

APPENDIX D
Laboratory Reports

(Submitted on a separate CD – not included in this report)



09/07/10

Technical Report for

KRW Consulting, Inc.

PCU 18-12

Project #1008-06

Accutest Job Number: D17035

Sampling Date: 08/31/10

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
jhess@krwconsulting.com; gknell@krwconsulting.com;
dknudson@krwconsulting.com
ATTN: Joe Hess

Total number of pages in report: 19



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Jesse L. Smith
Laboratory Director

Client Service contact: Amanda Kissell 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D17035

PCU 18-12
Project No: Project #1008-06

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D17035-1	08/31/10	13:00	MR	09/01/10	SO	Soil	18-12 4
D17035-2	08/31/10	15:00	MR	09/01/10	SO	Soil	18-12-12

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D17035

Site: PCU 18-12

Report Dat 9/7/2010 3:42:45 PM

On 09/01/2010, 2 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D17035 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8015B

Matrix SO

Batch ID: GGA515

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D17035-1MS, D17035-1MSD were used as the QC samples indicated.
- D17035-2 for 1,2,4 Trichlorobenzene: Outside control limits due to matrix interference.
- D17035-1MSD for 1,2,4-Trichlorobenzene: Outside control limits due to matrix interference.
- D17035-1MS for 1,2,4-Trichlorobenzene: Outside control limits due to matrix interference.
- D17035-1 for 1,2,4 Trichlorobenzene: Outside control limits due to matrix interference.

Extractables by GC By Method SW846-8015B

Matrix SO

Batch ID: OP2450

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D17035-2MS, D17035-2MSD were used as the QC samples indicated.
- Matrix Spike and Matrix Spike Duplicate Recovery(s) for TPH-DRO (C10-C28) are outside control limits. Due to high level in sample relative to spike amount. The blank spike (BS) recovery for TPH-DRO (C10-C28) is within the QC limits.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN6187

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	18-12 4						
Lab Sample ID:	D17035-1				Date Sampled:	08/31/10	
Matrix:	SO - Soil				Date Received:	09/01/10	
Method:	SW846 8015B				Percent Solids:	84.2	
Project:	PCU 18-12						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA8776.D	1	09/02/10	JL	n/a	n/a	GGA515
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	50.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	476	28	28	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	252% ^a		60-140%		

(a) Outside control limits due to matrix interference.

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

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

Report of Analysis

Client Sample ID:	18-12 4		
Lab Sample ID:	D17035-1	Date Sampled:	08/31/10
Matrix:	SO - Soil	Date Received:	09/01/10
Method:	SW846-8015B SW846 3550B	Percent Solids:	84.2
Project:	PCU 18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD3963.D	50	09/02/10	JB	09/02/10	OP2450	GFD173
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	7610	790	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	110%		63-130%	

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

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

Report of Analysis

Client Sample ID:	18-12-12		
Lab Sample ID:	D17035-2	Date Sampled:	08/31/10
Matrix:	SO - Soil	Date Received:	09/01/10
Method:	SW846 8015B	Percent Solids:	84.7
Project:	PCU 18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA8779.D	1	09/02/10	JL	n/a	n/a	GGA515
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	50.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	120	27	27	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	167% ^a		60-140%		

(a) Outside control limits due to matrix interference.

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

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

Report of Analysis

Client Sample ID:	18-12-12						
Lab Sample ID:	D17035-2				Date Sampled:	08/31/10	
Matrix:	SO - Soil				Date Received:	09/01/10	
Method:	SW846-8015B	SW846 3550B			Percent Solids:	84.7	
Project:	PCU 18-12						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD3953.D	1	09/02/10	JB	09/02/10	OP2450	GFD173
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	1730	16	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	112%		63-130%	

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

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



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

4036 Youngfield Street, Wheat Ridge, Colorado 80033
TEL: 303-425-6021; 877-737-4521 FAX: 303-425-6854
www.acctest.com

[illegible]

D17035: Chain of Custody

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GC Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D17035
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA515-MB	GA8774.D	1	09/02/10	JL	n/a	n/a	GGA515

The QC reported here applies to the following samples:

Method: SW846 8015B

D17035-1, D17035-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	10	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	98% 60-140%

Blank Spike Summary

Job Number: D17035
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA515-BS	GA8784.D	1	09/02/10	JL	n/a	n/a	GGA515

The QC reported here applies to the following samples: Method: SW846 8015B

D17035-1, D17035-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	220	228	104	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	113%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D17035
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D17035-1MS	GA8777.D	1	09/02/10	JL	n/a	n/a	GGA515
D17035-1MSD	GA8778.D	1	09/02/10	JL	n/a	n/a	GGA515
D17035-1	GA8776.D	1	09/02/10	JL	n/a	n/a	GGA515

The QC reported here applies to the following samples:

Method: SW846 8015B

D17035-1, D17035-2

CAS No.	Compound	D17035-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	476		303	750	91	736	86	2	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D17035-1	Limits
120-82-1	1,2,4-Trichlorobenzene	315% * a	282% * a	252% * a	60-140%

(a) Outside control limits due to matrix interference.



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D17035
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2450-MB	FD3951.D	1	09/02/10	JB	09/02/10	OP2450	GFD173

The QC reported here applies to the following samples:

Method: SW846-8015B

D17035-1, D17035-2

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	13	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	105% 63-130%

Blank Spike Summary

Job Number: D17035
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2450-BS	FD3952.D	1	09/02/10	JB	09/02/10	OP2450	GFD173

The QC reported here applies to the following samples: Method: SW846-8015B

D17035-1, D17035-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	670	100	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	106%	63-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D17035
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2450-MS	FD3956.D	1	09/02/10	JB	09/02/10	OP2450	GFD173
OP2450-MSD	FD3957.D	1	09/02/10	JB	09/02/10	OP2450	GFD173
D17035-2	FD3953.D	1	09/02/10	JB	09/02/10	OP2450	GFD173

The QC reported here applies to the following samples:

Method: SW846-8015B

D17035-1, D17035-2

CAS No.	Compound	D17035-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	1730		786	2880	159* a	2970	171* a	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D17035-2	Limits
84-15-1	o-Terphenyl	115%	116%	112%	63-130%

(a) Outside control limits due to high level in sample relative to spike amount.

Accutest Mountain States		Sep 07, 2010 15:38 pm	
Job Number:	D17035		
Account:	KRW Consulting, Inc.		
Project:	PCU 18-12		
Project Number:	Project #1008-06		
		Legend:	Hit
Client Sample ID:		18-12 4	18-12-12
Lab Sample ID:		D17035-1	D17035-2
Date Sampled:		08/31/2010	08/31/2010
Matrix:		Soil	Soil
GC Volatiles (SW846 8015B)			
TPH-GRO (C6-C10)	mg/kg	476	120
GC Semi-volatiles (SW846-8015B)			
TPH-DRO (C10-C28)	mg/kg	7610	1730
General Chemistry			
Solids, Percent	%	84.2	84.7

From: [Accutest LabLink Mountain States](#)
To: [Joe Hess](#); [Gregory Knell](#); [Dwayne Knudson](#)
Subject: Accutest e-Hardcopy 2.0 Report D17035: PCU 18-12
Date: Tuesday, September 07, 2010 3:37:02 PM
Attachments: [D17035.PDF](#)
[d17035_table.htm](#)

Enclosed is the e-Hardcopy 2.0 report for the following Accutest job:

D17035: PCU 18-12
Received: 01-SEP-10 1 day TAT
KRW Consulting, Inc.

The attached PDF file contains your report; 19 pages.
Report includes QC summaries.
The scanned chain of custody is also included in this report.

NOTE: This PDF contains complete COMMBN deliverables.
Paper report will be mailed to selected recipients.

A RESULT SUMMARY TABLE is also attached in HTM format. This file can be opened as a web page -or- it can be saved to disk and opened using Excel. In order for tables to display properly, use of Excel 2003 or later is recommended.

NOTE: This PDF file is an e-Hardcopy 2.0 report. It is a complete, self-contained report with bookmarks, table of contents, and section markers, all with hypertext links for ease of navigation. We believe you will find it to be the most easy to use data package in the industry.

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IT'S ALL IN THE CHEMISTRY

09/07/10

Technical Report for

KRW Consulting, Inc.

PCU 18-12

1008-06 27' TPH

Accutest Job Number: D17039

Sampling Date: 09/01/10

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
jhess@krwconsulting.com; gknell@krwconsulting.com;
dknudson@krwconsulting.com
ATTN: Joe Hess

Total number of pages in report: **17**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Jesse L. Smith
Laboratory Director

Client Service contact: Amanda Kissell 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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6.1: Method Blank Summary 15

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6.3: Matrix Spike/Matrix Spike Duplicate Summary 17



Sample Summary

KRW Consulting, Inc.

Job No: D17039

PCU 18-12
Project No: 1008-06 27' TPH

Sample Number	Collected		Matrix		Client	
	Date	Time By	Received	Code Type	Sample ID	
D17039-1	09/01/10	09:30 BBMR	09/02/10	SO Soil	18-12	

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D17039

Site: PCU 18-12

Report Dat 9/7/2010 3:46:41 PM

On 09/02/2010, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3 °C. The sample was intact and properly preserved, unless noted below. An AMS Job Number of D17039 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8015B

Matrix SO

Batch ID: GGA515

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D17035-1MS, D17035-1MSD were used as the QC samples indicated.
- D17039-1 for 1,2,4 Trichlorobenzene: Outside control limits due to matrix interference.
- D17035-1MSD for 1,2,4-Trichlorobenzene: Outside control limits due to matrix interference.
- D17035-1MS for 1,2,4-Trichlorobenzene: Outside control limits due to matrix interference.

Extractables by GC By Method SW846-8015B

Matrix SO

Batch ID: OP2450

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D17035-2MS, D17035-2MSD were used as the QC samples indicated.
- Matrix Spike and Matrix Spike Duplicate Recovery(s) for TPH-DRO (C10-C28) are outside control limits. Due to high level in sample relative to spike amount. The blank spike (BS) recovery for TPH-DRO (C10-C28) is within the QC limits.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN6206

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	18-12		
Lab Sample ID:	D17039-1	Date Sampled:	09/01/10
Matrix:	SO - Soil	Date Received:	09/02/10
Method:	SW846 8015B	Percent Solids:	84.7
Project:	PCU 18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA8782.D	1	09/02/10	JL	n/a	n/a	GGA515
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	50.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	251	27	27	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	144% ^a		60-140%		

(a) Outside control limits due to matrix interference.

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

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

Report of Analysis

Client Sample ID:	18-12		
Lab Sample ID:	D17039-1	Date Sampled:	09/01/10
Matrix:	SO - Soil	Date Received:	09/02/10
Method:	SW846-8015B SW846 3550B	Percent Solids:	84.7
Project:	PCU 18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD3954.D	1	09/02/10	JB	09/02/10	OP2450	GFD173
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	647	16	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	102%		63-130%	

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

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



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

4036 Youngfield Street, Wheat Ridge, Colorado 80033
TEL: 303-425-6021; 877-737-4521 FAX: 303-425-6854
www.accutest.com

PAGE__ OF

Client / Reporting Information				Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes	
Company Name KRW Consulting Inc				Project Name: 18-12 27' TPH																	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Waste FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address 8000w 14th Ave suite 200				Billing Information (If different from Report to)																	
City State Zip Lakewood CO 80114				Company Name																	
Project Contact Joe Hess				Project # 1008-06																	
Phone # Fax # 303-239-9011 303-239-0745				Client Purchase Order #																	
Sampler(s) Name(s) Brent Berger Mike R.				Project Manager Joe Hess																	
Turnaround Time (Business days)				Data Deliverable Information				Comments / Special Instructions													
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> UST Analysis 3-5 Days <input type="checkbox"/> 6 - 9 Day RUSH <input type="checkbox"/> 3 - 5 Day RUSH <input type="checkbox"/> 2 Day EMERGENCY <input checked="" type="checkbox"/> 1 Day EMERGENCY				Approved By (Accutest PM) : Date:				<input type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 Level 1 = Results Only Level 2 = Results + QC Summary + Case Narrative Level 3 = Results + QC Summary + Partial Raw data Level 4 = Full Deliverable				<input checked="" type="checkbox"/> PDF <input type="checkbox"/> EDD Format <input type="checkbox"/> Other				Email results to: gknell@KRWconsulting.com dKnudson@KRWconsulting.com JHess@KRWconsulting.com					
Emergency & Rush T/A data available VIA Lablink				Sample Custody must be documented below each time samples change possession, including courier delivery.																	
Relinquished by Sampler:				Received By:				Relinquished By:				Date Time:				Received By:					
1				1				2				2				2					
Relinquished by Sampler:				Received By:				Relinquished By:				Date Time:				Received By:					
3				3				4				4				4					
Relinquished by:				Received By:				Custody Seal #				Preserved where applicable				On ice Cooler Temp.					
5				5				Not intact				Not intact				3.0					

D17039: Chain of Custody

Page 1 of 1



GC Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D17039
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA515-MB	GA8774.D	1	09/02/10	JL	n/a	n/a	GGA515

The QC reported here applies to the following samples:

Method: SW846 8015B

D17039-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	10	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	98% 60-140%

Blank Spike Summary

Job Number: D17039
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA515-BS	GA8784.D	1	09/02/10	JL	n/a	n/a	GGA515

The QC reported here applies to the following samples: Method: SW846 8015B

D17039-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	220	228	104	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	113%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D17039
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D17035-1MS	GA8777.D	1	09/02/10	JL	n/a	n/a	GGA515
D17035-1MSD	GA8778.D	1	09/02/10	JL	n/a	n/a	GGA515
D17035-1	GA8776.D	1	09/02/10	JL	n/a	n/a	GGA515

The QC reported here applies to the following samples:

Method: SW846 8015B

D17039-1

CAS No.	Compound	D17035-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	476		303	750	91	736	86	2	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D17035-1	Limits
120-82-1	1,2,4-Trichlorobenzene	315%* a	282%* a	252%* a	60-140%

(a) Outside control limits due to matrix interference.



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D17039
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2450-MB	FD3951.D	1	09/02/10	JB	09/02/10	OP2450	GFD173

The QC reported here applies to the following samples: Method: SW846-8015B

D17039-1

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	13	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	105% 63-130%

Blank Spike Summary

Job Number: D17039
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2450-BS	FD3952.D	1	09/02/10	JB	09/02/10	OP2450	GFD173

The QC reported here applies to the following samples:

Method: SW846-8015B

D17039-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	670	100	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	106%	63-130%

6.2.1
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Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D17039
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2450-MS	FD3956.D	1	09/02/10	JB	09/02/10	OP2450	GFD173
OP2450-MSD	FD3957.D	1	09/02/10	JB	09/02/10	OP2450	GFD173
D17035-2	FD3953.D	1	09/02/10	JB	09/02/10	OP2450	GFD173

The QC reported here applies to the following samples:

Method: SW846-8015B

D17039-1

CAS No.	Compound	D17035-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	1730		786	2880	159* a	2970	171* a	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D17035-2	Limits
84-15-1	o-Terphenyl	115%	116%	112%	63-130%

(a) Outside control limits due to high level in sample relative to spike amount.

Accutest Mountain States	Sep 07, 2010 15:41 pm	
Job Number:	D17039	
Account:	KRW Consulting, Inc.	
Project:	PCU 18-12	
Project Number:	1008-06 27' TPH	
Legend:		Hit
Client Sample ID:		18-12
Lab Sample ID:		D17039-1
Date Sampled:		09/01/2010
Matrix:		Soil
GC Volatiles (SW846 8015B)		
TPH-GRO (C6-C10)	mg/kg	251
GC Semi-volatiles (SW846-8015B)		
TPH-DRO (C10-C28)	mg/kg	647
General Chemistry		
Solids, Percent	%	84.7

From: [Accutest LabLink Mountain States](#)
To: [Joe Hess](#); [Gregory Knell](#); [Dwayne Knudson](#)
Subject: Accutest e-Hardcopy 2.0 Report D17039: PCU 18-12
Date: Tuesday, September 07, 2010 3:40:27 PM
Attachments: [D17039.PDF](#)
[d17039_table.htm](#)

Enclosed is the e-Hardcopy 2.0 report for the following Accutest job:

D17039: PCU 18-12
Received: 02-SEP-10 1 day TAT
KRW Consulting, Inc.

The attached PDF file contains your report; 17 pages.
Report includes QC summaries.
The scanned chain of custody is also included in this report.

NOTE: This PDF contains complete COMMBN deliverables.
Paper report will be mailed to selected recipients.

A RESULT SUMMARY TABLE is also attached in HTM format. This file can be opened as a web page -or- it can be saved to disk and opened using Excel. In order for tables to display properly, use of Excel 2003 or later is recommended.

NOTE: This PDF file is an e-Hardcopy 2.0 report. It is a complete, self-contained report with bookmarks, table of contents, and section markers, all with hypertext links for ease of navigation. We believe you will find it to be the most easy to use data package in the industry.

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IT'S ALL IN THE CHEMISTRY

09/14/10

Technical Report for

KRW Consulting, Inc.

PCU 18-12

Project #1008-06

Accutest Job Number: D17129

Sampling Date: 09/02/10

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
jhess@krwconsulting.com; gknell@krwconsulting.com;
dknudson@krwconsulting.com
ATTN: Dwayne Knudson

Total number of pages in report: **23**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Jesse L. Smith
Laboratory Director

Client Service contact: Amanda Kissell 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D17129

PCU 18-12
Project No: Project #1008-06

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D17129-1	09/02/10	13:20 MR	09/07/10	SO	Soil	18-12 ESW
D17129-2	09/02/10	13:30 MR	09/07/10	SO	Soil	18-12 NSW
D17129-3	09/02/10	13:40 MR	09/07/10	SO	Soil	18-12 WSW
D17129-4	09/02/10	13:50 MR	09/07/10	SO	Soil	18-12 SSW

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D17129

Site: PCU 18-12

Report Dat 9/14/2010 10:17:09 AM

On 09/07/2010, four (4) samples, 0 Trip Blanks, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 6.0°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D17129 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB382
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D17129-1MS and D17129-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP2471
------------------	-------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D17129-1MS and D17129-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN6256
------------------	-------------------------

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.



Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

3.1



Client Sample ID:	18-12 ESW	
Lab Sample ID:	D17129-1	Date Sampled: 09/02/10
Matrix:	SO - Soil	Date Received: 09/07/10
Method:	SW846 8015B	Percent Solids: 96.5
Project:	PCU 18-12	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB7043.D	1	09/07/10	JL	n/a	n/a	GGB382
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	11	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	95%		60-140%

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

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

Report of Analysis

Client Sample ID:	18-12 ESW		Date Sampled:	09/02/10			
Lab Sample ID:	D17129-1		Date Received:	09/07/10			
Matrix:	SO - Soil		Percent Solids:	96.5			
Method:	SW846-8015B SW846 3550B						
Project:	PCU 18-12						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD4062.D	1	09/09/10	CP	09/08/10	OP2471	GFD177
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	463	14	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	112%		63-130%	

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

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

Report of Analysis

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3

Client Sample ID:	18-12 NSW	
Lab Sample ID:	D17129-2	Date Sampled: 09/02/10
Matrix:	SO - Soil	Date Received: 09/07/10
Method:	SW846-8015B SW846 3550B	Percent Solids: 92.5
Project:	PCU 18-12	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD4084.D	1	09/10/10	CP	09/08/10	OP2471	GFD177
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	2360	14	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	103%		63-130%	

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

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

Report of Analysis

Client Sample ID: 18-12 WSW
Lab Sample ID: D17129-3
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 18-12

Date Sampled: 09/02/10
Date Received: 09/07/10
Percent Solids: 87.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB7047.D	1	09/07/10	JL	n/a	n/a	GGB382
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	26.3	13	13	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	114%		60-140%

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

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

Report of Analysis

Client Sample ID:	18-12 WSW		Date Sampled:	09/02/10
Lab Sample ID:	D17129-3		Date Received:	09/07/10
Matrix:	SO - Soil		Percent Solids:	87.7
Method:	SW846-8015B SW846 3550B			
Project:	PCU 18-12			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD4085.D	1	09/10/10	CP	09/08/10	OP2471	GFD177
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	890	15	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	110%		63-130%	

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

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

Report of Analysis

Page 1 of 1

Client Sample ID:	18-12 SSW	
Lab Sample ID:	D17129-4	Date Sampled: 09/02/10
Matrix:	SO - Soil	Date Received: 09/07/10
Method:	SW846 8015B	Percent Solids: 86.5
Project:	PCU 18-12	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB7048.D	1	09/08/10	JL	n/a	n/a	GGB382
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	15.8	13	13	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	120%		60-140%

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

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

Report of Analysis

Client Sample ID:	18-12 SSW		Date Sampled:	09/02/10			
Lab Sample ID:	D17129-4		Date Received:	09/07/10			
Matrix:	SO - Soil		Percent Solids:	86.5			
Method:	SW846-8015B SW846 3550B						
Project:	PCU 18-12						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD4086.D	1	09/10/10	CP	09/08/10	OP2471	GFD177
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	2240	15	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	118%		63-130%	

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

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



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

4036 Youngfield Street, Wheat Ridge, Colorado 80033
TEL: 303-425-6021; 877-737-4521 FAX: 303-425-6854
www.accutest.com

Client / Reporting Information				Project Information				Requested Analysis (see TEST CODE sheet)										Matrix Codes	
Company Name KRW Consulting Sinc				Project Name: PCU 18-12														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank	
Street Address 8000 W 14th Ave				Street:															
City State Zip LAKESIDE CO 80114				Billing Information (if different from Report to) Company Name															
Project Contact E-mail Dwayne Knodson				Project # 1008-06															
Phone # 303 739-9011 / 303 739-0845				Client Purchase Order #															
Sampler(s) Name(s) Mike R				Project Manager Joe Hess															
Accutest Sample #				Collection				Number of preserved Bottles										LAB USE ONLY	
Field ID / Point of Collection				MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	P2	MEOH	RN03	H2SO4	NIOE	DI Water	MEOH	BNC01E		
1)	18-12 ESW				9-02-10	1320	Mr SS	Z										01	
2)	18-12 NSW				9-02-10	1330	Mr SS	Z										02	
3)	18-12 WSW				9-02-10	1340	Mr SS	Z										03	
4)	18-12 JSSW				9-02-10	1350	Mr SS	Z										04	
Turnaround Time (Business days)				Data Deliverable Information															Comments / Special Instructions E-mil Results to : D Knodson @ KRW Consulting - LAM J Hess " " gknell " " S Wan " "
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> UST Analysis 3-5 Days <input checked="" type="checkbox"/> 5 - 9 Day RUSH <input checked="" type="checkbox"/> 3 - 5 Day RUSH <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				Approved By (Accutest PM) / Date:				<input type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 Level 1 = Results Only Level 2 = Results + QC Summary + Case Narrative Level 3 = Results + QC Summary + Partial Raw data Level 4 = Full Deliverable								<input checked="" type="checkbox"/> PDF			
																<input type="checkbox"/> EDD Format			
																<input type="checkbox"/> Other			
Emergency & Rush TIA data available VIA Lablink				Sample Custody must be documented below each time samples change possession, including courier delivery.															
Requisitioned By [Signature]				Date Time 9-02-10 15:00				Received By [Signature]				Relinquished By [Signature]				Date Time 9-7-10			
Requisitioned By [Signature]				Date Time 8-409-20				Received By [Signature]				Relinquished By [Signature]				Date Time 8-5-10			
Requisitioned By [Signature]				Date Time [Blank]				Received By [Signature]				Relinquished By [Signature]				Date Time [Blank]			
Custody Seal #				Intact <input checked="" type="checkbox"/>				Not intact <input type="checkbox"/>				Preserved where applicable <input checked="" type="checkbox"/>				On Ice <input checked="" type="checkbox"/>			
Cooler Temp				5				10				10				10			

D17129: Chain of Custody

Page 1 of 1



GC Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D17129
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB382-MB	GB7041.D	1	09/07/10	JL	n/a	n/a	GGB382

The QC reported here applies to the following samples:

Method: SW846 8015B

D17129-1, D17129-2, D17129-3, D17129-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	10	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	103% 60-140%

Blank Spike Summary

Job Number: D17129
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB382-BS	GB7042.D	1	09/07/10	JL	n/a	n/a	GGB382

The QC reported here applies to the following samples: Method: SW846 8015B

D17129-1, D17129-2, D17129-3, D17129-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	97.9	89	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D17129
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D17129-1MS	GB7044.D	1	09/07/10	JL	n/a	n/a	GGB382
D17129-1MSD	GB7045.D	1	09/07/10	JL	n/a	n/a	GGB382
D17129-1	GB7043.D	1	09/07/10	JL	n/a	n/a	GGB382

The QC reported here applies to the following samples:

Method: SW846 8015B

D17129-1, D17129-2, D17129-3, D17129-4

CAS No.	Compound	D17129-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		118	94.1	80	114	97	19	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D17129-1	Limits
120-82-1	1,2,4-Trichlorobenzene	100%	103%	95%	60-140%



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D17129
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2471-MB	FD4058.D	1	09/09/10	CP	09/08/10	OP2471	GFD177

The QC reported here applies to the following samples:

Method: SW846-8015B

D17129-1, D17129-2, D17129-3, D17129-4

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	13	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	107% 63-130%

Blank Spike Summary

Job Number: D17129
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2471-BS	FD4059.D	1	09/09/10	CP	09/08/10	OP2471	GFD177

The QC reported here applies to the following samples: Method: SW846-8015B

D17129-1, D17129-2, D17129-3, D17129-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	644	97	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	104%	63-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D17129
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2471-MS	FD4060.D	1	09/09/10	CP	09/08/10	OP2471	GFD177
OP2471-MSD	FD4061.D	1	09/09/10	CP	09/08/10	OP2471	GFD177
D17129-1	FD4062.D	1	09/09/10	CP	09/08/10	OP2471	GFD177

The QC reported here applies to the following samples:

Method: SW846-8015B

D17129-1, D17129-2, D17129-3, D17129-4

CAS No.	Compound	D17129-1 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	463	690	1140	98	1340	127	16	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D17129-1	Limits
84-15-1	o-Terphenyl	99%	109%	112%	63-130%

Accutest Mountain States				Sep 14, 2010 10:14 am	
Job Number:	D17129				
Account:	KRW Consulting, Inc.				
Project:	PCU 18-12				
Project Number:	Project #1008-06				
				Legend:	Hit
Client Sample ID:		18-12 ESW	18-12 NSW	18-12 SSW	18-12 WSW
Lab Sample ID:		D17129-1	D17129-2	D17129-4	D17129-3
Date Sampled:		09/02/2010	09/02/2010	09/02/2010	09/02/2010
Matrix:		Soil	Soil	Soil	Soil
GC Volatiles (SW846 8015B)					
TPH-GRO (C6-C10)	mg/kg	ND (11)	260	15.8	26.3
GC Semi-volatiles (SW846-8015B)					
TPH-DRO (C10-C28)	mg/kg	463	2360	2240	890
General Chemistry					
Solids, Percent	%	96.5	92.5	86.5	87.7



06/10/11

Technical Report for

KRW Consulting, Inc.

18-12

1103-11B

Accutest Job Number: D24004

Sampling Dates: 05/31/11 - 06/01/11

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
jhess@krwconsulting.com; bberger@krwconsulting.com;
dknudson@krwconsulting.com; crachak@krwconsulting.com
ATTN: Joe Hess

Total number of pages in report: **38**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'John Hamilton'.

John Hamilton
Laboratory Director

Client Service contact: 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D24004

18-12
Project No: 1103-11B

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D24004-1	05/31/11	14:00	GKRR 06/03/11	SO	Soil	18-12_BH-01_16-17
D24004-2	06/01/11	11:30	GKRR 06/03/11	SO	Soil	18-12_BH-02_14-19
D24004-3	06/01/11	14:00	GKRR 06/03/11	SO	Soil	18-12_BH-03_17-21
D24004-4	06/01/11	15:30	GKRR 06/03/11	SO	Soil	18-12_BH-04_9-14

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D24004

Site: 18-12

Report Dat 6/10/2011 9:16:21 AM

On 06/03/2011, four (4) samples, 0 Trip Blanks, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 4.0°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D24004 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO	Batch ID: V3V674
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D23880-1MS and D23880-1MSD were used as the QC samples indicated.

Matrix SO	Batch ID: V5V937
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D23962-1MS and D23962-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB631
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D23946-2MS and D23946-2MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP3795
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D24004-1MS and D24004-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN9853
------------------	-------------------------

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: 18-12_BH-01_16-17
Lab Sample ID: D24004-1
Matrix: SO - Soil
Method: SW846 8260B
Project: 18-12

Date Sampled: 05/31/11
Date Received: 06/03/11
Percent Solids: 88.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V11995.D	1	06/07/11	DC	n/a	n/a	V3V674
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.09 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	62	27	ug/kg	
108-88-3	Toluene	ND	120	62	ug/kg	
100-41-4	Ethylbenzene	ND	120	31	ug/kg	
1330-20-7	Xylene (total)	ND	250	62	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	83%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%
17060-07-0	1,2-Dichloroethane-D4	104%		70-130%

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

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

Report of Analysis

Client Sample ID: 18-12_BH-01_16-17
Lab Sample ID: D24004-1
Matrix: SO - Soil
Method: SW846 8015B
Project: 18-12

Date Sampled: 05/31/11
Date Received: 06/03/11
Percent Solids: 88.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB10937.D	1	06/05/11	BR	n/a	n/a	GGB631
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	6.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%		

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

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

Report of Analysis

Client Sample ID: 18-12_BH-01_16-17

Lab Sample ID: D24004-1

Date Sampled: 05/31/11

Matrix: SO - Soil

Date Received: 06/03/11

Method: SW846-8015B SW846 3546

Percent Solids: 88.8

Project: 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06863.D	1	06/06/11	JB	06/06/11	OP3795	GFD300
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	9.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		61-142%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 18-12_BH-02_14-19
Lab Sample ID: D24004-2
Matrix: SO - Soil
Method: SW846 8260B
Project: 18-12

Date Sampled: 06/01/11
Date Received: 06/03/11
Percent Solids: 86.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V11996.D	1	06/07/11	DC	n/a	n/a	V3V674
Run #2	5V15864.D	1	06/08/11	DC	n/a	n/a	V5V937

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.03 g	5.0 ml	100 ul
Run #2	5.03 g	5.0 ml	10.0 ul

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	48.5	66	29	ug/kg	J
108-88-3	Toluene	6350	130	66	ug/kg	
100-41-4	Ethylbenzene	2900	130	33	ug/kg	
1330-20-7	Xylene (total)	60600 ^a	2600	660	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	116%	100%	70-130%
460-00-4	4-Bromofluorobenzene	123%	117%	70-130%
17060-07-0	1,2-Dichloroethane-D4	99%	115%	70-130%

(a) Result is from Run# 2

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

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

Report of Analysis

Client Sample ID: 18-12_BH-02_14-19
Lab Sample ID: D24004-2
Matrix: SO - Soil
Method: SW846 8015B
Project: 18-12

Date Sampled: 06/01/11
Date Received: 06/03/11
Percent Solids: 86.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB10938.D	1	06/05/11	BR	n/a	n/a	GGB631
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	10.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	1110	130	65	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	86%		60-140%		

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

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

Report of Analysis

Client Sample ID: 18-12_BH-02_14-19**Lab Sample ID:** D24004-2**Date Sampled:** 06/01/11**Matrix:** SO - Soil**Date Received:** 06/03/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 86.0**Project:** 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06864.D	1	06/06/11	JB	06/06/11	OP3795	GFD300
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	1870	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	81%		61-142%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	18-12_BH-03_17-21	Date Sampled:	06/01/11
Lab Sample ID:	D24004-3	Date Received:	06/03/11
Matrix:	SO - Soil	Percent Solids:	85.7
Method:	SW846 8260B		
Project:	18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V11997.D	1	06/07/11	DC	n/a	n/a	V3V674
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.14 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	65	29	ug/kg	
108-88-3	Toluene	86.8	130	65	ug/kg	J
100-41-4	Ethylbenzene	40.4	130	33	ug/kg	J
1330-20-7	Xylene (total)	732	260	65	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%
17060-07-0	1,2-Dichloroethane-D4	100%		70-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 18-12_BH-03_17-21**Lab Sample ID:** D24004-3**Date Sampled:** 06/01/11**Matrix:** SO - Soil**Date Received:** 06/03/11**Method:** SW846 8015B**Percent Solids:** 85.7**Project:** 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB10939.D	1	06/05/11	BR	n/a	n/a	GGB631
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	87%		60-140%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 18-12_BH-03_17-21**Lab Sample ID:** D24004-3**Date Sampled:** 06/01/11**Matrix:** SO - Soil**Date Received:** 06/03/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 85.7**Project:** 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06865.D	1	06/06/11	JB	06/06/11	OP3795	GFD300
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	16	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	91%		61-142%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	18-12_BH-04_9-14	Date Sampled:	06/01/11
Lab Sample ID:	D24004-4	Date Received:	06/03/11
Matrix:	SO - Soil	Percent Solids:	86.1
Method:	SW846 8260B		
Project:	18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V11998.D	1	06/07/11	DC	n/a	n/a	V3V674
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.02 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	66	29	ug/kg	
108-88-3	Toluene	ND	130	66	ug/kg	
100-41-4	Ethylbenzene	ND	130	33	ug/kg	
1330-20-7	Xylene (total)	342	260	66	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	86%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%
17060-07-0	1,2-Dichloroethane-D4	101%		70-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	18-12_BH-04_9-14	Date Sampled:	06/01/11
Lab Sample ID:	D24004-4	Date Received:	06/03/11
Matrix:	SO - Soil	Percent Solids:	86.1
Method:	SW846 8015B		
Project:	18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB10940.D	1	06/05/11	BR	n/a	n/a	GGB631
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	32.0	13	6.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	82%		60-140%		

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

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

Report of Analysis

Client Sample ID:	18-12_BH-04_9-14		
Lab Sample ID:	D24004-4	Date Sampled:	06/01/11
Matrix:	SO - Soil	Date Received:	06/03/11
Method:	SW846-8015B SW846 3546	Percent Solids:	86.1
Project:	18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06866.D	1	06/06/11	JB	06/06/11	OP3795	GFD300
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	348	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	90%		61-142%		

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

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D24004

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 6/3/2011 12:50:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: 18-12

Airbill #'s: HD/CO

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume rec'd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories
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4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D24004

Account: KRWCCOL KRW Consulting, Inc.

Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V674-MB1	3V11986.D	1	06/07/11	DC	n/a	n/a	V3V674

The QC reported here applies to the following samples:

Method: SW846 8260B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	ug/kg	
100-41-4	Ethylbenzene	ND	100	25	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	50	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	84% 70-130%
460-00-4	4-Bromofluorobenzene	83% 70-130%
17060-07-0	1,2-Dichloroethane-D4	102% 70-130%

Method Blank Summary

Page 1 of 1

Job Number: D24004

Account: KRWCCOL KRW Consulting, Inc.

Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V937-MB1	5V15851A.D 1		06/08/11	DC	n/a	n/a	V5V937

The QC reported here applies to the following samples:

Method: SW846 8260B

D24004-2

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	ND	200	50	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	98% 70-130%
460-00-4	4-Bromofluorobenzene	92% 70-130%
17060-07-0	1,2-Dichloroethane-D4	100% 70-130%

Blank Spike Summary

Page 1 of 1

Job Number: D24004

Account: KRWCCOL KRW Consulting, Inc.

Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V674-BS1	3V11987.D	1	06/07/11	DC	n/a	n/a	V3V674

The QC reported here applies to the following samples:

Method: SW846 8260B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	48.7	97	68-130
100-41-4	Ethylbenzene	50	52.1	104	70-130
108-88-3	Toluene	50	48.3	97	70-130
1330-20-7	Xylene (total)	100	94.9	95	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	85%	70-130%
460-00-4	4-Bromofluorobenzene	87%	70-130%
17060-07-0	1,2-Dichloroethane-D4	99%	70-130%

Blank Spike Summary

Job Number: D24004
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V937-BS1	5V15852A.D 1		06/08/11	DC	n/a	n/a	V5V937

The QC reported here applies to the following samples:

Method: SW846 8260B

D24004-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
1330-20-7	Xylene (total)	100	113	113	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	96%	70-130%
460-00-4	4-Bromofluorobenzene	104%	70-130%
17060-07-0	1,2-Dichloroethane-D4	106%	70-130%

Blank Spike Summary

Job Number: D24004
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V937-BS1	5V15853A.D	1	06/08/11	DC	n/a	n/a	V5V937

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

D24004-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
---------	----------	----------------	--------------	----------	--------

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%
17060-07-0	1,2-Dichloroethane-D4	103%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24004

Account: KRWCCOL KRW Consulting, Inc.

Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D23880-1MS	3V11989.D	1	06/07/11	DC	n/a	n/a	V3V674
D23880-1MSD	3V11990.D	1	06/07/11	DC	n/a	n/a	V3V674
D23880-1	3V11988.D	1	06/07/11	DC	n/a	n/a	V3V674

The QC reported here applies to the following samples:

Method: SW846 8260B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	D23880-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2570	2410	94	2600	101	8	55-140/30
100-41-4	Ethylbenzene	ND		2570	2550	99	2750	107	8	56-139/30
108-88-3	Toluene	81.2	J	2570	2370	89	2530	95	7	57-144/30
1330-20-7	Xylene (total)	172	J	5140	4780	90	5010	94	5	51-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D23880-1	Limits
2037-26-5	Toluene-D8	83%	82%	82%	70-130%
460-00-4	4-Bromofluorobenzene	92%	92%	89%	70-130%
17060-07-0	1,2-Dichloroethane-D4	97%	97%	99%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24004
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D23962-1MS	5V15859.D	1	06/08/11	DC	n/a	n/a	V5V937
D23962-1MSD	5V15860.D	1	06/08/11	DC	n/a	n/a	V5V937
D23962-1	5V15858.D	1	06/08/11	DC	n/a	n/a	V5V937

The QC reported here applies to the following samples:

Method: SW846 8260B

D24004-2

CAS No.	Compound	D23962-1 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
1330-20-7	Xylene (total)	844		7270	9080	113	9130	114	1	51-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D23962-1	Limits
2037-26-5	Toluene-D8	91%	91%	89%	70-130%
460-00-4	4-Bromofluorobenzene	103%	103%	93%	70-130%
17060-07-0	1,2-Dichloroethane-D4	98%	98%	96%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24004
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D23962-1MS	5V15861.D	1	06/08/11	DC	n/a	n/a	V5V937
D23962-1MSD	5V15862.D	1	06/08/11	DC	n/a	n/a	V5V937
D23962-1	5V15858.D	1	06/08/11	DC	n/a	n/a	V5V937

The QC reported here applies to the following samples:

Method: SW846 8260B

D24004-2

CAS No.	Compound	D23962-1 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
---------	----------	-------------------	------------	-------	-------------	---------	--------------	----------	-----	-------------------

CAS No.	Surrogate Recoveries	MS	MSD	D23962-1	Limits
2037-26-5	Toluene-D8	93%	90%	89%	70-130%
460-00-4	4-Bromofluorobenzene	95%	94%	93%	70-130%
17060-07-0	1,2-Dichloroethane-D4	93%	95%	96%	70-130%

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D24004

Account: KRWCCOL KRW Consulting, Inc.

Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB631-MB	GB10916.D	1	06/04/11	BR	n/a	n/a	GGB631

The QC reported here applies to the following samples:

Method: SW846 8015B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	93% 60-140%

Blank Spike Summary

Job Number: D24004
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB631-BS	GB10917.D	1	06/04/11	BR	n/a	n/a	GGB631

The QC reported here applies to the following samples: Method: SW846 8015B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	114	104	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	96%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24004
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D23946-2MS	GB10920.D	1	06/04/11	BR	n/a	n/a	GGB631
D23946-2MSD	GB10921.D	1	06/04/11	BR	n/a	n/a	GGB631
D23946-2	GB10919.D	1	06/04/11	BR	n/a	n/a	GGB631

The QC reported here applies to the following samples:

Method: SW846 8015B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	D23946-2 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	119	117	99	116	98	1	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D23946-2	Limits
120-82-1	1,2,4-Trichlorobenzene	87%	86%	82%	60-140%

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D24004

Account: KRWCCOL KRW Consulting, Inc.

Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3795-MB	FD06859.D	1	06/06/11	JB	06/06/11	OP3795	GFD300

The QC reported here applies to the following samples:

Method: SW846-8015B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	13	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	96% 61-142%

Blank Spike Summary

Job Number: D24004
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3795-BS	FD06860.D	1	06/06/11	JB	06/06/11	OP3795	GFD300

The QC reported here applies to the following samples: Method: SW846-8015B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	548	82	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	92%	61-142%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24004
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3795-MS	FD06861.D	1	06/06/11	JB	06/06/11	OP3795	GFD300
OP3795-MSD	FD06862.D	1	06/06/11	JB	06/06/11	OP3795	GFD300
D24004-1	FD06863.D	1	06/06/11	JB	06/06/11	OP3795	GFD300

The QC reported here applies to the following samples: Method: SW846-8015B

D24004-1, D24004-2, D24004-3, D24004-4

CAS No.	Compound	D24004-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND		750	623	83	584	78	6	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D24004-1	Limits
84-15-1	o-Terphenyl	92%	82%	90%	61-142%

Accutest Mountain States				Jun 10, 2011 09:51 am	
Job Number:	D24004				
Account:	KRW Consulting, Inc.				
Project:	18-12				
Project Number:	1103-11B				
				Legend:	Hit
Client Sample ID:		18-12_BH-01_16-17	18-12_BH-02_14-19	18-12_BH-03_17-21	18-12_BH-04_9-14
Lab Sample ID:		D24004-1	D24004-2	D24004-3	D24004-4
Date Sampled:		05/31/2011	06/01/2011	06/01/2011	06/01/2011
Matrix:		Soil	Soil	Soil	Soil
GC/MS Volatiles (SW846 8260B)					
Benzene	ug/kg	ND (27)	48.5 J	ND (29)	ND (29)
Toluene	ug/kg	ND (62)	6350	86.8 J	ND (66)
Ethylbenzene	ug/kg	ND (31)	2900	40.4 J	ND (33)
Xylene (total)	ug/kg	ND (62)	60600	732	342
GC Volatiles (SW846 8015B)					
TPH-GRO (C6-C10)	mg/kg	ND (6.2)	1110	ND (6.5)	32.0
GC Semi-volatiles (SW846-8015B)					
TPH-DRO (C10-C28)	mg/kg	ND (9.8)	1870	ND (10)	348
General Chemistry					
Solids, Percent	%	88.8	86	85.7	86.1



06/13/11

Technical Report for

KRW Consulting, Inc.

18-12

1103-11B

Accutest Job Number: D24027

Sampling Dates: 06/02/11 - 06/03/11

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
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dknudson@krwconsulting.com; crachak@krwconsulting.com
ATTN: Joe Hess

Total number of pages in report: **149**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'J. Hamilton'.

John Hamilton
Laboratory Director

Client Service contact: 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D24027

18-12
Project No: 1103-11B

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D24027-1	06/02/11	10:00 GK	06/04/11	SO	Soil	18-12_BH-05_19-24
D24027-2	06/02/11	12:30 GK	06/04/11	SO	Soil	18-12_BH-07_19-24
D24027-3	06/02/11	13:00 GK	06/04/11	SO	Soil	18-12_BH-07_24-29
D24027-4	06/02/11	15:00 GK	06/04/11	SO	Soil	18-12_BH_08_11-14
D24027-5	06/02/11	16:00 GK	06/04/11	SO	Soil	18-12_BH-08_26-29
D24027-6	06/02/11	16:30 GK	06/04/11	SO	Soil	18-12_BH-09_7-9
D24027-7	06/03/11	11:30 GK	06/04/11	SO	Soil	18-12_BH-10_14-18

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D24027

Site: 18-12

Report Dat 6/13/2011 12:34:28 PM

On 06/04/2011, seven (7) samples, 0 Trip Blanks, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 4.2°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D24027 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO	Batch ID: V3V679
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D24027-1MS and D24027-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGA659
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D24238-1MS and D24238-1MSD were used as the QC samples indicated.
- Sample D24027-4 has the surrogate outside control limits. Probable cause due to matrix interference.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP3806
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D24027-1MS and D24027-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN9873
------------------	-------------------------

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-05_19-24
Lab Sample ID: D24027-1
Matrix: SO - Soil
Method: SW846 8260B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 88.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V12090.D	1	06/10/11	DC	n/a	n/a	V3V679
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.01 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	63	28	ug/kg	
108-88-3	Toluene	ND	130	63	ug/kg	
100-41-4	Ethylbenzene	ND	130	31	ug/kg	
1330-20-7	Xylene (total)	ND	250	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%
17060-07-0	1,2-Dichloroethane-D4	84%		70-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-05_19-24
Lab Sample ID: D24027-1
Matrix: SO - Soil
Method: SW846 8015B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 88.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12097.D	1	06/11/11	SK	n/a	n/a	GGA659
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	95%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-05_19-24

Lab Sample ID: D24027-1

Date Sampled: 06/02/11

Matrix: SO - Soil

Date Received: 06/04/11

Method: SW846-8015B SW846 3546

Percent Solids: 88.4

Project: 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06940.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	9.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	90%		61-142%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-07_19-24
Lab Sample ID: D24027-2
Matrix: SO - Soil
Method: SW846 8260B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 87.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V12095.D	1	06/10/11	DC	n/a	n/a	V3V679
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.01 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	65	29	ug/kg	
108-88-3	Toluene	ND	130	65	ug/kg	
100-41-4	Ethylbenzene	33.3	130	32	ug/kg	J
1330-20-7	Xylene (total)	604	260	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	89%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%
17060-07-0	1,2-Dichloroethane-D4	85%		70-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-07_19-24
Lab Sample ID: D24027-2
Matrix: SO - Soil
Method: SW846 8015B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 87.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12098.D	1	06/11/11	SK	n/a	n/a	GGA659
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	67.0	13	6.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	96%		60-140%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-07_19-24
Lab Sample ID: D24027-2
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 87.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06941.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	457	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	94%		61-142%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-07_24-29
Lab Sample ID: D24027-3
Matrix: SO - Soil
Method: SW846 8260B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 89.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V12096.D	1	06/10/11	DC	n/a	n/a	V3V679
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.03 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	61	27	ug/kg	
108-88-3	Toluene	ND	120	61	ug/kg	
100-41-4	Ethylbenzene	ND	120	31	ug/kg	
1330-20-7	Xylene (total)	ND	250	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	86%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%
17060-07-0	1,2-Dichloroethane-D4	85%		70-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-07_24-29
Lab Sample ID: D24027-3
Matrix: SO - Soil
Method: SW846 8015B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 89.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12099.D	1	06/11/11	SK	n/a	n/a	GGA659
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	6.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	97%		60-140%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-07_24-29

Lab Sample ID: D24027-3

Date Sampled: 06/02/11

Matrix: SO - Soil

Date Received: 06/04/11

Method: SW846-8015B SW846 3546

Percent Solids: 89.5

Project: 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06942.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	9.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		61-142%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH_08_11-14
Lab Sample ID: D24027-4
Matrix: SO - Soil
Method: SW846 8260B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 84.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V12097.D	1	06/10/11	DC	n/a	n/a	V3V679
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.02 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	68	30	ug/kg	
108-88-3	Toluene	ND	140	68	ug/kg	
100-41-4	Ethylbenzene	312	140	34	ug/kg	
1330-20-7	Xylene (total)	5380	270	140	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	128%		70-130%
17060-07-0	1,2-Dichloroethane-D4	83%		70-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH_08_11-14
Lab Sample ID: D24027-4
Matrix: SO - Soil
Method: SW846 8015B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 84.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12100.D	1	06/11/11	SK	n/a	n/a	GGA659
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	249	14	6.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	141% ^a		60-140%		

(a) Outside control limits due to possible matrix interference.

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH_08_11-14

Lab Sample ID: D24027-4

Date Sampled: 06/02/11

Matrix: SO - Soil

Date Received: 06/04/11

Method: SW846-8015B SW846 3546

Percent Solids: 84.3

Project: 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06943.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	800	16	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		61-142%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-08_26-29
Lab Sample ID: D24027-5
Matrix: SO - Soil
Method: SW846 8260B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 86.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V12098.D	1	06/10/11	DC	n/a	n/a	V3V679
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.05 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	65	29	ug/kg	
108-88-3	Toluene	ND	130	65	ug/kg	
100-41-4	Ethylbenzene	42.7	130	33	ug/kg	J
1330-20-7	Xylene (total)	ND	260	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	87%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%
17060-07-0	1,2-Dichloroethane-D4	88%		70-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-08_26-29
Lab Sample ID: D24027-5
Matrix: SO - Soil
Method: SW846 8015B
Project: 18-12

Date Sampled: 06/02/11
Date Received: 06/04/11
Percent Solids: 86.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12101.D	1	06/11/11	SK	n/a	n/a	GGA659
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	99%		60-140%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-08_26-29

Lab Sample ID: D24027-5

Date Sampled: 06/02/11

Matrix: SO - Soil

Date Received: 06/04/11

Method: SW846-8015B SW846 3546

Percent Solids: 86.2

Project: 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06944.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		61-142%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-09_7-9

Lab Sample ID: D24027-6

Date Sampled: 06/02/11

Matrix: SO - Soil

Date Received: 06/04/11

Method: SW846 8260B

Percent Solids: 85.5

Project: 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V12099.D	1	06/10/11	DC	n/a	n/a	V3V679
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.09 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	66	29	ug/kg	
108-88-3	Toluene	ND	130	66	ug/kg	
100-41-4	Ethylbenzene	ND	130	33	ug/kg	
1330-20-7	Xylene (total)	ND	260	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	87%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%
17060-07-0	1,2-Dichloroethane-D4	86%		70-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	18-12_BH-09_7-9	Date Sampled:	06/02/11
Lab Sample ID:	D24027-6	Date Received:	06/04/11
Matrix:	SO - Soil	Percent Solids:	85.5
Method:	SW846 8015B		
Project:	18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12102.D	1	06/11/11	SK	n/a	n/a	GGA659
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	34.6	13	6.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	103%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	18-12_BH-09_7-9		
Lab Sample ID:	D24027-6	Date Sampled:	06/02/11
Matrix:	SO - Soil	Date Received:	06/04/11
Method:	SW846-8015B SW846 3546	Percent Solids:	85.5
Project:	18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06945.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	86.7	16	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	92%		61-142%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-10_14-18
Lab Sample ID: D24027-7
Matrix: SO - Soil
Method: SW846 8260B
Project: 18-12

Date Sampled: 06/03/11
Date Received: 06/04/11
Percent Solids: 85.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V12100.D	1	06/10/11	DC	n/a	n/a	V3V679
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.02 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	67	29	ug/kg	
108-88-3	Toluene	ND	130	67	ug/kg	
100-41-4	Ethylbenzene	ND	130	33	ug/kg	
1330-20-7	Xylene (total)	ND	270	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	86%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%
17060-07-0	1,2-Dichloroethane-D4	86%		70-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-10_14-18
Lab Sample ID: D24027-7
Matrix: SO - Soil
Method: SW846 8015B
Project: 18-12

Date Sampled: 06/03/11
Date Received: 06/04/11
Percent Solids: 85.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12103.D	1	06/11/11	SK	n/a	n/a	GGA659
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	15.9	13	6.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	88%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-10_14-18
Lab Sample ID: D24027-7
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: 18-12

Date Sampled: 06/03/11
Date Received: 06/04/11
Percent Solids: 85.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06946.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	220	16	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	96%		61-142%		

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

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Mountain States
4036 Youngfield Street Wheat Ridge, Co 80033
TEL: 303-425-6021 877-737-4521
FAX: 303-425-6021

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D24027

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)												Matrix Codes																			
Company Name KRW Consulting		Project Name		<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">GRO</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">DRO</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTX</div> </div>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank																			
Street Address 8000 W. 14th Ave, Ste 200		Street:																																	
City State Zip Lakewood CO 80214		City:																																	
Project Contact Hess jhess@krcwconsulting.com		Project# 1103-11B																																	
Phone # Fax #		Street Address																																	
Sampler(s) Name(s)		Project Manager		Attention:		PO#																													
Accutest Sample #	Field ID / Point of Collection	MECH/DI / Vial #	Collection		Date	Time	Sampled by	Matrix	# of bottles	PC	NOH	HNO3	H2SO4	NONE	D Water	MEOH	EMCODE	Final State	LAB USE ONLY																
	18-12-BH-03-19-24				6/2/11	10:00	GK	Soil	3										01																
	18-12-BH-07-19-24				6/2/11	12:30	GK	"	3										02																
	18-12-BH-07-24-29				6/2/11	13:00	GK	"	3										03																
	18-12-BH-08-11-14				6/2/11	15:00	GK	Soil	3										04																
	18-12-BH-08-26-29				6/2/11	16:00	GK	Soil	3										05																
	18-12-BH-09-7-9				6/2/11	16:30	GK	"	3										06																
	18-12-BH-10-14-18				6/3/11	11:30	"	"	3										07																
																			10																
<table border="1"> <tr> <th colspan="2">Turnaround Time (Business days)</th> <th colspan="2">Approved By (Accutest PM): / Date:</th> <th colspan="2">Data Deliverable Information</th> <th colspan="2">Comments / Special Instructions</th> </tr> <tr> <td> <input type="checkbox"/> Std. 10 Business Days <input checked="" type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day R/SH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY </td> <td></td> <td></td> <td></td> <td> <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> Commercial "B" - Narrative <input type="checkbox"/> FULLT1 (Level 3+4) </td> <td> <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> PDF </td> <td colspan="2"></td> </tr> </table>																				Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions		<input type="checkbox"/> Std. 10 Business Days <input checked="" type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day R/SH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> Commercial "B" - Narrative <input type="checkbox"/> FULLT1 (Level 3+4)	<input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> PDF		
Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions																													
<input type="checkbox"/> Std. 10 Business Days <input checked="" type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day R/SH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> Commercial "B" - Narrative <input type="checkbox"/> FULLT1 (Level 3+4)	<input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> PDF																														
Emergency & Rush TJA data available VIA Lablink																																			
Chain of Custody must be documented below each time samples change possession, including courier delivery.																																			
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:																														
1 Angela Kneal	6/3/11 13:38	1 [Signature]	2 [Signature]	6/3/11	2 [Signature]																														
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:																														
3		3	4		4																														
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact	Not Intact	Preserved where applicable	On Ice	Cooler Temp.																											
5		5	EX	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	4.2																											

D24027: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D24027

Client: KRW

Immediate Client Services Action Required: No

Date / Time Received: 6/4/2011 10:20:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: 1103-11B

Airbill #'s: FEDEX

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:			Infrared gun
3. Cooler media:			Ice (bag)

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:			Intact

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D24027
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V679-MB	3V12088.D	1	06/10/11	DC	n/a	n/a	V3V679

The QC reported here applies to the following samples:

Method: SW846 8260B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	ug/kg	
100-41-4	Ethylbenzene	ND	100	25	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	91% 70-130%
460-00-4	4-Bromofluorobenzene	87% 70-130%
17060-07-0	1,2-Dichloroethane-D4	88% 70-130%

Blank Spike Summary

Page 1 of 1

Job Number: D24027

Account: KRWCCOL KRW Consulting, Inc.

Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V679-BS	3V12089.D	1	06/10/11	DC	n/a	n/a	V3V679

The QC reported here applies to the following samples:

Method: SW846 8260B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	47.9	96	68-130
100-41-4	Ethylbenzene	50	50.2	100	70-130
108-88-3	Toluene	50	49.6	99	70-130
1330-20-7	Xylene (total)	100	93.6	94	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	89%	70-130%
17060-07-0	1,2-Dichloroethane-D4	86%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24027
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24027-1MS	3V12091.D	1	06/10/11	DC	n/a	n/a	V3V679
D24027-1MSD	3V12092.D	1	06/10/11	DC	n/a	n/a	V3V679
D24027-1	3V12090.D	1	06/10/11	DC	n/a	n/a	V3V679

The QC reported here applies to the following samples:

Method: SW846 8260B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	D24027-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3150	2870	91	3260	103	13	55-140/30
100-41-4	Ethylbenzene	ND		3150	2980	95	3420	109	14	56-139/30
108-88-3	Toluene	ND		3150	2930	93	3310	105	12	57-144/30
1330-20-7	Xylene (total)	ND		6300	5590	89	6450	102	14	51-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D24027-1	Limits
2037-26-5	Toluene-D8	89%	88%	88%	70-130%
460-00-4	4-Bromofluorobenzene	91%	91%	90%	70-130%
17060-07-0	1,2-Dichloroethane-D4	85%	85%	84%	70-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12090.D
Acq On : 10 Jun 2011 3:24 am
Operator : DONC
Sample : D24027-1, 50x
Misc : MS2259,V3V679,5.011,,100,5,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jun 10 07:48:59 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration

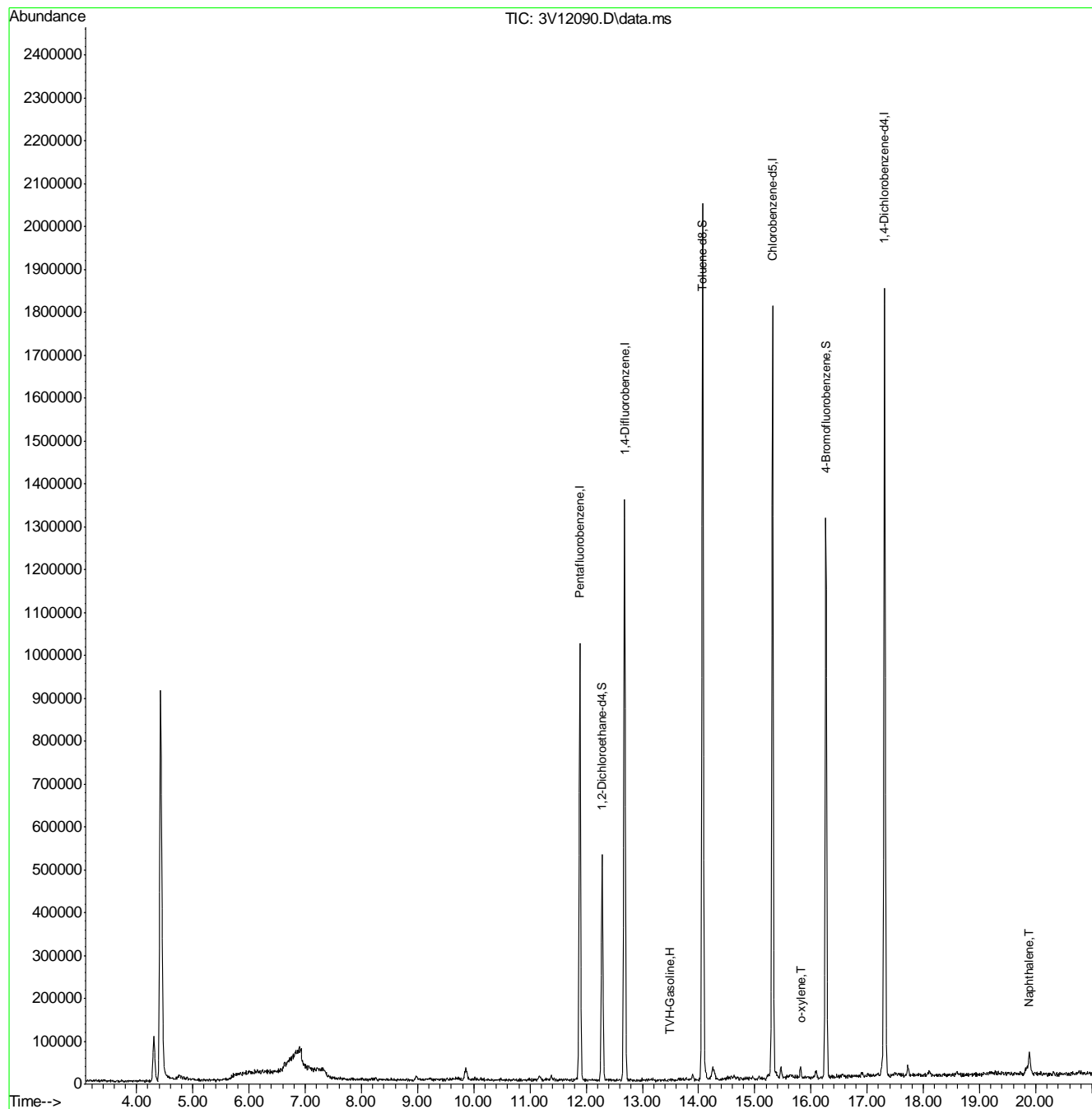
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.888	168	672249	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.684	114	1173392	50.00	ug/l	0.00
48) Chlorobenzene-d5	15.315	117	1099378	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	17.308	152	602998	50.00	ug/l	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	12.283	102	85541	42.25	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	84.50%
55) Toluene-d8	14.073	98	1349210	43.97	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	87.94%
59) 4-Bromofluorobenzene	16.262	95	532874	45.05	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.10%
Target Compounds						
1) TVH-Gasoline	13.491	TIC	234188m	51.01	ug/l	Qvalue
62) o-xylene	15.809	106	5867	0.33	ug/l	91
72) Naphthalene	19.888	128	60471	1.54	ug/l	100

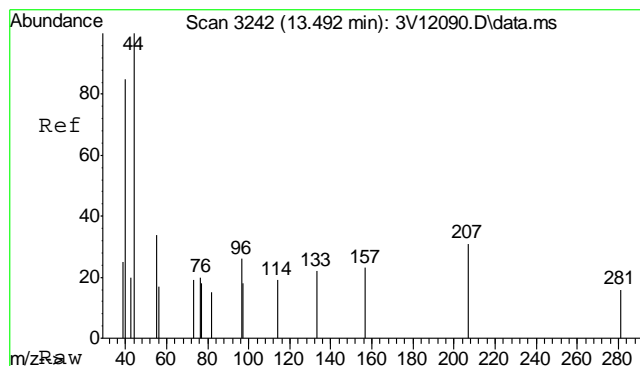
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12090.D
Acq On : 10 Jun 2011 3:24 am
Operator : DONC
Sample : D24027-1, 50x
Misc : MS2259,V3V679,5.011,,100,5,1
ALS Vial : 36 Sample Multiplier: 1

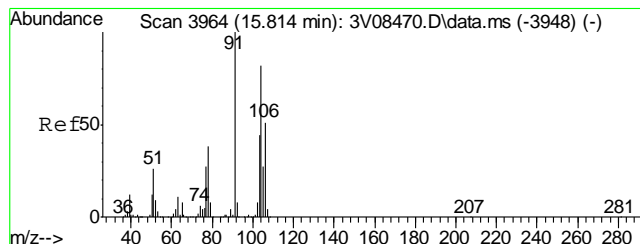
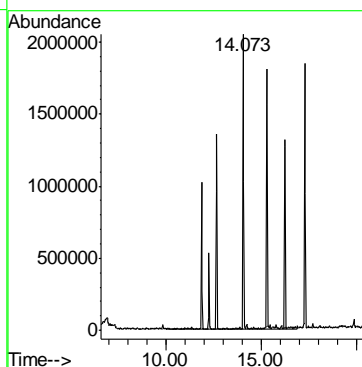
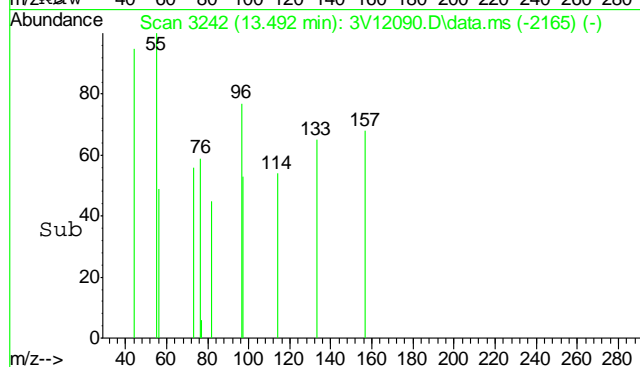
Quant Time: Jun 10 07:48:59 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration





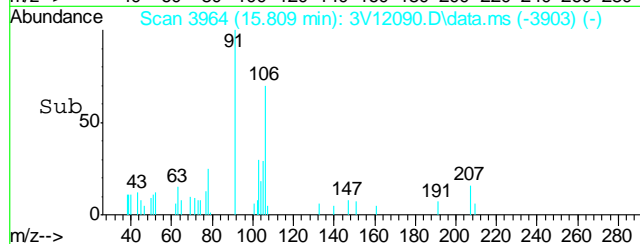
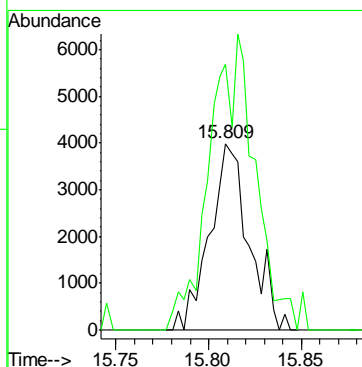
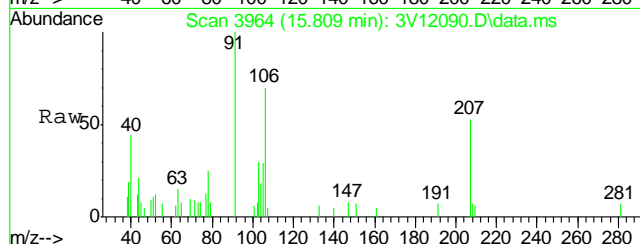
#1
TVH-Gasoline
Concen: 51.01 ug/l m
RT: 13.491 min Scan# 3242
Delta R.T. 0.000 min
Lab File: 3V12090.D
Acq: 10 Jun 2011 3:24 am

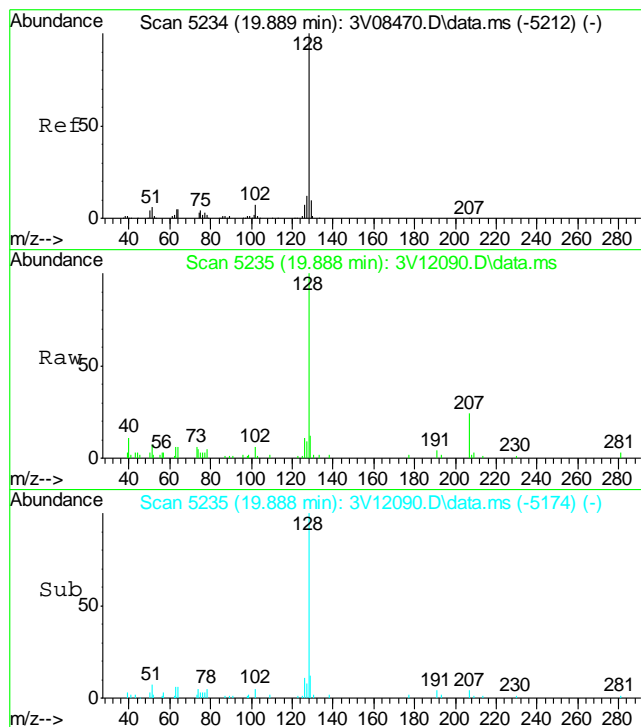
Tgt Ion:TIC Resp: 234188



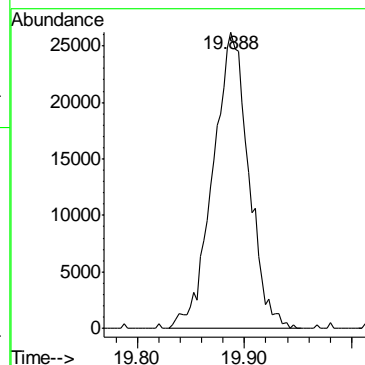
#62
o-xylene
Concen: 0.33 ug/l
RT: 15.809 min Scan# 3964
Delta R.T. -0.004 min
Lab File: 3V12090.D
Acq: 10 Jun 2011 3:24 am

Tgt Ion:106 Resp: 5867
Ion Ratio Lower Upper
106 100
91 184.8 158.4 237.6





#72
 Naphthalene
 Concen: 1.54 ug/l
 RT: 19.888 min Scan# 5235
 Delta R.T. -0.004 min
 Lab File: 3V12090.D
 Acq: 10 Jun 2011 3:24 am
 Tgt Ion:128 Resp: 60471



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12095.D
Acq On : 10 Jun 2011 5:58 am
Operator : DONC
Sample : D24027-2, 50x
Misc : MS2259,V3V679,5.006,,100,5,1
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jun 10 07:49:43 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.888	168	641601	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.684	114	1122131	50.00	ug/l	0.00
48) Chlorobenzene-d5	15.315	117	1070151	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	17.311	152	615547	50.00	ug/l	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	12.283	102	82017	42.44	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	84.88%
55) Toluene-d8	14.070	98	1332518	44.61	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	89.22%
59) 4-Bromofluorobenzene	16.265	95	586463	50.93	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.86%

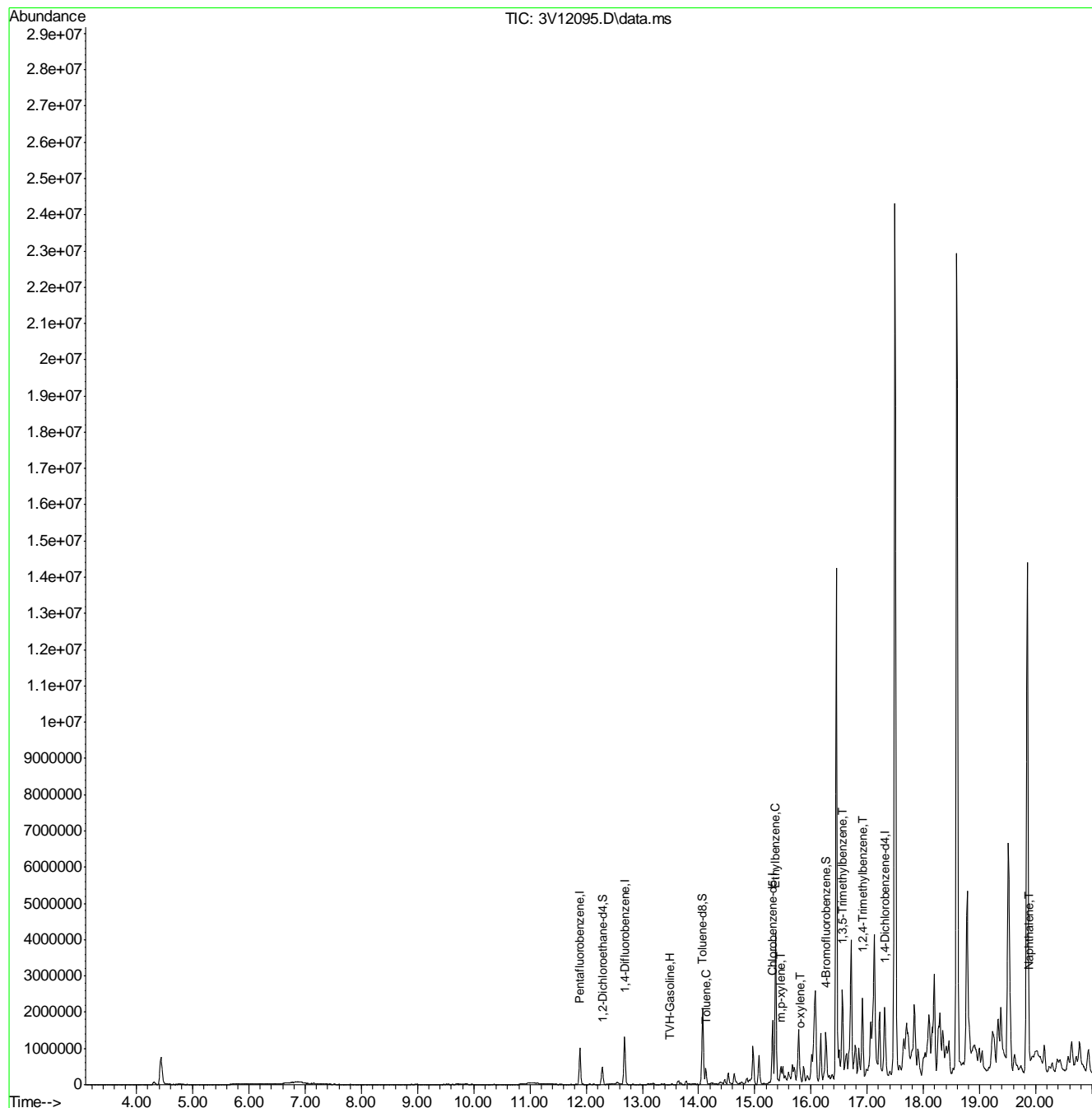
Target Compounds						Qvalue
1) TVH-Gasoline	13.491	TIC	68314318m	1290.81	ug/l	
56) Toluene	14.131	92	11535	0.31	ug/l	94
58) Ethylbenzene	15.379	91	19918	0.51	ug/l	90
61) m,p-xylene	15.466	106	124601	6.99	ug/l	97
62) o-xylene	15.816	106	40698	2.33	ug/l	96
66) 1,3,5-Trimethylbenzene	16.560	105	1080013	28.76	ug/l	99
67) 1,2,4-Trimethylbenzene	16.916	105	1108978	27.92	ug/l	100
72) Naphthalene	19.888	128	321539	8.00	ug/l	100

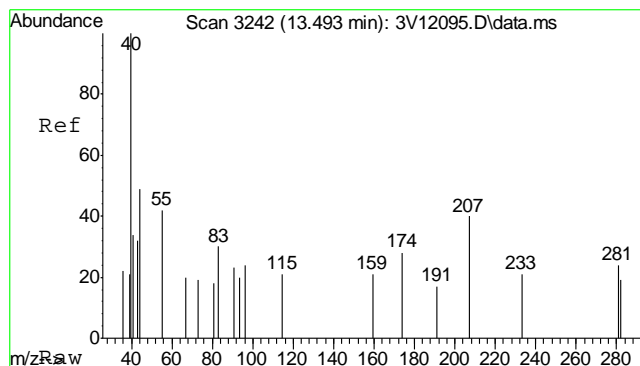
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12095.D
Acq On : 10 Jun 2011 5:58 am
Operator : DONC
Sample : D24027-2, 50x
Misc : MS2259,V3V679,5.006,,100,5,1
ALS Vial : 41 Sample Multiplier: 1

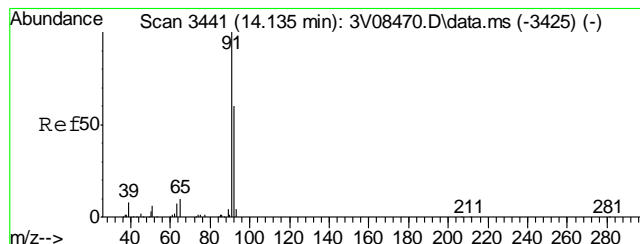
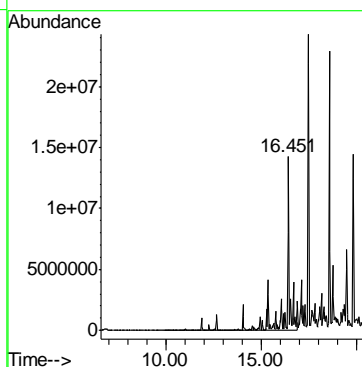
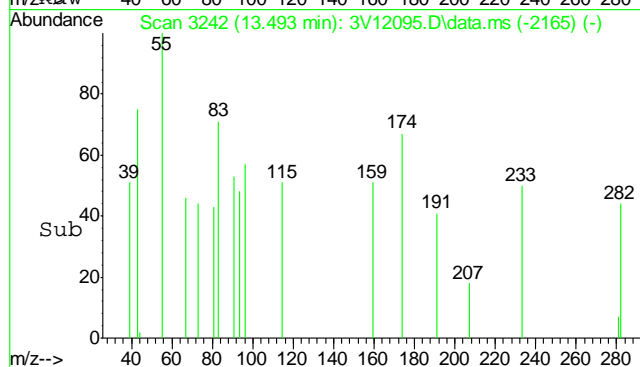
Quant Time: Jun 10 07:49:43 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration





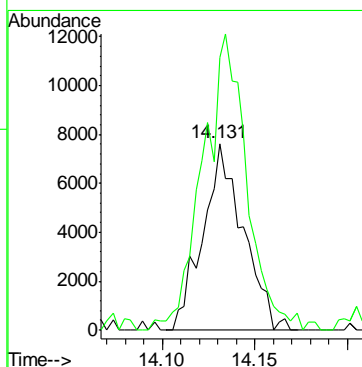
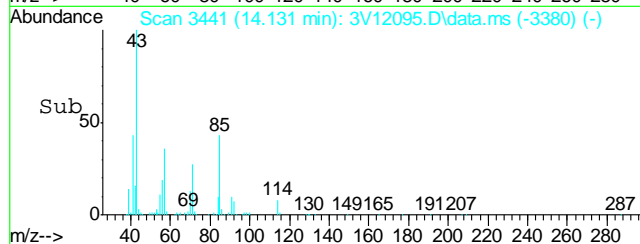
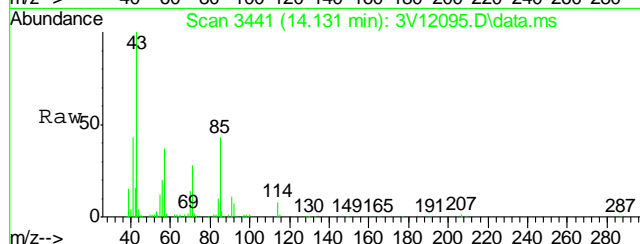
#1
TVH-Gasoline
Concen: 1290.81 ug/l m
RT: 13.491 min Scan# 3242
Delta R.T. 0.000 min
Lab File: 3V12095.D
Acq: 10 Jun 2011 5:58 am

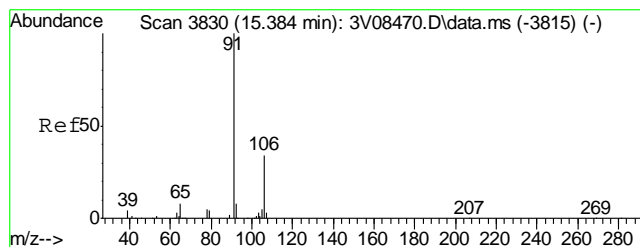
Tgt Ion:TIC Resp:68314318



#56
Toluene
Concen: 0.31 ug/l
RT: 14.131 min Scan# 3441
Delta R.T. -0.004 min
Lab File: 3V12095.D
Acq: 10 Jun 2011 5:58 am

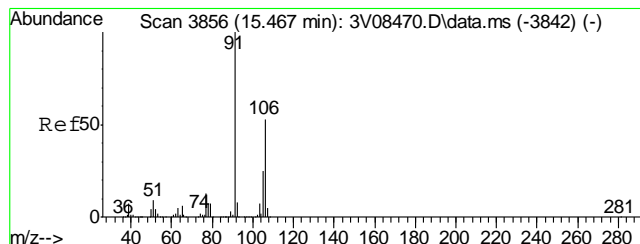
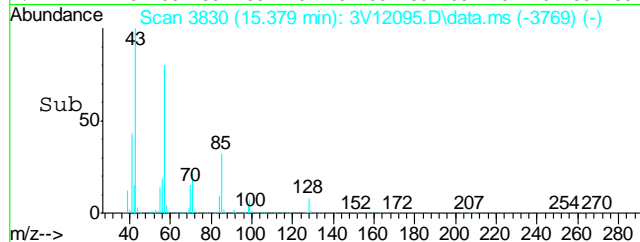
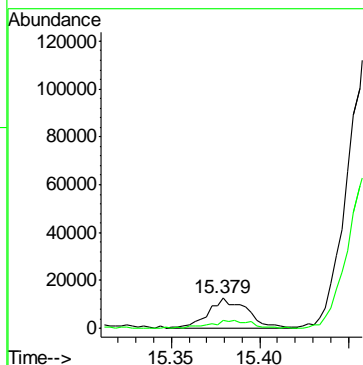
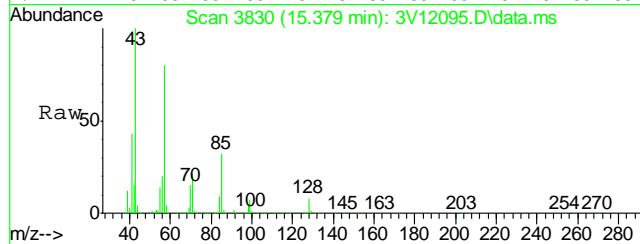
Tgt Ion: 92 Resp: 11535
Ion Ratio Lower Upper
92 100
91 174.1 146.6 186.6





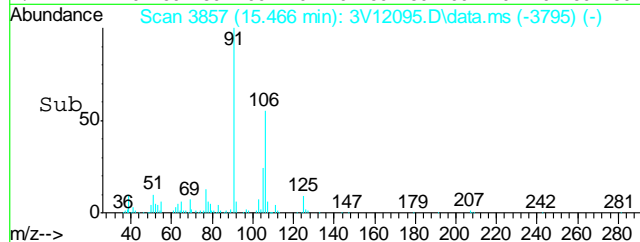
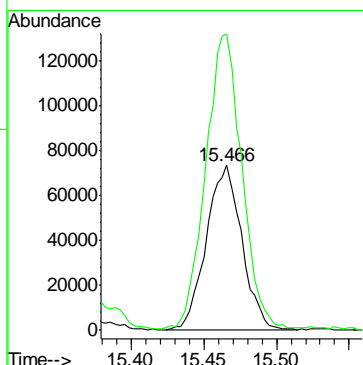
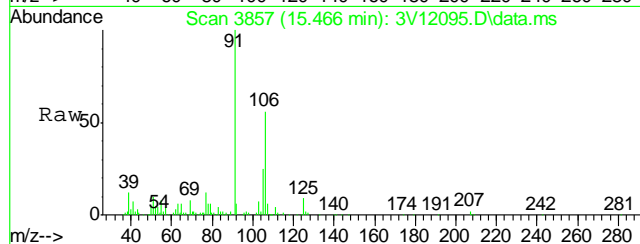
#58
Ethylbenzene
Concen: 0.51 ug/l
RT: 15.379 min Scan# 3830
Delta R.T. -0.004 min
Lab File: 3V12095.D
Acq: 10 Jun 2011 5:58 am

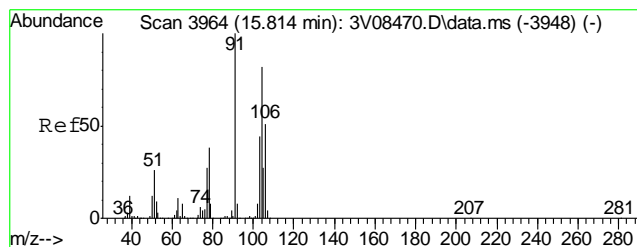
Tgt Ion: 91 Resp: 19918
Ion Ratio Lower Upper
91 100
106 27.9 13.7 53.7



#61
m,p-xylene
Concen: 6.99 ug/l
RT: 15.466 min Scan# 3857
Delta R.T. -0.001 min
Lab File: 3V12095.D
Acq: 10 Jun 2011 5:58 am

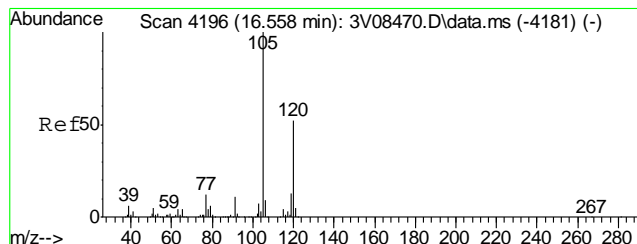
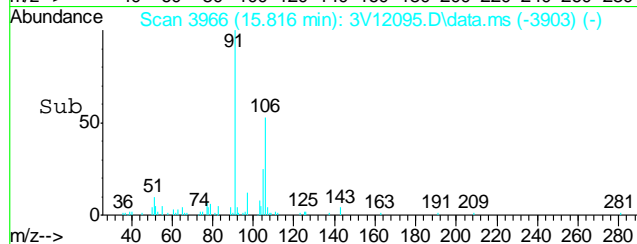
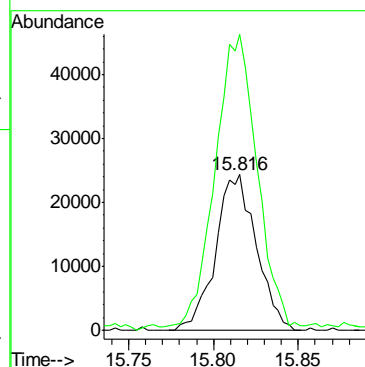
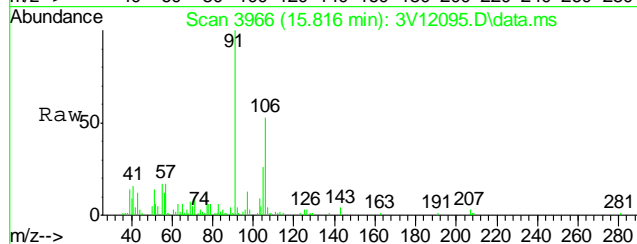
Tgt Ion: 106 Resp: 124601
Ion Ratio Lower Upper
106 100
91 182.6 167.6 207.6





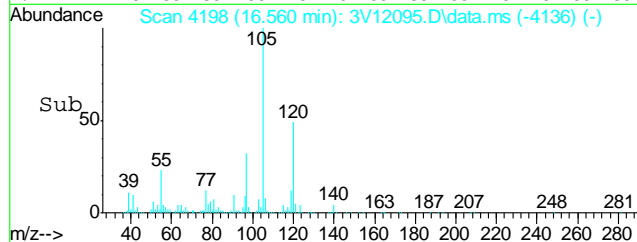
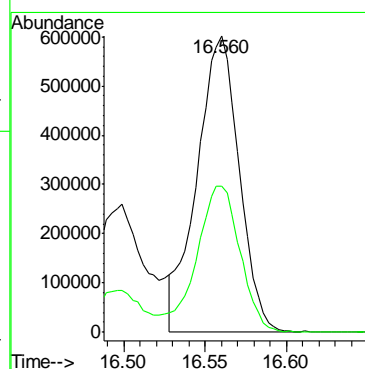
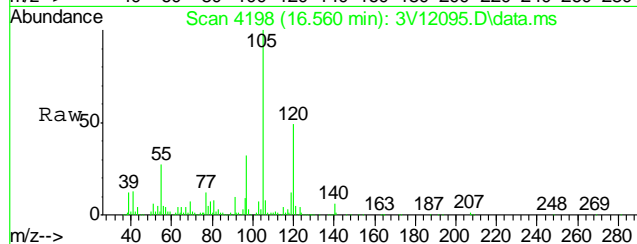
#62
o-xylene
Concen: 2.33 ug/l
RT: 15.816 min Scan# 3966
Delta R.T. 0.002 min
Lab File: 3V12095.D
Acq: 10 Jun 2011 5:58 am

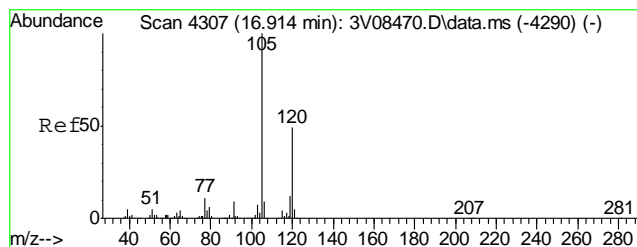
Tgt Ion:106 Resp: 40698
Ion Ratio Lower Upper
106 100
91 191.6 158.4 237.6



#66
1,3,5-Trimethylbenzene
Concen: 28.76 ug/l
RT: 16.560 min Scan# 4198
Delta R.T. -0.001 min
Lab File: 3V12095.D
Acq: 10 Jun 2011 5:58 am

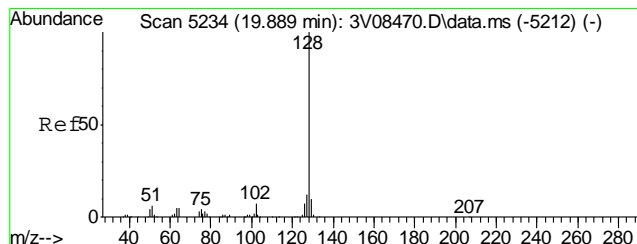
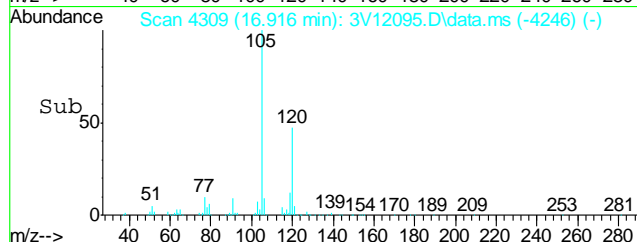
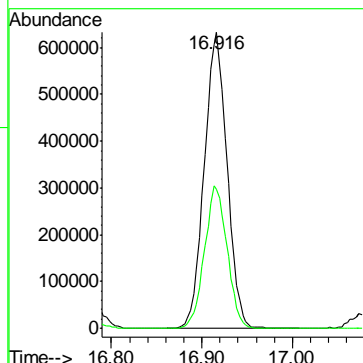
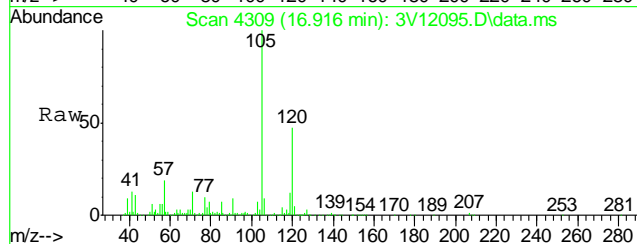
Tgt Ion:105 Resp: 1080013
Ion Ratio Lower Upper
105 100
120 50.4 41.1 61.7





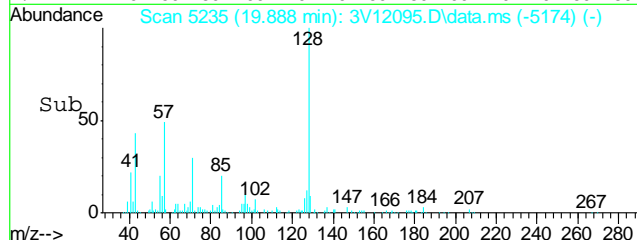
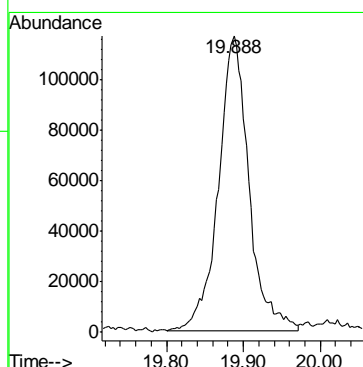
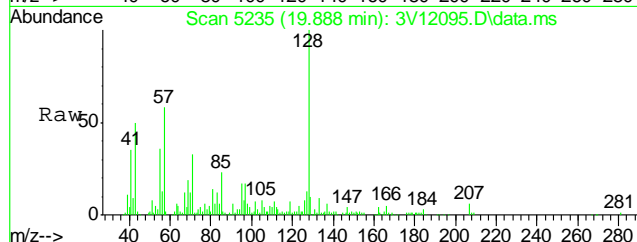
#67
1,2,4-Trimethylbenzene
Concen: 27.92 ug/l
RT: 16.916 min Scan# 4309
Delta R.T. 0.002 min
Lab File: 3V12095.D
Acq: 10 Jun 2011 5:58 am

Tgt Ion:105 Resp: 1108978
Ion Ratio Lower Upper
105 100
120 47.8 38.2 57.4



#72
Naphthalene
Concen: 8.00 ug/l
RT: 19.888 min Scan# 5235
Delta R.T. -0.004 min
Lab File: 3V12095.D
Acq: 10 Jun 2011 5:58 am

Tgt Ion:128 Resp: 321539



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12096.D
Acq On : 10 Jun 2011 6:29 am
Operator : DONC
Sample : D24027-3, 50x
Misc : MS2259,V3V679,5.034,,100,5,1
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jun 10 07:50:01 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.888	168	728549	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.680	114	1273351	50.00	ug/l	0.00
48) Chlorobenzene-d5	15.315	117	1259482	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	17.311	152	678594	50.00	ug/l	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	12.286	102	93798	42.75	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	85.50%
55) Toluene-d8	14.073	98	1514963	43.09	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	86.18%
59) 4-Bromofluorobenzene	16.265	95	608961	44.94	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	89.88%

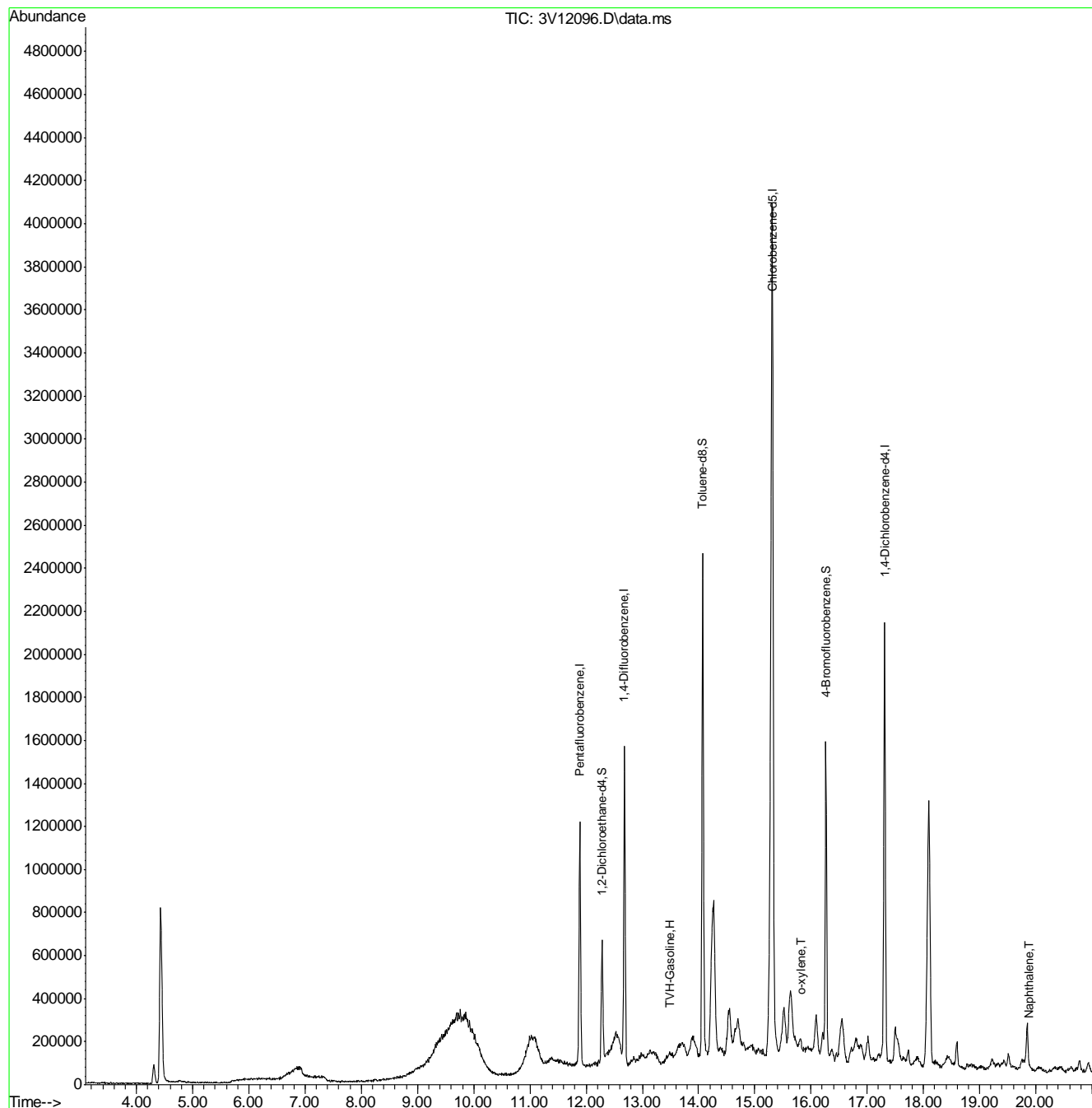
Target Compounds						Qvalue
1) TVH-Gasoline	13.491	TIC	13077373m	286.92	ug/l	
62) o-xylene	15.809	106	6761	0.33	ug/l	92
72) Naphthalene	19.887	128	17569	0.40	ug/l	100

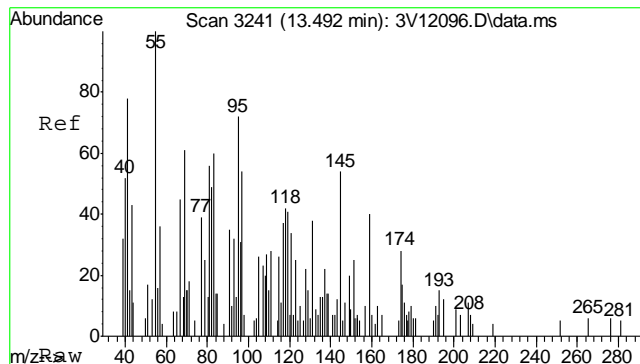
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12096.D
Acq On : 10 Jun 2011 6:29 am
Operator : DONC
Sample : D24027-3, 50x
Misc : MS2259,V3V679,5.034,,100,5,1
ALS Vial : 42 Sample Multiplier: 1

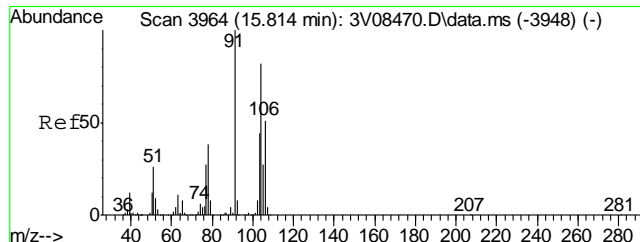
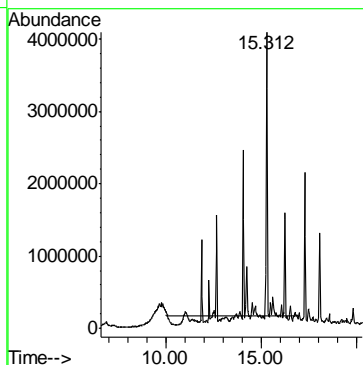
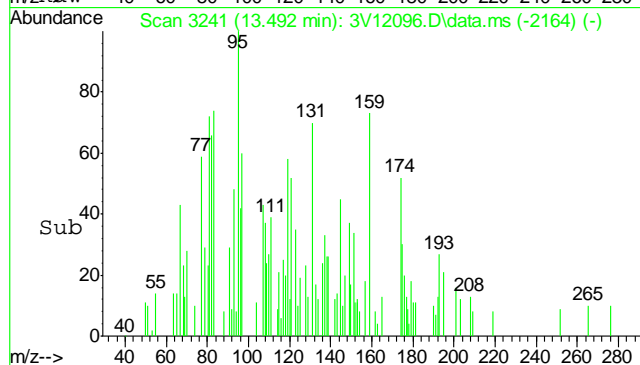
Quant Time: Jun 10 07:50:01 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration





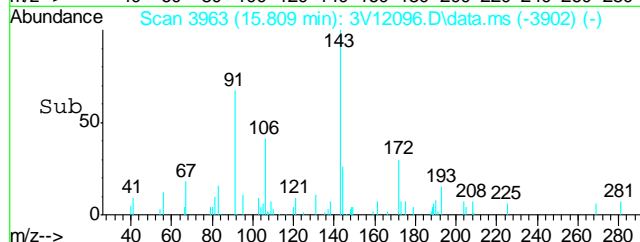
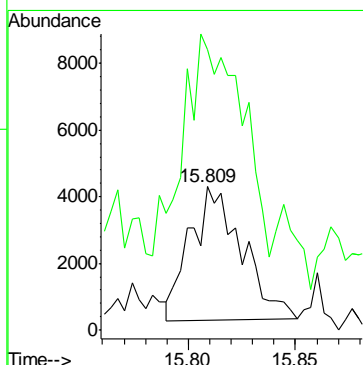
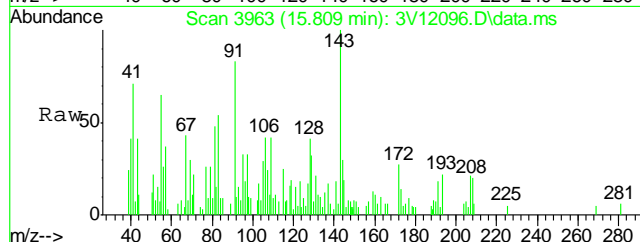
#1
TVH-Gasoline
Concen: 286.92 ug/l m
RT: 13.491 min Scan# 3241
Delta R.T. 0.000 min
Lab File: 3V12096.D
Acq: 10 Jun 2011 6:29 am

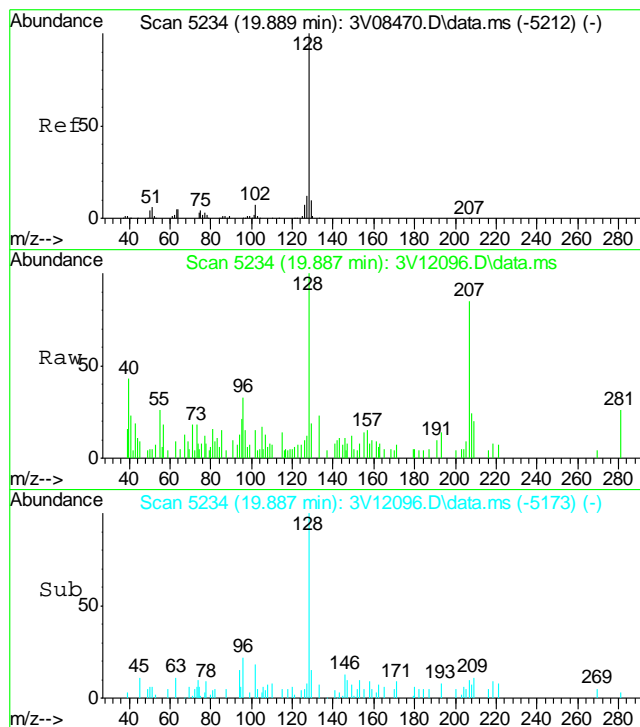
Tgt Ion:TIC Resp:13077373



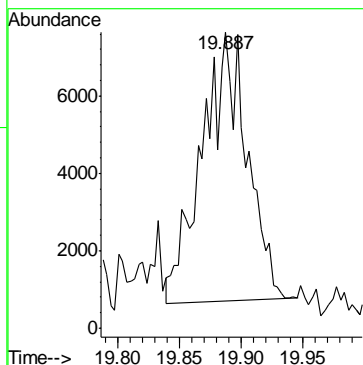
#62
o-xylene
Concen: 0.33 ug/l
RT: 15.809 min Scan# 3963
Delta R.T. -0.005 min
Lab File: 3V12096.D
Acq: 10 Jun 2011 6:29 am

Tgt Ion:106 Resp: 6761
Ion Ratio Lower Upper
106 100
91 185.4 158.4 237.6





#72
 Naphthalene
 Concen: 0.40 ug/l
 RT: 19.887 min Scan# 5234
 Delta R.T. -0.005 min
 Lab File: 3V12096.D
 Acq: 10 Jun 2011 6:29 am
 Tgt Ion:128 Resp: 17569



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12097.D
Acq On : 10 Jun 2011 7:00 am
Operator : DONC
Sample : D24027-4, 50x
Misc : MS2259,V3V679,5.023,,100,5,1
ALS Vial : 43 Sample Multiplier: 1

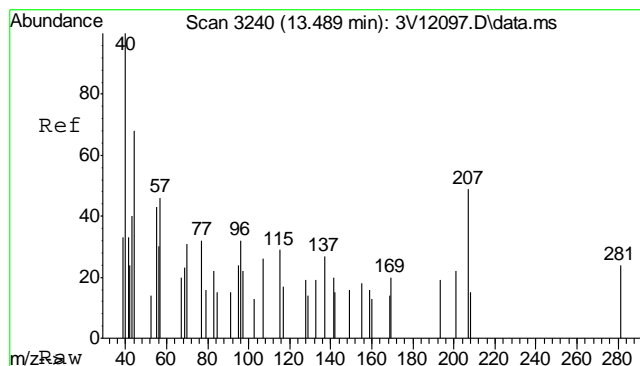
Quant Time: Jun 10 07:48:22 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.888	168	758504	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.684	114	1324879	50.00	ug/l	0.00
48) Chlorobenzene-d5	15.315	117	1251520	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	17.308	152	734657	50.00	ug/l	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	12.286	102	94784	41.49	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	82.98%
55) Toluene-d8	14.073	98	1614834	46.23	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.46%
59) 4-Bromofluorobenzene	16.265	95	858659	63.77	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	127.54%

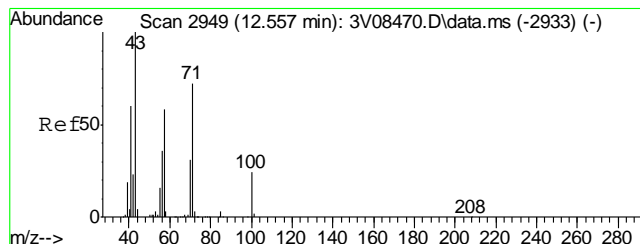
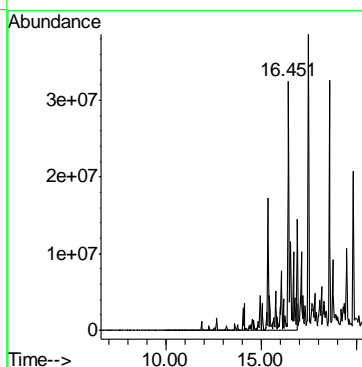
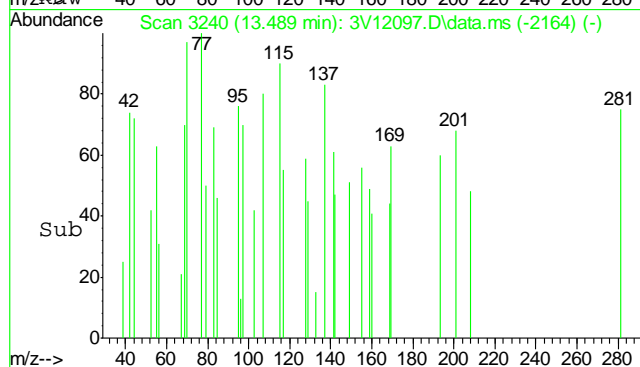
Target Compounds						Qvalue
1) TVH-Gasoline	13.491	TIC	250726236m	4491.24	ug/l	
39) Heptane	12.549	43	110652	4.56	ug/l	93
56) Toluene	14.128	92	18052	0.49	ug/l	94
58) Ethylbenzene	15.383	91	207162	4.57	ug/l	98
61) m,p-xylene	15.466	106	1358841	68.98	ug/l	99
62) o-xylene	15.813	106	197942	9.68	ug/l	99
65) Cyclohexanone	16.236	55	81740	129.38	ug/l	# 88
66) 1,3,5-Trimethylbenzene	16.557	105	5501040	122.74	ug/l	98
67) 1,2,4-Trimethylbenzene	16.916	105	8135100	171.63	ug/l	96
72) Naphthalene	19.891	128	685385	14.28	ug/l	100

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



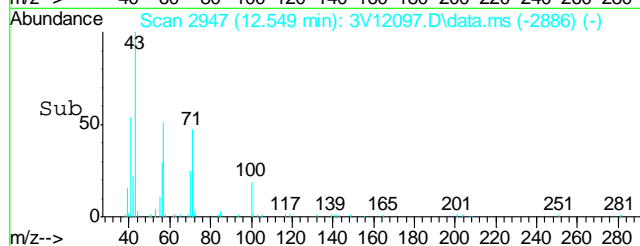
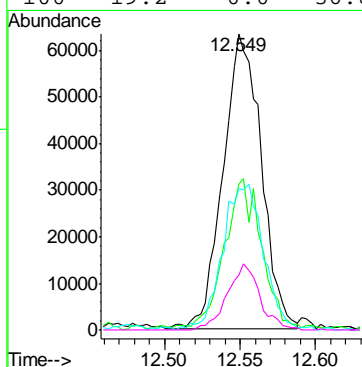
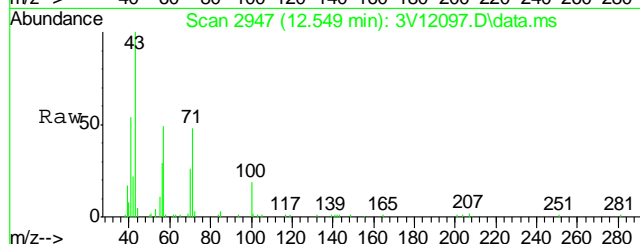
#1
TVH-Gasoline
Concen: 4491.24 ug/l m
RT: 13.491 min Scan# 3240
Delta R.T. 0.000 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

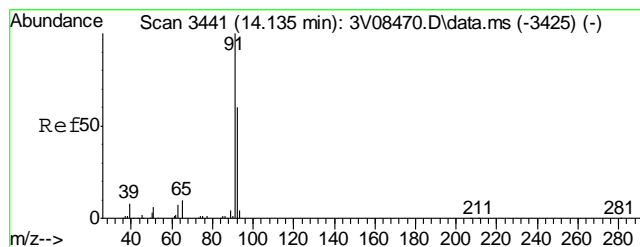
Tgt Ion:TIC Resp:250726236



#39
Heptane
Concen: 4.56 ug/l
RT: 12.549 min Scan# 2947
Delta R.T. -0.004 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

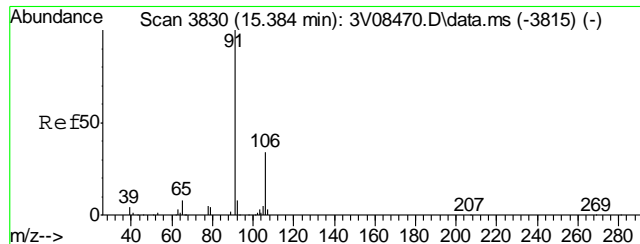
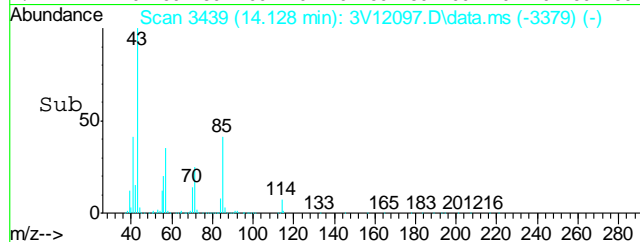
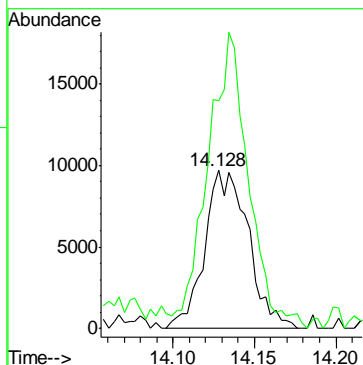
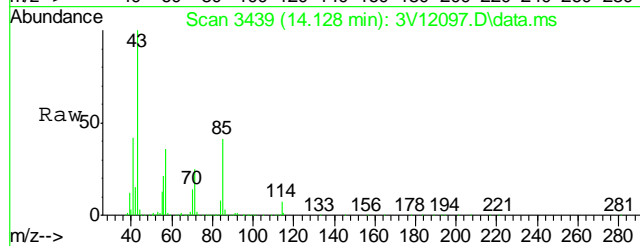
Tgt Ion: 43 Resp: 110652
Ion Ratio Lower Upper
43 100
57 49.2 26.0 66.0
71 53.0 26.8 66.8
100 19.2 0.0 36.8





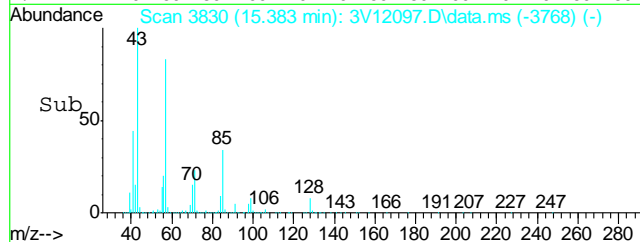
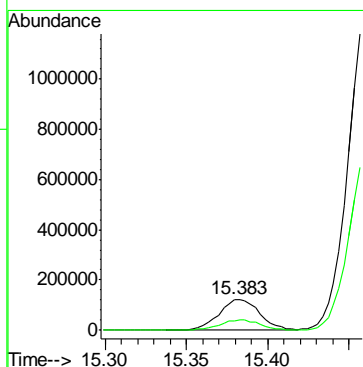
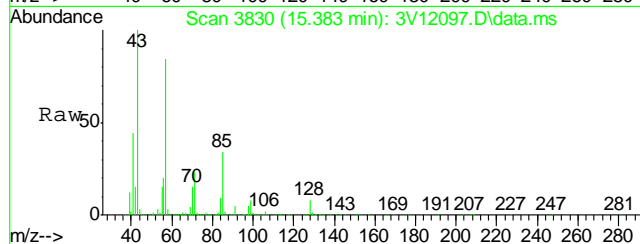
#56
Toluene
Concen: 0.49 ug/l
RT: 14.128 min Scan# 3439
Delta R.T. -0.008 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

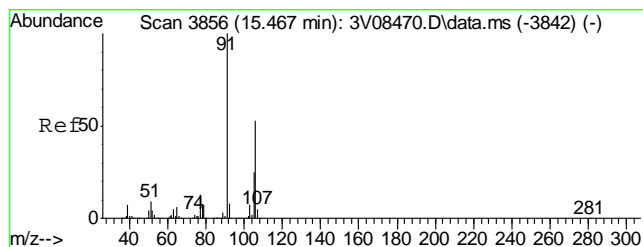
Tgt Ion: 92 Resp: 18052
Ion Ratio Lower Upper
92 100
91 175.1 146.6 186.6



#58
Ethylbenzene
Concen: 4.57 ug/l
RT: 15.383 min Scan# 3830
Delta R.T. -0.001 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

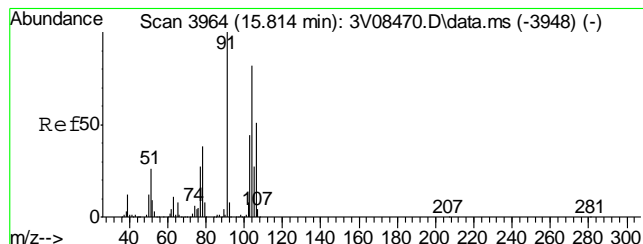
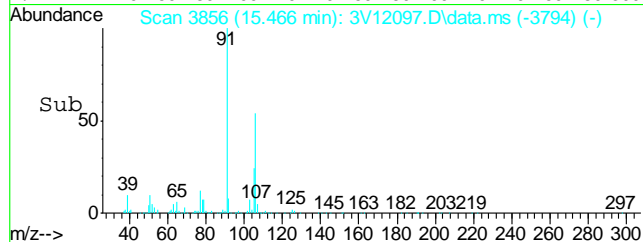
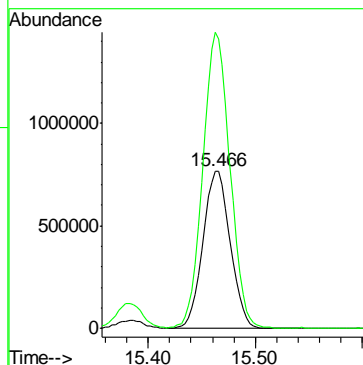
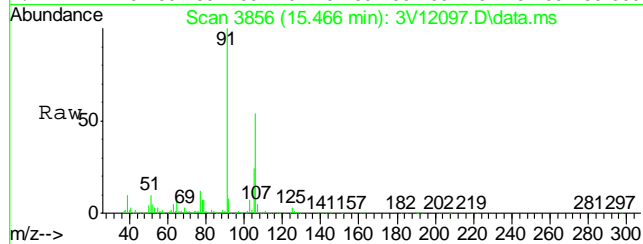
Tgt Ion: 91 Resp: 207162
Ion Ratio Lower Upper
91 100
106 32.5 13.7 53.7





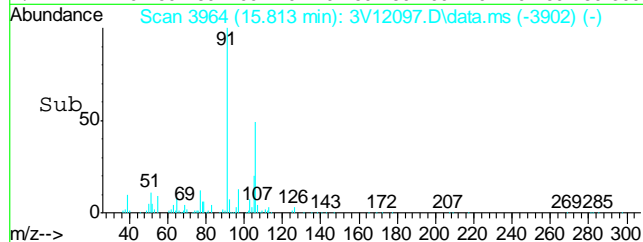
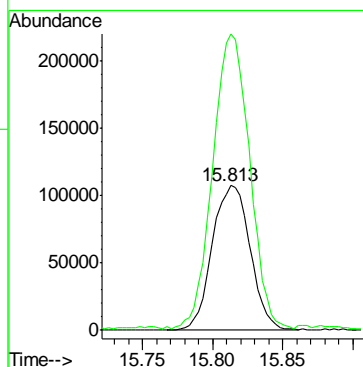
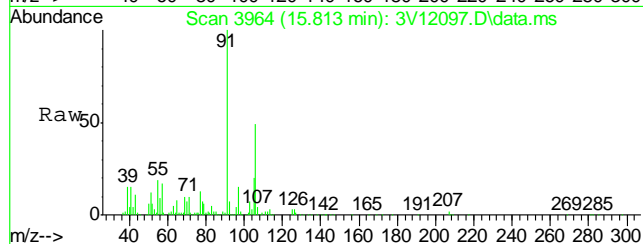
#61
m,p-xylene
Concen: 68.98 ug/l
RT: 15.466 min Scan# 3856
Delta R.T. -0.001 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

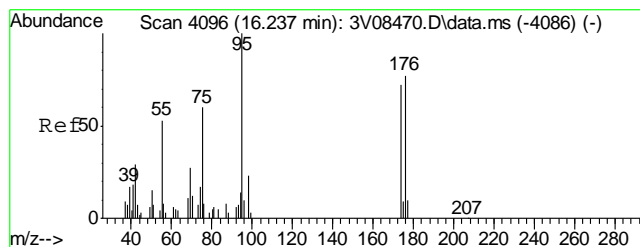
Tgt Ion	Ratio	Lower	Upper
106	100		
91	186.1	167.6	207.6



#62
o-xylene
Concen: 9.68 ug/l
RT: 15.813 min Scan# 3964
Delta R.T. -0.001 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

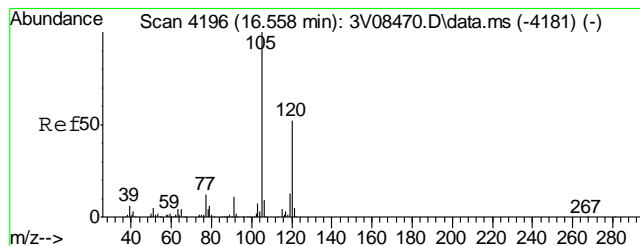
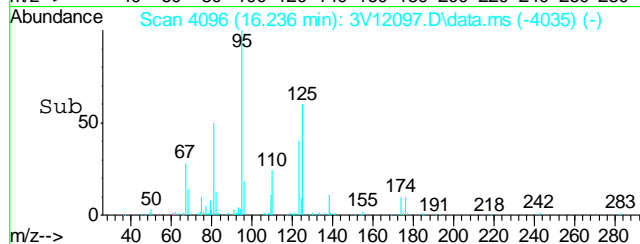
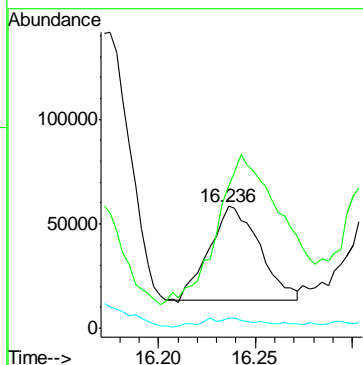
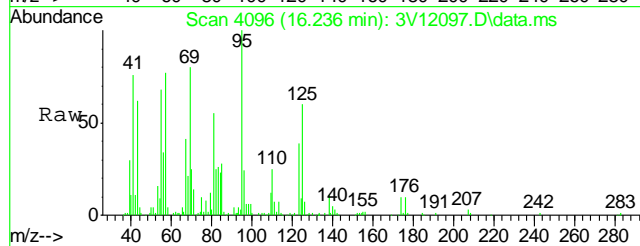
Tgt Ion	Ratio	Lower	Upper
106	100		
91	198.8	158.4	237.6





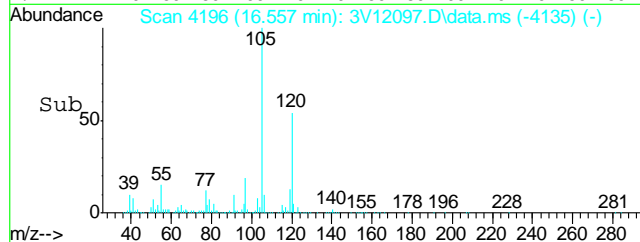
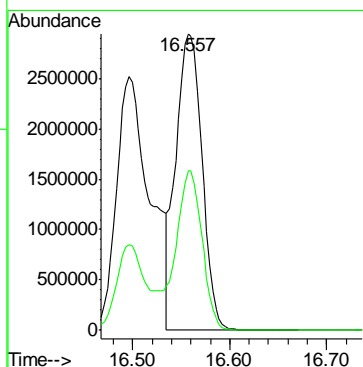
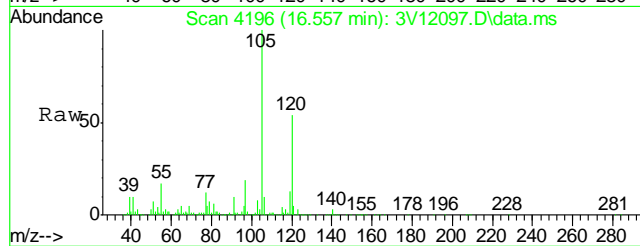
#65
Cyclohexanone
Concen: 129.38 ug/l
RT: 16.236 min Scan# 4096
Delta R.T. -0.004 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

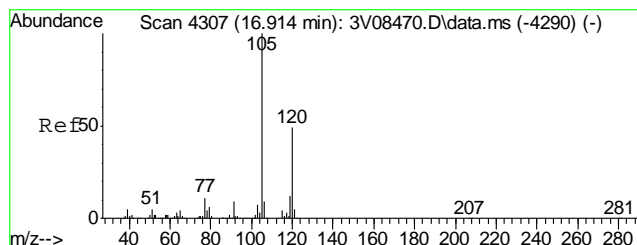
Tgt Ion	Ratio	Lower	Upper
55	100		
69	215.4	168.5	252.7
98	0.0	30.8	46.2#



#66
1,3,5-Trimethylbenzene
Concen: 122.74 ug/l
RT: 16.557 min Scan# 4196
Delta R.T. -0.004 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

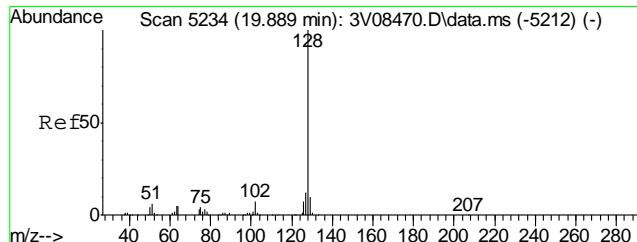
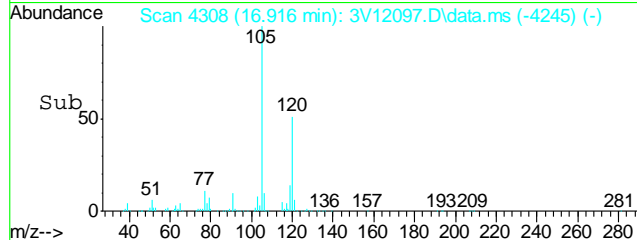
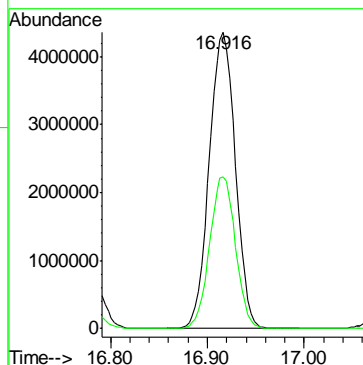
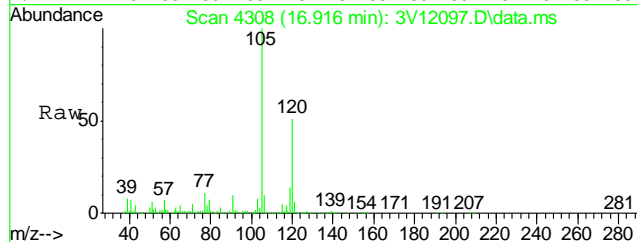
Tgt Ion	Ratio	Lower	Upper
105	100		
120	52.9	41.1	61.7





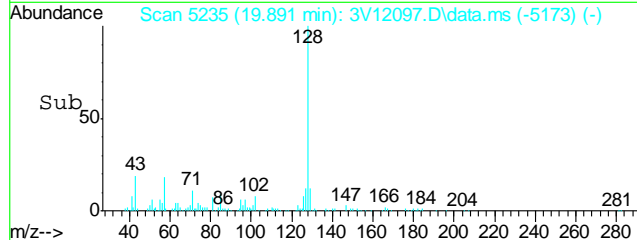
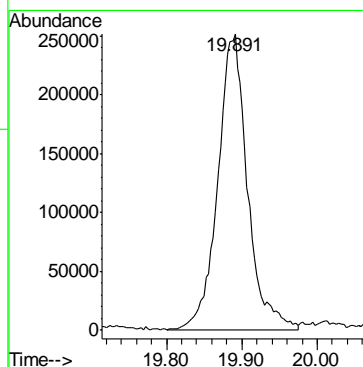
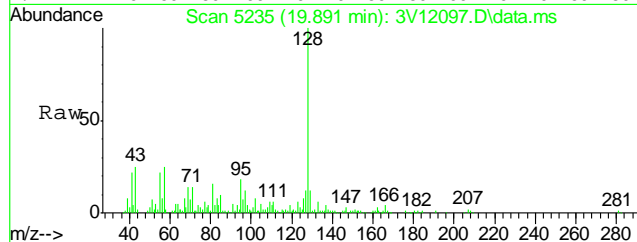
#67
1,2,4-Trimethylbenzene
Concen: 171.63 ug/l
RT: 16.916 min Scan# 4308
Delta R.T. 0.002 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

Tgt Ion:105 Resp: 8135100
Ion Ratio Lower Upper
105 100
120 50.5 38.2 57.4



#72
Naphthalene
Concen: 14.28 ug/l
RT: 19.891 min Scan# 5235
Delta R.T. -0.001 min
Lab File: 3V12097.D
Acq: 10 Jun 2011 7:00 am

Tgt Ion:128 Resp: 685385



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12098.D
Acq On : 10 Jun 2011 7:31 am
Operator : DONC
Sample : D24027-5, 50x
Misc : MS2259,V3V679,5.045,,100,5,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Jun 10 07:55:25 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.888	168	754978	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.683	114	1346496	50.00	ug/l	0.00
48) Chlorobenzene-d5	15.315	117	1304382	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	17.310	152	716739	50.00	ug/l	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	12.285	102	100360	44.14	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.28%
55) Toluene-d8	14.073	98	1577213	43.32	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	86.64%
59) 4-Bromofluorobenzene	16.264	95	653785	46.59	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.18%

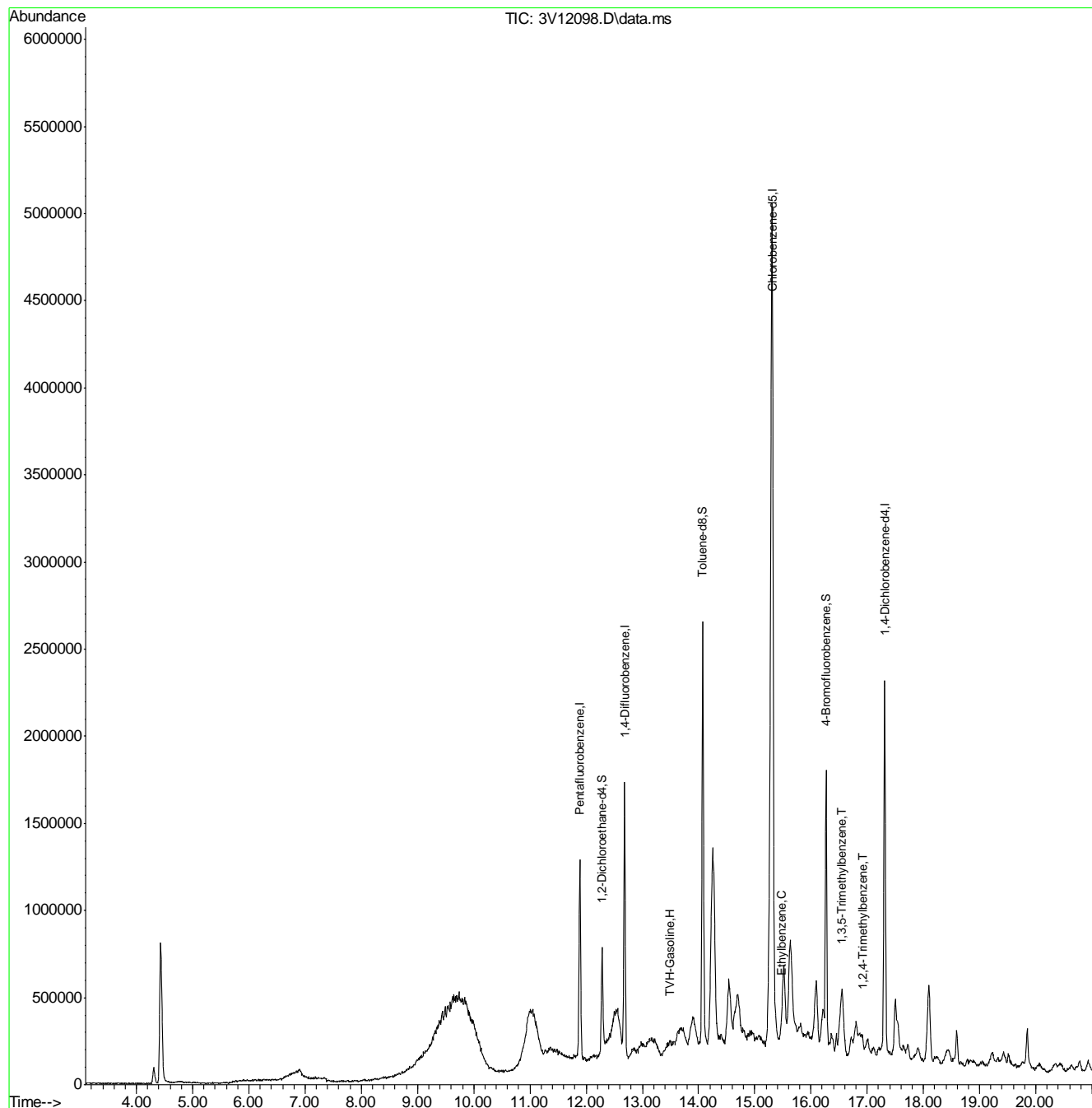
Target Compounds						Qvalue
1) TVH-Gasoline	13.491	TIC	20455151m	422.01	ug/l	
58) Ethylbenzene	15.465	91	30782	0.65	ug/l	84
66) 1,3,5-Trimethylbenzene	16.560	105	17216	0.39	ug/l	86
67) 1,2,4-Trimethylbenzene	16.916	105	25672	0.56	ug/l	92

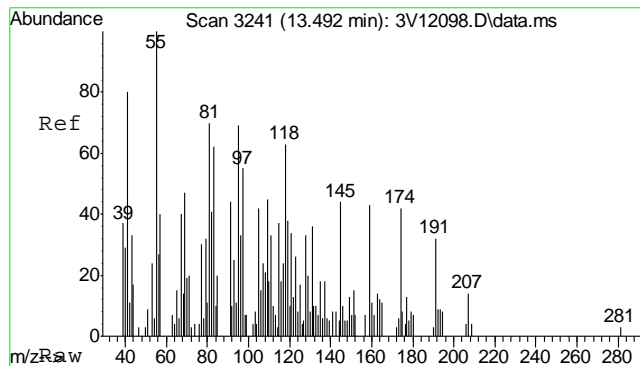
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12098.D
Acq On : 10 Jun 2011 7:31 am
Operator : DONC
Sample : D24027-5, 50x
Misc : MS2259,V3V679,5.045,,100,5,1
ALS Vial : 44 Sample Multiplier: 1

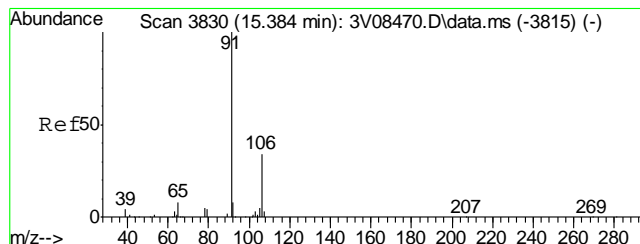
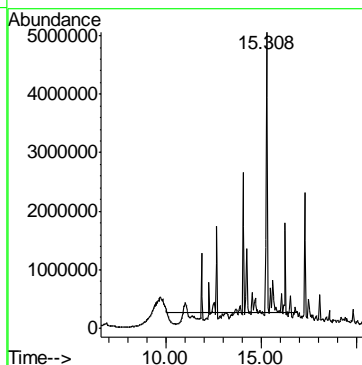
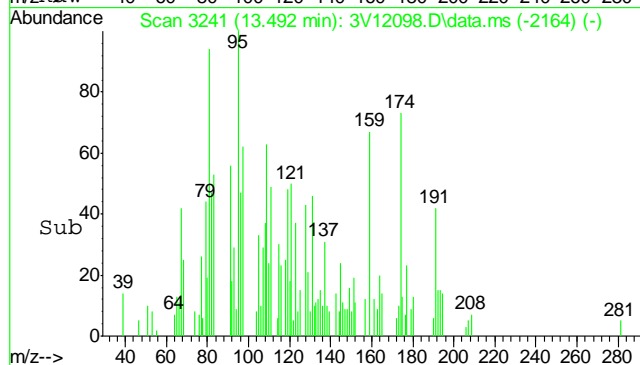
Quant Time: Jun 10 07:55:25 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration





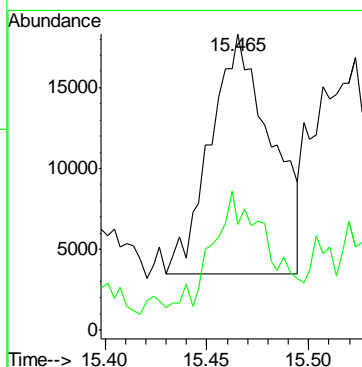
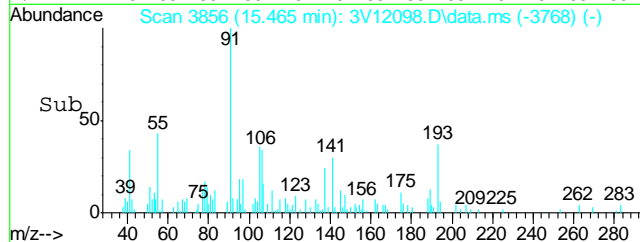
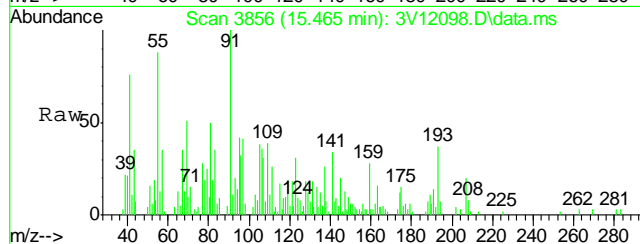
#1
TVH-Gasoline
Concen: 422.01 ug/l m
RT: 13.491 min Scan# 3241
Delta R.T. 0.000 min
Lab File: 3V12098.D
Acq: 10 Jun 2011 7:31 am

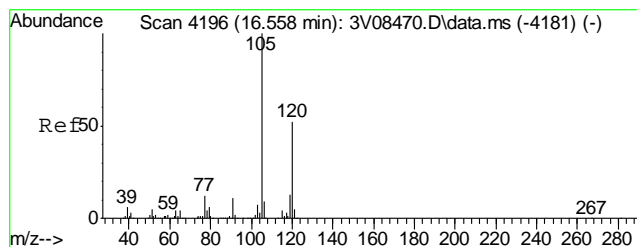
Tgt Ion:TIC Resp:20455151



#58
Ethylbenzene
Concen: 0.65 ug/l
RT: 15.465 min Scan# 3856
Delta R.T. 0.082 min
Lab File: 3V12098.D
Acq: 10 Jun 2011 7:31 am

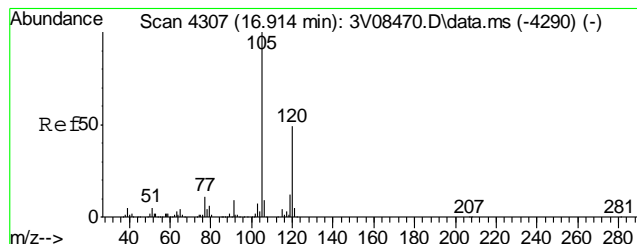
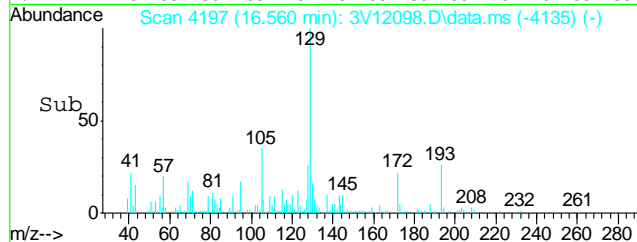
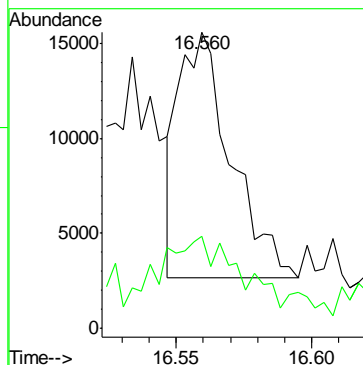
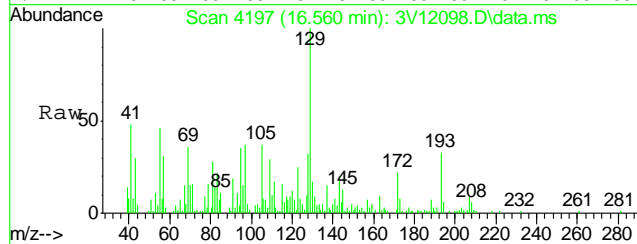
Tgt Ion: 91 Resp: 30782
Ion Ratio Lower Upper
91 100
106 42.9 13.7 53.7





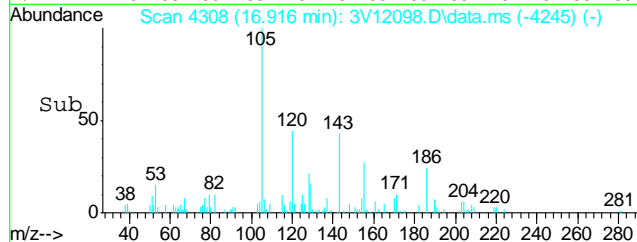
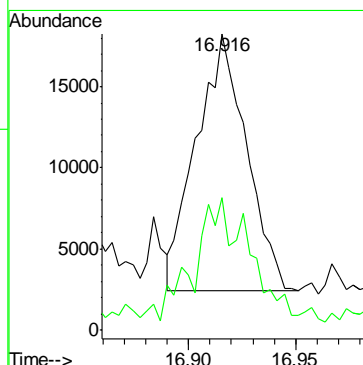
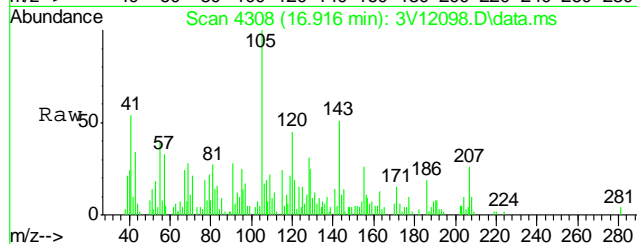
#66
1,3,5-Trimethylbenzene
Concen: 0.39 ug/l
RT: 16.560 min Scan# 4197
Delta R.T. -0.002 min
Lab File: 3V12098.D
Acq: 10 Jun 2011 7:31 am

Tgt Ion:105 Resp: 17216
Ion Ratio Lower Upper
105 100
120 41.4 41.1 61.7



#67
1,2,4-Trimethylbenzene
Concen: 0.56 ug/l
RT: 16.916 min Scan# 4308
Delta R.T. 0.001 min
Lab File: 3V12098.D
Acq: 10 Jun 2011 7:31 am

Tgt Ion:105 Resp: 25672
Ion Ratio Lower Upper
105 100
120 52.9 38.2 57.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
 Data File : 3V12099.D
 Acq On : 10 Jun 2011 8:02 am
 Operator : DONC
 Sample : D24027-6, 50x
 Misc : MS2259,V3V679,5.088,,100,5,1
 ALS Vial : 45 Sample Multiplier: 1

Quant Time: Jun 10 09:00:56 2011
 Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
 Quant Title : 8260
 QLast Update : Thu Jun 09 14:33:53 2011
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.889	168	753137	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.682	114	1316188	50.00	ug/l	0.00
48) Chlorobenzene-d5	15.316	117	1265358	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	17.312	152	719680	50.00	ug/l	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	12.287	102	98046	43.23	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	86.46%
55) Toluene-d8	14.074	98	1543434	43.70	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	87.40%
59) 4-Bromofluorobenzene	16.266	95	676846	49.72	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.44%

Target Compounds

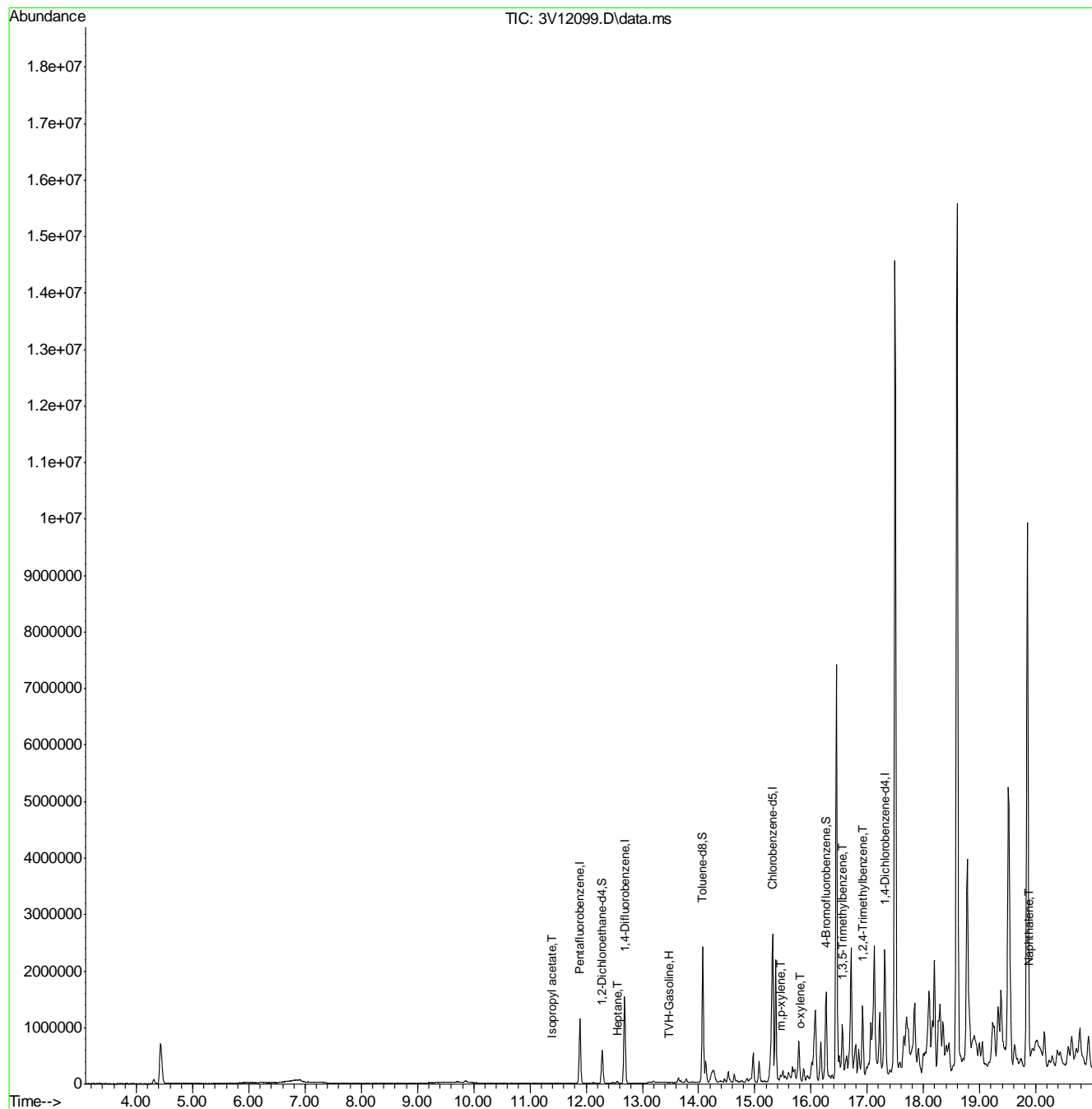
					Qvalue
1) TVH-Gasoline	13.491	TIC	36439037m	713.60	ug/l
26) Isopropyl acetate	11.382	43	11047	0.90	ug/l # 89
39) Heptane	12.553	43	13727	0.57	ug/l 88
61) m,p-xylene	15.467	106	25443	0.83	ug/l 96
62) o-xylene	15.813	106	9445	0.46	ug/l # 70
66) 1,3,5-Trimethylbenzene	16.558	105	328042	7.47	ug/l 99
67) 1,2,4-Trimethylbenzene	16.914	105	612049	13.18	ug/l 100
72) Naphthalene	19.889	128	102728	2.19	ug/l 100

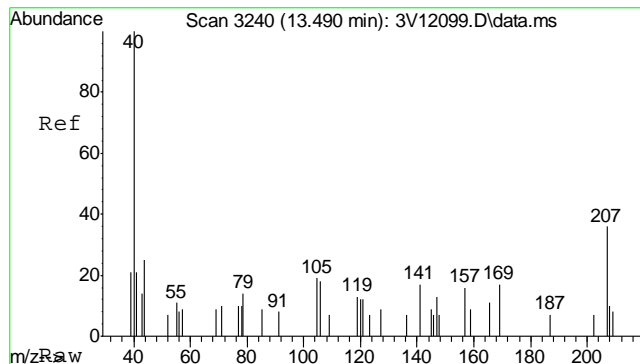
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12099.D
Acq On : 10 Jun 2011 8:02 am
Operator : DONC
Sample : D24027-6, 50x
Misc : MS2259,V3V679,5.088,,100,5,1
ALS Vial : 45 Sample Multiplier: 1

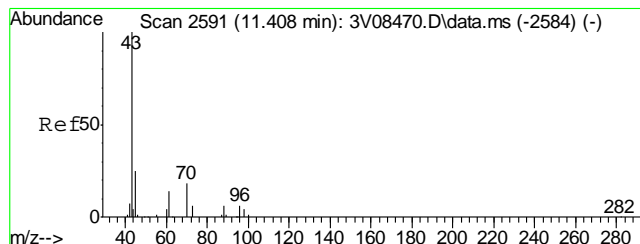
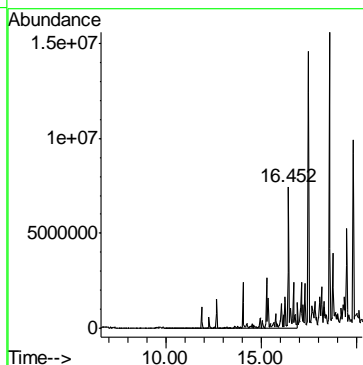
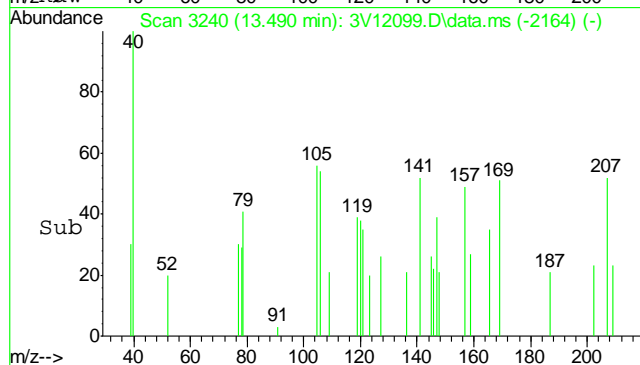
Quant Time: Jun 10 09:00:56 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration





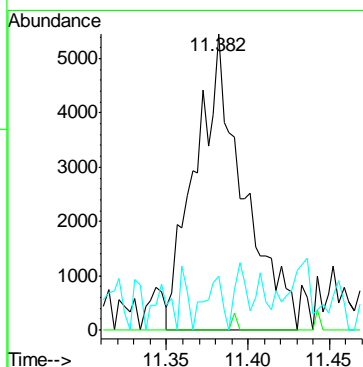
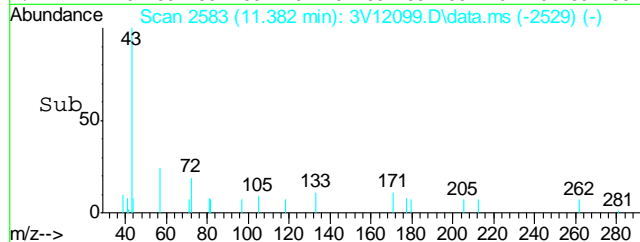
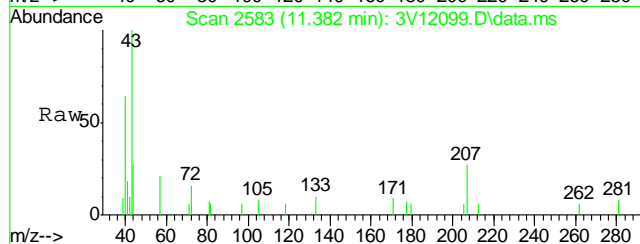
#1
TVH-Gasoline
Concen: 713.60 ug/l m
RT: 13.491 min Scan# 3240
Delta R.T. 0.000 min
Lab File: 3V12099.D
Acq: 10 Jun 2011 8:02 am

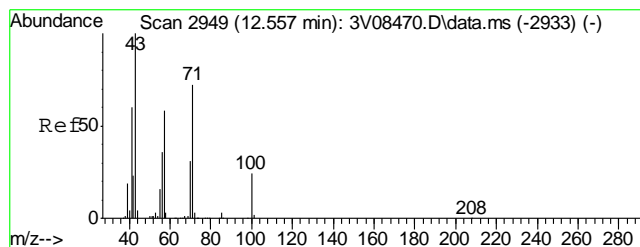
Tgt Ion:TIC Resp:36439037



#26
Isopropyl acetate
Concen: 0.90 ug/l
RT: 11.382 min Scan# 2583
Delta R.T. -0.026 min
Lab File: 3V12099.D
Acq: 10 Jun 2011 8:02 am

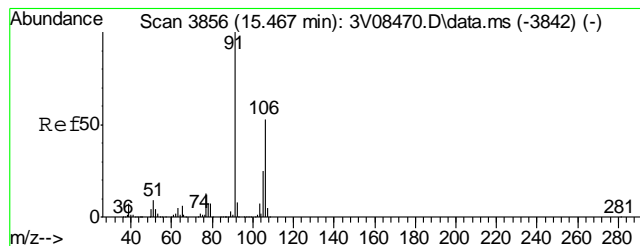
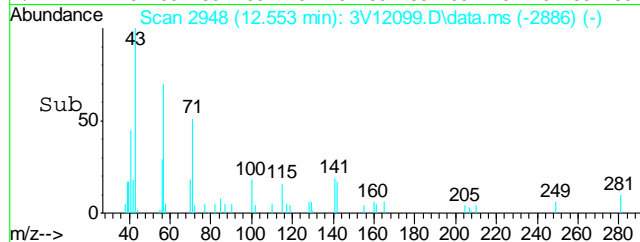
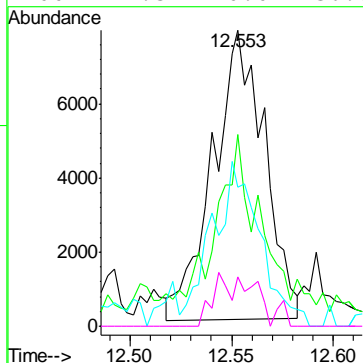
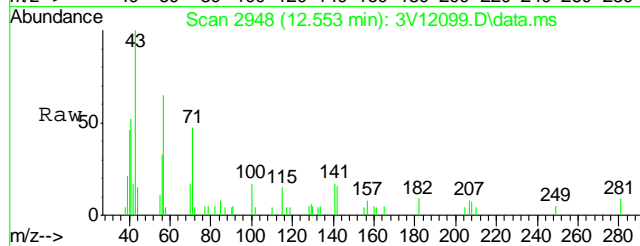
Tgt Ion: 43 Resp: 11047
Ion Ratio Lower Upper
43 100
61 0.0 0.0 20.0
41 6.6 0.0 20.7





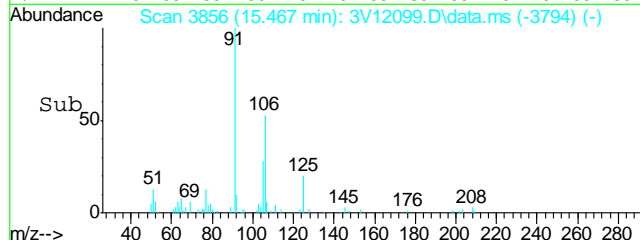
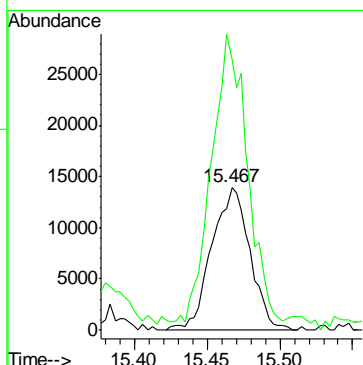
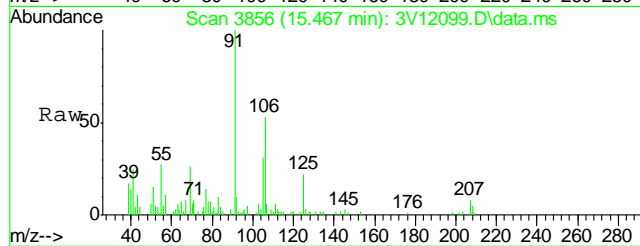
#39
Heptane
Concen: 0.57 ug/l
RT: 12.553 min Scan# 2948
Delta R.T. -0.000 min
Lab File: 3V12099.D
Acq: 10 Jun 2011 8:02 am

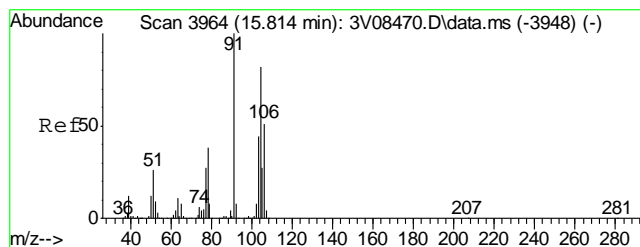
Tgt Ion	Ratio	Lower	Upper
43	100		
57	53.3	26.0	66.0
71	53.0	26.8	66.8
100	7.3	0.0	36.8



#61
m,p-xylene
Concen: 0.83 ug/l
RT: 15.467 min Scan# 3856
Delta R.T. -0.000 min
Lab File: 3V12099.D
Acq: 10 Jun 2011 8:02 am

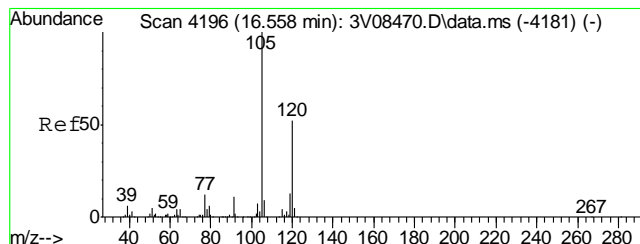
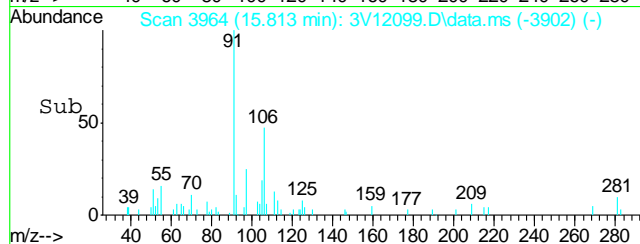
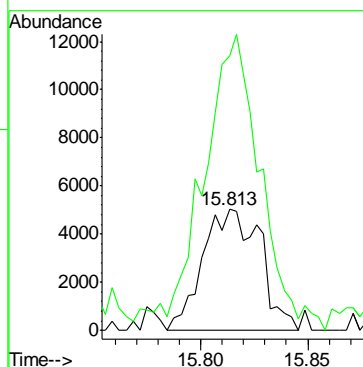
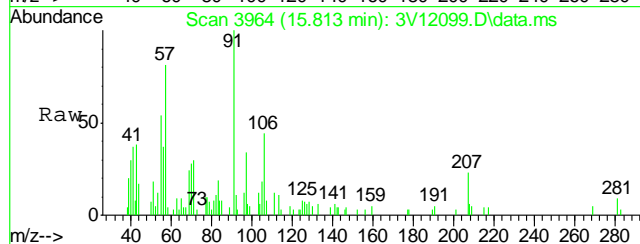
Tgt Ion	Ratio	Lower	Upper
106	100		
91	193.8	167.6	207.6





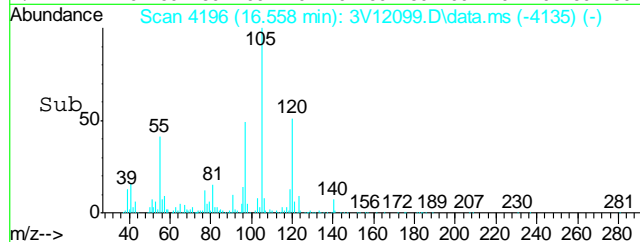
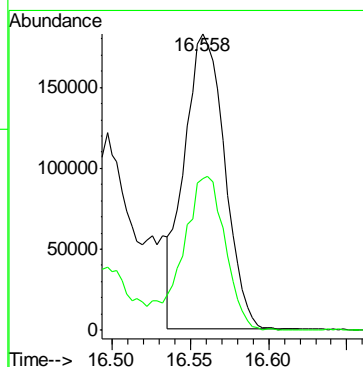
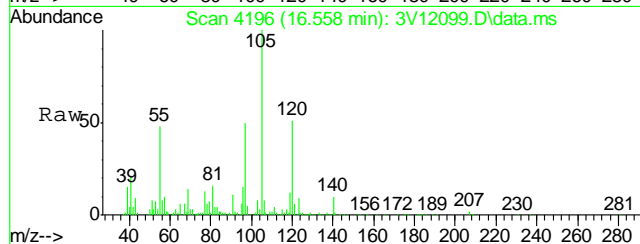
#62
o-xylene
Concen: 0.46 ug/l
RT: 15.813 min Scan# 3964
Delta R.T. -0.000 min
Lab File: 3V12099.D
Acq: 10 Jun 2011 8:02 am

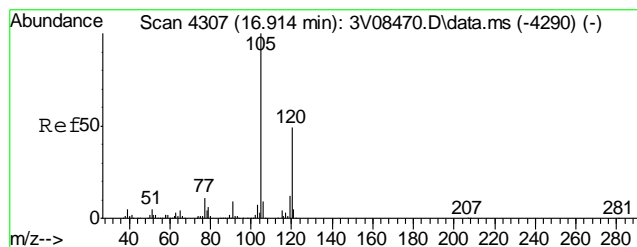
Tgt Ion:106 Resp: 9445
Ion Ratio Lower Upper
106 100
91 243.0 158.4 237.6#



#66
1,3,5-Trimethylbenzene
Concen: 7.47 ug/l
RT: 16.558 min Scan# 4196
Delta R.T. -0.004 min
Lab File: 3V12099.D
Acq: 10 Jun 2011 8:02 am

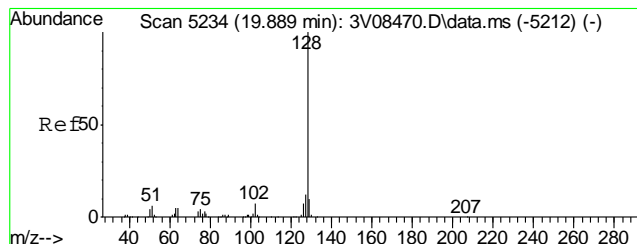
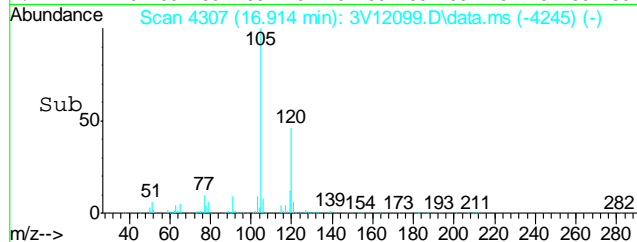
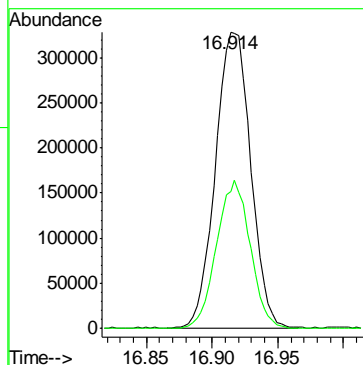
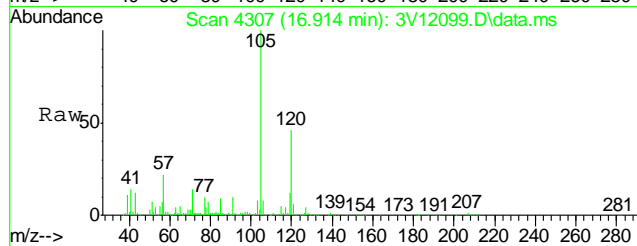
Tgt Ion:105 Resp: 328042
Ion Ratio Lower Upper
105 100
120 52.4 41.1 61.7





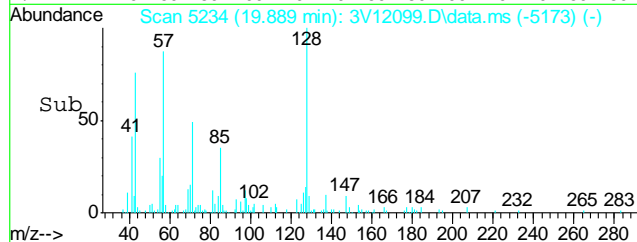
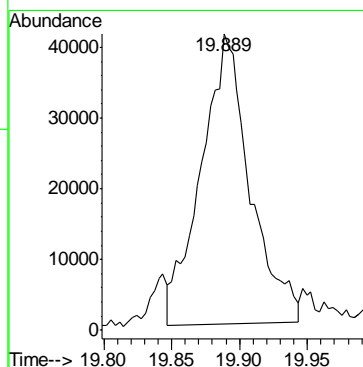
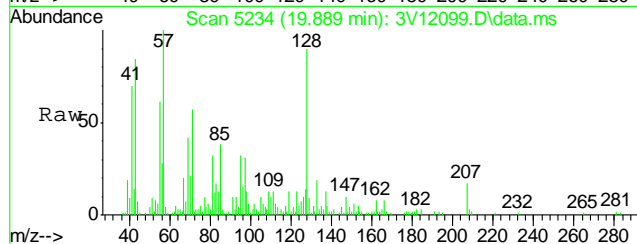
#67
1,2,4-Trimethylbenzene
Concen: 13.18 ug/l
RT: 16.914 min Scan# 4307
Delta R.T. -0.000 min
Lab File: 3V12099.D
Acq: 10 Jun 2011 8:02 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	47.6	38.2	57.4



#72
Naphthalene
Concen: 2.19 ug/l
RT: 19.889 min Scan# 5234
Delta R.T. -0.004 min
Lab File: 3V12099.D
Acq: 10 Jun 2011 8:02 am

Tgt Ion	Ratio	Lower	Upper
128	100		



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12100.D
Acq On : 10 Jun 2011 8:33 am
Operator : DONC
Sample : D24027-7, 50x
Misc : MS2259,V3V679,5.021,,100,5,1
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Jun 10 09:03:47 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.889	168	737810	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.685	114	1299176	50.00	ug/l	0.00
48) Chlorobenzene-d5	15.316	117	1268996	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	17.309	152	716042	50.00	ug/l	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	12.287	102	95988	43.20	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	86.40%
55) Toluene-d8	14.074	98	1521102	42.94	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	85.88%
59) 4-Bromofluorobenzene	16.266	95	657917	48.19	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.38%

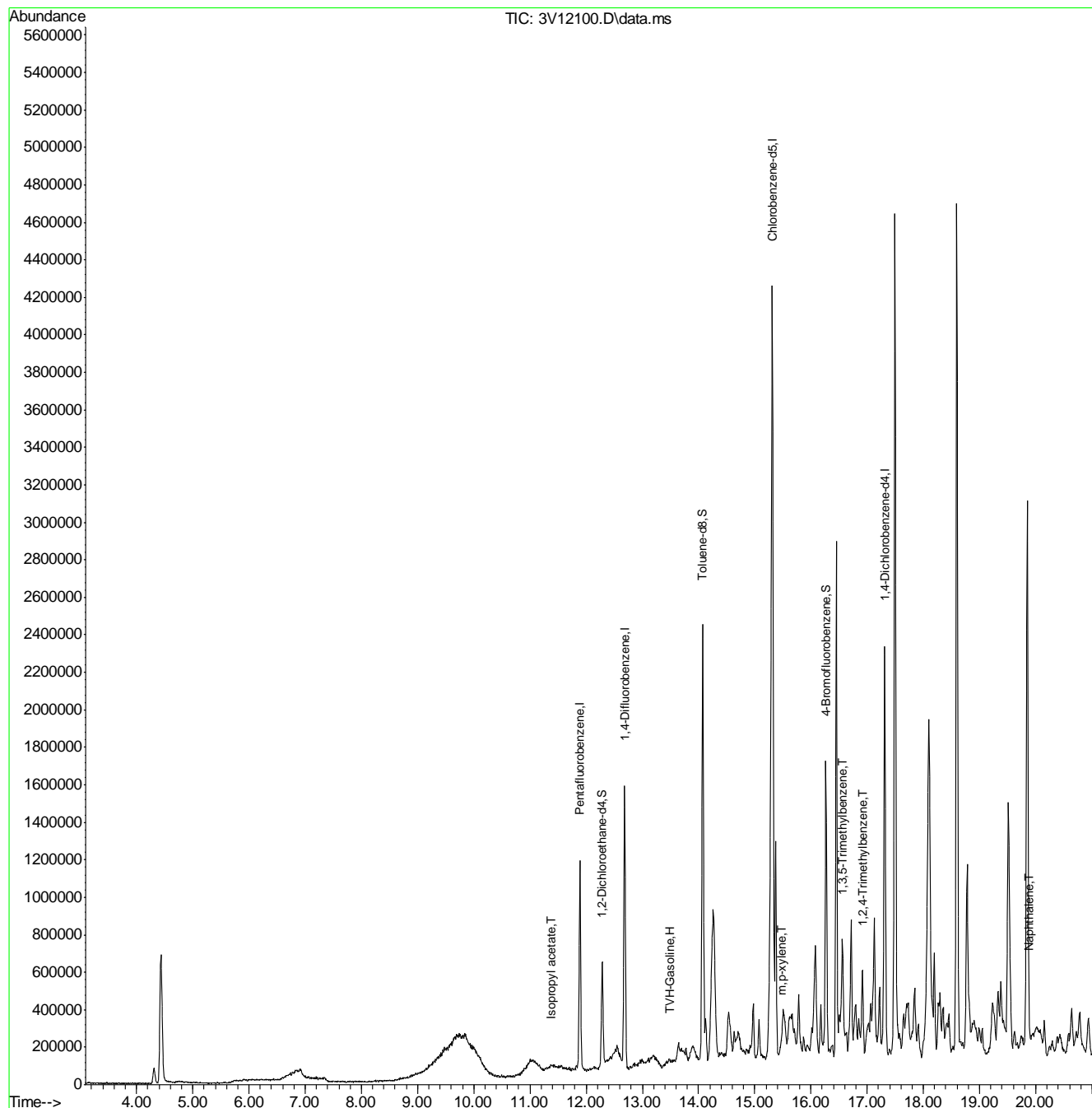
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	27682542m	554.04	ug/l
26) Isopropyl acetate	11.379	43	15170	1.26	ug/l # 79
61) m,p-xylene	15.467	106	19193	0.51	ug/l 97
66) 1,3,5-Trimethylbenzene	16.558	105	185404	4.24	ug/l 100
67) 1,2,4-Trimethylbenzene	16.917	105	226808	4.91	ug/l 98
72) Naphthalene	19.889	128	65833	1.41	ug/l 100

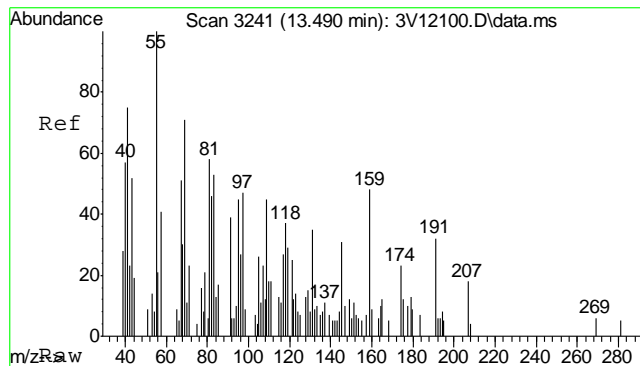
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12100.D
Acq On : 10 Jun 2011 8:33 am
Operator : DONC
Sample : D24027-7, 50x
Misc : MS2259,V3V679,5.021,,100,5,1
ALS Vial : 46 Sample Multiplier: 1

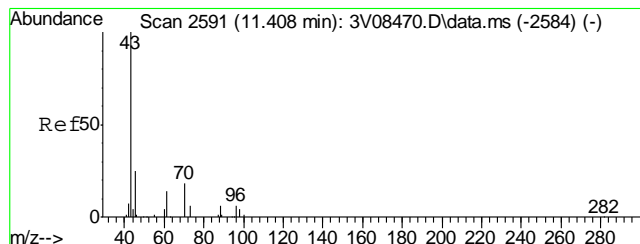
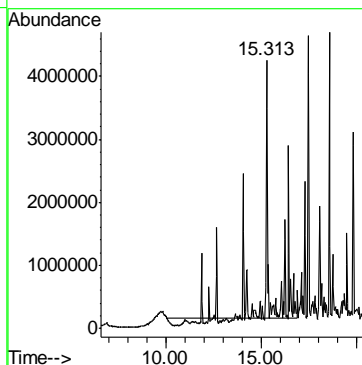
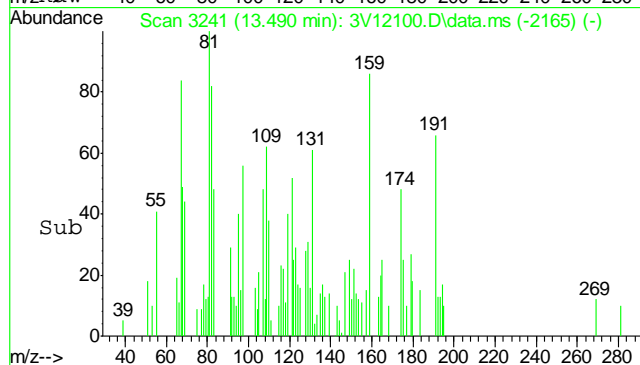
Quant Time: Jun 10 09:03:47 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration





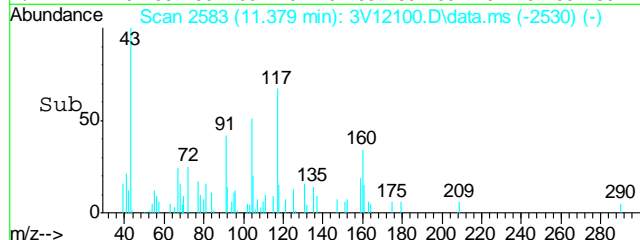
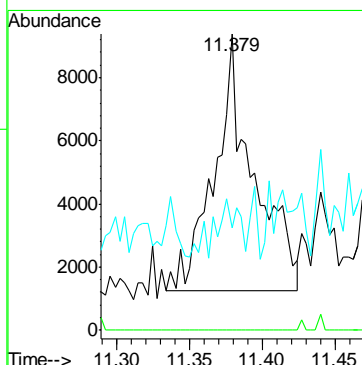
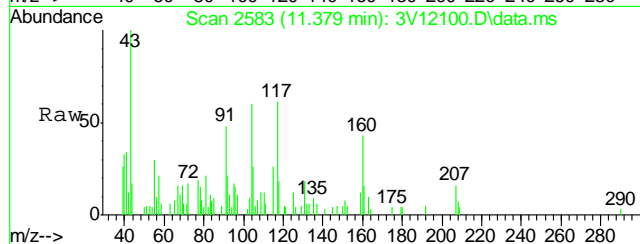
#1
TVH-Gasoline
Concen: 554.04 ug/l m
RT: 13.491 min Scan# 3241
Delta R.T. 0.000 min
Lab File: 3V12100.D
Acq: 10 Jun 2011 8:33 am

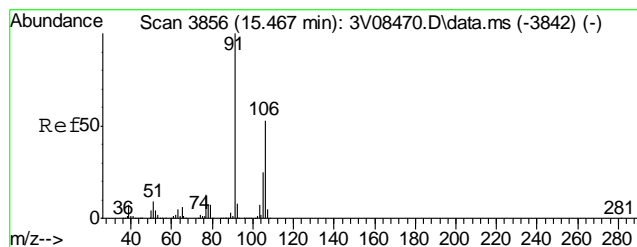
Tgt Ion:TIC Resp:27682542



#26
Isopropyl acetate
Concen: 1.26 ug/l
RT: 11.379 min Scan# 2583
Delta R.T. -0.029 min
Lab File: 3V12100.D
Acq: 10 Jun 2011 8:33 am

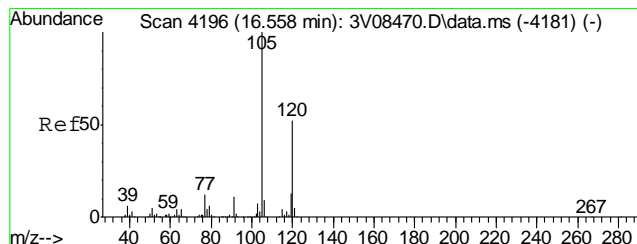
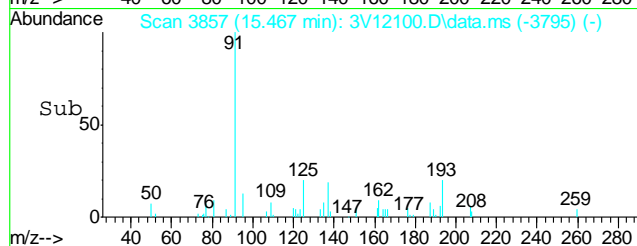
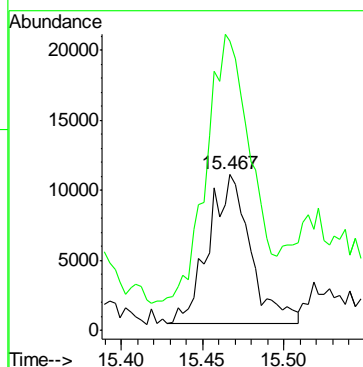
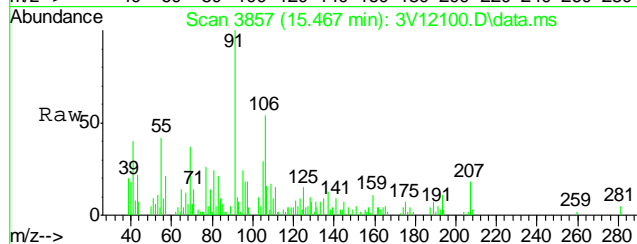
Tgt Ion: 43 Resp: 15170
Ion Ratio Lower Upper
43 100
61 0.0 0.0 20.0
41 11.9 0.0 20.7





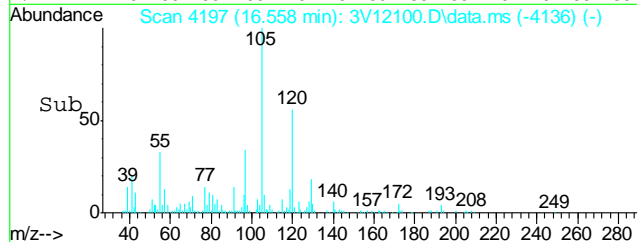
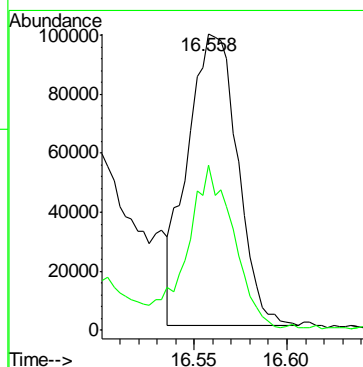
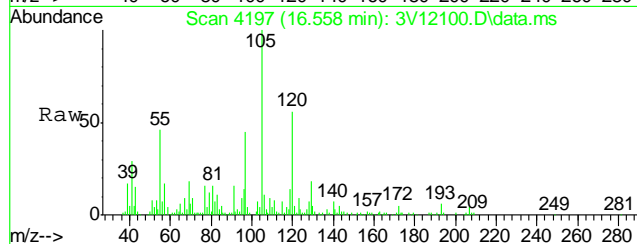
#61
m,p-xylene
Concen: 0.51 ug/l
RT: 15.467 min Scan# 3857
Delta R.T. -0.000 min
Lab File: 3V12100.D
Acq: 10 Jun 2011 8:33 am

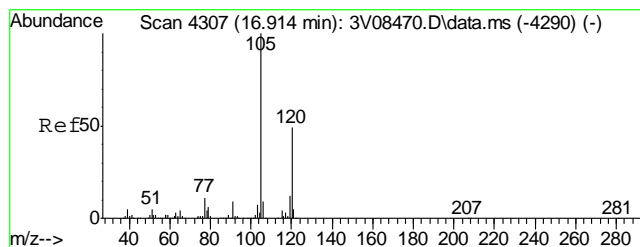
Tgt Ion:106 Resp: 19193
Ion Ratio Lower Upper
106 100
91 191.4 167.6 207.6



#66
1,3,5-Trimethylbenzene
Concen: 4.24 ug/l
RT: 16.558 min Scan# 4197
Delta R.T. -0.004 min
Lab File: 3V12100.D
Acq: 10 Jun 2011 8:33 am

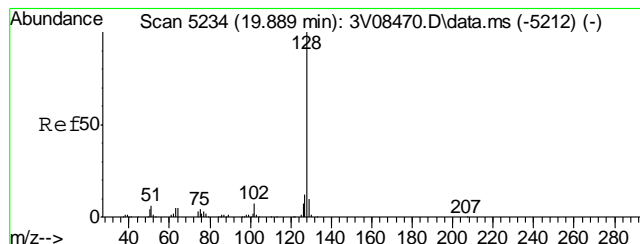
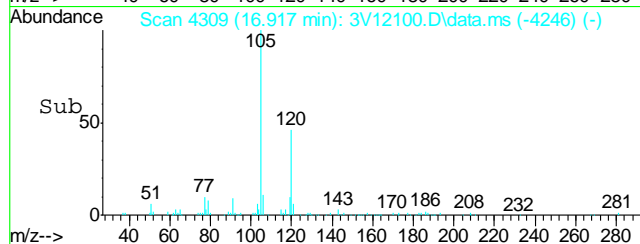
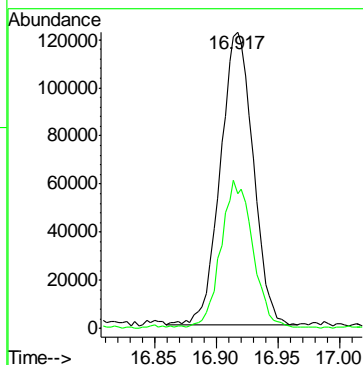
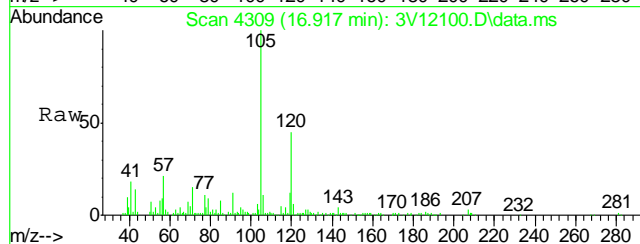
Tgt Ion:105 Resp: 185404
Ion Ratio Lower Upper
105 100
120 51.3 41.1 61.7





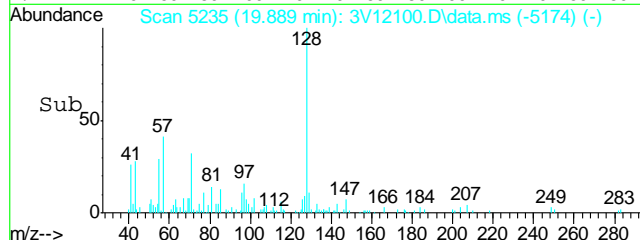
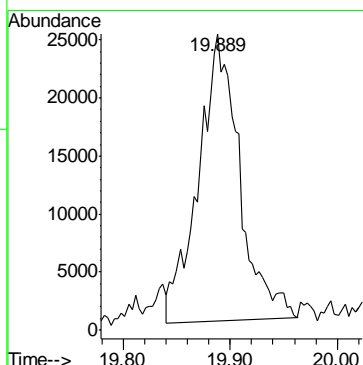
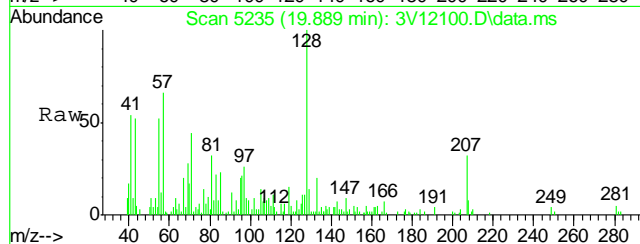
#67
1,2,4-Trimethylbenzene
Concen: 4.91 ug/l
RT: 16.917 min Scan# 4309
Delta R.T. 0.003 min
Lab File: 3V12100.D
Acq: 10 Jun 2011 8:33 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	49.3	38.2	57.4



#72
Naphthalene
Concen: 1.41 ug/l
RT: 19.889 min Scan# 5235
Delta R.T. -0.004 min
Lab File: 3V12100.D
Acq: 10 Jun 2011 8:33 am

Tgt Ion	Ratio	Lower	Upper
128	100		
207	65.8	51.2	81.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12088.D
Acq On : 10 Jun 2011 2:22 am
Operator : DONC
Sample : MB
Misc : MS2259,V3V679,5,,100,5,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jun 10 07:48:41 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.889	168	708765	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.685	114	1244537	50.00	ug/l	0.00
48) Chlorobenzene-d5	15.316	117	1141600	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	17.309	152	576776	50.00	ug/l	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	12.287	102	94185	44.12	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.24%
55) Toluene-d8	14.075	98	1446133	45.38	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.76%
59) 4-Bromofluorobenzene	16.266	95	534786	43.54	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	87.08%

Target Compounds

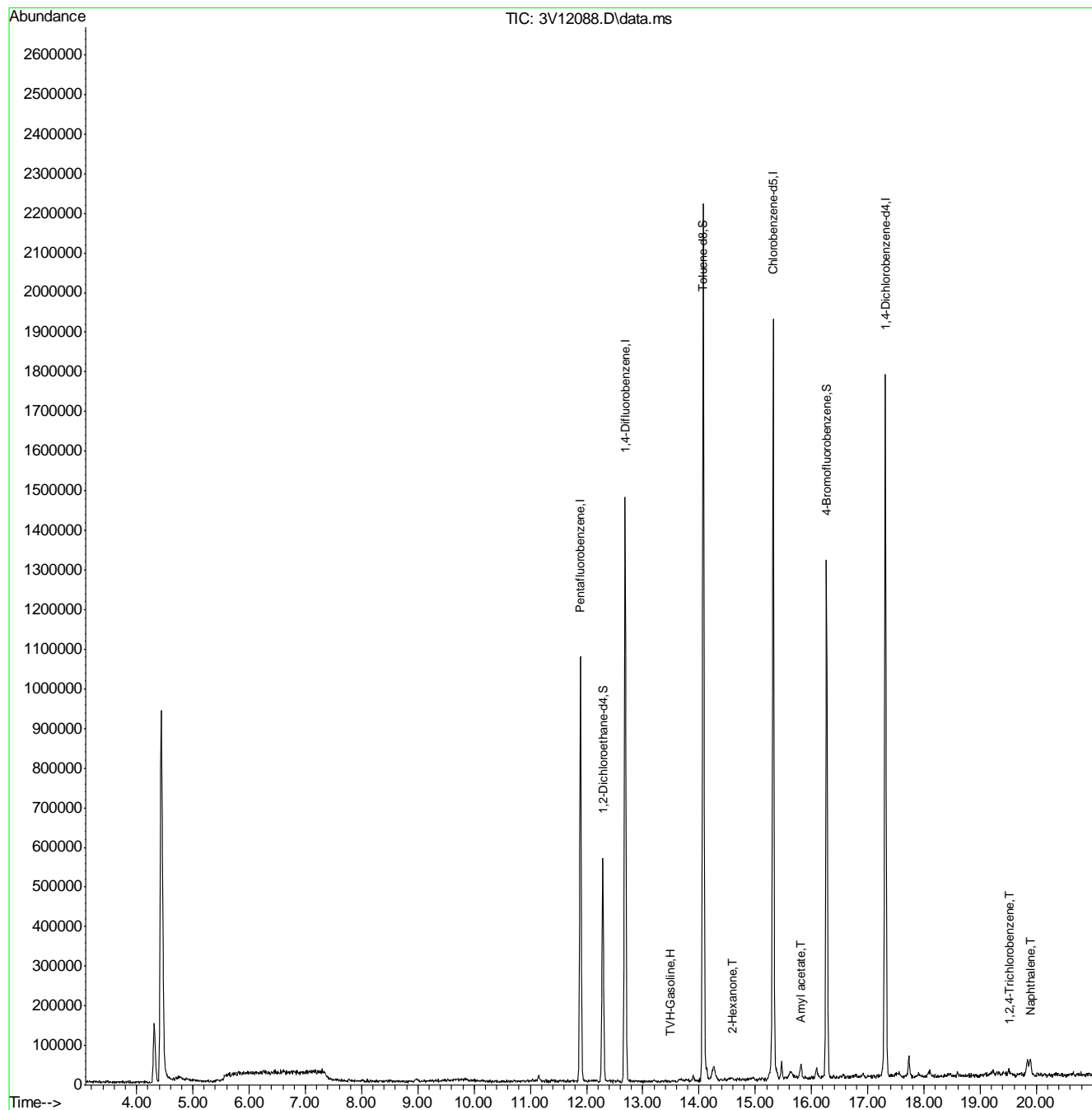
					Qvalue
1) TVH-Gasoline	13.491	TIC	491536m	55.75	ug/l
50) 2-Hexanone	14.585	43	2876	0.35	ug/l # 70
52) Amyl acetate	15.794	70	2869	0.41	ug/l 93
71) 1,2,4-Trichlorobenzene	19.504	180	4489	0.37	ug/l # 72
72) Naphthalene	19.889	128	49038	1.30	ug/l 100

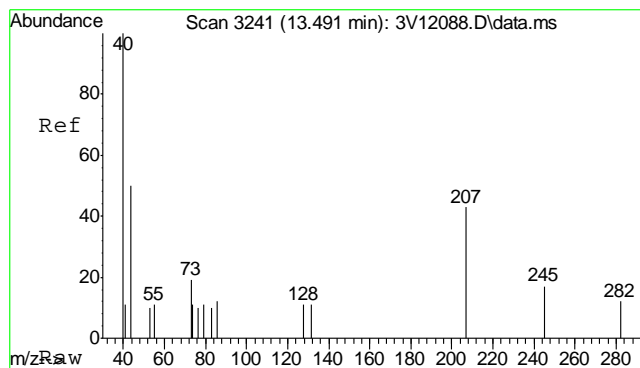
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3060911.S\
Data File : 3V12088.D
Acq On : 10 Jun 2011 2:22 am
Operator : DONC
Sample : MB
Misc : MS2259,V3V679,5,,100,5,1
ALS Vial : 34 Sample Multiplier: 1

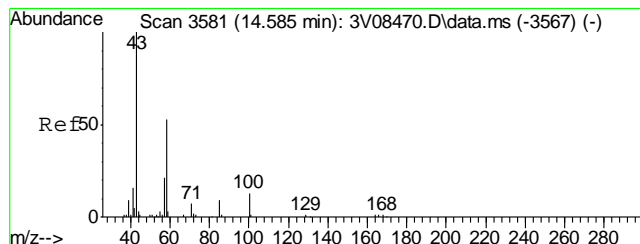
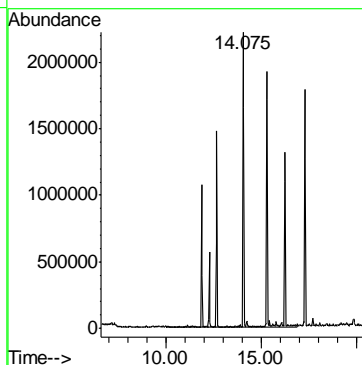
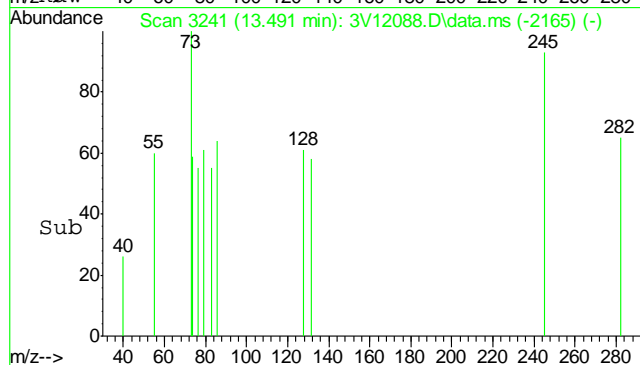
Quant Time: Jun 10 07:48:41 2011
Quant Method : C:\msdchem\1\METHODS\V3HSL676TVH676.M
Quant Title : 8260
QLast Update : Thu Jun 09 14:33:53 2011
Response via : Initial Calibration





#1
TVH-Gasoline
Concen: 55.75 ug/l m
RT: 13.491 min Scan# 3241
Delta R.T. 0.000 min
Lab File: 3V12088.D
Acq: 10 Jun 2011 2:22 am

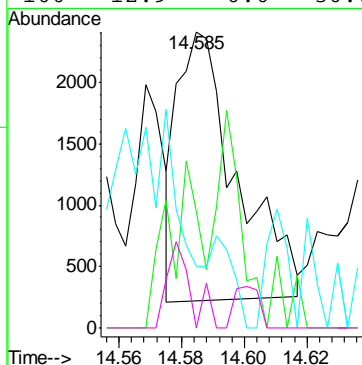
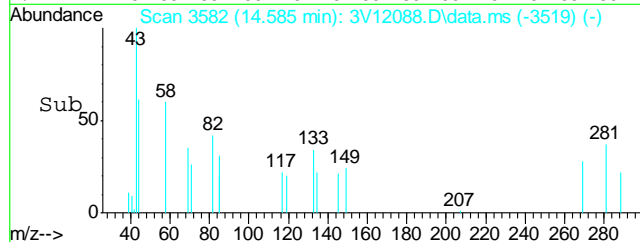
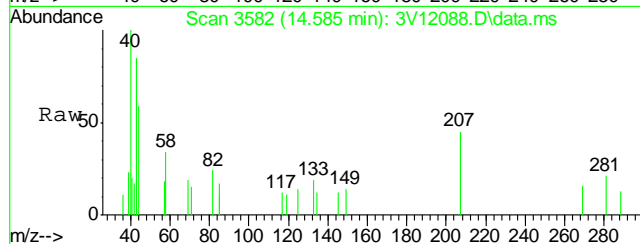
Tgt Ion:TIC Resp: 491536

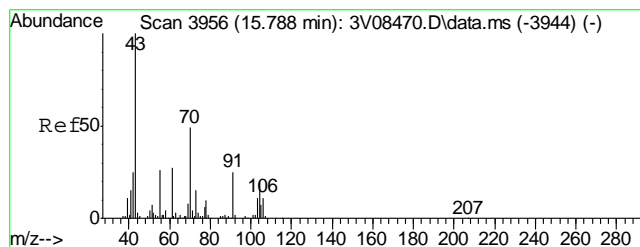


#50
2-Hexanone
Concen: 0.35 ug/l
RT: 14.585 min Scan# 3582
Delta R.T. 0.003 min
Lab File: 3V12088.D
Acq: 10 Jun 2011 2:22 am

Tgt Ion: 43 Resp: 2876

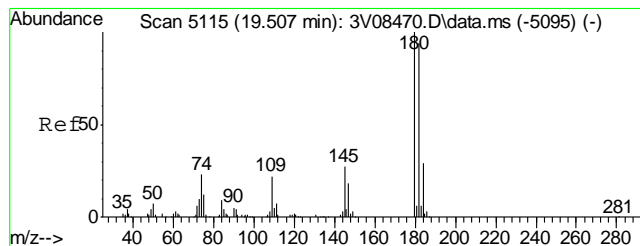
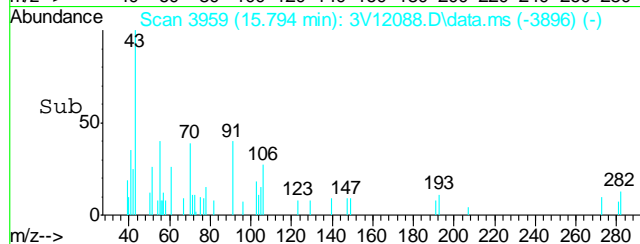
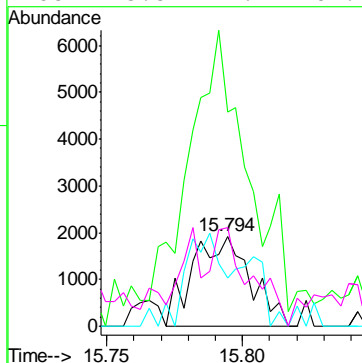
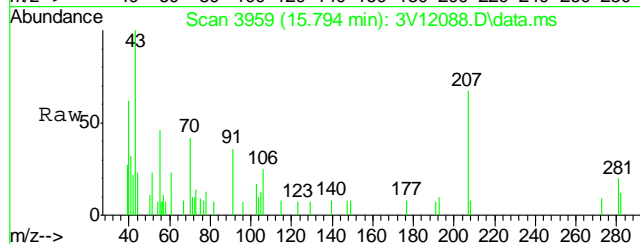
Ion	Ratio	Lower	Upper
43	100		
58	32.6	28.6	68.6
57	44.0	0.0	37.6#
100	12.9	0.0	30.6





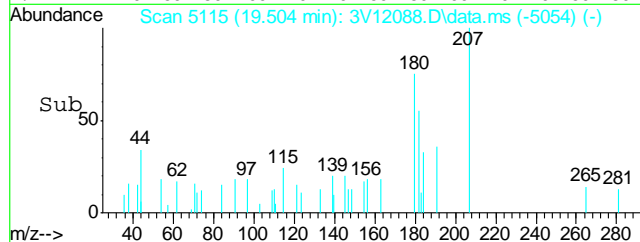
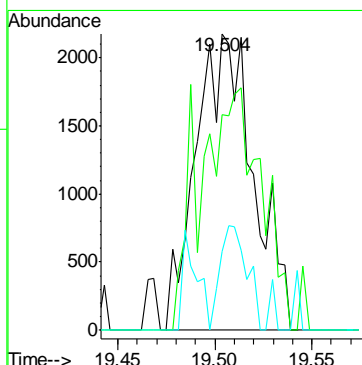
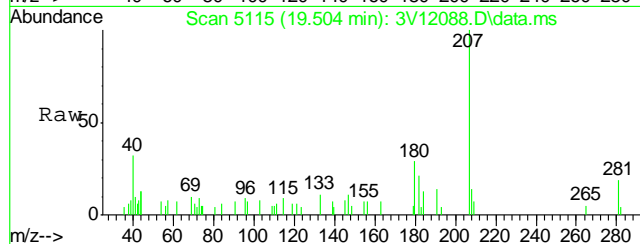
#52
Amyl acetate
Concen: 0.41 ug/l
RT: 15.794 min Scan# 3959
Delta R.T. 0.003 min
Lab File: 3V12088.D
Acq: 10 Jun 2011 2:22 am

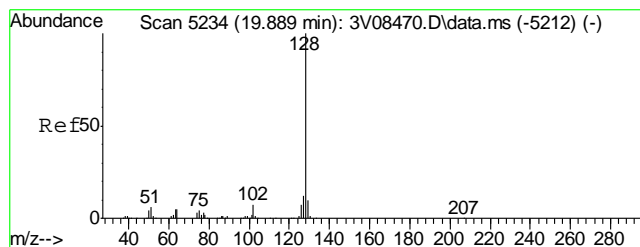
Tgt Ion	Ratio	Lower	Upper
70	100		
43	310.5	278.8	318.8
42	72.0	58.6	98.6
55	73.5	44.4	84.4



#71
1,2,4-Trichlorobenzene
Concen: 0.37 ug/l
RT: 19.504 min Scan# 5115
Delta R.T. -0.003 min
Lab File: 3V12088.D
Acq: 10 Jun 2011 2:22 am

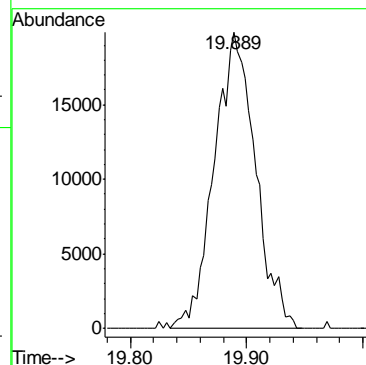
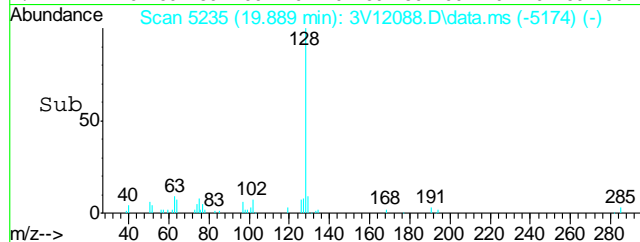
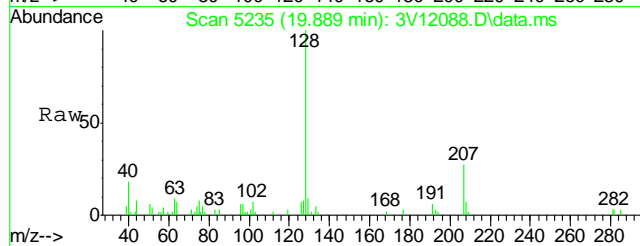
Tgt Ion	Ratio	Lower	Upper
180	100		
182	66.6	73.6	110.4#
145	16.4	27.9	41.9#





#72
Naphthalene
Concen: 1.30 ug/l
RT: 19.889 min Scan# 5235
Delta R.T. -0.003 min
Lab File: 3V12088.D
Acq: 10 Jun 2011 2:22 am

Tgt Ion:128 Resp: 49038



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D24027
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA659-MB	GA12091.D	1	06/11/11	SK	n/a	n/a	GGA659

The QC reported here applies to the following samples:

Method: SW846 8015B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	111% 60-140%

Blank Spike Summary

Job Number: D24027
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA659-BS	GA12092.D	1	06/11/11	SK	n/a	n/a	GGA659

The QC reported here applies to the following samples: Method: SW846 8015B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	95.4	87	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	112%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24027
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24238-1MS	GA12094.D	1	06/11/11	SK	n/a	n/a	GGA659
D24238-1MSD	GA12095.D	1	06/11/11	SK	n/a	n/a	GGA659
D24238-1	GA12093.D	1	06/11/11	SK	n/a	n/a	GGA659

The QC reported here applies to the following samples: Method: SW846 8015B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	D24238-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		117	101	86	99.7	85	1	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D24238-1	Limits
120-82-1	1,2,4-Trichlorobenzene	105%	105%	103%	60-140%

GC Volatiles

Raw Data

∞

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12097.D\FID1A.CH Vial: 9
 Signal #2 : Z:\061111\GA12097.D\FID2B.CH
 Acq On : 11 Jun 2011 3:40 pm Operator: StephK
 Sample : D24027-1, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.011,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:26:03 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB2.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.48	3397923	95.493	%
10) S	1,2,4-Trichlorobenzene (P)	14.48	6174529	96.593	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2387666	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.93	72625	0.346	ug/L
7) T	Ethylbenzene	10.50	32159	0.171	ug/L
8) T	m,p-Xylene	10.66	191418	0.887	ug/L
9) T	o-Xylene	11.14	103720	0.569	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

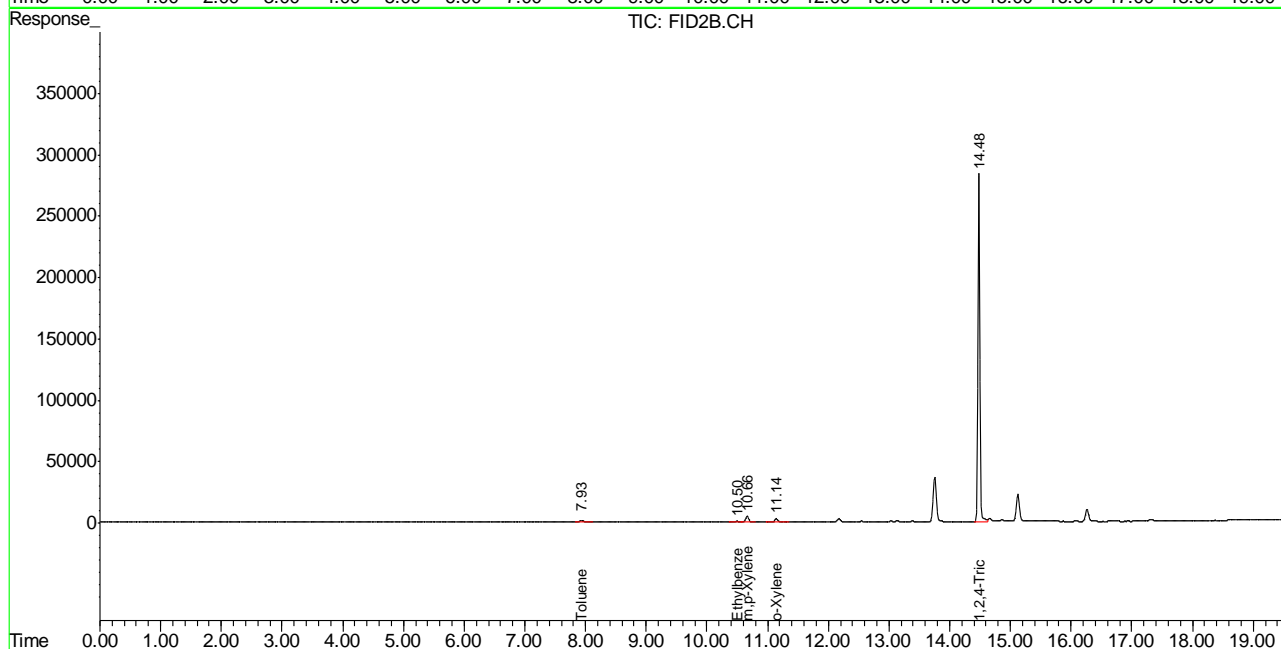
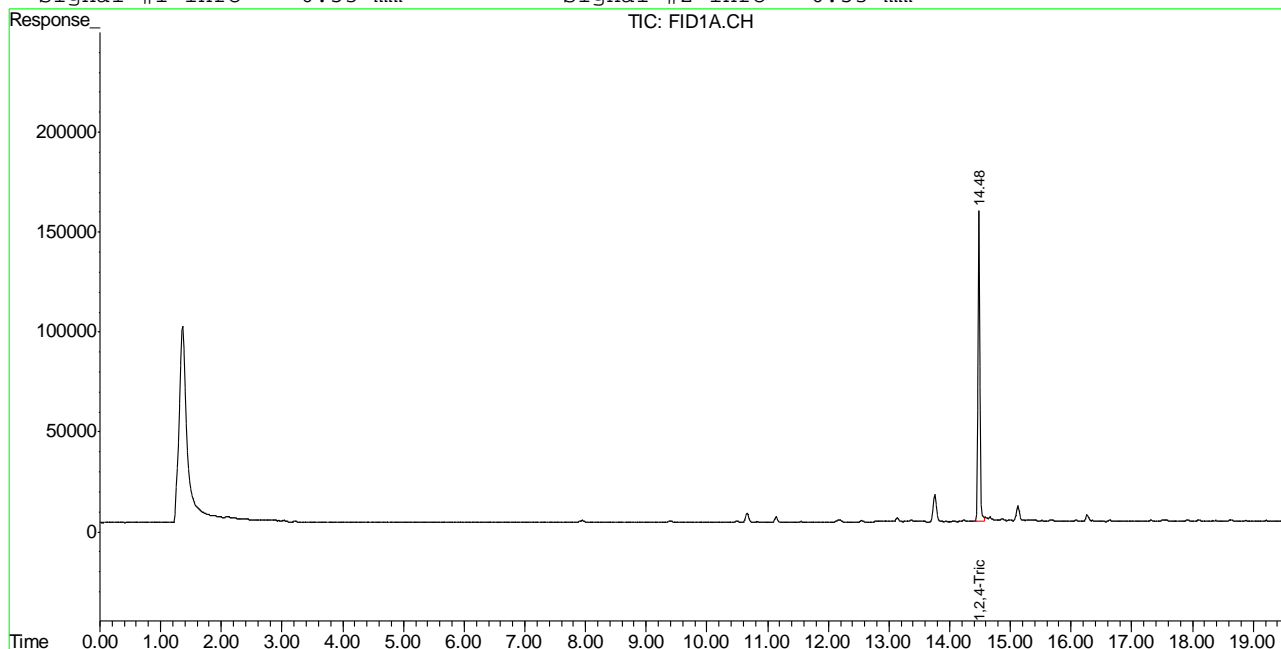
(f)=RT Delta > 1/2 Window (m)=manual int.
 GA12097.D TA620GA620.M Mon Jun 13 10:28:53 2011 GC

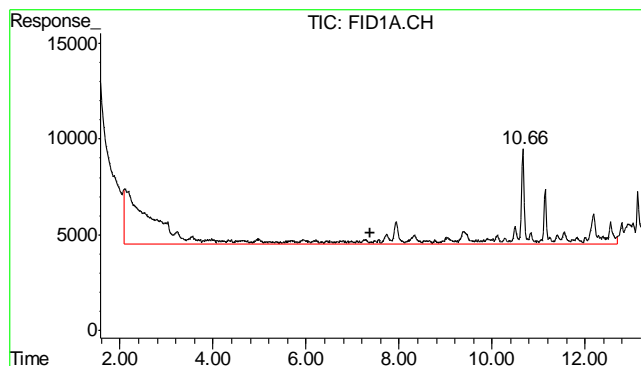
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12097.D\FID1A.CH Vial: 9
 Signal #2 : Z:\061111\GA12097.D\FID2B.CH
 Acq On : 11 Jun 2011 3:40 pm Operator: StephK
 Sample : D24027-1, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.011,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:27 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

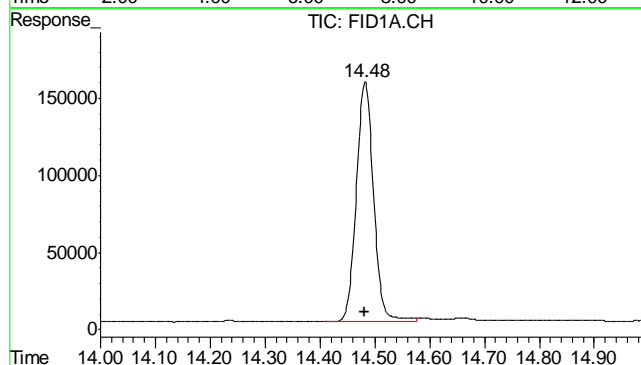
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





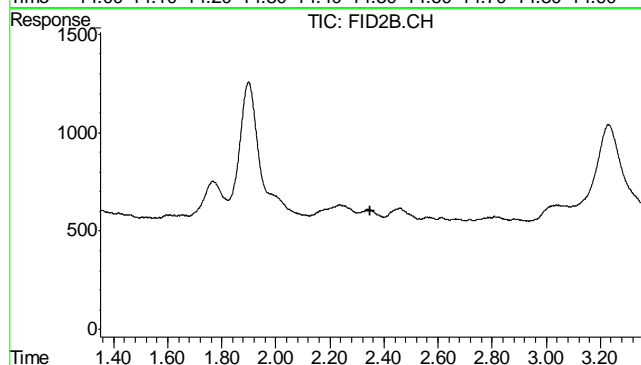
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2387666
Conc: N.D.



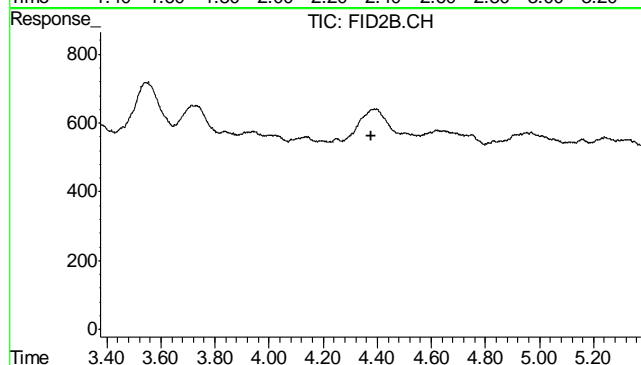
#2 1,2,4-Trichlorobenzene

R.T.: 14.483 min
Delta R.T.: 0.001 min
Response: 3397923
Conc: 95.49 %



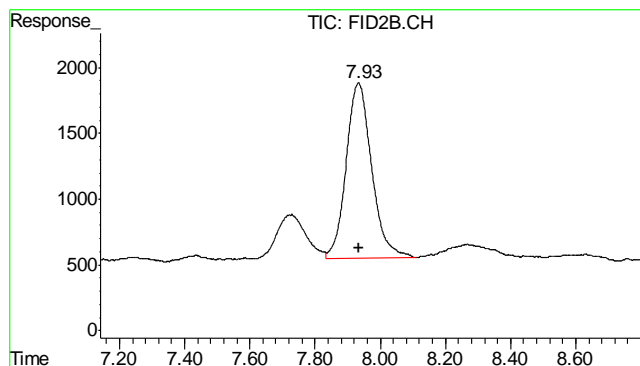
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.351 min
Response: 0
Conc: N.D.

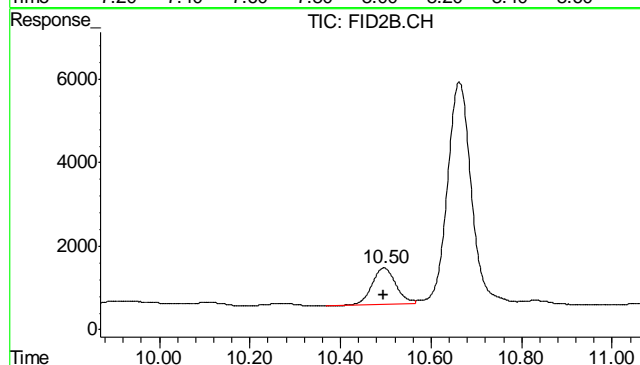


#5 Benzene

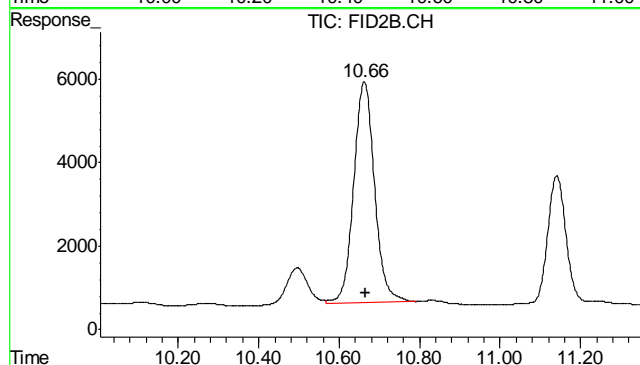
R.T.: 0.000 min
Exp R.T.: 4.376 min
Response: 0
Conc: N.D.



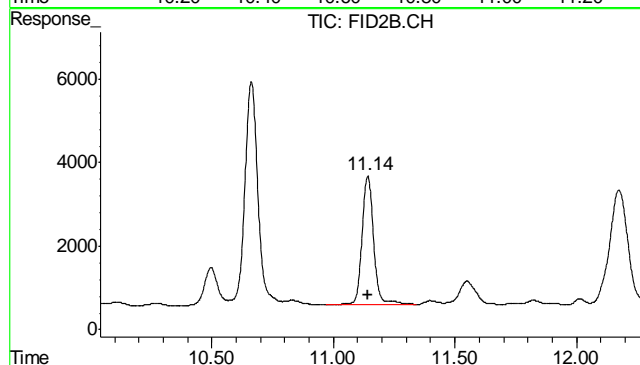
#6 Toluene
R.T.: 7.933 min
Delta R.T.: 0.000 min
Response: 72625
Conc: 0.35 ug/L



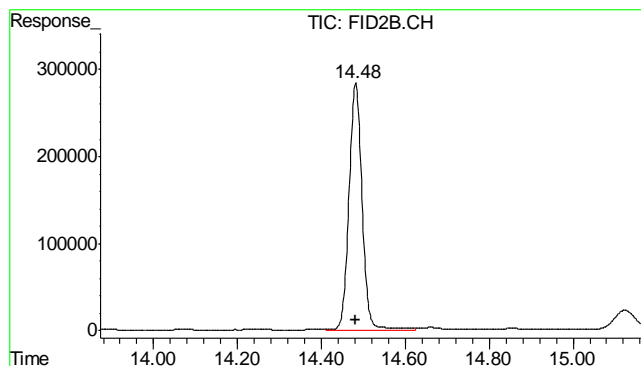
#7 Ethylbenzene
R.T.: 10.496 min
Delta R.T.: 0.000 min
Response: 32159
Conc: 0.17 ug/L



#8 m,p-Xylene
R.T.: 10.663 min
Delta R.T.: -0.004 min
Response: 191418
Conc: 0.89 ug/L

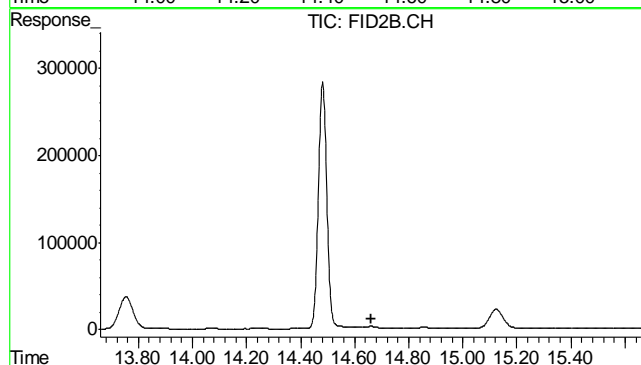


#9 o-Xylene
R.T.: 11.141 min
Delta R.T.: 0.000 min
Response: 103720
Conc: 0.57 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.482 min
Delta R.T.: 0.002 min
Response: 6174529
Conc: 96.59 %



#11 Naphthalene

R.T.: 0.000 min
Exp R.T. : 14.659 min
Response: 0
Conc: N.D.

8.1.1

8

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12098.D\FID1A.CH Vial: 10
Signal #2 : Z:\061111\GA12098.D\FID2B.CH
Acq On : 11 Jun 2011 4:17 pm Operator: StephK
Sample : D24027-2, 50X Inst : BTEX2
Misc : GC1924,GGA659,5.006,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 13 09:26:06 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Jun 13 09:19:46 2011
Response via : Initial Calibration
DataAcq Meth : TVB2.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

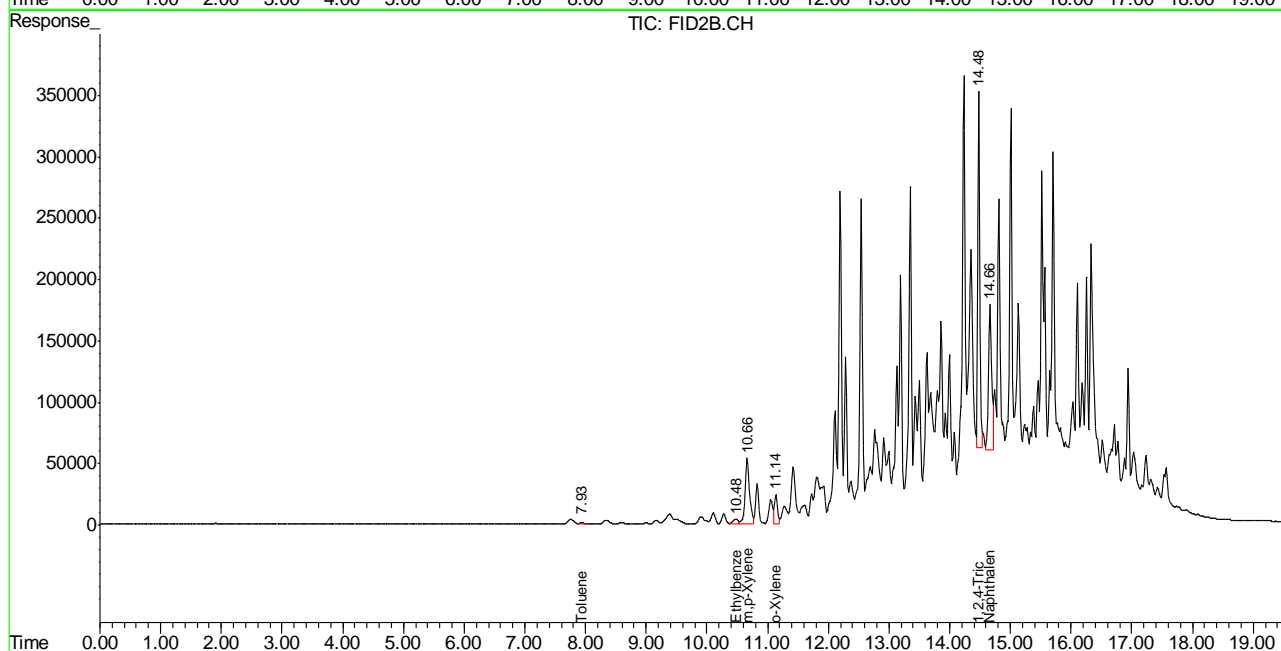
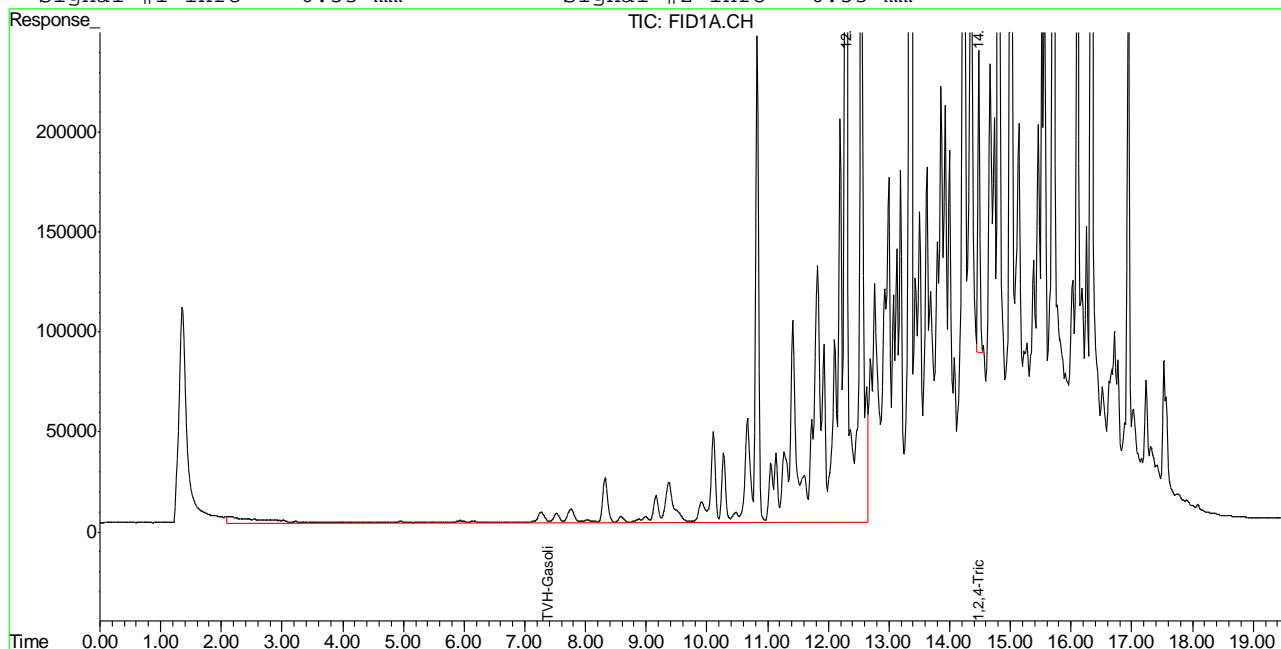
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.48	3424218	96.232 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.48	6725213	108.677 %	m
Target Compounds					
1) H	TVH-Gasoline	7.39	97896196	1.033 mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d
5) T	Benzene	0.00	0	N.D. ug/L	d
6) T	Toluene	7.93	61727	0.294 ug/L	
7) T	Ethylbenzene	10.48	213178	1.137 ug/L	
8) T	m,p-Xylene	10.66	2674590	12.390 ug/L	
9) T	o-Xylene	11.14	857439	4.706 ug/L	
11) T	Naphthalene	14.66	4100611	34.226 ug/L	m

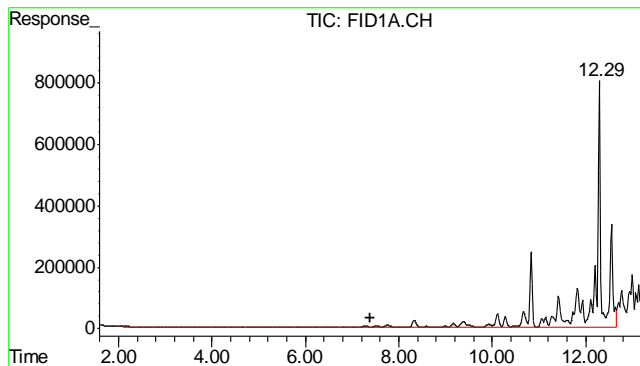
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12098.D\FID1A.CH Vial: 10
 Signal #2 : Z:\061111\GA12098.D\FID2B.CH
 Acq On : 11 Jun 2011 4:17 pm Operator: StephK
 Sample : D24027-2, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.006,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:29 2011 Quant Results File: TA620GA620.RES

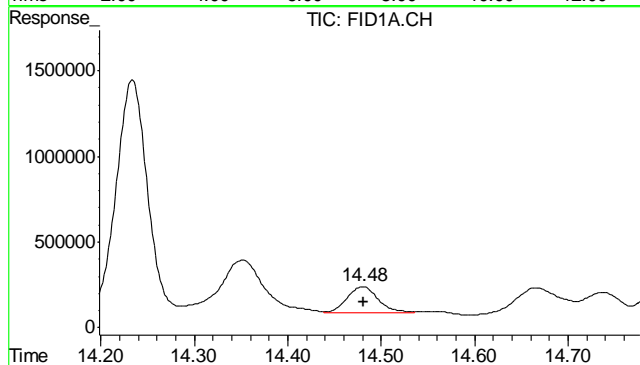
Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

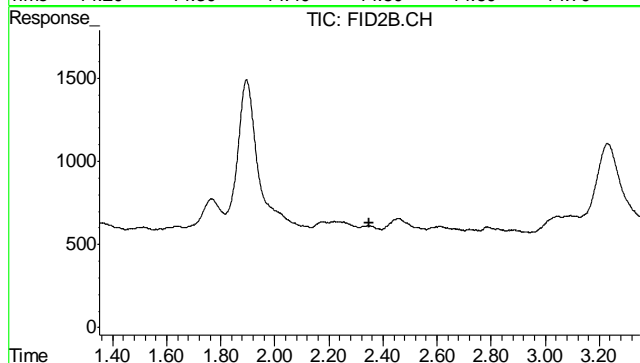




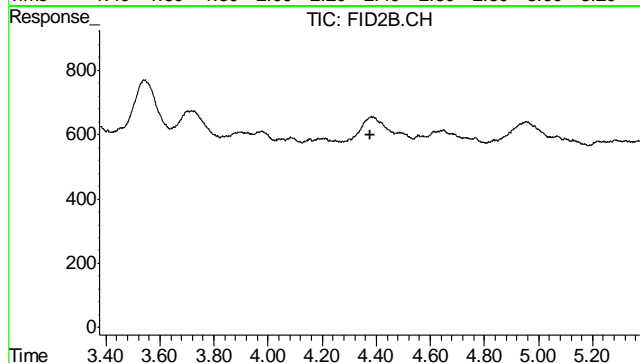
#1 TVH-Gasoline
 R.T.: 7.390 min
 Delta R.T.: 0.000 min
 Response: 97896196
 Conc: 1.03 mg/L m



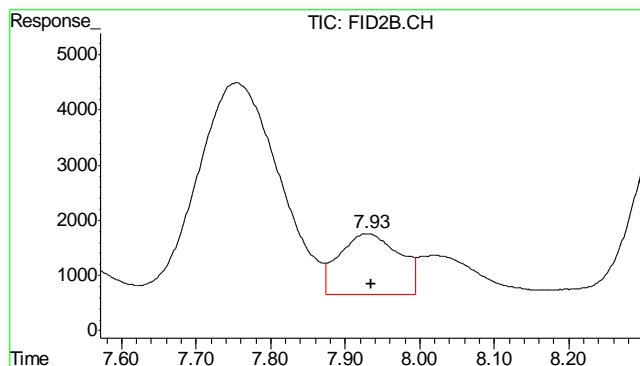
#2 1,2,4-Trichlorobenzene
 R.T.: 14.480 min
 Delta R.T.: -0.001 min
 Response: 3424218
 Conc: 96.23 % m



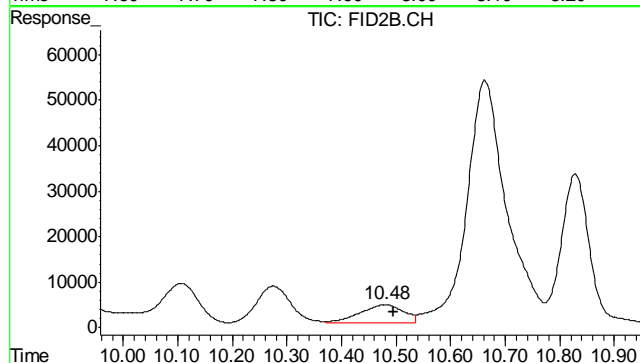
#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.351 min
 Response: 0
 Conc: N.D.



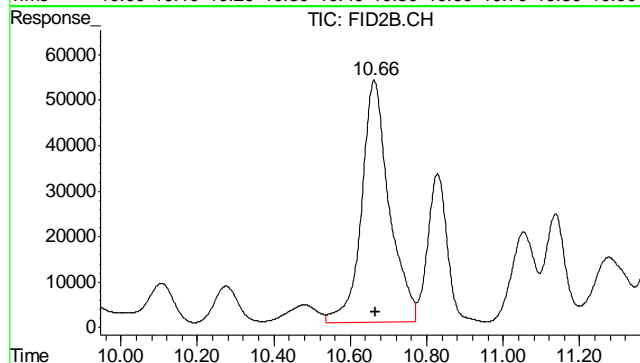
#5 Benzene
 R.T.: 0.000 min
 Exp R.T.: 4.376 min
 Response: 0
 Conc: N.D.



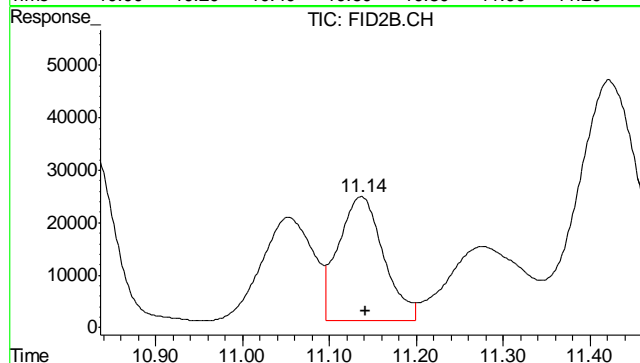
#6 Toluene
 R.T.: 7.930 min
 Delta R.T.: -0.005 min
 Response: 61727
 Conc: 0.29 ug/L



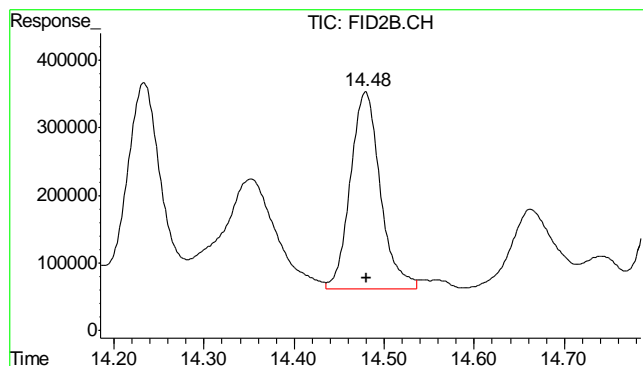
#7 Ethylbenzene
 R.T.: 10.480 min
 Delta R.T.: -0.017 min
 Response: 213178
 Conc: 1.14 ug/L



#8 m,p-Xylene
 R.T.: 10.663 min
 Delta R.T.: -0.004 min
 Response: 2674590
 Conc: 12.39 ug/L

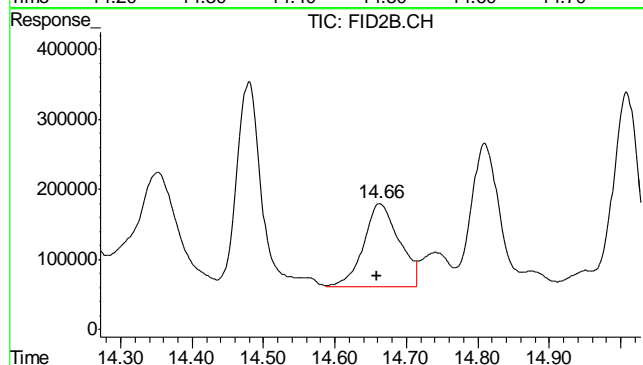


#9 o-Xylene
 R.T.: 11.137 min
 Delta R.T.: -0.005 min
 Response: 857439
 Conc: 4.71 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.479 min
 Delta R.T.: -0.001 min
 Response: 6725213
 Conc: 108.68 % m



#11 Naphthalene

R.T.: 14.662 min
 Delta R.T.: 0.003 min
 Response: 4100611
 Conc: 34.23 ug/L m

8.12
8

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12099.D\FID1A.CH Vial: 11
 Signal #2 : Z:\061111\GA12099.D\FID2B.CH
 Acq On : 11 Jun 2011 4:53 pm Operator: StephK
 Sample : D24027-3, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.034,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:26:09 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB2.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.47	3440206	96.681	%
10) S	1,2,4-Trichlorobenzene (P)	14.47	6155750	96.181	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2730151	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.91	42478	0.202	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.64	135783	0.629	ug/L
9) T	o-Xylene	11.12	68205	0.374	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

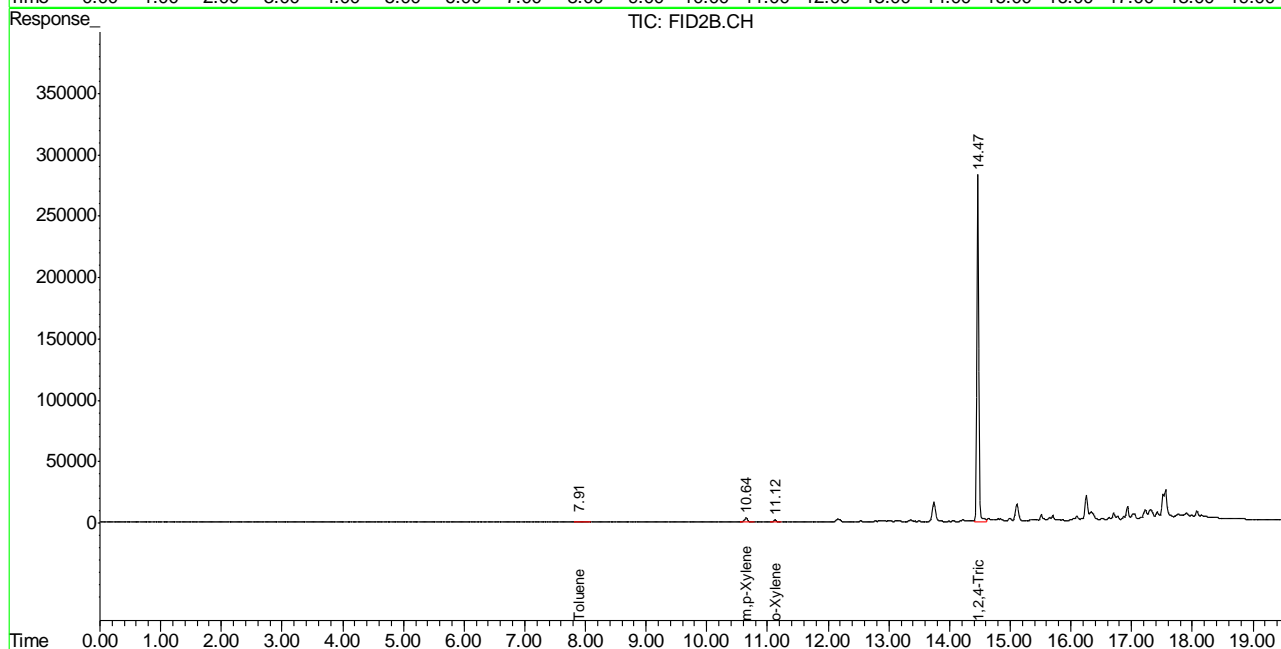
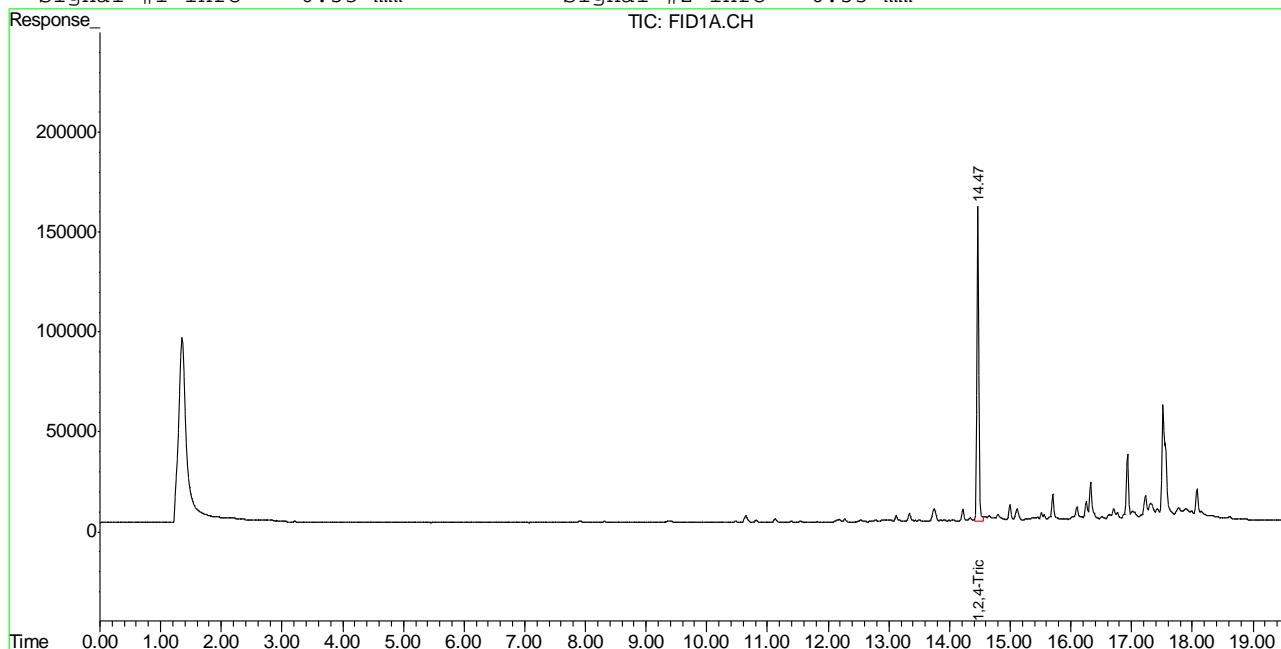
(f)=RT Delta > 1/2 Window (m)=manual int.
 GA12099.D TA620GA620.M Mon Jun 13 10:28:59 2011 GC

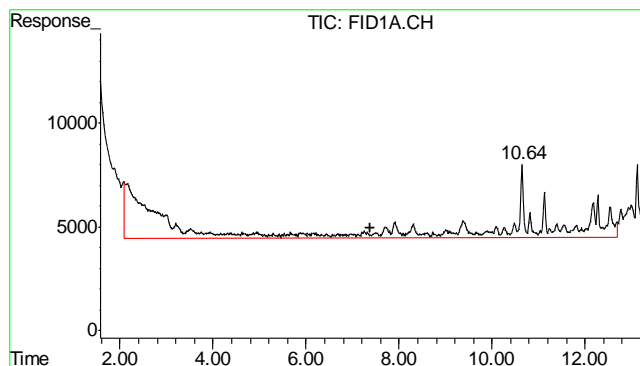
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12099.D\FID1A.CH Vial: 11
 Signal #2 : Z:\061111\GA12099.D\FID2B.CH
 Acq On : 11 Jun 2011 4:53 pm Operator: StephK
 Sample : D24027-3, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.034,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:29 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

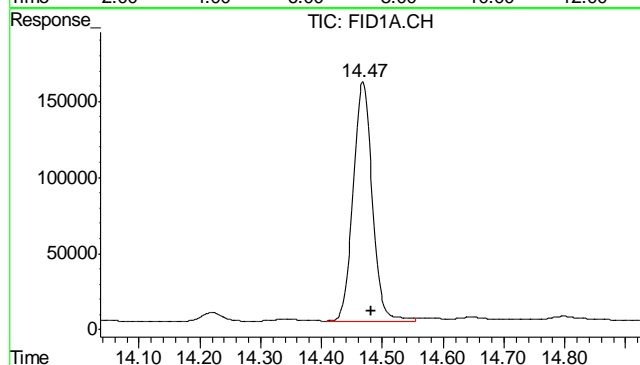
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





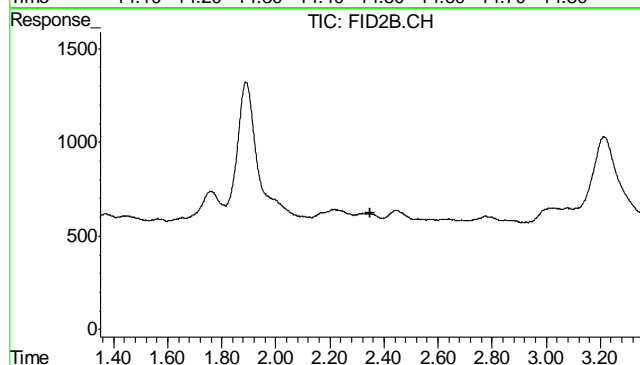
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2730151
Conc: N.D.



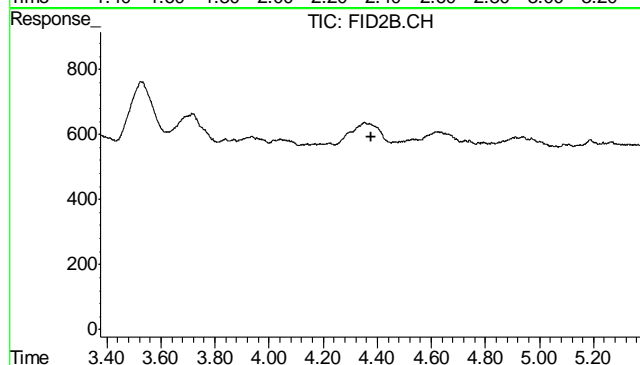
#2 1,2,4-Trichlorobenzene

R.T.: 14.468 min
Delta R.T.: -0.013 min
Response: 3440206
Conc: 96.68 %



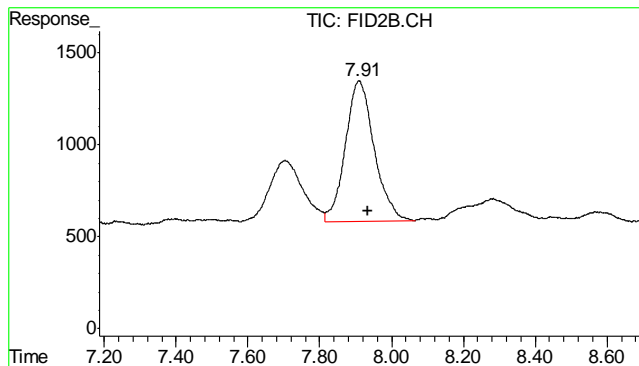
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.351 min
Response: 0
Conc: N.D.



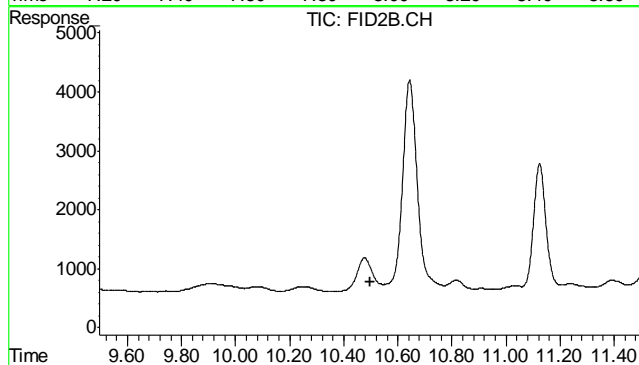
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.376 min
Response: 0
Conc: N.D.



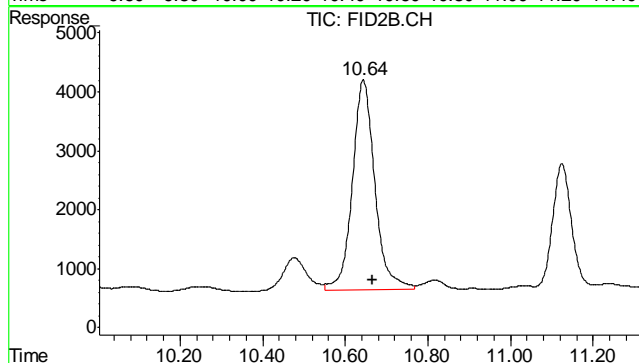
#6 Toluene

R.T.: 7.909 min
Delta R.T.: -0.025 min
Response: 42478
Conc: 0.20 ug/L



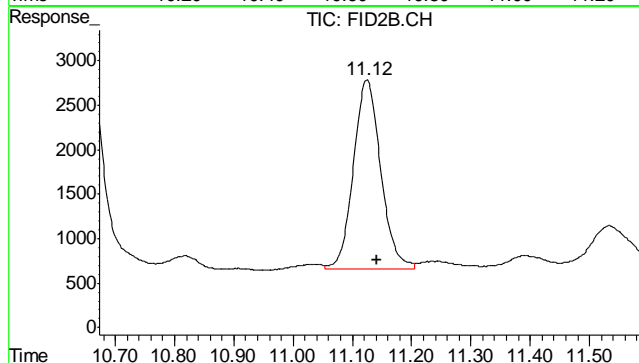
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.496 min
Response: 0
Conc: N.D.



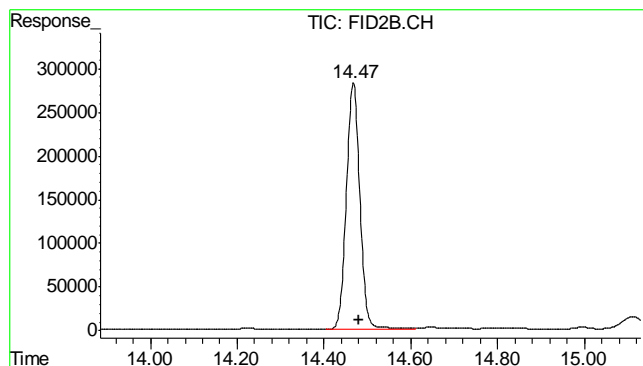
#8 m,p-Xylene

R.T.: 10.644 min
Delta R.T.: -0.023 min
Response: 135783
Conc: 0.63 ug/L



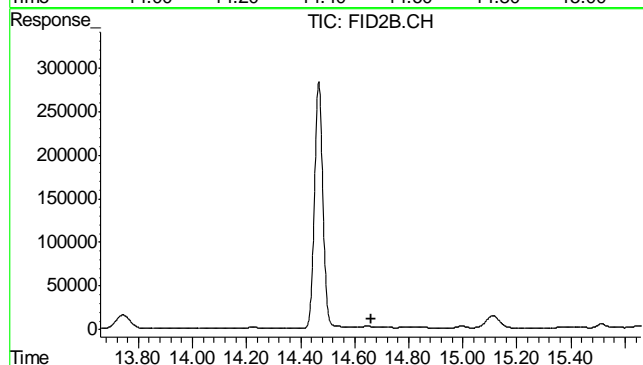
#9 o-Xylene

R.T.: 11.125 min
Delta R.T.: -0.017 min
Response: 68205
Conc: 0.37 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.468 min
Delta R.T.: -0.013 min
Response: 6155750
Conc: 96.18 %



#11 Naphthalene

R.T.: 0.000 min
Exp R.T. : 14.659 min
Response: 0
Conc: N.D.

8.1.3

8

Judy Melson
06/13/11 11:19

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12100.D\FID1A.CH Vial: 12
 Signal #2 : Z:\061111\GA12100.D\FID2B.CH
 Acq On : 11 Jun 2011 5:30 pm Operator: StephK
 Sample : D24027-4, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.023,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:26:12 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB2.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	14.47	5008031	140.742 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.47	7314569	121.608 %	m
Target Compounds				
1) H TVH-Gasoline	7.39	345500250	3.645 mg/L	
4) T Methyl-t-butyl-ether	0.00	0	N.D. ug/L d	
5) T Benzene	0.00	0	N.D. ug/L d	
6) T Toluene	7.90	94135	0.448 ug/L	
7) T Ethylbenzene	10.47	1218997	6.500 ug/L m	
8) T m,p-Xylene	10.64	16857008	78.089 ug/L m	
9) T o-Xylene	11.12	3088193	16.949 ug/L m	
11) T Naphthalene	14.65	7475969	63.296 ug/L m	

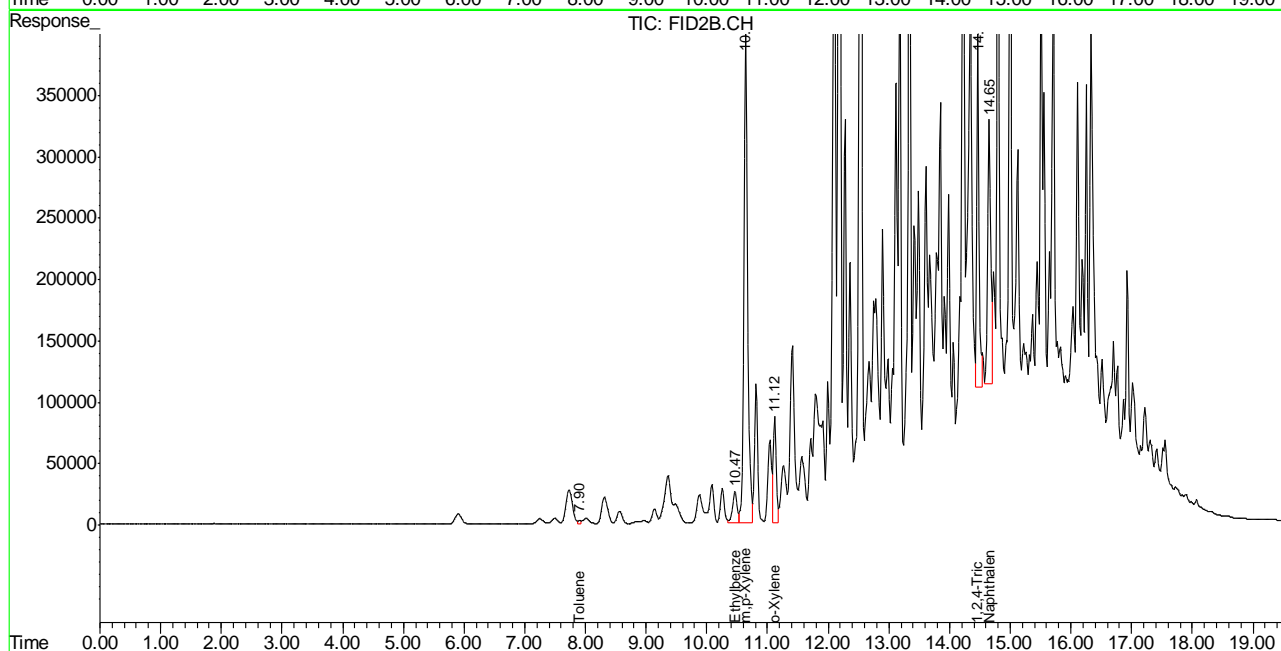
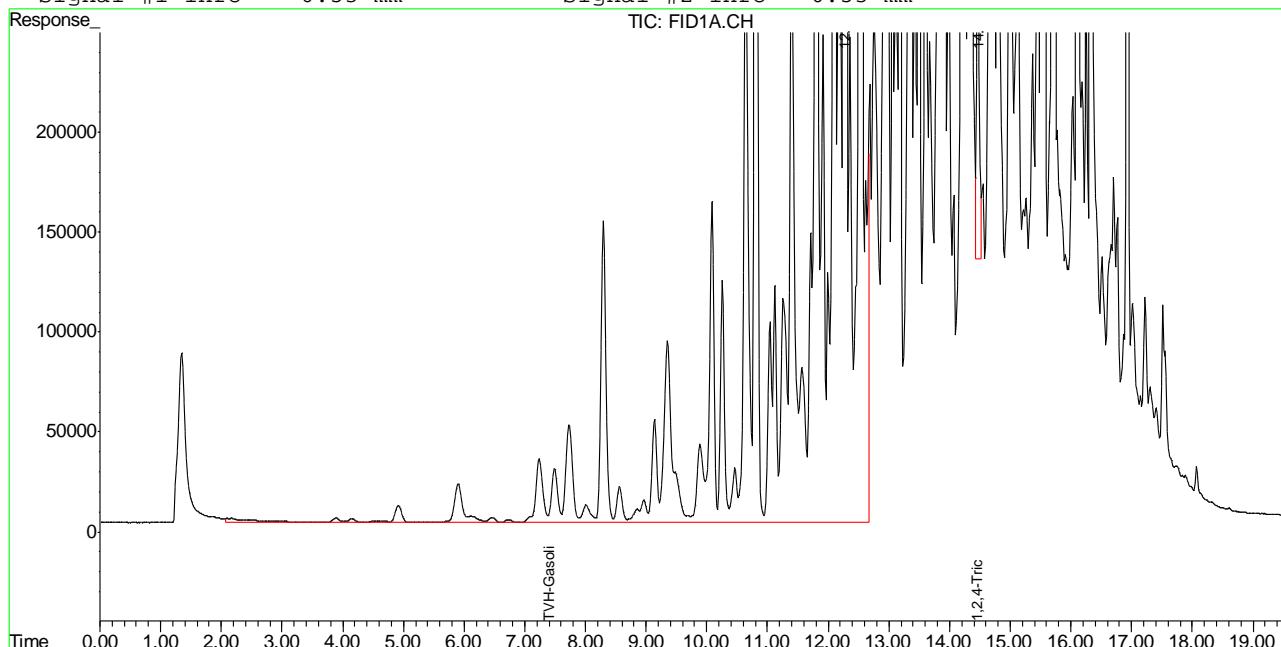
(f)=RT Delta > 1/2 Window (m)=manual int.
 GA12100.D TA620GA620.M Mon Jun 13 10:29:01 2011 GC

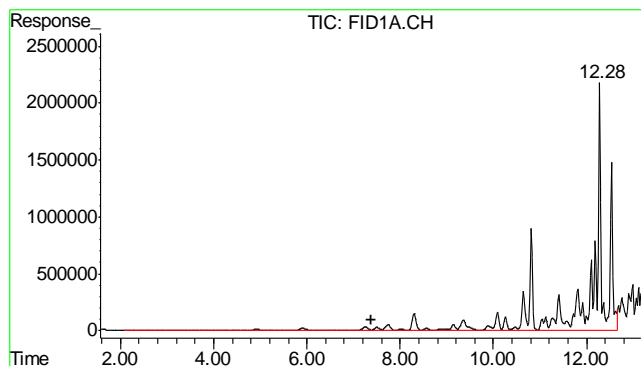
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12100.D\FID1A.CH Vial: 12
 Signal #2 : Z:\061111\GA12100.D\FID2B.CH
 Acq On : 11 Jun 2011 5:30 pm Operator: StephK
 Sample : D24027-4, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.023,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:31 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

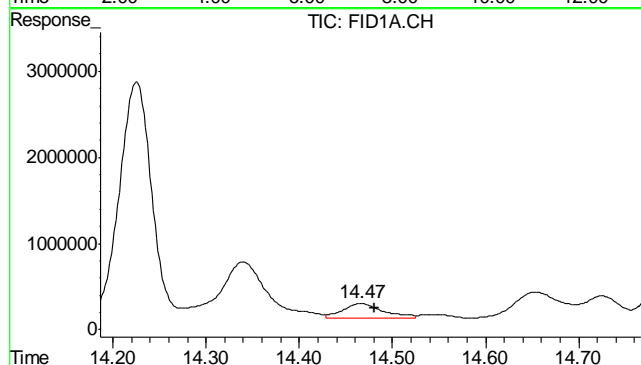
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





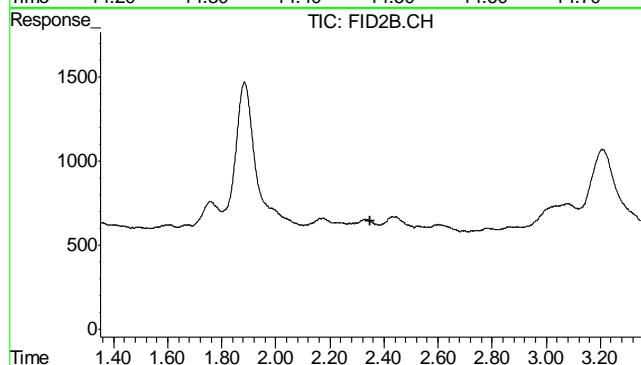
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 345500250
Conc: 3.65 mg/L m



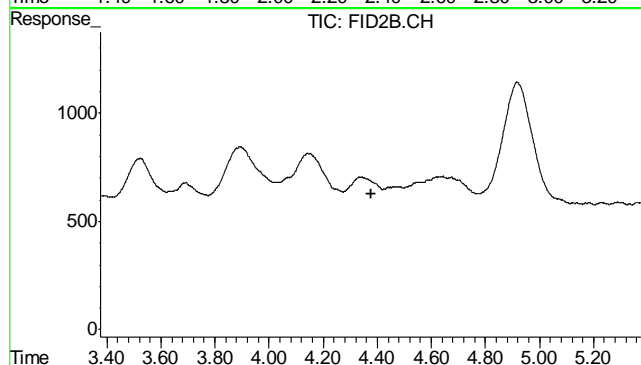
#2 1,2,4-Trichlorobenzene

R.T.: 14.466 min
Delta R.T.: -0.015 min
Response: 5008031
Conc: 140.74 % m



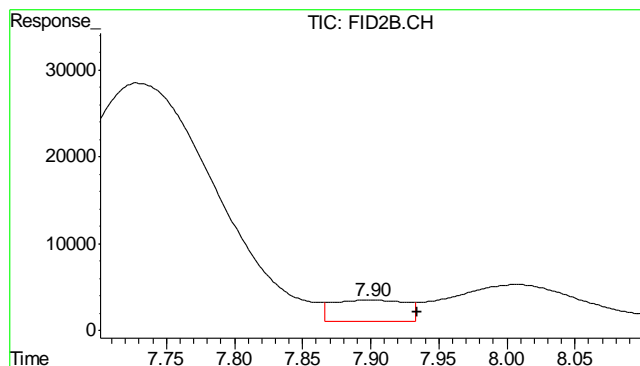
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.351 min
Response: 0
Conc: N.D.



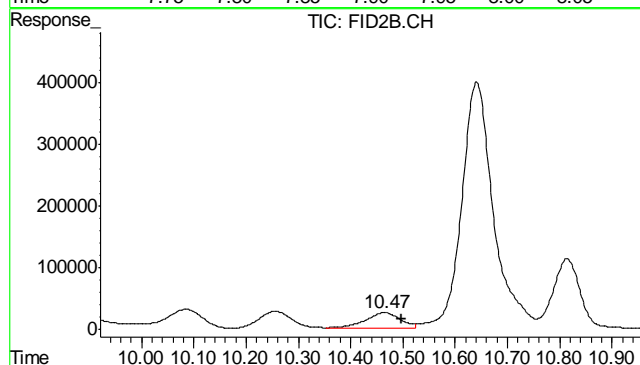
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.376 min
Response: 0
Conc: N.D.



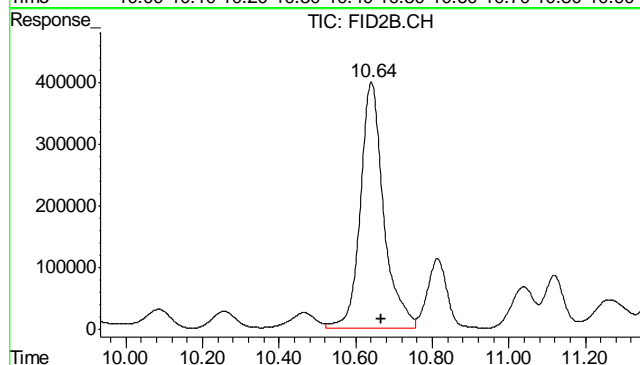
#6 Toluene

R.T.: 7.899 min
Delta R.T.: -0.035 min
Response: 94135
Conc: 0.45 ug/L



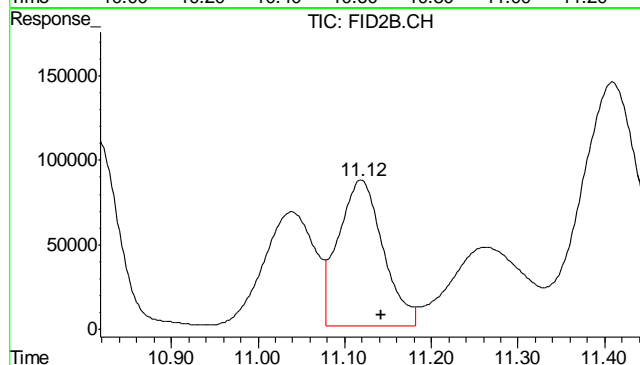
#7 Ethylbenzene

R.T.: 10.465 min
Delta R.T.: -0.031 min
Response: 1218997
Conc: 6.50 ug/L m



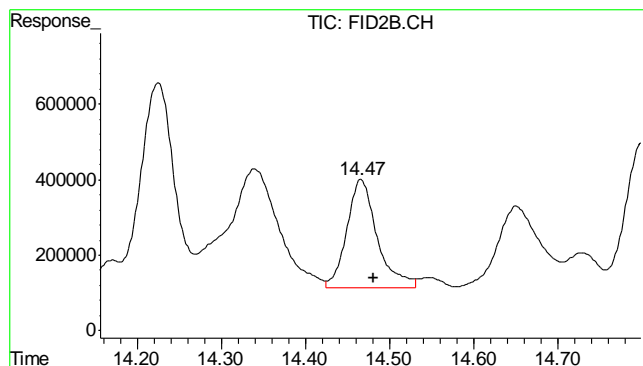
#8 m,p-Xylene

R.T.: 10.640 min
Delta R.T.: -0.027 min
Response: 16857008
Conc: 78.09 ug/L m



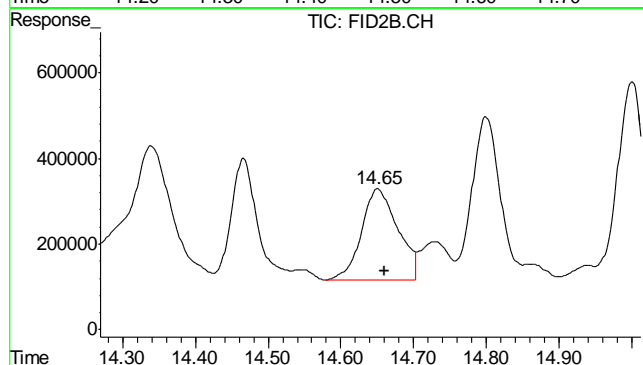
#9 o-Xylene

R.T.: 11.118 min
Delta R.T.: -0.024 min
Response: 3088193
Conc: 16.95 ug/L m



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.465 min
 Delta R.T.: -0.015 min
 Response: 7314569
 Conc: 121.61 % m



#11 Naphthalene

R.T.: 14.650 min
 Delta R.T.: -0.010 min
 Response: 7475969
 Conc: 63.30 ug/L m

8.1.4
8

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12101.D\FID1A.CH Vial: 13
 Signal #2 : Z:\061111\GA12101.D\FID2B.CH
 Acq On : 11 Jun 2011 6:06 pm Operator: StephK
 Sample : D24027-5, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.045,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:26:15 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB2.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.46	3532859	99.285	%
10) S	1,2,4-Trichlorobenzene (P)	14.46	6243105	98.098	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2542487	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.89	33939	0.161	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.63	99614	0.461	ug/L
9) T	o-Xylene	11.12	36490	0.200	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

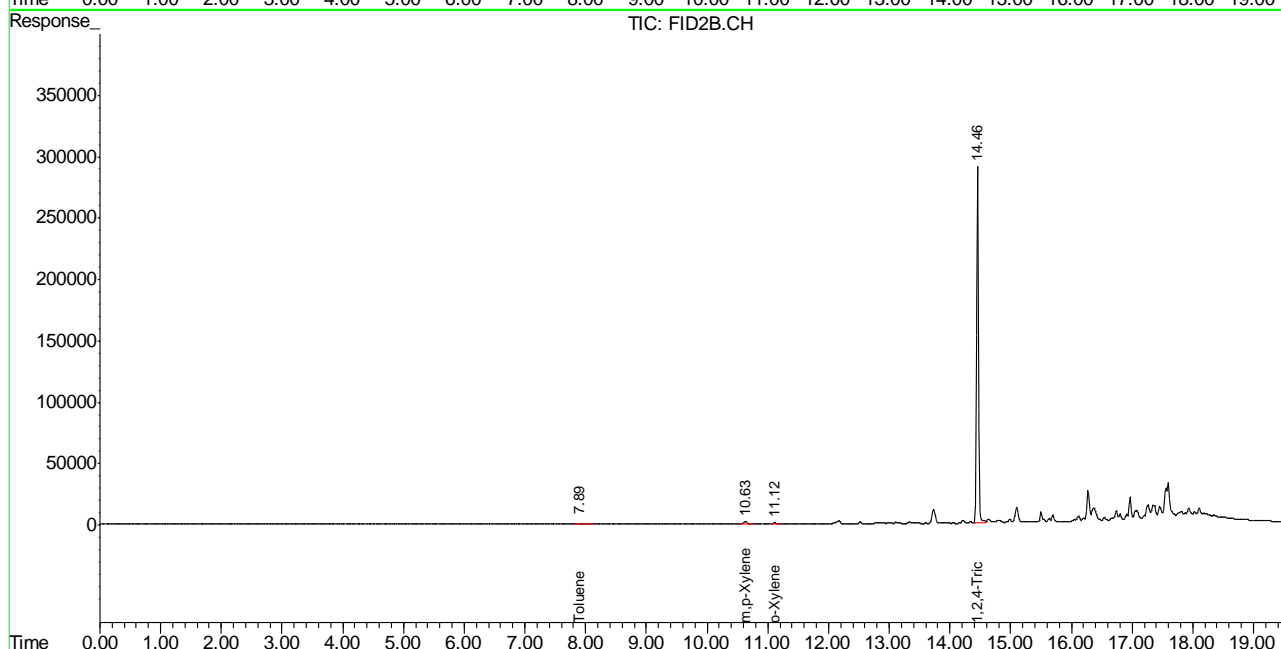
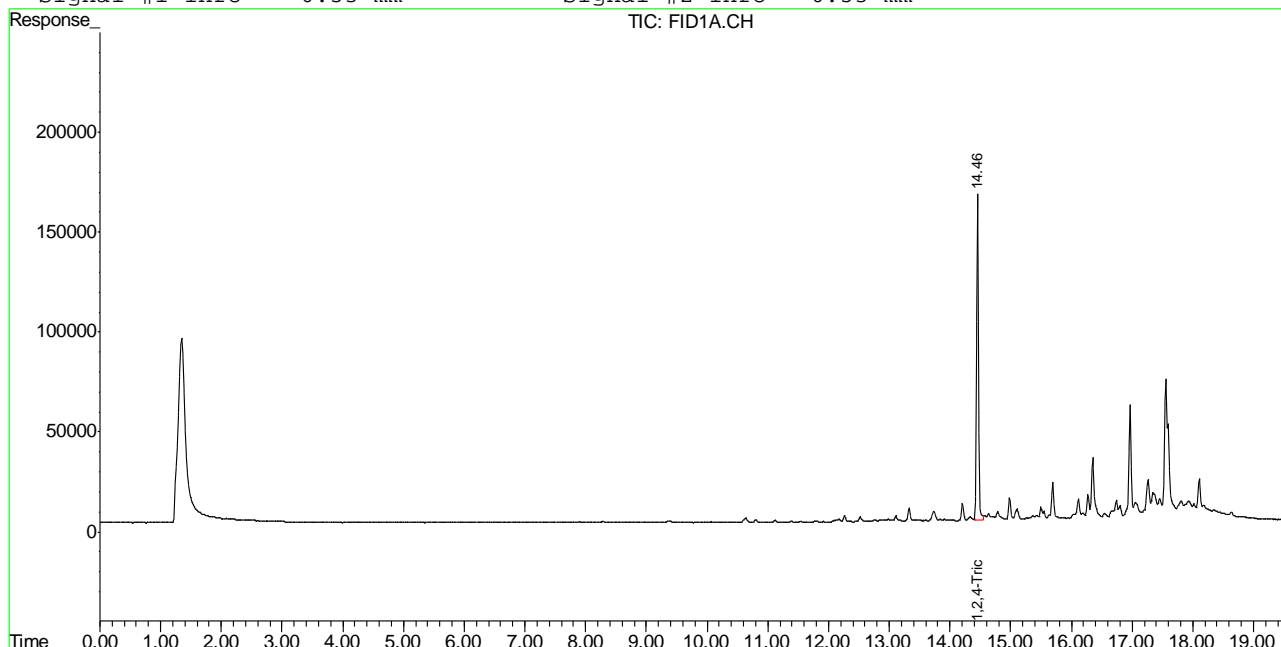
(f)=RT Delta > 1/2 Window (m)=manual int.
 GA12101.D TA620GA620.M Mon Jun 13 10:29:04 2011 GC

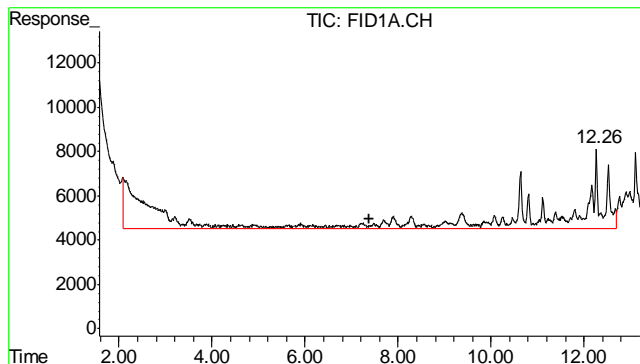
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12101.D\FID1A.CH Vial: 13
 Signal #2 : Z:\061111\GA12101.D\FID2B.CH
 Acq On : 11 Jun 2011 6:06 pm Operator: StephK
 Sample : D24027-5, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.045,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:32 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

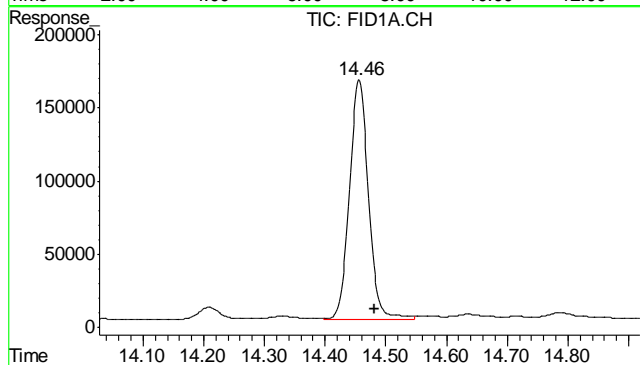
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





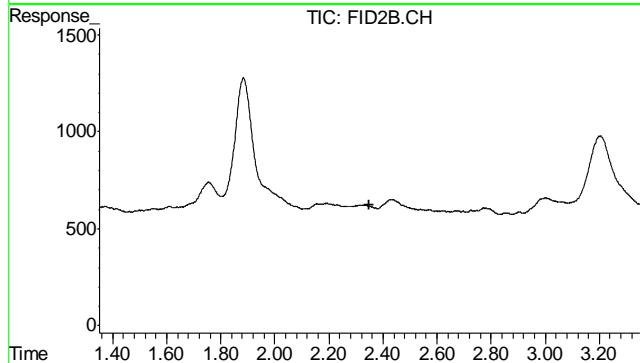
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2542487
Conc: N.D.



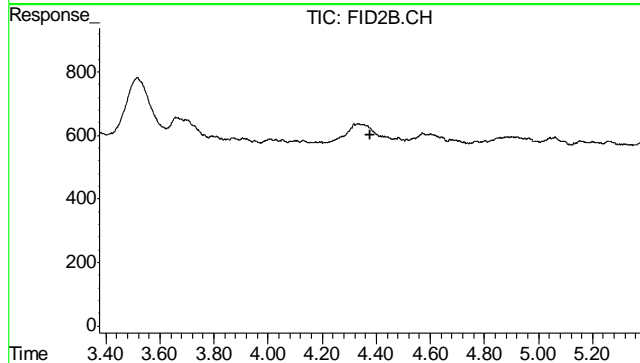
#2 1,2,4-Trichlorobenzene

R.T.: 14.456 min
Delta R.T.: -0.025 min
Response: 3532859
Conc: 99.28 %



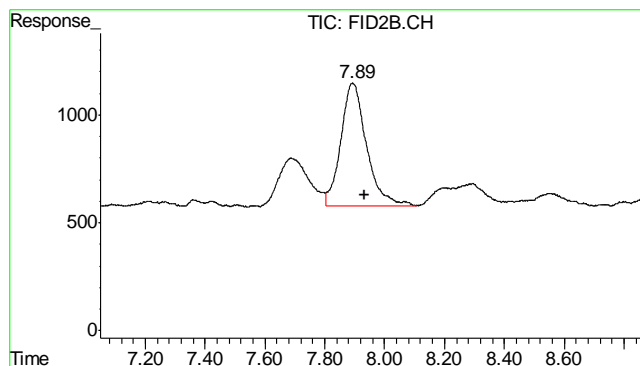
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.351 min
Response: 0
Conc: N.D.



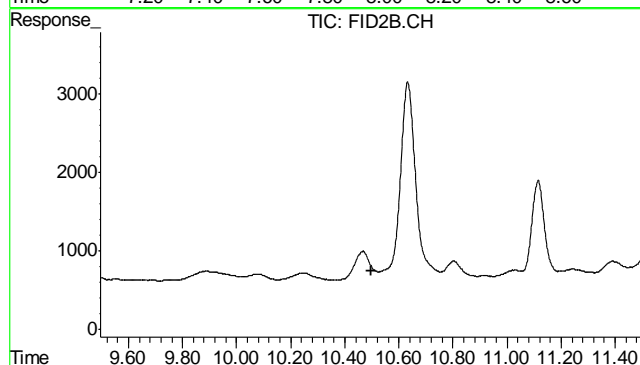
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.376 min
Response: 0
Conc: N.D.



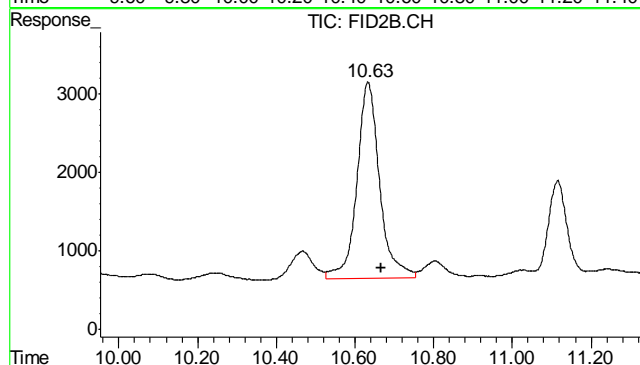
#6 Toluene

R.T.: 7.893 min
Delta R.T.: -0.041 min
Response: 33939
Conc: 0.16 ug/L



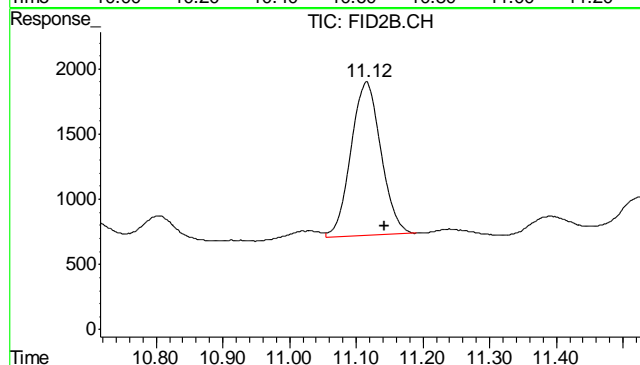
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.496 min
Response: 0
Conc: N.D.



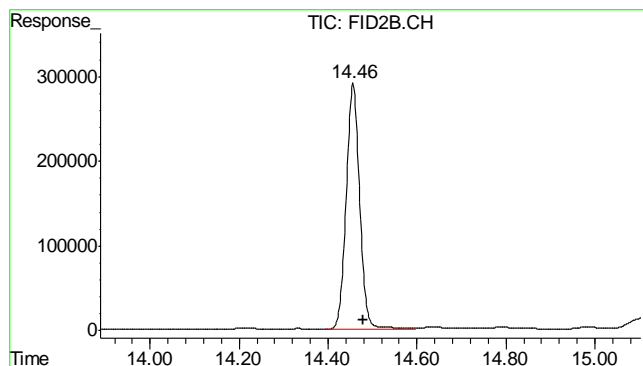
#8 m,p-Xylene

R.T.: 10.633 min
Delta R.T.: -0.034 min
Response: 99614
Conc: 0.46 ug/L



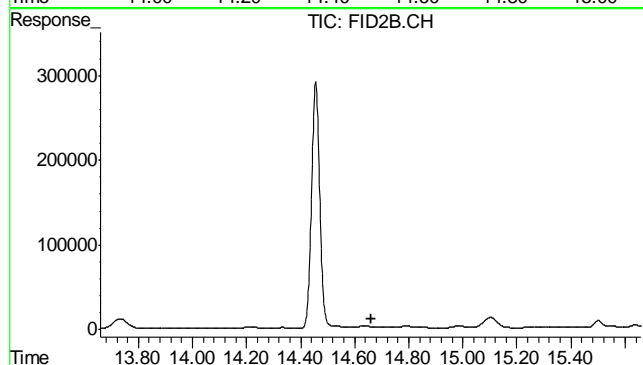
#9 o-Xylene

R.T.: 11.116 min
Delta R.T.: -0.026 min
Response: 36490
Conc: 0.20 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.456 min
Delta R.T.: -0.024 min
Response: 6243105
Conc: 98.10 %



#11 Naphthalene

R.T.: 0.000 min
Exp R.T. : 14.659 min
Response: 0
Conc: N.D.

8.1.5
8

Judy Melson
06/13/11 11:19

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12102.D\FID1A.CH Vial: 14
 Signal #2 : Z:\061111\GA12102.D\FID2B.CH
 Acq On : 11 Jun 2011 7:00 pm Operator: StephK
 Sample : D24027-6, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.088,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:26:18 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB2.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.47	3670918	103.165 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.47	6037851	93.594 %	m
Target Compounds					
1) H	TVH-Gasoline	7.39	49666601	0.524 mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d
5) T	Benzene	0.00	0	N.D. ug/L	d
6) T	Toluene	7.91	49251	0.234 ug/L	
7) T	Ethylbenzene	10.47	68367	0.365 ug/L	
8) T	m,p-Xylene	10.65	736306	3.411 ug/L	
9) T	o-Xylene	11.13	272235	1.494 ug/L	
11) T	Naphthalene	14.66	3257577	26.965 ug/L	m

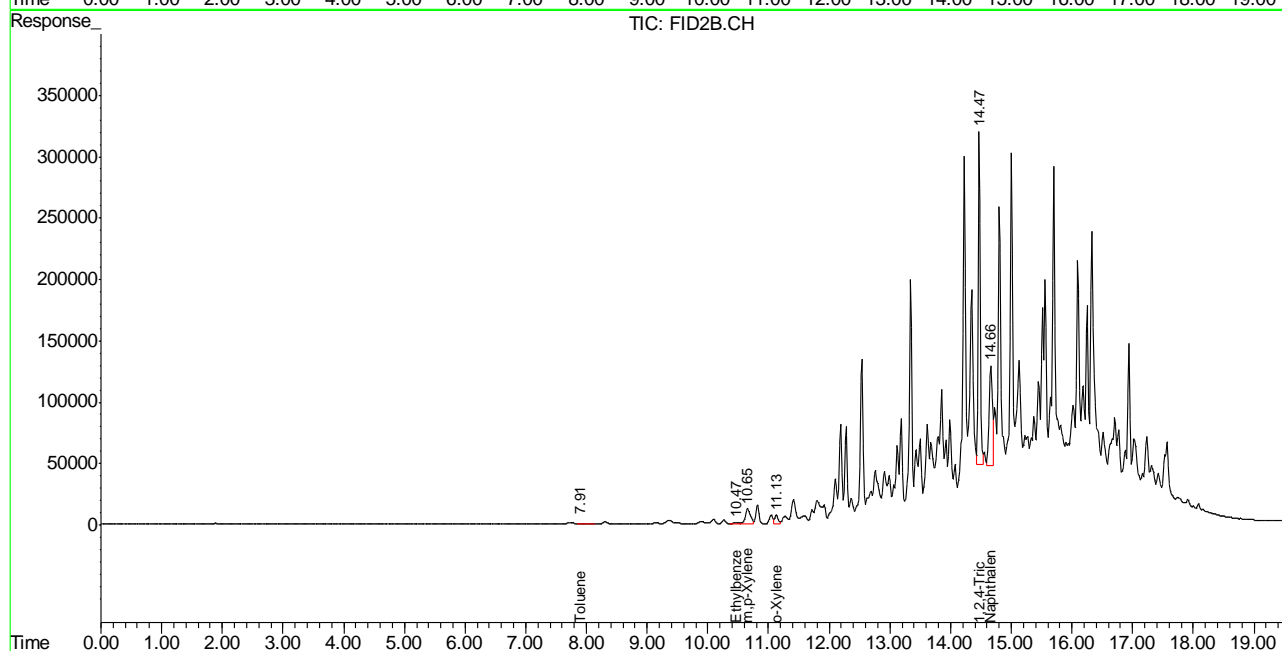
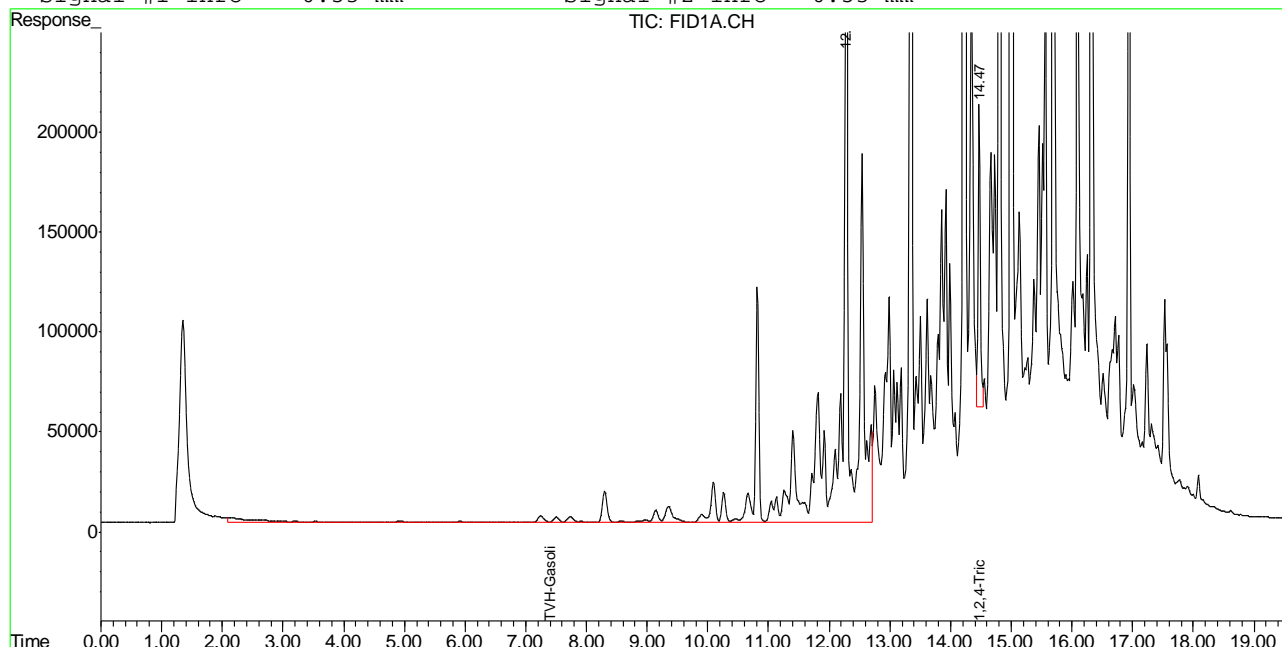
(f)=RT Delta > 1/2 Window (m)=manual int.
 GA12102.D TA620GA620.M Mon Jun 13 10:29:07 2011 GC

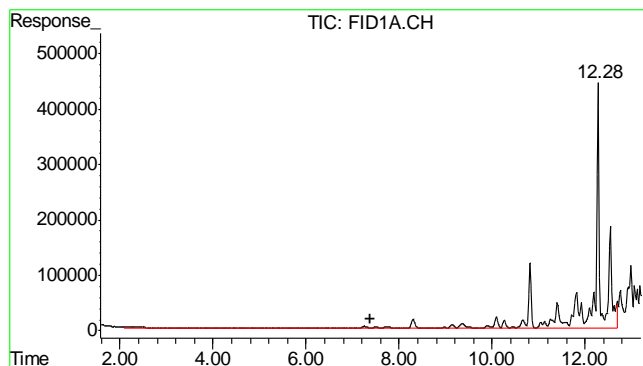
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12102.D\FID1A.CH Vial: 14
 Signal #2 : Z:\061111\GA12102.D\FID2B.CH
 Acq On : 11 Jun 2011 7:00 pm Operator: StephK
 Sample : D24027-6, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.088,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:33 2011 Quant Results File: TA620GA620.RES

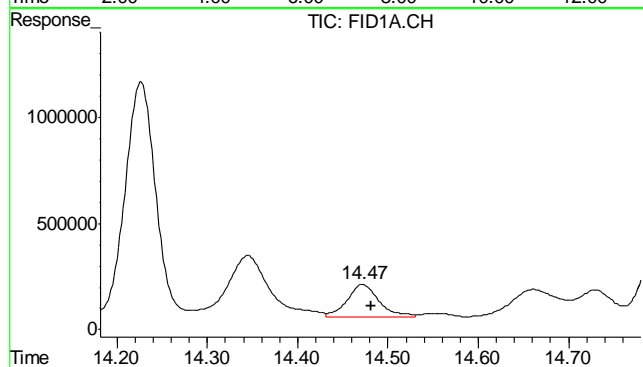
Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

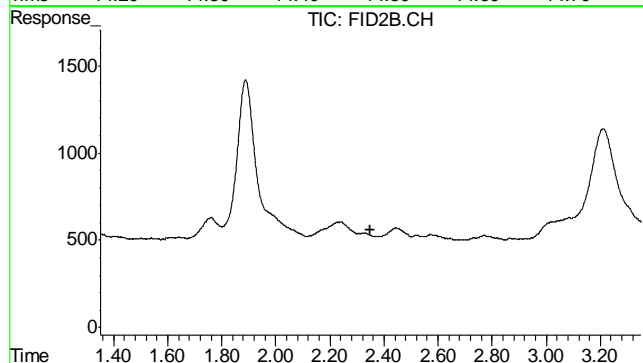




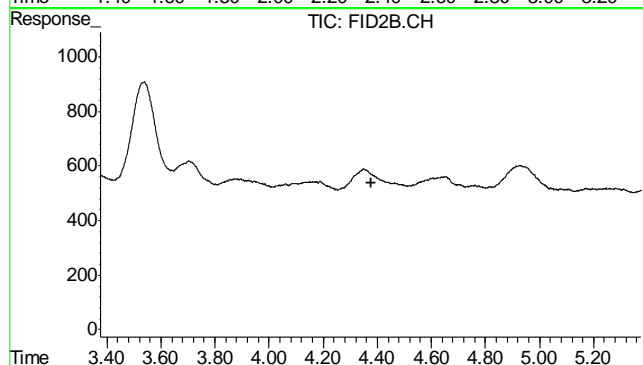
#1 TVH-Gasoline
 R.T.: 7.390 min
 Delta R.T.: 0.000 min
 Response: 49666601
 Conc: 0.52 mg/L m



#2 1,2,4-Trichlorobenzene
 R.T.: 14.471 min
 Delta R.T.: -0.010 min
 Response: 3670918
 Conc: 103.16 % m

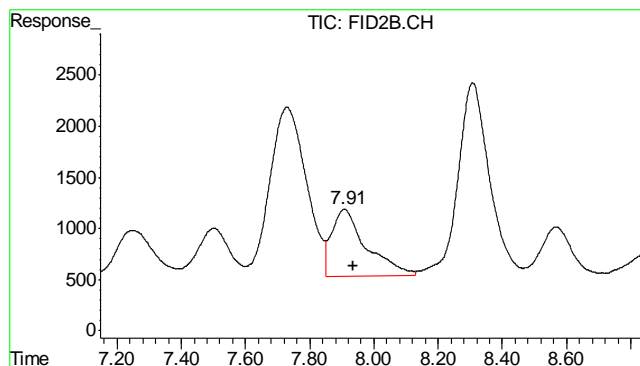


#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.351 min
 Response: 0
 Conc: N.D.



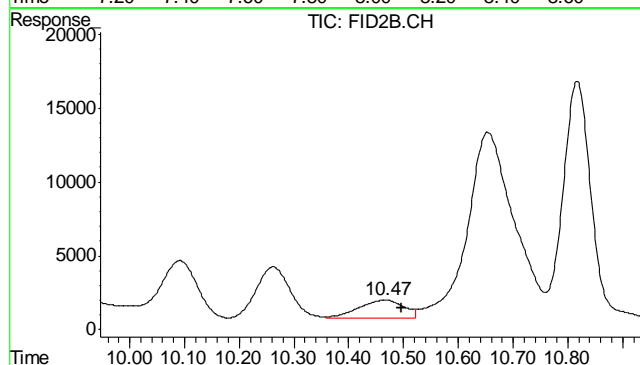
#5 Benzene
 R.T.: 0.000 min
 Exp R.T.: 4.376 min
 Response: 0
 Conc: N.D.

8.16
8



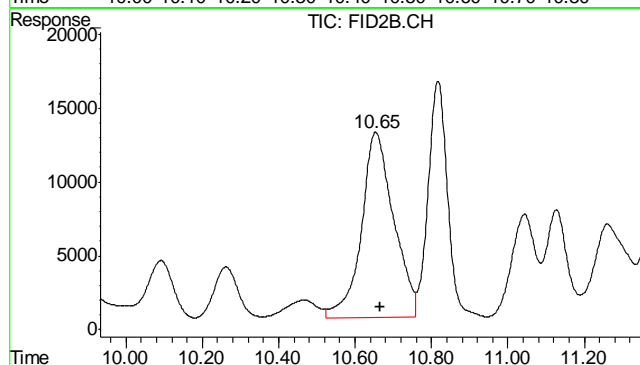
#6 Toluene

R.T.: 7.909 min
Delta R.T.: -0.025 min
Response: 49251
Conc: 0.23 ug/L



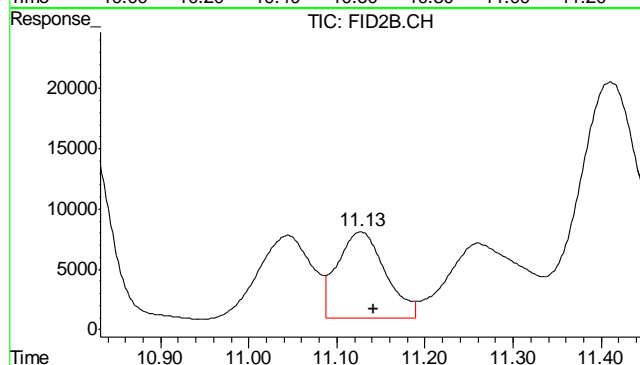
#7 Ethylbenzene

R.T.: 10.468 min
Delta R.T.: -0.028 min
Response: 68367
Conc: 0.36 ug/L



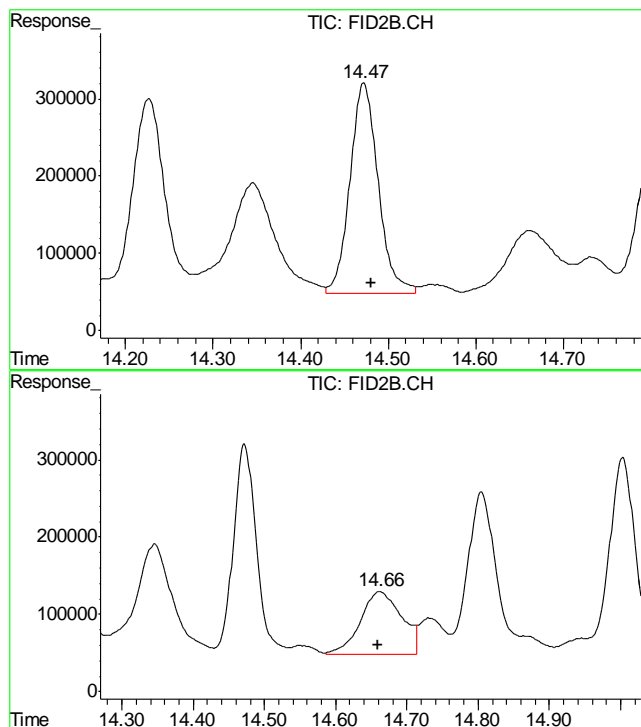
#8 m,p-Xylene

R.T.: 10.654 min
Delta R.T.: -0.013 min
Response: 736306
Conc: 3.41 ug/L



#9 o-Xylene

R.T.: 11.127 min
Delta R.T.: -0.015 min
Response: 272235
Conc: 1.49 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.471 min
Delta R.T.: -0.009 min
Response: 6037851
Conc: 93.59 % m

#11 Naphthalene

R.T.: 14.660 min
Delta R.T.: 0.001 min
Response: 3257577
Conc: 26.96 ug/L m

8.1.6
8

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12103.D\FID1A.CH Vial: 15
Signal #2 : Z:\061111\GA12103.D\FID2B.CH
Acq On : 11 Jun 2011 7:36 pm Operator: StephK
Sample : D24027-7, 50X Inst : BTEX2
Misc : GC1924,GGA659,5.021,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 13 09:26:21 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Jun 13 09:19:46 2011
Response via : Initial Calibration
DataAcq Meth : TVB2.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

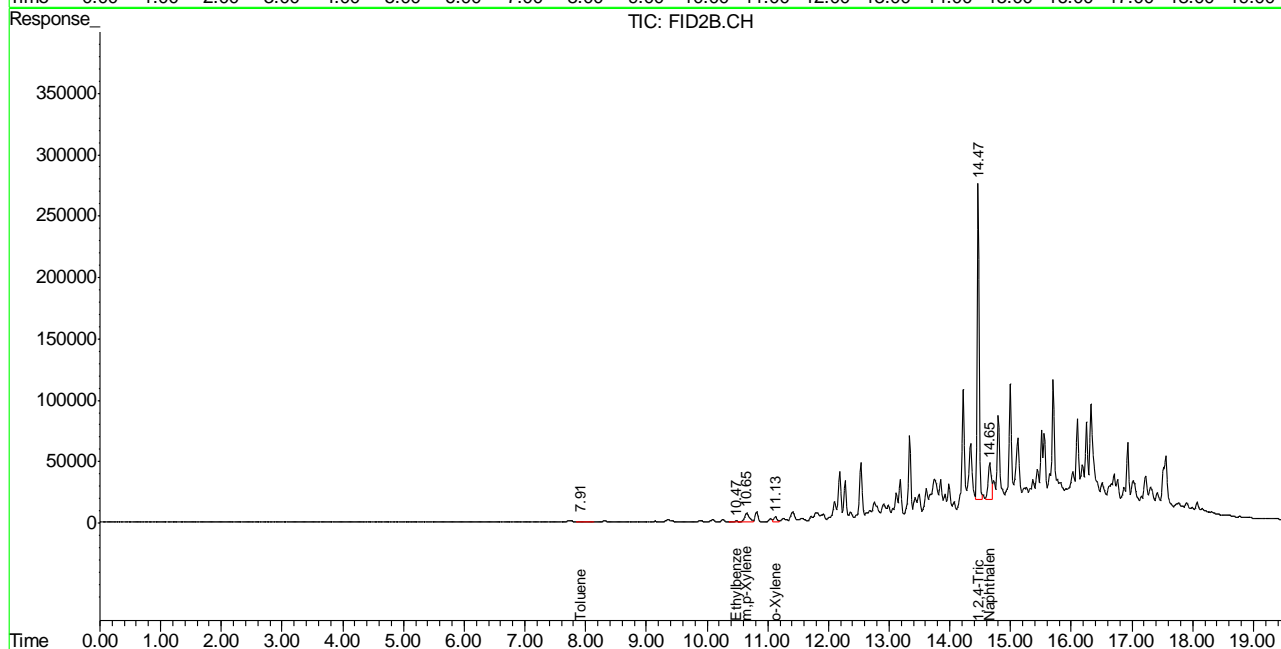
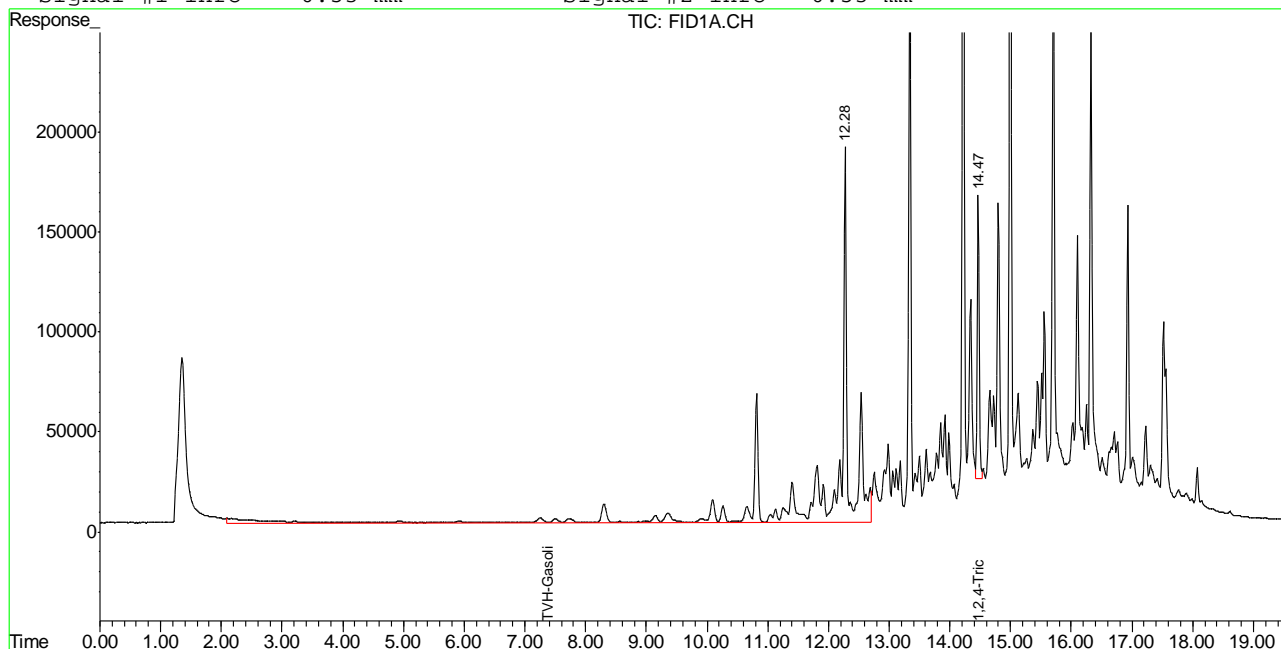
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.47	3141019	88.273 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.47	5530124	82.453 %	m
Target Compounds					
1) H	TVH-Gasoline	7.39	22582993	0.238 mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d
5) T	Benzene	0.00	0	N.D. ug/L	d
6) T	Toluene	7.91	41707	0.198 ug/L	
7) T	Ethylbenzene	10.47	42223	0.225 ug/L	
8) T	m,p-Xylene	10.65	402266	1.863 ug/L	
9) T	o-Xylene	11.13	153673	0.843 ug/L	
11) T	Naphthalene	14.65	1150173	8.815 ug/L	m

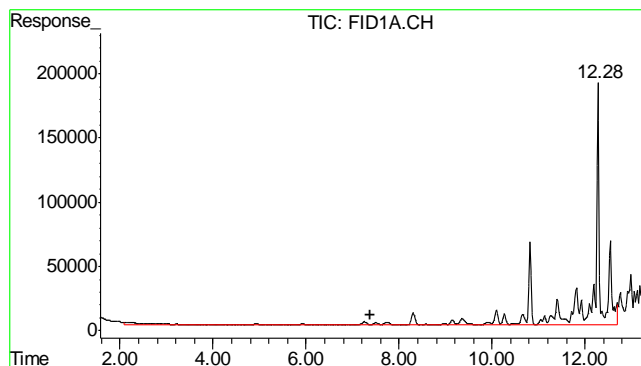
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12103.D\FID1A.CH Vial: 15
 Signal #2 : Z:\061111\GA12103.D\FID2B.CH
 Acq On : 11 Jun 2011 7:36 pm Operator: StephK
 Sample : D24027-7, 50X Inst : BTEX2
 Misc : GC1924,GGA659,5.021,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:34 2011 Quant Results File: TA620GA620.RES

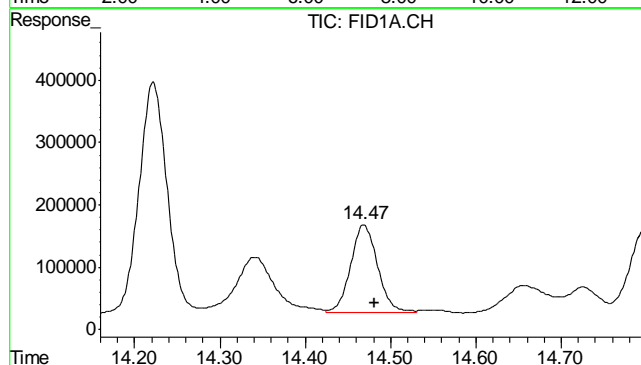
Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

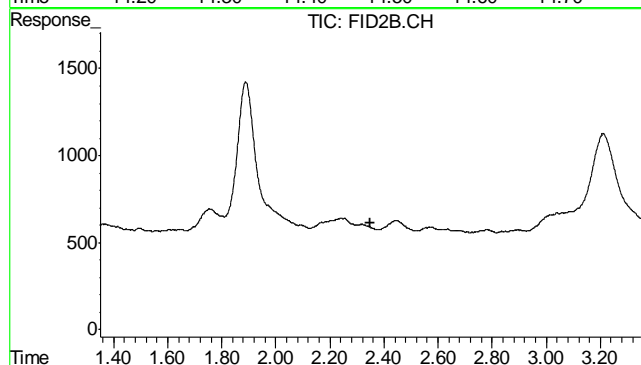




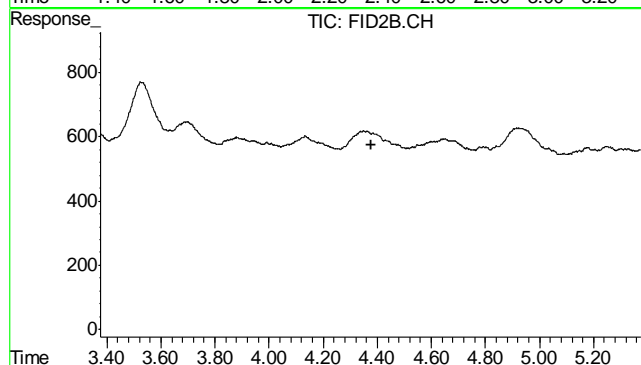
#1 TVH-Gasoline
 R.T.: 7.390 min
 Delta R.T.: 0.000 min
 Response: 22582993
 Conc: 0.24 mg/L m



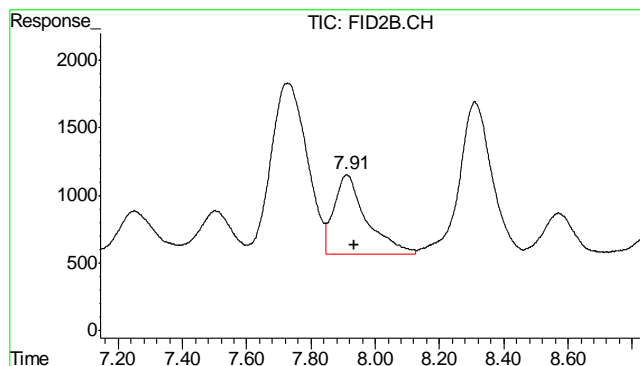
#2 1,2,4-Trichlorobenzene
 R.T.: 14.468 min
 Delta R.T.: -0.014 min
 Response: 3141019
 Conc: 88.27 % m



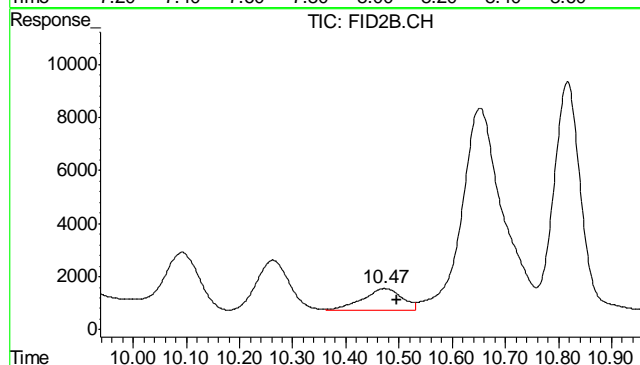
#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T. : 2.351 min
 Response: 0
 Conc: N.D.



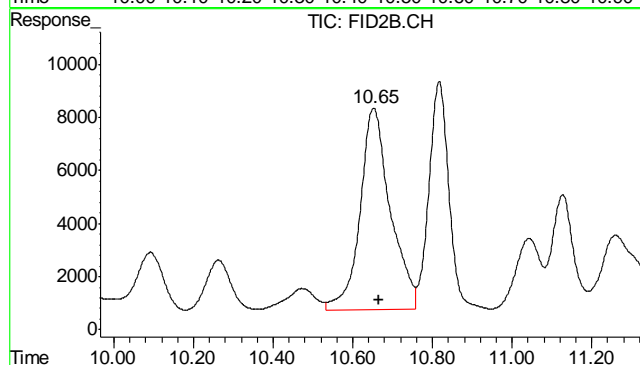
#5 Benzene
 R.T.: 0.000 min
 Exp R.T. : 4.376 min
 Response: 0
 Conc: N.D.



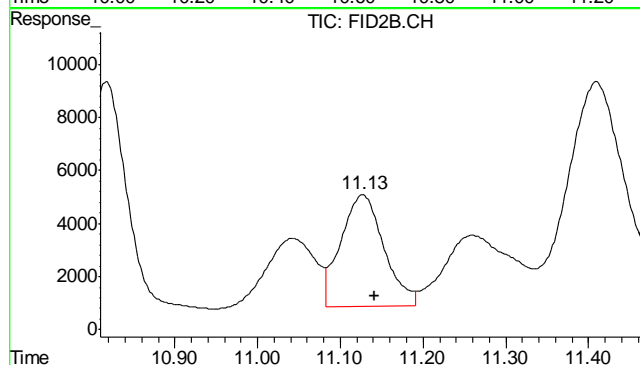
#6 Toluene
 R.T.: 7.911 min
 Delta R.T.: -0.023 min
 Response: 41707
 Conc: 0.20 ug/L



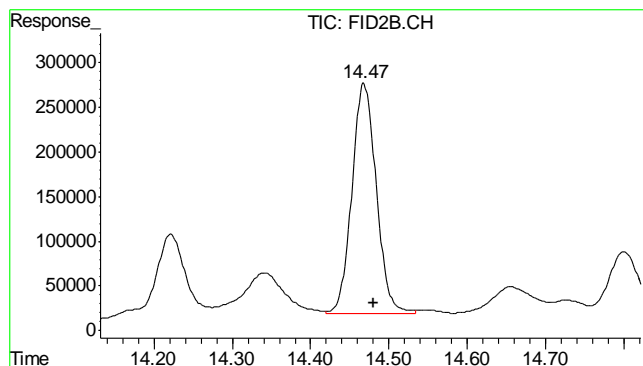
#7 Ethylbenzene
 R.T.: 10.473 min
 Delta R.T.: -0.023 min
 Response: 42223
 Conc: 0.23 ug/L



#8 m,p-Xylene
 R.T.: 10.653 min
 Delta R.T.: -0.014 min
 Response: 402266
 Conc: 1.86 ug/L

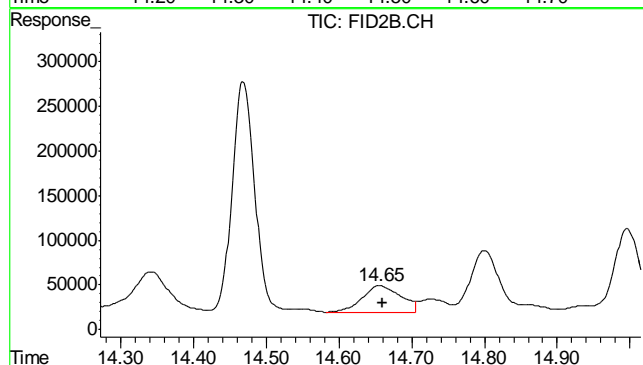


#9 o-Xylene
 R.T.: 11.127 min
 Delta R.T.: -0.015 min
 Response: 153673
 Conc: 0.84 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.467 min
Delta R.T.: -0.013 min
Response: 5530124
Conc: 82.45 % m



#11 Naphthalene

R.T.: 14.655 min
Delta R.T.: -0.004 min
Response: 1150173
Conc: 8.81 ug/L m

8.1.7
8

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12091.D\FID1A.CH Vial: 3
Signal #2 : Z:\061111\GA12091.D\FID2B.CH
Acq On : 11 Jun 2011 12:02 pm Operator: StephK
Sample : MB, S Inst : BTEX2
Misc : GC1941,GGA659,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 13 09:14:21 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Jun 13 09:12:42 2011
Response via : Initial Calibration
DataAcq Meth : TVB2.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

Compound		R.T.	Response	Conc	Units

System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.48	3957849	111.228	%
10) S	1,2,4-Trichlorobenzene (P)	14.47	7051379	115.833	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2479001	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.92	71238	0.339	ug/L
7) T	Ethylbenzene	10.49	33251	0.177	ug/L
8) T	m,p-Xylene	10.66	190386	0.882	ug/L
9) T	o-Xylene	11.13	102488	0.562	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

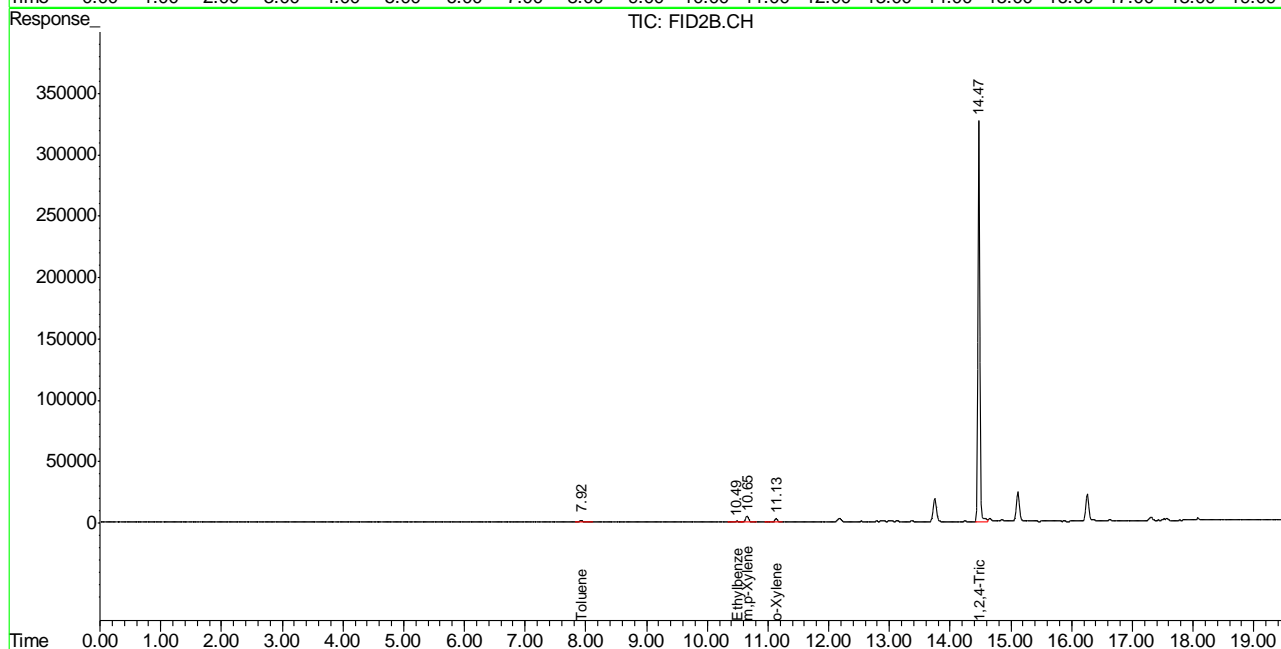
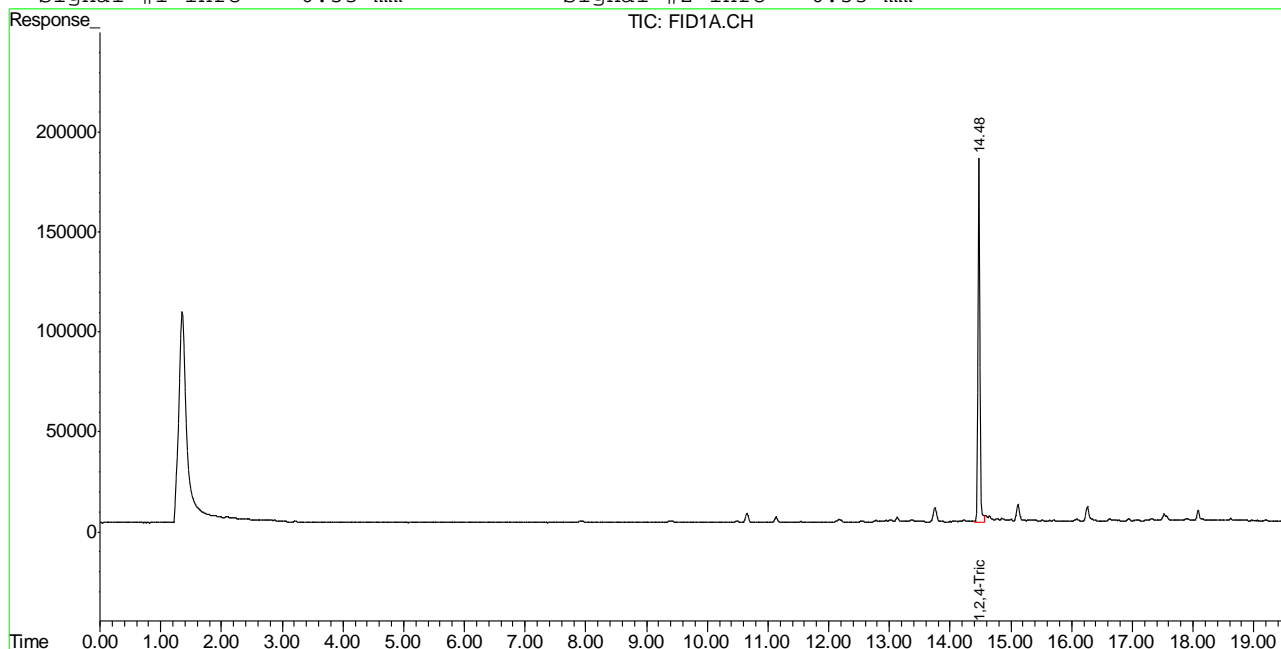
(f)=RT Delta > 1/2 Window (m)=manual int.
GA12091.D TA620GA620.M Mon Jun 13 09:52:57 2011 GC

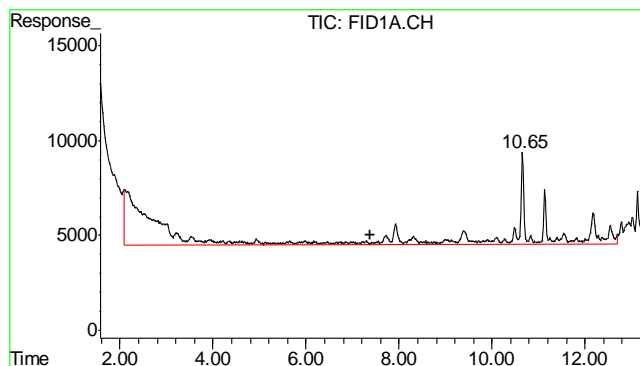
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12091.D\FID1A.CH Vial: 3
Signal #2 : Z:\061111\GA12091.D\FID2B.CH
Acq On : 11 Jun 2011 12:02 pm Operator: StephK
Sample : MB, S Inst : BTEX2
Misc : GC1941,GGA659,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 13 7:15 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Jun 13 09:12:42 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB2.M

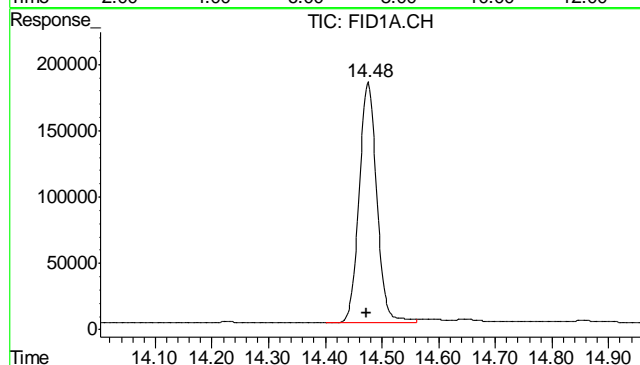
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





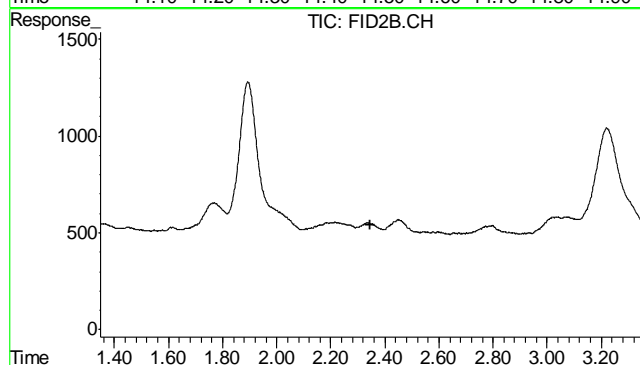
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2479001
Conc: N.D.



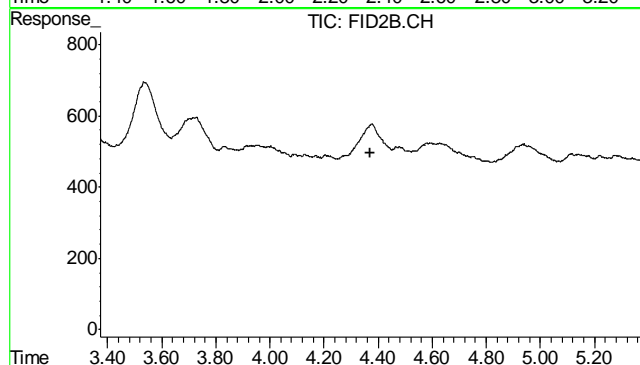
#2 1,2,4-Trichlorobenzene

R.T.: 14.476 min
Delta R.T.: 0.003 min
Response: 3957849
Conc: 111.23 %



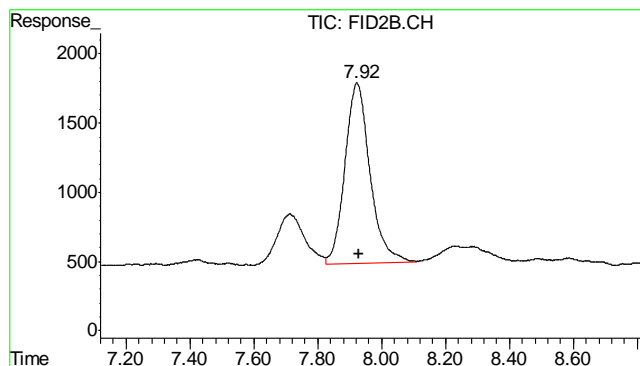
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.347 min
Response: 0
Conc: N.D.



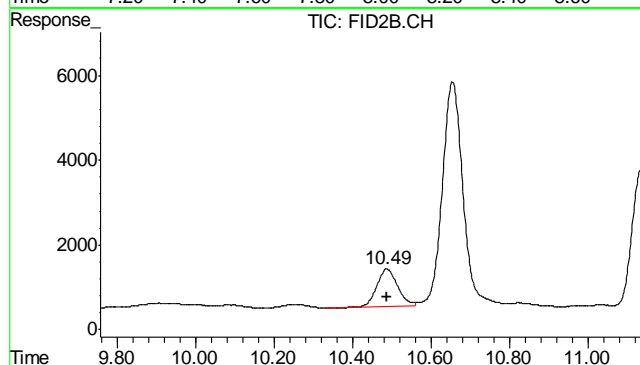
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.372 min
Response: 0
Conc: N.D.



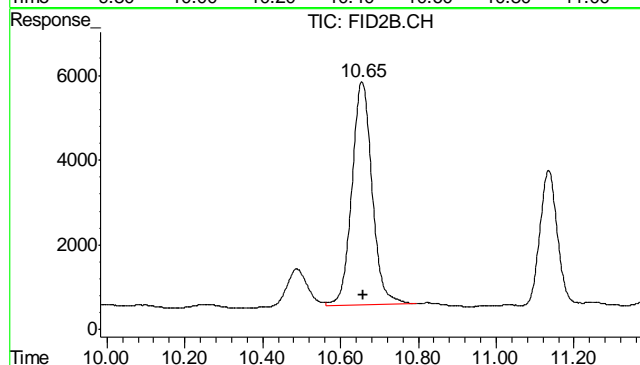
#6 Toluene

R.T.: 7.923 min
Delta R.T.: -0.004 min
Response: 71238
Conc: 0.34 ug/L



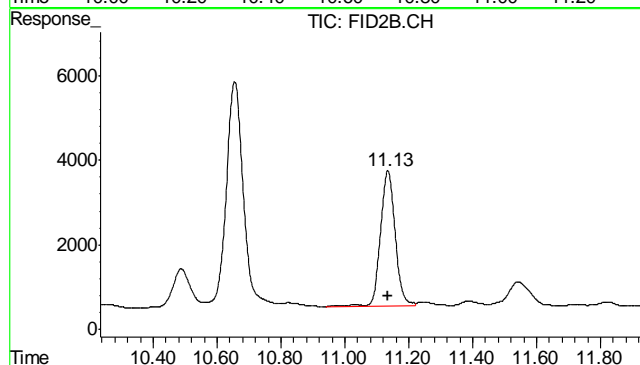
#7 Ethylbenzene

R.T.: 10.488 min
Delta R.T.: 0.000 min
Response: 33251
Conc: 0.18 ug/L



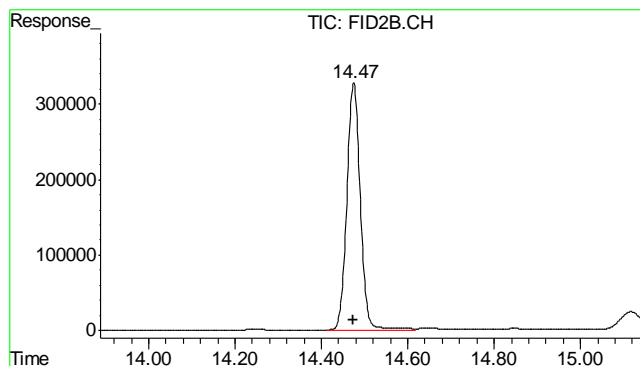
#8 m,p-Xylene

R.T.: 10.655 min
Delta R.T.: -0.003 min
Response: 190386
Conc: 0.88 ug/L



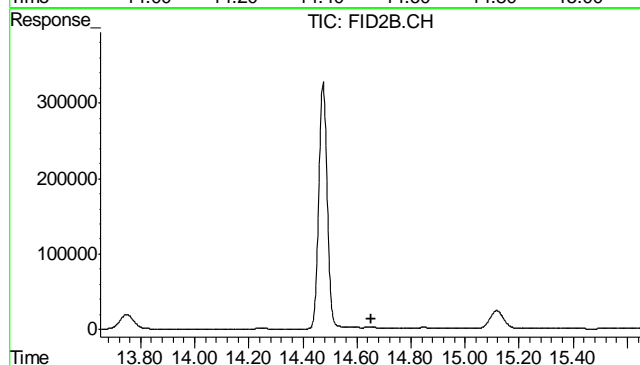
#9 o-Xylene

R.T.: 11.135 min
Delta R.T.: 0.000 min
Response: 102488
Conc: 0.56 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.475 min
Delta R.T.: 0.002 min
Response: 7051379
Conc: 115.83 %



#11 Naphthalene

R.T.: 0.000 min
Exp R.T. : 14.652 min
Response: 0
Conc: N.D.

8.2.1

8

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D24027
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3806-MB	FD06936.D	1	06/10/11	JB	06/07/11	OP3806	GFD303

The QC reported here applies to the following samples:

Method: SW846-8015B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	13	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	102% 61-142%

9.1.1

9

Blank Spike Summary

Job Number: D24027
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3806-BS	FD06937.D	1	06/10/11	JB	06/07/11	OP3806	GFD303

The QC reported here applies to the following samples: Method: SW846-8015B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	614	92	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	102%	61-142%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24027
Account: KRWCCOL KRW Consulting, Inc.
Project: 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3806-MS	FD06938.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
OP3806-MSD	FD06939.D	1	06/10/11	JB	06/07/11	OP3806	GFD303
D24027-1	FD06940.D	1	06/10/11	JB	06/07/11	OP3806	GFD303

The QC reported here applies to the following samples: Method: SW846-8015B

D24027-1, D24027-2, D24027-3, D24027-4, D24027-5, D24027-6, D24027-7

CAS No.	Compound	D24027-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND		753	650	86	617	82	5	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D24027-1	Limits
84-15-1	o-Terphenyl	94%	87%	90%	61-142%

GC Semi-volatiles

Raw Data

Judy Melson
06/10/11 12:22

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06940.D Vial: 29
Acq On : 6-10-2011 05:33:35 AM Operator: JACOB
Sample : D24027-1 Inst : FID5
Misc : OP3806,GFD303,30.06,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 09:34:41 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Initial Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.54	47199888	902.945 mg/L m

Target Compounds

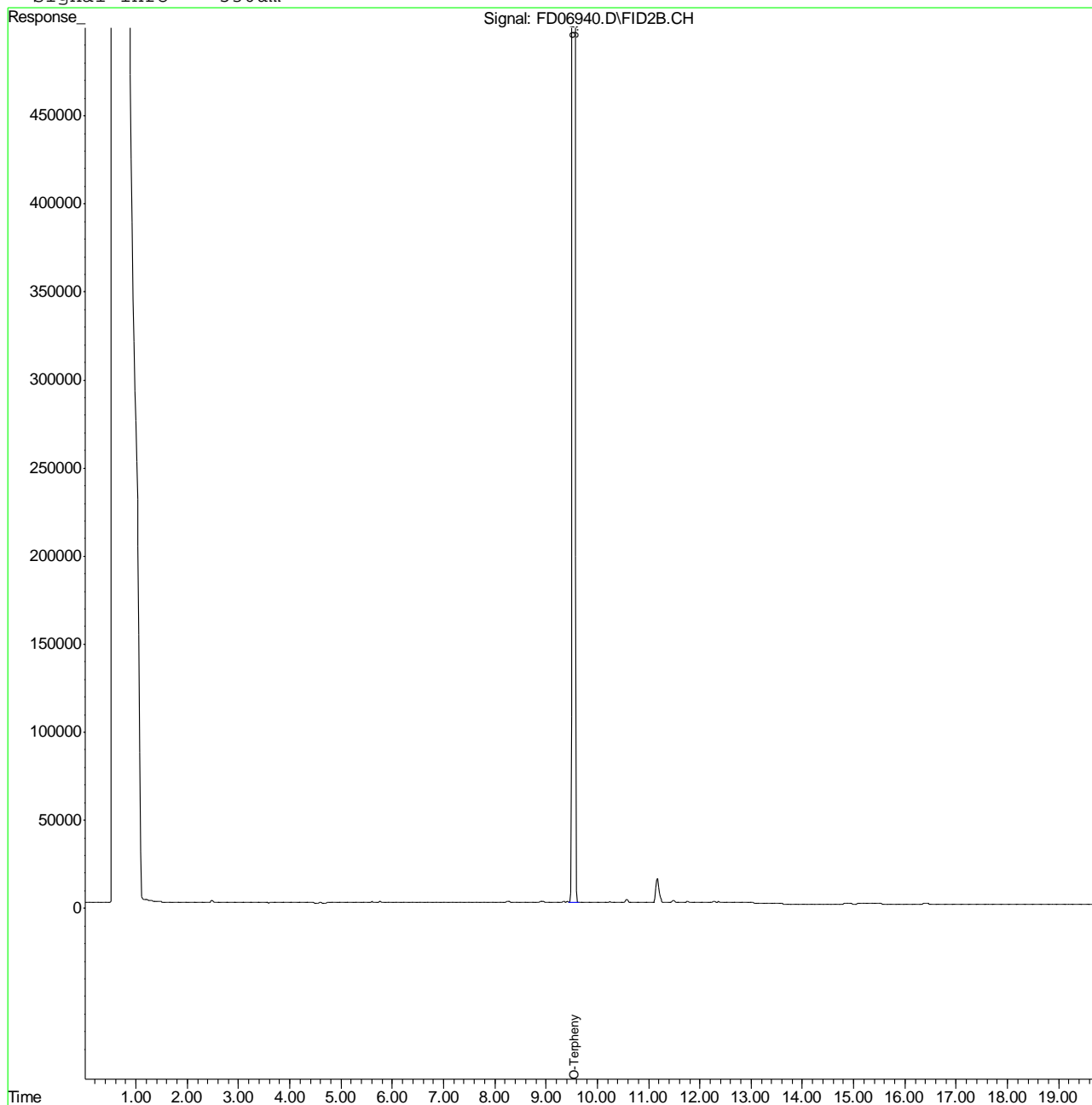
10.1.1
10

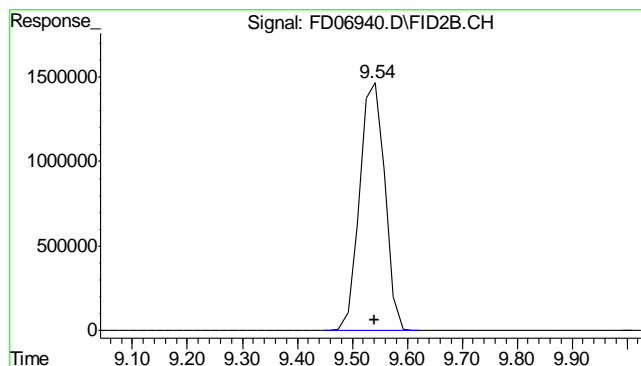
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06940.D Vial: 29
Acq On : 6-10-2011 05:33:35 AM Operator: JACOB
Sample : D24027-1 Inst : FID5
Misc : OP3806,GFD303,30.06,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 11:24 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

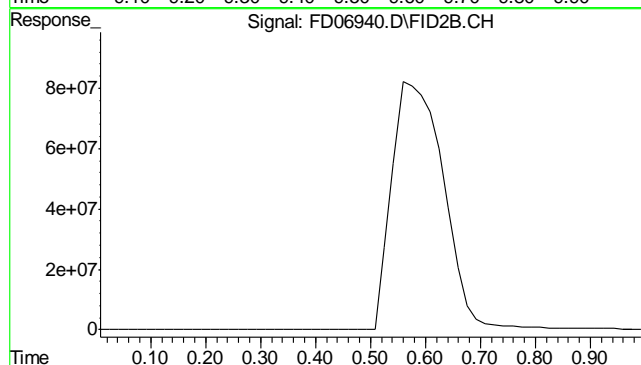
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.536 min
 Delta R.T.: -0.004 min
 Response: 47199888
 Conc: 902.95 mg/L m



#9 5a-Androstane

R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.1
10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06941.D Vial: 30
Acq On : 6-10-2011 05:59:01 AM Operator: JACOB
Sample : D24027-2 Inst : FID5
Misc : OP3806,GFD303,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 09:34:42 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Initial Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.54	48964039	936.694 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	291896445	5974.309 mg/L

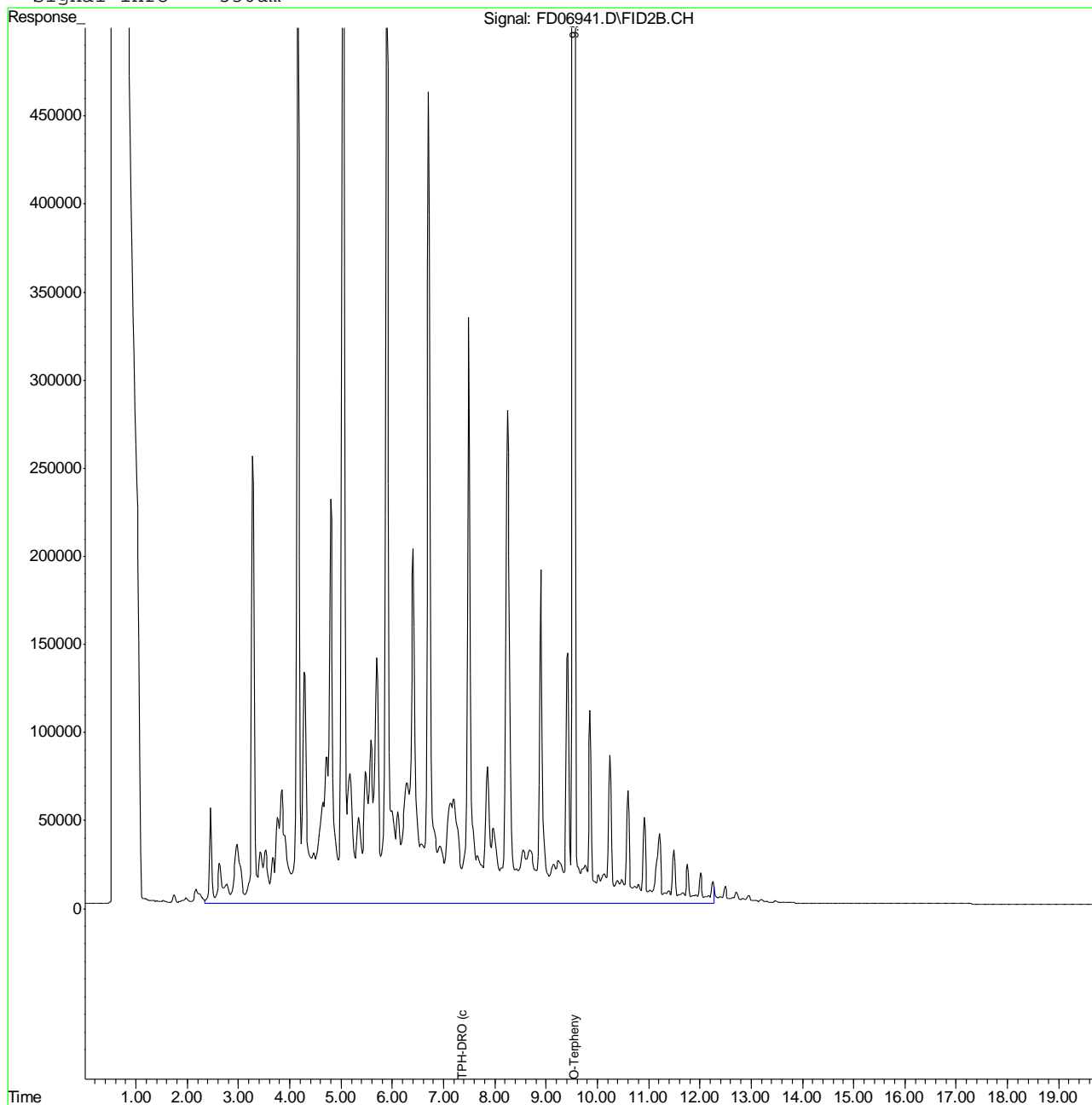
10.1.2
10

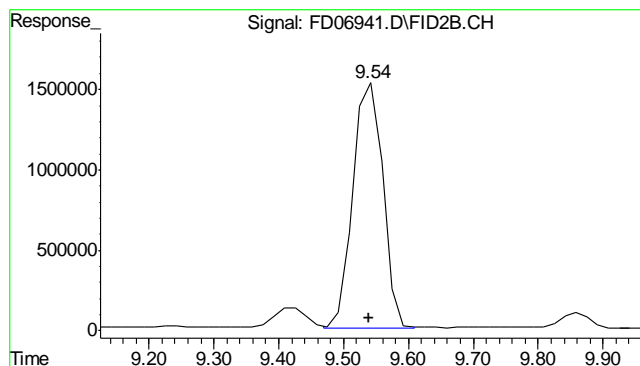
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06941.D Vial: 30
Acq On : 6-10-2011 05:59:01 AM Operator: JACOB
Sample : D24027-2 Inst : FID5
Misc : OP3806,GFD303,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 11:25 2011 Quant Results File: DR-GFD294.RES

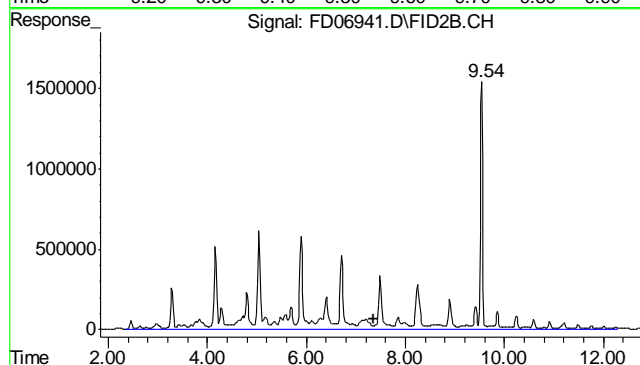
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

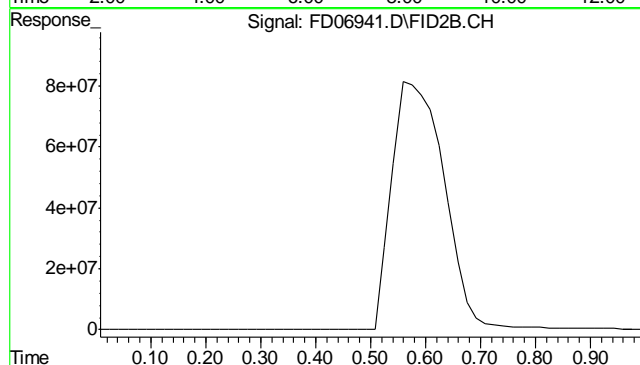




#1 O-Terphenyl
 R.T.: 9.537 min
 Delta R.T.: -0.003 min
 Response: 48964039
 Conc: 936.69 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 291896445
 Conc: 5974.31 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.2
 10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06942.D Vial: 31
Acq On : 6-10-2011 06:24:25 AM Operator: JACOB
Sample : D24027-3 Inst : FID5
Misc : OP3806,GFD303,30.06,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 09:34:43 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Initial Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.54	46880606	896.837 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	3274905	7.262 mg/L

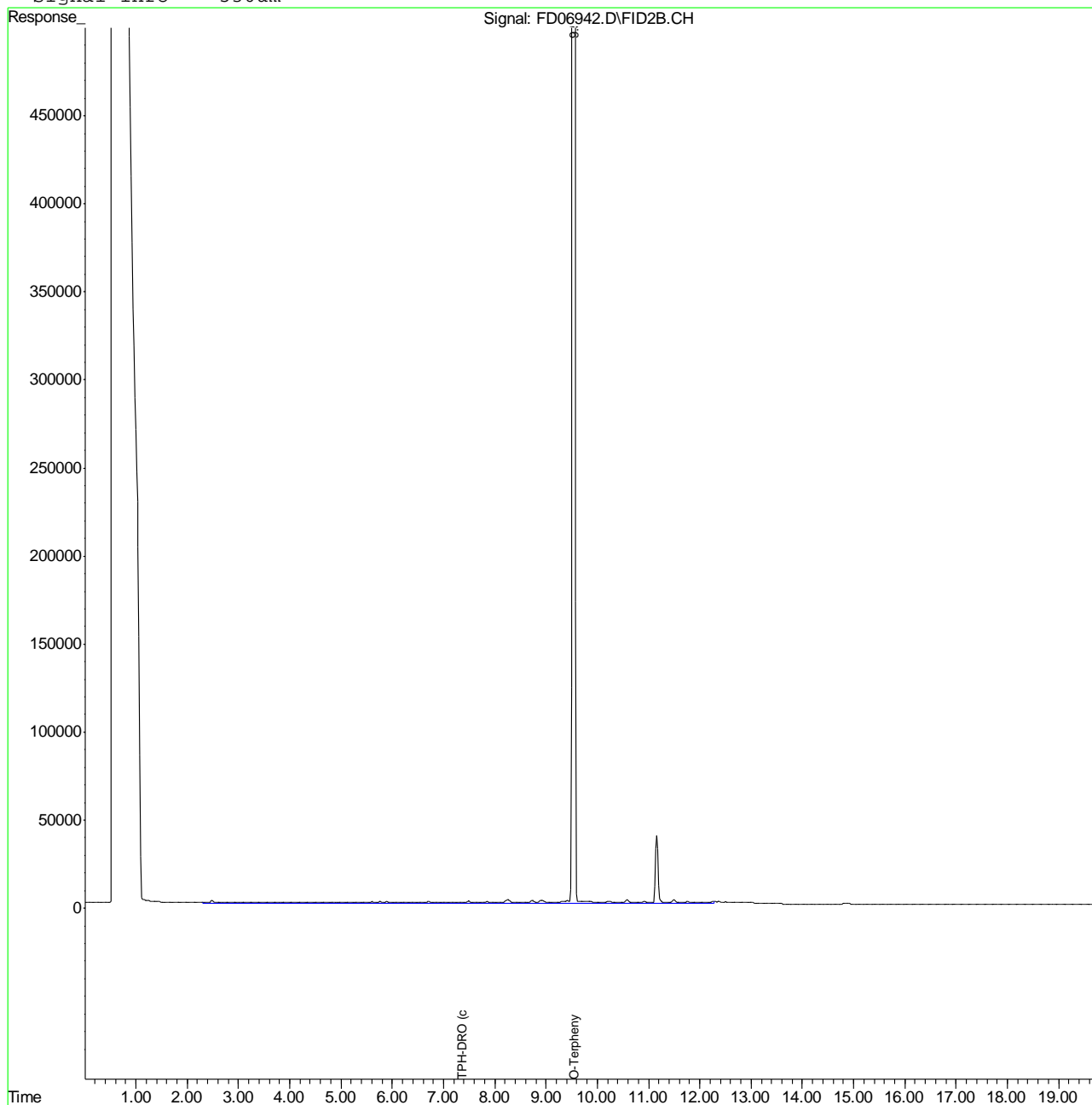
10.1.3
10

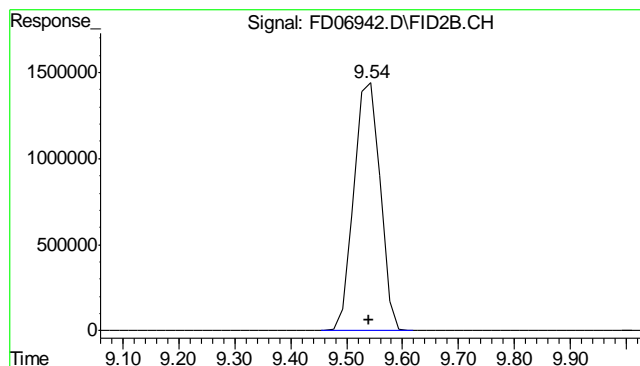
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06942.D Vial: 31
Acq On : 6-10-2011 06:24:25 AM Operator: JACOB
Sample : D24027-3 Inst : FID5
Misc : OP3806,GFD303,30.06,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 11:25 2011 Quant Results File: DR-GFD294.RES

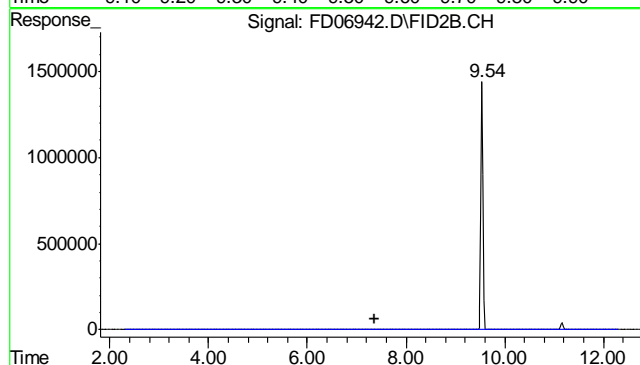
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

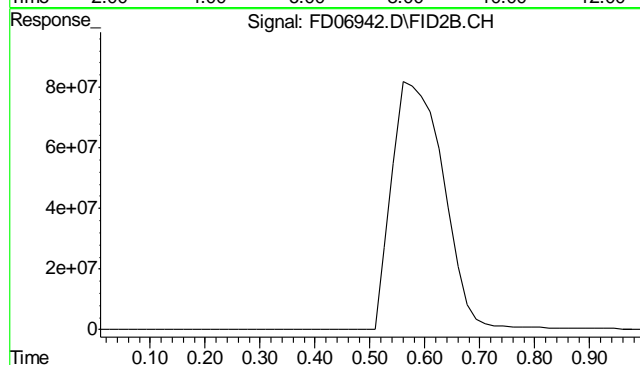




#1 O-Terphenyl
 R.T.: 9.536 min
 Delta R.T.: -0.004 min
 Response: 46880606
 Conc: 896.84 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 3274905
 Conc: 7.26 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.3
10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06943.D Vial: 32
Acq On : 6-10-2011 06:49:57 AM Operator: JACOB
Sample : D24027-4 Inst : FID5
Misc : OP3806,GFD303,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 09:34:44 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Initial Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.54	46460849	888.807 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	492666389	10125.086 mg/L

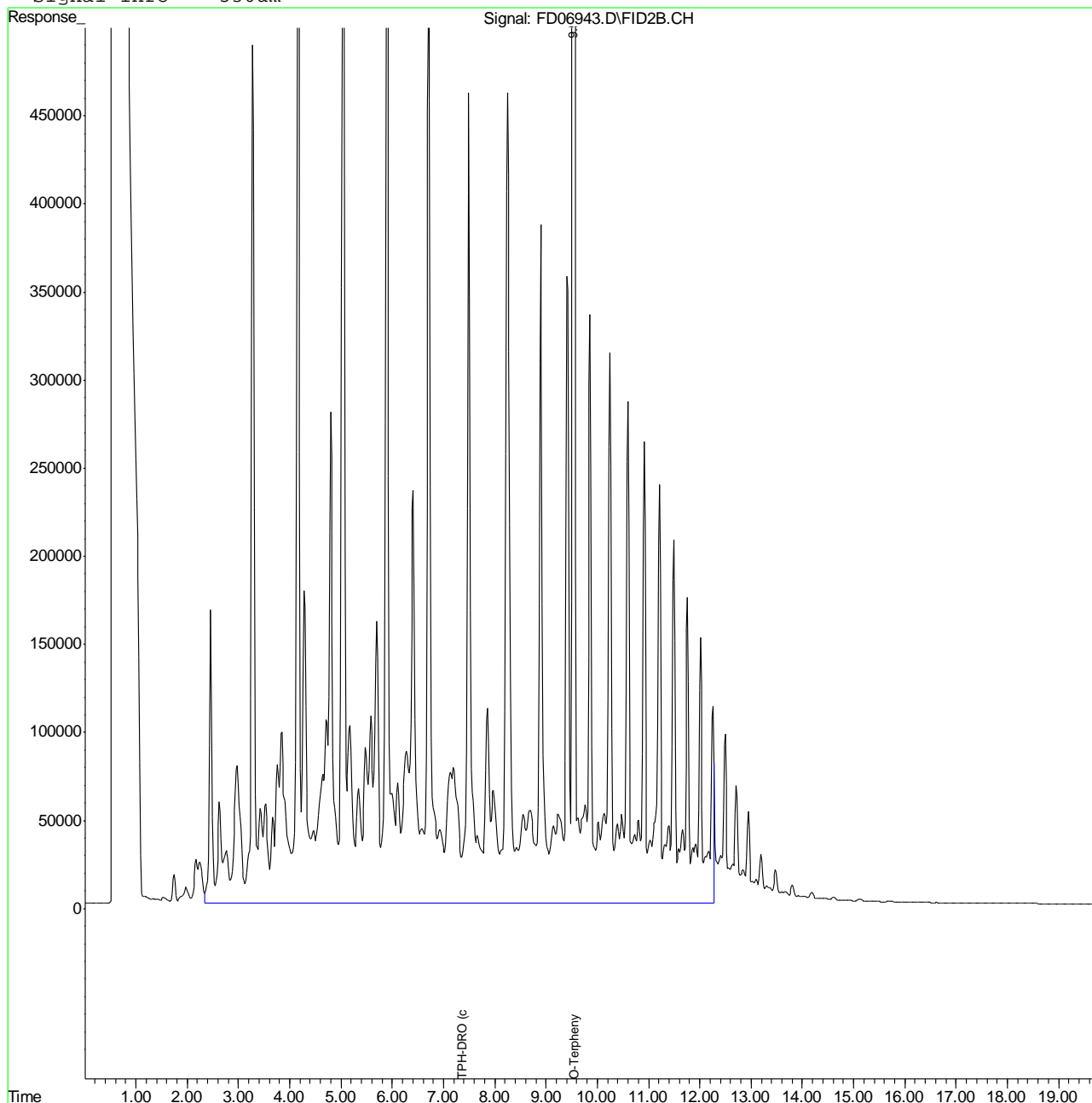
10.1.4
10

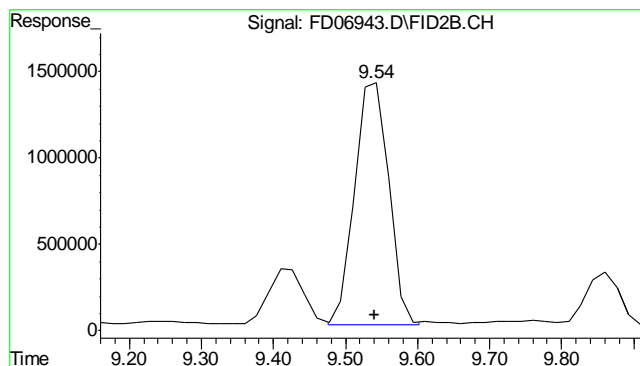
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06943.D Vial: 32
Acq On : 6-10-2011 06:49:57 AM Operator: JACOB
Sample : D24027-4 Inst : FID5
Misc : OP3806,GFD303,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 11:26 2011 Quant Results File: DR-GFD294.RES

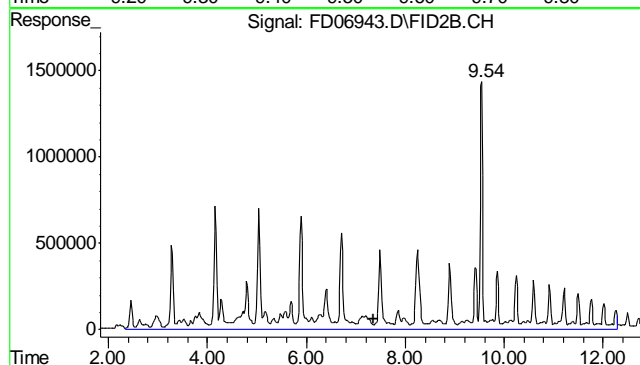
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

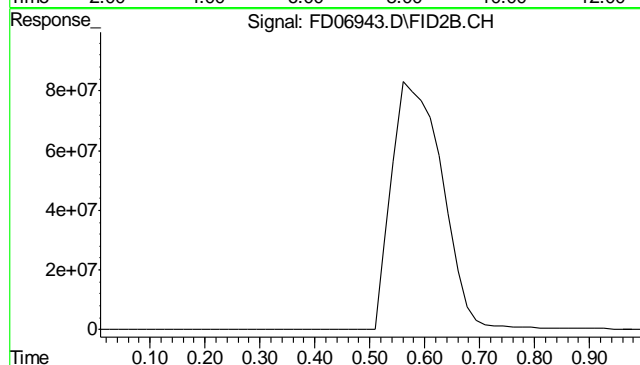




#1 O-Terphenyl
 R.T.: 9.536 min
 Delta R.T.: -0.004 min
 Response: 46460849
 Conc: 888.81 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 492666389
 Conc: 10125.09 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.4
10

Judy Melson
06/10/11 12:22

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06944.D Vial: 33
Acq On : 6-10-2011 07:15:21 AM Operator: JACOB
Sample : D24027-5 Inst : FID5
Misc : OP3806,GFD303,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 09:34:45 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Initial Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.54	48962644	936.667 mg/L m

Target Compounds

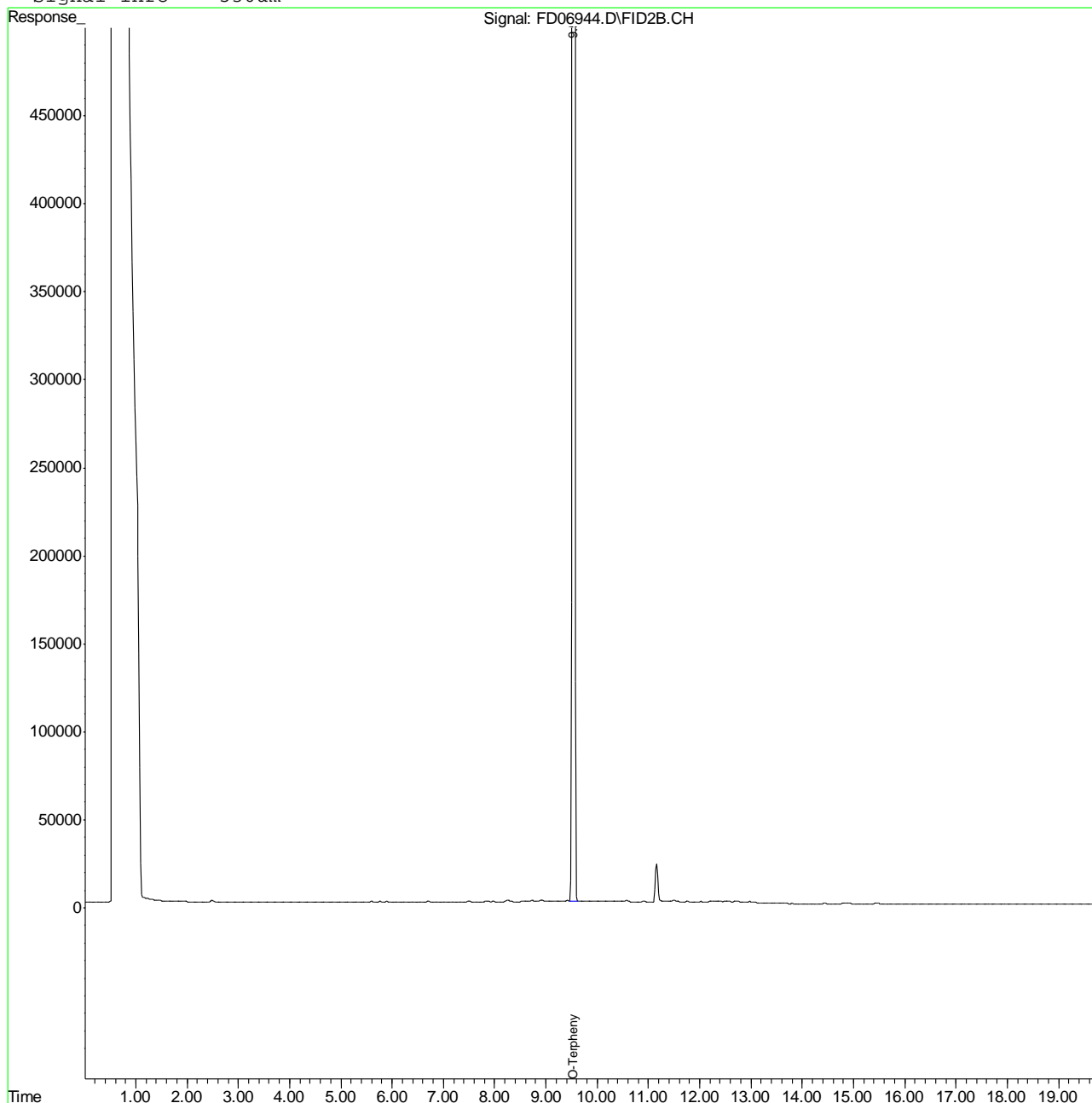
10.1.5
10

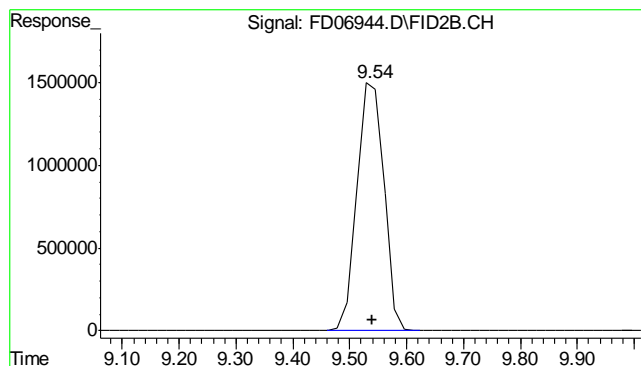
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06944.D Vial: 33
Acq On : 6-10-2011 07:15:21 AM Operator: JACOB
Sample : D24027-5 Inst : FID5
Misc : OP3806,GFD303,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 11:27 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

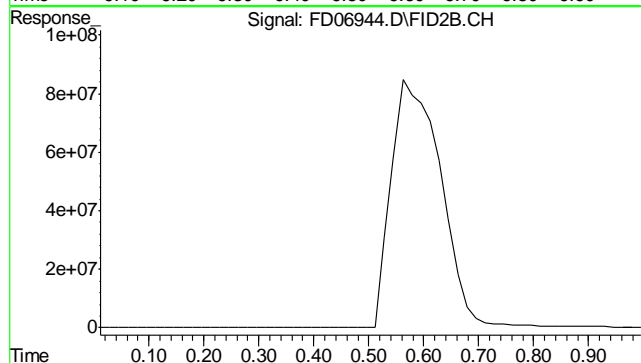
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.536 min
 Delta R.T.: -0.004 min
 Response: 48962644
 Conc: 936.67 mg/L m



#9 5a-Androstane

R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.5
10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06945.D Vial: 34
Acq On : 6-10-2011 07:40:49 AM Operator: JACOB
Sample : D24027-6 Inst : FID5
Misc : OP3806,GFD303,30.01,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 09:34:46 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Initial Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.54	48273879	923.491 mg/L
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	56712570	1112.048 mg/L

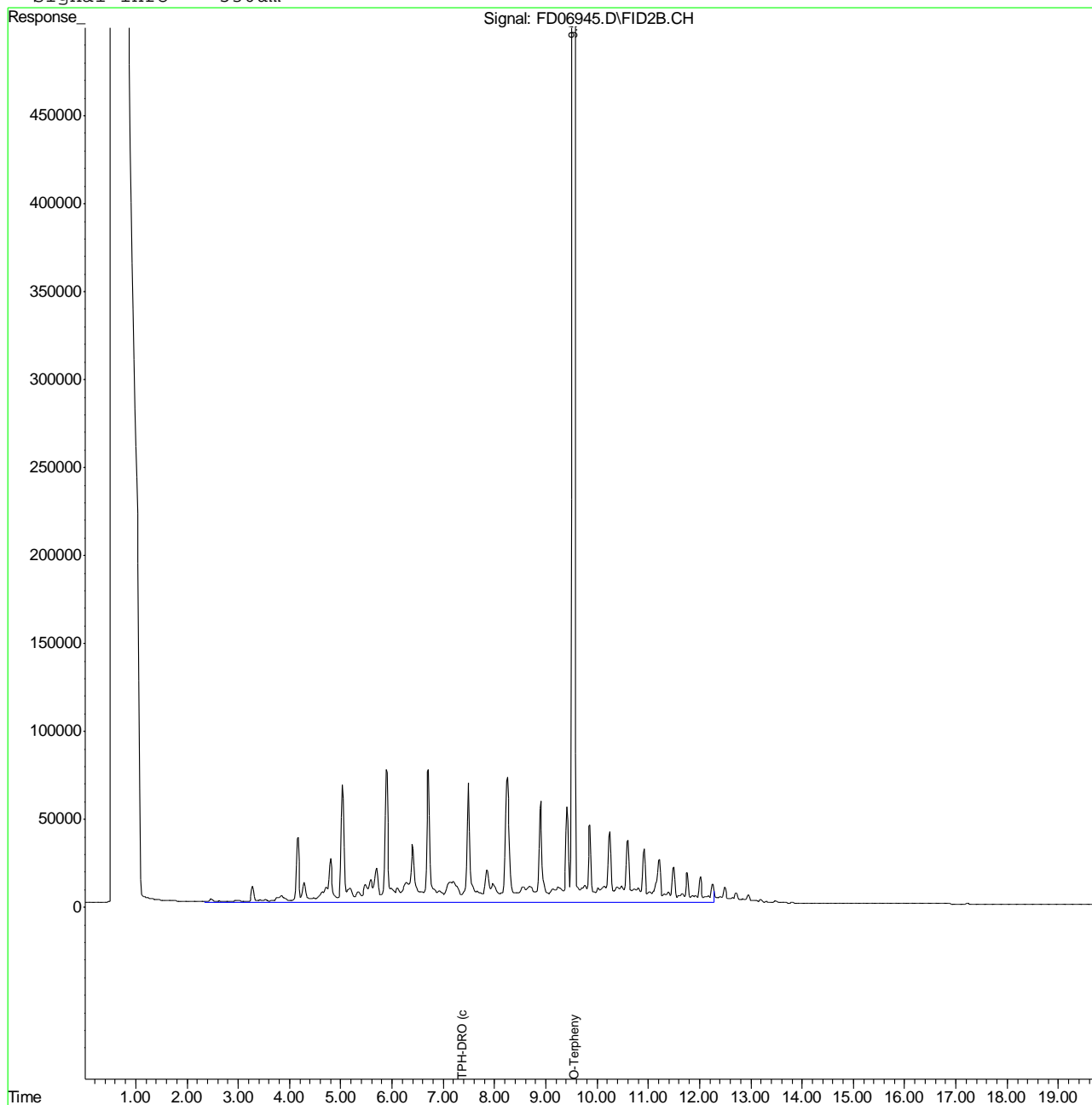
10.1.6
10

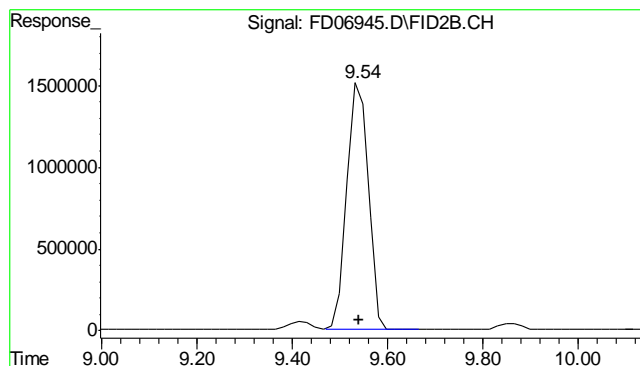
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06945.D Vial: 34
Acq On : 6-10-2011 07:40:49 AM Operator: JACOB
Sample : D24027-6 Inst : FID5
Misc : OP3806,GFD303,30.01,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 11:27 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

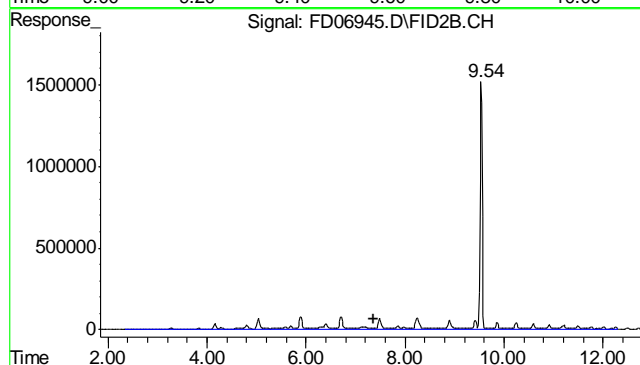
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





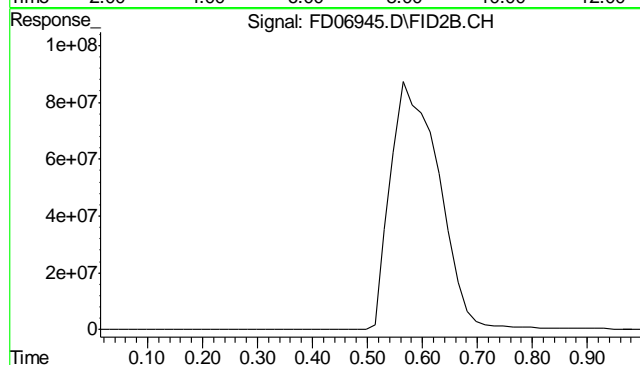
#1 O-Terphenyl

R.T.: 9.543 min
Delta R.T.: 0.003 min
Response: 48273879
Conc: 923.49 mg/L



#2 TPH-DRO (c10-c28)

R.T.: 7.355 min
Delta R.T.: 0.000 min
Response: 56712570
Conc: 1112.05 mg/L m



#9 5a-Androstane

R.T.: 0.000 min
Exp R.T.: 0.000 min
Response: 0
Conc: N.D.

10.1.6
10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06946.D Vial: 35
Acq On : 6-10-2011 08:06:14 AM Operator: JACOB
Sample : D24027-7 Inst : FID5
Misc : OP3806,GFD303,30.02,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 09:34:47 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Initial Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.54	49931615	955.204 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	139648945	2826.699 mg/L

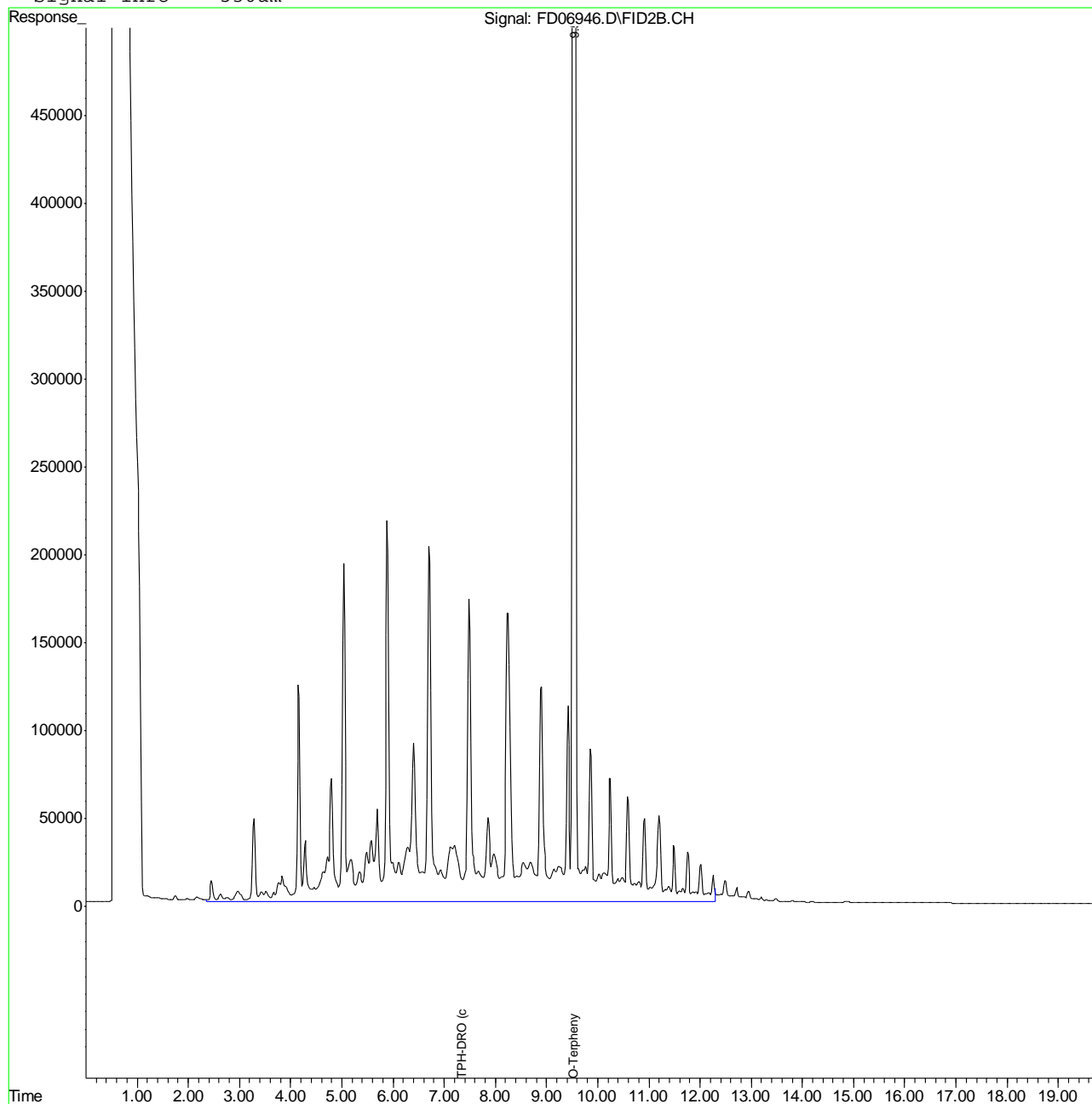
10.1.7
10

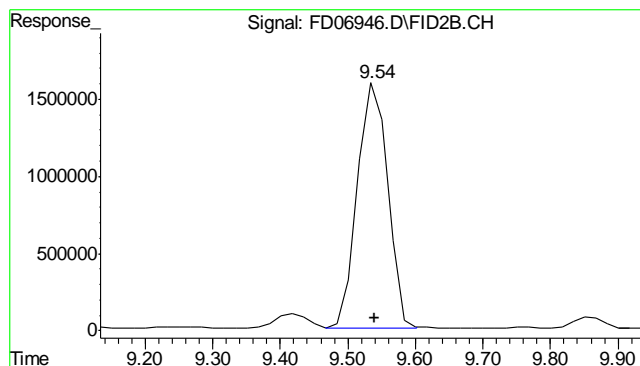
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06946.D Vial: 35
Acq On : 6-10-2011 08:06:14 AM Operator: JACOB
Sample : D24027-7 Inst : FID5
Misc : OP3806,GFD303,30.02,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 11:27 2011 Quant Results File: DR-GFD294.RES

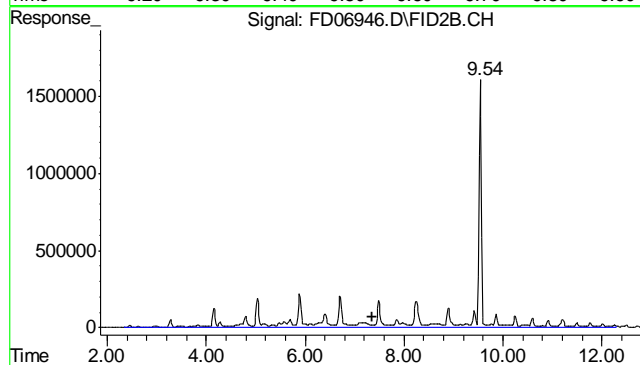
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

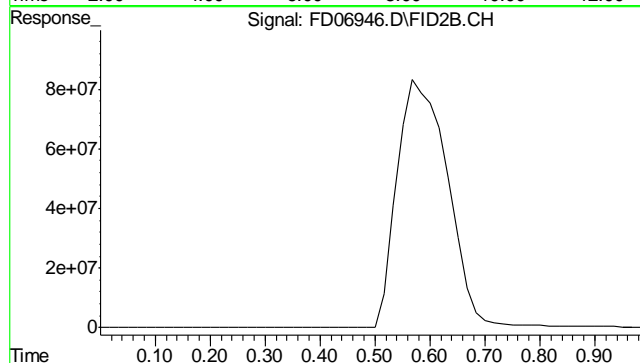




#1 O-Terphenyl
 R.T.: 9.537 min
 Delta R.T.: -0.003 min
 Response: 49931615
 Conc: 955.20 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 139648945
 Conc: 2826.70 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.7
 10

Judy Melson

06/10/11 12:22

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06936.D Vial: 25
Acq On : 6-10-2011 03:51:46 AM Operator: JACOB
Sample : OP3806-MB Inst : FID5
Misc : OP3806,GFD303,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 09:34:37 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Initial Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.54	53549143	1024.408 mg/L m

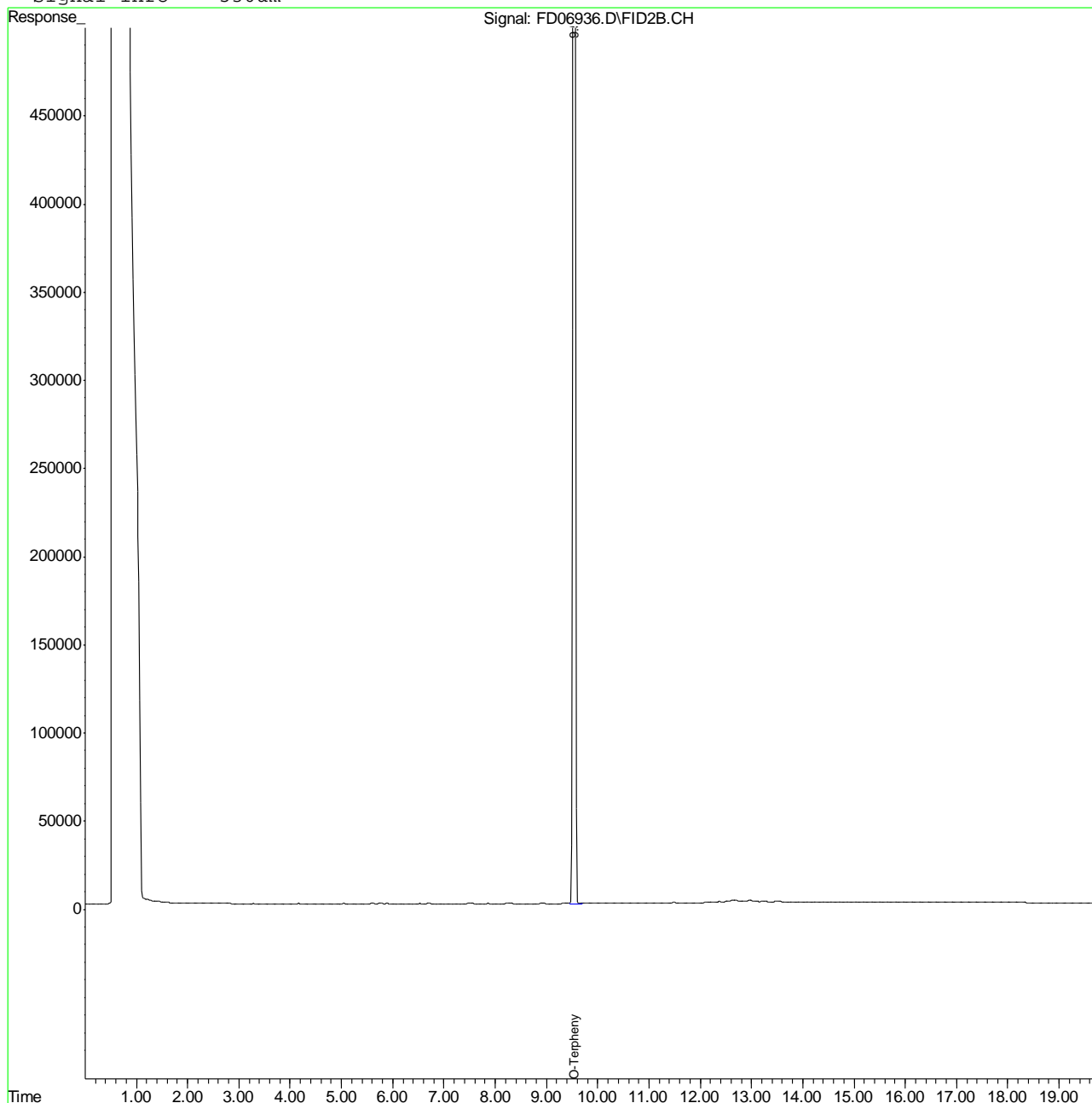
Target Compounds

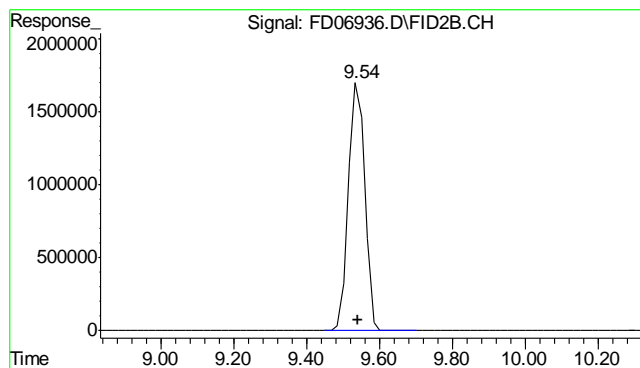
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD060911\FD06936.D Vial: 25
Acq On : 6-10-2011 03:51:46 AM Operator: JACOB
Sample : OP3806-MB Inst : FID5
Misc : OP3806,GFD303,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 11:23 2011 Quant Results File: DR-GFD294.RES

Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

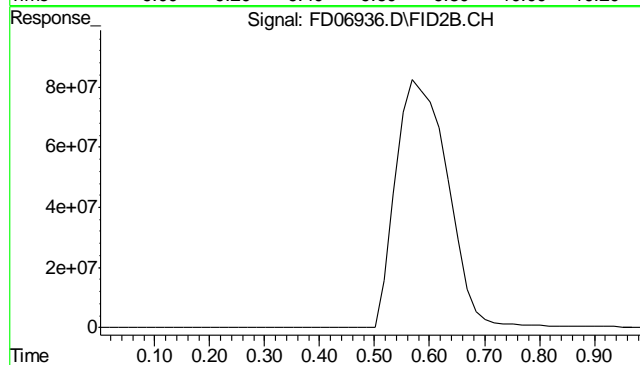
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.538 min
Delta R.T.: -0.002 min
Response: 53549143
Conc: 1024.41 mg/L m



#9 5a-Androstane

R.T.: 0.000 min
Exp R.T. : 0.000 min
Response: 0
Conc: N.D.

10.2.1
10

Accutest Mountain States							Jun 13, 2011 13:02 pm	
Job Number:	D24027							
Account:	KRW Consulting, Inc.							
Project:	18-12							
Project Number:	1103-11B							
							Legend:	Hit
Client Sample ID:		18-12_BH-05_19-24	18-12_BH-07_19-24	18-12_BH-07_24-29	18-12_BH-08_26-29	18-12_BH-09_7-9	18-12_BH-10_14-18	18-12_BH_08_11-14
Lab Sample ID:		D24027-1	D24027-2	D24027-3	D24027-5	D24027-6	D24027-7	D24027-4
Date Sampled:		06/02/2011	06/02/2011	06/02/2011	06/02/2011	06/02/2011	06/03/2011	06/02/2011
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/MS Volatiles (SW846 8260B)								
Benzene	ug/kg	ND (28)	ND (29)	ND (27)	ND (29)	ND (29)	ND (29)	ND (30)
Toluene	ug/kg	ND (63)	ND (65)	ND (61)	ND (65)	ND (66)	ND (67)	ND (68)
Ethylbenzene	ug/kg	ND (31)	33.3 J	ND (31)	42.7 J	ND (33)	ND (33)	312
Xylene (total)	ug/kg	ND (130)	604	ND (120)	ND (130)	ND (130)	ND (130)	5380
GC Volatiles (SW846 8015B)								
TPH-GRO (C6-C10)	mg/kg	ND (6.3)	67.0	ND (6.1)	ND (6.5)	34.6	15.9	249
GC Semi-volatiles (SW846-8015B)								
TPH-DRO (C10-C28)	mg/kg	ND (9.8)	457	ND (9.7)	ND (10)	86.7	220	800
General Chemistry								
Solids, Percent	%	88.4	87	89.5	86.2	85.5	85.5	84.3



09/19/11

Technical Report for

KRW Consulting, Inc.

PCU 18-12

1103-11B

Accutest Job Number: D27610

Sampling Date: 09/13/11

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
jhess@krwconsulting.com; dknudson@krwconsulting.com;
gknell@krwconsulting.com; crachak@krwconsulting.com
ATTN: Dwayne Knudson

Total number of pages in report: **29**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'John Hamilton'.

John Hamilton
Laboratory Director

Client Service contact: 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D27610

PCU 18-12
Project No: 1103-11B

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D27610-1	09/13/11	13:40	GKSM 09/15/11	SO	Soil	18-12_BH-11:3'-8'
D27610-2	09/13/11	14:15	GKSM 09/15/11	SO	Soil	18-12_BH-11:13'-18'
D27610-3	09/13/11	15:05	GKSM 09/15/11	SO	Soil	18-12_BH-11:23'-26'

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

CASE NARRATIVE / CONFORMANCE SUMMARY**Client:** KRW Consulting, Inc.**Job No** D27610**Site:** PCU 18-12**Report Dat** 9/19/2011 4:54:16 PM

On 09/15/2011, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D27610 was assigned to the project. The lab sample IDs, client sample IDs, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B**Matrix** SO**Batch ID:** V3V805

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D27610-1MS, D27610-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B**Matrix** SO**Batch ID:** GGB736

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D27557-2MS, D27557-2MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B**Matrix** SO**Batch ID:** OP4480

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D27490-1MS, D27490-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M**Matrix** SO**Batch ID:** GN11585

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	18-12_BH-11:3'-8'	Date Sampled:	09/13/11
Lab Sample ID:	D27610-1	Date Received:	09/15/11
Matrix:	SO - Soil	Percent Solids:	86.3
Method:	SW846 8260B		
Project:	PCU 18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V14080.D	1	09/15/11	DC	n/a	n/a	V3V805
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.00 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	66	29	ug/kg	
108-88-3	Toluene	ND	130	66	ug/kg	
100-41-4	Ethylbenzene	ND	130	33	ug/kg	
1330-20-7	Xylene (total)	134	260	130	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	93%		61-130%
460-00-4	4-Bromofluorobenzene	85%		53-131%
17060-07-0	1,2-Dichloroethane-D4	89%		62-130%

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

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

Report of Analysis

Page 1 of 1

Client Sample ID: 18-12_BH-11:3'-8'
Lab Sample ID: D27610-1
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 18-12

Date Sampled: 09/13/11
Date Received: 09/15/11
Percent Solids: 86.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12933.D	1	09/15/11	SK	n/a	n/a	GGB736
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	79%		60-140%		

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

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

Report of Analysis

Client Sample ID:	18-12_BH-11:3' -8'	Date Sampled:	09/13/11
Lab Sample ID:	D27610-1	Date Received:	09/15/11
Matrix:	SO - Soil	Percent Solids:	86.3
Method:	SW846-8015B SW846 3546		
Project:	PCU 18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03755.D	1	09/16/11	CS	09/16/11	OP4480	GFI262
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	115	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	81%		61-142%		

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

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

Report of Analysis

Client Sample ID: 18-12_BH-11:13'-18'
Lab Sample ID: D27610-2
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 18-12

Date Sampled: 09/13/11
Date Received: 09/15/11
Percent Solids: 84.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V14083.D	1	09/15/11	DC	n/a	n/a	V3V805
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.00 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	68	30	ug/kg	
108-88-3	Toluene	ND	140	68	ug/kg	
100-41-4	Ethylbenzene	ND	140	34	ug/kg	
1330-20-7	Xylene (total)	ND	270	140	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	96%		61-130%
460-00-4	4-Bromofluorobenzene	90%		53-131%
17060-07-0	1,2-Dichloroethane-D4	88%		62-130%

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

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

Report of Analysis

Client Sample ID: 18-12_BH-11:13'-18'
Lab Sample ID: D27610-2
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 18-12

Date Sampled: 09/13/11
Date Received: 09/15/11
Percent Solids: 84.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12934.D	1	09/15/11	SK	n/a	n/a	GGB736
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	14	6.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	78%		60-140%		

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

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

Report of Analysis

Client Sample ID: 18-12_BH-11:13'-18'**Lab Sample ID:** D27610-2**Date Sampled:** 09/13/11**Matrix:** SO - Soil**Date Received:** 09/15/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 84.8**Project:** PCU 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03756.D	1	09/16/11	CS	09/16/11	OP4480	GFI262
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	16	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	77%		61-142%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	18-12_BH-11:23'-26'	Date Sampled:	09/13/11
Lab Sample ID:	D27610-3	Date Received:	09/15/11
Matrix:	SO - Soil	Percent Solids:	86.7
Method:	SW846 8260B		
Project:	PCU 18-12		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V14084.D	1	09/15/11	DC	n/a	n/a	V3V805
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.05 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	65	28	ug/kg	
108-88-3	Toluene	ND	130	65	ug/kg	
100-41-4	Ethylbenzene	ND	130	32	ug/kg	
1330-20-7	Xylene (total)	ND	260	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	94%		61-130%
460-00-4	4-Bromofluorobenzene	84%		53-131%
17060-07-0	1,2-Dichloroethane-D4	89%		62-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 18-12_BH-11:23'-26'
Lab Sample ID: D27610-3
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 18-12

Date Sampled: 09/13/11
Date Received: 09/15/11
Percent Solids: 86.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12935.D	1	09/15/11	SK	n/a	n/a	GGB736
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	76%		60-140%		

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

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

Report of Analysis

Client Sample ID: 18-12_BH-11:23'-26'**Lab Sample ID:** D27610-3**Date Sampled:** 09/13/11**Matrix:** SO - Soil**Date Received:** 09/15/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 86.7**Project:** PCU 18-12

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03757.D	1	09/16/11	CS	09/16/11	OP4480	GFI262
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	89%		61-142%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Mountain States
4036 Youngfield Street Wheat Ridge, Co 80033
TEL 303-425-6021 877-737-4521
FAX 303-425-6021

FED-EX Tracking #
Accutest Quote #
Bottle Order Control #
Accutest Job # **D27610**

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)										Matrix Codes																																																																																																							
Company Name KRW Consulting	Project Name PCU 18-12	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Street Address 8000 W. 14th Ave. Ste 200</p> <p>City Lakewood Co 80214</p> <p>Project Contact Joe Hess E-mail jhess@KRWConsulting.com</p> <p>Phone # 303-239-9011 Fax #</p> <p>Sample(s) Name(s) Greg Knell / Steve Moskal Phone #</p> </div> <div style="width: 45%;"> <p>Street City:</p> <p>Billing Information (If different from Report to)</p> <p>Company Name</p> <p>Street Address</p> <p>City State Zip</p> <p>Attention: PO#</p> </div> </div>										<p>DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank</p>																																																																																																									
Project Manager Ron Kasnic	Client PO#												Project ID#	Project PO#																																																																																																							
Field ID / Point of Collection	MEOH/DI Vial #												Date	Time	Sampled by	Matrix	# of bottles	ICL	MeOH	INNO3	INNO4	INNO5	INNO6	INNO7	INNO8	INNO9	INNO10	INNO11	INNO12	INNO13	INNO14	INNO15	INNO16	INNO17	INNO18	INNO19	INNO20	INNO21	INNO22	INNO23	INNO24	INNO25	INNO26	INNO27	INNO28	INNO29	INNO30	INNO31	INNO32	INNO33	INNO34	INNO35	INNO36	INNO37	INNO38	INNO39	INNO40	INNO41	INNO42	INNO43	INNO44	INNO45	INNO46	INNO47	INNO48	INNO49	INNO50	INNO51	INNO52	INNO53	INNO54	INNO55	INNO56	INNO57	INNO58	INNO59	INNO60	INNO61	INNO62	INNO63	INNO64	INNO65	INNO66	INNO67	INNO68	INNO69	INNO70	INNO71	INNO72	INNO73	INNO74	INNO75	INNO76	INNO77	INNO78	INNO79	INNO80	INNO81	INNO82	INNO83	INNO84	INNO85	INNO86	INNO87	INNO88	INNO89	INNO90	INNO91	INNO92	INNO93	INNO94	INNO95	INNO96	INNO97	INNO98	INNO99	INNO100
LAB USE ONLY																																																																																																																					

Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions	
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day / 8 SH <input checked="" type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> Commercial "B" + Narrative <input type="checkbox"/> FULLT1 (Level 3+4)	<input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input checked="" type="checkbox"/> PDF	<p>Please email results to KRW Piceance Creek XOM team</p>	
<p>Emergency & Rush TJA data available VIA Lablink</p>				<p>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</p>			

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 Joe Hess	9-14-11 7:45	1 AK Rifle Ser	2 h16		2 h16
3		3	4		4
5		5			

Custody Seal	Intact	Not Intact	Preserved where applicable	Cooler Temp.
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.4

D27610: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D27610

Client: KRW

Immediate Client Services Action Required: No

Date / Time Received: 9/15/2011 8:55:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: PCU

Airbill #'s: CO

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume rec'd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D27610

Account: KRWCCOL KRW Consulting, Inc.

Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V805-MB	3V14078.D	1	09/15/11	DC	n/a	n/a	V3V805

The QC reported here applies to the following samples:

Method: SW846 8260B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	ug/kg	
100-41-4	Ethylbenzene	ND	100	25	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	97% 61-130%
460-00-4	4-Bromofluorobenzene	83% 53-131%
17060-07-0	1,2-Dichloroethane-D4	83% 62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D27610

Account: KRWCCOL KRW Consulting, Inc.

Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V805-BS	3V14079.D	1	09/15/11	DC	n/a	n/a	V3V805

The QC reported here applies to the following samples:

Method: SW846 8260B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	47.0	94	70-130
100-41-4	Ethylbenzene	50	48.4	97	70-130
108-88-3	Toluene	50	46.0	92	70-130
1330-20-7	Xylene (total)	150	158	105	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	94%	61-130%
460-00-4	4-Bromofluorobenzene	98%	53-131%
17060-07-0	1,2-Dichloroethane-D4	92%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D27610
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D27610-1MS	3V14081.D	1	09/15/11	DC	n/a	n/a	V3V805
D27610-1MSD	3V14082.D	1	09/15/11	DC	n/a	n/a	V3V805
D27610-1	3V14080.D	1	09/15/11	DC	n/a	n/a	V3V805

The QC reported here applies to the following samples:

Method: SW846 8260B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	D27610-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3290	2860	87	3170	96	10	70-134/30
100-41-4	Ethylbenzene	ND		3290	2980	91	3150	96	6	70-137/30
108-88-3	Toluene	ND		3290	2870	87	3140	95	9	70-130/30
1330-20-7	Xylene (total)	134	J	9870	9510	95	10600	106	11	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D27610-1	Limits
2037-26-5	Toluene-D8	94%	96%	93%	61-130%
460-00-4	4-Bromofluorobenzene	99%	98%	85%	53-131%
17060-07-0	1,2-Dichloroethane-D4	102%	100%	89%	62-130%

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D27610
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB736-MB	GB12926.D	1	09/15/11	SK	n/a	n/a	GGB736

The QC reported here applies to the following samples:

Method: SW846 8015B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	81% 60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D27610

Account: KRWCCOL KRW Consulting, Inc.

Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB736-BS	GB12927.D	1	09/15/11	SK	n/a	n/a	GGB736

The QC reported here applies to the following samples:

Method: SW846 8015B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	113	103	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	86%	60-140%

6.2.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D27610
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D27557-2MS	GB12929.D	1	09/15/11	SK	n/a	n/a	GGB736
D27557-2MSD	GB12930.D	1	09/15/11	SK	n/a	n/a	GGB736
D27557-2	GB12928.D	1	09/15/11	SK	n/a	n/a	GGB736

The QC reported here applies to the following samples:

Method: SW846 8015B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	D27557-2 mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	139	144	104	145	104	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D27557-2	Limits
120-82-1	1,2,4-Trichlorobenzene	77%	80%	70%	60-140%

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D27610
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4480-MB	FI03747.D	1	09/16/11	CS	09/16/11	OP4480	GFI261

The QC reported here applies to the following samples:

Method: SW846-8015B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	13	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	95% 61-142%

Blank Spike Summary

Page 1 of 1

Job Number: D27610
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4480-BS	FI03748.D	1	09/16/11	CS	09/16/11	OP4480	GFI261

The QC reported here applies to the following samples:

Method: SW846-8015B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	590	88	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	97%	61-142%

7.2.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D27610
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 18-12

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4480-MS	FI03749.D	1	09/16/11	CS	09/16/11	OP4480	GFI261
OP4480-MSD	FI03750.D	1	09/16/11	CS	09/16/11	OP4480	GFI261
D27490-1 ^a	FI03751.D	1	09/16/11	CS	09/16/11	OP4480	GFI261

The QC reported here applies to the following samples:

Method: SW846-8015B

D27610-1, D27610-2, D27610-3

CAS No.	Compound	D27490-1 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	23.6	741	674	88	574	74	16	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D27490-1	Limits
84-15-1	o-Terphenyl	85%	78%	58%* ^b	61-142%

(a) Confirmation run.

(b) Outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.



09/20/11

Technical Report for

KRW Consulting, Inc.

XOM PCU T18X-12G

1103-11B

Accutest Job Number: D27702

Sampling Dates: 09/14/11 - 09/15/11

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
bberger@krwconsulting.com; gknell@krwconsulting.com;
dknudson@krwconsulting.com; jhess@krwconsulting.com;
ATTN: Dwayne Knudson

Total number of pages in report: **133**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'John Hamilton'.

John Hamilton
Laboratory Director

Client Service contact: 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D27702

XOM PCU T18X-12G
Project No: 1103-11B

Sample Number	Collected		Matrix Code	Type	Client	
	Date	Time By	Received		Sample ID	
D27702-1	09/14/11	11:55 GK	09/16/11	SO	Soil	BH-14_16-18
D27702-2	09/14/11	15:05 GK	09/16/11	SO	Soil	BH-14_18-23
D27702-3	09/14/11	15:25 GK	09/16/11	SO	Soil	BH-14_23-26
D27702-4	09/15/11	10:20 GK	09/16/11	SO	Soil	BH-13_14-18
D27702-5	09/15/11	10:35 GK	09/16/11	SO	Soil	BH-13_18-23
D27702-6	09/15/11	10:50 GK	09/16/11	SO	Soil	BH-13_24-26

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D27702

Site: XOM PCU T18X-12G

Report Dat 9/20/2011 2:03:54 PM

On 09/16/2011, 6 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D27702 was assigned to the project. The lab sample IDs, client sample IDs, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO

Batch ID: V5V1042

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D27702-1MS, D27702-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO

Batch ID: GGB741

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D27702-1MS, D27702-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO

Batch ID: OP4491

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D27702-1MS, D27702-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN11618

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BH-14_16-18
Lab Sample ID: D27702-1
Matrix: SO - Soil
Method: SW846 8260B
Project: XOM PCU T18X-12G

Date Sampled: 09/14/11
Date Received: 09/16/11
Percent Solids: 90.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17536.D	1	09/16/11	DC	n/a	n/a	V5V1042
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.02 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	60	27	ug/kg	
108-88-3	Toluene	ND	120	60	ug/kg	
100-41-4	Ethylbenzene	ND	120	30	ug/kg	
1330-20-7	Xylene (total)	ND	240	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	107%		61-130%
460-00-4	4-Bromofluorobenzene	103%		53-131%
17060-07-0	1,2-Dichloroethane-D4	112%		62-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-14_16-18	Date Sampled:	09/14/11
Lab Sample ID:	D27702-1	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	90.4
Method:	SW846 8015B		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12981.D	1	09/16/11	SK	n/a	n/a	GGB741
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	6.0	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	88%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-14_16-18	Date Sampled:	09/14/11
Lab Sample ID:	D27702-1	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	90.4
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10103.D	1	09/19/11	KV	09/19/11	OP4491	GFD466
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	9.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	75%		61-142%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-14_18-23	Date Sampled:	09/14/11
Lab Sample ID:	D27702-2	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8260B		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17539.D	1	09/16/11	DC	n/a	n/a	V5V1042
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.06 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	64	28	ug/kg	
108-88-3	Toluene	ND	130	64	ug/kg	
100-41-4	Ethylbenzene	ND	130	32	ug/kg	
1330-20-7	Xylene (total)	ND	250	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	107%		61-130%
460-00-4	4-Bromofluorobenzene	104%		53-131%
17060-07-0	1,2-Dichloroethane-D4	112%		62-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BH-14_18-23
Lab Sample ID: D27702-2
Matrix: SO - Soil
Method: SW846 8015B
Project: XOM PCU T18X-12G

Date Sampled: 09/14/11
Date Received: 09/16/11
Percent Solids: 87.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12988.D	1	09/17/11	SK	n/a	n/a	GGB741
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	85%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-14_18-23	Date Sampled:	09/14/11
Lab Sample ID:	D27702-2	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10104.D	1	09/19/11	KV	09/19/11	OP4491	GFD466
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	9.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	76%		61-142%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BH-14_23-26
Lab Sample ID: D27702-3
Matrix: SO - Soil
Method: SW846 8260B
Project: XOM PCU T18X-12G

Date Sampled: 09/14/11
Date Received: 09/16/11
Percent Solids: 86.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17540.D	1	09/16/11	DC	n/a	n/a	V5V1042
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.08 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	65	29	ug/kg	
108-88-3	Toluene	ND	130	65	ug/kg	
100-41-4	Ethylbenzene	ND	130	33	ug/kg	
1330-20-7	Xylene (total)	ND	260	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	106%		61-130%
460-00-4	4-Bromofluorobenzene	104%		53-131%
17060-07-0	1,2-Dichloroethane-D4	110%		62-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BH-14_23-26
Lab Sample ID: D27702-3
Matrix: SO - Soil
Method: SW846 8015B
Project: XOM PCU T18X-12G

Date Sampled: 09/14/11
Date Received: 09/16/11
Percent Solids: 86.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12989.D	1	09/17/11	SK	n/a	n/a	GGB741
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	89%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-14_23-26	Date Sampled:	09/14/11
Lab Sample ID:	D27702-3	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	86.0
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10105.D	1	09/19/11	KV	09/19/11	OP4491	GFD466
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	75%		61-142%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BH-13_14-18
Lab Sample ID: D27702-4
Matrix: SO - Soil
Method: SW846 8260B
Project: XOM PCU T18X-12G

Date Sampled: 09/15/11
Date Received: 09/16/11
Percent Solids: 87.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17541.D	1	09/16/11	DC	n/a	n/a	V5V1042
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.02 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	64	28	ug/kg	
108-88-3	Toluene	ND	130	64	ug/kg	
100-41-4	Ethylbenzene	ND	130	32	ug/kg	
1330-20-7	Xylene (total)	ND	260	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	96%		61-130%
460-00-4	4-Bromofluorobenzene	92%		53-131%
17060-07-0	1,2-Dichloroethane-D4	98%		62-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-13_14-18	Date Sampled:	09/15/11
Lab Sample ID:	D27702-4	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	87.7
Method:	SW846 8015B		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12990.D	1	09/17/11	SK	n/a	n/a	GGB741
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	88%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

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3.4

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Client Sample ID:	BH-13_14-18	Date Sampled:	09/15/11
Lab Sample ID:	D27702-4	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	87.7
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10106.D	1	09/19/11	KV	09/19/11	OP4491	GFD466
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	9.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	78%		61-142%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-13_18-23		
Lab Sample ID:	D27702-5	Date Sampled:	09/15/11
Matrix:	SO - Soil	Date Received:	09/16/11
Method:	SW846 8260B	Percent Solids:	86.3
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17542.D	1	09/16/11	DC	n/a	n/a	V5V1042
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.07 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	65	29	ug/kg	
108-88-3	Toluene	ND	130	65	ug/kg	
100-41-4	Ethylbenzene	ND	130	33	ug/kg	
1330-20-7	Xylene (total)	ND	260	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		61-130%
460-00-4	4-Bromofluorobenzene	94%		53-131%
17060-07-0	1,2-Dichloroethane-D4	105%		62-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BH-13_18-23
Lab Sample ID: D27702-5
Matrix: SO - Soil
Method: SW846 8015B
Project: XOM PCU T18X-12G

Date Sampled: 09/15/11
Date Received: 09/16/11
Percent Solids: 86.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12991.D	1	09/17/11	SK	n/a	n/a	GGB741
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	89%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-13_18-23	Date Sampled:	09/15/11
Lab Sample ID:	D27702-5	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	86.3
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10107.D	1	09/19/11	KV	09/19/11	OP4491	GFD466
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	80%		61-142%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BH-13_24-26
Lab Sample ID: D27702-6
Matrix: SO - Soil
Method: SW846 8260B
Project: XOM PCU T18X-12G

Date Sampled: 09/15/11
Date Received: 09/16/11
Percent Solids: 86.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17543.D	1	09/16/11	DC	n/a	n/a	V5V1042
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.09 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	64	28	ug/kg	
108-88-3	Toluene	ND	130	64	ug/kg	
100-41-4	Ethylbenzene	ND	130	32	ug/kg	
1330-20-7	Xylene (total)	ND	260	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		61-130%
460-00-4	4-Bromofluorobenzene	100%		53-131%
17060-07-0	1,2-Dichloroethane-D4	113%		62-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BH-13_24-26
Lab Sample ID: D27702-6
Matrix: SO - Soil
Method: SW846 8015B
Project: XOM PCU T18X-12G

Date Sampled: 09/15/11
Date Received: 09/16/11
Percent Solids: 86.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB12992.D	1	09/17/11	SK	n/a	n/a	GGB741
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	85%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH-13_24-26	Date Sampled:	09/15/11
Lab Sample ID:	D27702-6	Date Received:	09/16/11
Matrix:	SO - Soil	Percent Solids:	86.7
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU T18X-12G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10108.D	1	09/19/11	KV	09/19/11	OP4491	GFD466
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	15	9.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	77%		61-142%		

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

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D27702

Client: KRW

Immediate Client Services Action Required: No

Date / Time Received: 9/16/2011 9:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XOM

Airbill #'s: FEDEX

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume rec'd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D27702
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1042-MB	5V17524.D	1	09/16/11	DC	n/a	n/a	V5V1042

The QC reported here applies to the following samples:

Method: SW846 8260B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	ug/kg	
100-41-4	Ethylbenzene	ND	100	25	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	111% 61-130%
460-00-4	4-Bromofluorobenzene	96% 53-131%
17060-07-0	1,2-Dichloroethane-D4	105% 62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D27702

Account: KRWCCOL KRW Consulting, Inc.

Project: XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1042-BS	5V17525.D	1	09/16/11	DC	n/a	n/a	V5V1042

The QC reported here applies to the following samples:

Method: SW846 8260B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	52.2	104	70-130
100-41-4	Ethylbenzene	50	51.0	102	70-130
108-88-3	Toluene	50	52.4	105	70-130
1330-20-7	Xylene (total)	150	156	104	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	109%	61-130%
460-00-4	4-Bromofluorobenzene	107%	53-131%
17060-07-0	1,2-Dichloroethane-D4	111%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D27702
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D27702-1MS	5V17537.D	1	09/16/11	DC	n/a	n/a	V5V1042
D27702-1MSD	5V17538.D	1	09/16/11	DC	n/a	n/a	V5V1042
D27702-1	5V17536.D	1	09/16/11	DC	n/a	n/a	V5V1042

The QC reported here applies to the following samples:

Method: SW846 8260B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	D27702-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3020	2960	98	3180	105	7	70-134/30
100-41-4	Ethylbenzene	ND		3020	2880	95	3050	101	6	70-137/30
108-88-3	Toluene	ND		3020	2940	97	3130	104	6	70-130/30
1330-20-7	Xylene (total)	ND		9070	9110	100	9600	106	5	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D27702-1	Limits
2037-26-5	Toluene-D8	108%	108%	107%	61-130%
460-00-4	4-Bromofluorobenzene	114%	115%	103%	53-131%
17060-07-0	1,2-Dichloroethane-D4	107%	110%	112%	62-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17536.D
Acq On : 16 Sep 2011 5:07 pm
Operator : DONC
Sample : D27702-1, 50x
Misc : MS2711,V5V1042,5.016,,100,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 19 11:19:37 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	246927	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	349490	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	340458	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	215830	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33908	56.16	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	112.32%
61) Toluene-d8	13.850	98	646182	53.40	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.80%
69) 4-Bromofluorobenzene	16.042	95	259755	51.74	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.48%

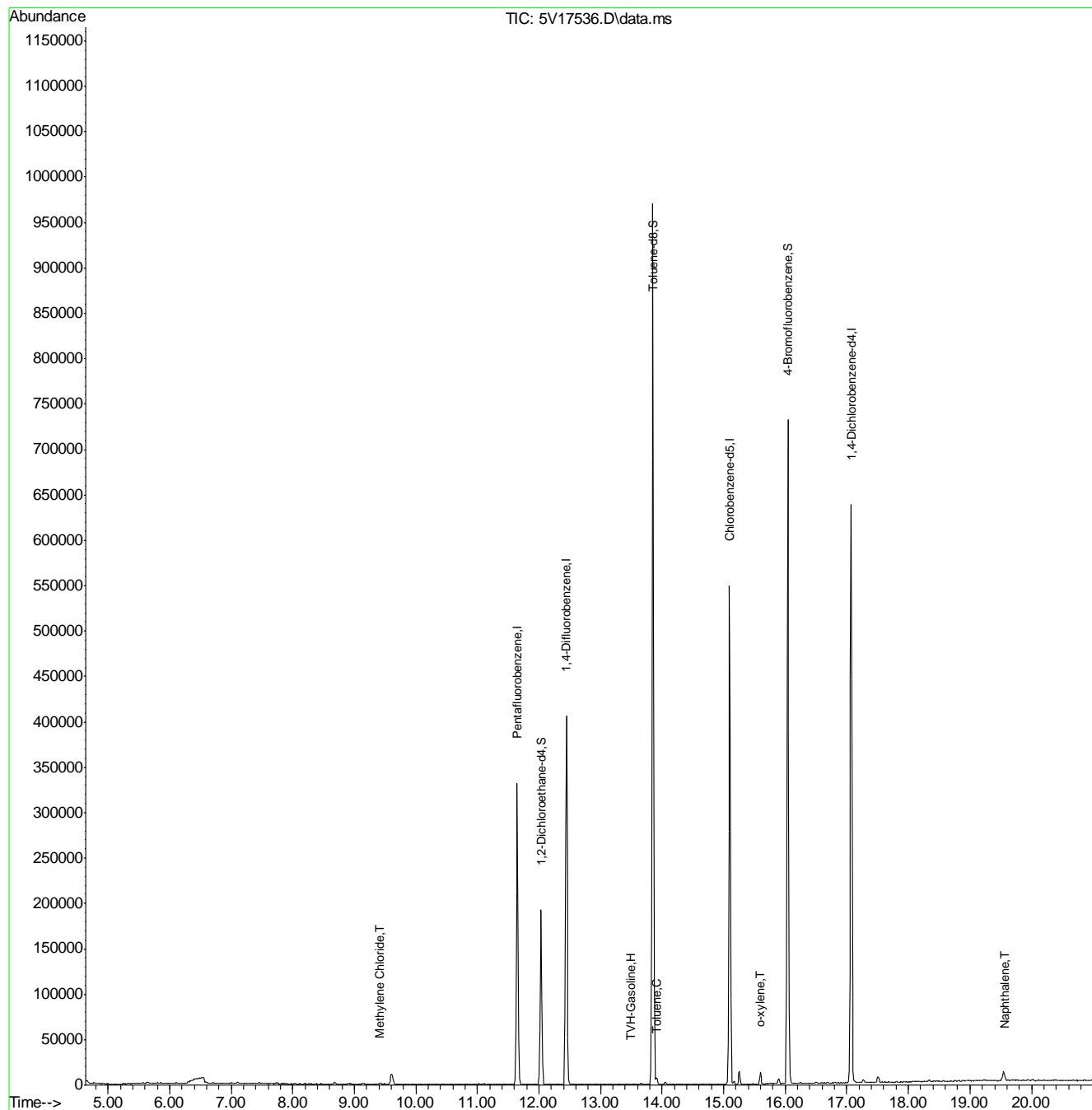
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	19420m	0.97	ug/l
17) Methylene Chloride	9.421	84	903	0.30	ug/l
62) Toluene	13.908	92	3319	0.39	ug/l
73) o-xylene	15.597	106	4076	0.60	ug/l
91) Naphthalene	19.559	128	523	0.89	ug/l

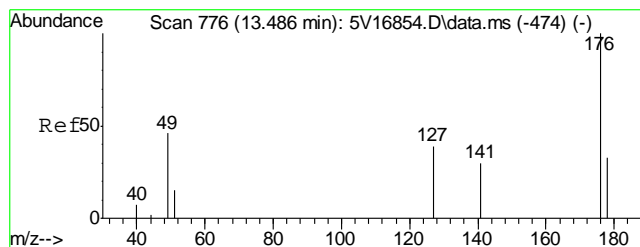
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17536.D
Acq On : 16 Sep 2011 5:07 pm
Operator : DONC
Sample : D27702-1, 50x
Misc : MS2711,V5V1042,5.016,,100,5,1
ALS Vial : 15 Sample Multiplier: 1

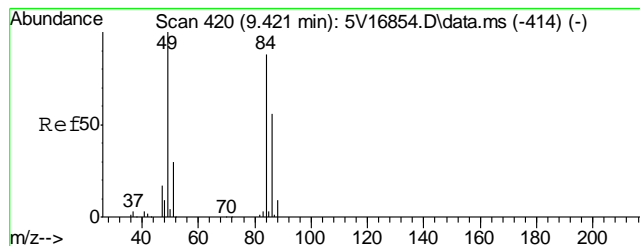
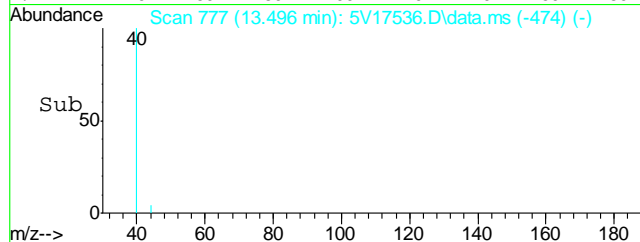
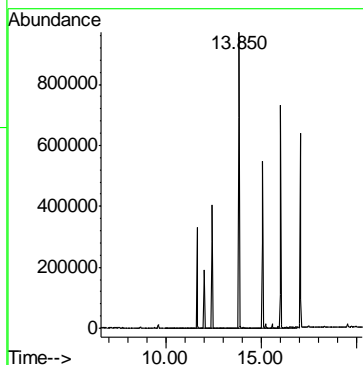
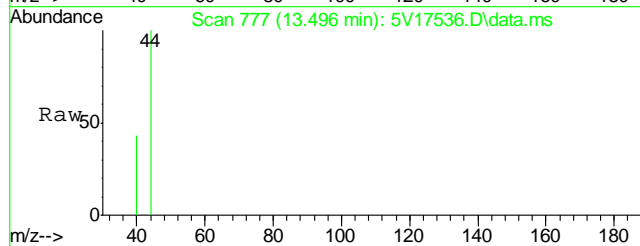
Quant Time: Sep 19 11:19:37 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





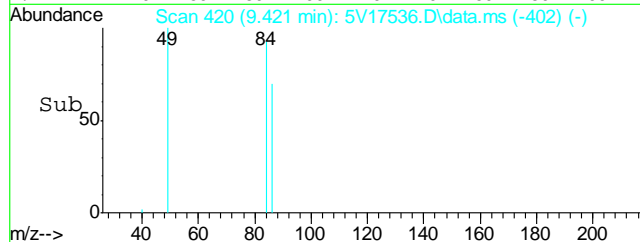
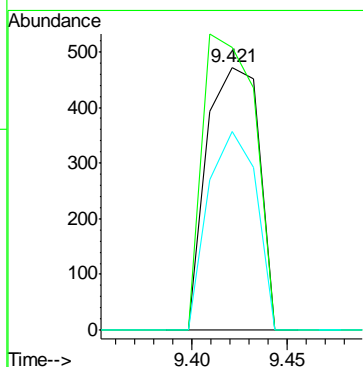
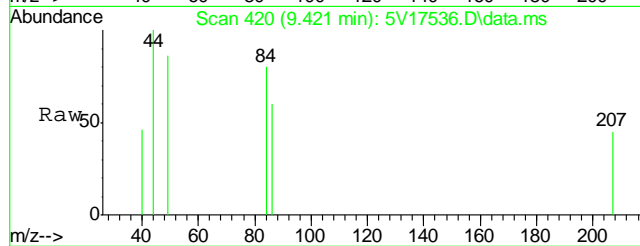
#1
TVH-Gasoline
Concen: 0.97 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17536.D
Acq: 16 Sep 2011 5:07 pm

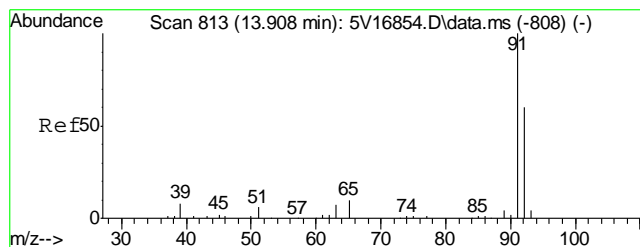
Tgt Ion:TIC Resp: 19420



#17
Methylene Chloride
Concen: 0.30 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17536.D
Acq: 16 Sep 2011 5:07 pm

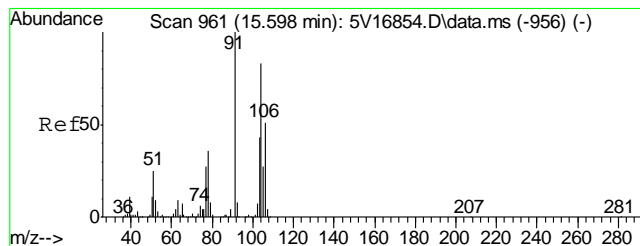
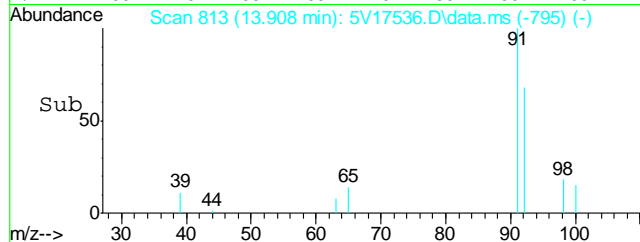
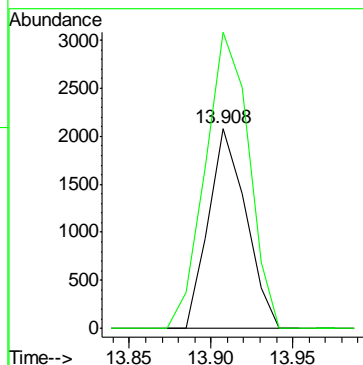
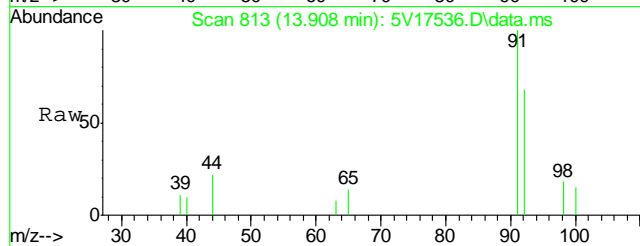
Tgt Ion: 84 Resp: 903
Ion Ratio Lower Upper
84 100
49 112.0 93.6 133.6
86 69.8 44.2 84.2





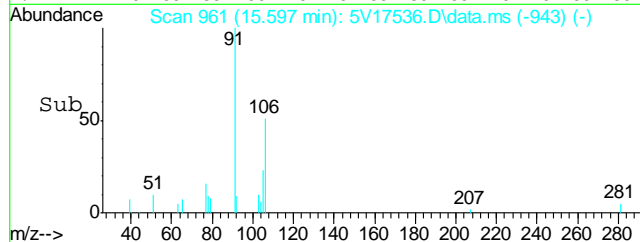
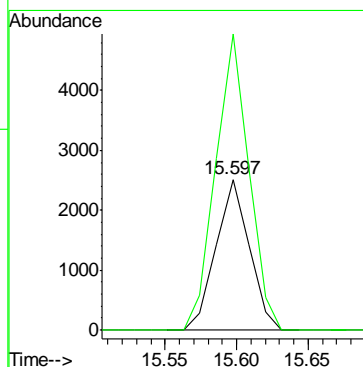
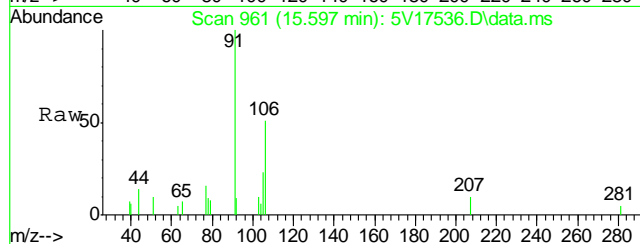
#62
Toluene
Concen: 0.39 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17536.D
Acq: 16 Sep 2011 5:07 pm

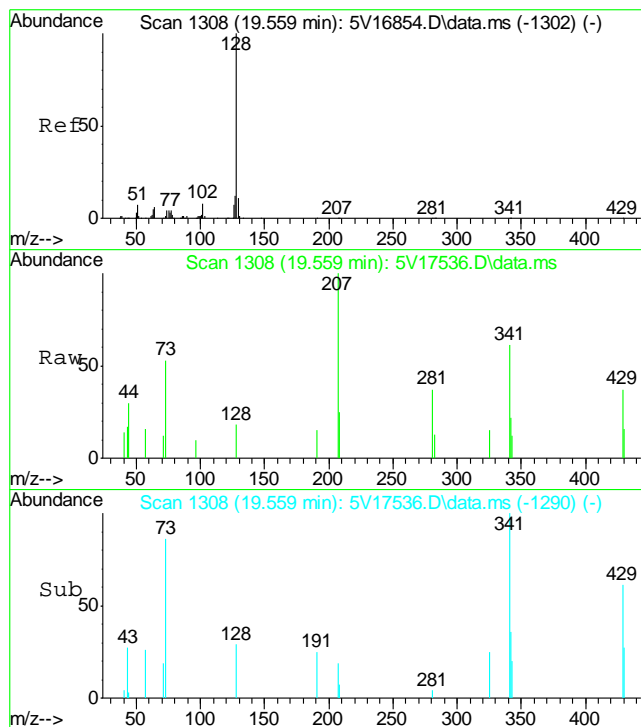
Tgt Ion	Ratio	Lower	Upper
92	100		
91	171.8	146.7	186.7



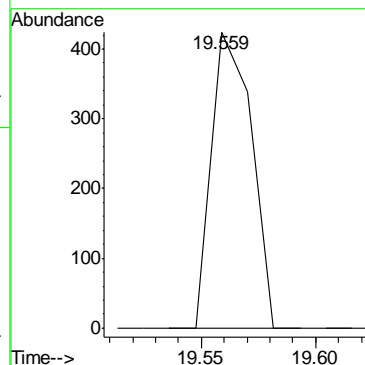
#73
o-xylene
Concen: 0.60 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17536.D
Acq: 16 Sep 2011 5:07 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	195.6	157.4	236.2





#91
 Naphthalene
 Concen: 0.89 ug/l
 RT: 19.559 min Scan# 1308
 Delta R.T. -0.000 min
 Lab File: 5V17536.D
 Acq: 16 Sep 2011 5:07 pm
 Tgt Ion:128 Resp: 523



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
 Data File : 5V17539.D
 Acq On : 16 Sep 2011 6:42 pm
 Operator : DONC
 Sample : D27702-2, 50x
 Misc : MS2711,V5V1042,5.056,,100,5,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 19 11:22:15 2011
 Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
 Quant Title : 8260
 QLast Update : Thu Sep 08 11:29:08 2011
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	266005	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	379245	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	365214	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	228263	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	36380	55.93	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	111.86%
61) Toluene-d8	13.851	98	692205	53.33	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.66%
69) 4-Bromofluorobenzene	16.043	95	278970	51.80	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.60%

Target Compounds

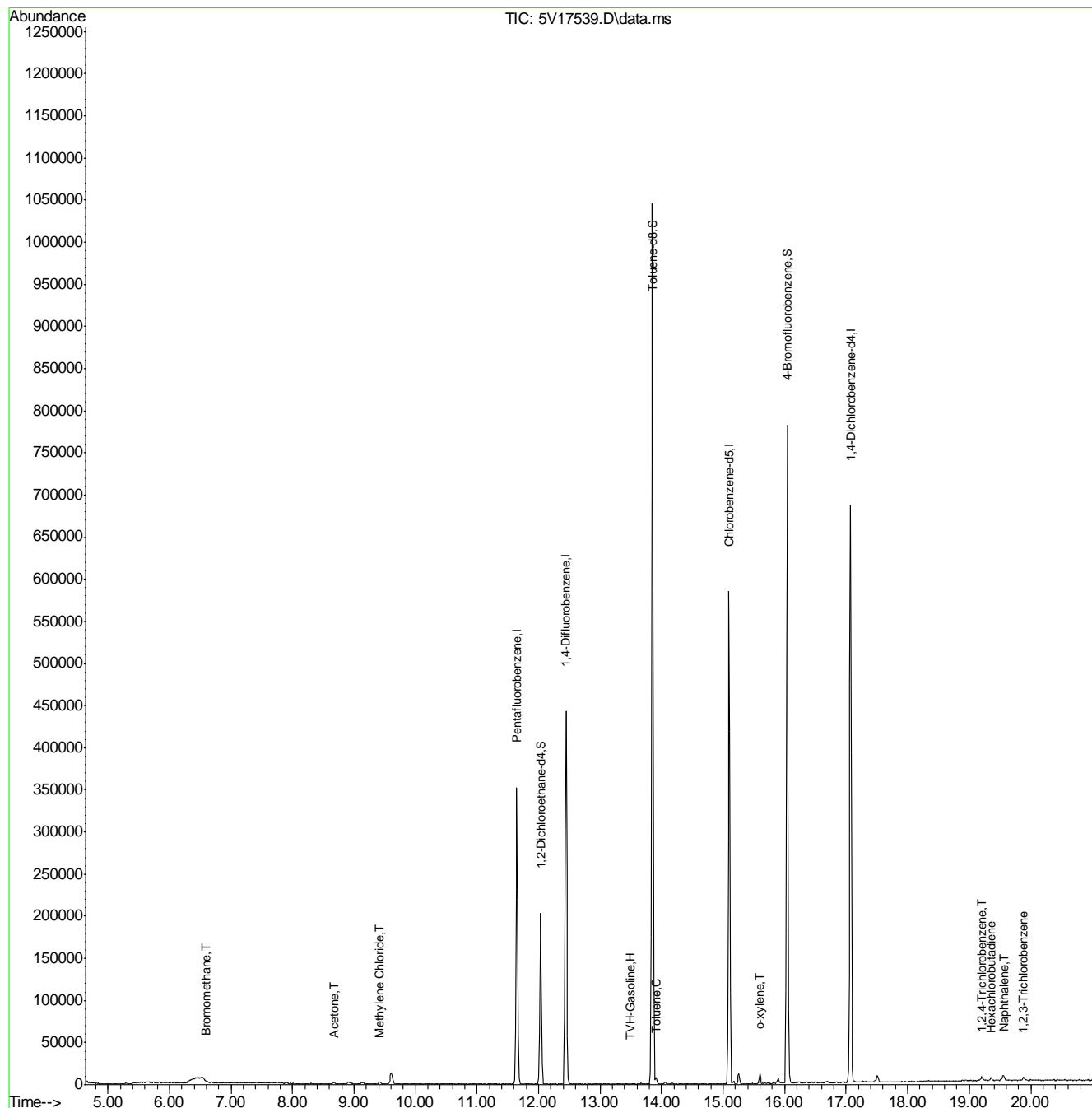
					Qvalue
1) TVH-Gasoline	13.491	TIC	24294m	1.22	ug/l
6) Bromomethane	6.589	94	4330	0.60	ug/l # 71
15) Acetone	8.679	58	809	0.29	ug/l # 55
17) Methylene Chloride	9.421	84	1199	0.37	ug/l # 83
62) Toluene	13.908	92	3377	0.37	ug/l 92
73) o-xylene	15.597	106	3530	0.49	ug/l 99
90) 1,2,4-Trichlorobenzene	19.205	180	2531	0.39	ug/l # 88
91) Naphthalene	19.559	128	5852	1.35	ug/l 100
92) Hexachlorobutadiene	19.354	225	1976	0.40	ug/l 92
93) 1,2,3-Trichlorobenzene	19.879	180	2464	0.43	ug/l # 93

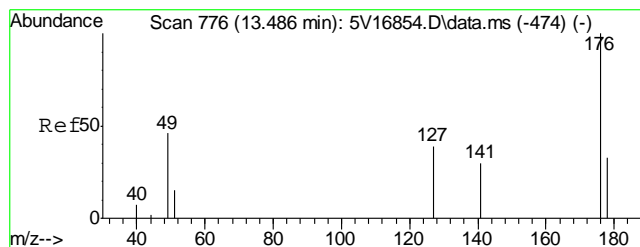
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17539.D
Acq On : 16 Sep 2011 6:42 pm
Operator : DONC
Sample : D27702-2, 50x
Misc : MS2711,V5V1042,5.056,,100,5,1
ALS Vial : 18 Sample Multiplier: 1

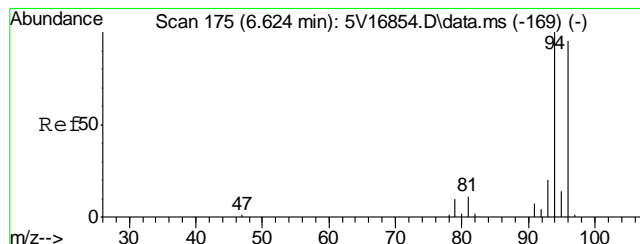
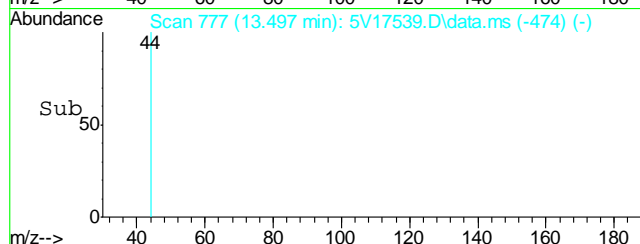
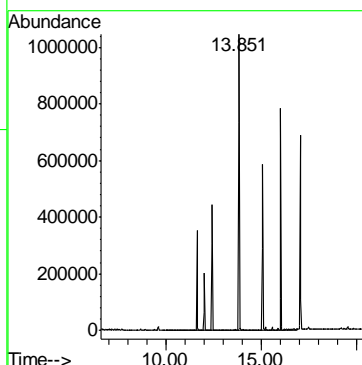
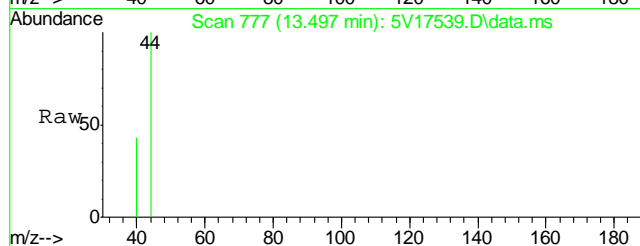
Quant Time: Sep 19 11:22:15 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





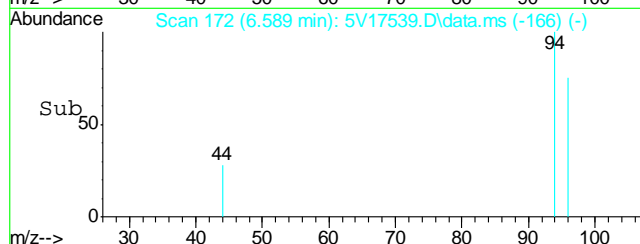
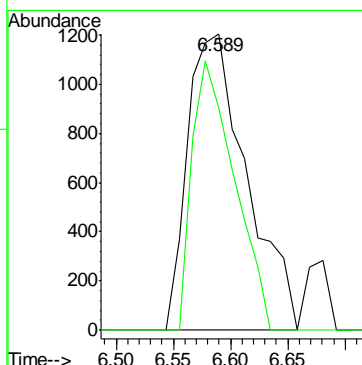
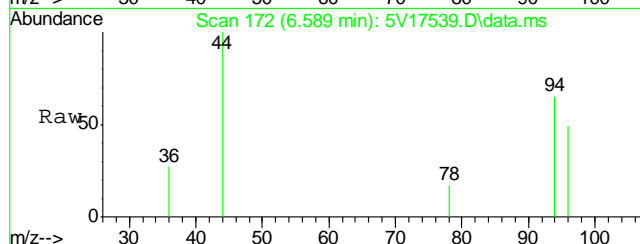
#1
TVH-Gasoline
Concen: 1.22 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

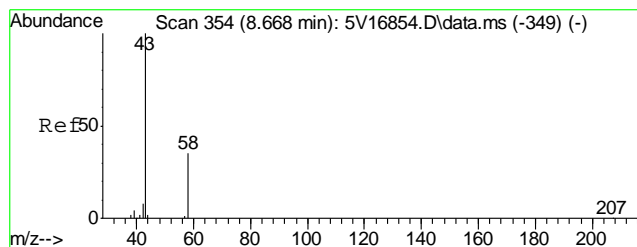
Tgt Ion:TIC Resp: 24294



#6
Bromomethane
Concen: 0.60 ug/l
RT: 6.589 min Scan# 172
Delta R.T. -0.034 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

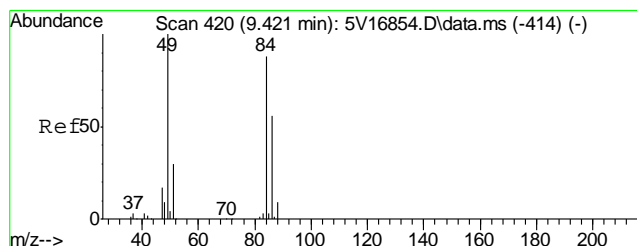
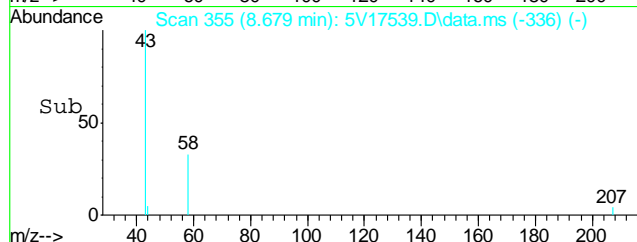
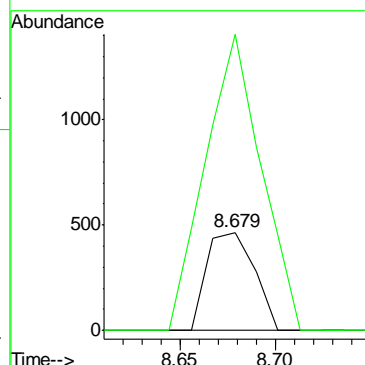
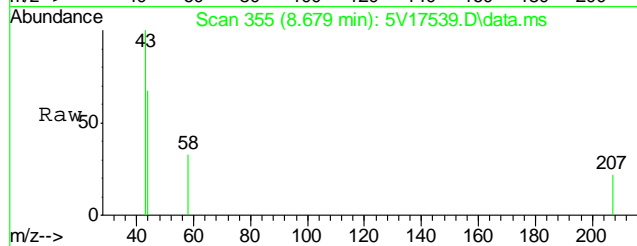
Tgt Ion: 94 Resp: 4330
Ion Ratio Lower Upper
94 100
96 65.5 72.9 112.9#





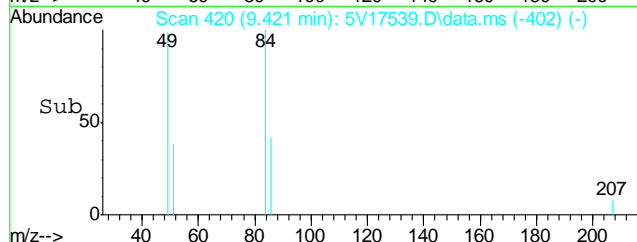
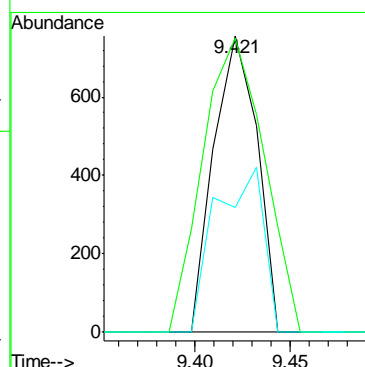
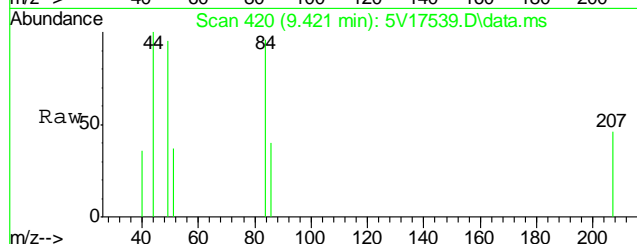
#15
Acetone
Concen: 0.29 ug/l
RT: 8.679 min Scan# 355
Delta R.T. 0.012 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

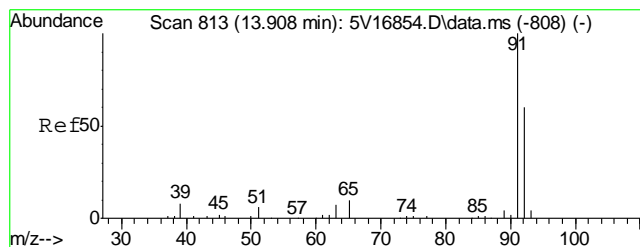
Tgt Ion: 58 Resp: 809
Ion Ratio Lower Upper
58 100
43 354.6 252.4 292.4#



#17
Methylene Chloride
Concen: 0.37 ug/l
RT: 9.421 min Scan# 420
Delta R.T. 0.000 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

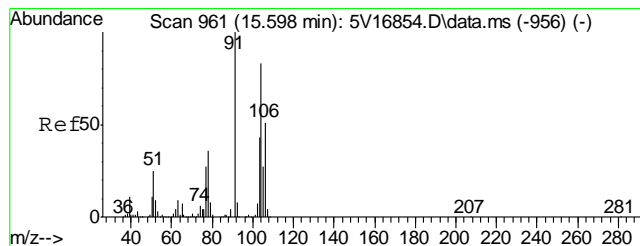
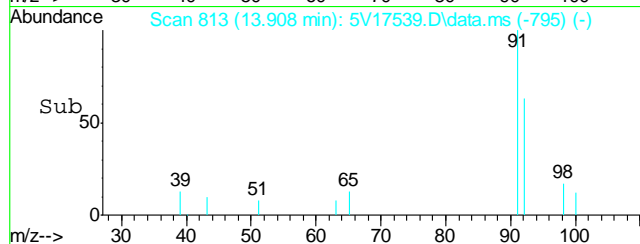
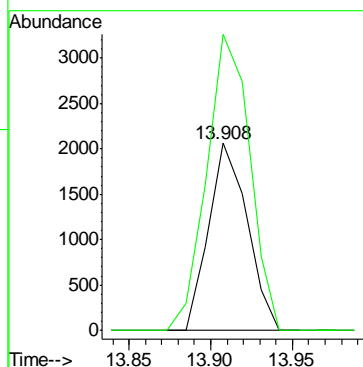
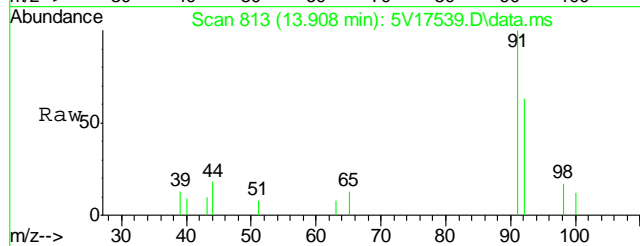
Tgt Ion: 84 Resp: 1199
Ion Ratio Lower Upper
84 100
49 140.5 93.6 133.6#
86 61.8 44.2 84.2





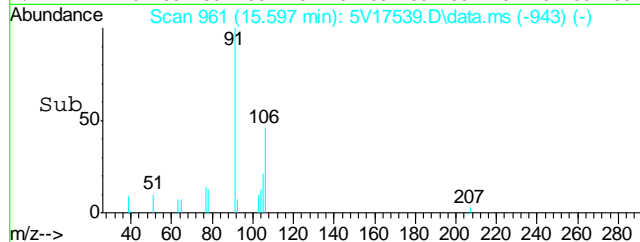
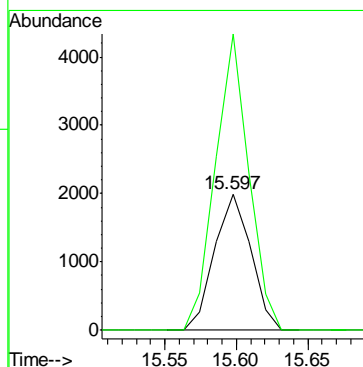
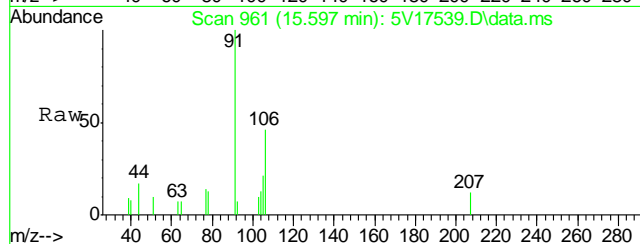
#62
Toluene
Concen: 0.37 ug/l
RT: 13.908 min Scan# 813
Delta R.T. 0.000 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

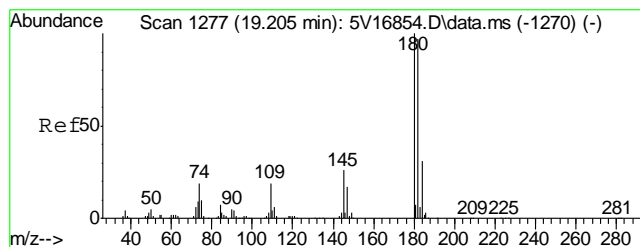
Tgt Ion	Ratio	Lower	Upper
92	100		
91	176.9	146.7	186.7



#73
o-xylene
Concen: 0.49 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

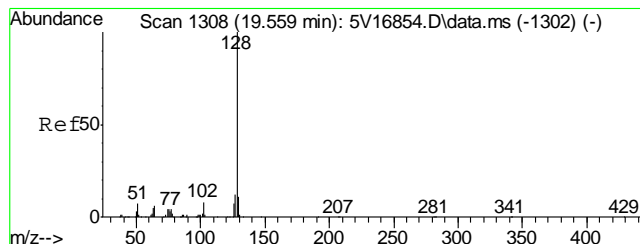
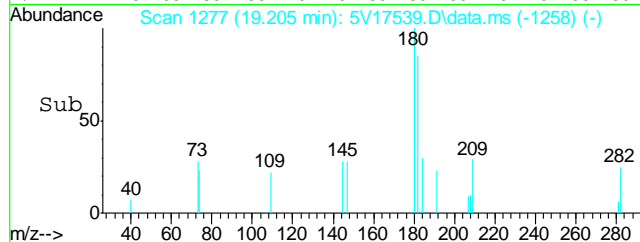
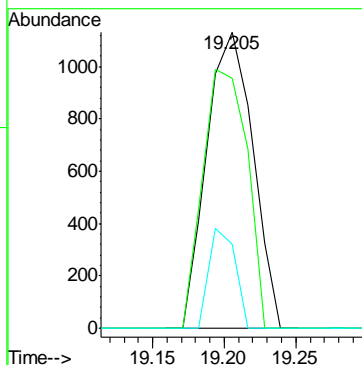
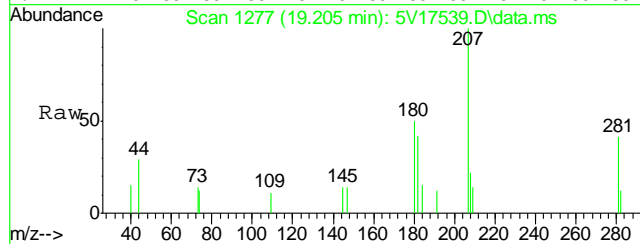
Tgt Ion	Ratio	Lower	Upper
106	100		
91	198.8	157.4	236.2





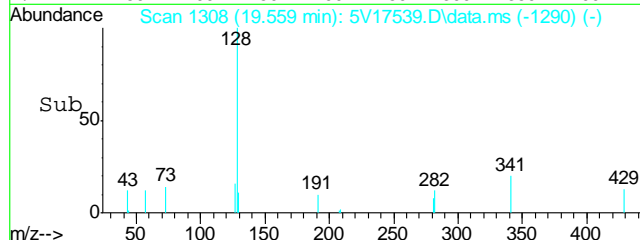
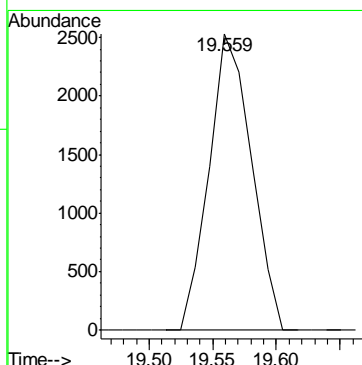
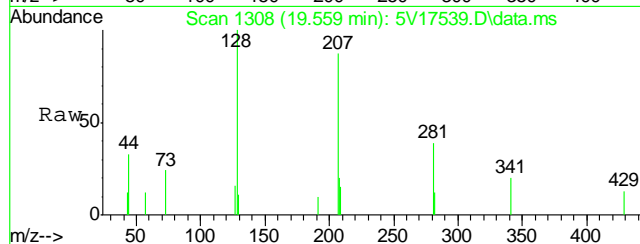
#90
1,2,4-Trichlorobenzene
Concen: 0.39 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

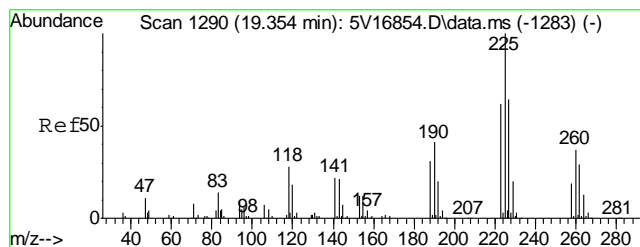
Tgt Ion	Ratio	Lower	Upper
180	100		
182	83.6	76.3	114.5
145	19.0	20.7	31.1#



#91
Naphthalene
Concen: 1.35 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. 0.000 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

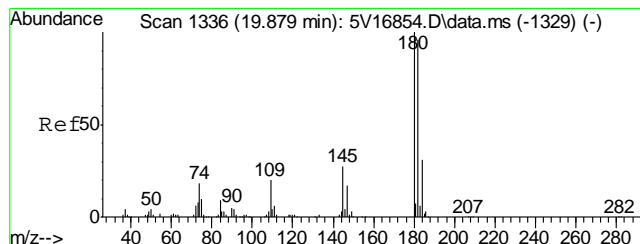
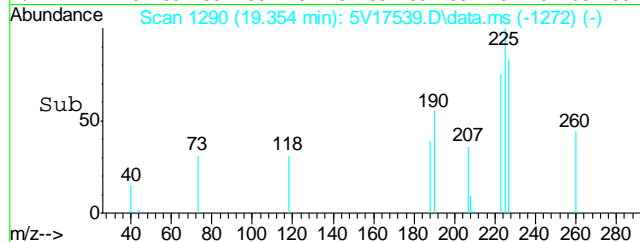
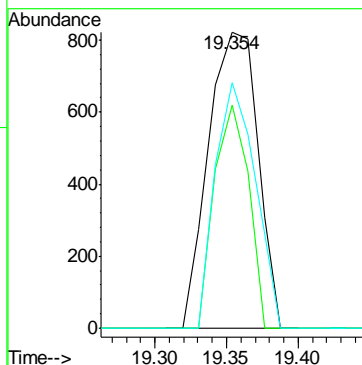
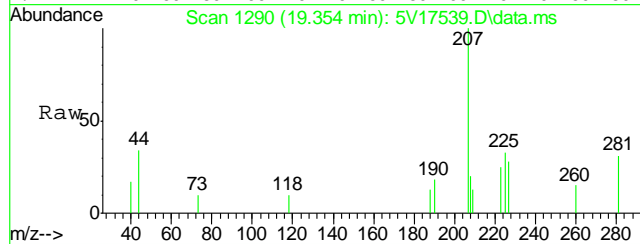
Tgt Ion	Ratio	Lower	Upper
128	5852		





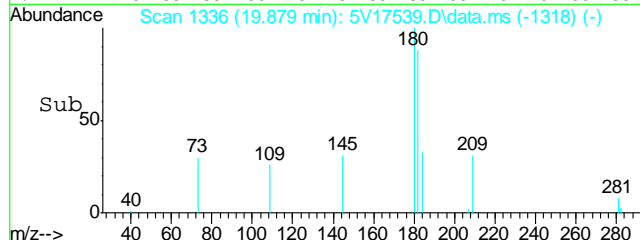
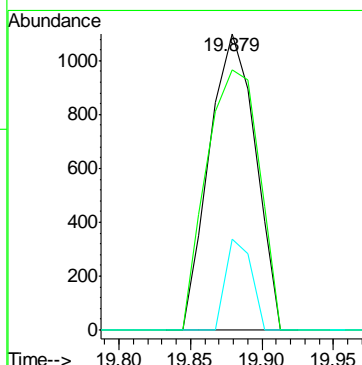
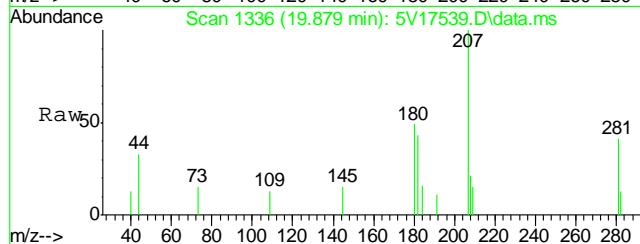
#92
Hexachlorobutadiene
Concen: 0.40 ug/l
RT: 19.354 min Scan# 1290
Delta R.T. 0.000 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

Tgt Ion:	225	Resp:	1976
Ion Ratio	Lower	Upper	
225	100		
223	52.0	49.8	74.8
227	67.1	51.7	77.5



#93
1,2,3-Trichlorobenzene
Concen: 0.43 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. 0.000 min
Lab File: 5V17539.D
Acq: 16 Sep 2011 6:42 pm

Tgt Ion:	180	Resp:	2464
Ion Ratio	Lower	Upper	
180	100		
182	99.9	77.0	115.6
145	17.3	22.1	33.1#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17540.D
Acq On : 16 Sep 2011 7:14 pm
Operator : DONC
Sample : D27702-3, 50x
Misc : MS2711,V5V1042,5.082,,100,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 19 11:23:41 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration

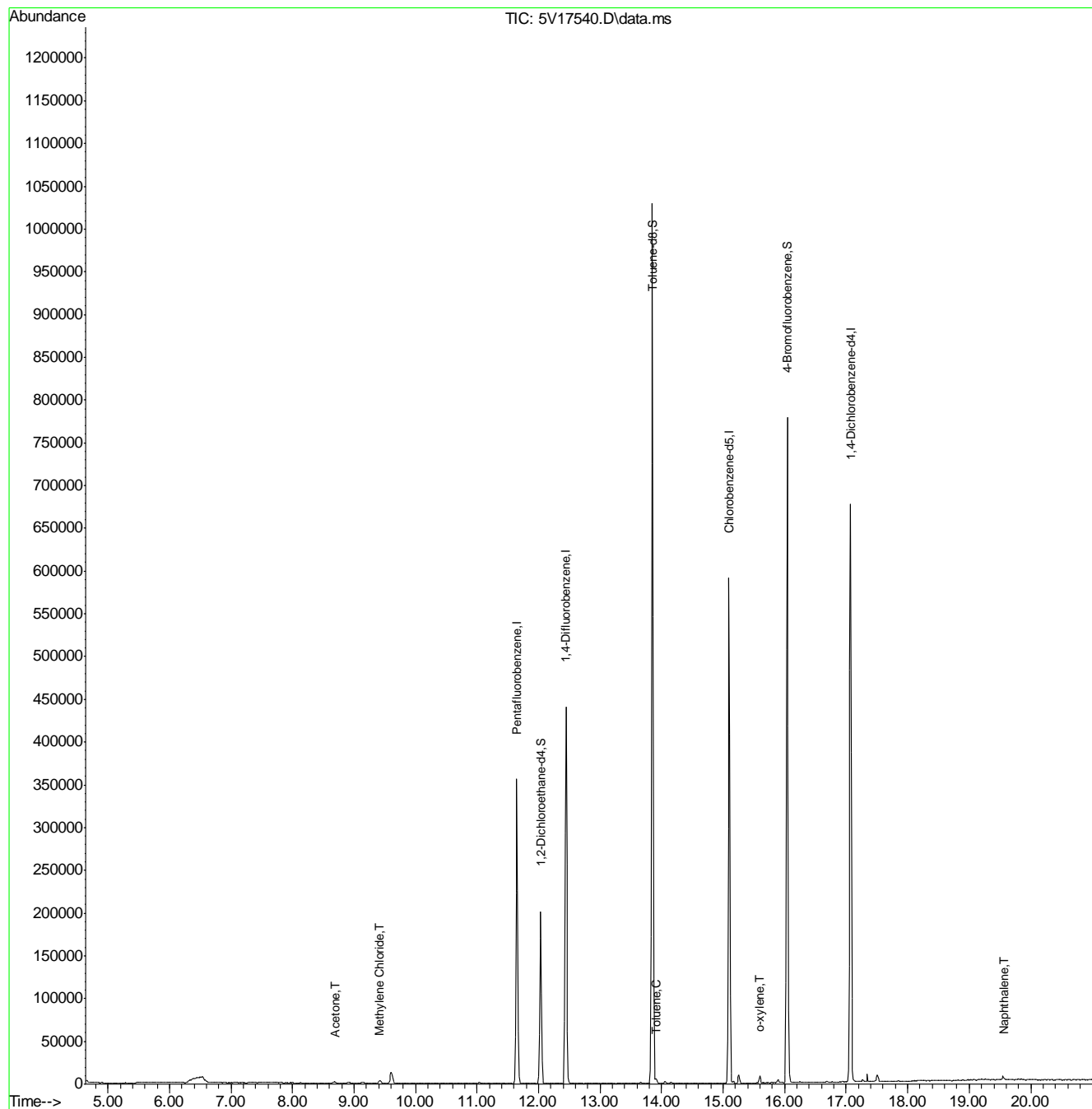
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	264970	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	376701	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	362657	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	229086	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	35506	54.80	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	109.60%
61) Toluene-d8	13.851	98	682322	52.94	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.88%
69) 4-Bromofluorobenzene	16.043	95	276987	51.80	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.60%
Target Compounds						
15) Acetone	8.690	58	1133	1.23	ug/l	# 77
17) Methylene Chloride	9.421	84	1536	0.48	ug/l	85
62) Toluene	13.908	92	2609	0.29	ug/l	94
73) o-xylene	15.597	106	2519	0.35	ug/l	91
91) Naphthalene	19.570	128	1317	0.96	ug/l	100

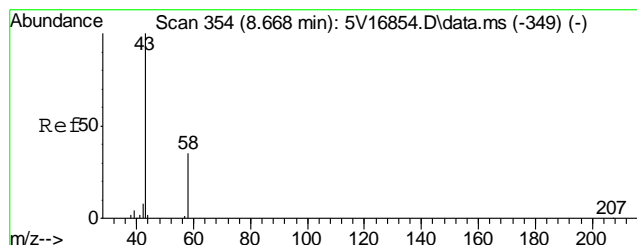
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17540.D
Acq On : 16 Sep 2011 7:14 pm
Operator : DONC
Sample : D27702-3, 50x
Misc : MS2711,V5V1042,5.082,,100,5,1
ALS Vial : 19 Sample Multiplier: 1

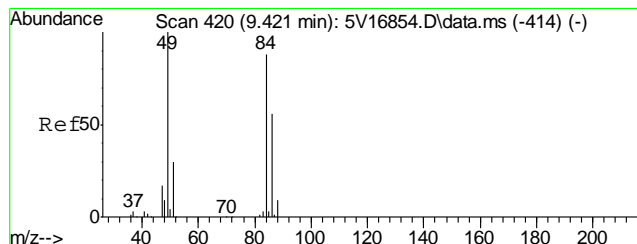
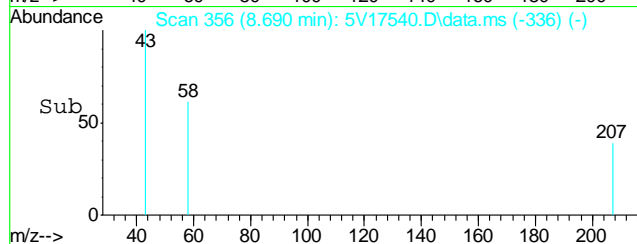
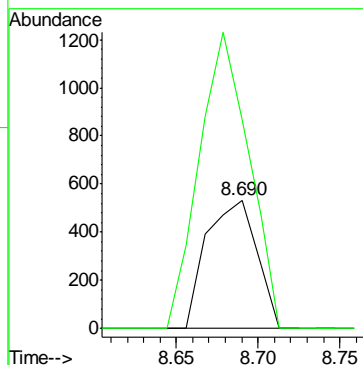
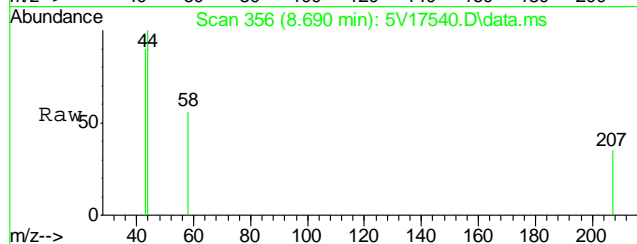
Quant Time: Sep 19 11:23:41 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





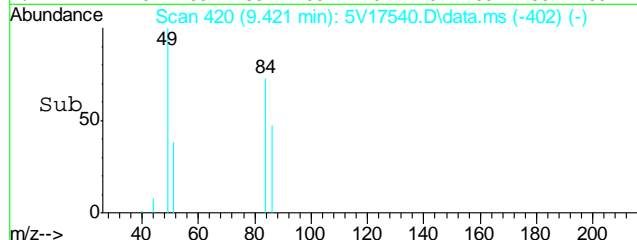
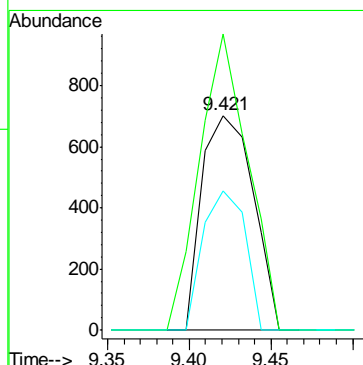
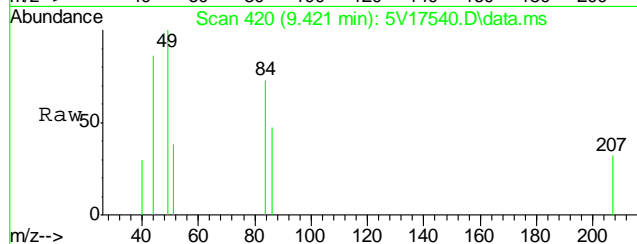
#15
Acetone
Concen: 1.23 ug/l
RT: 8.690 min Scan# 356
Delta R.T. 0.023 min
Lab File: 5V17540.D
Acq: 16 Sep 2011 7:14 pm

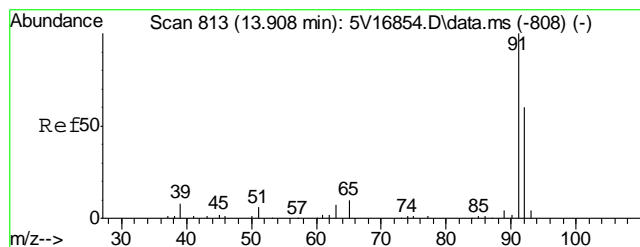
Tgt Ion: 58 Resp: 1133
Ion Ratio Lower Upper
58 100
43 229.5 252.4 292.4#



#17
Methylene Chloride
Concen: 0.48 ug/l
RT: 9.421 min Scan# 420
Delta R.T. 0.000 min
Lab File: 5V17540.D
Acq: 16 Sep 2011 7:14 pm

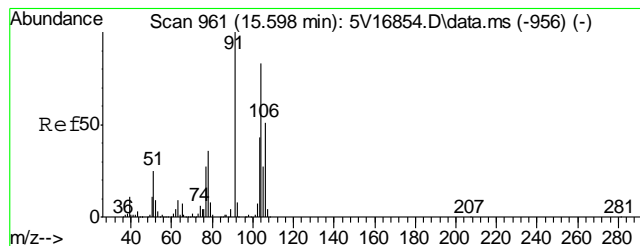
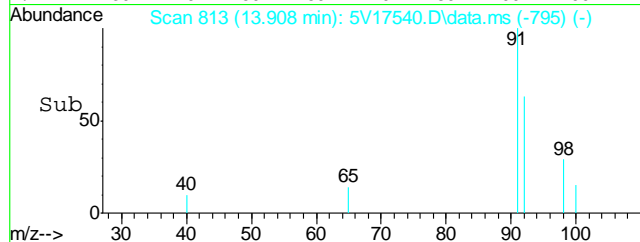
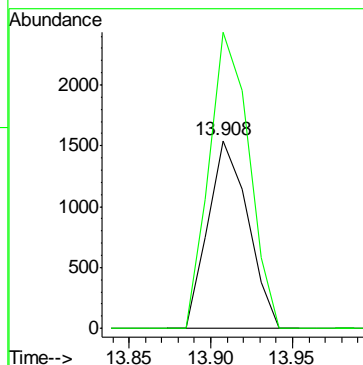
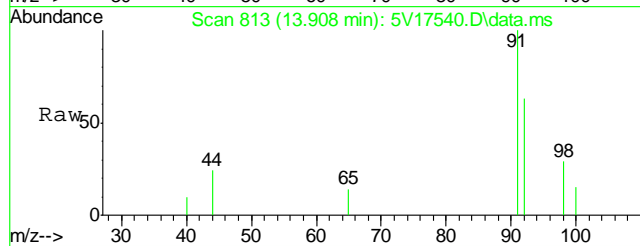
Tgt Ion: 84 Resp: 1536
Ion Ratio Lower Upper
84 100
49 130.2 93.6 133.6
86 53.2 44.2 84.2





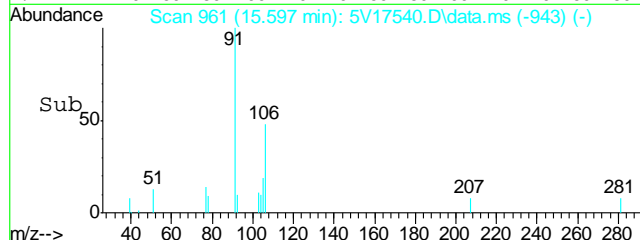
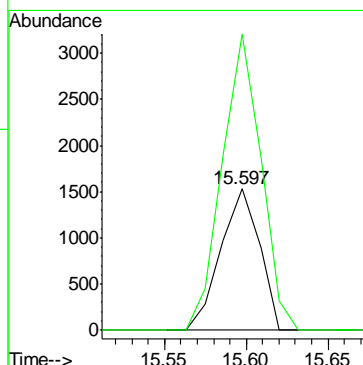
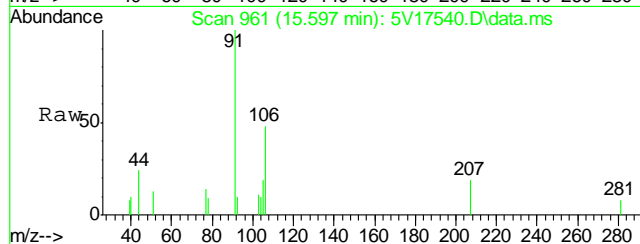
#62
Toluene
Concen: 0.29 ug/l
RT: 13.908 min Scan# 813
Delta R.T. 0.000 min
Lab File: 5V17540.D
Acq: 16 Sep 2011 7:14 pm

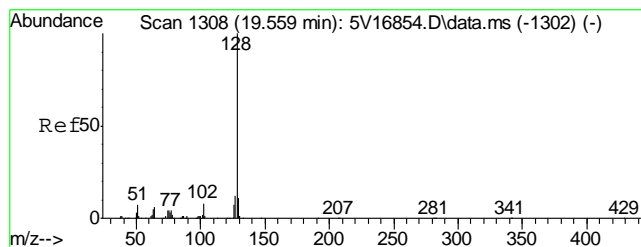
Tgt Ion: 92 Resp: 2609
Ion Ratio Lower Upper
92 100
91 158.3 146.7 186.7



#73
o-xylene
Concen: 0.35 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V17540.D
Acq: 16 Sep 2011 7:14 pm

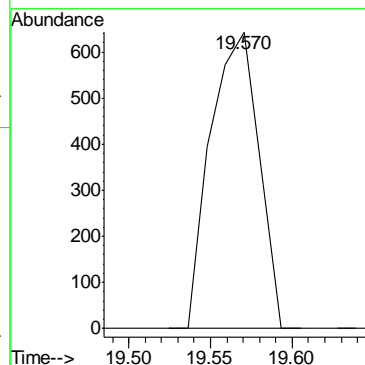
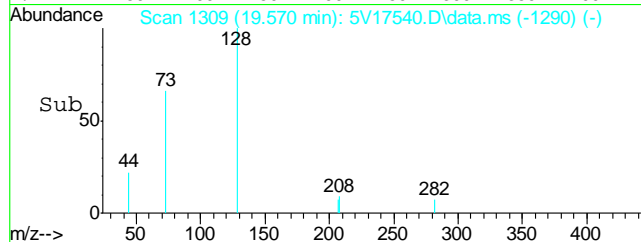
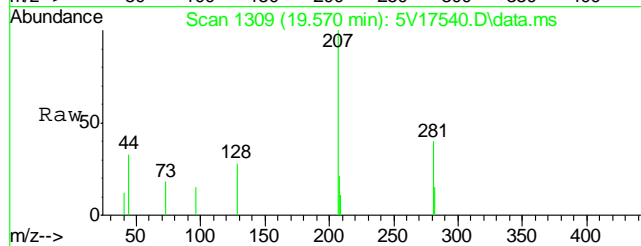
Tgt Ion: 106 Resp: 2519
Ion Ratio Lower Upper
106 100
91 210.5 157.4 236.2





#91
Naphthalene
Concen: 0.96 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.011 min
Lab File: 5V17540.D
Acq: 16 Sep 2011 7:14 pm

Tgt Ion:128 Resp: 1317



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17541.D
Acq On : 16 Sep 2011 7:45 pm
Operator : DONC
Sample : D27702-4, 50x
Misc : MS2711,V5V1042,5.016,,100,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 19 11:24:55 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	294696	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	415607	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	400696	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	252262	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	35449	49.20	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.40%
61) Toluene-d8	13.850	98	685260	48.12	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.24%
69) 4-Bromofluorobenzene	16.042	95	272111	46.05	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.10%

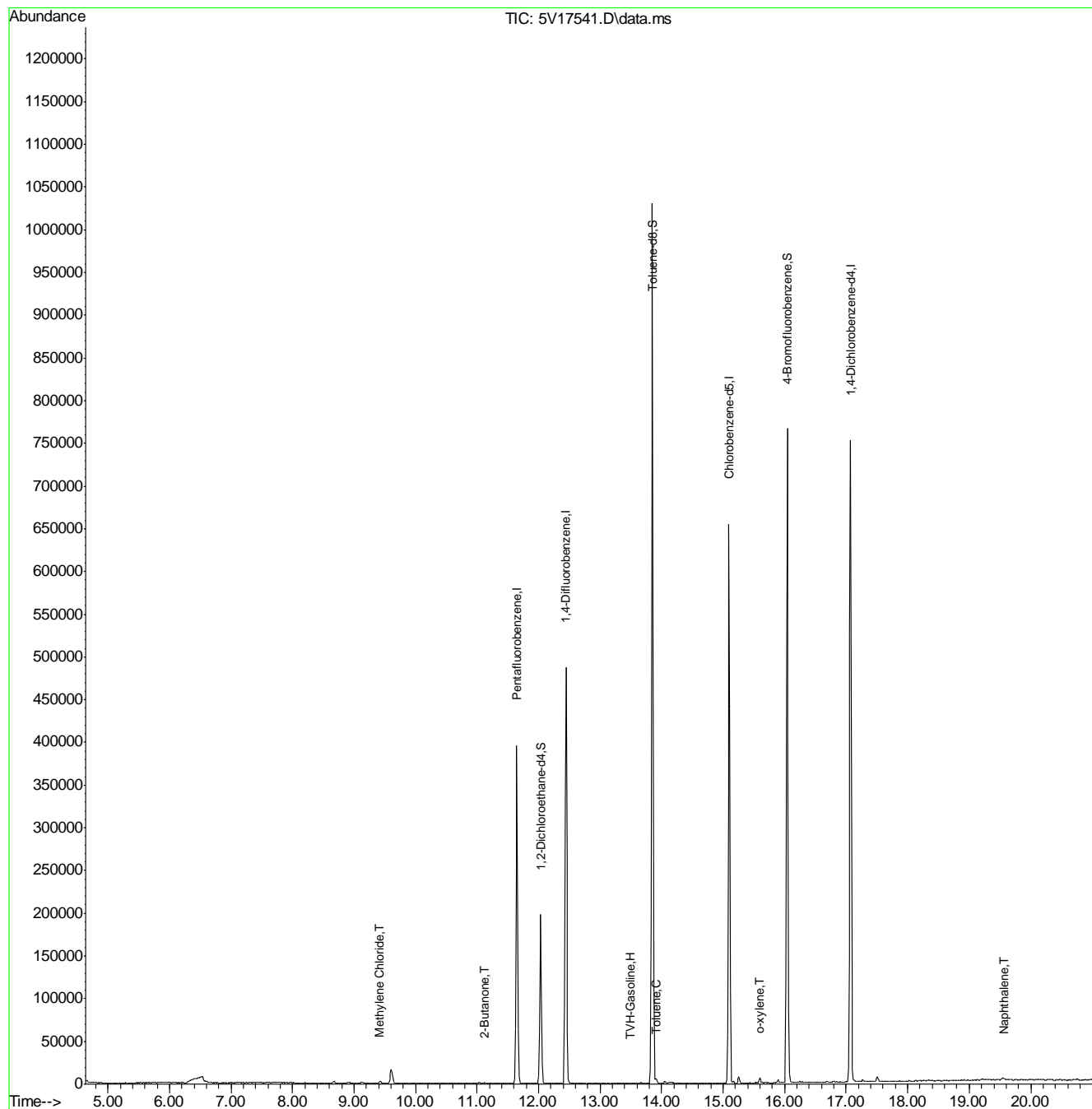
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	30782m	1.54	ug/l
17) Methylene Chloride	9.421	84	1362	0.38	ug/l
25) 2-Butanone	11.122	72	191	1.14	ug/l
62) Toluene	13.908	92	2247	0.22	ug/l
73) o-xylene	15.597	106	1849	0.23	ug/l
91) Naphthalene	19.570	128	987	0.92	ug/l

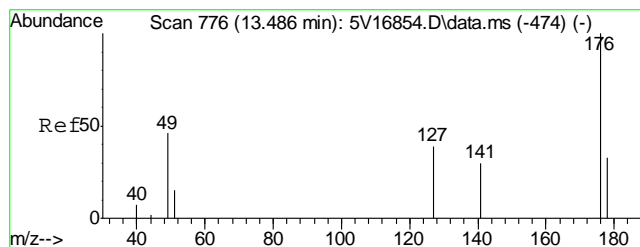
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17541.D
Acq On : 16 Sep 2011 7:45 pm
Operator : DONC
Sample : D27702-4, 50x
Misc : MS2711,V5V1042,5.016,,100,5,1
ALS Vial : 20 Sample Multiplier: 1

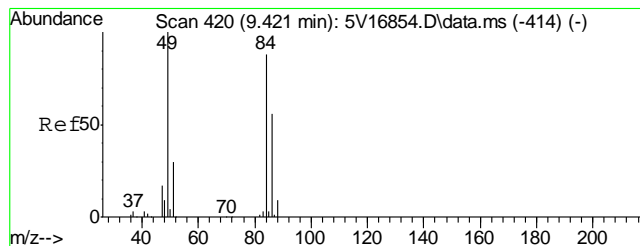
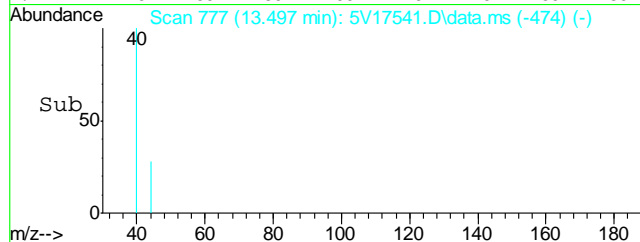
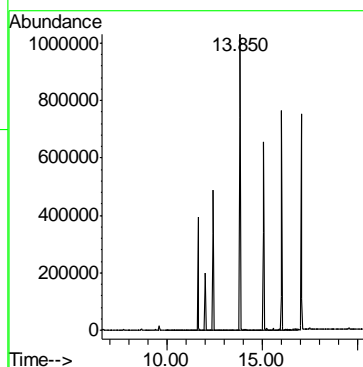
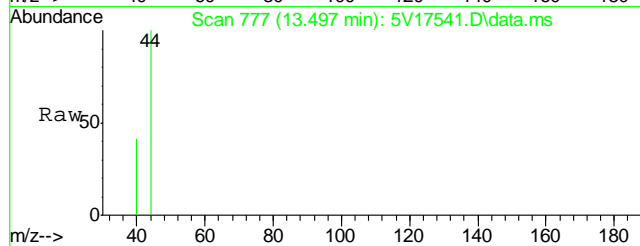
Quant Time: Sep 19 11:24:55 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





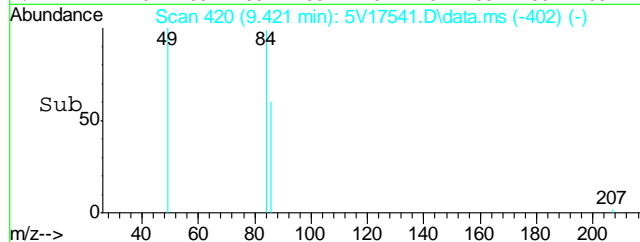
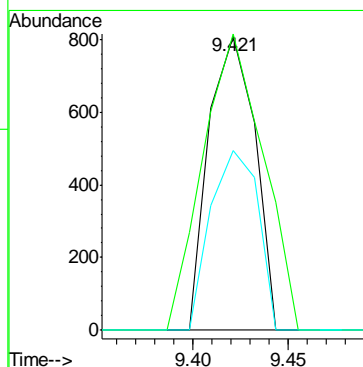
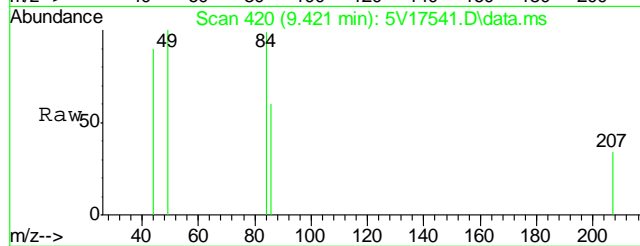
#1
TVH-Gasoline
Concen: 1.54 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17541.D
Acq: 16 Sep 2011 7:45 pm

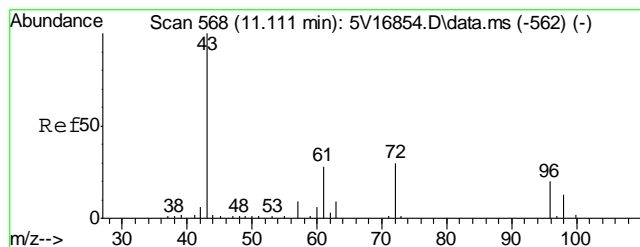
Tgt Ion:TIC Resp: 30782



#17
Methylene Chloride
Concen: 0.38 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17541.D
Acq: 16 Sep 2011 7:45 pm

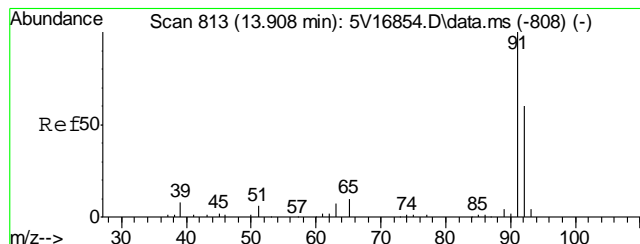
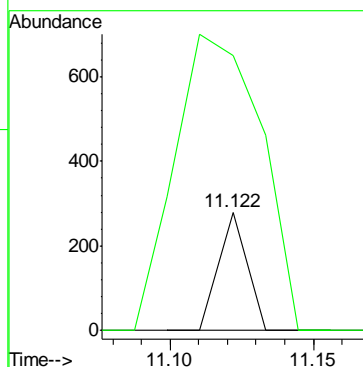
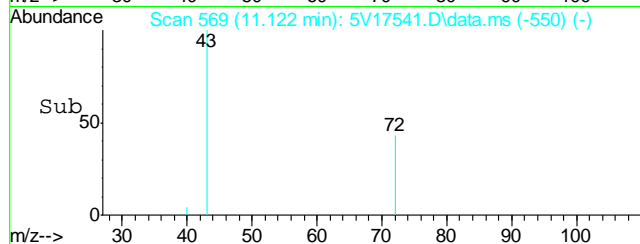
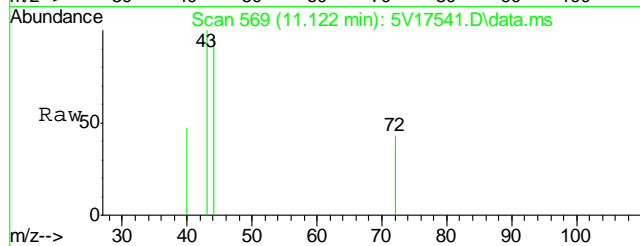
Tgt Ion: 84 Resp: 1362
Ion Ratio Lower Upper
84 100
49 131.4 93.6 133.6
86 63.1 44.2 84.2





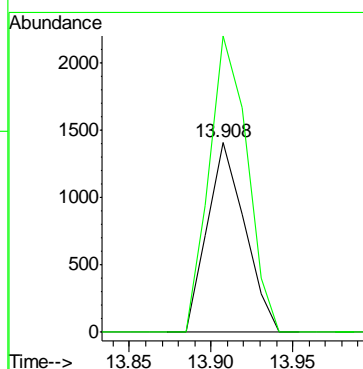
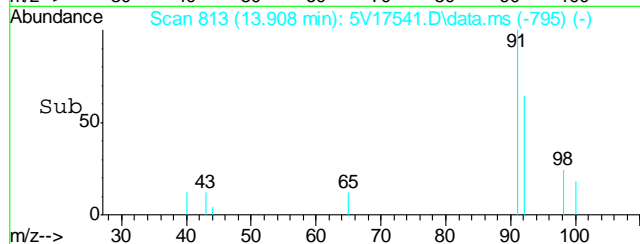
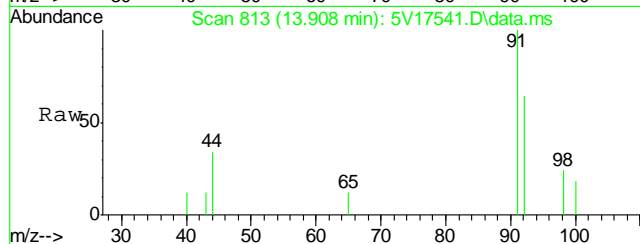
#25
2-Butanone
Concen: 1.14 ug/l
RT: 11.122 min Scan# 569
Delta R.T. 0.012 min
Lab File: 5V17541.D
Acq: 16 Sep 2011 7:45 pm

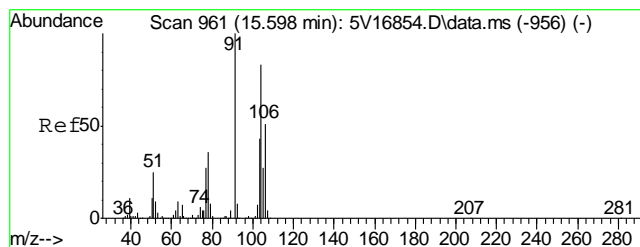
Tgt Ion: 72 Resp: 191
Ion Ratio Lower Upper
72 100
43 763.9 257.8 386.8#



#62
Toluene
Concen: 0.22 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17541.D
Acq: 16 Sep 2011 7:45 pm

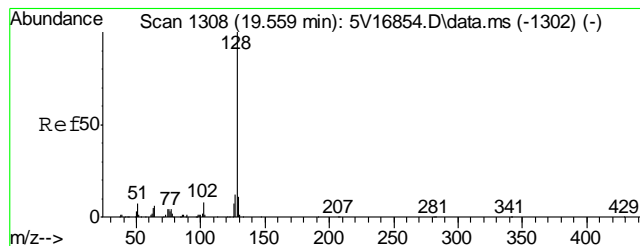
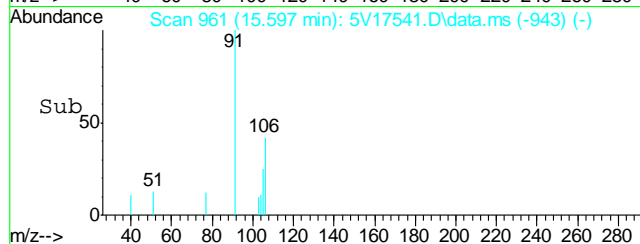
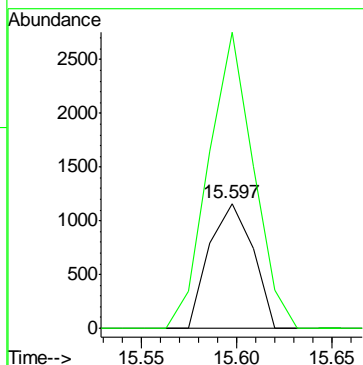
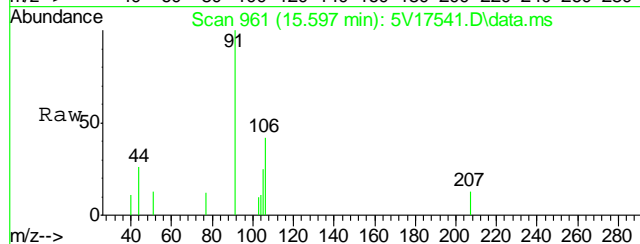
Tgt Ion: 92 Resp: 2247
Ion Ratio Lower Upper
92 100
91 158.8 146.7 186.7





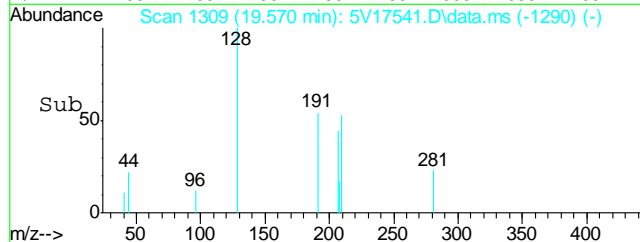
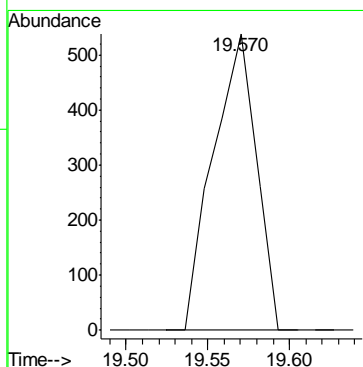
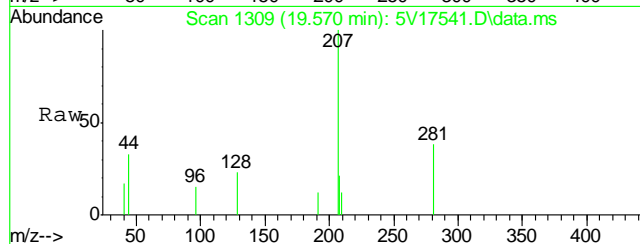
#73
o-xylene
Concen: 0.23 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17541.D
Acq: 16 Sep 2011 7:45 pm

Tgt Ion:106 Resp: 1849
Ion Ratio Lower Upper
106 100
91 244.9 157.4 236.2#



#91
Naphthalene
Concen: 0.92 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.011 min
Lab File: 5V17541.D
Acq: 16 Sep 2011 7:45 pm

Tgt Ion:128 Resp: 987



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17542.D
Acq On : 16 Sep 2011 8:17 pm
Operator : DONC
Sample : D27702-5, 50x
Misc : MS2711,V5V1042,5.072,,100,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 11:26:00 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	256010	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	365639	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	353850	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	221644	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	32973	52.68	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.36%
61) Toluene-d8	13.851	98	626541	49.82	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.64%
69) 4-Bromofluorobenzene	16.043	95	245089	46.97	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.94%

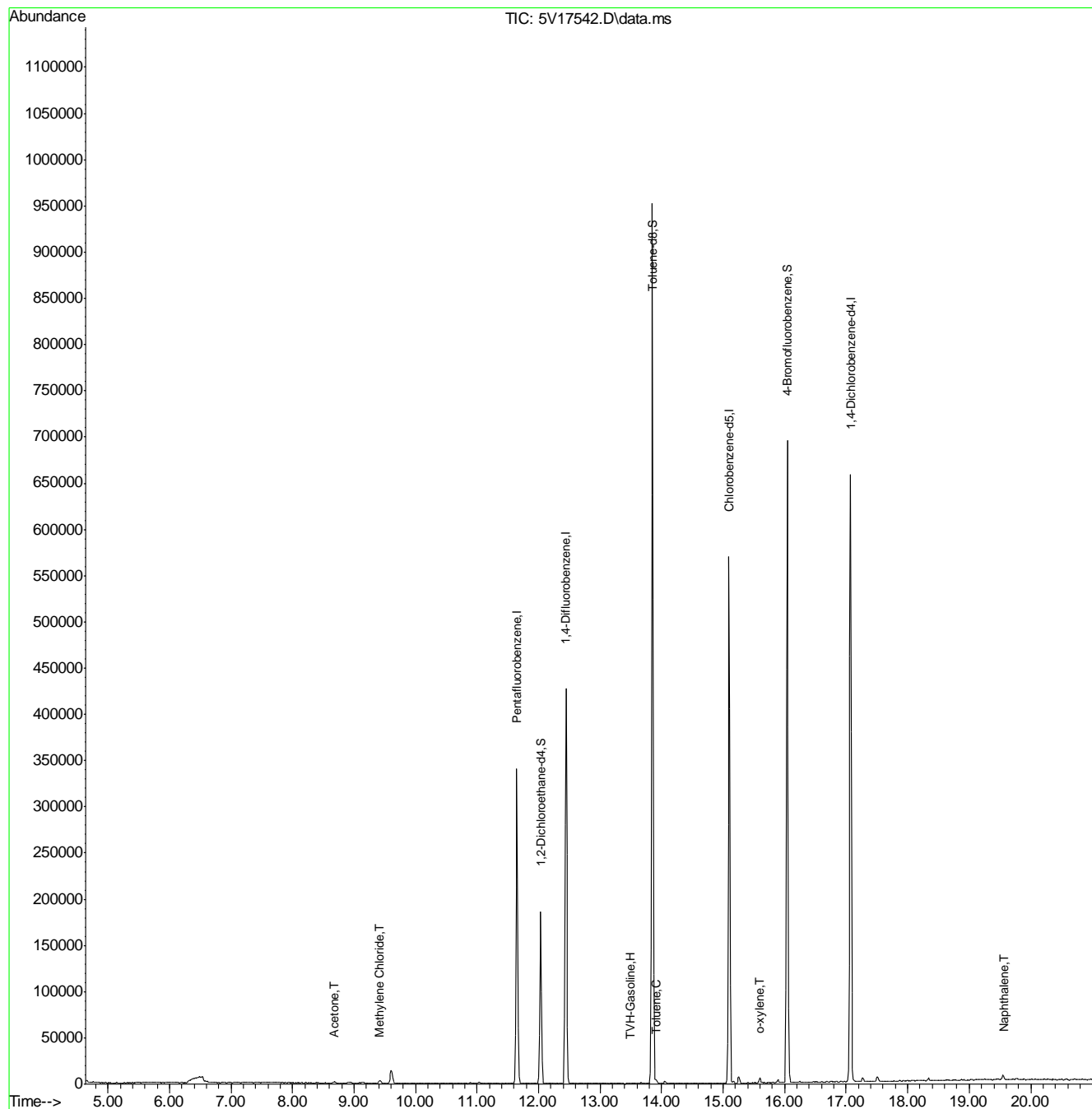
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	25408m	1.27	ug/l
15) Acetone	8.679	58	817	0.41	ug/l # 54
17) Methylene Chloride	9.409	84	1839	0.59	ug/l 92
62) Toluene	13.908	92	2050	0.23	ug/l 92
73) o-xylene	15.597	106	1834	0.26	ug/l 82
91) Naphthalene	19.559	128	854	0.92	ug/l 100

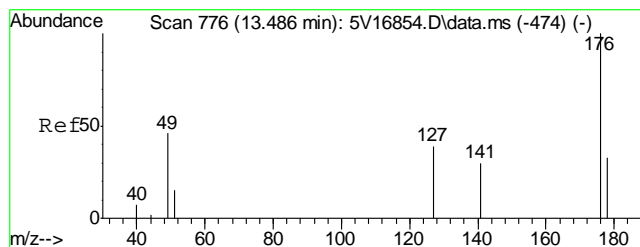
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17542.D
Acq On : 16 Sep 2011 8:17 pm
Operator : DONC
Sample : D27702-5, 50x
Misc : MS2711,V5V1042,5.072,,100,5,1
ALS Vial : 21 Sample Multiplier: 1

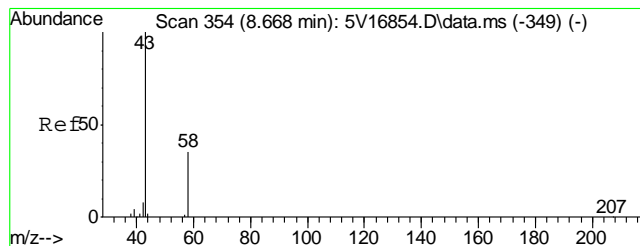
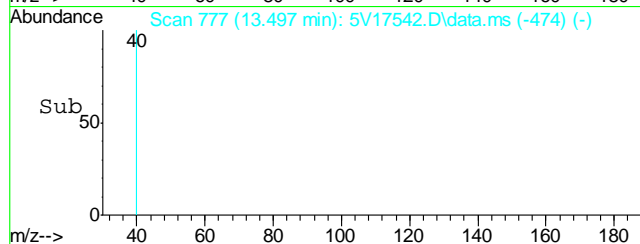
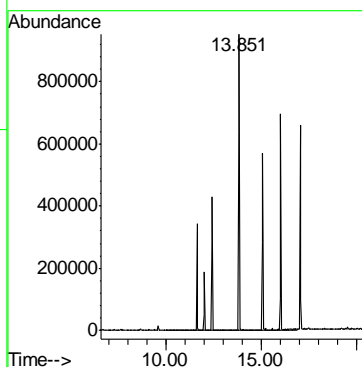
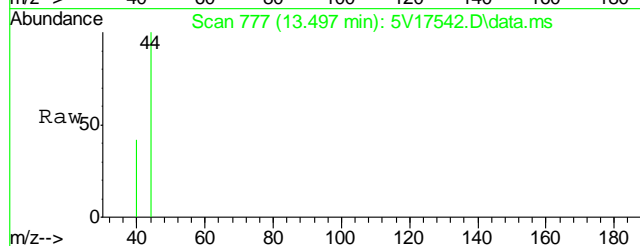
Quant Time: Sep 19 11:26:00 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





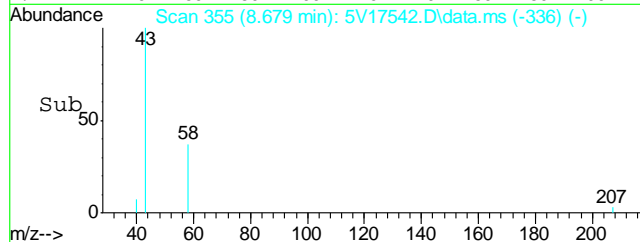
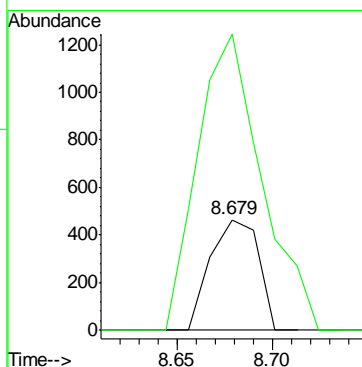
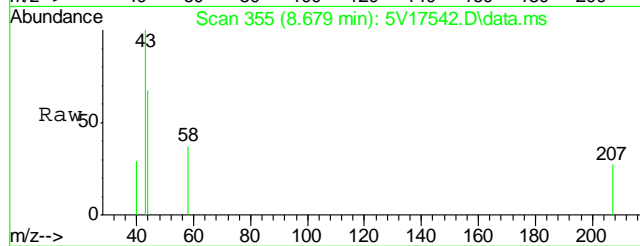
#1
TVH-Gasoline
Concen: 1.27 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17542.D
Acq: 16 Sep 2011 8:17 pm

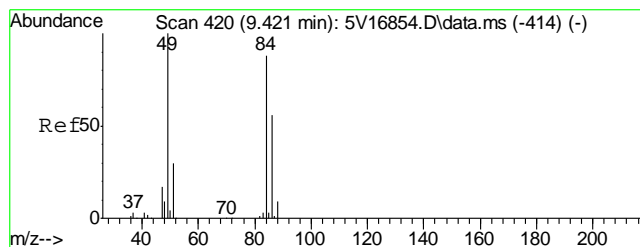
Tgt Ion:TIC Resp: 25408



#15
Acetone
Concen: 0.41 ug/l
RT: 8.679 min Scan# 355
Delta R.T. 0.012 min
Lab File: 5V17542.D
Acq: 16 Sep 2011 8:17 pm

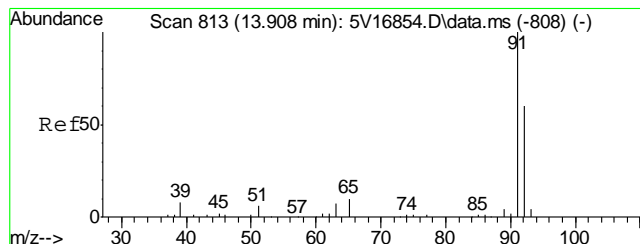
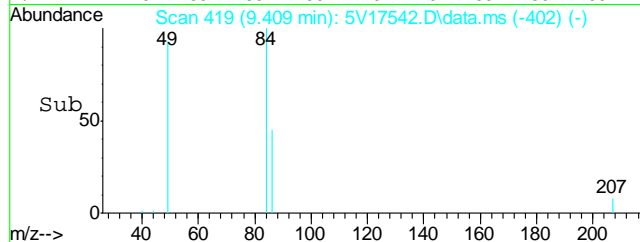
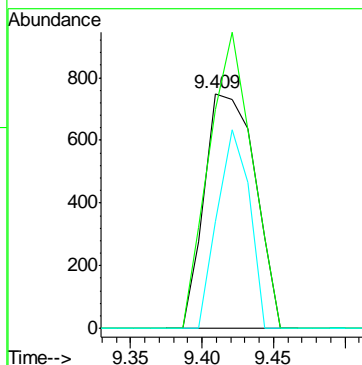
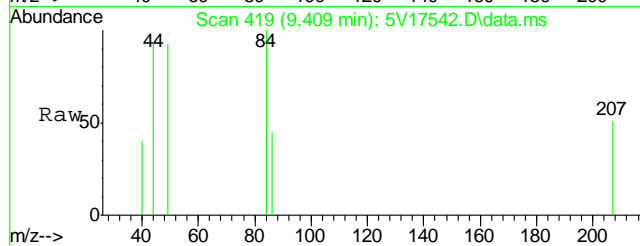
Tgt Ion: 58 Resp: 817
Ion Ratio Lower Upper
58 100
43 356.4 252.4 292.4#





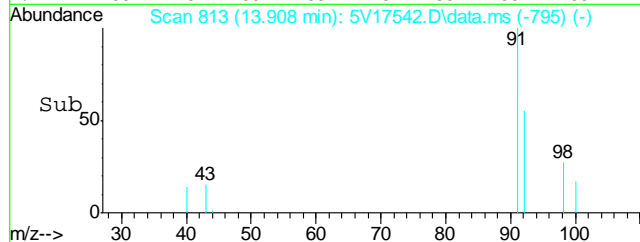
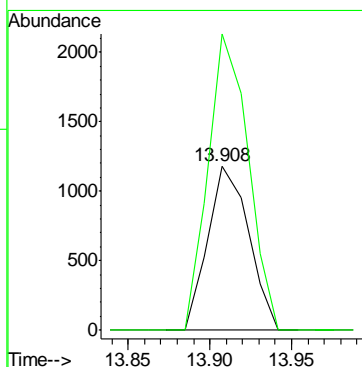
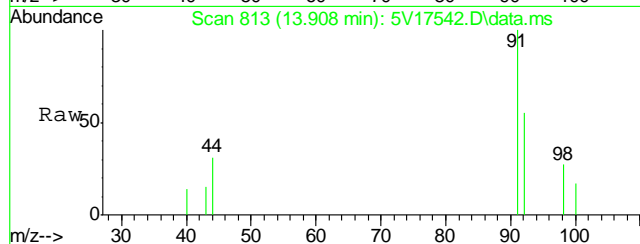
#17
Methylene Chloride
Concen: 0.59 ug/l
RT: 9.409 min Scan# 419
Delta R.T. -0.011 min
Lab File: 5V17542.D
Acq: 16 Sep 2011 8:17 pm

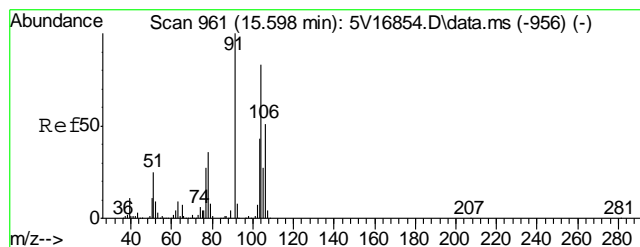
Tgt Ion: 84 Resp: 1839
Ion Ratio Lower Upper
84 100
49 107.8 93.6 133.6
86 53.6 44.2 84.2



#62
Toluene
Concen: 0.23 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17542.D
Acq: 16 Sep 2011 8:17 pm

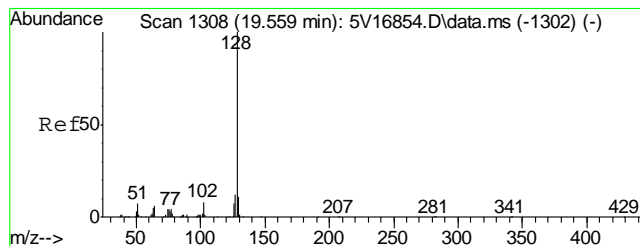
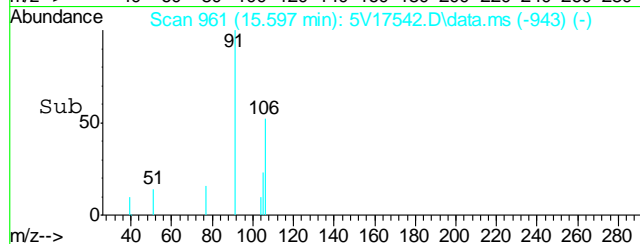
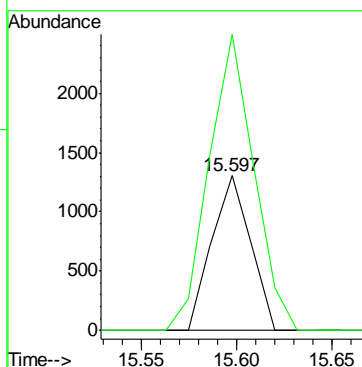
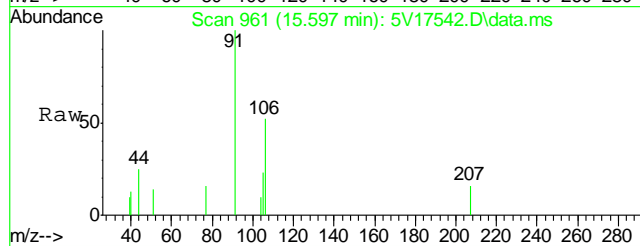
Tgt Ion: 92 Resp: 2050
Ion Ratio Lower Upper
92 100
91 177.1 146.7 186.7





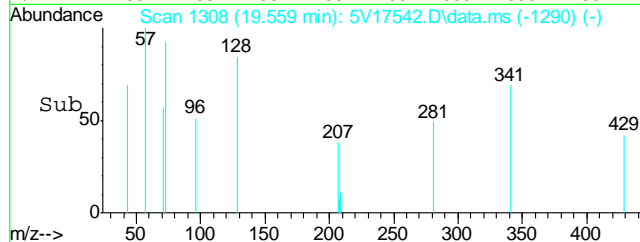
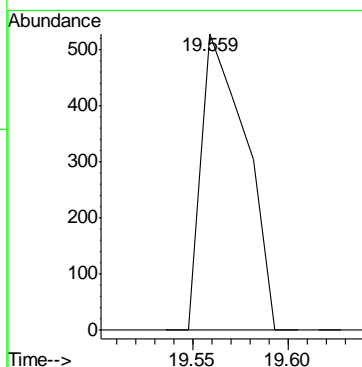
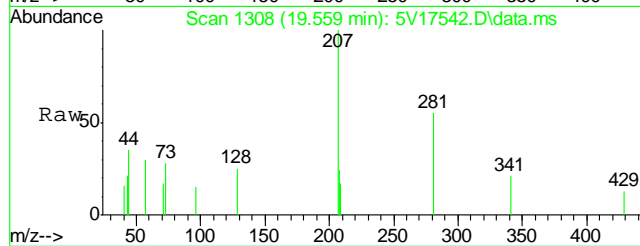
#73
o-xylene
Concen: 0.26 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17542.D
Acq: 16 Sep 2011 8:17 pm

Tgt Ion:106 Resp: 1834
Ion Ratio Lower Upper
106 100
91 224.4 157.4 236.2



#91
Naphthalene
Concen: 0.92 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17542.D
Acq: 16 Sep 2011 8:17 pm

Tgt Ion:128 Resp: 854



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17543.D
Acq On : 16 Sep 2011 8:49 pm
Operator : DONC
Sample : D27702-6, 50x
Misc : MS2711,V5V1042,5.087,,100,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 11:27:04 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	256082	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	365955	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	360969	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	226367	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	35308	56.39	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	112.78%
61) Toluene-d8	13.850	98	655964	51.13	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.26%
69) 4-Bromofluorobenzene	16.042	95	265490	49.88	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.76%

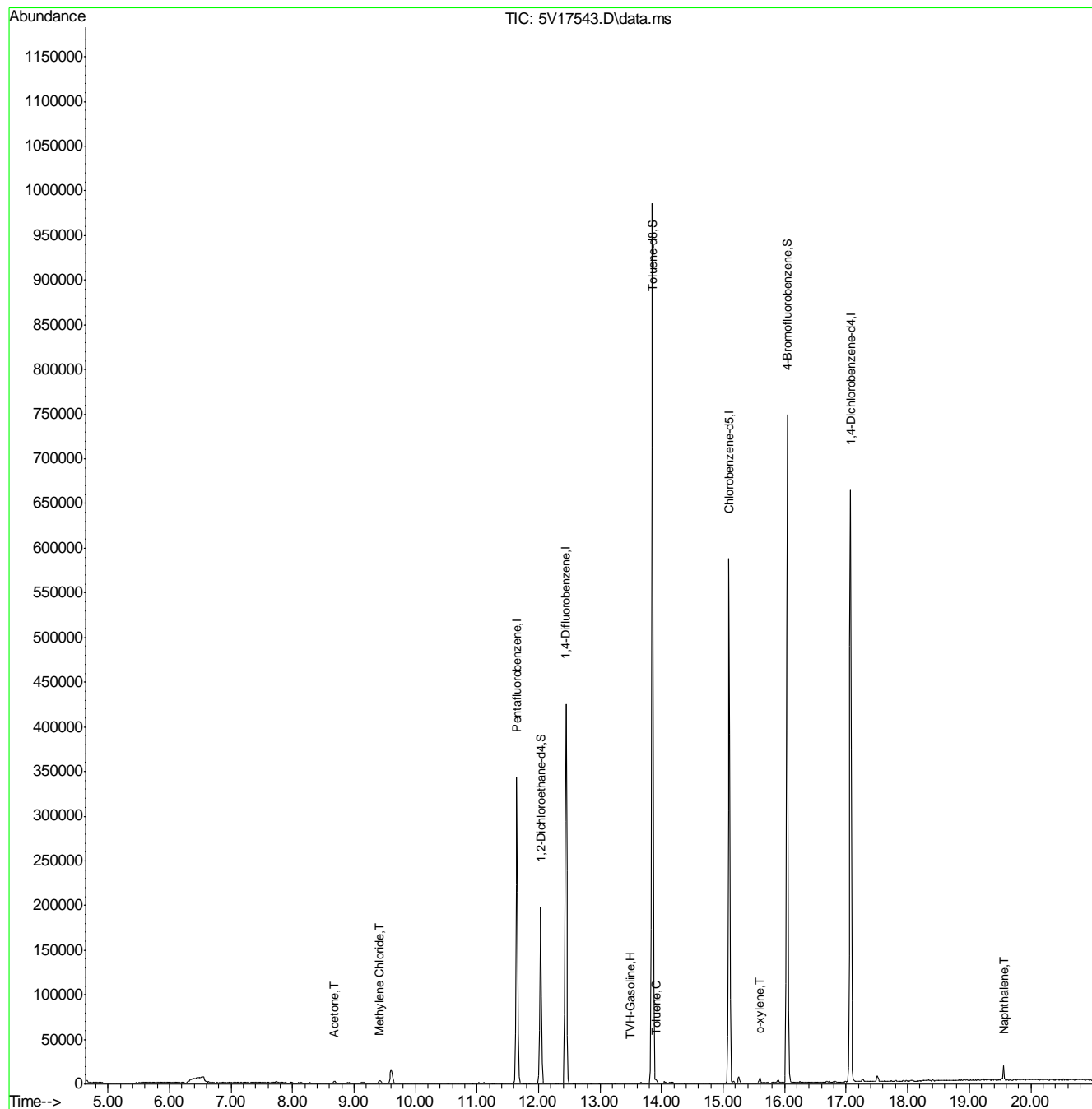
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	8580m	0.43	ug/l
15) Acetone	8.678	58	930	0.74	ug/l # 77
17) Methylene Chloride	9.421	84	1887	0.61	ug/l 89
62) Toluene	13.907	92	2021	0.22	ug/l 97
73) o-xylene	15.597	106	1675	0.23	ug/l 76
91) Naphthalene	19.570	128	437	0.88	ug/l 100

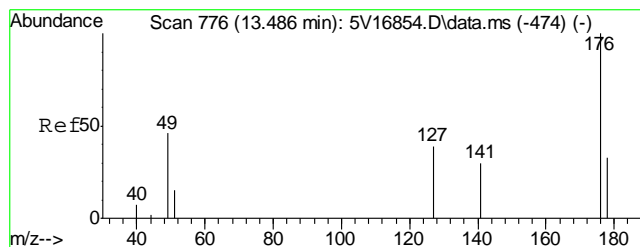
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17543.D
Acq On : 16 Sep 2011 8:49 pm
Operator : DONC
Sample : D27702-6, 50x
Misc : MS2711,V5V1042,5.087,,100,5,1
ALS Vial : 22 Sample Multiplier: 1

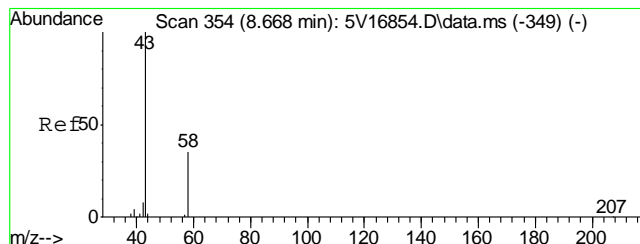
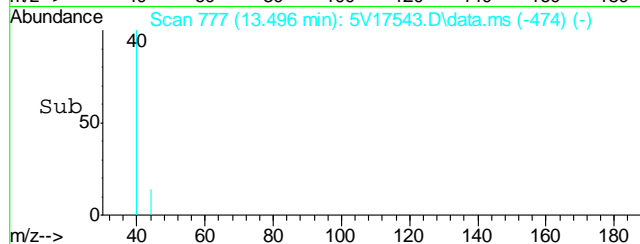
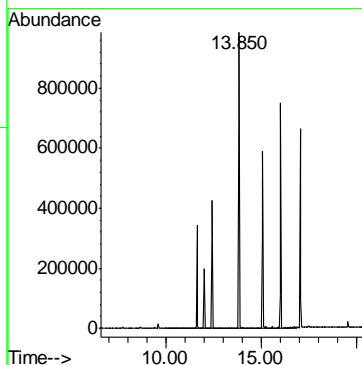
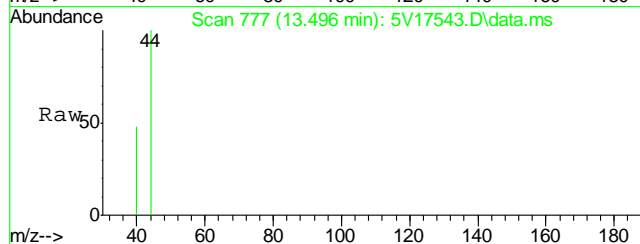
Quant Time: Sep 19 11:27:04 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





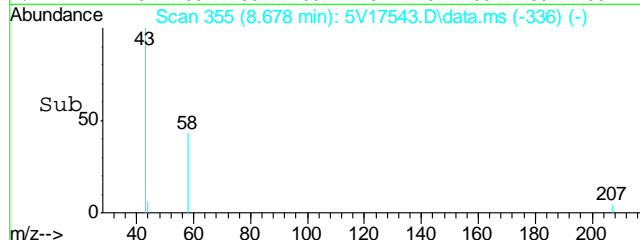
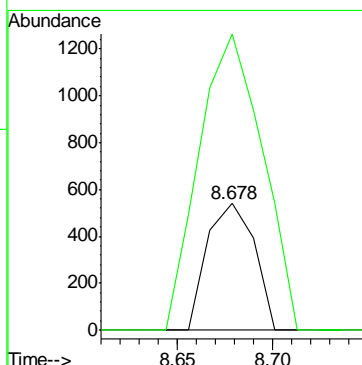
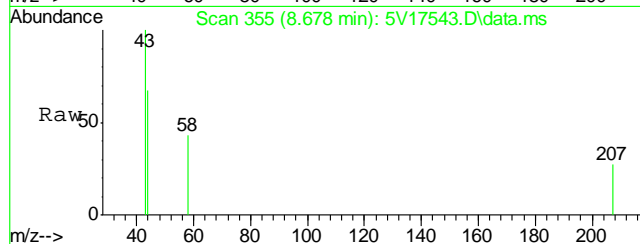
#1
TVH-Gasoline
Concen: 0.43 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17543.D
Acq: 16 Sep 2011 8:49 pm

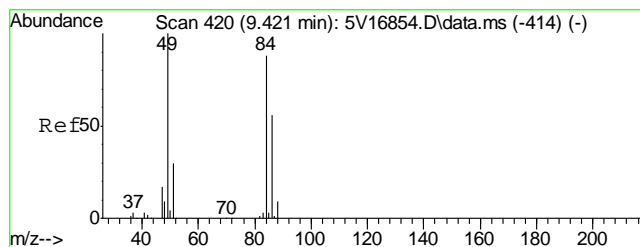
Tgt Ion:TIC Resp: 8580



#15
Acetone
Concen: 0.74 ug/l
RT: 8.678 min Scan# 355
Delta R.T. 0.011 min
Lab File: 5V17543.D
Acq: 16 Sep 2011 8:49 pm

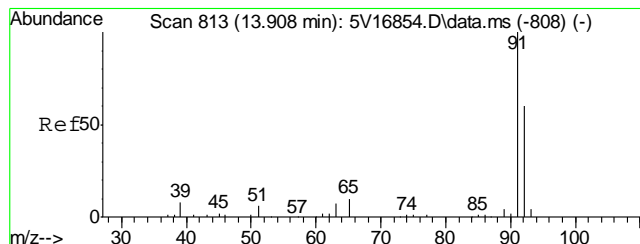
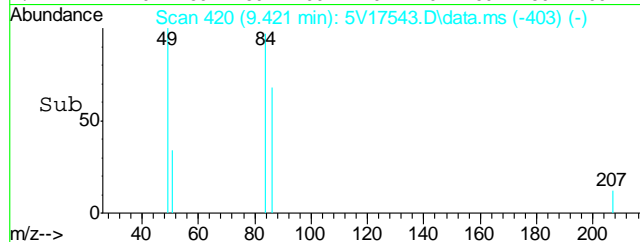
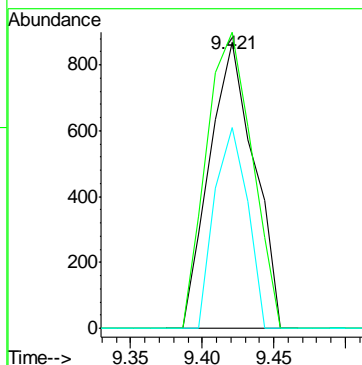
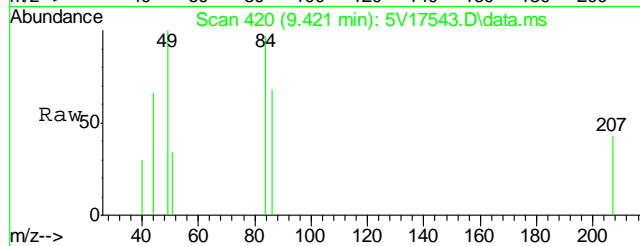
Tgt Ion: 58 Resp: 930
Ion Ratio Lower Upper
58 100
43 314.8 252.4 292.4#





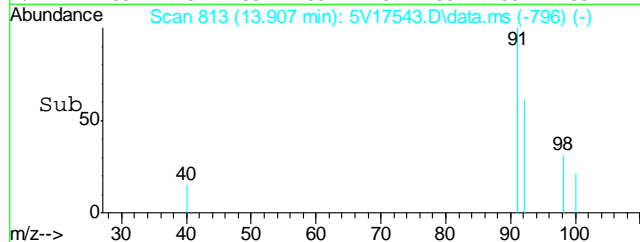
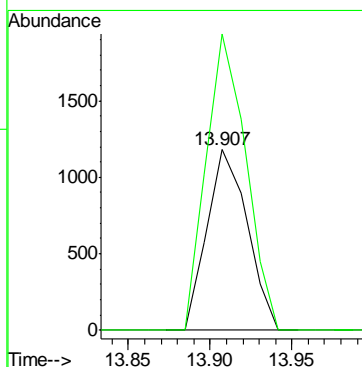
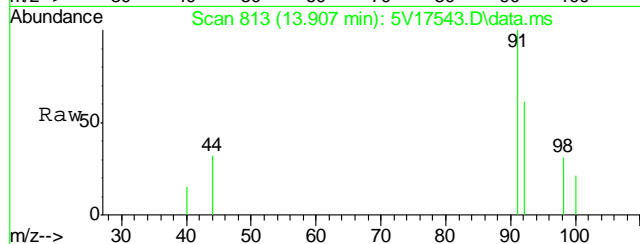
#17
Methylene Chloride
Concen: 0.61 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17543.D
Acq: 16 Sep 2011 8:49 pm

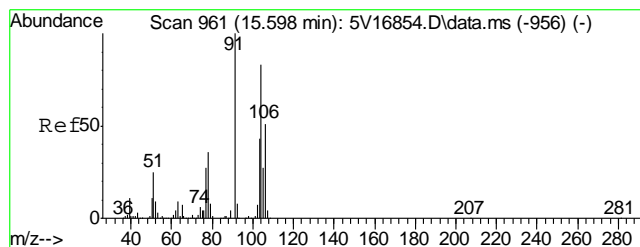
Tgt Ion	Ratio	Lower	Upper
84	100		
49	105.5	93.6	133.6
86	51.6	44.2	84.2



#62
Toluene
Concen: 0.22 ug/l
RT: 13.907 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17543.D
Acq: 16 Sep 2011 8:49 pm

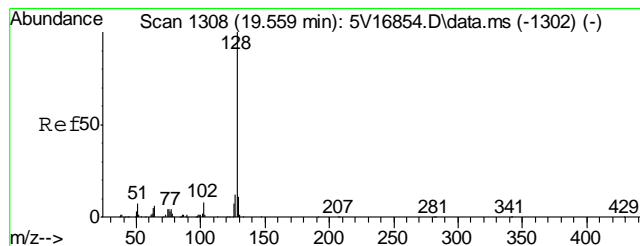
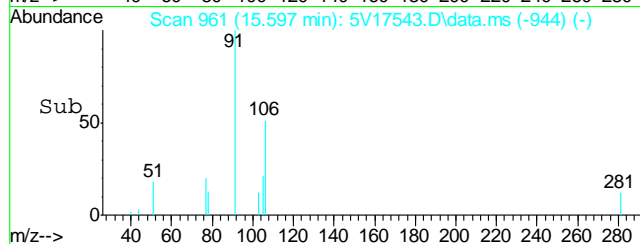
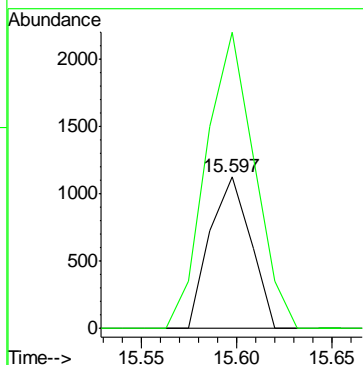
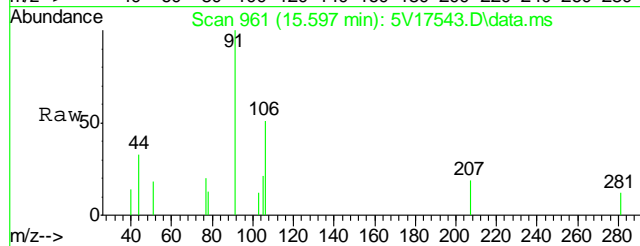
Tgt Ion	Ratio	Lower	Upper
92	100		
91	162.4	146.7	186.7





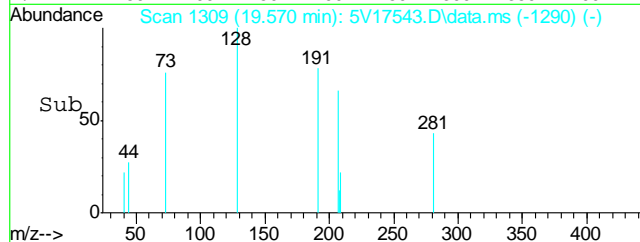
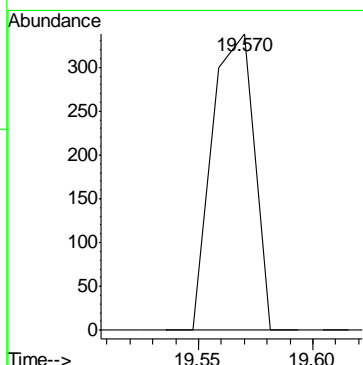
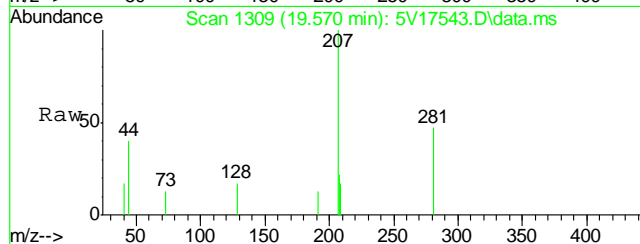
#73
o-xylene
Concen: 0.23 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17543.D
Acq: 16 Sep 2011 8:49 pm

Tgt Ion:106 Resp: 1675
Ion Ratio Lower Upper
106 100
91 232.4 157.4 236.2



#91
Naphthalene
Concen: 0.88 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.011 min
Lab File: 5V17543.D
Acq: 16 Sep 2011 8:49 pm

Tgt Ion:128 Resp: 437



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17524.D
Acq On : 16 Sep 2011 10:47 am
Operator : DONC
Sample : MB
Misc : MS2709,V5V1041,5,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 19 10:55:44 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	312356	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	441842	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	405314	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	232725	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	40038	52.42	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.84%
61) Toluene-d8	13.850	98	797278	55.35	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	110.70%
69) 4-Bromofluorobenzene	16.043	95	287803	48.16	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.32%

Target Compounds

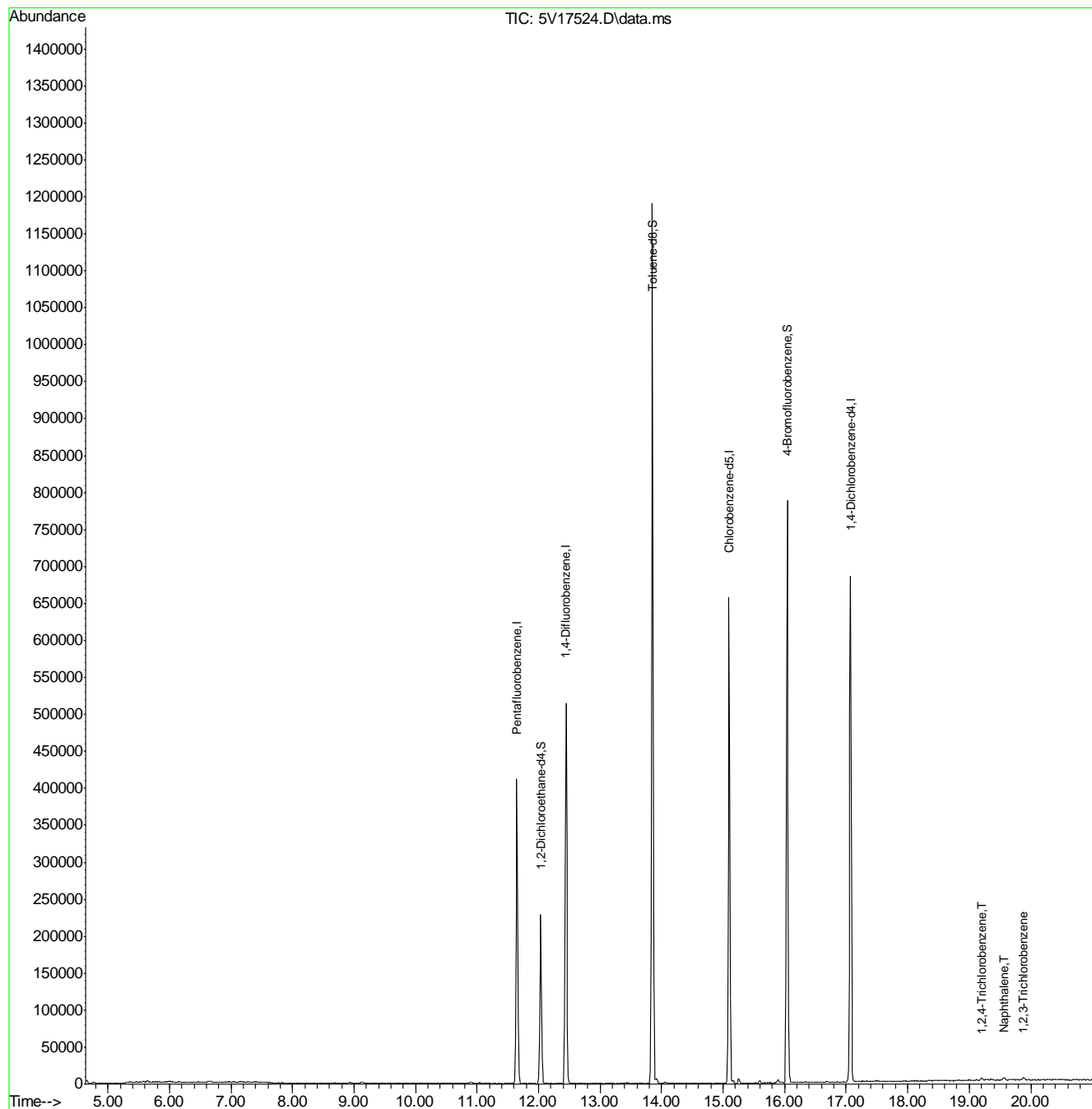
					Qvalue
1) TVH-Gasoline	13.491	TIC	-188m	Below Cal	
90) 1,2,4-Trichlorobenzene	19.205	180	1837	0.28 ug/l #	88
91) Naphthalene	19.570	128	5724	1.33 ug/l	100
93) 1,2,3-Trichlorobenzene	19.879	180	1981	0.34 ug/l #	87

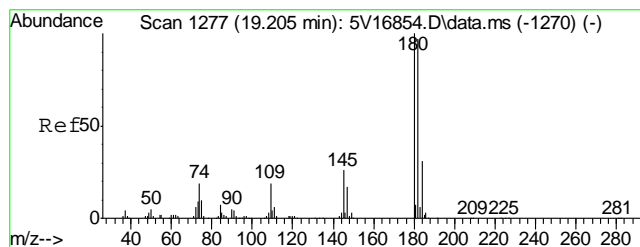
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5091611.S\
Data File : 5V17524.D
Acq On : 16 Sep 2011 10:47 am
Operator : DONC
Sample : MB
Misc : MS2709,V5V1041,5,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

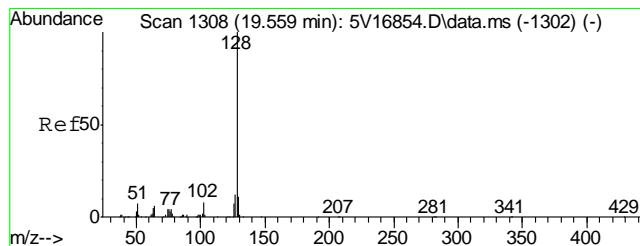
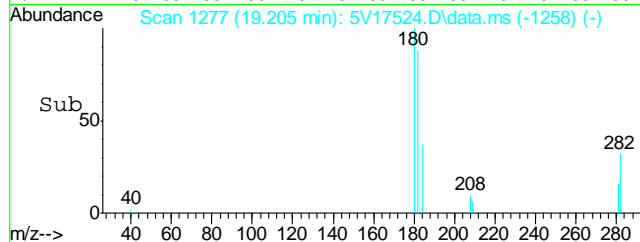
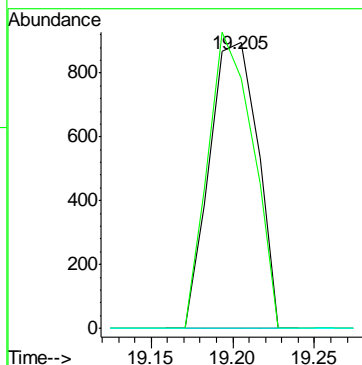
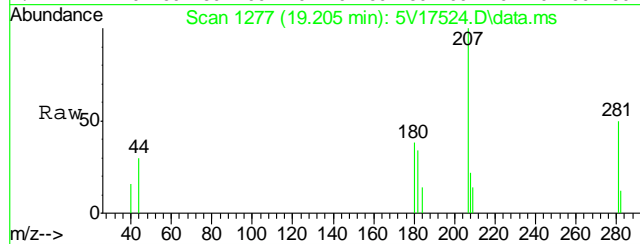
Quant Time: Sep 19 10:55:44 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





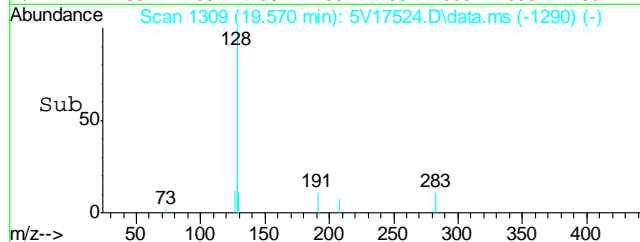
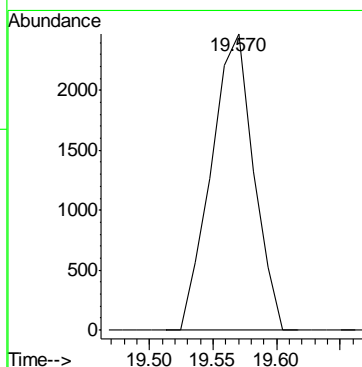
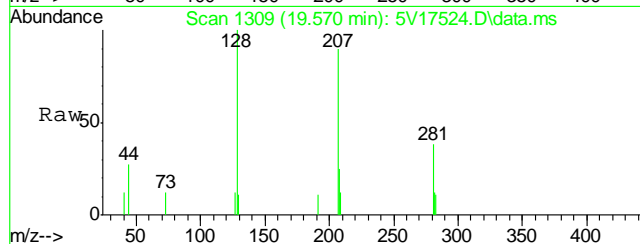
#90
1,2,4-Trichlorobenzene
Concen: 0.28 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V17524.D
Acq: 16 Sep 2011 10:47 am

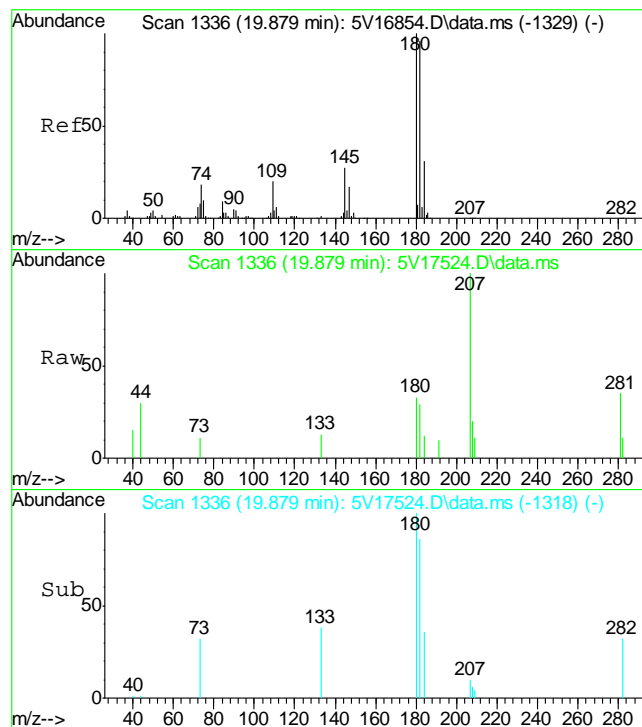
Tgt Ion:	180	Resp:	1837
Ion Ratio	Lower	Upper	
180	100		
182	97.0	76.3	114.5
145	0.0	20.7	31.1#



#91
Naphthalene
Concen: 1.33 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.011 min
Lab File: 5V17524.D
Acq: 16 Sep 2011 10:47 am

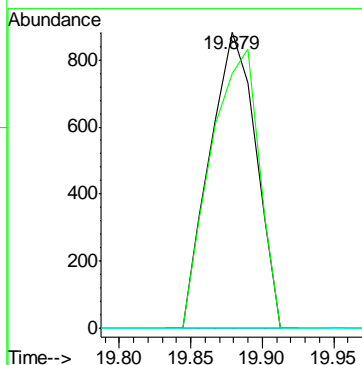
Tgt Ion:	128	Resp:	5724
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#93
1,2,3-Trichlorobenzene
Concen: 0.34 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. -0.000 min
Lab File: 5V17524.D
Acq: 16 Sep 2011 10:47 am

Tgt Ion	Ratio	Lower	Upper
180	100		
182	98.4	77.0	115.6
145	0.0	22.1	33.1



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D27702**Account:** KRWCCOL KRW Consulting, Inc.**Project:** XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB741-MB	GB12979.D	1	09/16/11	SK	n/a	n/a	GGB741

The QC reported here applies to the following samples:**Method:** SW846 8015B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	89% 60-140%

Blank Spike Summary

Job Number: D27702
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB741-BS	GB12980.D	1	09/16/11	SK	n/a	n/a	GGB741

The QC reported here applies to the following samples: Method: SW846 8015B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	123	112	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	102%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D27702
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D27702-1MS	GB12982.D	1	09/16/11	SK	n/a	n/a	GGB741
D27702-1MSD	GB12983.D	1	09/16/11	SK	n/a	n/a	GGB741
D27702-1	GB12981.D	1	09/16/11	SK	n/a	n/a	GGB741

The QC reported here applies to the following samples: Method: SW846 8015B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	D27702-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		133	151	114	147	111	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D27702-1	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	95%	88%	60-140%

GC Volatiles

Raw Data

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Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12981.D\FID1A.CH Vial: 6
 Signal #2 : Y:\1\DATA\091511\GB12981.D\FID2B.CH
 Acq On : 16 Sep 2011 8:12 pm Operator: StephK
 Sample : D27702-1, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.016,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 12:15:26 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB4.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

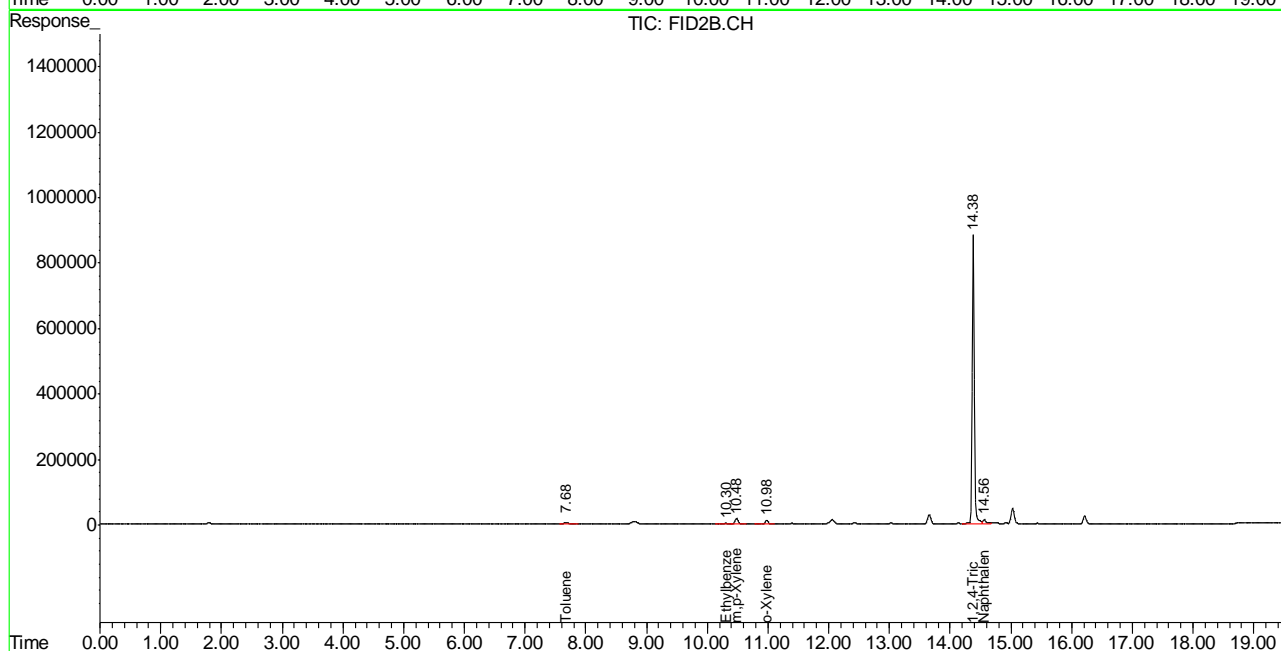
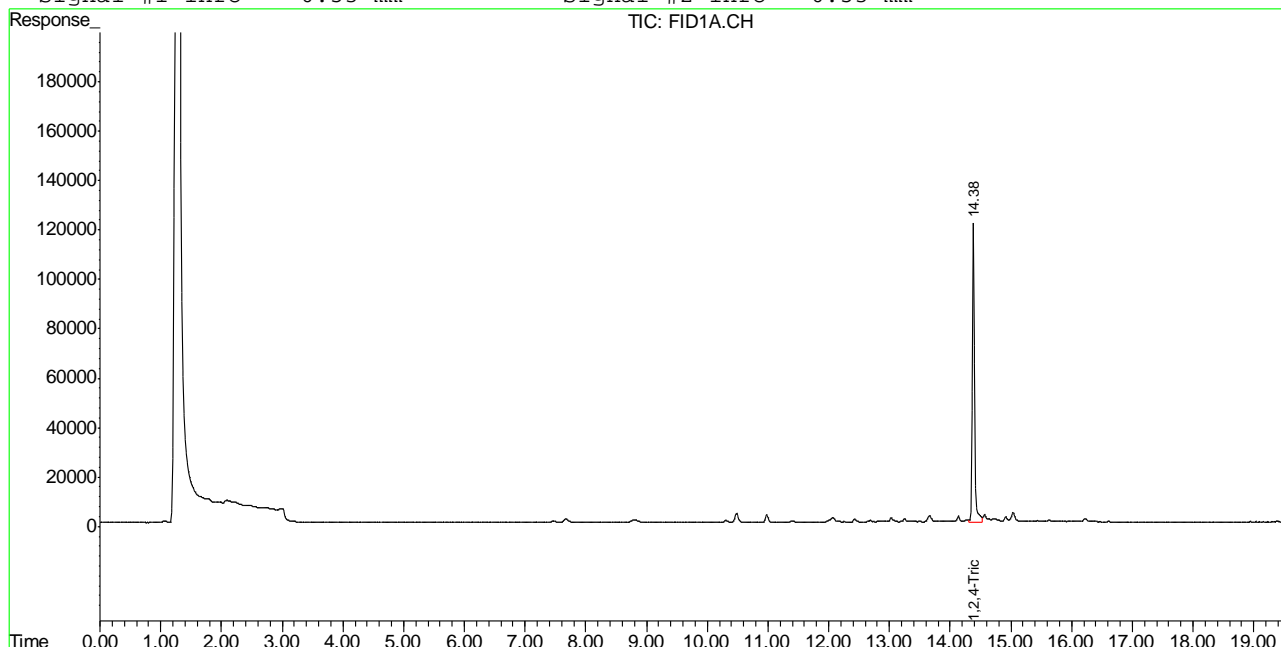
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.38	3044611	87.747	%
10) S	1,2,4-Trichlorobenzene (P)	14.38	21391369	106.369	%
Target Compounds					
1) H	TVH-Gasoline	7.33	6311179	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.68	360744	0.777	ug/L
7) T	Ethylbenzene	10.30	140202	0.348	ug/L
8) T	m,p-Xylene	10.48	699712	0.949	ug/L
9) T	o-Xylene	10.98	420302	0.822	ug/L
11) T	Naphthalene	14.56	534246	2.538	ug/L

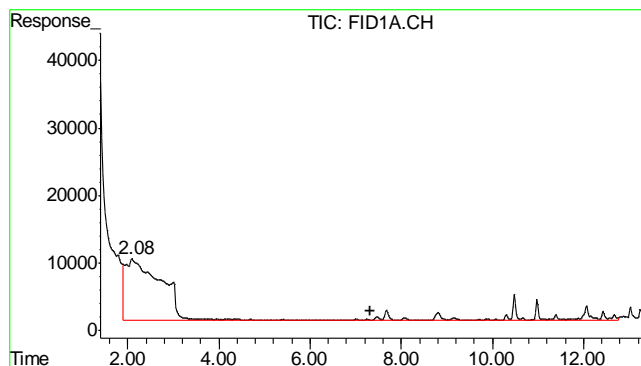
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12981.D\FID1A.CH Vial: 6
 Signal #2 : Y:\1\DATA\091511\GB12981.D\FID2B.CH
 Acq On : 16 Sep 2011 8:12 pm Operator: StephK
 Sample : D27702-1, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.016,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 11:19 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

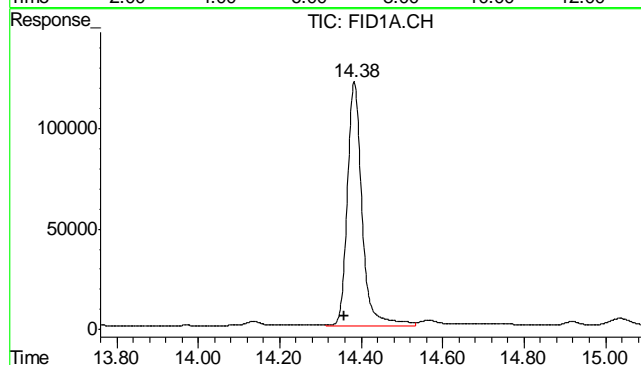
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





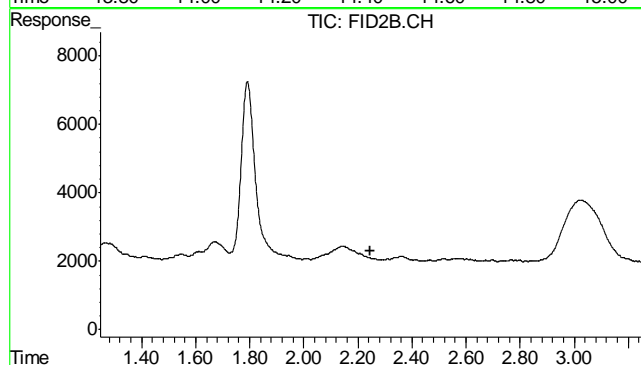
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 6311179
Conc: N.D.



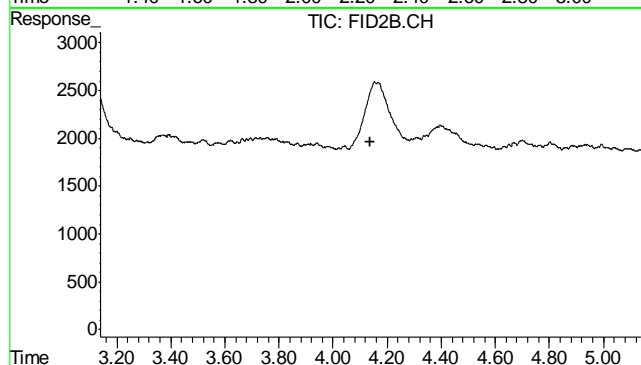
#2 1,2,4-Trichlorobenzene

R.T.: 14.383 min
Delta R.T.: 0.025 min
Response: 3044611
Conc: 87.75 %



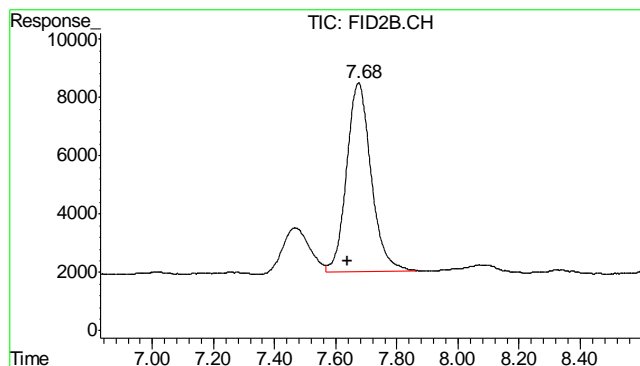
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.247 min
Response: 0
Conc: N.D.

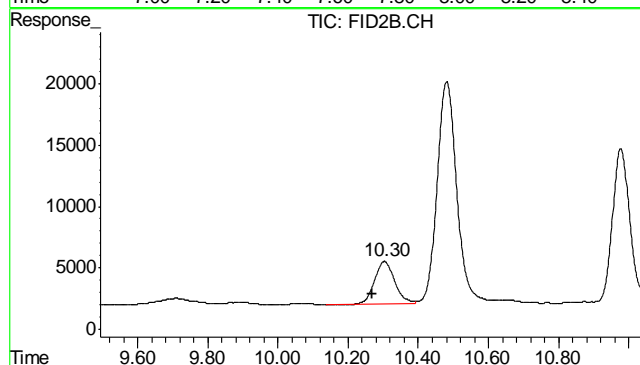


#5 Benzene

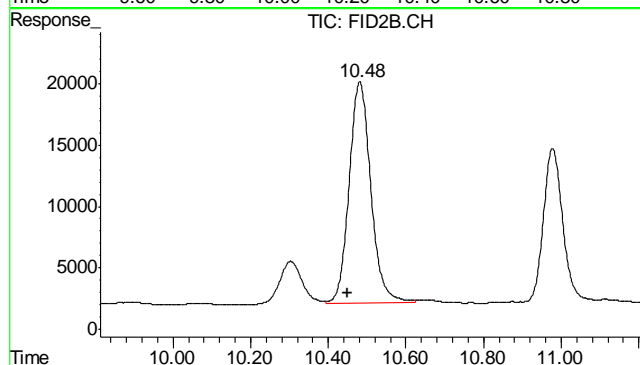
R.T.: 0.000 min
Exp R.T.: 4.138 min
Response: 0
Conc: N.D.



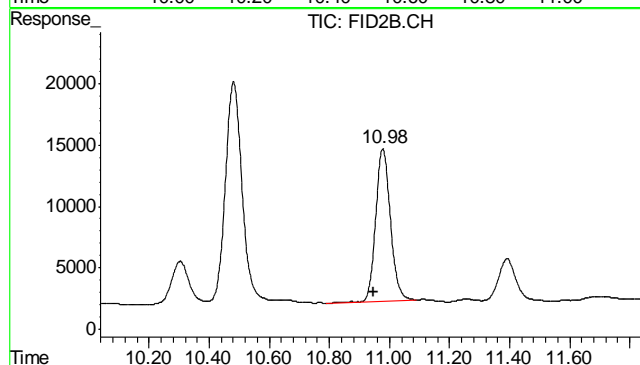
#6 Toluene
R.T.: 7.676 min
Delta R.T.: 0.038 min
Response: 360744
Conc: 0.78 ug/L



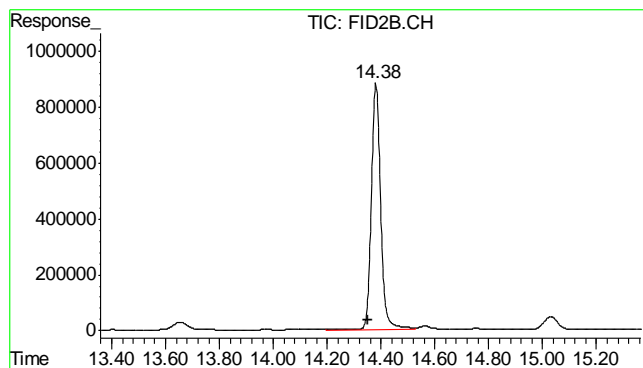
#7 Ethylbenzene
R.T.: 10.303 min
Delta R.T.: 0.034 min
Response: 140202
Conc: 0.35 ug/L



#8 m,p-Xylene
R.T.: 10.481 min
Delta R.T.: 0.031 min
Response: 699712
Conc: 0.95 ug/L

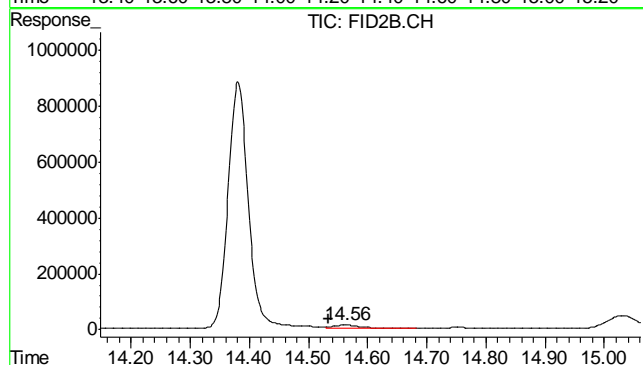


#9 o-Xylene
R.T.: 10.978 min
Delta R.T.: 0.031 min
Response: 420302
Conc: 0.82 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.381 min
 Delta R.T.: 0.028 min
 Response: 21391369
 Conc: 106.37 %



#11 Naphthalene

R.T.: 14.563 min
 Delta R.T.: 0.029 min
 Response: 534246
 Conc: 2.54 ug/L

8.1.1

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12988.D\FID1A.CH Vial: 13
 Signal #2 : Y:\1\DATA\091511\GB12988.D\FID2B.CH
 Acq On : 17 Sep 2011 12:23 am Operator: StephK
 Sample : D27702-2, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.056,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 12:15:54 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB4.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

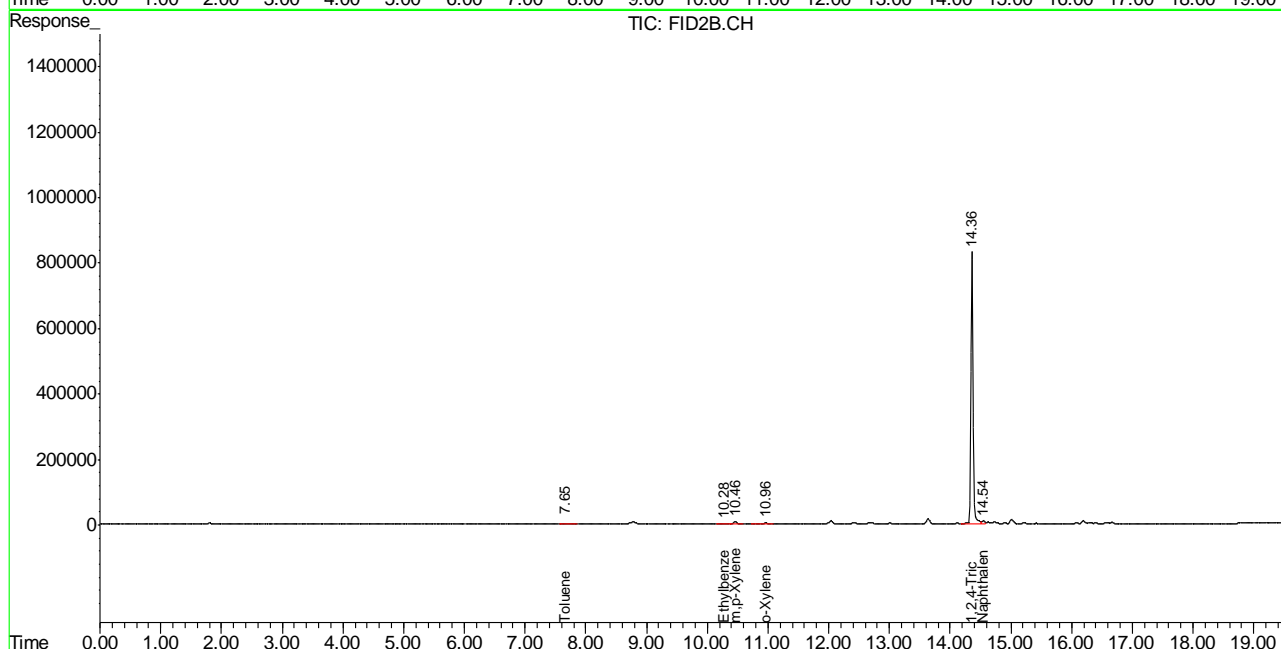
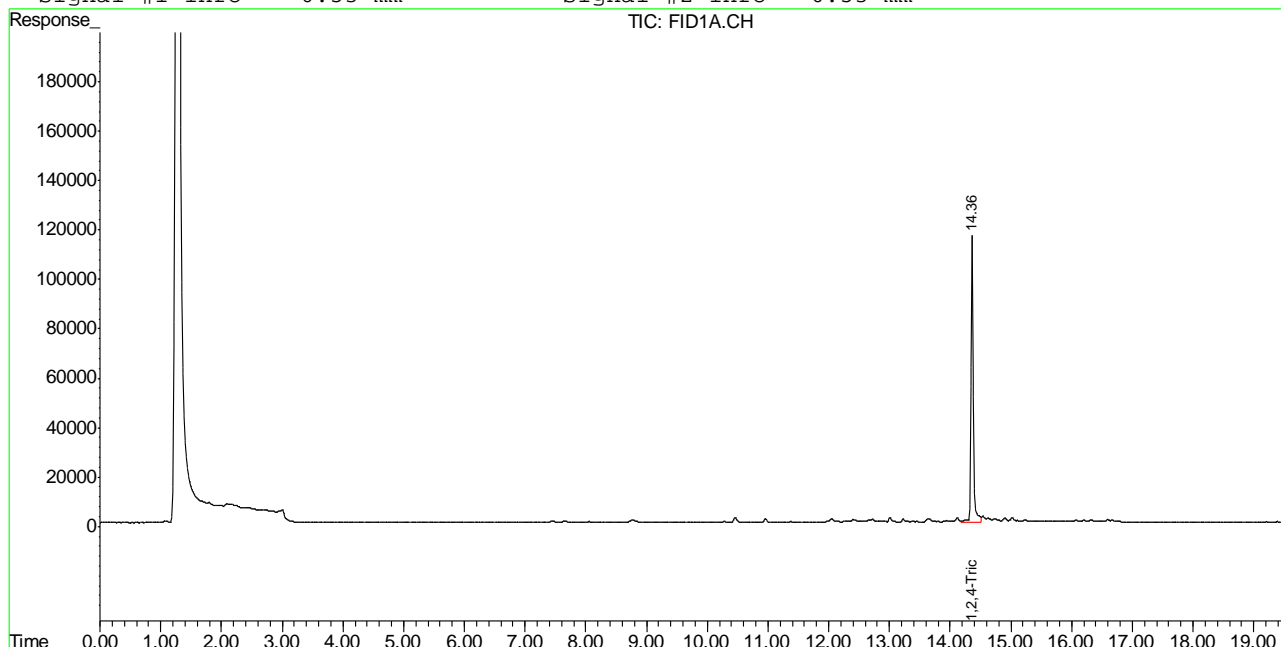
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	2956491	85.208	%
10) S	1,2,4-Trichlorobenzene (P)	14.36	20193649	100.413	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5385685	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.65	173032	0.372	ug/L
7) T	Ethylbenzene	10.28	81938	0.203	ug/L
8) T	m,p-Xylene	10.46	370673	0.249	ug/L
9) T	o-Xylene	10.96	210570	0.287	ug/L
11) T	Naphthalene	14.54	298972	1.535	ug/L

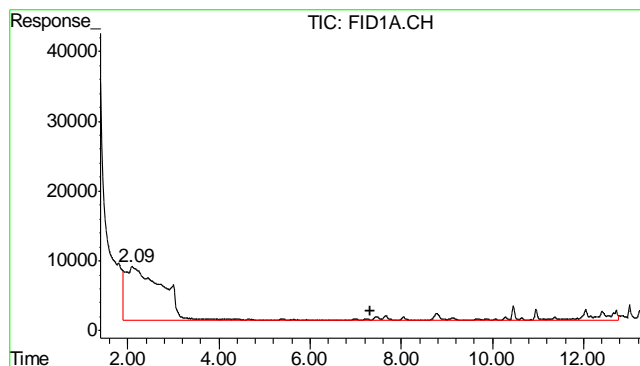
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12988.D\FID1A.CH Vial: 13
 Signal #2 : Y:\1\DATA\091511\GB12988.D\FID2B.CH
 Acq On : 17 Sep 2011 12:23 am Operator: StephK
 Sample : D27702-2, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.056,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 11:21 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

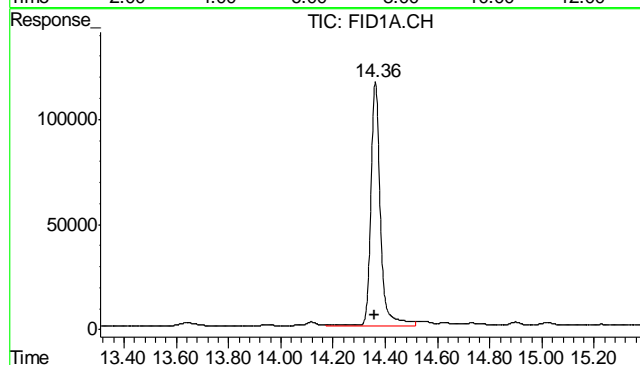
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





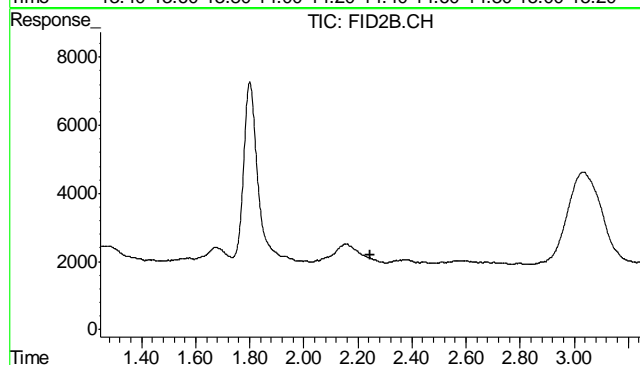
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5385685
Conc: N.D.



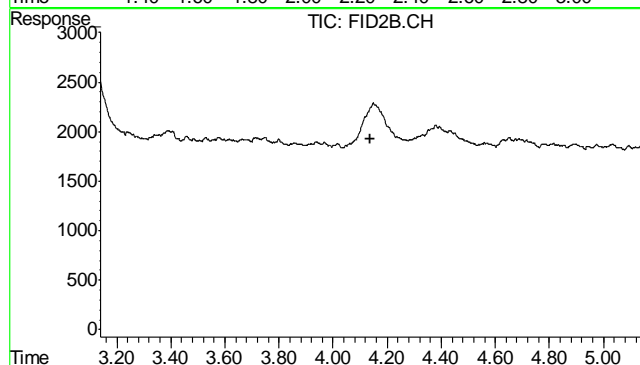
#2 1,2,4-Trichlorobenzene

R.T.: 14.362 min
Delta R.T.: 0.004 min
Response: 2956491
Conc: 85.21 %



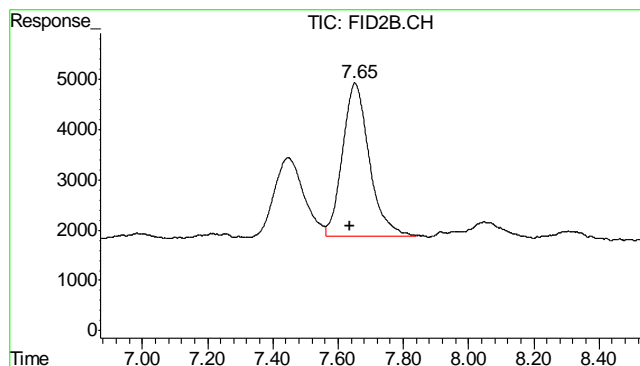
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.247 min
Response: 0
Conc: N.D.

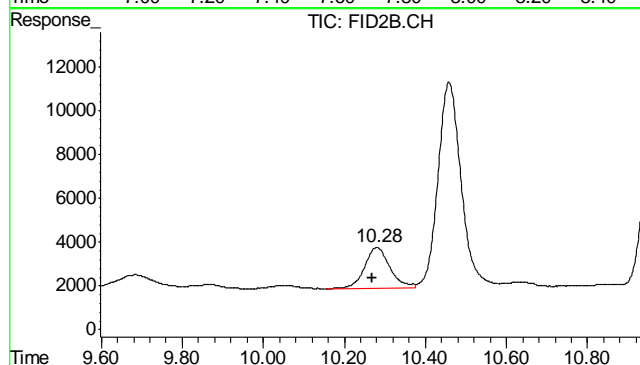


#5 Benzene

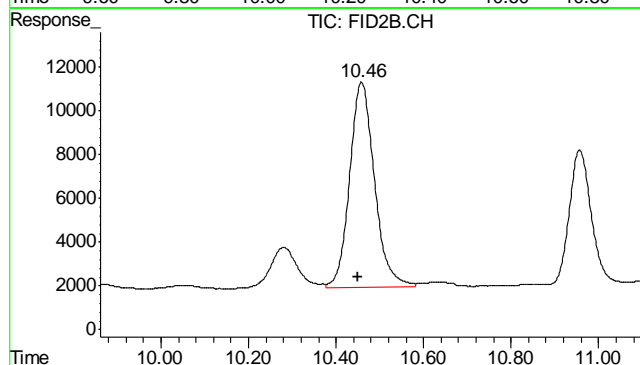
R.T.: 0.000 min
Exp R.T.: 4.138 min
Response: 0
Conc: N.D.



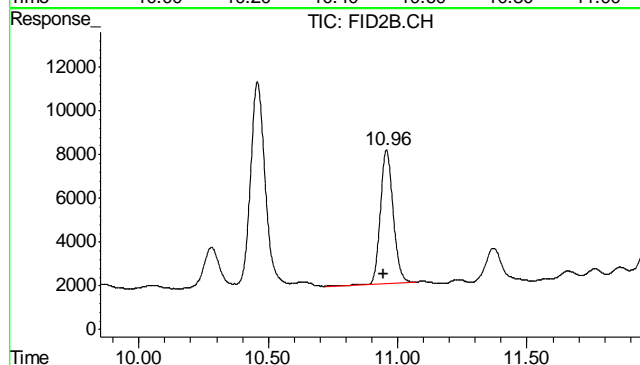
#6 Toluene
 R.T.: 7.652 min
 Delta R.T.: 0.014 min
 Response: 173032
 Conc: 0.37 ug/L



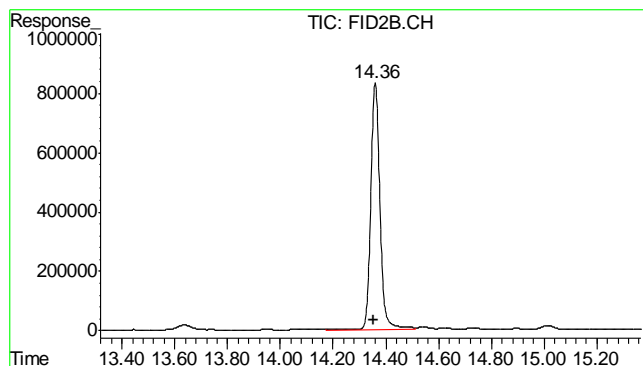
#7 Ethylbenzene
 R.T.: 10.281 min
 Delta R.T.: 0.012 min
 Response: 81938
 Conc: 0.20 ug/L



#8 m,p-Xylene
 R.T.: 10.458 min
 Delta R.T.: 0.008 min
 Response: 370673
 Conc: 0.25 ug/L

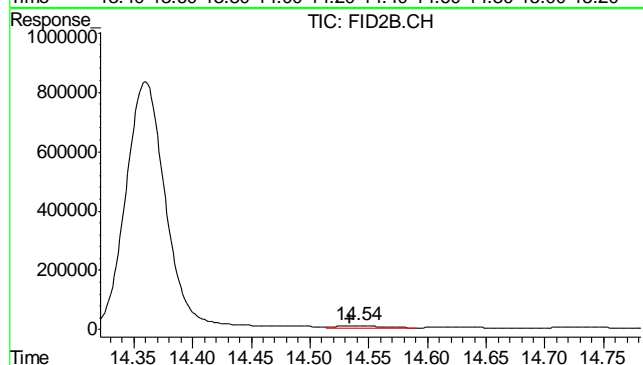


#9 o-Xylene
 R.T.: 10.957 min
 Delta R.T.: 0.010 min
 Response: 210570
 Conc: 0.29 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.360 min
Delta R.T.: 0.007 min
Response: 20193649
Conc: 100.41 %



#11 Naphthalene

R.T.: 14.540 min
Delta R.T.: 0.006 min
Response: 298972
Conc: 1.53 ug/L

8.1.2
8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12989.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\091511\GB12989.D\FID2B.CH
 Acq On : 17 Sep 2011 12:58 am Operator: StephK
 Sample : D27702-3, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.082,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 12:15:58 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB4.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

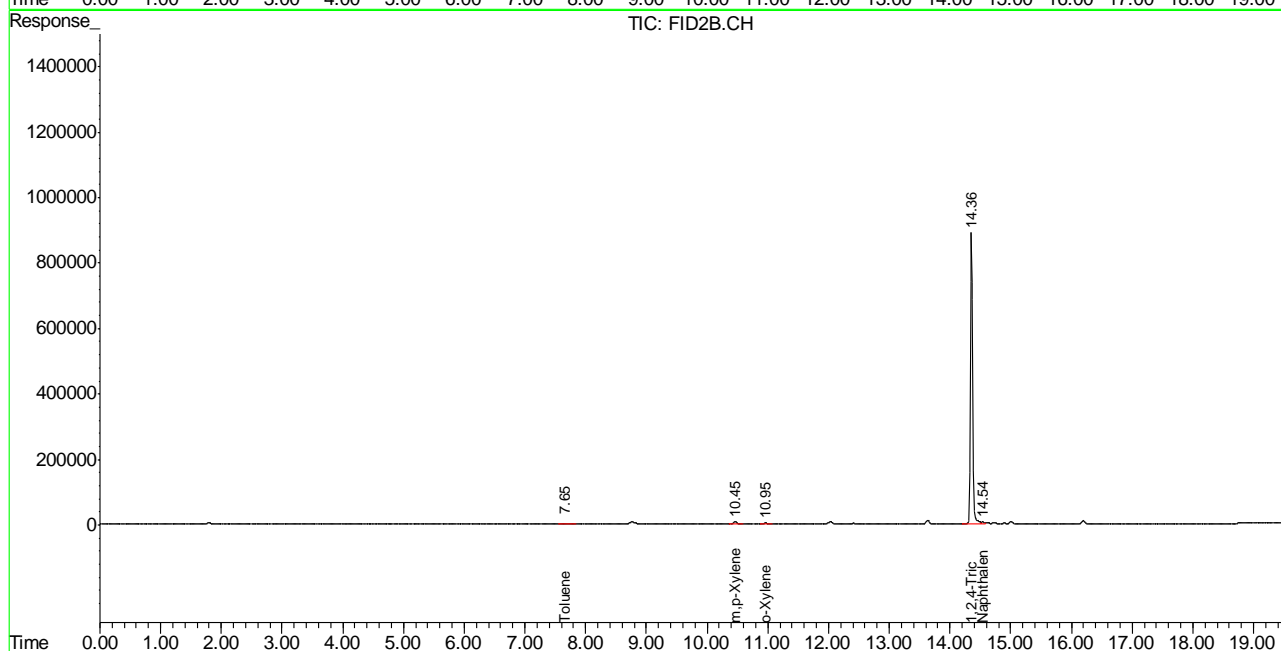
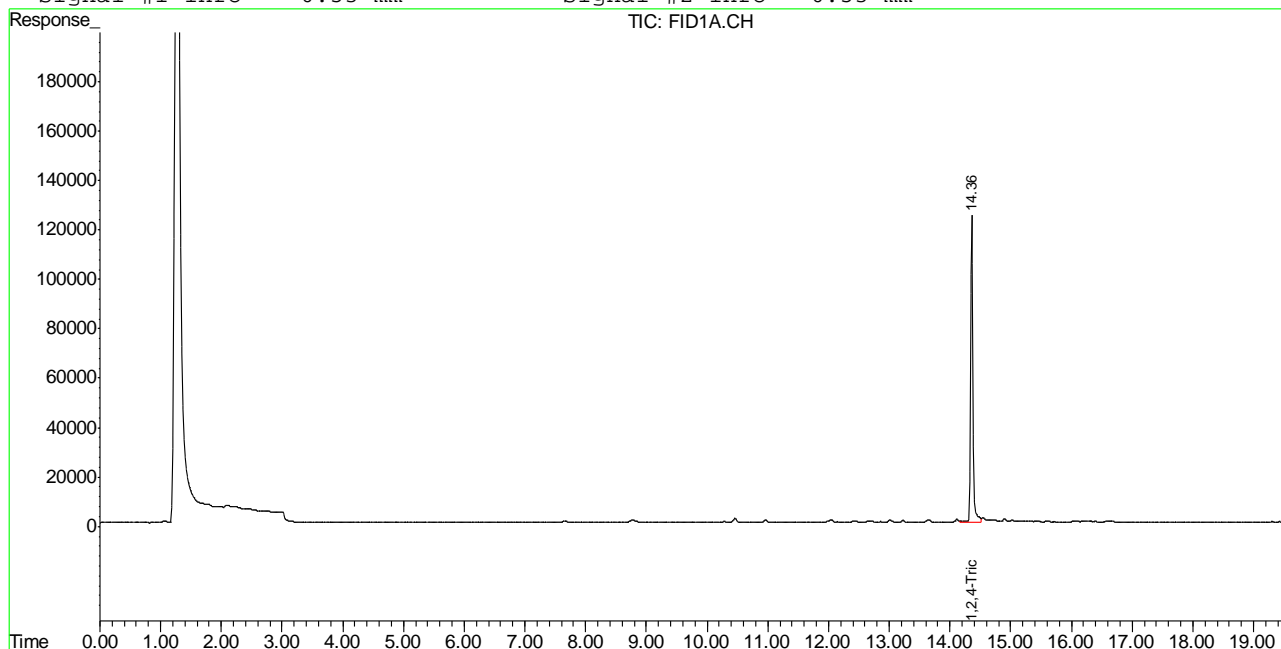
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	3083510	88.868	%
10) S	1,2,4-Trichlorobenzene (P)	14.36	21433416	106.578	%
Target Compounds					
1) H	TVH-Gasoline	7.33	4782669	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.65	169792	0.366	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.45	331152	0.165	ug/L
9) T	o-Xylene	10.95	166750	0.175	ug/L
11) T	Naphthalene	14.54	244797	1.304	ug/L

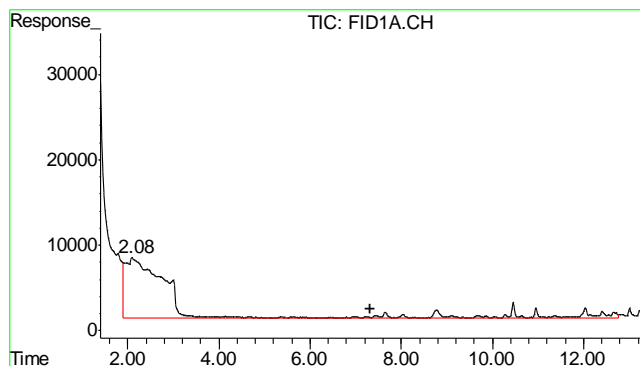
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12989.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\091511\GB12989.D\FID2B.CH
 Acq On : 17 Sep 2011 12:58 am Operator: StephK
 Sample : D27702-3, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.082,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 11:21 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

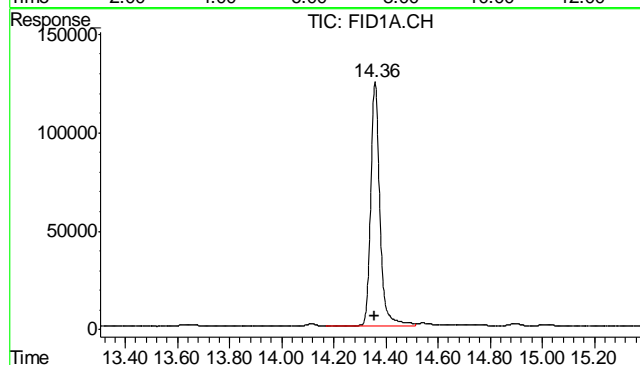
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





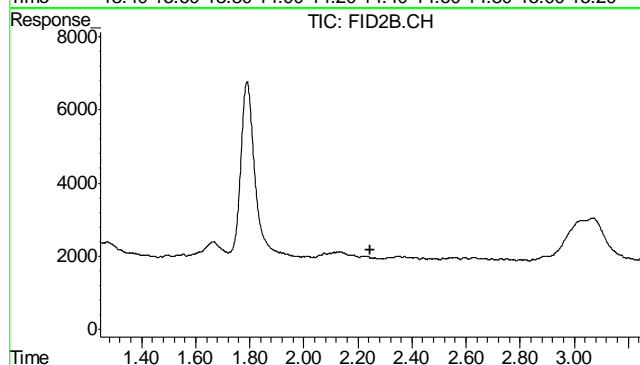
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 4782669
Conc: N.D.



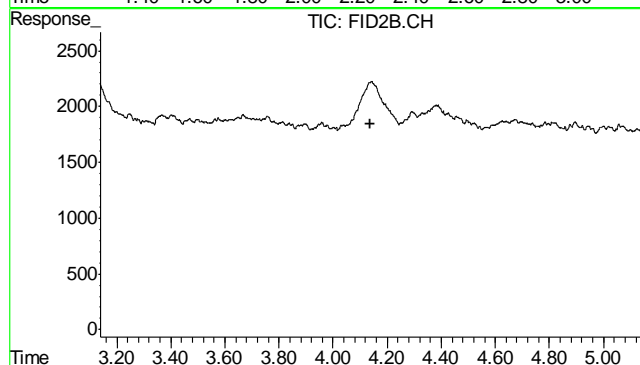
#2 1,2,4-Trichlorobenzene

R.T.: 14.359 min
Delta R.T.: 0.000 min
Response: 3083510
Conc: 88.87 %



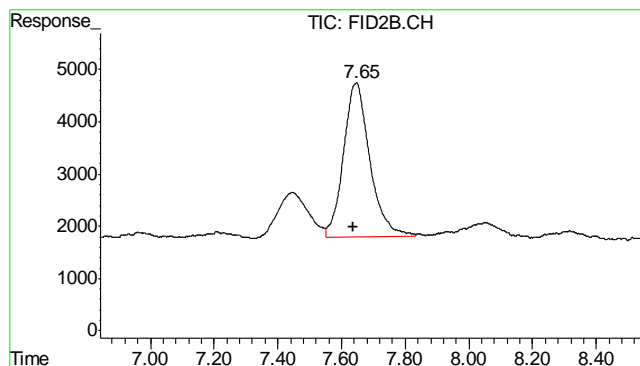
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.247 min
Response: 0
Conc: N.D.

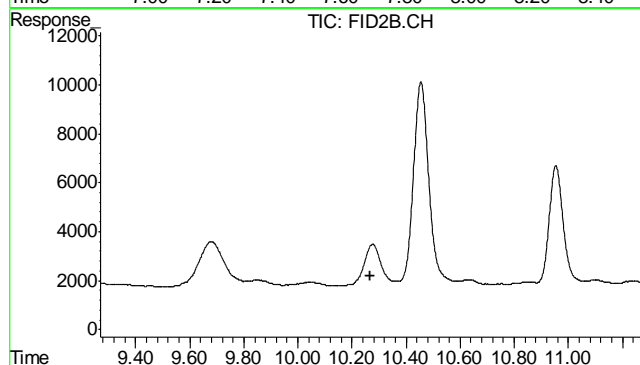


#5 Benzene

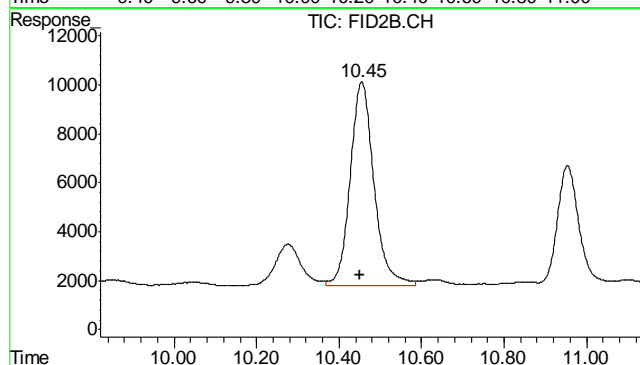
R.T.: 0.000 min
Exp R.T.: 4.138 min
Response: 0
Conc: N.D.



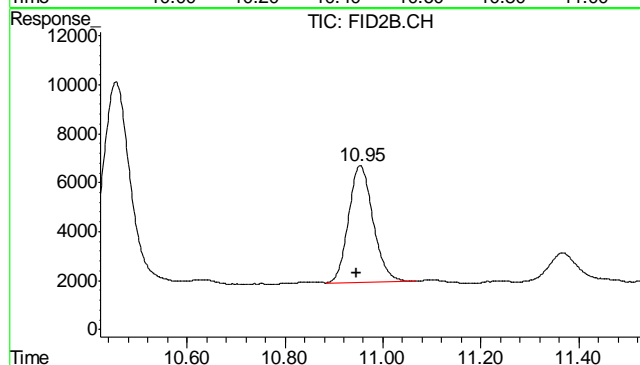
#6 Toluene
 R.T.: 7.647 min
 Delta R.T.: 0.009 min
 Response: 169792
 Conc: 0.37 ug/L



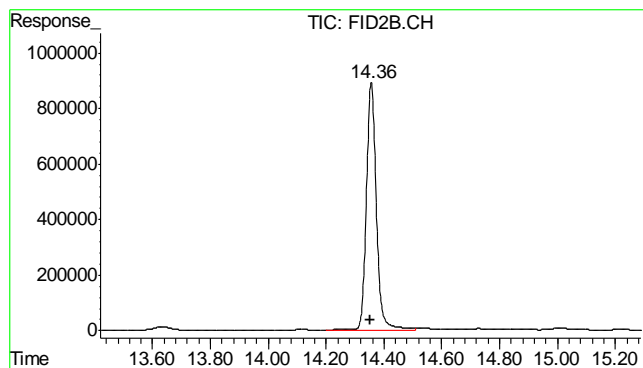
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T.: 10.269 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 10.455 min
 Delta R.T.: 0.005 min
 Response: 331152
 Conc: 0.17 ug/L

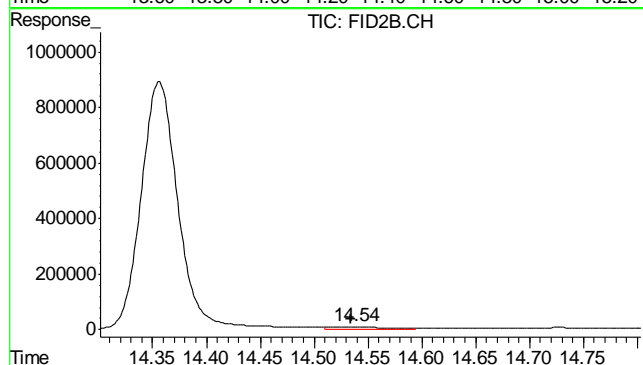


#9 o-Xylene
 R.T.: 10.954 min
 Delta R.T.: 0.007 min
 Response: 166750
 Conc: 0.18 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.357 min
 Delta R.T.: 0.004 min
 Response: 21433416
 Conc: 106.58 %



#11 Naphthalene

R.T.: 14.537 min
 Delta R.T.: 0.003 min
 Response: 244797
 Conc: 1.30 ug/L

8.1.3

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12990.D\FID1A.CH Vial: 15
Signal #2 : Y:\1\DATA\091511\GB12990.D\FID2B.CH
Acq On : 17 Sep 2011 1:34 am Operator: StephK
Sample : D27702-4, 50X Inst : GC/MS Ins
Misc : GC2240,GGB741,5.016,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 17 12:16:02 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Sat Sep 17 11:59:10 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

Compound		R.T.	Response	Conc	Units

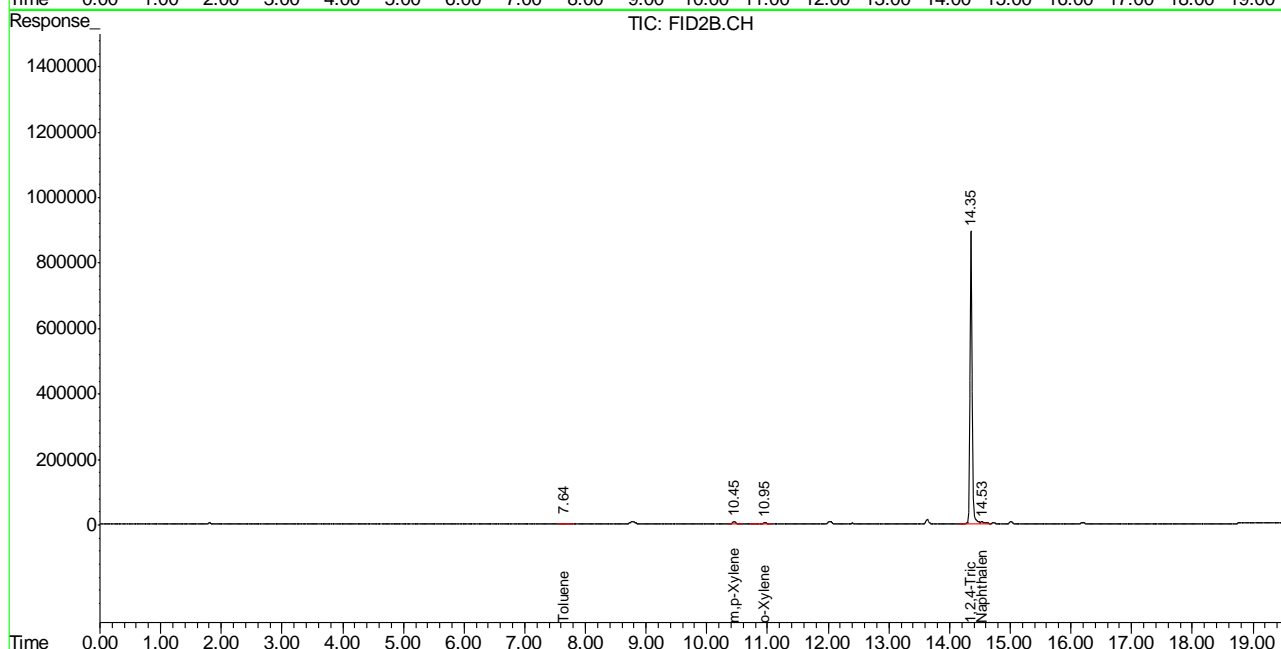
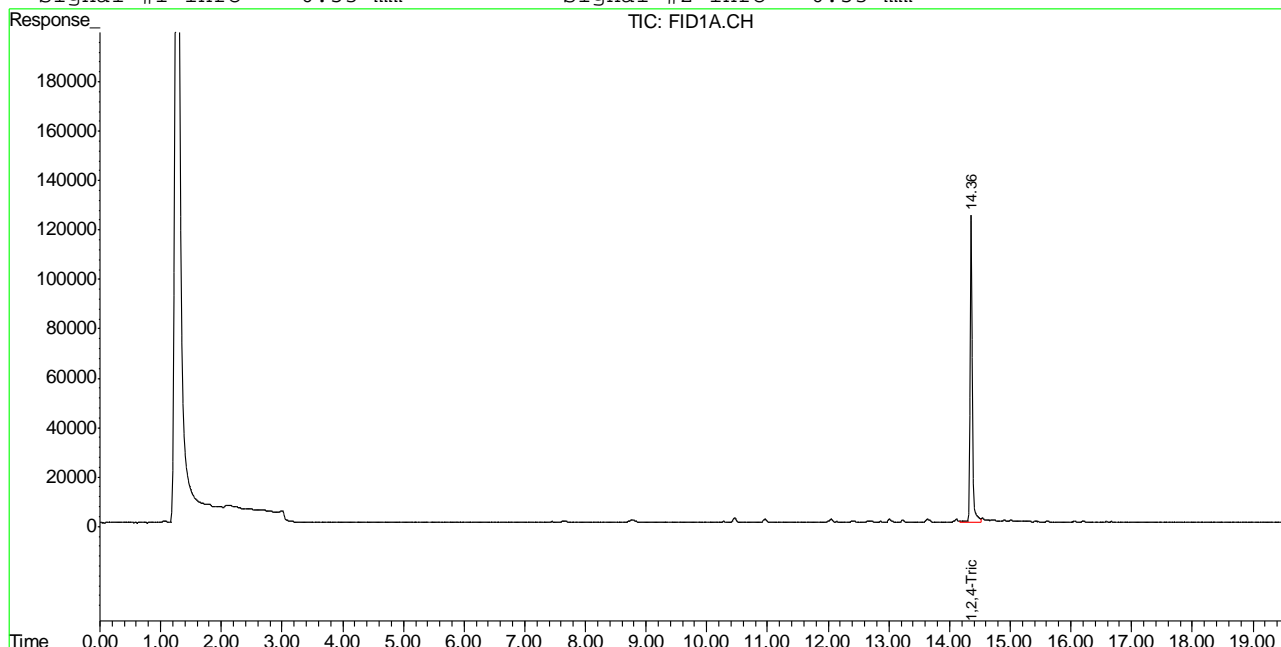
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	3059638	88.180	%
10) S	1,2,4-Trichlorobenzene (P)	14.35	21307895	105.954	%
Target Compounds					
1) H	TVH-Gasoline	7.33	4898839	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.64	175381	0.378	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.45	368329	0.244	ug/L
9) T	o-Xylene	10.95	213312	0.294	ug/L
11) T	Naphthalene	14.53	325015	1.646	ug/L

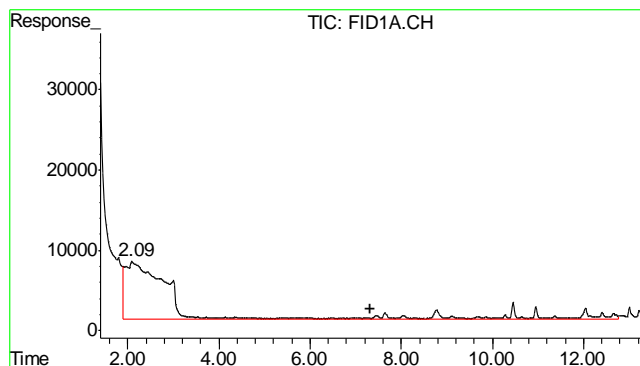
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12990.D\FID1A.CH Vial: 15
 Signal #2 : Y:\1\DATA\091511\GB12990.D\FID2B.CH
 Acq On : 17 Sep 2011 1:34 am Operator: StephK
 Sample : D27702-4, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.016,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 11:21 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

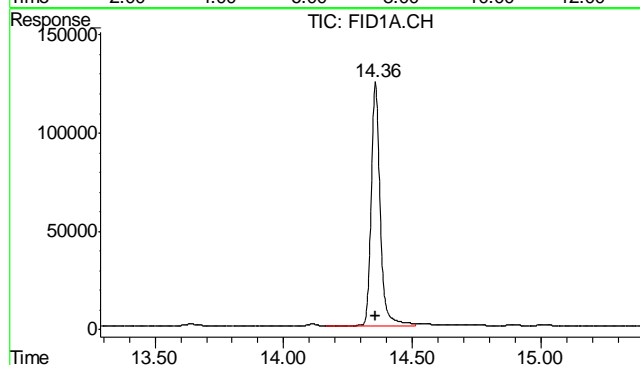
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





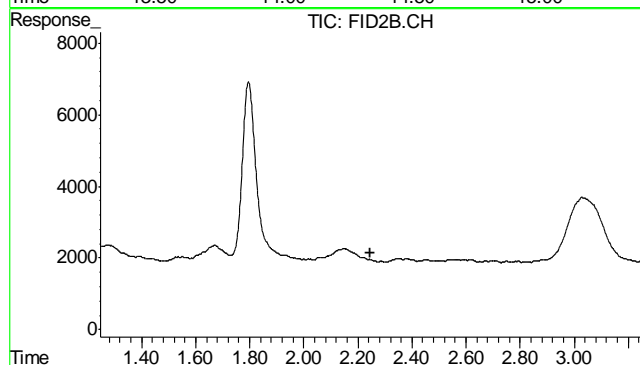
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 4898839
Conc: N.D.



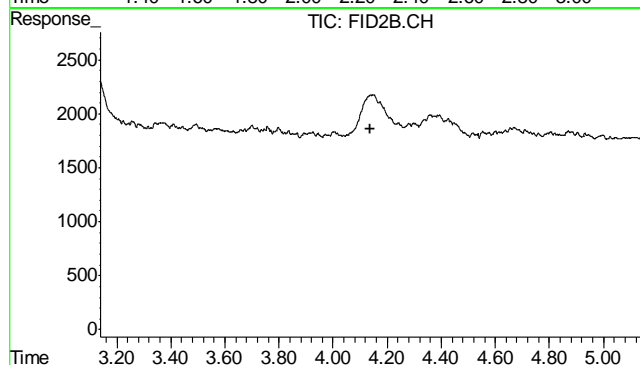
#2 1,2,4-Trichlorobenzene

R.T.: 14.357 min
Delta R.T.: -0.002 min
Response: 3059638
Conc: 88.18 %



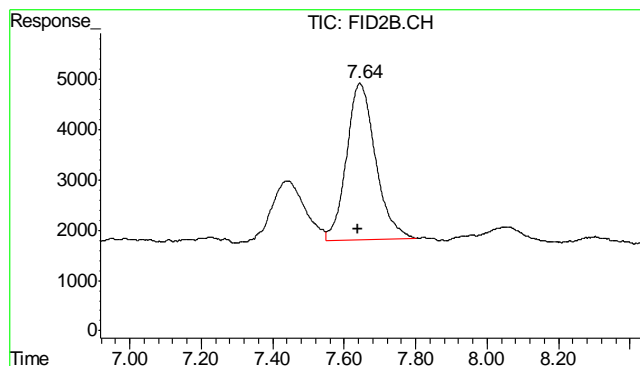
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.247 min
Response: 0
Conc: N.D.

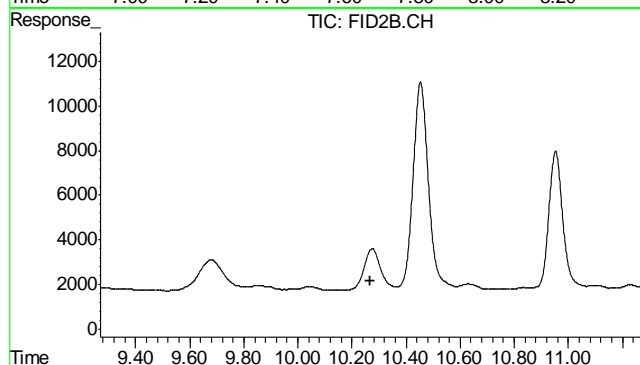


#5 Benzene

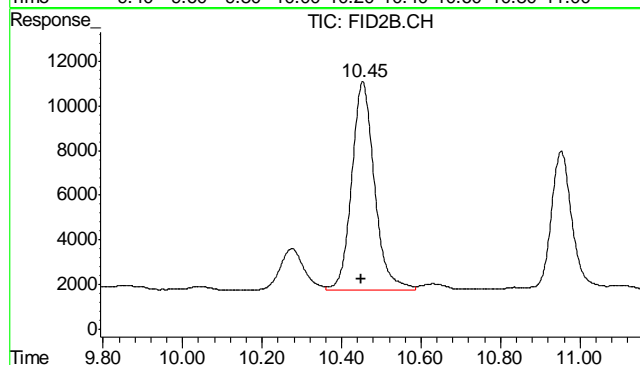
R.T.: 0.000 min
Exp R.T.: 4.138 min
Response: 0
Conc: N.D.



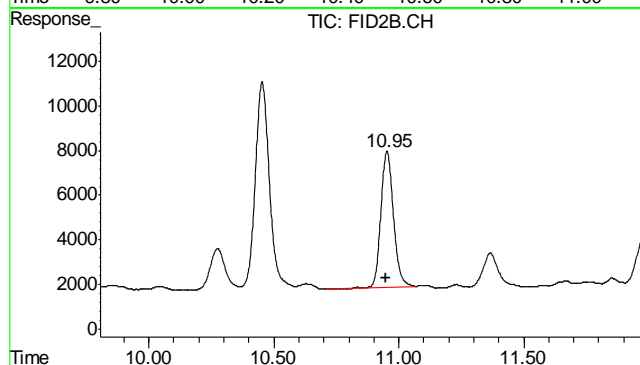
#6 Toluene
R.T.: 7.644 min
Delta R.T.: 0.006 min
Response: 175381
Conc: 0.38 ug/L



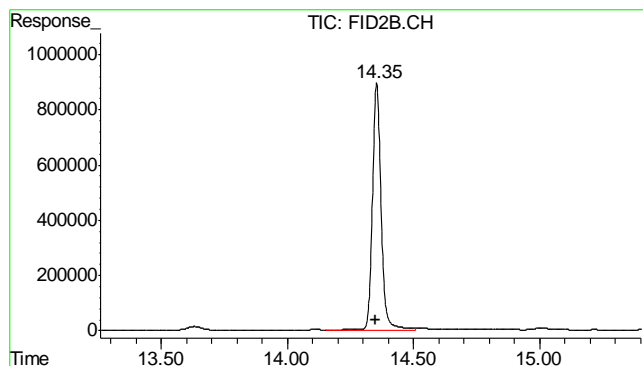
#7 Ethylbenzene
R.T.: 0.000 min
Exp R.T.: 10.269 min
Response: 0
Conc: N.D.



#8 m,p-Xylene
R.T.: 10.453 min
Delta R.T.: 0.003 min
Response: 368329
Conc: 0.24 ug/L

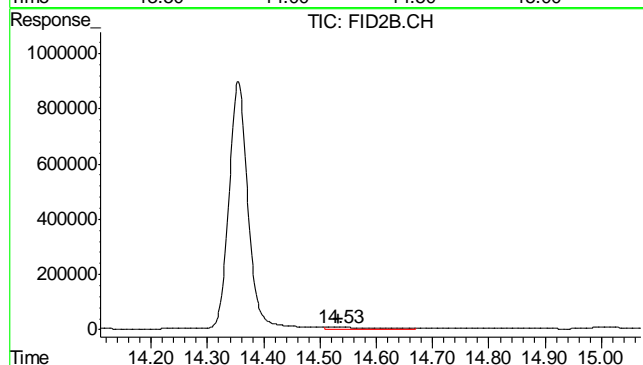


#9 o-Xylene
R.T.: 10.953 min
Delta R.T.: 0.006 min
Response: 213312
Conc: 0.29 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.355 min
 Delta R.T.: 0.002 min
 Response: 21307895
 Conc: 105.95 %



#11 Naphthalene

R.T.: 14.534 min
 Delta R.T.: 0.000 min
 Response: 325015
 Conc: 1.65 ug/L

8.1.4

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12991.D\FID1A.CH Vial: 16
Signal #2 : Y:\1\DATA\091511\GB12991.D\FID2B.CH
Acq On : 17 Sep 2011 2:10 am Operator: StephK
Sample : D27702-5, 50X Inst : GC/MS Ins
Misc : GC2240,GGB741,5.072,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 17 12:16:06 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Sat Sep 17 11:59:10 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

Compound		R.T.	Response	Conc	Units

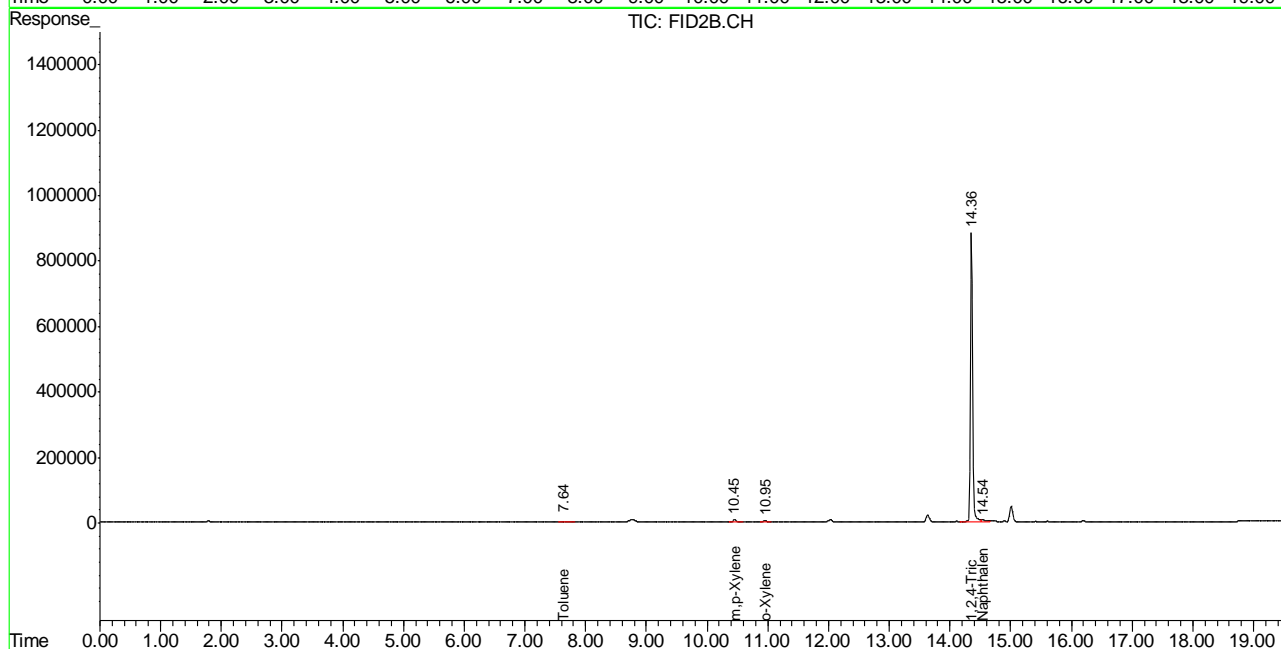
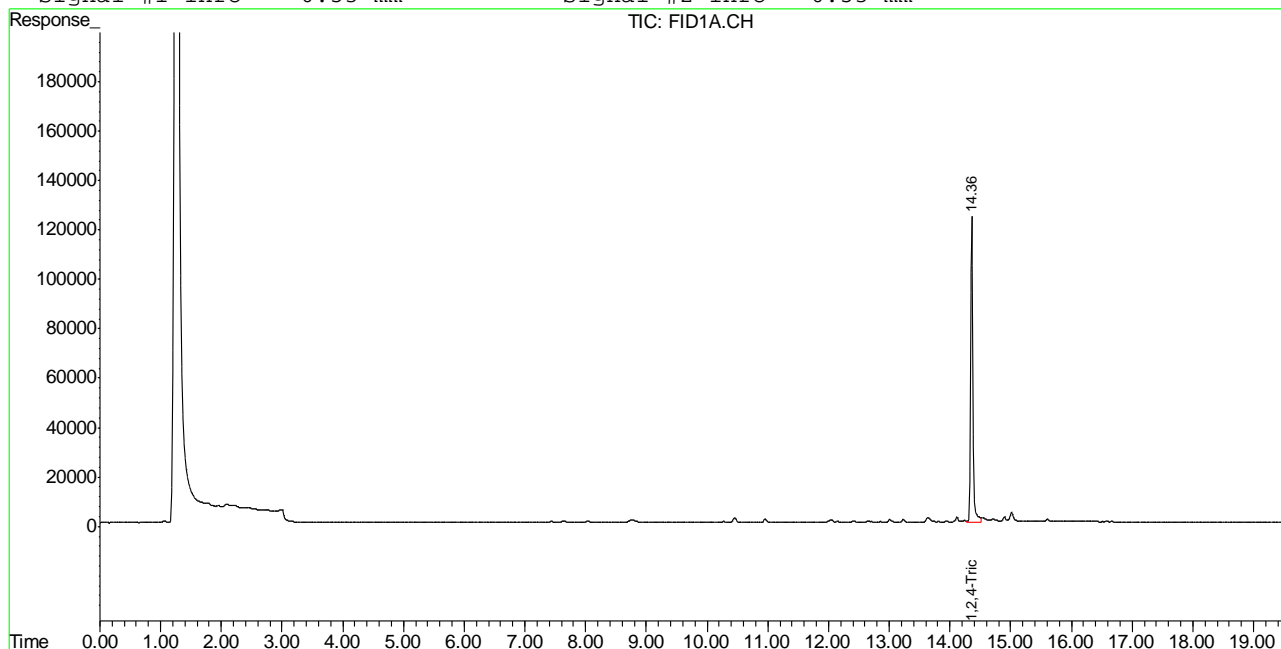
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	3077219	88.687	%
10) S	1,2,4-Trichlorobenzene (P)	14.36	21339486	106.111	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5188838	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.64	173582	0.374	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.45	350822	0.207	ug/L
9) T	o-Xylene	10.95	186738	0.226	ug/L
11) T	Naphthalene	14.54	320434	1.626	ug/L

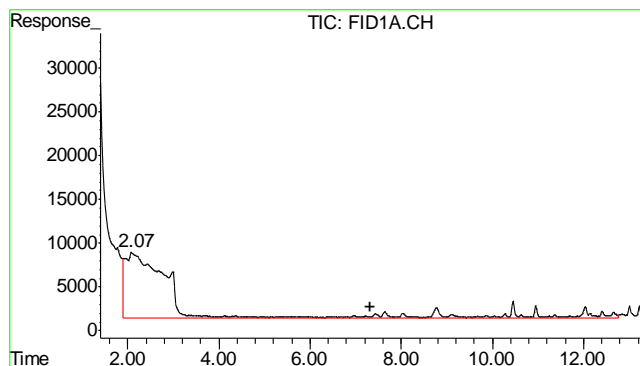
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12991.D\FID1A.CH Vial: 16
 Signal #2 : Y:\1\DATA\091511\GB12991.D\FID2B.CH
 Acq On : 17 Sep 2011 2:10 am Operator: StephK
 Sample : D27702-5, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.072,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 11:21 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

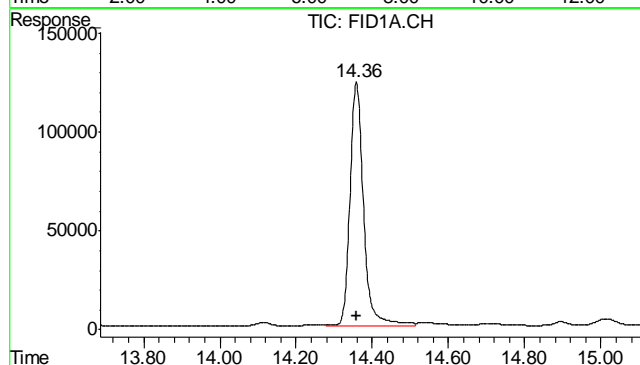
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





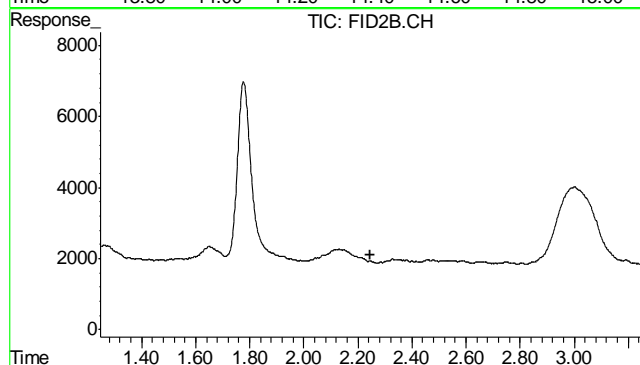
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5188838
Conc: N.D.



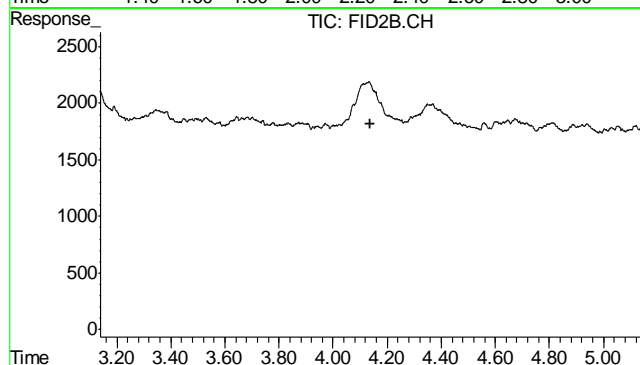
#2 1,2,4-Trichlorobenzene

R.T.: 14.359 min
Delta R.T.: 0.000 min
Response: 3077219
Conc: 88.69 %



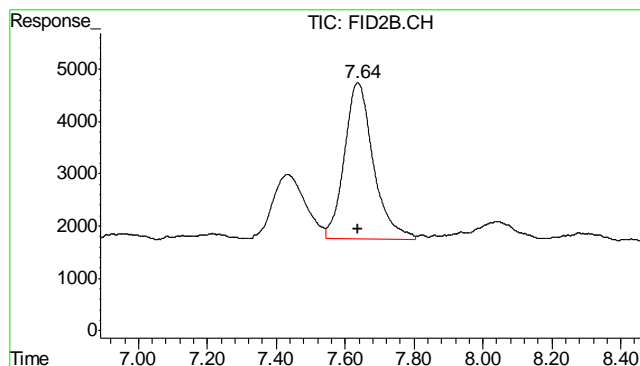
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.247 min
Response: 0
Conc: N.D.

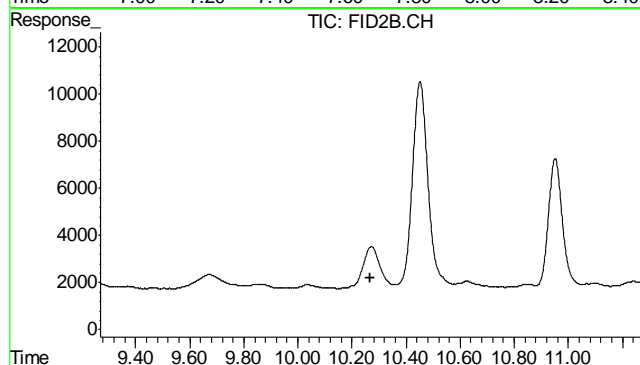


#5 Benzene

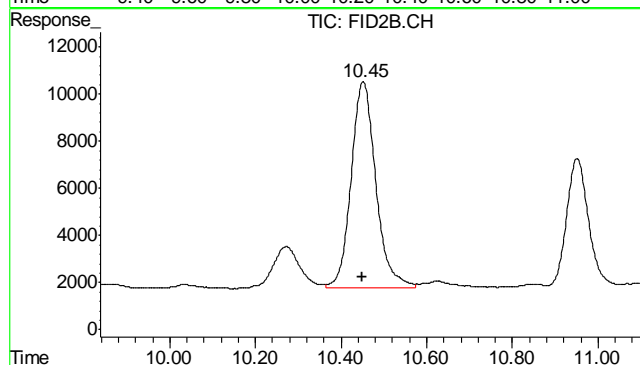
R.T.: 0.000 min
Exp R.T.: 4.138 min
Response: 0
Conc: N.D.



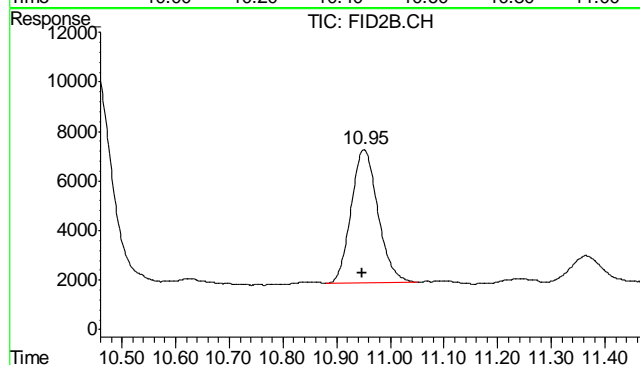
#6 Toluene
 R.T.: 7.637 min
 Delta R.T.: 0.000 min
 Response: 173582
 Conc: 0.37 ug/L



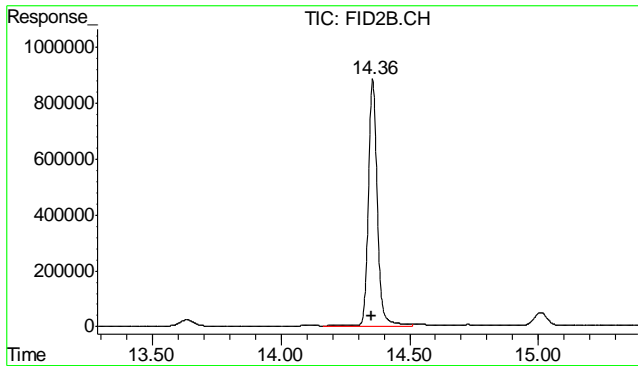
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T.: 10.269 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 10.452 min
 Delta R.T.: 0.002 min
 Response: 350822
 Conc: 0.21 ug/L

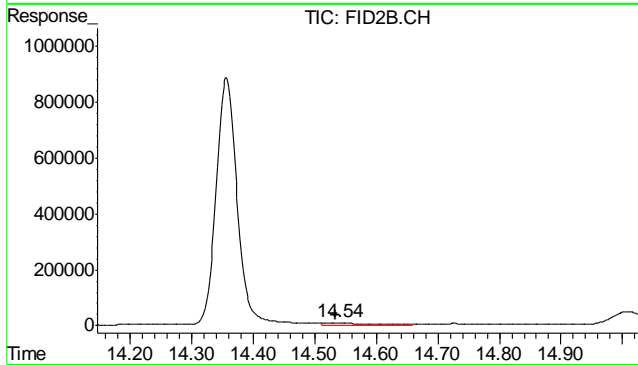


#9 o-Xylene
 R.T.: 10.951 min
 Delta R.T.: 0.004 min
 Response: 186738
 Conc: 0.23 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.356 min
Delta R.T.: 0.003 min
Response: 21339486
Conc: 106.11 %



#11 Naphthalene

R.T.: 14.537 min
Delta R.T.: 0.002 min
Response: 320434
Conc: 1.63 ug/L

8.1.5

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12992.D\FID1A.CH Vial: 17
 Signal #2 : Y:\1\DATA\091511\GB12992.D\FID2B.CH
 Acq On : 17 Sep 2011 2:46 am Operator: StephK
 Sample : D27702-6, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.087,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 12:16:10 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Initial Calibration
 DataAcq Meth : TVB4.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

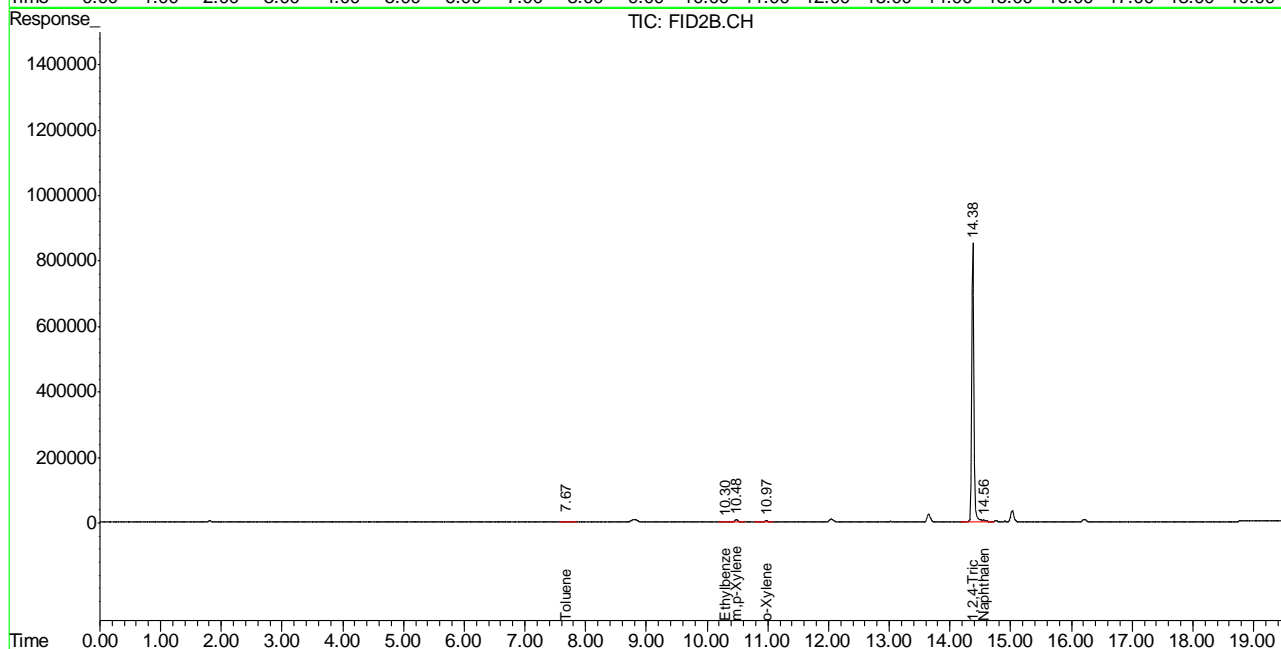
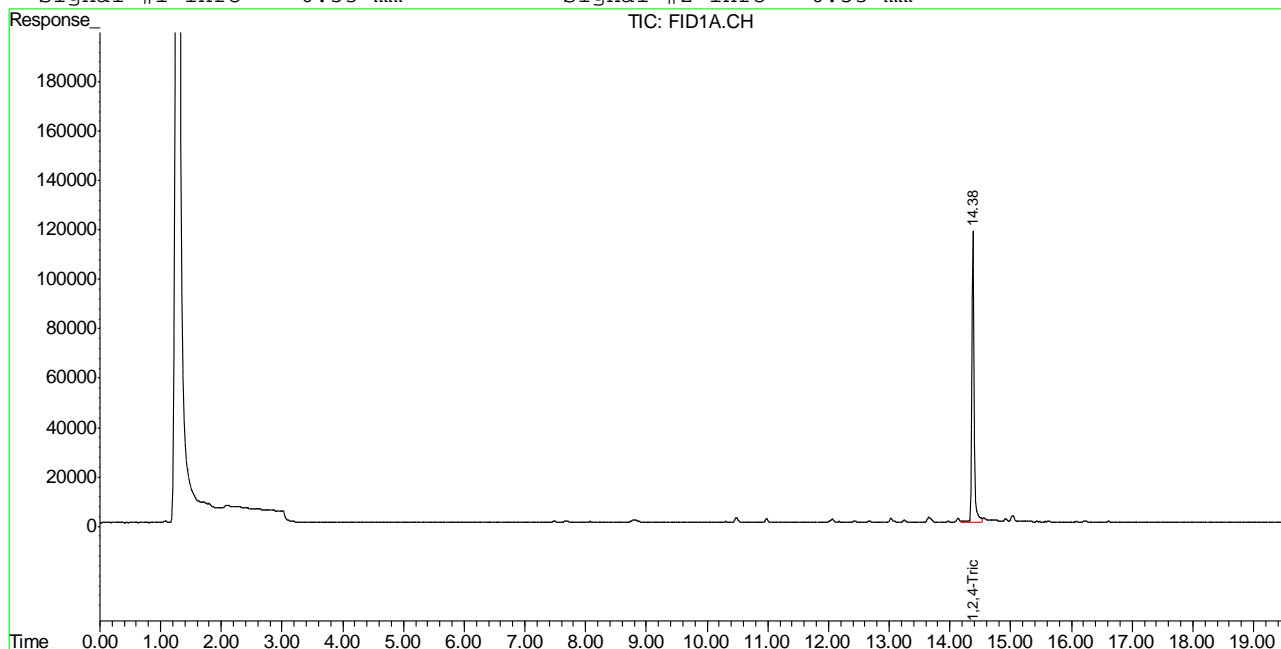
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.38	2936486	84.631	%
10) S	1,2,4-Trichlorobenzene (P)	14.38	20364884	101.265	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5130556	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.68	164366	0.354	ug/L
7) T	Ethylbenzene	10.30	83646	0.208	ug/L
8) T	m,p-Xylene	10.48	379401	0.268	ug/L
9) T	o-Xylene	10.98	218785	0.308	ug/L
11) T	Naphthalene	14.56	334012	1.684	ug/L

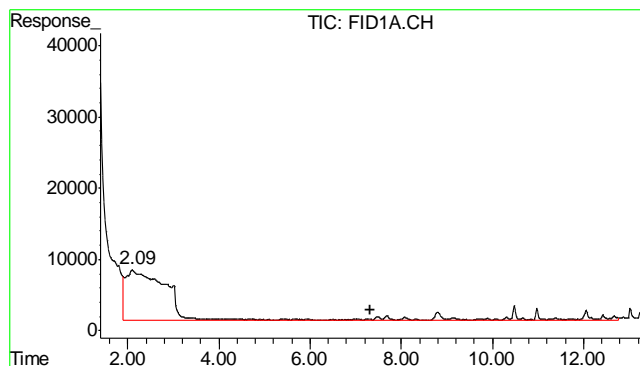
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GB12992.D\FID1A.CH Vial: 17
 Signal #2 : Y:\1\DATA\091511\GB12992.D\FID2B.CH
 Acq On : 17 Sep 2011 2:46 am Operator: StephK
 Sample : D27702-6, 50X Inst : GC/MS Ins
 Misc : GC2240,GGB741,5.087,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 17 11:21 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Sat Sep 17 11:59:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

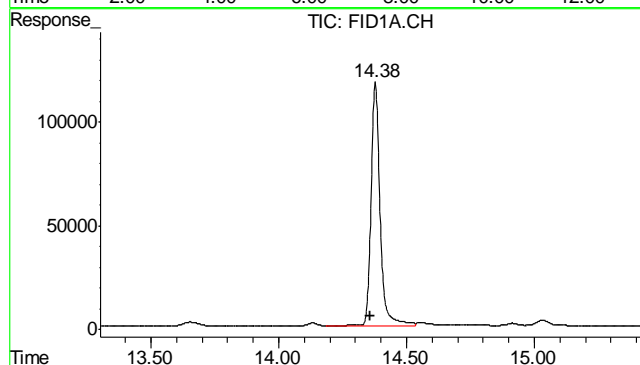
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





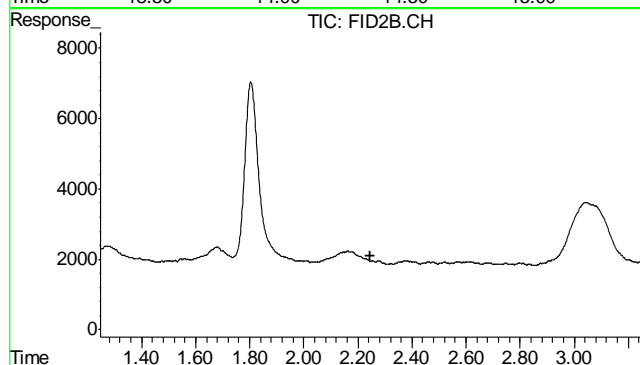
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5130556
Conc: N.D.



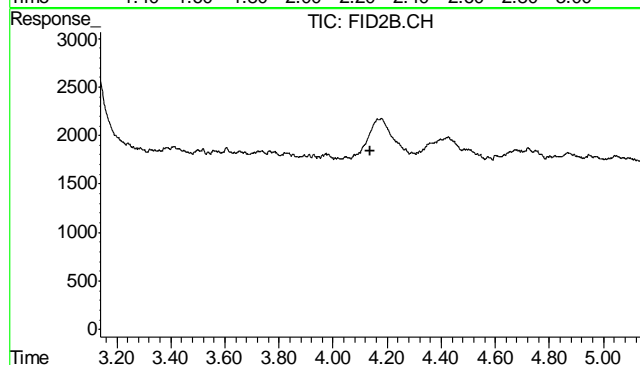
#2 1,2,4-Trichlorobenzene

R.T.: 14.378 min
Delta R.T.: 0.020 min
Response: 2936486
Conc: 84.63 %



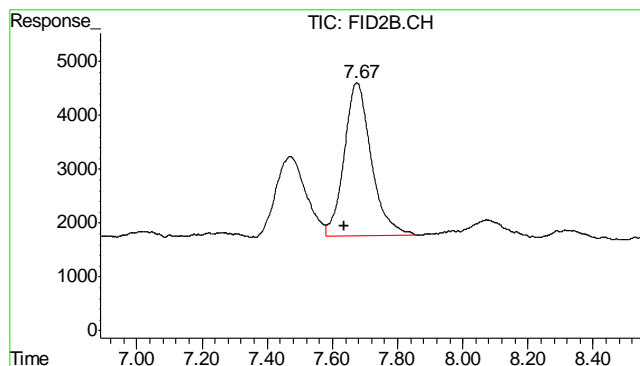
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.247 min
Response: 0
Conc: N.D.

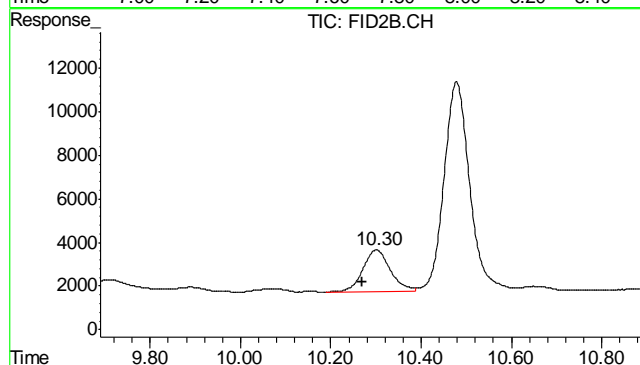


#5 Benzene

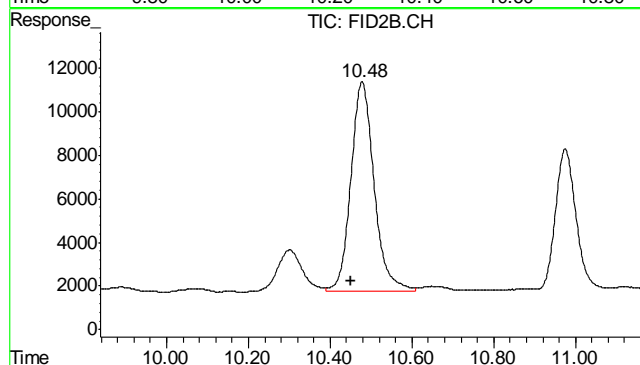
R.T.: 0.000 min
Exp R.T.: 4.138 min
Response: 0
Conc: N.D.



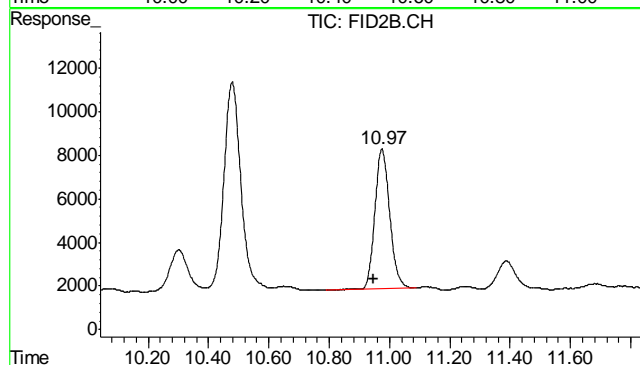
#6 Toluene
 R.T.: 7.675 min
 Delta R.T.: 0.037 min
 Response: 164366
 Conc: 0.35 ug/L



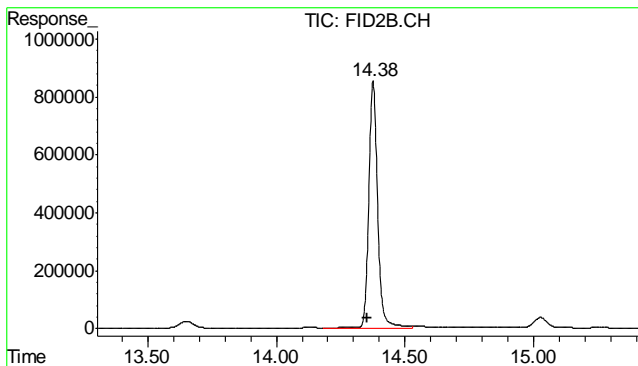
#7 Ethylbenzene
 R.T.: 10.301 min
 Delta R.T.: 0.032 min
 Response: 83646
 Conc: 0.21 ug/L



#8 m,p-Xylene
 R.T.: 10.478 min
 Delta R.T.: 0.028 min
 Response: 379401
 Conc: 0.27 ug/L

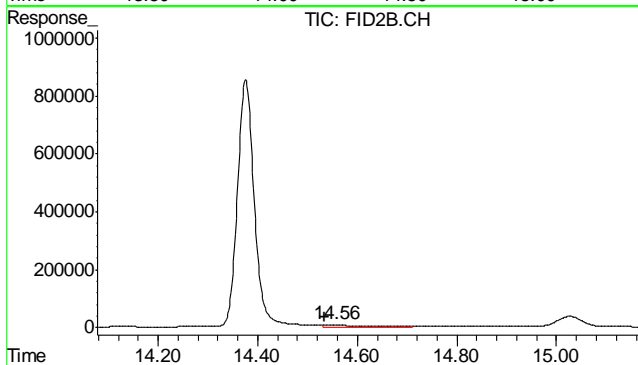


#9 o-Xylene
 R.T.: 10.975 min
 Delta R.T.: 0.028 min
 Response: 218785
 Conc: 0.31 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.376 min
Delta R.T.: 0.023 min
Response: 20364884
Conc: 101.26 %



#11 Naphthalene

R.T.: 14.556 min
Delta R.T.: 0.022 min
Response: 334012
Conc: 1.68 ug/L

8.1.6

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GRO WATER\GB12979.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\091511\GRO WATER\GB12979.D\FID2B.CH
Acq On : 16 Sep 2011 7:00 pm Operator: StephK
Sample : MB, W Inst : GC/MS Ins
Misc : GC2241,GGB742,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 17 12:27:03 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Sat Sep 17 11:59:10 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

Compound		R.T.	Response	Conc	Units

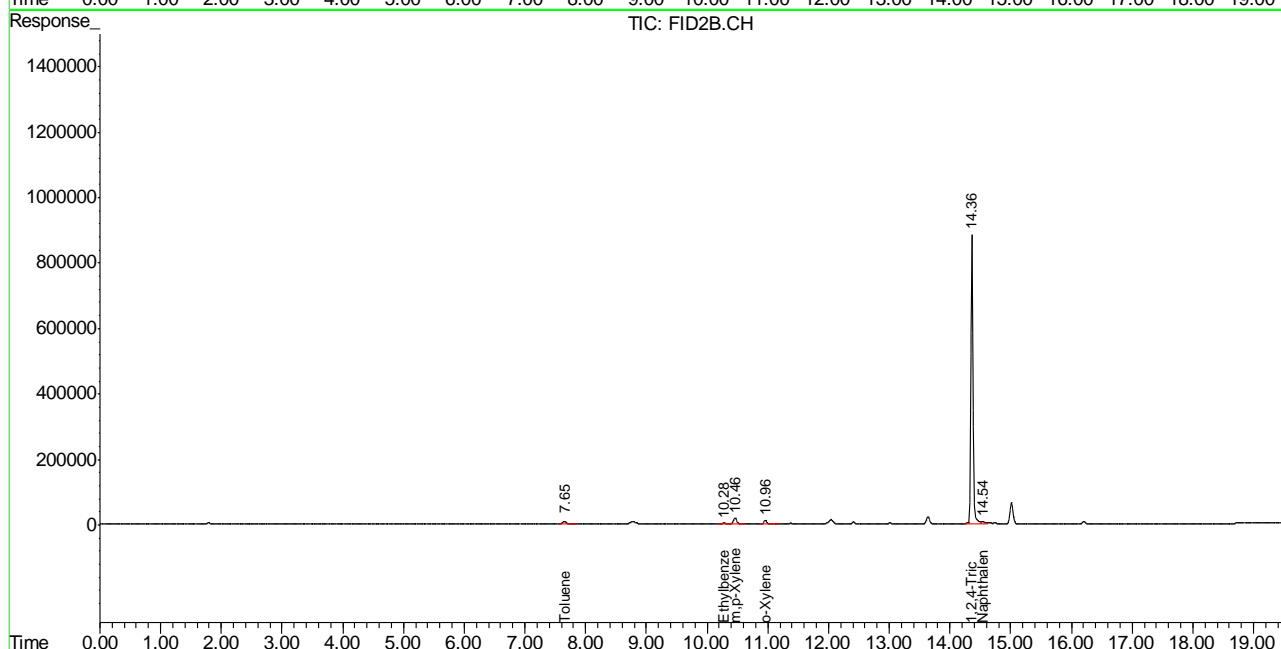
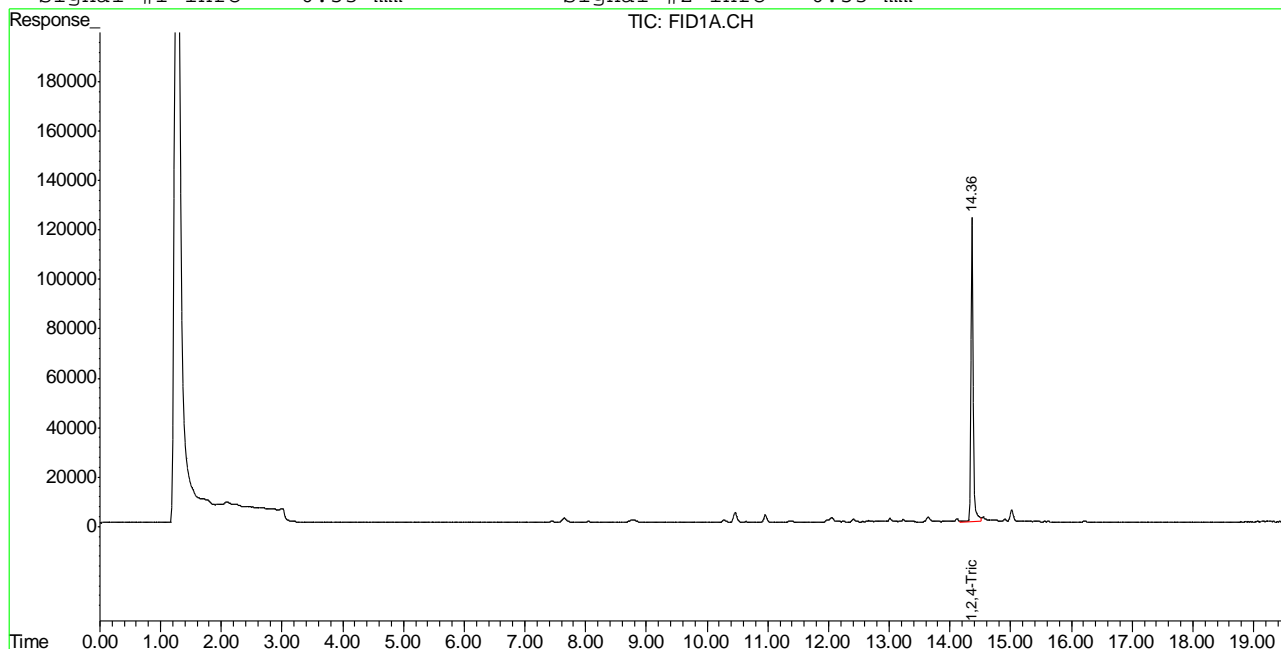
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	3091281	89.092	%
10) S	1,2,4-Trichlorobenzene (P)	14.36	21368657	106.256	%
Target Compounds					
1) H	TVH-Gasoline	7.33	6066200	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.65	432003	0.930	ug/L
7) T	Ethylbenzene	10.28	158916	0.395	ug/L
8) T	m,p-Xylene	10.46	763772	1.086	ug/L
9) T	o-Xylene	10.96	445502	0.886	ug/L
11) T	Naphthalene	14.54	345454	1.733	ug/L

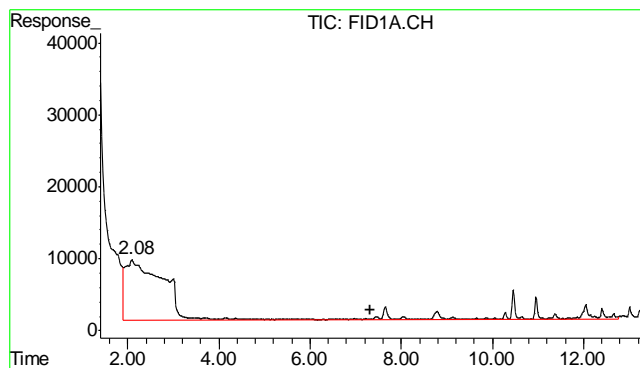
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\091511\GRO WATER\GB12979.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\091511\GRO WATER\GB12979.D\FID2B.CH
Acq On : 16 Sep 2011 7:00 pm Operator: StephK
Sample : MB, W Inst : GC/MS Ins
Misc : GC2241,GGB742,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 17 11:29 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Sat Sep 17 11:59:10 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

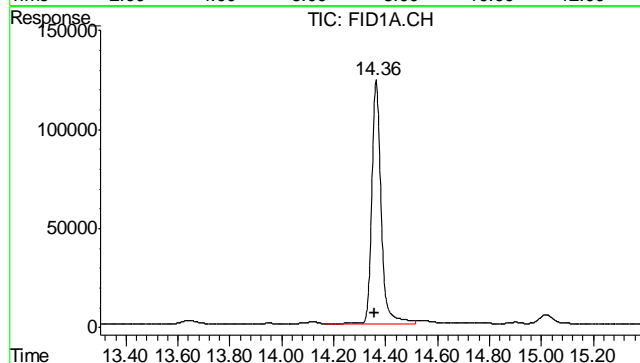
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





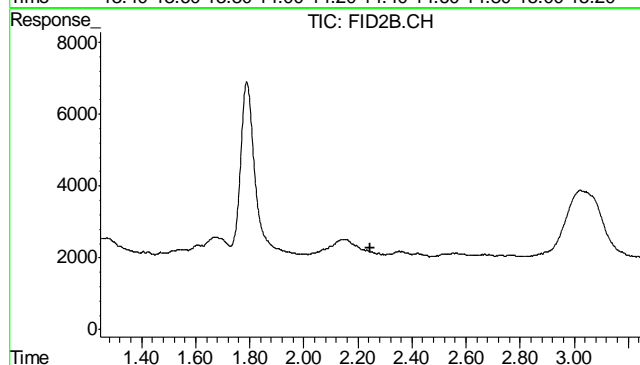
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 6066200
Conc: N.D.



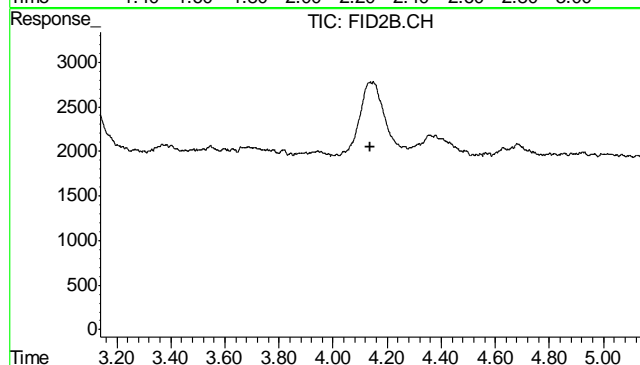
#2 1,2,4-Trichlorobenzene

R.T.: 14.364 min
Delta R.T.: 0.005 min
Response: 3091281
Conc: 89.09 %



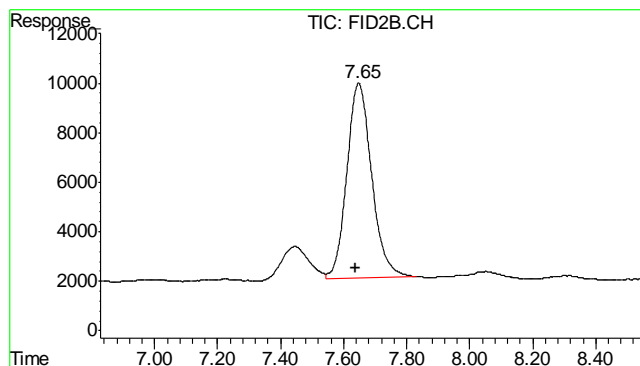
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.247 min
Response: 0
Conc: N.D.



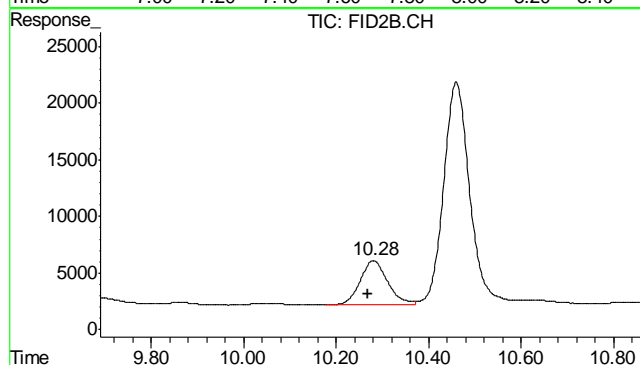
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.138 min
Response: 0
Conc: N.D.



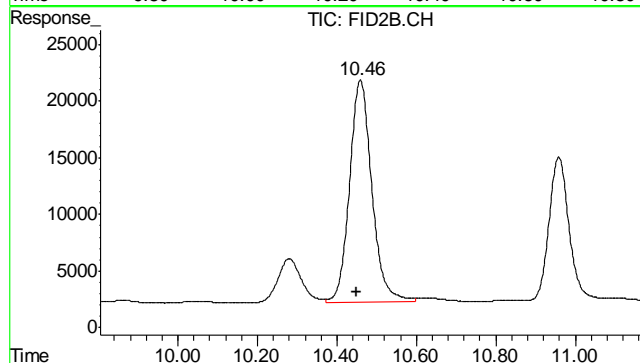
#6 Toluene

R.T.: 7.647 min
Delta R.T.: 0.009 min
Response: 432003
Conc: 0.93 ug/L



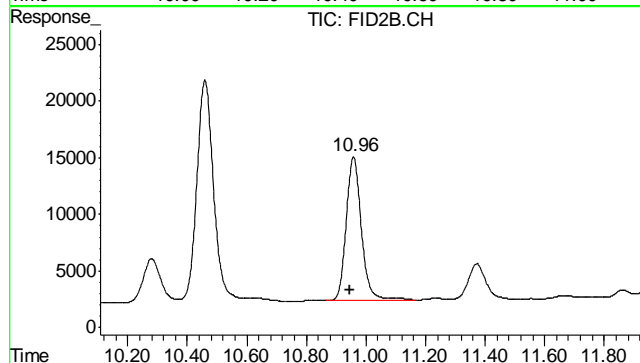
#7 Ethylbenzene

R.T.: 10.280 min
Delta R.T.: 0.011 min
Response: 158916
Conc: 0.39 ug/L



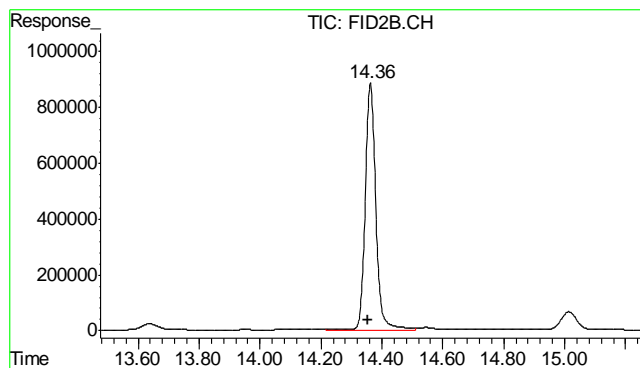
#8 m,p-Xylene

R.T.: 10.459 min
Delta R.T.: 0.009 min
Response: 763772
Conc: 1.09 ug/L



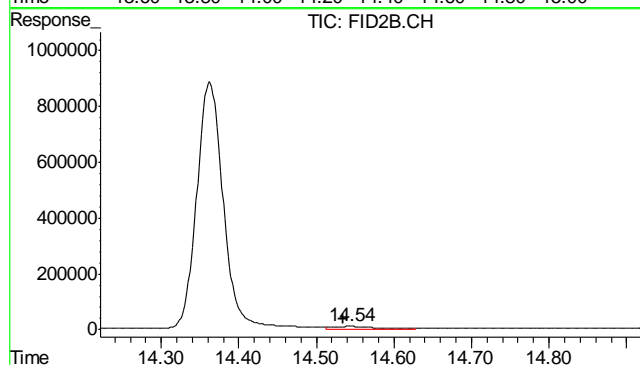
#9 o-Xylene

R.T.: 10.958 min
Delta R.T.: 0.011 min
Response: 445502
Conc: 0.89 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.363 min
Delta R.T.: 0.010 min
Response: 21368657
Conc: 106.26 %



#11 Naphthalene

R.T.: 14.544 min
Delta R.T.: 0.010 min
Response: 345454
Conc: 1.73 ug/L

8.2.1

8

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D27702
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4491-MB	FD10099.D	1	09/19/11	KV	09/19/11	OP4491	GFD466

The QC reported here applies to the following samples:

Method: SW846-8015B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	13	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	86% 61-142%

9.1.1

9

Blank Spike Summary

Page 1 of 1

Job Number: D27702

Account: KRWCCOL KRW Consulting, Inc.

Project: XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4491-BS	FD10100.D	1	09/19/11	KV	09/19/11	OP4491	GFD466

The QC reported here applies to the following samples:

Method: SW846-8015B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	529	79	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	89%	61-142%

9.2.1

9

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D27702
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU T18X-12G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4491-MS	FD10101.D	1	09/19/11	KV	09/19/11	OP4491	GFD466
OP4491-MSD	FD10102.D	1	09/19/11	KV	09/19/11	OP4491	GFD466
D27702-1	FD10103.D	1	09/19/11	KV	09/19/11	OP4491	GFD466

The QC reported here applies to the following samples: Method: SW846-8015B

D27702-1, D27702-2, D27702-3, D27702-4, D27702-5, D27702-6

CAS No.	Compound	D27702-1 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	736	548	74	559	76	2	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D27702-1	Limits
84-15-1	o-Terphenyl	72%	77%	75%	61-142%

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10103.D Vial: 6
Acq On : 9-19-2011 03:19:03 PM Operator: KOROUSHV
Sample : D27702-1 Inst : FID5
Misc : OP4491,GFD466,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 20 11:15:47 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Initial Calibration
DataAcq Meth : JH080911.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.36f	34330137	750.837 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	4474913	101.722 mg/L

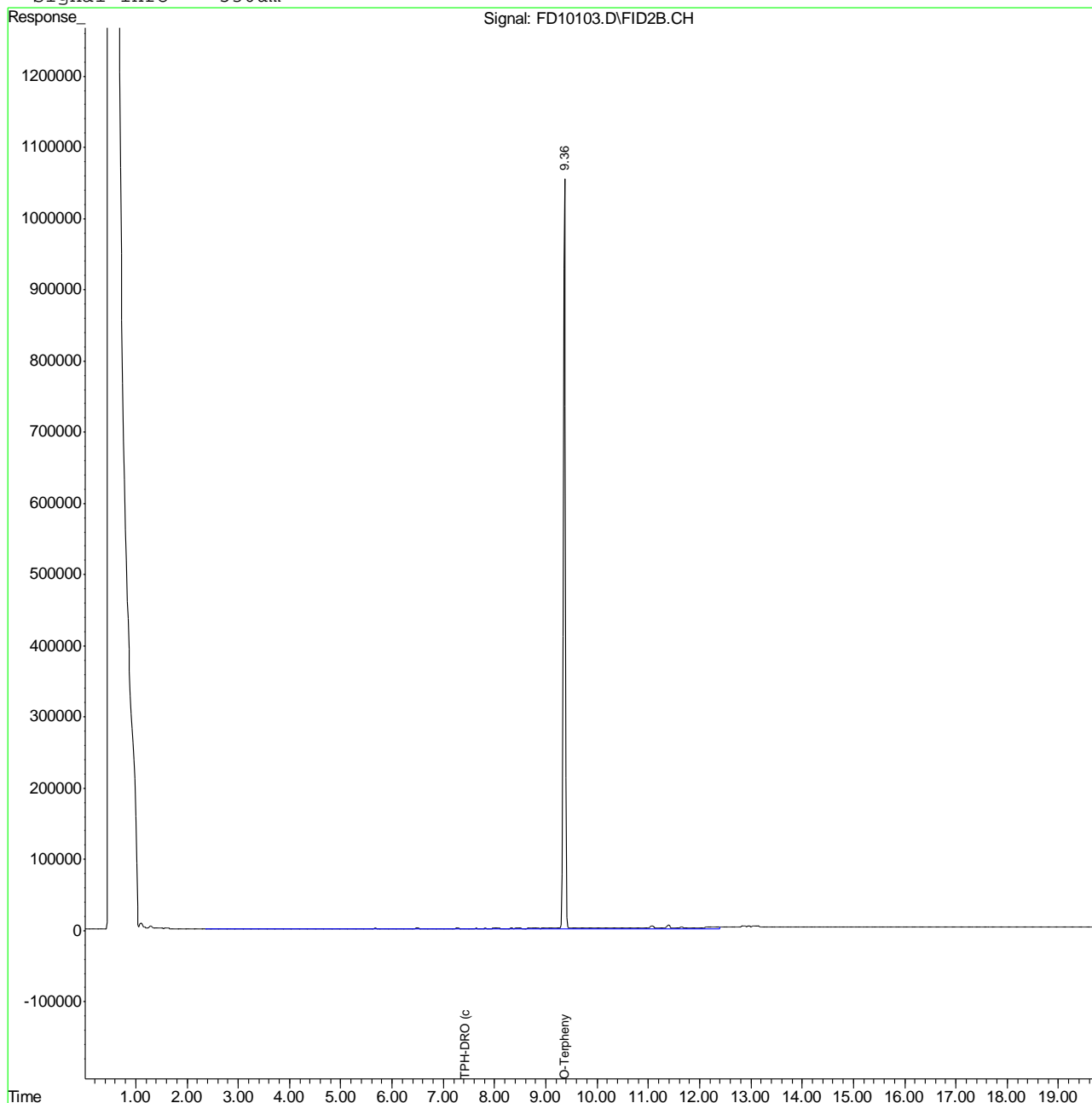
10.1.1
10

Quantitation Report (QT Reviewed)

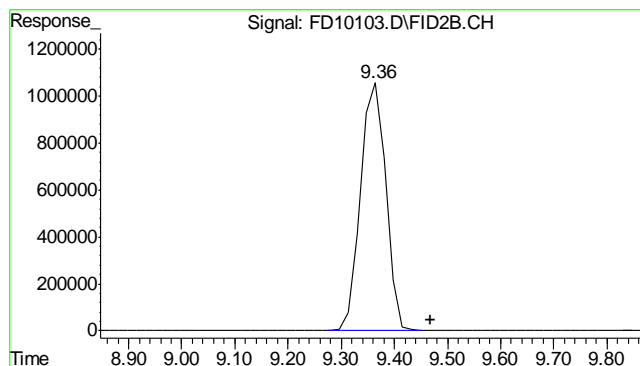
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10103.D Vial: 6
 Acq On : 9-19-2011 03:19:03 PM Operator: KOROUSHV
 Sample : D27702-1 Inst : FID5
 Misc : OP4491,GFD466,30.00,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 20 11:16 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

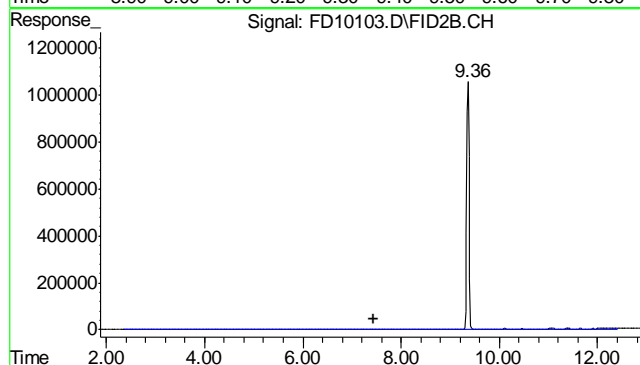
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



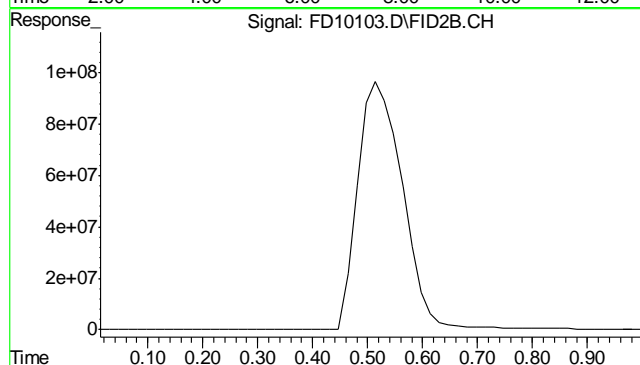
10.1.1
10



#1 O-Terphenyl
 R.T.: 9.360 min
 Delta R.T.: -0.108 min
 Response: 34330137
 Conc: 750.84 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 4474913
 Conc: 101.72 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.1
10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10104.D Vial: 7
Acq On : 9-19-2011 03:44:40 PM Operator: KOROUSHV
Sample : D27702-2 Inst : FID5
Misc : OP4491,GFD466,30.01,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 20 11:16:06 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Initial Calibration
DataAcq Meth : JH080911.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

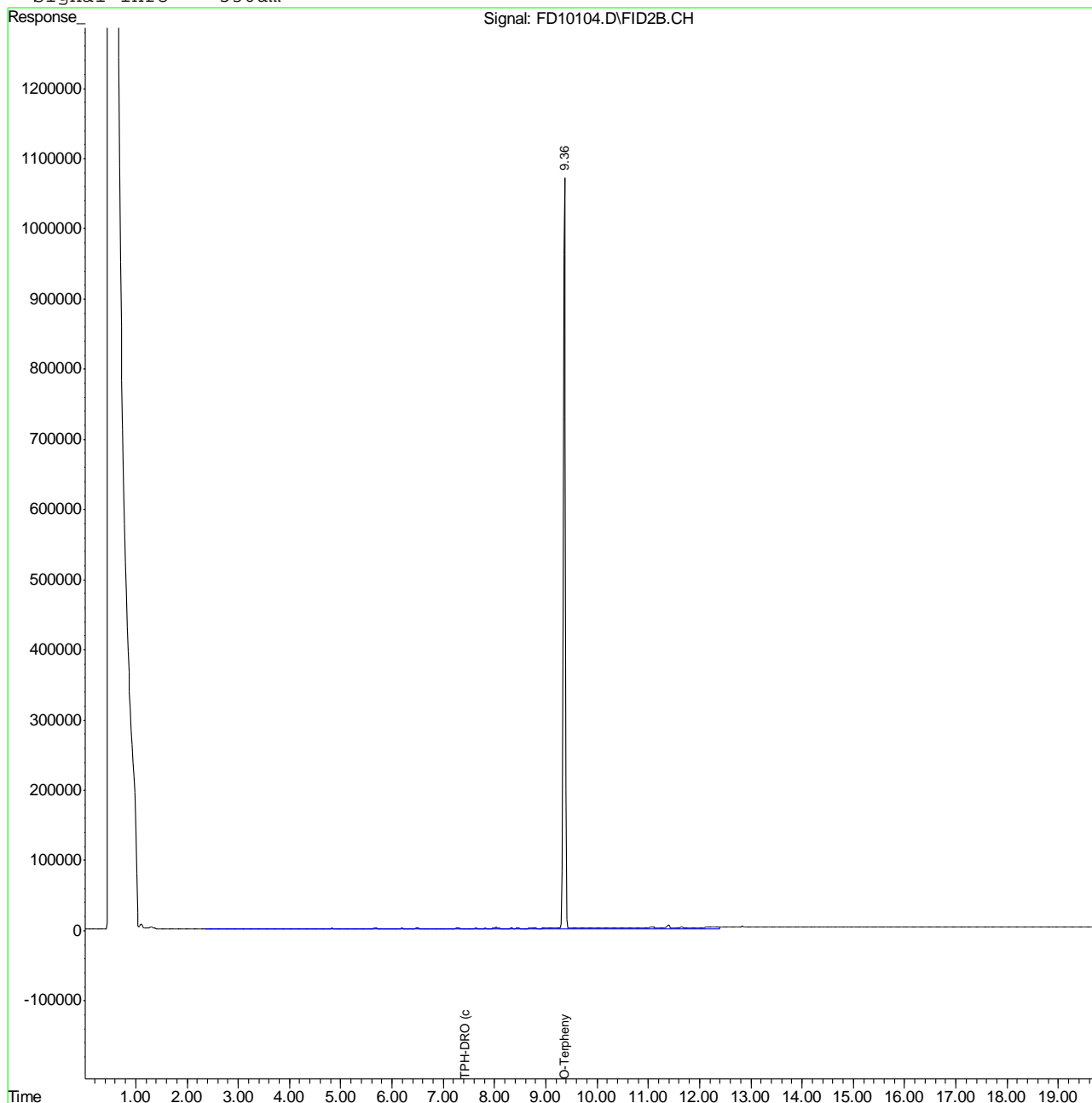
System Monitoring Compounds			
1) S O-Terphenyl	9.36f	34955135	764.506 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	4339813	98.651 mg/L

Quantitation Report (QT Reviewed)

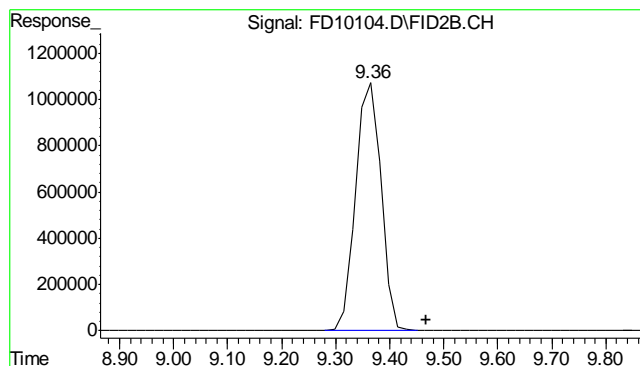
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10104.D Vial: 7
 Acq On : 9-19-2011 03:44:40 PM Operator: KOROUSHV
 Sample : D27702-2 Inst : FID5
 Misc : OP4491,GFD466,30.01,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 20 11:16 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

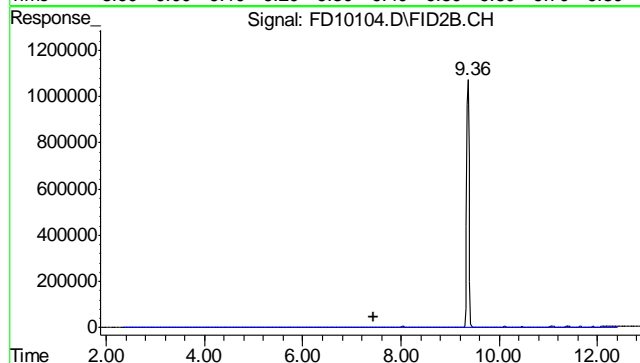
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



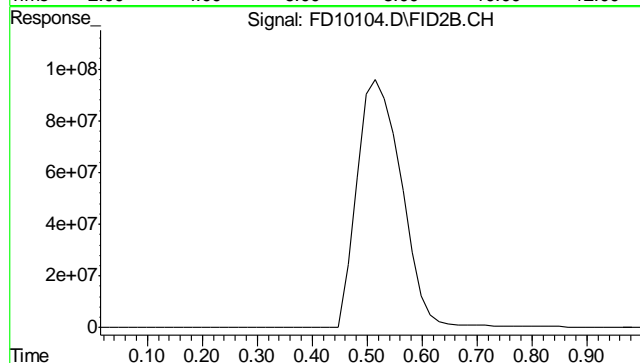
10.1.2
10



#1 O-Terphenyl
 R.T.: 9.360 min
 Delta R.T.: -0.108 min
 Response: 34955135
 Conc: 764.51 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 4339813
 Conc: 98.65 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.12
 10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10105.D Vial: 8
Acq On : 9-19-2011 04:10:21 PM Operator: KOROUSHV
Sample : D27702-3 Inst : FID5
Misc : OP4491,GFD466,30.07,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 20 11:16:24 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Initial Calibration
DataAcq Meth : JH080911.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.36f	34512291	754.820 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	3522953	80.082 mg/L

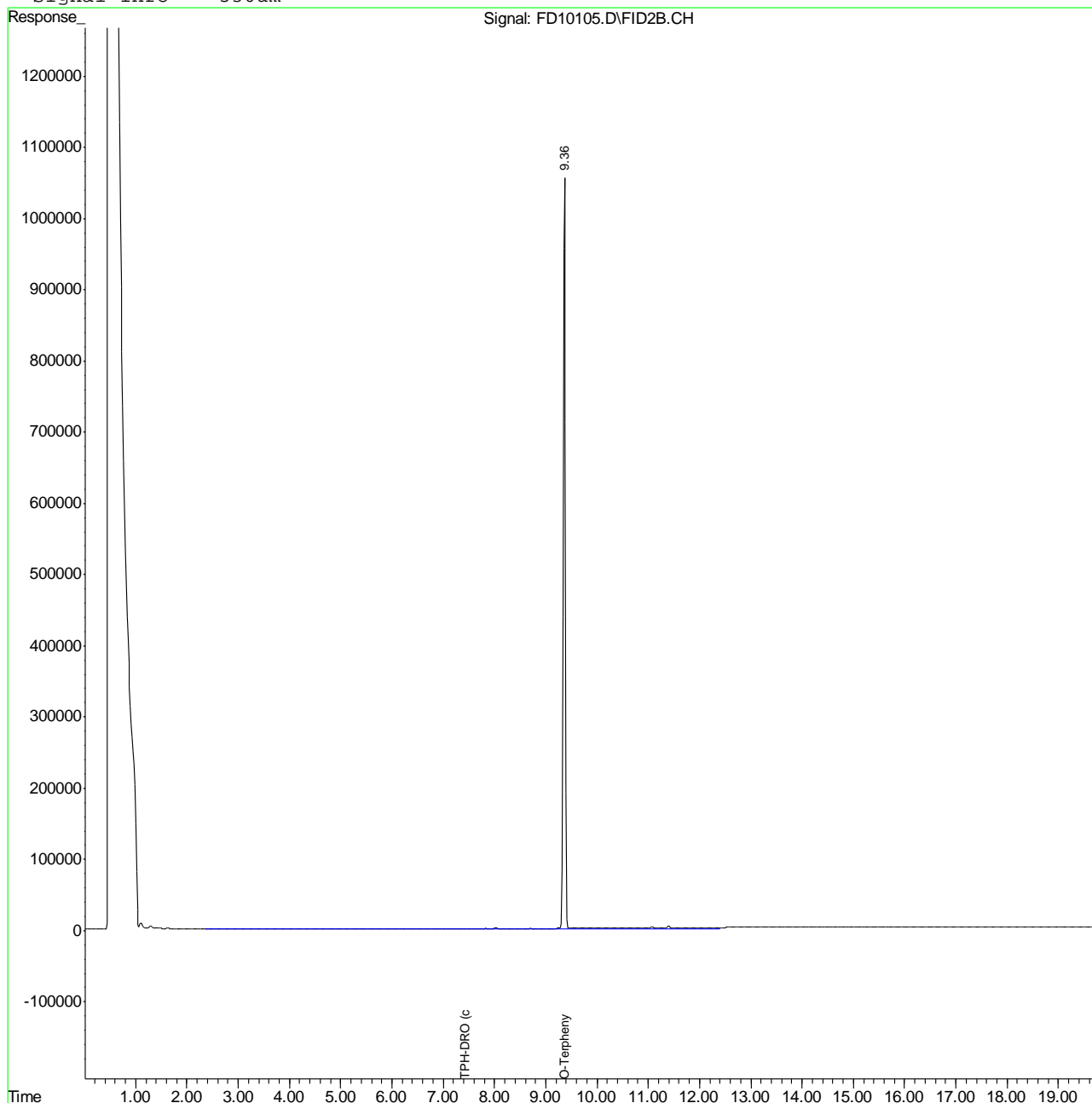
10.1.3
10

Quantitation Report (QT Reviewed)

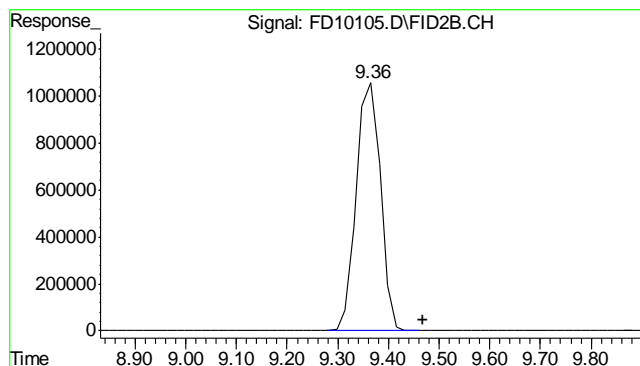
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10105.D Vial: 8
 Acq On : 9-19-2011 04:10:21 PM Operator: KOROUSHV
 Sample : D27702-3 Inst : FID5
 Misc : OP4491,GFD466,30.07,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 20 11:16 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um

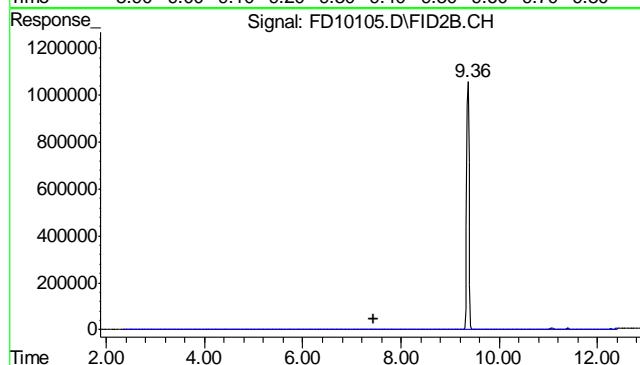


10.1.3
10



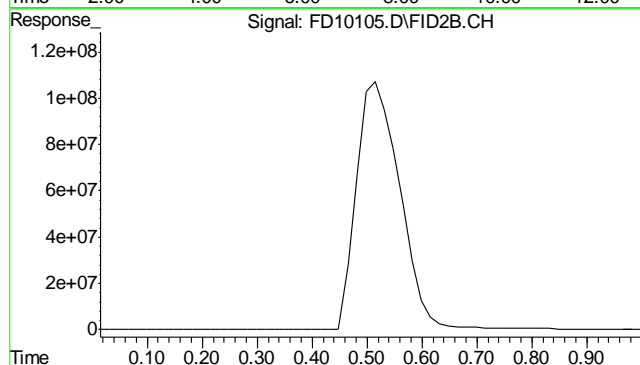
#1 O-Terphenyl

R.T.: 9.360 min
 Delta R.T.: -0.108 min
 Response: 34512291
 Conc: 754.82 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 3522953
 Conc: 80.08 mg/L m



#9 5a-Androstane

R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.3
10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10106.D Vial: 9
Acq On : 9-19-2011 04:36:03 PM Operator: KOROUSHV
Sample : D27702-4 Inst : FID5
Misc : OP4491,GFD466,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 20 11:16:47 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Initial Calibration
DataAcq Meth : JH080911.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.36f	35579336	778.158 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	2952912	67.124 mg/L

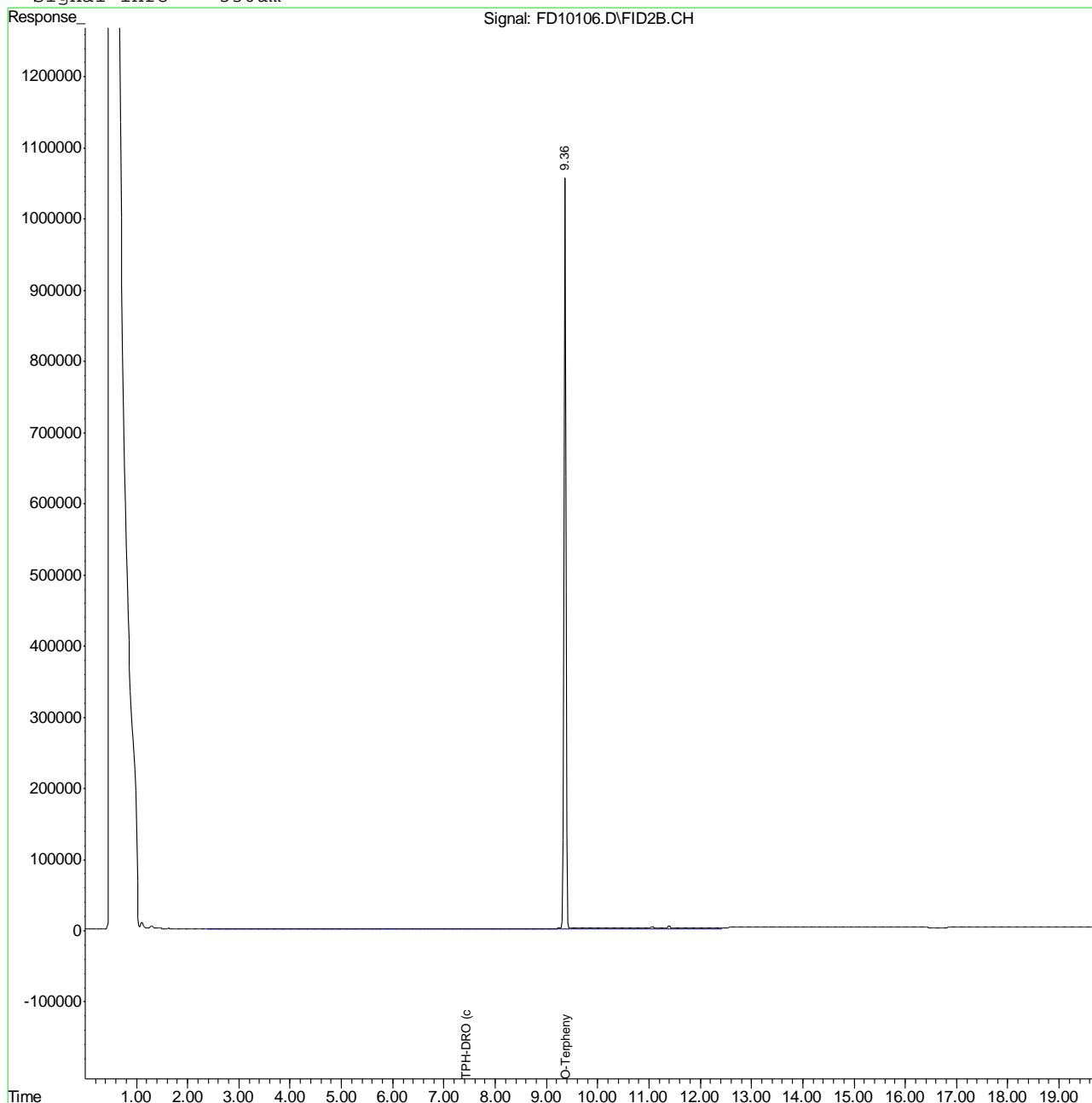
10.1.4
10

Quantitation Report (QT Reviewed)

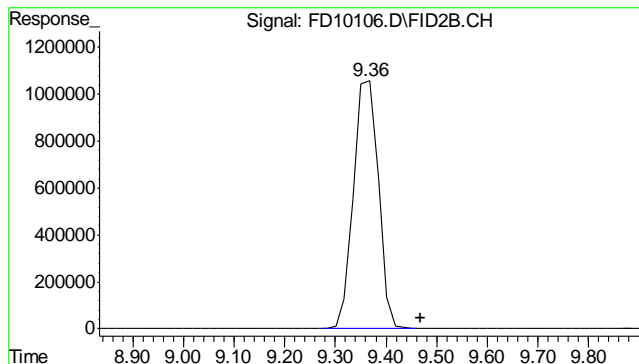
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10106.D Vial: 9
 Acq On : 9-19-2011 04:36:03 PM Operator: KOROUSHV
 Sample : D27702-4 Inst : FID5
 Misc : OP4491,GFD466,30.03,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 20 11:17 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

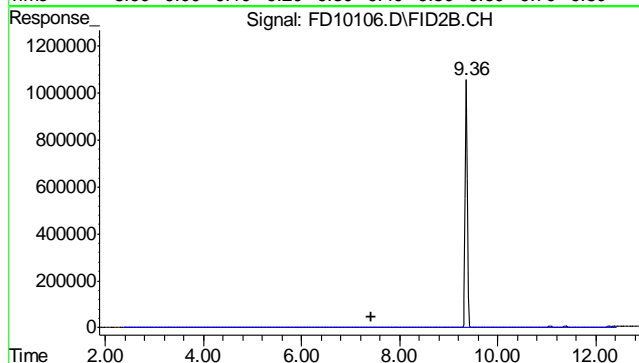
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



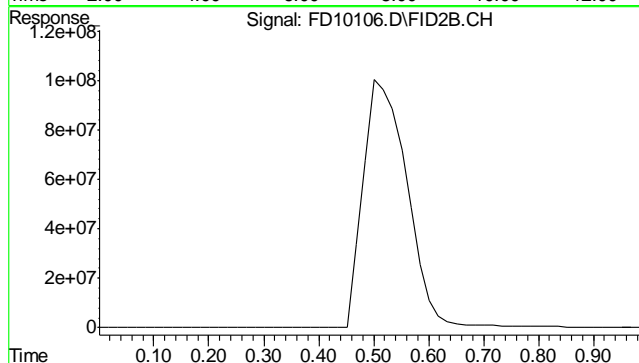
10.1.4
10



#1 O-Terphenyl
 R.T.: 9.360 min
 Delta R.T.: -0.108 min
 Response: 35579336
 Conc: 778.16 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 2952912
 Conc: 67.12 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.4
10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10107.D Vial: 10
Acq On : 9-19-2011 05:01:48 PM Operator: KOROUSHV
Sample : D27702-5 Inst : FID5
Misc : OP4491,GFD466,30.05,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 20 11:17:17 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Initial Calibration
DataAcq Meth : JH080911.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

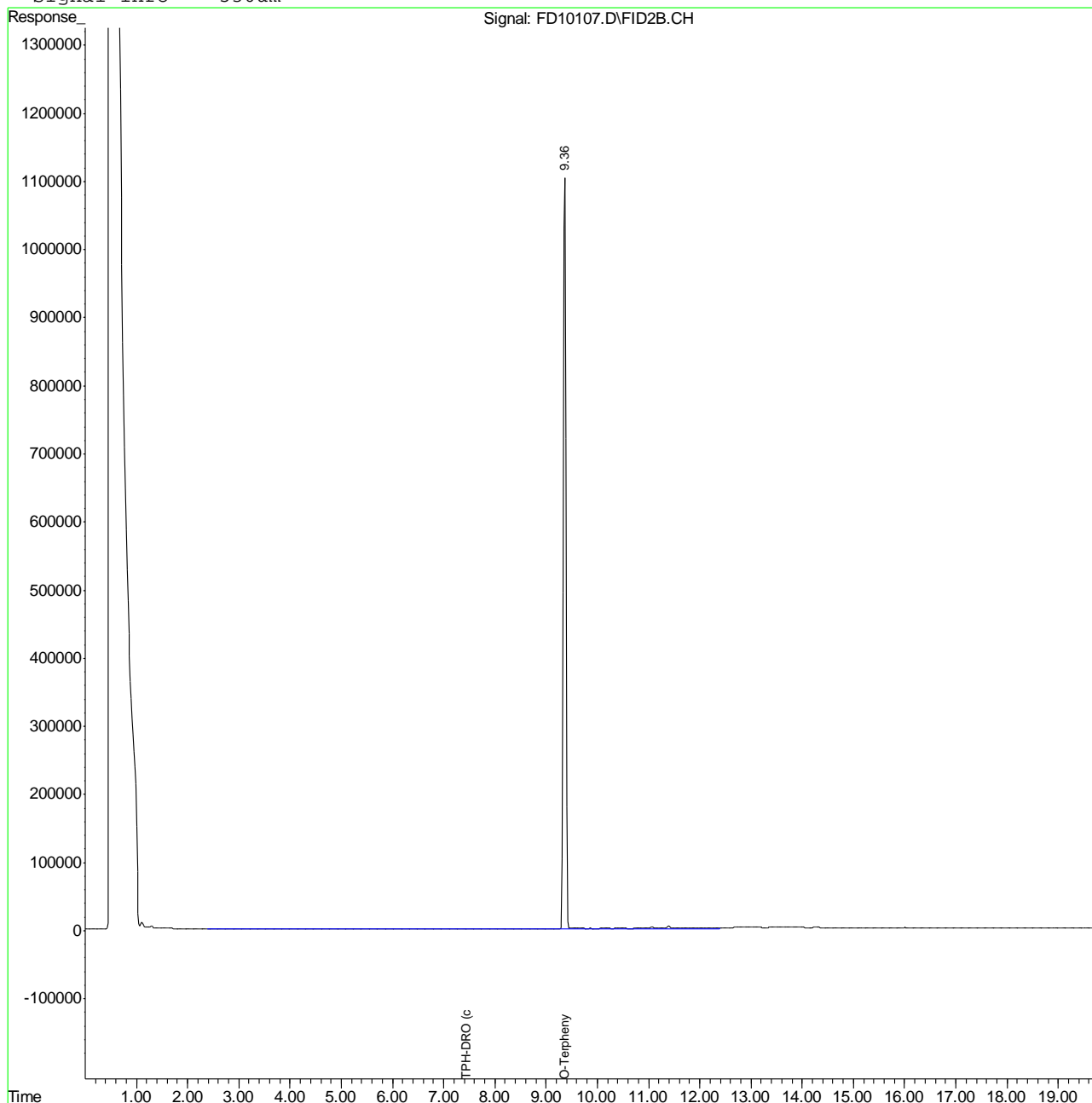
System Monitoring Compounds			
1) S O-Terphenyl	9.36f	36459032	797.398 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	2676999	60.852 mg/L

Quantitation Report (QT Reviewed)

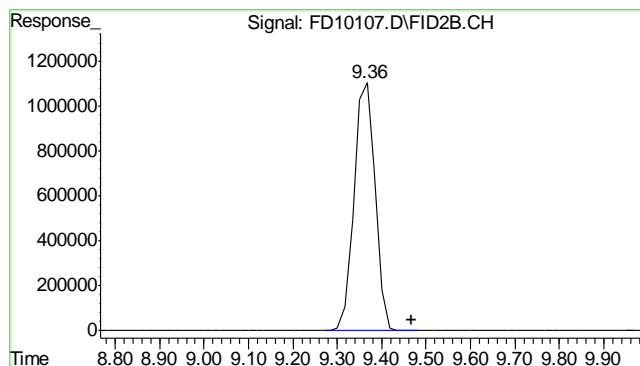
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10107.D Vial: 10
 Acq On : 9-19-2011 05:01:48 PM Operator: KOROUSHV
 Sample : D27702-5 Inst : FID5
 Misc : OP4491,GFD466,30.05,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 20 11:17 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

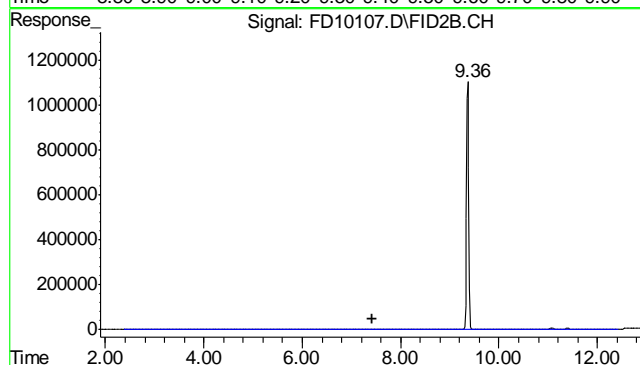
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



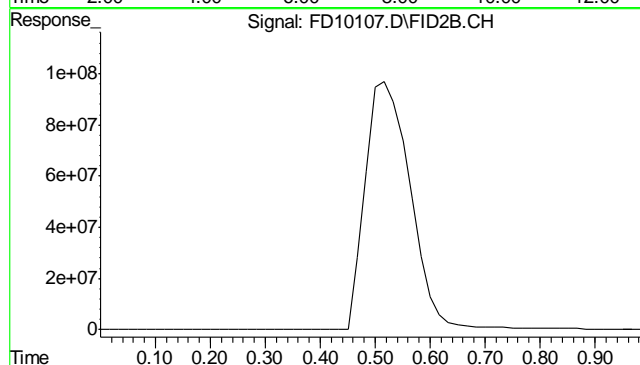
10.1.5
10



#1 O-Terphenyl
 R.T.: 9.361 min
 Delta R.T.: -0.107 min
 Response: 36459032
 Conc: 797.40 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 2676999
 Conc: 60.85 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.15
 10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10108.D Vial: 11
Acq On : 9-19-2011 05:27:36 PM Operator: KOROUSHV
Sample : D27702-6 Inst : FID5
Misc : OP4491,GFD466,30.14,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 20 11:17:36 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Initial Calibration
DataAcq Meth : JH080911.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

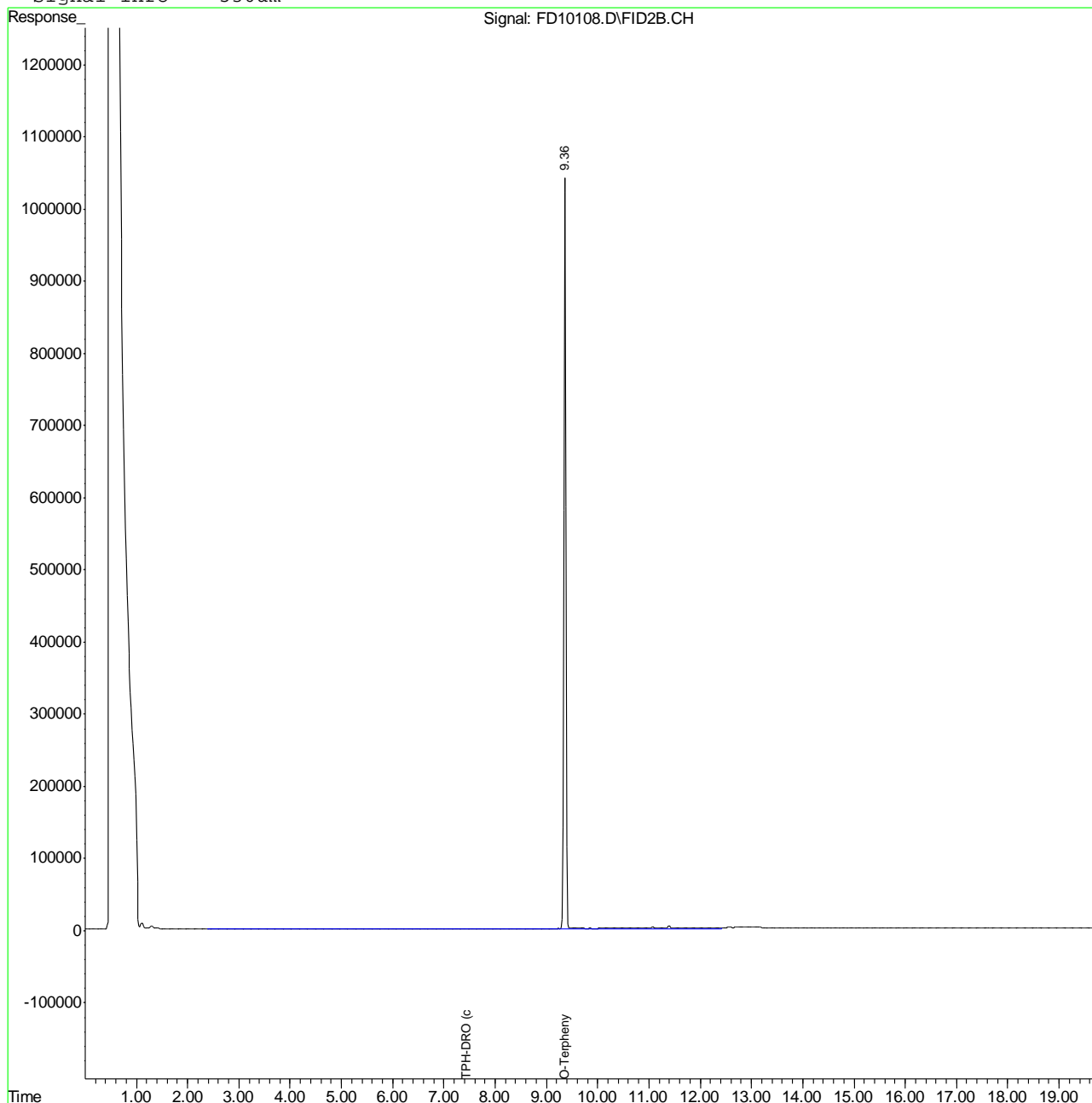
System Monitoring Compounds			
1) S O-Terphenyl	9.36f	34985048	765.160 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	2788808	63.394 mg/L

Quantitation Report (QT Reviewed)

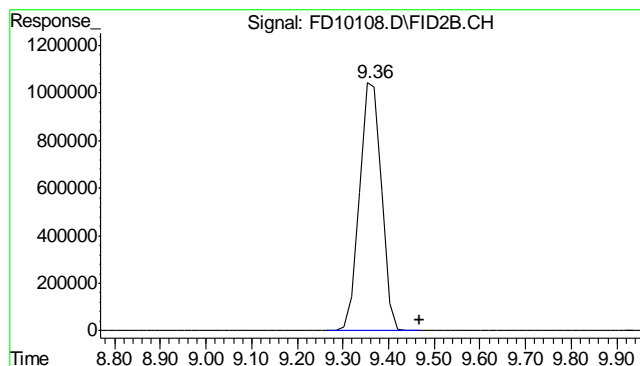
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10108.D Vial: 11
 Acq On : 9-19-2011 05:27:36 PM Operator: KOROUSHV
 Sample : D27702-6 Inst : FID5
 Misc : OP4491,GFD466,30.14,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 20 11:17 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

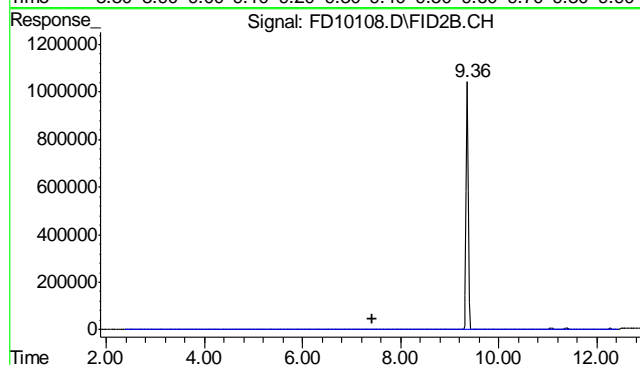
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



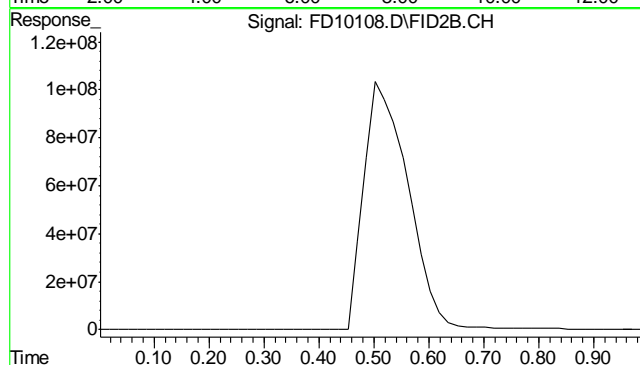
10.1.6
10



#1 O-Terphenyl
 R.T.: 9.360 min
 Delta R.T.: -0.108 min
 Response: 34985048
 Conc: 765.16 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 2788808
 Conc: 63.39 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.6
10

Judy Melson
09/20/11 12:59

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10099.D Vial: 2
Acq On : 9-19-2011 01:36:24 PM Operator: KOROUSHV
Sample : OP4491-MB Inst : FID5
Misc : OP4491,GFD466,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 20 11:13:46 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Initial Calibration
DataAcq Meth : JH080911.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	9.36f	39307352	859.694 mg/L m

Target Compounds

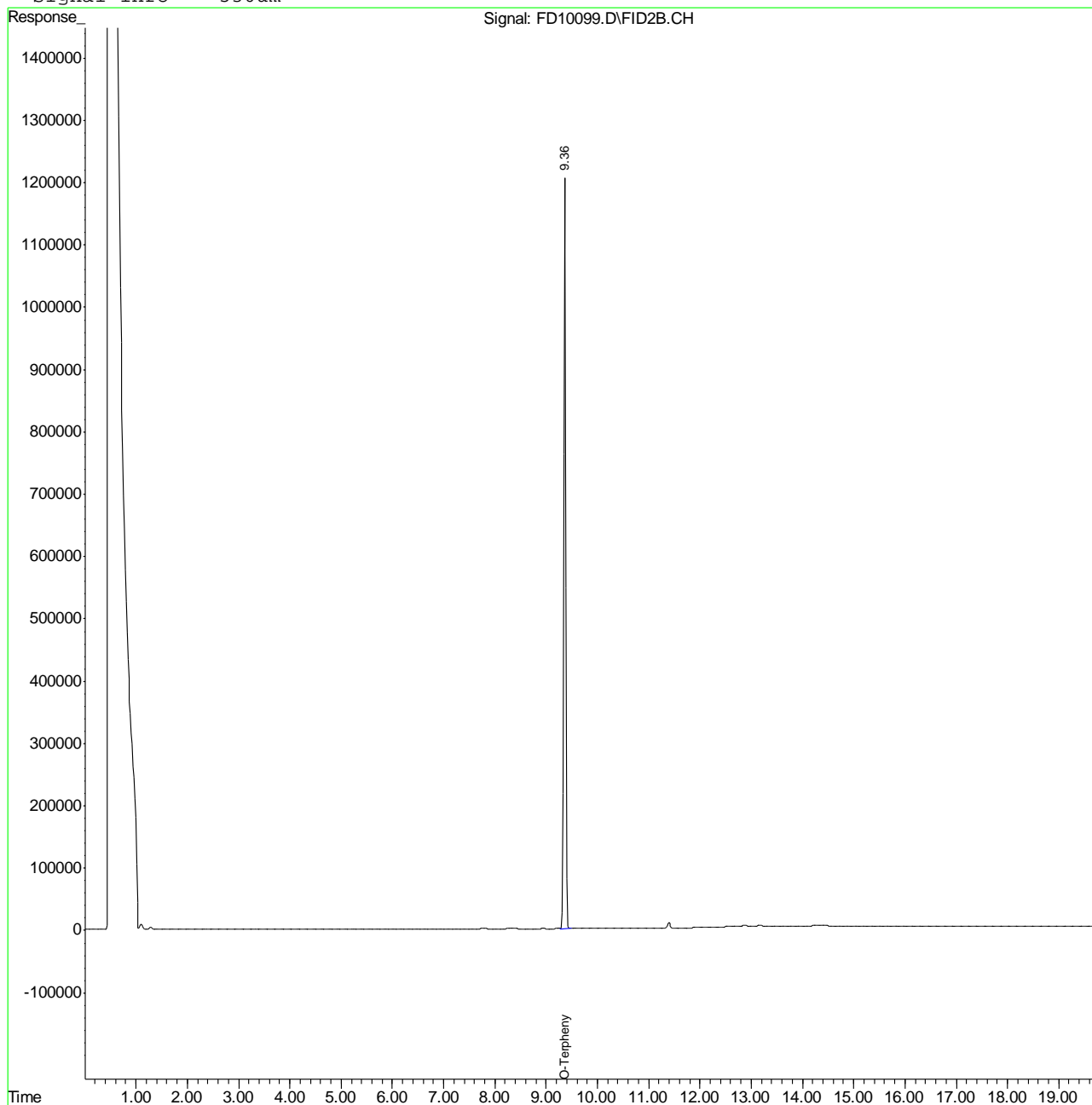
(f)=RT Delta > 1/2 Window (m)=manual int.
FD10099.D GFD356.M Tue Sep 20 11:21:17 2011 GC

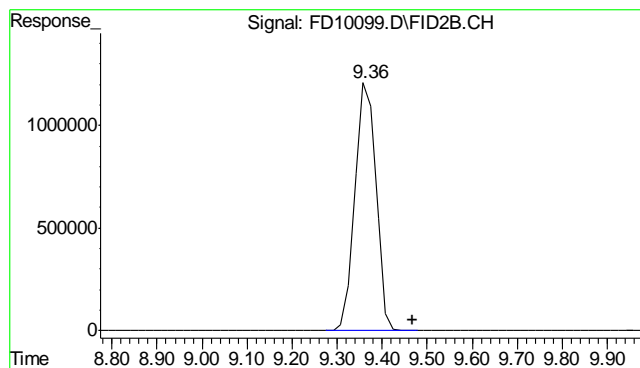
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD091911\FD10099.D Vial: 2
Acq On : 9-19-2011 01:36:24 PM Operator: KOROUSHV
Sample : OP4491-MB Inst : FID5
Misc : OP4491,GFD466,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 20 11:14 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Multiple Level Calibration
DataAcq Meth : JH080911.M

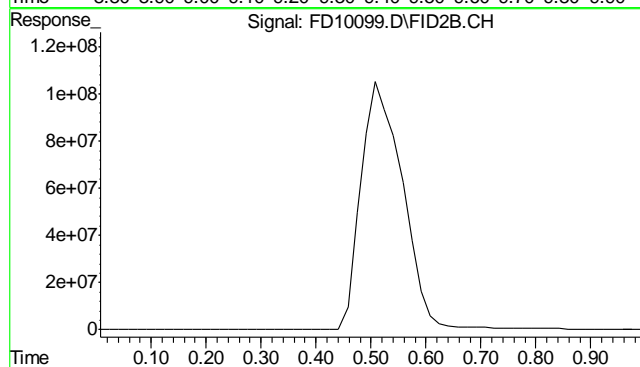
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.363 min
Delta R.T.: -0.105 min
Response: 39307352
Conc: 859.69 mg/L m



#9 5a-Androstane

R.T.: 0.000 min
Exp R.T. : 0.000 min
Response: 0
Conc: N.D.

10.2.1
10