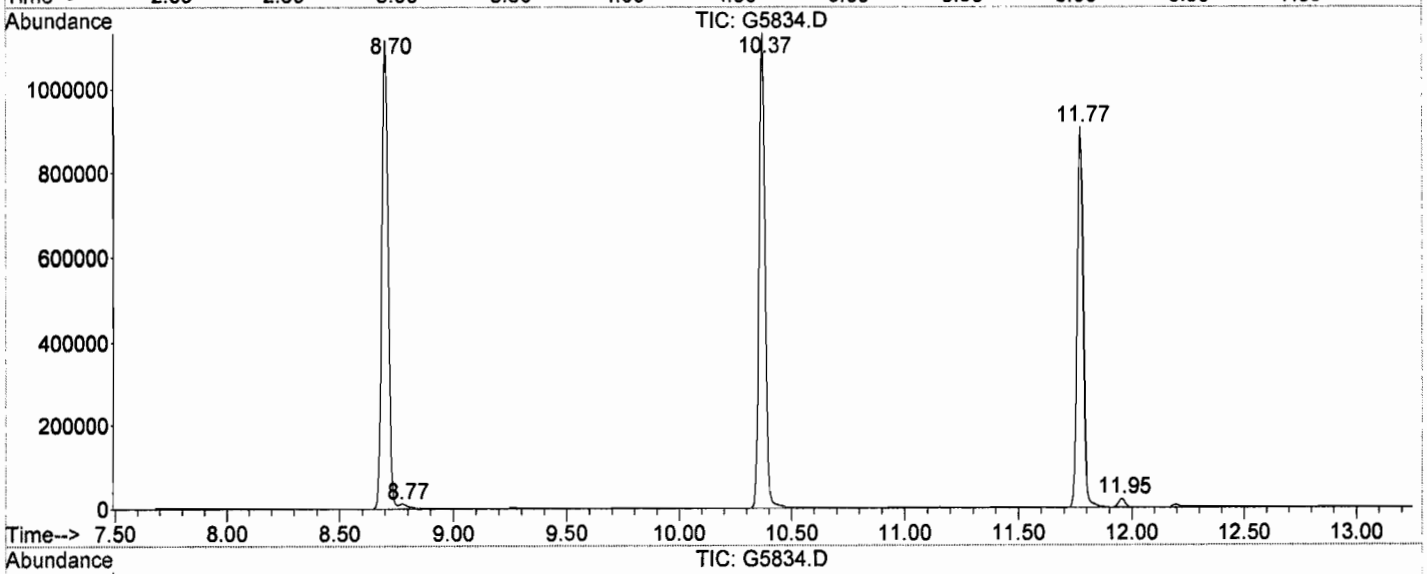
LSC Report - Integrated Chromatogram

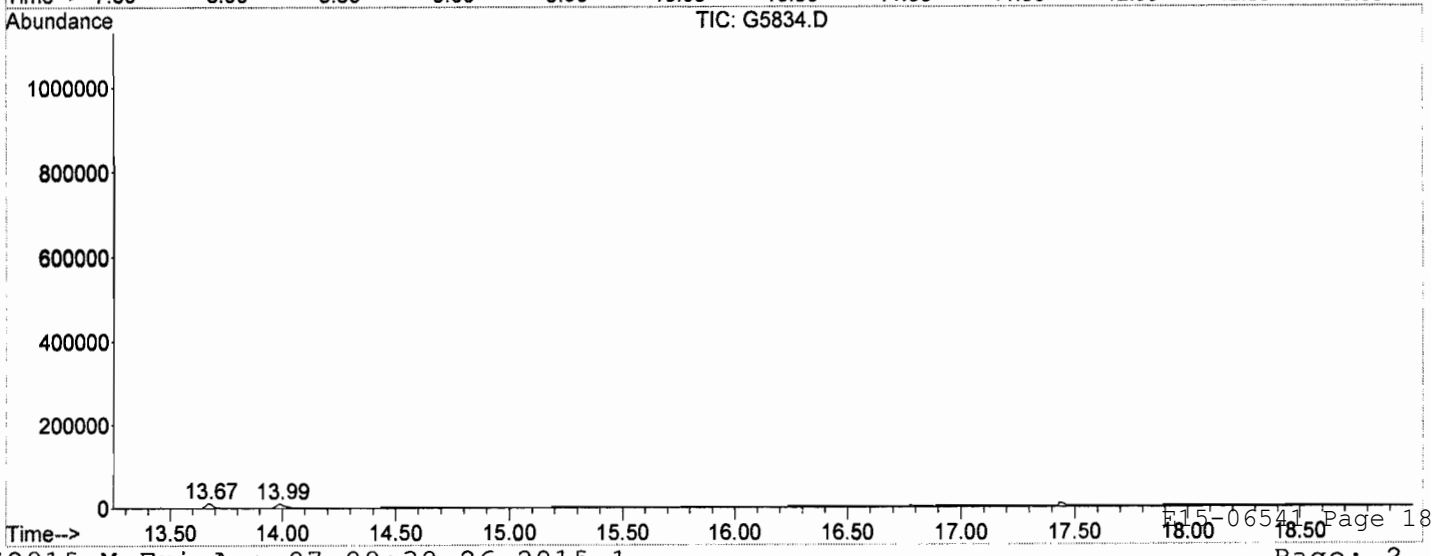
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5834.D
Acq On : 6 Aug 2015 18:41
Operator : Sylvia
Sample : MW-42D,06541-011,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5835.D
Acq On : 6 Aug 2015 19:10
Operator : Sylvia
Sample : MW-39D,06541-012,A,0.001mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,5000
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 07 09:32:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

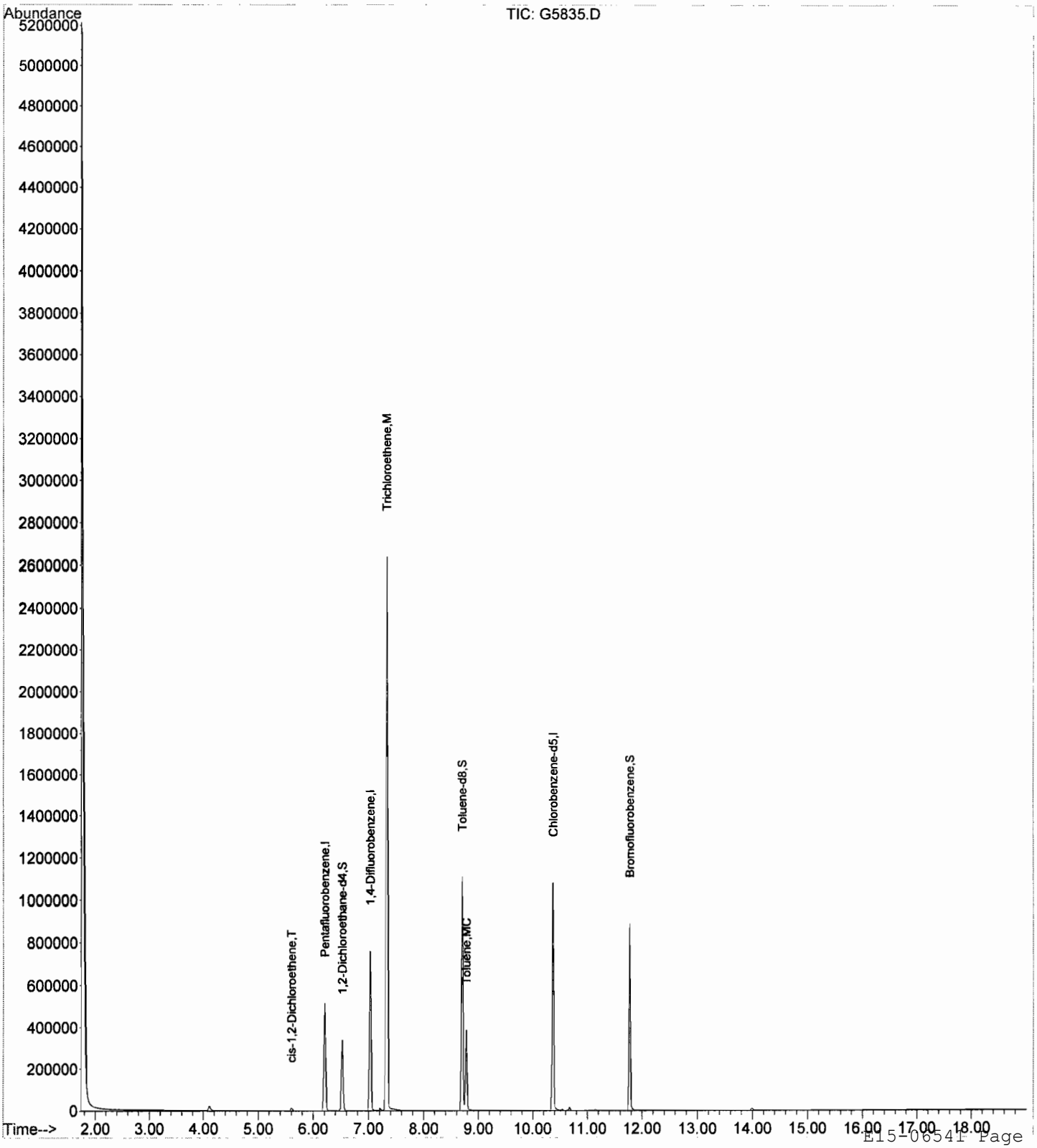
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	359904	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	621191	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	608174	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	260056	54.06	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 108.12%			
41) Toluene-d8	8.70	98	761143	49.38	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.76%			
59) Bromofluorobenzene	11.77	95	340105	49.24	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 98.48%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.61	96	6439	1.43	UG	# 100
33) Trichloroethene	7.33	95	810450m	188.72	UG	
42) Toluene	8.77	92	165784	15.00	UG	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5835.D
Acq On : 6 Aug 2015 19:10
Operator : Sylvia
Sample : MW-39D,06541-012,A,0.001mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,5000
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 07 09:32:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5835.D
Acq On : 6 Aug 2015 19:10
Operator : Sylvia
Sample : MW-39D,06541-012,A,0.001mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,5000
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.109	444	455	477	rVB3	20902	67752	1.26%	0.438%
2	6.207	841	856	875	rBV	514283	1139214	21.19%	7.368%
3	6.521	906	916	940	rBV	337748	747127	13.90%	4.832%
4	7.028	1000	1013	1038	rBV	757597	1570533	29.21%	10.157%
5	7.326	1057	1070	1138	rVB	2636199	5376237	100.00%	34.770%
6	8.702	1318	1333	1341	rBV	1108421	2131928	39.65%	13.788%
7	8.775	1341	1347	1382	rVB	383406	748343	13.92%	4.840%
8	10.370	1641	1652	1676	rBV	1080319	2061667	38.35%	13.334%
9	11.772	1909	1920	1950	rBV	886812	1619266	30.12%	10.473%

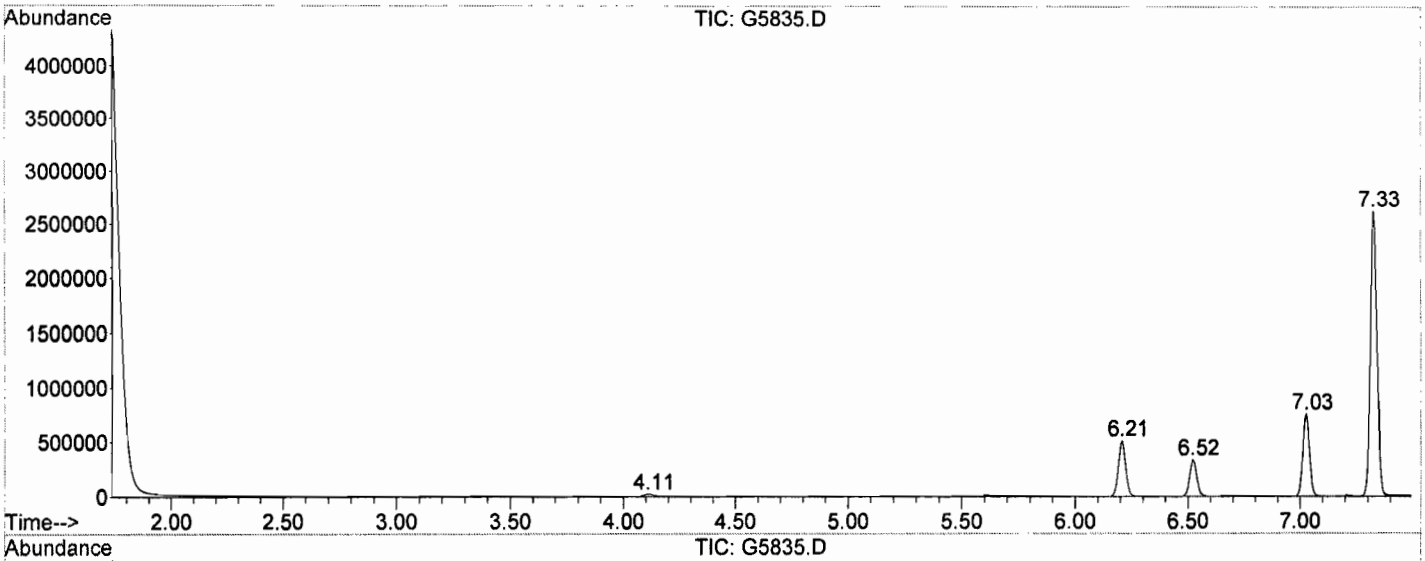
Sum of corrected areas: 15462067

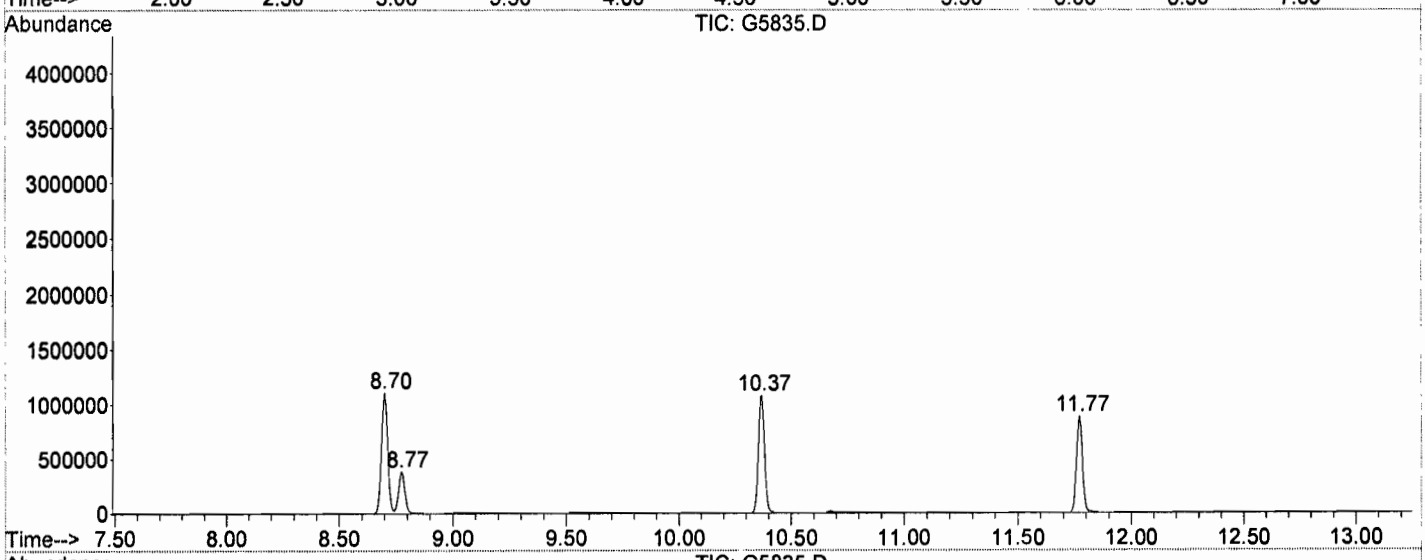
LSC Report - Integrated Chromatogram

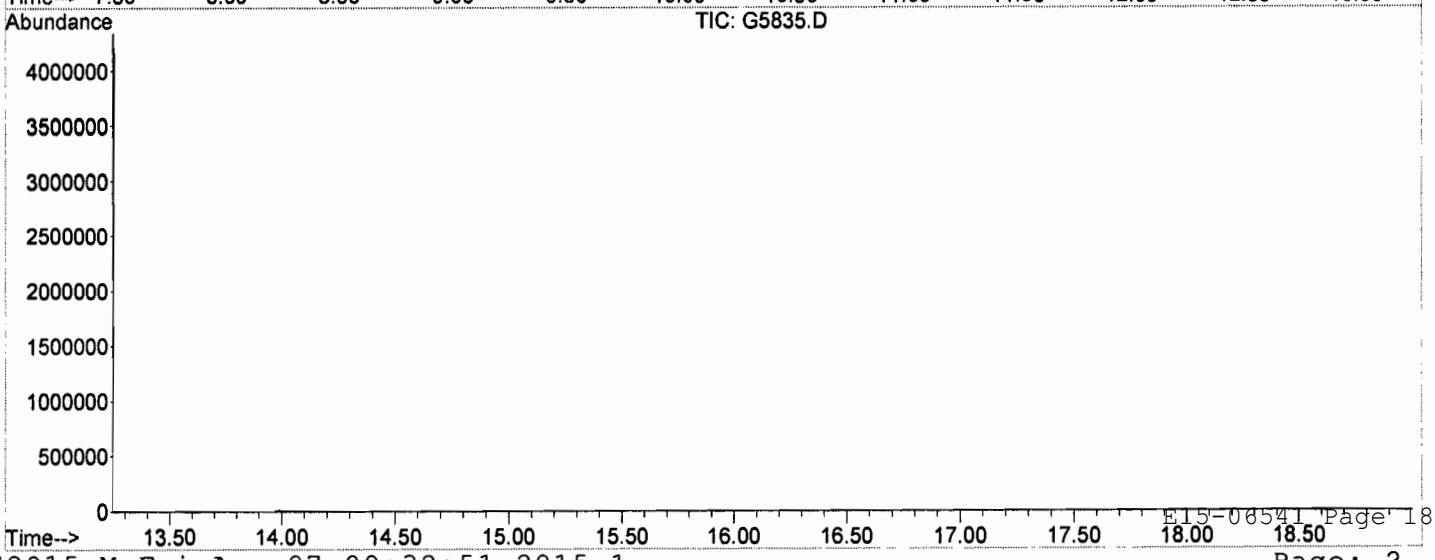
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5835.D
Acq On : 6 Aug 2015 19:10
Operator : Sylvia
Sample : MW-39D,06541-012,A,0.001mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,5000
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5836.D
Acq On : 6 Aug 2015 19:38
Operator : Sylvia
Sample : MW-43D,06541-013,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 07 09:33:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	374814	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	639060	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	628181	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.52	65	269672	53.83	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 107.66%			
41) Toluene-d8	8.70	98	778777	49.11	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.22%			
59) Bromofluorobenzene	11.77	95	349318	48.97	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.94%			

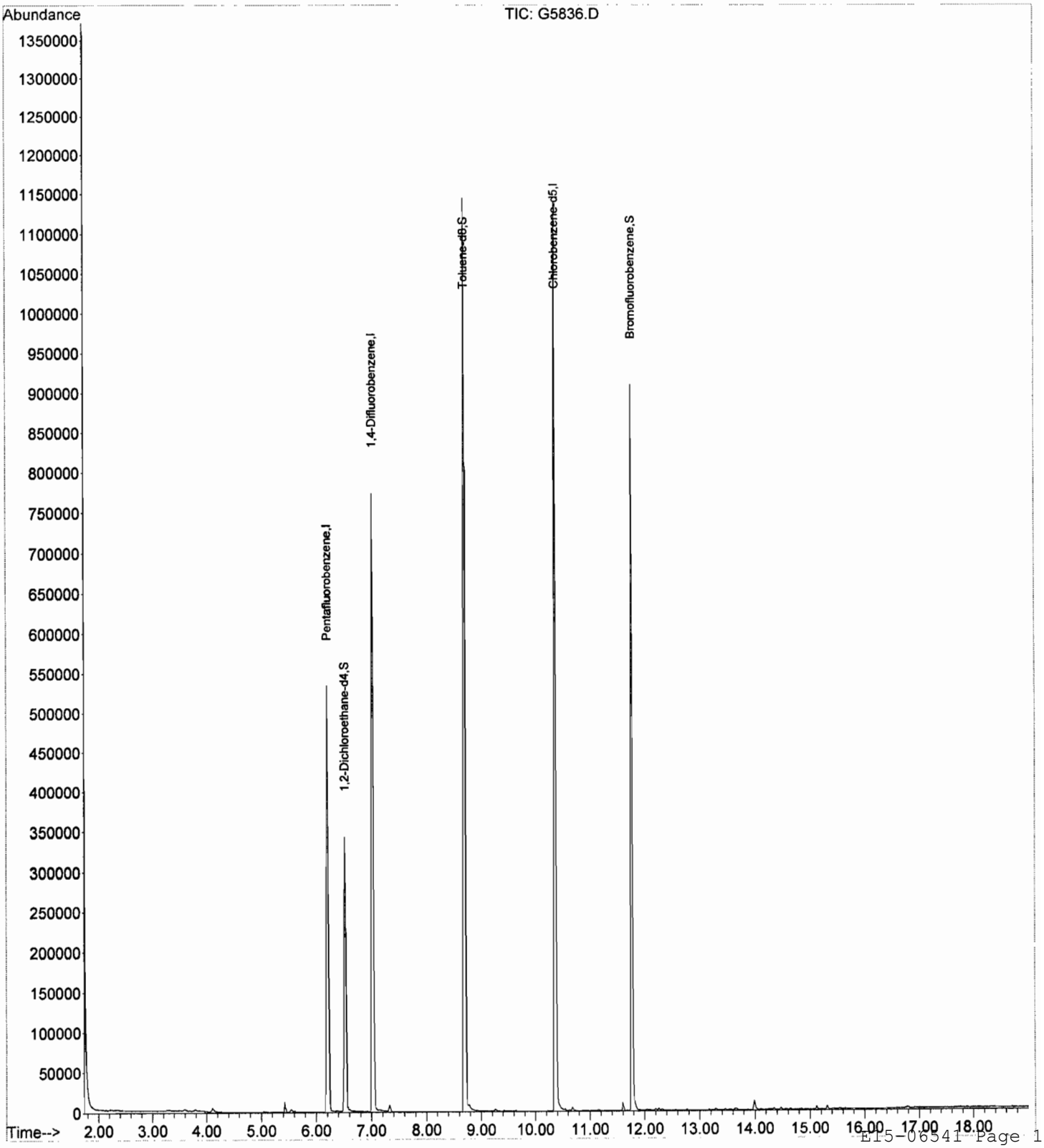
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5836.D
Acq On : 6 Aug 2015 19:38
Operator : Sylvia
Sample : MW-43D,06541-013,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 07 09:33:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5836.D
Acq On : 6 Aug 2015 19:38
Operator : Sylvia
Sample : MW-43D,06541-013,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	841	856	878	rBV	533673	1178764	53.79%	12.311%
2	6.521	905	916	944	rBV	341299	773158	35.28%	8.075%
3	7.028	1000	1013	1042	rBV	772578	1615196	73.71%	16.869%
4	8.702	1319	1333	1345	rBV	1144194	2191269	100.00%	22.886%
5	10.370	1638	1652	1680	rBV	1139797	2124191	96.94%	22.185%
6	11.772	1907	1920	1945	rBV	908801	1665380	76.00%	17.393%
7	13.990	2336	2344	2360	rVB2	11488	26830	1.22%	0.280%

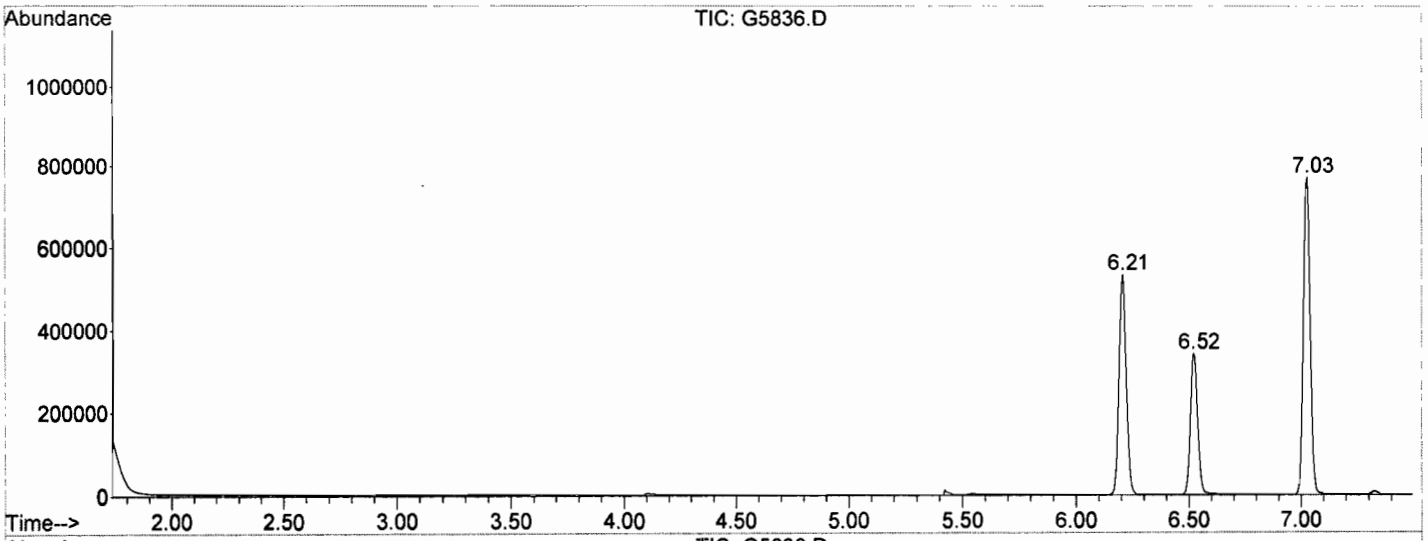
Sum of corrected areas: 9574788

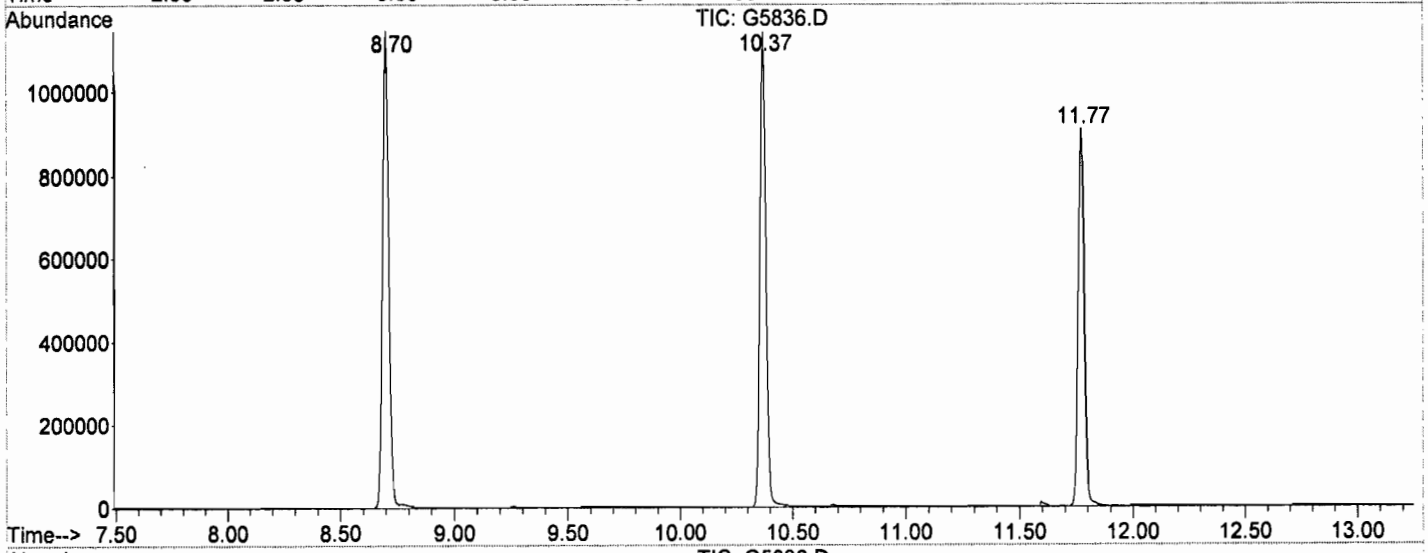
LSC Report - Integrated Chromatogram

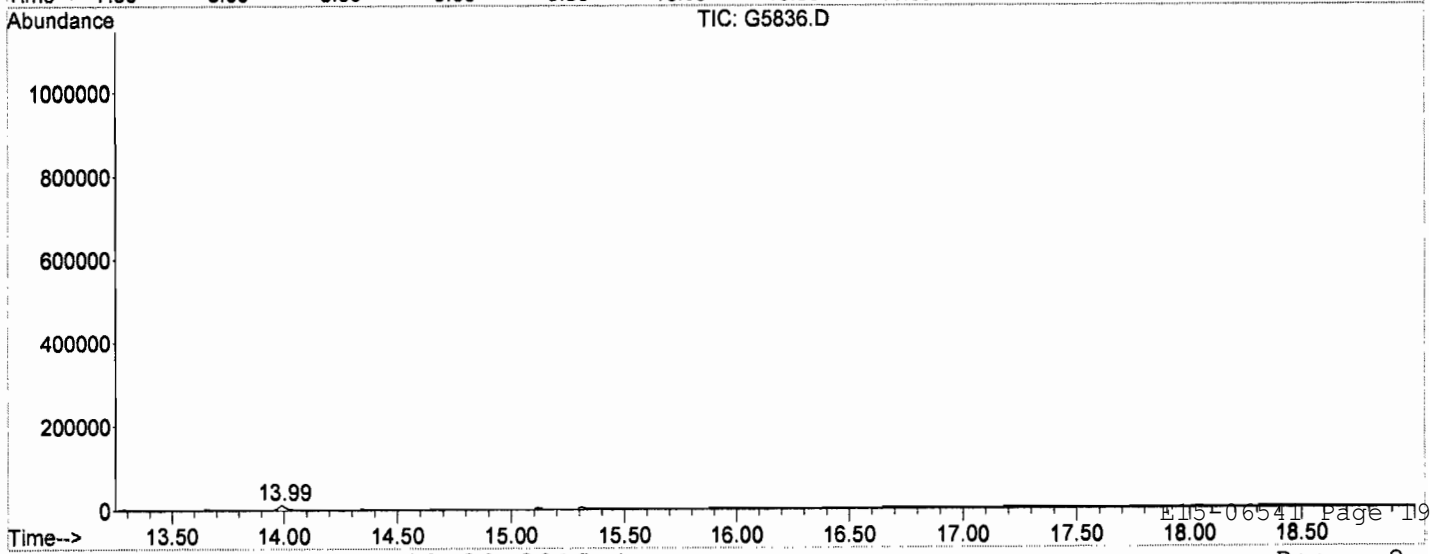
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5836.D
Acq On : 6 Aug 2015 19:38
Operator : Sylvia
Sample : MW-43D,06541-013,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5837.D
Acq On : 6 Aug 2015 20:06
Operator : Sylvia
Sample : MW-23S,06541-014,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 07 09:34:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

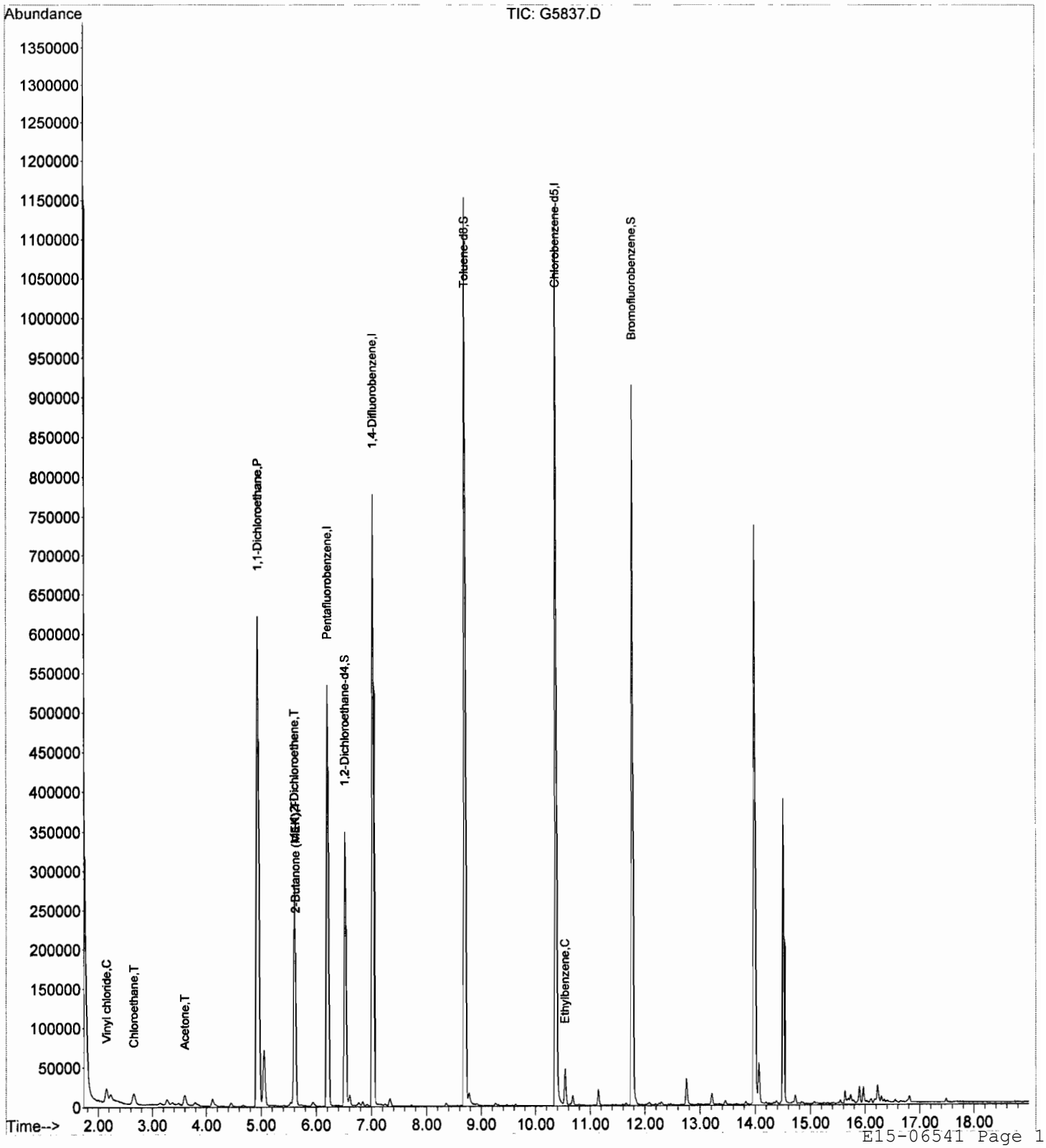
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	380752	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	642515	50.00	UG		0.00
50) Chlorobenzene-d5	10.37	117	629251	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.52	65	268477	52.76	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 105.52%				
41) Toluene-d8	8.70	98	778959	48.86	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.72%				
59) Bromofluorobenzene	11.77	95	349870	48.96	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.92%				
Target Compounds							Qvalue
4) Vinyl chloride	2.15	62	38006	6.75	UG		99
6) Chloroethane	2.66	64	24550	8.57	UG	#	100
10) Acetone	3.60	43	26820	10.39	UG		98
18) 1,1-Dichloroethane	4.94	63	838393	89.58	UG	#	96
20) cis-1,2-Dichloroethene	5.61	96	135543	28.46	UG	#	100
22) 2-Butanone (MEK)	5.63	43	3423m	1.17	UG		
53) Ethylbenzene	10.54	91	25292	1.23	UG		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5837.D
Acq On : 6 Aug 2015 20:06
Operator : Sylvia
Sample : MW-23S,06541-014,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 07 09:34:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5837.D
Acq On : 6 Aug 2015 20:06
Operator : Sylvia
Sample : MW-23S,06541-014,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.154	71	81	89	rBV	16514	52929	2.42%	0.349%
2	2.227	90	95	160	rVB2	12599	86108	3.93%	0.567%
3	2.656	166	177	194	rVB	13977	53230	2.43%	0.351%
4	3.268	284	294	306	rBV3	7171	22284	1.02%	0.147%
5	3.597	347	357	375	rVB	13108	44298	2.02%	0.292%
6	4.115	446	456	479	rBV	9696	34315	1.57%	0.226%
7	4.941	596	614	627	rBV	621447	1696790	77.48%	11.179%
8	5.051	627	635	653	rVB2	70544	197599	9.02%	1.302%
9	5.605	730	741	757	rVB	277314	658608	30.07%	4.339%
10	6.207	842	856	876	rBV	534152	1201494	54.86%	7.916%
11	6.521	904	916	927	rBV	348239	766790	35.01%	5.052%
12	6.604	927	932	945	rVB2	13289	28913	1.32%	0.190%
13	7.028	1001	1013	1037	rBV	776771	1615749	73.78%	10.645%
14	7.337	1064	1072	1088	rVB8	9447	26296	1.20%	0.173%
15	8.702	1321	1333	1343	rBV	1152675	2189932	100.00%	14.428%
16	8.775	1343	1347	1369	rVB4	15270	44437	2.03%	0.293%
17	10.370	1640	1652	1676	rBV	1138389	2150770	98.21%	14.170%
18	10.548	1676	1686	1696	rVV3	46259	102744	4.69%	0.677%
19	10.679	1696	1711	1726	rVB	12264	30325	1.38%	0.200%
20	11.150	1793	1801	1813	rVB2	20623	38084	1.74%	0.251%
21	11.772	1907	1920	1950	rBV	913774	1690898	77.21%	11.140%
22	12.755	2099	2108	2126	rBV	33089	67689	3.09%	0.446%
23	13.210	2187	2195	2206	rVB5	14395	29185	1.33%	0.192%
24	13.990	2331	2344	2354	rBV2	736207	1431793	65.38%	9.433%
25	14.068	2354	2359	2378	rVB2	51726	106892	4.88%	0.704%
26	14.507	2430	2443	2466	rBV	387646	635698	29.03%	4.188%
27	15.632	2650	2658	2666	rBV	16344	33443	1.53%	0.220%
28	15.899	2697	2709	2715	rBV2	20697	40209	1.84%	0.265%
29	15.967	2715	2722	2730	rBV3	20232	35220	1.61%	0.232%
30	16.228	2765	2772	2781	rVB4	20900	41070	1.88%	0.271%
31	16.809	2869	2883	2899	rBV6	8105	24293	1.11%	0.160%

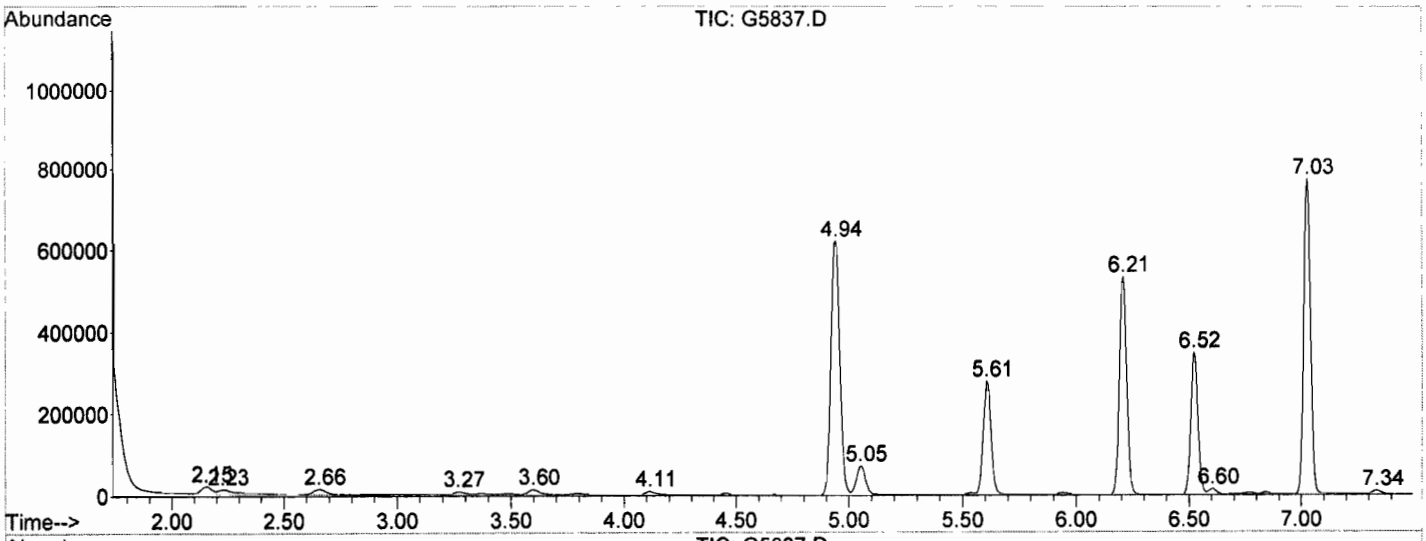
Sum of corrected areas: 15178085

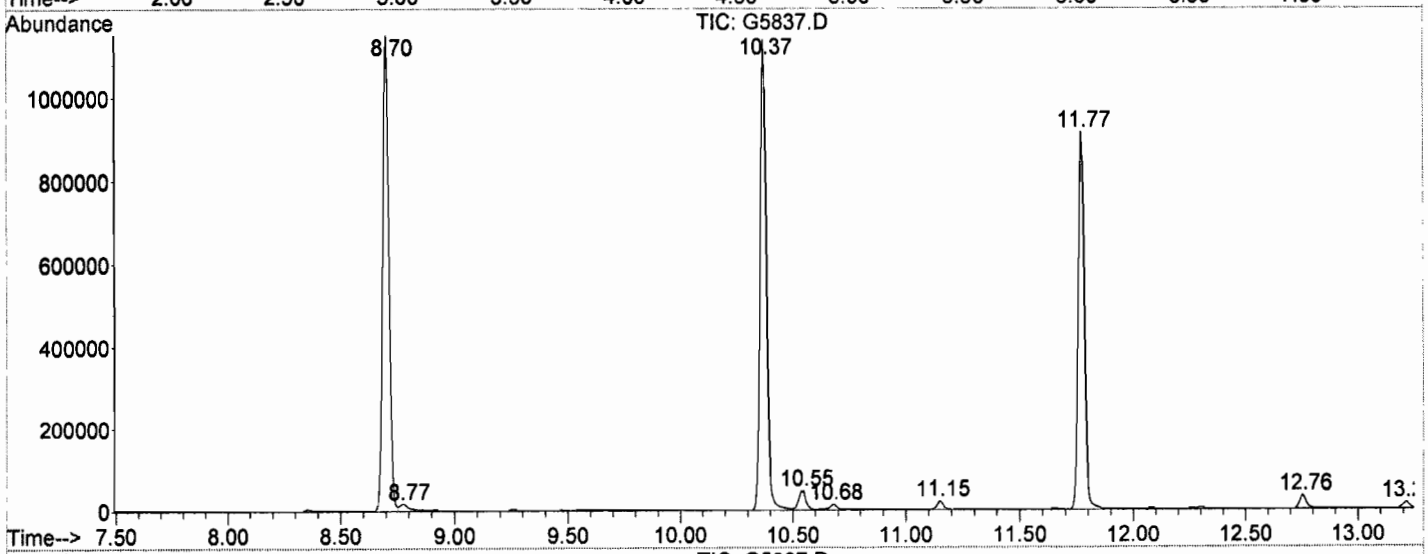
LSC Report - Integrated Chromatogram

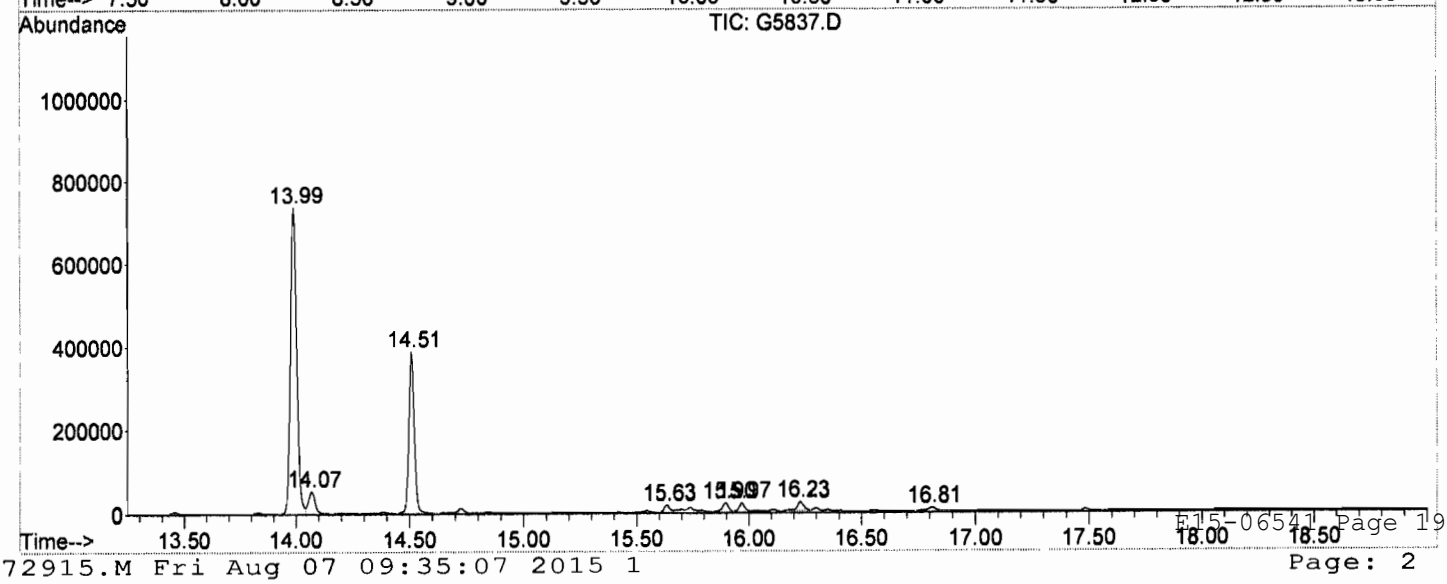
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5837.D
Acq On : 6 Aug 2015 20:06
Operator : Sylvia
Sample : MW-23S,06541-014,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5837.D
Acq On : 6 Aug 2015 20:06
Operator : Sylvia
Sample : MW-23S,06541-014,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

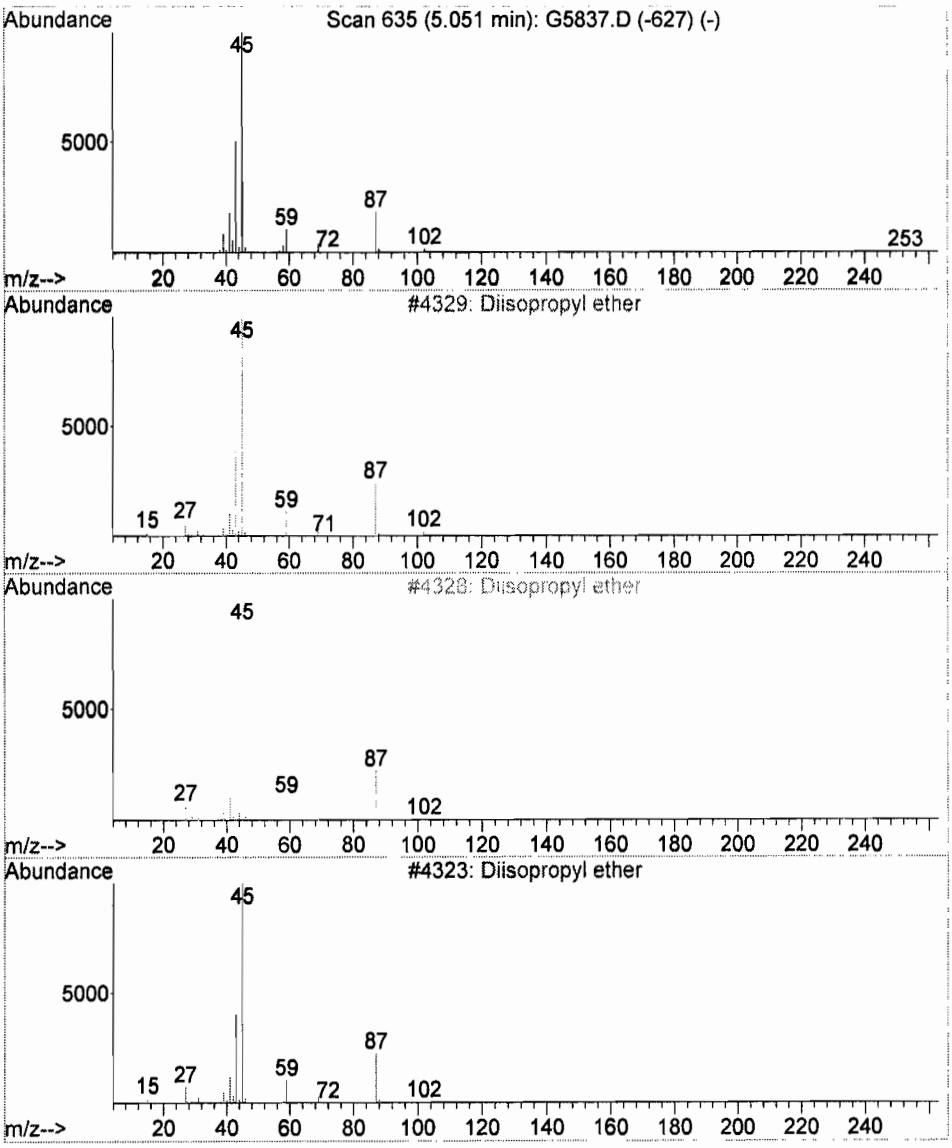
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

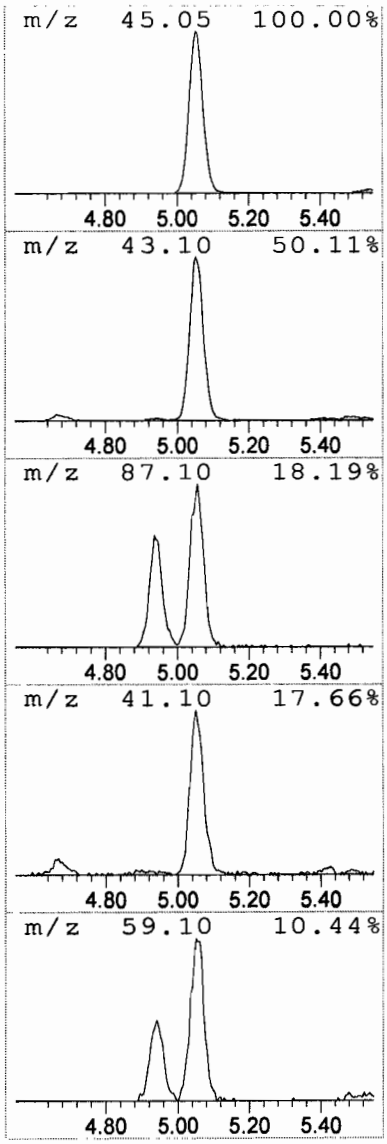
****

Peak Number 1 Diisopropyl ether Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.05	8.22 UG	197599	Pentafluorobenzene	6.21

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diisopropyl ether	102	C6H14O	000108-20-3	86
2	Diisopropyl ether	102	C6H14O	000108-20-3	83
3	Diisopropyl ether	102	C6H14O	000108-20-3	83
4	1-Propanol, 2-(1-methylethoxy)-	118	C6H14O2	003944-37-4	72
5	Propane, 2-ethoxy-	88	C5H12O	000625-54-7	64





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5837.D
Acq On : 6 Aug 2015 20:06
Operator : Sylvia
Sample : MW-23S,06541-014,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 17 Sample Multiplier: 1

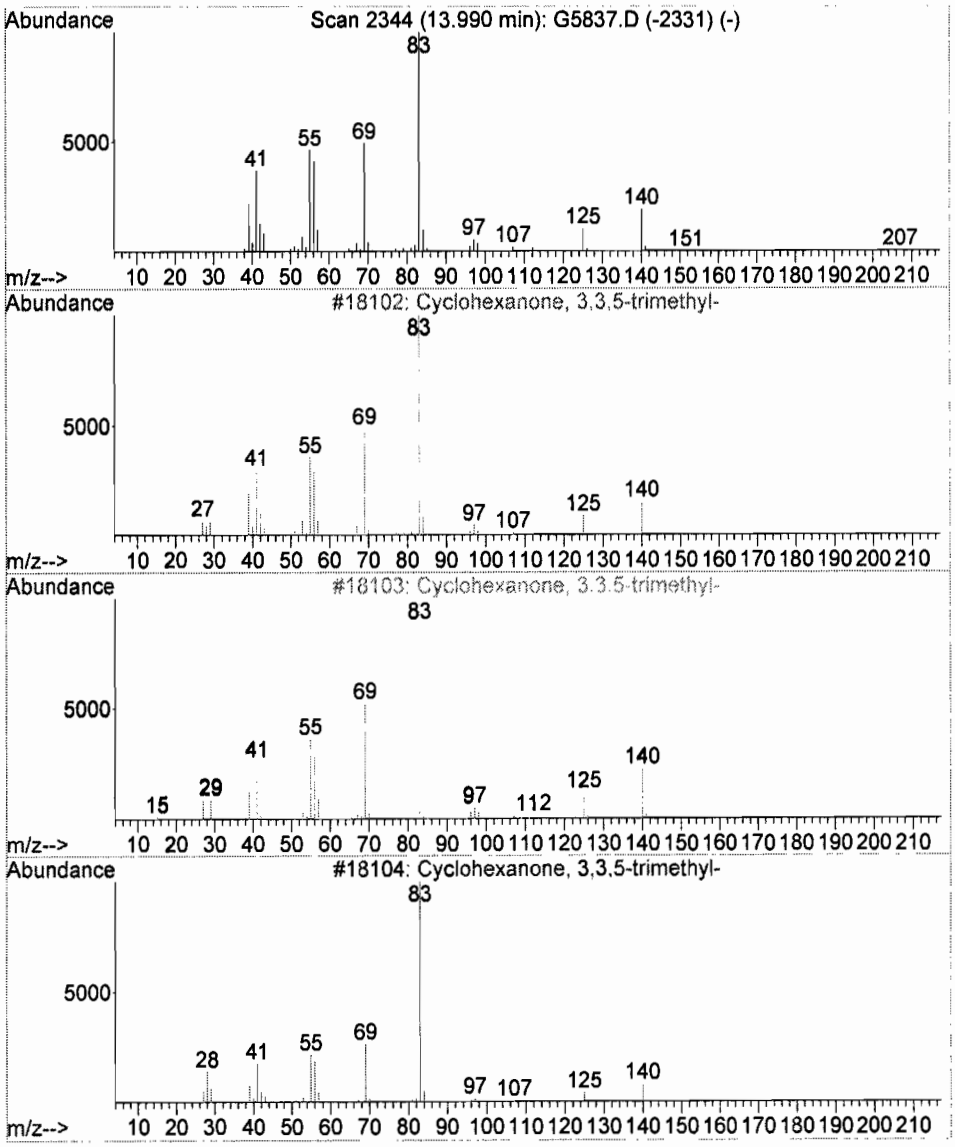
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

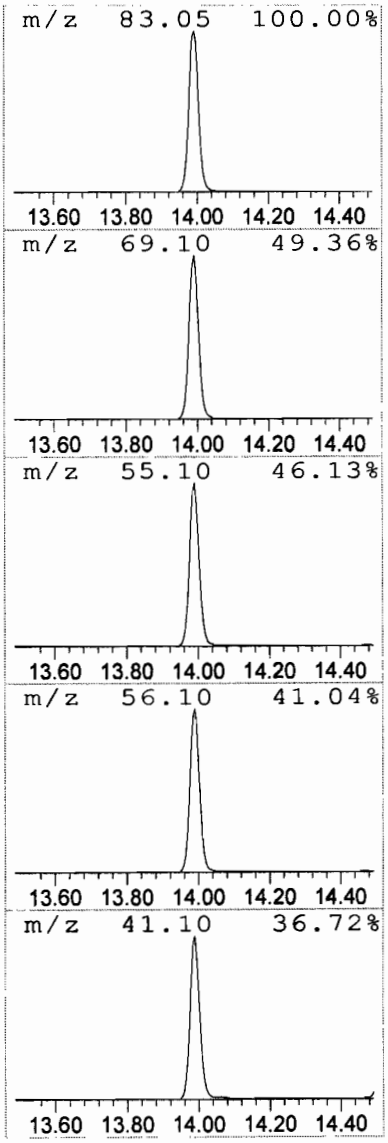
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Cyclohexanone, 3,3,5-trimet... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.99	33.29 UG	1431790	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	95
2	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	95
3	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	91
4	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	91
5	1H-1,2,4-Triazole, 3-methyl-	83	C3H5N3	007170-01-6	53





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5837.D
Acq On : 6 Aug 2015 20:06
Operator : Sylvia
Sample : MW-23S,06541-014,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 17 Sample Multiplier: 1

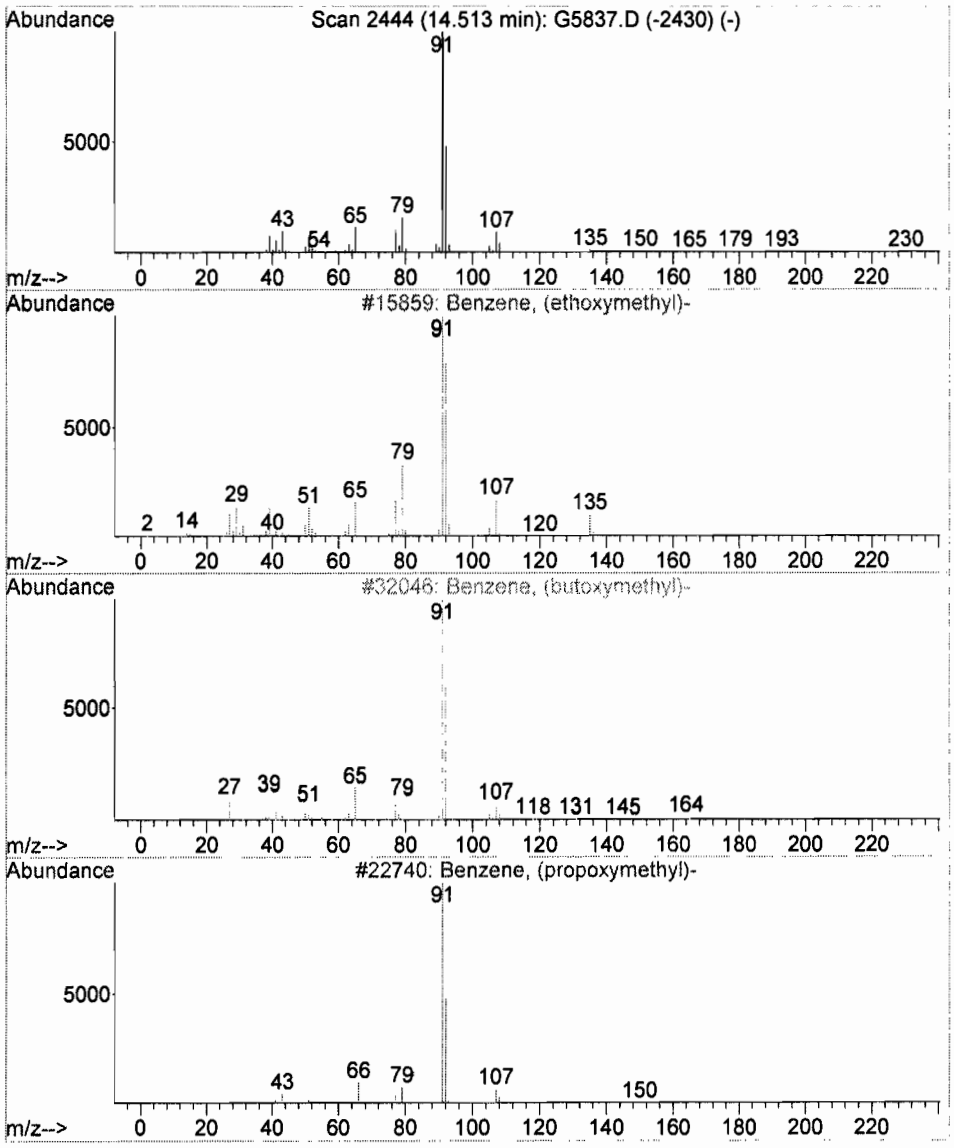
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

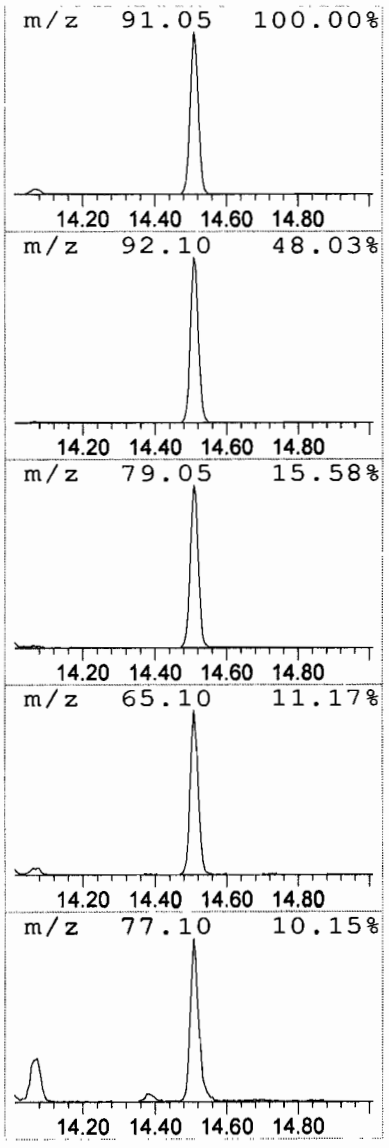
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 Unknown Aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.51	14.78 UG	635698	Chlorobenzene-d5	10.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (ethoxymethyl)-	136	C9H12O	000539-30-0	72
2	Benzene, (butoxymethyl)-	164	C11H16O	000588-67-0	64
3	Benzene, (propoxymethyl)-	150	C10H14O	000937-61-1	59
4	3-Buten-2-ol, 1-(phenylmethoxy)-	178	C11H14O2	093553-66-3	59
5	Benzene, (ethoxymethyl)-	136	C9H12O	000539-30-0	56





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5838.D
Acq On : 6 Aug 2015 20:34
Operator : Sylvia
Sample : MW-23D,06541-015,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 07 09:35:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	361513	50.00	UG	0.01
31) 1,4-Difluorobenzene	7.03	114	623789	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	613821	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	263528	54.54	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 109.08%			
41) Toluene-d8	8.70	98	757376	48.93	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.86%			
59) Bromofluorobenzene	11.77	95	339957	48.77	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.54%			

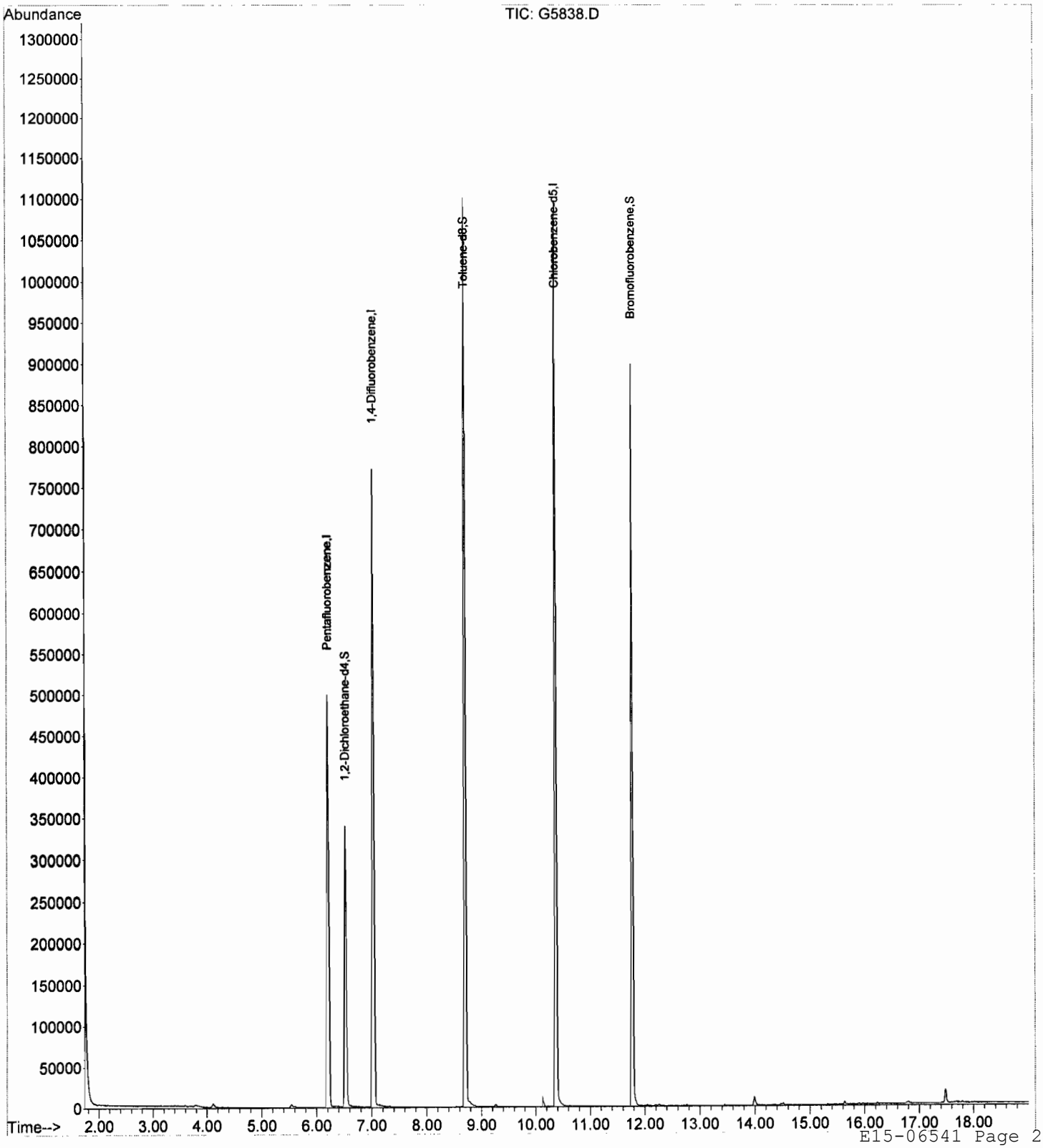
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5838.D
Acq On : 6 Aug 2015 20:34
Operator : Sylvia
Sample : MW-23D,06541-015,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 07 09:35:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5838.D
Acq On : 6 Aug 2015 20:34
Operator : Sylvia
Sample : MW-23D,06541-015,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	841	856	875	rBV2	498873	1137798	52.86%	12.115%
2	6.526	904	917	944	rBV	338426	756865	35.17%	8.059%
3	7.028	1002	1013	1056	rBV	770854	1584752	73.63%	16.873%
4	8.702	1320	1333	1370	rBV	1100355	2152305	100.00%	22.916%
5	10.370	1641	1652	1690	rBV	1097397	2084419	96.85%	22.194%
6	11.772	1908	1920	1945	rBV	897893	1616354	75.10%	17.210%
7	13.989	2335	2344	2356	rBV3	10590	24104	1.12%	0.257%
8	17.483	3003	3012	3030	rVB3	16578	35427	1.65%	0.377%

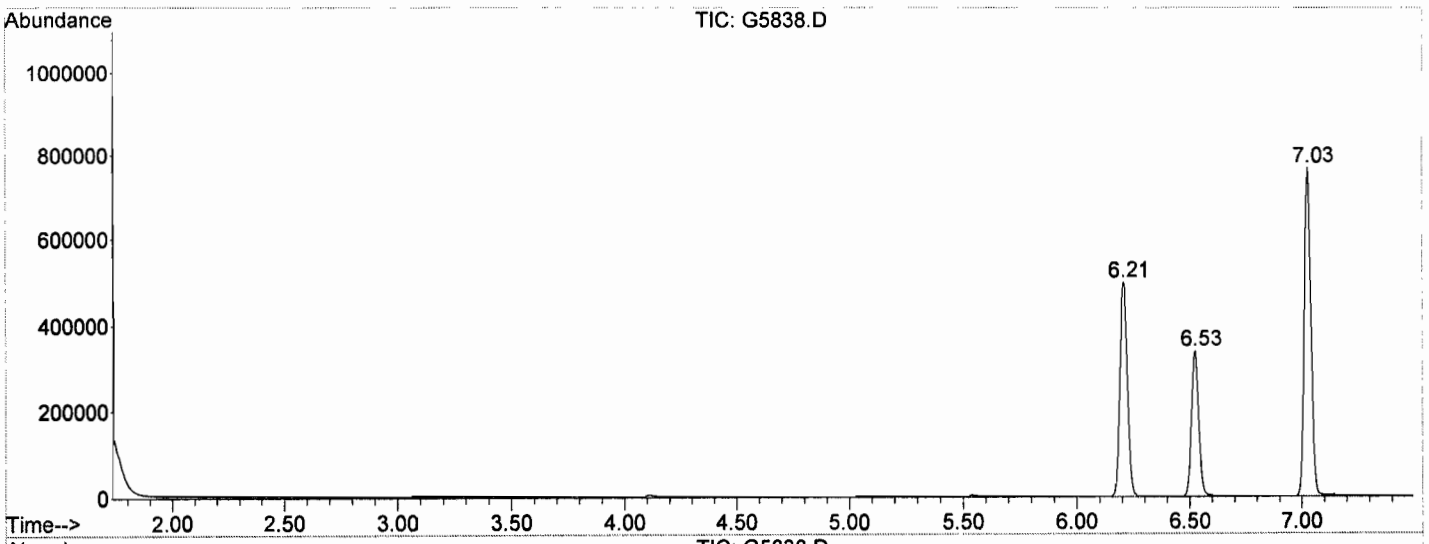
Sum of corrected areas: 9392024

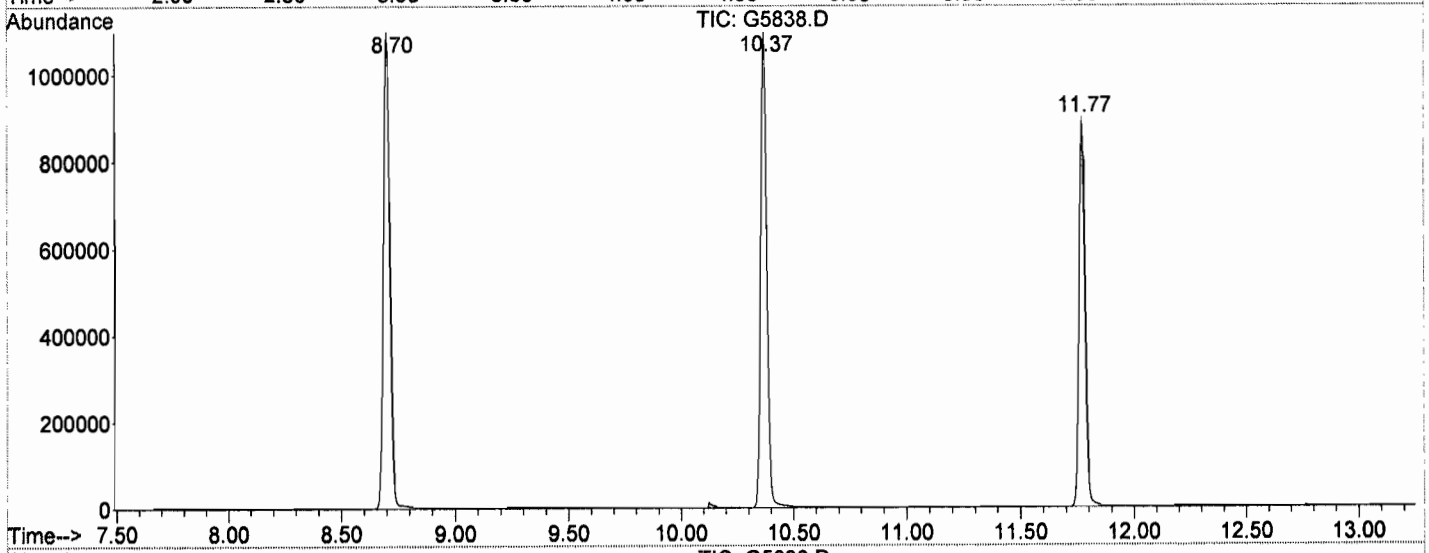
LSC Report - Integrated Chromatogram

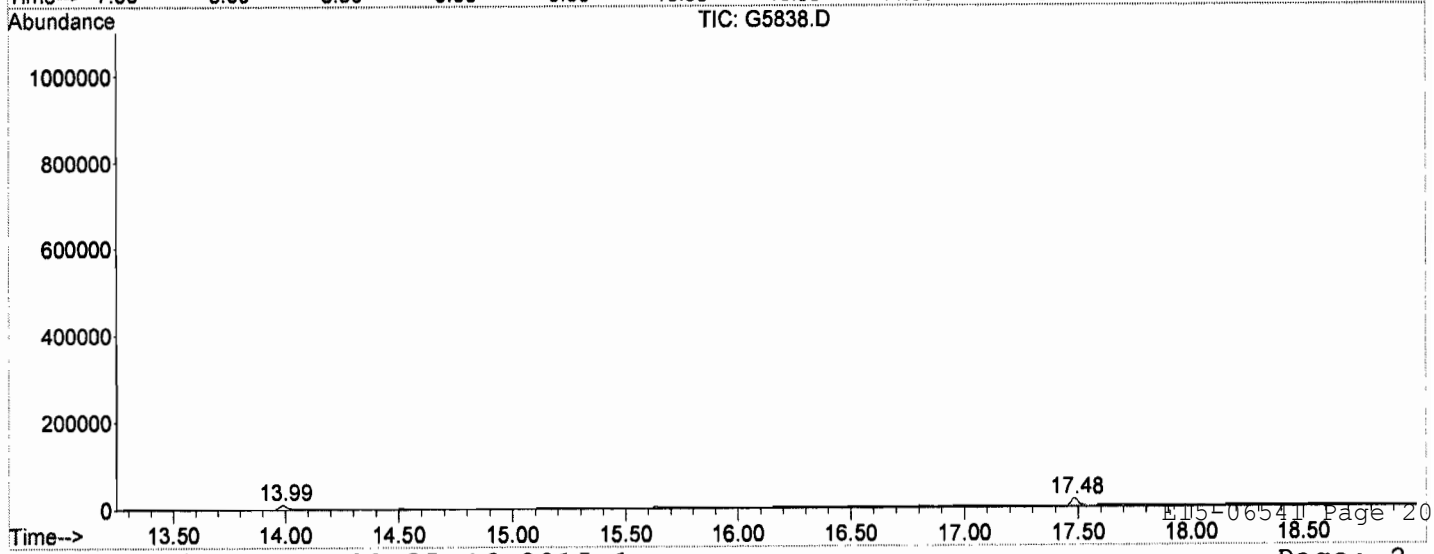
Data Path : C:\MSDCHEM\1\DATA\08-06-15\
Data File : G5838.D
Acq On : 6 Aug 2015 20:34
Operator : Sylvia
Sample : MW-23D,06541-015,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5707.D
Acq On : 3 Aug 2015 15:10
Operator : Sylvia
Sample : FB-3,06541-016,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 04 08:35:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	375775	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	642577	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	622512	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.52	65	253491	50.47	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 100.94%			
41) Toluene-d8	8.70	98	781349	49.00	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.00%			
59) Bromofluorobenzene	11.77	95	338572	47.89	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 95.78%			

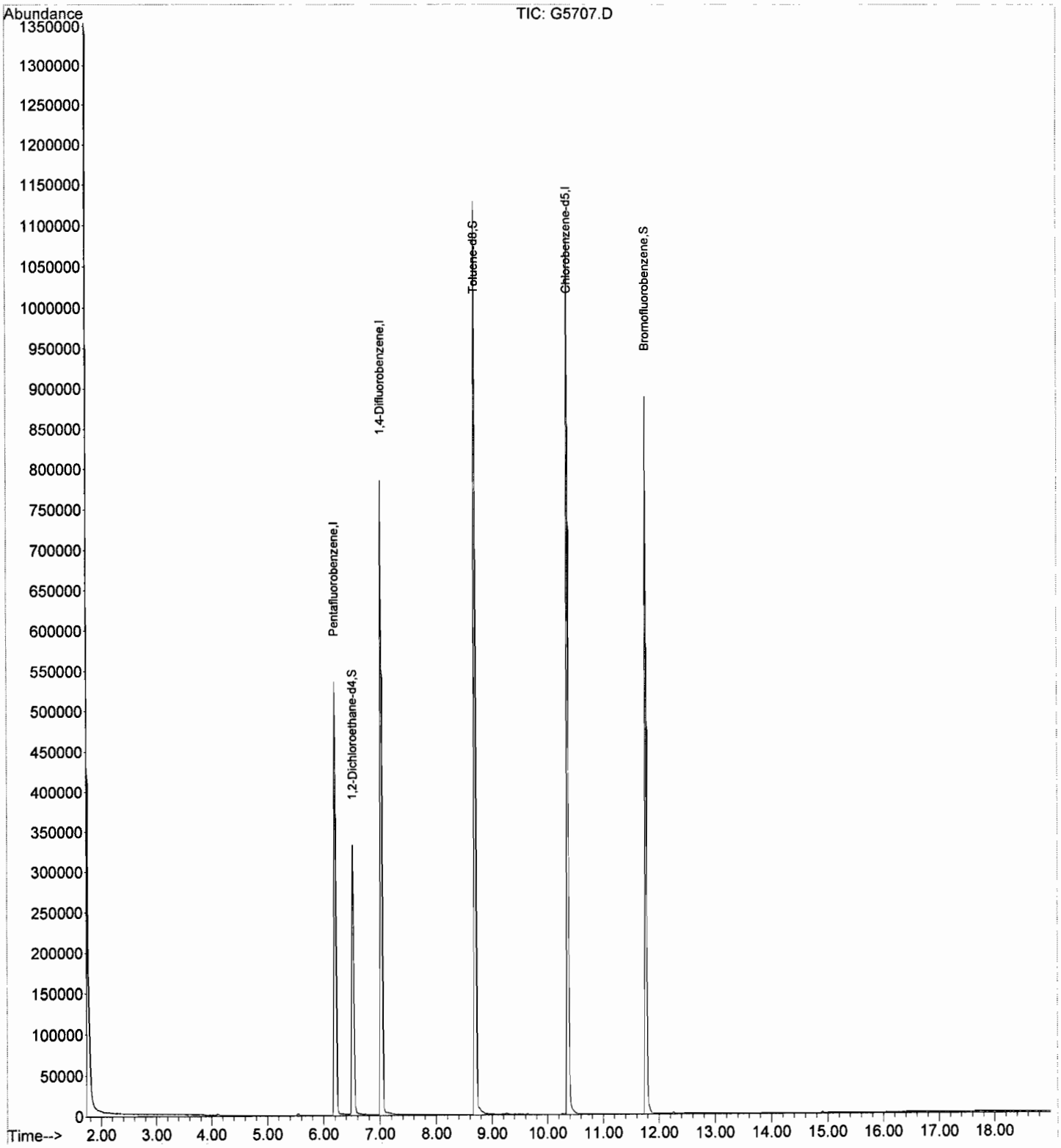
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5707.D
Acq On : 3 Aug 2015 15:10
Operator : Sylvia
Sample : FB-3,06541-016,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 04 08:35:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5707.D
Acq On : 3 Aug 2015 15:10
Operator : Sylvia
Sample : FB-3,06541-016,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	841	856	873	rBV	535110	1165255	53.46%	12.508%
2	6.526	905	917	949	rBV	330993	740586	33.98%	7.950%
3	7.028	1000	1013	1062	rBV	784353	1601975	73.50%	17.196%
4	8.702	1322	1333	1371	rBV	1128702	2179522	100.00%	23.396%
5	10.370	1639	1652	1690	rBV	1088827	2045043	93.83%	21.953%
6	11.772	1907	1920	1948	rBV	888350	1583346	72.65%	16.996%

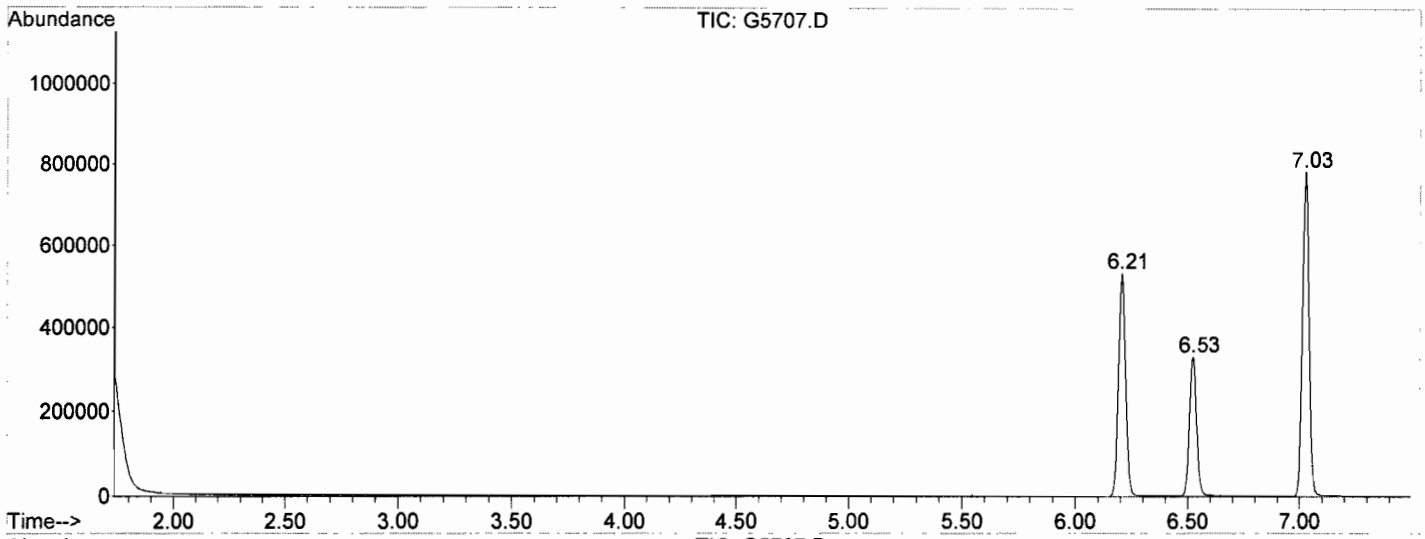
Sum of corrected areas: 9315727

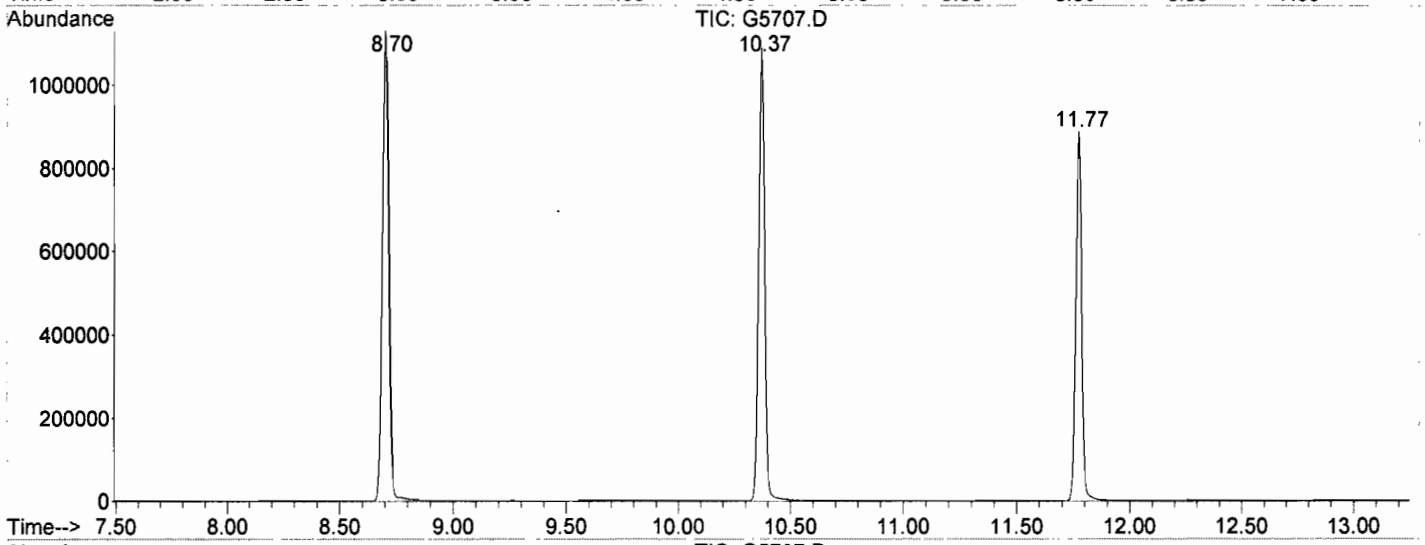
LSC Report - Integrated Chromatogram

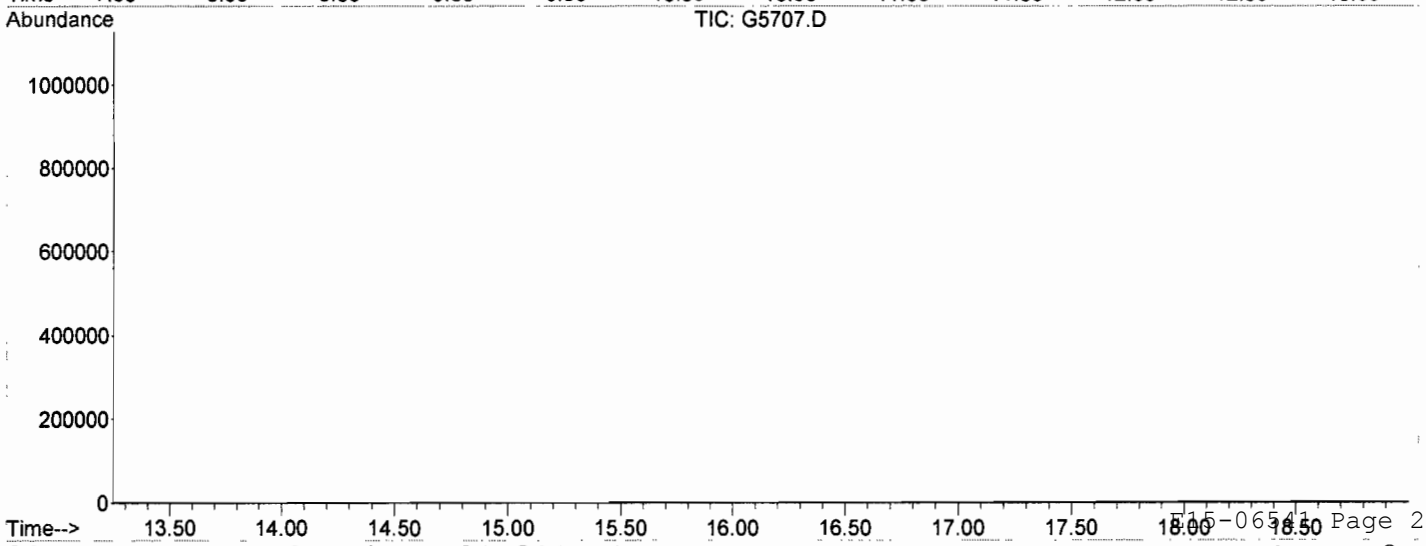
Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5707.D
Acq On : 3 Aug 2015 15:10
Operator : Sylvia
Sample : FB-3,06541-016,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5708.D
Acq On : 3 Aug 2015 15:38
Operator : Sylvia
Sample : TB,06541-017,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 04 08:37:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	385227	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	660101	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	648569	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.52	65	260462	50.59	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 101.18%			
41) Toluene-d8	8.70	98	809590	49.43	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.86%			
59) Bromofluorobenzene	11.77	95	356429	48.39	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 96.78%			

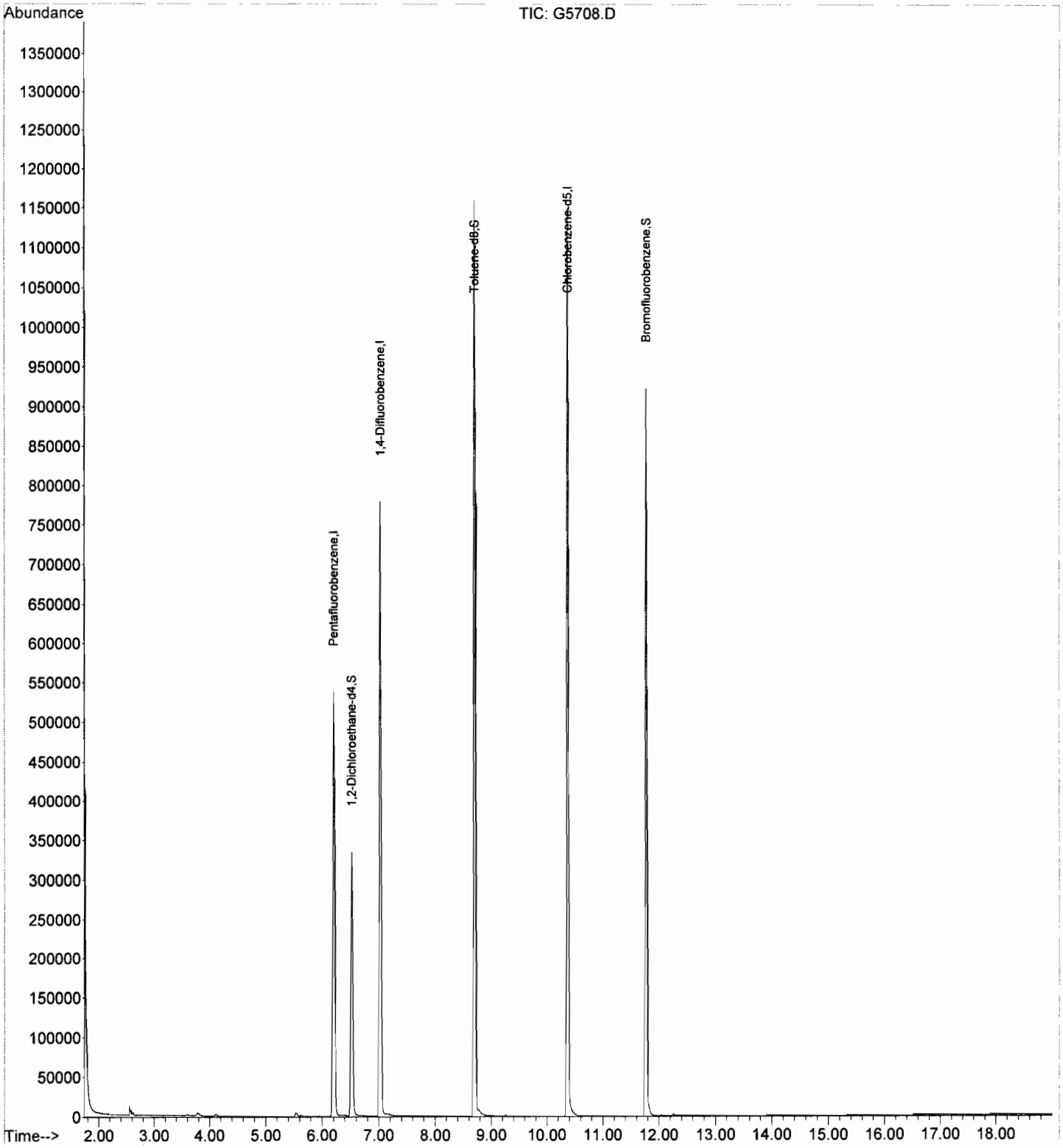
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5708.D
Acq On : 3 Aug 2015 15:38
Operator : Sylvia
Sample : TB,06541-017,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 04 08:37:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5708.D
Acq On : 3 Aug 2015 15:38
Operator : Sylvia
Sample : TB,06541-017,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	839	856	871	rBV	537842	1189761	52.33%	12.328%
2	6.521	905	916	940	rBV	333246	757187	33.31%	7.846%
3	7.028	999	1013	1044	rBV	777908	1630110	71.70%	16.890%
4	8.702	1319	1333	1378	rBV	1159125	2273436	100.00%	23.556%
5	10.370	1640	1652	1695	rBV	1148927	2138229	94.05%	22.155%
6	11.772	1910	1920	1949	rBV	922567	1662346	73.12%	17.224%

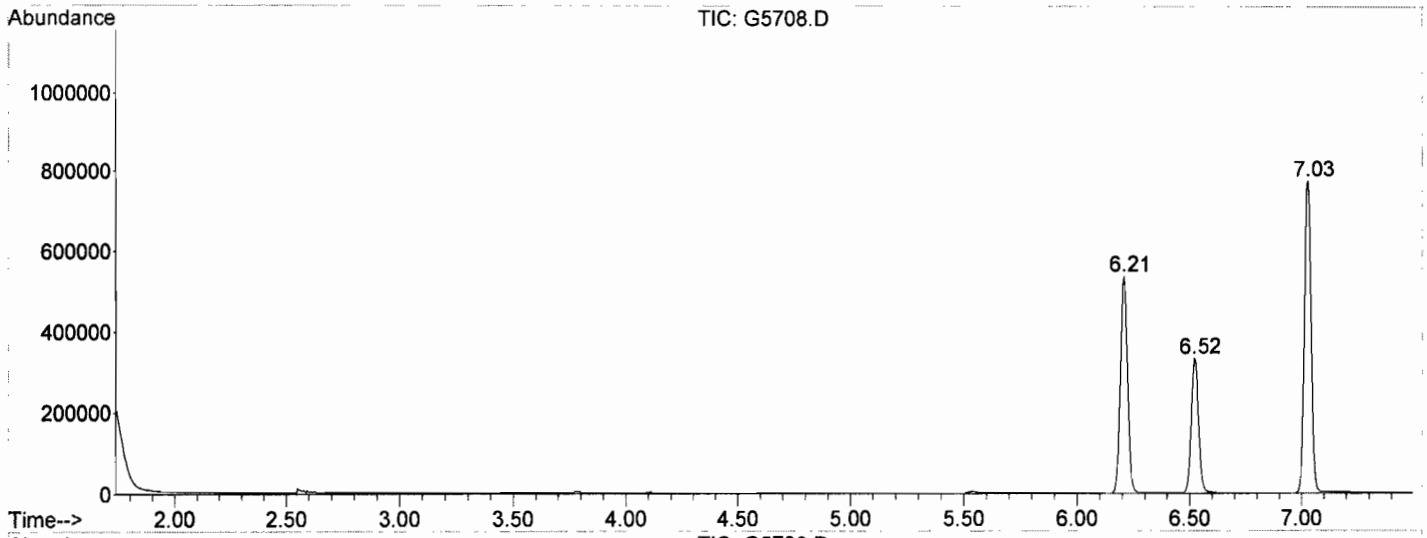
Sum of corrected areas: 9651069

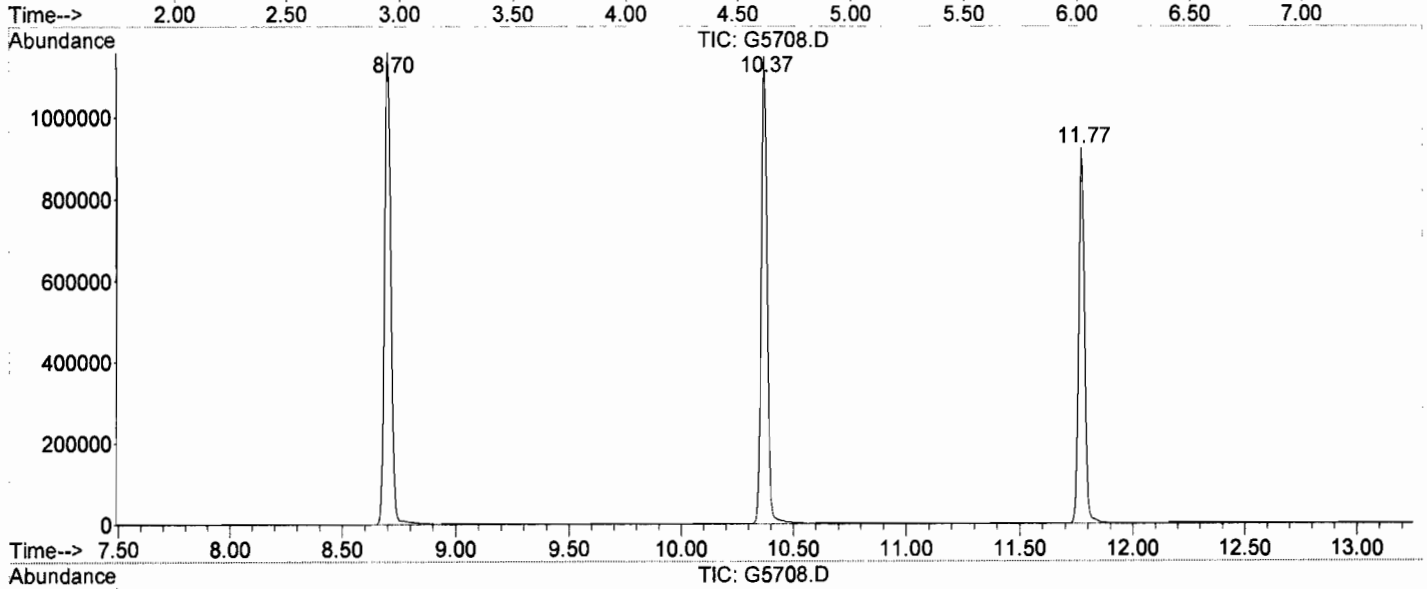
LSC Report - Integrated Chromatogram

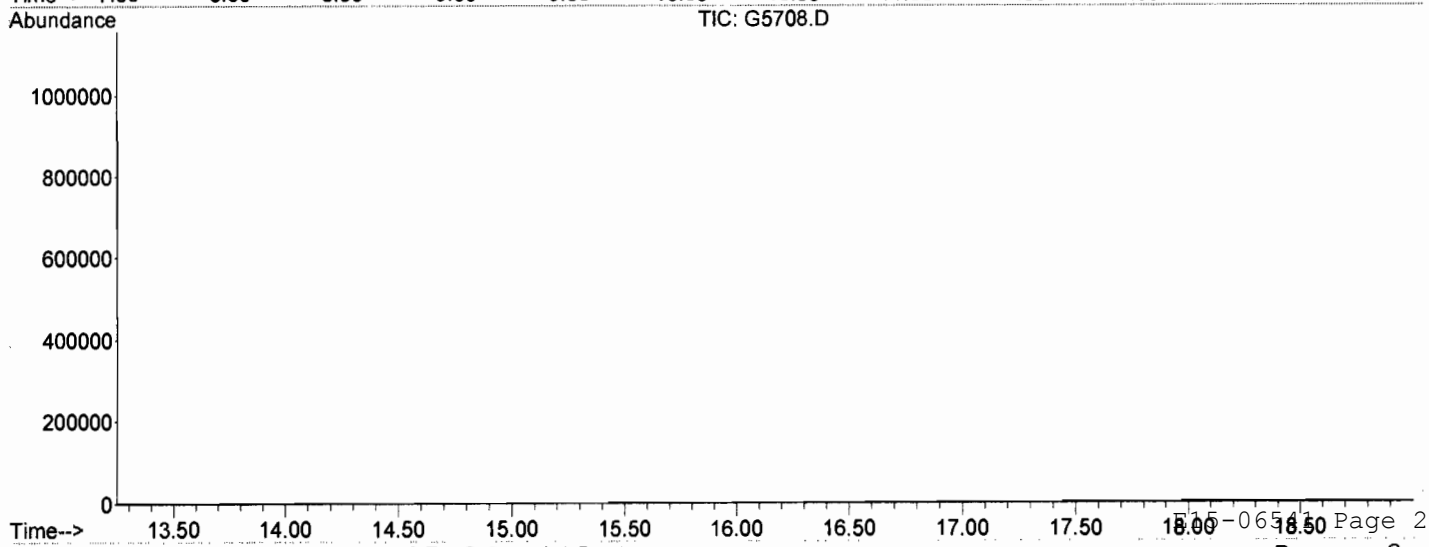
Data Path : C:\MSDCHEM\1\DATA\08-03-15\
Data File : G5708.D
Acq On : 3 Aug 2015 15:38
Operator : Sylvia
Sample : TB,06541-017,A,5mL,100
Misc : JMC/ARSYNCO,07/24/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150803a
Client ID: BLKA150803a
Date Received: NA
Date Analyzed: 08/03/2015
Data file: G5696.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150803a
Client ID: BLKA150803a
Date Received: NA
Date Analyzed: 08/03/2015
Data file: G5696.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA150803a
Client ID: BLKA150803a
Date Received: NA
Date Analyzed: 08/03/2015
Data file: G5696.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\08-03-15\
Data File : G5696.D
Acq On : 3 Aug 2015 9:59
Operator : Sylvia
Sample : BLKA150803a,BLKA150803a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 03 14:56:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	419587	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	723750	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	702541	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.52	65	275294	49.09	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 98.18%			
41) Toluene-d8	8.70	98	876823	48.83	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.66%			
59) Bromofluorobenzene	11.77	95	388342	48.68	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.36%			

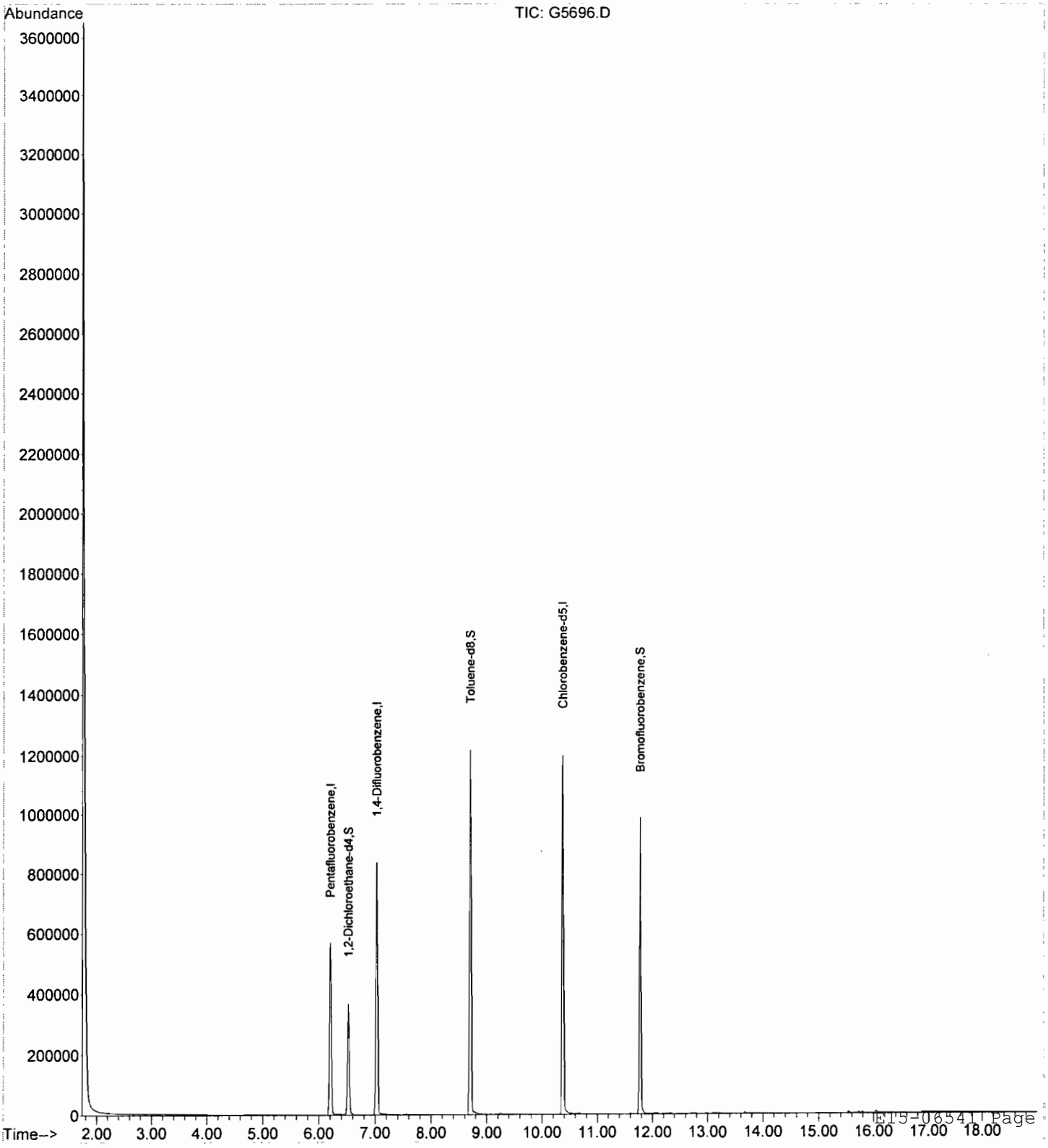
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\08-03-15\
Data File : G5696.D
Acq On : 3 Aug 2015 9:59
Operator : Sylvia
Sample : BLKA150803a,BLKA150803a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 03 14:56:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\08-03-15\
Data File : G5696.D
Acq On : 3 Aug 2015 9:59
Operator : Sylvia
Sample : BLKA150803a,BLKA150803a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.202	842	855	878	rBV	567859	1284453	52.97%	12.430%
2	6.521	904	916	944	rBV	365546	808736	33.35%	7.827%
3	7.023	1001	1012	1028	rBV	837291	1742908	71.88%	16.867%
4	8.702	1322	1333	1371	rBV	1216632	2424743	100.00%	23.466%
5	10.370	1639	1652	1681	rBV	1197761	2283046	94.16%	22.094%
6	11.772	1910	1920	1944	rBV	985885	1789268	73.79%	17.316%

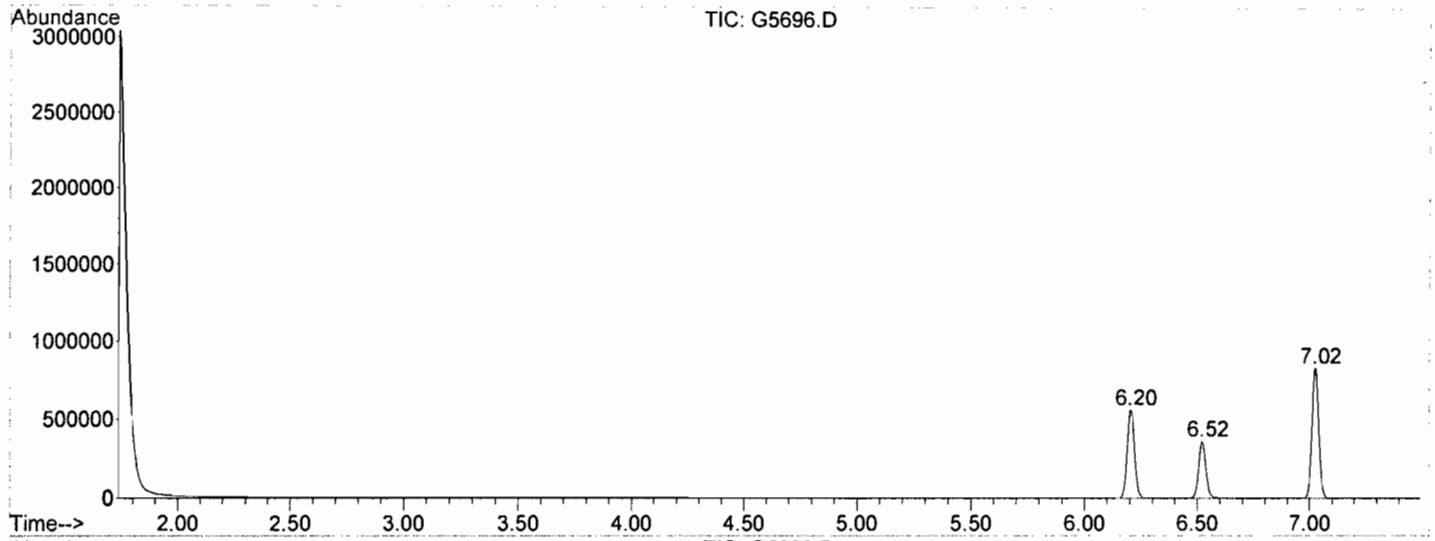
Sum of corrected areas: 10333154

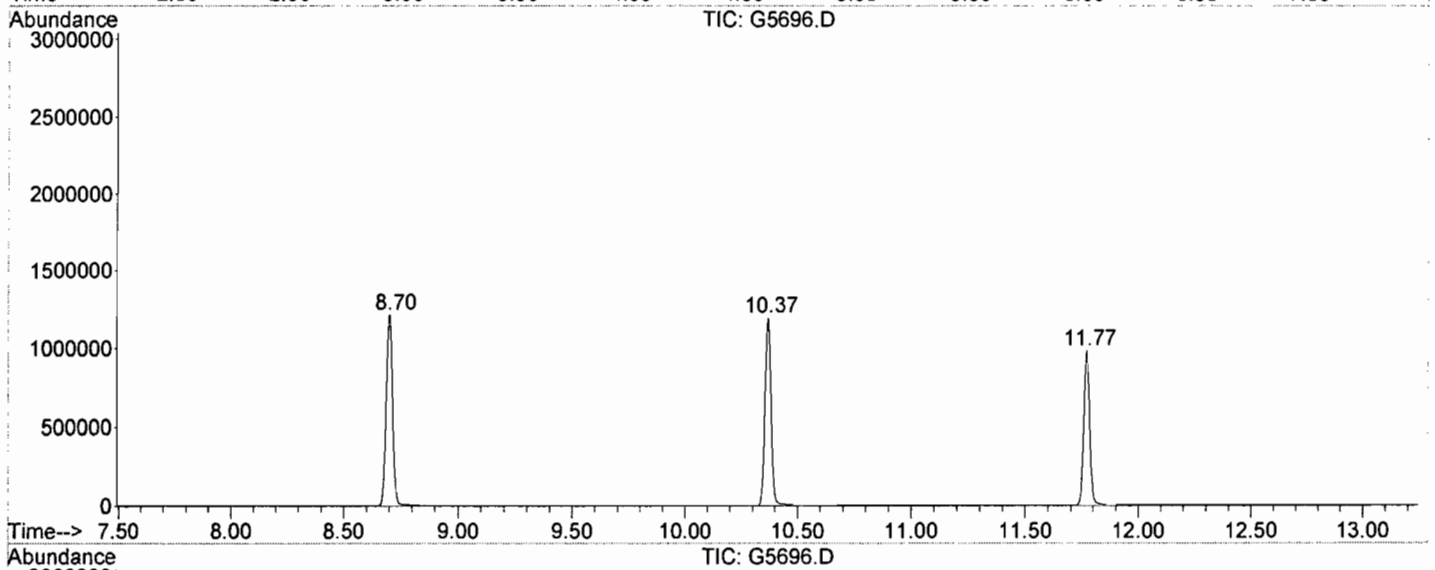
LSC Report - Integrated Chromatogram

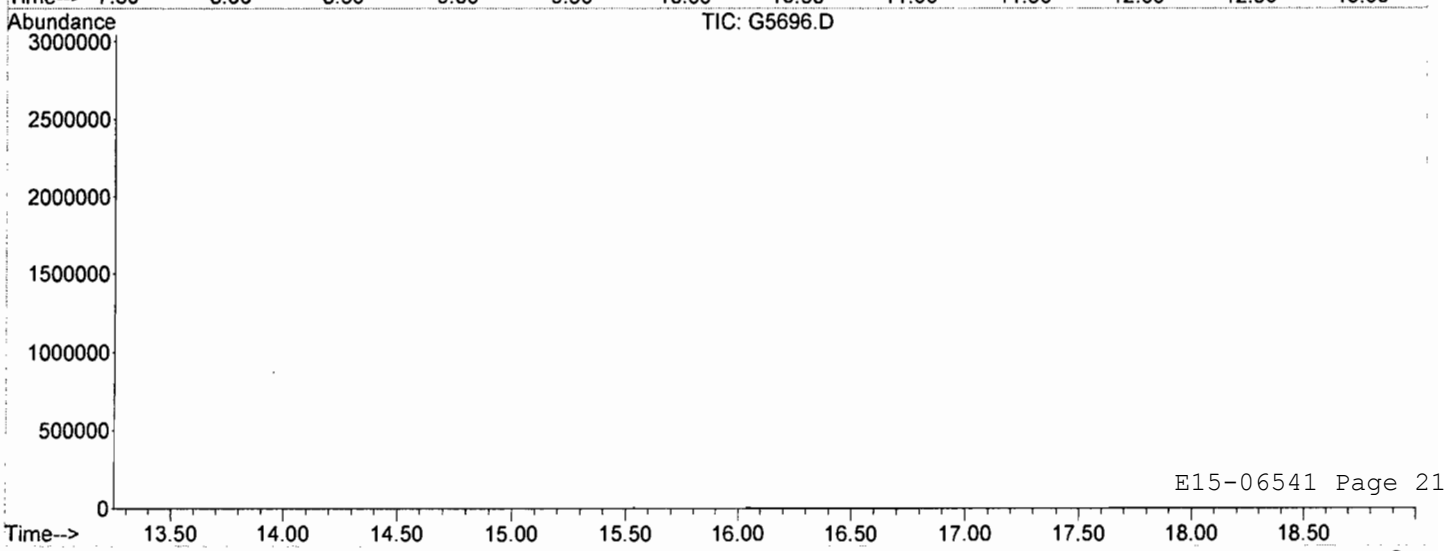
Data Path : C:\MSDChem\1\DATA\08-03-15\
Data File : G5696.D
Acq On : 3 Aug 2015 9:59
Operator : Sylvia
Sample : BLKA150803a,BLKA150803a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150806a
Client ID: BLKA150806a
Date Received: NA
Date Analyzed: 08/06/2015
Data file: G5822.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		4.00	1.87
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150806a
Client ID: BLKA150806a
Date Received: NA
Date Analyzed: 08/06/2015
Data file: G5822.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA150806a
Client ID: BLKA150806a
Date Received: NA
Date Analyzed: 08/06/2015
Date File: G5822.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\08-06-15\
Data File : G5822.D
Acq On : 6 Aug 2015 13:02
Operator : Sylvia
Sample : BLKA150806a,BLKA150806a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 06 15:56:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	369161	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	633399	50.00	UG	0.00
50) Chlorobenzene-d5	10.37	117	622737	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	268874	54.50	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 109.00%			
41) Toluene-d8	8.70	98	779794	49.62	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.24%			
59) Bromofluorobenzene	11.77	95	346297	48.97	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 97.94%			

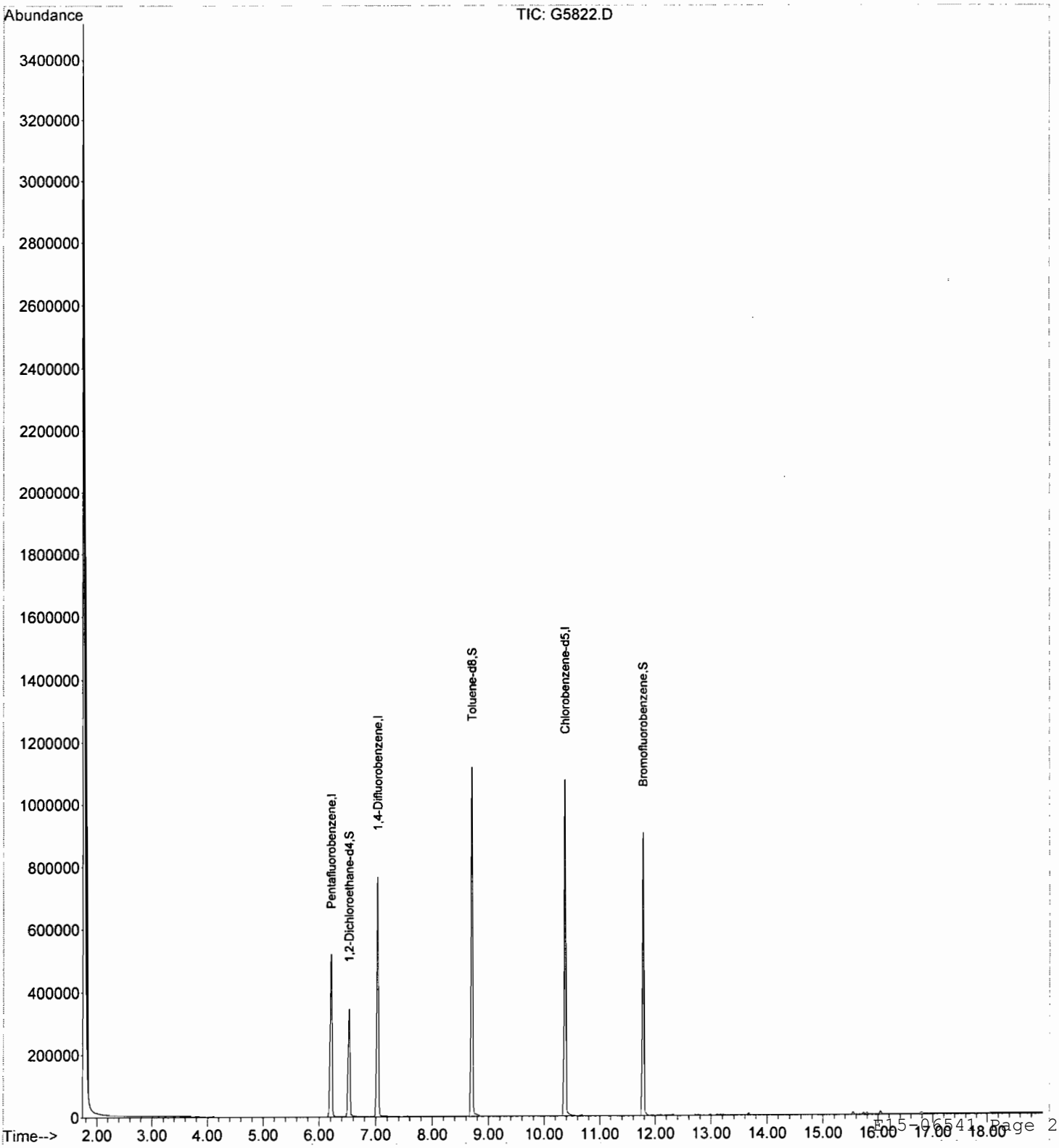
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\08-06-15\
Data File : G5822.D
Acq On : 6 Aug 2015 13:02
Operator : Sylvia
Sample : BLKA150806a,BLKA150806a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 06 15:56:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Jul 29 14:56:12 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\08-06-15\
Data File : G5822.D
Acq On : 6 Aug 2015 13:02
Operator : Sylvia
Sample : BLKA150806a,BLKA150806a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8072915.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.222	91	94	162	rVB	3833	36208	1.63%	0.378%
2	6.207	841	856	874	rBV	518472	1163288	52.34%	12.151%
3	6.521	904	916	943	rBV	344754	767171	34.52%	8.014%
4	7.028	1000	1013	1032	rBV	767073	1595074	71.77%	16.661%
5	8.702	1318	1333	1382	rBV	1117869	2222410	100.00%	23.214%
6	10.370	1641	1652	1679	rBV	1075691	2128671	95.78%	22.235%
7	11.772	1906	1920	1946	rBV	904368	1660630	74.72%	17.346%

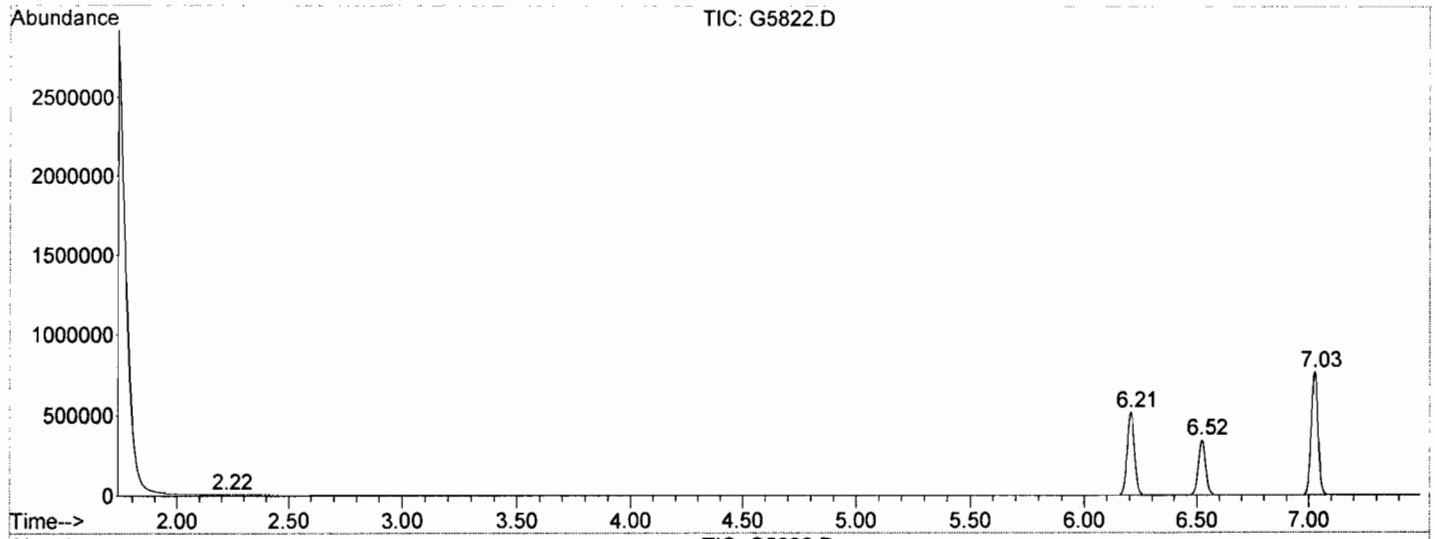
Sum of corrected areas: 9573452

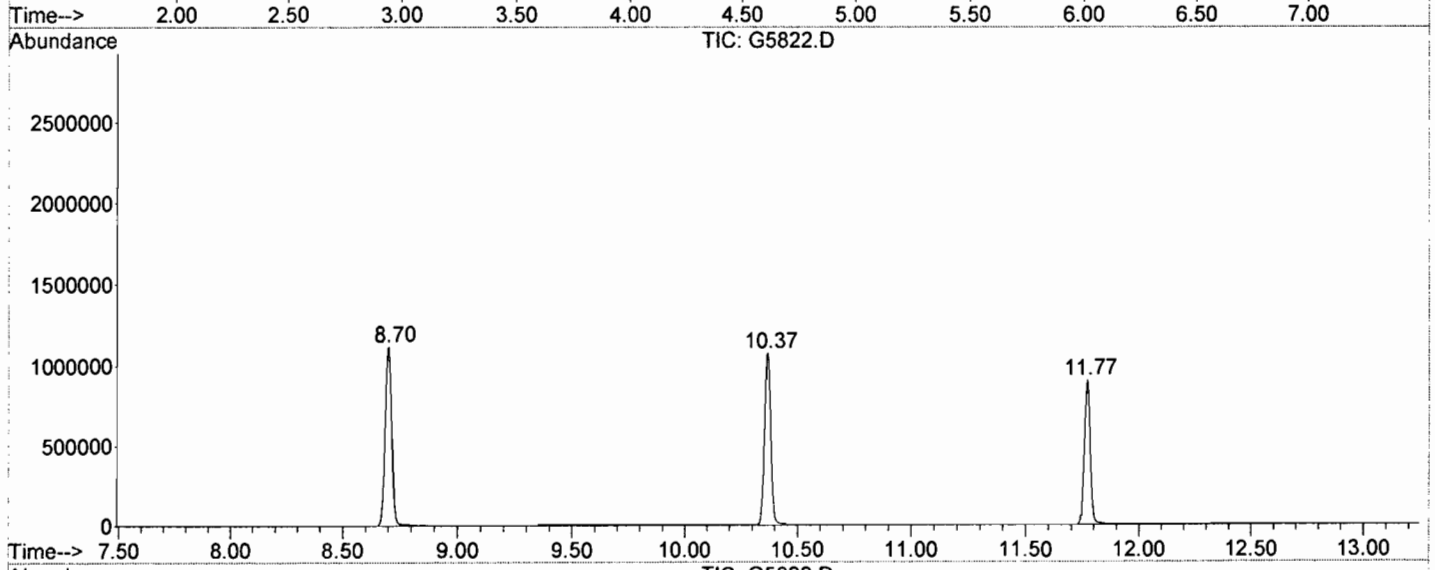
LSC Report - Integrated Chromatogram

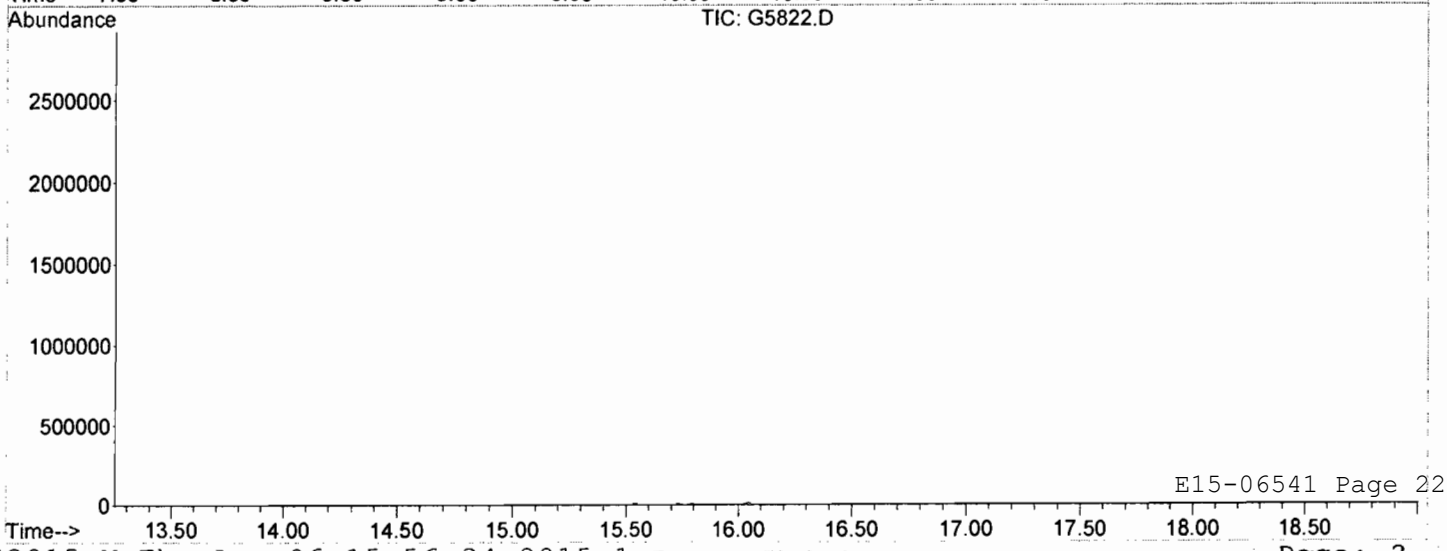
Data Path : C:\MSDChem\1\DATA\08-06-15\
Data File : G5822.D
Acq On : 6 Aug 2015 13:02
Operator : Sylvia
Sample : BLKA150806a,BLKA150806a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8072915.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/29/2015

Lab Sample ID	Matrix	File ID	S1	#	S2	#	S3	#	S4	#	S5	#	S6	#
CCV040BNA2		B1666.D	N/A		N/A		N/A		N/A		N/A		N/A	
BLKA150728-01	AQUEOUS	B1689.D	52		53		54		60		54		60	
LCSA150728-01	AQUEOUS	B1690.D	28		28		48		60		54		78	
E15-06562-001MS	AQUEOUS	B1691.D	51		39		75		80		98		88	
E15-06562-001MSD	AQUEOUS	B1692.D	57		44		81		88		110		96	
E15-06584-001	AQUEOUS	B1693.D	N/A		N/A		64		64		N/A		68	
E15-06584-002	AQUEOUS	B1694.D	N/A		N/A		68		70		N/A		78	
E15-06541-005	AQUEOUS	B1695.D	N/A		N/A		64		75		N/A		92	
E15-06541-016	AQUEOUS	B1696.D	N/A		N/A		48		52		N/A		70	
E15-06562-001	AQUEOUS	B1697.D	N/A		N/A		43		41		N/A		40	
E15-06562-002	AQUEOUS	B1698.D	N/A		N/A		43		31		N/A		23	$
E15-06562-003	AQUEOUS	B1699.D	N/A		N/A		44		39		N/A		30	
E15-06562-004	AQUEOUS	B1700.D	N/A		N/A		51		51		N/A		54	
E15-06529-001	AQUEOUS	B1701.D	N/A		N/A		98		56		N/A		31	
E15-06529-002	AQUEOUS	B1702.D	N/A		N/A		52		51		N/A		43	
E15-06529-003	AQUEOUS	B1703.D	N/A		N/A		70		75		N/A		72	
E15-06479-001	AQUEOUS	B1704.D	N/A		N/A		60		73		N/A		88	
E15-06473-007	AQUEOUS	B1705.D	N/A		N/A		55		63		N/A		91	

	DKQPs		IAL	
	Aqueous	Soil	Aqueous/Leachate	Soil
S1 (2FP) = 2-Fluorophenol	15-110	30-130	10-100	28-108
S2 (PHL) = Phenol-d5	15-110	30-130	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	30-130	30-130	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	30-130	30-130	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	15-110	30-130	22-115	35-126
S6 (TPH) = Terphenyl-d14	30-130	30-130	23-124	32-135

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference
N/A Not applicable

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150728-01
Date Received: NA
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Data file: B1690.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Rec Limits IAL	DKQP
N-Nitrosodimethylamine	30.0	13.3	44	$	40-140	70-130
Pyridine	30.0	12.8	43		20-120	20-160
Benzaldehyde	30.0	5.7	19	$	10-110	20-160
Phenol	30.0	11.7	39		30-140	20-160
Aniline	30.0	14.8	49	$	40-140	70-130
Bis(2-chloroethyl) ether	30.0	13.4	45	$	40-140	70-130
2-Chlorophenol	30.0	11.8	39		30-140	20-160
1,3-Dichlorobenzene	30.0	14.3	48	$	40-140	70-130
1,4-Dichlorobenzene	30.0	12.9	43	$	40-140	70-130
Benzyl alcohol	30.0	15.1	50	$	40-140	70-130
1,2-Dichlorobenzene	30.0	14.0	47	$	40-140	70-130
2-Methylphenol	30.0	15.1	50		30-140	20-160
Bis(2-chloroisopropyl) ether	30.0	13.2	44	$	40-140	70-130
4-Methylphenol	30.0	14.9	50	$	30-140	70-130
N-Nitrosodi-n-propylamine	30.0	14.2	47	$	40-140	70-130
Acetophenone	30.0	15.0	50	$	40-140	70-130
3-Methylphenol	30.0	14.9	50		30-140	20-160
Hexachloroethane	30.0	12.6	42	$	40-140	70-130
Nitrobenzene	30.0	14.8	49	$	40-140	70-130
Isophorone	30.0	15.8	53	$	40-140	70-130
2-Nitrophenol	30.0	13.9	46		30-140	20-160
2,4-Dimethylphenol	30.0	17.5	58		30-140	20-160
Bis(2-chloroethoxy) methane	30.0	15.0	50	$	40-140	70-130
Benzoic acid	30.0	12.7	42		30-140	20-160
2,4-Dimethylaniline	30.0	19.6	65	$	40-140	70-130
2,4-Dichlorophenol	30.0	13.8	46		30-140	20-160
1,2,4-Trichlorobenzene	30.0	15.5	52	$	40-140	70-130
Naphthalene	30.0	15.9	53	$	40-140	70-130
4-Chloroaniline	30.0	22.8	76		40-140	70-130
Hexachlorobutadiene	30.0	15.2	51	$	40-140	70-130
Caprolactam	30.0	13.5	45	$	40-140	70-130
4-Chloro-3-methylphenol	30.0	18.6	62		30-140	20-160
2-Methylnaphthalene	30.0	17.4	58	$	40-140	70-130
Hexachlorocyclopentadiene	30.0	13.0	43		5-105	20-160
2,4,6-Trichlorophenol	30.0	14.3	48		30-140	20-160
2,4,5-Trichlorophenol	30.0	17.0	57		30-140	20-160
1,1'-Biphenyl	30.0	18.0	60	$	40-140	70-130
2-Chloronaphthalene	30.0	17.8	59	$	40-140	70-130
2-Nitroaniline	30.0	24.3	81		40-140	70-130
Dimethyl phthalate	30.0	21.9	73		40-140	70-130
2,6-Dinitrotoluene	30.0	23.7	79		40-140	70-130
Acenaphthylene	30.0	19.8	66	$	40-140	70-130
3-Nitroaniline	30.0	28.2	94		40-140	70-130
Acenaphthene	30.0	20.3	68		40-140	20-160
2,4-Dinitrophenol	30.0	13.0	43		5-105	20-160

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150728-01
Date Received: NA
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Data file: B1690.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Rec Limits IAL	Rec Limits DKQP
4-Nitrophenol	30.0	21.2	71		30-140	20-160
2,4-Dinitrotoluene	30.0	29.7	99		40-140	70-130
Dibenzofuran	30.0	22.5	75		40-140	70-130
Diethyl phthalate	30.0	25.0	83		40-140	70-130
Fluorene	30.0	22.9	76		40-140	70-130
4-Chlorophenyl phenyl ether	30.0	22.1	74		40-140	70-130
4-Nitroaniline	30.0	29.7	99		40-140	70-130
1,2,4,5-Tetrachlorobenzene	30.0	12.6	42	$	40-140	70-130
2,3,4,6-Tetrachlorophenol	30.0	24.7	82		40-140	70-130
4,6-Dinitro-2-methylphenol	30.0	12.2	41		10-110	20-160
N-Nitrosodiphenylamine	30.0	22.4	75		40-140	70-130
1,2-Diphenylhydrazine	30.0	18.3	61	$	40-140	70-130
4-Bromophenyl phenyl ether	30.0	20.4	68	$	40-140	70-130
Hexachlorobenzene	30.0	22.1	74		40-140	70-130
Atrazine	30.0	23.7	79		20-120	20-160
Pentachlorophenol	30.0	13.2	44		30-140	20-160
Phenanthrene	30.0	23.0	77		40-140	70-130
Anthracene	30.0	23.2	77		40-140	70-130
Carbazole	30.0	23.7	79		40-140	70-130
Di-n-butyl phthalate	30.0	23.5	78		40-140	70-130
Fluoranthene	30.0	24.9	83		40-140	70-130
Benzidine	30.0	14.2	47		5-105	20-160
Pyrene	30.0	24.4	81		40-140	70-130
3,3'-Dimethylbenzidine	30.0	14.7	49		5-105	20-160
Butyl benzyl phthalate	30.0	22.8	76		40-140	70-130
3,3'-Dichlorobenzidine	30.0	24.3	81		40-140	70-130
Benzo[a]anthracene	30.0	25.0	83		40-140	70-130
Chrysene	30.0	24.0	80		40-140	70-130
Bis(2-ethylhexyl) phthalate	30.0	22.2	74		40-140	70-130
Di-n-octyl phthalate	30.0	18.8	63	$	40-140	70-130
Benzo[b]fluoranthene	30.0	17.1	57	$	40-140	70-130
Benzo[k]fluoranthene	30.0	21.9	73		40-140	70-130
Benzo[a]pyrene	30.0	19.7	66	$	40-140	70-130
Indeno[1,2,3-cd]pyrene	30.0	18.3	61	$	40-140	70-130
Dibenz[a,h]anthracene	30.0	18.3	61	$	40-140	70-130
Benzo[g,h,i]perylene	30.0	18.6	62	$	40-140	70-130

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E15-06562-001
Date Received: 07/27/2015
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
MS Data file: B1691.D
MSD Data file: B1692.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Rec/RPD limits IAL	DKQP
N-Nitrosodimethylamine	40.0	0.0	20.9	52	$	18.5	46	$	12		40-140/20	70-130/20
Pyridine	40.0	0.0	18.7	47		20.1	50		7		20-120/20	20-160/20
Benzaldehyde	40.0	0.0	7.6	19	$	8.2	21		8		10-110/20	20-160/20
Phenol	40.0	0.0	19.5	49		18.8	47		4		30-140/20	20-160/20
Aniline	40.0	0.0	23.9	60	$	25.5	64	$	6		40-140/20	70-130/20
Bis(2-chloroethyl) ether	40.0	0.0	22.6	57	$	24.0	60	$	6		40-140/20	70-130/20
2-Chlorophenol	40.0	0.0	25.3	63		27.5	69		8		30-140/20	20-160/20
1,3-Dichlorobenzene	40.0	0.0	24.9	62	$	26.5	66	$	6		40-140/20	70-130/20
1,4-Dichlorobenzene	40.0	0.0	22.6	57	$	24.0	60	$	6		40-140/20	70-130/20
Benzyl alcohol	40.0	0.0	24.5	61	$	26.7	67	$	9		40-140/20	70-130/20
1,2-Dichlorobenzene	40.0	0.0	24.3	61	$	26.1	65	$	7		40-140/20	70-130/20
2-Methylphenol	40.0	0.0	24.0	60		26.2	66		9		30-140/20	20-160/20
Bis(2-chloroisopropyl) ether	40.0	0.0	22.7	57	$	23.9	60	$	5		40-140/20	70-130/20
4-Methylphenol	40.0	0.0	23.9	60	$	27.1	68	$	13		30-140/20	70-130/20
N-Nitrosodi-n-propylamine	40.0	0.0	25.0	63	$	26.6	67	$	6		40-140/20	70-130/20
Acetophenone	40.0	0.0	25.9	65	$	27.7	69	$	7		40-140/20	70-130/20
3-Methylphenol	40.0	0.0	23.9	60		27.1	68		13		30-140/20	20-160/20
Hexachloroethane	40.0	0.0	23.1	58	$	24.9	62	$	7		40-140/20	70-130/20
Nitrobenzene	40.0	0.0	24.6	62	$	26.6	67	$	8		40-140/20	70-130/20
Isophorone	40.0	0.0	26.7	67	$	28.0	70		5		40-140/20	70-130/20
2-Nitrophenol	40.0	0.0	35.6	89		40.0	100		12		30-140/20	20-160/20
2,4-Dimethylphenol	40.0	0.0	22.5	56		25.0	63		11		30-140/20	20-160/20
Bis(2-chloroethoxy) methane	40.0	0.0	25.5	64	$	27.8	70		9		40-140/20	70-130/20
Benzoic acid	40.0	0.0	27.5	69		28.5	71		4		30-140/20	20-160/20
2,4-Dimethylaniline	40.0	0.0	36.5	91		39.1	98		7		40-140/20	70-130/20
2,4-Dichlorophenol	40.0	0.0	30.8	77		33.6	84		9		30-140/20	20-160/20
1,2,4-Trichlorobenzene	40.0	0.0	27.1	68	$	28.6	72		5		40-140/20	70-130/20
Naphthalene	40.0	0.0	26.9	67	$	28.6	72		6		40-140/20	70-130/20
4-Chloroaniline	40.0	0.0	31.3	78		33.3	83		6		40-140/20	70-130/20
Hexachlorobutadiene	40.0	0.0	27.0	68	$	29.2	73		8		40-140/20	70-130/20
Caprolactam	40.0	0.0	23.9	60	$	25.1	63	$	5		40-140/20	70-130/20
4-Chloro-3-methylphenol	40.0	0.0	31.7	79		34.9	87		10		30-140/20	20-160/20
2-Methylnaphthalene	40.0	0.0	29.7	74		31.7	79		7		40-140/20	70-130/20
Hexachlorocyclopentadiene	40.0	0.0	23.9	60		26.9	67		12		5-105/20	20-160/20
2,4,6-Trichlorophenol	40.0	0.0	34.5	86		38.0	95		10		30-140/20	20-160/20
2,4,5-Trichlorophenol	40.0	0.0	36.5	91		39.9	100		9		30-140/20	20-160/20
1,1'-Biphenyl	40.0	0.0	28.4	71		29.6	74		4		40-140/20	70-130/20
2-Chloronaphthalene	40.0	0.0	27.7	69	$	30.4	76		9		40-140/20	70-130/20
2-Nitroaniline	40.0	0.0	35.4	89		40.4	101		13		40-140/20	70-130/20
Dimethyl phthalate	40.0	0.0	29.2	73		32.2	81		10		40-140/20	70-130/20
2,6-Dinitrotoluene	40.0	0.0	35.6	89		40.2	101		12		40-140/20	70-130/20
Acenaphthylene	40.0	0.0	30.2	76		32.4	81		7		40-140/20	70-130/20
3-Nitroaniline	40.0	0.0	34.9	87		39.6	99		13		40-140/20	70-130/20
Acenaphthene	40.0	0.0	30.8	77		33.0	83		7		40-140/20	20-160/20
2,4-Dinitrophenol	40.0	0.0	37.7	94		38.7	97		3		5-105/20	20-160/20

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E15-06562-001
Date Received: 07/27/2015
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
MS Data file: B1691.D
MSD Data file: B1692.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Rec/RPD IAL Limits	Rec/RPD DKQP Limits
4-Nitrophenol	40.0	0.0	40.3	101		34.5	86		16		30-140/20	20-160/20
2,4-Dinitrotoluene	40.0	0.0	41.5	104		45.1	113		8		40-140/20	70-130/20
Dibenzofuran	40.0	0.0	33.1	83		35.5	89		7		40-140/20	70-130/20
Diethyl phthalate	40.0	0.0	32.9	82		35.4	89		7		40-140/20	70-130/20
Fluorene	40.0	0.0	34.4	86		36.5	91		6		40-140/20	70-130/20
4-Chlorophenyl phenyl ether	40.0	0.0	34.0	85		36.3	91		7		40-140/20	70-130/20
4-Nitroaniline	40.0	0.0	36.8	92		41.0	103		11		40-140/20	70-130/20
1,2,4,5-Tetrachlorobenzene	40.0	0.0	20.6	52	$	20.5	51	$	0		40-140/20	70-130/20
2,3,4,6-Tetrachlorophenol	40.0	0.0	39.2	98		44.2	111		12		40-140/20	70-130/20
4,6-Dinitro-2-methylphenol	40.0	0.0	35.6	89		37.1	93		4		10-110/20	20-160/20
N-Nitrosodiphenylamine	40.0	0.0	33.0	83		36.0	90		9		40-140/20	70-130/20
1,2-Diphenylhydrazine	40.0	0.0	26.6	67	$	28.8	72		8		40-140/20	70-130/20
4-Bromophenyl phenyl ether	40.0	0.0	30.0	75		32.7	82		9		40-140/20	70-130/20
Hexachlorobenzene	40.0	0.0	30.6	77		33.4	84		9		40-140/20	70-130/20
Atrazine	40.0	0.0	32.2	81		35.0	88		8		20-120/20	20-160/20
Pentachlorophenol	40.0	0.0	41.4	104		45.0	113		8		30-140/20	20-160/20
Phenanthrene	40.0	0.0	31.3	78		34.0	85		8		40-140/20	70-130/20
Anthracene	40.0	0.0	32.6	82		35.0	88		7		40-140/20	70-130/20
Carbazole	40.0	0.0	30.9	77		33.6	84		8		40-140/20	70-130/20
Di-n-butyl phthalate	40.0	0.0	31.9	80		34.3	86		7		40-140/20	70-130/20
Fluoranthene	40.0	0.0	33.3	83		36.2	91		8		40-140/20	70-130/20
Benzidine	40.0	0.0	2.2	6	$	2.1	5	$	5		5-105/20	20-160/20
Pyrene	40.0	0.0	31.9	80		34.9	87		9		40-140/20	70-130/20
3,3'-Dimethylbenzidine	40.0	0.0	3.0	8	$	3.6	9	$	18		5-105/20	20-160/20
Butyl benzyl phthalate	40.0	0.0	30.7	77		33.7	84		9		40-140/20	70-130/20
3,3'-Dichlorobenzidine	40.0	0.0	22.7	57	$	26.1	65	$	14		40-140/20	70-130/20
Benzo[a]anthracene	40.0	0.0	30.5	76		33.2	83		8		40-140/20	70-130/20
Chrysene	40.0	0.0	30.4	76		33.3	83		9		40-140/20	70-130/20
Bis(2-ethylhexyl) phthalate	40.0	0.0	29.5	74		32.3	81		9		40-140/20	70-130/20
Di-n-octyl phthalate	40.0	0.0	25.3	63	$	28.0	70		10		40-140/20	70-130/20
Benzo[b]fluoranthene	40.0	0.0	24.4	61	$	25.2	63	$	3		40-140/20	70-130/20
Benzo[k]fluoranthene	40.0	0.0	24.0	60	$	28.2	71		16		40-140/20	70-130/20
Benzo[a]pyrene	40.0	0.0	25.2	63	$	27.9	70		10		40-140/20	70-130/20
Indeno[1,2,3-cd]pyrene	40.0	0.0	24.2	61	$	26.8	67	$	10		40-140/20	70-130/20
Dibenz[a,h]anthracene	40.0	0.0	24.7	62	$	27.2	68	$	10		40-140/20	70-130/20
Benzo[g,h,i]perylene	40.0	0.0	24.1	60	$	26.8	67	$	11		40-140/20	70-130/20

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B1689.D Instrument ID: MSDB

Date Extracted: 07/28/15 Matrix: AQUEOUS

Date Analyzed: 07/28/2015 Time Analyzed: 01:04

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSA150728-01	07/29/2015	01:22
.	E15-06562-001MS	07/29/2015	01:39
.	E15-06562-001MSD	07/29/2015	01:56
MR-K01	E15-06584-001	07/29/2015	02:15
MR-K02	E15-06584-002	07/29/2015	02:32
MW-12D	E15-06541-005	07/29/2015	02:50
FB-3	E15-06541-016	07/29/2015	03:07
SR-RW2	E15-06562-001	07/29/2015	03:25
SR-RW3	E15-06562-002	07/29/2015	03:43
SR-RW4	E15-06562-003	07/29/2015	04:00
SR-MW8	E15-06562-004	07/29/2015	04:18
MW-101	E15-06529-001	07/29/2015	04:35
MW-102	E15-06529-002	07/29/2015	04:53
MW-103	E15-06529-003	07/29/2015	05:10
TMP-2/4.	E15-06479-001	07/29/2015	05:28
FIELD_BL	E15-06473-007	07/29/2015	05:46

FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B1649.D

Instrument ID: MSDB

Date Extracted: 07/28/15

Matrix: AQUEOUS

Date Analyzed: 07/28/2015

Time Analyzed: 13:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-12D	E15-06541-005	07/28/2015	14:01
FB-3	E15-06541-016	07/28/2015	14:17
SR-RW2	E15-06562-001	07/28/2015	14:34
SR-RW3	E15-06562-002	07/28/2015	14:50
SR-RW4	E15-06562-003	07/28/2015	15:06
SR-MW8	E15-06562-004	07/28/2015	15:22
MW-101	E15-06529-001	07/28/2015	15:39
MW-102	E15-06529-002	07/28/2015	15:55
MW-103	E15-06529-003	07/28/2015	16:11
TMP-2/4.	E15-06479-001	07/28/2015	16:28
MR-K01	E15-06584-001	07/28/2015	16:44
MR-K02	E15-06584-002	07/28/2015	17:00

FORM IV SV

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B1325.D DFTPP Injection Date : 07/20/2015

Inst ID: MSDB DFTPP Injection Time: 06:52

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	46.7	
70	Less than 2.0% of mass 69	0.7	(1.4)1
127	40.0 - 60.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.7	
275	10.0 - 30.0% of mass 198	22.7	
365	Greater than 1.0% of mass 198	2.1	
441	Present, but less than mass 443	9.13	(65.4)3
442	40.0 - 100.0% of mass 198	67.8	
443	17.0 - 23.0% of mass 442	14.0	(20.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN040-15	ICC040BNA1	B1326.D	07/20/2015	07:03
ABN037-15	ICC001BNA1	B1327.D	07/20/2015	07:20
ABN038-15	ICC010BNA1	B1328.D	07/20/2015	07:38
ABN039-15	ICC020BNA1	B1329.D	07/20/2015	07:55
ABN041-15	ICC080BNA1	B1330.D	07/20/2015	08:13
ABN042-15	ICC160BNA1	B1331.D	07/20/2015	08:30
ABN048-15	ICC160BNA2	B1332.D	07/20/2015	08:48
ABN047-15	ICC080BNA2	B1333.D	07/20/2015	09:06
ABN046-15	ICC040BNA2	B1334.D	07/20/2015	09:23
ABN045-15	ICC020BNA2	B1335.D	07/20/2015	09:41
ABN044-15	ICC010BNA2	B1336.D	07/20/2015	09:58
ABN043-15	ICC001BNA2	B1337.D	07/20/2015	10:16
ABN049-15	ICV040BNA1	B1343.D	07/20/2015	11:54
ABN050-15	ICV040BNA2	B1344.D	07/20/2015	12:12

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B1325.D DFTPP Injection Date : 07/20/2015

Inst ID: MSDB DFTPP Injection Time: 06:52

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	46.7	
70	Less than 2.0% of mass 69	0.7	(1.4)1
127	40.0 - 60.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.7	
275	10.0 - 30.0% of mass 198	22.7	
365	Greater than 1.0% of mass 198	2.1	
441	Present, but less than mass 443	9.13	(65.4)3
442	40.0 - 100.0% of mass 198	67.8	
443	17.0 - 23.0% of mass 442	14.0	(20.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN027-15	ICC000.5SIM	B1338.D	07/20/2015	10:33
ABN025-15	ICC000.1SIM	B1339.D	07/20/2015	10:49
ABN026-15	ICC000.2SIM	B1340.D	07/20/2015	11:05
ABN028-15	ICC001.0SIM	B1341.D	07/20/2015	11:21
ABN029-15	ICC002.0SIM	B1342.D	07/20/2015	11:37
ABN030-15	ICV000.5SIM	B1345.D	07/20/2015	12:29

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B1662.D DFTPP Injection Date : 07/28/2015

Inst ID: MSDB DFTPP Injection Time: 17:14

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	49.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	52.7	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	40.0 - 60.0% of mass 198	59.3	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.4	
275	10.0 - 30.0% of mass 198	23.2	
365	Greater than 1.0% of mass 198	1.9	
441	Present, but less than mass 443	7.41	(70.5)3
442	40.0 - 100.0% of mass 198	50.3	
443	17.0 - 23.0% of mass 442	10.5	(20.9)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN049-15	CCV040BNA1	B1665.D	07/28/2015	18:01
ABN050-15	CCV040BNA2	B1666.D	07/28/2015	18:19
.	BLKA150728-01	B1689.D	07/29/2015	01:04
.	LCSA150728-01	B1690.D	07/29/2015	01:22
.	E15-06562-001MS	B1691.D	07/29/2015	01:39
.	E15-06562-001MSD	B1692.D	07/29/2015	01:56
MR-K01	E15-06584-001	B1693.D	07/29/2015	02:15
MR-K02	E15-06584-002	B1694.D	07/29/2015	02:32
MW-12D	E15-06541-005	B1695.D	07/29/2015	02:50
FB-3	E15-06541-016	B1696.D	07/29/2015	03:07
SR-RW2	E15-06562-001	B1697.D	07/29/2015	03:25
SR-RW3	E15-06562-002	B1698.D	07/29/2015	03:43
SR-RW4	E15-06562-003	B1699.D	07/29/2015	04:00
SR-MW8	E15-06562-004	B1700.D	07/29/2015	04:18
MW-101	E15-06529-001	B1701.D	07/29/2015	04:35
MW-102	E15-06529-002	B1702.D	07/29/2015	04:53
MW-103	E15-06529-003	B1703.D	07/29/2015	05:10
TMP-2/4.	E15-06479-001	B1704.D	07/29/2015	05:28
FIELD_BL	E15-06473-007	B1705.D	07/29/2015	05:46

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B1640.D DFTPP Injection Date : 07/28/2015

Inst ID: MSDB DFTPP Injection Time: 11:25

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	37.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	40.0	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	40.0 - 60.0% of mass 198	50.9	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	26.1	
365	Greater than 1.0% of mass 198	2.9	
441	Present, but less than mass 443	12.81	(69.3)3
442	40.0 - 100.0% of mass 198	92.9	
443	17.0 - 23.0% of mass 442	18.5	(19.9)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN030-15	CCV000.5SIM	B1641.D	07/28/2015	11:35
.	BLKA150728-01	B1649.D	07/28/2015	13:45
MW-12D	E15-06541-005	B1650.D	07/28/2015	14:01
FB-3	E15-06541-016	B1651.D	07/28/2015	14:17
SR-RW2	E15-06562-001	B1652.D	07/28/2015	14:34
SR-RW3	E15-06562-002	B1653.D	07/28/2015	14:50
SR-RW4	E15-06562-003	B1654.D	07/28/2015	15:06
SR-MW8	E15-06562-004	B1655.D	07/28/2015	15:22
MW-101	E15-06529-001	B1656.D	07/28/2015	15:39
MW-102	E15-06529-002	B1657.D	07/28/2015	15:55
MW-103	E15-06529-003	B1658.D	07/28/2015	16:11
TMP-2/4.	E15-06479-001	B1659.D	07/28/2015	16:28
MR-K01	E15-06584-001	B1660.D	07/28/2015	16:44
MR-K02	E15-06584-002	B1661.D	07/28/2015	17:00

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BW0815.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Jul 20 10:36:51 2015
Response Via : Initial Calibration

Do
Je

Calibration Files
1 =B1327.D 10 =B1328.D 20 =B1329.D
40 =B1326.D 80 =B1330.D 160 =B1331.D =

		Compound	1	10	20	40	80	160	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.795	0.826	0.775	0.832	0.862	0.887	0.830	4.98
3)	T	Pyridine	0.969	0.905	0.895	0.935	0.964	0.974	0.940	3.62
4)	S	2-Fluorophenol	1.228	1.244	1.243	1.270	1.296	1.375	1.276	4.25
5)	T	Benzaldehyde	0.541	0.637	0.629	0.542	0.463	0.426	0.540	15.79
6)	S	Phenol-d5	1.467	1.499	1.473	1.544	1.554	1.643	1.530	4.31
7)	MC	Phenol	1.891	1.657	1.598	1.729	1.768	1.843	1.748	6.32
8)	T	Aniline	0.680	0.708	0.667	0.655	0.679	0.669	0.676	2.64
9)	T	Bis(2-chloroethyl	0.955	0.899	0.860	0.890	0.902	0.992	0.916	5.25
10)	M	2-Chlorophenol	1.487	1.423	1.362	1.428	1.500	1.553	1.459	4.63
11)	T	1,3-Dichlorobenze	1.698	1.596	1.549	1.584	1.650	1.644	1.620	3.30
12)	MC	1,4-Dichlorobenze	1.742	1.676	1.618	1.656	1.678	1.662	1.672	2.44
13)	T	Benzyl alcohol	0.926	0.882	0.862	0.897	0.934	0.962	0.910	4.05
14)	T	1,2-Dichlorobenze	1.650	1.555	1.483	1.531	1.586	1.551	1.559	3.58
15)	T	2-Methylphenol	1.198	1.232	1.154	1.208	1.253	1.287	1.222	3.80
16)	T	Bis(2-chloroisopr	1.704	1.563	1.495	1.540	1.526	1.534	1.560	4.73
17)	T	4-Methylphenol	1.286	1.262	1.188	1.286	1.304	1.289	1.269	3.29
18)	MP	N-Nitrosodi-n-pro	1.009	0.897	0.877	0.929	0.941	0.962	0.936	5.01
19)	T	Acetophenone	2.104	1.934	1.861	1.897	1.938	1.911	1.941	4.36
20)	T	3-Methylphenol	1.286	1.262	1.188	1.286	1.303	1.289	1.269	3.28
21)	T	Hexachloroethane	0.585	0.545	0.529	0.555	0.581	0.582	0.563	4.16
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.300	0.296	0.298	0.319	0.337	0.365	0.319	8.63
25)	T	Nitrobenzene	0.404	0.322	0.305	0.316	0.326	0.323	0.333	10.73
26)	T	Isophorone	0.689	0.627	0.622	0.646	0.656	0.632	0.645	3.83
27)	TC	2-Nitrophenol	0.131	0.136	0.138	0.166	0.175	0.179	0.154	13.96
28)	T	2,4-Dimethylpheno	0.312	0.318	0.319	0.336	0.339	0.334	0.326	3.39
29)	T	Bis(2-chloroethox	0.413	0.392	0.397	0.402	0.417	0.394	0.402	2.58
30)	T	Benzoic acid	0.109	0.129	0.131	0.174	0.133	0.161	0.139	16.96
31)	T	2,4-Dimethylanili	0.332	0.379	0.357	0.355	0.392	0.380	0.366	6.02
32)	TC	2,4-Dichloropheno	0.286	0.293	0.296	0.310	0.322	0.309	0.303	4.32
33)	M	1,2,4-Trichlorobe	0.367	0.359	0.348	0.361	0.370	0.359	0.361	2.18
34)	T	Naphthalene	1.174	1.075	1.045	1.032	1.102	1.030	1.077	5.15
35)	T	4-Chloroaniline	0.372	0.413	0.401	0.371	0.422	0.408	0.398	5.43
36)	T	4-Aminotoluene	0.515	0.540	0.527	0.519	0.543	0.512	0.526	2.47
37)	TC	Hexachlorobutadie	0.217	0.216	0.211	0.214	0.227	0.217	0.217	2.41
38)	T	Caprolactam	0.137	0.128	0.123	0.140	0.131	0.133	0.132	4.73
39)	T	2-Aminotoluene	0.515	0.540	0.527	0.519	0.543	0.512	0.526	2.47
40)	MC	4-Chloro-3-methyl	0.254	0.260	0.262	0.284	0.285	0.278	0.271	4.97
41)	T	2-Methylnaphthale	0.705	0.690	0.676	0.696	0.686	0.685	0.690	1.44
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.263	0.300	0.316	0.359	0.385	0.381	0.334	14.64
45)	TC	2,4,6-Trichloroph	0.302	0.339	0.333	0.365	0.385	0.395	0.353	9.92
46)	T	2,4,5-Trichloroph	0.304	0.342	0.350	0.385	0.393	0.398	0.362	10.16
47)	S	2-Fluorobiphenyl	1.259	1.267	1.227	1.213	1.261	1.209	1.239	2.11
48)	T	1,1'-Biphenyl	1.632	1.507	1.454	1.483	1.543	1.417	1.506	5.01
49)	T	2-Chloronaphthale	1.159	1.090	1.070	1.096	1.131	1.095	1.107	2.90
50)	T	2-Nitroaniline	0.222	0.175	0.182	0.219	0.223	0.241	0.210	12.41
51)	T	Dimethyl phthalat	1.261	1.230	1.179	1.252	1.247	1.199	1.228	2.63
52)	T	2,6-Dinitrotoluen	0.211	0.170	0.184	0.224	0.241	0.254	0.214	15.17
53)	T	Acenaphthylene	1.672	1.690	1.639	1.740	1.729	1.701	1.695	2.21

54)	T	3-Nitroaniline	0.222	0.193	0.210	0.256	0.269	0.280	0.238	14.75
55)	MC	Acenaphthene	1.148	1.092	1.047	1.085	1.101	1.050	1.087	3.44
56)	TP	2,4-Dinitrophenol		0.050	0.052	0.065	0.056	0.062	0.057	11.23
57)	MP	4-Nitrophenol	0.165	0.142	0.146	0.162	0.162	0.172	0.158	7.24
58)	M	2,4-Dinitrotoluen	0.248	0.195	0.222	0.290	0.317	0.321	0.266	19.63
59)	T	Dibenzofuran	1.595	1.556	1.505	1.585	1.622	1.604	1.578	2.66
60)	T	Diethyl phthalate	1.151	1.149	1.114	1.197	1.214	1.197	1.170	3.29
61)	T	Fluorene	1.275	1.262	1.210	1.309	1.323	1.276	1.276	3.11
62)	T	4-Chlorophenyl ph	0.672	0.670	0.636	0.682	0.700	0.692	0.675	3.33
63)	T	4-Nitroaniline	0.229	0.202	0.211	0.266	0.285	0.297	0.249	15.96
64)		1,2,4,5-Tetrachlo	1.293	1.197	1.157	1.190	1.171	1.121	1.188	4.89
65)	T	2,3,4,6-Tetrachlo	0.241	0.248	0.263	0.298	0.306	0.315	0.278	11.44
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met		0.077	0.064	0.078	0.090	0.080	0.078	11.88
68)	TC	N-Nitrosodiphenyl	0.566	0.567	0.554	0.590	0.602	0.612	0.582	3.95
69)	T	1,2-Diphenylhydra	0.736	0.771	0.740	0.766	0.781	0.799	0.766	3.19
70)	S	2,4,6-Tribromophe	0.179	0.191	0.193	0.196	0.202	0.212	0.195	5.66
71)	T	4-Bromophenyl phe	0.281	0.270	0.272	0.275	0.289	0.294	0.280	3.50
72)	T	Hexachlorobenzene	0.337	0.337	0.329	0.337	0.343	0.338	0.337	1.37
73)	T	Atrazine	0.221	0.230	0.218	0.203	0.234	0.233	0.223	5.22
74)	MC	Pentachlorophenol	0.149	0.126	0.136	0.174	0.182	0.204	0.162	18.38
75)	T	Phenanthrene	1.156	1.086	1.053	1.091	1.085	1.085	1.093	3.12
76)	T	Anthracene	1.109	1.077	1.049	1.079	1.087	1.091	1.082	1.82
77)	T	Carbazole	0.947	0.934	0.912	0.970	0.942	0.933	0.940	2.03
78)	T	Di-n-butyl phthal	1.047	1.083	1.071	1.175	1.147	1.102	1.104	4.37
79)	TC	Fluoranthene	1.019	1.065	1.017	1.122	1.070	1.092	1.064	3.86
80)	T	Benzidine	0.315	0.304	0.376	0.431	0.331	0.392	0.358	13.83
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.286	1.211	1.174	1.224	1.245	1.171	1.219	3.58
84)	S	Terphenyl-d14	1.115	1.060	1.045	1.041	1.029	0.969	1.043	4.53
85)	T	3,3'-Dimethylbenz	0.312	0.464	0.538	0.538	0.470	0.422	0.457	18.43
86)	T	Butyl benzyl phth	0.442	0.447	0.439	0.502	0.485	0.483	0.466	5.77
87)	T	3,3'-Dichlorobenz	0.373	0.379	0.375	0.418	0.369	0.373	0.381	4.79
88)	T	Benzo[a]anthracen	1.136	1.042	1.032	1.104	1.110	1.126	1.092	4.02
89)	T	Chrysene	1.098	0.996	0.967	1.044	1.041	1.055	1.034	4.46
90)	T	Bis(2-ethylhexyl)	0.616	0.601	0.601	0.705	0.691	0.683	0.650	7.44
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.225	1.259	1.255	1.420	1.424	1.435	1.336	7.43
94)	T	Benzo[b]fluoranth	1.673	1.473	1.398	1.514	1.640	1.606	1.551	6.86
95)	T	Benzo[k]fluoranth	1.608	1.389	1.407	1.352	1.478	1.566	1.467	7.00
96)	TC	Benzo[a]pyrene	1.436	1.311	1.305	1.354	1.503	1.535	1.407	7.03
97)	T	Indeno[1,2,3-cd]p	1.753	1.726	1.740	1.804	2.014	2.113	1.858	8.83
98)	T	Dibenz[a,h]anthra	1.442	1.430	1.468	1.533	1.660	1.764	1.550	8.71
99)	T	Benzo[g,h,i]peryl	1.554	1.478	1.470	1.520	1.697	1.771	1.582	7.85

(#) = Out of Range

BW0815.M Mon Jul 20 10:36:57 2015 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\07-20-15\
Data File : B1343.D
Acq On : 20 Jul 2015 11:54
Operator : DANA
Sample : ABN049-15,ICV040BNA1,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 20 12:08:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 10:36:51 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00
2	T	N-Nitrosodimethylamine	0.830	0.788	5.1	90	0.00
3	T	Pyridine	0.940	0.885	5.9	90	0.00
4	S	2-Fluorophenol	1.276	1.233	3.4	92	0.00
5	T	Benzaldehyde	0.540	0.622	-15.2	110	0.00
6	S	Phenol-d5	1.530	1.462	4.4	90	0.00
7	MC	Phenol	1.748	1.665	4.7	92	0.00
8	T	Aniline	0.676	0.613	9.3	89	0.00
9	T	Bis(2-chloroethyl) ether	0.916	0.865	5.6	93	0.00
10	M	2-Chlorophenol	1.459	1.379	5.5	92	0.00
11	T	1,3-Dichlorobenzene	1.620	1.577	2.7	95	0.00
12	MC	1,4-Dichlorobenzene	1.672	1.652	1.2	95	0.00
13	T	Benzyl alcohol	0.910	0.843	7.4	90	0.00
14	T	1,2-Dichlorobenzene	1.559	1.520	2.5	94	0.00
15	T	2-Methylphenol	1.222	1.169	4.3	92	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.560	1.466	6.0	91	0.00
17	T	4-Methylphenol	1.269	1.212	4.5	90	0.00
18	MP	N-Nitrosodi-n-propylamine	0.936	0.854	8.8	87	0.00
19	T	Acetophenone	1.941	1.804	7.1	90	0.00
20	T	3-Methylphenol	1.269	1.212	4.5	90	0.00
21	T	Hexachloroethane	0.563	0.527	6.4	90	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	94	0.00
24	S	Nitrobenzene-d5	0.319	0.273	14.4	80	0.00
25	T	Nitrobenzene	0.333	0.287	13.8	85	0.00
26	T	Isophorone	0.645	0.601	6.8	87	0.00
27	TC	2-Nitrophenol	0.154	0.131	14.9	74	0.00
28	T	2,4-Dimethylphenol	0.326	0.321	1.5	89	0.00
29	T	Bis(2-chloroethoxy) methane	0.402	0.389	3.2	91	0.00
30	T	Benzoic acid	0.139	0.123	11.5	67	0.00
31	T	2,4-Dimethylaniline	0.366	0.339	7.4	90	0.00
32	TC	2,4-Dichlorophenol	0.303	0.300	1.0	91	0.00
33	M	1,2,4-Trichlorobenzene	0.361	0.363	-0.6	94	0.00
34	T	Naphthalene	1.077	1.055	2.0	96	0.00
35	T	4-Chloroaniline	0.398	0.402	-1.0	102	0.00
36	T	4-Aminotoluene	0.526	0.501	4.8	90	0.00
37	TC	Hexachlorobutadiene	0.217	0.218	-0.5	95	0.00
38	T	Caprolactam	0.132	0.119	9.8	80	0.00
39	T	2-Aminotoluene	0.526	0.501	4.8	90	0.00
40	MC	4-Chloro-3-methylphenol	0.271	0.266	1.8	88	0.00
41	T	2-Methylnaphthalene	0.690	0.679	1.6	91	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	92	0.00
44	TP	Hexachlorocyclopentadiene	0.334	0.314	6.0	80	0.00
45	TC	2,4,6-Trichlorophenol	0.353	0.353	0.0	88	0.00
46	T	2,4,5-Trichlorophenol	0.362	0.367	-1.4	87	0.00

47	S	2-Fluorobiphenyl	1.239	1.250	-0.9	94	0.00
48	T	1,1'-Biphenyl	1.506	1.483	1.5	92	0.00
49	T	2-Chloronaphthalene	1.107	1.117	-0.9	93	0.00
50	T	2-Nitroaniline	0.210	0.174	17.1	73	0.00
51	T	Dimethyl phthalate	1.228	1.210	1.5	89	0.00
52	T	2,6-Dinitrotoluene	0.214	0.184	14.0	75	0.00
53	T	Acenaphthylene	1.695	1.695	0.0	89	0.00
54	T	3-Nitroaniline	0.238	0.221	7.1	79	0.00
55	MC	Acenaphthene	1.087	1.077	0.9	91	0.00
56	TP	2,4-Dinitrophenol	0.057	0.054	5.3	77	0.00
57	MP	4-Nitrophenol	0.158	0.134	15.2	76	0.00
58	M	2,4-Dinitrotoluene	0.266	0.233	12.4	73	0.00
59	T	Dibenzofuran	1.578	1.581	-0.2	91	0.00
60	T	Diethyl phthalate	1.170	1.146	2.1	88	0.00
61	T	Fluorene	1.276	1.287	-0.9	90	0.01
62	T	4-Chlorophenyl phenyl ether	0.675	0.666	1.3	90	0.00
63	T	4-Nitroaniline	0.249	0.225	9.6	77	0.00
64		1,2,4,5-Tetrachlorobenzene	1.188	1.190	-0.2	92	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.278	0.273	1.8	84	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	88	0.00
67	T	4,6-Dinitro-2-methylphenol	0.078	0.071	9.0	79	0.00
68	TC	N-Nitrosodiphenylamine	0.582	0.596	-2.4	89	0.00
69	T	1,2-Diphenylhydrazine	0.766	0.762	0.5	88	0.00
70	S	2,4,6-Tribromophenol	0.195	0.194	0.5	87	0.00
71	T	4-Bromophenyl phenyl ether	0.280	0.278	0.7	89	0.00
72	T	Hexachlorobenzene	0.337	0.343	-1.8	90	0.00
73	T	Atrazine	0.223	0.194	13.0	84	0.00
74	MC	Pentachlorophenol	0.162	0.153	5.6	78	0.00
75	T	Phenanthrene	1.093	1.094	-0.1	88	0.00
76	T	Anthracene	1.082	1.081	0.1	88	-0.01
77	T	Carbazole	0.940	0.944	-0.4	86	-0.02
78	T	Di-n-butyl phthalate	1.104	1.054	4.5	79	-0.03
79	TC	Fluoranthene	1.064	1.072	-0.8	84	-0.06
80	T	Benzidine	0.358	0.344	3.9	78	-0.05
82	I	Chrysene-d12	1.000	1.000	0.0	91	-0.11
83	M	Pyrene	1.219	1.164	4.5	87	-0.06
84	S	Terphenyl-d14	1.043	0.983	5.8	86	-0.07
85	T	3,3'-Dimethylbenzidine	0.457	0.488	-6.8	88	-0.06
86	T	Butyl benzyl phthalate	0.466	0.402	13.7	73	-0.09
87	T	3,3'-Dichlorobenzidine	0.381	0.364	4.5	80	-0.11
88	T	Benzo[a]anthracene	1.092	1.092	0.0	90	-0.11
89	T	Chrysene	1.034	1.007	2.6	88	-0.11
90	T	Bis(2-ethylhexyl) phthalate	0.650	0.556	14.5	72	-0.12
92	I	Perylene-d12	1.000	1.000	0.0	90	-0.15
93	TC	Di-n-octyl phthalate	1.336	1.125	15.8	72	-0.13
94	T	Benzo[b]fluoranthene	1.551	1.461	5.8	87	-0.14
95	T	Benzo[k]fluoranthene	1.467	1.391	5.2	93	-0.14
96	TC	Benzo[a]pyrene	1.407	1.311	6.8	87	-0.15
97	T	Indeno[1,2,3-cd]pyrene	1.858	1.795	3.4	90	-0.19
98	T	Dibenz[a,h]anthracene	1.550	1.518	2.1	89	-0.19
99	T	Benzo[g,h,i]perylene	1.582	1.525	3.6	91	-0.20

(#) = Out of Range

BW0815.M Mon Jul 20 12:25:45 2015 MSD_B

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BSIM0815.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Jul 20 11:51:58 2015
Response Via : Initial Calibration

Calibration Files
0.1 =B1339.D 0.2 =B1340.D 0.5 =B1338.D
1.0 =B1341.D 2.0 =B1342.D

		Compound	0.1	0.2	0.5	1.0	2.0	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
23)	I	Naphthalene-d8	----------ISTD----------						
43)	I	Acenaphthene-d10	----------ISTD----------						
66)	I	Phenanthrene-d10	----------ISTD----------						
72)	T	Hexachlorobenzene	0.426	0.412	0.448	0.319	0.328	0.387	15.23
74)	MC	Pentachlorophenol	0.026	0.028	0.028	0.028	0.028	0.028	2.60
82)	I	Chrysene-d12	----------ISTD----------						
88)	T	Benzo[a]anthracene	1.342	1.384	1.394	1.316	1.255	1.338	4.19
92)	I	Perylene-d12	----------ISTD----------						
94)	T	Benzo[b]fluoranthen	2.109	2.061	1.981	2.174	2.065	2.078	3.41
95)	T	Benzo[k]fluoranthen	2.405	2.395	2.194	2.480	2.529	2.401	5.32
96)	TC	Benzo[a]pyrene	1.961	2.043	1.874	1.911	2.012	1.960	3.54
97)	T	Indeno[1,2,3-cd]pyr	2.565	2.703	2.525	2.558	2.683	2.607	3.10
98)	T	Dibenz[a,h]anthrace	2.399	2.437	2.141	2.443	2.555	2.395	6.40

(#) = Out of Range

BSIM0815.M Wed Jul 22 13:48:57 2015 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\07-20-15\
Data File : B1345.D
Acq On : 20 Jul 2015 12:29
Operator : DANA
Sample : ABN030-15,ICV000.5SIM,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 20 12:44:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 11:51:58 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	105	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00
72	T	Hexachlorobenzene	0.387	0.416	-7.5	104	0.00
74	MC	Pentachlorophenol	0.028	0.027	3.6	107	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	110	0.01
88	T	Benzo[a]anthracene	1.338	1.187	11.3	94	0.00
92	I	Perylene-d12	1.000	1.000	0.0	92	0.02
94	T	Benzo[b]fluoranthene	2.078	1.896	8.8	88	0.02
95	T	Benzo[k]fluoranthene	2.401	2.214	7.8	93	0.02
96	TC	Benzo[a]pyrene	1.960	1.806	7.9	89	0.02
97	T	Indeno[1,2,3-cd]pyrene	2.607	2.353	9.7	86	0.03
98	T	Dibenz[a,h]anthracene	2.395	2.098	12.4	90	0.03

(#) = Out of Range

BSIM0815.M Mon Jul 20 12:44:44 2015 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1665.D
Acq On : 28 Jul 2015 18:01
Operator : DANA
Sample : ABN049-15,CCV040BNA1
Misc : NA, ,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 29 07:58:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 10:36:51 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	112	-0.01
2	T	N-Nitrosodimethylamine	0.830	0.762	8.2	103	-0.01
3	T	Pyridine	0.940	0.821	12.7	99	0.00
4	S	2-Fluorophenol	1.276	1.209	5.3	107	-0.01
5	T	Benzaldehyde	0.540	0.633	-17.2	129	0.00
6	S	Phenol-d5	1.530	1.438	6.0	105	0.00
7	MC	Phenol	1.748	1.594	8.8	104	0.00
8	T	Aniline	0.676	0.563	16.7	96	-0.01
9	T	Bis(2-chloroethyl) ether	0.916	0.785	14.3	99	-0.01
10	M	2-Chlorophenol	1.459	1.409	3.4	111	0.00
11	T	1,3-Dichlorobenzene	1.620	1.578	2.6	112	-0.01
12	MC	1,4-Dichlorobenzene	1.672	1.639	2.0	111	-0.01
13	T	Benzyl alcohol	0.910	0.869	4.5	109	0.00
14	T	1,2-Dichlorobenzene	1.559	1.520	2.5	111	-0.01
15	T	2-Methylphenol	1.222	1.149	6.0	107	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.560	1.306	16.3	95	-0.01
17	T	4-Methylphenol	1.269	1.215	4.3	106	0.00
18	MP	N-Nitrosodi-n-propylamine	0.936	0.840	10.3	101	-0.01
19	T	Acetophenone	1.941	1.839	5.3	109	0.00
20	T	3-Methylphenol	1.269	1.215	4.3	106	0.00
21	T	Hexachloroethane	0.563	0.534	5.2	108	-0.01
23	I	Naphthalene-d8	1.000	1.000	0.0	110	-0.01
24	S	Nitrobenzene-d5	0.319	0.320	-0.3	110	0.00
25	T	Nitrobenzene	0.333	0.316	5.1	110	0.00
26	T	Isophorone	0.645	0.598	7.3	102	0.00
27	TC	2-Nitrophenol	0.154	0.176	-14.3	117	0.00
28	T	2,4-Dimethylphenol	0.326	0.317	2.8	104	-0.01
29	T	Bis(2-chloroethoxy) methane	0.402	0.373	7.2	102	-0.01
30	T	Benzoic acid	0.139	0.162	-16.5	103	0.00
31	T	2,4-Dimethylaniline	0.366	0.309	15.6	96	-0.01
32	TC	2,4-Dichlorophenol	0.303	0.318	-5.0	113	0.00
33	M	1,2,4-Trichlorobenzene	0.361	0.368	-1.9	112	-0.01
34	T	Naphthalene	1.077	1.057	1.9	113	0.00
35	T	4-Chloroaniline	0.398	0.406	-2.0	120	0.00
36	T	4-Aminotoluene	0.526	0.488	7.2	103	0.00
37	TC	Hexachlorobutadiene	0.217	0.227	-4.6	117	-0.01
38	T	Caprolactam	0.132	0.124	6.1	98	0.00
39	T	2-Aminotoluene	0.526	0.488	7.2	103	0.00
40	MC	4-Chloro-3-methylphenol	0.271	0.280	-3.3	108	0.00
41	T	2-Methylnaphthalene	0.690	0.685	0.7	108	-0.01
43	I	Acenaphthene-d10	1.000	1.000	0.0	110	-0.01
44	TP	Hexachlorocyclopentadiene	0.334	0.330	1.2	101	-0.01
45	TC	2,4,6-Trichlorophenol	0.353	0.390	-10.5	118	-0.01
46	T	2,4,5-Trichlorophenol	0.362	0.399	-10.2	114	-0.01

47	S	2-Fluorobiphenyl	1.239	1.208	2.5	110	-0.01
48	T	1,1'-Biphenyl	1.506	1.491	1.0	111	0.00
49	T	2-Chloronaphthalene	1.107	1.097	0.9	110	-0.01
50	T	2-Nitroaniline	0.210	0.224	-6.7	113	-0.01
51	T	Dimethyl phthalate	1.228	1.206	1.8	106	-0.01
52	T	2,6-Dinitrotoluene	0.214	0.232	-8.4	114	-0.01
53	T	Acenaphthylene	1.695	1.721	-1.5	109	-0.01
54	T	3-Nitroaniline	0.238	0.283	-18.9	122	0.00
55	MC	Acenaphthene	1.087	1.102	-1.4	112	-0.01
56	TP	2,4-Dinitrophenol	0.057	0.063	-10.5	107	0.00
57	MP	4-Nitrophenol	0.158	0.178	-12.7	121	0.00
58	M	2,4-Dinitrotoluene	0.266	0.274	-3.0	104	-0.01
59	T	Dibenzofuran	1.578	1.674	-6.1	117	-0.01
60	T	Diethyl phthalate	1.170	1.236	-5.6	114	0.00
61	T	Fluorene	1.276	1.393	-9.2	117	0.00
62	T	4-Chlorophenyl phenyl ether	0.675	0.745	-10.4	121	0.00
63	T	4-Nitroaniline	0.249	0.252	-1.2	104	0.00
64		1,2,4,5-Tetrachlorobenzene	1.188	1.216	-2.4	113	-0.01
65	T	2,3,4,6-Tetrachlorophenol	0.278	0.322	-15.8	119	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	112	-0.02
67	T	4,6-Dinitro-2-methylphenol	0.078	0.085	-9.0	122	0.00
68	TC	N-Nitrosodiphenylamine	0.582	0.612	-5.2	116	0.00
69	T	1,2-Diphenylhydrazine	0.766	0.755	1.4	110	0.00
70	S	2,4,6-Tribromophenol	0.195	0.220	-12.8	126	0.00
71	T	4-Bromophenyl phenyl ether	0.280	0.293	-4.6	119	0.00
72	T	Hexachlorobenzene	0.337	0.352	-4.5	117	-0.01
73	T	Atrazine	0.223	0.226	-1.3	124	0.00
74	MC	Pentachlorophenol	0.162	0.186	-14.8	120	-0.02
75	T	Phenanthrene	1.093	1.099	-0.5	113	-0.02
76	T	Anthracene	1.082	1.071	1.0	111	-0.02
77	T	Carbazole	0.940	0.956	-1.7	110	-0.02
78	T	Di-n-butyl phthalate	1.104	1.141	-3.4	109	-0.04
79	TC	Fluoranthene	1.064	1.130	-6.2	113	-0.07
80	T	Benzidine	0.358	0.410	-14.5	111	-0.07
82	I	Chrysene-d12	1.000	1.000	0.0	114	-0.13
83	M	Pyrene	1.219	1.231	-1.0	114	-0.07
84	S	Terphenyl-d14	1.043	1.064	-2.0	116	-0.08
85	T	3,3'-Dimethylbenzidine	0.457	0.527	-15.3	118	-0.10
86	T	Butyl benzyl phthalate	0.466	0.469	-0.6	106	-0.10
87	T	3,3'-Dichlorobenzidine	0.381	0.427	-12.1	116	-0.13
88	T	Benzo[a]anthracene	1.092	1.094	-0.2	113	-0.13
89	T	Chrysene	1.034	1.029	0.5	112	-0.13
90	T	Bis(2-ethylhexyl) phthalate	0.650	0.661	-1.7	107	-0.14
92	I	Perylene-d12	1.000	1.000	0.0	106	-0.17
93	TC	Di-n-octyl phthalate	1.336	1.368	-2.4	102	-0.15
94	T	Benzo[b]fluoranthene	1.551	1.499	3.4	105	-0.16
95	T	Benzo[k]fluoranthene	1.467	1.420	3.2	112	-0.16
96	TC	Benzo[a]pyrene	1.407	1.338	4.9	105	-0.17
97	T	Indeno[1,2,3-cd]pyrene	1.858	1.856	0.1	109	-0.20
98	T	Dibenz[a,h]anthracene	1.550	1.562	-0.8	108	-0.21
99	T	Benzo[g,h,i]perylene	1.582	1.602	-1.3	112	-0.22

(#) = Out of Range

BW0815.M Wed Jul 29 09:32:17 2015 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\07-28-15\
Data File : B1641.D
Acq On : 28 Jul 2015 11:35
Operator : DANA
Sample : ABN030-15,CCV000.5SIM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 28 12:24:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 11:51:58 2015
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	86	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	83	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	103	0.03
66	I	Phenanthrene-d10	1.000	1.000	0.0	119	0.07
72	T	Hexachlorobenzene	0.387	0.430	-11.1	114	0.06
74	MC	Pentachlorophenol	0.028	0.025	10.7	105	0.06
82	I	Chrysene-d12	1.000	1.000	0.0	180	0.09
88	T	Benzo[a]anthracene	1.338	1.403	-4.9	181	0.09
92	I	Perylene-d12	1.000	1.000	0.0	169	0.12
94	T	Benzo[b]fluoranthene	2.078	2.029	2.4	173	0.11
95	T	Benzo[k]fluoranthene	2.401	2.204	8.2	170	0.11
96	TC	Benzo[a]pyrene	1.960	1.836	6.3	165	0.12
97	T	Indeno[1,2,3-cd]pyrene	2.607	2.210	15.2	148	0.14
98	T	Dibenz[a,h]anthracene	2.395	2.333	2.6	184	0.14

(#) = Out of Range

BSIM0815.M Wed Jul 29 07:55:40 2015 MSD_B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1326.D

Date Analyzed: 07/20/2015

Instrument ID: MSDB

Time Analyzed: 07:03

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	125623	3.66	487035	4.43	309109	5.46
	UPPER LIMIT	251246	4.16	974070	4.93	618218	5.96
	LOWER LIMIT	62812	3.16	243518	3.93	154555	4.96
	LAB SAMPLE ID						
01	ICC001BNA1	145246	3.66	574985	4.43	359987	5.46
02	ICC010BNA1	132570	3.66	523942	4.43	326959	5.46
03	ICC020BNA1	131737	3.66	507605	4.43	320255	5.46
04	ICC080BNA1	126075	3.66	488736	4.43	303836	5.46
05	ICC160BNA1	114331	3.66	461483	4.44	284638	5.46
06	ICC160BNA2	133631	3.66	525913	4.43	329714	5.46
07	ICC080BNA2	135487	3.66	534203	4.43	334045	5.46
08	ICC040BNA2	144780	3.66	559854	4.43	350133	5.46
09	ICC020BNA2	139521	3.66	539751	4.43	335875	5.46
10	ICC010BNA2	143510	3.66	557701	4.43	342913	5.46
11	ICC001BNA2	138240	3.66	537506	4.43	333403	5.46
12	ICV040BNA1	119548	3.66	456331	4.43	283249	5.46
13	ICV040BNA2	120780	3.66	476312	4.43	299508	5.46
14							
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19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1326.D

Date Analyzed: 07/20/2015

Instrument ID: MSDB

Time Analyzed: 07:03

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	495771	6.38	451064	8.06	339471	9.38
	UPPER LIMIT	991542	6.88	902128	8.56	678942	9.88
	LOWER LIMIT	247886	5.88	225532	7.56	169736	8.88
	LAB SAMPLE ID						
01	ICC001BNA1	563128	6.38	462444	8.00	301611	9.29
02	ICC010BNA1	514252	6.37	456952	7.98	300083	9.27
03	ICC020BNA1	493917	6.37	434864	8.00	294435	9.29
04	ICC080BNA1	474284	6.38	411683	8.00	297367	9.30
05	ICC160BNA1	429184	6.38	395586	8.00	297698	9.30
06	ICC160BNA2	530836	6.38	464215	8.00	360086	9.30
07	ICC080BNA2	513240	6.38	447522	8.05	344091	9.35
08	ICC040BNA2	539609	6.38	465506	8.01	344299	9.30
09	ICC020BNA2	528927	6.38	451577	8.04	339781	9.36
10	ICC010BNA2	536632	6.38	444232	8.00	333911	9.29
11	ICC001BNA2	510276	6.38	423820	8.02	319778	9.31
12	ICV040BNA1	436942	6.37	411871	7.95	306508	9.23
13	ICV040BNA2	485523	6.37	437988	7.97	310713	9.27
14							
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20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1338.D

Date Analyzed: 07/20/2015

Instrument ID: MSDB

Time Analyzed: 10:33

	1 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	33578	2.23	94874	2.77	44034	3.58
	UPPER LIMIT	67156	2.73	189748	3.27	88068	4.08
	LOWER LIMIT	16789	1.73	47437	2.27	22017	3.08
	LAB SAMPLE ID						
01	ICC000.1SIM	35090	2.23	98117	2.77	48481	3.58
02	ICC000.2SIM	32109	2.23	88465	2.78	44569	3.58
03	ICC001.0SIM	32605	2.23	89889	2.77	45954	3.58
04	ICC002.0SIM	39785	2.23	111100	2.77	51420	3.58
05	ICV000.5SIM	34853	2.23	99735	2.78	48473	3.59
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1338.D

Date Analyzed: 07/20/2015

Instrument ID: MSDB

Time Analyzed: 10:33

	1 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	64599	4.33	41209	6.13	35050	7.41
	UPPER LIMIT	129198	4.83	82418	6.63	70100	7.91
	LOWER LIMIT	32300	3.83	20605	5.63	17525	6.91
	LAB SAMPLE ID						
01	ICC000.1SIM	70569	4.33	44801	6.10	33483	7.43
02	ICC000.2SIM	65399	4.34	42214	6.12	35930	7.44
03	ICC001.0SIM	66891	4.32	44776	6.11	28195	7.41
04	ICC002.0SIM	72160	4.33	47259	6.11	32238	7.43
05	ICV000.5SIM	72200	4.34	45451	6.14	32240	7.43
06							
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21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1665.D

Date Analyzed: 07/28/2015

Instrument ID: MSDB

Time Analyzed: 18:01

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	141026	3.65	536206	4.42	340951	5.45
	UPPER LIMIT	282052	4.15	1072412	4.92	681902	5.95
	LOWER LIMIT	70513	3.15	268103	3.92	170476	4.95
	LAB SAMPLE ID						
01	CCV040BNA2	138802	3.65	533467	4.42	341954	5.45
02	BLKA150728-01	104923	3.65	395837	4.42	254849	5.45
03	LCSA150728-01	95785	3.65	364349	4.42	210167	5.45
04	E15-06562-001MS	84759	3.65	325609	4.42	210123	5.45
05	E15-06562-001MSD	77729	3.65	298486	4.42	190193	5.45
06	E15-06584-001	111117	3.65	421239	4.42	267967	5.45
07	E15-06584-002	107459	3.65	414104	4.42	258092	5.45
08	E15-06541-005	104168	3.65	399953	4.42	254259	5.45
09	E15-06541-016	121345	3.65	459963	4.42	291480	5.45
10	E15-06562-001	106081	3.65	406277	4.42	254606	5.45
11	E15-06562-002	102765	3.65	389821	4.42	248058	5.45
12	E15-06562-003	112716	3.65	431731	4.42	273038	5.45
13	E15-06562-004	99162	3.65	380357	4.42	242936	5.45
14	E15-06529-001	93291	3.65	294170	4.43	267053	5.47
15	E15-06529-002	102671	3.65	393302	4.42	248629	5.45
16	E15-06529-003	94043	3.65	361941	4.42	228706	5.45
17	E15-06479-001	96171	3.65	372339	4.42	240814	5.45
18	E15-06473-007	104237	3.65	396927	4.42	249768	5.45
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1665.D Date Analyzed: 07/28/2015

Instrument ID: MSDB Time Analyzed: 18:01

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	555415	6.36	513002	7.93	360888	9.21
	UPPER LIMIT	1110830	6.86	1026004	8.43	721776	9.71
	LOWER LIMIT	277708	5.86	256501	7.43	180444	8.71
	LAB SAMPLE ID						
01	CCV040BNA2	578099	6.36	541722	7.93	376259	9.21
02	BLKA150728-01	431803	6.39	389613	8.10	325670	9.41
03	LCSA150728-01	392818	6.36	362801	7.90	297238	9.18
04	E15-06562-001MS	350438	6.40	325405	8.14	283374	9.44
05	E15-06562-001MSD	317503	6.38	293637	8.06	251744	9.35
06	E15-06584-001	458468	6.38	403493	8.05	336079	9.35
07	E15-06584-002	442081	6.36	397952	7.90	330079	9.17
08	E15-06541-005	448718	6.35	409803	7.93	333959	9.22
09	E15-06541-016	497846	6.36	440726	7.91	352978	9.19
10	E15-06562-001	439503	6.36	395066	7.91	326971	9.20
11	E15-06562-002	418660	6.36	380183	7.91	304685	9.20
12	E15-06562-003	463400	6.35	424999	7.93	343868	9.22
13	E15-06562-004	411093	6.36	369779	7.91	299393	9.19
14	E15-06529-001	361166	6.39	389536	7.92	384517	9.19
15	E15-06529-002	428372	6.36	387387	7.93	323471	9.21
16	E15-06529-003	390975	6.36	344860	7.93	300511	9.20
17	E15-06479-001	411211	6.36	365707	7.93	321298	9.21
18	E15-06473-007	425311	6.36	376435	7.92	318840	9.20
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1641.D Date Analyzed: 07/28/2015

Instrument ID: MSDB Time Analyzed: 11:35

	1 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	28887	2.22	78455	2.77	45320	3.61
	UPPER LIMIT	57774	2.72	156910	3.27	90640	4.11
	LOWER LIMIT	14444	1.72	39228	2.27	22660	3.11
	LAB SAMPLE ID						
01	BLKA150728-01	23453	2.22	66804	2.77	40965	3.57
02	E15-06541-005	22757	2.23	69825	2.77	43443	3.58
03	E15-06541-016	25948	2.22	73354	2.77	44825	3.58
04	E15-06562-001	26393	2.22	74438	2.77	47305	3.58
05	E15-06562-002	24572	2.22	69520	2.77	45215	3.58
06	E15-06562-003	26002	2.22	74395	2.77	46669	3.59
07	E15-06562-004	23329	2.22	65746	2.77	42859	3.59
08	E15-06529-001	43806	2.23	188165*	2.81	117104*	3.57
09	E15-06529-002	22203	2.22	64774	2.77	41464	3.59
10	E15-06529-003	22063	2.22	63633	2.77	41397	3.58
11	E15-06479-001	19523	2.22	57451	2.77	37682	3.58
12	E15-06584-001	22009	2.22	63774	2.77	39982	3.58
13	E15-06584-002	23191	2.22	66161	2.77	41249	3.58
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1641.D

Date Analyzed: 07/28/2015

Instrument ID: MSDB

Time Analyzed: 11:35

	1 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	76576	4.40	74077	6.22	59187	7.53
	UPPER LIMIT	153152	4.90	148154	6.72	118374	8.03
	LOWER LIMIT	38288	3.90	37039	5.72	29594	7.03
	LAB SAMPLE ID						
01	BLKA150728-01	72664	4.32	60852	6.10	49167	7.41
02	E15-06541-005	76907	4.33	63829	6.11	53131	7.42
03	E15-06541-016	80322	4.33	67296	6.11	55406	7.42
04	E15-06562-001	81530	4.35	66365	6.14	54831	7.44
05	E15-06562-002	78787	4.35	64491	6.15	54338	7.45
06	E15-06562-003	82018	4.36	65348	6.15	58923	7.46
07	E15-06562-004	70311	4.36	62223	6.16	53869	7.46
08	E15-06529-001	68726	4.45	38850	6.16	48121	7.45
09	E15-06529-002	72773	4.35	60035	6.16	48415	7.43
10	E15-06529-003	76195	4.34	68653	6.14	45967	7.44
11	E15-06479-001	65061	4.34	49821	6.13	40308	7.43
12	E15-06584-001	70417	4.34	59562	6.13	46731	7.44
13	E15-06584-002	74317	4.33	58320	6.12	43706	7.42
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-28-15\
Data File : B1650.D
Acq On : 28 Jul 2015 14:01
Operator : DANA
Sample : MW-12D,E15-06541-005,Ia,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 28 14:15:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 11:51:58 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.23	152	22757	1.00 UG	0.00
23) Naphthalene-d8	2.77	136	69825	1.00 UG	0.00
43) Acenaphthene-d10	3.58	164	43443	1.00 UG	0.00
66) Phenanthrene-d10	4.33	188	76907m	1.00 UG	0.00
82) Chrysene-d12	6.11	240	63829	1.00 UG	-0.02
92) Perylene-d12	7.42	264	53131m	1.00 UG	0.00

System Monitoring Compounds

4) 2-Fluorophenol		0.00	112	0	0.00 UG
Spiked Amount	1.000	Range	40 - 140	Recovery	= 0.00%#
6) Phenol-d5		0.00	99	0	0.00 UG
Spiked Amount	1.000	Range	40 - 140	Recovery	= 0.00%#
24) Nitrobenzene-d5		0.00	82	0	0.00 UG
Spiked Amount	0.500	Range	40 - 140	Recovery	= 0.00%#
47) 2-Fluorobiphenyl		0.00	172	0	0.00 UG
Spiked Amount	0.500	Range	40 - 140	Recovery	= 0.00%#
70) 2,4,6-Tribromophenol		0.00	330	0	0.00 UG
Spiked Amount	1.000	Range	40 - 140	Recovery	= 0.00%#
84) Terphenyl-d14		0.00	244	0	0.00 UG
Spiked Amount	0.500	Range	40 - 140	Recovery	= 0.00%#

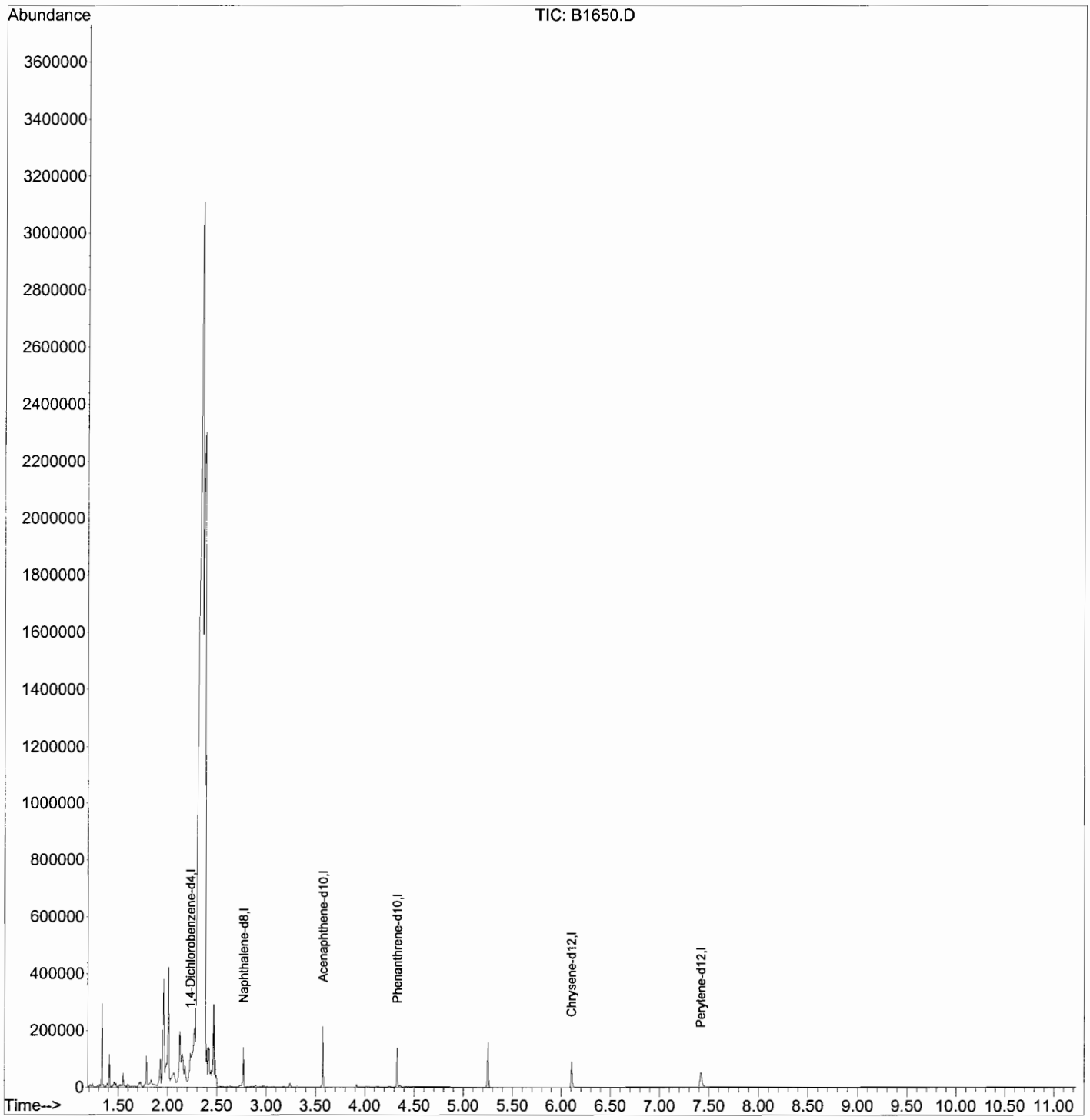
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-28-15\
Data File : B1650.D
Acq On : 28 Jul 2015 14:01
Operator : DANA
Sample : MW-12D,E15-06541-005,Ia,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 28 14:15:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 11:51:58 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Jul 29 08:33:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 10:36:51 2015
Response via : Initial Calibration

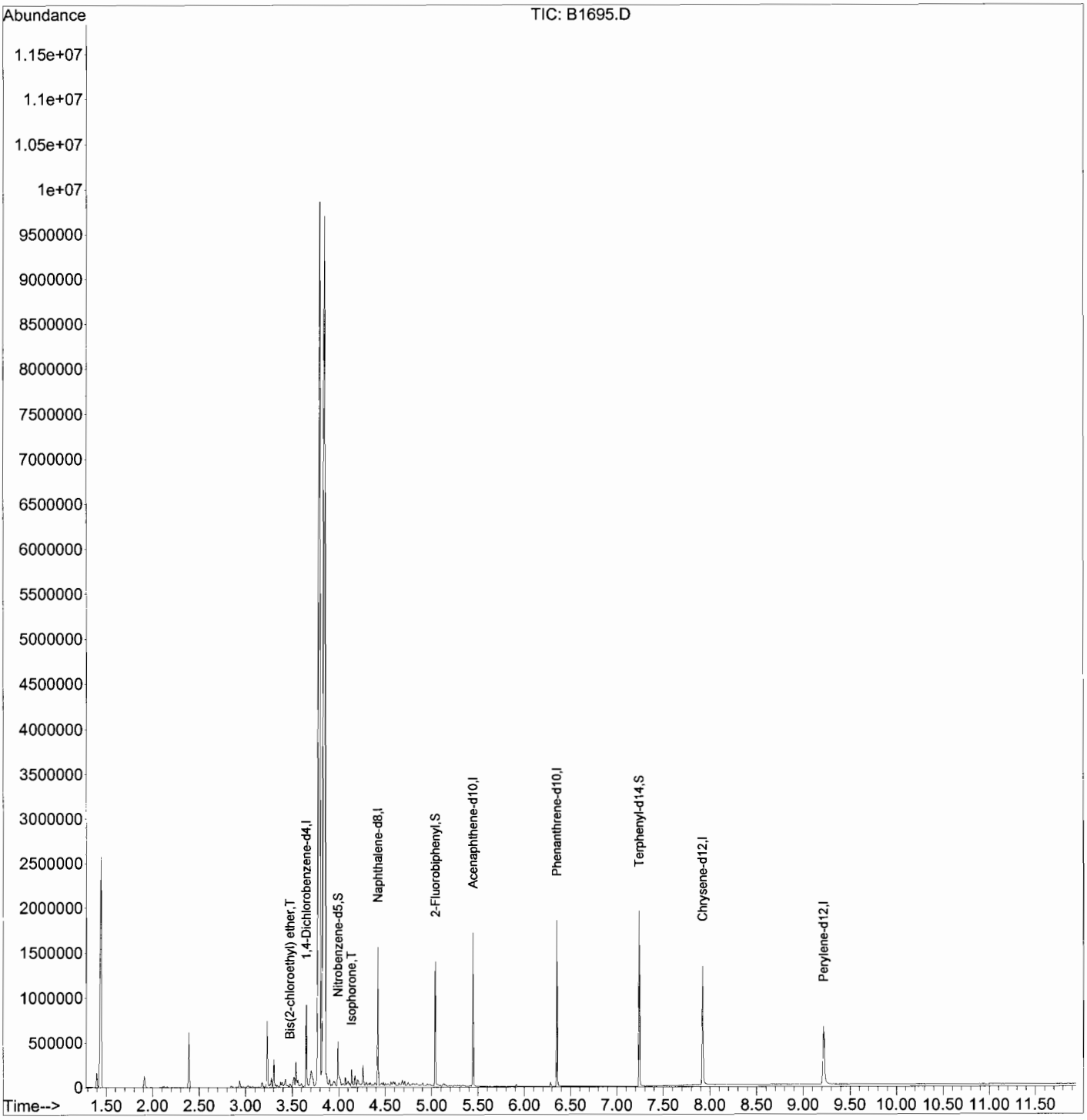
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.65	152	104168	40.00 UG	-0.01
23) Naphthalene-d8	4.42	136	399953	40.00 UG	-0.01
43) Acenaphthene-d10	5.45	164	254259	40.00 UG	-0.01
66) Phenanthrene-d10	6.35	188	448718	40.00 UG	-0.02
82) Chrysene-d12	7.93	240	409803	40.00 UG	-0.14
92) Perylene-d12	9.22	264	333959	40.00 UG	-0.17
System Monitoring Compounds					
4) 2-Fluorophenol	0.00	112	0d	0.00 UG	
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#		
6) Phenol-d5	0.00	99	0d	0.00 UG	
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.00%#		
24) Nitrobenzene-d5	3.99	82	102140	31.99 UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 63.98%		
47) 2-Fluorobiphenyl	5.04	172	295153	37.47 UG	-0.01
Spiked Amount 50.000	Range 26 - 101		Recovery = 74.94%		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00 UG	
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.00%#		
84) Terphenyl-d14	7.24	244	494245	46.24 UG	-0.08
Spiked Amount 50.000	Range 23 - 124		Recovery = 92.48%		
Target Compounds					Qvalue
9) Bis(2-chloroethyl) ether	3.48	63	5154	2.16 UG	93
26) Isophorone	4.14	82	28605	4.43 UG	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Jul 29 08:33:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 10:36:51 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW0815.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.445	25	31	34	rVB	2589173	2419616	18.63%	6.482%
2	2.391	204	208	211	rBV	616697	430402	3.31%	1.153%
3	3.230	362	365	368	rBV	734982	457101	3.52%	1.224%
4	3.304	376	379	381	rBV	305272	189909	1.46%	0.509%
5	3.539	421	423	425	rBV	258036	145760	1.12%	0.390%
6	3.652	441	444	446	rBV	914846	587735	4.52%	1.574%
7	3.705	448	454	460	rVB2	172896	294568	2.27%	0.789%
8	3.801	465	472	474	rBV	9786903	12757741	98.21%	34.175%
9	3.849	474	481	483	rVV	9565947	12990335	100.00%	34.798%
10	3.994	505	508	510	rBV	502973	373383	2.87%	1.000%
11	4.261	555	558	561	rVB2	224559	142199	1.09%	0.381%
12	4.421	585	588	591	rVB	1540784	755481	5.82%	2.024%
13	5.041	701	704	706	rBV	1379773	786400	6.05%	2.107%
14	5.447	777	780	782	rBV	1708088	962398	7.41%	2.578%
15	6.355	947	950	952	rBV	1846092	1037283	7.99%	2.779%
16	7.242	1113	1116	1119	rBV	1953238	1168032	8.99%	3.129%
17	7.925	1240	1244	1258	rBV	1322356	1004631	7.73%	2.691%
18	9.218	1480	1486	1504	rBV	643813	827987	6.37%	2.218%

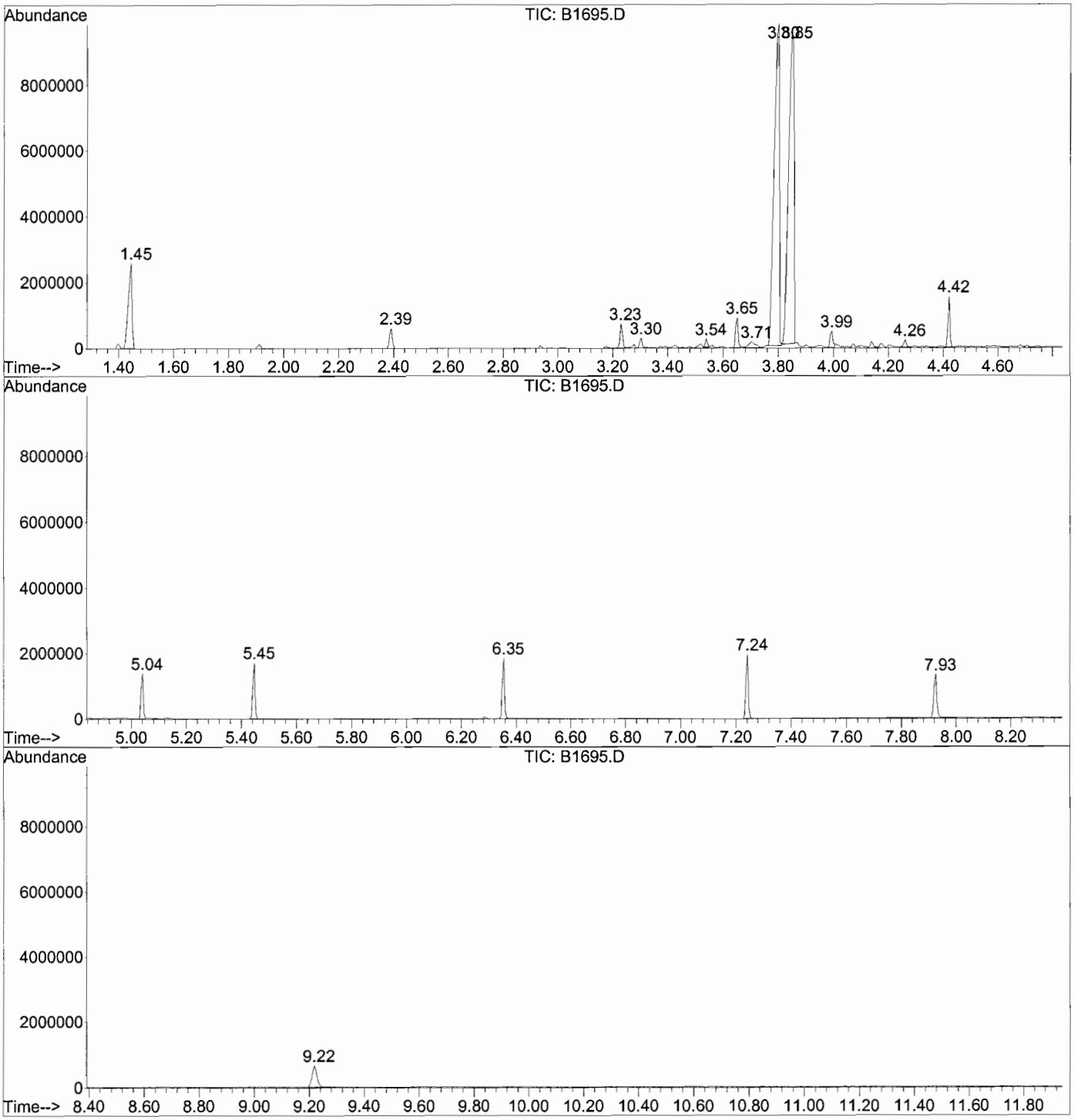
Sum of corrected areas: 37330961

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

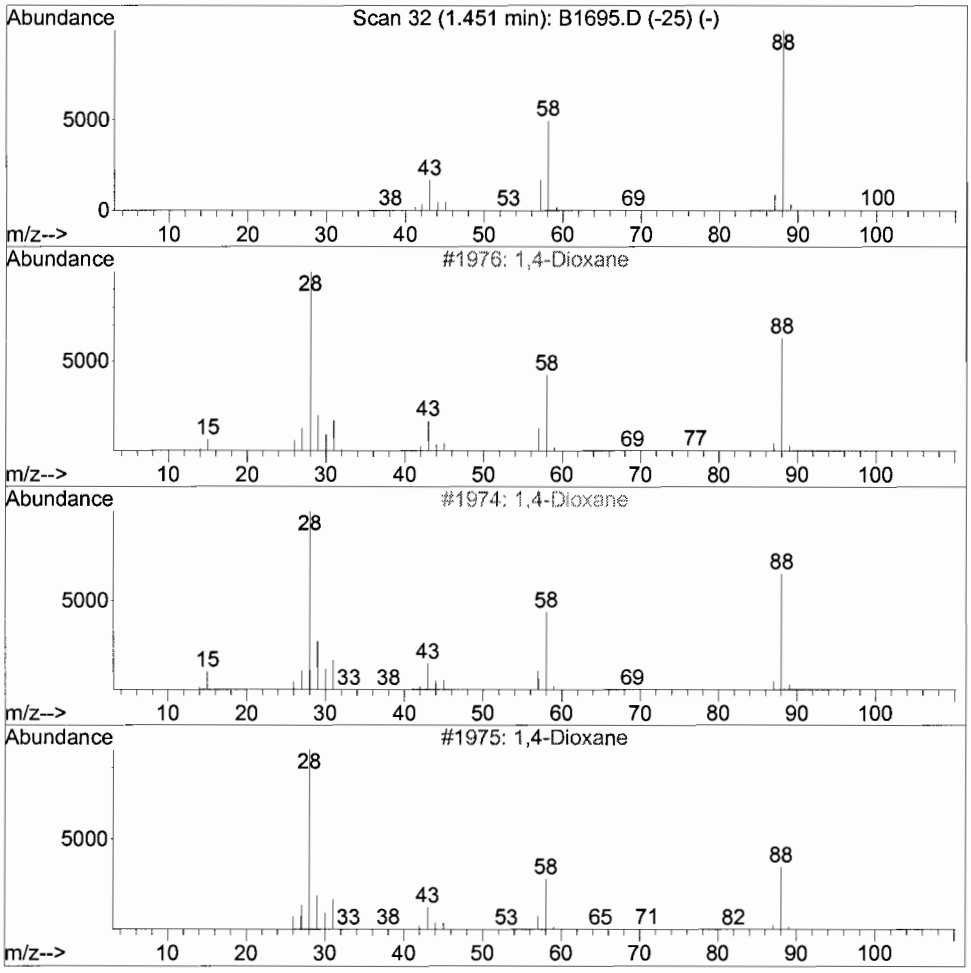
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

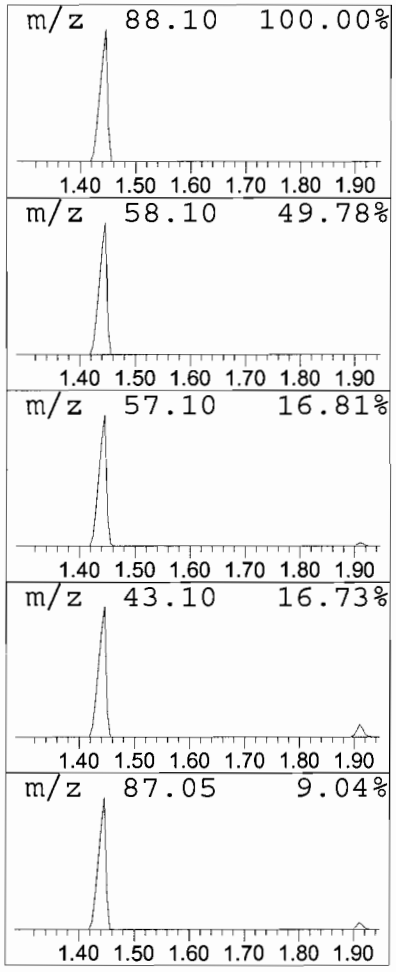
****

Peak Number 1 1,4-Dioxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.45	164.67 UG	2419620	1,4-Dichlorobenzene-d4	3.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dioxane	88	C4H8O2	000123-91-1	91
2	1,4-Dioxane	88	C4H8O2	000123-91-1	90
3	1,4-Dioxane	88	C4H8O2	000123-91-1	83
4	1,4-Dioxane	88	C4H8O2	000123-91-1	83
5	1,3,6-Trioxocane	118	C5H10O3	001779-19-7	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

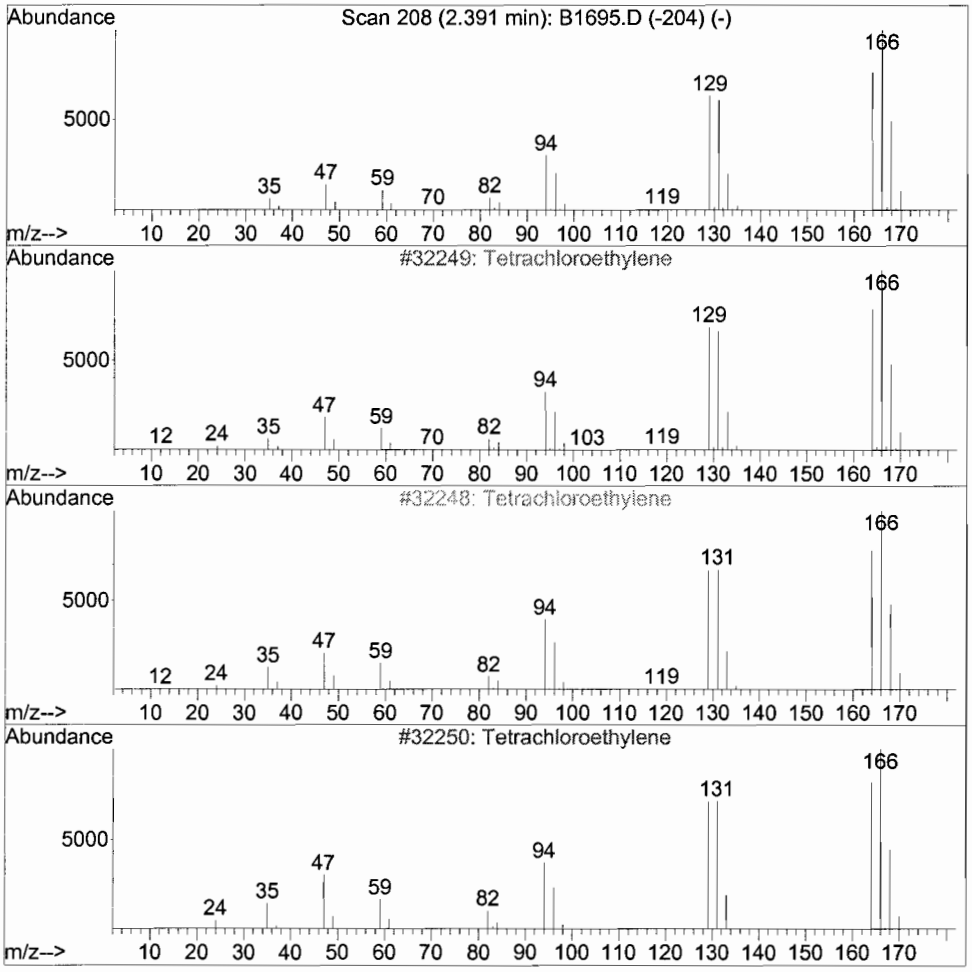
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

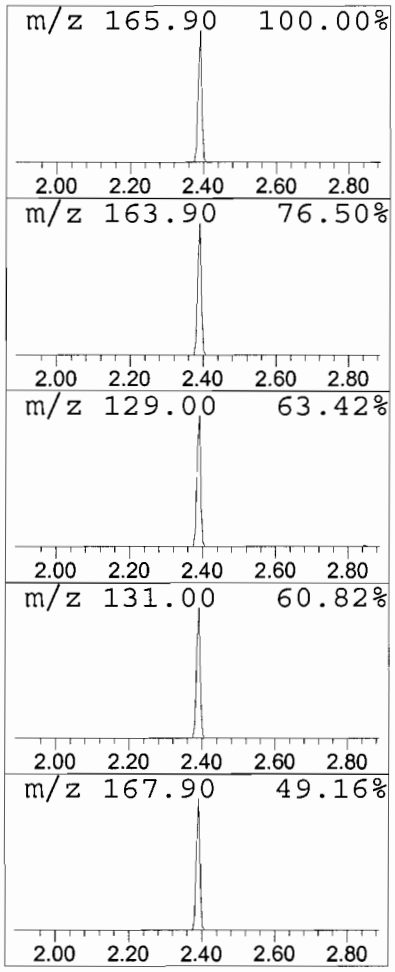
****

Peak Number 2 Tetrachloroethylene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.39	29.29 UG	430402	1,4-Dichlorobenzene-d4	3.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetrachloroethylene	164	C2Cl4	000127-18-4	99
2	Tetrachloroethylene	164	C2Cl4	000127-18-4	97
3	Tetrachloroethylene	164	C2Cl4	000127-18-4	97
4	Pyrimidine, 5-fluoro-2,4-dichloro-	166	C4HCl2FN2	002927-71-1	43
5	2,4-Dichloro-6-fluoropyrimidine	166	C4HCl2FN2	003833-57-6	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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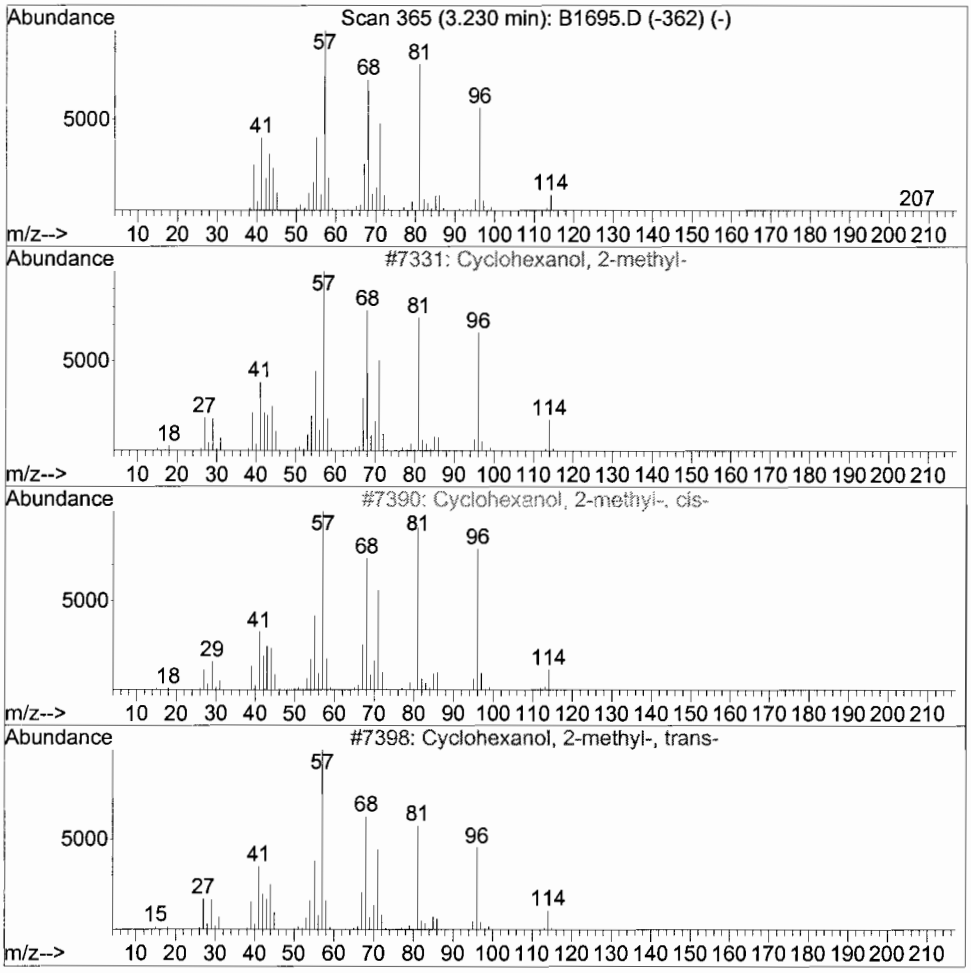
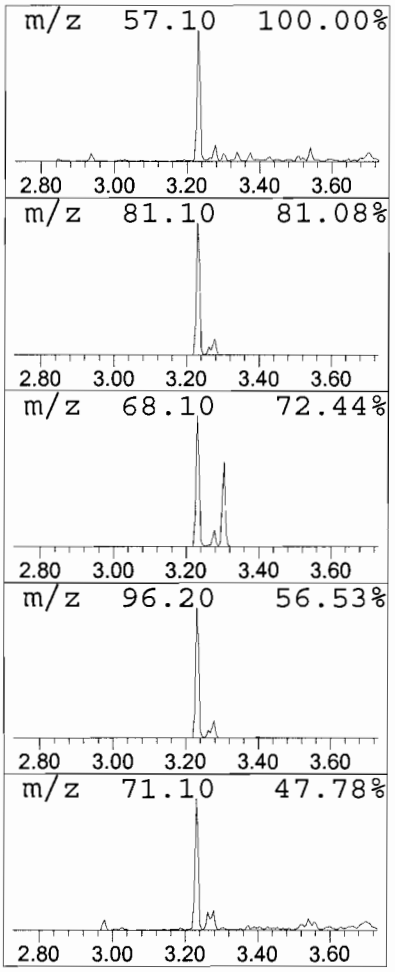
Peak Number 3 Cyclohexanol, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.23	31.11 UG	457101	1,4-Dichlorobenzene-d4	3.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanol, 2-methyl-	114	C7H14O	000583-59-5	97
2	Cyclohexanol, 2-methyl-, cis-	114	C7H14O	007443-70-1	97
3	Cyclohexanol, 2-methyl-, trans-	114	C7H14O	007443-52-9	96
4	Cyclohexanol, 2-methyl-, cis-	114	C7H14O	007443-70-1	93
5	Cyclohexanol, 2-methyl-	114	C7H14O	000583-59-5	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

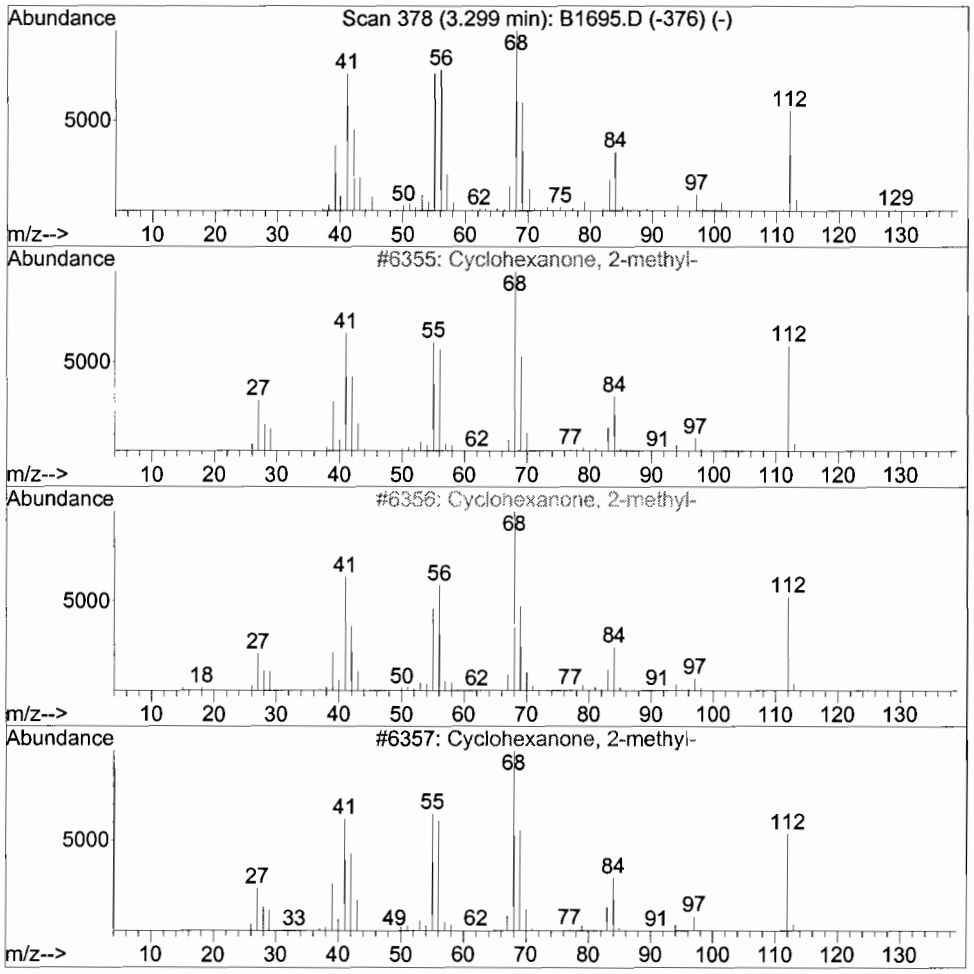
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

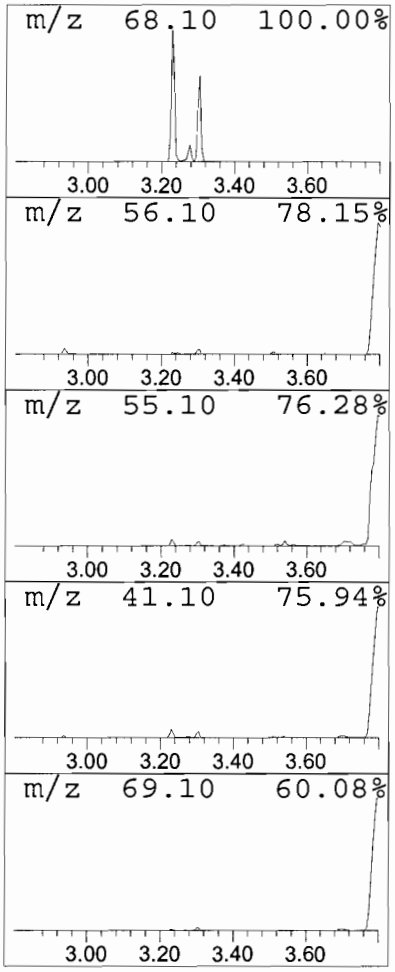
****

Peak Number 4 Cyclohexanone, 2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.30	12.92 UG	189909	1,4-Dichlorobenzene-d4	3.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 2-methyl-	112	C7H12O	000583-60-8	96
2	Cyclohexanone, 2-methyl-	112	C7H12O	000583-60-8	96
3	Cyclohexanone, 2-methyl-	112	C7H12O	000583-60-8	95
4	Cyclohexanone, 2-methyl-	112	C7H12O	000583-60-8	95
5	Cyclohexanone, 2-methyl-	112	C7H12O	000583-60-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

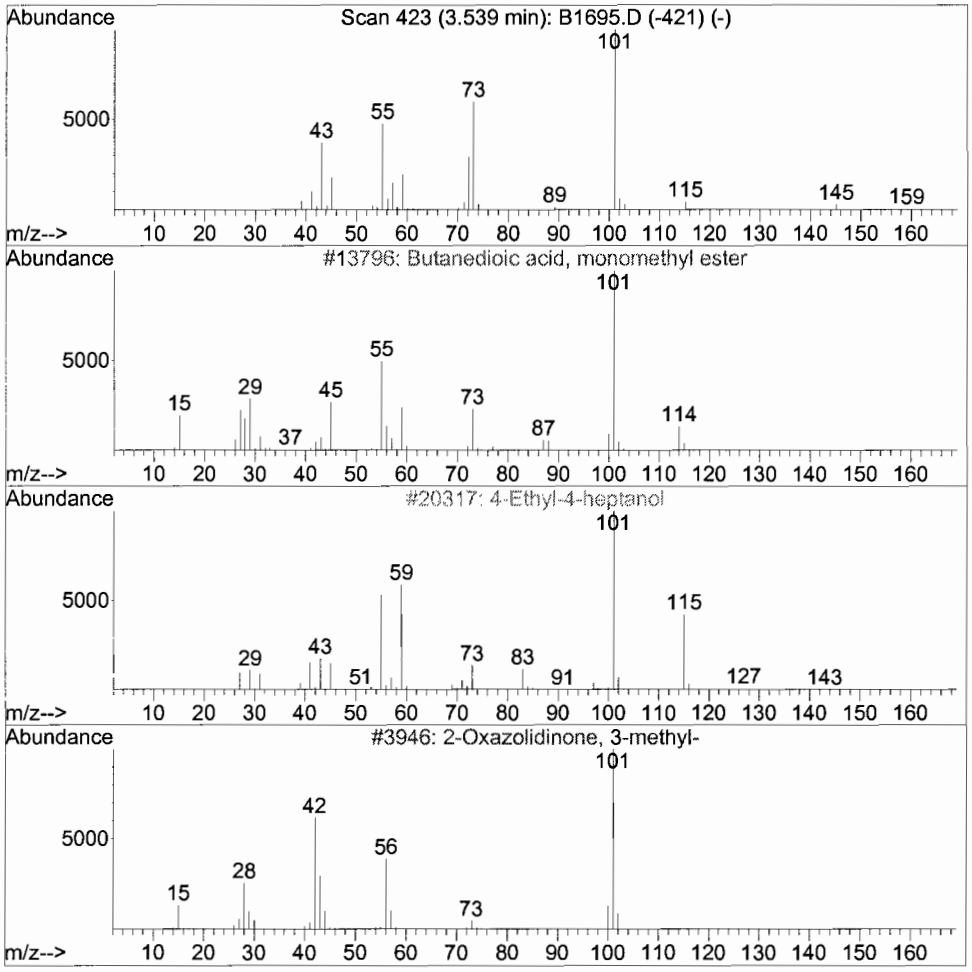
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

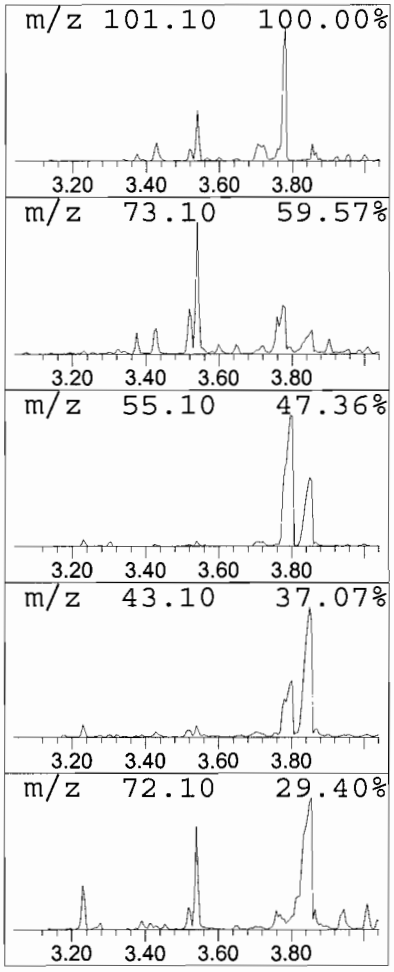
****

Peak Number 5 Unknown SV Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.54	9.92 UG	145760	1,4-Dichlorobenzene-d4	3.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanedioic acid, monomethyl ester	132	C5H8O4	003878-55-5	50
2	4-Ethyl-4-heptanol	144	C9H20O	000597-90-0	33
3	2-Oxazolidinone, 3-methyl-	101	C4H7NO2	019836-78-3	25
4	3,4-Dimethyl-3-hexanol	130	C8H18O	019550-08-4	10
5	3-Hexanol, 3,5-dimethyl-	130	C8H18O	004209-91-0	10





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

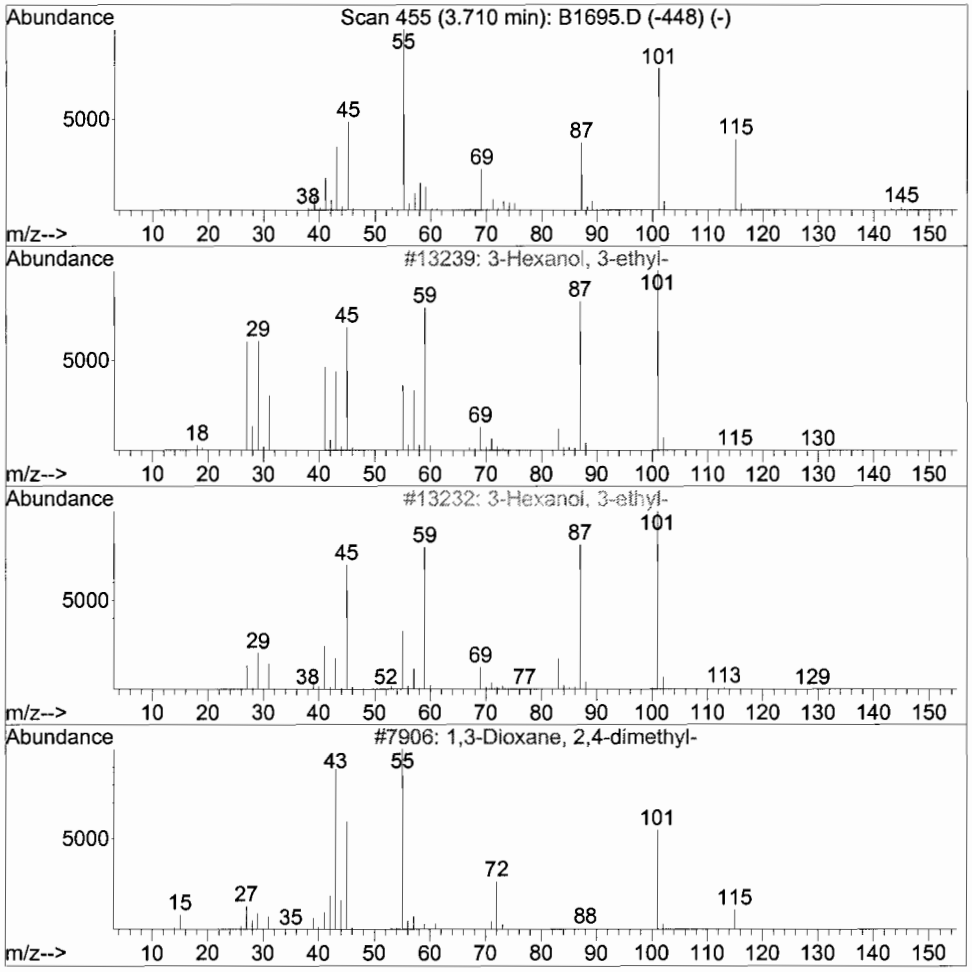
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

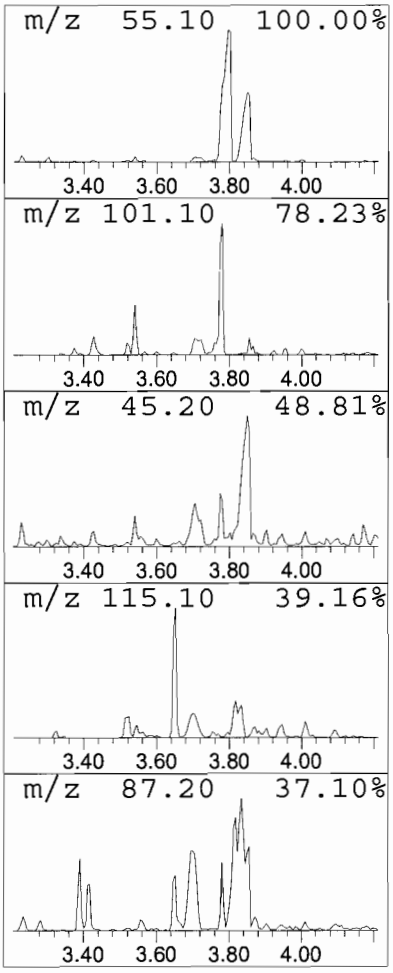
****

Peak Number 6 Unknown SV Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.71	20.05 UG	294568	1,4-Dichlorobenzene-d4	3.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hexanol, 3-ethyl-	130	C8H18O	000597-76-2	38
2	3-Hexanol, 3-ethyl-	130	C8H18O	000597-76-2	38
3	1,3-Dioxane, 2,4-dimethyl-	116	C6H12O2	000766-20-1	37
4	1,3-Dioxane, 2,4-dimethyl-	116	C6H12O2	000766-20-1	37
5	Hydrazine, 1,1-bis(2-methylpropyl)-	144	C8H20N2	016596-38-6	35





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

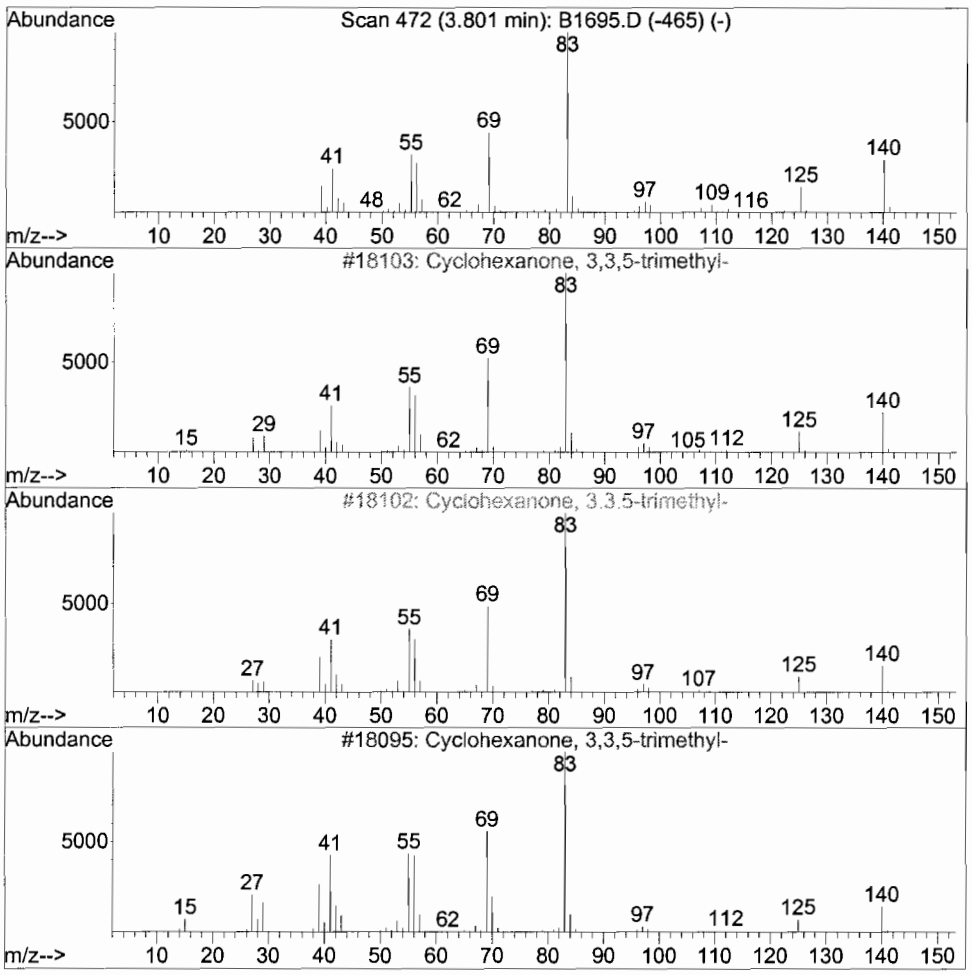
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

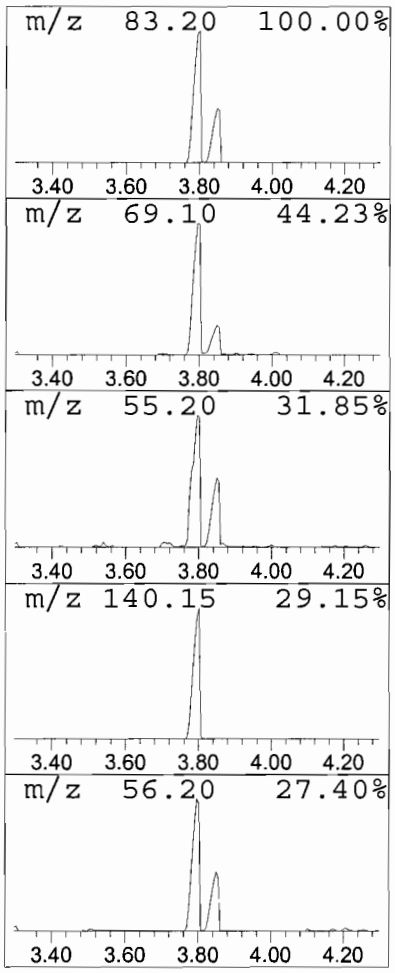
****

Peak Number 7 Cyclohexanone, 3,3,5-trimet... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.80	868.27 UG	12757700	1,4-Dichlorobenzene-d4	3.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	96
2	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	96
3	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	91
4	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O	000873-94-9	86
5	1,3-Cyclohexanedione, 5,5-dimethyl-	140	C8H12O2	000126-81-8	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

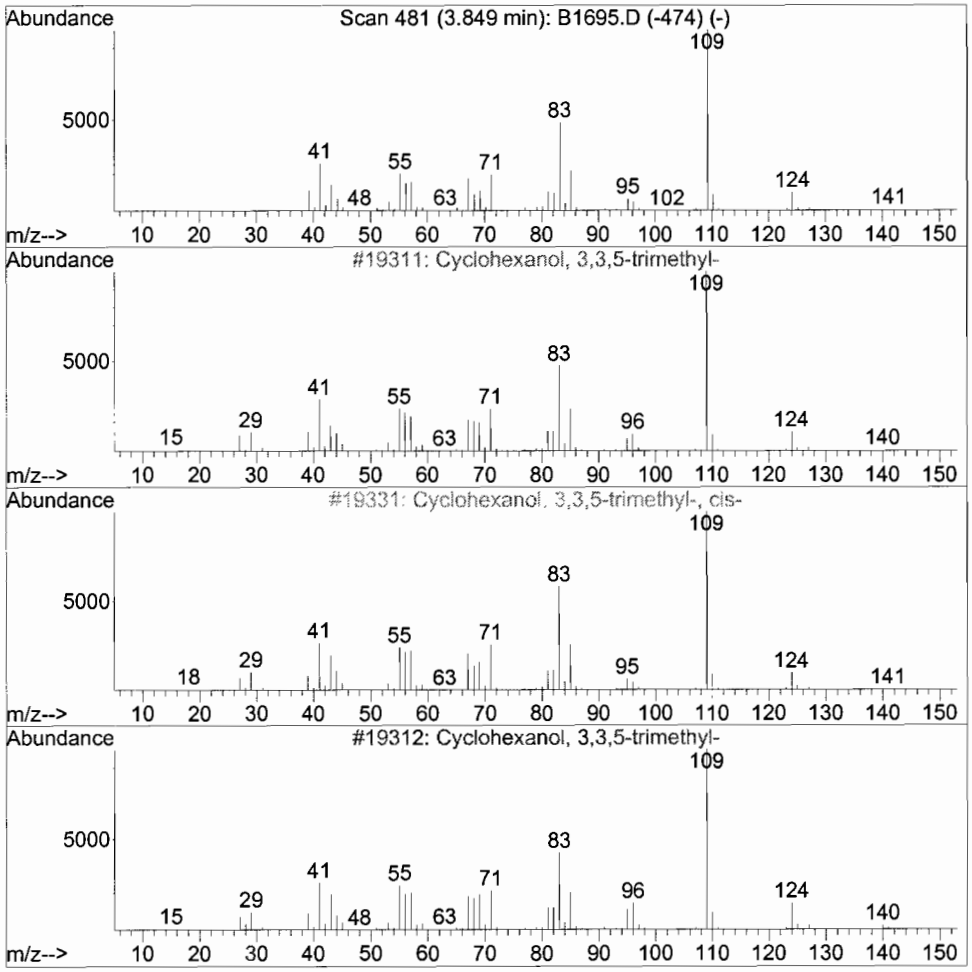
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

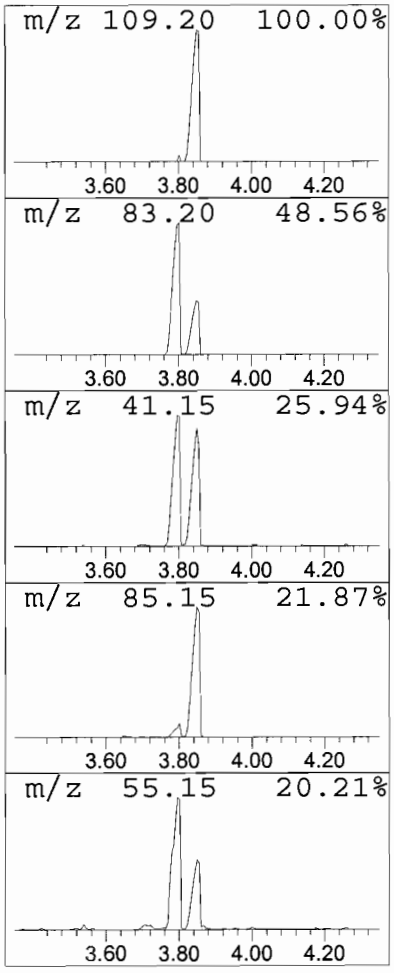
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 8 Cyclohexanol, 3,3,5-trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.85	884.10 UG	12990300	1,4-Dichlorobenzene-d4	3.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanol, 3,3,5-trimethyl-	142	C9H18O	000116-02-9	91
2	Cyclohexanol, 3,3,5-trimethyl-, ...	142	C9H18O	000933-48-2	74
3	Cyclohexanol, 3,3,5-trimethyl-	142	C9H18O	000116-02-9	43
4	Allyltrivinylsilane	150	C9H14Si	115946-69-5	40
5	2-Cyclopenten-1-one, 3,4,4-trime...	124	C8H12O	030434-65-2	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1695.D
Acq On : 29 Jul 2015 2:50
Operator : DANA
Sample : MW-12D,E15-06541-005,A,500ml,100,0.5
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

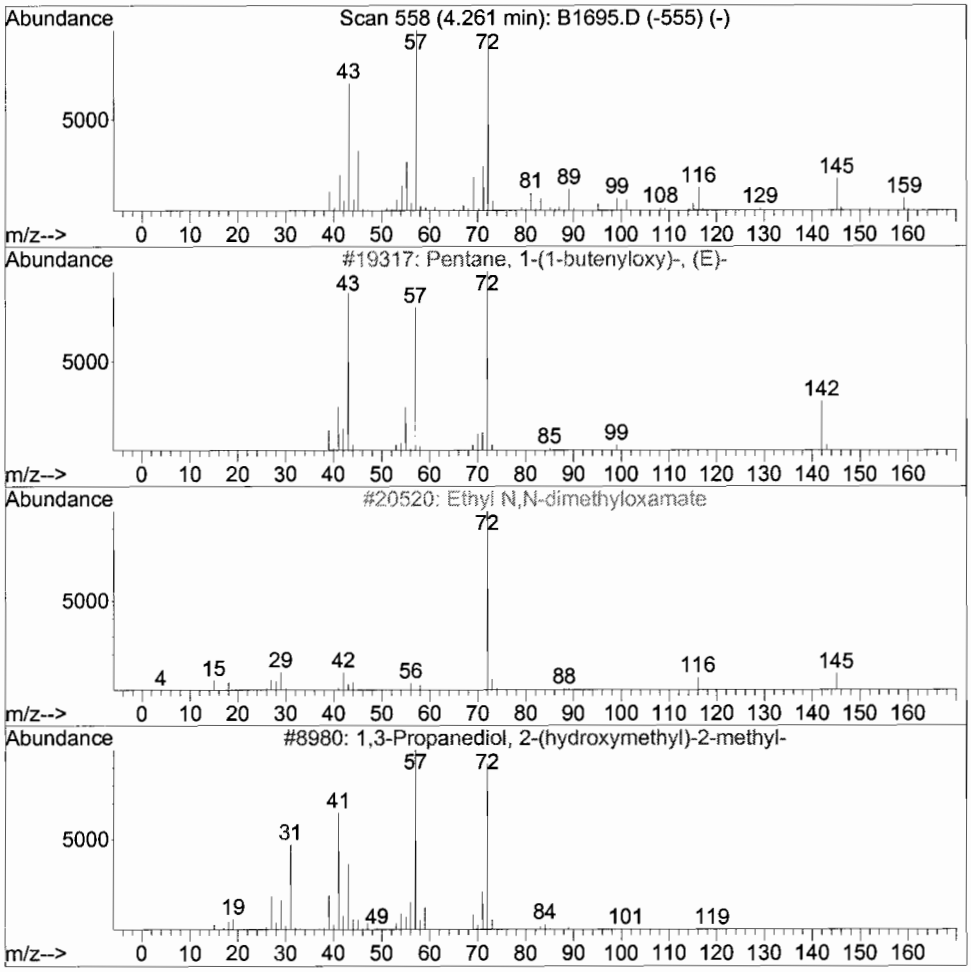
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

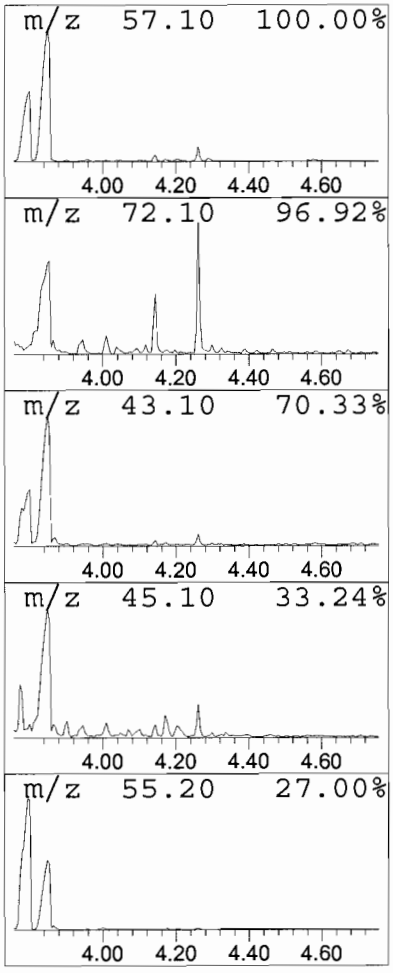
****

Peak Number 9 Unknown SV Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.26	7.53 UG	142199	Naphthalene-d8	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 1-(1-butenyloxy)-, (E)-	142	C9H18O	054004-25-0	47
2	Ethyl N,N-dimethyloxamate	145	C6H11NO3	016703-52-9	43
3	1,3-Propanediol, 2-(hydroxymethy...	120	C5H12O3	000077-85-0	40
4	1,3-Propanediol, 2-(hydroxymethy...	120	C5H12O3	000077-85-0	40
5	2-Hexanone, 3,4-dimethyl-	128	C8H16O	019550-10-8	38





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1651.D
Acq On : 28 Jul 2015 14:17
Operator : DANA
Sample : FB-3,E15-06541-016,Ia,1000ml,100,1
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 28 14:32:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 11:51:58 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.22	152	25948	1.00 UG	0.00
23) Naphthalene-d8	2.77	136	73354	1.00 UG	0.00
43) Acenaphthene-d10	3.58	164	44825	1.00 UG	0.00
66) Phenanthrene-d10	4.33	188	80322m	1.00 UG	0.00
82) Chrysene-d12	6.11	240	67296m	1.00 UG	-0.01
92) Perylene-d12	7.42	264	55406	1.00 UG	0.01

System Monitoring Compounds

4) 2-Fluorophenol		0.00	112	0	0.00 UG
Spiked Amount	1.000	Range	40 - 140	Recovery	= 0.00%#
6) Phenol-d5		0.00	99	0	0.00 UG
Spiked Amount	1.000	Range	40 - 140	Recovery	= 0.00%#
24) Nitrobenzene-d5		0.00	82	0	0.00 UG
Spiked Amount	0.500	Range	40 - 140	Recovery	= 0.00%#
47) 2-Fluorobiphenyl		0.00	172	0	0.00 UG
Spiked Amount	0.500	Range	40 - 140	Recovery	= 0.00%#
70) 2,4,6-Tribromophenol		0.00	330	0	0.00 UG
Spiked Amount	1.000	Range	40 - 140	Recovery	= 0.00%#
84) Terphenyl-d14		0.00	244	0	0.00 UG
Spiked Amount	0.500	Range	40 - 140	Recovery	= 0.00%#

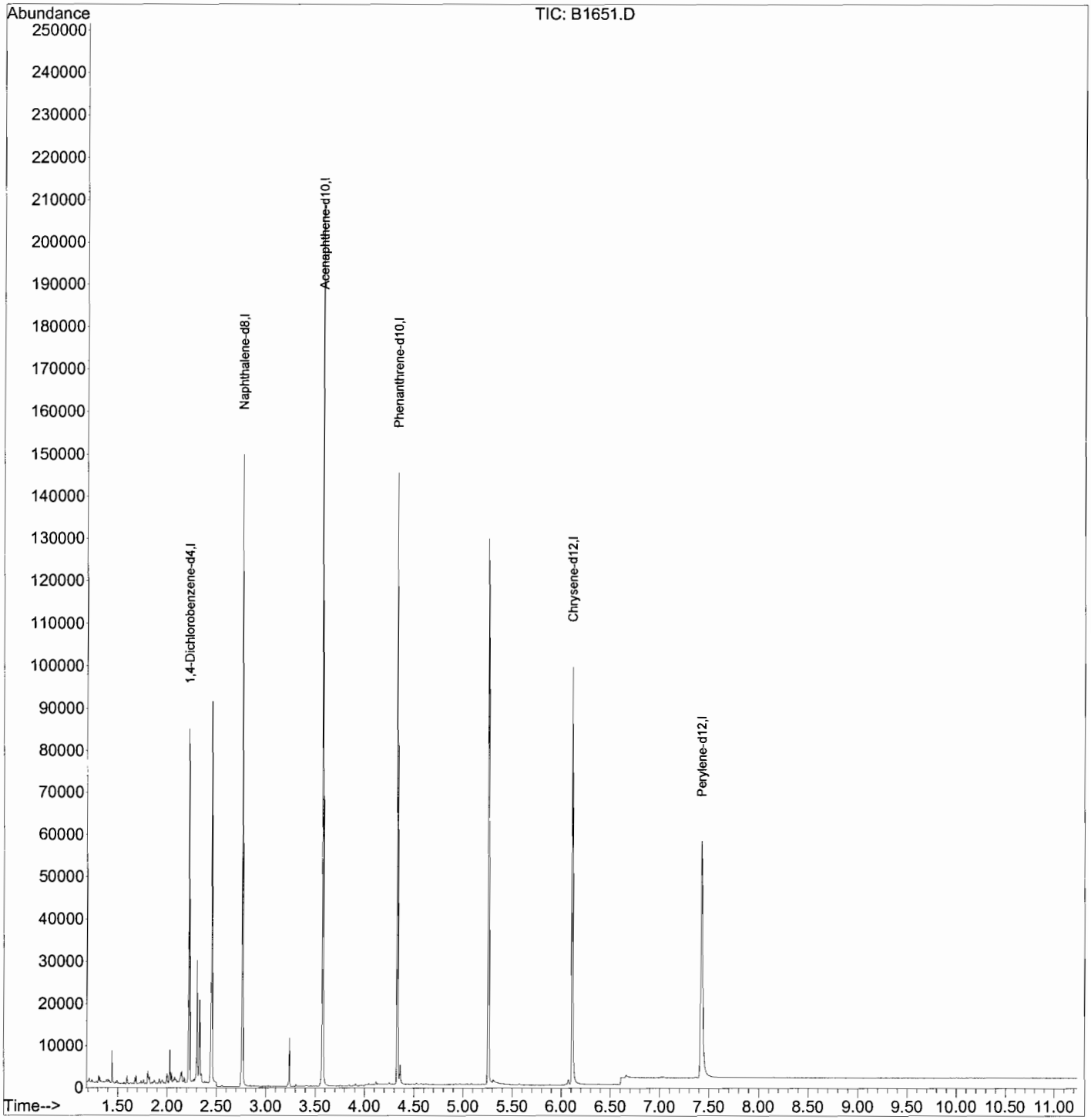
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1651.D
Acq On : 28 Jul 2015 14:17
Operator : DANA
Sample : FB-3,E15-06541-016,Ia,1000ml,100,1
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 28 14:32:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 11:51:58 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1696.D
Acq On : 29 Jul 2015 3:07
Operator : DANA
Sample : FB-3,E15-06541-016,A,1000ml,100,1
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Jul 29 08:34:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 10:36:51 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.65	152	121345	40.00 UG	-0.01
23) Naphthalene-d8	4.42	136	459963	40.00 UG	-0.01
43) Acenaphthene-d10	5.45	164	291480	40.00 UG	-0.01
66) Phenanthrene-d10	6.36	188	497846	40.00 UG	-0.02
82) Chrysene-d12	7.91	240	440726	40.00 UG	-0.15
92) Perylene-d12	9.19	264	352978	40.00 UG	-0.19

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00 UG	
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#		
6) Phenol-d5	0.00	99	0d	0.00 UG	
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.00%#		
24) Nitrobenzene-d5	3.99	82	88342	24.06 UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 48.12%		
47) 2-Fluorobiphenyl	5.04	172	235663	26.09 UG	-0.01
Spiked Amount 50.000	Range 26 - 101		Recovery = 52.18%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00 UG	
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.00%#		
84) Terphenyl-d14	7.23	244	403676	35.12 UG	-0.09
Spiked Amount 50.000	Range 23 - 124		Recovery = 70.24%		

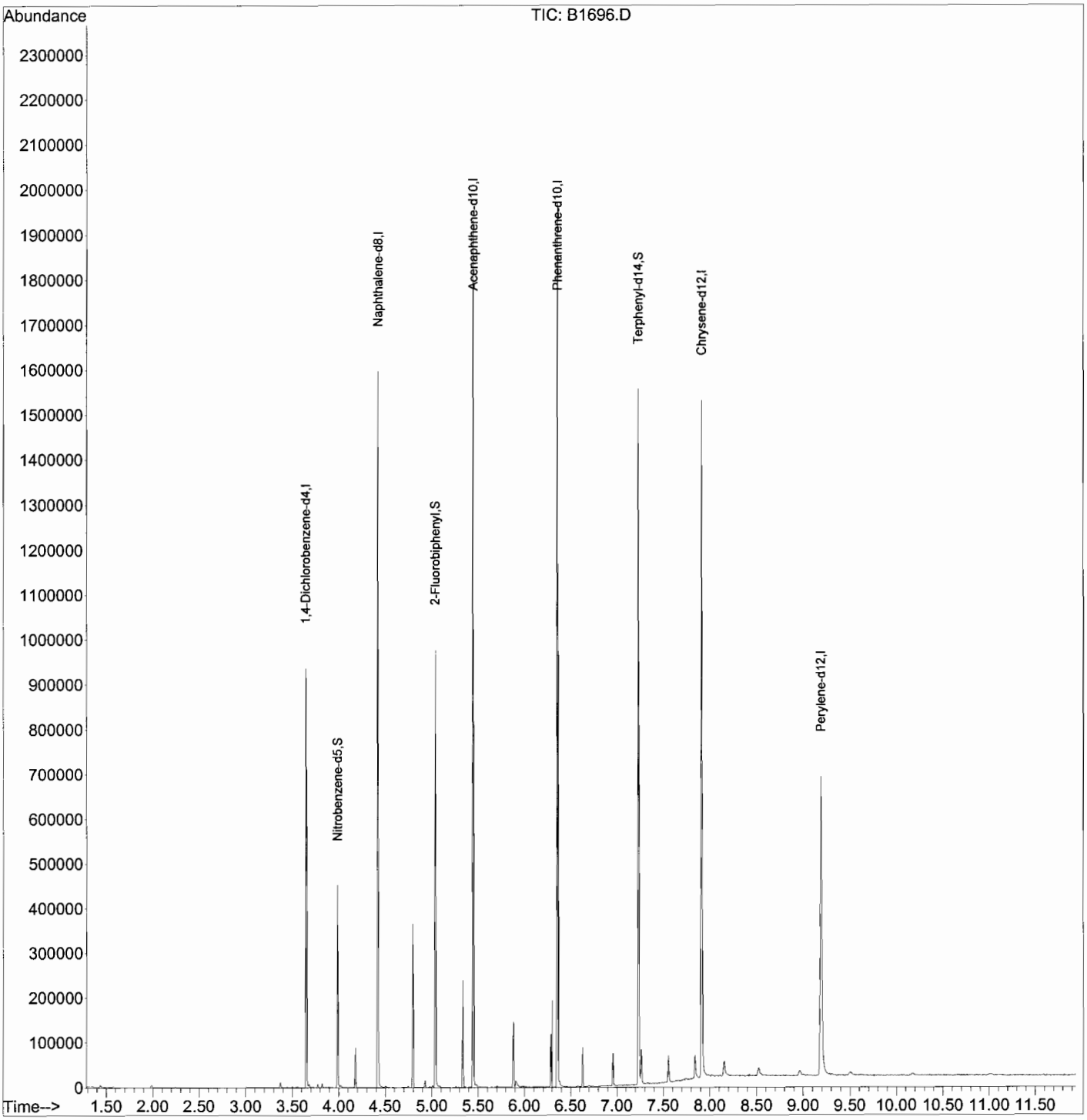
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1696.D
Acq On : 29 Jul 2015 3:07
Operator : DANA
Sample : FB-3,E15-06541-016,A,1000ml,100,1
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Jul 29 08:34:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 10:36:51 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1696.D
Acq On : 29 Jul 2015 3:07
Operator : DANA
Sample : FB-3,E15-06541-016,A,1000ml,100,1
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 50 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW0815.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.646	441	443	446	rBV	935582	654850	57.17%	7.758%
2	3.988	504	507	509	rBV	452305	248655	21.71%	2.946%
3	4.180	540	543	546	rBV2	88714	53939	4.71%	0.639%
4	4.421	585	588	590	rBV	1596210	869658	75.93%	10.303%
5	4.795	655	658	661	rBV	365599	220291	19.23%	2.610%
6	5.041	701	704	706	rBV	976696	607962	53.08%	7.203%
7	5.334	756	759	762	rVB	238452	140358	12.25%	1.663%
8	5.447	777	780	782	rBV	1931908	1090753	95.23%	12.922%
9	5.879	858	861	864	rBV	144882	109115	9.53%	1.293%
10	6.291	935	938	941	rBV2	117908	80296	7.01%	0.951%
11	6.360	948	951	953	rBV	1971927	1145382	100.00%	13.570%
12	6.633	999	1002	1004	rVB	87176	51361	4.48%	0.608%
13	6.958	1059	1063	1066	rBV	71954	48016	4.19%	0.569%
14	7.231	1111	1114	1117	rBV	1551519	952607	83.17%	11.286%
15	7.263	1117	1120	1124	rVB	75124	55509	4.85%	0.658%
16	7.557	1171	1175	1180	rBV	59181	46907	4.10%	0.556%
17	7.840	1225	1228	1236	rBV	50846	48583	4.24%	0.576%
18	7.915	1238	1242	1252	rBV	1509961	1073920	93.76%	12.723%
19	8.155	1283	1287	1298	rVB	32488	45614	3.98%	0.540%
20	8.524	1351	1356	1359	rBV4	17718	25426	2.22%	0.301%
21	9.191	1475	1481	1497	rBV	668785	871614	76.10%	10.326%

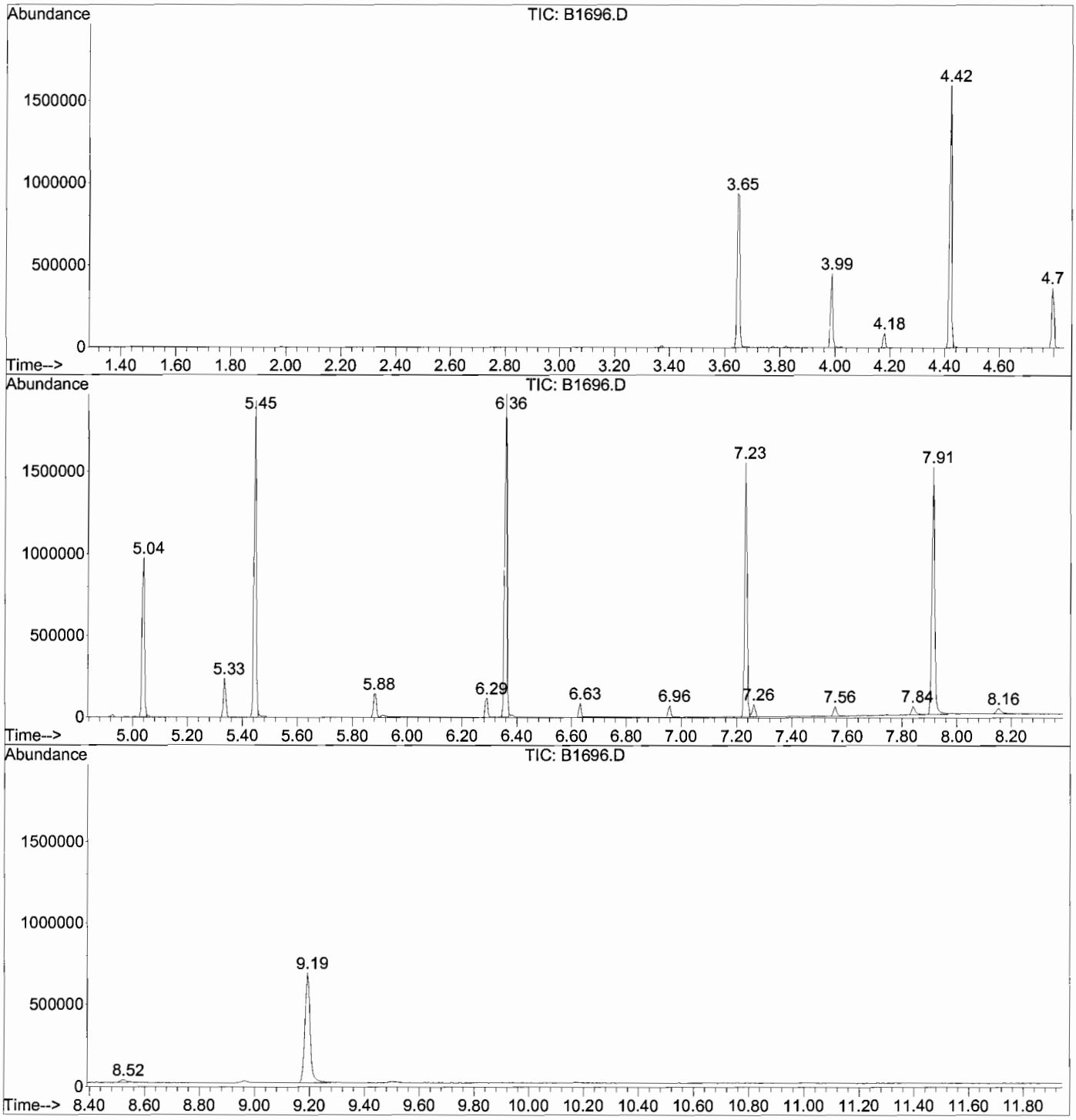
Sum of corrected areas: 8440816

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1696.D
Acq On : 29 Jul 2015 3:07
Operator : DANA
Sample : FB-3,E15-06541-016,A,1000ml,100,1
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 50 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-28-15\
Data File : B1696.D
Acq On : 29 Jul 2015 3:07
Operator : DANA
Sample : FB-3,E15-06541-016,A,1000ml,100,1
Misc : 150728-01,07/28/15,07/24/15,1
ALS Vial : 50 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD

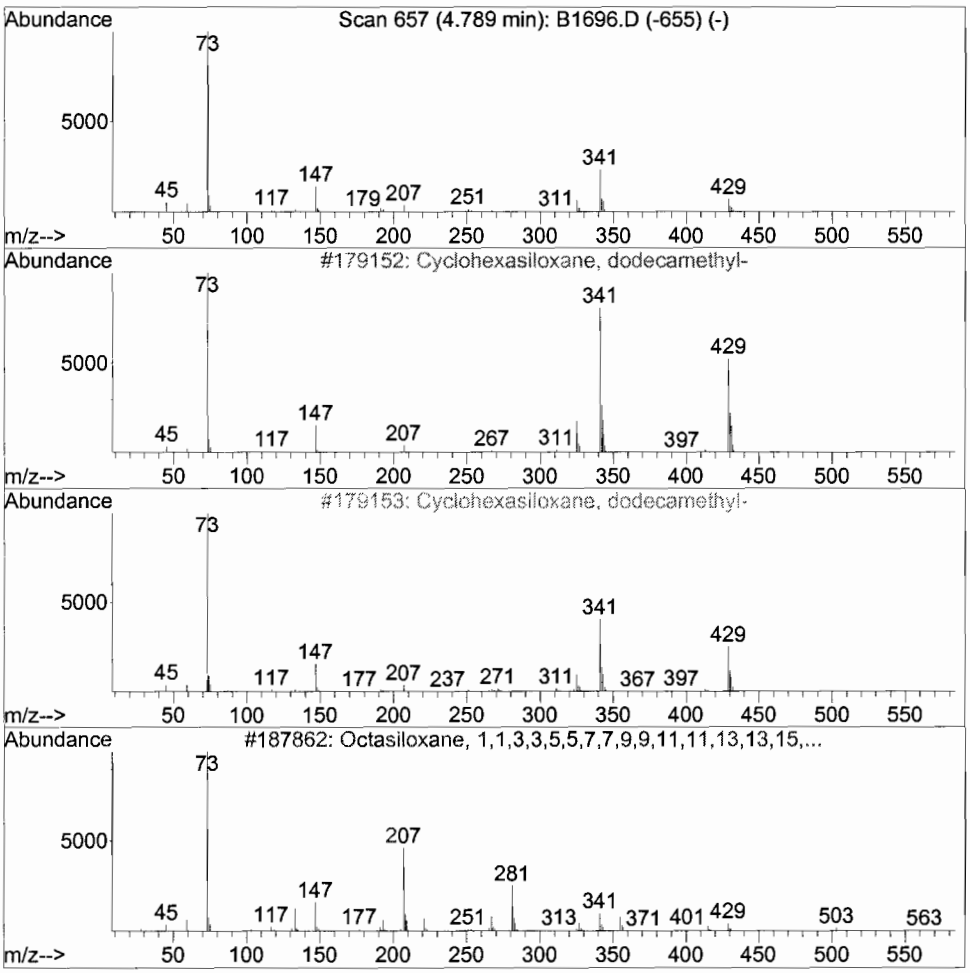
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

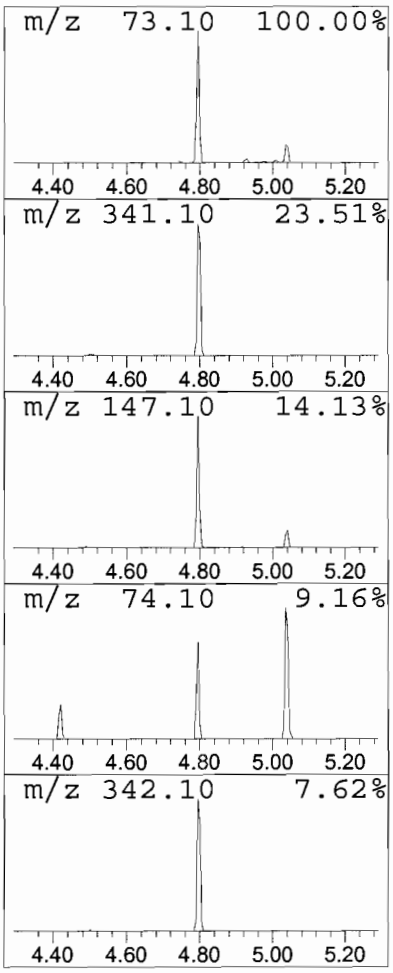
****

Peak Number 1 Cyclohexasiloxane, dodecame... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.79	10.13 UG	220291	Naphthalene-d8	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexasiloxane, dodecamethyl-	444	C12H36O6Si6	000540-97-6	91
2	Cyclohexasiloxane, dodecamethyl-	444	C12H36O6Si6	000540-97-6	52
3	Octasiloxane, 1,1,3,3,5,5,7,7,9,...	578	C16H50O7Si8	019095-24-0	50
4	Cyclohexasiloxane, dodecamethyl-	444	C12H36O6Si6	000540-97-6	38
5	2-Chloro-4-(4-methoxyphenyl)-6-(...	341	C17H12ClN3O3	063673-76-7	35





INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA150728-01
Client ID: .
Date Received: NA
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Data file: B1689.D
SIM Data file: B1649.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.235
Pyridine	ND		1.00	0.286
Benzaldehyde	ND		1.00	0.276
Phenol	ND		1.00	0.204
Aniline	ND		1.00	0.283
Bis(2-chloroethyl) ether	ND		1.00	0.373
2-Chlorophenol	ND		1.00	0.211
1,3-Dichlorobenzene	ND		1.00	0.293
1,4-Dichlorobenzene	ND		1.00	0.299
Benzyl alcohol	ND		1.00	0.208
1,2-Dichlorobenzene	ND		1.00	0.258
2-Methylphenol	ND		1.00	0.294
Bis(2-chloroisopropyl) ether	ND		1.00	0.253
4-Methylphenol **	ND		1.00	0.376
N-Nitrosodi-n-propylamine	ND		1.00	0.223
Acetophenone	ND		1.00	0.244
3-Methylphenol	ND		1.00	0.376
Hexachloroethane	ND		1.00	0.364
Nitrobenzene	ND		1.00	0.239
Isophorone	ND		1.00	0.233
2-Nitrophenol	ND		1.00	0.319
2,4-Dimethylphenol	ND		1.00	0.285
Bis(2-chloroethoxy) methane	ND		1.00	0.232
Benzoic acid	ND		1.00	0.330
2,4-Dimethylaniline	ND		1.00	0.234
2,4-Dichlorophenol	ND		1.00	0.253
1,2,4-Trichlorobenzene	ND		1.00	0.245
Naphthalene	ND		1.00	0.341
4-Chloroaniline	ND		1.00	0.337
4-Aminotoluene	ND		1.00	0.266
Hexachlorobutadiene	ND		1.00	0.229
Caprolactam	ND		1.00	0.366
2-Aminotoluene	ND		1.00	0.266
4-Chloro-3-methylphenol	ND		1.00	0.334
2-Methylnaphthalene	ND		1.00	0.224
Hexachlorocyclopentadiene	ND		1.00	0.362
2,4,6-Trichlorophenol	ND		1.00	0.261
2,4,5-Trichlorophenol	ND		1.00	0.306
1,1'-Biphenyl	ND		1.00	0.210
2-Chloronaphthalene	ND		1.00	0.256
2-Nitroaniline	ND		1.00	0.288
Dimethyl phthalate	ND		1.00	0.265

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA150728-01
Client ID: .
Date Received: NA
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Data file: B1689.D
SIM Data file: B1649.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.235
Acenaphthylene	ND		1.00	0.246
3-Nitroaniline	ND		1.00	0.281
Acenaphthene	ND		1.00	0.251
2,4-Dinitrophenol	ND		10.0	0.413
4-Nitrophenol	ND		1.00	0.371
2,4-Dinitrotoluene	ND		1.00	0.263
Dibenzofuran	ND		1.00	0.298
Diethyl phthalate	ND		1.00	0.264
Fluorene	ND		1.00	0.203
4-Chlorophenyl phenyl ether	ND		1.00	0.297
4-Nitroaniline	ND		1.00	0.318
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.226
2,3,4,6-Tetrachlorophenol	ND		1.00	0.275
4,6-Dinitro-2-methylphenol	ND		10.0	0.220
N-Nitrosodiphenylamine	ND		1.00	0.260
1,2-Diphenylhydrazine	ND		1.00	0.250
4-Bromophenyl phenyl ether	ND		1.00	0.248
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.259
Pentachlorophenol *	ND		0.100	0.100
Phenanthrene	ND		1.00	0.225
Anthracene	ND		1.00	0.258
Carbazole	ND		1.00	0.248
Di-n-butyl phthalate	ND		1.00	0.262
Fluoranthene	ND		1.00	0.206
Benzidine	ND		1.00	0.267
Pyrene	ND		1.00	0.256
3,3'-Dimethylbenzidine	ND		1.00	0.320
Butyl benzyl phthalate	ND		1.00	0.391
3,3'-Dichlorobenzidine	ND		1.00	0.391
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.320
Bis(2-ethylhexyl) phthalate	ND		1.00	0.429
Di-n-octyl phthalate	ND		1.00	0.399
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.325

Total Target Compounds (83): 0

* - RL & MDL from SIM run
** - represents the total of 3+4-Methylphenol

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA150728-01
Client ID: .
Date Received: NA
Date Extracted: 07/28/2015
Date Analyzed: 07/29/2015
Date File: B1689.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-28-15\
Data File : B1689.D
Acq On : 29 Jul 2015 1:04
Operator : DANA
Sample : .,BLKA150728-01,A,1000ml,100,1
Misc : 150728-01,07/28/15,NA,1
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Jul 29 08:06:30 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 10:36:51 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.65	152	104923	40.00 UG	-0.01
23) Naphthalene-d8	4.42	136	395837	40.00 UG	-0.01
43) Acenaphthene-d10	5.45	164	254849	40.00 UG	0.00
66) Phenanthrene-d10	6.39	188	431803	40.00 UG	0.02
82) Chrysene-d12	8.10	240	389613	40.00 UG	0.04
92) Perylene-d12	9.41	264	325670	40.00 UG	0.02

System Monitoring Compounds

4) 2-Fluorophenol	2.82	112	174893	52.26 UG	-0.01
Spiked Amount 100.000	Range 10 - 100		Recovery = 52.26%		
6) Phenol-d5	3.41	99	213751	53.26 UG	-0.01
Spiked Amount 100.000	Range 10 - 102		Recovery = 53.26%		
24) Nitrobenzene-d5	3.99	82	85924	27.19 UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 54.38%		
47) 2-Fluorobiphenyl	5.04	172	235185	29.79 UG	-0.01
Spiked Amount 50.000	Range 26 - 101		Recovery = 59.58%		
70) 2,4,6-Tribromophenol	5.99	330	114857	54.45 UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 54.45%		
84) Terphenyl-d14	7.35	244	306757	30.19 UG	0.03
Spiked Amount 50.000	Range 23 - 124		Recovery = 60.38%		

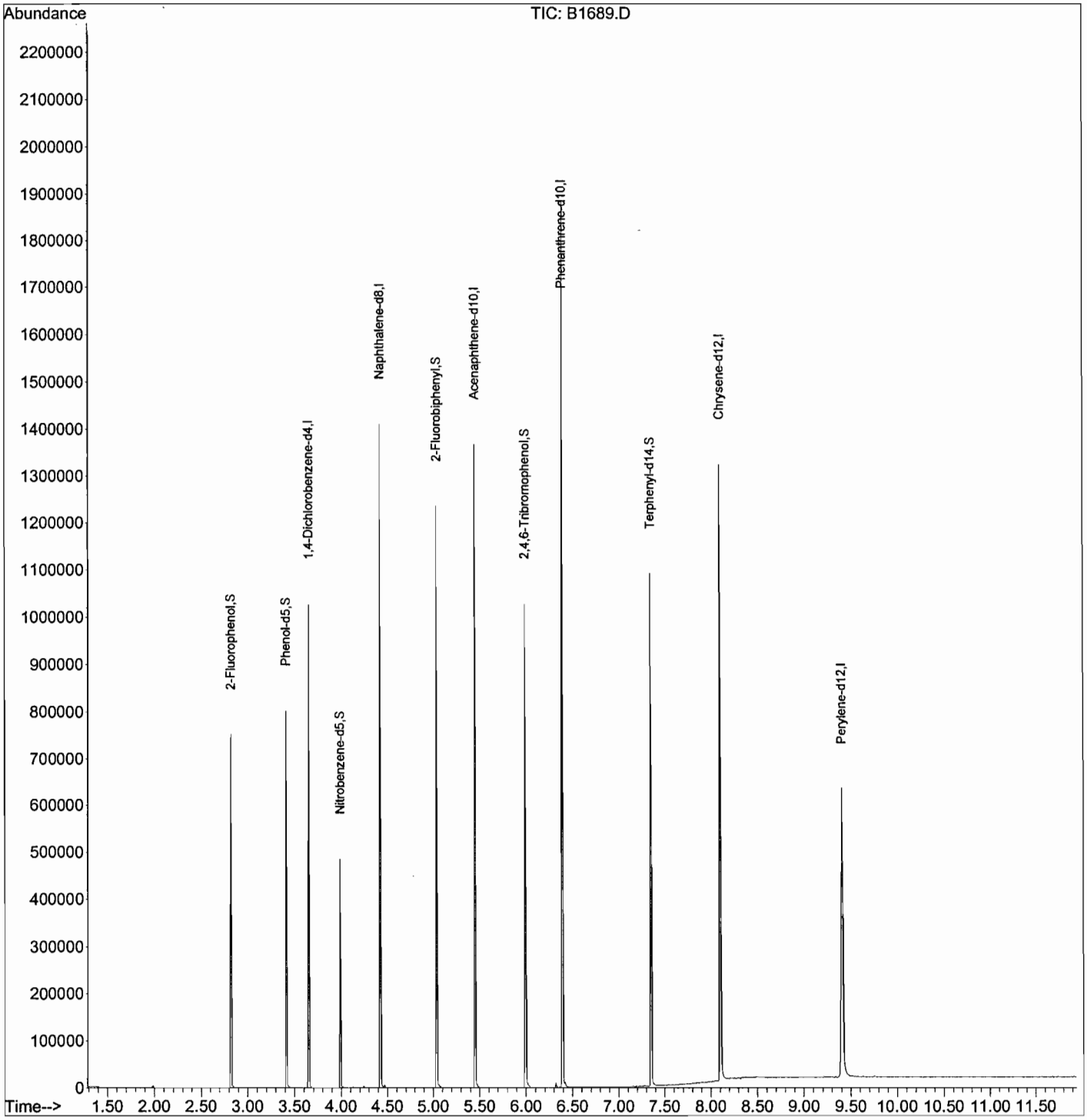
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-28-15\
Data File : B1689.D
Acq On : 29 Jul 2015 1:04
Operator : DANA
Sample : .,BLKA150728-01,A,1000ml,100,1
Misc : 150728-01,07/28/15,NA,1
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Jul 29 08:06:30 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 10:36:51 2015
Response via : Initial Calibration



Library Search Compound Report

```
  Data Path : C:\MSDCHEM\1\DATA\07-28-15\
  Data File : B1689.D
  Acq On    : 29 Jul 2015   1:04
  Operator  : DANA
  Sample    : .,BLKA150728-01,A,1000ml,100,1
  Misc      : 150728-01,07/28/15,NA,1
  ALS Vial  : 45   Sample Multiplier: 1

  Quant Method : C:\MSDCHEM\1\METHODS\BW0815.M
  Quant Title  : BNA CALIBRATION METHOD

  TIC Library   : C:\DATABASE\NIST05A.L
  TIC Integration Parameters: LSCINT.P

  No Library Search Compounds Detected




  ***********************************************************************

BW0815.M Wed Jul 29 08:06:38 2015 MSD_B
```

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-28-15\
Data File : B1649.D
Acq On : 28 Jul 2015 13:45
Operator : DANA
Sample : .,BLKA150728-01,Ia,1000ml,100,1
Misc : 150728-01,07/28/15,NA,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 28 14:07:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 11:51:58 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.22	152	23453	1.00 UG	0.00
23) Naphthalene-d8	2.77	136	66804	1.00 UG	0.00
43) Acenaphthene-d10	3.57	164	40965	1.00 UG	0.00
66) Phenanthrene-d10	4.32	188	72664m	1.00 UG	0.00
82) Chrysene-d12	6.10	240	60852	1.00 UG	-0.03
92) Perylene-d12	7.41	264	49167	1.00 UG	0.00

System Monitoring Compounds

4) 2-Fluorophenol		0.00	112	0	0.00 UG	
Spiked Amount	1.000	Range	40 - 140	Recovery	=	0.00%#
6) Phenol-d5		0.00	99	0	0.00 UG	
Spiked Amount	1.000	Range	40 - 140	Recovery	=	0.00%#
24) Nitrobenzene-d5		0.00	82	0	0.00 UG	
Spiked Amount	0.500	Range	40 - 140	Recovery	=	0.00%#
47) 2-Fluorobiphenyl		0.00	172	0	0.00 UG	
Spiked Amount	0.500	Range	40 - 140	Recovery	=	0.00%#
70) 2,4,6-Tribromophenol		0.00	330	0	0.00 UG	
Spiked Amount	1.000	Range	40 - 140	Recovery	=	0.00%#
84) Terphenyl-d14		0.00	244	0	0.00 UG	
Spiked Amount	0.500	Range	40 - 140	Recovery	=	0.00%#

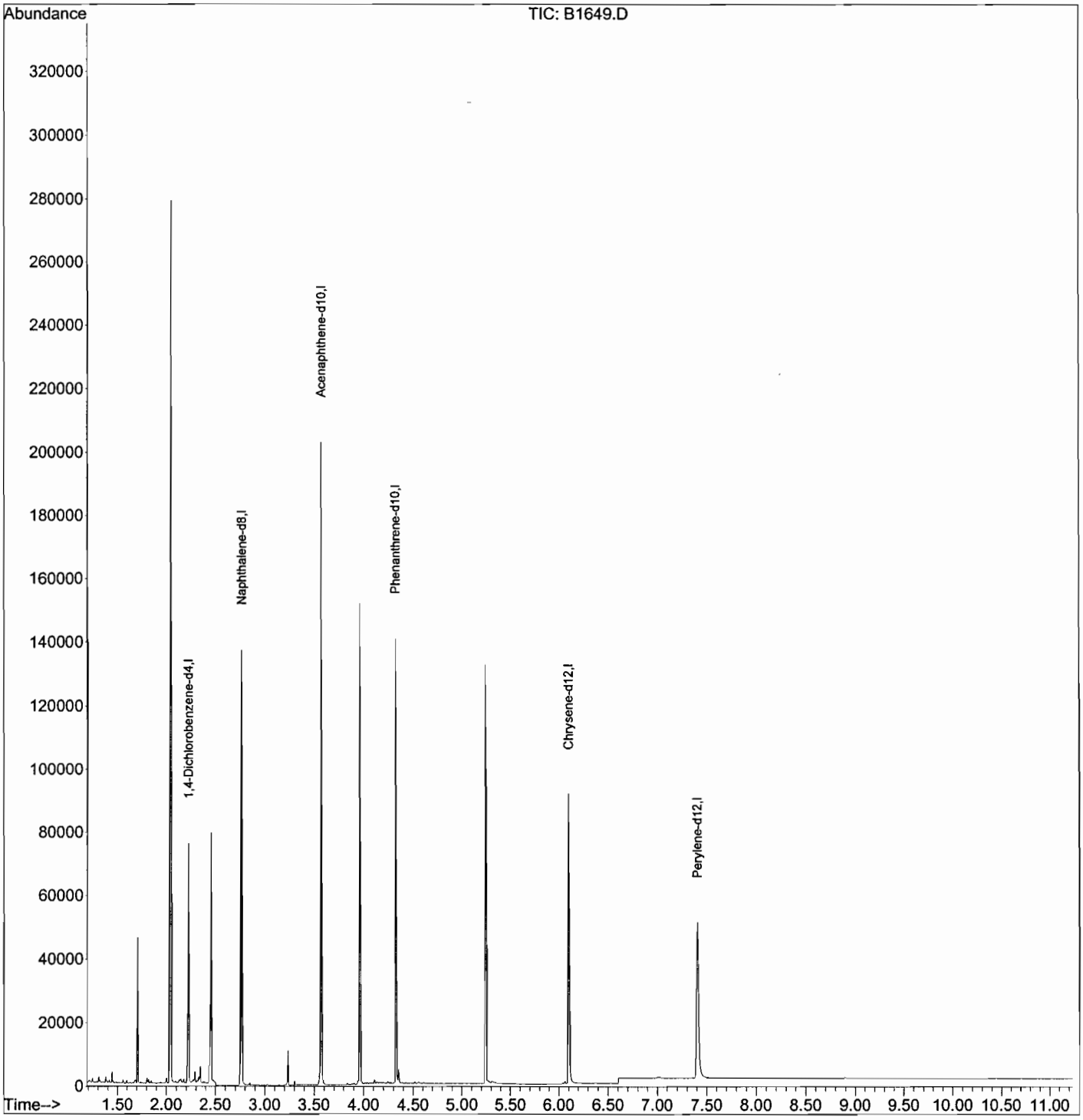
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-28-15\
Data File : B1649.D
Acq On : 28 Jul 2015 13:45
Operator : DANA
Sample : .,BLKA150728-01,Ia,1000ml,100,1
Misc : 150728-01,07/28/15,NA,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 28 14:07:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0815.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 20 11:51:58 2015
Response via : Initial Calibration



EXTRACTABLE PETROLEUM HYDROCARBON

EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH-C40 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/05/2015

Client ID	Lab Sample ID	Matrix	COD % rec	#	OTP % rec	#
NJ-EPH-C	BLKA150803-06	AQUEOUS	58		68	
NJ-EPH-C	LCSA150803-06	AQUEOUS	56		63	
NJ-EPH-C	LCSDA150803-06	AQUEOUS	60		67	
FB-S	E15-06628-031	AQUEOUS	52		59	
MW-5S	E15-06541-001	AQUEOUS	58		68	
MW-8D	E15-06541-003	AQUEOUS	48		56	
MW-22D	E15-06541-008	AQUEOUS	57		66	
MW-41D	E15-06541-010	AQUEOUS	58		65	
MW-42D	E15-06541-011	AQUEOUS	59		68	
MW-39D	E15-06541-012	AQUEOUS	69		62	
MW-43D	E15-06541-013	AQUEOUS	58		65	
MW-23S	E15-06541-014	AQUEOUS	52		61	
MW-23D	E15-06541-015	AQUEOUS	62		71	
FB-3	E15-06541-016	AQUEOUS	62		70	
MW-5S	E15-06541-001DU	AQUEOUS	58		68	
NJ-EPH-C	E15-06541-001MS	AQUEOUS	68		76	

Surrogate QC Limits	Soil	Aqueous/Leachate
COD = 1-Chlorooctadecane	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDA150803-06
Date Received: NA
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
LCS Data file: IB0829.D
LCSD Data file: IB0830.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-mg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	Conc. LCSD	%Rec. LCSD	#	%RPD	#
n-Nonane (C9)	100	0.0	57.0	57		61.2	61		7	
n-Decane (C10)	100	0.0	56.2	56		60.0	60		7	
n-Dodecane (C12)	100	0.0	58.4	58		62.1	62		6	
n-Tetradecane (C14)	100	0.0	59.8	60		63.5	64		6	
n-Hexadecane (C16)	100	0.0	60.2	60		64.1	64		6	
n-Octadecane (C18)	100	0.0	62.1	62		65.5	66		5	
n-Eicosane (C20)	100	0.0	65.4	65		70.0	70		7	
n-Heneicosane (C21)	200	0.0	148.1	74		159.2	80		7	
n-Docosane (C22)	100	0.0	62.3	62		67.0	67		7	
n-Tetracosane (C24)	100	0.0	63.3	63		68.1	68		7	
n-Hexacosane (C26)	100	0.0	64.4	64		69.6	70		8	
n-Octacosane (C28)	300	0.0	212.4	71		231.3	77		9	
n-Triacontane (C30)	100	0.0	64.7	65		70.2	70		8	
n-Dotriacontane (C32)	100	0.0	67.3	67		73.1	73		8	
n-Tetratriacontane (C34)	100	0.0	65.5	66		71.2	71		8	
n-Hexatriacontane (C36)	100	0.0	66.2	66		72.0	72		8	
n-Octatriacontane (C38)	100	0.0	66.4	66		72.2	72		8	
n-Tetracontane (C40)	100	0.0	67.0	67		72.9	73		8	
C9-C40	3600	0.0	2459.9	68		2648.1	74		7	

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
LCS/LCSSD ACCURACY (%REC)	40-140	40-140
LCS/LCSD PRECISION (RPD)	25	25

C9-C40 includes Aliphatic and Aromatic compounds

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: E15-06541-001MS
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
MS Data file: IB0843.D

GC Column: RTX-5
Sample wt/vol: 200ml
Matrix-Units: Aqueous-mg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.	#
n-Nonane (C9)	100	0	63	63	
n-Decane (C10)	100	0	62	62	
n-Dodecane (C12)	100	0	65	65	
n-Tetradecane (C14)	100	0	66	66	
n-Hexadecane (C16)	100	0	67	67	
n-Octadecane (C18)	100	0	68	68	
n-Eicosane (C20)	100	0	72	72	
n-Heneicosane (C21)	200	0	166	83	
n-Docosane (C22)	100	0	69	69	
n-Tetracosane (C24)	100	0	70	70	
n-Hexacosane (C26)	100	0	72	72	
n-Octacosane (C28)	300	0	237	79	
n-Triacontane (C30)	100	0	72	72	
n-Dotriacontane (C32)	100	0	75	75	
n-Tetratriacontane (C34)	100	0	73	73	
n-Hexatriacontane (C36)	100	0	73	73	
n-Octatriacontane (C38)	100	0	73	73	
n-Tetracontane (C40)	100	0	74	74	
C9-C40	3600	686	2842	75	

	Aqueous	Soil/Sediment
n-Nonane (C9) Recovery Limits	25-140	25-140
MS Recovery Limits	40-140	40-140

C9-C40 includes Aliphatic and Aromatic compounds

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: MW-5S
Date Received: 07/24/2015
Date Extracted: 08/03/2015
Lab ID: E15-06541-001
Sample wt/vol: 1000ml
Date Analyzed: 08/05/2015
Aliphatics Sample Data file: IB0832.D
Dilution Factor: 1

GC Column: RTX-5
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Lab ID: E15-06541-001DUP
Sample wt/vol: 400ml
Date Analyzed: 08/05/2015
Aliphatics Sample Dup Data file: IB0842.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD	#
C9-C40	686	884	25	

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NC Not calculable

NJ-EPH-C40 METHOD BLANK SUMMARY

Lab File ID: IB0828.D

Instrument ID: GC-I

Date Extracted: 08/03/2015

Matrix: AQUEOUS

Date Analyzed: 08/05/2015

Time Analyzed: 01:16

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
NJ-EPH-C	LCSA150803-06	08/05/2015	01:38
NJ-EPH-C	LCSDA150803-06	08/05/2015	02:01
FB-S	E15-06628-031	08/05/2015	02:23
MW-5S	E15-06541-001	08/05/2015	02:45
MW-8D	E15-06541-003	08/05/2015	03:08
MW-22D	E15-06541-008	08/05/2015	03:30
MW-41D	E15-06541-010	08/05/2015	03:53
MW-42D	E15-06541-011	08/05/2015	04:15
MW-39D	E15-06541-012	08/05/2015	04:37
MW-43D	E15-06541-013	08/05/2015	05:00
MW-23S	E15-06541-014	08/05/2015	05:22
MW-23D	E15-06541-015	08/05/2015	05:45
FB-3	E15-06541-016	08/05/2015	06:07
MW-5S	E15-06541-001DUP	08/05/2015	06:29
NJ-EPH-C	E15-06541-001MS	08/05/2015	06:51

NJ-EPH-C40 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-I **Column:** RTX-5

Surrogate RT from initial calibration :

COD 8.36 **OTP** 6.71

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#	OTP RT	#
NJ-EPH-C	BLKA150803-06	08/05/2015	01:16	8.36		6.71	
NJ-EPH-C	LCSA150803-06	08/05/2015	01:38	8.36		6.71	
NJ-EPH-C	LCSDA150803-06	08/05/2015	02:01	8.36		6.71	
FB-S	E15-06628-031	08/05/2015	02:23	8.36		6.71	
MW-5S	E15-06541-001	08/05/2015	02:45	8.36		6.71	
MW-8D	E15-06541-003	08/05/2015	03:08	8.36		6.70	
MW-22D	E15-06541-008	08/05/2015	03:30	8.36		6.71	
MW-41D	E15-06541-010	08/05/2015	03:53	8.36		6.71	
MW-42D	E15-06541-011	08/05/2015	04:15	8.36		6.71	
MW-39D	E15-06541-012	08/05/2015	04:37	8.36		6.71	
MW-43D	E15-06541-013	08/05/2015	05:00	8.36		6.71	
MW-23S	E15-06541-014	08/05/2015	05:22	8.36		6.71	
MW-23D	E15-06541-015	08/05/2015	05:45	8.36		6.71	
FB-3	E15-06541-016	08/05/2015	06:07	8.36		6.71	
MW-5S	E15-06541-001DUP	08/05/2015	06:29	8.36		6.71	
NJ-EPH-C	E15-06541-001MS	08/05/2015	06:51	8.36		6.71	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

EXTRACTABLE PETROLEUM HYDROCARBON SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0832.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 2:45
Operator : JOLANTA
Sample : MW-5S,E15-06541-001,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 88 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:28:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 1-Chlorooctadecane	8.36	16185065	57.914 ng	m
Spiked Amount 100.000		Recovery =	57.91%	
23) S o-Terphenyl	6.71	21692778	67.615 ng	
Spiked Amount 100.000		Recovery =	67.61%	
Target Compounds				
22) H C9-C40	6.90	234004630	686.187 ng	

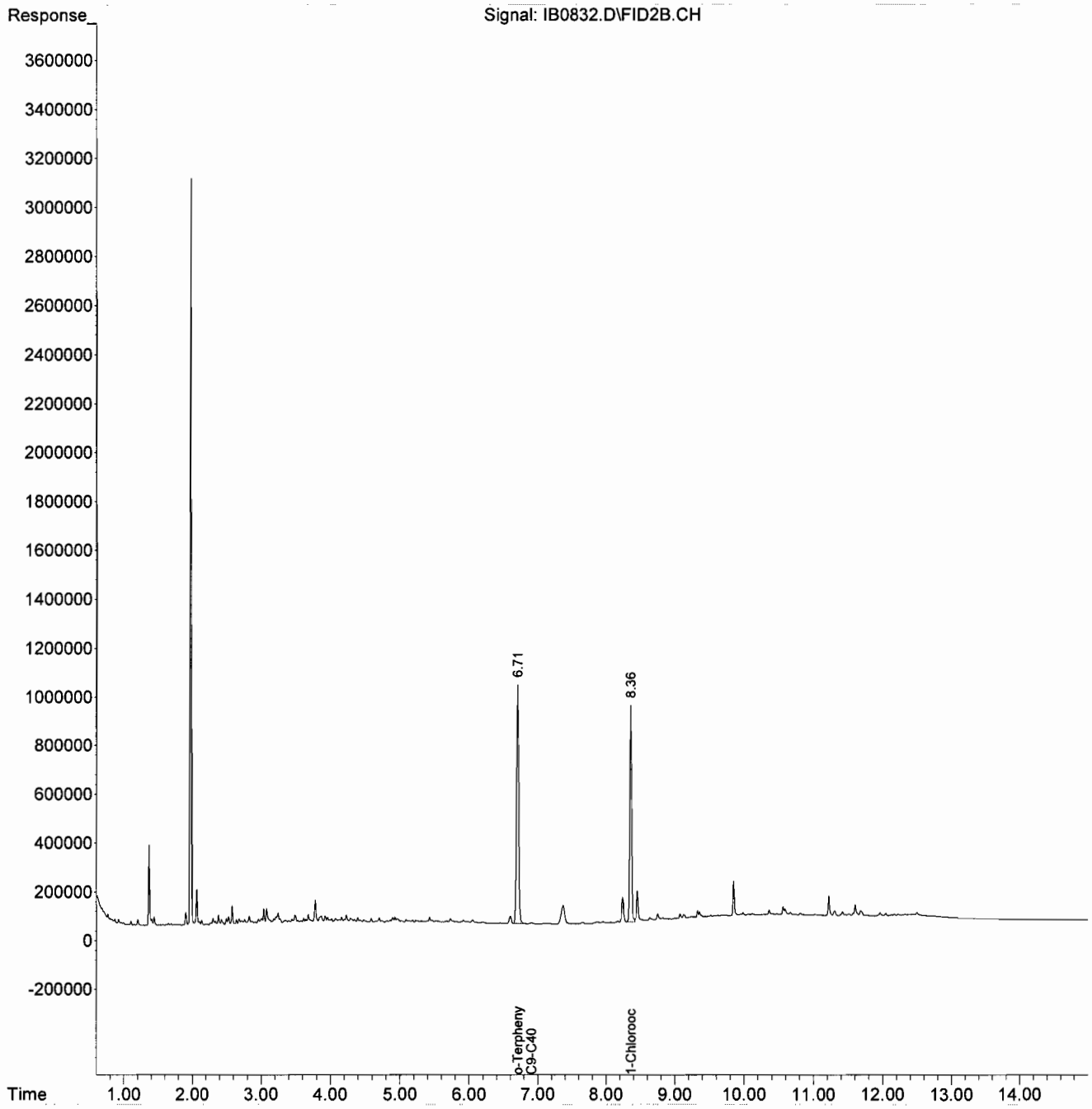
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0832.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 2:45
Operator : JOLANTA
Sample : MW-5S,E15-06541-001,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 88 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:28:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0833.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 3:08
Operator : JOLANTA
Sample : MW-8D,E15-06541-003,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,10
ALS Vial : 89 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:28:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.36	1346751	4.819	ng	m
Spiked Amount 100.000		Recovery =	4.82%		
23) S o-Terphenyl	6.70	1793838	5.591	ng	m
Spiked Amount 100.000		Recovery =	5.59%		
Target Compounds					
22) H C9-C40	6.90	659316733	1933.357	ng	

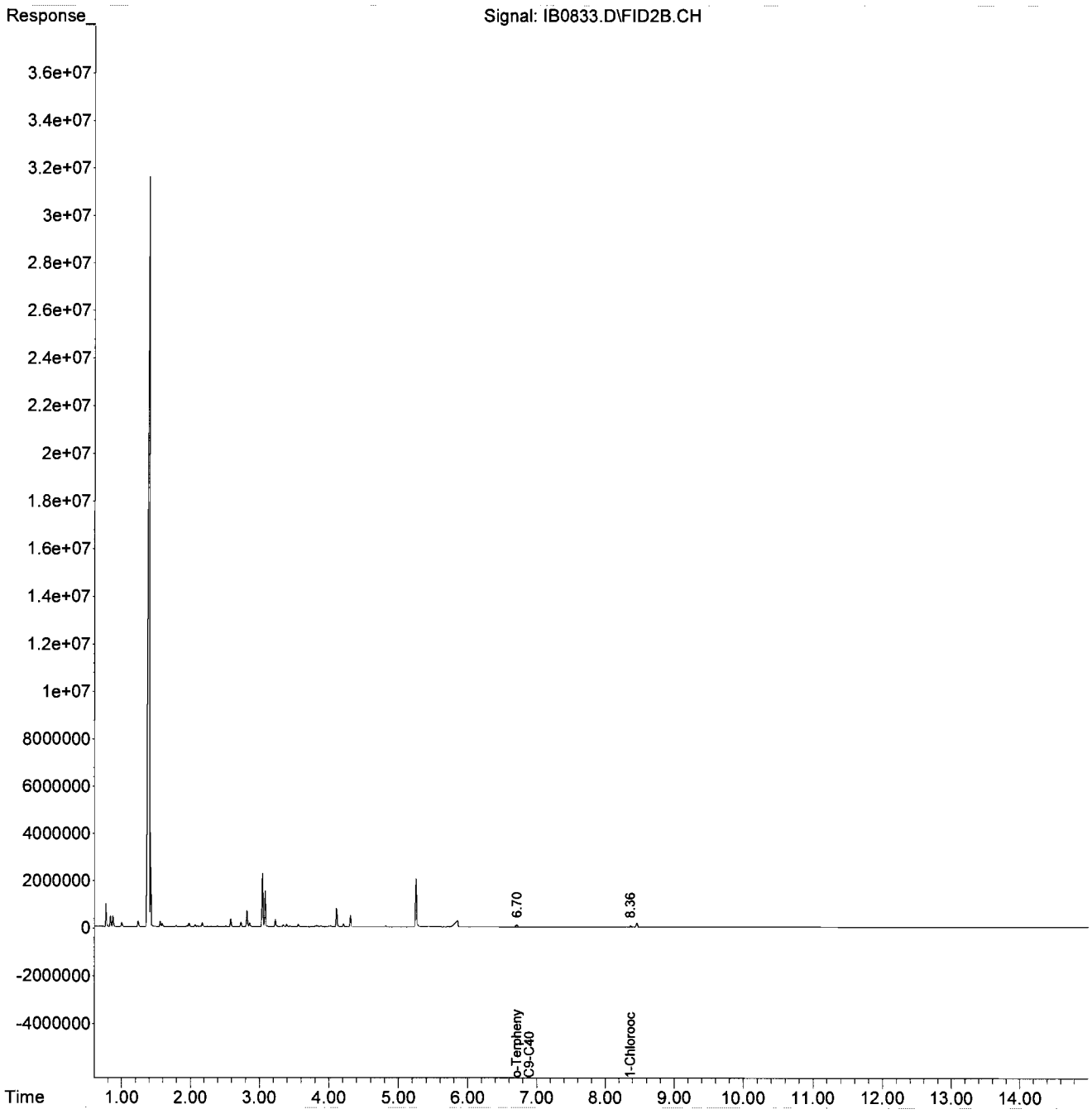
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0833.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 3:08
Operator : JOLANTA
Sample : MW-8D,E15-06541-003,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,10
ALS Vial : 89 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:28:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0834.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 3:30
Operator : JOLANTA
Sample : MW-22D,E15-06541-008,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 90 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:29:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 1-Chlorooctadecane	8.36	15928502	56.996 ng	m
Spiked Amount 100.000		Recovery =	57.00%	
23) S o-Terphenyl	6.71	21040267	65.581 ng	m
Spiked Amount 100.000		Recovery =	65.58%	
Target Compounds				
22) H C9-C40	6.90	1398736769	4101.607 ng	

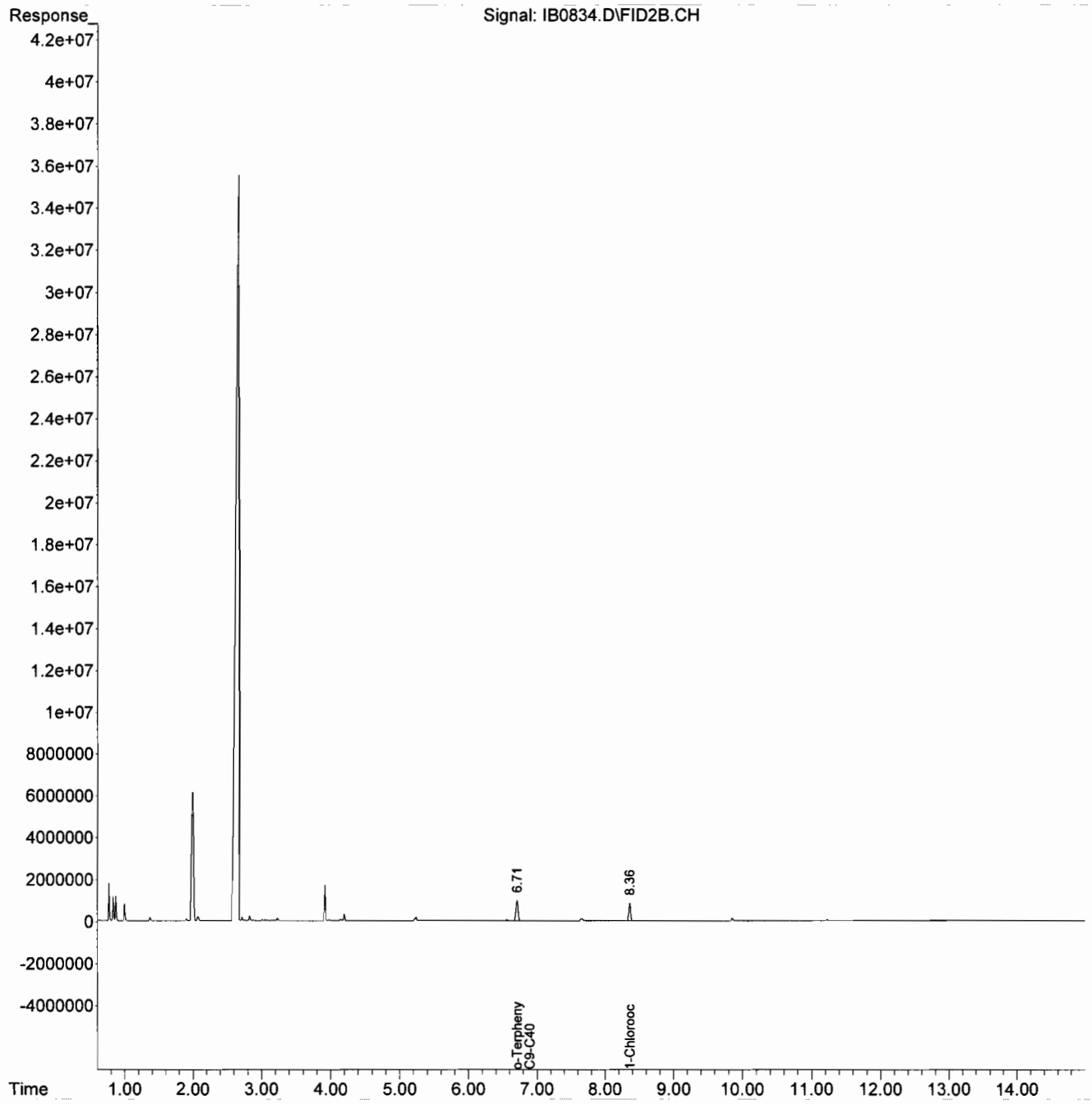
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0834.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 3:30
Operator : JOLANTA
Sample : MW-22D,E15-06541-008,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 90 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:29:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0835.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 3:53
Operator : JOLANTA
Sample : MW-41D,E15-06541-010,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 91 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:29:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.36	16192233	57.940	ng	m
Spiked Amount 100.000		Recovery =	57.94%		
23) S o-Terphenyl	6.71	20956273	65.319	ng	m
Spiked Amount 100.000		Recovery =	65.32%		
Target Compounds					

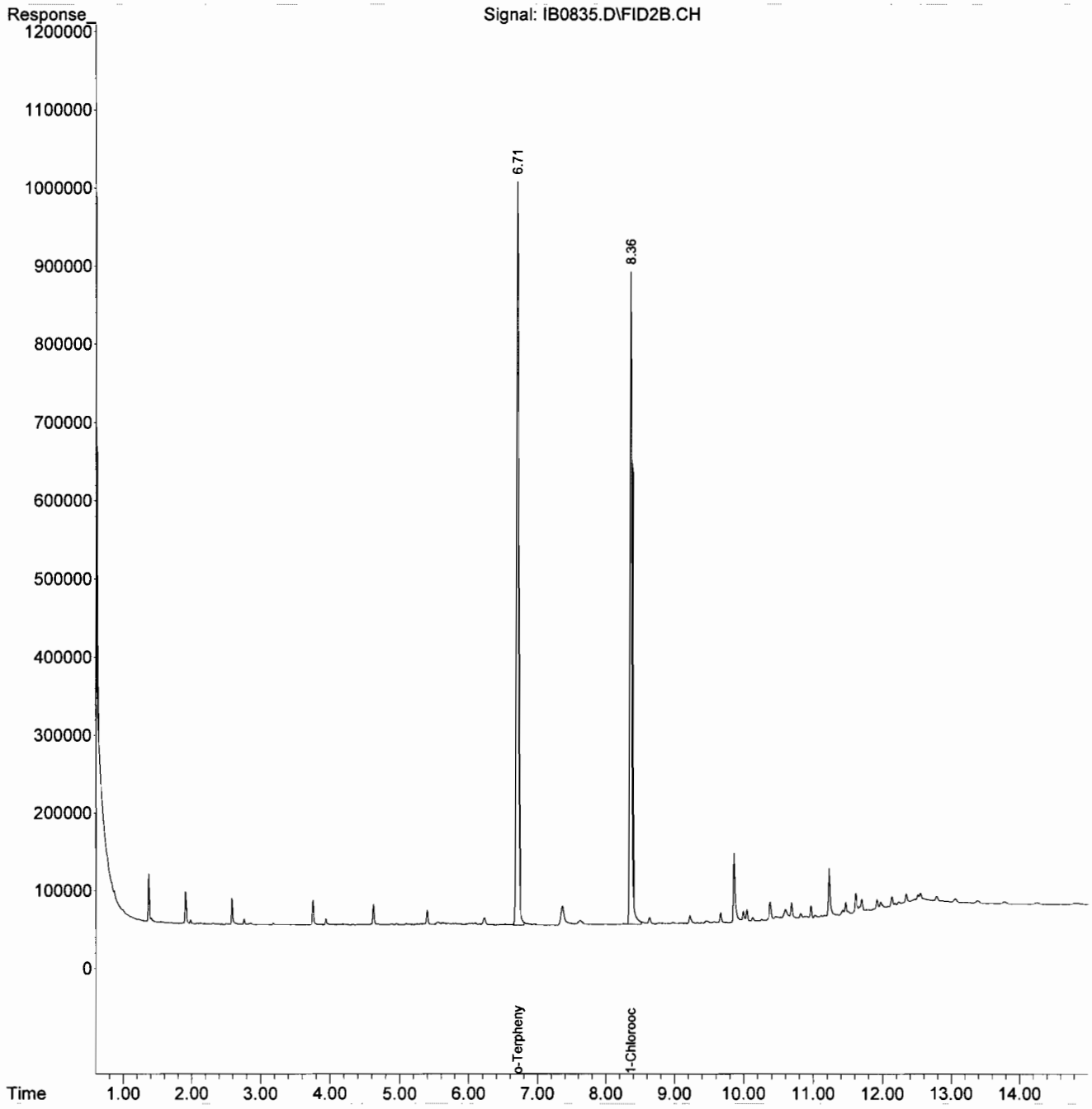
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0835.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 3:53
Operator : JOLANTA
Sample : MW-41D,E15-06541-010,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 91 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:29:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0836.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 4:15
Operator : JOLANTA
Sample : MW-42D,E15-06541-011,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 92 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:30:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.36	16582370	59.336 ng m
Spiked Amount 100.000		Recovery =	59.34%
23) S o-Terphenyl	6.71	21850001	68.105 ng m
Spiked Amount 100.000		Recovery =	68.11%
Target Compounds			

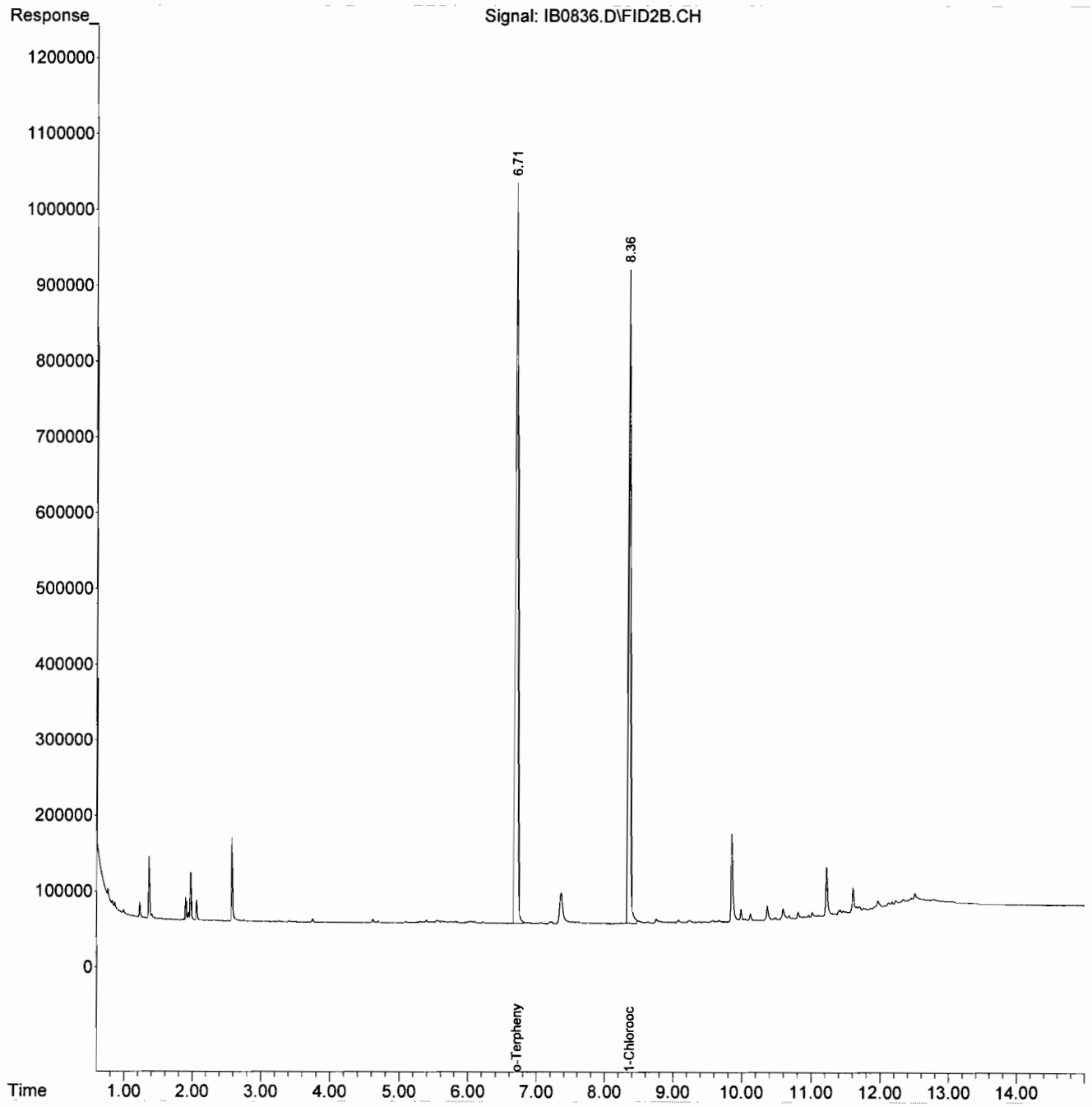
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0836.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 4:15
Operator : JOLANTA
Sample : MW-42D,E15-06541-011,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 92 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:30:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0837.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 4:37
Operator : JOLANTA
Sample : MW-39D,E15-06541-012,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,10
ALS Vial : 93 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:30:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.36	1930516	6.908	ng	m
Spiked Amount 100.000		Recovery =	6.91%		
23) S o-Terphenyl	6.71	1973773	6.152	ng	m
Spiked Amount 100.000		Recovery =	6.15%		
Target Compounds					
22) H C9-C40	6.90	1084267972	3179.470	ng	

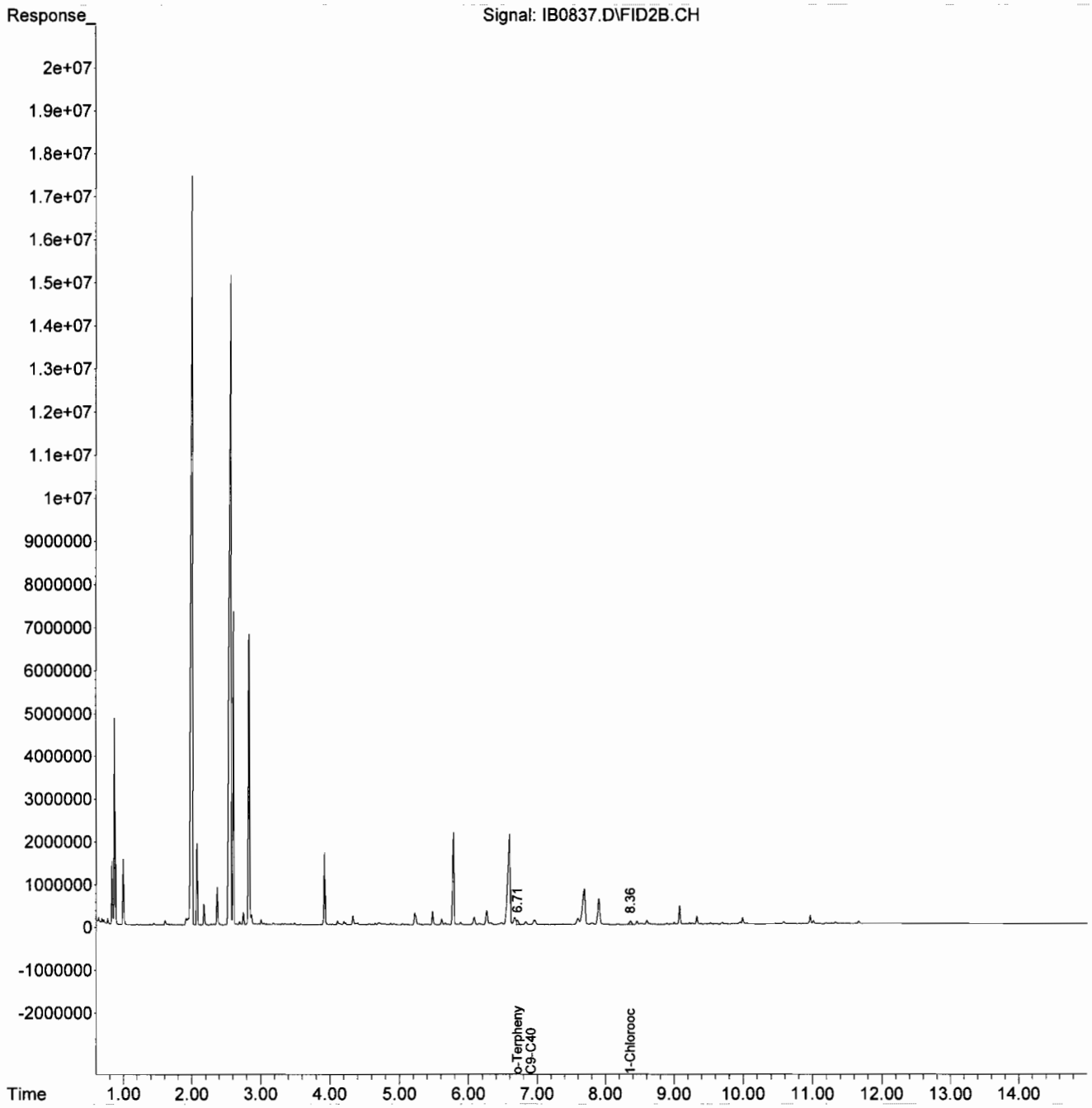
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0837.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 4:37
Operator : JOLANTA
Sample : MW-39D,E15-06541-012,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,10
ALS Vial : 93 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:30:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0838.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 5:00
Operator : JOLANTA
Sample : MW-43D,E15-06541-013,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 94 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:31:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.36	16080297	57.539 ng m
Spiked Amount 100.000		Recovery =	57.54%
23) S o-Terphenyl	6.71	20912552	65.183 ng m
Spiked Amount 100.000		Recovery =	65.18%
Target Compounds			

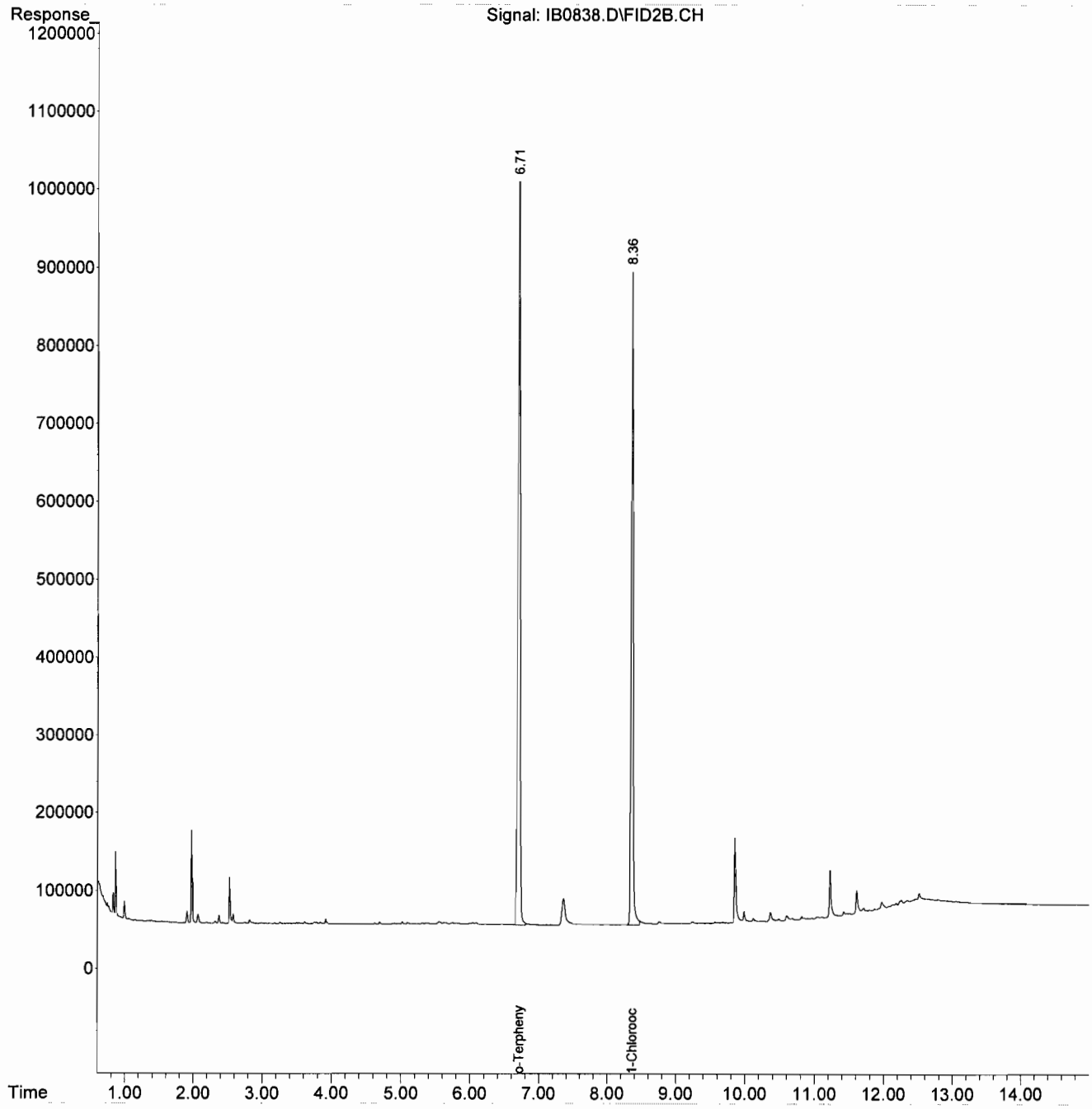
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0838.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 5:00
Operator : JOLANTA
Sample : MW-43D,E15-06541-013,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 94 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:31:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0839.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 5:22
Operator : JOLANTA
Sample : MW-23S,E15-06541-014,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 95 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:31:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 1-Chlorooctadecane	8.36	14607812	52.270 ng	m
Spiked Amount 100.000		Recovery =	52.27%	
23) S o-Terphenyl	6.71	19622051	61.161 ng	m
Spiked Amount 100.000		Recovery =	61.16%	
Target Compounds				
22) H C9-C40	6.90	384364870	1127.098 ng	

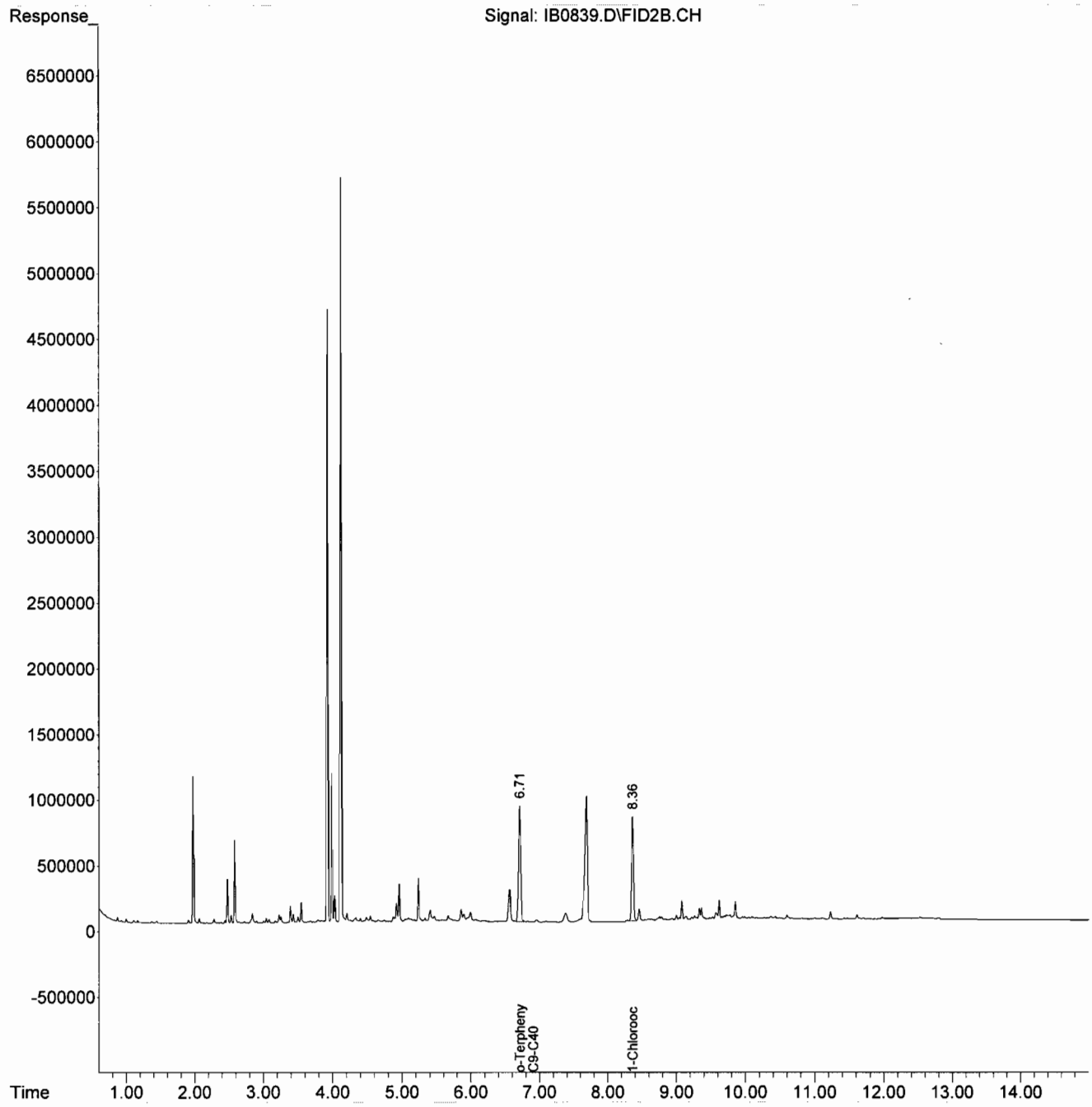
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0839.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 5:22
Operator : JOLANTA
Sample : MW-23S,E15-06541-014,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 95 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:31:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0840.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 5:45
Operator : JOLANTA
Sample : MW-23D,E15-06541-015,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 96 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:32:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.36	17370018	62.154 ng m
Spiked Amount 100.000		Recovery =	62.15%
23) S o-Terphenyl	6.71	22691609	70.728 ng m
Spiked Amount 100.000		Recovery =	70.73%
Target Compounds			

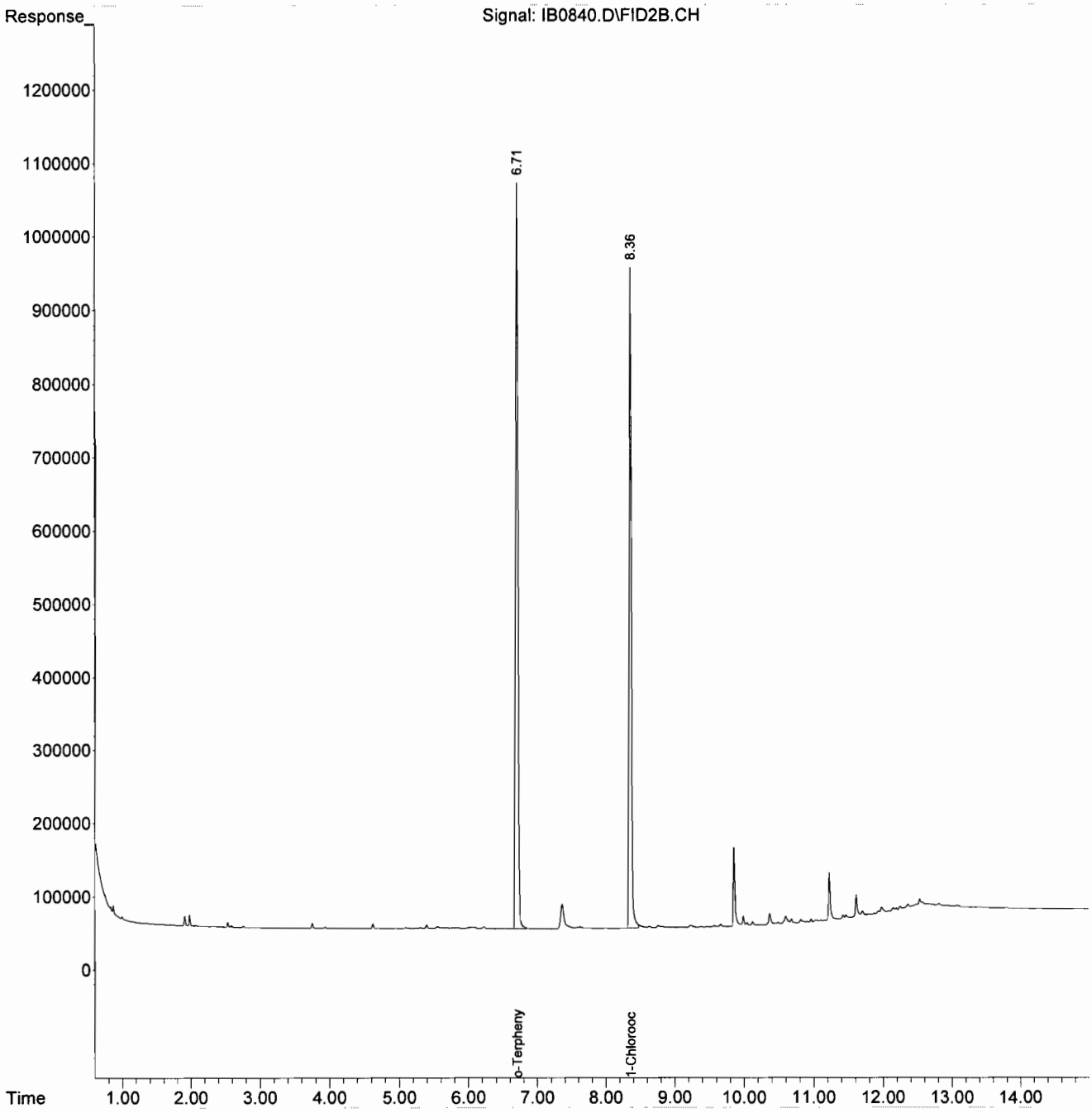
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0840.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 5:45
Operator : JOLANTA
Sample : MW-23D,E15-06541-015,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 96 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:32:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0841.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 6:07
Operator : JOLANTA
Sample : FB-3,E15-06541-016,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 97 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:32:22 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.36	17434331	62.384	ng	m
Spiked Amount 100.000		Recovery =	62.38%		
23) S o-Terphenyl	6.71	22351054	69.667	ng	m
Spiked Amount 100.000		Recovery =	69.67%		
Target Compounds					

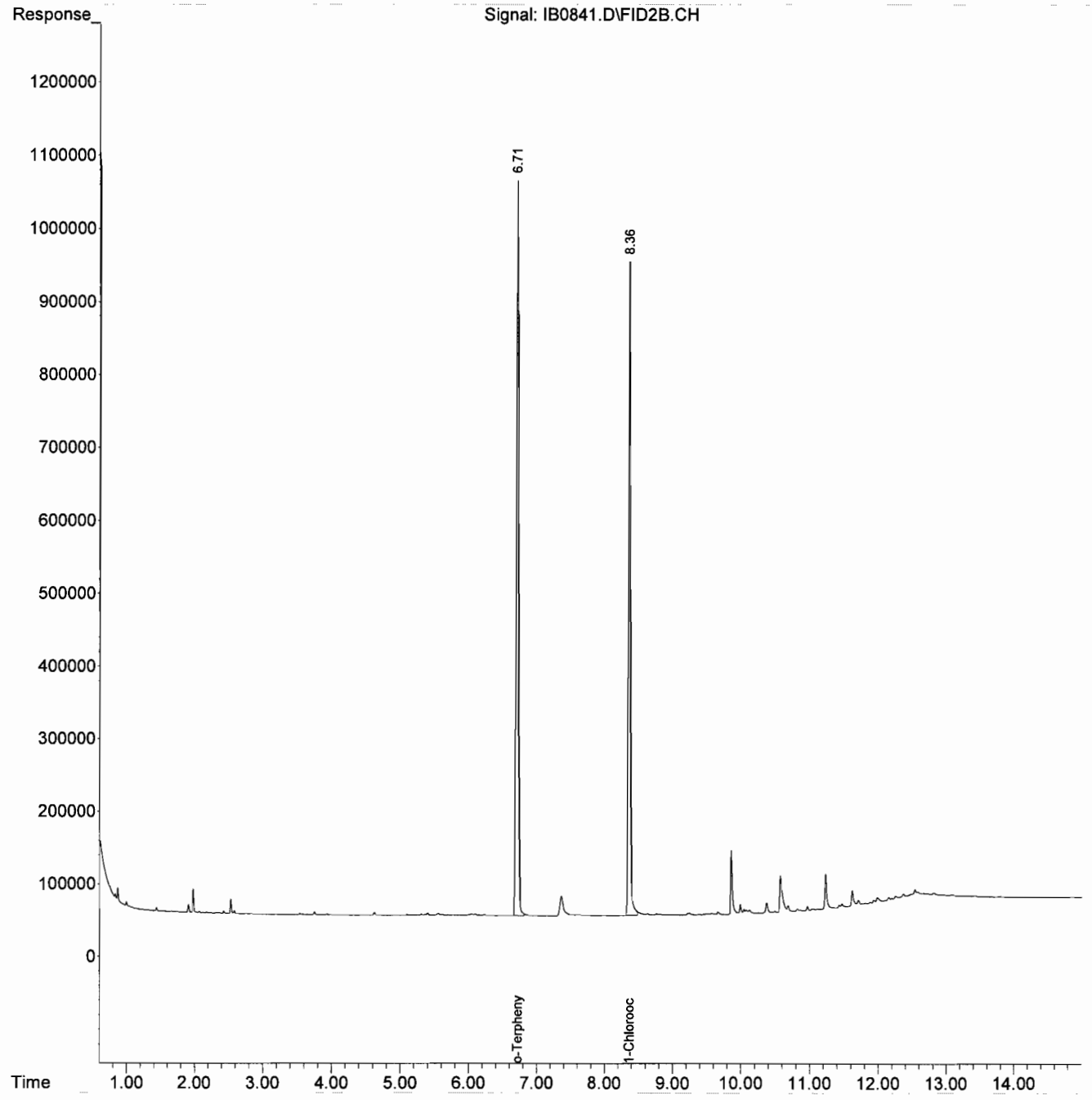
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0841.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 6:07
Operator : JOLANTA
Sample : FB-3,E15-06541-016,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 97 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:32:22 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON STANDARDS

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/14/2015

Instrument ID: GC-I

GC Column : RTX-5

Data File: IB0345.D IB0344.D IB0343.D IB0342.D IB0341.D

Compound	RT OF STANDARDS 20	100	250	500	1000	MEAN RT	RT WINDOW FROM	TO
n-Nonane (C9)	1.04	1.04	1.05	1.05	1.06	1.05	0.96	1.14
n-Decane (C10)	1.73	1.73	1.73	1.74	1.74	1.73	1.64	1.82
n-Dodecane (C12)	3.05	3.05	3.05	3.06	3.07	3.06	2.97	3.15
n-Tetradecane (C14)	4.15	4.15	4.16	4.16	4.17	4.16	4.06	4.26
n-Hexadecane (C16)	5.12	5.12	5.12	5.13	5.14	5.13	5.03	5.23
n-Octadecane (C18)	6.08	6.08	6.09	6.10	6.12	6.10	6.00	6.20
n-Eicosane (C20)	7.82	7.83	7.84	7.86	7.89	7.85	7.74	7.96
n-Heneicosane (C21)	8.48	8.49	8.50	8.51	8.53	8.50	8.39	8.61
n-Docosane (C22)	8.94	8.94	8.95	8.96	8.98	8.95	8.84	9.06
n-Tetracosane (C24)	9.62	9.62	9.63	9.63	9.65	9.63	9.51	9.75
n-Hexacosane (C26)	10.15	10.16	10.16	10.17	10.18	10.17	10.05	10.29
n_Octacosane (C28)	10.62	10.62	10.63	10.63	10.65	10.63	10.51	10.75
n-Triacontane (C30)	11.04	11.04	11.05	11.05	11.07	11.05	10.92	11.18
n-Dotriacontane (C32)	11.43	11.43	11.44	11.44	11.46	11.44	11.31	11.57
n-Tetratriacontane (C34)	11.80	11.80	11.81	11.81	11.83	11.81	11.68	11.94
n-Hexatriacontane (C36)	12.15	12.15	12.16	12.17	12.19	12.16	12.01	12.31
n-Octatriacontane (C38)	12.50	12.50	12.51	12.51	12.54	12.51	12.36	12.66
n-Tetracontane (C40)	12.89	12.90	12.91	12.92	12.95	12.91	12.76	13.06
C9-C28	5.90	5.90	5.90	5.90	5.90	5.90	5.75	6.05
C28-C40	11.90	11.90	11.90	11.90	11.90	11.90	11.75	12.05
C9-C40	6.90	6.90	6.90	6.90	6.90	6.90	6.75	7.05

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/14/2015

Instrument ID: GC-I

GC Column : RTX-5

Data File: IB0345.D IB0344.D IB0343.D IB0342.D IB0341.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	303542	333654	323594	295350	306122	312452	5.02
n-Decane (C10)	310609	339138	326913	299345	310500	317301	4.94
n-Dodecane (C12)	311141	341147	324215	302158	313298	318392	4.69
n-Tetradecane (C14)	310337	341661	324866	303110	314989	318993	4.68
n-Hexadecane (C16)	310367	343566	326708	304848	317531	320604	4.75
n-Octadecane (C18)	315943	351444	334127	311563	281736	318963	8.20
n-Eicosane (C20)	313438	350530	299476	279010	297627	308017	8.68
n-Heneicosane (C21)	317191	325752	304552	286840	306154	308098	4.77
n-Docosane (C22)	317489	359058	312401	315146	322408	325300	5.91
n-Tetracosane (C24)	318832	355117	335148	310042	326561	329140	5.24
n-Hexacosane (C26)	321037	354736	335885	317127	331971	332151	4.45
n_Octacosane (C28)	328214	363090	341027	320988	334992	337662	4.76
n-Triacontane (C30)	335949	369283	345460	324194	336541	342286	4.93
n-Dotriacontane (C32)	333974	367625	341158	322105	331662	339305	5.08
n-Tetratriacontane (C34)	332937	364605	333424	316918	322273	334031	5.54
n-Hexatriacontane (C36)	337972	364668	326913	313858	316175	331917	6.23
n-Octatriacontane (C38)	327947	354549	312309	301150	305599	320311	6.76
n-Tetracontane (C40)	322904	345914	302818	293803	303090	313706	6.67
C9-C28	337962	354818	333688	310017	328117	332921	4.87
C28-C40	378050	372533	332470	315540	321777	344074	8.49
C9-C40	367031	364006	334920	312760	326391	341022	6.96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0341.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 6:08
Operator : JOLANTA
Sample : ALI_L5_IAS_5294,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.45	257547430	921.564 ng
Spiked Amount 100.000		Recovery	= 921.56%
23) S o-Terphenyl	6.84	290685726	906.050 ng
Spiked Amount 100.000		Recovery	= 906.05%
Target Compounds			
2) T n-Nonane (C9)	1.06	306122175	979.740 ng
3) T n-Decane (C10)	1.74	310500210	978.567 ng
4) T n-Dodecane (C12)	3.07	313297584	984.000 ng
5) T n-Tetradecane (C14)	4.17	314989058	987.449 ng
6) T n-Hexadecane (C16)	5.14	317530593	990.414 ng
7) T n-Octadecane (C18)	6.12	281735784	883.288 ng
8) T n-Eicosane (C20)	7.89	297627175	966.270 ng
9) T n-Heneicosane (C21)	8.53	306153650	993.690 ng
10) T n-Docosane (C22)	8.98	322408040	991.109 ng
11) T n-Tetracosane (C24)	9.65	326561002	992.164 ng
12) T n-Hexacosane (C26)	10.18	331971237	999.458 ng
13) T n-Octacosane (C28)	10.65	334992204	992.092 ng
14) T n-Triacontane (C30)	11.07	336541066	983.217 ng
15) T n-Dotriacontane (C32)	11.46	331661937	977.475 ng
16) T n-Tetratriacontane (C34)	11.83	322273182	964.800 ng
17) T n-Hexatriacontane (C36)	12.19	316174826	952.572 ng
18) T n-Octatriacontane (C38)	12.54	305598744	954.070 ng
19) T n-Tetracontane (C40)	12.95	303089640	966.159 ng
20) H C9-C28	5.90	3937400447	11826.849 ng
21) H C28-C40	11.90	1930662310	5611.182 ng
22) H C9-C40	6.90	5875041395	17227.766 ng

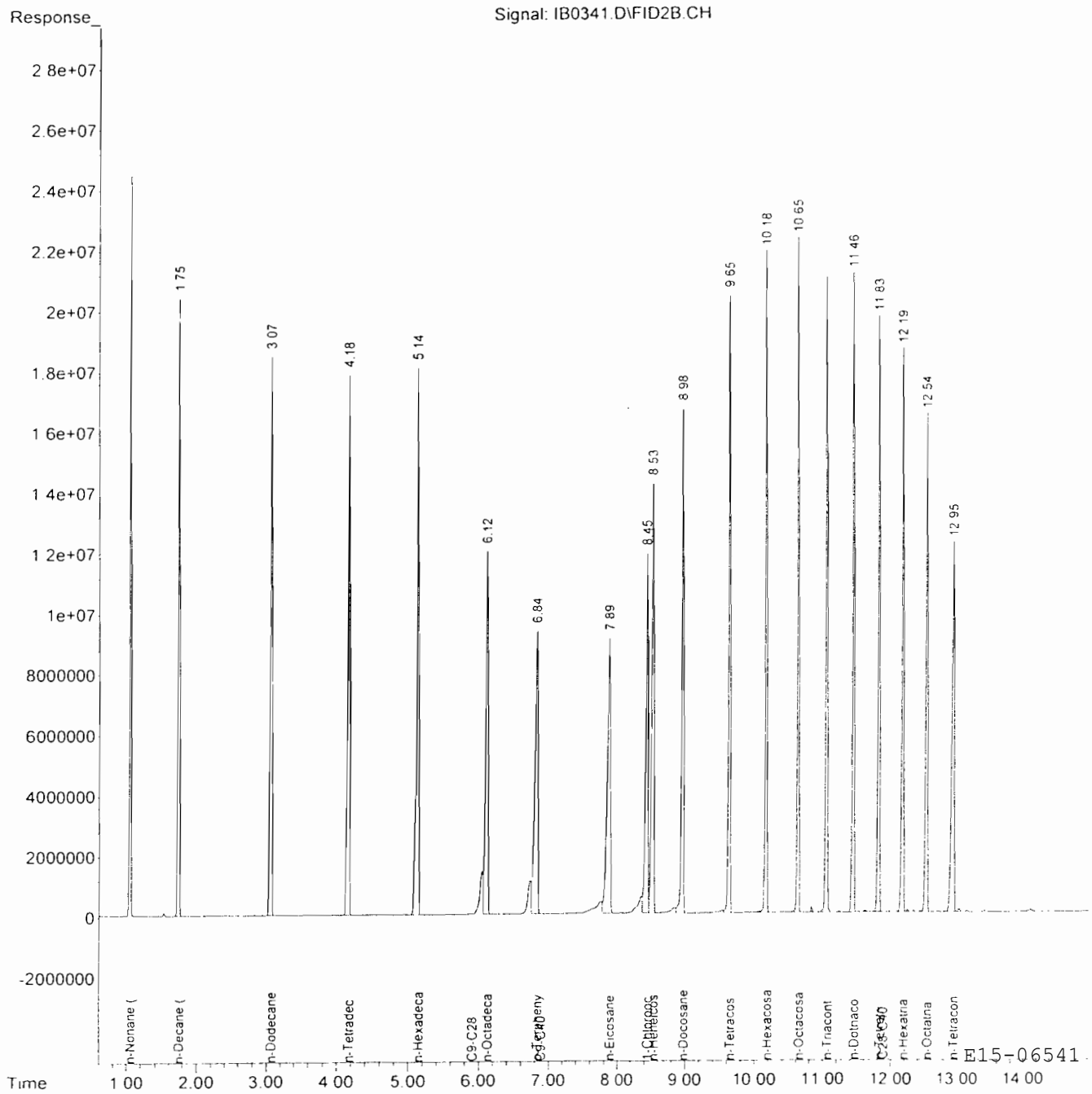
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0341.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 6:08
Operator : JOLANTA
Sample : ALI_L5_IAS_5294,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0342.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 6:30
Operator : JOLANTA
Sample : ALI_L4_IAS_5295,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:52 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	8.43	138439731	495.369 ng
Spiked Amount	100.000		Recovery	= 495.37%
23) S	o-Terphenyl	6.81	156187745	486.828 ng
Spiked Amount	100.000		Recovery	= 486.83%
Target Compounds				
2) T	n-Nonane (C9)	1.05	147674855	472.631 ng
3) T	n-Decane (C10)	1.74	149672486	471.705 ng
4) T	n-Dodecane (C12)	3.06	151079077	474.507 ng
5) T	n-Tetradecane (C14)	4.16	151554890	475.105 ng
6) T	n-Hexadecane (C16)	5.13	152424213	475.428 ng
7) T	n-Octadecane (C18)	6.10	155781665	488.401 ng
8) T	n-Eicosane (C20)	7.86	139505207	452.915 ng
9) T	n-Heneicosane (C21)	8.51	143419980	465.502 ng
10) T	n-Docosane (C22)	8.96	157572816	484.392 ng
11) T	n-Tetracosane (C24)	9.63	155020774	470.987 ng
12) T	n-Hexacosane (C26)	10.17	158563343	477.383 ng
13) T	n-Octacosane (C28)	10.63	160493767	475.309 ng
14) T	n-Triacontane (C30)	11.05	162097236	473.573 ng
15) T	n-Dotriacontane (C32)	11.44	161052380	474.654 ng
16) T	n-Tetratriacontane (C34)	11.81	158459002	474.384 ng
17) T	n-Hexatriacontane (C36)	12.17	156928926	472.796 ng
18) T	n-Octatriacontane (C38)	12.51	150574764	470.090 ng
19) T	n-Tetracontane (C40)	12.92	146901517	468.278 ng
20) H	C9-C28	5.90	1860104764	5587.234 ng
21) H	C28-C40	11.90	946618558	2751.206 ng
22) H	C9-C40	6.90	2814840036	8254.139 ng

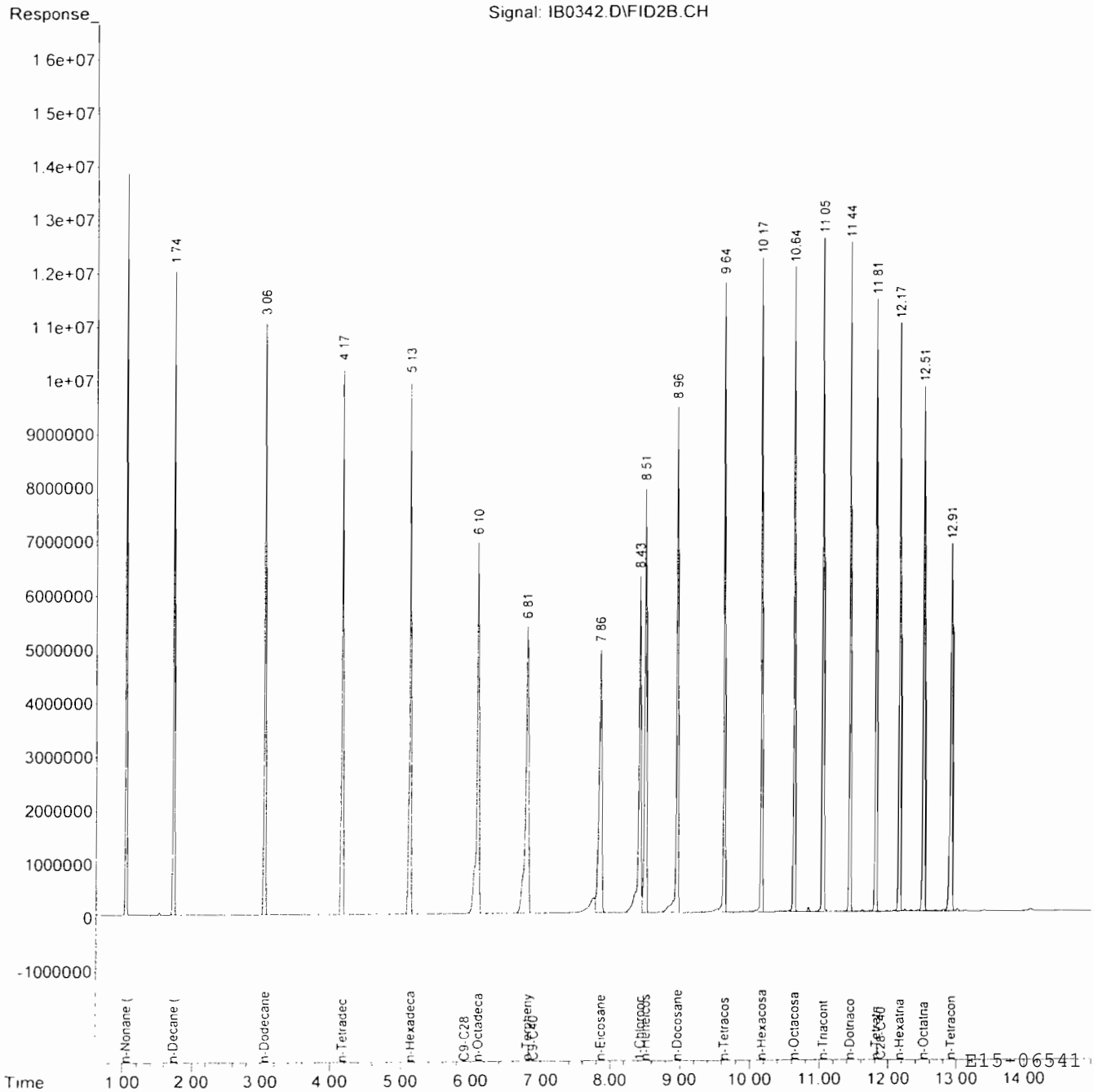
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0342.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 6:30
Operator : JOLANTA
Sample : AL1_L4_IAS_5295,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:52 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0343.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 6:53
Operator : JOLANTA
Sample : ALI_L3_IAS_5296,250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	I-Chlorooctadecane	8.42	75199669	269.082	ng
Spiked Amount		100.000		Recovery	= 269.08%	
23)	S	o-Terphenyl	6.79	83437142	260.069	ng
Spiked Amount		100.000		Recovery	= 260.07%	
Target Compounds						
2)	T	n-Nonane (C9)	1.05	80898444	258.914	ng
3)	T	n-Decane (C10)	1.73	81728253	257.573	ng
4)	T	n-Dodecane (C12)	3.05	81053825	254.573	ng
5)	T	n-Tetradecane (C14)	4.16	81216458	254.603	ng
6)	T	n-Hexadecane (C16)	5.12	81676889	254.759	ng
7)	T	n-Octadecane (C18)	6.09	83531687	261.885	ng
8)	T	n-Eicosane (C20)	7.84	74869106	243.068	ng
9)	T	n-Heneicosane (C21)	8.50	76137928	247.123	ng
10)	T	n-Docosane (C22)	8.95	78100320	240.087	ng
11)	T	n-Tetracosane (C24)	9.63	83787005	254.563	ng
12)	T	n-Hexacosane (C26)	10.16	83971289	252.810	ng
13)	T	n-Octacosane (C28)	10.63	85256739	252.491	ng
14)	T	n-Triacontane (C30)	11.05	86364878	252.318	ng
15)	T	n-Dotriacontane (C32)	11.44	85289549	251.365	ng
16)	T	n-Tetratriacontane (C34)	11.81	83355905	249.545	ng
17)	T	n-Hexatriacontane (C36)	12.16	81728196	246.231	ng
18)	T	n-Octatriacontane (C38)	12.51	78077251	243.755	ng
19)	T	n-Tetracontane (C40)	12.91	75704523	241.323	ng
20)	H	C9-C28	5.90	1001062700	3006.912	ng
21)	H	C28-C40	11.90	498705356	1449.413	ng
22)	H	C9-C40	6.90	1507139863	4419.484	ng

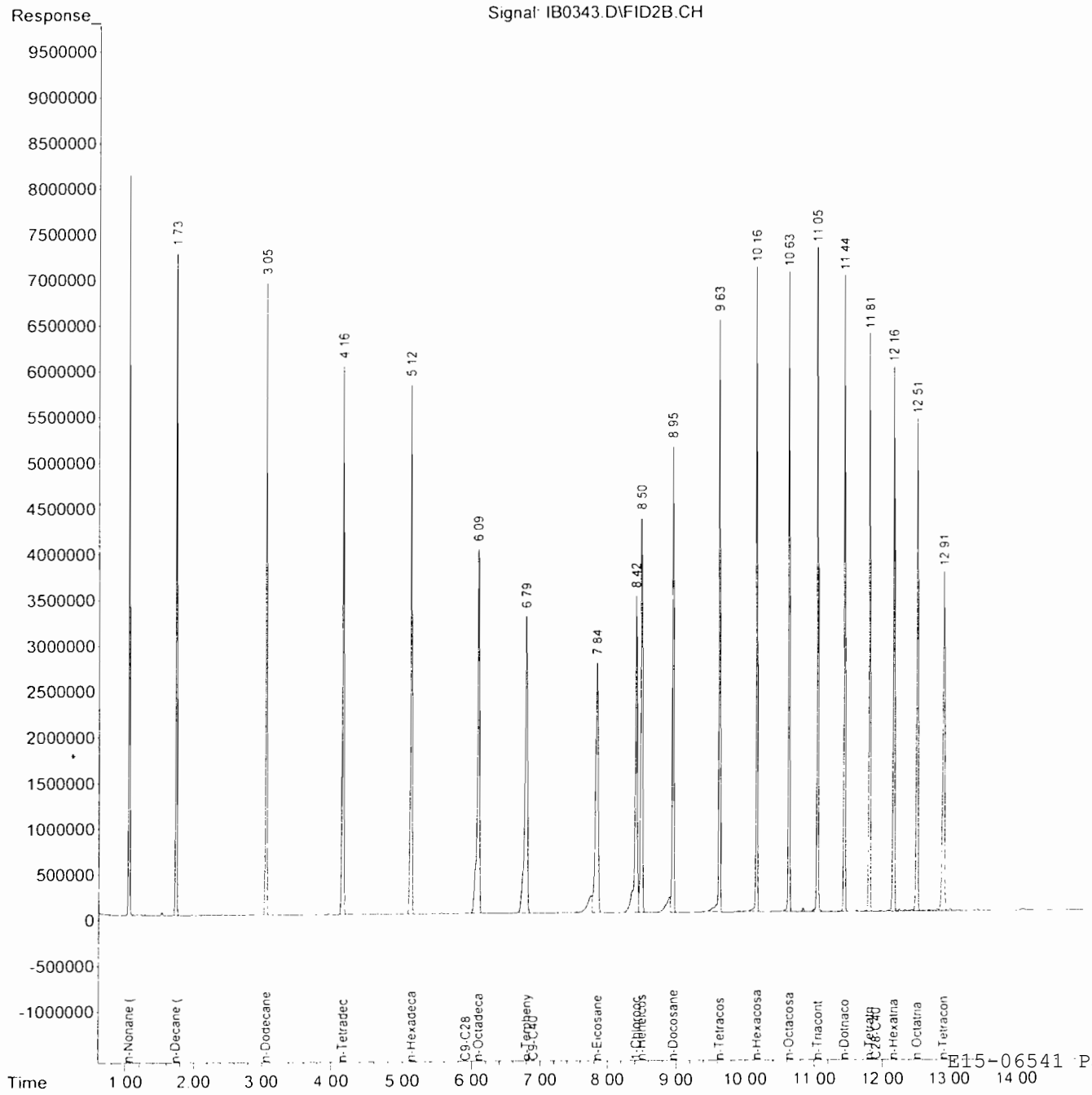
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0343.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 6:53
Operator : JOLANTA
Sample : ALI_L3_IAS_5296,250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14 15\
Data File : IB0344.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 7:15
Operator : JOLANTA
Sample : ALI_L2_IAS_5297,100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	8.41	31041688	111.074 ng
Spiked Amount	100.000		Recovery	= 111.07%
23) S	o-Terphenyl	6.78	35126706	109.488 ng
Spiked Amount	100.000		Recovery	= 109.49%
Target Compounds				
2) T	n-Nonane (C9)	1.04	33365415	106.786 ng
3) T	n-Decane (C10)	1.73	33913763	106.882 ng
4) T	n-Dodecane (C12)	3.05	34114691	107.147 ng
5) T	n-Tetradecane (C14)	4.15	34166132	107.106 ng
6) T	n-Hexadecane (C16)	5.12	34356568	107.162 ng
7) T	n-Octadecane (C18)	6.08	35144426	110.184 ng
8) T	n-Eicosane (C20)	7.83	35053024	113.802 ng
9) T	n-Heneicosane (C21)	8.49	32575236	105.730 ng
10) T	n-Docosane (C22)	8.94	35905819	110.377 ng
11) T	n-Tetracosane (C24)	9.62	35511732	107.892 ng
12) T	n-Hexacosane (C26)	10.16	35473580	106.799 ng
13) T	n-Octacosane (C28)	10.62	36309033	107.531 ng
14) T	n-Triacontane (C30)	11.04	36928335	107.888 ng
15) T	n-Dotriacontane (C32)	11.43	36762539	108.347 ng
16) T	n-Tetratriacontane (C34)	11.80	36460462	109.153 ng
17) T	n-Hexatriacontane (C36)	12.15	36466825	109.867 ng
18) T	n-Octatriacontane (C38)	12.50	35454855	110.689 ng
19) T	n-Tetracontane (C40)	12.90	34591368	110.267 ng
20) H	C9-C28	5.90	425782118	1278.930 ng
21) H	C28-C40	11.90	223519926	649.627 ng
22) H	C9-C40	6.90	655210614	1921.317 ng

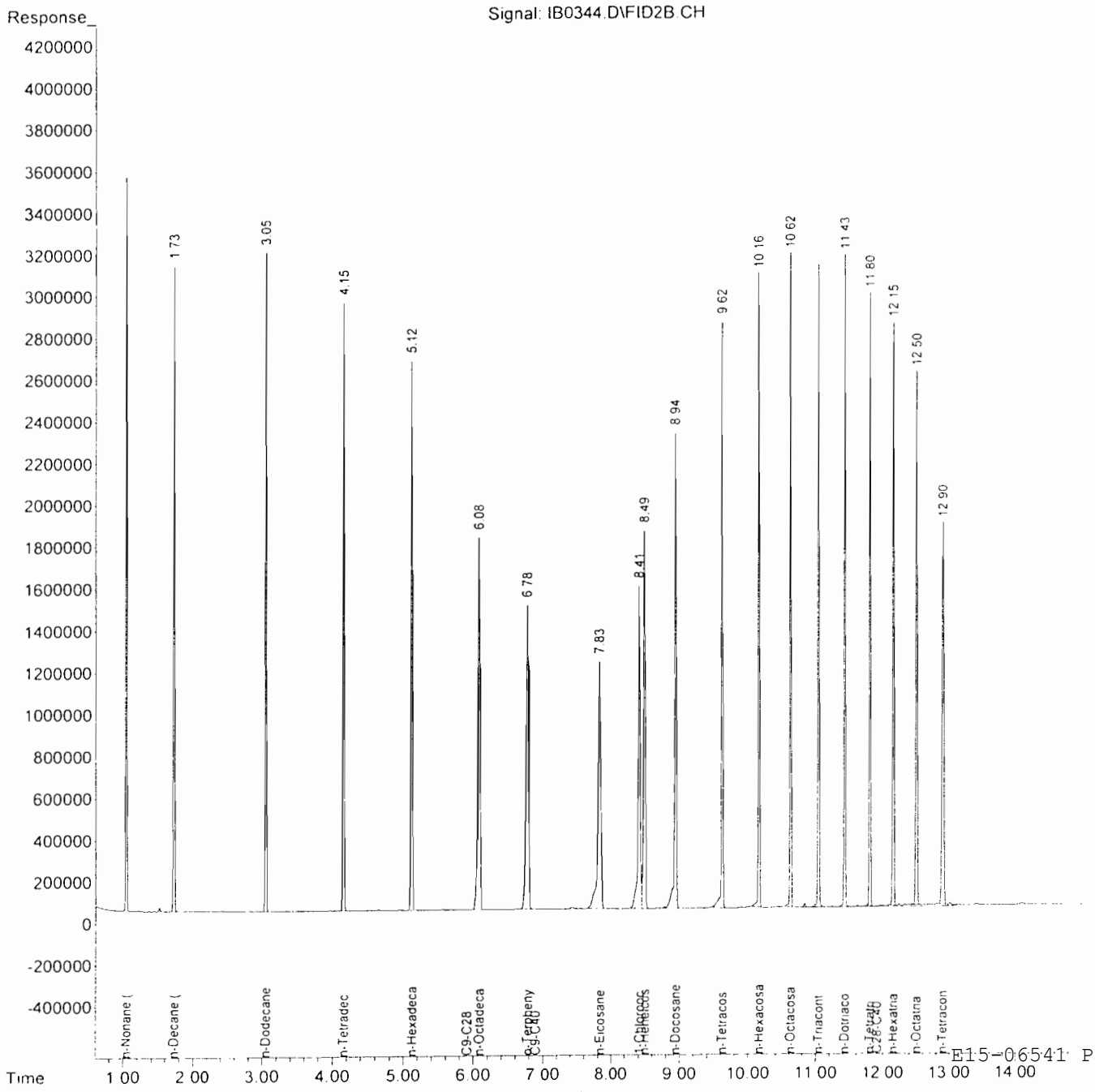
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0344.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 7:15
Operator : JOLANTA
Sample : ALI_L2_IAS_5297,100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0345.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 7:38
Operator : JOLANTA
Sample : ALI_L1_IAS_5298,20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:55 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
1)	S	1-Chlorooctadecane	8.40	5033935	18.013 ng
Spiked Amount		100.000		Recovery =	18.01%
23)	S	o-Terphenyl	6.77	6321209	19.703 ng
Spiked Amount		100.000		Recovery =	19.70%
Target Compounds					
2)	T	n-Nonane (C9)	1.04	6070849	19.430 ng
3)	T	n-Decane (C10)	1.73	6212176	19.578 ng
4)	T	n-Dodecane (C12)	3.05	6222825	19.545 ng
5)	T	n-Tetradecane (C14)	4.15	6206747	19.457 ng
6)	T	n-Hexadecane (C16)	5.12	6207347	19.361 ng
7)	T	n-Octadecane (C18)	6.08	6318866	19.811 ng
8)	T	n-Eicosane (C20)	7.82	6268768	20.352 ng
9)	T	n-Heneicosane (C21)	8.48	6343811	20.590 ng
10)	T	n-Docosane (C22)	8.94	6349772	19.520 ng
11)	T	n-Tetracosane (C24)	9.62	6376642	19.374 ng
12)	T	n-Hexacosane (C26)	10.15	6420748	19.331 ng
13)	T	n-Octacosane (C28)	10.62	6564289	19.440 ng
14)	T	n-Triacontane (C30)	11.04	6718985	19.630 ng
15)	T	n-Dotriacontane (C32)	11.43	6679487	19.686 ng
16)	T	n-Tetratriacontane (C34)	11.80	6658732	19.934 ng
17)	T	n-Hexatriacontane (C36)	12.15	6759434	20.365 ng
18)	T	n-Octatriacontane (C38)	12.50	6558935	20.477 ng
19)	T	n-Tetracontane (C40)	12.89	6458076	20.586 ng
20)	H	C9-C28	5.90	81110971	243.635 ng
21)	H	C28-C40	11.90	45366039	131.850 ng
22)	H	C9-C40	6.90	132131244	387.457 ng

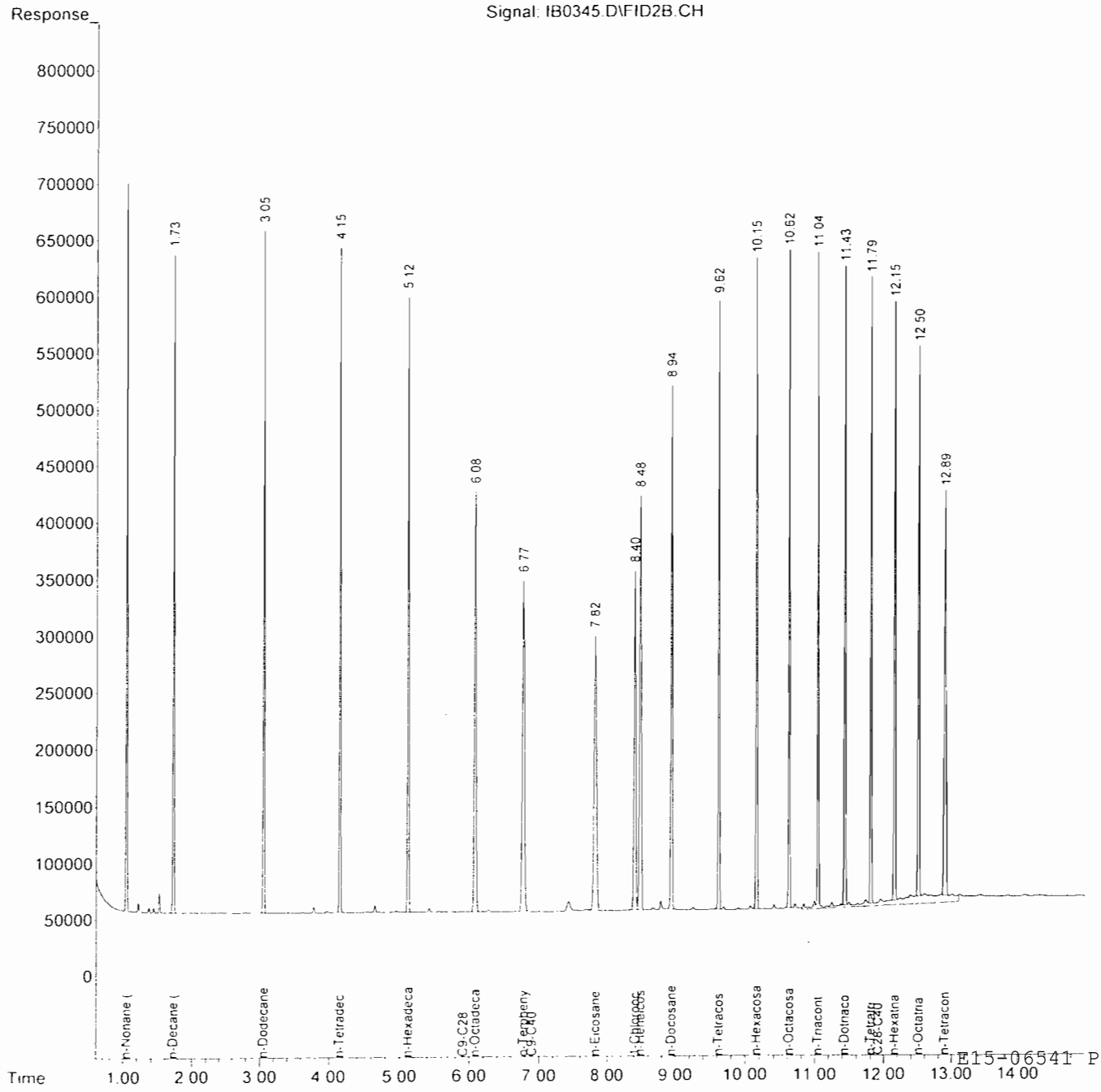
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0345.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 7:38
Operator : JOLANTA
Sample : ALI_L1_IAS_5298,20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:32:55 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:32:23 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07 14-15\
Data File : IB0346.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 8:00
Operator : JOLANTA
Sample : ALI_C_IAS_5296,250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:35:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:35:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
1)	S	1-Chlorooctadecane	8.42	83769386	299.746 ng
Spiked Amount		100.000		Recovery	= 299.75%
23)	S	o-Terphenyl	6.79	91319372	284.637 ng
Spiked Amount		100.000		Recovery	= 284.64%
Target Compounds					
2)	T	n-Nonane (C9)	1.05	87043429	278.581 ng
3)	T	n-Decane (C10)	1.73	88263544	278.170 ng
4)	T	n-Dodecane (C12)	3.05	88325681	277.412 ng
5)	T	n-Tetradecane (C14)	4.16	88764631	278.265 ng
6)	T	n-Hexadecane (C16)	5.12	89253983	278.393 ng
7)	T	n-Octadecane (C18)	6.09	91207878	285.952 ng
8)	T	n-Eicosane (C20)	7.84	90246485	292.992 ng
9)	T	n-Heneicosane (C21)	8.50	81113344	263.272 ng
10)	T	n-Docosane (C22)	8.95	83480362	256.625 ng
11)	T	n-Tetracosane (C24)	9.63	90838941	275.989 ng
12)	T	n-Hexacosane (C26)	10.16	90999833	273.971 ng
13)	T	n-Octacosane (C28)	10.63	92065815	272.656 ng
14)	T	n-Triacontane (C30)	11.05	92984296	271.657 ng
15)	T	n-Dotriacontane (C32)	11.44	92023789	271.213 ng
16)	T	n-Tetratriacontane (C34)	11.81	89850595	268.989 ng
17)	T	n-Hexatriacontane (C36)	12.18	87994279	265.109 ng
18)	T	n-Octatriacontane (C38)	12.53	83635119	261.106 ng
19)	T	n-Tetracontane (C40)	12.93	80652065	257.095 ng
20)	H	C9-C28	5.90	1086924290	3264.816 ng
21)	H	C28-C40	11.90	535791079	1557.197 ng
22)	H	C9-C40	6.90	1630405931	4780.945 ng

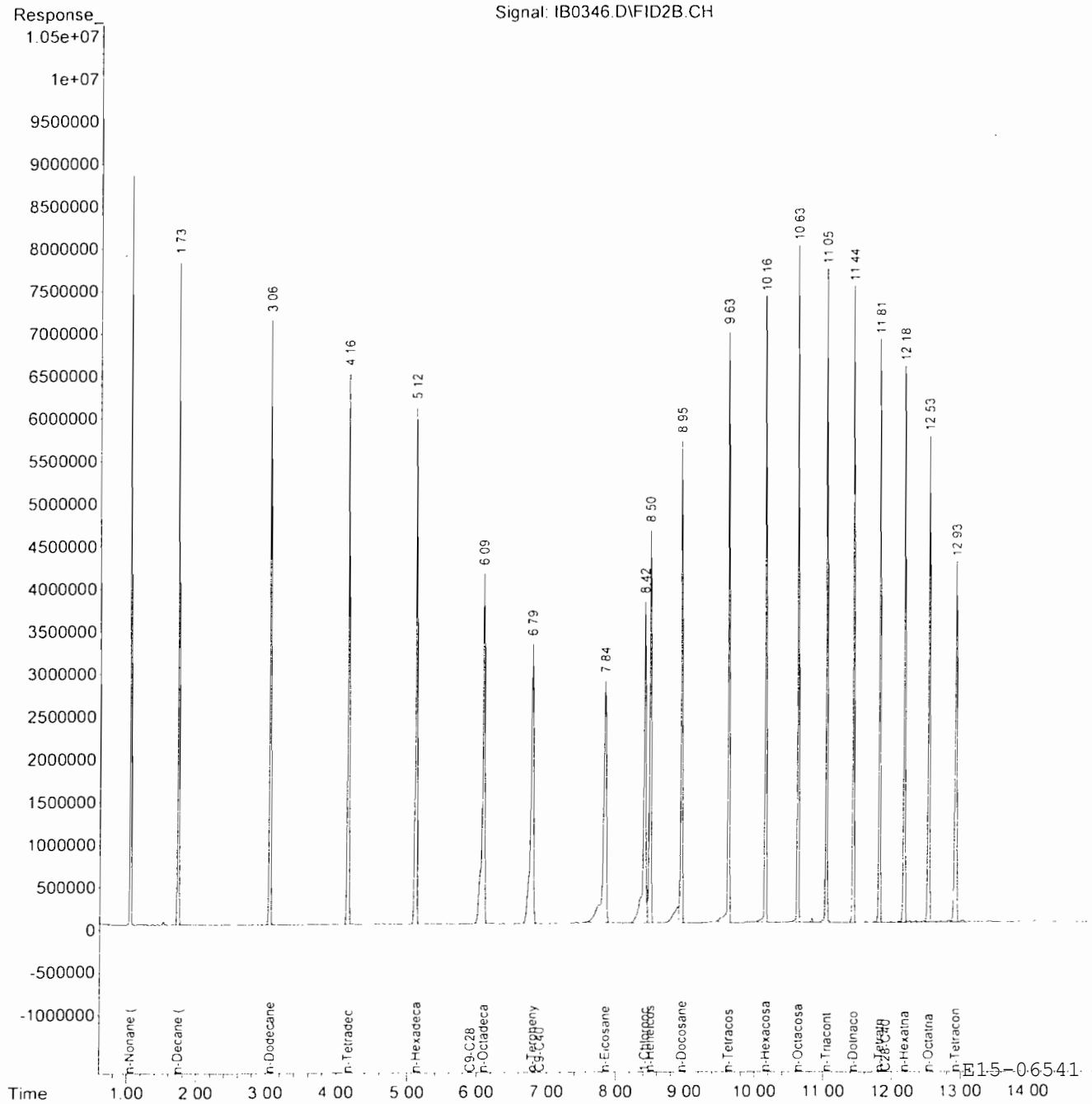
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-14-15\
Data File : IB0346.D
Signal(s) : FID2B.CH
Acq On : 14 Jul 2015 8:00
Operator : JOLANTA
Sample : ALI_C_IAS_5296,250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 14 09:35:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Tue Jul 14 09:35:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 08/04/2015 **Instrument ID:** GC-I

Data File: IB0820.D **GC Column :** RTX-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.03	0.96	1.14	312452	317630	1.66
n-Decane (C10)	1.71	1.64	1.82	317301	320737	1.08
n-Dodecane (C12)	3.03	2.97	3.15	318392	321305	0.92
n-Tetradecane (C14)	4.13	4.06	4.26	318993	323957	1.56
n-Hexadecane (C16)	5.10	5.03	5.23	320604	325157	1.42
n-Octadecane (C18)	6.05	6.00	6.20	318963	331765	4.01
n-Eicosane (C20)	7.78	7.74	7.96	308017	329399	6.94
n-Heneicosane (C21)	8.46	8.39	8.61	308098	313194	1.65
n-Docosane (C22)	8.92	8.84	9.06	325300	335467	3.13
n-Tetracosane (C24)	9.60	9.51	9.75	329140	332948	1.16
n-Hexacosane (C26)	10.14	10.05	10.29	332151	333838	0.51
n_Octacosane (C28)	10.60	10.51	10.75	337662	339120	0.43
n-Triacontane (C30)	11.02	10.92	11.18	342286	343513	0.36
n-Dotriacontane (C32)	11.41	11.31	11.57	339305	339847	0.16
n-Tetratriacontane (C34)	11.77	11.68	11.94	334031	330102	1.18
n-Hexatriacontane (C36)	12.11	12.01	12.31	331917	321892	3.02
n-Octatriacontane (C38)	12.45	12.36	12.66	320311	306301	4.37
n-Tetracontane (C40)	12.84	12.76	13.06	313706	297004	5.32
C9-C28	5.90	5.75	6.05	332921	333006	0.03
C28-C40	11.90	11.75	12.05	344074	332228	3.44
C9-C40	6.90	6.75	7.05	341022	335512	1.62

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 08/05/2015 **Instrument ID:** GC-I

Data File: IB0844.D **GC Column :** RTX-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.03	0.96	1.14	312452	331201	6.00
n-Decane (C10)	1.71	1.64	1.82	317301	335232	5.65
n-Dodecane (C12)	3.03	2.97	3.15	318392	335001	5.22
n-Tetradecane (C14)	4.13	4.06	4.26	318993	337337	5.75
n-Hexadecane (C16)	5.10	5.03	5.23	320604	338872	5.70
n-Octadecane (C18)	6.05	6.00	6.20	318963	345944	8.46
n-Eicosane (C20)	7.78	7.74	7.96	308017	343397	11.49
n-Heneicosane (C21)	8.46	8.39	8.61	308098	330756	7.35
n-Docosane (C22)	8.92	8.84	9.06	325300	350278	7.68
n-Tetracosane (C24)	9.60	9.51	9.75	329140	343756	4.44
n-Hexacosane (C26)	10.14	10.05	10.29	332151	346702	4.38
n_Octacosane (C28)	10.60	10.51	10.75	337662	353035	4.55
n-Triacontane (C30)	11.02	10.92	11.18	342286	357758	4.52
n-Dotriacontane (C32)	11.41	11.31	11.57	339305	354769	4.56
n-Tetratriacontane (C34)	11.78	11.68	11.94	334031	344877	3.25
n-Hexatriacontane (C36)	12.14	12.01	12.31	331917	336218	1.30
n-Octatriacontane (C38)	12.50	12.36	12.66	320311	320176	0.04
n-Tetracontane (C40)	12.89	12.76	13.06	313706	311691	0.64
C9-C28	5.90	5.75	6.05	332921	347095	4.26
C28-C40	11.90	11.75	12.05	344074	346798	0.79
C9-C40	6.90	6.75	7.05	341022	349867	2.59

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0820.D
Signal(s) : FID2B.CH
Acq On : 04 Aug 2015 21:54
Operator : JOLANTA
Sample : ALI_C_IAS_5296,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 08:46:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	1-Chlorooctadecane	8.37	71425771	255.578	ng
Spiked Amount		100.000		Recovery	= 255.58%	
23)	S	o-Terphenyl	6.73	83268881	259.544	ng
Spiked Amount		100.000		Recovery	= 259.54%	
Target Compounds						
2)	T	n-Nonane (C9)	1.03	79407608	254.143	ng
3)	T	n-Decane (C10)	1.71	80184160	252.707	ng
4)	T	n-Dodecane (C12)	3.03	80326343	252.288	ng
5)	T	n-Tetradecane (C14)	4.13	80989368	253.891	ng
6)	T	n-Hexadecane (C16)	5.10	81289182	253.550	ng
7)	T	n-Octadecane (C18)	6.05	82941259	260.034	ng
8)	T	n-Eicosane (C20)	7.78	82349746	267.355	ng
9)	T	n-Heneicosane (C21)	8.46	78298452	254.135	ng
10)	T	n-Docosane (C22)	8.92	83866742	257.813	ng
11)	T	n-Tetracosane (C24)	9.60	83237002	252.892	ng
12)	T	n-Hexacosane (C26)	10.14	83459408	251.269	ng
13)	T	n-Octacosane (C28)	10.60	84779933	251.079	ng
14)	T	n-Triacontane (C30)	11.02	85878224	250.896	ng
15)	T	n-Dotriacontane (C32)	11.41	84961851	250.400	ng
16)	T	n-Tetratriacontane (C34)	11.77	82525396	247.059	ng
17)	T	n-Hexatriacontane (C36)	12.11	80472959	242.449	ng
18)	T	n-Octatriacontane (C38)	12.45	76575262	239.066	ng
19)	T	n-Tetracontane (C40)	12.84	74250886	236.690	ng
20)	H	C9-C28	5.90	999018826	3000.773	ng
21)	H	C28-C40	11.90	498342726	1448.359	ng
22)	H	C9-C40	6.90	1509805190	4427.300	ng

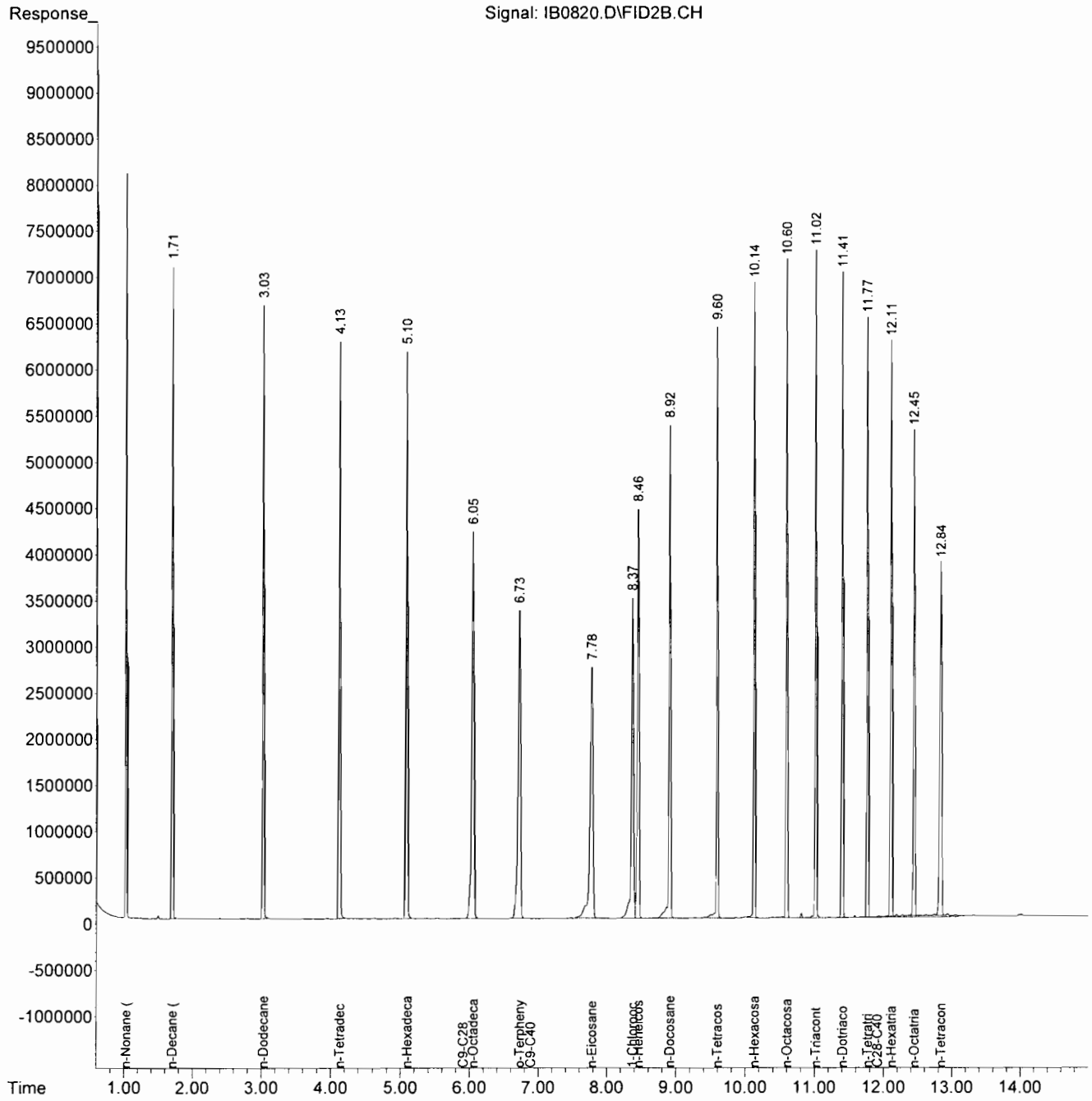
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0820.D
Signal(s) : FID2B.CH
Acq On : 04 Aug 2015 21:54
Operator : JOLANTA
Sample : ALI_C_IAS_5296,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 08:46:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0844.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 7:14
Operator : JOLANTA
Sample : ALI_C_IAS_5296,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 08:39:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
1)	S	1-Chlorooctadecane	8.37	73610682	263.396 ng
Spiked Amount		100.000		Recovery	= 263.40%
23)	S	o-Terphenyl	6.73	86934371	270.969 ng
Spiked Amount		100.000		Recovery	= 270.97%
Target Compounds					
2)	T	n-Nonane (C9)	1.03	82800205	265.001 ng
3)	T	n-Decane (C10)	1.71	83808106	264.128 ng
4)	T	n-Dodecane (C12)	3.03	83750338	263.042 ng
5)	T	n-Tetradecane (C14)	4.13	84334219	264.377 ng
6)	T	n-Hexadecane (C16)	5.10	84718101	264.245 ng
7)	T	n-Octadecane (C18)	6.05	86485981	271.148 ng
8)	T	n-Eicosane (C20)	7.78	85849155	278.716 ng
9)	T	n-Heneicosane (C21)	8.46	82688902	268.385 ng
10)	T	n-Docosane (C22)	8.92	87569383	269.195 ng
11)	T	n-Tetracosane (C24)	9.60	85939013	261.102 ng
12)	T	n-Hexacosane (C26)	10.14	86675593	260.952 ng
13)	T	n-Octacosane (C28)	10.60	88258824	261.382 ng
14)	T	n-Triacontane (C30)	11.02	89439384	261.301 ng
15)	T	n-Dotriacontane (C32)	11.41	88692335	261.394 ng
16)	T	n-Tetratriacontane (C34)	11.78	86219274	258.117 ng
17)	T	n-Hexatriacontane (C36)	12.14	84054621	253.240 ng
18)	T	n-Octatriacontane (C38)	12.50	80044053	249.895 ng
19)	T	n-Tetracontane (C40)	12.89	77922778	248.395 ng
20)	H	C9-C28	5.90	1041284458	3127.727 ng
21)	H	C28-C40	11.90	520197454	1511.876 ng
22)	H	C9-C40	6.90	1574402710	4616.724 ng

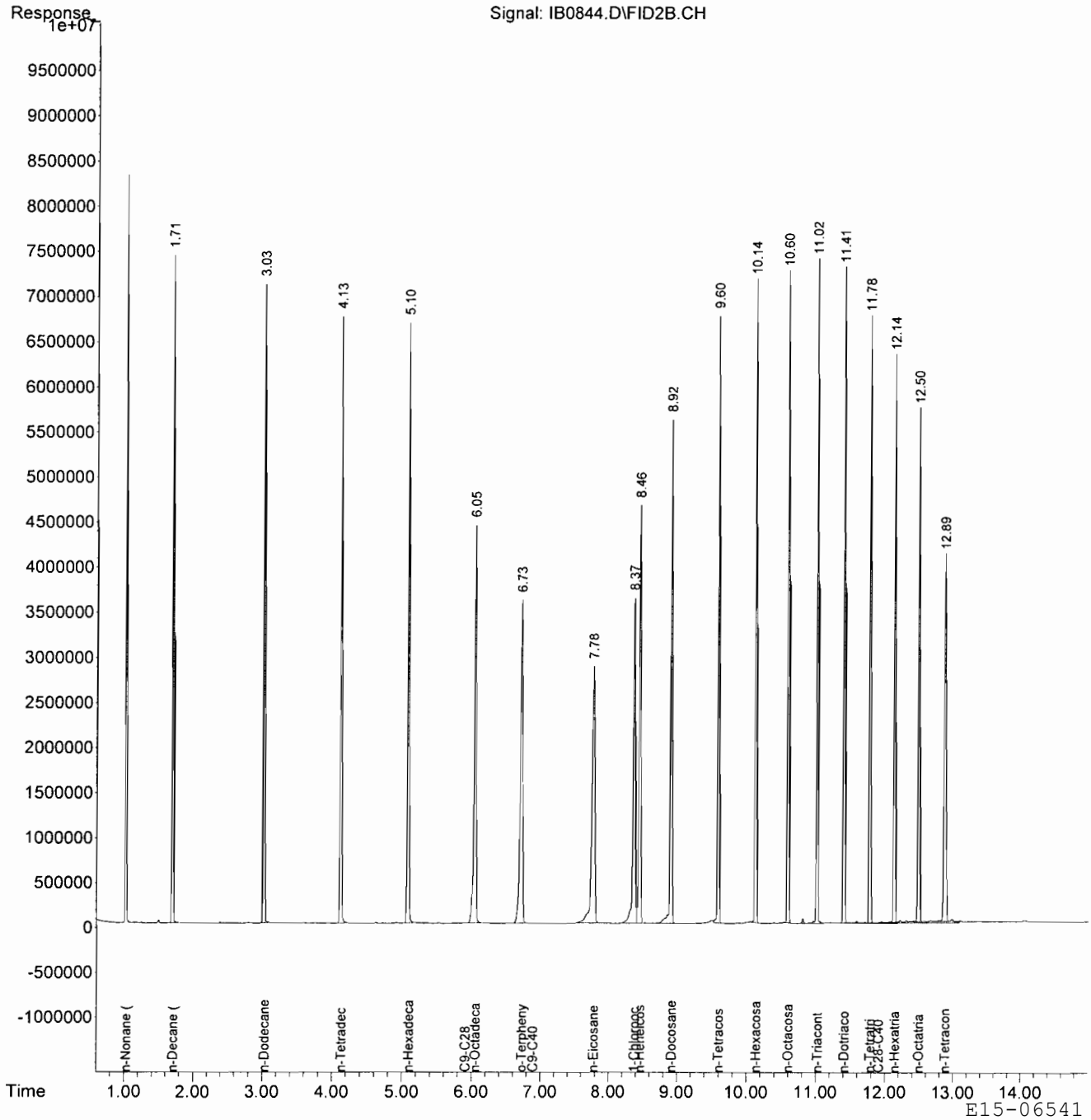
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0844.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 7:14
Operator : JOLANTA
Sample : ALI_C_IAS_5296,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 08:39:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0829.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 1:38
Operator : JOLANTA
Sample : NJ-EPH-C,LCSA150803-06,A,1000ml,100,1
Misc : 150803-06,08/03/15,NA,1
ALS Vial : 85 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:25:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	8.36	15559478	55.675 ng
Spiked Amount	100.000		Recovery =	55.67%
23) S	o-Terphenyl	6.71	20113125	62.691 ng
Spiked Amount	100.000		Recovery =	62.69%
Target Compounds				
2) T	n-Nonane (C9)	1.02	17817224	57.024 ng
3) T	n-Decane (C10)	1.70	17826010	56.180 ng
4) T	n-Dodecane (C12)	3.02	18593833	58.399 ng
5) T	n-Tetradecane (C14)	4.13	19081795	59.819 ng
6) T	n-Hexadecane (C16)	5.09	19287950	60.161 ng
7) T	n-Octadecane (C18)	6.04	19817310	62.130 ng
8) T	n-Eicosane (C20)	7.77	20136662	65.375 ng
9) T	n-Heneicosane (C21)	8.44	45622949	148.080 ng
10) T	n-Docosane (C22)	8.91	20250579	62.252 ng
11) T	n-Tetracosane (C24)	9.59	20825294	63.272 ng
12) T	n-Hexacosane (C26)	10.13	21381821	64.374 ng
13) T	n-Octacosane (C28)	10.59	71717945	212.395 ng
14) T	n-Triacontane (C30)	11.02	22143241	64.692 ng
15) T	n-Dotriacontane (C32)	11.40	22825897	67.273 ng
16) T	n-Tetratriacontane (C34)	11.76	21880337	65.504 ng
17) T	n-Hexatriacontane (C36)	12.11	21971819	66.197 ng
18) T	n-Octatriacontane (C38)	12.44	21269332	66.402 ng
19) T	n-Tetracontane (C40)	12.83	21025233	67.022 ng
22) H	C9-C40	6.90	838874363	2459.886 ng

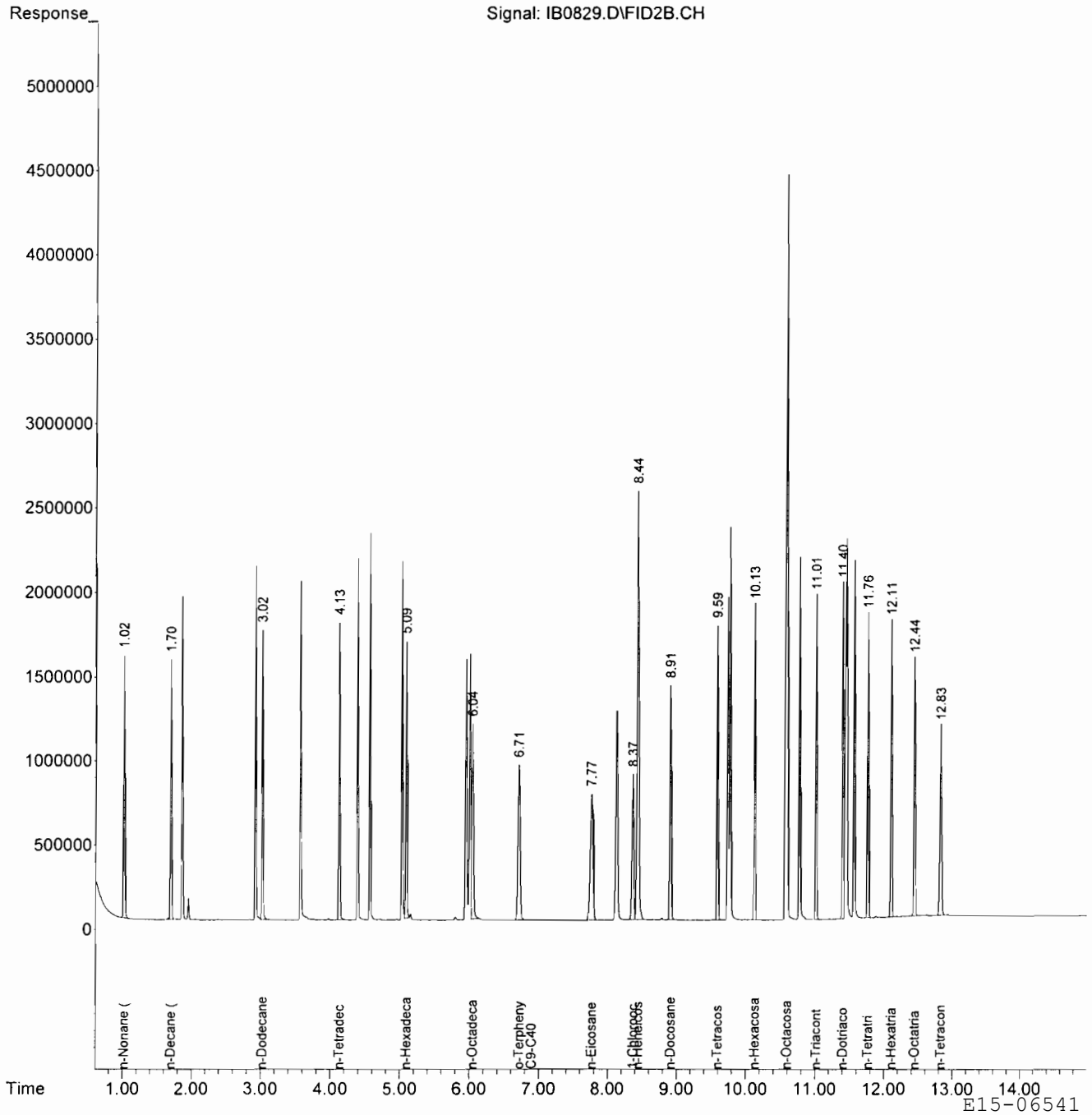
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0829.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 1:38
Operator : JOLANTA
Sample : NJ-EPH-C,LCSA150803-06,A,1000ml,100,1
Misc : 150803-06,08/03/15,NA,1
ALS Vial : 85 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:25:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0830.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 2:01
Operator : JOLANTA
Sample : NJ-EPH-C,LCSDA150803-06,A,1000ml,100,1
Misc : 150803-06,08/03/15,NA,1
ALS Vial : 86 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:25:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	8.36	16689722	59.720 ng
Spiked Amount	100.000		Recovery =	59.72%
23) S	o-Terphenyl	6.71	21490217	66.984 ng
Spiked Amount	100.000		Recovery =	66.98%
Target Compounds				
2) T	n-Nonane (C9)	1.02	19113698	61.173 ng
3) T	n-Decane (C10)	1.70	19024621	59.958 ng
4) T	n-Dodecane (C12)	3.02	19783521	62.136 ng
5) T	n-Tetradecane (C14)	4.13	20265925	63.531 ng
6) T	n-Hexadecane (C16)	5.09	20547014	64.088 ng
7) T	n-Octadecane (C18)	6.04	20904337	65.539 ng
8) T	n-Eicosane (C20)	7.77	21548774	69.960 ng
9) T	n-Heneicosane (C21)	8.44	49044012	159.183 ng
10) T	n-Docosane (C22)	8.91	21796598	67.005 ng
11) T	n-Tetracosane (C24)	9.59	22398299	68.051 ng
12) T	n-Hexacosane (C26)	10.13	23113944	69.589 ng
13) T	n-Octacosane (C28)	10.59	78113093	231.335 ng
14) T	n-Triacontane (C30)	11.01	24032818	70.213 ng
15) T	n-Dotriacontane (C32)	11.40	24816334	73.139 ng
16) T	n-Tetratriacontane (C34)	11.76	23770409	71.162 ng
17) T	n-Hexatriacontane (C36)	12.11	23887287	71.968 ng
18) T	n-Octatriacontane (C38)	12.45	23126140	72.199 ng
19) T	n-Tetracontane (C40)	12.83	22871068	72.906 ng
22) H	C9-C40	6.90	903044951	2648.057 ng

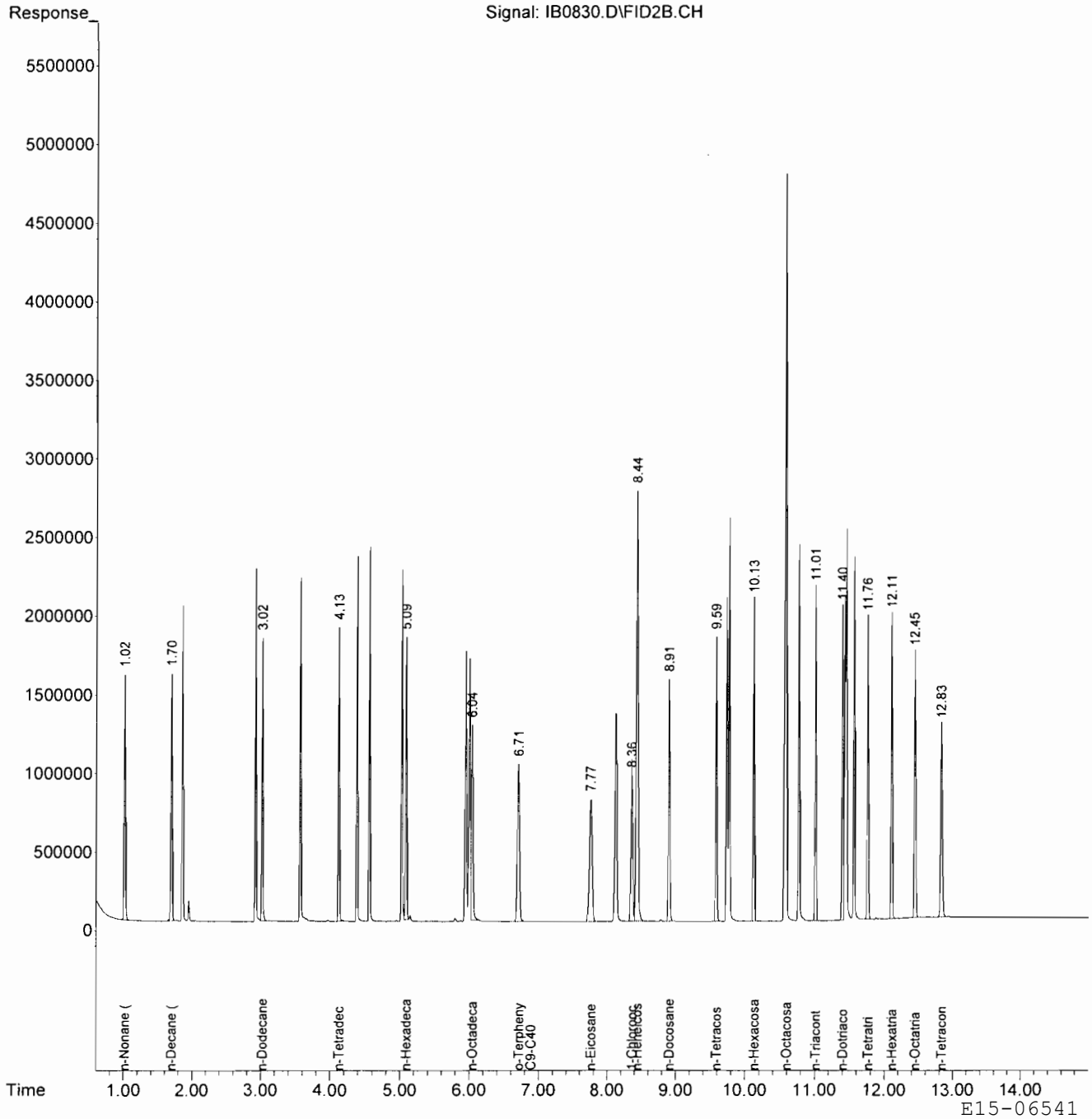
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0830.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 2:01
Operator : JOLANTA
Sample : NJ-EPH-C,LCSDA150803-06,A,1000ml,100,1
Misc : 150803-06,08/03/15,NA,1
ALS Vial : 86 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:25:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0843.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 6:51
Operator : JOLANTA
Sample : NJ-EPH-C,E15-06541-001MS,A,200ml,100,1
Misc : 150803-06,08/03/15,NA,1
ALS Vial : 99 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:33:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	8.36	18939832	67.771 ng
Spiked Amount	100.000		Recovery	= 67.77%
23) S	o-Terphenyl	6.71	24302772	75.750 ng
Spiked Amount	100.000		Recovery	= 75.75%
Target Compounds				
2) T	n-Nonane (C9)	1.02	19654236	62.903 ng
3) T	n-Decane (C10)	1.70	19698182	62.080 ng
4) T	n-Dodecane (C12)	3.02	20722220	65.084 ng
5) T	n-Tetradecane (C14)	4.13	21077119	66.074 ng
6) T	n-Hexadecane (C16)	5.09	21410674	66.782 ng
7) T	n-Octadecane (C18)	6.04	21781233	68.288 ng
8) T	n-Eicosane (C20)	7.77	22186766	72.031 ng
9) T	n-Heneicosane (C21)	8.44	51115083	165.905 ng
10) T	n-Docosane (C22)	8.91	22458551	69.039 ng
11) T	n-Tetracosane (C24)	9.59	23121060	70.247 ng
12) T	n-Hexacosane (C26)	10.13	23791439	71.628 ng
13) T	n-Octacosane (C28)	10.59	80173896	237.438 ng
14) T	n-Triacontane (C30)	11.02	24608578	71.895 ng
15) T	n-Dotriacontane (C32)	11.41	25341745	74.687 ng
16) T	n-Tetratriacontane (C34)	11.78	24382621	72.995 ng
17) T	n-Hexatriacontane (C36)	12.14	24222508	72.978 ng
18) T	n-Octatriacontane (C38)	12.49	23480095	73.304 ng
19) T	n-Tetracontane (C40)	12.88	23144993	73.779 ng
22) H	C9-C40	6.90	969250426	2842.196 ng

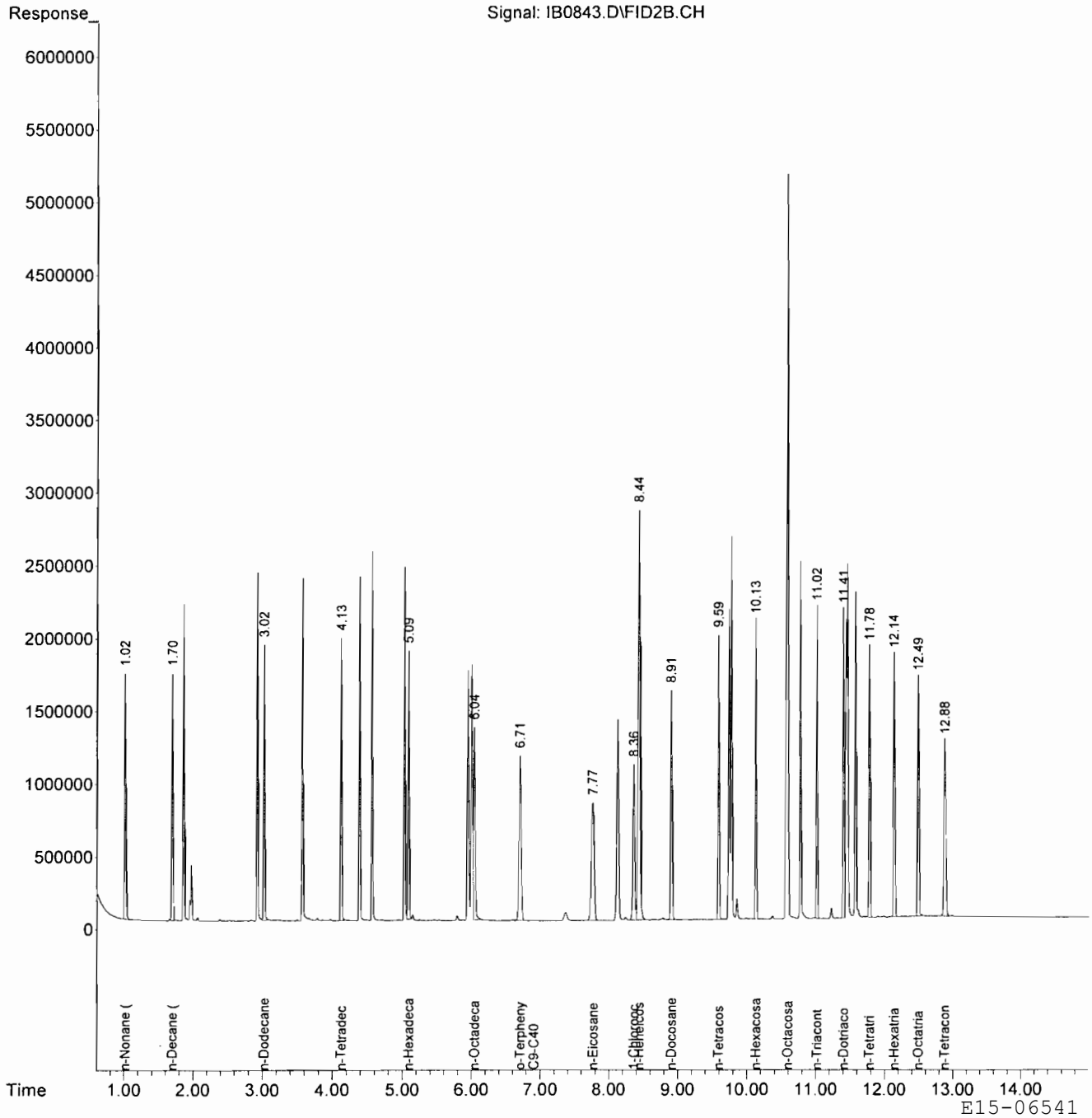
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0843.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 6:51
Operator : JOLANTA
Sample : NJ-EPH-C,E15-06541-001MS,A,200ml,100,1
Misc : 150803-06,08/03/15,NA,1
ALS Vial : 99 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:33:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0832.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 2:45
Operator : JOLANTA
Sample : MW-5S,E15-06541-001,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 88 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:28:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.36	16185065	57.914 ng m
Spiked Amount 100.000		Recovery =	57.91%
23) S o-Terphenyl	6.71	21692778	67.615 ng
Spiked Amount 100.000		Recovery =	67.61%
Target Compounds			
22) H C9-C40	6.90	234004630	686.187 ng

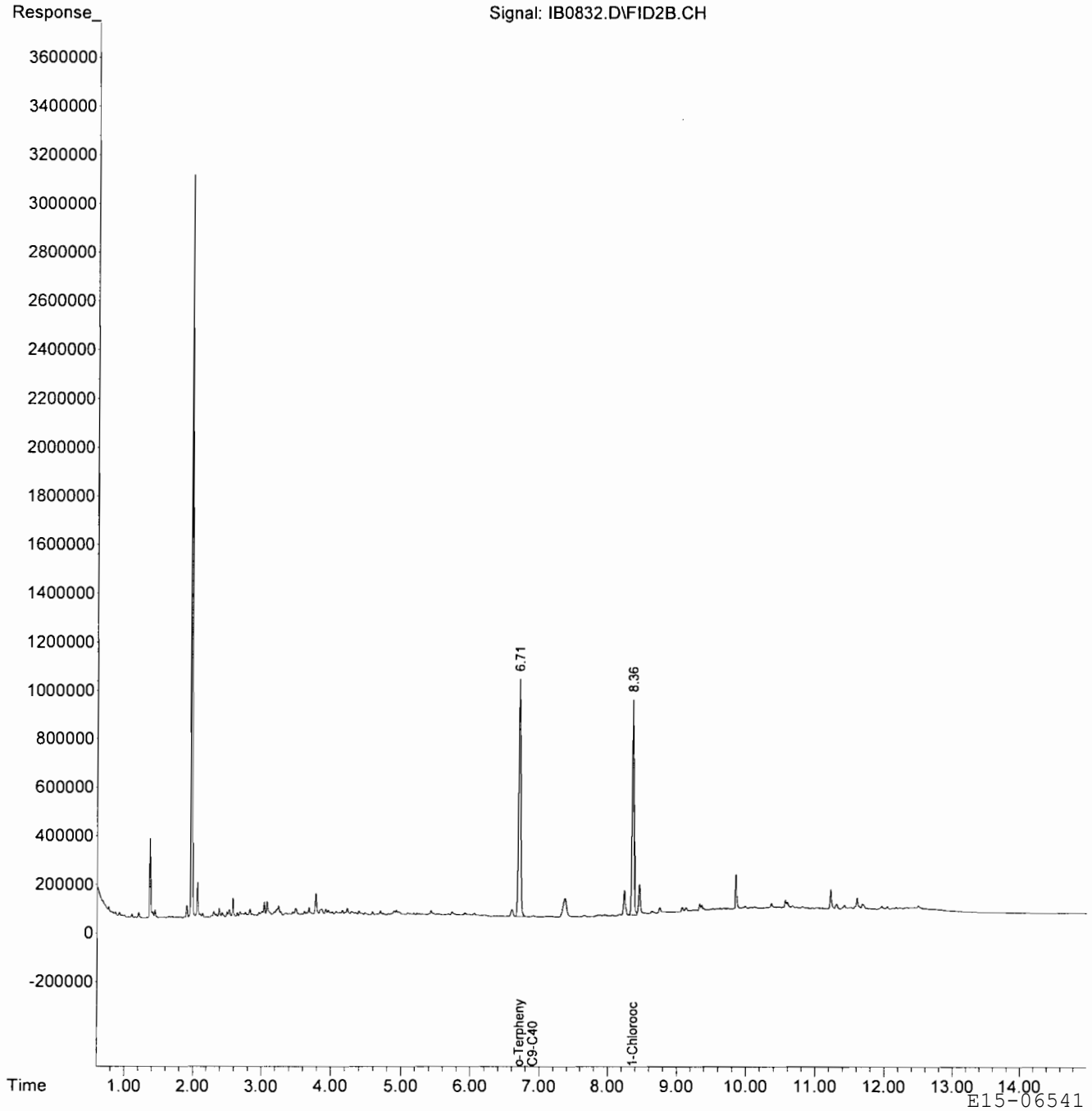
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0832.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 2:45
Operator : JOLANTA
Sample : MW-5S,E15-06541-001,A,1000ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 88 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:28:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0842.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 6:29
Operator : JOLANTA
Sample : MW-5S,E15-06541-001DUP,A,400ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 98 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:33:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.36	16216490	58.026	ng	m
Spiked Amount 100.000		Recovery = 58.03%			
23) S o-Terphenyl	6.71	21743844	67.774	ng	m
Spiked Amount 100.000		Recovery = 67.77%			
Target Compounds					
22) H C9-C40	6.90	120621704	353.707	ng	

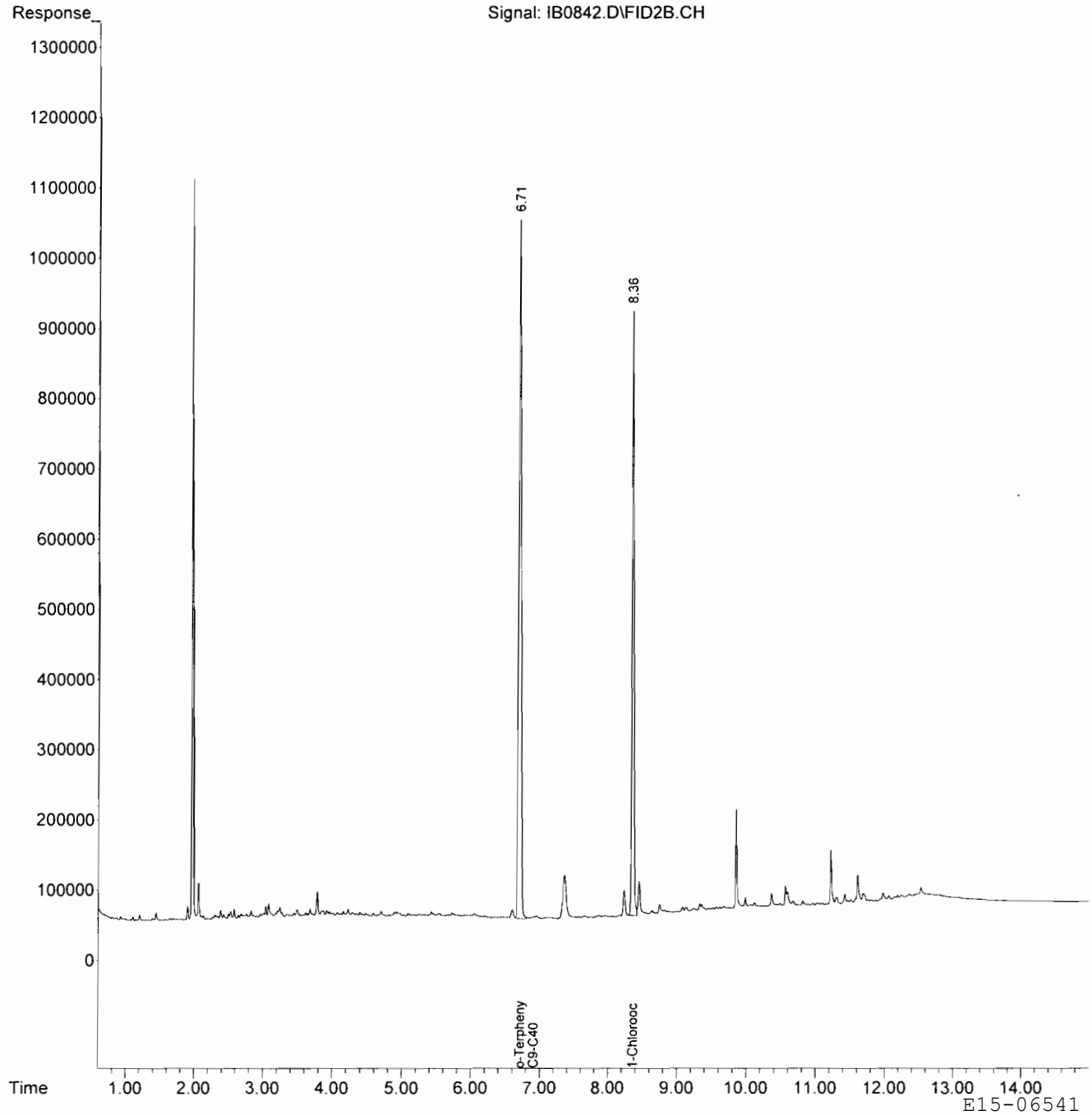
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0842.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 6:29
Operator : JOLANTA
Sample : MW-5S,E15-06541-001DUP,A,400ml,100,1
Misc : 150803-06,08/03/15,07/24/15,1
ALS Vial : 98 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:33:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: BLKA150803-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 08/03/2015
Date Analyzed: 08/05/2015
Data file: IB0828.D

GC Column: RTX-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
C9-C40	ND		500	200

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0828.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 1:16
Operator : JOLANTA
Sample : NJ-EPH-C,BLKA150803-06,A,1000ml,100,1
Misc : 150803-06,08/03/15,NA,1
ALS Vial : 84 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:19:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.36	16182239	57.904	ng	m
Spiked Amount 100.000		Recovery =	57.90%		
23) S o-Terphenyl	6.71	21673233	67.554	ng	m
Spiked Amount 100.000		Recovery =	67.55%		
Target Compounds					

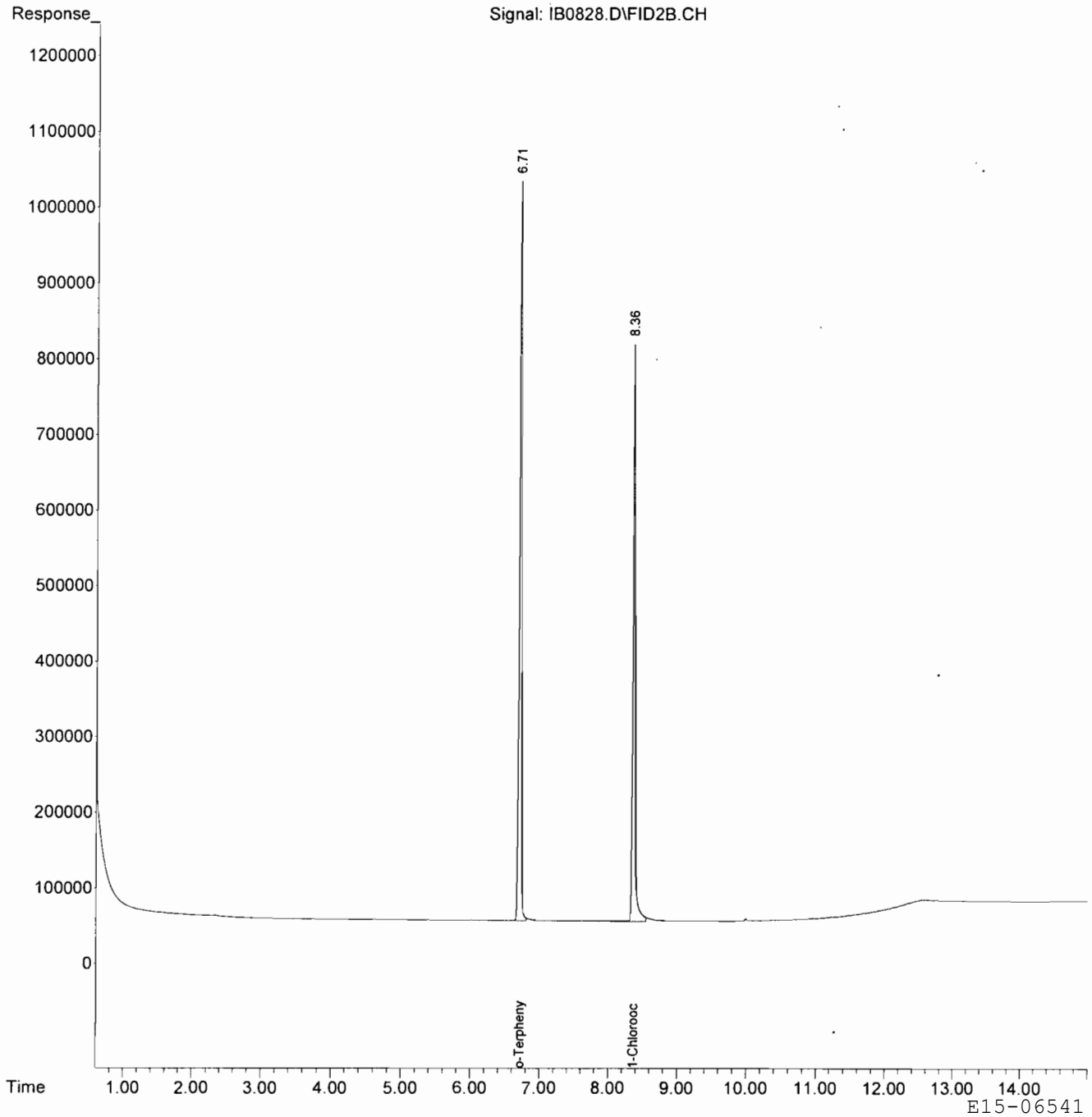
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\08-04-15\
Data File : IB0828.D
Signal(s) : FID2B.CH
Acq On : 05 Aug 2015 1:16
Operator : JOLANTA
Sample : NJ-EPH-C,BLKA150803-06,A,1000ml,100,1
Misc : 150803-06,08/03/15,NA,1
ALS Vial : 84 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Aug 05 09:19:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\I2PH0714.M
Quant Title :
QLast Update : Fri Jul 31 16:48:46 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 371
SDG #: E15-06523, E15-06541, E15-06534, E15-06527, E15-06467, E15-06536, E15-06504, E15-06522

Matrix: Aqueous Method: 6020A Units: ppb (ug/L)

			7/29/15 17:51		7/29/15 18:48		7/29/15 19:40		7/29/15 20:32	
	INST.	ICV & CCV	ICV		CCV		CCV		CCV	
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Beryllium	0.250	25.0	23.5	94.0	23.4	93.6	25.9	104	23.4	93.6
Cadmium	0.125	25.0	23.4	93.6	23.5	94.0	23.2	92.8	24.5	98.0
Copper	0.500	25.0	23.8	95.2	24.3	97.2	25.5	102	24.1	96.4
Iron	5.00	250	243	97.2	248	99.2	262	105	248	99.2
Lead	0.125	25.0	22.9	91.6	23.4	93.6	24.3	97.2	23.6	94.4
Nickel	0.250	25.0	23.3	93.2	23.5	94.0	25.0	100	23.4	93.6
Sodium	5.00	250	241	96.4	247	98.8	258	103	256	102

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 371
SDG #: E15-06523, E15-06541, E15-06534, E15-06527, E15-06467, E15-06536, E15-06504, E15-06522

Matrix: Aqueous Method: 6020A Units: ppb (ug/L)

			7/29/15 21:25		7/29/15 22:17		7/29/15 22:31			
	INST.	ICV & CCV	CCV		CCV		CCV			
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Beryllium	0.250	25.0	23.3	93.2	23.4	93.6	23.3	93.2		
Cadmium	0.125	25.0	24.4	97.6	24.6	98.4	24.3	97.2		
Copper	0.500	25.0	23.3	93.2	23.5	94.0	23.6	94.4		
Iron	5.00	250	242	96.8	246	98.4	244	97.6		
Lead	0.125	25.0	23.8	95.2	23.7	94.8	23.6	94.4		
Nickel	0.250	25.0	23.0	92.0	22.7	90.8	22.7	90.8		
Sodium	5.00	250	260	104	261	104	251	100		

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 371

SDG #: E15-06523, E15-06541, E15-06534, E15-06527, E15-06467, E15-06536, E15-06504, E15-06522

Matrix: Aqueous Method: 6020A Concentration/Units: ppb (µg/L)

		7/29/15 18:00	7/29/15 18:52	7/29/15 19:44	7/29/15 20:37	7/29/15 21:29	7/29/15 22:22
ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Beryllium	0.250	ND	ND	ND	ND	ND	ND
Cadmium	0.125	ND	ND	ND	ND	ND	ND
Copper	0.500	ND	ND	ND	ND	ND	ND
Iron	5.00	ND	ND	ND	ND	ND	ND
Lead	0.125	ND	ND	ND	ND	ND	ND
Nickel	0.250	ND	ND	ND	ND	ND	ND
Sodium	5.00	ND	ND	ND	ND	ND	ND

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 371

SDG #: E15-06523, E15-06541, E15-06534, E15-06527, E15-06467, E15-06536, E15-06504, E15-06522

Matrix: Aqueous Method: 6020A Concentration/Units: ppb (µg/L)

7/29/15 22:35

ANALYTE	INST. MDL	CCB					
Beryllium	0.250	ND					
Cadmium	0.125	ND					
Copper	0.500	ND					
Iron	5.00	ND					
Lead	0.125	ND					
Nickel	0.250	ND					
Sodium	5.00	ND					

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

07/29/2015 06:04 PM

Batch (Page) #: 371
Associated Lab Case for Blank 1: E15-06467, E15-06523, E15-06527, E15-06534, E15-06536, E15-06541

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020A

ANALYTE	SAMPLE MDL	REAGENT BLANK BLKA150729-01
Beryllium	1.00	ND
Cadmium	0.500	ND
Copper	2.00	ND
Iron	20.0	ND
Lead	0.500	ND
Nickel	1.00	ND
Sodium	20.0	ND

Associated Sample for Blank 1:
06467-003; 06523-001~002; 06527-011~019; 06534-006
06534-007~009; 06536-001~002; 06541-004,016

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Instrument: Agilent7700
Batch (Page) #: 371
SDG #: E15-06523, E15-06541, E15-06534, E15-06527, E15-06467, E15-06536, E15-06504, E15-06522

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	94000	90000	90.0	NA
Calcium	100000	-	97700	94200	94.2	NA
Iron	100000	-	97300	93300	93.3	NA
Potassium	100000	-	95100	91700	91.7	NA
Magnesium	100000	-	94900	91100	91.1	NA
Sodium	100000	-	95500	92100	92.1	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2310	2220	111	NA
Titanium	2000	-	2100	2020	101	NA
Silver	-	20.0	-	21.6	108	80-120
Arsenic	-	20.0	-	21.0	105	80-120
Cadmium	-	20.0	-	20.9	105	80-120
Cobalt	-	20.0	-	19.2	96.0	80-120
Chromium	-	20.0	-	20.1	101	80-120
Copper	-	20.0	-	19.6	98.0	80-120
Manganese	-	20.0	-	20.5	103	80-120
Nickel	-	20.0	-	19.9	99.5	80-120
Zinc	-	20.0	-	20.0	100	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 371
SDG #: E15-06467, E15-06523, E15-06527, E15-06534, E15-06536, E15-06541, E15-06504
E15-06522

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	LCSA150729-01			LCSA150729-02		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Beryllium	400	376	94.0			
Cadmium	400	367	91.8			
Copper	400	362	90.5	400	369	92.3
Iron	8000	7460	93.3	8000	7640	95.5
Lead	400	380	95.0	400	390	97.5
Nickel	400	367	91.8			
Sodium	8000	7410	92.6			

(1) Control Limits % Recovery = 80-120%

LCSA150729-01 7/29/15 18:09
06467-003; 06523-001~002; 06527-011~019; 06534-006
06534-007~009; 06536-001~002; 06541-004,016

LCSA150729-02 7/29/15 20:19
06504-001; 06522-004; 06527-001~009; 06534-001
06534-002~004

METALS QUALITY CONTROL

LOW LEVEL INITIAL CALIBRATION VERIFICATION

Batch (Page) #: 371
SDG #: E15-06523, E15-06541, E15-06534, E15-06527, E15-06467, E15-06536, E15-06504, E15-06522

Matrix: Aqueous Method: 6020A Units: ppb (ug/L)

7/29/15 17:56

ANALYTE	INST. MDL	LLICV TRUE	LLICV FOUND	LLICV % R
Beryllium	0.250	0.500	0.640	128
Cadmium	0.125	0.500	0.607	121
Copper	0.500	0.500	0.554	111
Iron	5.00	5.00	5.81	116
Lead	0.125	0.500	0.606	121
Nickel	0.250	0.500	0.539	108
Sodium	5.00	5.00	5.09	102

(1) Control Limits: 70-130

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 371

SDG #: E15-06467, E15-06523, E15-06527, E15-06534, E15-06536, E15-06541, E15-06504
E15-06522

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	7/29/15 18:26 SSR1	7/29/15 18:13 SR1	%R1	SA1	7/29/15 20:46 SSR2	7/29/15 20:24 SR2	%R2	SA2	CONTROL LIMIT %R
Beryllium	366	ND	91.5	400					75-125
Cadmium	356	1.28	88.7	400					75-125
Copper	351	ND	87.8	400	368	49.8	79.6	400	75-125
Iron	7170	64.3	88.8	8000	6730	46.7	83.5	8000	75-125
Lead	368	ND	92.0	400	348	ND	87.0	400	75-125
Nickel	356	4.14	88.0	400					75-125
Sodium	25200	18200	87.5	8000					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Spike sample concentration > 4 x Spike Concentration.

QC Sample 1: E15-06523-001
% Solids: 0
QC Sample 1 for following samples:
06467-003; 06523-001~002; 06527-011~019; 06534-006
06534-007~009; 06536-001~002; 06541-004,016

QC Sample 2: E15-06504-001
% Solids: 0
QC Sample 2 for following samples:
06504-001; 06522-004; 06527-001~009; 06534-001
06534-002~004

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 371
SDG #: E15-06467, E15-06523, E15-06527, E15-06534, E15-06536, E15-06541, E15-06504
E15-06522

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	7/29/15 18:13 S1	7/29/15 18:17 D1	RPD1	CONTROL LIMIT 2	7/29/15 20:24 S2	7/29/15 20:28 D2	RPD2
Beryllium	NA	ND	ND	NC				
Cadmium	20	1.28	1.35	5.32				
Copper	NA	ND	ND	NC	20	49.8	52.1	4.51
Iron	20	64.3	62.5	2.84	20	46.7	54.3	15.0
Lead	NA	ND	ND	NC	NA	ND	ND	NC
Nickel	20	4.14	3.72	10.7				
Sodium	20	18200	18000	1.10				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1: E15-06523-001
% Solids: 0
QC Sample 1 for following samples:
06467-003; 06523-001~002; 06527-011~019; 06534-006
06534-007~009; 06536-001~002; 06541-004,016

QC Sample 2: E15-06504-001
% Solids: 0
QC Sample 2 for following samples:
06504-001; 06522-004; 06527-001~009; 06534-001
06534-002~004

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 371
SDG #: E15-06467, E15-06523, E15-06527, E15-06534, E15-06536, E15-06541

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION 7/29/15 18:13 SR	SERIAL DILUTION 7/29/15 18:22 SDR	% Difference	POST SPIKE 7/29/15 18:30 SPR	POST SPIKE SA	% Recovery
Beryllium	ND	ND	NC	373	400	93.3
Cadmium	1.28	ND	NC	364	400	90.7
Copper	ND	ND	NC	361	400	90.3
Iron	64.3	ND	NC	7210	8000	89.3
Lead	ND	ND	NC	373	400	93.3
Nickel	4.14	ND	NC	367	400	90.7
Sodium	18200	18100	0.551			

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 80-120% Recovery

QC Sample1: E15-06523-001
QC Sample 1 for following samples:
06467-003; 06523-001~002; 06527-011~019; 06534-006
06534-007~009; 06536-001~002; 06541-004,016

METALS INTERNAL STANDARD AREA SUMMARY
2015 PG371
July 29, 2015
Method: 6020A

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
002CALB.d	**BLANK**	**1162761**		**59955**		**515130**		**3315024**		**4683321**		**3112312**		
		Area Count	**% Rec**	**Area Count**	**% Rec**	**Area Count**	**% Rec**	**Area Count**	**% Rec**	**Area Count**	**% Rec**	**Area Count**	**% Rec**	
	Lower Limit	**813933**	**70**	**41968**	**70**	**360591**	**70**	**2320517**	**70**	**3278325**	**70**	**2178618**	**70**	
	Upper Limit	**1395313**	**120**	**71946**	**120**	**618156**	**120**	**3978029**	**120**	**5619985**	**120**	**3734774**	**120**	
003CALS.d	STD1	1131877	97	57937	97	500268	97	3257503	98	4587128	98	3091694	99	
004CALS.d	STD2	1129186	97	56977	95	489672	95	3209166	97	4538791	97	3053819	98	
005CALS.d	STD3	1119238	96	55538	93	484439	94	3182704	96	4528215	97	3054968	98	
006CALS.d	STD4	1090828	94	54547	91	466860	91	3085921	93	4423011	94	2988697	96	
007CALS.d	STD5	1067994	92	53073	89	462204	90	3048502	92	4362858	93	2943556	95	
009_CCV.d	ICV	1089074	94	53513	89	472659	92	3104336	94	4433825	95	2966060	95	
010LCCV.d	LLICV	1092494	94	54122	90	471219	91	3106879	94	4386660	94	2938011	94	
011_ICB.d	ICB	1102064	95	54708	91	482677	94	3107510	94	4434257	95	2957683	95	
012SMPL.d	BLKA150729-01	1089162	94	54750	91	477138	93	3089854	93	4389452	94	2916908	94	
013SMPL.d	LCSA150729-01	1077437	93	54237	90	462420	90	3004248	91	4310788	92	2861838	92	
014SMPL.d	E15-06523-001	1085006	93	53482	89	471003	91	3044636	92	4366225	93	2923929	94	
015SMPL.d	E15-06523-001DUP	1093593	94	54066	90	469219	91	3061469	92	4383210	94	2920329	94	
016SMPL.d	E15-06523-001SD	1103275	95	55478	93	476431	92	3094360	93	4378529	93	2940792	94	
017SMPL.d	E15-06523-001MS	1095270	94	54188	90	470806	91	3034634	92	4390946	94	2880038	93	
018SMPL.d	E15-06523-001PS	1101826	95	54426	91	470217	91	3058806	92	4442015	95	2914362	94	
019SMPL.d	E15-06541-016	1117046	96	55461	93	479085	93	3136037	95	4401860	94	2965518	95	
020SMPL.d	E15-06534-009	1103777	95	55391	92	466030	90	3057035	92	4329018	92	2922987	94	
021SMPL.d	E15-06527-019	1104220	95	53699	90	466595	91	3076977	93	4368533	93	2920833	94	
022_CCV.d	CCV	1103505	95	52753	88	464160	90	3051031	92	4307713	92	2928250	94	
023_CCB.d	CCB	1087360	94	52481	88	462490	90	3020779	91	4292367	92	2871385	92	
024SMPL.d	E15-06527-011	1075006	92	52423	87	453548	88	2924401	88	4311948	92	2823775	91	
025SMPL.d	E15-06527-012	1089504	94	53672	90	464579	90	2944585	89	4337443	93	2854067	92	
026SMPL.d	E15-06527-013	1090020	94	53197	89	456346	89	2889814	87	4306846	92	2793729	90	
027SMPL.d	E15-06527-014	1087376	94	55641	93	454467	88	2867216	86	4310815	92	2791972	90	
028SMPL.d	E15-06527-015	1100180	95	52827	88	451512	88	2923542	88	4301957	92	2832792	91	
029SMPL.d	E15-06527-016	1089422	94	50876	85	454962	88	2942212	89	4324181	92	2876918	92	
030SMPL.d	E15-06527-017	1084863	93	50266	84	445605	87	2842152	86	4280222	91	2783470	89	
031SMPL.d	E15-06527-018	1075239	92	53428	89	439722	85	2845839	86	4256754	91	2784642	89	
032SMPL.d	E15-06534-006	1043545	90	50446	84	431067	84	2750184	83	4172553	89	2739777	88	
033SMPL.d	E15-06534-007	1085768	93	49932	83	446245	87	2811962	85	4270020	91	2684464	86	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

METALS INTERNAL STANDARD AREA SUMMARY
2015 PG371
July 29, 2015
Method: 6020A

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
002CALB.d	BLANK	1162761		59955		515130		3315024		4683321		3112312		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Lower Limit	813933	70	41968	70	360591	70	2320517	70	3278325	70	2178618	70	
	Upper Limit	1395313	120	71946	120	618156	120	3978029	120	5619985	120	3734774	120	
034_CCV.d	CCV	1102347	95	47711	80	450445	87	3006302	91	4370409	93	2986274	96	
035_CCB.d	CCB	1079557	93	49511	83	444388	86	2942466	89	4268214	91	2907742	93	
036SMPL.d	E15-06534-008	1013755	87	48641	81	425352	83	2664691	80	4115535	88	2636433	85	
037SMPL.d	E15-06523-002	1068738	92	48512	81	442848	86	2901789	88	4254521	91	2907967	93	
038SMPL.d	E15-06467-003	1030671	89	47803	80	430967	84	2789620	84	4200391	90	2824136	91	
039SMPL.d	E15-06536-001	1055533	91	49115	82	440564	86	2852741	86	4255679	91	2806583	90	
040SMPL.d	E15-06536-002	1018684	88	50101	84	434012	84	2752874	83	4156968	89	2757840	89	
041SMPL.d	E15-06541-004	1046684	90	48755	81	435378	85	2808929	85	4246921	91	2773853	89	
042SMPL.d	BLKA150729-02	1060659	91	52427	87	441877	86	2916871	88	4217863	90	2883339	93	
043SMPL.d	LCSA150729-02	1032226	89	49935	83	433175	84	2833338	85	4199022	90	2826136	91	
044SMPL.d	E15-06504-001	1049518	90	50131	84	443005	86	2878177	87	4305148	92	2879446	93	
045SMPL.d	E15-06504-001DUP	1066295	92	47181	79	455494	88	2950721	89	4394663	94	2944472	95	
046_CCV.d	CCV	1037749	89	50259	84	436544	85	2935009	89	4251798	91	2903479	93	
047_CCB.d	CCB	1054044	91	50453	84	447180	87	2976559	90	4309735	92	2943200	95	
048SMPL.d	E15-06504-001SD	1047343	90	50676	85	448816	87	2944497	89	4311843	92	2900115	93	
049SMPL.d	E15-06504-001MS	1042108	90	50637	84	444978	86	2871002	87	4370244	93	2894806	93	
050SMPL.d	E15-06504-001PS	1026593	88	49484	83	433103	84	2806432	85	4264321	91	2846495	91	
051SMPL.d	E15-06522-004	1073794	92	52618	88	455880	88	3023602	91	4383167	94	3006321	97	
052SMPL.d	E15-06534-004	1071447	92	51277	86	458086	89	3033189	91	4395618	94	3000310	96	
053SMPL.d	E15-06527-009	1051126	90	53075	89	445773	87	2954412	89	4297605	92	2931541	94	
054SMPL.d	E15-06527-001	1029816	89	49916	83	445331	86	2843569	86	4275288	91	2836806	91	
055SMPL.d	E15-06527-002	1027953	88	51914	87	439040	85	2840099	86	4291209	92	2828825	91	
056SMPL.d	E15-06527-003	994924	86	49936	83	424874	82	2699744	81	4143260	88	2702797	87	
057SMPL.d	E15-06527-004	1002456	86	49816	83	435675	85	2734752	82	4204901	90	2733538	88	
058_CCV.d	CCV	1051686	90	51901	87	445139	86	2962438	89	4339466	93	2969449	95	
059_CCB.d	CCB	1045732	90	52036	87	444684	86	2922334	88	4260631	91	2923107	94	
060SMPL.d	E15-06527-005	1030387	89	50756	85	441266	86	2831300	85	4277009	91	2826241	91	
061SMPL.d	E15-06527-006	1048850	90	52296	87	456051	89	2925573	88	4410627	94	2939598	94	
062SMPL.d	E15-06527-007	1039617	89	52456	87	445126	86	2871128	87	4314898	92	2844372	91	
063SMPL.d	E15-06527-008	1014976	87	51247	85	439074	85	2781000	84	4221587	90	2757632	89	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

METALS INTERNAL STANDARD AREA SUMMARY
2015 PG371
July 29, 2015
Method: 6020A

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
002CALB.d	**BLANK**	**1162761**		**59955**		**515130**		**3315024**		**4683321**		**3112312**		
		Area Count	**% Rec**	**Area Count**	**% Rec**	**Area Count**	**% Rec**	**Area Count**	**% Rec**	**Area Count**	**% Rec**	**Area Count**	**% Rec**	
	Lower Limit	**813933**	**70**	**41968**	**70**	**360591**	**70**	**2320517**	**70**	**3278325**	**70**	**2178618**	**70**	
	Upper Limit	**1395313**	**120**	**71946**	**120**	**618156**	**120**	**3978029**	**120**	**5619985**	**120**	**3734774**	**120**	
064SMPL.d	E15-06534-001	1005580	86	51600	86	435352	85	2768090	84	4269582	91	2785413	89	
065SMPL.d	E15-06534-002	1013488	87	50862	85	442541	86	2756310	83	4232107	90	2711263	87	
066SMPL.d	E15-06534-003	997187	86	53711	90	439448	85	2726991	82	4203950	90	2709172	87	
068ICSA.d	ICSA	917841	79	48492	81	447954	87	2567233	77	4132228	88	2580543	83	
069ICSB.d	ICSAB	939788	81	49703	83	461725	90	2678232	81	4246438	91	2615287	84	
070_CCV.d	CCV	992668	85	50452	84	444795	86	2975806	90	4339386	93	2948546	95	
071_CCB.d	CCB	1033634	89	52046	87	458058	89	3054135	92	4433473	95	3016723	97	
073_CCV.d	FINAL CCV	1018921	88	50890	85	455469	88	3021468	91	4387484	94	2986523	96	
074_CCB.d	FINAL CCB	1030046	89	50286	84	454480	88	3013615	91	4350366	93	2959949	95	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
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[1] = [He]; [2] = [No Gas]
Ge-72 [1] = Na,Mg,Al,Si,K,Ca,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,As,Se
Li-6 [2] = Be,B; Ge-72 [2] = Cd; Rh-103 [2] = Mo,Ag,Sn; Tb-159 [2] = Sb,Ba

SAMPLE TRACKING

IAL
Integrated Analytical Laboratories, LLC
Integrated Analytical Labs
273 Franklin Rd
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973 361-4252
fax: 973 989-5288
Web: www.ialonline.com

Customer Information

Company: JMC Environmental Consultants Inc.
Address: 2109 Bridge Ave. Bldg. B
Point Pleasant, N.J. 08742
Telephone #: (732) 295-2144
Fax #: (732) 295 2150
Project Manager: James Clabby
EMAIL Address: jclabby@jmcenvironmental.com
Project Name: Arsynco
Project Location (State): NJ
Bottle Order #:
☐ "Report to"/"Invoice To" same as above
Sampled by:

COMPLETED BY IAL:
Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO: JMC
Address:
Attn:
FAX # 732-295-2150
INVOICE TO: Aceto Corp.
Address: 4 Tri Harbor Ct.
Port Washington, NY 11050
Attn: Ed Kelly
PO # 22126
Quote #

Rush TAT Charge
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☒ Reduced	
☐ Regulatory/ Full*	☐ ASP Category B*

EDDs

☒ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL
☐ YES ☒ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (*only* if pre-approved)**
Hard Copy: Std 3 week Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2 ☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Regulatory Requirement

New Jersey	New York
☒ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	

OTHER Reg. Req. (specify)

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL VO+5	EPH	Ni	TCL BN+5						Sample Specific Notes:
MW-5S		7/24/15	2:20	GW	4	1	X	X								
MW-8S		↓	9:40	↓	2	2	X									
MW-8D		↓	9:48	↓	4	3	X	X								
MW-12S		↓	8:40	↓	3	4	X		X							
MW-12D		↓	8:50	↓	4	5	X			X						
MW-15D		↓	1:27	↓	2	6	X									
MW-22S		↓	1:50	↓	2	7	X									
MW-22D		↓	2:07	↓	4	8	X	X								
					Preservative (use code)		2	2	3	1						
					Container Type (use code)		C	A	B	A						

Known Hazard: YES / NO
Describe:

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab ≥ 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one):
☒ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: 6541
Cooler Temp: 4 °C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
[signature]	7/24/15	1540	[signature]	7/24/15	1540
[signature]	7/24/15	1706		7/24/15	17:06

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

IAL
Integrated Analytical Labs
273 Franklin Rd
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973 361-4252
fax: 973 989-5288
Web: www.ialonline.com

Customer Information

Company: JMC Environmental Consultants Inc.
Address: 2109 Bridge Ave. Bldg. B
Point Pleasant, N.J. 08742
Telephone #: (732) 295-2144
Fax #: (732) 295 2150
Project Manager: James Clabby
EMAIL Address: jclabby@jmcenvironmental.com
Project Name: Arsynco
Project Location (State): NJ
Bottle Order #:
☐ "Report to"/"Invoice To" same as above
Sampled by:

COMPLETED BY IAL:
Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO: JMC
Address:
Attn:
FAX # 732-295-2150
INVOICE TO: Aceto Corp.
Address: 4 Tri Harbor Ct.
Port Washington, NY 11050
Attn: Ed Kelly
PO # 22126
Quote #

Rush TAT Charge
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA
☐ Results Only
☒ Reduced
☐ Regulatory/ Full*

NY
☐ ASP Category A
☐ ASP Category B*

EDDs

☒ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL
☐ YES ☒ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (*only* if pre-approved)**
Hard Copy: Std 3 week Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

TAT for PHC (If other than 2 weeks):

Regulatory Requirement

New Jersey
☒ GWQS
☐ IGW
☐ SRS
☐ Ecological
☐ DW
☐ SPLP

New York
☐ AWQS (TOGS Table 1)
☐ GWEL (TOGS Table 5)
☐ Part 375-6.8(a) - Unrestricted
☐ Part 375-6.8(b) - Restricted
☐ CP-51 Table 2 or 3 (selection required)

OTHER Reg. Req. (specify)

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL VOCs	EPH								Sample Specific Notes:
MW-37D		7/24/15	9:55	GW	2	9	X									
MW-41D			11:05		4	10	X	X								
MW-42D			9:58		4	11	X	X								
MW-39D			1:40		4	12	X	X								
MW-43D			10:49		4	13	X	X								
MW-23S			10:20		4	14	X	X								
MW-23D			10:35		4	15	X	X								
Preservative (use code)							2	2								
Container Type (use code)							C	A								

Known Hazard: YES / NO
Describe:

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab ≥ 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one):
☒ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: 0541
Cooler Temp: 4 °C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
[signature]	7/24/15	1540	[signature]	7/24/15	1540
[signature]	7/24/15	1706	[signature]	7/24/15	1706

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Project Manager: James Clabby
EMAIL Address: jclabby@jmcenvironmental.com
Project Name: Arsynco
Project Location (State): NJ
Bottle Order #:
☐ "Report to"/"Invoice To" same as above
Sampled by:

Reporting Information

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Attn:
FAX # 732-295-2150
INVOICE TO: Aceto Corp.
Address: 4 Tri Harbor Ct.
Port Washington, NY 11050
Attn: Ed Kelly
PO # 22126
Quote #

**Rush TAT Charge: 24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day - 10%

Deliverables

NJ, CT, PA: ☐ Results Only ☒ Reduced ☐ Regulatory/ Full*
NY: ☐ ASP Category A ☐ ASP Category B*

EDDs

☒ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL: ☐ YES ☒ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)**
Hard Copy: Std 3 week — Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2 ☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Regulatory Requirement

New Jersey: ☒ GWQS ☐ IGW ☐ SRS ☐ Ecological ☐ DW ☐ SPLP

New York: ☐ AWQS (TOGS Table 1) ☐ GWEL (TOGS Table 5) ☐ Part 375-6.8(a) - Unrestricted ☐ Part 375-6.8(b) - Restricted ☐ CP-51 Table 2 or 3 (selection required)

OTHER Reg. Req. (specify)

COMPLETED BY IAL: Field Sampling Equipment Rental

SAMPLE INFORMATION

Sample Matrix: DW - Drinking Water; WW - Waste Water; GW - Groundwater; SW - Surface Water; LIQ - Liquid (Specify); OI - Oil; S - Soil; SOL - Solid; SL - Sludge; W - Wipe; B - Biphasic

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL VOCs	EPH	Ni	TCL BUTK					
FB-3		7/24/15	2:40	Blk	7	16	X	X	X	X					
TB				Blk	2	17	X								

Sample Specific Notes:

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None; 2 = HCl; 3 = HNO3; 4 = MeOH; 5 = NaOH; 6 = H2SO4; 7 = Other

Container Code: A = Amber Glass; B = Plastic; C = Vial; D = Glass; E = EnCore; T = Terracore

	TCL VOCs	EPH	Ni	TCL BUTK
Preservative (use code)	2	2	3	1
Container Type (use code)	C	A	B	A

Special Instructions/QC Requirements & Comments:

FOR LAB USE ONLY
SDG #: 6541
Cooler Temp: 2 °C

Carrier (check one): ☒ IAL Courier ☐ Client Courier ☐ FedEx/UPS***
***Tracking #:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	7/24/15	1540		7/24/15	1540
	7/24/15	1706		7/24/15	1706

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab ≥ 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

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Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PROJECT INFORMATION

E15-06541: ARSYNCO

To: Jim Clabby
JMC Environmental Consultants
Fax: 1(732) 295-2150
EMail: jclabby@jmcenvironmental.com; ahallgreen@jmcenvironmental.com; tadams@jmcenvironmental.com; skosch@jmcenvironmental.com;wmartinez@jmcenvironmental.com

Report To

JMC Environmental Consultants
2109 Bridge Avenue
Building B
Point Pleasant, NJ 08742
Attn: Jim Clabby

Bill To

JMC Environmental Consultants
Aceto Corp.
4 Tri Harbor Court
Port Washington, NY 11050
Attn: Mr. Ed Kelly

Report Format	P.O. #	Received At Lab	PHC Due	Verbal Due	Hardcopy Due
Reduced	22126	Jul 24, 2015 @ 17:06	NA	Aug 10, 2015	Aug 17, 2015 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

Criteria Requirement: NJ GWQS

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
06541-001	MW-5S	NA	07/24/15@14:20	Aqueous	ug/L (ppb)	
06541-002	MW-8S	NA	07/24/15@09:40	Aqueous	ug/L (ppb)	
06541-003	MW-8D	NA	07/24/15@09:48	Aqueous	ug/L (ppb)	
06541-004	MW-12S	NA	07/24/15@08:40	Aqueous	ug/L (ppb)	
06541-005	MW-12D	NA	07/24/15@08:30	Aqueous	ug/L (ppb)	
06541-006	MW-15D	NA	07/24/15@13:27	Aqueous	ug/L (ppb)	
06541-007	MW-22S	NA	07/24/15@13:50	Aqueous	ug/L (ppb)	
06541-008	MW-22D	NA	07/24/15@14:07	Aqueous	ug/L (ppb)	
06541-009	MW-37D	NA	07/24/15@09:55	Aqueous	ug/L (ppb)	
06541-010	MW-41D	NA	07/24/15@11:05	Aqueous	ug/L (ppb)	
06541-011	MW-42D	NA	07/24/15@09:58	Aqueous	ug/L (ppb)	
06541-012	MW-39D	NA	07/24/15@13:40	Aqueous	ug/L (ppb)	
06541-013	MW-43D	NA	07/24/15@10:49	Aqueous	ug/L (ppb)	
06541-014	MW-23S	NA	07/24/15@10:20	Aqueous	ug/L (ppb)	
06541-015	MW-23D	NA	07/24/15@10:35	Aqueous	ug/L (ppb)	
06541-016	FB-3	NA	07/24/15@14:40	Aqueous	ug/L (ppb)	
06541-017	TB	NA	07/24/15	Aqueous	ug/L (ppb)	

Sample #	Test	Status	Analytical Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
002	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
003	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015

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PROJECT INFORMATION

E15-06541: ARSYNCO

Sample #	Test	Status	Analytical Method	TAT	Holding Time Expires
004	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	Nickel - Ni	Analyze	6020A	STD/2 WKS	1/20/2016
005	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	TCL BN + SIMS + 15	Analyze	8270D SIM	STD/2 WKS	7/31/2015
006	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
007	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
008	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
009	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
010	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
011	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
012	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
013	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
014	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
015	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
016	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015
	TCL BN + SIMS + 15	Analyze	8270D SIM	STD/2 WKS	7/31/2015
	NJ-EPH (C40) Cat 2	Analyze	Method 10.08 Rev 3	STD/2 WKS	8/7/2015
	Nickel - Ni	Analyze	6020A	STD/2 WKS	1/20/2016
017	TCL VO + 15	Analyze	8260C	STD/2 WKS	8/7/2015

Project Notes:

NOTE 2 taken by Ellen on 07/27/2015 01:33
AS PER KIM'S PREVIOUS CONVERSATION W/ ALTON H., FOR EPH REPORT EPH-C40.

REV 1 taken by Mark on 07/31/2015 10:23
ID FOR SAMPLE #003 IS MW-8D

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 15** **06541** CLIENT: [illegible]

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ **= YES/NA**
✗ **= NO**

VOA received: (check one) ☐ Encore ☐ IGW - Methanol ☐ Terra Core ☐ No Preservative

✓ Bottles Intact
✓ no-Missing Bottles
✓ no-Extra Bottles

✓ Sufficient Sample Volume
✓ no-headspace/bubbles in VOs
✓ Labels intact/correct
✓ pH Check (exclude VOs)[1]
✓ Correct bottles/preservative
✓ Sufficient Holding/Prep Time[1]
☐ Multiphasic Sample
☐ Sample to be Subcontracted
✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [illegible] DATE 7/27/15

CORRECTIVE ACTION REQUIRED: YES ☐ (SEE BELOW) **NO** ☐

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [illegible] DATE 7/28/15

REV 03/2013

Laboratory Custody Chronicle

IAL Case No.

E15-06541

Client JMC Environmental Consultants

Project ARSYNCO

Received On 7/24/2015@17:06

Department: Volatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL VO + 15	06541-001	Aqueous	n/a	n/a	8/ 3/15	Sylvia
"	-002	"	n/a	n/a	8/ 3/15	Sylvia
"	-003	"	n/a	n/a	8/ 3/15	Sylvia
"	-004	"	n/a	n/a	8/ 6/15	Sylvia
"	-005	"	n/a	n/a	8/ 6/15	Sylvia
"	-006	"	n/a	n/a	8/ 6/15	Sylvia
"	-007	"	n/a	n/a	8/ 6/15	Sylvia
"	-008	"	n/a	n/a	8/ 6/15	Sylvia
"	-009	"	n/a	n/a	8/ 6/15	Sylvia
"	-010	"	n/a	n/a	8/ 6/15	Sylvia
"	-011	"	n/a	n/a	8/ 6/15	Sylvia
"	-012	"	n/a	n/a	8/ 6/15	Sylvia
"	-013	"	n/a	n/a	8/ 6/15	Sylvia
"	-014	"	n/a	n/a	8/ 6/15	Sylvia
"	-015	"	n/a	n/a	8/ 6/15	Sylvia
"	-016	"	n/a	n/a	8/ 3/15	Sylvia
"	-017	"	n/a	n/a	8/ 3/15	Sylvia

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL BN + SIMS + 15	-005	Aqueous	7/28/15	Kou-Liang	8/ 5/15	Dana
"	-016	"	7/28/15	Kou-Liang	8/ 5/15	Dana

Department: GC			Prep. Date	Analyst	Analysis Date	Analyst
NJ-EPH (C40) Cat 2	-001	Aqueous	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-003	"	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-008	"	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-010	"	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-011	"	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-012	"	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-013	"	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-014	"	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-015	"	8/ 3/15	Archimede	8/ 5/15	Jolanta
"	-016	"	8/ 3/15	Archimede	8/ 5/15	Jolanta

Department: Metals			Prep. Date	Analyst	Analysis Date	Analyst
Nickel - Ni	-004	Aqueous	7/29/15	Frank	7/29/15	En
"	-016	"	7/29/15	Frank	7/29/15	En

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LAST PAGE OF DOCUMENT